

BRAZORIA COUNTY
PURCHASING DEPARTMENT



SUSAN P. SERRANO, CPPO, CPPB
Purchasing Director

NOTICE TO PROCEED

September 29, 2025

Construction Masters of Houston, Inc.
Attn: Justin Davis
PO Box 1587
Pearland, TX 77588
justin@cmhou.com

Re: Notice to Proceed for CSP# 25-76 Brazoria County Precinct 4 North Annex CR 58 MUD Utility Connections

Dear Mr. Davis:

Your company is approved to commence the work in accordance with the above referenced project on Monday, October 6, 2025, with a completion timeframe of 90 calendar days as stated on your Bid Form.

Please complete this process by acknowledging this copy of this NOTICE TO PROCEED to the County.

Very truly yours,

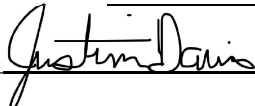
Natasha Stulberg, CPPB
Brazoria County Assistant Purchasing Director

ACCEPTANCE OF NOTICE

Receipt of the above NOTICE TO PROCEED is hereby acknowledged by: Construction Masters of Houston, Inc.

this 29th day of September, 2025.

Printed Name and Title: Justin Davis, President

Signature: 

BRAZORIA COUNTY
PURCHASING DEPARTMENT



SUSAN P. SERRANO, CPPO, CPPB
Purchasing Director

September 24, 2025

Construction Masters of Houston, Inc.
Attn: Justin Davis
PO Box 1587
Pearland, TX 77588
justin@cmhou.com

Re: Award for CSP# 25-76 Brazoria County Precinct 4 North Annex CR 58 MUD Utility Connections

Dear Mr. Davis:

Brazoria County is pleased to inform you that on September 23, 2025, Commissioners' Court awarded the above listed project to your company.

A purchase order and /or notice to proceed will follow. Do not proceed with delivery of services or materials prior to receiving a purchase order number from Brazoria Country.

A Certificate of Interested Parties, Form 1295 is required. Vendors are to log onto the Texas Ethics Commission's website https://www.ethics.state.tx.us/whatsnew/elf_info_form1295.htm and fill out Form 1295. Once the form is completed online, the system will issue a certificate number. Please print, sign the form, and email it to Amanda Erickson at aerickson@brazoriacountytx.gov.

In addition, per Texas Local Government Code 176, completion of the Conflict of Interest Questionnaire, Form CIQ, is required if applicable. You may access the form and further information on our website at <http://brazoriacountytx.gov/departments/purchasing> under the Doing Business section, Conflict of Interest Reporting.

Per Texas Local Government Code Chapters 808, 809, and 2274, completion of the Boycott Verification Form is required, if applicable. You may access the form and further information on our website at <http://brazoriacountytx.gov/departments/purchasing> under the Doing Business section.

Please email the CIQ and Boycott Verification Form to Amanda Erickson at aerickson@brazoriacountytx.gov.

As a reminder, a copy of a current certificate of insurance shall be due to Brazoria County within ten (10) calendar days after receipt of notification of award. The contract shall not become effective until the certificate of insurance is received. Failure to provide said certificate may result in cancellation and/or termination of the contract. Please have the certificate of insurance names Brazoria County as an additional insured and a waiver of subrogation applies in favor of Brazoria County.

Per the solicitation, a performance and payment bond are required and due prior to the start of the project.

Thank you for your interest in Brazoria County. If you have any questions, please do not hesitate to contact me.

Very truly yours,

A handwritten signature in dark ink, appearing to read "Natasha Stulburg", is written over a light blue circular stamp.

Natasha Stulburg, CPPB
Brazoria County Assistant Purchasing Director

Boycott Verification

This verification is required pursuant to Sections 808, 809, 2271, and 2274 (87(R) Senate Bill 13 and 19 versions) of the Texas Government Code:

Definitions:

1. Per Government Code Chapter 808, "Boycott Israel" means refusing to deal with, terminating business activities with, or otherwise taking any action that is intended to penalize, inflict economic harm on, or limit commercial relations specifically with Israel, or with a person or entity doing business in Israel or in an Israeli-controlled territory, but does not include an action made for ordinary business purpose
2. Per Government Code Chapter 809, "Boycott energy company" means, without an ordinary business purpose, refusing to deal with, terminating business activities with, or otherwise taking any action that is intended to penalize, inflict economic harm on, or limit commercial relations with a company because the company:
 - (A) engages in the exploration, production, utilization, transportation, sale, or manufacturing of fossil fuel-based energy and does not commit or pledge to meet environmental standards beyond applicable federal and state law; or
 - (B) does business with a company described by Paragraph (A).
3. Per Government Code Chapter 2274 (87(R) Senate Bill 19), "Discriminate against a firearm entity or firearm trade association":
 - (A) means, with respect to the entity or association, to:
 - (i) refuse to engage in the trade of any goods or services with the entity or association based solely on its status as a firearm entity or firearm trade association;
 - (ii) refrain from continuing an existing business relationship with the entity or association based solely on its status as a firearm entity or firearm trade association; or
 - (iii) terminate an existing business relationship with the entity or association based solely on its status as a firearm entity or firearm trade association;
4. "Company" has the meaning assigned by Texas Government Code Sections 808.001(2), 809.001(2), and 2274.001(2) (87(R) Senate Bill 19).

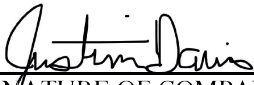
This verification is only required for a contract that is between a governmental entity and a company with 10 or more full-time employees; and has a value of \$100,000 or more that is to be paid wholly or partly from public funds of the governmental entity. If your contract value or number of employees does not reach that threshold, please provide a written certification of the contract amount and number of employees.

I, Justin Davis (Person name), the undersigned representative of (Company or Business Name) Construction Masters of Houston, Inc. (hereinafter referred to as Company) being an adult over the age of eighteen (18) years of age, do hereby depose and verify under oath that the company named-above,

- (A) does not boycott Israel currently;
- (B) will not boycott Israel during the term of the contract the named Company, business or individual with Brazoria County Texas, Texas;
- (C) does not boycott energy companies currently;
- (D) will not boycott energy companies during the term of the contract the named Company, business or individual with Brazoria County, Texas;
- (E) does not discriminate against a firearm entity of firearm trade association currently; and
- (F) will not discriminate against a firearm entity of firearm trade association during the term of the contract the named Company, business or individual with Brazoria County, Texas

9/26/25

DATE


SIGNATURE OF COMPANY REPRESENTATIVE

CONFLICT OF INTEREST QUESTIONNAIRE
For vendor doing business with local governmental entity

FORM CIQ

This questionnaire reflects changes made to the law by H.B. 23, 84th Leg., Regular Session.

This questionnaire is being filed in accordance with Chapter 176, Local Government Code, by a vendor who has a business relationship as defined by Section 176.001(1-a) with a local governmental entity and the vendor meets requirements under Section 176.006(a).

By law this questionnaire must be filed with the records administrator of the local governmental entity not later than the 7th business day after the date the vendor becomes aware of facts that require the statement to be filed. See Section 176.006(a-1), Local Government Code.

A vendor commits an offense if the vendor knowingly violates Section 176.006, Local Government Code. An offense under this section is a misdemeanor.

OFFICE USE ONLY

Date Received

1 Name of vendor who has a business relationship with local governmental entity.

Justin Davis

2 ☐ Check this box if you are filing an update to a previously filed questionnaire. (The law requires that you file an updated completed questionnaire with the appropriate filing authority not later than the 7th business day after the date on which you became aware that the originally filed questionnaire was incomplete or inaccurate.)

3 Name of local government officer about whom the information is being disclosed.

Name of Officer

4 Describe each employment or other business relationship with the local government officer, or a family member of the officer, as described by Section 176.003(a)(2)(A). Also describe any family relationship with the local government officer. Complete subparts A and B for each employment or business relationship described. Attach additional pages to this Form CIQ as necessary.

A. Is the local government officer or a family member of the officer receiving or likely to receive taxable income, other than investment income, from the vendor?

☐ Yes ☐ No

B. Is the vendor receiving or likely to receive taxable income, other than investment income, from or at the direction of the local government officer or a family member of the officer AND the taxable income is not received from the local governmental entity?

☐ Yes ☐ No

5 Describe each employment or business relationship that the vendor named in Section 1 maintains with a corporation or other business entity with respect to which the local government officer serves as an officer or director, or holds an ownership interest of one percent or more.

6 ☐ Check this box if the vendor has given the local government officer or a family member of the officer one or more gifts as described in Section 176.003(a)(2)(B), excluding gifts described in Section 176.003(a-1).

7 
Signature of vendor doing business with the governmental entity

9/26/25

Date

CONFLICT OF INTEREST QUESTIONNAIRE
For vendor doing business with local governmental entity

A complete copy of Chapter 176 of the Local Government Code may be found at <http://www.statutes.legis.state.tx.us/Docs/LG/htm/LG.176.htm>. For easy reference, below are some of the sections cited on this form.

Local Government Code § 176.001(1-a): "Business relationship" means a connection between two or more parties based on commercial activity of one of the parties. The term does not include a connection based on:

- (A) a transaction that is subject to rate or fee regulation by a federal, state, or local governmental entity or an agency of a federal, state, or local governmental entity;
- (B) a transaction conducted at a price and subject to terms available to the public; or
- (C) a purchase or lease of goods or services from a person that is chartered by a state or federal agency and that is subject to regular examination by, and reporting to, that agency.

Local Government Code § 176.003(a)(2)(A) and (B):

- (a) A local government officer shall file a conflicts disclosure statement with respect to a vendor if:

- (2) the vendor:

(A) has an employment or other business relationship with the local government officer or a family member of the officer that results in the officer or family member receiving taxable income, other than investment income, that exceeds \$2,500 during the 12-month period preceding the date that the officer becomes aware that

(i) a contract between the local governmental entity and vendor has been executed;

or

(ii) the local governmental entity is considering entering into a contract with the vendor;

(B) has given to the local government officer or a family member of the officer one or more gifts that have an aggregate value of more than \$100 in the 12-month period preceding the date the officer becomes aware that:

(i) a contract between the local governmental entity and vendor has been executed; or

(ii) the local governmental entity is considering entering into a contract with the vendor.

Local Government Code § 176.006(a) and (a-1)

- (a) A vendor shall file a completed conflict of interest questionnaire if the vendor has a business relationship with a local governmental entity and:

(1) has an employment or other business relationship with a local government officer of that local governmental entity, or a family member of the officer, described by Section 176.003(a)(2)(A);

(2) has given a local government officer of that local governmental entity, or a family member of the officer, one or more gifts with the aggregate value specified by Section 176.003(a)(2)(B), excluding any gift described by Section 176.003(a-1); or

(3) has a family relationship with a local government officer of that local governmental entity.

- (a-1) The completed conflict of interest questionnaire must be filed with the appropriate records administrator not later than the seventh business day after the later of:

- (1) the date that the vendor:

(A) begins discussions or negotiations to enter into a contract with the local governmental entity; or

(B) submits to the local governmental entity an application, response to a request for proposals or bids, correspondence, or another writing related to a potential contract with the local governmental entity; or

- (2) the date the vendor becomes aware:

(A) of an employment or other business relationship with a local government officer, or a family member of the officer, described by Subsection (a);

(B) that the vendor has given one or more gifts described by Subsection (a); or

(C) of a family relationship with a local government officer.

CERTIFICATE OF INTERESTED PARTIES

FORM 1295

1 of 1

Complete Nos. 1 - 4 and 6 if there are interested parties.
Complete Nos. 1, 2, 3, 5, and 6 if there are no interested parties.

OFFICE USE ONLY CERTIFICATION OF FILING

Certificate Number:
2025-1369113

Date Filed:
09/26/2025

Date Acknowledged:
9/29/2025

1 Name of business entity filing form, and the city, state and country of the business entity's place of business.

Construction Masters of Houston, Inc.
Pearland, TX United States

2 Name of governmental entity or state agency that is a party to the contract for which the form is being filed.

Brazoria County

3 Provide the identification number used by the governmental entity or state agency to track or identify the contract, and provide a description of the services, goods, or other property to be provided under the contract.

CSP#25-76
Precinct 4 North Annex CR 58 MUD Utility Connections

4	Name of Interested Party	City, State, Country (place of business)	Nature of interest (check applicable)	
			Controlling	Intermediary
	Davis, Justin	Pearland, TX United States	X	

5 Check only if there is NO Interested Party.

☐

6 UNSWORN DECLARATION

My name is Justin Davis, and my date of birth is 12/7/81.

My address is 3908 3rd St., Pearland, TX, 77581, USA.
(city) (state) (zip code) (country)

I declare under penalty of perjury that the foregoing is true and correct.

Executed in Brazoria County, State of Texas, on the 26th day of September, 2025.
(month) (year)



Signature of authorized agent of contracting business entity
(Declarant)

ATTACHMENT A – BID FORM

CONSTRUCTION MASTERS OF HOUSTON, INC.

CSP#25-76 Brazoria County Precinct 4 North Annex CR 58 Municipal Utility District (MUD) Utility Connections

To: Brazoria County
Herein called "Owner"

Pursuant to and in compliance with the competitive sealed proposal and the proposed Contract Documents relating the above listed project:

PROPOSAL

The undersigned, having become thoroughly familiar with the terms and conditions of the proposed Contract Documents and with local conditions affecting the performance and cost of the Work at the place where the Work is to be completed, and having fully inspected the site in all particulars, hereby proposes and agrees to fully perform the Work within the time stated and in strict accordance with the proposed Contract Documents, including furnishing of any and all labor and materials, and to do all of the Work required to construct and complete said Work in accordance with the Contract Documents for the following sum of money:

BASE BID

Four Hundred Nineteen Thousand Dollars	\$ 419,000.00
(Amount Written in Words. This Governs.)	(Amount in Figures)

ADDENDA

The undersigned acknowledges receipt of Addenda numbers 1 through 1 inclusive, issued during the time of bidding and has included several changes therein in this Proposal.

CONTRACT TIME: The Undersigned agrees to begin work within seven (7) calendar days after "Notice to Proceed", and complete the Project in the following number of Calendar Days:

Ninety Calendar Days	90 Calendar Days
(Number Written in Words. This Governs.)	(Number in Figures)

EXHIBIT A – REQUIRED DOCUMENTS

CONSTRUCTION MASTERS OF HOUSTON, INC.

- RESPONDENT CERTIFICATION FORM
- BIDDER/RESPONDENT’S AFFIRMATION & SDNs/BLOCKED PERSONS AFFIRMATION
- WORKERS COMPENSATION REQUIREMENTS
- CERTIFICATION REGARDING LOBBYING FORM
- EXCEPTIONS TO STANDARD TERMS & CONDITIONS & SPECIAL REQUIREMENTS *(if applicable)* (If vendor has any exceptions to the CSP terms & conditions or special requirements, they must be included with the CSP submittal in order to be considered)
- NON COLLUSION AFFIDAVIT
- BID BOND & *Surety Letter*
- CONFLICT OF INTEREST QUESTIONNAIRE – FORM CIQ *(if applicable)*
- CONTRACTOR ACKNOWLEDGMENT OF STORMWATER MANAGEMENT PROGRAM
- TEXAS GOVERNMENT CODE 552, SUBCHAPTER J ACKNOWLEDGEMENT FORM
- PROHIBITED TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES AND EQUIPMENT CERTIFICATION FORM *(Vendor to sign form if applicable to telecommunications)*
- AUTHORIZED NEGOTIATOR
- RESIDENT / NONRESIDENT BIDDER PROVISIONS
- VENDOR DATA SHEET & W-9 FORM

Please refer to attached documents.

BRAZORIA COUNTY RESPONDENT CERTIFICATION FORM

Note: In order to sign the documents electronically and insert an authorized signature into the PDF, you will need to use the latest version of Adobe Reader. Be aware that such a signature will have the full legal force of a handwritten signature under Texas law. Additionally, all documents with company name and authorized/contact person, and their title with the company, must be identical and match the W-9 with the company's legal name. Documents with different company names may be considered non-responsive.

Construction Masters of Houston, Inc.

LEGAL NAME OF CONTRACTING COMPANY

76-0237825

FEDERAL I.D. # (Company or Corporation)

18-670-5588

DUN & BRADSTREET D-U-N-S NUMBER

281-997-2640

TELEPHONE NUMBER

281-485-4702

FACSIMILE NUMBER

Justin Davis

CONTACT PERSON

President

TITLE

PO Box 1587

COMPLETE MAILING ADDRESS

Pearland, TX

CITY & STATE

77588

ZIP CODE

3908 3rd Street

COMPLETE STREET ADDRESS

Pearland, TX

CITY & STATE

77581

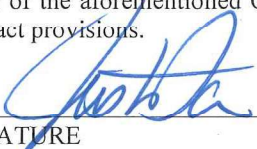
ZIP CODE

justin@cmhou.com

EMAIL ADDRESS

CERTIFICATION

By my signature hereon, I certify that the Goods and/or Services that I propose to furnish will meet or exceed every specification contained herein, and that I have read each and every page of the Specifications/Statement of Work, other requirements, as well as, the Standard Terms & Conditions and Bid Table. Further, I agree that if my offer is accepted, I shall perform as required in these Contract documents. I am aware that, once accepted by Brazoria County, my offer becomes a binding Contract in accordance with the provisions herein of the aforementioned Contract documents, and that I will not be permitted to attempt enforcement of any other Contract or Contract provisions.



SIGNATURE

"must be authorized to execute on behalf of company"

9/5/2025

DATE

Justin Davis

Typewritten or Printed Name

President

Title

BRAZORIA COUNTY BIDDER/RESPONDENT'S AFFIRMATION

This form must be completed, signed, and returned by Bidder/Respondent

NOTE: FAILURE TO SIGN AND RETURN THIS FORM WITHIN 10 DAYS OF AWARD NOTIFICATION MAY RESULT IN THE TERMINATION OF ANY RESULTING PURCHASE ORDER OR CONTRACT.

1. Bidder/Respondent affirms that they are duly authorized to execute this Contract, that this company, corporation, firm, partnership or individual has not prepared this bid/offer in collusion with any other bidder, and that the contents of this bid/offer as to prices, terms or conditions of said bid/offer have not been communicated by the undersigned nor by any employee or Director to any other person engaged in this type of business prior to the official opening of this bid/offer.
2. Bidder/Respondent hereby assigns to purchaser any and all claims for overcharges associated with this Contract which arise under the antitrust laws of the United States, 15 USCA Section 1 et seq., and which arise under the antitrust laws of the State of Texas, Tex. Bus. & Com. Code, Section 15.01, et seq.
3. Pursuant to §262.0276 (a) of the Texas Local Government Code and subject to Brazoria County Court Order No. 36 of October 28, 2003, Bidder/Respondent, hereby affirms that Bidder/Respondent:

(Please check all that are applicable)

☐ Does not own taxable property in Brazoria County.

☒ Does not owe any ad valorem taxes to Brazoria County or is not otherwise indebted to Brazoria County.

BIDDER/RESPONDENT'S SDNs/BLOCKED PERSONS AFFIRMATION

1. Pursuant to §2155.077 of the Texas Government Code and subject to Brazoria County Court Order No19 of August 9, 2005, Bidder/Respondent, hereby affirms that Bidder/Respondent:

(Please check all that are applicable)

☒ Is not excluded from doing business at the federal level.

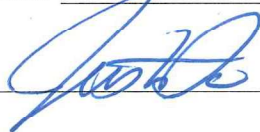
☒ Is not listed as Specially Designated Nationals (SDN)s/Blocked Persons (individuals and companies owned or controlled by or acting for or on behalf of targeted Countries; or individuals, groups and entities, such as terrorists and narcotics traffickers designated under programs that are not country-specific).

2. Brazoria County may not make procurement transactions with SDNs/Blocked Persons.

If any additional information is required regarding these requirements, please contact The Brazoria County Purchasing Department PRIOR to execution.

Bidder/Respondent Company Name Construction Masters of Houston, Inc.

Signature of Company Official
Authorizing the Bid/Offer



Date 9/5/2025

Company Official
(Printed Name) Justin Davis

Official's Position President

WORKERS' COMPENSATION REQUIREMENTS

BIDDER/RESPONDENT INSTRUCTIONS:

READ THIS ENTIRE DOCUMENT CAREFULLY. FOLLOW ALL INSTRUCTIONS. YOU ARE RESPONSIBLE FOR FULFILLING ALL REQUIREMENTS AND SPECIFICATIONS. BE SURE YOU UNDERSTAND THEM.

The following requirements and specifications supersede all other Requirements where applicable.

§T285S110.110(c) (7). Workers' Compensation Insurance Coverage

A. Definitions

Certificate of coverage ("certificate") – A copy of a certificate of insurance, a certificate of authority to self-insure issued by the commission, or a coverage agreement (TWCC-81, TWCC-82, TWCC-83, or TWCC-84), showing statutory workers' compensation insurance coverage for the person's or entity's employees providing services on a project, for the duration of the project.

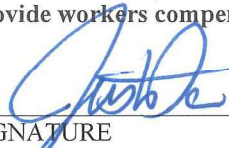
Duration of the project – includes the time from the beginning of the work on the project until the contractor's/person's work on the project has been completed and accepted by the governmental entity.

Persons providing services on the project ("subcontractor" in §406.096) – includes all persons or entities performing all or part of the services the contractor has undertaken to perform on the project, regardless of whether that person contracted directly with the contractor and regardless of whether that person has employees. This includes, without limitation, independent contractors, subcontractors, leasing companies, motor carriers, owner-operators, employees of any such entity or employees of any entity with furnishes persons to provide services on the project. "Services" include, without limitation, providing, hauling, or delivering equipment or materials, or providing labor, transportation, or other service related to a project. "Services" does not include activities unrelated to the project, such as food/beverage vendors, office supply deliveries, and delivery of portable toilets.

- B. The contractor shall provide coverage, based on proper reporting of classification codes and payroll amounts and filing of any coverage agreements, which meets the statutory requirements of Texas Labor Code, Section 401.011(44) for all employees of the contractor providing services on the project, for the duration of the project.
- C. The Contractor must provide a certificate of coverage to the governmental entity prior to being awarded the contract.
- D. If the coverage period shown on the contractor's current certificate of coverage ends during the duration of the project, the contractor must, prior to the end of the coverage period, file a new certificate of coverage with the governmental entity showing that coverage has been extended.
- E. The contractor shall obtain from each person providing services on a project, and provide to the governmental entity:
 - (1) a certificate of coverage, prior to that person beginning work on the project, so the governmental entity will have on file certificates of coverage showing coverage for all persons providing services on the project; and
 - (2) no later than seven (7) days after receipt by the contractor, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the project.
- F. The contractor shall retain all required certificates of coverage for the duration of the project and for one year thereafter.
- G. The contractor shall notify the governmental entity in writing by certified mail or personal delivery, within ten (10) days after the contractor knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the project.
- H. The contractor shall post on each project site a notice, in the text, form and manner prescribed by the Texas Workers' Compensation Commission, informing all persons providing services on the project that they are required to be covered, and stating how a person may verify coverage and report lack of coverage.
- I. The contractor shall contractually require each person with whom it contracts to provide services on a project, to:
 - (1) provide coverage, base on proper reporting of classification codes and payroll amounts and filing of any coverage agreements, which meets the statutory requirements of Texas Labor Code, Section 401.011(44) for all of its employees providing services on the project, for the duration of the project;
 - (2) provide to the contractor, prior to that person beginning work on the project, a certificate of coverage showing that coverage is being provided for all employees of the person providing services on the project, for the duration of the project;
 - (3) provide the contractor, prior to the end of the coverage period, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the project;
 - (4) obtain from each other person with whom it contracts, and provide to the contractor:
 - (a) a certificate of coverage, prior to the other person beginning work on the project; and

- (b) a new certificate of coverage showing extension of coverage, prior to the end of the coverage period, if the coverage period shown on the current certificate of coverage ends during the duration of the project;
 - (5) retain all required certificated of coverage on file for the duration of the project and for one (1) year thereafter;
 - (6) notify the governmental entity in writing by certified mail or personal delivery, within ten (10) days after the person knew of should have known, of any change that materially affects the provision of coverage of any person providing services on the project; and
 - (7) contractually require each person with whom it contracts, to perform as required by paragraphs (9.1) - (9.7), with the certificates of coverage to be provided to the person for whom they are providing services.
- J.** By signing this contract or providing or causing to be provided a certificate of coverage, the contractor is representing to the governmental entity that all employees of the contractor who will provide services on the project will be covered by workers' compensation coverage for the duration of the project, that the coverage will be based on proper reporting of classification codes and payroll amounts, and that all coverage agreements will be filed with the appropriate insurance carrier of, or in the case of a self-insured, with the commission's Division of Self-Insurance Regulation. Providing false or misleading information may subject the contractor to administration penalties, criminal penalties, civil penalties, or other civil actions.
- K.** The contractor's failure to comply with any of these provisions is a breach of contract by the contractor which entitles the governmental entity to declare the contract void if the contractor does not remedy the breach within ten (10) days after receipt of notice of breach from the governmental entity.

If awarded a contract for CSP #25-56 by my signature below, I certify that I will provide workers' compensation insurance coverage for each employee employed on this project. I also certify that each of my subcontractors will also provide workers compensation for each employee employed on this project.


SIGNATURE

Justin Davis

Typewritten or Printed Name

9/5/2025

DATE

President

Title

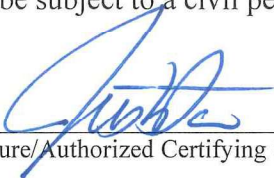
CERTIFICATION REGARDING LOBBYING

Certifications For Contracts, Grants, Loans, And Cooperative Agreements

The undersigned certifies, to the best of his or her knowledge and belief, that:

- (1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL "Disclosure Form to Report Lobbying," in accordance with its instructions.
- (3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed within this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.



Signature/Authorized Certifying Official

Justin Davis, President

Typed Name and Title

Construction Masters of Houston, Inc.

Applicant / Organization

9/5/2025

Date Signed

INSTRUCTIONS FOR COMPLETION OF SF-LLL, DISCLOSURE OF LOBBYING ACTIVITIES

This disclosure form shall be completed by the reporting entity, whether subawardee or prime Federal recipient, at the initiation or receipt of a covered Federal action, or a material change to a previous filing, pursuant to title 31 U.S.C. section 1352. The filing of a form is required for each payment or agreement to make payment to any lobbying entity for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with a covered Federal action. Complete all items that apply for both the initial filing and material change report. Refer to the implementing guidance published by the Office of Management and Budget for additional information.

1. Identify the type of covered Federal action for which lobbying activity is and/or has been secured to influence the outcome of a covered Federal action.
2. Identify the status of the covered Federal action.
3. Identify the appropriate classification of this report. If this is a follow-up report caused by a material change to the information previously reported, enter the year and quarter in which the change occurred. Enter the date of the last previously submitted report by this reporting entity for this covered Federal action.
4. Enter the full name, address, city, State and zip code of the reporting entity. Include Congressional District, if known. Check the appropriate classification of the reporting entity that designates if it is, or expects to be, a prime or subaward recipient. Identify the tier of the subawardee, e.g., the first subawardee of the prime is the 1st tier. Subawards include but are not limited to subcontracts, subgrants and contract awards under grants.
5. If the organization filing the report in item 4 checks "Subawardee," then enter the full name, address, city, State and zip code of the prime Federal recipient. Include Congressional District, if known.
6. Enter the name of the federal agency making the award or loan commitment. Include at least one organizational level below agency name, if known. For example, Department of Transportation, United States Coast Guard.
7. Enter the Federal program name or description for the covered Federal action (item 1). If known, enter the full Catalog of Federal Domestic Assistance (CFDA) number for grants, cooperative agreements, loans, and loan commitments.
8. Enter the most appropriate Federal identifying number available for the Federal action identified in item 1 (e.g., Request for Proposal (CSP) number; Invitations for Bid (IFB) number; grant announcement number; the contract, grant, or loan award number; the application/proposal control number assigned by the Federal agency). Included prefixes, e.g., "CSP-DE-90-001."
9. For a covered Federal action where there has been an award or loan commitment by the Federal agency, enter the Federal amount of the award/loan commitment for the prime entity identified in item 4 or 5.
10. (a) Enter the full name, address, city, State and zip code of the lobbying registrant under the Lobbying Disclosure Act of 1995 engaged by the reporting entity identified in item 4 to influence the covered Federal action.
(b) Enter the full names of the individual(s) performing services, and include full address if different from 10(a). Enter Last Name, First Name, and Middle Initial (MI).
11. The certifying official shall sign and date the form, print his/her name, title, and telephone number.

According to the Paperwork Reduction Act, as amended, no persons are required to respond to a collection of information unless it displays a valid OMB control Number. The valid OMB control number for this information collection is OMB No. 0348-0046. Public reporting burden for this collection of information is estimated to average 10 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0046), Washington, DC 20503

Not Applicable

Approved by OMB

0348-0046

Disclosure of Lobbying Activities

Complete this form to disclose lobbying activities pursuant to 31 U.S.C. 1352
(See reverse for public burden disclosure)

Type of Federal Action: _____ a. contract b. grant c. cooperative agreement d. loan e. loan guarantee f. loan insurance	Status of Federal Action: _____ a. bid/offer/application b. initial award c. post-award	Report Type: _____ a. initial filing b. material change
Name and Address of Reporting Entity: ____ Prime _____ Subawardee Tier _____, if Known: Congressional District, if known:		If Reporting Entity in No. 4 is Subawardee, Enter Name and Address of Prime: Congressional District, if known:
Federal Department/Agency:		7. Federal Program Name/Description: CFDA Number, if applicable: _____
Federal Action Number, if known:		9. Award Amount, if known: \$
10. a. Name and Address of Lobbying Registrant (if individual, last name, first name, MI):		b. Individuals Performing Services (including address if different from No. 10a) (last name, first name, MI):
11. Information requested through this form is authorized by title 31 U.S.C. section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when this transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to the Congress semi-annually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.		Signature: _____ Print Name: _____ Title: _____ Telephone No.: _____ Date: _____
Federal Use Only		Authorized for Local Reproduction Standard Form - LLL (Rev. 7-97)

Note: If this form is not applicable to your company, please mark the form N/A and sign the highlighted signature field above.

**VENDOR TO INSERT EXCEPTIONS TO
STANDARD TERMS & CONDITIONS & SPECIAL
REQUIREMENTS HERE (IF APPLICABLE)**

✓ Company **does not** have exceptions *(If applicable, check here)*

Or

 Company does have exceptions *(If applicable, check here and list exceptions here for consideration. Brazoria County will review all exceptions listed and will formally communicate as to if any exceptions are accepted by the County. If exceptions are accepted by the County, they will be added in the form of an addendum.)*

NON-COLLUSION AFFIDAVIT

THE STATE OF TEXAS

OWNER BRAZORIA COUNTY

Before me, the undersigned authority, on this day personally appeared Justin Davis
who being by me duly sworn upon oath says: that he is duly qualified and authorized to make this affidavit for and on behalf of
Construction Masters of Houston, Inc. ("Contractor"), of and is fully cognizant of the fact herein set out: that Contractor has
not, either directly or indirectly, entered into any agreement with OWNER in any collusion: or otherwise taken any action in restraint
of free competitive bidding in connection with the contract for the above referenced project.



Justin Davis, President

Name

Title

SWORN TO AND SUBSCRIBED BEFORE ME by the said Justin Davis, this 5th day of
September, 2025, to certify which witness my hand and seal of office.

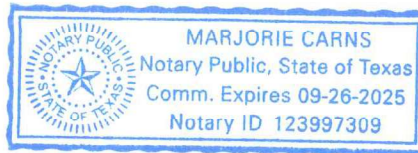
Marjorie Carns

NOTARY PUBLIC in and for

State of Texas

Printed Name: Marjorie Carns

My Commission Expires: 9/26/2025



BID BOND

VENDOR TO INSERT COPY OF BID BOND HERE

Executed Bid Bond attached.

Surety Letter attached.

MERCHANTS
BONDING COMPANY™

Merchants Bonding Company (Mutual) P.O. Box 14498, Des Moines, Iowa 50306-3498

Phone: (800) 678-8171 Fax: (515) 243-3854

BID BOND
PUBLIC WORK

Bond No. N/A

KNOW ALL PERSONS BY THESE PRESENTS:

That Construction Masters of Houston, Inc.

(hereinafter called the Principal) as Principal, and the Merchants Bonding Company (Mutual)

(hereinafter called Surety), as Surety, are held and firmly bound to Brazoria County, Texas

(hereinafter called the Oblige) in the full and just sum of (5% G.A.B.)

Five Percent of the Greatest Amount Bid Dollars

good and lawful money of the United States of America, to the payment of which sum of money well and truly to be made, the Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

Signed and dated this 5th day of September, 2025.

THE CONDITION OF THIS OBLIGATION IS SUCH, that, if the Oblige shall make any award to the Principal for

CSP #25-76

Brazoria County Precinct 4 North Annex

CR 58 Municipal Utility District (MUD) Utility Connections

according to the terms of the proposal or bid made by the Principal therefore, and the Principal shall duly make and enter into a contract with the Oblige in accordance with the terms of said proposal or bid and award, and shall give bond for the faithful performance thereof with the Merchants Bonding Company (Mutual), as Surety, or with other Surety or Sureties approved by the Oblige; or if the Principal shall, in case of failure to do so, pay to the Oblige the damages which the Oblige may suffer by reason of such failure, not exceeding the penalty of this bond, then this obligation shall be null and void; otherwise it shall be and remain in full force and effect.

IN TESTIMONY WHEREOF, the Principal and Surety have caused these presents to be duly signed and sealed.

Witness:

Margi Carns

Construction Masters of Houston, Inc.

Principal

By

Justin Davis

Justin Davis, President

Attest:

Merchants Bonding Company (Mutual)

Jennifer Mitchell

Jennifer Mitchell, Witness

By

Donna Weinert

Donna Weinert, Attorney-in-Fact

MERCHANTS
BONDING COMPANY
POWER OF ATTORNEY

Know All Persons By These Presents, that MERCHANTS BONDING COMPANY (MUTUAL) and MERCHANTS NATIONAL BONDING, INC., both being corporations of the State of Iowa, d/b/a Merchants National Indemnity Company (in California only) (herein collectively called the "Companies") do hereby make, constitute and appoint, individually,

Bryan Burkhardt; Donna Weinel; G C Blystone Jr; Jennifer Mitchell; Kayla Williams; Mark Smith

their true and lawful Attorney(s)-in-Fact, to sign its name as surety(ies) and to execute, seal and acknowledge any and all bonds, undertakings, contracts and other written instruments in the nature thereof, on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

This Power-of-Attorney is granted and is signed and sealed by facsimile under and by authority of the following By-Laws adopted by the Board of Directors of Merchants Bonding Company (Mutual) on April 23, 2011 and amended August 14, 2015 and April 27, 2024 and adopted by the Board of Directors of Merchants National Bonding, Inc., on October 16, 2015 and amended on April 27, 2024.

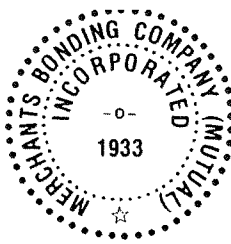
"The President, Secretary, Treasurer, or any Assistant Treasurer or any Assistant Secretary or any Vice President shall have power and authority to appoint Attorneys-in-Fact, and to authorize them to execute on behalf of the Company, and attach the seal of the Company thereto, bonds and undertakings, recognizances, contracts of indemnity and other writings obligatory in the nature thereof."

"The signature of any authorized officer and the seal of the Company may be affixed by facsimile or electronic transmission to any Power of Attorney or Certification thereof authorizing the execution and delivery of any bond, undertaking, recognizance, or other suretyship obligations of the Company, and such signature and seal when so used shall have the same force and effect as though manually fixed."

In connection with obligations in favor of the Florida Department of Transportation only, it is agreed that the power and authority hereby given to the Attorney-in-Fact includes any and all consents for the release of retained percentages and/or final estimates on engineering and construction contracts required by the State of Florida Department of Transportation. It is fully understood that consenting to the State of Florida Department of Transportation making payment of the final estimate to the Contractor and/or its assignee, shall not relieve this surety company of any of its obligations under its bond.

In connection with obligations in favor of the Kentucky Department of Highways only, it is agreed that the power and authority hereby given to the Attorney-in-Fact cannot be modified or revoked unless prior written personal notice of such intent has been given to the Commissioner-Department of Highways of the Commonwealth of Kentucky at least thirty (30) days prior to the modification or revocation.

In Witness Whereof, the Companies have caused this instrument to be signed and sealed this 29th day of July, 2024.



MERCHANTS BONDING COMPANY (MUTUAL)
MERCHANTS NATIONAL BONDING, INC.
d/b/a MERCHANTS NATIONAL INDEMNITY COMPANY

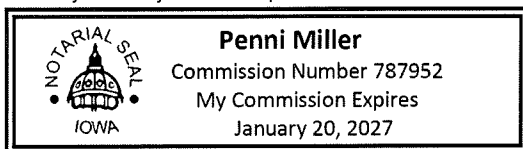
By

Larry Taylor

President

STATE OF IOWA
COUNTY OF DALLAS ss.

On this 29th day of July, 2024, before me appeared Larry Taylor, to me personally known, who being by me duly sworn did say that he is President of MERCHANTS BONDING COMPANY (MUTUAL) and MERCHANTS NATIONAL BONDING, INC.; and that the seals affixed to the foregoing instrument are the Corporate Seals of the Companies; and that the said instrument was signed and sealed in behalf of the Companies by authority of their respective Boards of Directors.



(Expiration of notary's commission does not invalidate this instrument)

[Signature]

Notary Public

I, Elisabeth Sandersfeld, Secretary of MERCHANTS BONDING COMPANY (MUTUAL) and MERCHANTS NATIONAL BONDING, INC., do hereby certify that the above and foregoing is a true and correct copy of the POWER-OF-ATTORNEY executed by said Companies, which is still in full force and effect and has not been amended or revoked.

In Witness Whereof, I have hereunto set my hand and affixed the seal of the Companies on this 5th day of September, 2025.



Ata B. Sun

Secretary



MERCHANTS BONDING COMPANY (MUTUAL) • P.O. BOX 14498 • DES MOINES, IOWA 50306-3498
PHONE: (800) 678-8171 • FAX: (515) 243-3854

NOTICE TO BOND HOLDER – RETAIN THIS PAGE FOR YOUR RECORDS

Have a complaint or need help?

If you have a problem with a claim or your premium, call your insurance company or HMO first. If you can't work out the issue, the Texas Department of Insurance may be able to help.

Even if you file a complaint with the Texas Department of Insurance, you should also file a complaint or appeal through your insurance company or HMO. If you don't, you may lose your right to appeal.

To get information or file a complaint with your insurance company or HMO:

Merchants Bonding Company (Mutual)

Call: Compliance Officer at (800) 671-8171

Toll-free: (800) 671-8171

Email: regulatory@merchantsbonding.com

Mail: P.O. Box 14498, Des Moines, Iowa 50306-3498

To get insurance information, you may also contact your agent:

Texas First Insurance

Call: 409-934-8000

Mail: 7900 Emmett F Lowry Expy, Texas City, Texas 77591

The Texas Department of Insurance

To get help with an insurance question or file a complaint with the state:

Call with a question: 1-800-252-3439

File a complaint: www.tdi.texas.gov

Email: ConsumerProtection@tdi.texas.gov

Mail: Consumer Protection, MC: CO-CP, Texas Department of Insurance,

¿Tiene una queja o necesita ayuda?

Si tiene un problema con una reclamación o con su prima de seguro, llame primero a su compañía de seguros o HMO. Si no puede resolver el problema, es posible que el Departamento de Seguros de Texas (Texas Department of Insurance, por su nombre en inglés) pueda ayudar.

Aun si usted presenta una queja ante el Departamento de Seguros de Texas, también debe presentar una queja a través del proceso de quejas o de apelaciones de su compañía de seguros o HMO. Si no lo hace, podría perder su derecho para apelar.

Para obtener información o para presentar una queja ante su compañía de seguros o HMO:

Merchants Bonding Company (Mutual)

Llame a: Compliance Officer al (800) 671-8171

Teléfono gratuito: (800) 678-8171

Correo electrónico: regulatory@merchantsbonding.com

Dirección postal: P.O. Box 14498, Des Moines, Iowa, 50306-3498

El Departamento de Seguros de Texas

Para obtener ayuda con una pregunta relacionada con los seguros o para presentar una queja ante el estado:

Llame con sus preguntas al: 1-800-252-3439

Presente una queja en: www.tdi.texas.gov

Correo electrónico: ConsumerProtection@tdi.texas.gov

Dirección postal: Consumer Protection, MC: CO-CP, Texas Department of Insurance, PO Box 12030, Austin, TX 78711-2030



September 5, 2025

Brazoria County, Texas
451 North Velasco Street
Angleton, Texas 77515

**RE: CSP #25-76; Brazoria County Precinct 4 North Annex
CR 58 Municipal Utility District (MUD) Utility Connections**

To Whom It May Concern:

Please be advised Construction Masters of Houston, Inc. has an established surety relationship with Merchants Bonding Company (Mutual) and Texas First Insurance is one of their authorized agents. Merchants Bonding Company (Mutual) has an "A (Excellent)" rating with a financial size category of "IX (USD 250 Million to Less than 500 Million)" according to A.M. Best and qualifies as an acceptable surety on the Department of the Treasury Federal Register.

Merchants Bonding Company (Mutual) believes Construction Masters of Houston, Inc. maintains a very experienced management team and they have successfully completed all projects in a professional manner. Merchants Bonding Company (Mutual) has previously approved single projects exceeding \$10,000,000 along with a \$30,000,000 aggregate bonding program for Construction Masters of Houston, Inc. If necessary, Merchants Bonding Company (Mutual) will provide Performance and Payment Bonds on the above captioned project subject to a satisfactory review of financial underwriting guidelines and specific contract details at the time of such request.

Please call me directly at (409) 934-8040 if you have any further questions or need additional information. Thanks again for your consideration of our client.

Sincerely,

A handwritten signature in blue ink, appearing to read "Donna Weinell", is written over a light blue horizontal line.

Donna Weinell
Surety Account Manager

CONFLICT OF INTEREST QUESTIONNAIRE

For vendor doing business with local governmental entity

FORM CIQ

This questionnaire reflects changes made to the law by H.B. 23, 84th Leg., Regular Session.

This questionnaire is being filed in accordance with Chapter 176, Local Government Code, by a vendor who has a business relationship as defined by Section 176.001(1-a) with a local governmental entity and the vendor meets requirements under Section 176.006(a).

By law this questionnaire must be filed with the records administrator of the local governmental entity not later than the 7th business day after the date the vendor becomes aware of facts that require the statement to be filed. See Section 176.006(a-1), Local Government Code.

A vendor commits an offense if the vendor knowingly violates Section 176.006, Local Government Code. An offense under this section is a misdemeanor.

OFFICE USE ONLY

Date Received

1 Name of vendor who has a business relationship with local governmental entity.

Justin Davis

2 ☐ Check this box if you are filing an update to a previously filed questionnaire. (The law requires that you file an updated completed questionnaire with the appropriate filing authority not later than the 7th business day after the date on which you became aware that the originally filed questionnaire was incomplete or inaccurate.)

3 Name of local government officer about whom the information is being disclosed.

N/A

Name of Officer

4 Describe each employment or other business relationship with the local government officer, or a family member of the officer, as described by Section 176.003(a)(2)(A). Also describe any family relationship with the local government officer. Complete subparts A and B for each employment or business relationship described. Attach additional pages to this Form CIQ as necessary.

N/A

A. Is the local government officer or a family member of the officer receiving or likely to receive taxable income, other than investment income, from the vendor?

☐

Yes

☐

No

B. Is the vendor receiving or likely to receive taxable income, other than investment income, from or at the direction of the local government officer or a family member of the officer AND the taxable income is not received from the local governmental entity?

☐

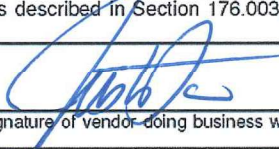
Yes

☐

No

5 Describe each employment or business relationship that the vendor named in Section 1 maintains with a corporation or other business entity with respect to which the local government officer serves as an officer or director, or holds an ownership interest of one percent or more.

6 ☐ Check this box if the vendor has given the local government officer or a family member of the officer one or more gifts as described in Section 176.003(a)(2)(B), excluding gifts described in Section 176.003(a-1).

7 
Signature of vendor doing business with the governmental entity

9/5/2025

Date

CONFLICT OF INTEREST QUESTIONNAIRE
For vendor doing business with local governmental entity

A complete copy of Chapter 176 of the Local Government Code may be found at <http://www.statutes.legis.state.tx.us/Docs/LG/htm/LG.176.htm>. For easy reference, below are some of the sections cited on this form.

Local Government Code § 176.001(1-a): "Business relationship" means a connection between two or more parties based on commercial activity of one of the parties. The term does not include a connection based on:

- (A) a transaction that is subject to rate or fee regulation by a federal, state, or local governmental entity or an agency of a federal, state, or local governmental entity;
- (B) a transaction conducted at a price and subject to terms available to the public; or
- (C) a purchase or lease of goods or services from a person that is chartered by a state or federal agency and that is subject to regular examination by, and reporting to, that agency.

Local Government Code § 176.003(a)(2)(A) and (B):

(a) A local government officer shall file a conflicts disclosure statement with respect to a vendor if:

(2) the vendor:

(A) has an employment or other business relationship with the local government officer or a family member of the officer that results in the officer or family member receiving taxable income, other than investment income, that exceeds \$2,500 during the 12-month period preceding the date that the officer becomes aware that

(i) a contract between the local governmental entity and vendor has been executed;

or

(ii) the local governmental entity is considering entering into a contract with the vendor;

(B) has given to the local government officer or a family member of the officer one or more gifts that have an aggregate value of more than \$100 in the 12-month period preceding the date the officer becomes aware that:

(i) a contract between the local governmental entity and vendor has been executed; or

(ii) the local governmental entity is considering entering into a contract with the vendor.

Local Government Code § 176.006(a) and (a-1)

(a) A vendor shall file a completed conflict of interest questionnaire if the vendor has a business relationship with a local governmental entity and:

(1) has an employment or other business relationship with a local government officer of that local governmental entity, or a family member of the officer, described by Section 176.003(a)(2)(A);

(2) has given a local government officer of that local governmental entity, or a family member of the officer, one or more gifts with the aggregate value specified by Section 176.003(a)(2)(B), excluding any gift described by Section 176.003(a-1); or

(3) has a family relationship with a local government officer of that local governmental entity.

(a-1) The completed conflict of interest questionnaire must be filed with the appropriate records administrator not later than the seventh business day after the later of:

(1) the date that the vendor:

(A) begins discussions or negotiations to enter into a contract with the local governmental entity; or

(B) submits to the local governmental entity an application, response to a request for proposals or bids, correspondence, or another writing related to a potential contract with the local governmental entity; or

(2) the date the vendor becomes aware:

(A) of an employment or other business relationship with a local government officer, or a family member of the officer, described by Subsection (a);

(B) that the vendor has given one or more gifts described by Subsection (a); or

(C) of a family relationship with a local government officer.



Contractor Acknowledgement of Stormwater Management Program

I hereby acknowledge that I am aware of the Stormwater Management Program and standard operating procedures developed by Brazoria County in compliance with the TPDES General Permit No. TXR040000. I agree to comply with all applicable best management practices and standard operating procedures while conducting my services for Brazoria County. I agree to conduct all services in a manner that does not introduce illicit discharges of pollutants to streets, stormwater inlets, drainage ditches or any portion of the drainage system. The following materials and/or pollutant sources must not be discharged to the drainage system as a result of any services provided:

1. Grass clippings, leaves, mulch, rocks, sand, dirt or other waste materials resulting from landscaping activities, (except those materials resulting from ditch mowing or maintenance activities)
2. Herbicides, pesticides and/or fertilizers, (except those intended for aquatic use)
3. Detergents, fuels, solvents, oils and/or lubricants, other equipment and/or vehicle fluids,
4. Other hazardous materials including paints, thinners, chemicals or related waste materials,
5. Uncontrolled dewatering discharges, equipment and/or vehicle wash waters,
6. Sanitary waste, trash, debris, or other waste products
7. Wastewater from wet saw machinery,
8. Other pollutants that degrade water quality or pose a threat to human health or the environment.

Furthermore, I agree to notify Brazoria County immediately of any issue caused by or identified by Construction Masters of Houston, Inc. that is believed to be an immediate threat to human health or the environment.

(Company/Contractor)



Contractor Signature

9/5/2025

Date

Justin Davis

Printed Name

President

Title

TEXAS GOVERNMENT CODE 552, SUBCHAPTER J

ACKNOWLEDGEMENT FORM

**Respondent acknowledges having read and understood the following law,
effective January 1, 2020**

	9/5/2025
SIGNATURE	DATE
"must be authorized to execute on behalf of company"	
Justin Davis	President
Typewritten or Printed Name	Title

SUBCHAPTER J. ADDITIONAL PROVISIONS RELATED TO CONTRACTING INFORMATION

Sec. 552.371. CERTAIN ENTITIES REQUIRED TO PROVIDE CONTRACTING INFORMATION TO GOVERNMENTAL BODY IN CONNECTION WITH REQUEST. (a) This section applies to an entity that is not a governmental body that executes a contract with a governmental body that:

(1) has a stated expenditure of at least \$1 million in public funds for the purchase of goods or services by the governmental body; or

(2) results in the expenditure of at least \$1 million in public funds for the purchase of goods or services by the governmental body in a fiscal year of the governmental body.

(b) This section applies to a written request for public information received by a governmental body that is a party to a contract described by Subsection (a) for contracting information related to the contract that is in the custody or possession of the entity and not maintained by the governmental body.

(c) A governmental body that receives a written request for information described by Subsection (b) shall request that the entity provide the information to the governmental body. The governmental body must send the request in writing to the entity not later than the third business day after the date the governmental body receives the written request described by Subsection (b).

(d) Notwithstanding Section [552.301](#):

(1) a request for an attorney general's decision under Section [552.301](#)(b) to determine whether contracting information subject to a written request described by Subsection (b) falls within an exception to disclosure under this chapter is considered timely if made not later than the 13th business day after the date the governmental body receives the written request described by Subsection (b);

(2) the statement and copy described by Section [552.301](#)(d) is considered timely if provided to the requestor not later than the 13th business day after the date the governmental body receives the written request described by Subsection (b);

(3) a submission described by Section [552.301](#)(e) is considered timely if submitted to the attorney general not later than the 18th business day after the date the governmental body receives the written request described by Subsection (b); and

(4) a copy described by Section [552.301](#)(e-1) is considered timely if sent to the requestor not later than the 18th business day after the date the governmental body receives the written request described by Subsection (b).

(e) Section [552.302](#) does not apply to information described by Subsection (b) if the governmental body:

(1) complies with the requirements of Subsection (c) in a good faith effort to obtain the information from the contracting entity;

(2) is unable to meet a deadline described by Subsection (d) because the contracting entity failed to provide the information to the governmental body not later than the 13th business day after the date the governmental body received the written request for the information; and

(3) if applicable and notwithstanding the deadlines prescribed by Sections [552.301](#)(b), (d), (e), and (e-1), complies with the requirements of those subsections not later than the eighth business day after the date the governmental body receives the information from the contracting entity.

(f) Nothing in this section affects the deadlines or duties of a governmental body under Section [552.301](#) regarding information the governmental body maintains, including contracting information.

Sec. 552.372. BIDS AND CONTRACTS. (a) A contract described by Section [552.371](#) must require a contracting entity to:

(1) preserve all contracting information related to the contract as provided by the records retention requirements applicable to the governmental body for the duration of the contract;

(2) promptly provide to the governmental body any contracting information related to the contract that is in the custody or possession of the entity on request of the governmental body; and

(3) on completion of the contract, either:

(A) provide at no cost to the governmental body all contracting information related to the contract that is in the custody or possession of the entity; or

(B) preserve the contracting information related to the contract as provided by the records retention requirements applicable to the governmental body.

(b) Unless Section [552.374](#)(c) applies, a bid for a contract described by Section [552.371](#) and the contract must include the following statement: "The requirements of Subchapter J, Chapter [552](#), Government Code, may apply to this (include "bid" or "contract" as applicable) and the contractor or vendor agrees that the contract can be terminated if the contractor or vendor knowingly or intentionally fails to comply with a requirement of that subchapter."

(c) A governmental body may not accept a bid for a contract described by Section [552.371](#) or award the contract to an entity that the governmental body has determined has knowingly or intentionally failed to comply with this subchapter in a previous bid or contract described by that section unless the governmental body determines and documents that the entity has taken adequate steps to ensure future compliance with the requirements of this subchapter.

Sec. 552.373. NONCOMPLIANCE WITH PROVISION OF SUBCHAPTER. A governmental body that is the party to a contract described by Section [552.371](#) shall provide notice to the entity that is a party to the contract if the entity fails to comply with a requirement of this subchapter applicable to the entity. The notice must:

(1) be in writing;

(2) state the requirement of this subchapter that the entity has violated; and

(3) unless Section [552.374](#)(c) applies, advise the entity that the governmental body may terminate the contract without further obligation to the entity if the entity does not cure the violation on or before the 10th business day after the date the governmental body provides the notice.

Sec. 552.374. TERMINATION OF CONTRACT FOR NONCOMPLIANCE. (a) Subject to Subsection (c), a governmental body may terminate a contract described by Section [552.371](#) if:

(1) the governmental body provides notice under Section [552.373](#) to the entity that is party to the contract;

(2) the contracting entity does not cure the violation in the period prescribed by Section [552.373](#);

(3) the governmental body determines that the contracting entity has intentionally or knowingly failed to comply with a requirement of this subchapter; and

(4) the governmental body determines that the entity has not taken adequate steps to ensure future compliance with the requirements of this subchapter.

(b) For the purpose of Subsection (a), an entity has taken adequate steps to ensure future compliance with this subchapter if:

(1) the entity produces contracting information requested by the governmental body that is in the custody or possession of the entity not later than the 10th business day after the date the governmental body makes the request; and

(2) the entity establishes a records management program to enable the entity to comply with this subchapter.

(c) A governmental body may not terminate a contract under this section if the contract is related to the purchase or underwriting of a public security, the contract is or may be used as collateral on a loan, or the contract's proceeds are used to pay debt service of a public security or loan.

Sec. 552.375. OTHER CONTRACT PROVISIONS. Nothing in this subchapter prevents a governmental body from including and enforcing more stringent requirements in a contract to increase accountability or transparency.

Sec. 552.376. CAUSE OF ACTION NOT CREATED. This subchapter does not create a cause of action to contest a bid for or the award of a contract with a governmental body.

Added by Acts 2019, 86th Leg., R.S., Ch. 1216 (S.B. [943](#)), Sec. 9, eff. January 1, 2020.

PROHIBITED TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES AND EQUIPMENT CERTIFICATION FORM

(Vendor to sign form if applicable to telecommunications)

The undersigned vendor hereby represents and warrants that the equipment, systems, and/or services which it will provide to Brazoria County do not use covered telecommunications equipment or services (as defined in Section 889 John S. McCain National Defense Authorization Act for Fiscal Year 2019 (FY 2019 NDAA), Pub. L. No. 115-232 (2018)) as a substantial or essential component of any system, or as critical technology of any system.

Additionally the undersigned vendor hereby represents and warrants that the equipment, systems, and/or services it will provide are not prohibited from being procured using grant funds under section 889 of the FY 2019 NDAA.

Further, per 2 CFR 200.216 (b) & (c)

(b) As described in section 889 of [Public Law 115-232](#), “covered telecommunications equipment or services” means any of the following:

- (1) Telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities);
 - (2) For the purpose of public safety, security of government facilities, physical security surveillance of critical infrastructure, and other national security purposes, video surveillance and telecommunications equipment produced by Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities);
 - (3) Telecommunications or video surveillance services provided by such entities or using such equipment;
 - (4) Telecommunications or video surveillance equipment or services produced or provided by an entity that the Secretary of Defense, in consultation with the Director of the National Intelligence or the Director of the Federal Bureau of Investigation, reasonably believes to be an entity owned or controlled by, or otherwise connected to, the government of a covered foreign country;
- (c) For the purposes of this section, “covered telecommunications equipment or services” also include systems that use covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system.

COMPANY NAME

SIGNATURE OF COMPANY REPRESENTATIVE

PRINTED NAME

TITLE

DATE

AUTHORIZED NEGOTIATOR

If your company is selected to enter into negotiations with the County, please list the name and contact information for the individual or individuals that will be negotiating a possible contract on behalf of your company.

Name: Justin Davis

Title: President

Email Address: justin@cmhou.com

Phone Number: Office: 281-997-2640 | Mobile: 281-960-4491

Name: _____

Title: _____

Email Address: _____

Phone Number: _____

RESIDENT / NONRESIDENT BIDDER PROVISIONS

Chapter 2252, Subchapter A, of the Texas Government Code establishes certain requirements applicable to proposers who are not Texas residents. Under the statute, a “resident” proposer is a person whose principle place of business is in Texas, including a contractor whose ultimate parent company or majority owner has its principle place of business in Texas.

A “nonresident” proposer is a person who is not a Texas resident. Please indicate the status of your company as a “resident” proposer or a “nonresident” proposer under these definitions.

Please check (✓) one of the following:

- ☒ I certify that my company is a **Resident Proposer**.
- ☐ I certify that my company is a **Nonresident Proposer**.

If your company is a Nonresident Proposer, you must provide the following information for your resident state (the state in which your company’s principle place of business is located):

Company Name

Address

City

State

Zip Code

- A. Does your resident state require a proposer whose principle place of business is in Texas to under-price proposers whose resident state is the same as yours by a prescribed amount or percentage to receive a comparable contract?

☐ Yes ☐ No

- B. What is the prescribed amount of percentage? \$ _____ or _____ %

☐ New Vendor ☐ Business Name Change ☐ Address Change ☐ Tax Info Change (W-9) ☒ Other

VENDOR NAME Construction Masters of Houston, Inc.

COMPLETED BY: Justin Davis, President DATE FORM COMPLETED: 9/5/2025

SAM.GOV: VENDOR D & B DUNS NUMBER: 18-670-5588

CAGE CODE: ---

Is vendor incorporated? ☒ Yes ☐ No; If incorporated: How incorporated: C Corporation Where incorporated: State of Texas

Has Name Changed in past two (2) years? ☐ Yes ☒ No If Yes, When _____

FORMER NAME: _____

3908 3rd Street

PHYSICAL STREET ADDRESS (Cannot be P.O. Box)

Pearland

CITY

TX / 77581

STATE / ZIP

Justin Davis

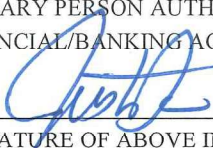
PRIMARY PERSON AUTHORIZED TO EXECUTE A
FINANCIAL/BANKING AGREEMENT

President

TITLE

(281) 997-2640

TELEPHONE #


SIGNATURE OF ABOVE INDIVIDUAL

justin@cmhou.com

EMAIL ADDRESS

N/A

SECONDARY PERSON AUTHORIZED TO EXECUTE
A FINANCIAL/BANKING AGREEMENT

TITLE

()
TELEPHONE #

SIGNATURE OF ABOVE INDIVIDUAL

www.cmhou.com

WEBSITE ADDRESS

EMAIL ADDRESS

REMITTANCE INFORMATION

REMIT TO NAME (If different from above)

PO Box 1587

REMIT TO ADDRESS

Pearland

CITY

TX / 77588

STATE / ZIP

Marji Carns, Office Manager

CONTACT PERSON/TITLE

281-997-2640

TELEPHONE #

281-485-4702

FACSIMILE #

marji@cmhou.com

EMAIL ADDRESS

Is this the only remit address you have?
If no, please provide information:

☒ Yes ☐ No

EXHIBIT B – VENDOR RESPONSE

Construction Masters of Houston, Inc.

EXHIBIT B – THE FOLLOWING ADDITIONAL REQUIREMENTS ARE TO BE SUBMITTED WITH YOUR CSP RESPONSE:

- BID FORM WITH PRICING
- VENDOR RESPONSE TO EVALUATION CRITERIA
- EXCEPTIONS TO STANDARD TERMS & CONDITIONS & SPECIAL REQUIREMENTS (*if applicable*) (If vendor has any exceptions to the CSP terms & conditions or special requirements, they must be included with the CSP submittal in order to be considered)
- SIGNED ADDENDUMS (IF APPLICABLE)

Please refer to attached documents.

BRAZORIA COUNTY BID FORM

VENDOR TO INSERT COMPLETED BID FORM HERE

Please refer to separate upload of Attachment A Bid Form to Bonfire e-Bid Platform.

VENDOR TO INSERT RESPONSE HERE
(Include the information below in the specified order)

SECTION 1

CONTRACTOR'S EXPERIENCE & QUALIFICATIONS

General Contractors Name: Construction Masters of Houston, Inc.

I. General

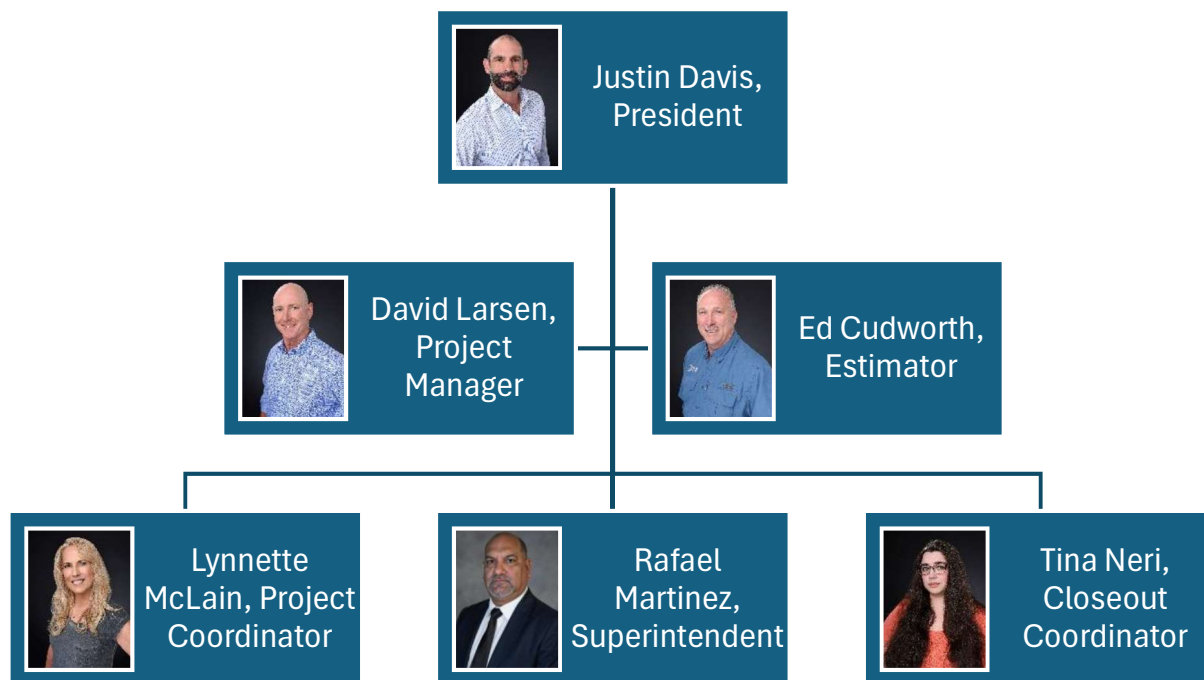
- a. Qualification information submitted shall be applicable only to the company entity or branch that will perform this Work.
Understood and Agreed.
- b. Attach your Project Organization Chart
Attached
- c. Submit list of other fully staffed branch offices
N/A
- d. Submit list of corporate officers, partnerships or owners of organization
Justin Davis, President

II. History

- a. Please specify:
 - ☒ Corporation - State of Incorporation Texas
 - ☐ Partnership
 - ☐ Sole Proprietorship
 - ☐ Joint Venture
- b. Specify: In continuous business since: 1987
- c. Specify:
 - ☐ Large Business (100 or more employees)
 - ☒ Small Business (fewer than 100 employees)
 - ☐ Other _____

III. Experience

- a. Normally performs _____ 0 % of work with own forces.
- b. Proposing to perform _____ 0 % of work for this project with own forces.
 - i. List Trades N/A



Justin Davis
Project Executive

Justin will provide overall project leadership to the team, 100% of the time, during pre-construction, construction, and closeout phases. He will leverage his experiences with public construction projects to ensure all project goals are achieved. Justin has performance in this same role with CM for the past 19 years.

David Larsen
Project Manager

David will have an active role in scheduling and constructability during the pre-construction phase. During construction he will focus on schedule maintenance, project administration, and subcontractor management. Dennis has been part of the CM team for 16 year and will be involved in this project 100% of the time for both phases.

Ed Cudworth
Estimator

Ed will be involved in the pre-construction phase of the prject where he will provide cost estimating and value engineering services. He will leverage his industry connections and knowledge of market conditions to keep the project within budget. Ed has been part of the CM team for 15 years and lead estimator for the past 9 years. He will be involved in all pre-construction phase activities and as needed during construction.

Rafael Martinez
Superintendent

Rafael will lead construction efforts at the new teen center. We will utilize his expericnce with similar PEMB facilities. Rafael in his first year with our CM team. He will participate in the pre-construction phase 50% of the time for constructability review and 100% of the construction phase.

Lynnette McLain
Project Coordinator

Lynnette will be a key contributor during the pre-construction and construction phases. She will be involved in both phases 100% of the time Lynnette will coordinate bid responses, submittals, shop drawings, and procurement of materials to ensure timely delivery within the project schedule. She has been in this same role with CM since 2009.

Tina Neri
Closeout Coordinator

Tina will be involved in the project during the construction phase. She will be responsible for properly executing project closeout requirements including owner training, warranty management, project record documents, and financial affidavits.

SECTION 1

Sub CONTRACTOR'S EXPERIENCE & QUALIFICATIONS, CONTINUATION

Vendor to provide documentation to show the following. Please label each section as shown below:

- (i) Quality of Work: Demonstrated ability to perform services in accordance with contract specifications. Conformance to good standards of workmanship.
- (ii) Customer Satisfaction: Satisfaction of end users with the contractor's completed products and services.
- (iii) Timeliness of performance: compliance with delivery schedules; reliability; responsiveness to technical direction, no assessment of liquidated damages.
- (iv) Business relations: Effective management, ability to manage projects involving subcontracts, working relationship with the contracting officer and technical representatives, reasonable/cooperative behavior, flexibility, effective contractor recommended solutions, businesslike concern for government's interests.
- (v) Cost control: Ability to complete contracts within budget (at or below); reasonableness of price change proposals submitted; providing current, accurate, and complete billings.

Please refer to attachment 'Contractor's Experience & Qualifications' narrative.

Section 1 – Contractor’s Experience & Qualifications

Quality of Work

Construction Masters has been in business since 1987. In this time, we have built a reputation as a contractor who conducts business with honesty and integrity. We have developed a system of checks and balances to ensure project installations are performed in accordance with contract documents. We only partner with subcontractors committed to providing the same quality and service that we demand of ourselves, and our multi-level quality assurance procedures guarantee that our product meets or exceeds expectations.

Timeliness of Performance

Whether it be weather delays, labor shortages, or manufacturing issues, every project has its’ challenges. The key to a timely construction project is having foresight to recognize challenges and the ability to improvise, adapt, and overcome these challenges. Our construction team meets weekly to review progress, forecast production, identify constraints, and develop solutions if challenges are identified. Construction Masters has not been assessed liquidated damages in our 36-year history.

Business Relations

Our initial objective on similar projects is to develop team continuity. The same team members will be available for the project from the pre-construction phase through closeout. Continuity of the team ensures consistency and transparency which leads to effective cost management.

Our first goal will be to develop an understanding of the customer’s primary objectives, priorities, and the value placed on each aspect of the project. With this information, we can develop a pricing strategy that ensures the customer will meet their objectives. We begin identifying cost saving measures on items with the lowest prioritization and continue to move up until the desired budget is met.

We have a multifaceted approach to cost estimating consisting of RS Means Line Item Estimating, Subcontractor Engagement, & Constructability Review. We will take the following steps to provide timely, accurate cost estimates:

- Develop a comprehensive unit of measure takeoff for all construction tasks. Completing this takeoff gives us the information needed to verify the completeness and accuracy of all cost estimates.
- Import our unit of measure takeoffs into RS Means Unit Pricing Bulletin software. This information is used to develop preliminary cost estimates.
- Engage subcontractors and provide current market pricing which is then compared to our preliminary unit cost estimates.
- Continuously engage subcontractors, vendors, manufacturers, and vendors to keep

- current on future market pricing.
- Identify construction tasks that may require an early start to avoid price escalation.
- Integrate the construction team to review constructability methods, site logistics, and schedules.
- Identify alternate logistics, methods, and schedules that may produce cost savings.

Justin Davis will be the Project Executive assigned to your project. As such, he will lead the estimating efforts from conceptual design to completion. Justin has been leading Construction Masters' estimating program for more than 14 years. He will leverage his relationships with capable Brazoria County-based subcontractors, creating value through the efficiencies of local infrastructure.

Ed Cudworth will be our second estimator assigned to the project. Ed has been estimating commercial construction projects for more than 20 years. Ed's systematic, detailed approach to cost estimating enhances Construction Masters' ability to provide reliable cost data.

By having two estimators assigned to this project, we will be able to simultaneously provide cost analysis and constructability review for the renovation and new construction concepts.

Cost Control

In the last 7 years, 90% of our business came from repeat customers. We believe this statistic illustrates our commitment to our core values which are honesty, integrity, and transparency. One way we earn these relationships is by building trust through cost control.

This begins at the estimating stage. We spend weeks examining each set of drawings and specifications to uncover all known and unknown expenses. We do not put bids together looking for future change orders. Our goal is to identify potential conflicts at this stage to avoid uncomfortable conversations during the build.

We only partner with subcontractors who share this common goal. While bidding, we discard subcontractor bids that look unrealistic because they do not align with our cost expectations. Much of the time these subcontractors do not end up being team players. If we think they will be looking for change orders, we will move to the next responsible bidder. This process may inflate our numbers, but we would rather lose out on a project than win one with a poorly put together team. We want you to become another repeat customer.

Throughout construction we are collaborating with subcontractors, architects, and engineers to identify conflicting field conditions, unexpected consequences, and constructability issues. In many situations, additional costs can be avoided through proper planning and foresight.

When added costs are unavoidable, we look to propose solutions that minimize overall impact. Often, we can eliminate the added cost all together by suggesting corresponding changes that do not take away from aesthetics or functionality.

Change orders are not good for anyone involved, including us. You have our commitment to work responsibly and proactively.

Customer Satisfaction

Please reach out to the references listed within this proposal for confirmation of customer satisfaction and verification of the comments made above.

SECTION 2

PROJECTS

List Projects Similar in Size and Scope which were completed in the last five (5) years

Project	Project Location	\$ Amount	Type	Date
Brazoria County - Fire Fighters Association Fire Training Facility	605 Kelly Blvd. Angleton, TX 77515	\$2,726,447	CSP	8/7/2025
FBCESD 2 Willowfork Administration Building	2700 Spring Green Blvd. Katy, TX 77494	\$5,931,935**	CMaR	4/18/2024
Brazoria County Facilities Management Warehouse	1340 E. Kiber Rd. Angleton, TX 77515	\$3,689,900	CSP	8/11/2023
Baytown Utility Services Building	315 W. Texas Ave. Baytown, TX 77520	\$3,467,695	CSP	5/2/2023
HCESD 48 Fire Station #4	22855 Franz Road Katy, TX 77449	\$989,300	CSP	2/21/2023
HCESD 1 EMS Station 97	15600 Woodland Hills Dr., Humble, TX 77346	\$1,819,000	CSP	12/15/2020

San Jacinto College - Maritime Expansion Fire Training Center	3700 Old Hwy 146 La Porte, TX 77571	\$1,047,600	CSP	10/9/2020
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Brazoria County Lake Jackson Annex Building	202 Peach St. Lake Jackson, TX 77566	\$3,926,500	CSP	6/4/2020
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**Contract Amount is for 2 buildings: Willowfork Admin building & Willowfork Fire Station 1.

Note: All projects included same scope of work:
Detention Ponds
Storm Sewer
Sanitary & Water Utilities

SECTION 3

CONTRACTOR KEY PERSONNEL

I. Superintendent & Project Manager Information

- a. Resumes of key personnel shall also be included. Professional affiliations, memberships, and certifications for each of the key personnel must be included and will be used to evaluate the proposed team and personnel.

Project Manager	Years Experience	Projects
Justin Davis, Project Executive		
David Larsen, Project Manager		
Please refer to attached resumes		

Superintendent	Years Experience	Projects
Rafael Martinez		
Please refer to attached resume.		

Scheduler	Years Experience	Projects
David Larsen		

Quality Control Person	Years Experience	Projects
Dennis Busby		



Justin Davis

President



QUALIFICATIONS

- Veteran of the Industry, Extensive History Working with City Governments
- Experienced Leadership
- Excellent Communication Skills
- Key Time Management Expertise

- 19 Years with CM
- 21 Years in construction
- BBA in Marketing from Houston Baptist University
- OSHA-10 Certification

PROJECT ROLE: Project Executive

Justin's duties will include contract administration, labor & product procurement, submittal review, schedule management, QC, overall project oversight; subcontractor management, construction process control, safety inspections, quality assurance and construction conflict resolution; site visits and attendance at all OAC meetings.



RELEVANT FACILITY HIGHLIGHTS Public

- Brazoria County Lake Jackson Annex
- Arcola City Hall Renovations
- Pearland City Hall Complex
- Tom Reid Library Expansion
- Brazoria County Facilities Management Warehouse
- Pearland Orange Street Service Center



David Larsen

Project Manager

QUALIFICATIONS

- Experienced Project Manager
- Excellent Communication Skills
- Cost and Time Management Expertise
- Seasoned Professional in Working with City and County Governments

- 4 Years with CM
- 19 Years in Construction
- Licensed Houston and Texas Journeyman Electrician, 1990 - 2010
- OSHA-10 & 30 Certifications

PROJECT ROLE

David's duties will include subcontractor management, construction process control, safety inspections, quality assurance and construction conflict resolution; and attend all OAC meetings.



RELEVANT PUBLIC HIGHLIGHTS

- Brazoria County Fire Fighters Association Fire Training Facility
- City of Pearland Orange Street Service Center
- Baytown Animal Services and Adoption Shelter
- Brazoria County Facilities Management Warehouse
- New Hitchcock City Hall Renovation and Expansion



Ed Cudworth

Estimator

QUALIFICATIONS

- Experienced Project Manager
- Skilled in Coordinating Trades, Developing Partnerships
- Excellent Communication Skills
- Proficient at Estimating and Time Management
- Well Versed in MS Project, Utilized for 10+ Years

- 15 Years with CM
- 36 Years in Construction
- San Jacinto College
- US Coast Guard
- OSHA-30 Certification

PROJECT ROLE

Ed's duties include submittal review, schedule management, QC, overall project oversight; subcontractor management, construction process control, safety inspections, quality assurance and construction conflict resolutions; site visits and attendance at all OAC meetings.



RELEVANT FACILITY HIGHLIGHTS

Public

- City of Friendswood Blackhawk Public Works Building
- City of Friendswood Blackhawk Emergency Shelter
- City of Pasadena Golf Course New Maintenance Storage Building
- City of Webster Animal Control Building
- City of Webster Police Department Renovation



Rafael G. Martinez

Superintendent



QUALIFICATIONS

- Detailed in Execution and Project Completion
- Excellent Oral and Written Communication Skills
- Strong Leadership in Managing Personnel in the Field
- Fluent in English and Spanish

- In 1st Year with CM
- 23 Years in Construction
- 30 plus years experience in civil & public work and service
- OSHA-30 Certification
- Bilingual – English & Spanish

PROJECT ROLE

Rafael's duties will include day-to-day project administration, subcontractor management, quality and safety assurance, schedule maintenance and customer coordination.



RELEVANT FACILITY HIGHLIGHTS

- Brazoria County Fire Fighters Association Fire Training Facility

Previous Project Experience:

- Amazing Spaces Greenway
- Fountainwood at Lake Houston
- Highlands VFD Fire Station – Highlands, TX
- Lee College Annex Expansion Phase 1
- Sheldon Park Renovation

SECTION 4

CONTRACTOR REFERENCES

References: Name 5 projects of similar work, giving owner's name, owner's representative's name, project architect's name, and telephone numbers for each. References must be provided for owners of similar size and scope as the proposed project.

1. Lake Jackson Annex Building

Owner: Brazoria County

Owner's Rep: Gerald Hendrick II

979.864.1676

Architect: iAD Architects

Brent Bowles, iAD Architects

979.297.1411

2. Blackhawk Administration Building

Owner: City of Friendswood

Owner's Rep: Hailee Medwedeff

281.992.3402

Architect: PGAL

Ryan Bass, PGAL

713.968.9394

3. Pearland Orange Street Service Center
Phase 1 Administration Building

Owner: City of Pearland

Owner's Rep: Jameson Appel*

281.470.5135

Architect: Huitt-Zollars

Chris Casey, AIA*

806.473.2200

*Formerly with H-Z, currently with Parkhill

*Formerly with City of Pearland, currently with City of La Porte

4. Willowfork Administration Building

Owner: Willowfork Fire Dept.

Owner's Rep: Billy Wilson, Fire Chief

281.395.0011, ext 110

Architect: Martinez Architects

Ricardo Martinez, Partner

281.346.7371

5. Baytown Utility Services Building

Owner: City of Baytown

Owner's Rep: Heather Oberst, Hill International

713.349.9333

Architect: Element Architects

Patrick Helemann, Element Architects

713.874.0775

SECTION 5

CONTRACTOR'S CURRENT WORK SCHEDULE/RECORD

I. Current Work Schedule

a. List major construction projects your organization has in-progress using the format below:

Name & Location of Project	Contract \$	% Complete	Projected Completion Date	Owner Contact And Phone
HCESD 7 - Spring Fire Station 77 2900 Cypresswood Dr. Spring, TX 77388	\$3,154,947	92%	9/30/2025	Donald May, Facilities Director HC ESD 7 281-355-1266
City of Missouri City Golf Course Maintenance Facility 2880 La Quinta Dr., Missouri City 77459	\$2,621,730	25%	12/26/2025	Sergio Becerril, Capital Projects Mgr. City of Missouri City 281-403-8564
Missouri City - Quail Valley Golf Course Renovation 2280 La Quinta Dr., Missouri City 77459	\$2,023,897	50%	2/18/2026	Shashi Kumar, Public Works Director City of Missouri City 281-403-8579
New Alvin Annex Building 248 Victory Lane Alvin, TX 77511	\$8,201,719	40%	4/22/2026	Gerald Hendrick II New Construction Liaison 979-864-1676
Waller-Harris ESD 200 - Fire Station 43 27227 Baethe Rd. Hockley, TX 77447	\$7,953,600	21%	7/22/2026	Chief W. McDugle Waller-Harris ESD 200 936-372-8084

Continued on next page.

b. Total number and dollar amount of contracts currently in progress:

Number 6 \$ 34,218,831

c. Largest single contract amount currently in progress:

Project Name: City of La Porte - La Porte Public Works

Projected Completion Date : 12/14/2026

Dollar Amount \$ 10,262,938

II. Past Record

a. List major construction projects of our organization has completed in the last 5 years with completion dates and references.

Name & Location of Project	Contract \$	Date Completed	Owner Contact and Phone
Please reference attached:			
5 yr Project History Listing			

SECTION 5

CONTRACTOR'S CURRENT WORK SCHEDULE/RECORD

I. Current Work Schedule

a. List major construction projects your organization has in-progress using the format below:

Name & Location of Project	Contract \$	% Complete	Projected Completion Date	Owner Contact And Phone
City of La Porte - La Porte Public Works 2963 N. 23rd St. La Porte, TX 77571	\$10,262,938	0%	1/4/2027	Jameson Appel Asst. Director of Public Works 281-470-5135

5 Year Project History



Brazoria County – Parks HQ & Maintenance Facility

41885 State Hwy 288
Angleton, Texas 77515

Substantial Completion Date: 5/31/2024

Final Contract Amount: \$8,720,824

Delivery Method: CSP

Owner Rep:

Name: Chad Davenport, Deputy Director, BC Parks Dept.

Phone: (979) 864-1119

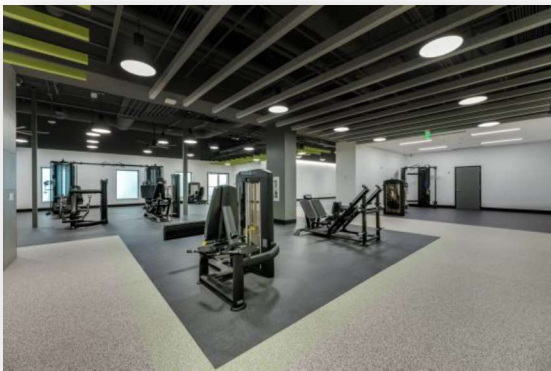
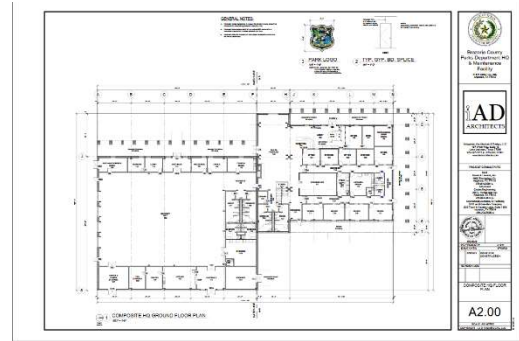
Email: Cdavenport@brazoriacountytx.gov

Architect:

Name: Brent Bowles, iAD Architects

Phone: (979) 297-1411

Email: Bbowles@iadarchitects.com



City of La Porte – Fitness & Recreation Center Expansion

1322 S. Broadway
La Porte, Texas 77571

Substantial Completion Date: 12/20/2024

Final Contract Amount: \$3,255,130.19

Delivery Method: CSP

Owner Rep:

Name: Lindsay French, Recreation Superintendent

Phone: (281) 470-5138

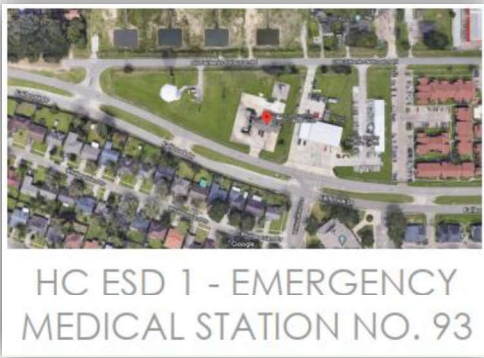
Email: FrenchL@laportetx.gov

Architect:

Name: Paul Bonnette, PGAL Architects

Phone: (713) 622-1444

Email: Pbonnette@pgal.com



Harris County ESD #1 – EMS Station 93
7710 Fallbrook Drive, Houston, Texas 77086
Start Date: 7/21/2023

Substantial Completion Date: 8/5/2024
Final Contract Amount: \$3,200,000
Delivery Method: Design-Build
Owner Rep:

Name: Willie Sanders, Director of Infrastructure
Phone: (713) 408-2756
Email: Tsanders@hcec.com

Architect:

Name: Ricardo Martinez, Martinez Architects
Phone: (281) 346-7371
Email: Ricardom@martinez-architects.com

Swagelok – TX Mid-Coast Expansion / Renovations

2112 Brazosport Blvd., Richwood, Texas 77531
Start Date: 11/8/2023

Substantial Completion Date: 7/5/2024
Final Contract Amount: \$1,814,090
Delivery Method: CSP
Owner Rep:

Name: Kevin Moriarty, President
Phone: (979) 297-3228
Email: Kevin.Moriarty@swagelok.com

Architect:

Name: Brent Bowles, iAD Architects
Phone: (979) 297-1411
Email: Bbowles@iadarchitects.com



Alvin ISD – Manvel High School Servery Renovations

19601 Hwy 6, Manvel, Texas 77578
Start Date: 5/20/2024

Substantial Completion Date: 8/9/2024
Final Contract Amount: \$1,156,500
Delivery Method: CSP
Owner Rep:

Name: Matthew DeVeau, Exec. Director of Support Services
Phone: (281) 331-1393
Email: Mdeveau@alvinisd.net

Architect:

Name: J. Matthew Brown, JMB2 Architecture, Inc.
Phone: (281) 980-0900
Email: Matt@jmb2-arch.com

Fort Bend County ESD No. 2
Willowfork Administration Building

2700 Spring Green Blvd.
Katy, Texas 77494

Substantial Completion Date: 4/18/2024
Contract Amount: \$5,931,935 (includes Fire Station 1)
Delivery Method: CMAR
Owner:

Name: Billy Wilson, Fire Chief, Willowfork FD
Phone: (281) 395-0011 ext. 110
Email: Billy.Wilson@willowforkfire.com

Architect:

Name: Ricardo Martinez, Martinez Architects
Phone: (281) 346-7371
Email: Ricardom@martinez-architects.com



WILLOWFORK FIRE STATION 1
RENOVATION

Fort Bend County ESD No. 2
Willowfork Fire Station 1

24655 Westheimer Parkway
Katy, Texas 77494

Substantial Completion Date: 2/16/2024
Contract Amount: \$5,931,935 (includes Administration Bldg)
Delivery Method: CMAR
Owner:

Name: Billy Wilson, Fire Chief, Willowfork FD
Phone: (281) 395-0011 ext. 110
Email: Billy.Wilson@willowforkfire.com

Architect:

Name: Ricardo Martinez, Martinez Architects
Phone: (281) 346-7371
Email: Ricardom@martinez-architects.com



City of Friendswood
Blackhawk Renovation

15355 Blackhawk Blvd.
Friendswood, Texas 77546

Substantial Completion Date: 1/29/2024
Contract Amount: \$5,066,380
Delivery Method: CSP
Owner:

Name: Hailee Medwedeff, Project Coordinator
Phone: (281) 993-3402
Email: Hmedwedeff@friendswood.com

Architect:

Name: Ryan Bass, PGAL
Phone: (713) 968-939
Email: Rbass@pgal.com

City of Friendswood
Blackhawk Emergency Shelter

15355 Blackhawk Blvd.
Friendswood, Texas 77546

Substantial Completion Date: 1/29/2024

Contract Amount: \$914,000

Delivery Method: CSP

Owner:

Name: Hailee Medwedeff, Project Coordinator

Phone: (281) 993-3402

Email: Hmedwedeff@friendswood.com

Architect:

Name: Ryan Bass, PGAL

Phone: (713) 968-939

Email: Rbass@pgal.com



City of Hitchcock

New City Hall Renovation & Expansion

8102 Highway 6
Hitchcock, Texas 77563

Substantial Completion Date: 12/4/2023

Contract Amount: \$1,882,700

Delivery Method: CSP

Owner:

Name: Marie Gelles, City Manager

Phone: (409) 986-5591

Email: Mgelles@cityofhitchcock.org

Architect:

Name: Eric Batte, MG Architects

Phone: (713) 552-0707

Email: Eric@mgarchitects.com



CSM Warehouse Expansion Phase 2

8660 Lambright Road
Houston, Texas 77075

Substantial Completion Date: 9/13/2023

Contract Amount: \$1,050,700

Delivery Method: CSP

Owner:

Name: Casey Wendelburg, VP, CSM Industrials

Phone: (713) 991-2202

Email: CMW@csmindustrial.com

Architect:

Name: Ricardo Martinez, Martinez Architects

Phone: (281) 346-7371

Email: Ricardom@martinez-architects.com



**Brazoria County
Facilities Management Warehouse**

1340 E. Kiber Road
Angleton, Texas 77515

Substantial Completion Date: 8/11/2023
Final Contract Amount: \$3,089,900 Delivery Method: CSP
Owner:

Name: Gerald Hendrick, II, Project Designer, BC Facilities
Phone: (979) 864-1676
Email: geraldh@brazoria-county.com

Architect:

Name: Brent Bowles, iAD Architects
Phone: (979) 297-1411
Email: bbowles@iadarchitects.com



**City of Baytown
Utility Services Building**

315 W. Texas Avenue
Baytown, Texas 77520

Substantial Completion Date: 5/2/2023
Contract Amount: \$3,467,695
Delivery Method: CSP
Owner:

Name: Marvaughon Bolin, City of Baytown
Phone: (832) 784-7980
Email: Marvaughon.bolin@baytown.org

Architect:

Name: Patrick Helemann, Element Architects, LLC
Phone: (713) 874-0775
Email: P.helemann@elementarchitects.com



Oyster Creek Wastewater Treatment Plant

474 County Road 609
Angleton, Texas 77515

Substantial Completion Date: 4/26/2023
Final Contract Amount: \$420,300
Delivery Method: JOC
Owner:

Name: Martha Eighme, Director of Communications
Phone: (979) 849-4364
Email: Meihme@angleton.tx.us

Architect:

Name: Tanya Reed, MRB Group
Phone: (254) 771-2054
Email: Tanya.reed@mrbgroup.com



**Harris County ESD 48
Fire Station 4 Renovations**

22855 Franz Road
Katy, Texas 77449

Substantial Completion Date: 2/21/2023

Final Contract Amount: \$989,300

Delivery Method: CSP

Owner:

Name: Ray Sidwell, Asst. Chief Admin., HCESD 48

Phone: (832) 739-6503

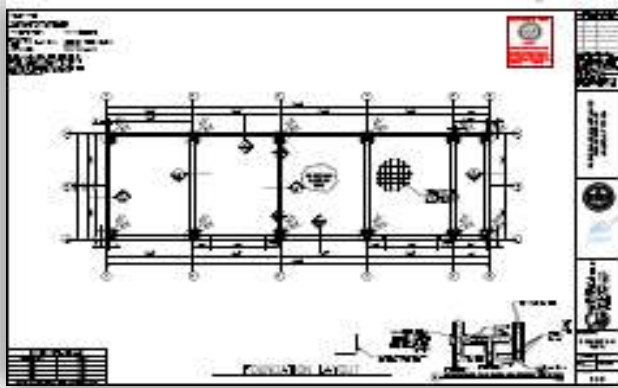
Email: Ray.sidwell@hcesd28.org

Architect:

Name: Richardo Martinez, Martinez Architects

Phone: (281) 346-7371

Email: Richardom@>artinez-Architects.com



Pasadena Municipal Golf Course Maintenance Shed

1000 Duffer Lane,
Houston, Texas 77034

Substantial Completion Date: 2/14/2023

Final Contract Amount: \$179,411

Delivery Method: JOC

Owner:

Name: Robby Lyde, Director of Project Development

Phone: (713) 475-4832

Email: Rlyde@pasadenatx.gov

Architect:

Name: Try Kennedy, 9 Yards Architecture

Phone: (281) 316-6392

Email: Troy@the9yards.com

Brazoria County Historical Museum

100 E. Cedar
Angleton, Texas 77515

Substantial Completion Date: 2/2/2023

Final Contract Amount: \$293,508

Delivery Method: JOC

Owner:

Name: Gerald Hendrick, II, BC Facilities Management

Phone: (979) 864-1676

Email: Geraldh@brazoria-county.com

Architect:

Name: Hutson | Gallagher

Phone: (512) 960-0013

Email: Chris@hutsongallagher.com



Texas Gulf Bank – River Oaks

2517 River Oaks Boulevard
Houston, Texas 77019

Substantial Completion Date: 11/18/2022

Final Contract Amount: \$372,700

Delivery Method: Negotiated

Owner:

Name: Mary Henson, COO, Texas Gulf Bank

Phone: (979) 888-7850

Email: Mhenson@texasgulfbank.com

Architect:

Name: Eric Bette, MG Architects

Phone: (713) 552-0707

Email: Ebette@mgarchitects.com



City of Baytown

Fire Station #4 Women's Locker Room Reno.

910 E. Fayle Avenue
Baytown, Texas 77520

Substantial Completion Date: 9/1/2022

Final Contract Amount: \$186,581

Delivery Method: JOC

Owner:

Name: Juan Macias, City of Baytown, PE, CFM, Eng. Dept.

Phone: (281) 420-3869

Email: Juan.Macias@baytown.org

Architect:

Name: Kim Dowdy-Hickman, Quorum Architects, Inc.

Phone: (817) 546-6325

Email: Kim@qarch.com

Barbers Hill ISD

Middle School North Girls Athletic Renovations

7579 Eagle Drive
Mont Belvieu, Texas 77523

Substantial Completion Date: 8/1/2022

Final Contract Amount: \$632,615

Delivery Method: CSP

Owner:

Name: Stan Frazier, Barbers Hill ISD

Phone: (713) 526-2738

Email: Stan.frazier@bhisd.net

Architect:

Name: George Watanabe, cre8 Architects

Phone: (713) 526-2738

Email: George.Watanabe@cre8houston.com



City of Baytown

Animal Shelter & Adoption Shelter

705 N. Robert C. Lanier Drive
Baytown, Texas 77521

Substantial Completion Date: 8/1/2022

Final Contract Amount: \$6,532,984

Delivery Method: CSP

Owner:

Name: Juan Macias, City of Baytown, PE, CFM, Eng. Dept.

Phone: (281) 420-3869

Email: Juan.Macias@baytown.org

Architect:

Name: Kim Dowdy-Hickman, Quorum Architects, Inc.

Phone: (817) 546-6325

Email: Kim@qarch.com



Harris County ESD 4

Huffman Fire Station 52 Renovations

54 Ivy Leaf Drive
Huffman, Texas 77336

Substantial Completion Date: 6/14/2022

Final Contract Amount: \$534,000

Delivery Method: CSP

Owner:

Name: Ray Jones, President, Harris County ESD 4

Phone: (281) 281) 324-9110

Email: Jhoney@harriscountyesd4.org – Jenelle Honey

Architect:

Name: Richardo Martinez, Martinez Architects

Phone: (281) 346-7371

Email: Richardom@martinez-architects.com

Texas Gulf Bank - Freeport

1400 N. Brazosport Boulevard
Freeport, Texas 77541

Substantial Completion Date: 2/18/2022

Final Contract Amount: \$1,782,500

Delivery Method:

Owner:

Name: Mary Henson, COO, Texas Gulf Bank

Phone: (979) 888-7850

Email: Mhenson@texasgulfbank.com

Architect:

Name: Eric Bette, MG Architects

Phone: (713) 552-0707

Email: Ebette@mgarchitects.com





City of Pearland
Orange Street Service Center

3501 E. Orange Street
Pearland, Texas 77581

Substantial Completion Date: 10/15/2021

Final Contract Amount: \$5,619,510

Delivery Method: CSP

Owner:

Name: Michael Collins, City of Pearland

Phone: (281) 652-1747

Email: Mcollins@pearlandtx.gov

Architect:

Name: Chris Casey, Huitt-Zollars, Inc.

Phone: (281) 496-0066

Email: Ccasey@huitt-zollars.com

San Luis Pass Visitor Center

14001 CR 257
Freeport, Texas 77541

Substantial Completion Date: 4/23/2021

Final Contract Amount: \$410,770

Delivery Method: CSP

Owner:

Name: Bryan Frazier, Brazoria County Parks Department

Phone: (979) 864-1114

Email: Bryanf@brazoria-County.com

Architect:

Name: Brent Bowles, iAD Architects

Phone: (979) 297-1411

Email: Bbowles@iadarchitects.com



City of Missouri City

Fire Stations #1, #3, & #4 Renovations

FS #1 – 3849 Cartwright, Missouri City, Texas 77459

FS #3 – 2496 Texas Parkway, Missouri City, Texas 77459

FS #4 – 5955 Sienna Parkway, Missouri City, Texas 77459

Substantial Completion Date: 1/8/2021

Final Contract Amount: \$317,243

Delivery Method: JOC

Owner:

Name: Vincent Silva, CIP Project Manager

Phone: (281) 403-8567

Email: Vincent.Silva@missouricitytx.gov

Architect:

Various renovations to 3 Fire Stations, Totaling 5,000 SF

Owner Designed



Harris County ESD #1

EMS Station 97

15600 Woodland Hills Drive

Humble, Texas 77346

Substantial Completion Date: 12/15/2020

Final Contract Amount: \$1,819,000

Delivery Method: CSP

Owner:

Name: Jeremy Hyde, Harris County ESD #1

Phone: (281) 449-3131

Email: Jhyde@hcec.com

Architect:

Name: Justin Myers, Martinez Architects

Phone: (281) 346-7371

Email: Justinm@martinez-arcitects.com

San Jacinto College

Maritime Expansion Fire Training Center

3700 Old Highway 146

La Porte, Texas 77571

Substantial Completion Date: 10/9/2020

Final Contract Amount: \$1,047,600

Delivery Method: CPS

Owner:

Name: Colby Kreft, San Jacinto College, Program Manager

Phone: (713) 819-7483

Email: Colby@rizzo-associates.com

Architect:

Name: Robert Trabanino, Texas – IBI Group

Phone: (281) 286-6605

Email: Robert.trabanino@ibigroup.com



Arcola City Hall Renovations

13222 Highway 6
Rosharon, Texas 77583

Substantial Completion Date: 9/8/2020

Final Contract Amount: \$2,034,000

Delivery Method: CSP

Owner:

Name: Annette Goldberg, City Administrator

Phone: (2881) 431-0326

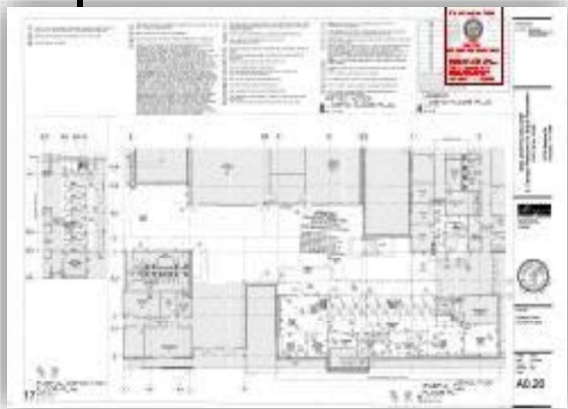
Email: Agoldberg@arcolatexas.org

Architect:

Name: Richard Martinez, Martinez Architects

Phone: (281) 346-7371

Email: Richardom@martinez-architects.com



San Jacinto College – South Campus Welcome Center – Building 6 Renovation

13735 Beamer Road
Houston, Texas 77089

Substantial Completion Date: 8/7/2020

Final Contract Amount: \$419,671

Delivery Method: CSP

Owner:

Name: Colby Kreft, San Jacinto College, Program Manager

Phone: (713) 819-7483

Email: Colby@rizzo-associates.com

Architect:

Name: Courtney Harper, Courtney Harper + Partners, L.C.

Phone: (713) 521-7379

Email: Courtney@courneyhp.com

b. Volume of work completed over last 5 years:

\$ 30,000,000 (2024)

\$ 30,000,000 (2023)

\$ 30,000,000 (2022)

\$ 20,000,000 (2021)

\$ 20,000,000 (2020)

CONTRACTOR LITIGATION, CLAIMS, REPUTATION & COMPLIANCE

I. Please answer the following questions

- a. Has your firm ever defaulted, been declared to be in default, or failed to complete any work awarded?

☐ yes

☒ no

If yes, stipulate where and why: _____

- b. Has your firm ever paid (or had withheld from payment) liquidated damages for failure to complete a contract on time?

☐ yes

☒ no

If yes, stipulate where and why: _____

- c. Has your organization ever been charged with or paid a fine for non-compliance of State and/or Federal statutes or regulations?

☐ yes

☒ no

If yes, stipulate where and why: _____

- II. List pending claims and/or litigation against or involving project owners at time of submitting Proposal.
Show project name, owner and summary explanation.

None

CONTRACTOR'S SAFETY RECORD

- I. List your organization's Workers Compensation Experience Modification Rate (EMR) for the last five years, as obtained from your insurance agent.

2024 .97

2023 .98

2022 .98

2021 .98

2020 .97

- II. Complete the matrix below for the last five years, as obtained from OSHA No. 200 Log:

	2024	2023	2022	2021	2020
Number of injuries & illnesses	0	0	0	0	0
Number of lost time accidents	0	0	0	0	0
Number of recordable cases	0	0	0	0	0
Number of fatalities	0	0	0	0	0
Number of employee direct hire fixed hours (round to 1,000's)	41,660	37,440	39,520	39,520	25,360

- III. Please answer the following questions regarding your safety program

- a. Are regular project safety meetings held for Field Supervisor(s)?

☒ yes

☐ no

If yes, frequency:

☒ weekly

☐ bi-monthly

☐ monthly

☐ as needed

- b. Are project safety inspections conducted?

☒ yes

☐ no

If yes, who performs inspections?

Field Superintendent

How often? Weekly

Who is required to attend? Subcontractors, Safety Manager, Field Superintendent

- c. Does your organization have a written safety program?

☒ yes

☐ no

If yes, provide a copy. It will become a compliance document upon contract award.

Construction Masters of Houston, Inc's. Safety Manual attached.

- d. Does your organization have a safety orientation program for new employees?

☒ yes

☐ no

For employees promoted to Field Supervisor?

☒ yes

☐ no

If yes, does your Supervisor Safety Program include instructions on the following:

Safety work practices ☒ yes ☐ no

Tool box safety meetings ☒ yes ☐ no

First aid procedures ☒ yes ☐ no

Accident investigation ☒ yes ☐ no

Fire protection ☒ yes ☐ no

New worker's orientation ☒ yes ☐ no

SECTION 8

SUBCONTRACTOR LIST

The Offerer shall provide a list of subcontractors your firm intends to contract with for services for each trade included in your offer.

SUBCONTRACTOR	TRADE
CYPRESS CONSTRUCTION	EARTHWORK/STORM/UTILITIES
O'DAY	SEPTIC SYSTEMS
WILCOX ELECTRIC	ELECTRICAL
ENVIRONMENTAL ALLIES	SWPPP/HYDROMULCH

SECTION 9

CONTRACTOR'S FINANCIAL RESOURCES

FINANCIAL STATEMENTS

If your company is deemed the highest ranked, you will be requested to submit your current and prior 2 years of financial statements for review to ensure that your company has the financial capacity to perform and to continue to perform its obligations under the contract if your company is awarded the contract.

As part of the solicitation review, to deem your submission as responsive for the committee to evaluate, the County will require the submission of financial statements in order to minimize potential issues from contracting with a vendor that is financially unstable.

If your company enters into formal negotiations, failure to provide financial statements when requested will deem your submission as non-responsive and the County will discontinue negotiations.

Section 10

VENDOR TO INSERT PROJECT SCHEDULE HERE

Construction Schedule attached.

ID		Task Mode	Task Name	Duration	Start	Finish	Predecessors	Resource Names	'25	T	W	T	F	S	Sep 7, '25	T	W	T	F	S	S	M	T	W
18			Install Water Utilities	6 days	Thu 10/2/25	Thu 10/9/25	10																	
19			Water Utilities Inspections	2 days	Fri 10/10/25	Mon 10/13/25	18																	
20			Haul Off Utilities Spoils	3 days	Tue 10/14/25	Thu 10/16/25	19,18																	
21			Remove SWPPP	2 days	Fri 10/17/25	Mon 10/20/25	20																	
22			Final Clean	2 days	Tue 10/21/25	Wed 10/22/25	21																	
23			Final Inspection	2 days	Thu 10/23/25	Fri 10/24/25	22																	
24			Punch Items	5 days	Mon 10/27/25	Fri 10/31/25	23																	
25			Demobilize	1 day	Mon 11/3/25	Mon 11/3/25	24																	

Project: Project1

Date: Thu 9/4/25

Task















Inactive Summary

Manual Task

Duration-only

Manual Summary Rollup

Manual Summary

Start-only

Finish-only

External Tasks

External Milestone

Deadline

Progress

Manual Progress

**VENDOR TO INSERT EXCEPTIONS TO
STANDARD TERMS & CONDITIONS & SPECIAL
REQUIREMENTS HERE (IF APPLICABLE)**

✓ Company **does not** have exceptions (*If applicable, check here*)

Or

 Company **does** have exceptions (*If applicable, check here and list exceptions here for consideration. Brazoria County will review all exceptions listed and will formally communicate as to if any exceptions are accepted by the County. If exceptions are accepted by the County, they will be added in the form of an addendum.*)

VENDOR TO INSERT EXCEPTIONS HERE

SIGNED ADDENDUMS (IF APPLICABLE)

VENDOR TO INSERT SIGNED ADDENDUMS HERE

Attached:

Addendum 1, dated 8/18/2025

BRAZORIA COUNTY ADDENDUM NUMBER 1

CSP #25-76 BRAZORIA COUNTY PRECINCT 4 NORTH ANNEX CR 58 MUNICIPAL UTILITY DISTRICT (MUD) UTILITY CONNECTIONS

PLEASE INCLUDE THIS SIGNED ADDENDUM WITH YOUR SEALED CSP PACKAGE.

This Addendum modifies the CSP #25-76 package as follows:

1. Definitions: All definitions set forth in the Contract shall have the same meaning unless stated otherwise in this Addendum.
2. The following questions have been submitted for clarification:
 - 2.1 Vendor Question: "Do you want a bid bond or performance bond or will this job require both?"

Brazoria County Answer: A copy of the bid bond is required to be included with Exhibit A Required Documents. Upon award, a payment and performance bond will be required.
3. All other terms and conditions of the CSP are to remain unchanged.

Please refer any questions regarding this CSP to the Brazoria County Purchasing Department at (979) 864-1825 or bidclarifications@brazoriacountytx.gov.

Construction Masters of Houston, Inc.

LEGAL NAME OF CONTRACTING COMPANY

281-997-2640

TELEPHONE NUMBER

281-485-4702

FACSIMILE NUMBER

SIGNATURE

Justin Davis, President

NAME AND TITLE PRINTED

*Addendum approved by:



Susan P. Serrano, CPPO, CPPB
County Purchasing Director

8/18/2025

Date



Construction Masters of Houston

Project Manual

With Job Site Forms

Prepared by:
Construction Masters of Houston
in association with:
U.S. Compliance Systems, Inc.

Disclaimer: This Project Manual coincides with selected portions of our safety program located at:

3908 3rd Street
Pearland, TX 77581

It is not all inclusive. To the best of our knowledge, the information contained herein is accurate as of the above date. U.S. Compliance Systems, Inc. accepts no responsibility for errors or omissions.

Construction Masters of Houston

PROJECT MANUAL OVERVIEW

It is our policy to provide a work environment that is inherently safe -- free from conditions that are unsanitary, hazardous, or dangerous to the health and safety of our personnel and the subcontractors with whom we work. Prior to performing work, job site personnel will be made aware of our safety and health policies as well as appropriate safety standards to prevent accidents and injuries. Accident prevention demands a commitment from all personnel. That commitment includes an awareness of proper work methods, use of personal protective equipment, and proper use of tools and equipment. Competent persons will, on an on-going basis, review work procedures and adherence to safety standards and immediately address areas in which deficiencies are found. Defective tools and equipment will be immediately taken out of service. Only those qualified by training or experience may operate machinery and equipment.

We want all personnel to become actively involved in our safety program. Suggestions for improved safety procedures are welcome. Safety meetings will be held on a regular basis and they will address safety issues appropriate to the work at hand. During these meetings, employees are encouraged to raise any safety related question or concern. On multi-contractor job sites, safety meetings may, depending on the circumstances, focus on the hazards created by other contractors and how those hazards may impact on our personnel.

Project manuals will be kept at individual job sites to enable the supervisors, competent person(s), employees, and subcontractors to have quick reference to major safety requirements of items of equipment or work procedures. This manual is not a complete safety program; our complete detailed safety program is maintained at our main office located at:

3908 3rd Street
Pearland, TX 77581

On the job site, safety concerns should be resolved by your supervisor or the competent person.

All personnel are free to, and encouraged to, review appropriate OSHA safety standards maintained in our safety program.

Immediately following this manual are job site forms appropriate for our work.

Construction Masters of Houston

PROJECT MANUAL

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2	<u>SUBCONTRACTOR INVOLVEMENT</u>
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Written Notification to Commence Steel Erection [GC]
Emergency Action Plan & Fire Prevention Plan
Accident Investigation Form

NOTE: Job site forms are located at the end of the Project Manual.

GENERAL SAFETY POLICIES AND PROCEDURES

ACCIDENT/INJURY PREVENTION

Our safety program is designed so that neither our employees or our subcontractors work in conditions that are unsanitary, hazardous, or dangerous to their health or safety.

One lax moment in terms of safety may result in a lifetime of needless pain and suffering. Disregarding safety standards may even be fatal. While an accident may happen in an instant, the consequences may last for years.

Accident prevention requires a commitment from all personnel within our company to actively participate in our safety program. All personnel should be aware of job site hazards and follow procedures to eliminate these hazards by proper work methods, use of personal protective equipment, and proper use of tools and equipment. All persons are encouraged to ask questions and make positive suggestions for safety improvement.

Competent persons will be designated to provide job site expertise as well as regular inspections of equipment, materials, and procedures. Competent persons will have the authority to stop work if a safety hazard is identified and it cannot be corrected immediately.

All machinery, tools, materials and equipment deemed unsafe will be taken out of service by physically removing, tagging, or locking controls to render them inoperable.

Only persons qualified by training or experience will be allowed to operate equipment or machinery.

All tools and items of equipment will be used for the purpose for which they were designed. For example, a wrench is not a hammer; a ladder is not a horizontal plank; a fire extinguisher is not a cooler!

Never take chances or attempt any job without being aware of the proper procedures, the potential safety hazards, and the methods to reduce or eliminate risk.

SAFETY PROGRAM ADMINISTRATOR

Our Safety Director will administer this safety program and has overall responsibility for the implementation of this program. The safety director will ensure each employee has appropriate safety training for the tasks to be performed.

Additionally, duties of this position include:

- a. the actual training of personnel.
- b. maintenance of training records.
- c. random inspections to verify adherence to safety rules and policies.
- d. completion of specific tasks identified within our OSHA compliance programs found in Section III of this safety program.

Our Safety Program Administrator is: Ace Thomas

The duties of this position may be delegated to other personnel who are competent persons by virtue of training or experience.

The responsibilities of this position may not be further delegated.

EMPLOYEE INVOLVEMENT

All employees are encouraged to participate actively in our safety & health program. Do not hesitate to point out perceived safety deficiencies to your supervisor or the competent person -- you may prevent an injury to yourself or a fellow worker. With the goal of providing a safer worksite for all of us, employee suggestions for improving safety management are welcomed and encouraged. Never perform any task on which you are not confident in your understanding of the safety procedures. If in doubt, ask your immediate supervisor for guidance.

SUBCONTRACTOR INVOLVEMENT

It is our responsibility to review the safety efforts made by subcontractors who may be working with us.

Prior to initiation of work on multi-subcontractor job sites, a meeting will be held to apprise all subcontractors of the protective measures we have determined to be appropriate. Input and suggestions from subcontractors will be solicited. Attention will be given to hazards one subcontractor may create and the measures they will take to prevent other subcontractors from these exposures. One measure that will always be taken is the sharing of appropriate Material Safety Data Sheet information.

HOUSEKEEPING

Housekeeping? On a job site? What's that all about? It's about safety! Employees are to maintain a neat and orderly work area *as far as practical*. Housekeeping and general cleanliness have a direct effect on safety and health. Proper housekeeping can prevent slips and falls, allow easy egress

in the event of an emergency, prevent falling object injuries, and enhance fire safety. Below listed are general housekeeping rules:

- a. walking/working surfaces shall be kept clean and dry.
- b. do not allow construction debris to accumulate.
- c. stored materials will be neatly stacked at the job site.
- d. containers, when not in use, will be sealed.
- e. no objects will be left unattended on stairways.
- f. entrances and exits will be properly marked and not blocked.
- g. tools shall be properly cleaned and put away after use.

EMERGENCY ACTION PLAN

An Emergency Action Plan, if appropriate, will be posted at the job sites along with emergency telephone numbers and an escape route diagram.

After a hazard assessment of a job site, the Safety Director may determine that conditions may develop that could possibly warrant an evacuation. In this case, an emergency action plan will be developed to address the threat. Certainly, if work is being done at a hazardous chemical plant, for example, an emergency action plan is required and coordination will be made with the facility operator.

Events may occur which dictate the evacuation of a job site such as a fire, explosion, power failure, etc.. Additionally, events may occur which dictate the need for emergency medical responders. These sets of events fall under our Emergency Action Plan and a multitude of objectives must be met.

The first and foremost objective is the safety of all our personnel. To achieve this level of safety, our plan is designed to get personnel away from danger, treat injury, and provide for a thorough and accurate accounting of all employees.

There may be situations where certain employees, trained in first aid and/or fire fighting procedures, may prevent a small emergency situation from becoming a major disaster. In these types of situations, specifically identified employees will remain to perform the function for which they are trained, provided they may perform these duties in a safe manner. At no time will any employee put himself/herself at risk.

To the extent possible, job sites will have clear, direct, egress.

The actual implementation of this plan must be direct and carried out without confusion. Employees must know how to alert others, how to call for assistance, the location of fire extinguishers and first aid kits, the escape route, and the rendezvous point (being accounted for so that others do not put themselves at risk looking for a person who has already reached safety).

EMERGENCY MEDICAL RESPONSE

Should an injury occur that requires an emergency medical responder, the below listed actions will be taken in order given:

1. Call 911 or the emergency response number posted on the job site.
2. Provide any medical assistance you are trained and certified to do.
DO NOT provide any medical assistance you are not trained to do.
3. Designate an individual to direct the emergency responders to the injured person and provide Material Safety Data Sheets if applicable.
4. Notify the competent person who, in turn, will notify the office.

FIRE PREVENTION PLAN

Fire Prevention deals not with handling a fire emergency, but rather preventing a fire in the first place.

To reduce the likelihood of a fire, personnel are to adhere to the following rules:

1. Smoking is allowed only in designated areas and smoking materials will be totally extinguished and placed in the appropriate receptacles.
2. All chemical products will be handled and stored in accordance with the procedures noted on their individual MSDS.
3. Heat producing equipment will be properly maintained and operated per the manufacturer's instructions to prevent accidental ignition of combustible materials.
4. Precautions will be taken when working with an open flame (such as welding) and those areas will be made fire safe by removing or protecting combustibles from ignition.
5. Combustible liquids must be stored in approved containers.
6. Chemical spills must be cleaned up immediately. This is particularly important for combustible and reactive liquids. Damaged chemical containers and cleanup materials must be properly disposed.
[Note: Exercise care! Information on appropriate personal protective equipment; proper disposal; proper cleanup procedures; required ventilation, etc. is found on the product's MSDS.]
7. Combustible liquids and trash must be segregated and kept from ignition sources.

8. Keep clear access to fire hydrants as well as portable fire extinguishers.
9. Personnel will be notified by their Supervisor or the competent person of any unusual fire hazard conditions existing on a job site.
10. Good housekeeping, good housekeeping!

PORTABLE FIRE EXTINGUISHERS

All personnel will receive instruction on the proper use of fire extinguishers.

- a. Fire extinguishers will be inspected monthly for general condition and adequate charge. They will be serviced and certified by qualified personnel at least annually.
- b. Portable fire extinguisher locations will be clearly identified and easily accessible.

Portable fire extinguishers will be distributed as indicated below:

<u>CLASS</u>	<u>DISTRIBUTION</u>	<u>NOTES</u>
A "A" on a green triangle	75 feet or less travel distance between the employee and the extinguisher	Use on wood, paper, trash.
B "B" on a red square	50 feet or less travel distance between hazard area and the employee	Use on flammable liquid, gas.
C "C" on a blue circle	Based on the appropriate pattern for the existing Class A or Class B hazards	Use on electrical fires.
D "D" on a yellow star	75 feet or less travel distance between the combustible metal working area and the extinguisher or other containers of Class D extinguishing agent.	Use on combustible metals.

Appropriate portable fire extinguishers will be used, as noted above. Supervisors will ensure that at least one extinguisher is on each floor of a project near the stairway.

Using the wrong fire extinguisher on some fires can actually spread the fire. Using a Type A extinguisher on an electrical fire, for example, could cause serious injury. When a fire occurs, it is imperative to use the proper extinguisher.

FIRE PROTECTION

The phone number of the local fire department shall be posted with other emergency numbers.

If a fire should occur, all personnel and the local fire department will be notified. As in all emergency situations, per the American Trauma Society, people calling the fire department should:

- a. Remain calm.
- b. Speak clearly and slowly.
- c. Give the exact location.
- d. Describe the situation.
- e. Give the phone number from where you are calling.
- f. Do not hang up until told to do so.

FIRST AID & FIRST AID KITS

Should a medical emergency occur, other than minor scrapes and bruises, and it is serious enough to call for professional medical assistance, you should call the Emergency Response Number posted on the job site bulletin board. Before the first aid providers arrive, to the extent possible, clear the way so they can reach the injured employee in the most direct way possible.

Unless trained and licensed in CPR/first aid and a designated first aid provider as an additional job as part of the company bloodborne pathogen program, employees will not expose themselves to blood or other bodily fluids of other employees at any time.

Per OSHA, first aid is limited to:

- a. Using a non-prescription medication, such as aspirin, at non-prescription strength.
- b. Cleaning, flushing or soaking wounds on the surface of the skin;
- c. Using wound coverings such as bandages, Band-Aids™, gauze pads, etc.; or using butterfly bandages or Steri-Strips™.
- d. Using hot or cold therapy.
- e. Using any **non-rigid** means of support, such as elastic bandages, wraps, non-rigid back belts, etc..
- f. Using temporary immobilization devices while transporting an accident victim (e.g., splints, slings, neck collars, back boards, etc.).

- g. Drilling of a fingernail or toenail to relieve pressure, or draining fluid from a blister.
- h. Using eye patches.
- i. Removing foreign bodies from the eye using only irrigation or a cotton swab.
- j. Removing splinters or foreign material from areas other than the eye by irrigation, tweezers, cotton swabs or other simple means.
- k. Using finger guards.
- l. Using massages.
- m. Drinking fluids for relief of heat stress.

If an employee is injured and emergency responders have been called, stay calm and reassure the injured employee that help is coming.

Below is basic first aid for various common job site injuries. Mostly, it is what **not** to do.

MINOR BURNS

(Redness or blisters over a small area)

Flush with cold water; apply a sterile dressing.

Do not use butter on any burn.

Do not break open blisters.

MAJOR BURNS

(White or charred skin; blisters and redness over a large area; burns on face, hands, or genital area)

Cover with sterile dressing and seek medical attention promptly.

Do not apply salves, ointments or anything else.

Do not break blisters.

CHEMICAL BURNS

(Spilled liquid or dry chemical on skin)

Liquid - Flush with large amounts of water immediately
(keep water flow gentle).

Dry - Brush as much off as possible before flushing with water.

After flushing at least 5 minutes, cover with sterile dressing.

Seek medical attention promptly.

Do not use anything but water on burned area.

Do not break open blisters.

EYE - FOREIGN OBJECT
(Object visible; feeling of something in the eye)

Have patient pull upper eyelid over lower eyelid.

Run plain water over eye.

If object does not wash out, cover both eyes with a gauze dressing.

Seek medical attention promptly.

Do not rub the eye.

EYE - WOUNDS
(Wound on eyelid or eyeball; pain;
history of blow to eye area; discoloration)

Apply loose sterile dressing over both eyes.

Seek medical help immediately.

For bruising, cold compress or ice pack may relieve pain and reduce swelling.

Do not try to remove any embedded object.

Do not apply pressure to eye.

EYE - CHEMICAL BURN
(Chemical splashed or spilled in eye)

Flush immediately with water over open eye for at least 10 minutes (20 minutes if alkali). It may be necessary to hold patient's eyelid open.

Cover both eyes with sterile dressing.

Seek medical help immediately.

Do not put anything but water in eye.

HEAT EXHAUSTION
(Fatigue; weakness; profuse sweating; normal temperature;
pale clammy skin; headache; cramps; vomiting; fainting)

Remove from hot area.

Have victim lay down and raise feet.

Apply cool wet cloths.

Loosen or remove clothing.

Allow small sips of water if victim is not vomiting.

HEAT STROKE

(Dizziness; nausea; severe headache; hot dry skin;
confusion; collapse; delirium; coma and death)

Call for immediate medical assistance.

Remove victim from hot area.

Remove clothing.

Have victim lay down.

Cool the body (shower, cool wet cloths)

Do not give stimulants.

When dealing with any injury, stay calm and never do anything unless you know what you are doing.

First Aid Kits:

First aid kits are worthless if not readily accessible. Therefore, they will not be locked up on job sites.

First aid kits will be replenished as items are used. Sterile items will be wrapped and sealed and used only once. Other items such as tape or scissors can be reused and should be kept clean. In the absence of plentiful amounts of clean water, eye flush will be available.

The number of first aid kits to be found on the job site should be:

<u>Number of Persons Assigned to Job Site</u>	<u>Minimum First Aid Supplies</u>
1 - 5	10 Package Kit
6 - 15	16 Package Kit
16 - 30	24 Package Kit

Depending on the job site, first aid supplies will generally include: adhesive bandages, bandage compresses, scissors and tweezers, triangular bandages, antiseptic soap or pads, eye dressing, and other items that a consulting physician may recommend. The main purpose of a bandage, the most commonly used item in a first aid kit, is not really to stop the bleeding, but to keep the wound clean.

The three most important things dealing with first aid kits are:

1. They must be readily accessible.
2. They must be appropriate for the job site work involved.
3. Personnel must know how to use the contents of the first aid kits.

First aid kits must be replenished as items are used. Those individual items that must be sterile must be wrapped and sealed and used only once. Other items such as tape or scissors can be reused and should be kept clean.

The supplies consumed in first aid kits can actually be used as a safety tool. For example, if a kit constantly needs replacement of bandages which have been used for minor cuts, there is an obvious problem that the cuts are happening in the first place. Actual trends can be established and corrective procedures initiated such as protective gloves or handling practices.

Improper medical treatment can be more dangerous than no treatment at all.

SANITATION

Sanitation. - 1926.51

Potable Water:

From a safety standpoint, you must not neglect your need for potable (drinkable) fluids. Water is not only the most abundant of all compounds found on the earth, it is the most abundant part of you -- actually about 65% of you is water.

On construction sites, exertion and heat dictate the need for plenty of water.

Potable water will be available on job sites. If portable containers are used, they will be clearly marked [Potable Water]; capable of being tightly closed; and equipped with a tap. These containers will be used for no other purpose than supplying drinking water. Non-reusable (single service) cups in a sanitary container will be provided drinking as well as a receptacle for disposing of used cups. Employees are reminded of their need for adequate amounts of water.

Non-Potable Water:

Outlets of non-potable water should be clearly identified as such, through appropriate signage, and non-potable water may never be used for drinking, washing, or cooking.

Toilets:

Toilets will be provided at construction sites according to the below table:

<u>Number of Employees</u>	<u>Minimum Number of Facilities</u>
20 or less	1
20 or more or more	1 toilet seat and 1 urinal per 40 workers
200 or more	1 toilet seat and 1 urinal per 50 workers

Toilet facilities would include, unless prohibited by local law:

- a. Privies (where their use will not contaminate ground or surface water)
- b. Chemical Toilets
- c. Recirculating toilets
- d. Combustion toilets

Washing Facilities:

Adequate washing facilities will be provided in near proximity to the worksite if employees are working with contaminants that may be harmful to their health such as paint, coatings, or other chemical products. Paper towels and cleansing agents will be provided.

Showers and change rooms will be dictated by specific standards dealing with specific toxic materials (i.e., lead; asbestos).

Eating and Drinking Areas:

No employee will be allowed to consume food or beverages in any area exposed to toxic material.

LIFTING, PUSHING & PULLING

Back injuries are often caused by the obvious -- putting excessive strain on the lower back by lifting an object that is too heavy or awkward, or by bending and/or twisting while lifting.

However, lifting injuries are also caused by less obvious reasons:

- a. poor physical condition
- b. poor posture
- c. poor judgment (lifting, pulling, pushing an object that is obviously too heavy or awkward without seeking assistance or a mechanical lifting device.)
- d. lack of exercise
- e. excessive body weight

Proper lifting techniques are important for employee safety. Below are lifting techniques that will reduce the likelihood of injury:

- a. lift objects comfortably, not necessarily the quickest or easiest way.
- b. lift, push, and pull with your legs, not your arms or back.
- c. when changing direction while moving an object, turn with your feet, not by twisting at the waist.
- d. avoid lifting higher than your shoulder height.

- e. when standing while working, stand straight.
- f. when walking, maintain an erect posture; wear slip-resistant, supportive shoes.
- g. when carrying heavy objects, carry them close to the body and avoid carrying them in one hand.
- h. when heavy or bulky objects need to be moved, obtain help or use a mechanical aid such as a dolly, hand truck, forklift, etc..
- i. when stepping down from a height of more than eight inches, step down backwards, not forward.
- j. handle heavy objects close to the body -- avoid reaching out.
- k. lift gradually and smoothly. Avoid jerky motions.
- l. maintain a clear line of vision.

SLIPS, TRIPS & FALLS

Slips, trips, and falls are among the most common job site accidents and they are easily preventable. Below are some of the causes of slips, trips, and falls:

- a. running on the job site.
- b. engaging in horseplay.
- c. working off a ladder that is not firmly positioned.
- d. carrying an object that blocks line of vision.
- e. work boots not laced or buckled.
- f. working off a scaffold without safety rails.
- g. using ladders that have oil and grease on the rungs.
- h. not using a handrail on steps.
- i. messy work areas with debris strewn about.
- j. not paying attention to what one is doing.

This list can go on and on, but all the above are easily preventable by adherence to common safety procedures, common sense, and awareness of potential hazards on the job site.

DRUGS AND ALCOHOL

With the exception of over the counter drugs such as aspirin or drugs prescribed by a physician, there shall be no drugs or alcohol on any job site. Alcohol and drug abuse cause an unacceptable level of safety hazard not only for the offending employee, but for others in the vicinity. Those found to be under the influence of drugs and/or alcohol will be immediately removed from the job site by the competent person and further disciplinary action will be taken by the Safety Director.

Employees taking prescription medication that reduces motor skills should report this to their supervisor for appropriate work assignment.

Chemical dependency is a devastating problem for not only the employee, but also the employee's family and co-workers. For obvious safety reasons, it cannot be tolerated in the workplace. Those with such a problem should seek professional help. The Safety Director will assist any employee in finding appropriate treatment should they voluntarily come forward.

SMOKING

There shall be no smoking except in designated smoking areas. Under no circumstances will there be smoking during refueling of vehicles or within 50 feet of flammable materials.

ACCIDENT INVESTIGATION

The purpose of Accident Investigation is to prevent the same type of accident from reoccurring. An accident investigation will begin immediately after the medical crisis is resolved. The competent person/supervisor on the job site will complete an Accident Investigation Form as soon as feasible. The five questions that must be answered are: Who? What? When? Where? and most importantly, Why did the accident happen?

Apparently simple accidents may actually be caused by many complex reasons. Example: a worker is using a claw hammer on a working surface more than six feet above the ground. The hammer head breaks off and strikes a worker below who is not wearing a hard hat. Why did this accident happen? How can it be prevented? With just the facts presented, the fault would seem to rest with the worker who was struck by the falling object. Accident investigation may reveal other contributing factors by answering questions like:

- a. Were hard hats required on the project, were they available, and was this policy enforced by the supervisors?
- b. Were precautions taken to prevent objects from falling from above, such as a controlled access zone (CAZ)?

- c. Did the worker inspect his hammer before use? Was he driving nails -- the job for which a claw hammer is designed -- or pounding metal beams?

After determining the cause of the accident, steps can be taken to prevent a reoccurrence. Near-miss mishaps, events which result in no injury or damage, should be investigated because even though the outcomes are different, the causes are the same.

POSTINGS

On every job site there will be a prominently displayed bulletin board or area for postings. Every employee must be aware of this policy. Certain postings are required as a matter of law in all cases and other postings are required depending on circumstances and types of work being done.

In all cases, the following must be posted to meet OSHA requirements:

- a. OSHA Form 3165, *It's the law!*.
- b. During the period from 1 February through to April 30, OSHA Form 300A, *Summary of Work-Related Injuries and Illnesses*, must be posted for work-related injuries and illnesses which have occurred during the previous year.
- c. Emergency phone numbers and site address for emergency response.

If appropriate, the following must be posted:

- a. OSHA citations.
- b. Notice of informal hearing conference.
- c. Names and location of assigned first aid providers.
- d. Air or wipe sampling results.
- e. Emergency action plan.

RECORDKEEPING: INJURIES & ILLNESSES

OSHA Forms 300; 300A & 301

As a matter of law, all employers with 11 or more employees **at any one time** in the previous year must maintain OSHA Form 300, *Log of Work-Related Injuries and Illnesses*, OSHA Form 301, *Injury and Illness Incident Report*, and OSHA Form 300A, *Summary of Work-Related Injuries and Illnesses*.

OSHA Forms 300 and 301 are used to record and classify occupational injuries and illnesses. The information on the OSHA Form 300 related to employee health and must be used in a manner that protects the confidentiality of the employees to the extent possible. Recordable injuries

and illnesses must be entered on OSHA Forms 300 and 301 within seven (7) days of receiving information that a recordable injury or illness has occurred.

Retention of Forms:

Old OSHA Forms 101 and 200 as well as OSHA Forms 300 and 301 will be retained for five years following the year to which they relate.

Items to be recorded on OSHA Forms 300, 300A and 301:

Work related injuries and illnesses and fatalities are to be recorded using the criteria found in Part 1904, *Recording and Reporting Occupational Injuries and Illnesses*.

Injuries and illnesses must be recorded if they result in death, days away from work, restricted work or transfer to another job, medical treatment beyond first aid, loss of consciousness, or if the injury or illness involves a significant injury diagnosed by a physician or licensed health care professional even if it does not meet the forgoing conditions.

NOTE: First aid (which is not reportable) is defined in 1904.7(b)(5)ii.

Employee Involvement:

As a matter of policy, all work-related accidents and injuries are to be immediately reported to the competent person/supervisor on a job site who will complete an accident investigation form. This will be forwarded to the Safety Director who will extrapolate appropriate information for completion of the OSHA Form 300.

Catastrophic Reporting Requirements:

Within eight (8) hours after the death of any employee from a work-related incident or the in-patient hospitalization of three (3) or more employees as a result of a work-related incident, either in person or by telephone, the OSHA Area Office nearest to the site of the incident will be notified. OSHA may be contracted for this purpose using a toll free telephone number: 1-800-321-6742.

Location of OSHA Forms 300 and 301:

As a general rule, the OSHA Forms 300 and 301 will be maintained in our main office. However, in the event that a project is to last more than one year, that job site will be considered a fixed establishment and maintain its own OSHA Forms 300 and 301.

INCIDENCE RATE

One indication of the success of our safety effort is our “incidence rate”. When bidding a job, our incidence rate could be a determining factor in a successful bid. The incidence rate is determined by the following formula:

$$N/EH \times 200,000$$
 where:

N = number of injuries and/or illnesses

EH = total hours worked by all employees during the calendar year.

200,000 = base for 100 full-time equivalent workers
(working 40 hours per week, 50 weeks per year).

To find the “Lost Workday Injury Rate” (LWDI), the following formula is used:

$$\text{LWDI Rate} = (\# \text{ LWDI's} \times 200,000) / \# \text{ employee hours worked}$$

LWDI = sum of LWDI's in reference years

employee hours worked = sum of employee hours in reference years

200,000 = base for 100 full-time equivalent workers
(working 40 hours per week, 50 weeks per year).

When accidents and injuries occur, they have an immediate detrimental impact on those employees involved. Additionally, they have a potential lingering negative impact on our company and our ability to get work.

SAFETY MEETINGS

Scheduled safety meetings provide an opportunity for reinforcing the importance of general safety as well as specific work related procedures applicable to the work at hand. Properly prepared safety meetings will focus on one or two topics and be direct and to the point. All safety questions will be addressed and interactive participation is encouraged.

SUBCONTRACTOR RESPONSIBILITIES

The below four major elements of safety management that apply to our operations also apply to our subcontractors:

- a. management commitment and employee involvement.
- b. worksite analysis.
- c. hazard prevention and control.
- d. safety & health training.

It is expected that our contractors work within the framework of OSHA standards.

ENFORCEMENT

It is expected that all employees will abide by our safety rules and guidelines not only to protect themselves, but also to protect their fellow workers from harm. Should a safety violation occur, the following steps will be taken by the employee's immediate supervisor:

- a. **Minor Safety Violations:** Violations which would **not** reasonably be expected to result in serious injury.
 - 1. The hazardous situation will be corrected.
 - 2. The employee will be informed of the correct procedures to follow and the supervisor will ensure that these procedures are understood.
 - 3. The supervisor will make a written report of the occurrence using our Enforcement Documentation Form and inform the employee that this documentation will be forwarded to the Safety Director for a retention period of one year.
 - 4. A repeat occurrence of the same minor safety violation is considered substantially more serious than the first.
- b. **Major Safety Violations:** Violations which would reasonably be expected to result in serious injury or death.
 - 1. The hazardous situation will be corrected.
 - 2. The employee will be informed of the correct procedures to follow and will impress upon the individual the severity of the violation and the likely consequences should this type of violation be repeated. The supervisor will ensure that the individual understands the correct procedures and will be cautioned that a reoccurrence could result in disciplinary action up to and including discharge.
 - 3. The supervisor will make a written report of the occurrence using our Enforcement Documentation Form and inform the employee that this documentation will be forwarded to the Safety Director for a retention period of one year.
- c. **Willful Major Safety Violations:** Intentional violation of a safety rule which would reasonably be expected to result in serious injury to the employee or a fellow worker.
 - 1. The hazardous situation will be corrected.

2. The employee will be removed from the job site, the event will be documented and forwarded to the Safety Director, and the employee will be discharged.

Employees are to understand that the primary purpose of documenting safety violations is to ensure that the important business of employee safety is taken seriously and that the potential for injury is reduced to the lowest possible level.

Schedule of Enforcement Actions for Violations within a 1 Year Period

Minor Violation

Offense	Action	Repeat of Same Offense	Action
1st	Written Notice	1st	1 Day Off
2nd	Written Notice	2nd	3 Days Off
3rd	1 Day Off	3rd	Dismissal
4th	2 Days Off		
5th	3 Days Off		
6th	Dismissal		

Major Violation

Offense	Action	Repeat of Same Offense	Action
1st	Written Notice	1st	4 Days Off
2nd	2 Days Off	2nd	Dismissal
3rd	4 Days Off		
4th	Dismissal		

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JOB SPECIFIC - EQUIPMENT SPECIFIC SAFETY PROCEDURES

ABRASIVE WHEELS

Abrasive wheels and tools. - 1926.303

An abrasive wheel is defined as a cutting tool consisting of abrasive grains held together by organic (resin, rubber, shellac or similar bonding agent) or inorganic bonds. Hazards that present themselves during abrasive wheel operations include physical contact with the rotating wheel; destruction of the wheel, itself; inhalation of the bonding particles; being struck by flying fragments. All these hazards can be eliminated through adherence to appropriate machine guarding principles, appropriate PPE, and/or respiratory protection.

Immediately before mounting, wheels must be inspected and sounded (ring test) to ensure they have not been damaged. Ensure the spindle speed does not exceed the maximum operating speed noted on the wheel.

Ring Test: Wheel to be tested must be dry and free from sawdust. Wheels should be tapped gently with a light nonmetallic implement, such as the handle of a screwdriver, or a wooden mallet for heavier wheels. If they sound cracked (dead), they may not be used. It should be noted that organic bonded wheels do not emit the same clear metallic ring as do vitrified and silicate wheels. Tap the wheels about 45° each side of the vertical centerline and about one or two inches from the periphery. Rotate the wheel about 45° and repeat the test. A sound, undamaged, wheel will give a clear metallic tone.

Guarding: Abrasive Blades in Portable Circular Saws:

It is important to distinguish between a saw and an abrasive blade because they have different guarding requirements. An abrasive wheel, as defined by CFR §1910.211(b)(14) and American National Standards Institute (ANSI) B7.1-1970, as "a cutting tool consisting of abrasive grains held together by organic or inorganic bonds."

If a wheel is, for example, constructed with bonded, steel fragments arranged in intermittent clusters around the periphery of a steel disc, the steel fragments are too large and sharp to be considered abrasive grains. If these fragments remove material primarily by severing rather than by abrasion, then this would be considered a saw blade and the guarding requirements would be found in 29 CFR 1926.300, General Requirements.

If, in fact, cutting is done by the abrasive action of the abrasive grains, guarding requirements are found in 29 CFR 1926.303(b), Abrasive Wheels and Tools.

Additionally, (ANSI) B7.1 only requires the upper half (180°) of the abrasive blade to be guarded when abrasive wheels are installed on portable power driven circular saws.

AERIAL LIFTS

Aerial lifts. - 1926.453

Aerial lifts include the following types of vehicle-mounted aerial devices to elevate personnel to job-sites above the ground:

- a. extensible boom platforms.
- b. aerial ladders.
- c. articulating boom platforms.
- d. vertical towers.
- e. a combination of any of the above.

Only authorized persons may operate an aerial lift.

Lift controls must be tested each day prior to use to determine they are in a safe working condition.

When working from an aerial lift, you must stand firmly on the floor of the basket or cage and be attached by lanyard and safety harness to the boom or basket. You may not sit or climb on the edge; use planks, ladders, or other devices for a work position; or tie off to any adjacent pole, structure, or other equipment.

Load limits set by the manufacturer must never be exceeded.

The brakes must be set and when outriggers are used, they shall be positioned on pads or a solid surface.

Aerial lifts must not be moved with personnel in the basket unless it is designed for this type of operation. Aerial lifts designed as personnel movers must have controls that are clearly marked as to their use and the lower controls must be able to override the upper controls. Except in an emergency, the lower controls shall not be used unless permission has been granted by the persons in the lift.

Extreme care must be exercised to avoid contact with electrical energy.

COMBUSTIBLE & FLAMMABLE LIQUID HANDLING

Flammable and combustible liquids. - 1926.152

Only approved containers and portable tanks will be used for storage and handling of flammable and combustible liquids. Approved safety cans or Department of Transportation approved containers will be used for handling and use of flammable liquids in quantities of 5 gallons or less.

Note 1: The above does not apply to flammable liquid materials which are highly viscous (extremely hard to pour) which may be used and handled in their original shipping containers.

Note 2: For quantities of one gallon or less, the original container may be used for storage, use and handling.

Flammable or combustible liquids may not be stored in areas used for exits, stairways, or normally used for the safe passage of people.

Inside a facility, no more than 25 gallons of flammable or combustible liquids may be stored in a room outside of an approved storage cabinet.

GASOLINE: General Information

Because most persons use or indirectly handle gasoline on a regular basis -- from filling up automobiles to lawn mowers -- the hazards presented by this product may have become obscure. Just because you are familiar with gasoline, like electricity, never lose sight of the lethal hazards that it may contain.

Gasoline is a flammable liquid which means it has a flash point of less than 100°F. The actual flash point -- lowest temperature at which a liquid gives off enough vapor to form a flammable mixture with air -- of gasoline is - 45°F. The autoignition temperature -- the temperature at which, with sufficient oxygen, gasoline will ignite on its own and burn -- is 536°F.

Gasoline has a specific gravity -- the weight of the gasoline compared to the weight of an equal volume of water -- of 0.73. Further, gasoline has a negligible solubility in water. Basically, what the above means is that if water is used to extinguish a gasoline fire, it will only spread it because the gasoline will float on the water and continue to give off a vapor and form a flammable mixture with air. Gasoline fires must be fought with an extinguisher that is rated for Class B Fires such as carbon dioxide, dry chemical, or foam. It should be noted that water spray may be used to cool containers that may be exposed to the heat of the fire to prevent an explosion.

Conditions to avoid: heat, flame, & sources of ignition. Materials to avoid: strong oxidizers.

Health hazard information: routes of entry: inhalation, skin, ingestion.

Signs & symptoms of overexposure: headache, nausea, drowsiness, breathlessness, fatigue, convulsions, loss of conscience, dermatitis.

If there is a spill, notify emergency response personnel, evacuate area, remove ignition sources, build a dike to contain flow, do not flush to sewer or open water. Pick up with inert absorbent and place in closed container for disposal.

Gasoline is a carcinogen -- a cancer causing agent.

General rules: Post "No Smoking" signs around gasoline storage and ensure that it is enforced. Use only approved plastic or metal containers for portable gasoline carriers. They must not contain more than 5 gallons.

Double check with local ordinances for storage requirements.

COMBUSTIBLE GAS INDICATORS

The below information is extracted from OSHA Hazard Information Bulletin, dated, January 18, 1990., subject: *The Use of Combination Oxygen and Combustible Gas Detectors*.

In tank removal operations, it is common practice to purge a tank containing flammable vapors with either carbon dioxide or an inert gas, such as nitrogen. When the oxygen content falls to about 10% or below, a false combustible gas indicator reading can occur.

The combination oxygen and combustible gas meter is used to test atmospheres for sufficient oxygen content for life support and/or the presence of combustible gases or vapors posing a potential flammability/explosion hazard. Common examples of locations where this instrument is used include storage tanks, confined spaces, manholes, tank cars, ships and shipyards, tunneling, pumping stations and hazardous waste sites.

The combustible gas indicator is designed to measure combustible gas or vapor content in air. This instrument is capable of detecting the presence of any gas or vapor which, when combined with oxygen in free air, presents a potential hazard due to flammability/explosion. The combustible gas indicator will not indicate the combustible gas content in atmospheres containing less than 10% oxygen.

Each instrument has its own set of operating procedures and instructions, however:

- a. The instrument should not be used where the oxygen concentration exceeds that of fresh air (oxygen enriched atmosphere) when sampling for gases like acetylene and hydrogen.
- b. Certain materials such as silicon, silicates (such as in certain hydraulic fluids) and organic lead (such as in leaded gasoline) will poison the combustible gas sensor thereby giving erroneously low readings.
- c. Combustible gas readings, either negative or greater than 100% LEL, may indicate an explosive concentration of gas beyond the accurate response range of the combustible gas sensor.
- d. Pressurized or low pressure samples will give erroneous oxygen percent readings.
- e. Acid gases, such as carbon dioxide, will shorten the service life of the oxygen sensor.
- f. The instrument will not indicate the presence of combustible airborne mists or dusts such as lubricating oils, coal dust or grain dust.

The safe and effective performance of any oxygen/combustible gas detector requires that the operator know the correct use of the instrument to detect explosive concentrations of combustibles. It is important that the instrument response be appraised in light of the limitations and guidelines given in the instrument manual. The instrument should be operated only after the instructions, labels, cautions and warnings, and any other literature accompanying the instrument are carefully read and understood.

COMPRESSED GAS CYLINDERS

Gas welding and cutting. - 1926.350

Compressed gas cylinders are used on many job sites -- the most common being oxygen and acetylene for welding and propane for heat and forklifts.

Failure to follow basic safety procedures could result in serious injuries such as:

- a. flash burn - due to explosion.
- b. fragment impalement - due to explosion.
- c. compression of the foot - due to mishandling of tanks.
- d. inhalation of hazardous gases - due to leakage.

Basic safety procedures for gas cylinder use:

- a. Cylinders must remain upright and chained to a substantial support or cart when in use.
- b. Wear appropriate personal protective equipment for the job -- such as steel toed shoes, apron, goggles, gloves, helmet, etc..
- c. Read and understand the MSDS for the gas being used and know the location of the MSDS in case of an emergency.
- d. Have appropriate fire extinguisher readily available.
- e. To release the gas, open the cylinder valve slowly -- standing away from the face and back of the gage -- and leave the opening tools in place (on the valve stem) for quick shut-off in the event of an emergency.
- f. Ensure cylinder valves, regulators, couplings, and hoses are free of oil and grease and ensure all connections are tight.
- g. When using oxygen-fuel systems, use flashback arrestors and reverse-flow check valves to prevent flashback.
- h. Keep cylinders away from open flames and sources of heat.
- i. **Cylinders are never allowed in confined spaces.**
- j. Do not alter or attempt to repair safety devices or valves.
- k. Remove the regulators when: a) moving cylinders; b) work is completed, and/or c) cylinders are empty.

CONCRETE AND MASONRY CONSTRUCTION

General requirements - 1926.701

Requirements for equipment and tools. - 1926.702

Requirements for cast-in-place Concrete. - 1926.703

Requirements for precast concrete. - 1926.704

Requirements for lift-slab operations. - 1926.705

Lift Slab Operations - 1926.705 App

Requirements for masonry construction. - 1926.706

Concrete and masonry construction, more so than most trades, are highly skilled activities that require numerous specialized abilities including, but not limited to, an understanding of chemistry, building techniques, specialized tools, and a unique language. The definitions below are extracted from OSHA standards, however they barely scratch the surface. Words and phrases such as: Adiabatic Curing, Hand Float, and Water-Cement Ratio are peculiar to these trades.

DEFINITIONS

Listed below are terms, with accompanying OSHA notes, which must be understood when dealing with concrete and masonry construction:

- Bull float:** a tool used to spread out and smooth concrete.
[Note: Bull float handles that might contact energized electrical conductors must be constructed of nonconductive materials or insulated with a nonconductive sheath.]
- Formwork:** the total system of support for freshly placed or partially cured concrete, including the mold or sheeting (form) that is in contact with the concrete as well as all supporting members including shores, reshores, hardware, braces, and related hardware.
[Note: 1 Formwork must be designed, fabricated, supported, braced and maintained so that it will be capable of supporting without failure all vertical and lateral loads that may reasonably anticipated to be applied to the formwork.]
[Note: 2 Drawings with all revisions for the jack layout, formwork (including shoring equipment), working decks, and scaffolds must be available at the job site.]
- Lift slab:** a method of concrete construction in which floor and roof slabs are cast on or at ground level and, using jacks, lifted into position.
- Limited access zone:** an area alongside a masonry wall, which is under construction, and which is clearly demarcated to limit access by employees.
- Precast concrete:** concrete members (such as walls, panels, slabs, columns, and beams) which have been formed, cast, and cured prior to final placement in a structure.
- Reshoring:** the construction operation in which shoring equipment (also called reshores or reshoring equipment) is placed, as the original forms and shores are removed, in order to support partially cured concrete and construction loads.
[Note: 1 All Shoring equipment must be inspected prior to erection to determine that the equipment meets the requirements specified in the formwork drawings.]
[Note: 2 Shoring equipment found to be damaged such that it is not capable of supporting without failure all vertical and lateral loads that may reasonably anticipated to be applied to them must not be used.]

- [Note: 3 Erected shoring equipment shall be inspected immediately prior to, during, and immediately after concrete placement.]
- [Note: 4 Shoring equipment that is found to be damaged or weakened after erection, such that its strength is reduced to the point where it is not capable of supporting without failure all vertical and lateral loads that may reasonably anticipated to be applied to them will be immediately reinforced.
- [Note: 5 The sills for shoring must be sound, rigid, and capable of carrying the maximum intended load.]
- [Note: 6 All base plates, shore heads, extension devices, and adjustment screws must be in firm contact, and secured when necessary, with the foundation and the form.]
- [Note: 7 Eccentric loads on shore heads and similar members shall be prohibited unless these members have been designed for such loading.]
- [Note: 8 Whenever single post shores are used one on top of another (tiered), the below will apply:
- a. The design of the shoring shall be prepared by a qualified designer and the erected shoring shall be inspected by an engineer qualified in structural design.
 - b. The single post shores shall be vertically aligned.
 - c. The single post shores shall be spliced to prevent misalignment.
 - d. The single post shores shall be adequately braced in two mutually perpendicular directions at the splice level. Each tier shall also be diagonally braced in the same two directions.]
- [Note: 9 Adjustment of single post shores to raise formwork will not be made after the placement of concrete.
- [Note:10 Reshoring shall be erected, as the original forms and shores are removed, whenever the concrete is required to support loads in excess of its capacity.

Shore: a supporting member that resists a compressive force imposed by a load.

Tremie: a pipe through which concrete may be deposited under water.

[Note: Sections of tremies and similar concrete conveyances must be secured with wire rope (or equivalent materials) in addition to the regular couplings or connections.]

Vertical slip forms: forms which are jacked vertically during the placement of concrete.

Jacking operation: the task of lifting a slab (or group of slabs) vertically from one location to another (e.g., from the casting location to a temporary location, or to its final location in the structure), during the construction of a building/structure where the lift-slab process is being used.

MAJOR HAZARDS

Both concrete and masonry construction require skilled, trained personnel to produce quality work performed in a safe manner. Serious accidents, including wall collapse, can happen in an instant due to premature removal or actual failure of the formwork. Additionally, failure to brace masonry walls, failure to support precast panels, overloading, etc., can cause serious mishaps.

No construction loads will be placed on a concrete structure unless our competent person determines, based on information received from a person who is qualified in structural design, that the structure or portion of the structure is capable of supporting the loads.

Prior to construction of a masonry wall, a limited access zone will be established as follows:

- a. it must be equal to the height of the wall to be constructed plus 4 feet and it must run the entire length of the wall.
- b. on the side of the wall that will be unscaffolded, the limited access zone must be:
 1. restricted to entry only by employees actively engaged in constructing the wall, and,
 2. if the wall is 8 feet or less, the limited access zone will be kept in place until the wall is adequately supported to prevent overturning and collapse, or
 3. if the height of the wall is more than 8 feet and unsupported, the wall must be braced. The bracing must remain in place until permanent supporting elements of the structure are in place.

Concrete and masonry work are performed in such a variety of circumstances and conditions -- under ground, over ground, on sides of structures, on top of structures, inside confined spaces, precast and cast in-place concrete, etc.. Each circumstance presents specific hazards which must be addressed. The competent person on site will point out unusual, specific hazards and means to deal with them.

SAFETY PROCEDURES

The competent person will ensure that all equipment is inspected as required and defective equipment is removed from service.

The competent person will ensure the drawing or plans, with revisions, for all equipment and procedures to be used in concrete or masonry construction are available at the job site.

For the safety of all employees, the following safety rules are established:

- a. Limited or controlled access zones will be restricted to employees who have actual job responsibilities within the established zones.
- b. Employees will not work under concrete buckets while they are being elevated or lowered into position.
- c. Employees, except those required for the job, are not allowed under precast concrete members while they are being lifted or tilted into position.
- d. Personal protective equipment, determined by the competent person on the job site, will be used without fail. It should be noted that when cement is mixed with water, a highly alkaline solution is produced by the dissolution of calcium, sodium, and potassium hydroxides. Gloves should be worn to protect the skin. Hands should be washed after contact. OSHA requires head and face equipment for employees applying a cement, sand, and water mixture through a pneumatic hose.
- e. Employees will not be allowed to perform maintenance on any equipment where the unexpected activation of that equipment could cause harm without following the procedures in our Control of Hazardous Energy Program.
- f. When fastening other materials to a concrete surface (such as a wooden 2" X 4"), only a fastener of 7/32-inch shank diameter or less will be driven in and it may be no closer than 2 inches from the unsupported edge or corner of the work surface.
- g. Fasteners will not be driven directly into brick or concrete closer than 3" from the unsupported edge of corner unless a special guard, fixture, or jig is used.

NOTE: Exception to the above: Low-velocity tools may drive no closer than 2" from an edge in concrete.

- h. Concrete mixers with one cubic yard or larger loading skips will be equipped with a:
 - a. mechanical device to clear the skip of materials.
 - b. guardrail installed on each side of the skip.

Note: Regardless of the size of the skip, point of operation guarding must be utilized.

REBAR PROTECTION

All protruding reinforcing steel onto and into which employees could fall will be guarded to eliminate the hazard of impalement. Protection from impalement on protruding rebar is primarily a function of fall protection when employees are working above rebar or other impalement hazards.

When working at the same grade as rebar protruding 4 to 6 feet, there is not, for all practical purposes, an impalement hazard. In these instances, acceptable rebar caps are appropriate to prevent cuts, abrasions or other minor injuries.

At grade, the lower the rebar sticks up, the greater the impalement hazard due to tripping. If there is any chance for impalement, acceptable rebar caps are mandatory.

CONCRETE CUTTING

Only trained and authorized personnel will operate concrete tile cutting equipment. The following guidelines will be used during all concrete cutting operations.

- a. follow the manufacturer's recommendations for the safe use of the equipment.
- b. use the correct blade (size, type, speed) for the job, properly tightened. Inspect the blade and all equipment before use.
- c. ensure all safety guards are functioning properly.
- d. never operated a hand held saw above shoulder height.
- e. wear proper safety equipment including eye, hand and skin protection. Depending on the job, respiratory protection or dust masks may be required.
- f. establish a control zone and keep others out who are not directly involved with the work at hand.
- g. ensure there is adequate coolant/water when appropriate.
- h. never operate an internal combustion saw in a confined space.

CRANES

Cranes and derricks. - 1926.550

Cranes, like all pieces of heavy equipment, if not properly operated, inspected and maintained have a potential for causing major bodily injury or property damage. Care must be taken in all facets of crane operation.

Not only do cranes require a thorough annual inspection (a record of the dates and results of these inspections must be maintained), they require inspection prior to each use and even during use by a competent person.

All rated load capacities, recommended operating speeds, special hazard warnings or instructions must be readily visible to the operator of the crane.

While cranes easily have the lifting ability to hoist employees on a personnel platform, this is absolutely prohibited except in cases when the erection, use, and dismantling of conventional means of reaching the worksite would be more hazardous or is not possible because of structural design or worksite conditions. A conventional means would include: a personnel hoist, ladder, stairway, aerial lift, elevating work platform or scaffold.

It is absolutely imperative that the possibility of electrocution be totally eliminated. This can be accomplished by adhering to the safe distances from various currents noted in *Heavy Equipment and Electrical Power Lines*, below.

Dangers associated with cranes include numerous moving parts. These dangers can be minimized or eliminated by ensuring that all guards are in place and not tampered with.

Care must be taken to ensure that areas within the swing radius of the rear of the rotating superstructure of the crane are barricaded to prevent a person from being struck or crushed.

All employees must keep clear of loads that are about to be lifted as well as suspended loads.

When using slings made from alloy steel chain, wire rope, metal mesh, natural or synthetic fiber rope (conventional three strand construction), and synthetic web (nylon, polyester, and polypropylene), the following safe operating practices will be observed:

- a. Slings shall not be shortened with knots or bolts or other makeshift devices.
- b. Sling legs shall not be kinked.

- c. Slings used in a basket hitch shall have the loads balanced to prevent slippage.
- d. Slings shall be padded or protected from the sharp edges of their loads.
- e. Hands or fingers shall not be placed between the sling and its load while the sling is being tightened around the load.

Hand signals used to guide the crane operator will be consistent with the ANSI standard for the type of crane in use and an illustration of the signals must be posted at the job site.

Care must be taken while actually operating the crane in hoisting applications as well as when relocating the crane superstructure.

The competent person on site will ensure that the flooring on which equipment may be placed is substantial enough to safely hold the weight of the load. If the strength of the floor is unknown and/or cannot be determined, a professional engineer will determine the pounds per square foot required and, if necessary, the appropriate shoring to be installed to sustain the weight.

RIGGING EQUIPMENT

Rigging equipment for material handling must be inspected prior to use on each shift and as necessary to ensure that it is safe. Defective rigging equipment will be removed from service. Further, rigging equipment not in use will be removed from the immediate work area to eliminate the hazards it may create for other employees.

Within 29 CFR 1926.251, *Rigging Equipment for Material Handling*, are Tables H-1 to H-20 which indicate rated capacities for various types of slings and grommets, safe working loads for shackles, number and spacing of U-Bolt Wire Rope Clips, and maximum allowable wear at any point of link.

Specific requirements for use and inspection of alloy steel chains; wire rope; natural rope and synthetic fiber; synthetic webbing; and shackles are found in this standard.

DEMOLITION

Preparatory operations. - 1926.850

Stairs, passageways, and ladders. - 1926.851

Chutes. - 1926.852

Removal of materials through floor openings. - 1926.853

Removal of walls, masonry sections, and chimneys. - 1926.854

Manual removal of floors. - 1926.855

Removal of walls, floors, and material with equipment. - 1926.856

Storage. - 1926.857

Removal of steel construction. - 1926.858

Mechanical demolition. - 1926.859

Selective demolition by explosives. - 1926.860

Demolition work presents specific hazards that are not normally found on typical job sites. These hazards include, but are not limited to:

- a. the actual collapse of the structure being demolished. Prior to demolition operations, a competent person must determine, and document in writing, the condition of the framing, floors, and walls, and assess the possibility of an unplanned collapse of any portion of the structure. If appropriate, adjacent structures where employees may be exposed to danger must be checked by a competent person.
 1. wall and floors must be braced or shored if employees must work in a structure to be demolished that has been damaged by fire, flood, explosion.
- b. explosion, electrocution, hazardous atmospheres. Prior to demolition work all electric, gas, water, steam, sewer, and other service lines must be shut off, capped, or otherwise controlled, outside the building line before demolition work is started. In each case, any utility company which is involved shall be notified in advance.
 1. additionally, the competent person must determine if hazardous chemicals, gases, explosives, flammable materials, etc. are in pipes, tanks, or other equipment on the property. If apparent or suspected, testing and purging must be performed and the hazard eliminated before demolition is started. It is not uncommon during the demolition of older structures to have potential asbestos and/or lead exposure.

NOTE: If an abatement contractor has abated materials from a building that we are to demolish, we will obtain written certification from the abatement contractor certifying that all the materials in question have been properly removed and appropriate air and/or wipe clearance testing has been completed.

- c. shattered glass.

- d. falling debris.
- e. falling through holes or wall openings.

Specific procedures to eliminate employee hazard exposure during demolition operations are found in the standards noted above. Areas that are addressed include: stairs, passageways, and ladders; chutes; removal of materials through floor openings; removal of walls, masonry sections, and chimneys; manual removal of floors; removal of walls, floors, and material with equipment; storage of waste material; removal of steel construction; and mechanical demolition.

DISPOSABLE RESPIRATORS

OSHA requires that employees who voluntarily use disposable respirators in situations where respiratory protection is not specifically required by OSHA standard (in atmospheres where exposures are below the permissible exposure limit) essentially for personal comfort or additional, though not required, respiratory protection be informed of 29 CFR 1910.134 Appendix D, printed below.

By insisting that these employees sign the tear-off employee handbook acknowledgement form, you can protect your company from OSHA citation for violating this requirement.

All disposable respirators, such as Moldex, 3M, Willson, North Safety, etc. must be marked with the manufacturer's name, the part number, the protection provided by the filter, and "NIOSH".

Disposable filters are particulate respirators. They are also known as "air-purifying respirators" because they protect by filtering particles out of the air you breathe.

The below outlines the types of approved disposable respirators and their description.

N95	Filters at least 95% of airborne particles.	Not resistant to oil.
N99	Filters at least 99% of airborne particles.	Not resistant to oil.
N100	Filters at least 99.7% of airborne particles.	Not resistant to oil.
R95	Filters at least 95% of airborne particles.	Somewhat resistant to oil.
P95	Filters at least 95% of airborne particles.	Strongly resistant to oil.
P100	Filters at least 99.7% of airborne particles.	Strongly resistant to oil.

Though disposable filters cannot be fit-tested in the traditional sense, they must be fit-tested in accordance with the manufacturer's instructions.

Under no circumstances may any respirator other than the above disposable respirators be used without compliance with a respiratory protection program.

Standard Number: 1910.134 App D

**Standard Title: (Mandatory) Information for Employees Using
Respirators When not Required Under Standard.**

Respirators are an effective method of protection against designated hazards when properly selected and worn. Respirator use is encouraged, even when exposures are below the exposure limit, to provide an additional level of comfort and protection for workers. However, if a respirator is used improperly or not kept clean, the respirator itself can become a hazard to the worker. Sometimes, workers may wear respirators to avoid exposures to hazards, even if the amount of hazardous substance does not exceed the limits set by OSHA standards. If your employer provides respirators for your voluntary use, or if you provide your own respirator, you need to take certain precautions to be sure that the respirator itself does not present a hazard. You should do the following: 1. Read and heed all instructions provided by the manufacturer on use, maintenance, cleaning and care, and warnings regarding the respirators limitations. 2. Choose respirators certified for use to protect against the contaminant of concern. NIOSH, the National Institute for Occupational Safety and Health of the U.S. Department of Health and Human Services, certifies respirators. A label or statement of certification should appear on the respirator or respirator packaging. It will tell you what the respirator is designed for and how much it will protect you. 3. Do not wear your respirator into atmospheres containing contaminants for which your respirator is not designed to protect against. For example, a respirator designed to filter dust particles will not protect you against gases, vapors, or very small solid particles of fumes or smoke. 4. Keep track of your respirator so that you do not mistakenly use someone else's respirator.

[63 FR 1152, Jan. 8, 1998; 63 FR 20098, April 23, 1998]

**EARTH MOVING EQUIPMENT
Equipment. - 1926.600**

All heavy equipment must be inspected prior to use and operated only by authorized personnel.

Bi-directional machines such as front-end loaders and bulldozers will have an audible alarm, distinguishable from the surround noise level which will be used if the operator does not have a clear, unobstructed view or a ground guide indicating that the line of travel is safe.

Scissors points on all front-end loaders which may harm the operator will be guarded as well as all parts exposed to employees such as belts, gears, pulleys, sprockets, spindles, drums, flywheels, chains and other moving parts.

Equipment that is operated from the seated position and has roll over protection will have seat belts and their use is required. If there is no roll over protection, seat belts will not be used.

All trucks into which earth is dumped will have protection for the driver of that vehicle or the driver must exit the vehicle before loading.

Vehicle operators will not operate heavy equipment on any access roadway or grade that is not suitable for the vehicle.

Bulldozer blades, loader buckets, dump bodies and similar equipment will be fully lowered or blocked to prevent movement during maintenance or when not in use.

When equipment is parked, the parking brake will be set. Additionally, on inclines, wheeled vehicles will be chocked. Equipment left unattended at night, adjacent to either a highway or construction area in use, will be clearly visible with reflectors, lights, or illuminated (with reflectors or lights) barricades.

ELECTRICAL WORK - WORKPLACE SAFETY

Applicability. - 1926.402

General requirements. - 1926.403

Wiring design and protection. - 1926.404

Special systems. - 1926.408

General requirements. - 1926.416

Definitions applicable to this subpart. - 1926.449

If one were to wire a facility with 16 gauge aluminum wire, and, a week after the job was completed, the facility burnt to the ground, this would not be an OSHA problem -- it would be a serious, possibly criminal, professional problem. If one were standing in water operating an electrical power tool connected to a bare spliced extension cord laying in that water, this would be an OSHA problem. These extreme examples are presented to point out that this safety program applies to employee safety while performing work. OSHA standards do not provide any guidance in any profession, they merely provide guidance in doing your professional work safely.

All electrical work will be done according to the latest adopted National Electrical Code as well as established local codes.

ELECTRICAL SAFETY MEASURES

- a. Daily, prior to use, all electrical equipment -- including extension cords -- will be inspected and defective items will be tagged out of service and not used.
- b. With the exception of double insulated tools (with UL approval), all electrical tools and equipment will be grounded.
- c. Tools will not be hoisted by their flexible electrical cords.

- d. Except in an emergency, load rated switches and circuit breakers will be used for the opening and closing of circuits under load conditions as opposed to fuses and splice connections.
- e. While working on electrical equipment, unauthorized persons will be kept clear by barriers or other means of guarding.
- f. Temporary wiring and extension cords will be kept off of walking working surfaces and vehicle traffic areas or covered to prevent tripping and vehicle damage.
 - 1. Electrical cords will not be suspended with staples, hung from nails, or suspended by wire.
 - 2. Worn or frayed electric cords or cables will not be used.
- g. Hands will be dry when working on electrical equipment including plugging in extension cords.
- h. Areas in which electrical work is to be done must be adequately illuminated and temporary lighting must:
 - 1. have guards in place.
 - 2. not be suspended by its cords unless specifically designed for such installation.
- i. A competent person, before work commences, will inform all employees in the work area of both exposed and concealed electrical hazards. If appropriate, warning tags will be used to prevent accidental contact with electrical energy.
- j. When working around any electrical power circuit, employees will:
 - 1. **protect themselves by deenergizing the circuit and grounding it or by establishing insulation between themselves and the current.**
 - 2. ensure that any conductive materials and equipment that are in contact with any part of their body will be handled in a manner that will preclude contact with exposed energized conductors or circuit parts.
 - 3. use portable ladders that have non-conductive siderails.
 - 4. remove or insulate conductive articles of jewelry and clothing that might contact exposed energized parts.
- k. All 15, 20, or 30 amp receptacle outlets that are not part of the permanent wiring of the building or structure and that are used by

personnel shall have ground-fault circuit interrupter protection for personnel. GFCI pigtails may be used to meet this requirement if properly sized. Remember, extension cords are considered temporary wiring.

1. Ground fault circuit interrupters will be tested before use.
- l. Only qualified persons may perform testing work on electric circuits or equipment.
- m. Sufficient access and working space must be maintained about all electric equipment to permit ready and safe operation and maintenance. This space must be kept clear, i.e., it can not be used for storage.
- n. The dimension of the working space in the direction of access to live parts likely to required examination, adjustment, service, or maintenance must not be less that noted below:

Working Clearances

Minimum clear distance for conditions¹

<u>Nominal voltage to ground</u>	<u>(a) Feet²</u>	<u>(b) Feet²</u>	<u>(c) Feet²</u>
0-150	3	3	3
151-600	3	3 ½	4

Footnote¹ Conditions (a), (b), and (c) are as follows:

- {a} Exposed live parts on one side and no live or grounded parts on the other side of the working space, or exposed live parts on both sides effectively guarded by insulating material. Insulated wire or insulated busbars operating at not over 300 volts are not considered live parts.
- {b} Exposed live parts on one side and grounded parts on the other side.
- {c} Exposed live parts on both sides of the workplace [not guarded as provided in Condition (a)] with the operator between.

Minimum Depth of Clear Working Space in Front of Electric Equipment

Conditions¹

<u>Nominal voltage to ground</u>	<u>(a) Feet²</u>	<u>(b) Feet²</u>	<u>(c) Feet²</u>
601 to 2,500	3	4	5
2,501 to 9,000	4	5	6
9,001 to 25,000	5	6	9
25,001 to 75 kV	6	8	10
Above 75kV	8	10	12

Footnote¹ Conditions (a), (b), and (c) are as follows:

- {a} Exposed live parts on one side and no live or grounded parts on the other side of the working space, or exposed live parts on both sides effectively guarded by insulating materials. Insulated wire or insulated busbars operating at not over 300 volts are not considered live parts.
- {b} Exposed live parts on one side and grounded parts on the other side. Walls constructed of concrete, brick, or tile are considered to be grounded surfaces.
- {c} Exposed live parts on both sides of the workspace [not guarded as provided in Condition (a)] with the operator between.
 1. The importance of working clearances cannot be overstated. At any time, when working with live electrical systems, there is the possibility of an arcing fault causing an arc flash where the current explosively flows through ionized air at 35,000°F causing incurable burns, hearing loss, collapsed lungs, or even death from the electricity of flying metal shrapnel.
 2. As a contractor working in an area where the possibility of arc flash exists, check to see if an arc flash assessment has been performed on electrical equipment on which you will be working. If it has, follow that specific guidance. If it has not, perform (or have a qualified vendor perform) the arc flash assessment. Refer to NFPA 70E for specific guidance appropriate to the facility's specific electrical equipment.

Note: NFPA 70E is a National Consensus Standard which is incorporated by reference within the OSHA standards; specifically, Appendix A to Subpart S, 29 CFR 1910. Failure to comply with NFPA 70E is citable under the general duty clause.

The above electrical safety measures are not all inclusive, however they cover many normal job site events. A complete list is found in the cited references and they are incorporated into this safety manual. If in doubt about any safety procedure, contact your supervisor or the competent person for clarification.

EXCAVATING, TRENCHING & SHORING

Scope, application, and definitions applicable to this subpart. - 1926.650

Specific Excavation Requirements. - 1926.651

Requirements for protective systems. - 1926.652

Soil Classification - 1926 Subpart P App A

Sloping and Benching - 1926 Subpart P App B

Timber Shoring for Trenches - 1926 Subpart P App C

Aluminum Hydraulic Shoring for Trenches - 1926 Subpart P App D

Alternatives to Timber Shoring - 1926 Subpart P App E

Selection of Protective Systems - 1926 Subpart P App F

Excavating involves any earth removal which creates a cut, cavity, trench, or depression in the earth's surface. A trench is a narrow excavation (in relation to its length) made below the surface of the ground. In general, the depth is greater than the width, but the width of a trench (measured at the bottom) is not greater than 15 feet. If forms or other structures are installed or constructed in an excavation so as to reduce the dimension measured from the forms or structure to the side of the excavation to 15 feet or less (measured at the bottom of the excavation), the excavation is also considered to be a trench.

Prior to excavating, obstructions that may create a hazard to employees will be removed or supported and utility companies will be contacted, advised of the proposed work, and asked to establish the location of underground installations.

If the utility company cannot respond to this request within 24 hours and/or the exact location of the underground installations cannot be determined, actual work may begin provided that:

- a. extreme caution is observed.
- b. detection equipment or other acceptable means are used to locate the approximate location of the utility installation.
- c. as the approximate location is approached, the exact location will be determined by safe and acceptable means before proceeding.

In open excavations, underground installations will be protected, supported or removed as necessary to protect employees.

To ensure employee safety, the competent person will ensure that during excavating work in trenches there is:

- a. appropriate access and egress for personnel and/or equipment such as stairs, ramps and ladders so as to require no more than 25 feet of lateral travel for employees in trenches four (4) feet or more deep.

- b. employee protection for head injury. All employees must wear hard hats.
- c. no spoil pile or equipment within two (2) feet of the edge of the excavation.
- d. employee protection from vehicular traffic such as barricades, ground guides for operators of equipment with a limited view, away sloping grades, etc..
- e. no exposure to falling loads.
- f. no danger to employees from water accumulation.
- g. no danger from cave-in. Shoring, a structure such as a metal hydraulic, mechanical or timber shoring system that supports the sides of an excavation, will prevent cave-ins.
 - 1. Shoring is not required for trenches less than five (5) feet deep if an examination by a competent person determines the soil has no potential for a cave-in. In this situation, vertical sides are allowed.
 - 2. Once a trench is over 20 feet deep, protective systems, which may include shoring, must be designed by a registered professional engineer.
 - 3. There are other methods of protection from cave-ins such as sloping or benching the adjacent ground according to specific criteria dependent on the soil conditions, weather, and adjacent structures.
 - 4. The total number of cave-in accidents is relatively small, however, the accidents which do occur are generally very serious and are much more likely to be fatal than other types of accidents in the construction industry.
- h. a method to prevent mobile equipment from falling into the excavation such as barricades. Ground guides will be used if the equipment operator does not have a clear view of the edge. If possible, the grade should slope away from the excavation.

If the atmosphere is dangerous or likely to be dangerous, testing will be done as often as needed and emergency rescue equipment -- such as breathing apparatus, safety harness and line, or a basket stretcher -- must be available.

When a hazardous atmosphere does exist, appropriate respiratory protection will be used and a rescue plan developed which includes having an attendant outside the hazardous area with appropriate equipment and training.

PROTECTIVE SYSTEMS

Except when an excavation is made entirely in stable rock or it is less than 5 feet in depth and a competent person finds no indication of potential cave-in, employees in an excavation will be protected from cave-in by protective systems designed in accordance with paragraphs (b) or (c) of 26 CFR 1926.652.

All employees involved with excavating are to review these standards and understand, in general terms:

- a. The extensive degree of basic data, design, and knowledge that goes into employee protection during excavating projects.
- b. The types of soils and how to identify them on the job site.
- c. The soil condition -- specifically moisture content -- and how that impacts on stability during excavations.
- d. The absolute need for a competent person to be on site at all times during excavating work to visually and manually test soil conditions as work progresses and to maintain a safe site.

DAILY INSPECTIONS

Prior to work and as needed throughout the shift, a competent person will conduct daily inspections of excavations, adjacent areas and protective systems to find evidence of a developing cave-in situation; failure of protective systems; hazardous atmosphere; or other hazardous conditions.

After every rainstorm or event which would affect the safety of employees within an excavation, an inspection will be made by a competent person.

FALL PROTECTION

Walkways must be provided where employees or equipment are required or permitted to cross over excavations. If these walkways are 6 feet or more above a lower level, guardrails must be used. Specific criteria for guardrails is found in 29 CFR 1926.502(b), a copy of which is found in Section III of this safety program behind the Fall Protection tab.

EXTENSION CORDS

Wiring methods, components, and equipment for general use. - 1926.405

General requirements. - 1926.416

Extension cords shall not replace permanent wiring and the following safety precautions will be adhered to:

- a. Inspect the cord for cracks and cuts.
- b. Cord must have a three prong plug for grounding.

- c. Use the shortest continuous length of cord possible. Cords may not be spliced together.
- d. Make certain the cord does not lay in water.
- e. Ensure cord is properly rated for the job.
- f. Secure and route cords out of the traffic flow to prevent tripping.
- g. Defective cords will be tagged and removed from service.
- h. Most importantly, an extension cord used on a job site MUST be used with a ground fault circuit interrupter (GFCI).

GROUND FAULT CIRCUIT INTERRUPTERS

Wiring design and protection. - 1926.404

A ground fault circuit interrupter (GFCI) provides protection for all 120-volt, 15-, 20-, and 30-ampere receptacle outlets that are not a part of the permanent wiring by detecting lost current resulting from a short, overheating, and/or ground fault. It should be noted that an extension cord into which electrical devices are plugged are not part of the permanent wiring; therefore, GFCI's are required.

A GFCI will "trip" when the amount of current amperes going to an electrical device in the hot conductor and the amount of current returning from an electrical device differs by approximately 5 milliamps. The GFCI can interrupt the current within as little as 1/40th of a second.

The current that is missing is being lost through a ground fault, whether it is in the actual grounding, a short in the equipment or electricity going through the employee to the ground.

A GFCI will not protect an employee who comes in contact with two hot wires or a hot wire and a neutral wire. A GFCI will provide protection against fires, overheating, damage to insulation, and, the most common form of electrical shock hazard -- the ground fault. GFCI's must be tested before use.

HEAVY EQUIPMENT AND ELECTRICAL POWER LINES

Cranes and derricks. - 1926.550

Except where electrical distribution and transmissions lines have been deenergized and visibly grounded at point of work or where insulating barriers (not attached to the vehicle) have been erected to prevent physical

contact with the lines, the following clearance -- between any part of the vehicle and the line -- will be observed:

<u>Line Rating</u>	<u>Minimum Clearance</u>
50 kV. or below	10 feet
Over 50 kV.	10 feet plus .04 inch for each 1 kV. over 50 kV, or twice the length of the line insulator, but never less than 10 feet.

In transit, equipment clearance must be a minimum of:

<u>Line Rating</u>	<u>Minimum Clearance</u>
50 kV. or below	4 feet
Over 50 kV. to 345 kV.	10 feet
Over 345 kV. to 750 kV.	16 feet

A ground guide will be designated to observe clearance of the equipment and give warning to the equipment operator in situations where it is difficult for the equipment operator to maintain the desired clearances by visual means.

An overhead wire will be considered energized unless the owner of the line or the electrical utility authorities indicate that it is not energized and it has been visibly grounded.

HOISTS

Material hoists, personnel hoists, and elevators. - 1926.552

A hoist is a useful mechanical device which gives one the ability to lift and move heavy objects -- not people. No person is to ride on a hoist. As with all mechanical devices, improper use may lead to injury. You must know what you are doing and you must be careful.

Before use, hoists must be inspected for bent or damaged components. Particular attention should be paid to guarding. Fingers and loose clothing could be snagged in exposed mechanisms. Chains, cables, or rope slings must not be kinked, twisted, or frayed.

Loads must be properly rigged with hooks or slings and they must never exceed the hoist's rated capacity.

Ensure that the area around the hoist is free from debris and, most importantly, people. Do not allow yourself or others to be under a hoisted load.

KETTLE OPERATIONS

Only trained and authorized persons will be involved with kettle operations. All operations will be performed within a control zone that precludes entrance by unauthorized persons.

During kettle operations, employees will wear appropriate PPE including hand protection: gloves; skin protection: long sleeves and long pants; foot protection: steel toed work boots; eye protection: safety goggles; and head protection: hard hat, as necessary.

While our work generally has material within the kettle at 450°F, at no time shall the material within the kettle exceed 500°F.

The kettle lids will not be opened except for loading the kettle with solid roofing material or unless the material in the roofing kettle is less than 150°F.

LIGHTING

Illumination. - 1926.56

A competent person will ensure that all work areas have adequate lighting. Adequate lighting serves a two-fold purpose -- allowing tasks to be more readily performed as well as providing the additional safety factor of being seen by persons not involved with the work -- especially vehicular traffic.

If generators are used for auxiliary lighting, they will be operated and maintained by authorized persons who are competent by training or experience.

LP-GAS STORAGE

Liquefied petroleum gas (LP-Gas). - 1926.153

Liquefied petroleum gas (LP-Gas) is sometimes used on job sites to provide fuel for temporary heating devices.

LP-Gas systems must have containers, valves, connectors, manifold valve assemblies, and regulators of an approved type. All cylinders must be DOT approved.

Rules for inside storage (under construction standards) are simple -- **it is not allowed!**

NOTE: Under industry standards, up to 300 pounds of LP-Gas may be stored, with adherence to specific safety procedures, is allowed

Rules for outside storage require that containers be in a suitable ventilated enclosure or otherwise protected against tampering. At least one approved

portable fire extinguisher having a rating of not less than 20-B:C must be readily available.

The distance from buildings or groups of buildings that containers must be stored are as follows:

<u>Quantity of LP-Gas Stored</u>	<u>Distance in Feet</u>
500 lbs or less	0
501 to 6,000 lbs	10
6,001 to 10,000 lbs	20
over 10,000 lbs	25

Storage must not be near building openings or vehicular traffic.

LP-GAS TEMPORARY HEATING

Liquefied petroleum gas (LP-Gas). - 1926.153

When LP-Gas is used for temporary heating on units that provide over 7,500 BTU per hour or use containers greater than 2.5 pounds maximum water capacity [nominal 1 pound LP-Gas capacity], the following will apply:

- a. Container valves, connectors, regulators, manifolds, piping and tubing must not be used as structural supports for the heaters.
- b. The LP-Gas containers and all associated equipment including hoses must be located so as to minimize exposure to high temperatures or physical damage.
- c. The maximum water capacity of individual containers must be 245 pounds [nominal 100 pound LP-Gas capacity].

Heaters that are not integral heater-container units, which connected by hose to the LP-Gas, must be at least 6' from the container. Blower and radiation type heaters must not be directed toward the container or any other unit within 20 feet. Heaters specifically designed for attachment to the container are permitted as long as the heat is not directed to the LP-Gas container.

MACHINE GUARDING

Mechanical power-transmission apparatus. - 1926.307

Most injuries that occur when operating a machine happen at the point of operation -- the point on a machine where the actual work (cutting, bending, spinning) occurs. This is also the point where guards can protect fingers and hands exposed to that danger. Machine guarding also protects employees from other dangers such as flying pieces of metal, sparks, gears, belts, and rotating parts.

The most common types of machines on job sites are power tools which often have guards to prevent injury.

Accident prevention in this area is a function of machine design -- engineering controls -- and operator training. Types of machine guarding are almost as numerous as types of machines -- the most common being a physical barrier to prevent accidental insertion of body parts. Guards are vital for safety reasons and machine guards designed into a machine should never be altered or removed. The speed and tremendous forces involved in modern machines are such that severe injury or even death could occur without warning and without even slowing the machine down.

Training and proper work methods go a long way toward reducing machine accidents. Like all safeguards, there is generally a way to bypass safety features that are engineered into machines. This is sometimes done to increase speed or just to make one's job easier. This could result in a tragic, avoidable accident. The few seconds saved could cause a lifetime of grief. Do not bypass safety systems.

Operate all machines according to the instructor's manual and follow all safety procedures.

MACHINERY

Spinning, pounding, moving -- gears, pulleys, levers -- electricity, fuel, hydraulics -- action, reaction, force: danger! Machinery takes energy and performs a task or a multitude of tasks. Machinery, from a safety standpoint, is a collection of individual simple machines (pulleys, gears, etc.) combined to work in harmony to accomplish a specific job.

The danger is obvious: the power, speed, movement, and momentum of machinery is not going to be altered by something as insignificant as an employee's finger, hand, or even body.

How does one deal with the dangers of machinery? First, **never** operate any machinery until you have received proper training and you thoroughly understand safety procedures as well as procedures to follow for adjustments, power interruption, jamming, lubrication, and inspection.

Secondly, ensure the guarding systems are in place, functioning properly, and have not been altered or removed.

Thirdly, if a hazard assessment of the machinery operation dictates specific personal protective equipment (PPE), wear it!

Lastly, again from purely a safety standpoint, think of any power operated item with moving parts as machinery. This would include items as diverse as a small electric drill to an 80,000 pound tractor-trailer.

PIPE TIE-INS

Prior to pipe tie-in, the flow of gas, steam, vapor, liquid must be halted. It is absolutely vital to know the ramifications of halting the flow within the pipe particularly in hazardous facilities such as chemical plants, refineries, and other facilities which have a higher degree of hazard than normal work sites. In these types of facilities, **prior** to any blocking of flow through pipes, permission will be obtained from the facility operator. Failure to follow this specific rule could result in a major catastrophe.

Before actual tie-in is attempted, the original pipe that has been taken out of service (by positive means such as valve, block, tag) will be purged of contaminants, and gas tested, if appropriate.

At the completion of the tie-in, the facility operator will be notified **before** flow is restored to the pipe.

It is vital to know the chemical and physical properties of the material within the pipe so an appropriate fire extinguisher can be selected and available. This information will also allow for hazard assessment and PPE selection.

SCISSOR-LIFT FALL PROTECTION

What type of fall protection is required for scissor-lifts? This apparently simple question has a relatively simple answer. However, how it is derived is somewhat complicated because OSHA does not have a standard to deal with this issue.

Clearly, there is a hazard -- falling from height -- however, fall protection while using a scissor-lift is not covered in the fall protection, scaffold and ladder fall protection, nor aerial lift fall protection standards.

Section 5(a)(1) of the Occupational Safety and Health Act, commonly referred to as the General Duty Clause is a "catch all clause" which states: "Each employer shall furnish to each of its employees employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees."

In the absence of a specific standard relating to a safety or health risk, the above is the reference OSHA will cite.

When assessing compliance efforts, OSHA considers the requirements of pertinent national consensus standards. In the case of scissor-lifts, ANSI/SIA A92.6-1990, *Self-propelled Elevated Work Platforms*, and ANSI/SIA A92.3, *Manually Propelled Elevating Aerial Platforms*, are used.

Fall protection is provided by employees maintaining firm footing on the lift and using guardrails. Under no circumstances are employees to place ladders or other items on the lift to extend their reach. Per ANSI/SIA standards, with which OSHA concurs, "Use of planks, ladders, or any other device on the aerial platform for achieving additional height or reach shall be prohibited." Use of these items negates the value of the guardrail system and may possibly exceed the scissor-lift's design limits for stability.

Further, personnel are not to tie off to items adjacent to the lift -- the most obvious reasons are: the anchorage point may not be sufficient and movement of the lift would pull the employee out of and off of the lift.

If, for some reason, guardrails are not being provided for a specific operational reason, then a personal fall protection system may be used which would include an anchorage point, lanyard and safety harness. However, this option is severely limited because its design would have to be approved by a registered engineer or the scissor-lift manufacturer would have to approve the use of the lift as an anchorage.

Under ideal conditions, rarely found on a construction site, scissor-lifts may be moved with the lift extended. However, should obstacles, debris, drop-offs, holes, depressions, ramps or other hazards be present, the lift must be lowered prior to movement.

Finally, if the employee leaves the safety of the scissor-lift platform while working at height, some sort of approved fall protection system must be employed.

SIGNS & TAGS

Accident prevention signs and tags. - 1926.200

When appropriate, signs and tags will be used to warn of specific hazards. Types of signs are classified according to their use, and their design is regulated by OSHA standard. All personnel will be instructed in the meaning of the various types of signs. Sign usage includes:

- a. **Danger Signs (Red, Black & White):** indicates immediate danger and denotes that special precautions are necessary.
- b. **Caution Signs (Yellow Background):** warns of a potential hazard or cautions against an unsafe practice.

- c. Safety Instruction Signs (White Background): used to provide general instructions and suggestions relative to safety measures.

The wording on signs must be positive, clear, concise, and easy to understand or the sign loses its value.

Accident prevention tags are to warn of hazardous or potentially hazardous conditions that are out of the ordinary, unexpected, or not readily apparent. They are not used where signs, guarding or other positive means of protection are used.

All tags must have:

- a. a signal word: "Danger"; "Caution"; "Warning"; BIOHAZARD (or its symbol) and a major message, and
- b. a major message such as: "High Voltage" or "Do not start".
[Major messages indicate the specific hazardous condition.]

The color scheme is basically the same as for signs:

red = danger
yellow = caution
orange = warning
fluorescent orange = biological hazard.

- a. Danger Tags: indicate an immediate hazard that presents a threat of death or serious injury.
- b. Caution Tags: indicate a non-immediate hazard or unsafe practice that presents a lesser threat of injury.
- c. Warning Tags: indicate a hazard between "Danger" and "Caution".
- d. BIOHAZARD Tags: indicate the actual or potential presence of a biological hazard and identify equipment, rooms, containers, etc., that may be contaminated.

Pay attention to signs and tags and realize that they are in place for only one reason -- your safety.

SLINGS

Rigging equipment for material handling. - 1926.251

A sling is the assembly which connects a load to the material handling equipment. There are many types of slings including, but not limited to:

- a. bridle wire rope sling
- b. cable laid endless sling-mechanical joint sling

- c. cable laid grommet-hand tucked sling
- d. cable laid rope sling-mechanical joint sling
- e. strand laid endless sling-mechanical joint sling
- f. strand laid grommet-hand-tucked sling

Additionally, slings are made of various materials such as alloy steel chain; wire rope; and natural and synthetic fiber rope. Each of these material have their own operating limits which include not only capacity, but temperature, kinks, cuts, and specific conditions.

Refer to 29 CFR 1926.251, *Rigging Equipment for Material Handling*, for detailed instructions on the use of each type of sling.

All slings, regardless of type, must be inspected each day before use and all fastenings and attachments must be inspected for damage or defects by a competent person. Depending on work conditions, additional inspections may be required. Damaged or defective slings will be immediately removed from service. Below are safe operating practices which must be followed:

- a. slings may not be shortened with knots or bolts or other makeshift devices.
- b. sling legs may not be kinked.
- c. slings may not be loaded in excess of their rated capacities.
- d. slings used in a basket hitch must have the load balanced to prevent slippage.
- e. slings must be securely attached to their loads.
- f. slings must be padded or protected from the sharp edges of their loads.
- g. suspended loads must be kept clear of all obstructions.
- h. all employees must be kept clear of loads about to be lifted and of suspended loads.
- i. hands or fingers may not be placed between the sling and its load while the sling is being tightened around the load.
- j. shock loading is prohibited.
- k. a sling may not be pulled from under a load when the load is resting on it.

SOLDERING & BRAZING

Only authorized and trained personnel are permitted to use soldering and brazing equipment. Appropriate PPE, specifically eye protection, must be worn.

An appropriate fire extinguisher will be readily available for immediate use.

Compressed gas cylinders will:

- a. have valve protectors in place when not in use or connected for use.
- b. be legibly marked to identify the gas contained therein.
- c. have the valves closed before the cylinder is moved, when the cylinder is empty, and at the completion of each job.
- d. be stored in areas away from intense heat, electric arcs, and high temperature lines.
- e. be secured (chained in portable dolly), in storage or transportation, from tipping, falling, rolling, and damage from passing or falling objects.
- f. be marked "EMPTY" when appropriate.
- g. be removed from service if the regulators or gauges are defective.
- h. be used only for the purpose for which they are designed -- for example, cylinders will not be used as rollers or supports.
- i. be kept away from stairs.

Regulators and gauges will be inspected daily.

All cylinders, cylinder valves, couplings, regulators, hoses and apparatus will be kept free of oily or greasy substances.

The competent person will ensure that ventilation within a confined space is adequate to negate the possibility of a respiratory or explosion hazard.

A fire watch will be assigned when there is potential a fire might develop. When brazing near a fire hazard and the fire hazard cannot be isolated, shields will be used to confine the heat.

When performing brazing operations capable of producing heat at chemical plants, refineries, or other facilities which have a higher degree of hazard than normal work sites, a hot work permit is generally required.

On the back of the Hot Work Permit is found fire safety instructions which must be read and understood by the persons identified on the permit.

From a safety standpoint, the primary safety hazards associated with soldering and brazing are heat and hazardous fumes.

Soldering and brazing is molecularly bonding components below their melting points. In brazing, a non-ferrous filler material (copper, brass, bronze, and silver alloys) is drawn into closely fitted joints by capillary action and they bond and solidify without melting the components.

In soldering, there may be alloys containing lead, cadmium, beryllium, and zinc. Fumes produced by heating these materials can cause serious health problems.

Other trace metals present in base and filler metals which can give off toxic fumes include arsenic, chromium, bismuth, cobalt, nickel, selenium, thallium, and vanadium.

Soldering and brazing should be conducted in well-ventilated areas assure that hazardous concentrations do not exist. Compounds of these metals may also be present.

Solder alloys melt below 800°F and brazing alloys melt above 800°F.

STAIRS

Stairways. - 1926.1052

Stairways that are not a permanent part of the structure on which construction work is being performed must have landings of at least 30 inches in the direction of travel and extend at least 22 inches in width at every 12 feet or less of vertical rise. Additionally,

- a. riser height and tread depth must be uniform within each flight of stairs.
- b. where doors or gates open directly on a stairway, a platform will be provided, and the swing of the door must not reduce the effective width of the platform to less than 20 inches.
- c. metal pan landings and metal pan treads, when used, must be secured in place before filling with concrete or other material.
- d. all parts of stairways will be free of hazardous projections, such as protruding nails.
- e. slippery conditions on stairways will be eliminated before use.

f. except during stairway construction:

1. foot traffic is prohibited on stairways with pan stairs where the treads and/or landings are to be filled at a later date, unless the stairs are temporarily fitted with solid material at least to the top edge of each pan. Temporary treads and landings will be replaced when worn below the level of the top edge of the pan.
2. foot traffic is prohibited on skeleton metal stairs where permanent treads and/or landings are to be installed at a later date unless the stairs are fitted with secured temporary treads and landings long enough to cover the entire tread and/or landing area.

Treads for temporary service will be made of wood or other solid material and installed the full width and depth of the stair.

Stairways having four or more risers or rising more than 30 inches will be equipped with:

- a. at least one handrail; and
- b. one stairrail system along each unprotected side or edge.

STEEL ERECTION ACTIVITIES

Scope. - 1926.750

Definitions. - 1926.751

Site layout, site-specific erection plan and construction sequence. - 1926.752

Hoisting and rigging. - 1926.753

Structural steel assembly. - 1926.754

Column anchorage. - 1926.755

Beams and columns. - 1926.756

Open web steel joists. - 1926.757

Systems-engineered metal buildings. - 1926.758

Falling object protection. - 1926.759

Fall protection. - 1926.760

Training. - 1926.761

Guidelines for establishing the components of a site-specific erection plan: App A

Illustrations of Bridging Terminus Points: App C

Illustration of the Use of Control Lines to Demarcate Controlled Decking Zones : App D

Training: App E

Perimeter Columns: App F

1926.502 (b)-(e) Fall Protection Systems Criteria and Practices. App G

Double Connections: Illustration of a Clipped End Connection and a Staggered Connection: App H

Effective January 18, 2002, new standards that address the hazards faced by workers involved in steel erection activities went into effect. All affected personnel will have access to these standards and be provided training as appropriate.

Specific hazards that are identified include, but are not limited to: working under loads; hoisting; landing and placing decking; column stability; double connections; loading and placing steel joints; and falls to lower levels.

Additionally, 29 CFR 1926.752, Site layout, site-specific erection plan and construction sequence, require the controlling contractor to provide the steel erector with the following notifications:

- a. Approval to begin steel erection. Before authorizing the commencement of steel erection, the controlling contractor shall ensure that the steel erector is provided with the following written notifications:
 1. The concrete in the footings, piers and walls and the mortar in the masonry piers and walls has attained, on the basis of an appropriate ASTM standard test method of field-cured samples, either 75 percent of the intended minimum compressive design strength or sufficient strength to support the loads imposed during steel erection.
 2. Any repairs, replacements and modifications to the anchor bolts were conducted in accordance with 29 CFR 1926.755(b).
- b. Commencement of steel erection. A steel erection contractor shall not erect steel unless it has received written notification that the concrete in the footings, piers and walls or the mortar in the masonry piers and walls has attained, on the basis of an appropriate ASTM standard test method of field-cured samples, either 75 percent of the intended minimum compressive design strength or sufficient strength to support the loads imposed during steel erection.
- c. Site layout. The controlling contractor shall ensure that the following is provided and maintained:
 1. Adequate access roads into and through the site for the safe delivery and movement of derricks, cranes, trucks, other necessary equipment, and the material to be erected and means and methods for pedestrian and vehicular control. Exception: this requirement does not apply to roads outside of the construction site.
 2. A firm, properly graded, drained area, readily accessible to the work with adequate space for the safe storage of materials and the safe operation of the erector's equipment.
- d. Pre-planning of overhead hoisting operations. All hoisting operations in steel erection shall be pre-planned to ensure that the requirements of 29 CFR 1926.753(d) are met.

- e. Site-specific erection plan. When we elect, due to conditions specific to a site, to develop alternate means and methods that provide employee protection in accordance with 29 CFR 1926.753(c)(5); .757(a)(4); or .757(e)(4), a site-specific erection plan will be developed by a qualified person and be available at the work site. Guidelines for establishing a site-specific erection plan are contained in Appendix A to subpart R, Steel Erection.

TRAINING

All training required by the steel erection standards will be provided by qualified person(s).

Fall hazard training may be accomplished using our Fall Protection Program with the exception:

- a. each employee engaged in a steel erection activity who is on a walking/working surface with an unprotected side or edge more than 15 feet above a lower level must be protected from fall hazards by guardrail systems, safety net systems, personal fall arrest systems, positioning device systems or fall restraint systems.
- b. perimeter safety cables. On multi-story structures, perimeter safety cables shall be installed at the final interior and exterior perimeters of the floors as soon as the metal decking has been installed.
- c. each connector will:
 1. be protected from fall hazards of **more than two stories or 30 feet above a lower level, whichever is less**;
 2. have completed connector training in accordance with §1926.761.
 3. be provided, at heights over **15 and up to 30 feet above a lower level**, with a personal fall arrest system, positioning device system or fall restraint system and wear the equipment necessary to be able to be tied off.
- d. A controlled decking zone (CDZ) may be established in that area of the structure **over 15 and up to 30 feet above a lower level where metal decking is initially being installed and forms the leading edge of a work area**.
 1. each employee working at the leading edge in a CDZ shall be protected from fall hazards of more than **two stories or 30 feet, whichever is less**.

2. access to a CDZ shall be limited to only those employees engaged in leading edge work.
3. the boundaries of a CDZ shall be designated and clearly marked. The CDZ shall not be more than 90 feet wide and 90 feet deep from any leading edge. The CDZ shall be marked by the use of control lines or the equivalent.
4. each employee working in a CDZ shall have completed CDZ training in accordance with §1926.761.
5. unsecured decking in a CDZ shall not exceed 3,000 square feet.
6. safety deck attachments shall be performed in the CDZ from the leading edge back to the control line and shall have at least two attachments for each metal decking panel.
7. final deck attachments and installation of shear connectors shall not be performed in the CDZ.

Special training programs:

In addition to the above, training will be provided to address the following issues:

1. multiple lift rigging procedure: each employee who performs multiple lift rigging must be provided training in:
 - a) the nature of the hazards associated with multiple lifts; and
 - b) the proper procedures and equipment to perform multiple lifts required by 29 CFR 1926.753(e), printed below:

(e) Multiple lift rigging procedure.

- (1) A multiple lift shall only be performed if the following criteria are met:
 - (i) A multiple lift rigging assembly is used;
 - (ii) A maximum of five members are hoisted per lift;
 - (iii) Only beams and similar structural members are lifted; and
 - (iv) All employees engaged in the multiple lift have been trained in these procedures in accordance with §1926.761(c)(1).
 - (v) No crane is permitted to be used for a multiple lift where such use is contrary to the manufacturer's specifications and limitations.
- (2) Components of the multiple lift rigging assembly shall be specifically designed and assembled with a maximum capacity for total assembly and for each individual attachment point. This capacity, certified by the manufacturer or a qualified rigger, shall be based on the manufacturer's specifications with a 5 to 1 safety factor for all components.
- (3) The total load shall not exceed:
 - (i) The rated capacity of the hoisting equipment specified in the hoisting equipment load charts;
 - (ii) The rigging capacity specified in the rigging rating chart.

- (4) The multiple lift rigging assembly shall be rigged with members:
 - (i) Attached at their center of gravity and maintained reasonably level;
 - (ii) Rigged from top down; and
 - (iii) Rigged at least 7 feet apart.
 - (5) The members on the multiple lift rigging assembly shall be set from the bottom up.
 - (6) Controlled load lowering shall be used whenever the load is over the connectors.
2. connector procedures: each connector must be provided training in the following areas:
- a) the nature of the hazards associated with connecting; and
 - b) the establishment, access, proper connecting techniques and work practices required by 29 CFR 1926.756(c) and 29 CFR 1926.760(b), printed below:

29 CFR 1926.756(c)

- (1) Double connections at columns and/or at beam webs over a column. When two structural members on opposite sides of a column web, or a beam web over a column, are connected sharing common connection holes, at least one bolt with its wrench-tight nut shall remain connected to the first member unless a shop-attached or field-attached seat or equivalent connection device is supplied with the member to secure the first member and prevent the column from being displaced (See Appendix H to this subpart for examples of equivalent connection devices).
- (2) If a seat or equivalent device is used, the seat (or device) shall be designed to support the load during the double connection process. It shall be adequately bolted or welded to both a supporting member and the first member before the nuts on the shared bolts are removed to make the double connection.

29 CFR 1926.760(b)

Connectors. Each connector shall:

- (1) Be protected in accordance with paragraph (a)(1) of this section from fall hazards of more than two stories or 30 feet (9.1 m) above a lower level, whichever is less;
- (2) Have completed connector training in accordance with §1926.761; and
- (3) Be provided, at heights over 15 and up to 30 feet above a lower level, with a personal fall arrest system, positioning device system or fall restraint system and wear the equipment necessary to be able to be tied off; or be provided with other means of protection from fall hazards in accordance with paragraph (a)(1) of this section.

3. When controlled decking zone procedures (CDZs) are used, each affected employee will be training in the following areas:
 - a) the nature of the hazards associated with work within a controlled decking zone; and
 - b) the establishment, access, proper installation techniques and work practices required by §1926.760(c) and §1926.754(e), printed below:

29 CFR 1926.760(c):

Controlled Decking Zone (CDZ). A controlled decking zone may be established in that area of the structure over 15 and up to 30 feet above a lower level where metal decking is initially being installed and forms the leading edge of a work area. In each CDZ, the following shall apply:

- (1) Each employee working at the leading edge in a CDZ shall be protected from fall hazards of more than two stories or 30 feet (9.1 m), whichever is less.
- (2) Access to a CDZ shall be limited to only those employees engaged in leading edge work.
- (3) The boundaries of a CDZ shall be designated and clearly marked. The CDZ shall not be more than 90 feet (27.4 m) wide and 90 (27.4 m) feet deep from any leading edge. The CDZ shall be marked by the use of control lines or the equivalent. Examples of acceptable procedures for demarcating CDZ's can be found in Appendix D to this subpart.
- (4) Each employee working in a CDZ shall have completed CDZ training in accordance with §1926.761.
- (5) Unsecured decking in a CDZ shall not exceed 3,000 square feet (914.4 m²).
- (6) Safety deck attachments shall be performed in the CDZ from the leading edge back to the control line and shall have at least two attachments for each metal decking panel.
- (7) Final deck attachments and installation of shear connectors shall not be performed in the CDZ.

29 CFR 1926.754(e):

Metal decking.

- (1) Hoisting, landing and placing of metal decking bundles.
 - (i) Bundle packaging and strapping shall not be used for hoisting unless specifically designed for that purpose.
 - (ii) If loose items such as dunnage, flashing, or other materials are placed on the top of metal decking bundles to be hoisted, such items shall be secured to the bundles.
 - (iii) Bundles of metal decking on joists shall be landed in accordance with §1926.757(e)(4).
 - (iv) Metal decking bundles shall be landed on framing members so that enough support is provided to allow the bundles to be unbanded without dislodging the bundles from the supports.

- (v) At the end of the shift or when environmental or jobsite conditions require, metal decking shall be secured against displacement.
- (2) Roof and floor holes and openings. Metal decking at roof and floor holes and openings shall be installed as follows:
 - (i) Framed metal deck openings shall have structural members turned down to allow continuous deck installation except where not allowed by structural design constraints or constructibility.
 - (ii) Roof and floor holes and openings shall be decked over. Where large size, configuration or other structural design does not allow openings to be decked over (such as elevator shafts, stair wells, etc.) employees shall be protected in accordance with §1926.760(a)(1).
 - (iii) Metal decking holes and openings shall not be cut until immediately prior to being permanently filled with the equipment or structure needed or intended to fulfill its specific use and which meets the strength requirements of paragraph (e)(3) of this section, or shall be immediately covered.
- (3) Covering roof and floor openings. (i) Covers for roof and floor openings shall be capable of supporting, without failure, twice the weight of the employees, equipment and materials that may be imposed on the cover at any one time.
 - (ii) All covers shall be secured when installed to prevent accidental displacement by the wind, equipment or employees.
 - (iii) All covers shall be painted with high-visibility paint or shall be marked with the word "HOLE" or "COVER" to provide warning of the hazard.
 - (iv) Smoke dome or skylight fixtures that have been installed, are not considered covers for the purpose of this section unless they meet the strength requirements of paragraph (e)(3)(i) of this section.
- (4) Decking gaps around columns. Wire mesh, exterior plywood, or equivalent, shall be installed around columns where planks or metal decking do not fit tightly. The materials used must be of sufficient strength to provide fall protection for personnel and prevent objects from falling through.
- (5) Installation of metal decking.
 - (i) Except as provided in §1926.760(c), metal decking shall be laid tightly and immediately secured upon placement to prevent accidental movement or displacement.
 - (ii) During initial placement, metal decking panels shall be placed to ensure full support by structural members.
- (6) Derrick Floors.
 - (i) A derrick floor shall be fully decked and/or planked and the steel member connections completed to support the intended floor loading.
 - (ii) Temporary loads placed on a derrick floor shall be distributed over the underlying support members so as to prevent local overloading of the deck material.

Note: Per Appendix E to Subpart R -- *Training: Non-mandatory Guidelines for Complying with §1926.761*, the training requirements for steel erection activities will be deemed to have been met if employees have completed a training course on steel erection, including instruction in the provisions of the steel erection standards, that has been approved by the U.S. Department of Labor Bureau of Apprenticeship.

WORKING UNDER LOADS

- a. All loads shall be rigged by a qualified rigger
- b. Routes for suspended loads will be pre-planned to ensure that no employee is required to work directly below a suspended load except for those engaged in the initial connection of the steel or those necessary for the hooking or unhooking of the load.
- c. When working under suspended loads:
 1. the materials being hoisted must be rigged to prevent unintentional displacement.
 2. hooks with self-closing safety latches or their equivalent must be used.

HOISTING

- a. all the provisions of 29 CFR 1926.550, *Cranes and Derricks*, apply to hoisting and rigging with the **exception** that cranes or derricks **may be used** to hoist employees on a personnel platform **when performing steel erection activities**.
- b. a pre-shift visual inspection of cranes must be accomplished by a competent person and the competent person must also observe cranes in operation. Remember, a competent person has the authority to stop work if an unsafe work practice is observed. Furthermore, a crane operator has the authority to stop work if an unsafe condition exists.
- c. cranes being used in steel erection activities must be visually inspected prior to each shift by a competent person; the inspection shall include observation for deficiencies during operation. At a minimum this inspection shall include the following:
 1. all control mechanisms for maladjustments.
 2. control and drive mechanism for excessive wear of components and contamination.
 3. crane safety devices.

4. air, hydraulic, and other pressurized lines and systems for condition.
 5. hooks and latches for deformation, chemical damage, cracks, or wear.
 6. wire rope travel and attachment.
 7. electrical apparatus for malfunctioning, signs of excessive deterioration, dirt, or moisture accumulation.
 8. ground conditions.
 9. leveling.
- d. only a qualified person can inspect the rigging.

TILE CUTTING

Only trained and authorized personnel will operate tile cutting equipment. The following guidelines will be used during all tile cutting operations.

- a. follow the manufacturer's recommendations for the safe use of the equipment.
- b. use the correct blade (size, type, speed) for the job, properly tightened. Inspect the blade and all equipment before use.
- c. ensure all safety guards are functioning properly.
- d. never operated a hand held saw above shoulder height.
- e. wear proper safety equipment including eye, hand and skin protection. Depending on the job, respiratory protection or dust masks may be required.
- f. establish a control zone and keep others out who are not directly involved with the work at hand.
- g. ensure there is adequate coolant/water when appropriate.
- h. never operate an internal combustion saw in a confined space.

TOOLS: HAND

General requirements. - 1926.300

Hand tools. - 1926.301

Hand tools shall be used only for the purpose for which they are designed.

Hand tools will be kept clean and, where appropriate, oiled.

Hand tools which are damaged will not be used.

Hand held cutting tools will be kept sharp and will be sheathed or retracted when not in use.

When using a striking tool such as a hammer or chisel, safety glasses or safety goggles will be used.

Do not force tools.

If you are unfamiliar with the proper procedure for using a tool, ask your Supervisor for instruction.

Power tools may be operated only by those persons who are qualified by training or experience.

Do not alter guards on power tools; wear appropriate PPE.

Electrical tools must be grounded and, in the absence of permanent wiring, a Ground Fault Circuit Interrupter must be used.

Electric tools will not be lifted by their cords and pneumatic tools will not be lifted by their hoses.

TOOLS: PNEUMATIC POWERED

Eye and face protection. - 1926.102

General requirements. - 1926.300

Power-operated hand tools. - 1926.302

Pneumatic powered tools must be safeguarded whenever there are hazardous employee exposures. This is especially important for point of operation guarding.

Three specific hazards associated with pneumatic powered tools which are unique to their use are noise levels, tool retention, and air hose pressure.

Care must be taken to assure that noise levels are within acceptable limits (noise monitoring may be necessary) and, if required, engineering controls and/or ear protection will be employed.

If there is a possibility of tool ejection during use, a tool retainer must be installed.

Safety will dictate that hose and hose connections be designed for the pressure and service to which they are subjected.

Eye protection will be worn when using pneumatic powered tools in accordance with the owner/operator's manual.

When using a jackhammer, care must be taken to ensure that the employee is not exposed to unsafe levels of respirable dust or crystalline silica.

The PEL for particles not otherwise regulated is 5.0 mg/m³. The PEL for respirable dust containing crystalline silica is determined by the below formula:

PEL = 10 mg/m³ ÷ (%SiO₂+2), where %SiO₂+2 refers to the amount of crystalline silica measured in the sample.

Our operations would not exceed these PEL's and respiratory protection is not required.

TOOLS: POWDER-ACTUATED

Eye and face protection. - 1926.102

General requirements. - 1926.300

Power-operated hand tools. - 1926.302

A powder-actuated fastening tool propels a nail, pin, or fastener through an object to fasten it to another object. These tools, if misused, are extremely dangerous because essentially, they are similar to a pistol or rifle.

The speed of the projectile may range from 300 ft/second to 1290 ft/second.

Only trained and authorized persons may operate a powder actuated tool and, for safety, these tools should be kept secured when not in use.

Prior to use, the tool must be inspected and tested according to the manufacturer's instruction manual which should be kept with the tool.

Defective tools must not be used and they must be taken out of service.

Use of appropriate personal protective equipment - including, at least, eye/face and ear protection -- is required not only for the operator, but also those employees in the vicinity. PPE will be in accordance with the owner/operator's manual.

On the job site, each tool should be accompanied by: 1) its container; 2.) the operator's instruction & service manuals; 3) the tool inspection record; and 4) service tools & accessories.

Tools must not be loaded until just before firing and, under no circumstances, are they to be pointed at any person. Hands must be kept clear of the open barrel end. A powder activated tool must never be left unattended -- loaded or empty -- for safety and security reasons.

Fasteners must not be driven into very hard or brittle materials such as cast iron, glazed tile, surface-hardened steel, glass block, live rock, face brick or hollow tile; easily penetrated materials unless these materials are backed by a substance; nor a damaged area caused by an unsatisfactory fastening.

Of course, these tools must never be used in an explosive or flammable atmosphere.

Before fastening questionable material, the operator can determine its suitability by using a fastener as a center punch. If the fastener point does not easily penetrate, is not blunted, and does not fracture the material, initial test fastenings will be made in accordance with the manufacturer's instructions.

The tool must be held perpendicular to the work surface and in the event of a misfire, the operator must hold the tool firmly against the work surface and follow, exactly, the manufacturer's instructions.

Tools must be used with the correct shield, guard, or attachments recommended by the manufacturer.

Because the case and load are color coded, it is imperative that the operator can distinguish the colors of brass and nickel as well as gray, brown, green, yellow and red and purple.

VEHICLES

Only authorized persons may operate a company vehicle. This authorization will not be granted until operating knowledge and ability has been successfully demonstrated to the Safety Director.

Before operation, a safety check will be made ensuring fluid levels are correct, obvious bolts are tight, lights and horn are functioning, tire pressures are correct, fire extinguisher is present and charged, and damage is noted.

Seat belts will be worn and all traffic laws, including speed limits, will be observed. During fueling, vehicles must be turned off and all fluid levels checked.

Before backing up any vehicle, check behind and blow horn for the safety of others.

When hauling a load, the cargo should be strapped or blocked to prevent shift.

VENTILATION

Ventilation. - 1926.57

There may be times in the course of our work such as grinding, cutting, sawing, sanding, etc. that hazardous dusts are released into the atmosphere that exceed the concentrations specified in the "Threshold

Limit Values of Airborne Contaminants for 1970” of the American Conference of Governmental Industrial Hygienists, listed below:

MINERAL DUSTS	
Substance	(a)mppcf
SILICA Crystalline Quarts Threshold Limited calculated from the formula $(b)(250) \div (\%SiO_2+5)$ Cristobalite. Amorphous, including natural diatomaceous earth	20
SILICATES (Less than 1% crystalline silica) Mica Portland Cement Soapstone Talc (non-abestiform) Talc (fibrous), use asbestos limit	20 20 20 20
GRAPHITE (Natural)	15
INERT OR NUISANCE PARTICULATES Note 1 Covers all organic and inorganic particulates not otherwise regulated. Same as Particulates Not Otherwise Regulated. Note 2 Inert or Nuisance Dusts includes all mineral, inorganic, and organic dusts as indicated by examples in TLV's Appendix D.	50 (or 15 mg/m ³ which-ever is the smaller) of total dust <1% SiO Note 1 See Table above

- a. Millions of particles per cubic foot or air, based on impinger samples counted by lightfield techniques.
- b. The percentage of crystalline silica in the formula is the amount determined from airborne samples, except in those instances in which other methods have been shown to be applicable.

Below the above threshold limits, no action is required, however, employees may wear dust masks for personal comfort.

As always, engineering controls are preferred to personal protective equipment to deal with job site hazards. Therefore, local exhaust ventilation is a preferred method of maintaining atmospheres that have dust levels below the concentrations noted in the Dust Table, above.

Local exhaust ventilation must be designed so that they prevent dispersions of dust in concentrations causing harmful exposure and that dusts are not drawn through the work area of employees.

The dust collected by an exhaust or ventilating system will be discharged to the outside atmosphere.

If concentrations are so great that a dust separator is used, the dust and refuse will be disposed of in such a manner as to not harm employees. The exhaust will still be discharged to the outside atmosphere.

Of course, if the above ventilation procedures do not reduce the dust levels to acceptable limits, respirators will be used.

WELDING, CUTTING AND BRAZING

Gas welding and cutting. - 1926.350

Arc welding and cutting. - 1926.351

Fire prevention. - 1926.352 Ventilation and protection in welding, cutting, and heating. - 1926.353

Welding, cutting, and heating in way of preservative coatings. - 1926.354

Only authorized and trained personnel are permitted to use welding, cutting, and/or brazing equipment. Appropriate PPE must be worn by all welders.

An appropriate fire extinguisher will be readily available for immediate use.

Compressed gas cylinders will:

- a. have valve protectors in place when not in use or connected for use.
- b. be legibly marked to identify the gas contained therein.
- c. have the valves closed before the cylinder is moved, when the cylinder is empty, and at the completion of each job.
- d. be stored in areas away from intense heat, electric arcs, and high temperature lines.
- e. be secured (chained in portable dolly), in storage or transportation, from tipping, falling, rolling, and damage from passing or falling objects.
- f. be marked "EMPTY" when appropriate.
- g. be removed from service if the regulators or gauges are defective.
- h. be used only for the purpose for which they are designed -- for example, cylinders will not be used as rollers or supports.
- i. be kept away from stairs.

Regulators and gauges will be inspected daily.

All cylinders, cylinder valves, couplings, regulators, hoses and apparatus will be kept free of oily or greasy substances.

Electric welders will be inspected daily before use with emphasis on the cables. All splicing of cables must maintain the insulated protection with no exposed metal parts. Cables in need of repair will not be used.

The competent person will ensure that ventilation within a confined space is adequate to negate the possibility of a respiratory or explosion hazard.

A fire watch will be assigned when there is potential a fire might develop.

When welding, cutting, or brazing near a fire hazard and the fire hazard cannot be isolated, shields will be used to confine the sparks, heat, and slag.

When performing operations capable of producing heat at chemical plants, refineries, or other facilities which have a higher degree of hazard than normal work sites, a hot work permit is generally required. Included in these types of operations are burning, cutting, heating, and welding.

On the back of the Hot Work Permit is found fire safety instructions which must be read and understood by the persons identified on the permit.

IDENTIFICATION OF HAZARDOUS JOB SITE MATERIALS

The presence of asbestos, crystalline silica, lead, and even mercury is possible on many job sites. Before work begins, the appropriate PPE and respiratory protection requirements will be discussed with employees.

Because of the chronic (long term) nature of these hazards, detrimental health effects due to exposure would not be immediately noticed.

The competent person on site will prevent exposures to these materials.

Areas that contain the below materials will be cordoned off or protected with appropriate warning signs. Do not enter any restricted area unless dictated by job assignment and only after specific training for dealing with these hazards. The training would include PPE, respiratory protection, work procedures, medical surveillance, containment, hygiene, handling, testing, and labeling.

These materials may be “discovered” as work progresses and employees will be protected from these hazards by:

- a. identification of these items by the competent person.
- b. informing the owner, project designer, or engineer of the hazards.
- c. securing the area in question until testing proves samples to be negative.

Subcontractors who deal with these hazards will have specific programs that address the above issues.

ASBESTOS

Substance Technical Information for Asbestos - Non-Mandatory - 1926.1101 App H

Asbestos can be found in pipe, wall, and boiler insulation; exterior sheeting; and flooring. Friable or crumbling asbestos presents the most hazard as it can float in the air and be inhaled into the respiratory system. Without respiratory protection, the microscopic asbestos fibers can enter the deepest portion of the lung, causing scar tissue to develop and stiffen the lung. The net result is a reduction of gas exchange -- a condition called asbestosis. High levels of exposure to asbestos greatly increase one's chance of lung cancer.

CRYSTALLINE SILICA

Silica, Crystalline (Respirable Size), National Institute of Health

Crystalline Silica can be readily found on many job sites in rocks as well as many concrete and masonry products. Crystalline Silica can be released in the air when employees are performing such tasks as:

- a. chipping, hammering, drilling, crushing, or hauling rock.
- b. abrasive blasting.
- c. sawing, hammering, drilling, or sweeping concrete or masonry.

Unprotected respiratory exposure to crystalline silica may cause a lung disease called silicosis as well as cancer and death.

LEAD

Substance Data Sheet for Occupational Exposure to Lead - 1926.62 App A

Lead can be found in water pipes, soldering, and paint. Lead is a heavy, toxic metal which can be absorbed into your body by ingestion and/or inhalation. It is a cumulative poison which can stay in your body for decades.

While massive doses of lead can kill in a matter of days, the more likely scenario on a job site is moderate exposure to asbestos or lead which probably would not create any health problems for years -- if at all.

OSHA COMPLIANCE PROGRAMS

When you are confronted by situations listed below, you must perform your tasks in accordance with our written programs which comply with specific OSHA standards. Below is an overview of each program.

Control of Hazardous Energy

Control of hazardous energy (lockout/tagout) procedures apply when there is a possibility of injury due to the unexpected energization, start up or release of stored energy while constructing, installing, setting up, adjusting, inspecting, modifying, maintaining or servicing fixed machinery.

Lockout/Tagout is not required for work on cord and plug connected electric equipment for which exposure to hazards can be controlled by unplugging equipment nor to hot tap operations.

Failure to follow lockout/tagout procedures may result in being crushed, dismembered, mangled, paralyzed, electrocuted, sliced, or punctured by the sudden release of energy from the following types of sources: capacitor; chemical, counter weight, electrical, engine, flywheel, hydraulic, pneumatic, spring, thermal, or gravity.

Procedures

Preparation for Shutdown: Using the Energy Source Evaluation, all isolating devices must be located.

Equipment Shutdown: Inform the affected person and use normal shutdown procedures.

Equipment Isolation: Physically isolate the equipment from its energy source(s) -- there may be more than one.

Device application: Apply color coded locks and/or tags to hold the isolating devices in a "Neutral" or "Off" position.

Release of Stored Energy: Dissipate stored energy.

Verification of Isolation: Prior to work, operate machine controls and ensure the machine will not operate.

Release from Lockout/Tagout: The person who applied the devices is the one who removes them after ensuring the area is clear and affected employees are informed.

Authorized employees will lockout/tagout the energy isolating devices with assigned individual locks. Locks or other lockout/tagout devices will be used for no other purpose, will be color coded, and will indicate the identity of the

authorized employee applying the device. A lock can be used without a tag if only one circuit or piece of equipment is being deenergized, the lockout period does not extend beyond the work shift, and employees are aware that a tag is not being used with the lock.

A tag may be used alone if it provides full employee protection and is used with another safety measure. Other safety measures include the removal of an isolating circuit element, the blocking of a controlling switch, or the opening of an extra disconnecting device. Tags must warn against the hazardous conditions if the machine or equipment is energized and shall include a legend like the following: *Do Not Start; Do Not Open; Do Not Close; Do Not Operate*; etc..

All stored energy must be isolated. Should there be a possibility of re-accumulation of stored energy, verification of isolation must be continued until servicing is complete. The authorized employee shall operate the normal operating controls to verify that the machine or equipment has been deenergized and that it will not operate. After the above test, the operating controls will be returned to the "Neutral" or "Off" position.

Before the lockout/tagout devices are removed and energy is restored: the work area will be inspected to ensure the nonessential items have been removed and the machine or equipment components are operationally intact; the work area will be checked to ensure all employees have been positioned safely or removed. A device can only be removed by the one who applied it unless that person is not available. Another competent person may remove the device as long as the employee who applied it is informed.

If service and maintenance require more than one individual, one person will be designated as Group Leader and will maintain overall responsibility for employees working under him/her.

Lockout/tagout procedures extending into a second shift:

- a. If the energy isolation device will accept two lockout/tagout devices, the authorized employee coming on duty will put his device in place before the employee going off duty removes his device.
- b. If the energy isolation device will not accept two devices, the incoming and outgoing authorized employees will notify affected employees that a lockout/tagout change is taking place; both employees will insure the surrounding area is free of tools and employees; the outgoing employee will remove his device and the incoming employee will install his; finally, the incoming employee will notify affected employees the change is completed.

Exposure Control Plan

(for bloodborne pathogens or other infectious materials)

An exposure control plan is required when emergency medical response is not available within a reasonable time frame and personnel are assigned as first aid providers as an additional duty.

The primary hazard relates to the possibility of infection resulting from exposure to blood-borne pathogens or other infectious materials while providing first aid to a trauma victim or cleaning up bodily fluids after an incident.

As a statement of policy, should an exposure control plan be required, Universal Precautions will be used. Essentially, this means that each trauma victim's blood, bodily fluids, and other potentially infectious materials will be treated as if they are known to be infectious.

First aid providers must understand:

- a. the hazards of bloodborne pathogens and other infectious materials.
- b. engineering & work practice controls designed to minimize possible exposure such as:
 1. handwashing equipment & procedures.
 2. eating; drinking & smoking prohibitions.
 3. the containment of contaminated sharps.
 4. the containment of other regulated waste.
 5. the disposal of contaminated sharps & regulated waste
 6. controlling splashing/spraying of potentially infectious materials.
 7. the prohibition of mouth pipetting (the mouth suction of blood through a tube).
- c. the need to place an impermeable barrier between potential infectious materials and the provider's work clothes, street clothes, undergarments, skin, eyes, mouth, or other mucous membranes using:
 1. disposable gloves
 2. utility gloves
 3. eye & respiratory protection
 4. protective body clothing
- d. hepatitis B epidemiology and how bloodborne pathogens are transmitted.

- e. the importance of hepatitis B vaccination within 24 hours of possible exposure.
- f. the procedure for incident report preparation and the importance of completing them, in writing, before the end of the work shift.

Fall Protection

Fall protection is required for employees working six feet or more above walking/working surface, when there is a potential for objects to fall on them, or when they are working around covers.

The obvious hazard is falling or being hit by a falling object.

A fall protection plan is required when conventional fall protection systems are infeasible.

Through training, employees must know where conventional fall protection systems are required such as when working on or around:

1. unprotected sides and edges
2. leading edges
3. hoist areas
4. holes
5. formwork & reinforcing steel
6. ramps, runways & other walkways.
7. excavations
8. dangerous equipment
9. overhand bricklaying & related work
10. roofing work on low-sloped roofs
11. steep roofs
12. precast concrete erection
13. residential construction
14. wall openings

Additionally, employees must understand:

- a. the selection, use, and maintenance of fall protection system(s).
- b. the types of fall protection systems:
 1. guardrail system
 2. personal fall arrest system
 3. safety net system

4. warning line system
5. safety monitoring system
6. positioning device system
7. controlled access zone (CAZ)
8. covers
9. protection from falling objects.

Forklifts

Forklifts include: fork trucks; tractors; platform lift trucks; motorized hand trucks; and other specialized industrial trucks powered by electric motors or internal combustion engines.

The primary hazards involved in truck operation are:

1. physically hitting a person/object with the truck or load.
2. having a load fall and hit the operator or other person.
3. having the truck tip and crush the operator or other person.
4. fire or explosion during refueling/recharging.

Supervisors should ensure that truck operators are authorized by the Program Administrator. Authority to operate a truck will be revoked if unsafe acts are observed or it is apparent that the operator has not retained the knowledge and job skills necessary to safely perform truck operations.

Supervisors should caution employees not involved with truck operations to stay clear of them due to limited visibility of the operator and the size and weight of the vehicle and load.

Hazard Communication

Practically all chemical products have physical or health hazards if they are inadvertently spilled or improperly used. Our Hazard Communication Plan details the methods used to keep our employees informed of these potential hazards.

The Program Administrator will ensure that all personnel understand:

- a. the importance and use of labels; material safety data sheets (MSDS); and the ready accessibility of MSDS.
- b. the physical & health hazards of chemicals used in the workplace.
- c. the methods used to detect the release of a hazardous chemical.

- d. the methods to protect oneself from chemical hazards including PPE; work practices; & emergency procedures.
- e. the need to share product information with other contractors.

Hearing Conservation

Supervisors are to ensure that employees are not exposed to occupational noises that exceed the levels listed below. Excessive noise may cause permanent hearing loss. Supervisors should be aware that hearing loss is often painless and unnoticeable.

Permissible Noise Exposures

<u>Sound level</u>	
<u>Duration per day, hours</u>	<u>dBA slow response</u>
8	90
6	92
4	95
3	97
2	100
1 1/2	102
1	105
1/2	110
1/4 or less	115

The Program Administrator will ensure that applicable standards are posted, medical surveillance and noise monitoring are instituted, and that all affected personnel understand the process of hearing and the importance of preventing hearing loss.

Permit-Required Confined Space

Permit-required confined spaces may present a very hazardous environment if specific procedures, testing, and training are not implemented prior to entry. As a reminder:

A confined space is a space that:

- is large enough and so configured that an employee can bodily enter and perform assigned work; and

- has limited or restricted means for entry or exit. These spaces may include: ventilation or exhaust ducts, bins and tanks, boilers, sewers, tunnels and open top spaces more than 4 feet in depth such as pits, tubs, and vessels; and

- is not designed for continuous employee occupancy.

A permit-required confined space is:

a confined space that contains any recognized serious safety or health hazards. These hazards may be: engulfment by materials; entrapment by space shape; inhalation of hazardous (possibly fatal) atmospheres.

Supervisors should ensure that employees understand:

1. the need to identify and evaluate permit space hazards before entry.
2. the need to test conditions before entry and monitor conditions during entry.
3. how to prevent unauthorized entry.
4. how to eliminate or control hazards for safe permit-space entry operations.
5. the need to ensure that at least one attendant is stationed outside the permit-required space for the duration of the entry operations.
6. how to coordinate and monitor entry operations when we are working with employees of another contractor or client within a permit-required confined space.
7. our procedures for emergency rescue.
8. the establishment of a written procedure for preparation, issuance, use, and cancellation of entry permits.

Personal Protective Equipment

A hazard assessment will be made on all job sites to determine what types of personal protective equipment (PPE) are appropriate. A major part of this hazard assessment will be determining what PPE needs can be eliminated through feasible engineering controls or work procedures.

Types of hazard categories that are considered are: impact; penetration; compression; chemical; heat; harmful dust; and light radiation.

The focus of PPE is to eliminate eye, hand, foot, limb, and head injury. Visitors exposed to the identified hazards will be loaned appropriate PPE (and given instruction in its use) prior to hazard exposure.

You must understand the limitations of your PPE; the correct procedure for putting on, adjusting, and removing the PPE; and the proper care, maintenance, and useful life of the PPE.

Cleanliness of PPE is of importance particularly when dealing with eye protection where fogging, scratches, or dirt can render the PPE a hazard rather than protection from a hazard.

Unique PPE required for job performance such as hard hats, respirators, ear plugs, safety goggles, etc. will be supplied to the employees. They are responsible for maintenance of the equipment issued to them. Items of PPE that are damaged or non-functioning should be turned in for repair or replacement.

For personal comfort and to eliminate nuisance noises and nuisance respiratory conditions that are not at or above the threshold level for required protection, dust masks and ear plugs may be used at any time.

Respiratory Protection

As a supervisor, it is extremely important that you do not allow employees to be exposed to atmospheres that do not contain clean, breathable air free from contaminants that exceed permissible exposure limits.

Respiratory hazards can range from mildly irritating to fatal.

Because of the serious consequences of improperly using respiratory protection, those for whom it applies, must understand:

1. the importance of medical approval for respiratory use.
2. the respirator selection process.
3. how to determine the service life of particulate filters.
4. fit testing.
5. user seal tests.
6. the importance of work area surveillance.
7. cleaning, inspection & maintenance of respirators.

Of course, job sites often contain nuisance dusts that do not exceed permissible exposure limits. In these cases, employees may wear dust masks for personal comfort. Supervisors should caution those wearing dust masks that they do not offer true respiratory protection.

Scaffolds & Ladders

Scaffold and ladder accidents are often quick and devastating. The primary hazards are: falls, electrical shock, and being hit by falling objects.

On the job site, supervisors must ensure that employees are:

1. following established procedures for dealing with the above hazards.
2. properly using both scaffolds and ladders
3. not exceeding the load and the load-carrying capacities of the scaffolds and ladders.

During routine job site inspections, supervisors should be constantly vigilant for violations of the below ladder safety rules and take immediate corrective action to ensure the safety of our employees:

- a. a stairway or a ladder will be provided at all personnel points of access where there is a break in elevation of 19 inches or more.
- b. ladders will never be overloaded.
- c. ladder rungs, cleats, and steps must be parallel, level, and uniformly spaced when a ladder is in position for use.
- d. ladders will not be tied or fastened together unless they are so designed.
- e. portable ladders used for gaining access to an upper level will extend at least 3 feet above the upper landing surface or the ladder will be secured at its top.
- f. ladders must be free of oil, grease, or other slipping hazards.
- g. ladders must be used for the purpose for which they were designed.
- h. non-self supporting ladders will be used at an angle that the horizontal distance from the top support to the foot of the ladder is approximately $\frac{1}{4}$ of the working length of the ladder.
- i. ladders will only be used on stable and level surfaces unless secured to prevent displacement.
- j. ladders shall not be used on slippery surfaces unless secured or provided with slip-resistant feet to prevent accidental displacement.
- k. ladders placed in any location where they can be displaced by workplace activities or traffic will be secured to prevent accidental displacement, or a barricade will be used to keep the activities or traffic away from the ladder.
- l. the area around the top and bottom of the ladder shall be kept clear.
- m. ladders shall not be moved, shifted, or extended while occupied.
- n. the top step of a stepladder shall not be used as a step.
- o. portable ladders with structural defects will be immediately marked in a manner that readily identifies them as defective and removed from service.
- p. when ascending or descending a ladder, one must face the ladder.
- q. employees must use at least one hand to grasp the ladder when progressing up and/or down the ladder.
- r. employees are not to carry any object or load that could cause loss of balance and a resultant fall.

Project Emergency Phone Numbers

Construction Masters of Houston

PROJECT EMERGENCY PHONE NUMBERS

PROJECT NAME: _____

PROJECT ADDRESS: _____

Main Office: **281-997-2640**

Police: **911** [_____]
(If no 911 Service Available)

Fire: **911** [_____]
(If no 911 Service Available)

Ambulance: **911** [_____]
(If no 911 Service Available)

Hospital: _____

(Name/Position)

(Telephone Number)

(Name/Position)

(Telephone Number)

(Name/Position)

(Telephone Number)

(Name/Position)

(Telephone Number)

(Name/Position)

(Telephone Number)

(Name/Position)

(Telephone Number)

The telephone number of this facility is: _____

THE ADDRESS OF THIS FACILITY IS:

(To be given to emergency responders)

Designation of Competent Person(s)

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DESIGNATION OF COMPETENT PERSON(S)

Each individual listed below, by virtue of training and/or experience, is designated a "Competent Person" as that designation relates to the area of expertise noted.

A competent person is one who is capable of identifying existing and predictable hazards in the surrounding or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.

(Name)	(Area of Expertise)

Ace Thomas
Safety Director

Job Site Checklist

Excavating

General

Standard

Steel Erection

Construction Masters of Houston

JOB SITE CHECKLIST [Excavating]

Job Site Identification: _____

Date: _____

(Signature of Competent Person)

Check appropriate box:

Yes No NA

Postings

- | | | | |
|---|--------------------------|--------------------------|--------------------------|
| a. OSHA Form 3165 | ☐ | ☐ | ☐ |
| b. OSHA Form 300A (February 1 to April 30) | ☐ | ☐ | ☐ |
| c. Emergency Phone Numbers
(Hospital - Emergency Response - Main Office) | ☐ | ☐ | ☐ |

Excavating

- | | | | |
|--|--------------------------|--------------------------|--------------------------|
| a. Designated competent person on site
(Must have authority to stop work) | ☐ | ☐ | ☐ |
| b. Underground utilities located, marked, utilities notified | ☐ | ☐ | ☐ |
| c. Daily inspection by competent person for hazards | ☐ | ☐ | ☐ |
| d. <u>Excavation: Depth less than 5 feet</u> | | | |
| 1. Inspection by competent person to ensure no indication
of potential cave-in | ☐ | ☐ | ☐ |
| e. <u>Excavation: Depth greater than 5 feet</u> | | | |
| 1. Sloping | ☐ | ☐ | ☐ |
| 2. Benching | ☐ | ☐ | ☐ |
| 3. Working within a protective device | ☐ | ☐ | ☐ |
| a. Excavation of earth material may be dug 2 feet
below the bottom of the shield if there are no
indications while the trench is open of possible
loss of soil from behind or below the shield. | ☐ | ☐ | ☐ |
| f. <u>Excavation: Depth greater than 20 feet</u> | | | |
| 1. Protective systems designed by professional engineer | ☐ | ☐ | ☐ |
| 2. Engineering documentation on-site; readily available | ☐ | ☐ | ☐ |
| g. Egress (Depth 4 feet or greater) | ☐ | ☐ | ☐ |
| 1. Ladder accessible within 25' of lateral movement | ☐ | ☐ | ☐ |
| 2. Ladder extends 3' above edge of excavation | ☐ | ☐ | ☐ |
| 3. Ladder inspected for defects | ☐ | ☐ | ☐ |

	<u>Yes</u>	<u>No</u>	<u>NA</u>
h. Spoil pile maintained a minimum of 2' from excavation	☐	☐	☐
i. Water accumulation	☐	☐	☐
j. Loads are not suspended above employees	☐	☐	☐
k. Defective cables; chains; slings removed from service	☐	☐	☐
l. Traffic control	☐	☐	☐
1. Warning signs and barricades in place	☐	☐	☐
2. Flagmen	☐	☐	☐
3. Vests	☐	☐	☐
<u>Equipment</u>			
a. Inspected before use	☐	☐	☐
b. Defective items tagged and removed from service	☐	☐	☐
<u>Powered Equipment</u>			
a. Inspected before use	☐	☐	☐
b. Protected from overhead electrical hazards	☐	☐	☐
<u>General Job Site</u>			
a. First aid kits available and stocked	☐	☐	☐
b. Adequate restrooms facilities	☐	☐	☐
c. Potable water available	☐	☐	☐
<u>Temporary Electrical Wiring</u>			
a. Extension cords inspected & free of defects	☐	☐	☐
b. Ground fault circuit interrupters (GFCI) in use	☐	☐	☐
c. All equipment properly grounded	☐	☐	☐
d. Temporary wiring clear of employee & vehicular traffic	☐	☐	☐
<u>Personal Protective Equipment (PPE) Required</u>			
(Note: Serviceable equipment available & training received)			
a. Hard Hats	☐	☐	☐
b. Eye protection	☐	☐	☐
c. Appropriate, approved, work shoes	☐	☐	☐
d. Gloves	☐	☐	☐
<u>Items specific to this job site</u>			
a. _____	☐	☐	☐
b. _____	☐	☐	☐
c. _____	☐	☐	☐

Construction Masters of Houston

JOB SITE CHECKLIST [General]

Job Site Identification: _____

Date: _____

(Signature of Competent Person)

Check appropriate box:

Yes No NA

Postings

- | | | | |
|---|--------------------------|--------------------------|--------------------------|
| a. OSHA Form 3165 | ☐ | ☐ | ☐ |
| b. OSHA Form 300A (February 1 to April 30) | ☐ | ☐ | ☐ |
| c. Emergency Phone Numbers
(Hospital - Emergency Response - Main Office) | ☐ | ☐ | ☐ |

Administrative

- | | | | |
|--|--------------------------|--------------------------|--------------------------|
| a. MSDS readily accessible | ☐ | ☐ | ☐ |
| b. Hazard communication information "shared" | ☐ | ☐ | ☐ |
| c. Fire extinguishers accessible and inspected | ☐ | ☐ | ☐ |
| d. Employees appropriately trained | ☐ | ☐ | ☐ |

Job Site

- | | | | |
|---|--------------------------|--------------------------|--------------------------|
| a. First aid kits available and stocked | ☐ | ☐ | ☐ |
| b. General housekeeping | ☐ | ☐ | ☐ |
| c. Adequate restrooms facilities | ☐ | ☐ | ☐ |
| d. Potable water available | ☐ | ☐ | ☐ |
| e. Warning signs, tags, barricade tape in place | ☐ | ☐ | ☐ |

Temporary Electrical Wiring

- | | | | |
|---|--------------------------|--------------------------|--------------------------|
| a. Extension cords inspected & free of defects | ☐ | ☐ | ☐ |
| b. Ground fault circuit interrupters (GFCI) in use | ☐ | ☐ | ☐ |
| c. All equipment properly grounded | ☐ | ☐ | ☐ |
| d. Temporary wiring clear of employee & vehicular traffic | ☐ | ☐ | ☐ |

Personal Protective Equipment (PPE) Required

(Note: Serviceable equipment available & training received)

- | | | | |
|--------------------------------------|--------------------------|--------------------------|--------------------------|
| a. Hard Hats | ☐ | ☐ | ☐ |
| b. Eye protection | ☐ | ☐ | ☐ |
| c. Appropriate, approved, work shoes | ☐ | ☐ | ☐ |
| d. Hearing protection | ☐ | ☐ | ☐ |
| e. Gloves | ☐ | ☐ | ☐ |

Equipment including PPE, Ladders & Scaffolds & ToolsYes No NA

- | | | | |
|---|--------------------------|--------------------------|--------------------------|
| a. Inspected before use | ☐ | ☐ | ☐ |
| b. Defective items tagged and removed from service | ☐ | ☐ | ☐ |
| c. Powered Equipment operators trained and authorized | ☐ | ☐ | ☐ |

Ladders

- | | | | |
|--|--------------------------|--------------------------|--------------------------|
| a. Side rails extend at least 3' above upper landing surface | ☐ | ☐ | ☐ |
| b. Ladders tied-off to prevent displacement | ☐ | ☐ | ☐ |

Scaffolds

- | | | | |
|--|--------------------------|--------------------------|--------------------------|
| a. Guard rails, full planking, bracing & ladder access | ☐ | ☐ | ☐ |
|--|--------------------------|--------------------------|--------------------------|

Fall Protection

- | | | | |
|---|--------------------------|--------------------------|--------------------------|
| a. Personnel trained in fall protection | ☐ | ☐ | ☐ |
| b. Residential Construction Interim Standards used | ☐ | ☐ | ☐ |
| c. Conventional Fall Protection System Used | ☐ | ☐ | ☐ |
| 1. Guardrail System | ☐ | ☐ | ☐ |
| 2. Personal Fall Arrest System | ☐ | ☐ | ☐ |
| 3. Warning Line System | ☐ | ☐ | ☐ |
| 4. Controlled Access Zone System | ☐ | ☐ | ☐ |
| 5. Safety Monitoring System: Monitor must be a competent to recognize fall hazards & know the responsibilities of the position. | | | |
| d. Fall Protection Plan used: 29 CFR 1926.502(k); is on site. | ☐ | ☐ | ☐ |

Other

- | | | | |
|----------|--------------------------|--------------------------|--------------------------|
| a. _____ | ☐ | ☐ | ☐ |
| b. _____ | ☐ | ☐ | ☐ |
| c. _____ | ☐ | ☐ | ☐ |

Safety Enforcement

Unsafe work practices will be corrected immediately upon discovery and if total job site safety cannot be restored, job will be shut down until corrections are made. The below listed persons were working in an unsafe manner & enforcement documentation is or will be prepared at the earliest opportunity consistent with safety.

(Name)

(Unsafe Act & Corrective Measure)

(Name)

(Unsafe Act & Corrective Measure)

Construction Masters of Houston

JOB SITE CHECKLIST [Standard]

Job Site Identification: _____

Date: _____

(Signature of Competent Person)

Check appropriate box:

Yes No NA

Postings

- | | | | |
|---|--------------------------|--------------------------|--------------------------|
| a. OSHA Form 3165 | ☐ | ☐ | ☐ |
| b. OSHA Form 300A (February 1 to April 30) | ☐ | ☐ | ☐ |
| c. Emergency Phone Numbers
(Hospital - Emergency Response - Main Office) | ☐ | ☐ | ☐ |
| d. Emergency Action Plan | ☐ | ☐ | ☐ |

Administrative

- | | | | |
|---|--------------------------|--------------------------|--------------------------|
| a. Clear lines of authority
(Coordination between general and subcontractors) | ☐ | ☐ | ☐ |
| b. MSDS readily accessible | ☐ | ☐ | ☐ |
| c. Hazard communication information "shared" | ☐ | ☐ | ☐ |
| d. Underground utilities located, marked, utilities notified
(Excavating, trenching) | ☐ | ☐ | ☐ |
| e. Fire extinguishers accessible and inspected | ☐ | ☐ | ☐ |
| f. Employees appropriately trained
(Including subcontractors) | ☐ | ☐ | ☐ |

General Job Site

- | | | | |
|---|--------------------------|--------------------------|--------------------------|
| a. First aid kits available and stocked | ☐ | ☐ | ☐ |
| b. General housekeeping | ☐ | ☐ | ☐ |
| c. Adequate restrooms facilities | ☐ | ☐ | ☐ |
| d. Potable water available | ☐ | ☐ | ☐ |
| e. Equipment, materials, & chemicals storage | ☐ | ☐ | ☐ |
| f. Adequate lighting | ☐ | ☐ | ☐ |
| g. Warning signs, tags, barricade tape in place | ☐ | ☐ | ☐ |

Yes No NA

Temporary Electrical Wiring

- | | | | |
|---|--------------------------|--------------------------|--------------------------|
| a. Extension cords inspected & free of defects | ☐ | ☐ | ☐ |
| b. Ground fault circuit interrupters (GFCI) in use | ☐ | ☐ | ☐ |
| c. All equipment properly grounded | ☐ | ☐ | ☐ |
| d. Temporary wiring clear of employee & vehicular traffic | ☐ | ☐ | ☐ |

Personal Protective Equipment (PPE) Required

(Note: Serviceable equipment available & training received)

- | | | | |
|--------------------------------------|--------------------------|--------------------------|--------------------------|
| a. Hard Hats | ☐ | ☐ | ☐ |
| b. Eye protection | ☐ | ☐ | ☐ |
| c. Appropriate, approved, work shoes | ☐ | ☐ | ☐ |
| d. Hearing protection | ☐ | ☐ | ☐ |
| e. Gloves | ☐ | ☐ | ☐ |
| f. Respirators | ☐ | ☐ | ☐ |

Equipment

- | | | | |
|--|--------------------------|--------------------------|--------------------------|
| a. Inspected before use | ☐ | ☐ | ☐ |
| b. Defective items tagged and removed from service | ☐ | ☐ | ☐ |

Powered Equipment

- | | | | |
|-------------------------------------|--------------------------|--------------------------|--------------------------|
| a. Operators trained and authorized | ☐ | ☐ | ☐ |
| b. Inspected before use | ☐ | ☐ | ☐ |

Items specific to this job site

- | | | | |
|----------|--------------------------|--------------------------|--------------------------|
| a. _____ | ☐ | ☐ | ☐ |
| b. _____ | ☐ | ☐ | ☐ |
| c. _____ | ☐ | ☐ | ☐ |

Subcontractor safety deficiencies

Corrected

_____	_____	☐	☐
(Subcontractor)	(Deficiency)		
_____	_____	☐	☐
_____	_____	☐	☐
_____	_____	☐	☐

Construction Masters of Houston

JOB SITE CHECKLIST [Steel Erection]

Job Site Identification: _____

Date: _____

(Signature of Competent Person)

Check appropriate box:

Yes No NA

Postings

- | | | | |
|---|--------------------------|--------------------------|--------------------------|
| a. OSHA Form 3165 | ☐ | ☐ | ☐ |
| b. OSHA Form 300A (February 1 to April 30) | ☐ | ☐ | ☐ |
| c. Emergency Phone Numbers
(Hospital - Emergency Response - Main Office) | ☐ | ☐ | ☐ |

Steel Erection Activities

- | | | | |
|--|--------------------------|--------------------------|--------------------------|
| a. Approvals | | | |
| 1. The concrete in the footings, piers and wall and the mortar in the masonry piers and walls has attained either 75% of the intended minimum design strength or sufficient strength to support the loads to be imposed during steel erection. | ☐ | ☐ | ☐ |
| 2. Repairs, replacements and modifications to anchor bolts were conducted in accordance with 29 CFR 1926.755(b). | ☐ | ☐ | ☐ |
| b. Site Layout | | | |
| 1. Adequate access roads within the construction site. | ☐ | ☐ | ☐ |
| 2. Methods for pedestrian and vehicle control. | ☐ | ☐ | ☐ |
| 3. Firm graded drained area for safe storage of equipment. | ☐ | ☐ | ☐ |
| c. Overhead Hoisting Operations | | | |
| 1. Hoisting operations pre-planned per 29 CFR 1926.753(d). | ☐ | ☐ | ☐ |
| d. Site-Specific Erection Plan | | | |
| 1. A site-specific erection plan, developed by a qualified person, is available at the work site if alternate means and methods are used to provide employee protection. | ☐ | ☐ | ☐ |
| e. Fall Protection [Note: Standard Fall Protection applies except:] | | | |
| 1. Employees engaged in steel erection are provided fall protection when more than 15 feet above a lower level. | ☐ | ☐ | ☐ |
| 2. On multi-story structures, perimeter safety cable installed. | ☐ | ☐ | ☐ |
| 3. Connectors are protected from fall hazards of more than two stories or 30 feet, which ever is less. | ☐ | ☐ | ☐ |

- | | <u>Yes</u> | <u>No</u> | <u>NA</u> |
|---|--------------------------|--------------------------|--------------------------|
| 4. Connectors, at heights over 15 and up to 30 feet above a lower level are provided a personal fall arrest system, positioning device system or fall restraint system and wear the equipment necessary to be tied-off. | ☐ | ☐ | ☐ |
| f. Controlled Decking Zone [Installed in area of structure over 15 and up to 30 feet above a lower level where metal decking is initially being installed and forms the leading edge.] | | | |
| 1. Employees working at leading edge in a CDZ protected from fall hazards of more than two stories or 30 feet, whichever is less. | ☐ | ☐ | ☐ |
| 2. Access limited to employees engaged in leading edge work. | ☐ | ☐ | ☐ |
| 3. Boundaries of CDZ clearly marked and less than 90 ft wide and 90 feet deep from leading edge. | ☐ | ☐ | ☐ |
| g. Working under loads | | | |
| 1. Loads rigged by a qualified rigger. Self-closing latches used. | ☐ | ☐ | ☐ |
| 2. Routes of suspended loads are pre-planned. | ☐ | ☐ | ☐ |
| h. Cranes | | | |
| 1. Pre-shift visual inspection by competent person. | ☐ | ☐ | ☐ |

Equipment

- | | | | |
|--|--------------------------|--------------------------|--------------------------|
| a. Inspected before use | ☐ | ☐ | ☐ |
| b. Defective items tagged and removed from service | ☐ | ☐ | ☐ |

Powered Equipment

- | | | | |
|---|--------------------------|--------------------------|--------------------------|
| a. Inspected before use | ☐ | ☐ | ☐ |
| b. Protected from overhead electrical hazards | ☐ | ☐ | ☐ |

General Job Site

- | | | | |
|---|--------------------------|--------------------------|--------------------------|
| a. First aid kits available and stocked | ☐ | ☐ | ☐ |
| b. Adequate restrooms facilities | ☐ | ☐ | ☐ |
| c. Potable water available | ☐ | ☐ | ☐ |
| d. Warning signs, tags, barricade tape in place | ☐ | ☐ | ☐ |

Yes No NA

Temporary Electrical Wiring

- | | | | |
|---|--------------------------|--------------------------|--------------------------|
| a. Extension cords inspected & free of defects | ☐ | ☐ | ☐ |
| b. Ground fault circuit interrupters (GFCI) in use | ☐ | ☐ | ☐ |
| c. All equipment properly grounded | ☐ | ☐ | ☐ |
| d. Temporary wiring clear of employee & vehicular traffic | ☐ | ☐ | ☐ |

Personal Protective Equipment (PPE) Required

(Note: Serviceable equipment available & training received)

- | | | | |
|--------------------------------------|--------------------------|--------------------------|--------------------------|
| a. Hard Hats | ☐ | ☐ | ☐ |
| b. Eye protection | ☐ | ☐ | ☐ |
| c. Appropriate, approved, work shoes | ☐ | ☐ | ☐ |
| d. Gloves | ☐ | ☐ | ☐ |

Items specific to this job site

- | | | | |
|----------|--------------------------|--------------------------|--------------------------|
| a. _____ | ☐ | ☐ | ☐ |
| b. _____ | ☐ | ☐ | ☐ |
| c. _____ | ☐ | ☐ | ☐ |

Safety deficiencies

Corrected

_____	_____	☐	☐
(Employee)	(Deficiency)		
_____	_____	☐	☐
_____	_____	☐	☐
_____	_____	☐	☐

Enforcement Documentation

Construction Masters of Houston

ENFORCEMENT DOCUMENTATION

Date: _____ Check One: ☐ Minor ☐ Major ☐ Willful

Employee Name: _____

Supervisor: _____

Description of violation: _____

Possible Adverse Consequences: _____

Corrective Action: _____

Employee Acknowledgment:

(Employee Signature) (Date)

Employee statement/rebuttal (optional): _____

Witnesses: (if appropriate & available. An effort should be made to obtain witnesses for willful safety violations)

(Print name) (Signature)

(Print name) (Signature)

Note: With the exception of willful violations, this form will be destroyed after a 12 month period.

Hot Work Permit

Construction Masters of Houston

Hot Work Permit

This form provides written authorization for the below listed individual(s) to perform operations capable of providing a source of ignition.

Object on which hot work is to be performed: _____

Date(s) hot work is to be performed: _____
(From) (To)

Hot work is applicable to the below listed type of operation:

(Check appropriate box)

- ☐ Burning
- ☐ Cutting
- ☐ Heating
- ☐ Riveting
- ☐ Welding
- ☐ Other: _____

Persons performing hot work operations:

_____ (Name)	_____ (SSN or Employee ID No.)
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

The above persons have been provided with a copy of **29 CFR 1910.252(a)** and will ensure that its provisions are complied with.

A copy of this Hot Work Permit will remain on file until the completion of the hot work operation listed above.

(Facility) (Date)

(Signature of Person Authorized to Issue Hot Work Permit) (Title)

Hand Signals for Cranes

**U.S. Department of Labor
Mine Safety and Health Administration
Hand Signals for Lifting Equipment.**

Know Your Hand Signals!

Basic Standard Hand Signals for Cranes and Hoisting Equipment



HOIST: With forearm vertical, and forefinger pointing up, move hand in small horizontal circle.



LOWER: With arm extended downward, forefinger pointing down, move hand in a small horizontal circle.



RAISE BOOM: Arm extended, fingers closed, thumb pointing upward.



LOWER BOOM: Arm extended, fingers closed, thumb pointing downward.



EXTEND BOOM: Both fists in front of body with thumbs pointing outward.



RETRACT BOOM: Both fists in front of body with thumbs pointing toward each other.



SWING: Arm extended, point with finger in direction of desired boom swing.



STOP DOG EVERYTHING: Clasp hands in front of body.



MOVE SLOWLY: Use one hand to give any motion signal and place the other hand motionless in front of the hand giving the signal.



TRAVEL: Arm extended forward, hand open and slightly raised, make pushing motion in direction of travel.



USE MAIN HOIST: Tap fist on head; then use regular signals.



USE WHIP LINE (AUXILIARY HOIST): Tap elbow with one hand; then use regular signals.



STOP: Arm extended, palm down, move arm back and forth horizontally.



RAISE THE BOOM AND LOWER THE LOAD: With arm extended, thumb pointing up, flex fingers in and out as long as load movement is desired.



LOWER THE BOOM AND RAISE THE LOAD: With arm extended, thumb pointing down, flex fingers in and out as long as load movement is desired.



EMERGENCY STOP: Both arms extended, palms down, move arms back and forth horizontally.

Issued:
Tag # AP2003-M061

Forklift Checklist

Construction Masters of Houston

FORKLIFT CHECK LIST

VEHICLE TYPE: _____

DATE: _____

VEHICLE NUMBER: _____

OPERATOR NAME: _____

VISUAL INSPECTION	Mon	Tues	Wed	Thurs	Fri	Sat.	Sun
Overall vehicle condition							
Operators manual							
Fire extinguisher							
Head lights							
Tail lights							
Signal lights							
Warning lights							
Seat							
Seat belt							
Tires, wheels, rims							
Overhead cage protection							
Forks							
Mast							
Mast chains							
Mast tilt							
Hydraulic lines							
Wires							
Cosmetic Damage: Explain:							
FLUIDS (check leakage &)							
Brake fluid							
Engine oil							
Fuel							
Hydraulic fluid							
Coolant							
VEHICLE OPERATIONS							
Starter							
Gauges: Battery							
Oil pressure							
Temperature							
Hour meter							
Seat safety switch							
Backup warning device							
Warning light							
Parking brake							
Service brake							
Steering							
Transmission							
Mast lift up/down							
Mast tilt							
Mast side/squeeze							
Other:							
Other:							

Code: ✓ = OK X = Deficiency NA = Not Applicable

**Documentation
for
Written Notification to Commence Steel Erection
And
Written Notification to Commence Steel Erection**

Construction Masters of Houston

Documentation for Written Notification to Commence Steel Erection

NOTE: This must be completed by the Masonry/Concrete Contractor prior to issuance of Written Notification to Commence Steel Erection.

To: _____
(Masonry/Concrete Contractor)

Date: _____

As the general contractor, per 29 CFR 1926.752, the below written notification to commence steel erection to the steel erection contractor using the information provided below.

Please check appropriate boxes below, sign & date this notification, and return to:

The below notification(s) are provided to:

The concrete in the

☐ footings

☐ piers

☐ walls

has attained, on the basis of an appropriate ASTM standard test method of field-cured samples, either 75 percent of the intended minimum compressive design strength or sufficient strength to support the loads imposed during steel erection.

The mortar in the

☐ masonry piers

☐ masonry walls

has attained, on the basis of an appropriate ASTM standard test method of field-cured samples, either 75 percent of the intended minimum compressive design strength or sufficient strength to support the loads imposed during steel erection.

Any repairs, replacements and modifications to the anchor bolts were conducted in accordance with 29 CFR 1926.755(b).

(Name of Concrete/Masonry Contractor)

(Signature/Title)

(Date)

Construction Masters of Houston

WRITTEN NOTIFICATION TO COMMENCE STEEL ERECTION

Project Number/Name: _____ Date: _____

As the general contractor on the above project, per 29 CFR 1926.752, the below written notifications to commence steel erection is given to the below steel erection company by

(Name of steel erection contractor)

The concrete in the

☐ footings

☐ piers

☐ walls

has attained, on the basis of an appropriate ASTM standard test method of field-cured samples, either 75 percent of the intended minimum compressive design strength or sufficient strength to support the loads imposed during steel erection.

The mortar in the

☐ masonry piers

☐ masonry walls

has attained, on the basis of an appropriate ASTM standard test method of field-cured samples, either 75 percent of the intended minimum compressive design strength or sufficient strength to support the loads imposed during steel erection.

Any repairs, replacements and modifications to the anchor bolts were conducted in accordance with 29 CFR 1926.755(b).

(Signature/Title))

(Signature/Title)

(Date)

Emergency Action Plan & Fire Prevention Plan

Construction Masters of Houston

EMERGENCY ACTION PLAN

Events may occur which dictate the evacuation of the facility such as fire, severe inclement weather, power failure, etc.. Additionally events may occur which dictate the need for emergency medical responders. These sets of events fall under our Emergency Action Plan and a multitude of objectives must be met.

The first and foremost objective is the safety of all our personnel. To achieve this level of safety, our plan is designed to get personnel away from danger, treat injury, and provide for a thorough and accurate accounting of all employees.

There may well be situations where certain employees, trained in first aid and/or fire fighting procedures, may prevent a small emergency situation from becoming a major disaster. In these types of situations, these employees, identified in this plan, will remain on the job site to perform the function for which they are trained provided they may perform these duties, in their judgment, in a safe manner. At no time will any employee put himself/herself at risk.

All personnel will receive training on our emergency action plan during initial safety training as well as when our plan changes or the employee's responsibilities change.

If appropriate, on a job site, this emergency action plan will posted with our emergency escape route diagram and emergency telephone numbers.

When working at a client's facility, our personnel will fall under the provisions of their emergency action plan.

All exits will be identified with a sign having the word "EXIT" plainly legible. Exit signs will be suitably illuminated. Doors, passageways, stairs, etc., which appear to be an exit but are not shall be identified by a sign that reads, for example: "Not an Exit".

Aisles and passageways shall be kept clear to provide a direct, easy egress from our facility.

It is important that the actual implementation of this plan be simple, direct, and carried out without confusion. Each employee must know how to alert others, how to call for assistance, the location of fire extinguishers, the escape route, the rendezvous point (and being accounted for so that others do not put themselves at risk looking for a person who has already reached safety), and specific tasks that may be required of specific personnel during emergency procedures.

A copy of 29 CFR 1926.35, Employee Emergency Action Plans is readily available for review in our Safety Program.

The following are standard operating procedures:

EMERGENCY MEDICAL RESPONSE

Should an injury occur that requires an emergency medical responder, the below listed actions will be taken in order given:

1. Call the emergency response number posted adjacent to this plan.
2. Call the Administrative Office at: _____.
 - a. Help will immediately be sent and a person will be designated to direct the emergency responders to the injured person.
 - b. If appropriate, Material Safety Data Sheets will be provided the emergency responders.
3. Provide any medical assistance you are trained and certified to do.
Do not provide any medical assistance you are not trained to do.

ASSIGNED FIRST AID PROVIDERS

NAME

[Note: If none, enter "None".]

FACILITY EVACUATION PLAN
(FIRE/EXPLOSION/SEVERE WEATHER/MECHANICAL FAILURE, ETC.)

THE ORDER TO EVACUATE IS GIVEN BY:

(Example: Fire Bell; Three (3) Blasts of an Air Horn; Public Announcement, etc.)

TO ALERT OTHERS:

(Example: Activate alarm; notify main office, Ext No., etc.)

LOCATION OF FIRE EXTINGUISHERS, NEAREST LISTED FIRST:

(Type) (Location)

(Type) (Location)

(Type) (Location)

RENDEZVOUS POINT:

(Example: Parking lot; by dumpster, etc.)

SPECIFIC HAZARDS TO BE AWARE OF:

(Example: List nearby hazardous chemicals. If none, enter "none")

**ROSTER OF PERSONNEL WITH SPECIFIC
DUTIES DURING AN EVACUATION**

<u>NAME</u>	<u>TITLE</u>	<u>DUTIES</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

NOTE: Examples of specific duties: Deenergizing certain equipment or machinery; accounting for personnel at rendezvous point; manning fire extinguishers; directing emergency responders; on alert for First Aid delivery; rescue team member; etc. If none, enter: "None".

FIRE PREVENTION PLAN

Reference the Fire Protection and Fire Prevention portions of our Safety Program. This referenced sections deal with procedures to prevent a fire, and, in the event of a fire, the various limitations of fire extinguishers. Further reference our Emergency Action Plan which deals with actions to take in the event of a fire and/or evacuation. This Fire Prevention Plan deals not with handling a fire emergency, but rather preventing a fire in the first place.

HOUSEKEEPING

One of the first rules of fire prevention is good housekeeping. Good housekeeping can prevent a fire from starting (improper storage of combustibles, for example) and should there be a fire, good housekeeping can: 1) help prevent the spread of the fire, and 2) make fighting the fire an easier task. Some specific housekeeping rules that impact directly on fire prevention are:

- a. Combustible liquids must be stored and covered in approved containers.
- b. All chemical spills including, of course, combustible liquids, must be cleaned up immediately.

NOTE: Care must be taken when cleaning up chemical spills. Information on appropriate personal protective equipment; proper disposal; proper cleanup procedures; required ventilation, etc. is found on the products Material Safety Data Sheet.

- c. Cleanup materials and damaged containers must be properly disposed.
- d. Combustible liquids and trash must be segregated and stored away from ignition sources.
- e. Aisle ways will be kept free of clutter and trash.
- f. Fire exits will never be blocked.

FIRE FIGHTING EQUIPMENT

One often thinks of fire fighting equipment as it relates to the workplace as fire extinguishers. This is true, yet there are other, often more important, pieces of equipment such as sprinkler systems and outside hydrants. While portable fire extinguishers may prevent a small fire from becoming a major disaster, they are not designed to handle large fires. Below listed are items included in our Fire Prevention Plan:

- a. Approved fire extinguishers will be checked on at least an annual basis and they shall always be charged and ready for use.
- b. Portable fire extinguishers will be mounted, located, and identified for easy accessibility.
- c. Fire hydrants will be kept clear and, during the winter months, not be buried by snow.

ELIMINATION OF MAJOR WORKPLACE FIRE HAZARDS

1. Smoking is allowed only in designated areas and smoking materials will be totally extinguished and placed in the appropriate receptacles.
2. All chemical and chemical products will be handled and stored in accordance with the procedures noted on their individual MSDS.
3. Debris will not be allowed to accumulate on the Job Site.
4. Special precautions will be taken when working with an open flame (such as welding) and those areas will be made fire safe by removing or protecting combustibles from ignition.
5. Equipment installed on heat producing equipment will be regularly and properly maintained to prevent accidental ignition of combustible materials in accordance with manufactures instructions. These instructions are incorporated, by reference, in this Plan

TRAINING

Training in fire protection will be accomplished upon initial assignment and annually thereafter as part of our overall safety program. This training shall include items that deal with employee protection in the event of an emergency. All employees will be apprised of the fire hazards of the materials and processes to which they are exposed.

Accident Investigation Form

Construction Masters of Houston

ACCIDENT INVESTIGATION FORM

Injured Employee: _____ Date: _____

Age: _____ Job Title: _____ Project/Job: _____

Date & Time of Accident/Injury: _____ Injury: _____
(Date) (Time) (Yes/No)

Nature of Injury or Property Damage: _____

Statement of employee involved in the injury or accident (what happened) : _____

Witness 1 statement: _____

Witness 1 Name & Job Title: _____

Witness 2 statement _____

Witness 2 Name & Job Title: _____

Supervisor/competent person statement _____

Was there an injury? ____ Was medical treatment required? ____ Possible lost time accident? ____

Signature of Supervisor/competent person: _____

Report Investigated by: _____ Date: _____

Report review by: _____ Date: _____

Findings:

Cause of incident: _____

Means of preventing a reoccurrence: _____

This record will be maintained in the Safety Program Administrator's office for a period of 2 years from the date of accident/injury unless a longer retention is required by law.

If more than 10 employees at any one time in the previous calendar year, this information will be used to complete OSHA Forms 300 and 301 which are used to record and classify occupational injuries and illnesses. Recordable injuries and illnesses must be entered on OSHA Forms 300 and 301 within seven (7) days of receiving information that a recordable injury or illness has occurred.



**BRAZORIA COUNTY
PURCHASING DEPARTMENT
237 E. LOCUST STREET, SUITE 406
ANGLETON, TEXAS 77515
TEL: 979-864-1825 FAX: 979-864-1034**

**BRAZORIA COUNTY
COMPETITIVE SEALED PROPOSAL COVER SHEET**

The COMPETITIVE SEALED PROPOSAL (CSP) and accompanying documents are for your convenience in submitting an offer for the referenced products and/or services for BRAZORIA COUNTY.

**“CSP #25-76 BRAZORIA COUNTY PRECINCT 4 NORTH ANNEX CR 58 MUNICIPAL UTILITY DISTRICT (MUD)
UTILITY CONNECTIONS”**

FRIDAY, SEPTEMBER 5, 2025 at 11:00 A.M. LOCAL TIME

Sealed Hard Copy or Electronic offers shall be received no later than the due date and time above.

***BID OPENING WILL BE AVAILABLE VIA ZOOM. MEETING LINK IS AVAILABLE ON THE PROJECT DETAILS
PAGE IN BONFIRE UNDER “IMPORTANT EVENTS”. BONFIRE LINK:**

<https://brazoriacounty.bonfirehub.com/portal/?tab=login>

IF SUBMITTING AN ELECTRONIC SEALED OFFER:

PREFERRED METHOD IS USING THE “BONFIRE” ELECTRONIC BIDDING PLATFORM.

**USE LINK, <https://brazoriacounty.bonfirehub.com/portal/?tab=login>,
CLICK THE HELP BUTTON PROVIDED IN THE BONFIRE WEBSITE AS NEEDED.**

IF SUBMITTING A HARD COPY SEALED OFFER:

THE PHYSICAL ADDRESS FOR COURIERS, HAND DELIVERIES AND THE US POSTAL SERVICE IS:

SUSAN SERRANO, CPPPO, CPPB
PURCHASING DIRECTOR
BRAZORIA COUNTY COURTHOUSE CAMPUS ADMINISTRATION BUILDING
237 E. LOCUST STREET, SUITE 406
ANGLETON, TEXAS 77515

PLEASE USE THE RETURN LABEL PROVIDED WITH THIS SOLICITATION:

*****Please note: US Postal Service mailing address***

The U.S. mail may not deliver to the physical address shown above. Respondents who prefer to use the U.S. mail may submit their offers using the U.S. Postal Service mailing address shown above.

However, packages delivered by the U.S. Postal Service to the Brazoria County mailing address are subject to delays that may cause a response to be rejected due to missing a solicitation receipt deadline.

Responses delivered to the mailing address are routed through the County mailroom and may not reach the required location in time for the bid / offer opening.

Respondents using the U.S. mail should take this possible delay into account when using the U.S. mail.

BRAZORIA COUNTY is very conscious and extremely appreciative of the time and effort you have expended to submit an offer. We would appreciate it if you would indicate on any “No Offer” response, any requirement of this CSP which may have influenced your decision to “No Offer”. If your response to this CSP is a “No Offer” response, please complete the Statement of No Offer in this CSP package and submit.

Any prospective respondent desiring any explanation or interpretation of the solicitation must make a written request online through Bonfire electronic platform or email the project facilitator as shown in Section “Questions Due Date (for Clarifications)”, which must be received by the Purchasing Department at least five (5) business days prior to the scheduled time for the offer opening.

Any information given to a prospective respondent concerning this solicitation will be furnished promptly to all other known prospective respondents as a written amendment/addendum to the solicitation. Brazoria County reserves the right to accept or reject any or all bids/offers as it deems in its best interest and to waive any formalities.

It is the Respondent’s responsibility to verify the issuance of Addenda in regard to this Offer. All Addenda shall be submitted to all known respondents and shall be posted on the Bonfire electronic bidding platform at <https://brazoriacounty.bonfirehub.com/portal/?tab=login>. Brazoria County shall not be responsible for failed internet connections or power interruptions.

All required Offer documents shown on the Table of Contents, including any Addenda Receipt Forms which may have been issued, must be submitted in the Bonfire electronic bidding platform or a sealed envelope included in a hard copy submittal, marked with the bidder’s company name, the Offer name, number and due date.



SUSAN SERRANO, CPPO, CPPB
Purchasing Director
Brazoria County Courthouse Campus Administration Building
237 E. Locust Street, Suite 406
Angleton, Texas 77515

Published Dates: THURSDAY, AUGUST 7, 2025
THURSDAY, AUGUST 14, 2025

BRAZORIA COUNTY CONTRACT SHEET

THE STATE OF TEXAS COUNTY OF BRAZORIA

This memorandum of agreement made and entered into on the _____ day of _____, 2025, by and between Brazoria County in the State of Texas (hereinafter designated County), acting herein by County Judge L.M. "Matt" Sebesta, Jr., by virtue of an order of Brazoria County Commissioners' Court, and _____ (hereinafter designated Vendor/Contractor).
(company name)

WITNESSETH:

The Vendor and the County agree that the Instructions to Respondents, Specifications/Statement of Work, Standard Terms & Conditions, and all other requirements herein for **CSP #25-76 BRAZORIA COUNTY PRECINCT 4 NORTH ANNEX CR 58 MUNICIPAL UTILITY DISTRICT (MUD) UTILITY CONNECTIONS** as stated in the Competitive Sealed Proposal Table of Contents hereto attached and made a part hereof, together with the bond (when required), vendor's response and negotiated pricing, shall constitute the full agreement and Contract between parties and for furnishing the items set out and described; the County agrees to pay the prices stipulated in the accepted offer.

The order of precedence shall be:

- Brazoria County **CSP #25-76 BRAZORIA COUNTY PRECINCT 4 NORTH ANNEX CR 58 MUNICIPAL UTILITY DISTRICT (MUD) UTILITY CONNECTIONS**
- Vendor's submittal to the above listed CSP and the final accepted pricing

It is further agreed that this Contract shall not become binding or effective until signed by the parties hereto and a purchase order authorizing the items desired has been issued.

Executed at Angleton, Texas this _____ day of _____ 2025.

By: _____
County Judge Signature

By: _____
Printed Name

By: _____
Signature of Vendor

By: _____
Printed Name and Title

SIGNATURE REQUIRED BY
VENDOR UPON AWARD

COMPETITIVE SEALED PROPOSAL

TABLE OF CONTENTS

CSP #25-76 BRAZORIA COUNTY PRECINCT 4 NORTH ANNEX CR 58 MUNICIPAL UTILITY DISTRICT (MUD) UTILITY CONNECTIONS

All documents included in CSP# 25-76, represent components which comprise this bid/offer package and subsequent awarded executed contract. The documents shown in Exhibit A and Exhibit B are required to be submitted in your bid/offer package. ***It is the respondent's responsibility to be thoroughly familiar with all requirements and specifications. Be sure you understand the requirements before you return your bid/offer packet.***

“Exhibit A - Required Forms” and “Exhibit B – Other Requirements” are to be uploaded into the Bonfire electronic procurement portal system or included with your hard copy submittal.

EXHIBIT A – THE FOLLOWING FORMS ARE TO BE COMPLETED AND SUBMITTED WITH YOUR CSP RESPONSE:

- RESPONDENT CERTIFICATION FORM
- BIDDER/RESPONDENT’S AFFIRMATION & SDNs/BLOCKED PERSONS AFFIRMATION
- WORKERS COMPENSATION REQUIREMENTS
- CERTIFICATION REGARDING LOBBYING FORM
- EXCEPTIONS TO STANDARD TERMS & CONDITIONS & SPECIAL REQUIREMENTS *(if applicable)* (If vendor has any exceptions to the CSP terms & conditions or special requirements, they must be included with the CSP submittal in order to be considered)
- NON COLLUSION AFFIDAVIT
- BID BOND
- CONFLICT OF INTEREST QUESTIONNAIRE – FORM CIQ *(if applicable)*
- CONTRACTOR ACKNOWLEDGMENT OF STORMWATER MANAGEMENT PROGRAM
- TEXAS GOVERNMENT CODE 552, SUBCHAPTER J ACKNOWLEDGEMENT FORM
- PROHIBITED TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES AND EQUIPMENT CERTIFICATION FORM *(Vendor to sign form if applicable to telecommunications)*
- AUTHORIZED NEGOTIATOR
- RESIDENT / NONRESIDENT BIDDER PROVISIONS
- VENDOR DATA SHEET & W-9 FORM

EXHIBIT B – THE FOLLOWING ADDITIONAL REQUIREMENTS ARE TO BE SUBMITTED WITH YOUR CSP RESPONSE:

- BID TABLE WITH PRICING
- VENDOR RESPONSE TO EVALUATION CRITERIA
- SIGNED ADDENDA (IF APPLICABLE)

Attachments to the CSP:

- Exhibit A – Required Forms
- Exhibit B – Vendor Response
- Attachment A – Bid Table
- Attachment B –Construction Plans
- Attachment C – Geotechnical Engineering Report

BRAZORIA COUNTY SPECIFICATIONS / SCOPE OF WORK

CSP #25-76 BRAZORIA COUNTY PRECINCT 4 NORTH ANNEX CR 58 MUNICIPAL UTILITY DISTRICT (MUD) UTILITY CONNECTIONS

The following requirements and specifications shall be in addition to the other requirements contained herein and shall supersede the other requirements where applicable.

1.0 SPECIFICATIONS

The specifications/general notes can be found in Attachment B Construction Plans.

BRAZORIA COUNTY

INSTRUCTIONS TO RESPONDENTS

CSP #25-76 BRAZORIA COUNTY PRECINCT 4 NORTH ANNEX CR 58 MUNICIPAL UTILITY DISTRICT (MUD) UTILITY CONNECTIONS

The following requirements and specifications shall be in addition to the other requirements contained herein and shall supersede the other requirements where applicable.

1.0 THE CONTRACT:

The Contract consists of all documents included in this Competitive Sealed Proposal Number 25-76, as well as addenda issued prior to execution of the Contract and modifications issued after execution of the Contract. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations, or agreements, either written or oral. The Contract may only be amended or modified under the terms of this Contract. Brazoria County may make partial or complete awards to one or more vendors (if applicable) whichever is in the best interest of the County

2.0 PROJECT DESCRIPTION

In accordance with Texas Government Code 2269, Brazoria County is seeking proposals for the installation of storm drains and the backfill of an existing detention pond.

Estimated Budget: \$300,000.00

Estimated Completion Time: 120 Calendar Days

3.0 ESTIMATED PROJECT TIMELINE *(dates may be subject to change)*

Step One –

Publicly advertised (1st Notice)	August 7, 2025
Publicly advertised (2nd Notice)	August 14, 2025
Deadline for Questions (Clarifications) Submitted	August 21, 2025
Deadline for Addendum to be posted in Bonfire	August 28, 2025

Response Open/Due date by 11:00 a.m. C.S.T.	September 5, 2025
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Step Two – Interviews *(if requested by evaluation committee)*

Award - Contract approval by Commissioner's Court	September
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4.0 PRE-OFFER MEETING

There is no pre-offer meeting for this project.

5.0 PROPOSAL REQUIREMENTS

The proposal includes instructions to respondents, specifications and contract documents. It is the responsibility of each Respondent before submitting a proposal to examine the contract documents thoroughly.

CSP SUBMISSIONS MAY BE PROVIDED IN ONE OF TWO WAYS, AS EXPLAINED BELOW:

If submitting an CSP Electronic Document Submission (using the Bonfire electronic platform)

Respondent shall fill out and upload the “Exhibit A Required Forms” and “Exhibit B Additional Requirements” into the Bonfire electronic platform. An authorized representative of the company **MUST** sign all required forms. See “Exhibit A Required Forms” for instructions on signing electronically.

If submitting an CSP Hard Copy Document Submission

One (1) original hard copy shall be submitted, which will consist of “Exhibit A Required Forms” and “Exhibit B Additional Requirements”.

The hard copy submission shall be sealed in an envelope or box for delivery to the Brazoria County Purchasing Director per instructions herein. All documents included in the response and the outside of the envelope and/or box must be labeled with the vendor name and the CSP number. A Return Label is also provided in this solicitation.

6.0 CONTRACT AWARD / EVALUATION PROCESS

Brazoria County Purchasing Department shall receive, publicly open, and read aloud the names of the offerors and any monetary proposals made by the offerors.

Brazoria County shall select the offeror that submits the proposal that offers the best value for the County based on:

- (1) the selection criteria in the request for proposal and the weighted value for those criteria in the request for proposal; and
- (2) its ranking evaluation.

Brazoria County shall first attempt to negotiate a contract with the selected offeror. The governmental entity and its architect or engineer may discuss with the selected offeror options for a scope or time modification and any price change associated with the modification. If Brazoria County is unable to negotiate a satisfactory contract with the selected offeror, the County shall, formally and in writing, end negotiations with that offeror and proceed to the next offeror in the order of the selection ranking until a contract is reached or all proposals are rejected.

An evaluation committee will examine all responses to this Proposal. Responses that do not conform to the instructions given or that do not address all the questions and services specified may be eliminated from consideration. Brazoria County, however, reserves the right to accept such a response if it is determined to be in the County’s best interest to do so.

Brazoria County may seek clarifications from respondents during the evaluation process. Respondents may NOT initiate discussions with Brazoria County during the evaluation process. Brazoria County expects to receive clarifications from respondent personnel authorized to enter into contractual obligations.

Brazoria County reserves the right to reject any and all proposals and is not obligated to award a contract pursuant to this Competitive Sealed Proposal.

6.1 Financial Statements

If your company is deemed the highest ranked, you will be requested to submit your current and prior 2 years of financial statements for review to ensure that your company has the financial capacity to perform and to continue to perform its obligations under the contract if your company is awarded the contract.

As part of the solicitation review, to deem your submission as responsive for the committee to evaluate, the County will require the submission of financial statements in order to minimize potential issues from contracting with a vendor that is financially unstable.

If your company enters into formal negotiations, failure to provide financial statements when requested will deem your submission as non-responsive and the County will discontinue negotiations.

7.0 EVALUATION CRITERIA

The criteria used to evaluate the proposals shall be:

Price -Is the price reasonable and befitting the work, specifications and items described for construction as shown in the plans?	50 points
Project Experience- (<i>Complete Exhibit B Contractors Qualifications: “Section 1 – Contractor’s Experience and Qualifications and “Section 2– Projects”</i>) <i>This criteria covers the following:</i> (i)Quality of Work: Demonstrated ability to perform services in accordance with contract specifications. Conformance to good standards of workmanship. (ii) Customer Satisfaction: Satisfaction of end users with the contractor's completed products and services. (iii) Timeliness of performance: compliance with delivery schedules; reliability; responsiveness to technical direction, no assessment of liquidated damages. (iv) Business relations: Effective management, ability to manage projects involving subcontracts, working relationship with the contracting officer and technical representatives, reasonable/cooperative behavior, flexibility, effective contractor recommended solutions, businesslike concern for government's interests. (v) Cost control: Ability to complete contracts within budget (at or below); reasonableness of price change proposals submitted; providing current, accurate, and complete billings.	20 points
Construction Duration & Sequencing – Is the construction duration and sequencing (schedule) submitted by the contractor reasonable and does it account for all known variables? Does it account for available and projected resources? (<i>Include Project Schedule-Exhibit B Section 10</i>)	10 points
Past Performance / Job Execution / References – Has the bidder demonstrated that they can deliver the job meeting or exceeding expectations and specifications while maintaining budget and schedule? Do they finish jobs thoroughly and on time? (<i>Complete Exhibit B Contractors Qualifications: “Section 4 - Contractor Reference”</i>)	10 points
Other factors – Includes, but not limited to, personnel experience, sub-contractors, available resources etc. (<i>Complete Exhibit B Contractors Qualifications: “Section 3 -Contractor Key Personnel”; “Section 5 Contractor’s Current Work Schedule/Record”; “Section 6 Contractor Litigation, Claims, Reputation & Compliance”; and “Section 8 Subcontractor List”</i>)	10 points
<i>Bonus Points if applicable: Interview-If your company is selected for an interview, your score may be adjusted up to a maximum of 15 points-total overall possible evaluation points = 115</i>	15 points
• <i>Response to Questions & Answers</i> • <i>Interview Preparedness & adherence to interview</i>	0-10 0-5

Bonus Scoring (15 point scale)

7.1 Bonus Points-Interview (If requested by evaluation committee)

Your score may be adjusted up to a maximum of 15 points-total overall possible evaluation points=15

7.1.1 Response to Questions & Answers (0-10 points)

7.1.2 Interview preparedness & adherence to interview (0-5 points)

8.0 PROJECT MANAGER

William Lassiter, Facilities Management

9.0 REQUEST FOR CLARIFICATIONS

Any prospective respondent desiring any explanation or interpretation of the proposal must make a written request which must be received by the Purchasing Department on or before Thursday, August 21, 2025. The request must be emailed to bidclarifications@brazoriacountytexas.gov. Emails must include the project name and number in the subject field.

All responses to questions or clarification requests will be answered in the form of an addendum after the question deadline and no later than 5 business days prior to the opening/closing date of the solicitation.

10.0 AWARD LETTER / NOTICE TO PROCEED AND PRE-CONSTRUCTION MEETING

After the award has been made in Commissioners Court, an award letter will be sent to the vendor with information on how to submit any required documentation needed to finalize the award. Once all required bonds, insurance forms and other applicable forms have been submitted to the Purchasing Department, the Project Manager will contact the awarded Vendor and set up the pre-construction meeting in order to schedule the mobilization start date of the project.

11.0 DISCLOSURE OF CERTAIN RELATIONSHIP

Texas Local Government Code chapter 176 requires that any vendor or person who enters or seeks to enter into a contract with a local governmental entity (including any agent of such person or vendor) disclose in the Questionnaire Form CIQ the vendor or person's employment, affiliation, business relationship, family relationship or provision of gifts that might cause a conflict of interest with a local governmental entity. By law, this questionnaire must be completed and filed with the records administrator of Brazoria County no later than the seventh business day after the date the person engages or communicates with Brazoria County or becomes aware of facts that require the completion of the questionnaire pursuant to Texas Local Government Code section 176.006.

A person commits an offense if the person knowingly violates Texas Local Government Code section 176.006. An offense under this section is a Class C misdemeanor.

A copy of House Bill 23 which amended the Texas Local Government Code Chapter 176 is available at: <http://www.capitol.state.tx.us/tlodocs/84R/billtext/html/HB00023F.HTM>
Texas Local Government Code Chapter 176 can be found here: <http://www.statutes.legis.state.tx.us/Docs/LG/htm/LG.176.htm>

Questionnaire Form CIQ is included in this bid/offer.

By submitting a response to this request, the vendor or person represents compliance with the requirements of Texas Local Government Code chapter 176. If required, completed forms should be sent with your proposal, as well as to:

Brazoria County Courthouse
County Clerk's Office
111 E. Locust Street, Suite 200
Angleton, TX 77515

12.0 CERTIFICATE OF INTERESTED PARTIES

Effective January 1, 2016, all contracts and contract amendments, extensions, or renewals executed by the Commissioners Court will require the completion of Form 1295 "Certificate of Interested Parties" pursuant to Government Code § 2252.908. Form 1295 must be completed by awarded vendor at time of signed contract submission.

Form 1295 and definitions are included in this bid/offer for your information.

All responding vendors may access a video from the Texas Ethics Commission which explains the process on how to submit Form 1295. The video link is available on the Brazoria County Purchasing website at <http://brazoriacountytexas.gov/departments/purchasing/doing-business>.

13.0 BACKGROUND CHECKS AND NON-DISCLOSURE AGREEMENTS:

It is the policy of the County that contractor employees and subcontractors that will complete work in sensitive areas on Brazoria County property be subject to a criminal background check. The County reserves the right to determine a sensitive area and the appropriateness of a criminal background check for any contractor employee or subcontractor.

Non-Disclosure Agreements (NDA) may also be required by Brazoria County. NDAs will be provided to contractor employees and any subcontractors by the Purchasing Department and must be signed and returned in a time frame determined by Purchasing Department.

14.0 HISTORICALLY UNDERUTILIZED BUSINESSES (HUB's)

Historically Underutilized Businesses (HUB's) are encouraged to participate in the bid/CSP processes. Although Brazoria County does not certify HUB vendors, Brazoria County recognizes the certifications of other governmental entities. If you are certified by a government entity, please upload the certificate with your response electronically in the Bonfire electronic platform or include a hard copy of your certificate in your submittal.

15.0 SYSTEM FOR AWARD MANAGEMENT (SAM)

The System for Award Management (SAM) is the official registration required prior to bidding on a contract with any federal government agency, including local governments who receive federal funds.

Prior to award, Brazoria County will check www.sam.gov, the System for Award Management (SAM), to ensure that the proposed vendor has not been debarred. Vendor shall provide their Unique Entity ID number to Brazoria County in order to check www.sam.gov for debarment. If you do not have a Unique Entity ID number, you can request a number for free by visiting <https://sam.gov/content/entity-registration>. For additional information about the change from DUNS to Unique Entity ID visit <https://www.gsa.gov/about-us/organization/federal-acquisition-service/office-of-systems-management/integrated-award-environment-iae/iae-systems-information-kit/unique-entity-id-is-here>.

Brazoria County is unable to conduct business with vendors who have been debarred.

16.0 CONTRACT TERM

Award of Contract shall begin upon acceptance of Contract and shall continue until completion of the project as stated on the Offer Sheet contained herein.

Brazoria County retains the option to solicit new proposals at any time if in its best interest.

17.0 PREVAILING WAGE RATES

Chapter 2258 of the Texas Government Code requires state agencies, cities, counties, independent school districts, and all other political subdivisions that engage in public work projects using public funds to include prevailing wage rate in the project competitive sealed proposal documents and Contract.

Current prevailing wage rates are incorporated in the Contract documents.

18.0 CHANGE ORDERS

Due to budget constraints, change orders will be limited to those revisions that are due to unforeseen conditions and are approved by Brazoria County. Vendors are advised to fully understand the scope of work and to review the specifications and drawings in order to submit any requests for clarifications prior to the proposal opening.

In the event a change order is required and approved by Brazoria County, said changes shall be incorporated into this Contract in the form of a change order.

All change orders shall be subject to the review and approval of Brazoria County Commissioner's Court, or the Court's designee, and shall be in accordance with the Local Government Code.

Any discrepancies which may be discovered between actual conditions and those represented by the specifications or drawings shall be reported at once to the Brazoria County Project Manager and work shall not proceed except at the Vendor's risk, until written instructions have been received by him from the Brazoria County Project Manager.

19.0 FINAL INSPECTION

When the work included in this Contract is substantially completed, the Vendor shall notify the Project Manager in writing that the work will be ready for final inspection on a definite date which shall be stated in the notice. The Project Manager will make the arrangements necessary to have final inspection commenced on the date stated in the notice, or as soon thereafter as is practicable.

Per Brazoria County, substantial completion is defined as a designated portion of a construction project that is sufficiently complete in accordance with the contract for the owner to occupy and / or utilize it for its intended use, without undue interference.

20.0 PAYMENTS TO VENDOR:

20.1 Retainage

The Vendor shall prepare his invoice or application for payment for partial payment(s) as of the last day of the month and submit the invoice or pay application to the Project Architect and /or Brazoria County Project Manager for his approval. The amount of the payment due the Vendor shall have five percent (5%) deducted to be retained until final payment.

20.2 Final Payment

After final inspection and acceptance by Brazoria County of all work under the Contract, the Vendor shall prepare his invoice or application for payment for final payment which shall be based upon the careful inspection of each item of work at the applicable unit prices stipulated in the Contract. The total amount of the final payment due the Vendor under this Contract shall be the amount computed as described above less all previous payments.

21.0 INSURANCE REQUIREMENTS

Vendor shall furnish certificates of insurance to County evidencing compliance with the insurance requirements hereof for the duration of the project. Certificates shall indicate name of Vendor, name of insurance company, policy number, term of coverage and limits of coverage.

Insurance shall be placed with insurers having an A.M. Best's rating of no less than A. Such insurance must be issued by a casualty company authorized to do business in the State of Texas, and in standard form approved by the Board of Insurance Commissioners of the State of Texas, with coverage provisions insuring the public from loss or damage that may arise to any person or property by reason of services rendered by Vendor.

Insurance required herein shall be maintained in full force and effect during the life of this contract and shall be issued on an occurrence basis. Vendor shall require that any and all subcontractors that are not protected under the Vendor's own insurance policies take and maintain insurance of the same nature and in the same amounts as required of Vendor and provide written proof of such insurance to Vendor. Proof of renewed/replacement coverage shall be provided upon expiration, termination, or cancellation of any policy. Vendor shall not allow any subcontractor to commence work on the subcontract until such insurance required for the subcontractor has been obtained and approved.

In the event that the insurance is renewed during the duration of the contract, Vendor shall furnish certificate of insurance to the County evidencing renewal of policy within 30 days of renewal. Vendor shall provide County with at least 30 days prior written notice of any reduction in the limit of liability by endorsement of the policy, cancellation or non-renewal of the insurance coverage required under this Agreement.

Certificates of Insurance, fully executed by a licensed representative of the insurance company written or countersigned by an authorized Texas state agency, shall be filed with the County Purchasing Agent within ten (10) business days of issuance of notification from the County Purchasing Agent to Bidder that the contract is being activated as written proof of such insurance and further provided that Bidder shall not commence work under this contract until it has obtained all insurance required herein and provided written proof as required herein.

WAIVER OF SUBROGATION:

All policies of insurance shall waive all rights of subrogation against Brazoria County, its officers, employees and agents.

ADDITIONALLY INSURED:

Further, on vendor's certificate of insurance supplied to Brazoria County, Brazoria County shall be listed as additionally insured with the exception of workers compensation insurance. The certificate holder shall be as follows:

Brazoria County
237 E. Locust Street, Suite 401
Angleton, TX 77515

POLLUTION LIABILITY

The Vendor shall carry in full force during the term of the Contract, and any extensions thereof, pollution liability insurance not less than the value of this Contract.

22.0 INCLEMENT WEATHER:

In case of inclement weather or any other unforeseen event causing the County to close for business on the date of a proposal submission deadline, the closing will automatically be postponed until the next business day the County is open and at the time shown on the Cover Sheet.

If inclement weather conditions or any other unforeseen event causes delays in carrier service operations, the County may issue an addendum to all known vendors interested in the project to extend the deadline. It will be the responsibility of the vendor to notify the County of their interest in the project if these conditions are impacting their ability to turn in a submission within the stated deadline. The County reserves the right to make the final judgment call to extend any deadline.

23.0 LIQUIDATED DAMAGES, TERMINATION AND DELAYS

23.1 If the Vendor shall fail to fully complete the work within the time specified on the Bid Table (subject however to extensions of time duly granted in the manner and for the causes specified in the herein) the Vendor shall be charged by Brazoria County as liquidated and ascertained damages the sum of five hundred and ninety (\$590.00) dollars for each working day that the work remains incomplete beyond the time herein fixed for the completion, it being hereby expressly and mutually agreed that from the nature of the case it would be impracticable and extremely difficult to fix the actual damage which would or will be suffered in the event that the Vendor should fail to fully complete the work within the time specified, and it being further agreed that said charge herein provided for is reasonable and proper in the premises. The amount so charged may be deducted by Brazoria County from any moneys which might otherwise be or become payable to the Vendor.

23.2 Excusable Delays.

The right of the Vendor to proceed shall not be terminated nor shall the Vendor be charged with liquidated or ascertained damages for any delays in the completion of the work due to:

- Controls or restrictions upon or requisitioning of materials, equipment, tools, or labor by reason of war, national defense, or any other national emergency; or
- Causes not reasonably foreseeable by the parties to this Contract at the time of the execution of the Contract which are beyond the control and without the fault or negligence of the Vendor, including, but not limited to, acts of God or of the public enemy, fires, floods, epidemics, quarantine, restrictions, strikes, freight embargoes, and weather of unusual severity such as hurricanes, tornadoes, cyclones and other extreme weather conditions.

Provided, however, the Vendor shall promptly notify Brazoria County Project Manager within ten (10) days in writing of the cause of any delay. Upon receipt of such notification, the Brazoria County Project Manager shall ascertain the facts and the cause and extent of delay. If, upon the basis of the facts and the terms of this Contract, the delay is determined by the Brazoria County Project Manager to be excusable, Brazoria County shall extend the time for completing the work for a period of time commensurate with the period of excusable delay. Any delay by the Vendor in not notifying the Brazoria County Project Manager shall not be excused.

BRAZORIA COUNTY BID TABLE SUBMITTAL INSTRUCTIONS

**CSP #25-76 BRAZORIA COUNTY PRECINCT 4 NORTH ANNEX CR 58 MUNICIPAL UTILITY DISTRICT (MUD)
UTILITY CONNECTIONS**

Please follow the instructions found in Item 1.0 if you are submitting your bid electronically using Bonfire electronic bidding platform

1.0 ONLINE OFFER SUBMISSION (*PREFERRED METHOD OF SUBMISSION*)

RESPONDENT'S ARE TO DOWNLOAD AND FILL OUT THE ONLINE BID TABLE FROM BONFIRE AND THEN UPLOAD THE COMPLETED TABLE INTO BONFIRE TO BE INCLUDED WITH THEIR ONLINE PROPOSAL SUBMISSION.

Please follow the instructions found in Item 2.0 if you are submitting a sealed hard copy proposal.

2.0 HARD COPY PROPOSAL SUBMISSION

RESPONDENT'S ARE TO INCLUDE WITH THEIR SEALED HARD COPY PROPOSAL, A PRINTED COPY OF ATTACHMENT A BID TABLE.

GENERAL: Brazoria County reserves the right to accept or reject any or all bids and waive all technicalities.
All delivered items should be priced – FOB Destination Full Freight Allowed. Brazoria County will not pay for any additional transportation and/or shipping charges.

BRAZORIA COUNTY STATEMENT OF NO OFFER

CSP #25-76 BRAZORIA COUNTY PRECINCT 4 NORTH ANNEX CR 58 MUNICIPAL UTILITY DISTRICT (MUD) UTILITY CONNECTIONS

If Respondent is not submitting on the goods and/or services as stated in this CSP, please download and complete this form.

Mail the form to:

Brazoria County Courthouse, Purchasing Department, 237 E. Locust, Suite 406, Angleton, Texas 77515.

Or email to: aerickson@brazoriacountytx.gov

NAME OF FIRM: _____

ADDRESS: _____

SIGNATURE: _____

TELEPHONE: _____ DATE: _____

The above has declined to submit a response for the following reason(s) [please check all that apply]:

- ☐ Specifications too "restrictive", i.e., goods offered by our company do not meet stated specifications.
- ☐ Specifications unclear (please explain below).
- ☐ We do not offer this commodity and/or service or an equivalent.
- ☐ Insufficient time to respond to the CSP.
- ☐ Our schedule would not permit us to perform.
- ☐ Cannot meet insurance requirements.

Remarks: _____

BRAZORIA COUNTY

STANDARD TERMS AND CONDITIONS

1. **FUNDING:** Funds for payment have been provided through the Brazoria County budget approved by the Commissioners Court for the current fiscal year only. State of Texas statutes prohibit the obligation and expenditure of public funds beyond the fiscal year for which a budget has been approved. Therefore, anticipated orders or other obligations that may arise past the end of the current Brazoria County fiscal year shall be subject to budget approval.
2. **DELIVERY:** Items ordered from this offer may require delivery to various locations throughout Brazoria County, as specified in this offer or at time of order. All delivery and freight charges (F.O.B. Brazoria County designated location) are to be included in the offer price except as noted herein.
3. **AWARD OF CONTRACT:** Brazoria County reserves the right to reject any or all offers, and to select any part or parts thereof without accepting the entire offer. All solicitations may be compared with contracts available to the County through other sources such as Interlocal Agreements and other appropriate sources. Brazoria County may purchase through the source that provides the best value to the County. The successful Respondent will be notified of award as promptly as a thorough analysis of offers will permit, and shall have ten (10) calendar days following date of notification of award in which to supply payment and performance bonds and certificate of insurance as may be required herein.
 - 3.1 Brazoria County hereby notifies Respondents that pursuant to Texas Local Government Code §262.0276 (effective September 1, 2003) Brazoria County is prohibited from entering into a contract or other transaction which requires approval by the Commissioners Court with an individual, sole proprietorship, corporation, non-profit corporation, partnership joint venture, limited corporation or other entity which is indebted to the County. Further, that this Contract may be terminated and payment withheld if awarded Respondent becomes indebted to the County during the term of the Contract.
4. **EQUAL EMPLOYMENT:** All contracts will be awarded by Brazoria County without consideration as to race, religion, sex, national origin or disability of bidder. Successful bidders are required to adhere to the provisions of 42 USCA Sec. 12101 et seq., Americans with Disabilities Act.
5. **CONTRACT:** The Contract consists of the Instructions to Respondents, Specifications/Statement of Work, Standard Terms & Conditions, all well as all other documents included in the Competitive Sealed Proposal Number 25-76 as stated in the Competitive Sealed Proposal Package Checklist, and any drawings and other specifications, as well as addenda issued prior to execution of the Contract, other documents listed in the Contract, and modifications issued after execution of the Contract. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations, or agreements, either written or oral. No invoices will be paid prior to acceptance of Contract by Brazoria County. No different or additional terms will become a part of this Contract, except as agreed upon by all parties hereto.
6. **INTERLOCAL PARTICIPATION:** It is hereby made a precondition of any offer for a Contract for supplies or services and a part of these specifications, that the submission of any offer in response to this request constitutes a offer made under the same conditions, for the same price, and for the same effective period as this offer, to any other governmental entity having an interlocal agreement with Brazoria County.
 - 6.1 It is further understood, that any other governmental entity that elects to use a Brazoria County semi-annual or annual award will issue its own Contracts or purchase orders and will require separate billing.
7. **DEFAULT OF RESPONDENT:** If successful respondent defaults by failing to supply payment and performance bonds and/or certificate of insurance within the ten (10) day period allotted, award shall pass to the next respondent who provides the best value to Brazoria County upon the approval of Commissioners' Court.
 - 7.1 Respondent, in submitting this offer, agrees that Brazoria County shall not be liable for damages in the event that the County declares the respondent in default.
8. **ADDENDA:** Any interpretations, corrections or changes to these Contract documents and specifications will be made by addenda. Sole issuing authority of addenda shall be vested in the Brazoria County Purchasing Director. Addenda will be mailed to all that are known to have received a copy of the offer package and/or Contract. Respondents shall acknowledge receipt of all addenda.
9. **SALES TAX:** Brazoria County is exempt by law from payment of Texas Sales Tax and Federal Excise Tax.

10. ETHICAL CONDUCT: The respondent shall not offer or accept gifts or anything of value, nor enter into any business arrangement with any employee, official, or Director of Brazoria County. No public official shall have interest in this Contract, in accordance with Texas Local Government Code Annotated Title 5, Subtitle C, Chapter 171.

10.1 The Respondent affirms that the only person or parties interested in this offer as principals are those named herein, and that this offer is made without collusion with any other person, firm, or corporation.

11. MINIMUM STANDARDS FOR RESPONSIBLE PROSPECTIVE BIDDERS: A prospective bidder must affirmatively demonstrate bidder's responsibility. A prospective bidder must meet the following requirements:

- 1) Have adequate financial resources, or the ability to obtain such resources as required;
- 2) Be able to comply with the required or proposed delivery schedule;
- 3) Have a satisfactory record of performance;
- 4) Have a satisfactory record of integrity and ethics;
- 5) Be otherwise qualified and eligible to receive an award.

11.1 Brazoria County may request representation and other information sufficient to determine bidder's ability to meet these minimum standards listed above.

12. REFERENCES: During an analysis of all offers, Brazoria County may request Respondent to supply a list of three (3) references to which like services or materials have been supplied by Respondent. If requested, references should include name of firm, address, telephone number and name of representative.

13. INSURANCE: Prior to acceptance of contract by Brazoria County, the successful Respondent must furnish a Certificate of Insurance from an approved insurance carrier for the coverage indicated.

14. SILENCE OF SPECIFICATIONS: The apparent silence of the specifications contained as a part of this package as to any detail or to the apparent omission of a detailed description concerning any point, shall be regarded as meaning that only the best commercial practices are to prevail. All interpretations of these specifications shall be made on the basis of this statement.

15. INDEMNIFICATION: The successful Respondent (herein after referred to as Contractor), shall defend, indemnify, and save harmless Brazoria County and all its officers, Directors, officials, agents, and employees from all suits, actions, or other claims of any character, name, and description brought for or on account of any injuries or damages of any negligent act or fault of the Contractor; or on account of or in consequence of any neglect in safeguarding the work; or through use of unacceptable materials in constructing the work; or because of any act of omission, neglect, or misconduct of said Contractor; or because any claims or amount recovered from any infringements of patent, trademark, or copyright; or from any claims or amounts arising recovered under the Worker's Compensation Act, or any other law, ordinance, order, or decree; or of any Director, employee, subcontractor, or supplier in the execution of, or performance under, any Contract which may result from award of bid/offer.

15.1 Further, Contractor indemnifies and will indemnify and save harmless Brazoria County from liability, claim or demand on their part, their Directors, servants, customers, employees, subcontractors, or any employees or agents of subcontractors, whether such liability, claim, or demand arise from event or casualty happening within the job site itself or elsewhere. Contractor shall pay any judgment with costs which may be obtained against Brazoria County growing out of such injury or damages.

15.2 Money due the Contractor under and by virtue of his Contract as may be considered necessary by the County for such purpose may be retained for the use of the County, or in case no money is due, his surety may be held until such suit or suits action or actions, claim or claims for injuries or damages as aforesaid shall have been settled and suitable evidence to the effect furnished to the County, except that money due the Contractor will not be withheld when the Contractor produces satisfactory evidence that he is adequately protected by public liability and property damage insurance.

16. THIRD PARTY BENEFICIARY CLAUSE: It is specifically agreed between the parties executing the Contract that it is not intended by any of the provisions of any part of the Contract to create with the public or any member thereof a third party beneficiary or to authorize anyone not a party to the Contract to maintain a suit for personal injuries or property damage pursuant to the terms or provisions of the Contract.

17. PURCHASE ORDERS REQUIRED: All orders for materials or work must be authenticated by a purchase order issued by the Brazoria County Purchasing Department. Invoices not bearing a purchase order number will not be paid.

18. TESTING: All materials being used in fulfillment of this Contract are subject to inspection or test at any time during their preparation, delivery, or use. At the option of the County Purchasing Director, they may be sampled and tested in order to determine compliance with the governing specifications. Materials not conforming to the requirements of these specifications shall not be used in fulfillment of this Contract with Brazoria County. The County reserves the right to immediately terminate any Contract found not to be in compliance with governing specifications as a result of testing by the County.

19. WAGES: Contractor shall pay or cause to be paid, without cost or expense to Brazoria County, all Social Security, Unemployment and Federal Income Withholding Taxes of all employees; and all such employees shall be paid wages and benefits as required by Federal and/or State law. Contracts involving construction work or supply of materials in place shall abide by the provisions of Article 5159d Texas Revised Civil Statutes Annotated.

20. TERMINATION OF CONTRACT:

Termination with Cause:

“Upon written notice to the Contractor of a defect or breach of this Agreement, Contractor has five (5) business days to cure any defect(s) or breach(es) cited in said notice. If Contractor fails to cure the defect(s) or breach(es) within the five (5) business days allowed, Brazoria County may terminate this Agreement. Nevertheless, Brazoria County reserves the right to provide written notice to the Contractor that this Agreement shall continue if Contractor has in good-faith commenced efforts to cure said defect(s) or breach(es) and Contractor agrees, in writing, to continue to act without undue delay to cure said defect(s) or breach(es).

Termination Without Cause:

This contract may be terminated by either the County or the Contractor at any time, without cause, by providing the other Party at least thirty (30) calendar days' prior written notice.

21. DELIVERY OF NOTICES: Any notice provided by this Contract (or required by law) to be given to the Contractor by Brazoria County shall be conclusively deemed to have been given and received on the next day after such written notice has been deposited in the mail in Angleton, Texas, by Registered or Certified mail with sufficient postage affixed thereto, addressed to the Contractor at the address so provided; provided this shall not prevent the giving of actual notice in any other manner.

22. DELIVERY TICKETS: Delivery tickets shall accompany each order shipped, and shall show Contractor's name and address, delivery location, Brazoria County purchase order number and descriptive information as to item and quantity delivered.

23. HAZARDOUS SUBSTANCES: State law requires that shipments of hazardous substances shall include MATERIAL SAFETY DATA SHEETS (MSDS). MSDS must be supplied with the first order shipped under any contract, and at any time MSDS is revised.

24. PAYMENT: Payment shall be made upon receipt and/or acceptance in accordance with the terms of this Contract by the County of items(s) ordered, and receipt of a valid invoice in accordance with Texas Government Code chapter 2251. Contractor is required to pay subcontractors within ten (10) days.

25. CONTRACTOR'S LIABILITY: The Contractor shall be responsible for all damage or injury to property of any character during the execution of the work, resulting from any act, omission, neglect, or misconduct in his manner or method of executing the work, including the Contractor's agents, employees, subcontractors, and any employees or agents of subcontractors, or at any time due to defective work or materials, and said responsibility will not be released until the project shall have been completed and accepted.

25.1 When or where any direct or indirect damage or injury is done to public or private property by or on account of any act, omission, neglect, or misconduct in the execution of the work, or in consequence of the non-execution thereof by the Contractor, including the Contractor's agents, employees, subcontractors, and any employees or agents of subcontractors, he shall restore, at his own expense, such property to a condition similar or equal to that existing before such damage or injury was done, by repairing, rebuilding, or otherwise restoring as he may be directed, or he shall make good such damage or injury in an acceptable manner.

26. DEFECTIVE MATERIALS: Unless otherwise stated herein, items supplied under this Contract shall be subject to the County's approval. Items found defective or not meeting specifications shall be picked up and replaced by the Contractor at the next service day at no expense to the County. If item is not picked up within one (1) week after notification, the item will become a donation to the County for disposition.

- 27. WARRANTY:** Contractor shall warrant that all items and services shall conform to the proposed specifications, all warranties as stated in the Uniform Commercial Code, and be free from all defects in material, workmanship and title. Contractor and the County agree that both parties have all rights, duties, and remedies available as stated in the Uniform Commercial Code.

Further, Contractor shall provide additional warranty requirements as defined in the Scope of Work attached. Respondents must provide all warranty terms and conditions in response package.

- 28. ASSIGNMENT:** Contractor shall not sell, assign, transfer or convey this Contract, in whole or in part, without the prior written consent of Brazoria County.
- 29. GOVERNING LAW:** Contractor is advised that these requirements shall be fully governed by the laws of the State of Texas and that Brazoria County may request and rely on advice, decisions and opinions of the Attorney General of Texas and the County Attorney concerning any portion of these requirements. All disputes arising out of this agreement will be resolved in Brazoria County, Texas.

All documents are subject to the Public Information Act requirements.

- 30. DRAWINGS:** All drawings, plans, and specifications are hereby attached and made a part of this Contract.
- 31. RIGHT TO AUDIT:** At any time during the term of this Contract and for a period of four (4) years thereafter, the State of Texas, Brazoria County, and/or other federal, State and local agencies which may have jurisdiction over this contract and/or purchase order, at reasonable times and at its expense reserve the right to audit successful bidder's records and books. If needed for audit, original or independently certified copies of off-site records will be provided to auditors at successful respondent's expense within two (2) weeks of written request.
- 32. BID BOND:** If required by the County, all respondents must submit with bid, a Bid Bond for at least five percent (5%) of the total bid price, if the bid exceeds \$100,000 in Contract price or if the Contract includes construction of public work. Such Bid Bond issued by a surety, acceptable to Brazoria County, authorized to do business in the State of Texas, is a guaranty that the respondent will enter into a contract with Brazoria County (as outlined in the Instructions/Specifications/Statement of Work and attachments) and that offer will furnish the requisite performance and payment bonds as may be required.
- 33. PERFORMANCE AND PAYMENT BONDS:** In the event the total accepted proposal price exceeds \$25,000 the successful respondent must provide to the office of the County Purchasing Director, a payment bond, and if the price exceeds \$100,000 the successful respondent must also provide a performance bond, each in the amount of one hundred percent (100%) of the total contract sum within ten (10) calendar days after receipt of notification of bid/proposal award.
Such bonds shall be executed by a corporate surety or corporate sureties in accordance with Article 7.19-1, Vernon's Texas Insurance Code. Such corporate surety/sureties shall be duly authorized and admitted to do business in the State of Texas and licensed in the State of Texas to issue fidelity and surety bonds with a Best Rating of "A" or better and have a bonding capacity adequate for the prescribed amount. Brazoria County reserves the right to accept or reject any surety company proposed by the respondent. In the event Brazoria County rejects the proposed surety company, the respondent will be afforded five (5) additional days to submit the required bonds issued by a surety company acceptable to Brazoria County.
- 34. APPLICABLE LAW:** All applicable laws and regulations of the State of Texas and ordinances and regulations of Brazoria County shall apply.
- 35. COMPLIANCE WITH APPLICABLE LAWS:** Respondent shall at all times observe and comply with all federal, state, local and municipal ordinances, rules, regulations, relating to the provision of the services contracted to be provided by respondent hereunder or which in any manner affect this Contract.
- 36. FORCE MAJEURE:** Neither the County nor the successful respondent shall be deemed in violation of this Agreement if either is prevented from performing its obligations hereunder for any reason beyond its control, including but not limited to, acts of God, civil or military authority, acts of public enemy, war riots, rebellions, accidents, fires, explosions, earthquakes, floods, or catastrophic failure of public transportation; provided however, that in the event of strikes or labor disputes, an inability to procure raw materials, equipment, power or supplies, or the enactment of any law, order, proclamation, regulation, ordinance, demand, or other requirement of any governmental agency or intergovernmental body, which prevents, restricts, interferes or delays with the performance of this Contract, the party so affected, upon giving notice to the other party, shall be excused from such performance to the extent of such prevention, restriction, delay or interference, so long as the party so affected shall use reasonable efforts under the circumstance to avoid or remove such causes of nonperformance, and shall continue performance hereunder with the utmost dispatch whenever such causes are removed.

37. SEVERABILITY: If any provision of this Contract is held to be unenforceable for any reason, the unenforceability thereof shall not affect any other provision contained herein, and the remainder of the Contract shall remain in full force and effect, and enforceable in accordance with its terms.

38. QUANTITIES: Brazoria County requests purchase prices for the items identified in this offer, and in accordance with the specifications provided herein. The quantities provided are given as a guideline only for the purpose of offer preparation. These quantities shall not be construed as the total number of purchases for the Contract.

This estimated figure may increase and/or decrease throughout the year. No guarantee is expressed or implied as to the total quantity of items to be purchased under this Contract.

38.1 Brazoria County reserves the right to add or delete like or related items at any time during the term of this Contract. The additions or deletions shall be incorporated into the contract in the form of an addendum. Additional items shall be priced in accordance with this contract with appropriate discounts being applied.

39. PURCHASE FROM OTHER SOURCES: Brazoria County reserves the right to purchase goods and/or services specified herein, or of equal or like kind, through contracts established by other governmental agencies or thorough separate procurement actions due to the unique or special needs of Brazoria County. Further, the County reserves the right to obtain such goods and/or services from others without penalty or prejudice to the County or the respondent and such action shall not invalidate in whole or in part this Contract or any rights or remedies Brazoria County may have hereunder.

40. AGREEMENT TO NOT BOYCOTT ISRAEL: By agreeing to this Purchase Order [or if no formal agreement, by providing the good(s) / services(s)] the vendor verifies it does not boycott Israel and will not boycott Israel, as defined by Chapter 808 of the Texas Government Code, during the term of this contract [during the time necessary to provide the good(s) / services(s)].

41. SUBCHAPTER J: Effective January 1, 2020, the requirements of Subchapter J, Chapter 552, Texas Government Code, may apply to this contract and the Contractor agrees that the contract can be terminated if the Contractor knowingly or intentionally fails to comply with a requirement of that subchapter.

42. PROHIBITED TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES AND EQUIPMENT CERTIFICATION (2 CFR 200.216): By agreeing to this purchase order (or if no formal agreement, by providing goods/services) the vendor represents and warrants that the equipment, systems, and/or services which it will provide to Brazoria County do not use covered telecommunications equipment or services (as defined in Section 889 John S. McCain National Defense Authorization Act for Fiscal Year 2019 (FY 2019 NDAA), Pub. L. No. 115-232 (2018)) as a substantial or essential component of any system, or as critical technology of any system. Additionally, the vendor represents and warrants that the equipment, systems, and/or services it will provide are not prohibited from being procured using grant funds under section 889 of the FY 2019 NDAA.

43. AGREEMENT TO NOT BOYCOTT ENERGY COMPANIES: By agreeing to this Purchase Order [or if no formal agreement, by providing the good(s) / services(s)] the vendor verifies it does not boycott energy companies and will not boycott energy companies, as defined by Chapter 809 of the Texas Government Code, during the term of this contract [during the time necessary to provide the good(s) / services(s)].

44. AGREEMENT TO NOT DISCRIMINATE AGAINST A FIREARM ENTITY OR TRADE ASSOCIATION: By agreeing to this Purchase Order [or if no formal agreement, by providing the good(s) / services(s)] the vendor verifies it does not discriminate against a firearm entity or trade association and will not discriminate against a firearm entity or trade association, as defined by Chapter 2274 of the Texas Government Code, during the term of this contract [during the time necessary to provide the good(s) / services(s)].

45. DEBRIEF, PROTEST AND APPEAL PROCUDURES: Please see page 20 of 48, section D. of the Brazoria County Policy and Procedure Manual which can be found on the Brazoria County Purchasing Department's "Doing Business" webpage, <https://www.brazoriacountytx.gov/departments/purchasing/doing-business>.

46. DISCLOSURE OF INTERESTED PARTIES FORM 1295: A person or business, who enters into a contract with the County, meeting the conditions according to Texas Local Government Code Sec. 2252.908, is required to file Form 1295 with Texas Ethics Commission. A contract entered into by a governmental entity is voidable for failure to provide the disclosure of interested parties if the entity submits written notice to the business entity of the failure to submit the form and the business entity has not provided the form on, or before, the 10th business day after the business entity receives written notice to submit the Form 1295. **This form is not required unless there is a contract between the vendor and the Brazoria County. Do not submit this form unless you receive an award letter from the County.**

BRAZORIA COUNTY SPECIAL REQUIREMENTS

RESPONDENT INSTRUCTIONS:

READ THIS ENTIRE DOCUMENT CAREFULLY. FOLLOW ALL INSTRUCTIONS. YOU ARE RESPONSIBLE FOR FULFILLING ALL REQUIREMENTS AND SPECIFICATIONS. BE SURE YOU UNDERSTAND THEM.

The following requirements and specifications supersede other requirements where applicable.

General

The requirements set forth below are intended to outline the basic operating parameters and procedures required to provide goods and/or services to Brazoria County as described herein. It is not the intention to describe every item required. In the performance of this Contract, the successful respondent represents it is familiar with the condition under which Brazoria County operates and represents that it has the resources, knowledge and skills to properly support the County's needs consistent with these special conditions and the Contract documents.

The County reserves the right to modify this Contract and Scope of Work as necessary to develop and maintain specifications / statement of work that meets the County's needs. Such modifications shall be mutually agreed upon and shall be incorporated into this Contract as an addendum. Brazoria County shall not be responsible for any additional charge that is not stated in this Contract or mutually agreed to prior to such work or service is performed and/or invoiced.

The Specifications/Statement of Work provided in this package is to be used as a guide in developing an offer to this CSP. The information contained herein is not intended to be restrictive and the County will consider alternate offers submitted by respondent. Alternate offers shall be clearly marked with the proposed alternates and or exceptions to the Specifications/Statement of Work and shall include all pricing/cost advantages if applicable. Respondents are expected to include any additional requirements that may have been inadvertently left out of the attached Specifications/Statement of Work.

All offers inclusive of pricing shall remain firm for acceptance for a period of ninety (90) days from opening date unless otherwise specified by Brazoria County.

Prices offered shall reflect the full Specifications/Statement of Work as defined per the CSP documents, inclusive of all associated costs for insurance, taxes, overhead, profit and bonding, if required and so identified.

Respondent must include all incidental costs in his pricing. Brazoria County will not provide or allow for parking or travel reimbursements for the respondent's employees. Respondent's offices, administration and/or place of business will not be on Brazoria County premises and will be the respondent's responsibility. Only those costs shown on the Pricing/Delivery Sheet and confirmed by a purchase order will be paid.

It is also understood that any and all persons who provide services under Contract to Brazoria County, resulting from this Competitive Sealed Proposal, shall be and remain employees of the Contractor, not Brazoria County. It is understood and agreed that the respondent is solely responsible for all services being provided and shall provide adequate insurance to cover against any and all losses incurred by the respondent's employees and or equipment during the course of the Contract.

Respondents may be requested to provide presentations, such presentations may develop into negotiating sessions with the successful respondent as selected by the evaluation committee. If Brazoria County and respondent are unable to agree to Contract terms, Brazoria County reserves the right to terminate Contract negotiations with that respondent and enter into negotiations with another respondent.

No award or acquisition can be made until Commissioners Court approves such action.

Brazoria County will not be obligated to the respondent for goods and/or services until completion of a signed Contract as approved by Commissioners Court.

Submission of an offer implies the respondent's acceptance of the evaluation criteria and respondent recognition that subjective judgments must be made by the evaluating committee.

This Competitive Sealed Proposal in no manner obligates Brazoria County or any of its agencies to the eventual purchase of any goods and/or services described, implied or which may be proposed, until confirmed by a written Contract and purchase order. Progress toward this end is solely at the discretion of Brazoria County and may be terminated at any time prior to the signing of a Contract.

Brazoria County will not be liable for any costs incurred by the respondent in preparing a response to this CSP. Brazoria County makes no guarantee that any goods and/or services will be purchased as a result of this Competitive Sealed Proposal, and reserves the right to reject any and all offers. All offers and their accompanying documentation will become the property of Brazoria County. All offers shall be open to negotiation.

All documents will be held by the County and are NOT subject to public view until an award is made. When an award is made, offers are subject to review under the "Public Information Act". To the extent permitted by law, respondents may request in writing non-disclosure of confidential data. Such data shall accompany the offer, be readily separable from the offer and shall be CLEARLY MARKED "CONFIDENTIAL".

All correspondence relating to this CSP, from advertisement to award shall be sent to the Brazoria County Purchasing Department. All presentations and/or meetings between Brazoria County and the respondent relating to this CSP shall be coordinated by the Brazoria County Purchasing Department. Deviations from this requirement may cause the cancellation of this CSP process and/or disqualification of respondent's proposal.

All information provided to respondent for the purpose of submitting a proposal in response to this CSP is confidential, and is and will remain, the property of Brazoria County and will not be used by respondent for any other purposes.

The respondent is expected to examine all documents, forms, specifications, and all instructions. Failure to do so will be at respondent's risk.

CSP Hard Copy Document Completion

The use of liquid paper is **NOT** acceptable and may result in the disqualification of CSP. If an error is made, bidder **MUST** draw a line through the error and initial each change.

Exceptions

Respondent Terms & Conditions are subject to the review and approval of Brazoria County. In the event of conflicting Terms & Conditions, the terms and conditions contained in the solicitation package shall prevail.

Respondent must clearly identify any conflict with terms & conditions by denoting them on the same page where the conflicting terms and conditions appear.

Public Information Act

All responses to this solicitation are in their entirety, subject to the Public Information Act. Brazoria County will respond to open records requests in accordance to law by providing all requested response information unless respondent (respondent) has specifically identified, in the response package, any section or part respondent deems confidential and/or proprietary. Respondent must note and identify such information on the page where such information appears in the same manner as other exceptions.

Late Offer - Electronic Submissions

Once the project closes in Bonfire, Respondents are not able to upload a finalized submission electronically.

Late Offer – Hard Copy Submissions

Hard Copy proposals received in the office of the County Purchasing Director after submission deadline will be considered void and unacceptable. Brazoria County is not responsible for lateness or non-delivery of mail, carrier, etc., and the date/time stamp in the office of the County Purchasing Director shall be the official time of receipt.

Altering Submissions - Electronic

If an error is made after your proposal submission is finalized, click [HERE](#) for instructions. Bonfire allows for offeror's to make alterations or amendments and re-submit their submissions before the project closes.

Altering Submissions – Hard Copy

Bids cannot be altered or amended after submission deadline. Any interlineation, alteration, or erasure made before opening time must be initialed by the signer of the bid/offer, guaranteeing authenticity.

Substitutions to Offer

Brazoria County reserves the right to accept any and all or none of the substitutions deemed to be in the best interest of the County.

Withdrawal of Offer

An offer may not be withdrawn or canceled by the respondent without the permission of Brazoria County for a period of ninety (90) days following the date designated for the receipt of bids/offers, and respondent so agrees upon submittal of their bid/offer.

Descriptions

Any reference to model and/or make/manufacture used in bid/offer specifications or scope of work are descriptive, not restrictive. It is used to indicate the type and quality desired. Bids/Offer on items of like quality will be considered. Offer must provide hardware specifications where hardware is offered.

Terms of Payment

Terms of payment shall be net thirty (30) days from receipt of acceptable invoice and/or acceptance of conforming goods, whichever is later. However, alternate terms will be considered and may be offered. Invoices for installed equipment and software will not be paid prior to complete acceptance by Brazoria County unless otherwise specified. If installation of equipment and software is delayed, the County reserves the right (without extra expense or penalty) to delay a portion of the payment until equipment is installed and functioning properly.

Pricing / Delivery

All items should be priced – FOB Destination Full Freight Allowed, inside delivery. Brazoria County will not pay for any additional transportation and/or shipping charges.

No charges may be billed to the County unless such costs were explicitly included in the proposal. Respondent will incur any costs not explicitly included in the proposal and/or mutually agreed to in writing by the Brazoria County Purchasing Department.

Reduction in Price: If during the life of the contract, the successful bidder's net prices to other customers for items awarded herein are reduced below the contracted price, it is understood and agreed that the benefits of such reduction shall be extended to Brazoria County.

Price Increase: Requests for price adjustments must be solely for the purpose of accommodating an increase in the vendor's cost. A request for a pricing increase will be reviewed by Purchasing Department using the Producer Price Index (PPI) and/or Consumer Price Index (CPI) and any other research available to determine market conditions favorable to the increase. If market conditions dictate an increase to an awarded vendor's cost, the awarded vendor may submit a request to increase pricing no later than thirty (30) days after receiving notice of the County's intent to renew the contract. Requests will only be considered at the time of renewal with written approval from the County. Additionally, the vendor must de-escalate pricing on a previously escalated item, if the decrease is appropriate, due to market conditions.

The request must be in writing and substantiated with supporting documentation (i.e., increase in manufacturers direct cost, etc.). The request shall be addressed to the County Purchasing Director, 237 E. Locust, Suite 406, Angleton, Texas 77515. The request may also be emailed to the Contract Specialist listed in the solicitation. The awarded vendor's past history of honoring contracts at the bid/offer price will be an important consideration in the determination of requested price increase. Brazoria County reserves the right to accept or reject any/all of the requests for price adjustments as it deems to be in the best interest of the County. If rejected, either party may terminate the contract in accordance with the termination provisions of the contract.

Personnel

Successful respondent agrees at all times to maintain an adequate staff of experienced and qualified full time employees to ensure efficient performance under this Agreement. No part-time, subcontract, or third party personnel may perform services hereunder without the prior written consent of the Brazoria County Purchasing Department.

Successful respondent agrees that at all times its employees will perform required services in a professional and workmanlike manner in accordance with good industry practices.

Brazoria County may, at any time, request the removal and replacement of any of successful respondent's employees and the successful respondent will duly consider such request.

Legal Documents

Respondent must submit with its proposal any agreements for services, etc. which may be required by their organization to enter into a Contract with Brazoria County. These agreements must be completed, executed by respondent's authorized representative and submitted with the returned proposal, and are subject to review and amendment by the Brazoria County Attorney's Office, and to approval by Commissioners Court. In the event of conflicting terms, the Brazoria County Terms and Conditions, Statement of Work, and attachments shall prevail.

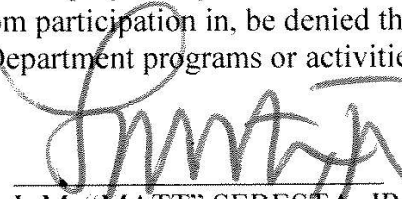
Contract Obligations

This offer, submitted documents and any negotiations, when properly accepted by Brazoria County, shall constitute a Contract equally binding between the successful respondent and Brazoria County. The selected respondent will be considered as the prime Contractor and shall assume responsibility for the goods and/or services. Failure to meet obligations may result in the cancellation of any Contracts.

The respondent's response may be incorporated into any Contract which results from this CSP, therefore, respondents are cautioned not to make claims or statements which they are not prepared to commit to contractually. Failure by the respondent to meet such claims will result in a requirement that the respondent provide resources necessary to meet submitted claims and/or breach of Contract.

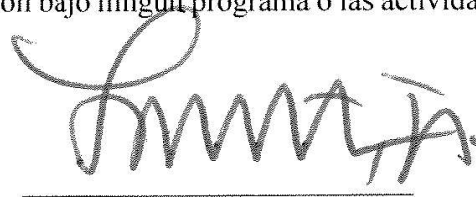
**Title VI and Related Statutes
Nondiscrimination Statement**

Brazoria County, as a recipient of Federal financial assistance and under Title VI of the Civil Rights Act of 1964 and related statutes, ensures that no person shall on the grounds of race, religion (where the primary objective of the financial assistance is to provide employment per 42 U.S.S. § 2000d-3), color, national origin, sex, age or disability be excluded from participation in, be denied the benefits of, or otherwise be subjected to discrimination under any Department programs or activities.


L.M. "MATT" SEBESTA, JR.
COUNTY JUDGE

**Titulo VI y Estatutos Relacionados
Declaration de No Discriminacion**

Brazoria County, como beneficiario de la asistencia financiera federal y según el Título VI de la Ley de Derechos Civiles de 1964 y los estatutos relacionados, asegura que ninguna persona será excluida por motivos de raza, religión (donde el objetivo principal de la ayuda financiera es proporcionar empleo por 42 USS § 2000d-3), color, origen nacional, sexo, edad o discapacidad de participación en, o negado los beneficios de, ni será sujeto a discriminación bajo ningún programa o las actividades del Departamento.


L.M. "MATT" SEBESTA, JR.
COUNTY JUDGE

PREVAILING WAGE RATES

General Decision Number: TX20250032 03/07/2025

Superseded General Decision Number: TX20240032

State: Texas

Construction Type: Heavy

County: Brazoria County in Texas.

HEAVY CONSTRUCTION PROJECTS (Including Water and Sewer Lines
(Does Not Include Flood Control)

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022: 	. Executive Order 14026 generally applies to the contract. . The contractor must pay all covered workers at least \$17.75 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2025.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022: 	. Executive Order 13658 generally applies to the contract. . The contractor must pay all covered workers at least \$13.30 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2025.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at <http://www.dol.gov/whd/govcontracts>.

Modification Number	Publication Date
0	01/03/2025
1	03/07/2025

* SFTX0669-001 01/01/2025

	Rates	Fringes
SPRINKLER FITTER (Fire Sprinklers).....	\$ 36.15	24.47

* SUTX2005-018 05/18/2005

	Rates	Fringes
Carperter.....	\$ 14.38 **	0.00
CEMENT MASON/CONCRETE FINISHER...	\$ 11.37 **	1.13
ELECTRICIAN.....	\$ 18.40	1.34
Formbuilder/Formsetter.....	\$ 9.83 **	1.69
IRONWORKER, REINFORCING.....	\$ 11.29 **	0.00
Laborers:		
Common.....	\$ 8.99 **	1.25
Landscape.....	\$ 7.35 **	0.00
Mason Tender Cement.....	\$ 9.96 **	0.00
Pipelayer.....	\$ 9.63 **	1.50
PIPEFITTER.....	\$ 17.00 **	0.04
POWER EQUIPMENT OPERATOR:		
Backhoe.....	\$ 12.74 **	0.00
Bulldozer.....	\$ 12.46 **	0.00
Crane.....	\$ 11.00 **	0.74
Excavator.....	\$ 16.74 **	0.00
Front End Loader.....	\$ 10.47 **	1.28
Grader.....	\$ 12.20 **	1.48
Tractor.....	\$ 11.29 **	1.45
TRUCK DRIVER.....	\$ 14.42 **	1.00

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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 ** Workers in this classification may be entitled to a higher minimum wage under Executive Order 14026 (\$17.75) or 13658 (\$13.30). Please see the Note at the top of the wage determination for more information. Please also note that the minimum wage requirements of Executive Order 14026 are not currently being enforced as to any contract or subcontract to which the states of Texas, Louisiana, or Mississippi, including their agencies, are a party.

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at <https://www.dol.gov/agencies/whd/government-contracts>.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

The body of each wage determination lists the classifications and wage rates that have been found to be prevailing for the type(s) of construction and geographic area covered by the wage determination. The classifications are listed in alphabetical order under rate identifiers indicating whether the particular rate is a union rate (current union negotiated rate), a survey rate, a weighted union average rate, a state adopted rate, or a supplemental classification rate.

Union Rate Identifiers

A four-letter identifier beginning with characters other than "SU", "UAVG", "SA?", or "SC?" denotes that a union rate was prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2024. PLUM is an identifier of the union whose collectively bargained rate prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2024 in the example, is the effective date of the most current negotiated rate.

Union prevailing wage rates are updated to reflect all changes over time that are reported to WHD in the rates in the collective bargaining agreement (CBA) governing the classification.

Union Average Rate Identifiers

The UAVG identifier indicates that no single rate prevailed for those classifications, but that 100% of the data reported for the classifications reflected union rates. EXAMPLE:

UAVG-OH-0010 01/01/2024. UAVG indicates that the rate is a weighted union average rate. OH indicates the State of Ohio. The next number, 0010 in the example, is an internal number used in producing the wage determination. The date, 01/01/2024 in the example, indicates the date the wage determination was updated to reflect the most current union average rate.

A UAVG rate will be updated once a year, usually in January, to reflect a weighted average of the current rates in the collective bargaining agreements on which the rate is based.

Survey Rate Identifiers

The ""SU"" identifier indicates that either a single non-union rate prevailed (as defined in 29 CFR 1.2) for this classification in the survey or that the rate was derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As a weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SUFL2022-007 6/27/2024. SU indicates the rate is a single non-union prevailing rate or a weighted average of survey data for that classification. FL indicates the State of Florida. 2022 is the year of the survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 6/27/2024 in the example, indicates the survey completion date for the classifications and rates under that identifier.

?SU? wage rates typically remain in effect until a new survey is conducted. However, the Wage and Hour Division (WHD) has the discretion to update such rates under 29 CFR 1.6(c) (1).

State Adopted Rate Identifiers

The ""SA"" identifier indicates that the classifications and prevailing wage rates set by a state (or local) government were adopted under 29 C.F.R 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 01/03/2024 in the example, reflects the date on which the classifications and rates under the ?SA? identifier took effect under state law in the state from which the rates were adopted.

WAGE DETERMINATION APPEALS PROCESS

1) Has there been an initial decision in the matter? This can be:

- a) a survey underlying a wage determination
- b) an existing published wage determination
- c) an initial WHD letter setting forth a position on a wage determination matter
- d) an initial conformance (additional classification and rate) determination

On survey related matters, initial contact, including requests for summaries of surveys, should be directed to the WHD Branch of Wage Surveys. Requests can be submitted via email to davisbaconinfo@dol.gov or by mail to:

Branch of Wage Surveys
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

Regarding any other wage determination matter such as conformance decisions, requests for initial decisions should be directed to the WHD Branch of Construction Wage Determinations. Requests can be submitted via email to BCWD-Office@dol.gov or by mail to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2) If an initial decision has been issued, then any interested party (those affected by the action) that disagrees with the decision can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Requests for review and reconsideration can be submitted via email to dba.reconsideration@dol.gov or by mail to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210.

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END OF GENERAL DECISION

BRAZORIA COUNTY INSURANCE REQUIREMENTS

The following requirements and specifications shall be in addition to the other requirements contained herein and shall supersede the other requirements where applicable.

INSURANCE: Prior to acceptance of contract by Brazoria County, the successful bidder must furnish a Certificate of Insurance together with a receipt showing the time period for which premium has been paid, from an approved insurance carrier for the coverage indicated below.

A. FOR CONSTRUCTION WORK CONTRACTS, THE FOLLOWING COVERAGES ARE REQUIRED:

1. Statutory workers compensation in accordance with the State of Texas requirements.
2. Comprehensive general liability including owners and contractors protective liability insurance for bodily injury, death, or property damages in the following amounts:

COVERAGE	PER OCCURRENCE
a. Premises and product liability	\$3,000,000
a. Aggregate policy limits	\$3,000,000

3. Comprehensive automobile and truck liability insurance (covering owned, hired and non-owned vehicles):

COVERAGE	PER OCCURRENCE
a. Bodily injury (including death)	\$3,000,000
b. Property damage	\$3,000,000

Insurance certificates and policy endorsements shall include agreements to hold Commissioners Court of Brazoria County and Brazoria County, Texas harmless; i.e., shall include coverage for “Hold Harmless Agreement”.

Failure to maintain insurance coverage as required herein shall be grounds for immediate termination of contract.

All policies must provide, by endorsement to the policy, that thirty (30) days prior written notice of cancellation or material change in coverage be given to the Purchasing Director of Brazoria County. Such insurance when accepted by the County in writing will become acceptable and shall remain unmodified until final acceptance of the work. Coverage provided must be on an occurrence basis.

No policy submitted shall be subject to limitations, conditions, or restrictions deemed inconsistent with the intent of the insurance requirements to be fulfilled by the successful bidder. The decision of Brazoria County thereon is final.

All policies shall be written through a company duly entered and authorized to transact that class of insurance in the State of Texas.

Neither approval by Brazoria County of any insurance supplied by the successful bidder, nor a failure to disapprove that insurance, shall relieve the successful bidder of full responsibility of liability, damages and accidents as set forth herein.

No additional payment shall be made for any insurance that the successful bidder may be required to carry.

Certificate Holder information shall be as follows:

Brazoria County
237 E. Locust Street, Suite 401
Angleton, TX 77515

BRAZORIA COUNTY BID BOND INFORMATION AND REQUIREMENTS

The following requirements supersede other requirements where applicable.

BID BOND: All respondents must submit with bid/proposal, a bid bond for at least five percent (5%) of the total bid/proposal price for this construction of a public work project. A Bid Bond shall be issued by a surety acceptable to Brazoria County, authorized to do business in the State of Texas, as a guaranty that the respondent will enter into a contract with Brazoria County (as outlined in the Statement of Work and attachments) and that offer will furnish the requisite performance and payment bonds as may be required.

If submitting to this Bid/Offer electronically, an original (paper, not electronic) bid bond is required to be mailed to the Purchasing Department within three (3) business days *of receipt of the Intent to Award letter* and a copy of the original bid bond shall be submitted with the electronic Bid/Offer response. Please use the label found on the last page of the CSP procurement package, as well as the hard copy mailing address found in the same procurement package. If submitting to this Bid/Offer through hard copy format (not electronically), the original bid bond must be included in the Bid/Offer response.

A guaranty shall be submitted with each bid that the bidder will enter into a contract with Brazoria County for the goods and/or services as outlined in the Specifications, Scope of Work and contract attachments and that respondent will furnish the requisite performance and payment bonds as may be required within ten (10) days after award of the contract and receipt of contract and performance bond forms.

Performance bond and payment bond shall be in a sum equal to the amount of money to be paid by the County under the contract, unless otherwise stated, and shall be executed by a surety company authorized to do business in the State of Texas.

Written verification of the validity of the bond shall be received by the Purchasing Department from the Contractor's Surety before any payments will be made.

BRAZORIA COUNTY PERFORMANCE BOND INFORMATION AND REQUIREMENTS

The following requirements supersede other requirements where applicable.

PERFORMANCE BOND: As designated below, the successful respondent must provide a performance bond, in the amount of one hundred percent (100%) of the total contract sum within ten (10) calendar days after receipt of notification of bid/proposal award. Such bond shall be executed by a corporate surety or corporate sureties in accordance with Article 7.19-1, Vernon's Texas Insurance Code. Such corporate surety/sureties shall be duly authorized and admitted to do business in the State of Texas and licensed in the State of Texas to issue fidelity and surety bonds with a Best Rating of "A" or better and have a bonding capacity adequate for the prescribed amount. Brazoria County reserves the right to accept or reject any surety company proposed by the respondent. In the event Brazoria County rejects the proposed surety company, the respondent will be afforded five (5) additional days to submit the required bonds issued by a surety company acceptable to Brazoria County.

 X PERFORMANCE BOND REQUIRED WHEN BID/PROPOSAL EXCEEDS \$100,000
AND IS FOR PUBLIC WORK.

 PERFORMANCE BOND REQUIRED WHEN BID/PROPOSAL EXCEEDS \$50,000.00 AND IS REQUIRED BY
BRAZORIA COUNTY.

If the performance bond and related documents are not returned to the Brazoria County Purchasing Department, 237 E. Locust, Suite 406, Angleton, Texas 77515 within ten (10) days of award, Brazoria County has the right to render the award ineffective.

Written verification of the validity of the bond shall be received by the Purchasing Department from the Contractor's Surety before any payments will be made.

BRAZORIA COUNTY PAYMENT BOND INFORMATION AND REQUIREMENTS

The following requirements supersede other requirements where applicable.

PAYMENT BOND: In the event the total accepted bid/proposal price exceeds \$25,000 the successful respondent must provide to the office of the County Purchasing Director, a payment bond in the amount of one hundred percent (100%) of the total contract sum within ten (10) calendar days after receipt of notification of bid/proposal award. Such bond shall be executed by a corporate surety or corporate sureties in accordance with Article 7.19-1, Vernon's Texas Insurance Code. Such corporate surety/sureties shall be duly authorized and admitted to do business in the State of Texas and licensed in the State of Texas to issue fidelity and surety bonds with a Best Rating of "A" or better and have a bonding capacity adequate for the prescribed amount. Brazoria County reserves the right to accept or reject any surety company proposed by the respondent. In the event Brazoria County rejects the proposed surety company, the respondent will be afforded five (5) additional days to submit the required bonds issued by a surety company acceptable to Brazoria County.

 X PAYMENT BOND REQUIRED WHEN BID/PROPOSAL EXCEEDS \$25,000 AND IS FOR PUBLIC WORKS.

If the payment bond and related documents are not returned to the Brazoria County Purchasing Department, 237 E. Locust, Suite 406, Angleton, Texas 77515 within ten (10) days of award, Brazoria County has the right to render the award ineffective.

Written verification of the validity of the bond shall be received by the Purchasing Department from the Contractor's Surety before any payments will be made.

CERTIFICATE OF INTERESTED PARTIES**FORM 1295**

Complete Nos. 1 - 4 and 6 if there are interested parties.
Complete Nos. 1, 2, 3, 5, and 6 if there are no interested parties.

OFFICE USE ONLY

1 Name of business entity filing form, and the city, state and country of the business entity's place of business.

2 Name of governmental entity or state agency that is a party to the contract for which the form is being filed.

3 Provide the identification number used by the governmental entity or state agency to track or identify the contract, and provide a description of the services, goods, or other property to be provided under the contract.

Name of Interested Party	City, State, Country (place of business)	Nature of Interest (check applicable)	
		Controlling	Intermediary

5 Check only if there is NO Interested Party. ☐

6 UNSWORN DECLARATION

My name is _____, and my date of birth is _____.

My address is _____ (street) _____ (city) _____ (state) _____ (zip code) _____ (country).

I declare under penalty of perjury that the foregoing is true and correct.

Executed in _____ County, State of _____, on the _____ day of _____, 20____.
(month) (year)

Signature of authorized agent of contracting business entity
(Declarant)

ADD ADDITIONAL PAGES AS NECESSARY

TEXAS ETHICS COMMISSION RULES

CHAPTER 46. DISCLOSURE OF INTERESTED PARTIES

§ 46.1. Application

- (a) This chapter applies to section 2252.908 of the Government Code
- (b) Section 2252.908 of the Government Code applies only to a contract of a governmental entity or state agency entered into after December 31, 2015, that meets either of the following conditions:
 - (1) the contract requires an action or vote by the governing body of the entity or agency; or
 - (2) The value of the contract is at least \$1 million.
- (c) A contract does not require an action or vote by the governing body of a governmental entity or state agency if:
 - (1) the governing body has legal authority to delegate to its staff the authority to execute the contract
 - (2) The governing body has delegated to its staff the authority to execute the contract; and
 - (3) The governing body does not participate in the selection of the business entity with which the contract is entered into.

§ 46.3. Definitions

- (a) "Contract" means a contract between a governmental entity or state agency and a business entity at the time it is voted on by the governing body or at the time it binds the governmental entity or state agency, whichever is earlier, and includes an amended, extended, or renewed contract.
- (b) "Business entity" includes an entity through which business is conducted with a governmental entity or state agency, regardless of whether the entity is a for-profit or nonprofit entity. The term does not include a governmental entity or state agency.
- (c) "Controlling interest" means: (1) an ownership interest or participating interest in a business entity by virtue of units, percentage, shares, stock, or otherwise that exceeds 10 percent; (2) membership on the board of directors or other governing body of a business entity of which the board or other governing body is composed of not more than 10 members; or (3) service as an officer of a business entity that has four or fewer officers, or service as one of the four officers most highly compensated by a business entity that has more than four officers. Subsection (3) of this section does not apply to an officer of a publicly held business entity or its wholly owned subsidiaries.
- (d) "Interested party" means: (1) a person who has a controlling interest in a business entity with whom a governmental entity or state agency contracts; or (2) an intermediary.
- (e) "Intermediary," for purposes of this rule, means, a person who actively participates in the facilitation of the contract or negotiating the contract, including a broker, adviser, attorney, or representative of or agent for the business entity who:
 - (1) receives compensation from the business entity for the person's participation;
 - (2) communicates directly with the governmental entity or state agency on behalf of the business entity regarding the contract; and
 - (3) is not an employee of the business entity or of an entity with a controlling interest in the business entity.
- (f) "Signed" includes any symbol executed or adopted by a person with present intention to authenticate a writing, including an electronic signature.
- (g) "Value" of a contract is based on the amount of consideration received or to be received by the business entity from the governmental entity or state agency under the contract.

§ 46.4. Changes to Contracts (new rule effective January 1, 2017)

- (a) Section 2252.908 of the Government Code does not apply to a change made to an existing contract, including an amendment, change order, or extension of a contract, except as provided by subsections (b) or (c) of this section.
- (b) Section 2252.908 of the Government Code applies to a change made to an existing contract, including an amendment, change order, or extension of a contract, if a disclosure of interested parties form was not filed for the existing contract; and either:
- (1) the changed contract requires an action or vote by the governing body of the entity or agency;
or
 - (2) the value of the changed contract is at least \$1 million.
- (c) Section 2252.908 of the Government Code applies to a change made to an existing contract, including an amendment, change order, or extension of a contract, if the business entity submitted a disclosure of interested parties form to the governmental entity or state agency that is a party to the existing contract; and either:
- (1) there is a change to the disclosure of interested parties; or
 - (2) the changed contract requires an action or vote by the governing body of the entity or agency;
or
 - (3) the value of the changed contract is at least \$1 million greater than the value of the existing contract.

§ 46.5. Disclosure of Interested Parties Form

- (a) A disclosure of interested parties form required by section 2252.908 of the Government Code must be filed on an electronic form prescribed by the commission that contains the following:
- (1) The name of the business entity filing the form and the city, state, and country of the business entity's place of business;
 - (2) The name of the governmental entity or state agency that is a party to the contract for which the form is being filed;
 - (3) The name of each interested party and the city, state, and country of the place of business of each interested party;
 - (4) The identification number used by the governmental entity or state agency to track or identify the contract for which the form is being filed and a short description of the services, goods, or other property used by the governmental entity or state agency provided under the contract; and
 - (5) An indication of whether each interested party has a controlling interest in the business entity, is an intermediary in the contract for which the disclosure is being filed, or both.
- (b) The certification of filing and the completed disclosure of interested parties form generated by the commission's electronic filing application must be printed, signed by an authorized agent of the contracting business entity, and submitted to the governmental entity or state agency that is the party to the contract for which the form is being filed.
- (c) A governmental entity or state agency that receives a completed disclosure of interested parties form and certification of filing shall notify the commission, in an electronic format prescribed by the commission, of the receipt of those documents not later than the 30th day after the date the governmental entity or state agency receives the disclosure.
- (d) The commission shall make each disclosure of interested parties form filed with the commission under section 2252.908(f) of the Government Code available to the public on the commission's Internet website not later than the seventh business day after the date the commission receives the notice required under subsection (c) of this section.

****Note:** . A contract entered into by a governmental entity is voidable for failure to provide the disclosure of interested parties if the entity submits written notice to the business entity of the failure to submit the form and the business entity has not provided the form on, or before, the 10th business day after the business entity receives written notice to submit the Form 1295.

Boycott Verification

This verification is required pursuant to Sections 808, 809, 2271, and 2274 (87(R) Senate Bill 13 and 19 versions) of the Texas Government Code:

Definitions:

1. Per Government Code Chapter 808, "Boycott Israel" means refusing to deal with, terminating business activities with, or otherwise taking any action that is intended to penalize, inflict economic harm on, or limit commercial relations specifically with Israel, or with a person or entity doing business in Israel or in an Israeli-controlled territory, but does not include an action made for ordinary business purpose
2. Per Government Code Chapter 809, "Boycott energy company" means, without an ordinary business purpose, refusing to deal with, terminating business activities with, or otherwise taking any action that is intended to penalize, inflict economic harm on, or limit commercial relations with a company because the company:
 - (A) engages in the exploration, production, utilization, transportation, sale, or manufacturing of fossil fuel-based energy and does not commit or pledge to meet environmental standards beyond applicable federal and state law; or
 - (B) does business with a company described by Paragraph (A)
3. Per Government Code Chapter 2274 (87(R) Senate Bill 19), "Discriminate against a firearm entity or firearm trade association":
 - (A) means, with respect to the entity or association, to:
 - (i) refuse to engage in the trade of any goods or services with the entity or association based solely on its status as a firearm entity or firearm trade association;
 - (ii) refrain from continuing an existing business relationship with the entity or association based solely on its status as a firearm entity or firearm trade association; or
 - (iii) terminate an existing business relationship with the entity or association based solely on its status as a firearm entity or firearm trade association;
4. "Company" has the meaning assigned by Texas Government Code Sections 808.001(2), 809.001(2), and 2274.001(2) (87(R) Senate Bill 19).

This verification is only required for a contract that is between a governmental entity and a company with 10 or more full-time employees; and has a value of \$100,000 or more that is to be paid wholly or partly from public funds of the governmental entity. If your contract value or number of employees does not reach that threshold, please provide a written certification of the contract amount and number of employees.

I, _____ (Person name), the undersigned representative of (Company or Business Name) _____
(hereinafter referred to as Company)

being an adult over the age of eighteen (18) years of age, do hereby depose and verify under oath that the company named-above,

- (A) does not boycott Israel currently;
- (B) will not boycott Israel during the term of the contract the named Company, business or individual with Brazoria County Texas, Texas;
- (C) does not boycott energy companies currently;
- (D) will not boycott energy companies during the term of the contract the named Company, business or individual with Brazoria County, Texas;
- (E) does not boycott a firearm entity of firearm trade association currently; and
- (F) will not boycott a firearm entity of firearm trade association during the term of the contract the named Company, business or individual with Brazoria County, Texas

DATE

SIGNATURE OF COMPANY REPRESENTATIVE

**BRAZORIA COUNTY
RETURN LABEL**

**USE THIS LABEL ONLY IF YOU ARE SUBMITTING A HARD
COPY PROPOSAL SUBMISSION**

COMPETITIVE SEALED PROPOSAL (CSP)

CSP#:

25-76

OPENING DATE:

FRIDAY, SEPTEMBER 5, 2025

OPENING TIME:

11:00 A.M. LOCAL TIME

CSP DESCRIPTION:

BRAZORIA COUNTY
PRECINCT 4 NORTH
ANNEX CR 58 MUNICIPAL
UTILITY DISTRICT (MUD)
UTILITY CONNECTIONS

RETURN OFFER TO:

PHYSICAL ADDRESS:

PURCHASING DEPARTMENT
BRAZORIA COUNTY COURTHOUSE CAMPUS ADMINISTRATION BUILDING
237 E. LOCUST STREET, SUITE 406
ANGLETON, TEXAS 77515

DATED MATERIAL – DELIVER IMMEDIATELY

**PLEASE CUT OUT AND AFFIX THE CSP LABEL ABOVE TO THE OUTER
MOST ENVELOPE OF YOUR RESPONSE TO HELP ENSURE PROPER
DELIVERY!**

*******LATE CSP's CANNOT BE ACCEPTED*******

BRAZORIA COUNTY PRECINCT 4 NORTH
ANNEX CR 58 MUD UTILITY CONNECTIONS

MANVEL E.T.J.

BRAZORIA COUNTY, TEXAS 77578
MUNICIPAL UTILITY DISTRICT NO. 40

DATE: SEPTEMBER 27, 2024

PHONE: 979-313-6181

HOURS OF CONSTRUCTION ARE:
7:00 AM TO 9:00 PM
MONDAY THROUGH SATURDAY. NO
INSPECTABLE WORK ON SATURDAYS.

ENGINEER:
LJA Engineering, Inc.

1904 W. Grand Parkway North
Suite 100
Katy, Texas 77449

Phone 713.953.5200
Fax 713.953.5020
FRN-F-138

SHEET 01 OF 13

Patient's approval expires after 365 days

APPROVED FOR CONSTRUCTION

BY _____ DATE _____

Date/Time : Fri, 27 Sep 2024 - 11:28am User Name : jstrickland
Path\Name : I:\Projaski\1785\2401\MCAD\Sheet_Files\01 COVER SHEET.dwg



BRAZORIA DRAINAGE DISTRICT NO. 4 SIGNATURE BLOCK

APPROVED BY BOARD OF COMMISSIONERS ON

November 6, 2024

DATE _____

DATE _____

[illegible]

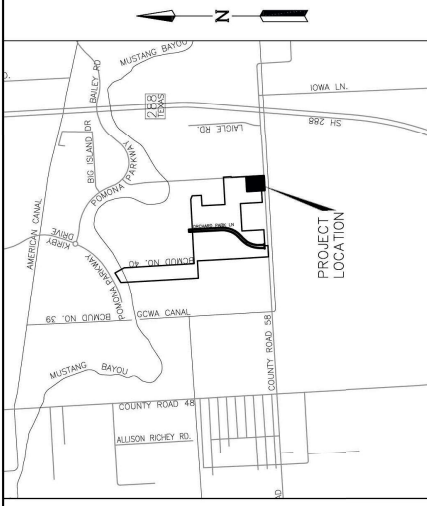
24-000133 RDDA REF ID: #

NOTES

1. THESE PLANS WERE PREPARED TO MEET OR EXCEED BRAZORIA COUNTY AND BRAZORIA DRAINAGE DISTRICT NO. 4 DESIGN STANDARDS AS CURRENTLY AMENDED.
2. CONSTRUCTION WILL BE MONITORED BY A REGISTERED PROFESSIONAL ENGINEER TO VERIFY COMPLIANCE WITH THE CONSTRUCTION PLANS AND SPECIFICATIONS.
3. CONTRACTOR SHALL NOTIFY THE BRAZORIA COUNTY FACILITIES MANAGEMENT DEPARTMENT (937-884-1567) 48 HOURS PRIOR TO COMMENCEMENT.
4. CONSTRUCTION SHALL NOT BEGIN UNTIL PLANS ARE APPROVED.
5. THE CONTRACTOR MUST OBTAIN A PERMIT FROM BRAZORIA DRAINAGE DISTRICT NO. 4 PRIOR TO CONSTRUCTION. THE PERMIT APPLICATION FORM IS AVAILABLE ON THE DISTRICT WEBSITE OR IN PERSON AT THE DISTRICT OFFICE.
6. CONTRACTOR SHALL NOTIFY BRAZORIA DRAINAGE DISTRICT NO. 4 AT LEAST FORTY- EIGHT (48) HOURS BEFORE PLACING ANY CONCRETE FOR DRAINAGE STRUCTURES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE CONCRETE IS POURED WILL CAUSE PORTIONS OF THE CONCRETE TO BE BROKEN OUT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIRS OF THE BROKEN PORTIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE NECESSARY PERMITS FOR ANY EXISTING UTILITY LOCATIONS.

SHEET INDEX

- | | |
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| 03 | TOPOGRAPHIC SURVEY |
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| 17 | SWPPP DETAILS |



VICINITY MAP

BRAZORIA KEY MAP# 653E - ZIP CODE 77578 SCALE: 1"=2000'



FOR REFERENCE ONLY”

I, SCOT LOWE, DO HEREBY CERTIFY THIS PLAN CORRECTLY REPRESENTS
TOPOGRAPHIC SURVEY MADE UNDER MY SUPERVISION ON THE GROUND,
REPRESENTING THE INFORMATION PROVIDED ME AND CORRECTLY
REPRESENTS THE FACTS AS FOUND AT THE TIME OF THIS SURVEY.

WITNESS MY HAND AND SEAL FOR THE 25th DAY OF APRIL, 2024.

THE FINDINGS AND OPINIONS OF LIA SURVEY, INC. REFLECTED HEREIN ARE PRIVILEGED, CONFIDENTIAL AND INTENDED ONLY FOR THE USE OF THE INDIVIDUAL OR ENTITY FOR WHOM THIS WORK WAS PREPARED. IT IS UNDERSTOOD THAT THE USE OF, RELIANCE ON, OR REPRODUCTION OF ANY INFORMATION IN WHOLE OR IN PART BY OTHERS WITHOUT THE EXPRESS WRITTEN CONSENT OF LIA SURVEY, INC. WILL BE CONSIDERED AN UNLAWFUL ACT. LIA SURVEY, INC. WILL NOT BE RESPONSIBLE FOR DAMAGES OR EXPENSES RESULTING FROM SUCH UNAUTHORIZED USE, RELIANCE OR REPRODUCTION. COPYRIGHT 2024. ALL RIGHTS RESERVED.

PROJECT: BRAZORIA COUNTY M.U.D. NO. 39
PRECINCT 4 NORTH ANNEX
JOB NO. 1785-2401

DATE: 11/25/2024
BY: [Signature]

REVISION: 1

DATE: 11/25/2024
BY: [Signature]

BRAZORIA COUNTY M.U.D. NO. 39
PRECINCT 4 NORTH ANNEX
DETENTION SERVICE AREA
MAP

LJA Engineering, Inc.
1904 W. Grand Parkway North
Houston, TX 77058
Phone: 281.333.1000
Fax: 281.333.1001
Email: info@lja.com
Web: www.lja.com

LJA PROJECT NO.: 1785-2401
LJA DRAWN BY: A.B.
LJA CHECKED BY: A.B.
LJA DESIGNED BY: A.B.
LJA DATE: SEP 2024
LJA SURVEYED BY: INC.
LJA CITY: DING: INC.

DESIGNED BY: A.B.
DRAWN BY: A.B.
CHECKED BY: A.B.
DATE: SEP 2024
CITY: DING: INC.

PROJECT: BRAZORIA COUNTY M.U.D. NO. 39
PRECINCT 4 NORTH ANNEX
JOB NO. 1785-2401

PRECINCT 4 NORTH ANNEX
JOB NO. 1785-2401

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BY: [Signature]

REVISION: 1

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LJA SURVEYED BY: INC.
LJA CITY: DING: INC.

DESIGNED BY: A.B.
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DATE: SEP 2024
CITY: DING: INC.

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JOB NO. 1785-2401

PRECINCT 4 NORTH ANNEX
JOB NO. 1785-2401

DATE: 11/25/2024
BY: [Signature]

REVISION: 1

DATE: 11/25/2024
BY: [Signature]

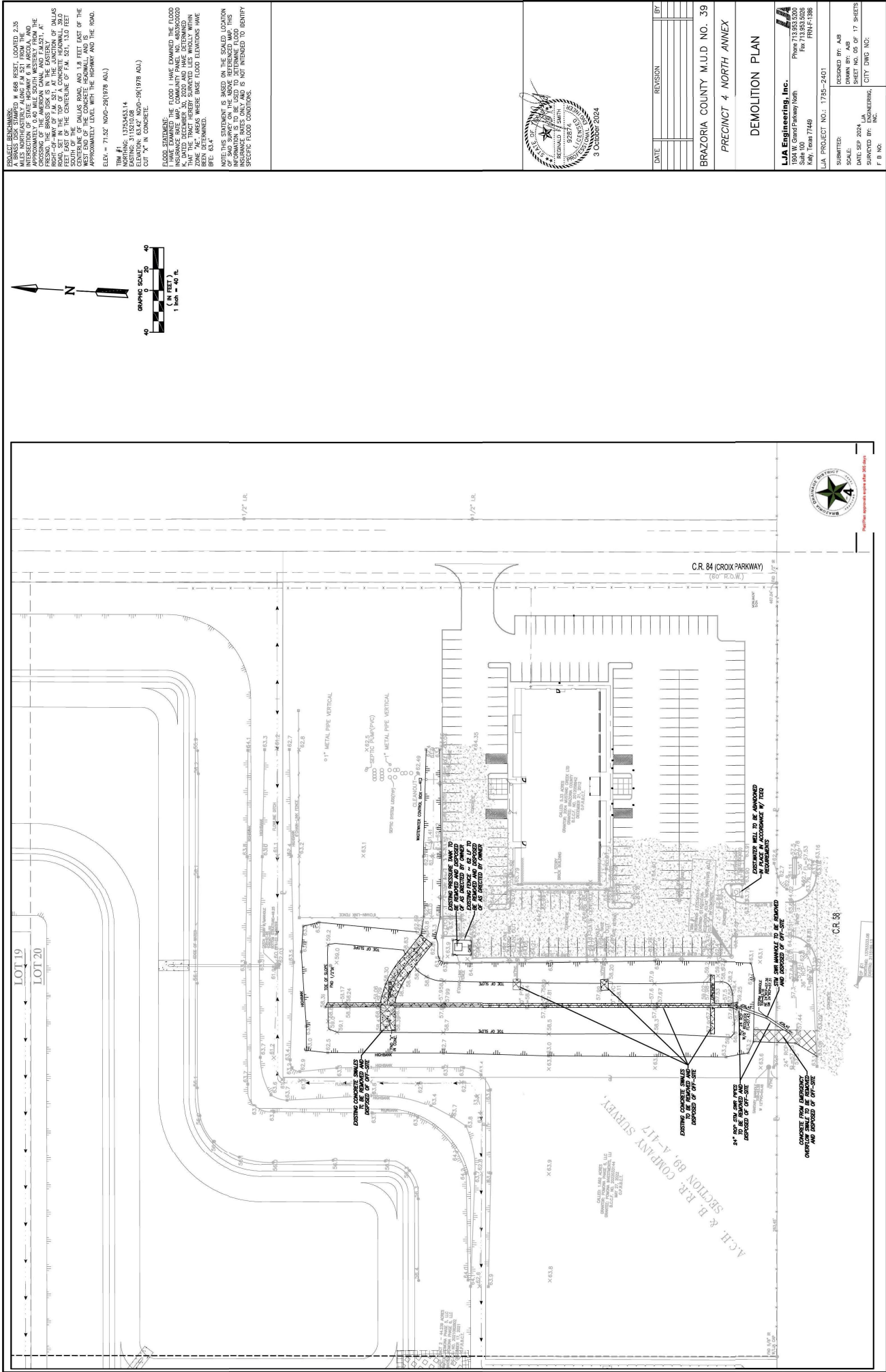
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Phone: 281.333.1000
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Web: www.lja.com

LJA PROJECT NO.: 1785-2401
LJA DRAWN BY: A.B.
LJA CHECKED BY: A.B.
LJA DESIGNED BY: A.B.
LJA DATE: SEP 2024
LJA SURVEYED BY: INC.
LJA CITY: DING: INC.

DESIGNED BY: A.B.
DRAWN BY: A.B.
CHECKED BY: A.B.
DATE: SEP 2024
CITY: DING: INC.

PROJECT: BRAZORIA COUNTY M.U.D. NO. 39
PRECINCT 4 NORTH ANNEX
JOB NO. 1785-2401



PROJECT: BENCHMARK
A BRASS COLD STAMPED M 668 RESET, LOCATED 2.35 MILES NORTHEASTERLY ALONG F.M. 521 FROM THE INTERSECTION OF F.M. 521 AND F.M. 521A, APPROXIMATELY 0.4 MILE SOUTH WESTERLY FROM THE CROSSING OF THE AMERICAN CANYON AND F.M. 521. A BRASS COLD STAMPED M 668 RESET, LOCATED 1.87 MILES WEST-OF-AND-ALONG F.M. 521, AT THE JUNCTION OF DALLAS RIGHT-OF-WAY OF F.M. 521. AT THE JUNCTION OF DALLAS ROAD, SET IN THE TOP OF A CONCRETE HEADWALL, 39.0 FEET SOUTH OF THE CENTERLINE OF F.M. 521, 13.0 FEET SOUTH OF THE CENTERLINE OF DALLAS ROAD, AND 1.6 FEET EAST OF THE WEST SIDE OF A CONCRETE ROADWAY. THE BENCHMARK IS LOCATED WITHIN THE RIGHT-OF-WAY AND THE ROAD.
ELEV. = 71.52' NAD-2019(98 ADJ.)

TBM #1
NOHING.
ELEV. = 31.42' NAD-2019(98 ADJ.)
CUT "X" IN CONCRETE.

FLOOD STATEMENT:
I HAVE EXAMINED THE FLOOD I HAVE EXAMINED THE FLOOD
INSURANCE RATE MAP, COMMUNITY PANEL NO. 48039C0020
K, DATED DECEMBER 30, 2020 AND HAVE DETERMINED
THAT THE TRACT HEREBY SURVEYED LIES WHOLLY WITHIN
ZONE "AE". AREAS WHERE BASE FLOOD ELEVATIONS HAVE
BEEN DETERMINED.

NOTE: THIS STATEMENT IS BASED ON THE SCALED LOCATION OF SAID SURVEY ON THE ABOVE REFERENCED MAP. THIS INFORMATION IS TO BE USED TO DETERMINE FLOOD INSURANCE RATES ONLY AND IS NOT INTENDED TO IDENTIFY SPECIFIC FLOOD CONDITIONS.

5-YEAR EVENT STORM SEWER SYSTEM DESIGN
(ATLAS-14)

YEAR	B	D	E
100	46.316	1.555	0.533
25	52.78	5.022	0.618
10	57.615	7.777	0.676
5	58.019	9.236	0.712

INCR	TO FROM	TO NODE	INCR	TOTAL	TOTAL	TC	SVR	INLET	LINE	DESIGN	FLOWLINE	SLOPE	ACTUAL	N	UPST	DOWNST	DIST.	COMMENTS					
				(MG)	(MG)	(MG)	(MG)	(MG)	REACH	#	(CFS)	(FPS)	FALL	STREAM	(%)	(FT)	(FT)	(MG)					
0.00	0.00	0.00	1.47	0.95	10.10	7.54	0.89	0.0	24	0.01	12.28	3.91	0.21	56.75	56.96	3.13	0.3	0.14	56.75	56.96	65.50	3.54	DK / 5" S&W HOE - 1" G ELEV
0.19	0.05	0.05	1.66	0.96	10.07	7.47	1.15	1.28	24	0.01	12.28	3.91	0.17	56.56	56.75	3.95	0.7	0.14	56.56	56.75	65.71	4.06	DK / 5" S&W HOE - 1" G ELEV
0.19	0.05	0.05	1.85	0.95	10.03	8.93	12.18	1.25	24	0.01	12.28	3.91	0.18	56.40	56.58	3.68	0.2	0.14	56.40	56.58	66.10	5.22	DK / 5" S&W HOE - 1" G ELEV
0.32	0.01	0.01	2.17	0.94	10.00	8.93	12.18	1.25	24	0.01	12.28	3.91	0.18	56.40	56.58	3.68	0.2	0.14	56.40	56.58	66.10	5.22	DK / 5" S&W HOE - 1" G ELEV
0.32	0.01	0.01	2.17	0.94	10.00	8.93	12.18	1.25	24	0.01	12.28	3.91	0.18	56.40	56.58	3.68	0.2	0.14	56.40	56.58	66.10	5.22	DK / 5" S&W HOE - 1" G ELEV
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0.32	0.01	0.01	2.17	0.94	10.00	8.93	12.18	1.25	24	0.01	12.28	3.91	0.18	56.40	56.58	3.68	0.2	0.14	56.40	56.58	66.10	5.22	DK / 5" S&W HOE - 1" G ELEV
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0.32	0.01	0.01	2.17	0.94	10.00	8.93	12.18	1.25	24	0.01	12.28	3.91	0.18	56.40	56.58	3.68	0.2	0.14	56.40	56.58	66.10	5.22	DK / 5" S&W HOE - 1" G ELEV
0.32	0.01	0.01	2.17	0.94	10.00	8.93	12.18	1.25	24	0.01	12.28	3.91	0.18	56.40	56.58	3.68	0.2	0.14	56.40	56.58	66.10	5.22	DK / 5" S&W HOE - 1" G ELEV
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0.32	0.01	0.01	2.17	0.94	10.00	8.93	12.18	1.25	24	0.01	12.28	3.91	0.18	56.40	56.58	3.68	0.2	0.14	56.40	56.58	66.10	5.22	DK / 5" S&W HOE - 1" G ELEV
0.32	0.01	0.01	2.17	0.94	10.00	8.93	12.18	1.25	24	0.01	12.28	3.91	0.18	56.40	56.58	3.68	0.2	0.14	56.40	56.			

100-YEAR EVENT STORM SEWER SYSTEM DESIGN
(ATLAS-I4)

PROG	TO NODE	INCH	FREQ	TOTAL Q ₁ (AC)	TOTAL Q ₂ (AC)	TO (MM)	(MM/HR)	10DVR REASON (FT)	TIME		DESIGN		FLOWLINE ACTUAL STREAM	SLOPE	* M (FT)	UPST TO NGLE	DIST TO NGLE	COMMENTS
									SIZE (IN)	°	(CFS)	(FPS)						
A1	MH1	1.47	0.85	1.25	1.47	1.19	10.00	12.57	21.64	21	24	0.18	0.011	11.37	0.03	69.46	32.51	C1 100-YEAR HGT TO ELEV
MH1	CO1	0.00	0.95	1.25	1.47	1.19	10.10	12.51	21.64	101	24	0.21	0.011	12.26	0.31	69.25	32.50	C1 100-YEAR HGT TO ELEV
CO1	CO2	0.19	0.89	1.25	1.66	1.19	10.00	12.57	21.78	82	24	0.21	0.011	12.28	0.31	69.85	33.71	C1 100-YEAR HGT TO ELEV
CO2	CO3	0.19	0.95	1.25	1.68	1.19	11.88	11.65	23.98	84	24	0.21	0.011	12.31	0.31	69.83	40.1	C1 100-YEAR HGT TO ELEV
CO3	CO4	0.19	0.95	1.25	1.67	1.19	12.34	11.39	27.16	122	36	0.24	0.011	38.71	0.46	69.23	50.90	C1 100-YEAR HGT TO ELEV
MH2	CO1	0.00	0.95	1.25	1.47	1.19	10.10	12.51	21.64	101	24	0.21	0.011	12.26	0.31	69.25	32.50	C1 100-YEAR HGT TO ELEV
MH2	CO2	0.19	0.89	1.25	1.66	1.19	10.00	12.57	21.78	82	24	0.21	0.011	12.28	0.31	69.85	33.71	C1 100-YEAR HGT TO ELEV
MH2	CO3	0.19	0.95	1.25	1.68	1.19	11.88	11.65	23.98	84	24	0.21	0.011	12.31	0.31	69.83	40.1	C1 100-YEAR HGT TO ELEV
MH2	CO4	0.19	0.95	1.25	1.67	1.19	12.34	11.39	27.16	122	36	0.24	0.011	38.71	0.46	69.23	50.90	C1 100-YEAR HGT TO ELEV
MH2	CO5	0.00	0.95	1.25	1.47	1.19	10.10	12.51	21.64	101	24	0.21	0.011	12.26	0.31	69.25	32.50	C1 100-YEAR HGT TO ELEV
MH2	CO6	0.19	0.89	1.25	1.66	1.19	10.00	12.57	21.78	82	24	0.21	0.011	12.28	0.31	69.85	33.71	C1 100-YEAR HGT TO ELEV
MH2	CO7	0.19	0.95	1.25	1.68	1.19	11.88	11.65	23.98	84	24	0.21	0.011	12.31	0.31	69.83	40.1	C1 100-YEAR HGT TO ELEV
MH2	CO8	0.19	0.95	1.25	1.67	1.19	12.34	11.39	27.16	122	36	0.24	0.011	38.71	0.46	69.23	50.90	C1 100-YEAR HGT TO ELEV
MH2	CO9	0.00	0.95	1.25	1.47	1.19	10.10	12.51	21.64	101	24	0.21	0.011	12.26	0.31	69.25	32.50	C1 100-YEAR HGT TO ELEV
MH2	CO10	0.19	0.89	1.25	1.66	1.19	10.00	12.57	21.78	82	24	0.21	0.011	12.28	0.31	69.85	33.71	C1 100-YEAR HGT TO ELEV
MH2	CO11	0.19	0.95	1.25	1.68	1.19	11.88	11.65	23.98	84	24	0.21	0.011	12.31	0.31	69.83	40.1	C1 100-YEAR HGT TO ELEV
MH2	CO12	0.19	0.95	1.25	1.67	1.19	12.34	11.39	27.16	122	36	0.24	0.011	38.71	0.46	69.23	50.90	C1 100-YEAR HGT TO ELEV
MH2	CO13	0.00	0.95	1.25	1.47	1.19	10.10	12.51	21.64	101	24	0.21	0.011	12.26	0.31	69.25	32.50	C1 100-YEAR HGT TO ELEV
MH2	CO14	0.19	0.89	1.25	1.66	1.19	10.00	12.57	21.78	82	24	0.21	0.011	12.28	0.31	69.85	33.71	C1 100-YEAR HGT TO ELEV
MH2	CO15	0.19	0.95	1.25	1.68	1.19	11.88	11.65	23.98	84	24	0.21	0.011	12.31	0.31	69.83	40.1	C1 100-YEAR HGT TO ELEV
MH2	CO16	0.19	0.95	1.25	1.67	1.19	12.34	11.39	27.16	122	36	0.24	0.011	38.71	0.46	69.23	50.90	C1 100-YEAR HGT TO ELEV



3 October 2024

[illegible]

BRAZORIA COUNTY M.U.D. NO. 39

PRECINCT 4 NORTH ANNEX

DRAINAGE CALCULATIONS

LJA Engineering, Inc.

1904 W. Grand Parkway North
Suite 100
Katy, Texas 77449
Phone 713.953.5200
Fax 713.953.5026
FRN-F-1386

1-1A PROJECT NO: 1735-2401

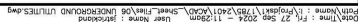
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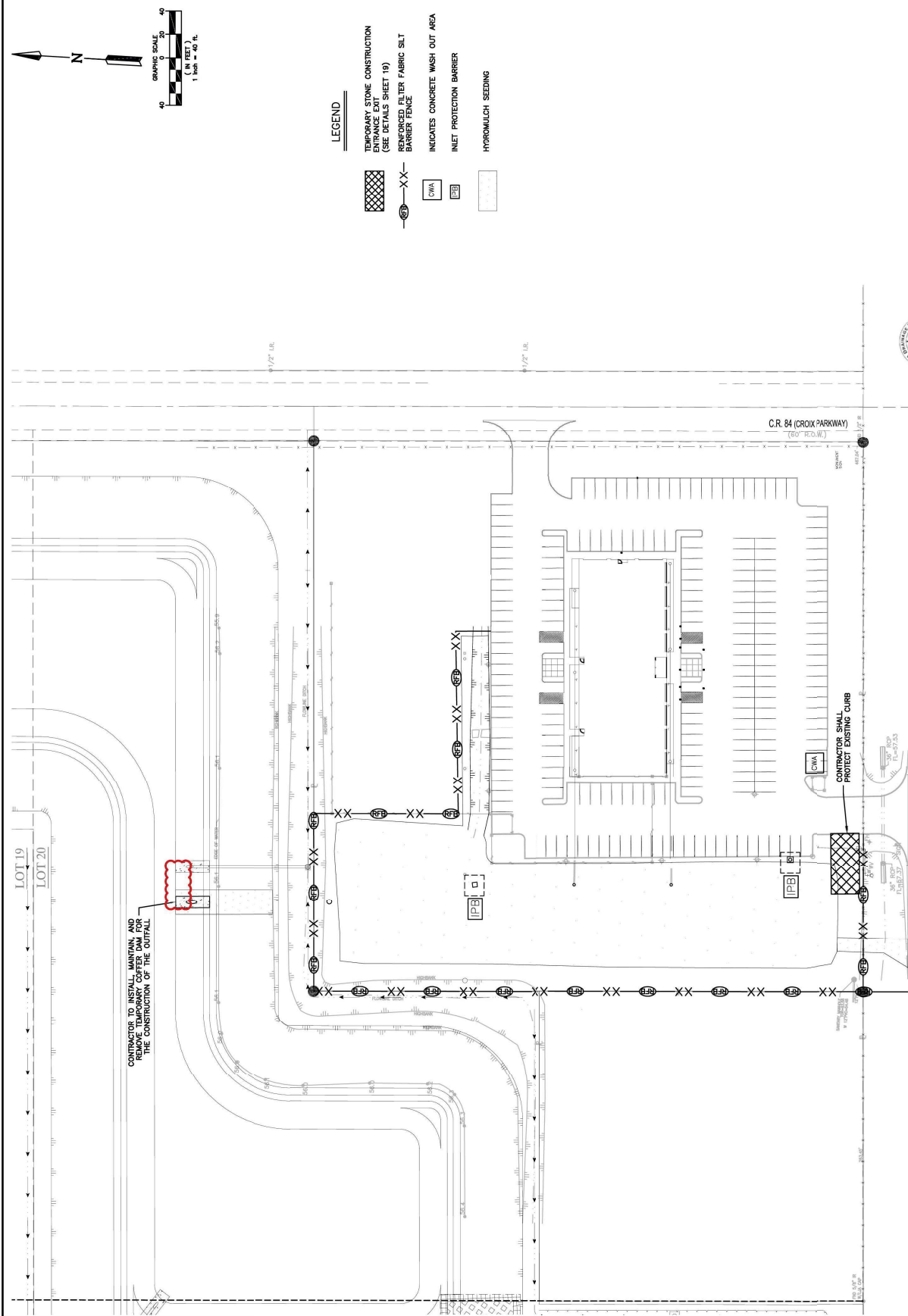
SUBMITTED: DESIGNED BY: AUB
SCALE: DRAWN BY: AUB

DATE: SEP 2024

SURVEYED BY: ENGINEERS,
LJA
CITY DWG NO:

F B NO: INC.





C.R. 58

date/time : Fri, 27 Sep 2024 - 11:29am
user Name : patrickland
Path/Name : I:\Projds\1785\2401\ACAO\Sheet_Files\07 SWPPP.dwg

STATE OF ALABAMA
REYNOLD SMITH
92874
PROFESSIONAL ENGINEER
LICENSED
3 October 2024

[illegible]

BRAZORIA COUNTY M.U.D. NO. 39

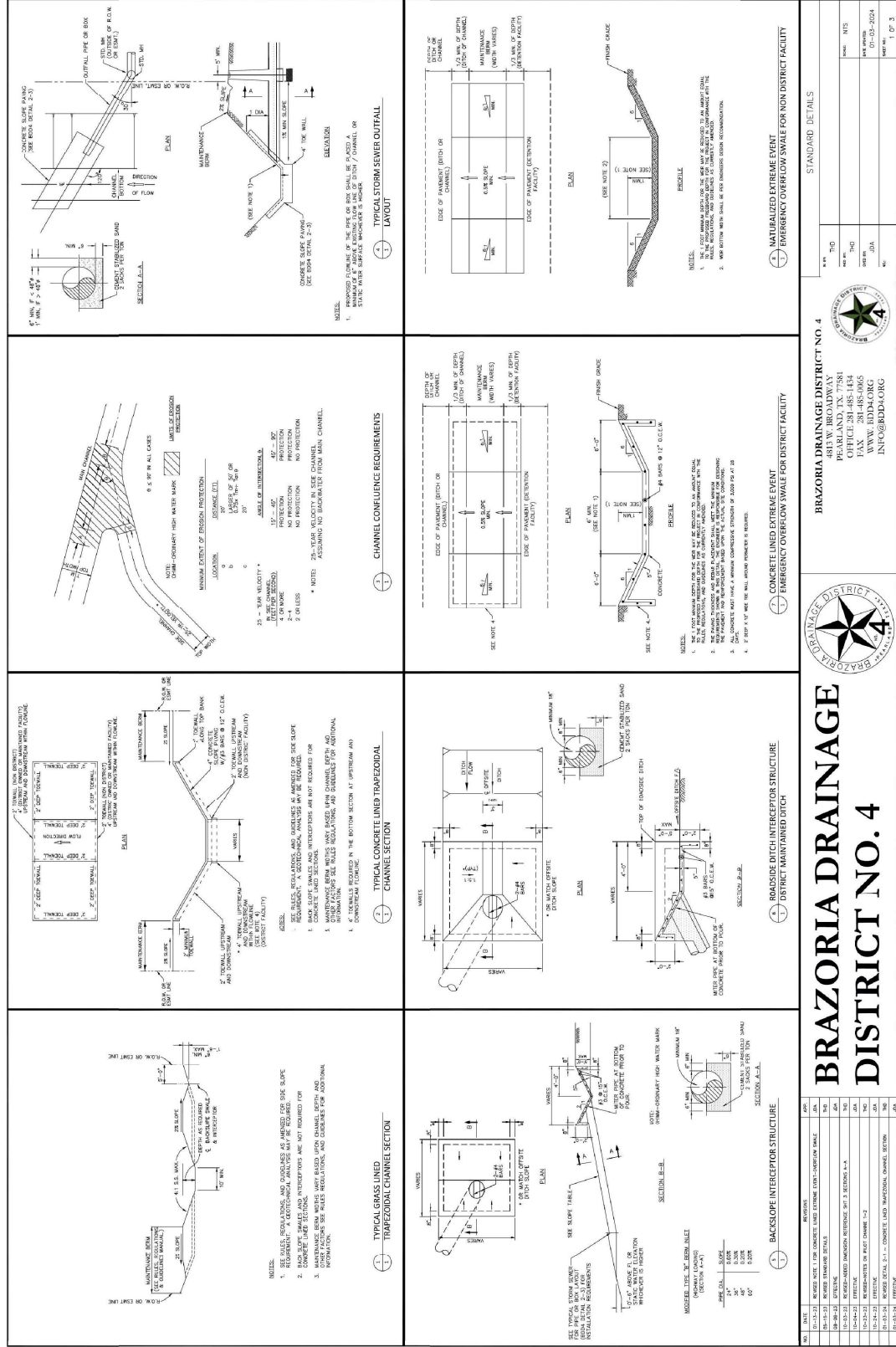
PRECINCT 4 NORTH ANNEX

SWPPP LAYOUT

LJA Engineering, Inc.
1904 W. Grand Parkway North
Suite 100
Katy, Texas 77449
Phone 713.953.5200
Fax 713.953.5026
FRN-F-1386

JJA PROJECT NO.: 1795-2401	SUBMITTED:	DESIGNED BY: AJB
	SCALE:	DRAWN BY: ASB
	DATE: SEP 2024	SHEET NO. 09 OF 17 SHEETS
	SURVEYED BY: JJA INC.	CITY DWG NO:





PROJECT BACKGROUND:
A BRASS CROSS STAMPED N 688 WEST, LOCATED 2.35 MILES WESTERLY ALONG F.M. 521 FROM THE INTERSECTION OF F.M. 521 AND F.M. 521, APPROXIMATELY 0.40 MILE SOUTH WESTERLY FROM THE CROSSING OF THE AMERICAN CANAL AND F.A.521, AT THE JUNCTION OF F.M. 521, AT THE JUNCTION OF DALLAS ROAD, SET IN THE TOP OF A CONCRETE HEADWALL, 38.0 FEET NORTH OF THE CENTERLINE OF F.M. 521, 13.0 FEET SOUTH OF THE CENTERLINE OF DALLAS ROAD, AND 1.8 FEET EAST OF THE WEST END OF THE CONCRETE HEADWALL, AND 5.0 FEET WEST OF THE CENTERLINE OF THE ROAD, APPROXIMATELY LEVEL -20 WITH THE HIGHWAY AND THE ROAD.

ELEV. = 71.52' NVD -20(1978 ADL)

NO. 1
NORTHING: 1375453.14
EASTING: 313210.70
NVD -20(1978 ADL)
CUT "X" IN CONCRETE.

FLOOD STATEMENT: I HAVE EXAMINED THE FLOOD I HAVE EXAMINED THE FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NO. 48039C0020 K, DATED DECEMBER 30, 2020 AND HAVE DETERMINED THAT THE TRACT HEREBY SURVEYED LIES WHOLLY WITHIN ZONE "AE". AREAS WHERE BASE FLOOD ELEVATIONS HAVE BEEN DETERMINED.

NOTE: THIS STATEMENT IS BASED ON THE SCALED LOCATION OF SAID SURVEY ON THE ABOVE REFERENCED MAP. THIS INFORMATION IS TO BE USED TO DETERMINE FLOOD INSURANCE RATES ONLY AND IS NOT INTENDED TO IDENTIFY SPECIFIC FLOOD CONDITIONS.

--	--



DATE	REVISION	BY

BRAZORIA COUNTY M.U.D NO. 39

PRECINCT 4 NORTH ANNEX

BDD4 STANDARD DETAILS 1
OF 3

LJA Engineering, Inc.
1904 W. Grand Parkway North
Suite 100
Katy, Texas 77449
Phone 713.953.5200
Fax 713.953.5026
FRN-F-1386

LUA PROJECT NO.: 1735-2401	DESIGNED BY: AJB
	DRAWN BY: AJB SHEET NO. 14 OF 17 SHEETS
SUBMITTED: SCALE: DATE: SEP 2024 SURVEYED BY: ENGINEERING, F B NO:	LUA INC.
CITY DWG NO:	

Geotechnical Engineering Report

North Annex Building – Precinct 4
NWC of County Road 58 and County Road 84
Brazoria County, Texas

April 5, 2013

Terracon Project No. 91135009

Prepared for:

Brazoria County Engineering Department
Angleton, Texas

Prepared by:

Terracon Consultants, Inc.
League City, Texas

Offices Nationwide
Employee-Owned

Established in 1965
terracon.com

Terracon

Geotechnical ■ Environmental ■ Construction Materials ■ Facilities

April 5, 2013

Brazoria County Engineering Department
451 North Velasco Street, Suite 230
Angleton, Texas 77515

Attn: Mr. Trey Haskins, E.I.T.

Re: Geotechnical Engineering Report
North Annex Building – Precinct 4
NWC of County Road 58 and County Road 84
Brazoria County, Texas
Terracon Project No. 91135009

Dear Mr. Haskins:

Terracon Consultants, Inc. (Terracon) is pleased to submit our geotechnical engineering report for the project referenced above in Brazoria County, Texas. We trust that this report is responsive to your project needs. Please contact us if you have any questions or if we can be of further assistance.

We appreciate the opportunity to work with you on this project and look forward to providing additional geotechnical engineering and construction materials testing services in the future.

Sincerely,

Terracon Consultants, Inc.

(Texas Firm Registration No.: F-3272)



Daniel B. Mabirizi, E.I.T.
Staff Geotechnical Engineer



Ather Mohiuddin, P.E.
Geotechnical Services Manager



Enclosures

Copies Submitted: Addressee: (3) Bound & (1) Electronic

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APPENDIX A – FIELD EXPLORATION

Exhibit A-1	Site Location Plan
Exhibits A-2 and A-3	Boring Location Plans
Exhibit A-4	Field Exploration Description
Exhibits A-5 through A-15	Boring Logs

APPENDIX B – LABORATORY TESTING

Exhibit B-1	Laboratory Testing
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APPENDIX C – SUPPORTING DOCUMENTS

Exhibit C-1	General Notes
Exhibit C-2	Unified Soil Classification System

Geotechnical Engineering Report

North Annex Building – Precinct 4 ■ Brazoria County, Texas
April 5, 2013 ■ Terracon Project No. 91135009



EXECUTIVE SUMMARY

This geotechnical engineering report has been prepared for the proposed construction of a new one-story building at a site located at the northwest corner (NWC) of County Road 58 and County Road 84 and an off-site detention pond at a site located off of County Road 174A in Brazoria County, Texas. Three test borings, designated B-1 through B-3, were drilled to depths of approximately 20 feet within the proposed building area and four test borings, designated B-4 through B-7, were drilled to depths of about 5 feet within the proposed pavement areas. In addition, four test borings, designated B-8 through B-11, were drilled to depths of about 15 feet within the proposed detention pond area.

Based on the information obtained from our subsurface exploration, the sites can be developed for the proposed construction. A summary of our findings and recommendations is listed below:

- Expansive soils are present on the site for the proposed building. This report provides recommendations to help reduce the effects of soil shrinkage and expansion. However, even if these procedures are followed, some movement and distress in the building should be anticipated.
- Drilled-and-underreamed footings should be utilized to support the proposed building planned at this site.
- A minimum 60-inch thick select fill building pad should be placed under the proposed building to provide uniform support to the floor slab and reduce the estimated Potential Vertical Rise (PVR) to approximately one inch or less.
- Rigid pavement sections vary from 5.0 to 7.0 inches of reinforced concrete with lime treated subgrade.
- Flexible pavement sections vary from 2.0 to 2.5 inches of asphaltic concrete over 8.0 to 10.0 inches of base material with lime treated subgrade.
- Sideslopes no steeper than 4 horizontal to 1 vertical (4H:1V) or flatter may be utilized for the proposed detention pond planned for this project.

This summary should be used in conjunction with the entire report for design purposes. Details were not included or fully developed in this section, and the report must be read in its entirety for a comprehensive understanding of the items contained herein. The section titled **"5.0 GENERAL COMMENTS"** should be read for an understanding of the report limitations.

**GEOTECHNICAL ENGINEERING REPORT
NORTH ANNEX BUILDING – PRECINCT 4
NWC OF COUNTY ROAD 58 AND COUNTY ROAD 84
BRAZORIA COUNTY, TEXAS**

Project No. 91135009

April 5, 2013

1.0 INTRODUCTION

Terracon Consultants, Inc. (Terracon) is pleased to submit our geotechnical engineering report for the proposed construction of a new one-story building at a site located at the northwest corner (NWC) of County Road 58 and County Road 84 and an off-site detention pond at a site located off of County Road 174A in Brazoria County, Texas. Three test borings, designated B-1 through B-3, were drilled to depths of approximately 20 feet within the proposed building area and four test borings, designated B-4 through B-7, were drilled to depths of about 5 feet within the proposed pavement areas. In addition, four test borings, designated B-8 through B-11, were drilled to depths of about 15 feet within the proposed detention pond area. This was approved by the Brazoria County Commissioners' Court on February 12, 2013 and authorized by Ms. Lesa Girouard with Brazoria County Purchasing by issuance of Purchase Order No. 0001302810 on April 5, 2013. The project scope was performed in general accordance with Terracon Document No. P97120168.Revision2, dated January 9, 2013.

The purpose of this geotechnical engineering report is to describe the subsurface conditions observed at the eleven test borings drilled for this project, analyze and evaluate the test data, and provide recommendations with respect to:

- Site and subgrade preparation;
- Foundation design and construction;
- Pavement design guidelines;
- Detention pond excavation and slope considerations; and
- Potential use of excavated soils.

2.0 PROJECT INFORMATION

2.1 Project Description

Item	Description
Project location	See Appendix A, Exhibit A-1, Site Location Plan.
Site layout	See Appendix A, Exhibits A-2 and A-3, Boring Location Plans.

Geotechnical Engineering Report

North Annex Building – Precinct 4 ■ Brazoria County, Texas

April 5, 2013 ■ Terracon Project No. 91135009



Item	Description
<i>Continued from page 1.</i>	
Proposed improvements	■ A one-story building with a footprint area of approximately 13,700 square feet. ■ Adjacent paved parking and driveways. ■ An off-site detention pond, approximately 6 acres in size, with a maximum depth of 8 feet. We understand that the material excavated from the proposed detention pond is planned to be used as fill to raise the grade at the proposed building site.
Finished floor elevation¹	Approximately three to four feet above existing grade.
Maximum loads (assumed)	■ Column loads – 150 kips. ■ Floor slab pressure – 125 psf.
^{1.} Based on information provided by Brazoria County Engineering Department.	

2.2 Site Description

Item	Description
Site location	■ North Annex Building – northwest corner (NWC) of County Road 58 and County Road 84 in Brazoria County, Texas. ■ Detention Pond – off of County Road 174A in Brazoria County, Texas.
Current ground cover	■ North Annex Building – exposed ground. ■ Detention Pond – underbrush and weeds.
Existing topography	Relatively level.

3.0 SUBSURFACE CONDITIONS

3.1 Geology

The site for the proposed construction is located on the Beaumont clay formation, a deltaic nonmarine Pleistocene deposit. The Beaumont clay is a heterogeneous formation containing thick interbedded layers of clay, fine sand and silt.

The clay fraction is primarily composed of montmorillonite, illite, kaolinite, and finely ground quartz. The clay present in the formation has been preconsolidated by a process of desiccation. Numerous wetting and drying cycles have produced a network of small randomly oriented, closely-spaced joints within some depth zones. These small joints frequently have a shiny appearance and the clays are called slickensided in these cases. The joint pattern may have an influence on the construction and engineering behavior of the soil.

Geotechnical Engineering Report

North Annex Building – Precinct 4 ■ Brazoria County, Texas
April 5, 2013 ■ Terracon Project No. 91135009



Based on a literature review, the nearest known published and mapped location of surface faulting relative to the building and detention pond sites are the Arcola Fault and Colony Fault. Arcola Fault is located within approximately one-half to one mile west of the annex building site and Colony Fault is located within approximately one-half to one mile south of the detention pond site. A geologic fault investigation and study of the site geology are beyond the scope of this report. Due to the close proximity of the Arcola Fault and Colony Fault to the project sites, we recommend that a Phase I geologic fault study be performed at these sites.

3.2 Typical Profile

The particular subsurface stratigraphy, as evaluated from our field and laboratory programs, is shown in detail on the Boring Logs in Appendix A. The native subsurface soils generally consisted of fat clay, lean clay, and silty sand soils to the termination depths of the borings (approximately 5 to 20 feet below existing grade).

Conditions observed at each boring location are indicated on the individual Boring Logs. Stratification boundaries on the Boring Logs represent the approximate location of changes in soil types; in-situ, the transition between materials may be gradual. Details for each boring can be found on the Boring Logs in Appendix A of this report.

Based on our field and laboratory programs, engineering values for the subsurface conditions can be summarized as follows:

Subsurface Soils						
Description	Plasticity Index (%)	In-situ Moisture Content (%)	Moisture Content vs. Plastic limit ¹ (%)	Undrained Shear Strength ² (psf)	SPT N-Value ³ (bpf)	Percentage of Fines ⁴ (%)
Fat Clay	28 to 69	14 to 33	-34 to +5	800 to 2,700	—	—
Sandy Lean Clay	9 to 33	18 to 21	-4 to 2	500 to 600	—	57
Silty Sand	—	19 to 23	—	—	8 to 14	20 to 33

¹ The difference between a soil sample's in-situ moisture content and its corresponding plastic limit.

² Based on unconfined compressive strength tests.

³ bpf = blows per foot.

⁴ Percent passing the No. 200 sieve.

3.3 Groundwater

The borings were advanced using dry drilling techniques to their termination depths (approximately 5 to 20 feet below the existing grade) in an effort to evaluate groundwater conditions at the time of our field program. Groundwater was not observed at borings B-1 through B-11 during or upon completion of drilling. These groundwater measurements are considered short-term, since the borings were open for a short time period. On a long-term basis, groundwater may be present within the depths explored. Additionally, groundwater will fluctuate seasonally with climatic changes and should be evaluated at the time of construction.

4.0 RECOMMENDATIONS FOR DESIGN AND CONSTRUCTION

The following recommendations are based upon the data obtained in our field and laboratory programs, project information provided to us, and on our experience with similar subsurface and site conditions.

4.1 Geotechnical Considerations

Expansive soils are present on the site for the proposed building. This report provides recommendations to help reduce the effects of soil shrinkage and expansion. However, even if these procedures are followed, some movement and distress in the proposed structures should be anticipated. The severity of distress and other damage will increase if any modifications of the site result in excessive wetting or drying of the expansive soils. Eliminating the risk of movement and distress may not be feasible, however further reduction in the risk of movement associated with the expansive soils may be possible if the building is designed a suspended structural slab with a void space with structural loads supported by a foundation system extending below the active zone. Terracon can provide recommendations for a structural floor slab system, if requested.

4.2 Earthwork

Construction areas should be stripped of vegetation, topsoil, and other debris/unsuitable material. Proper site drainage should be maintained during construction so that ponding of surface runoff does not occur and cause construction delays and/or inhibit site access.

Once final subgrade elevations have been achieved, the exposed soil subgrade areas should be carefully proofrolled with a 20-ton pneumatic roller or similar equipment, such as a fully loaded dump truck, to detect weak areas. Weak areas detected during proofrolling, as well as zones containing organics and/or debris, should be removed and replaced with select fill soils or soils exhibiting similar classification, moisture content, and density as the adjacent in-situ soils.

Subsequent to proofrolling, and just prior to placement of fill, the exposed subgrade within the construction areas should be evaluated for moisture and density. If the moisture, density, and/or the requirements do not meet the criteria described in the “**4.2.1 Compaction Requirements**” section for on-site soils, the subgrade should be scarified to a minimum depth of 6 inches, moisture adjusted and compacted to at least 95 percent of the Standard Effort (ASTM D698) maximum dry density.

Select fill and on-site soils to be used at this site for grade adjustments should meet the following criteria.

Fill Type	USCS Classification	Acceptable Location for Placement
Select fill	CL and/or SC ($10 \leq PI \leq 20$)	Must be used to construct the building pad under the floor slab and for all grade adjustments within the building area.
On-site soils	Varies	The on-site soils appear to be suitable for use as fill within the pavement areas, provided they are free of organics and debris.

If blended or mixed soils are intended for use to construct the building pad, Terracon should be contacted to provide additional recommendations. Blended or mixed soils do not occur naturally. These soils are a blend of sand and clay and will require mechanical mixing with a pulvimixer at the site. If these soils are not mixed thoroughly to break down the clay clods and blend-in the sand to produce a uniform soil matrix, the fill material may be detrimental to the slab performance. If blended soils are used, we recommend that additional samples of the blended soils, as well as the clay clods, be obtained prior to and during earthwork operations to evaluate if the blended soils can be used in lieu of select fill. The actual type and amount of mechanical mixing at the site will depend on the amount of clay and sand, and properties of the clay.

4.2.1 Compaction Requirements

Item	Description
Fill lift thickness	The fill soils should be placed on prepared surfaces in lifts not to exceed 8 inches loose measure, with compacted thickness not to exceed 6 inches.
Compaction requirements	■ The select fill soils should be compacted to at least 95 percent of the Standard Effort (ASTM D698) maximum dry density at a moisture content within 2 percent of optimum moisture content. ■ The on-site clay soils should be compacted to at least 95 percent of the Standard Effort (ASTM D698) maximum dry density at a moisture content between optimum and 4 percent wet of the optimum moisture content.

Prior to any filling operations, samples of the proposed borrow and on-site materials should be obtained for laboratory moisture-density testing. The tests will provide a basis for evaluation of fill compaction by in-place density testing. A qualified soil technician should perform sufficient in-place density tests during the filling operations to evaluate that proper levels of compaction, including dry unit weight and moisture content, are being attained.

4.2.2 Wet Weather / Soft Subgrade Considerations

Construction operations may encounter difficulties due to wet or soft surface soils becoming a general hindrance to equipment due to rutting and pumping of the soil surface, especially during and soon after periods of wet weather. If the subgrade cannot be adequately compacted to the minimum densities as described above, one of the following measures will be required: 1) removal and replacement with select fill, 2) chemical treatment of the soil to dry and improve the condition of the subgrade, or 3) drying by natural means if the schedule allows. In our experience with similar soils in this area, chemical treatment is the most efficient and effective method to increase the supporting value of wet and weak subgrade. Terracon should be contacted for additional recommendations if chemical treatment of the soils is needed.

4.2.3 Grading and Drainage

All grades must provide effective drainage away from the building during and after construction. Water permitted to pond next to the building can result in distress in the building. These greater movements can result in unacceptable differential floor slab movements, cracked slabs and walls, and roof leaks. Building slab and foundation performances described in this report are based on effective drainage for the life of the building and cannot be relied upon if effective drainage is not maintained.

Exposed ground should be sloped away from the building for at least 10 feet beyond the perimeter of the building. After building construction and landscaping, we recommend verifying final grades to document that effective drainage has been achieved. Grades around the building should also be periodically inspected and adjusted as necessary, as part of the building's maintenance program.

Planters located within 10 feet of the building should be self-contained to prevent water accessing the building and pavement subgrade soils. Locate sprinkler mains and spray heads a minimum of 5 feet away from the building lines. Low-volume, drip-style landscaped irrigation should not be used near the building. Collect roof runoff in drains or gutters. Discharge roof drains and downspouts onto pavements and/or flatworks which slope away from the building or extend down spouts a minimum of 10 feet away from building.

Flatworks and pavements will be subject to post construction movement. Maximum grades practical should be used for paving and flatwork to prevent water from ponding. Allowances in final grades should also consider post-construction movement of flatwork, particularly if such

movement would be critical. Where paving or flatwork abuts the building, effectively seal and maintain joints to prevent surface water infiltration.

Utility trenches are a common source of water infiltration and migration. All utility trenches that penetrate beneath the building should be effectively sealed to restrict water intrusion and flow through the trenches that could migrate below the building. We recommend constructing an effective clay "trench plug" that extends at least 5 feet out from the face of the building exterior. The plug material should consist of clay compacted at a water content at or above the soils optimum water content. The clay fill should be placed to completely surround the utility line and be compacted in accordance with recommendations in this report.

4.3 Foundation System

Based on the subsurface conditions observed during our field and laboratory programs, drilled-and-underreamed footings should be utilized to support the proposed building planned at this site. Recommendations for this type of foundation system are provided in the following sections, along with other geotechnical considerations for this project

4.3.1 Drilled-and-Underreamed Footings – Design Recommendations

Description	Design Parameters
Minimum embedment ¹	10 feet below existing grade (grade at the time of our field program)
Allowable bearing pressures ²	Net dead plus sustained live load – 3,500 psf Net total load – 5,250 psf
Maximum underream-to-shaft diameter ratio	2.5:1
Minimum underream-to-shaft diameter ratio ³	2:1
Estimated uplift pressure due to post-construction heave of the clay soils ⁴	2,000 psf
Minimum percentage of steel ⁵	0.5 percent
Approximate total settlement ⁶	one inch or less
Estimated differential settlement ⁷	Approximately ½ of total settlement
Allowable passive pressure ⁸	1,500 psf
Ultimate uplift resistance ⁹	Foundation Weight (150 pcf) & Soil Weight (120 pcf)

1. To bear within the native clay soils.

2. Whichever condition yields a larger bearing area.

3. This minimum underream-to-shaft diameter ratio should result in a large enough diameter of the underream to overcome uplift forces on the footing without causing local soil failure to the overlying soils.

Description	Design Parameters
<u>Continued from page 7.</u>	
4. The magnitude of uplift is difficult to predict and will vary with in-situ moisture contents. This uplift pressure can be approximated over the entire perimeter of the shaft above the top of the underream.	
5. The footings should contain sufficient vertical reinforcing steel throughout the entire shaft length to resist uplift (tensile) forces due to post-construction heave of the clay soils. The amount of reinforcing steel required can be computed by assuming that the dead load of the structure surcharges the footing, that the above estimated tensile force acts vertically on the shaft, and that the underream acts as a rigid anchor.	
6. Provided proper construction practices are followed. A clear distance between the footings of one underream diameter of the larger footing should be provided between the underreams to develop the recommended bearing pressures and to control settlements. If a clearance of one diameter cannot be maintained in every case, the above bearing capacities should be reduced by 20 percent for a clearance between one half and one underream diameters. Underreams closer than a clearance of one half of a underream diameter are not recommended.	
7. The differential settlement will result from variances in subsurface conditions, loading conditions and construction procedures, such a cleanliness of the bearing area or flowing water in the shaft.	
8. For footings placed against an undisturbed vertical face of the in-situ soils. Lateral resistance of the footings is primarily developed by passive resistance of the soils against the side of the footing. Due to surface effects and presence of expansive soils, the lateral resistance of the upper 3 feet of the soils at the surface for exterior footings should be neglected unless area paving is provided up to the edge of the proposed building.	
9. Structural uplift loads on the drilled-and-underreamed footings will be resisted by the dead weight of the footings and supported structure plus the weight of a soil wedge above the footing. The soil wedge can be assumed to extend upward from the bottom of the underream at a slope of 4 vertical to 1 horizontal.	

4.3.2 Drilled-and-Underreamed Footings – Construction Considerations

Drilled excavations to a depth of 10 feet below existing grade (grade at the time of our field program) will be necessary for installation of drilled-and-underreamed footings for the proposed building at this site. The excavations should be performed with equipment capable of providing a relatively clean bearing area. The presence of secondary structures such as ferrous and calcareous nodules, and slickensides can cause sloughing during footing excavation. Thus, the drilling contractor should have casing available in the event that sloughing causes improperly formed shafts.

Based on our current groundwater observations (refer to the “3.3 Groundwater” section), groundwater was not observed at borings B-1 through B-3 during or upon completion of drilling. Therefore, groundwater is not expected to be a major concern during the construction of the drilled footings at the recommended bearing depth of 10 feet. However, depending on climatic conditions, groundwater levels may vary from the levels observed during our field program. Water must not be allowed to accumulate in the bottom of the footing excavations. Therefore, the contractor should be prepared to remove water from the drilled footings if necessary. To

reduce the potential for water seepage into the footing excavation and to minimize disturbance to the bearing area, we recommend that concrete and steel be placed as soon as possible after footing excavations are completed. Preferably, footing excavations should be backfilled with concrete within about 2 to 4 hours of completion of the drilling and in no case should an excavation be left open overnight. The concrete placed in the excavations should have a 6-inch slump with a plus or minus one inch tolerance. The bottom of each footing excavation should be free of all loose materials and/or water, and the bearing surface should be evaluated immediately prior to placing concrete.

Based on the available field and laboratory data, the underreams constructed as described in this report should remain stable for a short period of time. However, if underreams are marginally stable due to water seepage and/or the presence of sloughing soils, successful construction of underreamed footings may be possible by performing the sequence of construction without interruption, that is, each footing drilled, underreamed, and backfilled with concrete in one continuous operation. The contractor must coordinate the operation very closely to have concrete on site at the time each footing is drilled and underreamed so that no shaft or underream is drilled without concrete standing by, ready to be placed. Additional measures to reduce the potential for caving of the underream would be to limit the underream-to-shaft diameter ratio to 2:1 or to install straight shaft footings in isolated problem areas. If straight-shaft footings are planned at the site, Terracon should be contacted for additional recommendations.

4.3.3 Grade Beams

Grade beams supported with the drilled-and-underreamed foundation system should be designed to span between the footings without subgrade support. Often, a vertical void of about 6 to 8 inches is provided beneath the grade beams in clay soils such as those observed at this site. However, recent experience indicates that the voids beneath the grade beams often fill with water, providing moisture to the surrounding subgrade. Therefore, provided that the subgrade is prepared as recommended in this report, grade beams may be constructed without a void at this site. However, due to the underlying clay soils, nominal upward movement of the grade beams may occur during moisture variations of the subgrade.

If construction of voids beneath the grade beams is planned, proper construction of the voids and soil retainers is very important. If a cardboard carton system is used on this project, we recommend that the carton form supplier provide, during the initial concrete operations, a representative to instruct the work force on the proper installation methods for both the forms and the concrete. In addition, measures should be implemented to provide proper surface drainage away from the building to reduce the potential for water to access the voids.

Backfill against the outside face of the grade beams should consist of select fill used to prepare the building pad. The select fill should be uniformly compacted to at least 95 percent of the Standard Effort (ASTM D698) maximum dry density at a moisture content within 2 percent of optimum moisture content.

4.3.4 Foundation Construction Monitoring

The performance of the foundation system for the proposed building will be highly dependent upon the quality of construction. Thus, we recommend that the subgrade preparation, fill compaction, and foundation installation be monitored full time by an experienced Terracon soil technician under the direction of our geotechnical engineer. During footing installation, the base of footings should be monitored to evaluate the subgrade. We would be pleased to develop a plan for compaction and foundation installation monitoring to be incorporated in the overall quality control program.

4.4 Floor Slab

Planned finished grades at the building site were not available at the time of this report. However, we understand that the material excavated from the proposed detention pond is planned to be used as fill to raise the building site about three to four feet above existing grade. If cuts and/or significant fills are planned, Terracon should be notified to review and/or modify our recommendations given in this subsection

4.4.1 Design Recommendations

The near surface soils at this site generally exhibited a medium to high expansion potential. These soils can subject the lightly loaded interior floor slab to significant movements (due to shrinking and swelling) with fluctuations in their moisture content. This movement potential is influenced primarily by the properties of the subgrade soils, as well as the moisture content of the subgrade at the time of construction, overburden pressures, and the stability of the moisture contents throughout the life of the structure. Based on the information developed from our field and laboratory programs and on method TEX-124-E in the Texas Department of Transportation (TxDOT) Manual of Testing Procedures, we estimate that the subgrade soils at this site exhibit a Potential Vertical Rise (PVR) of up to approximately 4 inches. Therefore, we highly recommend that the near-surface soils be prepared as stated below to reduce the potential for slab movement associated with volumetric changes of the near-surface clay soils due to moisture variations to a more acceptable level. The actual movements could be greater if poor drainage, ponded water, and/or other sources of moisture are allowed to infiltrate beneath the proposed building after construction.

The most common method of subgrade preparation to reduce potential expansion of the subgrade would be to provide a pad of properly placed and compacted select fill beneath the building. The corresponding decrease in the potential soil movements is primarily a function of the fill pad thickness and the moisture levels of the underlying clay subgrade. While the indicated preparations do not eliminate the potential for soil movement, the magnitude of such movements should be reduced to more acceptable levels. To provide uniform support to the floor slab and to reduce the estimated PVR to approximately one inch or less, we recommend that a minimum 60 inches of properly placed and compacted select fill material be constructed immediately beneath the floor slab. The building pad should extend a minimum of 5 feet beyond

the edge of the proposed building. The final exterior grade adjacent to the building should be sloped to promote effective drainage away from the building.

Select fill should be utilized for all grade adjustments within the proposed building. The subgrade and select fill soils should be prepared as outlined in the “**4.2 Earthwork**” section of this report, which contains material and placement requirements for select fill, as well as other subgrade preparation recommendations.

The subgrade soils for flatwork outside of the building which will be sensitive to movement should be prepared as discussed previously. This preparation will be important on surrounding sidewalks and paving immediately adjacent to the building. If these adjacent flatwork areas are not prepared as stated above for the building area, the estimated PVR for these areas could approach those indicated previously for in-situ conditions. If the soils swell in these areas, this movement could result in significant distress to the adjacent sidewalks and paving and possibly result in reversed drainage (flow of runoff toward the building) around the perimeter of the building.

4.5 Pavements

We understand that the subsurface soils excavated from the proposed detention pond are planned to be used as fill to raise the building site about three to four feet above existing grade. If cuts and/or significant fills are planned, Terracon should be notified to review and/or modify our recommendations given in this subsection.

Based on the subsurface conditions, we anticipate that the pavement subgrade will generally consist of high plasticity clay soils excavated from the detention pond. We recommend that the top 6 inches of the finished subgrade soils directly beneath the pavements be chemically treated. Chemical treatment will increase the supporting value of the subgrade and decrease the effect of moisture on subgrade soils. This 6 inches of treatment is a required part of the pavement design and is not a part of site and subgrade preparation for wet/soft subgrade conditions.

The high plasticity clay soils should be treated with lime applied at a rate of 8 to 10 percent lime. These percentages are typically equivalent to about 40 to 50 pounds of lime per square yard per 6-inch treated depth. These treatment percentages are given as application by dry weight. The actual amount of lime should be determined at the time of construction by the use of lime determination tests on bulk samples of the subgrade obtained from the final subgrade elevation. The subgrade soils should be treated in accordance with TxDOT 2004 Standard Specifications Item 260 for lime treated subgrade.

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North Annex Building – Precinct 4 ■ Brazoria County, Texas

April 5, 2013 ■ Terracon Project No. 91135009



Once the subgrade is properly prepared both rigid pavement systems and flexible pavement systems (consisting of asphaltic concrete and base material) may be considered for this project. Detailed traffic loads and frequencies were not available. However, we anticipate that traffic will consist primarily of passenger vehicles in the parking areas and passenger vehicles combined with occasional large multi-axle delivery and garbage trucks in the driveways.

Tabulated in the following table are the assumed traffic frequencies and loads used to design pavement sections for this project.

Pavement Area	Traffic Design Index	Description
Automobile Parking Areas	DI-1	Light traffic (Few vehicles heavier than passenger cars, no regular use by heavily loaded two axle trucks.) ($EAL^1 < 6$)
Driveways (Light Duty)	DI-2	Medium to light traffic (Similar to DI-1 including not over 50 loaded two axle trucks or lightly loaded larger vehicles per day. No regular use by heavily loaded trucks with three or more axles.) ($EAL^1 = 6-20$)
Driveways and Truck Traffic Areas (Medium Duty)	DI-3	Medium traffic (Including not over 300 heavily loaded two axle trucks plus lightly loaded trucks with three or more axles and no more than 30 heavily loaded trucks with more than three axles per day.) ($EAL^1 = 21-75$)

¹ Equivalent daily 18-kip single-axle load applications.

Listed below are pavement component thicknesses, which may be used as a guide for pavement systems at the site for the traffic classifications stated herein. These systems were derived based on general characterization of the subgrade. Specific testing (such as CBR tests, resilient modulus tests, etc.) was not performed for this project to evaluate the support characteristics of the subgrade. At the time of construction, we recommend to perform a laboratory compaction (standard proctor) test and a laboratory California Bearing Ratio (CBR) test on at least one bulk sample of the anticipated pavement subgrade material to verify our design assumptions.

Portland Cement Concrete Pavement System			
Component	Material Thickness (Inches)		
	DI-1	DI-2	DI-3
Portland Cement Concrete	5.0	6.0	7.0
Treated Subgrade	6.0	6.0	6.0

Asphaltic Concrete Pavement System		
Component	Material Thickness (Inches)	
	DI-1	DI-2
Asphaltic Concrete	2.0	2.5
Base Material	8.0	10.0
Treated Subgrade	6.0	6.0

We recommend that the waste dumpster areas be constructed of at least 7 inches of reinforced concrete pavement. The concrete pad areas should be designed so that the vehicle wheels of the collection truck are supported on the concrete while the dumpster is being lifted to support the large wheel loading imposed during waste collection. Pavement areas that are not designed in this manner often experience localized failures due to large wheel loads imposed on the pavement and underlying subgrade soils.

Presented below are our recommended material requirements for the various pavement sections.

Portland Cement Concrete Pavement – The materials and properties of a portland cement concrete pavement shall meet applicable requirements in the ACI Manual of Concrete Practice. The portland cement concrete mix should have a minimum 28-day compressive strength of 3,500 psi.

Reinforcing Steel – ACI recommendations indicate that distributed steel reinforcement is not necessary when the pavement is properly jointed to form short panel lengths that will help reduce intermediate cracking. Provided the concrete pavement is designed and constructed as stated herein, the installation of reinforcing steel is optional and should be evaluated by the design team. Proper layout and installation of the joints within the pavement is critical to help control intermediate cracking.

If reinforcing steel is planned to be utilized in the concrete pavement by the design team, the following amount of reinforcing steel should be used as a guideline:

- DI-1: #3 bars spaced at 18 inches or #4 bars spaced at 24 inches on centers in both directions.
- DI-2: #3 bars spaced at 12 inches or #4 bars spaced at 18 inches on centers in both directions.
- DI-3: #4 bars spaced at 18 inches on centers in both directions.

Control Joint Spacing – ACI recommendations indicate that control joints should be spaced at a maximum spacing of 30 times the thickness of the pavement for unreinforced parking lot pavements. Furthermore, ACI recommends a maximum control joint spacing of 12.5 feet for 5-inch pavements and a maximum control joint spacing of 15 feet for 6-inch or thicker pavements. Sawcut control joints should be cut within 4 to 12 hours of concrete placement to help control the formation of plastic shrinkage cracks as the concrete cures. The depth of the

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North Annex Building – Precinct 4 ■ Brazoria County, Texas
April 5, 2013 ■ Terracon Project No. 91135009



joint should be at least one-quarter of the slab depth when using a conventional saw or one inch when using early entry saws. The width of the cut should be in accordance with the joint sealant manufacturer recommendations.

Expansion Joint Spacing – ACI recommendations indicate that regularly spaced expansion joints may be deleted from concrete pavements. Therefore, the installation of expansion joints is optional and should be evaluated by the design team.

Construction Joints – When concrete is planned to be placed at different times, we recommend the use of a construction joint between paving areas. The construction joint should consist of a butt joint (not a keyway joint).

Concrete Curing Compound – A concrete curing compound, such as a Type 2 membrane curing compound conforming to TxDOT DMS-4650, "Hydraulic Cement Concrete Curing Materials and Evaporation Retardants" or equivalent, should be applied to the concrete surface immediately after placement of the concrete in accordance with TxDOT 2004 Standard Specifications Item 360.

Dowels at Expansion Joints – The dowels at expansion joints should be spaced at 12-inch centers and consist of the following:

- DI-1: 5/8-inch diameter, 12-inches long with 5-inch embedment
- DI-2: 3/4-inch diameter, 14-inches long with 6-inch embedment
- DI-3: 7/8-inch diameter, 14-inches long with 6-inch embedment

Hot Mix Asphaltic Concrete Surface Course – The asphaltic concrete surface course should be plant mixed, hot laid Type D (Fine Graded Surface Course) meeting the specifications requirements in TxDOT 2004 Standard Specifications Item 340. Specific criteria for the job specifications should include compaction to within an air void range of 5 to 9 percent calculated using the maximum theoretical specific gravity mix measured by TxDOT TEX-227-F. The asphalt cement content by percent of total mixture weight should be within ± 0.5 percent asphalt cement from the job mix design.

Base Material – Base material should be composed of crushed limestone or crushed concrete meeting the requirements of TxDOT 2004 Standard Specifications Item 247, Type A or D, Grade 1. The base material should be compacted to at least 95 percent of the Modified Effort (ASTM D1557) maximum dry density at a moisture content within 2 percent of the optimum moisture content.

Lime Treated Subgrade – The high plasticity clay soils should be treated with lime in accordance with the TxDOT 2004 Standard Specifications Item 260. We recommend that 8 to 10 percent lime by dry weight be used for estimating and planning. The actual quantity of the lime should be determined at the time of construction based on lime determination testing conducted using bulk samples of the subgrade soils. The pulverization, mixing and curing of the lime treated subgrade is of particular importance in these plastic clays. The subgrade should be compacted to a minimum of 95 percent of the Standard Effort (ASTM D698) maximum dry density between optimum and +4 percent of the optimum moisture content. Preferably, traffic should be kept off the treated subgrade for 7 days to facilitate curing of the soil-chemical mixture. In addition, the subgrade is not suitable for heavy construction traffic prior to paving.

The pavement design methods described above are intended to provide structural sections with adequate thickness over a particular subgrade such that wheel loads are reduced to a level the subgrade can support. The support characteristics of the subgrade for pavement design do not account for shrink/swell movements of an expansive clay subgrade such as the soils encountered at this site. Thus the pavement may be adequate from a structural standpoint, yet still experience cracking and deformation due to shrink/swell related movement of the subgrade. Post-construction subgrade movements and some cracking of the pavements are not uncommon for subgrade conditions such as those observed at this site. Reducing moisture changes in the subgrade is important to reduce shrink/swell movements. Although chemical treatment of the subgrade will help to reduce such movement/cracking, this movement/cracking cannot be economically eliminated.

Related civil design factors such as subgrade drainage, shoulder support, cross-sectional configurations, surface elevations and environmental factors which will affect the service life must be included in the preparation of the construction drawings and specifications. Normal periodic maintenance will be required.

4.5.1 Preventive Maintenance

Long-term pavement performance will be dependant upon several factors, including maintaining subgrade moisture levels and providing for preventive maintenance. The following recommendations should be implemented to help promote long-term pavement performance.

- Site grading should be designed to drain away from the pavements, preferably at a minimum grade of 2 percent;
- The subgrade and the pavement surface should be designed to promote proper surface drainage, preferably at a minimum grade of 2 percent;
- Install joint sealant, and seal cracks immediately;
- Extend curbs into the treated subgrade for a depth of at least 4 inches to help prevent moisture migration into the subgrade soils beneath the pavement section; and
- Place compacted, low permeability clayey backfill against the exterior side of the curb and gutter.

Preventative maintenance should be planned and provided for the pavements at this site. Preventative maintenance activities are intended to slow the rate of pavement deterioration, and consist of both localized maintenance (e.g. crack and joint sealing and patching) and global maintenance (e.g. surface sealing). Prior to implementing any maintenance, additional engineering observations are recommended to determine the type and extent of preventative maintenance.

4.6 Detention Pond

We understand that an off-site detention pond, approximately 6 acres in size, with a maximum depth of 8 feet is planned for this project. Four test borings, designated B-8 through B-11, were drilled to depths of about 15 feet within the proposed detention pond area. The following paragraphs present our recommendations regarding the detention pond excavations, sideslopes, erosion concerns, and the potential use of the excavated soils as fill.

4.6.1 Excavation and Slopes

Based on our groundwater observations (refer to the “3.3 Groundwater” section), groundwater was not observed at borings B-8 through B-11 during or upon completion of drilling. Therefore, we anticipate that groundwater will not be a major concern if the excavations do not exceed the maximum anticipated depth of 8 feet within the clay soils. Minor seepage is possible above the planned excavation depth within the clay soils, but this minor seepage can likely be handled with sumps and pumps.

To further evaluate the groundwater conditions at the time of construction, piezometers can be set just prior to construction. As an alternative, test pits may be excavated to the planned depths. Based on the results, the contractor should determine effective methods of groundwater management prior to starting excavation operations.

Based on the available field and laboratory data obtained from borings B-8 through B-11 and our previous experience with this type of soil, a sideslope configuration of 4H:1V may be utilized for the proposed detention pond. Terracon should be contacted if the depth of the proposed detention pond increases or the proposed side-slope configuration is changed to a slope steeper than 4H:1V.

4.6.2 Erosion

If water flow is permitted along the sideslopes of the detention pond, the near-surface soils will likely erode, causing gradual steepening and subsequent sloughing of the sideslopes, which may possibly allow the top of the bank to encroach into adjacent areas. Therefore, the sideslopes should be protected against sheet flow down the banks or concentrated high velocity water flow. Due to the potential for erosion, the earthen slopes will require establishing a good vegetation cover as soon as practical and maintaining it over the life of the slope. Regular maintenance of the pond slopes and vegetative cover will be necessary.

4.6.3 Potential Use of Excavated Soils

The soils observed at borings B-8 through B-11 within the proposed detention pond area generally consist of high plasticity clay soils. These native clay soils exhibited measured plasticity indices (PI) that ranged from 28 to 63 percent within upper 8 feet. The clay soils may be used for general grading at the proposed annex building site provided they are free of organics and debris. These clay soils should not be used as select fill, unless they meet the select fill requirements as stated in the “4.2 Earthwork” section of this report.

5.0 GENERAL COMMENTS

Terracon should be retained to review the final design plans and specifications so comments can be made regarding interpretation and implementation of our geotechnical recommendations in the design and specifications. Terracon also should be retained to provide observation and testing services during grading, excavation, foundation installation, and other earth-related construction phases of the project.

The analysis and recommendations presented in this report are based upon the data obtained from the borings performed at the indicated locations and from other information discussed in this report. This report does not reflect variations that may occur between borings, across the site, or due to the modifying effects of weather. The nature and extent of such variations may not become evident until during or after construction. If variations appear, we should be immediately notified so that further evaluation and supplemental recommendations can be provided.

The scope of services for this project does not include either specifically or by implication any environmental or biological (e.g., mold, fungi, and bacteria) assessment of the site or identification or prevention of pollutants, hazardous materials or conditions. If the owner is concerned about the potential for such contamination or pollution, other services should be undertaken.

For any excavation construction activities at this site, all Occupational Safety and Health Administration (OSHA) guidelines and directives should be followed by the Contractor during construction to insure a safe working environment. In regards to worker safety, OSHA Safety and Health Standards require the protection of workers from excavation instability in trench situations.

Geotechnical Engineering Report

North Annex Building – Precinct 4 ■ Brazoria County, Texas
April 5, 2013 ■ Terracon Project No. 91135009



This report has been prepared for the exclusive use of our client for specific application to the project discussed and has been prepared in accordance with generally accepted geotechnical engineering practices. No warranties, either express or implied, are intended or made. Site safety, excavation support, and dewatering requirements are the responsibility of others. In the event that changes in the nature, design, or location of the project as outlined in this report are planned, the conclusions and recommendations contained in this report shall not be considered valid unless Terracon reviews the changes and either verifies or modifies the conclusions of this report in writing.

APPENDIX A
FIELD EXPLORATION



N 86° 40' 56" E - 497.00'

LOT 20

2004 MUSTANG CREEK, LTD.
CALLED 16.667 ACRES
CCFN 2004-058547
O.R.B.C.

5.33 ACRES

0.3216 ACRES IN R.O.W.
(SEE NOTE 3)

(SEE NOTE 1)

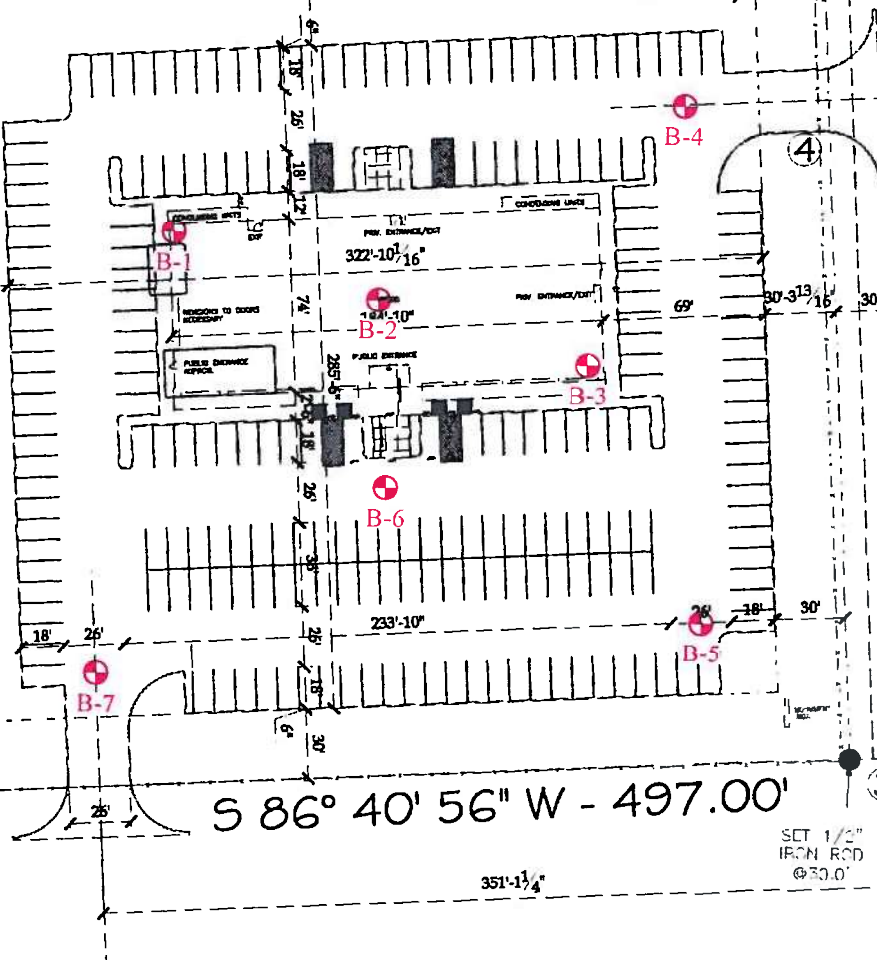
(SEE NOTE 2)

COUNTY ROAD 84

S 03° 12' 16" E - 467.00'

368'-10 3/16"

113°-7 13/16"



S 86° 40' 56" W - 497.00'

351'-1 1/4"

COUNTY ROAD 58

LEGEND

SOIL BORING LOCATIONS



SCALE IN FEET

DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

Project Mng.	DM	Project No.	91135009
Drawn By:	CSI, INC	Scale:	AS SHOWN
Checked By:	AM	File No:	91135009
Approved By:	AM	Date:	03-20-2013

Terracon
Consulting Engineers & Scientists

511 Link Road, Suite F
League City, Texas 77573
PH (281) 557-2900 FAX (281) 557-2990

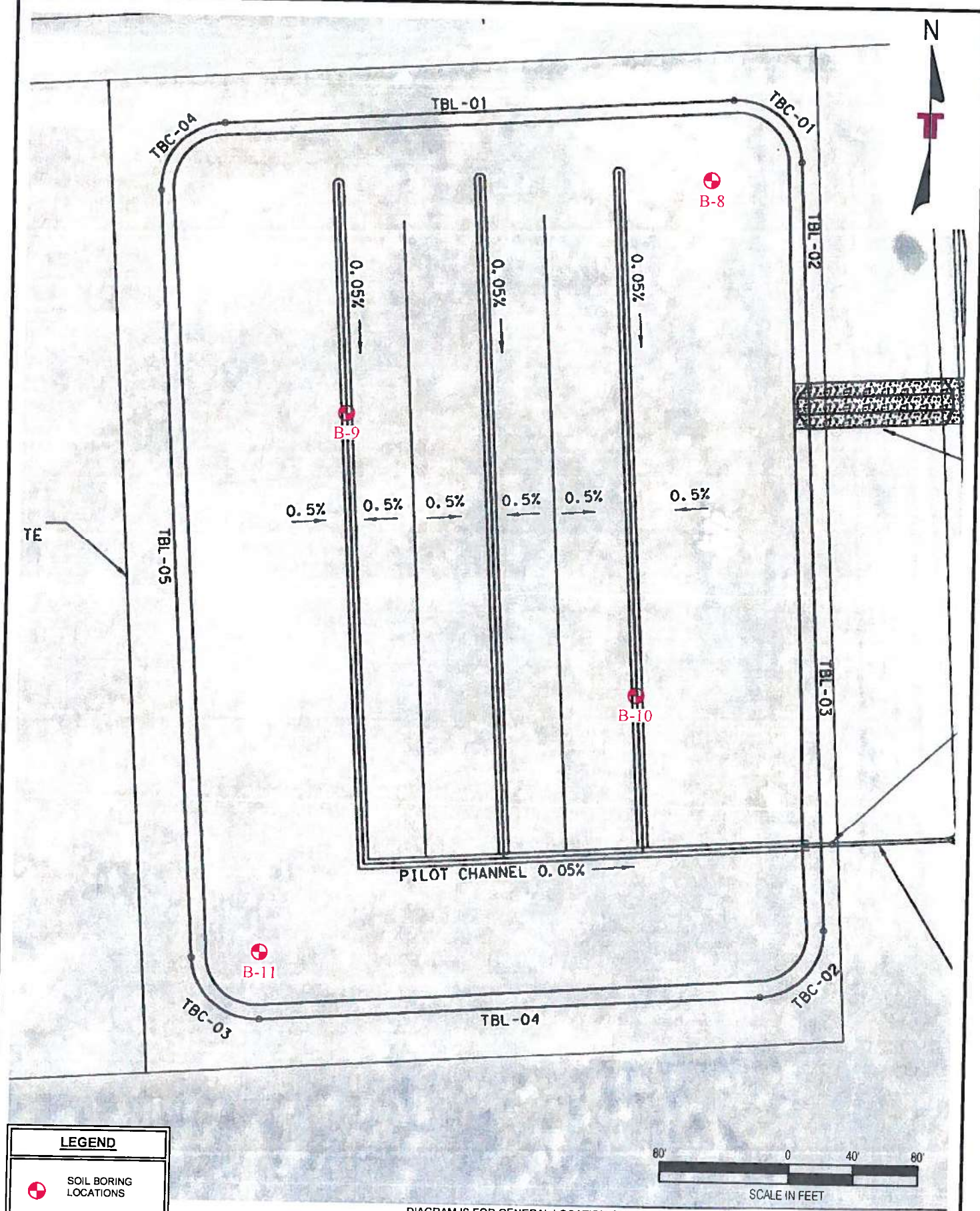
BORING LOCATION PLAN

North Annex Building - Precinct 4
NWC of County Road 58 and County Road 84
Brazoria County, Texas

Exhibit

A-2

F:\Projects 2013\Terracon\LEAGUE CITY\018-005-91135009 Refer to Exhibit A-2 and A-3\135009\01135009 A-1 & A-2.dwg



Project Mng.	DM	Project No.	91135009
Drawn By:	CSI, INC	Scale:	AS SHOWN
Checked By:	AM	File No:	91135009
Approved By:	AM	Date:	03-20-2013

Terracon
Consulting Engineers & Scientists

511 Link Road, Suite F. League City, Texas 77573
PH (281) 557-2900 FAX (281) 557-2990

BORING LOCATION PLAN

Detention Pond
County Road 174A
Brazoria County, Texas

Exhibit

A-3

Geotechnical Engineering Report

North Annex Building – Precinct 4 ■ Brazoria County, Texas
April 5, 2013 ■ Terracon Project No. 91135009

Terracon

Field Exploration Description

Subsurface conditions were evaluated by drilling three test borings, designated B-1 through B-3, to depths of approximately 20 feet within the proposed building area along with four test borings, designated B-4 through B-7, to depths of about 5 feet within the proposed pavement areas. In addition, four test borings, designated B-8 through B-11, were drilled to depths of about 15 feet within the proposed detention pond area. The borings were drilled using all-terrain vehicle (ATV) mounted drilling equipment at the approximate locations shown on the Boring Location Plans, Exhibits A-2 and A-3 of Appendix A. The borings were located by measuring from existing site features shown on the drawings provided to us without the use of surveying equipment. Boring depths were measured from existing grade at the time of our field program. Upon completion of our field program, the borings were backfilled with soil cuttings.

The Boring Logs, presenting the subsurface soil descriptions, type of sampling used, and additional field data, are presented on Exhibits A-5 through A-15 of Appendix A. The General Notes, which defines the terms used on the logs, are presented on Exhibit C-1 of Appendix C. The Unified Soil Classification System is presented on Exhibit C-2 of Appendix C.

Soil samples were recovered using open-tube samplers. Pocket penetrometer tests were performed on samples of cohesive soils in the field to serve as a general measure of consistency.

Samples were removed from samplers in the field, visually classified, and appropriately sealed in sample containers to preserve their in-situ moisture contents. Samples were then transported to our laboratory in League City, Texas.

BORING LOG NO. B-1

CLIENT: **Brazoria County Engineering Dept.
Angleton, Texas**

PROJECT: **North Annex Building - Precinct 4**

BORING LOCATION: **See Boring Location Plan, Exhibit A-2**

SITE: **NWC County Road 58 and County Road 84
Brazoria County, Texas**

Brazoria County, Texas														
Graphic Log	DESCRIPTION	DEPTH, FEET	SAMPLES			TESTS								
			USCS SYMBOL	TYPE	SPT, BLOWS/FT	CALIBRATED HAND PENETROM, TSF	MOISTURE CONTENT, %	DRY DENSITY, PCF	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX	MINUS #200 SIEVE, %	COMPRESSIVE STRENGTH, TSF	FAILURE STRAIN, %
	Approx. Surface Elevation: Existing Grade													
	FAT CLAY dark gray, stiff to very stiff, with ferrous nodules		CH	ST	2.5									
		5		ST	2.5	30	93	69	36	33		1.7	9	0
	- gray and tan, 4 to 6 feet - with calcareous nodules below 4 feet			ST	2.0									
	- tan and light gray, 6 to 13 feet			ST	4.0									
	- with slickensides below 8 feet			ST	4.0	26	95	74	31	43		1.8	3	0
		10		ST	3.0	32	91					1.7	5	0
	- reddish brown and light gray below 13 feet			ST	3.5									
		15												
				ST	4.5									
	20.0													
	Boring terminated at 20 feet.	20												

STRATIFICATION LINES REPRESENT APPROXIMATE

STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARIES BETWEEN SOIL TYPES. IN SITU, THE TRANSITION BETWEEN STRATA MAY BE MORE GRADUAL.

REMARKS: **Dry augered to 20 feet.**

WATER LEVEL OBSERVATIONS

▽	▽
▽	▽

FREE WATER WAS NOT OBSERVED DURING DRY DRILLING OPERATIONS

Terracon

DATE DRILLED

3/1/2013

PROJECT NUMBER

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EXHIBIT

A-5

BORING LOG NO. B-2

CLIENT: **Brazoria County Engineering Dept.
Angleton, Texas**

PROJECT: **North Annex Building - Precinct 4**

BORING LOCATION: **See Boring Location Plan, Exhibit A-2**

SITE: **NWC County Road 58 and County Road 84
Brazoria County, Texas**

Brazoria County, Texas															
Graphic Log	DESCRIPTION	DEPTH, FEET	SAMPLES			TESTS									
			USCS SYMBOL	TYPE	SPT, BLOWS/FT	CALIBRATED HAND PENETROM., TSF	MOISTURE CONTENT, %	DRY DENSITY, PCF	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX	MINUS #200 SIEVE, %	COMPRESSIVE STRENGTH, TSF	FAILURE STRAIN, %	CONFINING PRESSURE, PSI
	Approx. Surface Elevation: Existing Grade														
	FAT CLAY dark gray, stiff to very stiff, with ferrous nodules		CH												
			ST		2.0	33		83	32	51					
			ST		3.0										
	- light gray and tan, 4 to 8 feet - with calcareous nodules and slickensides below 4 feet	5	ST		3.5	27	96	81	34	47		2.4	5	0	
			ST		4.0										
	- tan and light gray, 8 to 15 feet		ST		3.5	27	99					2.1	3	0	
		10	ST		3.0										
			ST		3.0										
	- reddish brown and light gray below 15 feet	15													
		ST		4.5											
20.0															
Boring terminated at 20 feet.		20													
STRATIFICATION LINES REPRESENT APPROXIMATE															

Boring terminated at 20 feet.

REMARKS: Dry augered to 20 feet.

STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARIES BETWEEN SOIL TYPES. IN SITU, THE TRANSITION BETWEEN STRATA MAY BE MORE GRADUAL.

WATER LEVEL OBSERVATIONS

▽	▽
▽	▽

FREE WATER WAS NOT OBSERVED DURING DRY DRILLING OPERATIONS

Terracon

DATE DRILLED

3/1/2013

PROJECT NUMBER

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EXHIBIT

A-6

BORING LOG NO. B-3

CLIENT: **Brazoria County Engineering Dept.
Angleton, Texas**

PROJECT: **North Annex Building - Precinct 4**

BORING LOCATION: **See Boring Location Plan, Exhibit A-2**

SITE: **NWC County Road 58 and County Road 84
Brazoria County, Texas**

Brazoria County, Texas																
Graphic Log	DESCRIPTION	DEPTH, FEET	SAMPLES			TESTS										
			USCS SYMBOL	TYPE	SPT, BLOWS/FT	CALIBRATED HAND PENETROM., TSF	MOISTURE CONTENT, %	DRY DENSITY, PCF	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX	MINUS #200 SIEVE, %	COMPRESSIVE STRENGTH, TSF	FAILURE STRAIN, %	CONFINING PRESSURE, PSI	
	Approx. Surface Elevation: Existing Grade		CH													
	FAT CLAY dark gray, stiff to very stiff, with ferrous nodules		ST		1.5											
			ST		2.0	28		104	35	69						
	- gray and tan, 4 to 8 feet - with calcareous nodules below 4 feet	5	ST		3.5											
	- with slickensides, below 6 feet		ST		3.0	29	91	87	35	52		1.2	5	0		
	- tan and light gray, 8 to 13 feet	10	ST		3.0											
			ST		3.0	31	94					1.3	5	0		
	- reddish brown and light gray below 13 feet	15	ST		3.0											
			ST		4.0											
20.0	Boring terminated at 20 feet.	20														

Boring terminated at 20 feet.

REMARKS: Dry augered to 20 feet.

STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARIES BETWEEN SOIL TYPES. IN SITU, THE TRANSITION BETWEEN STRATA MAY BE MORE GRADUAL.

WATER LEVEL OBSERVATIONS

▽	▽
▽	▽

FREE WATER WAS NOT OBSERVED DURING DRY DRILLING OPERATIONS

Terracon

DATE DRILLED

3/1/2013

PROJECT NUMBER

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EXHIBIT

A-7

BORING LOG NO. B-4

CLIENT: **Brazoria County Engineering Dept.
Angleton, Texas**

PROJECT: **North Annex Building - Precinct 4**

BORING LOCATION: **See Boring Location Plan, Exhibit A-2**

SITE: **NWC County Road 58 and County Road 84
Brazoria County, Texas**

Graphic Log	DESCRIPTION	DEPTH, FEET	SAMPLES			TESTS									
			USCS SYMBOL	TYPE	SPT, BLOWS/FT	CALIBRATED HAND PENETROM., TSF	MOISTURE CONTENT, %	DRY DENSITY, PCF	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX	MINUS #200 SIEVE, %	COMPRESSIVE STRENGTH, TSF	FAILURE STRAIN, %	CONFINING PRESSURE, PSI
	Approx. Surface Elevation: Existing Grade														
	FAT CLAY dark gray, stiff to very stiff, with ferrous nodules		CH	ST		1.5	30	91	80	29	51		1.1	9	0
				ST		2.5									
	5.0 - gray and tan, with calcareous nodules below 4 feet	5		ST		2.5									
	Boring terminated at 5 feet.														

STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARIES BETWEEN SOIL TYPES. IN SITU, THE TRANSITION BETWEEN STRATA MAY BE MORE GRADUAL.

REMARKS: **Dry augered to 5 feet.**

WATER LEVEL OBSERVATIONS

▽

▽

FREE WATER WAS NOT OBSERVED DURING DRY DRILLING OPERATIONS

Terracon

DATE DRILLED

3/1/2013

PROJECT NUMBER

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EXHIBIT

A-8

BORING LOG NO. B-5

CLIENT: **Brazoria County Engineering Dept.
Angleton, Texas**

PROJECT: **North Annex Building - Precinct 4**

BORING LOCATION: **See Boring Location Plan, Exhibit A-2**

SITE: **NWC County Road 58 and County Road 84
Brazoria County, Texas**

Brazoria County, Texas														
Graphic Log	DESCRIPTION	DEPTH, FEET	SAMPLES				TESTS							
			USCS SYMBOL	TYPE	SPT, BLOWS/FT	CALIBRATED HAND PENETROM., TSF	MOISTURE CONTENT, %	DRY DENSITY, PCF	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX	MINUS #200 SIEVE, %	COMPRESSIVE STRENGTH, TSF	FAILURE STRAIN, %
	FAT CLAY gray, stiff, with ferrous nodules	5	CH	ST		1.5	30		81	30	51			
			ST		2.0									
	5.0		- gray and tan, with calcareous nodules below 4 feet	ST		2.0								
	Boring terminated at 5 feet.													
STRATIFICATION LINES REPRESENT APPROXIMATE														

STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARIES BETWEEN SOIL TYPES. IN SITU, THE TRANSITION BETWEEN STRATA MAY BE MORE GRADUAL.

REMARKS: Dry augered to 5 feet.

WATER LEVEL OBSERVATIONS

▽	▽
▽	▽

FREE WATER WAS NOT OBSERVED DURING DRY DRILLING OPERATIONS

Terracon

DATE DRILLED

3/1/2013

PROJECT NUMBER

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EXHIBIT

A-9

BORING LOG NO. B-6

CLIENT: **Brazoria County Engineering Dept.
Angleton, Texas**

PROJECT: **North Annex Building - Precinct 4**

BORING LOCATION: **See Boring Location Plan, Exhibit A-2**

SITE: **NWC County Road 58 and County Road 84
Brazoria County, Texas**

Brazoria County, Texas														
Graphic Log	DESCRIPTION	DEPTH, FEET	SAMPLES				TESTS							
			USCS SYMBOL	TYPE	SPT, BLOWS/FT	CALIBRATED HAND PENETROM., TSF	MOISTURE CONTENT, %	DRY DENSITY, PCF	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX	MINUS #200 SIEVE, %	COMPRESSIVE STRENGTH, TSF	FAILURE STRAIN, %
	Approx. Surface Elevation: Existing Grade													
	<u>FAT CLAY</u> gray, stiff to very stiff, with ferrous nodules		CH											
	- gray and tan, with calcareous nodules below 2 feet			ST		2.0	23		85	33	52			
				ST		2.5								
	5.0			ST		2.75								
	Boring terminated at 5 feet.	5												
						</								

STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARIES BETWEEN SOIL TYPES. IN SITU, THE TRANSITION BETWEEN STRATA MAY BE MORE GRADUAL.

REMARKS: **Dry augered to 5 feet.**

WATER LEVEL OBSERVATIONS

▽	▽
▽	▽
FREE WATER WAS NOT OBSERVED DURING DRY DRILLING OPERATIONS	

Terracon

DATE DRILLED

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EXHIBIT

A-10

BORING LOG NO. B-7

CLIENT: **Brazoria County Engineering Dept.
Angleton, Texas**

PROJECT: **North Annex Building - Precinct 4**

BORING LOCATION: **See Boring Location Plan, Exhibit A-2**

SITE: **NWC County Road 58 and County Road 84
Brazoria County, Texas**

Graphic Log	DESCRIPTION	DEPTH, FEET	SAMPLES			TESTS									
			USCS SYMBOL	TYPE	SPT, BLOWS/FT	CALIBRATED HAND PENETROM., TSF	MOISTURE CONTENT, %	DRY DENSITY, PCF	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX	MINIUS #200 SIEVE, %	COMPRESSION STRENGTH, TSF	FAILURE STRAIN, %	CONFINING PRESSURE, PSI
	Approx. Surface Elevation: Existing Grade														
	FAT CLAY gray and tan, very stiff, with ferrous and calcareous nodules		CH	ST		2.5	31	89	88	30	58		2.1	11	0
				ST		4.0									
	5.0			ST		4.0									
	Boring terminated at 5 feet.	5													

STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARIES BETWEEN SOIL TYPES. IN SITU, THE TRANSITION BETWEEN STRATA MAY BE MORE GRADUAL.

REMARKS: Dry augered to 5 feet.

WATER LEVEL OBSERVATIONS

▽	▽
▽	▽
FREE WATER WAS NOT OBSERVED DURING DRY DRILLING OPERATIONS	

Terracon

DATE DRILLED

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EXHIBIT

A-11

BORING LOG NO. B-8

CLIENT: **Brazoria County Engineering Dept.
Angleton, Texas**

PROJECT: **Detention Pond**

BORING LOCATION: **See Boring Location Plan, Exhibit A-2**

SITE: **County Road 174A
Brazoria County, Texas**

Brazoria County, Texas

Graphic Log	DESCRIPTION	DEPTH, FEET	SAMPLES			TESTS											
			USCS SYMBOL	TYPE	SPT, BLOWS/FT	CALIBRATED HAND PENETROM., TSF	MOISTURE CONTENT, %	DRY DENSITY, PCF	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX	MINUS #200 SIEVE, %	COMPRESSIVE STRENGTH, TSF	FAILURE STRAIN, %	CONFINING PRESSURE, PSI		
	FAT CLAY dark gray, medium stiff to stiff, with ferrous nodules - with scattered roots, 0 to 2 feet - gray and tan, 4 to 6 feet - with calcareous nodules, 4 to 8 feet - light gray and tan, 6 to 8 feet	5	CH	ST		2.0	25		57	29	28						
				ST		1.5											
				ST		1.5	29	95	91	28	63		0.9	15	0		
					ST		2.0										
	SANDY LEAN CLAY tan and light gray, medium stiff, with ferrous and calcareous nodules, and sand seams	10	CL	ST		1.0	18	114	31	22	9		0.6	13	0		
	SILTY SAND tan, medium dense		SM	ST		1.0											
				SS	14												
	Boring terminated at 15 feet.	15															

STRATIFICATION LINES REPRESENT APPROXIMATE

STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARIES BETWEEN SOIL TYPES. IN SITU, THE TRANSITION BETWEEN STRATA MAY BE MORE GRADUAL.

REMARKS: Dry augered to 15 feet.

WATER LEVEL OBSERVATIONS

▽	▽
▽	▽
FREE WATER WAS NOT OBSERVED DURING DRY DRILLING OPERATIONS	

Terracon

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EXHIBIT

A-12

BORING LOG NO. B-9

CLIENT: **Brazoria County Engineering Dept.
Angleton, Texas**

PROJECT: **Detention Pond**

BORING LOCATION: **See Boring Location Plan, Exhibit A-2**

SITE: **County Road 174A
Brazoria County, Texas**

Graphic Log	DESCRIPTION	DEPTH, FEET	SAMPLES			TESTS									
			USCS SYMBOL	TYPE	SPT, BLOWS/FT	CALIBRATED HAND PENETROM., TSF	MOISTURE CONTENT, %	DRY DENSITY, PCF	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX	MINUS #200 SIEVE, %	COMPRESSIVE STRENGTH, TSF	FAILURE STRAIN, %	CONFINING PRESSURE, PSI
	Approx. Surface Elevation: Existing Grade														
	FAT CLAY gray, stiff, with ferrous nodules - with scattered roots, 0 to 2 feet	5	CH	ST	1.75										
				ST	1.5	30			73	27	46				
	- gray and tan, 4 to 6 feet - with calcareous nodules, 4 to 8 feet			ST	2.0										
	- light gray and tan, 6 to 8 feet			ST	2.5	23	112						1.3	6	0
	8.0														
	SANDY LEAN CLAY light gray and tan, medium stiff to stiff, with ferrous and calcareous nodules, and sand seams	10	CL	ST	1.5										
				ST	1.0	21	109	32	19	13	57	0.5	14	0	
	12.0														
	SILTY SAND tan, medium dense	15	SM												
				SS	13										
	15.0														
	Boring terminated at 15 feet.														

STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARIES BETWEEN SOIL TYPES. IN SITU, THE TRANSITION BETWEEN STRATA MAY BE MORE GRADUAL.

REMARKS: **Dry augered to 15 feet.**

WATER LEVEL OBSERVATIONS

▽	▽
▽	▽

FREE WATER WAS NOT OBSERVED DURING DRY DRILLING OPERATIONS

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EXHIBIT

A-13

BORING LOG NO. B-10

CLIENT: **Brazoria County Engineering Dept.
Angleton, Texas**

PROJECT: **Detention Pond**

BORING LOCATION: **See Boring Location Plan, Exhibit A-2**

SITE: **County Road 174A
Brazoria County, Texas**

Graphic Log	DESCRIPTION	DEPTH, FEET	SAMPLES			TESTS									
			USCS SYMBOL	TYPE	SPT, BLOWS/FT	CALIBRATED HAND PENETROM., TSF	MOISTURE CONTENT, %	DRY DENSITY, PCF	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX	MINUS #200 SIEVE, %	COMPRESSIVE STRENGTH, TSF	FAILURE STRAIN, %	CONFINING PRESSURE, PSI
	Approx. Surface Elevation: Existing Grade														
	FAT CLAY dark gray, medium stiff to stiff, with ferrous nodules - with scattered roots, 0 to 2 feet	5	CH	ST	1.75										
				ST	1.5	26	89	75	27	48		0.9	15	0	
				ST	2.0										
	- light gray and tan, with calcareous nodules, 6 to 8 feet			ST	2.0	14	110	79	48	31		1.6	15	0	
	SANDY LEAN CLAY tan and light gray, stiff, with ferrous and calcareous nodules, and sand seams	10.0	CL	ST	1.75										
	SILTY SAND tan, medium dense	10	SM												
				SS	11	19					20				
				SS	13										
	Boring terminated at 15 feet.	15													

STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARIES BETWEEN SOIL TYPES. IN SITU, THE TRANSITION BETWEEN STRATA MAY BE MORE GRADUAL.

REMARKS: Dry augered to 15 feet.

WATER LEVEL OBSERVATIONS

▽	▽
▽	▽
FREE WATER WAS NOT OBSERVED DURING DRY DRILLING OPERATIONS	

Terracon

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EXHIBIT

A-14

BORING LOG NO. B-11

CLIENT: **Brazoria County Engineering Dept.
Angleton, Texas**

PROJECT: **Detention Pond**

BORING LOCATION: **See Boring Location Plan, Exhibit A-2**

SITE: **County Road 174A
Brazoria County, Texas**

Brazoria County, Texas															
Graphic Log	DESCRIPTION	DEPTH, FEET	SAMPLES			TESTS									
			USCS SYMBOL	TYPE	SPT, BLOWS/FT	CALIBRATED HAND PENETROM., TSF	MOISTURE CONTENT, %	DRY DENSITY, PCF	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX	MINUS #200 SIEVE, %	COMPRESSIVE STRENGTH, TSF	FAILURE STRAIN, %	CONFINING PRESSURE, PSI
	Approx. Surface Elevation: Existing Grade														
	FAT CLAY dark gray, medium stiff to very stiff, with ferrous nodules - with scattered roots, 0 to 2 feet	5	CH												
			ST		1.5	25		60	23	37					
			ST		2.0										
			ST		2.0	21	108	78	24	54		0.8	15	0	
			ST		1.5										
	- gray, with calcareous nodules, 4 to 10 feet														
	10.0														
	SILTY SAND tan, medium dense	10	SM												
			SS	8											
			SS	12		23					33				
	15.0														
	Boring terminated at 15 feet.	15													

STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARIES BETWEEN SOIL TYPES. IN SITU, THE TRANSITION BETWEEN STRATA MAY BE MORE GRADUAL.

REMARKS: Dry augered to 15 feet.

WATER LEVEL OBSERVATIONS

▽	▽
▽	▽
FREE WATER WAS NOT OBSERVED DURING DRY DRILLING OPERATIONS	

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EXHIBIT

A-15

APPENDIX B

LABORATORY TESTING

Geotechnical Engineering Report

North Annex Building – Precinct 4 ■ Brazoria County, Texas
April 5, 2013 ■ Terracon Project No. 91135009

Terracon

Laboratory Testing

Soil samples were tested in the laboratory to measure their dry unit weight and natural water content. Unconfined compression tests were performed on selected samples and a calibrated hand penetrometer was used to estimate the approximate unconfined compressive strength of some cohesive samples. The calibrated hand penetrometer values have been correlated with unconfined compression tests and provide a better estimate of soil consistency than visual examination alone. Selected samples were also classified using the results of Atterberg Limits and grain size analysis testing. The test results are provided on the Boring Logs included in Appendix A and in “**3.2 Typical Profile**” section of this report.

Descriptive classifications of the soils indicated on the Boring Logs are in general accordance with the enclosed General Notes and the Unified Soil Classification System. Also shown are estimated Unified Soil Classification Symbols. A brief description of this classification system is attached to this report. Classification of the soil samples was generally determined by visual manual procedures.

Samples not tested in the laboratory will be stored for a period of 30 days subsequent to submittal of this report and will be discarded after this period, unless we are notified otherwise.

APPENDIX C
SUPPORTING DOCUMENTS

GENERAL NOTES

DRILLING & SAMPLING SYMBOLS:

SS:	Split Spoon - 1- ³ / ₈ " I.D., 2" O.D., unless otherwise noted	HS:	Hollow Stem Auger
ST:	Thin-Walled Tube - 2" O.D., 3" O.D., unless otherwise noted	PA:	Power Auger (Solid Stem)
RS:	Ring Sampler - 2.42" I.D., 3" O.D., unless otherwise noted	HA:	Hand Auger
DB:	Diamond Bit Coring - 4", N, B	RB:	Rock Bit
BS:	Bulk Sample or Auger Sample	WB:	Wash Boring or Mud Rotary

The number of blows required to advance a standard 2-inch O.D. split-spoon sampler (SS) the last 12 inches of the total 18-inch penetration with a 140-pound hammer falling 30 inches is considered the "Standard Penetration" or "N-value".

WATER LEVEL MEASUREMENT SYMBOLS:

WL:	Water Level	WS:	While Sampling	BCR:	Before Casing Removal
WCI:	Wet Cave in	WD:	While Drilling	ACR:	After Casing Removal
DCI:	Dry Cave in	AB:	After Boring	N/E:	Not Encountered

Water levels indicated on the boring logs are the levels measured in the borings at the times indicated. Groundwater levels at other times and other locations across the site could vary. In pervious soils, the indicated levels may reflect the location of groundwater. In low permeability soils, the accurate determination of groundwater levels may not be possible with only short-term observations.

DESCRIPTIVE SOIL CLASSIFICATION: Soil classification is based on the Unified Soil Classification System. Coarse Grained Soils have more than 50% of their dry weight retained on a #200 sieve; their principal descriptors are: boulders, cobbles, gravel or sand. Fine Grained Soils have less than 50% of their dry weight retained on a #200 sieve; they are principally described as clays if they are plastic, and silts if they are slightly plastic or non-plastic. Major constituents may be added as modifiers and minor constituents may be added according to the relative proportions based on grain size. In addition to gradation, coarse-grained soils are defined on the basis of their in-place relative density and fine-grained soils on the basis of their consistency.

CONSISTENCY OF FINE-GRAINED SOILS

<u>Unconfined</u> <u>Compressive</u> <u>Strength, Qu, psf</u>	<u>Standard Penetration</u> <u>or N-value (SS)</u> <u>Blows/Ft.</u>	<u>Consistency</u>
< 500	0 - 1	Very Soft
500 - 1,000	2 - 4	Soft
1,000 - 2,000	4 - 8	Medium Stiff
2,000 - 4,000	8 - 15	Stiff
4,000 - 8,000	15 - 30	Very Stiff
8,000+	> 30	Hard

RELATIVE DENSITY OF COARSE-GRAINED SOILS

<u>Standard Penetration</u> <u>or N-value (SS)</u> <u>Blows/Ft.</u>	<u>Relative Density</u>
0 - 3	Very Loose
4 - 9	Loose
10 - 29	Medium Dense
30 - 50	Dense
> 50	Very Dense

RELATIVE PROPORTIONS OF SAND AND GRAVEL

<u>Descriptive Term(s)</u> <u>of other constituents</u>	<u>Percent of</u> <u>Dry Weight</u>
Trace	< 15
With	15 - 29
Modifier	≥ 30

GRAIN SIZE TERMINOLOGY

<u>Major Component</u> <u>of Sample</u>	<u>Particle Size</u>
Boulders	Over 12 in. (300mm)
Cobbles	12 in. to 3 in. (300mm to 75mm)
Gravel	3 in. to #4 sieve (75mm to 4.75mm)
Sand	#4 to #200 sieve (4.75 to 0.075mm)
Silt or Clay	Passing #200 Sieve (0.075mm)

RELATIVE PROPORTIONS OF FINES

<u>Descriptive Term(s)</u> <u>of other constituents</u>	<u>Percent of</u> <u>Dry Weight</u>
Trace	< 5
With	5 - 12
Modifier	> 12

PLASTICITY DESCRIPTION

<u>Term</u>	<u>Plasticity</u> <u>Index</u>
Non-plastic	0
Low	1-10
Medium	11-30
High	> 30

UNIFIED SOIL CLASSIFICATION SYSTEM

Criteria for Assigning Group Symbols and Group Names Using Laboratory Tests ^A					Soil Classification		
					Group Symbol	Group Name ^B	
Coarse Grained Soils: More than 50% retained on No. 200 sieve	Gravels: More than 50% of coarse fraction retained on No. 4 sieve	Clean Gravels: Less than 5% fines ^C	$Cu \geq 4$ and $1 \leq Cc \leq 3$ ^E		GW	Well-graded gravel ^F	
			$Cu < 4$ and/or $1 > Cc > 3$ ^E		GP	Poorly graded gravel ^F	
		Gravels with Fines: More than 12% fines ^C	Fines classify as ML or MH		GM	Silty gravel ^{F,G,H}	
			Fines classify as CL or CH		GC	Clayey gravel ^{F,G,H}	
	Sands: 50% or more of coarse fraction passes No. 4 sieve	Clean Sands: Less than 5% fines ^D	$Cu \geq 6$ and $1 \leq Cc \leq 3$ ^E		SW	Well-graded sand ^I	
			$Cu < 6$ and/or $1 > Cc > 3$ ^E		SP	Poorly graded sand ^I	
		Sands with Fines: More than 12% fines ^D	Fines classify as ML or MH		SM	Silty sand ^{G,H,I}	
			Fines Classify as CL or CH		SC	Clayey sand ^{G,H,I}	
	Fine-Grained Soils: 50% or more passes the No. 200 sieve	Silts and Clays: Liquid limit less than 50	Inorganic:	$PI > 7$ and plots on or above "A" line ^J		CL	Lean clay ^{K,L,M}
				$PI < 4$ or plots below "A" line ^J		ML	Silt ^{K,L,M}
Organic:			Liquid limit - oven dried	< 0.75	OL	Organic clay ^{K,L,M,N}	
			Liquid limit - not dried			Organic silt ^{K,L,M,O}	
Silts and Clays: Liquid limit 50 or more		Inorganic:	PI plots on or above "A" line		CH	Fat clay ^{K,L,M}	
			PI plots below "A" line		MH	Elastic Silt ^{K,L,M}	
		Organic:	Liquid limit - oven dried	< 0.75	OH	Organic clay ^{K,L,M,P}	
			Liquid limit - not dried			Organic silt ^{K,L,M,Q}	
Highly organic soils:		Primarily organic matter, dark in color, and organic odor				PT	Peat

^A Based on the material passing the 3-in. (75-mm) sieve

^B If field sample contained cobbles or boulders, or both, add "with cobbles or boulders, or both" to group name.

^C Gravels with 5 to 12% fines require dual symbols: GW-GM well-graded gravel with silt, GW-GC well-graded gravel with clay, GP-GM poorly graded gravel with silt, GP-GC poorly graded gravel with clay.

^D Sands with 5 to 12% fines require dual symbols: SW-SM well-graded sand with silt, SW-SC well-graded sand with clay, SP-SM poorly graded sand with silt, SP-SC poorly graded sand with clay

$$^E Cu = D_{60}/D_{10} \quad Cc = \frac{(D_{30})^2}{D_{10} \times D_{60}}$$

^F If soil contains $\geq 15\%$ sand, add "with sand" to group name.

^G If fines classify as CL-ML, use dual symbol GC-GM, or SC-SM.

^H If fines are organic, add "with organic fines" to group name.

^I If soil contains $\geq 15\%$ gravel, add "with gravel" to group name.

^J If Atterberg limits plot in shaded area, soil is a CL-ML, silty clay.

^K If soil contains 15 to 29% plus No. 200, add "with sand" or "with gravel," whichever is predominant.

^L If soil contains $\geq 30\%$ plus No. 200 predominantly sand, add "sandy" to group name.

^M If soil contains $\geq 30\%$ plus No. 200, predominantly gravel, add "gravelly" to group name.

^N $PI \geq 4$ and plots on or above "A" line.

^O $PI < 4$ or plots below "A" line.

^P PI plots on or above "A" line.

^Q PI plots below "A" line.

