LAS VIRGENES MUNICIPAL WATER DISTRICT

4232 LAS VIRGENES ROAD CALABASAS, CALIFORNIA 91302-1994 TELEPHONE: (818) 251-2100 LOS ANGELES COUNTY, CALIFORNIA

CONTRACT DOCUMENTS

FOR

LONG VALLEY WATERLINE REPLACEMENT PROJECT HIDDEN VALLEY

JANUARY 2012



LAS VIRGENES MUNICIPAL WATER DISTRICT

Long Valley Road Waterline Replacement Project

ADDENDUM NO. 1

February 21, 2012

The following clarifications, revisions, replacements, additions, and/or deletions shall be made a part of the above-referenced contract documents.

☐ The attached Bid Schedule replaces the Bid Schedule that was included in the Contract

Clarifications

The bid date and time remain unchanged.

Bid Forms

	Documents.
	The attached Notice Inviting Bids replaces the Notice Inviting Bids that was included in the
	Contract Documents.
Specifi	ications
	Add the following to Specification Section 00810-1.01-L Site Access as a new paragraph:
	o "The access to the site requires approval by the security gate at the entrance of the
	community. The approval process takes time and will cause significant delays in
	equipment, materials and labor arrival."
	Modify Specification Section 01100-1.02 CONTRACT DESCRIPTION, paragraph B, Item 1 an
	2 to read as follows:
	o "1. Bid Opening February 29, 2012
	2. Project Award March 13, 2012"
	Add the following to Specification Section 01100-1.05 as paragraph F:
	o "F. The parkway where the pipeline is located does have mature trees in certain
	locations. Anticipate that tree roots will be located in the area of construction."
ч	Add the following to Specification Section 01100-1.05 as paragraph G:
	o "G. The pipeline alignment is located in a residential community. Solid waste
	service pickup is on Wednesdays. Coordinate the location of the container pickup so as
	to not disrupt the service." Add the following to Specification Section 01100-1.06 as paragraph B:
	o "B. Post "No Parking" Notices for the work in the parkway 48 hours prior to
	construction work in that area to allow the residents time to relocate their vehicles. No
	Parking notices shall be approved by the Hidden Hills HOA prior to installation."
	Add the following to Specification Section 01100-1.06 as paragraph C:
	o "C. Video documentation of the existing private driveways, street pavement
	condition, curb and gutter and above ground conditions prior to commencement of
	construction work is required. Submit to the District a copy of the DVD showing the
	video documentation prior to commencement of construction. Submit the DVD in
	accordance with Specification Section 01300."

- ☐ Modify Specification Section 01200-1.07 Bid Schedule, to read as follows:
 - o "14. The PARKWAY REPLACEMENT (BID ITEM #14) Work item shall be measured on a lump sum basis and includes removal of the existing parkway decomposed granite material and replacement with decomposed granite material specified in Section 02324 Trenching, Backfill and Compaction to match the existing thickness as shown on the Plans for the entire width (14-15 feet) and per the detail shown in the Appendix and in accordance with these Special Provisions."
- ☐ Modify Specification Section 01200-1.07, paragraph 5, to read as follows:
 - o "The 8-INCH DIAMETER PIPE REPLACEMENT (Bid Item #5) Work item shall be measured on a unit price basis and includes trench excavation, installation of sheeting, shoring and bracing, protection of existing utility crossings and adjacent utilities, removal of existing pipeline and appurtenances in conflict with the new pipeline, pipeline bedding placement, pipeline and fitting installation, valve installation, backfill and compaction, concrete slurry backfill where noted in the typical detail, disinfection and pressure testing as shown on the Plans and in accordance with these Special Provisions."
- ☐ Add the following to Specification Section 02324:
 - o "2.04 CEMENT SLURRY
 - A. Cement slurry shall be two sack per the trench detail in the Appendix. Mixing, materials and proportioning shall be per the Standard Specifications for Public Works Construction (SSPWC) Section 201.
 - 2.05 DECOMPOSED GRANITE MATERIAL
 - A. Decomposed granite must be crushed granite rock screenings graded from 30 mm particles to dust. The material must comply with the following gradation (AASHTO T11-82 and T27-82:

Sieve Size	Percent Passing
3/8-inch	100
No. 4	95-100
No. 8	75-80
No. 16	55-65
No. 30	40-50
No. 50	25-35
No. 100	20-25
No. 200	5-15

The decomposed granite must be uniform in color and uniform in texture. Color to match existing and be approved by Hidden Hills HOA prior to placement. Provide a sample for approval prior to beginning of construction."

- ☐ Modify Specification Section 02324-3.04-F to read as follows:
 - o "Backfill the trench to the surrounding grades and as shown in the typical trench detail located in the Appendix."
- ☐ Modify Specification Section 02324-3.04-G to read as follows:

o "Replace the decomposed granite pathway in its entirety (14-15 feet wide) for the length of the project. Installation shall be as shown on the typical cross section detail located in the Appendix. Compaction shall be as detailed in Section 3.05."

Plans

☐ The attached Plan Set replaces the Plan Set that was included in the Contract Documents.

NOTICE INVITING SEALED PROPOSALS (BIDS) Long/aby Road Waterhe RetementProjet

NOTICE IS HEREBY GIVEN that the Board of Directors of Las Virgenes Municipal Water District invites and will receive sealed proposals (bids) up to the hour of 3:00 p.m. on February 29, 2012, for furnishing the work described in the contract documents. Bids received after the time stated in the Call for Bids will not be accepted and will be returned, unopened, to the bidder. The time shall be determined by the time on the receptionist telephone console in our Headquarters lobby. Proposals will be publicly opened and read aloud at the office of the District, 4232 Las Virgenes Road, Calabasas, California. Said bids shall conform to and be responsive to the Specifications and Contract Documents for said work as heretofore approved by the District.

A **mandatory** pre-bid tour will be conducted at 9:00 a.m. on February 15, 2012. The meeting will begin at the District headquarters at 4232 Las Virgenes Road, Calabasas, CA 91302. Attendance at the pre-bid conference is a condition precedent to submittal of the bid and the District will not consider a bid from any bidder not represented at the pre-bid conference. Questions regarding the project may be directed to John Zhao, P.E., at 818.251.2230.

Sets of contract documents may be purchased at the District upon payment to the District by check or cash only for Thirty-Five Dollars (\$35) for each hard copy set and \$10 for each CD set. Purchase price will not be refunded.

Each bid must be on the District bid form and shall be sealed and filed with the secretary of the District at or before the time stated in the Notice.

All terms and conditions contained in the Specifications and Contract Documents shall become part of the contract. The Board of Directors of Las Virgenes Municipal Water District reserves the right to reject any and all bids and to waive any and all irregularities in any bid. No bidder may withdraw his bid after the said time for bid openings until 60-days thereafter or until the District has made a final award to the successful bidder or has rejected all bids, whichever event first occurs.

The Board of Directors of the District reserves the right to select the schedule(s) under which the bids are to be compared and contract(s) awarded.

BY ORDER OF THE GOVERNING BODY OF LAS VIRGENES MUNICIPAL WATER DISTRICT

Dated	Charles P. Caspary
	Secretary

LAS VIRGENES MUNICIPAL WATER DISTRICT PROPOSAL SCHEDULE OF WORK AND PRICES FOR LONG VALLEY ROAD WATERLINE REPLACEMENT PROJECT

Bid Schedule

processor .					
Item	Description	Quantity	Unit	Unit Price	Total Price
1	Mobilization	1	LS	\$	\$
2	Traffic Control	1	LS	\$	\$
3	Potholing	10	EA	\$	\$
4	Potable Water Highlining	1	LS	\$	\$
5	8-inch diameter Pipe Replacement	1230	LF	\$	\$
6	1-inch Dia. Long Water Service Replacement	.8	EA	\$	\$
7	1-inch Dia. Short Water Service Replacement	5	EA	\$	\$
8	1.5 or 2-inch Dia. Short Water Service Replacement	3	EA	\$	\$
9	Fire Hydrant Replacement	3	EA	\$	\$
10	Disinfection and Pressure Testing	1	LS	\$	\$
11	Existing Water Main Abandonment	1	LS	\$	\$
12	Record Drawings	1	LS	\$	\$
13	Storm Water Pollution Control Plan	1	LS	\$	\$
14	Parkway Replacement (entire width)	1	LS	\$	\$
	Total Bid Schedule				\$

The District will make their selection based on the lowest responsible, responsive total of the bid submitted at its discretion.

It is understood the foregoing quantities are approximate only and are solely for the purpose of facilitating the comparison of bids. The Contractor's compensation will be computed upon the basis of the actual quantities in the complete work, whether they are more or less than those shown.

Next page must be completed and submitted with proposal to be considered responsive.

LAS VIRGENES MUNICIPAL WATER DISTRICT PROPOSAL SCHEDULE OF WORK AND PRICES FOR LONG VALLEY ROAD WATERLINE REPLACEMENT PROJECT

Technical Ability and Experience

The bidder is required to state a minimum of three princluded in the proposed contract the bidder has unreasonable change orders or default, and give District to judge the bidder's responsibility, experience standing. Attach additional sheets as necessary.	s successfully performed without references which will enable the
	Signature of Bidder

Appendix

- Selected LVMWD Standard Plans
 - o PW-101 Trench Terminology and Standard Dimensions
 - o PW-110 Fire Hydrant Installation
 - o PW-117 Valve Restraint Installation
 - o PW-118 Valve Box and Cover Identification
 - o PW-130 Guard and Marker Post Detail
 - o PW-133 Thrust Block Details
 - o PW-139 Pipe Protection Slab and Concrete Encasement Detail
- Hidden Hills Home Owners Association Encroachment Permit
- Typical Trench Detail
- Parkway Section Detail

Hidden Hills Community Association

24549 Long Valley Road Hidden Hills, CA 91302

Application & Permit for Construction and/or Excavation In the Roadway Easement

Permitee:	LVMWD			Permit	number:	838
Name:	John Zh	ao	40000000000000000000000000000000000000	Validation 6	& Issue Date	
Work Order #:			建大物型设置	By:	EMT.	 €
Authorized Contact:	Lindsay	Cao		Date: 3/27/2012		<u> </u>
Phone:	818-251	-2230			91	Days
Address:		s Virgenes		This is a Valid Perr	nit when pro	perly completed,
City, Zip:	Calabas	as, CA 913	02	signed and approp	riate bonds	oosted.
Emergency Phone: State License No.: Work Comp. #:				Work Location:		y Rd., bet Old Farm e Creek Roads
Permit Purpose:	cement	STEEL STATE OF THE	00 linear feet of long the Long ay		Inspection Date	ı Approval By
	Qty	Harris sind	Fee		Date	
Curb & Gutter		Lin Ft.				
Sidewalk		Sq. Ft.				
Parkway Drain		Ea.				
Parkway Dumpster Excavation/Trenching	3900	Ea. Sq. Ft.	\$9,820.00			 :
Improvement Plans	3900	Sy, rt.	φ9,020.00		-	
Other: Driveway appro						<u> </u>
Issuance Fee	1		\$95.00			LVMWD
						Gas Co.
Total Fee			\$9,915.00			Edison
,,,		F				SBC
Work guaranteed by: (Circle One)	X	Franchise	Bond	Cash Deposit		

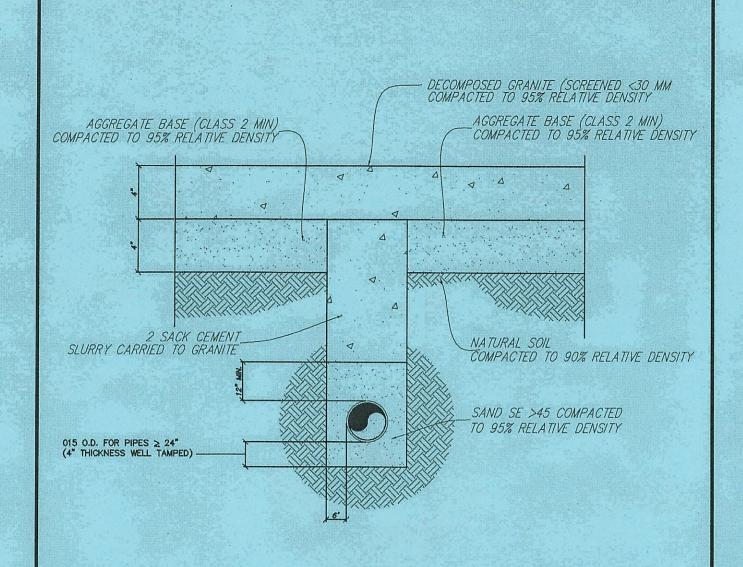
I acknowledge that I have read this application and state that the above is correct and I agree to comply with all City Codes, The Standard Specifications for Public Works Construction, H.H.C.A. standards and specifications, and state laws.

I further agree to pay for any and all work which is undertaken by the Association in relation to this permit, which was not completed to the satisfaction of the above, listed codes and standards. The Contractor shall follow all provisions of the Dig Alert AB 73 regarding the notification of underground service alert before excavating.

BE ADVISED THAT PROPER TRAFFIC CONTROL IN ACCORDANCE WITH THE CALTRANS WATCH MANUAL WILL BE STRICTLY ENFORCED BY H.H.C.A.

This Permit Expires:

6/26/2012

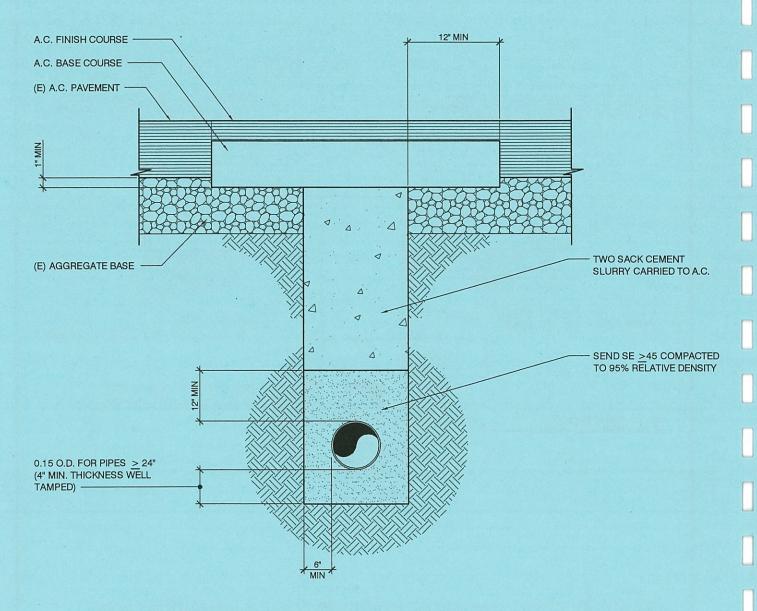


NOTE: ANY TRENCH WORK WITHIN PARKWAY REQUIRES REPLACEMENT OF ENTIRE PARKWAY WIDTH

PARKWAY/TRENCH DETAIL

N.T.S

PREPARED FOR HIDDEN HILLS



NOTES:

- 1. A.C. BASE COURSE SHALL BE TYPE III B3-AE-4000, A.C. FINISH COURSE SHALL BE TYPE III C2-AR-4000.
- 2. FINAL A.C. FINISH COURSE (CAP) SHALL BE A MINIMUM OF 1-1/2" THICK.

TRENCH DETAIL

NOT TO SCALE

LAS VIRGENES MUNICIPAL WATER DISTRICT

LOS ANGELES COUNTY, CALIFORNIA

CONSTRUCTION PLANS FOR

LONG VALLEY ROAD WATERLINE REPLACEMENT PROJECT **HIDDEN VALLEY**

UTILITY COORDINATION

AT&T DISTRIBUTION SUBSTRUCTURE REQUEST 16201 RAYMER ST VAN NUYS, CA 91406

CRIMSON PIPELINE LP 2459 REDONDO AVE LONG BEACH, CA 90806 MICHAEL ROMLEY (661)343-3218 MJROMLEY@CRIMSONPL.COM

SCE DISTRIBUTION SANTA ANA, CA. 92711 KIM GURULE (714)796-9932

CHARTER COMMUNICATIONS 51 W. MAIN ST. UNIT F SEAN SCOTT (805)290-3331

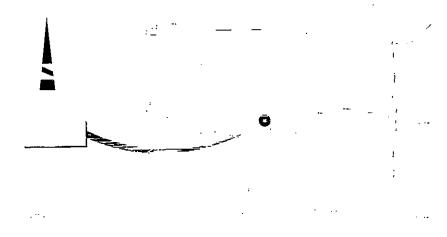
TIME WARNER CABLE 9260 TOPANGA CANYON BLVD. CHATSWORTH, CA 91311-5726 LISA POWERS (818) 700-5910 LISA.POWERS@TWCABLE.COM

CITY OF LOS ANGELES RECORDS SECTION 1149 S BROADWAY #200 LOS ANGELES, CA 90015 (213)847-1498

LA DEPARTMENT WATER & POWER UNDERGROUND SUBSTRUCTURE DESIGN 111 N HOPE ST RM 813 (213)367-2659

SOUTHERN CA. GAS CO. 9400 OAKDALE AVE CHATSWORTH, CA 91311 KEVIN FOWARDS KEDWARDS@SEMPRAUTILITIES

LAS VIRGENES MWD 4232 LAS VIRGENES RD CALABASAS, CA 91302 (818)251-2233



VICINITY MAP

SHEET INDEX

TITLE SHEET

NOTES - SURVEY - ABBREVIATIONS

LONG VALLEY ROAD - STA 1+00 TO STA 8+20 LONG VALLEY ROAD - STA 8+20 TO STA 12+98,19

LAS VIRGENES MUNICIPAL WATER DISTRICT CONTACT LIST

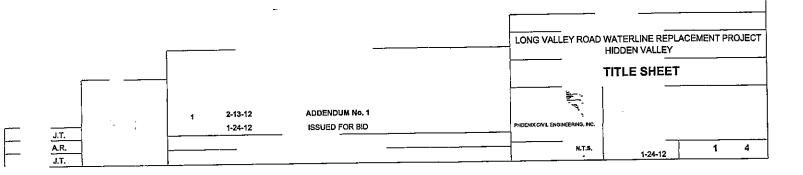
LINDSAY CAO JOHN ZHAO DOUG BARROW PROJECT MANAGER PRINCIPAL ENGINEER

CIVIL ENGINEERING ASSISTANT

(818) 251-2163 (818) 251-2230 (818) 324-9632



VERIFY SCALES



WATER CONSTRUCTION NOTES:

- 1. ALL FITTINGS SHALL BE DUCTILE IRON, CL 150, CONFORMING TO CURRENT DISTRICT AND AWWA STANDARDS.
- ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF THE LAS
 VIRGENES MUNICIPAL WATER DISTRICT STANDARDS, "STANDARD SPECIFICATIONS FOR PUBLIC WORKS
 CONSTRUCTION (SSPWC)", "STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION (SPPWC)", AND THE
 CONTRACT DOCUMENTS
- 3. MECHANICAL RESTRAINED JOINTS SHALL BE USED TO CONNECT C-900 PIPE TO DUCTILE IRON FITTINGS, LIMI FSS INDICATED OTHERWISE.
- 4. PVC WATER PIPES SHALL BE AWWA C-900 CL 235 (DR 18) IN CONFORMANCE WITH DISTRICT STANDARDS.
- 5. ALL VALVES ARE RESILIENT WEDGE GATE VALVES, PER DISTRICT STANDARD, UNLESS OTHERWISE NOTED.
- 6. CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL EXISTING WATERLINE, SERVICE AND APPURTENANCES IN CONFLICT WITH PROPOSED INSTALLATION. CONTRACTOR SHALL COMPLETELY PLUG ENDS OF WATER LINES THAT ARE SLATED TO BE ABANDONED WITH CONCRETE. SALVAGE EXISTING VALVES IN ACCORDANCE WITH THE SPECIAL PROVISIONS.
- 7. EXISTING WATER MAIN LINES SHALL REMAIN IN SERVICE DURING CONSTRUCTION AND SHALL BE TAKEN OUT OF SERVICE ONLY AFTER THE FINAL CONNECTION OF NEW WATER MAINLINE UNLESS THE PROPOSED ALIGNMENT IS BEEN ACING EXISTING.
- 8. THE CONTRACTOR SHALL ARRANGE FOR A PRE-CONSTRUCTION MEETING (48 HOURS MINIMUM PRIOR TO THE START OF CONSTRUCTION) WITH THE LYMWD CONSTRUCTION SUPERVISOR (818) 251-2233. CONTRACTOR SHALL APPLY FOR INSPECTION FROM LYMWD AT (818) 251-2233 AT LEAST 24 HOURS IN ADVANCE. CONTACT THE REGIONAL NOTIFICATION CENTER (UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA - U.S.A. AT 1-800-227-2800) AND REQUEST THAT UTILITY OWNERS MARK OR OTHERWISE INDICATE THE LOCATION OF THEIR FACILITIES.
- 9. DURING ALL PHASES OF CONSTRUCTION, INCLUDING SUSPENSION OF WORK, UNTIL FINAL ACCEPTANCE OF THE PROJECT, OBSERVE, FOLLOW AND IMPLEMENT ALL THE REQUIREMENTS OF THE NPDES AND STORMWATER POLLUTION PREVENTION PROGRAM AND KEEP THE WORK SITE CLEAN AND FREE FROM RUBBISH AND DEBRIS. ALSO ABATE DUST NUISANCE BY CLEANING, SWEEPING, SPRINKLING WITH WATER AND USING DUST FENCES OR OTHER METHODS AS DIRECTED BY THE DISTRICT'S REPRESENTATIVE THROUGHOUT THE CONSTRUCTION OPERATION.
- 10. KEEP A STRICT RECORD OF ALL CHANGES AND SUBMIT THIS RECORD TO THE DISTRICT REPRESENTATIVE. ALSO COORDINATE TRANSFERRING "AS-BUILT" INFORMATION ON THE CONTRACT DRAWINGS AND DELIVER THE CERTIFIED "AS-BUILT" PLANS TO THE DISTRICT BEFORE THE FINAL ACCEPTANCE OF THE PROJECT SHALL BE FILED.
- 11. EXERCISE DUE CARE TO AVOID INJURY TO EXISTING IMPROVEMENTS OR FACILITIES, UTILITY FACILITIES, ADJACENT PROPERTY, AND TREES AND SHRUBBERY THAT ARE NOT TO BE REMOVED. ALL DAMAGE CAUSED TO PUBLIC/PRIVATE STREETS, INCLUDING HAUL ROUTES, ALLEYS, SIDEWALKS, CURBS OR STREET FURNISHINGS, OR TO PRIVATE PROPERTY SHALL BE REPAIRED TO THE SATISFACTION OF THE DISTRICT'S REPRESENTATIVE.
- 12. DESIGNATE AND KEEP ON THE PROJECT AT ALL TIMES WHILE WORK IS BEING PERFORMED A COMPETENT SUPERINTENDENT WHO SHALL NOT BE REPLACED WITHOUT A WRITTEN NOTICE AND APPROVAL FROM THE DISTRICT'S REPRESENTATIVE. THE SUPERINTENDENT WILL BE THE CONTRACTOR'S REPRESENTATIVE AT THE SITE AND SHALL HAVE AUTHORITY TO ACT ON BEHALF OF THE CONTRACTOR. ALL COMMUNICATIONS GIVEN TO THE SUPERINTENDENT SHALL BE AS BINDING AS IF GIVEN TO THE CONTRACTOR. DURING PERIODS WHEN THE WORK IS SUSPENDED, MAKE APPROPRIATE ARRANGEMENTS FOR ANY EMERGENCY WORK WHICH MAY BE REQUIRED.
- 13. WHEN THE WORK ON ANY PORTION OF THE PROJECT IS SUFFICIENTLY COMPLETE TO BE UTILIZED OR PLACED INTO SERVICE, THE DISTRICT SHALL HAVE THE RIGHT UPON WRITTEN NOTIFICATION TO THE CONTRACTOR TO UTILIZE SUCH PORTIONS OF THE WORK AND TO PLACE THE OPERABLE PORTIONS INTO SERVICE AND TO OPERATE SAME. UPON SAID NOTICE AND COMMENCEMENT OF UTILIZATION OR OPERATION BY THE DISTRICT, THE DUTY OF MAINTAINING THE PORTIONS SO UTILIZED OR PLACED INTO OPERATION SHALL NOT APPLY; PROVIDED, HOWEVER, THAT NOTHING IN THIS NOTE SHALL BE CONSTRUED AS RELIEVING THE FULL RESPONSIBILITY FOR COMPLETING THE WORK IN ITS ENTIRETY, FOR REPAIRING DEFECTIVE WORK AND MATERIALS, FOR PROTECTING THE WORK FROM DAMAGE, AND FOR BEING RESPONSIBLE FOR DAMAGE.
- 14. CONDUCT OPERATIONS AS TO OFFER THE LEAST POSSIBLE OBSTRUCTION AND INCONVENIENCE TO THE PUBLIC, AND HAVE UNDER CONSTRUCTION NO GREATER LENGTH OR AMOUNT OF WORK THAN CAN BE PROSECUTED PROPERLY WITH DUE REGARD TO THE RIGHTS OF THE PUBLIC. CONVENIENT ACCESS TO DRIVEWAYS, HOUSES, AND BUILDINGS ALONG THE LINE OF WORK SHALL BE MAINTAINED AND TEMPORARY CROSSINGS SHALL BE PROVIDED AND MAINTAINED IN GOOD CONDITION. NO DRIVEWAY CROSSING OR INTERSECTION STREET OR ROAD SHALL BE CLOSED AT
- 15. IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK AND FULLY COMPLY WITH ALL STATE, FEDERAL AND OTHER LAWS, RULES, REGULATIONS AND ORDER RELATING TO SAFETY OF WORKERS AND ALL OTHERS. THIS MAY INCLUDE THE ISSUANCE OF PERSONAL PROTECTIVE

- 16. THE WATER MAIN SHALL HAVE NO JOINTS WITHIN 10 FEET OF SEWER CROSSINGS OVER NEW MAIN AND WITHIN 4 FEET OF SEWER CROSSING UNDER NEW MAIN, UNLESS INDICATED ON THE PLAN. SEPARATION SHALL BE PER CALIFORNIA DEPARTMENT OF PUBLIC HEALTH GUIDELINES.
- 17. THRUST BLOCKS SHALL BE PER THE TABLE ON DISTRICT STANDARD PLAN PW-133.
- 18. EXISTING SERVICES SHALL NOT BE WITHOUT WATER AT ANY TIME WITHOUT PRIOR NOTIFICATION TO RESIDENCES INVOLVED. THIS PROJECT WILL REQUIRE THAT THE EXISTING PORTION OF THE 6-INCH PIPELINE TO BE ABANDONED WILL BE OUT OF SERVICE DURING CONSTRUCTION. BECAUSE OF THIS, A POTABLE WATER HIGHLINE SYSTEM WILL BE REQUIRED. REFER TO THE PROJECT SPECIFICATIONS FOR DETAILS.
- 19. VERIFY DIMENSIONS AND CONDITIONS AT THE SITE BEFORE STARTING WORK. ANY CONFLICT BETWEEN DETAILS OR DIMENSIONS ON THE DRAWINGS SHALL BE REPORTED PROMPTLY TO THE DISTRICT'S REPRESENTATIVE WHO WILL DETERMINE THE INTENT OF THE DRAWINGS.
- 20. PROVIDE ALL NECESSARY TRAFFIC CONTROL DEVICES DURING DURATION OF CONSTRUCTION WORK, INCLUDING, BUT NOT LIMITED TO, LIGHTED BARRICADES, X-RAIL, DELINEATORS, TRAFFIC CONES, ETC., TO SAFELY CONVEY TRAFFIC AND PEDESTRIANS THROUGH AND AROUND CONSTRICTION WORK ZONES. AT STREET CROSSINGS AND DRIVEWAY CROSSINGS ONE LANE OF TRAFFIC MUST BE KEPT OPEN AT ALL TIMES.
- 21. ALL STRIPING AND MARKINGS SHALL BE REPLACED IN KIND BY CONTRACTOR IF DISTURBED.
- 22. USE LOW IMPACT TRENCHING METHODS WITHIN FOUR FEET HORIZONTALLY OF PRIVATE OR PUBLIC TREES, LOW IMPACT METHODS INCLUDE, BUT ARE NOT LIMITED TO, USE OF HIGH PRESSURE TOOLS, VACUUM OR SUCTION TOOLS, OR HAND METHODS.
- 23. TRENCHING METHODS SHALL CONFORM WITH THE ORDER OF THE STATE OF CALIFORNIA DIVISION OF INDUSTRIAL SAFETY AND O.S.H.A. STANDARD.
- 24. WHERE UNDERGROUND UTILITIES ARE SHOWN, ASSUME EVERY LOT IS SERVED BY A SERVICE CONNECTION FROM EACH UTILITY.
- 25. DO NOT LEAVE ANY TRENCH OPEN DURING NON-WORKING HOURS.
- 26. EXISTING WATER SERVICES SHALL BE MAINTAINED AT ALL TIMES UNLESS OTHERWISE APPROVED
- 27. EXISTING UTILITIES THAT CROSS OVER, UNDER OR PARALLEL TO (WITHIN 10') THE NEW WATERLINE MUST BE LOCATED AND POTHOLED.
- 28. DELIVER REMOVED EXISTING FIRE HYDRANTS, VALVES AND APPURTENANCES TO LYMWD YARD.
- 29. EVERY LOT IS SERVED WITH AN EXISTING GAS SERVICE (LOCATION NOT SHOWN ON PLANS). VERIFY LOCATION IN FIELD AND POTHOLE. SEE NOTE #27 HEREON.

CAUTION: UNDERGROUND STRUCTURES AND UNDERGROUND UTILITIES REPORTED BY THEIR RESPECTIVE OWNERS OR THOSE SHOWN ON RECORDS EXAMINED ARE INDICATED WITH THEIR APPROXIMATE LOCATION AND EXTENT. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITIES OR STRUCTURES FOUND AT THE SITE, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE OWNERS OF THE UTILITIES OR STRUCTURES CONCERNED BEFORE STARTING TO WORK.

ABBREVIATIONS

ACP AB BCF CCL CONY CTY EG ELP EX FFH FL G GB IN	ASPHALTIC CONCRETE ASBESTOS CEMENT PIPE AGGREGATE BASE BENCHMARK CURB FACE CLASS CENTERLINE CONCRETE DRIVEWAY CABLE TELEVISION DETAIL EXISTING GROUND ELEVATION EDGE OF PAVEMENT EXISTING FINISH GRADE FIRE HYDRANT FLOWLINE FLANGE GAS GAS METER GRADE BREAK INVERT OR FLOWLINE OF PIPE	MB LF MH MJ MON NIC N.T.S PP PL R R SD SDMH SS SMH STD TG TG TYP VCP WM	MAILBOX LINEAR FEET MANHOLE MECHANICAL JOINT SURVEY MONUMENT NOT IN CONTRACT NOT TO SCALE POWER POLE PROPERTY LINE POLYVINYL CHLORIDE RADIUS RIGHT OF WAY STORM DRAIN STORM DRAIN STORM DRAIN MANHOLE SANITARY SEWER SEWER MANHOLE STATION STANDARD THRUST BLOCK TOP OF CURB TOP OF GRATE TREE TYPICAL VITRIFIED CLAY PIPE WATER WATER
		wv	WATER VALVE

MATERIALS LIST

NO.	DESCRIPTION	QUANTITY
1	8 INCH AWWA, C900, CL 235 (DR 18) PVC PIPE	1230 LF
2	1 INCH WATER SERVICE ASSEMBLY	13 EA
3	1.5 INCH WATER SERVICE ASSEMBLY	2 EA
4	2 INCH WATER SERVICE ASSEMBLY	1 EA
5	FIRE HYDRANT ASSEMBLY	3 EA
6	8 INCH VALVES	3 EA
7	6 INCH VALVES	4 EA
8	4 INCH VALVES	1 EA

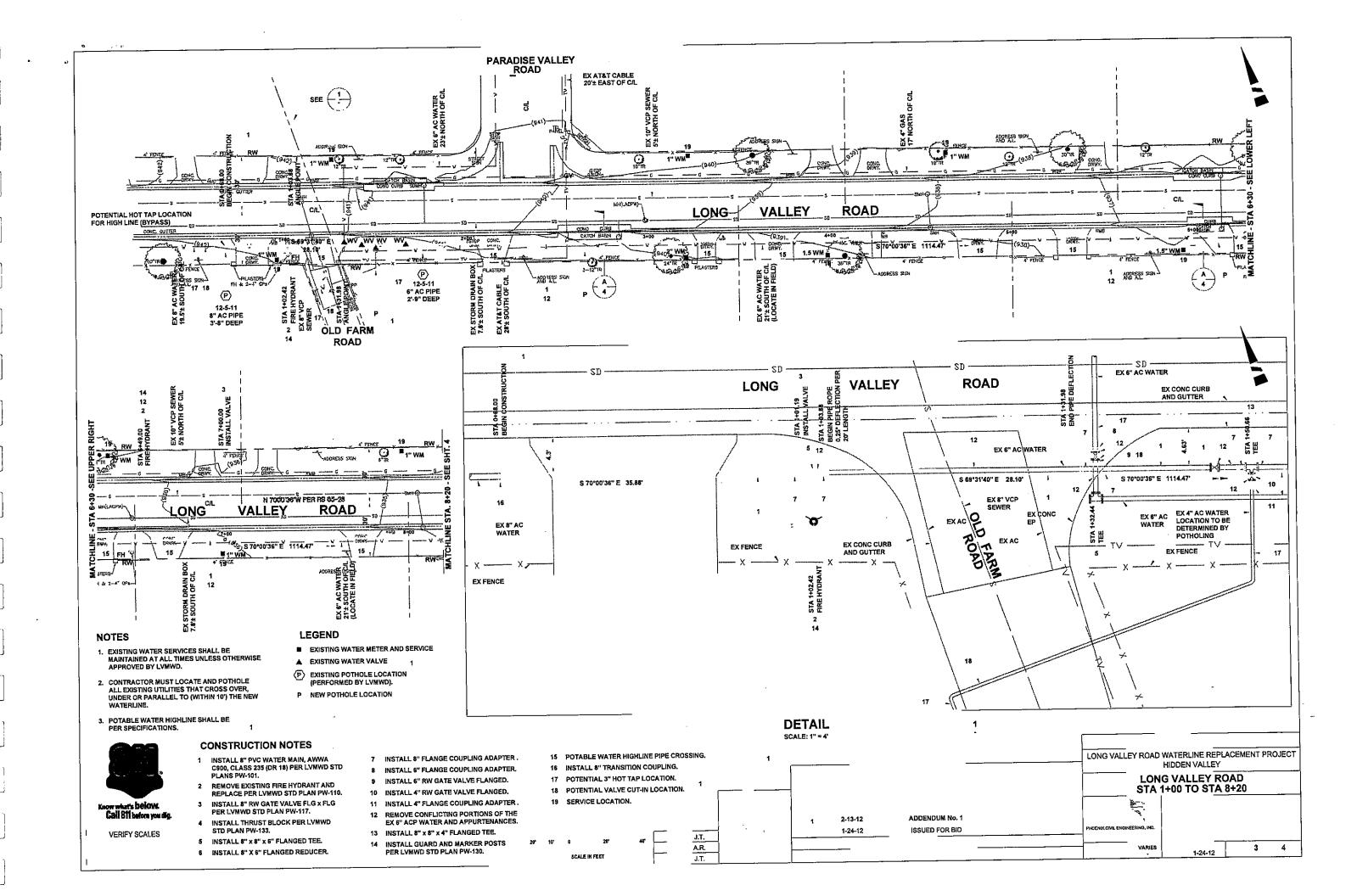
BENCH MARK

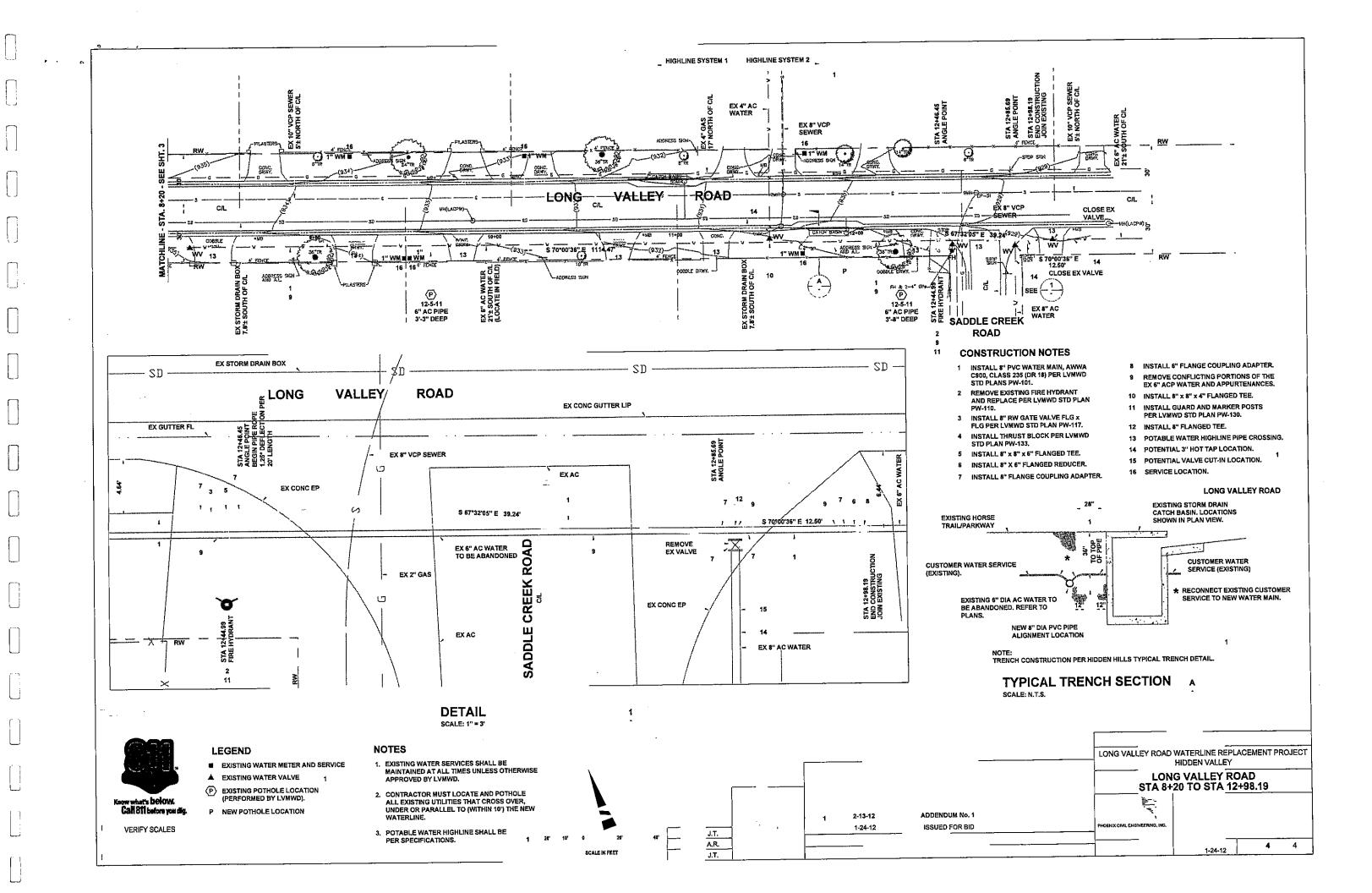
ELEV. 941.411 L.A. COUNTY BENCH MARK Y 11610 MALIBU (2003) LA CO BM TAG IN S CB 3.3' W/O BCR @ SW COR CALABASAS RD & MULHOLLAND DR 82' W & 50.9' S/O C/L INT.

Know what's DelCVV. Gall 811 before you dig

VERIFY SCALES

				LONG VALLEY ROAD WATERLINE REPLACEMENT PRO HIDDEN VALLEY	DJEC
	_			NOTES - SURVEY - ABBREVIATION	S
	1	2-13-12	ADDENDUM No. 1	in the second se	
J.T. '		1-24-12	ISSUED FOR BID	PHOENIX CHILL ENGINEERING, INC.	
A.R. J.T.				1-24-12 2	4





ACKNOWLEDGEMENT

These specifications have been prepared under the direction of the following professional engineer, licensed by the State of California:

Name:

__ No. C60214

Jonathon M./Turner, Civil Engineer Phoenix Civil Engineering, Inc.

Exp. 6/30/12

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NOTICE IS HEREBY GIVEN that the Board of Directors of Las Virgenes Municipal Water District invites and will receive sealed proposals (bids) up to the hour of 3:00 p.m. on February 29, 2012, for furnishing the work described in the contract documents. Bids received after the time stated in the Call for Bids will not be accepted and will be returned, unopened, to the bidder. The time shall be determined by the time on the receptionist telephone console in our Headquarters lobby. Proposals will be publicly opened and read aloud at the office of the District, 4232 Las Virgenes Road, Calabasas, California. Said bids shall conform to and be responsive to the Specifications and Contract Documents for said work as heretofore approved by the District.

A mandatory pre-bid tour will be conducted at 9:00 a.m. on February 15, 2012. The meeting will begin at the District headquarters at 4232 Las Virgenes Road, Calabasas, CA 91302. Attendance at the pre-bid conference is a condition precedent to submittal of the bid and the District will not consider a bid from any bidder not represented at the pre-bid conference. Questions regarding the project may be directed to Lindsay Cao, P.E., at 818.251.2163.

Sets of contract documents may be purchased at the District upon payment to the District by check or cash only for Thirty-Five Dollars (\$35) for each hard copy set and \$10 for each CD set. Purchase price will not be refunded.

Each bid must be on the District bid form and shall be sealed and filed with the secretary of the District at or before the time stated in the Notice.

All terms and conditions contained in the Specifications and Contract Documents shall become part of the contract. The Board of Directors of Las Virgenes Municipal Water District reserves the right to reject any and all bids and to waive any and all irregularities in any bid. No bidder may withdraw his bid after the said time for bid openings until 60-days thereafter or until the District has made a final award to the successful bidder or has rejected all bids, whichever event first occurs.

The Board of Directors of the District reserves the right to select the schedule(s) under which the bids are to be compared and contract(s) awarded.

BY ORDER OF THE GOVERNING BODY OF LAS VIRGENES MUNICIPAL WATER DISTRICT

January 34, 2012
Dated

Charles P. Caspary Secretary

INFORMATION FOR BIDDERS

1. GENERAL

The work hereunder must be done in strict conformity with the plans and specifications adopted and approved by the District.

2. CONTRACT DOCUMENTS

(a) The contract documents shall consist of the following:

Notice Inviting Sealed Proposals (Bids)

Information for Bidders

Proposal or Bid Form

Noncollusion Declaration

Agreement

Addenda issued Prior to Bid Opening

Certificate(s) of Insurance

Workers Compensation Certificate

Bonds

Special Provisions

Plans and Specifications

(b) Terms and conditions contained in the contract documents are part of the contract. The governing board of the District may reject bids and to waive informalities in bids. No bidder may withdraw a bid until the District has made a final award to the successful bidder or has rejected all bids.

3. PROPOSALS

Bids shall be made upon the form of proposal furnished by the District and a part of the contract documents. Bids shall be properly executed and with all items filled in; the signatures of persons signing shall be in longhand. Erasures, interlineations or other corrections shall be authenticated by affixing in the margin immediately opposite the correction, the initials of a person signing the bid. The unit price and the total amount named by a bidder for an item are not in agreement, the unit price alone shall be considered as representing the bidder's intention, and the totals shall be corrected to conform.

Persons bidding may submit bids on any of the schedules set forth in the bid form.

Bids shall not contain recapitulation of the work to be done. Alternative proposals will not be considered except as called for. No oral, telegraphic or telephonic proposals or modifications will be considered.

Bids shall be accompanied by a bidder bond in a form acceptable to the District or cash in the amount of 10% of the bid price.

Before submitting a bid, bidders shall carefully examine all contract documents, shall visit the site of the work, shall fully inform themselves as to all the existing conditions and

limitations, and shall include in the bid a sum to cover the cost of all items included in the contract. No allowance will be made because of lack of such examination or knowledge.

Bids shall be sealed in an envelope marked "Long Valley Road Waterline Replacement Project" addressed to the Secretary of the District, and be delivered thereto on or before the day and hour set for the opening of bids in the notice inviting sealed proposals, and shall bear the name of the bidder. It is the SOLE responsibility of the bidder to see that his bid is delivered and received in proper time. Any bid received after that scheduled closing time for receipt of bids shall be returned to the bidder unopened.

The District shall have a period of 60 days after the opening of bids within which to accept or reject the bids. If no bid is accepted within the period, or if the successful bidder executes and delivers the necessary contract documents to the District, the District will return to each bidder all checks and bonds received by the District from unsuccessful bidders within 10 days after the execution of the contract and presentation of required certificates and bonds or within 10 days after being requested to do so by the bidder if no bid is accepted within the period.

4. AGREEMENT AND BONDS

The form of contract which the successful bidder, as Contractor, will be required to execute is included in the contract documents, and should be carefully examined by the bidder. The agreement, bonds, and other documents to be executed by the Contractor shall be executed in original triplicates stamped according to law, one of which original triplicate shall be filed with the District, and the others with the District's Attorney and the District's Engineer.

The successful bidder, simultaneously with the execution of the agreement, shall furnish and maintain a payment bond in an amount equal to 100% of the contract price and a faithful performance bond in an amount equal to 100% of the contract price. The bonds shall be secured from a surety company satisfactory to the District and whose name is on file with the County Clerk of Los Angeles County as an approved and financially sound surety company, authorized to transact business in this State.

The bonds shall meet all of the requirements and contain the conditions required by Sections 3247 and 3248 inclusive, of the Civil Code, and other applicable provisions of the law and regulations of the State of California.

Failure to execute the contract and file acceptable bonds and proof of insurance coverage as provided therein within the time set forth herein shall be just cause for the annulment of the award and forfeiture of the proposal guarantee.

5. ADDENDA OR BULLETINS

Addenda or bulletins issued before the time to submit bids expires, or forming a part of the contract documents furnished to the bidder for preparation of his bid, shall be covered in the bid and shall be made a part of the contract.

6. WITHDRAWAL OF BID

A bidder may withdraw the bid personally or by a signed written request prior to the scheduled time for opening of the bids (but not after).

7. AWARD OR REJECTION OF BIDS

The contract will be awarded to the lowest responsible bidder complying with these instructions and with the notice inviting sealed proposals. The District may reject bids or waive informality in bids. If in the judgment of the District a bid is unbalanced, or if the bidder is not responsible, it shall be considered sufficient grounds for rejection of the entire bid.

8. BIDDERS INTERESTED IN MORE THAN ONE BID

No person, firm or corporation shall make or file, or be interested in more than one bid for the same work, unless alternative bids are solicited. A person, firm or corporation submitting a subproposal to a bidder, or who has quoted prices on material to a bidder, is not disqualified from submitting a subproposal or quoting prices to other bidders.

9. OTHER REQUIREMENTS

Before award of the contract, a bidder upon request shall furnish a recent statement of financial condition and previous construction experience or other evidence of qualifications.

Before entering into a contract, the bidder to whom the contract has been awarded shall furnish satisfactory evidence of workers' compensation insurance and public liability and property damage insurance as specified in the special provisions.

Contractor's License requirement for this project is: Class A. General.

PROPOSAL TO LAS VIRGENES MUNICIPAL WATER DISTRICT FOR THE CONSTRUCTION OF

LONG VALLEY ROAD WATERLINE REPLACEMENT PROJECT

Name of Bidder: TORO ENTERPRISES, INC.
Business Address: 2101 VENTURA BLUD, DXNARD, CA 93036
Phone No.: 805-483-4515
The site of the work to be constructed and referred to herein is in the County of Los Angeles, California.
The work is to be in accordance with the specifications and contract documents and as shown on plans therefore entitled:
LONG VALLEY ROAD WATERLINE REPLACEMENT PROJECT
TO THE GOVERNING BOARD OF LAS VIRGENES MUNICIPAL WATER DISTRICT.
In compliance with your notice inviting sealed proposals (bids) and other documents, the undersigned bidder proposes to perform the work and in a workmanlike manner, in strict conformity with the plans and specifications and other contract documents, including Addenda Nos. ^[], ^[], and ^[], on file in the office of the Secretary of the District for the contract unit prices herein.

LAS VIRGENES MUNICIPAL WATER DISTRICT PROPOSAL SCHEDULE OF WORK AND PRICES FOR LONG VALLEY ROAD WATERLINE REPLACEMENT PROJECT

Bid Schedule

Item	Description	Quantity	Unit	Unit Price	Total Price
1		1	LS	\$200000	
2	Mobilization	1	LS		\$ 20,000 0
0000	Traffic Control	-	30.000	\$10 685.00	\$10,685.00
3	Potholing	10	EA	\$ 240.00	\$ 2,400.00
4	Potable Water Highlining	1	LS	\$ 15,620.00	\$ 15,620,00
5	8-inch diameter Pipe Replacement	1230	LF	\$ 118.00	\$ 145,140,00
6	1-inch Dia. Long Water Service Replacement	8	EA	\$ 216500	\$ 17,320.00
7	1-inch Dia. Short Water Service Replacement	5	EA	\$ 1,210:00	\$ 4050,00
8	1.5 or 2-inch Dia. Short Water Service Replacement	3	EA	\$ 1,705.00	\$ 5,115.00
9	Fire Hydrant Replacement	3	EA	\$ 4, 430,00	\$ 13,290.00
10	Disinfection and Pressure Testing	1	LS	\$ 4,250,00	\$ 4,250.00
11	Existing Water Main Abandonment	1	LS	\$ 6,685.00	\$ 6,685,00
12	Record Drawings	1	LS	\$ 1,500.00	\$ 1500,00
13	Storm Water Pollution Control Plan	1	LS	\$ 5,685,00	\$ 5,685,00
14	14 Parkway Replacement (entire width)		LS	\$ 47,400.00	\$ 47,400 00
	Total Bid Schedule				\$301,140,00

The District will make their selection based on the lowest responsible, responsive total of the bid submitted at its discretion.

It is understood the foregoing quantities are approximate only and are solely for the purpose of facilitating the comparison of bids. The Contractor's compensation will be computed upon the basis of the actual quantities in the complete work, whether they are more or less than those shown.

Next page must be completed and submitted with proposal to be considered responsive.

LAS VIRGENES MUNICIPAL WATER DISTRICT PROPOSAL SCHEDULE OF WORK AND PRICES FOR LONG VALLEY ROAD WATERLINE REPLACEMENT PROJECT

Technical Ability and Experience

The bidder is required to state a minimum of three projects of a similar character to the included in the proposed contract the bidder has successfully performed without unreasonable change orders or default, and give references which will enable the District to judge the bidder's responsibility, experience, skill and business and financial standing. Attach additional sheets as necessary. SEE ATTACHED.

Signature of Bidder
SEAN CASTILLO
PRESIDENT

TYPE OF MATERIAL	MANUFACTURER
C900 PIK Pipe	Vipultech
Gate Valves	Myeller
Brass & Hydran	7
Ductile Fitting	·
SULTITE PETTING	5 Sigma
·	
Contractor shall submit to District	the following information:
work lahor or rerider con-	etruction convices and each subcontractor licensed by the
State of California specia	struction services and each subcontractor licensed by the ally fabricating and installing improvements according to lans and specifications, in an amount in excess of one-half ractor's total bid.
State of California special detailed drawings or the poor of one percent of the Continuous states.	ally fabricating and installing improvements according to lans and specifications, in an amount in excess of one-half
State of California special detailed drawings or the partial of the Cont. (2) The portion of the work to	ally fabricating and installing improvements according to lans and specifications, in an amount in excess of one-half ractor's total bid. be done by each subcontractor.
State of California special detailed drawings or the post of one percent of the Cont. (2) The portion of the work to the Cont. (2) \(\sum_{1} \text{N} \)	ally fabricating and installing improvements according to lans and specifications, in an amount in excess of one-half ractor's total bid. be done by each subcontractor. 201 5, 6/5+ Ave Phoen,
State of California special detailed drawings or the post of one percent of the Cont. (2) The portion of the work to the Cont. Viny Hech. Mueller	ally fabricating and installing improvements according to lans and specifications, in an amount in excess of one-half ractor's total bid.

bid.				
DIVISION OF WORK OR TRADE	NAME OF SU	JBCONTRACTOR	LOCATION SHOP OF	
SURVEY	BENNER	+ CARPENTER	SANTA	PAULA, CA
			10	
* .	SIGNATURE OF	= AUTHORIZED		
OFFICER OF BIDDER:	*	-/W	·	
PRINTED NAME:		SEAN CAST	TILLO P	RESIDENT
DATED:		2/28/2012		

The contractor shall list only one subcontractor for each portion of the work identified in the

NOTE: If Bidder is a corporation, the legal name of the corporation shall be set forth above, together with the signature of the officer or officers authorized to sign contracts on behalf of the corporation. If Bidder is a co-partnership, the true name of the firm shall be set forth above, together with the signature of the partner or partners authorized to sign contracts on behalf of the co-partnership. If the Bidder is an individual, the signature shall be placed above. If a joint venture of a special partnership, the names of the general partners and special partners shall be submitted.

NONCOLLUSION DECLARATION

The undersigned declares under	penalty of perjury as follows:
--------------------------------	--------------------------------

1.	1	am	employed	by	[To	Ro	EN	TER	P215	ES, FA	te.	3	. 7	of
	DXNA	12D.	CA					the	party	making	the	foregoing	bid	as
[7	020	EN	TERPRISE	5,	INC		7.					0 0		

- 2. The bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation.
- 3. The bid is genuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding.
- 4. The bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract.
- 5. All statements contained in the bid are true.
- 6. The bidder has not, directly or indirectly, submitted the bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company, association, organization, bid depository, or to any member of agent thereof to effectuate a collusive or sham bid.

DATED: 2/28/12 By: SEAN CASTILLO PRESIDENT

AGREEMENT FOR THE CONSTRUCTION OF LONG VALLEY ROAD WATERLINE REPLACEMENT PROJECT

As of ______, Las Virgenes Municipal Water District, herein "Agency," and long the prises the, herein "Contractor," agree as follows:

GENERAL

SECTION 1. SCOPE OF WORK

Contractor will furnish labor, equipment and materials and will perform work for the construction of the facilities described in the plans and specifications.

SECTION 2. CONSIDERATION

Agency shall pay Contractor the sum set forth in Contractor's bid for the performance of the work.

SECTION 3. PAYMENTS

- (a) Monthly progress payments shall be as follows:
 - (1) On or about the 25th day of each month, Contractor shall submit to Agency an invoice including an estimate of the cumulative amount and value of the work performed by Contractor prior to that date and subsequent to prior estimates. The estimate may include the value of acceptable materials and equipment delivered to the work site. The estimate shall be based on certified copies of paid invoices by the Contractor.
 - (2) The Agency shall review the request as soon as practicable to determine whether the payment request is proper. A payment request found not to be a proper payment shall be returned within seven days after receipt accompanied by a written description of the reasons why the request is not proper.
 - (3) Agency shall pay Contractor, 90% percent of the invoice amount reduced by: amounts due to Agency for equipment, services or materials furnished by Agency; amounts of claims or liens by the Agency or others, and amounts required to be deducted by federal, state or local governmental authorities.
 - (4) If the Agency fails to make progress payment within 35 days after receipt of an undisputed and properly submitted invoice, the Agency shall pay to the Contractor interest at the legal rate set forth in Code of Civil Procedure Section 685.101(a) from seven days after receipt of the invoice by the Agency until paid.
 - (5) Progress payments do not signify acceptance of the work, or any portion of the work. Payments do not preclude Agency from demanding and recovering damages for failure to fully perform.
- (b) On satisfactory completion of the work, Agency shall pay Contractor ninety percent of the value of the actual work less prior monthly progress payments.

- (c) Within thirty days after recordation of a notice of completion, the undisputed amounts withheld by the Agency shall be released. Completion occurs on the acceptance by the governing body of the Agency; or the filing of a notice of cessation of labor.
- (d) Notwithstanding the foregoing, contractor may receive payment in full, other than retention for claims by the Agency or third parties, if the contractor deposits approved securities or enters into an agreement with an escrow agent to hold earned retentions. The substitution of securities or the use of an escrow account shall be in the form and manner permitted by law.

SECTION 4. CONTRACT DOCUMENTS

The complete contract includes the contract documents set forth herein, to wit: the Notice Inviting Sealed Proposals, Information For Bidders, Proposal or Bid Form, Non-collusion Declaration, this Agreement, Certificate of Insurance, Workers' Compensation Certificate, Plans and Specifications, and Addenda issued prior to Bid Opening.

SECTION 5. COMPLIANCE WITH PROVISIONS OF LAW

- (a) This Agency is subject to laws relating to public agencies which are part of this contract though fully set forth herein.
 - (b) Contractor shall comply with laws relating to the work.

SECTION 6. ATTORNEY FEES

The Court shall award reasonable costs and expenses, including attorney fees, to the prevailing party in an action or proceeding to enforce this Agreement.

SECTION 7. NOTICES

Notices required or permitted shall be given by personal delivery, by first class mail, postage prepaid, or facsimile transmission:

To: Toro Enterprises, Inc., Contractor

[Address of Agency]
P.O. Box 6285,0 xnard, 0A 93031
[Contractor's Address]

To: Las Virgenes Municipal Water District 4232 Las Virgenes Road Calabasas, CA 91302-1994

SECTION 8. CONFLICT WITH PLANS AND SPECIFICATIONS

Conflict between the plans and specifications and this contract shall be brought to the attention of the Agency which shall resolve such conflict.

SECTION 9. ASSIGNMENT

(a) Contractor shall not assign this contract or payments under this contract.

(b) Contractor and each subcontractor hereby assign to the Agency rights, title, and interest in and to causes of action under Section 4 of the Clayton Act (15 U.S.C.A. Sec. 15) or under the Cartwright Act (Chapter 2 (commencing with Section 16700) of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, services, or materials for this contract or the subcontract. This assignment shall be made and become effective without further acknowledgment by the parties at the time the Agency tenders final payment to the Contractor.

SECTION 10. SECTION HEADINGS

Section headings are for the convenience of the parties and shall not affect the interpretation of this contract.

SECTION 11. AUTHORITY OF AGENCY REPRESENTATIVE

Agency's representative shall decide questions about the quality or acceptability of materials furnished and work performed, manner of performance and rate of progress of the work, the interpretation of the plans and specifications and the fulfillment of the contract by the Contractor.

WAGES, HOURS, AND WORKING CONDITIONS

SECTION 12. PREVAILING WAGES

- (a) A determination of the general prevailing rates of per diem wages and holiday and overtime work where the work is to be performed is on file at the Agency's offices. Contractor and subcontractors will not pay less than the prevailing rates of wages. Contractor will post one copy of the prevailing rates of wages at the job site.
- (b) Contractor shall forfeit as penalty to the Agency the sum of fifty dollars for each calendar day or portion thereof, and for each workman paid less than the prevailing rates under the contract or subcontractor.

SECTION 13. TRAVEL AND SUBSISTENCE PAYMENTS

Travel and subsistence payments shall be paid to each worker as defined in the applicable collective bargaining agreements filed with the Department of Industrial Relations for the particular craft, classification or type of work.

SECTION 14. HOURS OF WORK

- (a) Eight hours labor constitutes a legal day's work. Workers shall be paid at a rate of one and one-half times the basic rate of pay for work in excess of eight hours during a calendar day or forty hours during a calendar week of the foregoing hours.
- (b) Contractor shall keep and make available an accurate record showing the name each worker and hours worked each day and each week by each worker.
- (c) As a penalty for failure to pay overtime when required, the Contractor shall forfeit to the Agency twenty-five dollars for each worker for each calendar day during which

such worker works more than eight hours and is not paid overtime, and for each week during which such worker works more than forty hours and is not paid overtime.

SECTION 15. APPRENTICES

Contractor shall comply with the Labor Code concerning the employment of apprentices.

SECTION 16. SUBCONTRACTORS

Contractor shall comply with the Subletting and Subcontracting Fair Practices Act of Public Contracts Code.

SECTION 17. DISCRIMINATION

The Contractor shall not refuse to employ or promote any person, and shall not discriminate against any person with respect to compensation or terms and conditions of employment, and shall not discipline or discharge any person employed because of the person's race, religion, creed, color, national origin, ancestry or sex. The Contractor shall not refuse to accept otherwise qualified employees as indentured apprentices solely on the grounds of race, religion, creed, color, national origin, ancestry or sex.

SECTION 18. SAFETY

Contractor and subcontractors shall comply with the provisions of the Safety and Health Regulations for Construction, promulgated by the Secretary of Labor under the *Contract Work Hours and Safety Standards Act*, as set forth in Title 29, C.F.R. and by the California Division of Industrial Safety.

SECTION 19. CHARACTER OF WORKERS

Only competent workers shall be employed on the work. Workers who are incompetent, intemperate, troublesome, disorderly or otherwise objectionable, or who fail to perform work properly and acceptably, shall be immediately removed from the work by the Contractor and not re-employed.

INSURANCE, INDEMNIFICATION AND BONDS

SECTION 20. INSURANCE

- (a) Before beginning the performance of the work, Contractor shall purchase and maintain insurance to protect the Contractor and the Agency from claims: (i) arising from Contractor's operations under the contract by the Contractor, a subcontractor or anyone employed by them, or anyone for whose acts any of them may be liable; (ii) under workers compensation, disability benefits and other similar benefit acts; (iii) for damages because of bodily injury, occupational sickness, or disease, or death of the Contractor's employees, or persons other than the Contractor's employees; (iv) for damages insured by usual personal injury liability coverage sustained by a person as a result of an offence related to employment of such person by the Contractor, or other persons; (v) for damages, other than the work itself, because of injury to or destruction of tangible property, including loss of use resulting therefrom; (vi) for damages because of bodily injury, death of a person or property damage arising from ownership, maintenance or use of a motor vehicle; (vii) involving contractual liability insurance applicable to the Contractor's obligations; and (viii) for damage to work in progress.
- (b) The insurance required shall be written for not less than limits of liability specified in the contract documents or required by law, whichever is greater. The insurance shall be purchased from companies authorized to do business in the jurisdiction where the project is located. Coverages shall be written on an occurrence basis without interruption from the date of commencement of the work until date of final payment or until termination of coverage required to be maintained after final payment. Agency, its officers, agents and employees shall be named as additional insured.
- (c) Certificates of insurance executed by the carrier(s) and acceptable to the Agency and copies of the policy shall be filed with the Agency prior to the commencement of the work. The Certificates and the insurance policies shall provide the policies will not be canceled or allowed to expire until at least thirty days prior written notice has been given to the Agency. If the insurance coverages are required to remain in force after final payment and are reasonably available, an additional certificate evidencing continuation of such coverage shall be submitted with the final application for payment. Information concerning reduction of coverage shall be furnished by the Contractor with reasonable promptness in accordance with the Contractor's information and belief.
- (d) Contractor shall require each subcontractor to maintain policies of insurance covering the hazardous, and under the conditions, mentioned above and having the Agency, its officers, agents, volunteers and employees as additional insurers. Copies of the subcontractor's certificates of insurance and policies shall be filed with the Agency.

SECTION 21. INDEMNIFICATION

- (a) Contractor shall indemnify and save the Agency, its officers, agents, volunteers and employees, free and harmless from costs, damages or liability, including attorney fees, arising out of any act or omission to act, including any negligent act or omission to act by Contractor, its officers, agents, subcontractors and employees with respect to the performance of the work or the Contractor's obligations under this contract.
- (b) In addition to the foregoing, Contractor shall pay Agency costs, including attorney fees, incurred by the Agency in handling, responding to, or litigating stop notice

claims or other demands against money due to the Contractor or against the Contractor's payment bond by Contractor's officers, agents, employees or subcontractors.

SECTION 22. PAYMENT BOND

- (a) Before beginning the performance of the work, Contractor shall file a payment bond with the Agency for its approval and acceptance. The payment bond shall be in the sum of 100 percent of the contract price.
- (b) The payment bond shall be in substantially the form of the bond attached hereto. The bond shall be executed by a representative of the surety having no financial interest in the contractor. The payment bond shall be separate and distinct from any other bond required by this contract.

Section 23. PERFORMANCE BOND

- (a) Before beginning the performance of the work, Contractor shall file a performance bond with the Agency for its approval and acceptance. The performance bond shall be in the sum of 100 percent of the contract price. The bond shall be payable by surety or sureties to Agency if Contractor fails to fully perform his obligations hereunder.
- (b) The performance bond shall be in substantially the form of the bond attached hereto. The bond shall be executed by a representative of the surety having no financial interest in the contractor. The performance bond shall be separate and distinct from any other bond required by this contract.

PERFORMANCE

Section 24. TIME FOR COMPLETION

- (a) All work under this Contract shall be completed within 95 calendar days after the date of the Notice to Proceed (hereafter "Completion Date"). The term "calendar days" includes Saturdays, Sundays, and holidays.
- The Agency expects the project to be completed on or before the Completion Date. If the work is not done by the Completion Date, the Agency will suffer damage and will incur substantial additional costs. Some of these damages and costs are and will be impractical and infeasible to determine, and some will be ascertainable. If the Agency determines, in its sole judgment, the failure to complete the work by the Completion Date is due to unforeseeable causes (which causes include Acts of God, or the public enemy, acts of the Government, acts of another contractor in the performance of another contract with the Agency, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, unusually severe weather, or delays of Subcontractors due to such causes) or is due to causes within the control of the Agency, the fault or negligence of the Agency, then the Contractor shall not be liable for the Agency's liquidated damages or other damages or costs resulting from the failure to complete the work by the Completion Date. If the Agency determines, in its sole judgment, the failure to complete the work by the Completion Date is due to foreseeable causes, causes within the control of the Contractor, the fault or negligence of the Contractor, or weather conditions which are normal for the area and the season, the Contractor and the Contractor's Surety shall be liable for payment to the Agency of **both** of the following:

- (i) Fixed and liquidated damages, which are not a penalty, equal to \$1500 for each calendar day of delay beyond the Completion Date.
- (ii) Ascertainable costs and damages incurred by the Agency resulting from the failure to complete the work by the Completion Date, including, but not limited to supervision, engineering, inspection, incidental and overhead expenses directly related to the Contract.
- (c) Within ten days from the beginning of the event or reason which will prevent the work under this contract from being completed by the Completion Date, the Contractor shall notify the Agency in writing of the cause of delay and shall request an extension of the Completion Date.
- (d) Upon receipt from the Contractor of a request for extension of the Completion Date, the Agency shall ascertain the facts and extent of the delay. The Agency may extend the Completion Date if the Agency determines, in its sole judgment, the findings justify an extension and such extension is in the best interest of the Agency. Such an extension will increase the Agency's financial obligations and costs incurred for supervision, engineering, inspection, incidental and overhead expenses directly related to the Contract and which accrue as a result of the extension. If the Agency extends the Completion Date and determines, in its sole judgment, the extension is needed due to unforeseeable causes (which causes include Acts of God, or the public enemy, acts of the Government, acts of another contractor in the performance of another contract with the Agency, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, unusually severe weather, or delays of Subcontractors due to such causes) or is due to causes within the control of the Agency, the fault or negligence of the Agency, then the Contractor shall not be liable for the Agency's damages or costs resulting from such extension. If the Agency extends the Completion Date and determines, in its sole judgment, the extension is needed due to foreseeable causes, causes within the control of the Contractor, the fault or negligence of the Contractor, or weather conditions which are normal for the area and the season, then the Contractor and its Surety shall be liable for an shall reimburse Agency for such costs before the final payment.
- (e) The Agency may deduct the liquidated damages and any additional costs and damages for which the Contractor is liable under this Section, from progress payments or from the final payment. The payment of progress payments before and after the Completion Date shall not constitute a waiver of liquidated damages or of additional damages or costs for which the Contractor is liable under this Section. Release of any Bonds shall be contingent upon payment of these amounts.

SECTION 25. ACTS OF GOD

Contractor is not responsible for the cost of repairing or restoring damage to the work exceeding five percent of the contract price and determined to have been proximately caused by earthquakes in excess of the magnitude of 3.5 on the Richter Scale and tidal waves if damaged work is built in accordance with accepted and applicable building standards and the plans and specifications.

SECTION 26. UTILITY RELOCATION

- (a) As between the parties, Agency is responsible for the timely removal, relocation or protection of existing main or trunk line underground utility facilities located on the job site, if such utilities are not identified by the Agency in the plans and specifications. As to such unidentified utilities, Contractor shall be compensated for: the costs of relocation; repairing damage not due to the failure of Contractor to exercise reasonable care; removing or relocating such utilities not included in the plans and specifications with reasonable accuracy, and equipment on the project necessarily idled during such work. Contractor shall not be assessed liquidated damages for delay in completion of the project, when the delay is caused by the failure of the Agency or the owner of the utility to remove or relocate the facilities.
- (b) The Agency is not required to indicate the presence of existing service laterals or appurtenances when the presence of such utilities on the work site can be inferred from other visible facilities, such as buildings, metering junction boxes, on or adjacent to the work site.
- (c) Contractor shall immediately notify the Agency and utility in writing, if the Contractor discovers utility facilities not identified by the Agency in the contract plans or specifications.

SECTION 27. PUBLIC CONVENIENCE

- (a) Contractor's operation shall cause no unnecessary public inconvenience. The access rights of the public shall be considered at all times. Unless otherwise authorized, traffic shall be permitted to pass through the work or an approved detour shall be provided. Safe, adequate, continuous and unobstructed pedestrian and vehicular access shall be maintained to fire hydrants, residences, commercial and industrial establishments, churches, schools, parking lots, service stations, motels, fire and police stations, and hospitals, unless other arrangements are made satisfactory to the owners.
- (b) Vehicular access to residential driveways shall be maintained to the property line except when necessary construction precludes such access for reasonable periods of time.
- (c) Grading operations, roadway excavation and embankment construction shall provide a reasonably satisfactory surface for traffic. When rough grading is completed, the roadbed surface shall be brought to a smooth even condition satisfactory for traffic.
- (d) The Contractor shall comply with applicable state and local requirements for closure of streets. Contractor shall provide barriers, guards, lights, signs, temporary bridges, flagmen and watchmen advising the public of detours and construction hazards. Contractor shall comply with additional public safety requirements arising during construction. Contractor shall furnish and install, and upon completion of the work promptly remove, signs and warning devices.
- (e) At least forty-eight hours in advance of closing or partial closing or of reopening any street, alley or other public thoroughfare, Contractor shall notify the police, fire, traffic and engineering departments of jurisdictional agencies involved and comply with their requirements.

SECTION 28. EXCAVATIONS

- (a) Contractor shall submit for Agency approval, a detailed plan showing the design of shoring, bracing, sloping or other provisions to be made for worker protection from the hazard of caving ground during the excavation of trenches five feet or more in depth. The plan shall be at least as effective as that required by the Construction Safety Orders of the California Division of Industrial Safety. If the plan varies from the shoring systems standards established by Safety Orders, the plan shall be prepared by a registered civil or structural engineer.
- (b) At the close of each working day, Contractor shall completely backfill open excavation and cover the same with temporary asphalt mix in accordance with normal practice in the industry and the rules, regulations, laws and ordinances of the State of California, the County of Los Angeles.
- (c) If the work involves digging trenches of excavations extending deeper than four feet below the surface, the Contractor shall promptly, and before the conditions are disturbed, notify the Agency, in writing, of any: (1) material the Contractor believes hazardous waste, as defined in Section 25117 of the Health and Safety Code, and required to be removed to a Class I, Class II, or Class III disposal site; (2) subsurface or latent physical conditions at the work site differing from those indicated; or (3) unknown physical conditions at the work site of unusual nature, different material from those ordinarily encountered and generally recognized as inherent in the work of the character provided in the contract. The Agency shall promptly investigate the conditions. If the Agency finds the conditions are as alleged by the Contractor and conditions cause a change in the Contractor's cost, or the time required for performance, the Agency shall issue a change order. If a dispute arises whether the Agency's findings are correct, the Contractor shall proceed with the work. The Contractor shall retain rights by contract or law pertaining to resolution disputes and protests between the parties.
 - (d) Contractor shall comply with underground service alert regulations.

SECTION 29. EXTRA WORK

- (a) The Agency may require changes in, additions to, or deductions from the work to be performed or to the materials to be furnished under this contract. No extra work shall be performed or change made except pursuance of a written order from the Agency stating the extra work or change is authorized, and setting forth the basis upon which payment is to be made. No claim for additional compensation shall be valid unless pursuant to such a change order. Nothing in this section shall excuse the Contractor from proceeding with the prosecution of the changed work. When required by the Agency, the Contractor shall furnish an itemized breakdown of the quantities and prices used in computing the value of any ordered change.
- (b) Adjustments in the amounts to be paid to the Contractor by reason of any such change, addition or deduction shall be determined by one or more of the following methods:
 - By an acceptable lump sum proposal from the Contractor.
 - By unit prices contained in the Contractor's original bid and incorporated in the contract documents or fixed by subsequent agreement between the Agency and the Contractor.

- By ordering the Contractor to proceed with the work and to furnish daily reports of extra work. The reports shall itemize all costs for labor, material, and equipment rental. The reports for workmen shall include hours worked, rates of pay, names and classification; and for equipment shall include size, type, identification number and hours of operation. Records and reports shall be made immediately available to the engineer upon his request.
- (c) When the Agency orders extra work and there is an agreement between the Agency and the Contractor to perform the work, the Agency may approve the method used by the Contractor to accomplish the work. At the request of the Agency, the method to be used shall be memorialized in a writing prior to work being performed.
- (d) If the contractor contends a proposed change is a substantial revision in the character of the work, the question shall be immediately submitted to an arbitrator for decision. The arbitrator's decision will be final and conclusive unless it is fraudulent, capricious, arbitrary or so grossly erroneous as to imply bad faith. Each party shall advise the other in advance of the arbitration of the material on which the party intends to rely and give the other a reasonable opportunity to refute or supplement such factual material.

SECTION 30. CLEAN-UP

On completion of the work, Contractor shall remove debris and surplus materials from the work site.

SECTION 31. MATERIALS

- (a) Unless otherwise specified, shown, or permitted by the Agency, materials and equipment incorporated in the work shall be new and current manufacture. The Agency may request the Contractor to furnish manufacturer's certificates to this effect.
- (b) Materials furnished and work performed shall be subject to inspection and testing by Agency's authorized agents at Agency's expense. If such inspection and testing reveals non-compliance with the requirements of this contract, the Contractor shall bear the cost of necessary corrective measures and the cost of subsequent inspecting and testing.
- (c) The inspection of the work shall not relieve the Contractor of the obligations under the contract. Even though equipment, materials, or work required under the contract have been inspected, accepted, and estimated for payment, the Contractor shall replace or repair such equipment, materials, or work found to be defective or otherwise not to comply with the requirements of the contract up to the end of the maintenance and guarantee period.

SECTION 32. PERMITS AND LICENSES

- (a) Contractor shall apply for and procure permits and licenses necessary for the work.
- (b) Contractor shall give notices necessary and incidental to the due and lawful prosecution of the work and shall comply duly with the terms and conditions of permits and licenses.
- (c) Contractor shall pay charges and fees in connection with permits and licenses.

SECTION 33. LAND AND RIGHTS OF WAY

- (a) Agency shall provide land and rights-of-way where the work is constructed.
- (b) Contractor shall procure additional rights-of-way desired by the Contractor to facilitate construction. Contractor shall enter into written agreements with property owners for such purposes and provide Agency with copies of the agreements.
- (c) Except as provided above relating to utility relocation, when the work is to be performed in the vicinity of existing improvements, such improvements shall not be disturbed or damaged except for such removal or relocation in the land and rights-of-way provided by the Agency or unavoidable to accommodate the work.

SECTION 34. PLANS AND WORKING DRAWINGS SUBMITTED BY AGENCY

- (a) The approved plans shall be supplemented by working drawings necessary to control the work adequately. Such drawings shall be consistent with the contract documents. Such drawings delivered to the Contractor shall be deemed written instructions to the Contractor.
- (b) The Agency will furnish to the Contractor copies of drawings and specifications reasonably necessary for the execution of the work. The Contractor shall keep one set of drawings and specifications in good order available to the Agency's representative at the site of the work.
- (c) The plans for the work show conditions supposed or believed by the Engineer to exist. It is not intended or inferred the plans constitute a representation such conditions actually exist. The Agency, its officers, agents and employees shall not be liable for loss sustained by the Contractor as a result of variance of the conditions as shown on the plans and the actual conditions revealed during the progress of the work.

SECTION 35. SHOP DRAWINGS SUBMITTED BY CONTRACTOR

- (a) Shop drawings are drawings, diagrams, illustrations, schedules, performance charts, brochures and other data prepared by the Contractor or any subcontractor, manufacturer, supplier or distributor, and illustrating some portion of the work.
- (b) The Contractor shall review, stamp with approval, and submit for review by the Agency's representative shop drawings for material and equipment to be incorporated into the work. Drawings shall be submitted in quadruplicate to the Agency's representative and be accompanied by a letter of transmittal listing the drawings submitted. Drawings shall show the name of the project, the name of the Contractor, the names of suppliers, manufacturers and subcontractors. Shop drawings shall be submitted with promptness and in orderly sequence to cause no delay in the work.
- (c) Shop drawings shall be complete. If the shop drawings show deviations from the requirements of the plans and specifications because of standard shop practices or other reasons, the deviations and the reasons therefor shall be set forth in the letter of transmittal.
- (d) By approving and submitting shop drawings, the Contractor represents material, equipment and other work shown thereon conforms to the plans and specifications except for the deviations set forth in the letter of transmittal.
- (e) Within ten calendar days after receipt of the drawings, the Agency will return two prints of the drawings to the Contractor with comments. If noted by the Agency, the Contractor shall correct the drawings and resubmit in the same manner as the original

submittal. The Contractor shall direct attention in the letter of transmittal accompanying resubmitted shop drawings to revisions other than the corrections requested by the Agency's representatives on previous submittals.

- (f) The review by the Agency's representative is for general conformance with the design concept of the project and general compliance with the plans and specifications and shall not be construed as relieving the Contractor of the full responsibility for: providing materials, equipment, and work required by the Contract; the proper fitting and reconstruction of the work; the accuracy and completeness of the shop drawings; selecting fabrication processes and techniques of construction; and performing the work in a safe manner.
- (g) No portion of the work requiring a shop drawing submittal shall be commenced until the submittal has been reviewed by the Agency's representative and returned to the Contractor with a notation indicating re-submittal is not required.

SECTION 36. SUPERVISION BY THE CONTRACTOR

Before starting the work, the Contractor shall designate, in writing, a representative having authority to act for the Contractor. An alternate representative may be designated. (A joint venture shall designate only one representative and alternate.) The representative or alternate shall be present at the work site when work is in progress. Orders or communications given to this representative shall be deemed delivered to the Contractor. In the absence of the Contractor or designated representative, directions or instructions may be given by the Agency's representative to the superintendent or foreman having charge of the specific work to which the order applies. Such order shall be complied with promptly and referred to the Contractor or the representative.

SECTION 37. INSPECTION

- (a) The Agency's representative shall have access to the work during construction and shall be furnished with reasonable facility for gaining knowledge of the progress, workmanship and character of materials used and employed in the work.
- (b) When the Contractor varies the period during which work is carried on each day, Contractor shall give notice to the Agency's representative so proper inspection may be provided. Work done in the absence of the Agency's representative is subject to rejection.
- (c) No materials shall be installed until approved by the Agency's representative. Installations to be backfilled shall be inspected and approved by the Agency's representative prior to backfilling. The Contractor shall give notice in advance of backfilling to the Agency's representative so proper inspection may be provided.
- (d) If the Agency's Representative is required to conduct inspections of Contractor's work between the hours of 5 p.m. and 8 a.m., or is required to conduct inspections on Saturdays, Sundays or holidays, then the Agency will incur additional costs for inspection. If the Agency's Representative is required to conduct inspections between the hours of 5 p.m. and 8 a.m., or inspections on Saturdays, Sundays or holidays due to the actions or conduct of Contractor, and if the actions or conduct of Contractor are not otherwise authorized or addressed in the Specifications or in a Change Order, the Contractor shall be liable for the Agency's additional inspection costs. The Agency may

deduct these additional inspection costs from progress payments or from the final payment.

SECTION 38. REMOVAL OF DEFECTIVE AND UNAUTHORIZED WORK

- (a) Rejected work shall be removed and replaced by the Contractor in an acceptable manner and no compensation will be allowed for such removal or replacement. Work done beyond the lines and grades shown on the plans or established by the Agency's representative, or work done without written authority will be considered as unauthorized and not be paid for. Such work may be ordered removed at the Contractor's expense.
- (b) Upon failure on the part of the Contractor to comply promptly with an order of the Agency's representative under this section, the Agency's representative shall have authority to cause defective work to be removed and replaced, and unauthorized work to be removed, and to deduct the costs from monies due the Contractor.

SECTION 39. ERRORS OR DISCREPANCIES NOTED BY CONTRACTOR

- (a) If the Contractor finds discrepancy between the specifications and the drawings, and the physical conditions at the site of the work, or finds errors or omissions in the drawings or in any survey, Contractor shall promptly notify the Agency in writing of such discrepancy, error or omission. If the Contractor observes drawings or specifications at variance with applicable law, ordinance, regulation, order or decree, Contractor shall promptly notify the Agency in writing of such conflict.
- (b) On receipt of any such notice, the Developer shall promptly investigate the circumstances and give appropriate instructions to the Contractor. Until such instructions are given, work done by the Contractor, after Contractor's discovery of such error, discrepancy or conflict, will be at Contractor's own risk and Contractor shall bear costs arising therefrom.

SECTION 40. EQUIPMENT

The Contractor must furnish adequate equipment and facilities to perform properly the work in a workmanlike manner in accordance with these specifications. Such equipment and facilities must be in a good state of repair and maintained in such state during the progress of the work and shall meet requirements of applicable ordinances and laws. No worn or obsolete equipment shall be used, and in no case shall the maker's rating of capacity for equipment be exceeded.

SECTION 41. STORAGE OF MATERIALS

Materials for use in the work shall be stored by the Contractor to prevent damage from exposure to the elements, admixture of foreign materials or from any other cause. The Contractor is responsible for damage to or loss of materials by weather or other causes.

MISCELLANEOUS

SECTION 42, GUARANTEES

Contractor guarantees work from defect in workmanship for the period of one year from the date of acceptance by the Agency and shall repair and replace such work, together with other displaced work, without expense to the Agency, ordinary wear and tear, usual abuse or neglect excepted. Agency may have the defects repaired and made good at the expense of the Contractor, if Contractor fails to comply with the above-mentioned conditions within a week after being notified in writing.

Section 43. RISK OF LOSS PRIOR TO FINAL ACCEPTANCE

Except as set forth above relating to acts of God, risk of loss from total or partial destruction of the work, prior to final acceptance, shall be borne by Contractor regardless of the cause. Contractor shall repair or replace such damages or destroyed work, to its prior undamaged condition before being entitled to additional progress payments or final payment. Total or partial destruction or damage shall not excuse Contractor from completion of the work.

Section 44. TERMINATION: CONTRACTOR AT FAULT

(a) The Agency may declare the Contractor in default, should the Contractor fail to meet the requirements of the Contract, or be placed in bankruptcy, or should a receiver be appointed for Contractor's properties, or should Contractor make an assignment for the benefit of creditors. In such event, the Agency will notify the Contractor in writing. On receipt of such written notice, the Contractor shall preserve site construction materials, equipment and plant, and undertake immediate steps to remedy such default.

If the Contractor fails to remedy such default within five calendar days after receipt of such written notice, the Agency may terminate the Contractor's right to proceed with the work as to which default has occurred. Upon receipt of such written notice, the Contractor shall for that work affected by any such termination:

- (1) assist the Agency in making an inventory of materials and equipment in storage at the site, en route to the site, in storage or manufacture away from the site, and on order from suppliers;
- (2) assign to the Agency, subcontracts, supply contracts and equipment rental agreements all as designated by the Agency; and
- (3) remove from the site, all construction materials, equipment and plant listed in said inventory other than such construction materials, equipment and plant which are designated in writing by the Agency to be used by the Agency in completing such work.
- (b) The Agency may complete the work to which notice applies by contract or otherwise, and may take possession of the materials, plant, tools, equipment, supplies and property furnished by the Contractor which is designated by the Agency in writing for such purpose.
- (c) The expense of completing such work, together with a reasonable charge for administering a contract for such completion, shall be charged to the Contractor. Such expense shall be deducted by the Agency out of such monies as may become due to the

Contractor. If this expense exceeds the sum otherwise payable under the Contract, the Contractor and Contractor's sureties shall be liable. Upon written notice from the Agency, the Contractor promptly pays to the Agency, the amount of such excess. The Agency shall not be required to obtain the lowest bids for completing such work, but may make such expenditures as in the Agency's sole judgment will best accomplish such completion.

SECTION 45. TERMINATION: CONTRACTOR NOT AT FAULT

Agency may terminate the contract upon ten days written notice to the Contractor, if Agency finds reasons beyond the control of the parties make it impossible or against the Agency's interests to complete the work. In such a case, the Contractor shall have no claims against the Agency, except for the value of work performed to the date of termination, and the cost of materials and equipment on hand, in transit, or on definite commitment, as of the date of termination if such materials and equipment would be

needed in the work. The value of work performed and the cost of materials and shipment delivered to the site shall be determined by the Agency in accordance with the procedure prescribed for the making of a final estimate and payment.

SECTION 46. RESOLUTION OF CERTAIN CLAIMS

- (a) Notwithstanding the foregoing, a demand of \$375,000, or less, by the Contractor for a time extension; payment of money or damages arising from the work done by or on behalf of the Contractor pursuant to this contract; or payment of an amount which is disputed by the Agency shall be processed in accordance with Public Contracts Code Sections 20104 *et seq.* relating to informal conferences, non-binding judicially supervised mediation and judicial arbitration.
- (b) A single written claim shall be filed under this section prior to the date of final payment for all demands, including demands not subject to Public Contracts Code Sections 20104 et seq. arising out of the contract.
- (c) Within thirty (30) days of the receipt of the claim, the Agency may request additional documentation supporting the claim or relating to defenses or claims the Agency may have against the Contractor. If the Amount of the claim is less than \$50,000, the contractor shall respond to the request for additional information within fifteen (15) days after receipt of the request. The contractor shall respond to the request within thirty (30) days of receipt if the amount of the claim exceeds \$50,000 but is less than \$375,000.
- (d) Unless further documentation is requested, the Agency shall respond to the claim within forty-five (45) days if the amount of the claim is less than \$50,000 or within sixty (60) days if the amount of the claim is more than \$50,000 but less than \$375,000. If further documentation is requested, the Agency shall respond within the same amount of time taken by the Contractor to respond or fifteen (15) days, whichever is greater, after receipt of further information if the claim is less than \$50,000. If the claim is more than \$50,000 but less than \$375,000 and further documentation is requested by the Agency, the Agency shall respond within the same amount of time taken by the Contractor to respond or thirty (30) days, whichever is greater.
- (e) If the Contractor disputes the Agency's response, or the Agency fails to respond, the Contractor may demand an informal conference to meet and confer for settlement of the issues in dispute. The demand shall be served on the Agency within fifteen (15) days after the deadline of the Agency to respond or within fifteen (15) days of

the Agency's response, whichever occurs first. The Agency shall schedule the meet and confer conference within thirty (30) days of the request.

(f) If the meet and confer conference does not produce a satisfactory request, the Contractor may pursue remedies authorized by law.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement, or caused it to be executed as of the day, month and year first above written.

DISTRICT	\mathcal{L}	~ ^ 10
BY:	Lee Kenger	DATE:3-27-12
	President	folia a glasso malcino na
ATTEST:	Charles Caspan	
	Secretary	comparative and Aldeboson
APPROVED:	Noame Jennes	
	Attorney for Owner	
CONTRACTOR		
BY:	Me	DATE: 3-21-12
	Authorized Representative of Contractor	in a second different and the
PRINTED NAME:	Sean Castillo	
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TRAVELERS CASUALTY AND SURETY COMPANY OF AMERICA BID BOND Hartford, Connecticut 06183 Bond No. N/A KNOW ALL MEN BY THESE PRESENTS. TORO ENTERPRISES, INC., 2101 E. VENTURA BLVD., OXNARD, CA 93036 as Principal, hereinafter called the Principal, and TRAVELERS CASUALTY AND SURETY COMPANY OF AMERICA, of Hartford, Connecticut, a corporation duly organized under the laws of the State of Connecticut, as Surety, hereinafter called the Surety, are held and firmly bound unto LAS VIRGENES WATER DISTRICT 4232 LAS VIRGENES RD. CALABASAS, CA 91302 as Obligee, hereinafter called the Obligee, in the sum of TEN PERCENT OF THE TOTAL BID AMOUNT - - - - - - -(10% OF THE BID), for the payment of which sum well and truly to be made, the said Principal and the said Surety, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents. WHEREAS, the Principal has submitted a bid for _______LONG VALLEY WATERLINE REPLACEMENT NOW, THEREFORE, if the Obligee shall accept the bid of the Principal and the Principal shall enter into a Contract with the Obligee in accordance with the terms of such bid, and give such bond or bonds as may be specified in the bidding or Contract Documents with good and sufficient surety for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof, or in the event of the failure of the Principal to enter such Contract and give such bond or bonds, if the Principal shall pay to the Obligee the difference not to exceed the penalty hereof between the amount specified in said bid and such larger amount for which the Obligee may in good faith contract with another party to perform the Work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect. Signed and sealed this day 24th FEBRUARY, 2012. day of PORO EMERPRISES, INC. (Principal) (Seal) (Witness) (Title)

JANINA MONROE, (Attorney-in-Fact)

Printed in cooperation with the American Institute of Architects (AIA) by Travelers Casualty and Surety

By:

TRAVELERS CASUALTY AND SURETY COMPANY OF AMERICA

Company of America. The language in this document conforms exactly to the language used in AIA Document A310, February 1970 edition.

(Witness)

Susan E. Morales Account Manager

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STATE OF CALIFORNIA		1	
County ofLos Angeles		}	
County of			
On February 24, 2012	before me,	Susan E. Morales, Notary Public Here insert Name and Title of the Officer	- 1,507 - 1950-596-889
Date		Here insert Name and Title of the Officer	
personally appeared	Janina Monroe	Name(s) of Signer(s)	
COM NOTARY LOS	AN E. MORALES MM. # 1930723 PUBLIC - CALIFORNIA ANGELES COUNTY Expires March 28, 2015	who proved to me on the basis of sat be the person(x) whose name(x) is/x within instrument and acknowledged to executed the same in XX/her/XXXX authand that by XX/her/XXXX signature(x) of person(x), or the entity upon behalf of acted, executed the instrument. I certify under PENALTY OF PERJUIT the State of California that the foregoinand correct. Witness my hand and official seal.	(xx subscribed to the owner that xx/she/xxx) horized capacity (xxx) on the instrument the f which the person(xxx)
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POWER OF ATTORNEY

Farmington Casualty Company
Fidelity and Guaranty Insurance Company
Fidelity and Guaranty Insurance Underwriters, Inc.
St. Paul Fire and Marine Insurance Company
St. Paul Guardian Insurance Company

St. Paul Mercury Insurance Company Travelers Casualty and Surety Company Travelers Casualty and Surety Company of America United States Fidelity and Guaranty Company

Attorney-In Fact No.

221542

Certificate No. 003981893

KNOW ALL MEN BY THESE PRESENTS: That St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company and St. Paul Mercury Insurance Company are corporations duly organized under the laws of the State of Minnesota, that Farmington Casualty Company, Travelers Casualty and Surety Company, and Travelers Casualty and Surety Company of America are corporations duly organized under the laws of the State of Connecticut, that United States Fidelity and Guaranty Company is a corporation duly organized under the laws of the State of Maryland, that Fidelity and Guaranty Insurance Company is a corporation duly organized under the laws of the State of Iowa, and that Fidelity and Guaranty Insurance Underwriters, Inc., is a corporation duly organized under the laws of the State of Wisconsin (herein collectively called the "Companies"), and that the Companies do hereby make, constitute and appoint

(herein collectively called the "Companies"), and that the Companies do hereby make, constitute and appoint Paul Boucher, Tim Noonan, Janina Monroe, Tom McCall, and Jeremy Yeung
of the City of Los Angeles , State of California , their true and lawful Attorney(s)-in-Fact, each in their separate capacity if more than one is named above, to sign, execute, seal and acknowledge any and all bonds, recognizances, conditional undertakings and other writings obligatory in the nature thereof on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.
IN WITNESS WHEREOF, the Companies have caused this instrument to be signed and their corporate seals to be hereto affixed, this
Farmington Casualty Company Fidelity and Guaranty Insurance Company Fidelity and Guaranty Insurance Underwriters, Inc. St. Paul Fire and Marine Insurance Company St. Paul Guardian Insurance Company
1982 S 1987 S SEALS SEAL
State of Connecticut City of Hartford ss. By: George W Thompson, Senior Vice President
On this the day of day of day of,, before me personally appeared George W. Thompson, who acknowledged himself to be the Senior Vice President of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.
In Witness Whereof, I hereunto set my hand and official seal. My Commission expires the 30th day of June, 2011. Marie C. Tetreault, Notary Public

58440-4-09 Printed in U.S.A.

WARNING: THIS POWER OF ATTORNEY IS INVALID WITHOUT THE RED BORDER

This Power of Attorney is granted under and by the authority of the following resolutions adopted by the Boards of Directors of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company, which resolutions are now in full force and effect, reading as follows:

RESOLVED, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President, any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary may appoint Attorneys-in-Fact and Agents to act for and on behalf of the Company and may give such appointee such authority as his or her certificate of authority may prescribe to sign with the Company's name and seal with the Company's seal bonds, recognizances, contracts of indemnity, and other writings obligatory in the nature of a bond, recognizance, or conditional undertaking, and any of said officers or the Board of Directors at any time may remove any such appointee and revoke the power given him or her; and it is

FURTHER RESOLVED, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President may delegate all or any part of the foregoing authority to one or more officers or employees of this Company, provided that each such delegation is in writing and a copy thereof is filed in the office of the Secretary; and it is

FURTHER RESOLVED, that any bond, recognizance, contract of indemnity, or writing obligatory in the nature of a bond, recognizance, or conditional undertaking shall be valid and binding upon the Company when (a) signed by the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary and duly attested and sealed with the Company's seal by a Secretary or Assistant Secretary; or (b) duly executed (under seal, if required) by one or more Attorneys-in-Fact and Agents pursuant to the power prescribed in his or her certificate or their certificates of authority or by one or more Company officers pursuant to a written delegation of authority; and it is

FURTHER RESOLVED, that the signature of each of the following officers: President, any Executive Vice President, any Senior Vice President, any Vice President, any Assistant Vice President, any Secretary, and Assistant Secretary, and the seal of the Company may be affixed by facsimile to any Power of Attorney or to any certificate relating thereto appointing Resident Vice Presidents, Resident Assistant Secretaries or Attorneys-in-Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such Power of Attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding on the Company in the future with respect to any bond or understanding to which it is attached.

I, Kori M. Johanson, the undersigned, Assistant Secretary, of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Company, St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company do hereby certify that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which is in full force and effect and has not been revoked.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this

day of FEB **2 4** 2012

___, 20

Kori M. Johanson, Assistant Secretary



















To verify the authenticity of this Power of Attorney, call 1-800-421-3880 or contact us at www.travelersbond.com. Please refer to the Attorney-In-Fact number, the above-named individuals and the details of the bond to which the power is attached.

CALIFORNIA ALL-PURPOSE CERTIFICATE OF AKNOWLEDGMENT State of: California County of: Ventura On February 29, 2012 , before me, Renee Cruz, Notary Public (name and title of the officer) personally appeared Sean Castillo who proved to me on the basis of satisfactory evidence to be the person (s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity (ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument. I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct. RENEE CRUZ WITNESS my hand and official seal COMM. # 1843560 WENTURA COUNTY MY COMM. EXP. APR. 6, 2013 Signature of Notary Public (Notary Seal) OPTIONAL INFORMATION Information below is NOT required by law however may deter fraudulent removal of this form. **Description of Attached Document** Capacity Claimed by Signer(s) Number of Pages 1 Individual(s) Document Date: 2-24-12 Corporate Officer President Bid Bond for Long Valley Partner Title or type of document Attorney-in-Fact Trustee(s) Waterline Replacement □ Other Additional information



LIST OF REFERENCES

Contract With: City of Oxnard - 305 W. Third Street Oxnard Ca. 9303	0
Contact: Raymond Williams #805-385-8051	

Brief Description: Grind, ARHM Overlay 13,000 tons, 8" & 12" PVC Waterline Aprrox. 9,500 LF

Project: Saviers Blvd. Street & Waterline Improvements

Owner: City of Oxnard

Contract Amount:

\$ 4,780,536.00

Completed 6/2010

Contract With: City of Moorpark - 799 Moorpark Dr, Moorpark, CA 93021

Contact: Yugal Lall/ City Engineer 805-218-5861

Project: Walnut Canyon, Moorpark, Ca., Water, Sewer & Storm Drain

Owner: City of Moorpark

Contact Amount: \$1,100,000.00

Completed: 12/2010

Contract With: Dollinger Properties- 55 Twin Dolphin Dr Ste. 600, Redwood City, CA 94065

Contact: Nuno De Avila/Project Manager 650-508-8666

Project: The Summit at Calabasas Water, Sewer & Storm Drain

Owner: Dollinger Properties

Contact Amount: \$950,000.00

Completed: 08/2009

Contract With: U.S. Army Corps
Contact: Galen Cline 661-265-7222

Brief Description: 25,000 LF of 24" cmc/cml steel water main installation

Project: North Valley RW1Owner: U.S. Army Core Engineers

Owner. O.S. Army Core Engin

Contract Amount: \$ 9,100,000.00

Start Date: 7/2010

Anticipated Completion: 7/2012

Contract With: City of Oxnard - 305 W. Third Street Oxnard Ca. 93030

Contact: Raymond Williams #805-385-8051

Brief Description: Grind, ARHM Overlay, 8" PVC Waterline Aprrox. 6,000 LF, Services & Hydrants

Project: Bartolo Square South Phase II

Owner: City of Oxnard

Contract Amount:

\$ 2,478,800.00

Completed: 7/2011

WORKERS' COMPENSATION CERTIFICATE

I am aware of the provisions of Section 3700 of the Labor Code which requires every employer to be self-insured against liability for workers compensation or to undertake self-insurance in accordance with the provisions of that Code, and I will comply with such provisions before commencing the performance of this contract.

NOTE: If Contractor is a corporation, the legal name of the corporation shall be set forth above, together with the signature of the officer or officers authorized to sign contracts on behalf of the corporation. If the Contractor is a partnership, the true name of the firm shall be set forth above, together with the signature of the partner or partners authorized to sign contracts on behalf of the co-partnerships. If the Contractor is an individual, the name of the firm shall be set forth together with the signature.

Bond: #105714161

Premium: Included with the Performance Bond.

PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS:
WHEREAS, the Governing Board of Las Virgenes Municipal Water District (herein "Agency"), on March 14, 2012, awarded to Toro Enterprises, Inc., (herein the "Principal"), a contract for Long Valley Road Waterline Replacement Project. WHEREAS, Principal is required to furnish a bond in connection with contract so in
Principal or its subcontractors shall fail to pay for materials or supplies, for the performance of the work, or for labor done thereon, or for amounts due under the Unemployment Insurance Act, the
Surety on the bond will pay the same.
NOW, THEREFORE, the Principal and _Travelers Casualty and Surety Company of America (herein "Surety"), are held and firmly bound unto the Agency in the penal sum of _Three Hundred One Thousand One Hundred Forty & NO/100ths (\$ 301,140.00)] dollars, lawfu
money of the United States of America, for the payment of which sum well and truly to be made, we
bind ourselves, our heirs, executors, administrators, and successors, jointly and severally, firmly by these promises.
THE CONDITION OF THIS OBLIGATION IS SUCH if Principal, its subcontractors, heirs
executors, administrators, successors, or assigns, shall fail to pay for materials, provisions provender or other supplies or teams used in, upon, for or about the performance of the work contracted to be done, or for work or labor thereon of any kind, or fail to pay the persons named in California Civil Code Section 3181, or amounts due under the Unemployment Insurance Code with respect to work or labor performed under the contract, or for amounts required to be deducted withheld, and paid over to the Employment Development Department from the wages of employees of the Contractor and subcontractors pursuant to Section 13020 of the Unemployment Insurance Code with respect to such work and labor, and other laws of the Sate of California and rules and regulations of its agencies, then Surety will pay the same in or to an amount not exceeding the amount hereinabove set forth, and also will pay, in case suit is brought upon this bond, such reasonable attorney fees as shall be fixed by the court, pursuant to Section 3181 of the California Civil Code.
This bond shall inure to the benefit of the persons named in Section 3181 of the California Civil Code, so as to give a right of action to them or their assigns in any suit brought upon this bond, such reasonable attorney fees as shall be fixed by the court, pursuant to Section 3181 of the
California Civil Code. No change, extension of time, alteration, or addition to the terms of the contract, or the
work to be performed thereunder, or the specifications accompanying the same, shall affect Surety's obligation on this bond. Surety waives notice of such change, extension of time, alteration, or addition to the terms of the contract, or to the work or to the specifications.
IN WITNESS WHEREOF, three identical counterparts of this instrument, each of which shall be deemed an original, have been duly executed by the Principal and Surety above named on
the [19th] day of [March , 2012].
Toro Enterprises, Inc. Travelers Casualty and Surety Company of America
Principal) (Surety)
By: By:
Sean Castillo, President (Attorney-in-fact). Janina Monroe

STATE OF CALIFORNIA		1
County of Los Angeles		}}
OnMarch 19, 2012	before me,	Susan E. Morales, Notary Public Here Insert Name and Title of the Officer
Date	7	
personally appeared	Janina Monro	De Name(s) of Signer(s)
SUSAN E. MO COMM. # 19 NOTARY PUBLIC - LOS ANGELES My Comm. Expires Ma	930723 Z CALIFORNIAS COUNTY Irch 28, 2015	who proved to me on the basis of satisfactory evidence to be the person(x) whose name(x) is/xxx subscribed to the within instrument and acknowledged to me that xx/she/xxx executed the same in XX/her/XXXX authorized capacity(xxx) and that by XX/her/Xxxx signature(x) on the instrument the person(x), or the entity upon behalf of which the person(x) acted, executed the instrument. I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.
		Witness my hand and official seal.
Place Notary Seal A	bove	Signature Swan E. Morses Signature of Notary Public Susan E. Morales
Though the information belo and could preven	ow is not required t fraudulent remov	Signature of Notary Public
Though the information belo and could preven Description of Attached Doo	ow is not required t fraudulent remov	Signature of Notary Public Susan E. Morales - OPTIONAL by law, it may prove valuable to persons relying on the document val and reattachment of this form to another document.
Though the information belo and could preven Description of Attached Doo Title or Type of Document: Tor	ow is not required t fraudulent remov cument to Enterprises - Bond	Signature of Notary Public Susan E. Morales OPTIONAL by law, it may prove valuable to persons relying on the document val and reattachment of this form to another document. d #105714161 - Las Virgenes Water Dist.
Though the information belowand could prevent Description of Attached Document: Tore Document Date: March 19, 2	ow is not required t fraudulent remov cument to Enterprises - Bond	Signature of Notary Public Susan E. Morales OPTIONAL by law, it may prove valuable to persons relying on the document val and reattachment of this form to another document. d #105714161 - Las Virgenes Water Dist. Number of Pages:
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Though the information belowand could prevent Description of Attached Document: Tormation Document Date: March 19, 2	ow is not required t fraudulent remove cument to Enterprises - Bond 2012 Above:NONE	Signature of Notary Public Susan E. Morales OPTIONAL by law, it may prove valuable to persons relying on the document val and reattachment of this form to another document. d #105714161 - Las Virgenes Water Dist. Number of Pages:
Though the information belowand could prevent Description of Attached Document: Tore Document Date: March 19, 2 Signer(s) Other Than Named A	ow is not required t fraudulent remove cument to Enterprises - Bond 2012 Above:NONE gner(s)	Signature of Notary Public Susan E. Morales - OPTIONAL - by law, it may prove valuable to persons relying on the document val and reattachment of this form to another document. - d #105714161 - Las Virgenes Water Dist. - Number of Pages: - Individual - Corporate Officer — Title(s): - Partner — Limited General - BPRINT Attorney in Fact - Trustee - Trustee - RIGHT THUMBPRINT OF SIGNER

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TRAVELERS

POWER OF ATTORNEY

Farmington Casualty Company
Fidelity and Guaranty Insurance Company
Fidelity and Guaranty Insurance Underwriters, Inc.
St. Paul Fire and Marine Insurance Company
St. Paul Guardian Insurance Company

St. Paul Mercury Insurance Company Travelers Casualty and Surety Company Travelers Casualty and Surety Company of America United States Fidelity and Guaranty Company

Attorney-In Fact No.

221542

Certificate No. 003981909

KNOW ALL MEN BY THESE PRESENTS: That St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company and St. Paul Mercury Insurance Company are corporations duly organized under the laws of the State of Minnesota, that Farmington Casualty Company, Travelers Casualty and Surety Company, and Travelers Casualty and Surety Company of America are corporations duly organized under the laws of the State of Connecticut, that United States Fidelity and Guaranty Company is a corporation duly organized under the laws of the State of Iowa, and that Fidelity and Guaranty Insurance Company is a corporation duly organized under the laws of the State of Iowa, and that Fidelity and Guaranty Insurance Underwriters, Inc., is a corporation duly organized under the laws of the State of Wisconsin (herein collectively called the "Companies"), and that the Companies do hereby make, constitute and appoint

Paul Boucher, Tim Noonan, Janina Monroe, Tom McCall, and Jeremy Yeung

of the City of			California			l Attorney(s)-in-Fact,
other writings obli	ate capacity if more than one is named above igatory in the nature thereof on behalf of the auting or guaranteeing bonds and undertaking	e Companies in the	ir business of guaran	teeing the fidelity of p	persons, guaranteein	onal undertakings and g the performance of
						22nd
day ofNove	HEREOF, the Companies have caused this is mber 2010.	nstrument to be sig	ned and their corpora	te seals to be hereto af	fixed, this	
	Farmington Casualty Con Fidelity and Guaranty Ins Fidelity and Guaranty Ins St. Paul Fire and Marine I St. Paul Guardian Insuran	surance Company surance Underwrit Insurance Compa		St. Paul Mercury In Travelers Casualty a Travelers Casualty a United States Fidelit	and Surety Compar and Surety Compar	ny of America
OASUALITY OF THE PROPERTY OF T	1977 M. M. M. CORPORATED ST. 1951	RE STORPE	ALS SEAT	ON LATER OF THE PROPERTY OF TH	HARTFORD S	MICOCONED DE 1898
State of Connectice City of Hartford ss			Ву:	George W Thom	pson, Senior Vice Pres	ident
himself to be the S Inc., St. Paul Fire Company, Traveler	2nd day of November Senior Vice President of Farmington Casualty and Marine Insurance Company, St. Paul rs Casualty and Surety Company of America oing instrument for the purposes therein control	y Company, Fideli Guardian Insuranc a, and United State	ty and Guaranty Insu- e Company, St. Paul es Fidelity and Guara	Mercury Insurance C nty Company, and tha	ty and Guaranty Ins Company, Travelers It he, as such, being	urance Underwriters, Casualty and Surety authorized so to do,
	eof, I hereunto set my hand and official seal.	SEC. TETRES	_	May	ic C. J.	theault ary Public

58440-4-09 Printed in U.S.A.

WARNING: THIS POWER OF ATTORNEY IS INVALID WITHOUT THE RED BORDER

This Power of Attorney is granted under and by the authority of the following resolutions adopted by the Boards of Directors of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company, which resolutions are now in full force and effect, reading as follows:

RESOLVED, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President, any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary may appoint Attorneys-in-Fact and Agents to act for and on behalf of the Company and may give such appointee such authority as his or her certificate of authority may prescribe to sign with the Company's name and seal with the Company's seal bonds, recognizances, contracts of indemnity, and other writings obligatory in the nature of a bond, recognizance, or conditional undertaking, and any of said officers or the Board of Directors at any time may remove any such appointee and revoke the power given him or her; and it is

FURTHER RESOLVED, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President may delegate all or any part of the foregoing authority to one or more officers or employees of this Company, provided that each such delegation is in writing and a copy thereof is filed in the office of the Secretary; and it is

FURTHER RESOLVED, that any bond, recognizance, contract of indemnity, or writing obligatory in the nature of a bond, recognizance, or conditional undertaking shall be valid and binding upon the Company when (a) signed by the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary and duly attested and sealed with the Company's seal by a Secretary or Assistant Secretary; or (b) duly executed (under seal, if required) by one or more Attorneys-in-Fact and Agents pursuant to the power prescribed in his or her certificate or their certificates of authority or by one or more Company officers pursuant to a written delegation of authority; and it is

FURTHER RESOLVED, that the signature of each of the following officers: President, any Executive Vice President, any Senior Vice President, any Vice President, any Assistant Vice President, any Assistant Vice President, any Assistant Secretary, and the seal of the Company may be affixed by facsimile to any Power of Attorney or to any certificate relating thereto appointing Resident Vice Presidents, Resident Assistant Secretaries or Attorneys-in-Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such Power of Attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding on the Company in the future with respect to any bond or understanding to which it is attached.

I, Kori M. Johanson, the undersigned, Assistant Secretary, of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Company, St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company do hereby certify that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which is in full force and effect and has not been revoked.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this _

MAR 1 9 2012

. 20

Kori M. Johanson, Assistant Secretary



















To verify the authenticity of this Power of Attorney, call 1-800-421-3880 or contact us at www.travelersbond.com. Please refer to the Attorney-In-Fact number, the above-named individuals and the details of the bond to which the power is attached.

CALIFORNIA ALL-PURPOSE CERTIFICATE OF AKNOWLEDGMENT State of: California County of: Ventura On March 21, 2012 , before me, Renee Cruz, Notary Public (name and title of the officer) personally appeared Sean Castillo who proved to me on the basis of satisfactory evidence to be the person (s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity (ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument. I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct. RENEE CRUZ WITNESS my hand and official seal Сомм. # 1843560 NOTARY PUBLIC-CALIFORNIA VENTURA COUNTY MY COMM. EXP. APR. 6, 2013 (Notary Seal) OPTIONAL INFORMATION Information below is NOT required by law however may deter fraudulent removal of this form. **Description of Attached Document** Capacity Claimed by Signer(s) Number of Pages 1 Individual(s) Document Date: 3-19-12 Corporate Officer President Payment Bond No. 105714161 for Long Title or type of document □ Partner Attorney-in-Fact Valley Road Waterline Replacement Project Trustee(s) Additional information Other



CERTIFICATE OF LIABILITY INSURANCE 10/1/2012

3/19/2012

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

certificate floider in fled of such endorsement(s).					
PRODUCER Lockton Insurance Brokers, LLC 725 S. Figueroa Street, 35th Fl. CA License #0F15767	CONTACT NAME: PHONE (A(C, No, Ext): (A/C, No):				
Los Angeles CA 90017 (213) 689-0065	ADDRESS: INSURER(S) AFFORDING COVERAGE NAIC #				
	INSURER A: Zurich American Insurance Company 16535				
INSURED Toro Enterprises, Inc.	INSURER B:				
¹³¹⁰⁰²⁰ P.O. Box 6285	INSURER C:				
Oxnard CA 93031	INSURER D:				
	INSURER E:				
	INSURER F:				
COVERAGES TORENOI C4 CERTIFICATE NUMBER: 11699	641 REVISION NUMBER: XXXXXXX				

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

	INSR LTR	TYPE OF INSURANCE		SUBR	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
٦ľ	Α	GENERAL LIABILITY	Υ	N	GLA 5223741-01	10/1/2011	10/1/2012	EACH OCCURRENCE \$ 1,000,000
П		X COMMERCIAL GENERAL LIABILITY						DAMAGE TO RENTED \$ 300,000
-1		CLAIMS-MADE X OCCUR						MED EXP (Any one person) \$ 10,000
_							ļ	PERSONAL & ADV INJURY \$ 1,000,000
Ш		X DED. \$5,000						GENERAL AGGREGATE \$ 2,000,000
ᅫ	ŀ	GEN'L AGGREGATE LIMIT APPLIES PER:						PRODUCTS - COMP/OP AGG \$ 2,000,000
		POLICY X PRO-						s
$\neg 1$	Α	AUTOMOBILE LIABILITY	N	N	GLA 5223741-01	10/1/2011	10/1/2012	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000
П	- 1	X ANY AUTO						BODILY INJURY (Per person) \$ XXXXXXX
-4	ļ	ALL OWNED SCHEDULED AUTOS						BODILY INJURY (Per accident) \$ XXXXXXX
-		X HIRED AUTOS X NON-OWNED AUTOS						PROPERTY DAMAGE \$ XXXXXXX
								Comp/Coll \$ 1,000
ᆀ		UMBRELLA LIAB OCCUR			NOT APPLICABLE			EACH OCCURRENCE \$ XXXXXXX
Ì		EXCESS LIAB CLAIMS-MADE						AGGREGATE \$ XXXXXXX
רַ.		DED RETENTION \$						\$ XXXXXXX
	Α	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y/N		N	WC 6554582-02	10/1/2011	10/1/2012	X WC STATU- TORY LIMITS ER
7		ANY PROPRIETOR/PARTNER/EXECUTIVE Y	N/A					E.L. EACH ACCIDENT \$ 1,000,000
		(Mandatory in NH) If yes, describe under	-					E.L. DISEASE - EA EMPLOYEE \$ 1,000,000
.		DESCRIPTION OF OPERATIONS below						E.L. DISEASE - POLICY LIMIT \$ 1,000,000
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DESCRIPTION OF OPERATIONS / LOCATIONS / YEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

Certificate Holder is named as Additional Insured to the extent provided by the policy language or endorsement issued or approved by the insurance carrier. RE:
Toro Job#: 5213 - Project Name: Long Valley Road Waterline Replacement Project. Additional Insured(s): Certificate Holder, its officers, and employees

CERTIFICATE HOLDER	CANCELLATION	See A	Attachmen	HS				
	CHOILD ANY OF T	HE ABO	(E DECODIE	ED DOLLO	EC DE	CANOELL	CO DEE/	200
	SHOULD ANY OF THE	DE ABU	AE DESCHIE	SED POLIC	IES DE	JANUELL	ED BEF	ンドに
	THE EXPIRATION	DATE	THEREOF,	NOTICE	WILL	BE DELI	VERED	IN

11699641 AUTHORIZED REPRESENTATIVE

Las Virgenes Municipal Water District 4232 Las Virgenes Road Calabasas CA 91302-1994

191988-2910 ACORD CORPORATION. All rights reserved

ACCORDANCE WITH THE POLICY PROVISIONS.

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED - OWNERS, LESSEES OR CONTRACTORS - SCHEDULED PERSON OR ORGANIZATION

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

SCHEDULE

Name Of Additional Insured Person(s) Or Organization(s):

Location(s) Of Covered Operations:

ANY PERSON OR ORGANIZATION TO WHOM OR TO WHICH YOU ARE REQUIRED TO PROVIDE ADDITIONAL INSURED STATUS IN A WRITTEN CONTRACT OR WRITTEN AGREEMENT EXECUTED PRIOR TO THE LOSS EXCEPT WHERE SUCH CONTRACT OR AGREEMENT IS PROHIBITED BY LAW.

Information required to complete this Schedule, if not shown above, will be shown in the Declarations.

- A. Section II Who Is An Insured is amended to include as an additional insured the person(s) or organization(s) shown in the Schedule, but only with respect to liability for "bodily injury", "property damage" or "personal and advertising injury" caused, in whole or in part, by:
- 1. Your acts or omissions; or
- 2. The acts or omissions of those acting on your behalf;

in the performance of your ongoing operations for the additional insured(s) at the location of the the additional insured(s) at the location(s) designated above. **B.** With respect to the insurance afforded to these additional insureds, the following additional exclusions apply:

This insurance does not apply to "bodily injury" or "property damage" occurring after:

- 1. All work including materials parts or equipment furnished in connection with such work, on the project (other than service, maintenance or repairs) to be performed by or on behalf of the additional insured(s) at the location of the covered operations has been completed; or
- 2. That portion of "your work" out of which the injury or damage arises has been put to its intended use by any person or organization other than another contractor or subcontractor engaged in performing operations for a principal as a part of the same project.

CG 20 10 07 04

© ISO Properties, Inc., 2004

Page 1 of 1

POLICY NUMBER: GLA 5223741-01

COMMERCIAL GENERAL LIABILITY CG 20 37 07 04

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED - OWNERS, LESSEES OR CONTRACTORS - COMPLETED OPERATIONS

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

SCHEDULE

Name Of Additional Insured Person(s) Or Organization(s):

Location And Description Of Completed Operations:

ANY PERSON OR ORGANIZATION TO WHOM OR TO WHICH YOU ARE REQUIRED TO PROVIDE ADDITIONAL INSURED STATUS IN A WRITTEN CONTRACT OR WRITTEN AGREEMENT EXECUTED PRIOR TO THE LOSS EXCEPT WHERE SUCH CONTRACT OR AGREEMENT IS PROHIBITED BY LAW.

Information required to complete this Schedule, if not shown above, will be shown in the Declarations.

Section II - Who Is An insured is amended to include as an additional insured the person(s) or organization(s) shown in the Schedule, but only with respect to liability for "bodily injury" or "property damage" caused, in whole or in part, by "your work" at the location designated and described in the schedule of this endorsement performed for that additional insured and included in the "products-completed operations hazard.

CG 20 37 07 04

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Page 1 of 1

Bond: #105714161 Premium: \$2,981.00

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS:

WHEREAS, the governing board of Las Virgenes Municipal Water District (herein "Agency"), on [March 14, 2012], awarded to Toro Enterprises, Inc. (herein "Principal"), a contract for Long Valley Road Waterline Replacement Project.

WHEREAS, Principal is required under the terms of the contract to furnish a bond for the faithful performance of the contract;

NOW, THEREFORE, the Principal and Travelers Casualty and Surety Company of America (herein "Surety"), are held firmly bound unto the Agency, (herein "Agency"), in the penal sum of [Three Hundred One Thousand One Hundred*] dollars (\$[301,140.00]) lawful money of the United States of America, for the payment of which sum well and truly to be made, we bond ourselves, our heirs, executors, administrators and successors, jointly and severally and firmly by these promises.

*Forty & NO/100 THE CONDITION OF THIS OBLIGATION IS SUCH that if the above-bounden Principal, or its heirs, executors, administrators, successors or assigns shall in all things stand to and abide.

or its heirs, executors, administrators, successors or assigns shall in all things stand to and abide by, and well and truly keep and perform the covenants, conditions, and agreements in the contract, including but not limited to the payment of liquidated damages, and any alteration thereof made as therein provided, on its part to be kept and performed at the time and in the manner therein specified, and in all respects according to their true intent and meaning, and shall indemnify and save harmless the Agency, its officers and agents, as therein stipulated, this obligation shall become null and void; otherwise it shall be and remain in full force and virtue.

Surety stipulates and agrees no change, extension of time, alteration, or addition to the terms of the contract, or to the work to be performed thereunder, or the specifications accompanying the same, shall affect its obligation on this bond. Surety waives notice of such change, extension of time, alteration or addition to the terms of the contract, or to the work or to the specifications.

Surety agrees in case suit is brought on this bond, Surety will pay Agency's reasonable attorney fees to be fixed by the court.

Toro Enterprises, Inc.	Travelers Casualty and Surety Company of America
(Principal)	(Surety)
Ву: ///	By: Al) lu
Sean Castillo, President	(Attorney-in-fact) Janina Monroe

(Attach Acknowledgment)

STATE OF CALIFORNIA		1
County ofLos Angeles		}}
On March 19, 2012	before me,	Susan E. Morales, Notary Public
Date		Here Insert Name and Title of the Officer
personally appeared	Janina Monroe	Name(s) of Signer(s)
SUSAN E. MOF COMM. # 193 NOTARY PUBLIC - CA LOS ANGELES CO My Comm. Expires March	RALES 70723 72 LIFORNIA SOUNTY	who proved to me on the basis of satisfactory evidence to be the person(x) whose name(x) is/xxx subscribed to the within instrument and acknowledged to me that xx/she/xxxx executed the same in kx/her/xxxx authorized capacity(xxx) and that by xx/her/xxxx signature(x) on the instrument the person(x), or the entity upon behalf of which the person(x) acted, executed the instrument. I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.
		Witness my hand and official seal.
Place Notary Seal	Above	Signature Signature of Notary Public Susan E. Morales
		OPTIONAL ————————————————————————————————————
Tt		law, it may prove valuable to persons relying on the document and reattachment of this form to another document.
i nough the information bei and could prever	nt fraudulent removal	and reattachment of this form to another document.
		and reattachment of this form to another document.
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Description of Attached Do Title or Type of Document: To	oro Enterprises - Bond #	
Description of Attached Do Title or Type of Document: To Document Date: March 19,	oro Enterprises - Bond #	105714161 - Las Virgenes Water Dist.
Description of Attached Do Title or Type of Document: To Document Date: March 19, Signer(s) Other Than Named	oro Enterprises - Bond # 2012 Above: NONE	105714161 - Las Virgenes Water Dist.
Description of Attached Do Title or Type of Document: To Document Date: March 19, Signer(s) Other Than Named	oro Enterprises - Bond # 2012 Above: NONE	105714161 - Las Virgenes Water Dist.
Description of Attached Do	Above: NONE Signer(s) RIGHTTHUMBPR OF SIGNER Top of thumb he	105714161 - Las Virgenes Water Dist. Number of Pages: Signer's Name: Individual Corporate Officer — Title(s): Partner — Limited General Attorney in Fact Trustee RIGHT THUMBPRINT OF SIGNER
Description of Attached Do Title or Type of Document: To Document Date:March 19, Signer(s) Other Than Named Capacity(ies) Claimed by Si Signer's Name: _Janina Monroe Individual Corporate Officer — Title(s) Partner — _ Limited _ Ger X Attorney in Fact Trustee Guardian or Conservator	Above: NONE Signer(s) RIGHTTHUMBPR OF SIGNER Top of thumb he	Signer's Name:

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State of: California	
County of: Ventura	
On March 21, 2012 , before me, Renee Cr	ruz, Notary Public
personally appeared Sean Castillo	(name and title of the officer)
who proved to me on the basis of satisfactory evide subscribed to the within instrument and acknowledge his/her/their authorized capacity (ies), and that by h or the entity upon behalf of which the person(s) acte	ged to me that he/she/they executed the same in is/her/their signature(s) on the instrument the person(s)
I certify under PENALTY OF PERJURY under the la paragraph is true and correct.	aws of the State of California that the foregoing
WITNESS my hand and official seal	RENEE CRUZ COMM. # 1843560 NOTARY PUBLIC-CALIFORNIA VENTURA COUNTY MY COMM. EXP. APR. 6, 2013
Signature of Notary Public	— (Notary Seal)
	INFORMATION law however may deter fraudulent removal of this form.
escription of Attached Document Right Thum of Signs	
umber of Pages 1 ocument Date: 3-19-12	☐ Individual(s) Corporate Officer President
erformance Bond No. 105714161 for Long tle or type of document lley Road Waterline Replacement Project	□ Partner □ Attorney-in-Fact
iic y rodd wateriire replacement i roject	☐ Trustee(s) ☐ Other

TECHNICAL SPECIFICATIONS

00810 - Supplemental to General Provisions

01100 - Summary of Work

01200 - Measurement and Payment

01330 - Submittal Procedures

01500 - Temporary Facilities and Controls

02324 - Trenching, Backfill and Compaction

02513 - Water Distribution Piping

02516 - Disinfection of Water Distribution Mains

02740 - Asphalt Concrete Pavement

09900 - Painting and Coating

15144 - Pressure Testing of Pipelines

Appendix

Selected District Standard Plans Hidden Hills Home Owner's Association Encroachment Permit

SPECIAL PROVISIONS

SECTION 00810

SUPPLEMENT TO GENERAL PROVISIONS (CA052196C)

PART 1 - GENERAL

1.01 DESCRIPTION

A. Definitions

Whenever the following terms occur in the contract documents, their meaning is as follows:

OWNER/DISTRICT

Las Virgenes Municipal Water District (LVMWD)

4232 Las Virgenes Road Calabasas, CA 91302

GOVERNING BODY

Owner's Board of Directors

ENGINEER

Las Virgenes Municipal Water District (LVMWD)

4232 Las Virgenes Road Calabasas, CA 91302

B. Terms

Command type sentences used in the contract documents refer to and are directed to the Contractor.

C. Existing Conditions and Examination of Contract Documents

The Contractor represents that he has carefully examined the contract documents and the site where the work is to be performed and that he has familiarized himself with all local conditions and federal, state and local laws, ordinances, rules, and regulations that may affect in any manner the performance of the work. The bidder further represents that he has studied all surveys and investigation reports about subsurface and latent physical conditions pertaining to the jobsite, that he has performed such additional surveys and investigations as he deems necessary to complete the work at his bid price, and that he has correlated the results of all such data with the requirements of the contract documents. The submittal of a bid shall be conclusive evidence that the bidder has investigated and is satisfied as to the conditions to be encountered, including locality, uncertainty of weather and all other contingencies, and as to the character, quality, quantities, and scope of the work.

The plans and specifications for the work show subsurface conditions or otherwise hidden conditions as they are supposed or believed by the Engineer/Architect to exist; but it is not intended or to be inferred that the conditions as shown thereon constitute a representation that such conditions are actually existent. Except as otherwise specifically provided in the contract documents, the Owner, the Engineer/Architect, and their consultants shall not be liable for any loss sustained by the Contractor as a result of any variance of such conditions as shown on the plans and the actual conditions revealed during the progress of the work or otherwise.

Where the Owner or the Engineer or their consultants have made investigations of subsurface conditions in areas where the work is to be performed, such investigations were made only for the purpose of study and design. The conditions indicated by such investigations apply only at the specific location of each boring or excavation at the time the borings or excavations were made. Where such investigations have been made, bidders or Contractors may inspect the records as to such investigations subject to and upon the conditions hereinafter set forth. The inspection of the records shall be made at the office of the Engineer/Architect.

The records of such investigations are not a part of the contract and are shown solely for the convenience of the bidder or Contractor. It is expressly understood and agreed that the Owner, the Engineer/Architect, and their consultants assume no responsibility whatsoever in respect to the sufficiency or accuracy of the investigations; the records thereof; or of the interpretations set forth therein or made by the Owner's consultants, the Engineer/Architect or his consultants in the use thereof by the Engineer/Architect, and there is no warranty or guarantee, either express or implied, that the conditions indicated by such investigations or records thereof are representative of those existing throughout such areas, or any part thereof, or that unlooked-for developments may not occur, or that materials other than, or in proportions, densities, or other characteristics different from, those indicated may not be encountered.

Information described in this article is not to be construed in any way as a waiver of the provisions of the first paragraph in this article and a bidder or Contractor is cautioned to make such independent investigations and examination as he deems necessary to satisfy himself as to conditions to be encountered in the performance of the work.

No information derived from such inspection of records of investigations or compilation thereof made by the Owner, the Engineer/Architect, or their consultants will in any way relieve the bidder or Contractor from any risk or from properly fulfilling the terms of the contract nor entitle the Contractor to any additional compensation.

D. Utilities

The Engineer has endeavored to determine the existence of utilities at the site of

the work from the records of the owners of known utilities in the vicinity of the work. The positions of these utilities as derived from such records are shown on the plans. The service connections to these utilities may not be shown on the plans.

The Contractor shall make his own investigations, including exploratory excavations, to determine the locations and type of existing service laterals or appurtenances when their presence can be inferred from the presence of other visible facilities, such as buildings, meter and junction boxes, on or adjacent to the site of the work. If the Contractor discovers utility facilities not identified in the plans or specifications or in a position different from that shown in the plans and specifications, he shall immediately notify in writing the Owner's Representative and the owner of the utility facility.

The Owner shall have the responsibility for the timely removal, relocation, protection, and temporary maintenance of existing main or trunkline utility facilities which are not indicated in the plans and specifications with reasonable accuracy.

In case it should be necessary to remove, relocate, protect, or temporarily maintain a utility because of interference with the work, the work on such utility shall be performed and paid for as follows:

- 1. When it is necessary to remove, relocate, protect, or temporarily maintain an existing main or trunkline utility facility not indicated in the plans and specifications with reasonable accuracy, the Owner will compensate the Contractor for the costs of locating, for the costs of repairing damage not due to the failure of the Contractor to exercise reasonable care, for the costs of removing, relocating, protecting, or temporarily maintaining such utility facilities, and for the costs for equipment on the site necessarily idled during such work. These costs, the work to be done by the Contractor in locating, removing, relocating, protecting, or temporarily maintaining such utility facilities shall be covered by a written change order conforming to the provisions of the article on CHANGES IN THE WORK and the article on PAYMENT FOR CHANGES IN THE WORK. The Owner may make changes in the alignment and grade of the work to obviate the necessity to remove, relocate, protect, or temporarily maintain such utility facilities or to reduce the costs of the work involved in removing, relocating, protecting, or temporarily maintaining such utility facilities. Changes in alignment and grade will be ordered in accordance with the article on CHANGES IN THE WORK.
- 2. When it is necessary to remove, relocate, protect, or temporarily maintain a utility (other than [1] existing main or trunkline utility facilities not indicated in the plans and specifications with reasonable accuracy, or [2] existing service laterals or appurtenances when their presence cannot be inferred from the presence of other visible facilities, such as buildings, meter and junction boxes, on or adjacent to the site of the work) the cost of

which is not required to be borne by the owner thereof, the Contractor shall bear all expenses incidental to the work on the utility or damage thereto. The work on the utility shall be done in a manner satisfactory to the owner thereof; it being understood that the owner of the utility has the option of doing such work with his own forces, or permitting the work to be done by the Contractor. No representations are made that the obligations to remove, relocate, protect, or temporarily maintain any utility and to pay the cost thereof is or is not required to be borne by the owner of such utility, and it shall be the responsibility of the Contractor to investigate to find out whether or not said cost is required to be borne by the owner of the utility.

3. The right is reserved to governmental agencies and to owners of utilities to enter at any time upon any street, alley, right-of- way, or easement for the purpose of making changes in their property made necessary by the work and for the purpose of maintaining and making repairs to their property.

E. Safety

In accordance with generally accepted construction practices, the Contractor shall be solely and completely responsible for conditions of the jobsite, including safety of all persons and property during performance of the work, and the Contractor shall fully comply with all state, federal and other laws, rules, regulations, and orders relating to safety of the public and workers.

The right of the Engineer or the Owner's Representative to conduct construction review or observation of the Contractor's performance will not include review or observation of the adequacy of the Contractor's safety measures in, on, or near the construction site.

F. Indemnity

In addition to the requirements of the General Provisions, Section 21, the Contractor shall indemnify and hold harmless the Engineer, the Owner's Representative, and their consultants, and each of their directors, officers, employees, and agents from and against all losses, expenses, damages (including damages to the work itself), attorneys' fees, and other costs, including all costs of defense, which any of them may incur with respect to the failure, neglect, or refusal of Contractor to faithfully perform the work and all of the Contractor's obligations under the contract. Such costs, expenses, and damages shall include all cost, including attorneys' fees, incurred by the indemnified parties in any lawsuit to which they are a party.

G. Contractor's Insurance

General: The Contractor shall not commence or continue to perform any work unless he, at his own expense, has in full force and effect all required insurance. The Contractor shall not permit any subcontractor to perform work on this project unless the Worker's Compensation Insurance requirements have been complied

with by such subcontractor.

The types of insurance the Contractor shall obtain and maintain are Worker's Compensation Insurance and Employer's Liability Insurance, Liability Insurance, Builders' Risk "All Risk" Insurance and, if so determined by the Owner at the time of award of the contract, Earthquake and Tidal Wave Insurance, all as set forth herein.

Worker's Compensation Insurance and Employer's Liability Insurance and Liability Insurance shall be maintained in effect for the full guarantee period.

Worker's Compensation Insurance And Employer's Liability Insurance: The Contractor shall provide employer's liability insurance in the amount of at least one million dollars (\$1,000,000) per accident for bodily injury and disease. Upon execution of the Agreement, the Contractor shall provide a certificate(s) of insurance certifying that he has obtained full Worker's Compensation Insurance coverage. At the same time, the Contractor shall provide the insurance endorsement(s) on the forms provided as part of the contract documents. This insurance shall be in strict accordance with the requirements of the most current and applicable state Worker's Compensation Insurance laws.

Liability Insurance: Upon execution of the Agreement, the Contractor shall provide a certificate(s) of insurance showing that he has Liability Insurance coverage.

Included in such insurance shall be contractual coverage sufficiently broad to insure the matters set forth in the article entitled INDEMNITY except those matters set forth in the third paragraph thereof.

The Liability Insurance coverage shall include each of the following types of insurance:

- 1. General Liability: One million dollars (\$1,000,000) per occurrence for bodily injury and property damage. If Commercial General Liability Insurance or other form with a general aggregate limit or products-completed operations aggregate limit is used, either the general aggregate limit shall apply separately to the project/location (with ISO CG 2503, or ISO CG 2504, or insurer's equivalent endorsement provided to the District) or the general aggregate limit and products-completed operations aggregate limit shall be twice the required occurrence limit.
- 2. Automobile Liability: One million (\$1,000,000) per occurrence for bodily injury and property damage each accident limit.

The Liability Insurance shall include as additional insureds: the Owner, the Engineer, the Owner's Representative, and their consultants, and each of their directors, officers, agents, and employees. The insurance afforded to these additional insureds shall be primary insurance. If the additional insureds have other insurance which might be applicable to any loss, the amount of the insurance

provided under this article on LIABILITY INSURANCE shall not be reduced or prorated by the existence of such other insurance.

Builders' Risk "All Risk" Insurance: Upon execution of the Agreement certificate(s) of insurance showing that he has obtained for the period of the contract Builders' Risk "All Risk" completed value insurance coverage (including flood but excluding earthquake and tidal wave) upon the entire project which is the subject of the contract and including completed work and work in progress. The Contractor shall provide Builder's Risk Insurance (or Installation Floater) at 100% of the contract price. At the same time, the Contractor shall provide the insurance endorsement(s) on the forms provided as a part of the contract documents. Such insurance shall include as additional insureds: the Owner, the Engineer/Architect, the Owner's Representative, and their consultants, and each of their directors, officers, employees, and agents.

Contractor's Liability Not Limited By Insurance: Nothing contained in these insurance requirements is to be construed as limiting the liability of the Contractor or the Contractor's sureties.

H. Contractor's Insurance – Additional Insureds

The Liability Insurance required under Section 21 shall also include as additional insureds: the Engineer, the Owner's Representative, and their consultants, and each of their directors, officers, agents, and employees. The insurance afforded to these additional insureds shall be primary insurance. If the additional insureds have other insurance which might be applicable to any loss, the amount of the insurance provided under this article on LIABILITY INSURANCE shall not be reduced or prorated by the existence of such other insurance.

I. Salvage of Materials

Existing materials and equipment removed, and not reused as a part of the work, shall be offered to the Owner. If the Owner chooses not to take the materials and equipment, then the Contractor shall be responsible for the proper disposal of the items.

J. Temporary Facilities

Water - The Contractor shall provide an adequate supply of water of a quality suitable for all domestic and construction purposes. Water used for domestic purposes shall be free of contamination and shall conform to the requirements of the State and local authorities for potable water. The Contractor shall be solely responsible for the adequate functioning of its water supply system and shall be solely liable for any claims arising from the use of same, including discharge or waste of water therefrom. The Contractor shall not make connection to or draw water from any fire hydrant or pipeline without first obtaining permission of the authority having jurisdiction over the use of said fire hydrant or pipeline and from the agency owning affected water system.

Sanitary Facilities - Fixed or portable chemical toilets shall be provided wherever needed for the use of the Contractor's employees. Toilets at the construction site shall conform to the requirements of Subpart D, Section 1926.51 of the OSHA Standards for Construction.

K. Project Schedule

The anticipated project schedule is as follows:

• Bid Opening: February 29, 2012

Project Award: March 13, 2012

• Project Completion: June 15, 2012

This project is the replacement of an existing potable water pipeline that has experienced failures in recent months. Time is of the essence.

L. Site Access

This project is located within the gated community of Hidden Hills. Site access is restricted to residents and guests. As such the District will have to provide access to the site for the Contractor and its subcontractors. At all times, the work will be within the public right of way. Refer to the Hidden Hills Home Owners Association Encroachment Permit located in the Appendix for additional requirements pertaining to the Work. Equipment, labor and supplies shall at no time be placed on private property. The staff working on the project must have clothing that identifies the construction company that they are working for as well as the regulatory protective clothing (vests, hard hats, etc.).

END OF SECTION This page intentionally left blank.

TECHNICAL PROVISIONS

SECTION 01100

SUMMARY OF WORK

PART 1 - GENERAL

1.01 DESCRIPTION

A. The Work to be performed under this Contract shall consist of furnishing all plant, tools, equipment, materials, supplies, and manufactured articles for the Project. It shall also include the furnishing of all transportation and services, including fuel, power, water, and essential communications, and for the performance of all labor, work, or other operations required for the fulfillment of the Contract in strict accordance with the Contract Documents.

1.02 CONTRACT DESCRIPTION

- A. Work on this project consists of replacement of an existing 6-inch asbestos cement water main located in the community of Hidden Hills. The water system is owned and operated by Las Virgenes Municipal Water District. The replacement section is approximately 1,200 feet in length and is located on Long Valley Road between Old Farm Road and Saddle Creek Road. The existing water line is located outside of the pavement behind the curb. The proposed pipeline will be installed in a new alignment between the existing waterline and the curb. Several private residential driveways are located along the Project. The driveways have been improved with stamped and/or colored concrete. The pipeline installation across the driveways will require replacement of the driveway or will need to be tunneled so as to not disturb the existing driveway pavement. Water services will also be replaced as part of this project. There are 16 services to be replaced in total along with three fire hydrants and assemblies.
- B. The schedule of the work is as follows:
 - 1. Bid Opening February 29, 2011
 - 2. Project Award March 13, 2011
 - 3. Project Completion June 15, 2012
- C. The Work is the replacement of an existing potable water pipeline that has experienced recent failures. Time is the essence of the Contract. In accordance with the provisions of Section 24 of the Agreement, the Contractor shall begin the Work on the date specified in the written Notice to Proceed from the District, and shall complete all of the Work included in the Contract within 95 calendar days

Las Virgenes Municipal Water District Long Valley Road Waterline Replacement Project after the commencement date specified in the Notice to Proceed. Time stated for completion shall include final cleanup of the premises.

1.03 WORK BY OTHERS

- A. Attention is directed to the fact that work may be conducted at the site by other contractors during the performance of the Work under this Contract. Conduct operations so as to cause a minimum of interference with the Work of such other contractors, and cooperate fully with such contractors to provide continued safe access to their respective portions of the site, as required to perform their respective contracts.
- B. Cooperate fully with all utility forces of the District or forces of other public or private agencies engaged in the relocation, altering, or otherwise rearranging of any facilities which interfere with the progress of the Work, and schedule the Work so as to minimize interference with said relocation, altering, or other rearranging of facilities.

1.04 OWNER SUPPLIED PRODUCTS

A. No Owner furnished products will be supplied as part of this Contract.

1.05 CONTRACTOR'S USE OF SITE AND PREMISES

- A. Refer to the Hidden Hills Home Owners Association Encroachment Permit in the Appendix for additional conditions.
- B. Limit use of site and premises to allow:
 - 1. Owner occupancy.
 - 2. Work by Others and Work by Owner.
- C. Access to the site is limited to the hours of 7:00 A.M. to 5:00 P.M., Monday through Friday. Saturday work may be approved in advance by the Project Representative. No work of any nature shall commence in any area before 7:00 A.M. This includes loading, unloading, and starting or moving of construction equipment.
- D. No Sunday work will be approved during this Contract, except work considered to be an emergency. The Contractor shall request written authorization from the Project Representative prior to any Sunday work.
- E. Hours of work of the Project Representative are from 7:00 A.M. to 3:30 P.M. Costs of inspection and testing outside of these hours will be in accordance with

Section 37 of the General Conditions.

1.06 USE OF PROJECT SITE

A. The Contractor's use of the project site shall be limited to its construction operations in accordance with the Hidden Hills Home Owners Association Encroachment Permit located in the Appendix. No on-site storage of materials, on-site fabrication facilities, or field offices will be allowed. Make arrangements with the community of Hidden Hills, the District or a private entity for storage of equipment and materials for the project. Coordination with Hidden Hills community staff and operations will be required during the course of the Project.

1.07 OWNER OCCUPANCY

A. Cooperate with the District and the community of Hidden Hills to minimize conflict, and to facilitate the District's operations.

1.08 SPECIFICATION CONVENTIONS

A. These specifications are written in imperative mood and streamlined form. This imperative language is directed to the Contractor, unless specifically noted otherwise. The words "shall be" are included by inference where a colon (:) is used within sentences or phrases.

PART 2 - PRODUCTS - Not Used

PART 3 - EXECUTION - Not Used

END OF SECTION

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TECHNICAL PROVISIONS

SECTION 01200

MEASUREMENT AND PAYMENT

PART 1 - GENERAL

1.01 DESCRIPTION

A. Payment for the various items of the Bid Sheets, as further specified herein, shall include all compensation to be received by the Contractor for furnishing all tools, equipment, supplies, and manufactured articles, and for all labor, operations, and incidentals appurtenant to the items of work being described, as necessary to complete the various items of work as specified and shown on the drawings, including all appurtenances thereto, and including all costs of compliance with the regulations of public agencies having jurisdiction, including Safety and Health Requirements of the California Division of Industrial Safety and the Occupational Safety and Health Administration of the U.S. Department of Labor (OSHA). No separate payment will be made for any item that is not specifically set forth in the Bid Sheet(s), and all costs therefor shall be included in the prices named in the Bid Sheet(s) for the various appurtenant items of work.

1.02 SCHEDULE OF VALUES

- A. Submit Schedule of Values in duplicate within 15 calendar days after execution of contract.
- B. Identify each line item with number and title of major specification Section. Identify site mobilization, bonds and insurance.
- C. Include within each line item, direct proportional amount of Contractor's overhead and profit.
- D. Revise schedule to list approved Change Orders, with each Application for Payment.

1.03 APPLICATIONS FOR PAYMENT

- A. Submit three copies of each application on Contractor's electronic media driven form.
- B. Content and Format: Utilize Schedule of Values for listing items in Application for Payment.
- C. Submit updated monthly construction schedule with each Application for Payment.

- D. Payment Period: Submit at intervals stipulated in the Agreement.
- E. Submit with transmittal letter as specified for Submittals in Section 01330 Submittal Procedures.
- F. When Engineer/District requires substantiating information, submit data justifying dollar amounts in question. Include the following with Application for Payment:
 - 1. Partial release of liens from major subcontractors and vendors.
 - 2. Construction progress schedules, revised and current as specified in Section 01330.

1.04 CHANGE PROCEDURES

- A. Submit name of individual authorized to receive change documents, and be responsible for informing others in Contractor's employ or Subcontractors of changes to the Work.
- B. The Engineer may issue a Notice of Change including a detailed description of proposed change with supplementary or revised Drawings and specifications, a change in Contract Time for executing the change with stipulation of overtime work required and the period of time during which the requested price will be considered valid. Contractor will prepare and submit estimate within three days.
- C. Contractor may propose changes by submitting a request for change to Engineer, describing proposed change and its full effect on the Work. Include a statement describing reason for the change, and effect on Contract Sum/Price and Contract Time with full documentation.
- D. Stipulated Sum/Price Change Order: Based on Notice of Change and Contractor's fixed price quotation or Contractor's request for Change Order as approved by Engineer.
- E. Unit Price Change Order: For contract unit prices and quantities, the Change Order will be executed on fixed unit price basis. For unit costs or quantities of units of work which are not pre-determined, execute Work under Work Directive Change. Changes in Contract Sum/Price or Contract Time will be computed as specified for Time and Material Change Order.
- F. Work Directive Change: Engineer may issue directive, on District approved format signed by District, instructing Contractor to proceed with change in the Work, for subsequent inclusion in a Change Order. Document will describe changes in the Work, and designate method of determining any change in Contract Sum/Price or Contract Time. Promptly execute change.
- G. Time and Material Change Order: Submit itemized account and supporting data after completion of change, within time limits indicated in Conditions of the Contract. Engineer will determine change allowable in Contract Sum/Price and

Contract Time as provided in Contract Documents.

- H. Maintain detailed records of work done on Time and Material basis. Provide full information required for evaluation of proposed changes, and to substantiate costs for changes in the Work.
- I. Document each quotation for change in cost or time with sufficient data to allow evaluation of quotation.
- J. Change Order Forms: District approved format.
- K. Execution of Change Orders: Engineer will issue Change Orders for signatures of parties as provided in Conditions of the Contract.
- L. Correlation Of Contractor Submittals:
 - 1. Promptly revise Schedule of Values and Application for Payment forms to record each authorized Change Order as separate line item and adjust Contract Sum/Price.
 - Promptly revise progress schedules to reflect change in Contract Time, revise sub-schedules to adjust times for other items of work affected by the change, and resubmit.
 - 3. Promptly enter changes in Project Record Documents.

1.05 DEFECT ASSESSMENT

- A. Replace the Work, or portions of the Work, not conforming to specified requirements as outlined in Section 38 of the Agreement.
- B. If, in the opinion of the Engineer, it is not practical to remove and replace the Work, the Engineer will direct appropriate remedy or adjust payment.
- C. Defective Work will be partially repaired to instructions of Engineer, and unit sum/price will be adjusted to new sum/price at discretion of Engineer.
- D. Individual specification sections may modify these options or may identify specific formula or percentage sum/price reduction.
- E. Authority of Engineer or District to assess defects and identify payment adjustments is final.
- F. Non-Payment For Rejected Products: Payment will not be made for rejected products for any of the following:
 - 1. Products wasted or disposed of in a manner that is not acceptable.
 - 2. Products determined as unacceptable before or after placement.

- 3. Products not completely unloaded from transporting vehicle.
- 4. Products placed beyond lines and levels of required Work.
- 5. Products remaining on hand after completion of the Work.
- 6. Loading, hauling, and disposing of rejected products.

1.06 UNIT PRICES

- A. All pay line items will be paid for at the unit prices named in the Bid Sheets for the respective items of work. The quantities of work or material stated as unit price items on the Bid Sheets are supplied only to give an indication of the general scope of the Work; the District does not expressly, or by implication, agree that the actual amount of work or material will correspond therewith, and reserves the right after award to increase or decrease the quantity of any unit price item of work by an amount up to and including 25 percent of any bid item, without a change in the unit price, and shall have the right to delete any bid item in its entirety, or to add additional bid items up to and including an aggregate total amount not to exceed 25 percent of the contract price.
- B. Quantity variations in excess of the allowable quantity changes specified herein shall be subject to the provisions of this specification.
- C. Engineer will take measurements and compute quantities accordingly. Provide assistance in taking of measurements.
- D. Unit Quantities: Quantities and measurements indicated in Bid Form are for contract purposes only. Actual quantities provided shall determine payment.
- E. When actual Work requires more or fewer quantities than those quantities indicated, provide required quantities at unit sum/prices contracted.
- F. Payment Includes: Full compensation for required labor, products, tools, equipment, plant and facilities, transportation, services and incidentals; application or installation of item of the Work; overhead and profit.
- G. Final payment for Work governed by unit prices will be made on basis of actual measurements and quantities accepted by Engineer multiplied by unit sum/price for Work incorporated in or made necessary by the Work.

1.07 BID SCHEDULE

A. DIVISION 01 SERIES SPECIFICATIONS requirements shall be included in applicable bid items and includes the requirements of the Special Provisions, establishment and maintenance of the project construction schedule, development of project submittals, temporary fencing, worker sanitation facilities, protection of existing facilities, and coordination with DISTRICT operations. Additional

Description of Items in Bid Schedule:

- 1. MOBILIZATION/DEMOBILIZATION (Bid Item #1) Work item shall be measured on a lump sum basis and includes all labor, materials and equipment necessary for the establishment of the construction staging areas, obtaining of all bonds, insurance, and permits, establishment of project equipment, restoration of staging areas once construction is complete and other requirements outlined in the General Provisions.
- 2. TRAFFIC CONTROL (Bid Item #2) Work item shall be measured on a lump sum basis and includes all labor, materials, and equipment necessary for the preparation of a traffic control plan, installation of the approved traffic control devices, maintenance of the traffic control devices and removal of the traffic control devices as shown on the Plans in accordance with these Special Provisions.
- 3. The POTHOLING (Bid Item #3) Work item shall be measured on a unit price basis and includes all labor, materials and equipment necessary for obtaining approval of the proposed potholing locations from the District, compliance with the General Conditions, contacting the appropriate utility agencies and Underground Service Alert for establishment of the locations of adjacent utilities, performing the necessary potholing excavation, determining the location of the adjacent utilities and recording that on the Project red line drawings in accordance with the Agreement, protection of existing utility infrastructure, and restoration of the surface to original conditions as shown on the Plans in accordance with these Special Provisions.
- 4. The POTABLE WATER HIGHLINING (Bid Item #4) Work shall be measured on a lump sum basis and includes installation of temporary water main, installation of aboveground street and driveway crossings, disinfection and pressure testing, connection to the existing District water angle meter stops, installation of cut in valves or hot taps on the surrounding existing water system piping for bypass connections, maintenance of the system as required during the duration of the pipeline installation and removal of the system as shown on the Plans in accordance with these Special Provisions.
- 5. The 8-INCH DIAMETER PIPE REPLACEMENT (Bid Item #5) Work item shall be measured on a unit price basis and includes protection of the decomposed granite horse trail surface during the Work, trench excavation, installation of sheeting, shoring and bracing, protection of existing utility crossings and adjacent utilities, removal of existing pipeline and appurtenances in conflict with the new pipeline, pipeline bedding placement, pipeline and fitting installation, valve installation, backfill and compaction, disinfection and pressure testing and replacement of the existing decomposed granite horse trail material to match the existing thickness as shown on the Plans and in accordance with these Special Provisions.

- 6. The 1-INCH DIAMETER LONG WATER SERVICE REPLACEMENT (Bid Item #6) Work item shall be measured on a unit price basis and includes disconnection of the existing water service from the existing pipeline, trenchless removal of the existing customer water service and disposal, trenchless installation of the replacement water service, corporation stop installation, meter box adjustment/resetting, disconnection from the temporary highlining system and reconnection of the customer meter assembly, as shown on the Plans and in accordance with these Special Provisions.
- 7. The 1-INCH DIAMETER SHORT WATER SERVICE REPLACMENT (Bid Item #7) Work item shall be measured on a unit price basis and includes disconnection of the existing water service from the existing pipeline, trenchless removal of the existing customer water service and disposal, trenchless installation of the replacement water service, corporation stop installation, meter box adjustment/resetting, disconnection from the temporary highlining system and reconnection of the customer meter assembly, as shown on the Plans and in accordance with these Special Provisions.
- 8. The 1.5- OR 2-INCH DIAMETER SHORT WATER SERVICE REPLACEMENT (Bid Item #8) Work item shall be measured on a unit price basis and includes disconnection of the existing water service from the existing pipeline, trenchless removal of the existing customer water service and disposal, trenchless installation of the replacement water service, corporation stop installation, meter box adjustment/resetting, disconnection from the temporary highlining system and reconnection of the customer meter assembly, as shown on the Plans and in accordance with these Special Provisions.
- 9. The FIRE HYDRANT REPLACEMENT (Bid Item #9) Work item shall be measured on a unit price basis and includes removal of the existing hydrant and bury and disposal, trenching, bedding placement, hydrant run and bury installation, backfill and compaction, hydrant assembly installation and painting as shown on the Plans in accordance with these Special Provisions.
- 10. The DISINFECTION AND PRESSURE TESTING (Bid Item #10) Work item shall be measured on a lump sum basis and includes connection of the required disinfection and testing apparatus, required connections to the pipeline to be tested, blow off assemblies, air/vacuum testing assemblies, bulkheads, testing pump, bacteriological testing and results, and removal of equipment and reconnection of the piping in accordance with these Special Provisions.
- 11. The EXISTING WATER MAIN ABANDONMENT (Bid Item #11) Work item shall be measured on a lump sum basis and includes disconnection of the pipeline from the existing system, filling the pipeline with a ¼ sack slurry product every 100 feet if necessary and backfill of the excavations of

the piping in accordance with these Special Provisions.

- 12. The RECORD DRAWINGS (Bid Item #12) Work item shall be measured on a lump sum basis and includes modifying the Contract Plans in ink to reflect any changes made in the field during construction, approved change orders, maintaining the modified Plans onsite during construction at all times, and delivery to the District at the completion of construction in accordance with these Special Provisions.
- 13. The STORM WATER POLLUTION CONTROL PLAN (BID ITEM #13) Work item shall be measured on a lump sum basis to achieve compliance with the NPDES regulations in conjunction with the Work shown on the Plans and includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for performing the work involved in project storm water discharge compliance (NPDES), complete in place, as shown on the Plans, as specified in these special provisions under Section 01550 Temporary Environmental Controls, and as directed by the District.

1.08 ALTERNATES

- A. Alternates quoted on Bid Forms will be reviewed and accepted or rejected at District's option. Accepted Alternates will be identified in the Agreement.
- PART 2 PRODUCTS Not Used
- PART 3 EXECUTION Not Used

END OF SECTION



TECHNICAL PROVISIONS

SECTION 01330

SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.01 DESCRIPTION

- A. Wherever submittals are required hereunder, all such submittals by the Contractor shall be submitted to the District. A Submittal is defined as any drawing, calculation, specification, product data, samples, manuals, requests for substitutes, spare parts, photographs, survey data, record drawings, bonds, or similar items required to be submitted to the District under the terms of the contract.
- B. <u>Submittals Required Within Fourteen Calendar Days After Notice to Proceed:</u>
 Within fourteen days after the date of commencement as stated in the Notice to Proceed, the Contractor shall submit the following items to the District for review:
 - 1. A <u>Preliminary Construction Schedule</u> indicating the starting and completion dates of the various stages of the Work.
 - 2. A preliminary schedule of Shop Drawing submittals.
 - 3. A list of all permits and licenses the Contractor needs to obtain indicating the agency that will grant the permit, the expected date of submittal for the permit, and required date for receipt of the permit.
 - 4. A preliminary schedule of values (lump sum price breakdown for all of the Work which will include quantities and prices of items aggregating the Contract Price and will subdivide the Work into component parts in sufficient detail to serve as the basis for progress payments during construction. Such prices shall include an appropriate amount of overhead and profit applicable to each item of work, which will be confirmed in writing by the Contractor at the time of submittal.

1.02 SUBMITTAL PROCEDURES

- A. Transmit four copies of each submittal with District approved transmittal letter.
- B. Sequentially number transmittal forms. Mark revised submittals with original number and sequential alphabetic suffix.
- C. Identify Project, Contractor, subcontractor and supplier; pertinent drawing and detail number, and specification section number, appropriate to submittal.
- D. Apply Contractor's stamp, signed or initialed certifying that review, approval,
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verification of products required, field dimensions, adjacent construction Work, and coordination of information is in accordance with requirements of the Work and Contract Documents.

- E. Schedule submittals to expedite Project, and deliver to District at business address. Coordinate submission of related items.
- F. For each submittal for review, allow 35 calendar days excluding delivery time to and from Contractor or as specified in the General Provisions.
- G. Identify variations from Contract Documents and product or system limitations which may be detrimental to successful performance of completed Work.
- H. Allow space on submittals for Contractor and District review stamps.
- I. When revised for resubmission, identify changes made since previous submission.

1.03 CONSTRUCTION PROGRESS SCHEDULES

- A. Submit initial schedules as stated in Section 1.01. After review, resubmit required revised data within ten calendar days.
- B. Submit revised Progress Schedules with each Application for Payment.
- C. Distribute copies of reviewed schedules to Project site file, subcontractors, suppliers, and other concerned parties.
- D. Instruct recipients to promptly report, in writing, problems anticipated by projections indicated in schedules.
- E. Submit computer generated horizontal bar chart with separate line for each section of Work, identifying first work day of each week.
- F. Show complete sequence of construction by activity, identifying Work of separate stages and other logically grouped activities. Indicate early and late start, early and late finish, float dates, and duration.
- G. Indicate estimated percentage of completion for each item of Work at each submission.
- H. Submit separate schedule of submittal dates for shop drawings, product data, and samples, including District furnished products, and dates reviewed submittals will be required from District. Indicate decision dates for selection of finishes.
- I. Indicate delivery dates for District furnished products.
- J. Revisions To Schedules:
 - 1. Indicate progress of each activity to date of submittal, and projected

completion date of each activity.

- 2. Identify activities modified since previous submittal, major changes in scope, and other identifiable changes.
- 3. Prepare narrative report to define problem areas, anticipated delays, and impact on Schedule. Report corrective action taken, or proposed, and its effect including effect of changes on schedules of separate contractors.

1.04 PROPOSED PRODUCTS LIST

- A. Within 14 calendar days after award, submit list of major products proposed for use, with name of manufacturer, trade name, and model number of each product.
- B. For products specified only by reference standards, give manufacturer, trade name, model or catalog designation, and reference standards.
- C. For convenience in designation in the Contract Documents, any material, product, or equipment to be incorporated in the Work may be designated under a brand or trade name or the name of a manufacturer and its catalog information. The use of any substitute material, product, or equipment which is equal in quality and utility and possesses the required characteristics for the purpose intended will be permitted, subject to the following requirements:
 - 1. The burden of proof as to the quality and utility of any such substitute material, product, or equipment shall be upon the Contractor.
 - 2. The District will be the sole judge as to the quality and utility of any such substitute material, product, or equipment and its decision shall be final.
- D. Wherever in the Contract Documents the name or the name and address of a manufacturer or supplier is given for a material, product, or equipment, or if any other source of a material, product, or equipment is indicated therefor, such information is given for the convenience of the Contractor only, and no limit, restriction, or direction is indicated or intended thereby, nor is the accuracy or reliability of such information guaranteed. It shall be the responsibility of the Contractor to determine the accurate identity and location of any such manufacturer, supplier, or other source of any material, product, or equipment called for in the Contract Documents.
- E. The Contractor may offer any material, product, or equipment that it considers equal to those specified. Unless otherwise provided by law or authorized in writing by the District, the substantiation of any proposed substitute or "or equal" material, product, or equipment must be submitted prior to award of the contract. The Contractor, at its sole expense, shall furnish data concerning items it has offered as substitute or "or equal" to those specified. The Contractor shall provide the data required by the District to determine that the quality, strength, physical, chemical, or other characteristics, including durability, finish, efficiency, dimensions, service, and suitability are such that the substitute or "or equal" item will fulfill its intended

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function.

F. The Contractor's attention is further directed to the requirement that its failure to submit data substantiating a request for a substitution of an "or equal" item during the time between the opening of bids and the date of award shall be deemed to mean that the Contractor intends to furnish one of the specific brand or trade-named material, product, or equipment specified in the Contract Documents and the Contractor does hereby waive all rights to offer or use substitute materials, products, or equipment in each such case. Wherever a proposed substitute material, product, or equipment has not been submitted within the time specified above, or wherever the submission of a proposed substitute material, product, or equipment fails to meet the requirements of the Specifications and an acceptable resubmittal is not received by the District within said specified time period, the Contractor shall furnish only one of the materials, products, or equipment originally-named in the Contract Documents. Approval by the District of a substitute item proposed by the Contractor shall not relieve Contractor of the responsibility for full compliance with the Contract Documents and for adequacy of the substituted item. The Contractor shall also be responsible for resultant changes and all additional costs which the substitution requires in its work, the work of its subcontractors and of other contractors and shall effect such changes without cost to District.

1.05 PRODUCT DATA

- A. Submit to District for review for limited purpose of checking for conformance with information given and design concept expressed in Contract Documents.
- B. Submit number of copies Contractor requires, plus two copies District will retain.
- C. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information specific to this Project.
- D. Indicate product utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.
- E. After review, produce copies and distribute in accordance with Section 1.06 Shop Drawings.

1.06 SHOP DRAWINGS

- A. Submit to District for review for limited purpose of checking for conformance with information given and design concept expressed in Contract Documents.
- B. Provide shop drawings signed and sealed by professional engineer responsible for designing components shown on shop drawings.
- C. Include signed and sealed calculations to support design, if applicable.

- D. All Shop Drawings shall be accompanied by the District approved standard submittal transmittal form. Any submittal not accompanied by such a form, or where all applicable items on the form are completed, will be returned for resubmittal.
- E. Normally, a separate transmittal form shall be used for each specific item or class of material or equipment for which a submittal is required. Transmittal of a submittal of various items using a single transmittal form will be permitted only when the items taken together constitute a manufacturer's "package" or are so functionally related that expediency indicates review of the group or package as a whole. A multiple-page submittal shall be collated into sets, and each set shall be stapled or bound, as appropriate, prior to transmittal to the District.
- F. Except as may otherwise be provided herein, the District will return prints of each submittal to the Contractor with its comments noted thereon, within 21 calendar days following their receipt by the District. It is considered reasonable that the Contractor shall make a complete and acceptable submittal to the District by the second submission of a submittal item. The District reserves the right to withhold monies due the Contractor to cover additional cost of the District's review beyond the second submittal.
- G. If two copies of a submittal are returned to the Contractor marked "APPROVED" or "ACCEPTED" or "NO EXCEPTIONS TAKEN," formal revision and resubmission of said submittal will not be required.
- H. If two copies of the submittal is returned to the Contractor marked "AMEND-RESUBMIT," the Contractor shall revise said submittal and shall resubmit four copies of said revised submittal to the District.
- I. If two copies of the submittal is returned to the Contractor marked "REJECTED-RESUBMIT," the Contractor shall revise said submittal and shall resubmit four copies of said revised submittal to the District.
- J. Fabrication of an item may be commenced only after the District has reviewed the pertinent submittals and returned copies to the Contractor marked either "NO EXCEPTIONS TAKEN" or "APPROVED" or "ACCEPTED" or "MAKE CORRECTIONS NOTED." Corrections indicated on submittals shall be considered as changes necessary to meet the requirements of the Contract Documents and shall not be taken as the basis of claims for extra work.
- K. All Contractor submittals shall be carefully reviewed by an authorized representative of the Contractor, prior to submittal to the District. Each submittal shall be dated, signed, and certified by the Contractor, as being correct and in strict conformance with the Contract Documents. In the case of shop drawings, each sheet shall be so dated, signed, and certified. No consideration for review by the District of any Contractor submittals will be made for any items that have not been so certified by the Contractor. All non-certified submittals will be returned to the Contractor without action taken by the District, and any delays caused thereby shall be the total responsibility of the Contractor.

L. The District's review of Contractor submittals shall not relieve the Contractor of the entire responsibility for the correctness of details and dimensions. The Contractor shall assume all responsibility and risk for any misfits due to any errors in Contractor submittals. The Contractor shall be responsible for the dimensions and the design of adequate connections and details.

1.07 MANUFACTURER'S INSTRUCTIONS

- A. When specified in individual specification sections, submit printed instructions for delivery, storage, assembly, installation, adjusting, and finishing, to District in quantities specified for Product Data.
- B. Indicate special procedures, perimeter conditions requiring special attention, and special environmental criteria required for application or installation.

1.08 RECORD DRAWINGS

- A. The Contractor shall keep and maintain, at the job site, one record set of Contract Drawings. On these Contract Drawings, Contractor shall mark all project conditions, locations, configurations, and any other changes or deviations which may vary from the details represented on the original Contract Drawings, including buried or concealed construction and utility features which are revealed during the course of construction.
- B. Special attention shall be given to recording the horizontal and vertical location of all buried utilities that differ from the locations indicated, or which were not indicated on the Contract Drawings. Said Record Drawings shall be supplemented by any detailed sketches as necessary or directed to fully indicate the Work as actually constructed.
- C. These master Record Drawings of the Contractor's representation of "as-built" conditions, including all revisions made necessary by addenda, change orders, and the like, shall be maintained up-to-date during the progress of the Work.
- D. In the case of those drawings which depict the detail requirement for equipment to be assembled and wired in the factory, the record drawings shall be updated by indicating those portions which are superseded by change order drawings or final shop drawings, and by including appropriate reference information describing the change orders by number and the shop drawings by manufacturer, drawing, and revision numbers.
- E. Record Drawings prepared by the Contractor shall be accessible to the District at all times during the construction period and shall be delivered to the District upon completion of the work.
- F. Requests for partial payments will not be approved if the record drawings are not kept current. All such Record Drawings will be inspected by the District each month, showing all variations between the Work as actually constructed and as

originally shown on the Contract Drawings or other Contract Documents, and the District will not process monthly payment requests until such drawings are made current each month.

- G. Upon substantial completion of the Work and prior to final acceptance by the District, the Contractor shall complete and deliver the completed set of Record Drawings to the District, conforming to the construction records of the Contractor. This set of drawings shall consist of corrected plans showing the reported location of the Work. The information submitted by the Contractor and incorporated by the District into the Record Drawings will be assumed to the reliable, and the District will not be responsible for the accuracy of such information, or for any errors or omissions, which may appear on the Record Drawings as a result.
- H. Final payment will not be approved until the Contractor-prepared Final Record Drawings have been delivered to the District. Said up-to-date, Record Drawings may be in the form of a set of prints with carefully plotted information overlaid in pencil.
- PART 2 PRODUCTS Not Used
- PART 3 EXECUTION Not Used

END OF SECTION



TECHNICAL PROVISIONS

SECTION 01500

TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.01 DESCRIPTION

- A. In addition to the requirements for utilities, it shall be the Contractor's responsibility to provide equipment that is adequate for the performance of the Work under this Contract within the time specified. All equipment shall be kept in satisfactory operating condition, shall be capable of safely and efficiently performing the required Work, and shall be subject to inspection and approval by the District's representative at any time within the duration of the Contract. All work hereunder shall conform to the applicable requirements of Cal-OSHA Construction Safety Orders.
- B. Refer to the Hidden Hills Home Owners Association Encroachment Permit in the Appendix for additional requirements.

1.02 TEMPORARY ELECTRICITY

- A. No electricity exists at the site that can be utilized for this project. Provide portable power for the equipment needed to complete the Work. Provide power outlets, with branch wiring and distribution boxes located as required for construction operations. Provide flexible power cords as required for portable construction tools and equipment.
- B. The cost of power shall be included in the appropriate bid items to which it is appurtenant and shall include full compensation for furnishing all labor, materials, tools, and equipment required to obtain and distribute power for construction purposes.

1.03 TEMPORARY LIGHTING FOR CONSTRUCTION PURPOSES

- A. All Work conducted at night or under conditions of deficient daylight shall be suitably lighted to insure proper Work and to afford adequate facilities for inspection and safe working conditions.
- B. Maintain lighting and provide routine repairs.
- C. All temporary connections for electricity shall be subject to approval of the Engineer and the power company representative, and shall be removed in like manner at the Contractor's expense prior to final acceptance of the Work by the District.

1.04 TEMPORARY VENTILATION

- A. Ventilate enclosed areas to achieve curing of materials, to dissipate humidity, and to prevent accumulation of dust, fumes, vapors, or gases.
- B. Utilize existing ventilation equipment. Extend and supplement equipment with temporary fan units as required to maintain clean air for construction operations.

1.05 TELEPHONE SERVICE

A. No phone service will be provided for this project. In addition, a field office/construction trailer will not be required for this project.

1.06 TEMPORARY WATER SERVICE

- A. District will pay cost of temporary water. Exercise measures to conserve. Utilize District's existing water system, extend and supplement with temporary devices as needed to maintain specified conditions for construction operations. Obtain from the District a project hydrant meter. A deposit will be required for the rental of the meter that will be refunded once the meter is returned in the condition that it was provided to the Contractor by the District. The location of the meter will be approved by the District.
- B. Extend branch piping with outlets located so water is available by hoses with threaded connections.
- C. Contractor shall be solely responsible for the adequate functioning of its water supply system and shall be solely liable for any claims arising from the use of same, including discharge or waste of water.
- D. Before final acceptance of the Work on the project, all temporary connections and piping installed by the Contractor shall be entirely removed, and all affected improvements shall be restored to their original condition, or better, to the satisfaction of the District and/or other agency owning the affected utility.
- E. All drinking water on the site during construction shall be furnished by the Contractor and shall be bottled water or water furnished in approved metal dispensers. Notices shall be posted conspicuously throughout the site warning the Contractor's personnel that piped water may be contaminated.

1.07 TEMPORARY SANITARY FACILITIES

- A. Provide and maintain required facilities and enclosures. Existing facility use is not permitted. Provide facilities at time of project mobilization.
- B. The Contractor shall establish a regular daily collection of all sanitary and organic wastes. All wastes and refuse from sanitary facilities provided by the Contractor or

organic material wastes from any other source related to the Contractor's operations shall be disposed of away from the site in a manner satisfactory to the District and in accordance with all laws and regulations pertaining thereto.

1.08 STORAGE AREAS

A. Establish the necessary storage and lay down areas required for the work. The District will not provide storage or equipment lay down areas at the project site. All arrangements for equipment and material storage shall be made with the community of Hidden Hills and in accordance with their encroachment permit. On street parking of equipment or storage of materials overnight will not be permitted unless allowed in the Hidden Hills encroachment permit.

1.09 VEHICULAR ACCESS

- A. This project is located in the gated community of Hidden Hills. The District and community of Hidden Hills will provide for temporary access of construction equipment for the duration of the project only. Equipment and delivery vehicles shall adhere to the approved path of travel in and out of the community and no deviation from the approved route will be allowed. Expect delays for vehicular traffic (workers, equipment, deliveries, etc.) through the community security gate.
- B. Provide unimpeded access for emergency vehicles around the construction site.
- C. Provide and maintain access to fire hydrants and control valves free of obstructions.
- D. Use existing approved paved roads for construction traffic.

1.010 PARKING

- A. Arrange for temporary surface parking areas to accommodate construction personnel in accordance with the District and community of Hidden Hills encroachment permit requirements.
- B. Use of designated existing on-site streets and driveways used for construction traffic is not permitted. Tracked vehicles will not be allowed on paved areas.
- C. Do not allow heavy vehicles or construction equipment in parking areas.
- D. Maintain traffic and parking areas in sound condition free of excavated material, construction equipment, products, mud, water.
- E. Maintain existing paved areas used for construction; promptly repair breaks, potholes, low areas, standing water, and other deficiencies, to maintain paving and drainage in original, or specified, condition.

1.011 PROGRESS CLEANING AND WASTE REMOVAL

- A. Maintain areas free of waste materials, debris, dust, and rubbish. Maintain site in clean and orderly condition. Perform dust control operations to prevent construction dust migration offsite. Use water to control the dust. Do not over apply the water so as to create runoff or muddy conditions.
- B. Remove debris and rubbish from the site as necessary during the day and also at the end of every work day.
- C. Broom and vacuum clean paved areas at the end of every work day and as requested by the District or the community of Hidden Hills.
- D. Collect and remove waste materials, debris, and rubbish from site weekly and dispose off-site.

1.012 TRAFFIC REGULATION

A. This project is located within a gated residential community. Construction traffic shall observe the posted speed limit and traffic regulations. Traffic control to modify normal traffic patterns may be required around the areas of Work. Expect vehicular delays through the community security gate.

1.013 WORKER IDENTIFICATION

- A. Provide identification for all associated construction personnel. Identification shall be clearly visible from a distance (i.e. shirt with company logo, safety vest with company logo, vehicles clearly marked, etc.).
- B. Protect non-owned vehicular traffic, stored materials, site, and structures from damage.

1.014 POLLUTION CONTROL

- A. Provide methods, means, and facilities to prevent contamination of soil, water, and atmosphere from discharge of noxious, toxic substances, and pollutants produced by construction operations.
- B. Comply with pollution and environmental control requirements of District.

1.015 REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS

A. Remove temporary utilities, equipment, facilities, materials, prior to Substantial Completion inspection.

- B. Clean and repair damage caused by installation or use of temporary work.
- C. Restore existing and permanent facilities used during construction to original condition. Restore permanent facilities used during construction to specified condition.

1.016 BASE LINES AND GRADES

- A. <u>General</u>: The Contractor will establish sufficient temporary horizontal and vertical control points prior to the beginning of construction to lay out the Work.
- B. <u>Datum</u>: The plane of reference for elevations used in the Contract Documents shall be mean sea level (MSL). Elevations below the plane of reference are designated as "minus" (-) elevations.
- C. <u>Benchmarks</u>: Temporary benchmarks and their elevations will be set in the field by the Contractor. The elevation of each temporary benchmark will be marked at each temporary benchmark in the field.
- D. <u>Horizontal and Vertical Control</u>: From the base line and temporary bench marks described herein, the Contractor shall complete the layout of the Work and shall be responsible for all measurements that may be required for execution of the Work to the location and limit marks prescribed in the Contract Documents, subject to such modifications as the District may require to meet changed or unforeseen conditions, or as a result of necessary modifications to the Contract Work.
- E. <u>Contractor's Layout</u>: The Contractor shall furnish, at its own expense, all such stakes, equipment, tools, materials, and all labor as required in laying out any and all parts of the Work.
- PART 2 PRODUCTS Not Used
- PART 3 EXECUTION Not Used

END OF SECTION



TECHNICAL PROVISIONS

SECTION 01550

TEMPORARY ENVIRONMENTAL CONTROLS

PART 1 - GENERAL

1.01 DESCRIPTION

A. This section describes the requirements relating to the control of storm water for the duration of the project as well as compliance with the adopted County of Los Angeles NPDES permit and the State of California Construction General Permit. This section is in conjunction with the requirements of Specification Section 01500 Temporary Facilities and Controls.

1.02 CHEMICALS

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

1.03 WATER POLLUTION CONTROLS

- A. All work shall be undertaken in accordance with the conditions and requirements of the Los Angeles Countywide Stormwater Quality Management Program, National Pollutant Discharge Elimination Systems (NPDES) Permit No. CAS0041 as amended by Regional Board Order No. R4-2007-0042. Employ NPDES best management practices in accordance with the State of California Construction General Permit (CGP) No. 2009-0009 DWQ.
- B. At all times work shall proceed using due diligence to safeguard against deposition of sediment, debris, concrete saw cut effluent, and other polluting matter into the street, storm drain and/or associated drainage conveyances. The storm drain system shall not be used for the disposal of any wastes including, but not limited to, wastewaters associated with the cleaning and/or sensing of equipment, streets or walkways.

1.04 EROSION CONTROLS

A. During the period of October through April, incorporate temporary erosion control

devices to protect any property adjacent to the project, and the project Work.

- B. Submit plans for erosion control to the District and design approval obtained before the work starts if the initiation of the work will occur in the rainy season (October through April). Plans shall show adequate anti-erosion and drainage devices, i.e., check dams, retention and desilting basins, berms, or other devices necessary to protect public streets and property of others from damage of water run-off and erosive forces. Have all drainage devices shown on plans in place at the end of each working day when the forecast of rain probability is 40% or greater.
- C. Maintain drainage within and through the work areas. Earth dams will not be permitted in paved areas. Temporary dams of gravel filled burlap bags, asphaltic concrete or other acceptable material will be permitted when necessary to protect the Work provided the use does not create a hazard or nuisance to the public. Such diversions will be removed from the site as soon as their use is no longer necessary.
- D. Clean out mud and silt after each rain or as directed by the District.
- E. Construction will not be allowed to proceed under any circumstance if contractor does not comply with erosion control requirements.
- PART 2 MATERIALS Not Used
- PART 3 EXECUTION Not Used

END OF SECTION

TECHNICAL PROVISIONS

SECTION 02324

TRENCHING, BACKFILLING AND COMPACTION

PART 1 - GENERAL

1.01 DESCRIPTION

- A. This section describes the materials, installation and testing of pipeline trench excavation, backfilling and compaction.
- B. Related Sections:
 - 1. Section 02513 Water Main Piping.

1.02 REFERENCES

A. ASTM International:

- 1. ASTM D698 Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort.
- 2. ASTM D1556 Standard Test Method for Density and Unit Weight of Soil in Place by the Sand-Cone Method.
- 3. ASTM D1557 Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort.

1.03 SUBMITTALS

- A. Provide shop drawings in accordance with Section 01330 Submittal Procedures.
- B. Submit information on the sand bedding and backfill material to be employed on the project. Submit a report from a testing laboratory verifying that the material contains less than 1% asbestos by volume or weight and conforms to the gradations specified.
- C. Submit sheeting, shoring, and bracing materials and installation required to protect excavations and adjacent structures and property; include structural calculations to support plan, if conditions require sheeting, shoring or bracing equipment in accordance with Cal/OSHA.
- D. Submit data for geotextile fabric indicating fabric and construction, if applicable.

- E. Submit method of pipeline compaction in the pipe zone including removal of shoring if used.
- F. Submit method of pipeline installation across the existing private residential driveways on the Project.

1.04 QUALIFICATIONS

A. Prepare excavation protection plan under direct supervision of Professional Engineer experienced in design of this Work and licensed in the State of California.

1.05 FIELD MEASUREMENTS

A. Verify field measurements prior to construction of improvements.

1.06 COMPACTION TESTING

- A. The District will test for compaction of the pipeline excavation and trench. The density of the soil in place will be tested by the sand cone method, ASTM D1556 or by nuclear methods, ASTM D2922. Compaction tests will be performed for each lift.
- B. The laboratory moisture density relationship will be performed in accordance with ASTM D1557.
- C. The relative density of cohesionless soils will be performed in accordance with ASTM D4253 and D4254.
- D. "Relative compaction" is the ratio, expressed as a percentage of the in place dry density to the laboratory maximum dry density.
- E. Compaction shall be in compliance with the specifications when no more than one test of any three consecutive tests fails the specified compaction level. Retesting of the compaction shall be paid for by the Contractor.
- F. Additional tests will be performed at any location where the compaction test shows a failure to meet the specified compaction level. The additional tests will occur every 50 feet in both directions until a satisfactory compaction level is achieved based on the test results. Once those limits have been identified, the area between the two compliant test results will be removed and recompacted.

1.07 TRENCH DEFINITIONS

A. "Pipe Zone" shall refer to the area below the proposed pipe elevation to a point one foot above the pipeline top of pipe.

- B. "Trench Zone" shall refer to the area between the pipe zone and the street zone. This typically is reserved for pipelines that are buried deeper than 36 inches to the top of pipe. If no pavement is present, the trench zone shall extend to the top of the trench.
- C. "Street Zone" shall refer to the area 24 inches below the pavement zone.
- D. "Pavement Zone" shall refer to the asphalt pavement and aggregate base structure of the roadway.

PART 2 - PRODUCTS

2.01 IMPORTED SAND

A. Imported sand for this project shall comply with the District Standard Section 1.6.

2.02 FILL MATERIALS

A. Native earth material for this project that is free from roots, debris, rocks larger than 3-inches in diameter where 50% of the material passes a No. 200 sieve can be used as backfill in the trench zone. At least 40 percent shall pass a No. 4 sieve.

2.03 ROCK FILL AND STABILIZATION

A. If needed for subgrade stabilization, use a geotextile fabric that is non-biodegradable and non-woven. Rock fill for stabilization shall meet the District Standard Section 1.6 and meet the following gradation:

Sieve Size	Percent Passing by Weight
3 inches	100
1.5 inches	70-100
0.75 inches	60-100
No. 4	25-55
No. 30	10-30
No. 200	1-10

PART 3 - EXECUTION

3.01 PREPARATION

- A. Request underground utilities to be located and marked within and surrounding construction areas prior to commencing excavation and in accordance with District Standards and project Drawings.
- B. Protect bench marks, existing structures, fences, sidewalks, paving, and curbs from excavating equipment and vehicular traffic.
- C. Maintain and protect above and below grade utilities indicated to remain.
- D. Establish temporary traffic control when trenching is performed in public right-of-way. Relocate controls as required during progress of Work.

3.02 TRENCHING

- A. The pipeline is to be installed in an existing parkway that serves as a horse trail. The trail surface material is compacted decomposed granite. While excavating, backfilling and working in the horse trail, protect the decomposed granite surface from contamination from the soil material being removed from the trench or being used as backfill. Any spillage onto the decomposed granite surface will be removed immediately and the area returned to its pre-Work condition.
- B. Excavate the pipeline trench to the lines and grades shown on the Plans with allowance for pipe material thickness, sheeting and shoring if used, and for pipeline bedding. If the trench is overexcavated, refill the trench to the correct elevation with additional compacted sand or rock refill. Place the material in the trench in lifts not exceeding 8-inches in thickness.
- C. Length of open trench shall be limited to the amount of work that can be completed in one work day or 100 feet ahead of the previous day work heading. Complete backfilling and compaction a maximum of 50 feet behind the pipe laying.
- D. District reserves the right to make changes in lines, grades, and depths of the pipeline when changes are required for Project conditions.
- E. Establish line and grade with laser-beam instrument and a qualified operator to establish lines and grades based on temporary survey information provided by District.
- F. Maintain grade alignment of pipe using string line parallel with grade line and vertically above centerline of pipe.
- G. Determine elevation and position of string line from elevation and position of offset

points or stakes located along pipe route.

H. Grade the bottom of the trench to the line and grade to which the pipe is to be laid. Remove hard spots that will prevent a uniform thickness of pipe bedding. Place the specified thickness of pipe bedding. Compact the bedding to the specified compaction. Excavate the bedding at the pipe bell locations to prevent stressing the pipe or insufficient bedding under the pipe springline.

3.03 SHEETING AND SHORING

- A. Where required, sheet, shore, and brace excavations to prevent danger to persons, structures and adjacent properties and to prevent caving, erosion, and loss of surrounding subsoil.
- B. The trench width shall be as shown on the Plans or in the District Standard Drawings. Comply with 29CFR Part 1926 Subpart P, Excavations of Cal/OSHA for the Sheeting, Shoring or Bracing systems.
- C. Design sheeting and shoring to be removed at completion of excavation work.
- D. Repair damage caused by failure of the sheeting, shoring, or bracing and for settlement of filled excavations or adjacent soil.

3.04 BACKFILLING

- A. Once the pipe has been installed and assembled in the trench, backfill trenches to contours and elevations with specified fill materials. Place the pipe zone backfill in maximum 8-inch lifts keeping the backfill level even on both sides of the pipe to prevent shifting from the line or grade established. Place the material around the pipe so that the pipe barrel is completely supported on both sides and no voids are present.
- B. Systematically backfill to allow maximum time for natural settlement. Do not backfill over porous, wet, or spongy subgrade surfaces. Compact each lift to the relative compaction specified in this Section.
- C. Place fill material in continuous layers and compact. Do not allow the backfill material to free fall into the trench until at least 2 feet of backfill has been placed over the pipe. Do not drop objects or sharp, heavy pieces of equipment directly onto the pipe or the material surrounding the pipe. Do not operate heavy equipment over the pipeline until 3 feet of compacted material has been placed over the top of pipe.
- D. Do not leave more than 50 feet of trench open at end of working day. Any open excavations shall be covered with steel plates.
- E. Remove and dispose of all nuisance water entering the trench in accordance with

Specification Section 01550 Temporary Environmental Controls.

- F. Backfill the trench to the surrounding grades or as shown on the District Standard Plan PW 101.
- G. Replace the decomposed granite horse trail material to match the existing thickness of the surrounding material. Compact as detailed below.

3.05 COMPACTION REQUIREMENTS

- A. Cover pipe in the pipe zone and bedding with imported sand. Compact uniformly to minimum 90 percent relative compaction.
- B. Trench zone and street zone compaction shall be 95 percent relative compaction.
- C. Compaction in the pavement zone shall be 95 percent relative compaction.
- D. Compaction shall be performed using mechanical equipment, such as rollers, hand tampers, etc. Do not use high impact hammer type equipment.

END OF SECTION

TECHNICAL PROVISIONS

SECTION 02513

WATER DISTRIBUTION PIPING

PART 1 - GENERAL

1.01 DESCRIPTION

A. This section covers materials, installation and testing of polyvinyl chloride (PVC) potable water main pipe conforming to AWWA C900 in diameters 4 though 12 inches as well as the water pipeline appurtenances such as thrust restraints, fire hydrants and burys as well as potable water gate valves.

B. Related Requirements:

- 1. Section 02516 Disinfection of Water Distribution Piping
- 2. Section 09900 Painting and Coating.

1.02 REFERENCE STANDARDS

A. ASTM International:

- 1. ASTM A307 Standard Specification for Carbon Steel Bolts and Studs, 60,000 PSI Tensile Strength.
- 2. ASTM D698 Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort.
- 3. ASTM D1557 Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort.
- 4. ASTM F477 Standard Specification for Elastomeric Seals (Gaskets) for Joining Plastic Pipe.

B. American Water Works Association:

- 1. AWWA C105 ANSI Standard for Polyethylene Encasement for Ductile-Iron Pipe Systems.
- 2. AWWA C110 ANSI Standard for Ductile-Iron and Gray-Iron Fittings, 3 In. Through 48 In. (76 mm Through 1,219 mm), for Water.
- 3. AWWA C900 Polyvinyl Chloride (PVC) Pressure Pipe, and Fabricated Fittings, 4 In. through 12 In. (100 mm Through 300 mm), for Water Las Virgenes Municipal Water District Water Distribution Piping Long Valley Road Waterline Replacement Project Section 02513 Page 1

Distribution.

1.03 SUBMITTALS

- A. Section 01330 Submittal Procedures.
- B. Submit fully dimensioned cross section drawings of the bell and barrel of the pipe. Show the bell maximum outside diameter and the minimum wall thickness.
- C. Submit manufacturer's information and test data on the gray iron/ductile iron fittings including thickness, weight, dimensions, lining, coatings and a certified statement of compliance with AWWA C110 or C153. Also include the report of pressure tests for qualifying the designs of any C153 fittings on the project. The pressure test will demonstrate that the minimum safety factor listed in AWWA C153, Section 53-15 is met.
- D. Submit manufacturer's information on the copper service piping, fire hydrants and burys, and valves proposed to be used on the project. These materials must be in conformance with District standards.
- E. Submit concrete mix design with laboratory compressive tests (7- and 28-day) or submit test reports of the same mix design that was used previously on two projects. Submit the mix designs at least 15 days prior to placing the concrete for approval.
- F. Submit a plan detailing the schedule, materials and proposed procedures for highlining the water services during replacement of the water main. Submit driveway and street crossing details and equipment to be used along with disinfection and testing procedures for review by the District.

1.04 CLOSEOUT SUBMITTALS

- A. Project Record Documents: Record actual locations of piping mains, valves, connections, thrust restraints, and invert elevations.
- B. Identify and describe unexpected variations to subsoil conditions or discovery of uncharted utilities.

1.05 QUALITY ASSURANCE

- A. Perform Work in accordance with District Standards.
- B. Maintain one copy of each submittal on site.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Deliver and store valves in shipping containers with labeling in place.
- B. Block individual and stockpiled pipe lengths to prevent moving.
- C. Do not place pipe or pipe materials on private property or in areas obstructing pedestrian or vehicle traffic.
- D. Store polyethylene and polyvinyl chloride materials out of sunlight.

1.07 EXISTING CONDITIONS

A. Verify field measurements prior to fabrication and installation. Indicate field measurements on shop drawings.

PART 2 - PRODUCTS

2.01 WATER PIPING

- A. Water piping shall be Polyvinyl Chloride (PVC) conforming to AWWA C900, Class 200 incorporating rubber ring gasket bell end or plain end with elastomeric gasket coupling, same class as the pipe, cast iron equivalent outside diameter (OD), material cell classification 12454-B per ASTM D 1784.
- B. Fittings shall conform to AWWA C110 with a minimum pressure rating of 250 psi. The bells or flanges shall be sized to match the cast iron OD sized pipeline including the rubber ring retaining groove. Mechanical joint fittings conforming to AWWA C153 may be used in lieu of AWWA C110 fittings at the discretion of the District. Fittings shall be lined with cement mortar per AWWA C104. The lining thickness shall be twice the thickness stated in AWWA C104, Section 4.8. Cement for lining shall conform to ASTM C150, Type II. Coat fittings per Section 09900 Painting and Coating.

2.02 RESILIENT WEDGE GATE VALVES AND FIRE HYDRANTS

- A. Resilient Wedge Gate Valves: Conform to District Standard 1.5 B.
- B. Fire Hydrants: Conform to District Standard 1.10 B.

2.03 VALVE BOXES

A. Valve boxes to be used on the project shall comply with District Standard Drawing PW-118.

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2.04 UNDERGROUND PIPE MARKERS

A. Furnish materials in accordance with District Standards 1.3 A5. Install tracer wire, unshielded 12 gage bare copper wire, directly over the installed water main piping and physically attached to the pipeline at 5 foot intervals, or as specified by the District.

2.05 BEDDING AND BACKFILL MATERIALS

A. Bedding and backfill materials shall comply with Specification Section 02324 Trenching, Backfill and Compaction.

2.06 CONCRETE

- A. Cement for the project shall be domestic Portland cement that conforms to ASTM C150, Type II. Use no cement that has become partially set, lumpy or caked. Do not use recycled or salvaged cement.
- B. Aggregates shall be natural rock, sand or crushed natural rock and shall comply with ASTM C33. It shall contain less than 1% asbestos by weight or volume.
- C. Water used for the production of concrete shall be clean and free from objectionable quantities of organic matter, alkali, salts and other impurities which will reduce strength or would adversely affect the quality of the concrete.
- D. Concrete mix design shall comply with ASTM C94 and will be Class 450-C-2000 per the Standard Specifications for Public Works Construction (Greenbook).
- E. Steel rods, bolt, lugs and brackets: ASTM A36/A36M or ASTM A307 Grade A carbon steel.
- F. Protective Coating for all metallic materials to be buried shall be per District Standards Section 1.9.

2.07 POTABLE WATER TEMPORARY STREET/DRIVEWAY CROSSINGS

A. Aboveground temporary street and driveway crossings shall be aluminum ramps that surround the hose and can support an H-20 traffic loading. The ramps shall be Mentor Hose Ramps, Rain For Rent (Todd Sterhan 805-525-3306), or equal.

PART 3 - EXECUTION

3.01 EXAMINATION

A. Verify existing utility water main size, location, and invert is as indicated on Las Virgenes Municipal Water District

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3.02 TEMPORARY WATER SERVICE (HIGHLINING)

- A. Provide temporary water line services up to an including a 2-inch service and any fire lines where the Plans indicated a removal and replacement of the mains. Be responsible to provide a valve or cap to allow installation of the new main, testing and placing it into service while keeping the residential water services active. Arrangements for the temporary services to the affected parties shall be made at least 48 hours in advance of the pipeline installation work. Provide a work schedule to the District for the disconnection of the services and reconnection of the temporary water main to the residential water meters. Notify the District one week prior to starting the operations.
- B. Any water line used for temporary services shall be PVC, HDPE or aluminum temporary piping and chlorinated and bacteria tested in accordance with District Standards before being placed in service. If the temporary main must cross a street or driveway, the pavement shall not be cut. The temporary main must cross under (tunnel) the street or driveway. As an option the temporary pipeline could be placed over the driveway or street through the use of a rental road crossing unit (Mentor Hose Ramps, Rain For Rent (Todd Sterhan 805-525-3306), or equal. Install the ramps at a 30 degree angle so that only one tire crosses the unit at a time. Cover the temporary pipeline from direct sunlight so that the temperature in the temporary line is kept at a reasonable level.
- C. Connections to the existing water main for adjacent streets shall be made by hot tapping a 2-inch service onto the existing pipeline or by cutting in a valve on the existing mainline to allow the side street water main to remain in service while the work is being conducted through the use of the highlining system. Because the pipeline to be replaced is considered a main distribution pipeline for the community of Hidden Hills, multiple highlines may need to be installed to provide adequate water service (pressure and flow) to the affected residents and downstream potable water users.

3.03 PREPARATION

A. Pre-Construction Site Photos:

- 1. Take photographs along centerline of proposed pipe trench; minimum one photograph for each 50 feet of pipe trench.
- 2. Show mail boxes, curbing, lawns, driveways, signs, culverts, and other existing site features.
- 3. Include project description, date taken and sequential number on back of each photograph.

- B. Cut pipe ends square, ream pipe and tube ends to full pipe diameter, remove burrs. Use only equipment specifically designed for pipe cutting. The use of chisels or hand saws will not be permitted. Grind edges smooth with beveled end for push-on connections.
- C. Remove scale and dirt on inside and outside before assembly.
- D. Prepare pipe connections to equipment with flanges or unions.

3.04 BEDDING

- A. Excavate pipe trench in accordance with Section 02324. Hand trim excavation for accurate placement of pipe to elevations indicated on Drawings.
- B. Dewater excavations to maintain dry conditions and preserve final grades at bottom of excavation.
- C. Provide sheeting and shoring in accordance with Section 02324.
- D. Place bedding material at trench bottom, level fill materials in one continuous layer not exceeding 6 inches compacted depth; compact to 90 percent.

3.05 INSTALLATION - PIPE

- A. Install pipe in accordance with AWWA C605.
- B. Handle and assemble pipe in accordance with manufacturer's instructions and as indicated on Drawings. Do not drop pipe into trench under any circumstances. Inspect the ends of the pipe prior to installation. Inspect the interior and exterior of any fittings before installing in the trench. Any damaged fitting coatings or linings shall be repaired in accordance with the manufacturer's instructions.
- C. Steel Rods, Bolt, Lugs, and Brackets: Coat buried steel according the District Standards before backfilling.
- D. Maintain 10 ft horizontal separation of water main from sewer piping in accordance with CDPH and District Standard Drawing PW-102.
- E. Install pipe to indicated elevation to within tolerance of 1/4 inches of grade and 1 inch from line.
- F. Flanged Joints shall not to be used in underground installations except within structures.
- G. Route pipe in straight line. Re-lay pipe that is out of alignment or grade.
- H. Install pipe with no high points. If unforeseen field conditions arise which

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necessitate high points, install air release valves as directed by District.

- I. Install pipe to have bearing along entire length of pipe. Excavate bell holes to permit proper joint installation. Do not lay pipe in wet or frozen trench.
- J. Clean the interior ends of the pipe thoroughly. Remove foreign matter and dirt from the pipe. Prevent foreign material from entering pipe during placement.
- K. Install pipe to allow for expansion and contraction without stressing pipe or joints.
- L. Close pipe openings with watertight plugs during work stoppages.
- M. Install access fittings to permit disinfection of water system performed under Section 02516.
- N. Establish elevations of buried piping with not less than one ft of cover. Measure depth of cover from final surface grade to top of pipe barrel.

3.06 INSTALLATION - VALVES AND HYDRANTS

- A. Install valves in accordance with District Standard Drawing PW-117.
- B. Install hydrants in accordance with District Standard Drawing PW-127 and 130.

3.07 POLYETHYLENE ENCASEMENT

- A. Encase metallic piping fittings in polyethylene where installed to prevent contact with surrounding backfill material.
- B. Install in accordance with AWWA C105. Double wrap the fittings with the encasement. Ends of encasement shall be taped to the pipe tightly to prevent exposure or loosening during backfill.

3.08 THRUST RESTRAINT

- A. Provide valves, tees, bends, caps, and plugs with concrete thrust blocks. Pour concrete thrust blocks against undisturbed earth. Locate thrust blocks at each elbow or change of pipe direction to resist resultant force and so pipe and fitting joints will be accessible for repair. Provide thrust restraint bearing on undisturbed subsoil. Sizing of thrust restraint shall be per District Standard Drawing PW-133.
- B. Conform to ACI 305 for placing concrete during hot weather and ACI 306 for placing concrete during cold weather. Site mixed concrete shall comply with ACI 304 and ready mixed concrete shall be per ASTM C94. All concrete shall be placed according to ACI 304.

- C. If shown on the Drawings, install tie rods, clamps, set screw retainer glands, or restrained joints. Protect metal restrained joint components against corrosion by applying a bituminous coating, or by concrete mortar encasement of metal area. Do not encase pipe and fitting joints to flanges.
- D. Install thrust blocks and joint restraint at dead ends of water main per District Standard Drawing PW-131.

3.09 BACKFILLING

- A. Backfill around sides and to top of pipe in accordance with Section 02324.
- B. Maintain optimum moisture content of bedding material to attain required compaction density.

3.010 DISINFECTION OF POTABLE WATER PIPING SYSTEM

A. Flush and disinfect system in accordance with Section 02516.

3.011 PRESSURE TESTING

A. Pressure test system in accordance with District Standards and Section 15144.

END OF SECTION

TECHNICAL PROVISIONS

SECTION 02516

DISINFECTION OF WATER DISTRIBUTION MAINS

PART 1 - GENERAL

1.01 DESCRIPTION

- A. This section includes materials and procedures for disinfection of potable water mains by the continuous feed or slug method. Do not use the tablet method for disinfection of pipelines. Disinfect the pipeline in accordance with AWWA C651 and this section.
- B. Related Sections:
 - 1. Section 02513 Water Distribution Piping.
 - 2. Section 15144 Pressure Testing of Piping.

1.02 REFERENCES

- A. American Water Works Association:
 - 1. AWWA B300 Hypochlorites.
 - 2. AWWA B301 Liquid Chlorine.
 - 3. AWWA B303 Sodium Chlorite.
 - 4. AWWA C605 Installation of PVC Water Mains and Their Appurtenances.
 - 5. AWWA C651 Disinfecting Water Mains.

1.03 SUBMITTALS

- A. Submit shop drawings in accordance with Section 01330 Submittal Procedures.
- B. Submit procedures, proposed chemicals, and treatment levels for review by the District.
- C. Test Reports: Indicate results comparative to specified requirements.

D. Certificate: Certify cleanliness of water distribution system meets or exceeds the levels outlined in the District Standard Section 2.18. CLOSEOUT SUBMITTALS Α. At the conclusion of the disinfection procedure, provide the District with the disinfection report showing the following: 1. Type and form of disinfectant used. 2. Date and time of disinfectant injection start and time of completion. 3. Test locations. 4. Name of person collecting samples. 5. Initial and 24 hour disinfectant residuals in treated water in ppm for each outlet tested. 6. Date and time of flushing start and completion. 7. Disinfectant residual after flushing in ppm for each outlet tested. B. Along with the disinfection report, provide the resulting bacteriological report showing the following: 1. Date issued, project name, and testing laboratory name, address, and telephone number. 2. Time and date of water sample collection. 3. Name of person collecting samples. 4. Test locations. 5. Initial and 24 hour disinfectant residuals in ppm for each outlet tested. 6. Coliform bacteria test results for each outlet tested. 7. Certify water conforms, or fails to conform, to bacterial standards of the District Standards. 8. Water Quality Certificate: Provide the District with a certificate stating that the water conforms to quality standards of the District and is suitable for human consumption.

1.04

1.05 QUALITY ASSURANCE

A. Perform Work in accordance with AWWA C651 and District Standards.

1.06 QUALIFICATIONS

- A. Water Treatment Firm: Company specializing in disinfecting potable water systems specified in this section with minimum three years documented experience.
- B. Testing Firm: Company specializing in testing potable water systems and certified by the State of California.
- C. Submit bacteriologist's signature and authority associated with testing.

PART 2 - PRODUCTS

2.01 DISINFECTION CHEMICALS

A. Chemicals: AWWA B300, Hypochlorite, AWWA B301, Liquid Chlorine, and AWWA B303, Sodium Chlorite.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Verify piping system has been cleaned, inspected, and pressure tested.
- B. Perform scheduling and disinfecting activity with start-up, water pressure testing, adjusting and balancing, demonstration procedures, including coordination with related systems.

3.02 INSTALLATION

- A. Provide and attach required equipment to perform the Work of this section.
- B. Perform disinfection of water distribution system and installation of system and pressure testing per District Standard 2.18.
- C. Introduce the potable water into the pipeline at a constant measured rate. Feed the chlorine solution into the pipeline at the same time at a measured rate. Proportion the chlorine solution so that the concentration is maintained at 50 ppm. Check the solution downstream to verify that the chlorine solution is being properly added.
- D. During the time that the solution is in the pipeline, open and close valves to obtain a

chlorine residual at hydrants and other pipeline appurtenances.

- E. After a period of 24 hours, confirm that a residual is present in accordance with District Standard 2.18.
- F. Connections to existing pipelines once the disinfection is deemed in compliance will be per District Standard 2.18.
- G. Perform bacteriological testing in accordance with AWWA C651 and District Standard 2.18.

3.03 FIELD QUALITY CONTROL

- A. Disinfection, Flushing, and Sampling shall be in accordance with the District Standards.
- B. Disinfect pipeline installation in accordance with AWWA C651.
- C. Upon completion of retention period required for disinfection, flush pipeline until chlorine concentration in water leaving pipeline is no higher than that generally prevailing in existing system or is acceptable for domestic use.
- D. Legally dispose of chlorinated water. When chlorinated discharge may cause damage to environment, apply neutralizing chemical to chlorinated water to neutralize chlorine residual remaining in water.
- E. After final flushing and before pipeline is connected to existing system, or placed in service, employ an approved independent testing laboratory to sample, test and certify water quality suitable for human consumption.

END OF SECTION

TECHNICAL PROVISIONS

SECTION 02740

ASPHALT CONCRETE PAVEMENT

PART 1 - GENERAL

1.01 DESCRIPTION

- A. Work to be performed under this Section shall consist of all labor, materials, tools, equipment, transportation, and incidentals necessary to furnish and install, complete in place, asphalt concrete pavement improvements including backfill, saw cutting, grading, aggregate base, asphalt concrete, tack coat, and adjusting existing utilities to finish grade.
- B. Asphalt concrete pavement shall be performed in accordance with the Plans, Las Virgenes Municipal Water District Standards (District Standards), the SSPWC Section 302-5, "Asphalt Concrete Pavement", and these specifications.
- C. All materials and procedures shall comply with the rules and regulations of the South Coast Air Quality Management District.

1.02 SHOP DRAWINGS AND SAMPLES

- A. The following shall be submitted in compliance with Section 01330, Submittal Procedures.
 - 1. Samples: Prior to the delivery of specified aggregate to the site, the Contractor shall submit samples of the material for the Engineer's acceptance in accordance with SSPWC Section 4-1.4 "Test of Materials".
 - 2. The Contractor shall formulate a job-mix formula using the Hveem Method in accordance with SSPWC Section 203-6.2 "Mix designs" and submit to the Engineer for approval. The resultant mixture shall have Hveem properties conforming to SSPWC Table 203-6.4.3 "Composition and Grading and as amended in Section 2.02 of these Special Provisions."

Certificates

- a. Twenty days prior to the delivery of aggregates, asphalt materials, and paving mixes to the project site, the Contractor shall submit to the Engineer certificates and test results of compliance of such materials with these Specifications.
- b. Where laboratory testing is specified herein, the Contractor shall employ an independent testing laboratory to conduct such tests and

submit certificates of the test results.

PART 2 - PRODUCTS

2.01 AGGREGATE BASE

A. Aggregate base course and aggregate surface course shall comply with Standard Specifications for Public Works Construction (SSPWC) Section 200-2.4 Crushed Miscellaneous Base.

2.02 ASPHALT CONCRETE MIX DESIGN

- A. Asphalt concrete shall comply with SSPWC Section 203 Class B (3/4") with the following exceptions:
- B. The specified optimum binder content shall equal an air void content nearest 3.0% per CT 367 as modified by CT 309.
- C. The asphalt concrete mix design shall include 0.5% liquid antistrip.

2.03 ASPHALT CONCRETE PAVEMENT

A. Asphalt concrete pavement shall be placed and compacted in accordance with SSPWC Section 302-5 Asphalt Concrete Pavement.

2.04 TACK COAT

A. Where asphalt concrete is placed directly on or against an existing hard surface, an asphalt tack coat of PG 64-10 shall be applied to the existing surfaces preceding the placement of the new asphalt concrete. The applied surfaces shall be clean and free from dirt and loose materials prior to application of the asphalt tack coat.

PART 3 - EXECUTION

3.01 PAVEMENT REMOVAL

- A. Pavement within the treatment plant shall be removed within the limits of all construction excavations prior to excavation. Surplus material shall be removed and disposed of legally at an approved location offsite.
- B. Prior to removing existing surfacing, pavement cuts shall be made parallel with the proposed trench limits. All pavement cuts shall be neat and straight along both sides of the trench or excavation and parallel to its alignment. The strip of existing AC pavement between an excavation and a gutter face or edge of pavement shall be removed and replaced if less than 3 feet in width. Where large irregular surfaces are

Las Virgenes Municipal Water District Long Valley Road Waterline Replacement Project Asphalt Concrete Pavement Section 02740 - Page 2 removed, such trimming or cutting shall be parallel to the roadway centerline or at right angles to the same.

- C. After backfilling and compaction, final pavement cuts shall be made by saw cutting (unless permit requirements supersede) to a minimum depth of 2 inches at a point not less than 12 inches outside the limits of excavation.
- D. The pavement cut operation shall be in accordance with SSPWC Section 300-1.3 "Removal and Disposal of Materials", and the Plans.
- E. The Contractor shall conduct operations so as not to damage the integrity of the edge of the pavement cut surface. Any damage to the pavement cut edge shall be corrected by the Contractor, as directed by the District, by additional pavement cutting around the damaged area prior to the start of paving operations. Any additional pavement cutting required to correct the damaged edge shall be at the Contractor's expense.

3.02 TACK COAT

A. All vertical or horizontal hard surfaces, which will be in contact with new pavement, shall be tack coated in accordance with SSPWC Section 302-5.4 "Tack Coat", and at an approximate rate of 0.05 to 0.10 gallons per square yard.

3.03 DISTRIBUTION AND SPREADING

A. The asphalt concrete shall be placed in accordance with SSPWC 302-5.5 "Distribution and Spreading."

3.04 ROLLING

A. The asphalt concrete shall be compacted in accordance with SSPWC 302-5.6 "Rolling."

3.05 REPAIRS

A. Areas of new or existing asphalt concrete requiring repair shall be delineated by saw cutting and the asphalt concrete removed, then prime or tack coated, and paved with hot asphalt as specified herein.

3.06 CLEANUP

A. Clean all debris and unused materials from the paving operation. Clean all surfaces that have been spattered or defaced as a result of the paving operation. Asphalt or asphalt stains which are noticeable upon surfaces of concrete or materials which will

be exposed to view shall be promptly and completely removed. Cleaning shall be done in a manner that will not result in the discharge of contaminated materials into any catch basin or storm drain system.

END OF SECTION

TECHNICAL PROVISIONS

SECTION 09900

PAINTING AND COATING

PART 1 - GENERAL

1.01 DESCRIPTION

- A. Section includes surface preparation, shop and field application of paints and other coatings on exposed, submerged and buried metallic pipeline surfaces and appurtenances.
- B. Related Sections:
 - 1. Section 02513 Water Distribution Piping.

1.02 REFERENCES

- A. ASTM International:
 - 1. ASTM D16 Standard Terminology for Paint, Related Coatings, Materials, and Applications.
- B. California Department of Health Services:
 - 1. CA/DHS/EHLB/R-174 Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers, including 2004 Addenda.

1.03 SUBMITTALS

- A. Section 01330 Submittal Procedures.
- B. Submit manufacturer's data pertaining to any lining or coating showing the percent solids by volume, maximum and minimum allowable dry film thickness (DFT) for the prime, intermediate (if applicable), and finish coats. In addition, provide information on the required surface preparation, any product mixing requirements, thinners, etc.
- C. Submit application instructions including recommended equipment, temperature, and curing systems.
- D. Submit Material Safety Data Sheets (MSDS) for each lining or coating product.

- E. Submit a statement certifying that the multiple application lining or coating systems are compatible (i.e. the prime product is compatible with the intermediate or finish coat).
- F. Submit two paper chip samples, 4x4 inch in size illustrating the product color to be provided. Final color selection will be by District.

1.04 QUALITY ASSURANCE.

A. Perform Work in accordance with State of California AQMD requirements.

1.05 ENVIRONMENTAL REQUIREMENTS

- A. Do not apply materials when surface and ambient temperatures are outside temperature ranges required by paint product manufacturer.
- B. Do not apply exterior coatings during rain when relative humidity is outside humidity ranges, or moisture content of surfaces exceed those required by paint product manufacturer.

PART 2 - PRODUCTS

2.01 PAINTS AND COATINGS

- A. Fire hydrant assemblies and burys shall be coated per District Standard Section 1.9
- B. Buried valves shall be lined and coated per District Standard Section 1.9.
- C. Buried metal fittings, bolts, flanges, miscellaneous metal, services, etc. shall be coated per District Standard Section 1.9.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Verify surfaces are ready to receive Work as instructed by product manufacturer.
- B. Examine surfaces scheduled to be finished prior to commencement of work. Report conditions capable of affecting proper application.
- C. Test shop applied primer for compatibility with subsequent cover materials.

3.02 PREPARATION

A. Adjacent Surfaces: Remove or mask surfaces not to be coated (concrete, metal Las Virgenes Municipal Water District

Long Valley Road Waterline Replacement Project

Painting and Coating Section 09900 - Page 2

- grating, adjacent equipment, adjacent piping) prior to preparing surfaces or finishing.
- B. Surfaces to be Coated: Correct defects and clean surfaces capable of affecting work of this section. Remove or repair existing coatings exhibiting surface defects.
- C. Uncoated Steel and Iron Surfaces: Surface preparation shall be in accordance with Society for Protective Coatings (SSPC) guidelines. Remove grease, mill scale, weld splatter, dirt, and rust per SSPC SP-1. Where heavy coatings of scale are evident, remove by power tool wire brushing or sandblasting; clean by washing with solvent. Apply treatment of phosphoric acid solution, ensuring weld joints, bolts, and nuts are similarly cleaned. Preparation of the metal pipelines and metal surfaces to be coated shall be per SSPC SP-6.
- D. Shop Primed Steel Surfaces: Remove weld splatter and slag from metal surfaces to be coated. Grind weld beads and sharp edges that are not smooth in accordance with SSPC SP-3. Clean surfaces with solvent. Prime bare steel surfaces.
- E. Abrasive blast clean carbon steel surfaces so the surface height profile is 3 mils. SSPC SP-5 may be required to achieve this.
- F. If abrasive blast cleaning is used, use the dry method for metal surfaces. Do not recycle abrasive or use contaminated material.
- G. Regardless of preparation method used, apply shop primer within the timeframe of one 8 hour workday. If the primer is not applied within the workday, re-clean the surface prior to application of the primer.

3.03 APPLICATION

- A. Do not apply the coating product until the District has inspected the surface to be coated. Do not apply finishes to surfaces that are not dry. Allow applied coats to dry in accordance with the manufacturer's recommendations before next coat is applied.
- B. Apply each coat to uniform appearance. Apply each coat of paint slightly darker than preceding coat unless specified otherwise.
- C. Apply all paint products in accordance with the manufacturer's recommendations regarding humidity and weather.

3.04 FIELD QUALITY CONTROL

A. Inspect and test questionable coated areas in accordance with the ASTM requirements stated above. Coatings shall be tested with a magnetic type dry film coating thickness gauge such as manufactured by MikroTest or Elcometer.

Las Virgenes Municipal Water District Long Valley Road Waterline Replacement Project

Painting and Coating Section 09900 - Page 3

- B. The finished coating shall be tested with an electrical, low voltage, wet sponge type holiday detector as manufactured by Tinker and Rasor or equal.
- C. Do not measure the field coating within 12 hours of final application or within 6 hours of manufacturer's recommended drying time.
- D. Coating measurements need to be averaged over the length of the pipe or fitting. The average values shall be within 20 percent of the specified coating. Any areas that are not within that average shall be delineated and recoated in accordance with the manufacturer's requirements.

3.05 REPAIR OF DAMAGED COATINGS

A. Any damage to shop applied or finish coatings shall be repaired at no cost to the District. Perform repair of the primer or coating in accordance with the manufacturer's requirements. Feather the edges of the repair area so the repair is free of bridges, lap marks or other imperfections.

3.06 CLEANING

- A. Clean up field applied coating equipment and protective masking once coating product has been accepted by the District.
- B. The finish coating, once accepted by the District, shall be cleaned with a soft cloth to remove any grease or other deleterious atmospheric matter.

3.07 SCHEDULE – COLORS

A. Finish coating color shall be applied by Contractor and selected by the District.

END OF SECTION

TECHNICAL PROVISIONS

SECTION 15144

PRESSURE TESTING OF PIPING

PART 1 - GENERAL

1.01 DESCRIPTION

A. This section includes information on the hydrostatic pressure and leakage testing of pressurized pipelines and appurtenances for water piping.

1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. Section 01330 Submittal Procedures.
- B. Section 02513 Water Distribution Pipe.

1.03 SUBMITTALS

- A. Submit submittal packages in accordance with Specification Section 01330.
- B. Submit drawings showing test bulkhead locations, pipe attachment details, methods to prevent excessive pipe wall stresses, blocking to overcome thrust conditions and design calculations.
- C. Submit request for use of testing water from District 48 hours in advance.

PART 2 - MATERIAL STEST BULKHEADS

A. Design and fabricate test bulkheads per Section VIII of the ASME Boiler and Pressure Vessel Code. Materials shall comply with Part UCS of said code. Design pressure shall be at least 2.0 times the specified test pressure for the section of pipe containing the bulkhead. Limit stresses to 70-percent of yield strength of the bulkhead material at the bulkhead design pressure. Include air-release and testing fluid drainage connections.

2.02 TEST OUTLETS AND TEMPORARY VALVES

A. Provide additional outlets and temporary valves for releasing air or apply the test where other outlets are available in the pipeline. Construct the outlets in the same manner as for a permanent outlet and after use, seal with a blind flange, pipe cap, or plug and coat equal to the adjacent pipe.

Las Virgenes Municipal Water District Long Valley Road Waterline Replacement Project

Pressure Testing of Piping Section 15144 - Page 1

2.03 TEST FLUID AND TEMPORARY PIPING

A. Use District supplied potable water for the hydrostatic pressure test. Provide a reduced pressure backflow prevention assembly at the connection point in accordance with District standards. Provide temporary piping to convey and dispose of the test fluid used in the pipeline. Disconnect and remove temporary piping after complying with the allowable leakage. Do not discharge the testing fluid without securing an NPDES permit in accordance with Specification Section 01550 Temporary Environmental Controls.

2.04 TEST EQUIPMENT

A. Provide calibrated pressure gauges, calibrated recorder, pipes, pumps, meters, and other equipment necessary to perform the hydrostatic test.

PART 3 - EXECUTION

3.01 TESTING PREPARATION

- A. Perform a hydrostatic pressure test after the pipe and appurtenances have been installed in place and the required restraint (temporary) has been installed. If applicable, allow concrete pipe anchors, collars, encasements and thrust blocks to cure for at least 7 days prior to pressure testing. Existing facilities will be operated by or under direction of the District staff only.
- B. Provide any temporary piping needed to carry the test fluid to the piping that is to be tested.
- C. After the test has been completed and demonstrated to comply with the specifications, disconnect and remove temporary piping. Plug taps or connections to the existing piping from which the test fluid was obtained.
- D. Provide temporary drain lines needed to carry testing fluid away from the pipe being tested.
- E. Remove such temporary drain lines after completing the pressure testing.

3.02 CLEANING

A. Before conducting hydrostatic pressure tests, flush pipes with water to remove dirt and debris. Maintain a flushing velocity in accordance with District Standards Section 2.17 for water testing. Flush pipes for time period as given by the formula:

T = (2L)/2.5

in which:

T =flushing time (seconds)

L = pipe length (feet).

3.03 TESTING SEQUENCE

- A. Potable water is to be used as the fluid for pressure testing of the pipeline.
- B. Locate and install test bulkheads, temporary valves and connections to existing pipelines, and other appurtenances in a manner to provide potable water system protection between existing potable water pipelines and pipeline being tested.

3.04 LENGTH OF TEST SECTION

A. Test the pipeline in sections. In any one test, do not exceed the distance between closed valves, or as directed by the District.

3.05 INITIAL PIPELINE FILLING

A. Maximum rate of filling with test fluid shall not cause water velocity in pipeline to exceed 2.5 feet per second. Expel air from the pipeline while filling and prior to testing. Provide necessary outlets to fill and test pipeline. Allow 24 hours for the water filled pipeline to release entrapped air prior to testing.

3.06 TESTING NEW PIPE WHICH CONNECTS TO EXISTING PIPE

A. Prior to hydrostatic pressure testing new pipelines which are to be connected to existing pipelines, isolate the new pipeline from the existing pipeline by means of test bulkheads, or blind flanges.

3.07 PRESSURE AND DURATION OF TEST

A. The hydrostatic pressure test and duration shall be in accordance with District Standard 2.17.

3.08 ALLOWABLE LEAKAGE

A. Apply the test pressure with a positive displacement pump. Provide a dampener between the pump and the pipeline to reduce instantaneous pressure pulses to 10-

percent of the test pressure. Draw test fluid through a positive displacement meter.

B. Leakage shall be considered as the total amount of water pumped into the pipeline during the test period. The allowable leakage for aboveground and buried piping having threaded, soldered, welded, flanged, push-on joint, mechanical joint, and rubber gasket joint shall be per District Standard Section 2.17.

3.09 REPETITION OF TEST

A. If the actual leakage exceeds the allowable, locate and correct the faulty work and repeat the test until the leakage does not exceed the allowable. Repair any damage resulting from the leak. All visible leakage shall be eliminated.

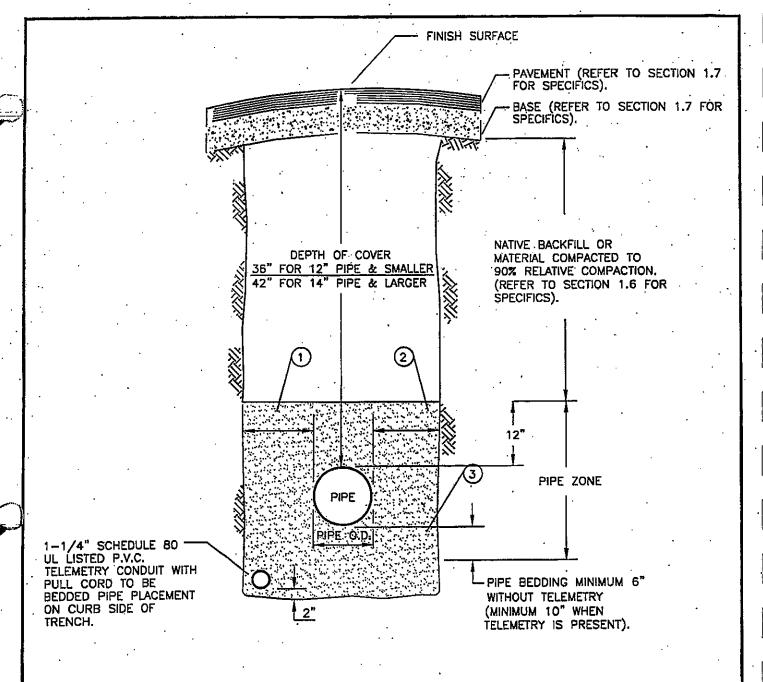
3.010 BULKHEAD AND TEST FACILITY REMOVAL

A. After a satisfactory pressure test, drain the water in accordance with the District Standards and Specification Section 01550 Temporary Environmental Controls; remove test bulkheads, temporary valves and piping, and other test facilities; connect to existing potable water facilities; and restore any pipe coatings.

END OF SECTION

Appendix

- Selected LVMWD Standard Plans
 - o PW-101 Trench Terminology and Standard Dimensions
 - o PW-110 Fire Hydrant Installation
 - o PW-117 Valve Restraint Installation
 - PW-118 Valve Box and Cover Identification
 - o PW-130 Guard and Marker Post Detail
 - o PW-133 Thrust Block Details
 - o PW-139 Pipe Protection Slab and Concrete Encasement Detail
- Hidden Hills Home Owners Association Encroachment Permit

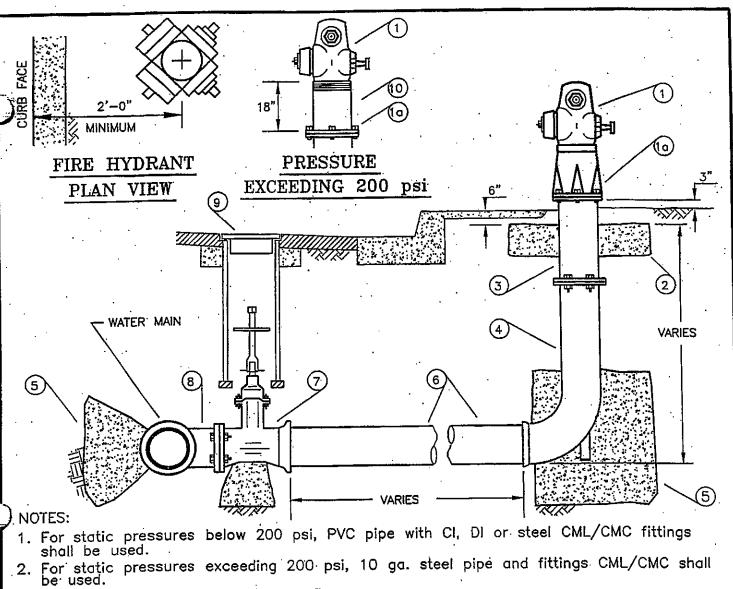


- Tor pipe 12"ø and smaller, trench width at side of pipe shall be 6" to 9" (typical both sides).
- ② For pipe 14" to 30"ø, trench width at side of pipe shall be 9" to 12" (typical both sides).
- 3 Sand material per specifications compacted to 90% relative compaction (refer to Section 1.6 specifics).

TRENCH TERMINOLOGY AND STANDARD DIMENSIONS

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					/S/ BRIAN WHITAKER	06-13/2001
			·	·	PRINCIPAL ENGINEER	DATE
			1	,		· ·

PW-101



3. Refer to Painting Section for specifics.

- (1) Fire Hydrant Assembly (refer to Section 1.10 and Standard Drawing PW-127 for location specifics).
- (1a) Shear Bolts and Companion Flange
- Concrete Support Block (6" x 24" x24")
- (3) Hydrant Extension
-) Fire Hydrant Bury
- Thrust Block (refer to Standard Drawing PW-133 for specifics).
-) Pipe (see Note Nos. 1 and 2).
- Valve (refer to Section 1.5 and Standard Drawing PW-117 for specifics).
- Flange Outlet (see Note Nos. 1 and 2, and Standard Drawings PW-131 and PW-140 for specifics).
- Valve Box and Cover (refer to Standard Drawing PW-118 for specifics).
- (10) Steel Spool, flange x thread

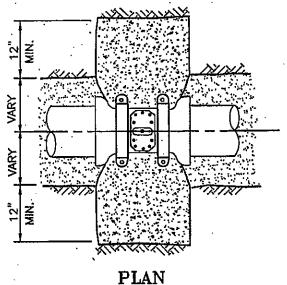
FIRE HYDRANT INSTALLATION

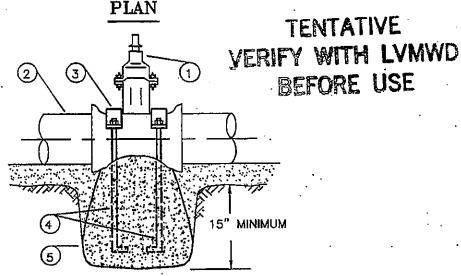
REVISIONS APRVD. PW-110 DIRECTOR OF FACILITIES AND CHIEF OF OPERATIONS DATE

TENTATIVE

VERIFY WITH LYMWD

BEFORE USE





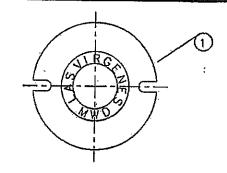
ELEVATION

NOTES:

- 1. This Drawing to be used with Push on and Resilient Wedge Valves only.
- 2. Butterfly valves require special valve restraint design.
- Straps to be 3/8" x 2" with 5/8" anchor bolts. Bolts to extend depth of block. Coat exposed metal with Sanchem (no-oxide). Refer to Section 1.9 for specifics.
 - 1 Valve (refer to Section 1.5, Standard Drawings PW-118 and PW-133 for specifics).
 - 2) Main
 - $\overline{(3)}$ Straps (see Note No. 2).
 - 4) Bolt (see Note No. 3).
 - (5) Concrete

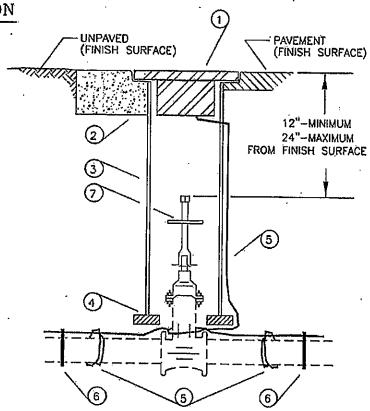
VALVE RESTRAINT INSTALLATION

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TYPICAL IDENTIFICATION

TENTATIVE VERIFY WITH LVMWD BEFORE USE

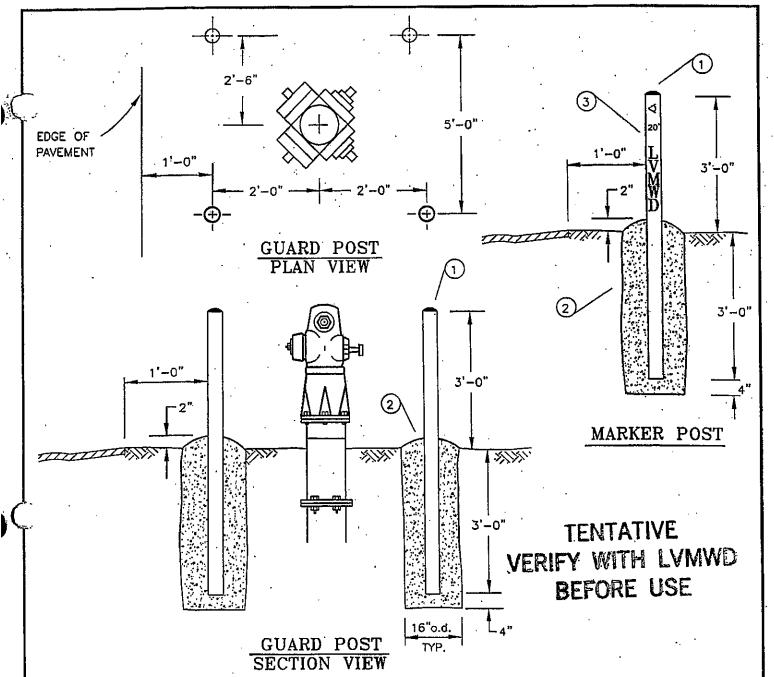


NOTES:

- 1. Refer to Painting Section for specifics.
 - 1 Valve Box Cover (Alhambro Foundary No. A-29608; see Note No. 1).
 - (2) Concrete Ring (20"ø, 6" high).
 - 3 PVC Pipe (8" 0.D.).
 - (4) Clay Brick (2" x 4" x 8").
 - © Copper Wire (bare 12 ga.). Refer to Section 1.3 for specifics.
 - 6 Adhesive Tape (10 mil. 2" wide Polyken No. 900 polyethylene).
 - 7 Valve Extension (refer to Standard Drawing PW-119 for specifics).

VALVE BOX AND COVER IDENTIFICATION

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				PRINCIPAL ENGINEER		PW-118
			-	FRINCIPAL ENGINEER	DATE	

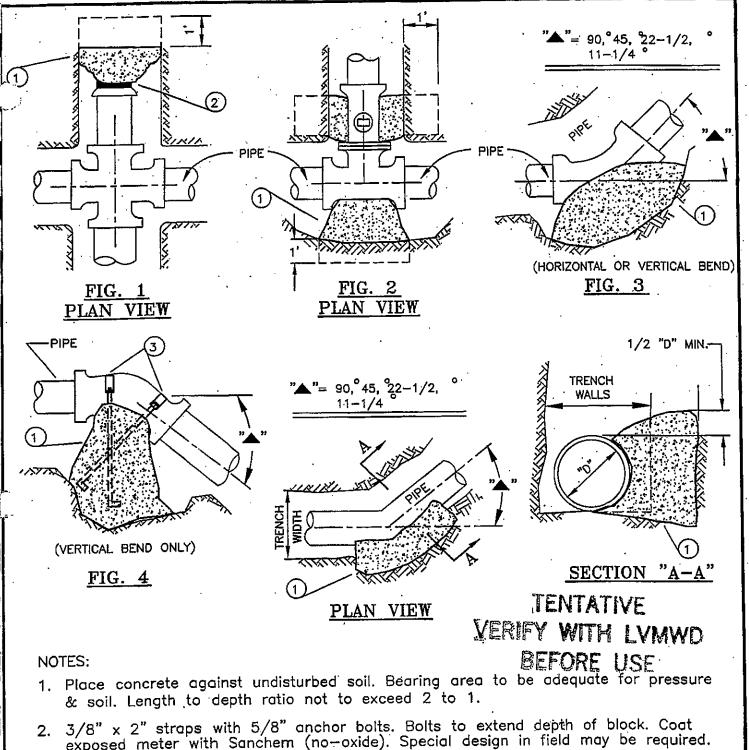


NOTES:

- 1. Fill with concrete and crown concrete at top to shed water.
- 2. Refer to Painting Section for specifics.
- 3. Stencil in black letters 2" high: ("LVMWD", angle if any, and distance from post to valve or utility).
 - (1) Pipe (4"ø schedule 40 steel; see Note No. 1).
 - (2) Concrete Base (see Note No. 1).
 - (3) Post Marking (see Note Nos. 2 and 3).

GUARD AND MARKER POST DETAIL

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- exposed meter with Sanchem (no-oxide). Special design in field may be required.
- 3. Do not cover nuts and bolts with concrete.

more to main Line.

- See Note No. 1.
- Felt Paper (refer to Standard Drawing PW-131 for specifics).
- Straps (see Note Nos. 2 and 3).

THRUST BLOCK DETAILS

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THRUST BLOCK SIZES (MINIMUM BEARING AREA IN SQUARE FEET)

PIPE	:	ELB	END ASSEMBLY		
SIZE	90	45	22.5*	11.25	OR TEE 4/.
6"	9 11	5 6	3 3	3 3	6 8.
8"	14 19	8 11	4 6	4 6	10 .14
10"	23 31	13 17	7 9	7 9	17 22
12"	33 44	18 24	9 12	9 12	23 31

FOR CLASS 150 PIPE

23 31

FOR CLASS 200 PIPE

NOTES:

- 1. Table above denotes MINIMUM design standards for thrust block installation.
- 2. Sizes based on 1500 PSF bearing soil. Special design required for soils of lower bearing strength.
- 3. Figure 3
- 4. Figures 1 and 2

TENTATIVE
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BEFORE USE

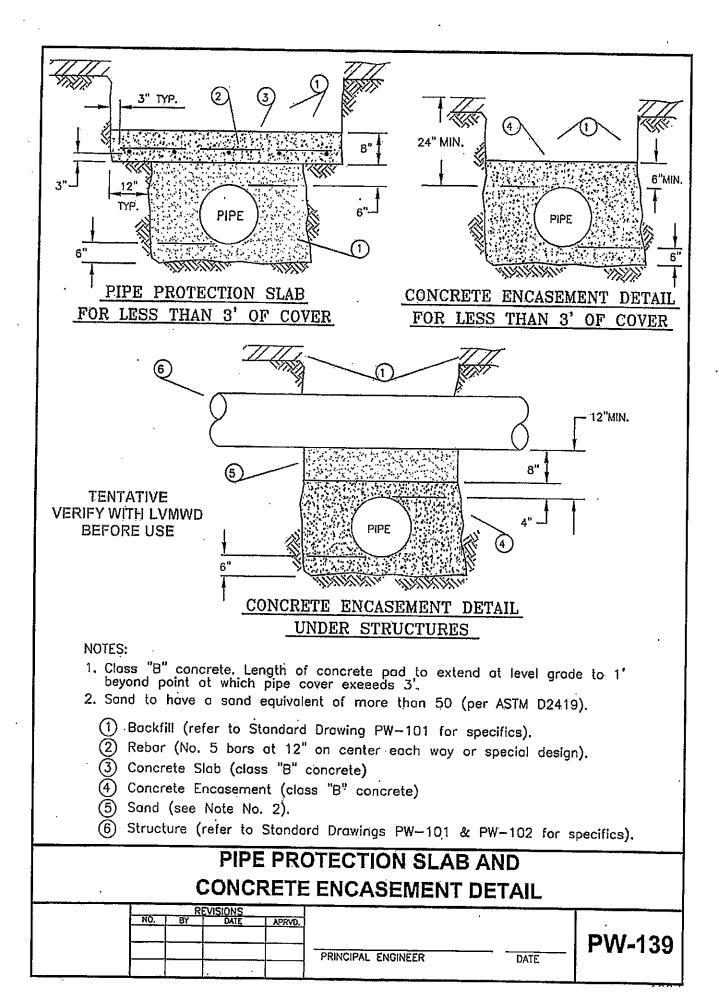
THRUST BLOCK DETAILS

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DIRECTOR OF FACILITIES AND CHIEF OF OPERATIONS

DATE

PW-133



LAS VIRGENES MUNICIPAL WATER DISTRICT

LOS ANGELES COUNTY, CALIFORNIA

CONSTRUCTION PLANS FOR

LONG VALLEY ROAD WATERLINE REPLACEMENT PROJECT **HIDDEN VALLEY**

UTILITY COORDINATION

SUBSTRUCTURE REQUEST 16201 RAYMER ST **VAN NUYS, CA 91406**

CRIMSON PIPELINE LP 2459 REDONDO AVE LONG BEACH, CA 90806 (661)343-3218 MJROMLEY@CRIMSONPL.COM

SCE DISTRIBUTION PO BOX 11982 SANTA ANA, CA. 92711 KIM GURULE (714)796-9932

CHARTER COMMUNICATIONS 51 W. MAIN ST. UNIT F SEAN SCOTT

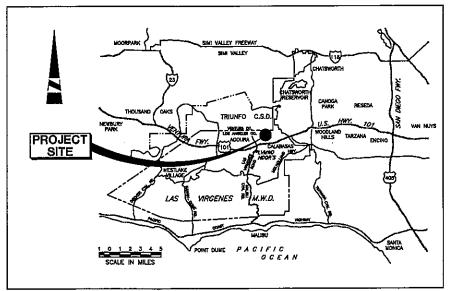
TIME WARNER CABLE 9260 TOPANGA CANYON BLVD. CHATSWORTH, CA 91311-5726 LISA POWERS (818) 700-5910 LISA.POWERS@TWCABLE.COM

CITY OF LOS ANGELES RECORDS SECTION 1149 S BROADWAY #200 LOS ANGELES, CA 90015 (213)847-1498

UNDERGROUND SUBSTRUCTURE DESIGN 111 N HOPE ST RM 813 LOS ANGELES, CA 90012 (213)367-2659

9400 OAKOALE AVE CHATSWORTH, CA 91311 KEVIN EDWARDS KEDWARDS@SEMPRAUTILITIES

LAS VIRGENES MWD 4232 LAS VIRGENES RD CALABASAS, CA 91302 (818)251-2233



VICINITY MAP

SHEET INDEX

SHT. NO.

TITLE SHEET

NOTES - SURVEY - ABBREVIATIONS

LONG VALLEY ROAD - STA 1+00 TO STA 8+20

LONG VALLEY ROAD - STA 8+20 TO STA 12+98.19

LAS VIRGENES MUNICIPAL WATER DISTRICT CONTACT LIST

LINDSAY CAO JOHN ZHAO DOUG BARROW

PROJECT MANAGER PRINCIPAL ENGINEER CIVIL ENGINEERING ASSISTANT (818) 251-2163 (818) 251-2230 (818) 324-9632



LAS VIRGENES MUNICIPAL WATER DISTRICT LONG VALLEY ROAD WATERLINE REPLACEMENT PROJECT HIDDEN VALLEY **TITLE SHEET** ISSUED FOR BID J.T. DESCRIPTION APPVD. DATE REV. NO. DATE A,R, REVISIONS

WATER CONSTRUCTION NOTES:

- 1. ALL FITTINGS SHALL BE DUCTILE IRON, CL 150, CONFORMING TO CURRENT DISTRICT AND AWWA STANDARDS.
- 2. ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF THE LAS VIRGENES MUNICIPAL WATER DISTRICT STANDARDS, "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC)", "STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION (SPPWC)", AND THE CONTRACT DOCUMENTS.
- 3. MECHANICAL RESTRAINED JOINTS SHALL BE USED TO CONNECT C-900 PIPE TO DUCTILE IRON FITTINGS, UNLESS INDICATED OTHERWISE.
- 4. PVC WATER PIPES SHALL BE AWWA C-900 CL 235 (DR 18) IN CONFORMANCE WITH DISTRICT STANDARDS.
- 5. ALL VALVES ARE RESILIENT WEDGE GATE VALVES, PER DISTRICT STANDARD, UNLESS OTHERWISE NOTED.
- 6. CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL EXISTING WATERLINE, SERVICE AND APPURTENANCES TO BE REPLACED. CONTRACTOR SHALL COMPLETELY PLUG ENDS OF WATER LINES THAT ARE SLATED TO BE ABANDONED WITH CONCRETE. SALVAGE EXISTING VALVES IN ACCORDANCE WITH THE SPECIAL PROVISIONS.
- 7. EXISTING WATER MAIN LINES SHALL REMAIN IN SERVICE DURING CONSTRUCTION AND SHALL BE TAKEN OUT OF SERVICE ONLY AFTER THE FINAL CONNECTION OF NEW WATER MAINLINE UNLESS THE PROPOSED ALIGNMENT IS REPLACING EXISTING.
- 8. THE CONTRACTOR SHALL ARRANGE FOR A PRE-CONSTRUCTION MEETING (48 HOURS MINIMUM PRIOR TO THE START OF CONSTRUCTION) WITH THE LYMWD CONSTRUCTION SUPERVISOR (818) 251-2233. CONTRACTOR SHALL APPLY FOR INSPECTION FROM LYMWO AT (418) 251-2233 AT LEAST 24 HOURS IN ADVANCE. CONTACT THE REGIONAL NOTIFICATION CENTER (UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA - U.S.A. AT 1-800-227-2600) AND REQUEST THAT UTILITY OWNERS MARK OR OTHERWISE INDICATE THE LOCATION OF THEIR FACILITIES.
- DURING ALL PHASES OF CONSTRUCTION, INCLUDING SUSPENSION OF WORK, UNTIL FINAL ACCEPTANCE OF THE PROJECT, OBSERVE, FOLLOW AND IMPLEMENT ALL THE REQUIREMENTS OF THE NPDES AND STORMWATER POLLUTION PREVENTION PROGRAM AND KEEP THE WORK SITE CLEAN AND FREE FROM RUBBISH AND DERRIS, ALSO ARATE DUST NUISANCE BY CLEANING, SWEEPING SPRINKLING WITH WATER AND USING DUST FENCES OR OTHER METHODS AS DIRECTED BY THE DISTRICT'S REPRESENTATIVE THROUGHOUT THE CONSTRUCTION OPERATION.
- KEEP A STRICT RECORD OF ALL CHANGES AND SUBMIT THIS RECORD TO THE DISTRICT REPRESENTATIVE. ALSO COORDINATE TRANSFERRING "AS-BUILT" INFORMATION ON THE CONTRACT DRAWINGS AND DELIVER THE CERTIFIED "AS-BUILT" PLANS TO THE DISTRICT BEFORE THE FINAL ACCEPTANCE OF THE PROJECT SHALL BE FILED.
- EXERCISE DUE CARE TO AVOID INJURY TO EXISTING IMPROVEMENTS OR FACILITIES, UTILITY FACILITIES, ADJACENT PROPERTY, AND TREES AND SHRUBBERY THAT ARE NOT TO BE REMOVED. ALL DAMAGE CAUSED TO PUBLICIPRIVATE STREETS, INCLUDING HAUL ROUTES, ALLEYS, SIDEWALKS, CURBS OR STREET FURNISHINGS, OR TO PRIVATE PROPERTY SHALL BE REPAIRED TO THE SATISFACTION OF THE
- 12. DESIGNATE AND KEEP ON THE PROJECT AT ALL TIMES WHILE WORK IS BEING PERFORMED A COMPETENT SUPERINTENDENT WHO SHALL NOT BE REPLACED WITHOUT A WRITTEN NOTICE AND APPROVAL FROM THE DISTRICT'S REPRESENTATIVE. THE SUPERINTENDENT WILL BE THE CONTRACTOR'S REPRESENTATIVE AT THE SITE AND SHALL HAVE AUTHORITY TO ACT ON BEHALF OF THE CONTRACTOR, ALL COMMUNICATIONS GIVEN TO THE SUPERINTENDENT SHALL BE AS BINDING AS IF GIVEN TO THE CONTRACTOR, DURING PERIODS WHEN THE WORK IS SUSPENDED, MAKE APPROPRIATE ARRANGEMENTS FOR ANY EMERGENCY WORK WHICH MAY BE REQUIRED.
- 13. WHEN THE WORK ON ANY PORTION OF THE PROJECT IS SUFFICIENTLY COMPLETE TO BE UTILIZED OR PLACED INTO SERVICE. THE DISTRICT SHALL HAVE THE RIGHT UPON WRITTEN NOTIFICATION TO THE CONTRACTOR TO UTILIZE SUCH PORTIONS OF THE WORK AND TO PLACE THE OPERABLE PORTIONS INTO SERVICE AND TO OPERATE SAME. UPON SAID NOTICE AND COMMENCEMENT OF UTILIZATION OR OPERATION BY THE DISTRICT, THE DUTY OF MAINTAINING THE PORTIONS SO UTILIZED OR PLACED INTO OPERATION SHALL NOT APPLY; PROVIDED, HOWEVER, THAT NOTHING IN THIS NOTE SHALL BE CONSTRUED AS RELIEVING THE FULL RESPONSIBILITY FOR COMPLETING THE WORK IN ITS ENTIRETY, FOR REPAIRING DEFECTIVE WORK AND MATERIALS, FOR PROTECTING THE WORK FROM DAMAGE, AND FOR BEING RESPONSIBLE FOR DAMAGE.
- CONDUCT OPERATIONS AS TO OFFER THE LEAST POSSIBLE OBSTRUCTION AND INCONVENIENCE TO THE PUBLIC, AND HAVE UNDER CONSTRUCTION NO GREATER LENGTH OR AMOUNT OF WORK THAN CAN BE PROSECUTED PROPERLY WITH DUE REGARD TO THE RIGHTS OF THE PUBLIC. CONVENIENT ACCESS TO DRIVEWAYS, HOUSES, AND BUILDINGS ALONG THE LINE OF WORK SHALL BE MAINTAINED AND TEMPORARY CROSSINGS SHALL BE PROVIDED AND MAINTAINED IN GOOD CONDITION, NO DRIVEWAY CROSSING OR INTERSECTION STREET OR ROAD SHALL BE CLOSED AT
- 15. IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK AND FULLY COMPLY WITH ALL STATE, FEDERAL AND OTHER LAWS, RULES, REGULATIONS AND ORDER RELATING TO SAFETY OF WORKERS AND ALL OTHERS. THIS MAY INCLUDE THE ISSUANCE OF PERSONAL PROTECTIVE

- 16. THE WATER MAIN SHALL HAVE NO JOINTS WITHIN 10 FEET OF SEWER CROSSINGS OVER NEW MAIN AND WITHIN 4 FEET OF SEWER CROSSING UNDER NEW MAIN, UNLESS INDICATED ON THE PLAN. SEPARATION SHALL BE PER CALIFORNIA DEPARTMENT OF PUBLIC HEALTH GUIDELINES.
- 17. THRUST BLOCKS SHALL BE PER THE TABLE ON DISTRICT STANDARD PLAN PW-133.
- 18. EXISTING SERVICES SHALL NOT BE WITHOUT WATER AT ANY TIME WITHOUT PRIOR NOTIFICATION TO RESIDENCES INVOLVED, THIS PROJECT WILL REQUIRE THAT THE EXISTING PORTION OF THE 6-INCH PIPELINE TO BE ABANDONED WILL BE OUT OF SERVICE DURING CONSTRUCTION, BECAUSE OF THIS, A POTABLE WATER HIGHLINE SYSTEM WILL BE REQUIRED. REFER TO THE PROJECT SPECIFICATIONS FOR DETAILS.
- 19. VERIFY DIMENSIONS AND CONDITIONS AT THE SITE BEFORE STARTING WORK. ANY CONFLICT BETWEEN DETAILS OR DIMENSIONS ON THE DRAWINGS SHALL BE REPORTED PROMPTLY TO THE DISTRICT'S REPRESENTATIVE WHO WILL DETERMINE THE INTENT OF THE DRAWINGS.
- 20. PROVIDE ALL NECESSARY TRAFFIC CONTROL DEVICES DURING DURATION OF CONSTRUCTION WORK, INCLUDING, BUT NOT LIMITED TO, LIGHTED BARRICADES, K-RAIL, DELINEATORS, TRAFFIC CONES, ETC., TO SAFELY CONVEY TRAFFIC AND PEDESTRIANS THROUGH AND AROUND CONSTRICTION WORK ZONES. AT STREET CROSSINGS AND DRIVEWAY CROSSINGS ONE LANE OF TRAFFIC MUST BE KEPT OPEN AT ALL TIMES.
- 21. ALL STRIPING AND MARKINGS SHALL BE REPLACED IN KIND BY CONTRACTOR IF DISTURBED.
- 22. USE LOW IMPACT TRENCHING METHODS WITHIN FOUR FEET HORIZONTALLY OF PRIVATE OR PUBLIC TREES, LOW IMPACT METHODS INCLUDE, BUT ARE NOT LIMITED TO, USE OF HIGH PRESSURE TOOLS, VACUUM OR SUCTION TOOLS, OR HAND METHODS.
- 23. TRENCHING METHODS SHALL CONFORM WITH THE ORDER OF THE STATE OF CALIFORNIA DIVISION OF INDUSTRIAL SAFETY AND O.S.H.A. STANDARD.
- 24. WHERE UNDERGROUND UTILITIES ARE SHOWN, ASSUME EVERY LOT IS SERVED BY A SERVICE CONNECTION
- 25. DO NOT LEAVE ANY TRENCH OPEN DURING NON-WORKING HOURS.
- 25. EXISTING WATER SERVICES SHALL BE MAINTAINED AT ALL TIMES UNLESS OTHERWISE APPROVED
- 27. EXISTING UTILITIES THAT CROSS OVER, UNDER OR PARALLEL TO (WITHIN 10') THE NEW WATERLINE
- 28. DELIVER REMOVED EXISTING FIRE HYDRANTS, VALVES AND APPURTENANCES TO LYMWD YARD.
- 29. EVERY LOT IS SERVED WITH AN EXISTING GAS SERVICE (LOCATION NOT SHOWN ON PLANS). VERIFY OCATION IN FIELD AND POTHOLE. SEE NOTE #27 HEREON

CAUTION: UNDERGROUND STRUCTURES AND UNDERGROUND UTILITIES REPORTED BY THEIR RESPECTIVE OWNERS OR THOSE SHOWN ON RECORDS EXAMINED ARE INDICATED WITH THEIR APPROXIMATE LOCATION AND EXTENT. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITIES OR STRUCTURES FOUND AT THE SITE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE OWNERS OF THE UTILITIES OR STRUCTURES CONCERNED BEFORE STARTING TO WORK.

ABBREVIATIONS

AC	ASPHALTIC CONCRETE	MB	MAILBOX
ACP	ASBESTOS CEMENT PIPE	LF	LINEAR FEET
AB	AGGREGATE BASE	MH	MANHOLE
вм	BENCHMARK	MJ	MECHANICAL JOINT
CF	CURB FACE	MON	SURVEY MONUMENT
CL	CLASS	NIC	NOT IN CONTRACT
C/L	CENTERLINE	N.T.S	NOT TO SCALE
CONC	CONCRETE	PP	POWER POLE
DRWY	DRIVEWAY	PL	PROPERTY LINE
CTV	CABLE TELEVISION	PVC	POLYVINYL CHLORIDE
DET	DETAIL	R	RADIUS
EG	EXISTING GROUND	R/W	RIGHT OF WAY
EL	ELEVATION	SD	STORM DRAIN
EP	EDGE OF PAVEMENT	SDMH	STORM DRAIN MANHOLE
EX	EXISTING	SS	SANITARY SEWER
FG	FINISH GRADE	SMH	SEWER MANHOLE
FH	FIRE HYDRANT	STA	STATION
FL	FLOWLINE	STD	STANDARD
FLG	FLANGE	TB	THRUST BLOCK
G	GAS	TC	TOP OF CURB
GM	GAS METER	TG	TOP OF GRATE
GB	GRADE BREAK	TR	TREE
INV	INVERT OR FLOWLINE OF PIPE	TYP	TYPICAL
,,,,		VCP	VITRIFIED CLAY PIPE
		w	WATER
		WM	WATER METER
		w	WATER VALVE

MATERIALS LIST

ITEM NO.	DESCRIPTION	QUANTITY
1	8 INCH AWWA, C900, CL 235 (DR 18) PVC PIPE	1198 LF
2	1 INCH WATER SERVICE ASSEMBLY	13 EA
3	1,5 INCH WATER SERVICE ASSEMBLY	2 EA
4	2 INCH WATER SERVICE ASSEMBLY	1 EA
5	FIRE HYDRANT ASSEMBLY	3 EA
6	8 INCH VALVES	4 EA
7	6 INCH VALVES	4 EA
8	4 INCH VALVES	1 EA

BENCH MARK

ELEV. 941.411 L.A. COUNTY BENCH MARK Y 11610 MAI IRU (2003) LACO BM TAG IN S CB 3.3' W/O BCR @ SW COR CALABASAS RD & MULHOLLAND DR 82' W & 50.9' S/O C/L INT.

LAS VIRGENES MUNICIPAL WATER DISTRICT

A.R.

DRAWN:

							LONG VALLEY ROAD		ACEM!	NT F	RO.	JEC.
								HIDDEN VALLEY				
							NOTES - SL	JRVEY - ABBI	REVIA	TIC	NS)
١							PREPARED BY:	APPROVED FOR LAS VIRGE BY:	NES MUNIC	IPAL WA	TER D	STRICT
!			1-24-12	ISSUED FOR BID			PHOENIX CIVIL ENGINEERING, INC. 1802 EASTMAN AVE. SUITE 101	TITLE R.C.E.				
Ĺ	REV.	NO.	DATE	DESCRIPTION	APPVD.	DATE	VENTURA, CALIFORNÍA 93003	DATE:	 -			
				PEVISIONS			HORIZONTAL:	4.0440	SHEET	2	OF	4

