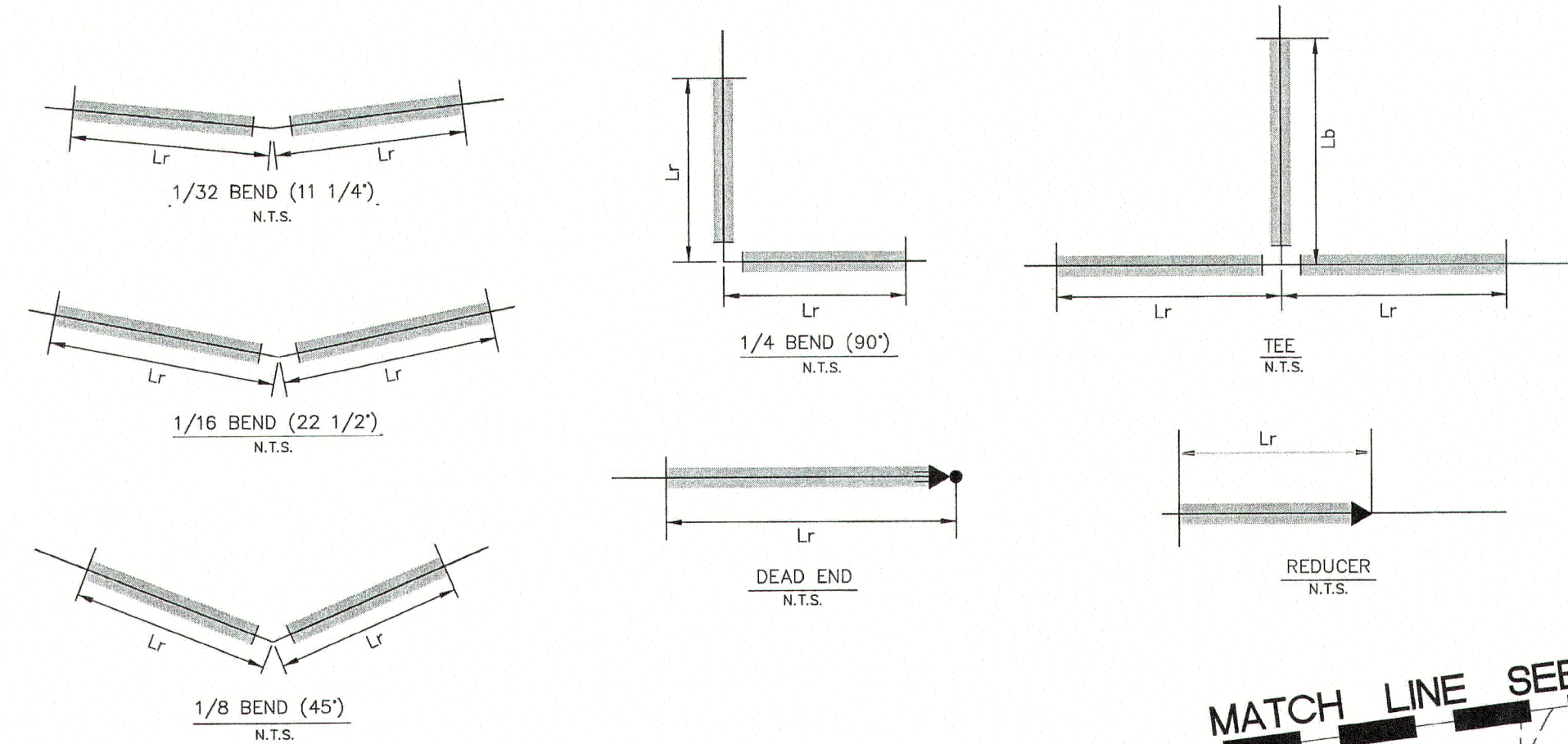


SIZE	BEND	Lr	TEE	Lr	Lb	DEAD-END	Lr	REDUCER	Lr
12" ~ D.I.	1/32	3'	12"x8"	10'	1'	12" ~ PVC	113'	12"x8"	60'
12" ~ D.I.	1/16	6'	12"x12"	10'	36"	12" ~ D.I.	71'		
12" ~ D.I.	1/8	13'							
12" ~ D.I.	1/4	30'							
12" ~ PVC	1/32	4'							
12" ~ PVC	1/16	8'							
12" ~ PVC	1/8	15'							
12" ~ PVC	1/4	36'							

Lr=LENGTH OF RUN TO BE RESTRAINED
Lb=LENGTH OF BRANCH TO BE RESTRAINED

RESTRAINED LENGTH DESIGN

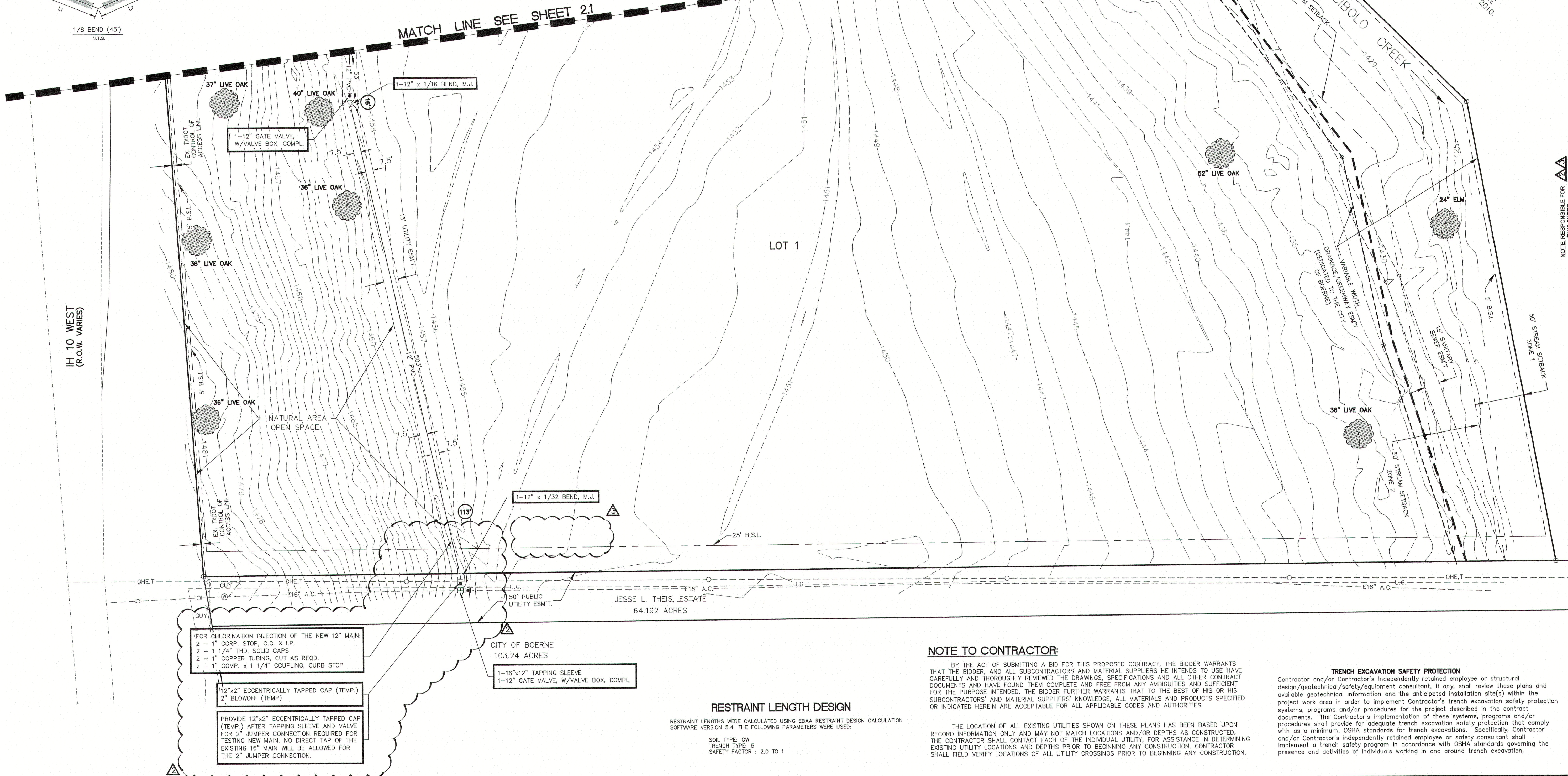
RESTRAINED LENGTH CALCULATIONS ARE FOR P.V.C. PIPE(UNLESS OTHERWISE NOTED) BEDDED IN COMPACTED TRENCH(TYPE 5) OF A WELL GRADED GRAVEL(GW) SOIL TYPE. THE DEPTH OF BURY IS 4 FEET AND THE PIPE TEST PRESSURE IS 200 psi WITH A SAFETY FACTOR OF 2.0 TO 1.



City of Boerne Review Notes:
1) Approval of these documents does not relieve the Engineer or Contractor from full compliance with the City of Boerne Standard Specifications or applicable City Ordinances.
2) Any changes to documents approved by the City of Boerne are required to be re-submitted for review and approval prior to proceeding with construction.

Reviewed by Boerne Development Services
Approved for Construction
Approved as Noted
Revise & Resubmit
Incomplete - Not Reviewed
Not Reviewed - Accepted FID
By *Cheryl J. Rogers* Date *3/12/21*
Rev. # 2 + 3

*Water distribution
shd. be
built per spec.
check with Boerne
2/15/24*



NOTE TO CONTRACTOR:

BY THE ACT OF SUBMITTING A BID FOR THIS PROPOSED CONTRACT, THE BIDDER WARRANTS THAT THE BIDDER, AND ALL SUBCONTRACTORS AND MATERIAL SUPPLIERS HE INTENDS TO USE HAVE CAREFULLY AND THOROUGHLY REVIEWED THE DRAWINGS, SPECIFICATIONS AND ALL OTHER CONTRACT DOCUMENTS AND HAVE FOUND THEM COMPLETE AND FREE FROM ANY AMBIGUITIES AND SUFFICIENT FOR THE PURPOSE INTENDED. THE BIDDER FURTHER WARRANTS THAT TO THE BEST OF HIS OR HIS SUBCONTRACTORS' AND MATERIAL SUPPLIERS' KNOWLEDGE, ALL MATERIALS AND PRODUCTS SPECIFIED OR INDICATED HEREIN ARE ACCEPTABLE FOR ALL APPLICABLE CODES AND AUTHORITIES.

THE LOCATION OF ALL EXISTING UTILITIES SHOWN ON THESE PLANS HAS BEEN BASED UPON RECORD INFORMATION ONLY AND MAY NOT MATCH LOCATIONS AND/OR DEPTHS AS CONSTRUCTED. THE CONTRACTOR SHALL CONTACT EACH OF THE INDIVIDUAL UTILITY, FOR ASSISTANCE IN DETERMINING EXISTING UTILITY LOCATIONS AND DEPTHS PRIOR TO BEGINNING ANY CONSTRUCTION. CONTRACTOR SHALL FIELD VERIFY LOCATIONS OF ALL UTILITY CROSSINGS PRIOR TO BEGINNING ANY CONSTRUCTION.

TRENCH EXCAVATION SAFETY PROTECTION

Contractor and/or Contractor's independently retained employee or structural design/geotechnical/safety/equipment consultant, if any, shall review these plans and available geotechnical information and the anticipated installation site(s) within the project work area in order to implement Contractor's trench excavation safety protection systems, programs and/or procedures for the project described in the contract documents. The Contractor's implementation of these systems, programs and/or procedures shall provide for adequate trench excavation safety protection that comply with as a minimum, OSHA standards for trench excavations. Specifically, Contractor and/or Contractor's independently retained employee or safety consultant shall implement a trench safety program in accordance with OSHA standards governing the presence and activities of individuals working in and around trench excavation.

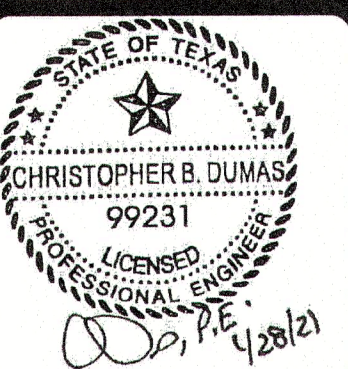
NO.	DATE	DESCRIPTION	BY
1	2/04/14	AGENCY COMMENTS	J.M.
2	1/15/21	AGENCY COMMENTS - PRECONSTRUCTION MTG	CD
3	1/28/21	AGENCY COMMENTS	CD

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Surveyors
Planners

MTR

Moy Tarin Ramirez Engineers, LLC

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BOERNE PROFESSIONAL CENTER WATER DISTRIBUTION PLAN