

**Return Completed Form by E-Mail to: Agenda Coordinator, County Judge's Office**

**Phone Number: 281-633-7017**

**NO**

<input checked="" type="checkbox"/>	<b>Auditor</b>	<b>(281-341-3774)</b>	<input checked="" type="checkbox"/>	<b>Comm. Pct. 1</b>	<b>(281-342-0587)</b>
<input checked="" type="checkbox"/>	<b>Budget Officer</b>	<b>(281-344-3954)</b>	<input checked="" type="checkbox"/>	<b>Comm. Pct. 2</b>	<b>(281-403-8009)</b>
<input checked="" type="checkbox"/>	<b>Facilities/Planning</b>	<b>(281-633-7022)</b>	<input checked="" type="checkbox"/>	<b>Comm. Pct. 3</b>	<b>(281-242-9060)</b>
<input checked="" type="checkbox"/>	<b>Purchasing Agent</b>	<b>(281-341-8642)</b>	<input checked="" type="checkbox"/>	<b>Comm. Pct. 4</b>	<b>(281-980-9077)</b>
<input checked="" type="checkbox"/>	<b>Information Technology</b>	<b>(281-341-4526)</b>	<input checked="" type="checkbox"/>	<b>County Clerk</b>	<b>(281-341-8697)</b>
<input type="checkbox"/>	<b>Other:</b>		<input checked="" type="checkbox"/>	<b>County Atty</b>	<b>(281-341-4557)</b>

4 orig. ret. to Laura at Facilities

Fm91319

CHANGE ORDER

Date: December 7, 2009

Fort Bend County Commissioners Court  
301 Jackson St., Suite 719  
Richmond, Texas 77469  
Attention: Robert Herbert, PH.D., County Judge  
Facsimile Number: (281) 341-8609

RE: Change Order No. 002 \_\_\_\_\_  
Project No. & Name of Project: Fort Bend County Jail Expansion

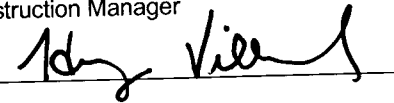
1. Submission of this change order for consideration was authorized by direction of the Owner.
2. The changes hereinafter described are applicable to the contract for the construction of Fort Bend County Jail Expansion at Richmond, Texas, executed by and between the Fort Bend County, Texas, Owner, and Turner Construction Company, Construction Manager, dated February 20, 2007.
3. Description of Change:
  1. **Provide design services for the proposed Fort Bend County Sheriff's Office proposed new 911 center.**
4. This change order is deemed necessary and originated with the *Construction Manager*.
5. The changes are necessary to:
  - Provide expanded 911 service needs based upon Carter Goble Lee 911 Call Center Program Dated October 6, 2009.**
6. The amount of the change order was determined by:
  - c. Cost and percentage as described in the general conditions
7. 911 Call Center program attached provided by Carter Goble Lee Dated October 6, 2009. Qualifications have been attached for the proposed designer for the project.
8. We have verified the fact that all quantities shown are accurate and do not exceed actual requirements. We have verified the fact that all prices are fair and equitable and do not exceed current costs for like services or materials.
9. The Construction Manager shall be allowed 60 additional calendar days for completion.
10. The Guaranteed Maximum Price shall be *increased* by 205,450.00 dollars on account of this change.



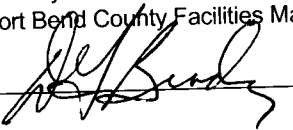
11. The payment and extension of time (if any) provided by this change order constitutes compensation in full on behalf of the Construction Manager and its Trade Contractors and suppliers for all costs and markups, directly and indirectly attributable to the changes ordered herein, for all delays related thereto and for performance of changes within the time stated.

RECOMMENDED FOR OWNER'S ACCEPTANCE:


Turner Construction Company  
Construction Manager

By: 

Donald G. Brady  
Director, Fort Bend County Facilities Management and Planning



APPROVED:

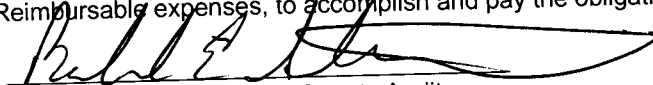
Owner  
County of Fort Bend Commissioners Court  
By:   
Robert E. Herbert, County Judge 12-15-09

ATTEST:

By:   
Dianne Wilson, County Clerk

Date: 12-15-09

additional 12/16/09  
AUDITOR' CERTIFICATE  
I hereby certify that funds are available in an amount not to exceed \$ 205,450.00, plus  
\$ 0 in Reimbursable expenses, to accomplish and pay the obligation of Fort Bend County  
in the foregoing matter

  
Robert Ed Sturdivant, County Auditor



**Turner Construction  
Company**

122 Legion Drive  
Richmond, Texas 77469  
Phone: 832-363-9000  
Fax: 281-341-0053

December 4, 2009

Don Brady  
Fort Bend County  
1517 Ransom Road  
Richmond, TX 77469

Re: Fort Bend County Jail Project Change Order #2 to GMP

Don:

Please find Turner's proposal of the design services and equipment procurement for the 911 Center Project for the Fort Bend County Sheriff's Office. The scope of work is based upon Carter Goble Lee's Program Dated October 6, 2009.

Based on discussions this scope of work will be handled over two phases. Phase I is based upon designers costs for this project. Phase II of the project will be a final construction estimate for the project based on construction documents developed by the awarded designer.

**PHASE I – Design Services Cost and Equipment Procurement Coordination**

Per Construction Managers Agreement 3.3.2 and 3.3.4, 3.3.6.1 case (a) and 3.3.15, Please find Turner request for additional funds per the Fort Bend County Sheriff's Office 911 Call Center. Schedule and Back Up attached.

911 Call Center (Design Services Only)						
	PRICING PER SF	TOTAL HOURS	SUB COST	CCIP @ RATES		
Design Development - IA Naman and Associates					\$120,000	IA Naman
Reimbursables - IA Naman					\$10,000	Turner
Turner Coordination - Survey Assistance to D/B Partner	112	80			\$8,960	Turner
Turner Coordination - Meetings w FBCCSO	112	120			\$13,320	Turner
Turner Coordination - Meetings w County Vendors	112	80			\$8,960	Turner
Turner Coordination - CD Review	112	80			\$8,960	Turner
Turner Coordination - CD Review	112	80			\$8,960	Turner
Turner Coordination - Develop Budget	120	40			\$4,800	Turner
Subtotal					\$183,960	
Insurance (Turner PD)					\$2,541	
Insurance (Turner GL )					\$5,509	
Fee (@ 7%)					\$13,441	
<b>TOTALS 911 Call Center (Design Services Only)</b>					<b>\$205,450</b>	

This change order will be an increase of **\$205,450** to the GMP. Total increase to the GMP since change order #1 is **\$417,788**.



Turner's Coordination includes the following (hours detailed above)

- Turner Coordination – Survey Assistance to D/B Partner : Turner will provide supervision to escort and assistance with Turner's D/B Partner to survey existing building to develop drawings.
- Turner Coordination – Meetings w FBCSO : Turner will provide supervision and assistance with meetings with end users of the FBCSO to discuss plans and drawings.
- Turner Coordination – DD Review : Turner will provide supervision and assistance with meetings with end user of the FBCSO to present design development drawings of the project.
- Turner Coordination – CD Review : Turner will provide supervision and assistance with meetings with end user of the FBCSO to present construction drawings of the project.
- Turner Coordination – Equipment Procurement : Turner will provide support during coordination of all County procured equipment.
- Turner Coordination – Develop Budget : Turner will bid out, scope out and conduct walkthroughs with vendors to develop GMP for the project.

Please respond to this letter indicating your acceptance to expend funds as indicated above.

Sincerely,

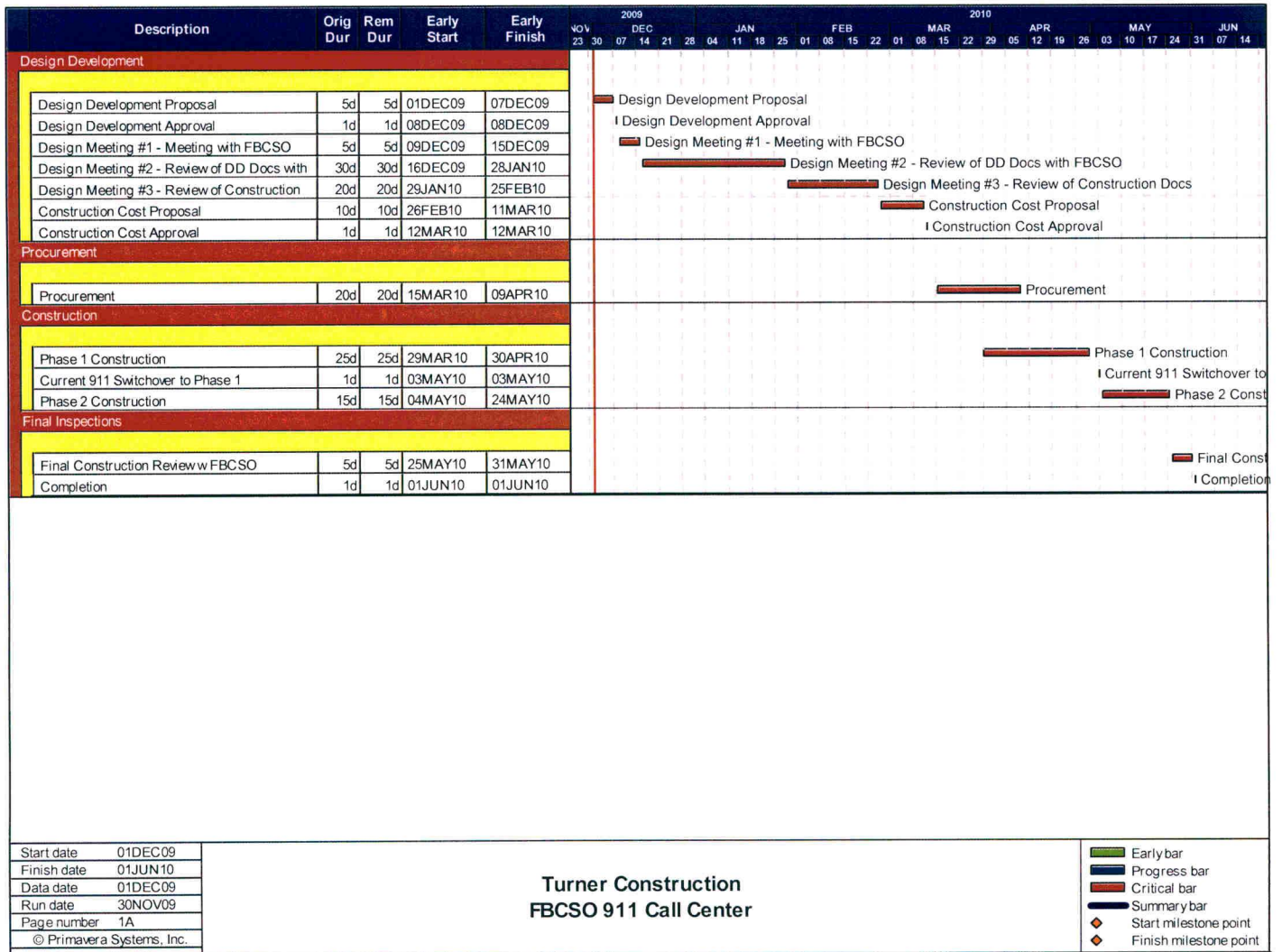
*Andy Tandon*

**Project Manager**

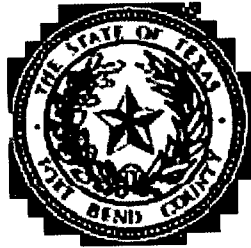
**ATTACHMENTS :**

- **911 Call Center Schedule Dated November 30 2009**
- **CGL 911 Call Center program Dated October 6, 2009**
- **IA Naman Qualifications and Scope**
- **PGAL Qualifications and Scope**

CC: David Cramer - TCCO, Chuck Watson - TCCO, Henry Villarreal – TCCO, e-mail, file.



***FINAL REPORT***



**PLANNING STUDY FOR  
FORT BEND COUNTY  
SHERIFF'S 9-1-1 CALL CENTER**

PREPARED FOR:  
**FORT BEND COUNTY**

PREPARED BY:  
**CARTER GOBLE ASSOCIATES, INC.**

**OCTOBER 6, 2009**



## TABLE OF CONTENTS

	PAGE
Introduction .....	1
Existing Conditions .....	1
Operators/Staff Work Area .....	2
Support Space .....	5
Equipment Area .....	5
Architectural Program .....	6
1.000 Administration .....	8
2.000 Call Center .....	10
Cost Estimate .....	12



## **INTRODUCTION**

This study was commissioned to study the spatial and operational needs of the 9-1-1 Sheriff's Call Center for Fort Bend County. The current Communications Center is located in a single location with an opportunity for expansion into an adjacent space currently occupied by the Sheriff's Office Squad Room. The purpose of this study is to determine the best use of the existing expansion area to accommodate future growth in call-taking/dispatch and emergency management needs of Fort Bend County.

In working closely with Fort Bend Sheriff's Office Communications staff, three tasks were undertaken during the course of this study. The first task was to evaluate the spatial requirements for the 9-1-1 Call Center. Consultant staff visited and evaluated the current space and operation on several occasions. Floor plans were acquired, measured and inventoried. An evaluation was conducted as to the current operation and space currently utilized. Another evaluation was conducted as to the efficiency of the mechanical and electrical systems within the current space.

Available historical data was collected as to call and dispatch activity within Fort Bend County. The volume was compared with other Texas Counties with similar sized populations as well as similar sized call and dispatch volume.

The second task undertaken during the course of this study was to develop an architectural program utilizing the existing space as well as expansion space into the current Squad Room. This task took into account the future needs of the communication center and developed a space program to accommodate future growth as the space would best accommodate. A round of revisions followed based on input from communications staff.

The third task undertaken was to develop preliminary capital cost estimates to meet the estimated needs based on the developed architectural space program.

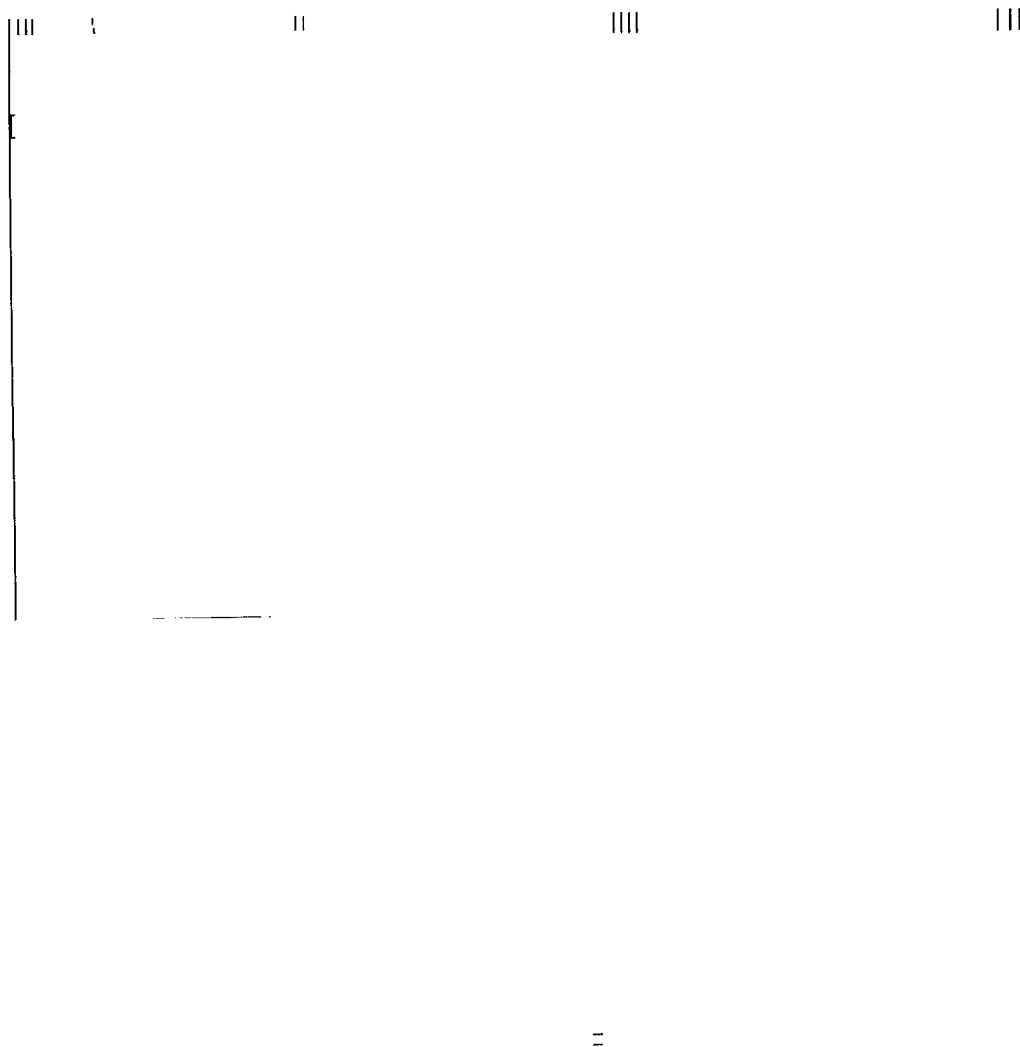
## **EXISTING CONDITIONS**

The existing communications center measures approximately 2,300 net square feet. The area is self contained and is divided into three main components;

- Operators/Staff Work Area (1,380 net square feet)
- Support Space (595 net square feet)
- Equipment area (325 net square feet)



Figure 1  
Existing Communication Center Layout



#### Operators/Staff Work Area

The operator/staff work area is contained within one area that is divided by a wall. On one side of the walled area is the call taker's work area and the other side is occupied by the dispatcher staff work area. The call taker area measures approximately 690 net square feet and contains seven call stations with four monitors per station. In addition there is one supervisor station with two monitors. This equates to approximately 86 square feet per station.





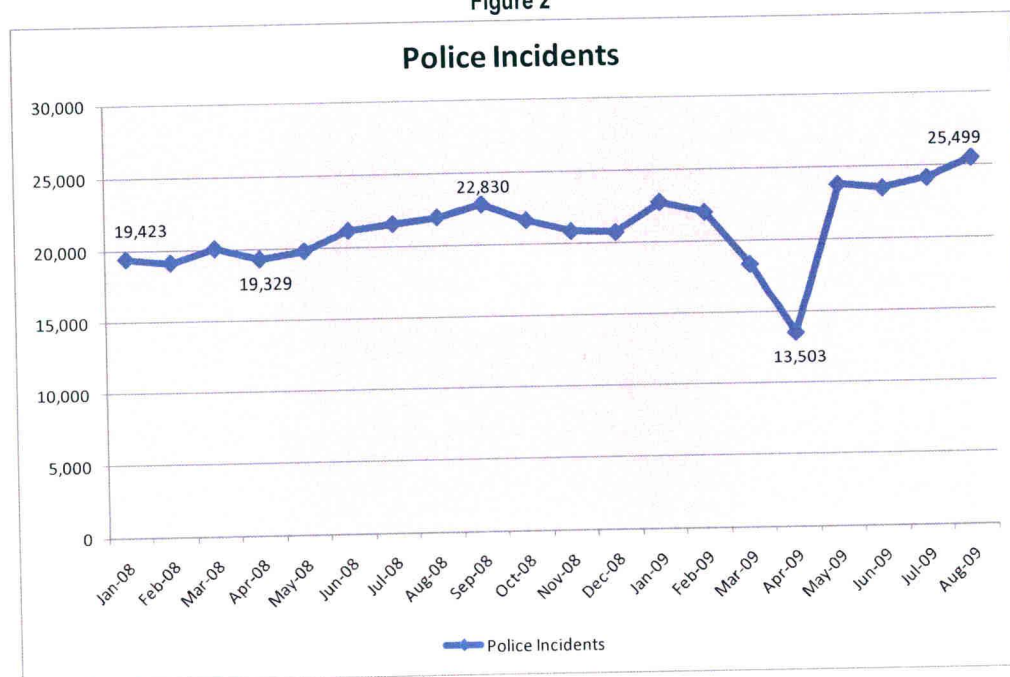
The second area is of equal size and is the dispatch area. This area contains four stations with five monitors per station. The area for the dispatch operation, measures approximately 530 net square feet. Also contained within this area is a supervisor's office and a small storage closet contained within the supervisor's office. This area measures approximately 160 square feet.

There is a total of 52 staff assigned to this area. Staff is assigned to one of three shifts and operates seven days per week, three hundred and sixty five days per year. Staff is trained in both dispatch and call taker functions. The organizational structure contained within the Communications Center is;

Administrative Sgt.	1
Manager	1
Supervisors	4
Operators	46

**Communications Center Workload Activity** - Available historical work load data was collected during the course of this study. Eighteen months of call taker and dispatch data was examined. Call takers are responsible for all calls coming into the communications center. Not all calls are emergency response calls and therefore do not require a dispatch. Dispatch operators are responsible for all of Sheriff Office activities, municipal PD activities and all fire dispatch requirements for all of Fort Bend County.

Figure 2





There was a 24% increase in the number of police call received during the eighteen month period examined between January '08 and August '09.

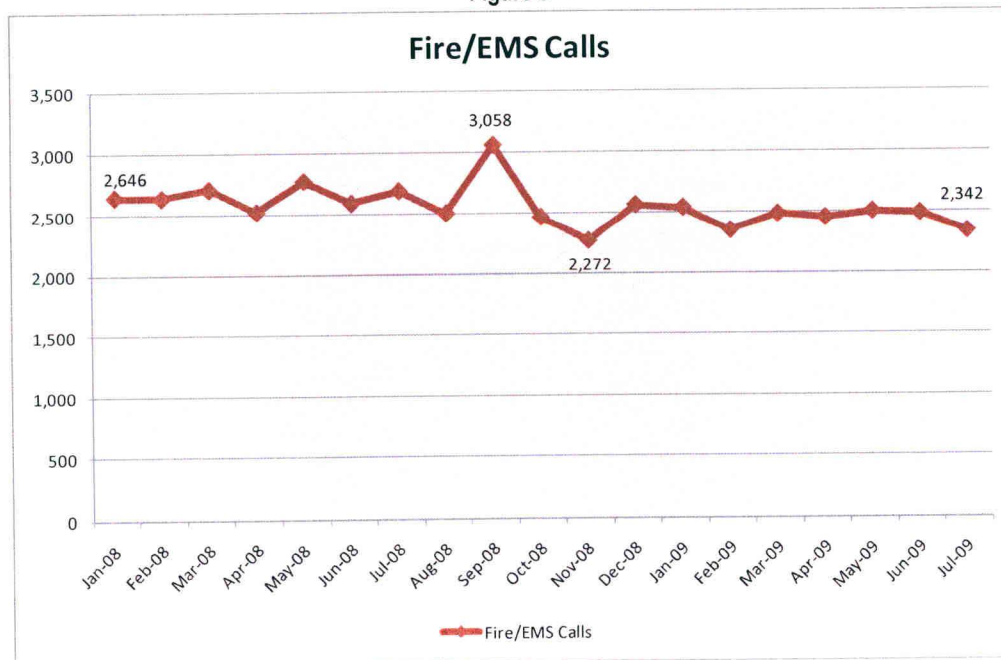
Fort Bend County is a part of the Greater Harris County (GHC) 9-1-1 Emergency Network. This network maintains an operational call taker standard for 9-1-1 calls in the greater Harris County area. The GHC 9-1-1 provides maintains and supports one 9-1-1 position for every 12,000 to 15,000 calls received per year. Data provided by Roger Hauk, PBX Administrator for the GHC 9-1-1 Emergency Network are reflected in the table below, which indicates that Fort Bend County qualifies for two additional positions. The data below only reflects 9-1-1 calls and does not account for the total calls received.

Table 1  
GHC 9-1-1 Call Data for Fort Bend County

PSAP	Total 911 calls for past 9 months	Monthly Average	Estimated 911 Call Total 2009	Additional Positions
Fort Bend S.O.	79,920	8,880	107,000	2

The number of dispatch calls for the eighteen month period examined indicated a relatively flat level of activity for Fort Bend County. According to Fort Bend Sheriff's Office communications command personnel, the ratio of dispatchers to call takers is one dispatch position for every two call taker positions as the ideal staffing ratio.

Figure 3







Other Texas counties were contacted to ascertain 9-1-1 call data to compare with Fort Bend's 9-1-1 activity. Counties contacted were either similar in size or had comparable activity to Fort Bend County. The below table reflects the comparative data obtained.

Table 2  
Comparable County 9-1-1 Activity

County	Population	Number of Incidents/Events	Number Incidents per 1,000 Resident	Number of Call Stations	Number of Calls per Station
Fort Bend County	532,141	280,062	526	7	40,009
Bell County	285,084	462,015	1621	13	35,540
Denton County	636,557	309,721	487	8	38,715
El Paso County	742,062	165,000	222	4	41,250

Source: Representative Counties, September 2009

Fort Bend County falls on the high side of the norm regarding calls per station per annum when compared to other Counties. Denton County has a similar sized county population with a comparable number of incidents to Fort Bend County. Denton County also has a similar number of call stations to Fort Bend based on the ratio of calls to population. El Paso County has more residents but not quite half the incidents as Fort Bend while Bell County has fewer residents but a much higher 9-1-1 activity level.

### Support Space

Support space consists of areas of the operation that do not house staff but provide required space for staff to operate efficiently. As a result of the nature of work that takes place herein, staff is required to remain in the work area during their operational shift; this includes time for bathroom breaks, meals and routine breaks from the operational stress of call taking and dispatch. The existing support spaces include staff restrooms, a small break area that is only large enough for a small refrigerator and beverage station and a shelving/storage/copy area. As a result of the lack of storage capability, storage boxes and office materials are stacked throughout the area.

An additional duty of the communications staff is to collect and distribute criminal warrants for defendants who are incarcerated. This requires collection of the warrant from law enforcement staff, distribution of copies to the jail via pneumatic tube and storage of original copies. The original copies are maintained in boxes outside the restroom area for lack of proper storage space.

### Equipment Area

All wiring for the call and dispatch desks are under false flooring and come to each location from below. There are two equipment areas within the Communications Center; the computer equipment room which also contains the telephone equipment and the 9-1-1 equipment room.



The equipment room can best be described as a work in progress with little or no planning. It appears that equipment has been added to the room with electrical service and communication/electrical wiring routed in the floor and/or ceiling without regard to code or best practices. When equipment was removed or relocated the abandoned wiring was left in place so that the entire ceiling and floor is covered in electrical wiring and communication cabling that is almost impossible to follow to termination. Multi-plugs are hanging randomly under equipment and in some cases electrical outlets have several extension cords directly plugged into a 3 or 4 plug adapter.

Electrical panels appear to have been installed on an as-needed basis when new equipment was added to the room. It is not readily apparent where the main panels for the additional sub-panels are located however, based on conversation with facility maintenance staff it is believed the power was pulled from at least two different electrical rooms. It is highly recommend that an area be set aside for a new electrical room adjacent to the equipment room so that new panels and power conditioning/ UPS could be installed as a redundant system to minimize transfer/down time. Once the equipment has been terminated to the new panels all of the abandoned floor/ceiling wiring and electrical panels should be removed. Equipment location should be reorganized during this process to maximize space and allow for better access to the rear of the equipment. Relocation of the equipment should also allow for more efficient cooling of the equipment.

There are two issues which need to be addressed which are the HVAC modifications and the potential for a providing a separate backup generator for the E911. There is more than sufficient cooling capacity available for the existing E911 area. Modification will need to be made to the duct work for expansion areas, which should not require extensive rework. The duct work in the existing E911 area may require minor rework, the ductwork in the existing equipment room and in an adjacent electrical room, if added, should only need minimal rework, and the proposed expansion area will require the most modification to the ductwork. It is the consultant's observation that the HVAC issues are not significant.

A new emergency generator for the modified E911 should be considered. The electrical design for of the emergency panels and power conditioning/UPS electrical equipment will ensure that there is adequate emergency load from the existing emergency generator. Additionally, the cost associated with installation of a new emergency generator, automatic transfer switch (ATS), and the necessary wiring from the generator to the ATS could be relatively expensive compared to the value added. Once the load has been determined and a location for the generator has been selected costing should be easily estimated.

It is recommended that wiring/cabling be routed to the stations from overhead via power poles or furred columns rather than installing expensive raised flooring.

## ARCHITECTURAL PROGRAM

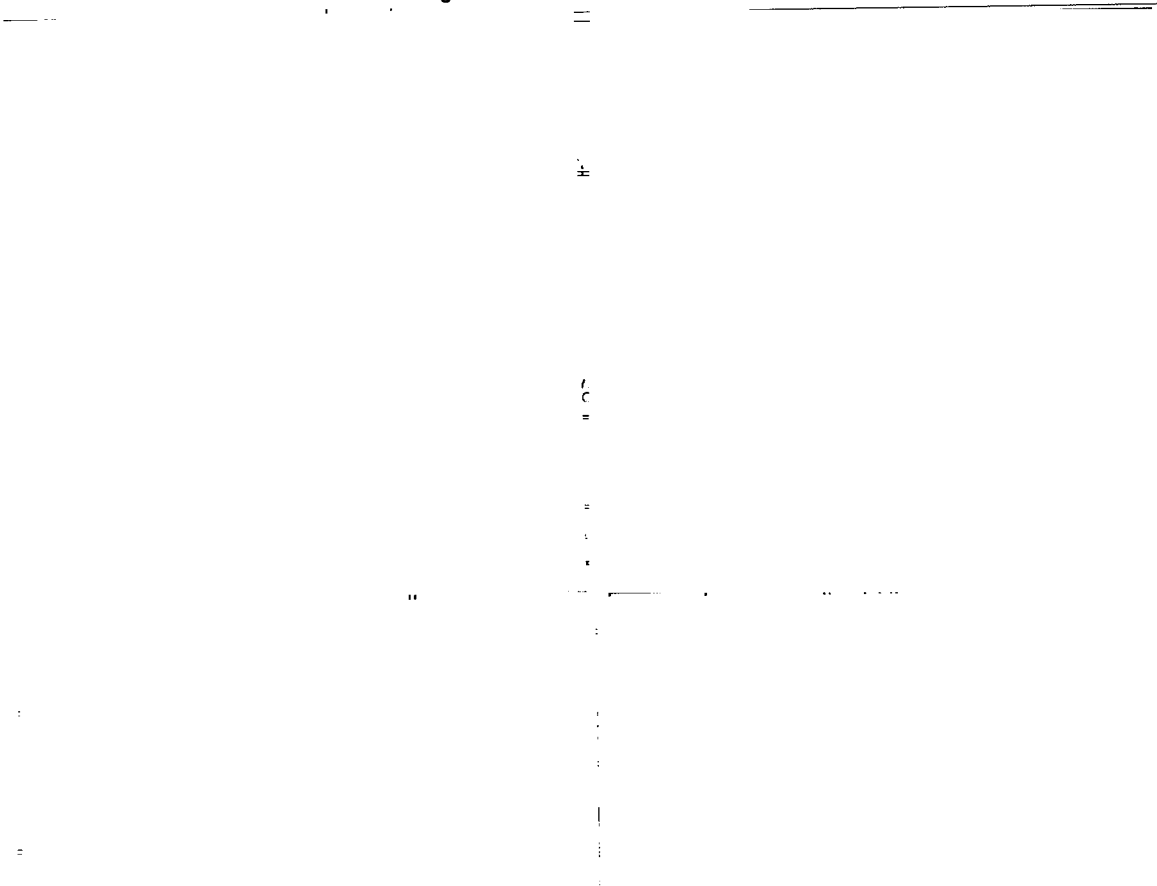
The Fort Bend Sheriff's Office Squad Room is located adjacent to the communications operation. The growth plan for the communications operation is to relocate the squad room and expand the communications operations into the vacated squad room location. Across the hallway from the squad room are associated staff locker rooms and a break and storage area. These spaces will also be available for communications operational expansion. The squad room and associated spaces are located at the end of the corridor with an exit to the outside of the building.



The expansion of the communications operation into the evacuated squad room and associated spaces provide a unique opportunity for the communications operation. The expansion area being at the end of the corridor allows the communications operation to dedicate all spaces from the beginning of the locker area to the end of the corridor to the communications activity. This not only enhances the communications operation but also provides dedicated exit and entrance for the rare occurrences that the area is used for emergency management purposes.

Below is a layout of the existing 911 communications spaces as well as the adjacent Squad Room. Across the hallway from the Squad Room are the male and female locker rooms and the break/storage room.

**Figure 4**  
**Existing Communications and Squad Rooms**





Several working sessions were conducted with Communications Command staff regarding the required spaces and adjacencies that would be needed for expansion and future growth of the Fort Bend 911 Communications Center. Space Tables and adjacency diagrams were developed as a result of those sessions.

The Space Program presents the design space requirements for renovation of both the Squad Room and the 911 Communications Center. It is envisioned that the Squad Room will be the operations center where all call takers and dispatchers will be housed. The existing 911 space will become the administrative area for managers, supervisors as well as the support area for training and server/communications equipment. This will allow for a phased approach to occupying each area as it is renovated and will allow for continued operation during the renovation period.

### **1.000 Administration**

The administrative component will occupy the space that is currently known as the Communication Center. There will be spaces for three individual offices. The Sergeant's office will contain space to accommodate a desk and filing space as well as have the ability to conference with four other individuals. The Manager's office will be slightly smaller but will have space to accommodate the same activities as the Sergeant's office. The third individual office will be for the Assistant Manager.

Shared office space will be provided for the supervisor's. This space will be large enough to contain two desks and filing cabinets. A third supervisor's station will be provided in the operations room with the ability to supervise dispatchers and call takers.

A training room is provided in the administrative component that will contain four work stations as well as an instructor's console to direct trainees during formal training sessions. Enough room is provided for training materials storage. A copy/fax print station is provided within the administrative area as well.

A large portion of the administrative area will be occupied by two operational support areas. The first area will be the 911 server room. It is anticipated that this room will require expansion to accommodate the additional call takers and dispatchers that will be added to the operation. The other support space contained in the administrative portion of the operation is the server and telephone equipment room. While this area may not require expansion given newer technology it will still occupy over 300 square feet.

The other areas contained within the administrative component will be located across the hallway. These areas will include a male and female locker and shower area. Each area will be sized the same and contain one shower, two water closets and two toilets per area. Each locker room will also contain spaces for 46 half-height lockers and 4 full lockers.

Additional spaces contained on the locker room side of the operation will be a break room and a storage room. The break room will be large enough to contain seating and relaxation areas for staff decompress and relief stress during appropriate times. The area should also be large enough for staff to eat meals during meal break periods.





# PLANNING STUDY FOR FORT BEND COUNTY SHERIFF'S 9-1-1 CALL CENTER

DRAFT REPORT

The administrative component should contain 2,250 net square feet. A grossing factor is added to the net square footage to account for non assignable areas such as wall thickness, circulation and mechanical space. The gross square foot requirement for the administrative component is 2,819 gross square feet.

Space #	Space Designation	Space Standard	Number of Spaces / Units	Net SF	Gross Factor	Gross SF	Total SF	Comments
<b>1.000</b>	<b>FORT BEND COUNTY SHERIFF'S DEPARTMENT COMMUNICATIONS CENTER</b>							
<b>1.100</b>	<b>9-1-1 Administration</b>							
1.101	Sgt. Office	120	1	120	35%	42	162	Desk, credenza, files, conf. seating for 4
1.102	Manager Office	100	1	100	35%	63	163	Desk, credenza, files, conf. seating for 4
1.103	Assistant Manager Office	80	1	80	35%	42	122	
1.104	Training Room	400	1	400	20%	80	480	Four work stations @ 80 SF/station, instructor's console/desk, training materials storage
1.105	Storage	100	1	100	15%	15	115	Office supplies and manuals
1.106	Copy/Fax/ Print Area	40	1	40	20%	8	48	Copy/ fax/ plotter located in office area
1.107	Supervisor Office	80	2	160	20%	32	192	Shared office with 2 desks, 3 file cabinets
	<b>Subtotal</b>			<b>1,000</b>		<b>282</b>	<b>1,282</b>	
<b>1.200</b>	<b>Shared Common Spaces - Meeting Areas</b>							
1.201	Meeting Room/Office	100	1	100	25%	25	125	Seating for 4-6
	<b>Subtotal</b>			<b>100</b>		<b>25</b>	<b>125</b>	
<b>1.300</b>	<b>Shared Common Spaces - Staff Services</b>							
1.301	Break Room	200	1	200	20%	40	240	
1.302	Storage	80	1	80	15%	12	92	Cots, linens, washer & dryer
1.303	Locker Room	100	2	200	20%	40	240	2 separate sections (male & female) day lockers), each w/46 half-height lockers & 4- full height lockers
1.304	Showers/ Toilets - Male	120	1	120	35%	42	162	2-wc (1-H/C), 2-lav, 1 shower
1.305	Showers/ Toilets - Female	120	1	120	35%	42	162	2-wc (1-H/C), 2-lav, 1 showers
	<b>Subtotal</b>			<b>720</b>		<b>176</b>	<b>896</b>	
<b>1.400</b>	<b>Shared Support Spaces - Engineering/ Support</b>							
1.401	9-1-1 Server Room	150	1	150	20%	30	180	
1.402	Server & Telephone Equipment	280	1	280	20%	56	336	Racks, tech workstation, backboard
	<b>Subtotal</b>			<b>430</b>		<b>86</b>	<b>516</b>	
	<b>TOTAL</b>			<b>2,250</b>		<b>569</b>	<b>2,819</b>	

Carter Goble Associates, Inc., August 2009; Rev. September 2009



## 2.000 Call Center

The call center will contain spaces for all the call takers and dispatchers. Communications and computer connections for each station are intended to come from the overhead ceiling rather than from raised flooring. Call takers will be grouped around the outer portion of the space. There will be space for 16 call takers. Dispatchers will be located in the center of the area and will contain 12 dispatch desks. A supervisor work station is provided in the area and is located in an area with good visibility of all operations. A copy and fax center is also provided for personnel in this area as well as file space.

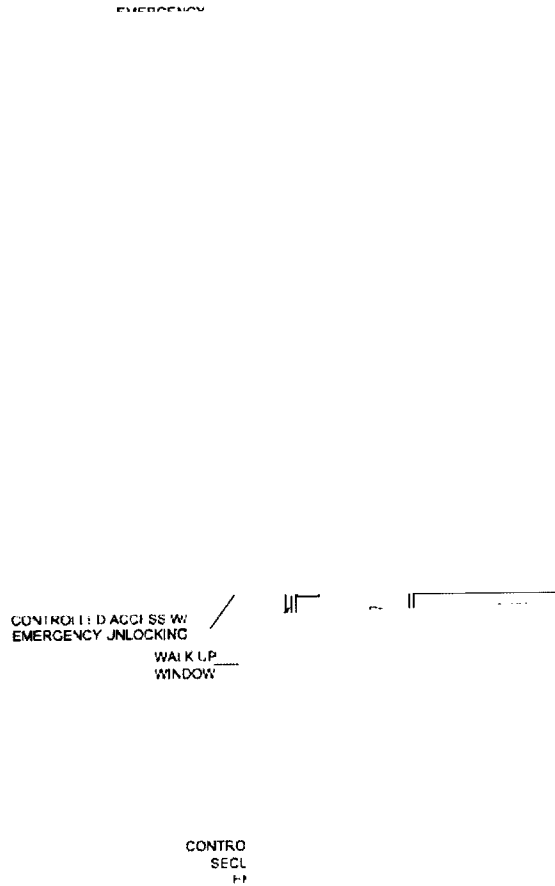
Space #	Space Designation	Space Standard	Number of Spaces / Units	Net SF	Gross Factor	Gross SF	Total SF	Comments
2.000	FORT BEND COUNTY SHERIFF'S DEPARTMENT COMMUNICATIONS CENTER							Overhead communications service
2.100	Call Center							Dispatchers' radio stations (8 current need plus 4 future need)
2.101	Dispatch	60	12	720	25%	180	840	Locate w/ view of call taker & dispatch consoles
2.102	Supervisor Station	100	1	100	25%	25	125	Call takers' workstations
2.103	Call Takers	60	16	960	25%	360	1,200	Locate in call center
2.104	Copy/ Fax Area	40	1	40	20%	8	48	
	Subtotal			1,820		573	2,213	
	GRAND TOTAL						5,032	33 employees

Carter Goble Associates, Inc., August 2009; Rev. September 2009

The total square foot requirement for the renovated area for the 911 Communication Center is 5,032 Gross Square Feet.



Figure 5  
Adjacency Concept



FORT BEND 9-1-1  
CONCEPT STUDY E  
09-30-09 1/8"=1'-0"





## COST ESTIMATE

The Turner Company was provided the CGL adjacency concept for the Fort Bend 911 Communication Center Program and provided cost estimates based on the layout and other on site discussions.

Table 3

911 Call Center Estimate						
	PRICING PER SF	TOTAL SQ FT	SUB COST	CCIP @ RATES		
General Requirements	\$2.75	6000	\$16,500	\$1,950	\$18,450	Turner
Selective Demolition	\$2.00	6000	\$12,000	\$1,440	\$13,440	Turner
Carpentry and Cabinets	\$0.75	6000	\$4,500	\$540	\$5,040	Turner
Sealants	\$0.50	6000	\$3,000	\$360	\$3,360	Turner
Spray on Fireproofing	\$0.75	6000	\$4,500	\$540	\$5,040	Turner
Doors, Frames and Hardware		6000	\$12,000	\$1,440	\$13,440	Turner
Drywall and Acoustical	\$7.10	6000	\$42,600	\$5,112	\$47,712	Turner
Flooring	\$2.50	6000	\$15,000	\$1,800	\$16,800	Turner
Paint and Wall Coverings	\$1.25	6000	\$7,500	\$900	\$8,400	Turner
Toilet Partitions and Accessories	\$6.00	1000	\$6,000	\$720	\$6,720	Turner
HVAC	\$24.27	6000	\$145,600	\$17,472	\$163,072	Turner
Electrical	\$53.00	6000	\$318,000	\$38,160	\$356,160	Turner
Electrical - 2-4" from Female Booking to MDF			\$5,000	\$600	\$5,600	Turner
Tele/Data	\$3.00	6000	\$18,000	\$2,160	\$20,160	Turner
Tele/Data - Existing Survey	\$0.75	6000	\$4,500	\$540	\$5,040	Turner
Fire Protection	\$20.65	6000	\$123,900	\$14,868	\$138,768	Turner
Roofing			\$5,600	\$660	\$6,260	Turner
Plumbing	\$17.50	1000	\$17,500	\$2,100	\$19,600	Turner
Fire Alarm	\$8.50	6000	\$51,000	\$6,120	\$57,120	Turner
Security Electronics/Access Control - ALLOWANCE		0	\$45,000	\$5,400	\$50,400	Turner
Furniture, Fixtures and Equipment - ALLOWANCE		0	\$75,000	\$9,000	\$84,000	Turner
Technology - ALLOWANCE (Call Center Stations)	\$5,500	16	\$88,000	\$10,560	\$98,560	Turner
Technology - ALLOWANCE		0	\$225,000	\$27,000	\$252,000	Turner
<b>SUBTOTAL</b>					<b>\$1,381,832</b>	
Design Development (@ 12% of subtotal)					\$165,799	
Turner Coordination					\$160,590	
Building Permit					\$2,000	
Design Contingency (@ 1.5%)					\$20,724	
Construction Contingency (@ 3%)					\$41,449	
<b>Subtotal</b>					<b>\$1,772,491</b>	
SDI					\$36,828	
Bond					\$30,248	
Builders Risk Insurance					\$470	
Insurance (Turner PD)					\$20,981	
Insurance (Turner GL)					\$48,057	
Fee (@ 7%)					\$216,594	
<b>TOTALS 911 Call Center Estimate (Buildout)</b>					<b>\$2,123,949</b>	
911 Call Center Estimate - Console Procurement (State Grant)						
	PRICING PER SF	TOTAL SQ FT	SUB COST	CCIP @ RATES		
Dispatch Consoles - 8 each	\$24,200.00	8	\$769,200		\$769,200	Turner
Electrical - 8 each	\$53.00	600	\$31,800	\$3,816	\$35,616	Turner
Tele/Data - 8 each	\$3.00	600	\$1,800	\$216	\$2,016	Turner
Dispatch Consoles Furniture - 4 each - FUTURE	\$47,450.00	4	\$189,800	\$22,776	\$212,576	Turner
Electrical - 4 each - FUTURE	\$53.00	600	\$31,800	\$3,816	\$35,616	Turner
Tele/Data - 4 each - FUTURE	\$3.00	600	\$1,800	\$216	\$2,016	Turner
<b>SUBTOTAL</b>					<b>\$1,047,040</b>	
Console Technology - ALLOWANCE					\$91,760	
<b>Subtotal</b>					<b>\$1,138,800</b>	
<b>TOTALS 911 Call Center Estimate (Buildout)</b>					<b>\$1,138,800</b>	
Owner Contingency					\$97,882	
<b>TOTAL 911 Project Estimate</b>					<b>\$3,360,632</b>	

This estimate includes caller and dispatch consoles and technology as well as a total renovation of the male and female locker rooms as they have experienced plumbing problems in the recent past. Several contingencies have also been added as past renovation experience in this building has uncovered unforeseen problems.



© I. A. Naman + Associates, Inc. / Two Greenway Plaza, Ste. 700 / Houston, Texas 77046-0296 / (713) 860-3600 / Fax (713) 860-3799

Thomas G. Barrow Jr., PE  
President

November 16, 2009

Mr. Andy Tandon, LEED AP  
Turner Construction Company  
Richmond Office  
122 Legion Drive  
Richmond, Texas 77469

Re: MEP Engineering Fee Proposal - **Revised**  
Fort Bend County 911 – Richmond, Texas  
**IAN+A** Project No. 2809.

Dear Mr. Tandon:

**I. A. Naman+Associates, Inc.** is pleased to submit the following proposal for professional mechanical, electrical and plumbing engineering services for the proposed expansion and renovation of the Fort Bend County 911 facility in Houston, Texas. **Architecture, Interior Design, Audio Visual and Technology Design Services will be provided by PGAL as a sub-consultant to IAN+A as described in more detail in the attachments. The fees required by PGAL are included in the fee matrix below.**

This proposal includes a proposed scope of services and fee based upon the “Concept Study C” sketch received from you via email on September 28, 2009, the draft Planning Study for Fort Bend County Sheriff’s 9-1-1 Call Center dated October 6, 2009, and our subsequent telephone and email discussions. The project consists of the renovation and expansion of an existing Call Center (approximately 2,300 square feet) located in the Basement of the Fort Bend County Jail. The proposed project will expand and renovate the existing space to increase the total area to approximately 6,000 square feet. **Construction cost is estimated to be \$3.36M inclusive of Furniture and Technology allowances, Contractor OH&P, bonds and insurance, and console procurement. The Buildout construction cost is estimated to be \$2.12M per the draft Planning Study.**

**Our scope and fee presented below are predicated on the proposed schedule as presented in the document “Turner Construction FBCSO 911 Call Center” and dated 10NOV09.**

#### **FIRM PROFILE**

**I. A. Naman+Associates, Inc.** is one of the region’s foremost providers of mechanical and electrical engineering services. Our Houston heritage spans back to our founding in 1947 and encompasses some of the most impressive buildings in Texas. This activity, coupled with our nationwide experience, demonstrates our capability in the design and construction industry. We currently have a staff of 47 engineers, designers, construction services technicians and related staff including 17 registered Professional Engineers and 13 LEED<sup>™</sup> APs.

#### **PROJECT TEAM**

Our management plan relies on a strong project manager philosophy for success in meeting project schedule and goals. The day-to-day activities on this project will be managed by Mr. Robert E. Popovich, PE, as Project Manager. Mr. Popovich has significant and recent critical facility design experience including the GHC 911 facility, Houston Emergency Center, and the Enclave Campus to name just a few. Mr. Popovich will be assisted on the design phase of this project by Clayton Bankson, PE and Carlos Garza. Resumés for all of our proposed staff are attached.

#### **SCOPE OF BASIC SERVICES**

Under our scope of basic services we will:

A. Site Investigation Phase:



Mr. Andy Tandon, LEED AP  
Turner Construction Company

November 16, 2009  
Page 2

1. Attend a meeting at Fort Bend County (FBC) or Turner's office to review the proposed scope and tenant requirements with the representatives of FBC.
  2. **IAN+A** will conduct a limited review of the base building design and base building as-built documents. We will update the existing plan based upon existing conditions, code review and client input.
  3. **IAN+A** will assist the Project team in reviewing the current field conditions in order to ensure that an optimal design is prepared and constructed for Client. **IAN+A** will coordinate and assist the Project team in reviewing the current status of the Project's HVAC and electrical systems.
  4. **IAN+A** will perform a limited review of the field conditions prior to proceeding with any work on the construction documents. **IAN+A** will verify, to the extent possible, existing conditions of MEP systems and possible conflicts or deficiencies that will need to be addressed in the Project design. **IAN+A** will prepare a written report of our findings to the Project team, indicating conditions of the existing system to assist in providing accurate design criteria for the Project.
- B. Construction Documents Phase:
1. We will assist FBC and/or Turner in establishing specifications and documents to allow for the early procurement of long-lead items as the need arises.
  2. We will meet with FBC to establish requirements for UPS and standby power, workstation clean power, 24 hr air-conditioning systems and other systems which may impact the base building MEP infrastructure and interiors design.
  3. We will prepare MEP drawings, draft specifications and a design development narrative, schematic one-line and riser diagrams and major equipment selections for the purposes of a Design Development pricing exercise. In addition we will prepare:
    - a. Dimensioned floor plan, reflected ceiling plan with lighting fixtures, interior elevations including millwork, finish schedule and furniture plan.
    - b. We will also provide a technology plan and AV plan and equipment selections are part of Design Development.
    - c. Systems representation in diagrammatic (non-detailed) style, major items of equipment indicated, their space requirements and interface requirements with other systems. We will attempt to indicate the following:
      - 1) Major shaft and chase sizes and locations
      - 2) Mechanical rooms and electric closets including items of major equipment shown in diagrammatic style with their space requirements indicated
      - 3) Fan-coil, air handling unit and terminal unit locations
      - 4) Transformer vaults (detailed design and approval obtained from local utility company)
      - 5) Switchgear, emergency generator, fuel-storage tanks, fire pumps
    - d. Required major punctures of walls, slabs and other structural elements.
    - e. Preliminary details of major and unique conditions that impact on scheme.
    - f. Integrated diagrammatic lighting plans indicating major overhead mechanical and electrical equipment for typical floor and special spaces.
    - g. Cuts and explanatory information for interior visual items such as louvers, registers, heating/cooling units, plumbing fixtures, electrical switching and outlet devices, fire alarm initiating and notification devices. Design development specifications.
  4. Attend a client meeting to review Design Development Drawings.
  5. Perform calculations for the cooling, heating, and electrical loads.





Mr. Andy Tandon, LEED AP  
Turner Construction Company

November 16, 2009  
Page 3

6. Produce Construction Documents (CDs) consistent with current applicable Code requirements, and to comply with the mandates of FBC.
    - a. CDs shall consist of Mechanical, Electrical, Plumbing, and Fire Alarm drawings.
    - b. Sprinkler and Fire Suppression systems design shall be based on a performance specification and shall be included in the Project Specifications. Location of sprinkler heads in certain high profile areas may be identified by the architect, and in these situations the Plumbing plans will indicate that coordination with the Architectural plans is required.
    - c. Design and specifications of all interior construction including partitions, doors/frames, millwork, lockers and all permanent finishes.
    - d. Cabling infrastructure design and documentation to interface with the existing systems. The design and documentation of a new system (such as VOIP) are considered additional services.
    - e. Audio Visual consulting is limited to the definition of presentation media requirements, hardware specifications for the AV equipment, control switches and distribution.
    - f. Selection and specification of systems furnishings, office furnishings including seating. Selection and specification of artwork, plants and accessories is not included.
  7. Design supplemental cooling systems for after hours use and as required for 24/7 air conditioning of the server room and select other spaces (i.e.: IDF closets).
  8. Circuiting of all lighting to building electrical panels. **IAN+A** has not included the design, selection or placement of lighting fixtures except as provided by PGAL. Non-decorative lighting fixture selection, placement and design in the mechanical and electrical rooms and support spaces, exit stairways and other "back-of-house" spaces are included. **IAN+A** will coordinate the proper circuiting and control of standard overhead fixtures with the PGAL, lighting consultant and/or vendor representative.
  9. Circuiting of all electrical receptacles, equipment, and devices, (as indicated, located and/or dimensioned on the architectural plans) to building electrical panels. **IAN+A** has not included the placement or dimensioning of general or specific use receptacles within the occupied spaces except as provided by PGAL. Design, selection and placement of power devices required for HVAC, plumbing, fire protection or other equipment and systems specified by **IAN+A** is included.
  10. Indication of power circuits and empty conduit routing for Audio Visual, Security, Data and Telecommunications as directed by FBC, Turner, PGAL or other consultants.
  11. Prepare calculations and compliance forms related to HVAC and Plumbing equipment and lighting densities and allowances required for compliance with the local energy code and applicable amendments and supplements.
  12. Finalize drawings and specifications to incorporate comments from FBC, Turner, and PGAL.
  13. Assist FBC, Turner and PGAL in preparing and filing of the appropriate documents required for the approval of government authorities having jurisdiction.
  14. The bid documents will be prepared for issue to Turner and the bidding Sub-Contractors.
  15. Submitting of plans to the TDLR for TAS review.
  16. Attend bimonthly design, coordination or other meetings as required up to a total of **ten (10)** meetings up to and including the bid and award period.
- C. Construction Phase:
1. Review of all shop drawings, product data and sample submittals, including air and water balance reports and O&M manuals prepared by the Contractor. This will include participation in an accelerated shop drawing review process ("shop drawing party") to be described in detail in Sections 21 05 00, 22 05 00, 23 05 00, 26 05 00 and 28 05 00 of the project specifications.
  2. Interpret the drawings and specifications as required to assist the Contractor in maintaining the construction schedule.



Mr. Andy Tandon, LEED AP  
Turner Construction Company

November 16, 2009  
Page 4

3. Attend weekly construction meetings, with a maximum of **twelve (12)** meetings, up to and including the final review or punchlist walkthrough. A field observation report will be issued after each project site visit and at other times when given suitable notification of the need for review by the General Contractor.
4. Answer contractor questions during construction as needed.
5. Observation and reporting of specified or County-required field testing performed by the contractor.
6. Perform one (1) interim site review prior to ceiling cover and one (1) final review per floor, and generate written reports (punch list) of items requiring corrective measures.

#### **SCOPE OF ADDITIONAL SERVICES (not included in proposed fee)**

##### **A. Construction Document Phase:**

1. Design of any special tenant areas such as data processing rooms, LAN equipment rooms, or coffee bars / pantries other than as described in the RFP.
2. Design of any areas requiring supplemental or 24 hour air conditioning, UPS power, generator-backed emergency power, special fire protection/suppression systems, etc. other than as described in the RFP.
3. Selection, placement and design of lighting fixtures and design of lighting control systems other than wall-box type dimmers and switches. Non-decorative lighting fixture selection, placement and design in the mechanical and electrical rooms and support spaces, exit stairways and other "back-of-house" areas are included in our scope of basic services. **IAN+A** will coordinate with the Architect and/or Lighting Consultant for lighting control and switching of the typical floor conference rooms, the Conferencing center, the executive floor, and the visitor's conference areas.
4. Evaluation of life-cycle costs of any proposed new HVAC systems.
5. Providing of Statements of Probable Construction Cost for the MEP systems. We recommend that FBC retain the services of an experienced cost estimating consultant for these services.
6. Design of major revisions to existing base building mechanical, plumbing or electrical systems of the typical floor space infrastructure. Revisions to accommodate the Data center, the kitchen, proposed tenant floor opening and the conference floors are included in our base proposal.
7. "Value Engineering", redesign, redrawing, or re-issuance of previously issued Contract/Construction Documents in order to meet current or future budget needs, except as directed by FBC or Turner prior to the initiation of the Construction Document phase. As **IAN+A** does not know or control the project budget, construction means and methods, or market conditions we cannot include designing or re-designing to budget.
8. Design of scope changes or FBC directed design revisions after issuance of Construction Documents.
9. Audio Visual, Security, Data and Telecommunications consulting services, other than the indication of power circuits and empty conduit routing for these systems as directed by FBC, Turner, PGAL or other consultants.
10. Preparing a set of "record" drawings showing changes in the work made during construction based on markedup prints, drawings and other data furnished by the Contractor in other than AutoCAD compatible drawing files. The Contractor will be required by the project specifications to produce AutoCAD compatible as-built drawings from which we will perform limited verification and provide "record" drawings.
11. Bimonthly design, coordination, review or other meetings in excess of **ten (10)** meetings.

##### **B. Construction Phase:**

1. Review of Contractor bid, cost estimate or change proposal pricing. We recommend FBC or Turner retain the services of an experienced cost estimating consultant for these services. **IAN+A** will review



Mr. Andy Tandon, LEED AP  
Turner Construction Company

November 16, 2009  
Page 5

- change proposals with respect to MEP scope contained in Contractor bids, cost estimates and change proposals only.
2. Review or certification of Contractor monthly pay applications.
  3. Field testing of any tenant M/E/P systems. Observation and reporting of specified or County-required field testing performed by the Turner is included.
  4. Construction Site Field visits in excess of one (1) interim above ceiling review and one (1) final review per floor
  5. Weekly construction meetings, telephone conference calls or field reviews during construction in excess of **twelve (12)** meetings. Full-time on-site attendance is not included in this proposal, but this service can be provided as an additional service.

### **FEE FOR SERVICES**

Basic Services compensation shall be a lump sum fee as described in the fee matrix below plus reimbursable expenses. Reimbursable expenses will include the cost of outside printing and reproduction, travel and long-distance telecommunications costs as described in the attached terms. Reimbursables will be billed at cost.

Project Phase	Proposed Fee
Schematic Design	\$ 18,000.00
Design Development	\$ 24,000.00
Construction Documents	\$ 48,000.00
Bid & Award	\$ 6,000.00
Construction Administration	\$ 24,000.00
Total	\$ 120,000.00

Reimbursable expenses are estimated at approximately \$10,000.00, not inclusive of permit or other approval fees with the exception of Texas Department of Licensing & Regulations Fees (TDLR) and will be billed at cost.

Additional Services, including but not limited to those listed above, and those services not included in the Scope of Basic Services, such as significant design scope changes or additional job site visits or field reviews during construction, that are previously approved by FBC or Turner shall be invoiced monthly, on an hourly basis at the rates described in Attachment A.

### **GENERAL TERMS AND CONDITIONS**

General Terms and Conditions of agreement under this proposal are included in the Attachments.



Mr. Andy Tandon, LEED AP  
Turner Construction Company

November 16, 2009  
Page 6

### PROPOSAL ACCEPTANCE

If this proposal is acceptable to Turner Construction Company, please sign below and return one signed original to **I. A. Naman+Associates, Inc.** for our files. It is our understanding that another form of contract (i.e. a modified version of the draft AIA Document 141 - 1997) may be utilized as the contractual form of agreement entered into. In this event and upon mutual agreement to all other terms, this proposal shall become an exhibit to the executed agreement.

Please feel free to call if you have any questions concerning our proposal.

Yours very truly,

**I.A. Naman+Associates, Inc.**  
Consulting Engineers

Thomas G. Barrow Jr., P.E.  
President

cc: Robert Popovich  
Accounting

*AGREED:*

*BY:*

\_\_\_\_\_  
*Signature*

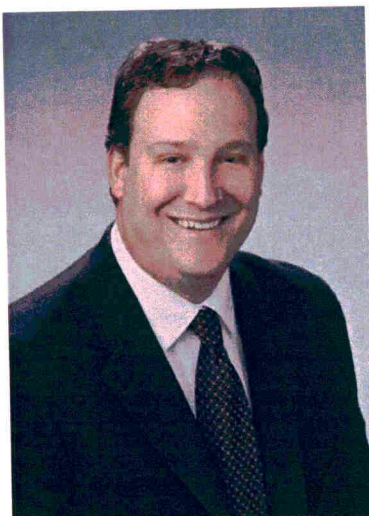
\_\_\_\_\_  
*Date*

\_\_\_\_\_  
*Name Typed or Printed*

*FOR:* Turner Construction Company  
122 Legion Drive  
Richmond, Texas 77469

## ROBERT E. POPOVICH, P.E., LEED AP

### Project Manager



#### Education

BSEE, University of Wisconsin, Madison, WI  
1996

#### Registration/Affiliations

Registered Professional Engineer in the states of TX and OK

LEED™ Accredited Professional (Leadership in Energy and Environmental Design)

Member IEEE, NFPA



With IAN+A since 1998, Mr. Popovich has served as Project Manager on several projects and has successful experience in designing electrical systems for redundancy, standby, Uninterruptible Power Sources along with working very closely with Utilities and Owner IT managers. Robert has solid experience in designing data centers and sophisticated electrical systems. He is a LEED™ (Leadership in Energy and Environmental Design) Accredited Professional, which is part of the Green Building Rating System.

### REPRESENTATIVE PROJECT EXPERIENCE

1500 Louisiana – Houston, TX  
1600 West Loop South – Houston, TX  
3003 Perimeter Summit Office Building – Atlanta, GA  
ABS Plaza Expansion – Houston, TX  
ABS Plaza Tenant – Houston, TX  
BJ Services – Houston, TX  
BMC – Building 2 – Landmark Graphics Restack – Houston, TX  
BMC Building 2 – Data Center Expansion – Houston, TX  
BMC Café/Fitness Center – Houston, TX  
BMC Building 2 – Data Center Expansion – Houston, TX  
BMC Software Corporate Headquarters – Houston, TX  
BMC Software Restack – Houston, TX  
BP Helios Plaza – Houston, TX  
Bracewell & Giuliani – Houston, TX  
Burlington Resources Data Center – Houston, TX  
Conoco Phillips Woodcreek Campus Expansion – Houston, TX  
Coral Energy Trading Operations – Houston, TX  
Cox Communications – Lake Charles, LA  
Dell Computer – Austin, TX  
Devon Energy Tenant – Houston, TX  
DNA – Westway III Office Building – Houston, TX  
Eldridge Park – Houston, TX  
Enclave Campus – Houston, TX  
Fire Station No. 24 – Houston, TX  
GHC 911 Facility – Houston, TX



**Greens Crossing** – Houston, TX  
**Halliburton Restack** – Houston, TX  
**Houston Emergency Center** – Houston, TX  
**IBM Tivoli Campus** – Austin, TX  
**Ikon at Reserve Green** – Houston, TX  
**Jane Elder Building – Second Baptist Church** – Houston, TX  
**Laredo National Bank** – Houston, TX  
**METRO Emergency Preparedness Design** – Houston, TX  
**METRO Headquarters** – Houston, TX  
**Nextira One – Williams Tower** – Houston, TX  
**One Allen Center – Various Levels** – Houston, TX  
**One Allen Center Services** – Houston, TX  
**One Shell Plaza – Various Levels** – Houston, TX  
**Quest Diagnostics Lab & Office** – Houston, TX  
**Second Baptist Church** – Houston, TX  
**University of Houston Science, Engineering and Classroom Building** –  
Houston, TX  
**USAA C Café** – San Antonio, TX  
**Verizon Call Center** – Houston, TX  
**Waste Management – Data Center** – Austin, TX  
**Waste Management** – Houston, TX



## CLAYTON D. BANKSON, P.E., LEED AP

### Project Manager



#### Education

BSME, Texas A&M  
University, College Station,  
TX, 1998

#### Registration/Affiliations

Registered Professional  
Engineer in the States of TX,  
CO and NV

LEED™ Accredited  
Professional (Leadership in  
Energy and Environmental  
Design)

Member: ASHRAE



Mr. Bankson has managed mechanical design for clients such as the Houston Airport System, Shell Oil Company and MGM Grand Resorts Casino/Hotel. Clayton has been with IAN+A since 1998 and worked as an intern with firm for the five years prior to 1998. He is a LEED™ (Leadership in Energy and Environmental Design) Accredited Professional, which is part of the Green Building Rating System.

### REPRESENTATIVE PROJECT EXPERIENCE

Anadarko Data Center Remodel – Houston, TX

Chase Tower – Interiors – Houston, TX

Conoco – Interiors – Houston, TX

Continental Airlines at BIAH – Modifications to Narrow Body Hanger – Houston, TX

DELL Computer Corporation – Austin, TX

Dynegy – Interiors – Houston, TX

Greater Harris County 911 – Houston, Texas

Hilton Americas Houston – Houston, TX

Houston Airport System at BIAH, EFD, HOU – Houston, TX: Job Order Contracts; Terminal D Upgrades; ITT Tunnel Utility Distribution Upgrade; Central Plant Upgrade; Chilled/Hot Water Loop Upgrade; Various other BIAH projects; FIS / Terminal E Inline EDS; Terminal D Inline EDS; Terminal A Inline EDS; Arctech Job Order Contract

Looscan Branch Library Replacement – City of Houston – Houston, TX

MGM Grand Resorts Casino/Hotel – Excalibur Hotel and Casino – Room Remodel – Las Vegas, NV

MGM Grand Resorts Casino/Hotel – Luxor Center Bar – Las Vegas, NV

MGM Grand Resorts Casino/Hotel – Luxor Resort and Casino Modifications – Las Vegas, NV

MGM Grand Resorts Casino/Hotel – Pilot Road Data Center – Las Vegas, NV

One Allen Center; BP – Interiors – Houston, TX

One Shell Plaza – Interiors – Houston, TX

Pentasafer – Interiors – Houston, TX

Second Baptist Church – Jane elder Building – Interiors – Houston, TX

Shell Bellaire Technology Center – Interiors – Houston, TX

Shell Information Center – Interiors – Houston, TX

Shell Meadowfern – Interiors – Houston, TX

**I. A. Naman + Associates, Inc.**



**Shell Northborough – Interiors – Houston, TX**

**Shell Oil Company – Pennzoil Place – Interiors – Houston, TX**

**Shell Oil Company – Two Houston Center – Interiors – Houston, TX**

**Shell Westhollow – Houston, TX**

**Shell Woodcreek – Interiors – Houston, TX**

**TSA / Continental / HAS – Baggage Handling System at BIAH – Houston, TX:**

**Two Shell Plaza – Interiors – Houston, TX**

**University of Houston Downtown – Interiors – Houston, TX**

**Wharton Airport Terminal – Wharton, TX**

## CARLOS GARZA

### Plumbing Designer

#### Education

Texas State Plumbing  
Apprentice Program, Del Mar  
College, Corpus Christi, Texas  
1996



Mr. Garza has been with IAN+A since 2001 performing as a plumbing designer on numerous projects, such as the Houston Museum of Natural Science – Marconi Building, Houston Fire Department Fire Station 24, many HISD schools, METRO Headquarters, Hilton Americas Houston just to name a few.

#### REPRESENTATIVE PROJECT EXPERIENCE

1600 West Loop South – Houston, TX  
2211 Camelback – Phoenix, AZ  
4600 Gulf Freeway Medical Office Building – Houston, TX  
Baylor University – Central Plant – Waco, TX  
Bethesda Church – San Antonio, TX  
BJ Services Headquarters – Houston, TX  
BP Helios Plaza – Houston, TX  
Burlington Resources – Houston, TX  
Chasewood III – Houston, TX  
Comanche Ranch – Eagle Pass, TX  
ConocoPhillips Woodcreek – Houston, TX  
Eldridge Green – Houston, TX  
Four Seasons Condominium – Houston, TX  
Greater Harris County 911 Facility – Houston, TX  
Halliburton Building 2 – Houston, TX  
Halliburton Garage 5 – Houston, TX  
Halliburton Garage 6 – Houston, TX  
Halliburton Oak Park – Houston, TX  
Harris County Transportation Plaza & Jury Assembly – Houston, TX  
Hilton Americas Houston – Houston, TX  
HISD Hattie Mae White Educational Support Center – Administration Building – Houston, TX  
HISD Furr High School – Gymnasium – Houston, TX  
HISD Holland Middle School – Gymnasium – Houston, TX  
HISD Pershing Middle School – Houston, TX  
HISD Rebuild 2002 – Butler and Delmar Field Houses – Houston, TX  
HISD Reynolds Middle School – Gymnasium – Houston, TX



**HISD Smith Middle School – Gymnasium** – Houston, TX  
**Houston Emergency Center** – Houston, TX  
**Houston Fire Department Fire Station 24** – Houston, TX  
**Houston Museum of Natural Science – Marconi Building** – Houston, TX  
**Houston Museum of Natural Science – Expansion** – Houston, TX  
**Houston Zoo African Forest** – Houston, TX  
**Market Street at The Woodlands** – The Woodlands, TX  
**METRO Headquarters** – Houston, TX  
**Mount Vernon ISD Renovation** – Mount Vernon, NY  
**Sanchez-Ochoa Elementary School** – Laredo, TX  
**Schlumberger Engineering Building** – Rosharon, TX  
**Schlumberger PERF** – Rosharon, TX  
**Sunset Apartment Complex** – Falfurias, TX  
**T&C Midway Building 12** – Houston, TX  
**Temple Retail Center** – Temple, TX  
**Tesoro Petroleum Headquarters** – Houston, TX  
**Trillium Condominiums** – Bethesda, MD  
**University of Houston Science, Engineering & Classroom Building** – Houston, TX  
**USAA Phoenix PNCP** – Phoenix, AZ  
**Victoria Retail Center** – Victoria, TX  
**Westchase Corporate Center** – Houston, TX  
**Westlake Plaza** – Houston, TX



## ROBERT J. HOLZ, P.E., LEED AP

### Project Engineer



#### Education

BSME, Texas A&M  
University, College Station,  
TX, 2001

#### Registration

Registered Professional  
Engineer in the State of Texas

LEED<sup>TM</sup> Accredited  
Professional (Leadership in  
Energy and Environmental  
Design)

ASHRAE Member



With IAN+A since 2002, Mr. Holz has performed mechanical design work on an array of projects, such as the Sysco Office Campus, the DNA Westway Buildings, BP Helios Plaza, the ConocoPhillips Office Campus, and many more. He is a LEED<sup>TM</sup> (Leadership in Energy and Environmental Design) Accredited Professional, which is part of the Green Building Rating System.

### REPRESENTATIVE PROJECT EXPERIENCE

1500 Louisiana – Houston, TX  
BMC – Building 2 – Landmark Graphics – Houston, TX  
BMC Software Restack – Houston, TX  
BP Amoco – Data Center Expansion – BP Westlake 1 – Houston, TX  
BP Helios Plaza – Houston, TX  
BP NewCo – League City, TX  
ChevronTexaco – 1500 Louisiana – Houston, TX  
ConocoPhillips East Corporate Center – Houston, TX  
ConocoPhillips West Reception/Fitness – Houston, TX  
ConocoPhillips Woodcreek – Houston, TX  
Cornerstone 2 – DHL Regional Headquarters – Plantation, FL  
DNA – Westway III Office Building – Houston, TX  
DNA – Westway Office Building – Houston, TX  
Grant Prideco – Levels 8 and 9 – Houston, TX  
GHC 911 Facility – Houston, TX  
Halliburton Executive Floor – 5 Houston Center – Houston, TX  
Halliburton Day Care and Fitness Center – Halliburton Oak Park Campus – Houston, TX  
Halliburton Executive Floor – 5 Houston Center – Houston, TX  
Hilton Americas - Houston – Houston, TX  
HISD Administration Building – Hattie Mae White Educational Support Center – Houston, TX  
Houston Emergency Center – Houston, TX  
Jenkins & Gilchrist – 5 Houston Center – Houston, TX  
Landmark Graphics Restack – City West Place Building 2 – Houston, TX  
Market Street at The Woodlands – Building 8 – The Woodlands, TX  
Market Street at The Woodlands – The Woodlands, TX



**Rice University – Autry Court Renovation – Houston, TX**

**Statoil Restack, City West Place – Building 4 – Houston, TX**

**Sysco Office Campus – Houston, TX**

**USAA PNCP – Phoenix, AZ**

**Waste Management – Data Center – Austin, TX**

## ERNESTO J. RIVERA, P.E.

### Project Engineer

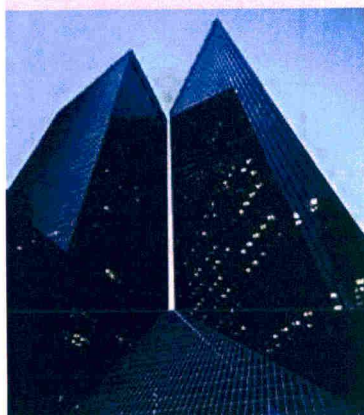


#### Education

BSEE, Oklahoma State University, Stillwater, OK, 1997

#### Registrations/Affiliations

Registered Professional Engineer in the State of Texas



Mr. Rivera has been with IAN+A since 1997 working on such projects as ConocoPhillips Woodcreek, Waste Management Offsite Data Center, and the HISD Hattie Mae White Educational Support Center.

### REPRESENTATIVE PROJECT EXPERIENCE

7 Greenway Plaza – Central Plant Upgrade – Houston, TX  
 BJ Services Headquarters – Houston, TX  
 BP Helios Plaza – Houston, TX  
 Bracewell & Giuliani LLP – Pennzoil South Tower – Houston, TX  
 Burlington Resources – Houston, TX  
 Chase Center – Houston, TX  
 Chevron – 1500 Louisiana – Data Center Expansion – Houston, TX  
 Chevron HPC I – Houston, TX  
 Comanche Ranch – Eagle Pass, TX  
 Conoco Petroleum Building – Boardroom – Houston, TX  
 ConocoPhillips – Woodcreek – Houston, TX  
 Dell Computer Corp. – Las Cimas Corporate HQ – Austin, TX  
 Dell Computer Corp. – PN-3 – Austin, TX  
 Dell Third City – Austin, TX  
 Devon Storage Facility – Houston, TX  
 DHL Interiors – Cornerstone II – Houston, TX  
 Enclave Campus – Houston, TX  
 Enron Center South and Parking Garage – Houston, TX  
 Enron Data Center – Houston, TX  
 Fairfield Industries – Houston, TX  
 Fairmont Hotel Room Renovation – Dallas, TX  
 First City Tower – Vinson & Elkins Restack – Houston, TX  
 Foley's Deli Express – Houston, TX  
 Four Seasons Hotel Bar/Restaurant – Houston, TX  
 Greater Harris County 911 Facility – Houston, TX  
 Halliburton – Central Plant – Houston, TX  
 Haynes & Boone – Level 19 – Houston, TX  
 Hilton Americas Houston – Houston, TX

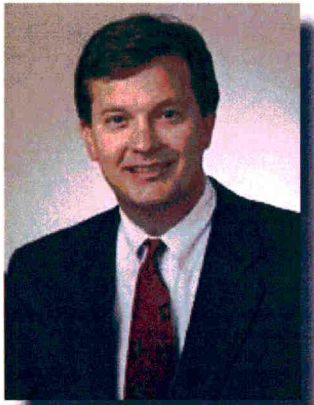


**HISD School Administration Building – Hattie Mae White Educational Support Center** – Houston, TX  
**Houston Intercontinental Hotel** – Houston, TX  
**IKON Call Center** – Houston, TX  
**Lord of the Street** – Houston, TX  
**Marsh Mercer – 1000 Main Building** – Houston, TX  
**MiSWACO Applied Engineering Lab – Computer Room** – Houston, TX  
**Natco Data Center – Westway** – Houston, TX  
**Quest Diagnostics Lab & Office** – Houston, TX  
**Schlumberger Perforation Research Facility** – Rosharon, TX  
**Schlumberger Testing Facility and Parking Garage** – Rosharon, TX  
**Shell Information Center Expansion** – Houston, TX  
**Smith Barney** – Beaumont, TX  
**Tele Tech Telemarketing Call Center – One Norwest Center** – Denver, CO  
**Tesoro Data Center** – San Antonio, TX  
**The Met (Metropolitan Racket Club) Interiors** – Houston, TX  
**Total Fina** – Houston, TX  
**TXU Energy Trading** – Dallas, TX  
**United Way Headquarters** – Houston, TX  
**University of Houston Science & Research Building** – Houston, TX  
**USAA Café** – San Antonio, TX  
**USAA PNCP** – Phoenix, AZ  
**Vencor** – Louisville, KY  
**Waste Management – Offsite Data Center** – Houston, TX  
**Williams Tower – Citigroup Trading** – Houston, TX



## Jeffrey P. Gerber, AIA

President/CEO



### Education

Bachelor of Architecture  
University of Tennessee, 1982  
Summa Cum Laude

Years of Experience 29

Joined PGAL 1990

### Memberships

American Institute of Architects  
Council for Educational Facility Planners  
Texas Society of Architects  
Urban Land Institute

### Registration/Licenses

Registered Architect  
AL: 5094, AZ: 30304, AR: 3522, CA: C-27945,  
FL: AF0017395, GA: 9201, KS: 4245,  
KY: 3179, LA: 4479, MD: 12071, MA: 9931,  
MI: 44965, MN: 44401, MO: A-7900,  
MS: 3432, MT: 2524, NJ: A114763,  
NY: 027201, NC: 7761, NV: 4736,  
OH: 11801, OK: A3910, OR: 4757,  
RA-015662-B, TN: 102609, TX: 13832,  
UT: 6237684-0301, VA: 011357  
NCARB Certified 34098; #42099

### Significant Projects

President & CEO Jeff Gerber has more than 29 years of experience. Jeff has responsibility for the management and production of some of the firm's most complex projects including judicial and municipal experience. Recent assignments have included the Harris County Criminal Justice Center, City of Sugar Land City Hall, Sugar Land Police & Courts Renovation, and City of Houston projects such as Fire Station No. 24 and the Consolidated Public Safety Communications Facility, better known as the Houston Emergency Center. His experience includes civic/municipal, criminal justice, corporate/commercial, institutional, educational, laboratory, retail and parking facilities.

Jeff consistently creates facilities unique in style and harmonious to their environment, buildings that reflect client aspirations. One of his strengths is his understanding of contextual as well as spatial relationships, including the way high-rise buildings must function. He understands building systems and their costs and benefits, and knows how to blend these technical elements into cost-effective and creative design. His buildings work on all levels. Jeff's exemplary grasp of cost control during design is unusual, as is his ability to achieve aesthetic goals within the constraints of client schedule and budget.

### Municipal/Civic/Judicial

City of Houston  
Houston Emergency Center Consolidated  
Public Safety Communications Facility  
Houston, Texas

City of Houston  
Fire Station No. 24  
Houston, Texas

City of Houston  
Volker Building Renovation  
Houston, Texas

Harris County  
1200 Baker Street Jail  
Houston, Texas

Harris County  
Civil Courthouse  
Houston, Texas

Harris County  
Criminal Justice Center  
Houston, Texas

Harris County  
Courts Master Plan  
Houston, Texas

Harris County  
Downtown Courthouse Master Plan  
Houston, Texas

Harris County  
Downtown Master Plan 1994-2004  
Houston, Texas

Harris County  
Precinct One Central Service Center  
Houston, Texas

Harris County Precinct One  
Hardy Service Center  
Houston, Texas

Harris County  
Hardy Maintenance Facility  
Houston, Texas

Houston Youth Education Town Center at  
Finnigan Park  
Houston, Texas

Harris County  
1910 Courthouse Renovation  
Houston, Texas

Harris County  
Records Storage  
Houston, Texas

Harris County  
Downtown Rendering  
Houston, Texas

Harris County  
Facility Review  
Houston, Texas

## Jeffrey P. Gerber, AIA

*Continued (page 2)*

Harris County  
Family Courts Relocation Study  
Houston, Texas

Harris County  
Indefinite Delivery Master Plan  
Houston, Texas

Harris County  
Civil Courthouse Renovation SD/DD  
Houston, Texas

Harris County  
Hardy Senior Citizen Center Roof  
Houston, Texas

Harris County  
Courthouse Annex 2  
Houston, Texas

Harris County  
Joint Booking Facility  
Houston, Texas

City of Sugar Land  
On-Call Services  
Sugar Land, Texas

City of Sugar Land  
New City Hall  
Sugar Land, Texas

City of Sugar Land  
Police & Courts Expansion/Renovation  
Sugar Land, Texas

City of Sugar Land  
Facilities Master Plan Update  
Sugar Land, Texas

City of Sugar Land  
Annex Renovation  
Sugar Land, Texas

City of Sugar Land  
City Markers  
Sugar Land, Texas

City of Sugar Land  
Clock Tower  
Sugar Land, Texas

City of Sugar Land  
City Hall Renovation  
Sugar Land, Texas

City of Sugar Land  
City Hall Furniture Relocation  
Sugar Land, Texas

City of Sugar Land  
Public Works Master Plan  
Sugar Land, Texas

City of Sugar Land  
Facilities Master Plan Updates  
1993; 1998; 2001; 2004  
Sugar Land, Texas

City of West University Place  
Property & Facility Assessment Master Plan  
West University Place, Texas

City of West University Place  
City-Wide Space Needs Assessment Study  
West University Place, Texas

City of Pearland  
City Wide Space Needs Assessment Study  
Pearland, Texas

City of Pearland  
Public Safety Building  
Pearland, Texas

City of League City  
Assessment Master Plan  
League City, Texas

City of Missouri City  
Planning Study  
Missouri City, Texas

City of Southside Place  
Facilities Assessment & Master Plan  
Southside Place, Texas

Indian Spring Air Force  
Aux Fld-Building 150  
Las Vegas, Nevada

Clark County Building Department  
Inspection Building  
Las Vegas, Nevada

Carroll County  
Fiscal Court  
Carrollton, Kentucky

City of Bellaire  
Facilities Conceptual Master Plan  
Bellaire, Texas

City of Bellaire  
New Fire Station  
Bellaire, Texas

City of Kerville  
Facilities Master Plan  
Kerville, Texas

City of Baytown  
Police Department Renovation  
Baytown, Texas

City of Baytown  
Concept Design for City Hall Renovation  
Baytown, Texas

**Cheryl Gajeske, AIA, LEED AP**  
*Principal*



**Education**

Bachelor of Architecture  
University of Houston, 1980

Bachelor of Environmental Design  
Texas A&M University, 1979  
Cum Laude

**Years of Experience** 29

**Joined PGAL** 2005

**Memberships**

American Institute of Architects  
Texas Society of Architects  
CREW Houston  
Rice Design Alliance  
Houston Realty Breakfast Club  
US Green Building Council - GHAC  
Urban Land Institute

**Registration/Licenses**

Registered Architect  
TX: 10246  
NCARB Certified 35112  
Registered Interior Designer  
TX: 7327  
LEED Accredited Professional

**Summary**

Cheryl Gajeske has more than 29 years of professional experience in all phases of architecture and has served as Principal-in-Charge for a wide variety of large scale public projects.

Cheryl's portfolio covers a diverse body of work for corporate, institutional, hospitality, retail, exhibition/sports, criminal justice and civic/municipal clients. Her hands-on leadership style and involvement with all aspects of the design and construction process enable her to build consensus in the most challenging, fast-track environments.

**Civic/Municipal**

Greater Harris County  
911 Emergency Network  
Houston, Texas

City of Houston  
Emergency Operations Center  
Houston, Texas

Harris County  
Indefinite Delivery Master Plan  
Houston, Texas

Harris County  
Precinct One Hardy Service Center  
Houston, Texas

Harris County  
Downtown Rendering  
Houston, Texas

Harris County  
Warehouse Storage Study  
Houston, Texas

Harris County  
Sheriff's Office Downtown Master Plan  
Houston, Texas

**Justice/Judicial**

Harris County  
Civil Courthouse  
Houston, Texas

Harris County  
IVD Masters Court, 2nd Floor Wilson Building  
Houston, Texas

**Correctional/Jails**

Harris County  
Juvenile Probation Master Plan  
Houston, Texas

Harris County  
Juvenile Probation Conditions Assessment  
Houston, Texas

Harris County  
MHMRA Cellblock Conversion  
Houston, Texas

**Technology**

Hewlett-Packard  
Data Center, Phase V  
Houston, Texas

Hewlett-Packard  
Data Center HEOC 2  
Houston, Texas

Hewlett-Packard  
Data Center Site 4  
Houston, Texas

**Phat Nguyen, AIA, LEED AP**  
*Senior Associate*



**Education**

Bachelor of Architecture,  
University of Houston, 1987

**Years of Experience** 20

**Joined PGAL** 1996

**Memberships**

American Institute of Architects

**Registration/Licenses**

Registered Architect  
TX: 16812  
LEED Accredited Professional

**Summary**

Phat Nguyen, one of PGAL's most effective project architects, brings experience ranging from high-rise buildings to public safety facilities, enabling him to develop complex programs within budget and to high client satisfaction. His project experience includes METRO's 400,000 SF Downtown Administration Building, the Houston Emergency Center and the Harris County Civil Courthouse.

**Significant Projects**

**Office Building**

Metropolitan Transit Authority of Harris County  
Administration Office Building & Downtown  
Transit Center  
Houston, Texas

Metropolitan Transit Authority of Harris County  
Fuqua Transit Center  
Houston, Texas

Metropolitan Transit Authority of Harris County  
Remodel Install Permanent Generator  
Houston, Texas

Cuney Homes Community Center  
Day Care, Offices & Community Service Facility  
Houston, Texas

Bell Northern Research Facility  
Administration & Research Facility  
Ottawa, Canada

3M Facility  
Administration & Research Facility  
Austin, Texas

Compaq Computer Corporation  
Office & Manufacturing Facility  
Houston, Texas

3H Center Addition  
Bordersville, Texas

Halliburton  
Northbelt Canopies  
Houston, Texas

Anadarko Tower  
Design Study  
Houston, Texas

Greenspoint South  
Houston, Texas

**Justice/Judicial/Municipal**

City of Houston  
Houston Emergency Center Consolidated  
Public Safety Communication Facility  
Houston, Texas

Harris County  
Criminal Justice Center  
Houston, Texas

City of Pasadena  
Crime Lab  
Pasadena, Texas

Fort Bend County  
William B. Travis Annex Building  
Richmond, Texas

Waller County  
Courts Master Plan  
Waller, Texas

Collin County  
Courthouse  
Collin County, Texas

Harris County  
Cullen Maintenance Facility  
Houston, Texas

Greater Harris County  
911 Emergency Network  
Houston, Texas

**Aviation**

McCarran International Airport  
Terminal 3  
Las Vegas, Nevada

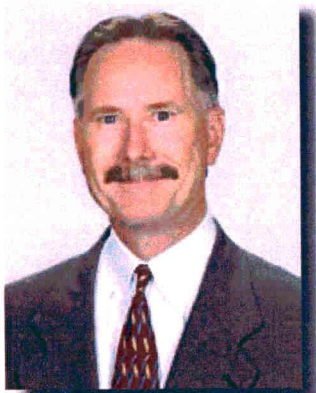
George Bush Intercontinental Airport  
Federal Inspection Services  
One-Stop Cargo Facility  
Houston, Texas

George Bush Intercontinental Airport  
Consolidated Rental Car Facility  
Houston, Texas



## Gary Davis, LEED AP

Associate Principal, Continued (page 1)



### Education

Bachelor of Arts, 1976  
Abilene Christian University  
Mass Communications, Radio/Television

Years of Experience 26

Joined PGAL 2000

### Memberships

USGBC  
BICSI  
Metroplex Technology Business Council  
- Governmental & Legislative Committee  
UTD Technology Club Founding Member

### Registration/Licenses

Registered Interior Designer, 1993,  
Texas #3590  
USGBC 2.1 LEED Accredited Professional,  
2004

### Summary

Gary Davis has over 26 years of design and project management experience and is responsible for the firm's focus on Technology Integration with Architecture projects, particularly for assignments with mission-critical data centers and telecommunications infrastructure.

Gary has developed programming models for data center growth and environmental demand analysis tools essential for long-term facility design and planning. His turnkey approach to project implementation includes system and equipment relocation planning and site management of data center moves.

Currently, Mr. Davis is completing Technical Design & Master Planning of the communications and technology systems for the Houston Community College System's \$150 million bond initiative. This initiative includes construction of 10 new Learning Hub, Library, Science & Technology and Academic buildings. Additionally, he is completing his role as project manager for the Houston Metropolitan Transit Authority (METRO) data center construction and relocation to the new Lee P. Brown Administration Building and is Project Manager and technology design consultant on the Dallas/Fort Worth International Airport EDS Baggage System Integration project at Terminals B and E. management of data center moves.

### Justice/Municipal

Lee P. Brown Administration Building  
Houston METRO  
New Data Center/Infrastructure  
Houston, Texas

Houston Emergency Center  
Technology Design and Project Management  
Data Centers, Emergency Operation Center  
Houston, Texas

City of Garland  
Police, Jail, Forensics & Municipal Courts  
Data Center/Infrastructure Design  
Garland, Texas

Harris County  
Civil Courthouse Renovation  
Houston, Texas

City of Sugar Land  
Police & Courts Renovation  
Sugar Land, Texas

City of Frisco  
Police Headquarters  
Frisco, Texas

### Data Centers

Riyadh Bank  
Data Center Programming  
Riyadh, Saudi Arabia

Network Associates (McAfee)  
National Data Center  
Data Center Design  
Plano, Texas

Citizens Communications  
250,000 SF Office Building  
10,000 SF Data Center  
Plano, Texas

Frontier Communications/ Citizens  
Communications  
Data Center Relocation Management  
Plano, Texas to Rochester, New York  
Vancouver, WA to Rochester, NY  
Hartford, CT to Rochester, NY

Cadbury/Dr. Pepper/Seven Up  
300,000 SF Corporate Headquarters  
7,500 SF Data Center  
Plano, Texas

Citizens Utilities  
Corporate Headquarters, NorthPark III  
140,000 SF Interiors  
6,000 SF Data Center  
Dallas, Texas

Greyhound Lines, Inc.  
Multiple Data/Call Centers  
35,000 SF Technology Retrofit  
Dallas, Texas and Omaha, Nebraska

Anthem Life Insurance Company  
Corporate Headquarters  
110,000 SF Interior Retrofit  
5,000 SF Data Center  
Addison, Texas

## At A Glance

Size 45,000 SF

### Program

The Greater Harris County (GHC) 9-1-1 Emergency Network selected PGAL to design their new 9-1-1 facility and administration headquarters on Fairbanks North Houston Road across from the Sam Houston Race Track. The 48,600SF facility will house training, administrative, 9-1-1 support and communications components. It will also function as a back-up emergency communications location for all the Networks Public Safety Answer Point (PSAP) facilities. As such, it is designed as a mission-critical, essential facility.

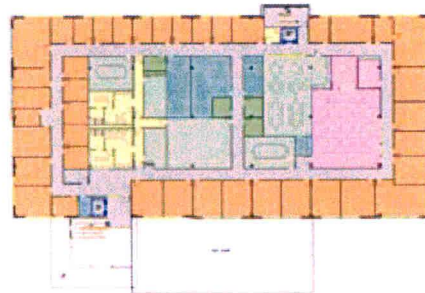
The security system includes surveillance, access control, vehicle gates with AVI and call stations. The security system utilizes IP cameras and Edge card readers with PoE technology. A command center was established inside the facility for 24 hour monitoring of the system. The site design is layered to protect the primary structure from exterior security threats and biometrics card readers were placed at these locations to secure critical operation components. The overall building design is also layered to protect the critical components, placing the most critical components at the core of the building with layered security access checkpoints.

The Mechanical/Electrical/Plumbing system was designed with double redundancy to maintain power during failure caused by either man-made or natural catastrophes. The system was designed to withstand multiple failure points. The site is located outside of the 100 year flood plain, and the building pad was raised 3.5 feet over the existing grade, with on site storm detention to prevent potential flooding.



## Greater Harris County 9-1-1 Facility LEED Silver Pending

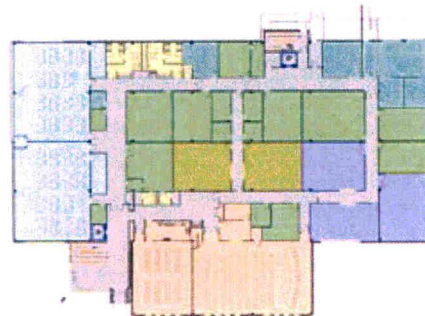
Houston, Texas



SECOND FLOOR

### LEGEND

- BOARD ROOM (1ST)
- COMMAND CENTER (2ND)
- SUPPORT SPACE (1ST & 2ND)
- COMMON USE (2ND)
- BUILDING SYSTEMS SUPPORT (1ST & 2ND)
- RESTROOM (1ST & 2ND)
- CIRCULATION (1ST & 2ND)
- OFFICES (2ND)
- IT SUPPORT (1ST)
- TRAINING (1ST)
- COMPUTER EQUIPMENT (1ST)



FIRST FLOOR

Other project components include:

- Public and secured parking for 122 cars
- Two -bay Emergency Management garage
- Exterior sheltered space for GHC's mobile command unit
- Emergency generator shelter
- 125 ft. Communications tower
- Designed to withstand 146 MPH winds (Dade County windstorm criteria). Components of the building envelope include concrete panels, and laminated glass to resist large missile impact during windstorm.
- Project is pursuing LEED Silver certification

**PGAL**



## At A Glance

Size 10.6 Acres/128,000 SF

### Program

PGAL was retained as part of the Design-Build team for the City of Houston's Consolidated Public Safety Communication Facility, also known as the Houston Emergency Center. The facility includes adequate space to the year 2020 and parking for over 500 cars and was designed and constructed using a fast-track approach.

PGAL worked with the Mayor's Office of Public Safety, the Building Services Department, Fire Department, Police Department, Houston Emergency Operations Center, and 9-1-1 Dispatch to develop a modular, expandable facility to consolidate the City's emergency communications systems and personnel. Consolidation of the center and systems improves response times and saves the City about \$7M/year. Combining all systems in one location allows emergency personnel to coordinate all communication and information management systems. Other benefits include upgrade and standardization of existing dispatch and record management hardware and software.

The 911 Dispatch responds to 3.6 million emergency calls yearly. Fire Dispatch maintains constant communications with emergency personnel and 85 fire stations throughout 850 square miles, dispatching 270 emergency vehicles to an estimated 75,000 fires and 180,000 medical incidents annually.

Functions housed in the building include:

- Administration
- Call takers & Dispatch
- Operations staff
- Building system support for 24/7 operation
- Situation Room that houses the Mayor and other public officials during an emergency
- Auditorium that doubles as a Press Room

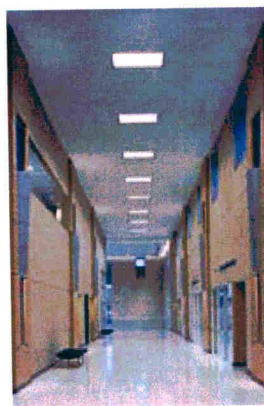
Construction Cost \$53,000,000

Completion Date 2002

Client City of Houston

## Houston Emergency Center Consolidated Public Safety Communication Facility

Houston, Texas



PGAL



## At A Glance

Size 39,000 SF

### Program

PGAL was retained by the City of Sugar Land, one of the fastest growing communities in the US, to construct a 39,000 SF Police Headquarters including a new Emergency Operations Center and renovation of an existing Communications Center. PGAL's design incorporated the current and future needs of Emergency Operations, Investigation/Identification, Dispatch, Homeland Security, Briefing Rooms, Jail, FBI Liaison Area and Emergency Training. Municipal Courts; Police Administration, Evidence Storage, and Forensics Lab.

The 950 SF Emergency Operation Center (EOC) is utilized by the City of Sugar Land Fire Department, Police Department, Traffic Management, GIS and Emergency Management. The EOC is located on the second floor in a secure area of the building limited to badged personnel. It is strategically placed in the interior of the building so that mission critical components are distanced from walls and windows. The facility has a raised floor for ease of cable and electrical distribution.

PGAL's design incorporates interactive white boards, TV monitors with CD recording capability, built-in cabinets for graphic, audio visual and media storage, built-in counter space for plan layout space and radio charge stations and workstations for 12 persons. The facility has acoustically sensitive finishes — tack able wrapped fiber board panels combined with wood panels on walls, carpet on floor, & acoustic ceiling panels on the ceiling.

The Communication Center increased from 1,320 SF to 1,870 SF to accommodate City growth and additional services.

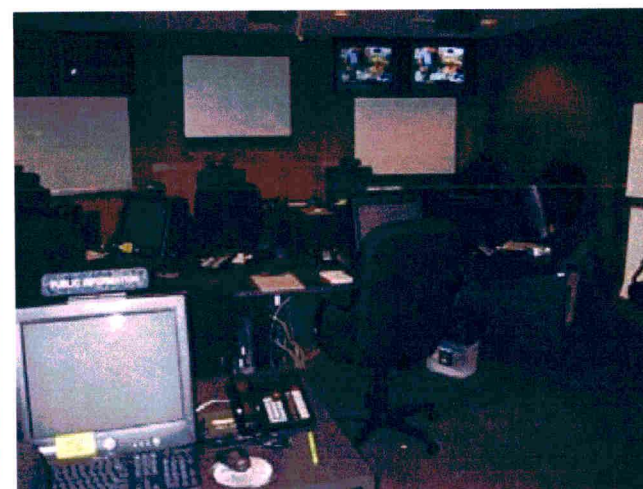
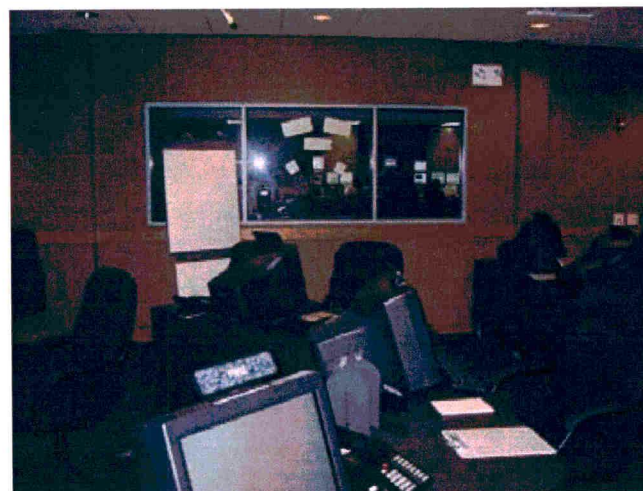
The EOC and the Communication Center have backup emergency generators. The building's lightning protection includes a "fowler system" and special augers were installed to ground the building.

Construction Cost \$4,000,000  
(total construction cost  
for Police & Courts Building)

Completion Date 2002

Client City of Sugar Land

## City of Sugar Land Emergency Operations Center & Communications Center Sugar Land, Texas



PGAL

05 November 2009

Mr. Thomas G. Barrow Jr., PE  
President  
I. A. Naman + Associates, Inc.  
2 Greenway Plaza, Suite 700  
Houston, Texas 77046-0296

Re: Fort Bend County SO 9-1-1 Call Center  
Architectural & Consulting Services

Dear Tom,

After careful review of the project requirements, we are pleased to present our scope of services and fee proposal for Architecture, Interior Design, Audio Visual and Technology Design Services for the Fort Bend County Sheriff's 9-1-1 Call Center (FB 911). The scope of services and fees required to perform these services are based on the Carter Goble Planning Study for Fort Bend County Sheriff's 9-1-1 Call Center dated 10/6/09 and information provided by Turner Construction via email on 10/1/09.

## PROJECT UNDERSTANDING

The project consists of the renovation and expansion of an existing Call Center (approximately 2,300 SF) located in the Basement of the Fort Bend County Jail. The proposed project will expand and renovate the existing space to increase the total area to approximately 6,000 SF (as shown in Figure 5 attached).

The previously completed Planning Study will serve as the basis of design for this project. Our proposed services are based on the following project criteria:

- Project scope is limited to the renovation of the existing spaces and does not include any modifications to the building infrastructure (as it relates to PGAL's scope of work).
- Project services include the following:
  1. PGAL to attend initial client meeting to review Program and Proposed Plan to understand project needs and confirm scope.
  2. Field survey of existing space and update plan based upon existing conditions, code review and client input.
  3. Provide Design Development Drawings to include dimensioned floor plan, reflected ceiling plan with lighting fixtures, interior elevations including millwork, finish schedule and furniture plan. We will also provide a technology plan and AV plan and equipment selections are part of Design Development.
  4. PGAL to attend client meeting to review Design Development Drawings.
  5. Prepare final Construction Documents based on approved DD documents. Final documents to include specifications as part of the drawings.

6. Construction Administration services to include review of shop drawings and submittals, a total of six site visits for Project Architect including final punch list. We have included a total of three site visits for the Technology Consultant and two site visits for the AV Consultant including final punch list.
  7. Provide as-built drawings at the completion of the project based on Contractor provided marked-up set.
- Estimated construction cost of \$1.4M inclusive of Furniture and Technology Allowance.
  - The project will be constructed through Turner Construction as part of their existing construction contract. Construction documents will be issued in one comprehensive package. No early packages or pre-purchase packages are included as part of basic services.

## **SCOPE OF SERVICES**

- Basic Services include Architectural, Technology Consulting, limited Audio Visual Design and Interior Design services.
- Architectural services include design and specifications of all interior construction including partitions, doors/frames, millwork, lockers and all permanent finishes.
- Technology Consulting includes cabling infrastructure design and documentation to interface with the existing systems. The design and documentation of a new system (such as VOIP) are considered additional services.
- Audio Visual Consulting is limited to the definition of presentation media requirements, hardware specifications for the AV equipment, control switches and distribution.
- Interior Design services include selection and specification of systems furnishings, office furnishings including seating. Selection and specification of artwork, plants and accessories is not included.

## **COMPENSATION**

Basic Services: We propose to perform Architectural and Consulting Basic Services for a fee of \$xx,xxx.00 on a lump sum basis.

Reimbursable Costs: PGAL will be reimbursed for any out-of-pocket expenses that we incur on behalf of the project such as the cost of reproduction, plotting, special handling or delivery and travel. Reimbursable expenses will be billed at our cost, plus a 10% service charge. We recommend a reimbursable allowance of \$xx,xxx.00 for the project, not inclusive of permit or other approval fees with the exception of Texas Department of Licensing & Regulations Fees (TDLR).

The Basic Services fee will be allocated as follows:

Project Start-up/Schematic Design	\$ xx,xxx.00
Phase:	
Design Development Phase:	\$ xx,xxx.00
Construction Documents Phase:	\$ xx,xxx.00
Bidding and Approvals Phase:	\$ xx,xxx.00
Construction Administration Phase:	\$ xx,xxx.00
<b>Total Fees:</b>	<b>\$ xx,xxx.00</b>
Reimbursable Allowance	\$ xx,xxx.00

## ADDITIONAL SERVICES

Additional Services: If services other than those described as basic services are requested by Naman, they will be billed in addition to the above compensation. The following constitutes Additional Services should they be authorized:

- LEED Design or Documentation Services
- Graphics or signage design and documentation
- Security Consulting Services
- Multiple or phased documents
- Permitting/Approval Services
- Redesign as part of value engineering or changes to approved work

## PGAL Hourly Billing Rates

<b>Discipline</b>	<b>Rates</b>
Director	\$190.00
Principal	\$180.00
Senior Project Architect, Designer, Engineer	\$165.00 - 150.00
Project Manager	\$160.00 - 130.00
Senior Engineer	\$160.00 - 135.00
Project Architect, Designer, Engineer	\$155.00 - 125.00
Professional Staff	\$125.00 - 95.00
Architect, Designer, Engineer	\$115.00 - 95.00
Interior Designer	\$130.00 - 95.00
Assistant Architect, Engineer, Designer	\$95.00 - 75.00
Construction Administrator	\$125.00 - 95.00
Construction Inspector	\$100.00 - 75.00
Administration	\$80.00
Clerical	\$65.00 - 55.00

Rates include all markups for overhead, burden, fees, etc., and will remain in effect until December 2010.

Please do not hesitate to call should you have any questions regarding this proposal.

Sincerely,  
PGAL

A handwritten signature in black ink that reads "Cheryl Gajeske". The script is fluid and cursive, with the first name "Cheryl" and last name "Gajeske" clearly distinguishable.

Cheryl Gajeske, AIA, LEED AP  
Principal



**ATTACHMENT "A"**  
**TO**  
**MECHANICAL/ELECTRICAL/PLUMBING**  
**ENGINEERING SERVICES AGREEMENT**

**COMPENSATION**

**I. BASIC SERVICES**

- A. As compensation for Engineer's Basic Mechanical/Electrical Engineering Services, Client shall pay to Engineer lump sum fees as describe in the proposal letter.
- B. The lump sum fees are based on the assumption that the Project will be complete within time frame stipulated in the proposal. All or any portion of the services required after expiration of the periods or durations as noted in the proposal is subject to escalation in the amount of change in the Engineer's cost from the effective dte of the Agreement.
- C. Payment to Engineer for Basic Services shall be made monthly in proportion to the Engineering Services rendered.
- D. If the Project is abandoned, then the fees accrued to date of notification of the Engineer by the Client of such abandonment shall be based upon the hourly rates for Engineer's services as described under "Additional Services" herein.
- E. The amount of any excise, value added, sales, or gross receipts tax that may be imposed shall be added to the compensation as set forth herein for Basic Services.

**II. ADDITIONAL SERVICES**

- A. As compensation for Engineer's Additional Mechanical/Electrical Engineering Services, Client shall pay to Engineer an amount of money equal to the following hourly rates for all Personnel time (including travel time) spent in connection with the Project. Overtime charges are only applicable when overtime is requested and authorized by the Client.

<b>PERSONNEL</b>	<b>HOURLY RATES</b>	
	<b>Regular Time</b>	<b>Overtime</b>
Principals	\$180.00	\$180.00
Officers	\$175.00	\$175.00
Senior Project Architect, Designer	\$165.00	\$165.00
Project Managers	\$160.00	\$160.00
Project Architect, Designer	\$155.00	\$155.00
Interior Designer	\$130.00	\$130.00
Construction Services Manager	\$130.00	\$130.00
Assistant Project Managers/Project Engineers	\$115.00	\$115.00
Architect, Designer	\$115.00	\$115.00
Administration Manager/IT Manager	\$95.00	\$110.00
Assistant Architect, Designer	\$95.00	\$110.00
Engineering Graduates/Designers/CS Staff	\$85.00	\$100.00
Technical Personnel Other Than Engineers	\$65.00	\$75.00
Clerical Staff	\$50.00	\$60.00

- B. The above hourly rates may be adjusted on a quarterly basis, on the 1st day of January, April, July and October.
- C. Additional Mechanical/Electrical Engineering Services: Without the prior written consent of Client, Engineer shall not perform any Additional Mechanical/Electrical Engineering Services.
- D. The amount of any excise, value added, sales, or gross receipts tax that may be imposed shall be added to the compensation as set forth herein for Additional Services.

**III. REIMBURSABLE EXPENSES**

- A. Client shall reimburse Engineer for actual expenses incurred in connection with the Project in addition to compensation for Engineer's Services.
- B. The expense of transportation when Engineer's personal or company owned automobiles are used will be based on the prevailing Internal Revenue Service business deduction allowance for cost per mile.
- C. The expense of using Engineer's owned equipment for reproduction, printing, or plotting of reports,

drawings, Specifications, or other Project-related work product of the Engineer will be based on the following rates (sales tax will be added when applicable):

Photocopies       \$ 0.10 per page

Drawing Plots     \$ 1.00 per square foot

**ATTACHMENT "B"**  
**TO**  
**MECHANICAL/ELECTRICAL/PLUMBING**  
**ENGINEERING SERVICES AGREEMENT**

**TERMS AND CONDITIONS**

**I. DEFINITIONS OF TERMS**

- A. The Project - The completed installation defined by the Contract Documents including the design, all as described in the Agreement Letter.
- B. This Part of The Project - That portion of The Project for which the Engineer is to provide its professional mechanical, electrical and plumbing engineering services.
- C. Client - The entity named in the Agreement Letter.
- D. Engineer - I. A. Naman + Associates, Inc.
- E. Work - All work performed in connection with The Project other than services performed by the design professionals. Work is the portion of The Project that is the responsibility of the Contractor and its subcontractors.
- F. Services - Those mechanical/electrical engineering Services provided by the Engineer to the Client in connection with This Part of The Project. Such Services consist of both Basic Services and Additional Services as described in the Agreement Letter. The use of the lower case word "services" refers to all professional services. It is clearly understood the Engineer is providing professional services only and is not providing nor participating in the provision of any product(s).
- G. Agreement - The Agreement Letter, these Terms and Conditions, the Hourly Rate Schedule and any other attachments will be referred to collectively as the "Agreement" between the Client and the Engineer.
- H. Contract Documents - The drawings, specifications, addenda and change orders that legally define The Project.
- I. Special Consultants - Consultants or firms in specialized fields outside of Engineer's area of expertise who are retained through the Engineer to provide various services, such as, but not limited to, testing, acoustics, communications, special lighting and/or sound systems, computer time, programming, computer services, etc. The use of Special Consultants is subject to acceptance by the Engineer to provide the services of such Special Consultants and to the Client's written approval.

**II. ENGINEER'S RESPONSIBILITIES**

- A. Standard of Care - Engineer will render Services under this Agreement in accordance with generally accepted professional practices using reasonable care and skill consistent with that ordinarily exercised by members of their profession under similar conditions of time and locale. Except as expressly provided for in this Paragraph II.A., Engineer makes no expressed or implied warranties, and any other expressed or implied warranties are expressly negated and waived.
- B. Accounting Records - Engineer will maintain adequate accounting records pertaining to The Project and shall make them available to Client at mutually convenient times.
- C. Excluded Services - Engineer will not obligate itself to provide any Services which, in the Engineer's professional opinion, are outside its area of expertise or are in violation of applicable codes or regulations.
- D. Insurance - During the entire term that this Agreement shall remain in effect, Engineer shall secure and maintain in force policies of insurance in connection with Engineer's Services of The Project with limits of not less than those listed below:
  - 1. Professional Liability (Negligent Errors and Omissions) - \$1,000,000.
  - 2. Commercial General Liability - \$1,000,000 combined, single limit.
  - 3. Business Automobile Liability - \$1,000,000 combined, single limit.

4. Worker's Compensation - (statutory amount).
  5. If requested, the Engineer will furnish Client a certificate evidencing that the required insurance is in effect. Insurance carried by Special Consultants will be subject to the approval of both Engineer and Client.
- E. Job Site Visits - Engineer shall visit the project site as described in the Agreement Letter as appropriate to the stage of construction for This Part of The Project to become generally familiar with the progress and quality of Work completed for This Part of The Project and to determine, in general, if the Work product is consistent with the Contract Documents. However, the Engineer shall not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work for This Part of The Project. Engineer will provide written reports of observed defects and deficiencies to the Client following each job site visit.
- F. Coordination with Special Consultants - Engineer will coordinate the services provided by Special Consultants with the Engineer and with other Special Consultants.

### III. CLIENT'S RESPONSIBILITIES

- A. Access to Site - Client will furnish or obtain full and free access to all property as necessary for the performance of Engineer's Services under this Agreement.
- B. Permits and Approvals - Client will furnish permits and approvals from all governmental authorities having jurisdiction over This Part of The Project and from others as may be necessary for completion of The Project.
- C. Design Criteria - Client will timely furnish detailed information, design criteria, drawings, specifications, construction standards, and full information as to Client's requirements for The Project.
- D. Backgrounds - Client will provide architectural backgrounds (on magnetic or electronic media) to the Engineer for its use in the preparation of Engineer's documents. Such backgrounds shall be in form and detail suitable for direct use by Engineer.
- E. Reviews and Authorizations - Client shall receive and examine documents submitted by Engineer, interpret and define Client's policies and promptly render decisions and authorizations in writing to prevent unreasonable delay in the progress of Engineer's Services.
- F. Insurance - Client agrees that all design professionals will be required to have or obtain professional liability and general liability insurance in amounts that at least equal the minimum amounts required of the Engineer (see Section II.D.).

### IV. PAYMENTS TO ENGINEER

- A. Time of Payment - Payments to the Engineer shall be made within thirty (30) days after Engineer sends Client an invoice and shall be based upon the proportion of the Engineer's services completed during the invoice period, or upon time spent when fees are on an hourly basis.
- B. Late Payment - Client agrees to pay Engineer interest on all amounts past due at a rate of 1% per four week billing period, subject to maximum legal limits. Any amount paid in excess of maximum legal limits shall be automatically applied to reduce the principal owed by Client. In addition to amount due and interest, Client agrees to pay Engineer all reasonable collection and attorneys' fees arising in connection with a late payment by Client.
- C. Reimbursable Expenses - Engineer will be reimbursed for expenses incurred by Engineer in addition to compensation for Services and will provide documentation of expenses at Client's request. Client shall reimburse Engineer for the following expenses incurred by Engineer:
1. Expense of transportation and subsistence when traveling outside of Harris County, Texas.
  2. Expense of long distance telephone calls, facsimiles and telegrams.
  3. Reproductions, printing, plotting, binding, collating and handling of reports, drawings and Specifications or other Project-related work product of M/E Engineer other than for in-house use.
  4. Expense of fees paid for securing approval of Authorities Having Jurisdiction over The

- Project.
5. Shipping or mailing of all reports, drawings, Specifications, and other items in connection with The Project.
  6. Special Consultants in specialized fields and outside firms for various services, such as, but not limited to, architectural, structural, civil, testing, acoustics, communications, special lighting and sound systems, computer time, programming and computer services, subject to acceptance by M/E Engineer to provide services of such Special Consultants and Client's prior written approval.
  7. All sales, use, excise, value-added, gross receipts, or similar taxes.

## **V. DOCUMENTS**

- A. Ownership - All documents, including Drawings and Specifications, prepared or furnished by Engineer to Client pursuant to this Agreement are the property of Engineer, whether or not The Project is completed, but subject to the provisions of this Article V. All such documents are instruments of service only and Engineer is not providing any product. Client may retain, as its property, copies of all such documents. Such documents are not intended or represented to be suitable for reuse on extensions of The Project or on any other project. Any reuse of such documents without written verification or adaptation by Engineer for the specific purpose intended (for which Client shall pay Engineer compensation at rates mutually agreed upon) will be at Client's sole risk and without liability or legal exposure to Engineer, or to Engineer's independent professional associates or consultants, and Client shall indemnify and hold harmless Engineer against all claims, damages, losses, and expenses (including attorneys' fees and court costs) arising or resulting therefrom.
- B. Unauthorized Changes - The Engineer will have no liability to the Client or to others for changes made to the Engineer's documents or to the construction work thereto by the Client without the Engineer's written approval.

## **VI. LIABILITY LIMITATION**

- A. Engineer shall have no liability to Client or to others for acts or omissions of the Contractor or any other persons performing Work on The Project; or for construction means, methods, techniques, sequences or procedures, time of performance, programs or for any safety precautions, in connection with the Work; or for Contractor's failure to carry out the Work in accordance with Drawings and Specifications prepared by Engineer; or for acceptance by the Client, its agents, subcontractors, or employees, of materials, equipment and/or workmanship over the objection of Engineer, its agents or employees if such materials, equipment and/or workmanship in question have been rejected in writing by Engineer, prior to the inclusion of same in The Project and Client shall fully notify Engineer in writing before Client, its agents, subcontractors or employees accept anything without prior written approval of Engineer so that Engineer may timely object to such acceptance; or for any other reason beyond warranty of the use of reasonable professional skills in execution of the assignments covered by this Agreement. Furthermore, Engineer shall not be responsible for the defects or omissions in the Work result of the Contractors or subcontractors, or any of the contractors' or subcontractors' employees, or that of any other persons or entities responsible for performing any of the Work result as contained in the construction contract for This Part of The Project.
- B. Engineer's liability for failure to perform according to the terms and conditions of this Agreement or otherwise in connection with the Project is limited to a maximum total of \$1,000,000.
- C. Furthermore, Engineer will not be responsible for accuracy, completeness, errors, or omissions contained in the services provided by Special Consultants. Such Special Consultants are provided for the Client's benefit only, and are only retained through the Engineer for the Client's convenience. Engineer may rely on the services provided by Special Consultants to be accurate, complete, and free of errors and omissions.

- D. This Agreement is made for the benefit of Client and Engineer only. Accordingly, no third party shall have any claim against either Client or Engineer by virtue of this Agreement of the Services rendered hereunder.

## **VII. ASBESTOS/POLLUTION**

- A. It is understood and agreed that in seeking the professional services of the Engineer under this Agreement, the Client is requesting the Engineer to perform Mechanical/Electrical Engineering Services for the Client's benefit. However, the Engineer has not been retained or compensated to provide design and/or construction review services in the abatement, replacement, locating, identification, removal or detection of any product, material or process containing asbestos; or the discharge, dispersal, release, escape, or treatment of pollutants. Pollutants mean any solid, liquid, gaseous or thermal irritant or contaminant including smoke, vapor, soot, fumes, acid, alkalis, chemicals, and waste. Waste includes materials to be disposed of, recycled, reconditioned or reclaimed. The Client agrees to indemnify and hold the Engineer harmless from and against all claims, suit actions, liabilities, losses, damages and expenses, including reasonable attorneys' fees, arising from the presence of asbestos in The Project or in materials used in the construction or modification of The Project, and arising from the presence of pollutants in The Project or materials used in the construction or modification of The Project.

## **VIII. TERMINATION**

- A. This Agreement may be terminated by either party upon sending written notice to the other party and such termination shall be effective seven (7) days after notice is received. If this Agreement is terminated for any reason, then within seven (7) days after Engineer sends a statement of the amount due for Services Rendered, Client shall pay Engineer an amount of money equal to the sum of (i) Basic Compensation for Basic Services performed for any Phase or Phases and not theretofore paid, plus (ii) Additional Compensation not theretofore paid for Additional Services rendered, plus (iii) reimbursement for Reimbursable Expenses incurred by Engineer and not theretofore paid, plus (iv) Special Consultant Fees and Reimbursable Expenses not theretofore paid.

## **IX. MISCELLANEOUS PROVISIONS**

- A. Assignment of Rights - Neither Client nor Engineer shall assign or transfer all or any portion of its interest in this Agreement without the prior written consent of the other. Subject to the preceding sentence, this Agreement shall inure to the benefit of and shall be binding upon the successors, assigns and legal representative of each party.
- B. Entire Agreement - This Agreement represents the entire and integrated Agreement between Client and Engineer and supersedes all prior negotiations, representations or agreements, either written or oral. This Agreement may be amended only by written instrument signed by both Client and Engineer.
- C. Litigation Costs - Should litigation or mediation occur between the parties relating to the provisions of this Agreement, all litigation or arbitration expenses, collection expenses, witness fees, court costs and attorneys' fees reasonably incurred by the prevailing party shall be paid by the non-prevailing party.
- D. Force Majeure - Neither party shall hold the other responsible for damages or delay in performance caused by acts of God, strikes, lockouts, accidents or other events beyond the reasonable control of the other party, its employees or agents.
- E. Severability - In the event any provisions of this Agreement shall be held to be invalid and/or unenforceable, the remaining provision shall be valid and binding upon the parties.
- F. Safety - Engineer has not been retained or compensated to provide design and construction review services relating to the Contractor's safety precautions or to means, methods, techniques, sequences, or procedures required for the Contractor to perform his work but not relating to the



final or completed structure; omitted services include but are not limited to shoring, scaffolding, underpinning, temporary retainment of excavations and any erection methods and temporary bracing.

- G. Cost Estimates - Any opinion of the construction cost prepared by Engineer represents its best judgment as a design professional familiar with mechanical and electrical work and is supplied for the general guidance of Client. Since Engineer has no control over the cost of labor and materials, over competitive bidding or over market conditions, Engineer does not guarantee the accuracy of such options as compared to contractor bids or actual cost.
- H. Captions - All captions under the Section numbers of this Agreement are for reference and convenience only and shall not modify or affect this Agreement in any manner.
- I. Instructions to Contractor - Engineer's instructions to the Contractors shall be issued in writing through the Client unless otherwise mutually agreed.
- J. Renegotiation - Lump sum and not-to-exceed Agreements will be subject to renegotiation if the duration of The Project is more than six (6) months.