BID COPY/ORIGINAL

CITY OF ROUND ROCK PUBLIC WORKS



Project Manual For:

Clay Madsen Soccer Field Project

June, 2017

Prepared By:

Waeltz & Prete, Inc. Civil Engineers 3000 Joe DiMaggio Blvd. #72 Round Rock, TX 78665



TBPE Firm Registration No. #F-10308

Clay Madsen Soccer Field Project

TABLE OF CONTENTS

Section	Description	No. of Pages
00020	Notice to Bidders	1
00100	Instructions to Bidders Exhibit A	4 1
00200	Bid Bond	2
00300	Bid Form	8
00410	Statement of Bidder's Safety Experience	1
00500	Agreement	5
00600 00610 00620 00650	Insurance & Construction Bond Forms Performance & Payment Bond Instruction Insurance Instructions Performance Bond Payment Bond Certificate of Liability Insurance	ns 1 1 2 2 2 1
00700	General Conditions	41
00800	Supplemental General Conditions	2
00900	Special Conditions	5
01000	Technical Specifications	4
02000	Plans, Details and Notes	
	Construction Documents	20
03000	Geotechnical Report	48



NOTICE TO BIDDERS

Sealed bids addressed to Katie Baker, City of Round Rock, Parks and Recreation Department, <u>221 East Main Street</u>, <u>Round Rock</u>, <u>TX 78664</u>, for furnishing all labor, material and equipment and performing all work required for the project titled, <u>Clay Madsen Soccer Field Project</u> (project includes construction of two soccer fields (approximately +/- 9.54 ac), including site utilities, irrigation, and sod installation), will be received until June 27th at 2:00 p.m., then publicly opened and read aloud at the same address. Bid envelopes shall state date and time of bid and "Clay Madsen Soccer Field Project". <u>Bids must also be accompanied by a "Statement of Bidder's Safety Experience" included in Section 410 of the Project Manual.</u> No bids may be withdrawn after the scheduled opening time. Any bids received after scheduled bid opening time will be returned unopened.

Bids must be submitted on City of Round Rock bid forms and must be accompanied by an acceptable bid security as outlined in the Instructions to Bidders, payable to the City of Round Rock, Texas equal to five percent (5%) of the total bid amount. Solicitation documents may be obtained from the City of Round Rock website at the following web address: http://www.roundrocktexas.gov/departments/parks-and-recreation/parks-trails/parks-recreation-solicitations/. Bidders shall be responsible for printing or obtaining prints of the aforementioned documents as necessary. For questions please contact the City's Project Manager, Katie Baker, 512-341-3355.

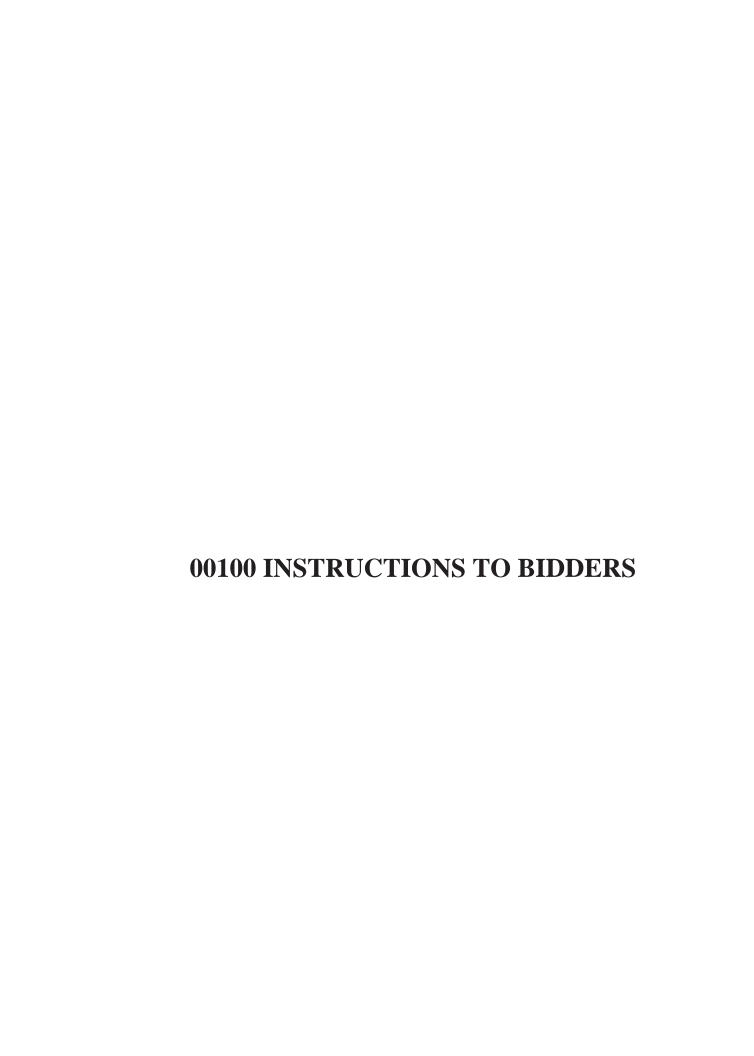
In case of ambiguity, duplication, or obscurity in the bids, the City of Round Rock reserves the right to construe the meaning thereof. The City of Round Rock further reserves the right to reject any or all bids and to waive any informalities and irregularities in the bids received.

The successful bidder will be expected to execute the City of Round Rock's standard contract and to furnish performance and payment bonds, all as described in the bid documents. Contractors and subcontractors shall pay to laborers, workmen, and mechanics the prevailing wage rates as determined by the City of Round Rock.

Publish Dates:

Austin American Statesman:

June 10, 2017 June 17, 2017



INSTRUCTIONS TO BIDDERS

- 1 Prior to submitting any bid, bidders are required to read all drawings (plans), specifications, and all other Project Manual and/or Contract Documents carefully; to inform themselves by their independent research, test and investigation of the difficulties to be encountered and judge for themselves of the accessibility of the Work and all attending circumstances affecting the cost of doing the Work and the time required for its completion and obtain all information required to make a bid. The aforementioned documents may only be from City's website following obtained the at the web http://www.roundrocktexas.gov/departments/parks-and-recreation/parks-trails/ parks-recreation-solicitations/. Bidders shall be responsible for printing or obtaining prints of the aforementioned documents as necessary.
- 2. Should the bidder find discrepancies in, or omissions from the drawings (plans), specifications, or other Project Manual and/or Contract Documents, or should he be in doubt as to their meaning, he should notify at once the City and obtain clarification or addendum prior to submitting any bid. Any addenda issued will be posted with the documents at the web address mentioned in 1 above no later than two business days prior to the Bid Opening Date. Prior to submitting a bid, the bidder is responsible for determining if any addenda have been issued and for following any instructions required in any addenda issued.
- 3. It shall be the responsibility of the bidder to see that his bid is received at the place and time named in the Notice to Bidders in the Project Manual. Bids received after the scheduled opening time will be returned unopened.
- 4. Bids shall be submitted in sealed envelopes plainly marked "Sealed Bid" and showing the name of the project, the job number if applicable, and the opening date and time.
- 5. Bidders shall be responsible for submitting a copy of the City's Bid Form, Bid Bond Form, and Statement of Bidder's Safety Experience from the Project Manual documents posted at the web address as described in 1 above.
- 6. Bids shall be accompanied by a bid security consisting of a certified cashier's check in an amount not less than five percent (5%) of the total maximum bid price, payable without recourse to the City of Round Rock, or a bid bond in the same amount from a reliable surety company, as a guarantee that the bidder will enter into a contract and execute performance and payment bonds, as stipulated by item 15 below, within ten (10) days after notice of award of contract to him. Bid securities must be submitted in the same sealed envelope with the bid. Bids submitted without a bid security may not be considered at the sole discretion of the City.

- 7. If awarded the bid, the bidder must complete a Form 1295 electronically on the Texas Ethics Commission (TEC) Website at https://www.ethics.state.tx.us/whatsnew/elf_info_form1295.htm and submit the signed and notarized Form 1295 within ten (10) business days of notification of the award. Instructions for completing a Form 1295 are attached as Exhibit "A" to the Instructions to Bidders.
- 8. No conditional bids will be accepted.
- 9. A bidder wishing to withdraw his submitted sealed bid prior to the scheduled bid opening time must do so by presenting in person a written request signed by an authorized representative of the bidder to a City employee at the location for which sealed bids are to be addressed. No telephone, facsimile, or email requests will be accepted. The City will expend the time and effort that the City in its sole discretion determines is necessary to investigate the authenticity of a request before complying with a request. The City shall in its sole discretion determine if the City will comply with a request and the City shall not be held liable for not complying with a request. If the City does not comply with a request, the request shall automatically become null and void.
- 10. A bidder wishing to revise his sealed bid after submittal but before the scheduled bid opening time must first withdraw his bid as provided for in the Instructions to Bidders and then submit a sealed bid in accordance with the Instructions to Bidders. No revisions to a bid will be allowed after the scheduled bid opening time. The bidder shall be responsible for ensuring the amount of the bid security is as specified in the Instructions to Bidders.
- 11. All bid securities will be returned to the respective bidders within twenty-five (25) days after bids are opened, except those which the City elects to hold until the successful bidder has executed the Agreement. Thereafter, all remaining securities, including security of the successful bidder, will be returned within sixty (60) days.
- 12. Until the award of the contract, the City reserves the right to reject any and all bids and to waive technicalities; to advertise for new bids; or to do the work otherwise when the best interest of the City will be thereby promoted.
- 13. In case of ambiguity or lack of clarity in the statement of prices in the bids, the City reserves the right to consider the most favorable analysis thereof, or to reject the bid. Unreasonable and/or unbalanced prices submitted in a bid may result in rejection of such bid or other bids.
- 14. Award of the contract, if awarded, will be made within sixty (60) days after opening of the bids, and no bidder may withdraw his bid within said sixty (60) day period of time unless a prior award is made. A Notice to Proceed will be issued within sixty (60) days after contract Execution Date as defined in the General Conditions.
- 15. Within ten (10) days after written notification of award of the contract, the successful bidder must furnish a performance bond and a payment bond in the amount of one hundred

percent (100%) of the total Contract Amount. Said performance bond and payment bond shall be from an approved surety company holding a permit from the State of Texas, indicating it is authorized and admitted to write surety bonds in this state. In the event the bond exceeds \$100,000.00, the surety must also (1) hold a certificate of authority from the United States secretary of the treasury to qualify as a surety on obligations permitted or required under federal law; or (2) have obtained reinsurance for any liability in excess of \$100,000.00 from a reinsurer that is authorized and admitted as a reinsurer in this state and is the holder of a certificate of authority from the United States secretary of the treasury to qualify as a surety or reinsurer on obligations permitted or required under federal law.

In determining whether the surety or reinsurer holds a valid certificate of authority, the City may rely on the list of companies holding certificates of authority as published in the Federal Register covering the date on which the bond is to be executed.

- 16. Failure to execute the Agreement within ten (10) days of written notification of award or failure to furnish the performance bond and payment bond as required by item 15 above, shall be just cause for the annulment of the award. In case of annulment of the award, the bid security shall become the property of the City, not as a penalty, but as liquidated damages.
- 17. No contract shall be binding upon the City until it has been signed by its Mayor after having been duly authorized to do so by the City Council.
- 18. The Contractor shall not commence Work under the Agreement until he has furnished certification of all insurance required and such has been approved by the City, nor shall the Contractor allow any Subcontractor to commence work on his subcontract until proof of all similar insurance that is required of the subcontractor has been furnished and approved. The Contractor's insurer shall use the certificate of insurance form included in the bid documents or the standard ACORD form.
- 19. If the bidder's insurance company is authorized, pursuant to its agreement with bidder, to arrange for the replacement of a loss, rather than by making a cash payment directly to the City, the insurance company must furnish or have furnished by bidder, a performance bond in accordance with Section 2253.021(b), Texas Government Code, and a payment bond in accordance with Section 2253.021(c).
- 20. Any quantities given in any portion of the Bid Documents, including the drawings (plans), are estimates only, and the actual amount of work required may differ somewhat from the estimates. The basis for payment shall be the actual amount of work done and/or material furnished as specified in the General Conditions.
- 21. Bids shall be submitted on a separated contract basis. No Texas sales tax shall be included in the prices bid for materials consumed or incorporated into the Work. This contract is issued by an organization which is qualified for exemption pursuant to the provisions of Section 151.309(5) of the Texas Tax Code. The City will issue an exemption certificate to the Contractor. The Contractor must then issue a resale certificate to the material supplier

for materials purchased. The Contractor must have a valid sales tax permit in order to issue a resale certificate.

Upon obtaining consumable materials, the Contractor will issue a resale certificate in lieu of payment of sales tax, and the following conditions shall be observed;

- 1) The Contractor will transfer title of consumable, but not incorporated, materials to the City at the time and point of receipt by the Contractor;
- 2) The Contractor will be paid for these consumable materials by the City as soon as practicable. Payment will not be made directly but considered subsidiary to the pertinent bid item. The Contractor's monthly estimate will state that the estimate includes consumables that were received during the month covered by the estimate; and
- 3) The designated representative of the City must be notified as soon as possible of the receipt of these materials so that an inspection can be made by the representative. Where practical, the materials will be labeled as the property of the City.
- 22. The Contractor, after execution of the contract and pursuant to Internal Revenue Service (IRS) regulations, shall furnish its Taxpayer Identification Number (TIN) to the City. The Contractor shall provide the appropriate information on a W-9 form (which can be provided by the City upon request). This form shall be submitted directly to the City's Accounts Payable Department to ensure security of the information.
- 23. If the Bid Form includes Add and/or Deduct Alternate bid items and/or otherwise provides for Alternate bids, the City will determine whether to select or not select one or more of the Add and/or Deduct Alternate bid items and/or Alternate bids at the City's sole discretion and for its greatest advantage. If the City selects any Add and/or Deduct Alternate bid items, the total bid amount will be determined by adding the amount of the selected Add Alternate(s) to, and deducting the amount of the selected Deduct Alternate(s) from the Base Bid or the selected Alternate bid.

EXHIBIT "A" FORM 1295 INSTRUCTIONS

Pursuant to newly enacted Section 2252.90 of the Texas Government Code, as of January 1, 2016, any business entity entering into a contract with a local government that requires approval of the governing body must submit a disclosure of interested parties to the local governmental prior to the execution of the contract. The Texas Ethics Commission (TEC) has adopted a form for the disclosure of interested parties (Form 1295) and has created a website application for business entities to submit the required information.

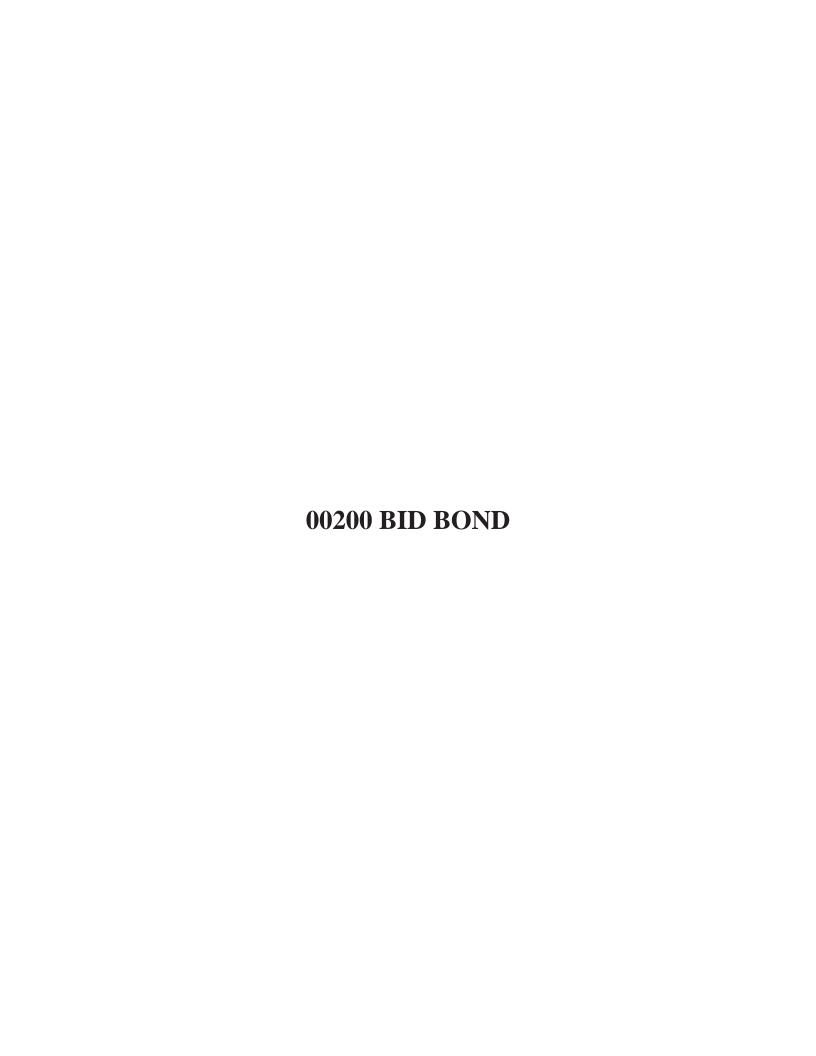
The City of Round Rock may not enter into a contract that requires the approval of the City Council until the business entity that is a party to the contract files a Form 1295 with the City Clerk. The instructions to complete Form 1295 and file it with the City Clerk are as follows:

- 1. Upon being notified of a bid award, the award recipient ("business entity") must go to the following website: https://www.ethics.state.tx.us/whatsnew/elf_info_form1295.htm and follow the login directions on the website application to complete a Form 1295. If this is a business entity's first time logging on to the website application, the business entity must create a login Username and Password and then follow the application's instructions to complete a Form 1295.
- 2. The City does not have a Contract ID Number System. Please insert the project name in this box.
- 3. Even if a business entity has no interested parties, Form 1295 still must be completed using the website application and filed with the City Clerk.
- 4. Once confirmation is received that the information has been submitted, the business entity MUST print, sign and notarize the printed out completed Form 1295.
- 5. The signed and notarized Form 1295 must be filed with the Clerk of the City of Round Rock within ten (10) business days of the date of notification of the award. The signed and notarized Form 1295 may be scanned and e-mailed to swhite@roundrocktexas.gov OR mailed or hand-delivered to the address below.
- 6. Once the City Clerk receives the signed and notarized Form 1295, the City Clerk will submit confirmation of receipt through the TEC website application within thirty (30) days of the filing of Form 1295.
- 7. This process must be followed for each contract a business entity enters into with the City of Round Rock.
- 8. A Form 1295 cannot be handwritten. It must be completed electronically through the TEC website application.
- 9. If you have any questions regarding the filing of Form 1295, please contact:

Sara White, City Clerk 221 East Main Street Round Rock, Texas 78664 Phone: (512) 218-5404

Fax: (512) 218-7097

E-mail: swhite@roundrocktexas.gov



BID BOND

THE STATE OF TEXAS	§			
	§	KNOW ALL BY	THESE PRESE	ENTS:
COUNTY OF WILLIAMSON	§			
That	of th	e City of		
County of	State	e of	8	as Principal,
and				
surety on bonds for principals, are	held and firmly	bound unto the C	ITY OF ROUN	ND ROCK,
TEXAS ("Owner"), in the penal	sum of Five Pero	cent (5%) of the tot	al amount of the	e Bid of the
Principal submitted to the Owner, f				
truly to be made, and the said Pr				their heirs,
administrators, executors, successor	ors and assigns, j	jointly and severally	, as follows:	
In no case shall the liability	y of the Surety h	ereunder exceed the	sum of (
THE CONDITIONS OF THE	HIS OBLIGATIO	ON ARE SUCH that	whereas the P	Principal has
submitted the above-referenced l				-
"Specifications for Construction				
specifications for construction	01			,,
for which Bids are to be opened	at the office of	Owner on the	27th	day of
, 20 <u>17</u> .				-
NOW, THEREFORE, if the manner required under the "Instruction her/him for signature, enters into a support Documents, in accordance with the guarantee faithful performance and obligation shall be null and void; of	ections to Bidder written Agreeme he Bid, and file I the other to guar	rs," after the prescri ent substantially in the es the two (2) bond rantee payment for la	bed forms are particles between the form contained by with the Owabor and material	oresented to ed in the Bid ener, one to als, then this
In the event that suit is broug Surety shall pay all costs incurred b be fixed by the Court.				
IN WITNESS WHEREOF, the day of the				ment on this
Principal		Surety		
Printed Name		Printed Na	ame	
By:		Bv:		
Title:		Title:		
Address:				
		_		

Resident Agent of Surety:				
Signature				
Printed Name				
Street Address				
City, State, Zip				



BID FORM

JOB NAME:	Clay Madsen Soccer Field Project
JOB LOCATION:	Round Rock, Williamson County, Texas
OWNER:	City of Round Rock, Texas
DATE:	

Ladies and Gentlemen:

Pursuant to the foregoing Notice to Bidders and Instructions to Bidders, the undersigned bidder hereby proposes to do all the work, to furnish all necessary superintendence, labor, machinery, equipment, tools, materials, insurance and miscellaneous items, to complete all the work on which he bids as provided by the attached supplemental specifications, and as shown on the plans for the construction of <u>Clay Madsen Soccer Field Project</u> and binds himself on acceptance of this proposal to execute a contract and bond for completing said project within the time stated, for the following prices, to wit:

Any addenda issued will be posted with the Project Manual and/or Contract Documents by the close of business June 20th on the City's website at:

 $\underline{http://www.roundrocktexas.gov/departments/parks-and-recreation/parks-trails/parks-recreation-solicitations}$

Prior to submitting a bid, the bidder is responsible for determining if any addenda have been issued and for following any instructions in any addenda issued. Bidder acknowledges receipt of the following Addenda by listing Addendum "number" and "date".

The Owner reserves the right to award any combination of bid items in the Base Bid.

BASE BID

Bid <u>Item</u>	Approx. Quantity	<u>Unit</u>	Item Description and Written Unit Price	Unit <u>Price</u>	Amount
1.	1	LS	Total Mobilization Payment, complete in place,		
			fordollars andcents.	\$	\$

Page 1

Bid <u>Item</u>	Approx. <u>Quantity</u>	<u>Unit</u>	Item Description and Written Unit Price	Unit <u>Price</u>	Amount
2.	1	EA	Capital Improvement Sign, complete in place,		
			fordollars andcents.	\$	\$
3.	1	LS	Stabilized Construction, Entrance, complete in place,		
			fordollars andcents.	\$	\$
4.	920	LF	Silt Fence, for Erosion Control, complete in place,		
			fordollars andcents.	\$	\$
5.	4,390	SY	Erosion Blanket, (Curlex II or Approved Equal), complete in place,		
			fordollars andcents.	\$	\$
6.	90	SY	Erosion Mat, (Landlok 300 or Approved Equal complete in place,),	
			fordollars andcents.	\$	\$

Bid <u>Item</u>	Approx. Quantity	<u>Unit</u>	Item Description and Written Unit Price	Unit <u>Price</u>	Amount
7.	15	CY	Rock Rip-Rap (d ₅₀ =9"), complete in place,		
			fordollars andcents.	\$	\$
8.	24,445	SY	TIFF 419 Roll Sod, Including 4" Thick Layer of Import Topsoil complete in place,		
			fordollars andcents.	\$	\$
9.	807	LF	Tree Protection, complete in place,		
			fordollars andcents.	\$	\$
10.	4,465	SY	Hydromulch Seeding for Erosion Control, complete in place,		
			fordollars andcents.	\$	\$
11.	13,844	CY	Unclassified Excavation, Includi Limits of Construction-LOC, Clo Removal of Portland Ceme Preparation, Proof Rolling, and City of Round Rock Specification (Plan Quantity – No Separate Mo complete in place,	earing and Gruent Concrete, Grading with on Item 110.	bbing, Subgrade in the LOC,
			fordollars andcents.	\$	\$
00300			Page 3		Bid Form

Bid <u>Item</u>	Approx. Quantity	<u>Unit</u>	Item Description and Written Unit Price	Unit <u>Price</u>	Amount
12.	12,044	CY	Embankment, Including Preparing Construction, Clearing and Grub Portland Cement Concrete, Substantial Rolling, and Grading within the Rock Specification Item 132. (Plan Quantity – No Separate Macomplete in place,	obing, Remova grade Preparati LOC, City of	l of on, Proof Round
			fordollars andcents.	\$	\$
13.	802	CY	Flexible Base, complete in place, fordollars andcents.	\$	\$
14.	265	TON	Hot Mix Asphaltic Concrete Pay Course (2" Thick, Type D), Complete in place,	vement Surface)
			fordollars andcents.	\$	\$
15.	1,280	LF	P.C. Concrete Curb and Gutter, Method B (Fine Grading) complete in place,		
			fordollars andcents.	\$	\$

Bid <u>Item</u>	Approx. Quantity	<u>Unit</u>	Item Description and Written Unit Price	Unit <u>Price</u>	<u>Amount</u>
16.	2,065	SF	P.C. Concrete Sidewalk (4" Thick), complete in place,		
			fordollars andcents.	\$	\$
17.	4	EA	P.C. Concrete Curb Ramp (Type 7), complete in place,		
			fordollars andcents.	\$	\$
18.	98	LF	P.C. Concrete, Ribbon Curb (24"), Method B (Fine Grading) complete in place,		
			fordollars andcents.	\$	\$
19.	6	EA	Pre-Cast P.C. Concrete Wheel St complete in place,	top,	
			fordollars andcents.	\$	\$
20.	6	EA	Accessible Sign, Including Van land all appurtenances, complete in place,	Placard	
			fordollars andcents.	\$	\$

Bid <u>Item</u>	Approx. Quantity	<u>Unit</u>	Item Description and Written Unit Price	Unit <u>Price</u>	Amount
21.	1	LS	Pavement Markings, (Type II), complete in place,		
			fordollars andcents.	\$	\$
22.	4	EA	4' Dia. Wastewater, Manhole, complete in place,		
			fordollars andcents.	\$	\$
23.	1	EA	6" Cleanout, complete in place,		
			fordollars andcents.	\$	\$
24.	975	LF	6" SDR 26, D3034, complete in place,		
			fordollars andcents.	\$	\$
25.	1	LS	Irrigation System as shown on Irrigation Plans (Includes Tap, Water Meter, Backflow Preventer, Pipe, and All Appurtenances), complete in place,		
			fordollars andcents.	\$	\$

Bid <u>Item</u>	Approx. Quantity	<u>Unit</u>	Item Description and Written Unit Price	Unit <u>Price</u>	Amount
26.	1	EA	2" Water Meter Including excava Backfill, and all appurtenances, complete in place,	tion	
			fordollars andcents.	\$	\$
27.	1	EA	2" Gate Valve with Valve Box, complete in place,		
			fordollars andcents.	\$	\$
28.	85	LF	2" Poly DR-9, complete in place,		
			fordollars andcents.	\$	\$
29.	975	LF	Trench Safety (Wastewater Line) complete in place,	,	
			fordollars andcents.	\$	\$

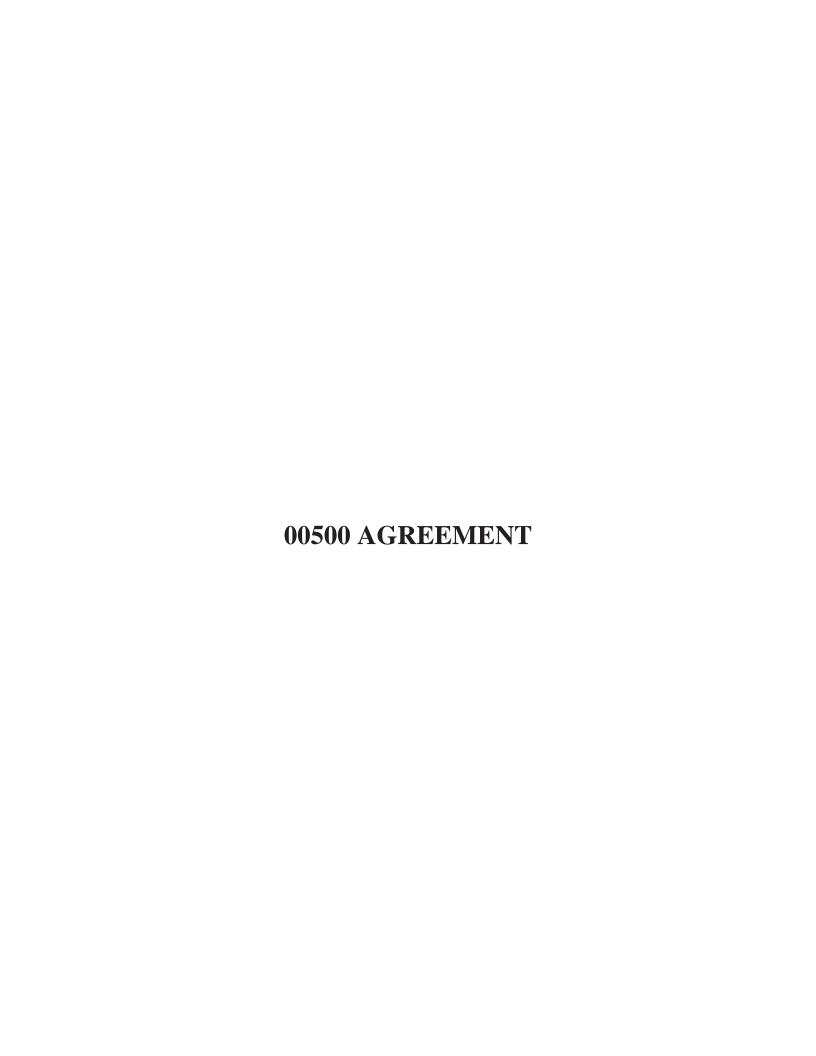
TOTAL BASE BID (Items 1 thru 29):		\$
STATEMENT OF SEPARATE CHAR	GES:	
Materials: All Other Cha *Total:	arges:	\$ \$ \$
* Note: This total must be the same amount	nt as shown above for	"Total Base Bid"
If this bid is accepted, the undersigned bonds and insurance certification as per the (10) days after written Notice to Proceed within One Hundred Fifty (150) calendary	ne Instructions to Bidd I. The undersigned for	ers and commence work within <u>Ten</u> urther agrees to complete the Work
The undersigned certifies that the bid pridare submitted as correct and final. The C waive any informalities or technicalities.		•
The undersigned acknowledges receipt of	the following addenda	a:
Addendum No. 1 dated	Received	
Addendum No. 2 dated	Received	
Addendum No. 3 dated	Received	
Respectfully Submitted,		
Signature		
Print Name	Address	
Title for	Telephone	
Name of Firm		
Date	Secretary, if Co Corporation	ontractor is a

00410 STATEMENT OF BIDDER'S SAFETY EXPERIENCE

Solicitation Requirements, Contract Forms & Conditions of Contract Statement of Bidder's Safety Experience Section 00410

Bidder must submit a signed Statement of Bidder's Safety Experience form with his Bid; failure to do so will constitute an incomplete Bid that may be rejected. In order to make a responsive Bid, Bidder must provide evidence that it meets minimum OSHA construction safety program requirements, has not been fined by OSHA for any willful safety violations in the past three years, and has a lost time injury rate that doesn't exceed the limits established below. All questions must be answered and data given must be clear and comprehensive. If necessary, questions may be answered on separate attached sheets.

Co	ompany Name:						
Address: Phone:		one:					
Co	Completed by: Date:						
1.	Does the company have a written construction Safety program?		□Yes	□No			
2.	Does the company conduct construction safety inspections?		□Yes	□No			
3.	Does the company have an active construction safety-training program?		□Yes	□No			
4.	Has the company been fined by OSHA for any willful safety violations in three years?	the past	∐Yes	□No			
5.	Does the company have a lost time injury rate of 7.8 for SIC 15, or 7.6 for or less over the past three years?	r SIC 16,	□Yes	□No			
	Attach the company's OSHA 200/300 logs for the past three years.						
6.	Does the company or affected subcontractors have competent persons in the following Areas?						
	A. Scaffolding	□Yes	□No	□ N/A			
	B. Excavation	□Yes	□No	□ N/A			
	C. Cranes	□Yes	□No	□ N/A			
	D. Electrical	Yes	□No	□ N/A			
	E. Fall Protection	□Yes	□No	□ N/A			
	F. Confined Spaces	Yes	□No	□ N/A			
Ιh	nereby certify that the above information is true and correct.						
Signature Title							
	D 1						



City of Round Rock, Texas Contract Forms

Standard Form of Agreement: Section 00500

City of Round Rock, Texas Standard Form of Agreement between Owner and Contractor

AGREEMENT made as of the	() day of	in the year 20
BETWEEN the Owner:	City of Round Rock, Texas (hereafte 221 East Main Street Round Rock, Texas 78664	er "Owner" or "City")
and the Contractor		("Contractor
The Project is described as:	Clay Madsen Soccer Field Project	
The Engineer is:	Antonio A. Prete, P.E. Waeltz & Prete, Inc 3000 Joe DiMaggio Blvd. #72 Round Rock, Texas 78665	

For and in consideration of the mutual terms, conditions and covenants of this Agreement and all accompanying documents between Owner and Contractor, the receipt and sufficiency of which are hereby acknowledged, Owner and Contractor agree as follows:

ARTICLE I THE CONTRACT DOCUMENTS

The Contract Documents consist of this Agreement, Conditions of the Contract (General, Supplementary and other Conditions), Drawings, Specifications, Addenda issued prior to execution of this Agreement, other documents listed in this Agreement and Modifications issued after execution of this Agreement; these form the Contract, and are as fully a part of the Contract as if attached to this Agreement or repeated herein. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations or agreements, either written or oral. An enumeration of the Contract Documents, other than Modifications, appears in Article 7.

ARTICLE 2 THE WORK OF THIS CONTRACT

Contractor shall fully execute the Work described in the Contract Documents, except to the extent specifically indicated in the Contract Documents to be the responsibility of others.

ARTICLE 3 DATE OF COMMENCEMENT; DATE OF SUBSTANTIAL COMPLETION; DATE OF FINAL COMPLETION

3.1 below of	The date of commencement of the Work shall be the date of this Agreement unle or provision is made for the date to be fixed in a Notice to Proceed issued by Owner	
3.2	The Contract Time shall be measured from the date delineated in the Notice to Pr	roceed.
3.3 from the	Contractor shall commence Work within Ten e date delineated in the Notice to Proceed.	(<u>10</u>) calendar days
One Hu	Contractor shall achieve Substantial Completion of the items of Work listed nent no later than One Hundred and Fifty (_150_) calendar days from issual, and Contractor shall achieve Substantial Completion of the entire undred and Fifty (_150_) calendar days from issuance by Owner of Notents of this Contract Time as provided in the Contract Documents.	ance by Owner of Notice to e Work no later than
the sum Dollars specifie hereund achieve Comple expecte dates, is of the V Substant forth he without	If Contractor fails to achieve Substantial Completion of the Work (or any portion specified for Substantial Completion in the Agreement, Contractor shall pay to Own of Five Hundred (\$\frac{500.00}{}\$) for each calendar day that Substantial Completion is ed for Substantial Completion. It is hereby agreed that the liquidated damages to the area a reasonable forecast of just compensation for the harm that would be caused substantial Completion of the Work (or any portion thereof) on or before the date (at on in the Agreement. It is agreed that the harm that would be caused by such failed use of the Project areas, provision of alternative storage facilities and rescheduling is one that is incapable or very difficult of accurate estimation. It is hereby agreed that Work (or any portion thereof) is not achieved on or before thirty (30) days after that Completion in the Agreement, the Owner shall have the option to either collection or to thereafter rely on its remedies under the Contract Documents and at late it limitation, the recovery of actual damages. The date(s) specified for Substantial Contract Documents in the Contract Documents and at late that the Agreement shall be subject to adjustment as provided in the Contract Documents and at late that the Agreement shall be subject to adjustment as provided in the Contract Documents.	rner, as liquidated damages, and No/100 is delayed after the date(s) to which Owner is entitled d by Contractor's failure to (s) specified for Substantial lure, which includes loss of g of moving and occupancy at if Substantial Completion er the date(s) specified for et liquidated damages as set aw and in equity, including Completion of the Work (or
3.6 (150	Contractor shall achieve Final Completion of the entire Work no later than One I ocalendar days from issuance by Owner of Notice to Proceed.	Hundred and Fifty
ARTIC	CLE 4 CONTRACT SUM	
4.1 The Co	Owner shall pay Contractor the Contract Sum in current funds for Contractor's pentract Sum shall be	erformance of the Contract.
(\$), subject to additions and deductions as provided in the	the Contract Documents.
4.2 No	Does the Contract Sum include alternates which are described in the Bid Form? Yes If yes, please provide details below:	
Not Ap	pplicable	

ARTICLE 5 PAYMENTS

5.1 PROGRESS PAYMENTS

- **5.1.1** Based upon Applications for Payment submitted to Engineer and Owner by Contractor, and Certificates for Payment issued by Engineer and not disputed by Owner and/or Owner's lender, Owner shall make progress payments on account of the Contract Sum to Contractor as provided below, in Article 14 of the City of Round Rock General Conditions, and elsewhere in the Contract Documents.
- **5.1.2** The period covered by each Application for Payment shall be one calendar month ending on the last day of the month.
- **5.1.3** Provided that an Application for Payment is received by Engineer and Owner, and Engineer issues a Certificate of Payment not later than the tenth (10th) day of a month, Owner shall make payment to Contractor not later than the tenth (10th) day of the next month. If an Application for Payment is received by Engineer and Owner after the application date fixed above, payment shall be made by Owner not later than one month after the Engineer issues a Certificate for Payment.
- **5.1.4** Each Application for Payment shall be based on the most recent schedule of values submitted by Contractor in accordance with the Contract Documents. The schedule of values shall allocate the entire Contract Sum among the various portions of the Work. The schedule of values shall be prepared in such form and supported by such data to substantiate its accuracy as Engineer and Owner may require. This schedule, unless objected to by Engineer or Owner, shall be used as a basis for reviewing Contractor's Applications for Payment.
- **5.1.5** Applications for Payment shall warrant the percentage of completion of each portion of the Work as of the end of the period covered by the Application for Payment.
- **5.1.6** Subject to other provisions of the Contract Documents, the amount of each progress payment shall be computed as provided in Article 14 of the City of Round Rock General Conditions.
- **5.1.7** Except with Owner's prior written approval, Contractor shall not make advance payments to suppliers for materials or equipment which have not been delivered and stored at the site.

5.2 FINAL PAYMENT

- **5.2.1** Final payment, constituting the entire unpaid balance of the Contract Sum, shall be made by Owner to Contractor when:
 - .1 Contractor has fully performed the Contract except for Contractor's responsibility to correct Work, and to satisfy other requirements, if any, which extend beyond final payment; and
 - a final Certificate for Payment has been issued by Engineer.
- **5.2.2** Owner's final payment to Contractor shall be made no later than thirty (30) days after the issuance of Engineer's final Certificate for Payment. In no event shall final payment be required to be made prior to thirty (30) days after all Work on the Contract has been fully performed. Defects in the Work discovered prior to final payment shall be treated as non-conforming Work and shall be corrected by Contractor prior to final payment, and shall not be treated as warranty items.

ARTICLE 6 TERMINATION OR SUSPENSION

6.1 The Contract may be terminated by Owner or Contractor as provided in Article 15 of the City of Round Rock General Conditions.

6.2 The Work may be suspended by Owner as provided in Article 15 of the City of Round Rock General Conditions.

ARTICLE 7 ENUMERATION OF CONTRACT DOCUMENTS

- **7.1** The Contract Documents, except for Modifications issued after execution of this Agreement, are enumerated as follows:
- **7.1.1** The Agreement is this executed version of the City of Round Rock, Texas Standard Form of Agreement between Owner and Contractor, as modified.
- **7.1.2** The General Conditions are the "City of Round Rock Contract Forms 00700," General Conditions, as modified.
- **7.1.3** The Supplementary, Special, and other Conditions of the Contract are those contained in the Project Manual dated June 2017
- 7.1.4 The Specifications are those contained in the Project Manual dated <u>June 2017</u>
- 7.1.5 The Drawings, if any, are those contained in the Project Manual dated <u>June 2017</u>
- 7.1.6 The Insurance & Construction Bond Forms of the Contract are those contained in the Project Manual dated June 2017
- **7.1.7** The Notice to Bidders, Instructions to Bidders, Bid Form, and Addenda, if any, are those contained in the Project Manual dated <u>June 2017</u>.
- **7.1.8** If this Agreement covers construction involving federal funds, thereby requiring inclusion of mandated contract clauses, such federally required clauses are those contained in the "City of Round Rock Contract Forms 03000," Federally Required Contract Clauses, as modified.
- **7.1.9** Other documents, if any, forming part of the Contract Documents are as follows:

ARTICLE 8 MISCELLANEOUS PROVISIONS

- **8.1** Where reference is made in this Agreement to a provision of any document, the reference refers to that provision as amended or supplemented by other provisions of the Contract Documents.
- 8.2 Owner's representative is:

 Katie Baker

 City of Round Rock

 301 W. Bagdad Ave.

 Round Rock, Texas 78664

 8.3 Contractor's representative is:
- **8.4** Neither Owner's nor Contractor's representative shall be changed without ten (10) days' written notice to the other party.
- **8.5** Waiver of any breach of this Agreement shall not constitute waiver of any subsequent breach.

- 8.6 Owner agrees to pay Contractor from available funds for satisfactory performance of this Agreement in accordance with the bid or proposal submitted therefor, subject to proper additions and deductions, all as provided in the General Conditions, Supplemental Conditions, and Special Conditions of this Agreement, and Owner agrees to make payments on account thereof as provided therein. Lack of funds shall render this Agreement null and void to the extent funds are not available. This Agreement is a commitment of City of Round Rock's current revenues only.
- **8.7** Although this Agreement is drawn by Owner, both parties hereto expressly agree and assert that, in the event of any dispute over its meaning or application, this Agreement shall be interpreted reasonably and fairly, and neither more strongly for nor against either party.
- 8.8 This Agreement shall be enforceable in Round Rock, Texas, and if legal action is necessary by either party with respect to the enforcement of any or all of the terms or conditions herein, exclusive venue for same shall lie in Williamson County, Texas. This Agreement shall be governed by and construed in accordance with the laws and court decisions of the State of Texas.
- 8.9 Both parties hereby expressly agree that no claims or disputes between the parties arising out of or relating to this Agreement or a breach thereof shall be decided by an arbitration proceeding, including without limitation, any proceeding under the Federal Arbitration Act (9 USC Section 1-14) or any applicable state arbitration statute.
- **8.10** The parties, by execution of this Agreement, bind themselves, their heirs, successors, assigns, and legal representatives for the full and faithful performance of the terms and provisions hereof.

This Agreement is entered into as of the day and year first written above and is executed in at least three (3) original copies, of which one is to be delivered to Contractor, one to Engineer for use in the administration of the Contract, and the remainder to Owner.

OWNER	CONTRACTOR
CITY OF ROUND ROCK, TEXAS	
Printed Name:	Printed Name:
Title	Title:
Date Signed:	Date Signed:
ATTEST:	
City Clerk	
FOR CITY, APPROVED AS TO FORM:	
City Attorney	

00600 INSURANCE AND CONSTRUCTION BOND FORMS

BONDS AND INSURANCE INSTRUCTIONS

Instruction Sheet

- 1. Insurance Company must be licensed by State of Texas.
- **2.** Agent signing bonds must be licensed in Texas.
- 3. Agent signing bonds must have Power of Attorney on behalf of insurance company.
- **4**. If Agent signing bonds has Power of Attorney, but not licensed in Texas, then the bond must be counter-signed by <u>Texas local recording agent</u>.

ALL THE ABOVE INFORMATION CAN BE FOUND AT Texas Department of Insurance website –www.tdi.state.tx.us

- **5.** Make sure the dollar amount on both Performance and Payment Bonds match the amount of the Agreement & Bid Form Sheet.
- 6. Both Performance and Payment Bonds should be signed by Authorized Person. If the contractor is a corporation, then it should be signed by the President or the Vice-President. If the contractor is not incorporated, then it may be signed by the Owner. Please state the title of the authorized person.

CERTIFICATE OF LIABILITY INSURANCE

Instruction Sheet

1. <u>CERTIFICATE OF LIABILITY INSURANCE FORM</u>

The City of Round Rock's Certificate of Liability Insurance form provided herein or a standard ACORD form.

- 2. **PRODUCER** and **INSURED** Please list name, address, phone number and e-mail.
- 3. <u>COMPANIES AFFORDING COVERAGE</u> TDI number required. The TDI number can be obtained from the Texas Dept of Insurance Website: http://www.tdi.state.tx.us/. Company Lookup.

<u>Note:</u> Exception to this rule. In certain instances where there is unusual risks involved, **Surplus Lines Insurance** Carriers can be used. Below are the guidelines:

a. <u>Insurance Company does not have to be "licensed in Texas", but</u> they do have to be "*eligible* for a Texas license."

Please verify with the Texas Dept of Insurance

Website: http://www.tdi.state.tx.us/. – Company Lookup

b. Policy has to be written by licensed surplus lines Agent.

Also verify with the Texas Dept of Insurance Website: http://www.tdi.state.tx.us/ - Agent Lookup

4. <u>TYPES OF INSURANCE COVERAGE</u> –

CONSTRUCTION CONTRACT: Please double check the <u>General Conditions</u> and <u>the Supplemental General Conditions</u> for the types and amounts of insurance required. The Supplemental General Conditions usually state the following:

- a. Business Automobile Liability Insurance
- b. Workers' Compensation and Employers' Liability Insurance
- c. Commercial General Liability Insurance
- **d.** <u>Builders' Risk Insurance</u> (Generally required for all "vertical" construction. Check with Project Manager for requirements.)

FOR ALL OTHER CONTRACTS, PLEASE REFER TO THE INSURANCE SECTION FOR TYPE OF INSURANCE REQUIRED. (For example Engineering Service Contracts usually require "professional liability insurance".)

5. **EFFECTIVE DATE & EXPIRATION DATE**

Please make sure dates are current.

- 6. City of Round Rock must be listed on the Certificate of Insurance as an additional insured (except Workers Compensation and Builders Risk).
- 7. Certificate must indicate that the insurance Company must give the City of Round Rock notice of any changes, cancellation, etc. at least thirty (30) days prior to date of change.
- 8. Make sure Certificate is signed by an Agent Licensed in the State of Texas, this can also be found on the Texas Department of Insurance website -www.tdi.state.tx.us Agent Lookup.

PERFORMANCE BOND

THE STATE OF TEXAS	§				
	§		KNOW ALL B	Y THESE PRES	SENTS:
COUNTY OF WILLIAMSON	§				
That		of the	City of		, County of
, and State of					
authorized under the law of the S and firmly bound unto THE CITY			•		
Dollars (\$)) for th	e payme	nt whereof, well a	and truly to be r	nade the said
Principal and Surety bind themse	lves, a	nd their l	neirs, administrato	ors, executors, su	accessors and
assigns, jointly and severally, by t	hese pi	resents:			
WHEREAS, the Principal has ento			•		
hereby referred to and made a pa					
herein consisting of: Clay Madse					
				(N.T.	C.I. D. '. ()
				(Name o	f the Project)

NOW, THEREFORE, THE CONDITIONS OF THIS OBLIGATION IS SUCH, that if the said Principal shall faithfully perform said Agreement and shall, in all respects, duly and faithfully observe and perform all and singular the covenants, conditions and agreements in and by said Agreement, agreed and covenanted by the Principal to be observed and performed, including but not limited to, the repair of any and all defects in said work occasioned by and resulting from defects in materials furnished by or workmanship of, the Principal in performing the Work covered by said Agreement and occurring within a period of twelve (12) months from the date of Final Completion and all other covenants and conditions, according to the true intent and meaning of said Agreement and the Plans and Specifications hereto annexed, then this obligation shall be void; otherwise to remain in full force and effect;

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

PERFORMANCE BOND (continued)

Surety, for value received, stipulates and agrees that no change, extension of time, alteration or addition to the term of the Agreement, or to the Work performed thereunder, or the Plans, Specifications, or drawings accompanying the same, shall in anywise affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Agreement, or to the work to be performed thereunder.

IN WITNESS WHEREOF, the sa this		
Principal	Surety	
Printed Name	Printed Name	
By: Title: Address:	Title: Address:	
Resident Agent of Surety:		
Signature		
Printed Name		
Street Address		
City, State & Zip Code		

PAYMENT BOND

THE STATE OF TEXAS	§	NT ATT BEENI		IENITO C
COUNTY OF WILLIAMSON	§ KNC §	OW ALL MEN	BY THESE PRES	SENTS:
That, and State	of the	City of as	Principal, and	_, County of
authorized under the laws of the St and firmly bound unto THE CIT workers, laborers, mechanics and st the right to sue up	Y OF ROUN suppliers as the	D ROCK, (OV eir interest may	VNER), and all s appear, all of wh the penal	ubcontractors, om shall have
(\$said Principal and Surety bind then and assigns, jointly and severally, b	mselves and th	neir heirs, admir	eof, well and truly	y be made the
WHEREAS, the Principal has entered the day hereby referred to and made a part herein consisting of: Clay Madsen	of t hereof as full	ly and to the sai	20, to which	Agreement is
			(Name	of the Project)

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that if the said Principal shall well and truly pay all subcontractors, workers, laborers, mechanics, and suppliers, all monies to them owing by said Principals for subcontracts, work, labor, equipment, supplies and materials done and furnished for the construction of the improvements of said Agreement, then this obligation shall be and become null and void; otherwise to remain in full force and effect.

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

PAYMENT BOND (continued)

Surety, for value received, stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Agreement, or to the Work performed thereunder, or the plans, specifications or drawings accompanying the same shall in anywise affect it's obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract, or to the work to be performed thereunder.

IN WITNESS WHEREOF, the said Prin	ncipal and Surety have signed and sealed this Instrument
this, 2	20
-	
Principal	Surety
Printed Name	Printed Name
By:	By:
Title:	Title:
Address:	Address:
Resident Agent of Surety:	
<u> </u>	
Signature	
Drinte d None	
Printed Name	
Street Address	
Butter Address	

CERTIFICATE OF LIABILITY INSURANCE

e refer to the ebsite: http://www.tdi.state.tx.u	<u>s/</u>	
ES AFFORDING COVERAGE		TDI
sted above with respect to the ns of the standard policies use		ne compai
		LIMITS
ENERAL AGGREGATE	\$	
RODUCTS-COMP/OP AGG.	\$	
ERSONAL & ADV. INJURY	\$	
ACH OCCURRENCE	\$	
ACH OCCURRENCE		
	\$	
RE DAMAGE (Any one fire)		
RE DAMAGE (Any one fire) ED. EXPENSE (Any one person)		
RE DAMAGE (Any one fire) ED. EXPENSE (Any one person) OMBINED SINGLE LIMIT	\$	
RE DAMAGE (Any one fire) ED. EXPENSE (Any one person) OMBINED SINGLE LIMIT ODILY INJURY (Per person)	\$	
RE DAMAGE (Any one fire) ED. EXPENSE (Any one person) OMBINED SINGLE LIMIT ODILY INJURY (Per person) ODILY INJURY (Per accident)	\$ \$	
RE DAMAGE (Any one fire) ED. EXPENSE (Any one person) OMBINED SINGLE LIMIT ODILY INJURY (Per person) ODILY INJURY (Per accident) ROPERTY DAMAGE	\$ \$ \$	
RE DAMAGE (Any one fire) ED. EXPENSE (Any one person) DMBINED SINGLE LIMIT DDILY INJURY (Per person) DDILY INJURY (Per accident) ROPERTY DAMAGE	\$ \$ \$ \$ \$	
RE DAMAGE (Any one fire) ED. EXPENSE (Any one person) DMBINED SINGLE LIMIT DDILY INJURY (Per person) DDILY INJURY (Per accident) ROPERTY DAMAGE	\$ \$ \$ \$ \$ \$	
RE DAMAGE (Any one fire) ED. EXPENSE (Any one person) DMBINED SINGLE LIMIT DDILY INJURY (Per person) DDILY INJURY (Per accident) ROPERTY DAMAGE ACH OCCURRENCE GGREGATE FATUTORY LIMITS	\$ \$ \$ \$ \$ \$	
RE DAMAGE (Any one fire) ED. EXPENSE (Any one person) DMBINED SINGLE LIMIT DDILY INJURY (Per person) DDILY INJURY (Per accident) ROPERTY DAMAGE ACH OCCURRENCE GGREGATE	\$ \$ \$ \$ \$ \$	

PRODUCER:		
Phone:	E-mail:	
INSURED:		
Phone:	E-mail:	

TDI number required. Please Texas Dept of Insurance we

	COMPANIES AFFORDING COVERAGE	TDI
Α		
В		
С		
D		

THIS IS TO CERTIFY THAT the Insured named above is insured by the Companies lis hereinafter described, for the types of insurance and in accordance with the provision and further hereinafter described. Exceptions to the policies are noted below.

O FR	TYPE OF INSURANCE	POLICY NUMBER	EFFECTIVE DATE	EXPIRATION DATE		LIMITS
GEN	NERAL LIABILITY				GENERAL AGGREGATE	\$
					PRODUCTS-COMP/OP AGG.	\$
					PERSONAL & ADV. INJURY	\$
					EACH OCCURRENCE	\$
					FIRE DAMAGE (Any one fire)	\$
					MED. EXPENSE (Any one person)	\$
AUT	TOMOBILE LIABILITY	(COMBINED SINGLE LIMIT	\$
					BODILY INJURY (Per person)	\$
					BODILY INJURY (Per accident)	\$
					PROPERTY DAMAGE	\$
EXC	CESS LIABILITY				EACH OCCURRENCE	\$
					AGGREGATE	\$
WO	RKERS' COMPENSA	TION			STATUTORY LIMITS	\$
	AND EMPLOYERS	' LIABILITY			EACH ACCIDENT	\$
					DISEASE - POLICY LIMIT	\$
					DISEASE - EACH EMPLOYEE	\$
PRO	DFESSIONAL LIABIL	ITY				
	LDERS' RISK INSUR OR INSTALLATION II					

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/SPECIAL ITEMS/EXCEPTIONS

The City of Round Rock is named as additional insured with respect to all policies except 'Workers' Compensation and Employers' Liability' and 'Professional Liability'. Should any of the above described policies be cancelled or changed before the expiration date thereof, the issuing company will mail thirty (30) days written notice to the certificate holder named below.

CERTIFICATE HOLDER:

City Manager City of Round Rock 221 E. Main Street Round Rock, Texas 78664

SIGNATURE OF AGENT LICENSED IN STATE OF TEXAS		
	_	
Typed Name:		
License ID:		

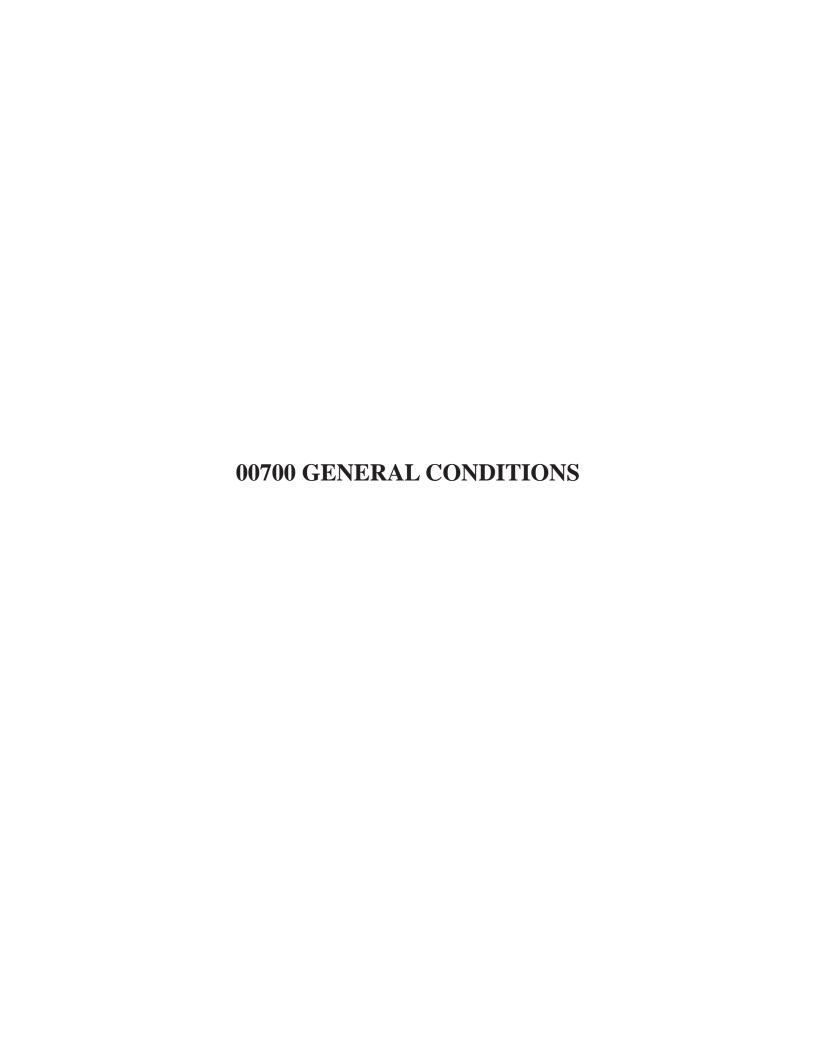


TABLE OF CONTENTS OF GENERAL CONDITIONS

Artic Nur	icle mber & Title	Page Numbe
1.	DEFINITIONS	2
2.	PRELIMINARY MATTERS	5
3.	CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE	7
4.	AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; REFERENCE POINTS	8
5.	BONDS AND INSURANCE	10
6.	CONTRACTOR'S RESPONSIBILITIES	15
7.	OTHER WORK	23
8.	OWNER'S RESPONSIBILITIES	23
9.	ENGINEER/ARCHITECT'S STATUS DURING CONSTRUCTION	24
10.	CHANGES IN THE WORK	25
11.	CHANGE OF CONTRACT AMOUNT	26
12.	CHANGE OF CONTRACT TIMES	29
13.	TESTS AND INSPECTIONS; AND CORRECTION OR REMOVAL OF DEFECTIVE WORK	30
14.	PAYMENTS TO CONTRACTOR AND COMPLETION	32
15.	SUSPENSION OF WORK AND TERMINATION	36
16.	DISPUTE RESOLUTION	38
17	RIGHT TO AUDIT	39
18.	MISCELLANEOUS	40

GENERAL CONDITIONS

ARTICLE 1 - DEFINITIONS

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

- **1.1** Addenda Written or graphic instruments issued prior to the receipt of Proposals or the opening of Bids that clarify, correct or change the proposal or bidding requirements or the Contract Documents.
- **1.2** Agreement Prescribed form, referenced as Section 00500.
- **1.3** <u>Alternative Dispute Resolution</u> The process by which a disputed Claim may be settled if the OWNER and the CONTRACTOR cannot reach an agreement between themselves, as an alternative to litigation.
- **1.4** <u>Bid</u> Proposal of bidder on prescribed forms setting forth prices for performing the Work described in the Contract Documents.
- **1.5** Bid Documents The advertisement or invitation for bids, instructions to bidders, the bid form, the Contract Documents and Addenda.
- **1.6** <u>Calendar Day</u> Any day of the week; no days being excepted. Work on Saturdays, Sundays, and/or Legal Holidays shall only be conducted with prior express written consent of the OWNER.
- 1.7 <u>Change Directive</u> A written directive to the CONTRACTOR, signed by the OWNER, ordering a change in the Work and stating a proposed basis for adjustment, if any, in the Contract Amount or Contract Time, or both. A Change Directive may be used in the absence of total agreement on the terms of a Change Order. A Change Directive does not change the Contract Amount or Contract Time, but is evidence that the parties expect that the change directed or documented by a Change Directive will be incorporated in a subsequently issued Change Order.
- **1.8** <u>Change Orders</u> Written agreements entered into between the CONTRACTOR and the OWNER authorizing an addition, deletion, or revision to the Contract, issued on or after the Execution Date of the Agreement and within the Contract term.
- **1.9** <u>Claim</u> A written demand seeking, as a matter of right, adjustment or interpretation of Contract terms, payment of money, extension of time or other relief with respect to the terms of the Contract.
- **1.10** Contract The Contract represents the entire and integrated agreement between the OWNER and the CONTRACTOR for performance of the Work, as evidenced by the Contract Documents.
- **1.11** Contract Amount The amount payable by the OWNER to the CONTRACTOR for completion of the Work in accordance with the Contract Documents.
- **1.12** <u>Contract Documents</u> Invitation to Bid, Instructions to Bidders, General Conditions, Supplemental General Conditions, Special Conditions, Technical Specifications, Project Manual, Drawings, Addenda and Change Orders.
- 1.13 <u>Contract Time</u> The number of days allowed for completion of the Work as defined by the Contract. When any period is referred to in days, it will be computed to exclude the first and include the last day of such period. A day of twenty-four (24) hours measured from midnight to the next midnight will constitute a day.
- **1.14** <u>CONTRACTOR</u> The individual, firm, corporation, or other business entity with whom the OWNER has entered into the Contract.
- 1.15 <u>Drawings</u> Those portions of the Contract Documents which are graphic representations of the scope, extent and character of the Work to be furnished and performed by the CONTRACTOR and which have been

approved by the OWNER. Drawings may include plans, elevations, sections, details, schedules and diagrams. Shop Drawings are not Drawings as so defined.

- **1.16** Engineer/Architect (E/A) The OWNER's design professional identified as such in the Contract. The titles of "Architect/Engineer," "Architect" and "Engineer" used in the Contract Documents shall be read the same as Engineer/Architect (E/A). Nothing contained in the Contract Documents shall create any contractual or agency relationship between E/A and the CONTRACTOR.
- 1.17 Equal The terms "equal" or "approved equal" shall have the same meaning.
- **1.18** Execution Date Date of last signature of the parties to the Agreement.
- **1.19** <u>Field Order</u> A written order issued by Owner's Representative which orders minor changes in the Work and which does not involve a change in the Contract Amount or the Contract Time.
- **1.20** <u>Final Acceptance</u> The stage in the Contract process when, in the OWNER's opinion, Final Completion of the Work has been attained and a Certificate of Acceptance approved by the OWNER is issued.
- **1.21** <u>Final Completion</u> The stage in the progress of the Work when, in the OWNER's opinion, the entire Work has been completed, the CONTRACTOR's obligations under the Contract Documents have been fulfilled, and the OWNER is processing or has made final payment to the CONTRACTOR, as evidenced by a Certificate of Acceptance approved by the OWNER.
- **1.22** <u>Inspector</u> The authorized representative of any regulatory agency that has jurisdiction over any portion of the Work.

1.23 Legal Holidays

1.23.1 The following are recognized by the OWNER:

Holiday Date Observed

New Year's Day

January 1

Martin Luther King Jr 'a Third Men

Martin Luther King, Jr.'s Third Monday in January

President's Day Third Monday in February

Memorial Dav Last Mondav

in May

Independence Day July 4

Labor Day First Monday in September

Veteran's Day November 11

Thanksgiving Day Fourth Thursday in November

Friday after Friday after Thanksgiving Thanksgiving

Christmas Eve December 24

Christmas Day December 25

- **1.23.2** If a Legal Holiday falls on Saturday, it will be observed on the preceding Friday. If a Legal Holiday falls on Sunday, it will be observed on the following Monday.
- **1.23.3** If Christmas Eve falls on a Saturday or a Sunday, the preceding Friday is observed as the Christmas Eve holiday.
- **1.23.4** If Christmas Day falls on a Saturday or a Sunday, the following Monday is observed as the Christmas Day holiday.
- **1.24** <u>Milestones</u> A significant event specified in the Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all the Work.
- 1.25 <u>Notice to Proceed</u> A Written Notice given by the OWNER to the CONTRACTOR fixing the date on which the Contract Times will commence to run and on which the CONTRACTOR shall start to perform the CONTRACTOR's obligations under the Contract Documents.
- **1.26** OWNER The City of Round Rock, Texas, a municipal corporation, home-rule city and political subdivision organized and existing under the laws of the State of Texas, acting through the City Manager or his/her designee, officers, agents or employees to administer design and construction of the Project.
- **1.27** Owner's Representative The designated representative of the OWNER.
- **1.28** Partial Occupancy or Use Use by the OWNER of a partially completed part of the Work for the purpose for which it is intended (or a related purpose) prior to Substantial Completion of all the Work.
- **1.29** <u>Project</u> The total construction of which the Work to be provided under the Contract Documents may be the whole, or a part, as indicated elsewhere in the Contract Documents.
- **1.30** <u>Project Manual</u> That portion of the Contract Documents which may include the following: introductory information; bidding requirements, Contract forms and General and Supplemental General Conditions; General Requirements; Specifications; Drawings; Project Safety Manual; and Addenda.
- **1.31** Proposal Proposal of Offeror, under Local Government Code §271.113 providing for alternative project delivery methods, on prescribed forms setting forth prices for performing the Work described in the Contract Documents.
- **1.32** <u>Proposal Documents</u> The advertisement or invitation for Proposals, Instruction to Offerors, the Proposal form, the Contract Documents and Addenda.
- **1.33** Resident Project Representative The authorized representative of E/A who may be assigned to the site or any part thereof.
- **1.34** Shop Drawings All drawings, diagrams, illustrations, schedules and other data or information which are specifically prepared or assembled by or for the CONTRACTOR and submitted by the CONTRACTOR as required by the Contract Documents.
- **1.35** Specifications Those portions of the Contract Documents consisting of written technical descriptions as applied to the Work, which set forth to the CONTRACTOR, in detail, the requirements which must be met by all materials, equipment, construction systems, standards, workmanship, equipment and services in order to render a completed and useful project.

00700 10-2015 Page 4 General Conditions

- **1.36** <u>Substantial Completion</u> The stage in the progress of the Work when the Work, or designated portions thereof, may still require minor modifications or adjustments but, in the OWNER's opinion, the Work has progressed to the point such that all parts of the Work under consideration are fully operational, as evidenced by a Certificate of Substantial Completion approved by the OWNER.
- **1.37** Subcontractor An individual, firm, or corporation having a direct contract with the CONTRACTOR for the performance of a part of the Work.
- **1.38** Sub-subcontractor A person or entity who has a direct or indirect contract with a Subcontractor to perform a portion of the Work.
- **1.39** Superintendent The representative of the CONTRACTOR authorized in writing to receive and fulfill instructions from Owner's Representative, and who shall supervise and direct construction of the Work.
- **1.40** <u>Supplemental General Conditions</u> The part of the Contract Documents which either amends or supplements the General Conditions. All General Conditions which are not so amended or so supplemented shall be considered as remaining in full force and effect.
- **1.41** Supplier An individual or entity having a direct contract with the CONTRACTOR or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by the CONTRACTOR or any Subcontractor.
- 1.42 <u>Time Extension Request</u> An approved request for time extension on a form acceptable to the OWNER.
- **1.43** Work The entire completed construction, or the various separately identifiable parts thereof, required to be furnished under the Contract Documents.
- **1.44** Working Day Any day of the week, not including Saturdays, Sundays, or Legal Holidays, in which conditions not under the CONTRACTOR's control will permit work for at least seven (7) hours of the Working Times. Upon authorization by the Owner's Representative, work on Saturdays, Sundays and/or Legal Holidays may be allowed and in that event a Working Day will be counted for each such day.
- 1.45 <u>Working Times</u> Times of day(s) during which work may be performed. Unless authorized by Owner's Representative, all Work shall be performed between 7:00 a.m. and 6:00 p.m. on weekdays and, if previously authorized as provided for in paragraph 1.44 or paragraph 1.6 herein, as applicable, between 9:00 a.m. and 6:00 p.m. on Saturdays, Sundays or Legal Holidays. When the CONTRACTOR has been authorized to perform Work during hours outside Working Times, such hours shall be considered time worked on Working Day contracts. Notwithstanding the preceding, emergency work may be done without prior permission only as provided in paragraph 6.11.5 herein.
- 1.46 <u>Written Notice</u> Written communication between the OWNER and the CONTRACTOR. Written Notice shall be deemed to have been duly served if delivered in person to Owner's Representative or to the CONTRACTOR's duly authorized representative, or if such Written Notice is delivered to or sent by registered or certified mail to the attention of Owner's Representative or to the CONTRACTOR's duly authorized representative at the last business address known to the party giving notice.

ARTICLE 2 - PRELIMINARY MATTERS

2.1 Delivery of Agreement, Bonds, Insurance, and Other Documentation:

Within ten (10) Calendar Days after written notification of award of Contract, the CONTRACTOR shall deliver to the OWNER signed Agreement, Bond(s), Insurance Certificate(s) and other documentation required for execution of the Contract.

00700 10-2015 Page 5 General Conditions

2.2 Copies of Documents:

The OWNER shall furnish to the CONTRACTOR two (2) copies of the Contract Documents unless otherwise specified.

2.3 Commencement of Contract Times; Notice to Proceed:

The Contract Time(s) will begin to run on the day indicated in the Notice to Proceed. Notice to Proceed will be given at any time within sixty (60) Calendar Days after the Execution Date of the Agreement, unless extended by written agreement of the parties.

2.4 Before Starting Construction:

- **2.4.1** No Work shall be done at the site prior to the preconstruction conference without the OWNER's approval. 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 Owner's Representative any conflict, error, ambiguity or discrepancy which the CONTRACTOR may discover and shall obtain a written interpretation or clarification from Owner's Representative before proceeding with any Work affected thereby. The CONTRACTOR shall be liable to the OWNER for failure to report any conflict, error, ambiguity or discrepancy in the Contract Documents of which the CONTRACTOR knew or reasonably should have known.
- **2.4.2** The CONTRACTOR shall submit the following to Owner's Representative for review and approval no later than the preconstruction conference:
 - .1 a preliminary progress schedule indicating the times (number of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract Documents, identifying when all Subcontractors will be utilized, and taking into consideration any limitations on Working Hours;
 - .2 a preliminary schedule of Shop Drawing and sample submittals;
 - .3 a preliminary schedule of values for all of the Work, subdivided into component parts in sufficient detail to serve as the basis for progress payments during construction. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work;
 - .4 a letter designating CONTRACTOR's Superintendent;
 - .5 a letter from the CONTRACTOR and Subcontractor(s) listing any salaried specialists;
 - .6 if applicable, a letter designating the "Competent Person(s)" on general safety and trench safety measures:
 - .7 if applicable, a trench safety system plan;
 - .8 if applicable, a plan illustrating proposed locations of temporary facilities;
 - .9 if applicable, a traffic control plan;
 - .10 a completed Non-Use of Asbestos Affidavit (Prior to Construction); and
 - .11 if applicable, a letter designating the Texas Registered Professional Land Surveyor for layout of the Work.

00700 10-2015 Page 6 General Conditions

2.5 Preconstruction Conference:

Prior to commencement of Work at the site, a preconstruction conference attended by the CONTRACTOR, Owner's Representative and others will be held.

2.6 Initially Acceptable Schedules:

Unless otherwise provided in the Contract Documents, the CONTRACTOR shall obtain approval of Owner's Representative on final versions of the schedules submitted in accordance with paragraph 2.4.2 before the first progress payment will be made to the CONTRACTOR. The progress schedule must provide for an orderly progression of the Work to completion within any specified Milestones and Contract Times. Acceptance of the schedule by Owner's Representative will neither impose on Owner's Representative responsibility for the sequencing, scheduling or progress of the Work nor interfere with or relieve the CONTRACTOR from the CONTRACTOR's full responsibility therefor. The CONTRACTOR's schedule of Shop Drawings and sample submissions must provide an arrangement agreeable to the parties for reviewing and processing the required submittals.

ARTICLE 3 - CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

3.1 Intent:

3.1.1 The intent of the Contract Documents is to include all information necessary for the proper execution and completion of the Work by the CONTRACTOR. The Contract Documents are complementary, and what is required by one shall be as binding as if required by all. In cases of disagreement, the following order of precedence shall govern (top item receiving priority of interpretation):

Signed Agreement

Addenda to the Contract Documents

Special Conditions

Supplemental General Conditions

General Conditions

Other Bidding Requirements and Contract Forms

Special Provisions to the Standard Technical Specifications

Special Specifications

Standard Technical Specifications

Drawings (figured dimensions shall govern over scaled dimensions)

Project Safety manual, if applicable

3.1.2 Unless otherwise stated in the Contract Documents, words which have well-known technical or construction industry meanings are used in the Contract Documents in accordance with such recognized meanings.

3.2 Reporting and Resolving Discrepancies:

If, during the performance of the Work, the CONTRACTOR discovers any conflict, error, ambiguity or discrepancy within the Contract Documents or between the Contract Documents and any provisions of any such law or regulation applicable to the performance of the Work or of any such standard, specification, manual or code or instructions of any Supplier, the CONTRACTOR shall immediately report it to Owner's Representative in writing, and the CONTRACTOR shall not proceed with the Work affected thereby until an amendment or supplement to the Contract Documents has been issued by one of the methods indicated in paragraph 3.3.1 or paragraph 3.3.2. The CONTRACTOR shall be liable to the OWNER for failure to report any such conflict, error, ambiguity or discrepancy of which the CONTRACTOR knew or reasonably should have known.

3.3 Amending and Supplementing Contract Documents:

- **3.3.1** 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 Change Order.
 - .2 Change Directive.
 - .3 Time Extension Request.
- **3.3.2** In addition, the requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, in one or more of the following ways:
 - .1 Field Order.
 - .2 Review of a Shop Drawing or sample.
 - .3 Written interpretation or clarification.

3.4 Reuse of Documents Prohibited:

The CONTRACTOR and any Subcontractor or Supplier or other person or organization performing or furnishing any of the Work under a direct or indirect contract with the OWNER: (i) shall not 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 E/A or E/A's consultants, and (ii) shall not reuse any of such Drawings, Specifications, other documents or copies on extensions of the Project or any other project without written consent of the OWNER and E/A.

ARTICLE 4 - AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; REFERENCE POINTS

4.1 Availability of Lands:

The OWNER shall furnish, as indicated in the Contract Documents, all required rights to use 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. The OWNER shall identify any encumbrances or restrictions not of general application but specifically related to use of lands so furnished with which the CONTRACTOR will have to comply in performing the Work. 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. If the OWNER fails to furnish these lands, rights-of-way or easements in a timely manner, the CONTRACTOR may make a Claim for adjustments in the Contract Times. 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.

4.2 Subsurface and Physical Conditions:

- **4.2.1** The CONTRACTOR hereby covenants that it has examined the site of the proposed Work and is familiar with all of the conditions surrounding construction of the Project, having conducted all inquiries, tests and investigations deemed necessary and proper.
- **4.2.2** If conditions are encountered at the site which are (1) subsurface or otherwise concealed physical conditions that differ materially from those indicated in the Contract Documents or (2) unknown physical conditions of an unusual nature, that differ materially from those normally encountered in the type of work being performed under this Contract, then notice by the observing party shall be given to the other party promptly before conditions are disturbed and in no event later than seven (7) calendar days after first observance of the conditions. Owner's Representative will promptly investigate such conditions with E/A and, if they differ materially and cause an increase or decrease in the CONTRACTOR's cost of, or time required for, performance of any part of the Work, will

00700 10-2015 Page 8 General Conditions

recommend an equitable adjustment in the Contract Amount or Contract Time, or both. If Owner's Representative determines that the conditions at the site are not materially different from those indicated in the Contract Documents and that no change in the terms of the Contract is justified, the CONTRACTOR shall be notified in writing, stating the reasons. Any disputes arising from Owner's Representative's determination shall be resolved in accordance with Article 16.

- 4.2.3 Notwithstanding any other provision of this Contract, the CONTRACTOR shall be solely responsible for the location and protection of any and all public lines and utility customer service lines in the Work area. For the purposes of this section, "public lines" means the utility distribution and supply system within public rights-of-way or easements, and "utility customer service lines" (service) means any utility line connecting a utility customer to the utility distribution system. Generally, existing service connections within right-of-way or easements are not shown on the Drawings. The CONTRACTOR shall notify the OWNER and "One Call" and exercise due care to locate and to mark, uncover or otherwise protect all such lines in the construction zone and any of the CONTRACTOR's work or storage areas. The CONTRACTOR's obligation hereunder shall be primary and nondelegable. The CONTRACTOR shall indemnify or reimburse such expenses or costs (including fines that may be levied against the OWNER) that may result from unauthorized or accidental damage to all public lines and utility customer service lines in the Work area. The OWNER reserves the right to repair such damage the CONTRACTOR may cause, at the CONTRACTOR's expense.
- 4.2.4 The CONTRACTOR shall take reasonable precaution to avoid disturbing primitive records and antiquities of archaeological, paleontological or historical significance. No objects of this nature shall be disturbed without written permission of the OWNER and the Texas Department of Antiquities Protection. When such objects are uncovered unexpectedly, the CONTRACTOR shall stop all Work in close proximity and notify Owner's Representative and the Texas Department of Antiquities Protection of their presence and shall not disturb them until written permission and permit to do so is granted. All primitive rights and antiquities uncovered on the OWNER's property shall remain property of the State of Texas, the Texas Department of Antiquities Protection conforming to the Texas Natural Resources Code. If it is determined by the OWNER, in consultation with the Texas Department of Antiquities Protection, that exploration or excavation of primitive records or antiquities on Project site is necessary to avoid loss, the CONTRACTOR shall cooperate in salvage work attendant to preservation. If the Work stoppage or salvage work causes an increase in the CONTRACTOR's cost of, or time required for, performance of the Work, the Contract Amount and/or Contract Time may be equitably adjusted.

4.3 Reference Points:

Unless otherwise specified, the OWNER will furnish all reference points, benchmarks, survey monuments, and control points which, in the OWNER's opinion, are suitable for laying out the Work. Such benchmarks and reference points will be placed at intervals not to exceed 1,500 feet.

All reference points, benchmarks, survey monuments and control points shall be carefully preserved by the CONTRACTOR by use of flags, laths or other appropriate measures and, in case of destruction or removal by the CONTRACTOR or its employees, such reference points, benchmarks, survey monuments, and control points shall be replaced by a Registered Professional Land Surveyor at the CONTRACTOR's expense. When reference points, benchmarks, survey monuments, or control points are in conflict with the Work, then reestablishment will be the OWNER's responsibility during or upon completion of the Work.

4.4 Hazardous Materials:

- **4.4.1** The OWNER shall be responsible for any hazardous material uncovered or revealed at the site which was not shown, indicated or identified in the Contract Documents to be within the scope of the Work and which may present a substantial danger to persons or property exposed thereto in connection with the Work at the site. The CONTRACTOR shall immediately notify Owner's Representative of any suspected hazardous materials encountered before or during performance of the Work and shall take all necessary precautions to avoid further disturbance of the materials.
- **4.4.2** The CONTRACTOR shall be responsible for any hazardous materials brought to the site by the CONTRACTOR, Subcontractor, Suppliers or anyone else for whom the CONTRACTOR is responsible.

00700 10-2015 Page 9 General Conditions

4.4.3 No asbestos-containing materials shall be incorporated into the Work or brought on the Project site without prior approval of the OWNER.

ARTICLE 5 - BONDS AND INSURANCE

5.1 Surety and Insurance Companies:

All bonds and insurance required by the Contract Documents shall be obtained from solvent surety or insurance companies that are duly licensed by the State of Texas and authorized to issue bonds or insurance policies for the limits and coverages required by the Contract Documents. The bonds shall be in a form acceptable to the OWNER and shall be issued by a surety which complies with the requirements of Art. 7.19-1, Texas Insurance Code (1997) and which is otherwise acceptable to the OWNER.

OWNER may require the surety to obtain reinsurance for any portion of the risk that exceeds 10% of the surety's capital and surplus. For bonds exceeding \$100,000, the surety must also hold a certificate of authority from the U.S. Secretary of the Treasury or have obtained reinsurance from a reinsurer that is authorized as a reinsurer in Texas and holds a certificate of authority from the U.S. Secretary of the Treasury.

5.2 Workers' Compensation Insurance Coverage:

5.2.1 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 showing statutory workers' compensation insurance coverage for the person's or entity's employees providing services on the 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 OWNER.
- .3 Persons providing services on the Project ("subcontractor" herein) 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, by way of illustration and not of 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.
- **5.2.2** 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.
- **5.2.3** The OWNER will not execute the Contract prior to the CONTRACTOR providing all required certificates of coverage.
- **5.2.4** 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 OWNER showing that coverage has been extended.
- **5.2.5** The CONTRACTOR shall obtain from each person providing services on the Project, and provide to the OWNER:

00700 10-2015 Page 10 General Conditions

- .1 a certificate of coverage, prior to that person beginning Work on the Project, so the OWNER 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.
- **5.2.6** The CONTRACTOR shall retain all required certificates of coverage for the duration of the Project and for one (1) year thereafter.
- **5.2.7** The CONTRACTOR shall notify the OWNER 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.
- **5.2.8** The CONTRACTOR shall post at its office or 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.
- **5.2.9** 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 OWNER 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 5.2.9.1
 5.2.9.7, with the certificates of coverage to be provided to the person for whom they are providing services.
- **5.2.10** By signing this Contract or providing or causing to be provided a certificate of coverage, the CONTRACTOR is representing to the OWNER that all employees of the CONTRACTOR who will provide services

00700 10-2015 Page 11 General Conditions

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 Division of Self-Insurance Regulation. Providing false or misleading information may subject the CONTRACTOR to administrative penalties, criminal penalties, civil penalties, or other civil actions.

5.2.11 The CONTRACTOR's failure to comply with any of these provisions is a breach of Contract by the CONTRACTOR which entitles the OWNER 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 OWNER.

5.3 Contractor Insurance Requirements:

For specific bond requirements and additional insurance requirements, refer to the Supplemental General Conditions.

5.3.1.1 General Requirements:

- .1 CONTRACTOR shall carry insurance in the types and amounts indicated below for the duration of the Contract, which shall include items owned by OWNER in the care, custody and control of CONTRACTOR prior to and during construction and warranty period.
- .2 CONTRACTOR must complete and forward the required Certificates of Insurance to OWNER before the Contract is executed as verification of coverage required below. CONTRACTOR shall not commence Work until the required insurance is obtained and until such insurance has been reviewed by OWNER. Approval of insurance by OWNER shall not relieve or decrease the liability of CONTRACTOR hereunder and shall not be construed to be a limitation of liability on the part of CONTRACTOR. CONTRACTOR must also complete and forward the required Certificates of Insurance to OWNER whenever a previously identified policy period has expired as verification of continuing coverage.
- .3 CONTRACTOR's insurance coverage is to be written by companies licensed to do business in the State of Texas at the time the policies are issued and shall be written by companies with A.M. Best ratings of B+VII or better, except for hazardous material insurance which shall be written by companies with A.M. Best ratings of A- or better.
- .4 All endorsements naming the OWNER as additional insured, waivers, and notices of cancellation endorsements as well as the Certificate of Insurance shall indicate: City of Round Rock, 221 E. Main St., Round Rock, Texas 78664.
- .5 The "other" insurance clause shall not apply to the OWNER where the OWNER is an additional insured shown on any policy. It is intended that policies required in the Contract, covering both OWNER and CONTRACTOR, shall be considered primary coverage as applicable.
- .6 If insurance policies are not written for amounts specified below, CONTRACTOR shall carry Umbrella or Excess Liability Insurance for any differences in amounts specified. If Excess Liability Insurance is provided, it shall follow the form of the primary coverage.
- .7 OWNER shall be entitled, upon request and without expense, to receive certified copies of policies and endorsements thereto and may make any reasonable requests for deletion or revision or modification of particular policy terms, conditions, limitations, or exclusions except where policy provisions are established by law or regulations binding upon either of the parties hereto or the underwriter on any such policies.
- .8 OWNER reserves the right to review the insurance requirements set forth during the effective period of this Contract and to make reasonable adjustments to insurance coverage, limits, and exclusions when deemed necessary and prudent by OWNER based upon changes in statutory law,

00700 10-2015 Page 12 General Conditions

- court decisions, the claims history of the industry or financial condition of the insurance company as well as CONTRACTOR.
- **.9** CONTRACTOR shall not cause any insurance to be canceled nor permit any insurance to lapse during the term of the Contract or as required in the Contract.
- .10 CONTRACTOR shall be responsible for premiums, deductibles and self-insured retentions, if any, stated in policies. All deductibles or self-insured retentions shall be disclosed on the Certificate of Insurance.
- .11 CONTRACTOR shall provide OWNER thirty (30) days written notice of erosion of the aggregate limits below occurrence limits for all applicable coverages indicted within the Contract.
- .12 If OWNER-owned property is being transported or stored off-site by CONTRACTOR, then the appropriate property policy will be endorsed for transit and storage in an amount sufficient to protect OWNER's property.
- .13 The insurance coverages required under this contract are required minimums and are not intended to limit the responsibility or liability of CONTRACTOR.

5.3.1.2 Business Automobile Liability Insurance.

Provide coverage for all owned, non-owned and hired vehicles. The policy shall contain the following endorsements in favor of OWNER:

- a) Waiver of Subrogation endorsement TE 2046A;
- b) 30 day Notice of Cancellation endorsement TE 0202A; and
- c) Additional Insured endorsement TE 9901 B.

Provide coverage in the following types and amounts:

A minimum combined single limit of \$500,000 per occurrence for bodily injury and property damage. Alternate acceptable limits are \$250,000 bodily injury per person, \$500,000 bodily injury per occurrence and at least \$100,000 property damage liability each accident.

5.3.1.3 Workers' Compensation and Employers' Liability Insurance:

Coverage shall be consistent with statutory benefits outlined in the Texas Workers' Compensation Act (Section 401). CONTRACTOR shall assure compliance with this Statute by submitting two (2) copies of a standard certificate of coverage (e.g. ACCORD form) to Owner's Representative for every person providing services on the Project as acceptable proof of coverage. The required Certificate of Insurance must be presented as evidence of coverage for CONTRACTOR. Workers' Compensation Insurance coverage written by the Texas Workers Compensation Fund is acceptable to OWNER. CONTRACTOR's policy shall apply to the State of Texas and include these endorsements in favor of OWNER:

- a) Waiver of Subrogation, form WC 420304; and
- b) 30 day Notice of Cancellation, form WC 420601.

The minimum policy limits for Employers' Liability Insurance coverage shall be as follows:

.1 \$100,000 bodily injury per accident, \$500,000 bodily injury by disease policy limit and \$100,000 bodily injury by disease each employee.

00700 10-2015 Page 13 General Conditions

5.3.1.4 Commercial General Liability Insurance.

The Policy shall contain the following provisions:

- a) Blanket contractual liability coverage for liability assumed under the Contract and all contracts relative to this Project.
- b) Completed Operations/Products Liability for the duration of the warranty period.
- c) Explosion, Collapse and Underground (X, C & U) coverage.
- d) Independent Contractors coverage.
- e) Aggregate limits of insurance per project, endorsement CG 2503.
- f) OWNER listed as an additional insured, endorsement CG 2010.
- g) 30 day notice of cancellation in favor of OWNER, endorsement CG 0205.
- h) Waiver of Transfer of Recovery Against Others in favor of OWNER, endorsement CG 2404.

Provide coverages A&B with minimum limits as follows:

.1 A combined bodily injury and property damage limit of \$500,000 per occurrence.

5.3.1.5 Builders' Risk Insurance.

CONTRACTOR shall maintain Builders' Risk Insurance or Installation Insurance on an all risk physical loss form in the Contract Amount. Coverage shall continue until the Work is accepted by OWNER. OWNER shall be a loss payee on the policy. If off site storage is permitted, coverage shall include transit and storage in an amount sufficient to protect property being transported or stored.

5.4 Bonds:

5.4.1 General.

- .1 Bonds, when required, shall be executed on forms furnished by or acceptable to OWNER. All bonds signed by an agent must be accompanied by a certified copy of such agent's authority to act.
- .2 If the surety on any bond furnished by CONTRACTOR is declared bankrupt or becomes insolvent or its right to do business is terminated in the State of Texas or it ceases to meet the requirements of the preceding paragraph, CONTRACTOR shall within ten (10) days thereafter substitute another bond and surety, both of which must be acceptable to OWNER.
- .3 When Performance Bonds and/or Payment Bonds are required, each shall be issued in an amount of one hundred percent (100%) of the Contract Amount as security for the faithful performance and/or payment of all CONTRACTOR's obligations under the Contract Documents. Performance Bonds and Payment Bonds shall be issued by a solvent surety company authorized to do business in the State of Texas, and shall meet any other requirements established by law or by OWNER pursuant to applicable law. Any surety duly authorized to do business in Texas may write Performance and Payment Bonds on a project without reinsurance to the limit of 10 percent of its capital and surplus. Such a surety must reinsure any obligations over 10 percent.

5.4.2 Performance Bond.

- .1 If the Contract Amount exceeds \$100,000, CONTRACTOR shall furnish OWNER with a Performance Bond in the form set out by OWNER.
- .2 If the Contract Amount exceeds \$25,000 but is less than or equal to \$100,000, CONTRACTOR shall furnish OWNER with a Performance Bond in the form set out by OWNER, unless the original Contract Time is 60 Calendar Days/40 Working Days or less, in which case CONTRACTOR can agree to the following terms and conditions for payment in lieu of providing a Performance Bond: no money will be paid to CONTRACTOR until completion and acceptance of the Work by OWNER; CONTRACTOR shall be entitled to receive 95% of the Contract Amount following Final Completion, and the remaining 5% of the Contract Amount following the one year warranty period.
- .3 If the Contract Amount is less than or equal to \$25,000, CONTRACTOR will not be required to furnish a Performance Bond; provided that no money will be paid to CONTRACTOR until completion and acceptance of the Work by OWNER under the following terms and conditions: CONTRACTOR shall be entitled to receive 95% of the Contract Amount following Final Completion, and the remaining 5% of the Contract Amount following the one year warranty period.
- .4 If a Performance Bond is required to be furnished, it shall extend for the one year warranty period.

5.4.3 Payment Bond.

- .1 If the Contract Amount exceeds \$25,000, CONTRACTOR shall furnish OWNER with a Payment Bond in the form set out by OWNER.
- .2 If the Contract Amount is less than or equal to \$25,000, CONTRACTOR will not be required to furnish a Payment Bond; provided that no money will be paid to CONTRACTOR until completion and acceptance of the Work by OWNER under the terms and conditions specified in paragraph 5.4.2.3.

ARTICLE 6 - CONTRACTOR'S RESPONSIBILITIES

6.1 Supervision and Superintendence:

- **6.1.1** The CONTRACTOR shall supervise, inspect 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. Unless otherwise directed by the OWNER in the Contract Documents, the CONTRACTOR shall be solely responsible for the means, methods, techniques, sequences and procedures of construction. The CONTRACTOR shall be responsible to see that the completed Work complies accurately with the Contract Documents.
- 6.1.2 The CONTRACTOR shall have an English-speaking, competent Superintendent on the Work at all times that work is in progress. Upon request of Owner's Representative, the CONTRACTOR shall present the resume of the proposed Superintendent to Owner's Representative showing evidence of experience and successful superintendence and direction of work of a similar scale and complexity. If, in the opinion of Owner's Representative, the proposed Superintendent does not indicate sufficient experience in line with the Work, he/she will not be allowed to be the designated Superintendent for the Work. The Superintendent shall not be replaced without Written Notice to Owner's Representative. If the CONTRACTOR deems it necessary to replace the Superintendent, the CONTRACTOR shall provide the necessary information for approval, as stated above, on the proposed new Superintendent. A qualified substitute Superintendent may be designated in the event that the designated Superintendent is temporarily away from the Work, but not to exceed a time limit acceptable to Owner's Representative. The CONTRACTOR shall replace the Superintendent upon the OWNER's request in the event the Superintendent is unable to perform to the OWNER's satisfaction. The Superintendent will be the CONTRACTOR's representative on the Work and shall have the authority to act on behalf of the CONTRACTOR. All communications given to the Superintendent shall be as binding as if given to the CONTRACTOR. Either the CONTRACTOR or the

00700 10-2015 Page 15 General Conditions

Superintendent shall provide an emergency and home telephone number at which one or the other may be reached if necessary when work is not in progress.

6.2 Labor, Materials and Equipment:

- **6.2.1** The CONTRACTOR agrees to employ only orderly and competent workers, skillful in performance of the type of Work required under this Contract. The CONTRACTOR, Subcontractors, Sub-subcontractors, and their employees may not use or possess any firearms, alcoholic or other intoxicating beverages, illegal drugs or controlled substances while on the job or on the OWNER's property, nor may such workers be intoxicated, or under the influence of alcohol or drugs, on the job. If the OWNER or Owner's Representative notifies the CONTRACTOR that any worker is incompetent, disorderly or disobedient, has knowingly or repeatedly violated safety regulations, has possessed any firearms, or has possessed or was under the influence of alcohol or drugs on the job, the CONTRACTOR shall immediately remove such worker from performing Contract Work, and may not employ such worker again on Contract Work without the OWNER's prior written consent. The CONTRACTOR shall at all times maintain good discipline and order on or off the site in all matters pertaining to the Project. The CONTRACTOR shall pay workers no less than the wage rates established in Section 00900, and maintain weekly payroll reports as evidence thereof.
- **6.2.2** Unless otherwise specified, the CONTRACTOR shall provide and pay 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, re-testing of defective work, start-up and completion of the Work.
- **6.2.3** All materials and equipment shall be of good quality and new (including new products made of recycled materials), except as otherwise provided in the Contract Documents. If required by Owner's Representative, the CONTRACTOR shall furnish satisfactory evidence (reports of required tests, manufacturer's certificates of compliance with material requirements, mill reports, etc.) as to the kind, quantity and quality of materials and equipment. All materials and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned in accordance with instructions of the applicable Supplier, except as otherwise provided in the Contract Documents.
- **6.2.4** Substitutes and "Approved Equal" Items:
- **6.2.4.1** Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the specification or description is intended to establish the type, function and quality required. Unless the specification or description contains words reading that no like, equivalent or "approved equal" item or no substitution is permitted, other items of material or equipment of other Suppliers may be submitted to Owner's Representative under the following circumstances:
 - .1 "Approved Equal": If, in the OWNER's sole discretion, an item of material or an item of equipment proposed by the CONTRACTOR is functionally equal to that named and sufficiently similar so that no change in related Work will be required, it may be considered by the OWNER as an "approved equal" item, in which case review of the proposed item may, in the OWNER's sole discretion, be accomplished without compliance with some or all of the requirements for evaluation of proposed substitute items. The CONTRACTOR shall provide the OWNER with the documentation required for the OWNER to make its determination.
 - .2 Substitute Items: If, in the OWNER's sole discretion, an item of material or an item of equipment proposed by the CONTRACTOR does not qualify as an "approved equal" item under paragraph 6.2.4.1.1, then it will be considered a proposed substitute item. The CONTRACTOR shall submit sufficient information to allow the OWNER to determine that the item of material or item of equipment proposed is essentially equivalent to that named and a substitute therefor.
- **6.2.4.2** Substitute Construction Methods and Procedures: If a specific means, method, technique, sequence or procedure of construction is shown or indicated in and expressly required by the Contract Documents, the CONTRACTOR may with prior approval of the OWNER furnish or utilize a substitute means, method, technique,

00700 10-2015 Page 16 General Conditions

sequence, or procedure of construction. The CONTRACTOR shall submit sufficient information to Owner's Representative to allow the OWNER, in the OWNER's sole discretion, to determine that the substitute proposed is equivalent to that expressly called for by the Contract Documents.

- **6.2.4.3** OWNER's Evaluation: The OWNER will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to paragraph 6.2.4.1.1 and paragraph 6.2.4.1.2. The OWNER will be the sole judge of acceptability. No "approved equal" or substitute shall be ordered, installed, or utilized until the OWNER's review is complete, which will be evidenced by either a Change Order or completion of the Shop Drawing review procedure. The OWNER may require the CONTRACTOR to furnish at the CONTRACTOR's expense a special performance guarantee or other surety bond with respect to any "approved equal" or substitute. The OWNER shall not be responsible for any delay due to review time for any "approved equal" or substitute.
- **6.2.4.4** CONTRACTOR's Expense: All data to be provided by the CONTRACTOR in support of any proposed "approved equal" or substitute item will be at the CONTRACTOR's expense.
- **6.2.5** The CONTRACTOR agrees to assign to the OWNER any rights it may have to bring antitrust suits against its Suppliers for overcharges on materials incorporated in the Project growing out of illegal price fixing agreements. The CONTRACTOR further agrees to cooperate with the OWNER should the OWNER wish to prosecute suits against Suppliers for illegal price fixing.

6.3 Progress Schedule:

Unless otherwise directed, the CONTRACTOR shall adhere to the progress schedule established in accordance with paragraph 2.6 as it may be adjusted from time to time as provided below:

- .1 The CONTRACTOR shall submit to Owner's Representative for acceptance proposed adjustments in the progress schedule that will not change the Contract Times or Milestones. Such adjustments will conform generally to the progress schedule then in effect.
- .2 Proposed adjustments in the progress schedule that will change the Contract Times or Milestones shall be submitted in accordance with the requirements of Article 12. Such adjustments may only be made by a Change Order or Time Extension Request in accordance with Article 12.

6.4 Concerning Subcontractors, Suppliers and Others:

- **6.4.1** Assignment: The CONTRACTOR agrees to retain direct control of and give direct attention to the fulfillment of this Contract. The CONTRACTOR agrees not to, by Power of Attorney or otherwise, assign said Contract without the prior written consent of the OWNER.
- **6.4.2** Award of Subcontracts for Portions of the Work: The CONTRACTOR shall not employ any Subcontractor, Supplier or other person or organization, whether initially or as a substitute, against whom the OWNER may have reasonable objection. The CONTRACTOR must provide the OWNER with a list of all Subcontractors, Suppliers, or other persons or organizations it will use in the Work, and such list must be provided prior to the preconstruction conference. Should the OWNER have objections, the OWNER will communicate such objections by Written Notice. If the OWNER requires a change without good cause of any Subcontractor, person or organization previously accepted by OWNER, the Contract Amount may be increased or decreased by the difference in the cost occasioned by any such change, and an appropriate Change Order shall be issued. The CONTRACTOR shall not substitute any Subcontractor, person or organization that has been accepted by the OWNER, unless the substitute has been accepted in writing by the OWNER. No acceptance by the OWNER of any Subcontractor, Supplier or other person or organization shall constitute a waiver of any right of the OWNER to reject defective Work.
- **6.4.3** The CONTRACTOR shall enter into written agreements with all Subcontractors and Suppliers which specifically bind the Subcontractors or Suppliers to the applicable terms and conditions of the Contract Documents for the benefit of the OWNER and E/A. The OWNER reserves the right to specify that certain requirements shall be adhered to by all Subcontractors and Sub-subcontractors as indicated in other portions of the Contract

00700 10-2015 Page 17 General Conditions

Documents and these requirements shall be made a portion of the agreement between the CONTRACTOR and Subcontractor or Supplier.

- **6.4.4** The CONTRACTOR shall be fully responsible to the OWNER for all acts and omissions of the Subcontractors, Suppliers and other persons and organizations performing or furnishing any of the Work under a direct or indirect contract with the CONTRACTOR just as the CONTRACTOR is responsible for the CONTRACTOR's own acts and omissions. Nothing in the Contract Documents shall create for the benefit of any such Subcontractor, Supplier or other person or organization any contractual relationship between the OWNER and any such Subcontractor, Supplier or other person or organization, nor shall it create any obligation on the part of the OWNER or E/A to pay or to see to the payment of any amounts due any such Subcontractor, Supplier or other person or organization except as may otherwise be required by laws and regulations.
- **6.4.5** The CONTRACTOR shall be solely responsible for scheduling and coordinating the Work of Subcontractors, Suppliers and other persons and organizations performing or furnishing any of the Work under a direct or indirect contract with the CONTRACTOR. The CONTRACTOR shall require all Subcontractors, Suppliers and such other persons and organizations performing or furnishing any of the Work to communicate with Owner's Representative through the CONTRACTOR.
- **6.4.6** The divisions and sections of the Specifications and the identifications of any Drawings shall not control the CONTRACTOR in dividing or delineating the Work to be performed by any specific trade.
- **6.4.7** The CONTRACTOR shall pay each Subcontractor and Supplier their appropriate share of payments made to the CONTRACTOR not later than ten (10) Calendar Days after the CONTRACTOR's receipt of payment from the OWNER.

6.5 Patent Fees and Royalties:

- **6.5.1** The CONTRACTOR shall be responsible at all times for compliance with applicable patents or copyrights encompassing, in whole or in part, any design, device, material, or process utilized, directly or indirectly, in the performance of the Work or the formulation or presentation of its Bid.
- **6.5.2** The CONTRACTOR shall pay all royalties and license fees and shall provide, prior to commencement of Work hereunder and at all times during the performance of same, for lawful use of any design, device, material or process covered by letters, patent or copyright by suitable legal agreement with the patentee, copyright holder, or their duly authorized representative whether or not a particular design, device, material, or process is specified by the OWNER.
- **6.5.3** The CONTRACTOR shall defend all suits or claims for infringement of any patent or copyright and shall save the OWNER harmless from any loss or liability, direct or indirect, arising with respect to the CONTRACTOR's process in the formulation of its bid or the performance of the Work or otherwise arising in connection therewith. The OWNER reserves the right to provide its own defense to any suit or claim of infringement of any patent or copyright in which event the CONTRACTOR shall indemnify and save harmless the OWNER from all costs and expenses of such defense as well as satisfaction of all judgments entered against the OWNER.
- **6.5.4** The OWNER shall have the right to stop the Work and/or terminate this Agreement at any time in the event the CONTRACTOR fails to disclose to the OWNER that the CONTRACTOR's work methodology includes the use of any infringing design, device, material or process.

6.6 Permits, Fees:

Unless otherwise provided in the Supplemental General Conditions, the CONTRACTOR shall obtain and pay for all construction permits, licenses and fees required for prosecution of the Work.

OWNER will obtain and pay for the following permits, licenses and/or fees, if required:

.1 Site Development Permit.

00700 10-2015 Page 18 General Conditions

- **.2** Building Permit(s).
- .3 Texas Department of Transportation permit for work in State rights-of-way.
- .4 Railroad Utility License Agreement.

6.7 Laws and Regulations:

- **6.7.1** The CONTRACTOR shall give all notices and comply with all laws and regulations applicable to furnishing and performing the Work. Except where otherwise expressly required by applicable laws and regulations, neither the OWNER nor E/A shall be responsible for monitoring the CONTRACTOR's compliance with any laws and regulations.
- **6.7.2** The CONTRACTOR shall plan and execute its operations in compliance with all applicable Federal, State and local laws and regulations, including those concerning control and abatement of water pollution and prevention and control of air pollution.
- **6.7.3** If the CONTRACTOR performs any Work knowing or having reason to know that it is contrary to laws or regulations, then the CONTRACTOR shall bear all claims, costs, losses and damages arising therefrom; however, it shall not be the CONTRACTOR's primary responsibility to make certain that the Specifications and Drawings are in accordance with laws and regulations, but this does not relieve the CONTRACTOR of the CONTRACTOR's obligations under Article 3.

6.8 Taxes:

- **6.8.1** The CONTRACTOR shall pay all sales, consumer, use and other similar taxes required to be paid by the CONTRACTOR in accordance with the laws and regulations of the State of Texas.
- **6.8.2** The OWNER is an exempt organization as defined by Chapter 11 of the Property Tax Code of Texas and is thereby exempt from payment of Sales Tax under Chapter 151, Limited Use Sales, Excise and Use Tax, Texas Tax Code, and Article 1066 (C), Local Sales and Use Tax Act, Revised Civil Statutes of Texas.

6.9 Use of Premises:

- **6.9.1** The CONTRACTOR shall confine construction equipment, the storage of materials and equipment and the operations of workers to the site and land and areas identified in and permitted by the Contract Documents and other land and areas permitted by laws and regulations, rights-of-way, permits and easements, and shall not unreasonably encumber the premises with construction equipment or other materials or equipment. 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 adjacent land or areas, resulting from the performance of the Work. Should any claim be made by any such owner or occupant because of the performance of the Work, the CONTRACTOR shall promptly settle with such other party by negotiation or otherwise resolve the claim by dispute resolution proceeding or at law. The CONTRACTOR shall indemnify, defend and hold harmless the OWNER, E/A, E/A's consultants and anyone directly or indirectly employed by any of them from and against all claims, costs, losses and damages (including court costs and reasonable attorneys' fees) arising out of or resulting from any claim or action, legal or equitable, brought by any such owner or occupant against the OWNER, E/A or any other party indemnified hereunder to the extent caused by or based upon performance of the Work or failure to perform the Work.
- **6.9.2** During the progress of the Work and on a daily basis, the CONTRACTOR shall keep the premises free from accumulations of waste materials, rubbish and other debris resulting from the Work. At the completion of the Work, the CONTRACTOR shall remove all waste materials, rubbish and debris from and about the premises as well as all tools, appliances, construction equipment and machinery and surplus materials. The CONTRACTOR shall leave the site clean and ready for occupancy by the OWNER at Substantial Completion of the Work. The CONTRACTOR shall, at a minimum, restore to original condition all property not designated for alteration by the Contact Documents.

00700 10-2015 Page 19 General Conditions

6.9.3 The CONTRACTOR shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall the CONTRACTOR subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

6.10 Record Documents:

The CONTRACTOR shall maintain in a safe place at the site, or other location acceptable to the OWNER, one (1) record copy of all Drawings, Specifications, Addenda, Change Orders, Change Directives, Field Orders and written interpretations and clarifications (issued pursuant to paragraph 9.5) in good order and annotated to show all changes made during construction. These record documents, together with all final samples and all final Shop Drawings, will be available to the OWNER and E/A for reference during performance of the Work. Upon Substantial Completion of the Work, these record documents, samples and Shop Drawings shall be promptly delivered to Owner's Representative.

6.11 Safety and Protection:

- **6.11.1** The CONTRACTOR shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. Upon request, and prior to installation of measures, the CONTRACTOR shall submit a site security plan for approval by the OWNER. By reviewing the plan or making recommendations or comments, the OWNER will not assume liability nor will the CONTRACTOR be relieved of liability for damage, injury or loss. The CONTRACTOR shall take all necessary precautions for the safety of and shall provide the necessary protection to prevent damage, injury or loss to:
 - .1 all persons on the Work site or who may be affected by the Work;
 - .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 but not limited to, trees, shrubs, lawns, walks, pavements, roadways, structures, utilities and underground facilities not designated for removal, relocation or replacement in the course of construction.
- 6.11.2 The CONTRACTOR shall comply with all applicable laws and regulations of any public body having jurisdiction for 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 of underground facilities, and utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation and replacement of their property. All damage, injury or loss to any property referred to in paragraph 6.11.1.2 and paragraph 6.11.1.3 caused, directly or indirectly, in whole or in part, by the CONTRACTOR, Subcontractor, Supplier or any person or organization directly or indirectly employed by any of them to perform or furnish any of the Work or anyone for whose acts any of them may be liable, shall be remedied by the CONTRACTOR (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of the OWNER, or E/A, or E/A's consultant or anyone employed by any of them or anyone whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the faults or negligence of the CONTRACTOR or any Subcontractor, Supplier or other person or organization directly or indirectly employed by any of them). The CONTRACTOR's duties and responsibilities for safety and protection of the Work shall continue until such time as all the Work is completed and Owner's Representative has issued a notice to the OWNER and the CONTRACTOR in accordance with Article 14 that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).
- **6.11.3** Safety Representative: The CONTRACTOR shall designate a qualified and experienced safety representative at the site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs. Upon request of the OWNER, the CONTRACTOR shall provide certifications or other documentation of the safety representative's qualifications.

00700 10-2015 Page 20 General Conditions

6.11.4 Hazard Communication Programs: The CONTRACTOR shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the site in accordance with laws and regulations.

6.11.5 Emergencies:

- **6.11.5.1** In emergencies affecting the safety or protection of persons or the Work at the site or adjacent thereto, the CONTRACTOR, without special instruction or authorization from the OWNER or E/A, is obligated to act reasonably to prevent threatened damage, injury or loss and to mitigate damage or loss to the Work. The CONTRACTOR shall give Owner's Representative prompt written notice if the CONTRACTOR believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby. If Owner's Representative determines that a change in the Contract Documents is required because of the action taken by the CONTRACTOR in response to such an emergency, a Change Directive or Change Order will be issued to document the consequences of such action; otherwise the OWNER will not be responsible for the CONTRACTOR's emergency action.
- **6.11.5.2** Authorized agents of the CONTRACTOR shall respond immediately to call-out at any time of any day or night when circumstances warrant the presence on Project site of the CONTRACTOR or its agent to protect the Work or adjacent property from damage, restriction or limitation or to take such action or measures pertaining to the Work as may be necessary to provide for the safety of the public. Should the CONTRACTOR and/or its agent fail to respond and take action to alleviate such an emergency situation, the OWNER may direct other forces to take action as necessary to remedy the emergency condition, and the OWNER will deduct any cost of such remedial action from the funds due to the CONTRACTOR under this Contract.
- **6.11.5.3** In the event there is an accident involving injury to any individual on or near the Work, the CONTRACTOR shall notify Owner's Representative within twenty-four (24) hours of the event and shall be responsible for recording the location of the event and the circumstances surrounding the event through photographs, interviewing witnesses, obtaining medical reports and other documentation that describes the event. Copies of such documentation shall be provided to Owner's Representative, for the OWNER's and E/A's records, within forty-eight (48) hours of the event.

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 OWNER and the CONTRACTOR may agree in writing.

6.13 CONTRACTOR's General Warranty and Guarantee:

- **6.13.1** The CONTRACTOR warrants and guarantees to the OWNER that all Work will be performed in a good and workmanlike manner in accordance with the Contract Documents and will not be defective. The CONTRACTOR's warranty and guarantee hereunder excludes defects or damage caused by:
 - .1 abuse, modification or improper maintenance or operation by persons other than the CONTRACTOR, Subcontractors or Suppliers; or
 - .2 normal wear and tear under normal usage.
- **6.13.2** The CONTRACTOR's obligation to perform and complete the Work in a good and workmanlike manner in accordance with the Contract Documents shall be absolute. None of the following will constitute 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:
 - .1 observations by Owner's Representative and/or E/A;
 - .2 recommendation of any progress or final payment by Owner's Representative;

00700 10-2015 Page 21 General Conditions

- .3 the issuance of a certificate of Substantial Completion or any payment by the OWNER to the CONTRACTOR under the Contract Documents;
- .4 use or occupancy of the Work or any part thereof by the OWNER;
- .5 any acceptance by the OWNER or any failure to do so;
- .6 any review of a Shop Drawing or sample submittal;
- .7 any inspection, test or approval by others; or
- **.8** any correction of defective Work by the OWNER.

6.14 Indemnification:

- **6.14.1** The CONTRACTOR shall defend, indemnify and hold harmless the OWNER, E/A, E/A's consultants and subconsultants and their respective officers, directors, partners, employees, agents and other consultants and any of them from and against all claims, costs, losses and damages (including but not limited to all fees and charges of engineers, architects, attorneys and other professionals and all court or other dispute resolution costs) arising out of or resulting from the performance of the Work, provided that any such claim, cost, loss or damage:
 - .1 is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom, and
 - .2 is caused in whole or in part by any negligent act or omission of the CONTRACTOR, any Subcontractor, any Supplier, any person or organization directly or indirectly employed by any of them to perform or furnish any of the Work or anyone for whose acts any of them may be liable, regardless of whether or not caused in part by any negligence or omission of a person or entity indemnified hereunder or whether liability is imposed upon such indemnified party by laws and regulations regardless of the negligence of any such person or entity.
- **6.14.2** The indemnification obligation under paragraph 6.14.1 shall not be limited in any way by any limitation on the amount or type of damages, or compensation or benefits payable by or for the CONTRACTOR or any such Subcontractor, Supplier or other person or organization under workers' compensation acts, disability benefit acts or other employee benefit acts.
- **6.14.3** The obligations of the CONTRACTOR under paragraph 6.14.1 shall not extend to the liability of the OWNER, E/A, E/A's consultants, and their officers, directors, partners, employees or agents caused primarily by negligent preparation of maps, drawings, surveys, designs or specifications upon which is placed the applicable state-authorized design professional seal of the OWNER's, E/A's or E/A's consultant's officers, directors, partners, employees or agents.
- **6.14.4** In the event the CONTRACTOR fails to follow the OWNER's directives concerning use of the site, scheduling or course of construction, or engages in other conduct which proximately causes damage to property based on inverse condemnation or otherwise, then and in that event, the CONTRACTOR shall indemnify the OWNER against all costs resulting from such claims.
- **6.14.5** In the event the CONTRACTOR unreasonably delays progress of the work being done by others on the site so as to cause loss for which the OWNER becomes liable, then the CONTRACTOR shall reimburse the OWNER for such loss.

6.15 Survival of Obligations:

00700 10-2015 Page 22 General Conditions

All representations, indemnifications, warranties and guarantees made in, required by or given in accordance with the Contract Documents, as well as all continuing obligations indicated in the Contract Documents, will survive final payment, completion and acceptance of the Work and termination or completion of the Agreement.

6.16 Losses from Natural Causes:

Unless otherwise specified, all loss or damage to the CONTRACTOR arising out of the nature of the Work to be done or from action of the elements, floods or from unforeseeable circumstances in prosecution of the Work or from unusual obstructions or difficulties which may be encountered in prosecution of the Work, shall be sustained and borne by the CONTRACTOR at its own cost and expense.

6.17 Notice of Claim:

Should the CONTRACTOR suffer injury or damage to person or property because of any error, omission or act of the OWNER or of any of the OWNER's employees or agents or others for whose acts the OWNER is liable, a Claim will be made to the other party within thirty (30) calendar days of the event giving rise to such injury or damage. The provisions of this paragraph 6.17 shall not be construed as a substitute for or a waiver of the provisions of any applicable statute of limitations or statute of repose.

6.18 Liquidated Damages:

At set forth in the Agreement, paragraph 1.2, the CONTRACTOR or its Surety shall be liable for Liquidated Damages for the CONTRACTOR's failure to timely complete the Work or any portion thereof within the Contract Time. See Supplemental Conditions for amount of Liquidated Damages.

ARTICLE 7 - OTHER WORK

- **7.1** The OWNER may perform other work related to the Project at the site by the OWNER's own forces, or let other contracts therefor, or have other work performed by utility owners. If the CONTRACTOR believes that delay or additional cost is involved because of such action by the OWNER, the CONTRACTOR may make a Claim as provided in Article 11 or Article 12.
- 7.2 The CONTRACTOR shall afford other contractors who are in a contract with the OWNER and each utility owner (and 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 other work and shall properly connect and coordinate the Work with theirs. Unless otherwise provided in the Contract Documents, 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 Owner's Representative and the other contractors whose work will be affected. The CONTRACTOR shall promptly remedy damage wrongfully caused by the CONTRACTOR to completed or partially completed construction or to property of the OWNER or separate contractors.
- 7.3 If the proper execution or results of any part of the CONTRACTOR's Work depends upon work performed by others under this Article 7, the CONTRACTOR shall inspect such other work and promptly report to Owner's Representative in writing any delays, defects or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of the CONTRACTOR's Work. The CONTRACTOR's failure to report will constitute an acceptance of such other work as fit and proper for integration with the CONTRACTOR's Work except for latent or non-apparent defects and deficiencies in such other work.
- 7.4 The OWNER shall provide for coordination of the activities of the OWNER's own forces and of each separate contractor with the Work of the CONTRACTOR, who shall cooperate with them. The CONTRACTOR shall participate with other separate contractors and Owner's Representative in reviewing their construction schedules when directed to do so. The CONTRACTOR shall make any revisions to the construction schedule

00700 10-2015 Page 23 General Conditions

deemed necessary after a joint review and mutual agreement. The construction schedules shall then constitute the schedules to be used by the CONTRACTOR, separate contractors and the OWNER until subsequently revised.

7.5 Unless otherwise stated herein, costs caused by delays or by improperly timed activities or defective construction shall be borne by the party responsible therefor.

ARTICLE 8 - OWNER'S RESPONSIBILITIES

- **8.1** Prior to the start of construction, the OWNER will designate in writing a person or entity to act as Owner's Representative during construction. Except as otherwise provided in these General Conditions, the OWNER shall issue all communications to the CONTRACTOR through Owner's Representative.
- **8.2** The OWNER will not supervise, direct, control or have authority over or be responsible for the CONTRACTOR's means, methods, techniques, sequences or procedures of construction or the safety precautions and programs incident thereto. The OWNER is not responsible for any failure of the CONTRACTOR to comply with laws and regulations applicable to furnishing or performing the Work. The OWNER is not responsible for the CONTRACTOR's failure to perform or furnish the Work in accordance with the Contract Documents. Failure or omission of the OWNER to discover, or object to or condemn any defective Work or material shall not release the CONTRACTOR from the obligation to properly and fully perform the Contract.
- **8.3** The OWNER is not responsible for the acts or omissions of the CONTRACTOR, or of any Subcontractor, any Supplier, or of any other person or organization performing or furnishing any of the Work.
- **8.4** Information or services under the OWNER's control shall be furnished by the OWNER with reasonable promptness to avoid delay in the orderly progress of the Work.
- 8.5 The foregoing are in addition to other duties and responsibilities of the OWNER enumerated herein and especially those in respect to Article 4 (Availability of Lands; Subsurface and Physical Conditions; Reference Points), Article 7 (Other Work) and Article 14 (Payments to the CONTRACTOR and Completion).

8.6 Notice of Claim:

Should the OWNER suffer injury or damage to person or property because of any error, omission or act of the CONTRACTOR or of any of the CONTRACTOR's employees or agents or others for whose acts the CONTRACTOR is liable, a Claim will be made to the other party within thirty (30) calendar days of the event giving rise to such injury or damage. The provisions of this paragraph 8.6 shall not be construed as a substitute for or a waiver of the provisions of any applicable statute of limitations or statute of repose.

ARTICLE 9 - ENGINEER/ARCHITECT'S STATUS DURING CONSTRUCTION

9.1 E/A's Authority and Responsibilities:

- **9.1.1** The duties and responsibilities and the limitations of authority of E/A during construction are set forth in the Contract Documents and shall not be extended without written consent of the OWNER and E/A. The assignment of any authority, duties or responsibilities to E/A under the Contract Documents, or under any agreement between the OWNER and E/A, or any undertaking, exercise or performance thereof by E/A, is intended to be for the sole and exclusive benefit of the OWNER and is not for the benefit of the CONTRACTOR, Subcontractor, Subsubcontractor, Supplier, or any other person or organization, or for any surety or employee or agent of any of them.
- **9.1.2** E/A will not supervise, direct, control or have authority over or be responsible for the CONTRACTOR's means, methods, techniques, sequences or procedures of construction, or the safety precautions and programs incident thereto. E/A is not responsible for any failure of the CONTRACTOR to comply with laws and regulations applicable to the furnishing or performing the Work. E/A is not responsible for the CONTRACTOR's failure to perform or furnish the Work in accordance with the Contract Documents. Failure or omission of E/A to discover, or

00700 10-2015 Page 24 General Conditions

object to or condemn any defective Work or material shall not release the CONTRACTOR from the obligation to properly and fully perform the Contract.

- **9.1.3** E/A is not responsible for the acts or omissions of the CONTRACTOR, or of any Subcontractor, any Supplier, or of any other person or organization performing or furnishing any of the Work.
- **9.1.4** If the OWNER so directs, E/A will review the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds and certificates of inspection, tests and approvals and other documentation required to be delivered by Article 14, but only to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests and approvals that the results certified indicate compliance with, the Contract Documents.
- **9.1.5** The limitations upon authority and responsibility set forth in this paragraph 9.1 shall also apply to E/A's Consultants, Resident Project Representative and assistants.

9.2 E/A as Owner's Representative:

9.2.1 E/A may be designated as Owner's Representative under paragraph 8.1.

9.3 Visits to Site:

If the OWNER so directs, E/A will make visits to the site at intervals appropriate to the various stages of construction as is necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of the CONTRACTOR's executed Work. Based on information obtained during such visits and observations, E/A will endeavor for the benefit of the OWNER to determine if the Work is proceeding in accordance with the Contract Documents. E/A will not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. E/A's efforts will be directed toward providing for the OWNER a greater degree of confidence that the completed Work will conform to the Contract Documents. On the basis of such visits and on-site observations, E/A will keep the OWNER informed of the progress of the Work and will endeavor to guard the OWNER against defective Work. E/A's visits and on-site observations are subject to all the limitations on E/A's authority and responsibility set forth in paragraph 9.1.

9.4 Project Representative:

If the OWNER and E/A agree, E/A will furnish a Resident Project Representative to assist E/A in providing more continuous observation of the Work. The responsibilities and authority and limitations of any such Resident Project Representative and assistants will be as provided in paragraph 9.1 and in the Supplemental General Conditions. The OWNER may designate another representative or agent to represent the OWNER at the site who is not E/A, E/A's consultant, agent or employee.

9.5 Clarifications and Interpretations:

E/A may determine that written clarifications or interpretations of the requirements of the Contract Documents (in the form of drawings or otherwise) are necessary. Such written clarifications or interpretations will be consistent with the intent of and reasonably inferable from the Contract Documents, will be issued with reasonable promptness by Owner's Representative and will be binding on the OWNER and the CONTRACTOR. If the OWNER or the CONTRACTOR believes that a written clarification or interpretation justifies an adjustment in the Contract Amount or the Contract Times, the OWNER or the CONTRACTOR may make a Claim therefor as provided in Article 11 or Article 12.

9.6 Rejecting Defective Work:

E/A will recommend that the OWNER disapprove or reject Work which E/A believes to be defective, or believes will not produce a completed Project that conforms to the Contract Documents or will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.

00700 10-2015 Page 25 General Conditions

ARTICLE 10 - CHANGES IN THE WORK

10.1 Changes:

- **10.1.1** Without invalidating the Contract 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. Such changes in the Work will be authorized by Change Order, Change Directive or Field Order.
- **10.1.2** Changes in the Work shall be performed under applicable provisions of the Contract Documents, and the CONTRACTOR shall proceed promptly, unless otherwise provided in the Change Order, Change Directive or Field Order.
- **10.1.3** The CONTRACTOR shall not be entitled to an increase in the Contract Amount or an extension of the Contract Times with respect to any Work performed that is not required by the Contract Documents as amended, modified and supplemented as provided in paragraph 3.3.1 and paragraph 3.3.2, except in the case of an emergency as provided in paragraph 6.11.5 or in the case of uncovering Work as provided in paragraph 13.4.
- **10.1.4** Except in the case of an emergency as provided in paragraph 6.11.5, a Change Order or Change Directive is required before the CONTRACTOR commences any activities associated with a change in the Work which, in the CONTRACTOR 's opinion, will result in a change in the Contract Amount and/or Contract Times.
- **10.1.5** If notice of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Amount or Contract Times) is 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 will be adjusted accordingly.

10.2 Change Orders:

- 10.2.1 The OWNER and the CONTRACTOR shall execute appropriate written Change Orders covering:
 - .1 a change in the Work;
 - .2 the amount of the adjustment in the Contract Amount, if any; and
 - .3 the extent of the adjustment in the Contract Time, if any.
- **10.2.2** An executed Change Order shall represent the complete, equitable, and final amount of adjustment in the Contract Amount and/or Contract Time owed to the CONTRACTOR or the OWNER as a result of the occurrence or event causing the change in the Work encompassed by the Change Order.

10.3 Change Directives:

- **10.3.1** The OWNER may by written Change Directive, without invalidating the Contract, order changes in the Work within the general scope of the Contract consisting of additions, deletions or other revisions, the Contract Amount and Contract Time being adjusted as necessary. A Change Directive shall be used in the absence of complete and prompt agreement on the terms of a Change Order.
- **10.3.2** If the Change Directive provides for an adjustment to the Contract Amount, the adjustment shall be based on the method provided for in paragraph 11.5.
- **10.3.3** A Change Directive shall be recorded later by preparation and execution of an appropriate Change Order.
- 10.3.4 Upon receipt of a Change Directive, CONTRACTOR shall promptly proceed with the change in the Work involved.

00700 10-2015 Page 26 General Conditions

10.4 Field Order:

- **10.4.1** Owner's Representative may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Amount or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. These shall be accomplished by written Field Order and shall be binding on the OWNER and on the CONTRACTOR who shall perform the Work involved promptly.
- **10.4.2** If the CONTRACTOR believes that a Field Order would require an adjustment in the Contract Amount and/or Contract Times, the CONTRACTOR shall make written request to Owner's Representative for a Change Order. Any request by the CONTRACTOR for an adjustment in Contract Amount and/or Contract Times shall be made in writing prior to beginning the work covered by the Field Order.

10.5 No Damages for Delay:

The CONTRACTOR shall receive no compensation for delays or hindrances to the Work. If delay is caused by specific orders given by the OWNER to stop work or by performance of extra Work or by failure of the OWNER to provide information, access to the work, material or necessary instructions for carrying on the Work, then such delay will entitle the CONTRACTOR to an equivalent extension of time, the CONTRACTOR's application for which shall, however, be subject to approval of the OWNER. No such extension of time shall release the CONTRACTOR or surety on its performance bond from all the CONTRACTOR's obligations hereunder which shall remain in full force until discharge of the Contract.

ARTICLE 11 - CHANGE OF CONTRACT AMOUNT

- **11.1** The Contract Amount is stated in the Agreement and, including authorized adjustments, is the total amount payable by the OWNER to the CONTRACTOR for performance of the Work under the Contract Documents.
- 11.2 The original Contract Amount may not be increased by more than twenty-five percent (25%) and it may not be decreased more than twenty-five percent (25%) without the consent of the CONTRACTOR to such decrease.
- 11.3 The Contract Amount shall only be changed by a Change Order. Any claim for an adjustment in the Contract Amount shall be made by Written Notice delivered by the party making the Claim to the other party promptly (but in no event later than thirty (30) calendar days) after the start of the occurrence or 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 thirty (30) calendar days after Written Notice of Claim is delivered by claimant, and shall represent that the adjustment claimed covers all known amounts to which claimant is entitled as a result of said occurrence or event. If the OWNER and the CONTRACTOR cannot otherwise agree, all Claims for adjustment in the Contract Amount shall be determined as set out in Article 16.

11.4 Determination of Value of Work:

- **11.4.1** The value of any Work covered by a Change Order or of any Claim for an adjustment in the Contract Amount will be determined by one or more of the following methods:
 - .1 by application of unit prices contained in the Contract Documents to the quantities of the items involved.
 - **.2** by a mutually agreed lump sum properly itemized and supported by sufficient substantiating data to permit evaluation.
 - **.3** by cost of Work plus the CONTRACTOR's fee for all overhead costs and profit (determined as provided in paragraph 11.5).

00700 10-2015 Page 27 General Conditions

11.4.2 Before using the method described in paragraph 11.4.1.3, the OWNER and the CONTRACTOR agree to negotiate a Change Order using the methods identified in paragraph 11.4.1.1 and paragraph 11.4.1.2, as appropriate, to determine the adjustment in the Contract Amount.

11.5 Cost of Work:

If neither of the methods defined in paragraph 11.4.1.1 or paragraph 11.4.1.2 can be agreed upon before a change in the Work is commenced which will result in an adjustment in the Contract Amount, then the change in the Work will be performed by Change Directive and payment will be made as follows:

- .1 For all personnel, the CONTRACTOR will receive the rate or wage specified in the prevailing wage rates established in Section 00900 for each hour that said personnel are actually engaged in such Work, to which will be added an amount equal to twenty-five percent (25%) of the sum thereof as compensation for the CONTRACTOR's and any affected Subcontractor's total overhead and profit. No separate charge will be made by the CONTRACTOR for organization or overhead expenses. For the cost of premiums on public liability insurance, workers' compensation insurance, social security and unemployment insurance, an amount equal to fifty-five percent (55%) of the wages paid personnel, excluding the twenty-five (25%) compensation provided above, will be paid to the CONTRACTOR. The actual cost of the CONTRACTOR's bond(s) on the extra Work will be paid based on invoices from surety. No charge for superintendence will be made unless considered necessary and ordered by the OWNER.
- .2 The CONTRACTOR will receive the actual cost, including freight charges, of the materials used on such Work, to which costs will be added a sum equal to twenty-five percent (25%) thereof as compensation for the CONTRACTOR's and any affected Subcontractor's total overhead and profit. In case material invoices indicate a discount may be taken, the actual cost will be the invoice price minus the discount.
- .3 For machinery, trucks, power tools, or other similar equipment agreed to be necessary by the OWNER and the CONTRACTOR, the OWNER will allow the CONTRACTOR the rate as given in the latest edition of the Associated General Contractors of America "Contractor's Equipment Cost Guide" as published by Dataquest for each hour that said tools or equipment are in use on such work, which rate includes the cost of fuel, lubricants and repairs. No additional compensation will be allowed on the equipment for the CONTRACTOR's overhead and profit.
- .4 The compensation, as herein provided for, shall be received by the CONTRACTOR and any affected Subcontractor as payment in full for work done by Change Directive and will include use of small tools, and total overhead expense and profit. The CONTRACTOR and the Owner's Representative shall compare records of work done by Change Directive at the end of each day. Copies of these records will be made upon forms provided for this purpose by the OWNER and signed by both Owner's Representative and the CONTRACTOR, with one (1) copy being retained by the OWNER and one (1) by the CONTRACTOR. Refusal by the CONTRACTOR to sign these records within two (2) working days of presentation does not invalidate the accuracy of the record.

11.6 Unit Price Work:

11.6.1 Where the Contract Documents provide that all or part of the Work is to be unit price Work, initially the Contract Amount will be deemed to include for all unit price work an amount equal to the sum of the established unit price for each separately identified item of unit price work times the estimated quantity of each item as indicated in the Bid. The estimated quantities of items of unit price work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Amount. Determinations of the actual quantities and classifications of unit price work performed by the CONTRACTOR will be made by Owner's Representative. Owner's Representative will review with the CONTRACTOR the preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise).

00700 10-2015 Page 28 General Conditions

- **11.6.2** When "plan quantity" is indicated for a bid item, the CONTRACTOR shall be paid the amount specified in the Contract Documents without any measurements.
- **11.6.3** Each unit price will be deemed to include an amount considered by the CONTRACTOR to be adequate to cover the CONTRACTOR's overhead and profit for each separately identified item.
- **11.6.4** A Major Item is any individual bid item in the Bid that has a total cost equal to or greater than five percent (5%) of the original Contract Amount or \$50,000, whichever is greater, computed on the basis of bid quantities and Contract unit prices.
- **11.6.5** The OWNER or the CONTRACTOR may make a Claim for an adjustment in the Contract Amount in accordance with Article 11 if:
 - .1 the actual quantity of any Major Item should become as much as twenty percent (20%) more than or twenty percent (20%) less than in the Bid; or
 - .2 The CONTRACTOR presents proper documentation contesting the accuracy of "plan quantity," and Owner's Representative verifies quantity and determines original quantity is in error by five percent (5%) or more.
- **11.6.6** Right to Verify Information: The CONTRACTOR agrees that any designated representative of the OWNER shall have the right to examine the CONTRACTOR's records to verify the accuracy and appropriateness of the pricing data used to price change proposals. Even after a Change Order Proposal has been approved, the CONTRACTOR agrees that if the OWNER later determines the cost and pricing data submitted was inaccurate, incomplete, not current or not in compliance with the terms of this Agreement regarding pricing of change orders, then an appropriate contract price reduction will be made.
- 11.6.7 Pricing Information Requirements: The CONTRACTOR agrees to provide and require all subcontractors to provide a breakdown of allowable labor and labor burden cost information as outlined herein. This information will be used to evaluate the potential cost of labor and labor burden related to change order work. It is intended that this information represent an accurate estimate of the CONTRACTOR's actual labor and labor burden cost components. This information is not intended to establish fixed billing or change order pricing labor rates. However, at the time change orders are priced the submitted cost data for labor rates may be used to price change order work. The accuracy of any such agreed-upon labor cost components used to price change orders will be subject to later audit. Approved change order amounts may be adjusted later to correct the impact of inaccurate labor cost components if the agreed-upon labor cost components are determined to be inaccurate.

ARTICLE 12 - CHANGE OF CONTRACT TIMES

12.1 Working Day and Calendar Day Contracts:

- 12.1.1 The Contract Times (or Milestones) shall only be changed by Change Order or Time Extension Request duly executed by both the CONTRACTOR and Owner's Representative. Any claim for an adjustment of the Contract Times (or Milestones) shall be made by Written Notice delivered by the party making the Claim to the other party promptly (but in no event later than thirty (30) calendar days) after the start of the occurrence or event giving rise to the delay and stating the general nature of the delay. Notice of the extent of the delay with supporting data shall be delivered within thirty (30) calendar days after Written Notice of Claim is delivered by claimant, and shall represent that the adjustment claimed is the entire adjustment to which claimant is entitled as a result of said occurrence or event. If the OWNER and the CONTRACTOR cannot otherwise agree, all Claims for adjustment in the Contract Times (or Milestones) shall be determined as set out in Article 16. No Claim for an adjustment in the Contract Times (or Milestones) will be valid if not submitted in accordance with the requirements of this paragraph.
- **12.1.2** When the CONTRACTOR is at fault and the OWNER stops the Work so that corrections in the Work can be made by the CONTRACTOR, then no extension in time will be allowed.

00700 10-2015 Page 29 General Conditions

- **12.1.3** When the CONTRACTOR is prevented from completing any part of the Work within the Contract Times (or Milestones) due to delay not caused by the CONTRACTOR, an extension of the Contract Times (or Milestones) in an amount equal to the time lost due to such delay shall be the CONTRACTOR's sole and exclusive remedy for such delay. However, adverse weather shall not be considered justification for extension of Contract Times on Calendar Day contracts except as provided for in paragraph 12.2.
- **12.1.4** The OWNER will consider time extension requests and may grant the CONTRACTOR an extension of time because of:
 - .1 Changes ordered in the work which justify additional time.
 - .2 Failure of materials or products being at the Project site due to delays in transportation or failures of Suppliers, which are not the result of the CONTRACTOR's, Subcontractor's or Supplier's negligence. The request for an extension of time shall be supported by a recitation of acts demonstrating that such delays were beyond the control of the CONTRACTOR, including but not limited to, the CONTRACTOR's efforts to overcome such delays documented as follows:
 - a) Copy of purchase order for delayed item(s) indicating date ordered by the CONTRACTOR/Subcontractor and date purchase order received by Supplier.
 - b) If item(s) require Shop Drawings or other submittal information in accordance with the Contract Documents, provide record of date submittal(s) forwarded to Owner's Representative, date submittal(s) returned to the CONTRACTOR, and date submittal(s) forwarded to Supplier.
 - **c)** Copy of document(s) from Supplier, on Supplier's letterhead, indicating date(s) item(s) would be ready for shipment and/or actual shipment date(s).
 - **d)** Copies of all correspondence between the CONTRACTOR/ Subcontractor and Supplier indicating the CONTRACTOR/ Subcontractor's efforts to expedite item(s).
 - e) If item(s) are being purchased by a Subcontractor, provision of meeting notes, correspondence, and the like which reflect the CONTRACTOR's efforts with the Subcontractor to expedite delivery of the item(s).
 - .3 When acts of the OWNER, E/A, utility owners or other contractors employed by the OWNER delay progress of work through no fault of the CONTRACTOR.
 - .4 When the CONTRACTOR is delayed by strikes, lockouts, fires, losses from natural causes, or other unavoidable cause or causes beyond the CONTRACTOR's control.

12.2 Calendar Day Contracts:

Under a Calendar Day Contract, the CONTRACTOR may also be granted an extension of time because of unusual inclement weather that is beyond the normal weather expected for the Williamson and Travis Counties, Texas area. Normal weather which prevents the CONTRACTOR from performing Work is expected during a Calendar Day Contract, and is <u>not</u> a justification for an extension of time. The following delineates the number of days per month for which, for purposes of Calendar Day Contracts, expected normal weather will prevent performance of Work:

January	7 days
February	7 days
March	7 days
April	7 days
May	8 days
June	6 days
July	6 days
August	5 days
September	7 days
October	7 days

Days per month exceeding the number shown above may be credited as Rain Days if a Claim is made in accordance with paragraph 12.1.1 and meets the following definition: a "Rain Day" is any day in which a weather event occurs at the site and is sufficient to prevent the CONTRACTOR from performing units of Work critical to maintaining the project schedule.

ARTICLE 13 - TESTS AND INSPECTIONS; AND CORRECTION OR REMOVAL OF DEFECTIVE WORK

13.1 Notice of Defects:

Prompt notice of all defective Work of which the OWNER or E/A has actual knowledge will be given to the CONTRACTOR. All defective Work may be rejected or corrected as provided for in Article 13.

13.2 Access to Work:

The OWNER, E/A, E/A's Consultants, other representatives and personnel of the OWNER, independent testing laboratories and governmental agencies having jurisdiction will have unrestricted physical access to the Work site for observing, inspecting and testing. The CONTRACTOR shall provide them proper and safe conditions for such access, and advise them of the CONTRACTOR's site safety procedures and programs so that they may comply therewith as applicable.

13.3 Tests and Inspections:

- **13.3.1** The CONTRACTOR shall give timely notice of readiness of the Work for all required inspections, tests or approvals, and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.
- **13.3.2** The OWNER shall employ and pay for services of an independent testing laboratory to perform all inspections, tests or approvals required by the Contract Documents except:
 - .1 for inspections, tests or approvals covered by paragraph 13.3.3 below;
 - .2 for reinspecting or retesting defective Work; and
 - **.3** as otherwise specifically provided in the Contract Documents.

All testing laboratories shall be those selected by the OWNER.

13.3.3 If laws or regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested or approved by an employee or other representative of such public body, the CONTRACTOR shall assume full responsibility for arranging and obtaining such inspections, tests or approvals, pay all costs in connection therewith and furnish Owner's Representative the required certificates of inspection or approval. The CONTRACTOR shall also be responsible for arranging and obtaining and shall pay all costs in connection with any inspections, tests or approvals required for the OWNER's and E/A's review of materials or equipment to be incorporated in the Work, or of materials, mix designs or equipment submitted for review prior to the CONTRACTOR's purchase thereof for incorporation in the Work.

13.4 Uncovering Work:

13.4.1 If any Work (or the work of others) that is to be inspected, tested or approved is covered by the CONTRACTOR without concurrence of Owner's Representative, or if any Work is covered contrary to the written request of Owner's Representative, it must, if requested by Owner's Representative, be uncovered and recovered at the CONTRACTOR's expense.

00700 10-2015 Page 31 General Conditions

13.4.2 If Owner's Representative considers it necessary or advisable that covered Work be observed, inspected or tested, the CONTRACTOR shall uncover, expose or otherwise make available for observation, inspection or testing that portion of the Work in question, furnishing all necessary labor, material and equipment. If it is found that such Work is defective, the CONTRACTOR shall pay all claims, costs, losses and damages caused by, arising out of or resulting from such uncovering, exposure, observation, inspection and testing and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and the OWNER shall be entitled to an appropriate decrease in the Contract Amount, and may make a Claim therefor as provided in Article 11. If, however, such Work is not found to be defective, the CONTRACTOR shall be allowed an increase in the Contract Amount or an extension of the Contract Times (or Milestones), or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement and reconstruction; and the CONTRACTOR may make a Claim therefor as provided in Article 11 and Article 12.

13.5 OWNER May Stop the Work:

- **13.5.1** If the Work is defective, or the CONTRACTOR fails to supply sufficient skilled workers or suitable materials or equipment, or fails to furnish or 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 surety or other party.
- **13.5.2** If the CONTRACTOR persistently fails to correct defective Work or submit a satisfactory plan to take corrective action, with procedure and time schedule, the OWNER may order the CONTRACTOR to stop the Work, or any portion thereof, until cause for such order has been eliminated, or take any other action permitted by this Contract. A notice to stop the Work, based on defects, shall not stop calendar or working days charged to the Project.

13.6 Correction or Removal of Defective Work:

If required by the OWNER, the CONTRACTOR shall promptly, as directed, either correct all defective Work, whether or not fabricated, installed or completed, or, if the Work has been rejected by Owner's Representative, remove it from the site and replace it with Work that is not defective. The CONTRACTOR shall correct or remove and replace defective Work, or submit a plan of action detailing how the deficiency will be corrected, within the time frame identified in the notice of defective Work. The CONTRACTOR shall pay all claims, costs, losses and damages caused by or resulting from such correction or removal (including but not limited to all costs of repair or replacement of work of others).

13.7 Warranty period:

- **13.7.1** If, at any time after the date of Substantial 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 the OWNER and in accordance with the OWNER's written instructions:
 - (i) correct such defective Work, or, if it has been rejected by the OWNER, remove it from the site and replace it with Work that is not defective, and
 - (ii) satisfactorily correct or remove and replace any damage to other Work or the work of others resulting therefrom.

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, the OWNER may have the defective Work corrected or the rejected Work removed and replaced, and all claims, costs, losses and damages caused by or resulting from such removal and replacement (including but not limited to all costs of repair or replacement of work of others) will be paid by the CONTRACTOR.

00700 10-2015 Page 32 General Conditions

13.7.2 In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the warranty period for that item may start to run from an earlier date if so provided in the Contract Documents.

13.8 OWNER May Correct Defective Work:

If the CONTRACTOR fails within a reasonable time after Written Notice of the OWNER to correct defective Work, or to remove and replace rejected Work, or if the CONTRACTOR fails to perform the Work in accordance with the Contract Documents, or if the CONTRACTOR fails to comply with any other provision of the Contract Documents, the OWNER may, after seven (7) calendar days' Written Notice to the CONTRACTOR, correct and remedy any such deficiency. If, in the opinion of Owner's Representative, significant progress has not been made during this seven (7) calendar day period to correct the deficiency, the OWNER may exercise any actions necessary to remedy the deficiency. In exercising the rights and remedies under this paragraph, the OWNER shall proceed expeditiously. In connection with such corrective and remedial action, the OWNER may exclude the CONTRACTOR from all or part of the site, take possession of all or part of the Work, and suspend the CONTRACTOR's services related thereto, and incorporate in the Work all materials and equipment stored at the site or for which the OWNER has paid the CONTRACTOR but which are stored elsewhere. The CONTRACTOR shall allow the OWNER, its agents and employees, the OWNER's other contractors. E/A and E/A's consultants access to the site to enable the OWNER to exercise the rights and remedies under this paragraph. All claims, costs, losses and damages incurred or sustained by the OWNER in exercising such rights and remedies will be charged against the CONTRACTOR and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work. Such claims, costs, losses and damages will include but not be limited to all costs of repair or replacement of work of others destroyed or damaged by correction, removal or replacement of the CONTRACTOR's defective Work. The CONTRACTOR shall not be allowed an extension of the Contract Times (or Milestones), or claims of damage because of any delay in the performance of the Work attributable to the exercise by the OWNER of the OWNER's rights and remedies hereunder.

ARTICLE 14 - PAYMENTS TO CONTRACTOR AND COMPLETION

14.1 Application for Progress Payment:

- **14.1.1** Not more than once per month, the CONTRACTOR shall submit to Owner's Representative for review an Application for Payment, in a form acceptable to the OWNER, filled out and signed by the CONTRACTOR covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents.
- **14.1.2** Such applications shall not include requests for payment on account of changes in the Work which have been properly authorized by Change Directives but not yet included in Change Orders.
- **14.1.3** Such applications shall not include requests for payment of amounts the CONTRACTOR does not intend to pay to a Subcontractor or Supplier because of a dispute or other reason.
- **14.1.4** Owner will not pay for materials or equipment not incorporated in the work but delivered and suitably stored at the site or at another location. Payment will be made by Owner only for work completed in accordance with the plans and contract documents.
- 14.1.5 Where the original Contract Amount is less than \$400,000, the OWNER will pay to the CONTRACTOR the total amount of approved Application for Payment, less ten percent (10%) of the amount thereof, which ten percent (10%) will be retained until final payment, less all previous payments and less all sums that may be retained by the OWNER under the terms of this Agreement. Where the original Contract Amount is \$400,000 or more, the OWNER will pay to the CONTRACTOR the total amount of approved Application for Payment, less five percent (5%) of the amount thereof, which five percent (5%) will be retained until final payment, less all previous payments and less all sums that may be retained by the OWNER under the terms of this Agreement. In either case, if the Work is near completion and delay occurs due to no fault or neglect of the CONTRACTOR, the OWNER may pay a portion of the retained amount to the CONTRACTOR. The CONTRACTOR, at the OWNER's option, may be relieved of the

00700 10-2015 Page 33 General Conditions

obligation to complete the Work and, thereupon, the CONTRACTOR shall receive payment of the balance due under the Contract subject to the conditions stated under paragraph 15.2.

- **14.1.6** Applications for Payment shall include the following documentation:
 - .1 updated progress schedule:
 - .2 monthly subcontractor report; and
 - .3 any other documentation required under the Supplemental General Conditions.

14.2 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 not later than the time of payment to the CONTRACTOR free and clear of all liens.

14.3 Review of Applications for Progress Payment:

- **14.3.1** Owner's Representative will, within seven (7) calendar days after receipt of each Application for Payment, either indicate a recommendation for payment and forward the Application for processing by the OWNER, or return the Application to the CONTRACTOR indicating Owner's Representative's reasons for refusing to recommend payment. In the latter case, the CONTRACTOR may make the necessary corrections and resubmit the Application.
- **14.3.2** Owner's Representative's recommendation of any payment requested in an Application for Payment will constitute a representation by Owner's Representative, based upon Owner's Representative's on-site observations of the executed Work and on Owner's Representative's review of the Application for Payment and the accompanying data and schedules, that to the best of Owner's Representative's knowledge, information and belief:
 - .1 the Work has progressed to the point indicated; and
 - .2 the quality of the Work is in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, to the results of any subsequent tests called for in the Contract Documents, to a final determination of quantities and classifications for unit price Work, and to any other qualifications stated in the recommendation).
- **14.3.3** By recommending any such payment, Owner's Representative will not thereby be deemed to have represented that:
 - .1 exhaustive or continuous on-site inspections have been made to check the quality or the quantity of the Work:
 - .2 examination has been made to ascertain how or for what purpose the CONTRACTOR has used money previously paid on account of the Contract Amount;
 - .3 the CONTRACTOR's construction means, methods, techniques, sequences or procedures have been reviewed; or
 - .4 that there may not be other matters or issues between the parties that might entitle the CONTRACTOR to be paid additionally by the OWNER or entitle the OWNER to withhold payment to the CONTRACTOR.

14.4 Decisions to Withhold Payment:

14.4.1 The OWNER may withhold or nullify the whole or part of any payment to such extent as may be necessary on account of:

00700 10-2015 Page 34 General Conditions

- .1 defective Work not remedied;
- .2 reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Amount;
- .3 damage to the OWNER or another contractor;
- .4 reasonable evidence that the Work will not be completed within the Contract Time, and that the unpaid balance would not be adequate to cover actual or liquidated damages for the anticipated delay;
- .5 failure of the CONTRACTOR to submit a schedule of values in accordance with the Contract Documents;
- .6 failure of the CONTRACTOR to submit a submittal schedule in accordance with the Contract Documents;
- .7 failure of the CONTRACTOR to submit or update construction schedules in accordance with the Contract Documents:
- 8 failure of the CONTRACTOR to maintain a record of changes on drawings and documents;
- .9 failure of the CONTRACTOR to maintain weekly payroll reports;
- .10 failure of the CONTRACTOR to submit monthly subcontractor reports;
- .11 the CONTRACTOR's neglect or unsatisfactory prosecution of the Work, including failure to clean up; or
- .12 failure of the CONTRACTOR to comply with any provision of the Contract Documents.
- **14.4.2** When the above reasons for withholding payment are removed, the CONTRACTOR shall resubmit a statement for the value of Work performed. Payment will be made within thirty (30) calendar days of receipt of approved Application for Payment.

14.5 Delayed Payments:

Should the OWNER fail to make payment to the CONTRACTOR of a sum named in any Application for Payment within thirty (30) calendar days after the day on which the OWNER received the mutually acceptable Application for Payment, then the OWNER will pay to the CONTRACTOR, in addition to the sum shown as due by such Application for Payment, interest thereon at the rate of one percent (1%) per month from date due until fully paid, which shall fully liquidate any injury to the CONTRACTOR growing out of such delay in payment.

14.6 Arrears:

No money shall be paid by the OWNER upon any claim, debt, demand or account whatsoever, to any person, firm or corporation who is in arrears to the OWNER; and the OWNER shall be entitled to counterclaim and offset against any such debt, claim, demand or account so in arrears and no assignment or transfer of such debt, claim, demand or account, shall affect the right of the OWNER to so offset said amounts, and associated penalties and interest if applicable, against the same.

14.7 Substantial Completion:

14.7.1 If a Certificate of Occupancy is required by public authorities having jurisdiction over the Work, said certificate shall be issued before the Work or any portion thereof is considered substantially complete. When the CONTRACTOR considers that the Work, or a portion thereof which the OWNER agrees to accept separately, is

00700 10-2015 Page 35 General Conditions

substantially complete, the CONTRACTOR shall notify Owner's Representative and request a determination as to whether the Work or designated portion thereof is substantially complete. If Owner's Representative does not consider the Work substantially complete, Owner's Representative will notify the CONTRACTOR giving reasons therefor. Failure on the OWNER's part to list a reason does not alter the responsibility of the CONTRACTOR to complete all Work in accordance with the Contract Documents. After satisfactorily completing items identified by Owner's Representative, the CONTRACTOR shall then submit another request for Owner's Representative to determine substantial completion. If Owner's Representative considers the Work substantially complete, Owner's Representative will prepare and deliver a certificate of Substantial Completion which shall establish the date of Substantial Completion, shall include a punch list of items to be completed or corrected before final payment, shall establish the time within which the CONTRACTOR shall finish the punch list, and shall establish responsibilities of the OWNER and the CONTRACTOR for security, maintenance, heat, utilities, damage to the Work, warranty and insurance. Failure to include an item on the punch list does not alter the responsibility of the CONTRACTOR to complete all Work in accordance with the Contract Documents. The certificate of Substantial Completion shall be signed by the OWNER and the CONTRACTOR to evidence acceptance of the responsibilities assigned to them in such certificate.

14.7.2 The OWNER shall have the right to exclude the CONTRACTOR from the Work after the date of Substantial Completion, but the OWNER will allow the CONTRACTOR reasonable access to complete or correct items on the punch list.

14.8 Partial Utilization:

The OWNER, at the OWNER's sole option, shall have the right to take possession of and use any completed or partially completed portion of the Work regardless of the time for completing the entire Work. The OWNER's exercise of such use and possession shall not be construed to mean that the OWNER acknowledges that any part of the Work so possessed and used is substantially complete or that it is accepted by OWNER, and the OWNER's exercise of such use and possession shall not relieve the CONTRACTOR of its responsibility to complete all Work in accordance with the Contract Documents.

14.9 Final Inspection:

Upon Written Notice from the CONTRACTOR that the entire Work or an agreed portion thereof is complete, Owner's Representative will make a final inspection with the CONTRACTOR and provide Written Notice of all particulars in which this inspection reveals that the Work is incomplete or defective. The CONTRACTOR shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

14.10 Final Application for Payment:

The CONTRACTOR may make application for final payment following the procedure for progress payments after the CONTRACTOR has completed all such corrections to the satisfaction of Owner's Representative and delivered the following documents:

- .1 Three (3) complete operating and maintenance manuals, each containing maintenance and operating instructions, schedules, guarantees, and other documentation required by the Contract Documents;
- .2 Record documents (as provided in paragraph 6.10);
- .3 Consent of surety, if any, to final payment. If surety is not provided, complete and legally effective releases or waivers (satisfactory to the OWNER) of all claims arising out of or filed in connection with the Work:
- .4 Certificate evidencing that insurance required by the Supplemental General Conditions will remain in force after final payment and through any warranty period;
- .5 Non-Use of Asbestos Affidavit (After Construction); and

00700 10-2015 Page 36 General Conditions

.6 Any other documentation called for in the Contract Documents.

14.11 Final Payment and Acceptance:

- **14.11.1** If, on the basis of observation of the Work during construction, final inspection, and review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Owner's Representative is satisfied that the Work has been completed and the CONTRACTOR's other obligations under the Contract Documents have been fulfilled, Owner's Representative will recommend the final Application for Payment and thereby notify the OWNER, who will pay to the CONTRACTOR the balance due the CONTRACTOR under the terms of the Contract.
- **14.11.2** As Contract Time is measured to Final Completion, Owner's Representative will issue a letter of final acceptance to the CONTRACTOR which establishes the Final Completion date and initiates any warranty period.
- **14.11.3** Final payment is considered to have taken place when the CONTRACTOR or any of its representatives negotiates the OWNER's final payment check, whether labeled final or not, for cash or deposits check in any financial institution for its monetary return.

14.12 Waiver of Claims:

The making and acceptance of final payment will constitute:

- .1 a waiver of claims by the OWNER against the CONTRACTOR, except claims arising from unsettled claims, from defective Work appearing after final inspection, from failure to comply with the Contract Documents or the terms of any warranty specified therein, or from the CONTRACTOR's continuing obligations under the Contract Documents; and
- .2 a waiver of all claims by the CONTRACTOR against the OWNER other than those previously made in writing and still unsettled.

ARTICLE 15 - SUSPENSION OF WORK AND TERMINATION

15.1 OWNER May Suspend Work Without Cause and for Convenience:

At any time and without cause and for convenience, the OWNER may suspend the Work or any portion thereof for a period of not more than ninety (90) calendar days by written agreement or by Written Notice to the CONTRACTOR which will fix the date on which the Work will be resumed. The CONTRACTOR shall resume the Work on the date so fixed. The CONTRACTOR may be allowed an adjustment in the Contract Amount or an extension of the Contract Times, or both, directly attributable to any such suspension if the CONTRACTOR makes an approved Claim therefor as provided in Article 11 and Article 12.

15.2 OWNER May Terminate Without Cause:

Upon seven (7) calendar days' Written Notice to the CONTRACTOR, the OWNER may, without cause and without prejudice to any right or remedy of the OWNER, elect to terminate the Agreement. In such case, the CONTRACTOR shall be paid (without duplication of any items):

- .1 for completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination;
- .2 for all claims incurred in settlement of terminated contracts with Suppliers, Subcontractors, and others. The CONTRACTOR agrees to negotiate in good faith with Subcontractors, Suppliers and others to mitigate the OWNER's cost; and
- .3 for anticipated profits on entire Contract not previously paid.

00700 10-2015 Page 37 General Conditions

15.3 OWNER May Terminate With Cause:

- **15.3.1** Upon the occurrence of any one or more of the following events:
 - .1 if the CONTRACTOR persistently fails to perform the Work in accordance with the Contract Documents;
 - .2 if the CONTRACTOR disregards laws or regulations of any public body having jurisdiction;
 - .3 if the CONTRACTOR disregards the authority of Owner's Representative;
 - .4 if the CONTRACTOR makes fraudulent statements:
 - .5 if the CONTRACTOR fails to maintain a work force adequate to accomplish the Work within the Contract Time;
 - .6 if the CONTRACTOR fails to make adequate progress and endangers successful completion of the Contract; or
 - .7 if the CONTRACTOR otherwise violates in any substantial way any provisions of the Contract Documents;

The OWNER may, after giving the CONTRACTOR (and the surety, if any) seven (7) calendar days' Written Notice terminate the services of the CONTRACTOR. The OWNER, at its option, may proceed with negotiation with surety for completion of the Work. Alternatively, the OWNER may under these circumstances exclude the CONTRACTOR from the site and take possession of the Work (without liability to the CONTRACTOR for trespass or conversion), incorporate in the Work all materials and equipment stored at the site or for which the OWNER has paid the CONTRACTOR but which are stored elsewhere, and finish the Work as the OWNER may deem expedient. In such case the CONTRACTOR shall not be entitled to receive any further payment until the Work is finished. If the unpaid balance of the Contract Amount exceeds all claims, costs, losses and damages sustained by the OWNER arising out of or resulting from completing the Work, such excess will be paid to the CONTRACTOR. If such claims, costs, losses and damage exceed such unpaid balance, the CONTRACTOR or surety shall pay the difference to the OWNER.

15.3.2 Where the CONTRACTOR's services have been so terminated by the OWNER, the termination will not affect any rights or remedies of the OWNER against the CONTRACTOR and surety then existing or which may thereafter accrue. Any retention or payment of amounts due the CONTRACTOR by the OWNER will not release the CONTRACTOR from liability. In the event the OWNER terminates the Contract with cause, the OWNER may reject any and all bids submitted by the CONTRACTOR for up to three (3) years.

00700 10-2015 Page 38 General Conditions

15.4 CONTRACTOR May Stop Work or Terminate:

If through no act or fault of the CONTRACTOR, the Work is suspended for a period of more than ninety (90) calendar days by the OWNER or under an order of court or other public authority, or (except during disputes) Owner's Representative fails to forward for processing any mutually acceptable Application for Payment within thirty (30) calendar days after it is submitted, or (except during disputes) the OWNER fails for sixty (60) calendar days after it is submitted to pay the CONTRACTOR any sum finally determined by the OWNER to be due, then the CONTRACTOR may, upon seven (7) calendar days' Written Notice to the OWNER, and provided the OWNER does not remedy such suspension or failure within that time, terminate the Agreement and recover from the OWNER payment on the same terms as provided in paragraph 15.2. In lieu of terminating the Agreement and without prejudice to any other right or remedy, if (except during disputes) Owner's Representative has failed to forward for processing any mutually acceptable Application for Payment within thirty (30) calendar days after it is submitted, or (except during disputes) the OWNER has failed for sixty (60) calendar days after it is submitted to pay the CONTRACTOR any sum finally determined by the OWNER to be due, the CONTRACTOR may upon seven (7) calendar days' Written Notice to the OWNER stop the Work until payment of all such amounts due the CONTRACTOR, including interest thereon. The provisions of this paragraph 15.4 are not intended to preclude the CONTRACTOR from making a Claim under Article 11 and Article 12 for an increase in Contract Amount or Contract Times or otherwise for expenses or damage directly attributable to the CONTRACTOR's stopping Work as permitted by this paragraph.

ARTICLE 16 - DISPUTE RESOLUTION

16.1 Filing of Claims:

- **16.1.1** Claims arising from the circumstances identified in paragraphs 3.2, 4.1, 4.2.2, 4.2.4, 6.4.2, 6.11.5.2, 6.17, 7.5, 8.6, 9.5, 10.4.2, 13.8, 15.1, 15.2, 15.3, or 15.4, or other occurrences or events, shall be made by Written Notice delivered by the party making the Claim to the other party within thirty (30) calendar days after the start of the occurrence or 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 thirty (30) calendar days after Written Notice of Claim is delivered by claimant and shall represent that the adjustment claimed covers all known amounts to which claimant is entitled.
- **16.1.2** Within thirty (30) calendar days of receipt of notice of the amount of the Claim with supporting data, Owner's Representative and the CONTRACTOR shall meet to discuss the Claim, after which an offer of settlement or notification of no settlement offer will be made to claimant. If claimant is not satisfied with the proposal presented, claimant shall have thirty (30) calendar days in which to:
 - .1 submit additional supporting data requested by the other party;
 - .2 modify the initial Claim; or
 - **.3** request Alternative Dispute Resolution.

16.2 Alternative Dispute Resolution:

- **16.2.1** If a dispute exists concerning a Claim, the parties agree to use the following procedure prior to pursuing any other available remedies. The OWNER reserves the right to include E/A as a party.
- **16.2.2** Negotiating with Previously Uninvolved Personnel: Either party may make a written request for a meeting to be held between representatives of each party within fourteen (14) calendar days of the request or such later period that the parties may agree to. Each party shall endeavor to include, at a minimum, one (1) previously uninvolved senior level decision maker empowered to negotiate on behalf of their organization. The purpose of this and subsequent meetings will be good faith negotiations of the matters constituting the dispute. Negotiations shall be concluded within thirty (30) calendar days of the first meeting, unless mutually agreed otherwise. This step may

00700 10-2015 Page 39 General Conditions

be waived by written agreement of both parties, in which event the parties may proceed directly to mediation as described below.

16.2.3 Mediation:

- **16.2.3.1** If the procedure described in paragraph 16.2.2 proves unsuccessful or is waived pursuant to its terms, the parties shall initiate the mediation process. The parties agree to select within thirty (30) calendar days one (1) mediator trained in mediation skills, to assist with resolution of the dispute. The OWNER and the CONTRACTOR agree to act in good faith in the selection of the mediator and to give consideration to qualified individuals nominated to act as mediator. Nothing in this agreement prevents the parties from relying on the skills of a person who also is trained in the subject matter of the dispute and/or a contract interpretation expert.
- **16.2.3.2** Mediation is a forum in which an impartial person, the mediator, facilitates communication between parties to promote reconciliation, settlement, or understanding among them. The parties hereby agree that mediation, at a minimum, shall provide for 1) conducting an on-site investigation, if appropriate, by the mediator for fact-gathering purposes, 2) a meeting of all parties for the exchange of points of view and 3) separate meetings between the mediator and each party to the dispute for the formulation of resolution alternatives. The parties agree to participate in mediation in good faith for up to thirty (30) calendar days from the date of the first mediation session, unless mutually agreed otherwise. Should the parties fail to reach a resolution of the dispute through mediation, then each party is released to pursue other remedies available to them.

ARTICLE 17 – RIGHT TO AUDIT

17.1 Right to Audit:

Whenever the OWNER enters into any type of contractual arrangement with the CONTRACTOR, then the CONTRACTOR's "records" shall upon reasonable notice be open to inspection and subject to audit and/or reproduction during normal business working hours. The OWNER's representative, or an outside representative engaged by the OWNER, may perform such audits. The CONTRACTOR shall maintain all records relating to this Agreement for four (4) years from the date of final payment under this Agreement, or until pending litigation has been completely and fully resolved, whichever occurs later.

- 17.1.1 The OWNER shall have the exclusive right to examine the records of the CONTRACTOR. The term "records" as referred to herein shall include any and all information, materials and data of every kind and character, including without limitation records, books, papers, documents, contracts, schedules, commitments, arrangements, notes, daily diaries, reports, drawings, receipts, vouchers and memoranda, and any and all other agreements, sources of information and matters that may, in the OWNER's judgment, have any bearing on or pertain to any matters, rights, duties or obligations under or covered by any contract document. Such records shall include (hard copy, as well as computer-readable data if it can be made available), written policies and procedures, time sheets, payroll registers, cancelled checks, personnel file data, correspondence, general ledger entries, and any other record in the CONTRACTOR's possession which may have a bearing on matters of interest to the OWNER in connection with the CONTRACTOR's dealings with the OWNER (all of the foregoing are hereinafter referred to as "records"). In addition, the CONTRACTOR shall permit interviews of employees as well as agents, representatives, vendors, subcontractors and other third parties paid by the CONTRACTOR to the extent necessary to adequately permit evaluation and verification of the following:
 - a) The CONTRACTOR's compliance with contract requirements;
 - b) The CONTRACTOR's compliance with the OWNER'S business ethics policies; and
 - c) If necessary, the extent of the Work performed by the CONTRACTOR at the time of contract termination.
- **17.1.2** The CONTRACTOR shall require all payees (examples of payees include subcontractors, insurance agents, material suppliers, etc.) to comply with the provisions of this Article 17 by securing the requirements hereof in a

00700 10-2015 Page 40 General Conditions

written agreement between the CONTRACTOR and payee. Such requirements include a flow-down right of audit provision in contracts with payees that also apply to subcontractors and sub-subcontractors, material suppliers, etc. The CONTRACTOR shall cooperate fully and shall require Related Parties and all of the CONTRACTOR's subcontractors to cooperate fully in furnishing or in making available to the OWNER from time to time whenever requested, in an expeditious manner, any and all such information, materials, and data.

- **17.1.3** The OWNER's authorized representative or designee shall have reasonable access to the CONTRACTOR's facilities, shall be allowed to interview all current or former employees to discuss matters pertinent to the performance of this Agreement, and shall be provided adequate and appropriate work space in order to conduct audits in compliance with this Article 17.
- **17.1.4** If an audit inspection or examination in accordance with this Article 17 discloses overpricing or overcharges of any nature by the CONTRACTOR to the OWNER in excess of one-half of one percent (.5%) of the total contract billings, then the reasonable actual cost of the OWNER's audit shall be reimbursed to the OWNER by the CONTRACTOR. Any adjustments and/or payments, which must be made as a result of any such audit or inspection of the CONTRACTOR's invoices and/or records, shall be made within a reasonable amount of time (not to exceed 90 days) from presentation of the OWNER's findings to the CONTRACTOR.
- 17.1.5 The CONTRACTOR shall take reasonable actions to prevent any actions or conditions which could result in a conflict with the OWNER's best interests. These obligations shall apply to the activities of the CONTRACTOR's employees, agents, subcontractors, etc. in their dealings and relations with the OWNER's current and former employees and their relatives. For example, the CONTRACTOR's employees, agents or subcontractors should not make or provide to be made any employment, gifts, extravagant entertainment, payments, loans or other considerations to the OWNER's representatives, employees or their relatives.
- **17.1.6** It is also understood and agreed by the CONTRACTOR that any solicitation of gifts or any other item of value by anyone representing the OWNER is to be reported within two (2) business working days to the OWNER at the following telephone number: 512-218-5401. Failure to report any such solicitations or offers shall be deemed a material breach of contract entitling the OWNER to pursue damages resulting from the failure to comply with this provision.

ARTICLE 18 – MISCELLANEOUS

18.1 Venue:

In the event of any suit at law or in equity involving the Contract, venue shall be in Williamson County, Texas and the laws of the state of Texas shall apply to Contract interpretation and enforcement.

18.2 Extent of Agreement:

This Contract represents the entire and integrated agreement between the OWNER and the CONTRACTOR and supersedes all prior negotiations, representations or agreements, either written or oral.

18.3 Cumulative Remedies:

The rights and remedies available to the parties are not to be construed in any way as a limitation of any rights and remedies available to any or all of them which are otherwise imposed or available by laws or regulations, by special warranty or guarantees or by other provisions of the Contract Documents, and the provisions of this paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right and remedy to which they apply.

18.4 Severability:

00700 10-2015 Page 41 General Conditions

If any word, phrase, clause, sentence or provision of the Contract, or the application of same to any person or set of circumstances is for any reason held to be unconstitutional, invalid or unenforceable, that finding shall only effect such word, phrase, clause, sentence or provision, and such finding shall not effect the remaining portions of this Contract; this being the intent of the parties in entering into the Contract; and all provisions of the Contract are declared to be severable for this purpose.

18.5 Independent Contractor

The Contract shall not be construed as creating an employer/employee relationship, a partnership, or a joint venture. The CONTRACTOR's services shall be those of an independent contractor. The CONTRACTOR agrees and understands that the Contract does not grant any rights or privileges established for employees of the OWNER.

18.6 Prohibition of Gratuities

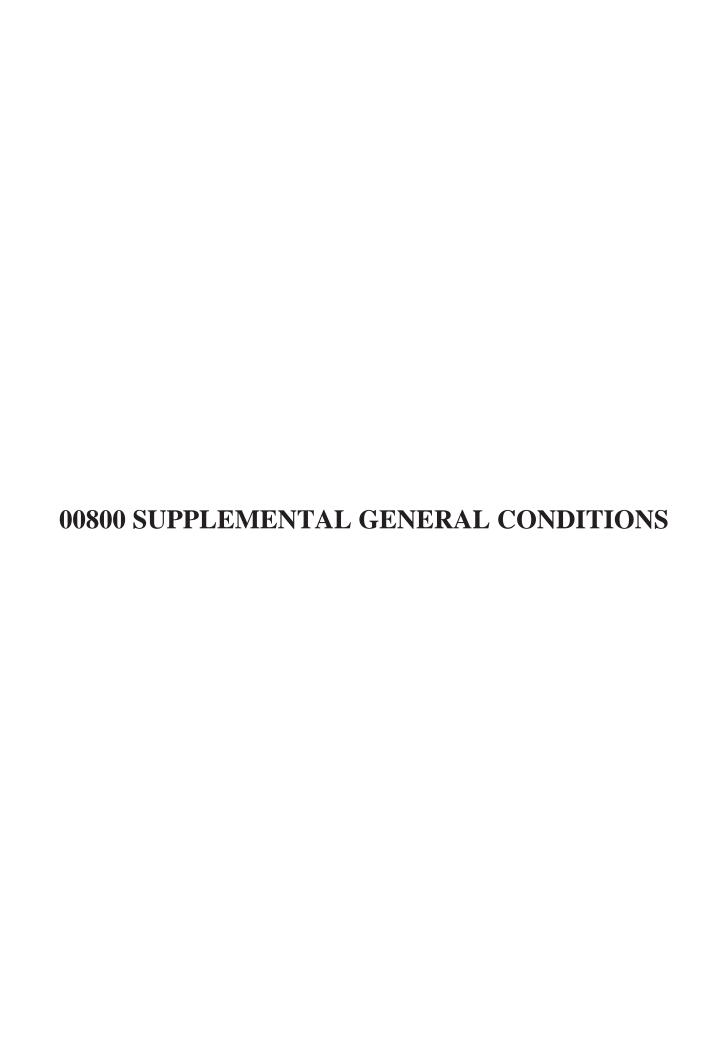
The OWNER may, by Written Notice to the CONTRACTOR, terminate the Contract without liability if is determined by the OWNER that gratuities were offered or given by the CONTRACTOR or any agent or representative of the CONTRACTOR to any officer or employee of the OWNER with a view toward securing the Contract or securing favorable treatment with respect to the awarding or amending or the making of any determinations with respect to the performing of such Contract. In the event the Contract is terminated by the OWNER pursuant to this provision, the OWNER shall be entitled, in addition to any other rights and remedies, to recover or withhold the amount of the cost incurred by the CONTRACTOR in providing such gratuities.

18.7 Prohibition Against Personal Interest in Contracts

No officer, employee, independent consultant, or elected official of the OWNER who is involved in the development, evaluation, or decision-making process of the performance of any solicitation shall have a financial interest, direct or indirect, in the Contract resulting from that solicitation. Any violation of this provision, with the knowledge, expressed or implied, of the CONTRACTOR shall render the Contract voidable by the OWNER.

End of General Conditions

00700 10-2015 Page 42 General Conditions



City of Round Rock Contract Forms

Supplemental General Conditions Se

Section 00800

SUPPLEMENTAL GENERAL CONDITIONS TO AGREEMENT FOR CONSTRUCTION SERVICES

The Supplemental General Conditions contained herein shall amend or supplement the General Conditions, Section 00700.

ARTICLE 1 - DEFINITIONS

Engineer/Architect (E/A):		
Add the following:		
Name (Representative): Antonio A. Prete, P.E.		
Firm: Waeltz & Prete, Inc.		
Address: 3000 Joe DiMaggio Blvd. #72		_
City, State, Zip: Round Rock, Texas 78665		_
Telephone: 512-505-8953		_
Facsimile: n/a		_
Email: tony@w-pinc.com		_
		_
Owner's Representative:		
		
Add the following:		
3		
Name: Katie Baker	Title: Project Manager	
Address: 301 W. Bagdad Ave.		
		_
City, State, Zip: Round Rock, Texas 78664		
City, State, Zip: Round Rock, Texas 78664 Telephone: (512) 341-3355		_
City, State, Zip: Round Rock, Texas 78664 Telephone: (512) 341-3355 Facsimile:		- -

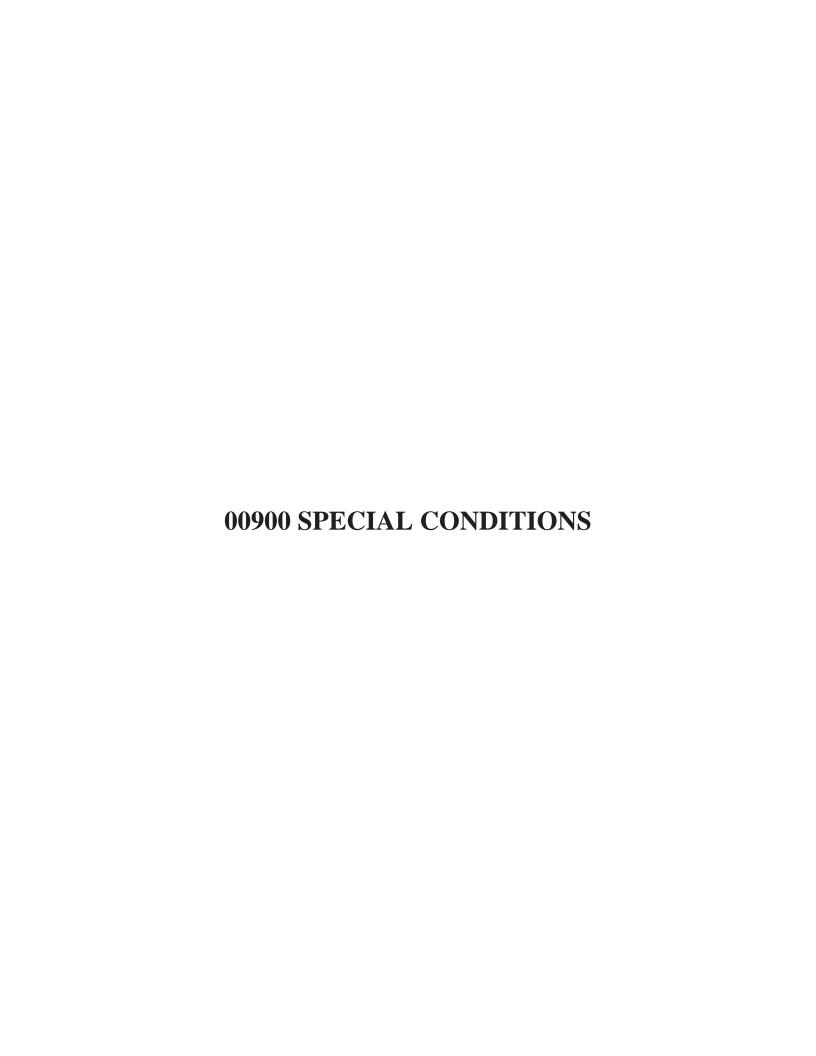
ARTICLE 6 - CONTRACTOR'S RESPONSIBILITIES

6.18 Liquidated Damages

Add the following:

1. CONTRACTOR SHALL PAY LIQUIDATED DAMAGES IN THE AMOUNT OF Five Hundred _______ AND NO/100 DOLLARS \$500.00 ______ PER DAY FOR EACH DAY BEYOND THE DATE ESTABLISHED THEREFOR THAT THE CONTRACTOR FAILS TO ACHIEVE SUBSTANTIAL COMPLETION, AND FOR WHICH OWNER IS UNABLE TO UTILIZE THE IMPROVEMENTS AND FACILITIES DUE TO THE FAILURE OF CONTRACTOR TO HAVE ACHIEVED SUBSTANTIAL COMPLETION IN ACCORDANCE WITH THE CONTRACT.

END OF SUPPLEMENTAL GENERAL CONDITIONS



SECTION 01-INFORMATION

01-01 COPIES OF PLANS AND SPECIFICATIONS FURNISHED

The Agreement will be prepared in not less than five (5) counterpart (original signed) sets. The City will furnish to the Contractor two (2) sets of conforming Contract Documents and Specifications unless otherwise specified.

01-02 GOVERNING CODES

All construction as provided for under these Plans and Specifications shall be governed by any existing Resolutions, Codes and Ordinances, and any subsequent amendments or revisions thereto as set forth by the City.

01-03 <u>LOCATION</u>

The location of work shall be as set forth in the Notice to Bidders and as indicated on the Plans.

01-04 <u>USAGE OF WATER</u>

All water used during construction shall be provided by the City and shall be metered. The City shall specify the location from which the Contractor is to procure water. The Contractor shall be responsible for obtaining a bulk water permit from the City and providing all apparatus necessary for procuring, storing, transporting and using water during construction. The Contractor shall strive to use no more water than reasonable to perform the work associated with this Contract and shall avoid waste. The Contractor will be required to pay for all water used if it is found that waste is occurring during construction.

SECTION 02-SPECIAL CONSIDERATIONS

02-01 CROSSING UTILITIES

Prior to commencing the Work associated with this Contract, it shall be the Contractor's responsibility to make arrangements with the Owners of utility companies to uncover their particular utility lines or otherwise confirm their location. Certain utility companies perform such services at their own expense, however, where such is not the case, the Contractor will cause such work to be done at his own expense.

02-02 <u>UTILITY SERVICES FOR CONSTRUCTION</u>

The Contractor will be responsible for providing his own utility services while performing the Work associated with this Contract. Provision of said utility services shall be subsidiary to the various bid items and no additional payment will be made for this item.

02-03 WAGE RATES

Wage Rates (Information From Chapter 2258, Texas Government Code Title 10)

2288.021. Duty of Government Entity to Pay Prevailing Wage Rates

- a. The State or any political subdivision of the State shall pay a worker employed by it or on behalf of it:
 - (1) not less than the general prevailing rate of per diem wages for work of a similar character in the locality in which the work is performed; and
 - (2) not less than the general prevailing rate of per diem wages for legal holiday and overtime work.
- b. Subsection (a) does not apply to maintenance work.
- c. A worker is employed on a public work for the purposes of this section if a Contractor or Subcontractor in the execution of a contract for the public work with the State, a political subdivision of the State or any officer or public body of the State or a political subdivision of the State, employs the worker.

2258.023. Prevailing Wage Rates to be Paid by Contractor and Subcontractor; Penalty

- a. The contractor who is awarded a contract by a public body, or a Subcontractor of the Contractor, shall pay not less than the rates determined under Section 2258.022 to a worker employed by it in the execution of the contract.
- b. A Contractor or Subcontractor who violates this section shall pay to the state or a political subdivision of the state on whose behalf the contract is made, \$60 for each worker employed for each calendar day or part of the day that the worker is paid less than the wage rates stipulated in the contract. A public body awarding a contract shall specify this penalty in the contract.
- c. A contractor or subcontractor does not violate this section if a public body awarding a contract does not determine the prevailing wage rates, and specify the rates in the contract as provided by Section 2258.022.
- d. The public body shall use any money collected under this section to offset the costs incurred in the administration of this chapter.
- e. A municipality is entitled to collect a penalty under this section only if the municipality has a population of more than 10,000.

2258.051. Duty of Public Body to Hear Complaints and Withhold Payment

A public body awarding a contract, and an agent or officer of the public body, shall:

- 1. take cognizance of complaints of all violations of this chapter committed in the execution of the contract; and
- 2. withhold money forfeited or required to be withheld under this Chapter from the payments to the Contractor under the contract, except that the public body may not withhold money from other than the final payment without determination by the public body that there is good cause to believe that the Contractor has violated this chapter.

Applicable wage rates to be used in Williamson and/or Travis County may be obtained from the U.S. Department of Labor website at the following web addresses:

Construction Types: Heavy (Sewer/Water Treating Plant and Sewer/Incidental to Highway)

http://www.wdol.gov/wdol/scafiles/davisbacon/TX33.dvb?v=0

Construction Types: Heavy and Highway

http://www.wdol.gov/wdol/scafiles/davisbacon/TX16.dvb?v=0

Construction Type: Building

http://www.wdol.gov/wdol/scafiles/davisbacon/TX76.dvb?v=1

02-04 <u>LIMIT OF FINANCIAL RESOURCES</u>

The City has a limited amount of financial resources committed to this Project; therefore, it shall be understood by all bidders that the City may be required to change and/or delete any items which it may feel is necessary to accomplish all or part of the scope of work within its limit of financial resources. Contractor shall be entitled to no claim for damages or anticipated profits on any portion of work that may be omitted. At any time during the duration of this contract, the City reserves the right to omit any work from this contract. Unit prices for all items previously approved in this contract shall be used to delete or add work per change order.

02-05 CONSTRUCTION REVIEW

The City shall provide a project representative to review the quality of materials and workmanship.

02-06 LIMITS OF WORK AND PAYMENT

It shall be the obligation of the Contractor to complete all work included in this Contract, so authorized by the City, as described in the contract documents and technical specifications. All items of work not specifically paid for in the bid proposal

shall be included in the unit price bids. Any question arising as to the limits of work shall be left up to the interpretation of the Engineer.

02-07 <u>LAND FOR WORK</u>

Owner provides, as indicated on Drawings, land upon which work is to be done, rightof-way for access to same and such other lands that are designated for the use of the Contractor. Contractor provides, at his expense and without liability of Owner, any additional land and access thereto that may be required for his construction operations, temporary construction facilities, or for storage of materials.

02-08 DEVIATIONS OCCASIONED BY UTILITY STRUCTURES

Whenever existing utilities, not indicated on Plans, present obstructions to grade and alignment of proposed improvements immediately notify engineer, who without delay, will determine if existing utilities are to be relocated, or grade and alignment of proposed improvements changed. Where necessary to move existing utilities and appurtenances as determined by the Engineer, the Engineer and Contractor will make relocation arrangements with the utility owner. The Owner will not be liable for delay costs or damages due to relocations of utilities which hinder progress of the work.

02-09 <u>CONSTRUCTION STAKING</u>

All construction staking required to complete the work associated with this contract shall be provided by the Contractor. The Contractor shall be responsible for determining the layout and extent of staking necessary to construct the improvements to the lines and grades shown in the Plans and such staking shall be satisfactory to the Engineer. The Contractor shall consult with the Engineer and Owners representative in the field for assistance as necessary. Sufficient staking materials and equipment shall be provided by the Contractor including but not limited to: paint, flagging, laths, hubs, blue tops, nails, hammers, measuring chains or tapes, transits and levels. The Contractor shall be responsible for setting and marking control and off-set points for measuring distances and angles, for shooting levels, and for any other items pertaining to construction staking. This item shall not be paid for separately and shall be considered subsidiary to other bid items.

SECTION 03-ACCESS AND TRAFFIC CONTROL

Access shall be provided for the public and emergency vehicles at all possible times. When it becomes necessary to restrict access, the Contractor shall notify the Owner and coordinate with the Owner, all applicable agencies (i.e. Fire Department, E.M.S., Public Works, etc.), residents, and affected parties. If emergency access is required during the work and such access is being hindered by the work, the Contractor will suspend the work if necessary, and otherwise endeavor to assist emergency personnel in accessing a location restricted by the work. Unless otherwise approved by the Engineer, at the end of each day all lanes of traffic shall be opened to the public. The Contractor shall ensure compliance at all times with the accepted Traffic Control Plan for the project and shall be responsible for all maintenance, signing and safety precautions necessary for traffic control. These items shall be included in the bid item Traffic Control.



ITEM 1 GENERAL DESCRIPTION

1.01 SCOPE OF WORK

The Work covered by these Specifications consists of furnishing all labor, equipment, appliances, materials and performing all operations in connection with the inspection and testing, complete in accordance with the Plans, and subject to the terms and conditions of the Contract Documents.

1.02 GOVERNING TECHNICAL SPECIFICATIONS

STREET, WATER, SEWER AND DRAINAGE IMPROVEMENTS

The Round Rock Standard Specification Criteria Manual is hereby referred to and included in this contract as fully and to the same extent as if copied at length herein, and shall be applied to this project unless modified elsewhere as discussed below. The aforementioned Criteria Manual is the "Standard Specifications" section of the City of Round Rock Design and Construction Standards. The Standard Specifications may be accessed from the City of Round Rock website (www.roundrocktexas.gov) at the following web address: www.roundrocktexas.gov/dacs.

Any adjustments, alterations, or additional information regarding Governing Technical Specifications are contained in the Plans (Drawings), Details and Notes described in Section 02000 of the Project Manual or are included in Attachment A at the end of this Technical Specifications Section.

ITEM 2 CONTROL OF WORK

2.01 CLEAN-UP

2.01.1 CONSTRUCTION SITE

During construction the Contractor shall keep the site free and clean from all rubbish and debris and shall clean-up the site promptly when notified to do so by the Engineer.

The Contractor shall, at his own expense, maintain the streets and roads free from dust, mud, excess earth or debris which constitutes a nuisance or danger to the public using the thoroughfare, or the occupants of adjacent properties.

Care shall be taken to prevent spillage on streets and roads over which hauling is done, and any such spillage or debris deposited on streets, due to the Contractor's operations, shall be immediately removed.

2.01.2 BACKWORK

The Contractor shall coordinate his operations in such a manner as to prevent the amount of clean-up and completion of back works from becoming excessive. Should such a condition exist, the Engineer may order all or portions of the work to cease and refuse to allow any work to commence until the back work is done to the Engineer's satisfaction.

2.02 GRADING

The Contractor shall do such grading in and adjacent to the construction area associated with this contract as may be necessary to leave such areas in a neat and satisfactory condition approved by the Engineer.

ITEM 3 EXAMINATION AND REVIEW

3.01 EXAMINATION OF WORK

The work covered under this Contract shall be examined and reviewed by the Engineer, representatives of all governmental entities which have jurisdiction, and the City's authorized representative. The quality of material and the quality of installation of the improvements shall be to the satisfaction of the Engineer. It shall be the Contractor's responsibility for the construction methods and safety precautions in the undertaking of this Contract.

3.02 NOTIFICATION

The Engineer and City must be notified a minimum of 24-hours in advance of beginning construction, testing, or requiring presence of the Engineer, project representative, or City's representative.

3.03 CONSTRUCTION STAKING

The Engineer shall furnish the Contractor reference points and benchmarks that, in the Engineer's opinion, provide sufficient information for the Contractor to perform construction staking.

3.04 **PROTECTION OF STAKES, MARKS, ETC.**

All engineering and surveyor's stakes, marks, property comers, etc., shall be carefully preserved by the Contractor, and in case of destruction or removal during the course of this project, such stakes, marks, property comers, etc., shall be replaced by the Contractor at the Contractor's sole expense.

<u>ITEM 4</u> <u>PROTECTION AND PRECAUTION</u>

4.01 WORK IN FREEZING WEATHER

Portions of the work may continue as directed by the Engineer.

4.02 PROTECTION OF TREES, PLANTS AND SHRUBS

The Contractor shall take necessary precautions to preserve all existing trees, plants and shrubs but where it is justifiable and necessary the Contractor may remove trees and plants for construction right-of-way but only with approval of the Engineer.

4.03 TRAFFIC CONTROL MEASURES AND BARRICADES

Traffic control measures and barricades shall be installed in accordance with the <u>Texas Manual of Uniform Traffic Control Devices</u> and in other locations deemed necessary by the Engineer, for the protection life and property. Under no circumstances will any existing road be permitted to remain closed over a weekend. No separate pay will be made for this item. Costs for this item shall be subsidiary to other items of work.

4.04 PROPERTY LINES AND MONUMENTS

The Contractor shall be responsible for the protection, reference and resetting of property comer monuments if disturbed.

4.05 DISPOSAL OF SURPLUS MATERIAL

The Contractor shall at his own expense, make arrangement for the disposal of surplus material, such as rock, trees, brush and other unwanted backfill materials.

4.06 CONTRACTOR'S USE OF PREMISES

The Contractor shall, at his own expense, provide additional space as necessary for his operations and storage of materials.

ITEM 5 MATERIALS

5.01 TRADE NAMES

Except as specified otherwise, wherever in the specifications an article or class of material is designated by a trade name or by the name or catalog number of any maker, patentee, manufacturer, or dealer, such designations shall be taken as intending to mean and specify the articles described or another equal thereto in quality, finish, and serviceability for the purpose intended, as may be determined and judged by the Engineer in his sole discretion.

5.02 MATERIALS AND WORKMANSHIP

No material which has been used by the Contractor for any temporary purpose whatever is to be incorporated in the permanent structure without the written consent of the Engineer. Where materials or equipment are specified by a trade or brand name, it is not the intention of the City to discriminate against an equal product of another manufacturer, but rather to set a definite standard of quality for performance, and to

establish an equal basis for the evaluation of bids. Where the words "equivalent", "proper" or "equal to" are used, they shall be understood to mean that the item referred to shall be "proper", the "equivalent" of, or "equal to" some other item, in the opinion or judgment of the Engineer. Unless otherwise specified, all materials shall be the best of their respective kinds and shall be in all cases fully equal to approved samples. Notwithstanding that the words "or equal to" or other such expressions may be used in the specifications in connection with a material, manufactured article or process, the material, article or process specifically designated shall be used, unless a substitute is approved in writing by the Engineer, and the Engineer will have the right to require the use of such specifically designated material, article or process.



If applicable, insert reference(s) to project plans; details; and notes

See Attached Construction Plans									
Clay Madsen Soccer Field Project									

SITE DEVELOPMENT PLANS FOR:

CLAY MADSEN SOCCER FIELD PROJECT

DESIGN PROFESSIONALS:

CIVIL ENGINEER:

WRIT BAESE

NOTES:

PARK DEVELOPMENT MANAGER:

ANTONIO A. PRETE, P.E. WAELTZ & PRETE, INC. 3000 JOE DIMAGGIO BLVD. #72 ROUND ROCK, TEXAS 78665 PH: (512) 505-8953 EMAIL: tony@w-pinc.com

CITY OFFICIALS:

KATIE BAKER, RLA CITY OF ROUND ROCK 301 W BAGDAD AVE ROUND ROCK, TX 78664 PH: (512) 341-3355 EMAIL: kbaker@roundrocktexas.gov

1. THESE PLANS ARE NOT TO BE CONSIDERED FINAL FOR CONSTRUCTION UNTIL ACCEPTED BY THE CITY.

2. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY, AND

CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES. 3. NO PORTION OF THIS SITE IS WITHIN THE FEMA 1% ANNUAL CHANCE FLOODPLAIN, PER PANEL NUMBER

4. THIS SITE IS NOT LOCATED WITHIN THE EDWARDS AQUIFER RECHARGE ZONE. SITE DISTURBANCE IS

5. THIS SITE IS REQUESTING TO PARTICIPATE IN THE CITY OF ROUND ROCK'S REGIONAL STORMWATER

HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR

SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND

AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE

ROUND ROCK EAST, SECTION 1. LOT 1 (2.382 AC), LOT 2 (2.487 AC), AND LOT 11 (4.670 AC)

> 1700 GATTIS SCHOOL RD. **ROUND ROCK, TEXAS 78664** DECEMBER, 2016

CRAIG MORGAN **MAYOR** COUNCIL MEMBER, PLACE 1 TAMMY YOUNG RENE FLORES COUNCIL MEMBER, PLACE 2 COUNCIL MEMBER, PLACE 3 FRANK LEFFINGWELL WILL PECKHAM COUNCIL MEMBER, PLACE 4 COUNCIL MEMBER, PLACE 5 KRIS WHITFIELD COUNCIL MEMBER, PLACE 6

LAURIE HADLEY

RICK ATKINS PARKS & RECREATION DIRECTOR

CHANGES MAY BE REQUIRED PRIOR TO APPROVAL.

GREATER THAN ONE ACRE. THEREFORE A SWPPP IS REQUIRED.

PROJECT LOCATION LOCATION MAP

know what's below. Call before you dig.

SHEET INDEX

COVER SHEET C-1 **GENERAL NOTES** C-2 C-3 ORIENTATION MAP EXISTING CONDITIONS/ DEMOLITION PLAN EROSION/ SEDIMINTATION CONTROL PLAN C-5 SITE / DIMENSIONAL CONTROL PLAN C-6 C-7 **GRADING PLAN** C-8 PAVING, SIGNAGE, AND STRIPING PLAN C-9 DRAINAGE AREA MAP C-10 UTILITY PLAN C-11 WASTEWATER LINE PROFILE **ESC CONTROL DETAILS** C-12 SITE DETAILS (1 OF 3) C-13 C-14 SITE DETAILS (2 OF 3) SITE DETAILS (3 OF 3) UTILITY DETAILS (1 OF 2) UTILITY DETAILS (2 OF 2) IRRIGATION PLAN IRRIGATION DETAILS L-2 **IRRIGATION NOTES** L-3

STATE OF TEXAS

COUNTY OF WILLIAMSON

SHT. No. DESCRIPTION

I, ANTONIO A. PRETE, P.E., DO HEREBY CERTIFY THAT THE PUBLIC WORKS AND DRAINAGE IMPROVEMENTS DESCRIBED HEREIN HAVE BEEN DESIGNED IN COMPLIANCE WITH THE SUBDIVISION AND BUILDING REGULATION ORDINANCES AND STORMWATER DRAINAGE POLICY ADOPTED BY THE CITY OF ROUND ROCK, TEXAS.



ANTONIO A. PRETE, P.E.

08 Jun 17 DATE

STATE OF TEXAS #93759

JOB NO.: 010-021

4891C0495E, DATED SEPTEMBER 26, 2008.

ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER WHO PREPARED THEM. IN ACCEPTING THESE PLANS. THE CITY OF ROUND ROCK MUST RELY UPON THE ADEQUACY OF THE WORK OF THE DESIGN ACCEPTED FOR CONSTRUCTION:

CITY OF ROUND ROCK, TEXAS PARKS AND RECREATION DEPARTMENT

RECORDED PLAT DOC # (UNPLATTED) METER SERIAL NO. UTILITY BILL ACCOUNT NO.

DEVELOPER:

CITY OF ROUND ROCK PARKS AND RECREATION DEPARTMENT 301 W. BAGDAD ST., STE. 250 **ROUND ROCK, TX 78664** PH: (512) 218-5540 EMAIL: dbuzzell@round-rock.tx.us

ENGINEER:



WAELTZ & PRETE, INC. CIVIL ENGINEERS

3000 JOE DIMAGGIO BLVD. #72 ROUND ROCK, TX, 78665 PH (512) 505-8953 FIRM TX. REG. #F-10308

REVISIONS: ACC. DATE

GENERAL NOTES:

- 1. All construction shall be in accordance with the City of Round Rock Standard Specifications
- 2. Any existing utilities, payement, curbs. sidewalks, structures, trees, etc., not planned for destruction or removal that are damaged or removed shall be repaired or replaced at his
- 3. The Contractor shall verify all depths and locations of existing utilities prior to any construction. Any discrepancies with the construction plans found in the field shall be brought immediately to the attention of the Engineer who shall be responsible for revising the plans as appropriate.
- 4. Manhole frames, covers, valves, cleanouts, etc. shall be raised to finished grade prior to final paving construction.
- 5. The Contractor shall give the City of Round Rock 48 hours notice before beginning each phase of construction. Telephone (512) 801-4460 (Inspectors).
- 6. All areas disturbed or exposed during construction shall be revegetated in accordance with the plans and specifications. Revegetation of all disturbed or exposed areas shall consist of sodding or seeding, at the Contractor's option. However, the type of revegetation must equal or exceed the type of vegetation present before construction
- 7. Prior to any construction, the Engineer shall convene a preconstruction conference between the City of Round Rock himself, the Contractor other utility companies, any affected parties and any other entity the City or Engineer may
- 8. The Contractor and the Engineer shall keep accurate records of all construction that deviates from the plans. The Engineer shall furnish the City of Round Rock accurate "As-Built" drawings following completion of all construction. These "As-Built" drawings shall meet with the satisfaction of the Engineering and Development Services Department prior to final acceptance.
- 9. The Round Rock City Council shall not be petitioned for acceptance until all necessary easement documents have been signed and
- 10. When construction is being carried out within easements, the Contractor shall confine his work to within the permanent and any temporary easements. Prior to final acceptance the Contractor shall be responsible for removing all trash and debris within the permanent and temporary easements. Clean-up shall be to the satisfaction of the City Engineer.
- 11. Prior to any construction, the Contractor shall apply for and secure all proper permits from the appropriate authorities
- 12. Available benchmarks (City of Round Rock Datum) that may be utilized for the construction of this project are described as follows: (See Sheet C-4)

TRENCH SAFETY NOTES:

In accordance with the Laws of the State of Texas and the U.S. Occupational Safety and Health Administration regulations, all trenches over 5 feet in depth in either hard and compact or soft and unstable soil shall be sloped, shored, sheeted, braced or otherwise supported. Furthermore, all trenches less than 5. feet in depth shall also be effectively protected when hazardous ground movement may be expected. Trench safety systems to be utilized for this project will be provided by the

contractor

- 2 In accordance with the U. S. Occupational Safety and Health Administration regulations, when persons are in trenches 4-feet deep o more, adequate means of exit, such as a ladder or steps, must be provided and located so as to require no more than 25 feet of lateral travel.
- If trench safety system details were not provided in the plans because trenches were anticipated to be less than 5 feet in depth and during construction it is found that trenches are in fac 5 feet or more in depth or trenches less than 5 feet in depth are in an area where hazardous ground movement is expected, all construction shall cease, the trenched area shall be barricaded and the Engineer notified immediately. Construction shall not resume until appropriate trench safety system details, as designed by a professional engineer, are retained and copies submitted to the City of

STREET AND DRAINAGE NOTES:

- All testing shall be done by an independent laboratory at the Owner's expense Any retesting shall be paid for by the Contractor, A City inspector shall be present during all tests. Testing shall be coordinated with the City inspector and he shall be given a minimum o 24 hours notice prior to any testing. Telephone 6. (512) 218-3241 (Inspections).
- Backfill behind the curb shall be compacted to obtain a minimum of 95% maximum density to within 3" of top of curb. Material used shall be primarily granular with no rocks larger than 6" in the greatest dimension. The remaining 3" shall be clean topsoil free from all clods and suitable for sustaining plant life.
- Depth of cover for all crossings under pavement including gas, electric, telephone, cable tv, water services, etc., shall be a minimum of 30"
- Street rights-of-way shall be graded at a slope 9. Line flushing or any activity using a large of 1/4" per foot toward the curb unless otherwise indicated. However, in no case shall the width of right-of-way at 1/4" per foot slope be less than 10 feet unless a specific request for an alternate grading scheme is made to and accepted by the City of Round Rock Engineering and Development Services
- Barricades built to City of Round Rock standards shall be constructed on all dead-end streets and as necessary during construction to maintain job and public safety.
- All R.C.P. shall be minimum class III
- The subgrade material for the streets shown herein was tested by: N/A

And the paving sections designed in 11 accordance with the current City of Round Rock design criteria. The paying sections are to be constructed as follows:

The Geotechnical Engineer shall inspect the subgrade for compliance with the design assumptions made during preparation of the Soils Report. Any adjustments that are required shall be made through revision of the construction plans.

Where PI's are over 20, subgrades must be stabilized utilizing a method acceptable to the City Engineer. The Geotechnical Engineer shall recommend an appropriate subgrade stabilization if sulfates are determined to be present

WATER AND WASTEWATER NOTES

- Pine material for water mains shall be PVC (AWWA C-900 min class 200) or Ductile Iron (AWWA C-100 min class 200) Water services 200 psi, DR 9).
- Pipe material for pressure wastewater mains shall be PVC (AWWA C-900, min. class 150). or Ductile Iron (AWWA C-100 min class 200) Pipe material for gravity wastewater mains shall be PVC (ASTM D2241 or D3034, max. DR-26). Ductile Iron (AWWA C-100, min. class 200).
- Unless otherwise accepted by the City Engineer, depth of cover for all lines out of the payement shall be 42" min., and depth of cover for all lines under payement shall be a min, of 30" below subgrade
- 4. All fire hydrant leads shall be ductile iron pipe (AWWA C-100, min. class 200).
- 5 All iron pine and fittings shall be wrapped with minimum 8-mil polyethylene and sealed with duct tape or equal accepted by the City
- The Contractor shall contact the City Inspector at (512) 218-3241 to coordinate utility tie-ins and notify him at least 48 hours prior to connecting to existing lines
- All manholes shall be concrete with cast iron ring and cover. All manholes located outside of the payement shall have bolted covers. Tapping of fiberglass manholes shall not be allowed.
- 8. The Contractor must obtain a bulk water permit or purchase and install a water meter for all water used during construction. A copy of this permit must be carried at all times by all who
- quantity of water must be scheduled with the civil inspector, telephone (512) 218-3241.
- 10. The Contractor, at his expense, shall perform sterilization of all potable water lines constructed and shall provide all equipment (including test gauges), supplies (including concentrated chlorine disinfecting material), and necessary labor required for the sterilization procedure. The sterilization procedure shall be monitored by City of Round Rock personnel. Water samples will be collected by the City of Round Rock to verify each treated line has attained an initial chlorine concentration of 50 ppm. Where means of flushing is necessary. the Contractor, at his expense, shall provide flushing devices and remove said devices prior to final acceptance by the City of Round Rock.
- Sampling taps shall be brought up to 3 feet above grade and shall be easily accessible for City personnel. At the Contractor's request, and in his presence, samples for bacteriological testing will be collected by the City of Round Rock not less than 24 hours after the treated line has been flushed of the concentrated chlorine solution and charged with water approved by the City. The Contractor shall supply a check or money order, payable to the City of Round Rock to cover the fee charged for testing each water sample. City of Round Rock fee amounts may be obtained by calling the Development Services Office at (512) 218-7043
- The Contractor, at his expense, shall perform quality testing for all wastewater pipe installed and pressure pipe hydrostatic testing of all water lines constructed and shall provide all

equipment (including pumps and gauges), supplies and labor necessary to perform the tests. Quality and pressure testing shall be monitored by City of Round Rock personnel.

- (2" or less) shall be polyethylene tubing (black, 13. The Contractor shall coordinate testing with the City of Inspector and provide no less than 24 hours notice prior to performing sterilization, quality testing or pressure testing.
 - 14 The Contractor shall not open or close any valves unless authorized by the City of Round Rock
 - 15. All valve boxes and covers shall be cast iron.
 - All water service, wastewater service and valve locations shall be appropriately marked as follows:

"W" on top of curb wastewater service "S" on top of curb

"V" on face of curb valve

Tools for marking the curb shall be provided by the Contractor. Other appropriate means of marking service and valve locations shall be provided in areas without curbs. Such means of marking shall be as specified by the Engineer and accepted by the City of Round Rock

- 17. Contact City of Round Rock Development Services Office at (512) 218-7043 for assistance in obtaining existing water and wastewater locations
- The City of Round Rock Fire Department shall be notified 48 hours prior to testing of any building sprinkler piping in order that the Fire Department may monitor such testing
- 19. Sand, as described in Specification item 510 pipe, shall not be used as bedding for water and vastewater lines. Acceptable bedding materials are pipe bedding stone, pea gravel and in lieu of sand, a naturally occurring or manufactured stone material conforming to ASTM C33 for stone quality and meeting the following gradation specification:

Sieve Size Percent Retained By Weight

1/2" 3/8" 0-2 40-85 #10 95-100

- The Contractor is hereby notified that connecting to, shutting down, or terminating existing utility lines may have to occur at off-peak hours. Such hours are usually outside normal working hours and possibly between 12 a.m. and 6 a.m
- 21. All wastewater construction shall be in accordance with the Texas Commission on Environmental Quality (TCEQ) Regulations, 30 TAC Chapter 213 and 217, as applicable, Whenever TCEQ and City of Round Rock Specifications conflict, the more stringent shall

TRAFFIC MARKING NOTES:

- Any methods, street markings and signage necessary for warning motorists, warning pedestrians or diverting traffic during construction shall conform to the Texas Manual of Uniform Traffic Control Devices for Streets and Highways, latest edition
- All pavement markings, markers, paint, traffic buttons, traffic controls and signs shall be installed in accordance with the Texas Transportation Standard Department of Specifications for Construction of Highways, treets and Bridges and, the Texas Manual of Uniform Traffic Control Devices for Streets and Highways, latest editions.

EROSION AND SEDIMENTATION CONTROL NOTES:

- Erosion control measures, site work and restoration work shall be in accordance with the City of Round Rock Erosion and Sedimentation Control Ordinance.
- All slopes shall be sodded or seeded with approved grass, grass mixtures or ground cover suitable to the area and season in which they are applied.
- Silt fences, rock berms, sedimentation basins and similarly recognized techniques and materials shall be employed during construction to prevent point source sedimentation loading of downstream facilities. Such installation shall be regularly inspected by the City of Round Rock for effectiveness. Additional measures may be required if, in the opinion of the City Engineer they are warranted
- 4. All temporary erosion control measures shall not be removed until final inspection and approval of the project by the Engineer. It shall be the responsibility of the Contractor to maintain all temporary erosion control structures and to remove each structure as approved by the Engineer.
- All mud, dirt, rocks, debris, etc., spilled, tracked or otherwise deposited on existing paved streets, drives and areas used by the public shall be cleaned up immediately

ABBREVIATIONS:

WQ = WATER QUALITY

WWL = WASTEWATER LINE

WTR = WATER

WSF = WATER SURFACE ELEVATION

WWMH = WASTEWATER MANHOLE

BOT = BOTTOM CL = CLASS CNC = TOP OF CONCRETE DET = DETENTION D/S = DOWNSPOUT DI = DUCTILE IRON ESMT = EASEMENT FX = FXISTING FG = FINISHED GROUND FL = FLOWLINE EPS = FEET PER SECOND GB = GRADE BREAK GV = GATE VALVE HDT - HIGHDOIN LOC = LIMITS OF CONSTRUCTION LPT = LOW POINT MH = MANHOLE MJ = MECHANICAL JOINT NG = NATURAL GROUND PAV = TOP OF PAVEMENT PDWF = PEAK DRY WEATHER FLOW PWWF = PEAK WET WEATHER FLOW PROP = PROPOSED PVC = POLYVINYL CHLORIDE REF = REFERENCE RS = RESILIENT SEAT SCH = SCHEDULE SLAB = TOP OF SLAB SS = STORM SEWER SSL = STORM SEWER LINE SW = TOP OF SIDEWALK TC = TOP OF CURB TG = TOP OF GRATE TOF = TOP OF FOOTING TOI = TOP OF INLET TOW = TOP OF WALL TP = TREE PROTECTION
TR = TOP OF MANHOLE RIM TYP = TYPICAL

LEGEND

L	EGEND
● B	REBAR WITH "BAKER AICKLEN" CAP FOUND
→ FH	FIRE HYDRANT
e ₩	WATER METER
⊗ ^W	WATER VALVE
\bigcirc_{ww}	WASTEWATER MANHOLE
-0	SIGN
303	TREE
Ø	POWER POLE
₩	LIGHT POLE
(S)	SPRLINKLER CONTROL VALVE
BM #1	BENCHMARK
— x —	FENCE - BARB-WIRE
	FENCE - CHAIN-LINK
— // —	FENCE - WOOD
	EDGE OF PAVEMENT
	GAS LINE
UE	UNDERGROUND ELEC
— ит —	UNDERGROUND TELE
— w —	WATER LINE

Waeltz & Prete, Inc. CIVIL ENGINEERS 3000 JOE DIMAGGIO BLVD. #72 ROUND ROCK, TX, 78665 PH (512) 505-8053

TREE LIST

14

11

15,10

10

10

9,9

8,3

13

12

8

8

10.9.8.7.4

21

20

26

10,6

14

14

24

14

12.8

15

12

14

8

1688

10

17

11

10

14

9

10

26

13

29

27

10

11,8

11

28

28

21

11

21

26.20

17

16

12

14

11,10

12

14

18

9

12

10

9

9.9

18

13

11

12

14

8

8

TVPF

HACKBERRY

BOIS D'ARC

HACKBERRY

HACKBERRY

HACKBERRY

HACKBERRY

LIVE OAK

PECAN

ASH

BOXELDER

SHINOAK

SHINOAK

SPANISH OAK

ASH

ASH

ASH

LIVE OAK

LIVE OAK

LIVE OAK

LIVE OAK

CHINESE TALLOW

ASH

CHINESE TALLOW

BUR OAK

LIVE OAK

SHUMARD

LIVE OAK

ASH

LIVE OAK

PECAN

SHINOAK

SHIIMARD

PINE

ASH

ASH

PECAN

ASH

ASH

PECAN

PECAN

PECAN

PECAN

ASH

COTTONWOOD

ΔSH

MULBERRY

ASH

ASH

COTTONWOOD

CHINESE TALLOW

CHINESE TALLOW

HACKBERRY

HACKBERRY

CEDAR ELM

HACKBERRY

AMERICAN ELM

CHINESE TALLOW

CHINESE TALLOW

HACKBERRY

HACKBERRY

HACKBERRY

AMERICAN ELM

AMERICAN ELM

PECAN

HACKBERRY

HACKBERRY

HACKBERRY

PECAN

OAK

TREE NUMBER SIZE (IN.)

30020

30029

30030

30032

30035

30036

30047

30050

30051

30052

30057

30058

30059

30061

30063

30066

30091

30092

30093

30098

30100

30102

30130

30132

30135

30137

30140

30145

30146

30149

30151

30152

30154

30159

30165

30167

30168

30169

30170

30172

30173

30174

30175

30176

30177

30178

30179

30180

30181

30183

30184

30185

30187

30188

30189

30190

30191

30192

30193

30194

30195

30198

30199

30202

30224

30230

30231

220098 220222

R-

R-

R-

R-

R-



FIRM TX. REG. #F-10308

CLAY MADSEN SOCCER FIELD **PROJECT**

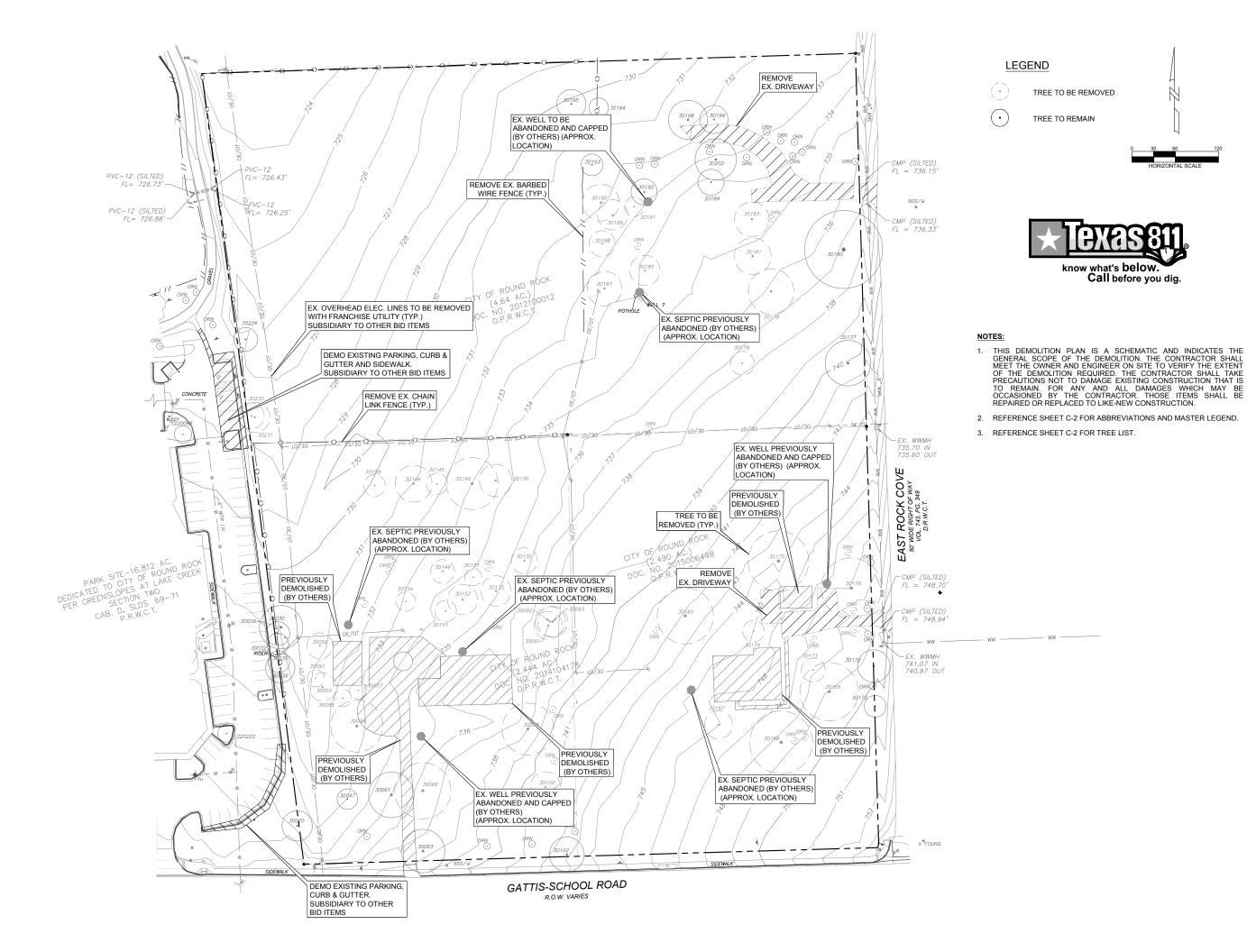
1700 GATTIS SCHOOL RD

CITY OF ROUND ROCK

DESIGNED: AAP APPROVED: AAP DRAWN: <u>CN</u> DATE: 6/9/2017

GENERAL NOTES

010-021





WAELTZ & PRETE, INC.
CIVIL ENGINEERS

3000 Joe DiMaggio Blvd. #72 Round Rock, TX. 78665 PH (512) 505-8953 FIRM TX. REG. #F-10308



CLAY MADSEN SOCCER FIELD PROJECT

1700 GATTIS SCHOOL RD.

LIENT:

CITY OF ROUND ROCK

DESIGNED: AAP APPROVED: AAP

DRAWN: ON DATE: 6/9/2017

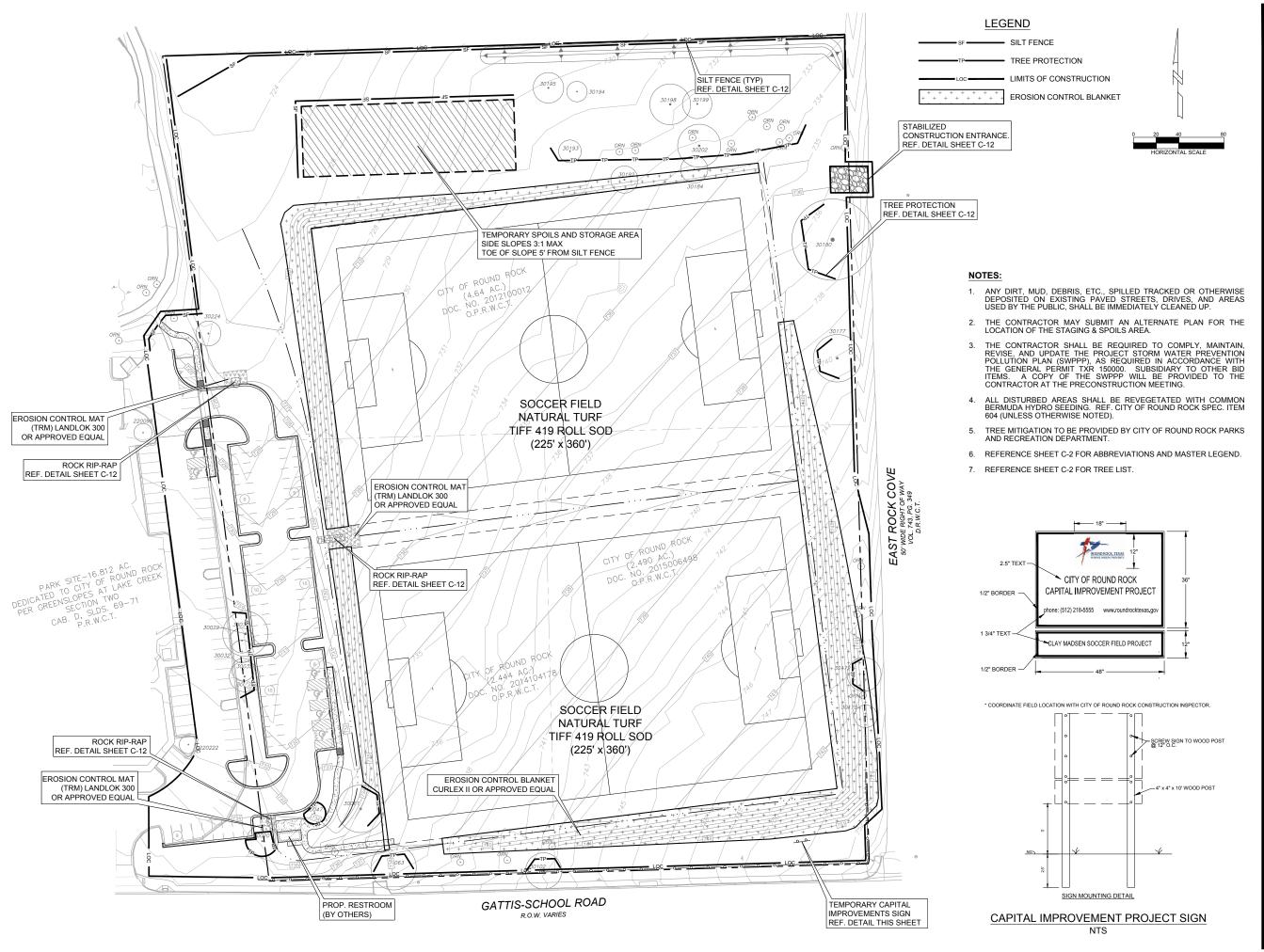
SHEET TITL

EXISTING CONDITIONS/ DEMOLITION PLAN

PROJECT N

010-021

SHEET N





WAELTZ & PRETE, INC.
CIVIL ENGINEERS

3000 Joe DiMaggio Blvd. #72 Round Rock, TX. 78665 PH (512) 505-8953 FIRM TX. REG. #F-10308

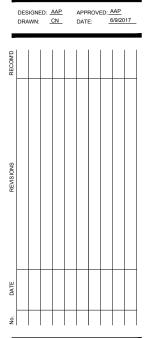


CLAY MADSEN
SOCCER FIELD
PROJECT

1700 GATTIS SCHOOL RD.

CLIENT:

CITY OF ROUND ROCK

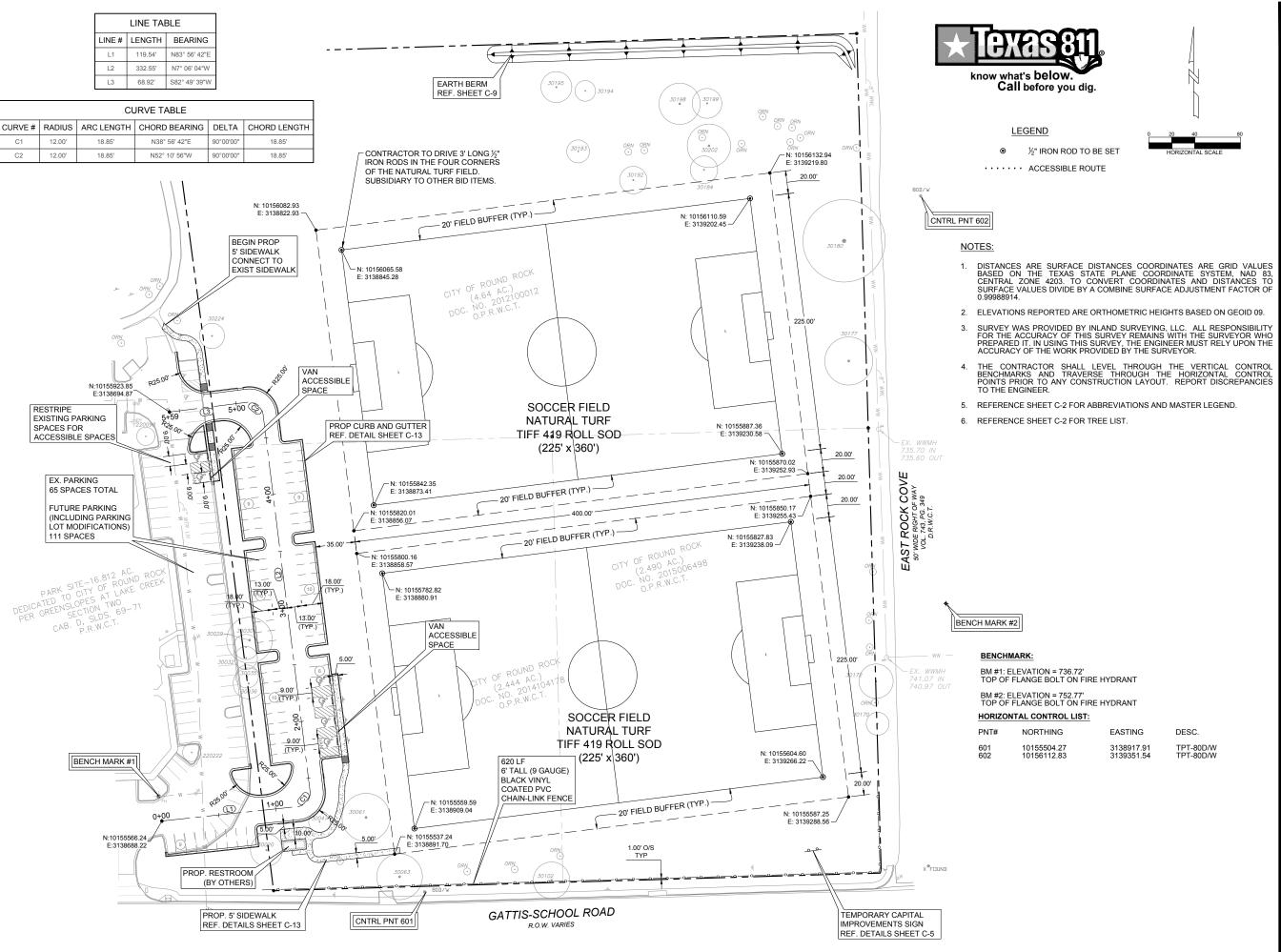


EROSION/ SEDIMINTATION CONTROL PLAN

PROJECT NO:

010-021

SHEET NO.:



W_P

WAELTZ & PRETE, INC.
CIVIL ENGINEERS

3000 Joe DIMAGGIO BLVD. #72 ROUND ROCK, TX. 78665 PH (512) 505-8953 FIRM TX. REG. #F-10308



PROJECT:

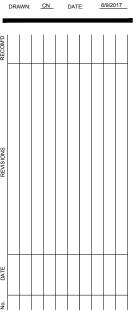
CLAY MADSEN SOCCER FIELD PROJECT

1700 GATTIS SCHOOL RD.

LIENT:

CITY OF ROUND ROCK

DESIGNED: AAP APPROVED: AAP



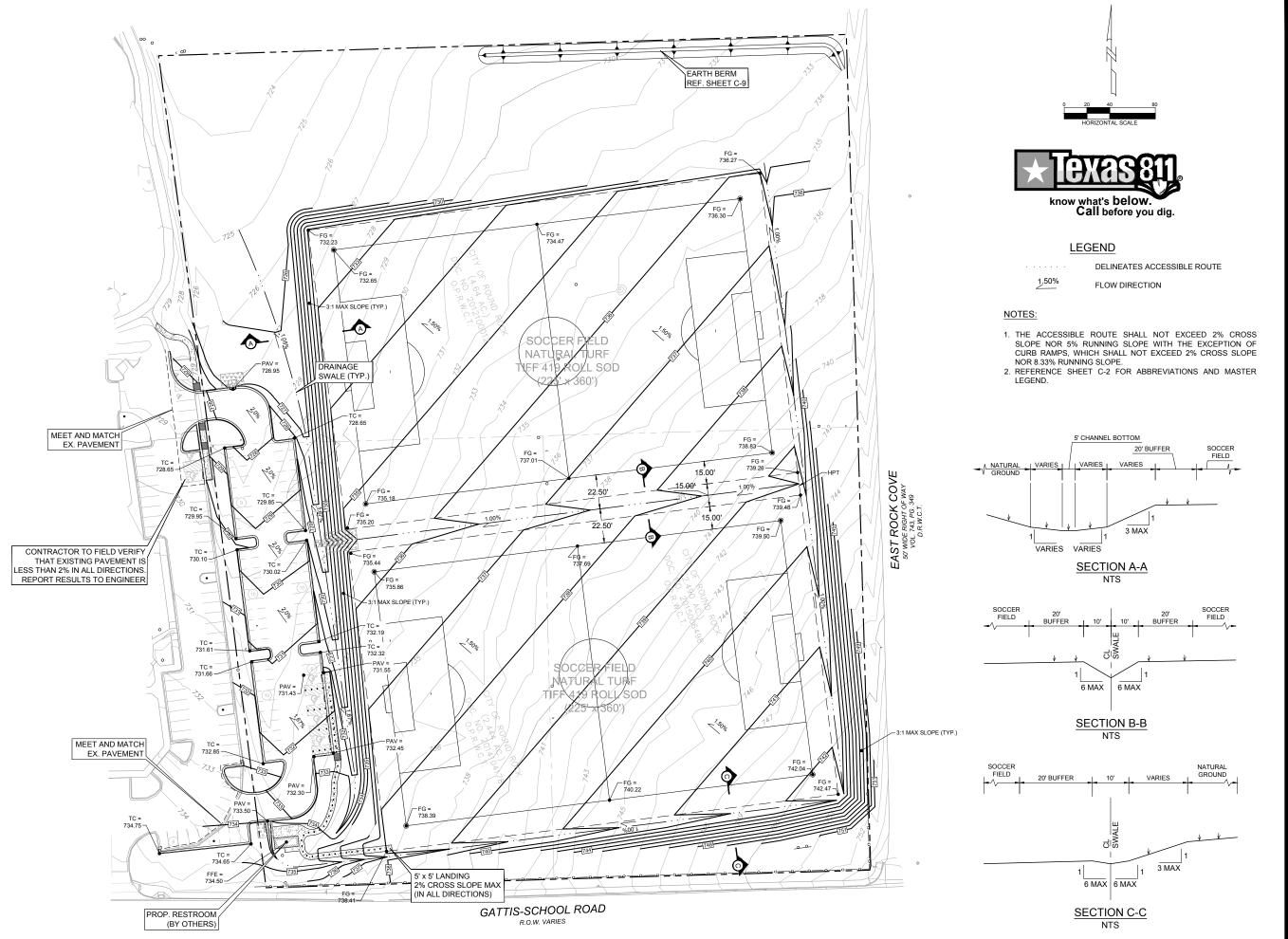
SHEET TITLE

SITE / DIMENSIONAL CONTROL PLAN

PROJECT NO:

010-021

SHEET NO.





WAELTZ & PRETE, INC. CIVIL ENGINEERS

> 3000 Joe DIMAGGIO BLVD. #72 ROUND ROCK, TX. 78665 PH (512) 505-8953 FIRM TX. REG. #F-10308

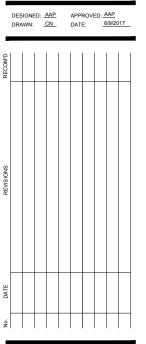


CLAY MADSEN SOCCER FIELD PROJECT

1700 GATTIS SCHOOL RD.

NIFAIT.

CITY OF ROUND ROCK



GRADING PLAN

PROJECT NO:

010-021

HEET NO.:

PAVEMENT SECTION RECCOMMENDATIONS

FLEXIBLE PAVEMENT SECTION PARKING LOT

HOT MIX ASPHALTIC CONCRETE 2"

FLEX BASE MATERIAL 10"

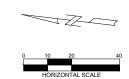
** NO NEW GEOTECHNICAL INVESTIGATION WAS PREPARED FOR THIS PROJECT. PAVEMENT SECTION IS BASED ON THE ORIGINAL DESIGN PLANS FOR THE CLAY MADSEN RECREATION CENTER.

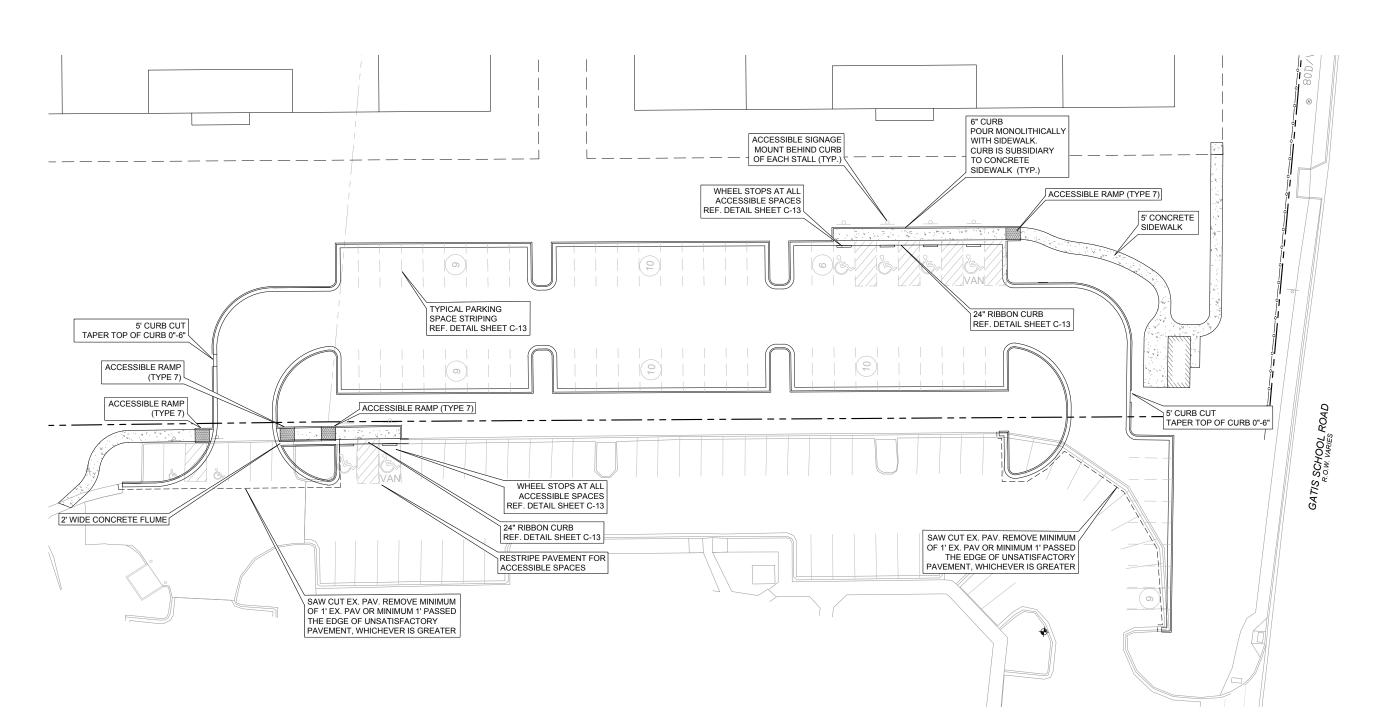
NOTES:

- LIGHT DUTY PAVEMENT AREAS ARE DEFINED AS PARKING STALLS & MEDIUM DUTY PAVEMENT AREAS ARE DEFINED AS DRIVE AISLES AND FIRE LANES.
- 2. CONCRETE PAVING SHALL HAVE TRANSVERSE AND LONGITUDINAL CONTRACTION JOINTS AT INTERVALS NOT EXCEEDING 12.5 FEET. DEPTH OF JOINTS SHALL BE AT LEAST 1/4 OF THE SLAB THICKNESS. THE JOINTS MUST BE SAW CUT AS SOON AS THE CONCRETE HAS HARDENED AND WILL NOT REAR OR RAVEL WHEN CUT, WITHIN 6-12 HOURS OF PLACEMENT.
- 3. SUPPORT REINFORCEMENT STEEL WITH CHAIRS OF PRECAST CONCRETE BLOCKS ABOUT 1 INCH BELOW THE BOTTOM OF THE PLANNED CONTRACTION JOINTS.
- 4. PROVIDE LOAD TRANSFER AT THE INTERFACE BETWEEN AREAS OF CONCRETE PLACED AT DIFFERENT TIMES USING TIED AND KEYED CONSTRUCTION JOINTS. PLACE CONSTRUCTION JOINT AT PLANNED CONTRACTION JOINT LOCATIONS.
- 5. ALL JOINTS SHALL BE SEALED IN ACCORDANCE WITH CORR SPECIFICATION ITEM 360.
- STAGE PAVEMENT CONSTRUCTION SUCH THAT CONSTRUCTION TRAFFIC, INCLUDING CONCRETE TRUCKS, DO NOT TRAVEL ON NEWLY PLACED CONCRETE PAVEMENT UNTIL THE CONCRETE ACHIEVES AT LEAST 75% OF THE DESIGN STRENGTH, USUALLY 7 DAYS.
- 7. CONCRETE JOINTING FOR SIDEWALKS SHALL MATCH THE ADJACENT CURB OR PAVEMENT JOINTING.

- SIDEWALKS ADJACENT TO CURB AND GUTTERS SHALL BE DOWELED TO PREVENT DIFFERENTIAL MOVEMENT.
- SIDEWALKS AT DOORWAY LOCATIONS SHALL BE DOWELED TO THE BUILDING FOUNDATION TO PREVENT DIFFERENTIAL MOVEMENT.
- 10. CONTRACTOR MAY SUBMIT AN ALTERNATE JOINTING PLAN FOR CONSIDERATION.
- 11. CURBS WITHIN THE LIMITS OF CONCRETE PAVEMENT SHALL BE MONOLITHICALLY POURED WITH PAVEMENT.









WAELTZ & PRETE, INC.
CIVIL ENGINEERS

3000 Joe DIMAGGIO BLVD. #72 ROUND ROCK, TX. 78665 PH (512) 505-8953 FIRM TX. REG. #F-10308



CLAY MADSEN SOCCER FIELD PROJECT

1700 GATTIS SCHOOL RD.

CLIENT:

CITY OF ROUND ROCK

DESIGNED: AAP DRAWN: ON DATE: 6/9/2017

SHEET TITLE

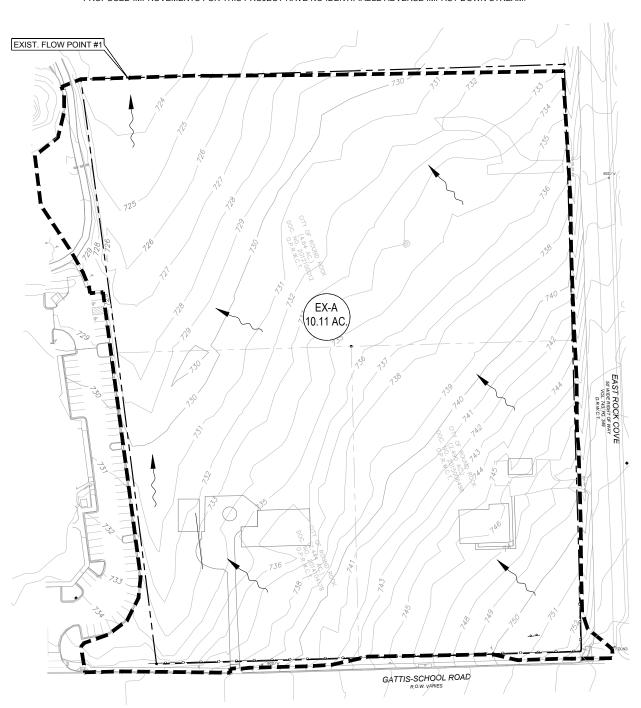
PAVING, SIGNAGE, AND STRIPING PLAN

010-021

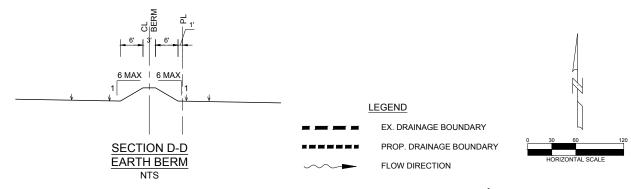
SHEET N

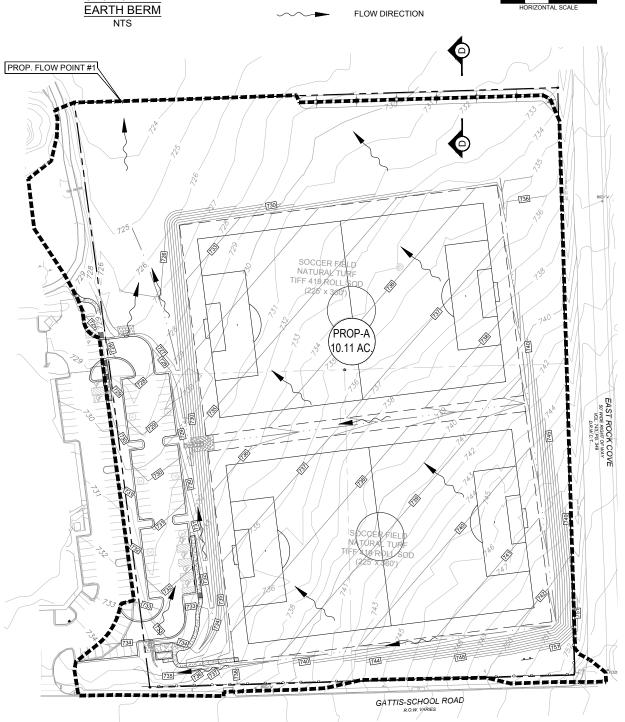
SUB-BASIN DESIGNATION	AREA [acres]	T _c [min.]	ESTIMATED IMPERV. +/- [%]	C ₂	C ₁₀	C ₂₅	C ₁₀₀	l ₂ [in/hr]	I ₁₀ [in/hr]	I ₂₅ [in/hr]	I ₁₀₀ [in/hr]	Q ₂ [cfs]	Q ₁₀ [cfs]	Q ₂₅ [cfs]	Q ₁₀₀ [cfs]
EX-A PROP-A	10.11 10.11	5.0 7.5	5 10	0.31 0.34	0.37 0.40	0.41 0.44	0.49 0.51	6.48 5.87	8.64 7.90	9.84 9.05	11.88 10.98	20.31 20.18	32.33 31.94	40.78 40.27	58.85 56.59
NΕΤΔ												-0.12	-0.38	-0.51	-2.26

*THIS SITE PROPOSES TO PARTICIPATE IN THE CITY OF ROUND ROCK REGIONAL DETENTION PROGRAM. THE PROPOSED IMPROVEMENTS FOR THIS PROJECT HAVE NO IDENTIFIABLE ADVERSE IMPACT DOWN STREAM.



EXISTING CONDITIONS





PROPOSED CONDITIONS

W_{*}P

WAELTZ & PRETE, INC.
CIVIL ENGINEERS

3000 Joe DiMaggio Blvd. #72 Round Rock, TX. 78665 PH (512) 505-8953 FIRM TX. REG. #F-10308



CLAY MADSEN SOCCER FIELD PROJECT

1700 GATTIS SCHOOL RD.

CLIENT:

CITY OF ROUND ROCK

DESIGNED: AAP DATE: 6/9/2017

CAN DATE: 6/9/2017

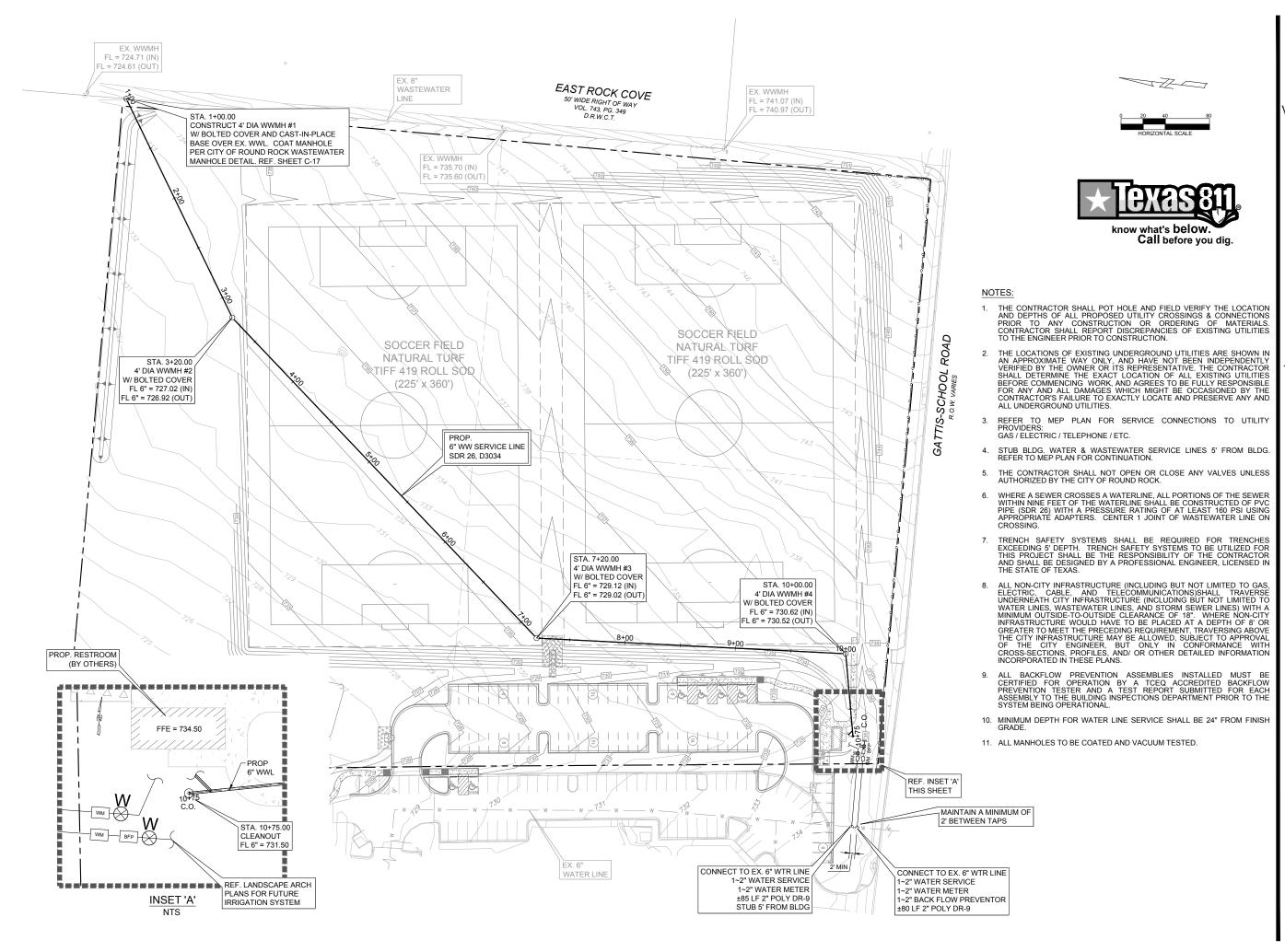
SHEET TITLE:

DRAINAGE AREA MAP

PROJECT NO

010-021

SHEET NO.:





WAELTZ & PRETE, INC.
CIVIL ENGINEERS

3000 Joe DIMAGGIO BLVD. #72 ROUND ROCK, TX. 78665 PH (512) 505-8953 FIRM TX. REG. #F-10308



ROJECT:

CLAY MADSEN SOCCER FIELD PROJECT

1700 GATTIS SCHOOL RD.

LIENT:

CITY OF ROUND ROCK

DESIGNED: AAP
DRAWN: CN
DATE: 6/9/2017

SHEET TITLE:

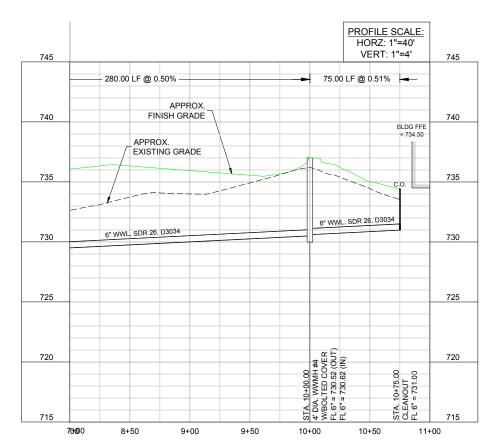
UTILITY PLAN

PROJECT N

010-021

SHEET NO





WASTEWATER LINE PROFILE



Waeltz & Prete, Inc. CIVIL ENGINEERS

3000 JOE DIMAGGIO BLVD. #72 ROUND ROCK, TX. 78665 PH (512) 505-8953 FIRM TX. REG. #F-10308



CLAY MADSEN SOCCER FIELD

PROJECT

1700 GATTIS SCHOOL RD.

CLIEN

CITY OF ROUND ROCK

DESIGNED: AAP DATE: 6/9/2017

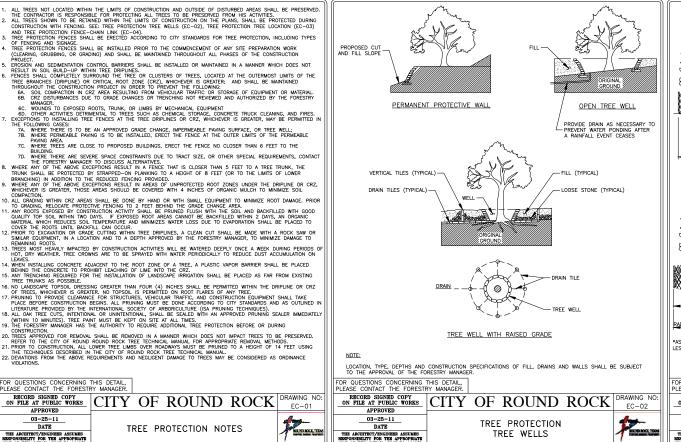
SHEET TIT

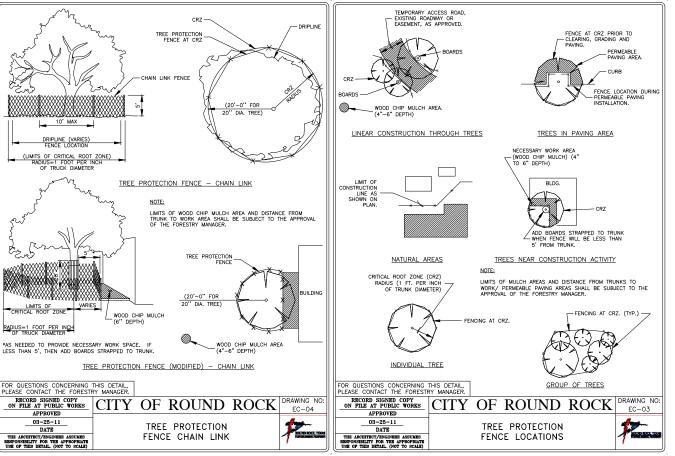
WASTEWATER LINE PROFILE

PROJECT NO

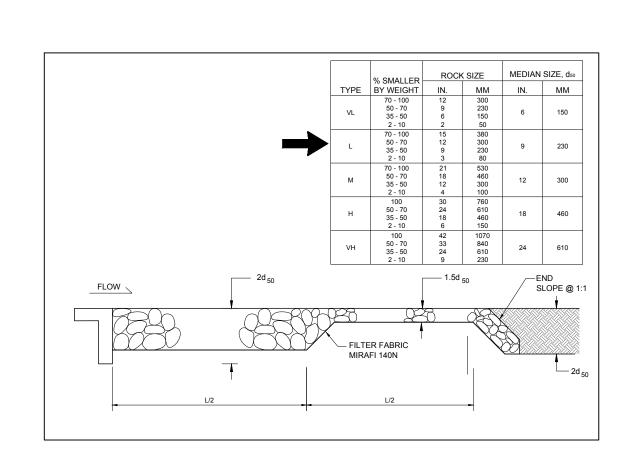
010-021

SHEET N



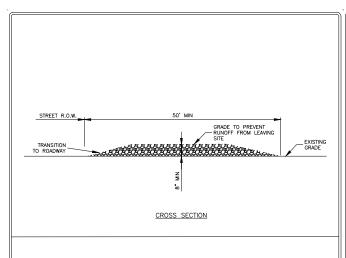


TREE PROTECTION FENCE NTS





TREE PROTECTION NOTES



FOR QUESTIONS CONCERNING THIS DETAIL, PLEASE CONTACT THE FORESTRY MANAGER.

RESPONSIBILITY FOR THE APPROPRIATE
USE OF THIS DETAIL. (NOT TO SCALE)

SULES:

1. STONE SIZE SHALL BE 3" — 8" OPEN GRADED ROCK.

2. THICKNESS OF CRUSHED STONE PAD TO BE NOT LESS THAN 8".

3. LENGTH SHALL BE A MINIMUM OF 50' FROM ACTUAL ROADWAY, AND WIDTH NOT LESS THAN FULL WIDTH OF INGRESS/GERES.

4. ENTERNACE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT OWNO FUNCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT OWNO FUNCE RIGHT OF WAY.

5. STEEDERS SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT OWNO FUNCE SHALL BE MAINTAINED IN A SHORE OF SEDIMENT OWNO FUNCE ON THE SHALL BE DONE ON AN ABEA STABILIZED WITH CRUSHED STONE WHICH DRAINS INTO AN APPROVED SEDIMENT TRACK OR SEDIMENT SHALL BE FOREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATERCOURSE USING APPROVED METHODS.

RECORD SIGNED COPY ON FILE AT PUBLIC WORKS CITY OF ROUND ROCK CEC-09 03-25-11 DATE STABILIZED CONSTRUCTION ENTRANCE DETAIL THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR THE APPROPRIATUSE OF THIS DETAIL. (NOT TO SCALE

STEEL POSTS, WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SUIGHT ANGLE TOWARD THE ANTICIPATION REMOTE SOURCE. POST AUST BE EMBEDDED A MAN OF ONE (1) FOOT. THAT THE ANTICIPATION OF THE SILT FENCE SHALL BE FRENCHED WITH A MAN OF ONE RECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TERCH IS FLAT AND PERSPENDICULAR TO THE LIVE OF FLOW. WHERE FENCE CANNO BE TRENCHED IN (E.G. PAVEMENT) WEIGHT FABRIC FLAP WITH WASHED GRAVEL ON UPHILL SIDE TO PREVENT FLU UNDER FENCE. UNDER FENCE.

THE TRENCH MUST BE A MINIMUM OF 6 INCHES DEEP AND 6 INCHES WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAD IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL. BIT SECURITY FASTEND TO EACH STEEL SUPPORT POST OR TO WOVEN WIRE, WHICH IN TURN SILT FENCE STALL BE SECURITY FASTEND FOR FOR POST. SINCE SUPPORT POST OR TO WOVEN WIRE, WHICH IN TURN INSPECTION SHALL BE MADE WEEKLY OR ATTER EACH RAINFALL EVENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.

SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR BEANINGE. STORM FLOW OR DRAININGS.

ACCUMULATED SLIT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 6 INCHES. THE SILT SHALL BE DISPOSED OF IN AN APPROVED SITE AND IN SUCH A MANNER AS TO NOT CONTRIBUTE TO ADDITIONAL SILTATION. SLIT FENCE SHALL BE REMOVED AS SOON AS THE SOURCE OF SEDIMENT IS STABILIZED. RECORD SIGNED COPY ON FILE AT PUBLIC WORKS CITY OF ROUND ROCK CC-10 03-25-11 DATE SILT FENCE DETAIL THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR THE APPROPRIAT USE OF THIS DETAIL. (NOT TO SCALE

CROSS SECTION

SILT FENCE

RECOMMENDED TOE-IN METHOD

STEEL FENCE POSTS (MAXIMUM 6'

WOVEN WIRE SUPPORT (12-1/2 GAUGE NET

STABILIZED CONSTRUCTION ENTRANCE

NON-WOVEN GEOTEXTILE FABRIC SILT FENCE

ROCK RIP-RAP NTS

Waeltz & Prete, Inc. CIVIL ENGINEERS

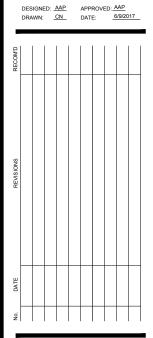
> 3000 JOE DIMAGGIO BLVD. #72 ROUND ROCK, TX, 78665 PH (512) 505-8053 FIRM TX. REG. #F-10308



CLAY MADSEN SOCCER FIELD **PROJECT**

1700 GATTIS SCHOOL RD

CITY OF ROUND ROCK



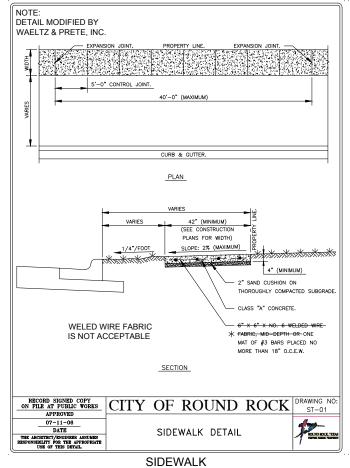
ESC

CONTROL **DETAILS**

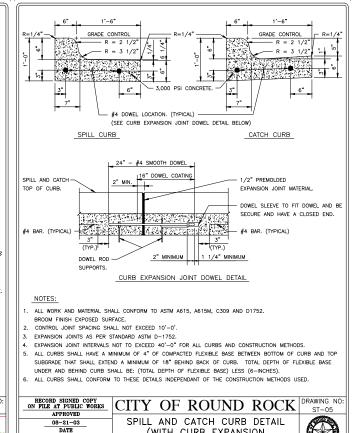
010-021

C-12

NTS



NTS

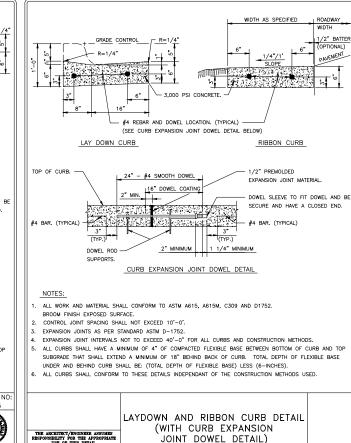


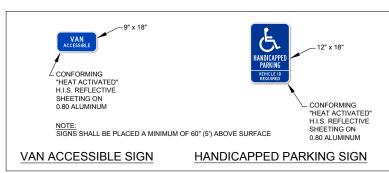
(WITH CURB EXPANSION

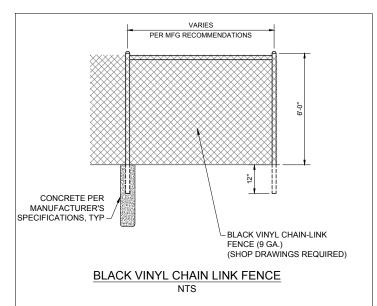
CURB AND GUTTER

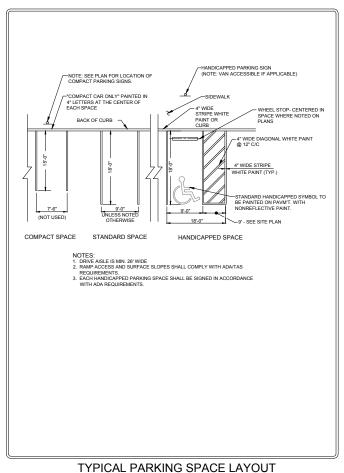
NTS

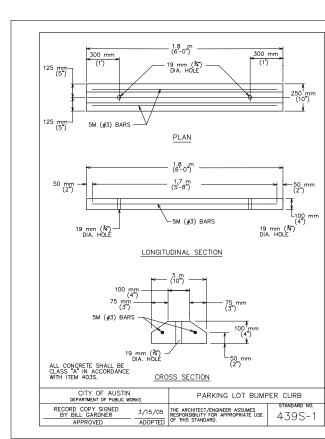
JOINT DOWEL DETAIL)

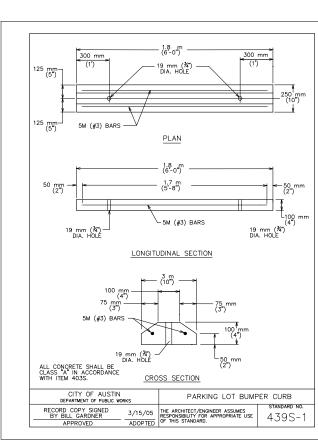












RIBBON CURB

NTS

WHEEL STOP

NTS

Waeltz & Prete, Inc. **CIVIL ENGINEERS**

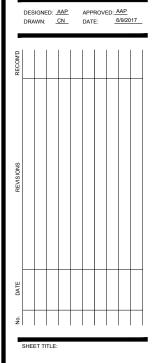
> 3000 JOE DIMAGGIO BLVD. #72 ROUND ROCK, TX, 78665 PH (512) 505-8953 FIRM TX. REG. #F-10308



CLAY MADSEN SOCCER FIELD

PROJECT 1700 GATTIS SCHOOL RD

CITY OF ROUND ROCK

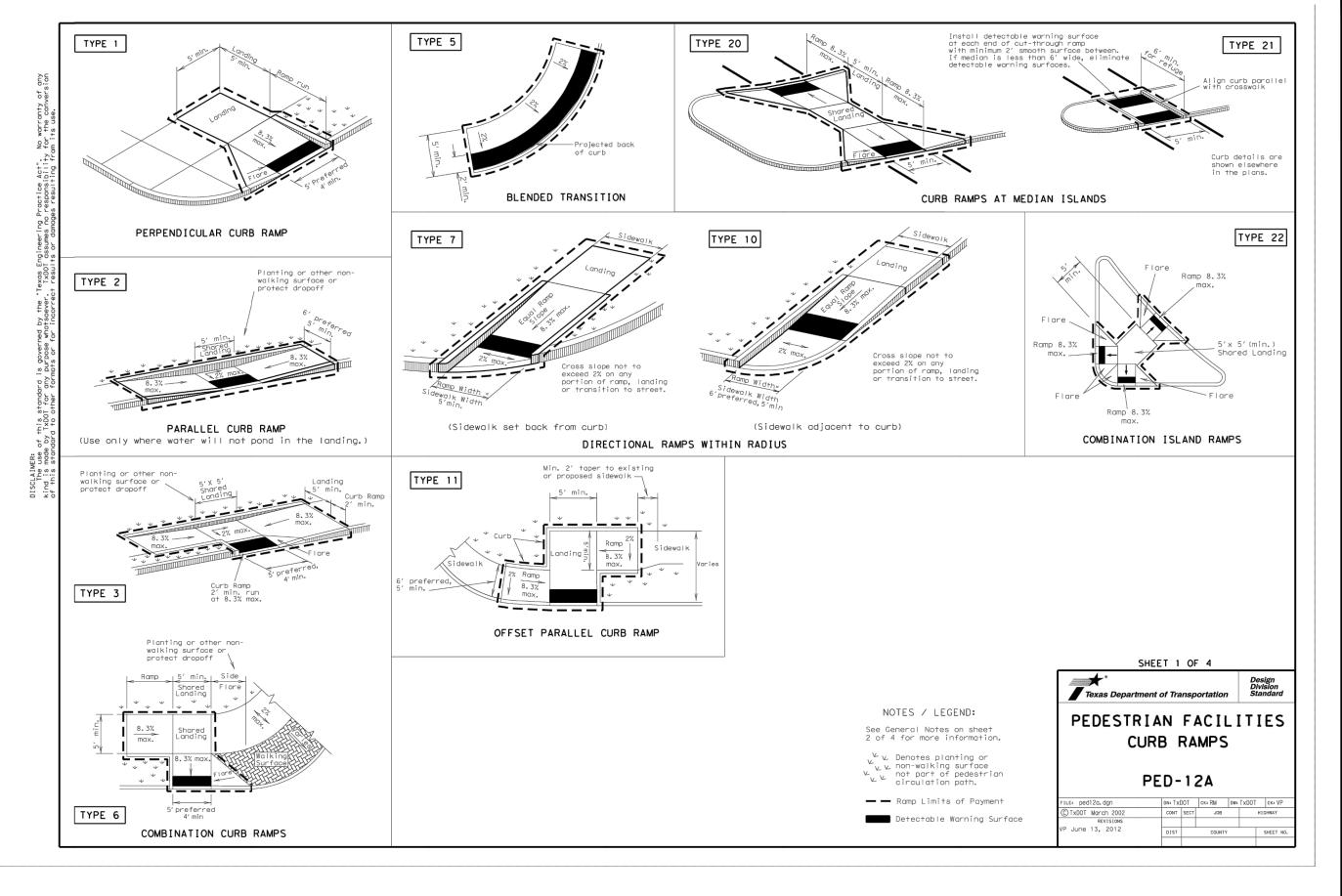


C-13

010-021

SITE DETAILS

(1 OF 3)



WaP

WAELTZ & PRETE, INC.
CIVIL ENGINEERS

3000 Joe DIMAGGIO BLVD. #72 ROUND ROCK, TX. 78665 PH (512) 505-8953 FIRM TX. REG. #F-10308



CLAY MADSEN
SOCCER FIELD
PROJECT

1700 GATTIS SCHOOL RD.

CLIENT

CITY OF ROUND ROCK

BECOMD

APPROVED: APPROVED

SHEET TITI

SITE DETAILS (2 OF 3)

PROJECT NO

010-021

CUEETNO

7-14

CMRC soccer Held Grading\PLANS\UIU-UZIESC-DET.dwg, 6/9/2U1/ 11:59:0U AM

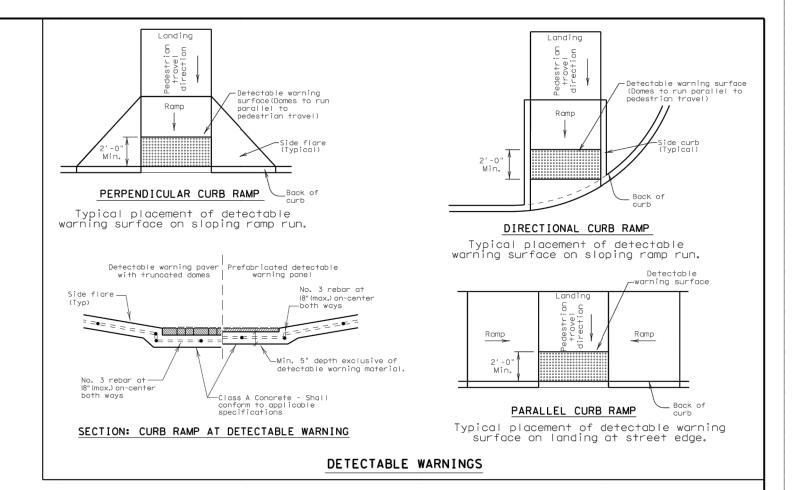
General Notes

Curb Ramps

- 1. Install a curb ramp or blended transition at each pedestrian street crossing.
- All slopes shown are maximum allowable. Lesser slopes that will still drain properly should be used. Adjust curb ramp length or grade of approach sidewalks as directed.
- 3. The minimum sidewalk width is 5'. Where the sidewalk is adjacent to the back of curb, a 6' sidewalk width is desirable. Where a 5' sidewalk cannot be provided due to site constraints, sidewalk width may be reduced to 4' for short distances. 5'x 5' passing areas at intervals not to exceed 200' are required.
- 4. Landings shall be 5'x 5' minimum with a maximum 2% slope in any direction.
- Maneuvering space at the bottom of curb ramps shall be a minimum of 4'x 4' wholly contained within the crosswalk and wholly outside the parallel vehicular travel path.
- 6. Maximum allowable cross slope on sidewalk and curb ramp surfaces is 2%.
- 7. Provide flared sides where the pedestrian circulation path crosses the curb ramp. Flared sides shall be sloped at 10% maximum, measured parallel to the curb. Returned curbs may be used only where pedestrians would not normally walk across the ramp, either because the adjacent surface is planted, substantially obstructed, or otherwise protected.
- 8. Additional information on curb ramp location, design, light reflective value and texture may be found in the current edition of the Texas Accessibility Standards (TAS) and 16 TAC 68.102.
- To serve as a pedestrian refuge area, the median should be a minimum of 6' wide, measured from back of curbs. Medians should be designed to provide accessible passage over or through them.
- 10. Small channelization islands, which do not provide a minimum 5'x 5' landing at the top of curb romps, shall be cut through level with the surface of the street.
- 11. Crosswalk dimensions, crosswalk markings and stop bar locations shall be as shown elsewhere in the plans. At intersections where crosswalk markings are not required, curb ramps shall align with theoretical crosswalks unless otherwise directed.
- Handrails are not required on curb ramps. Provide curb ramps wherever on accessible route crosses (penetrates) a curb.
- 13. Curb ramps and landings shall be constructed and paid for in accordance with Item 531 "Sidewalks".
- 14. Place concrete at a minimum depth of 5" for ramps, flares and landings, unless otherwise directed.
- 15. Provide a smooth transition where the curb ramps connect to the street.
- 16. Curbs shown on sheet 1 within the limits of payment are considered part of the curb ramp for payment, whether it is concrete curb, gutter, or combined curb and gutter.
- 17. Existing features that comply with TAS may remain in place unless otherwise shown on the plans.

Detectable Warning Material

- 18. Curb ramps must contain a detectable warning surface that consists of raised truncated dames complying with Section 705 of the TAS. The surface must contrast visually with adjoining surfaces, including side flares. Furnish and install an approved cast-in-place dark brown or dark red detectable warning surface material adjacent to uncolored concrete, unless specified elsewhere in the plans.
- 19. Detectable Warning Materials must meet TxDOT Departmental Materials Specification DMS 4350 and be listed on the Material Producer List. Install products in accordance with manufacturer's specifications.
- 20. Detectable warning surfaces must be slip resistant and not allow water to accumulate.
- 21. Detectable warning surfaces shall be a minimum of 24" in depth in the direction of pedestrian travel, and extend the full width of the curb ramp or landing where the pedestrian access route enters the street.
- 22. Detectable warning surfaces shall be located so that the edge nearest the curb line is at the back of curb. Align the rows of domes to be perpendicular to the grade break between the ramp run and the street. Detectable warning surfaces may be curved along the corner radius.
- 23. Shaded areas on Sheet 1 of 4 indicate the approximate location for the detectable warning surface for each curb ramp type.



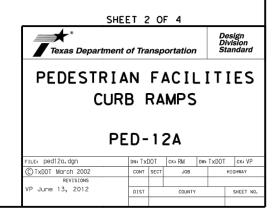
Detectable Warning Pavers

- 24. Furnish detectable warning paver units meeting all requirements of ASTM C-936, C-33. Lay in a two by two unit basket weave pattern or as directed.
- 25. Lay full-size units first followed by closure units consisting of at least 25 percent of a full unit. Cut detectable warning pover units using a power saw.

Sidewalks

- 26. Provide clear ground space at operable parts, including pedestrian push buttons.

 Operable parts shall be placed within one or more reach ranges specified in TAS 308.
- 27. Place traffic signal or illumination poles, ground boxes, controller boxes, signs, drainage facilities and other items so as not to obstruct the pedestrian access route or clear ground space.
- 28. Street grades and cross slopes shall be as shown elsewhere in the plans.
- 29. Changes in level greater than 1/4 inch are not permitted.
- 30. The least possible grade should be used to maximize accessibility. The running slope of sidewalks and crosswalks within the public right of way may follow the grade of the parallel roadway. Where a continuous grade greater than 5% must be provided, handrails may be desirable to improve accessibility. Handrails may also be needed to protect pedestrians from potentially hazardous conditions. If provided, handrails shall comply with TAS 505.
- Handrail extensions shall not protrude into the usable landing area or into intersecting pedestrian routes.
- 32. Driveways and turnouts shall be constructed and paid for in accordance with Item "Intersections, Driveways and Turnouts". Sidewalks shall be constructed and paid for in accordance with Item, "Sidewalks".
- 33. Sidewalk details are shown elsewhere in the plans.



W₂P

WAELTZ & PRETE, INC.
CIVIL ENGINEERS

3000 Joe DIMAGGIO BLVD. #72 ROUND ROCK, TX. 78665 PH (512) 505-8953 FIRM TX. REG. #F-10308



CLAY MADSEN
SOCCER FIELD
PROJECT

1700 GATTIS SCHOOL RD

CLIENT:

CITY OF ROUND ROCK

DESIGNED: AAP APPROVED: AAP

DRAWN: CN DATE: 6/9/2017

SHEET TITLE

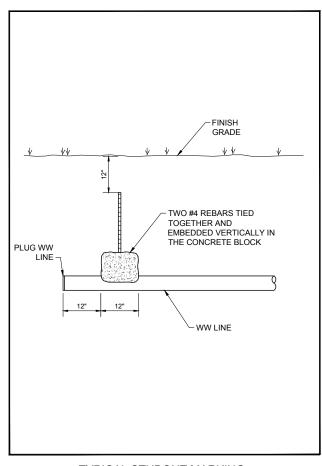
SITE DETAILS (3 OF 3)

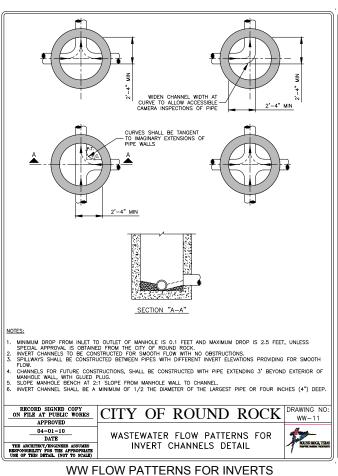
PROJECT NO

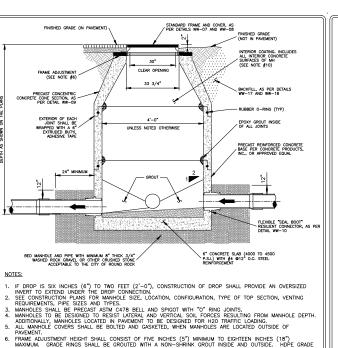
010-021

CUEETNO

C-15







PAVEMENT.

FRAME ADJUSTMENT HIGHT SHALL CONSIST OF FIVE INCHES (5") MINIMUM TO EIGHTEEN INCHES (18")

MAXIMUM. GRADE RINGS SHALL BE GROUTED WITH A NON-SHRIKK GROUT INSIDE AND OUTSIDE. HDPE GRADE

RINGS, AS MANIPACTURED BY LABTECH, INCOPPORATED, OR EQUAL, MAY NOT BE USED.

FOR MANIPOLES TO BE VENTED, SEE DETAILS WH-OS AND WW-OB.

FOR MANIPOLES TO BE VENTED, SEE DETAILS WH-OS AND WW-OB.

FOR MANIPOLES TO BE VENTED, SEE DETAILS WH-OS AND WW-OB.

BASE SECTION SHALL BE DESIGNED FOR HZO LOADING, PLUS EARTH LOAD AT 130 PCF.

BASE SECTION SHALL BE DESIGNED FOR HZO LOADING, PLUS EARTH LOAD AT 130 PCF.

BASE SECTION SHALL BE DESIGNED FOR HZO LOADING, PLUS EARTH LOAD AT 130 PCF.

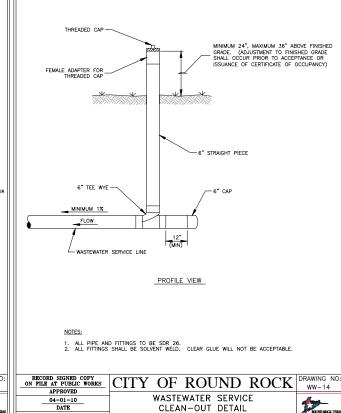
SPRAYWALLS, OR APPROVED EQUAL, (WITH A UNIFORM THICKNESS OF 124 MILS AND A MINIMUM THICKNESS OF 100 MILS, APPLIED ATTER MANIPOLE AND SASSED THE VACUUM TEST.) OR 1/2" MIN. THICKNESS CALCIUM ALUMINATE CEMENTITIOUS COATING OTHER INTERIOR SURFACES MAY BE COATED IF RECOMMENDED BY COATING MANUFACTURES.

RECORD SIGNED COPY ON FILE AT FUBLIC TORKS
APPROVED

CITY OF ROUND ROCK WW-01 04-01-10 DATE PRECAST CONCRETE WASTEWATER MANHOLE DETAIL

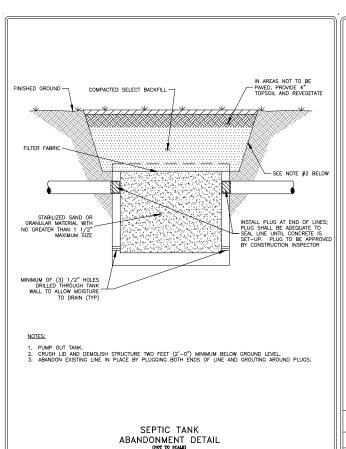
WASTEWATER MANHOLE

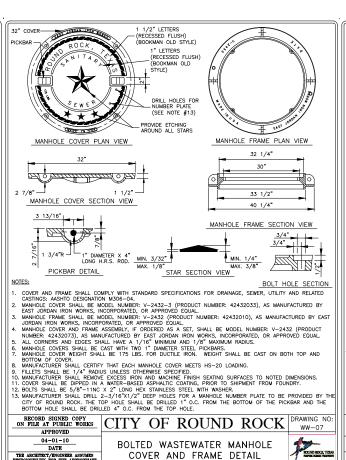
NTS



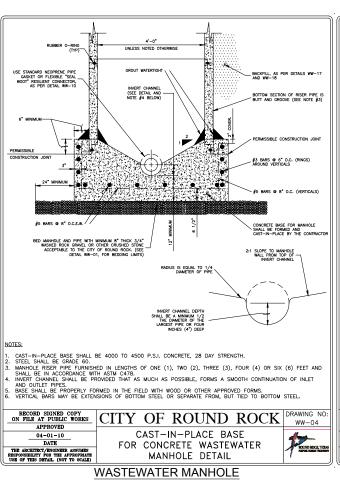
(NON-PAVED SURFACES) WASTEWATER CLEANOUT NTS

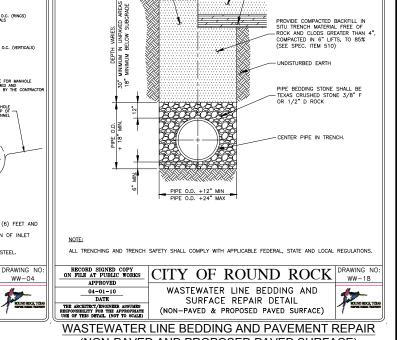






NTS





(NON-PAVED AND PROPOSED PAVED SURFACE) NTS



Waeltz & Prete, Inc. CIVIL ENGINEERS

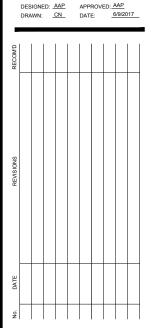
> 3000 JOE DIMAGGIO BLVD. #72 ROUND ROCK, TX, 78665 PH (512) 505-8053 FIRM TX. REG. #F-10308



CLAY MADSEN SOCCER FIELD **PROJECT**

1700 GATTIS SCHOOL RD

PROPOSED PAVED SURFACE: SUBGRADE PREP, FLEXIBLE BASE AND H.M.A.C. PER PAVEMENT PLANS UNDER SEPARATE PROCEDURE CITY OF ROUND ROCK



UTILITY DETAILS (1 OF 2)

010-021

C-16

SEPTIC TANK ABANDONMENT NTS

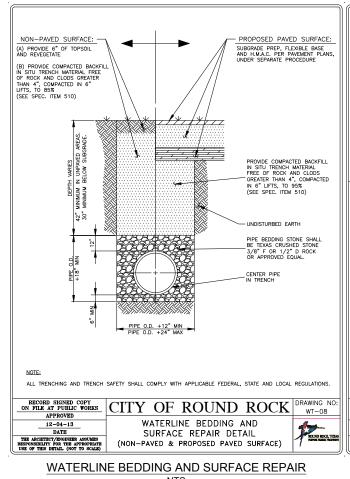
BOLTED WASTEWATER MANHOLE COVER AND FRAME

CAST-IN-PLACE BASE NTS

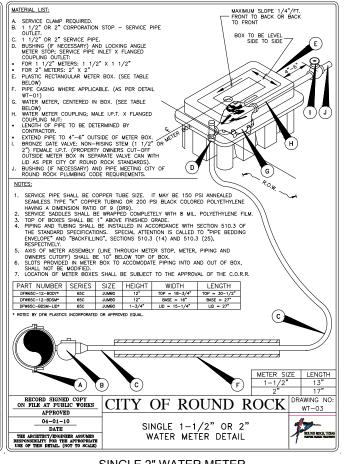
NON-PAVED SURFACE: -

(A) PROVIDE 6" OF TOPSOIL AND REVEGETATE.

(B) PROVIDE COMPACTED BACKFILL IN SITU TRENCH MATERIAL FREE OF ROCK AND CLODS GREATER THAN 4", COMPACTED IN 6" LIFTS, TO 85% (SEE SPEC. ITEM 510)



NTS



SINGLE 2" WATER METER NTS



WAELTZ & PRETE, INC. CIVIL ENGINEERS

> 3000 JOE DIMAGGIO BLVD. #72 ROUND ROCK, TX, 78665 PH (512) 505-8953 FIRM TX. REG. #F-10308



CLAY MADSEN SOCCER FIELD **PROJECT**

1700 GATTIS SCHOOL RD.

CITY OF ROUND ROCK

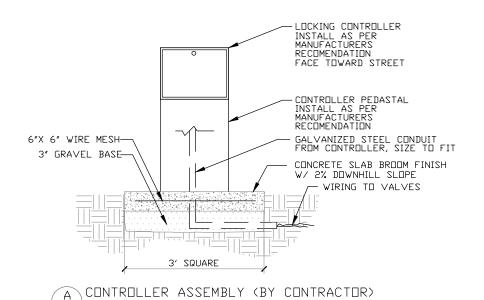
DESIGNED: AAP APPROVED: AAP DRAWN: <u>CN</u> DATE: <u>6/9/2017</u>

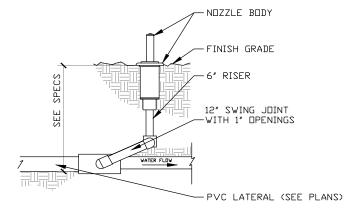
UTILITY DETAILS (2 OF 2)

010-021

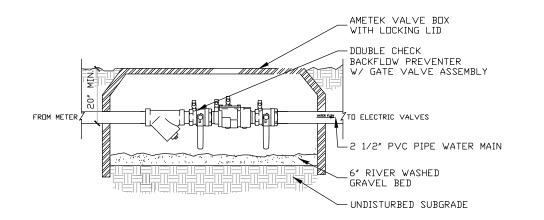
C-17

A8 40.5 40.5 40.5 2" CONSTRUCTION NOTES: .35"/hr .35"/hr .35"/hr 1. THE IRRIGATION PLAN IS A SCHEMATIC DESIGN. FIELD 2 1/2" 2 1/2" ADJUSTMENTS TO EQUIPMENT MAY BE NECESSARY. - 2 EXTRA VALVE WIRES TO TERMINATE CONTRACTOR TO VERIFY PIPE SIZES TO ENSURE PROPER IN SEPARATE VALVE BOX 736 2. TO MAINTAIN OPTIMUM PRESSURE AVOID "L" AND "T" 6/12/2017 CONNECTIONS WHEN EVER POSSIBLE. 3. ALL INSTALLED EQUIPMENT IS TO BE INSPECTED BY THE A6 A10 48.6 2" OWNER'S REPRESENTATIVE PRIOR TO BACKFILLING OR 48.6 ENCLOSURE. 2" ROUND ROCK, TEXAS .35"/hr .35"/hr 4. AFTER BACKFILLING TRENCHES, CONTRACTOR SHALL A5 48.6 2" SMOOTH AND RAKE SOIL TO SURROUNDING SOIL ELEVATION. A11 REMOVE ALL ROCKS, ROOTS OR DEBRIS FROM SITE. 48.6 CITY OF ROUND ROCK PARKS AND RECREATION 2" 5. UPON COMPLETION OF WORK, CONTRACTOR SHALL PROVIDE ,35"/hr .35"/hr 301 West Bagdad Suite 250 Round Rock, Texas 78664 AS-BUILT DRAWINGS OF IRRIGATION SYSTEM TO OWNER. (P): 512.218.5548 2 1/2" LEGEND RAIN BIRD FALCON 6504 SERIES #10 NOZZLE ROTOR - MODEL # F4-FC-NP RAIN BIRD PEB SERIES 2" PLASTIC VALVE - MODEL # 200-PEB Ø 2 1/2" ISOLATION VALVE QUICK COUPLING VALVE WITH KEYS PVC LATERAL - CLASS 200 A4 A12 48.6 48.6 2" 2" 2" FEBCO 850 SERIES DOUBLE CHECK VALVE ASSEMBLY .35"/hr .35"/hr -M2" WATER METER A3 A13 RAIN BIRD ESP-MC SERIES CONTROLLER 24 STATION (# ESP24MC) ON PEDESTAL MOUNT 48.6 48.6 2" 2" VALVE GUIDE .35"/hr .35"/hr A1 55 1.5" CONTROLLER STATION NUMBER GALLONS PER MINUTE PER VALVE 2 EXTRA VALVE WIRES TO TERMINATE IN VALVE SIZE .50"/hr PRECIPITATION RATE SEPARATE DESIGN NOTES: PROJECT: 1. VERIFY EXISTING PRESSURE OF 65 PSI BEFORE BEGINNING WORK CLAY MADSEN 2. MAXIMUM CIRCUIT GALLONAGE - 55 GPM 2 1/2" 2 1/2" SOCCER FIELD 3. MINUMUM PRESSURE AT HEAD SHALL BE 40 PSI PROJECT 1600 Gattis School Rd, Round Rock, TX 78664 A14 48.6 2" 48.6 2" .35"/hr .35"/hr ISSUED DATE: A1 A15 JUNE 2017 48.6 48.6 2"40 2" .35'/hr .35"/hr SHEET TITLE: IRRIGATION PLAN 24 STATION PEDESTAL VALVE, TYP. MOUNTED RAIN SENSOR - 1 EXTRA VALVE WIRE TERMINATE IN SEPARATE VALVE BOX - HOSE BIB CONTROLLER 2 1/2" 2 1/2" _ _ _ <u>_</u> 2 1/2" SHFFT #: A17 A16 A18 40.5 40.5 40.5 2" WATER METER 72#4 2" 2" 2 1/2" ISOLATION VALVE, TYP. 2" DOUBLE CHECK BACKFLOW PREVENTER 748 .35"/hr .35"/hr .35"/hr (MINIMUM 10' FROM METER)

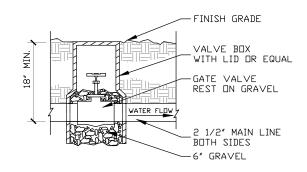






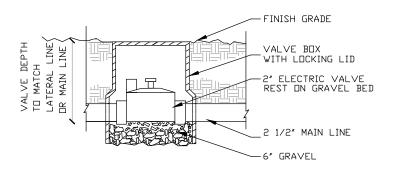


C DOUBLE CHECK BACKFLOW PREVENTION Not To Scale

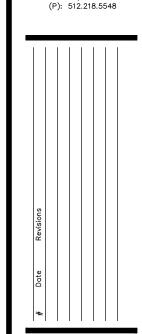


Not To Scale









6/12/2017

ROUND ROCK, TEXAS

CITY OF ROUND ROCK PARKS AND RECREATION

301 West Bagdad Suite 250 Round Rock, Texas 78664

PROJECT:

CLAY MADSEN SOCCER FIELD PROJECT

1600 Gattis School Rd, Round Rock, TX 78664

ISSUED DATE:

JUNE 2017

SHEET TITLE:

IRRIGATION DETAILS

SHEET #:

L-2

LANDSCAPE IRRIGATION NOTES

PART 1 - GENERAL

1.1 RECORD DRAWINGS

- A. CONTRACTOR SHALL SUPPLY THE OWNER WITH "AS-BUILT" DRAWINGS OF THE IRRIGATION SYSTEM.
- B. RECORD DIMENSIONED LOCATIONS AND DEPTHS FOR EACH OF THE FOLLOWING:
 - 1. POINT OF CONNECTION
 - 2. MAIN AND LATERAL LINE ROUTING
 - 3. GATE VALVES
 - 4. CONTROL VALVES
 - CONTROL WIRE ROUTING
- C. LOCATE ALL DIMENSIONS FROM TWO PERMANENT POINTS (BUILDINGS, SIDEWALKS, CURRS, OR PAYEMENTS)
- D. RECORD ALL CHANGES WHICH ARE MADE FROM THE CONTRACT DRAWINGS, INCLUDING CHANGES IN THE PRESSURE AND NON-PRESSURE LINES.
- E. MAINTAIN INFORMATION DAILY. KEEP CONTRACT DRAWINGS AT THE WORK SITE AT ALL TIMES AND AVAILABLE FOR REVIEW BY THE OWNER'S REPRESENTATIVE.

PART 2 - INSTALLATION

2.1 INSTALLATION, GENERAL

- A. CONTRACTOR RESPONSIBILITY: THE CONTRACTOR SHALL NOT WILLFULLY INSTALL THE IRRIGATION SYSTEM AS SHOWN ON THE DRAWINGS WHEN IT IS OBVIOUS IN THE FIELD THAT OBSTRUCTIONS, GRADE DIFFERENCES OR DISCREPANCIES IN EQUIPMENT USAGE, AREA DIMENSIONS, OR WATER PRESSURE EXIST THAT MIGHT NOT HAVE BEEN CONSIDERED IN THE ENGINEERING. SUCH OBSTRUCTIONS OR DIFFERENCES SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE IN WRITING. IN THE EVENT THIS NOTIFICATION IS NOT PERFORMED; THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY REVISION NECESSARY.
- B. STAKING: BEFORE INSTALLATION IS STARTED, PLACE A STAKE OR FLAG WHERE EACH SPRINKLER HEAD IS TO BE LOCATED, IN ACCORDANCE WITH DRAWING. STAKING SHALL BE APPROVED BY AN OWNER'S REPRESENTATIVE BEFORE PROCEEDING.
- C. PIPING LAYOUT: PIPING LAYOUT IS DIAGRAMMATIC. ROUTE PIPING AROUND EXISTING TREES AND ROOT ZONES IN SUCH A MANNER AS TO AVOID DAMAGE TO PLANTINGS. DO NOT DIG WITHIN THE BALL OF NEWLY PLANTED TREES OR SHRUBS.
- D. IN AREAS WHERE TREES ARE PRESENT, TRENCHES WILL BE ADJUSTED ON SITE TO PROVIDE A MINIMUM CLEARANCE OF FOUR TIMES THE TRUNK DIAMETER OF THE TREE (AT ITS BASE) BETWEEN ANY TREE AND ANY TRENCH.
- E. ALL MATERIAL AND EQUIPMENT SHALL BE DELIVERED TO THE WORK SITE IN UNBROKEN REELS, CARTONS, OR OTHER PACKAGING TO DEMONSTRATE THAT SUCH MATERIAL IS NEW AND OF A QUALITY AND GRADE IN KEEPING WITH THE INTENT OF THESE SPECIFICATIONS.

2.2 EXCAVATION AND TRENCHING

- A. THE CONTRACTOR SHALL PERFORM ALL EXCAVATION TO THE DEPTH INDICATED IN THESE SPECIFICATIONS AND CONTRACT DRAWINGS. THE BANKS OF THE TRENCHES SHALL BE KEPT AS NEARLY VERTICAL AS PRACTICABLE. TRENCHES SHALL BE WIDE ENOUGH TO ALLOW A MINIMUM OF FOUR (4) INCHES BETWEEN PARALLEL PIPELINES OR ELECTRICAL WIRING. WHERE ROCK EXCAVATION IS REQUIRED, OR WHERE STONES ARE ENCOUNTERED IN THE BOTTOM OF THE TRENCH THAT WOULD CREATE A CONCENTRATED PRESSURE ON THE PIPE, THE ROCK OR STONES SHALL BE REMOVED TO A DEPTH OF SIX (6) INCHES MINIMUM BELOW THE TRENCH DEPTH INDICATED. THE OVER DEPTH ROCK EXCAVATION AND ALL EXCESS TRENCH EXCAVATION SHALL BE BACKFILLED WITH LOOSE, MOIST EARTH OR SAND, THOROUGHLY TAMPED. WHENEVER WET OR OTHERWISE UNSTABLE SOIL THAT IS INCAPABLE OF PROPPERLY SUPPORTING THE PIPE IN ENCOUNTERED IN THE TRENCH BOTTOM, SUCH SOIL SHALL BE REMOVED TO A DEPTH AND LENGTH AS REQUIRED, AND THE TRENCH BACKFILLED TO TRENCH BOTTOM GRADE AS HEREINAFTER SPECIFIED, WITH COURSE SAND, FINE GRAVEL OR OTHER SUITABLE MATERIAL.
- B. BOTTOM OF TRENCH GRADE SHALL BE CONTINUED PAST GROUND SURFACE DEVIATIONS TO AVOID AIR POCKETS AND LOW COLLECTION POINTS IN THE LINE. THE MINIMUM COVER SPECIFICATIONS SHALL GOVERN REGARDLESS OF VARIATIONS IN GROUND SURFACE PROFILE AND THE OCCASIONAL DEEPER EXCAVATION REQUIRED AT BANKS AND OTHER FIELD CONDITIONS. EXCAVATIONS SHALL BE SUCH THAT A UNIFORM TRENCH GRADE VARIATION WILL OCCUR IN ALL CASES WHERE VARIATIONS ARE NECESSARY.
- C. TRENCH EXCAVATION SHALL COMPRISE THE SATISFACTORY REMOVAL AND DISPOSITION OF ALL MATERIALS, AND SHALL INCLUDE ALL SHORING AND SHEETING REQUIRED TO PROTECT THE EXCAVATION AND TO SAFEGUARD EMPLOYEES.
- D. DURING EXCAVATION, MATERIAL SUITABLE FOR BACKFILLING SHALL BE STOCKPILED IN AN ORDERLY MANNER A SUFFICIENT DISTANCE BACK FROM THE EDGE OF TRENCHES TO AVOID OVERLOADING AND PREVENT SLIDES OR CAVE-INS. MATERIAL UNSUITABLE

FOR BACKFILLING SHALL BE WASTED AS DIRECTED BY THE OWNER'S REPRESENTATIVE. WHEN EXCAVATED, MATERIAL IS OF A ROCKY NATURE AND THE TOPSOIL OR ANY OTHER LAYER OF EXCAVATED MATERIAL IS SUITABLE FOR PIPE BEDDING AND BACKFILL IN THE VICINITY OF THE PIPE, SUCH MATERIAL SHALL BE SEPARATELY STOCKPILED FOR USE IN SUCH BEDDING AND PIPE BACKFILL OPERATIONS, UNLESS SATISFACTORY IMPORTED MATERIAL IS USED.

- E. ALL EXCAVATIONS AND BACKFILL SHALL BE UNCLASSIFIED AND COVERED IN THE BASIC BID. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR ROCK ENCOUNTERED.
- F. RESTORE ALL SURFACES, EXISTING UNDERGROUND INSTALLATIONS, ETC., DAMAGED OR CUT AS A RESULT OF THE EXCAVATIONS TO THEIR ORIGINAL CONDITIONS IN A MANNER ACCEPTABLE TO THE OWNER'S REPRESENTATIVE.

2.3 HYDROSTATIC TESTS

A. PRESSURE TEST: AFTER THE PIPE IS LAID, THE JOINTS COMPLETED, AND THE TRENCH PARTIALLY BACKFILLED, LEAVING THE JOINTS EXPOSED FOR EXAMINATION, THE NEWLY LAID PIPING OR ANY VALVED SECTION OF MAIN PRESSURE LINE PIPING SHALL, UNLESS OTHERWISE SPECIFIED, BE SUBJECTED FOR FOUR (4) HOURS TO A HYDROSTATIC PRESSURE TEST OF NORMAL CITY WATER PRESSURE. EACH VALVE SHALL BE OPENED AND CLOSED DURING THE TEST. ENCLOSED PIPE, JOINTS, FITTINGS, OR VALVES SHALL BE CAREFULLY EXAMINED DURING THE PARTIALLY OPEN TRENCH TEST. JOINTS SHOWING VISIBLE LEAKAGE SHALL BE REPLACED OR REMADE, AS NECESSARY. CRACKED OR DEFECTIVE PIPE, JOINTS, FITTINGS, OR VALVES DISCOVERED IN CONSEQUENCE OF THIS PRESSURE TEST SHALL BE REPLACED AND THE TEST SHALL BE REPEATED UNTIL THE RESULTS ARE SATISFACTORY. ALL REPLACEMENTS AND REPAIRS SHALL BE AT THE CONTRACTOR'S COST.

2.4 CONTROL WIRE INSTALLATION

- A. ALL CONTROL WIRE LESS THAN FIVE HUNDRED (500) FEET IN LENGTH SHALL BE CONTINUOUS WITHOUT SPLICES OR JOINTS FROM THE CONTROLLER TO THE VALVES. CONNECTIONS TO THE ELECTRIC VALVES SHALL BE MADE WITHIN EIGHTEEN (18) INCHES OF THE VALVE USING CONNECTORS THAT HAVE A TWO-PIECE PVC HOUSING WHICH, WHEN FILLED WITH RESIN EPOXY AND PRESSED TOGETHER, FORMS A PERMANENT, ONE-PIECE, MOISTURE-PROOF WIRE SPLICE.
- B. ALL CONTROL WIRES SHALL BE INSTALLED AT LEAST EIGHTEEN (18) INCHES DEEP. CONTRACTOR SHALL OBTAIN THE OWNER'S REPRESENTATIVE'S APPROVAL FOR WIRE ROUTING WHEN INSTALLED IN A SEPARATE TRENCH. CONTROL WIRES MAY BE INSTALLED IN COMMON TRENCH WITH PIPING; HOWEVER, WIRES MUST BE INSTALLED A MINIMUM OF FOUR (4) INCHES BELOW OR TO ONE SIDE OF PIPING.
- C. ALL WIRE PASSING UNDER EXISTING OR FUTURE PAVING, SIDEWALK, CONSTRUCTION, ETC., SHALL BE ENCASED IN PVC SCHEDULE 40 CONDUIT EXTENDING AT LEAST TWO (2) FEET BEYOND EDGES OF PAVING, SIDEWALKS, OR CONSTRUCTION.

2.5 BACKFILL AND COMPACTION

- A. AFTER SYSTEM IS OPERATING AND REQUIRED TESTS AND INSPECTIONS HAVE BEEN MADE, THE TRENCHES SHALL BE CAREFULLY BACKFILLED WITH THE EXCAVATED MATERIALS APPROVED FOR BACKFILLING, CONSISTING OF EARTH, LOAM, SANDY CLAY, SAND, GRAVEL, SOFT SHALE, OR OTHER APPROVED MATERIALS, FREE FROM LARGE CLODS OF EARTH OR STONE. ROCK, BROKEN CONCRETE OR PAVEMENT, AND LARGE BOULDERS SHALL NOT BE USED AS BACKFILL MATERIAL. THE BACKFILL SHALL BE THOROUGHLY COMPACTED AND EVENED WITH THE ADJACENT SOIL LEVEL.
- B. COMPACT TRENCHES IN AREAS TO BE PLANTED BY THOROUGHLY FLOODING THE BACKFILL. COMPACT ALL OTHER AREAS BY FLOODING OR HAND TAMPING. THE JETTING PROCESS MAY BE USED IN AREAS WHEN FLOODING.
- C. BACKFILL FOR ALL TRENCHES, REGARDLESS OF THE TYPE OF PIPE COVERED, SHALL BE COMPACTED TO A MINIMUM DENSITY OF NINETY (90) PERCENT.
- D. ANY TRENCHES IMPROPERLY BACKFILLED, OR WHERE SETTLEMENT OCCURS, SHALL BE REOPENED TO THE DEPTH REQUIRED FOR COMPACTION, THEN REFILLED AND COMPACTED WITH THE SURFACE RESTORED TO THE REQUIRED GRADE AND LEFT IN A COMPLETED SURFACE CONDITION AS DESCRIBED ABOVE.
- E. SPECIFICALLY TAMP BACKFILL UNDER HEADS AND AROUND THE FLANGE OF HEADS FOR ONE (1) FOOT BY A SUITABLE MEANS AFTER TRENCH BACKFILL HAS DRIED FROM FLOODING TO PREVENT HEADS LOOSENING IN THE GROUND.

2.6 FINAL ADJUSTMENT

- A. AFTER INSTALLATION, HAS BEEN COMPLETED, MAKE FINAL ADJUSTMENT OF IRRIGATION SYSTEM PRIOR TO OWNER'S REPRESENTATIVE'S FINAL INSPECTION.
- B. COMPLETELY FLUSH SYSTEM TO REMOVE DEBRIS FROM LINES BY REMOVING NOZZLE FROM HEADS ON ENDS OF LINES AND TURNING ON SYSTEM.
- C. CHECK HEADS FOR PROPER OPERATION AND PROPER ALIGNMENT FOR DIRECTION OF THROW.

- D. CHECK EACH CIRCUIT FOR OPERATING PRESSURE AND BALANCE TO OTHER CIRCUITS BY USE OF FLOW ADJUSTMENT ON TOP OF EACH VALVE.
- E. CHECK NOZZLING FOR PROPER COVERAGE. PREVAILING WIND CONDITIONS MAY INDICATE THAT ARC OR ANGLE OF SPRAY SHOULD BE OTHER THAN AS SHOWN ON DRAWINGS. IN THIS CASE, CHANGE NOZZLES TO PROVIDE CORRECT COVERAGE AND FURNISH RECORD DATA TO OWNER'S REPRESENTATIVE WITH EACH CHANGE.
- F. AFTER SYSTEM IS THOROUGHLY FLUSHED AND READY FOR OPERATION, EACH CIRCUIT SHALL BE ADJUSTED TO CONTROL PRESSURE AT HEADS. USE THE FOLLOWING METHOD, ONE CIRCUIT AT A TIME:
 - REMOVE LAST HEAD ON CIRCUIT AND INSTALL TEMPORARY RISER ABOVE
 GRADE. INSTALL TEE WITH PRESSURE GAUGE ATTACHED ON TOP OF RISER AND
 RE-INSTALL HEAD WITH NIPPLE ONTO TEE.
 - 2. CORRECT OPERATING PRESSURE AT LAST HEAD OF EACH CIRCUIT AS FOLLOWS: a. ROTORS MINIMUM OF FORTY (40) PSI.
 - 3. AFTER REPLACING HEAD, AT GRADE, TAMP THOROUGHLY AROUND HEAD.

2.7 CLEAN-UP

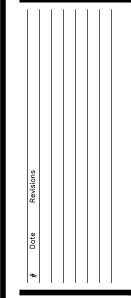
- A. THE WORK SITE SHALL BE THOROUGHLY CLEANED OF ALL WASTE MATERIALS AND ALL UNUSED OR SALVAGED MATERIALS, EQUIPMENT, TOOLS, ETC.
- B. AFTER COMPLETION OF THE WORK, AREAS DISTURBED SHALL BE LEVELED AND THE WORK SITE SHALL BE RAKED CLEAN AND LEFT IN AN ORDERLY CONDITION.





CITY OF ROUND ROCK PARKS AND RECREATION

301 West Bagdad Suite 250 Round Rock, Texas 78664 (P): 512.218.5548



PROJECT:

CLAY MADSEN SOCCER FIELD PROJECT

1600 Gattis School Rd, Round Rock, TX 78664

JUNE 2017

ISSUED DATE:

SHEET TITLE:

IRRIGATION NOTES

SHEET #

L- 3

03000 GEOTECHNICAL INVESTIGATION

NOTE TO BIDDERS:

The Geotechnical Investigation attached with the Contract Documents and Specifications is intended for general information and is not warranted. The use of information contained in the Geotechnical Investigation for bidding purpose should be done at the Contractor's risk. The Contractor may elect to provide his own Geotechnical Investigation, at his sole expense.

GEOTECHNICAL INVESTIGATION

Proposed Clay Madsen Indoor Recreation Center Round Rock, Texas

Report For

City of Round Rock c/o Spencer Godfrey Architects Attn: Mr. Bo Spencer 1106 South Mays St., Suite 120 Round Rock, Texas 76548

July 30, 1998

Project No. 8170,001

Kohutek Engineering & Testing, Inc.
Geotechnical, Construction Materials
and Environmental

Gordon L. Kohutek, P.E.

President

Kohutek

Section 02011-1

TABLE OF CONTENTS

BACKGROUND

ARCHITECTURAL AND STRUCTURAL ASSUMPTIONS

FIELD INVESTIGATION

SITE TOPOGRAPHY, DRAINAGE AND VEGETATION

SUBSURFACE CONDITIONS AND LOCAL GEOLOGY

CONCLUSIONS

ENGINEERING ANALYSIS

RECOMMENDATIONS - FOUNDATIONS

- 1. Support of Structural Load
- 2 Floor Slab System
- 3 Swimming Pool Recommendations

RECOMMENDATIONS - OTHER CONSIDERATIONS

RECOMMENDATIONS - PAVEMENT THICKNESS

- A Hot Mix Asphaltic Concrete Pavement
- B. Portland Cement Concrete Pavement
- C. General Conditions

SELECT FILL SPECIFICATIONS

COMMON FILL SPECIFICATIONS

QUALITY ASSURANCE CONSIDERATIONS

REFERENCES

LIMITATIONS OF REPORT

APPENDIX A - GEOTECHNICAL DATA

Site Location Map Plan of Borings Log of Borings

APPENDIX B - STANDARD FIELD AND LABORATORY PROCEDURES

GLK ile

j.msoffice labsipts !!



GEOTECHNICAL INVESTIGATION

Proposed Clay Madsen Indoor Recreation Center Round Rock, Texas

MCKGROUND

following.

This report transmits the findings of a geotechnical investigation that was completed at the of the proposed new Clay Madsen Indoor Recreation Center. This site is located to mately two miles east of South Mays on Gattis School Road in Round Rock, Texas. The propose of this investigation was to provide foundation recommendations and pavement thickness to mendations for the proposed facility. Specifically, the study was planned to determine the

- Subsurface stratigraphy at the location of the exploratory borings performed
- 2. Classification, engineering and physical characteristics of the soils encountered at the exploratory boring locations
- Suitable foundation systems and allowable soil bearing pressures
- Where expansive soils were identified, the Potential Vertical Rise (PVR) of each critical soil strata
- Interior floor slab recommendations to accommodate anticipated subgrade movements.
- 6. Pavement thickness recommendations for hot mix asphaltic concrete and Portland cement concrete paving

This study was performed in accordance with authorization on July 10, 1998 by Ms.

Sharon Prete, Director of the Parks and Recreation Department for the City of Round Rock.

Coordination for technical information and design for foundation recommendations was funished by the Project's Architect, Mr Bo Spencer of the firm Spencer Godfrey Architects. No additional analysis was requested or performed. A brief description of the various field and aboratory tests and their respective results is included in the Appendix of this report.

This report has been prepared for the exclusive use of the City of Round Rock at design consultants for specific application to the proposed project in accordance with generated soils and foundation engineering practice. This report is not intended to be use specification or construction contract document, but as a guide and information source to qualified professionals who prepare such documents

ARCHITECTURAL AND STRUCTURAL ASSUMPTIONS

Preliminary concept is for the proposed recreation center to be a single story, stands facility. As of this writing, the size of the proposed structure is approximately 65,000 square in foundation area. It is anticipated that the foundation will be a concrete slab-on-grade writing consisting of steel and concrete masonry units. Typical column loads evened be columns are assumed not to exceed 100 Kips. It is anticipated that the flooring will consequences concrete, vinyl composite tile and some areas possibly carpet.

Pavement thickness is to be developed for light vehicular passenger loads, buses de trucks and fire trucks

If the assumptions concerning the structural loads of the proposed building are note this office should be notified to review the effects it may have on the design recommends submitted herein

FIELD INVESTIGATION

Subsurface soil conditions at the project site were investigated by eight explorations drilled to various depths as indicated on the individual Logs of Borings Six of exploratory borings were completed within the footprint of the proposed recreation center of the exploratory borings were completed within the areas of the proposed driveways parallels.

The specific depth of each exploratory boring that was completed is as shown on enclosed Logs of Boring. The approximate location of these borings are shown on the enclosed.



f Round Rock cordance with atended to be rmation source.

completing the soil borings and recovery of samples The borings were completed by use of a stobile B-53. Water was used during the drilling operations as a drilling aid for coring the mestone Borings were located in the field by procedures as outlined in Appendix B, see appendix B for detailed field and laboratory procedures as applicable)

SITE TOPOGRAPHY, DRAINAGE AND VEGETATION

ately 65,000 squared slab-on-grade n loads exerted flooring will a

In the immediate vicinity of the proposed structure, the topography consists of a relatively flat to gently sloping surface. According to field observations, the overall slope across the site is in the range of one to two percent. Currently, the majority of the site for the proposed recreation center is used as sports field. At the time of this investigation, the site was void of trees with the exception of some random trees along the apparent property lines.

er loads, buses

Based on field observations during this investigation, surface drainage appeared to be

building are messign recommend

SUBSURFACE CONDITIONS AND LOCAL GEOLOGY

The formation underlying the proposed recreation center is geologically known as the buda limestone, Kbu (1, 2) The Buda is the youngest member of the Comanche formation in the urea. In Williamson County, a full section of the Buda ranges from 38 to 47 feet thick. At this location, the upper portions of the Buda formation consists of approximately four-inch thick in layers alternating with thin layers of clay. Layers of clay are on the average two inches thick but occasionally are as thick as eight inches. The clay layers could exhibit some slight expansive characteristics under proper conditions. Weathering has probably produced vertical tonts in the limestone at intervals. The lower intact gray limestone is somewhat nodular and contains small specks and fragments of lime and shell debris. Some of these specks are tempinous and weather to brick-red in spots.

f Borings. So ecreation centersed driveways

ed is as shown

According to the USDA/Soil Conservation Service's Soil Survey for William (3), the soils in the local area are mapped as belonging to the Houston Black clay, soils consists of deep calcareous clays. At the near surface, upper 24 inches, the characteristically dark gray. The liquid limit is typically within the range of 65 to plasticity indices of 40 to 50. With depths greater than 24 inches of the surface, the transition to a grayish-brown to yellowish brown. The Houston Black soils are compossess a very high potential for undergoing significant shrink/swell movements vertical rise values of the order of 4 to 6 inches are not unusual. This potential for usignificant shrink/swell movements will be considered in the following design analysis.

The soils encountered at this site can be summarized as shown below

Table 1. Subsurface Stratigraphy.

Stratum	Thickness (feet)	Description
I	0 to 4 0	Clay, silty, dark gray, CH
II	2.5 to 12.5	Limestone, hard to very hard, tan Kbu

During the field investigation, ground water was not encountered in any of the enborings, see enclosed *Logs of Boring*. However, it should be pointed out that the determinant of ground water gradients and flow quantities was beyond the scope of this investigation upon the stratigraphy encountered, it is believed that the extent of the possibility of ground will be dependent upon the antecedent rainfall. Thus, it may be possible to encounter water during the construction process.

onclusion and ast the depths
il be required
ans and rock sa

Stability

feet, for short peeter excavation
regulations.

Dependin greater than 5 to water actually en

n close proximit
data it is appare
encountered are
which were enco

However analysis beyond t

indices up to 50 conditions and up to the subjected to

ohutek

Kohutek Ingineering & Testing Black clay, Handle inches, the date of 65 to 70 the surface, the soils are consumovements potential for undign analysis.

OW

tion

H

y hard, tan to go

n any of the explaint that the determination is investigation assibility of ground the to encounter a

CONCLUSIONS

the depths of the medium hard limestone. Within the medium hard limestone, more effort the required to complete any excavation, such additional effort may require the use of hoe-

Stability of vertical excavation walls will be generally good to depths of approximately 5 for short periods of time while using common precautionary measures. If personnel are to excavations, these excavations should be braced and shored in accordance with applicable regulations.

Depending upon antecedent rainfall conditions, ground water is possible in excavations region than 5 to 7 feet below the existing ground surface or pier holes. The amount of ground surfactually encountered will be dependent upon the preceding rainfall.

According to published literature (4, 5), if the in-situ moisture content is close proximity to the plastic limit, the soil is over-consolidated. By examining the laboratory that it is apparent that this condition prevails. Thus, it is concluded that the natural soils countered are over-consolidated. For over-consolidated soils of the characteristics of that were encountered, settlement potential of the natural soils delineated in this report for light statutes may be categorized as negligible

However, heavy structures or structures more than three stories in height will require

The Houston soils encountered at this project site exhibited plasticity up to 59 The potential vertical rise (PVR) (6) of this soil profile, for both in-situ tions and under the anticipated loads, calculated by the Texas Department of Transportation and TEX-124-E is as shown in Table 2. Summarizing, the expected PVR for these soils subjected to the anticipated building loads will vary from 2.4 to 3.0 inches

Table 2. Summary of Potential Vertical Rise.

	Potential Vertical Rise, inches		
Boring	in-situ conditions	with building	
B-1	2.4	18	
B-2	1.2	11	
B-3	12	11	
B-4	3 0	26	
B-5	1 2	1.1	
B-6	1 2	11	

Thus, the potential for disruptive foundation movements due to the Houston solution categorized as moderately severe. However, this plastic clay must be respected for detrimental shrink/swell behavior, and will be considered in the final foundation recomme

Safe Bearing Capacity On this site, the structural loads may be supported by drilled shaft concrete piers. These piers should be founded at a minimum of 3-foot penetration medium hard, gray Buda limestone. A safe end bearing pressure of 15 tons per square TSF, can be used in this stratum

Shallow footings, which may be strip, round or square, established a minimum inches below present ground surface and six inches into the natural clay may be sized using bearing pressure of 3,500 pounds per square foot, PSF

As an alternative, the grade beams may bear directly in the select fill pad. In this a safe bearing pressure for footings, which may be strip, square, beam or round, established select underslab fill may be sized for an allowable bearing pressure of 4,000 PSF.

Howel

pearing the fo

Safe t

foundation sc

volumetric cl

ENGINEER

In orc

epansive cla

changes. Soi

han 50, plast

limit. The m

moisture con

wells. Like

decrease, or

soils. The m

well moven

vestigation

Whe

structure mi

deflection th

he intended

mount of

oundation (

Cohute

- 6 -Section 02011-8

However, it is recommended that caution be exercised by the design engineers when the foundation partially in natural limestone and partially in select fill It is recommended tat all of the various foundation elements bear within identical material

Safe bearing pressures as given above are for ensuring against shear failure of the moderation soil immediately below the footings and do not account for possible long term changes, such as swelling or settlement which could contribute to foundation ovements. Such phenomena must be considered in the design approach

NGINEERING ANALYSIS

In order to design a foundation to withstand the shrink-swell movements of a moderately coansive clay subgrade, it is necessary to quantify the potential of the soil to exhibit volume changes. Soils that are most likely to exhibit appreciable swell are clays with liquid limits greater than 50, plasticity indices greater than 30 and the natural moisture content at or below the plastic The most frequent cause for clay soils to exhibit a change in its volume is a change in its moisture condition. Thus, as the clay soil increases in moisture content, it increases in volume or swells. Likewise, as the moisture content of the clay soil decreases, the volume will likewise decrease, or shrinks. There are several methods for predicting the expansive potential of clay The most frequently used method in this locale for quantifying a soil's potential for shrinkmovements is the potential vertical rise, PVR (6) This method was utilized during this investigation.

When examining the various methods of predicting swell potential, the intended use of the snicture must first be considered According to the Standard Building Code, the amount of delection that a foundation is permitted to experience depends upon the class of structure Thus. the intended use of a structure will dictate to a certain degree the analysis required to predict the amount of potential swelling that a certain soil may experience in relation to the amount of foundation deflection that is allowable

- 7 -

d In this sing i, established

ches

building

1.8

11

1.1

2.6

1.1

1.1

ouston soils

spected for

n recommend

d by drilled

penetration

is per square

a minimum

e sized using

E

For a moderately severe expansive clay site, such as the subject site, the necessity owner to be involved in quantifying the degree of foundation movement that will be accompanied as a successful design. The owner's performance expectations combined as the subject site, the most stable foundation system and thus exhibiting the least amount of discontinuous movement would be a suspended slab and grade beam system suspended from contact underlying soil. However, this type of pier and beam foundation will be more costly to the than the conventional slab on ground. Thus, the final selection of the foundation system require the owner to evaluate his performance expectations with the economics of constant.

Discussed in the subsequent sections of this report, are specific four recommendations. These systems will perform to acceptable industry standards

RECOMMENDATIONS - FOUNDATIONS

1. Support of Structural Loads

It is our understanding that the proposed structure will be partially composed of block walls exerting maximum column loads of approximately 100 Kips. Due to the capacity of the underlying soils and the size of the vertical downward column loads recommended that drilled straight shaft concrete piers, rather than shallow spread footing used. It is recommended that straight shaft concrete piers be founded a minimum of three into the medium hard, gray Buda limestone. Bearing within this stratum, an allowed bearing pressure of 15 TSF may be used in sizing the piers. With a minimum penetration foot into this stratum, a skin friction of 2,000 PSF can be utilized. Due to strain incomplete between the overlying soil and the gray Buda limestone, the skin friction developed within the stratum would not be of significant consequence, thus, the shaft resistance in the solution of the should be neglected in computing the total shaft resistance.

Ko

grade

finish

selec

was

2.

foundat

both e

recomn

less tha

the anti

see Tat

0

that will be a pectations composed amount of ed from contact more costly to e foundation some specific formal are specific formal and ards.

Cips Due to the rard column loss llow spread foot minimum of the ratum, an allow imum penetration to strain incompensation developed with stance in the source.

ially composed

2. Floor Slab System.

A soil supported slab on-ground will perform satisfactorily for this structure with a foundation pad as prepared in accordance with these recommendations. This type of slab will be economical and sufficiently stable for a lightly loaded structure. Typically, it is recommended that any soil movements (or potential vertical rise) beneath the slab be limited to the standard of the standard of the slab should be designed sufficiently rigid to withstand the anticipated vertical movements. In order to achieve this, several alternatives were evaluated.

Table 3.

Table 3.
Results of Potential Vertical Rise Calculations.

Option	Underslab Fill Condition	Potential Vertical Rise, inches	Equivalent Design PI (7)
1	in-situ conditions with structural load	2 6	38
2	remove 24" & replace with 30" select fill	15	31
3	remove 42" & replace with 48" select fill	1 1	28
4	remove 54" & replace with 60" select fill	1 0	26

With a pad constructed with the select fill as described above for Option 4, a Type B slabgrade as described in ACI 360 may be utilized for the recreation center. The concrete slab-onrade should be supported by this 60 inch select fill pad. Additional fill required to achieve
fill as encountered in the exploratory borings completed for this investigation, limestone
secountered at depths of 2.5 to 4.0 feet below the existing ground surface in five borings.

Thus, it is recommended that the clay in the areas of these borings be removed by encountering limestone or to the recommended depth of Option 4 whichever is Latter recommendations as contained in this report should likewise be designed for, Recommendations - Construction Procedures. For design of the slab-on-grade for the Hy select pad. a modulus of subgrade reaction, k, of 400 pounds/cubic inch (pci) may be use sures be value is based upon assumptive data for the materials that are most likely to be used (8)

3. Swimming Pool Recommendations.

It is our understanding that the swimming pool is to be constructed on the interaction four pe recreation center. For this analysis, the maximum pool depth is assumed to be 10 feet to 100 p existing ground surface If greater depths are to be constructed, the geotechnical engine still wo be contacted to verify that these recommendations are valid for the actual design

The pool floor may be a rigid mat slab-on-grade. An allowable bearing pressure to a pounds per square foot may be used for sizing structural members founded within a widing p stratum encountered at a depth of 10-feet. The rigid mat slab should bear directly on added to minimum of twelve inches of select fill if founded directly on limestone O cked for recommendations as given in Option 4 should be incorporated into the design Theta should be placed and constructed in accordance with the recommendations provide cavation following sections entitled General Recommendations - Other Considerations and Sections Specifications section of this report

The placement of the select fill should extend a minimum of two feet be foundation elements of the pool The subgrade preparation and select fill should be according to the enclosed construction recommendations. Additional fill required finished floor elevations under the foundation should likewise meet these specifications.

Assuming that the subsurface walls of the pool will be rigid and no movement all at-rest horizontal earth pressure condition, Ko, may be used to determine the horizontal

> - 10 -Section 02011-12

Kohutek

an equiva

Surc

A fr

commoda

ds, etc.

ould be r

Ar

thin the

eter, alle

merburder

An

ic foot

(pci) may be use y to be used as

gs be removed by the retained material on the subsurface vertical walls. If a free draining granular whichever is least two feet in width is provided, a horizontal earth pressure coefficient of $K_0 = 0.50$ signed for, see an equivalent fluid pressure of 62 5 pounds per square foot per foot of depth may be used for on-grade for the Hydrostatic pressures should be added to the above recommended horizontal earth below the static water level

> Surcharge loads should be added to the aforementioned fluid pressures in order to commodate surface loads such as construction equipment and materials, adjacent building loads, etc.

A free draining granular backfill, as previously recommended, should consist of no more ted on the interpretation percent passing the No 200 sieve. This granular backfill should be compacted to within I to be 10 feet \$100 percent of its maximum relative density as determined by ASTM D 4253 Acceptable technical engine would be concrete fine aggregate conforming to ASTM C 33 The granular backfill and be provided with a positive means of removing all buildup of ground water. A system pearing pressure to a French drain conveyed to daylight would perform satisfactorily. If a means of unded within the wording positive removal of ground water is not constructed, then hydrostatic pressure should near directly on the added to the recommended horizontal earth pressures. Additionally, the structure should be limestone Observed for buoyant hydrostatic uplift forces for conditions when the pool is empty

design The A retention system that is commonly used during the excavation phase for this type of dations provided scavation is a braced bulkhead type of retention system. This concept will allow excavation erations and see thin the retention system without obstruction from braces and struts and allow passage of alleviating hydrostatic pressures behind the retention system Tiebacks within the f two feet be feet

> An equivalent fluid pressure, under active earth pressure conditions, of 50 pounds per the foot may be used for design purposes within the overburden soils for the retention system.

design

fill should be pecifications. movement allow the horizontal

RECOMMENDATIONS - OTHER CONSIDERATIONS

The following information has been assimilated after examination of numerous dealing with similar subsurface conditions throughout the area. It is presented here convenience. If these features are incorporated in the overall design of the proper performance of the proposed structure will be improved.

Prior to placing any fill material, all existing surface vegetation should be remominimum depth of 6 inches. Depending upon the selected option for design of the flow greater depth of excavation may be required. All exposed subgrade should then be compared a minimum of 95 percent of the maximum dry density and no more than 100 percent maximum dry density as defined in ASTM D 698. At the time of compaction the content of the subgrade shall be adjusted to and maintained between its optimum moisture to no more than 4 percentage points above optimum.

In the event that additional fill is required to achieve subgrade elevation be building pad, additional fill may be composed of material meeting the enclosed item entitled. Fill Specifications. Materials to be used as select fill should be evaluated and approved Geotechnical Engineer prior to placement. Fills should be compacted in lifts not except inches after compaction and be compacted as described in the Select Fill Specifications. Control should be in accordance of the enclosed section entitled Quality Accountries. Each lift should be inspected and tested by a qualified geotechnical encept technician, supervised by the Geotechnical Engineer before the next lift is placed.

General site grading outside the foundation pad line as previously described, may of materials meeting the requirements of *Common Fill Specifications* Structural improsphall not be constructed bearing over the Common Fill. The materials proposed for placement locations shall be submitted to and approved by the Geotechnical Engineer their incorporation into the project. It is essential that any general site grading be controlled the quality of material placed and the quality of placement technique. The future expensions should be considered in designating areas where common fill is to be placed.

- 12 -Section 02011-14

Kohutek

is too den
loose or to
several inc
processed
pavement.
similar to
recommen
over trenc
conform 1
pavements

the slab the draining covapor bar gravel, or 2 percent

beams/wa movemen the horizo free drain coefficien

In

vertical b

depth ma

arrest 0

Kohu

of numerous presented here in of the pro-

ign of the floor
i then be compand an 100 percent
impaction the
imum moisture

elevation benefit

d and approved lifts not exceed pecifications.

Quality Assertechnical engage laced described, may be ructural improposed for usual Engineer period in the future expenses to expense placed.

Backfill for utility lines should be carefully placed so that it will be stable. If clay backfill is too dense or too dry, swelling may form a mound along the ditch line. If the backfill is too too wet, settlement may form a sink along the ditch line. Either case is undesirable since werl inches of movement is possible and floor cracks are likely to result. The soils should be processed using the previously discussed compaction criteria. Where the utility lines pass beneath prement, the top 18 inches of the trench should be backfilled utilizing a crushed limestone base milar to TxDOT Item 247. Type A/Grade 2. Compaction should conform to that as recommended in the section enclosed in this report concerning pavements. The final surfacing over trenches should conform to the type of materials of other pavement areas of the project and conform to the recommendations as given in subsequent sections of this report concerning pavements.

A 6 mil vapor barrier should be placed under the entire concrete slab area. In areas where the slab thickness will be greater than 6 inches but less than 10 inches in thickness, a layer of self-draining capillary rock should be placed immediately below the slab and immediately above the tapor barrier. The capillary rock should consist of clean, crushed nonporous rock, crushed travel, or uncrushed gravel. The maximum particle size should be 1-1/2 inches and no more than a percent by weight should pass the no. 4 size sieve.

In areas where there will be a drop in the finish floor elevation greater than 12 inches and $\frac{12}{100}$ such and $\frac{12}{100}$ inches, the effects of earth pressures should be considered in the design of such grade $\frac{12}{100}$ than 60 inches, the effects of earth pressures should be considered in the design of such grade $\frac{12}{100}$ than 60 inches, the effects of earth pressures should be considered in the design of such grade $\frac{12}{100}$ and $\frac{12}{100}$ than $\frac{12}{100$

Churck

- 13 -Section 02011-15 on the up-grade side of the beam. This will minimize the possibility of any ground water through the concrete and into the constructed facility, see detail

Surcharge loads should be added to the aforementioned fluid pressures in accommodate surface loads such as construction equipment and materials, adjacent structural loads, etc

In the event that a deep beam section or drop in slab finish floor elevation in encinches is required due to site grading, the Geotechnical Engineer should be contacted to if additional analysis is required to consider the effects of the foundation elements on the of the cross-slope. Additionally, in areas of deep beam sections, the potential of hydropressures and the appropriate dewatering techniques should be considered on a case situation.

The floor slab should be a minimum of 4 5 inches thick and be provided with reinforcing to control shrinkage cracking to an acceptable limit, see ACI 224, 302 and 3 concrete should contain a minimum of 5 0 sacks of cement per cubic yard and develops compressive strength of 3,500 PSI. Fly ash may be substituted for up to a maximum percent, weight basis, of the cement content. All concrete placed in the foundation should sufficient air entraining agent such that a minimum of five percent entrained air will be solved in the content of the provisions of ACI Practices 211, 302, 304, 318, other applicable practice codes should be followed in designing the foundation.

The slab concrete is to be placed monolithically with any stiffening beams. All to be approved by the structural engineer prior to commencement of the concrete pour should be separated from column plinths by expansion joints

Drainage should be maintained away from the foundations, both during construction. Trees and large shrubs can, by transpiration, remove water from the up and cause shrinkage of these soils and settlement of the floor slabs. Therefore, any shrub planted for landscaping should be located at least one and one-half their anticipated management of the structures.

all times to
to or below
The

storm wate

Do

differential away from

sides. Wate

Parl

The

decibility st used in mas walls are sla

Prio
review the p
is recomment
recommende
this report

RECOMM

Pave
concrete (HI
expected to
sealing of cr
that the PCC
the PCC may

ohutek

ground water

pressures in ials, adjacent

evation in economic contacted to the ements on the tial of hydroxidal evaluation.

ed on a case

and develop a to a maximum ndation should a dair will be about 02, 304, 318. When the control of the control of

from the upper re, any shrubs or icipated mature

beams. All of

ncrete pour

Downspouts or a collector system for roof drains must have provisions for removing water runoff a minimum distance of 10 feet for the structure. Care must be maintained at times to ensure that surface watering or storm water runoff not be allowed to accumulate next not below the proposed structures.

The sidewalks or drive ramps should be doweled to the proposed structure to avoid

The sidewalks or drive ramps should be doweled to the proposed structure to avoid

They should be sloped away from the structure so that water will drain

the structure

Parking lots, streets and surface drainage should be sloped away from the structure on all

Water should not be allowed to pond near the structure after the slab has been placed

The design of the superstructure should consider the foundation conditions and some feedbility should be built into the system. Control joints at not over 25 foot spacing should be used in masonry walls, with a wall control joint located at each foundation slab control joint, if walls are slab supported.

Prior to construction, the Geotechnical Engineer should be given the opportunity to review the plans in order to ensure that all recommendations have been properly implemented. It recommended that the foundation construction be inspected by the Geotechnical Engineer to ensure that the bearing soils, pads and various foundation elements are properly constructed. A recommended schedule of quality assurance considerations is enclosed in a following section of this report.

ECOMMENDATIONS - PAVEMENT THICKNESS

Pavement thickness recommendations have been developed for both hot mix asphaltic concrete (HMAC) and Portland cement concrete (PCC) paving. Both pavement systems can be specied to perform equally if periodic maintenance is performed. Such maintenance may entail a soft cracks and patching of potholes if they should develop. It can normally be expected to be performed by the PCC paving will have a greater first cost at construction. However, the total life cost for may reasonably be expected to be less than the total life cost of the HMAC. Normally, it

can be expected that the HMAC pavement system will require more maintenance during life than the PCC. This economic evaluation should be evaluated by the owner construction.

A. Hot Mix Asphaltic Concrete Pavement.

- Subgrade and Foundation Soil Preparation
 - a Strip and remove from construction area any top soil, organics and vegetal minimum depth of six inches below the existing natural ground surface.
 - b Scarify and recompact the subgrade under controlled density procedures to to of six inches. Compaction of the subgrade shall be to a minimum of 95 per ASTM D 698. The subgrade should be within three percentage points of or moisture at time of compaction.
 - Specifications Placement and compaction should likewise conform be specification. Spoil material not meeting this specification should not be within the limits of any pavements

E

by the owner

und surface ty procedures to a inimum of 95 per

ewise conform

Base Course

- Base material shall be Type A or B. Grade 2 or better, according to the Texas Department of Transportation, TxDOT, Specification Item 247
- Thickness of the base course should be a minimum of eight inches in areas subjected to light vehicular traffic. Entry drives and areas of channelized heavy vehicles, such as buses or fire trucks, should utilize 10 inches of base course.
- Base course compaction should be 100 percent of TxDOT TEX -113-E Density control by means of field density determinations shall be exercised. The base course should be within two percentage points of optimum moisture at time of compaction
- d After compaction, testing and curing of the base material, the surface should be primed using a MC-30 prime coat

Surfacing

Surfacing shall consist of hot-mix asphaltic concrete (HMAC) meeting the requirement of Item 340, Type "D" of the TxDOT Standard Specifications. The HMAC shall be compacted to a minimum of 95 percent of laboratory molded specimen as determined by TxDOT test method TEX-207-F. This shall be verified by coring of the HMAC surface subsequent to the paving operations. Thickness of the HMAC should be a minimum of 1.5 inches in areas subjected to light vehicular traffic. Entry drives and areas of channelized heavy vehicles, such as buses or fire trucks, should utilize 2.0 inches of HMAC.

B. Portland Cement Concrete Pavement.

- Subgrade and Foundation Soil Preparation Subgrade supporting PCC pave be prepared as recommended above for HMAC pavements
- 2 Base Course
 - Base material shall meet the specifications outlined by TxD01.

 Specifications Item 247, Type A, Grade 2 or better
 - b Thickness of the base course shall be as shown in Table 4
 - determined by TxDOT test method TEX-113-E. The moisture compaction shall be maintained within 2 percent of optimum moisture.

 Density control by means of field density determination shall be exercised.
- Concrete paving shall consist of thicknesses as given in Table 4, below. The conpaving should develop a 7-day flexural strength of 555 PSI (TxDOT test method 415A). The concrete shall meet the requirements for Item 360, Concrete Pavement TxDOT's Standard Specifications. Reinforcing should consist of a minimum of reinforcing bars on 14-inch OCEW, 40 KSI centered in the slab. Control joints should a spaced no greater than 20 feet on centers each way. The reinforcing steel should a continuous through the joints. Full slip doweled expansion joints with bituminous freed wood filler should be installed at contact with fixed structures and at control joints.

Recommended pavement thickness for the various paved areas utilizing Portland cement are tabulated as follows

Kohutek

- 18 -Section 02011-20 Kohui

PCC CLB

Subg

Sho

of t

SUC

bef

See

Ge

PC

suc

mo

C. Gener

Table 4.
Portland Cement Concrete Pavement Thickness

g PCC paven

Traffic Loading	PCC ¹	CLB ²	Subgrade ³
Light Vehicle Parking	5.0		6.0
Heavy duty areas	7.0	5.0	6.0

by TxDOT

(all units are in inches)

PCC - Portland cement concrete

CLB - Crushed limestone base

Subgrade - minimum prepared thickness shown

m laboratory denoisture content mum moisture content mum moisture le low. The concent of the content mum denoisture le low. The concent of a minimum denoisture le low. The concent mum denoiste le low. The concent le low. The co

id at control ions

tland cement con

C. General Conditions.

Should at any stage in the construction of the pavement a non-stable or weaving condition of the subgrade or base course is noted under the wheel loads of construction equipment, such areas should be delineated and the Geotechnical Engineer consulted for remediation before completing the pavement section

Seepage areas or unusual foundation soil conditions should be similarly brought to the Geotechnical Engineer's attention before proceeding with pavement completion

PCC paving should be used in the vicinity of trash dumpster loading areas The limits of such PCC should consider the braking action of the trash truck and any subsequent turning movements of such truck

SELECT FILL SPECIFICATIONS

- 1 GENERAL Select fill, if called for on the plans, shall be placed over compacted foundation soil to the dimensions shown on the plans
- 2 MATERIAL Select fill material shall be composed of hard durable particles of crushed stone and shall meet the following criteria

A Gradation shall be as follows

Sieve Size	Percent Finer by Weight
1-1/4"	100
1"	95 - 100
3/4"	70 - 100
3/8"	30 - 95
No 4	30 - 80
No 40	15 - 70

B Material passing the No 40 sieve shall meet the following

Max. PI	Min. PI
15	3

- C Maximum liquid limit of the minus #40 material shall be 35
- D No organic matter is permitted
- PLACEMENT AND COMPACTION Stump holes or other small excavations limits of the fill shall be backfilled with suitable material and thoroughly tamped by methods before commencing embankment construction. If the surface is roughened by washes or otherwise, it shall be restored to approximately its original slope by blading methods.

Top soil and vegetation shall be stripped within the area to receive fill to a minimum of six inches. More soil may be required to be removed if indicated on plans. The subgrable compacted as stated in this report and approved by the Geotechnical Engineer placement of the select fill.

Trees, stumps, roots, vegetation, or other unsuitable materials shall not be place fill

Compaction should be to a minimum of 95 percent of maximum laboratory determined in accordance with ASTM D 698. The material should be within two points of optimum moisture at time of compaction

- 20 -

Section 02011-22

Place A should t

After the required the over six on 2 slop and exceed

inspecte

Kohutek

ohutel

be placed

placement should be in lifts not exceeding six inches after compaction. Each compacted be inspected and tested for density compliance prior to placing the next lift.

rable particles

After completion, not less than plan thickness of select, compacted fill as herein specified beneath any portion of the foundation, even if additional excavation of existing ground to meet this requirement. The fill area should extend at least 24 inches (36 inches on the six feet in height) beyond the foundation line before sloping downward on not more than a slope to natural soil. Backslopes shall be well-compacted. Maximum fill heights should be accepted the feet without engineering consultation.

eight

INSPECTION, TESTING AND CONTROL. A 100 lb. sample of proposed fill should be submitted to the Engineer for approval and for determination of Moisture-posty Relationship, at least seven days in advance of placement. Fill placement operations will inspected and tested for uniformity, acceptable material and field densities, at the Engineer's

small excavations ly tamped by is roughened to ope by blading or

ns The subgrade ical Engineer

Il not be placed

ım laboratory

Cohutek

- 21 -Section 02011-23

COMMON FILL SPECIFICATIONS

- A Selection of on-site fill material shall be guided by the following criteria
 - The material shall not contain any rocks having a maximum dimension six inches
 - The material shall have at least 50 percent passing the no 4 sieve The liquid limit of the material passing the no 40 sieve shall 45 and have index less than 28
 - The material shall be reasonably free of roots, trash, concrete rubble organic material
- B Compaction shall be to 95 percent of maximum laboratory density decordance with ASTM D 698. The material shall be within 3 percentage proprimum moisture during compaction
- Placement shall be in lifts not exceeding eight inches after compaction Each or lift should be inspected and/or tested for density compliance by the Geotechnical prior to placing the next lift. The fill area should extend at least 24 inches (36 fills over six feet in height) beyond the back of curb or foundation line before downward on not more than 1 on 2 slope to natural soil. Backslopes shall compacted. Maximum fill heights should not exceed ten feet without exceeding eight inches after compaction. Each or lift should be inspected and/or tested for density compliance by the Geotechnical prior to placing the next lift. The fill area should extend at least 24 inches (36 fills over six feet in height) beyond the back of curb or foundation line before downward on not more than 1 on 2 slope to natural soil. Backslopes shall compacted. Maximum fill heights should not exceed ten feet without exceeding eight inches after compaction.
- Testing and Certification of the on-site fill material shall be performed by the General Engineer A 50 lb sample of the proposed material shall be submitted to the General Engineer for approval and determination of a moisture-density relationship in the fill and compaction operations in order to permit inspection and testing as a placed. Fill placement will be inspected and tested for uniformity, acceptable material densities at the rate of one per density per 5,000 square feet per lift (a minute per lift per pad).
- Deviations from the above specifications may be permitted upon approval for Geotechnical Engineer

Kohutek

- 22 -Section 02011-24

General Earth

Perible Base

John

QUALITY ASSURANCE CONSIDERATIONS

-11	AF	2
		ıa

n dimension gree

4 sieve The made 45 and have a page 45

ncrete rubble

density determined

Geotechnical F 4 inches (36 maion line before kslopes shall be t without engage

ed by the George ed to the George tionship in adme d testing as the cceptable material per lift (a minimal

n approval from

TYPE OF WORK	ITEM	SAMPLE FREQUENCY	SAMPLE SIZE	MINIMUM TESTING
General Earthwork and Fill	Soil Material	1 per soil Type	50 lbs	-Gradation -P I -Moisture-Density Relationship
	Compaction	1 per 5000 sq.ft. per lift (min. of 3 per lift)	- 14	Field Density Test
Flexible Base	Base Material	1 per type per 1000 cu. yds.	50 lbs	-sieve -P I -Moisture-Density
	Compaction	1 per 5000 sq.ft per lift (min of 3 per lift)		Field Density Test
Hot Mix Paving	Job Mix Formula	l per HMAC Type		Review and Approval
	Cold Aggregate	Weekly	50 lbs	Sieve, Sand Equivalent and Examination
	Asphalt	Each transport delivery	1 qt	As required
	Uncompacted Mix	2 Daily	35 lbs	Extraction, Density, Stability
	Compacted Mix on Job	1 per 1000 sq. yds. or 3 daily whichever is more		Field Density (Nuclear is permitted)

TYPE OF WORK	ITEM	SAMPLE FREQUENCY	SAMPLE SIZE	MINI	TYPE OF W
Concrete	Mix Design	l per concrete class		approvaconfirm cylinder - Plant & approvacquestion	Steel Inclusion
	Aggregates (coarse & fine)	1 per 500 cu yd . min 1 per job	50 lbs	Sieve, on impuriting gravity	Qualatto
	Cement	l per 100 cu yds. 10 lbs min l per job		-fineness -chemical compoun -see mill	
	Concrete Placement	1 per 50 cu yds or each days pour if less		-slump -air test -5 comp cylinder to 2 at 7 day 28 day, 1	
Welded Steel Inspection	All of Welds at shop & field				
	Qualifications of Welders	Each		Observe and for required positions	
	X-ray welds or Ultra-Sonic Testing of Welds			-all bendingsections -20% of a welds	

E	MININ
	approval confirmation cylinders -Plant & approval question
	Sieve, or impurities gravity
221	-fineness -chemical compound -see mill rep
	-slump -air test -5 compress cylinder test 2 at 7 days 1 28 day, 1 hol
	Observe and for required positions
	-all bending sections -20% of all welds

Kohutek

TYPE OF WORK	ITEM	SAMPLE FREQUENCY	SAMPLE SIZE	MINIMUM TESTING
Bolted Steel	Torque Test	10% 50% 100%	32-1943.27	-of all bolts on job -of all shear conn -visually inspect
A Steel Including	Material	Per Lot		See Mill Report
Foundation	Reinforcing beams and concrete	Each Pour		Qualified inspector
	Drilled Piers	Each		Qualified inspector

REFERENCES

- 1 "Geologic Atlas of Texas, Austin Sheet", Bureau of Economic Geology, Austin 1974
- "The Geology of Texas, Volume I, Strattgraphy", The University of Texas Bu 3232. August 22, 1932, The University of Texas, Austin, Texas, 1981
- 3 "Soil Survey of Williamson County, Texas", USDA/Soil Conservation Washington, D.C., January 1983
- Bowles, Joseph E. "Foundation Analysis and Design", second edition, McBook Company, New York, New York, 1977
- Sowers, George F, "Introductory Soil Mechanics and Foundations: Geo-Engineering", fourth edition, MacMillan Publishing Co., Inc., New York, No. 1979
- 6 "Method for Determining the Potential Vertical Rise, PIR, Tex-124-E", Vo. Manual of Testing Procedures, Texas Department of Transportation, Austin, Texas
- 7 "Criteria for Selection and Design of Residential Slabs-on-Ground", Building & Advisory Board, U.S. Department of Commerce, Washington, D.C., 1968
- 8 Ringo, B C and Robert B Anderson, "Designing Floor Slabs (In Grade, Edition, The Aberdeen Group, Addison, Illinois, 1996

Cond

molied, and

or others de

porings. The

hown in this

warranty is

data.

INITATIONS OF REPORT

Conditions of the site at locations other than the boring locations are not expressed or and conditions may be different at different times from the time of borings Contractors or others desiring more complete information are advised to secure their own supplemental The analysis and recommendations contained herein are based on the available data as this report and the writer's professional expertise, experience and training, and no other arranty is expressed or implied concerning the satisfactory use of these recommendations or data

Geology, Aug

idations: George lew York, New

of Texas Bull

Conservation

l edition, McGa

981

"ex-124-E", Von, Austin, Texas

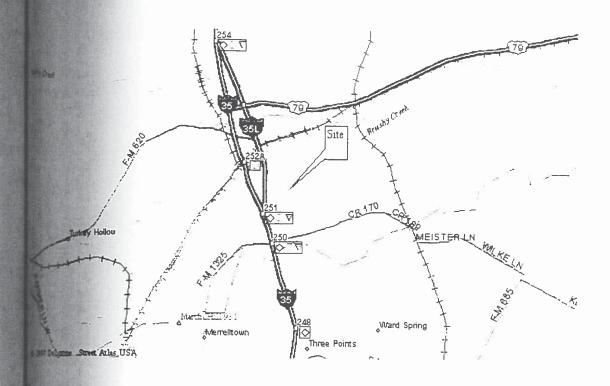
"id", Building Res 1968

On Grade

8170001 doc

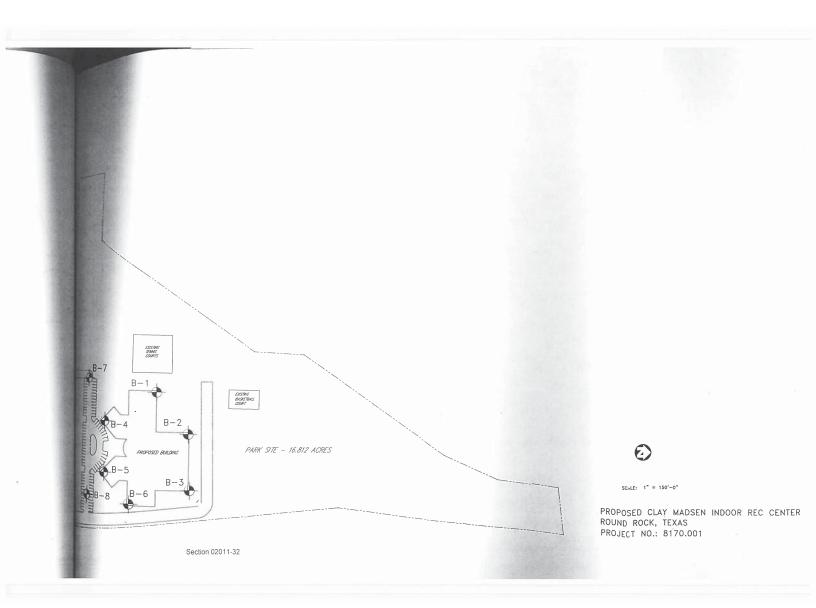
APPENDIX A GEOTECHNICAL DATA





Site Location Map

Proposed Clay Madsen Indoor Recreation Center Round Rock, Texas Project No. 8170,001



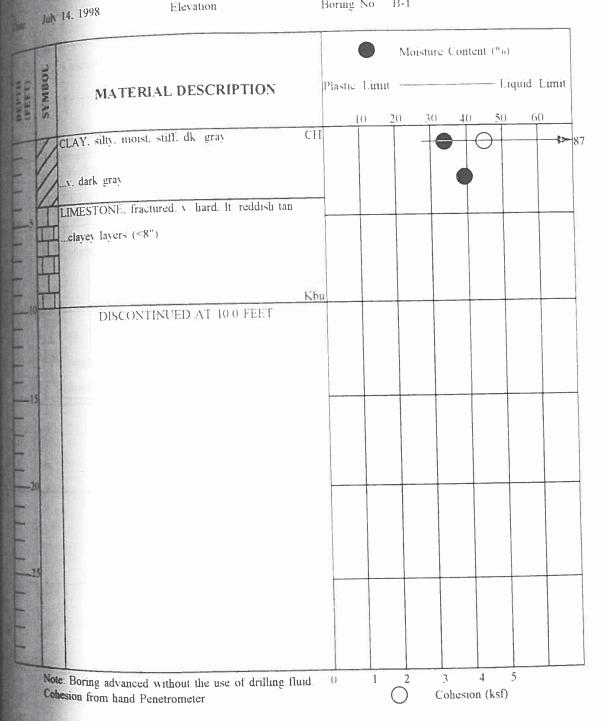
Can Madsen Indoor Recreation Center

Project No. 8170 001

Round Rock. Texas

Elevation

Boring No B-1



Section 02011-33

Clay Madsen Indoor Recreation Center Project No 8170 001 Round Rock, Texas Date July 14: 1998 Elevation Boring No. Moisture Content SYMBOL DEPTH (FEET) MATERIAL DESCRIPTION Plastic Limit CLAY, silty, some limestone particles (<3.4"). dry, v hard, gray more limestone particles, dry. It gray LIMESTONE, fractured, med hard reddish tan bard med hard v hard, gray Kbu DISCONTINUED AT 150 FEET -2()



Note Boring advanced without the use of drilling fluid

Cohesion from hand Penetrometer

Cohesion (ksf)

0.001	Clay Madsen Indoor Recreation Center Round Rock, Texas	Project No. 8170 001
	July 14, 1998 . Elevation	Boring No B-3
nsture Content (%)	TO T	Moisture Content (0 n)
	MATERIAL DESCRIPTION	Plastic Lumit — Liquid Lumit
30 40 0	CLAY, silty, some limestone particles (<1"). dry, v hard, grayslightly calcareous, more limestone particles v dry, lt gray LIMESTONE, fractured, slightly marly, med tanhard, intact, slightly reddish tanslightly layered (<12") dk tanslightly grayish tanhard, gray DISCONTINUED AT 15 0 FEET	
	E	
3 4 Cohesion (ksf)	Note: Boring advanced without the use of drilling fl Cohesion from hand Penetrometer	0 1 2 3 4 5 Cohesion (ksf)
	Kohutek Section 0201	1-35

Project Clay Madsen Indoor Recreation Center

Project No. 8170 001

Cla Project Round Rock Texas Boring No. July 14, 1998 Hevation Date Jul Moisture Content SYMBOL SYMBOL DEPTH (FEET) Plastic Limit MATERIAL DESCRIPTION 10 FILL claves silty dry v hard dk reddish CH CLAY, silty, some limestone particles (<1.2"). CII dry v hard gray limestone particles (*14"), moist, lt brown HMESTONE, fractured, hard, reddish tan tan hard, gray Kbu DISCONTINUED AT 17.5 FFET Note: Boring advanced without the use of drilling fluid Cohesion (ksf) Cohesion from hand Penetrometer

Kohutek

Section 02011-36

	Round Rock, Texas Date July 14, 1998 Elevation	Boring No B-5				
oisture Content	MATERIAL DESCRIPTION	Moisture Content ("a) Plastic Limit ———————————————————————————————————				
30 40		10 20 30 40 50 60				
• 0	CLAY, silty, damp, v stiff, dk reddish gray	CH				
	LIMESTONE, fractured, hard, lt reddish tan					
	reddish tan					
	v. hard					
	hard, lt tan					
	hard. gray					
	DISCONTINUED AT 150 FEET	Zbu Chu				
3 4 Cohesion (ks)	Note: Boring advanced without the use of drilling fluid	0 1 2 3 4 5 Cohesion (kst)				
	Section 02011-37	*				

8170.001 Project No Clay Madsen Indoor Recreation Center Project Rounc Round Rock: Texas July 1 Boring No 13-6 Hevation July 14, 1998 Date Moisture Content SYMBOL SYMBOL DEPTH (FEET) Plastic Limit MATERIAL DESCRIPTION CH CLAY, silty, minute limestone particles, dry, hard, gray LIMESTONE fractured hard it tan slightly reddish tan v hard y hard, gray Kbu DISCONTINUED AT 150 FEET Note: Cohesi Note Boring advanced without the use of drilling fluid Cohesion (ksf) Cohesion from hand Penetrometer

Section 02011-38

Clay

Project No. 817(1001

Clay Madsen Indoor Recreation Center

70.001

Round Rock Texas July 14, 1998 Llevation Boring No 13-7 forsture Content of Moisture Content (%) MATERIAL DESCRIPTION Plastic Limit -- Liquid Limit CLAY, silty, some limestone particles (<3/4"). CH dry, v. hard, gray .more limestone particles, v dry, lt gray LIMESTONE, hard, slightly fractured, lt. reddish tan Kbu DISCONTINUED AT 60 FEET Note: Boring advanced without the use of drilling fluid 4 Cohesion from hand Penetrometer. Cohesion (ks) Cohesion (ksf) Section 02011-39

Project No. 8170 001 Clay Madsen Indoor Recreation Center Round Rock, Texas Date July 14, 1998 Hevation Boring No B-8 Moisture Content (%) SYMBOL DEPTH (FEET) Plastic Limit -MATERIAL DESCRIPTION LAY, silty, some limestone particles (*1.2"). dry v hard gray IMI STONE, slightly fractured, med hard, v hard, slightly reddish tan Kbu DISCONTINUED AT 6.0 FEET

Kohutek

Section 02011-40

Note Boring advanced without the use of drilling fluid

Cohesion from hand Penetrometer

4

Cohesion (ksf)

		A	KEY T	O SOIL CLASS	IFICATIO	NS & SYN	180	LS	
	UNIFIED SOILS CLASSIFICATION SYSTEM					TERMS			
	UNIT ICO	iter	Symbol	Name		CHARACTE	RIZIN	IG SOILSIE	
001		g w		Well-graded gravels or mixtures, little or no f		weakness that are slick and glossy			
	THE RESERVE OF THE PARTY OF THE	G P	0000	Poorly-graded gravels mixtures, little or no f					
	BRAVELLY (G M.	0 1 0 D	Silty gravels, gravel-s mixtures	usually more or less vertical. LAMINATED (VARVED)-composed of thin layers of varying color and texture, usually grading from sand or silt at the bottom to clay at the top.				
isture Content		GC	1/2	Clayey gravels, gravel mixtures					
		sw	浸油	Well-groded sands or sands, little or no fin	gravelly				
30 40	SAND	SP		Poorly-graded sands or gravelly sands, little or no fines		CALCAREOUS - containing appreciable quantities of calcium carbonate, generally nodular.			
30 40	CANTLY	s M	到時	Silty sands, sand-silt mixtures					
		sc	17	Clayey sands, sand-c	lay mixtures	STANDAI	RD ABBREVIATIONS		
	SILTS	ML		Inorganic silts and very flour, silty or clayey fine clayey silts with slight i	sands or	Meda MEDIUM	1	Brn. BROWN	
	AND	CL		Inorganic clays of low plasticity, gravelly clay clays, silty clays, lean	rs. sandy	1	ERED	ILY DK. DARK IRED L1. LIGHT INOUS Yel. YELLOW RED IBIK, BLACK IOT. ORANGE	
	L (50	OL		Organic silts and organ of low plasticity	nic silt-clays		RED		
	SETS	мн		Inorganic silts, micaceo diatomaceous fine, so soils, elastic silts		silty Ls. LIMESTO		27.581	
	AND CLAYS	СН		Inorganic clays of hig fat clays	h plasticity,	Ang. ANGULA		1074 - 670	
	L >50	он	Organic clays of med plasticity, organic sil			Chiky, CHALKY Chity, CHERTY			
	HIGHLY ORGANIC SOILS	P:		Peat and other highly	y organic soils		En 10		
	LIMEST	ONE		WEATHERED	TERMS DESCRIBING CONSISTENCY OF SOILS			NCY OF SOILS(Z	
	LIMESTONE				COARSE GRAINED SOILS				
	CLAYSTONE OR SANDSTONE				DESCRIPTIVE TERM		NO. BLOWS/FT -S PT		
	SILISI	SILTSTONE				VERY LOOSE LOOSE		4 - 10	
	SHALE SHALE IGNEOUS ROCK		FIRM (medium) DENSE VERY DENSE		10 - 30 30 - 50 over 50				
	SYMBOLS FOR TEST DATA								
	CTABO	SIMBULS FOR TEST DATA			SHALE, LIMESTONE, CLA				
	La Liquid Limit Pw = Plastic Limit					IVE TERM	STR	RENGTH - TONS / SQ.FT	
	4 *95-Dry unit weight in Ibs./cu ft.		SOFT			4 - 8			
	SCR-Standard Core Recovery				MED HARD		8 - 15 15 - 50		
	RO1 - Rock Quality Index			HARD VERY HARD			over 50		
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				72/(1)	FINE GRAINED SOILS		SOILS		
	30% FINER-Percent finer than No. 200 mesh sieve. N=30-Number of blows per foot, standard Penetration test (50-7)				DESCRIPTIVE T	L NO BLOWE /		UNCONFINED COMPRESSION TONS / SQ. FT	
	TMD:30-Number of his Toronto		. fort Trong Wishman	VERY SOFT	<2 2-4		(0.25 0.25 - 0.50		
	The state of the s	one h	enetrome	ter Tests	PLASTIC (med :	#iff) 4 - 8 E - 15		1.00 - 2.00	
3 4 5	Y-Ground W				VERY STIFF	15 - 30 over 30		2.00 - 4.00 over 4.00	
Cohesion (ksf)	2-From Soil Me	chanics	iment Static Engineering	n Technical Memorandum Practice" by Terzachi	No. 3-357 and Peck				

Kohutek

APPENDIX B

STANDARD FIELD AND LABORATORY PROCEDURES

Kohutek

Section 02011-42

STAND

Drilling

locations surface

roposed

the driller of each b

actual bo represent

or solid s of soil ar pastic ba payethyle depth and

Standard

ten disca

Thusing a 14 maches in hows required to the sixtence of the si

Na-Wa

The soils 1

ohut

STANDARD FIELD AND LABORATORY PROCEDURES

STANDARD FIELD PROCEDURES

Drilling and Sampling

Borings are typically staked in the field by the drillers, using simple taping procedures and training are assumed to be accurate to within several feet. Unless noted otherwise, ground surface elevations (GSE) when shown on logs are estimated from topographic maps and are assumed to be accurate to within a foot. A plan of Borings, showing the boring locations and the proposed structures is provided in the Appendix.

A log of each boring was prepared as drilling and sampling progressed. In the laboratory, the driller's classification and description is reviewed by a Geotechnical Engineer. Individual logs of each boring are provided in the Appendix. Descriptive terms and symbols used on the logs are accordance with the Unified Soil Classification System (ASTM D 2487). A reference key is also provided. The stratification of the subsurface material represents the soil conditions at the actual boring locations, and variations may occur between borings. Lines of demarcation represent the approximate boundary between the different material types, but the transition may be gradual.

A truck-mounted rotary drill rig utilizing rotary wash drilling or continuous flight hollow or solid stem auger procedures is used to advance the borings, unless otherwise noted. Samples of soil are obtained from the borings for subsequent laboratory study. Samples are sealed in plastic bags and marked as to depth and hole locations in the field. Cores are wrapped in a polyethylene wrap to preserve field moisture conditions, placed in core boxes and marked as to depth and core runs. Unless notified to the contrary, samples and cores will be stored for 90 days, then discarded.

Standard Penetration Test and Split-Barrel Sampling of Soils (ASTM D 1586) (SPT)

This sampling method consists of driving a 2 inch outside diameter split barrel sampler using a 140 pound hammer free falling through a distance of 30 inches. The sampler is first seated inches into the material to be sampled and then driven an additional 12 inches. The number of the required to drive the sampler the final 12 inches is known as the Standard Penetration desistance. The results of the SPT is recorded on the boring logs as "N" values.

Thin-Walled Tube Sampling of Soils (ASTM D 1587) (Shelby Tube Sampling)

This method consists of pushing thin walled steel tubes, usually 3 inches in diameter, into soils to be sampled using hydraulic pressure or other means. Cohesive soils are usually manner and relatively undisturbed samples are recovered.

B - 1

hohutek

Section 02011-43

DURES

Soil Investigation and Sampling by Auger Borings (ASTM D 1452)

This method consists of auguring a hole and removing representative soil same auger flight or bit at intervals or with each change in the substrata. Disturbed obtained and this method is, therefore, limited to situations where it is satisfactory the approximate subsurface profile and obtain samples suitable for index property test

Diamond Core Drilling for Site Investigation (ASTM D 2113)

This method consists of advancing a hole into hard strata by rotating a single tube core barrel equipped with a cutting bit. Diamond, tungsten carbide, or other cut may be used for the bit. Wash water or air is used to remove the cuttings and to conversely, a 3 inch outside diameter by 2-1/8 inch inside diameter coring bit is notherwise noted. The rock or hard material recovered within the core barrel is exampled and in the laboratory and the cores are stored in partitioned boxes. The intactness core specimens is evaluated in two ways. The first method is the Standard Core expressed as the length of the total core recovered divided by the length of the expressed as a percentage:

SCR = total core length recovered x 100% length of core run

This value is exhibited on the boring logs as the Standard Core Recovery (SCR).

The second procedure for evaluating the intactness of the rock cores is by Roc Index (RQI). The RQI provides an additional qualitative measure of soundness of the rock index is determined by measuring the intact recovered core unit which exceed four length divided by the total length of the core run:

RQI = all core lengths greater than 4" \times 100% length of core run

The RQI is also expressed as a percentage and is shown on the boring logs

Vane Shear Tests

In-situ vane shear tests may be utilized to determine the shear strength of soft to cohesive soil. This test consists of placing a four-bladed vane in the undisturbed determining the torsional force applied at the ground surface required to cause the perimeter surface of the vane to be sheared. The torsional force sufficient to cause converted to a unit of shearing resistance or cohesion of the soil surrounding the surface

TO Cone Per

The TH onsistency in manner a netrometer country and accurrant of 100 blc ches penetrat

Ground Wate

Ground was logs. No mechades directed. Seasor te ground was logs.

STANDARD

In ord following lab the Summary Borings.

Moisture Co

Nature determined from the contents are correlation to example, the afformation

Itterberg I

The stand test hange from rought up

Kohute

B - 2

MD Cone Penetrometer Test

Disturbed satisfactory property test

tating a single, or other outlings and to consider the constraint of the constraint

SCR).

dness of the roce

ngth of soft to me undisturbed so cause the offer to cause sharm unding the offer to cause sharp unding the offer to cause sharm unding the offer to cause sharp unding the offer to cause sha

The THD Cone Penetrometer Test is a standard field test to determine the relative density and load carrying capacity of foundation soils. This test is performed in much the manner as the Standard Penetration Test described above. In this test, a 3 inch diameter cone is used in place of a split-spoon sampler. This test calls for a 170-pound falling 24 inches. The actual test in hard materials consists of driving the penetrometer and accurately recording the inches of penetration for the first and second 50 blows for a of 100 blows. These results are then correlated using a table of load capacity vs. number of the penetrated per 100 blows.

Ground Water Observation

Ground water observations are made during the boring operations and are reported on the logs. Moisture condition of cuttings are noted, however, the use of water for circulation redudes direct observation of wet conditions. Water levels after completing the borings are Seasonal variations, temperatures and recent rainfall conditions may influence the levels of reground water table and water may be present in excavations, even though not indicated on the

STANDARD LABORATORY PROCEDURES

In order to adequately characterize the subsurface material at this site, some or all of the blowing laboratory tests were completed. Results of the actual tests performed are shown on the Summary of the Laboratory Test Results, and some are also shown graphically on the Logs of Bonnes.

Moisture Content - ASTM D 2216

Natural moisture contents of the samples (based on dry weight of soil) have been determined for selected samples at depths shown on the respective boring logs. These moisture contents are useful in delineating the depth of the zone of moisture change and as a gauge of correlation between the various index properties and the engineering properties of the soil. For comple, the relationship between the plasticity index and moisture content is a source of moisture for the correlation of shear strength data.

Atterberg Limits - ASTM D 4318

The Atterberg Limits are the moisture contents at the time the soil meets certain arbitrarily the tests. At the moisture content defined as the plastic limit, Pw, the soil is assumed to the from a semisolid state to a plastic state. By the addition of more moisture, the soil may be to the moisture content defined as the liquid limit, Lw, or that point where the soil

changes from a plastic state to a liquid state. A soil existing at a moisture content be two previously described states is said to be in a plastic state. The difference betwee limit, Lw, and the plastic limit, Pw, is termed the plasticity index. Iw. As the plaincreases, the ability of a soil to attract water and remain in a plastic state inc. Atterberg limits that were determined are plotted on the appropriate Log of Boring.

The Atterberg limits are quite useful in soil exploration as an indexing paramethe Atterberg limits and grain size analysis. A. Casagrande developed the Unclassification System (USCS) which is widely used in the geotechnical engineering system related the liquid limit to the plasticity index by dividing a classification chart zones according to degrees of plasticity of clays and silts. Although the Atterberg indexing parameter, K. Terzaghi has related these limits to various engineering proposoil. Some of these relationships are as follows:

- 1. As the grain size of the soil decreases, the Atterberg limits increase.
- 2 As the percent clay in the soil increases, the Atterberg limits increase.
- 3. As the shear strength increases, the Atterberg limits decrease.
- 4 As the compressibility of a soil increases, the Atterberg limits increase.

Triaxial Shear Test - ASTM D 2850-70

Triaxial tests may be performed on samples that are approximately 2.83 diameter, unless a smaller diameter sample was necessary to achieve a more length diameter (L.D) ratio. In order to reduce end effects, the L:D ratio should be a minute 2.0

The triaxial tests are typically unconsolidated-undrained using nitrogen gas for confining pressure. Confining pressures are selected to conform to in-situ hydrostatic processive trimmed so that their ends are square and then pressed in a triaxial compression making load at which failure occurs is the compressive strength. The results of the triaxial tests correlated hand penetrometer strengths can be utilized to develop soil shear strength values.

Unconfined Compressive Strength of Rock Cores - ASTM D 2938

The unconfined compressive strength is a valuable parameter useful in the foundation footings. This value, qu, is related to the shearing resistance of the rock the capacity of the rock to support a load. In completing this test it is imperative length diameter ratio of the core specimens are maintained at a minimum of 2:1. This so that the shear plane will not extend through either of the end caps. If the ratio is less than the shear plane will not extend through either of the end caps.

B - 4

Section 02011-46

orrection is ap

min Size An:

Grain si.

mples tested.

eve is determ

stribution of

ing a hydror

drain Size Dist

Kohutek

Cohutel Spaning & len

re content bearing rence between As the plantic state increof Boring

exing parameter oped the United engineering for cation chart into Atterberg limits incering proper

increase.

s increase.

se.

its increase

eve a more ashould be a minimum

rogen gas for a tu hydrostatic possion machine he triaxial tess a r strength value.

of the rock and is imperative to of 2:1. This rate a ratio is less than

The results of these tests are compiled in Appendix A if the state performed.

Grain Size Analysis - ASTM D 421 and D 422

Grain size analysis tests are performed to determine the particle size and distribution of the moles tested. The grain size distribution of the soils coarser than the Standard Number 200 see is determined by passing the sample through a standard set of nested sieves, and the moution of sizes smaller than the No. 200 sieve is determined by a sedimentation process. The results are given on the "Summary of Laboratory Test Results" or on Size Distribution semi-log graphs within the report.

abapt groappen doc

Kohutek

B - 5

Section 02011-47