



CONTRACT DOCUMENTS

&

SPECIFICATIONS

FOR THE

JEFFERSON COUNTY DRAINAGE DISTRICT NO.6

CONSTRUCTION OF FLEET MAINTENANCE BUILDING

IFB 21-014/EC

May of 2021

IN

JEFFERSON COUNTY, TEXAS

PREPARED BY:

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**Part I –
Bidding and Agreement Forms and Bonds**

SPECIFICATIONS

PART I – BIDDING AND AGREEMENT FORMS AND BONDS



JEFFERSON COUNTY DRAINAGE DISTRICT NO. 6

Karen J. Stewart, MBA, CTP Chief Business Officer

6550 Walden Rd., Beaumont, Texas 77707 Phone: 409-842-1818 Fax: 409-842-2729

LEGAL NOTICE Advertisement for Invitation for Bids

May 27, 2021

Notice is hereby given that sealed bids will be accepted by Jefferson County Drainage District No. 6 for (IFB 21-014/EC) Construction of Fleet Maintenance Building Specifications for this project may be obtained from the Jefferson County Drainage District No. 6 webpage <http://www.dd6.org/purchasing/bid-specs/bids>.

A Pre-Bid Conference will be held on Thursday June 3rd at 2:00 PM CST at the Jefferson County Drainage District No. 6 facilities located at 6550 Walden Rd., Beaumont, Texas 77707.

The District shall require the bidder to furnish a bid security in the amount of (5%) of the total contract cost. The bid bond must be executed with a surety company authorized to do business in the State of Texas and approved by the District's advisors. Within ten (10) days after the date of the signing of a contract, the bidder shall furnish a performance bond to the District for the full amount of the contract, if the contract exceeds one hundred thousand dollars (\$100,000). If the contract is for one hundred thousand dollars (\$100,000) or less, the District may provide that no money be paid to the contractor until completion and acceptance of the work or the fulfillment of the purchase obligation of the District.

Bidders shall forward an original and three (3) copies of their bid to the address shown below. District does not accept bids submitted electronically. Late bids will be rejected as non-responsive. Administrative bids will be publicly opened and read aloud at the Jefferson County Drainage District No. 6 facilities at the time and date below. Bidders are invited to attend the administrative sealed bid opening.

All Bids shall be submitted to the District Chief Business Officer in a sealed envelope marked:

BID NAME:	Construction Fleet Maintenance Building
BID NO:	IFB 21-014/EC
DUE DATE:	2:00 PM, Monday June 14, 2021
MAIL OR DELIVER TO:	Jefferson County Drainage District No. 6 Purchasing Department 6550 Walden Rd. Beaumont, Texas 77707

Any questions relating to these requirements should be directed to Karen J. Stewart, Chief Business Officer, at 409-842-1818 or kstewart@dd6.org.

Jefferson County Drainage District No. 6 reserves the right to accept or reject any or all bids, to waive technicalities and to take whatever action is in the best interest of the District.

All interested vendors are invited to submit a bid in accordance with the terms and conditions stated in this bid.

RESPONDENTS ARE STRONGLY ENCOURAGED TO CAREFULLY READ THE ENTIRE INVITATION.

A handwritten signature in blue ink that reads "Karen J. Stewart".

Karen J. Stewart, MBA
Chief Business Officer
Jefferson County Drainage District No. 6, Texas

Publish: Examiner May 27, 2021 and June 3, 2021

II. INSTRUCTIONS TO BIDDERS

SECTION 0100

DEFINED TERMS - Terms used in these Instructions to Bidders and the Notice Inviting Bids are defined in the General Conditions. The term "Bidder" means one who submits a Bid directly to the Owner, as distinguished from a sub-bidder, who submits a Bid to a Bidder.

1. COMPETENCY OF BIDDERS –

1.1. In selecting the lowest, responsive, responsible Bidder, consideration will be given to:

- 1.1.1. the financial standing and ability of the Bidder to satisfactorily complete the job being bid;
- 1.1.2. the competence, judgment, skill, ability and capacity of the Bidder to perform the work in accordance with the terms and conditions of the specification;
- 1.1.3. the past experience of the District with the Bidder and the experience of the Bidder with other governmental entities.

1.2. In determining the best value for the District, the District may consider:

- 1.2.1. the purchase price;
- 1.2.2. the reputation of the bidder and of the bidder's goods or services;
- 1.2.3. the quality of the bidder's goods or services;
- 1.2.4. the extent to which the goods or services meet the District's needs;
- 1.2.5. the bidder's past relationship with the District;
- 1.2.6. the impact on the ability of the District to comply with laws and rules relating to contracting with historically underutilized businesses and nonprofit organizations employing persons with disabilities;
- 1.2.7. the total long-term cost to the District to acquire the bidder's goods or services; and
- 1.2.8. any relevant criteria specifically listed in the request for bids or proposals.

2. DISQUALIFICATION OF BIDDERS - More than one Bid from an individual, firm, partnership, corporation, or association under the same or different names will not be considered. If the Owner believes that any Bidder is interested in more than one Bid for the Work contemplated, all Bids in which such Bidder is interested will be rejected. If the Owner believes that any collusion exists among the Bidders, all Bids will be rejected.

3. BIDDER'S EXAMINATION OF CONTRACT DOCUMENTS AND THE SITE

- a. It is the responsibility of each Bidder before submitting a Bid to examine the Contract Documents thoroughly; visit the site to become familiar with local conditions that may affect cost, progress, or performance of the Work; consider federal, state, and local laws and regulations that may affect cost, progress, or performance of the Work; study and carefully correlate the Bidder's observations with the Contract Documents; and notify the Engineer of any and all conflicts, errors, or discrepancies found in the Contract Documents.
- b. Reference is made to the Supplementary General Conditions for identification of those reports of explorations and tests of subsurface conditions at the site which have been utilized by the Engineer in the preparation of the Contract Documents. The Bidder may rely upon the accuracy of the technical data contained in such reports; however, the interpretation of such technical data,

including any interpolation or extrapolation thereof, together with non-technical data, interpretations, and opinions contained therein or the completeness thereof is the responsibility of the Bidder.

- c. Copies of such reports and drawings will be made available for review by the Owner to any Bidder upon request if said reports and drawings are not bound herein. Those reports and drawings are not part of the Contract Documents, but the technical data contained therein upon which the Bidder is entitled to rely, as provided in the Supplementary General Conditions are incorporated therein by reference.
 - d. Information and data reflected in the Contract Documents with respect to underground utilities at, or contiguous to, the site is based upon information and data furnished to the Owner and the Engineer by the owners of such underground utilities or others, and the Owner does not assume responsibility for the accuracy or completeness thereof unless it is expressly provided otherwise in the Supplementary General Conditions or the Section entitled "Protection of Existing Facilities" of the technical specifications.
 - e. Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders on subsurface conditions, underground utilities and/or other physical conditions, and possible changes in the Contract Documents due to differing conditions appear in Article 4.2 of the General Conditions, (Physical Conditions).
 - f. Before submitting a Bid, each Bidder will, at Bidder's own expense, make or obtain any additional examinations, investigations, explorations, tests, and studies and obtain any additional information and data which pertain to the physical conditions (surface, subsurface, and underground utilities) at, or contiguous to, the site or otherwise which may affect cost, progress, or performance of the Work and which the Bidder deems necessary to determine its Bid for performing the Work in accordance with the time, price, and other terms and conditions of the Contract Documents.
 - g. On request, in advance, the Owner will provide each Bidder access to the site to conduct such explorations and tests as each Bidder deems necessary for submission of a Bid. The Bidder shall fill all holes and shall clean up and restore the site to its former condition upon completion of such exploration and tests.
 - h. The lands upon which the Work is to be performed, rights-of-way and easements for access thereto, and other lands designated for use by the Contractor in performing the Work are identified in the Contract Documents. All additional lands and access thereto required for temporary construction facilities or storage of materials and equipment are to be provided by the Contractor. Easement for permanent structures or permanent changes in existing structures is to be obtained and paid for by the Owner unless otherwise provided in the Contract Documents.
 - i. The submission of a Bid will constitute an incontrovertible representation by the Bidder that the Bidder has complied with every requirement of Item #4 General Conditions, herein, entitled: "Bidder's Examination of Contract Documents and the Site," that without exception the Bid is premised upon performing the Work required by the Contract Documents and such means, methods, techniques, sequences, or procedures of construction as may be indicated in or required by the Contract Documents, and that the Contract Documents are sufficient in scope and detail to indicate and convey understanding of all the terms and conditions for performance of the Work.
4. **INTERPRETATIONS** - All questions about the meaning or intent of the Contract Documents are to be directed to the Engineer. Interpretations or clarifications considered necessary by the Engineer in response to such questions will be resolved by the issuance of Addenda mailed or delivered to all parties recorded by the Engineer or Owner as having received the Contract Documents. **Questions must be received three (3) days prior to the**

date of opening Bids no exceptions. Only questions that have been resolved by formal written Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

5. **BID SECURITY, BONDS, AND INSURANCE** - Each Bid shall be accompanied by a certified or cashier's check or approved Bond in the amount stated in the Notice Inviting Bids. Said check or bond or letter of credit shall be made payable to the Owner and shall be given as a guarantee that the Bidder, if awarded the Work, will enter into an Agreement with the Owner, and will furnish the necessary insurance certificates, Payment Bond, and Performance Bond within fourteen (14) days; each of said bonds to be in the amount stated in the Supplementary General Conditions. In case of refusal or failure to enter into said Agreement, the check or Bid Bond, as the case may be, shall be forfeited to the Owner. If the Bidder elects to furnish a Bid Bond as its security, the Bidder shall use the Bid Bond form bound herein, or one conforming substantially to it in form.
6. **RETURN OF BID SECURITY** - Within 14 working days after award of the contract, the Owner will return all bid securities accompanying each of the Bids that are not considered in making the award. All other Bid securities will be held until the Agreement has been finally executed. They will then be returned to the respective Bidders whose Bids they accompany if not accepted for Contract agreement.
7. **BID FORM** – The bid schedule shall be completed using the Excel spreadsheet provided with your bid package. A printed version is enclosed in the bid package and the electronic version is available online on the JEFFERSON COUNTY DRAINAGE DISTRICT NO.6 website: <https://www.dd6.org/purchasing/bid-specs>. An electronic version is also available at Triangle Blueprint Company and White Reprographics. The bid schedule shall be returned in both printed and electronic format. The electronic format must be submitted with your package in the form of a CD or Universal Serial Bus (USB/Flash Drive). Failure to submit the electronic bid schedule will render the bid as non-responsive and may cause its rejection.
8. **SUBMISSION OF BIDS** - The Bid Security shall be enclosed in the same envelope with the Bid. The Bid shall be accompanied by the proper Bid Bond or Security, Bidder's Corporate Resolution and Bidder's General Information Form and shall be delivered by the time and to the place stipulated in the Notice Inviting Bids. It is the Bidder's sole responsibility to see that its Bid is received in proper time. The envelope enclosing the sealed Bid shall be plainly marked in the upper left-hand corner with the name and address of the Bidder and shall bear the words "BID FOR," followed by the title of the Contract Documents for the Work, and the date and hour of opening of bids as indicated in the Notice Inviting Bids. The envelope enclosing the sealed Bid shall be addressed to the Chief Business Officer and shall be delivered or mailed to the JEFFERSON COUNTY DRAINAGE DISTRICT NO.6, Walden Road, Beaumont, Texas 77720.
9. **IDENTIFICATION OF UNIT PRICES** - All lump sum and unit prices must be stated in both printed words and figures. The Owner reserves the right to reject any and all bids and to waive any informality in bids received. Bids will be compared on the basis of the Engineer's estimate of the quantities of the various items of Work as shown on the Bid Schedule(s). Only such plans, specifications, and items of Work as are appropriate shall apply to the Work bid on.
10. **DISCREPANCIES IN BIDS** - In the event that there is more than one Bid Item in the Bid Schedule, the Bidder shall furnish a price for all Bid Items in the schedule, and failure to do so will render the Bid as non-responsive and may cause its rejection. Subtotal prices must be shown on the Bid Summary and total contract price must be shown in both words and figures. In the event of a discrepancy between the written and number amounts, the number will prevail.
11. **QUANTITIES OF WORK** - The quantities of work or material stated in unit price items of the Bid are supplied only to give an indication of the general scope of the Work; the Owner does not expressly or by implication agree that the actual amount of work or material will correspond therewith, and reserves the right after award to increase or decrease the quantity of any unit price item of the Work by an amount up to and

including 20 percent of any Bid Item, without a change in the unit price, and shall include the right to delete any Bid Item in its entirety, or to add additional Bid Items up to and including an aggregate total amount not to exceed 20 percent of the Contract Price, without formal, authorized Change Order to the Contract.

12. **WITHDRAWAL OF BID** - The Bid may be withdrawn by the Bidder by means of a written request, signed by the Bidder or its properly authorized representative. Such written request must be delivered to the place stipulated in the Notice Inviting Bids prior to the scheduled closing time for receipt of Bids.
13. **MODIFICATIONS AND UNAUTHORIZED ALTERNATIVE BIDS** - Unauthorized conditions, limitations, or provisions attached to the Bid will render it informal and may cause its rejection as being non-responsive. The completed Bid forms shall be without interlineations, alterations, or erasures. Alternative Bids will not be considered unless expressly called for and if supplied, without request, will be considered as additional bids and will be judged non-responsive and therefore rejected. Oral, telegraphic, facsimile or telephone Bids or modifications will not be considered.
14. **LIQUIDATED DAMAGES** - Provisions for liquidated damages, if any, are set forth in the Agreement.
15. **SUBSTITUTE OR "OR-EQUAL" ITEMS** - The Work, if awarded, will be on the basis of materials and equipment described in the Drawings or specified in the Technical Specifications without consideration of possible substitute or "or-equal" items. Whenever it is indicated in the Drawings or specified in the Technical Specifications that a substitute or "or-equal" item of material or equipment may be furnished or used by the Contractor if acceptable to the Engineer, application for such acceptance will not be considered by the Engineer until after the Effective Date of the Agreement. The procedure for submittal of any such application by the Contractor and consideration by the Engineer is set forth in Section entitled: "Contractor Submittals" of the Technical Specifications.
16. **AWARD OF CONTRACT** - Award of Contract, if awarded, may be awarded either to the lowest responsible Bidder or to the bidder who provides goods or services at the best value for the District, and will be made to a responsive, responsible Bidder whose Bid complies with all the requirements prescribed. Unless otherwise indicated, a single award will not be made for less than all the Bid Items of an individual Bid Schedule. In the event the Work is identified in more than one Bid Schedule, the Owner may award schedules individually or in combination. In the case of 2 or more Bid Schedules which are alternative to each other, only one of such alternative schedules will be awarded. DD6 may reject any and all bids.
17. **EXECUTION OF AGREEMENT** - The Bidder to whom award is made shall execute a written Agreement with the Owner on the form provided, shall secure all insurance documents specified, and shall furnish all certificates and bonds required by the Contract Documents within fourteen (14) working days after receipt of the Agreement forms from the Owner. Failure or refusal to enter into an Agreement as herein provided or to conform to any of the stipulated requirements in connection therewith shall be just cause for an annulment of the award and forfeiture of the Bid Security. If the lowest responsive, responsible Bidder refuses or fails to execute the Agreement, the Owner may award the Contract to the second lowest responsive, responsible Bidder. If the second lowest responsive, responsible Bidder refuses or fails to execute the Agreement, the Owner may award the Contract to the third lowest responsive, responsible Bidder. On the failure or refusal of such second or third lowest Bidder to execute the Agreement, each such Bidder's Bid Securities shall be likewise forfeited to the Owner. Upon failure or refusal of any Bidder to execute the agreement when notified of award, the owner may at its option, reject all bids and call for total or partial rebidding of the project.
18. **WORKER'S COMPENSATION REQUIREMENT** - The Bidder should be aware that in accordance with laws of the State of Texas, the Bidder will, if awarded the Contract, be required to secure the payment of compensation to its employees and execute the Worker's Compensation Certification.

19. WAGE RATE REQUIREMENTS - Attention is called to the fact that there must be paid on this project not less than the prevailing Highway-Heavy, Municipal and Utilities wage rates for Jefferson County or, as applicable, wage rates for Federally Funded Construction Projects. Wage rates as of **January 1, 2021** are set out in the contract documents, and are subject to revisions. It shall be the duty of the Contractor to keep posted on all the latest revisions. Also, qualifications being equal, citizens of Jefferson County, Texas shall be given preference in employment by any Contractor doing work for the District under contract. This is in accordance with Article XVII, Section 7, Page 54 of the Charter of the JEFFERSON COUNTY DRAINAGE DISTRICT NO.6, Texas, as adopted on December 6, 1947, which is as follows:

“Section 7 – Citizens Given Preference in Employment: Except as herein otherwise provided, qualifications being equal, citizens of Beaumont shall be given preference in employment by DD6 as well as by any contractor doing work for DD6 under contract, and such contractors shall pay the prevailing rate of wages paid for the class of work done; and qualifications, prices and quality of material being equal, citizens of Beaumont shall be given preference in awarding of all contracts over which DD6 has jurisdiction, provided that this section shall not interfere with the system of purchasing supplies for the various departments by competitive bidding.”

20. H.B. 1295 COMPLIANCE Texas Ethics Commission Certificate Number -The Awarded Vendor for the contract shall comply with the requirements of Section 2252.908 of the Texas Government Code as adopted in 2015 as House Bill 1295. The law requires that a governmental entity may not enter in certain contracts with a business entity unless the business entity submits a Disclosure of Interested Parties to the governmental entity. The law applies only to a contract that either (1) requires an action or vote by the governing body of the entity or agency before the contract may be signed or (2) has a value of at least \$1 million. Compliance with the law requires that the awarded Vendor utilize the Texas Ethics Commission website to enter the required information on Form 1295 and print a copy of the complete form. The form must be signed, notarized and submitted to the contracting government entity. The JEFFERSON COUNTY DRAINAGE DISTRICT NO.6, in the case of contracts formalized by Purchase Order or by other written contract, will notify the Vendor of Award by Council and request the completed Form 1295 within five (5) working days thereafter.

21. H.B. 89 COMPLIANCE – Verification - The Awarded Vendor for the contract shall comply with the requirements of Senate Bill 252 Ch. 2252 Certification: Texas Government Code, Chapter 2252, Section 2252.152 and Section 2252.153 of the Texas Government Code as adopted in 2017 as House Bill 89 (HB89).

The law requires that a governmental entity may not enter in certain contracts with a business entity unless the business entity submits an executed HB89 Compliance form to the governmental entity. Compliance with the law requires that the awarded Vendor must sign, notarize and submit the HB89 Form to the contracting governmental entity. The JEFFERSON COUNTY DRAINAGE DISTRICT NO.6, in the case of contracts formalized by Purchase Order or by other written contract, will notify the Vendor of Award by Council and request the completed HB89 within five (5) working days thereafter.

END OF INSTRUCTIONS TO BIDDERS

III. Scope Of Work

The Contractor will perform the following improvements on:

JEFFERSON COUNTY DRAINAGE DISTRICT NO.6 CONSTRUCTION OF FLEET MAINTENANCE BUILDING IFB 21-014/EC

Item 360: Concrete Pavement

Item 416: Drilled Shaft Foundations

Item 500: Mobilization

Item 999: Erect Mueller, Inc. Prefabricated Building

SPECIAL CONSIDERATIONS

The work required by these Contract Documents will occur within the DD6 Complex at 6550 Walden Road, Beaumont, Texas. It is the intent of the JEFFERSON COUNTY DRAINAGE DISTRICT NO.6 that unfavorable impact by the Contract work, on said business and surrounding area shall be minimized. The Construction site is isolated on the East side of the complex. The construction site also has a 150-ft x 165-ft stabilized rock parking lot that may be utilized as a laydown yard for the Contractor. The Mueller Building Package is stored just North of the Construction site on a stabilized rock lay down yard. Every effort will be made by the contractor to preserve the rocked areas during construction. Entergy has Overhead Electric running along the West boundary of the Construction site and the Contractor shall use signage to mark the Overhead Electric during Construction. The Contractor shall notify in writing, at least forty-eight (48) hours prior to beginning work, all businesses and residences which are expected to be affected by said work. Ingress and egress to affected businesses and residences shall be maintained at all times by the Contractor as provided in the plans and Contract Documents.

The Contractor shall work closely with the various utility owners and assure prompt access to their equipment for service or adjustment. The Contractor shall be solely responsible for coordination the work with any utility owner which may be affected by the work. Additionally, forces of the JEFFERSON COUNTY DRAINAGE DISTRICT NO.6, in order to secure the safety, welfare and convenience of the citizens of Beaumont, must provide services on both emergency and normal, continuing basis. Provisions of these services may require the District and City forces to work within or around the construction area prescribed by this project. While it is anticipated that the construction schedule impact induced by the work of the District and City and utility crews will be minimal, the Contractor, by affixing proper signature to these Contract Documents, agrees to indemnify and hold harmless the JEFFERSON COUNTY DRAINAGE DISTRICT NO.6 from any and all claims of damage or delay, incurred or alleged to have incurred, in connection with the work of said crews.

END OF SCOPE OF WORK

IV. List Of Forms To Be Included With Bid

The following is a list of forms that shall be completed and submitted with bid:

<u>TITLE</u>	<u>PAGE NO.</u>	<u>INITIALS</u>
1. Required Forms Checklist	13	_____
2. Bid	14	_____
3. Bid Schedule	15	_____
4. Bid Summary	16	_____
5. Corporate Resolution	17	_____
6. Bid Bond	18	_____
7. Information Required of Bidder	19	_____
8. Conflict of Interest Questionnaire	21	_____
9. Insurance Verification Affidavit	30	_____
10. Form 1295	34	_____
11. Vendor Registration: SAM (System for Award Management)	34	_____
12. House Bill 89 Form	Attachment B	_____

Each form listed must be completed and submitted with the bid. The person preparing the bid is to initial next to each form listed in the blank space provided to confirm that the corresponding form was filled out and submitted as part of the bid package.

I, _____, verify that all required forms were submitted with the bid package.

Signature

Date

**NOTE: OMISSION OF ANY OF THE ABOVE FORMS MAY RESULT IN
JEFFERSON COUNTY DRAINAGE DISTRICT No.6 REJECTING BID.**

V. **Bid Forms**
A. **Bid**

BID TO: JEFFERSON COUNTY DRAINAGE DISTRICT NO.6 in Jefferson County, Texas

The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with the JEFFERSON COUNTY DRAINAGE DISTRICT NO.6, herein called Owner, in the Form included in the Contract Documents (as defined in Article 4 of the Agreement) to perform the Work as specified or indicated in said Contract Documents entitled:

JEFFERSON COUNTY DRAINAGE DISTRICT NO.6
CONSTRUCTION OF FLEET MAINTENANCE BUILDING
IFB 21-014/EC

Bidder accepts all of the terms and conditions of the Contract Documents, including without limitation those in the Notice Inviting Bids and Instructions to Bidders, dealing with the disposition of the Bid Security.

This Bid will remain open for the period stated in the Instructions to Bidders unless otherwise required by law. Bidder will, upon notification of Award, enter into an Agreement within the time and in the manner required in the Notice Inviting Bids and the Instructions to Bidders, and will furnish the insurance certificates, Payment Bond, Performance Bond, and all other such forms as may be required by the Contract Documents.

Bidder has examined copies of all the Contract Documents including the following Addenda, receipt of all of which is hereby acknowledged:

Addendum No.: 01 Date: _____ Addendum No.: 03 Date: _____

Addendum No.: 02 Date: _____ Addendum No.: 04 Date: _____

Bidder has familiarized itself with the nature and extent of the Contract Documents, Work, site, locality where the work is to be performed, the legal requirements (federal, state and local laws, ordinances, rules, and regulations), and the conditions affecting cost, progress or performance of the Work and has made such independent investigations as Bidder deems necessary.

This Bid is genuine and not made in the interest of, or on behalf of, any undisclosed person, firm or corporation and is not submitted in conformity with any agreement or rules of any group, association, organization or corporation; Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or deceptive Bid; Bidder has not solicited or induced any person, firm or corporation to refrain from bidding; and Bidder has not sought by collusion to obtain for itself any advantage over any other Bidder or over Owner.

Bidder certifies that, after Bid has been officially opened by the Owner and the contents made public, it will not ask that the Bid be withdrawn due to any claim of clerical error, error of computation, omission or otherwise and that Bidder and its surety will remain firmly bound to the Bid as submitted.

To all the foregoing, and including all Bid Schedule(s) and Information Required of Bidder contained in these Bid Forms, said Bidder further agrees to complete the Work required under the Contract Documents within the Contract Time stipulated in said Contract Documents, and to accept in full payment therefore the contract price(s) identified in the aforementioned Bidding Schedule(s).

By: _____
(Print Name & Title)

Bidder: _____
(Signature Required)

JEFFERSON COUNTY DRAINAGE DISTRICT NO.6						
Bid Schedule						
PROJECT:	IFB 21-014/EC Construction of Fleet Maintenance Building				Contractor Information	
Base Bid Items						
Item No.	Item Code	Description	Estimated Quantity	Unit	Unit Price	Total
416	001	Drilled Shaft Foundations (Reinforced Class-C) Type-A, Type-D and Type-E	240	LF	\$ -	\$ -
500	001	Mobilization (Not to Exceed 10%)	1	LS	\$ -	\$ -
999	001	Erect Mueller, Inc. Prefab Building *Without Sidewall Frame & Sheeting (No Insulation)	1	LS	\$ -	\$ -
Base Bid Total =					\$	-
ALTERNATE BID ITEMS						
Item No.	Item Code	Description	Estimated Quantity	Unit	Unit Price	Total
416	002	Drilled Shaft Foundations (Reinforced Class-C) Type-B and Type C	240	LF	\$ -	\$ -
360	001	Concrete Pavement (Joint Reinforced) (Class-P/8")	360	CY	\$ -	\$ -
500	001	Mobilization (Not to Exceed 10%)	1	LS	\$ -	\$ -
999	002	Erect Mueller, Inc. Prefab Building *Sidewall Frame & Sheeting (No Insulation)	1	LS	\$ -	\$ -
Alternate Bid Total =					\$	-
Base Bid & Alternate Bid Total =					\$	-



C. Bid Summary

SECTION 0200

Total Bid Price \$ _____

_____ and ____/100 Dollars
(Total Base Contract Price in Written Form)

A Printed Bid Schedule Must Be Provided With Your Bid. An Electronic Version Of The Spreadsheet Must Also Be Submitted With Your Bid.

Total number of working days to complete: 120

Quantities of Work:

The quantities of work or material stated in unit price items of the Bid are supplied only to give an indication of the general scope of Work; the Owner does not expressly or by implication agree that the actual amount of work or material will correspond therewith, and reserves the right afterward to increase or decrease the quantity of any unit price item of the Work by any amount up to and including twenty percent (20%) of any Bid Item, without a change in the unit price, and shall have the right to delete any Bid Item in its entirety, or to add additional Bid Items up to and including an aggregate total amount not to exceed twenty percent (20%) of the Contract Price.

Bid Submitted by: _____, Contractor

Represented by: _____

Title: _____

Bid Prepared by: _____, Estimator

Phone: _____

Email: _____

D. Corporate Resolution

I, _____ Secretary
(Name)

do hereby certify that a meeting of the Board of Directors of:

_____, duly called and held at _____
(Name of Corporation)

_____ in the DD6 of _____,
(Address)

State of _____, on the _____ day of _____, 20____, at which time a quorum was present, the

following resolution was duly adopted as the action of the Board, and is now in full force and effect:

Be It Resolved, that _____
(Name of Individual) (Title)

is hereby empowered and authorized to enter into contract agreements and to sign bid proposals, contracts and other written documents as may be necessary to perform such agreements; and that signature on such documents shall be evidence of the full and complete obligation of the Corporation to the terms and conditions of such Contract Documents.

WITNESS MY hand and Seal of the Corporation this _____ day of _____, 20_____.

(Name of Corporation)

By: _____ Secretary
(Signature)

E. Bid Bond

SECTION 0300

KNOW ALL MEN BY THESE PRESENTS:

That _____, Contractor, as Principal,

and _____, as Surety,

are held and firmly bound unto JEFFERSON COUNTY DRAINAGE DISTRICT NO.6, herein called Owner, in the sum of:

\$ _____ (Figure)

_____ + _____ (Written Form)
(not less than five percent (5%) of the largest total amount of the bid)

for the payment of which sum, well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

WHEREAS, said Principal has submitted a Bid to said Owner to perform the Work required under the Bidding Schedule(s) of the Owner's Contract Documents entitled:

**JEFFERSON COUNTY DRAINAGE DISTRICT NO.6
CONSTRUCTION OF FLEET MAINTENANCE BUILDING
IFB 21-014/EC**

NOW THEREFORE, if said Principal is awarded a contract by said Owner, and, within the time, and in the manner required in the Notice Inviting Bids and the Instructions to Bidders, enters into a written Agreement on the form of agreement bound with said Contract Documents, furnishes the required Certificates of Insurance, and furnishes the required Performance Bond and Payment Bond, then this obligation shall be null and void, otherwise it shall remain in full force and effect. In the event suit is brought upon this bond by said Owner and Owner prevails, said Surety shall pay all costs incurred by said Owner in such suit, including a reasonable attorney's fee to be fixed by the court.

SIGNED AND SEALED, this _____ day of _____, 20_____.

(Principal) (SEAL) _____ (SEAL)
(Surety)

By: _____ By: _____
(Signature) (Signature)

(SEAL AND NOTARIAL ACKNOWLEDGMENT OF SURETY)

F. Information Required of Bid

SECTION 0500

BIDDER'S GENERAL INFORMATION

The Bidder shall furnish the following information. Additional sheets shall be attached as required. Failure to complete any of the following Item Numbers will cause the Bid to be non-responsive and may cause its rejection. In any event, no Award will be made until all of the Bidder's General Information (i.e. Items 1 through 12 inclusive) is provided to the Owner.

1. Bidder/Contractor's name and complete address:

- ☐ Corporation
☐ Partnership
☐ Individual

2. Project Manager:

3. Contact Number:

4. Name of person who inspected the site:

5. Date of Inspection:

6. Name, Address, and Telephone number of Surety Company and Agent providing the required Bonds:

7. ATTACH TO THIS BID the experience or resume of the person who will be designated as the full-time, on-site General Construction Superintendent or full-time, on-site Construction Manager for the Contractor.
8. ATTACH TO THIS BID a financial statement, references, and other information, sufficiently comprehensive to permit an appraisal of Contractor's current financial condition.
9. ATTACH TO THIS BID a list of 3 projects completed as of recent date involving work of similar type and complexity, listing the following data for each project:

CONSTRUCTION OF FLEET MAINTENANCE BUILDING	Contract Price	Date Completed	Representative Contact Information (Name/Address/No.)
1.			
2.			
3.			

10. How many years has Bidder been engaged in the type of construction work required by this contract?

- a) As a General Contractor: _____
- b) As a Sub-Contractor: _____
- c) Under its present business name: _____
- d) Under another business name: _____

11. Has Bidder ever failed to complete any Work awarded to it? ☐ Yes ☐ No

If so, list below: Names of projects, names of owners, and reason(s) project(s) was not completed.

- a) _____
- b) _____
- c) _____
- d) _____

12. ATTACH TO THIS BID a list of construction equipment owned by Bidder which will be available for the work required by this Contract. Attach additional sheets as required. Include the following information:

- Description (Model/ Capacity)
- Quantity
- Years in Service
- Service Records/Condition

13. The Materials to be used on this Project shall be certified by the Texas Department of Transportation (TxDOT) in accordance with Item 520 of TxDOT's 2014 Standard Specifications prior to this Bid Submittal. A copy of the Certification must be submitted with the Bid.

14. The Special Specifications shall govern over Special Provisions to Standard Specifications and Special Provisions to Standard Specifications shall govern over Standard Specifications.

15. List below all sub-contractors which will perform work covered by this contract.

Sub-Contractor (Name/No.)	Percentage of Work to be completed by Sub-Contractor	(%) Services Performed (%) Materials Provided	On-Site Foreman (Name/No.)
1.			
2.			
3.			

Authorized Signature for Bidder

Date

G. Conflict of Interest Questionnaire

INSERT

H. General Conditions of Bidding

GENERAL CONDITIONS OF BIDDING

(Revised 12/3/15)

FAILURE TO COMPLY WITH THESE GENERAL CONDITIONS OF BIDDING MAY RESULT IN THE BID BEING DISQUALIFIED.

1. BIDDING:

- A. All bids must be on blank forms furnished by the Purchasing Department, and must be written in ink or by typewriter. Pencil quotations will not be considered. The bid must be executed personally by the bidder, or if executed by an agent, a power of attorney or other evidence of his authority to act on behalf of the bidder must accompany the bid. If the bidder is a corporation, the certificate of corporate bidder must be executed under the corporate seal by some duly authorized officer of the corporation other than the officers signing the bid. By execution of the bid, the bidder accepts all general and special conditions of the contract and the specifications.

- B. **TIME & DATE:** Formal bids must be in the office of the Chief Business Officer by 2:00 P.M., local time, on the day bids are due, unless otherwise specified; an early postmark will not suffice. Be sure you have allowed ample time for postal delivery. DD6 will not be responsible for the delivery of your bid to the office of the Chief Business Officer. If you choose to send your bid by postal delivery then it is recommended that you call the Chief Business Officer's office to verify receipt of your bid prior the bid opening. **Formal bids may NOT be faxed or e-mailed.**

Informal bids are due at the date and time stated in the bid document. **Informal bids may be faxed.**

- C. **WITHDRAWAL OF BID:** A bidder may withdraw his proposal before Council acceptance of his bid without prejudice to himself, by submitting a written request for its withdrawal to the Chief Business Officer.
- D. Bids should show net prices, extensions and net total. In case of conflict between unit price and extensions, the unit price will govern.
- E. No change in price will be considered after bids have been opened.
- F. Unless otherwise specified, any catalog or manufacturer's reference or brand name used in describing an item is merely descriptive, and not restrictive, and is used only to indicate type, style or

quality of material desired. If a bidder quotes on an article other than the one specified, which he considers comparable, the name and grade of said article must be specified in the bid and sufficient specifications and descriptive data must accompany same to permit thorough evaluation. In the absence of these qualifications, he will be expected to furnish the article called for.

- G. If this bid is altered, any erasure or alteration of figures on the item on which the erasure or alteration is made must be initialed by signee of this bid.
- H. Bids will not be considered in cases in which bidder quotes an item price and also an alternate price on the proposed substitute item, except in cases in which alternate bids are called for.
- I. All bids are to be delivered not later than the time stated in the specifications, F.O.B. Beaumont, Texas unless otherwise stated in the specifications and/or bid form.
- J. Bidders are invited to be present at the opening of bids. After opening, bids may be inspected in the Purchasing Department offices.
- K. If there is an honest mistake in the bid, due to clerical errors, and the bidder calls attention thereto promptly, he will not be bound by the bid.
- L. Where the mistake was a result of bidder's negligence, and DD6 has no knowledge of the mistake when bids were opened, and contract awarded, he will not be released and shall be bound by the bid.
- M. If a mistake is not discoverable and verifiable by DD6, bidder's incorrect interpretation of Engineering specifications set forth in a construction contract will not release him from his obligations, once a contract has been awarded by DD6 Board of Directos and bidder has received notice of such award.
- N. Sealed formal bids due in the Chief Business Officer's office will not be accepted through facsimile equipment.

2. TAXES:

- A. DD6 is exempt from the Federal Excise and Transportation Tax, and the Limited Sales and Use Tax. Unless the bid form or specification specifically indicates otherwise, the price bid must be net exclusive of the above mentioned taxes, and will be so construed. A vendor desiring refunds of, or exemptions from taxes paid on merchandise accepted by DD6 must submit the proper forms. The Chief Business Officer, if satisfied as to the facts, will approve or issue the necessary certificates.

3. **AWARD:**

- A. DD6 reserves the right to consider and make awards of bids on articles of similar nature that in all respects will serve the purpose for which the purchase is being made. DD6 reserves the right to be the sole judge as to whether such articles will serve the purpose.
- B. Unless otherwise specified, DD6 reserves the right to accept or reject in whole or in part any bid submitted or to waive any informality in the best interest of DD6.
- C. Contractor is an independent contractor. Award of a contract does not create a joint venture between Contractor and DD6.

4. **BID DEPOSIT:**

- A. No bid deposit will be expected of bidder unless specifications expressly provide otherwise.
- B. When specifications expressly call for a bid deposit, the deposit may be in the form of a cashier's check, cash, a certified check made payable to the JEFFERSON COUNTY DRAINAGE DISTRICT NO.6 or a bond. The bond shall be executed by a surety authorized by the Texas State Insurance Commission and must be signed by both the surety and the bidder.
- C. When specifications call for a bid deposit, it should be placed in a separate bid envelope and enclosed with your bid. Should your bid deposit not be acceptable to DD6, your bid will be returned.

5. **DELIVERIES:**

- A. Unless otherwise stated in the bid form or specification, deliveries must consist only of new and unused merchandise.
- B. Full fare must be allowed and no charge made for packages.
- C. In the event that deliveries of the supplies covered in the proposal are not made within the number of days specified, or in the event that the supplies delivered are rejected, and are not removed and replaced within the number of days specified in the official notice of rejection, DD6 reserves the right to purchase said supplied in the open market. Upon any such breach of contract, DD6 reserves the right to proceed against the successful bidder and/or the surety on this bond for any and all damages occasioned by the breach.

6. **REJECTIONS:**

- A. Articles not in accordance with samples and specifications must be removed by the bidder at his expense. All disputes concerning quality of supplies delivered under this proposal will be determined by DD6 Chief Business Officer or his/her designated representative.
- B. All articles enumerated in the proposal shall be subject to inspection or delivery by an officer designated for the purpose and if found inferior to the quality called for, or not equal in value to the department's samples, or deficient in weight, measurements, workmanship or otherwise, this fact shall be certified to the Chief Business Officer who shall have the right to reject the whole or any part of the same.

7. **BILLING:**

- A. All bills are subject to approval by the Chief Business Officer.

8. **PATENTS:**

- A. The contractor agrees to indemnify and hold harmless DD6, the Chief Business Officer, and his/her assistants from all suits and actions of every nature and description brought against it or any of them, for or on account of the use of patented appliances, products or processes, and he shall pay all royalties and charges which are legal and equitable. Evidence of such payment or satisfaction shall be submitted, upon request of the Chief Business Officer, as a necessary requirement in connection with the final estimate for payment in which such patented appliances, products or processes and used.

9. **CONDITIONS PART OF BID:**

- A. The general conditions of bidding defined herein shall be a part of the attached bid.

10. **CONTRACT:**

- A. No formal contract will be executed. The following will comprise the contract between DD6 and the successful bidder:
 - i. Notice to Bidders,
 - ii. General Specifications,
 - iii. General conditions of bidding,
 - iv. The Bid Sheet(s),
 - v. Resolution awarding the bid.
- B. In case of conflict, the specifications shall be controlling.

11. **OSHA REQUIREMENTS:**

- A. The vendor or contractor hereby guarantees to the JEFFERSON COUNTY DRAINAGE DISTRICT NO.6, Texas, that all material, supplies and equipment as listed on the proposal, contract or Purchase Order meets the requirements, specifications and standards as provided for under the Federal Occupational Safety and Health Act of 1970, as amended and in force at the date hereof.

12. **BIDS:**

- A. Bids must remain firm for thirty (30) days from the bid opening date to allow for award by Council, unless otherwise specified.

13. **DISCOUNTS:**

- A. Prompt payment discounts will be considered in making the award provided the period of the discount offered is sufficient to permit payment within such period in the regular course of business (minimum 10 days). Prompt payment discounts will not be considered for contract purchases.
- B. In connection with any discount offered, time will be computed from the date of receipt of supplies or services or from the date a correct invoice is received, whichever is the later date. Payment is deemed to be made on the date of mailing of the check.

14. **DISCLOSURE FORMS:**

- A. All forms must be signed and returned with your bid sheet.

15. **EXCEPTIONS:**

- A. If exceptions are being taken to any part of specifications, have them listed separately on your letterhead and manually sign it.

16. **LOCAL BIDDER CONSIDERATION:**

- A. Should bids for goods and/or commodities be received from a local vendor and an out of town vendor, a sales tax impact analysis formula shall be applied to the local vendor's bid. If it is determined by its formula that the local vendor's bid generates more sales tax revenue to DD6 than the difference between the two bids, award may be made to the local vendor.

17. **PROTEST PROCEDURES** – Any actual or prospective bidder or proposer who believes they are aggrieved in connection with or pertaining to a bid or proposal may file a protest. The protest must be delivered in writing to the Chief Business Officer, in person or by certified mail,

return receipt requested, prior to award. The written protest must include:

- A. Name, mailing address, and business phone number the protesting party;
- B. Appropriate identification of the bid or proposal being protested;
- C. A precise statement of the reasons for the protest; and
- D. Any documentation or other evidence supporting the protest and any alleged claims.

The Purchasing Department will attempt to resolve the protest, including at the Chief Business Officer's option, meeting with the protesting party. If the protest is successfully resolved by mutual agreement, written verification of the resolution, with specifics on each point addressed in the protest, will be forwarded to the Chief Financial Officer (CFO).

If the Purchasing Department is not successful in resolving the protest, the protesting party may request, in writing, that the protest be considered by the CFO. Applicable documentation and other information applying to the protest will be forwarded to the CFO, who will promptly review such documentation and information. If additional information is desired, the CFO may notify the necessary party or parties to the protest to provide such information.

If the CFO is not successful in resolving the protest, the CFO may forward to the General Manager a request for review. The decision of the General Manager will be final.

18. **PUBLIC INFORMATION ACT:**

- A. Texas Government Code, Chapter 552, gives you the right to access government records; and an officer for public information and the officer's agent may not ask why you want them. All government information is presumed to be available to the public. Certain exceptions may apply to the disclosure of the information. Governmental bodies shall promptly release requested information that is not confidential by law, either constitutional, statutory, or by judicial decision, or information for which an exception to disclosure has not been sought.

- B. To request information from this governmental body, please contact:

Karen J. Stewart, MBA
CTP Chief Business Officer: Purchasing Department

Physical & Mailing Address:

6550 Walden Road
Beaumont, TX 77707

409-842-2729 Fax
409-842-1818 Phone
kstewart@dd6.org

19. **WEBSITE** – Vendors are responsible for verifying all addenda to specifications downloaded from DD6 website.
20. **INTERLOCAL AGREEMENT** – Successful bidder agrees to extend prices to all entities that have entered into or will enter into joint purchasing interlocal cooperation agreements with the JEFFERSON COUNTY DRAINAGE DISTRICT NO.6. The JEFFERSON COUNTY DRAINAGE DISTRICT NO.6 is a participating member of several interlocal cooperative purchasing agreements, as permitted under Chapter 791 of the Texas Government Code, with certain other political subDepartment, authorizing participation in a cooperative purchasing program. The successful vendor may be asked to provide products/services based upon the bid price, to any other participant.
21. **FORCE MAJEURE** – Neither DD6 nor the Contractor shall be required to perform any term, condition or covenant of this contract so long as performance is delayed or prevented by force majeure.
22. **FUNDING OUT** – The State of Texas statutes prohibit the obligation and expenditure of public funds beyond the fiscal year for which a budget has been approved. Should, during the term of this contract, funds be withdrawn by the funding authority, a Force Majeure shall be deemed to exist, and this contract may be terminated without penalty or recourse by either party.
23. **TERMINATION** – This contract may be terminated by either party upon thirty (30) days' written notice

VI. Additional Required Forms And Insurance

A. Attachment B-Insurance Verification

ATTACHMENT B
(Revised 2/22/2016)
INSURANCE

SECTION A. Prior to the approval of this contract by DD6, CONTRACTOR shall furnish a completed Insurance Certificate to the Purchasing Department. The certificate shall be completed by an agent authorized to bind the named underwriter(s) to the coverages, limits (on a form approved and provided by DD6), and termination provisions shown thereon, and shall furnish and contain all required information referenced or indicated thereon. DD6 SHALL HAVE NO DUTY TO PAY OR PERFORM UNDER THIS CONTRACT UNTIL SUCH CERTIFICATE IS RECEIVED BY THE JEFFERSON COUNTY DRAINAGE DISTRICT NO.6'S PURCHASING DEPARTMENT, and no officer or employee of DD6 shall have authority to waive this requirement.

INSURANCE COVERAGE REQUIRED

SECTION B. DD6 reserves the right to review the insurance requirements of this section during the effective period of the contract and to adjust insurance coverages and their limits when deemed necessary and prudent by DD6, based upon changes in statutory law, court decisions, or the claims history of the industry as well as the CONTRACTOR.

SECTION C. Subject to CONTRACTOR'S right to maintain reasonable deductibles in such amounts as are approved by DD6, CONTRACTOR shall obtain and maintain in full force and effect for the duration of this contract, and any extension hereof, at CONTRACTOR'S sole expense, insurance coverage written by companies approved by the State of Texas and acceptable to DD6, in the following type(s) and amount(s):

<u>Type of Coverage</u>	<u>Limits of Liability</u>	
1. Workers' Compensation	Statutory	
2. Employer's Liability	\$100,000	\$300,000
3. Commercial General (public) Liability		
a. Bodily Injury (ea.oc.)	\$1,000,000	\$3,000,000
b. Property Damage (Incl.	\$100,000 (ea. oc.)	\$300,000 (aggreg.)
Contractual Coverage of the Contractor's Indemnity under Section D hereof)		
4. Comprehensive Automobile Liability		
a. Bodily Injury	\$300,000 (ea. pers.)	\$1,000,000 (ea. oc.)
b. Property Damage	\$300,000(ea. oc.)	
5. Owner's Commercial General Liability Insurance Policy:		
The Contract shall obtain at his expense an Owner's Protective Liability Insurance Policy naming the <u>JEFFERSON COUNTY DRAINAGE DISTRICT NO.6 and its employees</u> as insured with the following limits.		
a. Bodily Injury	\$1,000,000 (ea. pers.)	\$1,000.000 (ea. oc.)

6. Builder's Risk Insurance:

The Contractor shall obtain at his expense Builder's Risk Insurance against the perils of fire, lightning, windstorm, hurricane, hail, explosion, riot, civil commotion, smoke, aircraft, land vehicles, vandalism and malicious mischief in the amount of insurance equal at all times to the insurable value of materials delivered and labor performed. The policy issued in the name of the Contractor shall also name his Subcontractors and the Owner as additional insured, as their respective interests may appear. The policy shall have endorsements as follows:

"This insurance shall be specific as to coverage and not considered as contributing insurance with any permanent insurance maintained on the present premises." All costs for the above specified insurance shall be borne by the Contractor. Insurance Requirement Affidavit shall be submitted with bid. The Contractor shall require all subcontractors engaged to do work in connection with this contract to carry Public Liability and Property Damage Insurance in amounts not less than specified above.

ADDITIONAL POLICY ENDORSEMENTS

DD6 shall be entitled, upon request, and without expense, to receive copies of the policies and all endorsements thereto and may make any reasonable request for deletion, revision, or modification of particular policy terms, conditions, limitations, or exclusions (except where policy provisions are established by law or regulation binding upon either of the parties hereto or the underwriter of any of such policies). Upon such request by DD6, CONTRACTOR shall exercise reasonable efforts to accomplish such changes in policy coverages, and shall pay the cost thereof.

REQUIRED PROVISIONS

CONTRACTOR agrees with respect to the above required insurance, all insurance contracts and certificate(s) of insurance will contain and state, in writing, on the certificate or its attachment, the following required provisions.

- a. Name, the JEFFERSON COUNTY DRAINAGE DISTRICT NO.6 and its officers, employees, and elected representatives as additional insured(s), (as the interest of each insured may appear) to all applicable coverage.
- b. Provide for 30 days' notice to DD6 for cancellation, non-renewal, or material change.
- c. Provide for notice to DD6 at the address shown below by registered mail.
- d. CONTRACTOR agrees to waive subrogation against the JEFFERSON COUNTY DRAINAGE DISTRICT NO.6, its officers, employees, and elected representatives for injuries, including death, property damage, or any other loss to the extent same may be covered by the proceeds of insurance.
- e. Provide that all provisions of this agreement concerning liability, duty, and standard of care together shall be underwritten by contractual liability coverage sufficient to include such obligations within applicable policies.
- f. For coverages that are **only** available with claims made policies, the required period of coverage will be determined by the following formula: Continuous coverage for the life of the contract, plus one year (to provide coverage for the warranty period) and an extended discovery period for a minimum of five (5) years which shall begin at the end of the warranty period.

NOTICES

CONTRACTOR shall notify DD6 in the event of any change in coverage and shall give such notices not less than fifteen (15) days prior to the change, which notice must be accompanied by a replacement CERTIFICATE OF INSURANCE. All notices shall be given to DD6 at the following address:

Purchasing Department
JEFFERSON COUNTY DRAINAGE DISTRICT NO.6
P.O. Box 3827
Beaumont, TX 77704-3827

SECTION D. INDEMNIFICATION. Contractor agrees to **RELEASE, DEFEND, INDEMNIFY, and HOLD HARMLESS** District its officers, directors, employees, and agents, from and against any and all claims, losses and expenses, including, without limitation, all costs, demands, damages, suits, judgments, fines, penalties, liabilities, debts, attorneys' fees, and causes of action of whatsoever nature or character, and further including, without limitation, any and all claims, losses and expenses for property damage, pollution, bodily injury, illness, disease, death, or loss of services, wages, consortium or society (the foregoing being herein individually and collectively referred to as "Claims, Losses and Expenses") directly or indirectly arising out of or related to bodily injury, illness, disease or death of, or damage to property of, Contractor, or its subcontractors, or its or their employees, in any way directly or indirectly, arising out of, or related to, the performance or subject matter of this Agreement or the ingress, egress, loading, or unloading of cargo or personnel, or any presence on any premises (whether land, building, vehicle, platform, aircraft, vessel or otherwise) owned, operated, chartered, leased, used, controlled or hired by District or Contractor or its subcontractors, and expressly including any sole or concurrent negligence, fault or strict liability (of whatever nature or character, preexisting conditions, and/or premises defects) of District or any other person or entity. The indemnity obligations set forth in this Section shall include any medical, compensation or other benefits paid by District in connection with employees of Contractor (or its subcontractors, if any) and shall apply even if the employee is determined to be the statutory or borrowed employee of District.

SECTION E. Approval, disapproval, or failure to act by DD6 regarding any insurance supplied by CONTRACTOR shall not relieve CONTRACTOR of full responsibility or liability for damages and accidents as set forth in the contract documents. Neither shall the bankruptcy, insolvency, or denial of liability by the insurance company exonerate CONTRACTOR from liability.

WORKERS COMPENSATION INSURANCE
for
Building or Construction Projects and Services Provided at DD6-Owned Facilities

TEXAS WORKERS' COMPENSATION COMMISSION RULE 28, §110.110

As required by the Texas Workers' Compensation Rule 28, §110.110, the Contractor shall accept the following definitions and comply with the following provisions:

Workers' Compensation Insurance Coverage

- A. Definitions:
1. 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.
 2. 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 JEFFERSON COUNTY DRAINAGE DISTRICT NO.6.
 3. 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 which 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 JEFFERSON COUNTY DRAINAGE DISTRICT NO.6 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 JEFFERSON COUNTY DRAINAGE DISTRICT NO.6 showing that coverage has been extended.
- E. The Contractor shall obtain from each person providing services on a project, and provide to the JEFFERSON COUNTY DRAINAGE DISTRICT NO.6:
1. A certificate of coverage, prior to that person beginning work on the project, so the JEFFERSON COUNTY DRAINAGE DISTRICT NO.6 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 (1) year thereafter.
- G. The Contractor shall notify the JEFFERSON COUNTY DRAINAGE DISTRICT NO.6 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, 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 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 certificates of coverage on file for the duration of the project and for one (1) year thereafter;
 6. Notify the JEFFERSON COUNTY DRAINAGE DISTRICT NO.6 in writing by certified mail or personal delivery, within ten (10) days after the person knew or 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 (1) - (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 JEFFERSON COUNTY DRAINAGE DISTRICT NO.6 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 or, in the case of a self-insured, with the commission's Department of Self-Insurance Regulation. Providing false or misleading information may subject the Contractor to administrative 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 JEFFERSON COUNTY DRAINAGE DISTRICT NO.6 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 JEFFERSON COUNTY DRAINAGE DISTRICT NO.6.

As defined by the Texas Labor Code, Chapter 269, Section 406.096(e), building or construction is defined as:

1. Erecting or preparing to erect a structure, including a building, bridge, roadway, public utility facility, or related appurtenance;
2. Remodeling, extending, repairing, or demolishing a structure; or
3. Otherwise improving real property or an appurtenance to real property through similar activities.

The employment of a maintenance employee who is not engaging in building or construction as the employer's primary business does not constitute engaging in building or construction.

**B. INSURANCE REQUIREMENT AFFIDAVIT
JEFFERSON COUNTY DRAINAGE DISTRICT NO.6**

**To be Completed By Appropriate Insurance Agent
and submitted with bid proposal.**

I, the undersigned Agent/Broker, certify that the insurance requirements contained in this bid document have been reviewed by me with the below identified Contractor. If the below identified Contractor is awarded this contract by the JEFFERSON COUNTY DRAINAGE DISTRICT NO.6, I will be able to, within ten (10) days after being notified of such award, furnish a valid insurance certificate to DD6 meeting all of the requirements defined in this bid.

Agent (Signature)

Agent (Print)

Name of Agency/Broker: _____

Address of Agent/Broker: _____

City/State/Zip: _____

Agent/Broker Telephone #: (_____) _____

CONTRACTOR'S NAME: _____
(Print or Type)

NOTE TO AGENT/BROKER

If this time requirement is not met, DD6 has the right to invalidate the bid award and award the contract to the next lowest bidder meeting specifications. Should an awarded bid be invalidated the Contractor may be liable for breach of contract. If you have any questions concerning these requirements, please contact the Chief Business Officer for the JEFFERSON COUNTY DRAINAGE DISTRICT NO.6 at (409) 880-3720.

CERTIFICATE OF INSURANCE

Form No. DD6-1
Edition Date: 06/01/2021
Page 1 of 3

This form is for informational purposes only and certifies that policies of insurance listed below have been issued to insured named below and are in force at this time. Notwithstanding any requirements, term or condition of any contract or other document with respect to which this certificate may be issued or may pertain, insurance afforded by policies described herein is subject to all terms, exclusions and conditions of such policies.

Prior to the beginning of work, the vendor shall obtain the minimum insurance and endorsements specified. Agents must complete the form providing all requested information and submit by fax, U.S. mail or e-mail as requested by the JEFFERSON COUNTY DRAINAGE DISTRICT NO.6 ("COB"). The endorsements listed below are required as attachments to this certificate; copies of the endorsements are also acceptable. PLEASE ATTACH ALL ENDORSEMENTS TO THIS FORM AND INCLUDE THE MATCHING

POLICY NUMBER ON THE ENDORSEMENT. Only JEFFERSON COUNTY DRAINAGE DISTRICT NO.6 certificates of insurance are acceptable; commercial carriers' certificates are not.

This certificate shall be completed by a licensed insurance agent:

Name and Address of Agency:

Phone: /

Name and Address of Insured:

Phone: /

Prime or Sub-Contractor?: _____

Name of Prime Contractor, if different from Insured:

**JEFFERSON COUNTY DRAINAGE DISTRICT NO.6
Reference:**

CONSTRUCTION OF FLEET MAINTENANCE
 BUILDING: _____ Project
 Location: _____

Managing Dept.: _____
 Project Mgr.: _____

Insurers Affording Coverages:

Insurer A:

Insurer B: _____

Insurer C: _____

Insurer D: _____

INSR LTR	TYPE OF INSURANCE	POLICY NO.	POLICY EFF. DATE (MM/DD/YYYY)	POLICY EXP. DATE (MM/DD/YYYY)	LIMITS OF LIABILITY				
	Commercial General Liability Policy As defined in the Policy, does the Policy provide:				Each Occurrence	\$			
					General Aggregate	\$			
	<input type="checkbox"/> Yes <input type="checkbox"/> No – Completed Operations/Products				Completed Operations/ Products Aggregate	\$			
	<input type="checkbox"/> Yes <input type="checkbox"/> No – Contractual Liability				Personal & Advertising Injury	\$			
	<input type="checkbox"/> Yes <input type="checkbox"/> No – Explosion				Deductible or Self Insured Retention	\$			

CERTIFICATE OF INSURANCE

Form No. DD6-1
Edition Date: 06/01/2021
Page 2 of 3

INSR LTR	TYPE OF INSURANCE	POLICY NO.	POLICY EFF. DATE (MM/DD/YYYY)	POLICY EXP. DATE (MM/DD/YYYY)	LIMITS OF LIABILITY	
	<input type="checkbox"/> Yes <input type="checkbox"/> No – Collapse					
	<input type="checkbox"/> Yes <input type="checkbox"/> No – Underground					
	<input type="checkbox"/> Yes <input type="checkbox"/> No – Contractors / Subcontractors Work					
	<input type="checkbox"/> Yes <input type="checkbox"/> No – Aggregate Limits per Project Form CG 2503					
	<input type="checkbox"/> Yes <input type="checkbox"/> No – Additional Insured Form – CG 2010					
	<input type="checkbox"/> Yes <input type="checkbox"/> No – 30 Day Notice of Cancellation Form - CG 0205					
	<input type="checkbox"/> Yes <input type="checkbox"/> No – Waiver of Subrogation Form - CG 2404					
	Pollution / Environmental Impairment Policy				Occurrence	\$
					Aggregate	\$
	Auto Liability Policy As defined in the Policy, does the Policy provide:				CSL	\$
					Bodily Injury (Per Incident)	\$
	<input type="checkbox"/> Yes <input type="checkbox"/> No – Any Auto				Bodily Injury (Per Person)	\$
	<input type="checkbox"/> Yes <input type="checkbox"/> No – All Owned Autos				Property Damage (Per Accident)	\$
	<input type="checkbox"/> Yes <input type="checkbox"/> No – Non-Owned Autos					
	<input type="checkbox"/> Yes <input type="checkbox"/> No – Hired Autos					
	<input type="checkbox"/> Yes <input type="checkbox"/> No – Waiver of Subrogation - CA0444					
	<input type="checkbox"/> Yes <input type="checkbox"/> No – 30 Day Notice of Cancellation - CA0244					
	<input type="checkbox"/> Yes <input type="checkbox"/> No – Additional Insured - CA2048					
	<input type="checkbox"/> Yes <input type="checkbox"/> No – MCS 90					
	Excess Liability <input type="checkbox"/> Umbrella Form <input type="checkbox"/> Excess Liability Follow Form				Occurrence	\$
					Aggregate	\$
	Workers Compensation & Employers Liability As defined in the Policy, does the Policy provide				<input type="checkbox"/> Statutory	
					Each Accident	\$
	<input type="checkbox"/> Yes <input type="checkbox"/> No – Waiver of Subrogation - WC420304				Disease - Policy Limit	\$
	<input type="checkbox"/> Yes <input type="checkbox"/> No – 30 Day Notice of Cancellation - WC420601				Disease - Each Employee	\$
	Is a Builders Risk or Installation Insurance Policy provided? <input type="checkbox"/> Yes <input type="checkbox"/> No					\$
	<input type="checkbox"/> Yes <input type="checkbox"/> No – Is DD6 shown as loss payee/mortgagee?					
	Professional Liability As defined in the Policy, does the Policy provide:				Each Claim	\$
	<input type="checkbox"/> Yes <input type="checkbox"/> No – 30 Day Notice of Cancellation Retroactive Date:				Deductible or SelfInsured Retention	\$

CERTIFICATE OF INSURANCE

Form No. DD6-1
Edition Date: 06/01/2021
Page 3 of 3

AGENT CERTIFICATION:

THIS IS TO CERTIFY TO THE JEFFERSON COUNTY DRAINAGE DISTRICT NO.6 that the insurance policies above are in full force and effect.

Name of Insurance Company:	Name of Authorized Agent:
Company Address:	Agent's Address:
City: State: Zip:	City: State: Zip:
Authorized Agent's Phone Number (including Area Code):	Original signature of Authorized Agent: X
	Date:

CERTIFICATE HOLDER:

DATE ISSUED:

JEFFERSON COUNTY DRAINAGE DISTRICT NO.6

6550 Walden Road
Beaumont, Texas 77707

AUTHORIZED REPRESENTATIVE SIGNATURE
Licensed Insurance Agent

Printed Name:

C. Certificate of Interested Parties Information

Information (Form 1295)

Texas' New Certificate of Interested Parties (Form 1295) – How do you comply?

Does your Firm enter into contracts with governmental entities or state agencies in the state of Texas? If so, then be prepared to determine if you must complete and file a Form 1295 the next time your Firm submits a contract for professional services to be signed by a governmental entity or state agency in the state of Texas. If required to be filed, your contract cannot be approved until it is filed.

On September 1, 2015, §2252.908 of the Texas Government Code became effective. §2251.908 provides that on and after January 1, 2016, a governmental entity or state agency may not enter into certain contracts with a business entity unless the business entity submits a disclosure of interested parties (Form 1295) to the governmental entity or state agency at the time the business entity submits the signed contract to the governmental entity or state agency. This disclosure requirement applies to contracts with a governmental entity or state agency that either: (1) require an action or vote by the governing body of the entity or agency before the contract may be signed; or, (2) has a value of at least \$1million.

The procedure for complying with this new law is as follows: (1) use the application on the Texas Ethics Commission's website (www.ethics.state.tx.us) to enter the required information to be included on Form 1295; (2) print a copy of Form 1295 and the separate certification of filing that contains a unique certification number; (3) sign the printed copy of Form 1295 and have your signature notarized; (4) file the completed Form 1295 and certification of filing with the governmental entity or state agency with which you are entering into the contract. The governmental entity or state agency then notifies the Texas Ethics Commission of receipt of the Form 1295 and the Texas Ethics Commission then will post the completed Form 1295 on its website for all to see.

D. System of Award (SAM)

Vendor Registration: SAM (System for Award Management)

Vendors doing business with the District are required to be registered with The System for Award Management (SAM), with an "active" status. Please look up your registration and submit a copy of your active status along with your bid. The System for Award Management (SAM) is the Official U.S. Government system that consolidated the capabilities of CCR/Fed Reg, ORCA, and EPLS. There is NO fee to register for this site. Entities may register at no cost directly from the SAM website at: <https://www.sam.gov>

VII. Agreement And Bonds

A. Sample Agreement

SECTION 0600

THIS AGREEMENT made this ____ day of _____ in the year 20____, by and between **The JEFFERSON COUNTY DRAINAGE DISTRICT NO.6**, a legal entity organized and existing in the State of Texas, hereinafter designated as the Owner, and _____ hereinafter designated as the **CONTRACTOR**.

The Owner and the Contractor, in consideration of the mutual covenants hereinafter set forth, agree as follows:

ARTICLE 1. THE WORK

The Contractor shall complete the work as specified or indicated under the Bid Schedule(s) of the Owner's Contract Documents entitled:

**JEFFERSON COUNTY DRAINAGE DISTRICT NO.6
CONSTRUCTION OF FLEET MAINTENANCE BUILDING
BID NO. IFB 21-014/EC**

The work is generally described as follows:

Full depth repair of existing road base, and resurfacing pavement with Hot Mix Asphalt Concrete.

ARTICLE 2. TIME ALLOWED FOR WORK: COMMENCEMENT TO COMPLETION

The work to be performed under this Contract shall be commenced on the day specified by the Owner in the Notice to Proceed and the work shall be fully completed within **120** working days after the date of commencement of the work.

The Owner and the Contractor recognize that time is of the essence with this Agreement and that the Owner will suffer financial loss if the work is not completed within the time specified in this Article 2, herein, plus any extensions thereof allowed in accordance with Article 12, Section 1100 of the General Conditions. They also recognize the delays, expenses and difficulties involved in proving in a legal proceeding the actual loss suffered by the Owner if the work is not completed on time. Accordingly, instead of requiring any such proof, the Owner and the Contractor agree that as liquidated damages for delay (but not as a penalty) the Contractor shall pay the Owner the sum of **\$610.00** for each calendar day that expires after the time specified in this Article 2, herein, plus any authorized extensions.

ARTICLE 3. CONTRACT PRICE

The Owner shall pay the Contractor for the completion of the Work in accordance with the Contract Documents in current funds the Contract Price(s) named in the Contractor's Bid and Bid Schedule(s), including any authorized changes.

ARTICLE 4. THE CONTRACT DOCUMENTS

The Contract Documents consist of: Notice Inviting Bids, Instructions to Bidders, Scope of Work, Bid Forms (Bid, Bid Schedule(s) and Bid Summary), Bid Bond, Corporate Resolution, Information Required of Bidder, Agreement, Performance Bond, Payment Bond, Good Faith Effort (GFE) Determination Checklist, Historically Underutilized Business (HUB), Schedule of Prevailing Local Wage Rates, General Conditions of the Contract, Supplementary General Conditions of the Contract, General Summary of the Work, Technical Specifications, Special Specifications, Drawings listed in the Schedule of Drawings in the Supplementary General Conditions of the Contract, General Notes, **Addenda Number _____ to _____**, inclusive, and all Change Orders and Work Directive Changes which may be issued subsequent to the Effective Date of the Agreement and are not attached hereto.

Documents which will become part of these Contract Documents subsequent to Award consist of: Notice of Award, Certificates of Insurance, Evidence of Workers Compensation coverage, Surety's Power of Attorney (to accompany the executed Performance and Payment Bonds) and Notice to Proceed.

ARTICLE 5. PAYMENT PROCEDURES

The Engineer will prepare monthly Progress Payment Schedules based on measured progress of the work in accordance with Article 14 of the General Conditions and Supplementary General Conditions. Monthly Progress Payment Schedules will be processed for payment by the Owner as provided in the General Conditions.

ARTICLE 6. NOTICES

Whenever any provision of the Contract Documents requires the giving of written Notice, it shall be deemed to have been validly given if delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended, or if delivered by registered or certified mail, postage prepaid, to the last business address known to the giver of the Notice.

ARTICLE 7. MISCELLANEOUS

Terms used in this Agreement are defined in Article 1 of the General Conditions and Supplementary General Conditions.

No assignment by a party hereto of any rights under or interests in the Contract Documents will be binding on another party hereto without the written consent of the party sought to be bound; and specifically but without limitation monies that may become due and monies that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

The Owner and the Contractor each binds itself, its partners, successors, assigns, and legal representatives to the other party hereto, its partners, successors, assigns, and legal representatives in respect of all covenants, agreements, and obligations contained in the Contract Documents.

IN WITNESS HEREOF, the Owner and the Contractor have caused this Agreement to be executed the day and year first written above.

JEFFERSON COUNTY DRAINAGE DISTRICT NO.6
STATE OF TEXAS

By: _____
Title: General Manager

Attest: _____
Witness, Chief Business Officer

Contractor

By: _____
Title: _____

Attest: _____

(Affix Corporate Seal)

Address for giving notices:

JEFFERSON COUNTY DRAINAGE DISTRICT NO.6
District Engineer
6550 Walden Road
Beaumont, Texas 77707

B. Performance Bond

SECTION 0700

STATE OF TEXAS§

COUNTY OF _____

BOND NO. _____

KNOW ALL BY THESE PRESENTS:

That _____ as Contractor, and

_____ as Surety,

are held firmly bound unto the JEFFERSON COUNTY DRAINAGE DISTRICT NO.6, Texas, hereinafter called Owner, in the penal sum of

_____ Dollars, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

WHEREAS said Contractor has been awarded and is about to enter into the Agreement with said Owner to perform the Work as specified or indicated in the Contract Documents entitled:

**JEFFERSON COUNTY DRAINAGE DISTRICT NO.6
CONSTRUCTION OF FLEET MAINTENANCE BUILDING
BID NO. IFB 21-014/EC**

NOW THEREFORE, if said Contractor shall perform all the requirements of said Contract Documents required to be performed on its part, at the times and in the manner specified herein, then this obligation shall be null and void, otherwise it shall remain in full force and effect. If said Contractor fails in any contract requirement, Surety will, upon demand of Owner, proceed to complete the Contractor's obligations, at Surety's expense.

PROVIDED, that any alterations in the Work to be done or the materials to be furnished, or changes in the time of completion, which may be made pursuant to the terms of said Contract Documents, shall not in any way release said Contractor or said Surety there under, nor shall any extensions of time granted under the provisions of said Contract Documents, release either said Contractor or said Surety, and notice of such alterations or extensions of the Agreement is hereby waived by said Surety.

PROVIDED, HOWEVER, that this bond is executed pursuant to the provisions of Chapter 2253 of the Texas Government Code as amended and all liabilities on this bond shall be determined in accordance with the provisions of said article to the same extent as if it were copied at length herein.

SIGNED AND SEALED, this _____ day of _____, 2021.

(Contractor)

(Surety)

By: _____
(Signature)

By: _____
(Signature)

Title: _____

Title: _____

Address: _____

(SEAL)

(SEAL)

C. Payment Bond

SECTION 0800

STATE OF TEXAS §

COUNTY OF _____

BOND NO. _____

KNOW ALL BY THESE PRESENTS:

That _____ as Contractor, and
_____ as Surety,

are held firmly bound unto the JEFFERSON COUNTY DRAINAGE DISTRICT NO.6, Texas, hereinafter called Owner, in the penal sum of

_____ Dollars, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

WHEREAS, said Contractor has been awarded and is about to enter into the Agreement with said Owner to perform the Work as specified or indicated in the Contract Documents entitled:

**JEFFERSON COUNTY DRAINAGE DISTRICT NO.6
CONSTRUCTION OF FLEET MAINTENANCE BUILDING
BID NO. IFB 21-014/EC**

NOW THEREFORE, if said Contractor, or subcontractor, fails to pay for any materials, equipment, or other supplies, or for rental of same, used in connection with the performance of the work contracted to be done, or for amounts due under applicable State law for any work or labor thereon, said Surety will pay the same in an amount not exceeding the sum specified above, and, in the event suit is brought upon this Bond, a reasonable attorney's fee to be fixed by the Court. This Bond shall inure to the benefit of any and all persons, companies, or corporations entitled to file claims under applicable State law.

PROVIDED, that any alterations in the work to be done or the materials to be furnished, or changes in the time of completion, which may be made pursuant to the terms of said Contract Documents, shall not in any way release said Contractor or said Surety there under, nor shall any extensions of time granted under the provisions of said Contract Documents, release either said Contractor or said Surety, and notice of said alterations or extensions of the Agreement is hereby waived by said Surety.

PROVIDED, HOWEVER, that this bond is executed pursuant to the provisions of Chapter 2253 of the Texas Government Code as amended and all liabilities on this bond shall be determined in accordance with the provisions of said article to the same extent as if it were copied at length herein.

SIGNED AND SEALED, this _____ day of _____, 20____.

(Contractor)

(Surety)

By: _____
(Signature)

By: _____
(Signature)

Title: _____

Title: _____

Address: _____

(SEAL)

(SEAL)

VIII. Contract Administration Forms

A. Notice of Award

SECTION 0900

Date: _____, 20____

To: _____

(Bidder)

Address: _____

Attention: _____

At its meeting held _____ the Board of Directors of the JEFFERSON COUNTY DRAINAGE DISTRICT NO.6 awarded your firm the contract for:

**JEFFERSON COUNTY DRAINAGE DISTRICT NO.6
CONSTRUCTION OF FLEET MAINTENANCE BUILDING
BID NO. IFB 21-014/EC**

Said Award being based on your apparent successful Bid dated _____ and bearing a total Bid Price of:

Dollars (\$ _____)

Work to be performed under this contract is to be completed within 120 working days.

Six copies of the proposed Contract Documents (except drawings) accompany this Notice of Award. Three sets of the drawings will be delivered separately or otherwise made available to you immediately.

You must comply with the following conditions within fourteen (14) working days of the date of this Notice of Award,

by _____, 20____.

1. You must deliver to the Owner six fully executed counterparts of the Agreement, including all the Contract Documents. Each of the Contract Documents must bear your signature where indicated.
2. You must deliver with the executed Agreement, the executed Payment and Performance Bonds (with Surety's Power of Attorney attached) and the Insurance Certificates as specified in the Instructions to Bidders, the General Conditions (Article 5.2), and the Supplementary General Conditions.

Questions should be addressed to: Ernie Crochet, Jr. Project Engineer Assistant at (409) 842-1818.

Failure to comply with these conditions within the time specified will entitle the Owner to consider your Bid abandoned, to annul this Notice of Award, and to declare your Bid Security forfeited.

Within fourteen (14) working days after you comply with these conditions, the Owner will return to you a fully executed copy of the Contract Documents.

JEFFERSON COUNTY DRAINAGE DISTRICT NO.6, TEXAS

Sign: _____

By: Joshua W. Allen, Sr.

Title: President-Board of Directors

B. Notice to Proceed

SECTION 1000

Dated: _____, 20 _____

To: _____

Address: _____

Contract for:

**JEFFERSON COUNTY DRAINAGE DISTRICT NO.6
CONSTRUCTION OF FLEET MAINTENANCE BUILDING
BID NO. IFB 21-014/EC**

You are hereby notified that the Contract Time under the above Contract will commence on:

_____, 20 ____.

By that date, you are to start performing your obligations under the Contract Documents. In accordance with the provisions for beginning and completion of the work in the section of the Contract Documents entitled Summary Of Work, the Time and Date of Completion is:

120 working days after the date of commencement of the work specified above, or not later than

_____, 20 ____.

Before you start any work at the site, Paragraph 2.5 of the General Conditions provides that you must study the Contract Documents and verify figures and field dimensions, and must report any observed errors or discrepancies. You must also submit to the Engineer all those documents called for in the section entitled Contractor Submittals in the Technical Specifications.

Also, before you may start any work at the site, you must:

- 1. Notify DD6 at least 24 hours before work will commence.**
- 2. Submit Shop Drawings for Approval.**
- 3. Submit CPM Work Schedule.**
- 4. TPDES/TCEQ General construction Permit, Notice to Proceed, and Construction Site Notice (TXR150000).**

TEXAS

JEFFERSON COUNTY DRAINAGE DISTRICT NO.6,

By: _____

Title: General Manager

Part II – Conditions of the Contract

Section 1100 – General Conditions

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IX. Definitions

SECTION 1100

GENERAL CONDITIONS

Wherever used in these General Conditions or in other Contract Documents, the following terms have the meanings indicated which are applicable to both the singular and plural thereof:

Addenda -Written or graphic instruments issued prior to the opening of Bids which make changes, additions, or deletions to the bid documents or the Contract Documents.

Agreement -The written agreement between the Owner and the Contractor covering the Work to be performed; other Contract Documents are attached to the Agreement and made a part thereof.

Beneficial Use or Occupancy -Placing all or any portion of the Work in service for the purpose for which it is intended (or a related purpose) before reaching completion of all of the Work.

Bid -The offer or proposal of the bidder submitted on the prescribed form setting forth the price or prices for the Work to be done.

Bonds -Bid, Performance, and Payment Bonds and other instruments which protect against loss due to inability or refusal of the Contractor to perform its Contract.

Change Order -A document recommended by the Engineer which is signed by the Contractor and the Owner and authorizes an addition to, deletion from, or revision of the work or quantities, or an adjustment in the Contract Price or the Contract Time, issued on or after the Effective Date of the Agreement.

Completion - Completion of the Work shall be finalized by acceptance of the Work by the Governing Body of the Owner.

Contract Documents -The Notice Inviting Bids, Instructions to Bidders, the Accepted Bid (Including the Bid, Bid Schedule(s), Bid Summary, Bid Bond, Corporate Resolution, and Information Required of Bidder), Good Faith Effort (GFE) Determination Checklist, Historically Underutilized Business (HUB), Notice of Award, Certificates of Insurance, Evidence of Worker's Compensation Coverage, Notice To Proceed, General Conditions of the Contract, Supplementary General Conditions of the Contract, General Summary of the Work, Technical Specifications, Special Specifications, Drawings, General Notes, and all Addenda, Change Orders, and Work Directive Changes executed pursuant to the provisions of the Contract Documents.

Contract Price -The total monies payable by the Owner to the Contractor for work performed under the terms and conditions of the Contract Documents.

Contract Time – The number of working days as stated in the Contract Documents for the completion of the Work.

Contractor -The person, firm, or corporation with whom the Owner has executed the Agreement.

Day -A calendar day of 24 hours, measured from midnight to the next midnight.

Defective Work -Work that is unsatisfactory, faulty, or deficient, or that does not conform to the Contract Documents; or that does not meet the requirements of any inspection, reference standard, test, or approval referred to in the Contract Documents; or work that has been damaged prior to the Engineer's recommendation of final payment.

Drawings -The drawings, plans, maps, profiles, diagrams, and other graphic representations which show the character, location, nature, extent, and scope of the Work to be performed.

Effective Date of the Agreement -The date indicated in the Agreement on which it was executed, but if no such date is indicated it shall mean the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.

Engineer –The person, firm, or corporation named as such in the Contract Documents.

Field Order -A written order issued by the Engineer which in the opinion of the Engineer does not involve a change in

the Contract Price or the Contract Time.

General Requirements -Sections of Department 1 of the Technical Specifications.

Laws and Regulations; Laws or Regulations -Laws, rules, regulations, ordinances, codes, and/or orders promulgated by a lawfully constituted body authorized to issue such Laws and Regulations.

Notice of Award - The written notice by the Owner to the apparent successful bidder stating that upon compliance by the apparent successful bidder with the conditions enumerated therein, within the time specified, the Owner will enter into an Agreement.

Notice of Completion -The written notice by the Owner to the Contractor stating that the Work has been accepted by the Governing Body of the Owner.

Notice to Proceed-A written notice issued by the Owner to the Contractor authorizing the Contractor to proceed with the Work and establishing the date of commencement of the Contract Time.

Owner -A public body or authority, corporation, association, firm, or person with whom the Contractor has entered into the Agreement and for whom the work will be performed.

Partial Utilization -Placing a portion of the Work in service for the purpose for which it is intended (or a related purpose) before reaching Substantial Completion of the Work.

Progress Payment Schedule - A schedule prepared each month by the Engineer based on measured quantities of Work completed. Monthly progress payments will be governed by the progress payment schedule.

Project -The construction of which the Work to be provided under the Contract Documents, may be the whole, or a part thereof, as indicated elsewhere in the Contract Documents.

Responsive, Responsible Bid/Bidder - A responsive bid is one in which all of the requirements of the invitation to bid are fulfilled without exception or deviation. A Responsible Bidder is one submitting a responsive bid and who can demonstrate by financial statement, resumes of management personnel and equipment lists, it's fiscal, physical and managerial competence to complete projects of like complexity and scope of the Work as described and offered herein by these Contract Documents.

Shop Drawings - All drawings, diagrams, illustrations, schedules, and other data which are specifically prepared by or for the Contractor to illustrate some portion of the Work and all illustrations, brochures, standard schedules, performance charts, instructions, diagrams, and other information prepared by a supplier or manufacturer and submitted by the Contractor to illustrate material or equipment for some portion of the Work.

Specifications -Those portions of the Contract Documents consisting of the General Requirements and the written technical descriptions of materials, equipment, systems, standards, and workmanship as applied to the work and certain administrative details applicable thereto.

Sub-contractor -An individual, firm, or corporation having a direct contract with the Contractor or with any other Sub-contractor for the performance of a part of the Work at the site.

Substantial Completion -Refers to the Work (or a specified part thereof) that has progressed to the point where, in the opinion of the Engineer, as evidenced by the Notice of Substantial Completion/Notice of Completion as applicable, it is sufficiently complete, in accordance with the Contract Documents, so that the Work (or specified part) can be utilized for the purposes for which it is intended; or if there is no such Notice issued, when final payment is due in accordance with the provisions of the Contract Documents, and where the Engineer can recommend that the Work be accepted by the Owner. The terms "Substantial Completion" and "substantially complete" and "substantially completed" as applied to any Work shall mean Substantial Performance of the Contract, hereunder.

Supplementary General Conditions -The part of the Contract Documents which makes additions, deletions, or revisions to these General Conditions.

Supplier -A manufacturer, fabricator, distributor, or vendor.

Technical Specifications -The Specifications as defined herein.

Underground Facilities -All pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities which have been installed underground to furnish any of the following services or materials: electricity, water, sewage and drainage removal, gases, steam, liquid petroleum products, telephone or other communications, cable television, traffic or other control systems.

Unit Price Work -Work to be paid for on the basis of unit prices.

Work -The entire completed construction or the various separately identifiable parts thereof required to be furnished under the Contract Documents. The Work is the result of performing services, furnishing labor, and furnishing and incorporating materials and equipment into the construction, all as required by the Contract Documents.

Work Directive Change -A written directive to the Contractor, issued on or after the Effective **Date of Agreement** and signed by the Owner and recommended by the Engineer, ordering an addition, deletion, or revision of the Work or responding to differing or unforeseen physical conditions under which the Work is to be performed or to emergencies as provided in the Contract Documents. A Work Directive Change may not be used to change the Contract Price nor the Contract Time, but shall be evidence that the parties expect that the change directed or documented by a Work Directive Change will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Time as provided in the Contract Documents.

X. Preliminary Matters

2.1 Delivery of Bonds:

When the Contractor delivers the executed Agreements to the Owner, the Contractor shall also deliver to the Owner such bonds as the Contractor may be required to furnish in accordance with the Contract Documents.

2.2 Copies of Documents:

The Owner shall furnish to the Contractor two (2) copies (unless otherwise specified in the Supplemental Conditions) of the executed Contract Documents as are reasonably necessary for the execution of the work. Additional copies will be furnished, upon request, at the cost of reproduction.

2.3 Commencement of Contract Time; Notice to Proceed:

The Contract Time will commence on the day indicated in the Notice to Proceed.

2.4 Starting the Project:

The Contractor shall start to perform the work on or after the date when the Contract Time commences but in no event shall any work be done at the site prior to the date on which the Contract Time commences.

2.5 Before Starting Construction:

- a. Before undertaking each part of the work, the Contractor shall carefully study and compare the Contract Documents and check and verify pertinent figures shown thereon and all applicable field measurements. The Contractor shall promptly report in writing to the Engineer any conflict, error or discrepancy which the Contractor may discover and shall obtain a written interpretation or clarification from the Engineer before proceeding with any work affected thereby; however, the Contractor shall not be liable to the Owner or the Engineer for failure to report any conflict, error or discrepancy in the Contract Documents, unless the Contractor had actual knowledge thereof or should reasonably have known thereof.
- b. The Contractor shall submit to the Engineer for review those documents called for under Section entitled "Contractor Submittals" in the General Requirements.
- c. When the Contractor delivers its executed Agreement to the Owner, the Contractor shall also deliver certificates (and other evidence of insurance requested by the Owner) which the Contractor is required to purchase and maintain in accordance with the requirements of the Contract Documents.

2.6 Preconstruction Conference:

A preconstruction conference attended by the Contractor, the Engineer, and others as appropriate will be held to discuss the Work in accordance with the applicable procedures specified in the General **Requirements**.

2.7 Finalizing Schedules:

At least seven (7) working days before preparation of the first Progress Payment Schedule, a conference will be held and attended by the Contractor, the Engineer, and others as appropriate to finalize the schedule(s) submitted in accordance with the General Requirements.

XI. Contract Documents: Intent, Amending, Reuse

3.1 Contract Documents:

- a. The Contract Documents comprise the entire agreement between the Owner and the Contractor concerning the Work. The Contract Documents are complementary; what is called for by one is as binding as if called for by all. The contract Documents will be construed in accordance with the law of the place of the Project.
- b. It is the intent of the Contract Documents to describe the Work, functionally complete, to be constructed in accordance with the Contract Documents. Any Work, materials or equipment that may reasonably be inferred from the Contract Documents as being required to produce the intended result will be supplied whether or not specifically called for. When words which have a well-known technical or trade meaning are used to describe Work, materials, or equipment such words shall be interpreted in accordance with that meaning. Reference to standard specifications, manuals, or codes of any technical society, organization, or association, or to the Laws or Regulations of any governmental authority, whether such reference be specific or by implication, shall mean the latest standard specification, manual, code, or Laws or Regulations in effect at the time of opening of Bids except as may be otherwise specifically stated. However, no provision of any referenced standard specification, manual, or code (whether or not specifically incorporated by reference in the Contract Documents) shall be effective to change the duties and responsibilities of the Owner, the Contractor, or the Engineer or any of their consultants, agents, or employees from those set forth in the Contract Documents.
- c. If, during the performance of the Work, the Contractor finds a conflict, error, or discrepancy in the Contract Documents, the Contractor shall so report to the Engineer in writing at once and, before proceeding with the Work affected thereby, shall obtain a written interpretation, clarification, or correction from the Engineer; however, the Contractor shall not be liable to the Owner or the Engineer for failure to report any conflict, error or discrepancy in the Contract Documents unless the Contractor had actual knowledge thereof or should reasonably have known thereof.
- d. The Contract Documents may be amended to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions thereof in one or more of the following ways:
 1. A Change Order, or
 2. A Work Directive Change.

3.2 Order of Precedence of Contract Documents:

- a. In resolving conflicts, errors, or discrepancies in any of the Contract Documents, the order of precedence shall be as follows:
 1. Change Orders
 2. Agreement
 3. Addenda
 4. Contractor's Bid (Bid Forms)
 5. Special Specifications
 6. Supplementary General Conditions
 7. Notice Inviting Bids
 8. Instructions to Bidders
 9. General Conditions of the Contract
 10. Technical Specifications
 11. Referenced Standard Specifications

12. Drawings

b. With reference to the drawings, the order of precedence shall be as follows:

1. Figures govern over scaled dimensions
2. Detail drawings govern over general drawings
3. Addenda/Change Order drawings govern over Contract Drawings
4. Contract Drawings govern over standard drawings

3.3 Amending and Supplementing Contract Documents:

The Contract Documents may be amended to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions thereof by Change Order, pursuant to Article 10.

3.4 Reuse of Documents:

Neither the Contractor, nor any Subcontractor or Supplier, nor any other person or organization performing or furnishing any of the Work under a direct or indirect contract with the Owner shall have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of the Engineer; and they shall not reuse any of them on extensions of the Project or any other project without written consent of the Owner and the Engineer and specific written verification or adaptation by the Engineer.

XII. Availability Of Lands; Physical Conditions; Reference Points

4.1 Availability of Lands:

The Owner shall furnish, as indicated in the Contract Documents, the lands upon which the Work is to be performed, rights-of-way and easements for access thereto, and such other lands which are designated for the use of the Contractor. Easements for permanent structures or permanent changes in existing facilities will be obtained and paid for by the Owner, unless otherwise provided in the Contract Documents. Nothing contained in the Contract Documents shall be interpreted as giving the Contractor exclusive occupancy of the lands or rights-of-way provided. The Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment; provided, that the Contractor shall not enter upon nor use any property not under the control of the Owner until a written temporary construction easement agreement has been executed by the Contractor and the property owner, and a copy of said easement agreement furnished to the Engineer prior to said use; and, neither the Owner nor the Engineer shall be liable for any claims or damages resulting from Contractor's unauthorized trespass or use of any such properties.

4.2 Physical Conditions:

- a. Explorations and Reports: Reference is made to the Article entitled "Physical Conditions" of the Supplementary General Conditions for identification of those reports of explorations and tests of subsurface conditions at the site that have been utilized by the Engineer in the preparation of the Contract Documents. The Contractor may rely upon the accuracy of the factual data contained in such reports, however, the interpretation of such factual data, including any interpolation or extrapolation thereof, together with nonfactual data, interpretations, and opinions contained in such reports or the completeness thereof is the responsibility of the contractor.
- b. Existing structures: Reference is made to the Article entitled "Physical Conditions" of the Supplementary General Conditions for identification of those drawings of physical conditions in or relating to existing surface and subsurface structures (except Underground Utilities referred to in Article 4.4, herein) which are at or contiguous to the site that has been utilized by the Engineer in the preparation of the Contract Documents. The Contractor may rely upon the accuracy of the factual data contained in such drawings; however, the interpretation of such factual data, including any interpolation or extrapolation thereof, together with nonfactual data, interpretations, and opinions contained in such drawings or the completeness thereof is the responsibility of the Contractor.

4.3 Differing Site Conditions:

- a. The Contractor shall notify the Engineer in writing of the following unforeseen conditions, hereinafter called differing site conditions, promptly upon their discovery (but in no event later than 14 working days) and before they are disturbed:
 1. Subsurface or latent physical conditions at the site of the Work differing materially from those indicated,

described, or delineated in the Contract Documents including those reports and documents discussed in Article 4.2; and

2. Unknown physical conditions at the site of the Work of an unusual nature differing materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents including those reports and documents discussed in Article 4.2.
- b. The Engineer will review the pertinent conditions, determine the necessity of obtaining additional explorations or tests with respect thereto and advise the Owner in writing of the Engineer's findings and conclusions.
 - c. If the Owner concludes that because of newly discovered conditions a change in the Contract Documents is required, a Change Order will be issued as provided in Article 10, of the General Conditions, to reflect and document the consequences of the difference.
 - d. In each such case, an increase or decrease in the Contract Price or an extension or reduction of the contract Time, or any combination thereof, will be allowable to the extent that they are attributable to any such difference. If the Owner and the Contractor are unable to agree as to the amount or length thereof, a claim may be made therefore as provided in Articles 11 and 12 of the General Conditions.
 - e. The Contractor's failure to give notice of differing site conditions within fourteen (14) working days of discovery or before they are disturbed shall constitute a waiver of all claims in connection therewith, whether direct, consequential, or inconsequential in nature.
 - f. Nothing herein shall be deemed to require the Owner to indicate the presence of existing service laterals or appurtenances whenever the presence of such utilities on the site of the construction project can be inferred from the presence of other visible facilities, such as buildings, meter and junction boxes, on or adjacent to the site of the construction.

4.4 Physical Conditions - Underground Utilities:

- a. Shown or Indicated: The information shown or indicated in the Contract Documents with respect to existing, underground utilities at or contiguous to the site is based on information and data furnished to the Owner or the Engineer by the owners of such underground utilities or by others. Unless it is expressly provided in the Supplementary General Conditions and/or the section entitled "Protection and Restoration of Existing Facilities" of the General Requirements, the Owner and the Engineer shall not be responsible for the accuracy or completeness of any such information or data, and the Contractor shall have full responsibility for reviewing and checking all such information and data, for locating all underground utilities shown or indicated in the Contract Documents, for coordination of the work with the owners of such underground utilities during construction, for the safety and protection thereof and repairing any damage thereto resulting from the work, the cost of which will be considered as having been included in the Contract Price.
- b. Not Shown or Indicated: If an underground utility is uncovered or revealed at or contiguous to the site which was not shown or indicated in the Contract Documents and which the Contractor could not reasonably have been expected to be aware of, the Contractor shall identify the owner of such underground utility and give written notice thereof to that owner and shall notify the Engineer in accordance with the requirements of the Supplementary General Conditions and section entitled "Protection and Restoration of Existing Facilities" of the General Requirements.

4.5 Reference Points:

- a. The Engineer will provide one bench mark, near or on the site of the work, and will provide 2 points near or on the site to establish a base line for use by the Contractor for alignment control. Unless otherwise specified in the General Requirements, the Contractor shall furnish all other lines, grades, and bench marks required for proper execution of the work.
- b. The Contractor shall be responsible for laying out the work (unless otherwise specified in the General Requirements) and shall preserve all bench marks, stakes, and other survey marks, and in case of their removal or destruction by its own employees or by its subcontractor's employees, the Contractor shall be responsible for the accurate replacement of such reference points by professionally qualified personnel at no additional cost to the Owner.

XIII. Bonds And Insurance

5.1 Performance and Other Bonds:

- a. Upon receiving a Notice of Award, the Contractor shall furnish Performance and Payment Bonds, each in the amount set forth in the Supplementary General Conditions as security for the faithful performance and payment of all the Contractor's obligations under the Contract Documents. The Performance Bond shall remain in effect at least until one year after the date of Notice of Substantial Completion/Notice of Completion as applicable, except as otherwise provided by Law or Regulation or by the Contract Documents; provided, that after the date of Notice of Substantial Completion/Notice of Completion, as applicable, the amount of said Performance Bond may be reduced to the amount set forth in the Supplementary General Conditions. The premiums upon all such bonds shall be paid by the Contractor. The Contractor shall promptly furnish such additional security as may be required by Owner from time to time to protect its interest and those of persons supplying labor or materials in the execution of the work identified in this Contract.
- b. The Owner will approve any Surety company which, at the time of execution of this Contract is listed in the latest published U.S. Treasury Department list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies."
- c. If the Surety on any Bond furnished by the Contractor is declared as bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the work is located, the Contractor shall within seven (7) working days thereafter substitute another Bond and Surety, which must be acceptable to and approved by, the Owner.

5.2 Insurance:

- a. The Contractor shall purchase and maintain the insurance required under this Article. Such insurance shall include the specific coverages set forth herein and shall be written for not less than the limits of liability and coverages provided in the Supplementary General Conditions, or required by law, whichever is greater. All insurance shall be maintained continuously during the life of the Agreement up to the date of Notice of Substantial Completion/Notice of Completion, as applicable, pursuant to acceptance of the Work by the Owner. The Contractor's liabilities under this Agreement shall not be deemed limited in any way to the insurance coverage required.
- b. The Contractor shall furnish the Owner with certificates showing the type, amount, class of operations covered, effective dates and dates of expiration of policies. All of the policies of insurance so required to be purchased and maintained (or the certificates or other evidence thereof) shall contain a provision or endorsement that the coverage afforded will not be canceled, materially changed, or renewal refused until at least thirty (30) working days prior written notice has been given to the Owner by Certified Mail. All such insurance shall remain in effect until the date of Substantial Completion and at all times thereafter when the Contractor may be correcting, removing, or replacing defective work in accordance with Article 13.6, herein. In addition, the Insurance required herein (except for Worker's Compensation and Employer's Liability) shall name the Owner, the Engineer, and their officers, agents, and employees as "additional insured's" under the policies.
 1. Worker's Compensation Insurance Requirements: This insurance shall protect the Contractor against all claims under applicable state Worker's Compensation laws. The Contractor shall also be protected against claims for injury, disease, or death of employees which, for any reason, may not fall within the provisions of a Worker's Compensation law. This policy shall include an "all states" endorsement. The Contractor shall require each subcontractor similarly to provide Worker's Compensation Insurance for all of the latter's employees to be engaged in such work unless such employees are covered by the protection afforded by the Contractor's Worker's Compensation Insurance. In case any class of employees is not protected under the Worker's Compensation statute, the Contractor shall provide and shall cause each subcontractor to provide adequate employer's liability insurance for the protection of each of its employees if not otherwise protected. The Contractor shall provide the JEFFERSON COUNTY DRAINAGE DISTRICT NO.6 with the Certificate of Coverage as described in Attachment "A".
 2. Comprehensive General Liability: This insurance shall be written in comprehensive form and shall protect the Contractor against all claims arising from injuries to persons other than its employees or damage to the property of the Owner or others arising out of any act or omission of the Contractor or its agents, employees, or subcontractors. The policy shall also include protection against claims insured by usual personal injury liability coverage, a "protective liability" endorsement to insure the contractual liability assumed by the Contractor under the indemnification provisions of the General Conditions. To the extent that the Contractor's work, or work under its direction, may require blasting, explosive conditions, or underground operations, the comprehensive general liability coverage shall contain no exclusions relative to blasting, explosion, collapse of or damage to buildings, or damage to underground structures.

3. Comprehensive Automobile Liability: This insurance shall be written in comprehensive form and shall protect the Contractor against all claims for injuries to members of the public and damage to property of others arising from the use of motor vehicles. Said insurance shall cover the operation onsite or offsite of all motor vehicles licensed for highway use whether they are owned, non-owned, or hired.
 4. Subcontractor's Public Liability and Property Damage Insurance and Vehicle Liability Insurance: The Contractor shall either require each of its subcontractors to procure and to maintain Subcontractor's Public Liability and Property Damage Insurance and Vehicle Liability Insurance of the type and in the amounts specified in the Supplementary General Conditions or insure the activities of its subcontractors in the Contractor's own policy in like amount.
- c. Policy Requirements: The insurance provided by the Contractor hereunder shall be (1) with companies licensed to do business in the state where the Project is located, (2) with companies with a Best's Financial Rating of XI or better, and (3) with companies with a Best's General Policy Policyholders Rating of not less than B, except that in case of Worker's Compensation Insurance, participation in the State Fund, where applicable, is acceptable.
 - d. Insurance policies required hereunder to have the Owner and Engineer named as additional insured shall, (1) include a provision that the policies are primary and do not participate with, nor exceed any other valid and collectible insurance, (2) include a waiver of subrogation against the Owner, its agents and employees, and (3) for Builders All Risk Insurance, provide for deductible amounts not exceeding 5 percent of the insurable values of the Work of the Contractor for the perils of all risks of physical loss or damage, including but not limited to fire and wind and associated perils, vandalism and malicious mischief, earthquake, and flood. In the event of an insured loss or damage, the Contractor agrees to pay to the Owner upon demand an amount equal to the deductible amount.
 - e. Owner May Insure for Contractor: In case of the breach of any provision of this Article the Owner may, at the Owner's option, take out and maintain at the expense of the Contractor, such insurance in the name of the Contractor, or subcontractor, as the Owner may deem proper and may deduct the cost of taking out and maintaining such insurance from any sums which may be found or become due to the Contractor under this Contract.

XIV. The Contractor's Responsibilities

6.1 Supervision and Superintendence:

- a. The Contractor shall supervise and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the contract Documents. The Contractor shall be solely responsible for the means, methods, techniques, sequences and procedures of construction, but the Contractor shall not be responsible for the negligence of others in the design or selection of a specific means, method, technique, sequence or procedure of construction which is indicated in and required by the contract documents. The Contractor shall be responsible to see that the finished work complies accurately with the Contract Documents.
- b. The Contractor shall designate in writing and keep on the work at all times during its process a competent, resident, technically qualified, English speaking superintendent, acceptable to the Owner, who shall not be replaced without written notice to the Owner and the Engineer except under extraordinary circumstances. The superintendent shall be the contractor's representative at the site and shall have authority to act on behalf of the Contractor in all matters. All communications given to the superintendent shall be as binding as if given to the Contractor. The Contractor shall issue all its communication to the Owner through the Engineer.
- c. The sole activity and responsibility of the Contractor's Supervisor or Superintendent shall be the full-time superintendence of the work. The Superintendent shall not engage in any activity which detracts in any way from his ability to devote his complete attention to superintendence of the work nor from the mobility required to personally oversee all physical areas of work activity within the project. The Superintendent shall be present at the site of the work at all times while work is in progress. Failure to observe these requirements shall be considered as suspension of the work by the Contractor until such time as such Supervisor or Superintendent is again present at the site and/or able to devote full attention to superintendence of the project.
- d. Each Subcontractor shall, before starting construction, designate in writing one person who shall have authority to act on behalf of the Subcontractor and who shall be present at the work site at all times while the Subcontractor's work is in progress. Failure to observe this requirement shall be considered as suspension of the work by the Subcontractor until such time as the designated person is present at the site of the work.

6.2 Labor, Materials, and Equipment:

- a. The Contractor shall provide competent, suitably qualified personnel to survey and lay out the work and perform construction as required by the Contract Documents. The Contractor shall at all times maintain good discipline and order at the site. Except in connection with the safety or protection of persons or the Work or property at the site or adjacent thereto, and except as otherwise indicated in the contract Documents, all Work at the site shall be performed during regular working hours, and the Contractor will not permit overtime work or the performance of work on Saturday, Sunday, or any legal holiday without the Owner's written consent given after prior written notice and approval by the Engineer. If the Contractor performs any work after regular working hours, or on Saturday, Sunday, or any legal holiday, it shall pay the Owner any additional cost incurred by the Owner as a result of such work.
- b. Except as otherwise provided in this Article, the Contractor shall receive no additional compensation for overtime work, i.e., work in excess of eight (8) hours in any one calendar day or forty (40) hours in any one (1) calendar week, even though such overtime work may be required under emergency conditions and may be ordered by the Engineer in writing. Additional compensation will be paid to the Contractor for overtime work only in the event that extra work is ordered by the Engineer, and the Change Order specifically authorizes the use of overtime work and then only to such extent as overtime wages are regularly being paid by the Contractor for overtime work of a similar nature in the same locality.
- c. All costs of inspection and testing performed during overtime work by the Contractor which is allowed solely for the convenience of the Contractor shall be borne by the Contractor. The Owner shall have the authority to deduct the cost of all such inspection and testing from any partial payments otherwise due the Contractor.
- d. Unless otherwise specified in the Contract Documents, the Contractor shall furnish and assume full responsibility for all materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities and all other facilities, and incidentals necessary for the furnishing, performance, testing, start-up, and completion of the work.
- e. All materials and equipment shall be of good quality and new, except as otherwise provided in the Contract Documents. If required by the Engineer, the Contractor shall furnish satisfactory evidence (including reports of required tests) as to the kind and quality of materials and equipment. All materials and equipment shall be applied, installed, connected, erected, used, cleaned, and conditioned in accordance with the instructions of the applicable supplier except as otherwise provided in the Contract Documents; but no provision of any such instructions will be effective to assign to the Owner, nor any of the Owner's consultants, agents, or employees, any duty or authority to supervise or direct the furnishing or performance of the work or any duty or authority to undertake responsibility contrary to the provisions of Articles 9.9c or 9.9d.

6.3 Adjusting Progress Schedule:

The Contractor shall submit any adjustments in the progress schedule to the Engineer for acceptance in accordance with the provisions for "Contractor Submittals" in the General Requirements.

6.4 Substitutes or "or-Equal" Items:

The contractor shall submit proposed substitutes or "or-equal" items in accordance with the provisions for "Contractor Submittals" in the General Requirements.

6.5 Concerning Subcontractors, Suppliers, and Other:

- a. The Contractor shall be fully responsible to the Owner and for the acts and omissions of its subcontractors and their employees to the same extent as the Contractor is responsible for the acts and omissions of its own employees. Nothing contained in this Article shall create any contractual relationship between the Owner or the Engineer and any subcontractor, nor shall it relieve the Contractor of any liability or obligation under the prime Contract.
- b. The Departments and Sections of the Specifications and identifications of any drawings shall not control the Contractor in dividing the work among subcontractors or suppliers or in delineating the work to be performed by any specific trade.

6.6 Permits, License Fees, and Royalties:

- a. Unless otherwise provided in the Supplementary General Conditions, the Contractor shall obtain and pay for all construction permits and licenses from the agencies having jurisdiction, including the furnishing of insurance and bonds if required by such agencies. The enforcement of such requirements under this Contract shall not be made the basis of claims for additional compensation. The Owner shall assist the Contractor, when necessary, in obtaining such permits and licenses. The Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the work, which are applicable at the time of opening of Bids, or, if there are no Bids, on the Effective Date of the Agreement.

The Contractor shall pay all charges of utility owners for connections to the work, and the Owner shall pay all charges of such utility owners for connections to the work.

- b. The Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the work or the incorporation in the work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. The Contractor shall indemnify and hold harmless the Owner from and against all claims, damages, losses, and expenses (including attorney's fees and court and arbitration costs) arising out of any infringement of patent rights or copyrights incident to the use in the performance of the work or resulting from the incorporation in the work of any invention, design, process, product, or device not specified in the Contract Documents, and shall defend all such claims in connection with any alleged infringement of such rights.

6.7 Laws and Regulations:

The Contractor shall observe and comply with all federal, state, and local laws, ordinances, codes, orders, and regulations which in any manner affect those engaged or employed on the Work, the materials used in the work, or the conduct of the workers or employees. If any discrepancy or inconsistency should be discovered in this Contract in relation to any such law, ordinance, code, order, or regulation, the Contractor shall report the same in writing to the Engineer. The Contractor shall indemnify, defend, and hold harmless the Owner, the Engineer, and their officers, agents, and employees against all claims or liability arising from violation of any such law, ordinance, code, order, or regulation, whether by Contractor or its employees or subcontractors. Any particular law or regulation specified or referred to elsewhere in the Contract Documents shall not in any way limit the obligation of the Contractor to comply with all other provisions of federal, state, and local laws and regulations. Where an individual state act on occupational safety and health standards has been approved by federal authority, then the provisions of said state act shall control.

6.8 Taxes:

The Texas legislature in 1991 in its first special session passed 1 H.B. 11 which amended the Texas Limited Sales Excise and Use Tax Act which requires a Contractor who is engaged in a capital improvements project for a city to pay tax on tangible personal property purchased under the contract. According to an August 19, 1991 letter from the State Comptroller's Tax Administration Department, the use of "Separated Contracts" will allow for tax free purchases of tangible personal property for the project. Separated Contracts are those that separate services costs from materials costs. This procedure may not be used for materials which do not become part of a finished project. (Example: equipment rentals). This legislation is effective for all contracts and bids entered into after August 14, 1991.

6.9 Use of Premises:

The Contractor shall confine construction equipment, the storage of materials and equipment, and the operations of workers to (1) the Project site, (2) the land and areas identified in and permitted by the Contract Documents, and (3) the other land and areas permitted by Laws and Regulations, rights-of-way, permits and easements. The Contractor shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof or of any land or areas contiguous thereto, resulting from the performance of the Work. Should any claim be made against the Owner by any such owner or occupant because of the performance of the Work, the Contractor shall promptly attempt to settle with such other party by agreement or otherwise resolve the claim by arbitration or at law. The Contractor shall, to the fullest extent permitted by Laws and Regulations, indemnify and hold the Owner harmless from and against all claims, damages, losses, and expenses (including, but not limited to, fees of architects, engineers, attorneys, and other professionals and court and arbitration costs) arising directly, indirectly, or consequently out of any action, legal, or equitable brought by any such other party against the Owner to the extent based on a claim arising out of the Contractor's performance of the Work.

6.10 Safety and Protection:

- a. The CONTRACTOR shall be sole responsible for the safety of himself, his employees and other persons, as well as for the protection of the safety of the improvements being erected and the property of himself or any other person, as a result of his operations hereunder. Engineering construction drawings and specifications as well as any additional information concerning the work to be performed passing from or through the ENGINEER shall not be interpreted as requiring or allowing CONTRACTOR to deviate from the plans and specifications, the intent of such drawings, specifications and any other such instructions being to define with particularity the agreement of the parties as to the work the CONTRACTOR is to perform. CONTRACTOR shall be fully and completely liable, at his own expense, for design, construction, installation and use, or non-use, of all items and methods incident to performance of the contract, and for all loss, damage or injury incident thereto, either to person or property, including, without limitation, the adequacy of all temporary supports, shoring, bracing, scaffolding, machinery or equipment, safety precautions or devices and similar items or devices used by him during construction.

- b. The Contractor shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. The Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury, or loss to the following:
 - 1. All employees on the project and other persons and organizations who may be affected thereby;
 - 2. All the Work and materials and equipment to be incorporated therein, whether in storage on or off the site; and
 - 3. Other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities, and underground facilities not designated for removal, relocation, or replacement in the course of construction.
- c. The Contractor shall comply with all applicable Laws and Regulations (whether referred to herein or not) of any public body having jurisdiction for the safety of persons or property or to protect them from damage, injury or loss; and shall erect and maintain all necessary safeguards for such safety and protection. The Contractor shall notify owners of adjacent property and utilities when execution of the work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property.
- d. The Contractor shall designate a responsible representative at the site whose duty and responsibility shall be the prevention of accidents. This person shall be the Contractor's superintendent or project manager unless otherwise designated in writing by the Contractor to the Owner.

6.11 Shop Drawings and Samples:

- a. After checking and verifying all field measurements and after complying with applicable procedures specified in the General Requirements, the Contractor shall submit to the Engineer for review all Shop Drawings in accordance with the accepted schedule of Shop Drawing submittals specified in the General Requirements.
- b. The Contractor shall also submit to the Engineer for review all samples in accordance with the accepted schedule of sample submittals specified in the General Requirements.
- c. Before submittal of each shop drawing or sample, the Contractor shall have determined and verified all quantities, dimensions, specified performance criteria, installation requirements, materials, catalog numbers and similar data with respect thereto and reviewed or coordinated each shop drawing or sample with other shop drawings and samples and with the requirements of the Work and the Contract Documents.
- d. The Engineer's review and approval of shop drawings or samples shall not relieve the Contractor from responsibility for any variation from the requirements of the Contract Documents unless the Contractor has in writing called the Engineer's attention to each such variation at the time of submission and the Engineer has given written approval of each such variation; nor will any approval by the Engineer relieve the Contractor from responsibility for errors or omissions in the shop drawings or from responsibility for having complied with the provisions of Article 6.11c.
- e. Where a shop drawing or sample is required by the Specifications, any related Work performed prior to the Engineer's review and approval of the pertinent submission will be the sole expense and responsibility of the Contractor.

6.12 Continuing the Work:

The Contractor shall carry on the Work and adhere to the progress schedule during all disputes or disagreements with the Owner. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, except as the Contractor and the Owner may otherwise agree in writing.

6.13 Indemnification:

The contractor shall indemnify, defend and hold harmless the owner, their agents, officers, and employees from and against all claims and liabilities arising under or by reason of the contract or any performance of the work. This indemnity expressly extends to claims alleging negligence by the JEFFERSON COUNTY DRAINAGE DISTRICT NO.6, its agents, officers or employees arising from actions taken or occurrences under this contract. Such indemnification by the contractor shall include but not be limited to the following:

1. *Liability or claims resulting directly or indirectly from the negligence or carelessness of the Contractor, its employees, or its agents in the performance of the Work, or in guarding or maintaining the same, or from any improper materials, implements, or appliances used in its construction, or by or on account of any act or omission of the Contractor or its agents;*
2. *Liability or claims arising directly or indirectly from or based on the violation of any law, ordinance, regulation, order, or decree, whether by the Contractor or its agents;*
3. *Liability or claims arising directly or indirectly from the use or manufacture by the Contractor, its agents, or the Owner in the performance of this Contract of any copyrighted or un-copyrighted composition, secret process, patented or unpatented invention, article, or appliance, unless otherwise specifically stipulated in this Contract;*
4. *Liability or claims resulting directly or indirectly from the breach of any warranties, whether express or implied, made to the Owner or any other parties by the Contractor or its agents;*
5. *Liabilities or claims arising directly or indirectly from the willful misconduct of the Contractor, its employees, or its agents; and,*
6. *Liabilities or claims arising directly or indirectly from any breach of the obligations assumed herein by the Contractor.*
7. *Liabilities or claims of whatever kind or character, arising out of or in connection with the performance by the Contractor of those services contemplated by this Agreement, based upon allegations of negligent acts of Contractor, its officers, agents, employees, and expressly including allegations of negligence, acts or omissions of the Owner, the Engineer, their consultants, agents, officers or employees, when such allegations of negligence to the Owner or Engineer arise from the actions and Work undertaken by Contractor hereunder.*
8. *The Contractor shall reimburse the Owner, and the Engineer for all costs and expenses, (including but not limited to fees and charges of architects, engineers, attorneys, and other professionals and court costs) incurred by said Owner, and the Engineer in enforcing the provisions of this Article.*
9. *The indemnification obligation under this Article shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the Contractor or any such subcontractor or other person or organization under the workers' compensation act, disability benefit acts, or other employee benefit acts.*

6.14 Contractor's Daily Reports:

The Contractor shall complete a daily report indicating manpower, major equipment, subcontractors, etc., involved in the performance of the work. The daily report shall be completed on forms prepared by the Contractor and acceptable to the Engineer, and shall be submitted to the Engineer at the conclusion of each work day.

6.15 Assignment of Contract:

The Contractor shall not assign, sublet, sell, transfer, or otherwise dispose of the Contract or any portion thereof or its right, title, or interest therein, or obligations there-under, without written consent of the Owner, except as imposed by law. If the Contractor violates this provision, the Contract may be terminated at the option of the Owner. In such event, the Owner shall be relieved of all liability and obligations to the Contractor and to its assignee or transferee, growing out of such termination.

XV. Other Work

7.1 Related Work at Site:

- a. The Owner may perform other work related to the Project at the site by the Owner's own forces, have other work performed by utility owners, or let other direct contracts therefor which shall contain General Conditions similar to these. If the fact that such other work is to be performed was not noted in the Contract Documents, written notice thereof will be given to the Contractor prior to starting any such other work.
- b. The Contractor shall afford each utility owner and other contractor who is a party to such a direct contract (or the Owner, if the Owner is performing the additional work with the Owner's employees) proper and safe access to the site and a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such work, and shall properly connect and coordinate the Work with theirs. The Contractor shall do all cutting, fitting, and patching of the Work that may be required to make its several parts come together properly and integrate with such other work. The Contractor shall not endanger any work of others by cutting, excavating or otherwise altering their work and will only cut or alter their work with the written consent of the Engineer and the others whose work will be affected.
- c. If any part of the Contractor's Work depends, for proper execution or results, upon the work of any such other contractor or utility owner (or the Owner), the Contractor shall inspect and promptly report to the Engineer in writing any delays, defects, or deficiencies in such work that render it unavailable or unsuitable for such proper execution and results. The Contractor's failure to so report will constitute an acceptance of the other work as fit and proper for integration with the Contractor's Work except for latent or non-apparent defects and deficiencies in the other work.

7.2 Coordination:

If the Owner contracts with others for the performance of other work on the project at the site, the person or organization who will have authority and responsibility for coordination of the activities among the various prime contractors will be identified in the Supplementary General Conditions, and the specific matters to be covered by such authority and responsibility will be itemized, and the extent of such authority and responsibilities will be provided, in the Supplementary General Conditions. Unless otherwise provided in the Supplementary General Conditions, neither the Owner nor the Engineer shall have any authority or responsibility in respect of such coordination.

XVI. The Owner's Responsibilities

8.1 Communications:

The Owner shall issue all its communications to the Contractor through the Engineer.

8.2 Payments:

The Owner shall make payments to the Contractor as provided in Articles 14.5 and 14.8.

8.3 Lands, Easements, and Surveys:

The Owner's duties in respect of providing lands and easements and providing engineering surveys to establish reference points are set forth in Articles 4.1 and 4.5. The Owner shall identify and make available to the Contractor copies of reports of explorations and tests of subsurface conditions at the site and in existing structures which have been utilized by the Engineer in preparing the Drawings and Specifications.

8.4 Change Orders:

The Owner shall execute Change Orders as indicated in Article 10.1d.

8.5 Inspections and Tests:

The Owner's responsibility in respect of certain inspections, tests, and approvals is set forth in Article 13.3b.

8.6 Suspension of the Work:

In connection with the Owner's right to stop work or suspend work, see Articles 13.4 and 15.1. Articles 15.2 and 15.3 deal with the Owner's right to terminate services of the Contractor under certain circumstances.

XVII. The Engineer's Status During Construction

9.1 Owner's Representative:

The Engineer will be the Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of the Engineer as the Owner's representative during construction are set forth in the Contract Documents.

9.2 Visits to Site:

The Engineer will make visits to the site at intervals appropriate to the various stages of construction to observe the progress and quality of the executed work and to determine, in general, if the work is proceeding in accordance with the Contract Documents.

9.3 Project Representation:

The Engineer will furnish an inspector to assist the Engineer in observing the performance of the work. The duties, responsibilities, and limitations of authority of any such inspector will be as provided in the Supplementary General Conditions.

9.4 Clarifications and Interpretations:

The Engineer will issue with reasonable promptness such written clarifications or interpretations of the requirements of the Contract Documents (in the form of Drawings or otherwise) as may be determined to be necessary, which shall be consistent with or reasonably inferable from the overall intent of the Contract Documents.

9.5 Authorized Variations In Work:

The Engineer may authorize minor variations in the work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Time and are consistent with the overall intent of the Contract Documents. These may be accomplished by a Field Order and will be binding on the Owner, and also on the Contractor who shall perform the work involved promptly. If the Contractor believes that a Field Order justifies an increase in the Contract Price or an extension of the Contract Time and the parties are unable to agree as to the amount or extent thereof, the Contractor may make a claim therefore as provided in Article 11 or Article 12.

9.6 Rejecting Defective Work:

The Engineer will have authority to disapprove or reject work which the Engineer believes to be defective, and will also have authority to require special inspection or testing of the work as provided in Article 13.3g, whether or not the work is fabricated, installed or completed.

9.7 Contractor Submittals, Change Orders, and Payments:

- a. The Engineer will review all the Contractor submittals, including shop drawings, samples, substitutes, or "or equal" items, etc., in accordance with the procedures set forth in the General Requirements.
- b. In connection with the Engineer's responsibilities as to Change Orders, see Articles 10, 11 and 12.
- c. In connection with the Engineer's responsibilities with respect to Preparation of Progress Payment Schedules, see Article 14.

9.8 Decisions or Disputes:

- a. The Engineer shall be the initial interpreter of the requirements of the Contract Documents and the judge of the acceptability of the work there-under. Claims, disputes, and other matters relating to the acceptability of the work; the interpretation of the requirements of the Contract Documents pertaining to the performance of the Work; and those claims under Articles 11 and 12 in respect to changes in the Contract Price or the Contract Time will be referred initially to the Engineer in writing with a request for formal decision in accordance with this Article, which the Engineer will render in writing within 30 working days of receipt of the request. Written notice of each such claim, dispute, and other matter shall be delivered by the Contractor to the Engineer promptly (but in no event later than 30 working days) after the occurrence of the event giving rise thereto. Written supporting data shall be submitted to the Engineer within 60 working days after such occurrence unless the Engineer allows an additional period of time to ascertain more accurate data in support of the claim.

- b. When functioning as arbiter and judge, the Engineer will not show partiality to the Owner or the Contractor and will not be liable in connection with any interpretation or decision rendered in good faith in such capacity. The rendering of a decision by the Engineer with respect to any such claim, dispute, or other matter (except any which have been waived by the making or acceptance of final payment as provided in Article 14.12) will be a condition precedent to any exercise by the Owner or the Contractor of such rights or remedies as either may otherwise have under the Contract Documents or by Laws or Regulations in respect of any such claim, dispute, or other matter.

9.9 Limitations on the Engineer's Responsibilities:

- a. Neither the Engineer's authority to act under this Article 9 or other provisions of the Contract Documents nor any decision made by the Engineer in good faith either to exercise or not exercise such authority shall give rise to any duty or responsibility of the Engineer to the Contractor, any Subcontractor, any Supplier, any surety for any of them, or for any other person or organization performing any of the Work.
- b. Whenever in the Contract Documents the terms "as ordered," "as directed," "as required," "as allowed," "as reviewed," "as approved," or terms of like effect or import are used, or the adjectives "reasonable," "suitable," "acceptable," "proper," or "satisfactory" or adjectives of like effect or import are used to describe a requirement, direction, review, or judgment of the Engineer as to the Work, it is intended that such requirement, direction, review, or judgment will be solely to evaluate the Work for compliance with the Contract Documents, unless there is a specific statement indicating otherwise. The use of any such term or adjective shall not be effective to assign to the Engineer any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of Articles 9.9c or 9.9d, herein.
- c. The Engineer will not be responsible for the Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, and the Engineer will not be responsible for the Contractor's failure to perform or furnish the Work in accordance with the Contract Documents.
- d. The Engineer will not be responsible for the acts or omissions of the Contractor nor of any Subcontractor, Supplier, or any other person or organization performing any of the Work.

XVIII. Changes In The Work

10.1 General:

- a. Without invalidating the Agreement and without notice to any surety, the Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work; these will be authorized by a Change Order or a Work Directive Change issued by the Engineer. Upon receipt of such document, the Contractor shall promptly proceed with the Work involved which will be performed under the applicable conditions of the Contract Documents.
- b. If the Owner and the Contractor are unable to agree as to the extent, if any, of an increase or decrease in the Contract Price or an extension or shortening of the Contract Time that should be allowed as a result of a Work Directive Change, a claim may be made therefore as provided in Article 11 or Article
- c. The Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Time with respect to any work performed that is not required by the Contract Documents as amended, modified and supplemented by Change Order, except in the case of an emergency and except in the case of uncovering work as provided in Article 13.3.
- d. The Owner and the Contractor shall execute appropriate Change Orders covering the following:
 - 1. Changes in the Work which are ordered by the Owner pursuant to Article 10.1a;
 - 2. Changes required because of acceptance of defective work under Article 13.7;
 - 3. Changes in the Contract Price or Contract Time which are agreed to by the parties;
 - 4. Changes in the Contract Price or Contract Time which embody the substance of any written decision rendered by the Engineer pursuant to Article 9.8; and
 - 5. Any other changes agreed to by the parties.
- e. If notice of any change required by the provisions of any Bond to be given to a surety, the giving of any such notice will be the Contractor's responsibility, and the amount of each applicable bond shall be adjusted accordingly.

10.2 Allowable Quantity Variations:

- a. In the event of an increase or decrease in a bid item quantity of a unit price contract, the total amount of work actually done or materials or equipment furnished shall be paid for according to the unit price established for such work under the Contract Documents, wherever such unit price has been established; provided, that an adjustment in the Contract Price may be made for changes which result in an increase or decrease in the quantity of any unit price bid item of the Work in excess of 20 percent.
- b. In the event a part of the Work is to be entirely eliminated and no lump sum or unit price is named in the Contract Documents to cover such eliminated work, the price of the eliminated work shall be agreed upon in writing by the Owner and the Contractor. If the Owner and the Contractor fail to agree upon the price of the eliminated work, said price shall be determined in accordance with the provisions of Article 11.

XIX. Change Of Contract Price

11.1 General

- a. The Contract Price constitutes the total compensation (subject to authorized adjustments) payable to the Contractor for performing the Work. All duties, responsibilities, and obligations assigned to or undertaken by the Contractor shall be at the Contractor's expense without change in the Contract Price.
- b. The Contract Price may only be changed by a Change Order. Any claim for an increase or decrease in the Contract Price shall be based on written notice delivered by the party making the claim to the other party and to the Engineer promptly (but in no event later than 30 working days) after the occurrence of the event giving rise to the claim and stating the general nature of the claim. Notice of the amount of the claim with supporting data shall be delivered within 60 working days after such occurrence (unless the Engineer allows an additional period of time to ascertain more accurate data in support of the claim) and shall be accompanied by claimant's written statement that the amount claimed covers all known amounts (direct, indirect, and consequential) to which the claimant is entitled as a result of the occurrence of said event. All claims for adjustment in the Contract Price shall be determined by the Engineer in accordance with Article 9.8 if the Owner and the Contractor cannot otherwise agree on the amount involved. No claim for an adjustment in the Contract Price will be valid if not submitted in accordance with this Article 11.1b.
- c. The value of any Work covered by a Change Order or of any claim for an increase or decrease in the Contract Price shall be determined in one of the following ways:
 1. Where the Work involved is covered by unit prices contained in the Contract Documents, by application of unit prices to the quantities of the items involved.
 2. By mutual acceptance of a lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Article 11.4).
 3. On the basis of the Cost of the Work (determined as provided in Articles 11.2 and 11.3), plus a Contractor's Fee for overhead and profit (determined as provided in Article 11.4, herein).

11.2 Cost of Work (Based on Time and Materials):

- a. General: The term "cost of work" means the sum of all costs necessarily incurred and paid by the Contractor for labor, materials, and equipment in the proper performance of work. Except as otherwise may be agreed to in writing by the Owner, such costs shall be in amounts no higher than those prevailing in the locality of the Project.
- b. Labor: The cost of labor used in performing work by the Contractor, a subcontractor, or other forces will be the sum of the following:
 1. The actual wages paid plus any employer payments to, or on behalf of workers for fringe benefits including health and welfare, pension, vacation, and similar purposes. The cost of labor may include the wages paid to foremen when determined by the Engineer that the services of foremen do not constitute a part of the overhead allowance.
 2. All payment imposed by state and federal laws including, but not limited to, compensation insurance, and social security payments.
 3. The amount paid for subsistence and travel required by collective bargaining agreements, or in accordance

with the regular practice of the employer.

At the beginning of the extra work and as later requested by the Engineer, the contractor shall furnish the Engineer proof of labor compensation rates being paid.

- c. Materials: The cost of materials used in performing work will be the cost to the purchaser, whether Contractor or subcontractor, from the supplier thereof, except as the following are applicable:
 - 1. Trade discounts available to the purchaser shall be credited to the Owner notwithstanding the fact that such discounts may not have been taken by the Contractor.
 - 2. For materials secured by other than a direct purchase and direct billing to the purchaser, the cost shall be deemed to be the price paid to the actual supplier as determined by the Engineer. Markup, except for actual costs incurred in the handling of such materials, will not be allowed.
 - 3. Payment for materials from sources owned wholly or in part by the purchaser shall not exceed the price paid by the purchaser for similar materials from said sources on extra work items or the current wholesale price for such materials delivered to the work site, whichever price is lower.
 - 4. If in the opinion of the Engineer the cost of material is excessive, or the Contractor does not furnish satisfactory evidence of the cost of such material, then the cost shall be deemed to be the lowest current wholesale price for the quantity concerned delivered to the work site less trade discount.
 - 5. The Owner reserves the right to furnish materials for the extra work and no claim shall be made by the Contractor for costs and profit on such materials.
- d. Equipment: The Contractor will be paid for the use of equipment at the rental rate listed for such equipment specified in the Supplementary General Conditions. Such rental rate will be used to compute payments for equipment whether the equipment is under the Contractor's control through direct ownership, leasing, renting, or another method of acquisition. The rental rate to be applied for use of each item of equipment shall be the rate resulting in the least total cost to the Owner for the total period of use. If it is deemed necessary by the Contractor to use equipment not listed in the foregoing publication, an equitable rental rate for the equipment will be established by the Engineer. The Contractor may furnish cost data which might assist the Engineer in the establishment of the rental rate.
 - 1. All equipment shall, in the opinion of the Engineer, be in good working condition, properly fueled, and suitable for the purpose for which the equipment is to be used.
 - 2. Before construction equipment is used on the extra work, the Contractor shall plainly stencil or stamp an identifying number thereon at a conspicuous location, and shall furnish to the Engineer, in duplicate, a description of the equipment and its identifying number.
 - 3. Unless otherwise specified, manufacturer's ratings and manufacturer approved modifications shall be used to classify equipment for the determination of applicable rental rates. Equipment which has no direct power unit shall be powered by a unit of at least the minimum rating recommended by the manufacturer.
 - 4. Individual pieces of equipment or tools having replacement value of \$100 or less, whether or not consumed by use, shall be considered to be small tools and no payment will be made therefore.
 - 5. Rental time will not be allowed while equipment is inoperative due to breakdowns, malfunctions or operator unavailability.
- e. Equipment on the Work: The rental time to be paid for equipment on the work shall be the time the equipment is in productive operation on the extra work being performed and, in addition, shall include the time required to move the equipment to the location of the extra work and return it to the original location or to another location requiring no more time than that required to return it to its original location; except, that moving time will not be paid if the equipment is used on other than the extra work, even though located at the site of the extra work. Loading and transporting costs will be allowed, in lieu of moving time, when the equipment is moved by means other than its own power, except that no payment will be made for loading and transporting costs when the equipment is used at the site of the extra work on other than the extra work. The following shall be used in computing the rental time of equipment on the work.
 - 1. When hourly rates are listed, any part of an hour less than 30 minutes of operation shall be considered to be ☐-hour of operation, and any part of an hour 30 minutes or more will be considered one hour of operation.
 - 2. When daily rates are listed, any part of a day less than 4 hours operation shall be considered to be ☐-day of

operation. When owner-operated equipment is used to perform extra work to be paid for on a time and materials basis, the Contractor will be paid for the equipment and operator, as set forth in Subparagraphs (3), (4), and (5), following.

3. Payment for the equipment will be made in accordance with the provisions in Article 11.2d, herein.
4. Payment for the cost of labor and subsistence or travel allowance will be made at the rates paid by the Contractor to other workers operating similar equipment already on the Work, or in the absence of such labor, established by collective bargaining agreements for the type workers and location of the extra work, whether or not the operator is actually covered by such an agreement. A labor surcharge will be added to the cost of labor described herein in accordance with the provisions of Article 11.2b, herein, which surcharge shall constitute full compensation for payments imposed by state and federal laws and all other payments made to or on behalf of workers other than actual wages.
5. To the direct cost of equipment rental and labor, computed as provided herein, will be added the allowances for equipment rental and labor as provided in Article 11.4, herein.

11.3 Special Services:

- a. Special work or services are defined as that work characterized by extraordinary complexity, sophistication, or innovation or a combination of the foregoing attributes which are unique to the construction industry. The following may be considered by the Engineer in making estimates for payment for special services:
 1. When the Engineer and the Contractor, by agreement, determine that a special service or work is required which cannot be performed by the forces of the Contractor or those of any of its subcontractors, the special service or work may be performed by an entity especially skilled in the work to be performed. After validation of invoices and determination of market values by the Engineer, invoices for special services or work based upon the current fair market value thereof may be accepted without complete itemization of labor, material, and equipment rental costs.
 2. When the Contractor is required to perform work necessitating special fabrication or machining process in a fabrication or a machine shop facility away from the jobsite, the charges for that portion of the work performed at the off-site facility may, by agreement, be accepted as a special service and accordingly, the invoices for the work may be accepted without detailed itemization.
 3. All invoices for special services will be adjusted by deducting all trade discounts offered or available, whether the discounts were taken or not. In lieu of the allowances for overhead and profit specified in Paragraph 11.4, herein, an allowance of 5 percent will be added to invoices for special services.
- b. All work performed hereunder shall be subject to all of the provisions of the Contract Documents and the Contractor's sureties shall be bound with reference thereto as under the original Agreement. Copies of all amendments to surety bonds or supplemental surety bonds shall be submitted to the Owner for review prior to the performance of any work hereunder.

11.4 Contractor's Fee:

- a. Work ordered on the basis of time and materials will be paid for at the actual necessary cost as determined by the Engineer, plus allowances for overhead and profit. For extra work involving a combination of increases and decreases in the Work the actual necessary cost will be the arithmetic sum of the additive and deductive costs. The allowance for overhead and profit shall include full compensation for superintendence, bond and insurance premiums, taxes, office expense, and all other items of expense or cost not included in the total cost of labor, materials, or equipment provided for under Paragraphs 11.2b, c, and d, herein including extended overhead and home office overhead. The allowance for overhead and profit will be made in accordance with the following schedule:

ACTUAL NECESSARY COST	OVERHEAD AND PROFIT ALLOWANCE
Labor15 percent
Materials 15 percent
Equipment 15 percent

- b. It is understood that labor, materials, and equipment may be furnished by the Contractor or by the subcontractor on behalf of the Contractor. When all or any part of the extra work is performed by a subcontractor, the allowance specified herein shall be applied to the labor, materials, and equipment costs of the subcontractor, to which the

Contractor may add 15 percent of the subcontractor's total cost for the extra work. Regardless of the number of hierarchical tiers of subcontractors, the 15-percent increase above the subcontractor's total cost which includes the allowances for overhead and profit specified herein may be applied one time only for each separate work transaction.

XX. Change Of Contract Time

12.1 General:

- a. The Contract Time may only be changed by a Change Order. Any claim for an extension or shortening of the Contract Time shall be based on written notice delivered by the party making the claim to the other party and to the Engineer promptly (but in no event later than 30 working days) after the occurrence of the event giving rise to the claim and stating the general nature of the claim. Notice of the extent of the claim with supporting data shall be delivered within 60 working days after such occurrence (unless the Engineer allows an additional period of time to ascertain more accurate data in support of the claim) and shall be accompanied by the claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant has reason to believe it is entitled as a result of the occurrence of said event. All claims for adjustment in the Contract Time shall be determined by the Engineer in accordance with Article 9.8 if the Owner and the Contractor cannot otherwise agree. No claim for an adjustment in the Contract Time will be valid if not submitted in accordance with the requirements of this Article 12.1a.
- b. The Contract Time will be extended in an amount equal to time lost due to delays beyond the control of the Contractor if a claim is made therefore as provided in Article 12.1a and if approved therefore by Engineer. Such delays shall include acts of neglect by the Owner or others performing additional work as contemplated by Article 7, or by acts of God or of the public enemy, fire, floods, epidemics, quarantine restrictions, strikes, labor disputes, sabotage, or freight embargoes.
- c. All time limits stated in the Contract Documents are of the essence of the Agreement.

12.2 Extensions of Time for Delay Due to Inclement Weather:

- a. Inclement weather is any weather condition or conditions resulting immediately there-from, causing the Contractor to suspend construction operations or preventing the Contractor from profitably utilizing at least 75 percent of the normal labor and equipment force engaged on the Work.
- b. Should the Contractor prepare to begin work at the regular starting time at the beginning of any regular work shift on any day on which inclement weather, or the forecast by the local NOAA Weather Reporting Station of 30% or greater chance of inclement weather, or the conditions resulting from the weather, or the condition of the Work prevents work from beginning at the usual starting time, and the crew is dismissed as a result thereof, the Contractor will not be charged for a working day whether or not conditions change thereafter during said day and the major portion of the day could be considered to be suitable for such construction operations.
- c. Any such regular work days not worked due to the circumstances set forth in subparagraphs 12.2a and 12.2b above will entitle the Contractor to an extension of time equal to the time lost only to the extent such time exceeds the usual, expected inclemency for the local area of the Work as established by a 10-year statistical average of such weather conditions as recorded by the National Oceanic and Atmospheric Administration. Article 12.1 of the Supplementary General Conditions of these Contract Documents identifies the inclemency base established for this Project in accordance with the procedure set forth above.

XXI. Warranty And Guarantee; Tests And Inspections; Correction, Removal Or Acceptance Of Defective Work

13.1 Warranty and Guarantee:

The Contractor warrants and guarantees to the Owner and the Engineer for a period of one year after final acceptance by the owner, that all work will be in accordance with the Contract Documents and will not be defective. Prompt notice of all defects known to the Owner or the Engineer shall be given to the Contractor. Neither the right to inspect, nor the presence of inspectors, the Engineer, consultants, or testing agencies hired by the Owner or the Engineer, nor their general review or approval shall relieve the Contractor from its obligations to perform the Work in accordance with the Contract Documents. All defective Work, whether or not in place, may be rejected, corrected, or accepted as provided in this Article 13.

13.2 Access to Work:

The Engineer and the Engineer's representatives, other representatives of the Owner, testing agencies, and governmental agencies with jurisdictional interests shall have access to the Work at reasonable times for their observation, inspections, and testing. The Contractor shall provide proper and safe conditions for such access. Such observation, inspections and testing shall not be construed as the basis for any claims of delay but shall be considered a normal and necessary part in the progress of the work.

13.3 Tests and Inspections:

- a. The Contractor shall give the Engineer timely notice of readiness of the Work for all required inspections, tests, or approvals, but in no event less than 24 hours' notice.
- b. If Laws or Regulations of any public body having jurisdiction other than the Owner, require any Work (or part thereof) to specifically be inspected, tested, or approved, the Contractor shall pay all costs in connection therewith and furnish the Engineer the required certificates of inspection, testing or approval. The Contractor shall also be responsible for and shall pay all costs in connection with any inspection or testing required in the Owner's or the Engineer's acceptance of a Supplier of materials or equipment proposed as a substitution or "or equal" to be incorporated in the Work, or of materials or equipment submitted for approval prior to the Contractor's purchase thereof for incorporation in the Work. The cost of all inspections, tests, and approvals in addition to the above which are required by the Contract Documents shall be paid by the Owner (unless otherwise specified).
- c. The Engineer will make, or have made, such inspections and tests as the Engineer deems necessary to see that the work is being accomplished in accordance with the requirements of the Contract Documents. Unless otherwise specified in the Supplementary General Conditions, the cost of such inspection and testing will be borne by the Owner. In the event such inspections or tests reveal non-compliance with the requirements of the Contract Documents, the Contractor shall bear the cost of corrective measures deemed necessary by the Engineer, as well as the cost of subsequent re-inspection and re-testing. Neither observations by the Engineer nor inspections, tests, or approvals by others shall relieve the Contractor from the Contractor's obligation to perform the Work in accordance with the Contract Documents.
- d. All inspections, tests, or approvals other than those required by Laws or Regulations of any public body having jurisdiction shall be performed by organizations acceptable to the Owner.
- e. If any work (including the work of others) that is to be inspected, tested, or approved is covered without written concurrence of the Engineer, it shall, if requested by the Engineer, be uncovered for observation. Such uncovering shall be at the Contractor's expense unless the Contractor has given the Engineer timely notice of the Contractor's intention to perform such test or to cover the same and the Engineer has not acted with reasonable promptness in response to such notice.
- f. If any work is covered contrary to the written request of the Engineer, it shall, if requested by the Engineer, be uncovered for the Engineer's observation and replaced at the Contractor's expense.
- g. If the Engineer considers it necessary or advisable that covered work be observed by the Engineer or inspected or tested by others, the Contractor, at the Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing, as the Engineer may require, that portion of the Work in question and shall furnish all necessary labor, material, and equipment. If it is found that such work is defective, the Contractor shall bear all direct, indirect, and consequential costs of such uncovering, exposure, observation, inspection, and testing and of satisfactory reconstruction, including but not limited to fees and charges of engineers, architects, attorneys, and other professionals. However, if such work is not found to be defective, the Contractor shall be allowed an increase in the Contract Price for such uncovering, exposure, observation, inspection, testing, and reconstruction; and, if the parties are unable to agree as to the amount or extent thereof, the Contractor may make a claim therefore as provided in Articles 11 and 12.

13.4 Owner May Stop the Work:

If the Work is defective, or the Contractor fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, the Owner may order the Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of the Owner to stop the Work shall not give rise to any duty on the part of the Owner to exercise this right for the benefit of the Contractor or any other party.

13.5 Correction or Removal of Defective Work:

If required by the Engineer, the Contractor shall promptly either correct all defective Work, whether or not fabricated, installed or completed, or, if the Work has been rejected by the Engineer, the Contractor shall remove it from the site and replace it with non-defective Work. The Contractor shall bear all direct, indirect, and consequential costs of such correction or removal,

including but not limited to fees and charges of architects, engineers, attorneys, and other professionals, made necessary thereby.

13.6 One Year Correction Period:

If within one year after the date of Completion or such longer period of time as may be prescribed by Laws or Regulations or by the terms of any applicable special guarantee required by the Contract Documents or by any specific provision of the Contract Documents, any Work is found to be defective, the Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions, either correct such defective Work, or, if it has been rejected by Owner, remove it from the site and replace it with non-defective Work. If the Contractor does not promptly comply with the terms of such instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or the rejected Work removed and replaced, and all direct, indirect and consequential costs of such removal and replacement, including but not limited to fees and charges of architects, engineers, attorneys and other professionals, shall be paid by the Contractor. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Contract Documents.

13.7 Acceptance of Defective Work:

If, instead of requiring correction or removal and replacement of defective Work, the Owner prefers to accept the Work, the Owner may do so. The Contractor shall bear all direct, indirect, and consequential costs attributable to the Owner's evaluation of and determination to accept such defective Work. If any such acceptance occurs prior to final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and the Owner shall be entitled to an appropriate decrease in the Contract Price.

XXII. Payments To The Contractor And Completion

14.1 Schedule of Values (Lump-Sum Price Breakdown):

The schedule of values or lump-sum price breakdown established as provided for in the General Requirements shall serve as the basis for progress payments and will be incorporated into a Progress Payment Schedule Form prepared by the Engineer.

14.2 Unit Price Bid Schedule:

Progress payments of unit-priced work will be based upon the number of units completed.

14.3 Progress Payments:

- a. Unless otherwise prescribed by law, on or before the 5th calendar day of each month, the Engineer shall prepare and submit to the Owner for review a Progress Payment Schedule covering measured portions of the Work completed as of the last calendar day of the preceding month, as reported in the inspector's daily reports with such supporting documentation as required by the Contract Documents.
- b. The Net Payment due to the Contractor shall be the Contractor's Total Earnings to date from which will be deducted the amount of retainage specified in the Contract Documents; the total amount of all previous payments made to the Contractor; any liquidated damages as may become due, and; any special deductions in the Contract Price.

14.4 Contractor's Warranty of Title:

The Contractor warrants and guarantees that title to all work, materials, and equipment covered by any application for payment, whether incorporated in the Project or not, will pass to the Owner no later than the time of final payment free and clear of all liens.

14.5 Review of Progress Payment Schedule:

- a. The Owner will review the Progress Payment Schedule and either accepts it for payment, or within seven (7) working days, return it to the Engineer, noting in writing the exceptions taken to the Schedule as submitted. In the latter case, the Engineer shall make the corrections required and resubmit the Schedule to the Owner for processing.
- b. The Owner may refuse to make payment of the full amount recommended by the Engineer because claims have been made against the Owner on account of the Contractor's performance of the work, or Liens have been filed in connection with the work, or there are other items entitling the Owner to a credit against the amount recommended, but the Owner must give the Engineer written notice within seven (7) days of receipt of the Engineer's recommended Progress Payment

Schedule (with a copy to the Contractor) stating the reasons for such action.

14.6 Beneficial Use or Occupancy and Partial Utilization:

- a. Partial Utilization: The Owner shall have the right to utilize or place into service any item of equipment or other usable portion of the work prior to completion of the work. Whenever the Owner plans to exercise said right, the Contractor will be notified in writing by the Owner fourteen (14) days in advance, identifying the specific portion or portions of the work to be so utilized or otherwise placed into service.
- b. It shall be understood by the Contractor that until such written notification is issued, all responsibility for care and maintenance of all items or portions of the work to be partially utilized shall be borne by the Contractor. Upon issuance of said written notice of partial utilization, the Owner will accept responsibility for the protection and maintenance of all such items or portions of the work described in the written notice.
- c. Beneficial Use or Occupancy: The Owner shall have the right, at its option and convenience, to occupy or otherwise make use of all or any part of the project premises at any time prior to substantial completion, fourteen (14) days in advance written notice to the Contractor. Beneficial occupancy or use shall be subject to the following conditions:
 1. The Owner shall use its best efforts to prevent occupancy from interfering with the conduct of the Contractor's remaining work;
 2. The Contractor shall not be required to repair damage to the premises if the same was caused by, or pursuant to, the Owner's occupancy or use;
 3. The one-year correction period for those portions of the premises occupied and equipment used by the Owner shall start as of the date of actual occupancy or use;
 4. Occupancy or use shall not constitute acceptance by the Owner either of the completed work or any portion thereof, nor will it relieve the Contractor from full responsibility for correcting defective work or materials found before completion and acceptance of all the work during the period specified in Article 13.6;
 5. Occupancy or use shall not be deemed to be the equivalent of filing a Notice of Substantial Completion/Notice of Completion or a Cessation of Labor;
 6. There shall be no added cost to the Owner due to pre-completion occupancy or use.

14.7 Substantial Completion:

When the Contractor considers the Work ready for its intended use, the Contractor shall notify the Owner and the Engineer in writing that the Work is substantially complete and request that the Engineer schedule a Final Inspection. Within a reasonable time thereafter, the Owner, the Contractor, and the Engineer shall inspect the Work to determine the status of completion. If the Owner does not consider the Work to be substantially complete, it will request that the Engineer so notify the Contractor in writing, stating the reasons therefore. If the Owner considers the Work substantially complete, with only minor items of corrective work remaining, it will instruct the Engineer to prepare and deliver to the Owner for its execution and recordation six (6) copies of the Notice of Substantial Completion/Notice of Completion, signed by the Engineer and Contractor. As applicable, there shall be attached to the Notice a list of items (punch list) to be completed or corrected before the Final Progress Payment will be made. Upon execution and recordation of the Notice by the Owner, which shall fix the date of Substantial Completion, the Owner will furnish the Contractor with two (2) copies of the executed Notice with punch list attached as applicable. The Contractor shall immediately upon receipt of the executed Notice and attached punch list, begin such corrective work as is required by the Owner and indicated on the punch list. All corrective work must be completed by the Contractor to the satisfaction of the Owner within thirty (30) working days following the date of Substantial Completion as established according to the provisions of this Article 14.7. If, at the expiration of the 30-day correction period, outstanding items of corrective work remain, the Owner may, at its option, accept the work or, in response to extraordinary conditions and at the written request of the Contractor, grant one (1) thirty (30) calendar day extension of time for completion of all outstanding punch list items. If, at the expiration of the 30-day extension period or if at the expiration of the original 30-day corrective work period an additional extension is not granted by the Owner and the Owner accepts the Work with items of corrective work outstanding, the Engineer is directed to deduct up to two (2) times the value of such outstanding items of work from the Final Progress Payment Schedule and the Contractor does hereby waive any and all claims to all monies withheld by the Owner to cover up to two (2) times the value of all uncorrected or incomplete items of the Work. The Engineer shall be the sole and final judge of the value of uncorrected and/or incomplete items of the work.

14.8 Final Progress Payment:

The Final Progress Payment shall comprise all billable items or the Work including billable items of corrective work completed through the end of the Final Progress Payment Period. The Final Progress Payment shall be based on the Final Progress Payment Schedule prepared by the Engineer and shall be calculated as follows: Final Progress Payment due shall equal the sum value of completed items of the Work plus the value of completed Change Order Work less 5% retainage, less Liquidated Damages (as applicable), less Special Reductions (as applicable), less an amount up to two (2) times the value of outstanding items of corrective work (as applicable) and less all previous payments.

14.9 Acceptance by Owner and Final Payment:

At such time that the Contractor has completed all items of corrective work or, upon expiration of the corrective work period(s) in accordance with the provisions of Article 14.7, above, the Contractor shall deliver to the Engineer all documentation called for in these Contract Documents together with complete and legally effective releases or waivers (satisfactory to the Owner) of all claims arising out of or filed in connection with the Work by any vendor, supplier, rental agency, subcontractor or others having directly or indirectly supplied goods, services materials and/or equipment utilized for or incorporated in the construction of the Work. Additionally, and concurrent with the above, the Contractor shall deliver to the Engineer, all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, record documents and other documents, all as required by these Contract Documents. If, on the basis of the Engineer's reports and recommendations and the Owner's examination of the documentation and waivers of claims submitted by the Contractor, the Owner is satisfied that the Work has been completed and that the Contractor's obligations under the requirements of these Contract Documents have been fulfilled, the Owner will, within 15 working days after acceptance of Work by the Owner's governing body, make Final Payment to the Contractor. The amount of the Final Payment shall be calculated as follows: The Value of all completed items of the Work plus the value of completed Change Order Work, less Liquidated Damages (as applicable), less Special Reductions (as applicable), less outstanding claims (as applicable), less up to two (2) times the value of outstanding items of corrective work (as applicable), less total amounts previously paid.

14.10 Contractor's Continuing Obligation:

The Contractor's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. Neither recommendation of any Progress or Final Payment by the Engineer, nor the issuance of a Notice of Substantial Completion/Notice of Completion, nor any payment by the Owner to the Contractor under the Contract Documents, nor any use or occupancy of the Work or any part thereof by the Owner, nor any act of acceptance by the Owner nor any failure to do so, nor any review and approval of a Shop Drawing or sample submittal, will constitute an acceptance of work not in accordance with the Contract Documents or a release of the Contractor's obligation to perform the Work in accordance with the Contract Documents.

14.11 Final Payment Terminates Liability of the Owner:

The acceptance by the Contractor of the Final Payment referred to in Article 14.9 herein shall be a release of the Owner and its agents from all claims of liability to the Contractor for anything done or furnished for, or relating to, the Work or for any act or neglect of the Owner or of any person relating to or affecting the Work, except demands made against the Owner for the remainder, if any, of the amounts kept or retained under the provisions of Article 14.9, herein; and excepting all pending, unresolved claims filed prior to the date of the Notice of Substantial Completion/Notice of Completion.

XXIII. Suspension Of Work And Termination

15.1 Suspension of Work by Owner:

The Owner, acting through the Engineer, may, at any time and without cause, suspend the Work or any portion thereof for a period of not more than 90 working days by notice in writing to the Contractor. The Contractor shall resume the Work on receipt from the Engineer of a Notice to Resume Work. The Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Time, or both, directly attributable to any suspension if the Contractor makes an approved claim therefore as provided in Articles 11 and 12.

15.2 Termination of Agreement by Owner (Contractor Default):

- a. In the event of default by the Contractor, the Owner may give 14 working days written notice to the Contractor of Owner's intent to terminate the Agreement and provide the Contractor an opportunity to remedy the conditions constituting the default. It shall be considered a default by the Contractor whenever the Contractor shall:

1. Declare bankruptcy, become insolvent, or assign its assets for the benefit of its creditors;

2. Fail to provide materials or workmanship meeting the requirements of the Contract Documents;
3. Disregard or violate provisions of the Contract Documents or Engineer's instructions;
4. Fail to perform the Work according to the approved Progress Schedule; or
5. Fail to provide a Full-Time qualified Superintendent or Project Manager, competent workers, or materials or equipment meeting the requirements of the Contract Documents.

If the Contractor fails to remedy the conditions constituting default within the time allowed, the Owner may the issue the Notice of Termination.

- b. In the event that the Agreement is terminated in accordance with any provision of Article 15.2.a, herein, the Owner shall have the right to take possession of the Work and may complete the Work by whatever method or means the Owner may select. The cost of completing the Work shall be deducted from the balance which would have been due the Contractor had the Agreement not been terminated and the Work completed in accordance with the Contract Documents. If such cost exceeds that balance which would have been due, the Contractor shall pay the excess amount to the Owner. If such cost is less than the balance which would have been due, the Contractor shall not have claim to the difference.

15.3 Termination of Agreement by Owner (For Convenience):

The Owner may terminate the Agreement at any time if it is found that reasons beyond the control of either the Owner or the Contractor make it impossible or against the Owner's interests to complete the Work. In such a case, the Contractor shall have no claims against the Owner except: (1) for the value of the work performed up to the date the Agreement is terminated; and, (2) for the cost of materials and equipment on hand, in transit, or on definite commitment, as of the date the Agreement is terminated, which would have been needed in the work and which meet the requirements of the Contract Documents. The value of work performed and the cost of materials and equipment delivered to the site, as mentioned above, shall be determined by the Engineer in accordance with the procedure prescribed for the preparation of the final Progress Payment Schedule and payment under Articles 14.8 and 14.9.

15.4 Termination of Agreement by Contractor:

The Contractor may terminate the Agreement upon fourteen (14) working days written notice to the Owner, whenever:

- a. The Work has been suspended under the provisions of Article 15.1, herein, for more than ninety (90) working days through no fault or negligence of the Contractor, and Notice to Resume Work or to terminate the Agreement has not been received from the Owner within this time period; or
- b. The Owner should fail to pay the Contractor any monies due in accordance with the terms of the Contract Documents and within sixty (60) working days after presentation to the Owner by the Contractor of a request therefore, unless within said fourteen (14) calendar day period after receipt by Owner of Notification to Terminate, the Owner shall have remedied the condition upon which the payment delay was based.

In the event of such termination, the Contractor shall have no claim against the Owner except for those claims specifically enumerated in Article 15.3, herein, and as determined in accordance with the requirements of said Article.

XXIV. Miscellaneous

16.1 Giving Written Notice:

Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended, or if delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.

16.2 Title to Materials Found on the Work:

The Owner shall have the right to retain title to all soils, stone, sand, gravel, and other materials developed and obtained from excavations and other operations connected with the Work. Unless otherwise specified in the Contract Documents, neither the Contractor nor any subcontractor shall have any right, title, or interest in or to any such materials. The Contractor will be permitted to use in the Work, without charge, any such materials which meet the requirements of the Contract Documents.

16.3 Right to Audit:

If the Contractor submits a claim to the Owner for additional compensation, the Owner shall have the right, as a condition to considering the claim, and as a basis for evaluation of the claim, and until the claim has been settled, to audit the Contractor's books to the extent they are relevant. This right shall include the right to examine books, records, documents, and other evidence and accounting procedures and practices, sufficient to discover and verify all direct and indirect costs of whatever nature claimed to have been incurred or anticipated to be incurred and for which the claim has been submitted. The right to audit shall include the right to inspect the Contractor's plants, or such parts thereof, as may have been engaged in the performance of the Work. The Contractor further agrees that the right to audit encompasses all subcontracts and is binding upon subcontractors. The rights to examine and inspect herein provided for shall be exercisable through such representatives as the Owner deems desirable during the Contractor's normal business hours at the office of the Contractor. The Contractor shall make available to the Owner for auditing, all relevant accounting records and documents, and other financial data, and upon request, shall submit true copies of requested records to the Owner.

16.4 Asbestos:

If the Contractor during the course of the work observes the existence of asbestos in a structure or building, the Contractor shall promptly notify the Owner and the Engineer. The Owner shall consult with the Engineer regarding removal or encapsulation of the asbestos material and the Contractor shall not perform any work pertinent to the asbestos material prior to receipt of special instructions from the Owner through the Engineer.

END OF SECTION

Part II – Conditions of the Contract

Section 1200 – Supplementary General Conditions

PART II - CONDITIONS OF THE CONTRACT

SECTION 1200 - SUPPLEMENTARY GENERAL CONDITIONS

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SECTION 1200

CONDITIONS OF THE CONTRACT

SUPPLEMENTARY GENERAL CONDITIONS

GENERAL

These Supplementary General Conditions make additions, deletions, or revisions to the General Conditions as indicated herein. All provisions which are not so added, deleted, or revised remain in full force and effect. Terms used in these Supplementary General Conditions which are defined in the General Conditions have the meanings assigned to them in the General Conditions.

I. Supplementary Definitions

In addition to the definitions in the provisions of Article 1 of the General Conditions, the following respective supplemental definitions shall apply:

Engineer– The Engineer is the JEFFERSON COUNTY DRAINAGE DISTRICT NO.6 District Engineer.

Owner– The Owner is the JEFFERSON COUNTY DRAINAGE DISTRICT NO.6, of Beaumont Texas.

II. Preliminary Matters

2.1 Legal Address of the Owner:

The official, legal address of the Owner shall be 6550 Walden Road, Beaumont, Texas 77707 or such other address as the Owner may subsequently designate in written notice to the Contractor.

2.2 Legal Address of the Engineer

The official, legal address of the Owner shall be 6550 Walden Road, Beaumont, Texas 77707 or such other address as the Owner may subsequently designate in written notice to the Contractor.

III. Contract Documents: Intent, Amending, And Reuse

3.1 Scope:

The Work to be performed under this Contract shall consist of furnishing all plant, tools, equipment, materials, supplies, and manufactured articles and for furnishing all transportation services, and all fuel, power, water, and essential communications, and for the performance of all labor, work, or other operations required for the fulfillment of the Contract in strict accordance with the Specifications, Schedules, Drawings, and other Contract Documents as defined in the Contract, all of which are made a part hereof, and including such detail sketches as may be furnished by the Engineer from time to time during construction in explanation of said Drawings or other Contract Documents. The Work shall be complete, and all work, materials, and services not expressly called for or shown in the Contract Documents which may be necessary for the complete and proper construction of the Work in good faith shall be performed, furnished, and installed by the Contractor as though originally so specified or shown, at no increase in cost to the Owner.

3.2 Contract Drawings:

- a. The locations of the Work, its general nature and extent, and the form and general dimensions of the Project and appurtenant works are shown on the Drawings and are hereby made a part of these Contract Documents as listed herein, all bearing the common title:

LIST OF DRAWINGS

Drawing No. Drawing Title

AS SHOWN ON INDEX SHEET OF PLANS

- b. The Contractor will be furnished two (2) sets of Contract Documents without charge. Additional sets will be furnished upon request at the actual cost of reproduction.

IV. Availability Of Lands; Physical Conditions; Reference Points

4.1 Subsurface and Existing Structures:

- a. In the preparation of the Contract Documents, the Engineer has relied upon the following reports of explorations and tests of subsurface conditions at the site of the Work:
- b. The Engineer has also relied upon the following drawings of physical conditions in or relating to existing surface and subsurface structures (except Underground Utilities) which are at or contiguous to the site of the Work:
- c. Copies of these reports and drawings may be examined at the office of the Engineer during regular business hours if said reports and drawings are not bound herein. As provided in Article 4.2 of the General Conditions and as identified and established above, the Contractor may rely upon the accuracy of the technical data contained in these reports and drawings which are incorporated in the Contract Documents by reference. However, the interpretation of such technical data, including any interpolation or extrapolation thereof, together with non-technical data, interpretations, and opinions contained in such reports or drawings, which are not a part of the Contract Documents, or the completeness thereof is the responsibility of the Contractor.

V. Bonds And Insurance

5.1 Performance and Other Bond Amounts:

The Contractor shall furnish a satisfactory Performance Bond in the amount of 100 percent (100%) of the Contract Price and a satisfactory Payment Bond in the amount of 100 percent (100%) of the Contract Price.

5.2 Insurance Amounts:

The limits of liability for the insurance required by Article 5.2 of the General Conditions shall provide coverage for not less than the following amounts or greater where required by Laws and Regulations:

- a. Workers' Compensation: (Under Article 5.2 of the General Conditions):
 - 1. Per Statutory Requirements (See Attachment "A")
 - 2. Employer's Liability: \$ 1,000,000
- b. Comprehensive General Liability and Automobile Liability: (Under Article 5.2 of the General Conditions: shall include completed operations and product liability.)
 - \$ 1,000,000.00 Each Occurrence
 - \$ 5,000,000.00 Annual Aggregate
- c. The JEFFERSON COUNTY DRAINAGE DISTRICT NO.6 shall be named as additional insured.

VI. The Contractor's Responsibilities

6.1 Subcontract Limitations:

In addition to the provisions of Article 6.5 of the General Conditions, the Contractor shall perform not less than 50 percent of the "Services" as shown on the bid form with its own forces. The 50 percent requirement shall be understood to refer to the "Services" line on the bid form, based on estimated quantities.

6.2 Laws and Regulations:

- a. General: The Work is located in the JEFFERSON COUNTY DRAINAGE DISTRICT NO.6 County of Jefferson. The Contractor shall comply with all ordinances, regulations, and other lawful requirements of said City and county and of the State, Federal, and other public authorities within their respective jurisdictions governing the work on public property. In particular, the Contractor's attention is directed to the provisions of Section entitled, "Temporary Environmental Controls."
- b. All work hereunder shall conform to or exceed all applicable requirements of OSHA for health and safety on or about the site.

VII. Other Work

No changes, additions, or deletions to the General Conditions

VIII. The Owner's Responsibilities

No changes, additions, or deletions to the General Conditions

IX. The Engineer's Status During Construction

9.1 Duties, Responsibilities and Limitations of Authority of the Inspector:

- a. General: The Inspector, who is the Engineer's representative, will act as directed by and under the supervision of the Engineer and will confer with the Engineer regarding its actions. The Inspector's dealings in matters pertaining to the on-site Work shall in general be only with the Engineer and the Contractor, and dealings with subcontractors shall only be through or with the full knowledge of the Contractor. Written communication with the Owner will be only through or as directed by the Engineer.
- b. Duties and Responsibilities: The Inspector will:
 1. Serve as the Engineer's liaison with the Contractor, working principally through the Contractor's superintendent and will assist said superintendent in understanding the intent of the Contract Documents. Assist the Engineer in serving as the Owner's liaison with the Contractor when the Contractor's operations affect the Owner's on-site operations.
 2. Conduct on-site observations of the Work in progress to assist the Engineer in determining if the Work is proceeding in accordance with the Contract Documents.
 3. Report to the Engineer whenever the Inspector believes that any work is unsatisfactory, faulty, or defective or does not conform to the Contract Documents, or does not meet the requirements of any inspection, tests or approval required to be made or has been damaged prior to final payment; and advise the Engineer when the Inspector believes work should be corrected or rejected or should be uncovered for observation, or requires special testing, inspection, or approval.
 4. Verify that tests, equipment, and system startups and operating and maintenance instructions are conducted as required by the Contract Documents and in the presence of the required personnel, and that the Contractor maintains adequate records thereof; observe, record and report to the Engineer appropriate details relative to the test procedures and startups.

5. Accompany visiting inspectors representing public or other agencies having jurisdiction over the Work, record the outcome of these inspections, and report to the Engineer.
6. Keep a diary or log book, recording hours on the jobsite, weather conditions, data relative to questions of extras or deductions, instructions given to Contractor, daily activities, observations in general, personnel and equipment, idle equipment and specific observations in more detail as in the case of observing test procedures. Send copies to the Engineer.
7. Furnish the Engineer daily reports of progress of the Work and the Contractor's compliance with the approved progress schedule and schedule of Shop Drawing submittals.
8. Consult with the Engineer in advance of scheduled major tests, inspections, or start of important phases of the Work.
9. Report immediately to the Engineer upon the occurrence of any accident.
10. Submit to the Contractor, a list of observed items requiring completion or correction, before the Engineer prepares a Notice of Substantial Completion/Notice of Completion, as applicable.
11. Conduct final inspection in the company of the Engineer, the Owner and the Contractor and prepare a punch list of items to be completed or corrected.
12. Verify that all items on the punch list have been completed or corrected and make recommendations to the Engineer concerning acceptance.
 - a. Limitations of Authority:
Except upon written instruction of the Engineer, the Inspector:
 1. Shall not authorize any deviation from the Contract Documents or approve any substitute material or equipment.
 2. Shall not exceed limitations on the Engineer's authority as set forth in the Contract Documents.
 3. Shall not undertake any of the responsibilities of the Contractor, subcontractors or Contractor's superintendent, or expedite the Work.
 4. Shall not advise on or issue directions relative to any aspect of the means, methods, techniques, sequences, or procedures of construction unless such is specifically called for in the Contract Documents.
 5. Shall not advise on or issue directions as to safety precautions and programs in connection with the Work.
 6. Shall not participate in specialized field or laboratory test.

X. Changes In The Work

No changes, additions, or deletions in the General Conditions.

XI. Change Of Contract Price

11.1 Equipment Rental Rates:

For each extra work project to be performed on the basis of time and materials, the Engineer will establish equipment rental rates based on the following information:

1. The Contractor shall supply a detailed list of equipment to be used in completing the extra work. Said list shall identify each basic machine, its attachments, appurtenances, peripheral equipment and external power source(s) (if required) in accordance with the provisions of Article 11.2d.3 of the General Conditions.

2. Based on information supplied in accordance with Article 11.1.1, above, the Engineer will establish a rental rate for each piece of equipment based on the lowest average of any three rate quotations obtained from local rental equipment firms offering similar available equipment, or, if not locally available, upon the "Contractors Equipment Cost Guide" as published by DataQuest.

XII. Change Of Contract Time

12.1 Inclement Weather Delays:

The Contractor's construction schedule shall be based upon the inclusion of **20** days of inclement weather as defined in Article 12.2a of the General Conditions. No request for an extension of Contract time will be considered until the actual number of inclement weather days exceeds the number of days set out herein.

XIII. Warranty And Guarantee; Tests And Inspections; Correction, Removal Or Acceptance Of Defective Work

No changes, additions or deletions to the General Conditions.

XIV. Payments To Contactor And Completion

No changes, additions or deletions to the General Conditions.

XV. Suspension Of Work And Termination

No changes, additions or deletions to the General Conditions.

XVI. Miscellaneous

No changes, additions or deletions to the General Conditions.

Part III – Special Specifications

Department I – General Requirements

Department II – Construction Specifications

PART III - SPECIAL SPECIFICATIONS

DEPARTMENT I - GENERAL REQUIREMENTS

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I. Section 1300: Contractor Submittals

1.01 GENERAL

- A. Wherever submittals are required hereunder, all such submittals by the Contractor shall be submitted to the Engineer.
- B. Within seven (7) working days after the date of commencement as stated in the Notice to Proceed, the Contractor shall submit the following items to the Engineer for review:
 - 1. A Preliminary CPM Construction Schedule indicating the starting and completion dates of the various stages of the work.
 - 2. A preliminary schedule of Shop Drawing, Sample and proposed Substitutes or "Or Equal" submittals.
 - 3. A list of all permits and licenses the Contractor shall obtain indicating the agency required to grant the permit and the expected date of submittal for the permit and required date for receipt of the permit.

1.02 SHOP DRAWINGS

- A. Wherever called for in the Contract Documents, or where required by the Engineer, the Contractor shall furnish to the Engineer for review, 3 copies of each submittal. The term "Shop Drawings" as used herein shall be understood to include detail design calculations, shop drawings, fabrication and installation drawings, erection drawings, lists, graphs, operating instructions, catalog sheets, data sheets, and similar items. Said Shop Drawings shall be submitted to the Engineer at a time early enough to allow review of same by the Engineer, and to accommodate the rate of construction progress required under the Contract.
- B. Except as may otherwise be provided herein, the Engineer will return prints of each submittal to the Contractor with its comments noted thereon, within 14 working days following their receipt by the Engineer. The Contractor shall make a complete and acceptable submittal to the Engineer by the second submission of a submittal item. The Owner reserves the right to withhold monies due the Contractor to cover additional cost of the Engineer's review beyond the second submittal.
- C. If one copy of a submittal is returned to the Contractor marked "NO EXCEPTIONS TAKEN," formal revision and resubmission of said submittal will not be required.
- D. If one copy of the submittal is returned to the Contractor marked "AMEND-RESUBMIT," the Contractor shall revise said submittal and shall resubmit 3 copies of said revised submittal to the Engineer.
- E. If one copy of the submittal is returned to the Contractor marked "REJECTED-RESUBMIT," the Contractor shall revise said submittal and shall resubmit 3 copies of said revised submittal to the Engineer.
- F. Fabrication of an item may be commenced only after the Engineer has reviewed the pertinent submittals and returned copies to the Contractor marked either "NO EXCEPTIONS TAKEN" or "MAKE CORRECTIONS NOTED." Corrections indicated on submittals shall be considered as changes necessary to meet the requirements of the Contract Documents and shall not be taken as the basis of claims for extra work.
- G. All Contractor submittals shall be carefully reviewed by an authorized representative of the Contractor, prior to submission to the Engineer. Each submittal shall be dated, signed, and certified by the Contractor, as being correct and in strict conformance with the Contract Documents. In the case of shop drawings, each sheet shall be so dated, signed, and certified. No consideration for review by the Engineer of any Contractor submittals will be made for any items which have not been so certified by the Contractor. All non-certified submittals will be returned to the Contractor without action taken by the Engineer, and any delays caused thereby shall be the total responsibility of the Contractor.
- H. The Engineer's review of Contractor submittals shall not relieve the contractor of the entire responsibility for the correctness of details and dimensions. The Contractor shall assume all responsibility and risk for any misfits due to any errors in Contractor submittals. The Contractor shall be responsible for the dimensions and the design of adequate connections and details.

1.03 CONTRACTOR'S SCHEDULES

- A. The successful Bidder shall, within seven (7) working days of the date of the Notice of Award and prior to issuance of the Notice to Proceed, submit a detailed Critical Path Method (CPM) Construction Schedule, hereinafter called "Schedule". The Schedule shall follow the "Sequence of Work" which is listed in the Scope of Work section of these Contract Documents. The Schedule shall consist of the following:
1. A logic network CPM arrow or precedence diagram of sufficient detail to construct each segment of the project and to construct the total project.
 2. A detailed activities list which includes the following information in tabular form:
 - a. A listing of all submittal, production, procurement and construction management activities;
 - b. The expected duration (in days) of each activity listed;
 - c. The activities upon which the start of each activity depends;
 - d. The resource requirements (manpower, material and equipment) for each activity; and
 - e. An estimated dollar value of each activity such that the sum total value of all activities equals the total dollar value of the Bid.
- B. The Owner will review with the Contractor the proposed CPM schedule submitted by the Contractor. The purpose of this review is to assure adequate planning for the proper and timely execution of the Work and to assist the Owner in appraising the suitability of the proposed network Schedule for construction of the project.
- C. Upon acceptance by the Owner the Schedule will become the basis for monitoring and measuring the progress of the Work. To assure proper tracking of progress throughout the performance of the Work, the Contractor shall maintain and continuously update his detailed network Schedule. The Contractor shall, during the first week of each month and at other times as the Owner may request, furnish to the Owner an updated schedule which is clearly marked to show the actual percent completion of each activity as of the date of the Schedule update. The Contractor shall submit with the Schedule update, a narrative report of the progress made during the period covered by the Schedule update. This report shall outline accomplishments during the reporting period and shall include a discussion of problems encountered and of how those problems have been or will be dealt with. The narrative report shall also include a discussion of changes or other items encountered which, in the opinion of the Contractor, may cause problems to the future progress of the Work. The Contractor shall include in the report a plan of action for overcoming the potential problems stated.
- D. The Owner retains the right to withhold progress payments until the Contractor's updated schedule has been accepted by the Owner.
- E. During the course of the Work the Schedule may be revised by agreement of the Owner and the Contractor. Each revision of the Schedule shall supersede and replace all previous versions of the Schedule.
- The revised Schedule shall include the following information:
1. Date of revision.
 2. Identification of all changes made to the original schedule, including the incorporation of anticipated Change Orders.
 3. Narrative explanation of the reasons for each change.
- F. The Contractor may request Schedule revisions by submitting a revised Schedule in the form outlined above; however, if the Owner cannot agree to the suggested revisions, the Contractor shall make those adjustments as may be required to maintain the original Schedule.
- G. Responsibility for the Contractor's Schedule(s) in all aspects, assumptions and implications, either known or unknown, made or assumed, by the Contractor in the preparation of his Schedule(s), is entirely that of the Contractor. Acceptance of the Contractor's schedule(s) by the Owner shall in no way make the Owner responsible for the execution or non-execution of the Contractor's schedule nor is the Owner responsible or liable in any way for any acts, errors, omissions or negligence

of the Contractor or any sub-contractor or any of the Contractor's or sub-contractor's agents, assigns, servants or employees or any other person, firm or corporation performing or attempting to perform the Work.

1.04 PROPOSED SUBSTITUTES OR "OR EQUAL" ITEMS

- A. For convenience of designation in the Contract Documents, any material, product, or equipment to be incorporated in the Work may be designated under a brand or trade name or the name of a manufacturer and its catalog information. The use of any substitute material, product, or equipment which is equal in quality and utility and possesses the required characteristics for the purpose intended will be permitted, subject to the following requirements:
 - 1. The burden of proof as to the quality and utility of any such substitute material, product, or equipment shall be upon the Contractor.
 - 2. The Engineer will be the sole judge as to the quality and utility of any such substitute material, product, or equipment and its decision shall be final.
- B. Wherever in the Contract Documents the name or the name and address of a manufacturer or supplier is given for material, a product, or equipment, or if any other source of a material, product, or equipment is indicated therefore, such information is given for the convenience of the Contractor only, and no limit, restriction, or direction is indicated or intended thereby, nor is the accuracy or reliability of such information guaranteed. It shall be the responsibility of the Contractor to determine the accurate identity and location of any such manufacturer, supplier, or other source of any material, product, or equipment called for in the Contract Documents.
- C. The Contractor may offer any material, product, or equipment which it considers equal to those specified. Unless otherwise provided by law or authorized in writing by the Engineer, the substantiation of any proposed substitute or "or-equal" material, product, or equipment must be submitted within 30 working days after the execution of the Agreement. The Contractor, at its sole expense, shall furnish data concerning items it has offered as substitute or "or-equal" to those specified. The Contractor shall provide the data required by the Engineer to determine that the quality, strength, physical, chemical, or other characteristics, including durability, finish, efficiency, dimensions, service, and suitability are such that the substitute or "or-equal" item will fulfill its intended function.
- D. The Contractor's attention is further directed to the requirement that its failure to submit data substantiating a request for a substitution of an "or equal" item within said 30-day period shall be deemed to mean that the Contractor intends to furnish one of the specific brand or trade-named materials, products, or equipment specified in the Contract Documents and the Contractor does hereby waive all rights to offer or use substitute materials, products, or equipment in each such case. Wherever a proposed substitute material, product, or equipment has not been submitted within said 30-day period, or wherever the submission of a proposed substitute material, product, or equipment fails to meet the requirements of the Specifications and an acceptable resubmittal is not received by the Engineer within said 30-day period, the Contractor shall furnish only one of the materials, products, or equipment originally-named in the Contract Documents. Approval by the Engineer of a substitute item proposed by the Contractor shall not relieve Contractor of the responsibility for full compliance with the Contract Documents and for adequacy of the substituted item. The Contractor shall also be responsible for resultant changes and all additional costs which the substitution requires in its work, the work of its subcontractors and of other contractors and shall effect such changes without cost to Owner.

1.05 SAMPLES

- A. Unless otherwise specified, whenever in the Specifications samples are required, the Contractor shall submit not less than 3 samples of each such item or material to the Engineer for approval at no additional cost to the Owner.
- B. Samples, as required herein, shall be submitted for approval a minimum of 14 working days prior to ordering such material for delivery to the job-site, and shall be submitted in an orderly sequence so that dependent materials or equipment can be assembled and reviewed without causing delays in the Work.
- C. All samples shall be individually and indelibly labeled or tagged, indicating thereon all specified physical characteristics and manufacturer's names for identification and submittal to the Engineer for approval. Upon receiving approval of the Engineer, one set of the samples will be stamped and dated by the Engineer and returned to the Contractor, one set will be retained by the Engineer, and one set of samples shall remain at the job site until completion of the Work.
- B. Unless otherwise specified, all colors and textures of specified items will be selected by the Engineer from the

manufacturer's standard colors and standard materials, products, or equipment lines.

1.06 SPARE PARTS LISTS

- A. The Contractor shall furnish to the Engineer 5 identical sets of spare parts information for all mechanical, electrical, and instrumentation equipment. The spare parts list shall include the current list price of each spare part.
- B. The spare parts list shall be limited to those spare parts which each manufacturer recommends be maintained by the Owner in inventory at the plant site. Each manufacturer or supplier shall indicate the name, address, and telephone number of its nearest outlet of spare parts to facilitate the Owner in ordering. The Contractor shall cross-reference all spare parts lists to the equipment numbers designated in the Contract Documents. The spare parts lists shall be bound in standard size, 3-ring, loose-leaf, vinyl plastic hard cover binders suitable for bookshelf storage.

1.07 RECORD DRAWINGS

- A. The Contractor shall keep and maintain, at the job site, one record set of Drawings. On these, it shall mark all project conditions, locations, configurations, and any other changes or deviations which may vary from the details represented on the original Contract Drawings, including buried or concealed construction and utility features which are revealed during the course of construction. Special attention shall be given to recording the horizontal and vertical location of all buried utilities that differ from the locations indicated, or which were not indicated on the Contract Drawings. Said record drawings shall be supplemented by any detailed sketches as necessary or directed to indicate, fully, the Work as actually constructed. These master record drawings of the Contractor's representation of as-built conditions, including all revisions made necessary by addenda, change orders, and the like shall be maintained up-to-date during the progress of the Work.
- B. In the case of those drawings which depict the detail requirement for equipment to be assembled and wired in the factory, such as motor control centers and the like, the record drawings shall be updated by indicating those portions which are superseded by change order drawings or final shop drawings, and by including appropriate reference information describing the change orders by number and the shop drawings by manufacturer, drawing, and revision numbers.
- C. Record drawings shall be accessible to the Engineer at all times during the construction period and shall be delivered to the Engineer upon completion of the work.
- D. Requests for partial payments will not be approved if the record drawings are not kept current, and not until the completed record drawings, showing all variations between the Work as actually constructed and as originally shown on the Contract Drawings or other Contract Documents, have been inspected by the Engineer.
- E. Final payment will not be approved until the Contractor-prepared record drawings have been delivered to the Engineer. Said up-to-date, record drawings may be in the form of a set of prints with carefully plotted information overlaid in pencil.
- F. Upon substantial completion of the Work and prior to final acceptance, the Contractor shall complete and deliver a complete set of record drawings to the Engineer for transmittal to the Owner, conforming to the construction records of the Contractor. This set of drawings shall consist of corrected plans showing the reported location of the Work. The information submitted by the Contractor and incorporated by the Engineer into the Record Drawings will be assumed to be reliable, and the Engineer will not be responsible for the accuracy of such information, nor for any errors or omissions which may appear on the Record Drawings as a result.

END OF SECTION

II. Section 1350: Reference Standards And Abbreviations

1.01 GENERAL

- A. Titles of Sections and Paragraphs: Captions accompanying specification sections and paragraphs are for convenience of reference only, and do not form a part of the Specifications.
- B. Applicable Publications: Whenever in these specifications references are made to published specifications, codes, standards, or other requirements, it shall be understood that wherever no date is specified, only the latest specifications, standards, or requirements of the respective issuing agencies which have been published as of the date that the Work is advertised for bids, shall apply; except to the extent that said standards or requirements may be in conflict with applicable laws, ordinances, or governing codes. No requirements set forth herein or shown on the drawings shall be waived because of any provision of, or omission from, said standards or requirements.

1.02 REFERENCE CODES

- A. Without limiting the generality of other requirements of the specifications, all work specified herein shall conform to or exceed the requirements of all applicable codes and the applicable requirements of the following documents to the extent that the provisions of such documents are not in conflict with the requirements of these Specifications nor the applicable codes.
- B. References herein to "Building Code" or "SSBC" shall mean the Southern Standard Building Code of the Southern Building Code Congress (SBCC). The latest edition of the code as approved and used by the local agency as of the date of award, as adopted by the agency having jurisdiction, shall apply to the Work herein, including all addenda, modifications, amendments, or other lawful changes thereto.
- C. In case of conflict between codes, reference standards, drawings and the other Contract Documents, the most stringent requirements shall govern. All conflicts shall be brought to the attention of the Engineer for clarification and directions prior to ordering or providing any materials or labor. The Contractor shall bid the most stringent requirements.

1.03 REFERENCE STANDARD SPECIFICATIONS AND DRAWINGS

- A. Applicable Standard Specifications: The Contractor shall construct the Work specified herein in accordance with the requirements of the Contract Documents and the referenced portions of those referenced codes, standards, and specifications listed herein; except, that whenever references to "Standard Specifications" are made, the provisions therein for measurement and payment shall not apply.
- B. References in the Contract Documents to "Standard Specifications" shall mean the JEFFERSON COUNTY DRAINAGE DISTRICT NO.6 Street Construction Standards and/or the Texas Department of Transportation (TxDOT) 2014 Standard Specifications for construction of highways, streets, and bridges, including all current supplements, addenda, and revisions thereof.
- C. Applicable Standard Drawings: References herein to "Standard Drawings" shall mean the Street Construction Standards of the JEFFERSON COUNTY DRAINAGE DISTRICT NO.6 which drawings are hereby incorporated in and made a part of these Contract Documents, by reference.

1.04 SAFETY STANDARDS

References herein to "OSHA Standards" shall mean Title 29, Part 1910, Occupational Safety and Health Standard, (OSHA), Code of Federal Regulations (CFR), including all changes and amendments thereto.

1.05 ABBREVIATIONS AND ACRONYMS USED IN THE CONTRACT DOCUMENTS

Wherever in these Specifications references are made to the standards, specifications, or other published data of the various national, regional, or local organizations, such organizations may be referred to by their acronym or abbreviation only. As a guide to the user of these specifications, the following acronyms or abbreviations which may appear in these specifications shall have the meanings indicated herein.

AAMA	Architectural Aluminum Manufacturer's Association
AASHTO	American Association of the State Highway and Transportation Officials
ACI	American Concrete Institute
AGA	American Gas Association
AGC	Associated General Contractors
AI	The Asphalt Institute
AISC	American Institute of Steel Construction
AISI	American Iron and Steel Institute
AITC	American Institute of Timber Construction
ANSI	American National Standards Institute, Inc.
APA	American Plywood Association
APWA	American Public Works Association
ASME	American Society of Mechanical Engineers
ASQC	American Society for Quality Control
ASTM	American Society for Testing and Materials
AWPA	American Wood Preservers Association
AWPI	American Wood Preservers Institute
AWS	American Welding Society
AWWA	American Water Works Association
BBC	Basic Building Code, Building Officials and Code Administrators International
CBM	Certified Ballast Manufacturer's
CLFMI	Chain Link Fence Manufacturer's Institute
CMA	Concrete Masonry Association
CRSI	Concrete Reinforcing Steel Institute
ETL	Electrical Test Laboratories
ICBO	International Conference of Building Officials
IEEE	Institute of Electrical and Electronics Engineers
IES	Illuminating Engineering Society
IPCEA	Insulated Power Cable Engineers Association
ISA	Instrument Society of America
ITE	Institute of Traffic Engineers
MBMA	Metal Building Manufacturer's Association
NACE	National Association of Corrosion Engineers
NBS	National Bureau of Standards
NEC	National Electrical Code

NEMA	National Electrical Manufacturer's Association
NFPA	National Fire Protection Association
NFPA	National Forest Products Association
OSHA	Occupational Safety and Health Administration
PCAPortland Cement Association	
RIS	Redwood Inspection Service
SAESociety of Automotive Engineers	
SSBC	Southern Standard Building Code, Southern Building Code Congress
SSPC	Steel Structures Painting Council
SSPWC	Standard Specifications for Public Works Construction
UBC	Uniform Building Code
UL	Underwriters Laboratories, Inc.
WCLIB	West Coast Lumber Inspection Bureau
WCRSI	Western Concrete Reinforcing Steel Institute
WRIWire Reinforcement Institute, Inc.	
WWPA	Western Wood Products Association

END OF SECTION

III. Section 1400: Quality Control

1.01 SITE INVESTIGATION AND CONTROL

- A. The Contractor shall verify all dimensions in the field and shall check all field conditions continuously during construction. The Contractor shall be solely responsible for any inaccuracies built into the Work.
- B. The Contractor shall inspect related and appurtenant work and shall report in writing to the Engineer any conditions which will prevent proper completion of the Work. Any required removal, repair, or replacement caused by unsuitable conditions shall be done by the Contractor at its sole cost and expense.

1.02 INSPECTION OF THE WORK

- A. General: The Work shall be conducted under the general observation of the Engineer and shall be subject to inspection by representatives of the Owner to assure strict compliance with the requirements of the Contract Documents.
- B. The presence of the inspector(s) however shall not relieve the Contractor of the responsibility for the proper execution of the Work in accordance with all requirements of the Contract Documents. Compliance is distinctly a duty of the Contractor, and said duty shall not be avoided by any act or omission on the part of the inspector(s).
- C. All materials and articles furnished by the Contractor shall be subject to rigid inspection, and no material or article shall be used in the Work until it has been inspected and accepted by the Engineer or the Owner.
- D. Inspection at Place of Manufacture: Unless otherwise specified, all products, materials, and equipment shall be subject to inspection by the Engineer at the place of manufacture.
- E. The presence of the Engineer at the place of manufacture however, shall not relieve the Contractor of the responsibility for furnishing products, materials, and equipment which comply with all requirements of the Contract Documents.

1.03 SAMPLING AND TESTING

- A. Unless otherwise specified, all sampling and testing shall be in accordance with the Methods prescribed in the current standards of the ASTM, applicable to the class and nature of the article or materials considered; however, the Owner reserves the right to use any generally-accepted system of sampling and testing which, in the opinion of the Engineer, will insure the Owner that the quality of the workmanship is in full accord with the Contract Documents.
- B. Any waiver by the Owner of any specific testing or other quality assurance measures, whether or not such waiver is accompanied by a guarantee of substantial performance as a relief from the specified testing or other quality assurance requirements as originally specified, and whether or not such guarantee is accompanied by a performance bid to assure execution of any necessary corrective or remedial Work, shall not be construed as a waiver or any requirements of the Contract Document.
- C. Notwithstanding the existence of such waiver, and in addition to any testing and inspection performed by any other inspector on behalf of the Owner or any public agency having jurisdiction, the Engineer shall have the right to make independent investigations and tests, and failure of any portion of the Work to meet any of the requirements of the contract Documents, shall be reasonable cause for the Engineer to require the removal or correction and reconstruction of any such work in accordance with the General Conditions.

1.04 TIME OF INSPECTIONS AND TESTS

- A. Samples and test specimens required under the Contract Documents shall be furnished by the contractor and prepared for testing in ample time for the completion of the necessary tests and analyses before the subject materials or articles are to be used. The Contractor shall furnish all required test specimens at its own expense. Except as otherwise provided in the contract Documents, performance of the required tests will be by the Owner; except, that the cost of any test which shows unsatisfactory results shall be borne by the Contractor.
- B. Whenever the Contractor is ready to backfill, bury, cast in concrete, hide, or otherwise cover or make inaccessible any work under the Contract, the Contractor shall notify the engineer not less than 24 hours in advance of beginning any such work of backfilling, burying, casting in concrete, hiding, covering, or making inaccessible any portion of the Work to be inspected, so that the required inspection can be scheduled and performed. Failure of the contractor

to notify the engineer at least 24 hours in advance of any such inspections shall be reasonable cause for the Engineer to require sufficient delay in the Contractor's schedule to allow time for such inspections and any remedial or corrective work required, and all costs of such delays, including its effect upon other portions of the work shall be borne by the contractor.

END OF SECTION

IV. Section 1450: Protection of Existing Facilities

1.01 GENERAL

- A. The Contractor shall protect all existing utilities and improvements not designated for removal and shall restore damaged or temporarily relocated utilities and improvements to a condition equal to or better than they were prior to such damage or temporary relocation, all in accordance with requirements of the Contract Documents.
- B. The Contractor shall verify the exact locations and depths of all utilities shown and the Contractor shall make exploratory excavations of all utilities that may interfere with the Work. All such exploratory excavations shall be performed as soon as practicable after award of contract and, in any event, a sufficient time in advance of construction to avoid possible delays to the Contractor's work. When such exploratory excavations show the utility location as shown to be in error, the Contractor shall so notify the Engineer.
- C. The number of exploratory excavations required shall be that number which is sufficient to determine the alignment and grade of the utility.

1.02 RIGHTS-OF-WAY

The Contractor shall not do any work that would affect any oil, gas, sewer, or water pipeline; any telephone, telegraph, or electric transmission line; any fence; or any other structure, nor shall the Contractor enter upon the rights-of-way involved until notified by the Engineer that the Owner has secured authority therefore from the proper party. After authority has been obtained, the Contractor shall give said party due notice of its intention to begin work, and shall give said party convenient access and every facility for removing, shoring, supporting, or otherwise protecting such pipeline, transmission line, ditch, fence, or structure, and for replacing same. When 2 or more contracts are being executed at one time on the same or adjacent land in such manner that work on one contract may interfere with that on another, the Owner shall determine the sequence and order of the Work. When the territory of one contract is the necessary or convenient means of access for the execution of another contract, such privilege of access or any other reasonable privilege may be granted by the Owner to the Contractor so desiring, to the extent, amount, in the manner, and at the times permitted. No such decision as to the method or time of conducting the Work or the use of territory shall be made the basis of any claim for delay or damage, except as provided for temporary suspension of the Work in Article 15 of the General Conditions of the Contract.

1.03 PROTECTION OF STREET OR ROADWAY MARKERS

The Contractor shall not destroy, remove, or otherwise disturb any existing survey markers or other existing street or roadway markers without proper authorization. No pavement breaking or excavation shall be started until all survey or other permanent marker points that will be disturbed by the construction operations have been properly referenced for easy and accurate restoration. It shall be the Contractor's responsibility to notify the proper representatives of the Owner of the time and location that work will be done. Such notification shall be sufficiently in advance of construction so that there will be no delay due to waiting for survey points to be satisfactorily referenced for restoration. All survey markers or points disturbed by the Contractor without proper authorization by the Engineer, will be accurately restored by the Owner at the Contractor's expense after all street or roadway resurfacing has been completed.

1.04 RESTORATION OF PAVEMENT

- A. General: All paved areas including asphaltic concrete beams cut or damaged during construction shall be replaced with similar materials and of equal thickness to match the existing adjacent undisturbed areas, except where specific resurfacing requirements have been called for in the Contract Documents or in the requirements of the agency issuing the permit. All temporary and permanent pavement shall conform to the requirements of the affected pavement owner. All pavements which are subject to partial removal shall be neatly saw cut in straight lines.
- B. Temporary Resurfacing: Wherever required by the public authorities having jurisdiction, the Contractor shall place temporary surfacing promptly after backfilling and shall maintain such surfacing for the period of time fixed by said authorities before proceeding with the final restoration of improvements.
- C. Permanent Resurfacing: In order to obtain a satisfactory junction with adjacent surfaces, the Contractor shall saw cut back and trim the edge so as to provide a clean, sound, vertical joint before permanent replacement of an excavated or damaged portion of pavement. Damaged edges of pavement along excavations and elsewhere shall be trimmed back by saw cutting in straight lines. All pavement restoration and other facilities restoration shall be constructed to finish grades compatible with adjacent undisturbed pavement.

- D. Restoration of Sidewalks or Private Driveways: Wherever sidewalks or private roads have been removed for purposes of construction, the Contractor shall place suitable temporary sidewalks or roadways promptly after backfilling and shall maintain them in satisfactory condition for the period of time fixed by the authorities having jurisdiction over the affected portions before proceeding with the final restoration or, if no such period of time is so fixed, the Contractor shall maintain said temporary sidewalks or roadways until the final restoration thereof has been made.

1.05 EXISTING UTILITIES AND IMPROVEMENTS

- A. General: The Contractor shall protect all Underground Utilities and other improvements which may be impaired during construction operations. It shall be the Contractor's responsibility to coordinate with utility owners to ascertain the actual location of all existing utilities and other improvements that will be encountered in its construction operations, and to see that such utilities or other improvements are adequately protected from damage due to such operations. The Contractor shall take all possible precautions for the protection of unforeseen utility lines to provide for uninterrupted service and to provide such special protection as may be necessary.
- B. Utilities to be Moved: In case it shall be necessary to move the property of any public utility or franchise holder, such utility company or franchise holder will be notified by the Contractor to move such property within a specified reasonable time. When utility lines that are to be removed are encountered within the area of operations, the Contractor shall notify the utility company a sufficient time in advance for the necessary measures to be taken to prevent interruption of service.
- C. Owner's Right of Access: The right is reserved to the Owner and to the owners of public utilities and franchises to enter at any time upon any public street, alley, right-of-way, or easement for the purpose of making changes in their property made necessary by the Work of this Contract.
- D. Underground Utilities Shown or Indicated: Existing utility lines that are shown or the locations of which are made known to the Contractor prior to excavation and that are to be retained, and all utility lines that are constructed during excavation operations shall be protected from damage during excavation and backfilling and, if damaged, shall be immediately repaired at the Contractor's expense.
- E. Underground Utilities Not Shown or Indicated: In the event that the Contractor damages any existing utility lines that are not shown or the locations of which are not made known to the Contractor prior to excavation, a written report thereof shall be made immediately to the Engineer. Damage should also be immediately reported to the utility owner so that emergency repairs, if required, can be accomplished without delay. Payment for repairs to damaged utilities shall be the sole responsibility of the Contractor.
- F. Maintaining in Service: All oil and gasoline pipelines, power, and telephone or other communication cable ducts, gas and water mains, irrigation lines, sewer lines, storm drain lines, poles, and overhead power and communication wires and cables encountered along the line of the Work shall remain continuously in service during all the operations under the Contract, unless other arrangements satisfactory to the Engineer are made with the owner of said pipelines, duct, main, irrigation line, sewer, storm drain, pole, or wire or cable. The Contractor shall be responsible for repair of all damage due to its operations, and the provisions of this Section shall not be abated even in the event such damage occurs after backfilling or is not discovered until after completion of the backfilling.

1.06 TREES WITHIN STREET RIGHTS-OF-WAY AND PROJECT LIMITS

- A. General: The Contractor shall exercise all necessary precautions so as not to damage or destroy any trees or shrubs, including those lying within street rights-of-way and project limits, and shall not trim or remove any trees unless such trees have been approved for trimming or removal by the jurisdictional agency or Owner. All existing trees and shrubs which are damaged during construction shall be trimmed or replaced by the Contractor or a certified tree company under permit from the jurisdictional agency or Owner and to the satisfaction of said agency and/or the Owner. Tree trimming and replacement shall be accomplished in accordance with the following paragraphs.
- B. Trimming: Symmetry of the tree shall be preserved; no stubs or splits or torn branches left; clean cuts shall be made close to trunk or large branch. Spikes shall not be used for climbing live trees. All cuts over 1-1/2 inches in diameter shall be coated with an asphaltic emulsion material.
- C. Replacement: The Contractor shall immediately notify the jurisdictional agency and/or the Owner if any tree is damaged by the Contractor's operations. If, in the opinion of said agency or the Owner, the damage is such that replacement is necessary, the Contractor shall replace the tree at its own expense. The tree shall be of a like size and variety as the tree damaged, or, if of a smaller size, the Contractor shall pay to the owner of said tree a compensatory payment acceptable to the tree owner, subject to the approval of the jurisdictional agency or owner. The size of the trees shall be not less

than 1-inch diameter nor less than 6 feet in height.

1.07 NOTIFICATION BY THE CONTRACTOR

Prior to any excavation in the vicinity of any existing underground facilities, including all water, sewer, storm drain, gas, petroleum products, or other pipelines; all buried electric power, communications, or television cables; all traffic signal and street lighting facilities; and all roadway and state highway rights-of-way the Contractor shall notify the respective authorities representing the owners or agencies responsible for such facilities not less than 2 days nor more than 7 days prior to excavation so that a representative of said owners or agencies can mark, on the ground, the location and routing of said facilities and may, if they so choose, be present during excavation and backfill.

END OF SECTION

V. Section 1460: Temporary Utilities

1.01 GENERAL

The Contractor shall provide plant and equipment that is adequate for the performance of the Work under this Contract within the time specified. All plant and equipment shall be kept in satisfactory operating condition, shall be capable of safely and efficiently performing the required work, and shall be subject to inspection and approval by the Owner's representative at any time within the duration of the Contract. All work hereunder shall conform to the applicable requirements of the OSHA Standards for Construction.

1.02 POWER AND LIGHTING

- A. Power: The Contractor shall provide all necessary power required for its operations under the Contract, and shall provide and maintain all temporary power lines required to perform the Work in a safe and satisfactory manner.
- B. Construction Lighting: All Work conducted at night or under conditions of deficient daylight shall be suitably lighted to insure proper Work and to afford adequate facilities for inspection and safe working conditions.
- C. Approval of Electrical Connections: All temporary connections for electricity shall be subject to approval of the JEFFERSON COUNTY DRAINAGE DISTRICT NO.6/Code Enforcement Department, the Engineer and the power company representative, and shall be removed in like manner at the Contractor's expense prior to final acceptance of the Work.
- D. Separation of Circuits: Unless otherwise permitted by the Engineer, circuits separate from lighting circuits shall be used for all power purposes.
- E. Construction Wiring: All wiring for temporary electric light and power shall be properly installed and maintained and shall be securely fastened in place. All electrical facilities shall conform to the requirements of Subpart K of the OSHA Safety and Health Standards for Construction.

1.03 WATER SUPPLY

- A. General: The Contractor shall provide an adequate supply of water of a quality suitable for all domestic and construction purposes.
- B. The Contractor shall provide and operate all pumping facilities, pipelines, valves, hydrants, storage tanks, and all other equipment necessary for the adequate development and operation of the water supply system. Water used for domestic purposes shall be free of contamination and shall conform to the requirements of the State and local authorities for potable water. The Contractor shall be solely responsible for the adequate functioning of its water supply system and shall be solely liable for any claims arising from the use of same, including discharge of waste or water there-from.
- C. Potable Water: All drinking water on the site during construction shall be furnished by the Contractor and shall be bottled water or water furnished in approved dispensers. Notices shall be posted conspicuously throughout the site warning the Contractor's personnel that piped water may be contaminated.
- D. Water Connections: The Contractor shall not make connection to, or draw water from, any fire hydrant or pipeline without first obtaining permission of the Beaumont Public Utilities Department. For each such connection to be made City personnel will attach to the fire hydrant or pipeline a valve and a meter through which all water to be used by the Contractor shall be drawn.
- E. Removal of Water Connections: Before final acceptance of the Work on the project, all temporary connections and piping installed at the request of the Contractor shall be entirely removed, and all affected improvements shall be restored by the Contractor to their original condition, or better, to the satisfaction of the Engineer and to the agency owning the affected utility.
- F. Fire Protection: The Contractor's fire protection program shall conform to the requirements of Subpart F of the OSHA Standards for Construction. Responsible persons shall be designated and instructed in the operation of such fire apparatus necessary to prevent or minimize the hazard of fire.

1.04 SANITATION

- A. Toilet Facilities: Fixed or portable chemical toilets shall be provided, at Contractor's expense, wherever needed for the use of its employees. Toilets at construction job sites shall conform to the requirements of Subpart D. Section 1926.51 of the OSHA Standards for Construction.
- B. Sanitary and Other Organic Wastes: The Contractor shall establish a regular daily collection of all sanitary and organic wastes. All wastes and refuse from sanitary facilities provided by the Contractor or organic material wastes from any other source related to the Contractor's operations shall be disposed of away from the site in a manner satisfactory to the Engineer and in accordance with all laws and regulations pertaining thereto.

END OF SECTION

VI. Section 1480: Temporary Environmental Control

1.01 EXPLOSIVES AND BLASTING

- A. The use of explosives on the Work will be subject to the approval of the Engineer. All operations involving the handling, storage, and use of explosives shall be conducted in accordance with the requirements of Subpart U of the OSHA Standards for Construction, and in accordance with all local laws and regulation.
- B. Only skilled workers under experienced supervision shall be permitted to use explosives. The Contractor will be held responsible for and shall make good any damage caused by blasting or otherwise resulting from its possession or use of explosives on the work.

1.02 DUST ABATEMENT

The Contractor shall furnish all labor, equipment, and means required and shall carry out effective measures wherever and as often as necessary to prevent its operation from producing dust in amounts damaging to property, cultivated vegetation, or domestic animals, or causing a nuisance to persons living in or occupying buildings in the vicinity. The Contractor shall be responsible for any damage resulting from any dust originating from its operations. The dust abatement measures shall be continued until the Contractor is relieved of further responsibility by the Engineer.

1.03 RUBBISH CONTROL

During the progress of the Work, the Contractor shall keep the site of the Work and other areas used by it in a neat and clean condition, and free from any accumulation of rubbish. The Contractor shall dispose of all rubbish and waste materials of any nature occurring at the Work site, and shall establish regular intervals of collection and disposal of such materials and waste. The Contractor shall also keep its haul roads free from dirt, rubbish, and unnecessary obstructions resulting from its operations. Disposal of all rubbish and surplus materials shall be off the site of construction in accordance with local codes and ordinances governing locations and methods of disposal, and in conformance with all applicable safety laws, and to the particular requirements of Part 1926 of the OSHA Safety and Health Standards for Construction.

1.04 FEDERAL WATER POLLUTION CONTROL ACT

The Contractor's attention is directed to the Federal Water Pollution Control Act Amendments of 1972 (Public Law 92-500) which requires a Corps of Engineers permit under Section 404 of the Act, for the discharge of one cubic yard or more of any dredged or fill material into "navigable waters" as defined in "Permits for Activities in Navigable Waters or Ocean Waters", paragraph (d)(2), Federal Register of 25 July 1975, page 3134.

1.05 CHEMICALS

All chemicals used during project construction or furnished for project operation, whether defoliant, soil sterilant, herbicide, pesticide, disinfectant, polymer, reactant or of other classification, shall show approval of either the U.S. Environmental Protection Agency or the U.S. Department of Agriculture. Use of all such chemicals and disposal of residues shall be in strict accordance with the printed instructions of the manufacturer.

1.06 SOIL EROSION AND TRACKING CONTROL

- A. Throughout the entire course of construction of the Work as described in these Contract Documents, the provisions of the Code of Ordinances of the JEFFERSON COUNTY DRAINAGE DISTRICT NO.6, Section 28-20.9, Subparagraphs (b) and (c) shall apply, to wit:
 - "(b) Loose dirt, mud, clay, rocks, construction materials and other debris deposited upon any public highway, street and sidewalk or private property as a result of construction or demolition operations shall be immediately removed by the Contractor. Construction and demolition sites shall be kept clean and orderly at all times.
 - (c) The prime Contractor or Developer of a construction or demolition site shall be responsible for maintaining the site as required by this section (Ord. No. 88-97, Section 1, 11-22-99)"

As pertains to these Contract Documents, the term "deposited", above, shall be construed to include dropping, tracking, silting, eroding or any other method of transport by which, as a result of this Work, any foreign material is placed

intentionally, unintentionally, carelessly or otherwise on any public way. The removal of such materials shall be at the sole cost and responsibility of the Contractor.

- B. Drainage facilities, including storm drains, catch basins, manholes, lines and ditches, and including existing facilities and those being constructed, shall be protected during the construction of this work from the incursion of silt, rubble, lumber or other such construction or natural materials, on or adjacent to the site of the work, which may be washed, pushed, dropped or otherwise deposited in a drainage facility. Applicable provisions of Regulations of the U.S. Environmental Protection Agency (EPA), the Texas Natural Resource Conservation Commission (TNRCC) and other such agencies as may have interest in this area shall govern.

END OF SECTION

VII. Section 1500: Summary of Work

1.01 GENERAL

The Work to be performed under this Contract shall consist of furnishing all plant, tools, equipment, materials, supplies, and manufactured articles and for furnishing all transportation and services, including fuel, power, water, and essential communications, and for the performance of all labor, work, or other operations required for the fulfillment of the Contract in strict accordance with the Contract Documents. The Work shall be complete, and all work, materials, and services not expressly shown or called for in the Contract Documents which may be necessary for the complete and proper construction of the Work in good faith shall be performed, furnished, and installed by the Contractor as though originally so specified or shown, at no increase in cost to the Owner.

1.02 SCOPE OF WORK COVERED BY THESE CONTRACT DOCUMENTS

A. The Work of this Contract comprises the construction of:

18" Drilled Shafts, 8" Reinforced Concrete Pavement and Erect 50-ft x 250-ft Prefabricated Building

B. The Work is located within the limits of Jefferson County, Texas.

1.03 BEGINNING AND COMPLETION OF THE WORK

Time is the essence of the Contract. In accordance with the provisions of Article 2 of the Agreement, the Contractor shall begin the Work on the date specified in the written Notice to Proceed from the Owner, and shall complete all of the Work included in the Contract within the time specified in said Notice. Time stated for completion shall include final cleanup of the premises.

1.04 CONTRACT METHOD

A. The Work, hereunder, will be constructed under a single unit-price contract.

B. The Contractor shall include the requirements of the General Conditions and Supplementary General Conditions of this Contract as a part of all of its subcontract agreements.

1.05 ORDER OF THE WORK

The Work shall be carried on at such places on the project and also in such order of precedence as may be found necessary by the Engineer to expedite completion of the Project. After work has begun on any portion of a designated part of the Project, it shall be carried forward to its final completion as rapidly as practicable. The order and time to complete shall conform to the requirements of the approved Contractor's schedule as submitted under the provisions for "Contractor's Schedules" in Section entitled, "Contractor Submittals."

1.06 WORK BY OTHERS

A. Concurrent Work: The Contractor's attention is directed to the fact that work may be conducted at or adjacent to the site by the Owner and/or by other contractors during the performance of the Work under this contract. The Contractor shall conduct its operations so as to cause a minimum of interference with the Work of such other contractors, or Owner, and shall cooperate fully with such contractors to provide continued safe access to their respective portions of the site, as required to perform their respective contracts or work.

B. Interference with Work on Utilities: The Contractor shall cooperate fully with all utility forces of the Owner or forces of other public or private agencies engaged in the relocation, altering, or otherwise rearranging of any facilities which interfere with the progress of the Work, and shall schedule the Work so as to minimize interference with said relocation, altering, or other rearranging of facilities.

1.07 WORK SEQUENCE

A. The Contractor's attention is directed to the fact that during the period of time identified for this contract, no interruption in infrastructure system can be accommodated, and the Contractor shall so schedule its construction operations that no interference with the operation of the system will occur during this critical period.

- B. Access to the site is limited to the hours of 7:00 a.m. to 5:00 p.m. on normal work days, unless otherwise authorized by the Engineer.

1.08 BASE LINES AND GRADES

- A. General: The Engineer will establish points of curvature, points of tangency, one bench mark near the beginning of project and center line offsets at the point of beginning of project and at the first point of curvature occurring thereafter. Any of the above controls which are disturbed during construction will be reset by the Contractor.
- B. When required by these Contract Documents, the Contractor shall provide the services of a Professional Surveyor, registered with the State of Texas, to verify, layout and maintain all lines, grades and controls necessary for the successful and proper completion of the work, based on those controls established by the Engineer. Services shall include, at no extra cost to Owner, those revisions to the original plans layout which the Engineer determines necessary to the successful and proper completion of the work. The services of a Registered Professional Surveyor shall be bid as a Pay Item within the standard base contract bid amount to be paid on a station to station basis concurrent with right-of-way preparation.

1.09 CONTRACTOR USE OF PROJECT SITE

The Contractor's use of the project site shall be limited to its construction operations, including on-site storage of materials, on-site fabrication facilities, and field offices.

1.10 OWNER USE OF THE PROJECT SITE

When the Contractor's work involves rehabilitation of or extension to the existing facilities, the Owner may utilize all or part of the existing site during the entire period of the construction for the conduct of the Owner's normal operations. The Contractor shall cooperate with the Owner and Engineer to minimize interference with the Contractor's operations and to facilitate the Owner's operations. In any event, the Owner shall be allowed access to the project site during the period of construction.

1.11 PARTIAL UTILIZATION OF THE WORK BY OWNER

- A. The Owner will take partial utilization of the Work upon completion of the portion of the work. Partial utilization will involve the placing into service of completed section during the period when ordered by the Engineer.
- B. The Contractor is hereby advised that the Owner will accept the responsibility for the maintenance and protection of the specific portion of the project so used. The Contractor shall retain full responsibility for satisfactory operation of the total project, however.

1.12 PROJECT MEETINGS

- A. Mandatory Preconstruction Conference: Prior to the commencement of Work at the site, a mandatory preconstruction conference will be held at a mutually agreed time and place which shall be attended by the Contractor, its on-site superintendent, and its subcontractors as appropriate. Other attendees will include representatives of the Engineer and the Owner.
- B. Unless previously submitted to the Engineer, the Contractor shall bring to the preconstruction conference one copy each of the CPM progress schedule and the Shop Drawing/Sample/Substitute or "Or Equal" submittal schedule.

END OF SECTION

VIII. Section 1550: Site Access And Storage

1.01 TRANSPORTATION FACILITIES

- A. General: The Contractor shall investigate the availability of sidings and shall make all arrangements with the railroad company for any siding or other facilities necessary for the delivery of materials to be used on the Work.
- B. Highway Limitations: The Contractor shall make its own investigation of the condition of available public and private roads and of clearances, restrictions, bridge load limits, and other limitations affecting transportation and ingress and egress to and from the site of the Work. It shall be the Contractor's responsibility to construct and maintain any access or haul roads required for its construction operations.

1.02 CONTRACTOR'S WORK AND STORAGE AREA

The Contractor shall make its own arrangements for any required off-site storage or shop areas necessary for the proper execution of the Work.

1.03 TEMPORARY STREET USE

- A. Street Use: Nothing herein shall be construed to entitle the Contractor to the exclusive use of any public street, alleyway, or parking area during the performance of the Work hereunder, and it shall so conduct its operations as not to interfere unnecessarily with the authorized work of utility companies or other agencies in such streets, alleyways, or parking areas.
- B. No streets shall be closed to the public without first obtaining the permission of the Engineer and the proper governmental authority. Where excavation is being performed in primary streets or highways, one lane of traffic shall be kept open in each direction at all times unless otherwise provided in the Contract Documents or under the terms of public agency permits.
- C. Toe boards shall be provided to restrict movement of excavated material if required by the Engineer or the Agency having jurisdiction over the street or highway.
- D. Fire hydrants on or adjacent to the Work shall be kept accessible to fire-fighting equipment at all times.
- E. Temporary provisions shall be made by the Contractor to assure the continuous, safe use of sidewalks and the proper functioning of all gutters, sewers, inlets, and other drainage facilities.
- F. Wherever necessary or required for the convenience of the public or individual residents or business places at street or highway crossings, private driveways, or elsewhere, the Contractor shall provide suitable temporary bridges or steel plates over unfilled excavations, except in such cases as the Contractor shall secure the written consent of the individuals or authorities concerned to omit such temporary bridges or steel plates, which written consent shall be delivered to the Engineer prior to beginning the excavation. All such bridges or steel plates shall be maintained in service until access is provided across the backfilled excavation. Temporary bridges or steel plates for street and highway crossings shall conform to the requirements of the authority having jurisdiction in each case, and the Contractor shall adopt designs furnished by said authority for such bridges or steel plates, or shall submit designs to said authority for approval, as may be required.
- G. Traffic Control: For the protection of traffic in public or private streets and ways, the Contractor shall provide, place, and maintain all necessary barricades, traffic cones, warning signs, lights, and other safety devices in accordance with the requirements of the latest version of "Texas Manual of Uniform Traffic Control Devices, Part VI - Traffic Controls for Street and Highway Construction and Maintenance Operations", published by the Texas Department of Transportation (TxDOT).
- H. The Contractor shall take all necessary precautions for the protection of the Work and the safety of the public. All barricades and obstructions shall be illuminated at night, and all lights shall be kept burning from sunset until sunrise. The Contractor shall station such guards or flaggers and shall conform to such special safety regulations relating to traffic control as may be required by the public authorities within their respective jurisdictions. All signs, signals, and barricades shall conform to the requirements of Subpart G of the OSHA Safety and Health Standards.

1.04 TEMPORARY STREET CLOSURE

If closure of any street is required during construction, a formal application for a street closure shall be made to the authority having jurisdiction at least 7 working days prior to the required street closure in order for the agency having jurisdiction to determine the necessary signing and detour requirements to be provided by the Contractor.

END OF SECTION

IX. Section 1600: Materials And Equipment

1.01 GENERAL

The word "Products", as used herein, is defined to include purchased items for incorporation into the Work, regardless of whether specifically purchased for the Project or taken from Contractor's stock of previously purchased products. The word "Materials" is defined as products which must be substantially cut, shaped, worked, mixed, finished, refined, or otherwise fabricated, processed, installed, or applied to form units of work. The word "Equipment" is defined as products with operational parts, regardless of whether motorized or manually operated, and particularly including products with service connections (wiring, piping, etc.). Definitions in this paragraph are not intended to negate the meaning of other terms used in Contract Documents, including "specialties", "systems", "structure", "finishes", "accessories", "furnishings", "special construction", and similar terms, which are self-explanatory and have recognized meanings in the construction industry.

1.02 QUALITY ASSURANCE

- A. Source Limitations: To the greatest extent possible for each unit of work, the Contractor shall provide products, materials, or equipment of a singular generic kind from a single source.
- B. Compatibility of Options: Where more than one choice is available as options for Contractor's selection of a product, material, or equipment, the Contractor shall select an option which is compatible with other products, materials, or equipment already selected. Compatibility is a basic general requirement of product/material selections.

1.03 PRODUCT DELIVERY-STORAGE-HANDLING

The Contractor shall deliver, handle, and store products in accordance with manufacturer's written recommendations and by methods and means which will prevent damage, deterioration, and loss including theft. Delivery schedules shall be controlled to minimize long-term storage of products at site and overcrowding of construction spaces. In particular, the Contractor shall provide delivery/installation coordination to ensure minimum holding or storage times for products recognized to be flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other sources of loss.

1.04 TRANSPORTATION AND HANDLING

- A. Products shall be transported by methods suitable to avoid product damage and shall be delivered in undamaged condition in manufacturer's unopened containers or packaging, dry.
- B. The Contractor shall provide equipment and personnel to handle products, materials, and equipment, including those provided by Owner, by methods to prevent soiling and damage.
- C. The Contractor shall provide additional protection during handling to prevent marring and otherwise damaging products, packaging, and surrounding surfaces.

1.05 STORAGE AND PROTECTION

- A. Products shall be stored in accordance with manufacturer's written instructions, with seals and labels intact and legible. Sensitive products shall be stored in weather-tight enclosures and temperature and humidity ranges shall be maintained as required by manufacturer's written instructions.
- B. For exterior storage, fabricated products shall be placed on sloped supports above ground. Products subject to deterioration shall be covered with impervious sheet covering with ventilation provided to avoid condensation.
- C. Loose granular materials shall be stored on solid surfaces in a well-drained area and shall be prevented from mixing with foreign matter.
- D. Storage shall be arranged to provide access for inspection. The Contractor shall periodically inspect to assure products are undamaged and are maintained under required conditions.
- E. Storage shall be arranged in a manner to provide access for inspection and maintenance of stored items.

1.06 ENCLOSED STORAGE

- A. Products subject to damage by the elements shall be stored in substantial, weather-tight enclosures.
- B. Temperature and humidity shall be maintained within ranges stated in manufacturer's written instructions.
- C. The Contractor shall provide humidity control and ventilation for sensitive products as required by manufacturer's written instructions.
- D. Unpacked and loose products shall be stored on shelves, in bins, or in neat groups of like items.

1.07 EXTERIOR STORAGE

- A. The Contractor shall provide substantial platforms, blocking, or skids to support fabricated products above ground and shall slope the storage area to provide drainage. Products shall be protected from soiling and staining.
- B. Products subject to discoloration or deterioration from exposure to the elements shall be covered with impervious sheet material. Ventilation shall be provided to avoid condensation.
- C. Loose granular materials shall be stored on clean, solid surfaces such as pavement, or on rigid sheet materials to prevent mixing with foreign matter.
- D. Surface drainage shall be provided to prevent erosion and ponding of water.
- E. The Contractor shall prevent mixing of refuse or chemically injurious materials or liquids.

END OF SECTION

X. Section 1700: Project Closeout

1.01 FINAL CLEANUP

The Contractor shall promptly remove from the vicinity of the completed work, all rubbish, unused materials, concrete forms, construction equipment, and temporary structures and facilities used during construction. Final acceptance of the Work by the Owner will be withheld until the Contractor has satisfactorily complied with the foregoing requirements for final cleanup of the project site.

1.02 CLOSEOUT TIMETABLE

The Contractor shall establish dates for equipment testing, acceptance periods, and on-site instructional periods (as required under the Contract). Such dates shall be established not less than one week prior to beginning any of the foregoing items, to allow the Owner, the Engineer, and their authorized representatives and consultants sufficient time to schedule attendance at such activities.

1.03 FINAL SUBMITTALS

The Contractor, prior to requesting its final progress payment, shall submit the following items to the Engineer for transmittal to the Owner:

1. Written guarantees or warranties, where required;
2. Maintenance stock items, spare parts, special tools;
3. Completed Record Drawings;
4. Bonds for roofing, maintenance, etc., as required hereunder;
5. Certificates of inspection and acceptance by local governing agencies having jurisdiction; and
6. Releases from all parties who are entitled to claims against the subject project, property, or improvement pursuant to the provisions of law.

1.04 COMPLETION OF THE WORK

- A. Completion of the Work, as the term is used in this Contract shall mean substantial completion of the Work. Substantial completion shall exist where there has been no willful departure from the terms of the Contract, and no omission in essential points, and the Contract has been honestly and faithfully performed in its material and substantial particulars, and the only variance consists of relatively unimportant omissions or defects, and the Work can be used or occupied for the purpose for which it was intended.
- B. The date of substantial completion of the Project shall be the date when the construction is sufficiently complete, in accordance with the Contract Documents, as modified by any change orders agreed to by the parties, so that the Owner can occupy or utilize the project for the use for which it was intended and the legislative body of the Owner has accepted the Project as evidenced by execution and recording of a Notice of Substantial Completion/Notice of Completion.

1.05 REMAINING PUNCH LIST ITEMS

- A. Upon attaining substantial completion as defined in Paragraph 1.04, above, and upon acceptance of the Work by the Owner, by agreement between the parties some small outstanding punch list items may remain to be completed by the Contractor. As provided in Article 14.7 of the General Conditions, the Owner shall have the right to retain an amount of money from the final progress payment due the Contractor, equal to 2 times the estimated value of such outstanding punch list items. The Contractor hereby agrees to complete all such outstanding punch list items within 30 working days following the date of the Notice of Substantial Completion.
- B. As provided in Article 14.7 of the General Conditions, failure of the Contractor to complete or correct all such outstanding punch list work to the satisfaction of the Engineer within 30 working days following acceptance and Notice of Substantial Completion, shall constitute a waiver by the Contractor of all rights to any and all claims it may have to all monies withheld by the Owner under the Contract to cover the value of such uncompleted or uncorrected items.

1.06 MAINTENANCE AND GUARANTY

- A. The Contractor shall comply with the maintenance and guarantee requirements contained in Article 13 of the General Conditions.
- B. Replacement of earthfill or backfill, where it has settled below the required finish elevations, shall be considered as a part of such required repair work, and any repair or resurfacing constructed by the Contractor which becomes necessary by reason of such settlement shall likewise be considered as a part of such required repair work.
- C. The Contractor shall make all repairs and replacements promptly upon receipt of written order from the Owner. If the Contractor fails to make such repairs or replacements promptly, the Owner reserves the right to do the work or to have the work done by others and the Contractor and its Surety shall be liable to the Owner for the cost thereof.

1.07 EXTENSION OF PERFORMANCE BOND

The Contractor shall provide a bond to guarantee performance of the provision contained in Paragraph entitled "Maintenance and Guarantee", Article 1.06 and Article 13 of the General Conditions.

END OF SECTION

PART III - SPECIAL SPECIFICATIONS

DEPARTMENT II – CONSTRUCTION SPECIFICATIONS

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DEPARTMENT II - CONSTRUCTION SPECIFICATIONS

I. General And Bid Item Notes

1. The Texas Department of Transportation Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges, Adopted November 2014, will govern all specifications not directly addressed in this document.
2. Direct attention to comply with all ordinances and regulations of local municipal and county governments and the TCEQ (Texas Commission on Environmental Quality), which may be applicable on this project.
3. Procure all the necessary city and/or county permits and licenses before the start of this project.
4. Before excavating near existing utilities, contact the utility companies or the utility coordinating committee for exact locations to prevent damage or interference with present facilities. Notify the utility coordinating committee and the Texas One Call System at the following numbers:

Texas One Call, toll-free 1-800-245-4545

AT&T Communications
555 Main - Room 20760
Beaumont, Texas 77701
(409) 839-1666
Ray Hillin

Entergy Distribution
North 11th/ Street
Beaumont, Texas 77701
(409) 785-2136
Brian Cross

CenterPoint Energy Entex
6090 College
Beaumont, Texas 77707
(409) 860-7111
Robert Young

Spectrum
602 N. Hwy 69
Nederland, Texas 77627
(409) 720-5565
Adam LaRive

City of Beaumont
City Utilities
(409) 785-4720
Edward Brown

City of Beaumont
Public Works-Engineering
(409) 880-3725
David Tingle,

This action does not relieve the Contractor of the responsibilities under the terms of the contract or the plans and specifications. Damage caused by the Contractor's operations shall be repaired and restored to service in a timely manner at no expense to DD6.

5. Allow DD6 & City forces to enter this project to accomplish such work as shown in the plans (by others) and as may be deemed necessary by the engineer.
6. Maintain for the duration of this project, those sections of existing and proposed travel ways and appurtenances which are to be constructed, reconstructed, or modified under this project.
7. Assume ownership for all designated waste material and dispose of it at a place off of the right of way, as approved by the engineer.
8. Take reasonable measures to avoid the death of any migratory birds, their young or their eggs.
9. If overhead or underground power lines need to be de-energized, contact the electrical service provider to perform this work. Costs associated with de-energizing the power lines or other protective measures required are at no expense to DD6. If working near power lines, comply with the appropriate sections of Texas State Law and Federal Regulations relating to the type of work involved.
10. Prior to final acceptance, all new and existing structures and extensions shall be cleaned and free of debris and dirt and all outfall channels unobstructed. This work will not be paid for directly but will be considered subsidiary to the various bid items.
11. Maintain adequate drainage throughout the limits of the project during all construction phases.
12. Verify material quantities and dimensions prior to ordering materials.
13. The Contractor will establish the project control point, points, or tangency, PI's (points of intersection), point of curvature (PC, PI, and PT) and bench marks at the beginning and end of the project on the plan view only. Contractor shall establish and maintain these points throughout construction. There will be no separate payment for this work, but it shall be considered subsidiary to various bid items.
14. Longitudinal Joints, Construction Joints and Sawed Joints shall be installed as shown on construction detail sheet.
15. Any saw-cutting required for the project shall not be paid for directly but shall be considered subsidiary to various bid items.
16. The Contractor will notify the Engineer 48 hours in advance of completed work per site. The Engineer will inspect each site and submit a punch list per location to the Contractor as necessary. The Contractor will not demobilize from site until the Engineer has approved all work including punch list items.
17. **Contractor shall refer to Mueller, Inc. Steel Building Systems and Components Construction Drawings for Plan, Profile and Detail sheets, Job No. 5663293 Building Description, 50'-0" x 250'-0" x 16'-8".**

End of General Notes

Specifications

Item 5: Control of Work

1. Station the project prior to commencing work. Mark the stations every 100 feet. Maintain stationing throughout the duration of the project. Remove the station markings at the completion of the project. Consider this work to be subsidiary to the various bid items of the contract.

Item 7: Legal Relations and Responsibilities

1. Furnish all materials, labor and incidentals required to provide for traffic across the street and for temporary ingress and egress to private property. Consider this work to be subsidiary to the various bid items of the contract.

Item 8: Prosecution and Progress

1. Compute and charge calendar days in accordance with Article 8.3.1.4, "Standard Workweek" & Article 8.3.1.6, "Other". Monday through Friday with the option of working Saturdays when the Engineer is provided sufficient advance notice.

2. Gather information and direct attention to the aspects of adjoining projects that may be in the progress during the construction of a portion of this project. Plan and prosecute the sequence of construction and the traffic control plan with adjacent construction projects so as not to interfere with, or hinder the completion of the work in progress on the adjoining projects. Coordinate projects to ensure an uninterrupted flow of traffic.

Item 9: Measurement and Payment

1. The Contractor shall submit all tickets, As-Built drawings and updated schedule with each pay request. As-Built for pay request will be the Plan sheet with qty's on each plan sheet.

2. DD6 will withhold a 3% retainage from each pay request.

Item 360: Concrete Pavement

1. Concrete will be Class-P.
2. Texture will be carpet drag.
3. The Contractor shall provide an approved concrete design.
4. All testing is waved except strength and slump.
5. Testing will be paid for by the contractor and records given to DD6.

Item 416: Drilled Shaft

1. Concrete will be Class-C
2. Contractor shall refer to the TWE Geotechnical Report No. 122004 for Drilled Footing Installation Procedures.

Item 440: Reinforcement for Concrete

1. Reinforcement will be rebar. Welded-Wire will not be allowed.

Item 500: Mobilization

Mobilization shall not exceed ten (10) percent of the total construction items amount.

End of Specifications

END OF SECTION

II. Governing Construction Specifications

- The governing construction specifications applicable to this work are the Texas Department of Transportation (TXDOT) 2014 Standard Specifications for Construction of Highways, Streets and Bridges as adopted by the State of Texas.
- The Contractor shall reference the TWE Report No. 122004 for Drilling Footing Installation Procedures
- These items which are listed below and which are contained in the TX DOT 2014 Standard Specifications are hereby adopted and made part of the Contract Documents to the same extent as if they were herein reproduced in full subject to such modifications, revisions or supplements as may appear in the section entitled Special Provisions in these Contract Documents to follow:

STANDARD SPECIFICATIONS:

Adopted by the Texas Department of Transportation, November 1, 2014, Standard Specifications are incorporated into the Contract by reference.

SPECIAL SPECIFICATIONS:

Special Specifications will supplement specifications applicable to the individual project, not covered by the Standard Specifications.

III. Wage Rate

General Decision Number: TX20210038 01/03/2021

Superseded General Decision Number: TX20190038

State: Texas

Construction Type: Highway

Counties: Austin, Brazoria, Chambers, Fort Bend, Galveston, Hardin, Harris, Jefferson, Liberty, Montgomery, Orange, San Jacinto and Waller Counties in Texas.

HIGHWAY CONSTRUCTION PROJECTS (excluding tunnels, building structures in rest area projects & railroad construction; bascule, suspension & spandrel arch bridges designed for commercial navigation, bridges involving marine construction; and other major bridges). Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.80 for calendar year 2021 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, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.80 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 calendar year 2021. If this contract is covered by the EO and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must pay workers in that classification at least the wage rate determined through the conformance process set forth in 29 CFR 5.5(a)(1)(ii) (or the EO minimum wage rate, if it is higher than the conformed wage rate). The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number

Publication Date 01/03/2021

*SUTX2011-013 08/10/2011

Rates

Fringes

CEMENT MASON/CONCRETE FINISHER

➤ Paving and Structures.....\$ 12.98

ELECTRICIAN.....\$ 27.11

FORM BUILDER/FORM SETTER

➤ Paving & Curb.....\$ 12.34

➤ Structures.....\$ 12.23

LABORER

➤ Asphalt Raker.....\$ 12.36

➤ Flagger.....\$ 10.33

➤ Laborer, Common.....\$ 11.02

➤ Laborer, Utility.....\$ 11.73

➤ Pipelayer.....\$ 12.12

➤ Work Zone Barricade Servicer.....\$ 11.67

PAINTER (Structures).....\$ 18.62

POWER EQUIPMENT OPERATOR:

➤ Asphalt Distributor.....\$ 14.06

➤ Asphalt Paving Machine.....\$ 14.32

➤ Broom or Sweeper.....\$ 12.68

➤ Concrete Pavement Finishing Machine..\$ 13.07

➤ Concrete Paving, Curing, Float, Texturing Machine....\$ 11.71

➤ Concrete Saw.....\$ 13.99

➤ Crane, Hydraulic 80 Tons or less.....\$ 13.86

➤ Crane, Lattice boom 80 tons or less.....\$ 14.97

➤ Crane, Lattice boom over 80 Tons.....\$ 15.80

➤ Crawler Tractor.....\$ 13.68

➤ Excavator, 50,000 pounds or less.....\$ 12.71

➤ Excavator, Over 50,000 pounds.....\$ 14.53

➤ Foundation Drill, Crawler Mounted.....\$ 17.43

➤ Foundation Drill, Truck Mounted.....\$ 15.89

➤ Front End Loader 3 CY or Less.....\$ 13.32

➤ Front End Loader, Over 3 CY.....\$ 13.17

➤ Loader/Backhoe.....\$ 14.29

- Mechanic.....\$ 16.96
- Milling Machine.....\$ 13.53
- Motor Grader, Fine Grade.....\$ 15.69
- Motor Grader, Rough.....\$ 14.23
- Off Road Hauler.....\$ 14.60
- Pavement Marking Machine....\$ 11.18
- Piledriver.....\$ 14.95
- Roller, Asphalt.....\$ 11.95
- Roller, Other.....\$ 11.57
- Scraper.....\$ 13.47
- Spreader Box.....\$ 13.58
- Servicer.....\$ 13.97

STEEL WORKER

- Reinforcing Steel.....\$ 15.15
- Structural Steel Welder.....\$ 12.85
- Structural Steel.....\$ 14.39

TRUCK DRIVER

- Low Boy Float.....\$ 16.03
- Single Axle.....\$ 11.46
- Single or Tandem Axle Dump...\$ 11.48
- Tandem Axle Tractor w/Semi Trailer...\$ 12.27

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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 www.dol.gov/whd/govcontracts.

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) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which 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. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of 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. 5/13/2014 indicates the survey

completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-001008/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier. A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

- 1) Has there been an initial decision in the matter? This can be:
 - * an existing published wage determination
 - * a survey underlying a wage determination
 - * a Wage and Hour Department letter setting forth a position on a wage determination matter
 - * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed. With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations.

Write to: Branch of Construction Wage Determinations
 Wage and Hour Department U.S. Department of Labor
 200 Constitution Avenue, N.W. Washington, DC 20210

- 2) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7).

Write to: Wage and Hour Administrator U.S. Department of Labor
 200 Constitution Avenue, N.W. Washington, DC 20210

- 3) The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue. 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

- 4) All decisions by the Administrative Review Board are final.

END OF GENERAL DECISION

IV. Special Provision “Important Notice To Contractor”

The Contractor's attention is directed to the fact that utility adjustments may be required for the construction of this project. The Contractor will be expected to coordinate work with all utility companies in order to maintain service at all times to the adjacent property owners. Additional time will be granted for delays caused by utility adjustments, if in the opinion of the Engineer, such delays warrant additional time. It is specifically understood, however, that if the Contractor is delayed by virtue of these utility adjustments, that this delay will not be considered as a basis for a claim by the Contractor.

The following utility companies are involved in the construction of this project and a telephone number and current contact person are listed:

<u>UTILITY</u>	<u>TELEPHONE NO.</u>	<u>CONTACT PERSON</u>
AT & T	(409) 839-6950	<i>Eddie Cook</i>
CenterPoint Energy	(409) 860-7102	
City of Beaumont Water & Sewer	(409) 785 4705	<i>Blain Dishman</i>
City of Beaumont Streets & Drainage	(409) 838-5016	<i>Chace Mann</i>
Entergy	(409) 785-2136	<i>Bryan Cross</i>
Spectrum	(409) 284-3765	<i>Adam LaRive</i>

The utilities listed above will be adjusted by the Owner of the utility and will not be the responsibility of the Contractor with the exception of sewer and water line adjustments. The Contractor shall perform all work necessary to adjust the sewer and water lines as detailed in the plans.

V. Special Provision “Detours, Barricades, Warning Signs, Sequence of Work, Etc.”

END OF SECTION

VI. Attachments

Attachments

- 1) TWE Geotechnical Report No.122004 See Attachment “A”
- 2) Schedule of Liquidated Damages – See Attachment “B”
- 3) House Bill 89 Verification Form – See Attachment “C”
- 4) Good Faith Effort (GFE) Determination Checklist & Historically Underutilized Business (HUB)– See Attachment “D”

END OF BID SPECIFICATIONS

**GEOTECHNICAL REPORT
NEW LUBE SHOP
JEFFERSON COUNTY DRAINAGE DISTRICT NO. 6
BEAUMONT, TEXAS**

Prepared for:

**Jefferson County Drainage District No. 6
6550 Walden Road
Beaumont, Texas 77707**

Prepared by:

**Tolunay-Wong Engineers, Inc.
2455 West Cardinal Drive, Suite A
Beaumont, Texas 77705**

May 6, 2021

TWE Project No. 21.23.039 / Report No. 122004

Tolunay-Wong Engineers, Inc.

2455 West Cardinal Drive, Suite A • Beaumont, Texas 77705 • Phone: (409) 840-4214 • Website: <https://www.tweinc.com/>

May 6, 2021

Jefferson County Drainage District No. 6

6550 Walden Road
Beaumont, Texas 77707

Attn: Mr. Harold Crochet, Jr.
ecrochet@dd6.org

Ref: Geotechnical Engineering Report
New Lube Shop
Jefferson County Drainage District No. 6
Beaumont, Texas
TWE Project No. 21.23.039 / Report No. 122004

Dear Mr. Crochet,

Tolunay-Wong Engineers, Inc. (TWE) is pleased to submit this report of our geotechnical engineering study performed for the new Lube Shop in Beaumont, Texas. This report contains a detailed description of the field and laboratory work performed for this study as well as logs of test borings with tabulated laboratory test results. Also included in this report are our geotechnical design and construction recommendations for the referenced project structure and paving area.

We appreciate the opportunity to provide our report at this phase of the project and look forward to the opportunity of providing additional services as the project progresses. If you have any questions regarding this final report or if we can be of further assistance, please contact us.

Sincerely,

TOLUNAY-WONG ENGINEERS, INC.

TBPE Firm Registration No. F-000124



Mariam Abdelwahab, E.I.T.
Project Professional

MA/TGH/ma



Tyler G. Henneke, P.E.
Vice President

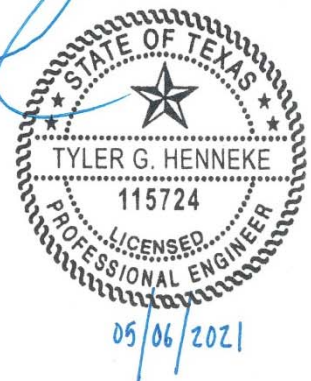


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APPENDICES

Appendix A: Project Information
Appendix B: Test Boring Location Plan
Appendix C: Soil Boring Logs and Key to Symbols and Terms

1 INTRODUCTION AND PROJECT DESCRIPTION

1.1 Introduction

This report presents results of our geotechnical engineering study performed for the new Lube Shop for Jefferson County Drainage District No. 6 (DD6) at 6550 Walden Road in Beaumont, Texas. This study was conducted in general accordance with TWE Proposal No. P21-B084 dated March 12, 2021 and authorized by Jefferson County Drainage District No. 6 Professional Engineering Services Agreement executed on March 26, 2021.

1.2 Project Description

We understand the shop will include a pre-engineered metal building with dimensions of 50-ft wide by 250-ft long by 16.7-ft tall. We understand shallow foundations are anticipated as well as aggregate-surface and rigid concrete pavement sections. An available plot plan exhibit provided by the Client is presented in Appendix A.

2 PURPOSE AND SCOPE OF SERVICES

The purposes of our geotechnical engineering study were to investigate the subsurface soil and groundwater conditions within the project site and to assist our Client in the design and construction of suitable foundation and pavement systems associated with the new Lube Shop. Our scope of services for this study consisted of:

1. Drilling and sampling five (5) test borings to evaluate subsurface stratigraphy and groundwater conditions at the project site;
2. Performing geotechnical laboratory tests on recovered soil samples from the test borings to evaluate the physical and engineering properties of the strata encountered;
3. Providing geotechnical design recommendations for shallow foundation systems including suitable type and depth, allowable bearing pressure, uplift resistance, lateral resistance and estimated settlement;
4. Geotechnical design recommendations for pavement systems including material types and thicknesses and subgrade support characteristics; and,
5. Geotechnical construction recommendations including site and subgrade preparation, excavation considerations, dewatering and groundwater control, fill and backfill placement, compaction requirements, foundation and pavement installation guidelines and overall quality control testing, monitoring and inspection guidelines.

Our scope of services did not include any environmental assessment for the presence or absence of wetlands or of hazardous or toxic materials within or on the soil, air or water at this site. Any statements in this report or on the boring logs regarding odors, colors, unusual items and conditions are strictly for the information of the Client. A geological fault study was also beyond the scope of this study.

3 FIELD PROGRAM

3.1 Soil Borings

The field program for this project consisted of performing five (5) test borings to 25-ft below existing grade on April 15, 2021. The test boring locations are shown on TWE Drawing No. 21.23.039-1 presented in Appendix B. TWE coordinated the field activities, performed drilling, sampling, logging and backfilling of the boreholes and attempted groundwater level measurements during drilling and sampling.

3.1.1 Drilling Methods

The test borings were performed in general accordance with the Standard Practice for Soil Investigation and Sampling by Auger Borings (ASTM D1452). The soil borings were performed using conventional highland buggy-mounted drilling equipment and advanced using dry-auger drilling methods until groundwater was encountered or until the boreholes became unstable and collapsed. At that point, the borings were completed using wash-rotary drilling techniques. Samples were obtained continuously from the ground surface to 12-ft below existing grade, at 13-ft to 15-ft and at 5-ft intervals thereafter until the boring completion depths were reached.

3.1.2 Soil Sampling

Fine-grained, cohesive soil samples were recovered from the soil borings by hydraulically pushing a 3-in diameter, thin-walled tube a distance of about 24-in. The field sampling procedures were conducted in general accordance with the Standard Practice for Thin-Walled Tube Sampling of Soils (ASTM D1587). Our Geotechnician visually classified the recovered soils and obtained field strength measurements of the recovered soils using a calibrated pocket penetrometer and/or hand torvane device. The tube samples were extruded in the field, wrapped in foil, placed in moisture-sealed plastic bags and protected from disturbance prior to transport to the laboratory. The recovered soil sample depths and field strength measurements are shown on the project boring logs presented in Appendix C.

Cohesionless or semi-cohesionless soils and cohesive soils too hard for Shelby tubes or thought to be coarse grained during drilling, were collected with the Standard Penetration Test (SPT) sampler driven 18-in by blows from a 140-lb hammer falling 30-in in accordance with the Standard Test Method for Standard Penetration Test (SPT) and Split-Barrel Sampling of Soils (ASTM D1586). The number of blows required to advance the sampler three (3) consecutive 6-in depths are recorded for each corresponding sample on the boring log. The N-value, in blows per foot, is obtained from SPTs by adding the last two (2) blow count numbers. The consistency of cohesive soils and the relative density of cohesionless and semi-cohesionless soils can be inferred from the N-value. The samples obtained from the split-barrel sampler were visually classified, placed in moisture-sealed plastic bags and transported to our soil-mechanics laboratory. SPT sampling intervals and blow counts are presented on the project boring logs in Appendix C.

3.1.3 Boring Logs

Our interpretations of general subsurface soil and groundwater conditions encountered in the project borings are included on the project boring logs. The interpretations of the soil types throughout the boring depths and the locations of strata changes were based on visual classifications during field sampling and laboratory testing using the Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System) [ASTM D2487] and the Standard Practice for Description and Identification of Soils (Visual-Manual Procedure) [ASTM D2488]. A key to symbols and terms used on the boring logs is also included in Appendix C.

3.2 Groundwater Measurements

Groundwater level measurements were attempted in the open boreholes during dry-auger drilling. Measurements were taken initially during dry-auger drilling when groundwater was first encountered and at 5-min intervals thereafter over a 15-min time period. The groundwater measurements observed within the soil borings are described in Section 5.3 of this report.

4 LABORATORY SERVICES

A laboratory testing program was conducted on selected soil samples from the test borings to assist in classification and evaluation of the physical and engineering properties of the soils encountered at the project site. Laboratory tests were performed in general accordance with ASTM International standards. The types and brief descriptions of the geotechnical laboratory tests performed are presented in Table 4-1 below. Standard geotechnical laboratory test results are presented on the test boring logs presented in Appendix C.

Table 4-1: Geotechnical Laboratory Testing Program	
Test Description	Test Method
Amount of Material in Soils Finer than No. 200 Sieve	ASTM D1140
Water (Moisture) Content of Soil	ASTM D2216
Unconsolidated-Undrained Triaxial Compression on Cohesive Soils	ASTM D2850
Liquid Limit, Plastic Limit and Plasticity Index of Soils	ASTM D4318
Density (Unit Weight) of Soil Specimens	ASTM D7263

5 PROJECT SITE CONDITIONS

Our interpretations of soil and groundwater conditions within the project site are based on geotechnical information obtained at the locations of the test borings performed for this study. This information has been used as the basis for our recommendations included in this report. Subsurface conditions could vary at areas not explored by the project borings. Significant variations in areas not explored by the test borings will require reassessment of our recommendations.

5.1 Subsurface Soil Stratigraphy and Design Parameters

The generalized subsurface soil conditions within the project site were interpreted from the test boring logs presented in Appendix C.

The generalized subsurface profile encountered at the project site generally consisted of firm to very stiff cohesive clay (CH and CL) soils to the boring completion depths of 25-ft below grade. Intermittent lenses of medium dense cohesionless soil (SM) were encountered from 15-ft to 23-ft below grade at borings, TB-1, TB-3 and TB-4. Fill materials were encountered near surface (upper 2-ft depth range) within a majority of the project borings.

Subsurface conditions can vary between the individual project test boring locations. Details of the soil conditions encountered in the individual test borings can be found on the corresponding boring logs in Appendix C.

5.2 Groundwater Observations

Groundwater measurements obtained from the soil borings are summarized in Table 4 below.

Table 5-1: Groundwater Level Measurements				
Test Boring	Boring Completion Depth (ft)	Free Water Depth during Dry-Auger Drilling (ft)	15-min Static Water Depth (ft)	Total Borehole Depth at 15-min Reading (ft)
TB-1	25	15.0	12.7	14.3
TB-2	25	20.0	8.5	16.8
TB-3	25	20.0	6.2	15.0
TB-4	25	20.0	8.8	15.0
TB-5	25	20.0	10.3	13.5

Groundwater levels at the project site could fluctuate with climatic and seasonal variations and should be verified before installation of drilled foundations for construction planning. Accurate determination of static groundwater levels is typically made with standpipe piezometers. Installation of standpipe piezometers to evaluate long-term groundwater conditions within the project site was not included in our scope of services for this project.

5.3 Soil Shrink/Swell Potential

The discussion on shrink/swell potential included in this section is based on the tendency for a soil to undergo volume change as a result of changes in moisture content as a function of clay content and type. These properties are generally reflected in soil consistency as defined by the Atterberg Limits. A generalized relationship between shrink/swell potential and the soil plasticity index is shown in Table 5-2 below.

Table 5-2: Relationship Between Plasticity Index and Shrink/Swell Potential	
Plasticity Index Range	Shrink/Swell Potential
0 – 15	Low
15 – 25	Medium
25 – 35	High
> 35	Very High

The amount of expansion that will actually occur with increase in moisture content is inversely related to the overburden pressure. Therefore, the larger the overburden pressure, the smaller the amount of expansion. Near-surface soils are thus susceptible to shrink/swell behavior because they experience low amounts of overburden. The zone of seasonal moisture variation (active zone) at the location of the project site is estimated to be limited to the upper 6-ft depth range. The presence of a water table will tend to keep the clays near the water table saturated and thus less likely to swell.

Overall, considering the plasticity indices of the near-surface soils at the project site, the cohesive clay soils in the upper 6-ft depth range generally possess high to very high shrink/swell potential. Calculations of Potential Vertical Rise (PVR) using TxDOT Tex-124-E and the site conditions encountered within the test borings indicate shrink/swell movements on the order of 2.0-in to 2.5-in. It should be noted that TxDOT Tex-124-E tends to predict upper bound values of shrink/swell behavior particularly when considering wide fluctuations in moisture content from dry to saturated conditions.

Approximately 1-in of PVR is generally accepted as a maximum allowable value for the geographical area with respect to permanent foundation systems or structures. If the computed shrink/swell movement is greater than the tolerable limits for the project, consideration can be given to soil exchange with structural select fill or foundations which extend past the zone of seasonal moisture change which are discussed in the following report sections.

6 FOUNDATION DESIGN RECOMMENDATIONS

Based on the subsurface conditions encountered in the project borings, a shallow foundation system consisting of drilled footings with either a ground-supported or structurally isolated (suspended) floor slab is recommended for the proposed shop building. If a ground-supported floor slab is used, we recommend a layer of non-expansive structural fill be placed beneath the floor slab to reduce potential movements due to shrink/swell soil behavior. Geotechnical recommendations for the proposed foundation system are provided below.

6.1 Drilled Footings

6.1.1 Foundation Depth and Size

Shallow straight-sided footings or drilled and underreamed footings can be used to support the proposed building columns or load-bearing walls. We recommend the footings be placed at a minimum depth of 8-ft below existing grade within competent natural clay soils. The footings should also have a minimum shaft diameter of 18-in to facilitate footing inspection and reinforcement installation. The footings should have appropriate steel reinforcement, extending from the top to bottom of footing, per the Structural Engineer's recommendations. It is frequently advisable in expansive soil environments to provide additional steel reinforcing in the footings. The tension steel should extend the full length of the shaft and the underream, if applicable. A steel quantity of 0.5% of the gross shaft area is usually sufficient.

If drilled-and-underreamed piers are used, we recommend the ratio of underream to shaft diameter be no greater than 3.0. The angle of underreamed bells to horizontal should not be less than 45° to avoid potential collapse of the bells. In case of borehole sloughing at the time of bell drilling, a larger angle of 60° should be used. The clear spacing drilled footings should be a minimum of one (1) straight-shaft or underream diameter for foundation design.

Although not anticipated at this site, if excavation of pier shafts or bell underreams cannot be completed because local anomalies are encountered or sloughing and/or caving occurs, TWE should be contacted to investigate these issues and provide remedial recommendations.

6.1.2 Allowable Net Bearing Pressure

The recommended allowable net bearing pressures for drilled footings placed on undisturbed natural clay soils at a depth of 8-ft below existing grade is 3,350-psf. This allowable net bearing pressure value includes a factor of safety of 3.0 against soil shear failure and is based solely on end bearing resistance at the recommended footing depth.

6.1.3 Uplift Resistance

The allowable uplift capacity of drilled-and-underreamed footings within the project site could be calculated using the design equations [Turner (1962)] presented on the following page.

For $D_f/B \geq 1.5$

$$Q_a = W_f/1.2 + [5.8c(B^2 - b^2)/FS]$$

For $D_f/B < 1.5$

$$Q_a = W_f/1.2 + [3\sqrt{c}(D_f/B)^2(B^2 - b^2)/FS]$$

where:

- Q_a = Allowable Uplift Capacity (kips)
- W_f = Weight of Footing (kips)
- c = Soil Cohesion (ksf)
- D_f = Depth of Base of Footing below Ground Surface (ft)
- B = Diameter of Underream (ft)
- b = Diameter of Shaft (ft)
- FS = Factor of Safety (Recommended 3.0)

We recommend a cohesion (c) value of 1.2-ksf be used with the above equations to determine uplift resistance. To resist uplift forces, the bell diameter should be at least 1-ft larger than the shaft diameter. We recommend using buoyant unit weights of 90-pcf and 60-pcf for concrete and the weight of the soil wedge extending upwards from the base, respectively, to account for possible submergence. The weight of the footing should be reduced by a factor of safety of 1.2.

For straight-sided drilled shafts, resistance to uplift is provided by shaft side friction plus the weight of the footing. To compute allowable uplift capacity, and allowable side friction of 325-psf can be used for design. The side friction should be multiplied by the surfaced area of the shaft in contact with the natural clay neglecting the base. We recommend a buoyant unit weight of 90-pcf be used for concrete to calculate the weight of the footing. The weight of the footing should be reduced by a factor of safety of 1.2.

6.1.4 Lateral Resistance

The resistance of drilled footings subject to horizontal loads is provided by passive earth pressure along the shaft. The foundation is assumed to be rigid and rotates about the base. The horizontal resistance of drilled footings supported by cohesive soils can be estimated as follows:

$$Q_{ult} = (0.5 \gamma_t D_f^2 d_s) + [2 c (D_f - D_s) d_s]$$

where:

- Q_{ult} = Ultimate Horizontal Resistance (pounds)
- γ_t = Total Unit Weight of Soil Overburden (pcf)
- d_s = Shaft Diameter (ft)
- D_f = Depth of Foundation below Final Grade (ft)
- D_s = Depth of Soil Shrinkage below Final Grade (ft)
- c = Soil Cohesion (psf)

The total unit weight of the soil can be taken as 120-pcf and the soil cohesion (c) can be taken as 1,200-psf. The depth of soil shrinkage can be assumed to be 5-ft for unpaved areas and 0-ft for paved areas. A factor of safety of 2.0 should be used to calculate the allowable horizontal resistance.

The horizontal resistance procedure is applicable for short drilled piers that support primarily vertical loads, with only minimal horizontal loads, such that horizontal movements are nominal. A more detailed lateral response analysis is recommended for piers that are subject to significant horizontal loads, or if deflection is a design concern.

6.1.5 Settlement

We have estimated settlement for drilled footings based on our experience. Our estimate assumes uniformly-loaded foundations with bearing pressures no greater than the recommended allowable net bearing pressures provided in this report. We also assume the foundations will be designed and constructed in accordance with the recommendations provided in this report. In addition, these estimates assume the drilled piers will act as isolated foundations. Therefore, the clear spacing between the piers should be great enough to significantly reduce the influence from adjacent foundations. The recommended clear spacing between drilled piers should be a minimum of three (3) pier diameters, center-to-center for foundation design. Total settlement of properly-designed and constructed drilled piers is estimated to be less than 1-in assuming a clear spacing between footings of at least three (3) pier diameters, center-to-center. Differential settlement between drilled piers could be on the order of about one-half (1/2) the total settlement.

6.2 Building Floor Slab Design

Several design options for building floor slabs on active subgrade soils exist. Structural isolation is an option which is relatively risk-free with regard to building distress caused by active subgrade movements. This scheme involves structural support of the entire floor slab and any grade beams on a drilled pier foundation system. The fill isolation option consists of providing a moisture-conditioned and properly-compacted select fill material below the floor slab. Selection of the appropriate floor slab option should be in accordance with the Owner's performance expectations and recommendations from the Structural Engineer.

Building floor slab performance will depend largely on the subgrade soil properties. It is generally accepted a primary source of foundation distress is soil movements associated with shrink/swell behavior of subgrade soils. Potential vertical rise (PVR) values for the existing site soils were estimated (TxDOT TEX-124-E) to be approximately 2.0-in to 2.5-in using a zone of seasonal moisture change of 6-ft below grade. Approximately 1.0-in of PVR is generally accepted as a maximum allowable value for permanent shallow foundations in the geographical area.

To reduce potential shrink/swell movements to tolerable limits of approximately 1-in or less, we recommend the fill isolation option be considered with the proposed building floor slab supported on a 3-ft thick pad of non-expansive structural select fill. Our recommendation for select structural fill is provided in Section 8.3 of this report. Structural select fill should extend at least 3-ft beyond the perimeter of the new building. Grade slabs should be designed using a long-term modulus of subgrade reaction of 75-pci considering the recommended geotechnical site preparation activities. Slab-on-grade loads should be transferred directly and continuously to the prepared fill pads.

6.3 Shallow Foundation Construction

The performance of shallow foundation systems associated with the project will be highly dependent upon the quality of construction. Thus, we recommend shallow foundation construction be monitored by TWE to help evaluate foundation construction in comparison to the information and recommendations provided in this report and the project specifications. Construction considerations are provided in Section 8 of this report.

7 PAVEMENT DESIGN RECOMMENDATIONS

We understand the Client is considering rigid concrete and aggregate-surfaced pavements within the project site. Pavement traffic and loading information was not provided at the time of this report. Therefore, we referenced Chapter 4 “Low Volume Road Design” of Part II of the American Association of State Highway Transportation Officials (AASHTO) Guide for Design of Pavement Structures (1993) for this report. Geotechnical recommendations for the pavement systems being considered for the new Lube Shop are provided in the following sections.

7.1 Rigid Pavement Areas

7.1.1 Pavement Design Parameters

Since specific traffic counts and vehicle classifications were not available, we used the AASHTO reference described previously as a guideline. This AASHTO reference indicates, for rigid pavements, the practical minimum traffic level considered during a single performance period is 50,000 18-kip Equivalent Single Axle Load (ESAL) applications while the maximum traffic level considered is 1,000,000. The specific ranges of 18-kip ESAL application for rigid pavements are as follows: 50,000 to 300,000 (low), 400,000 to 600,000 (medium) and 700,000 to 1,000,000 (high). Using Tables 4.1 through 4.3 and 4.9a of the AASHTO reference, we considered the following pavement design parameters in Table 7-1 below for rigid pavements.

Table 7-1: Rigid Pavement Design Parameters	
Description	Parameter
U.S. Climatic Region	I
Relative Quality of Roadbed Soil	Poor/Fair (CBR = 3.0)
Effective Roadbed Soil Resilient Modulus (M_R)	4,500-psi
Traffic Level	Low, Medium and High
Inherent Reliability	75%
Load Transfer Devices or Edge Support	No
Granular Subbase	No
Concrete Flexural Strength (S'_c)	600-psi

7.1.2 Rigid Pavement Section Options

Our recommended rigid pavement thicknesses are provided in Table 7-2 below.

Table 7-2: Recommended Minimum Typical Pavement Section				
Pavement Layer	Material	Thickness (in.)		
		Low	Medium	High
Surface	Reinforced Concrete	6	7	8
Subgrade	Compacted Structural Select Fill	12		

Subgrade alternatives to a 12-in thick layer of properly-compacted select fill beneath the concrete paving include lime-stabilized native site soils. TWE should be contacted if this option is applicable.

7.2 Aggregate-Surfaced Pavement Areas

7.2.1 Pavement Design Parameters

Since specific traffic counts and vehicle classifications were not available, we used the AASHTO reference described previously as a guideline. This AASHTO reference indicates, for aggregate-surfaced road design, the practical minimum traffic level considered during a single performance period is 10,000 18-kip Equivalent Single Axle Load (ESAL) applications while the maximum traffic level considered is 100,000. The specific ranges of 18-kip ESAL application for aggregate-surfaced pavements are as follows: 10,000 to 30,000 (low), 30,000 to 60,000 (medium) and 60,000 to 100,000 (high). Using Tables 4.1 through 4.3 and 4.10 of the AASHTO reference, we considered the following pavement design parameters in Table 7-3 below for aggregate-surfaced pavements.

Table 7-3: Aggregate-Surfaced Pavement Design Parameters	
Description	Parameter
U.S. Climatic Region	I
Relative Quality of Roadbed Soil	Poor/Fair (CBR = 3.0)
Effective Roadbed Soil Resilient Modulus (M _R)	4,500-psi
Traffic Level	Low, Medium and High
Effective Aggregate Base Resilient Modulus	30,000-psi

7.2.2 Aggregate-Surfaced Pavement Section Options

Our recommended aggregate-surfaced pavement thicknesses are provided in Table 7-4 below.

Table 7-4: Recommended Minimum Typical Pavement Section				
Pavement Layer	Material	Thickness (in.)		
		Low	Medium	High
Surface	Crushed Aggregate Base	6	10	12
Subgrade	Compacted Structural Select Fill	12		

Subgrade alternatives to a 12-in thick layer of properly-compacted select fill beneath the crushed aggregate base include lime-stabilized native site soils or the utilization of a geosynthetic combined geotextile/geogrid product. TWE should be contacted if these options are considered.

7.3 Section Materials

Reinforced Concrete: Concrete should be designed to exhibit a flexural strength [three (3) point loading] of at least 600-psi at 28- days. Flexural strength (M_r) may be approximated by the following formula from ACI 330R: $M_r = 2.3(f_c^{2/3})$ where f_c is the compressive strength of the concrete. The actual relationship between flexural and compressive strength for the proposed mix should be evaluated in the laboratory. In general, 600-psi flexural strength can be typically achieved with a concrete mix designed for a minimum 28- day compressive strength of 4,000-psi.

Crushed Aggregate Flexible Base: Base material should be composed of crushed limestone or recycled concrete meeting the requirements of TxDOT 2014 Standard Specifications Item 247, Type A or D, Grade 1-2. The base should be compacted in maximum 6-in compacted lifts to a minimum of 95% of the maximum density as determined by ASTM D1557, at -2% to +3% of optimum moisture content.

Structural Select Fill: Refer to Section 8.3.

Geosynthetic Reinforcement: If the geosynthetic reinforcement option will be considered for aggregate-surfaced pavement sections, a combined geotextile separator fabric and geogrid reinforcement product could be utilized in lieu of structural select fill or lime-stabilized clay subbase. Products such as Tensar's TriAx FilterGrid FG60, Industrial Fabric's BaseLok FabGrid FG3030 or approved equal could be considered. At a minimum, the products should utilize an 8-oz/yd² non-woven geotextile separator fabric. TWE should be contacted if geosynthetics will be considered for aggregate-surfaced pavement sections on this project.

Stabilized Clay Subgrade: If the stabilized native clay subgrade option is considered, the clay subgrade shall be stabilized to a minimum of 8-in thickness with hydrated lime in accordance with TxDOT 2014 Standard Specification Item 260. It is estimated that 6% hydrated lime by dry weight of soil will be required. The actual quantity of lime required should be determined after the site is stripped and the subgrade soils are exposed by use of a laboratory pH, PI or strength series treatability study. The lime used should be Type A hydrated lime or Type B commercial slurry conforming to TxDOT Item 264. The lime stabilized subgrade shall be compacted to a minimum 95% of the standard Proctor compaction effort (ASTM D698) at above the optimum moisture content.

7.4 Pavement Maintenance

Maintaining the pavement to prevent infiltration of water into the subgrade soils is essential. Allowing water to infiltrate the subgrade will result in high maintenance costs and premature pavement failure. Periodic maintenance should be performed on the pavement sections to seal any surface cracks and prevent infiltration of water into the subgrade.

8 CONSTRUCTION CONSIDERATIONS

8.1 Site Preparation / Drainage

Areas designated for new construction should be stripped to remove existing trees, brush, vegetation, root systems, organics, debris, undocumented fills and other deleterious materials to the depth of competent subgrade soils. After stripping, we recommend the site be graded to promote positive drainage during construction and throughout the life of the project. Exterior site grades should be constructed to result in surface runoff away from the building pad during and after construction. After site grading is completed to establish positive drainage, the exposed subgrade should be proofrolled as indicated below.

8.2 Subgrade Preparation

Positive drainage should be established and maintained across the project site so that ponding of surface water does not collect near or within excavations, lead to subgrade disturbance or inhibit construction activities. If the subgrade soils are exposed to excess moisture, the bearing soils will likely soften and lose capacity. Once this occurs, it generally becomes necessary to either consider drying efforts or removal and replacement of the material.

We recommend proofrolling new construction areas that are to receive fill during relatively dry weather periods. Proofrolling is necessary to check for zones of weak or compressible soils that could be present within the building pad area. Therefore, we do not recommend proofrolling during or immediately after wet weather events. The effective depth of proofrolling will depend on the vehicle weight and tire pressures. We recommend proofrolling be performed using a rubber-tired pneumatic roller, fully-loaded dump truck or water truck with a weight of at least 20-tons and tire pressures of at least 70-psi. We do not recommend using off-road earthmoving equipment (e.g. loaders and scrapers), compactors or tracked vehicles (e.g. bulldozers) for proofrolling.

Proofrolling should extend at least 5-ft beyond the construction limits. Proofrolling specifications should provide acceptance criteria such as rut depths less than 2-in and no visual evidence of pumping. A representative of TWE should be present to observe and document proofrolling and to delineate areas of weak or compressible soils. Soils that are not in compliance with the proofrolling specifications should be excavated and replaced with properly-compacted select structural fill. Recommendations for select fill are provided below.

8.3 Select Structural Fill

Select structural fill for the project should consist of a clean sandy lean clay or lean clay with sand (CL) material with a liquid limit (LL) less than 40 and plasticity index (PI) between 10 and 20. Select fill should be placed in thin lifts, moisture-conditioned to within -2% to + 3% of optimum moisture content and compacted to a minimum 95% of the maximum dry density as determined by ASTM D698.

We recommend any proposed source of select fill soil be tested for compliance with the project specifications prior to use. In addition, it is imperative specific provisions be made to include testing of the actual fill soils delivered to the project site during construction to provide quality assurance that the material specification requirements are maintained.

Prior to any filling operations, samples of the proposed fill materials should be obtained for laboratory classification and moisture-density relationship testing. These tests will provide a basis for evaluation and acceptance of the fill and material prior to compaction and in-place density testing. A representative of TWE should perform sufficient in-place density tests during the filling operations to verify proper levels of compaction are being obtained. Field density tests should be performed at a frequency of one (1) test every 1,000-ft² per lift of structural fill under foundations and building slabs per lift of fill.

Maximum loose lift thicknesses for fill placement will depend on the type of compaction equipment used. Recommended fill layers are summarized in Table 8-1 below.

Table 8-1: Compaction Equipment and Maximum Lift Thickness	
Compaction Equipment	Maximum Lift Thickness
Mechanical Hand Tamper	4-in
Pneumatic-Tired Roller	6-in
Tamping Foot Roller	8-in
Sheepsfoot Roller	8-in

8.4 Drilled Footing Construction

All footing excavations should be observed by TWE to determine when the proper bearing stratum is encountered and to record other observations regarding footing excavations. Footing excavations should be checked for size and depth prior to the placement of concrete. Precautions should be taken during the placement of the footing reinforcement and concrete to prevent loose excavated material from falling into the excavation.

Drilled footings should be installed in accordance with the *Manual on Drilled Shafts: Construction Procedures and Design Methods*, [U.S. Department of Transportation-Federal Highway Administration (Pub. No. FHWA-IF-99-025) and ADSC: *The International Association of Foundation Drilling Contractors* (Pub. No. ADSC-TL-4), August 1999] by Lymon, C. Reese and Michael W. O'Neill.

If perched water or groundwater seepage occurs within drilled excavations at this project site, we expect it will be minor and that it can be handled using conventional sumps and pumps. TWE should be contacted if excessive seepage or borehole sloughing or caving is encountered during drilled footing installation.

Reinforcement steel cages placed in the drilled footings should be designed to be stable during the placement of concrete. Prompt placement of concrete in excavations as they are completed, cleaned and inspected is strongly recommended to limit deterioration of the bearing stratum. Under no circumstances should a footing be drilled that cannot be filled with concrete before the end of the working day.

9 LIMITATIONS AND DESIGN REVIEW

9.1 Limitations

This final report has been prepared for the exclusive use of Jefferson County Drainage District No. 6. and their project team for specific application to the design and construction of the new Lube Shop in Beaumont, Texas. Our report has been prepared in accordance with the generally accepted geotechnical engineering practice common to the local area. No other warranty, expressed or implied is made.

The explorations performed for this project have been used as the basis of our recommendations. These explorations indicate subsurface conditions only at the specific locations and at the times they were performed and only to the depths penetrated. The explorations do not necessarily reflect strata variations that could exist at other locations in the vicinity of the project site.

The validity of the recommendations provided is based in part on assumptions about the stratigraphy made by the Geotechnical Engineer. Such assumptions can be confirmed only during site development and foundation construction. Our recommendations presented in this report must be reevaluated if subsurface conditions during construction are different from those described in this final report.

If any changes in the nature, design or location of the project are planned, the conclusions and recommendations contained in this final report should not be considered valid unless the changes are reviewed and the conclusions modified or verified in writing by TWE. TWE is not responsible for any claims, damages or liability associated with interpretation or reuse of the subsurface data or engineering analyses without the expressed written authorization of TWE.

9.2 Design Review and Construction Monitoring

Review of the design and construction drawings should be performed by TWE before release. The review is aimed at determining if the geotechnical design and construction recommendations contained in this final report have been properly interpreted. Design review is not within our authorized scope of services for this study.

Construction surveillance by TWE is recommended and proper construction quality control measures were assumed in preparing our recommendations. These field services are required to check for changes in conditions which could result in modifications to our recommendations. The quality of the construction practices will affect foundation performance and should be monitored by TWE accordingly.

APPENDIX A

PROJECT INFORMATION



APPENDIX B

TEST BORING LOCATION PLAN

APPENDIX C

SOIL BORING LOGS AND KEY TO SYMBOLS AND TERMS

LOG OF BORING TB-1

PROJECT: New Lube Shop
6550 Walden Road - Beaumont, Texas

CLIENT: Jefferson County Drainage District No. 6
Beaumont, Texas

ELEVATION (FT) DEPTH (FT)	SAMPLE TYPE SYMBOL	COORDINATES: N 30° 02' 25.92" W 94° 10' 03.20"		(P) POCKET PEN (tsf) (T) TORVANE (tsf)	STD. PENETRATION TEST BLOWCOUNT	N ₆₀	MOISTURE CONTENT (%)	DRY UNIT WEIGHT (pcf)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	LAB MINI VANE SHEAR (tsf)	COMPRESSIVE STRENGTH (tsf)	FAILURE STRAIN (%)	CONFINING PRESSURE (psi)	PASSING #200 SIEVE (%)	OTHER TESTS PERFORMED	
		SURFACE ELEVATION: --															
		DRILLING METHOD: Dry Augered: 0' to 20' Wash Bored: 20' to 25'															
MATERIAL DESCRIPTION																	
0		FILL: CRUSHED AGGREGATE (3") Brown and gray FAT CLAY (CH)															
		-becomes stiff at 2'	(P)2.50			32	89								94		
		-becomes gray and tan at 4'	(P)1.75			35	85					1.32	11	4			
5			(P)1.75			32	92	84	62		1.14	14	6	97			
		-with ferrous nodules from 8' to 12'	(P)1.75														
10		-slickensided from 10' to 12'	(P)2.50														
			(P)2.50														
15			Gray and tan SILTY SAND (SM)														
			-becomes medium dense at 18.5-ft		5/6" 5/6" 6/6"												
20																	
		Very stiff, tan and gray LEAN CLAY (CL)	(P)3.75			27									100		
25		Bottom @ 25'															
30																	
35																	

COMPLETION DEPTH: 25 ft
DATE BORING STARTED: 04/15/2021
DATE BORING COMPLETED: 04/15/2021
LOGGER: C. Watts
PROJECT NO.: 21.23.039

NOTES: Free Water Depth = 15.0-ft. 15-min Static Water Depth = 12.7-ft. 15-min Total Hole Depth = 14.3-ft. Borehole was backfilled with cement-bentonite grout.

LOG OF BORING TB-2

PROJECT: New Lube Shop
6550 Walden Road - Beaumont, Texas

CLIENT: Jefferson County Drainage District No. 6
Beaumont, Texas

ELEVATION (FT) DEPTH (FT)	SAMPLE TYPE	SYMBOL	COORDINATES: N 30° 02' 28.68" W 94° 10' 03.26"	(P) POCKET PEN (tsf) (T) TORVANE (tsf)	STD. PENETRATION TEST BLOWCOUNT	N ₆₀	MOISTURE CONTENT (%)	DRY UNIT WEIGHT (pcf)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	LAB MINI VANE SHEAR (tsf)	COMPRESSIVE STRENGTH (tsf)	FAILURE STRAIN (%)	CONFINING PRESSURE (psi)	PASSING #200 SIEVE (%)	OTHER TESTS PERFORMED
			SURFACE ELEVATION: --													
			DRILLING METHOD: Dry Augered: 0' to 20' Wash Bored: 20' to 25'													
MATERIAL DESCRIPTION																
0 																

COMPLETION DEPTH: 25 ft
DATE BORING STARTED: 04/15/2021
DATE BORING COMPLETED: 04/15/2021
LOGGER: C. Watts
PROJECT NO.: 21.23.039

NOTES: Free Water Depth = 20.0-ft. 15-min Static Water Depth = 8.5-ft. 15-min Total Hole Depth = 16.8-ft. Borehole was backfilled with cement-bentonite grout.

LOG OF BORING TB-3

PROJECT: New Lube Shop
6550 Walden Road - Beaumont, Texas

CLIENT: Jefferson County Drainage District No. 6
Beaumont, Texas

ELEVATION (FT) DEPTH (FT)	SAMPLE TYPE SYMBOL	COORDINATES: N 30° 02' 27.30" W 94° 10' 02.74"	(P) POCKET PEN (tsf) (T) TORVANE (tsf)	STD. PENETRATION TEST BLOWCOUNT	N ₆₀	MOISTURE CONTENT (%)	DRY UNIT WEIGHT (pcf)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	LAB MINI VANE SHEAR (tsf)	COMPRESSIVE STRENGTH (tsf)	FAILURE STRAIN (%)	CONFINING PRESSURE (psi)	PASSING #200 SIEVE (%)	OTHER TESTS PERFORMED
		SURFACE ELEVATION: --													
		DRILLING METHOD: Dry Augered: 0' to 20' Wash Bored: 20' to 25'													
MATERIAL DESCRIPTION															
0		FILL: Brown and gray CLAYEY SAND (SC)	(P)4.50			19		40	27					43	
5		Stiff, gray and brown FAT CLAY (CH)	(P)1.75												
		-with organics from 2' to 4'	(P)2.25			31	89	82	56		1.42	9	4	94	
		becomes gray and tan at 6'	(P)1.75												
		-with ferrous nodules from 8' to 10'	(P)2.00												
10		-becomes firm at 10'	(P)1.75			32	91	71	50		0.95	15*	9		
-slickensided with calcareous nodules from 10' to 12'															
15		Stiff, tan and gray SANDY LEAN CLAY (CL)	(P)2.50			22								69	
20		Medium dense, tan and gray SILTY SAND (SM)		2/6" 6/6" 8/6"		25								17	
25		Stiff, tan and gray LEAN CLAY (CL)		5/6" 6/6" 8/6"											
		Bottom @ 25'													
30															
35															

COMPLETION DEPTH: 25 ft
DATE BORING STARTED: 04/15/2021
DATE BORING COMPLETED: 04/15/2021
LOGGER: C. Watts
PROJECT NO.: 21.23.039

NOTES: Free Water Depth = 20.0-ft. 15-min Static Water Depth = 6.2-ft. 15-min Total Hole Depth = 15.0-ft. Borehole was backfilled with cement-bentonite grout.

LOG OF BORING TB-4

PROJECT: New Lube Shop
6550 Walden Road - Beaumont, Texas

CLIENT: Jefferson County Drainage District No. 6
Beaumont, Texas

ELEVATION (FT) DEPTH (FT)	SAMPLE TYPE	SYMBOL	COORDINATES: N 30° 02' 25.92" W 94° 10' 02.12"	(P) POCKET PEN (tsf) (T) TORVANE (tsf)	STD. PENETRATION TEST BLOWCOUNT	N ₆₀	MOISTURE CONTENT (%)	DRY UNIT WEIGHT (pcf)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	LAB MINI VANE SHEAR (tsf)	COMPRESSIVE STRENGTH (tsf)	FAILURE STRAIN (%)	CONFINING PRESSURE (psi)	PASSING #200 SIEVE (%)	OTHER TESTS PERFORMED
			SURFACE ELEVATION: --													
			DRILLING METHOD: Dry Augered: 0' to 20' Wash Bored: 20' to 25'													
MATERIAL DESCRIPTION																
0 <																

COMPLETION DEPTH: 25 ft
DATE BORING STARTED: 04/15/2021
DATE BORING COMPLETED: 04/15/2021
LOGGER: C. Watts
PROJECT NO.: 21.23.039

NOTES: Free Water Depth = 20.0-ft. 15-min Static Water Depth = 8.8-ft. 15-min Total Hole Depth = 15.0-ft. Borehole was backfilled with cement-bentonite grout.

LOG OF BORING TB-5

PROJECT: New Lube Shop
6550 Walden Road - Beaumont, Texas

CLIENT: Jefferson County Drainage District No. 6
Beaumont, Texas

ELEVATION (FT) DEPTH (FT)	SAMPLE TYPE	SYMBOL	COORDINATES: N 30° 02' 28.69" W 94° 10' 02.17"	(P) POCKET PEN (tsf) (T) TORVANE (tsf)	STD. PENETRATION TEST BLOWCOUNT	N ₆₀	MOISTURE CONTENT (%)	DRY UNIT WEIGHT (pcf)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	LAB MINI VANE SHEAR (tsf)	COMPRESSIVE STRENGTH (tsf)	FAILURE STRAIN (%)	CONFINING PRESSURE (psi)	PASSING #200 SIEVE (%)	OTHER TESTS PERFORMED
			SURFACE ELEVATION: --													
			DRILLING METHOD: Dry Augered: 0' to 20' Wash Bored: 20' to 25'													
MATERIAL DESCRIPTION																
0 																

COMPLETION DEPTH: 25 ft
DATE BORING STARTED: 04/15/2021
DATE BORING COMPLETED: 04/15/2021
LOGGER: C. Watts
PROJECT NO.: 21.23.039

NOTES: Free Water Depth = 20.0-ft. 15-min Static Water Depth = 10.3-ft. 15-min Total Hole Depth = 13.5-ft. Borehole was backfilled with cement-bentonite grout.

KEY TO SYMBOLS AND TERMS USED ON BORING LOGS FOR SOIL

Most Common Unified Soil Classifications System Symbols

	Lean Clay (CL)		Well Graded Sand (SW)
	Lean Clay w/ Sand (CL)		Well Graded Sand w/ Gravel (SW-GM)
	Sandy Lean Clay (CL)		Poorly Graded Sand (SP)
	Fat Clay (CH)		Poorly Graded Sand w/ Silt (SP-SM)
	Fat Clay w/ Sand (CH)		Silt (ML)
	Sandy Fat Clay (CH)		Elastic Silt (MH)
	Silty Clay (CL-ML)		Elastic Silt w/ Sand (MH-SP)
	Sandy Silty Clay (CL-ML)		Silty Gravel (GM)
	Silty Clayey Sand (SC-SM)		Clayey Gravel (GC)
	Clayey Sand (SC)		Well Graded Gravel (GW)
	Sandy Silt (ML)		Well Graded Gravel w/ Sand (SP-GM)
	Silty Sand (SM)		Poorly Graded Gravel (GP)
	Silt w/ Sand (ML)		Peat

Miscellaneous Materials

	Fill		Concrete		Asphalt and/or Base
--	------	--	----------	--	---------------------

Sampler Symbols

Meaning

	Pavement core
	Thin - walled tube sample
	Standard Penetration Test (SPT)
	Auger sample
	Sampling attempt with no recovery
	TxDOT Cone Penetrometer Test

Field Test Data

2.50	Pocket penetrometer reading in tons per square foot
(T)1.13	Torvane Measurement in tons per square foot
8/6"	Blow count per 6 - in. interval of the Standard Penetration Test
	Observed free water during drilling
	Observed static water level

Laboratory Test Data

Wc (%)	Moisture content in percent
Dens. (pcf)	Dry unit weight in pounds per cubic foot
Qu (tsf)	Unconfined compressive strength in tons per square foot
UU (tsf)	Compressive strength under confining pressure in tons per square foot
Str. (%)	Strain at failure in percent
LL	Liquid Limit in percent
PI	Plasticity Index
#200 (%)	Percent passing the No. 200 mesh sieve
()	Confining pressure in pounds per square inch
*	Slickensided failure
**	Did not fail @ 15% strain

RELATIVE DENSITY OF COHESIONLESS & SEMI-COHESIONLESS SOILS

The following descriptive terms for relative density apply to cohesionless soils such as gravels, silty sands, and sands as well as semi-cohesive and semi-cohesionless soils such as sandy silts, and clayey sands.

Relative Density	Typical N ₆₀ Value Range*
Very Loose	0-4
Loose	5-10
Medium Dense	11-30
Dense	31-50
Very Dense	Over 50

* N₆₀ is the number of blows from a 140-lb weight having a free fall of 30-in. required to penetrate the final 12-in. of an 18-in. sample interval, corrected for field procedure to an average energy ratio of 60% (Terzaghi, Peck, and Mesri, 1996).

CONSISTENCY OF COHESIVE SOILS

The following descriptive terms for consistency apply to cohesive soils such as clays, sandy clays, and silty clays.

Typical Compressive Strength (tsf)	Consistency	Typical SPT "N ₆₀ " Value Range**
$q_u < 0.25$	Very soft	≤ 2
$0.25 \leq q_u < 0.50$	Soft	3-4
$0.50 \leq q_u < 1.00$	Firm	5-8
$1.00 \leq q_u < 2.00$	Stiff	9-15
$2.00 \leq q_u < 4.00$	Very Stiff	16-30
$q_u \geq 4.00$	Hard	≥ 31

** An "N₆₀" value of 31 or greater corresponds to a hard consistency. The correlation of consistency with a typical SPT "N₆₀" value range is approximate.

Special Provision to Item 000

Schedule of Liquidated Damages



Table1
Schedule of Liquidated Damages

For Dollar Amount of Original Contract		Dollar Amount of Daily Contract Administration Liquidated Damages per Working Day
From More Than	To and Including	
0	100,000	570
100,000	500,000	590
500,000	1,000,000	610
1,000,000	1,500,000	685
1,500,000	3,000,000	785
3,000,000	5,000,000	970
5,000,000	10,000,000	1125
10,000,000	20,000,000	1285
20,000,000	Over 20,000,000	2590

Attachment "B"

House Bill 89 Verification

I, _____, the undersigned representative of (company or business name) _____

(heretofore referred to as company) being an adult over the age of eighteen (18) years of age, after being duly sworn by the undersigned notary, do hereby depose and verify under oath that the company named above, under the provisions of Subtitle F, Title 10, Government Code Chapter 2270:

1. Does not boycott Israel currently; and
2. Will not boycott Israel during the term of the contract.

Pursuant to Section 2270.001, Texas Government Code:

1. "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 ordinary business purposes; and

2. "Company" means a for-profit sole proprietorship, organization, association, corporation, partnership, joint venture, limited partnership, limited liability partnership, or an limited liability company, including a wholly owned subsidiary, majority-owned subsidiary, parent company or affiliate of those entities or business association that exist to make a profit.

Signature of Company Representative

Date

On this _____ day of _____, 2021, personally appeared

_____, the above named person, who after by me being duly sworn, did swear and confirm that the above is true and correct.

Notary Seal

Notary Signature

Date

Attachment "C"

Bidder Shall Return Completed Form with Offer.

Good Faith Effort (GFE) Determination Checklist

This information must be submitted with your bid.

Bidder intends to utilize subcontractors/subconsultants in the fulfillment of this contract (if awarded). ☐ Yes ☐ No

Instructions: In order to determine if a “Good Faith Effort” was made in soliciting HUBs for subcontracting opportunities, the following checklist and supporting documentation shall be completed by the Prime Contractor/Consultant and returned with the Prime Contractor/Consultant’s bid. This list contains the **minimum** efforts that should be put forth by the Prime Contractor/Consultant when attempting to achieve or exceed the goals of HUB Subcontractor participation. The Prime Contractor/Consultant may extend his/her efforts in soliciting HUB Subcontractor participation beyond what is listed below.

Did the Prime Contractor/Consultant

- | | | |
|------------------------------|-----------------------------|--|
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | 1. To the extent practical, and consistent with standard and prudent industry standards, divide the contract work into the smallest feasible portions, to allow for maximum HUB Subcontractor participation? |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | 2. Notify in writing a reasonable number of HUBs, allowing sufficient time for effective participation of the planned work to be subcontracted? |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | 3. Provide HUBs that were genuinely interested in bidding on a subcontractor, adequate information regarding the project (i.e., plans, specifications, scope of work, bonding and insurance requirements, and a point of contract within the Prime Contractor/Consultant’s organization)? |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | 4. Negotiate in good faith with interested HUBs, and not reject bids from HUBs that qualify as lowest and responsive bidders? |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | 5. Document reasons HUBs were rejected? Was a written rejection notice, including the reason for rejection, provided to the rejected HUBs? |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | 6. If Prime Contractor/Consultant has zero (0) HUB participation, please explain the reasons why. |

**If “No” was selected, please explain and include any pertinent documentation with your bid.
If necessary, please use a separate sheet to answer the above questions.**

Printed Name of Authorized Representative

Signature

Title

Date

Bidder Shall Return Completed Form with Offer.

Attachment "D"

Notice of Intent (NOI) to Subcontract with Historically Underutilized Business (HUB)

This information must be submitted with your bid.

Bidder intends to utilize subcontractors/subconsultants in the fulfillment of this contract (if awarded). ☐ Yes ☐ No

Instructions for Prime Contractor/Consultant: Bidder shall submit this form with the bid; however, the information below may be submitted after contract award, but prior to beginning performance on the contract. Please submit one form for each HUB Subcontractor/Subconsultant with proper signatures, per the terms and conditions of your contract.

Contractor Name: _____ HUB: ☐ Yes ☐ No

Address: _____
Street City State Zip

Phone (with area code): _____ Fax (with area code): _____

Project Title &
No.: _____

Prime Contract Amount: \$ _____

HUB Subcontractor Name: _____

HUB Status (Gender & Ethnicity): _____

Certifying Agency: ☐ Tx. Bldg. & Procurement Comm. ☐ Jefferson County ☐ Tx Unified Certification Prog.

Address: _____
Street City State Zip

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: \$ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be
Performed: _____

Printed Name of Contractor
Representative

Signature of Representative

Date

Printed Name of HUB

Signature of Representative

Date

NOTE: NOTHING ON THIS NOTICE OF INTENT FORM IS INTENDED TO CONFER ANY RIGHTS, EXPRESSED OR IMPLIED, TO ANY THIRD PARTIES.

Pre-Approval for Subcontractor Substitutions must be obtained from the District Chief Business Officer. The "HUB Subcontractor/Subconsultant Change Form" must be completed and faxed to 409-842-2729

Bidder Shall Return Completed Form with Offer.

Attachment "D"

Historically Underutilized Business (HUB) Subcontracting Participation Declaration Form

PAGE 1 OF 4

This information must be submitted with your bid.

Bidder intends to utilize subcontractors/subconsultants in the fulfillment of this contract (if awarded). ☐ Yes ☐ No

Prime Contractor: _____ HUB: ☐ Yes ☐ No

HUB Status (Gender & Ethnicity): _____

Address: _____
Street City State Zip

Phone (with area code): _____ Fax (with area code): _____

Project Title & No.: _____ IFB/RFP No.: _____

Total Contract: \$ _____ Total HUB Subcontract(s): \$ _____

Construction HUB Goals: 12.8% MBE:: _____ % 12.6% WBE: _____ %

Sub-goals: 1.7 African-American, 9.7% Hispanic, 0.7% Native American, 0.8% Asian American.
Use these goals as a guide to diversify.

FOR HUB OFFICE USE ONLY:

Verification date HUB Program Office reviewed and verified HUB Sub
information

Date: _____ Initials: _____

PART I. HUB SUBCONTRACTOR DISCLOSURE

HUB Subcontractor Name: _____

HUB Status (Gender & Ethnicity): _____

Certifying Agency: ☐ Texas Bldg. & Procurement Comm. ☐ Texas Unified Certification Prog.

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: \$ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be
Performed: _____

Bidder Shall Return Completed Form with Offer.

Attachment "D"

Historically Underutilized Business (HUB) Subcontracting Participation Declaration Form

PAGE 2 OF 4

HUB SUBCONTRACTOR DISCLOSURE

PART I: Continuation Sheet

(Duplicate as Needed)

HUB Subcontractor Name: _____

HUB Status (Gender & Ethnicity): _____

Certifying Agency: ☐ Tx. Bldg. & Procurement Comm. ☐ Jefferson County ☐ Tx Unified Certification Prog.

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: \$ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be
Performed: _____

HUB Subcontractor Name: _____

HUB Status (Gender & Ethnicity): _____

Certifying Agency: ☐ Tx. Bldg. & Procurement Comm. ☐ Jefferson County ☐ Tx Unified Certification Prog.

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: \$ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be
Performed: _____

All HUB Subcontractor Participation may be verified with the
HUB Subcontractor(s) listed on Part I.

Bidder Shall Return Completed Form with Offer.

Attachment "D"

Historically Underutilized Business (HUB) Subcontracting Participation Declaration Form

PAGE 3 OF 4

PART II: STATEMENT OF NON-COMPLIANCE FOR NOT MEETING HUB SUBCONTRACTING GOALS

Please complete Good Faith Effort (GFE) Checklist and attach any supporting documentation.

Our firm was unable to meet the HUB goals for this project for the following reasons:

- ☐ All subcontractors to be utilized are "Non-HUBs." (Complete Part III)
- ☐ HUBs were solicited but did not respond.
- ☐ HUBs solicited were not competitive.
- ☐ HUBs were unavailable for the following trade(s):
- ☐ Other: _____

Was the Jefferson County HUB Office contacted for assistance in locating HUBs?

☐ Yes

☐ No

PART III: DISCLOSURE OF OTHER "NON-HUB" SUBCONTRACTS

The bidder shall use this area to provide a listing of all "Non-HUB" Subcontractors, including suppliers, that will perform under this project. A list of those "Non-HUB" Subcontractors the bidder selects, after bid submission, shall be provided to the Purchasing Office not later than five (5) calendar days after being notified that bidder is the apparent low bidder. A list of those "Non-HUB" Subcontractors that are selected after contract award must be provided **immediately** after their selection.

Subcontractor Name: _____

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: \$ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

Subcontractor Name: _____

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: \$ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

Bidder Shall Return Completed Form with Offer.

Attachment "D"

Historically Underutilized Business (HUB) Subcontracting Participation Declaration Form

PAGE 4 OF 4

Subcontractor Name: _____

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: \$ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be
Performed: _____

Subcontractor Name: _____

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: \$ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be
Performed: _____

I hereby certify that I have read the *HUB Program Instructions and Information*, truthfully completed all applicable parts of this form, and **attached any necessary support documentation as required**. I fully understand that intentionally falsifying information on this document may result in my not receiving a contract award or termination of any resulting contract.

Name (print or type): _____

Title: _____

Signature: _____

Date: _____

E-mail address: _____

Contact person that will be in charge of invoicing for this project:

Name (print or type): _____

Title: _____

Date: _____

E-mail address: _____

Attachment "D"

Bidder Shall Return Completed Form with Offer.

JEFFERSON COUNTY
DRAINAGE DISTRICT NO.6

Plans For
Construction of
Fleet Maintenance Building

PROJECT NO.: IFB21-014/EC
PROJECT: Construction of Fleet Maintenance Building
LIMITS: DD6 Facility
PROJECT LOCATION: 6550 Walden Road Beaumont, Texas
COUNTY: JEFFERSON COUNTY
DESCRIPTION: Construct Reinforced Concrete Foundations and Erect Prefabricated Building.

PROJECT BEGAN (ACTUAL WORK BEGAN):	DATE
PROJECT COMPLETED:	DATE
PROJECT CONSTRUCTED & FINAL PLANS:	<input checked="" type="checkbox"/> CONSTRUCTION <input type="checkbox"/> AS-BUILT
FINAL CONSTRUCTION COST:	\$
TCEQ PERMIT No.:	DD6 is MS4 Operator
GRADING PERMIT No.:	NA
STREET-CUT & BARRICADE No.:	NA
DRIVEWAY PERMIT No.:	NA
BUILDING PERMIT No.:	To Be Obtained by Contractor
ELECTRICAL PERMIT No.:	NA
OTHER PERMIT No.:	NA
TDLR PROJECT No.:	NA
TDLR INSPECTION REQUIRED:	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO



BOARD OF DIRECTORS

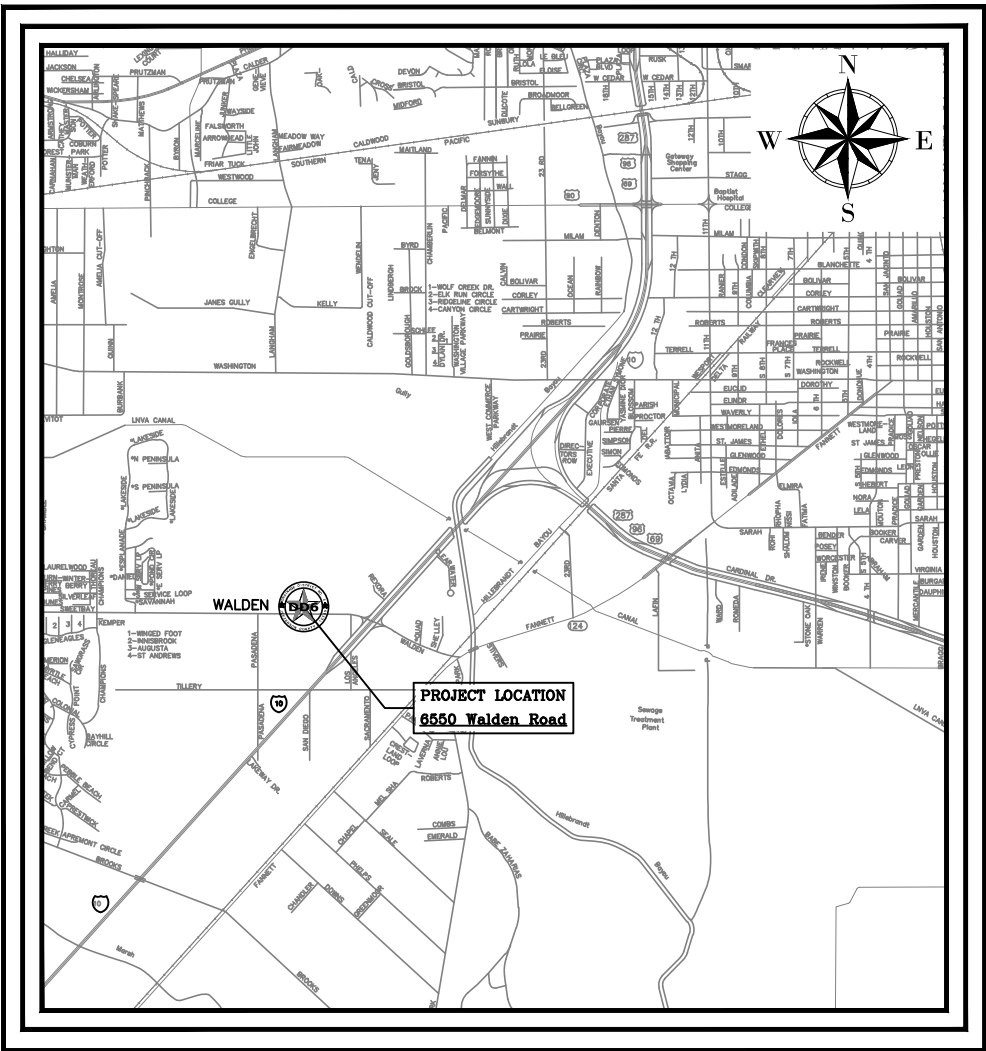
PRESIDENT: JOUSHUA W. ALLEN, SR.
VICE PRESIDENT: BERNIE DALEO
SECRETARY: CHARLES GUILLORY
DIRECTOR: ANTHONY MALLEY, III
DIRECTOR: CHARLES KIKER, III

GENERAL MANAGER

DR. JOSEPH G. MAJDALANI, P.E., C.F.M.

DISTRICT ENGINEER

DOUG CANANT, P.E., R.P.L.S., C.F.M.



LOCATION MAP

SCALE: NTS

MAY 2021

Harold E. Crochet, Jr.

05/25/2021

PREPARED BY:
HAROLD E. CROCHET, JR.
PROJECT ENGINEER ASSISTANT

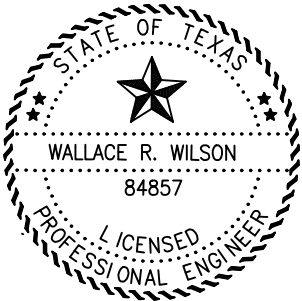
DATE

Wallace R. Wilson P.E.

05/25/2021

APPROVED BY:
WALLACE R. WILSON, P.E. No.84857
SENIOR ENGINEER

DATE



INDEX OF SHEETS

GENERAL

<u>SHEET NO.</u>	<u>DESCRIPTION</u>
G01	TITLE SHEET
G02	INDEX OF SHEETS
G03 - 04	GENERAL NOTES & SPECIFICATIONS
G05 - 06	ESTIMATE & QUANTITY SUMMARY SHEETS

PAVEMENT DETAILS

<u>SHEET NO.</u>	<u>DESCRIPTION</u>
RDT01	Plan & Profile
RDT02	Type "A" Drilled Shaft Detail
RDT03	Type "B" Drilled Shaft Detail
RDT04	Type "C" Drilled Shaft Detail
RDT05	Type "D" Drilled Shaft Detail
RDT06	Type "E" Drilled Shaft Detail
RDT07	Joint Layout

TXDOT STANDARDS

<u>SHEET NO.</u>	<u>DESCRIPTION</u>
JRCP-01	Jointed Reinforced Concrete Pavement Details
JRCP-02	Jointed Reinforced Concrete Pavement Details
JS-14	Concrete Paving Details Joint Seals

MUELLER, INC. STEEL BUILDING SYSTEM AND COMPONENTS FOR:
JOB NUMBER: 5663293 BUILDING DESCRIPTION: 50' X 250' X 16'-8"

<u>SHEET NO.</u>	<u>DESCRIPTION</u>
C1	Cover Sheet
AB1	Anchor Bolt Plan
AB2 to AB4	Anchor Bolt Details
AB5	Reactions
E1	Roof Plan
E2	Wall Elevation at Grid D
E3	Wall Elevation at Grid A
E4	Wall Elevation at Grid 1
E5	Wall Elevation at Grid 11
E6	Frame Elevation on Grid 1
E7	Frame Elevation on Grid 2
E8	Frame Elevation on Grid 3, 8
E9	Frame Elevation on Grid 4, 9
E10	Frame Elevation on Grid 5, 6, 7, 10
E11	Frame Elevation on Grid 11
E101 to E102	Erection Details
S101	Sheeting Details

Material List Sheets:

01 to 06

GEOTECHNICAL REPORT

ATTACHMENT "A" IN CONTRACT DOCUMENTS

PROJECT LOCATION



Fleetwood Maintenance Building
INDEX SHEET

DATE

CITY	COUNTY	STATE
BEAUMONT	JEFFERSON	TEXAS
WATERSHED	DITCH NO.	SHEET
100	109-A	G2

NO.	DATE	DRN	REVISION	APPROV.
6				
5				
4				
3				
2				
1				

General Notes and Specifications

1. The Texas Department of Transportation Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges, Adopted November 2014, will govern all specifications not directly addressed in this document.
2. Direct attention to comply with all ordinances and regulations of local municipal and county governments and the TCEQ (Texas Commission on Environmental Quality), which may be applicable on this project.
3. Procure all the necessary city and/or county permits and licenses before the start of this project.
4. Before excavating near existing utilities, contact the utility companies or the utility coordinating committee for exact locations to prevent damage or interference with present facilities. Notify the utility coordinating committee and the Texas One Call System at the following numbers:
Texas One Call, toll-free 1-800-245-4545

AT&T Communications	Entergy Distribution	CenterPoint Energy Entex	Spectrum	City of Beaumont	City of Beaumont
555 Main - Room 20760	North 11th/ Street	6090 College	602 N. Hwy 69	City Utilities	Public Works-Engineering
Beaumont, Texas 77701	Beaumont, Texas 77701	Beaumont, Texas 77707	Nederland, Texas 77627	Beaumont, Texas 77707	Beaumont, Texas 77707
(409) 839-1666	(409) 785-2136	(409) 860-7111	(409) 720-5565	(409) 785-4720	(409) 880-3725
Ray Hillin	Brian Cross	Robert Young	Adam LaRive	Edward Brown	David Tingle

This action does not relieve the Contractor of the responsibilities under the terms of the contract or the plans and specifications. Damage caused by the Contractor's operations shall be repaired and restored to service in a timely manner at no expense to DD6.

5. Allow DD6 & City forces to enter this project to accomplish such work as shown in the plans (by others) and as may be deemed necessary by the engineer.
6. Maintain for the duration of this project, those sections of existing and proposed travel ways and appurtenances which are to be constructed, reconstructed, or modified under this project.
7. Assume ownership for all designated waste material and dispose of it at a place off of the right of way, as approved by the engineer.
8. Take reasonable measures to avoid the death of any migratory birds, their young or their eggs.
9. If overhead or underground power lines need to be de-energized, contact the electrical service provider to perform this work. Costs associated with de-energizing the power lines or other protective measures required are at no expense to DD6. If working near power lines, comply with the appropriate sections of Texas State Law and Federal Regulations relating to the type of work involved.
10. Prior to final acceptance, all new and existing structures and extensions shall be cleaned and free of debris and dirt and all outfall channels unobstructed. This work will not be paid for directly but will be considered subsidiary to the various bid items.
11. Maintain adequate drainage throughout the limits of the project during all construction phases.
12. Verify material quantities and dimensions prior to ordering materials.
13. The Contractor will establish the project control point, points, or tangency, PI's (points of intersection), point of curvature (PC, PI, and PT) and bench marks at the beginning and end of the project on the plan view only. Contractor shall establish and maintain these points throughout construction. There will be no separate payment for this work, but it shall be considered subsidiary to various bid items.
14. Longitudinal Joints, Construction Joints and Sawed Joints shall be installed as shown on construction detail sheet.
15. Any saw-cutting required for the project shall not be paid for directly but shall be considered subsidiary to various bid items.
16. The Contractor will notify the Engineer 48 hours in advance of completed work per site. The Engineer will inspect each site and submit a punch list per location to the Contractor as necessary. The Contractor will not demobilize from site until the Engineer has approved all work including punch list items.
17. **Contractor shall refer to Mueller, Inc. Steel Building Systems and Components Construction Drawings for Plan, Profile and Detail sheets, Job No. 5663293 Building Description, 50'-0" x 250'-0" x 16'-8".**

End of General Notes

[illegible]

Specifications

Item 5: Control of Work

1. Station the project prior to commencing work. Mark the stations every 100 feet. Maintain stationing throughout the duration of the project. Remove the station markings at the completion of the project. Consider this work to be subsidiary to the various bid items of the contract.

Item 7: Legal Relations and Responsibilities

1. Furnish all materials, labor and incidentals required to provide for traffic across the street and for temporary ingress and egress to private property. Consider this work to be subsidiary to the various bid items of the contract.

Item 8: Prosecution and Progress

1. Compute and charge calendar days in accordance with Article 8.3.1.4, "Standard Workweek" & Article 8.3.1.6, "Other". Monday through Friday with the option of working Saturdays when the Engineer is provided sufficient advance notice.
2. Gather information and direct attention to the aspects of adjoining projects that may be in the progress during the construction of a portion of this project. Plan and prosecute the sequence of construction and the traffic control plan with adjacent construction projects so as not to interfere with, or hinder the completion of the work in progress on the adjoining projects. Coordinate projects to ensure an uninterrupted flow of traffic.

Item 9: Measurement and Payment

1. The Contractor shall submit all tickets, As-Built drawings and updated schedule with each pay request. As-Built for pay request will be the Plan sheet with qty's on each plan sheet.
2. DD6 will withhold a 3% retainage from each pay request.

Item 360: Concrete Pavement

1. Concrete will be Class-P.
2. Texture will be carpet drag.
3. The Contractor shall provide an approved concrete design.
4. All testing is waved except strength and slump.
5. Testing will be paid for by the contractor and records given to DD6.

Item 416: Drilled Shaft

1. Concrete will be Class-C
2. Contractor shall refer to the TWE Geotechnical Report No. 122004 for Drilled Footing Installation Procedures.

Item 440: Reinforcement for Concrete

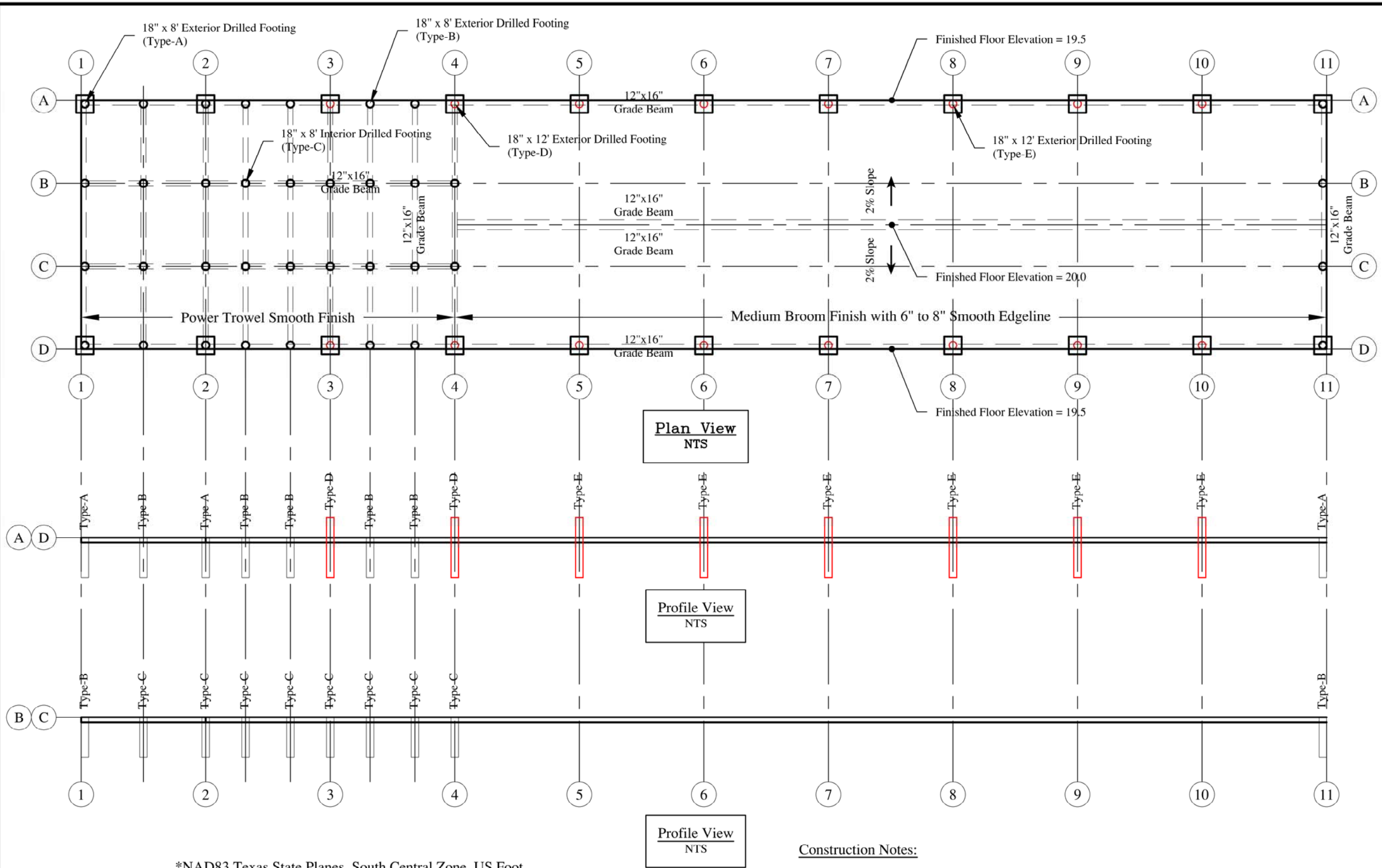
1. Reinforcement will be rebar. Welded-Wire will not be allowed.

Item 500: Mobilization

1. Mobilization shall not exceed ten (10) percent of the total construction items amount.

End of Specifications

[illegible]



*NAD83 Texas State Planes, South Central Zone, US Foot
DD6 BM = 17.64 @ N 13957490.492 , E 3497043.944

*All Prop. Reinforced Concrete Pavement shall be Class-P 8-Inches Thick.


*All Prop. Reinforced Drilled Shafts shall be Class-C.

*See TxDOT Details for Pavement Reinforcement and Joint Details.

Construction Notes:


- Refer to Mueller, Inc. Steel Building Systems and Components Construction Drawing for:
 - Typ. Overhead Door Recess
 - Typ. Sheeting Recess with & without Base Drip Edge Trim
 - Anchor Bolt Plan and Anchor Bolt Details.
- Refer to TWE Report No. 122004 for Drilled Footing Installation Procedures.

PROJECT LOCATION			
CITY	COUNTY	STATE	
BEAUMONT	JEFFERSON	TEXAS	
WATERSHED	DITCH NO.	SHEET	
100	109-A	RPT01	

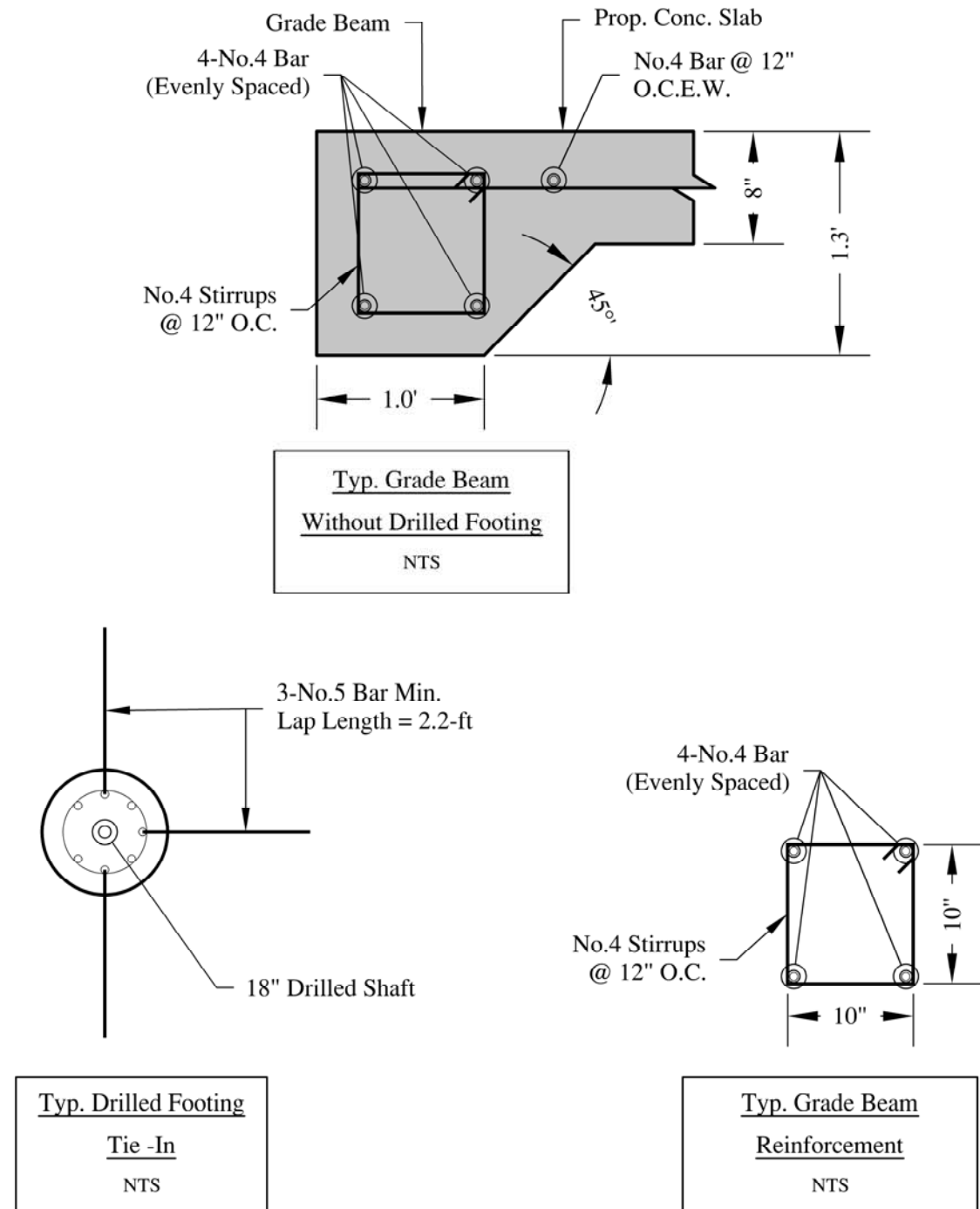
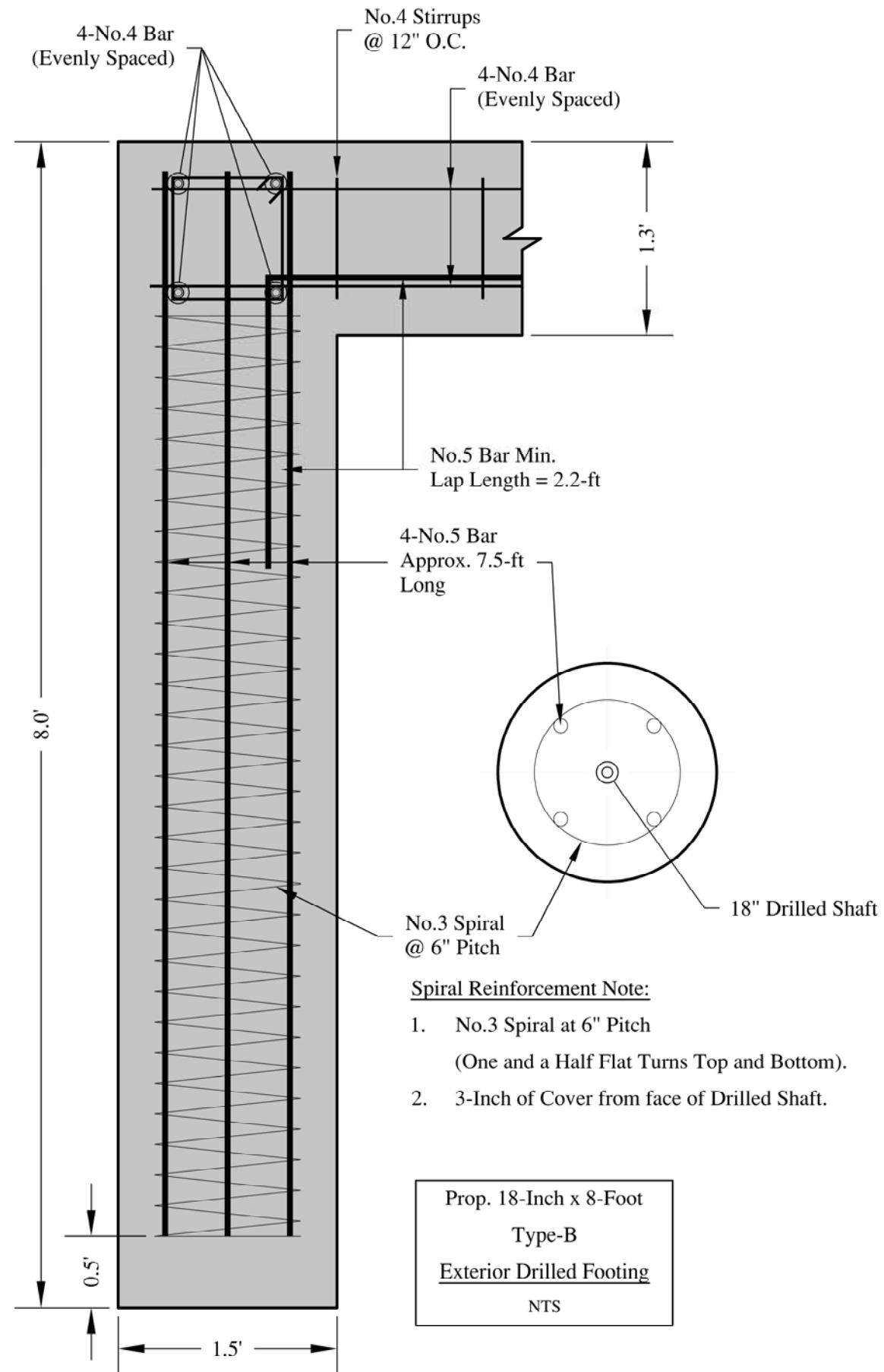


DD6 Fleet Maintenance Building
Plan & Profile

WALLACE R. WILSON, P.E. No. 84857
Wallace R. Wilson P.E. DATE 05/25/2021



NO.	DATE	DRN	REVISION	APPROV.
1				
2				
3				
4				
5				
6				



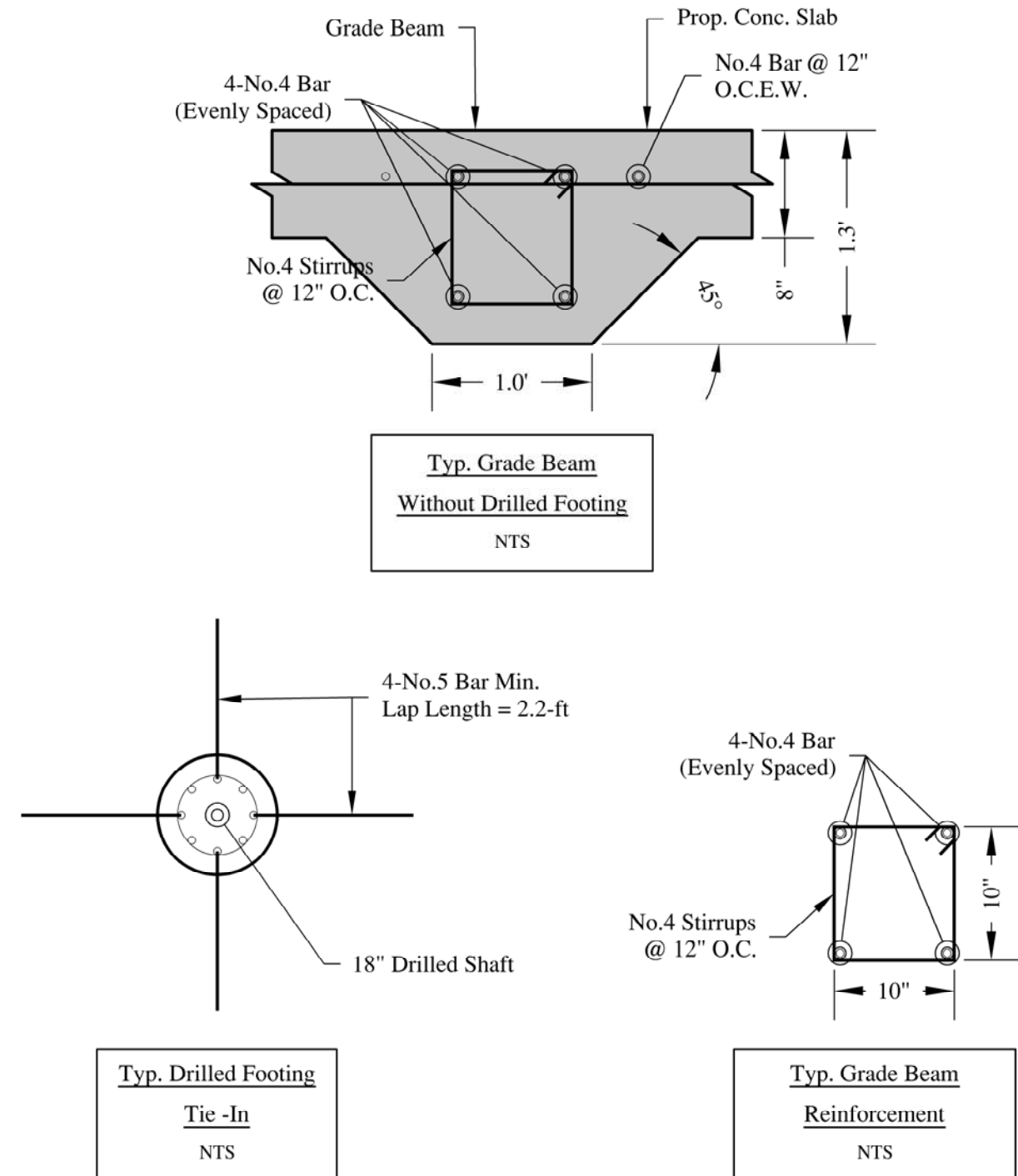
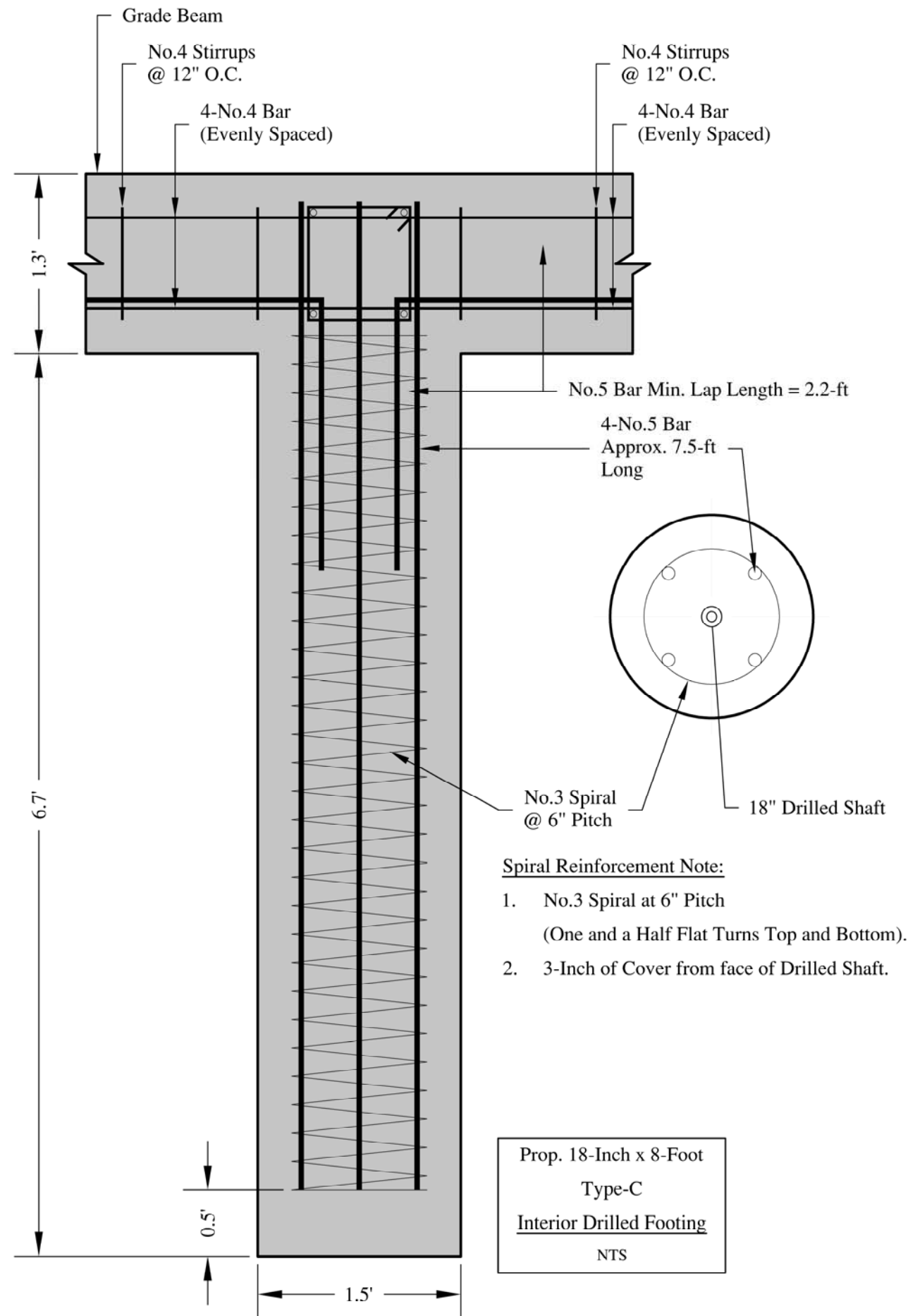
*All Prop. Reinforced Concrete Pavement shall be Class-P 8-Inches Thick.

*All Prop. Reinforced Drilled Shafts shall be Class-C.

Construction Notes:

- Refer to Mueller, Inc. Steel Building Systems and Components Construction Drawing for:
 - Typ. Overhead Door Recess
 - Typ. Sheeting Recess with & without Base Drip Edge Trim
 - Anchor Bolt Plan and Anchor Bolt Details.
- Refer to TWE Report No. 122004 for Drilled Footing Installation Procedures.

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*All Prop. Reinforced Concrete Pavement shall be Class-P 8-Inches Thick.

*All Prop. Reinforced Drilled Shafts shall be Class-C.

Construction Notes:

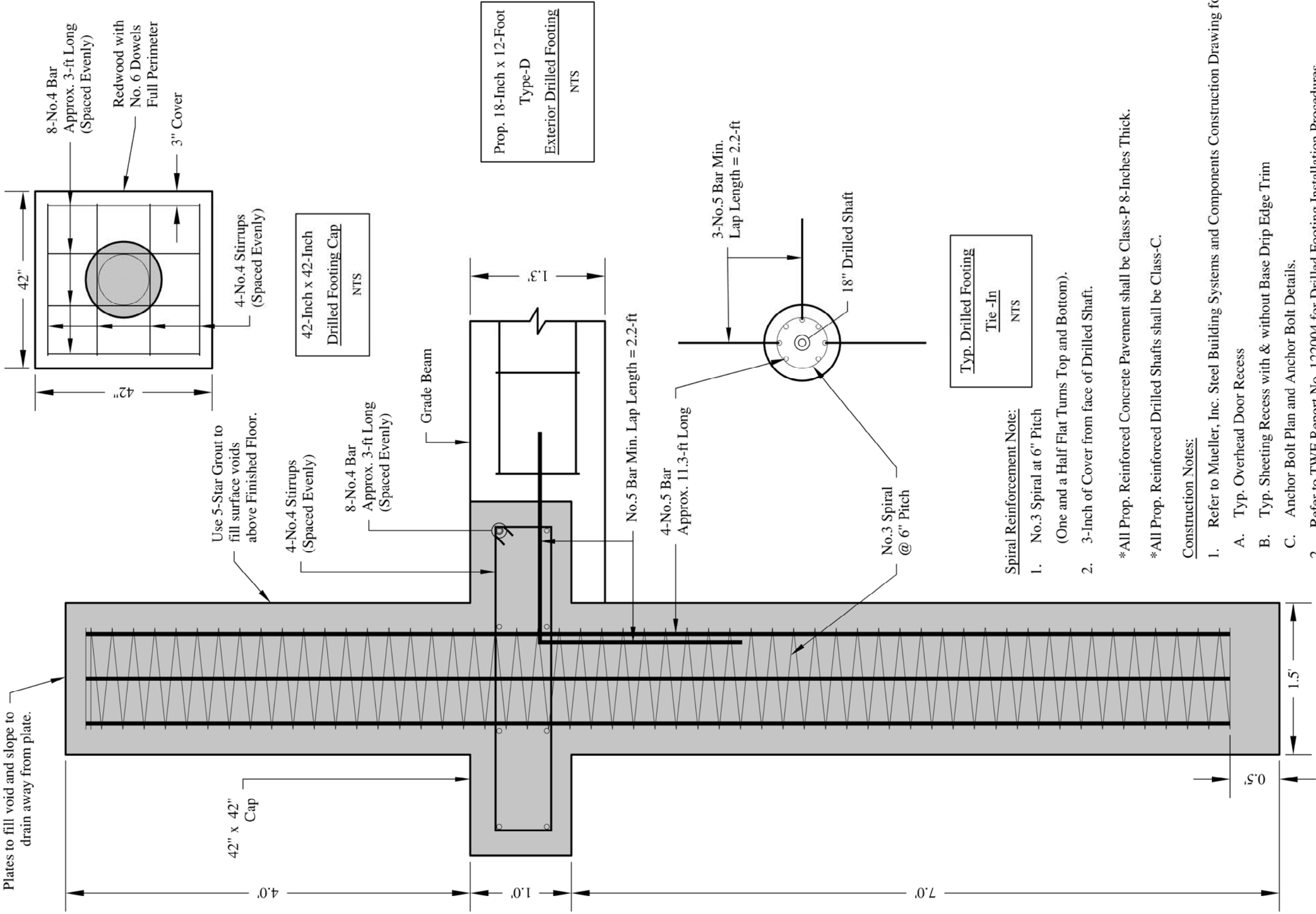
- Refer to Mueller, Inc. Steel Building Systems and Components Construction Drawing for:
 - Typ. Overhead Door Recess
 - Typ. Sheeting Recess with & without Base Drip Edge Trim
 - Anchor Bolt Plan and Anchor Bolt Details.
- Refer to TWE Report No. 122004 for Drilled Footing Installation Procedures.

PROJECT LOCATION			
CITY	COUNTY	STATE	
BEAUMONT	JEFFERSON	TEXAS	
WATERSHED	DITCH NO.	SHEET	
100	109-A		RDT04

DD6 Fleet Maintenance Building	DATE
Type "C" Drilled Footing	05/25/2021
WALLACE R. WILSON, P.E. No. 84857	
<i>Wallace R. Wilson P.E.</i>	

NO.	DATE	DRN	REVISION	APPROV.
6				
5				
4				
3				
2				
1				

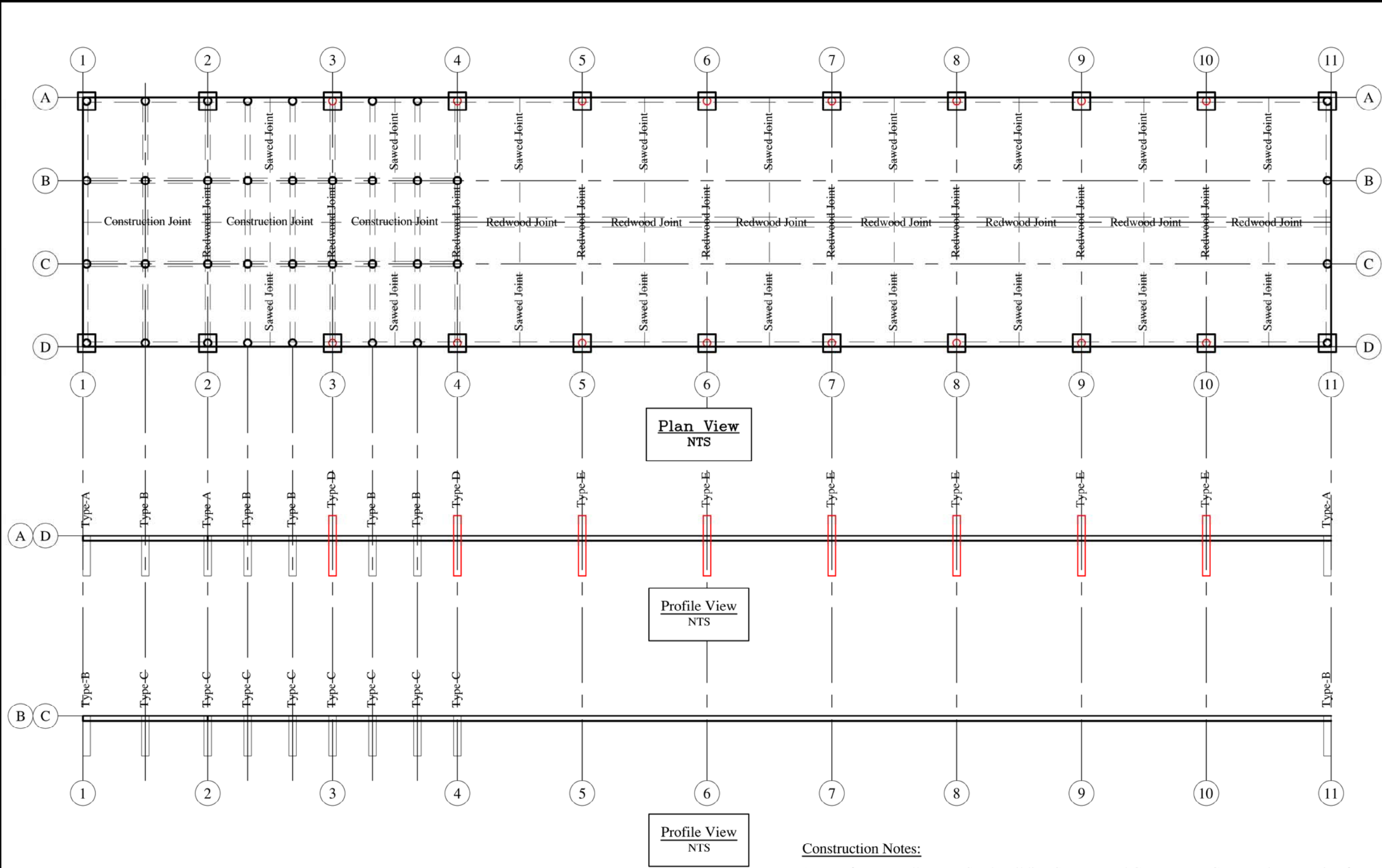
Use 5-Star Grout around Base Plates to fill void and slope to drain away from plate.



DD6 Fleet Maintenance Building
Type "D" Drilled Footing
WALLACE R. WILSON, P.E. No. 84857
DATE 05/25/2021
Wallace R. Wilson P.E.



PROJECT LOCATION			
CITY	COUNTY	STATE	
BEAUMONT	JEFFERSON	TEXAS	
WATERSHED	DITCH NO.	SHEET	
100	108-A	RDT05	




*All Prop. Reinforced Concrete Pavement shall be Class-P 8-Inches Thick.

*All Prop. Reinforced Drilled Shafts shall be Class-C.

*See TxDOT Details for Pavement Reinforcement and Joint Details.


- Construction Notes:**
- Refer to Mueller, Inc. Steel Building Systems and Components Construction Drawing for:
 - A. Typ. Overhead Door Recess
 - B. Typ. Sheeting Recess with & without Base Drip Edge Trim
 - C. Anchor Bolt Plan and Anchor Bolt Details.
 - Refer to TWE Report No. 122004 for Drilled Footing Installation Procedures.

PROJECT LOCATION			
CITY	COUNTY	STATE	
BEAUMONT	JEFFERSON	TEXAS	
WATERSHED	DITCH NO.	SHEET	
100	109-A	RDT07	

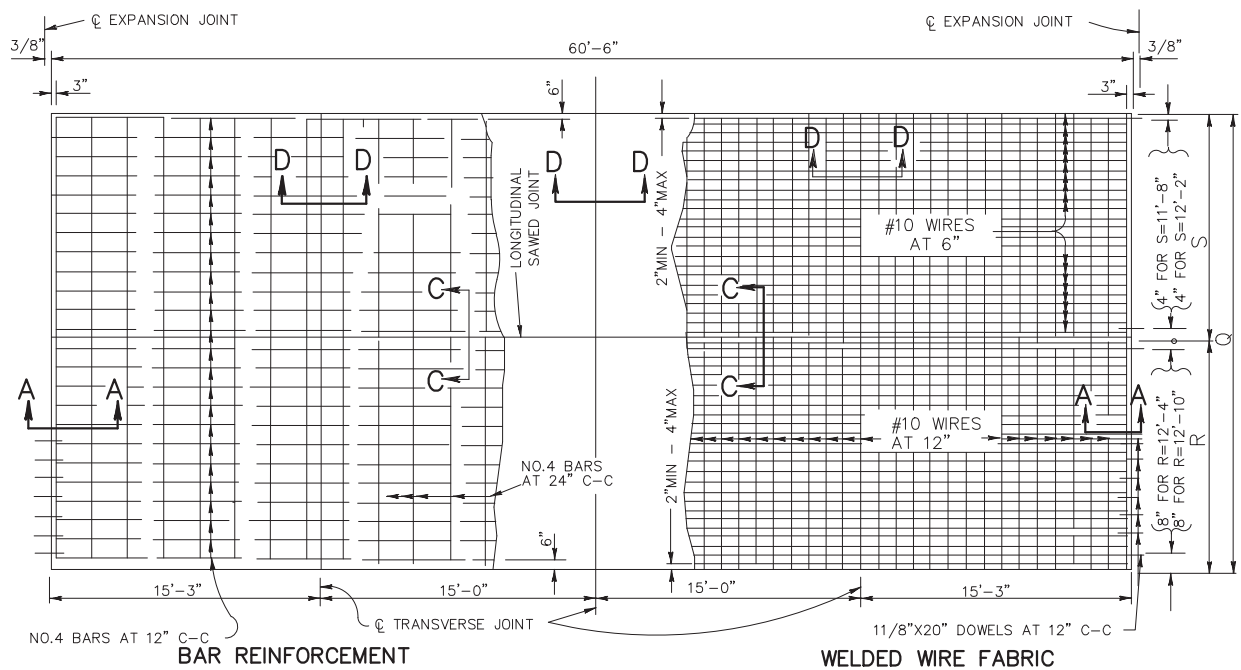


DD6 Fleet Maintenance Building
Joint Layout

WALLACE R. WILSON, P.E. No. 84857
Wallace R. Wilson P.E. DATE 05/25/2021

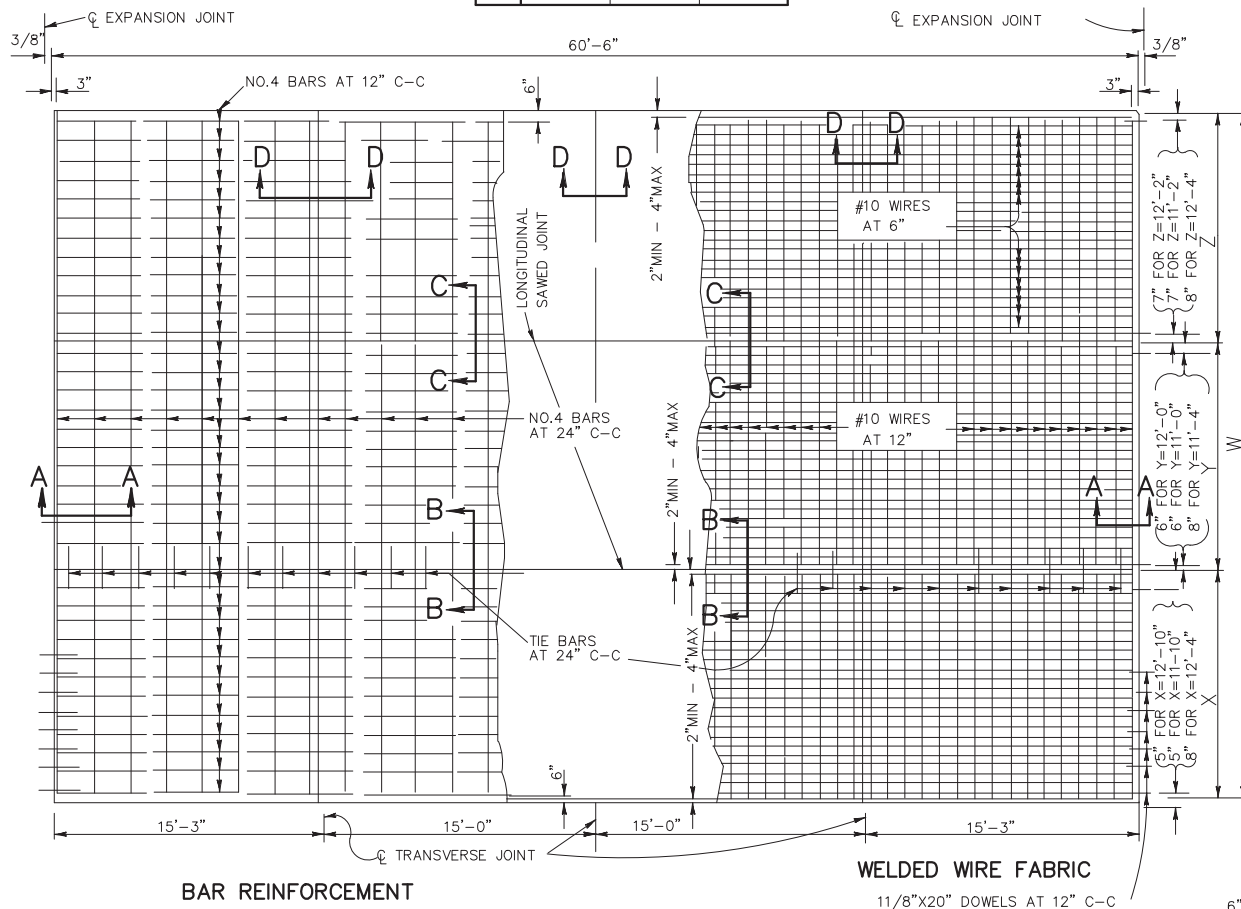


NO.	DATE	DRN	REVISION	APPROV.
6				
5				
4				
3				
2				
1				



TWO LANE PAVEMENT PLAN

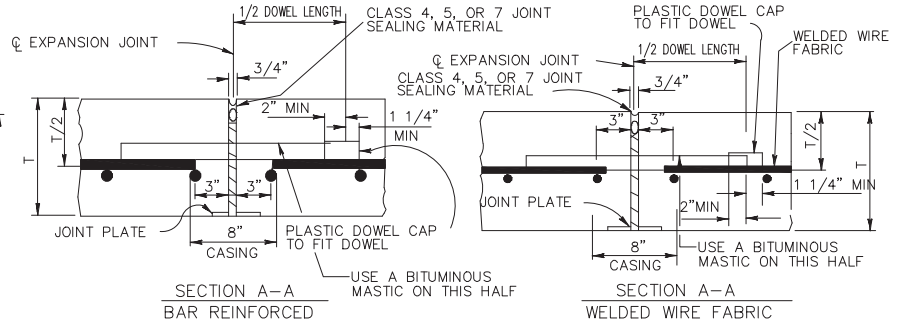
WIDTH - Q		
	24'-0"	24'-6"
R	12'-4"	12'-4"
S	11'-8"	12'-2"



THREE LANE PAVEMENT PLAN

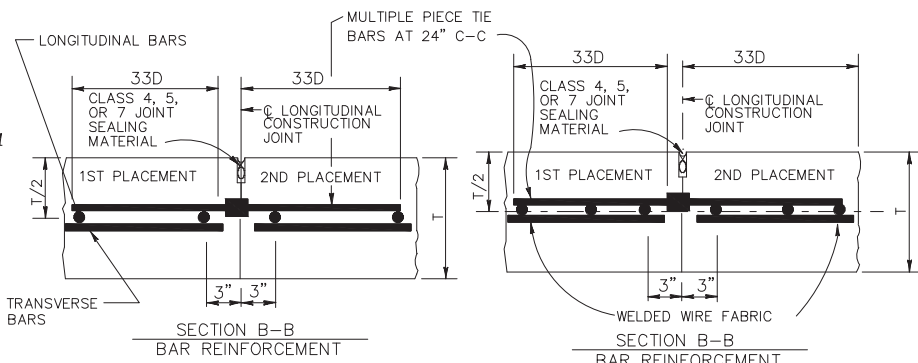
WIDTH - W		
	37'-0"	36'-0"
X	12'-10"	12'-4"
Y	12'-0"	11'-4"
Z	12'-2"	12'-4"

D = DIAMETER
R = RADIUS
T = THICKNESS

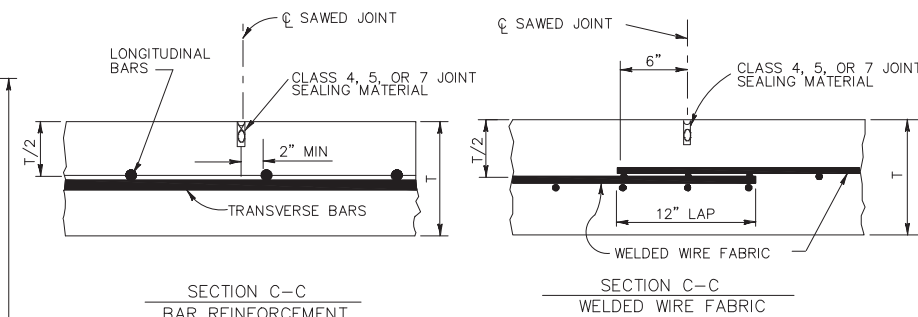


TRANSVERSE EXPANSION JOINTS

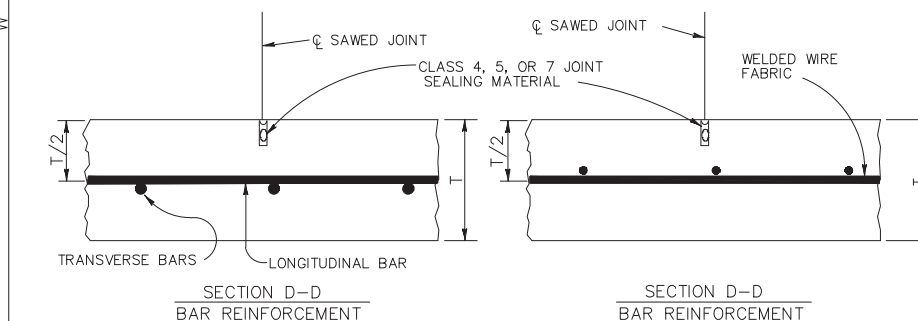
NOTE: DOWEL BARS CONFORMING TO ASTM A615 OR A616 GRADE 60 ARE ACCEPTABLE



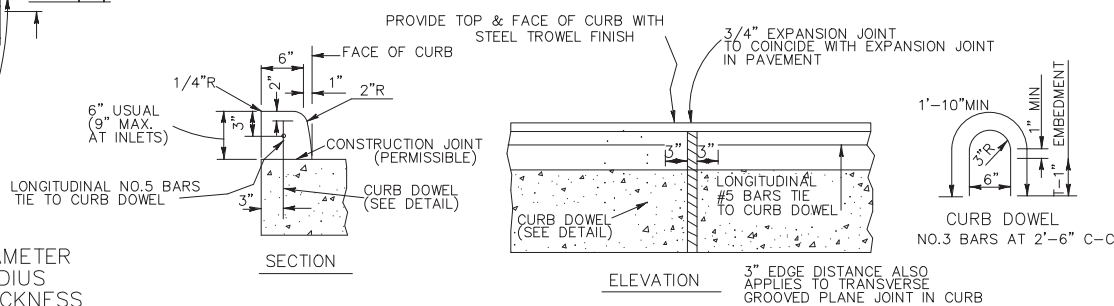
LONGITUDINAL CONSTRUCTION JOINTS



LONGITUDINAL SAWED JOINTS



TRANSVERSE SAWED JOINTS



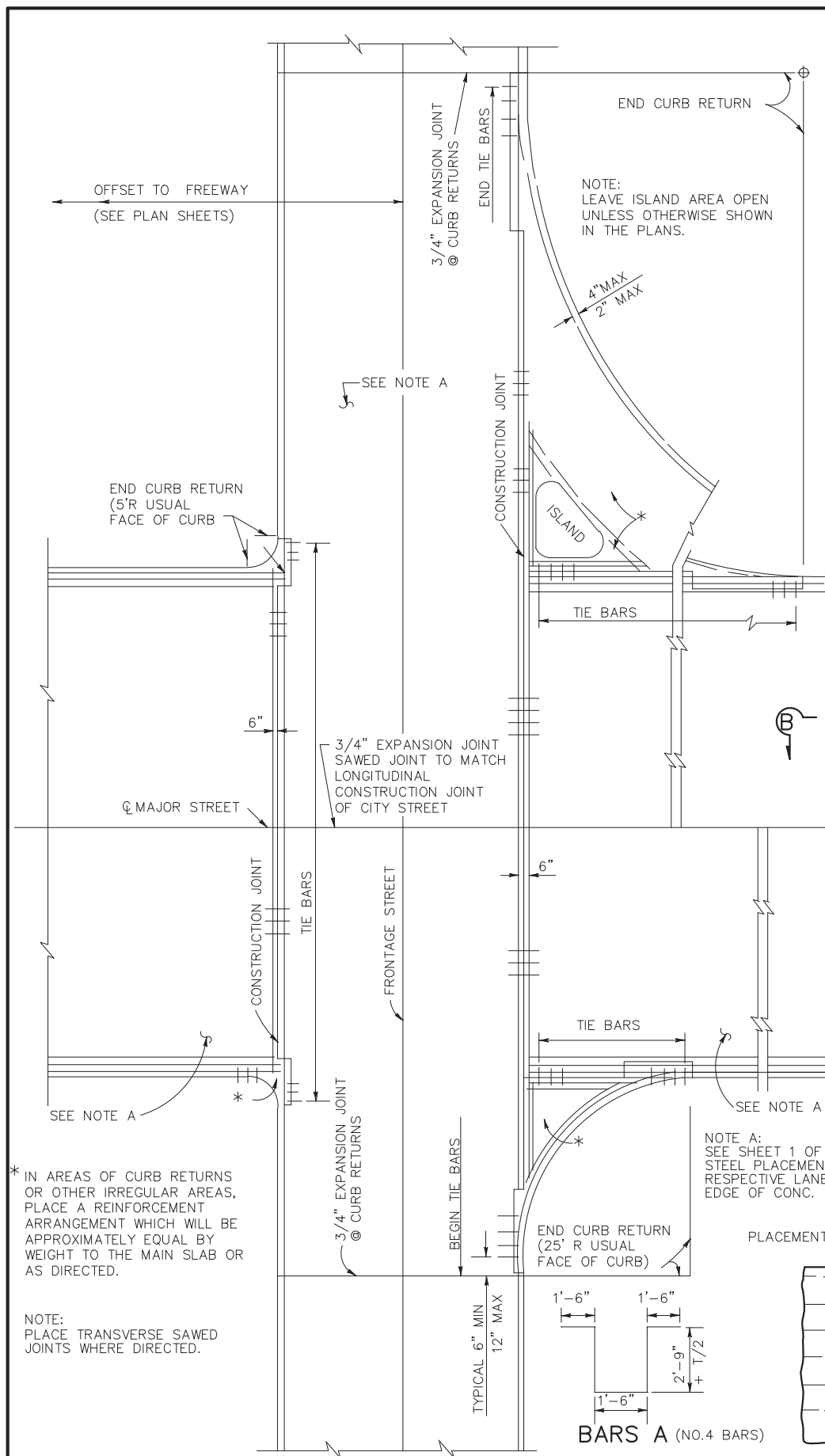
TYPICAL 6" CURB (DETAIL)

GENERAL NOTES

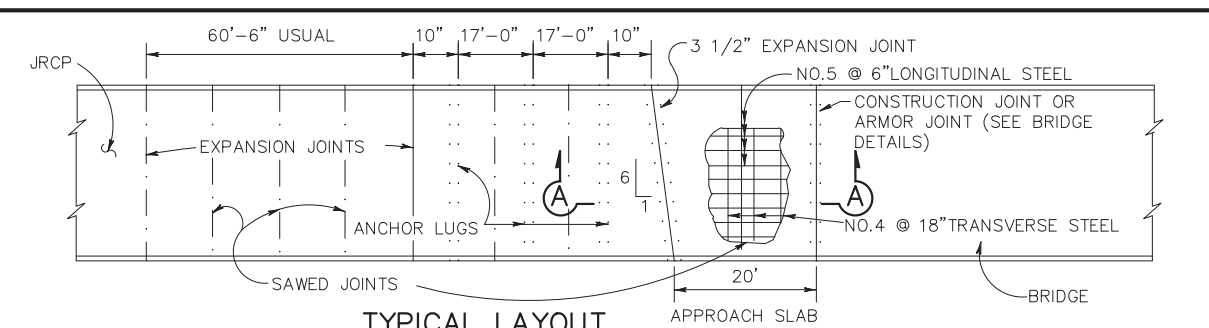
- MULTIPLE PIECE TIE BARS ARE REQUIRED AT LONGITUDINAL CONSTRUCTION JOINTS. USE MULTIPLE PIECE TIE BAR ASSEMBLIES WITH STOP TYPE COUPLINGS AND WITH THREADS ON THE BARS. ENSURE THE MULTIPLE PIECE TIE BAR ASSEMBLIES DEVELOP A MINIMUM ULTIMATE TENSILE STRENGTH EQUAL TO 1.25 TIMES THE YIELD STRENGTH OF THE TRANSVERSE BARS BEING JOINED. USE DEFORMED REINFORCING BARS FOR TIE BARS. TIE BAR ASSEMBLIES MADE FROM STEELS OTHER THAN ASTM GRADE 60 AND WITH DEFORMATIONS OTHER THAN ASTM STANDARD MAY BE USED IF IT CAN BE PROVEN TO THE ENGINEER THAT THEY ARE IN EVERY RESPECT THE EQUAL OF THE ASSEMBLIES SPECIFIED. LABORATORY TESTING OF THE PROPOSED ASSEMBLIES, AT THE CONTRACTOR'S EXPENSE, MAY BE REQUIRED.
- FORM CONSTRUCTION JOINTS WITH METAL OR WOOD FORMS EQUAL IN DEPTH TO THE NOMINAL DEPTH OF THE PAVEMENT OR BY OTHER MEANS APPROVED PRIOR TO THEIR USE.
- SAW LONGITUDINAL AND TRANSVERSE JOINTS AS SOON AS SAWING CAN BE ACCOMPLISHED WITHOUT DAMAGE TO THE PAVEMENT AND BEFORE 24 HOURS AFTER PLACING THE CONCRETE, THE EXACT TIME WILL BE APPROVED BY THE ENGINEER. PREFORMED JOINT WITH ASPHALT STRIP IS NOT ACCEPTABLE.
- LONGITUDINAL JOINTS ARE SHOWN OFFSET FOUR INCHES FROM THE THEORETICAL LANE LINE AND MAY BE OFFSET TO EITHER SIDE IF THE WIDTH OF THE WIRE FABRIC IS PROPERLY ADJUSTED.
- ONE OF THE LONGITUDINAL JOINTS OF PAVEMENT SLABS WIDER THAN TWO LANES MAY BE A CONSTRUCTION JOINT. FOR PAVEMENT SLABS WIDER THAN 15 FT. PROVIDE A LOGITUDINAL SAWED JOINT UNLESS OTHERWISE DIRECTED.
- FORM THE JOINT SEAL SPACE AT TRANSVERSE EXPANSION JOINTS BY USING A STRAIGHT FORM PLACED BEHIND THE LONGITUDINAL FLOAT. LOOSEN THE FORM AS SOON AS THE CONCRETE WILL RETAIN ITS SHAPE AND EDGE WITH AN APPROVED EDGING TOOL. TOOL BOTH EDGES OF LONGITUDINAL CONSTRUCTION JOINTS TO A 1/8IN. RADIUS AT THE PAVEMENT SURFACE.
- DO NOT DISCHARGE CONCRETE FROM THE MIXER DIRECTLY ON TOP OF OR ON THE SIDES OF THE EXPANSION JOINT ASSEMBLIES.
- LAP TRANSVERSE EDGES OF SHEETS OF WELDED WIRE FABRIC 12 INCHES EXCEPT AT TRANSVERSE EXPANSION JOINTS. LAP LONGITUDINAL EDGES 6 INCHES EXCEPT AT LONGITUDINAL CONSTRUCTION JOINTS.
- DOWEL BARS MAY BE COATED WITH STAINLESS STEEL, MONEL METAL, OR IN ACCORDANCE WITH THE ITEM "REINFORCING STEEL" SECTION ON EPOXY COATING; WITH A WELDED DOWEL ASSEMBLY SUPPORT, AS APPROVED. ENSURE THE CASING CONFORMS TO THE REQUIREMENTS OF ONE OF THE GRADES OF ASTM A167-70 OR A176-71 AND IS NOT LESS THAN 0.010 INCH THICK. PROVIDE A CASING AT LEAST 8 INCHES LONG AND THAT COVERS THE MIDDLE 8 INCHES OF THE DOWEL.
- SECURE DOWELS PARALLEL TO THE PAVEMENT SURFACE AND PERPENDICULAR TO THE JOINT WITH THE AID OF APPROVED WELDED WIRE BASKET ARRANGEMENTS. ENSURE WELDED WIRE BASKET ARRANGEMENTS DO NOT CROSS THE EXPANSION JOINT. UNIFORMLY COAT DOWELS WITH A BITUMINOUS MASTIC ON THE END WITH THE DOWEL CAP.
- DO NOT BEND TIE BARS AND DOWEL BARS. TO PREVENT DISPLACEMENT OF WIRE FABRIC BY CONCRETE PLACEMENT, TIE THE FABRIC PANEL TOGETHER AND TIE THE INITIAL FABRIC PANELS OF EACH SLAB TO THE DOWEL BASKET OR AS DIRECTED.
- TOOL PAVEMENT EDGES TO A RADIUS OF 1/8 IN. WITH AN APPROVED EDGING TOOL.
- DETAILS FOR PAVEMENT WIDTH, PAVEMENT THICKNESS, AND CROWN-SLOPE ARE ELSEWHERE SHOWN ON THE PLANS.
- THE CONTRACTOR HAS THE OPTION OF USING WELDED WIRE FABRIC OR BAR REINFORCEMENT. LOCATE THE LONGITUDINAL STEEL AT THE CENTER OF THE SLAB. TAKE NECESSARY PRECAUTIONS TO INSURE THAT THE FINAL POSITION OF STEEL IS WITHIN 1/2 IN. OF THE SLAB CENTER. ENSURE THE LONGITUDINAL AND TRANSVERSE STEEL SPACING DOES NOT VARY MORE THAN ONE-TWELFTH OF SPACING SHOWN.
- LONGITUDINAL STEEL MAY BE SPLICED WITH 33 TIMES BAR DIAMETER LAPS.
- FOR LANE WIDTHS NOT SHOWN OR FOR VARIABLE PANEL LENGTHS AND WIDTHS, SPACE REINFORCING STEEL AND DOWELS AS DIRECTED.
- USE APPROVED BAR MAT CHAIRS. DO NOT EXCEED CHAIR SPACING OF 30 IN. C-C (TRANSVERSE) AND 48 IN. C-C (LONGITUDINAL). GALVANIZING THE CHAIRS IS NOT REQUIRED.
- OBTAIN BOARDS FOR EXPANSION JOINT FILLER FROM REDWOOD TIMBER.
- PROVIDE AND CONSTRUCT THE JOINT PLATE AS APPROVED.
- WHEN CURB IS PLACED SEPARATELY FROM THE CONCRETE PAVEMENT, PROVIDE THE REINFORCING STEEL AS SHOWN IN THE CURB DETAIL. THE CURB REINFORCING STEEL MAY BE OMITTED WHEN THE CURB IS PLACED MONOLITHICALLY.

(GENERAL NOTES CONTINUED ON SHEET 2 OF 2)

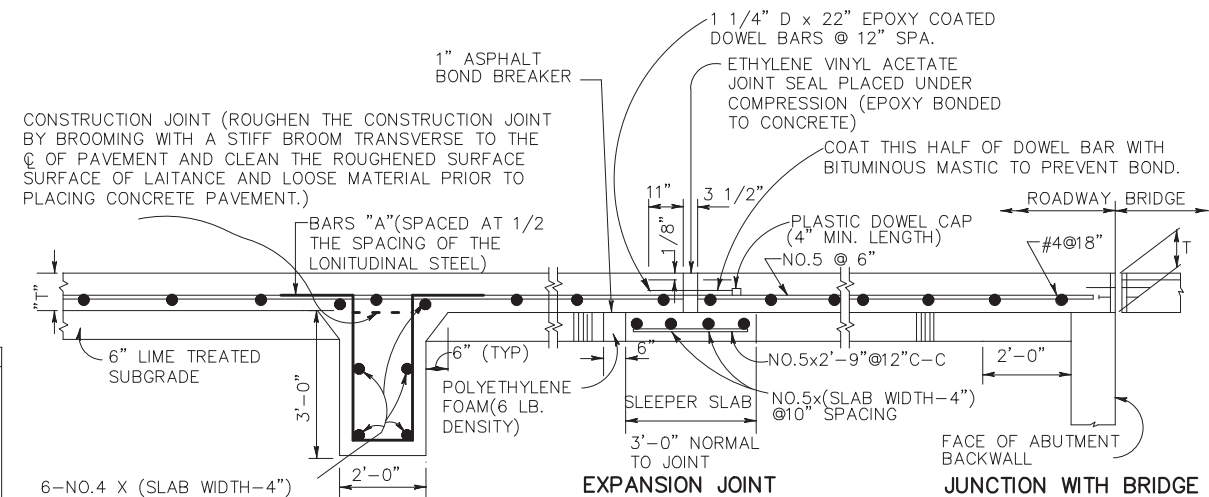
Texas Department of Transportation Houston District									
JOINTED REINFORCED CONCRETE PAVEMENT DETAILS (FOR PAVEMENT THICKNESS 10 INCHES OR LESS)									
JRCP									
SHEET 1 OF 2									
FILE: STDB-2.dgn	DN:	CK:	DW:	CK:					
© TxDOT MAR.2004	DIST	FED REG	PROJECT NO.		SHEET				
REVISIONS 5/05 2004 SPECS 7/2010 ADDED NOTE 8/2015 MODIFIED NOTES		HOU	6						
		COUNTY	CONTROL	SECT	JOB	HIGHWAY			



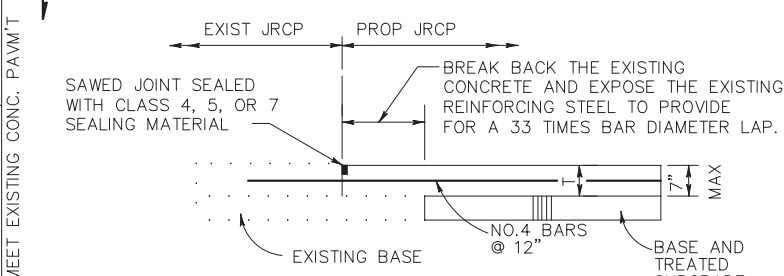
INTERSECTION OF MAJOR STREET WITH FRONTAGE STREET
TYPICAL REINFORCING PLAN



TYPICAL LAYOUT
(TERMINAL ANCHORAGE AT BRIDGES)

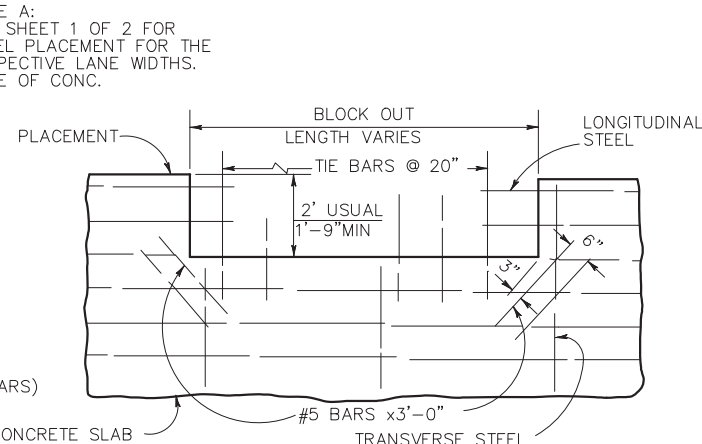


SECTION A-A

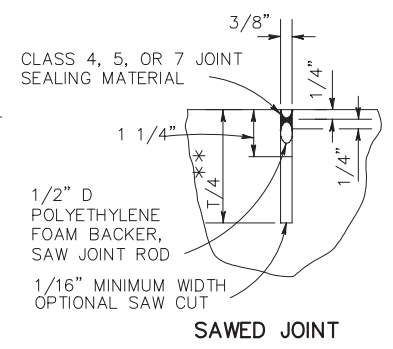


SECTION B-B
(FOR PROPOSED PAVEMENT DEPTHS OF 7" MAX)

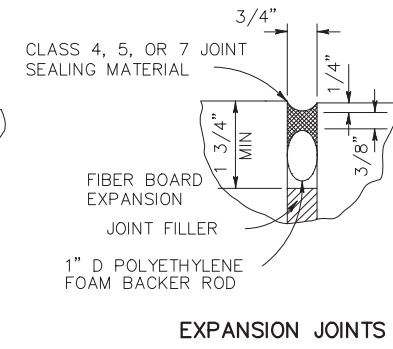
REPLACE ANY BENT LONGITUDINAL REINFORCING. IF THERE IS NOT SUFFICIENT EXPOSED REINFORCING TO PROVIDE A MINIMUM OF A 33 TIMES BAR DIAMETER LAP, REMOVE THE EXISTING PAVEMENT AND SUFFICIENTLY EXPOSE THE EXISTING REINFORCING TO PROVIDE A 33 TIMES BAR DIAMETER LAP. REPLACE ANY SHEAR BARS THAT ARE DISTURBED, BY DRILLING AND GROUTING AS REQUIRED BY NOTE #29. PERFORM THIS CORRECTIVE ACTION AT NO EXPENSE TO THE DEPARTMENT.



DETAIL OF BLOCKOUT



SAWED JOINT

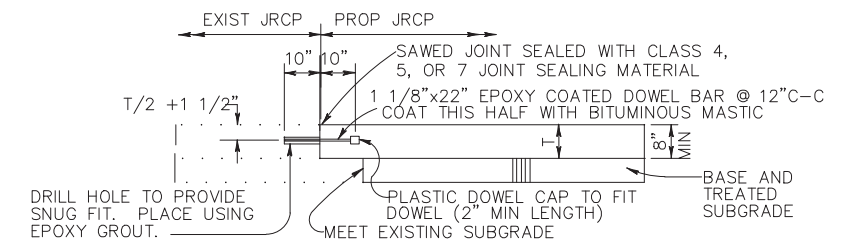


EXPANSION JOINTS

** IF SILICEOUS RIVER GRAVEL IS USED AS THE COARSE AGGREGATE, THIS DEPTH IS T/3.

JOINT SEALING DETAILS

- GENERAL NOTES (CONTINUED FROM SHEET 1 OF 2)
- CONSTRUCT ANCHOR LUGS, EXPANSION JOINTS, AND SLEEPER SLABS AS DETAILED IN SECTION A-A. THESE WILL BE PAID FOR IN ACCORDANCE WITH ITEM, "CONCRETE PAVEMENT TERMINALS."
 - REINFORCING STEEL FOR TERMINAL ANCHOR SYSTEMS MAY BE GRADE 40 OR GRADE 60.
 - PLACE CONCRETE FOR ANCHOR LUGS AS SOON AS POSSIBLE AFTER COMPLETING EXCAVATION, TO PRESERVE THE INHERENT SOIL CHARACTERISTICS. EXCAVATING FOR AND PLACING CONCRETE FOR ANCHOR SYSTEM MAY BE IN PREFORMED SECTIONS CORRESPONDING TO THE WIDTH OF PAVING PLACEMENT.
 - APPLY A STEEL TROWEL FINISH TO SLEEPER SLABS AND AND COAT WITH AN ASPHALT BOND BREAKER.
 - THE DETAILS FOR ANCHORS, LUGS, EXPANSION JOINTS, AND SLEEPER SLABS ARE NOT APPLICABLE UNLESS SHOWN ELSEWHERE IN THE PLANS.
 - APPROACH SLAB WILL BE PAID FOR IN ACCORDANCE WITH THE ITEM "CONCRETE STRUCTURES."
 - WITHIN 5 MINUTES OF SAWING, COMPLETELY REMOVE THE RESULTING SLURRY FROM THE JOINT BY FLUSHING WITH HIGH PRESSURE WATER. THEN ALLOW THE JOINT TO DRY FOR A MINIMUM OF 48 HOURS BEFORE SANDBLASTING THE JOINT.
 - DO NOT SHEAR CUT DOWEL BARS.
 - SIZE ADDITIONAL SHEAR BARS AS LONGITUDIAL BARS AND SPACE THEM MIDWAY BETWEEN ALTERNATE LONGITUDINAL BARS ALONG THE TRANSVERSE CONSTRUCTION JOINT FORMED AT THE LEAVE-OUT.
 - IF THE CONCRETE DESIGN REQUIRES GREATER THAN 5.5 SACKS OF CEMENTITIOUS MATERIAL PER CUBIC YARD, WRITTEN APPROVAL BY THE AREA ENGINEER WILL BE REQUIRED. ENSURE CONCRETE PAVEMENT MIXES PLACED FROM APRIL 1 TO OCTOBER 31 CONTAIN A MINIMUM OF 25 PERCENT BY WEIGHT OF CLASS "F" FLY ASH.
 - IN LOCATIONS WHERE THE PLANS CALL FOR FAST TRACK CONCRETE PAVEMENT IN LIEU OF JRCP (LAID ON COMPACTED OR STABILIZED SUBGRADE), USE DETAILS IN THIS STANDARD IN CONJUNCTION WITH THE APPROPRIATE FAST TRACK CONCRETE SPECIFICATION. IF THE JRCP IS LAID UPON A BASE STRUCTURE, ADD 3" TO THE FAST TRACK PAVEMENT THICKNESS TO COMPENSATE FOR THE BASE.



SECTION B-B
(FOR PROPOSED PAVEMENT DEPTHS OF 8" MIN)

Texas Department of Transportation
Houston District

JOINTED REINFORCED CONCRETE PAVEMENT DETAILS

EXPANSION JOINT DESIGN
(FOR PAVEMENT THICKNESS 10 INCHES OR LESS)

JRCP

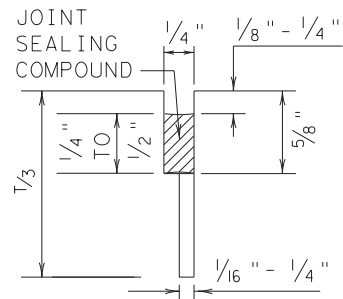
SHEET 2 OF 2

FILE: STDB-2.dgn	DN:	CK:	DW:	CK:
© TxDOT MAR. 2004	DIST	FED REG	PROJECT NO.	SHEET
REVISIONS 5/05 2004 SPECS 7/2010 ADDED NOTE 9/2013 ADDED NOTE 8/2015 MODIFIED NOTES	HOU	6	COUNTY	CONTROL SECT JOB HIGHWAY

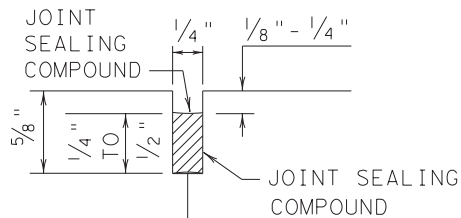
DISCLAIMER:
The use of this standard is governed by the "Texas Engineering Practice Act". No warranty of any kind is made by TxDOT for any purpose whatsoever. TxDOT assumes no responsibility for the conversion of this standard to other formats or for incorrect results or damages resulting from its use.

DATE:
FILE:

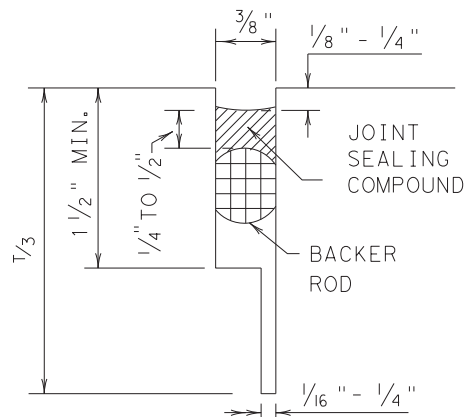
METHOD B: JOINT SEALING COMPOUND



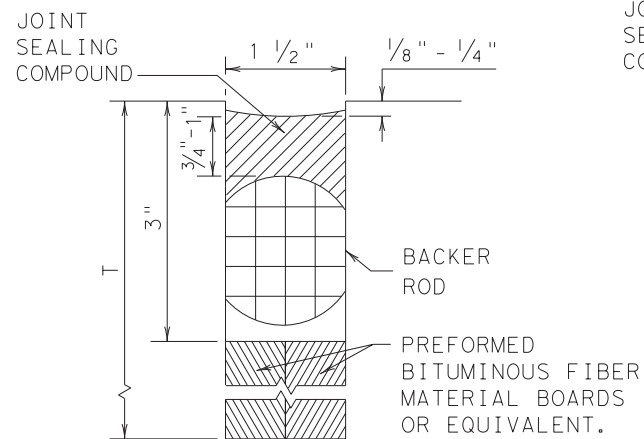
LONGITUDINAL SAWED
CONTRACTION JOINT



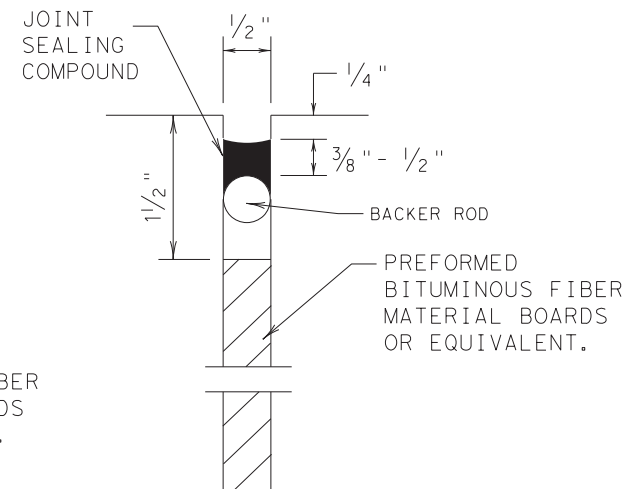
LONGITUDINAL OR TRANSVERSE
CONSTRUCTION JOINT



TRANSVERSE SAWED
CONTRACTION JOINT

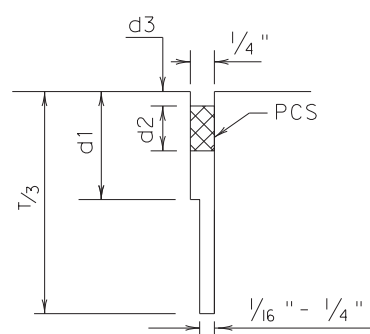


TRANSVERSE FORMED
EXPANSION JOINT

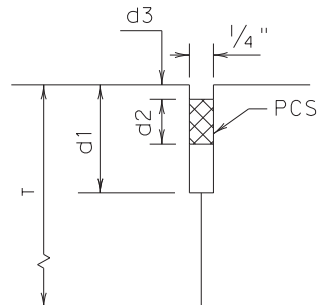


FORMED
ISOLATION JOINT

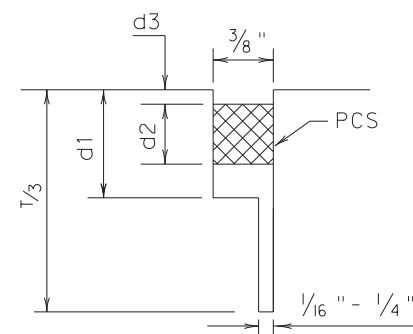
METHOD A: PREFORMED COMPRESSION SEALS (PCS) (DMS-6310 CLASS 6)



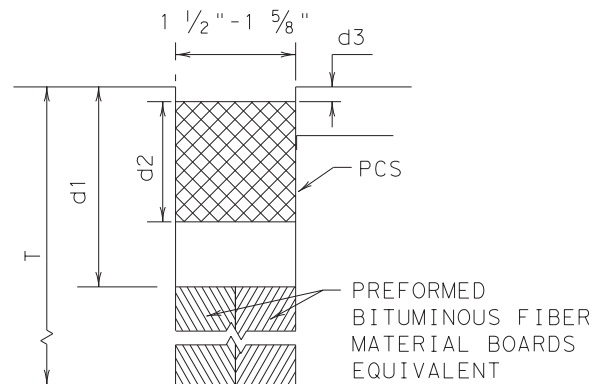
LONGITUDINAL SAWED
CONTRACTION JOINT



LONGITUDINAL
CONSTRUCTION JOINT




TRANSVERSE SAWED
CONTRACTION JOINT



TRANSVERSE FORMED
EXPANSION JOINT

GENERAL NOTES

1. UNLESS OTHERWISE SHOWN IN THE PLANS, EITHER METHOD "A" OR METHOD "B" MAY BE USED.
2. THE LOCATION OF JOINTS SHALL BE AS SHOWN ELSEWHERE IN THE PLANS.
3. THE JOINT RESERVOIR FOR SEALANT OR PCS SHALL BE SAWED UNLESS OTHERWISE SHOWN ON THE PLANS FOR THE LONGITUDINAL AND TRANSVERSE CONSTRUCTION JOINTS AND THE SAWED JOINTS.
4. DIMENSIONS d1, d2, AND d3 SHOWN IN METHOD A SHALL BE IN ACCORDANCE WITH THE PREFORMED COMPRESSION SEAL MANUFACTURER'S RECOMMENDATION.
5. REFER TO DMS-6310 "JOINT SEALANTS AND FILLERS" FOR THE CLASSIFICATIONS.
6. FOR SAWED LONGITUDINAL JOINT, LONGITUDINAL OR TRANSVERSE CONSTRUCTION JOINT, USE JOINT SEALANT CLASS 5 OR 8 UNLESS OTHERWISE SHOWN ON THE PLAN OR APPROVED.
7. FOR TRANSVERSE SAWED CONTRACTION, TRANSVERSE FORMED EXPANSION JOINT, AND ISOLATION JOINT USE JOINT SEALANT CLASS 5 OR 8 AT NEW JOINTS. USE JOINT SEALANT CLASS 4,5,7,OR 8 FOR MAINTAINING EXISTING JOINTS.
8. THE JOINTS SHALL BE CLEANED IN ACCORDANCE WITH THE ITEM 438 "CLEANING AND SEALING JOINTS" OR ITEM 713 "CLEANING AND SEALING JOINTS AND CRACKS (CONCRETE PAVEMENT)".
9. ISOLATION JOINTS ACCOMMODATE HORIZONTAL AND VERTICAL MOVEMENTS THAT OCCUR BETWEEN A PAVEMENT AND A STRUCTURE. ISOLATION JOINTS MAY BE USED FOR BRIDGE ABUTMENTS, INTERSECTIONS, CURB AND GUTTER, OLD AND NEW PAVEMENTS, OR AROUND DRAINAGE INLETS, MANHOLES, FOOTINGS AND LIGHTING STRUCTURES.

 <i>Texas Department of Transportation</i>				<i>Design Division Standard</i>	
<div>CONCRETE PAVING DETAILS</div> <div>JOINT SEALS</div> <div>JS-14</div>					
FILE: js14.dgn		DN: TxDOT	DN: HC	DW: HC	CK: AN
© TxDOT: DECEMBER 2014		CONT	SECT	JOB	HIGHWAY
REVISIONS		DIST		COUNTY	SHEET NO.

GENERAL NOTES

THE STRUCTURE UNDER THIS CONTRACT HAS BEEN DESIGNED AND DETAILED FOR THE LOADS AND CONDITIONS STIPULATED IN THE CONTRACT AND SHOWN ON THESE DRAWINGS. ANY ALTERATIONS TO THE STRUCTURAL SYSTEM, REMOVAL OF ANY COMPONENT PARTS, OR THE ADDITION OF OTHER CONSTRUCTION MATERIALS OR LOADS MUST BE DONE UNDER THE ADVICE AND DIRECTION OF A REGISTERED ARCHITECT, CIVIL OR STRUCTURAL ENGINEER. THE BUILDING MANUFACTURER WILL ASSUME NO RESPONSIBILITY FOR ANY LOADS NOT INDICATED.

THIS METAL BUILDING IS DESIGNED WITH THE BUILDING MANUFACTURER'S STANDARD PRACTICES WHICH ARE BASED ON PERTINENT PROCEDURES AND RECOMMENDATIONS OF THE FOLLOWING ORGANIZATIONS AND CODES AS APPLICABLE

1. AMERICAN INSTITUTE OF STEEL CONSTRUCTION, SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS
2. AMERICAN IRON AND STEEL INSTITUTE, SPECIFICATION FOR THE DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS.
3. AMERICAN WELDING SOCIETY, STRUCTURAL WELDING CODE AWS D1.1
4. METAL BUILDING MANUFACTURER'S ASSOCIATION, LOW RISE BUILDING SYSTEMS MANUAL
5. INTERNATIONAL CODE COUNCIL: INTERNATIONAL BUILDING CODE

ALL WELDING ELECTRODES SHALL BE A233 CLASS E-70 SERIES. MINIMUM WELDS ON PRIMARY STRUCTURAL MEMBERS SHALL BE 3/16 FILLET WELDS UNLESS SHOWN OTHERWISE ON SHOP FABRICATION DRAWINGS.

ALL STRUCTURAL STEEL SHALL BE SHOP FABRICATED UNLESS NOTED.

MATERIAL PROPERTIES OF STEEL PLATE AND SHEET USED IN THE FABRICATION OF PRIMARY RIGID FRAMES AND ALL PRIMARY STRUCTURAL FRAMING MEMBERS (OTHER THAN COLD-FORMED SECTIONS) CONFORM TO THE CHEMISTRY REQUIREMENTS OF ASTM-A36 WITH MINIMUM YIELD POINT OF 50,000 P.S.I. OR 36,000 P.S.I. AS REQUIRED BY DESIGN.

MATERIAL PROPERTIES OF COLD FORMED LIGHT GAGE STEEL MEMBERS CONFORM TO THE REQUIREMENTS OF A.S.T.M. A-570, GRADE 55. WITH A MINIMUM YIELD POINT OF 57,000 P.S.I.

ALL PIPE SHALL BE MINIMUM SCHEDULE 40 AND 36,000 P.S.I. UNLESS OTHERWISE NOTED.

CABLE BRACING TO BE "BRACE GRIP" SYSTEM AS MANUFACTURED BY FLORIDA WIRE AND CABLE COMPANY. EHS CABLE OR EQUAL. BRACING IN FLUSH GIRT SIDEWALL / ENDWALL BAYS MAY REQUIRE THE FIELD CUTTING OF SLOTS SO THAT CABLE IS INSTALLED WITHIN GIRTS.

STRUCTURAL JOINTS WITH A.S.T.M. A-325 HIGH STRENGTH BOLTS, WHERE INDICATED ON THE DRAWINGS, SHALL BE ASSEMBLED AND THE FASTENERS TIGHTENED IN ACCORDANCE WITH "SNUG-TIGHT" METHOD AS DESCRIBED IN THE SPECIFICATION FOR STRUCTURAL JOINTS USING A.S.T.M. A-325 OR A-490 BOLTS (JUNE 30, 2004 EDITION), UNLESS OTHERWISE NOTED. ALL JOINTS WILL BE ASSEMBLED WITHOUT WASHERS UNLESS OTHERWISE NOTED.

ALL STEEL MEMBERS EXCEPT BOLTS AND FASTENERS SHALL RECEIVE ONE SHOP COAT OF IRON OXIDE CORROSION INHIBITIVE PRIMER.

SHOP AND FIELD INSPECTIONS AND ASSOCIATED FEES ARE THE RESPONSIBILITY OF THE CONTRACTOR.

UNLESS OTHERWISE NOTED, ALL SCREWED-DOWN ROOF AND WALL PANELS ARE TO BE INSTALLED USING A MINIMUM OF ONE SCREW PER FOOT AT EACH PURLIN / GIRT AND ONE STITCH SCREW EVERY 24 INCH ALONG THE PANEL LAPS AND ENDS AS DESCRIBED IN THE INSTALLATION MANUAL. SINCE BEARING FRAME ENDWALLS DEPEND ON DIAPHRAGM STRENGTH TO PROVIDE LATERAL SUPPORT, THE NUMBER AND SIZE OF FIELD INSTALLED OPENINGS IN THESE WALLS MAY BE LIMITED. SEE THE APPLICABLE WALL DRAWING OR CONTACT YOUR SALES REPRESENTATIVE FOR MORE INFORMATION.

BUILDING DESCRIPTION

BLDG	WIDTH		LENGTH		HEIGHT		ROOF PITCH	
					BACK	FRONT	BACK	FRONT
1	50'-0"	X	250'-0"	X	16'-8"	16'-8"	1.00:12	1.00:12

INSTALLATION NOTE

For videos and manuals to help you with the erection of your building, visit our website: www.muellerinc.com

Go to the "Downloads" tab near the top of the page and click on "Videos" or "Manuals". These will help you with topics from site planning and safety through erection and installation of accessories.

WARRANTY NOTE

ENGINEERING CALCULATIONS AND DESIGN ARE BASED ON PRE-FABRICATED METAL BUILDING(S) AS SHOWN IN THESE DRAWINGS AND SUPPLIED BY MUELLER, INC. AND ANY FIELD FABRICATION AND/OR MODIFICATION OF SAID BUILDING(S) IS THE SOLE RESPONSIBILITY OF THE CUSTOMER AND MAY VOID ALL ENGINEERING AND WARRANTY.

PRODUCT CERTIFICATIONS

THIS IS TO CERTIFY THE ABOVE REFERENCED BUILDING HAS BEEN DESIGNED IN ACCORDANCE WITH A.I.S.C. AND A.I.S.I. DESIGN PROCEDURES AND GOOD ENGINEERING PRACTICE AND FOR THE FOLLOWING LOADS. ALL WELDING IS PER THE A.W.S. D1.1 & D1.3 CODES. LOADS ARE APPLIED IN ACCORDANCE WITH THE M.B.M.A. LOW RISE BUILDING SYSTEMS MANUAL. AND THE DESIGN SATISFIES THE REQUIREMENTS OF IBC'15

DEAD LOAD: METAL BLDG STRUCTURE ONLY AS FURNISHED BY MUELLER, INC.

LIVE LOAD (ROOF): 20.0 (psf)

GROUND SNOW LOAD: $P_g = 0.0$ (psf)

LIVE LOAD REDUCED PER CODE? YES

ROOF SNOW LOAD (Flat): $P_f = 0.0$ (psf)

WIND EXPOSURE: C

$C_e = 1.0$ $I_s = 1.0$

RISK CATEGORY: II - Normal

WIND LOAD: $V_{ULT} = 138.0$ MPH

$V_{ASD} = 106.9$ MPH

SEISMIC LOADS

$I_e = 1.0$

SEISMIC DESIGN CATEGORY: B

$S_s = 0.082$ $S_{DS} = 0.088$

SITE CLASS: D

$S_1 = 0.044$ $S_{D1} = 0.070$

ANALYSIS PROCEDURE: Equivalent Lateral Force Method

BUILDING-SPECIFIC LOADING INFORMATION

BLDG	Collateral Load (psf)	SNOW		Roof (Sloped)		WIND		SEISMIC	
		C_t	C_s	P_s (psf)	Enclosure	GCr_1	R	C_s	V (kips)
1	0.0	1.0	1.0	0.00	Enclosed	± 0.18	3.25	0.027	1.85

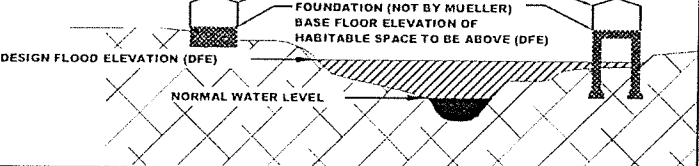
THIS LETTER OF CERTIFICATION APPLIES SOLELY TO THIS BUILDING AND ITS COMPONENT PARTS AS FURNISHED AND/OR FABRICATED BY MUELLER, INC. AND SPECIFICALLY EXCLUDES FOUNDATION, MASONRY OR GENERAL CONTRACT WORK INCLUDING ERECTION CERTIFICATION. THE DESIGN AND CERTIFICATION FOR THIS PROJECT IS IN ACCORDANCE WITH THE PROVISIONS AND LOADS SPECIFIED ON THE CONTRACT DOCUMENTS. THE CUSTOMER IS TO INSURE ALL LOADS ARE IN COMPLIANCE WITH LOCAL REGULATORY AUTHORITIES. ALL COMPONENTS AND PARTS MUST WITHSTAND THE WIND LOAD AND DESIGN SPECIFICATIONS MENTIONED ABOVE.

PANEL ACCESSORY INFORMATION

	PANEL TYPE	PANEL COLOR	TRIM COLOR
WALL SHEETS	126_R	TAN Tan	BRN Cocoa Brown
ROOF SHEETS	126_PBR	GP Galvalume Plus	BRN Cocoa Brown

WARNING: IN NO CASE SHOULD GALVALUME STEEL PANELS BE USED IN CONJUNCTION WITH LEAD OR COPPER. BOTH LEAD AND COPPER HAVE HARMFUL CORROSION EFFECTS ON THE ALUMINUM ZINC ALLOY COATING WHEN THEY ARE USED IN CONTACT WITH GALVALUME STEEL PANELS. EVEN RUN-OFF FROM COPPER FLASHING, WIRING, OR TUBING ONTO GALVALUME SHOULD BE AVOIDED.

FLOOD HAZARD WARNING



Our review of the jobsite location has determined that the property may be in a flood zone. It is recommended that a Licensed Professional Surveyor be contracted to determine the required foundation height to ensure this project job site meets all building code requirements regarding the Design Flood Elevation (DFE). This building HAS NOT been designed to withstand flood loads and thus, this building may not be erected in a flood zone below the Design Flood Elevation (DFE).

Doing so voids all Mueller, Inc. engineering and warranty.

These instructions should always be transferred with building at change of ownership.

WARNING!

Failure to comply with above instructions will void engineering for the structure and could result in property damage, personal injury and/or death.

Erosion and scour and other jobsite specific design considerations are not part of the design by Mueller, Inc. and should be addressed by the Design Professional in Responsible Charge of this project and/or the Professional of Record for this project's foundation design. Design of building foundation and areas below DFE are not by Mueller, Inc. and must comply with FEMA Technical Bulletins 1-11 or Mueller, Inc. engineering is voided

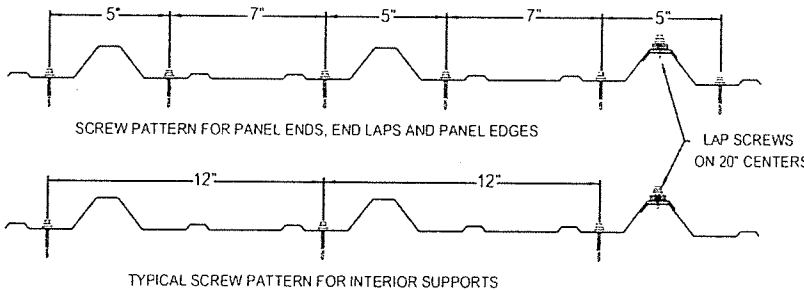
NOTE: THE UNDERSIGNED ENGINEER IS NOT THE "REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE" NOR "ENGINEER OF RECORD" FOR THE OVERALL PROJECT.

Legend

PART MARK = Part001

FASTENER SPACING: HIGH WIND SCREW PLACEMENT

A line of fasteners in a 5"-7"-5"-7"-5" pattern shall be used at all panel ends, end laps, and panel edges when attached to the rake, base, roof or wall purlin and eave struts. Panel side laps should have lap screws spaced at 20" on center along the entire length of the panel lap



NOTE: THIS BUILDING IS DESIGNED AS AN ENCLOSED STRUCTURE. ANY ACCESSORIES USED WITH THIS BUILDING (DOORS, WINDOWS, VENTS, ETC.) MUST BE RATED TO MEET THE SAME WIND CRITERIA AS THIS BUILDING.

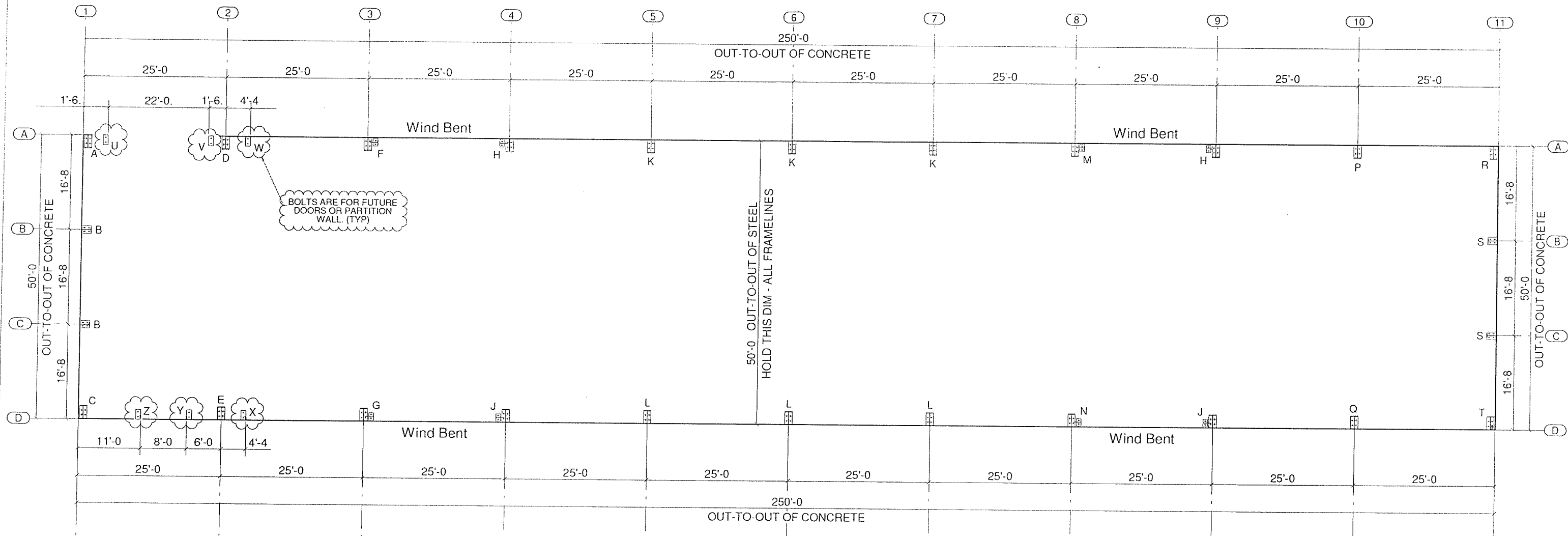
DRAWING INDEX

PAGE	DESCRIPTION
C1	COVERSHEET
AB1	ANCHOR BOLT PLAN
AB2	ANCHOR BOLT DETAILS
AB3	ANCHOR BOLT DETAILS
AB4	ANCHOR BOLT DETAILS
AB5	REACTIONS
E1	ROOF PLAN
E2	WALL ELEVATION AT GRID D
E3	WALL ELEVATION AT GRID A
E4	WALL ELEVATION AT GRID 1
E5	WALL ELEVATION AT GRID 11
E6	FRAME ELEVATION ON GRID 1
E7	FRAME ELEVATION ON GRID 2
E8	FRAME ELEVATION ON GRIDS 3, 8
E9	FRAME ELEVATION ON GRIDS 4, 9
E10	FRAME ELEVATION ON GRIDS 5, 6, 7, 10
E11	FRAME ELEVATION ON GRID 11
E101	ERECTION DETAILS
E102	ERECTION DETAILS
S101	SHEETING DETAILS

FOR CONSTRUCTION



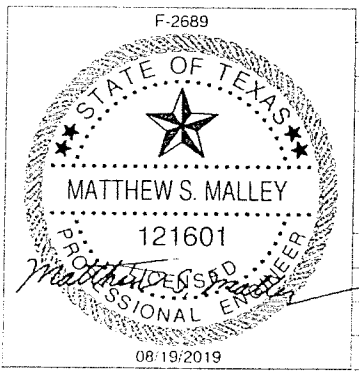
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REV	DATE	DESCRIPTION
MUELLER, INC. STEEL BUILDING SYSTEMS & COMPONENTS 1913 Hutchins Ave. Ballinger, TX 76821 (800) 527-1087		
DRAWING DESCRIPTION: COVERSHEET		
SALESMAN: Jacob Kenna		BUILDING DESCRIPTION: 50'-0" X 250'-0" X 16'-8"
CUSTOMER NAME: Jefferson County Drainage Dist		ADDRESS: Beaumont, TX 77707
DETAILER: GJH	CHECKER:	DATE: 08/19/2019
JOB #	5663293	DWG #
REV	0	C1



ANCHOR BOLT PLAN
 NOTE: Base Plates @ 100'-0" (U.N.)

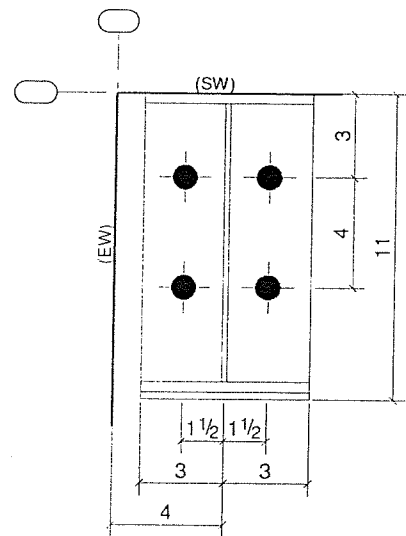
ANCHOR BOLT SUMMARY		
QTY	LOCATION	DIA
16	WIND COLUMN	3/4"
12	JAMB	5/8"
16	ENDWALL	5/8"
88	MAINFRAME	3/4"

For Visual Purposes, Base Plate Views
 may be Exaggerated Beyond Dwg Scale



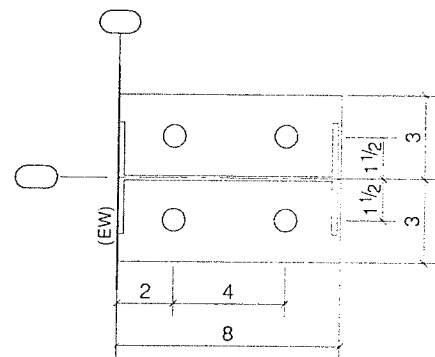
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REV	DATE	DESCRIPTION
MUELLER, INC. STEEL BUILDING SYSTEMS & COMPONENTS 1913 Hutchins Ave. Ballinger, TX 76821 (800) 527-1087		
DRAWING DESCRIPTION: ANCHOR BOLT PLAN		
SALESMAN: Jacob Kenna	BUILDING DESCRIPTION: 50'-0" X 250'-0" X 16'-8"	ROOF SLOPE: 1:00:12
CUSTOMER NAME: Jefferson County Drainage Dist.	ADDRESS: Beaumont, TX 77707	SCALE: 1:90
DETAILER: GJH	CHECKER: GJH	DATE: 08/19/2019
JOB #: 5663293	DWG #: AB1	REV: 0

A



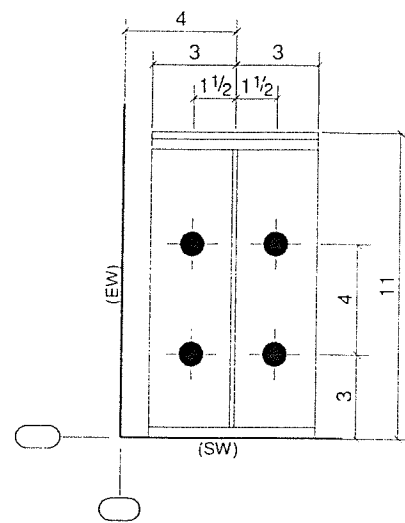
Base EL. 100'-6"

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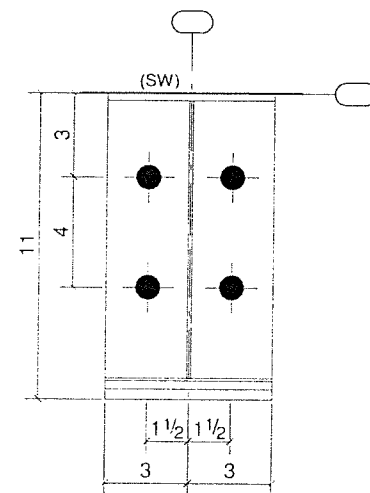
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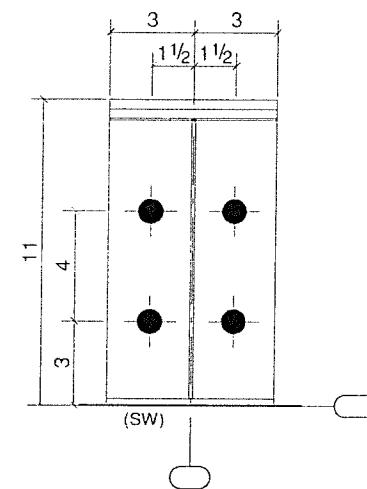
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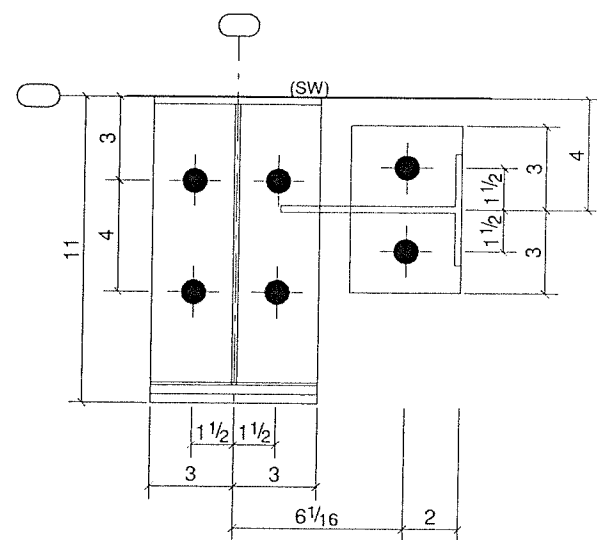
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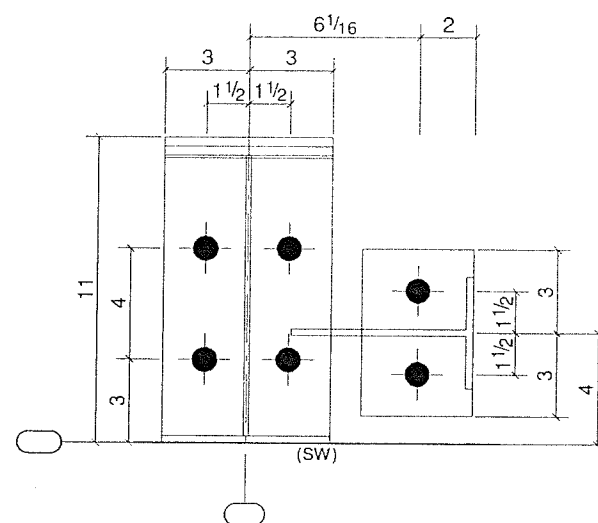
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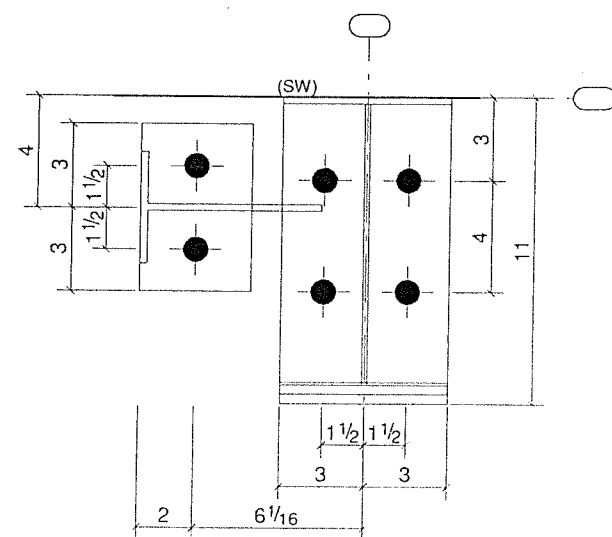
Base EL. 104'-0"

G

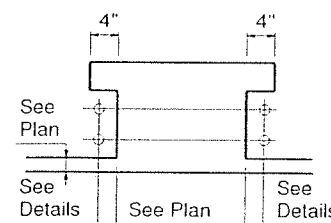


Base EL. 104'-0"

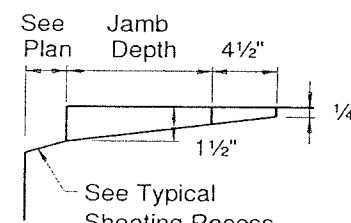
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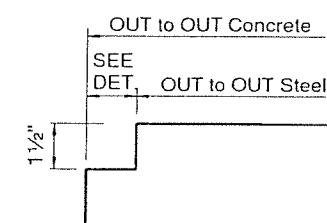
Base EL. 104'-0"



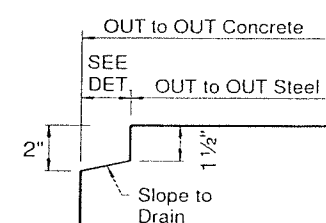
TYP. OVERHEAD DOOR BOLT LAYOUT



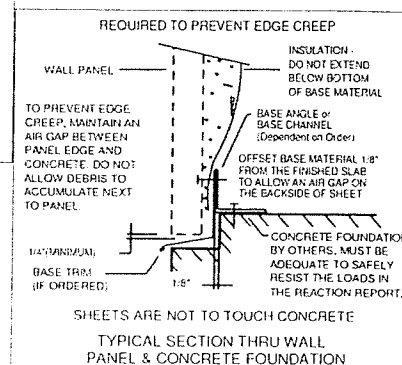
TYP. OVERHEAD DOOR RECESS



TYP. SHEETING RECESS WITH BASE DRIP EDGE TRIM

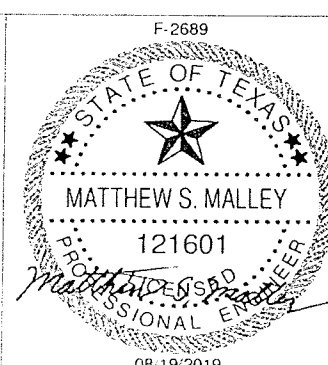


TYP. SHEETING RECESS W/O BASE DRIP EDGE TRIM



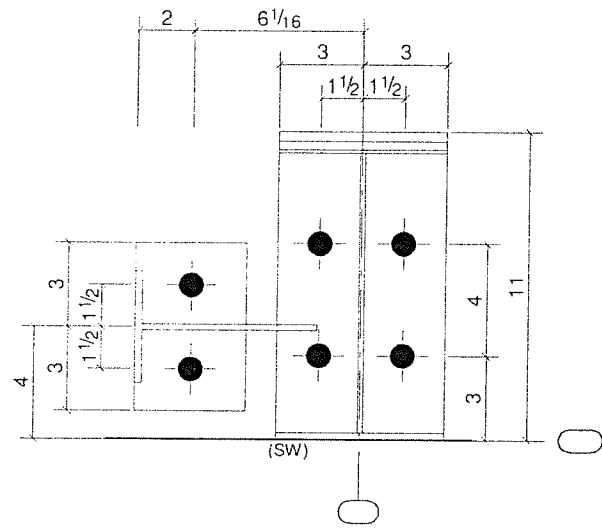
GENERAL NOTES

- Foundation design and construction are not the responsibility of MUELLER, INC.
- The building reaction data reports the loads which this building places on the foundation.
- Anchor Bolts shall be accurately set to a tolerance of $\pm 1/8"$ in both elevation and location.
- Column base plates are designed not to exceed a bearing pressure of 1125 pounds per square inch.
- Anchor Bolt sizes are based on the concrete design strength being a minimum of 3000 psi. Anchorage of the anchor bolts and adequacy of any foundation anchorage (including anchor bolts, drive pins, or any other foundation anchorage provided by MUELLER, INC.) is solely the responsibility of the foundation designer and/or customer.

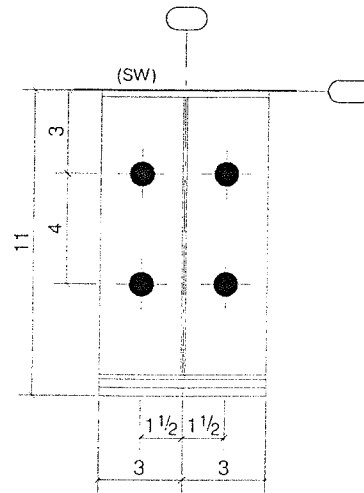


0	08/19/2019	For Construction
REV	DATE	DESCRIPTION
MUELLER, INC. STEEL BUILDING SYSTEMS & COMPONENTS 1913 Hutchins Ave. Ballinger, TX 76821 (800) 527-1087		
DRAWING DESCRIPTION: ANCHOR BOLT DETAILS		
SALESMAN: Jacob Kenna	BUILDING DESCRIPTION: 50'-0" X 250'-0" X 16'-8"	ROOF SLOPE: 1:00:12
CUSTOMER NAME: Jefferson County Drainage Dist.	ADDRESS: Beaumont, TX 77707	SCALE: NONE
DETAILER: GJH	CHECKER: DATE: 08/19/2019	JOB #: 5663293
	DWG #: AB2	REV: 0

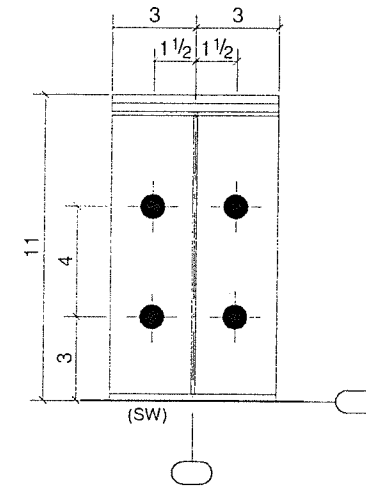
○ DIA = 5/8"
● DIA = 3/4"



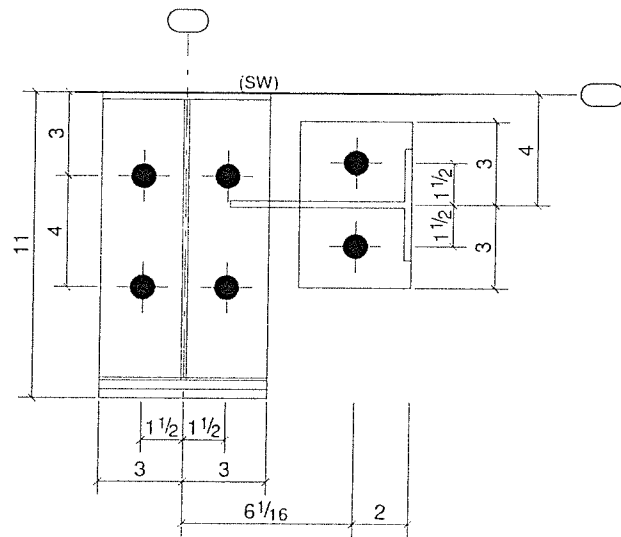
Base EL. 104'-0"



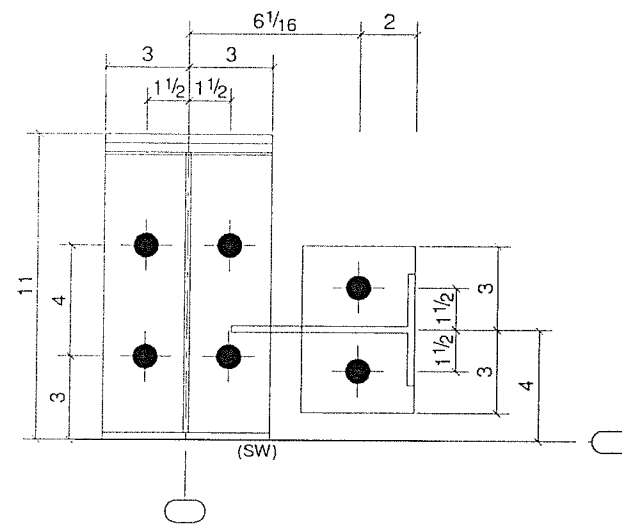
Base EL. 104'-0"



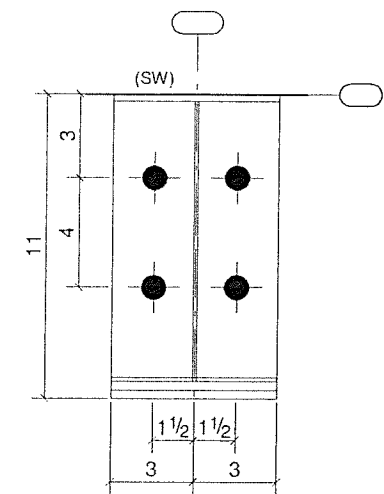
Base EL. 104'-0"



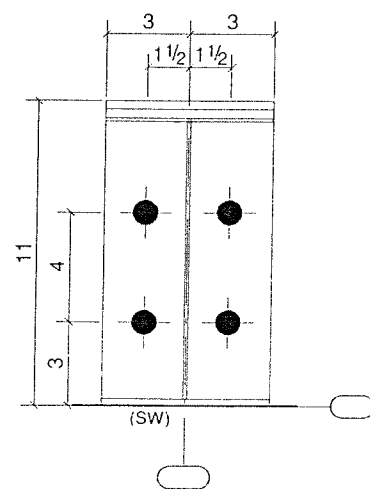
Base EL. 104'-0"



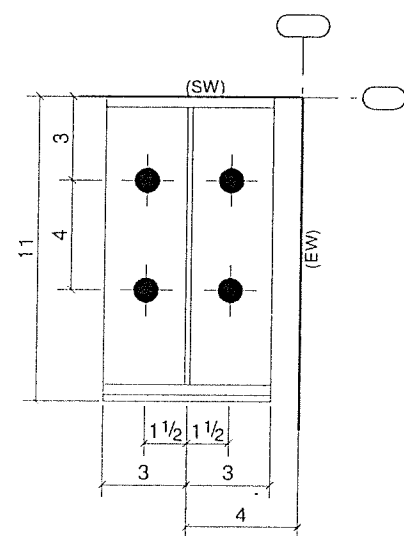
Base EL. 104'-0"



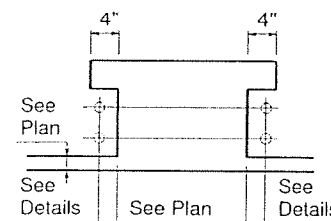
Base EL. 104'-0"



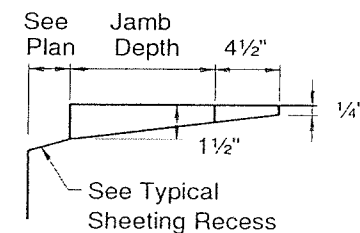
Base EL. 104'-0"



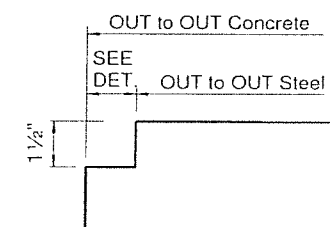
Base EL. 100'-6"



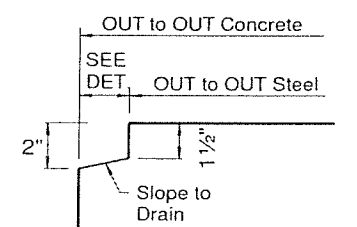
TYP. OVERHEAD DOOR BOLT LAYOUT



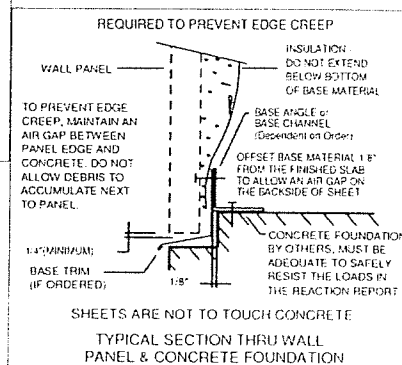
TYP. OVERHEAD DOOR RECESS



TYP. SHEETING RECESS WITH BASE DRIP EDGE TRIM
BASE DRIP EDGE TRIM MUST BE USED TO PREVENT EDGE CREEP.

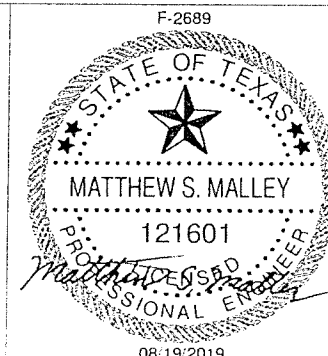


TYP. SHEETING RECESS W/O BASE DRIP EDGE TRIM
BASE DRIP EDGE TRIM NOT REQUIRED TO BE USED TO PREVENT EDGE CREEP.



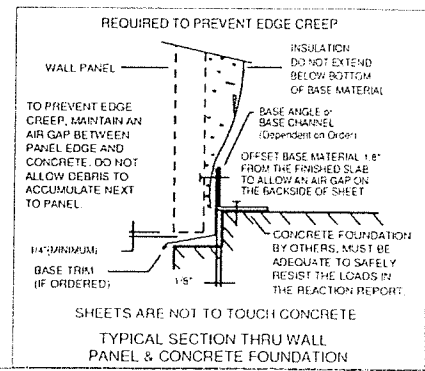
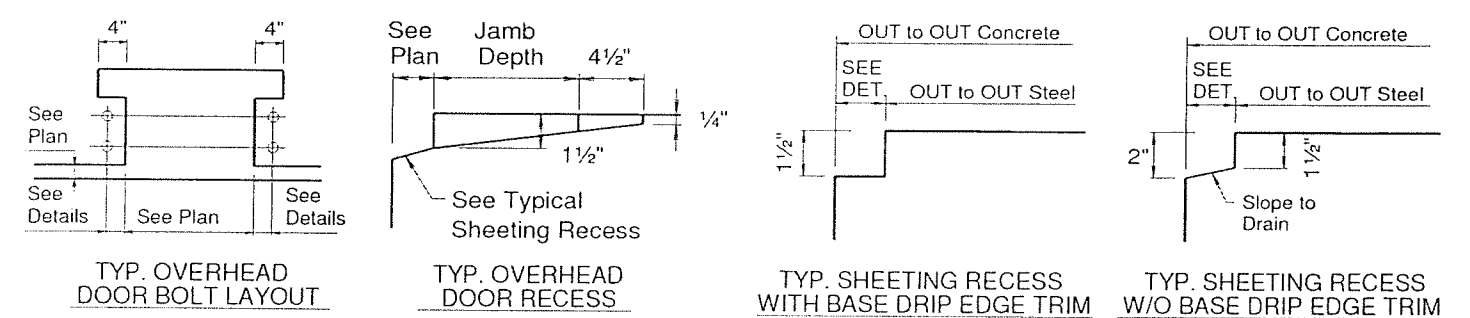
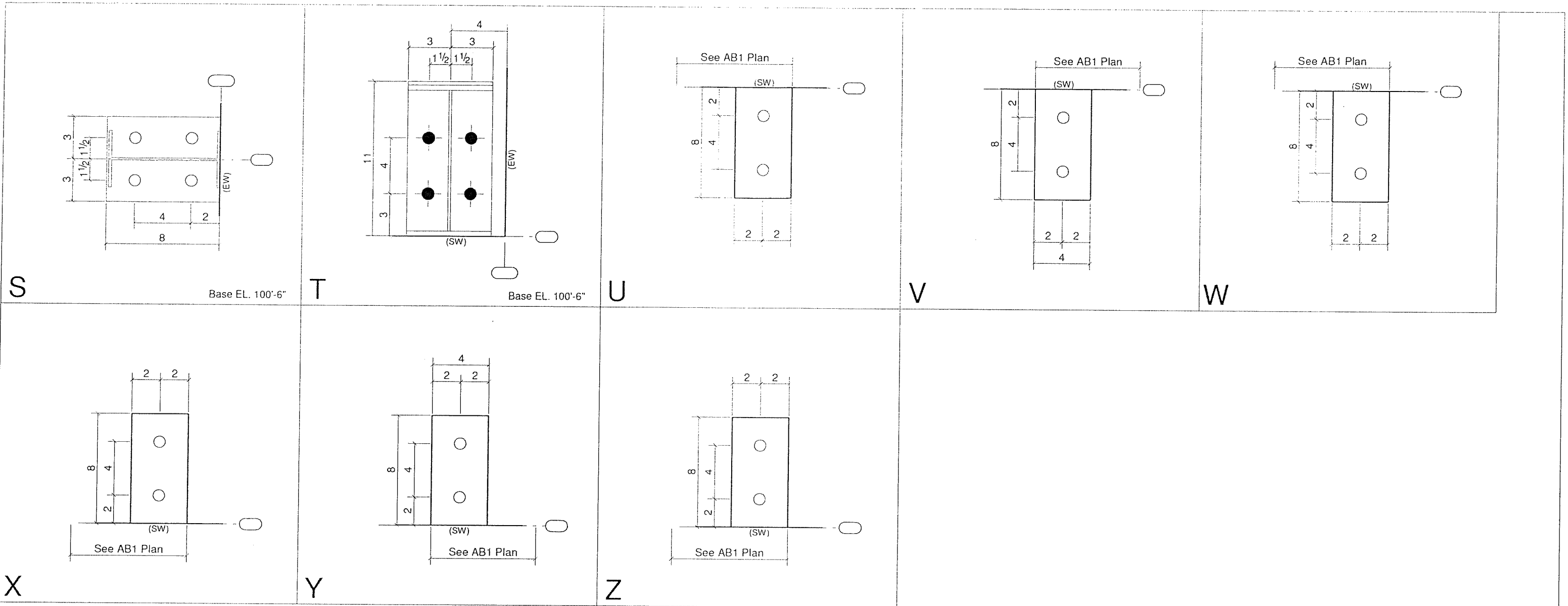
GENERAL NOTES

- Foundation design and construction are not the responsibility of MUELLER, INC.
- The building reaction data reports the loads which this building places on the foundation.
- Anchor Bolts shall be accurately set to a tolerance of $\pm 1/8"$ in both elevation and location.
- Column base plates are designed not to exceed a bearing pressure of 1125 pounds per square inch.
- Anchor Bolt sizes are based on the concrete design strength being a minimum of 3000 psi. Anchorage of the anchor bolts and adequacy of any foundation anchorage (including anchor bolts, drive pins, or any other foundation anchorage provided by MUELLER, INC.) is solely the responsibility of the foundation designer and / or customer.



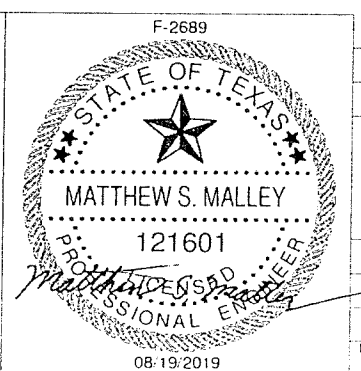
0	08/19/2019	For Construction
REV	DATE	DESCRIPTION
MUELLER, INC. STEEL BUILDING SYSTEMS & COMPONENTS 1913 Hutchins Ave., Ballinger, TX 76821 (800) 527-1087		
DRAWING DESCRIPTION: ANCHOR BOLT DETAILS		
SALESMAN	Jacob Kenna	BUILDING DESCRIPTION:
CUSTOMER NAME	Jefferson County Drainage Dist.	50'-0" X 250'-0" X 16'-8"
DETAILER	GJH	ADDRESS:
CHECKER		Beaumont, TX 77707
DATE	08/19/2019	SCALE
JOB #	5663293	NONE
DWG #	AB3	REV.
		0

DIA = 3/4"



GENERAL NOTES

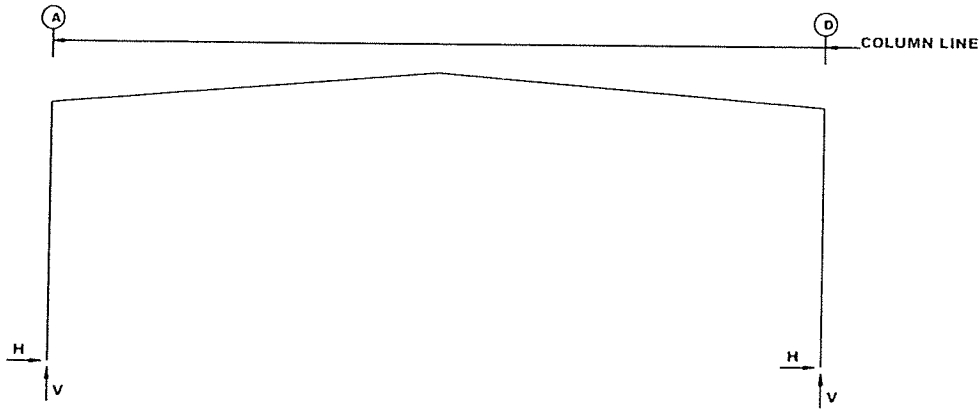
- Foundation design and construction are not the responsibility of MUELLER, INC.
- The building reaction data reports the loads which this building places on the foundation.
- Anchor Bolts shall be accurately set to a tolerance of $\pm 1/8"$ in both elevation and location.
- Column base plates are designed not to exceed a bearing pressure of 1125 pounds per square inch.
- Anchor Bolt sizes are based on the concrete design strength being a minimum of 3000 psi. Anchorage of the anchor bolts and adequacy of any foundation anchorage (including anchor bolts, drive pins, or any other foundation anchorage provided by MUELLER, INC.) is solely the responsibility of the foundation designer and / or customer.



0	08/19/2019	For Construction
REV	DATE	DESCRIPTION
MUELLER, INC. STEEL BUILDING SYSTEMS & COMPONENTS 1913 Hutchins Ave. Ballinger, TX 76821 (800) 527-1087		
DRAWING DESCRIPTION: ANCHOR BOLT DETAILS		
SALESMAN Jacob Kenna	BUILDING DESCRIPTION 50'-0" X 250'-0" X 16'-8"	ROOF SLOPE 1:00:12
CUSTOMER NAME Jefferson County Drainage D***	ADDRESS Beaumont, TX 77707	SCALE NONE
DETAILER GJH	CHECKER GJH	DATE 08/19/2019
JOB # 5663293	DWG # AB4	REV 0

○ DIA = 5/8"
 ● DIA = 3/4"

FRAME LINES: 1 2 3 4 5 6 7 8 9 10 11



RIGID FRAME: MAXIMUM REACTIONS, ANCHOR BOLTS, & BASE PLATES

Frm Line	Col Line	Column Reactions (k)						Anc. Bolt Qty Dia		Base Plate (in)			Grout (in)
		Load ID	Hmax H	V Vmax	Load ID	Hmin H	V Vmin						
1	A	1	2.1	5.9	2	-3.9	-7.2	4	0.750	6.000	11.00	0.500	6.0
1	D	3	3.9	-7.2	1	-2.1	5.9	4	0.750	6.000	11.00	0.500	6.0
		1	-2.1	5.9	3	3.9	-7.2						

RIGID FRAME: MAXIMUM REACTIONS, ANCHOR BOLTS, & BASE PLATES

Frm Line	Col Line	Column Reactions (k)						Anc. Bolt Qty Dia		Base Plate (in)			Grout (in)
		Load ID	Hmax H	V Vmax	Load ID	Hmin H	V Vmin						
2	A	1	4.5	10.9	2	-6.2	-11.6	4	0.750	6.000	11.00	0.500	6.0
2	D	3	6.2	-11.6	1	-4.5	10.9	4	0.750	6.000	11.00	0.500	6.0
		1	-4.5	10.9	3	6.2	-11.6						

RIGID FRAME: MAXIMUM REACTIONS, ANCHOR BOLTS, & BASE PLATES

Frm Line	Col Line	Column Reactions (k)						Anc. Bolt Qty Dia		Base Plate (in)			Grout (in)
		Load ID	Hmax H	V Vmax	Load ID	Hmin H	V Vmin						
3*	A	1	6.1	10.8	2	-7.0	-11.3	4	0.750	6.000	11.00	0.500	48.0
3*	D	3	7.0	-11.3	1	-6.1	10.8	4	0.750	6.000	11.00	0.500	48.0
		1	-6.1	10.8	3	7.0	-11.3						
3*	Frame lines: 3 4 8 9												

RIGID FRAME: MAXIMUM REACTIONS, ANCHOR BOLTS, & BASE PLATES

Frm Line	Col Line	Column Reactions (k)						Anc. Bolt Qty Dia		Base Plate (in)			Grout (in)
		Load ID	Hmax H	V Vmax	Load ID	Hmin H	V Vmin						
5*	A	1	6.2	10.8	2	-7.1	-11.3	4	0.750	6.000	11.00	0.500	48.0
5*	D	3	7.1	-11.3	1	-6.2	10.8	4	0.750	6.000	11.00	0.500	48.0
		1	-6.2	10.8	3	7.1	-11.3						
5*	Frame lines: 5 6 7 10												

LOAD COMBINATIONS

ID Description

- 1 Dead+Collateral+Live
- 2 0.6Dead+0.6Wind_Left1
- 3 0.6Dead+0.6Wind_Right1
- 4 0.6Dead+0.6Wind_Right2+0.6Wind_Suction
- 5 0.6Dead+0.6Wind_Pressure+0.6Wind_Long2
- 6 Dead+0.6Wind_Right2+0.6Wind_Suction

RIGID FRAME: MAXIMUM REACTIONS, ANCHOR BOLTS, & BASE PLATES

Frm Line	Col Line	Column Reactions (k)						Anc. Qty	Bolt Dia	Base Plate (in)			Grout (in)
		Load ID	Hmax H	V Vmax	Load ID	Hmin H	V Vmin			Width	Length	Thick	
11	A	1	2.1	5.9	2	-3.9	-7.2	4	0.750	6.000	11.00	0.500	6.0
11	D	3	3.9	-7.2	1	-2.1	5.9	4	0.750	6.000	11.00	0.500	6.0
		1	-2.1	5.9	3	3.9	-7.2						

RIGID FRAME: BASIC COLUMN REACTIONS (k)

Frame Line	Column Line	---Dead---		---Live---		-Wind_Left1-		-Wind_Right1-		-Wind_Left2-		-Wind_Right2-	
		Horiz	Vert	Horiz	Vert	Horiz	Vert	Horiz	Vert	Horiz	Vert	Horiz	Vert
1	A	0.5	1.6	1.6	4.3	-7.0	-13.5	-0.8	-9.0	-6.5	-9.4	-0.2	-4.9
1	D	-0.5	1.6	-1.6	4.3	0.8	-9.0	7.0	-13.5	0.2	-4.9	6.5	-9.4
2	A	0.9	2.4	3.5	8.5	-11.3	-21.7	-1.8	-15.1	-9.9	-13.6	-0.5	-7.0
2	D	-0.9	2.4	-3.5	8.5	1.8	-15.1	11.3	-21.7	0.5	-7.0	9.9	-13.6
3*	A	1.3	2.3	4.8	8.5	-13.0	-21.1	-5.8	-15.7	-9.7	-13.0	-2.5	-7.6
3*	D	-1.3	2.3	-4.8	8.5	5.8	-15.7	13.0	-21.1	2.5	-7.6	9.7	-13.0
5*	A	1.3	2.3	4.9	8.5	-13.2	-21.1	-5.9	-15.7	-9.8	-13.0	-2.6	-7.6
5*	D	-1.3	2.3	-4.9	8.5	5.9	-15.7	13.2	-21.1	2.6	-7.6	9.8	-13.0
11	A	0.5	1.6	1.6	4.3	-7.0	-13.5	-0.8	-9.0	-6.5	-9.4	-0.2	-4.9
11	D	-0.5	1.6	-1.6	4.3	0.8	-9.0	7.0	-13.5	0.2	-4.9	6.5	-9.4
3*	Frame lines: 3 4 8 9												
5*	Frame lines: 5 6 7 10												

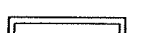
ENDWALL COLUMN: BASIC COLUMN REACTIONS (k)

Frm Line	Col Line	Dead Vert	Wind Press Horiz		Wind Suct Horiz	
			Horz	Vert	Horz	Vert
1	B	0.2	-4.2	4.5		
1	C	0.2	-4.2	4.5		
11	C	0.2	-4.2	4.5		
11	B	0.2	-4.2	4.5		

ENDWALL COLUMN: MAXIMUM REACTIONS, ANCHOR BOLTS, & BASE PLATES

Frm Line	Col Line	Column Reactions (k)						Anc. Bolt Qty Dia		Base Plate (in)			Grout (in)
		Load ID	Hmax H	V Vmax	Load ID	Hmin H	V Vmin			Width	Length	Thick	
1	B	4	2.7	0.1	5	-2.5	0.1	4	0.625	6.000	8.000	0.500	6.0
		6	2.7	0.2									
1	C	4	2.7	0.1	5	-2.5	0.1	4	0.625	6.000	8.000	0.500	6.0
		6	2.7	0.2									
11	C	4	2.7	0.1	5	-2.5	0.1	4	0.625	6.000	8.000	0.500	6.0
		6	2.7	0.2									
11	B	4	2.7	0.1	5	-2.5	0.1	4	0.625	6.000	8.000	0.500	6.0
		6	2.7	0.2									

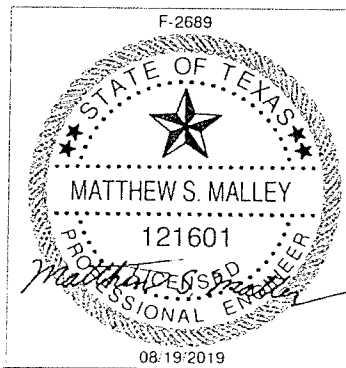
WIND BENT REACTIONS

		— Wall —		↑ Reactions				Anc Bolt Qty Dia		Base Plate(in) Width Length		Thick
		Loc	Line	Col Line	Wind(k) Horz	Seismic(k) Vert	Horz					
F_SW	D	3	1.5	1.8	0.2	0.3	2	0.750	6,000	8,000	0.500	
F_SW	D	4	1.5	1.8	0.2	0.3	2	0.750	6,000	8,000	0.500	
F_SW	D	8	1.5	1.8	0.2	0.3	2	0.750	6,000	8,000	0.500	
F_SW	D	9	1.5	1.8	0.2	0.3	2	0.750	6,000	8,000	0.500	
B_SW	A	9	1.5	1.8	0.2	0.3	2	0.750	6,000	8,000	0.500	
B_SW	A	8	1.5	1.8	0.2	0.3	2	0.750	6,000	8,000	0.500	
B_SW	A	4	1.5	1.8	0.2	0.3	2	0.750	6,000	8,000	0.500	
B_SW	A	3	1.5	1.8	0.2	0.3	2	0.750	6,000	8,000	0.500	

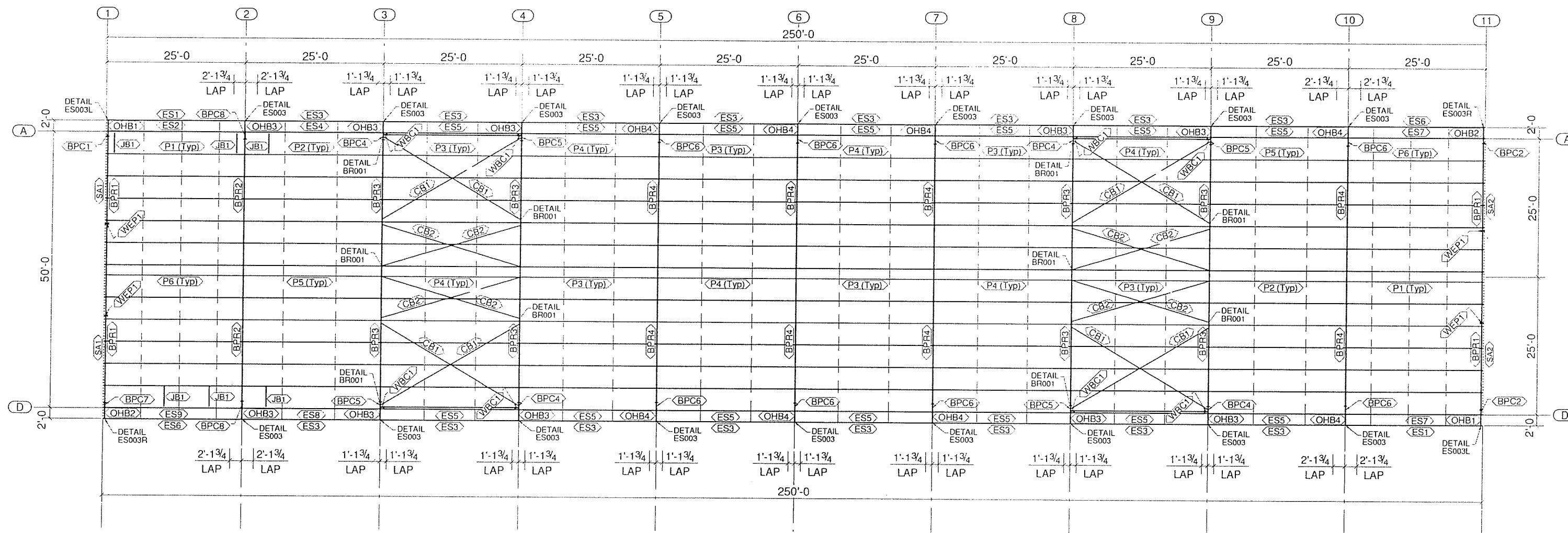
BUILDING BRACING REACTIONS

Wall Loc	Col Line	Reactions (k)				Panel Shear (lb/ft)		Note
		Wind Horz	Wind Vert	Seismic Horz	Seismic Vert			
L_EW	1							(h)
F_SW	D	3,4						(a)
		8,9						(a)
R_EW	11							(h)
B_SW	A	8,9						(a)
		3,4						(a)

(a) Wind bent in bay
(h) Rigid frame at endwall



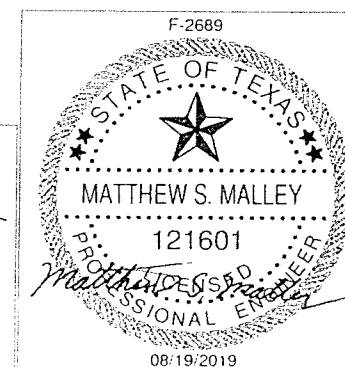
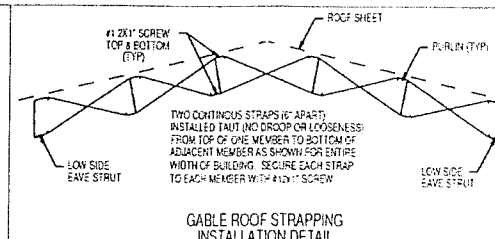
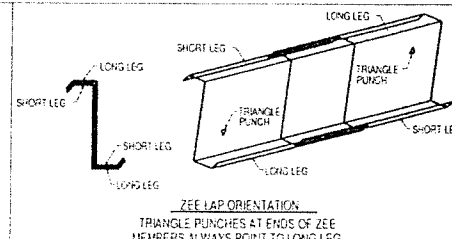
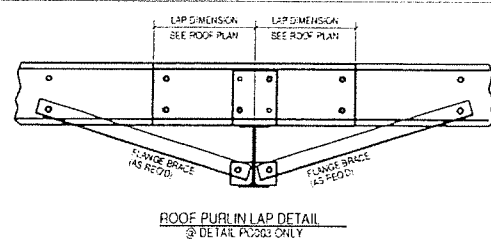
0	08/19/2019	For Construction
REV	DATE	DESCRIPTION
MUELLER, INC. STEEL BUILDING SYSTEMS & COMPONENTS 1913 Hutchins Ave. Ballinger, TX 76821 (800) 527-1007		
DRAWING DESCRIPTION: REACTIONS		
SALESMAN: Jacob Kenna	BUILDING DESCRIPTION: 50'-0" X 250'-0" X 16'-8"	ROOF SLOPE: 1:00:12
CUSTOMER NAME: Jefferson County Drainage Dist.	ADDRESS: Beaumont, TX 77707	SCALE: NONE
DETAILER: GJH	CHECKER: GJH	DATE: 08/19/2019
JOB #	5663293	DWG # AB5
REV	0	



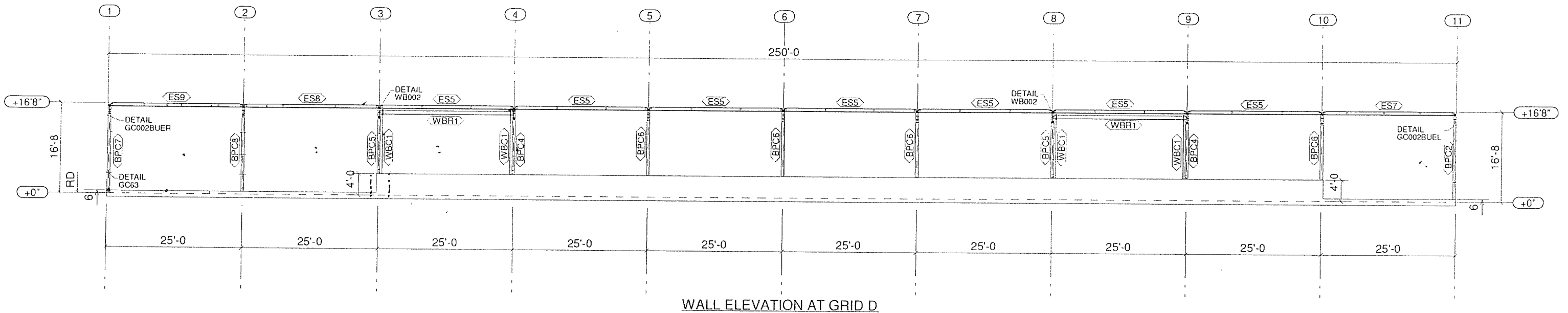
ROOF PLAN

FUTURE PARTITION WALL IS
TO BE SELF-SUPPORTING.

Bill of Materials				
Qty	Mark	Profile	Finish	Length
8	CB1	CB1/4D	GZ	27'-3 7/16"
8	CB2	CB1/4D	GZ	24'-3 1/8"
2	ES1	81E14DU-1	GZ	24'-11 1/2"
1	ES2	81E14DU-1	GZ	23'-11 5/16"
16	ES3	81E14DU-1	GZ	24'-11 1/2"
1	ES4	81E12DU-1	GZ	24'-3 5/16"
14	ES5	81E12DU-1	GZ	24'-3 5/16"
2	ES6	81E14DU-1	GZ	24'-11 1/2"
2	ES7	81E14DU-1	GZ	23'-11 5/16"
1	ES8	81E12DU-1	GZ	24'-3 5/16"
1	ES9	81E14DU-1	GZ	23'-11 5/16"
6	JB1	2X2L12	GZ	3'-10 1/8"
12	P1	8X25Z14	GZ	27'-1 1/2"
12	P2	8X25Z14	GZ	28'-3 1/2"
36	P3	8X25Z14	GZ	27'-3 1/2"
36	P4	8X25Z14	GZ	27'-3 1/2"
12	P5	8X25Z14	GZ	28'-3 1/2"
12	P6	8X25Z14	GZ	27'-1 1/2"
2	SA1	L4X2x14GA	GZ	27'-0 5/8"
2	SA2	L4X2x14GA	GZ	25'-0 9/16"



0	08/19/2019	For Construction
REV	DATE	DESCRIPTION
MUELLER, INC. STEEL BUILDING SYSTEMS & COMPONENTS 1913 Hutchins Ave. Ballinger, TX 76821 (800) 527-1087		
DRAWING DESCRIPTION: ROOF PLAN		
SALESMAN Jacob Kenna	CUSTOMER NAME Jefferson County Drainage Dist.	BUILDING DESCRIPTION: 50'-0" X 250'-0" X 16'-8"
DETAILER GJH	CHECKER GJH	DATE 08/19/2019
JOB # 5663293	DWG # E1	REV 0

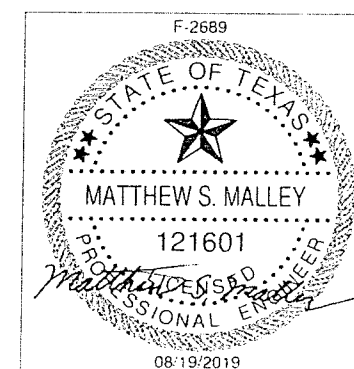


WALL ELEVATION AT GRID D.

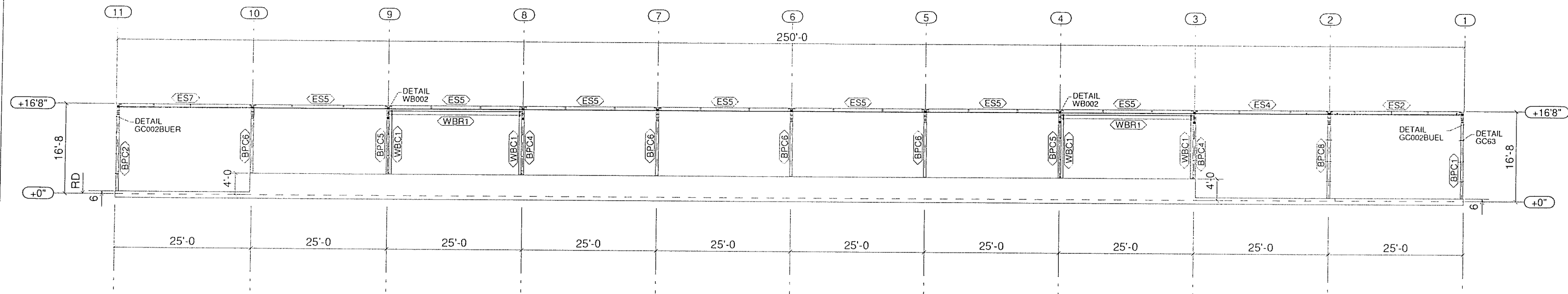
GIRTS AND SHEETING WILL
BE ADDED IN THE FUTURE.

Bill of Materials				
Qty	Mark	Profile	Finish	Length
4	WBC1	WBX13	HD	
2	WBR1	WBX18	HO	

Wind Bent Connection Plate and Bolt Table		
Connected Assemblies	Bolt Description	
WBC1 BPC4	16 - 3/4" x 2 1/2" A325N	
WBC1 BPC5	16 - 3/4" x 2 1/2" A325N	
WBC1 WBR1	8 - 3/4" x 2 1/2" A325N	



0	08/19/2019	For Construction
REV	DATE	DESCRIPTION
MUELLER, INC. STEEL BUILDING SYSTEMS & COMPONENTS 1913 Hutchins Ave. Ballinger, TX 76821 (800) 527-1087		
DRAWING DESCRIPTION: WALL ELEVATION AT GRID D		
SALESMAN Jacob Kenna	BUILDING DESCRIPTION 50'-0" X 250'-0" X 16'-8"	ROOF SLOPE 1:00:12
CUSTOMER NAME Jefferson County Drainage D***	ADDRESS Beaumont, TX 77707	SCALE 1:95
DETAILER GJH	CHECKER GJH	DATE 08/19/2019
JOB # 5663293	DWG # E2	REV 0

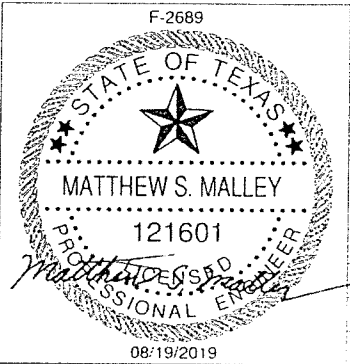


WALL ELEVATION AT GRID A

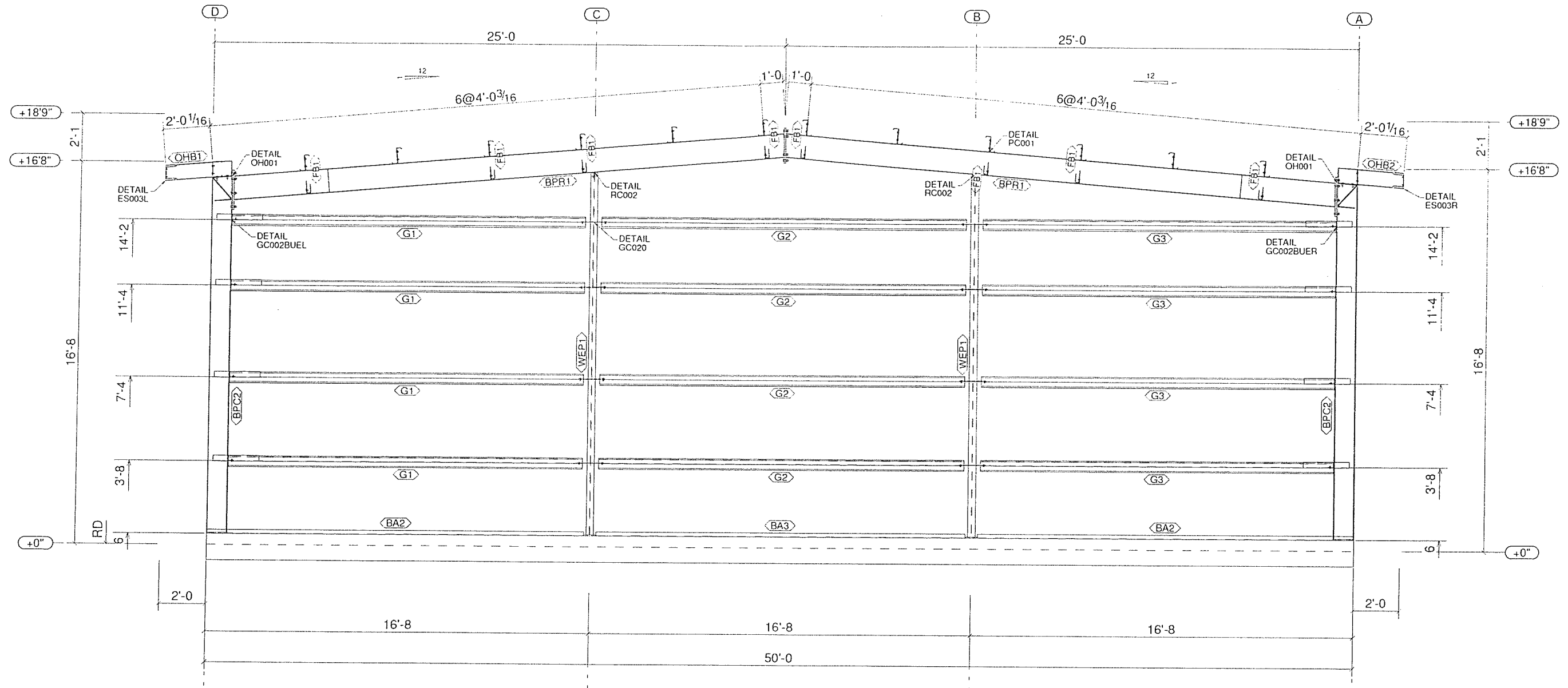
GIRTS AND SHEETING WILL
BE ADDED IN THE FUTURE.

Bill of Materials				
Qty	Mark	Profile	Finish	Length
4	WBC1	W8X13	HD	
2	WBR1	W8X18	HD	

Wind Bent Connection Plate and Bolt Table		
Connected Assemblies	Bolt Description	
WBC1 -> BPC4	16 - 3/4" x 2 1/2" A325N	
WBC1 -> BPC5	16 - 3/4" x 2 1/2" A325N	
WBC1 -> WBR1	8 - 3/4" x 2 1/2" A325N	



0	08/19/2019	For Construction
REV	DATE	DESCRIPTION
MUELLER, INC. STEEL BUILDING SYSTEMS & COMPONENTS 1913 Hutchins Ave. Ballinger, TX 76821 (800) 527-1087		
DRAWING DESCRIPTION: WALL ELEVATION AT GRID A		
SALESMAN Jacob Kenna	BUILDING DESCRIPTION 50'-0" X 250'-0" X 16'-8"	
CUSTOMER NAME Jefferson County Drainage Dist.	ADDRESS Beaumont, TX 77707	
DATE 08/19/2019	CHECKER GJH	DATE 08/19/2019
JOB # 5663293	DWG # E3	REV 0

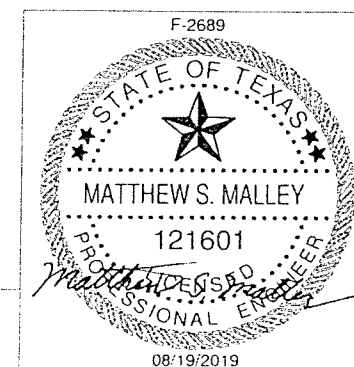


WALL ELEVATION AT GRID 11
 ** THIS ENDWALL FRAME IS NOT EXPANDABLE **

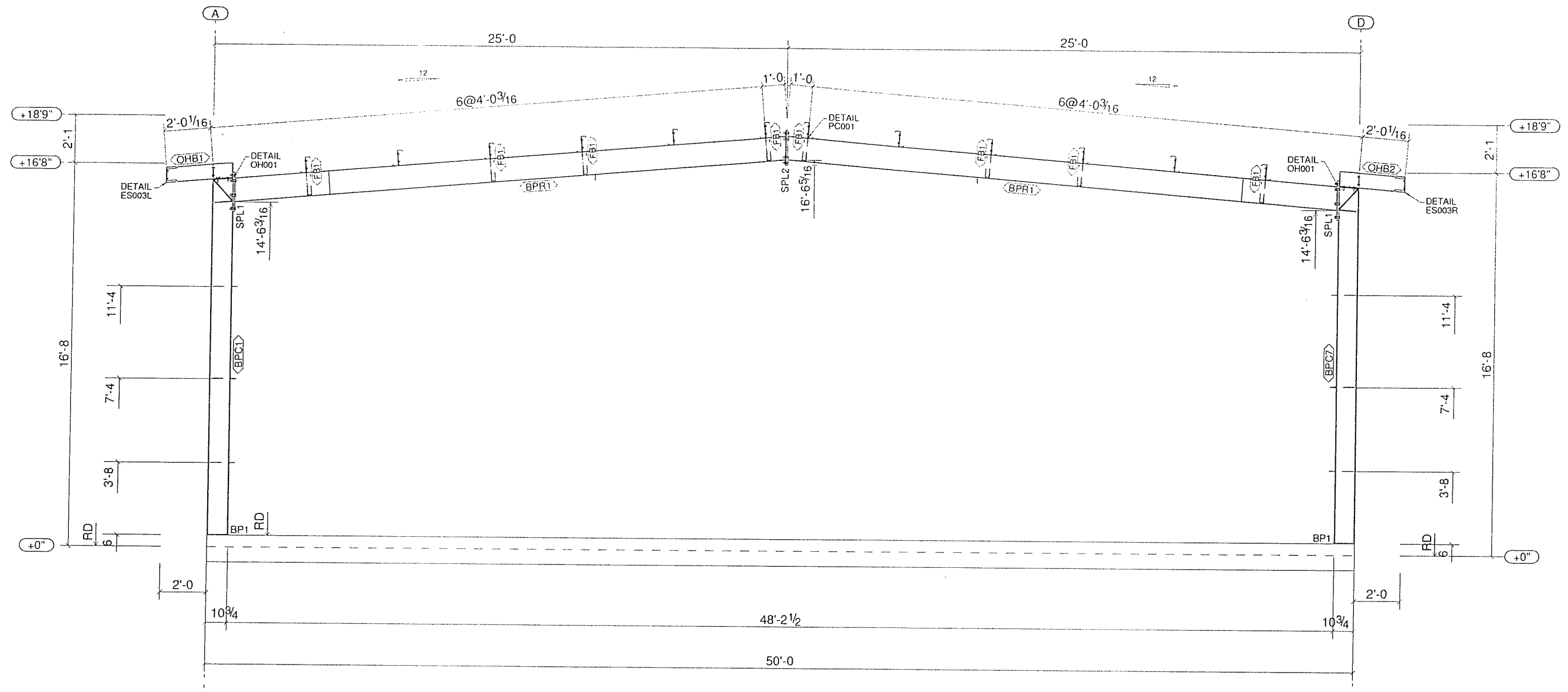
Bill of Materials				
Qty	Mark	Profile	Finish	Length
2	BPC2	PL3-16"X10"	HD	
2	BPR1	SHT10GAX12"	HD	
1	OH01	W8X10	HD	
1	OH02	W8X10	HD	
2	WEP1	W8X10	HD	
2	BA2	L4X2X14GA	GZ	16'-4 1/2"
1	BA3	L4X2X14GA	GZ	16'-1 1/2"
8	FB1	2X2L12	GZ	2'-7 11/16"
4	G1	8X25Z14	GZ	15'-4 11/16"
4	G2	8X25Z14	GZ	15'-11 5/16"
4	G3	8X25Z14	GZ	15'-4 11/16"

Component Bolt Table			
Detail ID	Bolted Parts	Bolt Description	
OH001	↓ ↓	4 - 5/8" x 2"	A325N
	OH01 → BPC2	4 - 5/8" x 2"	A325N
	OH02 → BPC2	4 - 5/8" x 2"	A325N
RC002	↓ ↓	2 - 5/8" x 2"	A325N
	BPR1 → WEP1	2 - 5/8" x 2"	A325N

ALL ENDWALL COLUMNS AND JAMBS ARE DESIGNED AS "POSTS" AS DEFINED BY OSHA AND ARE NOT INTENDED TO BE CLIMBED ON UNTIL FULLY BRACED.



0	08/19/2019	For Construction
REV	DATE	DESCRIPTION
MUELLER, INC. STEEL BUILDING SYSTEMS & COMPONENTS 1913 Hutchins Ave. Ballinger, TX 76821 (800) 521-1087		
DRAWING DESCRIPTION: WALL ELEVATION AT GRID 11		
SALESMAN: Jacob Kenna	BUILDING DESCRIPTION: 50'-0" X 250'-0" X 16'-8"	ROOF SLOPE: 1.00:12
CUSTOMER NAME: Jefferson County Drainage D***	ADDRESS: Beaumont, TX 77707	SCALE: 1.25
DETAILER: GJH	CHECKER: GJH	DATE: 08/19/2019
JOB #: 5663293	DWG #: E5	REV: 0



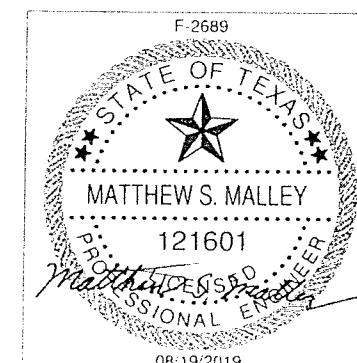
FRAME ELEVATION ON GRID 1
 ** THIS ENDWALL FRAME IS NOT EXPANDABLE **

BUILT UP MEMBER TABLE				
Mark	Type	Thick x Max Width x Length		
BPC1	WB	PL3/16"x10"	x 185 15/16"	
	IF	PL3/8"x6"	x 168 3/4"	
	OF	PL3/8"x6"	x 185 1/8"	
BPC7	WB	PL3/16"x10"	x 185 15/16"	
	IF	PL3/8"x6"	x 168 3/4"	
	OF	PL3/8"x6"	x 185 1/8"	
BPR1	WB	SHT10GAX12"	x 240"	
	IF	PL1/4"x6"	x 55 7/8"	
	IF	PL1/4"x6"	x 233"	
	OF	PL1/4"x6"	x 54 7/8"	
	OF	PL1/4"x6"	x 234"	
	WB	SHT10GAX12"	x 49 7/8"	

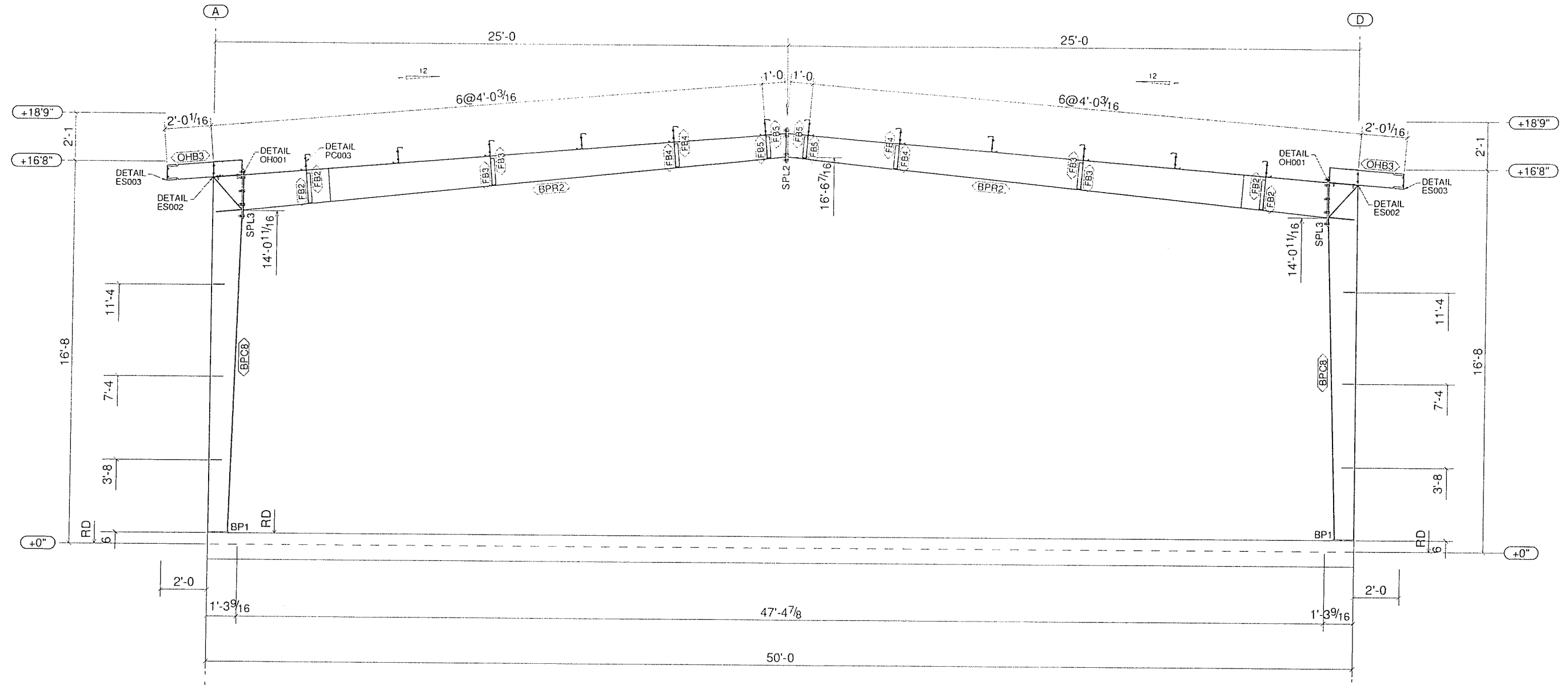
Bill of Materials				
Qty	Mark	Profile	Finish	Length
1	BPC1	PL3/16"x10"	HD	
1	BPC7	PL3/16"x10"	HD	
2	BPR1	SHT10GAX12"	HD	
1	OHB1	W8X10	HD	
1	OHB2	W8X10	HD	
8	FB1	2X2L12	GZ	2'-7 11/16"

Connection Plate and Bolt Table		
Mark	Plate Profile	Bolt Description
BP1	PL3/8"x4" x 8"	REF. AB PLAN
SPL1	PL5/8"x6" x 20 1/2"	8 - 3/4" x 2 1/2" A325N
SPL1	PL5/8"x6" x 20 1/2"	8 - 3/4" x 2 1/2" A325N
SPL2	PL1/2"x6" x 18 1/2"	8 - 3/4" x 2 1/2" A325N

Component Bolt Table		
Detail ID	Bolted Parts	Bolt Description
OH001	↓ ↓	
	OHB1 → BPC1	4 - 5/8" x 2" A325N
	OHB2 → BPC7	4 - 5/8" x 2" A325N



0	08/19/2019	For Construction
REV	DATE	DESCRIPTION
MUELLER, INC. STEEL BUILDING SYSTEMS & COMPONENTS 1913 Hutchins Ave. Ballinger, TX 76821 (800) 527-1087		
DRAWING DESCRIPTION: FRAME ELEVATION ON GRID 1		
SALESMAN: Jacob Kenna	BUILDING DESCRIPTION: 50'-0" X 250'-0" X 16'-8"	ROOF SLOPE: 1.00:12
CUSTOMER NAME: Jefferson County Drainage D***	ADDRESS: Beaumont, TX 77707	SCALE: 1/25
DETAILER: GJH	CHECKER: GJH	DATE: 08/19/2019
JOB #: 5663293	DWG #: E6	REV: 0



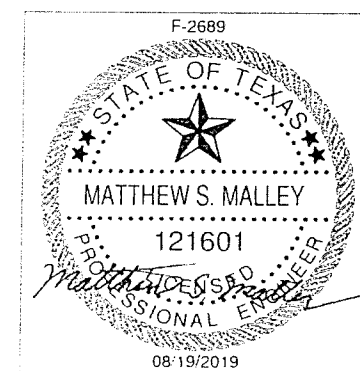
FRAME ELEVATION ON GRID 2

BUILT UP MEMBER TABLE				
Mark	Type	Thick	x Max Width	x Length
BPC8	WB	SHT10GAX15"	x 186 1/2"	
	IF	PL5/16"x6"	x 163 13/16"	
	OF	PL1/4"x6"	x 185 1/4"	
BPR2	WB	SHT10GAX17 1/16"	x 240"	
	IF	PL1/4"x6"	x 233"	
	IF	PL1/4"x6"	x 51 13/16"	
	OF	PL1/4"x6"	x 234"	
	OF	PL1/4"x6"	x 50 3/16"	
	WB	SHT10GAX18"	x 45 3/4"	

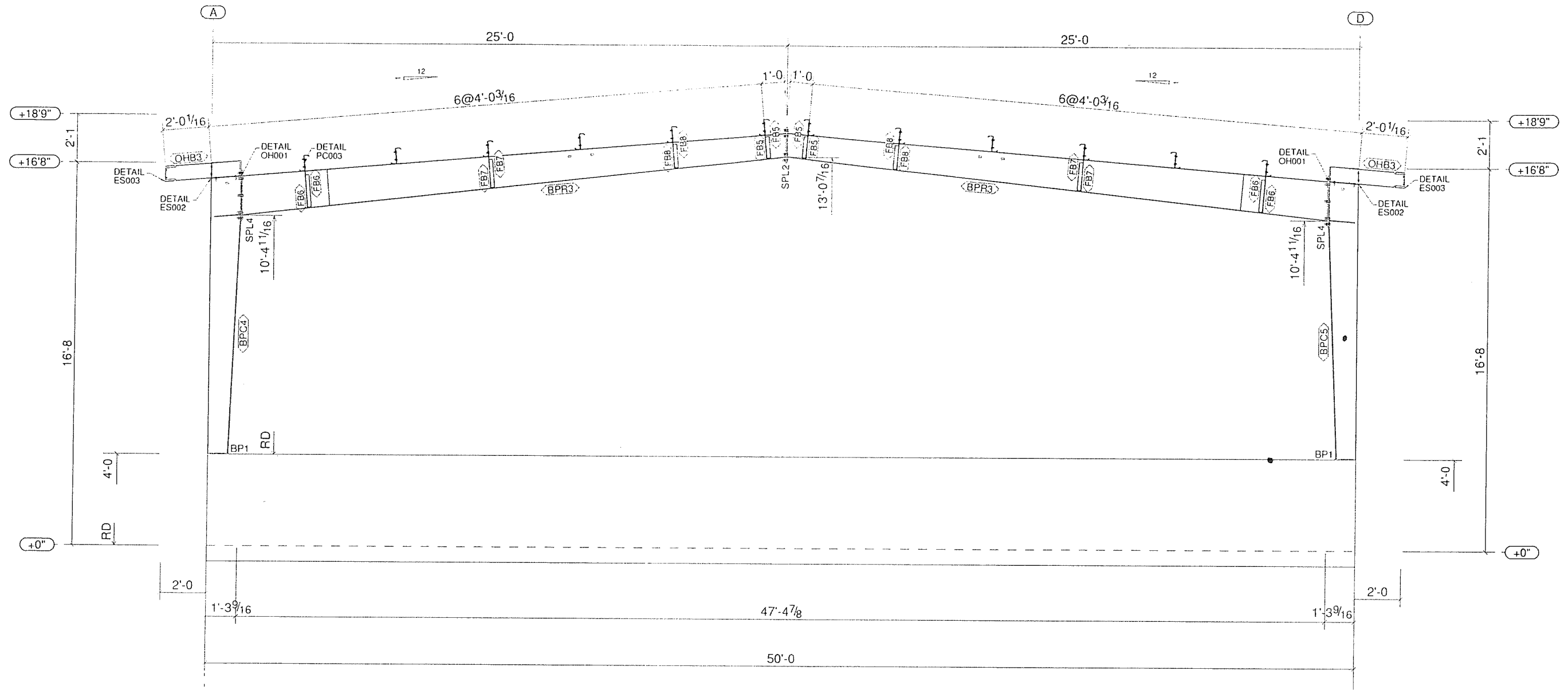
Bill of Materials				
Qty	Mark	Profile	Finish	Length
2	BPC8	SHT10GAX15"	HD	
2	BPR2	SHT10GAX17 1/16"	HD	
2	OHB3	WBX10	HD	
4	FB2	2X2L12	GZ	2'-10 3/8"
4	FB3	2X2L12	GZ	2'-9 1/4"
4	FB4	2X2L12	GZ	2'-8 1/4"
4	FB5	2X2L12	GZ	2'-7 13/16"

Connection Plate and Bolt Table		
Mark	Plate Profile	Bolt Description
BP1	PL3/8"x4" x 8"	REF. AB PLAN
SPL2	PL1/2"x6" x 18 1/2"	8 - 3/4" x 2 1/2" A325N
SPL3	PL1/2"x6" x 26"	10 - 3/4" x 2 1/2" A325N
SPL3	PL1/2"x6" x 26"	10 - 3/4" x 2 1/2" A325N

Component Bolt Table		
Detail ID	Bolted Parts	Bolt Description
OH001	↓ ↓	
	OHB3 → BPC8	4 - 5/8" x 2" A325N



0	08/19/2019	For Construction
REV	DATE	DESCRIPTION
MUELLER, INC. STEEL BUILDING SYSTEMS & COMPONENTS 1913 Hutchins Ave. Ballinger, TX 76821 (800) 527-1087		
DRAWING DESCRIPTION: FRAME ELEVATION ON GRID 2		
SALESMAN Jacob Kenna	CUSTOMER NAME Jefferson County Drainage D***	BUILDING DESCRIPTION 50'-0" X 250'-0" X 16'-8"
DATE 08/19/2019	CHECKER GJH	ADDRESS Beaumont, TX 77707
JOB # 5663293	OWG # E7	SCALE 1:25
		REV 0



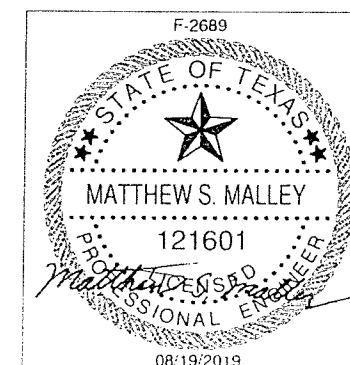
FRAME ELEVATION ON GRIDS 3, 8

BUILT UP MEMBER TABLE				
Mark	Type	Thick	x Max Width	x Length
BPC4	WB	PL3/16"	X15"	x 144 1/2"
	IF	PL5/16"	X6"	x 121 5/16"
	OF	PL1/4"	X6"	x 143 1/4"
BPC5	WB	PL3/16"	X15"	x 144 1/2"
	IF	PL5/16"	X6"	x 121 5/16"
	OF	PL1/4"	X6"	x 143 1/4"
BPR3	WB	SHT10GAX18	11/16" x 240"	
	IF	PL1/4"	X6"	x 233"
	IF	PL1/4"	X6"	x 52"
	OF	PL1/4"	X6"	x 234"
	OF	PL1/4"	X6"	x 50 3/15"
	WB	SHT10GAX20"		x 45 7/8"

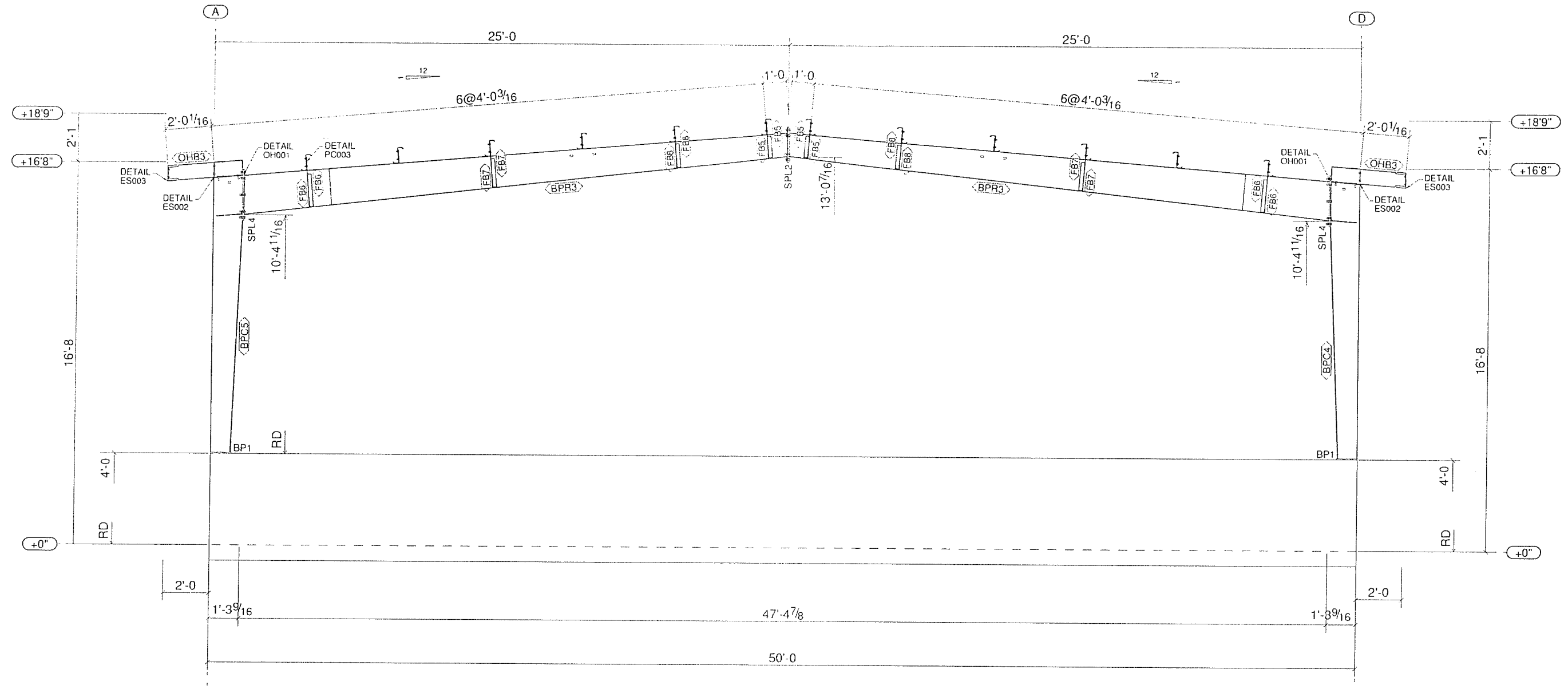
Bill of Materials				
Qty	Mark	Profile	Finish	Length
1	BPC4	PL3/16" X15"	HD	
1	BPC5	PL3/16" X15"	HD	
2	BPR3	SHT10GAX18 11/16"	HD	
2	OHB3	W8X10	HD	
4	FB5	2X2L12	GZ	2'-7 13/16"
4	FB6	2X2L12	GZ	2'-11 5/16"
4	FB7	2X2L12	GZ	2'-9 13/16"
4	FB8	2X2L12	GZ	2'-8 7/16"

Connection Plate and Bolt Table		
Mark	Plate Profile	Bolt Description
SPL2	PL1/2" X6" x 18 1/2"	8 - 3/4" x 2 1/2" A325N
SPL4	PL1/2" X6" x 26 1/2"	10 - 3/4" x 2 1/2" A325N
SPL4	PL1/2" X6" x 26 1/2"	10 - 3/4" x 2 1/2" A325N

Component Bolt Table		
Detail ID	Bolted Parts	Bolt Description
OH001	↓	↓
	OHB3 → BPC4	4 - 5/8" x 2" A325N
	OHB3 → BPC5	4 - 5/8" x 2" A325N



0	08/19/2019	For Construction
REV	DATE	DESCRIPTION
MUELLER, INC. STEEL BUILDING SYSTEMS & COMPONENTS 1913 Hutchins Ave. Ballinger, TX 76821 (800) 527-1087		
DRAWING DESCRIPTION: FRAME ELEVATION ON GRIDS 3, 8		
SALESMAN: Jacob Kenna	BUILDING DESCRIPTION: 50'-0" X 250'-0" X 16'-8"	ROOF SLOPE: 1:00:12
CUSTOMER NAME: Jefferson County Drainage Dist.	ADDRESS: Beaumont, TX 77707	SCALE: 1:25
DETAILER: GJH	CHECKER: GJH	DATE: 08/19/2019
JOB #: 5663293	OWG #: E8	REV: 0



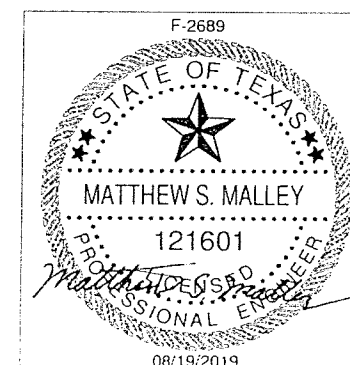
FRAME ELEVATION ON GRIDS 4, 9

BUILT UP MEMBER TABLE				
Mark	Type	Thick	Max Width	Length
BPC4	WB	PL3/16"x15"	x 144 1/2"	
	IF	PL5/16"x6"	x 121 5/16"	
	OF	PL1/4"x6"	x 143 1/4"	
BPC5	WB	PL3/16"x15"	x 144 1/2"	
	IF	PL5/16"x6"	x 121 5/16"	
	OF	PL1/4"x6"	x 143 1/4"	
BPR3	WB	SHT10GAX18 11/16"x 240"		
	IF	PL1/4"x6"	x 233"	
	IF	PL1/4"x6"	x 52"	
	OF	PL1/4"x6"	x 234"	
	OF	PL1/4"x6"	x 50 3/16"	
	WB	SHT10GAX20"	x 45 7/8"	

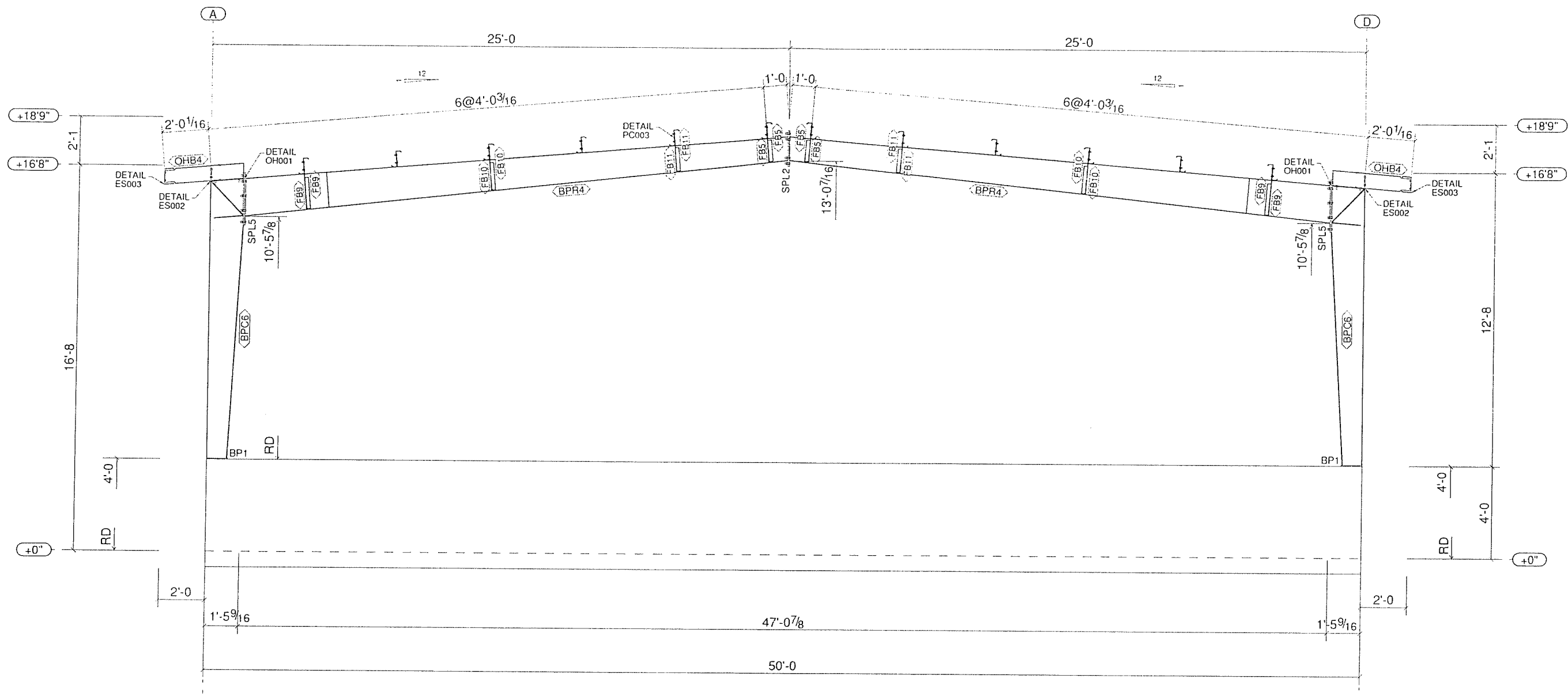
Bill of Materials				
Qty	Mark	Profile	Finish	Length
1	BPC4	PL3/16"x15"	HD	
1	BPC5	PL3/16"x15"	HD	
2	BPR3	SHT10GAX18 11/16"	HD	
2	OHB3	W8X10	HD	
4	FB5	2X2L12	GZ	2'-7 13/16"
4	FB6	2X2L12	GZ	2'-11 3/8"
4	FB7	2X2L12	GZ	2'-9 13/16"
4	FB8	2X2L12	GZ	2'-8 7/16"

Connection Plate and Bolt Table		
Mark	Plate Profile	Bolt Description
SPL2	PL1/2"x6" x 18 1/2"	8 ~ 3/4" x 2 1/2" A325N
SPL4	PL1/2"x6" x 26 1/2"	10 ~ 3/4" x 2 1/2" A325N
SPL4	PL1/2"x6" x 26 1/2"	10 ~ 3/4" x 2 1/2" A325N

Component Bolt Table		
Detail ID	Bolled Parts	Bolt Description
OH001	↓ ↓	
	OHB3 → BPC4	4 ~ 5/8" x 2" A325N
	OHB3 → BPC5	4 ~ 5/8" x 2" A325N



0	08/19/2019	For Construction
REV	DATE	DESCRIPTION
MUELLER, INC. STEEL BUILDING SYSTEMS & COMPONENTS 1913 Hutchins Ave. Ballinger, TX 76821 (800) 527-1087		
DRAWING DESCRIPTION: FRAME ELEVATION ON GRIDS 4, 9		
SALESMAN: Jacob Kenna	BUILDING DESCRIPTION: 50'-0" X 250'-0" X 16'-8"	ROOF SLOPE: 1:00:12
CUSTOMER NAME: Jefferson County Drainage D...	ADDRESS: Beaumont, TX 77707	SCALE: 1:25
DETAILER: GJH	CHECKER: GJH	JOB #: 5663293
DATE: 08/19/2019	DATE: 08/19/2019	DWG #: E9
		REV: 0



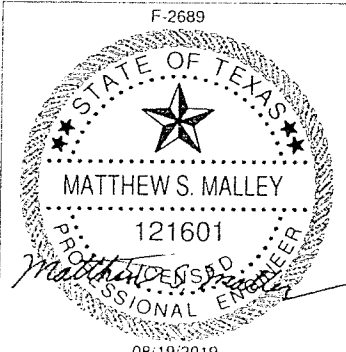
FRAME ELEVATION ON GRIDS 5, 6, 7, 10

BUILT UP MEMBER TABLE				
Mark	Type	Thick	x Max Width	x Length
BPC6	WB	SHT10GAX17"	x 144 11/16"	
	IF	PL5/16"x6"	x 121 1/8"	
	OF	PL1/4"x6"	x 143 1/4"	
BPR4	WB	SHT10GAX17 15/16"x 240"		
	IF	PL1/4"x6"	x 233"	
	IF	PL1/4"x6"	x 49 7/8"	
	OF	PL1/4"x6"	x 234"	
	OF	PL1/4"x6"	x 48 3/16"	
	WB	SHT10GAX19"	x 43 13/16"	

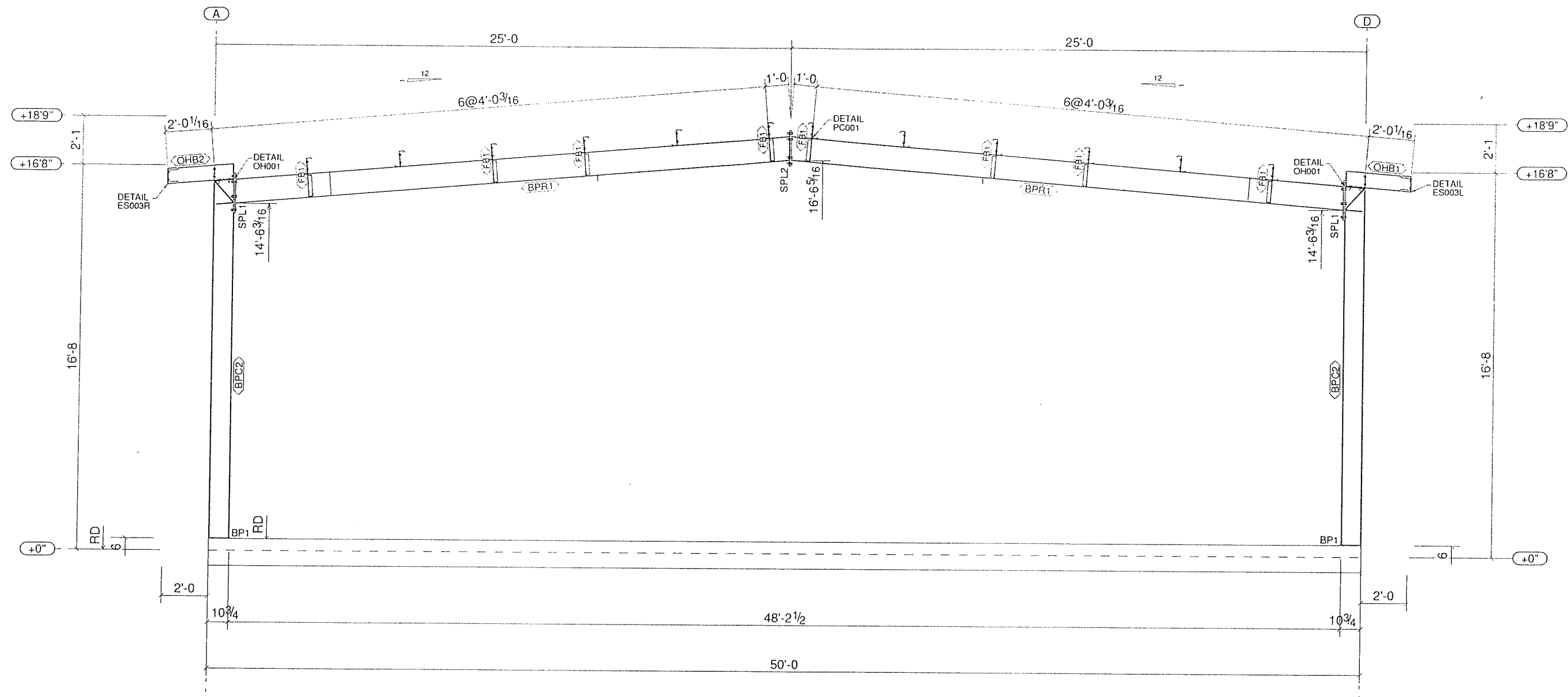
Bill of Materials				
Qty	Mark	Profile	Finish	Length
2	BPC6	SHT10GAX17"	HD	
2	BPR4	SHT10GAX17 15/16"	HD	
2	OH04	W8X10	HD	
4	FB5	2X2L12	GZ	2'-7 13/16"
4	FB9	2X2L12	GZ	2'-10 13/16"
4	FB10	2X2L12	GZ	2'-9 1/2"
4	FB11	2X2L12	GZ	2'-8 5/16"

Connection Plate and Bolt Table		
Mark	Plate Profile	Bolt Description
SPL2	PL1/2"x6" x 18 1/2"	8 - 3/4" x 2 1/2" A325N
SPL5	PL1/2"x6" x 27"	10 - 3/4" x 2 1/2" A325N
SPL5	PL1/2"x6" x 27"	10 - 3/4" x 2 1/2" A325N

Component Bolt Table		
Detail ID	Bolted Parts	Bolt Description
OH001	↓ ↓	
	OH04 → BPC6	4 - 5/8" x 2" A325N



0	08/19/2019	For Construction
REV	DATE	DESCRIPTION
MUELLER, INC. STEEL BUILDING SYSTEMS & COMPONENTS 1913 Hutchins Ave. Ballinger, TX 76821 (800) 527-1087		
DRAWING DESCRIPTION: FRAME ELEVATION ON GRIDS 5, 6, 7, 10		
SALESMAN Jacob Kenna	BUILDING DESCRIPTION 50'-0" X 250'-0" X 16'-8"	ROOF SLOPE 1:00:12
CUSTOMER NAME Jefferson County Drainage D***	ADDRESS Beaumont, TX 77707	SCALE 1:25
DETAILER GJH	CHECKER GJH	DATE 08/19/2019
JOB # 5663293	DWG # E10	REV 0



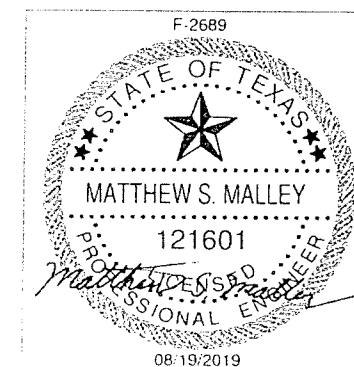
FRAME ELEVATION ON GRID 11
 ** THIS ENDWALL FRAME IS NOT EXPANDABLE **

BUILT UP MEMBER TABLE				
Mark	Type	Thick	x Max Width	x Length
BPC2	WB	PL3/16"	X10"	x 185' 15 1/16"
	IF	PL3/8"	X6"	x 168' 3/4"
	OF	PL3/8"	X6"	x 185' 1/8"
BPR1	WB	SHT10GAX12"		x 240"
	IF	PL1/4"	X6"	x 55' 7/8"
	IF	PL1/4"	X6"	x 233"
	OF	PL1/4"	X6"	x 54' 7/8"
	OF	PL1/4"	X6"	x 234"
	WB	SHT10GAX12"		x 49' 7/8"

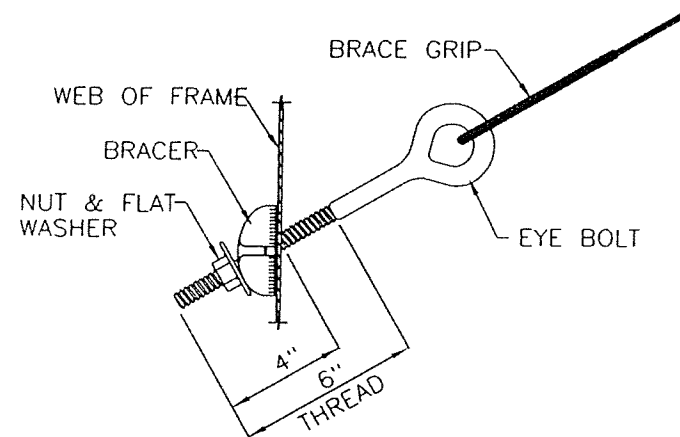
Bill of Materials				
Qty	Mark	Profile	Finish	Length
2	BPC2	PL3/16" X10"	HD	
2	BPR1	SHT10GAX12"	HD	
1	OH01	W8X10	HD	
1	OH02	W8X10	HD	
8	FB1	2X2L12	GZ	2'-7 11/16"

Connection Plate and Bolt Table		
Mark	Plate Profile	Bolt Description
SPL1	PL5/8" X6" x 20 1/2"	8 - 3/4" x 2 1/2" A325N
SPL1	PL5/8" X6" x 20 1/2"	8 - 3/4" x 2 1/2" A325N
SPL2	PL1/2" X6" x 18 1/2"	8 - 3/4" x 2 1/2" A325N

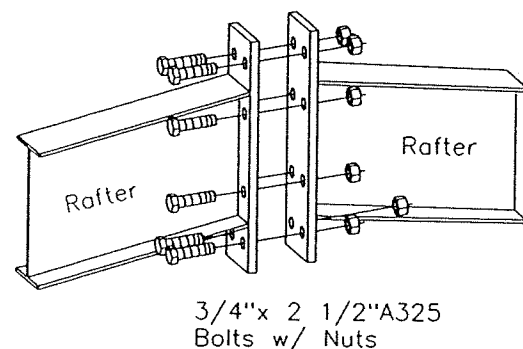
Component Bolt Table		
Detail ID	Bolted Parts	Bolt Description
OH001	↓	
	OH01 → BPC2	4 - 5/8" x 2" A325N
	OH02 → BPC2	4 - 5/8" x 2" A325N



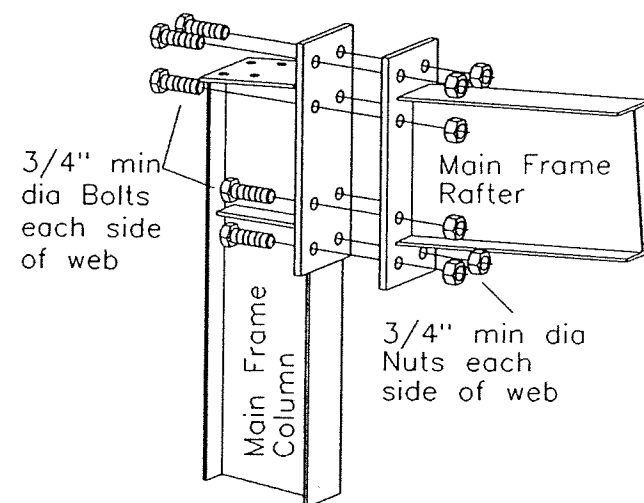
0	08/19/2019	For Construction
REV	DATE	DESCRIPTION
MUELLER, INC. STEEL BUILDING SYSTEMS & COMPONENTS 1913 Hutchins Ave. Ballinger, TX 76821 (800) 527-1087		
DRAWING DESCRIPTION: FRAME ELEVATION ON GRID 11		
SALESMAN: Jacob Kenna	BUILDING DESCRIPTION: 50'-0" X 250'-0" X 16'-8"	ROOF SLOPE: 1.00:12
CUSTOMER NAME: Jefferson County Drainage D***	ADDRESS: Beaumont, TX 77707	SCALE: 1:25
DETAILER: GJH	CHECKER: GJH	DATE: 08/19/2019
JOB #: 5663293	DWG #: E11	REV: 0



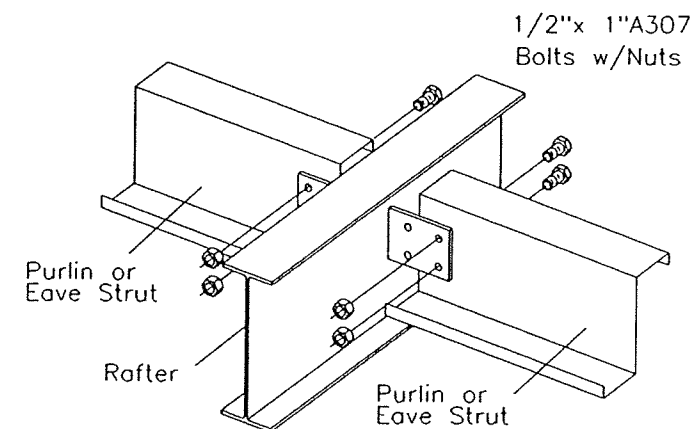
BR001 CABLE TO COLUMN OR RAFTER WEB WITH EYEBOLT ATTACHMENT



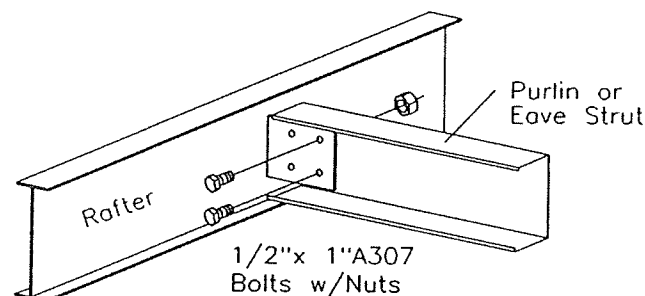
TYPICAL RAFTER SPLICE CONNECTION AT PEAK



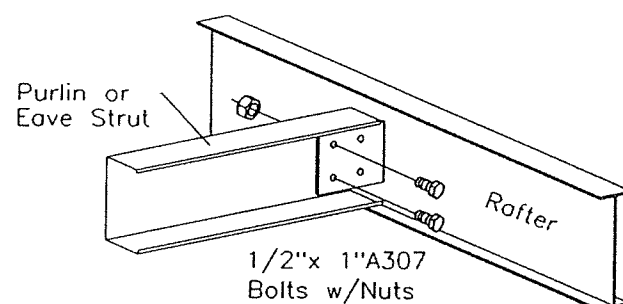
TYPICAL FLUSH COLUMN TO MAINFRAME RAFTER



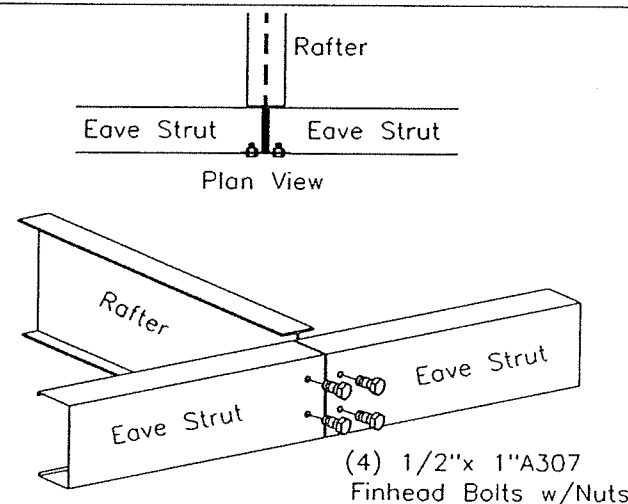
ES002 FLUSH ROOF PURLIN OR EAVE STRUT TO RAFTER



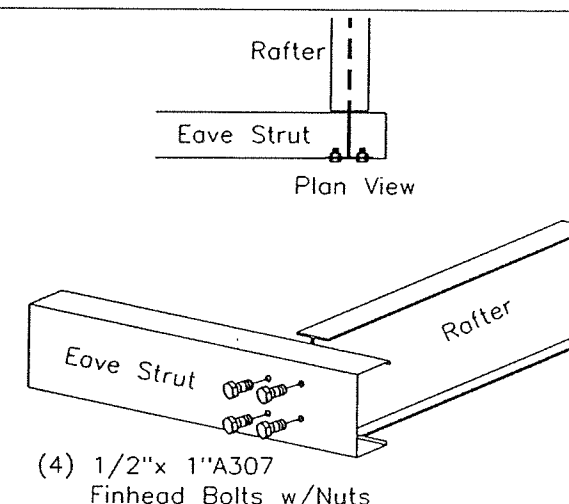
ES002L FLUSH ROOF PURLIN OR EAVE STRUT TO RAFTER



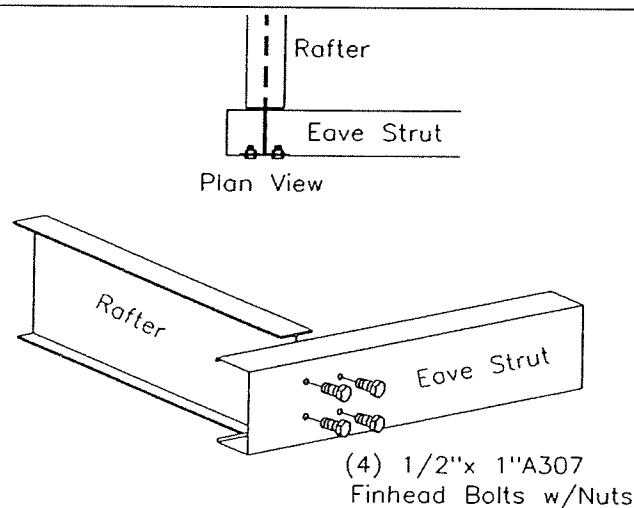
ES002R FLUSH ROOF PURLIN OR EAVE STRUT TO RAFTER



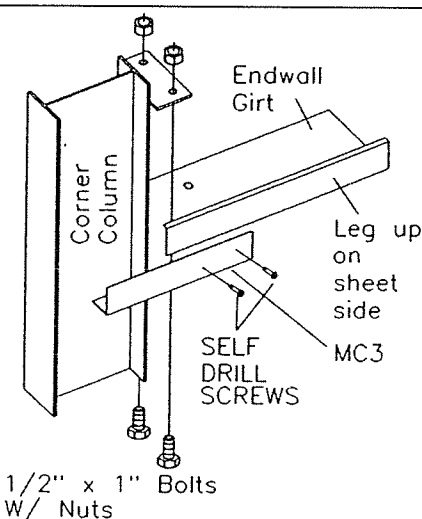
ES003 FLUSH EAVE STRUT TO OVERHANG RAFTER



ES003L FLUSH EAVE STRUT TO OVERHANG ENDWALL RAFTER

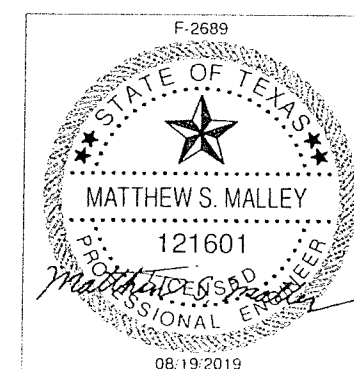


ES003R FLUSH EAVE STRUT TO OVERHANG ENDWALL RAFTER

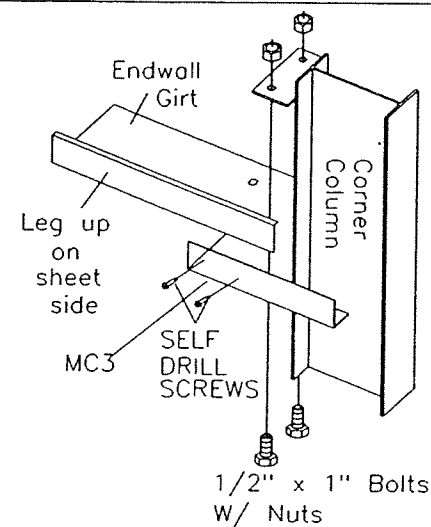


GC002BUE1 CORNER COLUMN TO ENDWALL GIRT

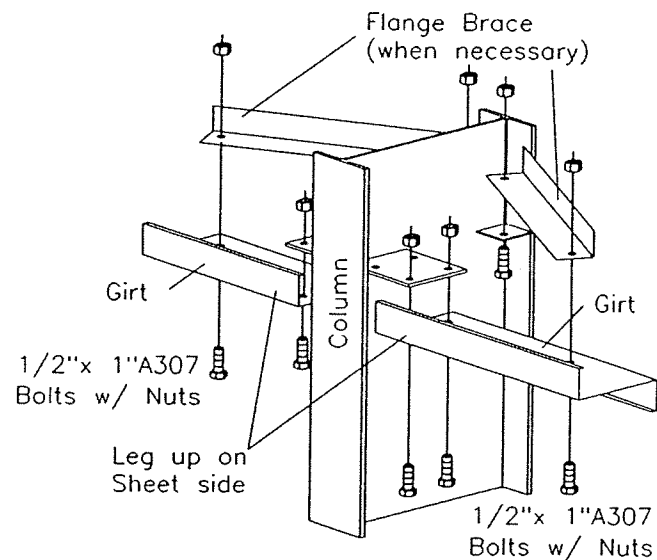
ALL A325 STRUCTURAL BOLT CONNECTIONS SHOWN IN THESE DETAILS HAVE STANDARD MINIMUM BOLT INFORMATION. FOR SPECIFIC BOLT QUANTITIES AND AND SIZES, REFER TO COMPONENT BOLT TABLES LOCATED ON FRAME AND WALL ELEVATION DWGS.



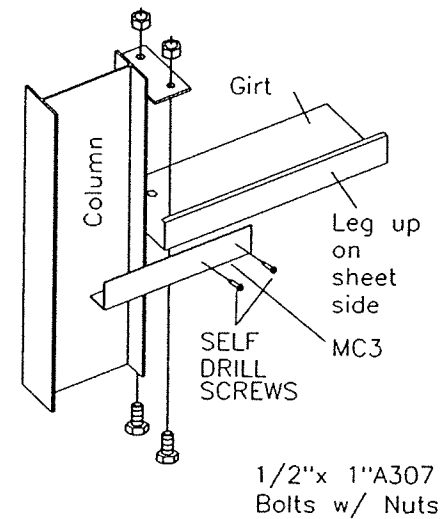
0	08/19/2019	For Construction
REV	DATE	DESCRIPTION
MUELLER, INC. STEEL BUILDING SYSTEMS & COMPONENTS 1913 Hutchins Ave., Ballinger, TX 76821 (800) 527-1087		
DRAWING DESCRIPTION: ERECTION DETAILS		
SALESMAN Jacob Kenna	BUILDING DESCRIPTION 50'-0" X 250'-0" X 16'-8"	ROOF SLOPE 1.00:12
CUSTOMER NAME Jefferson County Drainage D...	ADDRESS Beaumont, TX 77707	SCALE NONE
DETAILER GJH	CHECKER GJH	DATE 08/19/2019
JOB # 5663293	DWG # E101	REV. 0



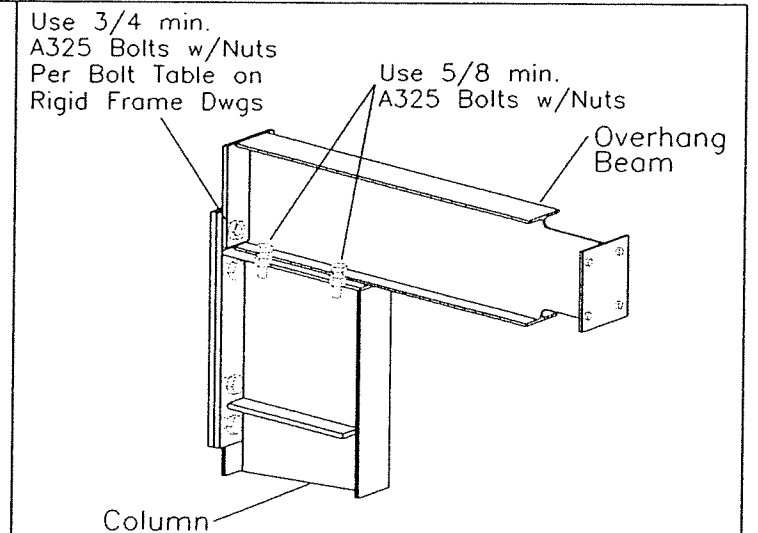
GC002BUER CORNER COLUMN TO ENDWALL GIRT



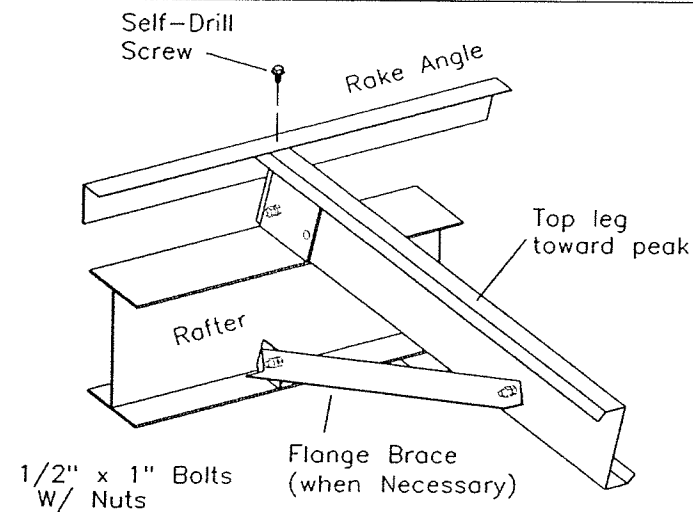
GC020 INTERIOR COLUMN TO WALL GIRT



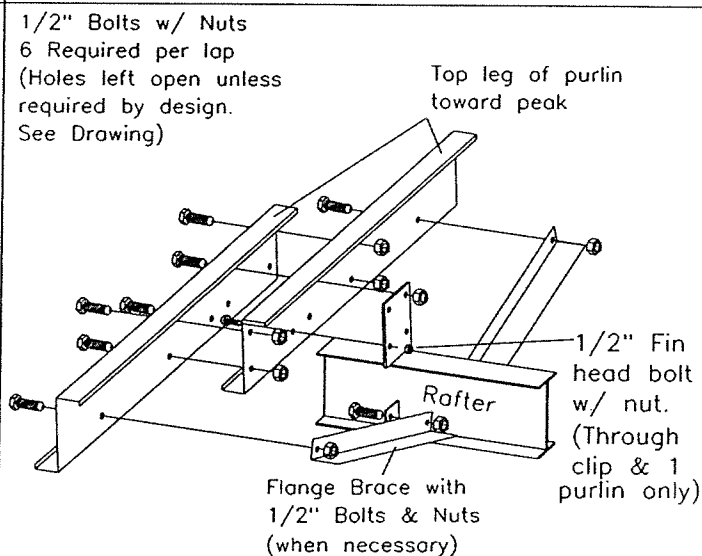
GC63 COLUMN TO WALL GIRT



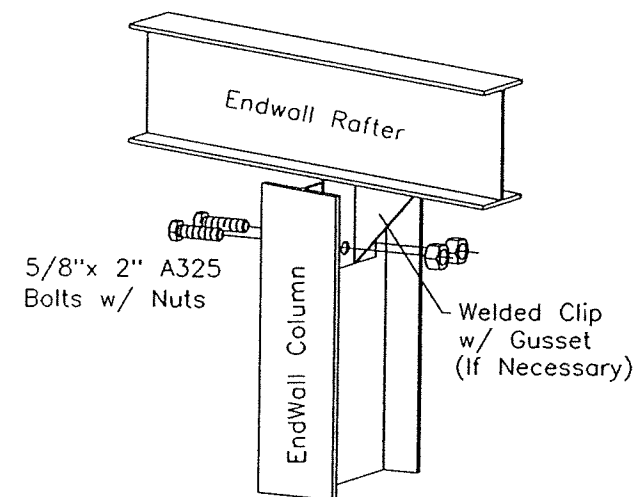
OH001 OVERHANG CONNECTION



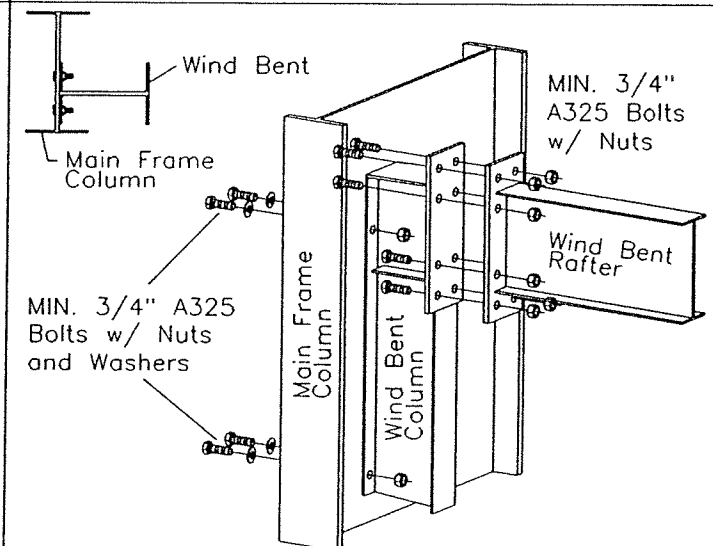
PC001 ENDWALL RAFTER TO ROOF PURLIN



PC003 INTERIOR RAFTER TO ROOF PURLIN

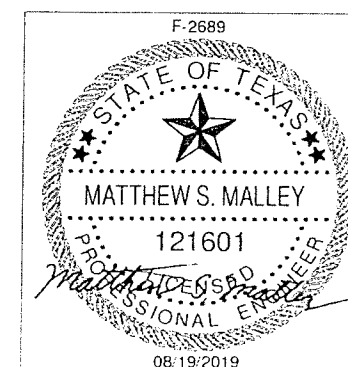


RC002 ENDWALL RAFTER TO COLUMN

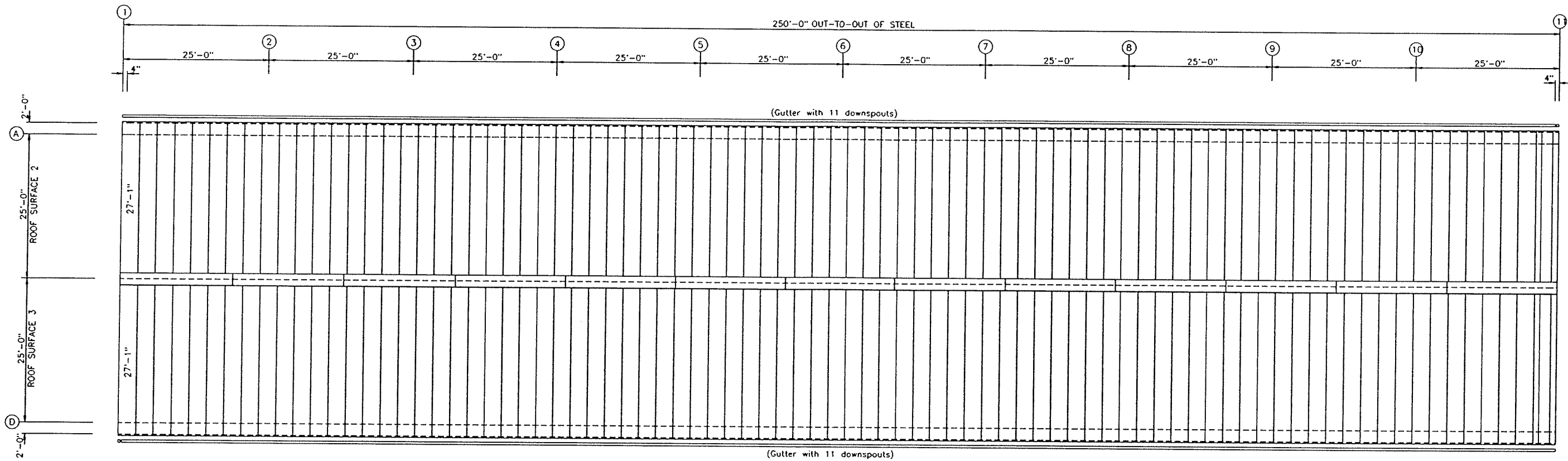


WB002 MAINFRAME COLUMN TO WIND BENT FRAME

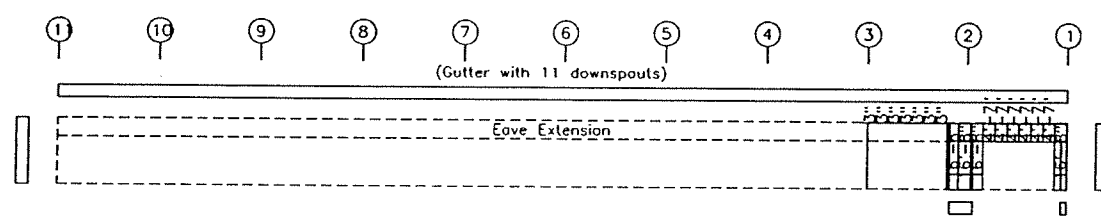
ALL A325 STRUCTURAL BOLT CONNECTIONS SHOWN IN THESE DETAILS HAVE STANDARD MINIMUM BOLT INFORMATION. FOR SPECIFIC BOLT QUANTITIES AND AND SIZES, REFER TO COMPONENT BOLT TABLES LOCATED ON FRAME AND WALL ELEVATION DWGS.



0	08/19/2019	For Construction
REV	DATE	DESCRIPTION
MUELLER, INC. STEEL BUILDING SYSTEMS & COMPONENTS 1913 Hutchins Ave. Ballinger, TX 76821 (800) 527-1087		
DRAWING DESCRIPTION:		
ERECTION DETAILS		
SALESMAN	BUILDING DESCRIPTION:	
Jacob Kenna	50'-0" X 250'-0" X 16'-8"	
CUSTOMER NAME	ADDRESS	
Jefferson County Drainage Dist.	Beaumont, TX 77707	
DETAILER	CHECKER	DATE
GJH		08/19/2019
JOB #	DWG #	REV.
5663293	E102	0

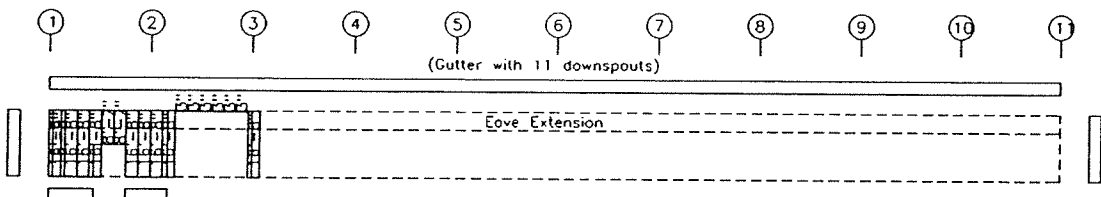


ROOF SHEETING PLAN
PANELS: 26 Ga. PBR - GP Galvalume Plus

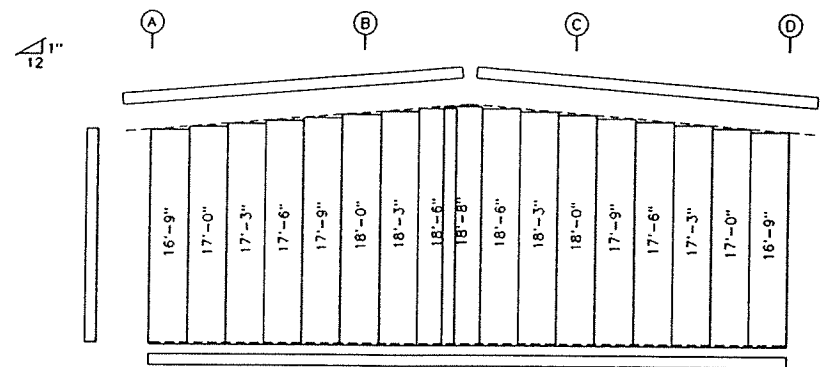


SIDEWALL SHEETING & TRIM: FRAME LINE A
PANELS: 26 Ga. R - TAN Tan

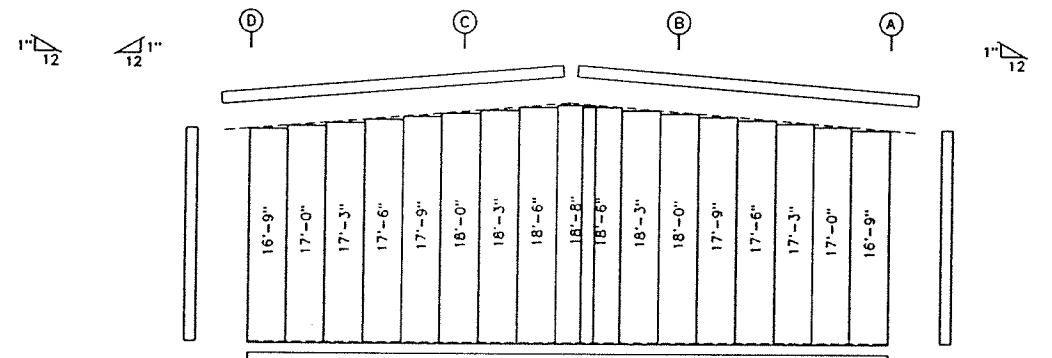
SIDEWALL GIRTS AND
SHEETING WILL BE
ADDED IN THE FUTURE.



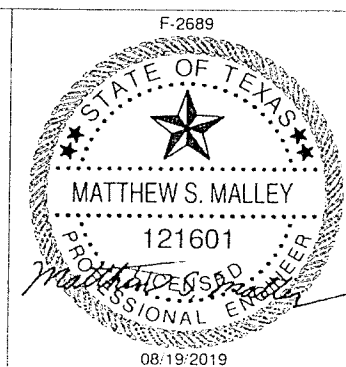
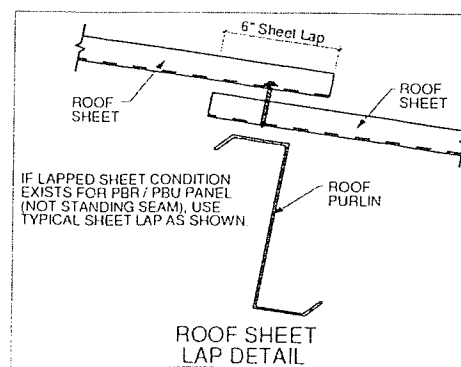
SIDEWALL SHEETING & TRIM: FRAME LINE D
PANELS: 26 Ga. R - TAN Tan



ENDWALL SHEETING & TRIM: FRAME LINE 1
PANELS: 26 Ga. R - TAN Tan



ENDWALL SHEETING & TRIM: FRAME LINE 11
PANELS: 26 Ga. R - TAN Tan



REV	DATE	DESCRIPTION
0	08/19/2019	For Construction
MUELLER, INC. STEEL BUILDING SYSTEMS & COMPONENTS 1913 Hutchins Ave. Ballinger, TX 76821 (800) 527-1087		
DRAWING DESCRIPTION: SHEETING DETAILS		
SALESMAN	BUILDING DESCRIPTION	
Jacob Kenna	50'-0" X 250'-0" X 16'-8"	
CUSTOMER NAME	ADDRESS	
Jefferson County Drainage D***	Beaumont, TX 77707	
DETAILER	CHECKER	DATE
GJH		08/19/2019
JOB #	5663293	DWG #
		S101
REV	0	SCALE
		NONE

Mueller, Inc.
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 Ballinger, TX 76821
 www.muellerinc.com
 (800)527-1087

DATE: 09/09/2019 PAGE : 1
 ROOF SLOPE: 1.00:12 JOB #: 5663293
 BLDG SIZE: 50'-0" X 250'-0" X 16'-8"
 CUSTOMER: Jefferson County Drainage D***
 LOCATION: Beaumont, TX 77707
 END USER:
 SALESMAN: Jacob Kenna

ENGINEER: MSM

DETAILER: GJH

SHOP FABRICATED FRAME MEMBERS (Prefab Order)

Item	Qty	Mark	Description	Profile	Color	Length	Unit	Total
1	1	BPC1	RF Column		HD	15'-9 3/4"	391.14	391.1
2	2	BPC2	RF Column		HD	15'-9 3/4"	382.20	764.4
3	4	BPC4	RF Column		HD	12'-4 1/4"	269.56	1078.2
4	4	BPC5	RF Column		HD	12'-4 1/4"	269.56	1078.2
5	8	BPC6	RF Column		HD	12'-4 7/16"	267.20	2137.6
6	1	BPC7	RF Column		HD	15'-9 3/4"	391.14	391.1
7	2	BPC8	RF Column		HD	15'-10 1/4"	330.50	661.0
8	4	BPR1	RF Rafter		HD	24'-2"	437.33	1749.3
9	2	BPR2	RF Rafter		HD	23'-9 1/4"	463.09	926.2
10	8	BPR3	RF Rafter		HD	23'-9 1/4"	474.46	3795.7
11	8	BPR4	RF Rafter		HD	23'-7 1/4"	466.52	3732.1
12	2	OHB1	OH Canopy Beam	W8X10	HD	2'-11"	35.35	70.7
13	2	OHB2	OH Canopy Beam	W8X10	HD	2'-11"	35.35	70.7
14	10	OHB3	OH Canopy Beam	W8X10	HD	3'-3 7/8"	42.48	424.8
15	8	OHB4	OH Canopy Beam	W8X10	HD	3'-5 7/8"	44.13	353.1
16	8	WBC1	Windbent Column	W8X13	HD	11'-11"	166.76	1334.1
17	4	WBR1	Windbent Rafter	W8X18	HD	23'-7 13/16"	439.66	1758.6
18	4	WEP1	WIDE-FLANGE	W8X10	HD	15'-9 11/16"	186.71	746.9

Total Piece Count = 82

Builtup wt = 16705.1 lbs
 Non-Builtup wt = 4758.8 lbs

Total wt = 21463.9 lbs

Galvanized



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DATE: 09/09/2019 PAGE : 1
ROOF SLOPE: 1.00:12 JOB #: 5663293
BLDG SIZE: 50'-0" X 250'-0" X 16'-8"
CUSTOMER: Jefferson County Drainage D***
LOCATION: Beaumont, TX 77707
END USER:
SALESMAN: Jacob Kenna

ENGINEER: MSM

DETAILER: GJH

=====

CABLE ASSEMBLY LIST

.....

8	CB1	Bracing - 1/4 Cable Assembly	CB1/4D	GZ	29'-9 3/8"
		Each Cable Assembly Requires:			
39592		27'-3 3/8" of 1/4 Diameter Cable			
39583		2 - 1/4 BRACE GRIP			
47249		2 - 5/8 EYEBOLT Assy w/ #1 Bracer			
					ASSEMBLE CABLE AT BOTH ENDS

.....

8	CB2	Bracing - 1/4 Cable Assembly	CB1/4D	GZ	26'-9 1/8"
		Each Cable Assembly Requires:			
39592		24'-3 1/8" of 1/4 Diameter Cable			
39583		2 - 1/4 BRACE GRIP			
47249		2 - 5/8 EYEBOLT Assy w/ #1 Bracer			
					ASSEMBLE CABLE AT BOTH ENDS

Colors: GZ - Galvanized

Notes: Length of cable bracing shown is out-to-out of brace assembly.
"Eye Bolt" refers to Eye Bolt, Nut, Hillside Washer or Bracer and Flat washer.

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-- COMPLEX CUSTOM 54983 --

DATE: 9/9/2019 PAGE: 1 of 3
ROOF SLOPE: 1.00:12 JOB#: 5663293
BLDG SIZE: 50'-0" x 250'-0" x 16'-8"
CUSTOMER: Jefferson County Drainage Dis
LOCATION: Beaumont, TX 77707

ENGINEER: MSM

DETAILER: GJH

SALESMAN: Jacob Kenna

MANUFACTURED MATERIAL

Item	Qty	Length	Mark	Punch	Material	Color	Pitch
38068	11	15'-4 11/16"	G1	SS-SS	8X25Z14	GZ	
38068	8	15'-11 5/16"	G2	SS-SS	8X25Z14	GZ	
38068	5	15'-4 11/16"	G3	SS-SS	8X25Z14	GZ	
38068	12	27'-1 1/2"	P1	4FT-SLF	8X25Z14	GZ	
38068	12	28'-3 1/2"	P2	2FT-4FT	8X25Z14	GZ	
38068	36	27'-3 1/2"	P3	2FT-2FT	8X25Z14	GZ	
38068	36	27'-3 1/2"	P4	2FT-2FT	8X25Z14	GZ	
38068	12	28'-3 1/2"	P5	4FT-2FT	8X25Z14	GZ	
38068	12	27'-1 1/2"	P6	SLF-4FT	8X25Z14	GZ	
54905	4	16'-4 1/2"	BA2	NP-NP	ARO14GA	GZ	
Holes:				T X:	2"	Y:	-1.38
				T X:	2'-2 1/4"	Y:	-1.38
				T X:	5'-2 1/4"	Y:	-1.38
				T X:	8'-2 1/4"	Y:	-1.38
				T X:	11'-2 1/4"	Y:	-1.38
				T X:	14'-2 1/4"	Y:	-1.38
				T X:	16'-2 1/2"	Y:	-1.38
54905	2	16'-1 1/2"	BA3	NP-NP	ARO14GA	GZ	
Holes:				T X:	2"	Y:	-1.38
				T X:	2'-0 3/4"	Y:	-1.38
				T X:	5'-0 3/4"	Y:	-1.38
				T X:	8'-0 3/4"	Y:	-1.38
				T X:	11'-0 3/4"	Y:	-1.38
				T X:	14'-0 3/4"	Y:	-1.38
				T X:	15'-11 1/2"	Y:	-1.38
46331	2	24'-11 1/2"	ES1	NP-NP	81E14DU	GZ	1.00:12
Holes:				S34X58 X:	1 3/4"	Y:	2.02
				S34X58 X:	1 3/4"	Y:	-1.98
				S34X58 X:	5 3/4"	Y:	2.02
				S34X58 X:	5 3/4"	Y:	-1.98
				S34X58 X:	24'-9 3/4"	Y:	2.02
				S34X58 X:	24'-9 3/4"	Y:	-1.98
46331	1	23'-11 5/16"	ES2	NP-NP	81E14DU	GZ	1.00:12
Holes:				S34X58 X:	1 3/4"	Y:	1.89
				S34X58 X:	1 3/4"	Y:	-2.11
				R916 X:	4 3/4"	Y:	-7.42
				R916 X:	4 3/4"	Y:	-5.92
				R916 X:	8 3/4"	Y:	-7.42
				R916 X:	8 3/4"	Y:	-5.92
				R916 X:	22'-10 9/16"	Y:	-7.42
				R916 X:	22'-10 9/16"	Y:	-5.92
				R916 X:	23'-2 9/16"	Y:	-7.42
				R916 X:	23'-2 9/16"	Y:	-5.92
				S34X58 X:	23'-9 9/16"	Y:	-2.10
				S34X58 X:	23'-9 9/16"	Y:	1.90

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-- COMPLEX CUSTOM 54983 --

DATE: 9/9/2019 PAGE: 2 of 3
ROOF SLOPE: 1.00:12 JOB#: 5663293
BLDG SIZE: 50'-0" x 250'-0" x 16'-8"
CUSTOMER: Jefferson County Drainage Dis
LOCATION: Beaumont, TX 77707

ENGINEER: MSM

DETAILER: GJH

SALESMAN: Jacob Kenna

MANUFACTURED MATERIAL

Item	Qty	Length	Mark	Punch	Material	Color	Pitch
46331	16	24'-11 1/2"	ES3	NP-NP	81E14DU	GZ	1.00:12
			Holes:	S34X58 X:	1 3/4"	Y: 2.02	
				S34X58 X:	1 3/4"	Y: -1.98	
				S34X58 X:	24'-9 3/4"	Y: 2.02	
				S34X58 X:	24'-9 3/4"	Y: -1.98	
46329	1	24'-3 5/16"	ES4	NP-NP	81E12DU	GZ	1.00:12
			Holes:	S34X58 X:	1 3/4"	Y: 1.90	
				S34X58 X:	1 3/4"	Y: -2.10	
				R916 X:	3'-6 3/4"	Y: -7.42	
				R916 X:	3'-6 3/4"	Y: -5.92	
				R916 X:	3'-10 3/4"	Y: -7.42	
				R916 X:	3'-10 3/4"	Y: -5.92	
				S34X58 X:	24'-1 9/16"	Y: -2.10	
				S34X58 X:	24'-1 9/16"	Y: 1.90	
46329	14	24'-3 5/16"	ES5	NP-NP	81E12DU	GZ	1.00:12
			Holes:	S34X58 X:	1 3/4"	Y: 1.90	
				S34X58 X:	1 3/4"	Y: -2.10	
				S34X58 X:	24'-1 9/16"	Y: -2.10	
				S34X58 X:	24'-1 9/16"	Y: 1.90	
46331	2	24'-11 1/2"	ES6	NP-NP	81E14DU	GZ	1.00:12
			Holes:	S34X58 X:	1 3/4"	Y: 2.02	
				S34X58 X:	1 3/4"	Y: -1.98	
				S34X58 X:	24'-5 3/4"	Y: 2.02	
				S34X58 X:	24'-5 3/4"	Y: -1.98	
				S34X58 X:	24'-9 3/4"	Y: 2.02	
				S34X58 X:	24'-9 3/4"	Y: -1.98	
46331	2	23'-11 5/16"	ES7	NP-NP	81E14DU	GZ	1.00:12
			Holes:	S34X58 X:	1 3/4"	Y: 1.89	
				S34X58 X:	1 3/4"	Y: -2.11	
				S34X58 X:	23'-9 9/16"	Y: -2.10	
				S34X58 X:	23'-9 9/16"	Y: 1.90	
46329	1	24'-3 5/16"	ES8	NP-NP	81E12DU	GZ	1.00:12
			Holes:	S34X58 X:	1 3/4"	Y: 1.90	
				S34X58 X:	1 3/4"	Y: -2.10	
				R916 X:	20'-4 9/16"	Y: -7.42	
				R916 X:	20'-4 9/16"	Y: -5.92	
				R916 X:	20'-8 9/16"	Y: -7.42	
				R916 X:	20'-8 9/16"	Y: -5.92	
				S34X58 X:	24'-1 9/16"	Y: -2.10	
				S34X58 X:	24'-1 9/16"	Y: 1.90	
46331	1	23'-11 5/16"	ES9	NP-NP	81E14DU	GZ	1.00:12
			Holes:	S34X58 X:	1 3/4"	Y: 1.89	
				S34X58 X:	1 3/4"	Y: -2.11	
				R916 X:	5'-2 13/16"	Y: -7.42	
				R916 X:	5'-2 13/16"	Y: -5.92	
				R916 X:	5'-6 13/16"	Y: -7.42	
				R916 X:	5'-6 13/16"	Y: -5.92	
				R916 X:	13'-8 9/16"	Y: -7.42	
				R916 X:	13'-8 9/16"	Y: -5.92	
				R916 X:	14'-0 9/16"	Y: -7.42	
				R916 X:	14'-0 9/16"	Y: -5.92	
				S34X58 X:	23'-9 9/16"	Y: -2.10	
				S34X58 X:	23'-9 9/16"	Y: 1.90	

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DATE: 9/9/2019 PAGE: 3 of 3
 ROOF SLOPE: 1.00:12 JOB#: 5663293
 BLDG SIZE: 50'-0" x 250'-0" x 16'-8"
 CUSTOMER: Jefferson County Drainage Dis
 LOCATION: Beaumont, TX 77707

ENGINEER: MSM DETAILER: GJH SALESMAN: Jacob Kenna

MANUFACTURED MATERIAL

Item	Qty	Length	Mark	Punch	Material	Color	Pitch
56913	16	2'-7 11/16"	FB1	FB-FB	2X2L12	GZ	
56913	4	2'-10 3/8"	FB2	FB-FB	2X2L12	GZ	
56913	4	2'-9 1/4"	FB3	FB-FB	2X2L12	GZ	
56913	4	2'-8 1/4"	FB4	FB-FB	2X2L12	GZ	
56913	36	2'-7 13/16"	FB5	FB-FB	2X2L12	GZ	
56913	16	2'-11 5/16"	FB6	FB-FB	2X2L12	GZ	
56913	16	2'-9 13/16"	FB7	FB-FB	2X2L12	GZ	
56913	23	2'-8 7/16"	FB8	FB-FB	2X2L12	GZ	
56913	16	2'-10 13/16"	FB9	FB-FB	2X2L12	GZ	
56913	16	2'-9 1/2"	FB10	FB-FB	2X2L12	GZ	
56913	9	2'-8 5/16"	FB11	FB-FB	2X2L12	GZ	
56913	6	3'-10 1/8"	JB1	FB-FB	2X2L12	GZ	
38085	2	27'-0 5/8"	SA1	NP-NP	ARO14GA	GZ	
38085	2	27'-0 9/16"	SA2	NP-NP	ARO14GA	GZ	

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DATE: 09/09/2019 PAGE : 1
 ROOF SLOPE: 1.00:12 JOB #: 5663293
 BLDG SIZE: 50'-0" X 250'-0" X 16'-8"
 CUSTOMER: Jefferson County Drainage D***
 LOCATION: Beaumont, TX 77707
 END USER:
 SALESMAN: Jacob Kenna

ENGINEER: MSM

DETAILER: GJH

HARDWARE (Sales Order)

Item	Qty	Mark	Length	Description	Profile	Color
39592 ,	8 ,	CB1 ,	29'-9 7/16"	1/4 CABLE	CB1/4D	GZ ,
39592 ,	8 ,	CB2 ,	26'-9 1/8"	1/4 CABLE	CB1/4D	GZ ,
39583 ,	32 ,	BG1 ,	2'-0"	1/4 BRACE GRIP		GZ ,
47249 ,	32 ,	EB1 ,	0'-11"	5/8 EYEBOLT		GZ ,
51689 ,	16 ,	MC3 ,	2'-0"	MC CLIP	MC3	GZ ,
53684 ,	12 ,	MKB2 ,	0'-3 1/2"	MKB2 CLIP	MKB2	GZ ,
47247 ,				Strapping 2526'-4"(Actual)	2" X 24 GA	GZ ,
40378 ,	1289 ,			BOLT 1/2"DIA A307 1"		GZ ,
39360 ,	206 ,			BOLT 1/2"DIA A307 FIN HEAD 1"		GZ ,
40380 ,	449 ,			BOLT 3/4"DIA A325 2"1/2		GZ ,
40379 ,	101 ,			BOLT 5/8"DIA A325 2"		GZ ,
64972 ,	1495 ,			NUT 1/2"DIA A307		GZ ,
64959 ,	449 ,			NUT 3/4"DIA A325		GZ ,
64960 ,	101 ,			NUT 5/8"DIA A325		GZ ,
67963 ,	67 ,			WASHER 3/4"DIA		GZ ,

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