Addison Airport - Tee Hangers Electrification

2005

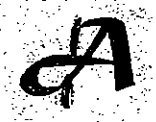
Mechanical Contractor

www.agonic.com
Larry Newman

Agonic Corporation
Construction & Construction Management

410 Interchange Street
McKinney, Texas 75069
Office (972) 569-8333
Fax (972) 569-8338
Mobile (214) 886-4869

www.agonic.com
Harold E. Hurst



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Office (972) 569-8333
Fax (972) 569-8338
Email harold@agonic.com

from Bill Gunnin 3/12/04

Welder / Fabricator

Trafton Kelley

cell 214-212-1853

fax 1-817-595-0575

Interested in drill stem pipe... its higher in carbon content. Welds tend to crack. Therefore, he preheats the area of work before welding.

GUNNIN CONSULTING ENGINEERS, INC.

Mailing Address:
P. O. Box 820457
Dallas, Texas 75382-0457
Phone 214- 528-3796
e-mail: gunningcei@aol.com

Delivery Address:
3303 Lee Parkway, Ste. 325
Dallas, Texas 75219-5109
FAX 214-528-3797

BILL TO
Town of Addison Mr. James C. Pierce, Jr., P.E. 16801 Westgrove Drive Addison, TX 75001-9010

DATE	INVOICE #
3/12/2004	45100-04

PROJECT
451 Addison Airport Tee Hangers

DESCRIPTION	QTY	RATE	AMOUNT
PROFESSIONAL SERVICES 2/1/04 THROUGH 3/12/04			
Bill L. Gunnin	7	125.00	875.00
REIMBURSABLE EXPENSES 2/1/04 THROUGH 3/12/04			
Auto Mileage - one trip of 30 mi.	30	0.325	9.75
Total			$884.75

Final Invoice for "T" Hangar Doors Project

Ok to pay

J. Pierce

3-12-04

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March 12, 2004

Mr. James C. Pierce, Jr., P.E.
Assistant Public Works Director
Town of Addison
16801 Westgrove Drive
Addison, Texas 75001-9010

Re: Tee-Hanger Door Support Repairs
Addison Airport
Addison, Texas

Dear Mr. Pierce:

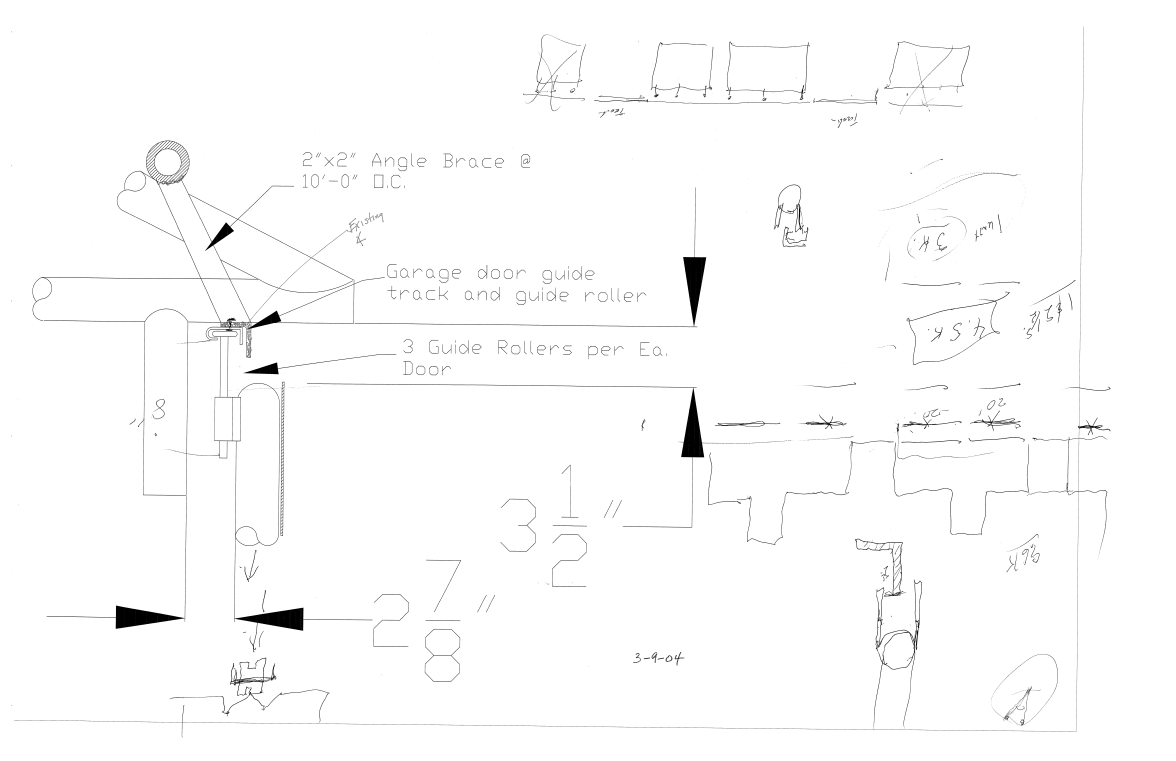
This is to confirm your phone call to me yesterday. You indicated that your Mr. Foster had come up with a better and less costly idea for the structural design of the door support repairs. You indicated that you would not be using the designs we prepared, nor would you be using our services any more for this project.

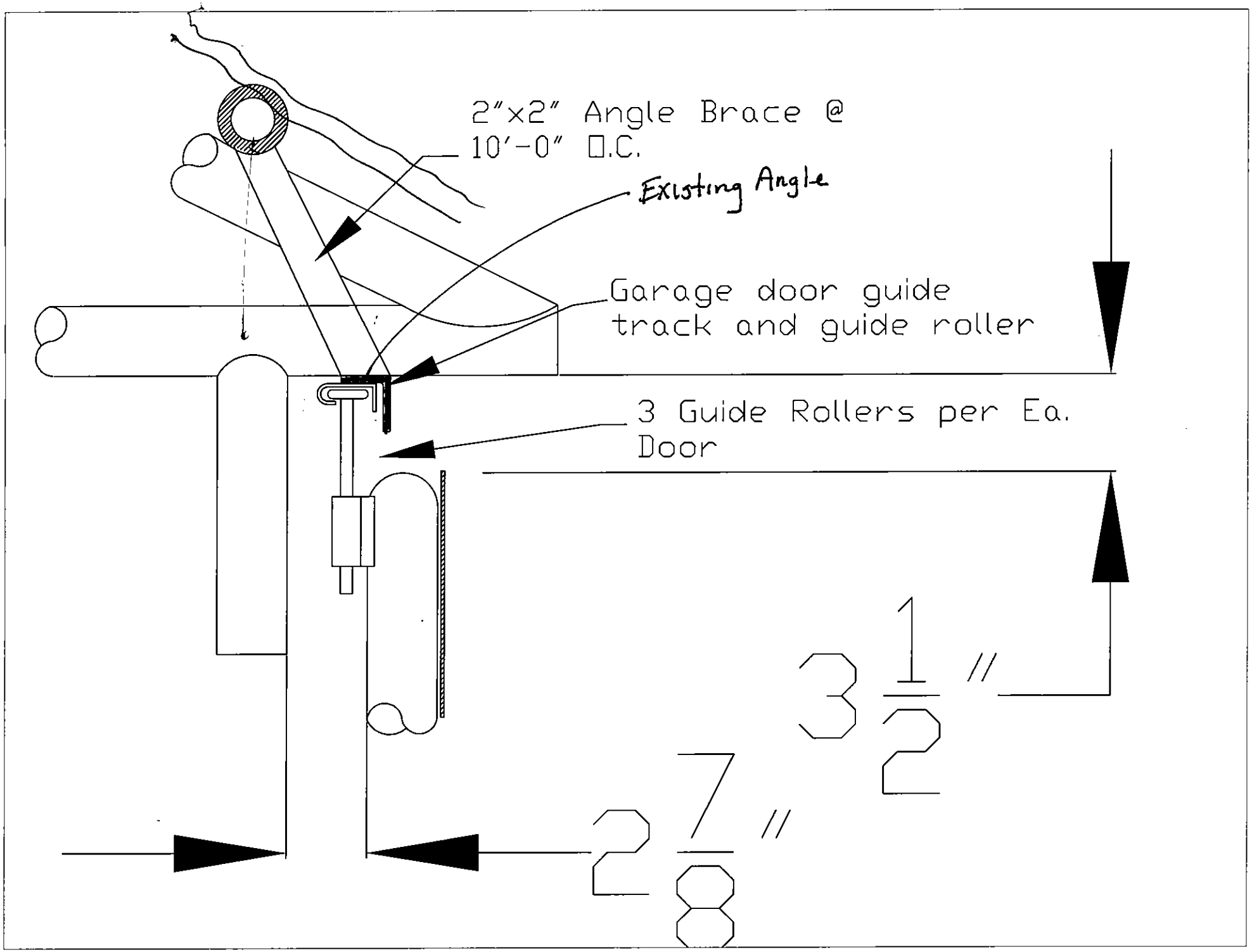
As a courtesy, we call to your attention again the requirement that the connection must accommodate at least three inches of vertical movement. These considerations result from the geotechnical investigation that you commissioned.

We wish you success with the project, and hope you will call on us again as your needs for consulting structural engineering services require.

Sincerely,
GUNNIN CONSULTING ENGINEERS, INC.

Bill L. Gunnin, P.E.

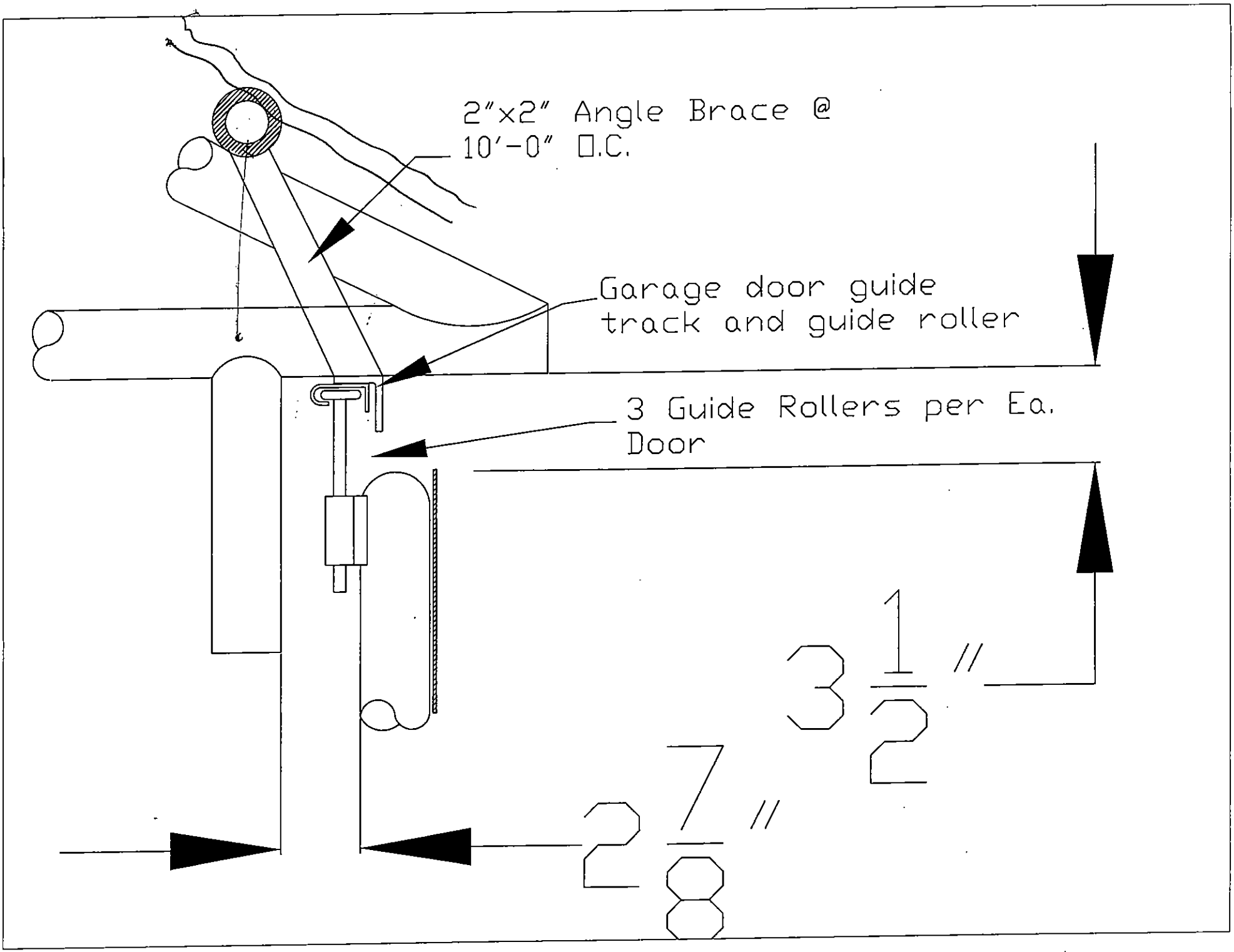

2"x2" Angle Brace @
10'-0" O.C.
Existing
Garage door guide
track and guide roller
3 Guide Rollers per Ea.
Door
3 1/2"
2 7/8"
3-9-04


2"x2" Angle Brace @
10'-0" O.C.
Existing Angle
Garage door guide
track and guide roller
3 Guide Rollers per Ea.
Door
3 1/2 "
2 7/8 "

SUMMARY REPORT
Bid Price

Job 14014 ADDISON REVISED DOOR TRACK

CODE	DESCRIPTION	TAKEOFF	UNIT-PRICE	EXTENSION
Division 05	METALS			
001	MOVE-IN	3.0 HR	86.667	260
002	SUPERVISION	12.0 HR	66.417	797
004	GUIDE ROLLERS	12.0 EA	3.917	47
005	GUIDE TRACK	160.0 LF	3.106	497
006	2 X 2 ANGLE	200.0 LF	2.000	400
007	GUIDE BRACKETS	12.0 EA	21.667	260
014	ERECTION LABOR	12.0 HR	110.667	1,328
015	SKY TRACK	12.0 HR	75.833	910
		Division Total		4,499
			Total @ Bid Price	4,499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10'-0" O.C.
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track and guide roller
3 Guide Rollers per Ea.
Door
3 1/2"
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SUMMARY REPORT
Bid Price

Job 14014 ADDISON REVISED DOOR TRACK Page No. 1

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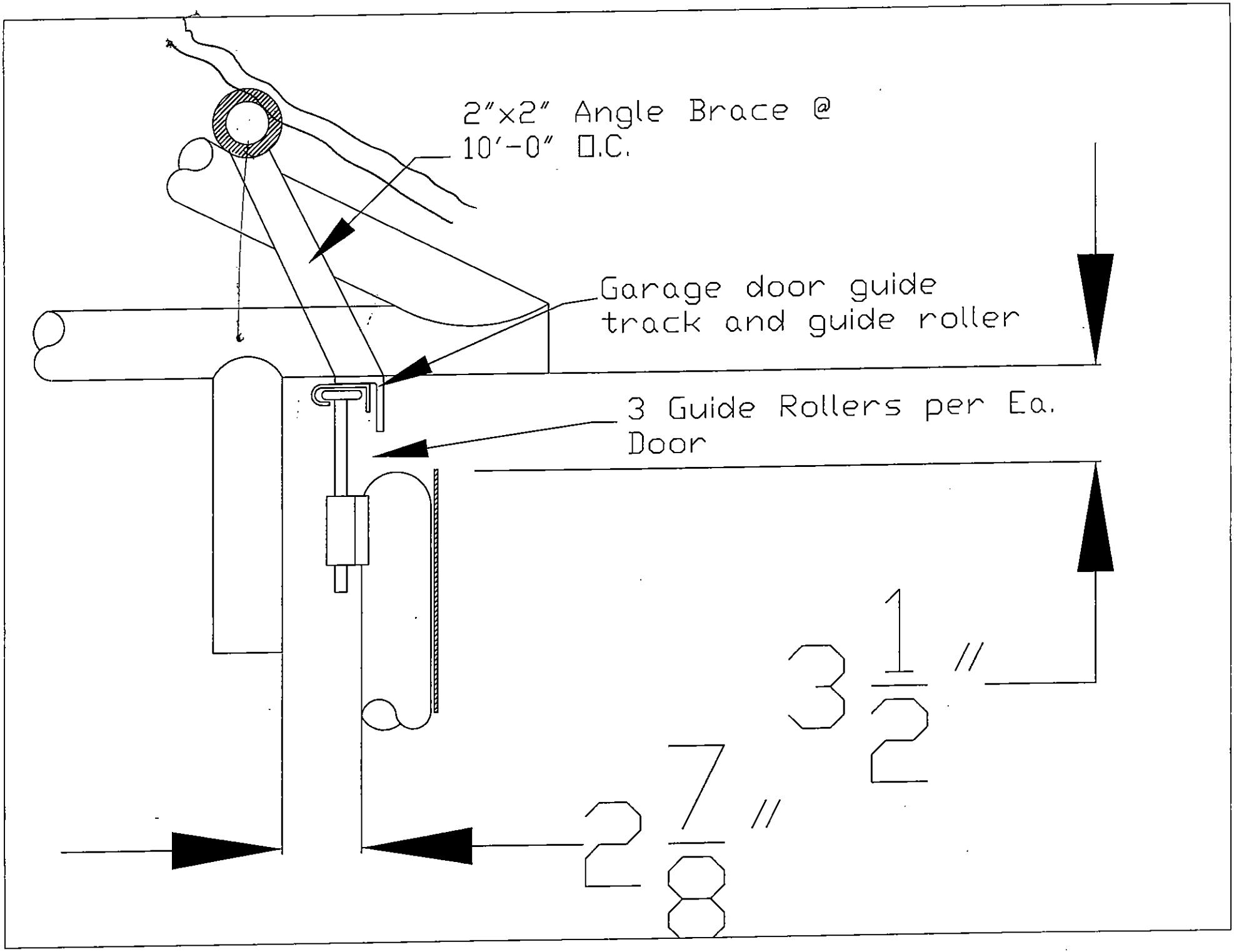
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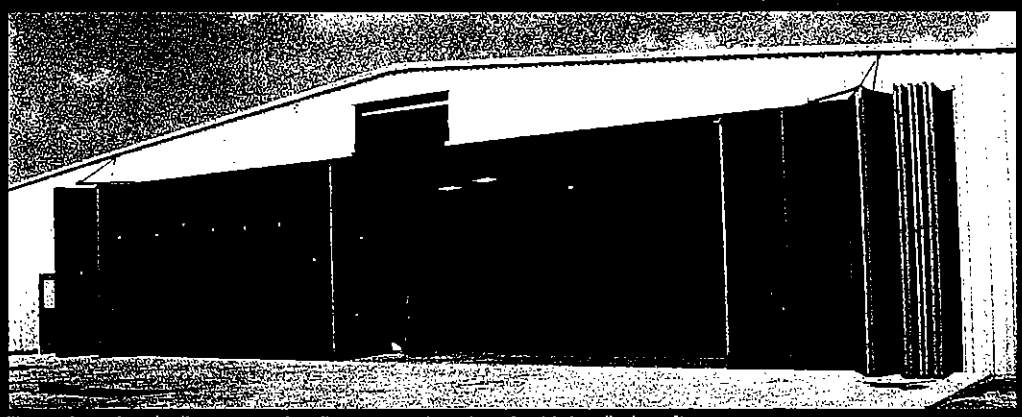
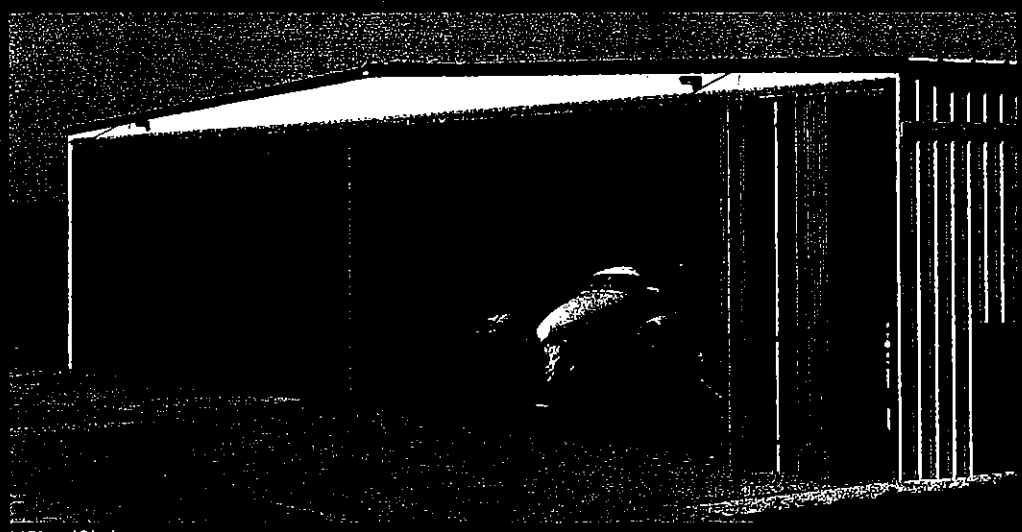
Engineered and
precision-built by Horton Inc.

StackDoor



Illustrating electrically-operated, roll-up extension door for high-tail aircraft.



118' x 18' door

The patented, wide-area door that saves space and money

Call toll-free:
1-800-835-2051
In Canada: 1-800-243-4352
Fax # (316) 326-2244

History
The first working model of the Horton Stack Door was designed in 1955. After years of design refinement, the Door went into production in 1967, and has been produced continuously ever since. The patented Horton Stack Door is now the most versatile, unique, and economical wide-area door on the market today.

Applications
The Stack Door installs on virtually any type of building, saving money and space. From Alaska to Florida, Stack Doors have been specified for aircraft hangars, tee hangars, industrial and agricultural buildings...even floating barges.

Installation
The Stack Door is *NOT* installed within the framed opening. It mounts on the *outside* of the building. The Upper Guide Channel and Mounting Brackets attach to the flat header, as do the end hinges on the flat side jams. Unlike vertical lift doors that store overhead, the framed opening height for the Stack Door is also the clear opening height. This unique feature can save 2' or more in overall building height. Most installations are completed in one day. We provide a factory superintendent for installation upon request, charging only for his expenses (we pay his wages).

Versatility
No motors are required; *anyone* can open this door with ease. Simply turn the handles located on every other panel, pull gently, and the Stack Door glides on its bottom track to stack neatly out of the way. The stacking design allows for a complete or partial opening, and eliminates the need for side entrance doors.

Durability
Designed and tested for a twenty-five pound wind load, in actual use the Stack Door has withstood :
Hurricane Alicia; Texas, 1982
110 m.p.h. winds; Russell, KS, 1983
Tornado; Wellington, KS, 1980
The Stack Door must be closed during high wind conditions. *We have never had a door blow in while closed.*

Weather Resistance
The Stack Door is not affected by adverse winter weather conditions. Our patented design puts the working mechanism inside, away from ice and snow. The bottom track sits ¼" inside the framed opening. Optional Neoprene Seals also protect the truck assembly from snow and ice.

Security
On Stack Doors of 18' to 20' heights, the closely spaced, vertical supports prevent access through the uprights, even if the skin has been cut away.

Stacking
The Horton Stack Door opens to the left and right of the framed opening for maximum versatility. When in the stacked position, door panels extend 90° from the face of the building, requiring only 5" for every 2 panels.

Warranty
The Horton Stack Door has a *one year* warranty on parts and workmanship. The manufacturer's warranty on the fiberglass skin is a *twenty year* limited warranty.

INFORMATION & PRODUCT SPECIFICATIONS

Construction
The Horton Stack Door is jig-built in standard panel widths of 42". Panels can be enlarged or reduced to fit existing openings. Panel frames are composed of 2"x2" welded, galvanized steel tubing, completely assembled at the factory. No site fabrication is needed. Door panels are skinned with 8 oz. Solar Grey twin rib fiberglass with a rib height of 7/16". Stack Door panels are designed to allow the ridges and valleys to nest together when stacked, creating the widest possible clear opening. Fiberglass is attached to the door panels with black tex screws.

Truck Assembly
This patented design includes two sealed precision bearings riding on top of the track and two sealed precision bearings riding on each side of the bottom track. Each truck assembly carries the weight of only *two* panels.

Truck Axles & Upper Spindles
Both are constructed of ⅝" round Bar, Spec. Mil-S-6758, heat treated to 180-200,000psi, then zinc plated.

Bearings
The Sealed Precision Ball Bearings (used in our Truck Assemblies, Upper Spindles, and Trip-in Spindles,) are rated on B-10 life.

Oilube Bronze Oil Impregnated Bushings
These bushings are inserted at all hinge points, inside and out.

Latch Mechanism
Every other panel is fitted with a latch mechanism which includes an inside T-handle and a ⅜" locking rod that latches behind the bottom track and upper guide channel.

Pass Door
A free-swinging Pass Door is standard on Door systems with an odd number of panels. To hold the Pass Door open, we provide a retainer which consists of a receiving plate that attaches to the L-1 panel and a 3" projection hook that attaches to the Pass Door. A pair opening at the center provides access for even number Door systems.

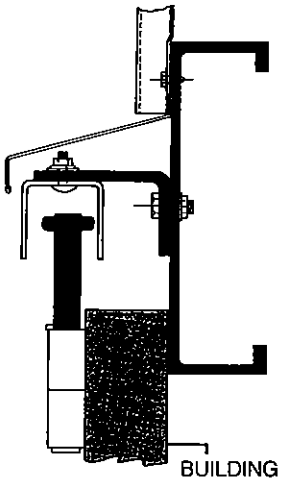
Outside Locking Handle
Each Door is fitted with a paddle lock handle (lock provided by others), located on the R-1 panel for even number systems. For odd number systems, the outside locking handle is located on the Pass Door.

Chains
Every Door is provided with field-installed chains to keep the door open. The Eye-bolt is either attached to the side jam and door frame of the R-1 and L-1 panels, or to the Pass Door.

Preparation of Opening
The framed opening (provided by others) must use a minimum of 8"x3½" 14 gauge C-Channel turned flat on the building line, header, and side jams, with the 8" facing outside. Stack Door specifications require that the header be down-braced on 10' centers, with down supports connected to a purlin or rafter, bolted or welded to the top and bottom of the 8" C-Channel. The header must be straight and level.

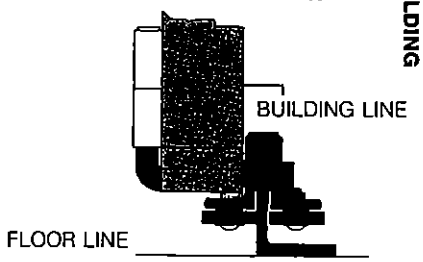
The foundation must extend 6" in front of the framed opening, and be as level as possible, with the concrete poured below the frost line to prevent possible heaving.

Tracks
Surface mounted track: Provided by Stack Door and most commonly used for small, single engine hangars. 1¼"x2"x¼", it sets ¼" inside the framed opening, and is pre-punched at the factory on 2' centers. A hammer drill is required for on-site installation on top of the foundation. 2½"x⅜" Rawl Anchors are furnished by Stack Door. A 2" bottom lip faces the inside of the building.

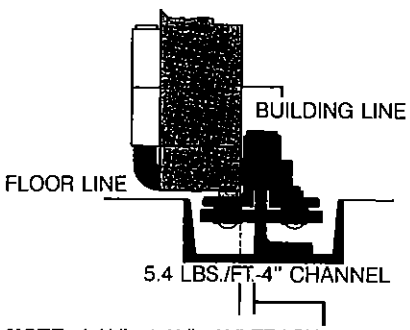


INSIDE OF BUILDING

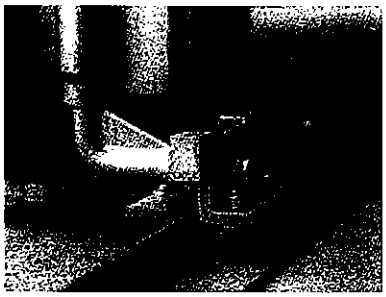
SURFACE MOUNTED TRACK



RECESSED TRACK



NOTE: 1 ½"x 1 ½"x ¼" TRACK MUST BE ¼" **INSIDE** THE BUILDING LINE.



Surface Mounted Track

Recessed Track (Optional)

Recessed Track (provided by others): Used mostly for hangars with heavy, twin engine or light jet aircraft which have high pressure tires. Required materials include a 4" Channel — 5.4 lbs. per foot — and a 1½"x1½"x¼" angle iron welded in the center. The position of the track should place the outside leg of the 4" Channel 1⅝" outside of the jam, and/or the angle iron set ¼" inside the jam. Recessed track is installed at the same time the foundation is poured.

Installation

Because of our strong belief in proper installation, we offer a factory superintendent with every job, and we pay his wages. Clients are asked to pay only for expenses, including airfare, meals, and lodging. *Virtually every Stack Door can be installed in one day.*

TECHNICAL INFORMATION

Doors

Stack Doors are available up to 20' in height. All the weight of a Stack Door rests on the *bottom* track. This eliminates the extensive end wall loading that is required with most vertical lift or conventional sliding doors. All Horton Stack Doors are designed and tested for a 25 pound wind load.

Door Options

Neoprene Seals: 3"x$\frac{3}{16}$"x42" Duo-Neoprene. These must be field installed for proper fit and adjustment. Screws are removed from the bottom of the fiberglass skin while the seals are set, then replaced. Neoprene Seals will keep the bottom track clean when the door is closed.

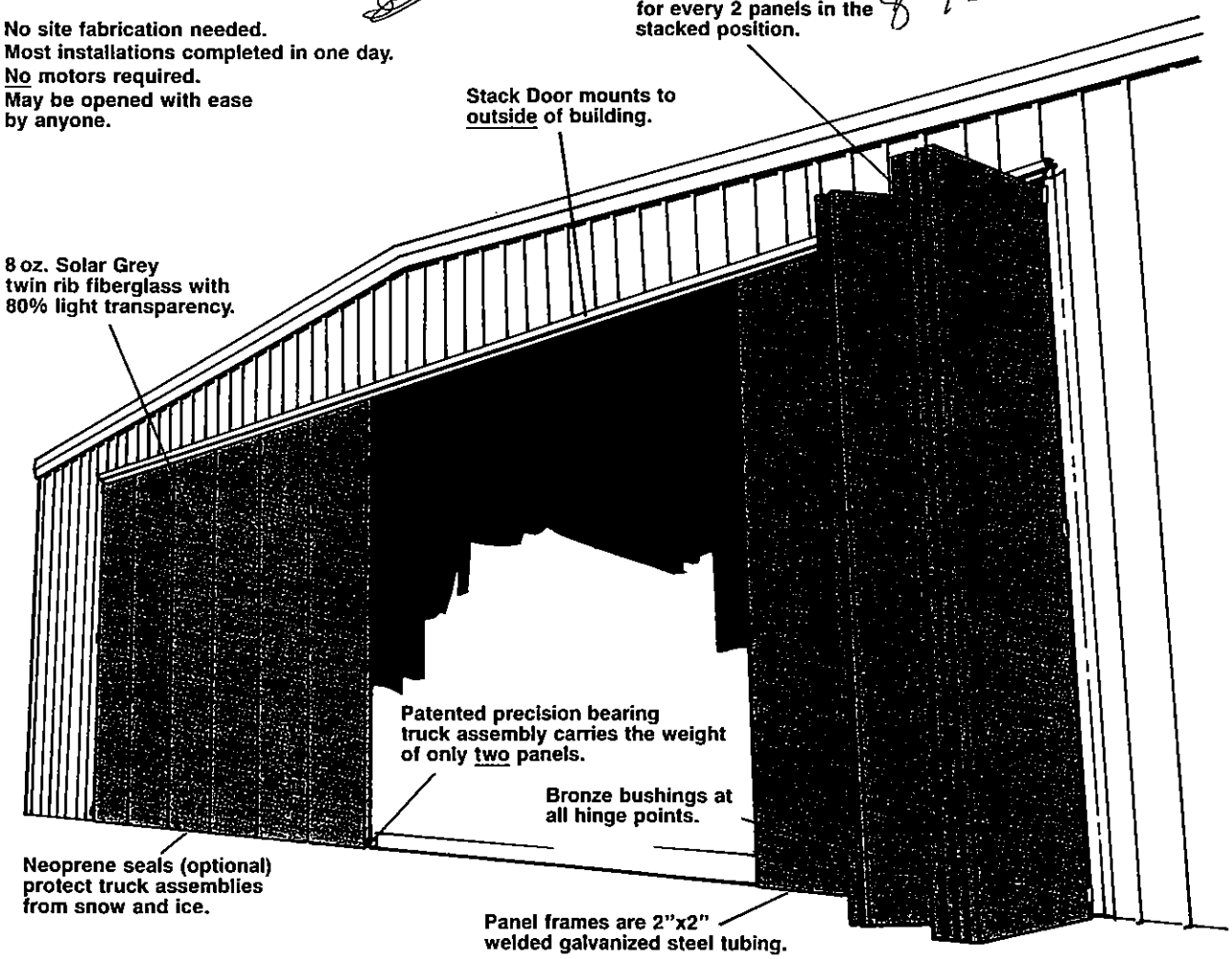
Insulation Package: This option is installed at the factory utilizing the standard fiberglass skin. The Door frame is filled with a 2" expanded styrene plastic block, one pound in density. This styrene has an R value of 7.8. We also skin the inside of the Door with a 6 oz. white pebbled backliner. The backliner has limited flammability, is USDA approved, shatter resistant, and easy to clean. Neoprene Seals for the bottom of each panel are installed in the field (see preceeding paragraph). ½" wide x ⅛" thick weather stripping (provided by others) can be used between door frames.

Access Door: Available whenever required by local regulations.

High-tail aircraft: An electrically operated, roll-up extension door is available up to 12' wide (height optional). Structural drawings available on request.

$ 7500 for 40' door inc installation

6000 door
1500 install
7500



StackDoor

Horton StackDoor
A division of Horton Inc.
Wellington Municipal Airport
Wellington, KS 67152
(316) 326-2241
1-800-835-2051

Suggested Architectural Specifications

Section 08370
WIDE AREA DOORS

Part 1. GENERAL

1.01 WORK INCLUDED: Furnishing and installing all wide area doors where shown on the Drawings and/or designated in the Door Schedule.

A. Furnished but Installed by Others — Recessed bottom door track (optional): Sect. 03 _____

1.02 QUALITY ASSURANCE:

A. Acceptable Manufacturers — Horton Inc., Wellington, Kansas

B. Installer Qualifications (optional) — Superintendent furnished by the manufacturer.

1.03 SUBMITTALS:

A. Shop Drawings — Indicate head, jamb and sill considerations including clearances and anchorage locations and type.

Guarantee — Furnish written one-year warranty on parts and workmanship and twenty-year limited warranty on fiberglass skin.

1.04 HANDLING AND REPLACEMENT

A. Handle in accordance with the manufacturer's written instructions.

B. Replace damaged items.

Part 2. PRODUCTS

2.01 DESCRIPTION: Wide area doors shall be patented Horton Stack Doors, recessed/surface mounted, side stacking, and bottom rail supported.

2.02 MATERIALS

A. Doors shall be jig-built in 42" panel widths with panel frames constructed of 2"x 2" welded galvanized steel tubing, skinned with 8 oz. Solar Grey twin rib fiberglass with 7/16" rib heights. Skin shall be attached to the frame with black tex screws.

Upper Spindles, Trip-in Spindles, and Track Assembly shall utilize sealed precision ball bearings rated on B-10 life with a loading capacity of 484 pounds at 500 rpm.

Truck Axles and Upper Spindles shall be constructed of 5/8" round Bar, Spec. Mil-S-6758, heat-treated to 180-200,000 psi, and zinc-plated. Oilube bronze Oil Impregnated Bushings shall be inserted at all hinge points, inside and out.

Every other panel shall be fitted with latches, including inside T-handles with 3/8" locking rods for the bottom track and upper guide channel.

B. Access Door (Optional) shall be constructed of the same materials as the Stack Door and open to the outside. The clear width shall be 25 1/2" wide x 6'2" high. The bottom door jam shall have a 2" step over. These Doors shall be located in R-1, L-1, or end panels.

C. Surface Mounted Track shall be 1¼" x 2" x ¼" angle iron, set ¼" inside the frame opening and pre-punched on 2" centers.

Recessed Track (Optional) shall be 4"- 5.4 lbs. structural steel channel with 1½" x 1½" x ¼" steel angle iron welded in its center.

D. Seals (Optional) shall be 3" x 3/16" x 42" Duo-neoprene, field installed to door panel bottoms to protect truck assemblies from snow and ice.

E. Insulation (Optional) shall be 2" expanded Styrene plastic block, one-pound density, and with an R-value of 7.8. It shall be applied to the back side of the fiberglass skin and held in place with a 6 oz. white pebbled backliner having a limited USDA-approved flammability, and shall be both shatter-resistant and easy to clean.

Part 3. EXECUTION.

3.01 INSTALLATION:

A. Stack Door shall be mounted to the outside face of the framed opening only after the roof of the building has been installed and before siding is applied.

The framed opening shall utilize a minimum of 8" x 3 ½" - 14 gauge C-channels, facing outside. The header shall be straight and level, down-braced on 10' centers with down supports bolted or welded to purlins or rafters at the top and bottom of the C-channels. Back-bracing shall be installed of sufficient strength to withstand a 25 pound wind loading when the door is closed. The Stack Door shall overlap the header by 2".

The Stack Door shall be installed above a concrete foundation or sill, poured below the frost line, and extending at least 6" in front of the framed opening. Clearance from the bottom of the door to the top of the foundation or sill shall be ¾".

B. Surface Mounted Track shall be anchored to the foundation with 2½" x ⅜" Rawl anchors provided by the door manufacturer.

C. Recessed Track (Optional) shall be installed at the time of the foundation or sill pouring. Placement of track shall be such that outside face of channel is 1⅝" outside of jamb face and flush with top surface of foundation or sill.

3.02 INSPECTION:

Will be conducted by manufacturer's superintendent upon request after installation.

For more information, price quotes, and customer service, call *toll-free*:
(In the U.S.) 1-800-835-2051
In Kansas, or outside the Continental U.S., Call: (316) 326-2241
In Canada: 1-800-243-4352
Fax # (316) 326-2244

LITHO IN USA

Agonic Corporation

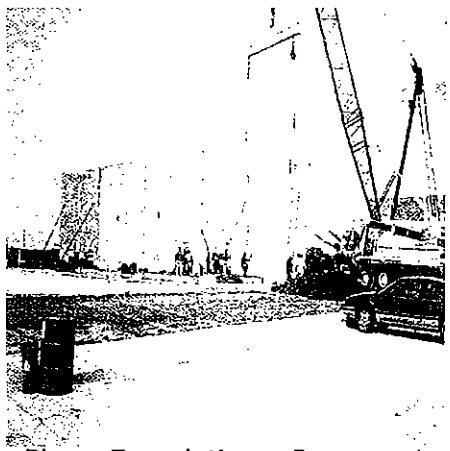
CONSTRUCTION AND [illegible]

410 Interchange Street
McKinney TX 75069
Phone 972.569.8333
Fax 972.569.8338
Pager 972.585.7403

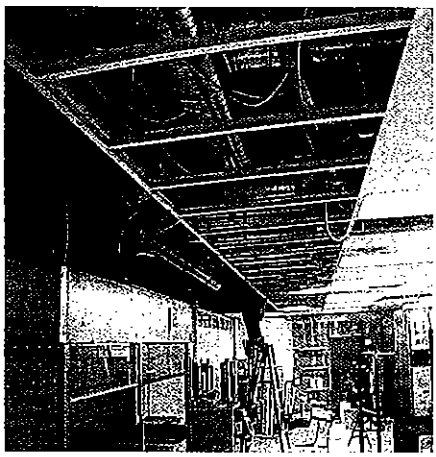
www.agonic.com

WHAT WE DO

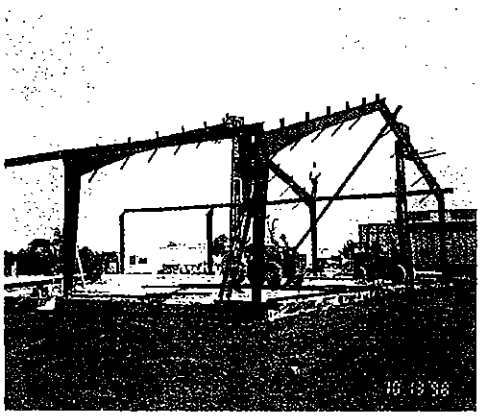
Excavation - Sub - grade
Trench Excavation
Sub Base Installation



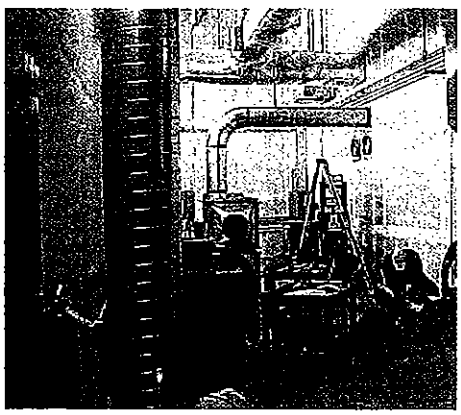
Piers, Foundations, Pavement
Slabs, Sidewalks, Tilt - Ups
Spill Containments



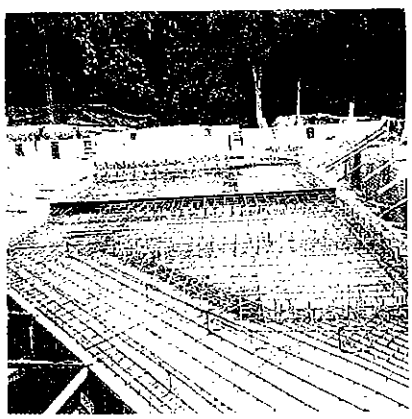
Interior Construction
Remodel
Renovation



Steel Fabrication, Installation
Pipe Supports, Stairs & Catwalks
Metal Buildings, Framework



Electrical & Mechanical
With Licensed Sub Contractors



Construction Management
General Construction Services
Design Consultants

MANAGEMENT

Harold E. Hurst
President

Over **thirty years experience** in Commercial and Industrial Construction Management; Career background includes:

- Design Consultation / Management
- Project management / Marketing
- Solicitation and coordination of subcontractors
- Expediting / Estimating / Field Engineering
- Certified Fork Truck Safety Instructor
- harold@agonic.com

Bachelor of Science Engineering
Associate Degree Engineering Science
Associate Degree Construction Management

Terry W. Holloway
V.P./ Const. Mgr.

Over **twenty five years experience** in the Construction Industry; Career background includes:

- Construction Manager major construction projects
- Design Consultant / Design Build Construction Manager on commercial and industrial facilities
- Solicitation and coordination of subcontractors
- Scheduling / Estimating / Field Engineering & Layout
- terry@agonic.com

Bachelor of Science in Construction

Frederick R. McMurdy
V.P. Field Operations

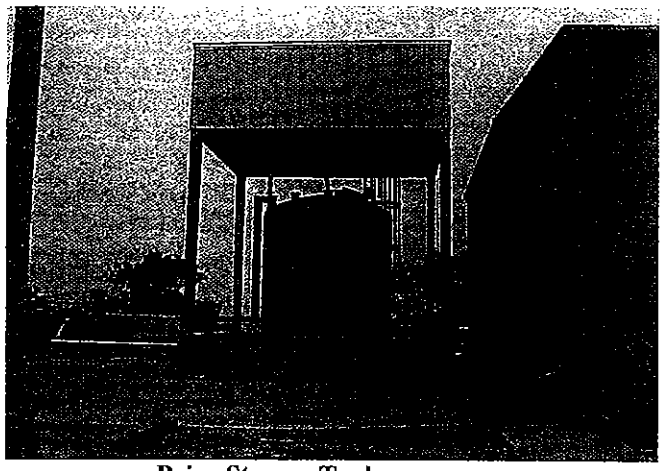
Over **twenty five years experience** in Commercial, Residential, and Industrial Construction; Career background includes:

- Construction Supervision
- Sol icitation & Coordination of Subcontractors
- Expediting / Estimating / Field Engineering and Layout
- Direct supervision of all Construction Trades
- fred@agonic.com

Larry J. Newman
Marketing/Manager

Over **thirty years experience** in the Construction Industry and Industry Suppliers; Career background includes:

- Construction Management
- Trench & Traffic Safety
- Safety Education
- Sales, Marketing & Project Co-ordination
- Direct supervision of all construction trades
- larry@agonic.com



Brine Storage Tank
City Public Service, San Antonio

Oil Water Separator
Lipton Foods, Dallas

Agonic Corporation a General Construction Firm est. 1985,
Specializing in INDUSTRIAL CONSTRUCTION.

Our Name Derives from: The AGONIC LINE, which is an Imaginary line running through the earth's Magnetic pole and the true north pole. It extends around the globe. The AGONIC LINE will change over time due to natural variations in the earth's magnetic field. These changes must be monitored as they are critical for navigators and surveyors who rely on accurate compass readings.

And so it is with, AGONIC CORPORATION is a constantly changing & adapting organization, structured to keeping our customers on track and in operation with the least amount of impact to their production as possible. It is our objective to implement innovative means, methods, techniques and safety programs, while constantly updating our skills and awareness. Our MISSION is to update and adapt our services to accommodate the needs of our customers. We understand that the customer's prime objective is to "Produce their Product", not to accommodate our services. We will do everything possible to work with our customers to minimize disruption to their work schedule.

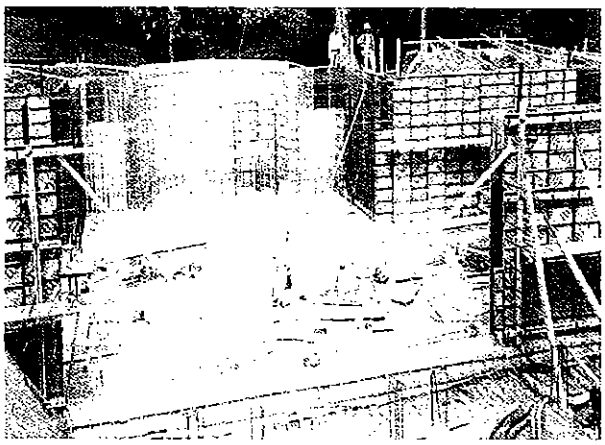
We are a Customer Oriented organization.

AGONIC CORPORATION POLICY

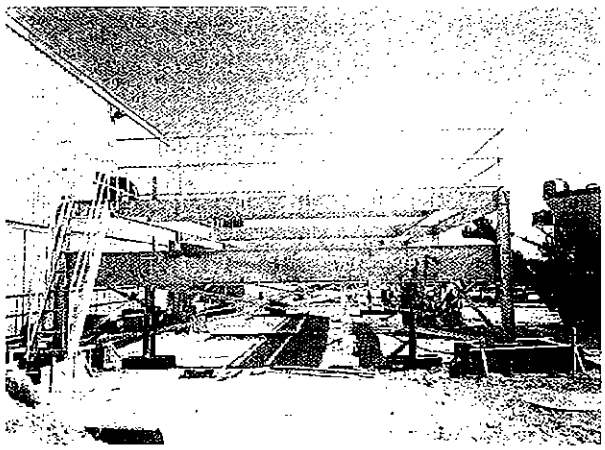
Agonic Corporation and its employees have a responsibility to our customers, ourselves, and our company. Which is to satisfy our customers needs and desires, provide the highest quality workmanship and to perform our duties within the utmost safety conscious environment, with expedience and at the greatest profitability level. We strive to promote this attitude in order to insure the longevity of this organization. Our customers are paying for this, and they have every right to expect it. It is our objective to fulfill these expectations.

WE CAN DO, WE MUST DO, AND WE WILL DO THE JOB RIGHT.

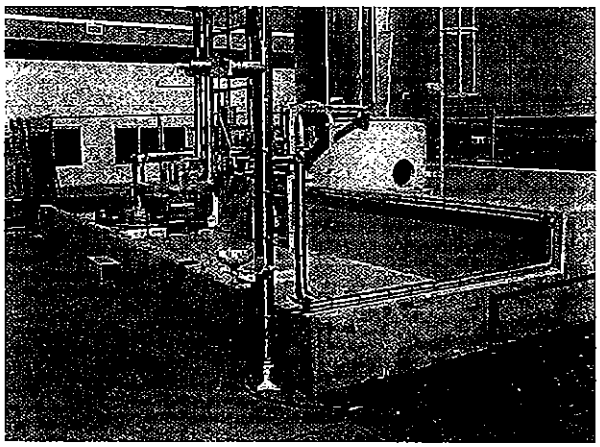
JOB PHOTOS



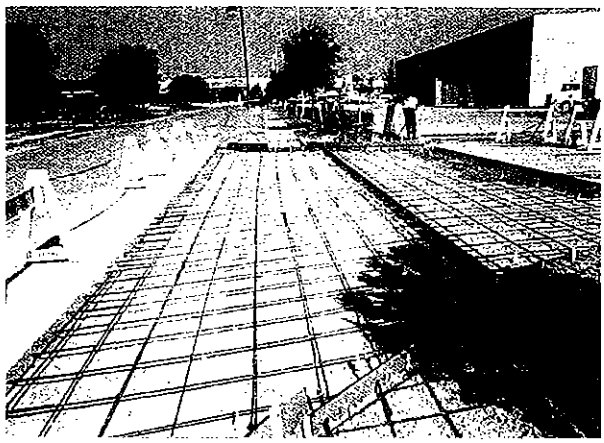
Basement Wall Forming
5555 Walnut Hill, Dallas



Cooling Tower Support Structure
Alcatel Inc., Plano

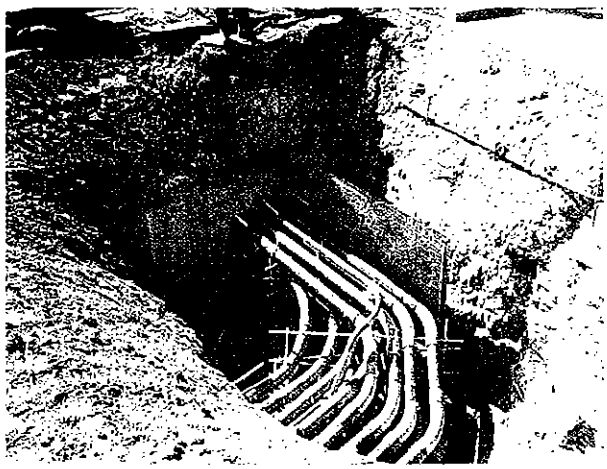


Retention & Ammonia Tank
Gem3 (Texas Ultra Pure), Mansfield



Pavement & Approach
Plastican Corporation, Dallas

Cooling Tower & Pipe Rack
Mykrolis Corporation, Allen



Underground Duct Bank
Texas Instruments, Dallas

AGONIC OPERATES WITH THE ATTITUDE OF:
CAN DO, MUST DO AND WILL DO THE JOB RIGHT THE FIRST TIME.

GUNNIN CONSULTING ENGINEERS, INC

Mailing Address:
P. O. Box 820457
Dallas, Texas 75382-0457
Phone: 214-528-3796
e-mail: gunningcei@aol.com

Delivery Address:
3303 Lee Parkway, Suite 325
Dallas, Texas 75219
FAX: 214-522-6796

FACSIMILE COVER SHEET

DATE: February 2, 2004

TO: Mr. Harold Hurst, Agonic Corporation — FAX NO: 972-569-8338
Mr. James C. Pierce, P. E., Town of Addison — 972-450-2837

FROM: Bill Gunnin

JOB NAME: Tee Hanger Door Tops Repairs
Addison Airport

JOB NUMBER: 451

TOTAL NUMBER OF PAGES, INCLUDING THIS SHEET: 4 5

HARD COPY OF TRANSMISSION TO FOLLOW? YES: NO: X

PLEASE CALL 214-528-3796 IF COMPLETE TRANSMISSION IS NOT RECEIVED.

Harold - FAX'ed herewith is a reduced copy of the structural drawing in progress. You may use this to prepare a budget estimate for constructing the repairs. Since the number of repairs to be made is unknown at this time, please prepare a budget estimate for repairs to one door (both ends), five doors (both ends) and ten or more doors (both ends).

Call me if you have any questions.

Mr. Pierce.
Included in this FAX is our invoice #3 dated 2/1/04.

Thanks,
Bill Gunnin

GUNNIN CONSULTING ENGINEERS, INC.

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P. O. Box 820457
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Phone 214- 528-3796
e-mail: gunningcei@aol.com

Delivery Address:
3303 Lee Parkway, Ste. 325
Dallas, Texas 75219-5109
FAX 214-522-6796

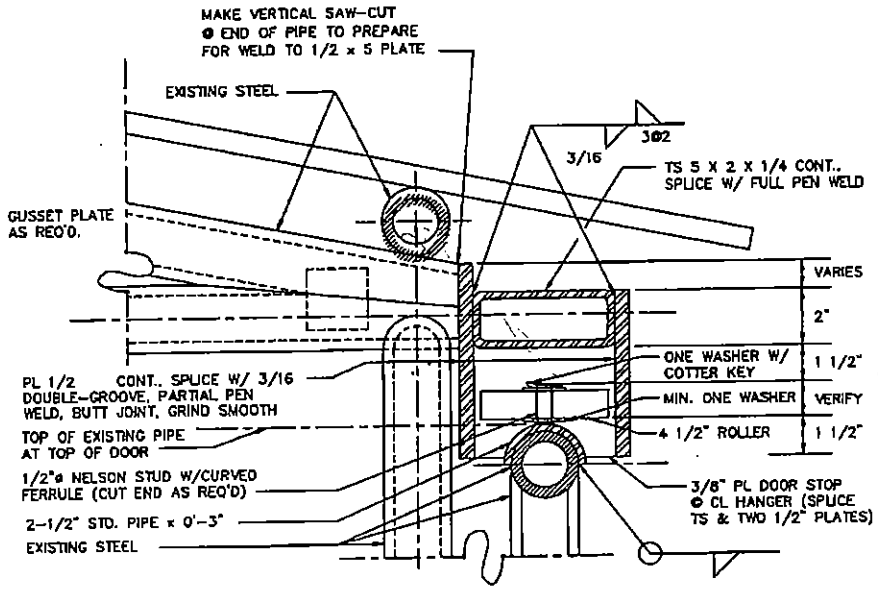
BILL TO
Town of Addison Mr. James C. Pierce, Jr., P.E. 16801 Westgrove Drive Addison, TX 75001-9010

DATE	INVOICE #
2/1/2004	45100-03

PROJECT
451 Addison Airport Tee Hangers

DESCRIPTION	QTY	RATE	AMOUNT
PROFESSIONAL SERVICES 1/1/04 THROUGH 1/31/04			
Bill L. Gunnin -	4	125.00	500.00
Contract Drafting	5.5	85.00	467.50
REIMBURSABLE EXPENSES 1/1/04 THROUGH 1/31/04			
Auto Mileage - two trips @ 30 mi. ea.	60	0.325	19.50
		Total	$987.00

OK to pay
2-3-04



1 SECTION

SCALE: 3" = 1'-0"

NOTE: BUILD ONE ROLLER ASSEMBLY AT EACH END OF EACH 20' +/- DOOR

PRELIMINARY

FEB 0 2 2003

NOT FOR CONSTR.

GENERAL NOTES

1. NEW CONSTRUCTION HAS BEEN DESIGNED IN ACCORDANCE WITH THE CITY OF ADDISON BUILDING CODE.

2. EXISTING STRUCTURAL CONSTRUCTION HAS NOT BEEN REVIEWED FOR COMPLIANCE WITH APPLICABLE CODES NOR FOR COMPLIANCE WITH USUAL AND ACCEPTED STRUCTURAL STANDARDS.

3. VERIFY HORIZONTAL AND VERTICAL DIMENSIONS OF EXISTING STRUCTURE BEFORE WORK IS BEGUN.

4. STRUCTURAL STEEL ROLLED SHAPES AND PLATES SHALL CONFORM TO ASTM A36 OR ASTM A572, UNLESS NOTED OTHERWISE.

5. GALVANIZE NEW STRUCTURAL STEEL ELEMENTS IN ACCORDANCE WITH ASTM A123. SEAL WELD CONNECTIONS PRIOR TO GALVANIZING.

6. TOUCH UP FIELD WELDS ON GALVANIZED ITEMS WITH PAINT CONFORMING TO THE STANDARDS OF THE AISC.

7. STRUCTURAL STEEL TUBE SHALL CONFORM TO ASTM A500, GRADE B.

8. WELDING OF STRUCTURAL STEEL SHALL CONFORM TO AWS D1.1. USE E70XX ELECTRODES FOR FIELD AND SHOP WELDS. USE ONLY LOW-HYDROGEN ELECTRODES ON ASTM A242, A514, A572, AND A588 STEEL.

PRELIMINARY

FEB 0 2 2003

NOT FOR CONSTR.

Revisions

GUNNIN CONSULTING ENGINEERS, INC.
3303 Lee Parkway, Suite 323
Dallas, Texas 75219
Phone: 214-528-3798

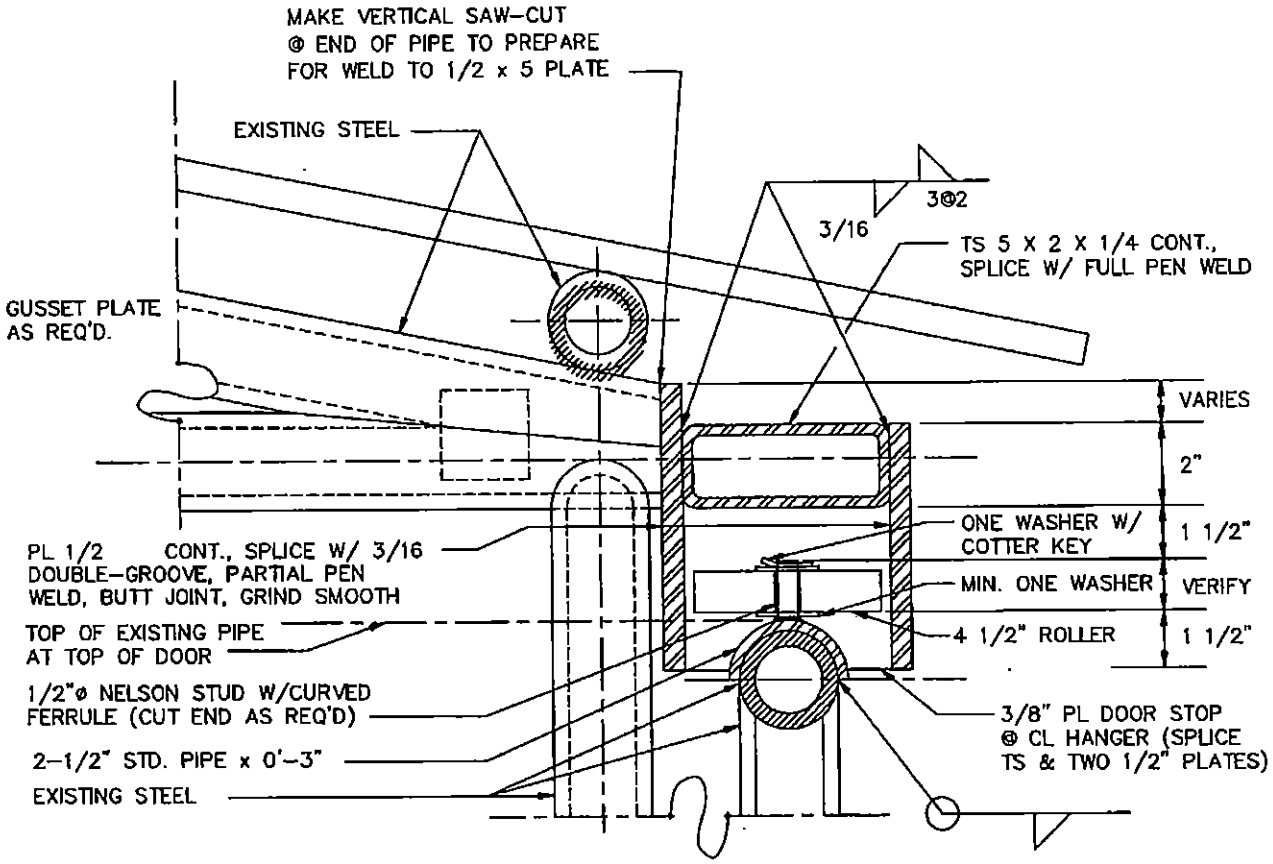
TEE-HANGAR DOORS
TOP LATERAL SUPPORTS
CITY OF ADDISON, TEXAS

DETAILS
GENERAL NOTES

SCALE: AS NOTED
DATE:

S-1

Job Number



1 SECTION

SCALE: 3" = 1'-0"

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PRELIMINARY

FEB 0 2 2003

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PRELIMINARY

FEB 0 2 2003

NOT FOR CONSTR.

Revisions:

GUNNIN CONSULTING ENGINEERS, INC.
3303 Lee Parkway, Suite 325
Dallas, Texas 75219
Phone: 214-528-3796

TEE-HANGAR DOORS
TOP LATERAL SUPPORTS
CITY OF ADDISON, TEXAS

DETAILS
GENERAL NOTES

SCALE: AS NOTED
DATE:

PAGE S-1

Job Number:

Jim Pierce

From: Harold Hurst [harold@agonic.com]
Sent: Wednesday, February 11, 2004 9:28 AM
To: Jim Pierce
Subject: "T HANGER DOOR GUIDES"

Mr. Pierce,

We are pleased to submit this "BUDGET PROPOSAL" to you in regards to the proposed "T HANGER OVERHEAD DOOR GUIDES" as per design and specifications by GUNNIN CONSUTLTING ENGINEERS.

Note: We have calculated this proposal as if we were submiting this for bid, Less any BOND requirements the City of Addison might require.

Thank you for the opportunity to be of assistance in this matter.

Harold E. Hurst
President
Agonic Corporation
410 Interchange Street
McKinney, Texas 75071
972-569-8333
Fax: 972-569-8338
Cell: 214-533-7021
www.agonic.com

AGONIC CORPORATION

CONSTRUCTION & CONSTRUCTION MANAGEMENT

AGONIC CORPORATION

2647 NATIONAL CIRCLE
GARLAND, TEXAS 75041
972-840-8224
FAX: 972-840-8224

BUDGET PROPOSAL

ATTN.: JAMES C. PIERCE JR. P.E.
ASSISTANT PUBLIC WORKS DIRECTOR
TOWN OF ADDISON
16801 WestgroveDrive
Addison, Texas 75001--9010

2/10/04

Mr. Pierce,

We are pleased to submit this "BUDGET PROPOSAL" to you in regards to the proposed "T - Hanger" Door Guides per plans and specifications by Gunnin Consulting Engineers. Labeled Preliminary, dated 2/2/04 Sheet S-1, Located at the Addison Air Port.

WE PROPOSE TO FURNISH LABOR, SUPERVISION, MATERIALS, EQUIPMENT, AND INSURANCE DIRECTLY RELATED TO OUR WORK, TO PERFORM THE FOLLOWING;

A) One to Four Hangers.

1) Fabricate Door Headers (encompassing the specific hanger and 1/2 of each adjacent hanger.
2) Fabricate Roller assembly (3 each per door re: verbal instructions Bill Gunnin).
3) Support Doors & and remove existing angle guide and bracing.
4) Install new headers approximately 120 L.F.
5) Install Roller Guide Assembly (3 ea. Per door)
6) Paint Headers and all welds (Per Verbal; James Pierce in Lieu of Galvanized)
7) Cleanup and removal of all job related spoils and debris.

Total labor materials and equipment EA.
For One to Four Hangers. $ 9,620.00 EACH

Total labor materials and equipment EA.
For Five to Nine Hangers. $ 9,270.00 EACH

Total labor materials and equipment EA.
For Ten or more Hangers. $ 8,755.00 EACH

Note: In the case of multiple hangers, "ALL HANGERS TO BE AVAILABLE FOR CONCURRENT PERFORMANCE OF WORK"

EXCLUSIONS: ANY WORK NOT EXPRESSLY DESCRIBED BY ITEMS 1 THRU 7 ABOVE.

THANK YOU FOR THE OPPORTUNITY SO SUBMIT THIS QUOTE

HAROLD E. HURST

PRESIDENT
AGONIC CORPORATION

Addison/ GUIDE TRACKS

AGONIC CORPORATION

CONSTRUCTION & CONSTRUCTION MANAGEMENT

AGONIC CORPORATION

2647 NATIONAL CIRCLE
GARLAND, TEXAS 75041
972-840-8224
FAX: 972-840-8224

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Addison, Texas 75001–9010

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HAROLD E. HURST

PRESIDENT
AGONIC CORPORATION

Addison/ GUIDE TRACKS

AGONIC CORPORATION

CONSTRUCTION & CONSTRUCTION MANAGEMENT

AGONIC CORPORATION
2647 NATIONAL CIRCLE
GARLAND, TEXAS 75041
972-840-8224
FAX: 972-840-8224

BUDGET PROPOSAL

ATTN.: JAMES C. PIERCE JR. P.E.
ASSISTANT PUBLIC WORKS DIRECTOR
TOWN OF ADDISON
16801 WestgroveDrive
Addison, Texas 75001--9010

2/10/04

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THANK YOU FOR THE OPPORTUNITY SO SUBMIT THIS QUOTE

HAROLD E. HURST

PRESIDENT
AGONIC CORPORATION

Addison/ GUIDE TRACKS

Jim Pierce

From: Bill Dyer [Bill.Dyer@Staubach.com]
Sent: Friday, February 13, 2004 9:41 AM
To: Jim Pierce
Cc: Lisa Pyles; Mark Acevedo
Subject: FW: Addison Water Line
Importance: High

Jim;

Frito-Lay is requesting immediate relief for an utility easement parallel to their north boundary. They are unable to get sufficient water pressure to their site as originally plan. They are wanting to abandon the water line under their newly poured ramp in favor of the north approach (see attached). They are wanting verbal approval with the paper work to follow otherwise construction will be delayed.

Please advise.

Bill Dyer
-----Original Message-----
From: David Stack
Sent: Friday, February 13, 2004 8:26 AM
To: Bill Dyer; Jim Pierce
Cc: Brad Blankenship; Larry Toon; ccoleman@constructors.com; Scott A. Marek (smarek@corgan.com); 'Steele, Lee J {FLNA}'
Subject: FW: Addison Water Line

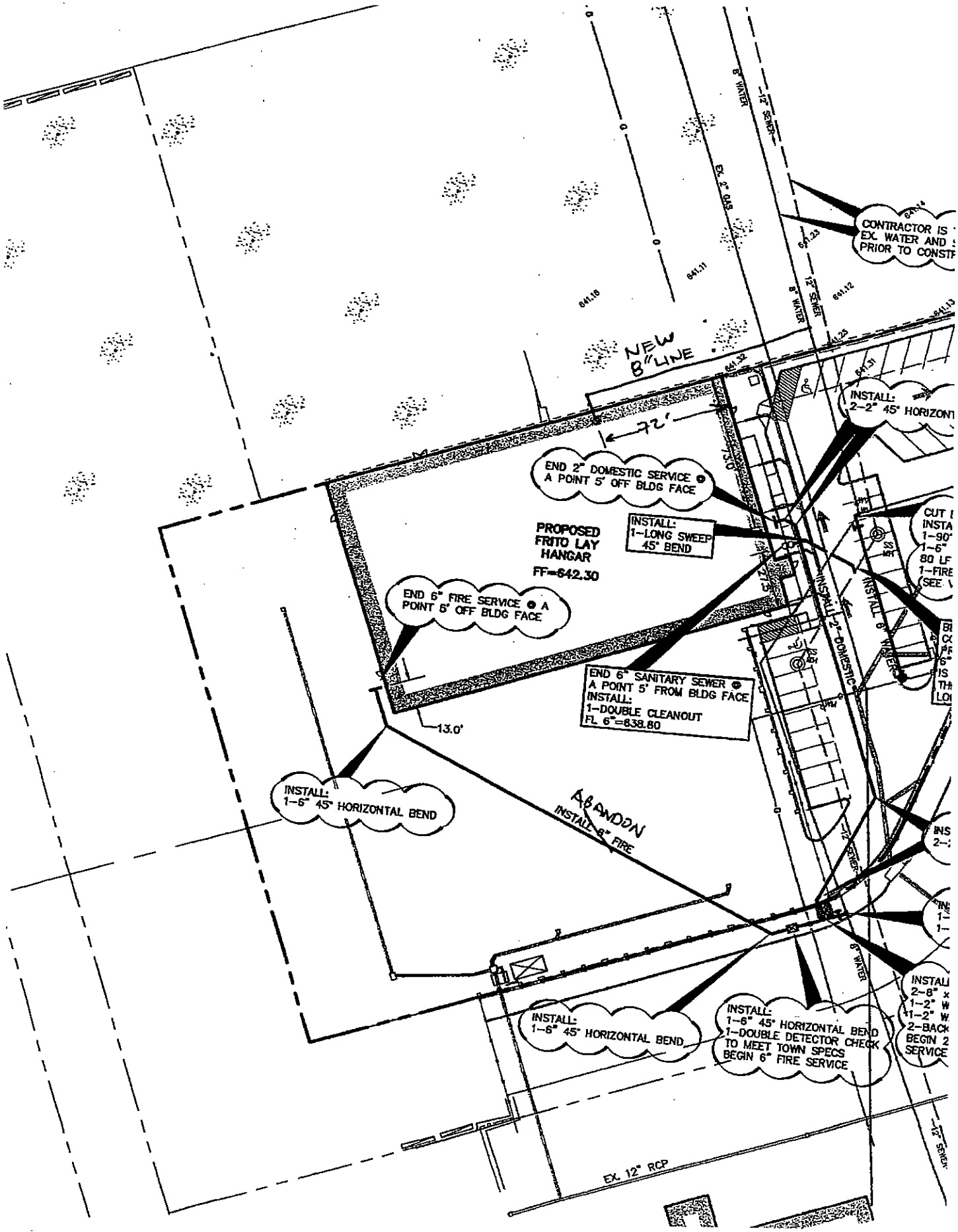
Bill:

We need immediate, this afternoon if possible, approval for an easement and City Engineering approval to install a new 8" fire line along the North side of the property. Per our Fire Protection Engineer, this is required whether or not we install a fire pump due to the relatively low pressure recently measured at the site.

Please advise ASAP, thank you.

-----Original Message-----
From: Pam Petrides
Sent: Friday, February 13, 2004 8:16 AM
To: David Stack
Subject: Addison Water Line

Pam Petrides
Design & Construction Consulting
THE STAUBACH COMPANY
15601 Dallas Parkway, Suite 400
Addison, Texas 75001
Direct: 972.361.5028 Fax: 972.361.5916
Main: 972.361.5000
pam.petrides@staubach.com


8" WATER
12" SEWER
Ex. 4" GAS
641.11
641.10
641.12
641.13
641.32
641.31
NEW 8" LINE
72'
73.0'
CONTRACTOR IS
EX. WATER AND
PRIOR TO CONST
INSTALL:
2-2" 45° HORIZONT
END 2" DOMESTIC SERVICE @ A POINT 5' OFF BLDG FACE
INSTALL:
1-LONG SWEEP 45° BEND
PROPOSED FRITO LAY HANGAR
FF=642.30
END 6" FIRE SERVICE @ A POINT 5' OFF BLDG FACE
27.5'
CUT
INSTA
1-90°
1-6"
80 LF
1-FIRE
(SEE
INSTALL 2" DOMESTIC
INSTALL 8" WATER
END 6" SANITARY SEWER @ A POINT 5' FROM BLDG FACE
INSTALL:
1-DOUBLE CLEANOUT
FL 6"=638.80
13.0'
INSTALL:
1-6" 45° HORIZONTAL BEND
ABANDON
INSTALL 8" FIRE
12" SEWER
8" WATER
INSTALL:
1-6" 45° HORIZONTAL BEND
INSTALL:
1-6" 45° HORIZONTAL BEND
1-DOUBLE DETECTOR CHECK
TO MEET TOWN SPECS
BEGIN 6" FIRE SERVICE
INSTALL
2-8" x
1-2" W
1-2" W
2-BACK
BEGIN 2
SERVICE
EX. 12" RCP
12" SEWER

GUNNIN CONSULTING ENGINEERS, INC

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Delivery Address:
3303 Lee Parkway, Suite 325
Dallas, Texas 75219
FAX: 214-522-6796

FACSIMILE COVER SHEET

DATE: February 27, 2004

TO: Mr. James C. Pierce, Jr., PE, Town of Addison FAX NO: 972-450-2837

FROM: Bill L. Gunnin

JOB NAME: Tee-Hanger Doors
Addison Airport

JOB NUMBER: 451

TOTAL NUMBER OF PAGES, INCLUDING THIS SHEET: 1

HARD COPY OF TRANSMISSION TO FOLLOW? YES: NO: X

PLEASE CALL 214-528-3796 IF COMPLETE TRANSMISSION IS NOT RECEIVED.

Jim –

Would you FAX me a copy of the drawing and/or proposal that Harold Hurst (Agonic) sent you as a cost-saving measure?

Thanks,

Bill Gunnin

GUNNIN CONSULTING ENGINEERS, INC

Mailing Address:
P. O. Box 820457
Dallas, Texas 75382-0457
Phone: 214-528-3796
e-mail: gunningcei@aol.com

Delivery Address:
3303 Lee Parkway, Suite 325
Dallas, Texas 75219
FAX: 214-528-3797

FACSIMILE COVER SHEET

DATE: March 2, 2004

TO: Mr. James C. Pierce, Jr., PE, Town of Addison FAX NO: 972-450-2837

FROM: Bill L. Gunnin

JOB NAME: Tee-Hanger Doors
Addison Airport

JOB NUMBER: 451

TOTAL NUMBER OF PAGES, INCLUDING THIS SHEET: 1

HARD COPY OF TRANSMISSION TO FOLLOW? YES: NO: X

PLEASE CALL 214-528-3796 IF COMPLETE TRANSMISSION IS NOT RECEIVED.

Jim –

Our FAX number has changed to 214-528-3797; you will get a formal announcement in the mail soon.

Would you again FAX me a copy of the drawing and/or proposal that Harold Hurst (Agonic) sent you as a cost-saving measure?

Thanks,

Bill Gunnin

GUNNIN CONSULTING ENGINEERS, INC.

Mailing Address:
P. O. Box 820457
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FAX 214-522-6796

TEE-HANGER DOORS TOP LATERAL SUPPORTS

ADDISON AIRPORT

ADDISON, TEXAS

ADDENDUM ONE

Feb. 4, 2004

1. Add the following to the GENERAL NOTES:

   9. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR STRUCTURAL STEEL AND REINFORCING STEEL, INCLUDING BOTH ERECTION PLANS AND MATERIAL LISTS. SHOP DRAWINGS SHALL NOT BE MADE BY USING REPRODUCTIONS OF CONTRACT DRAWINGS.

   10. OWNER SHALL RETAIN AN INDEPENDENT COMMERICAL TESTING LABORATORY TO PERFORM PROFESSIONAL CONSULTATION, INSPECTION, AND TESTING OF MATERIALS AND CONSTRUCTION.

2. Revise the weld symbol of the fillet welds between the top of the TS and the two ½" plates from 3/16 – 3 @ 2 to 3/16 – 3 @ 12.

3. Add continuous 1/4" fillet welds between the bottom of the TS and the two ½" plates.

4. Add an arrow between the note "GUSSET PLATE AS REQUIRED" to the rectangular dashed box at the juncture of the sloped top chord of the rafter and the horizontal bottom chord of the rafter.

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Dallas, Texas 75219
FAX: 214-522-6796

FACSIMILE COVER SHEET

DATE: February 4, 2004

TO: Mr. Harold Hurst, Agonic Corporation FAX NO: 972-569-8338

cc: Mr. James Pierce, Town of Addison

FROM: Bill L. Gunnin

JOB NAME: Tee-Hanger Doors
Addison Airport

JOB NUMBER: 451

TOTAL NUMBER OF PAGES, INCLUDING THIS SHEET: 2

HARD COPY OF TRANSMISSION TO FOLLOW? YES: NO: X

PLEASE CALL 214-528-3796 IF COMPLETE TRANSMISSION IS NOT RECEIVED.

TOWN OF

ADDISON PUBLIC WORKS

To: Dave Foster

Company: Washington

FAX #: 972-788-9334

Date: 2-3-04

# of pages (including cover): 5

From: Jim Pierce, P.E.
Asst. Public Wks. Dir.
Phone: 972/450-2879
FAX: 972/450-2837
jpierce@ci.addison.tx.us

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

Re: T Hangar Door Repairs

☐ Original in mail ☐ Per your request ☐ FYI ☐ Call me

Comments:

Dave - Design of "fix" for the T hangar doors - FYI before our meeting tomorrow

Jim

GUNNIN CONSULTING ENGINEERS, INC.

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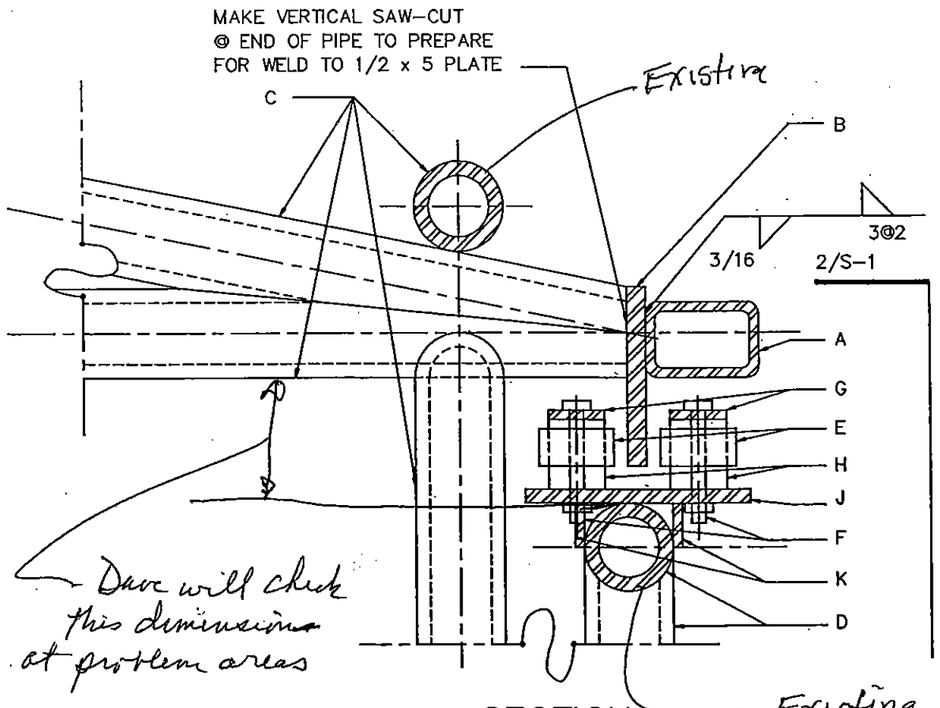
BILL TO
Town of Addison Mr. James C. Pierce, Jr., P.E. 16801 Westgrove Drive Addison, TX 75001-9010

DATE	INVOICE #
1/1/2004	45100-02

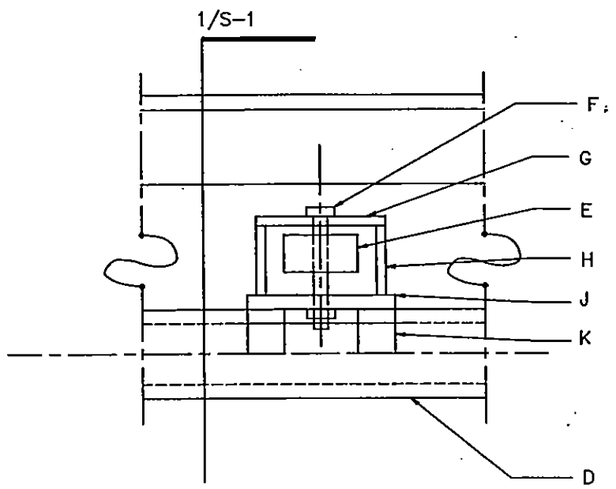
PROJECT
451 Addison Airport Tee Hangers

DESCRIPTION	QTY	RATE	AMOUNT
PROFESSIONAL SERVICES 11/1/03 THROUGH 12/31/03			
Bill L. Gunnin	4	125.00	500.00
Contract Drafting	6	85.00	510.00
		Total	$1,010.00

OK to pay
J Pierce
1-16-04



1 SECTION
SCALE: 3" = 1'-0"



2 SECTION
SCALE: 3" = 1'-0"

PRELIMINARY
JAN 07 2004
NOT FOR CONSTR

1. If we fix one door, will the adjacent doors work? (set of)
2. Look @ Roof/rainwater issue.
3. Dave will check clearance dimensions
4. Bill will finalize this dwg.

GENERAL NOTES

1. NEW CONSTRUCTION HAS BEEN DESIGNED IN ACCORDANCE WITH THE CITY OF ADDISION BUILDING CODE.

2. EXISTING STRUCTURAL CONSTRUCTION HAS NOT BEEN REVIEWED FOR COMPLIANCE WITH APPLICABLE CODES NOR FOR COMPLIANCE WITH USUAL AND ACCEPTED STRUCTURAL STANDARDS.

3. VERIFY HORIZONTAL AND VERTICAL DIMENSIONS OF EXISTING STRUCTURE BEFORE WORK IS BEGUN.

4. STRUCTURAL STEEL ROLLED SHAPES AND PLATES SHALL CONFORM TO ASTM A36 OR ASTM A572, UNLESS NOTED OTHERWISE.

5. GALVANIZE NEW STRUCTURAL STEEL ELEMENTS IN ACCORDANCE WITH ASTM A123. SEAL WELD CONNECTIONS PRIOR TO GALVANIZING.

6. TOUCH UP FIELD WELDS ON GALVANIZED ITEMS WITH PAINT CONFORMING TO THE STANDARDS OF THE AISC.

7. STRUCTURAL STEEL TUBE SHALL CONFORM TO ASTM A500, GRADE B.

8. WELDING OF STRUCTURAL STEEL SHALL CONFORM TO AWS D1.1. USE E70XX ELECTRODES FOR FIELD AND SHOP WELDS. USE ONLY LOW-HYDROGEN ELECTRODES ON ASTM A242, A514, A572, AND A588 STEEL.

9. MINIMUM 3" VERTICAL MOVEMENT SHALL BE MAINTAINED IN ACCORDANCE WITH THE "REPORT OF SUBSURFACE EXPLORATION SERVICES, HANGER IMPROVEMENTS, ADDISON, TEXAS" BY ECS LTD DATED DECEMBER 19, 2003 PROJECT NO. 19-3674

LEGEND

A TS 3 X 2 X 1/4 CONT., SPLICE W/ FULL PEN WELD

B PL 1/2 x 5 CONT., SPLICE W/ 3/16 DOUBLE-GROOVE, PARTIAL PEN WELD, BUTT JOINT, GRIND SMOOTH

C EXISTING PIPE AT HANGER ROOF

D EXISTING PIPE AT ROLLING DOOR

E 1" X 2" DIA. STEEL ROLLER

F 3/8" X 3" BOLT

G PL 1-1/2 X 3-1/2 X 1/4

H PL 1-1/2 X 1-7/8 X 1/4

J PL 3/16 X 1-3/16 X 1

K PL 3/16 X 1-3/16 X 1

PRELIMINARY
JAN 07 2004
NOT FOR CONSTR

Revisions:

GUNNIN CONSULTING ENGINEERS, INC.
3303 Lee Parkway, Suite 325
Dallas, Texas 75219
Phone: 214-528-3786

TEE-HANGAR DOORS
TOP LATERAL SUPPORTS
CITY OF ADDISON, TEXAS

DETAILS
GENERAL NOTES

SCALE: AS NOTED
DATE:

PAGE S-1

Job Number:

LETTER OF TRANSMITTAL

TOWN OF ADDISON

Public Works / Engineering
16801 Westgrove • P.O. Box 9010
Addison, Texas 75001-9010
Telephone: (972) 450-2871 • Fax: (972) 450-2837

DATE 1-2-04	JOB NO.
ATTENTION	
RE: T Hangar Improvements	

TO Bill Gunnin
Gunnin Consulting Engrs

GENTLEMAN:

WE ARE SENDING YOU ☒ Attached ☐ Under separate cover via _____ the following items:

☐ Shop Drawings ☐ Prints ☐ Plans ☐ Samples ☐ Specifications

☐ Copy of letter ☐ Change order ☐ _____

COPIES	DATE	NO.	DESCRIPTION
1			Subsurface Exploration Report by ECS Ltd.

THESE ARE TRANSMITTED as checked below:

☐ For approval ☐ Approved as submitted ☐ Resubmit _____ copies for approval

☒ For your use ☐ Approved as noted ☐ Submit _____ copies for distribution

☐ As requested ☐ Returned for corrections ☐ Return _____ corrected prints

☐ For review and comment ☐ _____

☐ FOR BIDS DUE _____ 19_____ ☐ PRINTS RETURNED AFTER LOAN TO US

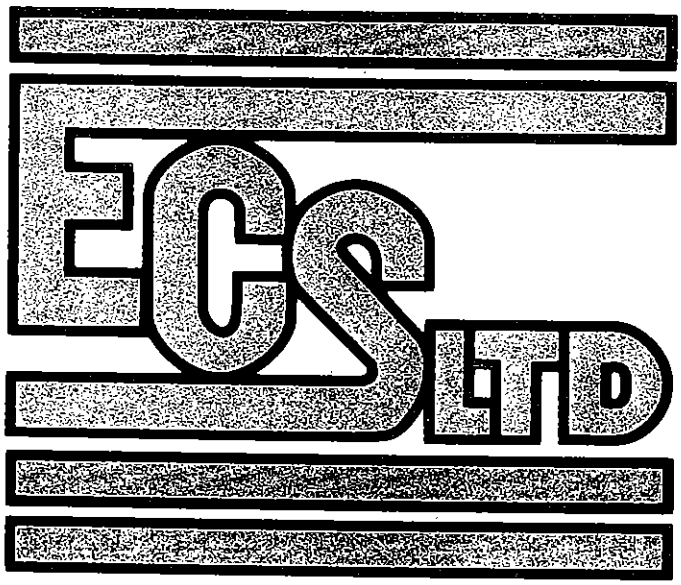
REMARKS _____

COPY TO Lisa Pyles

SIGNED: _____

If enclosures are not as noted, please notify us at once.

Jim Pierce



REPORT OF

SUBSURFACE EXPLORATION SERVICES

HANGAR IMPROVEMENTS
ADDISON, TEXAS

"T" Hangars

FOR

TOWN OF ADDISON

DECEMBER 19, 2003

ENGINEERING CONSULTING SERVICES, LTD.
Geotechnical • Construction Materials • Environmental

December 19, 2003

Mr. Jim Pierce
Town of Addison
P.O. Box 9010
Addison, Texas 75001

ECS Job No. 19-3674

Reference: Report of Subsurface Exploration and Engineering Services
Hangar Improvements
Addison Airport
Addison, Texas

Dear Mr. Pierce:

Engineering Consulting Services, Ltd. has completed the subsurface exploration for the proposed hangar improvements at Addison Airport in Addison, Texas. The enclosed report describes the subsurface exploration procedures, laboratory testing, and provides estimates of the potential vertical soil movements at the site. A Boring Location Diagram is included in the Appendix of this report along with the Boring Logs performed for the exploration.

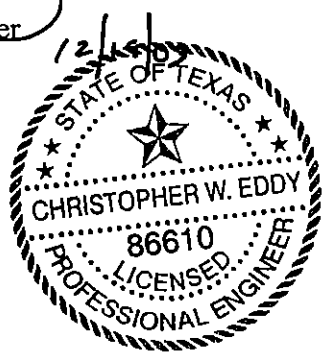
We appreciate this opportunity to be of service to you during the design phase of this project. If you have any questions with regard to the information and recommendations presented in this report, or if we can be of further assistance to you in any way during the planning or construction of this project, please do not hesitate to contact us.

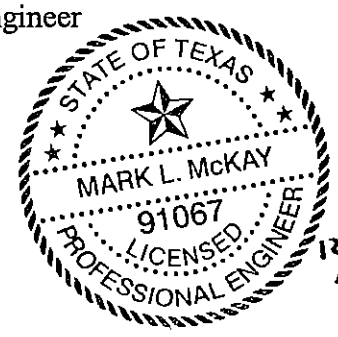
Respectfully,

ENGINEERING CONSULTING SERVICES, LTD.

Christopher W. Eddy, P.E.
Senior Project Engineer

Mark L. McKay, P.E.
Principal Engineer





12/19/03

3pc: Encl.

REPORT

PROJECT

Subsurface Exploration and Engineering Services
Hangar Modifications
Addison Airport
Addison, Texas

CLIENT

Town of Addison
P.O. Box 9010
Addison, Texas 75001

SUBMITTED BY

Engineering Consulting Services, Ltd.
4950 Keller Springs Road
Suite 480
Addison, Texas 75001

PROJECT	#19-3674
DATE	December 19, 2003

TABLE OF CONTENTS

PROJECT OVERVIEW

Introduction

This report presents the results of our subsurface exploration and engineering recommendations for the proposed hangar improvements located at Addison Airport in Addison, Texas. The Boring Location Diagram included in the Appendix of this report shows the approximate location of this project.

Scope of Work

The conclusions and recommendations contained in this report are based on five soil borings drilled in the vicinity of the hangars, and associated laboratory testing of selected soil samples. The borings were drilled to depths of about 12 to 15 feet. The results of the soil borings, along with a Boring Location Diagram showing the approximate boring locations, are included in the Appendix of this report. This report presents our estimates of potential vertical soil movements at the site.

Proposed Construction

According to the information provided, the project consists of modifying the hangar doors on five hangar structures at the referenced site. It is unknown to us what type of foundation system supports the hangars. It is assumed the hangars are supported on shallow footings bearing in clay soils.

Purposes of Exploration

The purposes of this exploration were to explore the soil and groundwater conditions at the site and to develop engineering recommendations to guide design and construction of the project. We accomplished these purposes by:

1. Drilling five borings in the vicinity of the hangars to explore the subsurface soil and groundwater conditions.

2. Performing laboratory tests on selected representative soil samples from the borings to evaluate pertinent engineering properties.

3. Analyzing the field and laboratory data to develop appropriate engineering recommendations.

EXPLORATION PROCEDURES

Subsurface Exploration Procedures

A representative of ECS, Ltd. met with Mr. Jim Pierce, P.E. of the Town of Addison to select the boring locations. The soil borings were performed with a truck-mounted, rotary-type auger, drill rig that utilized continuous flight augers to advance the boreholes. Representative soil samples were obtained by means of conventional shelby tube sampling procedures in general accordance with ASTM D-1587. In this procedure, a thin-walled, seamless tube with a sharp cutting edge is pushed hydraulically into the soil, and a relatively undisturbed sample is obtained.

Texas cone penetrometer tests were performed to evaluate the load carrying capacity of the limestone encountered. The tests were performed in general accordance with test method Tex-132-E in the Texas Department of Transportation (TxDOT) Manual of Testing Procedures. The results of the tests are shown on the attached boring logs at the depths of occurrence.

Field logs of the soils encountered in the borings were maintained by the drill crew. After recovery, each geotechnical soil sample was removed from the sampler and visually classified. Representative portions of each soil sample were then wrapped in foil and plastic and transported to our laboratory for further visual examination and laboratory testing. After completion of the drilling operations, the boreholes were backfilled with auger cuttings to the existing ground surface.

Laboratory Testing Program

Representative soil samples were selected and tested in our laboratory. The soil samples were tested for moisture content, Atterberg limits and swell potential. A calibrated hand penetrometer was used to estimate the unconfined compressive strength of the soil samples. The calibrated hand penetrometer has been correlated with unconfined compression tests and provides a better estimate of the soil consistency than visual observation alone. These test results are provided on the attached boring logs and Swell Test Results sheet in the Appendix.

An experienced geotechnical engineer classified each soil sample on the basis of texture and plasticity in general accordance with the Unified Soil Classification System. The group symbols for each soil type are indicated in parentheses following the soil descriptions on the boring logs. A brief explanation of the Unified System is included with this report. The geotechnical engineer grouped the various soil types into the major zones noted on the boring logs. The stratification lines designating the interfaces between earth materials on the boring logs and profiles are approximate; in situ, the transitions may be gradual.

The soil samples will be retained in our laboratory for a period of 60 days, after which, they will be discarded unless other instructions are received as to their disposition.

EXPLORATION RESULTS

Site Conditions

The hangar improvements will be made at Addison Airport in Addison, Texas. At the time of this investigation, the site was relatively flat. The soil borings were drilled in grassy areas adjacent to the hangar structures.

Subsurface Conditions

The boring locations were selected to explore the soil and rock conditions near the existing hangars. The conditions encountered at the boring locations can be summarized as follows.

Based on visual observation of the soil samples, clay fill soils were present at the ground surface in boring B-2. Native dark brown clay soils were present at a depth of about 2 feet in boring B-2, and at the ground surface in the remaining borings. The clay soils typically became brown to tan with increasing depth, and continued to the top of tan limestone. The tan limestone was present at depths of about 2 to 5 feet in the borings, and extended to the top of gray limestone that was encountered at depths of about 7 to 12 feet. The gray limestone continued to the termination of the borings at depths of about 12 to 17 feet. The soil types observed at the borings are noted on the boring logs, enclosed in the Appendix.

The clay soils encountered in the borings are considered moderately to highly plastic. Based on our experience with similar soils in the region, the clay soils are highly active. Active soils are subject to volume changes with fluctuations in their moisture content. The active clay soils swell with moisture increases and shrink when they dry. The volume changes can subject foundation (footings, shafts, slabs, etc.) to significant soil pressures and movements with the typical moisture changes that occur beneath a structure after construction.

Groundwater Observations

The borings were monitored while drilling and after the completion of drilling for the presence and level of groundwater. Groundwater seepage was not observed while advancing or at the completion of drilling the borings. Although seepage was not encountered in the borings during our drilling, water can be encountered in and above the tan limestone, particularly during wet periods of the year. Fluctuations of the groundwater level can occur due to seasonal variations in the amount of rainfall, runoff and other factors not evident at the time the borings were performed. The possibility of groundwater level fluctuations should be considered when developing the design and construction plans for the project.

ANALYSIS AND RECOMMENDATIONS

The following recommendations have been developed on the basis of the previously described project characteristics and subsurface conditions. If there are any changes to the project characteristics or if different subsurface conditions are encountered during construction, ECS, Ltd. should be consulted so that the recommendations of this report can be reviewed.

Potential Soil/Foundation Movements

The clay soils encountered at this site are considered active. These active clays can subject shallow foundations to movements (due to shrinking and swelling) with fluctuations in their moisture content. Based on test method TEX-124-E in the Texas Department of Transportation (TxDOT) Manual of Testing Procedures and our experience with similar soils, we estimate total soil movements on the order of 1 to 3 inches could occur, depending on the thickness of the clay layer above the tan limestone and the sustained load imposed by the foundation element. These movements are based on dry conditions that can occur prior to construction.

Hangar Door Connection Design Considerations

We understand plans are to provide a different sliding connection at the top of the hangar doors. This connection needs to accommodate some vertical displacement due to differential movements of the foundation system supporting the structure and the "track" that the bottom of the door rolls along.

As previously indicated, it is not known what type of foundation system supports the existing hangars or "track" at the bottom of the door. A conservative approach is to assume that shallow footings support the structures. The magnitude of vertical movements due to moisture fluctuations and corresponding volume changes in the active clays is dependent on the soil type, the thickness of the soil above the limestone, the depth of the foundation element, and the sustained load imposed onto the soil. A conservative approach would be to assume that the differential movement between the foundation of the hangar and the "track" supporting the door is equivalent to the estimated potential vertical rise of the soil as determined above. Therefore, we recommend the connection at the top of the door accommodate at least 3 inches of vertical movement.

Foundation Design Considerations

If it is desired to support the hangar doors on a separate/new foundation system, the most positive foundation system should consist of straight-sided drilled shafts bearing in the gray limestone stratum. The shafts will develop their load carrying capacity through a combination of end bearing

and skin friction in the limestone. We recommend using an allowable ending bearing pressure of 50,000 pounds per square foot (psf) for drilled shafts bearing in the gray limestone. An allowable skin friction of 7,500 psf can be used for proportioning drilled shafts bearing in the gray limestone stratum.

Expansion of the near surface clays with moisture increases can subject the shafts to uplift forces. The magnitude of these forces is difficult to estimate and depends on several factors including the in-situ moisture levels at the time of construction and the availability of water. We estimate the magnitude of these forces to be approximately 2,000 psf to the top of tan limestone.

Uplift forces must be resisted by the dead load on the shafts and uplift skin friction resistance in the limestone. We recommend using an allowable skin friction resistance of 5,000 psf in the gray limestone. An allowable skin friction resistance of 1,000 psf can be used in the tan limestone below a depth of 3 foot in the tan limestone and any temporary casing, if required. The shafts should contain sufficient reinforcing steel continuously throughout the shaft depth to resist anticipated tensile forces.

The possibility of encountering groundwater seepage during shaft installation increases during wet periods of the year. Concrete and steel should be placed as soon as possible after shaft excavations are complete to reduce the potential for seepage problems and deterioration of the bearing surface. During wet periods, seepage in and above the tan limestone could, in some cases, require the use of temporary casing to properly install the shafts. The casing should be seated in the limestone below any seepage. All water should be removed from the cased excavation before beginning the design rock penetration. A sufficient head of concrete must be maintained in the casing during withdrawal. Installation of individual shafts should be completed in one day.

The concrete placed for drilled shafts should have a slump between 5 and 7 inches and should be placed in a manner that prevents it from striking the reinforcing steel and sides of the excavation. We recommend that all drilled shafts be observed by qualified geotechnical personnel, to verify proper shaft installation.

All horizontal structural elements should be supported by the drilled shafts and formed with a nominal 6-inch void between the soils and the structural element. It is not necessary to excavate competent limestone to create this void space. Cardboard carton forms can be used to create this void. A soil retainer should be provided to help prevent in fill of this void.

Soils placed along the exterior perimeter of the structure should be on-site clay soils that are compacted to at least 95% of their maximum standard Proctor dry density. The clay fill should be compacted at a workable moisture content above its optimum value. The purpose of this clay backfill is to reduce the opportunity for surface water infiltration beneath the structure.

Closing

We recommend that the construction activities be monitored by ECS, Ltd. to provide the necessary overview and to check the suitability of the subgrade soils for supporting the foundations and pavements. We would be most pleased to provide these services.

This report has been prepared in order to aid in the evaluation of this property and to assist the architect and/or engineer in the design of this project. The scope is limited to the specific project and locations described herein and our description of the project represents our understanding of the significant aspects relative to soil and foundation characteristics. In the event that any change in the nature or location of the proposed construction outlined in this report are planned, we should be informed so that the changes can be reviewed and the conclusions of this report modified or approved in writing by the geotechnical engineer. It is recommended that all construction operations dealing with earthwork and foundations be reviewed by an experienced geotechnical engineer to provide information on which to base a decision as to whether the design requirements are fulfilled in the actual construction. If you wish, we would welcome the opportunity to provide field construction services for you during construction.

The analysis and recommendations submitted in this report are based upon the data obtained from the soil borings and tests performed at the locations as indicated on the Boring Location Diagram and other information referenced in this report. This report does not reflect any variations, which may occur between the borings. In the performance of the subsurface exploration, specific information is obtained at specific locations at specific times. However, it is a well-known fact that variations in soil and rock conditions exist on most sites between boring locations and also such situations as groundwater levels vary from time to time. The nature and extent of variations may not become evident until the course of construction. If variations then appear evident, after performing on-site observations during the construction period and noting characteristics and variations, a reevaluation of the recommendations for this report will be necessary.

APPENDIX

Boring Location Diagram

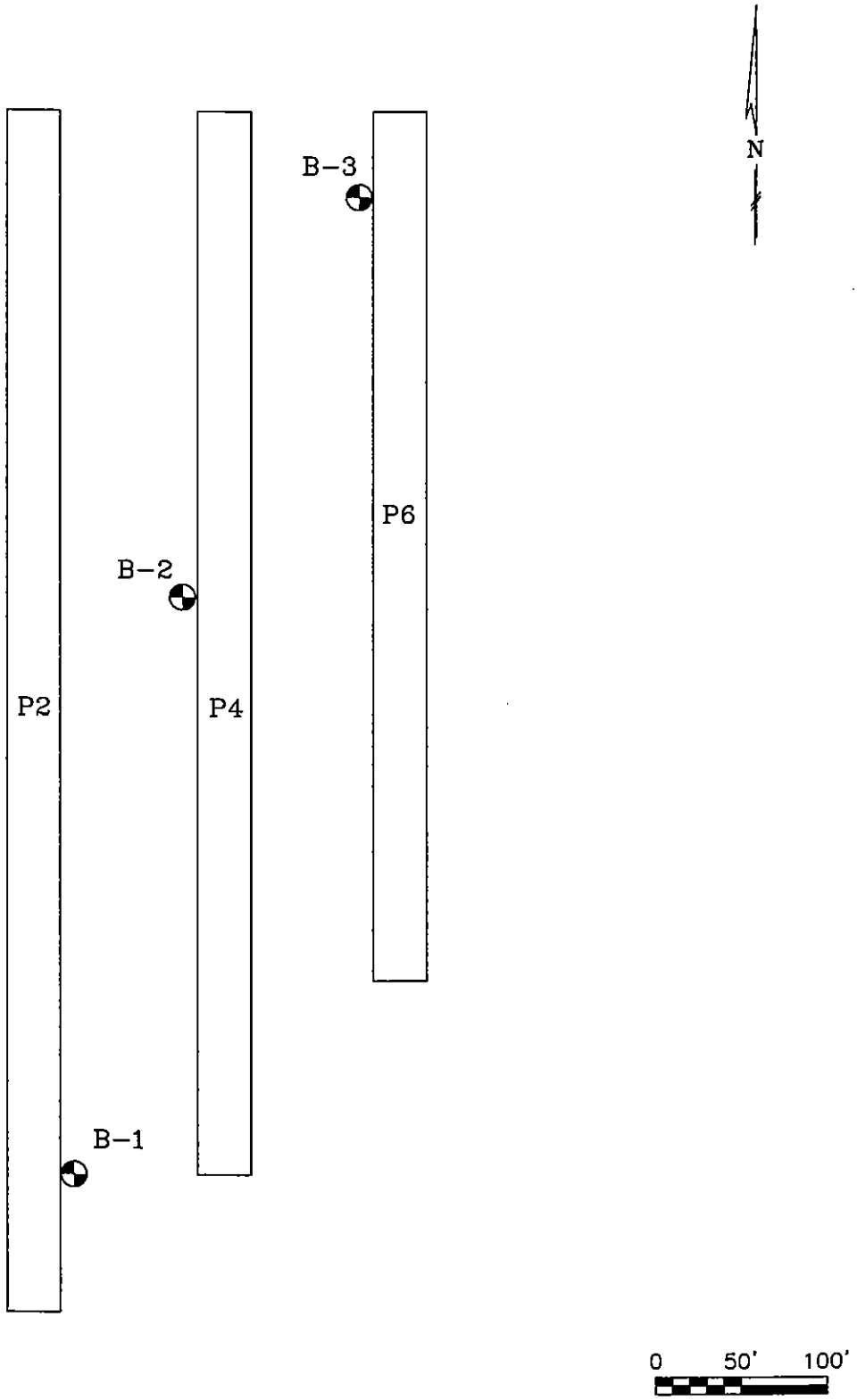
Boring Location Diagram

Boring Logs

Unified Soil Classification System

Reference Notes For Boring Logs

Swell Test Results



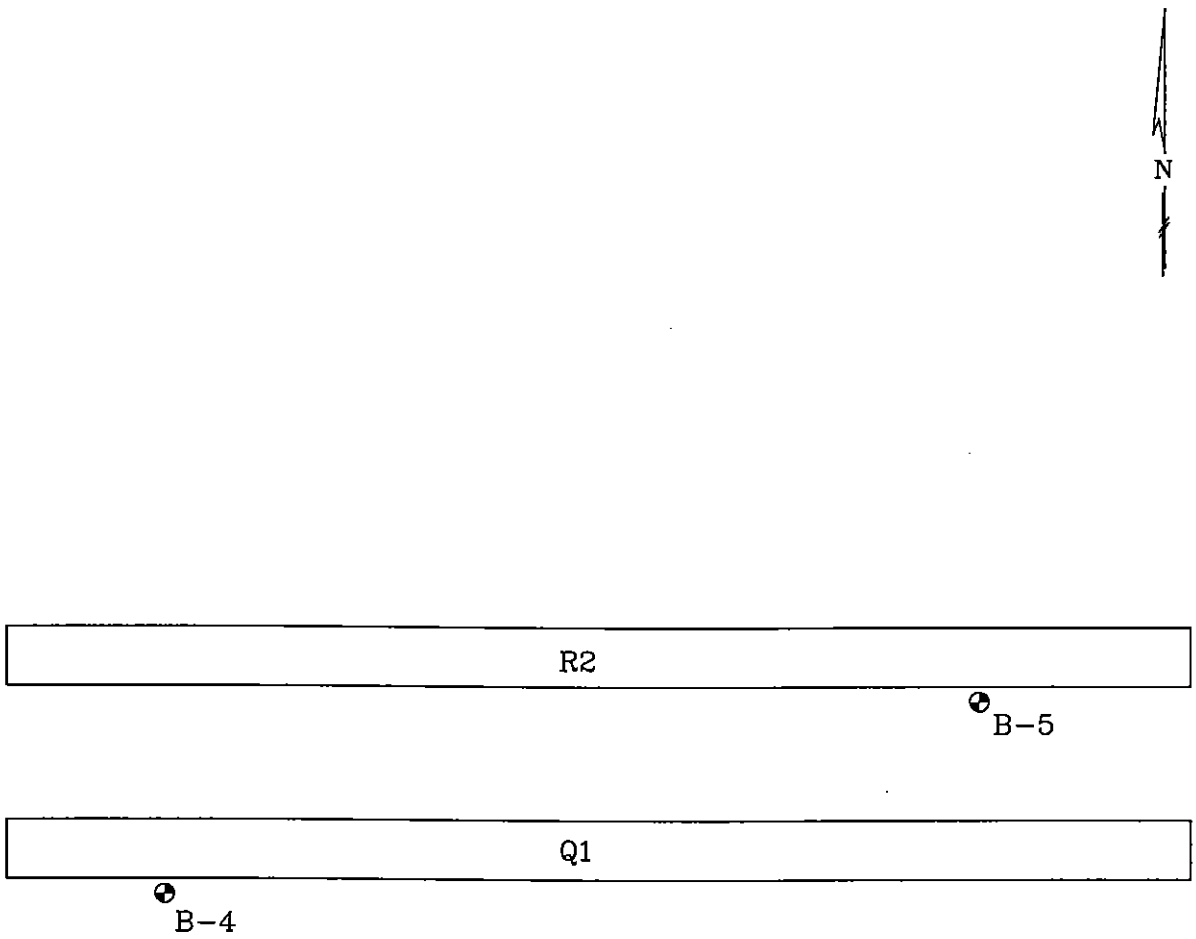
BORING LOCATION DIAGRAM

FIGURE 1: HANGAR MODIFICATIONS
ADDISON AIRPORT
ADDISON, TEXAS

Project No.: 3674

Date: 12/19/03

LENAM 74.fig2



BORING LOCATION DIAGRAM

FIGURE 2: HANGAR MODIFICATIONS
ADDISON AIRPORT
ADDISON, TEXAS

Project No.: 3674

Date: 12/19/03

CLIENT	JOB #	BORING #	SHEET
Town of Addison	3674	B-1	1 OF 1

PROJECT NAME	ARCHITECT-ENGINEER
Hangar Modifications	

SITE LOCATION: Addison Airport

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	RECOVERY (IN)	SPT, N(*) OR TCP BLOWS/IN	DESCRIPTION OF MATERIAL	GRAPHIC PROFILE	MOISTURE CONTENT (%)	HAND PENETROMETER (*) OR UNCONFINED COMPRESSIVE STRENGTH (PSF)	DRY DENSITY (PCF)	LIQUID LIMIT (%)	PLASTIC LIMIT (%)	PLASTICITY INDEX (%)	% PASSING #200 SIEVE	RQD (%)
					ENGLISH UNITS									
					SURFACE ELEVATION									
0	1	ST	12		CLAY (CH), dark brown, trace limestone, very stiff		33.1	*4500						
	2	ST	12		0.0 / 2.0		33.8	*4500		81	32	49		
	3	TCP	12	100/2.25	LIMESTONE, tan, with clay layers									
5	4	TCP	12	100/1.5										
					8.0									
	5	TCP	12	100/0.75	LIMESTONE, gray									
10														
	6	TCP	12	100/0.25										
15					END OF BORING @ 15.0'									
20														
25														
30														

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES IN-SITU THE TRANSITION MAY BE GRADUAL

WATER LEVEL OBSERVATIONS	BORING STARTED 12-09-03	
Groundwater seepage was not observed while advancing, or at the completion of drilling the boring.	BORING COMPLETED 12-09-03	CAVE IN DEPTH ⊗
	RIG B-24 FOREMAN	DRILLING METHOD

CLIENT	JOB #	BORING #	SHEET
Town of Addison	3674	B-2	1 OF 1
PROJECT NAME	ARCHITECT-ENGINEER		
Hangar Modifications			

SITE LOCATION
Addison Airport

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	RECOVERY (IN)	SPT, N(•) OR TCP BLOWS/IN	DESCRIPTION OF MATERIAL ENGLISH UNITS SURFACE ELEVATION	GRAPHIC PROFILE	MOISTURE CONTENT (%)	HAND PENETROMETER (•) OR UNCONFINED COMPRESSIVE STRENGTH (PSF)	DRY DENSITY (PCF)	LIQUID LIMIT (%)	PLASTIC LIMIT (%)	PLASTICITY INDEX (%)	% PASSING #200 SIEVE	RQD (%)
0	1	ST	12		(FILL) CLAY, tan, with limestone fragments		17.9	•9000+						
	2	ST	12		0.0		18.1	•9000+		44	20	24		
	3	ST	12		CLAY (CH), dark brown, trace limestone pieces, very stiff		35.0	•4500						
	4	TCP	12	100/0.75	2.0									
5					LIMESTONE, tan, with clay layers									
					3.0									
	5	TCP	12	100/1.0	LIMESTONE, gray									
10														
	6	TCP	12	100/0.75										
					7.0									
15					END OF BORING @ 13.0'									
20														
25														
30														

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES IN-SITU THE TRANSITION MAY BE GRADUAL

WATER LEVEL OBSERVATIONS	BORING STARTED 12-09-03	
Groundwater seepage was not encountered while advancing, or at the completion of drilling the boring.	BORING COMPLETED 12-09-03	CAVE IN DEPTH •
	RIG B-24 FOREMAN	DRILLING METHOD

CLIENT	JOB #	BORING #	SHEET
Town of Addison	3674	B-3	1 OF 1
PROJECT NAME	ARCHITECT-ENGINEER		
Hangar Modifications			

SITE LOCATION
Addison Airport

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	RECOVERY (IN)	SPT, N(*) OR TCP BLOWS/IN	DESCRIPTION OF MATERIAL ENGLISH UNITS SURFACE ELEVATION	GRAPHIC PROFILE	MOISTURE CONTENT (%)	HAND PENETROMETER (*) OR UNCONFINED COMPRESSIVE STRENGTH (PSF)	DRY DENSITY (PCF)	LIQUID LIMIT (%)	PLASTIC LIMIT (%)	PLASTICITY INDEX (%)	% PASSING #200 SIEVE	RQD (%)
0	1	ST	12		CLAY (CH), dark brown, trace limestone pieces, hard		20.7	*9000+						
	2	ST	12		0.0		31.0	*5000						
	3	ST	12		CLAY (CH), brown, trace limestone pieces, very stiff		27.9	*6500		74	27	47		
	4	ST	12		2.0		27.3	*7500						
5	5	ST	12		CLAY (CH), tan and brown, trace limestone pieces, very stiff		17.1	*5500						
					4.0									
	6	TCP	12	100/1.5	LIMESTONE, tan, with clay layers									
					5.0									
10	7	TCP	12	100/1.0										
					12.0									
	8	TCP	12	100/2.25	LIMESTONE, gray									
15	9	TCP	12	100/0.75										
					END OF BORING @ 17.0'									
20														
25														
30														

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES IN-SITU THE TRANSITION MAY BE GRADUAL

WATER LEVEL OBSERVATIONS	BORING STARTED 12-09-03	
Groundwater seepage was not observed while advancing, or at the completion of drilling the boring.	BORING COMPLETED 12-09-03	CAVE IN DEPTH ⊙
	RIG B-24 FOREMAN JA	DRILLING METHOD

CLIENT	JOB #	BORING #	SHEET
Town of Addison	3674	B-4	1 OF 1
PROJECT NAME	ARCHITECT-ENGINEER		
Hangar Modifications			

SITE LOCATION: Addison Airport

ENGLISH UNITS

SURFACE ELEVATION

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	RECOVERY (IN)	SPT, N(•) OR TCP BLOWS/IN	DESCRIPTION OF MATERIAL	GRAPHIC PROFILE	MOISTURE CONTENT (%)	HAND PENETROMETER (•) OR UNCONFINED COMPRESSIVE STRENGTH (PSF)	DRY DENSITY (PCF)	LIQUID LIMIT (%)	PLASTIC LIMIT (%)	PLASTICITY INDEX (%)	% PASSING #200 SIEVE	RQD (%)
0	1	ST	12		CLAY (CH), dark brown, trace calcareous nodules, very stiff		34.9	•3500						
	2	ST	12				36.9	•4000		83	31	52		
	3	ST	12				36.3	•3000						
	4	ST	12		0.0 / 4.0		33.6	•3500						
5	5	ST	12		CLAY (CH), tan, with limestone pieces, stiff 5.0		25.2	•3000		50	21	29		
	6	TCP	12	100/2.0	LIMESTONE, tan, with clay layers 9.0									
10	7	TCP	12	100/1.25	LIMESTONE, gray									
15	8	TCP	12	100/0.75	END OF BORING @ 15.0'									
20														
25														
30														

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES IN-SITU THE TRANSITION MAY BE GRADUAL

WATER LEVEL OBSERVATIONS	BORING STARTED	12-09-03	
Groundwater seepage was not observed while advancing, or at the completion of drilling the boring.	BORING COMPLETED	12-09-03	CAVE IN DEPTH ⊗
	RIG B-24	FOREMAN JA	DRILLING METHOD

CLIENT	JOB #	BORING #	SHEET
Town of Addison	3674	B-5	1 OF 1
PROJECT NAME	ARCHITECT-ENGINEER		
Hangar Modifications			

SITE LOCATION
Addison Airport

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	RECOVERY (IN)	SPT, N(*) OR TCP BLOWS/IN	DESCRIPTION OF MATERIAL ENGLISH UNITS SURFACE ELEVATION	GRAPHIC PROFILE	MOISTURE CONTENT (%)	HAND PENETROMETER (*) OR UNCONFINED COMPRESSIVE STRENGTH (PSF)	DRY DENSITY (PCF)	LIQUID LIMIT (%)	PLASTIC LIMIT (%)	PLASTICITY INDEX (%)	% PASSING #200 SIEVE	RQD (%)
0	1	ST	12		CLAY (CH), dark brown, with limestone pieces, very stiff 0.0		17.3	*6000						
	2	ST	12		2.0		31.5	*5500		86	32	54		
	3	TCP	12	100/3.0	LIMESTONE, tan, with clay layers									
5					7.0									
	4	TCP	12	100/0.75	LIMESTONE, gray									
10	5	TCP	12	100/0.50										
					END OF BORING @ 12.0'									
15														
20														
25														
30														

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES IN-SITU THE TRANSITION MAY BE GRADUAL

WATER LEVEL OBSERVATIONS	BORING STARTED	12-09-03	
Groundwater seepage was not observed while advancing, or at the completion of drilling the boring.	BORING COMPLETED	12-09-03	CAVE IN DEPTH @
	RIG B-24	FOREMAN JA	DRILLING METHOD

REFERENCE NOTES FOR BORING LOGS

I. Drilling and Sampling Symbols:

SS - Split Spoon Sampler
ST - Shelby Tube Sampler
RC - Rock Core: NX, BX, AX
PM - Pressuremeter
DC - Dutch Cone Penetrometer
TC - Texas Cone Penetrometer

RB - Rock Bit Drilling
BS -Bulk Sample of Cuttings
PA - Power Auger (no sample)
HS - Hollow Stem Auger
WS - Wash Sample

Standard penetration (blows/ft) refers to the blows per foot of a 140 lb. hammer falling 30 inches on a 2 inch O.D. split spoon sampler, as specified in ASTM D-1586. The blow count is commonly referred to as the N-value.

Texas cone penetrometer (blows/in) refers to the penetration of a 3-inch diameter cone after the cone is driven 100 blows with a 140 lb. hammer falling 30 inches. This is a modification of the Texas Department of Transportation test method TEX-132-E that requires a 170 lb. hammer falling 24 inches.

II. Correlation of Penetration Resistances to Soil Properties:

Relative Density-Sands, Silts

SPT-N	Relative Density
0- 3	Very Loose
4- 9	Loose
10-29	Medium Dense
30-49	Dense
50-80	Very Dense

Consistency of Cohesive Soils

Unconfined Compressive Strength. Q_P, psf	Consistency
under 500	Very Soft
500-1,000	Soft
1,000-2,000	Firm
2,000-4,000	Stiff
4,000-8,000	Very Stiff
8,000-16,000	Hard
over 16,000	Very Hard

III. Unified Soil Classification Symbols:

GP- Poorly Graded Gravel
GW-Well Graded Gravel
GM -Silty Gravel
GC - Clayey Gravels
SP - Poorly Graded Sands
SW -Well Graded Sands
SM - Silty Sands
SC - Clayey Sands

ML - Low Plasticity Silts
MH -High Plasticity Silts
CL - Low Plasticity Clays
CH - High Plasticity Clays
OL - Low Plasticity Organics
OH - High Plasticity Organics
CL-ML - Dual Classification (Typical)

IV. Water Level Measurement Symbols:

WL - Water Level
WS - While Sampling
WD - While Drilling
AB – After Boring Completion

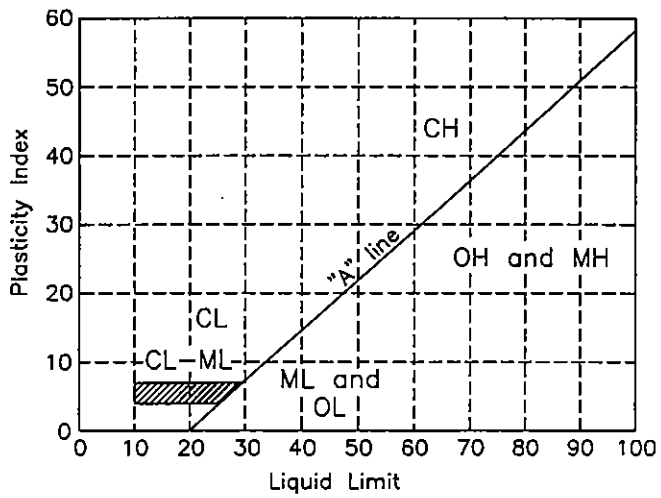
BCR - Before Casing Removal
ACR - After Casing Removal
WCI - Wet Cave In
DCI - Dry Cave In

The water levels are those water levels actually measured in the borehole at the times indicated by the symbol. The measurements are relatively reliable when augering, without adding fluids, in a granular soil. In clays and plastic silts, the accurate determination of water levels may require several days for the water level to stabilize. In such cases, additional methods of measurement are generally applied.

Unified Soil Classification System (ASTM D-2487)

Major Divisions			Group Symbols	Typical Names	Laboratory Classification Criteria		
Coarse-grained Soils (More than half of material is larger than No. 200 sieve size)	*Gravels* (More than half of coarse fraction is larger than No. 4 sieve size)	Clean Gravels (Little or no fines)	GW	Well-graded gravels, gravel-sand mixtures, little or no fines	Determine percentages of sand and gravel from grain-size curve. Depending on percentage of fines (fraction smaller than No. 200 sieve), coarse-grained soils are classified as follows: Less than 5 percent: GW, GP, SW, SP; More than 12 percent: GM, GC, SM, SC; 5 to 12 percent: *Borderline* cases requiring dual symbols[b]	$C_u = \frac{D_{60}}{D_{10}}$ greater than 4; $C_c = \frac{(D_{30})^2}{D_{10} \times D_{60}}$ between 1 and 3	
			GP	Poorly graded gravels, gravel-sand mixtures, little or no fines		Not meeting all gradation requirements for GW	
		Gravels with fines (Appreciable amount of fines)	GM[a] d / u	Silty gravels, gravel-sand-silt mixtures		Atterberg limits below "A" line or P.I. less than 4	Above "A" line with P.I. between 4 and 7 are *borderline* cases requiring use of dual symbols
			GC	Clayey gravels, gravel-sand-clay mixtures		Atterberg limits below "A" line with P.I. greater than 7	
	Sands (More than half of coarse fraction is smaller than No. 4 sieve size)	Clean Sands (Little or no fines)	SW	Well-graded sands, gravelly sands, little or no fines		$C_u = \frac{D_{60}}{D_{10}}$ greater than 6; $C_c = \frac{(D_{30})^2}{D_{10} \times D_{60}}$ between 1 and 3	
			SP	Poorly graded sands, gravelly sands, little or no fines		Not meeting all gradation requirements for SW	
		Sand with fines (Appreciable amount of fines)	SM[a] d / u	Silty sands, sand-silt mixtures		Atterberg limits above "A" line or P.I. less than 4	Limits plotting in hatched zone with P.I. between 4 and 7 are *borderline* cases requiring use of dual symbols
			SC	Clayey sands, sand-clay mixtures		Atterberg limits above "A" line with P.I. greater than 7	
Fine-grained Soils (More than half of material is smaller than No. 200 sieve size)	*Silts and Clays* (Liquid limit less than 50)		ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands, or clayey silts with slight plasticity			
			CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays			
			OL	Organic silts and organic silty clays of low plasticity			
	Silts and Clays (Liquid limit greater than 50)		MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts			
			CH	Inorganic clays of high plasticity, fat clays			
			OH	Organic clays of medium to high plasticity, organic silts			
	Highly Organic Soils		Pt	Peat and other highly organic soils			

Plasticity Chart



[a] Division of GM and SM groups into subdivisions of d and u are for roads and airfields only. Subdivision is based on Atterberg limits; suffix d used when L.L. is 28 or less and the P.I. is 6 or less; the suffix u is used when L.L. is greater than 28.

[b] Borderline classifications, used for soils possessing characteristics of two groups, are designated by combinations of group symbols. For example: GW–GC, well-graded gravel-sand mixture with clay binder.

SWELL TEST RESULTS
HANGAR IMPROVEMENTS
ADDISON AIRPORT
ADDISON, TEXAS

ECS JOB NO. 19-3674

BORING	SAMPLE	DEPTH (ft)	LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	INITIAL MOISTURE (%)	FINAL MOISTURE (%)	LOAD (psf)	% SWELL
B-1	2	1-2	81	32	49	33.8	34.6	125	1.5
B-3	3	2-3	74	27	47	27.9	29.4	250	1.2
B-4	5	4-5	50	21	29	25.2	27.3	500	0.0
B-5	2	1-2	86	32	54	31.5	33.4	125	2.0

ENGINEERING CONSULTING SERVICES, LTD.
4950 Keller Springs Road, Suite 480
Addison, Texas 75001
(972) 392-3222

ECS, LTD.

PLEASE REMIT TO:
ENGINEERING CONSULTING SERVICES, LTD.
14026 THUNDERBOLT PLACE, SUITE 100
CHANTILLY, VIRGINIA 20151-3232

Invoice Number
19.3554
Always Refer To Above Number

CUSTOMER CODE 332305

INVOICE DATE 12/24/03

"T" SPECIAL INSTRUCTIONS
Hangar Modifications, Soils Report
Addison Airport
Addison, Texas

TO:

Mr. Jim Pierce
Town of Addison
P.O. Box 9010
Addison, TX 75001

PLEASE DETACH AND RETURN DUPLICATE COPY WITH YOUR REMITTANCE

CUSTOMER ORDER	OFFICE	JOB NO.	BILLED THRU DATE	TERMS	
		3674	12/23/03	UPON RECEIPT	19-300

Description			Unit Price	Extension	Total	
For services provided by ECS, Ltd. through 12/23/03						
Department: 001 - Drilling						
Field Exploration Services	1.00	LS	$755.00	$755.00		001
Subtotal:					$755.00	
Department: 002 - Soils Lab						
Laboratory Testing Services	1.00	LS	$588.00	$588.00		002
Subtotal:					$588.00	
Department: 003 - Engineering						
Engineering Services	1.00	LS	$657.00	$657.00		003
Subtotal:					$657.00	
* Invoice Total - Please Remit =>					$2000.00	

If you have any questions regarding this invoice, please contact Chris Eddy at 972-392-3222

*** ECS USE ONLY ***
$755.00 - Dept. 001
$588.00 - Dept. 002
$657.00 - Dept. 003

BUDGET SUMMARY

Budget Estimate:	$2000.00
Previous Invoices:	$0.00
Amt. This Invoice:	$2000.00
Amt. Remaining:	$0.00

OK to Pay
1-7-04

A FINANCE CHARGE OF 1.5% PER MONTH (18% ANNUALLY) WILL BE ADDED TO ALL INVOICES UNPAID AFTER 30 DAYS.

Client Copy

ENGINEERING CONSULTING SERVICES, LTD.
4950 Keller Springs Road, Suite 480
Addison, TX 75001
(972) 392-3222
(FAX) 392-0102

Fax Cover Sheet

Date: November 20, 2003

# of Pages (incl. cover) 5

To:

Mr. Jim Pierce
Town of Addison
P.O. Box 9010
Addison, TX 75001

Phone: (972) 450-2860 **Fax:** (972) 450-2837

From: Chris Eddy

Re: Copies of Insurance Certificates

Originals to Follow Via:

☐ Mail ☐ FedEx/UPS ☐ Courier ☒ N/A

Remarks: ☐ Urgent ☐ Reply ASAP ☐ For Your Review ☐ Please Comment

ACORD™ CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 11/06/03

PRODUCER
CBIZ P&C Severna Park
645 Baltimore Annapolis Boulevard
P.O. Box 959
Severna Park, MD 21146-0959

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.

INSURED
Engineering Consulting Services, Ltd
4950 Keller Springs Road, Suite 480
Addison, TX 75001
Attn: Kathy Settimi

INSURERS AFFORDING COVERAGE	NAIC #
INSURER A: Continental Casualty Co.	
INSURER B:	
INSURER C:	
INSURER D:	
INSURER E:	

COVERAGES

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	ADD'L INSRD	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS	
		GENERAL LIABILITY				EACH OCCURRENCE	$
		COMMERCIAL GENERAL LIABILITY				DAMAGE TO RENTED PREMISES (Ea occurrence)	$
		CLAIMS MADE ☐ OCCUR				MED EXP (Any one person)	$
						PERSONAL & ADV INJURY	$
		GEN'L AGGREGATE LIMIT APPLIES PER:				GENERAL AGGREGATE	$
		POLICY ☐ PRO-JECT ☐ LOC				PRODUCTS - COMP/OP AGG	$
		AUTOMOBILE LIABILITY				COMBINED SINGLE LIMIT (Ea accident)	$
		ANY AUTO					
		ALL OWNED AUTOS				BODILY INJURY (Per person)	$
		SCHEDULED AUTOS					
		HIRED AUTOS				BODILY INJURY (Per accident)	$
		NON-OWNED AUTOS					
						PROPERTY DAMAGE (Per accident)	$
		GARAGE LIABILITY				AUTO ONLY - EA ACCIDENT	$
		ANY AUTO				OTHER THAN AUTO ONLY: EA ACC	$
						AGG	$
		EXCESS/UMBRELLA LIABILITY				EACH OCCURRENCE	$
		OCCUR ☐ CLAIMS MADE				AGGREGATE	$
							$
		DEDUCTIBLE					$
		RETENTION $					$
		WORKERS COMPENSATION AND EMPLOYERS' LIABILITY				WC STATU-TORY LIMITS ☐ OTH-ER	
		ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED?				E.L. EACH ACCIDENT	$
		If yes, describe under SPECIAL PROVISIONS below				E.L. DISEASE - EA EMPLOYEE	$
						E.L. DISEASE - POLICY LIMIT	$
A		OTHER Professional Liability-Claims Made Policy	AEA254030538	11/01/03	11/01/04	1,000,000 per claim 2,000,000 annual aggr 250,000 deductible	

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES / EXCLUSIONS ADDED BY ENDORSEMENT / SPECIAL PROVISIONS
Professional Liability is a claims-made policy subject to a $250,000 deductible

CERTIFICATE HOLDER

Specimen Certificate

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO DO SO SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE

IMPORTANT

If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

DISCLAIMER

The Certificate of Insurance on the reverse side of this form does not constitute a contract between the issuing insurer(s), authorized representative or producer, and the certificate holder, nor does it affirmatively or negatively amend, extend or alter the coverage afforded by the policies listed thereon.

Client#: 2 ENGICON

ACORD™ CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 11/17/03

PRODUCER
Andersen Insurance Group
5870 Trinity Parkway
Suite 130
Centreville, VA 20120

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.

INSURED
Engineering Consulting Services, Ltd.
14028 Thunderbolt Place
Suite 100
Chantilly, VA 20151

INSURERS AFFORDING COVERAGE	NAIC #
INSURER A: Twin City Fire Insurance	29459
INSURER B: Hartford of the Midwest	37478
INSURER C: Federal Insurance Company	20281
INSURER D:	
INSURER E:	

COVERAGES

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN. THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	ADD'L INSRD	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS	
A		GENERAL LIABILITY [X] COMMERCIAL GENERAL LIABILITY [ ] CLAIMS MADE [X] OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: [ ] POLICY [X] PRO-JECT [ ] LOC	42UUNUD0561	04/01/03	04/01/04	EACH OCCURRENCE	$1,000,000
						DAMAGE TO RENTED PREMISES (Ea occurrence)	$300,000
						MED EXP (Any one person)	$10,000
						PERSONAL & ADV INJURY	$1,000,000
						GENERAL AGGREGATE	$2,000,000
						PRODUCTS - COMP/OP AGG	$2,000,000
A		AUTOMOBILE LIABILITY	42UENUD0613	04/01/03	04/01/04	COMBINED SINGLE LIMIT (Ea accident)	$1,000,000
B		[X] ANY AUTO	42UENUD0710	04/01/03	04/01/04		
		[ ] ALL OWNED AUTOS				BODILY INJURY (Per person)	$
		[ ] SCHEDULED AUTOS					
		[X] HIRED AUTOS				BODILY INJURY (Per accident)	$
		[X] NON-OWNED AUTOS					
						PROPERTY DAMAGE (Per accident)	$
		GARAGE LIABILITY				AUTO ONLY - EA ACCIDENT	$
		[ ] ANY AUTO				OTHER THAN AUTO ONLY: EA ACC	$
						AGG	$
C		EXCESS/UMBRELLA LIABILITY	79791316	04/01/03	04/01/04	EACH OCCURRENCE	$20,000,000
		[X] OCCUR [ ] CLAIMS MADE				AGGREGATE	$20,000,000
		[ ] DEDUCTIBLE					$
		[X] RETENTION $ 0					$
							$
B		WORKERS COMPENSATION AND EMPLOYERS' LIABILITY	42WNMF4752	12/01/03	12/01/04	[X] WC STATU-TORY LIMITS [ ] OTH-ER	
		ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED?				E.L. EACH ACCIDENT	$1,000,000
		If yes, describe under SPECIAL PROVISIONS below				E.L. DISEASE - EA EMPLOYEE	$1,000,000
						E.L. DISEASE - POLICY LIMIT	$1,000,000
		OTHER					

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES / EXCLUSIONS ADDED BY ENDORSEMENT / SPECIAL PROVISIONS

RE: Verification of coverage

CERTIFICATE HOLDER

For Bidding Purposes

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL ENDEAVOR TO MAIL 15 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO DO SO SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE

IMPORTANT

If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

DISCLAIMER

The Certificate of Insurance on the reverse side of this form does not constitute a contract between the issuing insurer(s), authorized representative or producer, and the certificate holder, nor does it affirmatively or negatively amend, extend or alter the coverage afforded by the policies listed thereon.

GUNNIN CONSULTING ENGINEERS, INC

Mailing Address:
P. O. Box 820457
Dallas, Texas 75382-0457
Phone: 214-528-3796
e-mail: gunningcei@aol.com

Delivery Address:
3303 Lee Parkway, Suite 325
Dallas, Texas 75219
FAX: 214-522-6796

FACSIMILE COVER SHEET

DATE: November 18, 2003

TO: Mr. James C. Pierce, Jr., PE, Town of Addison FAX NO: 972-450-2837

FROM: Bill L. Gunnin

JOB NAME: Tee-Hanger Doors
Addison Airport

JOB NUMBER: 451

TOTAL NUMBER OF PAGES, INCLUDING THIS SHEET: 3

HARD COPY OF TRANSMISSION TO FOLLOW? YES: NO: X

PLEASE CALL 214-528-3796 IF COMPLETE TRANSMISSION IS NOT RECEIVED.

ACORD™ CERTIFICATE OF LIABILITY INSURANCE

DATE 11/18/2003

PRODUCER
McLaughlin Brunson Insurance Agency
9535 Forest Lane
Suite 118
Dallas TX 75243

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.

INSURERS AFFORDING COVERAGE

INSURED
Gunnin Consulting Engineers, Inc.
P. O. Box 820457
Dallas TX 75382

INSURER A: Lumbermans Mutual Casualty Company (Kemper)
INSURER B:
INSURER C:
INSURER D:
INSURER E:

COVERAGES

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

SR TR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS	
	GENERAL LIABILITY				EACH OCCURRENCE	$
	☐ COMMERCIAL GENERAL LIABILITY				FIRE DAMAGE (Any one fire)	$
	☐ CLAIMS MADE ☐ OCCUR				MED EXP (Any one person)	$
					PERSONAL & ADV INJURY	$
					GENERAL AGGREGATE	$
	GEN'L AGGREGATE LIMIT APPLIES PER:				PRODUCTS - COMP/OP AGG	$
	☐ POLICY ☐ PRO-JECT ☐ LOC					
	AUTOMOBILE LIABILITY				COMBINED SINGLE LIMIT (Ea accident)	$
	☐ ANY AUTO					
	☐ ALL OWNED AUTOS				BODILY INJURY (Per person)	$
	☐ SCHEDULED AUTOS					
	☐ HIRED AUTOS				BODILY INJURY (Per accident)	$
	☐ NON-OWNED AUTOS					
					PROPERTY DAMAGE (Per accident)	$
	GARAGE LIABILITY				AUTO ONLY - EA ACCIDENT	$
	☐ ANY AUTO				OTHER THAN AUTO ONLY: EA ACC	$
					AGG	$
	EXCESS LIABILITY				EACH OCCURRENCE	$
	☐ OCCUR ☐ CLAIMS MADE				AGGREGATE	$
						$
	☐ DEDUCTIBLE					$
	☐ RETENTION $					$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY				☐ WC STATU-TORY LIMITS ☐ OTH-ER	
					E.L. EACH ACCIDENT	$
					E.L. DISEASE - EA EMPLOYEE	$
					E.L. DISEASE - POLICY LIMIT	$
	OTHER Professional	QL019007-00	01/10/2003	01/10/2004	$ 500,000 per claim/annl aggrgt	

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/EXCLUSIONS ADDED BY ENDORSEMENT/SPECIAL PROVISIONS

E: Addison Airport "T" Hangars. The claims made professional liability coverage is the total aggregate limit for all claims resented within the annual policy period and is subject to a deductible.
eference Job: Addison Banner Cable Support

CERTIFICATE HOLDER ☐ ADDITIONAL INSURED; INSURER LETTER: ____

Town of Addison, Public Works/Engineering
P.O. Box 9010
Addison TX 75001-9010

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL ENDEAVOR TO MAIL 10 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO DO SO SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE Patricia P. McLaughlin

TOWN OF ADDISON

LETTER OF TRANSMITTAL

Public Works / Engineering
16801 Westgrove • P.O. Box 9010
Addison, Texas 75001-9010
Telephone: (972) 450-2871 • Fax: (972) 450-2837

DATE	11-18-03	JOB NO.
ATTENTION		
RE:	Airport T Hangars	
	Door Support Repairs	
	Geotechnical Investigation	

TO Carmen Moran
Town Hall

GENTLEMAN:

WE ARE SENDING YOU ☒ Attached ☐ Under separate cover via _____ the following items:

☐ Shop Drawings ☐ Prints ☐ Plans ☐ Samples ☐ Specifications

☐ Copy of letter ☐ Change order ☐ _____

COPIES	DATE	NO.	DESCRIPTION
1			Agreement for Subsurface Exploration Services ECS Proposal 19-1450-GP

THESE ARE TRANSMITTED as checked below:

☐ For approval ☐ Approved as submitted ☐ Resubmit _____ copies for approval

☒ For your use ☐ Approved as noted ☐ Submit _____ copies for distribution

☐ As requested ☐ Returned for corrections ☐ Return _____ corrected prints

☐ For review and comment ☐ _____

☐ FOR BIDS DUE _____ 19_____ ☐ PRINTS RETURNED AFTER LOAN TO US

REMARKS _____

COPY TO _____

SIGNED: _____

If enclosures are not as noted, please notify us at once.

ENGINEERING CONSULTING SERVICES, LTD.
Geotechnical • Construction Materials • Environmental

November 7, 2003

Mr. Jim Pierce
Town of Addison
P.O. Box 9010
Addison, Texas 75001

Reference: Proposal for Subsurface Exploration Services
Hangar Modifications
Addison Airport
Addison, Texas
ECS Proposal No. 19-1450-GP

Dear Mr. Pierce:

As requested, Engineering Consulting Services, Ltd. (ECS, Ltd.) is pleased to present the following proposal for providing subsurface exploration services and geotechnical engineering analysis of the proposed site for the above referenced project. We understand the project consists of modifying the hangar doors on five hangar structures at the referenced site.

Scope of Services

If authorized, our integrated services will include drilling of soil borings by drill crews under our direct supervision, laboratory testing of representative soil samples for pertinent engineering properties, and preparation of an engineering report.

As requested, five borings will be drilled in the building area to a depth of about 20 feet below existing grade or 5 feet into unweathered rock, whichever is shallower.

We understand the drilling operations will be performed near existing structure. We will attempt to minimize the amount of disturbance to landscaping and flatwork (i.e. sidewalks, driveways) while accessing the boring locations and during the drilling operations. However, rutting of the lawn areas and cracking of flatwork may occur in areas the drill rig will travel. ECS, Ltd. and its representatives will not be responsible for repairing or replacing any landscaping or flatwork that is damaged while accessing the boring locations or during the drilling operation.

Upon completion of drilling operations, the samples will be subjected to laboratory tests (that can include moisture content, Atterberg limits, unconfined compression, and swell tests) followed by the preparation of a written engineering report.

The engineering report will include the following items:

a. Information on site conditions including surface drainage, geologic information and special site features.

b. Description of the field exploration and laboratory tests performed.

c. Final logs of the soil borings and records of the field exploration in accordance with the standard practice of geotechnical engineers. A site location plan will be included, and the results of the laboratory tests will be plotted on the final boring logs or included on a separate test report sheet.

d. Geotechnical design parameters for footing foundations (if appropriate), and drilled shafts (more commonly used in this formation), and estimates of predicted foundation movement.

e. Compaction requirements and suitable material guidelines for grading the site.

Fees and Schedule

The lump sum cost of the services outlined above will be $2,000.00. This lump sum cost includes 3 copies of the engineering report.

We are prepared to mobilize onto the site within 3 to 4 working days after authorization to proceed, weather permitting. We anticipate that drilling operations will require approximately 1 working day, and that laboratory testing after drilling is completed will require approximately 4 working days. Therefore, for time budget purposes, the total scope of work could require as much as 2 to 3 weeks from initial authorization through final report submission.

If other items are required because of unexpected field conditions (i.e. site clearing, wet site conditions, etc.) encountered in our field exploration program, or because of a request for additional services, they would be invoiced in accordance with our current Fee Schedule. Before modifying or expanding the extent of our exploration program, you would be informed of our intentions for both your review and authorization.

If requested, we can review plans and specifications for the referenced project to determine general compliance with the geotechnical engineers recommendations. We can also provide additional consultation and engineering analysis for you on other problems related to performance of the structure and subsurface conditions. These services can be provided at the unit rates outlined in the attached fee schedule, and would be in addition to the fee outlined above.

Closing

Attached to this letter, and an integral part of our proposal, are our "General Conditions of Service". These conditions represent the current recommendations of the Association of Soil and Foundation Engineers, the Consulting Engineers' Council, and the Geotechnical Division of the American Society of Civil Engineers.

Our insurance carrier requires that we receive written authorization prior to initiation of work, and a signed contract prior to the release of any work product. This letter is the agreement for our services. Your acceptance of this proposal may be indicated by signing and returning the enclosed copy to us. We are pleased to have this opportunity to offer our services and look forward to working with you on the project.

Respectfully,

ENGINEERING CONSULTING SERVICES, LTD.

Christopher W. Eddy, P.E.
Geotechnical Department Manager

Mark L. McKay, P.E.
Principal Engineer

Enclosures: General Conditions of Service

Engineering Consulting Services, Ltd.

PROPOSAL ACCEPTANCE

Proposal No.: 19-1450-GP
Scope of Work: Subsurface Exploration Services
Location: Hangar Modifications
Addison Airport
Addison, Texas

Client Signature: _____ Date: 11-18-03

Please complete this page and return one copy of this proposal to ECS, Ltd. to indicate acceptance of this proposal and to initiate work on the above-referenced project. The Client's signature above also indicates that he/she has read or has had the opportunity to read the accompanying General Conditions of Service and agrees to be bound by such General Conditions of Service.

BILLING INFORMATION

(Please Print or Type)

Name of Client: Town of Addison
Name of Contact Person: Jim Pierce
Telephone No. Of Contact Person: 972-450-2879

Party Responsible for Payment: Town of Addison
Company Name:
Person/Title
Department:
Billing Address: P.O. Box 9010
Addison, TX
75001-9010

Telephone Number:
Fax Number: 972-450-2837

Client Project/Account Number: T Hangar Door Support Repairs
Special Conditions for Invoice: Attn Jim Pierce
Submittal and Approval

ENGINEERING CONSULTING SERVICES, LTD.

GENERAL CONDITIONS OF SERVICE

These General Conditions of Service, including any Supplemental Conditions of Service which are or may become applicable to the services to be provided in the Proposal, are incorporated by reference into the foregoing Proposal and shall be part of the Agreement under which services are to be performed by ECS for Client. For the purposes of these General Conditions, "Agreement" shall mean the Proposal, these General Conditions, Supplemental Conditions (if any) and Fee Schedule.

SECTION 1: SCOPE OF WORK

a. The scope of work shall include all services provided by ECS, in its discretion, which are reasonably necessary and appropriate for the effective and prompt fulfillment of ECS's obligations under the Agreement, including these General Conditions and any supplemental conditions incorporated herein; it being expressly provided that all such services provided shall be invoiced and paid for in accordance with Section 3 below.

b. It is understood that the scope of work and time schedule defined in the Proposal are based on the information provided by Client. If this information is incomplete or inaccurate, or if unexpected conditions are discovered, the scope of work may change, even as the work is in progress. If the Client requests additional services or when a change in the scope of work or time schedule is necessary, a written amendment to the Agreement shall be executed by the Client and ECS as soon as is practicable and consent to such amendments shall not be unreasonably withheld.

SECTION 2: CLIENT DISCLOSURES

a. The Client shall notify ECS of any known or suspected hazardous substances which are or may be related to the services to be provided. Such hazardous substances shall include but not be limited to any substance which poses or may pose a present or potential hazard to human health or the environment whether contained in a product, material, by-product, waste or sample and whether it exists in a solid, liquid, semi-solid or gaseous form. This duty to notify ECS of any such hazardous substances shall also apply to any of the foregoing substances which ECS may be provided or obtain or which exist or may exist on or near any premises upon which services are to be performed by employees, agents or contractors of ECS. The Client shall notify ECS of all such hazardous substances of which it has knowledge or which it reasonably suspects exist upon entering into this Agreement. Thereafter, disclosure and notification to ECS shall be required immediately upon discovery of any other hazardous substances or upon discovery of increased concentrations of previously disclosed substances where the increased concentration makes them hazardous.

b. Following any disclosure as set forth in the preceding paragraph, or if any hazardous substances are discovered or reasonably suspected by ECS after its services are undertaken, ECS may, at its discretion, discontinue its services. Whether or not ECS discontinues its services in whole or in part, the Client and ECS agree that the scope of services, schedule and the estimated fee or budget shall be adjusted in accordance with the disclosed information or condition, and ECS may, at its discretion, terminate the Agreement. In the event that the Agreement is terminated pursuant to this Section, the Client shall pay ECS for services and all termination expenses as set forth in Section 11 of this Agreement.

c. If all or any part of the scope of work is to be performed in the general vicinity of a facility or in an area where dust, fumes, gas, noise, vibrations or other particulate or nonparticulate matter is in the atmosphere where it raises a potential health hazard or nuisance to those working in the area of such conditions, Client shall notify ECS of such condition, potential health hazard or nuisance and thereafter ECS shall take all necessary and reasonable measures to protect its employees against such possible health hazards or nuisances. The reasonable direct cost of such measures shall be born by the Client.

SECTION 3: BILLINGS AND PAYMENTS

a. Unless otherwise specifically provided in the Proposal or Agreement, billings will be based on actual units used at the standard rates shown on the attached fee schedules, travel cost and other expenses. Such billings shall not be limited by the estimates of total, incremental or phase project costs provided for information purposes in the Proposal. Client recognizes that time is of the essence with respect of payment of ECS's invoices, and that timely payment is a material part of the consideration of this Agreement. Client shall pay ECS for services performed in U.S. funds drawn upon U.S. banks and in accordance with the rates and charges set forth herein. Invoices will be submitted by ECS from time to time, but no more frequently than every two weeks, and shall be due and payable upon receipt. If Client objects to all or any portion of an invoice, Client shall nevertheless timely pay the full amount of such invoice and Client shall notify ECS within fourteen (14) calendar days of the invoice date of the cause of disagreement and the portion of the invoice in dispute. Thereafter, ECS and the Client shall make good faith effort to resolve such dispute.

b. Client shall pay an additional charge of one-and-one-half (1.5) percent (or the maximum percentage allowed by law, whichever is lower) of the invoiced amount per month for any payment received by ECS more than thirty (30) calendar days from the date of the invoice, excepting any portion of the invoiced amount in dispute and resolved in favor of Client. Payment thereafter shall first be applied to accrued interest and then to the principal unpaid amount. Payment of invoices is in no case subject to unilateral discounting or set-offs by Client.

c. Application of the percentage rate indicated above as a consequence of Client's late payments does not constitute any willingness on ECS's part to finance Client's operation, and no such willingness should be inferred. If Client fails to pay invoiced amounts within thirty (30) calendar days of the date of the invoice, ECS may at any time, without waiving any other claim against Client and without thereby incurring any liability to Client, suspend or terminate this Agreement. Termination shall not relieve Client of its obligation to pay amounts incurred up to termination.

d. The Client's obligation to pay for the services performed under this Agreement is in no way contingent upon Client's ability to obtain financing, zoning, approval of governmental or regulatory agencies, final adjudication of a lawsuit in which ECS is not involved, or upon Client's successful completion of the project. No deduction shall be made from any invoice on account of penalty, liquidated damages or other sums withheld from payments to ECS. It is agreed that all expenses incurred by ECS in enforcing the Agreement or in obtaining liens, obtaining judgments or collecting any delinquent amounts due, including reasonable attorney's fees shall be recoverable from the Client.

e. The fees quoted in this contract shall remain valid for a period of twelve (12) months from the date of contract. Thereafter, they shall be adjusted in accordance with the Average Consumer Price Index (CPI) for the last twelve (12) months.

SECTION 4: RIGHT OF ENTRY

a. Client hereby grants ECS and its subcontractors or agents the right to enter from time to time property owned by Client and/or other(s) in order for ECS to fulfill the scope of services included hereunder. Client understands that use of exploration equipment may cause some damage, the correction of which is not part of this Agreement. Client also understands that the discovery of certain hazardous conditions and/or taking preventive measures relative to these conditions may result in a reduction of the Property's value. Accordingly, Client waives any claim against ECS and its subcontractors or agents, and agrees to defend, indemnify and hold ECS harmless from any claim or liability for injury or loss allegedly arising from procedures associated with subsurface exploration activities or discovery of hazardous materials or suspected hazardous materials. In addition, Client agrees to compensate ECS for any time spent or expenses incurred by ECS in defense of any such claim with compensation to be based upon ECS's prevailing fee schedule and expense reimbursement policy.

b. ECS shall not be liable for damage or injury from damage to subterranean structures (pipes, tanks, cables, or other utilities, etc.) which are not called to ECS's attention in writing and correctly shown on the diagram(s) furnished by Client to ECS.

SECTION 5: SAMPLES

a. Soil, rock, water and/or other samples obtained from the Project site are the property of Client. ECS shall preserve such samples for no longer than sixty (60) calendar days after the issuance of any document that includes the data obtained from them, unless other arrangements are mutually agreed upon in writing. Should any of these samples be contaminated by hazardous substances or suspected hazardous substances, it is Client's responsibility to select and arrange for lawful disposal procedures, that is, procedures which encompass removing the contaminated samples from ECS's custody and transporting them to a disposal site. Client is advised that, in all cases, prudence and good judgment should be applied in selecting and arranging for lawful disposal procedures.

b. Due to the risks to which ECS is exposed, Client agrees to waive any claim against ECS, and to defend, indemnify and hold ECS harmless from any claim or liability for injury or loss arising from containing, labeling, transporting, testing, storing, or other handling of contaminated samples. Client also agrees to compensate ECS for any time spent and expenses incurred by ECS in defense of any such claim, with such compensation to be based upon ECS's prevailing fee schedule and expense reimbursement policy.

SECTION 6: REPORTS AND OWNERSHIP OF DOCUMENTS

a. ECS shall furnish three (3) copies of each report to Client. Additional copies shall be furnished at the rates specified in the fee schedule. With the exception of ECS Reports to Client, all documents, including original boring logs, field data, field notes, laboratory test data, calculations and estimates are and remain the property of ECS. Client agrees that all reports and other work furnished to the Client not paid for in full will be returned to ECS upon demand and will not be used for design, construction, permits or licensing.

SECTION 7: STANDARD OF CARE

a. Services performed by ECS under this Agreement will be conducted in a manner consistent with that level of care and skill ordinarily exercised by members of the Engineering profession currently practicing in the same locality under similar conditions. No other representation, express or implied, and no warranty or guarantee is included or intended in this Agreement, or in any report, opinion, document or otherwise.

b. Any exploration, testing, surveys and analysis associated with the work will be performed by ECS for the Client's sole use to fulfill the purpose of this Agreement and ECS is not responsible for interpretation by others of the information developed. The Client recognizes that subsurface conditions beneath the Project site may vary from those encountered in borings, surveys or explorations and the information and recommendations developed by ECS are based solely on the information available from such borings, surveys and explorations.

SECTION 8: LIMITATION OF PROFESSIONAL LIABILITY

a. Client agrees to limit ECS's liability to Client and all construction contractors arising from ECS's professional acts, errors or omissions in performing this Agreement, such that the total aggregate liability of ECS to all those named shall not exceed $50,000 or total fee for the services rendered on this project, whichever is greater. Client further agrees to require of the Client's General Contractor and its subcontractors an identical limitation of ECS's liability for damages that may be suffered by the contractor or the subcontractors arising from professional acts, errors or omissions of ECS.

b. Documents, including but not limited to, technical reports, original boring logs, field data, field notes, laboratory test data, calculations, and estimates furnished to the Client or its agents pursuant to this Agreement are not intended or represented to be suitable for reuse by the Client or others on extensions of the Project or on any other project. Any reuse without ECS's written consent will be at Client's sole risk and without liability to ECS or to ECS's contractor(s) and Client shall indemnify and hold harmless ECS and ECS's contractor(s) from all claims, damages, losses and expenses including attorney's fees arising out of or resulting therefrom.

c. Under no circumstances shall ECS be liable for extra work or other consequences due to changed conditions or for costs related to failure of the construction contractor or materialmen or service providers to install work in accordance with the plans and specifications.

SECTION 9: LIABILITY INSURANCE

a. ECS represents that it and its agents, and consultants employed by it, is and are protected by Workers Compensation insurance and that ECS has coverage under liability insurance policies which ECS deems reasonable and adequate. ECS shall furnish certificates of insurance upon request. ECS shall not be responsible for bodily injury and property damage or losses arising directly or indirectly, in whole or in part, from acts by the Client, its employees, agents, staff, consultants or subcontractors employed by it or by any other person or combination of persons. The Client agrees to limit the liability of ECS to the limits of ECS's insurance. The Client is responsible for requesting specific inclusions or limits of coverage that are not present in ECS insurance, the cost of such inclusions or coverage increases, if available, to be at the expense of the Client.

SECTION 10: ARBITRATION OF DISPUTES

a. All claims, disputes or controversies arising out of, or in relation to the interpretation, application or enforcement of this Agreement shall be decided through arbitration, as adopted and described by the then most current rules of the American Arbitration Association. The parties further agree that Client will require, as a condition for participation in the project and their Agreement to perform labor or services, that all Contractors, Subcontractors, Subsubcontractors and Materialmen, whose portion of the work amounts to five thousand dollars ($5,000) or more, and their insurers and sureties, shall agree to this procedure.

SECTION 11: TERMINATION

a. Client or ECS may terminate this Agreement for breach of this Agreement, or for any other reasons which may arise. In the event of termination, the party effecting termination shall so notify the other party, and termination will become effective fourteen (14) calendar days after receipt of the termination notice. Irrespective of which party shall effect termination or the cause therefore, ECS shall promptly render to Client a final invoice and Client shall immediately remunerate ECS for services rendered and costs incurred, in accordance with ECS's prevailing fee schedule and expense reimbursement policy. Services shall include those rendered up to the time of termination, as well as those associated with termination itself, such as demobilizing, modifying schedules and reassigning personnel. Upon such termination, Client and ECS shall deliver to each other all reports and documents pertaining to services performed up to termination.

SECTION 12: SEVERABILITY

a. Any provision of this Agreement later held to violate a law or regulation shall be deemed void, and all remaining provisions shall continue in force.

SECTION 13: TITLES

a. The titles used in this Agreement are for general reference only and are not part of the Agreement. Parties to this Agreement are advised to read each provision and rely on the guidance of legal counsel as necessary to help assure a complete understanding of all provisions and the obligations imposed through acceptance.

SECTION 14: SURVIVAL

a. All obligations arising prior to the termination of this Agreement and all provisions of this Agreement allocating responsibility or liability between the Client and ECS shall survive the completion of services and the termination of this Agreement.

SECTION 15: ASSIGNS

a. Neither the Client nor ECS may delegate, assign, sublet or transfer its duties, responsibilities or interests in this Agreement without the written consent of the other party.

SECTION 16: CHOICE OF LAW

a. This Agreement shall be interpreted according to the laws of the State in which the Project is located (but not including its choice of law rules.

END OF GENERAL CONDITIONS

ENGINEERING CONSULTING SERVICES, LTD.
Geotechnical • Construction Materials • Environmental
4950 Keller Springs Road, Suite 480, Addison, Texas 75001
972.392.3222 • FAX 972.392.0102

GEOTECHNICAL ENGINEERING SERVICES
2003 SCHEDULE OF FEES

FIELD EXPLORATION AND TESTING	UNIT RATE
Staff to Layout Test Borings or Test Pits	$55.00/hour
Staff to Direct Field Operation	$75.00/hour
Mobilization of Crew & Truck Mounted Drill Rig	$2.30/mile (min. of $175)
Mobilization of Crew & ATV-Mounted Drill Rig	Quoted Upon Request
Drilling and Sampling (0'-25')	$9.25/ft
Drilling and Sampling (25'-50')	$10.50/ft
Hard Drilling Surcharge	$6.00/ft
Rock Coring	$20.00/ft
Coring Setup	$125.00/boring
Minimum Drilling Charge	$550.00/ls
Monitoring Well Installation (1.25" pipe)	$6.00 to $7.00/ft
Monitoring Well Installation (2.5" pipe)	$7.00 to $8.00/ft
Monitoring Well Protective Cover	$125.00 to $135.00/well

SITE CLEARING OR TEST PITS	
Mobilization of Operator and Backhoe	Cost + 15%
Mobilization of Operator and Tracked Loader	Cost + 15%
Operator to Perform Clearing	Cost + 15%
Site Clearing with Chainsaw	$75.00/hour per person
Operator to Excavate Test Pits	Cost + 15%
Project Engineer to Log Test Pits	$95.00/hour
Hand Auger Drilling	$75.00/hour

SPECIALTY TESTING	
Mobilization of Pressuremeter Equipment	$1500.00
Setup Pressuremeter Equipment	$250.00/test
Perform Pressuremeter Testing	$250.00/test
Rig Standby During Pressuremeter Testing	$150.00/crew hour

LABORATORY TESTING	UNIT RATE
Visual Classification	No Charge
Pocket Penetrometer	No Charge
Moisture Content	$6.00/test
Atterberg Limits Test	$42.00/test
Sieve Analysis	$60.00/test
Wash 200 Sieve Test	$22.00/test
CBR (including Standard Proctor)	$400.00/test
Standard Proctor (ASTM D-698)	$125.00/test
Dry Density Determination	$20.00/test
Unconfined Compress Strength (soil)	$30.00/test
Unconfined Compress Strength (rock)	$50.00/test
Consolidation (ASTM D-2435)	$500.00/test
Swell Test (ASTM D-4546)	$70.00/test

ENGINEERING SERVICES	
Senior Principal Engineer	$125.00/hour
Senior Project Engineer	$85.00/hour
Project Engineer	$75.00/hour
Graduate Engineer	$65.00/hour
Drafting	$35.00/hour
Sr. Engineering Tech/Geologist	$50.00/hour
Engineering Technician	$33.00/hour

ADMINISTRATIVE SERVICES	
Secretary	$30.00/hour
Additional Report Copies	$15.00/copy
Overnight Charges	Cost + 15%

TOWN OF ADDISON

Public Works / Engineering
16801 Westgrove • P.O. Box 9010
Addison, Texas 75001-9010
Telephone: (972) 450-2871 • Fax: (972) 450-2837

LETTER OF TRANSMITTAL

DATE 11-18-03	JOB NO.
ATTENTION	
RE: Airport T Hangars	
Door Support Repairs	
Geotechnical Work	

TO ECS Ltd
Addison

GENTLEMAN:

WE ARE SENDING YOU ☑ Attached ☐ Under separate cover via _____ the following items:

☐ Shop Drawings ☐ Prints ☐ Plans ☐ Samples ☐ Specifications

☐ Copy of letter ☐ Change order ☐ _____

COPIES	DATE	NO.	DESCRIPTION
1			ECS Proposal No 19-1450-GP

THESE ARE TRANSMITTED as checked below:

☐ For approval ☐ Approved as submitted ☐ Resubmit _____ copies for approval

☑ For your use ☐ Approved as noted ☐ Submit _____ copies for distribution

☐ As requested ☐ Returned for corrections ☐ Return _____ corrected prints

☐ For review and comment ☐ _____

☐ FOR BIDS DUE _____ 19____ ☐ PRINTS RETURNED AFTER LOAN TO US

REMARKS Please consider this your notice to proceed. Please call me to locate the borings 972-450-2879

COPY TO _____

SIGNED: J. Klein

If enclosures are not as noted, please notify us at once.

GUNNIN CONSULTING ENGINEERS, INC.

Mailing Address:
P. O. Box 820457
Dallas, Texas 75382-0457
Phone 214- 528-3796
e-mail: gunningcei@aol.com

Delivery Address:
3303 Lee Parkway, Ste. 325
Dallas, Texas 75219-5109
FAX 214-522-6796

October 31, 2003

Mr. James C. Pierce, Jr., P.E.
Assistant Public Works Director
Town of Addison
16801 Westgrove Drive
Addison, Texas 75001-9010

Re: Tee-Hanger Door Support Repairs
Addison Airport
Addison, Texas

Dear Mr. Pierce:

We are pleased to submit this proposal to provide consulting structural engineering services for the referenced project. The project consists of investigation and design of remedial structural construction of the lateral supports at the top of the door to the hanger structure.

Our services will consist of the following:

Preparation of structural calculations for design of the lateral supports,

Preparation of contract drawings and project specifications for the structural portion of the work,

Review of structural shop drawings or manufacturer's data sheets, if applicable, to determine general conformance with the design concept of the project and for general compliance with information indicated in the structural contract documents, and

One or more visits to the project site to observe the progress of the structural construction, with written reports of such visits. These services would be performed in conjunction with a materials testing and inspection agency (retained by you), if appropriate.

Agreed to: by _____ date 11-14-03 by _____ date 10/31/03
Town of Addison
Gunnin Consulting Engineers, Inc.

It is agreed that we will not review the design or condition of the doors themselves, the supports at the bottom of the doors, nor the hanger structure.

We propose to provide these services on an hourly basis in accordance with the following fee schedule:

Bill L. Gunnin	$125.00/hr.
Contract Drafting	85.00/hr.
Contract Clerical	50.00/hr.

In addition, non-labor expenses, for example, travel expense, long-distance telephone, delivery charges, photographs, and printing and reproduction costs, will be considered reimbursable expenses and will be billed at our invoice cost.

We estimate that our billings will be as follows:

Services to date - $1,177.34 (see our invoice of today's date, attached)

Services through issue of contract documents, including one additional site visit of less than four hours, portal-to-portal – additional $1,000.00

Services after issue of contract documents – on an hourly basis in accordance with above.

If this proposal is acceptable, please indicate acceptance by an authorized signature below and return a copy to this office. We look forward to working with you on this project.

Sincerely,
GUNNIN CONSULTING ENGINEERS, INC.

Bill L. Gunnin, P.E.
President

AGREED AND ACCEPTED:

By: _____
Town of Addison

Date: 11-14-03

GUNNIN CONSULTING ENGINEERS, INC

Mailing Address:
P. O. Box 820457
Dallas, Texas 75382-0457
Phone: 214-528-3796
e-mail: gunningcei@aol.com

Delivery Address:
3303 Lee Parkway, Suite 325
Dallas, Texas 75219
FAX: 214-522-6796

FACSIMILE COVER SHEET

DATE: November 3, 2003

TO: Mr. James C. Pierce, Jr., P.E.
Town of Addison

FAX NO: 972-450-2837

FROM: Bill L. Gunnin

JOB NAME: Tee-Hanger Doors
Addison Airport

JOB NUMBER: 451

TOTAL NUMBER OF PAGES, INCLUDING THIS SHEET: 7

HARD COPY OF TRANSMISSION TO FOLLOW? YES: NO: X

PLEASE CALL 214-528-3796 IF COMPLETE TRANSMISSION IS NOT RECEIVED.

Our letter to you dated October 31, 2003 regarding our site visit on the same date.

Our letter of proposal to you dated October 31, 2003 for our structural engineering services. Please return an executed copy to our office.

Our invoice number 45100-01 dated November 1, 2003 for our services to date.

Mark: This looks OK to me. I would like to have your OK before I sign

Jim

OK - US - OPERATING FUND

Mark

TOWN OF ADDISON

Public Works / Engineering
16801 Westgrove • P.O. Box 9010
Addison, Texas 75001-9010
Telephone: (972) 450-2871 • Fax: (972) 450-2837

LETTER OF TRANSMITTAL

DATE 11-14-03	JOB NO.
ATTENTION	
RE: Addison Airport T Hangars	

TO Carmen Moran
Town Hall

GENTLEMAN:

WE ARE SENDING YOU ☑ Attached ☐ Under separate cover via _____ the following items:

☐ Shop Drawings ☐ Prints ☐ Plans ☐ Samples ☐ Specifications

☐ Copy of letter ☐ Change order ☐ _____

COPIES	DATE	NO.	DESCRIPTION
1			Agreement for Consulting Services with Gunnin Consulting Engineers regarding Airport T Hangar Door Support Repairs

THESE ARE TRANSMITTED as checked below:

☐ For approval ☐ Approved as submitted ☐ Resubmit _____ copies for approval

☒ For your use ☐ Approved as noted ☐ Submit _____ copies for distribution

☐ As requested ☐ Returned for corrections ☐ Return _____ corrected prints

☐ For review and comment ☐ _____

☐ FOR BIDS DUE _____ 19_____ ☐ PRINTS RETURNED AFTER LOAN TO US

REMARKS _____

COPY TO _____

SIGNED: _____

If enclosures are not as noted, please notify us at once.

GUNNIN CONSULTING ENGINEERS, INC.

Mailing Address:
P. O. Box 820457
Dallas, Texas 75382-0457
Phone 214- 528-3796
e-mail: gunningcei@aol.com

Delivery Address:
3303 Lee Parkway, Ste. 325
Dallas, Texas 75219-5109
FAX 214-522-6796

October 31, 2003

Mr. James C. Pierce, Jr., P.E.
Assistant Public Works Director
Town of Addison
16801 Westgrove Drive
Addison, Texas 75001-9010

Re: Tee-Hanger Door Support Repairs
Addison Airport
Addison, Texas

Dear Mr. Pierce:

At your request, we visited the site of the referenced project today. I was accompanied by you (part-time) and by your Mr. David Foster. The purpose of the visit was as follows:

to observe the location where you had exposed part of the foundation for one of the exterior columns at one of the tee-hangers where hanger door supports need repairs,

to discuss with you the scope of the geotechnical investigation,

to measure and photograph the existing structure at the same tee-hanger, and

to observe the existing rolling door supports at the other two types of tee-hangers.

We had requested that a partial excavation be made at one of the column foundations at a tee-hanger whose doors needed repair. You had made the excavation, and had exposed part of two of the sides of a square footing foundation. The excavation indicated that the grade beam below the rolling door was the same depth as the square column footing. Not much of the bottom of the footing was exposed, for the obvious reason that it would not be appropriate to remove much of the soil if the soil was the bearing strata for the foundation. We inquired about the possibility of there being a drilled pier under the column footing. Even though the bottom of the footing was not completely exposed for the reasons noted above, you indicated that probably a drilled pier did not exist below the square footing. There followed a discussion of the role of the geotechnical engineer in this investigation. Based on the assumption that there were not drilled piers at the columns, it was agreed that a geotechnical investigation be commissioned. The purpose of the investigation would be for the geotechnical engineer to sample the geotechnical strata near the existing (assumed) footings to determine the magnitude of the probable vertical movements of the footing and grade beam foundations in order to detail the connections at the tops of the hanger doors to accommodate the movements.

You requested that we contact Mr. Chris Eddy, P. E., of Engineering Consulting Services, LTD to discuss the scope of a proposed geotechnical investigation. It was agreed that five borings be made, one near each of the five older hangers. We will contact Mr. Eddy to do so, and will request that Mr. Eddy contact you for authorization to proceed with their investigation, to be paid by you.

As note in our e-mail to you dated October 15, 2003, we recommend that we proceed with investigation and design for new hanger door lateral supports using lateral rolling devices at the hangers in question. Following my site visit today, I went to Elliot's Hardware to look for such devices. They did not have any, but suggested that I go to Allied Fencing on west Commerce Street. I did so, but the limited number of proprietary devices they had were not appropriate for this application. I recommend that we proceed with detailing such devices that can be fabricated; it appears that these are used (apparently successfully) at your hangers on the West Side. We will proceed on this basis, but will continue to look for available proprietary rolling door supports.

Enclosed is one print each of the photographs we took today, along with one print each of the photographs we took on our visit to the site both today and on October 15, 2003.

Sincerely,
GUNNIN CONSULTING ENGINEERS, INC.

Bill L. Gunnin, P.E.

Encl: One print each of the photos we took on October 15, 2003 and of the photos we took today.

TOWN OF ADDISON

Public Works / Engineering
16801 Westgrove • P.O. Box 9010
Addison, Texas 75001-9010
Telephone: (972) 450-2871 • Fax: (972) 450-2837

LETTER OF TRANSMITTAL

DATE 11-14-03	JOB NO.
ATTENTION	
RE: Addison Airport "T" Hangars	

TO Bill Gunnin
Gunnin Consulting Engrs.

GENTLEMAN:

WE ARE SENDING YOU ☑ Attached ☐ Under separate cover via _____ the following items:

☐ Shop Drawings ☐ Prints ☐ Plans ☐ Samples ☐ Specifications

☐ Copy of letter ☐ Change order ☐ _____

COPIES	DATE	NO.	DESCRIPTION
1			Signed Proposal for T Hangar Door Support Repairs.

THESE ARE TRANSMITTED as checked below:

☐ For approval ☐ Approved as submitted ☐ Resubmit _____ copies for approval

☑ For your use ☐ Approved as noted ☐ Submit _____ copies for distribution

☐ As requested ☐ Returned for corrections ☐ Return _____ corrected prints

☐ For review and comment ☐ _____

☐ FOR BIDS DUE _____ 19_____ ☐ PRINTS RETURNED AFTER LOAN TO US

REMARKS _____

COPY TO _____

SIGNED: _____

If enclosures are not as noted, please notify us at once.

GUNNIN CONSULTING ENGINEERS, INC.

Mailing Address:
P. O. Box 820457
Dallas, Texas 75382-0457
Phone 214- 528-3796
e-mail: gunningcei@aol.com

Delivery Address:
3303 Lee Parkway, Ste. 325
Dallas, Texas 75219-5109
FAX 214-522-6796

BILL TO
Town of Addison Mr. James C. Pierce, Jr., P.E. 16801 Westgrove Drive Addison, TX 75001-9010

DATE	INVOICE #
11/1/2003	45100-01

PROJECT
451 Addison Airport Tee Hangers

DESCRIPTION	QTY	RATE	AMOUNT
PROFESSIONAL SERVICES THROUGH 10/31/00			
Bill L. Gunnin	9	125.00	1,125.00
SUBTOTAL PROFESSIONAL SERVICES			1,125.00
REIMBURSABLE EXPENSES THROUGH 10/31/00			
Travel - Automobile - two trips @30 mi. each	60	0.325	19.50
Photographs - $20.95 + $11.89	1	32.84	32.84
SUBTOTAL REIMBURSABLE EXPENSES			52.34
T Hangar Doors Project			
OK to pay 11-14-03			
Total			$1,177.34

ADDISON AIRPORT

ECKERD DRUG
STORE #0811

** ECKERD DRUG #811 PH# 528-0328 **
** 3900-A OAK LAWN,DALLAS

YOUR CASHIER TODAY IS JAIME
ASSOC #9115 REG #004 DRAWER #1
TRANS #0240 TYPE 10 STORE # 0811

952853	EP PHOTO OR 1T	7.98
952853	EP PHOTO OR 1T	3.38
712737	KODAK FILM 1T	7.99

8.25% TAX A	1.60
TOTAL	20.95
CHARGE	20.95
ACCT#XXXXXXXXXXXX5422	
AUTHORIZATION #:	026799

CHANGE .00
THANK YOU FOR SHOPPING AT ECKERD
1-800-ECKERDS www.eckerd.com
OCTOBER 16, 2003 12:37 PM

ADDISON TEXAS
HANGER 451

ECKERD DRUG
STORE #0811

** ECKERD DRUG #811 PH# 528-0328 **
** 3900-A OAK LAWN,DALLAS

YOUR CASHIER TODAY IS JAIME
ASSOC #9115 REG #004 DRAWER #1
TRANS #0953 TYPE 10 STORE # 0811

952853	EP PHOTO OR 1T	10.98

8.25% TAX A	.91
TOTAL	11.89
CHARGE	11.89
ACCT#XXXXXXXXXXXX5422	
AUTHORIZATION #:	057132

CHANGE .00
THANK YOU FOR SHOPPING AT ECKERD
1-800-ECKERDS www.eckerd.com
NOVEMBER 1, 2003 12:48 PM

GUNNIN CONSULTING ENGINEERS, INC.

Mailing Address:
P. O. Box 820457
Dallas, Texas 75382-0457
Phone 214- 528-3796
e-mail: gunningcei@aol.com

Delivery Address:
3303 Lee Parkway, Ste. 325
Dallas, Texas 75219-5109
FAX 214-522-6796

October 31, 2003

Mr. James C. Pierce, Jr., P.E.
Assistant Public Works Director
Town of Addison
16801 Westgrove Drive
Addison, Texas 75001-9010

Re: Tee-Hanger Door Support Repairs
Addison Airport
Addison, Texas

Dear Mr. Pierce:

We are pleased to submit this proposal to provide consulting structural engineering services for the referenced project. The project consists of investigation and design of remedial structural construction of the lateral supports at the top of the door to the hanger structure.

Our services will consist of the following:

Preparation of structural calculations for design of the lateral supports,

Preparation of contract drawings and project specifications for the structural portion of the work,

Review of structural shop drawings or manufacturer's data sheets, if applicable, to determine general conformance with the design concept of the project and for general compliance with information indicated in the structural contract documents, and

One or more visits to the project site to observe the progress of the structural construction, with written reports of such visits. These services would be performed in conjunction with a materials testing and inspection agency (retained by you), if appropriate.

Agreed to: by _____ date _____ by BSH date 10/31/03
Town of Addison
Gunnin Consulting Engineers, Inc.

It is agreed that we will not review the design or condition of the doors themselves, the supports at the bottom of the doors, nor the hanger structure.

We propose to provide these services on an hourly basis in accordance with the following fee schedule:

Bill L. Gunnin	$125.00/hr.
Contract Drafting	85.00/hr.
Contract Clerical	50.00/hr.

In addition, non-labor expenses, for example, travel expense, long-distance telephone, delivery charges, photographs, and printing and reproduction costs, will be considered reimbursable expenses and will be billed at our invoice cost.

We estimate that our billings will be as follows:

Services to date - $1,177.34 (see our invoice of today's date, attached)

Services through issue of contract documents, including one additional site visit of less than four hours, portal-to-portal – additional $1,000.00

Services after issue of contract documents – on an hourly basis in accordance with above.

If this proposal is acceptable, please indicate acceptance by an authorized signature below and return a copy to this office. We look forward to working with you on this project.

Sincerely,
GUNNIN CONSULTING ENGINEERS, INC.

Bill L. Gunnin, P.E.
President

AGREED AND ACCEPTED:

By: _____
Town of Addison

Date: _____

GUNNIN CONSULTING ENGINEERS, INC

Mailing Address:
P. O. Box 820457
Dallas, Texas 75382-0457
Phone: 214-528-3796
e-mail: gunningcei@aol.com

Delivery Address:
3303 Lee Parkway, Suite 325
Dallas, Texas 75219
FAX: 214-522-6796

FACSIMILE COVER SHEET

DATE: November 14, 2003

TO: Mr. James C. Pierce, Jr., PE, Town of Addison FAX NO: 972-450-2837
Mr. Christopher W. Eddy, PE, ECS, Ltd. 972-392-0102

FROM: Bill L. Gunnin

JOB NAME: Tee-Hanger Doors
Addison Airport

JOB NUMBER: 451

TOTAL NUMBER OF PAGES, INCLUDING THIS SHEET: 5

HARD COPY OF TRANSMISSION TO FOLLOW? YES: NO: X

PLEASE CALL 214-528-3796 IF COMPLETE TRANSMISSION IS NOT RECEIVED.

In a phone call with Mr. Eddy today, it was clarified that the geotechnical investigation and report would include estimates of Potential Vertical Rise of the soil at the existing footings and grade beams.

TOWN OF
ADDISON

PUBLIC WORKS

To: Bill Gunnin

Company: Gunnin Consulting

FAX #: 214-522-6796

Date: 11-12-03

# of pages (including cover): 4

From: Jim Pierce, P.E.
Asst. Public Wks. Dir.
Phone: 972/450-2879
FAX: 972/450-2837
jpierce@ci.addison.tx.us

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

Re: T Hangars Geotech

☐ Original in mail ☐ Per your request ☐ FYI ☐ Call me

Comments: Bill: Please look over the attached proposal & advise if you have any additions or subtractions from the scope of work.

ENGINEERING CONSULTING SERVICES, LTD.
Geotechnical • Construction Materials • Environmental.

November 7, 2003

Mr. Jim Pierce
Town of Addison
P.O. Box 9010
Addison, Texas 75001

Reference: Proposal for Subsurface Exploration Services
Hangar Modifications
Addison Airport
Addison, Texas
ECS Proposal No. 19-1450-GP

Dear Mr. Pierce:

As requested, Engineering Consulting Services, Ltd. (ECS, Ltd.) is pleased to present the following proposal for providing subsurface exploration services and geotechnical engineering analysis of the proposed site for the above referenced project. We understand the project consists of modifying the hangar doors on five hangar structures at the referenced site.

Scope of Services

If authorized, our integrated services will include drilling of soil borings by drill crews under our direct supervision, laboratory testing of representative soil samples for pertinent engineering properties, and preparation of an engineering report.

As requested, five borings will be drilled in the building area to a depth of about 20 feet below existing grade or 5 feet into unweathered rock, whichever is shallower.

We understand the drilling operations will be performed near existing structure. We will attempt to minimize the amount of disturbance to landscaping and flatwork (i.e. sidewalks, driveways) while accessing the boring locations and during the drilling operations. However, rutting of the lawn areas and cracking of flatwork may occur in areas the drill rig will travel. ECS, Ltd. and its representatives will not be responsible for repairing or replacing any landscaping or flatwork that is damaged while accessing the boring locations or during the drilling operation.

Upon completion of drilling operations, the samples will be subjected to laboratory tests (that can include moisture content, Atterberg limits, unconfined compression, and swell tests) followed by the preparation of a written engineering report.

The engineering report will include the following items:

a. Information on site conditions including surface drainage, geologic information and special site features.

b. Description of the field exploration and laboratory tests performed.

c. Final logs of the soil borings and records of the field exploration in accordance with the standard practice of geotechnical engineers. A site location plan will be included, and the results of the laboratory tests will be plotted on the final boring logs or included on a separate test report sheet.

d. Geotechnical design parameters for footing foundations (if appropriate), and drilled shafts (more commonly used in this formation), and estimates of predicted foundation movement.

e. Compaction requirements and suitable material guidelines for grading the site.

Fees and Schedule

The lump sum cost of the services outlined above will be $2,000.00. This lump sum cost includes 3 copies of the engineering report.

We are prepared to mobilize onto the site within 3 to 4 working days after authorization to proceed, weather permitting. We anticipate that drilling operations will require approximately 1 working day, and that laboratory testing after drilling is completed will require approximately 4 working days. Therefore, for time budget purposes, the total scope of work could require as much as 2 to 3 weeks from initial authorization through final report submission.

If other items are required because of unexpected field conditions (i.e. site clearing, wet site conditions, etc.) encountered in our field exploration program, or because of a request for additional services, they would be invoiced in accordance with our current Fee Schedule. Before modifying or expanding the extent of our exploration program, you would be informed of our intentions for both your review and authorization.

If requested, we can review plans and specifications for the referenced project to determine general compliance with the geotechnical engineers recommendations. We can also provide additional consultation and engineering analysis for you on other problems related to performance of the structure and subsurface conditions. These services can be provided at the unit rates outlined in the attached fee schedule, and would be in addition to the fee outlined above.

Town of Addison
ECS Proposal No. 19-1450-GP
November 7, 2003

Closing

Attached to this letter, and an integral part of our proposal, are our "General Conditions of Service". These conditions represent the current recommendations of the Association of Soil and Foundation Engineers, the Consulting Engineers' Council, and the Geotechnical Division of the American Society of Civil Engineers.

Our insurance carrier requires that we receive written authorization prior to initiation of work, and a signed contract prior to the release of any work product. This letter is the agreement for our services. Your acceptance of this proposal may be indicated by signing and returning the enclosed copy to us. We are pleased to have this opportunity to offer our services and look forward to working with you on the project.

Respectfully,

ENGINEERING CONSULTING SERVICES, LTD.

Christopher W. Eddy, P.E.
Geotechnical Department Manager

Mark L. McKay, P.E.
Principal Engineer

Enclosures: General Conditions of Service

GUNNIN CONSULTING ENGINEERS, INC.

Mailing Address:
P. O. Box 820457
Dallas, Texas 75382-0457
Phone 214- 528-3796
e-mail: gunningcei@aol.com

Delivery Address:
3303 Lee Parkway, Ste. 325
Dallas, Texas 75219-5109
FAX 214-522-6796

October 31, 2003

Mr. James C. Pierce, Jr., P.E.
Assistant Public Works Director
Town of Addison
16801 Westgrove Drive
Addison, Texas 75001-9010

Re: Tee-Hanger Door Support Repairs
Addison Airport
Addison, Texas

Dear Mr. Pierce:

At your request, we visited the site of the referenced project today. I was accompanied by you (part-time) and by your Mr. David Foster. The purpose of the visit was as follows:

to observe the location where you had exposed part of the foundation for one of the exterior columns at one of the tee-hangers where hanger door supports need repairs,

to discuss with you the scope of the geotechnical investigation,

to measure and photograph the existing structure at the same tee-hanger, and

to observe the existing rolling door supports at the other two types of tee-hangers.

We had requested that a partial excavation be made at one of the column foundations at a tee-hanger whose doors needed repair. You had made the excavation, and had exposed part of two of the sides of a square footing foundation. The excavation indicated that the grade beam below the rolling door was the same depth as the square column footing. Not much of the bottom of the footing was exposed, for the obvious reason that it would not be appropriate to remove much of the soil if the soil was the bearing strata for the foundation. We inquired about the possibility of there being a drilled pier under the column footing. Even though the bottom of the footing was not completely exposed for the reasons noted above, you indicated that probably a drilled pier did not exist below the square footing. There followed a discussion of the role of the geotechnical engineer in this investigation. Based on the assumption that there were not drilled piers at the columns, it was agreed that a geotechnical investigation be commissioned. The purpose of the investigation would be for the geotechnical engineer to sample the geotechnical strata near the existing (assumed) footings to determine the magnitude of the probable vertical movements of the footing and grade beam foundations in order to detail the connections at the tops of the hanger doors to accommodate the movements.

You requested that we contact Mr. Chris Eddy, P. E., of Engineering Consulting Services, LTD to discuss the scope of a proposed geotechnical investigation. It was agreed that five borings be made, one near each of the five older hangers. We will contact Mr. Eddy to do so, and will request that Mr. Eddy contact you for authorization to proceed with their investigation, to be paid by you.

As note in our e-mail to you dated October 15, 2003, we recommend that we proceed with investigation and design for new hanger door lateral supports using lateral rolling devices at the hangers in question. Following my site visit today, I went to Elliot's Hardware to look for such devices. They did not have any, but suggested that I go to Allied Fencing on west Commerce Street. I did so, but the limited number of proprietary devices they had were not appropriate for this application. I recommend that we proceed with detailing such devices that can be fabricated; it appears that these are used (apparently successfully) at your hangers on the West Side. We will proceed on this basis, but will continue to look for available proprietary rolling door supports.

Enclosed is one print each of the photographs we took today, along with one print each of the photographs we took on our visit to the site both today and on October 15, 2003.

Sincerely,
GUNNIN CONSULTING ENGINEERS, INC.

Bill L. Gunnin, P.E.

Encl: One print each of the photos we took on October 15, 2003 and of the photos we took today.

HP LaserJet 3200se

HP LASERJET 3200

NOV-12-2003 11:04AM

Fax Call Report

Job	Date	Time	Type	Identification	Duration	Pages	Result
142	11/12/2003	11:03:17AM	Send	92145226796	1:30	4	OK

TOWN OF
ADDISON

PUBLIC WORKS

To: Bill Gunnin

Company: Gunnin Consulting

FAX #: 214-522-6796

Date: 11-12-03

# of pages (including cover): 4

Re: T Hangars Geotech

From: Jim Pierce, P.E.
Asst. Public Wks. Dir.
Phone: 972/450-2879
FAX: 972/450-2837
jpierce@ci.addison.tx.us

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

☐ Original in mail ☐ Per your request ☐ FYI ☐ Call me

Comments: Bill: Please look over the attached proposal & advise if you have any additions or subtractions from the scope of work.

ENGINEERING CONSULTING SERVICES, LTD.
Geotechnical • Construction Materials • Environmental

November 7, 2003

Mr. Jim Pierce
Town of Addison
P.O. Box 9010
Addison, Texas 75001

Reference: Proposal for Subsurface Exploration Services
Hangar Modifications
Addison Airport
Addison, Texas
ECS Proposal No. 19-1450-GP

Dear Mr. Pierce:

As requested, Engineering Consulting Services, Ltd. (ECS, Ltd.) is pleased to present the following proposal for providing subsurface exploration services and geotechnical engineering analysis of the proposed site for the above referenced project. We understand the project consists of modifying the hangar doors on five hangar structures at the referenced site.

Scope of Services

If authorized, our integrated services will include drilling of soil borings by drill crews under our direct supervision, laboratory testing of representative soil samples for pertinent engineering properties, and preparation of an engineering report.

As requested, five borings will be drilled in the building area to a depth of about 20 feet below existing grade or 5 feet into unweathered rock, whichever is shallower.

We understand the drilling operations will be performed near existing structure. We will attempt to minimize the amount of disturbance to landscaping and flatwork (i.e. sidewalks, driveways) while accessing the boring locations and during the drilling operations. However, rutting of the lawn areas and cracking of flatwork may occur in areas the drill rig will travel. ECS, Ltd. and its representatives will not be responsible for repairing or replacing any landscaping or flatwork that is damaged while accessing the boring locations or during the drilling operation.

Upon completion of drilling operations, the samples will be subjected to laboratory tests (that can include moisture content, Atterberg limits, unconfined compression, and swell tests) followed by the preparation of a written engineering report.

The engineering report will include the following items:

a. Information on site conditions including surface drainage, geologic information and special site features.

b. Description of the field exploration and laboratory tests performed.

c. Final logs of the soil borings and records of the field exploration in accordance with the standard practice of geotechnical engineers. A site location plan will be included, and the results of the laboratory tests will be plotted on the final boring logs or included on a separate test report sheet.

d. Geotechnical design parameters for footing foundations (if appropriate), and drilled shafts (more commonly used in this formation), and estimates of predicted foundation movement.

e. Compaction requirements and suitable material guidelines for grading the site.

Fees and Schedule

The lump sum cost of the services outlined above will be $2,000.00. This lump sum cost includes 3 copies of the engineering report.

We are prepared to mobilize onto the site within 3 to 4 working days after authorization to proceed, weather permitting. We anticipate that drilling operations will require approximately 1 working day, and that laboratory testing after drilling is completed will require approximately 4 working days. Therefore, for time budget purposes, the total scope of work could require as much as 2 to 3 weeks from initial authorization through final report submission.

If other items are required because of unexpected field conditions (i.e. site clearing, wet site conditions, etc.) encountered in our field exploration program, or because of a request for additional services, they would be invoiced in accordance with our current Fee Schedule. Before modifying or expanding the extent of our exploration program, you would be informed of our intentions for both your review and authorization.

If requested, we can review plans and specifications for the referenced project to determine general compliance with the geotechnical engineers recommendations. We can also provide additional consultation and engineering analysis for you on other problems related to performance of the structure and subsurface conditions. These services can be provided at the unit rates outlined in the attached fee schedule, and would be in addition to the fee outlined above.

Closing

Attached to this letter, and an integral part of our proposal, are our "General Conditions of Service". These conditions represent the current recommendations of the Association of Soil and Foundation Engineers, the Consulting Engineers' Council, and the Geotechnical Division of the American Society of Civil Engineers.

Our insurance carrier requires that we receive written authorization prior to initiation of work, and a signed contract prior to the release of any work product. This letter is the agreement for our services. Your acceptance of this proposal may be indicated by signing and returning the enclosed copy to us. We are pleased to have this opportunity to offer our services and look forward to working with you on the project.

Respectfully,

ENGINEERING CONSULTING SERVICES, LTD.

Christopher W. Eddy, P.E.
Geotechnical Department Manager

Mark L. McKay, P.E.
Principal Engineer

Enclosures: General Conditions of Service

GUNNIN CONSULTING ENGINEERS, INC

Mailing Address:
P. O. Box 820457
Dallas, Texas 75382-0457
Phone: 214-528-3796
e-mail: gunningcei@aol.com

Delivery Address:
3303 Lee Parkway, Suite 325
Dallas, Texas 75219
FAX: 214-522-6796

FACSIMILE COVER SHEET

DATE: November 6, 2003

TO: Mr. Chris Eddy, Engineering Consulting Services FAX NO: 972-392-0102
Mr. Jim Pierce, Town of Addison 972-450-2837

FROM: Bill Gunnin

JOB NAME: Addison Airport Tee Hangers
Addison, Texas

JOB NUMBER: 451

TOTAL NUMBER OF PAGES, INCLUDING THIS SHEET: 6

HARD COPY OF TRANSMISSION TO FOLLOW? YES: NO: X

PLEASE CALL 214-528-3796 IF COMPLETE TRANSMISSION IS NOT RECEIVED.

Following our phone conversation this morning, we are transmitting herewith the following correspondence between our firm and Jim Pierce:

e-mail from Jim Pierce to me dated 10/15/03, 12:29:12 PM
e-mail from me to Jim Pierce dated 10/15/03, 1:55:58 PM
e-mail from me to Jim Pierce dated 10/15/03, 2:25:10 PM
Letter from me to Jim Pierce dated October 31, 2003

Please review and give me a call.

Called Chris Eddy for a proposal on 11/7/03

Subj:	**Addison Airport T Hangers**
Date:	10/15/03 12:29:12 PM Central Daylight Time
From:	jpierce@ci.addison.tx.us
To:	gunningcei@aol.com
CC:	lisa.pyles@wgint.com
Sent from the Internet (Details)	

Bill: Geotechnical contact: Chris Eddy, P.E., Engineering Consulting Services, LTD., 972-392-3222
Tail height of largest aircraft requires ten feet clear.

Jim Pierce, P.E.
Assistant Public Works Director
P.O. Box 9010
Addison, TX 75001-9010
972-450-2879

Subj:	**Re: Addison Airport T Hangers**
Date:	10/15/03 1:55:58 PM Central Daylight Time
From:	GUNNINGCEI
To:	jpierce@ci.addison.tx.us

Mr. Pierce:

We suggest that the geotechnical investigation of the tee hangers should include as a minimum the following:

At least one boring or excavation very near the steel pipe columns at the front of the tee hanger. This boring or excavation should extend to the bottom of the foundation or to the primary bearing stratum, whichever is deeper. This is to determine

the type and size of the foundations for the superstructure, and

the degree to which movement of the superstructure due to geotechnical conditions is a consideration (or to eliminate this consideration).

At least one boring or excavation near the grade beam at the front of the hanger that supports the rolling door. This boring or excavation should extend to the bottom of the grade beam as a minimum. This is to determine the influence of the grade beam movement due to geotechnical conditions on the difficulties with the rolling doors.

You may want to have me at the site during at least the last part of the geotechnical field work.

If you or the geotechnical engineer have any questions, feel free to call me.

Bill Gunnin
Gunnin Consulting Engineers, Inc.
214-528-3796

Subj:	**Addison Airport T Hangers**
Date:	10/15/03 2:25:10 PM Central Daylight Time
From:	GUNNINGCEI
To:	jpierce@ci.addison.tx.us

Mr. Pierce:

As we discussed on the phone today, one of our initial thoughts about the cause(s) of the difficulty with the rolling doors at the T-hangers has to do with the connection at the top of the doors.

After you left us, Dave Foster took me to the other two types of T-hangers. Both of them appeared to be of newer construction than the type you showed me where the distress was greatest. According to Dave, very few difficulties had been observed by you at the rolling doors of the newer hangers.

I pointed out to Dave that the connection at the top of the doors at the newer hangers had rollers in a horizontal plane that did bear against a vertical steel plate that projected down from the building structure above the door. The door is supported vertically and laterally at the bottom track, but only laterally at the top. My initial thought is that possibly implementation of this type of lateral support at the top as replacements at the old hangers might go a long ways toward reducing the problems.

I suggest that your staff and/or contractor(s) investigate available door lateral rolling supports and implications on construction of remedial measures. In the meanwhile, the geotechnical investigation can be implemented to determine column and grade beam movements and implications.

If you have any questions, feel free to call me.

Bill Gunnin
Gunnin Consulting Engineers, Inc.

GUNNIN CONSULTING ENGINEERS, INC.

Mailing Address:
P. O. Box 820457
Dallas, Texas 75382-0457
Phone 214- 528-3796
e-mail: gunningcei@aol.com

Delivery Address:
3303 Lee Parkway, Ste. 325
Dallas, Texas 75219-5109
FAX 214-522-6796

October 31, 2003

Mr. James C. Pierce, Jr., P.E.
Assistant Public Works Director
Town of Addison
16801 Westgrove Drive
Addison, Texas 75001-9010

Re: Tee-Hanger Door Support Repairs
Addison Airport
Addison, Texas

Dear Mr. Pierce:

At your request, we visited the site of the referenced project today. I was accompanied by you (part-time) and by your Mr. David Foster. The purpose of the visit was as follows:

to observe the location where you had exposed part of the foundation for one of the exterior columns at one of the tee-hangers where hanger door supports need repairs,

to discuss with you the scope of the geotechnical investigation,

to measure and photograph the existing structure at the same tee-hanger, and

to observe the existing rolling door supports at the other two types of tee-hangers.

We had requested that a partial excavation be made at one of the column foundations at a tee-hanger whose doors needed repair. You had made the excavation, and had exposed part of two of the sides of a square footing foundation. The excavation indicated that the grade beam below the rolling door was the same depth as the square column footing. Not much of the bottom of the footing was exposed, for the obvious reason that it would not be appropriate to remove much of the soil if the soil was the bearing strata for the foundation. We inquired about the possibility of there being a drilled pier under the column footing. Even though the bottom of the footing was not completely exposed for the reasons noted above, you indicated that probably a drilled pier did not exist below the square footing. There followed a discussion of the role of the geotechnical engineer in this investigation. Based on the assumption that there were not drilled piers at the columns, it was agreed that a geotechnical investigation be commissioned. The purpose of the investigation would be for the geotechnical engineer to sample the geotechnical strata near the existing (assumed) footings to determine the magnitude of the probable vertical movements of the footing and grade beam foundations in order to detail the connections at the tops of the hanger doors to accommodate the movements.

You requested that we contact Mr. Chris Eddy, P. E., of Engineering Consulting Services, LTD to discuss the scope of a proposed geotechnical investigation. It was agreed that five borings be made, one near each of the five older hangers. We will contact Mr. Eddy to do so, and will request that Mr. Eddy contact you for authorization to proceed with their investigation, to be paid by you.

As note in our e-mail to you dated October 15, 2003, we recommend that we proceed with investigation and design for new hanger door lateral supports using lateral rolling devices at the hangers in question. Following my site visit today, I went to Elliot's Hardware to look for such devices. They did not have any, but suggested that I go to Allied Fencing on west Commerce Street. I did so, but the limited number of proprietary devices they had were not appropriate for this application. I recommend that we proceed with detailing such devices that can be fabricated; it appears that these are used (apparently successfully) at your hangers on the West Side. We will proceed on this basis, but will continue to look for available proprietary rolling door supports.

Enclosed is one print each of the photographs we took today, along with one print each of the photographs we took on our visit to the site both today and on October 15, 2003.

Sincerely,
GUNNIN CONSULTING ENGINEERS, INC.

Bill L. Gunnin, P.E.

Encl: One print each of the photos we took on October 15, 2003 and of the photos we took today.

Jim Pierce

From: GUNNINGCEI@aol.com
Sent: Wednesday, October 15, 2003 1:56 PM
To: Jim Pierce
Subject: Re: Addison Airport T Hangers

Mr. Pierce:

We suggest that the geotechnical investigation of the tee hangers should include as a minimum the following:

At least one boring or excavation very near the steel pipe columns at the front of the tee hanger. This boring or excavation should extend to the bottom of the foundation or to the primary bearing stratum, whichever is deeper. This is to determine

the type and size of the foundations for the superstructure, and

the degree to which movement of the superstructure due to geotechnical conditions is a consideration (or to eliminate this consideration).

At least one boring or excavation near the grade beam at the front of the hanger that supports the rolling door. This boring or excavation should extend to the bottom of the grade beam as a minimum. This is to determine the influence of the grade beam movement due to geotechnical conditions on the difficulties with the rolling doors.

You may want to have me at the site during at least the last part of the geotechnical field work.

If you or the geotechnical engineer have any questions, feel free to call me.

Bill Gunnin
Gunnin Consulting Engineers, Inc.
214-528-3796

Jim Pierce

From: GUNNINGCEI@aol.com
Sent: Wednesday, October 15, 2003 2:25 PM
To: Jim Pierce
Subject: Addison Airport T Hangers

Mr. Pierce:

As we discussed on the phone today, one of our initial thoughts about the cause(s) of the difficulty with the rolling doors at the T-hangers has to do with the connection at the top of the doors.

After you left us, Dave Foster took me to the other two types of T-hangers. Both of them appeared to be of newer construction than the type you showed me where the distress was greatest. According to Dave, very few difficulties had been observed by you at the rolling doors of the newer hangers.

I pointed out to Dave that the connection at the top of the doors at the newer hangers had rollers in a horizontal plane that did bear against a vertical steel plate that projected down from the building structure above the door. The door is supported vertically and laterally at the bottom track, but only laterally at the top. My initial thought is that possibly implementation of this type of lateral support at the top as replacements at the old hangers might go a long ways toward reducing the problems.

I suggest that your staff and/or contractor(s) investigate available door lateral rolling supports and implications on construction of remedial measures. In the meanwhile, the geotechnical investigation can be implemented to determine column and grade beam movements and implications.

If you have any questions, feel free to call me.

Bill Gunnin
Gunnin Consulting Engineers, Inc.

McCREARY & ASSOCIATES, INC.
CONSULTING ENGINEERS 972/458-8745
6310 LBJ FREEWAY SUITE 217 DALLAS, TEXAS 75240

TO: MR. JIM PIERCE
CITY OF ADDISON

DATE 1-14-05

PROJECT ADDISON AIRPORT TEE HANGAR LIGHTING

LETTER OF TRANSMITTAL

WE ARE SENDING YOU ☑ ATTACHED ☐ UNDER SEPARATE COVER THE FOLLOWING ITEMS:

☐ SHOP DRAWINGS	☐ SPECIFICATIONS	☐ EQUIPMENT DATA
☐ PRINTS	☐ CHANGE ORDER	☐ SUBMITTALS
☑ PLANS	☐ COPY OF LETTER	☑ OTHER

COPIES	DESCRIPTION
~~1EA~~	FULL SIZED TRACINGS E1-E7
~~1EA~~	HALF TRACINGS E1-E7
1	DISK W/DWGS & SPECS

THESE ARE TRANSMITTED ☐ FOR APPROVAL ☐ FOR YOUR REVIEW & COMMENT
☑ FOR YOUR USE ☐ AS REQUESTED.

REMARKS: 1. SIGNED & SEALED
2. DISK SENT UNDER SEPARATE COVER

John W. McCreary

McCREARY & ASSOCIATES, INC.
CONSULTING ENGINEERS 972/458-8745
6310 LBJ FREEWAY SUITE 217 DALLAS, TEXAS 75240

TO: MR. JIM PIERCE
CITY OF ADDISON

DATE 1-14-05

COPY

PROJECT ADDISON AIRPORT TEE HANGAR LIGHTING

LETTER OF TRANSMITTAL

WE ARE SENDING YOU ☒ ATTACHED ☐ UNDER SEPARATE COVER THE FOLLOWING ITEMS:

☐ SHOP DRAWINGS	☐ SPECIFICATIONS	☐ EQUIPMENT DATA
☐ PRINTS	☐ CHANGE ORDER	☐ SUBMITTALS
☒ PLANS	☐ COPY OF LETTER	☒ OTHER

COPIES	DESCRIPTION
1EA	FULL SIZED TRACINGS E1-E7
1EA	11X17 TRACINGS E1-E7
1	DISK W/DWGS & SPECS

THESE ARE TRANSMITTED ☐ FOR APPROVAL ☐ FOR YOUR REVIEW & COMMENT
☒ FOR YOUR USE ☐ AS REQUESTED.

REMARKS 1. SIGNED & SEALED
1. DISK SENT UNDER SEPARATE COVER

John Wallace

McCREARY & ASSOCIATES, INC.
CONSULTING ENGINEERS 972/458-8745
6310 LBJ FREEWAY SUITE 217 DALLAS, TEXAS 75240

INVOICE

Date: 06-Jan-2005

Mr. James C. Pierce, Jr.,P.E.
Assistant Public Works Director
Town of Addison
16801 Westgrove Drive
Addison, Texas 75001-9010

For Professional Services Rendered During the Month of: Dec-2004

Project:	Airport Tee Hangars		
	Town of Addison		
Design Phase			
Engineer, P.E.	0.5 hrs @	$ 100.00/hr	50.00
Engineer, Sr.	6.0 hrs @	$ 95.00/hr	570.00
Technician/ACAD	7.0 hrs @	$ 60.00/hr	420.00
		Subtotal	$1,040.00
		TOTAL DUE	$1,040.00

Not to Exceed:	$7,500.00
Prior Billings:	$5,620.00

Ok to Pay
JP
1-11-05

McCREARY & ASSOCIATES, INC.

CONSULTING ENGINEERS 972/458-8745
6310 LBJ FREEWAY SUITE 217 DALLAS, TEXAS 75240

INVOICE

Date: 16–Sep–2004

Mr. James C. Pierce, Jr.,P.E.
Assistant Public Works Director
Town of Addison
16801 Westgrove Drive
Addison, Texas 75001–9010

For Professional Services Rendered During the Month of: Aug–2004

Project:	Airport Tee Hangars		
	Town of Addison		
Design Phase			
Engineer, P.E.	4.0 hrs @	$ 100.00/hr	400.00
Engineer, Sr.	30.0 hrs @	$ 95.00/hr	2,850.00
Technician/ACAD	39.5 hrs @	$ 60.00/hr	2,370.00
		Subtotal	$5,620.00
		TOTAL DUE	$5,620.00

Not to Exceed:	$7,500.00
Prior Billings:	$0.00

Ok to pay
Jc Pierce
9-22-04

) Classification of Locations.

)elow Floor Level. Any pit or depression below the of the hangar floor shall be classified as a Class I, ion 1 or Zone 1 location that shall extend up to said level.

ıreas Not Cut Off or Ventilated. The entire area of ngar, including any adjacent and communicating areas ıitably cut off from the hangar, shall be classified as ss I, Division 2 or Zone 2 location up to a level 450 18 in.) above the floor.

'icinity of Aircraft. The area within 1.5 m (5 ft) hori- ly from aircraft power plants or aircraft fuel tanks ɔe classified as a Class I, Division 2 or Zone 2 location ıall extend upward from the floor to a level 1.5 m (5 ft) the upper surface of wings and of engine enclosures.

ler to properly classify the area in accordance with C), it is necessary to obtain information on the aircraft parking patterns, the types of aircraft, and the operations to be performed in the hangar. See Exhibit 513.1 for area classification in aircraft hangars.

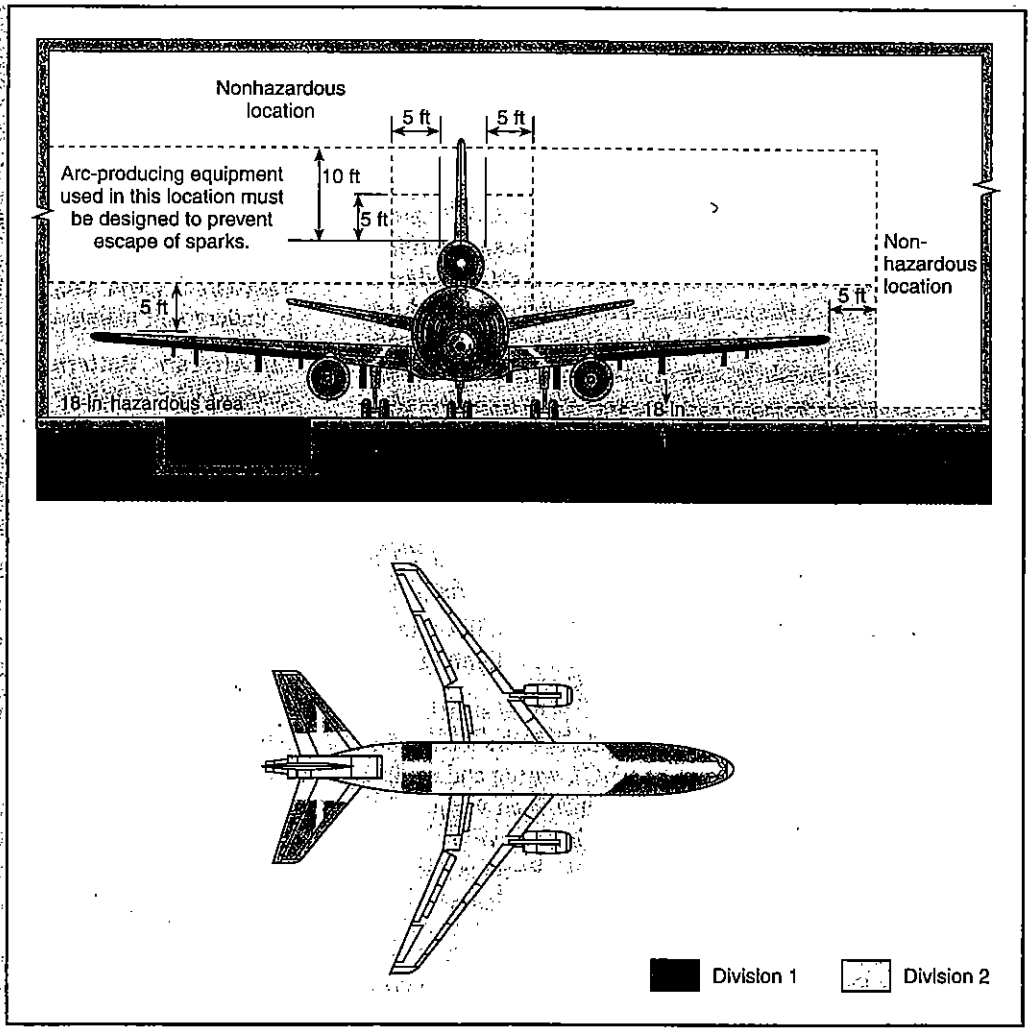
Consideration of future changes in aircraft types and locations is appropriate to avoid the need for costly wiring and equipment alterations as a result of changes in the area classification.

(D) Areas Suitably Cut Off and Ventilated. Adjacent areas in which flammable liquids or vapors are not likely to be released, such as stock rooms, electrical control rooms, and other similar locations, shall not be classified where adequately ventilated and where effectively cut off from the hangar itself by walls or partitions.

513.4 Wiring and Equipment in Class I Locations.

(A) General. All wiring and equipment that is or may be installed or operated within any of the Class I locations

t 513.1 Area classifica- aircraft hangars.



McCREARY & ASSOCIATES, INC.
CONSULTING ENGINEERS 972/458-8745
6310 LBJ FREEWAY SUITE 217 DALLAS, TEXAS 75240

TO: MR. JIM PIERCE, PE
CITY OF ADDISON

DATE 9-10-04

PROJECT ADDISON AIRPORT T-HANGAR LIGHTING

LETTER OF TRANSMITTAL

WE ARE SENDING YOU ☒ ATTACHED ☐ UNDER SEPARATE COVER THE FOLLOWING ITEMS:

☐ SHOP DRAWINGS	☒ SPECIFICATIONS	☐ EQUIPMENT DATA
☒ PRINTS	☐ CHANGE ORDER	☐ SUBMITTALS
☐ PLANS	☐ COPY OF LETTER	☐ OTHER

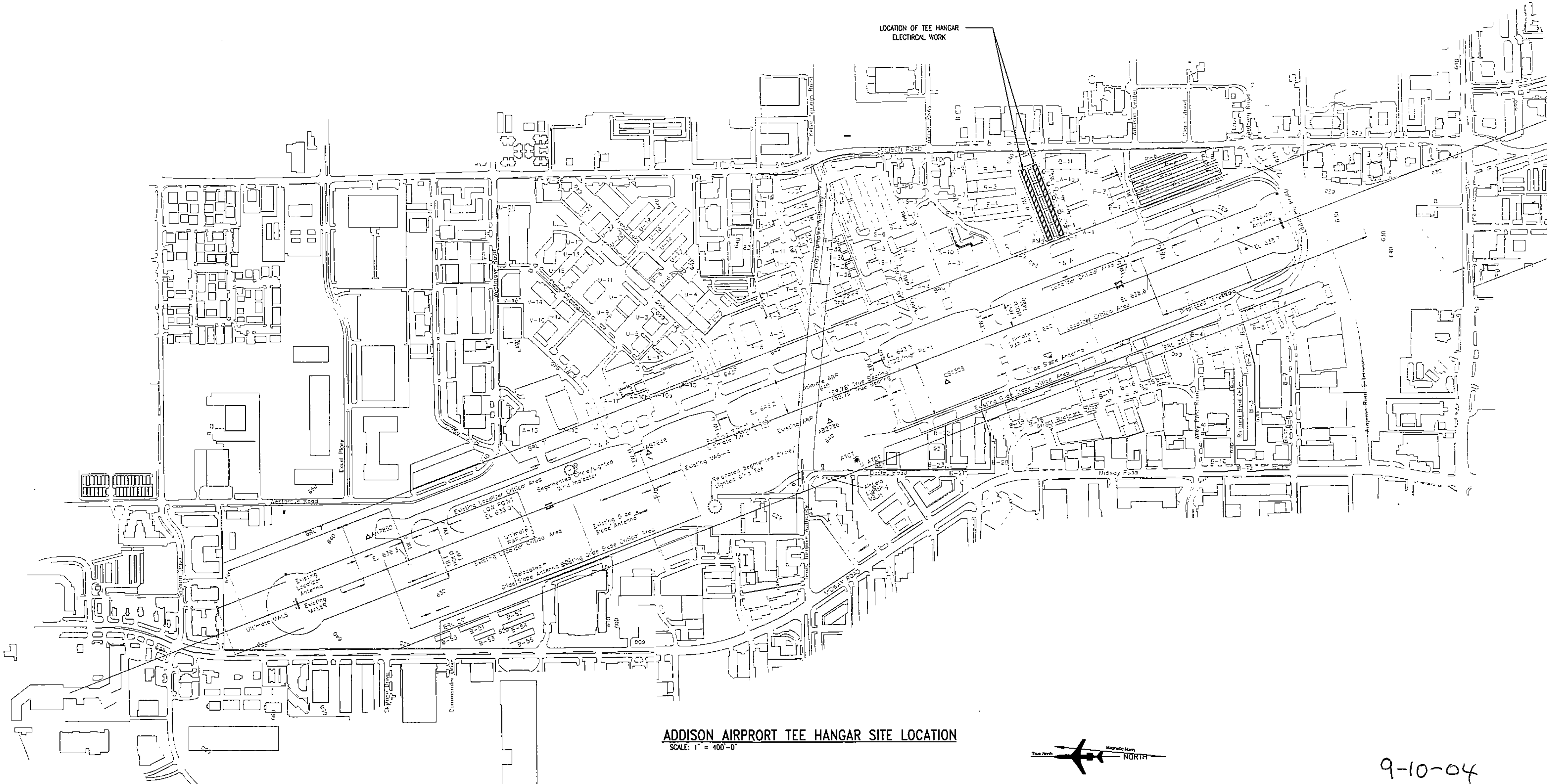
COPIES	DESCRIPTION
3 EA	11X17 ELECTRICAL SHEETS E1-E7 - PRELIMINARY
3 SETS	ELECTRICAL SPECIFICATIONS - PRELIMINARY

THESE ARE TRANSMITTED ☐ FOR APPROVAL ☒ FOR YOUR REVIEW & COMMENT
☐ FOR YOUR USE ☐ AS REQUESTED.

REMARKS: CONFIRM NO LIGHTNING PROTECTION SYSTEM REQUIRED FOR BUILDINGS PER DAVE FOSTER.

John Williams

Clean Set



ADDISON AIRPRORT TEE HANGAR SITE LOCATION
SCALE: 1" = 400'-0"

True North — Magnetic North — NORTH

Magnetic Declination
4° 56' E (August 2004)
Annual Rate of Change
5' W (August 2004)

0 400 800
SCALE IN FEET

9-10-04

PRELIMINARY
FOR INTERIM REVIEW
NOT FOR CONSTRUCTION PURPOSES
NOT FOR BIDDING PURPOSES
NOT FOR PERMIT PURPOSES

VERIFY SCALE
Bar is one inch on original drawing.
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If not one inch on this sheet, adjust scale accordingly.
FILE No. 01.043

THESE DOCUMENTS ARE FOR INTERIM REVIEW AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES.
JOSEPH J. KOTRLA
TEXAS P.E. NO. 56361
DATE: SEPTEMBER, 2004

TOWN OF ADDISON, TEXAS

ADDISON AIRPORT TEE HANGAR LIGHTING
AIRPORT SITE LOCATION

McCREARY & ASSOCIATES, INC.
CONSULTING ENGINEERS 972/458-8745
8310 LBJ FREEWAY SUITE 217 DALLAS, TEXAS 75240

DESIGNED BY:	W.H.G.	PROJECT:	97 180	SHEET NO. E1
DRAWN BY:	M.E.G.	DATE:	SEPTEMBER, 2004	OF E7 SHEETS

PANEL SCHEDULE

NUMBER A (B NOTE 1) — VOLTS 120/240V 1ø 3WIRE
LOCATION MAIN ELECTRICAL ROOM — SIZE 225A.
FED FROM MCC-1 — NEMA 1 — MAIN LUGS ONLY
(SURFACE MOUNT)

	LOAD	CKT	CKT #	CKT #	CKT	LOAD	
CIRCUIT DESCRIPTION	KVA	BKR	#	#	BKR	KVA	CIRCUIT DESCRIPTION
TEE HANGAR UNIT #1 LIGHTING AND RECEPTACLE	0.89	20	1	2	20	0.89	TEE HANGAR UNIT #2 LIGHTING AND RECEPTACLE
TEE HANGAR UNIT #3 LIGHTING AND RECEPTACLE	0.89	20	3	4	20	0.89	TEE HANGAR UNIT #4 LIGHTING AND RECEPTACLE
TEE HANGAR UNIT #5 LIGHTING AND RECEPTACLE	0.89	20	5	6	20	0.89	TEE HANGAR UNIT #6 LIGHTING AND RECEPTACLE
TEE HANGAR UNIT #7 LIGHTING AND RECEPTACLE	0.89	20	7	8	20	0.89	TEE HANGAR UNIT #8 LIGHTING AND RECEPTACLE
TEE HANGAR UNIT #9 LIGHTING AND RECEPTACLE	0.89	20	9	10	20	0.89	TEE HANGAR UNIT #10 LIGHTING AND RECEPTACLE
TEE HANGAR UNIT #11 LIGHTING AND RECEPTACLE	0.89	20	11	12	20	0.89	TEE HANGAR UNIT #12 LIGHTING AND RECEPTACLE
TEE HANGAR UNIT #13 LIGHTING AND RECEPTACLE	0.89	20	13	14	20	0.89	TEE HANGAR UNIT #14 LIGHTING AND RECEPTACLE
TEE HANGAR UNIT #15 LIGHTING AND RECEPTACLE	0.89	20	15	16	20	0.89	TEE HANGAR UNIT #16 LIGHTING AND RECEPTACLE
TEE HANGAR UNIT #17 LIGHTING AND RECEPTACLE	0.89	20	17	18	20	0.89	TEE HANGAR UNIT #18 LIGHTING AND RECEPTACLE
TEE HANGAR UNIT #19 LIGHTING AND RECEPTACLE	0.89	20	19	20	20	0.89	TEE HANGAR UNIT #20 LIGHTING AND RECEPTACLE
LIGHTING - EXTERIOR ROOF MOUNTED UNITS 10, 14, 18	1.86	20	21	22	20	1.24	LIGHTING - EXTERIOR ROOF MOUNTED UNITS 2 AND 6
			23	24			
SPARE		20	25	26	20		SPARE
SPARE		20	27	28			SPARE
SPARE		20	29	30	20		SPARE
			TVSS				

MAIN BUS: TIN PLATED COPPER — NEUTRAL — GROUND
TVSS: 120KA

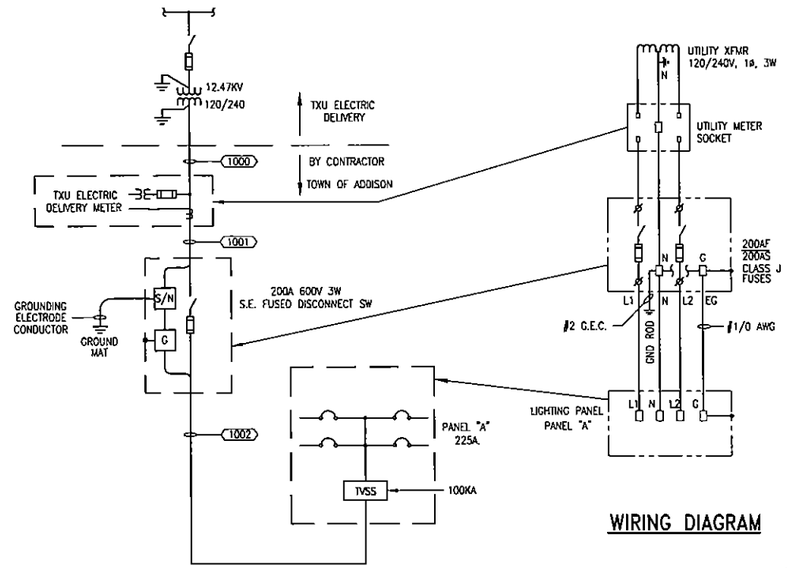
NOTES:
1. PANEL SCHEDULE FOR PANEL 'B' SAME AS PANEL 'A'.

CONDUIT AND CABLE SCHEDULE FOR 120/240 VOLT POWER WIRING

TAG	WIRING	CONDUIT	SOURCE	DESTINATION	COMMENTS
1000	2 #4/0, #2 N	3"C	SERVICE POLE	SERVICE ENTRANCE METER	VERIFY REQUIREMENTS BY TXU ELECTRIC DELIVERY
1001	2 #4/0, #2 N, #2 GEC	2"C	SERVICE ENTRANCE METER SOCKET	SERVICE ENTRANCE SAFETY DISCONNECT SWITCH	#2 GEC TO GROUND
1002	2 #4/0, #2 N #1/0 EGC	2"C	SERVICE ENTRANCE SAFETY DISC. SWITCH	PANEL 'A'	

LIGHT FIXTURE SCHEDULE

MARK	DESCRIPTION	VOLTS	LAMPS	MANUFACTURER	CATALOG NUMBER	COMMENTS
A	"T" HANGAR INTERIOR LTG.	120	75 WATT	LITHONIA	EJ296240	FURNISH AND INSTALL F96T12/D35 FLUORESCENT LAMPS
B	EXTERIOR ROADWAY LIGHTING	240	250 WATT	HOLOPHANE	G250MH00LWF	FURNISH AND INSTALL MH LAMPS. PROVIDE PHOTOCELLS

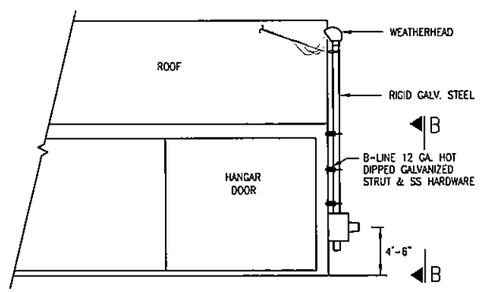


WIRING DIAGRAM

ONE LINE DIAGRAM LEGEND

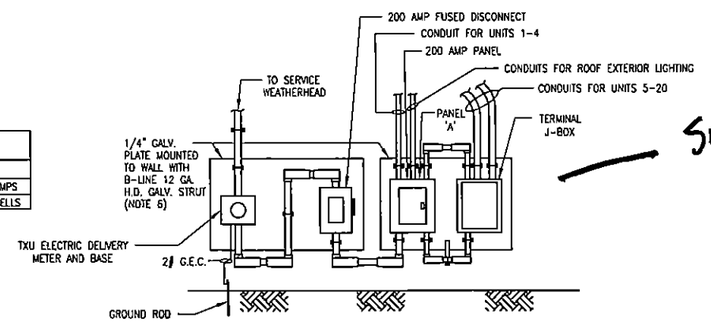
	POWER TRANSFORMER
	CIRCUIT BREAKER
	FUSED DISCONNECT SWITCH
	GROUND WIRE
CPT / PT	FUSED CONTROL POWER TRANSFORMER
G	G = GROUND
S/N	SOLID NEUTRAL

ONE LINE DIAGRAM
TYPICAL 2 SERVICES



01 DETAIL SERVICE ENTRANCE
N.T.S.

OVERHEAD SERVICE DOES NOT COMPLY WITH SUBDIVISION ORD.
this is OK
J Pillin



SHALL COMPLY WITH ART 514 2002 NEC

SECTION B-B
N.T.S. (NOTE 5)

NOTES:
1. METER WILL BE FURNISHED BY CONTRACTOR AND SHALL BE INSTALLED PER TXU ELECTRIC DELIVERY BY THE CONTRACTOR 4" TO 6" ABOVE GRADE INSTALL PER SPECIFICATIONS.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR CONDUIT TO WEATHERHEAD FOR CONNECTION TO TXU ELECTRIC DELIVERY.
3. REF ELECTRICAL PLAN VIEW FOR EXACT LOCTION OF DISCONNECT. REF SITE PLAN FOR LOCATION OF SERVICE.
4. INSTALL NO. 2 AWG CU GROUND TO 3/4ø X 10' CU CLAD DRIVEN GROUND ROD. REF DETAIL 04/E1.
5. INSTALL MIRROR IMAGE FOR 2ND HANGAR BUILDING.
6. SUPPORT STRUT SHALL BE ANCHORED TO BUILDING SUPPORT STEEL.

PRELIMINARY
FOR INTERIM REVIEW
NOT FOR CONSTRUCTION PURPOSES
NOT FOR BIDDING PURPOSES
NOT FOR PERMIT PURPOSES

VERIFY SCALE
Bar is one inch on original drawing.
0 1
If not one inch on this sheet, adjust scale accordingly.
FILE No. 01.043

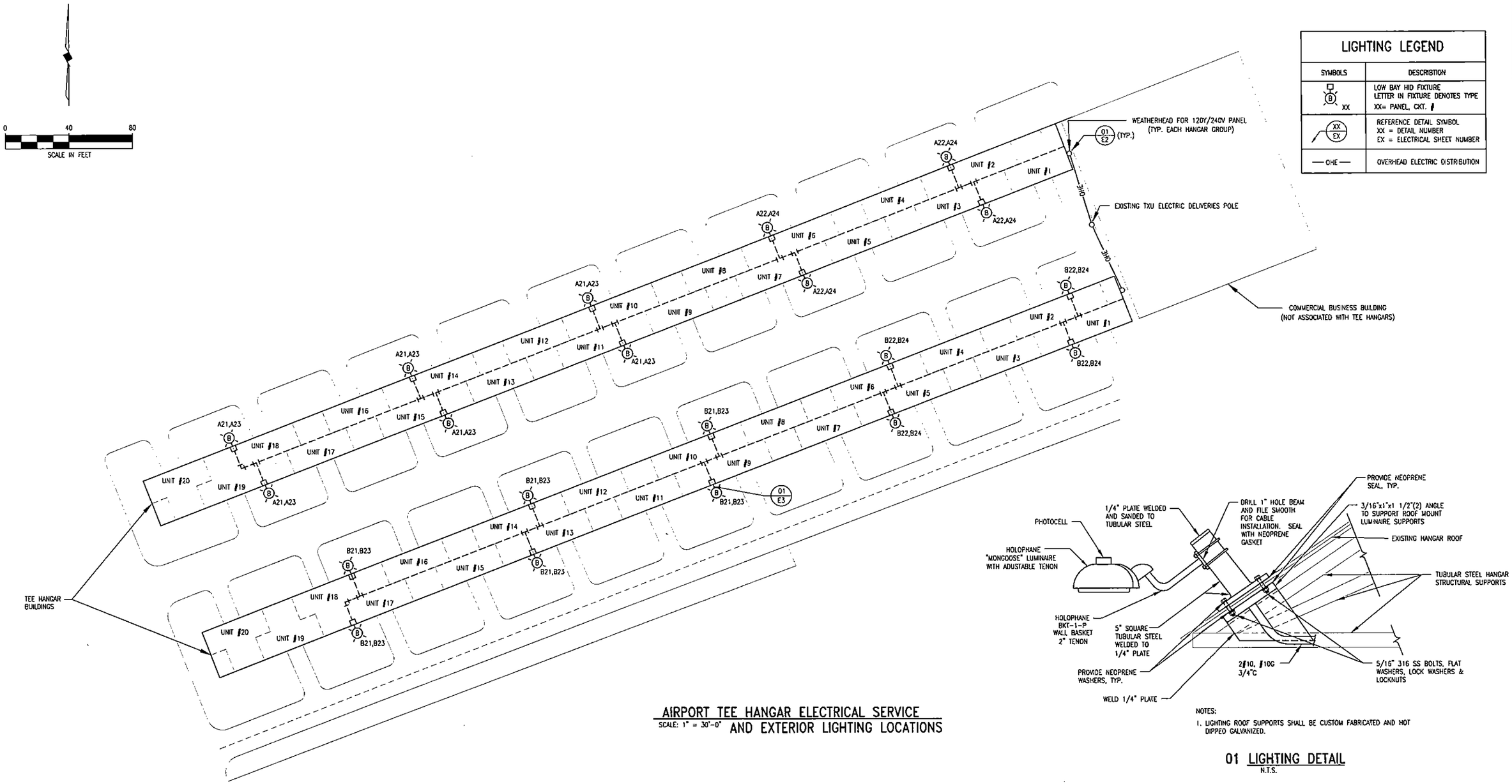
THESE DOCUMENTS ARE FOR INTERIM REVIEW AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES.
JOSEPH J. KOTRLA
TEXAS P.E. NO. 56361
DATE: SEPTEMBER, 2004

TOWN OF ADDISON, TEXAS

ADDISON AIRPORT TEE HANGAR LIGHTING
ELECTRICAL ONE LINE

McCREARY & ASSOCIATES, INC.
CONSULTING ENGINEERS 972/458-8745
6310 LBJ FREEWAY SUITE 217 DALLAS, TEXAS 75240

DESIGNED BY: W.H.G. — PROJECT: 97 180
DRAWN BY: M.E.G. — DATE: SEPTEMBER, 2004
SHEET NO. E2 OF E7 SHEETS



AIRPORT TEE HANGAR ELECTRICAL SERVICE AND EXTERIOR LIGHTING LOCATIONS

SCALE: 1" = 30'-0"

NOTES:

1. LIGHTING ROOF SUPPORTS SHALL BE CUSTOM FABRICATED AND HOT DIPPED GALVANIZED.

01 LIGHTING DETAIL

N.T.S.

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FOR INTERIM REVIEW

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NOT FOR BIDDING PURPOSES
NOT FOR PERMIT PURPOSES

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FILE No. 01.043

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JOSEPH J. KOTRLA
TEXAS P.E. NO. 56361
DATE: SEPTEMBER, 2004

TOWN OF ADDISON, TEXAS

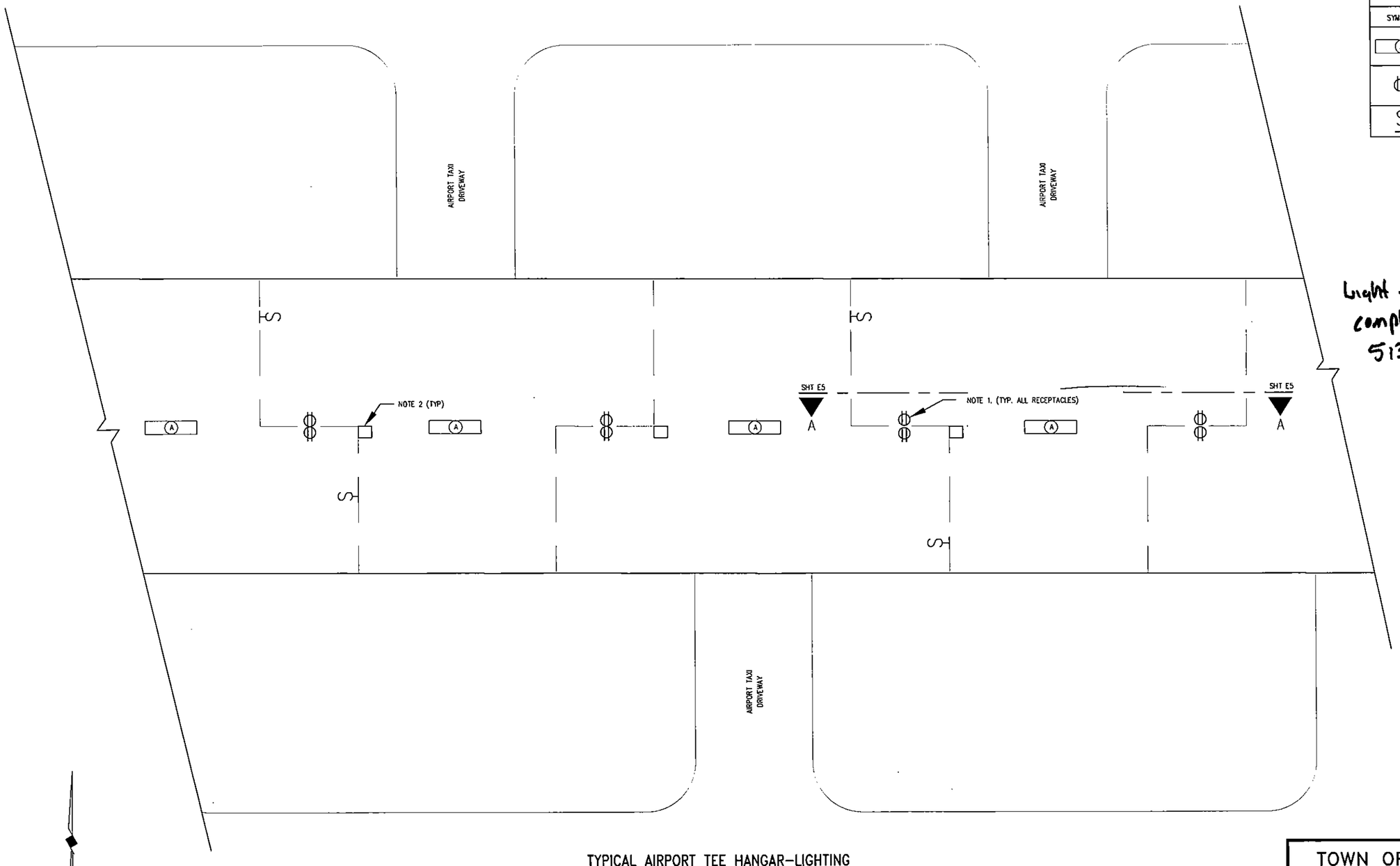
ADDISON AIRPORT TEE HANGAR LIGHTING
HANGAR ROOF LIGHTING PLAN

McCREARY & ASSOCIATES, INC.
CONSULTING ENGINEERS 972/458-8743
6310 LBJ FREEWAY SUITE 217 DALLAS, TEXAS 75240

DESIGNED BY: W.H.G.	PROJECT: 97 180	SHEET NO. E3
DRAWN BY: M.E.G.	DATE: SEPTEMBER, 2004	OF E7 SHEETS

LIGHTING AND RECEPTACLE LEGEND	
SYMBOLS	DESCRIBTION
(A)	FLUORESCENT FIXTURE
	DUPLEX RECEPTACLE SEE E-XX DETAIL XX
S	WALL SWITCH, SPST

Light & Receptacles shall comply with ART 513 2002 NEC.



0 10 20

TYPICAL AIRPORT TEE HANGAR–LIGHTING

SCALE: 3/16" = 1'-0"

NOTES:

1. ALL BOTTOM OF RECEPTACLE DISTANCE TO HANGAR FLOOR TO BE MINIMUM 24 INCHES TO BE ABOVE HANGAR ELECTRICAL AREA CLASSIFICATION 18 INCHES ABOVE GRADE.
2. TERMINAL JUNCTION BOX FOR HANGAR WIRING.
3. SEE SPECIFICATIONS FOR EQUIPMENT WIRING DEVICES.

PRELIMINARY
FOR INTERIM REVIEW
NOT FOR CONSTRUCTION PURPOSES
NOT FOR BIDDING PURPOSES
NOT FOR PERMIT PURPOSES

FILE No. 01.043

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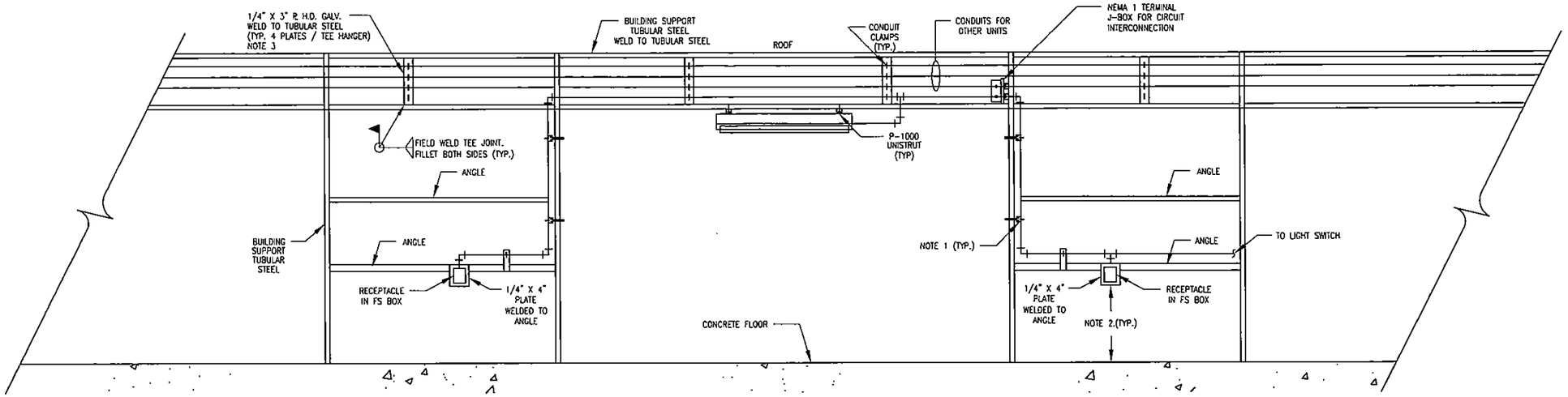
JOSEPH J. KOTRLA
TEXAS P.E. NO. 56361
DATE: SEPTEMBER, 2004

TOWN OF ADDISON, TEXAS

ADDISON AIRPORT TEE HANGAR LIGHTING
HANGAR ELECTRICAL PLAN

McCREARY & ASSOCIATES, INC.
CONSULTING ENGINEERS 972/458-8745
6310 LBJ FREEWAY SUITE 217 DALLAS, TEXAS 75240

DESIGNED BY:	W.H.G.	PROJECT:	97 180	SHEET NO. E4
DRAWN BY:	M.E.G.	DATE:	SEPTEMBER, 2004	OF E7 SHEETS

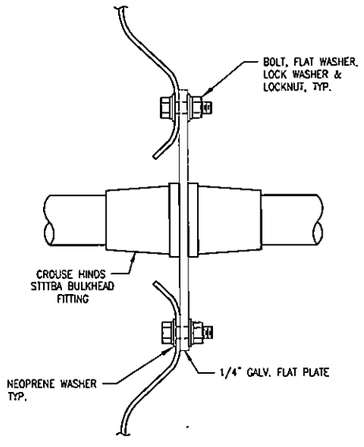


AIRPORT TEE HANGAR LIGHTING ELEVATION A-A
SCALE: 1" = 10'-0"

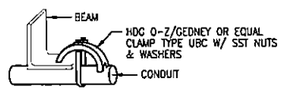
TYPICAL CONDUIT LAYOUT

NOTES:

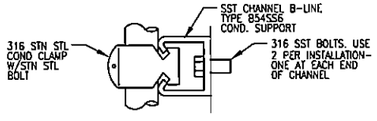
1. B-LINE 12GA. H.D. GALV. STRUT SUPPORT SHALL BE U-BOLTED TO BUILDING TUBULAR STEEL.
2. BOTTOM OF RECEPTACLES, SWITCHES OR ANY ELECTRICAL EQUIPMENT SHALL BE 18" MINIMUM ABOVE GRADE TO AVOID THE ELECTRICAL HAZARDOUS AREA PER NEC.
3. WELDING SHALL MEET AWS D1.1 STANDARDS. TUBULAR STEEL PAINT, RUST, CORROSION SHALL BE GROUND TO CLEAN METAL BEFORE WELDING. GALVANIZING REPAIR SHALL CARBOLINE CARBO ZINC #11, GALV-WELD PRODUCTS GALV-WELD ALLOY, KOPPERS ORGANIC ZINC COATING, OR EQUAL.



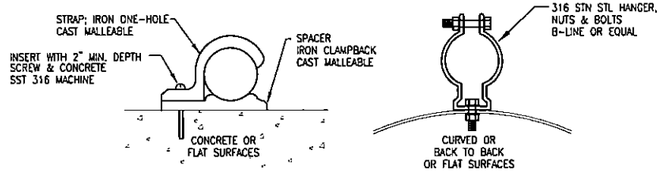
01 BULKHEAD FITTING FOR CONDUITS THROUGH GALV. CORRUGATED WALLS
N.T.S.



02 TYPICAL RIGHT ANGLE CONDUIT SUPPORT
NOT TO SCALE



10 TYPICAL CONDUIT SUPPORT ON CONCRETE STRUCTURES FOR MULTIPLE CONDUIT RUNS
NOT TO SCALE



11 TYPICAL CONDUIT SUPPORT SINGLE CONDUIT
NOT TO SCALE

PRELIMINARY
FOR INTERIM REVIEW
NOT FOR CONSTRUCTION PURPOSES
NOT FOR BIDDING PURPOSES
NOT FOR PERMIT PURPOSES

VERIFY SCALE
Bar is one inch on original drawing.
0 1
If not one inch on this sheet, adjust scale accordingly.
FILE No. 01.043

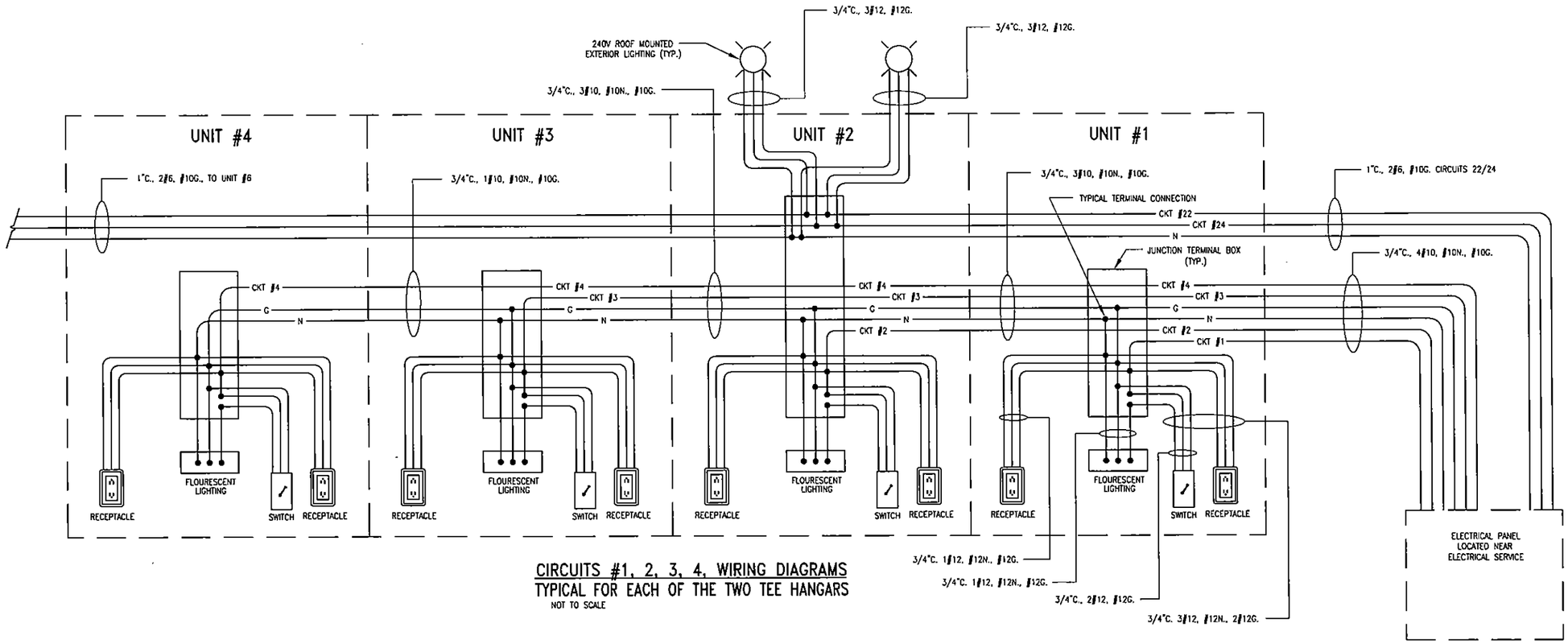
THESE DOCUMENTS ARE FOR INTERIM REVIEW AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES.
JOSEPH J. KOTRLA
TEXAS P.E. NO. 56361
DATE: SEPTEMBER, 2004

TOWN OF ADDISON, TEXAS

ADDISON AIRPORT TEE HANGAR LIGHTING
TYPICAL HANGAR ELEVATION

McCREARY & ASSOCIATES, INC.
CONSULTING ENGINEERS 972/458-8745
6310 LBJ FREEWAY SUITE 217 DALLAS, TEXAS 75240

DESIGNED BY: W.H.G.	PROJECT: 97 180	SHEET NO. E5
DRAWN BY: M.E.G.	DATE: SEPTEMBER, 2004	OF E7 SHEETS



CIRCUITS #1, 2, 3, 4, WIRING DIAGRAMS
TYPICAL FOR EACH OF THE TWO TEE HANGARS
NOT TO SCALE

NOTES:

1. WIRING AND CONDUIT SIZES FOR EXTENSION WIRING FROM JUNCTION TERMINAL BOX TO LIGHTING, SWITCH AND RECEPTACLES SHALL BE THE SAME AS SHOWN IN UNIT #1.
2. FOR CIRCUITS 5-20 SEE SHEET E7.

PRELIMINARY
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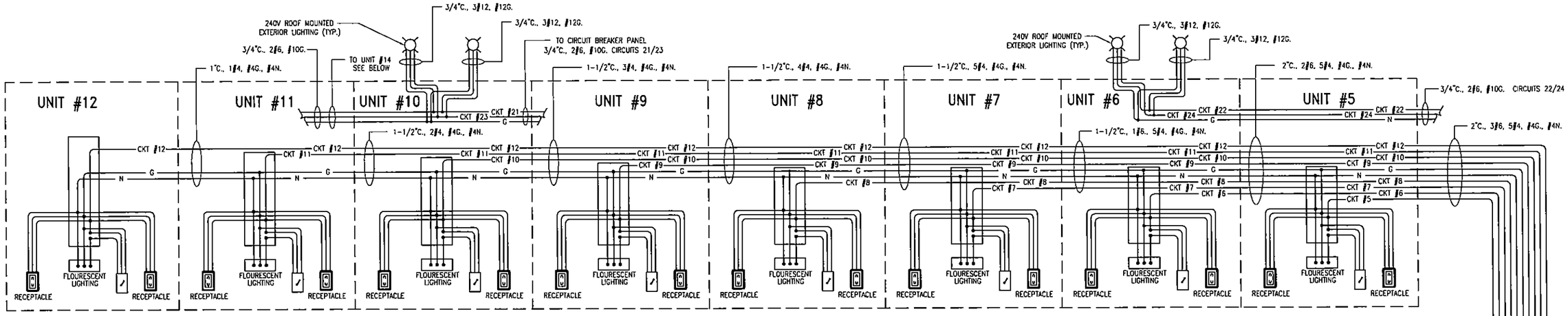
JOSEPH J. KOTRLA
TEXAS P.E. NO. 56361
DATE: SEPTEMBER, 2004

TOWN OF ADDISON, TEXAS
ADDISON AIRPORT TEE HANGAR LIGHTING
CIRCUIT DIAGRAMS 1 THRU 4

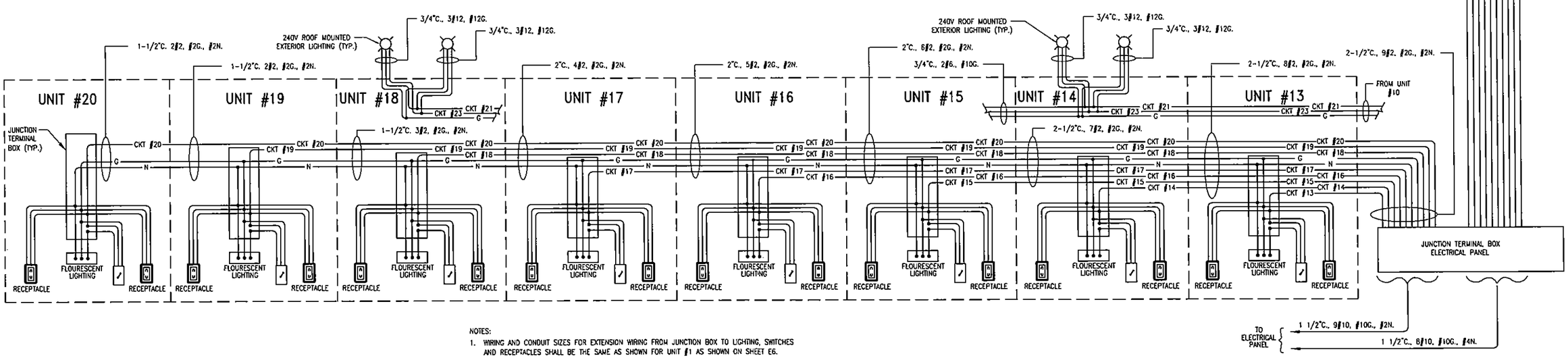
McCREARY & ASSOCIATES, INC.
CONSULTING ENGINEERS 6310 LBJ FREEWAY SUITE 217 DALLAS, TEXAS 75240 972/556-8745

DESIGNED BY: W.H.G.
DRAWN BY: M.E.G.
PROJECT: 97 180
DATE: SEPTEMBER, 2004
SHEET NO. E6 OF E7 SHEETS



CIRCUITS #5, 6, 7, 8, 9, 10, 11, 12 WIRING DIAGRAM
TYPICAL FOR EACH OF THE TWO TEE HANGARS

NOT TO SCALE



CIRCUITS #13, 14, 15, 16, 17, 18, 19, 20, 21, WIRING DIAGRAM
TYPICAL FOR EACH OF THE TWO TEE HANGARS

NOT TO SCALE

NOTES:
1. WIRING AND CONDUIT SIZES FOR EXTENSION WIRING FROM JUNCTION BOX TO LIGHTING, SWITCHES AND RECEPTACLES SHALL BE THE SAME AS SHOWN FOR UNIT #1 AS SHOWN ON SHEET E6.
2. FOR CIRCUITS 1-4 SEE SHEET E6.

PRELIMINARY
FOR INTERIM REVIEW
NOT FOR CONSTRUCTION PURPOSES
NOT FOR BIDDING PURPOSES
NOT FOR PERMIT PURPOSES

FILE No. 01.043

VERIFY SCALE
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JOSEPH J. KOTRLA
TEXAS P.E. NO. 56361
DATE: SEPTEMBER, 2004

TOWN OF ADDISON, TEXAS

ADDISON AIRPORT TEE HANGAR LIGHTING
CIRCUIT DIAGRAM 5 THRU 21

McCREARY & ASSOCIATES, INC.
CONSULTING ENGINEERS 972/458-8745
6310 LBJ FREEWAY SUITE 217 DALLAS, TEXAS 75240

DESIGNED BY: W.H.G.	PROJECT: 97 180	SHEET NO. E7
DRAWN BY: M.E.G.	DATE: SEPTEMBER, 2004	OF E7 SHEETS

Addison!

JIM PIERCE, P.E.
Assistant Public Works Director
(972) 450-2879
(972) 450-2837 FAX
jpierce@ci.addison.tx.us

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

9-24-04

Bill: Comments from our Electrical Building Inspector, Lynn Chandler 972-450-2889. Please call him if you have any questions.

Jim

Addison!

JIM PIERCE, P.E.
Assistant Public Works Director
(972) 450-2879
(972) 450-2837 FAX
jpierce@ci.addison.tx.us

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

8-6-04

Mark - Please see attached. I would like to authorize this. Lisa is OK with it.

Jim

Jim -
OK - To Be Funded out of Airport mgmt. operations acct -

8/9/04

HP LaserJet 3200se

HP LASERJET 3200

AUG-9-2004 1:28PM

Fax Call Report

Job	Date	Time	Type	Identification	Duration	Pages	Result
466	8/ 9/2004	1:26:57PM	Send	99723920739	1:26	4	OK

TOWN OF
ADDISON

PUBLIC WORKS

To: Joe Katrla

Company: Mc Creary & Assoc

FAX #: 972-392-0739

Date: 8-9-04

# of pages (including cover): 4

Re: T Hangars

From: Jim Pierce, P.E.
Asst. Public Wks. Dir.
Phone: 972/450-2879
FAX: 972/450-2837
jpierce@ci.addison.tx.us

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

☐ Original in mail ☐ Per your request ☐ FYI ☐ Call me

Comments: Please see attached

Consider this your Notice to Proceed.

Thanks,

Jim

McCREARY & ASSOCIATES, INC.
6310 LBJ Suite 217 Dallas, Texas 75240
972-458-8745 Fax: 972-392-0739

August 5, 2004

Mr. James C. Pierce, JR. P.E.
Assiatant Public Works Director
Town of Addison
16801 Westgrove Drive
Addison, Texas 75001-9010

Subject: Engineering Service Proposal
Addison Airport – T Hangers

Dear Jim,

We propose to render engineering services for the above referenced project. There will be two hangar buildings, each with 20 "T" hangars. The scope of our services will be to design a new electrical system for each hanger building consisting of a new service, panelboards, grounding, interior and exterior lighting. Each hangar will have its own circuit for lighting and receptacles. A fee breakdown is attached.

Additionally, the scope of our services will include:

1. Preparation of drawings in ACAD 2002 for inclusion with your bid documents.
2. Preparation of technical specifications for inclusion with your bid documents.
3. Meetings with the City and/or client during design (two meetings max).
4. Necessary addenda, assistance during bidding, and evaluation of bids.
5. Checking of shop drawings.
6. One site visit during design and one during construction.
7. Final inspection and punchlist.

McCreary & Associates proposes to be compensated on a time-expended basis with a not to exceed maximum of $7,500.00 (seven thousand five hundred dollars). We propose to invoice monthly at the rates listed below.

Engineer, P.E.	$100.00 per hour
Engineer, Sr.	$ 95.00 per hour
Engineering Technician, Sr.	$ 80.00 per hour
Engineering Technician	$ 65.00 per hour
Clerical	$ 50.00 per hour

Services outside the scope of the work shall include but not be limited to the following:

1. On site (daily) inspection services during construction.
2. Change in scope.

If services are to be performed that are outside the scope of work, then the maximum may be exceeded and the above listed rates shall apply.

We appreciate the opportunity to submit this proposal and look forward to working with you on this project.

Sincerely,

Joseph J. Kotria, P.E.
President
McCreary & Associates, Inc.

ACCEPTED _____ DATE 8-9-04
Authorized Officer of the Company

McCreary & Assoc.
Engineering Fee Proposal

Proj. Name: Addison Airport T-Hanger Electrification

Client: Town of Addison

Prepared By: Bill Goff

Date: 08/04/04

Project No.:01.043

	Hours by Deliverables					
Deliverables	ENG'R, P.E.	ENG'R, Sr.	Eng'r Tech, Sr.	Eng'r Tech.	Tech./CAD	Clerical
Oncor Requirements		8				
Calculations -		4				
On-site Data Gathering		4				
1-line - panel diagrams	1	4			8	0.25
Site Plan	0.5	4			8	
Equipment Layouts incl. lighting	1	8			8	0.25
Detail Drawings	1	6			16	0.25
Specifications	1	4			4	2
Shop Drawings		2				3
Construction Estimate	1	4				
Client Meetings/Site Visit		8				
Hours by Discipline	5.5	44	0	0	42	5.75
Hourly Rate	$100.00	$95.00	$80.00	$60.00	$50.00	$50.00
Labor Costs by Discipline	$550.00	$4,180.00	$0.00	$0.00	$2,100.00	$287.50

Sub-Total Labor Costs	$7,117.50
Mileage	60
Rate ($/mi.)	$0.345
Sub-Total Travel Costs	$20.70
Office Equipment (cad, printing, faxing, etc.)	$350.00
Total Project Engineering Fee	$7,488.20

TOWN OF ADDISON®

LETTER OF TRANSMITTAL

Public Works / Engineering
16801 Westgrove • P.O. Box 9010
Addison, Texas 75001
Telephone: (972) 450-2871 • Fax: (972) 450-2837

DATE 8-10-04	JOB NO.
ATTENTION	
RE: Addison Airport	

TO Carmen Moran

GENTLEMAN:

WE ARE SENDING YOU
☒ Attached ☐ Under separate cover via _____ the following items:
☐ Shop Drawings ☐ Prints ☐ Plans ☐ Samples ☐ Specifications
☐ Copy of letter ☐ Change order ☐ _____

COPIES	DATE	NO.	DESCRIPTION
1			Proposal to design electrical Service for "T" Hangars by McCreary & Associates

THESE ARE TRANSMITTED as checked below:
☐ For approval ☐ Approved as submitted ☐ Resubmit _____ copies for approval
☒ For your use ☐ Approved as noted ☐ Submit _____ copies for distribution
☐ As requested ☐ Returned for corrections ☐ Return _____ corrected prints
☐ For review and comment ☐ _____
☐ FOR BIDS DUE _____ 19_____ ☐ PRINTS RETURNED AFTER LOAN TO US

REMARKS _____

COPY TO _____

SIGNED: _____

If enclosures are not as noted, please notify us at once.