SAN ANTONIO WATER SYSTEM

Quiet Creek 16-Inch Oversized (8-Inch Required) Water Main Project, Phase 1 SAWS Job No. 11-1064

ADDENDUM NO. 1

January 6, 2012

This addendum, applicable to project noted above, is an amendment to the bidding and specification documents and as such shall be a part of and included in the Contract. Acknowledge receipt of this addendum by entering the addendum number and issue date in the spaces provided on all submitted copies of the proposal.

1.0 Addendum Purpose

The purpose of this addendum is to issue revisions and clarifications for the Quiet Creek 16-inch Oversize (8-inch required) Water Main Project (SAWS Job No. 11-1064).

2.0 Pre-Bid Meeting Minutes and Questions

A non-mandatory Pre-Bid Conference was held at 2:00 p.m. on January 3, 2012 in SAWS Engineering Department conference room, C239. Minutes from the meeting are attached and are considered part of this Addendum.

3.0 Clarifications

- A. Water will be provided by SAWS for testing purposes only. Any additional water needed for construction activities will require to be metered at the contractor's expense.
- B. There is no Traffic Control Plan included in the plans, however, the contractor shall coordinate with TxDOT inspector prior to commencing construction to discuss this issue and follow the guidelines presented on the TxDOT permit. All costs associated to TxDOT requirements regarding traffic control will be subsidiary to SAWS Item #530 on the bid proposal.
- C. The 16" main can be tapped for fire hydrants that do not have a 16" gate valve adjacent to the tee in lieu of a cut in tee. According to the plans this would apply to three (3) hydrants.

4.0 Questions

Q: If 16" DI pipe is used for directional bore, will ALL pipe be required to be restrained throughout (using TR Flex, Field Lok Gaskets, etc.)? Also, if yes, which type of restraint would be your recommendation/ preference?

A: The pipe is required to be restrained as indicated on plans. The type of restraint would need to meet SAWS Specifications #95-10.

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Q: When we install the fire hydrants there will be some open cut of main, if any driveways are disturbed or cut will the standard ditch-width repairs be acceptable as usual with SAWS? In other words, no businesses will receive/require full driveway replacement in lieu of trench-width repairs?

A: The plans do not call for driveways to be cut and/or replaced. SAWS, Engineer and TxDOT approval would be necessary prior to any cutting or disturbing of existing driveways. Please see TxDOT permit attached with this addendum for requirements to install utilities under paved driveways.

Q: The water main alignment is shown to be approximately directly under a fiber optic line. When locating this line if it is in varying alignment is SAWS agreeable to have some of the water main open cut greater than the quantity of 168 LF?

A: The new water line is to be bid per plan. Should the contractor identify an opportunity to provide additional open trenching during construction, approval would need to be granted by SAWS, Engineer and TxDOT. No additional project completion days will be allotted for delays resulting in this review/approval process.

Q: What kind of pipe is going to be used for this job? C900, Ductile Iron, or HDPE (DR?)? Plans and specs do not indicate.

A: In addition to the pipe materials allowed per SAWS Construction and Material Specifications, SAWS will allow the following two pipe types:

- 1. Fusible C900 pipe with a rating of DR 25 is required which is a 165 PSI pressure class. Pipe will be blue for water use.
- 2. HDPE requires the pipe to be blue or black with nominal 2" double stripe every 120 degrees, the stripe will be blue for water use. The pressure class requirement is 160 psi with a DR 11 rating.

Q: On the above ref project, the plans note #26 states that flowable fill may be required. There is not a flowable fill pay item, please clarify if flowable is required and if so a cubic yardage?

A: Flowable fill will be required in those areas where the water line is located less than 10 feet from existing edge of pavement and is within an open trench alignment. The flowable fill will not be a separate pay item. All cost associated to required flowable fill shall be subsidiary to SAWS Item #506 on the bid proposal.

Addendum No. 1 Quiet Creek 16-Inch Oversized (8-Inch Required) Water Main Project, Phase 1 Saws Job No. 11-1064 Solicitation No. B-11-058-CM

Q: Please also clarify any requirements on the pipe type as it is not stated on the plans (HDPE - IPS is assumable)?

A: Pipe specified must have an inside diameter of no less than 16 inches. In addition to the pipe materials allowed per SAWS Construction and Material Specifications, SAWS will allow the following two pipe types:

- 1. Fusible C900 pipe with a rating of DR 25 is required which is a 165 PSI pressure class. Pipe will be blue for water use.
- 2. HDPE requires the pipe to be blue or black with nominal 2" double stripe every 120 degrees, the stripe will be blue for water use. The pressure class requirement is 160 psi with a DR 11 rating.

Q: What type of Pipe do they want supplied to the directional bore?

A: In addition to the pipe materials allowed per SAWS Construction and Material Specifications, SAWS will allow the following two pipe types:

- 1. Fusible C900 pipe with a rating of DR 25 is required which is a 165 PSI pressure class. Pipe will be blue for water use.
- 2. HDPE requires the pipe to be blue or black with nominal 2" double stripe every 120 degrees, the stripe will be blue for water use. The pressure class requirement is 160 psi with a DR 11 rating.

Q: The water services spec item #824 is not accessible on the SAWS website. Please include it in the addendum release or let the proper persons know for a correction please.

A: Please see SAWS construction detail numbers DD-824-02 and DD-824-03. These details are located on the SAWS website under "Construction Specifications".

Q: On both jobs in the special conditions the contractor has to pay for the material testing, does the owner have a list of testing soils consultants /laboratories.

A: A list of acceptable consultants for soils testing is not available. The contractor must submit their consultant's contact information to SAWS and Engineer prior to testing for approval.

5.0 Additions

- A. Attached is the sign in sheet for the non-mandatory pre-bid meeting as well as the meeting minutes.
- B. The TxDOT utility permit is attached.

Addendum No. 1 Quiet Creek 16-Inch Oversized (8-Inch Required) Water Main Project, Phase 1 Saws Job No. 11-1064 Solicitation No. B-11-058-CM

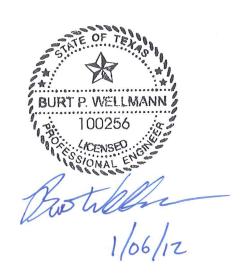
ACKNOWLEDGEMENT BY BIDDER

Each bidder is requested to acknowledge receipt of this Addendum No. 1 and the associated attachments by his/her signature affixed hereto and to file same and attach with his/her bid.

The undersigned acknowledges receipt of this Addendum No. 1 along with the bid submitted herewith is in accordance with the information and stipulations set forth.

Date	Signature	

END OF ADDENDUM NO. 1





CONFERENCE MEMO

Project: Quiet Creek 16" Oversize (8" Required) Water Main Project, Phase 1	Date/Time: January 3, 2012 @ 2 p.m.	
Location: SAWS - Tower 2, Room 239	Re: Non-Mandatory Pre-Bid Meeting	
Attendees: See attached	From: Burt Wellmann, P.E.	

DISCUSSION:

- Tracey Lehmann (SAWS) introduced the project to attendees and provided basic information about the project including: Project name, SAWS Job Number, Length of installation (2,785 LF), Engineer's OPC (\$706,150), Trilateral agreement (75% SAWS, 25% Developer), 90 Calendar days to project completion, Engineer of Record is George Weron, P.E. with KFW Engineers, Bid due date is Jan 11, 2012, SAWS contracting specialist is Cynthia Medina.
- Mr. Lehmann stated that the Mobilization and Prep ROW line items should not be greater than that shown in the contract documents.
- Mr. Lehmann advised the attendees to carefully read all information provided to bidders and provide all necessary signatures and information requested.
- Mr. Lehmann stated that all questions must be submitted to Cynthia Medina by 4 p.m. on January 4, 2012. An addendum will be issued on January 5, 2012.
- Burt Wellmann with KFW presented the project to attendees and stated in general terms the project description. Mr. Wellmann identified the existing conditions of the TxDOT ROW which requires directional boring on the project due to multiple utility and driveway conflicts. Mr. Wellmann stated that a TxDOT permit has been secured and expires 6 months from when it was issued in mid-December.

Questions were taken from the attendees and include the following:

- Will TxDOT require flowable fill? This question is addressed in Section 4.0 of the addendum.
- Is HDPE Pipe acceptable? This question is addressed in Section 4.0 of the addendum.
- Can the line be tapped for valves and Fire Hydrants? This question is addressed in Section 3.0 of the addendum

- Is there a maximum depth of bury? Mr. Lehmann stated he was not aware of a maximum depth of bury, however the contractor should refer to SAWS specifications. Also, line depth will need to be verified with the SAWS inspector during construction.
- Any TxDOT restrictions on permit? Mr. Lehmann stated that a copy of the TxDOT permit can be provided in the addendum. This is addressed in Section 5.0 of the addendum.
- Is the contractor responsible for water during construction? This question is addressed in Section 3.0 of the addendum.
- Is there a Traffic Control Plan? This question is addressed in Section 3.0 of the addendum.
- Will the core holes performed by SoftDig be available during the bidding process? The
 core holes were not specific to the type of soil material encountered and were located
 in generalized locations, therefore the core hole information will not be made available
 for bidding purposes.

Mr. Lehmann thanked everyone for coming and adjourned the meeting.

END OF MEMO

SAN ANTONIO WATER SYSTEM

NON-MANDATORY PRE-BID CONFERENCE

Quiet Creek 16" Oversize (8" Required) Water Main Phase 1 Project SAWS Job No. 11-1064

DATE: January 3, 2012

SIGN -IN

No.	NAME	COMPANY	PHONE
1	Tracey Lehmann, P.E.	SAWS	(210) 233-3492
2	BURT WELLMANN	KAN FORMEROS	210-979-8441
3	J.K. Bickley	Aut in Encineering Colon	512-327-144
4	BURT WELLMANN J.K. Bickley Auston Keller	Have ENGINEERS Mentin Engineering Co Inc	n n
5	Roy Heath Ir Robert Rupro Tey Geistweidt	S. A Constructors QROMEX CONST. FERGUSON	210)681-0211
6	Robert Rubio	OROMEX Coust	\$30
7	Tey Geistweidt	FERQUSON	210) 333-7410
8		J	210) 353 2 (113
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SAN ANTONIO WATER SYSTEM

NON-MANDATORY PRE-BID CONFERENCE

Quiet Creek 16" Oversize (8" Required) Water Main Phase 1 Project SAWS Job No. 11-1064

DATE: <u>January 3, 2012</u>

SIGN -IN

No.	NAME	COMPANY	PHONE
1	Tracey Lehmann, P.E.	SAWS	(210) 233-3492
2	Casey Bartek	Bartek	210. 648.4780
3	Kim Murshy	Bartok	210-648-4780
4	Jenemy Johns	RL Jones	14906223
5	Kim Murphy Jeremith Jones Eric Ramirez	BTC	210-324-973
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APPROVAL

To	o:	·	Highway No.		.: <u>11-0070-W</u> A
		SAWS	Beg. RM Offse	IH 10 End RM_	
		C/O KFW ENGINEERING & SURVEYIN	Maintenance Section No		
		7400 BLANCO, SUITE 260	Withintonanoo Socion 14	Bexar	Count
		SAN ANTONIO, TX 78216			Coun
Th Li	ne To ne	exas Department of Transportation (TxDOT) offers no as shown by accompanying drawings and notice dated	objection to the location on the location of t	he right-of-way of your pr noted below.	oposed Water
tnis	s nig	pressly understood that the TxDOT does not purport, he have: and it is further understood that the TxDOT matering laws, by giving thirty (30) days written notice.	nereby, to grant any right, cla ay require the owner to reloca	im, title, or easement in or ate this line, subject to pro	upon visions
tree	es wi ping	e requested to notify this office prior to commencement ithin the highway right-of-way, so that we may provide the tree balance, type of cuts, painting of cuts and clean the trable investment in highway planting and beautification	e specifications for the extent up. These specifications are	and methods to govern tr	s pruning of imming,
inco	onve	tallation shall not damage any part of the highway and eniences to traffic and adjacent property owners. In th orth herein, the State may take such actions as it deems	e event the Owner fails to co	mply with any or all of the	e requirements
The You to C near inter the s of ac emer and it is im	e following the	Introlled Access Highway Requirements Itowing paragraph Will Will Not apply to this patention is directed to governing laws, especially to Articol of Access. Access for serving this installation shall or adjacent public roads or streets, (c) trails along or netting road; from any one or all of which entry may be a crules and regulations as apply to the general public exist for normal service operations will not permit the impact repairs as required for the safety and welfare of the in the through-traffic roadways and ramps as necessary diately notified by the Utility owner when such repairs enience and safety of highway traffic.	cle 6674w-1, Vernon's Anno be limited to access via (a) for ar the highway right-of-way access to the through-traffic recept, however, if an emergent andiate action required by the public, the Utility Owner shapes to accomplish the required e	rontage roads where providents, connecting only to a coadways and ramps shall lincy situation occurs and use Utility Owner in making all have a temporary right mergency repairs, providents.	ided, (b) an be subject to sual means of access to
		neral Special Provisions: e attached Special Provisions and attachme	nt titled "Locating Txo	lot Owned Utilities"	
•]	Revo	egetation Special Provisions: In order to minimize en project area will be revegetated	rosion and sedimentation res	ulting from the proposed i	nstallation,
_	ap	accordance with TxDOT's Standard Specification Item 160,16 propriate grass seed mix to be used, or	52,164, 166, 168 and 169 which	specifies such erosion contro	l and the
		s indicated on the attachment.			
Plea	ise	notify Mr. Carlos Zamora- Northeast at (2)	10)213-4014 forty-eigh	t (48) hours prior to	starting any
cons	stru	action of the line in order that we may have	a representative prese	ent.	
Date	e:	12/2/11	By: 40	Department of Transportat	
			por Daniel L. Stag	ks P.E. for John D. Bohu	slav, P. E.

Director of Maintenance, San Antonio District



Utility Installation Request

Form 1082 (Rev. 12/09)

PERMIT NUM	BER			
GLOBAL POSITIONING SYSTEM COORDINATES (GPS) NORTH AMERICAN DATUM 1983, (1993 ADJUSTMENT) IN DECIMAL DEGREES(DD)				
	LATITUDE (DD) LONGITUDE (DD)			
BEGIN	29.46619	98.31562		
END	29 46789	98 30747		

To the Texas Transportation Commission c/o District Engineer Texas Department of Transportation 10/25/11 Date San Antonio , Texas Formal notice is hereby given that KFW Engineers & Surveying proposes to place a 16" water main line within the right of way of IH 10 W _____, Displ. _____, to RM ____ Displ. in County Texas, MNT Sec. No. as follows: (give location, length, general design, etc. Use additional sheet as needed) Project proposes 2,785 LF of new 16" water main beginning at SE corner of FM 1516/IH 10 ROW and continuing east within the IH 10 ROW. The project also includes abandonment of approximately 2, 745 LF of an existing 12" Ductile Iron water main. We will construct and maintain the line on the highway right of way as shown on the attached drawing and in accordance with the rules, regulations and policies of the Texas Department of Transportation (TxDOT), and all governing laws, including, but not limited to, the "Texas Engineering Practice Act," "Federal Clean Water Act," the "National Endangered Species Act," "Americans with Disabilities Act," and the "Federal Historic Preservation Act." Upon request by TxDOT at any time, we will submit to TxDOT proof of compliance with all governing laws, rules and regulations before commencement of construction. Plans shall include the design, proposed location, vertical elevations, and horizontal alignments of the facility based on the department's survey datum, the relationship to existing highway facilities and the right of way line, traffic safety and access procedures, and location of existing utilities that may be affected by the proposed utility facility. The location and description of the proposed line and appurtenances is more fully shown by a complete set of drawings attached to this Utility Installation Request (Request). We will give plans to TxDOT for each future proposed modification or expansion to our facility and TxDOT will have 30 days to review and approve the plans prior to commencement of the work. A new Request may be required as a condition of approval. Our organization will use Best Management Practices to minimize erosion and sedimentation resulting from the proposed installation, and we will revegetate the project area as indicated under "Revegetation Special Provisions." We will also ensure that traffic control measures complying with applicable portions of the Texas Manual of Uniform Traffic Control Devices will be installed and maintained for the duration of this installation. When installing, modifying or maintaining our utility on controlled access facilities, we shall conform to the Texas Transportation Code, Title 6 Roadways, Chapter 203, Subchapter C, Control of Access, §203.031 (http://www.statutes. legis.state.tx.us/). We shall limit access for servicing this installation to access via (a) frontage roads where provided, (b) nearby or adjacent public roads or streets, (c) trails along or near the highway right of way lines, connecting only to an intersecting road; from any one or all of which entry may be made to the outer portion of the highway right of way for normal service and maintenance operations. Our rights of access to the through traffic roadways and ramps shall be subject to the same rules and regulations that apply to the general public. It is expressly understood that TxDOT does not purport hereby to grant any right, claim, title or easement in or upon highway right of way. TxDOT may require us to relocate this line, subject to the provisions of governing laws, by giving us at least 30 days written notice. We understand a new Request will be required for the relocation. We will notify TxDOT prior to commencement of any operation which requires pruning of trees so that TxDOT may provide specifications to govern performance of work, including trimming, topping, tree balance, type of cuts, painting cuts and clean up. We understand that these specifications are intended to preserve TxDOT's considerable investment in highway beautification plantings and by reducing damage due to trimming and to protect known endangered species. Our installation shall not damage any part of the roadway structure or associated appurtenances. We will make adequate provisions to cause minimum inconveniences to the traveling public and adjacent property owners. We will not open-cut driveways or intersecting roadways without specific written permission from the owner. Following approval, we will begin construction on or after 01/01/12

Month/Day/Year

Form 1082 (Rev. 03/09) Page 2 of 2

We understand TxDOT may place additional provisions and requirements as listed below, based upon, but not limited to, the type of utility being installed, local site conditions, soil types and traffic.

Additional Provisions and Requirements (for TxDOT input only)			
General Special Provisions:			
Are attached.			
Are not attached.			
As-built Plans/Certifications of Construction:			
Are required and shall be certified as accurate by an	authorized representative of the company.		
Are required and shall be signed and sealed by a State of Texas Licensed Professional Engineer.			
Are not required			
Certification that utility was installed as approved			
Re-vegetation Special Provisions: In order to mining installation, the project area will be re-vegetated:	nize erosion and sedimentation resulting from the proposed		
to be used, or:	tem 164 which specifies the appropriate grass seed mix		
as indicated on the attachment.	REVIEWED		
TxDOT Representative to be notified 48 hours prior to be	ginning construction: SAN ANTONIO WATER SYSTE		
f approved, we understand we will assume all risks associated with this installation within the performance isks include injuries to our workers, damage to contiguous utility lines that may be intrinsed and interest operations of properly install and maintain the line. If the character, use or function of our installation is materially changed from that appropriate to properly installation is materially changed from that appropriate the change. In the event of a voluntary or involuntary the property without the approval of TxDOT, we will at our expense remove the unauthorized portion of the line is not begun prior to the 91st calendar day from date of issuance, we will be required to result to installation of the line is not begun prior to the 91st calendar day from date of issuance, we will be required to result to otherwise extended, TxDOT's approval of this Request will automatically expire, and the required to result to provide the provisions and relocations shall be in accordance with the governing laws, rules, regulations and policies existing at the me of submission. In the event we fail to comply with any or all of the requirements as set forth in this Request, the State may take such action as it deems appropriate to compel our compliance. By signing as/for the requestor below, I certify that I am authorized to represent the requestor, that I agree to the provisions and requirements included in this Utility Installation Request, and our commencement of construction will further attest to			
REQUESTOR	APPROVED BY TxDOT		
Date: 10/25/11	Date: 12/2/11		
By: KFW Engineers & Surveying; ATTN: Burt Wellmann, P.E.	ву: УДХС		
Signature: Nor William	Signature: Maintenance Administrator		
Title: Project Engineer	Title:		
Address: 7400 Blanco Rd, Suite 260	Address: 4615 NW LP 410		
San Antonio TX 78216	3A Tx 78229		
City State Zip Code	City State Zip Code		
(210) 979-8444	(212) 615 - 6074		
Area Code Telephone Number	Area Code Telephone Number		

TxDOT – San Antonio DISTRICT CHECKLIST FOR REVIEW OF UTILITY PERMITS Effective: 9/25/06

Yes √ No □ N/A □	Is the location and identification (highway number) of the TxDOT		
Comment:	highway clearly indicated on the plans?		
I LES EL INO LI IN/A LI	Are the utility plans legible, drawn to scale, and accurately dimensioned?		
Comment:	difference:		
Yes No No N/A	Is the location of the proposed utility line clearly shown on the plans?		
Comment:	*		
Yes 🖪 No 🗆 N/A 🗆	Are other existing utility lines in the vicinity shown on the plans?		
Comment:			
Yes 🗹 No 🗆 N/A 🗆	Are the right of way line and edge of highway pavement clearly shown on plans?		
Comment:			
Yes 🗹 No 🗆 N/A 🗆	For lines to be installed parallel to the highway, is the distance from the right of way line and from the edge of highway pavement clearly shown?		
Comment:			
Yes 🛭 No 🗆 N/A 🗆	For installations parallel to the highway, does the installation alignment change? Alignment changes need to be justified and reasonable.		
Comment:			
Yes □ No □ N/A 🗹	For highway crossings, is the location of the crossing clearly shown on the plans? The crossing should be as close to 90 degrees as practical.		
Comment:			
Yes □ No □ N/A 🗹	For lines crossing the highway, crossing intersecting streets/county roads, or passing through the protected root area of desirable trees, is it clearly shown that the line will be installed by boring? In addition, casing should be shown under highways and paved city street/county road intersections.		
Comment:			
Yes 🗆 No 🗆 N/A 🗹	Are appropriate temporary erosion control devices (e.g., rock berms, silt fences) shown where the line will be across/along a creek, drainage way, steep slope, within the Edwards Aquifer Recharge Zone, or in other critical areas?		
Comment:			
Yes 🗆 No 🗆 N/A 🗗	For aerial installations, do the plans clearly show and differentiate between existing poles and new poles?		
Comment:			
	· · · · · · · · · · · · · · · · · · ·		

Revised January 5, 2011

- 1. Effective Period of Permit Approval. A TxDOT utility permit is void if installation does not begin within 91st calendar day from date of issuance/approval. Unless otherwise extended, TxDOT approval of this Request will automatically expire, and utility company will be required to resubmit the Request.
- 2. <u>Minimum Depth of Cover.</u> The minimum depth of cover for any underground utility line shall be as shown on the attached "Minimum Depth of Cover Table".
- 3. <u>Locating TxDOT-Owned Utilities.</u> Before beginning work on any utility permit, refer to the attachment entitled "Locating TxDOT-Owned Utilities".
- 4. <u>Aerial Electric Lines.</u> Aerial electric power lines crossing over the highway shall be installed and maintained a minimum of twenty-two feet (22') above the surface of the traffic lanes. For electric power lines with greater than 50,000 volts, the clearance shall be increased in accordance with National Electric Safety Code as published in the National Bureau of Standards, Handbook 30.
- 5. <u>Aerial Communication Lines.</u> Aerial communication lines crossing over the highway shall be installed and maintained a minimum of eighteen feet (18') above the surface of the traffic lanes.
- 6. <u>Utility Poles</u>. Poles installed to accommodate aerial utilities shall be located within three feet (3') of the right of way line. Poles with bases greater than thirty-six inches (36") in diameter shall not be placed within the right of way.
- 7. Open Trenching or Boring Operations for Active Underground Utility Work. To insure that disturbed areas are restored and revegetated properly and in a reasonable period as the utility work progresses, the following requirements shall apply:

 Unless otherwise approved or directed by TyDOT, the length of "active utility work" shall not exceed any mile.
 - Unless otherwise approved or directed by TxDOT, the length of "active utility work" shall not exceed one mile in length. "Active utility work" shall be defined as the total disturbed area measured from the beginning of open trenching to the point where backfill has been compacted, the right of way has been restored to its original line and grade, any structures damaged by the utility work have been repaired, erosion control measures have been placed and are being properly maintained, approved topsoil seed and compost has been placed uniformly, and watering for revegetation has begun. "Active utility work" also includes areas of bore pits and receiving pits; however it does not include the underground boring length. When any area of "active utility work" is substantially complete (ie, watering of seeded areas has begun), that area is no longer considered to be "active utility work", and "active utility work" can proceed further within the right of way as long as it does not exceed the above appropriate limits. An area where TxDOT determines that the "active utility work" is substantially complete does not mean that TxDOT considers that area totally acceptable and complete.
- 8. Backfill, Erosion Control, and Re-vegetation. All excavations within ten feet (10"") of the edge of pavement shall be backfilled to within six inches (6") of natural ground with flowable backfill in accordance to TxDOT Standard Specification Item 401 or the right-of-way (ROW) and not under pavement shall be backfilled by tamping in six inches (6") horizontal layers to the density of the surrounding soil or as directed by an inspector from the Texas Department of Transportation (TxDOT). All surplus material shall be removed and the ROW shall be reshaped to its original condition or better. Four inches (4") of topsoil shall be spread over all disturbed areas and then re-seeded and watered sufficiently to promote revegetation. Apply one inch (1") of General Use Compost, Item 161, Compost, uniformly over all disturbed areas. Irrigate as required to establish vegetation. Use block sod on slopes steeper than 4:1. For sodded areas, do not place ECC but apply one inch (1") of general use Compost (GUC) on top of the sod following installation. This work shall be done in accordance with the latest edition of the Texas Department of

Revised January 5, 2011

Transportation (TxDOT) "Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges". Temporary erosion control devices (such as silt fences, rock berms, soil retention blankets, etc.) should be shown on the utility plans in area where utility work will leave disturbed or loose soil across/long creeks and streambeds, on steep slopes, or in environmentally sensitive areas such as the Edwards Aquifer Recharge Zone. A TxDOT utility inspector may direct that such devices be installed even when and where they are not shown on the plans. These areas must be protected from erosion. In addition, permanent revegetation (at least 70% of normal vegetation cover of the surrounding undisturbed area) must be accomplished by the utility company/contractor before the utility work is considered acceptable and completed by TxDOT. The amount of revegetation is considered acceptable when it resembles the amount of existing vegetation in the surrounding undisturbed area.

- 9. Boring, Tunneling and Jacking. Boring and jacking of utility lines shall be provided as specified below.
 - a. <u>Under Highways.</u> Utility lines to be constructed under any TxDOT highway shall be installed by boring and jacking with steel casing. Boring shall extend a minimum of ten feet (10') from the edge of pavement or curb. Use of water or other fluids in connection with boring operations will be permitted only in sufficient quantity to lubricate the boring bit and provide a smooth flow of cuttings. Jetting will not be permitted.
 - b. <u>Under Paved County Roads or City Streets.</u> Utility lines to be constructed under an existing paved (asphalt pavement or concrete pavement) county road or city street intersection at a TxDOT Highway, shall be installed by boring and jacking with steel casing.
 - c. <u>Under Paved Driveways</u>. Utility lines to be constructed under existing paved (asphalt pavement or concrete pavement) driveways shall be installed by boring and jacking methods, unless the utility company furnishes TxDOT with a "Letter of No Objection" signed by the driveway owner to allow open cutting of their driveway.
 - d. <u>Under Unpaved County Roads, City Streets, or Driveways.</u> Utility lines to be constructed under an existing unpaved county road or city street intersection at a TxDOT Highway, or under existing unpaved driveways may be open cut after the driveway owner is notified.
 - e. <u>Under Desirable Trees.</u> Desirable trees generally include, (but are not limited to), trees with a minimum trunk diameter of six inches (6") that TxDOT determines to be of environmental aesthetic value. TxDOT may also identify small trees, groups of trees, shrubs or other significant features on the ROW that will require protection. To preserve the natural environment and protect wildlife habitat, boring or tunneling may be required when underground utility lines are to be placed within the "protected root area" (PRA) of "desirable trees" located within highway ROW or on adjacent property. The "protected root area" is defined as the area between the tree trunk and five feet (5') from the tree trunk or 2/3 the actual distance from the tree trunk to the dripline, whichever is greater. Boring or tunneling under all "desirable trees" will be required with the following exceptions: (1) in areas where planned highway construction/maintenance work would require tree removal, or (2) when the TxDOT inspector approves of open trenching for the utility installation or removal of the tree.

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- 10. Protection of Trees and Landscaping. Existing trees and landscaping within the ROW shall be protected as specified below. Removal of trees from the ROW will require prior TxDOT approval. Bores shall be at a minimum depth of three feet (3') through the PRA. Contractor/Utility Company shall install protective fencing around the PRA of trees or plants as directed by TxDOT before beginning work. Fencing must be at least four feet (4') in height and be supported by eight feet (8') steel T-posts spaced six feet (6') o.c., driven a minimum of twenty inches (20") into existing grade. Place the fencing continuously between posts and attach it to the posts with a minimum of four (4) wire ties per post. No access, trenching, excavating, filing or compaction is allowed within the fenced area. Maintain fencing in place until completion of work or until removal is approved or directed by TxDOT. Work under this permit may be suspended due to failure to install or maintain the protective fencing. Encroachment into the fenced area may also result in additional mitigation requirement to be determined by TxDOT.
 - a. <u>Tree Pruning.</u> All tree pruning within the ROW will require prior TxDOT approval. All oak trees that are damaged or pruned shall be treated with an approved tree wound dressing within 20 minutes of causing the damage or making the pruning cut.
 - b. <u>Landscaping.</u> When existing landscaping is located near the proposed utility alignment, the utility contractor shall notify TxDOT and the owner of the landscaping prior to the proposed utility installation. TxDOT may require underground utilities to be installed by: (1) boring under such landscaping or (2) by replacement of specific landscape items. Landscaping is defined as, but not limited to, trees, shrubs, grass, irrigation lines, landscape pavers, sidewalks, and other ROW improvements.
- 11. <u>Manholes.</u> All manhole covers shall be installed flush with the ground surface. Manholes shall be straight, inline installations.
- 12. <u>Traffic Control.</u> Traffic control in utility work zones shall conform to applicable requirements of the "Texas Manual on Uniform Traffic Control Devices for Streets and Highways, Part VI". Adequate signs, barricades, flag personnel, etc. shall be erected and maintained in complete compliance with the Texas Manual on Uniform Traffic Control Devices as deemed necessary by the TxDOT inspector. Any travel lane closures are only permitted after a traffic control plan is approved by TxDOT prior to beginning any construction activities.
- 13. <u>Saturday</u>, <u>Sunday or Holiday Work</u>. Saturday, Sunday or Holiday work will not be permitted for the installation of any utility line unless directed or approved by TxDOT. Work hours shall be from 8:00 am to 5:00 pm unless otherwise directed or approved by TxDOT.

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TXDOT - San Antonio DISTRICT MINIMUM DEPTH OF COVER TABLE (FOR UNDERGROUND UTILITIES ON HIGHWAY RIGHT OF WAY)

FOR UTILITY LINES INSTALLED PARALLEL WITH OR ACROSS TXDOT RIGHT OF WAY (ROW):

TYPE OF UTILITY	CROSSING PAVEMENT OR PARALLEL LESS THAN 10' FROM PAVEMENT EDGE (See Note #1, 2, & 3 below)	UNDER DRAINAGE DITCH OR CHANNEL	UNDER NATURAL GROUND & MORE THAN 10' FROM PAVEMENT EDGE
LOW PRESSURE NATURAL GAS (<60 PSI)	60"	24"(to Casing Pipe) 48"(to Un-Encased Pipe)	30"(to Un-Encased Pipe)
HIGH PRESSURE NATURAL GAS (>60 PSI) OR LIQUID PETROLEUM PRODUCTS	60"	30" (to Casing Pipe) 48"(to Un-Encased Pipe)	30"(to Casing Pipe) 36"(to Un-Encased Pipe)
TELEPHONE (Copper Cable)	60"	24"	24"
TV CABLE	60"	24"	24"
FIBER OPTIC (Data, Phone or TV)	60"	42"	42"
SANITARY SEWER	60"	24" (30" for Plastic Pipe)	24" (30" for Plastic Pipe)
WATER	60"	24" (30" for Plastic Pipe)	24" (30" for Plastic Pipe)
ELECTRIC	60"	BY VOLTAGE 30" (<22,001 volts) 36" (22,001-40,001 volts) 42" (>40,001 volts)	BY VOLTAGE 30" (<22,001 volts) 36" (22,001-40,001 volts) 42" (>40,001 volts)

Based on requirements in the Texas Department of Transportation (TxDOT), Utility Accommodation Policy (UAP). See 43 TAC 1.21C.

Notes:

1. Utility lines installed parallel with TxDOT ROW are not permitted under TxDOT highway pavement.

2. Utility lines installed across TxDOT highway pavement, or intersecting TxDOT highways, city streets, and county roads shall be placed inside a steel-easing pipe.

Utility lines installed within ten feet (10') of the edge of pavement should be backfilled to within 6" of natural ground with flowable backfill in accordance to TxDOT Standard Specification Item 401.

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ATTACHMENT A LOCATING PUBLIC AND TXDOT UTILITIES

At least 48 hours before beginning any work under this permit, the contractor shall call the following phone numbers to make arrangements for locating any Public and TxDOT underground facilities within the proposed work area:

Public Utilities:

The contractor shall call all public utility agencies to obtain utility locations. It should be understood that not all public utilities are members of the Texas One Call System; and thus, the Texas One Call System will not locate all possible public utilities. The contractor is responsible for contacting all public utility agencies to obtain all utility locations in the proposed work area.

TxDOT Utilities:

In Atascosa, Bandera, Bexar, Comal, Frio, Guadalupe, Kendall, Kerr, McMullen, Medina, Uvalde and Wilson Counties.

TxDOT Electric Office at

210-615-5995 to locate:

Underground systems that operate the overhead green guide sign lighting system,

Underground systems that operate the storm water pump stations,

Underground systems that operate the highway illumination system maintained by TxDOT,

Underground systems that serve illumination at highway truck weigh stations.

TxDOT Traffic Signal Office at

210-615-5975 to locate:

Underground systems that operate traffic signals maintained by TxDOT,

TxDOT Transguide Traffic Management Office at

210-731-5139 to locate:

TxDOT Traffic Engineering Regular Hours at

urs at 210-731-5109 to locate

For Emergency at

210-215-6645 to locate

Underground systems that operate the Transguide traffic management system

TxDOT Building Maintenance Office at

210-615-6069 to locate:

Underground lines that serve highway rest area facilities

City of San Antonio, Department of Public Works at #311 to locate:

Underground systems that operate traffic signals maintained by the City of San Antonio

City Public Service Energy

One Call Center 1-800-344-8377 to locate:

Underground systems that operate the highway illumination system maintained by City Public

Service Energy.

Vegetation Requirements

The preferred option during the current drought with regards to re-vegetation is to prepare the seedbed, adding topsoil/compost as required, place fertilizer and permanent seed mix, and then correctly install a Soil Retention Blanket (SRB) or Channel Liner, whichever is required for the location. No watering to establish vegetation would be required. Information on approved SRB and Channel Liners for the slope and soil type for a specific location can be found at

http://www.dot.state.tx.us/business/doing busines s/product evaluation/erosion control.htm

Installation should be according to the manufacturer's recommendation which should be provided to the utility inspector.