CIVIL CONSTRUCTION PLANS ** For Review 09/10/2025 PAVING, GRADING & UTILITIES FOR

ESPERANZA 3F

KENDALL COUNTY WATER CONTROL AND IMPROVEMENT DISTRICT NO. 2B KENDALL COUNTY, TEXAS

PLAN SUBMITTAL/REVIEW LOG

1ST SUBMITTAL TO CITY 06-17-2024 09-03-2024 2ND SUBMITTAL TO CITY 09-23-2024 3RD SUBMITTAL TO CITY 4TH SUBMITTAL TO CITY 08-21-2025

ENGINEER

STATE OF TEXAS 10101 REUNION PLACE REGISTRATION NO. TBPE F-928 SAN ANTONIO, TX 78216 PHONE: (210) 541-9166 CONTACT: MICHAEL A. SCHOLZE, P.E.

SURVEYOR

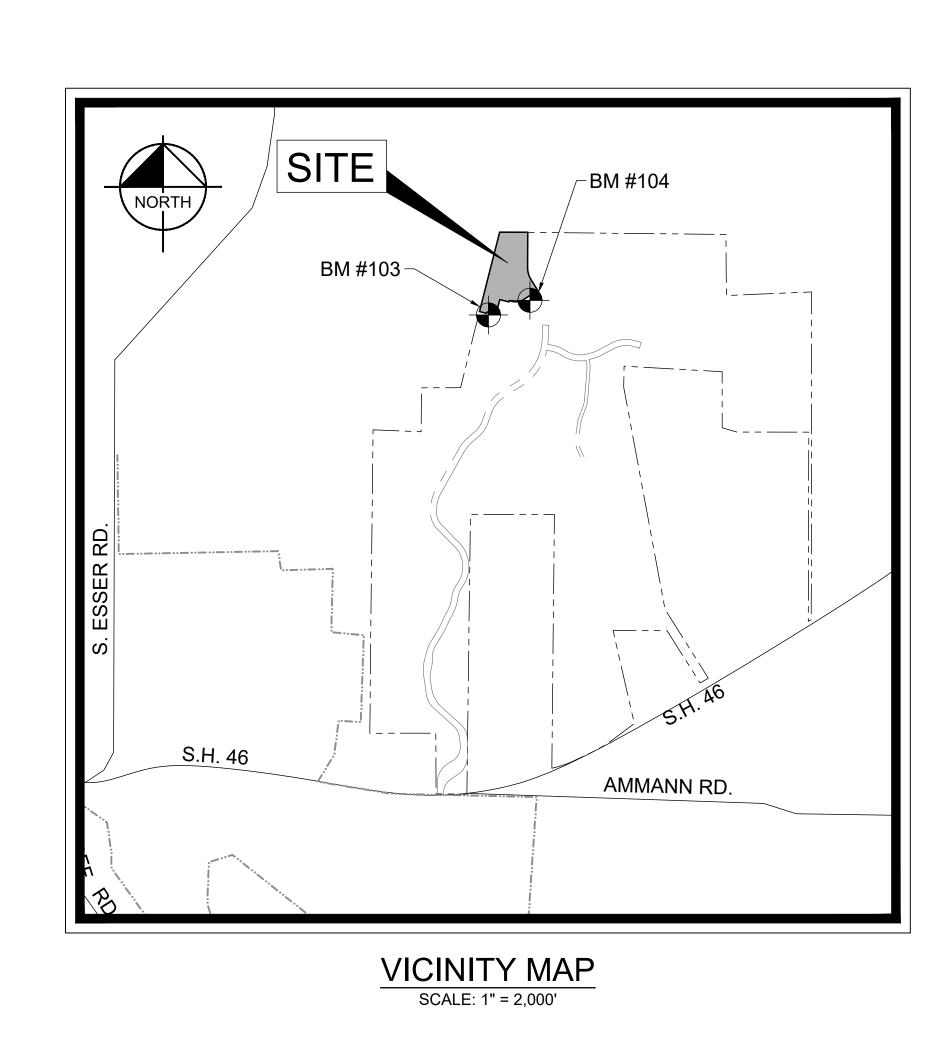
10101 REUNION PLACE STATE OF TEXAS REGISTRATION NO. TBPLS F-10193973 SUITE 400 SAN ANTONIO, TX 78216 PHONE: (210) 541-9166 CONTACT: GREG MOSIER, RPLS

OWNER/DEVELOPER

LOOKOUT DEVELOPMENT GROUP, LP 1001 CRYSTAL FALLS PKWY. LEANDER, TX 78641 PHONE: (512) 260-2066 **CONTACT: MIKE SIEFERT**

WATER CONTROL AND IMPROVEMENT DISTRICT

KENDALL COUNTY WCID #2B 1330 POST OAK BOULEVARD, STE. 2650 HOUSTON, TEXAS 77056 PHONE: (713) 850-9000 X218 CONTACT: JULIANNE KUGLE



SHEET NO.	SHEET TITLE	REVISION NO
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39	WATER DETAILS (SHEET 1 OF 2)	
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RESIDENTIAL GAS PLANS BY KIMLEY-HORN			
SHEET NO.	SHEET TITLE	REVISION NO.	
G1-G4 NATURAL GAS DISTRIBUTION LAYOUT			

ELECTRIC PLANS BY SCHNEIDER ENGINEERING				
SHEET NO.	SHEET NO. SHEET TITLE REVISION NO			
E0-E2	UNDERGROUND ELECTRICAL PLANS			

	LANDSCAPE PLANS BY TBG	
SHEET NO.	SHEET TITLE	REVISION NO.
L1	SITEWORK DETAILS (NOT INCLUDED)	



REVIEWED CITY OF BOERNE UTILITIES DEPARTMENT SEE MINOR COMMENTS -See minor comments on Sheet 36

REVIEWED **CITY OF BOERNE** DEVELOPMENT ENGINEERING 09/16/2025 Freeland Turk no comments









All properties designated as easements shall or may be utilized for the following purposes:

Drainage, water diversion and sanitary control, including without limitation, walls, bed, embankments, spillways, appurtenances and other engineered devices (the "drainage system").

Together with the right of ingress and egress over passable areas of the grantor's adjacent land, when the delineated entrance point that abuts public right of way is obstructed and/or inaccessible, either in whole or in part, in order to access or leave the easement for the purpose of constructing, reconstructing, inspecting, patrolling, operating, maintaining, repairing, and removing the drainage system; the right to change the size of the drainage system within the easement; the right to relocate along the same general direction of the drainage system; the right to create and/or dredge a stream courses, refill, or dig out such stream course, establish or change stream embankments within the easement, install storm sewer systems, culverts, water gaps, and protecting rails; the right to remove from the easement all trees and parts thereof, or other obstructions, which reasonably endanger or may reasonably interfere with the efficiency of the drainage system; and the right to place temporary structures for use in constructing or repairing the drainage system.

With respect to the drainage system, it is expressly agreed and understood by all parties hereto, that the intention is to improve conditions of sanitation and water drainage control on the property for the benefit of the property, adjacent property and the community, but the city does not guarantee or warrant that such control work will be effective, nor does the city assume any additional liability whatsoever for the effects of flood, standing water or drainage on or to the property or any other property or persons that might be affected by said stream, wash or gully in its natural state or as changed by the city.

- 1. The grantor specifically reserves the right to use all or any part of the easement for any purpose, which does not damage, destroy, injure, and/or unreasonably interfere with the grantee's use of the easement.
- 2. The grantee shall make commercially reasonable efforts to ensure the damage to the property is minimized and will at all times, after doing any work in connection with the drainage system, restore the property to the condition in which the property was found before such work was undertaken to the extent that such restoration is reasonable in accordance with the grantee's usual and customary practices.
- 3. The grantee shall make necessary modifications and improvements to conform with the city of boerne drainage policy and plar at such a time as the said plan and policy are enacted by city council of the city of boerne, texas.

Utilities, including, without limitation, sewer, water, gas, electricity, telephone and cable television, with all necessary and/or desirable lines, laterals and/or appurtenances thereto (the "utilities").

Together with the right of ingress and egress over passable areas of the grantor's adjacent land, when the delineated entrance point that abuts public right of way is obstructed and/or inaccessible, either in whole or in part, in order to access or leave the easement for the purpose of constructing, reconstructing, inspecting, patrolling, operating, maintaining, repairing and removing the utilities; the right to place new or additional utilities in the easement and to change the size of the utilities within the easement; the right to relocate along the same general direction of the utilities; the right to remove from the easement all trees and parts thereof or other obstructions, which reasonably endanger or may reasonably interfere with the efficiency or operation of the utilities; and the right to place temporary structures for use in constructing or repairing the utilities.

- The property owner retains the right to use all or any part of the easement for any purpose which does not damage, destroy, injure and/or unreasonably interfere with the use of the easement. However, the easement shall be kept clear of all structures
- 2. The city (and/or district) shall make commercially reasonable efforts to ensure that damage to the property is minimized and the city will at all times, after doing any work in connection with the utilities, restore the property to the condition in which the property was found before such work was undertaken to the extent that such restoration is reasonable in accordance with the city's usual and customary practices.

PEDERNALES ELECTRIC COOPERATIVE NOTES:

It is understood and agreed that perpetual easements are reserved for the installation and maintenance of utilities and all necessary appurtenances thereto, whether installed in the air, upon the surface or underground, along and within fifteen feet (15') front lines of all lots and/or tracts and in the streets, alleys, boulevards, lanes and roads of the subdivision, and fifteen feet (15') along the outer boundaries of all streets, alleys, boulevards, lanes and roads where subdivision lines or lots of individual tracts are deeded to the centerline of the roadway. Nothing shall be placed or permitted to remain within the easement areas which may damage or interfere with the installation or maintenance of utilities. The easement area of each lot and all improvements within it shall be maintained by the owner of the lot, except for those facilities for which an authority or utility company is responsible. Utility companies or their employees shall have all of the rights and benefits necessary or convenient for the full enjoyment of the rights herein granted, including but not limited to the free right of ingress to and egress from the right-of-way and easements, and the right from time to time to cut all trees, undergrowth and other obstructions that may injure, endanger or interfere with the operation of said utility facilities. The easement rights herein reserved include the privilege of anchoring any support cables or other devices outside said easement when deemed necessary by the utility to support equipment within said easement and the right to install wires and/or cables over portions of said lots and/or tracts not within said easement so long as such items do not prevent the construction of buildings on any of the lots and/or tracts of this subdivision.

Fence Notes:

1. Gates across easement: double swing gates with a minimum clear opening of 12 feet wide shall be installed wherever fences cross utility and drainage easements

2. Obstructions of drainage: adequate structures shall be provided to allow the unhindered passage of all storm and drainage flows wherever fences cross drainage easements.

Sidewalk Note:
Five-foot wide reinforced concrete sidewalks shall be installed adjacent to all street frontage property lines of each lot fronting a street at such time as that lot is developed.

Impact fee assessment note:

essment and collection of the City of Boerne water and wastewater utilities' capital recovery fees shall be the amount per lot as set forth in City Ordinance No. 2023-18, Section 1.10(5).

Tax Certificate Note:

Tax Certificate Affidavit filed this date in Document No. , Kendall County Official Records.

Building Setback Note:
Setbacks in the ETJ: lot setbacks are determined by the City of Boerne Zoning Ordinance enforced at the time of development. The use that is being constructed and the lot size shall determine which setbacks shall apply.

- Installation of potable water and wastewater services to open space lots may be performed by the developer, at his option, as part of the overall infrastructure design/construction process based upon the need for those services on individual lots. If potable water or wastewater services are not initially installed but are desired subsequent to the subdivision infrastructure development, the service applicant shall be financially responsible for the entirety of the design and installation costs for these services. In some instances, this work may also include the extension of utility mains to properly locate the desired utility
- 2. Open space Lot 100 Block 30 shall be a Drainage, Utility, and Pedestrian Access Easement.

Landscape Note:

Residential lots in excess of 12,500 square feet shall only irrigate the area that lies within 75 feet of the main residence. Turf grasses shall be limited to Zoysia, Buffalo or Bermuda grasses or other grasses approved by the City Manager or his or her designated representative. (Ord. No. 2004-20). Xeriscaping is permitted as described in the City of Boerne Zoning Ordinance, Article 3, Section 3.07.003D.

Drainage Basin Note:

The subject area is not upstream from a City water supply lake.

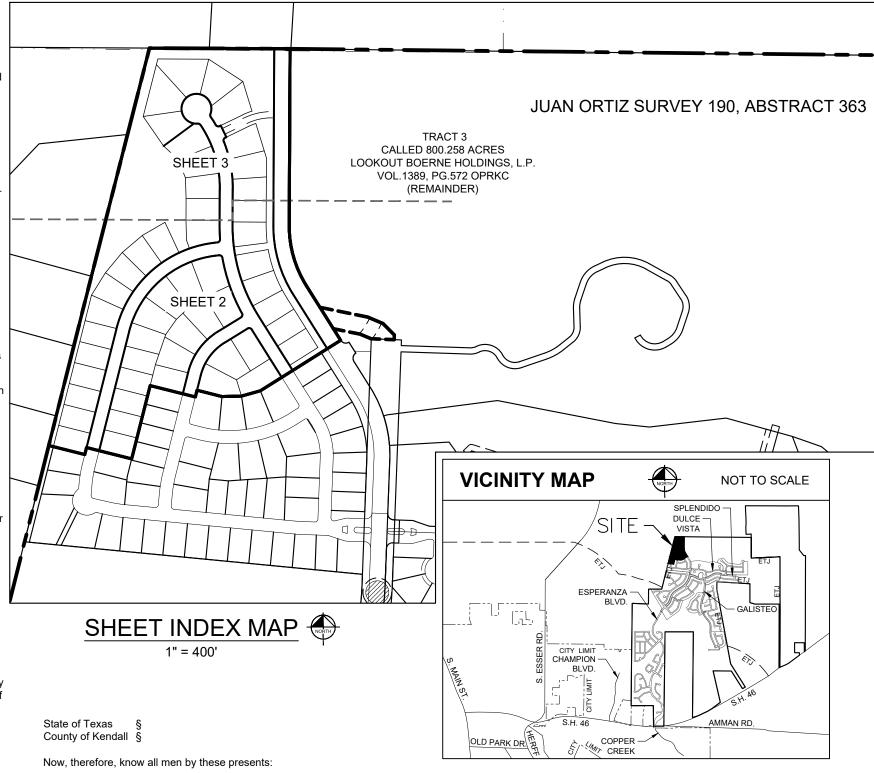
Private Street Note:

Lot 200 shall be dedicated as Private Streets and shall also be dedicated as Drainage and Utility Easements.

- This subdivision contains 28.806 total acres with 50 residential lots for a density of 1.74 residential lots per acre.
- This subdivision contains 6.289 acres of open space. The area of the smallest lot is 0.279 acres.

According to Map No. 48259C0425F, dated December 17, 2010 of the National Flood Insurance Program Map, Flood Insurance Rate Map of Kendall County, Texas and Incorporated Areas, Federal Emergency Management Agency, Federal Insurance Administration, the property is within Zone "X" (un-shaded) defined by FEMA as "areas determined to be outside the 0.2% annual chance floodplain." All zone delineations shown hereon are approximate. This statement does not imply that any portion of the subject tract is totally free of potential flood hazard. Localized flooding can occur due to natural and/or man-made influences. This flood statement shall create no liability on the part of Kimley-Horn or the undersigned.

<u>Heritage Legacy Tree Note:</u>
There are 16 Heritage Legacy Trees, as defined in Subsection 2.02.002, identified on this plat.



That Lookout Development Group, L.P., acting herein by and through its duly authorized officers, does hereby adopt this plat designating the herein above described property as Esperanza, Phase 3F, an addition to Kendall County, Texas, and does hereby dedicate to the public and the City of Boerne, the public utility easements shown hereon for the mutual use and accommodation of the City of Boerne and all public utility providers desiring to use or using the same. Lookout Development Group, L.P., does hereby dedicate to the public and Kendall County Water Control and Improvement District No. 2B (the district) the streets hereon together with the drainage easements, and public use areas shown hereon, and do hereby dedicate the easements shown on the plat for the purposes as indicated to the district's exclusive use forever, said dedications being free and clear of all liens and encumbrances except as shown herein. No buildings, fences, trees, shrubs or other improvements shall be constructed or placed upon, over or across the easements of said plat. At the sole and exclusive discretion of the district and subject to its written approval, utility easements may also be used for the mutual use and accommodation of all public utilities desiring to use the same unless the easement limits the use to a particular utility or utilities, sold use by public utilities being subordinate to the district's use thereof. Any public utility given the right by the district to use said easements shall have the right to remove and keep removed all or part of any buildings, fences, trees, shrubs, or other improvements or growths which in any way endanger or interfere with the construction, maintenance, or efficiency of its respective system on any of these easements. Any public utility shall at all times have the rights of ingress and egress to and from and upon any of said easements for the purpose of constructing, reconstructing, inspecting, patrolling, maintaining and adding to or removing all or part of its respective system without the necessity at any time procuring the permission of anyone. I do hereby bind myself, my successors and assigns forever, to warrant and defend all and singular the above described streets, alleys, easements and rights unto the district against every person whomsoever comes lawfully claiming or to claim the same or any part thereof. This property is located within the extraterritorial jurisdiction of the City of Boerne. This plat approved subject to all the platting ordinances, rules and regulations of the City of Boerne.

State of Texas	§
County of	§

The owner of land shown on this plat, in person or through a duly authorized agent, dedicates to the use of the public, forever all streets, allevs, parks, watercourses, drains, easements and public places thereon shown for the purpose and consideration therein expressed.

Owner's Acknowledgement:

Lookout Development Group, L.P. Leander, Texas 78641

Before me, the undersigned authority on this day personally appeared known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and consideration therein expressed and in the capacity therein stated.

Given under my hand and seal of office this ____day of ______, 20__.

Notary Public, State of Texas

Approval of the Planning and Zoning Commission:

This plat of ESPERANZA PHASE 3F has been submitted to and considered by the Planning and Zoning Commission of the City of Boerne, Texas, and is hereby approved by such commission.

Dated this ____ day of ______ 20__.

Secretary

LOOKOUT DEVELOPMENT GROUP, L.P. 1001 CRYSTAL FALLS PARKWAY LEANDER, TEXAS 78641 CONTACT: MIKE SIEFERT, P.E.

CIVIL ENGINEER: KIMLEY-HORN AND ASSOCIATES, INC. 10101 REUNION PLACE, SUITE 400 SAN ANTONIO, TEXAS 78216 TBPE #928

SURVEYOR: KIMLEY-HORN AND ASSOCIATES, INC. 10101 REUNION PLACE, SUITE 400 SAN ANTONIO, TEXAS 78216

State of Texas County of Bexar

hereby certify that this plat is true and correct and was prepared from an actual survey of the property made

on the ground under my supervision

John G. Mosier Registered Professional Land Surveyor #6330

PRELIMINARY

THIS DOCUMENT SHALL NOT BE RECORDED FOR ANY PURPOSE AND SHALL NOT BE USED OR **VIEWED OR RELIED** UPON AS A FINAL SURVEY DOCUMENT

Before me, the undersigned authority on this day personally appeared known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and consideration therein expressed and in the capacity therein stated. Given under my hand and seal of office this ____day of ____

Notary Public, State of Texas

State of Texas County of Bexar

I hereby certify that proper engineering consideration has been given in this plat to the matters of streets, lots, and drainage layout. To the best of my knowledge, this plat conforms to all requirements of the Subdivision Ordinance, except for those variances granted by the Planning and Zoning Commission of the City of Boerne.

PRELIMINARY

Michael A. Scholze, P.E. #131737 Licensed Professional Engineer

THIS DOCUMENT SHALL NOT BE RECORDED FOR ANY PURPOSE AND SHALL NOT BE USED OR VIEWED OR RELIED UPON AS A FINAL SURVEY DOCUMENT

Before me, the undersigned authority on this day personally appeared me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and consideration therein expressed and in the capacity therein stated.

Given under my hand and seal of office this ____day of ______, 20__.

State of Texas County of Kendall §

Notary Public, State of Texas

County Clerk of said county, do hereby certify that the foregoing instrument of writing with this certificate of authentication was filed for record in my office, on the _____ day of "A.D. 202_ at ____. m.in the plat records of said county in Document No.

Tax Certificate Affidavit filed this date in Document No. ______, Kendall County Official Records. In testimony whereof, witness my hand and seal of office, this _____ day of ______ A.D. 202__.

County Clerk Kendall County, Texas

Deputy

FINAL PLAT ESTABLISHING

ESPERANZA PHASE 3F

28.806 ACRES

3.560 ACRES (PRIVATE) RIGHT-OF-WAY **50 RESIDENTIAL LOTS**

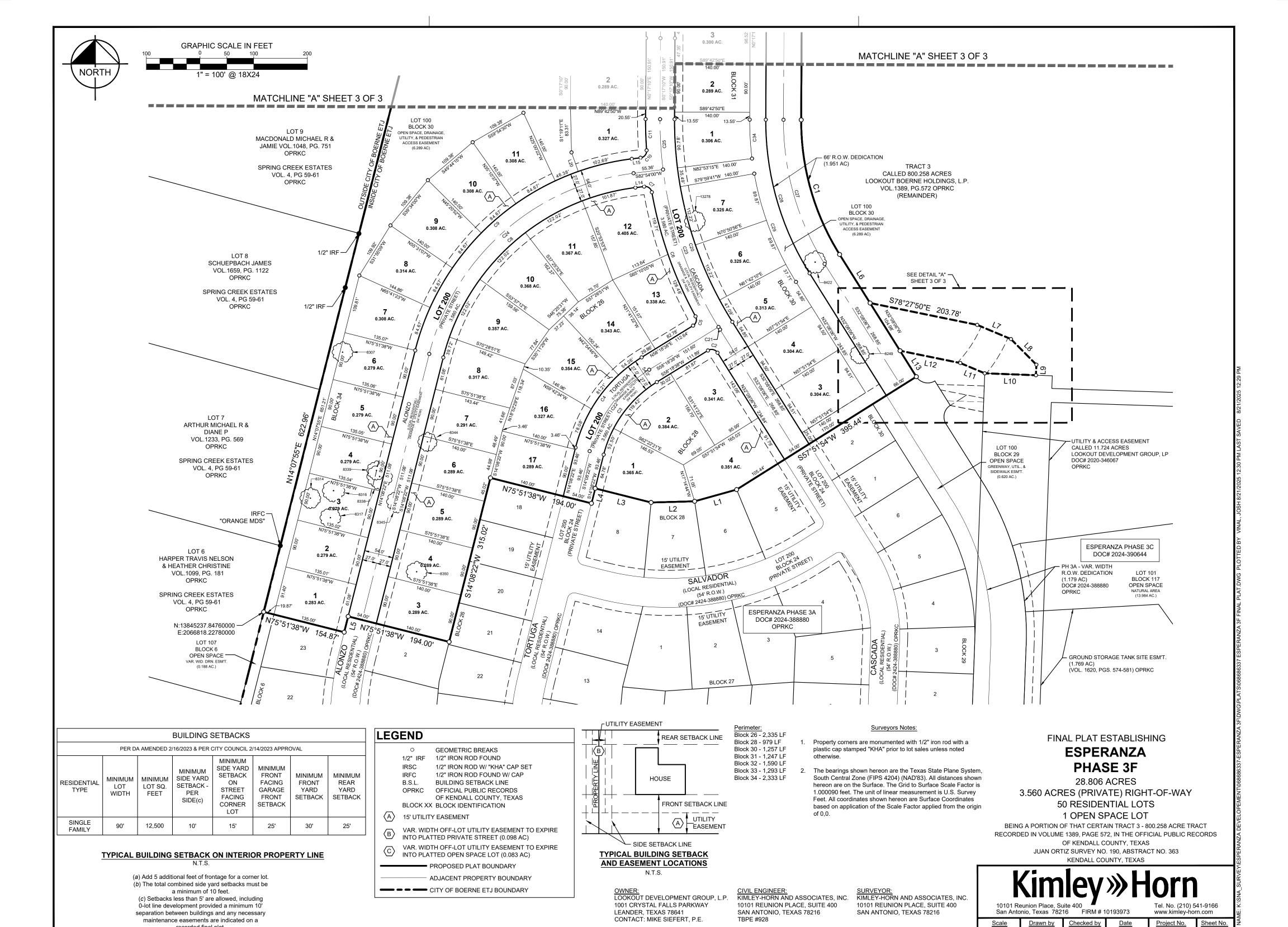
1 OPEN SPACE LOT BEING A PORTION OF THAT CERTAIN TRACT 3 - 800.258 ACRE TRACT RECORDED IN VOLUME 1389, PAGE 572, IN THE OFFICIAL PUBLIC RECORDS OF KENDALL COUNTY, TEXAS

JUAN ORTIZ SURVEY NO. 190, ABSTRACT NO. 363 KENDALL COUNTY, TEXAS



10101 Reunion Place, Suite 400 FIRM # 10193973 San Antonio, Texas 78216

Checked by Project No. Sheet No. <u>Scale</u> Drawn by AS SHOWN 1 OF 3 JPV JGM 8/21/2025 068686337



AS SHOWN

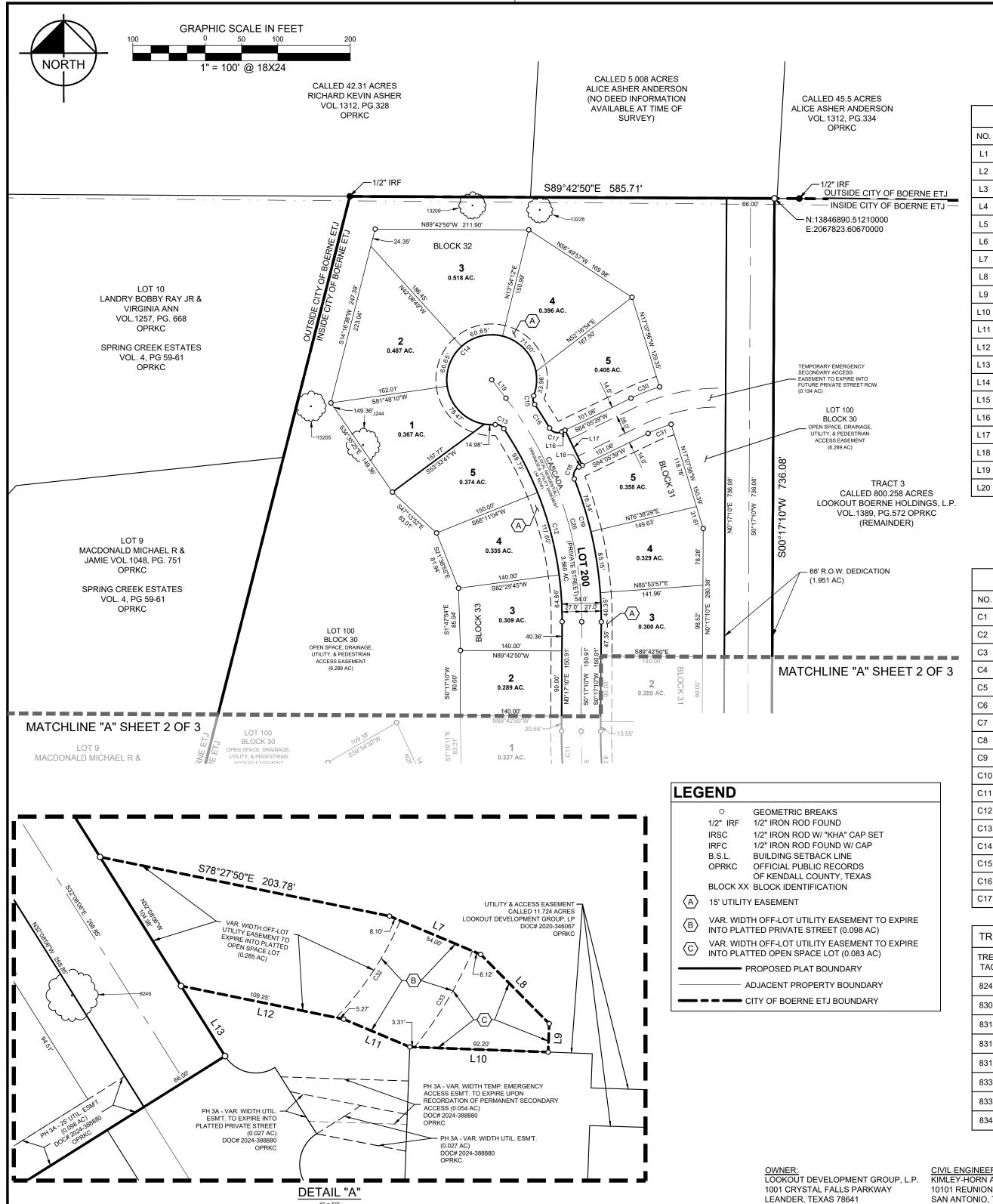
JGM

8/21/2025

068686337

2 OF 3

recorded final plat.



Perimeter: Block 26 - 2,335 LF Block 28 - 979 LF Block 30 - 1,257 LF Block 31 - 1,247 LF Block 32 - 1,590 LF Block 33 - 1,293 LF Block 34 - 2.333 LF

LINE TABLE

LENGTH

BEARING

L1	S74°24'36"W	81.20'
L2	S88°26'44"W	81.21'
L3	N75°51'38"W	107.46
L4	S14°08'22"W	28.68'
L5	S14°08'22"W	30.31'
L6	S32°08'06"E	106.79
L7	N67°12'50"W	68.21'
L8	S44°42'50"E	67.16'
L9	S02°08'05"W	19.62'
L10	S87°51'55"E	95.50'
L11	N67°12'50"W	49.44'
L12	N78°27'50"W	114.53
L13	S32°08'06"E	57.08'
L14	S82°54'00"W	16.40'
L15	N82°54'00"E	16.40'
L16	N64°05'39"E	5.00'
L17	S25°54'21"E	54.00'
L18	S64°05'39"W	5.00'
L19	S37°43'06"E	32.12'
L20	S19°26'05"E	37.69'

BUILDING SETBACKS							
	PER D	A AMENDED 2	/16/2023 & PER (CITY COUNCIL 2	/14/2023 APPRO	OVAL	
RESIDENTIAL TYPE	MINIMUM LOT WIDTH	MINIMUM LOT SQ. FEET	MINIMUM SIDE YARD SETBACK - PER SIDE(c)	MINIMUM SIDE YARD SETBACK ON STREET FACING CORNER LOT	MINIMUM FRONT FACING GARAGE FRONT SETBACK	MINIMUM FRONT YARD SETBACK	MINIMUM REAR YARD SETBACK
SINGLE FAMILY	90'	12,500	10'	15'	25'	30'	25'

TYPICAL BUILDING SETBACK ON INTERIOR PROPERTY LINE

(a) Add 5 additional feet of frontage for a corner lot. (b) The total combined side yard setbacks must be a minimum of 10 feet. (c) Setbacks less than 5' are allowed, including 0-lot line development provided a minimum 10' separation between buildings and any necessary maintenance easements are indicated on a recorded final plat.

CUTILITY EASEMENT REAR SETBACK LINE HOUSE FRONT SETBACK LINE UTILITY A LUTILITY EASEMENT

TYPICAL BUILDING SETBACK AND EASEMENT LOCATIONS

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		1	SIDE SE	ETBACK LI	٧E
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N.T.S.

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NO.	DELTA	RADIUS	LENGTH	CHORD BEARING	CHORD
C18	85°45'07"	13.00'	19.46'	S21°13'06"W	17.69'
C19	21°56'38"	527.00'	201.84'	S10°41'09"E	200.61'
C20	32°25'17"	703.00'	397.80'	S15°55'28"E	392.51'
C21	0°26'44"	730.00'	5.68'	S31°54'44"E	5.68'
C22	44°10'16"	250.00'	192.73'	S36°13'30"W	188.00'
C23	24°35'21"	730.00'	313.29'	S19°23'41"E	310.89'
C24	68°45'37"	450.00'	540.04'	S48°31'11"W	508.21'
C25	7°23'11"	730.00'	94.11'	S03°24'25"E	94.04'
C26	38°00'16"	500.00'	331.65'	S18°42'58"E	325.61'
C27	32°25'17"	500.00'	282.93'	S15°55'28"E	279.17'
C28	32°25'17"	533.00'	301.60'	N15°55'28"W	297.59'
C29	22°07'48"	563.00'	217.45'	N21°04'12"W	216.10'
C30	8°46'25"	277.00'	42.42'	N68°28'52"E	42.38'
C31	8°46'25"	223.00'	34.15'	S68°28'52"W	34.11'
C32	20°42'38"	223.00'	80.61'	N33°29'23"E	80.17'
C33	16°03'38"	277.00'	77.65'	S31°05'48"W	77.39'
C34	7°23'56"	563.00'	72.70'	N03°24'47"W	72.65'

	CURVE TABLE					
NO.	DELTA	RADIUS	LENGTH	CHORD BEARING	CHORD	
C1	32°25'17"	467.00'	264.26'	S15°55'28"E	260.74'	
C2	89°33'16"	13.00'	20.32'	N76°54'44"W	18.31'	
СЗ	44°10'16"	223.00'	171.92'	S36°13'30"W	167.69'	
C4	44°10'16"	277.00'	213.55'	N36°13'30"E	208.30'	
C5	87°01'20"	13.00'	19.74'	N14°47'58"E	17.90'	
C6	18°38'02"	757.00'	246.19'	N19°23'41"W	245.11'	
C7	87°01'20"	13.00'	19.74'	N53°35'20"W	17.90'	
C8	68°45'37"	423.00'	507.64'	S48°31'11"W	477.72'	
C9	68°45'37"	477.00'	572.44'	N48°31'11"E	538.71'	
C10	87°01'20"	13.00'	19.74'	N39°23'20"E	17.90'	
C11	4°24'31"	757.00'	58.25'	N01°55'05"W	58.23'	
C12	34°10'57"	473.00'	282.19'	N16°48'18"W	278.02'	
C13	60°39'45"	13.00'	13.76'	N64°13'39"W	13.13'	
C14	295°27'26"	62.00'	319.72'	N53°10'12"E	66.21'	
C15	55°13'47"	13.00'	12.53'	S06°42'58"E	12.05'	
C16	4°10'38"	527.00'	38.42'	S32°14'33"E	38.41'	
C17	85°45'07"	13.00'	19.46'	S73°01'47"E	17.69'	

TREE TABLE		TREE	TABLE
TREE TAG	DESCRIPTION (CIRCUMFERENCE)	TREE TAG	DESCRIPTION (CIRCUMFERENCE)
8249	24" LIVE OAK (TC 75")	8345	28" LIVE OAK (TC 88")
8307	26" LIVE OAK (TC 82")	8350	26" LIVE OAK (TC 82")
8314	26" LIVE OAK (TC 82")	8422	28" LIVE OAK (TC 88")
8316	28" LIVE OAK (TC 88")	13205	28" LIVE OAK (TC 88")
8317	26" LIVE OAK (TC 82")	13209	25" LIVE OAK (TC 79")
8338	32" LIVE OAK (TC 101")	13228	24" LIVE OAK (TC 75")
8339	24" LIVE OAK (TC 75")	13244	31" LIVE OAK (TC 97")
8344	24" LIVE OAK (TC 75")	13278	26" LIVE OAK (TC 82")

<u>CIVIL ENGINEER:</u> KIMLEY-HORN AND ASSOCIATES, INC. 10101 REUNION PLACE, SUITE 400 SAN ANTONIO, TEXAS 78216

CONTACT: MIKE SIEFERT, P.E.

SURVEYOR: KIMLEY-HORN AND ASSOCIATES, INC. 10101 REUNION PLACE, SUITE 400 SAN ANTONIO, TEXAS 78216

FINAL PLAT ESTABLISHING

Surveyors Notes:

1. Property corners are monumented with 1/2" iron rod with a

plastic cap stamped "KHA" prior to lot sales unless noted

2. The bearings shown hereon are the Texas State Plane System, South Central Zone (FIPS 4204) (NAD'83). All distances shown

hereon are on the Surface. The Grid to Surface Scale Factor is 1.000090 feet. The unit of linear measurement is U.S. Survey Feet. All coordinates shown hereon are Surface Coordinates

based on application of the Scale Factor applied from the origin

ESPERANZA PHASE 3F

28.806 ACRES

3.560 ACRES (PRIVATE) RIGHT-OF-WAY 50 RESIDENTIAL LOTS

1 OPEN SPACE LOT BEING A PORTION OF THAT CERTAIN TRACT 3 - 800.258 ACRE TRACT

RECORDED IN VOLUME 1389, PAGE 572, IN THE OFFICIAL PUBLIC RECORDS OF KENDALL COUNTY, TEXAS JUAN ORTIZ SURVEY NO. 190, ABSTRACT NO. 363

KENDALL COUNTY, TEXAS

10101 Reunion Place, Suite 400 FIRM # 10193973 San Antonio, Texas 78216

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VARIOUS PAY ITEMS FOR INSTALLATION OF PIPE

LOCATION AND DEPTH OF ALL FRANCHISED UTILITY SERVICES AND ANY REQUIRED RELOCATION AND/OR EXTENSIONS. SERVICES SHOWN ON THE PLANS ARE CONCEPTUAL 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL PUBLIC UTILITIES IN THE CONSTRUCTION OF THIS PROJECT, ALL MANHOLES, CLEANOLITS, VALVE BOXES, FIRE HYDRANTS, ETC. MUST BE ADJUSTED TO PROPER GRADE BY THE CONTRACTOR PRIOR TO AND AFTER PLACING OF PERMANENT PAVING. UTILITIES MUST BE MAINTAINED TO PROPER LINE AND GRADE DURING

EXISTING UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE THE EXACT

CONSTRUCTION OF THE PAVING FOR THIS PROJECT 5. BRACING OF UTILITY POLES MAY BE REQUIRED BY UTILITY COMPANIES WHEN TRENCHING OR EXCAVATION IS IN CLOSE PROXIMITY TO THE POLES. THE COST OF BRACING POLES WILL BE BORNE BY THE CONTRACTOR. THERE IS NO SEPARATE PAY ITEM FOR THIS WORK. THE COST IS INCIDENTAL TO THE

6. THE LOCATIONS, ELEVATIONS, AND DIMENSIONS OF EXISTING UTILITIES SHOWN ON THE PLANS WERE OBTAINED FROM AVAILABLE UTILITY COMPANY RECORDS AND PLANS AND ARE CONSIDER APPROXIMATE, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY LOCATIONS. ELEVATIONS. AND DIMENSIONS OF ADJACENT AND/OR CONFLICTING UTILITIES SUFFICIENTLY IN ADVANCE OF CONSTRUCTION IN ORDER THAT ADJUSTMENTS CAN BE MADE TO PROVIDE ADEQUATE CLEARANCES. THE CONTRACTOR SHALL PRESERVE AND PROTECT PUBLIC UTILITIES AT ALL TIMES DURING CONSTRUCTION NY DAMAGE TO UTILITIES RESULTING FROM CONTRACTOR'S OPERATIONS SHALL BE RESTORED AT THEIR EXPENSE. THE ENGINEER SHALL BE NOTIFIED WHEN PROPOSED FACILITY GRADES CONFLICT WITH EXISTING UTILITY GRADES.

7. THE CONTRACTOR SHALL IMMEDIATELY REPAIR OR REPLACE ANY PHYSICAL DAMAGE TO PRIVATE PROPERTY, INCLUDING, BUT NOT LIMITED TO FENCES, WALLS, PAVEMENT, GRASS, TREES, AND LAWN SPRINKLER AND IRRIGATION SYSTEMS AT NO COST TO THE OWNER. THIS WORK SHALL BE SUBSIDIARY TO THE CONTRACT (UNLESS OTHERWISE NOTED) AND IS NOT A SEPARATE PAY ITEM.

8 THE CONTRACTOR SHALL REMOVE SURPLUS MATERIAL FROM THE PROJECT AREA. THIS WORK SHALL BE SUBSIDIARY TO THE CONTRACT AND IS NOT A SEPARATE PAY ITEM

9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS

10. THE CONTRACTOR SHALL HAVE AVAILABLE AT THE JOB SITE AT ALL TIMES ONE COPY OF THE CONTRACT DOCUMENTS INCLUDING PLANS. SPECIFICATIONS, AND SPECIAL CONDITIONS, COPIES OF ANY REQUIRED CONSTRUCTION PERMITS, EROSION CONTROL PLANS, SWPPP AND INSPECTION REPORTS.

11. ANY DISCREPANCIES ON THE DRAWINGS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE RCHITECT AND ENGINEER BEFORE COMMENCING WORK. NO FIELD CHANGES OR DEVIATIONS FROM DESIGN ARE TO BE MADE WITHOUT PRIOR APPROVAL OF THE OWNER AND NOTIFICATION TO THE ENGINEER. NO CONSIDERATION WILL BE GIVEN TO CHANGE ORDERS FOR WHICH THE OWNER AND GINEER WERE NOT CONTACTED PRIOR TO CONSTRUCTION OF THE AFFECTED ITEM

12. ALL COPIES OF COMPACTION, CONCRETE AND OTHER REQUIRED TEST RESULTS ARE TO BE SENT TO THE RCHITECT, CITY ENGINEER AND CIVIL ENGINEER OF RECORD DIRECTLY FROM THE TESTING AGENCY. 13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING TO THE ENGINEER A CERTIFIED RECORI SURVEY SIGNED AND SEALED BY A PROFESSIONAL LAND SURVEYOR REGISTERED IN THE STATE OF TEXAS DEPICTING THE ACTUAL FIELD LOCATION OF ALL CONSTRUCTED IMPROVEMENTS THAT ARE REQUIRED BY THE JURISDICTIONAL AGENCIES FOR THE CERTIFICATION PROCESS. ALL SURVEY COSTS WILL BE THE CONTRACTOR'S RESPONSIBILITY

14. ALL NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODES, JURISDICTIONAL AGENCIES AND/OR UTILITY SERVICE COMPANIES SHALL BE PERFORMED PRIOR TO ANNOUNCED BUILDING POSSESSION AND THE FINAL CONNECTION OF SERVICES.

15. CONTRACTOR SHALL VERIFY BENCHMARKS AND DATUM PRIOR TO COMMENCING CONSTRUCTION OR STAKING OF IMPROVEMENTS.

16 CONTRACTOR SHALL THOROUGHLY CHECK COORDINATION OF CIVIL LANDSCAPE MEP ARCHITECTURAL STRUCTURAL, AND OTHER PLANS PRIOR TO COMMENCING CONSTRUCTION. OWNER AND ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCY PRIOR TO COMMENCING WITH CONSTRUCTION.

17. ALL HORIZONTAL DIMENSIONS GIVEN ARE TO FACE OF CURB AND TO PIPE CENTERLINES UNLESS THERWISE NOTED ON PLANS.

18. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING RELOCATION AND INSTALLATION OF FRANCHISED UTILITIES NECESSARY FOR ON AND OFF SITE CONSTRUCTION.

19 ALL SLOPES AND AREAS DISTURBED BY CONSTRUCTION SHALL BE GRADED SMOOTH. THE AREAS SHALL THEN BE SEEDED, IRRIGATED, AND STABILIZED AS SPECIFIED IN THE PLANS, AND MAINTAINED UNTIL SOIL S STABILIZED IN ALL AREAS. ANY AREAS DISTURBED FOR ANY REASON PRIOR TO FINAL ACCEPTANCE OF THE JOB SHALL BE CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. ALL EARTHEN AREAS WILL BE STABILIZED AND MULCHED AS SHOWN ON THE LANDSCAPE, GRADING, AND **EROSION CONTROL PLANS**

20. ALL CUT OR FILL SLOPES SHALL BE 4:1 OR FLATTER UNLESS OTHERWISE SHOWN.

COVER MUST BE ESTABLISHED WITHIN 60 DAYS OF ITS INSTALLATION

21. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROL OF DUST AND DIRT RISING AND SCATTERING IN THE AIR DURING CONSTRUCTION AND SHALL PROVIDE WATER SPRINKLING OR OTHER SUITABLE METHODS OF CONTROL. THE CONTRACTOR SHALL COMPLY WITH ALL GOVERNING REGULATIONS PERTAINING TO ENVIRONMENTAL PROTECTION.

22. SOD OR SEED MUST BE INSTALLED AND MAINTAINED ON EXPOSED SLOPES WITHIN 48 HOURS OF COMPLETING FINAL GRADING AND AT ANY OTHER TIME AS NECESSARY TO PREVENT EROSION, SEDIMENTATION OR TURBID DISCHARGES

23. THE CONTRACTOR MUST REVIEW AND MAINTAIN A COPY OF THE STORM WATER POLLUTION PREVENTION PLAN WITH ALL CONDITIONS, ATTACHMENTS, EXHIBITS, AND PERMIT MODIFICATIONS IN GOOD CONDITION AT THE CONSTRUCTION SITE. THE COMPLETE PERMIT MUST BE AVAILABLE FOR REVIEW UPON REQUEST

BY WATER MANAGEMENT DISTRICT REPRESENTATIVES. CONSTRUCTION OF THE PERMITTED PROJECT. THE PROTECTIVE COVER MUST BE INSTALLED WITHIN FOURTEEN DAYS AFTER FINAL GRADING OF THE AFFECTED LAND SURFACE. A PERMANENT STABLE

25. UPON COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE THE CIVIL ENGINEER A COPY OF AS-BUILT PLANS IDENTIFYING ALL DEVIATIONS OR VARIATIONS FROM THE ORIGINAL PLANS.

26. ALL EXISTING PAVEMENT, ADJACENT UTILITIES, STRUCTURES, ETC., DISTURBED AS A RESULT OF THE NEW CONSTRUCTION, SHALL BE REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE

27. ALL WORK REQUIRED BY THESE PLANS SHALL BE CONDUCTED IN CONFORMANCE WITH CURRENT SAFETY

28. CONTRACTOR MUST OBTAIN A RIGHT-OF-WAY (ROW) PERMIT FOR ANY FENCE OR WALL CROSSING PUBLIC

STORM SEWER DISCHARGE AUTHORIZATION

1. A CONSTRUCTION SITE NOTICE SHALL POSTED BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES

2. ALL CONTRACTORS AND SUBCONTRACTORS PROVIDING SERVICES RELATED TO THE SWPPP SHALL SIGN CONTRACTOR CERTIFICATION STATEMENT ACKNOWLEDGING THEIR RESPONSIBILITIES AS SPECIFIED IN

3. A COPY OF THE SWPPP, INCLUDING CONTRACTOR CERTIFICATIONS AND ANY REVISIONS, SHALL BE SUBMITTED TO THE CITY AND FILED WITH THE CONSTRUCTION PLANS, AND SHALL BE RETAINED ON-SITE

4. A NOTICE OF TERMINATION (N.O.T.) SHALL BE SUBMITTED TO THE TCEQ BY THE CONTRACTOR WHEN THE SITE HAS 100% OF THE DISTURBED AREAS STABILIZED AND THE SITE NO LONGER HAS STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES, OR THE N.O.T. PERMITTEE OR CO-PERMITTEE NO LONGER HOLDS OPERATIONAL CONTROL OF THE CONSTRUCTION

PAVING AND STRIPING NOTES

1. CONSTRUCTION OF ALL FACILITIES TO BE DEDICATED TO THE PUBLIC SHALL BE PERFORMED PER THE REQUIREMENTS OF THE CITY OF BOERNE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, LATEST EDITION.

2. THE CONTRACTOR SHALL REFER TO THE PAVING PLAN AND GEOTECHNICAL REPORT FOR PAVEMENT THICKNESS AND TYPE

3. TESTING OF MATERIALS REQUIRED FOR THE CONSTRUCTION OF THE PAVING IMPROVEMENTS SHALL BE PERFORMED BY AN AGENCY, APPROVED BY THE OWNER, FOR TESTING MATERIALS. PROCUREMENT OF THE TESTING LABORATORY AND THE PAYMENT OF SUCH TESTING SERVICES SHALL BE MADE BY THE OWNER, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE, BY THE STANDARD TESTING

4. ALL SIGNS, PAVEMENT MARKINGS, AND OTHER TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".

PROCEDURES, THAT THE WORK CONSTRUCTED MEETS THE REQUIREMENTS OF THE CITY AND PROJECT

5. RAISED PAVEMENT MARKERS SHALL BE BONDED TO THE ROADWAY SURFACE WITH ADHESIVE CONFORMING WITH THE MANUFACTURER'S RECOMMENDATIONS

6. THE PAVEMENT UPON WHICH THE LANE AND PAVEMENT MARKERS ARE TO BE PLACED SHALL BE PREPARED TO THE APPROVAL OF THE INSPECTOR TO ENSURE PROPER CLEANING OF THE PAVEMENT

7. ALL ON-SITE STRIPING SHALL BE ACRYLIC MARKING MATERIAL

8. SIGN LOCATIONS AND INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE CITY. CONTRACTOR SHALL EVIEW ALL TRAFFIC CONTROL DEVICES WITH THE CITY PRIOR TO INSTALLATION

9. CONTRACTOR SHALL FURNISH AND INSTALL ALL PAVEMENT MARKINGS FOR FIRE LANES, PARKING STALLS, HANDICAPPED PARKING SYMBOLS, AND MISCELLANEOUS STRIPING WITHIN PARKING LOT AND AROUND BUILDING AS SHOWN ON THE PLANS.

10. SEE IRRIGATION PLAN PLANS FOR LOCATION OF PROPOSED SLEEVING AND CONDUITS.

11. ALL HANDICAP RAMPS, STRIPING, AND PAVEMENT MARKINGS SHALL CONFORM TO THE AMERICANS WITH DISABILITIES ACT OF 2010 AND THE TEXAS ARCHITECTURAL BARRIERS ACT OF 1994.

12. CONTRACTOR TO SUBMIT A PAVEMENT JOINTING PLAN TO THE ENGINEER AND OWNER PRIOR TO THE BEGINNING OF ANY CONCRETE PAVING WORK

13. ALL EXISTING CONCRETE OR ASPHALT SHOWN TO BE REMOVED SHALL BE PROPERLY DISPOSED OF BY THE CONTRACTOR OFF SITE.

TRAFFIC CONTROL NOTES

I. CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL PLANS, AT LEAST 48 HOURS PRIOR TO ANY WORK IN A CITY STREET.

2. ALL TRAFFIC CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE TEXAS MANUAL ON NIFORM TRAFFIC CONTROL DEVICES (TMUTCD). LATEST VERSION

INTENT OF THESE TRAFFIC CONTROL PLANS TO AVOID CONFUSION TO THE TRAVELING PUBLIC

4. THE CONTRACTOR SHALL UNCOVER EXISTING SIGNS AND REPLACE PAVEMENT MARKINGS IN-KIND AS ORIGINALLY ONFIGURED OR AS MODIFIED BY THESE PLANS AT THE END OF CONSTRUCTION OPERATIONS AND PRIOR TO FINAL

5. ALL TEMPORARY SIGNS, BARRICADES, WARNING LIGHTS AND OTHER MISCELLANEOUS TRAFFIC CONTROL MEASURES SHALL BE REMOVED AND ORIGINAL TRAFFIC CONTROL MEASURES REPLACED AT THE END OF THE CONTRACTOR'S CONSTRUCTION

3. THE CONTRACTOR SHALL COVER EXISTING SIGNS AND OBLITERATE EXISTING PAVEMENT MARKINGS THAT CONFLICT WITH THE

6. THE TEMPORARY TRAFFIC CONTROL MEASURES SHOWN ON THESE PLANS ARE TO BE CONSIDERED AN ESTABLISHED

MINIMUM. ADDITIONAL SIGNS, BARRICADES OR OTHER WARNING DEVICES SHALL BE FURNISHED WHEN NECESSARY TO SAFELY GUIDE TRAFFIC THROUGH THE CONSTRUCTION AREA.

7. TRAFFIC BARRICADES WILL BE REQUIRED AT ALL PROPOSED DRIVEWAY CONNECTIONS TO STREETS AND STORM SEWER CONSTRUCTION IN STREET RIGHT-OF-WAY, BARRICADES SHALL CONFORM TO THE INSTALLATION SHOWN IN THE TEXAS

GRADING NOTES

MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TMUTCD), LATEST VERSION.

1. IF A GRADING PERMIT IS REQUIRED FROM THE CITY PRIOR TO STARTING CONSTRUCTION, CONTRACTOR IS RESPONSIBLE FOR OBTAINING PERMIT AND PAYING ALL ASSOCIATED FEES

2. CONTRACTOR SHALL FIELD VERIFY HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR PROTECTING EXISTING UTILITIES (SHOWN OR NOT SHOWN) WITHIN SCOPE OF CONSTRUCTION. IF ANY EXISTING UTILITIES ARE DAMAGED, THE CONTRACTOR SHALL REPLACE

3. ALL SPOT ELEVATIONS SHOWN ARE TO TOP OF PAVING SURFACE OR FINISHED EARTH GRADE UNLESS NOTED OTHERWISE. ADD 0.625' TO SPOT GRADES SHOWN FOR TOP OF CURB ELEVATIONS.

4. CONTRACTOR TO ENSURE POSITIVE DRAINAGE FROM THE PROPOSED BUILDINGS AND NO PONDING IN PAVED AREAS. CONTRACTOR ADJUSTMENTS TO SPOT GRADES TO MAINTAIN POSITIVE DRAINAGE IS ALLOWED WITH THE PRIOR APPROVAL OF THE ENGINEER. CONTRACTOR SHALL CONTACT THE ENGINEER PRIOR TO PAVING IF ANY AREAS OF POOR DRAINAGE ARE ENCOUNTERED.

5. THE CONTRACTOR SHALL PROTECT ALL MANHOLE COVERS, VALVE COVERS, VAULT LIDS, FIRE HYDRANTS, POWER POLES, GUY WIRES, AND TELEPHONE BOXES WHICH ARE TO REMAIN IN PLACE AND UNDISTURBED DURING CONSTRUCTION.

6 ALL EXISTING CONCRETE PAVING CHANNEL IMPROVEMENTS SIDEWALK STRUCTURES AND CURB DEMOLITION. SHALL BE REMOVED IN THEIR ENTIRETY AND DISPOSED OF BY THE CONTRACTOR OFF SITE, UNLESS OTHERWISE DIRECTED BY THE OWNER OR ENGINEER.

7. ALL AREAS DISTURBED BY GRADING OPERATIONS SHALL BE SEEDED. TEMPORARILY IRRIGATED AND MAINTAINED JNTIL A UNIFORM COVERAGE IN ACCORDANCE WITH CITY REQUIREMENTS, IS ACHIEVED 8. BUILDING PAD PREPARATION SHALL BE CONSISTENT WITH THE GEOTECHNICAL REPORT.

9. ALL CLEARING, GRADING, COMPACTION AND SUBGRADE PREPARATION SHALL BE IN ACCORDANCE WITH THE RECOMMENDATIONS MADE IN THE GEOTECHNICAL REPORT

10. GRADING CONTRACTOR TO COORDINATE WITH THE FRANCHISED UTILITY COMPANIES FOR ANY REQUIRED UTILITY ADJUSTMENTS AND/OR RELOCATIONS 11. THE CONTRACTOR SHALL CALCULATE HIS OWN EARTHWORK QUANTITIES AND USE TO DETERMINE HIS BID

ACCORDINGLY, ANY DEVIATION FROM A BALANCED CUT AND FILL SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ARCHITECT AND CIVIL ENGINEER AND ANY VARIANCE QUANTIFIED ON THE BID. 12. REFERENCE STRUCTURAL PLANS AND SPECIFICATIONS AND GEOTECHNICAL REPORT FOR ALL BUILDING PAD

GAS, ELECTRIC AND TELEPHONE NOTES:

1. THE CONTRACTOR SHALL PROVIDE 4 WEEKS LEAD TIME FOR (TEMPORARY AND PERMANENT) TELEPHONE SERVICE INSTALLATION, AND 14-16 WEEK LEAD TIME FOR THREE-PHASE TRANSFORMERS, COORDINATE SERVICE WITH THE

2. THE CONTRACTOR SHALL COORDINATE ALL ELECTRIC AND GAS SERVICE (TEMPORARY AND PERMANENT) LOCATION, IGNMENT, INSTALLATION REQUIREMENTS AND COST SHARING ARRANGEMENTS WITH FRANCHISED UTILIT.

3. ALL FRANCHISED UTILITY LOCATIONS SHOWN ON THESE DRAWINGS ARE CONCEPTUAL IN NATURE. THE CONTRACTOR SHALL COORDINATE THE EXACT DESIGN, ALIGNMENT, INSTALLATION REQUIREMENTS AND COST SHARING ARRANGEMENTS WITH THE INDIVIDUAL UTILITY PROVIDERS. THE CONTRACTOR SHALL INCLUDE ALL ASSOCIATED COSTS TO INSTALL FRANCHISED UTILITY (GAS, ELECTRIC, PHONE, CABLE) SERVICE TO THE PROPOSEI BUILDING, IN THE BASE BID ALIGNMENT WITH UTILITY PROVIDER.

EROSION CONTROL NOTES

LAYOUT AND SOIL PREPARATION/COMPACTION

1. ALL EROSION CONTROL DEVICES SHALL BE INSTALLED PRIOR TO SITE DISTURBANCE AND SHALL REMAIN IN PLACE JNTIL FINAL GRADING AND PAVING IS COMPLETE AND A STAND OF GRASS IS ESTABLISHED IN ACCORDANCE WITH CITY REQUIREMENTS.

2 CONSTRUCTION OPERATIONS SHALL BE MANAGED SO THAT AS MUCH OF THE SITE AS POSSIBLE IS LEFT COVERED. WITH TOPSOIL AND VEGETATION

3. THE CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE, AND LOCAL EROSION, CONSERVATION, AND SILTATION ORDINANCES. THE CONTRACTOR SHALL REMOVE ALL TEMPORARY EROSION CONTROL DEVICES UPON COMPLETION OF PERMANENT DRAINAGE AND THE ESTABLISHMENT OF A STAND OF GRASS SUFFICIENT TO PREVEN EROSION. THE CONTRACTOR MUST USE SEDIMENT FILTERS OR OTHER MEASURES APPROVED BY THE ENGINEER ND CONSTRUCTION MANAGER TO PREVENT SILT AND CONSTRUCTION DEBRIS FROM CLOGGING STORM SEWER PIPES OR PROPOSED OR EXISTING INLETS, OR FROM BEING TRANSPORTED TO ADJACENT PROPERTIES AND STREET

. CONTRACTOR SHALL CONSTRUCT A STABILIZED CONSTRUCTION ENTRANCE AT ALL PRIMARY POINTS OF ACCESS. CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL CONSTRUCTION TRAFFIC UTILIZES THE STABILIZED ENTRANCE AT ALL TIMES FOR INGRESS/EGRESS TO THE SITE.

5. SITE ENTRY AND EXIT LOCATIONS SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OF LOWING OF SEDIMENT ONTO PUBLIC ROADWAYS. ALL SEDIMENT SPILLED. DROPPED. WASHED OR TRACKED ON A PUBLIC ROADWAY MUST BE REMOVED IMMEDIATELY. WHEN WASHING IS REQUIRED TO REMOVE SEDIMENT PRIOR TO ENTRANCE TO A PUBLIC ROADWAY, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE. ALL FINES IMPOSED FOR TRACKING ONTO PUBLIC ROADS SHALL BE PAID BY THE CONTRACTOR

6. CONTRACTOR IS RESPONSIBLE FOR PROPER MAINTENANCE OF THE REQUIRED EROSION CONTROL DEVICES. HROUGHOUT THE ENTIRE CONSTRUCTION PROCESS. EROSION CONTROLS SHALL BE REPAIRED OR REPLACED AS INSPECTION DEEMS NECESSARY, OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE. ACCUMULATED SILT IN ANY EROSION CONTROL DEVICE SHALL BE REMOVED AND SHALL BE DISTRIBUTED ON SITE IN A MANNER NOT CONTRIBUTING TO ADDITIONAL SILTATION.

. THE CONTRACTOR IS RESPONSIBLE FOR REESTABLISHING ANY EROSION CONTROL DEVICE WHICH THEY DISTURB EACH CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE OF ANY DEFICIENCIES IN THE ESTABLISHED EROSION CONTROL MEASURES WHICH MAY LEAD TO UNAUTHORIZED DISCHARGE OR STORM WATER POLLUTION CONCRETE DUMPING OR CONCRETE RESIDUE, PAINTS, SOLVENTS, GREASES, FUEL AND LUBE OIL, PESTICIDES, AND

8. THE CONTRACTOR SHALL MAINTAIN ADEQUATE SITE DRAINAGE DURING ALL PHASES OF CONSTRUCTION. THE ONTRACTOR SHALL USE FILTER BARRIER (OR OTHER METHOD APPROVED BY THE ENGINEER AND CITY) A REQUIRED TO PREVENT ADVERSE OFF SITE IMPACT OR STORM WATER QUALITY FROM SILT AND CONSTRUCTION DEBRIS FLOWING ONTO ADJACENT PROPERTIES AS REQUIRED BY THE CITY. CONTRACTOR SHALL COMPLY WITH AL APPLICABLE FEDERAL, STATE, OR LOCAL EROSION, CONSERVATION, AND SILTATION ORDINANCES. CONTRACTOR SHALL REMOVE ALL TEMPORARY EROSION CONTROL DEVICES UPON COMPLETION OF PERMANENT DRAINAGE FACILITIES AND THE ESTABLISHMENT OF A STAND OF GRASS OR OTHER GROWTH TO PREVENT EROSION

9. CONTRACTOR SHALL PROVIDE ADEQUATE EROSION CONTROL DEVICES DURING THE PHASED CONSTRUCTION OF

10. CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL SILT AND DEBRIS OFF SITE FROM THE EXISTING ROADWAYS AND

PROJECT SITE THAT ARE A RESULT OF THE PROPOSED CONSTRUCTION. 11. BEFORE ANY EARTHWORK IS DONE, THE CONTRACTOR SHALL STAKE OUT AND MARK THE LIMITS OF CONSTRUCTION AND OTHER ITEMS ESTABLISHED BY THE PLANS. THE CONTRACTOR SHALL PROTECT AND PRESERVE CONTROL

12 THE CONTRACTOR SHALL SALVAGE AND PROTECT ALL EXISTING POWER POLES, SIGNS, MANHOLES, TELEPHONE RISERS, WATER VALVES, ETC. DURING ALL CONSTRUCTION PHASES UNLESS NOTED OTHERWISE 13. CONTRACTOR STAGING AREA TO BE AGREED UPON BY OWNER PRIOR TO BEGINNING CONSTRUCTION

NECESSARY ENGINEERING AND SURVEYING FOR LINE AND GRADE CONTROL POINTS RELATED TO EARTHWORK

14. AS INLETS ARE COMPLETED TEMPORARY SEDIMENT BARRIERS SHALL BE INSTALLED. 15. SILT FENCE AND INLET SEDIMENT BARRIERS SHALL REMAIN IN PLACE UNTIL REVEGETATION HAS BEEN COMPLETED.

16. DISTURBED AREAS THAT ARE SEEDED OR SODDED SHALL BE CHECKED PERIODICALLY TO SEE THAT GRASS IVERAGE IS PROPERLY MAINTAINED. DISTURBED AREAS SHALL BE WATERED, FERTILIZED, AND RESEEDED OR RESODDED. IF NECESSARY. 17 CONTRACTOR SHALL PROMOTE AND PROVIDE FOR A HEALTHY ESTABLISHMENT OF TURF GRASSES WHILE KEEPING

IRRIGATION TO A MINIMUM IN ORDER TO REDUCE EROSION FROM SURFACE RUNOFF

18. EROSION CONTROL DEVICES SHALL BE PLACED TO TRAP ANY LOSSES FROM STOCKPILED TOPSOIL.

STORM SEWER NOTES

THE INLET/, JUNCTION BOX, ETC.

1 CONTRACTOR SHALL FIELD VERIFY THE VERTICAL AND HORIZONTAL LOCATIONS OF ALL EXISTING LITHLITIES PRIOR TO START OF CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND CONSTRUCTION MANAGER

VERTICAL LOCATION OF CURB INLETS. GRATE INLETS. AND ALL UTILITIES CROSSING THE STORM SEWER. FLOW LINES AND RIMS OF PROPOSED INLETS SHALL BE VERIFIED WITH THE PROPOSED GRADE PRIOR TO CONSTRUCTION. CONTRACTOR SHALL BE PROVIDED AN ELECTRONIC ACAD FILE FOR USE IN CONSTRUCTION STAKING AND LAYOU 3. THE SITE UTILITY CONTRACTOR SHALL PROVIDE ALL MATERIALS AND APPURTENANCES NECESSARY FOR COMPLETE

2. CONTRACTOR SHALL VERIFY AND COORDINATE ALL DIMENSIONS SHOWN, INCLUDING THE HORIZONTAL AND

4. STORM MANHOLE ACCESS POINTS ARE NOT INTENDED FOR PERSONAL ACCESS. LIDS SHALL BE LOCATED ABOVE THE OUTLET DISCHARGE PIPE SUCH THAT DEBRIS REMOVAL CAN OCCUR WITHOUT REQUIREING ENTRANCE IN TO

5. THE GENERAL CONTRACTOR AND ALL SUBCONTRACTORS SHALL VERIFY THE SUITABILITY OF ALL EXISTING AND THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES 6. REFERENCE CITY'S DESIGN STANDARDS FOR NEW STORM SEWER SYSTEMS

7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PREPARING AND IMPLEMENTING A TRENCH PROTECTION PLAN FOR ALL OPEN TRENCH EXCAVATION.

9. ALL STORM SEWER PIPE WITHIN PUBLIC EASEMENTS/R.O.W. SHALL BE SPIRAL RIBBED CORRUGATED METAL PIPE (SRCMP) POLYMER COATED, ASTM A742.

8. EXISTING MANHOLE TOPS AND ALL OTHER DRAINAGE FACILITIES SHALL BE ADJUSTED AS REQUIRED TO MATCH

FINAL GRADES AS SHOWN ON GRADING PLAN. NO SEPARATE PAY ITEM.

WATER NOTES

1. ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THE SCOPE OF THIS PROJECT SHALL BE APPROVED BY THE CITY OF BOERNE (COB) AND COMPLY WITH THE FOLLOWING AS APPLICABLE

A. CURRENT CITY OF BOERNE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION"

B. CURRENT TXDOT " STANDARD SPECIFICATION FOR CONSTRUCTION OF HIGHWAYS, STREETS AND DRAINAGE

2. THE LOCATIONS AND DEPTHS OF EXISTING UTILITIES, INCLUDING SERVICE LATERALS, AND DRAINAGE STRUCTURES HOWN ON THE PLANS ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION AND DEPTHS OF UNDERGROUND UTILITIES AT LEAST 48 HOURS PRIOR TO CONSTRUCTION WHETHER SHOWN ON PLANS OR NOT, AND TO PROTECT THE SAME DURING CONSTRUCTION.

3. NO METER BOXES TO BE SET IN DRIVEWAYS. ANY METER BOXES SET IN DRIVEWAYS WILL BE RELOCATED AT ONTRACTOR'S AND/OR DEVELOPER'S EXPENSE

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING TO ITS ORIGINAL OR BETTER CONDITION FROM DAMAGE

5. THE CONTRACTOR SHALL AVOID CUTTING ROOTS LARGER THAN ONE INCH IN DIAMETER WHEN EXCAVATING NEAR STING TREES. EXCAVATION IN VICINITY OF TREES SHALL PROCEED WITH CAUTI

6 NO EXTRA-PAYMENT SHALL BE ALLOWED FOR WORK CALLED FOR ON THE PLANS BUT NOT INCLUDED ON THE BID SCHEDULE. THIS INCIDENTAL WORK WILL BE REQUIRED AND SHALL BE INCLUDED UNDER THE PAY ITEM TO WHICH IT

7. THE DEVELOPER DEDICATES THE WATER MAINS UPON COMPLETION BY THE DEVELOPER AND ACCEPTANCE BY THE TY OF BOERNE AND/OR KCWCID#2. CITY OF BOERNE AND/OR KCWCID#2 WILL OWN AND MAINTAIN SAID WATER MAINS WHICH ARE LOCATED WITHIN THIS PARTICULAR SUBDIVISION. (AS APPLICABLE)

8 CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL DESIGN/GEOTECHNICAL/SAFETY/EQUIPMENT CONSULTANT, IF ANY, SHALL REVIEW THESE PLANS AND AVAILABLE DTECHNICAL 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. THE CONTRACTOR'S IMPLEMENTATION OF THE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLIES WITH AS A MINIMUM. OSI-STANDARDS FOR TRENCH EXCAVATIONS. SPECIFICALLY, CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY ETAINED 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.

9. THE CONTRACTOR WILL KEEP THE AREA ON TOP OF AND AROUND THE WATER METER BOX FREE OF ALL OBJECTS

10. ALL TESTING, CLEANING & DISINFECTION SHALL BE PERFORMED IN ACCORDANCE WITH BOERNE STANDARD PECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, ITEM NO. 0266

11. ALL WATER LINES SHALL MAINTAIN A MINIMUM COVER OF 48 INCHES FROM TOP OF PIPE TO TOP OF GROUND OR

SANITARY SEWER NOTES

TEXAS STATE WIDE ONE CALL LOCATOR 1-800-545-6005

1. ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THE SCOPE OF THIS PROJECT SHALL BE APPROVED BY THE CITY OF BOERNE PUBLIC WORKS (COB) AND COMPLY WITH THE FOLLOWING AS APPLICABLE:

A. CURRENT TEXAS COMMISSION ON ENVIRONMENTAL QUALITY'S DESIGN CRITERIA FOR SEWERAGE SYSTEMS [30 TAC 217.1, 30 TAC 217.2, 30 TAC 217.3 AND 30 TAC 217.13].

B. CITY OF BOERNE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, LATEST EDITION. C. CURRENT TXDOT " STANDARD SPECIFICATION FOR CONSTRUCTION OF HIGHWAYS, STREETS AND DRAINAGE".

2. THE LOCATIONS AND DEPTHS OF EXISTING UTILITIES, INCLUDING SERVICE LATERALS, AND DRAINAGE STRUCTURES SHOWN ON THE PLANS ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION AND DEPTHS OF UNDERGROUND UTILITIES AT LEAST 48 HOURS PRIOR TO CONSTRUCTION WHETHER SHOWN ON PLANS OR NOT, AND TO PROTECT THE SAME DURING CONSTRUCTION.

TEXAS STATE WIDE ONE CALL LOCATOR 1-800-545-6005

3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING TO ITS ORIGINAL OR BETTER CONDITION FROM DAMAGE DONE TO EXISTING FENCES, CURBS, STREETS, DRIVEWAYS, LANDSCAPING AND STRUCTURES.

4. THE CONTRACTOR SHALL AVOID CUTTING ROOTS LARGER THAN ONE INCH IN DIAMETER WHEN EXCAVATING NEAR EXISTING TREES. EXCAVATION IN VICINITY OF TREES SHALL PROCEED WITH CAUTION.

5. THE CONTRACTOR SHALL MAINTAIN SERVICE TO EXISTING SANITARY SEWERS AT ALL TIMES DURING CONSTRUCTION. 6. DUE TO FEDERAL REGULATIONS TITLE 49, PART 192.181, CITY OF BOERNE MUST MAINTAIN ACCESS TO GAS VALVES AT

ALL TIMES. THE CONTRACTOR MUST PROTECT AND WORK AROUND GAS VALVES THAT ARE IN THE PROJECT AREAS. 7. ALL RESIDENTIAL SEWER SERVICE LATERALS SHALL BE EXTENDED TO THE UTILITY EASEMENT LINE AND CAPPED AND

8. AFTER CONSTRUCTION, TESTING WILL BE DONE BY TV CAMERA BY THE CONTRACTOR AND OBSERVED BY INSPECTOR AND WASTEWATER ENGINEERING PERSONNEL, AS THE CAMERA IS RUN THROUGH THE LINES. ANY ABNORMALITIES, 13. EXISTING MANHOLE TOPS, VALVE BOXES, FIRE HYDRANTS AND ALL OTHER UTILITY APPURTENANCES SHALL BE SUCH AS BROKEN PIPE OR MISALIGNED JOINTS, MUST BE REPLACED BY THE CONTRACTOR AT HIS EXPENSE. CONTRACTOR TO PROVIDE TV TAPES TO CONSTRUCTION INSPECTION FOR REVIEW PRIOR TO FINAL INSPECTION OF THE PROJECT.

. CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL DESIGN/GEOTECHNICAL/SAFETY/EQUIPMENT CONSULTANT, IF ANY, SHALL REVIEW THESE PLANS AND AVAILABLE

16. FOR EACH SEWER AND WATER CROSSING, CENTER ONE LENGTH OF SEWER PIPE ON THE EXISTING OR PROPOSED GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITE(S) WITHIN THE PROJECT WORK AREA IN WATER MAIN. ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS. PROGRAMS AND/OR PROCEDURES. THE CONTRACTOR'S IMPLEMENTATION OF THE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLIES 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 POND NOTES WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.

10. CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF ALL WASTE MATERIALS UPON PROJECT COMPLETION. THE 2. FOR ANY PONDS INTENDED TO HOLD WATER INDEFINITELY: THE CONTRACTOR SHALL REFER TO THE CONTRACTOR SHALL NOT PERMANENTLY PLACE ANY WASTE MATERIALS IN THE 100-YEAR FLOOD PLAIN WITHOUT FIRST OBTAINING AN APPROVED FLOOD PLAIN DEVELOPMENT PERMIT.

11. WATER JETTING THE BACKFILL WITHIN A STREET WILL NOT BE PERMITTED. SANITARY SEWER TRENCHES SHALL CONFORM TO THE BOERNE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION. ITEM NO. 02221.

12. THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY AND ENVIRONMENTAL PROTECTION AGENCY (EPA) REQUIRE EROSION AND SEDIMENTATION CONTROL FOR CONSTRUCTION OF SEWER COLLECTION SYSTEMS. DEVELOPER OR AUTHORIZED REPRESENTATIVE SHALL PROVIDE EROSION AND SEDIMENTATION CONTROL AS NOTES ON THE PROJECT'S PLAN AND PROFILE SHEETS.

13. ALL TEMPORARY EROSION AND SEDIMENTATION CONTROLS SHALL BE REMOVED BY THE CONTRACTOR AT FINAL ACCEPTANCE OF THE PROJECT BY THE CITY OF BOERNE.

SUPPLEMENTARY

14. NO EXTRA-PAYMENT SHALL BE ALLOWED FOR WORK CALLED FOR ON THE PLANS BUT NOT INCLUDED ON THE BID SCHEDULE. THIS INCIDENTAL WORK WILL BE REQUIRED AND SHALL BE INCLUDED UNDER THE PAY ITEM TO WHICH IT

15. THE DEVELOPER DEDICATES THE SANITARY SEWER MAINS UPON COMPLETION BY THE DEVELOPER AND ACCEPTANCE BY THE CITY OF BOERNE/KCWCID#2. THE CITY OF BOERNE (AND/OR KCWCID#2) WILL OWN AND MAINTAIN SAID SANITARY SEWER MAINS WHICH ARE LOCATED WITHIN THIS PARTICULAR SUBDIVISION. (AS

16. ALL PVC SEWER PIPE WITH OVER 14 FEET OF COVER SHALL BE EXTRA STRENGTH PIPE, MINIMUM STIFFNESS OF 115

17. ALL TESTING, VIDEO INSPECTION & CLEANING SHALL BE PERFORMED IN ACCORDANCE WITH BOERNE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, ITEM NO. 02530.

18. THE SEWER PIPE SHALL BE INSTALLED STARTING FROM DOWNSTREAM OF THE POINT OF CONNECTION ON THE EXISTING SEWER OR FROM A DESIGNATED STARTING POINT. THE SEWER PIPE SHALL BE INSTALLED WITH THE BELL

19. AT PROPOSED POINTS OF CONNECTION TO AN EXISTING MANHOLE, PRIOR TO CONSTRUCTING ANY NEW SEWER LINES UPSTREAM OF MANHOLE, CONTRACTOR SHALL VERIFY THAT THE PROPOSED SEWER LINE HAS A MINIMUM 6 INCH SEPARATION (OR PER MANUFACTURER RECOMMENDATION) FROM THE O.D. OF THE PROPOSED SEWER LINE TO ANY EXISTING JOINTS BETWEEN MANHOLE BASE AND RINGS. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY IF A CONFLICT IS DISCOVERED

THE CONTRACTOR SHALL FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UTILITIES WHERE PROPOSED UTILITIES ARE BEING CONNECTED, PRIOR TO START OF CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY IF A CONFLICT IS DISCOVERED

MISC WATER AND SANITARY SEWER NOTES

2. ALL PVC 4" - 12" WATER LINES SHALL BE AWWA C900 DR-14 OR APPROVED EQUAL. ALL PVC 14"-48" WATER LINES

SHALL BE AWWA C905 DR-18.

3. ALL 4"-12" VALVES SHALL BE RESILIENT SEAT GATE VALVES PER AWWA C509. ALL VALVES GREATER THAN 14" SHALL BE BUTTERFLY VALVES PER AWWA C504. DOMESTIC VALVES SHALL BE OPEN "COUNTER CLOCKWISE" AND ALL

RECLAIM VALVES SHALL BE OPEN "CLOCKWISE." 4 TRACER WIRE LOCATE BOX (SNAKE PIT OR APPROVED EQUAL) SHALL BE INSTALLED PER CITY SPECIFICATIONS AT

ALL WATER VALVES (INCLUDING FIRE HYDRANT VALVES) AND BLOWOFFS. FOR GROUPING OF VALVES AT ONE

GENERAL LOCATION, ONE LOCATE BOX MAY BE USED. 5. TRACER WIRE INSTALLATION SHALL COMPLY WITH CITY OF BOERNE SPECS 02660 AND 02670. RECLAIMED WATER LINES SHALL COMPLY WITH TCEQ CHAPTER 210 AND 217. ALL PIPE AND METER LIDS SHALL BE

COPPER TUBING SHALL BE TAPED WITH PURPLE TAPE. 7. ALL SANITARY SEWER LINES SHALL BE A MINIMUM OF PVC SDR-35, ASTM F789/D3212, ALL SANITARY SEWER LINES DEEPER THAN 14 FEET SHALL BE A MINIMUM OF PVC SDR-26.

URPLE IN COLOR. ALL VALVE BOXES, BRASS/BRONZE FITTINGS, ETC. SHALL BE PAINTED PURPLE COLOR. ALL

ALL LITH ITY CONSTRUCTION WATER TAPS VALVES AND SERVICES SHALL BE INSTALLED BY THE CONTRACTOR AFTER APPROVAL FROM THE CITY AND SHALL CONFORM TO ALL GUIDELINES AND REGULATIONS SET FORTH BY THE CITY FOR WATER AND SANITARY SEWER CONSTRUCTION.

CONTRACTOR TO SEQUENCE CONSTRUCTION AS TO AVOID INTERRUPTION OF WATER AND SANITARY SEWER SERVICE TO SURROUNDING AREAS

10. CONTRACTOR TO REPLACE GRASS AND RESTORE PROPERTY TO ORIGINAL CONDITION IN ALL DISTURBED AREAS EXISTING AND/OR PROPOSED WATER MAINS SHALL BE LOWERED BELOW OR ABOVE PROPOSED SANITARY AND STORM SEWER LINES TO MAINTAIN A MINIMUM OF 2.0 FEET OF VERTICAL SEPARATION. CONTRACTOR TO REFER TO TCEQ CHAPTERS 217 AND 290 FOR REQUIREMENTS AT ALL WATER AND SANITARY SEWER CROSSINGS.

12. THE FOLLOWING REQUIREMENTS SHALL APPLY TO WATER AND SANITARY SEWER CROSSINGS IN THEIR RESPECTIVE

A. WHERE A NEW POTABLE WATERLINE CROSSES A NEW, NON-PRESSURE RATED WASTEWATER MAIN OR I ATERAL AND THE STANDARD PIPE SEGMENT LENGTH OF THE WASTEWATER MAIN OR LATERAL AND THE STANDARD PIPE SEGMENT IS AT LEAST 18 FEET, ONE SEGMENT OF THE WATERLINE PIPE SHALL BE CENTERED OVER THE WASTEWATER MAIN OR LATERAL SUCH THAT THE JOINTS OF THE WATERLINE PIPE ARE FOLIDISTANT AND AT LEAST NINE FEET HORIZONTALLY FROM THE CENTERLINE OF THE WASTEWATER MAIN OR LATERAL. THE POTABLE WATERLINE SHALL BE AT LEAST TWO FEET ABOVE THE WASTEWATER MAIN OR LATERAL. WHENEVER POSSIBLE, THE CROSSING SHALL BE CENTERED BETWEEN THE JOINTS OF THE WASTEWATER MAIN OR LATERAL. THE WASTEWATER MAIN OR LATERAL SHALL BE EMBEDDED IN CEMENT STABILIZED SAND PER THE STANDARDS LISTED BELOW IN 13(D) FOR THE TOTAL LENGTH OF ONE PIPE SEGMENT PLUS 12 INCHES BEYOND THE JOINT ON EACH END

B. WHERE A NEW, POTABLE WATERLINE CROSSES A NEW, NON-PRESSURE RATED WASTEWATER MAIN OR LATERAL AND A STANDARD LENGTH OF THE WASTEWATER PIPE IS LESS THAN 18 FEET IN LENGTH, THE POTABLE WATER PIPE SEGMENT SHALL BE CENTERED OVER THE WASTEWATER LINE. THE MATERIALS AND METHOD OF INSTALLATION SHALL CONFORM WITH ONE OF THE FOLLOWING:

WITHIN NINE FEET HORIZONTALLY OF FITHER SIDE OF THE WATERLINE, THE WASTEWATER PIPE AND JOINTS SHALL BE CONSTRUCTED WITH PIPE MATERIAL HAVING A MINIMUM PRESSURE RATING OF A LEAST 150 PSI. AN ABSOLUTE MINIMUM VERTICAL SEPARATION DISTANCE OF TWO FEET SHALL BE PROVIDED WITH THE WATERLINE LOCATED OVER THE WASTEWATER MAIN OR LATERAL.

ii. ALL SECTIONS OF WASTEWATER MAIN OR LATERAL WITHIN NINE FEET HORIZONTALLY OF THE WATERLINE SHALL BE ENCASED IN AN 18-FOOT (OR LONGER) SECTION OF PIPE. THE ENCASING PIPE SHALL BE CENTERED ON THE WATERLINE AND SHALL BE AT LEAST TWO NOMINAL DIAMETERS LARGER THAN THE WASTEWATER MAIN OR LATERAL. THE SPACE AROUND THE CARRIER PIPE SHALL BE SUPPORTED AT FIVE-FOOT (OR LESS) INTERVALS WITH SPACERS OR BE FILLED TO THE SPRINGLINE WITH WASHED SAND. EACH END OF THE CASING SHALL BE SEALED WITH WATERTIGHT NON-SHRINK CEMENT GROUT OR A MANUFACTURED WATERTIGHT SEAL. AN ABSOLUTE MINIMUM SEPARATION DISTANCE OF SIX INCHES BETWEEN THE ENCASEMENT PIPE AND THE WATERLINE SHALL BE PROVIDED WITH THE WATERLINE LOCATED BELOW THE WATERLINE.

iii. WHEN A NEW WATERLINE CROSSES UNDER A WASTEWATER MAIN OR LATERAL. THE WATERLINE SHAL BE ENCASED AS DESCRIBED ABOVE IN 13(b) OR CONSTRUCTED OF DUCTILE IRON STEEL PIPE WITH IECHANICAL OR WELDED JOINTS AS APPRÓPRIATE. AN ABSOLUTE MINIMUM SEPARATION OF ONE FOOT BETWEEN THE WATERLINE AND WASTEWATER MAIN OR LATERAL SHALL BE PROVIDED. BOTH WATER AND WASTEWATER MUST PASS A PRESSURE AND LEAKAGE TEST AS SPECIFIED IN AWWA C600

WHERE A NEW POTABLE WATERLINE CROSSES A NEW, PRESSURE RATED WASTEWATER MAIN OR LATERAL ONE SEGMENT OF THE WATERLINE PIPE SHALL BE CENTERED OVER THE WASTEWATER LINE SUCH THAT THE JOINTS OF THE WATERLINE PIPE ARE EQUIDISTANT AND AT LEAST NINE FEET HORIZONTALLY FROM TH CENTER LINE OF THE WASTEWATER MAIN OR LATERAL. THE POTABLE WATERLINE SHALL BE AT LEAST SIX INCHES ABOVE THE WASTEWATER MAIN OR LATERAL. WHENEVER POSSIBLE, THE CROSSING SHALL BE CENTERED BETWEEN THE JOINTS OF THE WASTEWATER MAIN OR LATERAL. THE WASTEWATER PIPE SHALI HAVE A MINIMUM PRESSURE RATING OF AT LEAST 150 PSI. THE WASTEWATER MAIN OR LATERAL SHALL BE EMBEDDED IN CEMENT STABILIZED SAND PER THE STANDARDS LISTED BELOW IN 13(D) FOR THE TOTAL LENGTH OF ONE PIPE SEGMENT PLUS 12 INCHES BEYOND THE JOINT ON EACH END

ADJUSTED AS REQUIRED TO MATCH PROPOSED GRADES AS SHOWN ON GRADING PLAN 14. CLEANOUTS LOCATED IN PAVEMENT OR SIDEWALKS SHALL HAVE BRASS OR CAST IRON COVERS THAT EXTEND TO

WHERE CEMENT STABILIZED SAND BEDDING IS REQUIRED, THE CEMENT STABILIZED SAND SHALL HAVE A

MINIMUM OF 10% CEMENT PER CUBIC YARD OF CEMENT STABILIZED SAND MIXTURE, BASED ON LOOSE DRY

WEIGHT VOLUME (AT LEAST 2.5 BAGS OF CEMENT PER CUBIC YARD OF MIXTURE). THE CEMENT STABILIZED SAND BEDDING SHALL BE A MINIMUM OF SIX INCHES ABOVE AND FOUR INCHES BELOW THE WASTEWATER

15. CONTRACTOR SHALL CONTACT ALL NECESSARY UTILITY COMPANIES PRIOR TO CONSTRUCTION, IN ORDER TO

. CONTRACTOR TO BRACE AND/OR BENCH ALL UTILITY TRENCHES AS REQUIRED FOR CONSTRUCTION ADJACENT $^\circ$ EXISTING AND/OR PROPOSED PAVEMENT AND FOUNDATIONS.

1. ANY PONDS THAT ARE INTENDED TO HOLD WATER INDEFINITELY SHALL BE CONSTRUCTED WATERTIGHT.

GEOTECHNICAL REPORT FOR POND LINER SPECIFICATIONS 3. A GEOTECHNICAL ENGINEER SHALL REVIEW AND APPROVE ALL POND LINER MATERIAL, PLACEMEN'

PROCEDURES, AND PROVIDE TESTING TO ENSURE THE POND LINER MATERIAL PLACED IS WATERTIGHT.

ANY GRAVEL OR OTHER PERVIOUS EMBEDMENT AROUND PIPES OR OUTFALL STRUCTURES NEAR THE POND SHALL BE ELIMINATED FOR AT LEAST 20-FEET FROM THE POND SO NO ROUTE FOR WATER TO LEAK

STORM SEWER PIPES AND HEADWALLS THAT CONNECT TO A POND INTENDED TO HOLD WATER INDEFINITELY SHALL BE INSTALLED WITH WATERTIGHT JOINTS TO AT LEAST 1-FOOT ABOVE THE NORMAL POOL WATER SURFACE ELEVATION

THROUGH THE EMBEDMENT MATERIAL IS PROVIDED. BACKFILL IN THESE AREAS SHALL BE OF 6. FOR ANY PONDS INTENDED TO HOLD WATER INDEFINITELY: THE WATER LEVEL FOLLOWING COMPLETION AND FILLING OF THE POND SHALL BE MONITORED BY THE CONTRACTOR FOR AT LEAST 60 DAYS TO

OBSERVE WATER INFLOW, OUTFLOW, AND CALCULATE EVAPORATION TO VERIFY THAT THE POND IS . FOR ANY PONDS INTENDED TO HOLD WATER INDEFINITELY: THE POND WATER LEVEL SHALL ALSO BE MAINTAINED BY THE CONTRACTOR FOR THE DURATION OF CONSTRUCTION SO THAT IT REMAINS FULL TO ITS DESIGN WATER LEVEL, AND IS NOT LOWERED, AS THIS MAY DRY-OUT THE POND LINER AND RISK ITS



REFERENCE BENCHMARKS

DATUM IS NAVD '88, USING GEOID 18, BASED ON GPS OBSERVATIONS.

| BM #103: MAG NAIL WITH WASHER STAMPED "103" SET IN CONCRETE AT CURB ON THE EAST RIGHT-OF-WAY LINE OF ALONZO (LOCAL RESIDENTIAL) STREET AND WEST OF LOT ||2, BLOCK 26.

||• ELEV.=1546.92'

BM #104: MAG NAIL WITH WASHER STAMPED "104" SET IN CONCRETE AT CURB ON THE NORTH EAST RIGHT-OF-WAY LINE OF CASCADA (LOCAL RESIDENTIAL) STREET AND ||WEST OF LOT 1, BLOCK 30.

• ELEV.=1603.23

= BENCHMARK

WHERE A CONFLICT EXISTS BETWEEN CITY OF BOERNE NOTES (SHEET 6) (CHAPTER 290) FOR ALL UTILITY CROSSINGS. | AND OTHER NOTES ON THIS SHEET, CITY OF BOERNE NOTES SHALL PREVAIL

MICHAEL A. SCHOLZE

KENDALL COUNTY WATER CONTROL AND IMPROVEMEN DISTRICT NO. 2B SHEET NUMBER

= BENCHMARK REFER TO TCEQ DESIGN GUIDELINES

REFERENCE BENCHMARKS

BENCHMARKS UPON COMPLETION OF

CONCRETE POST, FOUR (4) INCHES IN

(6) INCHES ABOVE AND NO LESS THAN

FEET LONG, STEEL REINFORCED

OR OTHER PERMANENT STYLE AS

APPROVED BY CITY OF BOERNE

WITH NORTHING, EASTING AND

AS VERIFIED BY A REGISTERED

THE AS-BUILT CONSTRUCTION

DOCUMENTS.

PROJECT. BENCHMARKS SHALL BE FIVE

DIAMETER, WITH TOP NO MORE THAN SIX

TWO (2) INCHES BELOW FINISHED GRADE,

CONTRACTOR TO PROVIDE FIELD NOTES

ELEVATIONS OF PROVIDED BENCH MARKS,

PROFESSIONAL LAND SURVEYOR, WITH

CONTRACTOR TO PROVIDE 16 PERMANENT

CITY OF BOERNE - GENERAL CONSTRUCTION NOTES (6/21/2024)

CONSTRUCTION OF ALL FACILITIES TO BE DEDICATED TO THE PUBLIC SHALL BE PERFORMED PER THE REQUIREMENTS OF THE CITY OF BOERNE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, LATEST EDITION, AND ANY OTHER GOVERNING AGENCY SUCH AS THE TCEQ, TXDOT, ETC., AS

2. IF ANY CONFLICT ARISES BETWEEN THESE GENERAL NOTES AND ANY OTHER NOTES FOUND IN THE PLANS. THE CITY OF BOERNE'S GENERAL NOTES SHALL TAKE PRECEDENCE HOWEVER THE CITY ENGINEER HAS THE AUTHORITY TO REVIEW AND APPROVE LEGITIMATE CONFLICTING PROJECT SPECIFIC NOTES. IF NEEDED

3. ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE INFRASTRUCTURE DRAWINGS REMAINS WITH THE ENGINEER OF RECORDS. IN APPROVING THESE INFRASTRUCTURE DRAWINGS, THE CITY OF BOERNE MUST RELY UPON THE ADEQUACY OF THE WORK OF THE ENGINEER OF RECORD. 4. PRIOR TO A CONSTRUCTION RELEASE PERMIT AND BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL CONTACT THE CITY OF BOERNE ENGINEERING &

MOBILITY DEPARTMENT TO SCHEDULE A PRE-CONSTRUCTION MEETING. A SEPARATE ONSITE PRE-CONSTRUCTION MEETING MAY BE REQUIRED WITH THE CONTRACTOR AND ANY SUBCONTRACTORS PRIOR TO STARTING WORK. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS PRIOR TO CONSTRUCTION. 6. THE CONTRACTOR SHALL NOTIFY CITY OF BOERNE ENGINEERING & MOBILITY DEPARTMENT AT LEAST 48 HOURS PRIOR TO BEGINNING CONSTRUCTION AT (830)

7. THE CONTRACTOR IS REQUIRED TO SCHEDULE ALL NECESSARY INSPECTIONS AT LEAST 24 HOURS IN ADVANCE. FEES MAY BE ASSESSED FOR WORK THAT IS NOT READY AT THE TIME OF INSPECTION OR NO-SHOWS FOR SCHEDULED INSPECTIONS. 8. THE CONTRACTOR SHALL HAVE THE FOLLOWING AVAILABLE AT THE JOB SITE AT ALL TIMES; THE APPROVED INFRASTRUCTURE DRAWINGS, INCLUDING ALL APPROVED REVISIONS: THE CITY OF BOERNE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION; ALL NECESSARY APPROVED PERMITS; NOTICE

OF INTENT, EROSION CONTROL PLANS, AND SWPPP. IT IS ENCOURAGED TO KEEP AN EXTRA COPY OF APPROVED SUBMITTALS ON-SITE. 9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL PUBLIC UTILITIES DURING CONSTRUCTION OF THE PROJECT. 10. THE CONTRACTOR SHALL DETERMINE THE DEPTH AND LOCATION OF EXISTING UNDERGROUND UTILITIES PRIOR TO EXCAVATING. TRENCHING, OR DRILLING AND L BE REQUIRED TO TAKE ANY PRECAUTIONARY MEASURES TO PROTECT ALL LINES SHOWN AND/OR ANY OTHER UNDERGROUND UTILITIES NOT OF RECORD OR NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL PUBLIC AGENCIES AND FRANCHISE UTILITIES 48 HOURS

PRIOR TO CONSTRUCTION (TEXAS811 1-800-344-8377). THE CONTRACTOR MAY BE REQUIRED TO EXPOSE THESE FACILITIES AT THEIR OWN COST 11. THE CONTRACTOR MUST CONTACT CITY OF BOERNE ENGINEERING & MOBILITY DEPARTMENT IMMEDIATELY IF ANY DAMAGE TO EXISTING UTILITIES OCCURS. ANY DAMAGE TO LITILITIES RESULTING FROM CONTRACTOR'S OPERATIONS SHALL BE RESTORED AT THEIR EXPENSE IF DAMAGE TO A LIVE GAS MAIN OCCURS CALL 911 IMMEDIATELY PRIOR TO CALLING CITY OF BOERNE UTILITIES DEPARTMENT 12. THE CONTRACTOR SHALL IMMEDIATELY REPAIR OR REPLACE ANY PHYSICAL DAMAGE TO PUBLIC AND PRIVATE PROPERTY, INCLUDING, BUT NOT LIMITED TO FENCES, WALLS, PAVEMENT, GRASS, LANDSCAPE, TREES, AND LAWN SPRINKLER AND IRRIGATION SYSTEM AT THEIR OWN COST. ANY PERMITTED WORK LOCATED WITHIN EASEMENTS ON

PRIVATE PROPERTY WILL REQUIRE A LETTER OF APPROVAL FROM EACH AFFECTED LANDOWNER PRIOR TO FINAL ACCEPTANCE OF CONSTRUCTION 13. ANY DISCREPANCIES ON THE INFRASTRUCTURE DRAWINGS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE DESIGN ENGINEER AND CITY OF BOERNE WITHOUT WRITTEN APPROVAL FROM THE CITY. 14.STORMWATER MANAGEMENT FACILITIES SHALL BE PROVIDED PRIOR TO SITE CONSTRUCTION OR CLEARING AND BE MAINTAINED DURING THE PROGRESS OF CONSTRUCTION.

L6. THE CONTRACTOR SHALL PROVIDE THE CITY ACCESS TO CITY PROPERTY, EASEMENTS, UTILITIES, AND FACILITIES AT ALL TIMES DURING CONSTRUCTION. 17. THE CONTRACTOR SHALL FOLLOW THE CITY'S CURRENT NOISE ORDINANCE, ANY EXCEPTIONS OF WHICH MAY BE REQUESTED IN WRITING TO THE CITY OF BOERNE

18. THE CONTRACTOR IS RESPONSIBLE FOR REQUIRED CONSTRUCTION SURVEYING AND STAKING AND SHALL NOTIFY THE CITY OF ANY DISCREPANCIES PRIOR TO PROCEEDING 9. THE CONTRACTOR SHALL VERIFY BENCHMARKS AND DATUMS PRIOR TO COMMENCING CONSTRUCTION OR STAKING OF IMPROVEMENTS

20 THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL SURVEY MARKERS INCLUDING IRON RODS, PROPERTY CORNERS, OR SURVEY MONUMENTS WITHIN THE LIMITS OF THE CONSTRUCTION SITE AND OUTSIDE THE RIGHT-OF-WAY DURING CONSTRUCTION. ANY SURVEY MARKERS DISTURBED DURING CONSTRUCTION SHALL BE REPLACED BY THE CONTRACTOR AT THEIR OWN COST 21 ALL GENERAL USE CONCRETE SHALL BE PLANT MIXED MEETING CITY SPECIFICATIONS WITH A MINIMUM OF 4 000 PSI AT 28 DAYS COMPRESSIVE STRENGTH LINLESS.

OTHERWISE SPECIFIED. ANY CONCRETE INSTALLED WITHOUT AN APPROVED MIX DESIGN SUBMITTAL WILL BE REMOVED AT CONTRACTOR'S EXPENSE. 22 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 THESE CONTRACT DOCUMENTS. THE CONTRACTOR'S IMPLEMENTATION OF THESE SYSTEMS, PROGRAMS, AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY ROTECTION 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

23.CONTRACTOR SHALL FURNISH A SET OF "AS-BUILT" DRAWINGS TO THE CITY OF BOERNE ENGINEERING & MOBILITY DEPARTMENT AT THE TIME OF FINAL INSPECTION. CONTRACTOR SHALL GIVE CITY AT LEAST TWO WORKING DAYS NOTICE PRIOR TO FINAL INSPECTION.

1. ALL COMPACTION, CONCRETE, AND OTHER REQUIRED TEST RESULTS SHALL BE SENT TO THE DESIGN ENGINEER AND CITY DIRECTLY FROM THE TESTING AGENCY. CITY OF BOERNE INSPECTORS SHALL BE PROVIDED A MINIMUM OF 24-HOUR NOTICE AND PROVIDED THE OPPORTUNITY TO OBSERVE ALL REQUIRED TESTING.

2. ALL PROCTOR TESTING SHALL BE COMPLETED PER ASTM D1557 (MODIFIED PROCTOR) AND PROCTOR SHALL BE SUBMITTED TO THE CITY OF BOERNE ENGINEERING &

3. UPON COMPLETION OF CONSTRUCTION, A COPY OF ALL TESTING REPORTS SHALL BE COMPILED AND FORWARDED TO THE CITY OF BOERNE ENGINEERING & MOBILITY DEPARTMENT PRIOR TO FINAL ACCEPTANCE.

4. IT IS THE RESPONSIBILITY OF THE DEVELOPER, CONTRACTOR, SUBCONTRACTORS, BUILDERS, GEOTECHNICAL ENGINEER, AND DESIGN ENGINEER TO IMMEDIATELY NOTIFY THE ITY AND DESIGN ENGINEER IF THE PRESENCE OF GROUNDWATER WITHIN THE SITE IS EVIDENT. UPON NOTIFICATION, THE DESIGN ENGINEER SHALL RESPOND WITH PLAN REVISIONS FOR THE MITIGATION OF THE GROUNDWATER ISSUE. ALL CONSTRUCTION ACTIVITY IMPACTED BY THE DISCOVERY OF GROUNDWATER SHALL BE SUSPENDED UNTIL THE CITY APPROVES THE GROUNDWATER MITIGATION PLAN IN WRITING

1. CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING AND INSTALLING ALL TEMPORARY AND PERMANENT TRAFFIC CONTROL IN ACCORDANCE WITH THE MINIMUM REQUIREMENTS OF THE LATEST REVISION OF THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TMUTCD) AND TXDOT BARRICADE AND CONSTRUCTION

2. CONTRACTOR SHALL NOT IMPEDE TRAFFIC ON EXISTING STREETS, DRIVEWAYS, OR FIRE LANES OPEN TO THE PUBLIC 3. CONTRACTOR TO PROVIDE TRAFFIC CONTROL PLAN FOR REVIEW AND APPROVAL TO THE CITY AT LEAST 3 BUSINESS DAYS IN ADVANCE OF COMMENCING WORK IN A CITY

4. TEMPORARY LANE CLOSURES DURING THE HOURS OF 9AM TO 3PM MAY BE PERMITTED WHERE SHOWN AS NECESSARY WITHIN THE TRAFFIC CONTROL PLAN WITH PRIOR APPROVAL BY THE CITY OF BOERNE ENGINEERING & MOBILITY. NO LANE CLOSURES ARE PERMITTED ON WEEKENDS OR HOLIDAYS WITHOUT PRIOR WRITTEN APPROVAL 5. TEMPORARY STEEL PLATES MAY BE UTILIZED AS PERMITTED BY THE CITY OF BOERNE ENGINEERING & MOBILITY DEPARTMENT FOR A MAXIMUM OF TWO (2) WEEKS UNLESS

6. ALL TEMPORARY SIGNS, BARRICADES, WARNING LIGHTS, AND OTHER MISCELLANEOUS TRAFFIC CONTROL MEASURES SHALL NOT BE INSTALLED EARLIER THAN 24 HOURS EFORE THE CONTRACTOR IS READY TO PROCEED WITH CONSTRUCTION FOR THAT SITE. 7. ALL TEMPORARY SIGNS, BARRICADES, WARNING LIGHTS AND OTHER MISCELLANEOUS TRAFFIC CONTROL MEASURES SHALL BE REMOVED AND ORIGINAL TRAFFIC CONTROL MEASURES REPLACED AT THE END OF THE CONTRACTOR'S CONSTRUCTION OPERATION

1. ALL EROSION CONTROL DEVICES SHALL BE INSTALLED PRIOR TO SITE DISTURBANCE AND SHALL REMAIN IN PLACE UNTIL FINAL GRADING AND PAVING IS COMPLETE AND VEGETATION IS ESTABLISHED WITH 85% COVERAGE ACHIEVED. 2. CONTRACTOR IS RESPONSIBLE FOR PROPER MAINTENANCE OF THE REQUIRED EROSION CONTROL DEVICES THROUGHOUT THE ENTIRE CONSTRUCTION PROCESS. EROSION CONTROLS SHALL BE REPAIRED OR REPLACED AS INSPECTION DEEMS NECESSARY, OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE. ACCUMULATED SILT IN ANY EROSION

CONTROL DEVICE SHALL BE REMOVED AND SHALL BE DISTRIBUTED ON-SITE IN A MANNER NOT CONTRIBUTING TO ADDITIONAL SILTATION. THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT EROSION CONTROL MEASURES AND STORMWATER CONTROL IS SUFFICIENT TO MITIGATE OFF-SITE IMPACTS AND ARE IN 4. THE CITY INSPECTOR HAS THE AUTHORITY TO HAVE THE CONTRACTOR MODIFY THE EROSION CONTROLS AT THE DEVELOPER'S EXPENSE. THE DEVELOPER SHALL BE NOTIFIED

OF THESE MODIFICATIONS PRIOR TO COMMENCEMENT OF THE MODIFICATIONS 5. CONSTRUCTION OPERATIONS SHALL BE MANAGED SO THAT AS MUCH OF THE SITE AS POSSIBLE IS LEFT COVERED WITH TOPSOIL AND VEGETATION. 6. CONTRACTOR TO REMOVE GRASS AND STRIP TOPSOIL TO DEPTHS ENCOUNTERED AND STOCKPILE TOPSOIL TO BE DISTRIBUTED DURING FINAL GRADING OF THE DISTURBED

7. CONTRACTOR SHALL CONSTRUCT A STABILIZED CONSTRUCTION ENTRANCE AT ALL PRIMARY POINTS OF ACCESS. CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL ONSTRUCTION TRAFFIC UTILIZES THE STABILIZED CONSTRUCTION ENTRANCES AT ALL TIMES FOR INGRESS/EGRESS TO THE SITE 8 CONTRACTOR IS RESPONSIBLE FOR KEEPING STREETS AND DRIVEWAYS ADJACENT TO THE PROJECT FREE FROM ROCK MUID TRASH AND DERRIS AT ALL TIMES CONTRACTOR HALL CLEAN AND REMOVE ALL MATERIAL RESULTING FROM CONSTRUCTION OPERATIONS.

10. AS INLETS ARE COMPLETED, TEMPORARY SEDIMENT BARRIERS SHALL BE INSTALLED. PRIOR TO FINAL ACCEPTANCE BY THE CITY OF BOERNE, ALL TEMPORARY INLET BARRIERS SHALL BE REMOVED. REPLACE WITH CONTROLS TO PREVENT SEDIMENT FROM ENTERING THE STREET ROW. CITY STREETS SHALL NOT TO BE USED AS SEDIMENT TRAPS WITHOUT WRITTEN APPROVAL FROM THE CITY OF BOERNE ENGINEERING AND MOBILITY DEPARTMENT 11. THE CONTRACTOR IS REQUIRED TO INSPECT THE CONTROLS AND FENCES AT WEEKLY INTERVALS AND AFTER SIGNIFICANT RAINFALL EVENTS TO ENSURE THAT THEY ARE FUNCTIONING PROPERLY. THE PERSON(S) RESPONSIBLE FOR MAINTENANCE OF CONTROLS AND FENCES SHALL IMMEDIATELY MAKE ANY NECESSARY REPAIRS TO DAMAGED AREAS. SILT ACCUMULATION AT CONTROLS MUST BE REMOVED WHEN THE DEPTH REACHES SIX (6) INCHES.

12. DISTURBED PORTIONS OF THE SITE MUST BE STABILIZED. STABILIZATION PRACTICES MUST BE INITIATED WITHIN 14 DAYS IN PORTIONS OF THE SITE WHERE CONSTRUCTION HAS BEEN EITHER TEMPORARILY OR PERMANENTLY CEASED. UNLESS EXCEPTED WITHIN THE TPDES PERMIT. 13. CONTRACTOR SHALL INSPECT DISTURBED AREAS, MATERIAL STORAGE AREAS EXPOSED TO PRECIPITATION, STRUCTURAL CONTROL MEASURES, AND VEHICLE ENTRY AND EXIT AREAS AT LEAST ONCE EVERY 14 CALENDAR DAYS AND WITHIN 24 HOURS OF A STORM EVENT OF 0.5 INCHES OR GREATER 14. ALL TEMPORARY EROSION AND SEDIMENTATION CONTROLS SHALL BE REMOVED BY THE CONTRACTOR AT FINAL ACCEPTANCE OF THE PROJECT BY THE CITY OF BOERNE.

WARNING: CONTRACTOR TO

VERIFY PRESENCE AND EXACT

LOCATION OF ALL UTILITIES PRIOR

1. CONTRACTOR IS REQUIRED TO OBTAIN AN APPROVED GRADING PERMIT FROM THE CITY, IF APPLICABLE. CONTRACTOR TO ENSURE POSITIVE DRAINAGE AT ALL TIMES DURING CONSTRUCTION.

. GRADING WORK SHALL BE COMPLETED TO WITHIN 0.10 FEET OF THE FINAL GRADE PRIOR TO INSTALLATION OF UTILITIES INCLUDING ANY UTILITY TYPE INSTALLATION OUTSIDE OF THE ROW TO ENSURE DEPTHS ARE APPROPRIATE FROM FINAL GRADE.

5. CONTRACTOR SHALL NOT PLACE ANY FILL OR WASTE MATERIAL IN THE LOCAL OR 100-YEAR FLOODPLAIN WITHOUT FIRST OBTAINING AN APPROVED FLOODPLAIN

1. ALL CONSTRUCTION AND TESTING SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY OF BOERNE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION,

2. SUBMITTALS FOR LIME, BASE, PRIME COAT, TACK COAT, AND ASPHALT, AS APPLICABLE, SHALL BE APPROVED PRIOR TO INSTALLATION. INSTALLATION PRIOR TO SUBMITTAL APPROVAL MAY REQUIRE REMOVAL/REPLACEMENT AT THE CONTRACTOR'S EXPENSE 3. NO EARTHWORK, LIME APPLICATION, OR OTHER PREPARATION OF THE SUBGRADE FOR PAVING OF STREETS SHALL BE INITIATED WITHOUT AUTHORIZATION FROM THE CITY OF BOERNE ENGINEERING & MOBILITY DEPARTMENT. THE CITY WILL AUTHORIZE THE SUBGRADE WORK IN PREPARATION FOR THE PAVING AFTER UTILITY TRENCH BACKFILL TESTING IS COMPLETE AND VERIFIED TO MEET CITY REQUIREMENTS 4. EMBANKMENT/FILL MATERIAL UNDER PROPOSED STREETS MUST BE FREE OF LARGE STONES (4" WHEN BACKFILL IS 12" OR GREAT IN DEPTH OR 2.5" WHEN FILL IS LESS THAN

12" IN DEPTH), HAVE A PLASTICITY INDEX (PI) LESS THAN 20 PER ASTM D4318, AND BE COMPACTED TO 95% PER ASTM D1557 (MODIFIED PROCTOR). 5. UTILITIES MUST BE MAINTAINED TO PROPER LINE AND GRADE DURING CONSTRUCTION OF THE PAVING FOR THIS PROJECT 6. FLEXIBLE BASE UNDER ROADWAYS REQUIRES 100% COMPACTION MEETING ASTM D1557 (MODIFIED PROCTOR) AND MUST EXTEND AT LEAST 18 INCHES BEHIND THE BACK OF

7. TESTING OF MATERIALS REQUIRED FOR THE CONSTRUCTION OF PAVING IMPROVEMENTS SHALL BE PERFORMED BY A GEOTECHNICAL TESTING COMPANY AND PROVIDE OPPORTUNITY TO BE WITNESSED BY A CITY INSPECTOR. ALL TESTING MUST BE SCHEDULED WITH THE CITY OF BOERNE ENGINEERING &MOBILITY DEPARTMENT

THE CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTING ALL STREETS. CROSSWALKS, SIDEWALKS AND CURB RAMPS. DRIVEWAYS, AND ANY OTHER SURFACE RELATED TO AN "ACCESSIBLE ROUTE" PER THE TEXAS ACCESSIBILITY STANDARDS (TAS), LATEST EDITION AND PUBLIC RIGHT-OF-WAY ACCESSIBILITY GUIDELINES (PROWAG), LATEST EDITION. THE CONTRACTOR SHALL REMOVE AND REPLACE ANY CONSTRUCTED OR INSTALLED ITEMS NOT MEETING THE CURRENT TAS REQUIREMENTS AT THEIR OWN COST. CONTRACTOR SHALL MAINTAIN ALL EXISTING PEDESTRIAN ROUTES AND ACCESS WITHIN AND ADJACENT TO THE SITE THROUGHOUT THE DURATION OF CONSTRUCTION. A TEMPORARY PEDESTRIAN ROUTE SHALL BE PROVIDED WHEN ANY EXISTING SIDEWALK IS CLOSED DUE TO ANY CONSTRUCTION ACTIVITY. ANY SIGNAGE REQUIRED FOR THE DESIGNATION OF A TEMPORARY PEDESTRIAN ROLLTE SHALL BE INCLUDED ON THE APPROVED TRAFFIC CONTROL PLAN. ANY TEMPORARY CLOSURES TO EXISTING SIDEWALKS MUST BE APPROVED BY THE ENGINEERING & MOBILITY DEPARTMENT IN ADVANCE OF CONSTRUCTION AND AN ALTERNATE ADA COMPLIANT PATH MUST BE PROVIDED IN THE INTERIM IN ACCORDANCE OF PROWAG

OR AT A MINIMUM PER THE TCEQ REQUIREMENTS.

L. ALL CONSTRUCTION, TESTING, CLEANING, AND DISINFECTION SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY OF BOERNE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, LATEST EDITION 2. CONTRACTOR SHALL NOT OPERATE ANY EXISTING VALVES. THE CITY MUST BE PRESENT DURING ANY WORK COMPLETED ON EXISTING CITY UTILITIES. THE CONTRACTOR IS NOT PERMITTED TO COMPLETE GAS WORK ON EXISTING CITY GAS MAINS AT ANY TIME. 3. THE CONTRACTOR MUST COORDINATE AND SCHEDULE ALL UTILITY TIE-INS WITH THE CITY. NO TIE-INS SHALL BE MADE TO THE EXISTING UTILITY SYSTEM UNTIL ALL TEST RESULTS HAVE BEEN PROVIDED TO THE CITY AND ARE VERIFIED. 4. UNLESS THE DEVELOPER HAS RECEIVED PRIOR WRITTEN PERMISSION BY THE CITY OF BOERNE, ALL UTILITIES, INCLUDING BUT NOT LIMITED TO WATER, RECLAIMED WATER,

SEWER, GAS, AND ELECTRIC UTILITIES MUST BE INSTALLED AND TESTED PRIOR TO THE PAVING OF A STREET OR ALLEY OR PORTION THEREOF. . PRIOR TO RECEIVING BULK WATER, THE CONTRACTOR MUST SUBMIT APPLICATION TO THE UTILITIES DEPARTMENT FOR A BULK WATER METER. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING A CITY APPROVED BACKELOW DEVICE OR AIR GAP, ON ALL ILIMPERS PRIOR TO LOADING WATER IN LINAPPROVED MAIN 6. ALL MANHOLES, END OF MAIN CLEANOUTS, VALVES, AND BLOW-OFFS SHALL HAVE CONCRETE ENCASEMENTS INSTALLED. ANY ENCASEMENTS IN PAVEMENT WILL BE DIAGONAL FROM THE DIRECTION OF TRAFFIC.

7. ONE DENSITY TEST PER 8-INCH LIFT IS REQUIRED EVERY 500 FEET FOR TRENCHES UP TO 12 FEET IN DEPTH AND EVERY 300 FEET FOR TRENCHES 12 FEET AND DEEPER, DENSITY

8. ALL VALVE BOXES, METER BOXES, FIRE HYDRANTS, MANHOLES, ETC. ARE REQUIRED TO BE ADJUSTED AS REQUIRED TO MATCH FINAL GRADES. 9. THE CONTRACTOR IS RESPONSIBLE FOR STAKING UTILITIES AND INSTALLING PERMANENT PROPERTY PINS PRIOR TO THE FINAL INSPECTION TO VERIFY LOCATION, FINISH 10. TRACER WIRE LOCATE BOX SHALL BE INSTALLED PER CITY REQUIREMENTS AT ALL VALVES INCLUDING, GAS, RECLAIMED WATER, FIRE HYDRANT VALVES AND BLOWOFFS. FOR GROUPING OF VALVES AT ONE GENERAL LOCATION, ONE LOCATE BOX MAY BE USED.

ESTING MUST BE COMPLETED FOR EACH LIFT PRIOR TO COMMENCING INSTALLATION OF THE NEXT LIFT. POTHOLING AND STAIR STEPPING IS NOT PERMITTED.

11. WHERE THE MINIMUM NINE (9) FEET SEPARATION BETWEEN WATER AND SANITARY SEWER LINES CANNOT BE MAINTAINED, THE CONTRACTOR MUST MEET THE REQUIREMENTS OF 30 TAC 217.53(D) AND 30 TAC 290.44(E).

12. ALL WATER LINES SHALL BE INSTALLED AT A DEPTH BETWEEN FOUR (4) AND SIX (6) FEET OR AS SHOWN ON THE APPROVED INFRASTRUCTURE DRAWINGS. DEVIATIONS FROM THESE DEPTHS REQUIRES= PRIOR APPROVAL 13. ALL WATER MAINS SHALL BE HYDROSTATICALLY TESTED BY THE CONTRACTOR PER CITY REQUIREMENTS. 14. THE USE OF TEMPORARY JUMPERS IS REQUIRED FOR NEW WATER MAIN INSTALLATION. 15.SAMPLE TEST PORTS FOR BACTERIOLOGICAL TESTING SHALL BE PROVIDED ALONG THE WATER MAIN AT THE FREQUENCY AND LOCATION REQUIRED BY THE CITY OF BOERNE

16 FINAL CONNECTION TO THE EXISTING WATER MAIN SHALL NOT BE MADE UNTIL THE WATER MAIN HAS BEEN PRESSURE TESTED. CHLORINATED, PASSED BACTERIOLOGICAL

TESTING AND THE CITY OF BOERNE RELEASED THE MAIN FOR TIE-IN AND USE. 17.BACKFLOW PREVENTION DEVICES SHALL BE INSTALLED WITHIN 40 FEET OF THE WATER MAIN. 18 NO VALVES . OR APPURTENANCES SHALL BE CONSTRUCTED WITHIN CURBS, CURB RAMPS OR LANDINGS, ADDITIONALLY, HYDRANTS AND BLOWOFFS SHALL NOT BE INSTALLED. WITHIN SIDEWALKS OR DRIVEWAYS WITHOUT PRIOR AUTHORIZATION. 19 ALL FIRE HYDRANTS SHALL BE INSTALLED WITH THE MAIN PLIMPER NOZZIE A MINIMUM OF 18" AND A MAXIMUM OF 24" FROM FINISH GRADE. HYDRANTS IN THE RIGHT OF WAY SHALL BE INSTALLED FROM 1' MINIMUM TO 7' MAXIMUM FROM THE FACE OF THE CURB.

20.THE CONTRACTOR IS RESPONSIBLE FOR ENSURING NO SANITARY SEWER OVERFLOWS (SSOS) OCCUR AS A RESULT OF WORK. CONTRACTOR SHALL CONTACT THE CITY

21.ALL PVC SEWER PIPE WITH OVER 14 FEET OF COVER SHALL BE EXTRA STRENGTH, SDR 26 MINIMUM PIPE STIFFNESS OF 115 PSI FROM MANHOLE TO MANHOLE. 22.ALL SANITARY SEWER MANHOLES REQUIRE CHIMNEY SEALS AND INTERIOR/EXTERIOR COATINGS PER CITY REQUIREMENT 23. ALL SANITARY SEWER MANHOLES MUST INCLUDE AT LEAST TWO (2) GRADE ADJUSTMENT RINGS FOR A MINIMUM OF FOUR (4) INCHES BUT NO MORE THAN FOUR (4) ADJUSTMENT RINGS FOR A MAXIMUM OF TWELVE (12) INCHES. IF MORE THAN 12 INCHES IS REQUIRED FOR ADJUSTMENT, A SECTION OF THE EXISTING MANHOLE MUST BE REPLACED TO ADJUST THE MANHOLE TO GRADE WITH THE MINIMUM OF 2 ADJUSTMENT RINGS FOR A MINIMUM OF 4 INCHES BEING PROVIDED.

24.AFTER COMPLETION OF CONSTRUCTION, CONTRACTOR SHALL THOROUGHLY CLEAN THE SEWER MAINS AND SERVICE LINES AND TESTING WILL BE DONE BY TV CAMERA AND DESERVED BY THE , WASTEWATER ENGINEERING PERSONNEL, AND CONTRACTOR AS THE CAMERA IS RUN. ANY ABNORMALITIES, SUCH AS BROKEN PIPE OR MISALIGNED JOINTS. MUST BE REPLACED BY THE CONTRACTOR AT THEIR OWN EXPENSE. THE CITY WILL REVIEW THE VIDEOS AND PROVIDE REVIEW COMMENTS FOR ACCEPTANCE.

25. WHEN SEWER LATERALS ARE TO BE CONNECTED TO EXISTING SEWER MAINS AND NO STUB-OUT HAS BEEN EARLIER PROVIDED, THE CONNECTION MUST BE MADE WITH AN APPROVED SERVICE SADDLE PER CITY REQUIREMENTS.
26.NO TESTING WILL BE PERFORMED PRIOR TO 30 DAYS FROM COMPLETE INSTALLATION OF THE SANITARY SEWER LINES. THE FOLLOWING SEQUENCE WILL BE STRICTLY ADHERED TO: (1) MANDREL TEST; (2) AIR TEST; (3) TELEVISING

27. ONLY THE CITY OF BOERNE SHALL OPERATE VALVES ON ANY ACTIVE GAS MAIN. IF A VALVE MUST BE OPERATED DURING THE CONSTRUCTION OPERATIONS, THE CONTRACTOR SHALL SCHEDULE THE OPERATION IN ADVANCE THROUGH ENGINEERING & MOBILITY DEPARTMEN' 28.ONLY THE CITY OF BOERNE MAY PERFORM WORK ON ANY ACTIVE GAS MAIN.

29.GAS VALVE BOXES ON ACTIVE GAS MAINS MUST BE PROTECTED AND REMAIN ACCESSIBLE AT ALL TIMES DURING AND AFTER CONSTRUCTION.

30.BEFORE SCHEDULING THE CITY TO PERFORM ANY GAS SYSTEM TIE-IN, THE DESIGN ENGINEER MUST TURN IN PRELIMINARY GAS AS-BUILT RECORD DRAWINGS WITH ALL REQUIRED POLYETHYLENE PRINTLINE DATA INCLUDED FOR ENGINEERING AND MOBILITY DEPARTMENT TO REVIEW. APPROVAL OF AS-BUILT RECORD DOCUMENTS IS REQUIRED PRIOR TO ANY TIE-IN BEING PERFORMED. 31.PRINTLINE DATA MUST INCLUDE SERIAL NUMBERS, LOCATION AND FOOTAGE OF ALL MAIN LINE PIPE INSTALLED, SERIAL NUMBER, LOCATION AND FOOTAGE FOR EACH LOT ON ALL SERVICE PIPE, SERIAL NUMBER AND LOCATION OF ALL VALVES, AND LOCATION OF ALL TRACER WIRE LOCATE BOXES.

22.ALL PORTIONS OF THE RECLAIMED SYSTEM WILL BE MANUFACTURED, PAINTED OR COVERED IN PURPLE MATERIAL TO BE EASILY IDENTIFIABLE. 33.ALL FITTINGS, VALVES AND OTHER UNDERGROUND APPURTENANCES NOT EASILY PAINTED MUST BE THOROUGHLY AND SECURELY COVERED IN AN APPROVED PURPLE POLYWRAP MATFRIAL. ALL SERVICE FITTINGS. AIR RELFASE VALVES, ETC. MUST BE PAINTED WITH AN APPROVED PAINT, COLOR TO BE PANTONE 522C 34.ALL PLASTIC METER BOX LIDS TO BE MANUFACTURED OF AN APPROVED PURPLE MATERIAL, NO PAINTING OF PLASTIC LIDS ALLOWED 35.ALL DESIGN AND CONSTRUCTION SHALL COMPLY WITH THE PROVISIONS OF 30 TAC 217.69

36.A MINIMUM OF 4 FT HORIZONTAL SEPARATION IS TO BE MAINTAINED BETWEEN POTABLE AND RECLAIMED WATER LINES AND SERVICES. WHERE THE MINIMUM 4 FT HORIZONTAL DISTANCE CANNOT BE MAINTAINED, EMBED THE RECLAIMED MAIN IN AN APPROVED CEMENT STABILIZED SAND WITHIN 4 FT OF THE POTABLE WATER LINE OR 37.WHERE RECLAIMED WATER MAINS CROSS POTABLE WATER MAINS AND SERVICES AND THE 4 FT MINIMUM DISTANCE CANNOT BE MAINTAINED, CENTER A JOINT OF THE RECLAIMED WATER ON THE POTABLE WATER PIPE, INSTALL THE RECLAIMED WATER MAIN BELOW THE POTABLE WATER WITH A MINIMUM OF 6 IN CLEARANCE, EMBED THE RECLAIMED MAIN IN AN APPROVED CEMENT STABILIZED SAND WITHIN 4 FT OF THE POTABLE WATER LINE OR SERVICE.

39.ALL RIGID NON-METALLIC PIPE, FITTING AND SOLVENT CEMENT FOR UNDERGROUND PRIMARY INSTALLATION SHALL BE SUPPLIED BY THE SAME MANUFACTURER. 41.THE CITY OF BOERNE MUST BE PRESENT TO INSPECT AT EACH STAGE OF CONDUIT INSTALLATION, BACKFILL, AND COMPACTION

38.FINAL CONNECTION TO THE EXISTING RECLAIMED SYSTEM MAY NOT OCCUR UNTIL THE RECLAIMED MAINS AND SERVICES HAVE PASSED PRESSURE TESTING, CROSS

44.STREETLIGHTS. IF REQUIRED. MUST BE INSTALLED BEFORE ACCEPTANCE ON ALL ELECTRIC SYSTEMS NOT UNDER THE JURISDICTION OF THE CITY OF BOERNE 45.EXCAVATION ADJACENT TO EXISTING POWER POLES WILL REQUIRE TEMPORARY BRACING AT THE CONTRACTOR'S EXPENSE. CONTRACTOR TO PROVIDE BRACING PLAN FOR UTILITY DEPARTMENT APPROVAL PRIOR TO EXCAVATION.

1. A TREE REMOVAL PERMIT IS REQUIRED PRIOR TO REMOVAL OF ANY TREE WITHIN THE CITY LIMITS. 2. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL CONSTRUCT AND MAINTAIN PROTECTIVE FENCING AT THE DRIP LINE OF ALL PROTECTED EXISTING TREES, UNLESS NOTED OTHERWISE ON THE CONSTRUCTION DRAWINGS. ANY DAMAGE TO ONSITE OR DESITE PRESERVED TREES DURING CONSTRUCTION RESULTING IN >25% CANOPY LOSS OR ROOT/TRUNK DAMAGE THAT WILL RESULT IN TREE MORTALITY SHALL BE MITIGATED ACCORDING TO SECTION 8.3.E OF THE CITY OF BOERNE UNIFIED DEVELOPMENT CODE A THE CONTRACTOR'S EXPENSE 3. ALL PROTECTIVE MEASURES SHALL BE IN PLACE PRIOR TO COMMENCEMENT OF ANY SITE OR GRADING WORK AND REMAIN IN PLACE UNTIL ALL EXTERIOR WORK HAS BEEN

4. THE CITY URBAN FORESTER SHALL BE CONTACTED TO APPROVE THE PLACEMENT OF THE TREE PRESERVATION FENCING PRIOR TO BEGINNING OF SITE WORK ON PROPERTY. 5. THE FOLLOWING ACTIVITIES SHALL BE PROHIBITED WITHIN THE LIMITS OF THE PRIMARY ROOT ZONE: MATERIAL STORAGE, EQUIPMENT CLEANING/LIQUID DISPOSAL, AND CONSTRUCTION EQUIPMENT/VEHICULAR TRAFFIC. NO SIGNS OR WIRES SHALL BE ATTACHED TO TREES. 6. UNLESS SPECIFICALLY ALLOWED, NO GRADE CHANGES SHALL BE ALLOWED WITHIN THE LIMITS OF THE ROOT PROTECTION ZONE OF ANY PROTECTED TREE UNLESS THE CITY

7. NO TRIMMING OF TREES MAY OCCUR WITHIN THE TREE PRESERVATION FENCING LIMITS WITHOUT PRIOR CONSENT OF THE CITY URBAN FORESTER. 1. All slopes and areas disturbed by construction shall be graded smooth. The contractor must loosen the surface of the soil to a depth of 2 inches and remove all stones and

debris over 2 inches in any dimension. All areas for revegetation require a minimum of 4 inches of soil, overcutting of rock subgrade may be required. Additional topsoil from the stockpiled topsoil may be necessary to bring to required grades and for re-establishing vegetation. The area shall then be revegetated and maintained until soil is stabilized in all areas. Any area disturbed for any reason prior to final acceptance of the project shall be corrected by the contractor. 2. The contractor must construct and maintain a permanent stable protective cover (grass) for erosion and sediment control on all land surfaces exposed or disturbed by construction of the permitted project. The protective cover must be installed within 14 days after final grading of the affected land surface. A permanent stable cover must be

established within 60 days of its installation. 3. At least 85% of all disturbed areas must have vegetation established prior to acceptance by the City of Boerne. 4. Disturbed areas that are seeded or sodded shall be checked periodically to see that grass coverage is properly maintained. Disturbed areas shall be watered, fertilized, and

on completion of construction, the contractor shall provide the design engineer a copy of as-built plans identifying all deviations or variations from the original plans. The design engineer shall provide to the City of Boerne the "Plan of Record", signed and sealed by the design engineer.

3. The "Plan of Record" must include print line data and pipe testing information for all gas mains and service lines.

CONNECTION TESTING AND ARE APPROVED FOR FINAL CONNECTION AND OPERATION BY THE CITY OF BOERNE.

42.TORCH OR LOW FIRE BENDING OF CONDUITS WILL NOT BE ACCEPTED

43.ALL MANDREL TESTING MUST BE COMPLETED PRIOR TO PROJECT ACCEPTANCE.

REFERENCE BENCHMARKS

CONTRACTOR TO PROVIDE 16 PERMANENT BENCHMARKS UPON COMPLETION OF PROJECT. BENCHMARKS SHALL BE FIVE FEET LONG, STEEL REINFORCED CONCRETE POST, FOUR (4) INCHES IN DIAMETER, WITH TOP NO MORE THAN SIX (6) INCHES ABOVE AND NO LESS THAN TWO (2) INCHES BELOW FINISHED GRADE, OR OTHER PERMANENT STYLE AS APPROVED BY CITY OF BOERNE.

CONTRACTOR TO PROVIDE FIELD NOTES WITH NORTHING, EASTING AND ELEVATIONS OF PROVIDED BENCH MARKS, AS VERIFIED BY A REGISTERED PROFESSIONAL LAND SURVEYOR, WITH THE AS-BUILT CONSTRUCTION

DOCUMENTS.

= BENCHMARK

REFER TO TCEQ DESIGN GUIDELINES

OBSERVATIONS.

REFERENCE BENCHMARKS

||DATUM IS NAVD '88, USING GEOID 18, BASED ON GPS

| BM #103: MAG NAIL WITH WASHER STAMPED "103" SET IN CONCRETE AT CURB ON THE EAST RIGHT-OF-WAY LINE OF ||ALONZO (LOCAL RESIDENTIAL) STREET AND WEST OF LOT ||2, BLOCK 26.

||• ELEV.=1546.92'

||BM #104: MAG NAIL WITH WASHER STAMPED "104" SET IN CONCRETE AT CURB ON THE NORTH EAST RIGHT-OF-WAY LINE OF CASCADA (LOCAL RESIDENTIAL) STREET AND ||WEST OF LOT 1, BLOCK 30.

||• ELEV.=1603.23'

= BENCHMARK

WHERE A CONFLICT EXISTS BETWEEN CITY OF BOERNE NOTES (SHEET 6) (CHAPTER 290) FOR ALL UTILITY CROSSINGS. | AND OTHER NOTES ON THIS SHEET, CITY OF BOERNE NOTES SHALL PREVAIL

BOF RU

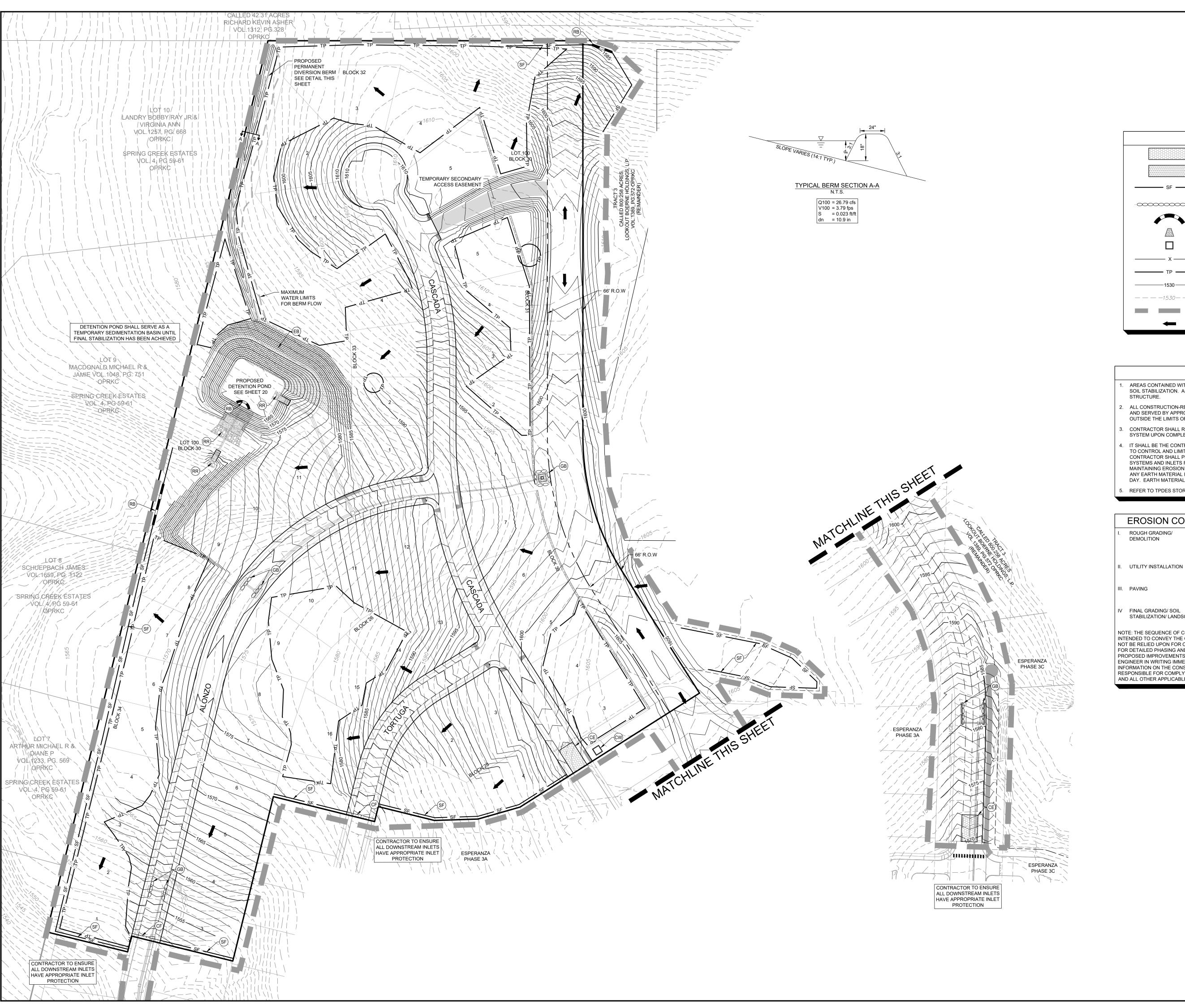
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MICHAEL A. SCHOLZE

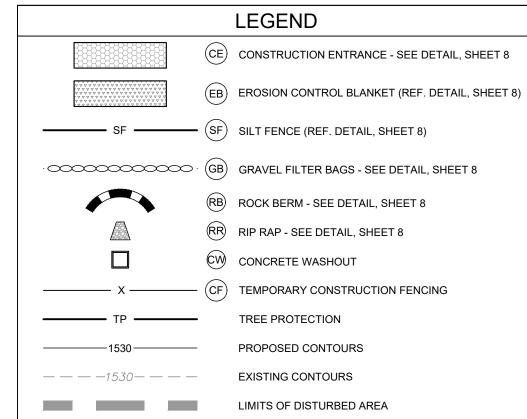
DISTRICT NO. 2B SHEET NUMBER

KENDALL COUNTY WATER

CONTROL AND IMPROVEMEN







NOTES

AREAS CONTAINED WITHIN THE PROPERTY BOUNDARIES WILL BE AREAS OF DISTURBANCE AND SOIL STABILIZATION. ALL SOILS WITHIN THESE LIMITS SHALL BE STABILIZED BY VEGETATION OR

FLOW DIRECTION

- ALL CONSTRUCTION-RELATED VEHICLES MUST PARK INSIDE THE LIMITS OF CONSTRUCTION AND SERVED BY APPROPRIATE TEMPORARY CONTROLS, OR ON CITY-APPROVED SURFACES OUTSIDE THE LIMITS OF CONSTRUCTION.
- CONTRACTOR SHALL REMOVE ALL SEDIMENT AND DEBRIS FROM CONSTRUCTED STORM SEWER SYSTEM UPON COMPLETION OF WORK.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO USE WHATEVER MEANS ARE NECESSARY TO CONTROL AND LIMIT SILT AND SEDIMENT LEAVING THE SITE. SPECIFICALLY, THE CONTRACTOR SHALL PROTECT ALL PUBLIC STREETS, ALLEYS, STREAMS, STORM DRAIN SYSTEMS AND INLETS FROM EROSION DEPOSITS. THE CONTRACTOR RESPONSIBLE FOR MAINTAINING EROSION CONTROL SHALL PROVIDE STREET CLEANING ON PUBLIC STREETS IF ANY EARTH MATERIAL IS TRANSPORTED FROM THE CONSTRUCTION SITE AT THE END OF EACH DAY. EARTH MATERIAL SHALL NOT BE ALLOWED TO ACCUMULATE ON CITY AND TXDOT ROADS.

REFER TO TPDES STORMWATER POLLUTION PREVENTION PLAN PREPARED BY OTHERS.

EROSION CONTROL SCHEDULE AND SEQUENCING

ROUGH GRADING/ CONSTRUCTION ENTRANCE/EXIT, SILT FENCE, FILTER DIKE, INLET PROTECTION, AND ROCK DAMS SHALL BE INSTALLED PRIOR TO THE INITIATION OF ROUGH GRADING AND DEMOLITION, AS NEEDED. **DETENTION POND MUST BE EXCAVATED PRIOR TO SITE CONSTRUCTION OR CLEARING.** ALL PRIOR EROSION CONTROL MEASURES INSTALLED ABOVE TO BE MAINTAINED AS NECESSARY DURING UTILITY UTILITY INSTALLATION

ALL PRIOR EROSION CONTROL MEASURES INSTALLED ABOVE

TO BE MAINTAINED AS NECESSARY DURING PAVING AND THROUGHOUT THE REMAINDER OF THE PROJECT.

ALL TEMPORARY EROSION CONTROL MEASURES TO BE STABILIZATION/ LANDSCAPING REMOVED AT THE CONCLUSION OF THE PROJECT AS DIRECTED BY THE CITY OR COUNTY.

INSTALLATION.

NOTE: THE SEQUENCE OF CONSTRUCTION SHOWN ABOVE IS A GENERAL OVERVIEW AND IS INTENDED TO CONVEY THE GENERAL CONCEPTS OF THE EROSION CONTROL DESIGN AND SHOULD NOT BE RELIED UPON FOR CONSTRUCTION PURPOSES. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR DETAILED PHASING AND CONSTRUCTION SEQUENCING NECESSARY TO CONSTRUCT THE PROPOSED IMPROVEMENTS INCLUDED IN THESE PLANS. THE CONTRACTOR SHALL NOTIFY ENGINEER IN WRITING IMMEDIATELY, PRIOR TO AND/OR DURING CONSTRUCTION IF ANY ADDITIONAL INFORMATION ON THE CONSTRUCTION SEQUENCE IS NECESSARY. CONTRACTOR IS SOLELY RESPONSIBLE FOR COMPLYING WITH THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION AND ALL OTHER APPLICABLE LAWS.

Kimley

MICHAEL A. SCHOLZE

ROL CONT EROSION

KENDALL COUNTY WATER CONTROL AND IMPROVEMENT DISTRICT NO. 2B SHEET NUMBER

TEMPORARY EROSION CONTROL NOTES

- 1. THE CONTRACTOR SHALL INSTALL EROSION/SEDIMENTATION CONTROLS AND TREE/NATURAL AREA PROTECTIVE FENCING PRIOR TO ANY SITE PREPARATION WORK (CLEARING, GRUBBING OR EXCAVATION)
- 2. THE PLACEMENT OF EROSION/SEDIMENTATION CONTROLS SHALL BE IN ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN.
- 3. THE PLACEMENT OF TREE/NATURAL AREA PROTECTIVE FENCING SHALL BE IN ACCORDANCE WITH STANDARD NOTES FOR TREE AND NATURAL AREA PROTECTION AND THE APPROVED GRADING/TREE AND NATURAL AREA PLAN.
- 4. A PRE-CONSTRUCTION CONFERENCE SHALL BE HELD ON-SITE WITH THE CONTRACTOR, DESIGN ENGINEER/PERMIT APPLICANT AND ENVIRONMENTAL INSPECTOR AFTER INSTALLATION OF THE EROSION/SEDIMENTATION CONTROLS AND TREE/NATURAL AREA PROTECTION MEASURES AND PRIOR TO BEGINNING ANY SITE PREPARATION WORK. THE CONTRACTOR SHALL NOTIFY KENDALL COUNTY AT LEAST THREE (3) DAYS PRIOR TO THE MEETING DATE.
- 5. ANY MAJOR VARIATION IN MATERIALS OR LOCATIONS OF CONTROLS OR FENCES FROM THOSE SHOWN ON THE APPROVED PLANS WILL REQUIRE A REVISION AND MUST BE APPROVED BY THE REVIEWING ENGINEER, ENVIRONMENTAL SPECIALIST, OR ABORIST AS APPROPRIATE. MAJOR REVISIONS MUST BE APPROVED BY THE PLANNING AND DEVELOPMENT DEPARTMENT AND THE DRAINAGE UTILITY DEPARTMENT. MINOR CHANGES OR ADDITIONAL CONTROL MEASURES TO BE MADE AS FIELD REVISIONS TO THE EROSION AND SEDIMENTATION CONTROL PLAN MAY BE REQUIRED BY THE ENVIRONMENTAL INSPECTOR DURING THE COURSE OF CONSTRUCTION TO CORRECT CONTROL INADEQUACIES AT NO ADDITIONAL COST TO THE OWNER.
- 6. THE CONTRACTOR IS REQUIRED TO INSPECT THE CONTROLS AND FENCES AT WEEKLY INTERVALS AND AFTER SIGNIFICANT RAINFALL EVENTS TO INSURE THAT THEY ARE FUNCTIONING PROPERLY. THE PERSON(S) RESPONSIBLE FOR MAINTENANCE OF CONTROLS AND FENCES SHALL IMMEDIATELY MAKE ANY NECESSARY REPAIRS TO DAMAGED AREAS. SILT ACCUMULATION AT CONTROLS MUST BE REMOVED WHEN THE DEPTH REACHES SIX (6) INCHES.
- 7. PRIOR TO FINAL ACCEPTANCE, HAUL ROADS AND WATERWAY CROSSINGS CONSTRUCTED FOR TEMPORARY CONTRACTOR ACCESS MUST BE REMOVED, ACCUMULATED SEDIMENT REMOVED FROM THE WATERWAY AND THE AREA RESTORED TO THE ORIGINAL GRADE AND REVEGETATED. ALL LAND CLEARING SHALL BE DISPOSED OF IN APPROVED SPOIL DISPOSAL SITES.
- 8. ALL WORK MUST STOP IF A VOID IN THE ROCK SUBSTRATE IS DISCOVERED WHICH IS; ONE SQUARE FOOT IN TOTAL AREA; BLOWS AIR FROM WITHIN THE SUBSTRATE AND/OR CONSTANTLY RECEIVES WATER DURING ANY RAIN EVENT. AT THIS TIME IT IS THE RESPONSIBILITY OF THE CONTRACTOR'S PROJECT MANGER TO IMMEDIATELY CONTACT AN ENVIRONMENTAL INSPECTOR FOR FURTHER INVESTIGATION.

PERMANENT EROSION CONTROL NOTES

ALL DISTURBED AREAS SHALL BE RESTORED AS NOTED BELOW.

- A. A MINIMUM OF FOUR (4) INCHES OF TOPSOIL SHALL BE PLACED IN ALL AREAS (EXCEPT ROCK) BETWEEN THE CURB AND THE RIGHT-OF-WAY LINE.
- B. THE SEEDING FOR PERMANENT EROSION CONTROL SHALL BE APPLIED OVER AREAS DISTURBED BY CONSTRUCTION AS FOLLOWS:

BROADCAST SEEDING

- 1. FROM SEPTEMBER 15 TO MARCH 1, SEEDING SHALL BE WITH A COMBINATION OF 2 POUNDS PER 1000 SQUARE FEET OF UNHULLED BERMUDA AND 7 POUNDS PER 1000 SQUARE FOOT OF WINTER RYE WITH A PURITY OF 95% WITH 90% GERMINATION.
- FROM MARCH 2 TO SEPTEMBER 14, SEEDING SHALL BE WITH HULLED BERMUDA AT A RATE OF 2 POUNDS PER 1000 SQUARE FEET WITH A PURITY OF 95% WITH 85% GERMINATION.
 A. FERTILIZER SHALL BE A PELLETED OR GRANULAR SLOW RELEASE WITH AN ANALYSIS OF 15-15-15 TO BE APPLIED ONCE AT PLANTING AND ONCE DURING THE
- PERIOD OF ESTABLISHMENT AT THE RATE OF 1 POUND PER 1000 SQUARE FEET.

 B. MULCH TYPE USED SHALL BE HAY, STRAW OR MULCH APPLIED AT A RATE OF 45 POUNDS PER 1000 SQUARE FEET.

YDRAULIC SEEDING

- 1. FROM SEPTEMBER 15 TO MARCH 1, SEEDING SHALL BE WITH A COMBINATION OF 1 POUND PER 1000 SQUARE FEET OF UNHULLED BERMUDA AND 7 POUNDS PER 1000 SQUARE FOOT OF WINTER RYE WITH A PURITY OF 95% WITH 90% GERMINATION.
- 2. FROM MARCH 2 TO SEPTEMBER 14, SEEDING SHALL BE WITH HULLED BERMUDA AT A RATE OF 1 POUND PER 1000 SQUARE FEET WITH A PURITY OF 95% WITH 85% GERMINATION.
- A. FERTILIZER SHALL BE A WATER SOLUBLE FERTILIZER WITH AN ANALYSIS OF 15-15-15 AT THE RATE OF 1.5 POUNDS PER 1000 SQUARE FEET.

 B. MULCH TYPE USED SHALL BE HAY, STRAW OR MULCH APPLIED AT A RATE OF 45 POUNDS PER 1000 SQUARE FEET, WITH SOIL TACKIFIER AT A RATE OF 1.4 POUNDS PER 1000 SQUARE FEET.

ESTABLISHMENT:

- 1. THE PLANTED AREA SHALL BE IRRIGATED OR SPRINKLED IN A MANNER THAT WILL NOT ERODE THE TOPSOIL, BUT WILL SUFFICIENTLY SOAK THE SOIL TO A DEPTH OF SIX (6) INCHES. THE IRRIGATION SHALL OCCUR AT TEN-DAY INTERVALS DURING THE FIRST TWO MONTHS. RAINFALL OCCURRENCES OF 1/2 INCH OR MORE SHALL POSTPONE THE WATERING SCHEDULE FOR ONE WEEK.
- 2. RESTORATION SHALL BE ACCEPTABLE WHEN THE GRASS HAS GROWN AT LEAST 1-1/2 INCHES HIGH WITH 95% COVERAGE, PROVIDED NO BARE SPOTS LARGER THAN 16 SQUARE FEET EXIST.
- 3. WHEN REQUIRED, NATIVE GRASS SEEDING SHALL COMPLY WITH REQUIREMENTS OF THE ENVIRONMENTAL CRITERIA MANUAL.

SEQUENCE OF CONSTRUCTION:

- A. CALL THE "TEXAS ONE CALL CENTER" AT 1-800-344-8377 FOR UTILITY LOCATIONS AND OBTAIN PERMIT FOR ANY WORK WITHIN THE R.O.W.
- B. INSTALL TEMPORARY EROSION CONTROLS AND TREE PROTECTION FENCING PRIOR TO ANY CLEARING AND GRUBBING.
 C. CLEAR AND GRUB AND STRIP TOPSOIL. STOCKPILE TOPSOIL FOR LATER USE.
- ROUGH GRADE SITE AND ROADWAYS PER GRADING PLAN.
 INSTALL WATER AND WASTEWATER LINES AND APPURTENANCES.
- INSTALL STORM SEWER LINES AND APPURTENANCES.
- INSTALL TEMPORARY EROSION/SEDIMENTATION CONTROLS ON NEW STORM SEWER INLETS.
 ENSURE THAT ALL UNDERGROUND UTILITY CROSSINGS ARE COMPLETED.
- RAISE MANHOLE FRAMES AND COVERS TO TOP OF PROPOSED PAVEMENT OR PROPOSED FINISHED GRADE. CONSTRUCT PAVED AREAS, CURBS, ISLANDS AND INSTALL INLET EROSION PROTECTION.
- CONSTRUCT PAVED AREAS, CURBS, ISLANDS AND INSTALL INLET EROSION PROTECTION.

 COMPLETE ESTABLISHMENT OF SITE VEGETATION AND STABILIZATION.
- L. REMOVE AND DISPOSE OF TEMPORARY EROSION CONTROLS WHEN RESTORATION HAS BEEN ACCEPTED.
 M. COMPLETE ANY NECESSARY FINAL DRESS UP OF AREAS DISTURBED.

SITE MAP-GENERAL NOTES

- 1. CONTRACTOR IS SOLELY RESPONSIBLE FOR SELECTION, IMPLEMENTATION, MAINTENANCE, AND EFFECTIVENESS OF ALL SWPPP CONTROLS CONTROLS SHOWN ON THIS SITE MAP ARE SUGGESTED CONTROLS ONLY.
- 2. CONTRACTOR SHALL RECORD INSTALLATION, MAINTENANCE OR MODIFICATION, AND REMOVAL DATES FOR EACH BMP EMPLOYED (WHETHER CALLED OUT ON ORIGINAL SWPPP OR NOT) DIRECTLY ON THE SITE MAP.
- 3. DRAINAGE PATTERNS ARE SHOWN ON THIS PLAN BY PROPOSED AND EXISTING CONTOURS, FLOW ARROWS, AND SLOPES.
- 4. TEMPORARY AND PERMANENT STABILIZATION PRACTICES AND BMP'S SHALL BE INSTALLED AT THE EARLIEST POSSIBLE TIME DURING THE CONSTRUCTION SEQUENCE. AS AN EXAMPLE, PERIMETER SILT FENCE SHALL BE INSTALLED BEFORE COMMENCEMENT OF ANY GRADING ACTIVITIES. OTHER BMP'S SHALL BE INSTALLED AS SOON AS PRACTICABLE AND SHALL BE MAINTAINED UNTIL FINAL SITE STABILIZATION IS ATTAINED. CONTRACTOR SHALL ALSO REFERENCE CIVIL AND LANDSCAPE PLANS SINCE PERMANENT STABILIZATION IS PROVIDED BY LANDSCAPING, THE BUILDING(S), AND SITE PAVING.
- 5. BMP'S HAVE BEEN LOCATED AS INDICATED ON THIS PLAN IN ACCORDANCE WITH GENERALLY ACCEPTED ENGINEERING PRACTICES IN ORDER TO MINIMIZE SEDIMENT TRANSFER. FOR EXAMPLE: SILT FENCES LOCATED AT TOE OF SLOPE AND INLET PROTECTION FOR INLETS RECEIVING SEDIMENT FROM SITE RUN-OFF.
- 6. SANITARY SEWER EFFLUENT IS DISPOSED OF VIA AN ONSITE SEWER SYSTEM CONNECTED TO A MUNICIPAL SEWER SYSTEM.

SITE MAP-SITE SPECIFIC NOTES

- 1. CONSTRUCTION ENTRANCE SHALL BE LOCATED SO AS TO PROVIDE THE LEAST AMOUNT OF DISTURBANCE TO THE FLOW OF TRAFFIC IN AND OUT OF THE SITE. ADDITIONALLY, CONSTRUCTION ENTRANCE SHALL BE LOCATED TO COINCIDE WITH THE PHASING OF THE PAVEMENT REPLACEMENT.
- 2. THE NATURE OF THIS SITE'S CONSTRUCTION CONSISTS OF:
- A. CLEARING AND GRUBBING B. PRELIMINARY GRADING
- C. UTILITY INSTALLATION
 D. PAVEMENT CONSTRUCTION
- E. FINAL GRADING AND STABILIZATION
- 3. THE SOILS ON-SITE CONSIST OF MAINLY BRACKETT-REAL ASSOCIATION, 10 TO 30 PERCENT SLOPES, AND DOSS-BRACKETT ASSOCIATION, UNDULATING, PER THE USDA WEB SOIL SURVEY.
- 4. POST CONSTRUCTION STORM WATER POLLUTION CONTROL MEASURES INCLUDE STABILIZATION BY PERMANENT PAVING, OR LANDSCAPING.
- 5. DISTURBED PORTIONS OF SITE MUST BE STABILIZED. STABILIZATION PRACTICES MUST BE INITIATED WITHIN 14 DAYS IN PORTIONS OF THE SITE WHERE CONSTRUCTION HAS BEEN EITHER TEMPORARILY OR PERMANENTLY CEASED, UNLESS EXCEPTED WITHIN THE TPDES PERMIT. CONTRACTOR SHALL REMOVE TEMPORARY EROSION CONTROL DEVICES UPON COMPLETION OF STABILIZATION OR PERMANENT DRAINAGE FACILITIES.
- 6. ACCORDING TO FEMA'S MAP SERVICE CENTER, THE SITE IS LOCATED WITHIN UNSHADED ZONE X PER FIRM NUMBER 48259C0425F, DATED DECEMBER 17, 2010.
- 7. CONTRACTOR IS RESPONSIBLE FOR MODIFYING THE SWPPP/SITE MAP TO INCLUDE BMP'S FOR ANY OFF-SITE MATERIAL WASTE, BORROW OR EQUIPMENT STORAGE AREAS.
- CONTRACTOR SHALL INSPECT DISTURBED AREAS, MATERIAL STORAGE AREAS EXPOSED TO PRECIPITATION, STRUCTURAL CONTROL MEASURES, AND VEHICLE ENTRY AND EXIT AREAS AT LEAST ONCE EVERY 14 CALENDAR DAYS AND WITHIN 24 HOURS OF A STORM EVENT OF 0.5 INCHES OR GREATER.

CONCRETE WASHOUT SECTION AND NOTE: BANDRAGS MAY BE REPLACED BY A SOIL.

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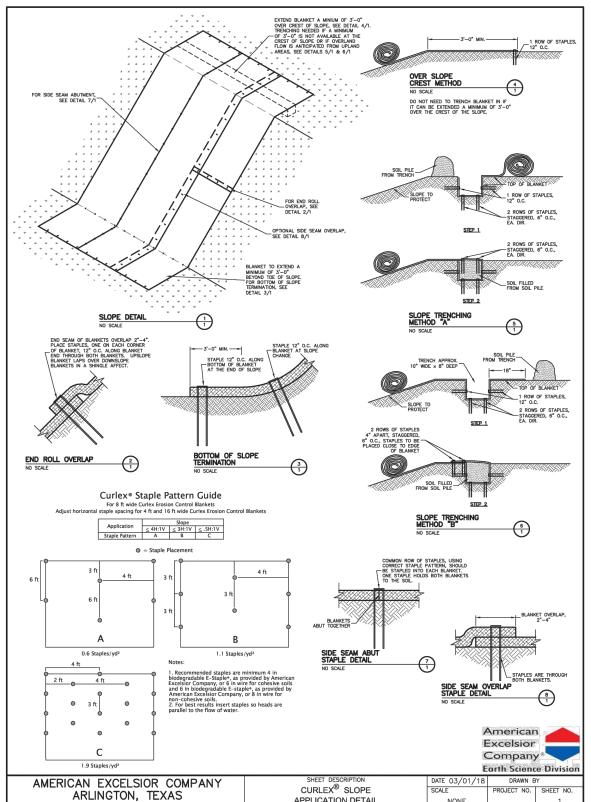
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TO BE LOCATED AT (RB) SYN ETE WASHOUT ROCK BERM



EROSION CONTROL BLANKET (ECB)

4' (1.2 m) MIN. STEEL SPACED AT 5' (1.8 m) TO 8' (2.4 m).. FASTEN FABRIC TO TENSION REINFORCEMENT WIRE BY HOG RINGS, LOCKING PLASTIC TIES, OR CORD AT A MAXIMUM SPACING OF 2' (61 cm). 3' (91.4 cm MIN. WIDTH) **BACKFILL & HAND TAMF** 118" (45.7 cm) MIN. OR ANCHOR IF I ROCK PLACE 4" (10.0 cm) TO 6" (15.2 cm) OF FABRIC AGAINST THE TRENCH SIDE - AND 2" (5.1 cm) ACROSS TRENCH ATTACH THE WOVEN FABRIC USING BOTTOM IN UPSTREAM DIRECTION. **EVENLY SPACED LOCKING PLASTIC** MINIMUM TRENCH SIZE SHALL BE 6" TIES OR SEWN VERTICAL POCKETS (15.2 cm) SQUARE. BACKFILL AND

WOVEN WIRE SHEATHING

(48") ON CENTER

FOR STEEL POSTS AT A MAX. SPACING

OF 6" (15.2cm).

CONSTRUCTION TRAFFIC DAMAGE, ETC.

WHEN ACCUMULATION REACHES 150 mm (6").

REMOVED AND DISPOSED OF IN AN APPROVED MANNER.

1. USE ONLY OPEN GRADED ROCK 100 to 200 mm (5 to 8") DIAMETER FOR STREAM FLOW

CONDITIONS. USE OPEN GRADED ROCK 75 to 125 mm (3 to 5") DIAMETER FOR OTHER CONDITIONS.

THE ROCK BERM SHALL BE SECURED WITH A WOVEN WIRE SHEATHING HAVING MAXIMUM 25 mm

(1") OPENING AND MINIMUM WIRE DIAMETER OF 12.9 mm (20 GAUGE). ROCK BERMS IN CHANNEL

WITH T-POSTS OR WITH 15M OR 20M (#5 OR #6) REBAR, WITH MAXIMUM SPACING APART OF 1.2 m

APPLICATIONS SHALL BE ANCHORED FIRMLY INTO THE SUBSTRATE A MINIMUM OF 150 mm (6")

THE ROCK BERM SHALL BE INSPECTED WEEKLY OR AFTER EACH RAIN, AND THE STONE AND/OR

WHEN SILT REACHES A DEPTH EQUAL TO ONE-THIRD THE HEIGHT OF THE BERM OR 150 mm (6"),

WHICHEVER IS LESS. THE SILT SHALL BE REMOVED AND DISPOSED OF ON AN APPROVED SITE

DAILY INSPECTION SHALL BE MADE ON SEVERE-SERVICE ROCK BERMS; SILT SHALL BE REMOVED

WHEN THE SITE IS COMPLETELY STABILIZED, THE BERM AND ACCUMULATED SILT SHALL BE

FABRIC CORE-WOVEN SHEATHING SHALL BE REPLACED WHEN THE STRUCTURE CEASES TO

FUNCTION AS INTENDED, DUE TO SILT ACCUMULATION AMONG THE ROCKS, WASHOUT,

AND IN A MANNER THAT WILL NOT CREATE A SILTATION PROBLEM

(3"-4")

CROSS SECTION

NOTES:

1. THE SILT FENCING WILL BE INSPECTED WEEKLY, AND AFTER EACH RAINFALL EVENT.

2. SEDIMENT WILL BE REMOVED FROM THE SILT FENCING WHEN BUILDUP REACHES 6" (150 mm)

3. REPLACE ANY TORN FABRIC OR INSTALL A SECOND LINE OF FENCING PARALLEL TO THE TORN SECTION

4. REPLACE OR REPAIR ANY SECTIONS CRUSHED OR COLLAPSED IN THE COURSE OF CONSTRUCTION ACTIVITY. IF A SECTION OF FENCE IS OBSTRUCTING VEHICULAR ACCESS, CONSIDER RELOCATING IT TO

HAND TAMP.

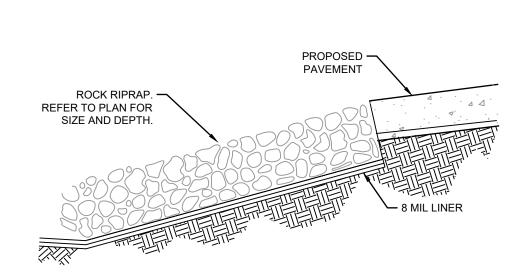
A SPOT WHERE IT WILL PROVIDE EQUAL PROTECTION, BUT WILL NOT OBSTRUCT VEHICLES.

5. WHEN CONSTRUCTION IS COMPLETE, THE SEDIMENT SHOULD BE DISPOSED OF IN A MANNER THAT WILL NOT CAUSE ADDITIONAL SILTATION AND THE PRIOR LOCATION OF THE SILT FENCE SHOULD BE REVEGETATED. THE FENCE ITSELF SHOULD BE DISPOSED OF IN AN APPROVED LANDFILL.



SILT FENCE DETAIL

GRAVEL FILTER BAGS DETAIL



CROSS SECTION

TO BE LOCATED AT (RR) SYMBOL

TYPICAL RIP RAP SLOPE PROTECTION

SECTION

SECTION

SIND SO MIN.

RAD

SO MIN.

ROW.

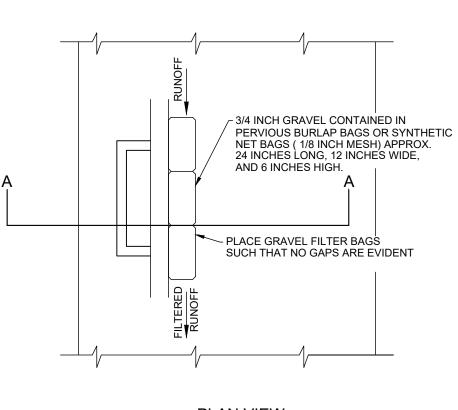
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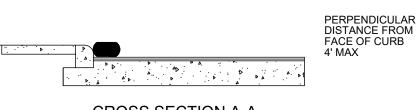
- .. STONE SIZE 4 TO 8 INCHES CRUSHED ROCK. LENGTH - AS EFFECTIVE, BUT NOT LESS THAN 50 FEET. THICKNESS - NOT LESS THAN 8 INCHES.
- WIDTH NOT LESS THAN FULL WIDTH OF ALL POINTS OF INGRESS OR EGRESS.
 WASHING WHEN NECESSARY, WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC ROADWAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE WHICH DRAINS INTO AN APPROVED TRAP OR SEDIMENT BASIN. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATERCOURSE USING APPROVED
- MAINTENANCE THE ENTRANCE SHALL BE MAINTAINED IN CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC ROADWAYS. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND, AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC ROADWAY, MUST BE REMOVED IMMEDIATELY.
- DRAINAGE ENTRANCE MUST BE PROPERLY GRADED OR INCORPORATE A DRAINAGE SWALE TO PREVENT RUNOFF FROM LEAVING THE CONSTRUCTION SITE.
 CONTRACTOR TO COORDINATE EXACT LOCATION OF THIS DETAIL.

TO BE LOCATED AT CE SYMAD

CONSTRUCTION ENTRANCE



<u>PLAN VIEW</u>



CROSS SECTION A-A

TO BE LOCATED AT GB SYMBOL

PHAS EROSION CON

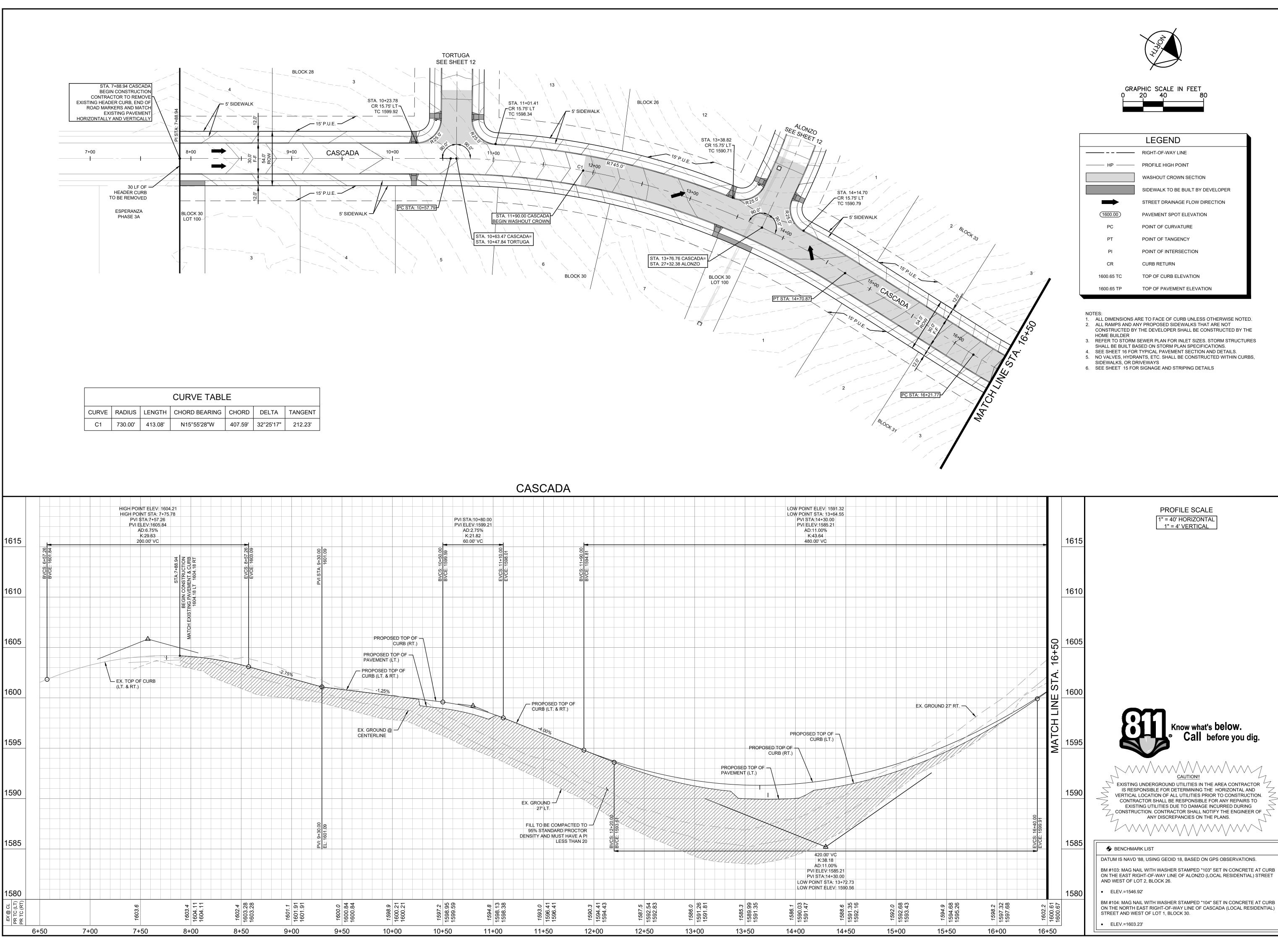
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MICHAEL A. SCHOLZE



KENDALL COUNTY WATER CONTROL AND IMPROVEMEN' DISTRICT NO. 2B SHEET NUMBER

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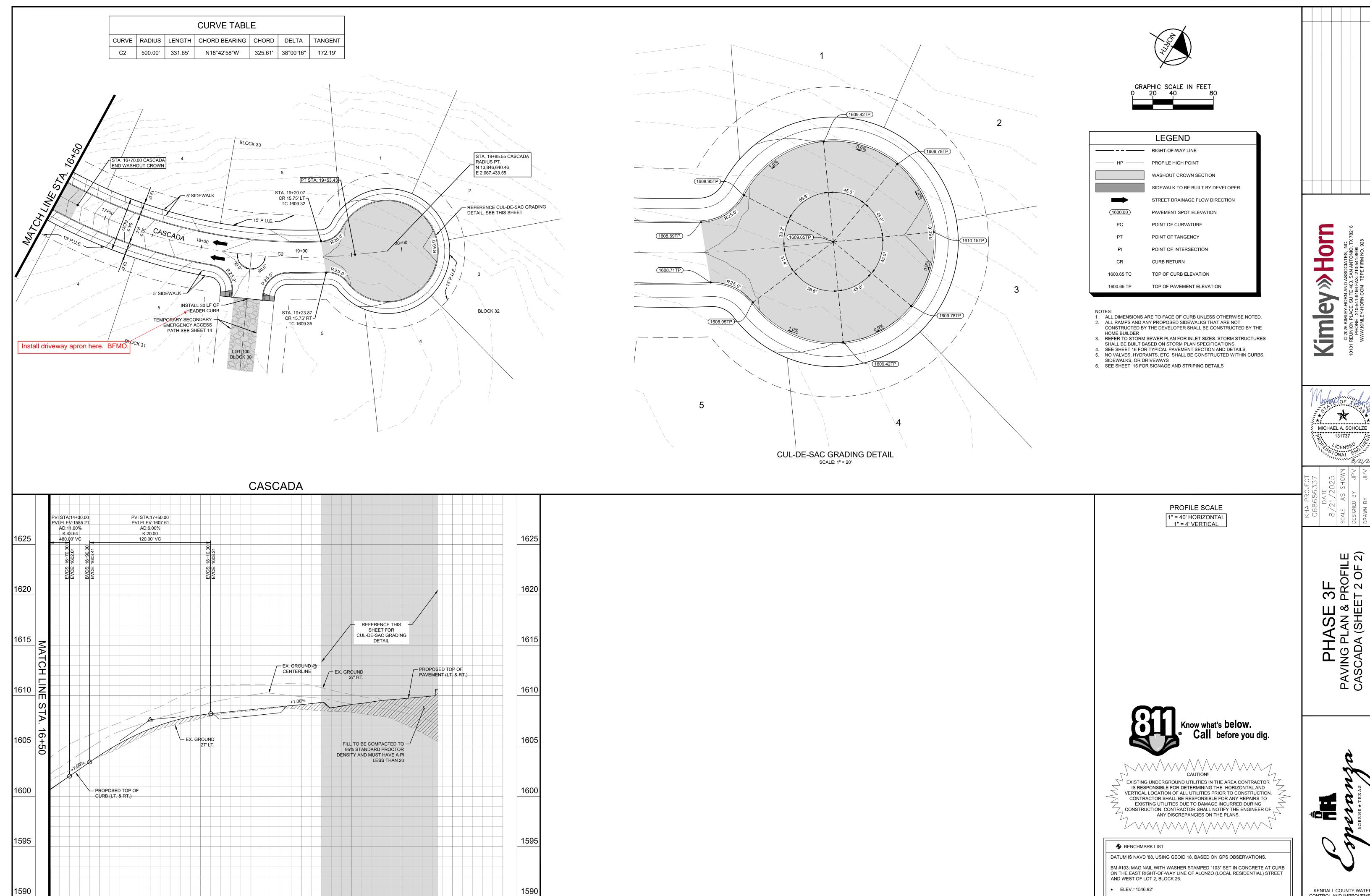
Kimley

Know what's below.

Call before you dig.



KENDALL COUNTY WATER CONTROL AND IMPROVEMENT DISTRICT NO. 2B



1600.61 1600.67

16+50

1606.71 1606.71 1606.71

17+50

1605.4 1604.08 1604.08

17+00

1608.09 1608.09 1608.09

18+00

1610.1 1608.61 1607.99

18+50

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19+00

1609.2 1609.12 1609.13

19+50

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20+00

21+00

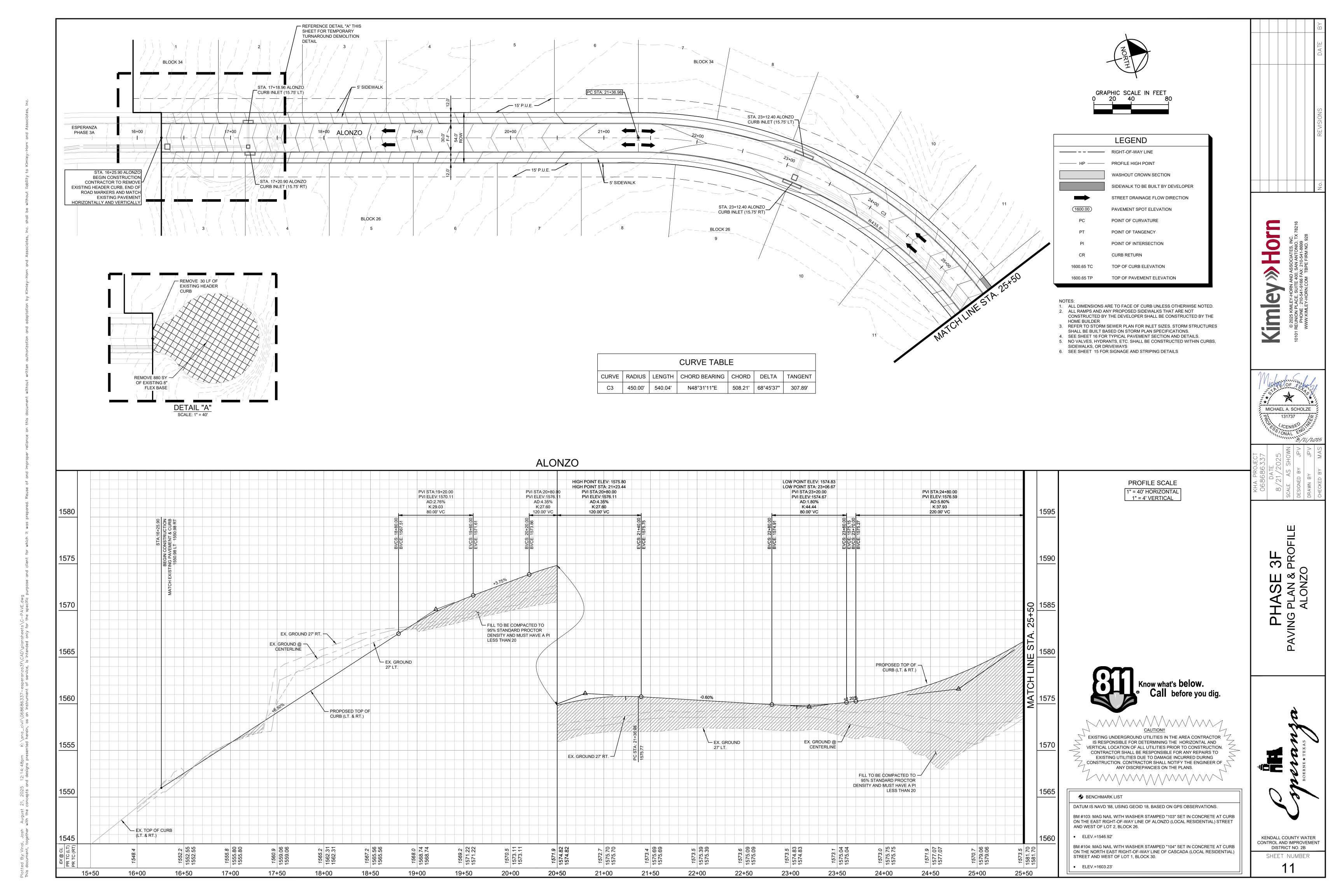
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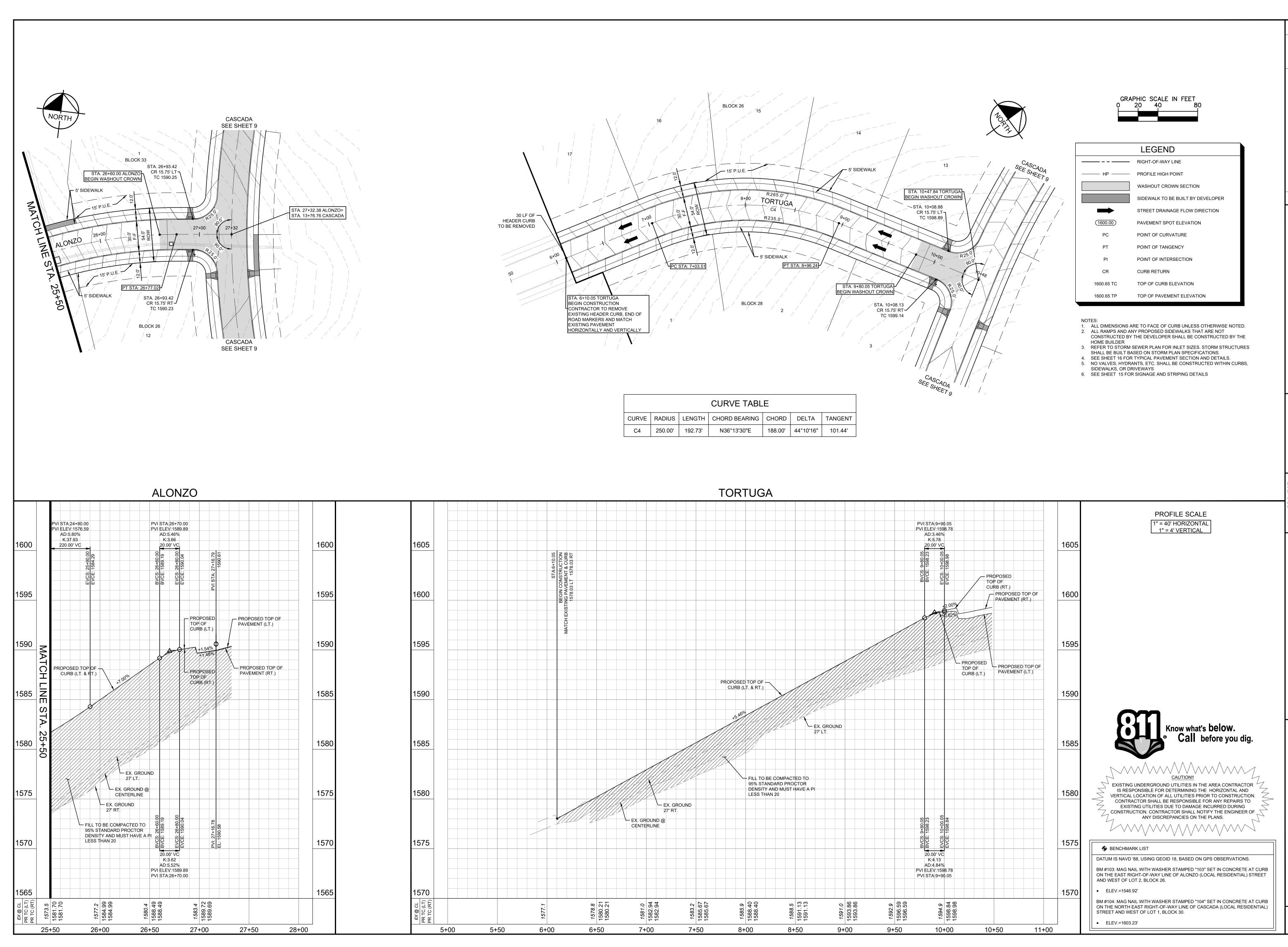
KENDALL COUNTY WATER CONTROL AND IMPROVEMENT DISTRICT NO. 2B SHEET NUMBER

BM #104: MAG NAIL WITH WASHER STAMPED "104" SET IN CONCRETE AT CURB

ON THE NORTH EAST RIGHT-OF-WAY LINE OF CASCADA (LOCAL RESIDENTIAL)
STREET AND WEST OF LOT 1, BLOCK 30.

• ELEV.=1603.23'





ES, INC.
ONIO, TX 78216
1-8699
A NO. 928

© 2025 KIMLEY-HORN AND ASSOCIATES, INC. 10101 REUNION PLACE, SUITE 400, SAN ANTONIO, TY PHONE: 210-541-9166 FAX: 210-541-8699 WWW.KIMLEY-HORN.COM TBPE FIRM NO. 921

MICHAEL A. SCHOLZE

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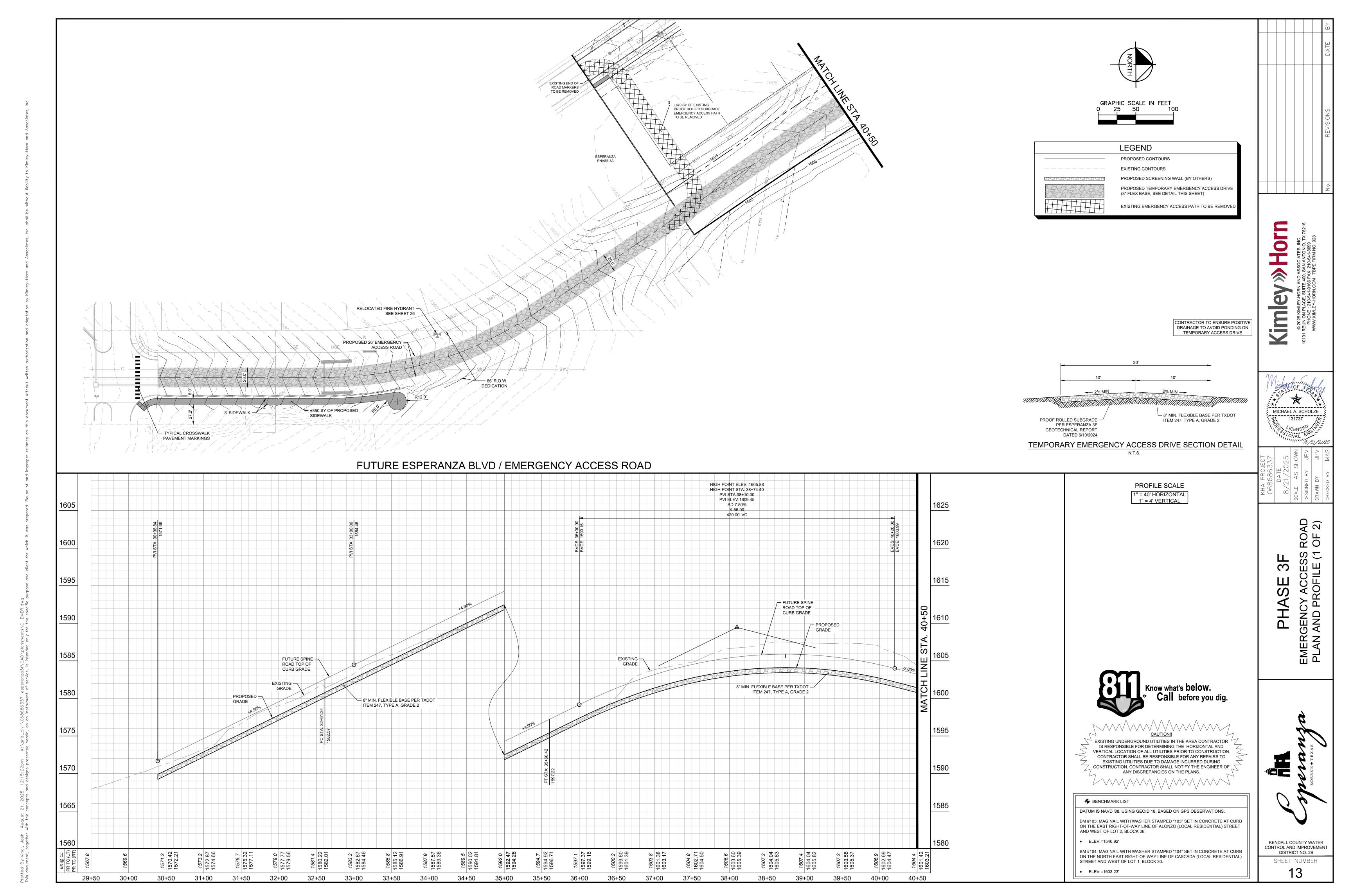
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DRAWN BY JPV

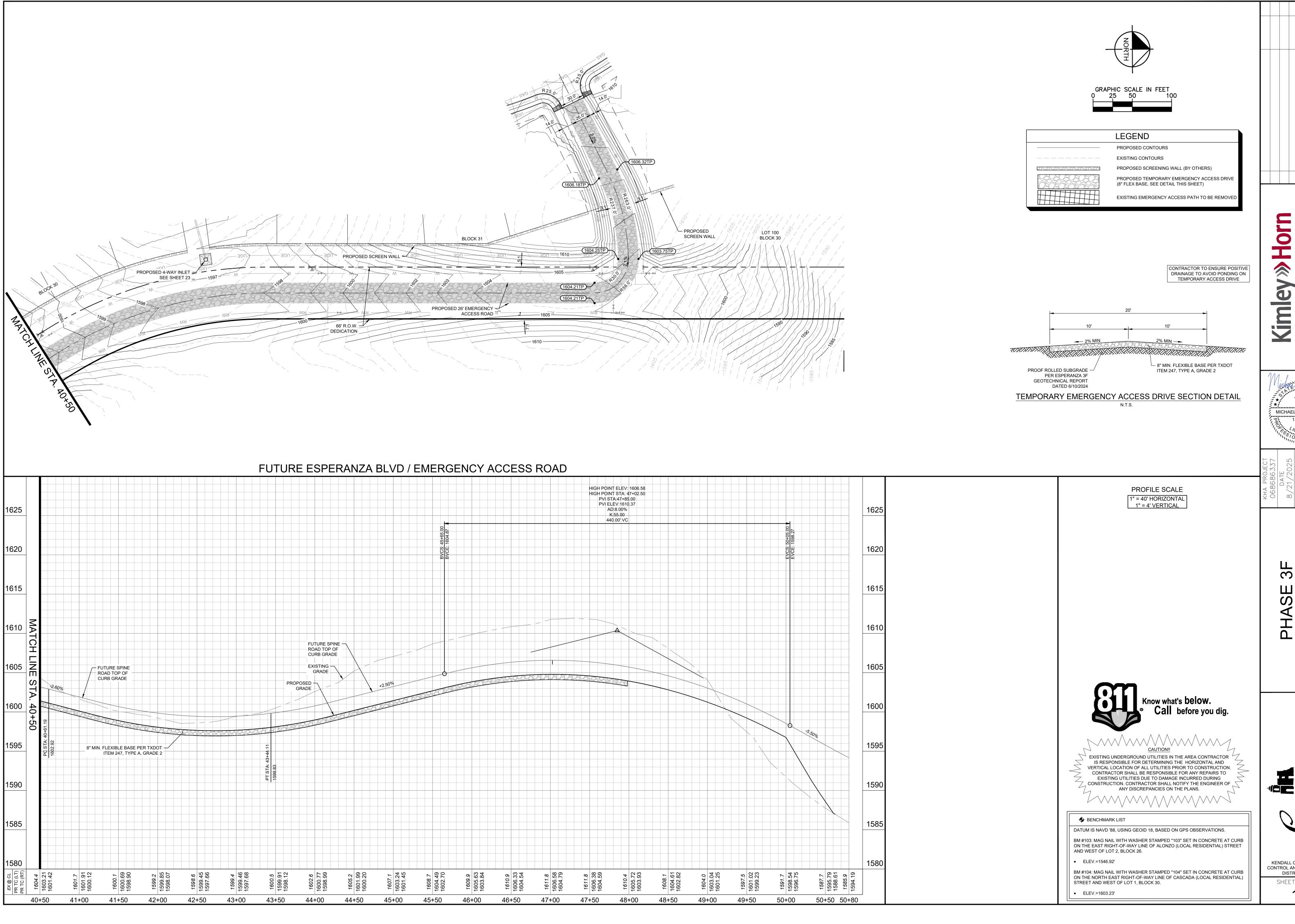
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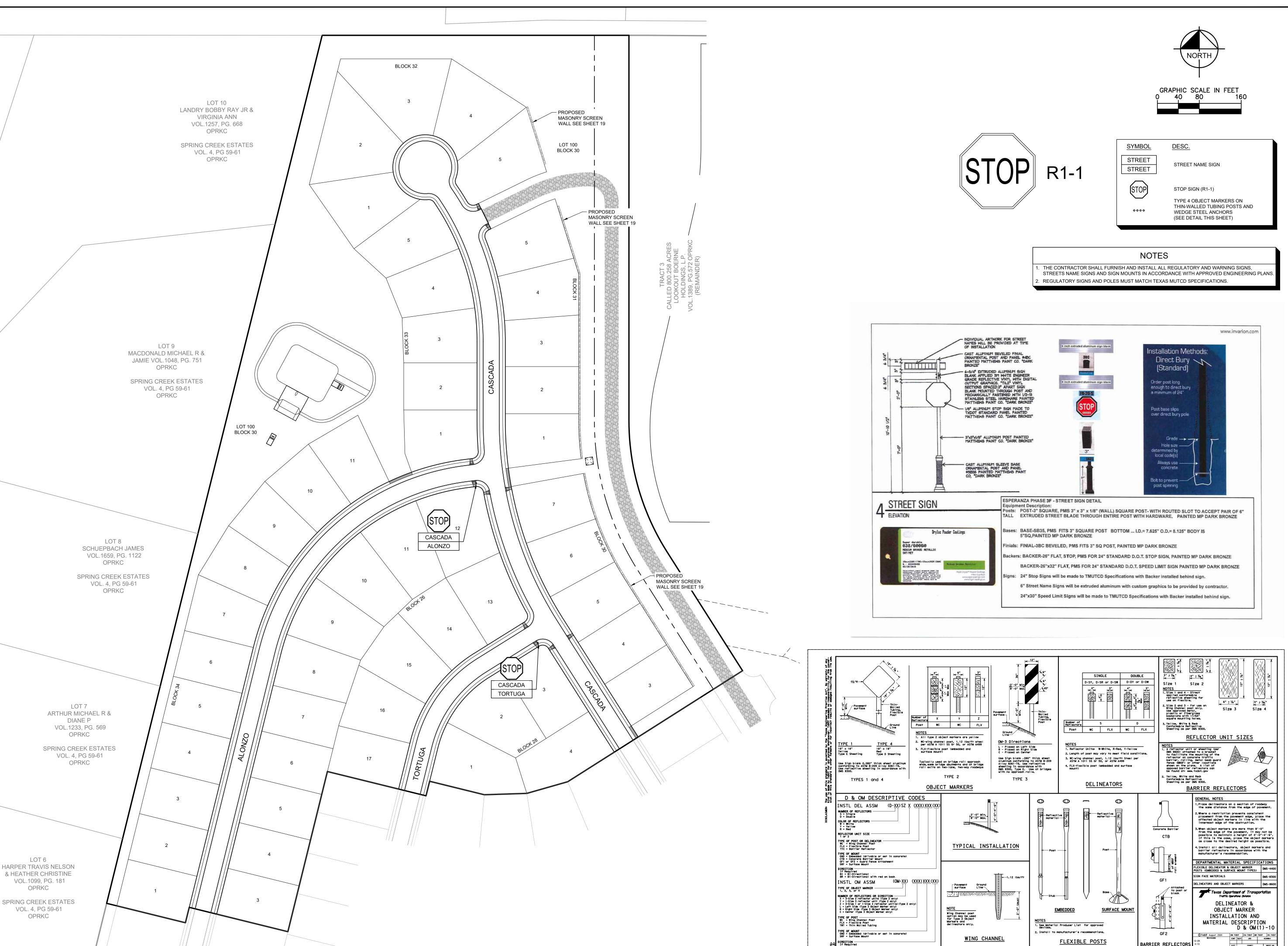
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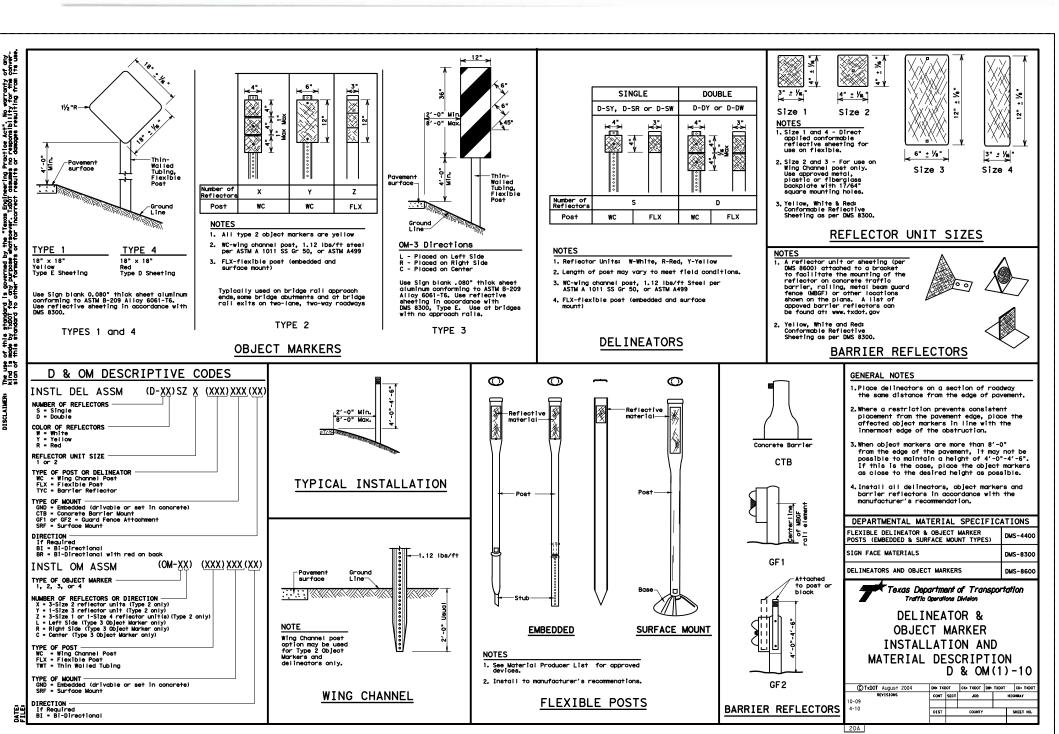


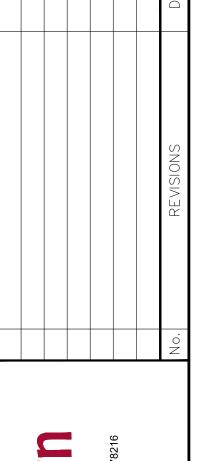


EMERGENCY ACCESS ROAD PLAN AND PROFILE (2 OF 2)

KENDALL COUNTY WATER CONTROL AND IMPROVEMENT DISTRICT NO. 2B SHEET NUMBER





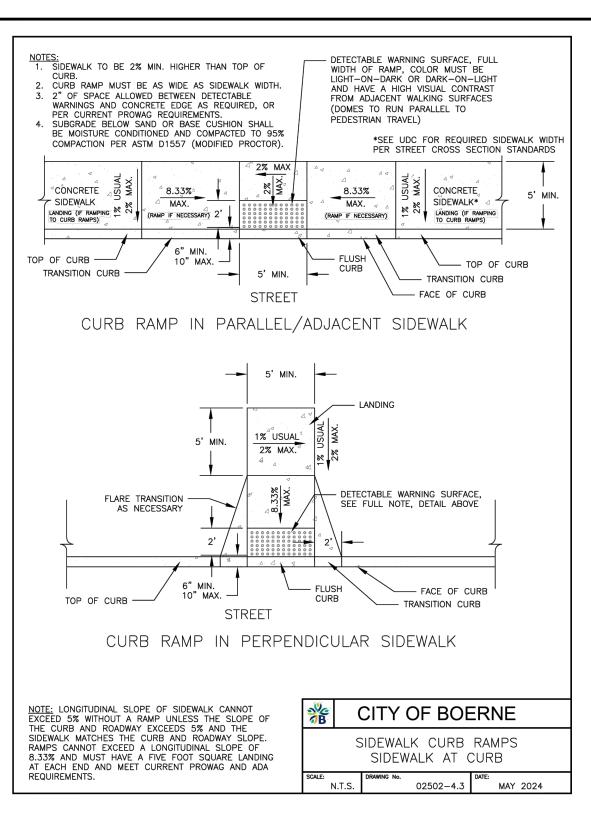


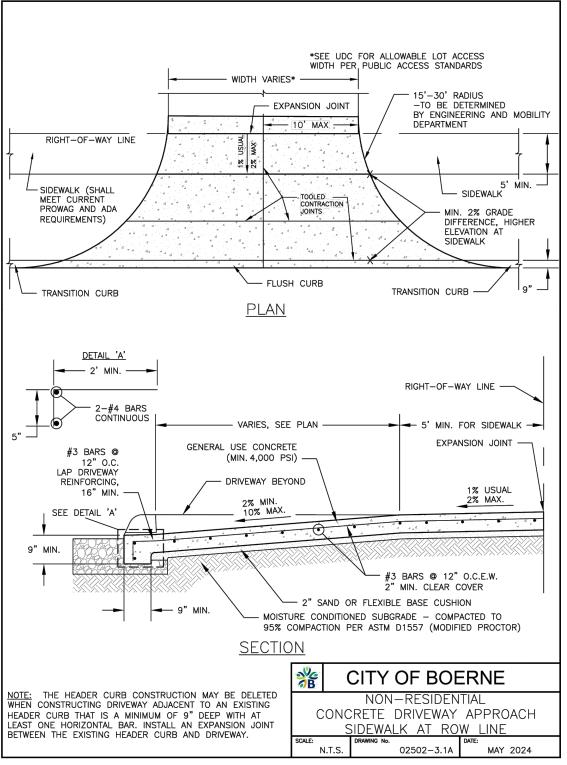
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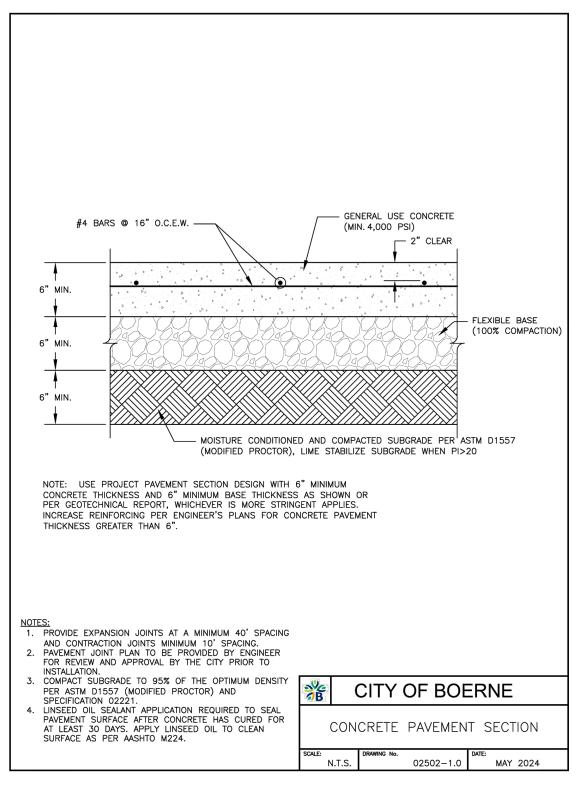
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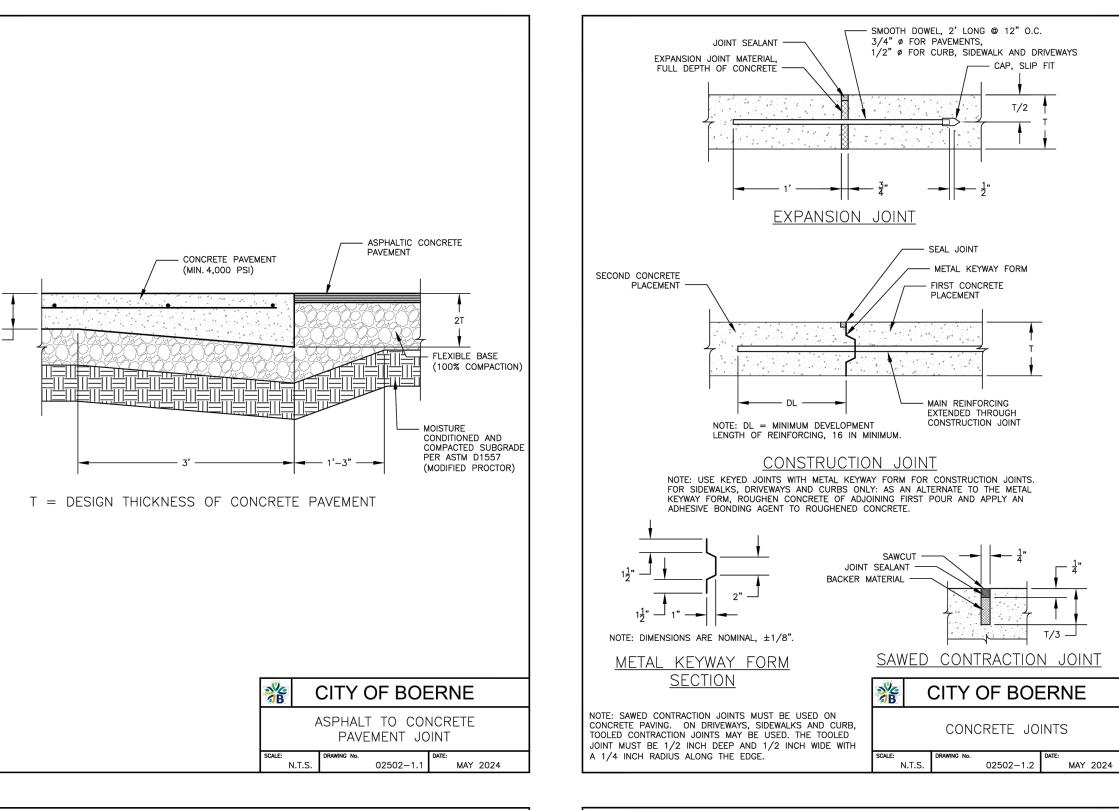


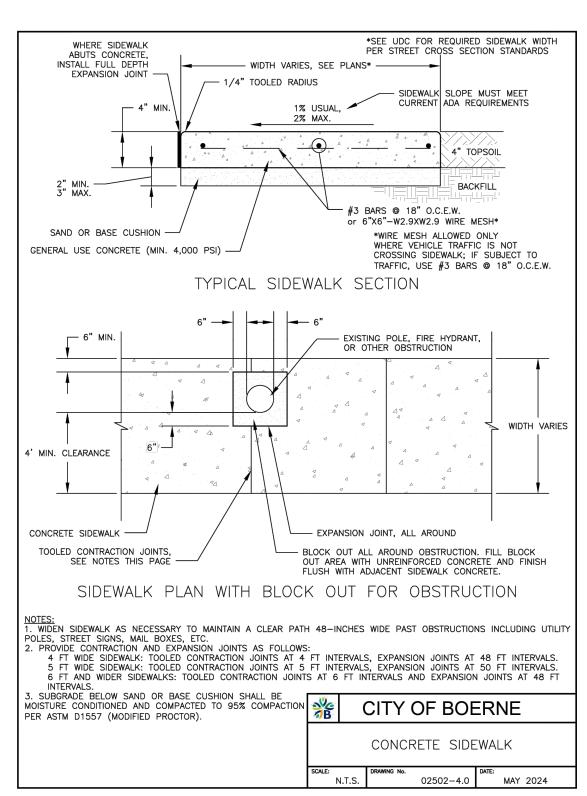
KENDALL COUNTY WATER CONTROL AND IMPROVEMENT DISTRICT NO. 2B SHEET NUMBER

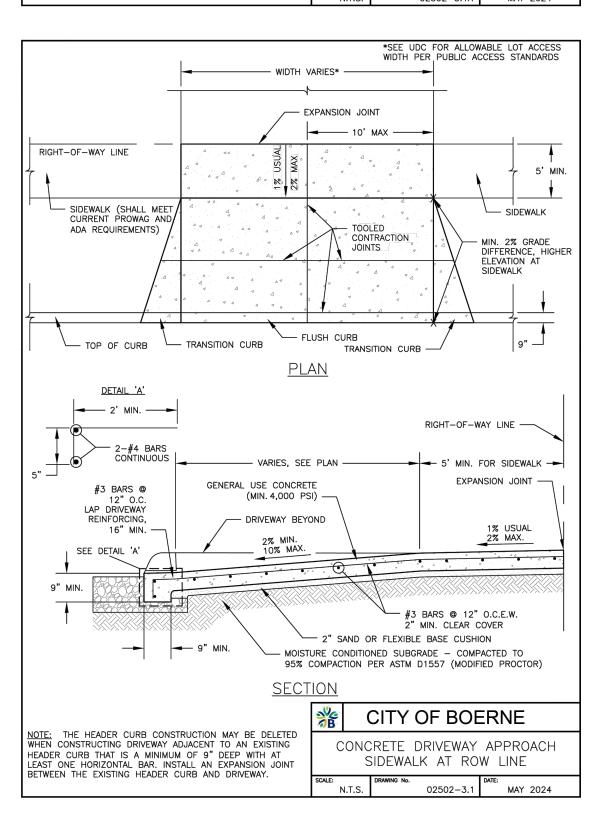


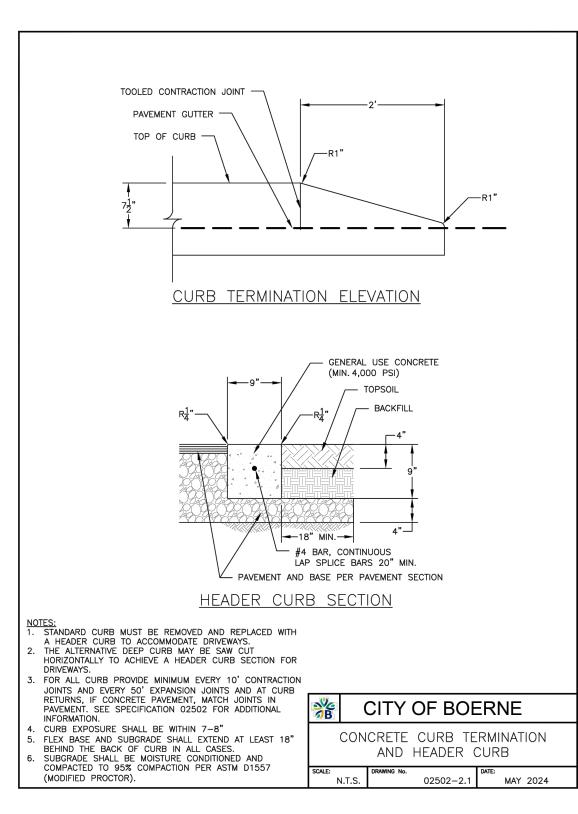


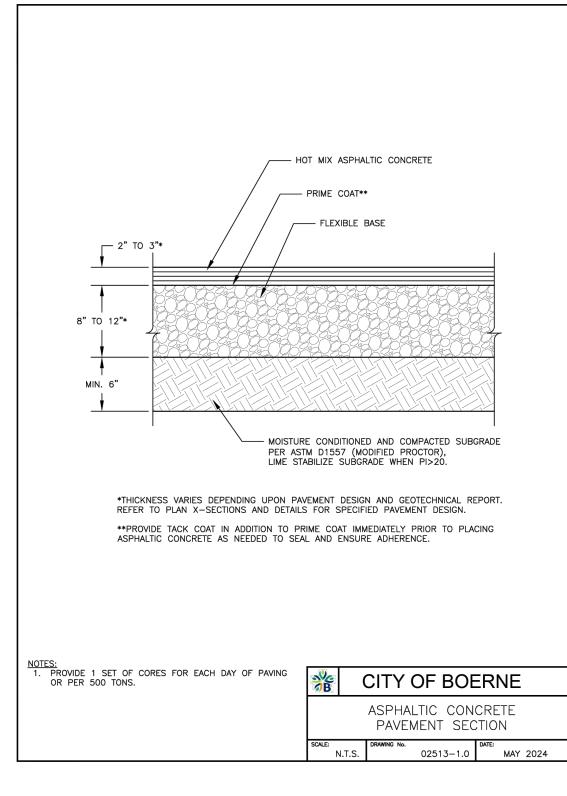


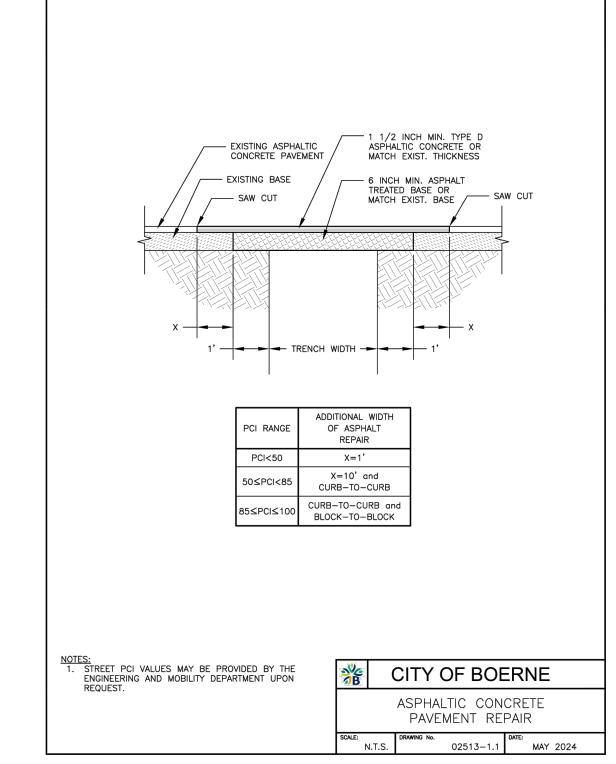


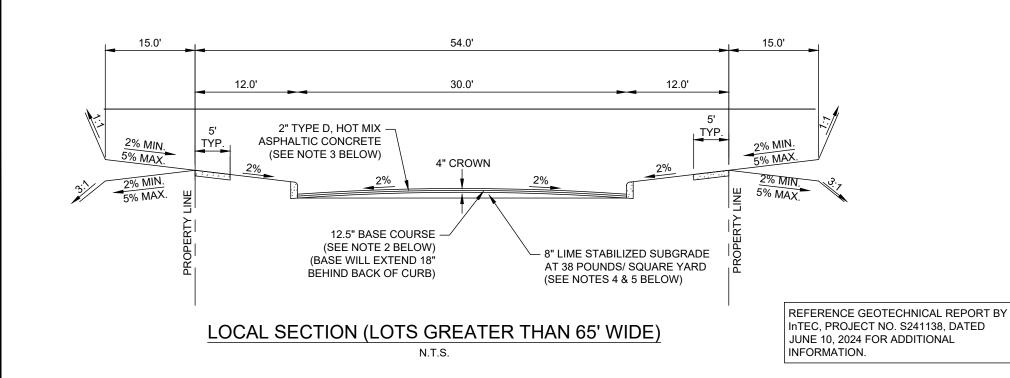






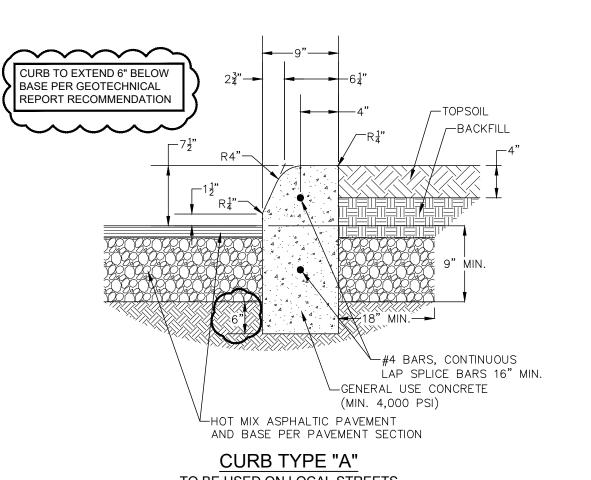






PAVEMENT SECTION NOTES

- 1. ALL VEGETATION AND TOPSOIL CONTAINING ORGANIC MATERIAL SHOULD BE CLEARED AND GRUBBED AT THE BEGINNING OF EARTHWORK CONSTRUCTION. THE SUBGRADE SHALL BE COMPACTED AND FIELD QUALITY CONTROL SHALL BE PERFORMED AS DESCRIBED IN PART 3.8, 02200-EARTHWORK, CITY OF BOERNE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, JULY 2015.
- 2. FLEXIBLE BASE COURSE SHOULD CONFORM TO TXDOT ITEM 247, TYPE A, GRADE 1 OR 2. THE FLEXIBLE BASE FIELD QUALITY CONTROL SHALL BE PERFORMED AS DESCRIBED IN PART 3.4, 02513-ASPHALTIC CONCRETE VEHICULAR PAVING, CITY OF BOERNE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, JULY 2015.
- 3. WEARING (SURFACE) COURSE SHOULD CONFORM TO AND INSTALLED PER CITY OF BOERNE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, JULY 2015. THE WEARING (SURFACE) COURSE FIELD QUALITY CONTROL SHALL BE PERFORMED AS DESCRIBED IN PART 3.4, 02513-ASPHALTIC CONCRETE VEHICULAR PAVING, CITY OF BOERNE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, JULY
- 4. WHERE THE PLASTICITY INDEX OF THE SUB GRADE SOIL ON WHICH STREET IS TO BE BUILT IS IN EXCESS OF 20, THE PAVEMENT DESIGN SHALL INCLUDE SUB GRADE STABILIZATION (8" MIN. HYDRATED LIME IN SLURRY FORM.) ALL LIME TREATMENT SHALL BE PERFORMED AS DESCRIBED IN PART 3.6, 02200-EARTHWORK, CITY OF BOERNE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, JULY 2015. PER GEOTECHNICAL REPORT, A LIME CONTENT OF 38 LBS PER SQ YARD FOR 8 INCH DEPTH OF STABILIZATION IS RECOMMENDED. CONTRACTOR TO BID AS 100% LIME. EXACT LIMITS TO BE DETERMINED IN FIELD.
- 5. IF SURFICIAL CLAYS ARE COMPLETELY REMOVED EXPOSING ROCK, OR IF ROCK MILLINGS OR RIPPED, WEATHERED LIMESTONE IS USED AS FILL, LIME TREATMENT OF SUBGRADE CAN BE ELIMINATED. ONCE STREET GRADES ARE CUT TO SUBGRADE DESIGN ENGINEER AND GEOTECHNICAL ENGINEER WILL REVIEW EXPOSED MATERIAL FOR DETERMINATION OF PAVEMENT SECTIONS.



TO BE USED ON LOCAL STREETS WHERE DRIVEWAY APRONS ARE PRESENT

CONTROL AND IMPROVEMEN DISTRICT NO. 2B SHEET NUMBER

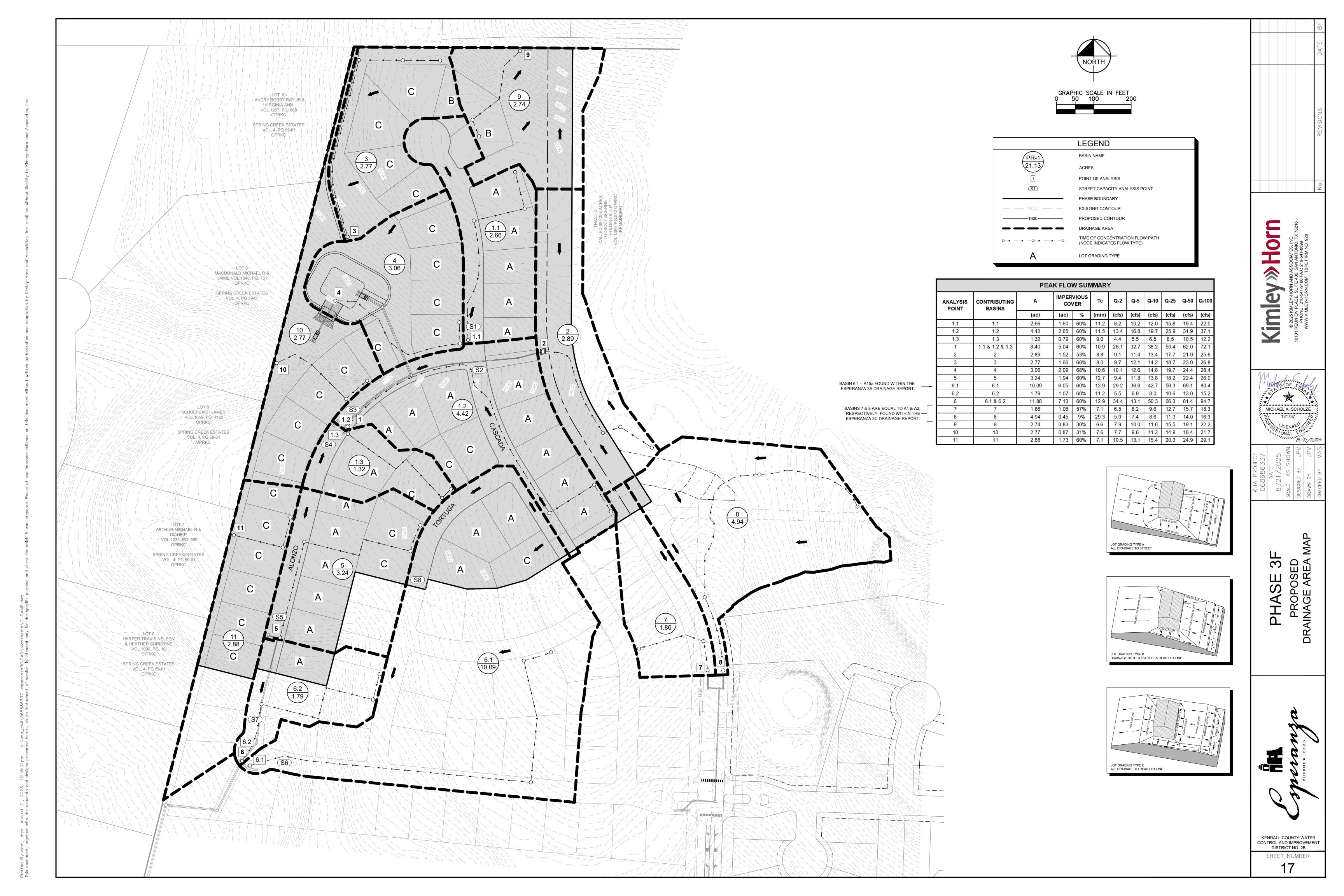
KENDALL COUNTY WATER

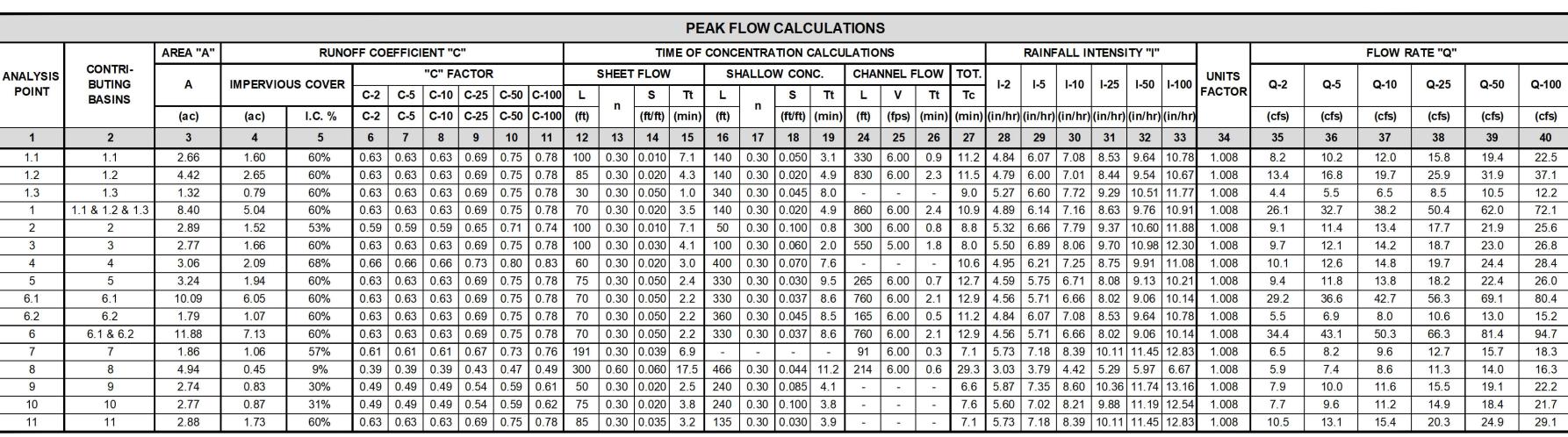
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E

MICHAEL A. SCHOLZE

S





NOTE

UNITS CONVERSION IS TO GET UNITS TO CANCEL IN FORMULA Q=CIA REFER TO PEAK FLOW SUMMARY TABLE ON SHEET 17 FOR NOTES

												CURB II	NLET CAL	CULAT	TIONS (I	HEC-22	METH	ODOLO	GY)												
			DESIGN	STORM:	5-YEAR	CHECK	STORM: 1	00-YEAR		TOTAL	FLOW			BOA	DWAY D	Λ.Τ.Λ	SLOPE		FLOW				H REQUIR	ED			INLET PE	RFORM	IACE		
INLET ANALYSIS	INLET	CONTRI- BUTING	BASIN	CARRY-	TOTAL	BASIN	CARRY-	TOTAL		TO EAC	HINLET	INLET	D.S.	KOA	DWAID	AIA		FLOW DEPTH	DEPTH		ORIFICE DEPTH	10	0-YEAR		LENGTH		5-YEAR		•	100-YEAR	
POINT	NAME	BASIN	DASIN	OVER	IOTAL	BASIN	OVER	IOTAL	INLETS	5	100	LOCATION	INLET	s	Sx	n	CALCS		USED			ON-GRADE	WEIR	ORIFICE	CHOSEN	Q _{CAPTURE}	Q _{BYPASS}	E	Q _{CAPTURE}	Q _{BYPASS}	E
			(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)		(cfs)	(cfs)]		(ft/ft)	(ft/ft)	ı	(ft/ft)	(ft)		(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(cfs)	(cfs)	%	(cfs)	(cfs)	%
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
1	A5 & A6	1	32.7	-	32.7	72.1	-	72.1	2	16.35	36.05	SAG	-	0.012	0.020	0.020	0.006	0.82	0.82	0.82	0.56	-	16.18	17.21	20	16.35	-	100%	36.05	-	100%
2	В3	2	11.4	-	11.4	25.6	-	25.6	1	11.40	25.60	SAG	•	ı	ı	ı	-	1.00	1.00	1.00	0.74	ı	8.53	10.63	12	11.40	-	100%	25.60	ı	100%
5	C3 & C4	5	11.8	-	11.8	26.0	-	26.0	2	5.90	13.00	ON-GRADE	6	0.065	0.020	0.020	0.065	0.29	0.29	Е	-	46.7	-	1	10	3.03	2.87	51%	4.58	8.42	35%
6	3A INLET	6	43.1	5.74	48.8	94.7	16.84	111.5	1	48.84	111.54	SAG	-	0.014	0.020	0.020	0.014	0.53	0.86	0.86	0.60	-	46.62	51.44	55	48.84	_	100%	111.54	-	100%

3A INLE

3A INLET WAS SIZED AND DESIGNED AS PART OF ESPERANZA PHASE 3A

AND IS INCLUDED TO SHOW PERFORMANCE WITH PHASE 3F IMPROVEMENTS ADDED

					STREE	T CAPA	CITYC	ALCULA	TIONS	(HEC-22	METHO	DOLO	GY)												
STREET INFORMATION DESIGN STORM: 5-YEAR CHECK STORM: 100-YEAR ROADWAY DATA USED RESULTS																									
STREET	OTDEET	CONTRI-	U.S. INLET			BASIN	CARRY-	TOTAL	BASIN	CARRY-	TOTAL	KOA	DWATD	AIA	FOR		5-YEAR	EAR 100-YEAR							
ANALYSIS	STREET NAME	BUTING	CARRY- OVER	STREET CLASS	STREET SHAPE	BASIN	OVER	IOIAL	BASIN	OVER	IOTAL	S	Sx	n	CALCS	Q	d	٧	Q	d	V				
POINT		BASIN	POINT ID	52		(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(ft/ft)	(ft/ft)	•	(ft/ft)	(cfs)	(ft)	(fps)	(cfs)	(ft)	(fps)				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22				
S1	CASCADA	1.1	-	LOCAL	SUPERELEVATED	10.2	-	10.2	22.5		22.5	0.070	0.020	0.020	0.035	10.2	0.32	4.03	22.5	0.43	4.91				
S2	CASCADA	1.2	-	LOCAL	SUPERELEVATED	16.8	-	16.8	37.1	-	37.1	0.040	0.020	0.020	0.020	16.8	0.43	3.70	37.1	0.57	4.51				
S3	ALONZO	1.1 & 1.2	-	LOCAL	CROWNED	27.6	-	27.6	60.8	-	60.8	0.012	0.020	0.020	0.006	27.6	0.49	2.73	60.8	0.74	3.28				
S4	ALONZO	1.3		LOCAL	CROWNED	5.5	-	5.5	12.2	-	12.2	0.006	0.020	0.020	0.003	5.5	0.31	1.17	12.2	0.40	1.60				
S5	ALONZO	5	-	LOCAL	CROWNED	11.8	-	11.8	26.0	-	26.0	0.065	0.020	0.020	0.065	11.8	0.23	4.43	26.0	0.31	5.48				
S6	ALONZO	6.1	-	LOCAL	SUPERELEVATED	36.6	-	36.6	80.4	-	80.4	0.040	0.020	0.020	0.040	36.6	0.50	5.83	80.4	0.67	7.21				
S7	ALONZO	6.2	5	LOCAL	SUPERELEVATED	6.9	5.7	12.6	15.2	16.84	32.0	0.014	0.020	0.020	0.014	12.6	0.41	2.97	32.0	0.58	3.75				
S8	TORTUGA	6.1	_	LOCAL	CROWNED	36.6	_	36.6	80.4	_	80.4	0.055	0.020	0.020	0.055	36.6	0.35	5.95	80.4	0.48	8.11				

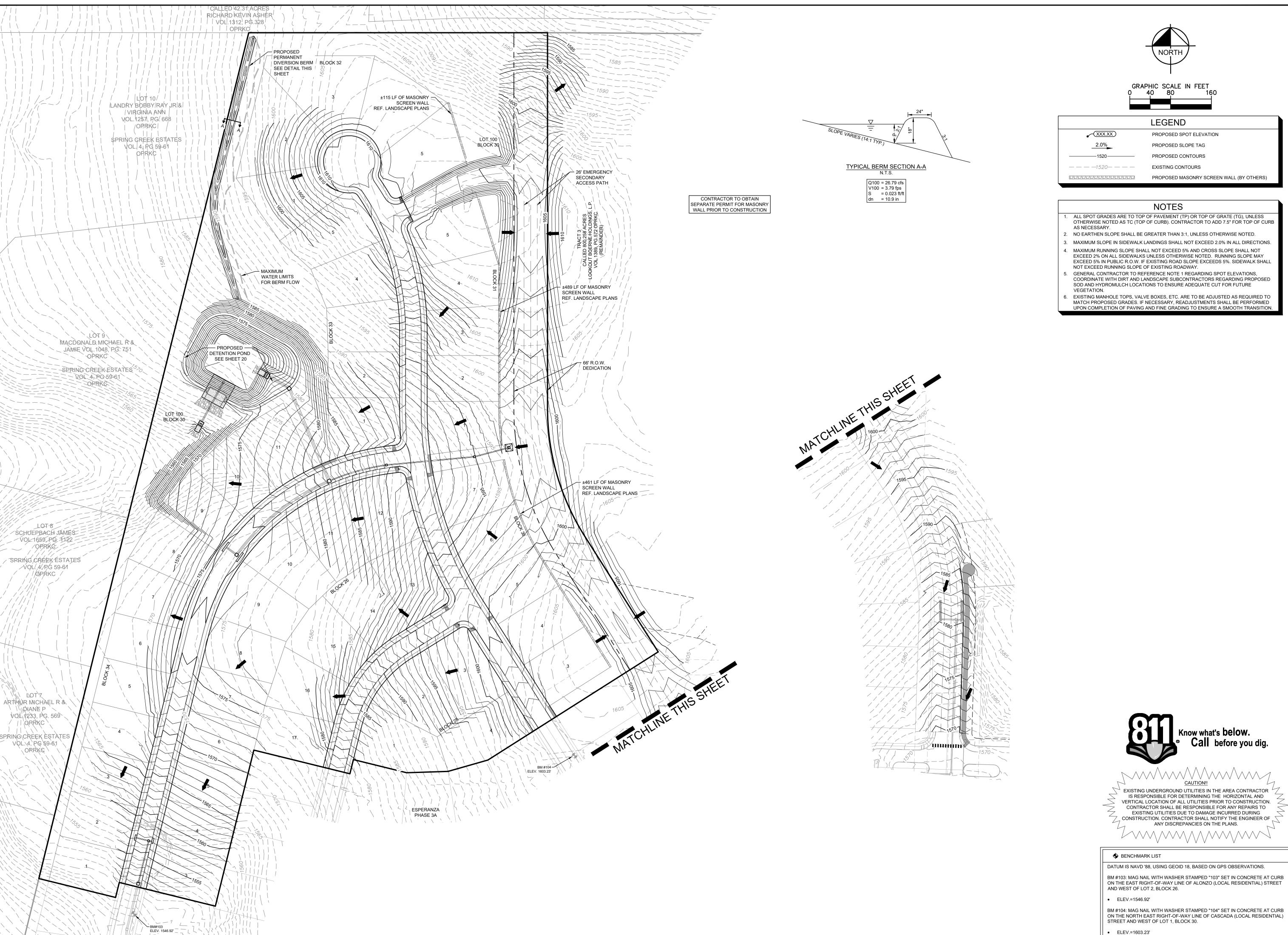
Kimley >>> Horns and associates, Inc. 10101 REUNION PLACE, SUITE 400, SAN ANTONIO, TX 78216 PHONE: 210-541-9166 FAX: 210-541-8699



PHASE 3F
PROPOSED
DRAINAGE AREA

PE Sperne * Texas

KENDALL COUNTY WATER CONTROL AND IMPROVEMENT DISTRICT NO. 2B SHEET NUMBER



REVISIONS

2 82.16

2025 KIMLEY-HORN AND ASSOCIATES, INC. EUNION PLACE, SUITE 400, SAN ANTONIO, TX PHONE : 210-541-9166 FAX: 210-541-8699 WW.KIMLEY-HORN.COM TBPE FIRM NO. 928

MICHAEL A. SCHOLZE

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8/21/2025

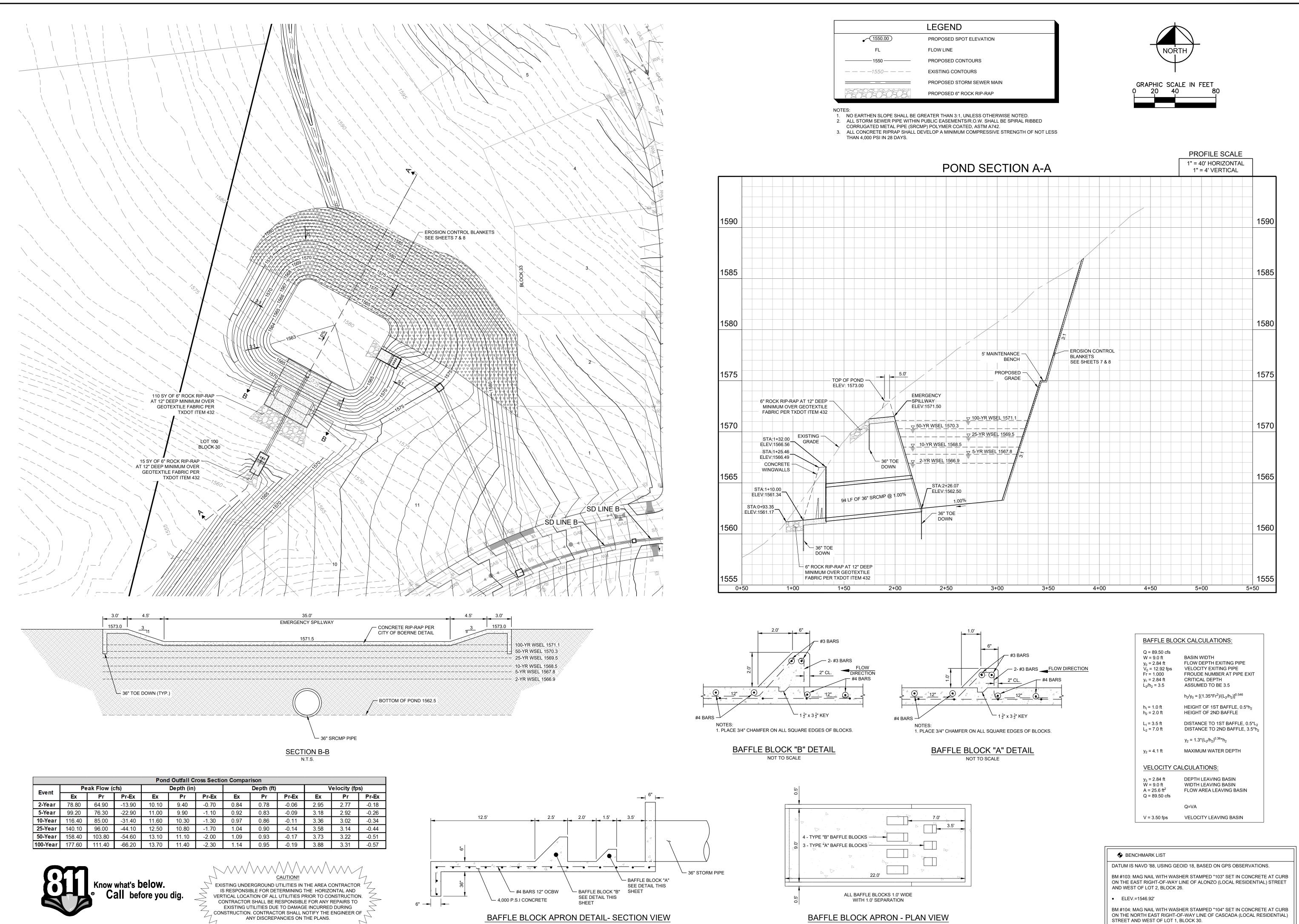
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DESIGNED BY JPV
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KENDALL COUNTY WATER CONTROL AND IMPROVEMENT DISTRICT NO. 2B



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PEVISIONS DATE

MLEY-HORN AND ASSOCIATES, INC.
PLACE, SUITE 400, SAN ANTONIO, TX 78216
E: 210-541-9166 FAX: 210-541-8699
LEY-HORN.COM TBPE FIRM NO. 928

MICHAEL A. SCHOLZE

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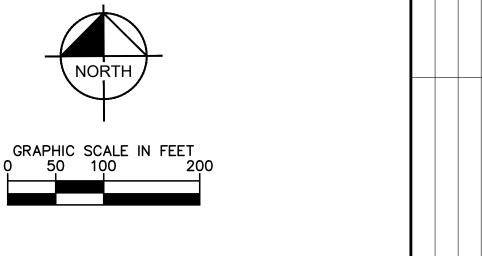
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KENDALL COUNTY WATER CONTROL AND IMPROVEMENT DISTRICT NO. 2B

• ELEV.=1603.23'

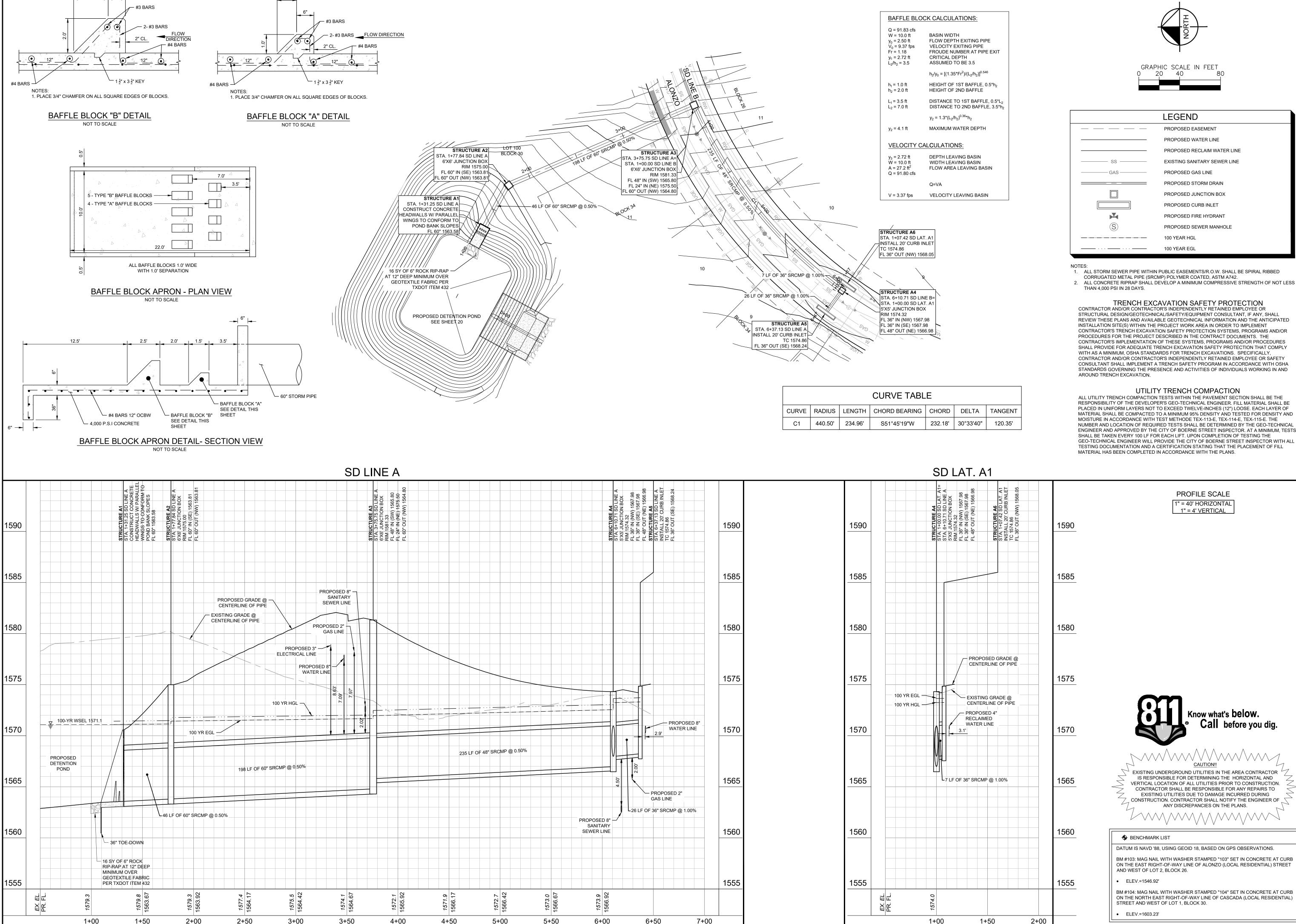




Kimley



KENDALL COUNTY WATER CONTROL AND IMPROVEMENT DISTRICT NO. 2B





2. ALL CONCRETE RIPRAP SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF NOT LESS

REVIEW THESE PLANS AND AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED CONTRACTOR'S TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND/OR CONTRACTOR'S IMPLEMENTATION OF THESE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLY 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

RESPONSIBILITY OF THE DEVELOPER'S GEO-TECHNICAL ENGINEER. FILL MATERIAL SHALL BE PLACED IN UNIFORM LAYERS NOT TO EXCEED TWELVE-INCHES (12") LOOSE. EACH LAYER OF MATERIAL SHALL BE COMPACTED TO A MINIMUM 95% DENSITY AND TESTED FOR DENSITY AND NUMBER AND LOCATION OF REQUIRED TESTS SHALL BE DETERMINED BY THE GEO-TECHNICAL ENGINEER AND APPROVED BY THE CITY OF BOERNE STREET INSPECTOR. AT A MINIMUM, TESTS GEO-TECHNICAL ENGINEER WILL PROVIDE THE CITY OF BOERNE STREET INSPECTOR WITH ALL TESTING DOCUMENTATION AND A CERTIFICATION STATING THAT THE PLACEMENT OF FILL

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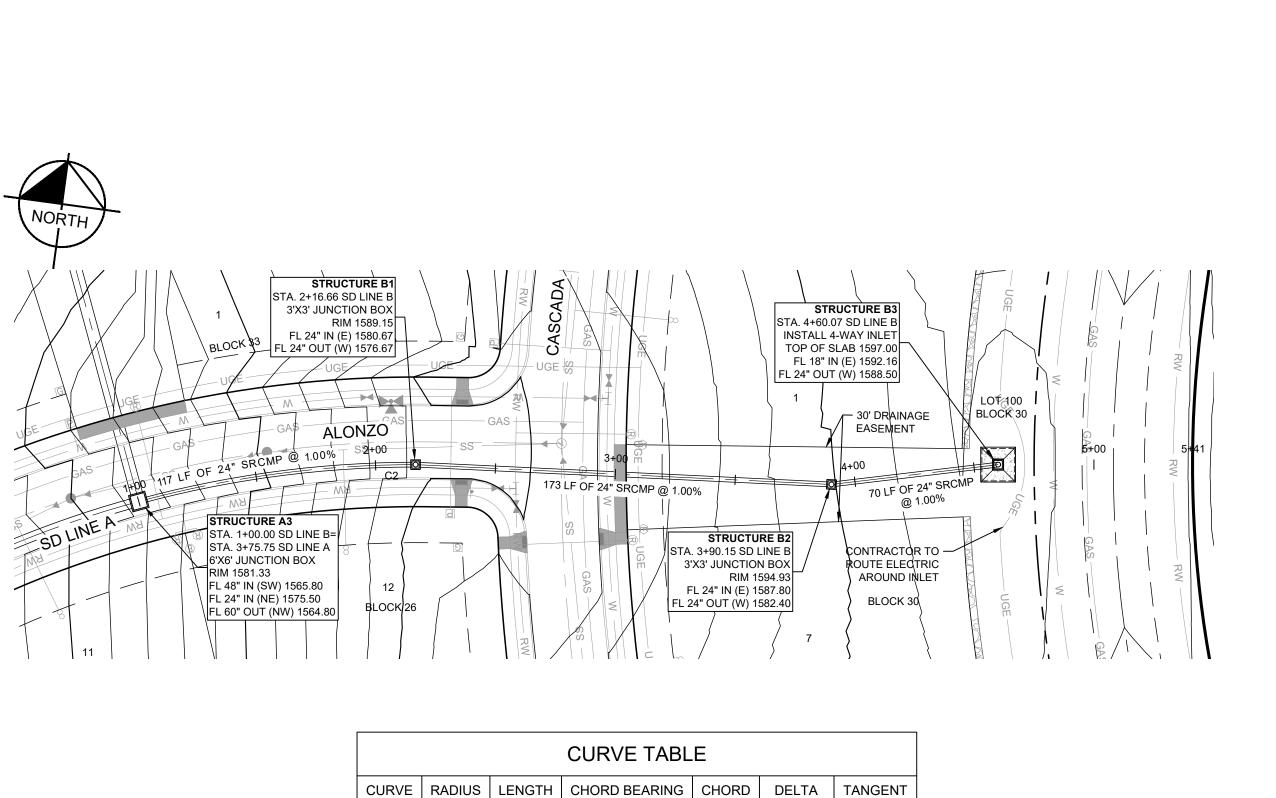
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MICHAEL A. SCHOLZE

STORM DRAIN P PROFILE SD I

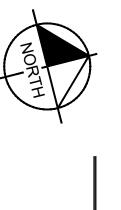
KENDALL COUNTY WATER CONTROL AND IMPROVEMEN

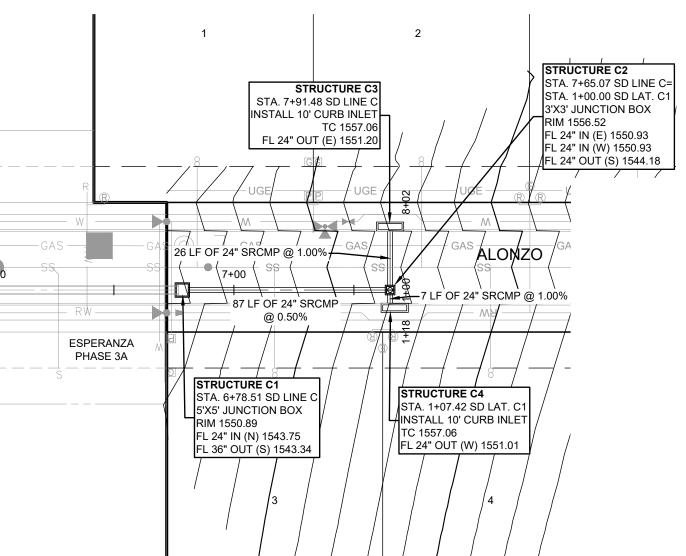
DISTRICT NO. 2B



N74°37'21"E

SD LINE B





LEGEND PROPOSED EASEMENT PROPOSED WATER LINE PROPOSED RECLAIM WATER LINE EXISTING SANITARY SEWER LINE PROPOSED GAS LINE ----- GAS -----PROPOSED STORM DRAIN _____ PROPOSED JUNCTION BOX PROPOSED CURB INLET PROPOSED FIRE HYDRANT PROPOSED SEWER MANHOLE

GRAPHIC SCALE IN FEET

20 40

1. ALL STORM SEWER PIPE WITHIN PUBLIC EASEMENTS/R.O.W. SHALL BE SPIRAL RIBBED

_____..._

AROUND TRENCH EXCAVATION.

CORRUGATED METAL PIPE (SRCMP) POLYMER COATED, ASTM A742. 2. ALL CONCRETE RIPRAP SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF NOT LESS THAN 4,000 PSI IN 28 DAYS.

100 YEAR HGL

100 YEAR EGL

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

PROFILE SCALE

1" = 40' HORIZONTAL 1" = 4' VERTICAL

ALL UTILITY TRENCH COMPACTION TESTS WITHIN THE PAVEMENT SECTION SHALL BE THE RESPONSIBILITY OF THE DEVELOPER'S GEO-TECHNICAL ENGINEER. FILL MATERIAL SHALL BE PLACED IN UNIFORM LAYERS NOT TO EXCEED TWELVE-INCHES (12") LOOSE. EACH LAYER OF MATERIAL SHALL BE COMPACTED TO A MINIMUM 95% DENSITY AND TESTED FOR DENSITY AND MOISTURE IN ACCORDANCE WITH TEST METHODE TEX-113-E, TEX-114-E, TEX-115-E. THE NUMBER AND LOCATION OF REQUIRED TESTS SHALL BE DETERMINED BY THE GEO-TECHNICAL ENGINEER AND APPROVED BY THE CITY OF BOERNE STREET INSPECTOR. AT A MINIMUM, TESTS SHALL BE TAKEN EVERY 100 LF FOR EACH LIFT. UPON COMPLETION OF TESTING THE GEO-TECHNICAL ENGINEER WILL PROVIDE THE CITY OF BOERNE STREET INSPECTOR WITH ALL TESTING DOCUMENTATION AND A CERTIFICATION STATING THAT THE PLACEMENT OF FILL MATERIAL HAS BEEN COMPLETED IN ACCORDANCE WITH THE PLANS.

SD LAT. C1

MICHAEL A. SCHOLZE

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Kimley

AND & C PHASE 3F STORM DRAIN PLAN A PROFILE SD LINES B

DATUM IS NAVD '88, USING GEOID 18, BASED ON GPS OBSERVATIONS. BM #103: MAG NAIL WITH WASHER STAMPED "103" SET IN CONCRETE AT CURB ON THE EAST RIGHT-OF-WAY LINE OF ALONZO (LOCAL RESIDENTIAL) STREET

BM #104: MAG NAIL WITH WASHER STAMPED "104" SET IN CONCRETE AT CURB ON THE NORTH EAST RIGHT-OF-WAY LINE OF CASCADA (LOCAL RESIDENTIAL) STREET AND WEST OF LOT 1, BLOCK 30.

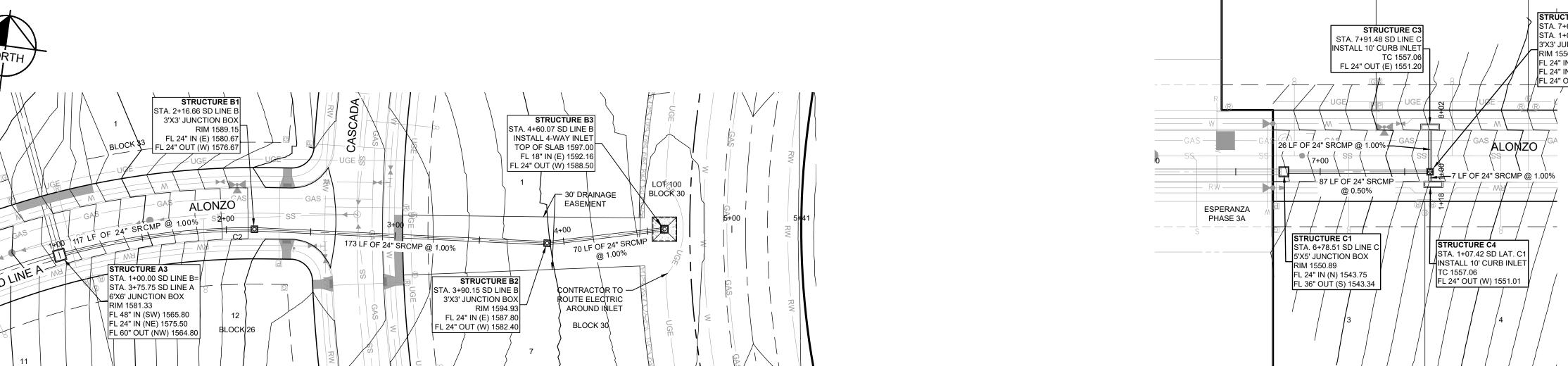
Know what's below.
Call before you dig.

EXISTING UNDERGROUND UTILITIES IN THE AREA CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY REPAIRS TO EXISTING UTILITIES DUE TO DAMAGE INCURRED DURING CONSTRUCTION. CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES ON THE PLANS.

BENCHMARK LIST

AND WEST OF LOT 2, BLOCK 26.

KENDALL COUNTY WATER CONTROL AND IMPROVEMENT DISTRICT NO. 2B SHEET NUMBER



UTILITY TRENCH COMPACTION

1570 1570 1565 1565 1560 1560 1560 PROPOSED GRADE @ CENTERLINE OF PIPE EXISTING GRADE @ EXISTING GRADE @ CENTERLINE OF PIPE CENTERLINE OF PIPE 1555 1555 1555 26 LF OF 24" SRCMP @ 1.00% - PROPOSED 4" RECLAIMED PROPOSED 8" _ WATER LINE WATER LINE 100 YR EGL -100 YR HGL **PROPOSED** GRADE @ 1550 1550 1550 CENTERLINE OF $\overline{}$ PROPOSED 2" $\overline{}$ GAS LINE └7 LF OF 24" SRCMP @ 1.00% 100 YR EGL -100 YR HGL -PROPOSED 8" SANITARY 1545 1545 SEWER LINE 87 LF OF 24" SRCMP @ 0.50% 1540 1540 1535 1535 1535

1570

SD LINE C

1600

1560

1555

1545

1540

1535

1590

1585

1575

1570

1565

5+50

1595

EXISTING: GRADE AT PIPE CENTERLINE 24" SRCMP @ 1.00%

GRADE AT PIPE CENTERLINE - PROPOSED 8" WATER LINE PROPOSED 2" -GAS LINE PROPOSED 3" ELECTRICAL LINE RECLAIMED WATER LINE

116.32' | 15°10'24" |

173 LF OF 24" SRCMP @ 1.00% 100 YR HGL -117 LF OF 24" SRCMP @ 1.00% - PROPOSED 8"

PROPOSED

1595

1590

1585

1580

1575

1570

1565

1560

ᆁ급

PR.

0+75 1+00

1+50

2+00

116.66'

SEWER LINE

SANITARY

3+00

2+50

4+00

4+50

5+00

3+50

1560 ᆁ PR.

7+50

8+00

7+00

@ 5.10%

1530 1530

8+50

PR.

1+00 1+50

2+00

										ST	ORM DR	AIN CAL	CULAT	IONS - 5	YEAR											
	PIPE					UPSTRE/	M INI ET				SYSTEM		FULL	TOTAL						ELEVATIONS HGL CROWN EGL GRO						
	FIFE					OFSIRE	AWI INCE I				SISIEM		FLOW	PIPE	V	s	INV	ERT	НС	GL	CRO	NWC	EC	3L	GRO	UND
NAME	LENGTH	SIZE	n	NAME	BASIN	Α	С	Тс	Q	Тс	I	Q	CAP	FLOW			DS	US	DS	US	DS	US	DS	US	DS	US
10000	(ft)	O,LL		100000	D/(OII)	(ac)		(min)	(cfs)	(min)	(in/hr)	(cfs)	(cfs)	(cfs)	(fps)	(%)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
SD LINE A																										
A2 TO A1	46	60 in	0.013	- 1	-	-	-	-	-	11.9	5.91	41.65	183.98	41.65	7.58	0.50	1563.58	1563.81	1567.80	1567.80	1568.58	1568.81	1567.89	1567.90	1570.00	1575.00
A3 TO A2	198	60 in	0.013	-	-	-	-	-	-	11.5	6.00	42.32	184.14	42.32	7.61	0.50	1563.81	1564.80	1567.89	1567.88	1568.81	1569.80	1567.98	1568.06	1575.00	1581.33
A4 TO A3	235	48 in	0.013	-	-	I	-	ı	-	11.0	6.12	32.65	101.57	32.65	7.20	0.50	1565.80	1566.98	1568.02	1568.67	1569.80	1570.98	1568.29	1569.32	1581.33	1574.32
A5 TO A4	26	36 in	0.013	A5	1A	4.20	0.63	10.9	16.36	10.9	6.14	16.36	66.67	16.36	7.80	1.00	1567.98	1568.24	1569.73	1569.53	1570.98	1571.24	1569.92	1570.02	1574.32	1574.86
SD LAT A1																										
A6 TO A4	7	36 in	0.013	A6	1B	4.20	0.63	10.9	16.36	10.9	6.14	16.36	66.62	16.36	7.80	1.00	1567.98	1568.05	1569.73	1569.71	1570.98	1571.05	1569.92	1569.97	1574.32	1574.86
SD LINE B																										
B1 TO A3	117	24 in	0.013	-	-	ı	-	ī	_	9.4	6.51	11.19	22.63	11.19	7.18	1.00	1575.50	1576.67	1576.49	1577.87	1577.50	1578.67	1577.30	1578.37	1581.33	1589.16
B2 TO B1	173	24 in	0.013	-	1-		-	-	-	9.0	6.61	11.36	22.62	11.36	7.21	1.00	1580.67	1582.40	1581.67	1583.61	1582.67	1584.40	1582.48	1584.12	1589.16	1594.93
B3 TO B2	70	24 in	0.013	B3	2	2.89	0.59	8.8	11.44	8.8	6.66	11.44	22.62	11.44	7.22	1.00	1587.80	1588.50	1588.81	1589.72	1589.80	1590.50	1589.62	1590.23	1594.93	1596.00
SD LINE C																										
C1 TO C0	92	36 in	0.013	=1	1=	1	-	Τ	-	13.0	5.68	10.01	150.62	10.01	12.09	5.10	1538.64	1543.34	1539.16	1544.34	1541.64	1546.34	1541.43	1544.70	1545.00	1550.89
C2 TO C1	87	24 in	0.013	-	-	-	-	-	-	12.8	5.74	10.10	16.00	10.10	5.39	0.50	1543.75	1544.18	1544.90	1545.34	1545.75	1546.18	1545.35	1545.79	1550.89	1556.52
C3 TO C2	26	24 in	0.013	C3	5A	1.62	0.63	12.7	5.92	12.7	5.75	5.06	22.66	5.06	5.81	1.00	1550.93	1551.20	1551.59	1551.99	1552.93	1553.20	1552.08	1552.29	1556.52	1557.06
SD LAT C1																										
C4 TO C2	7	24 in	0.013	C4	5B	1.62	0.63	12.7	5.92	12.7	5.75	5.06	22.60	5.06	5.80	1.00	1550.93	1551.01	1551.63	1551.80	1552.93	1553.01	1552.05	1552.09	1556.52	1557.06

										STO	RMDRA	IN CAL	CULATIO	ONS - 10	0 YEAR											
	PIPE					UPSTRE/	AM INI FT				SYSTEM		FULL	TOTAL						ELEVATIONS HGL CROWN EGL GROUN						
						01 0 11 (2)					C1012		FLOW	PIPE	V	S	INV	ERT	Н	GL	CR	OWN	E	GL	GROUND DS U	UND
NAME	LENGTH	SIZE	n	NAME	BASIN	Α	С	Тс	Q	Tc	1	Q	CAP	FLOW			DS	US	DS	US	DS	US	DS	US	DS	US
MAINE	(ft)	O.LL		I WANTE	BAOIN	(ac)		(min)	(cfs)	(min)	(in/hr)	(cfs)	(cfs)	(cfs)	(fps)	(%)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
SD LINE A																										
A2 TO A1	46	60 in	0.013	-	-	-	-	-	-	12.4	10.33	90.52	183.98	90.52	4.61	0.50	1563.58	1563.81	1571.10	1571.16	1568.58	1568.81	1571.43	1571.49	1570.00	1575.00
A3 TO A2	198	60 in	0.013	-	-	-	-	-	-	11.7	10.60	92.84	184.14	92.84	4.73	0.50	1563.81	1564.80	1571.43	1571.69	1568.81	1569.80	1571.78	1572.03	1575.00	1581.33
A4 TO A3	235	48 in	0.013	-	-	-		1	-	11.0	10.87	71.77	101.57	71.77	5.71	0.50	1565.80	1566.98	1571.97	1572.55	1569.80	1570.98	1572.47	1573.06	1581.33	1574.32
A5 TO A4	26	36 in	0.013	A5	1A	4.20	0.78	10.9	36.04	10.9	10.91	36.04	66.67	36.04	5.10	1.00	1567.98	1568.24	1573.24	1573.32	1570.98	1571.24	1573.64	1573.72	1574.32	1574.86
SD LAT A1																										
A6 TO A4	7	36 in	0.013	A6	1B	4.20	0.78	10.9	36.04	10.9	10.91	36.04	66.62	36.04	5.10	1.00	1567.98	1568.05	1573.24	1573.26	1570.98	1571.05	1573.64	1573.66	1574.32	1574.86
SD LINE B																										
B1 TO A3	117	24 in	0.013	-	-	-	-	1	-	9.3	11.66	25.13	22.63	25.13	8.00	1.00	1575.50	1576.67	1577.27	1578.73	1577.50	1578.67	1578.41	1579.72	1581.33	1589.16
B2 TO B1	173	24 in	0.013	-	-	1-	-	1	-	8.9	11.80	25.44	22.62	25.44	8.10	1.00	1580.67	1582.40	1582.44	1584.68	1582.67	1584.40	1583.60	1585.70	1589.16	1594.93
B3 TO B2	70	24 in	0.013	B3	2	2.89	0.74	8.8	25.60	8.8	11.88	25.60	22.62	25.60	8.15	1.00	1587.80	1588.50	1589.58	1590.53	1589.80	1590.50	1590.75	1591.56	1594.93	1596.00
SD LINE C																										
C1 TO C0	92	36 in	0.013	=	=	-	F	1	-	13.0	10.10	16.31	150.62	16.31	13.95	5.10	1538.64	1543.34	1539.31	1544.63	1541.64	1546.34	1542.22	1545.12	1545.00	1550.89
C2 TO C1	87	24 in	0.013	-	-	-	-	-	-	12.8	10.19	16.46	16.00	16.46	5.79	0.50	1543.75	1544.18	1545.45	1545.88	1545.75	1546.18	1545.97	1546.40	1550.89	1556.52
C3 TO C2	26	24 in	0.013	C3	5A	1.62	0.78	12.7	13.01	12.7	10.21	8.25	22.66	8.25	6.64	1.00	1550.93	1551.20	1551.80	1552.22	1552.93	1553.20	1552.42	1552.62	1556.52	1557.06
SD LAT C1																										
C4 TO C2	7	24 in	0.013	C4	5B	1.62	0.78	12.7	13.01	12.7	10.21	8.25	22.60	8.25	6.63	1.00	1550.93	1551.01	1551.85	1552.03	1552.93	1553.01	1552.39	1552.43	1556.52	1557.06



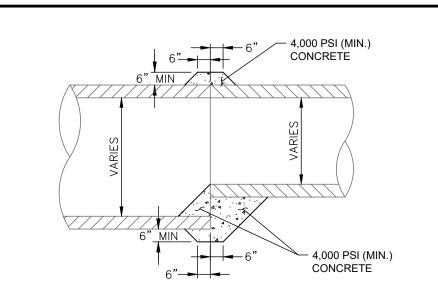


PHASE 3F STORM DRAIN CALCULATIONS

KENDALL COUNTY WATER CONTROL AND IMPROVEMENT DISTRICT NO. 2B

SHEET NUMBER

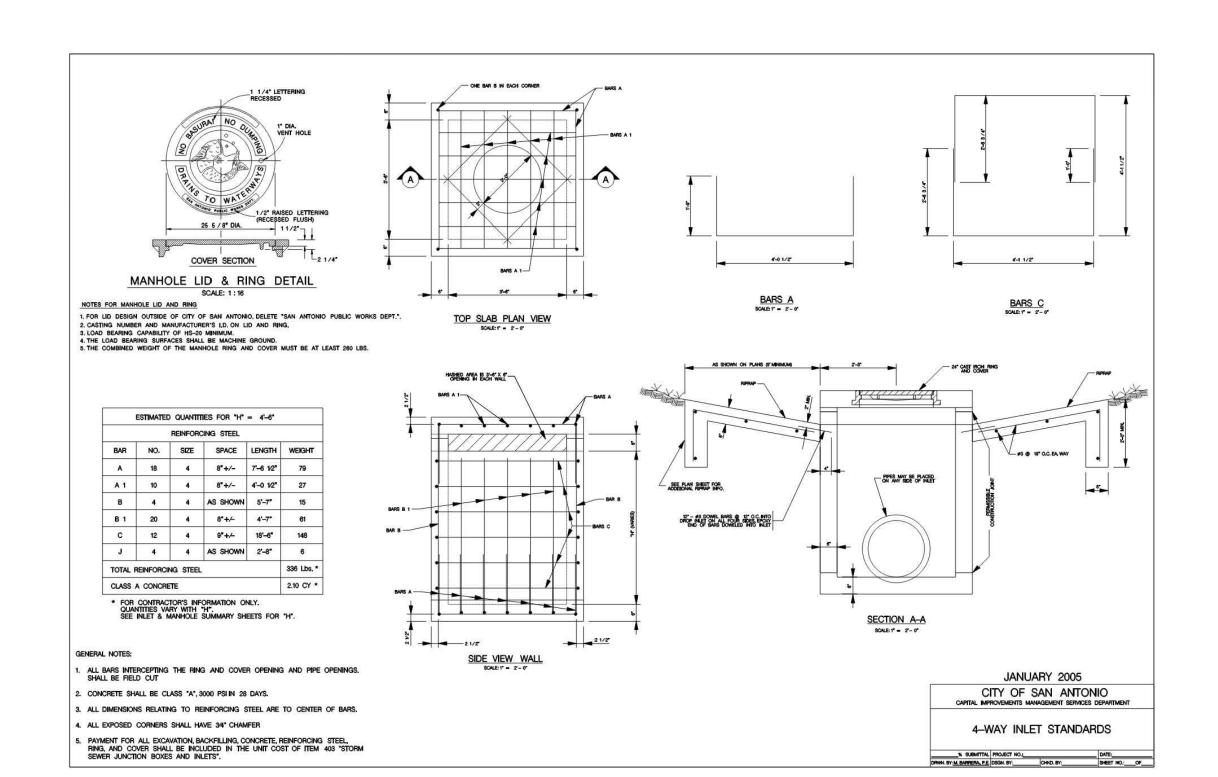
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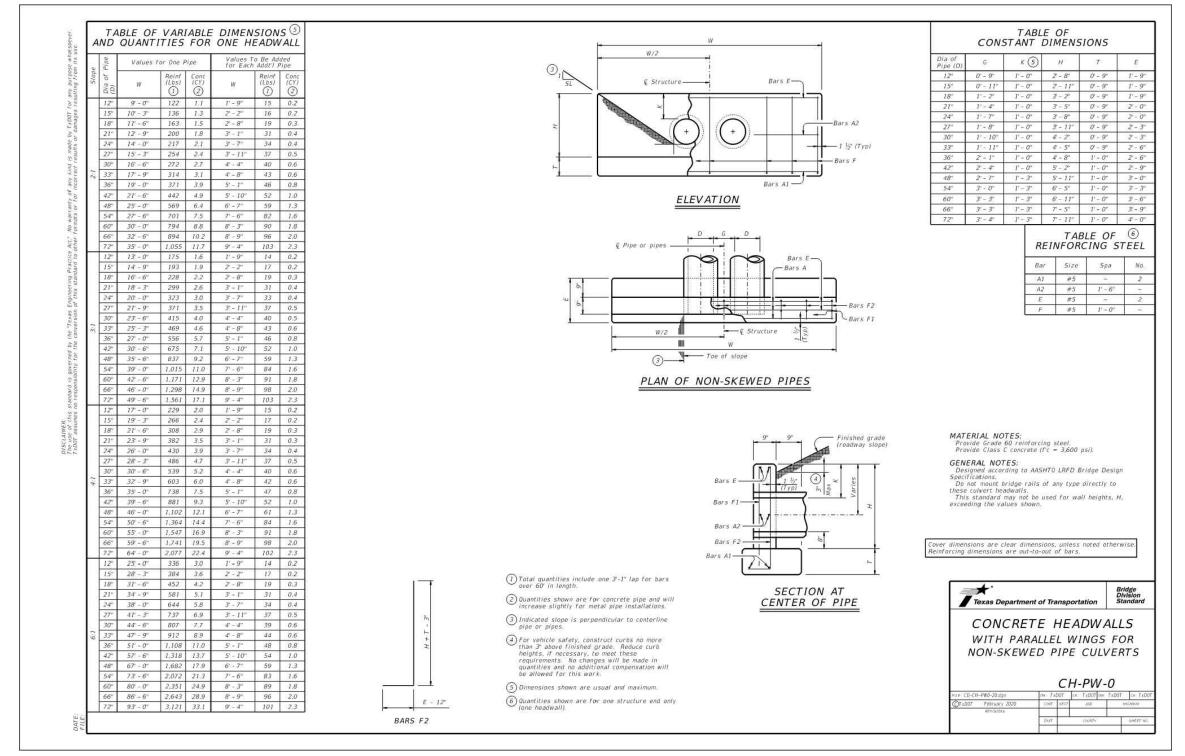


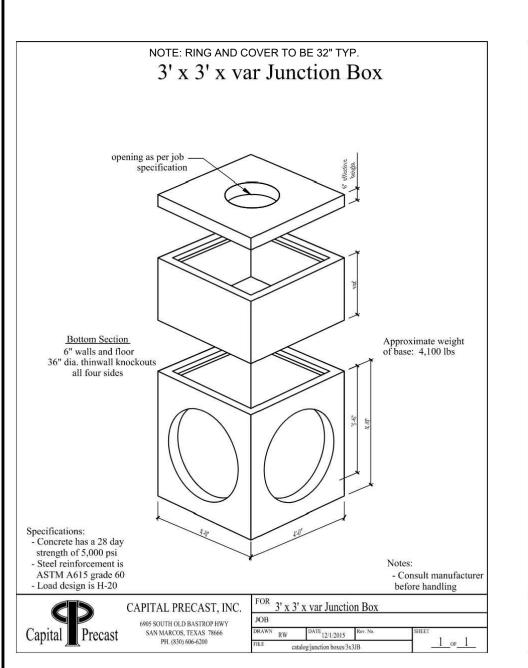
CONCRETE COLLAR DETAIL

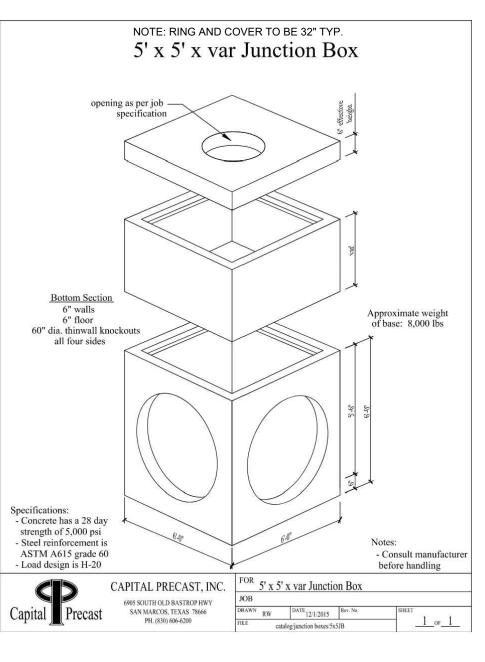


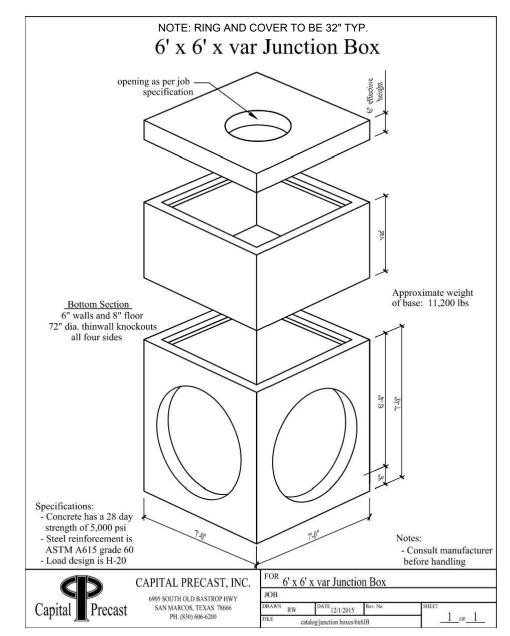
WEATHERED CONCRETE RIP-RAP FINISH

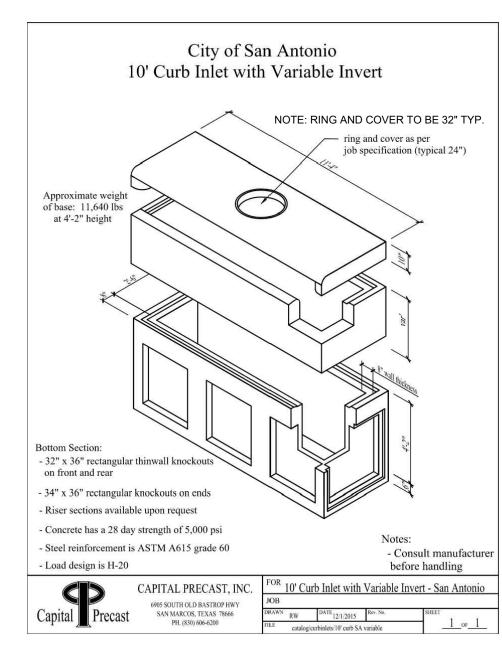


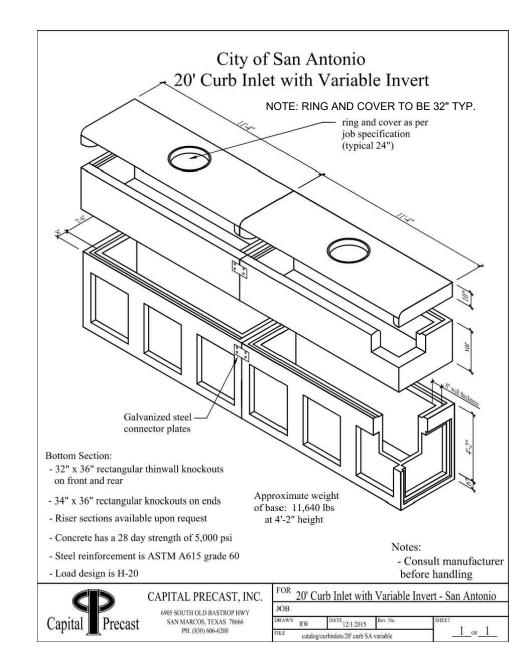


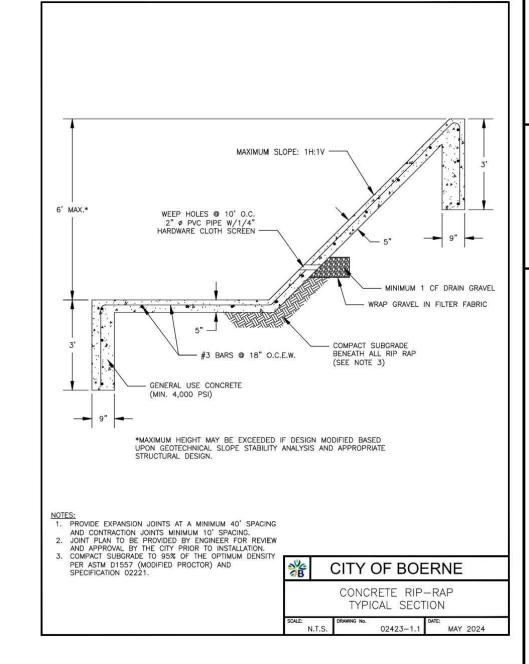


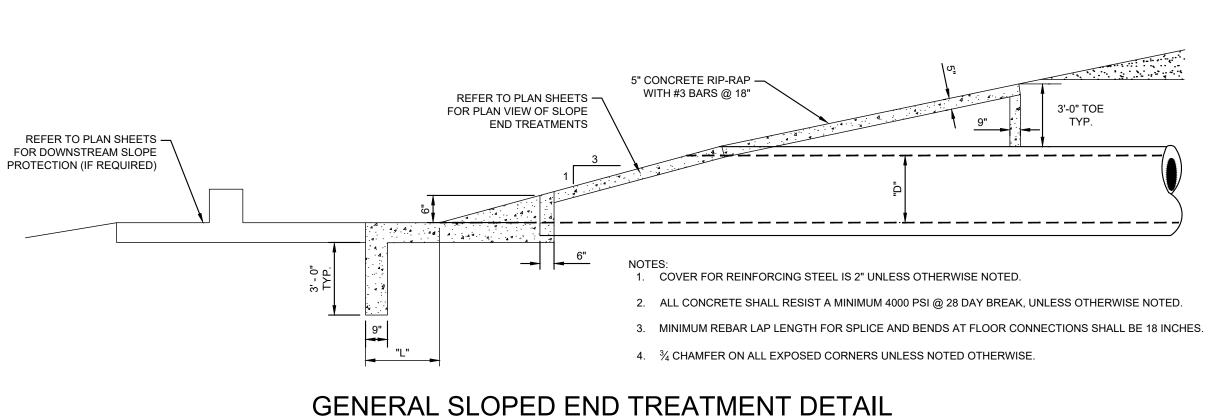












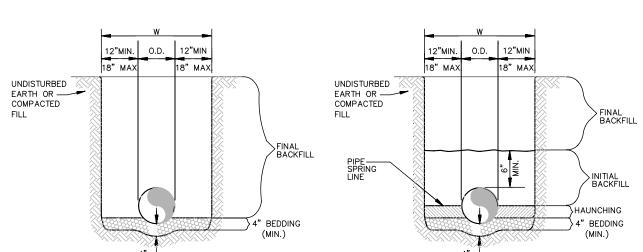
DIMENS CIRCULAR P		
"D" INSIDE DIAMETER OF PIPE	"L"	"W" WIDTH OF HEADWALL
18"	2'-0"	4'-6"
21"	2'-6"	5'-3"
24"	3'-0"	6'-0"
30"	4'-0"	7'-6"
36"	5'-0"	9'-0"
42"	6'-0"	10'-6"
48"	7'-0"	12'-0"
54"	8'-0"	13'-6"
60"	9'-0"	15'-0"

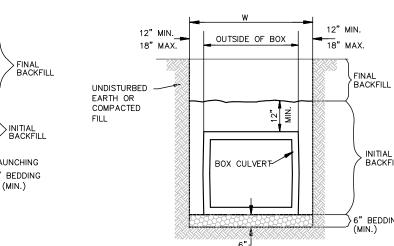
GENERAL NOTES

- 1. BEDDING SHALL BE CLASS I-A WORKED BY HAND. IF GROUNDWATER IS ANTICIPATED,
- THEN BEDDING SHALL BE CLASS I-B COMPACTED TO 85% STANDARD PROCTOR. 2. HAUNCHING SHALL BE WORKED AROUND THE PIPE BY HAND TO ELIMINATE VOIDS AND
- SHALL BE CLASS I-A OR CLASS I-B OR CLASS II COMPACTED TO 85% PROCTOR.

 3. INITIAL BACKFILL SHALL BE CLASS I-A WORKED BY HAND, OR CLASS I-B OR CLASS II COMPACTED TO 85% STANDARD PROCTOR.
- 4. INITIAL BACKFILL NOT UNDER PAVED AREAS CAN BE CLASS III COMPACTED TO 90%
- STANDARD PROCTOR.
- 5. FINAL BACKFILL SHALL BE CLASS I, II, OR III COMPACTED AS NOTED IN NOTES 3. AND 4.
- 6. FINAL BACKFILL NOT UNDER PAVED AREAS CAN BE CLASS IV-A COMPACTED TO 95% STANDARD PROCTOR.
- 7. ALL MATERIALS ARE CLASSIFIED IN ACCORDANCE WITH ASTM D 2321-LATEST EDITION.
- 8. ALL MATERIALS SHALL BE INSTALLED IN MAXIMUM 8" LOOSE LIFTS IN ACCORDANCE WITH ASTM D 698. CLASS III AND IV-A MATERIALS SHALL BE COMPACTED NEAR
- 9. FILL SALVAGED FROM EXCAVATION SHALL BE FREE OF DEBRIS, ORGANICS AND ROCKS
 LARGER THAN 3".

 SPIRAL RIB PIPE SMALLER THAN 60" DIA.
- 10. ALL TRENCH EXCAVATIONS SHALL BE SLOPED, SHORED, SHEETED, BRACED, OR OTHERWISE SUPPORTED IN COMPLIANCE WITH OSHA REGULATIONS AND LOCAL ORDINANCES. (SEE SPECIFICATIONS)





REINFORCED CONCRETE PIPE (RCP) AND

ALL OTHER PIPES INCLUDING SPIRAL RIB PIPE 60" DIA. AND LARGER

STORM SEWER TRENCH AND BEDDING

KENDALL COUNTY WATER CONTROL AND IMPROVEMENT DISTRICT NO. 2B

CONCRETE BOX CULVERT

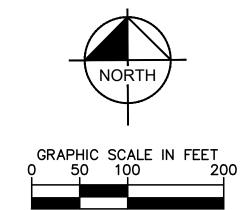
SHEET NUMBER

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Kimley

MICHAEL A. SCHOLZE



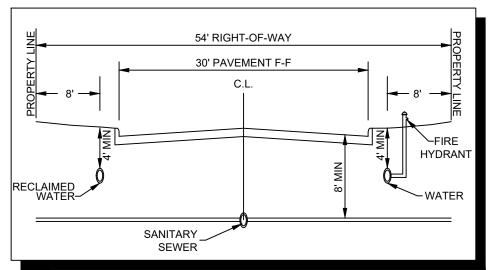


	LEGEND
ss	PROPOSED SANITARY SEWER MAIN
——— w ———	PROPOSED POTABLE WATER MAIN
	PROPOSED RECLAIMED WATER MAIN
GAS	PROPOSED GAS MAIN
UGE	PROPOSED UNDERGROUND ELECTRIC LINE
SS	EXISTING SANITARY SEWER MAIN
W	EXISTING POTABLE WATER MAIN
RW	EXISTING RECLAIMED WATER MAIN
▶●	PROPOSED SANITARY SEWER MANHOLE
▶ ∅ ▶	PROPOSED VENTED SANITARY SEWER MANHOLE
H	PROPOSED WATER VALVE
*	PROPOSED FIRE HYDRANT
•	PROPOSED BLOW OFF VALVE
Œ	PROPOSED ELECTRIC SERVICE
G	PROPOSED GAS SERVICE

NOTES:

1. VALVES AT TEES SHALL BE AS CLOSE TO THE TEE AS POSSIBLE.

TYPICAL UTILITY LOCATION





abla existing underground utilities in the area contractor $^{oldsymbol{arphi}}$ IS RESPONSIBLE FOR DETERMINING THE HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.
CONTRACTOR SHALL BE RESPONSIBLE FOR ANY REPAIRS TO
EXISTING UTILITIES DUE TO DAMAGE INCURRED DURING
CONSTRUCTION. CONTRACTOR SHALL NOTIFY THE ENGINEER OF
ANY DISCREPANCIES ON THE PLANS.

BENCHMARK LIST

DATUM IS NAVD '88, USING GEOID 18, BASED ON GPS OBSERVATIONS.

BM #103: MAG NAIL WITH WASHER STAMPED "103" SET IN CONCRETE AT CURB ON THE EAST RIGHT-OF-WAY LINE OF ALONZO (LOCAL RESIDENTIAL) STREET AND WEST OF LOT 2, BLOCK 26.

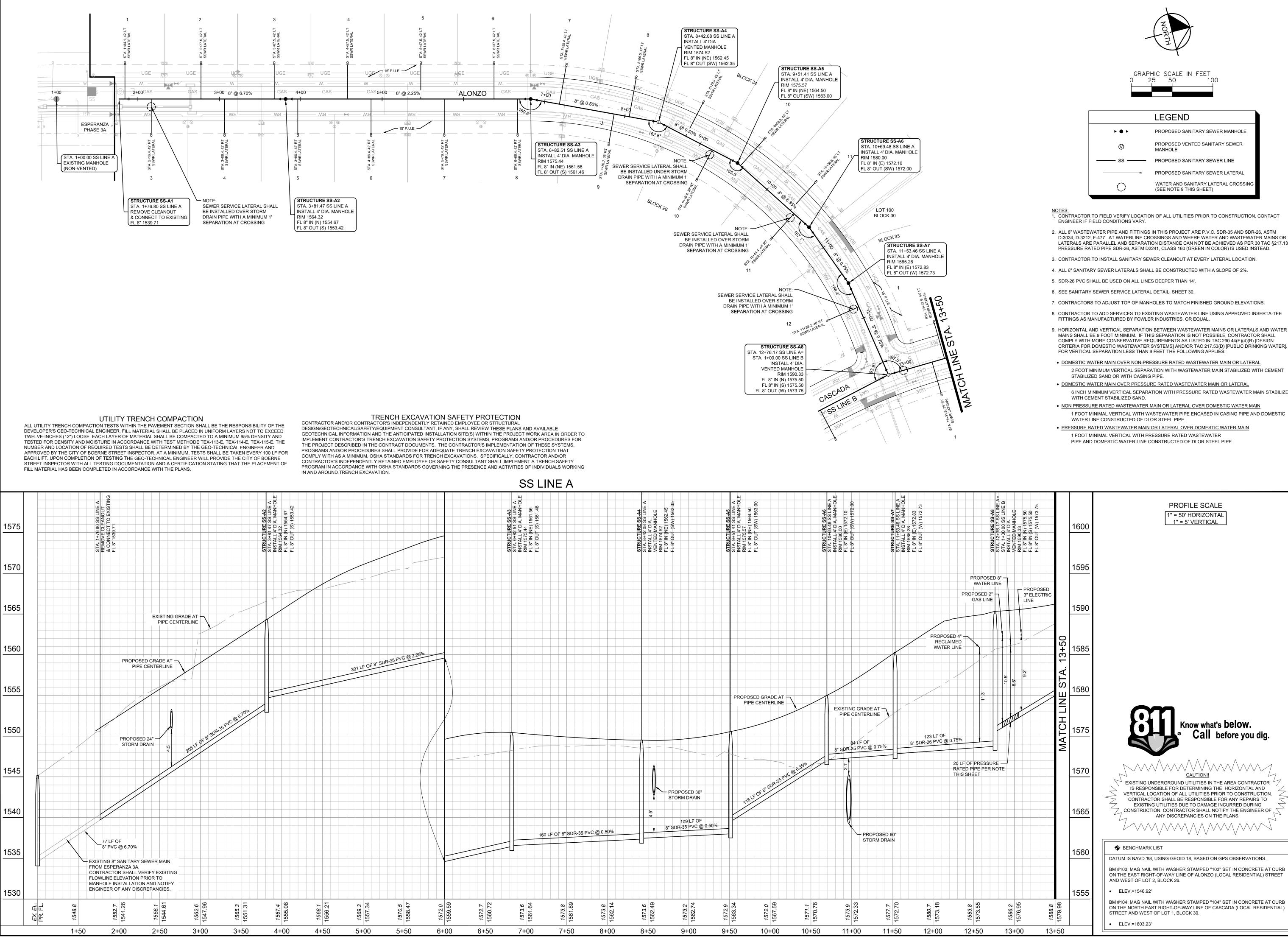
• ELEV.=1546.92'

BM #104: MAG NAIL WITH WASHER STAMPED "104" SET IN CONCRETE AT CURB ON THE NORTH EAST RIGHT-OF-WAY LINE OF CASCADA (LOCAL RESIDENTIAL) STREET AND WEST OF LOT 1, BLOCK 30.



Kimley

KENDALL COUNTY WATER CONTROL AND IMPROVEMENT DISTRICT NO. 2B SHEET NUMBER



PROPOSED SANITARY SEWER MANHOLE PROPOSED VENTED SANITARY SEWER

0

1. CONTRACTOR TO FIELD VERIFY LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION. CONTACT

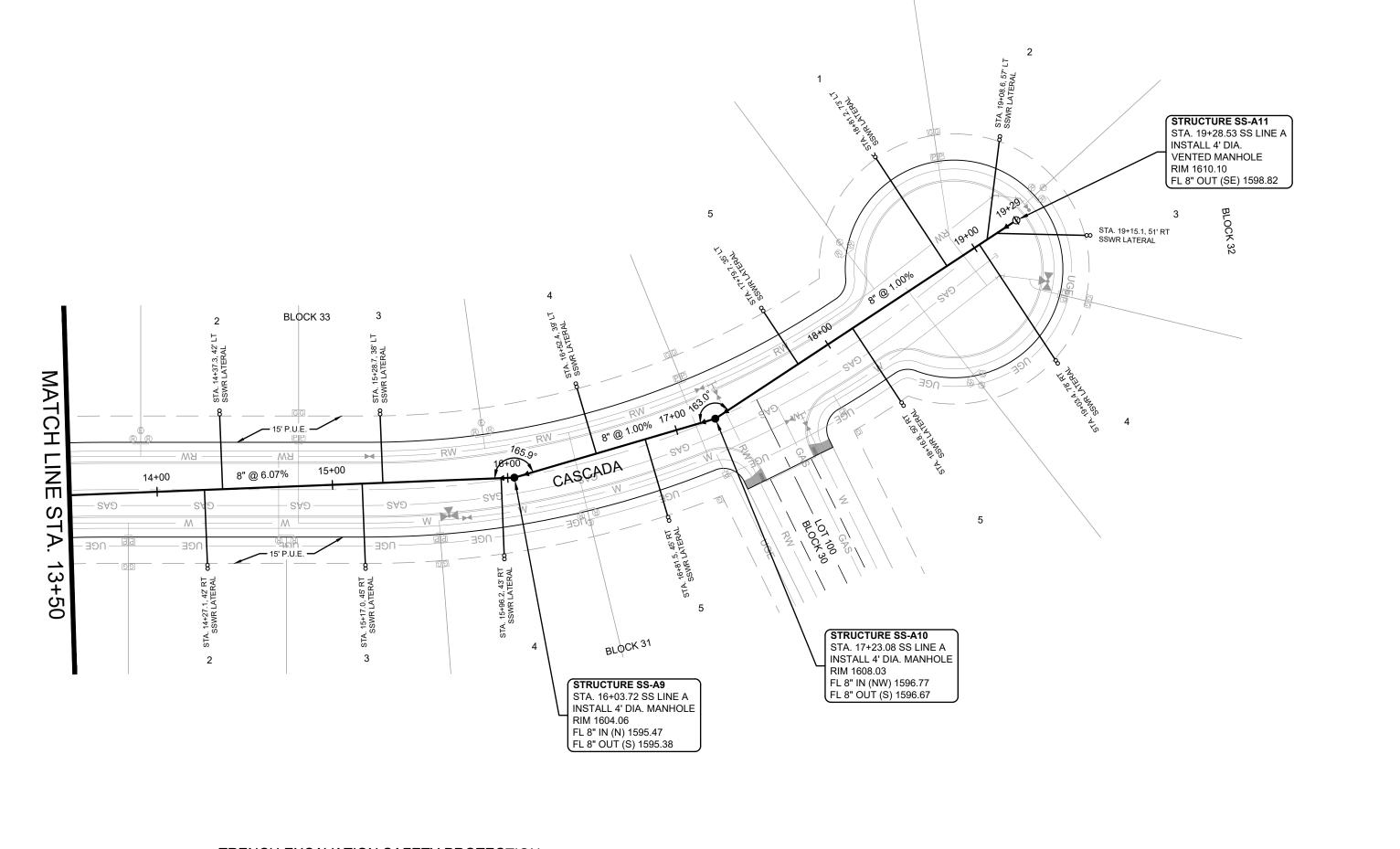
- 2. ALL 8" WASTEWATER PIPE AND FITTINGS IN THIS PROJECT ARE P.V.C. SDR-35 AND SDR-26, ASTM D-3034, D-3212, F-477. AT WATERLINE CROSSINGS AND WHERE WATER AND WASTEWATER MAINS OR LATERALS ARE PARALLEL AND SEPARATION DISTANCE CAN NOT BE ACHIEVED AS PER 30 TAC §217.13, PRESSURE RATED PIPE SDR-26, ASTM D2241, CLASS 160 (GREEN IN COLOR) IS USED INSTEAD.

- 7. CONTRACTORS TO ADJUST TOP OF MANHOLES TO MATCH FINISHED GROUND ELEVATIONS.
- 8. CONTRACTOR TO ADD SERVICES TO EXISTING WASTEWATER LINE USING APPROVED INSERTA-TEE
- 9. HORIZONTAL AND VERTICAL SEPARATION BETWEEN WASTEWATER MAINS OR LATERALS AND WATER
- COMPLY WITH MORE CONSERVATIVE REQUIREMENTS AS LISTED IN TAC 290.44(E)(4)(B) [DESIGN CRITERIA FOR DOMESTIC WASTEWATER SYSTEMS] AND/OR TAC 217.53(D) [PUBLIC DRINKING WATER]. FOR VERTICAL SEPARATION LESS THAN 9 FEET THE FOLLOWING APPLIES:
- $\bullet \ \underline{ \ \mathsf{DOMESTIC} \ \mathsf{WATER} \ \mathsf{MAIN} \ \mathsf{OVER} \ \mathsf{NON\text{-}PRESSURE} \ \mathsf{RATED} \ \mathsf{WASTEWATER} \ \mathsf{MAIN} \ \mathsf{OR} \ \mathsf{LATERAL} }$ 2 FOOT MINIMUM VERTICAL SEPARATION WITH WASTEWATER MAIN STABILIZED WITH CEMENT
- DOMESTIC WATER MAIN OVER PRESSURE RATED WASTEWATER MAIN OR LATERAL 6 INCH MINIMUM VERTICAL SEPARATION WITH PRESSURE RATED WASTEWATER MAIN STABILIZED
- NON PRESSURE RATED WASTEWATER MAIN OR LATERAL OVER DOMESTIC WATER MAIN 1 FOOT MINIMAL VERTICAL WITH WASTEWATER PIPE ENCASED IN CASING PIPE AND DOMESTIC
- PRESSURE RATED WASTEWATER MAIN OR LATERAL OVER DOMESTIC WATER MAIN 1 FOOT MINIMAL VERTICAL WITH PRESSURE RATED WASTEWATER

MICHAEL A. SCHOLZE

KENDALL COUNTY WATER CONTROL AND IMPROVEMEN

DISTRICT NO. 2B SHEET NUMBER



PROPOSED 4" WATER LINE

119 LF OF 8" SDR-35 PVC @ 1.00%

- PROPOSED GRADE AT PIPE CENTERLINE

1602.2 1592.12

15+50

16+00

16+50

17+00

17+50

18+00

18+50

19+00

19+50

20+00

205 LF OF 8" SDR-35 PVC @ 1 00%

UTILITY TRENCH COMPACTION

ALL UTILITY TRENCH COMPACTION TESTS WITHIN THE PAVEMENT SECTION SHALL BE THE RESPONSIBILITY OF THE DEVELOPER'S GEO-TECHNICAL ENGINEER. FILL MATERIAL SHALL BE PLACED IN UNIFORM LAYERS NOT TO EXCEED TWELVE-INCHES (12") LOOSE. EACH LAYER OF MATERIAL SHALL BE COMPACTED TO A MINIMUM 95% DENSITY AND TESTED FOR DENSITY AND MOISTURE IN ACCORDANCE WITH TEST METHODE TEX-113-E, TEX-114-E, TEX-115-E. THE NUMBER AND LOCATION OF REQUIRED TESTS SHALL BE DETERMINED BY THE GEO-TECHNICAL ENGINEER AND APPROVED BY THE CITY OF BOERNE STREET INSPECTOR. AT A MINIMUM, TESTS SHALL BE TAKEN EVERY 100 LF FOR EACH LIFT. UPON COMPLETION OF TESTING THE GEO-TECHNICAL ENGINEER WILL PROVIDE THE CITY OF BOERNE STREET INSPECTOR WITH ALL TESTING DOCUMENTATION AND A CERTIFICATION STATING THAT THE PLACEMENT OF FILL MATERIAL HAS BEEN COMPLETED IN ACCORDANCE WITH THE PLANS.

1605

1600

1595

1590

1580

1575

EX. EL. PR. FL.

1592. 1583.

14+00

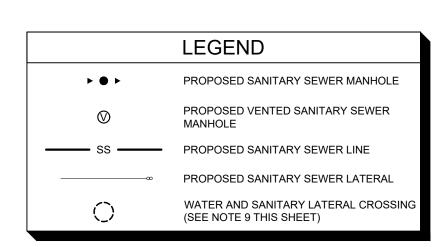
14+50

15+00

TRENCH EXCAVATION SAFETY PROTECTION CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL

> EXISTING GRADE AT -PIPE CENTERLINE

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.



NOTES:

1. CONTRACTOR TO FIELD VERIFY LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION. CONTACT ENGINEER IF FIELD CONDITIONS VARY.

- 2. ALL 8" WASTEWATER PIPE AND FITTINGS IN THIS PROJECT ARE P.V.C. SDR-35 AND SDR-26, ASTM D-3034, D-3212, F-477, AT WATERLINE CROSSINGS AND WHERE WATER AND WASTEWATER MAINS OR LATERALS ARE PARALLEL AND SEPARATION DISTANCE CAN NOT BE ACHIEVED AS PER 30 TAC §217.13, PRESSURE RATED PIPE SDR-26, ASTM D2241, CLASS 160 (GREEN IN COLOR) IS USED INSTEAD.
- 3. CONTRACTOR TO INSTALL SANITARY SEWER CLEANOUT AT EVERY LATERAL LOCATION.
- 4. ALL 6" SANITARY SEWER LATERALS SHALL BE CONSTRUCTED WITH A SLOPE OF 2%.

FOR VERTICAL SEPARATION LESS THAN 9 FEET THE FOLLOWING APPLIES:

5. SDR-26 PVC SHALL BE USED ON ALL LINES DEEPER THAN 14'.

1615

1610

1605

1600

1595

1590

1580

1575

6. SEE SANITARY SEWER SERVICE LATERAL DETAIL, SHEET 30.

7. CONTRACTORS TO ADJUST TOP OF MANHOLES TO MATCH FINISHED GROUND ELEVATIONS.

- 8. CONTRACTOR TO ADD SERVICES TO EXISTING WASTEWATER LINE USING APPROVED INSERTA-TEE
- FITTINGS AS MANUFACTURED BY FOWLER INDUSTRIES, OR EQUAL.
- 9. HORIZONTAL AND VERTICAL SEPARATION BETWEEN WASTEWATER MAINS OR LATERALS AND WATER MAINS SHALL BE 9 FOOT MINIMUM. IF THIS SEPARATION IS NOT POSSIBLE, CONTRACTOR SHALL COMPLY WITH MORE CONSERVATIVE REQUIREMENTS AS LISTED IN TAC 290.44(E)(4)(B) [DESIGN CRITERIA FOR DOMESTIC WASTEWATER SYSTEMS] AND/OR TAC 217.53(D) [PUBLIC DRINKING WATER].
- DOMESTIC WATER MAIN OVER NON-PRESSURE RATED WASTEWATER MAIN OR LATERAL 2 FOOT MINIMUM VERTICAL SEPARATION WITH WASTEWATER MAIN STABILIZED WITH CEMENT STABILIZED SAND OR WITH CASING PIPE.
- DOMESTIC WATER MAIN OVER PRESSURE RATED WASTEWATER MAIN OR LATERAL 6 INCH MINIMUM VERTICAL SEPARATION WITH PRESSURE RATED WASTEWATER MAIN STABILIZED WITH CEMENT STABILIZED SAND.
- NON PRESSURE RATED WASTEWATER MAIN OR LATERAL OVER DOMESTIC WATER MAIN 1 FOOT MINIMAL VERTICAL WITH WASTEWATER PIPE ENCASED IN CASING PIPE AND DOMESTIC WATER LINE CONSTRUCTED OF DI OR STEEL PIPE.
- PRESSURE RATED WASTEWATER MAIN OR LATERAL OVER DOMESTIC WATER MAIN 1 FOOT MINIMAL VERTICAL WITH PRESSURE RATED WASTEWATER PIPE AND DOMESTIC WATER LINE CONSTRUCTED OF DI OR STEEL PIPE.

PROFILE SCALE 1" = 50' HORIZONTAL 1" = 5' VERTICAL

EXISTING UNDERGROUND UTILITIES IN THE AREA CONTRACTOR $^{\it L}$ IS RESPONSIBLE FOR DETERMINING THE HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY REPAIRS TO EXISTING UTILITIES DUE TO DAMAGE INCURRED DURING CONSTRUCTION. CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES ON THE PLANS.

BENCHMARK LIST

DATUM IS NAVD '88, USING GEOID 18, BASED ON GPS OBSERVATIONS.

ON THE EAST RIGHT-OF-WAY LINE OF ALONZO (LOCAL RESIDENTIAL) STREET AND WEST OF LOT 2, BLOCK 26.

ELEV.=1546.92'

BM #104: MAG NAIL WITH WASHER STAMPED "104" SET IN CONCRETE AT CURB ON THE NORTH EAST RIGHT-OF-WAY LINE OF CASCADA (LOCAL RESIDENTIAL) STREET AND WEST OF LOT 1, BLOCK 30.

ELEV.=1603.23'

Call before you dig

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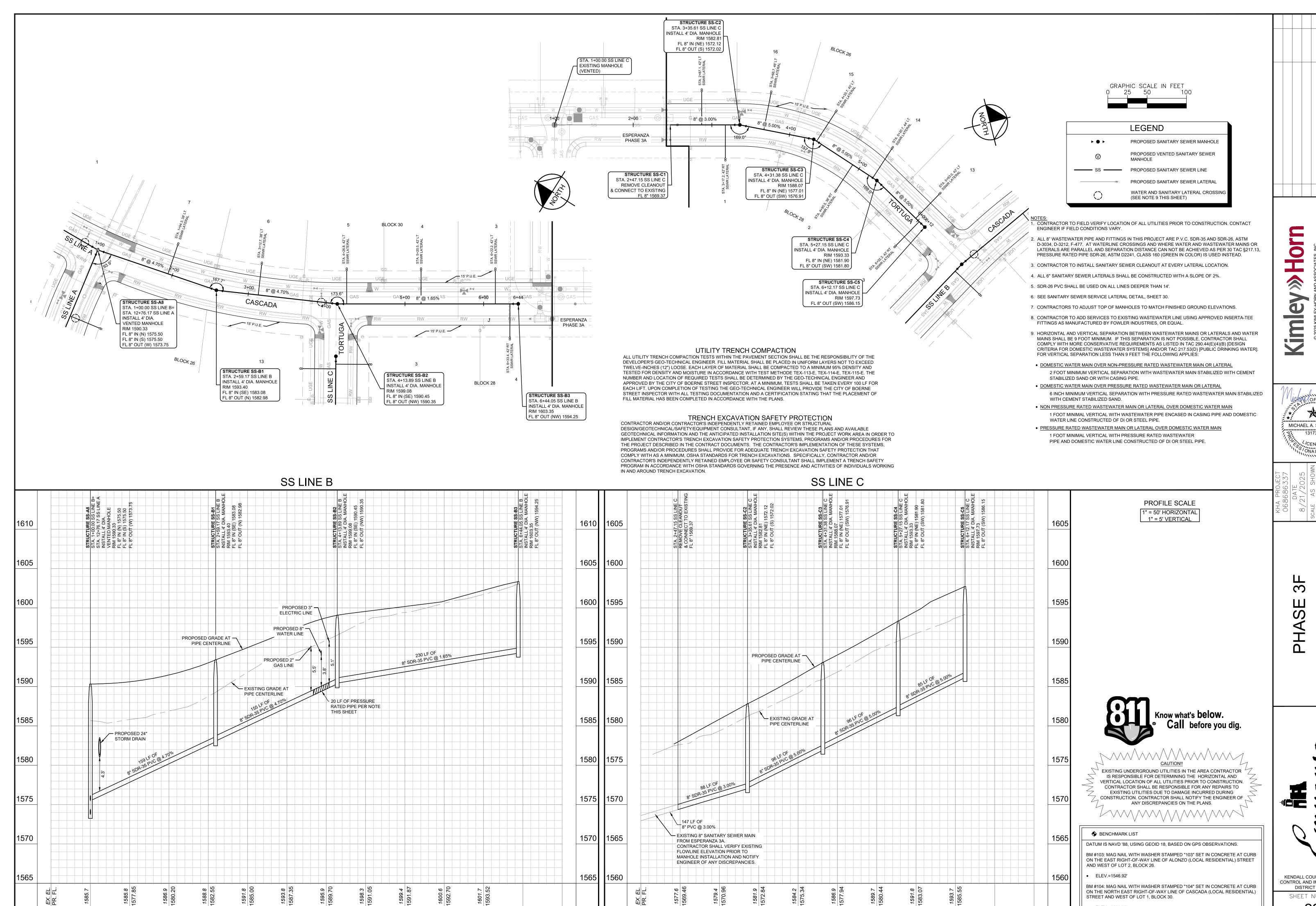
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MICHAEL A. SCHOLZE

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BM #103: MAG NAIL WITH WASHER STAMPED "103" SET IN CONCRETE AT CURB

KENDALL COUNTY WATER CONTROL AND IMPROVEMENT DISTRICT NO. 2B SHEET NUMBER



2+50

3+00

3+50

4+00

4+50

5+00

5+50

6+00

6+50

7+00

1+00

1+50

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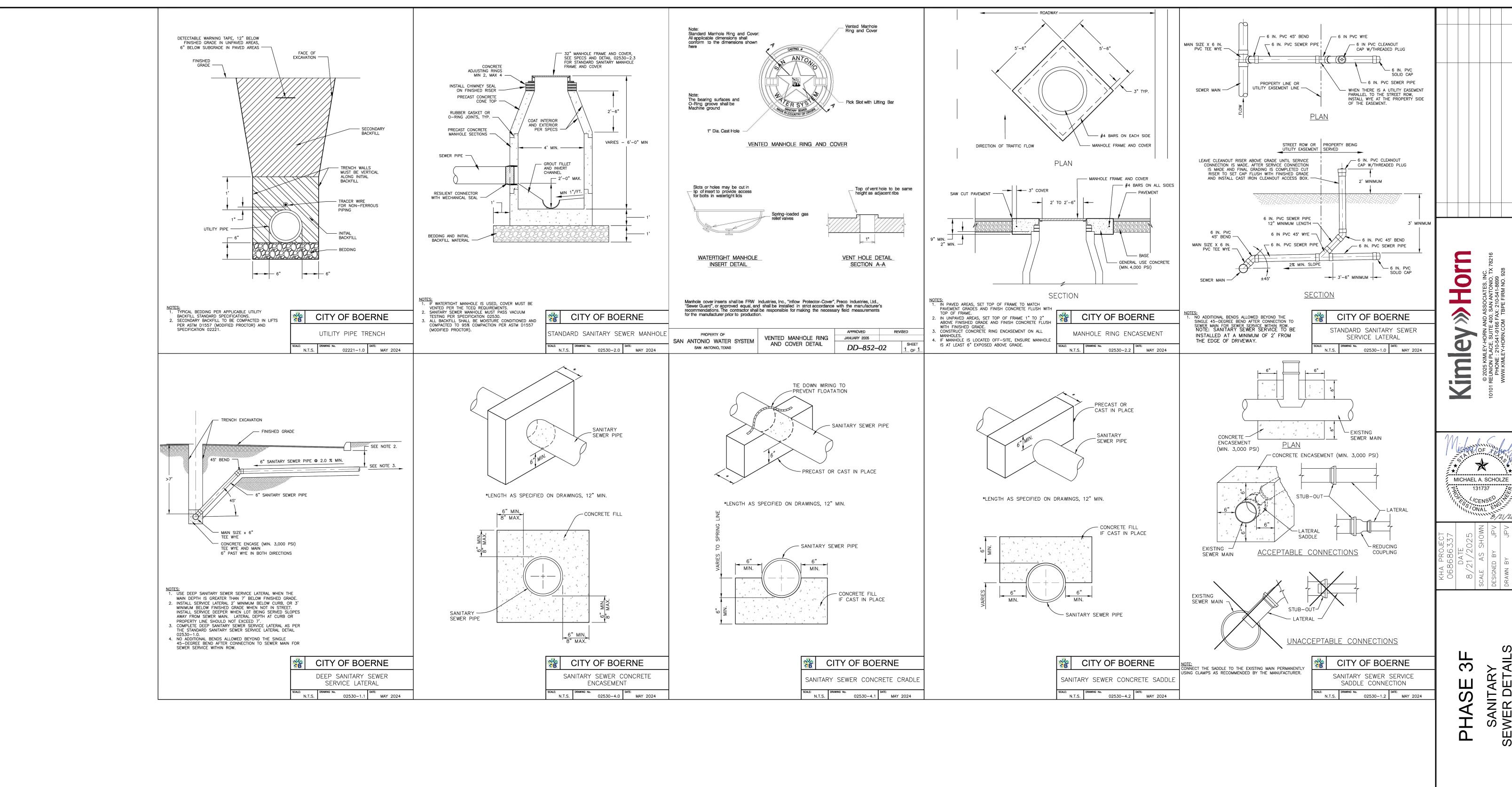
MICHAEL A. SCHOLZE

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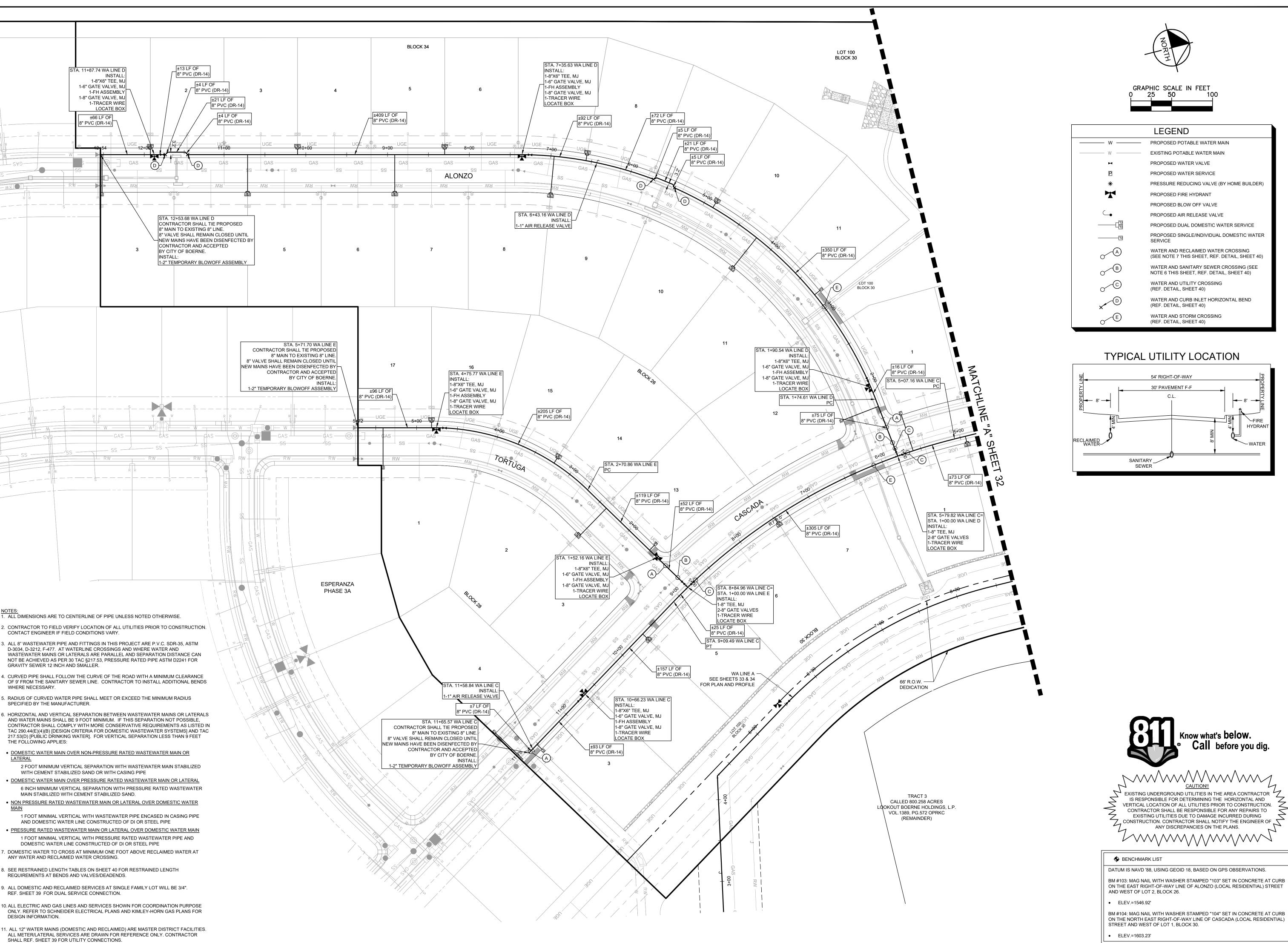
KENDALL COUNTY WATER CONTROL AND IMPROVEMEN DISTRICT NO. 2B

SHEET NUMBER

ELEV.=1603.23'



KENDALL COUNTY WATER CONTROL AND IMPROVEMENT DISTRICT NO. 2B SHEET NUMBER



REVISIONS

SOCIATES, INC.
AN ANTONIO, TX 78216
210-541-8699
PE FIRM NO. 928

© 2025 KIMLEY-HORN AND ASSOCI 10101 REUNION PLACE, SUITE 400, SAN A PHONE: 210-541-9166 FAX: 210-WWW.KIMLEY-HORN.COM TBPE FI

MICHAEL A. SCHOLZE

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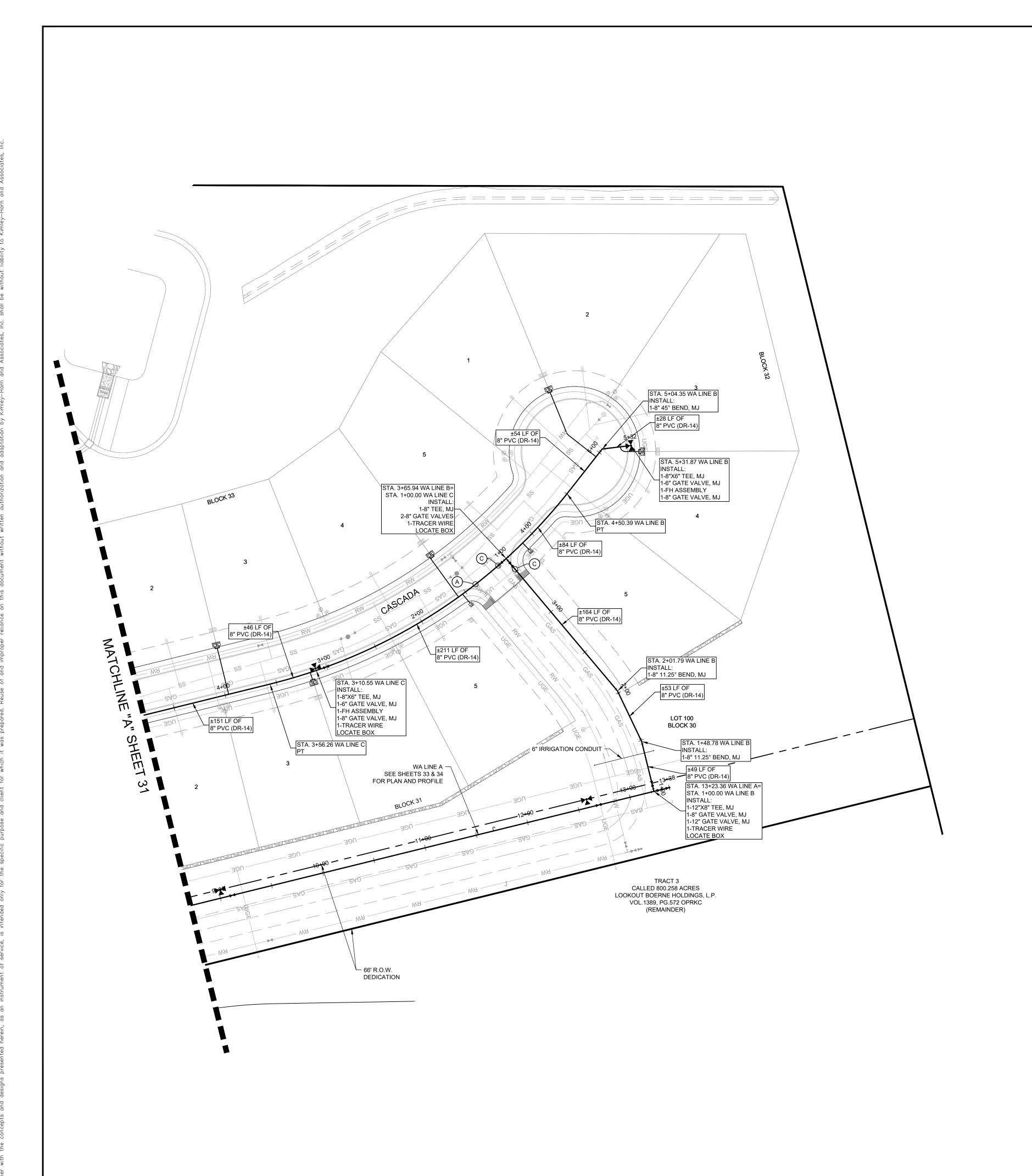
SCALE AS SHOWN
DESIGNED BY JPV
DRAWN BY JPV

FER PLAN ET 1 OF 2)

WATER PLA

PE SOERNE * TEXAS

KENDALL COUNTY WATER CONTROL AND IMPROVEMENT DISTRICT NO. 2B



NOTES:

1. ALL DIMENSIONS ARE TO CENTERLINE OF PIPE UNLESS NOTED OTHERWISE.

CONTRACTOR TO FIELD VERIFY LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION. CONTACT ENGINEER IF FIELD CONDITIONS VARY.

3. ALL 8" WASTEWATER PIPE AND FITTINGS IN THIS PROJECT ARE P.V.C. SDR-35, ASTM D-3034, D-3212, F-477. AT WATERLINE CROSSINGS AND WHERE WATER AND WASTEWATER MAINS OR LATERALS ARE PARALLEL AND SEPARATION DISTANCE CAN NOT BE ACHIEVED AS PER 30 TAC §217.53, PRESSURE RATED PIPE ASTM D2241 FOR GRAVITY SEWER 12 INCH AND SMALLER.

4. CURVED PIPE SHALL FOLLOW THE CURVE OF THE ROAD WITH A MINIMUM CLEARANCE OF 9' FROM THE SANITARY SEWER LINE. CONTRACTOR TO INSTALL ADDITIONAL BENDS WHERE NECESSARY

5. RADIUS OF CURVED WATER PIPE SHALL MEET OR EXCEED THE MINIMUM RADIUS SPECIFIED BY THE MANUFACTURER.

6. HORIZONTAL AND VERTICAL SEPARATION BETWEEN WASTEWATER MAINS OR LATERALS AND WATER MAINS SHALL BE 9 FOOT MINIMUM. IF THIS SEPARATION NOT POSSIBLE, CONTRACTOR SHALL COMPLY WITH MORE CONSERVATIVE REQUIREMENTS AS LISTED IN TAC 290.44(E)(4)(B) [DESIGN CRITERIA FOR DOMESTIC WASTEWATER SYSTEMS] AND TAC 217.53(D) [PUBLIC DRINKING WATER]. FOR VERTICAL SEPARATION LESS THAN 9 FEET THE FOLLOWING APPLIES:

• DOMESTIC WATER MAIN OVER NON-PRESSURE RATED WASTEWATER MAIN OR LATERAL

2 FOOT MINIMUM VERTICAL SEPARATION WITH WASTEWATER MAIN STABILIZED WITH CEMENT STABILIZED SAND OR WITH CASING PIPE

DOMESTIC WATER MAIN OVER PRESSURE RATED WASTEWATER MAIN OR LATERAL

DOMESTIC WATER MAIN OVER PRESSURE RATED WASTEWATER MAIN OR LATERAL
 6 INCH MINIMUM VERTICAL SEPARATION WITH PRESSURE RATED WASTEWATER MAIN STABILIZED WITH CEMENT STABILIZED SAND.

NON PRESSURE RATED WASTEWATER MAIN OR LATERAL OVER DOMESTIC WATER
 MAIN
 1 FOOT MINIMAL VERTICAL WITH WASTEWATER PIPE ENCASED IN CASING PIPE

AND DOMESTIC WATER LINE CONSTRUCTED OF DI OR STEEL PIPE

• PRESSURE RATED WASTEWATER MAIN OR LATERAL OVER DOMESTIC WATER MAIN

1 FOOT MINIMAL VERTICAL WITH PRESSURE RATED WASTEWATER PIPE AND

DOMESTIC WATER LINE CONSTRUCTED OF DI OR STEEL PIPE

7. DOMESTIC WATER TO CROSS AT MINIMUM ONE FOOT ABOVE RECLAIMED WATER AT ANY WATER AND RECLAIMED WATER CROSSING.

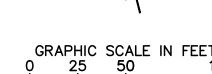
8. SEE RESTRAINED LENGTH TABLES ON SHEET 40 FOR RESTRAINED LENGTH REQUIREMENTS AT BENDS AND VALVES/DEADENDS.

9. ALL DOMESTIC AND RECLAIMED SERVICES AT SINGLE FAMILY LOT WILL BE 3/4". REF. SHEET 39 FOR DUAL SERVICE CONNECTION.

10. ALL ELECTRIC AND GAS LINES AND SERVICES SHOWN FOR COORDINATION PURPOSE ONLY. REFER TO SCHNEIDER ELECTRICAL PLANS AND KIMLEY-HORN GAS PLANS FOR DESIGN INFORMATION.

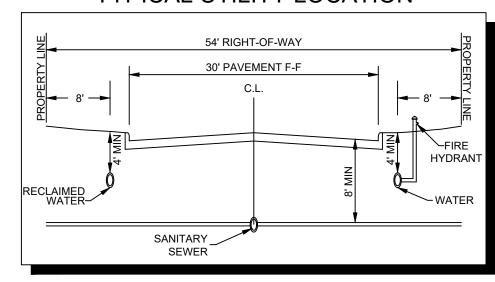
11. ALL 12" WATER MAINS (DOMESTIC AND RECLAIMED) ARE MASTER DISTRICT FACILITIES. ALL METER/LATERAL SERVICES ARE DRAWN FOR REFERENCE ONLY. CONTRACTOR SHALL SHEET 39 FOR UTILITY CONNECTIONS.





	LEGEND
w	PROPOSED POTABLE WATER MAIN
W	EXISTING POTABLE WATER MAIN
H	PROPOSED WATER VALVE
P	PROPOSED WATER SERVICE
*	PRESSURE REDUCING VALVE (BY HOME BUILDER)
*	PROPOSED FIRE HYDRANT
	PROPOSED BLOW OFF VALVE
_	PROPOSED AIR RELEASE VALVE
	PROPOSED DUAL DOMESTIC WATER SERVICE
————D	PROPOSED SINGLE/INDIVIDUAL DOMESTIC WATER SERVICE
A	WATER AND RECLAIMED WATER CROSSING (SEE NOTE 7 THIS SHEET, REF. DETAIL, SHEET 40)
B	WATER AND SANITARY SEWER CROSSING (SEE NOTE 6 THIS SHEET, REF. DETAIL, SHEET 40)
· ©	WATER AND UTILITY CROSSING (REF. DETAIL, SHEET 40)
D	WATER AND CURB INLET HORIZONTAL BEND (REF. DETAIL, SHEET 40)
E	WATER AND STORM CROSSING (REF. DETAIL, SHEET 40)

TYPICAL UTILITY LOCATION





CAUTION!!

EXISTING UNDERGROUND UTILITIES IN THE AREA CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY REPAIRS TO EXISTING UTILITIES DUE TO DAMAGE INCURRED DURING CONSTRUCTION. CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES ON THE PLANS.

BENCHMARK LIST

DATUM IS NAVD '88, USING GEOID 18, BASED ON GPS OBSERVATIONS.

BM #103: MAG NAIL WITH WASHER STAMPED "103" SET IN CONCRETE AT CURB ON THE EAST RIGHT-OF-WAY LINE OF ALONZO (LOCAL RESIDENTIAL) STREET

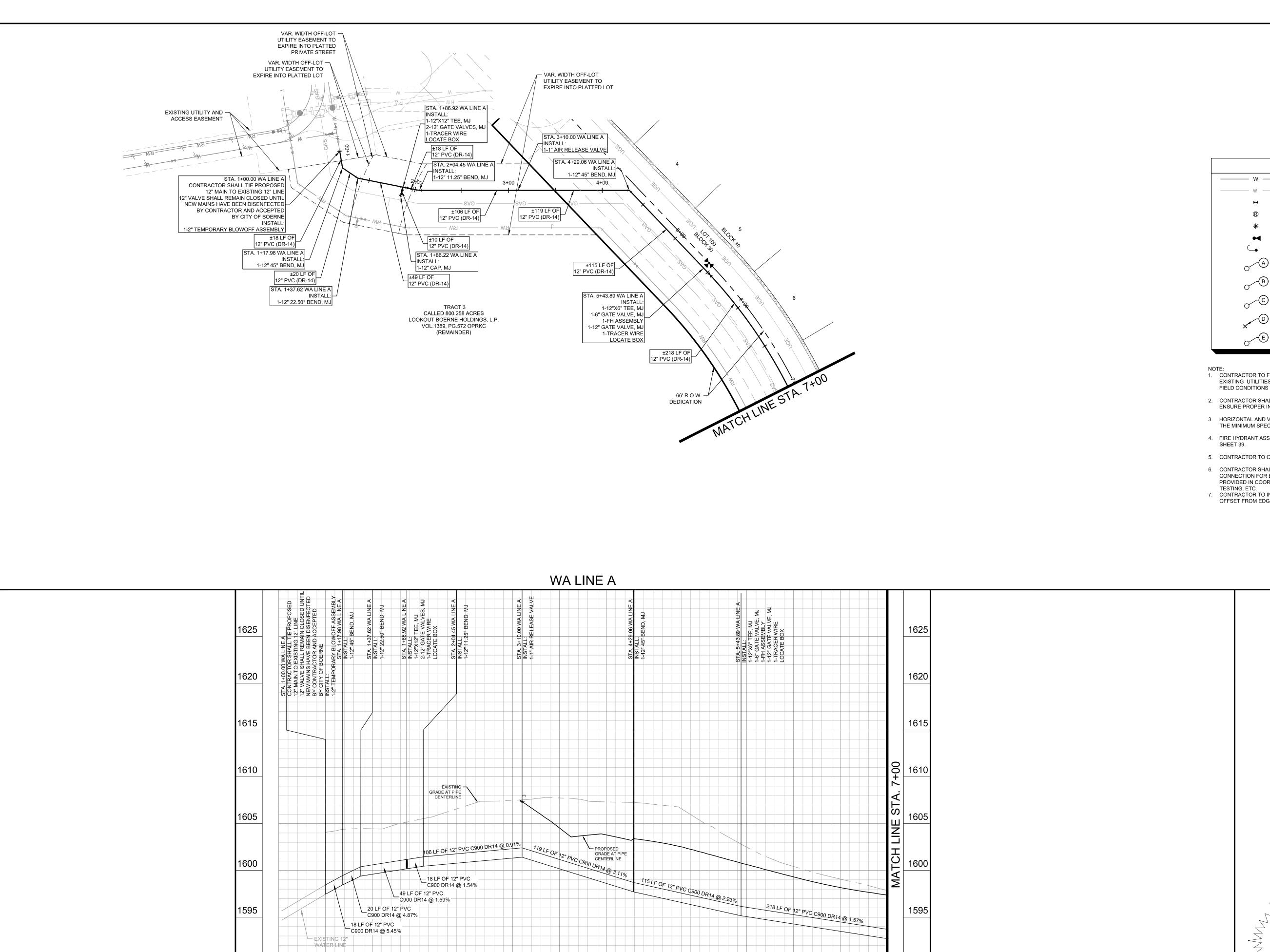
AND WEST OF LOT 2, BLOCK 26.ELEV.=1546.92'

BM #104: MAG NAIL WITH WASHER STAMPED "104" SET IN CONCRETE AT CURB ON THE NORTH EAST RIGHT-OF-WAY LINE OF CASCADA (LOCAL RESIDENTIAL) STREET AND WEST OF LOT 1, BLOCK 30.

• ELEV.=1603.23'



KENDALL COUNTY WATER CONTROL AND IMPROVEMENT DISTRICT NO. 2B SHEET NUMBER





GRAPHIC SCALE IN FEET 0 25 50 10

	LEGEND
w	PROPOSED WATER MAIN
W	EXISTING WATER MAIN
H	PROPOSED WATER VALVE
$^{ ext{ ext{ ext{ ext{ ext{ ext{ ext{ ext$	PROPOSED WATER SERVICE
*	PRESSURE REDUCING VALVE (BY HOME BUILDER)
•	PROPOSED BLOW OFF VALVE
_	PROPOSED AIR RELEASE VALVE
(A)	WATER AND RECLAIMED WATER CROSSING (SEE NOTE 7 THIS SHEET, REF. DETAIL, SHEET 40)
B	WATER AND SANITARY SEWER CROSSING (SEE NOTE 6 THIS SHEET, REF. DETAIL, SHEET 40)
· ©	WATER AND UTILITY CROSSING (REF. DETAIL, SHEET 40)
× D	WATER AND CURB INLET HORIZONTAL BEND (REF. DETAIL, SHEET 40)
E	WATER AND STORM CROSSING (REF. DETAIL, SHEET 40)

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- 3. HORIZONTAL AND VERTICAL RADIUS OF CURVED WATER PIPE SHALL MEET OR EXCEED THE MINIMUM SPECIFICATION LISTED BY THE MANUFACTURER.
- 4. FIRE HYDRANT ASSEMBLY INCLUDES ALL BENDS, VALVES, AND PIPES PER DETAIL ON
- 5. CONTRACTOR TO COORDINATE WITH OWNER'S CHLORINATION CONTRACTOR.
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- 7. CONTRACTOR TO INSTALL AIR RELEASE VALVES AND BLOW-OFF VALVES AT LEAST 5' OFFSET FROM EDGE OF ACCESS ROAD.

PROFILE SCALE

1" = 50' HORIZONTAL

1" = 5' VERTICAL



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◆ BENCHMARK LIST

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BM #103: MAG NAIL WITH WASHER STAMPED "103" SET IN CONCRETE AT CURB ON THE EAST RIGHT-OF-WAY LINE OF ALONZO (LOCAL RESIDENTIAL) STREET AND WEST OF LOT 2, BLOCK 26.

• ELEV.=1546.92'

1585

1599.1 1593.50

6+50

7+00

1605.3 1596.13

5+00

5+50

6+00

EX.

1+00

1+50

2+00

2+50

3+00

3+50

4+00

4+50

BM #104: MAG NAIL WITH WASHER STAMPED "104" SET IN CONCRETE AT CURB ON THE NORTH EAST RIGHT-OF-WAY LINE OF CASCADA (LOCAL RESIDENTIAL) STREET AND WEST OF LOT 1, BLOCK 30.

• ELEV.=1603.23'



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Kimley

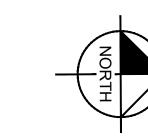
MICHAEL A. SCHOLZE

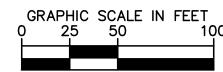
PROFILE T

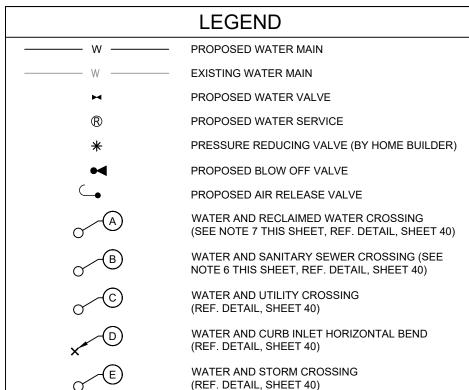
PLAN AND I IE A (SHEET

S E

KENDALL COUNTY WATER CONTROL AND IMPROVEMENT DISTRICT NO. 2B SHEET NUMBER







1605

1600

1595

1590

1585

1580

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PROFILE SCALE 1" = 50' HORIZONTAL 1" = 5' VERTICAL



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BENCHMARK LIST

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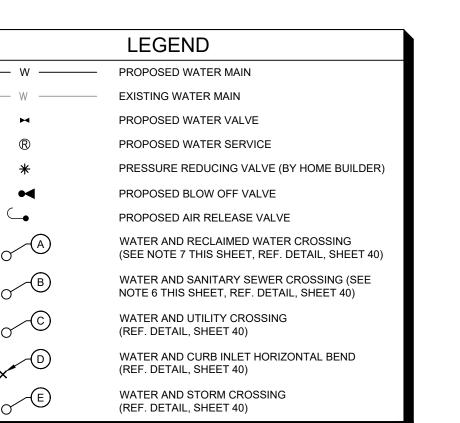
BM #103: MAG NAIL WITH WASHER STAMPED "103" SET IN CONCRETE AT CURB ON THE EAST RIGHT-OF-WAY LINE OF ALONZO (LOCAL RESIDENTIAL) STREET AND WEST OF LOT 2, BLOCK 26.

ELEV.=1546.92'

ELEV.=1603.23'

BM #104: MAG NAIL WITH WASHER STAMPED "104" SET IN CONCRETE AT CURB ON THE NORTH EAST RIGHT-OF-WAY LINE OF CASCADA (LOCAL RESIDENTIAL) STREET AND WEST OF LOT 1, BLOCK 30.

KENDALL COUNTY WATER CONTROL AND IMPROVEMENT DISTRICT NO. 2B



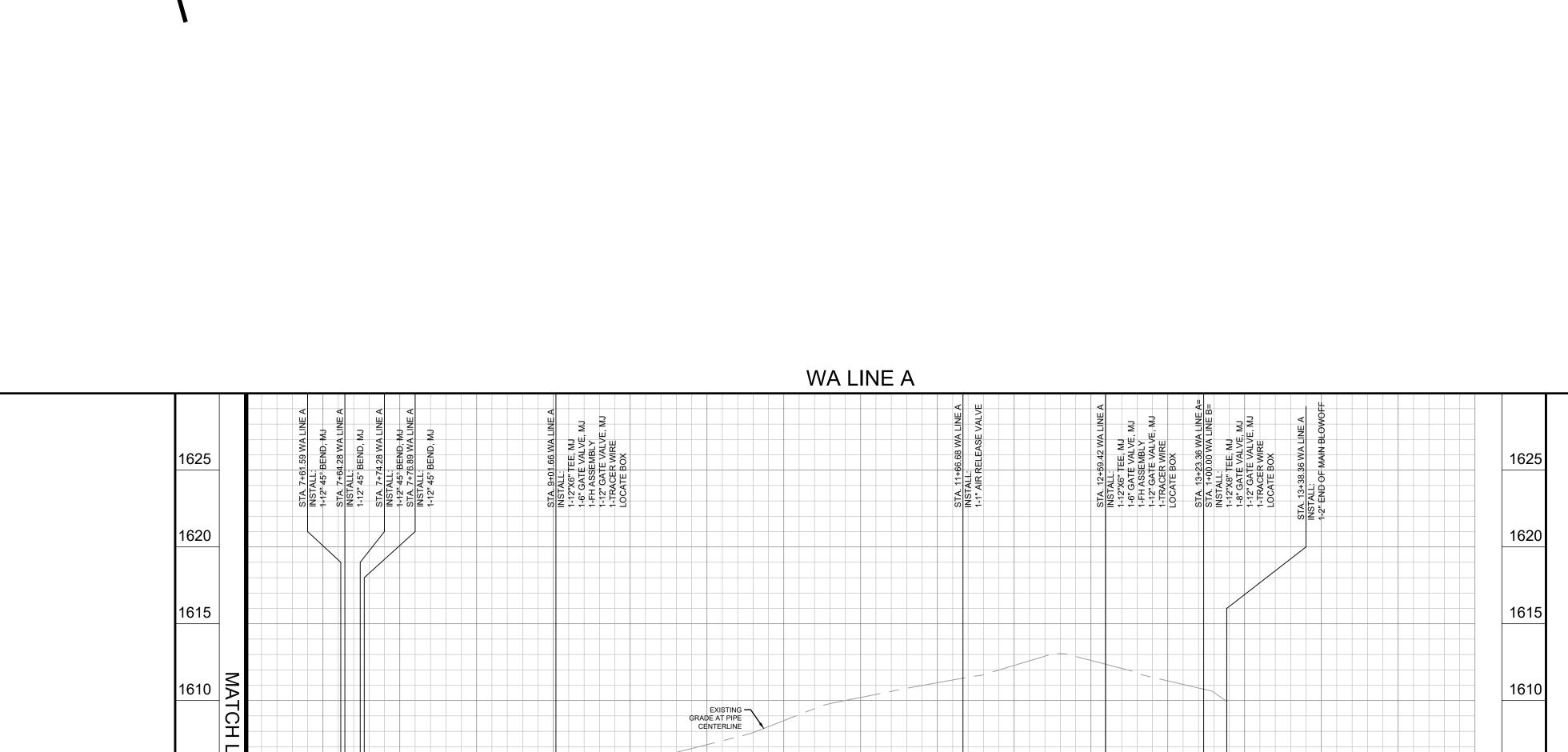
0 Kimley

MICHAEL A. SCHOLZE

PROFILE VT 2 OF 2) PLAN AND I IE A (SHEET S E



SHEET NUMBER



GRADE AT PIPE CENTERLINE

PROPOSED 3"

58 LF OF 12" PVC _C900 DR14 @ 1.88%

66 LF OF 12" PVC

C900 DR14 @ 1.94%

9+00

9+50

10+00

10+50

11+00

11+50

ELECTRICAL LINE

93 LF OF 12" PVC -

C900 DR14 @ 0.55% ELECTRICAL LINE

12+00

PROPOSED 3" -

PROPOSED 4" -

RECLAIMED

WATER LINE

12+50

13+00

15 LF OF 12" PVC

PROPOSED 2"

GAS LINE

13+50

14+00

14+50

64 LF OF 12" PVC

C900 DR14 @ 2.72%

C900 DR14 @ 4.07%

BLOCK 31

[∠] 66' R.O.W.

DEDICATION

STA. 11+66.68 WA LINE A

1-1" AIR RELEASE VALVE

INSTALL:

STA. 13+23.36 WA LINE A= STA. 1+00.00 WA LINE B=

1-12"X8" TEE, MJ

1-TRACER WIRE

±15 LF OF

CALLED 800.258 ACRES

LOOKOUT BOERNE HOLDINGS, L.P.

VOL.1389, PG.572 OPRKC

(REMAINDER)

12" PVC (DR-14)

1-8" GATE VALVE, MJ

1-12" GATE VALVE, MJ

STA. 13+38.36 WA LINE A

1-2" END OF MAIN BLOWOFF

±64 LF OF

12" PVC (DR-14)

STA. 12+59.42 WA LINE A

INSTALL:

1-12"X6" TEE, MJ

1-FH ASSEMBLY

1-TRACER WIRE

LOCATE BOX

1-6" GATE VALVE, MJ

1-12" GATE VALVE, MJ

PROPOSED STORM DRAIN SD LINE B

1605

1600

1595

1590

EX. EL. PR. FL.

12" PVC (DR-14)

±58 LF OF

12" PVC (DR-14)

__ INLETS AND

STORM DRAIN

STA. 8+43.29 WA LINE A

FUTURE 18"

3 LF OF 12" PVC C900 DR14 @ 100.00%

LOWERING

PER DETAIL

— SHEET 40 10 LF OF 12" PVC

C900 DR14 @ 0.00%

3 LF OF 12" PVC

7+50

C900 DR14 @ 100.00%

8+00

8+50

─ WATER

STORM DRAIN

CROSSING

±265 LF OF

12" PVC (DR-14)

NSTALL:

1-12"X6" TEE, MJ

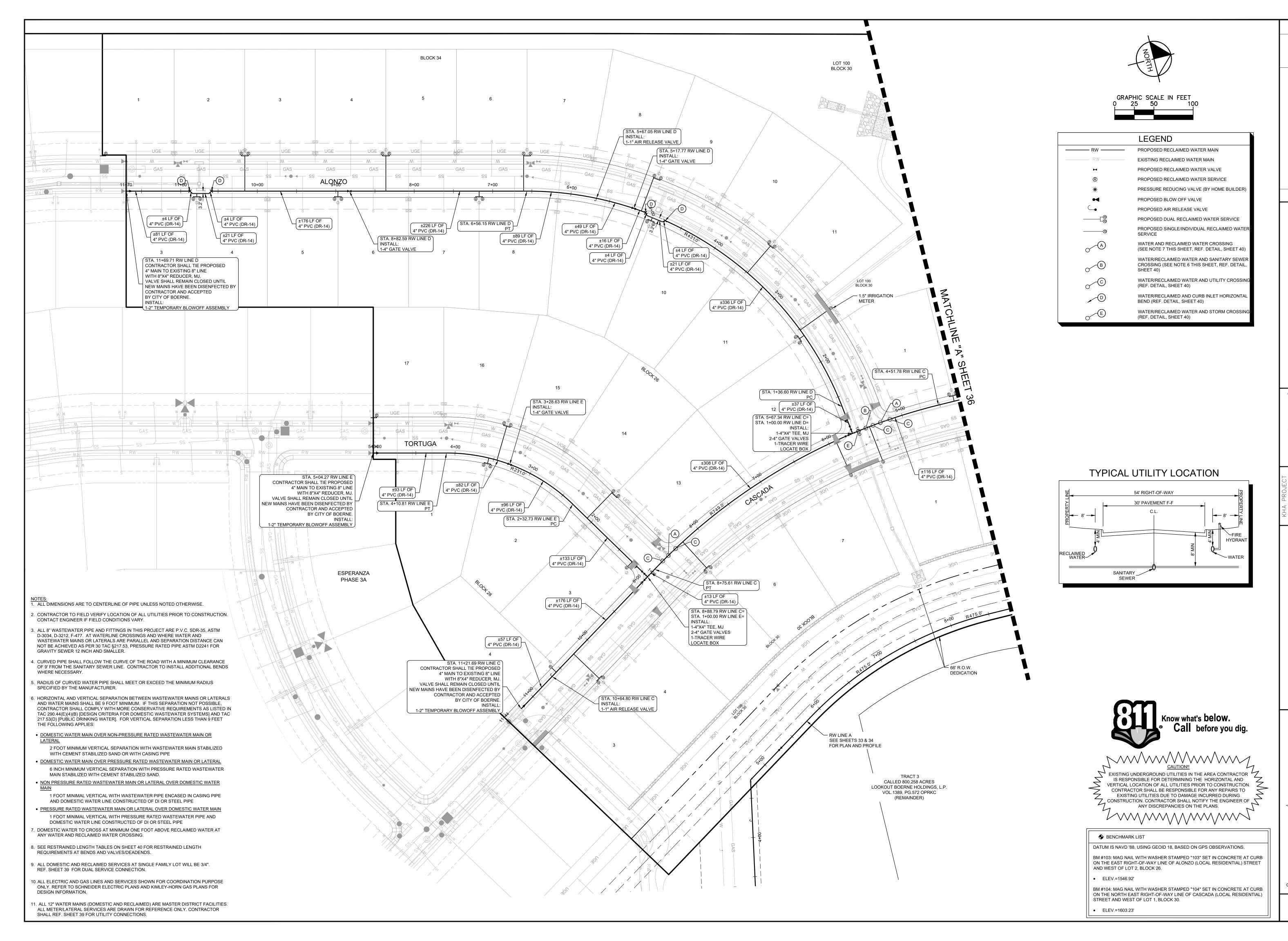
1-FH ASSEMBLY

1-TRACER WIRE

LOCATE BOX

J1-6" GATE VALVE, MJ

1-12" GATE VALVE, MJ



No.

© 2025 KIMLEY-HORN AND ASSOCIATES, INC. 10101 REUNION PLACE, SUITE 400, SAN ANTONIO, TX PHONE: 210-541-9166 FAX: 210-541-8699 WWW.KIMLEY-HORN.COM TBPE FIRM NO. 928

MICHAEL A. SCHOLZE

131737

CENSE

ONAL

3/21/2015

SCALE AS SHOWN
ESIGNED BY JPV
RAWN BY JPV

8/21/2 SCALE AS DESIGNED BY

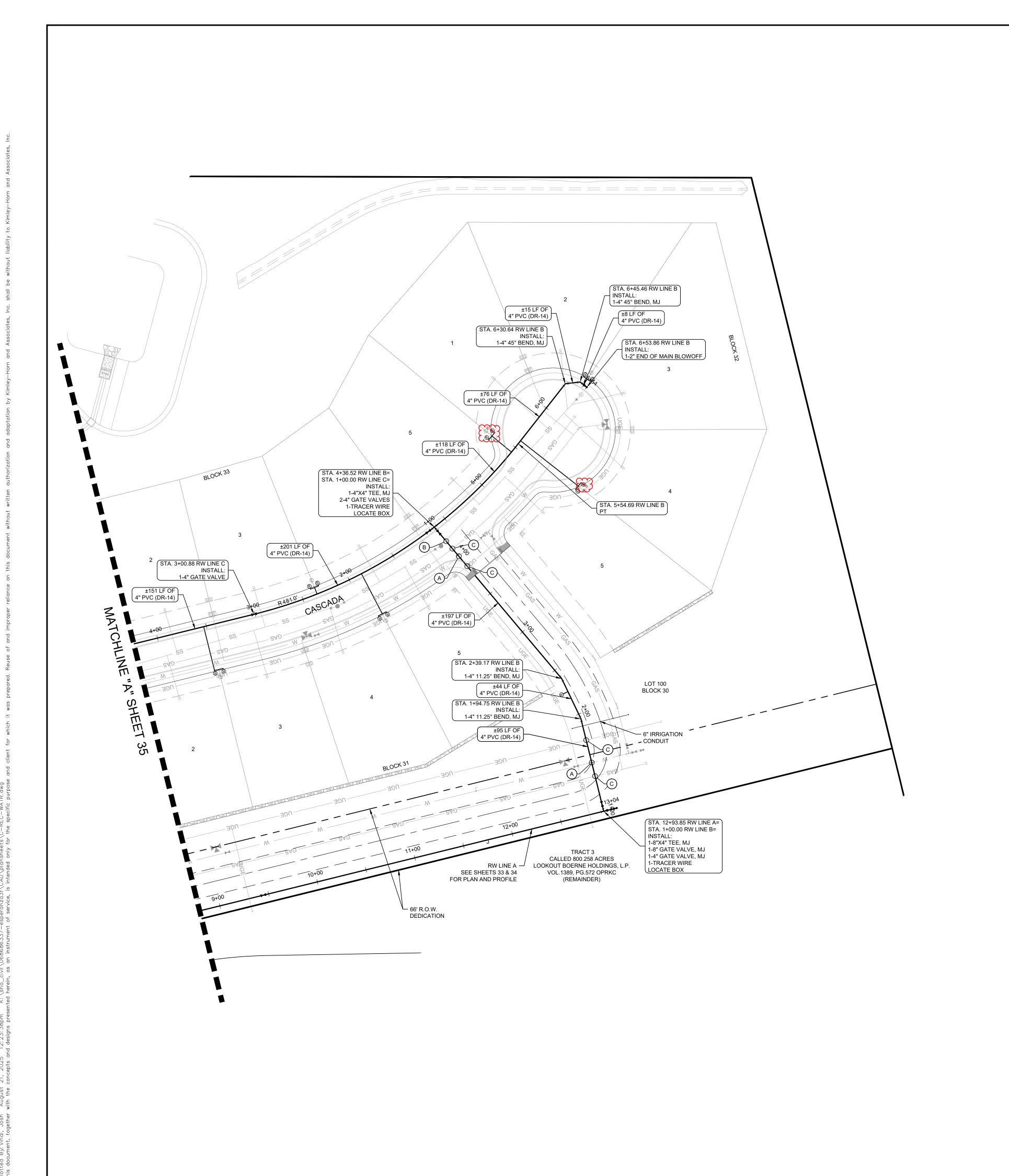
LAIMED WATER PL

Sheran Sa BOERNE * TEXAS

KENDALL COUNTY WATER
CONTROL AND IMPROVEMENT

DISTRICT NO. 2B

SHEET NUMBER



NOTES:

1. ALL DIMENSIONS ARE TO CENTERLINE OF PIPE UNLESS NOTED OTHERWISE.

CONTRACTOR TO FIELD VERIFY LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION. CONTACT ENGINEER IF FIELD CONDITIONS VARY.

3. ALL 8" WASTEWATER PIPE AND FITTINGS IN THIS PROJECT ARE P.V.C. SDR-35, ASTM D-3034, D-3212, F-477. AT WATERLINE CROSSINGS AND WHERE WATER AND WASTEWATER MAINS OR LATERALS ARE PARALLEL AND SEPARATION DISTANCE CAN NOT BE ACHIEVED AS PER 30 TAC §217.53, PRESSURE RATED PIPE ASTM D2241 FOR GRAVITY SEWER 12 INCH AND SMALLER.

4. CURVED PIPE SHALL FOLLOW THE CURVE OF THE ROAD WITH A MINIMUM CLEARANCE OF 9' FROM THE SANITARY SEWER LINE. CONTRACTOR TO INSTALL ADDITIONAL BENDS WHERE NECESSARY

5. RADIUS OF CURVED WATER PIPE SHALL MEET OR EXCEED THE MINIMUM RADIUS SPECIFIED BY THE MANUFACTURER.

6. HORIZONTAL AND VERTICAL SEPARATION BETWEEN WASTEWATER MAINS OR LATERALS AND WATER MAINS SHALL BE 9 FOOT MINIMUM. IF THIS SEPARATION NOT POSSIBLE, CONTRACTOR SHALL COMPLY WITH MORE CONSERVATIVE REQUIREMENTS AS LISTED IN TAC 290.44(E)(4)(B) [DESIGN CRITERIA FOR DOMESTIC WASTEWATER SYSTEMS] AND TAC 217.53(D) [PUBLIC DRINKING WATER]. FOR VERTICAL SEPARATION LESS THAN 9 FEET THE FOLLOWING APPLIES:

 DOMESTIC WATER MAIN OVER NON-PRESSURE RATED WASTEWATER MAIN OR LATERAL

2 FOOT MINIMUM VERTICAL SEPARATION WITH WASTEWATER MAIN STABILIZED WITH CEMENT STABILIZED SAND OR WITH CASING PIPE

DOMESTIC WATER MAIN OVER PRESSURE RATED WASTEWATER MAIN OR LATERAL
 6 INCH MINIMUM VERTICAL SEPARATION WITH PRESSURE RATED WASTEWATER
 MAIN STABILIZED WITH CEMENT STABILIZED SAND.

NON PRESSURE RATED WASTEWATER MAIN OR LATERAL OVER DOMESTIC WATER MAIN

1 FOOT MINIMAL VERTICAL WITH WASTEWATER PIPE ENCASED IN CASING PIPE AND DOMESTIC WATER LINE CONSTRUCTED OF DI OR STEEL PIPE

PRESSURE RATED WASTEWATER MAIN OR LATERAL OVER DOMESTIC WATER MAIN
 1 FOOT MINIMAL VERTICAL WITH PRESSURE RATED WASTEWATER PIPE AND DOMESTIC WATER LINE CONSTRUCTED OF DI OR STEEL PIPE

7. DOMESTIC WATER TO CROSS AT MINIMUM ONE FOOT ABOVE RECLAIMED WATER AT ANY WATER AND RECLAIMED WATER CROSSING.

8. SEE RESTRAINED LENGTH TABLES ON SHEET 40 FOR RESTRAINED LENGTH REQUIREMENTS AT BENDS AND VALVES/DEADENDS.

9. ALL DOMESTIC AND RECLAIMED SERVICES AT SINGLE FAMILY LOT WILL BE 3/4". REF. SHEET 39 FOR DUAL SERVICE CONNECTION.

10. ALL ELECTRIC AND GAS LINES AND SERVICES SHOWN FOR COORDINATION PURPOSE ONLY. REFER TO SCHNEIDER ELECTRIC PLANS AND KIMLEY-HORN GAS PLANS FOR DESIGN INFORMATION.

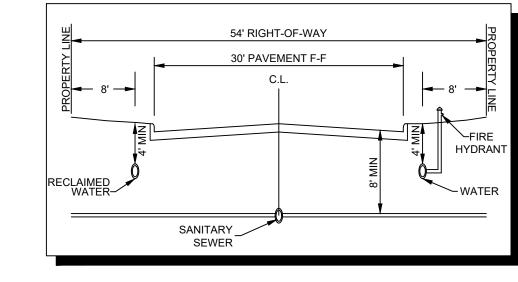
11. ALL 12" WATER MAINS (DOMESTIC AND RECLAIMED) ARE MASTER DISTRICT FACILITIES. ALL METER/LATERAL SERVICES ARE DRAWN FOR REFERENCE ONLY. CONTRACTOR SHALL REF. SHEET 39 FOR UTILITY CONNECTIONS.





	LEGEND
RW	PROPOSED RECLAIMED WATER MAIN
RW	EXISTING RECLAIMED WATER MAIN
H	PROPOSED RECLAIMED WATER VALVE
$^{ ext{ ext{ ext{ ext{ ext{ ext{ ext{ ext$	PROPOSED RECLAIMED WATER SERVICE
*	PRESSURE REDUCING VALVE (BY HOME BUILDER)
•	PROPOSED BLOW OFF VALVE
_	PROPOSED AIR RELEASE VALVE
	PROPOSED DUAL RECLAIMED WATER SERVICE
	PROPOSED SINGLE/INDIVIDUAL RECLAIMED WATER SERVICE
A	WATER AND RECLAIMED WATER CROSSING (SEE NOTE 7 THIS SHEET, REF. DETAIL, SHEET 40)
B	WATER/RECLAIMED WATER AND SANITARY SEWER CROSSING (SEE NOTE 6 THIS SHEET, REF. DETAIL, SHEET 40)
· ©	WATER/RECLAIMED WATER AND UTILITY CROSSING (REF. DETAIL, SHEET 40)
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TYPICAL UTILITY LOCATION





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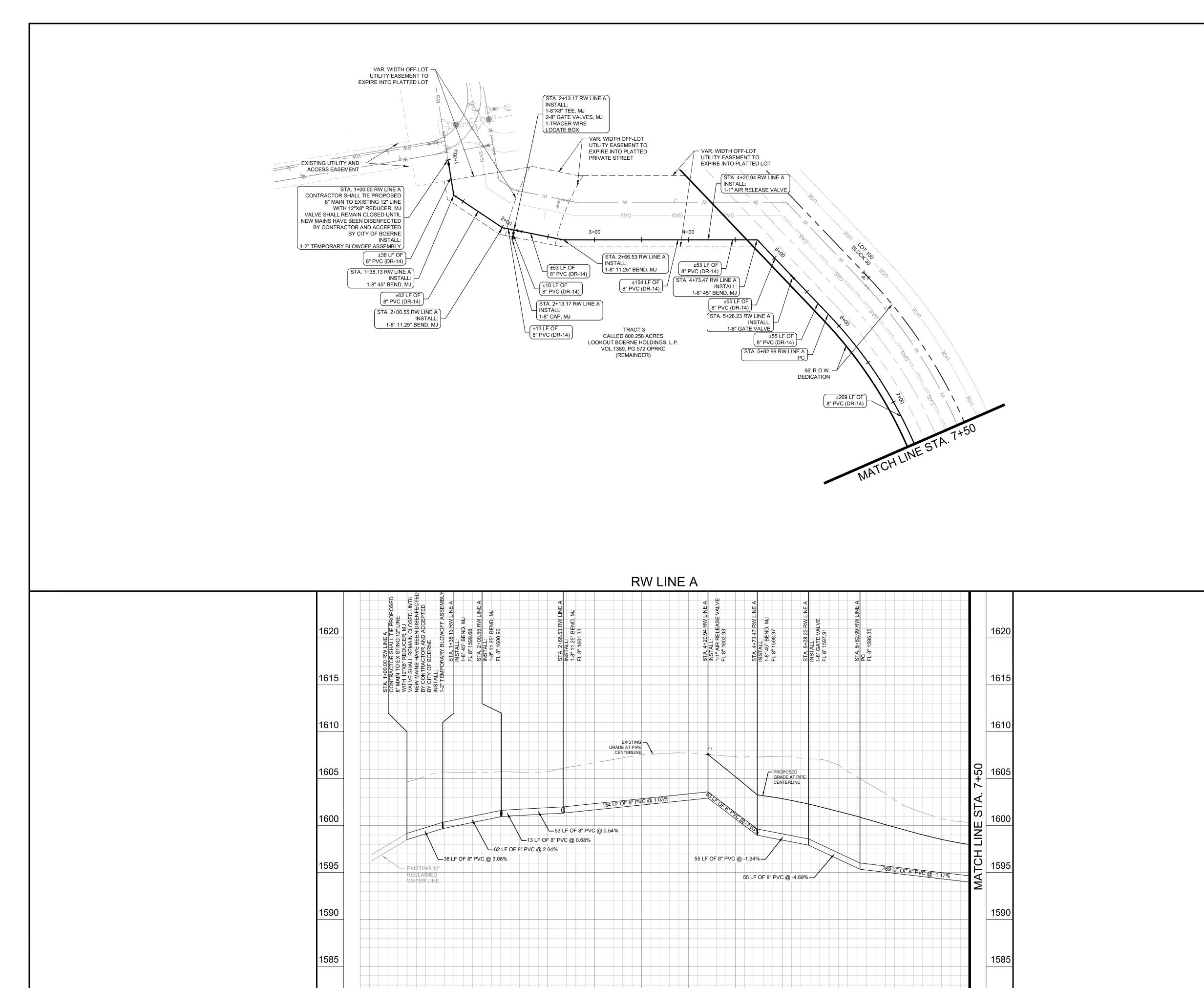
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• ELEV.=1603.23'



KENDALL COUNTY WATER
CONTROL AND IMPROVEMENT
DISTRICT NO. 2B

SHEET NUMBER



F

PR.

1+00

1+50

2+00

2+50

3+00

3+50

4+00

4+50

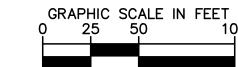
5+00

5+50

6+00

6+50





LEGEND RW PROPOSED RECLAIMED WATER MAIN EXISTING RECLAIMED WATER MAIN PROPOSED RECLAIMED WATER VALVE PROPOSED RECLAIMED WATER SERVICE PRESSURE REDUCING VALVE (BY HOME BUILDER) PROPOSED BLOW OFF VALVE PROPOSED AIR RELEASE VALVE WATER AND RECLAIMED WATER CROSSING (SEE NOTE 7 THIS SHEET, REF. DETAIL, SHEET 40) WATER/RECLAIMED WATER AND SANITARY SEWER CROSSING (SEE NOTE 6 THIS SHEET, REF. DETAIL, WATER/RECLAIMED WATER AND UTILITY CROSSING (REF. DETAIL, SHEET 40) WATER/RECLAIMED AND CURB INLET HORIZONTAL BEND (REF. DETAIL, SHEET 40) WATER/RECLAIMED WATER AND STORM CROSSING (REF. DETAIL, SHEET 40)

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1580

1575

7+00

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• ELEV.=1603.23'

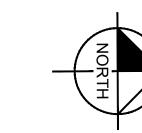
PH SPRINE * TEXAS

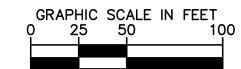
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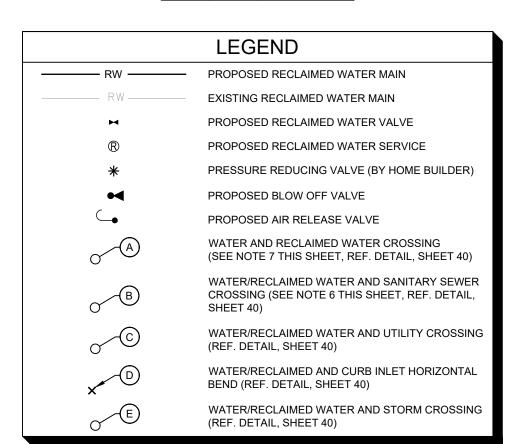
Kimley

MICHAEL A. SCHOLZE

KENDALL COUNTY WATER CONTROL AND IMPROVEMENT DISTRICT NO. 2B SHEET NUMBER







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PROFILE SCALE 1" = 50' HORIZONTAL 1" = 5' VERTICAL 1620



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STREET AND WEST OF LOT 1, BLOCK 30.

ELEV.=1603.23'

0

Kimley

MICHAEL A. SCHOLZE

KENDALL COUNTY WATER CONTROL AND IMPROVEMENT DISTRICT NO. 2B SHEET NUMBER

1610 EXISTING — GRADE AT PIPE CENTERLINE 1605 1605 PROPOSED -GRADE AT PIPE CENTERLINE 1600 1595 1595 PROPOSED 3" └─10 LF OF 8" PVC @ -2.20% PROPOSED 3" — 1590 ELECTRIC LINE 1585 1585 1580 1580

1609.3 1598.10

11+00

11+50

1610.8 1599.17

12+00

12+50

13+00

13+50

14+00

14+50

15+00

±231 LF OF

TRACT 3

CALLED 800.258 ACRES

LOOKOUT BOERNE HOLDINGS, L.P.

VOL.1389, PG.572 OPRKC

(REMAINDER)

8" PVC (DR-14)

STA. 8+51.77 RW LINE A

1620

EX.

7+50

8+00

8+50

9+00

9+50

10+00

10+50

±93 LF OF

. 8" PVC (DR-14) ∫

STA. 9+44.59 RW LINE A

1-8" GATE VALVE, MJ

66' R.O.W. 🛶

STA. 11+75.16 RW LINE A

1-1" AIR RELEASE VALVE

INSTALL:

DEDICATION

±119 LF OF 8" PVC (DR-14)

STA. 12+93.85 RW LINE A=

STA. 1+00.00 RW LINE B=

INSTALL:

1-8"X4" TEE, MJ

1-TRACER WIRE

LOCATE BOX

1-8" GATE VALVE, MJ

1-4" GATE VALVE, MJ

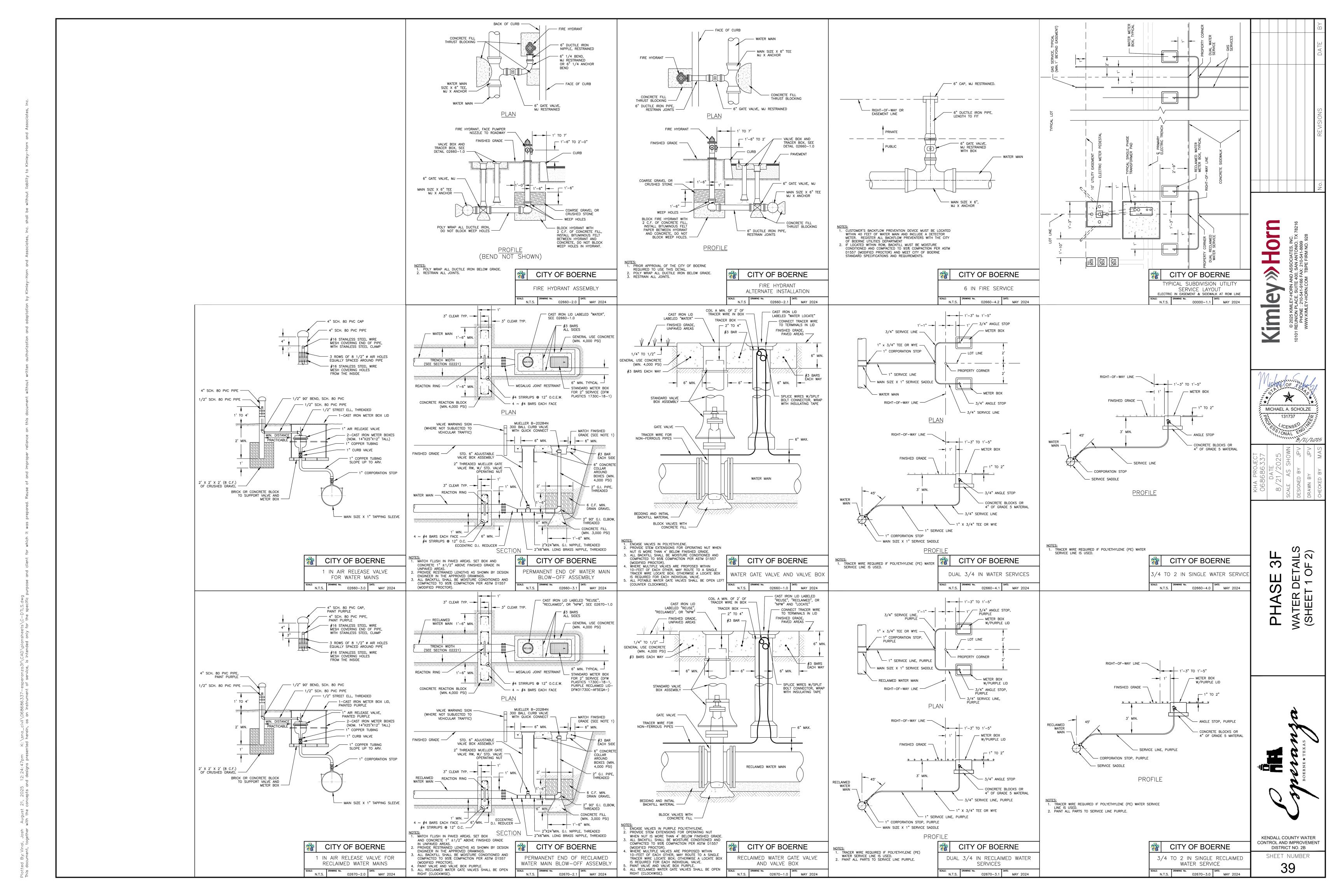
STA. 13+03.85 RW LINE A

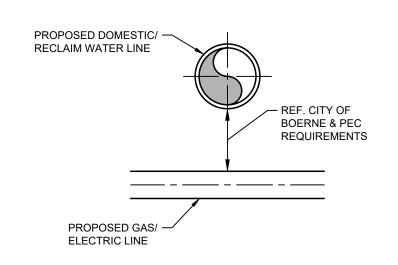
1-2" END OF MAIN BLOWOFF

INSTALL:

±10 LF OF

8" PVC (DR-14)





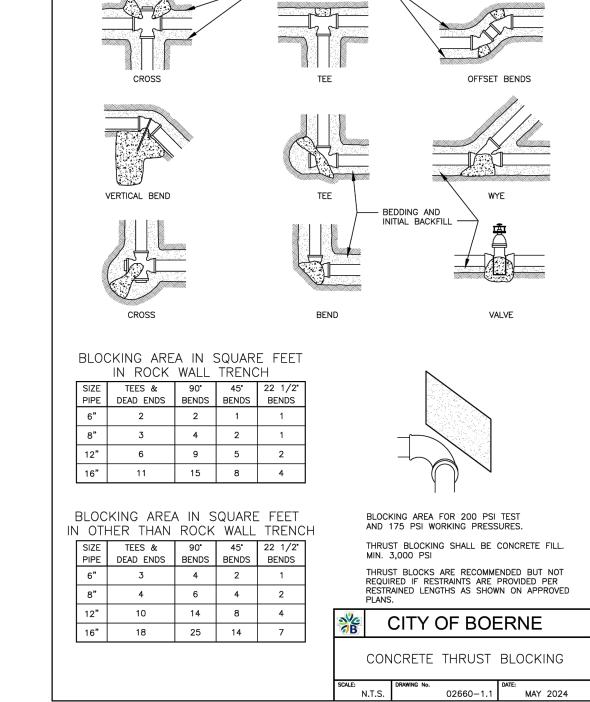
GAS/ ELECTRIC CROSSING DETAIL

PIPE SIZE (inch)	RESTRAINED LENGTH IN FEET, WHEN TEST PRESSURE = 200 psi
6	59
8	77
10	93
12	109

RESTRAINED LENGTH FOR INLINE VALVES/DEADENDS

PIPE SIZE	BEND ANGLE	RESTRAINED LENGTH IN FEET, WHEN TEST PRESSURE = 200 psi
(inch)	(deg)	TEST PRESSURE = 200 psi
6	90	23
6	45	9
6	22.5	5
6	11.25	2
8	90	30
8	45	12
8	22.5	6
8	11.25	3
12	90	43
12	45	18
12	22,5	8
12	11.25	4

RESTRAINED LENGTH FOR HORIZONTAL BENDS



ALL JOINTS TO BE THRUST
RESTRAINED TO 10' PAST
LAST BEND CONNECTION

PROPOSED ELECTRIC
LINE OR GAS LINE

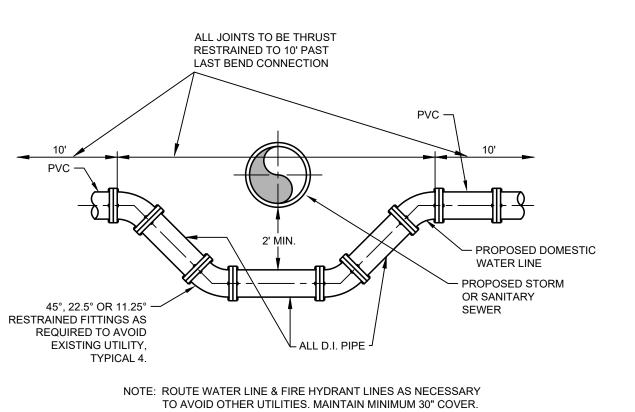
PVC

PROPOSED WATER LINE

45°, 22.5° OR 11.25° RESTRAINED
EXISTING UTILITY,
TYPICAL 4.

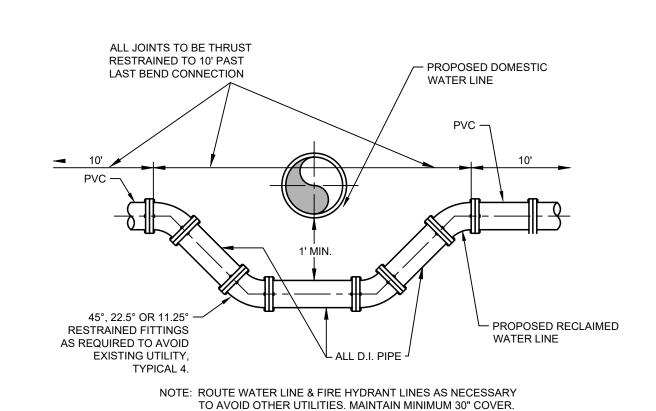
NOTE: ROUTE WATER LINE & FIRE HYDRANT LINES AS NECESSARY
TO AVOID OTHER UTILITIES. MAINTAIN MINIMUM 30° COVER.

WATER & UTILITY CROSSING

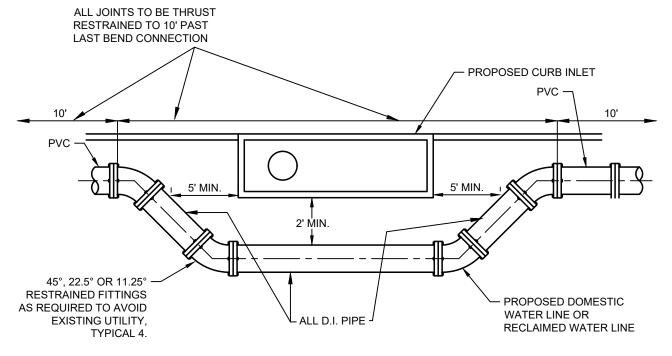


TO AVOID OTHER UTILITIES. MAINTAIN MINIMUM 30" COVER.

WATER LOWERING DETAIL



RECLAIMED WATER & WATER CROSSING



NOTE: ROUTE WATER LINE & FIRE HYDRANT LINES AS NECESSARY TO AVOID OTHER UTILITIES. MAINTAIN MINIMUM 30" COVER.

WATER/RECLAIMED WATER AND CURB INLET HORIZONTAL BEND DETAIL

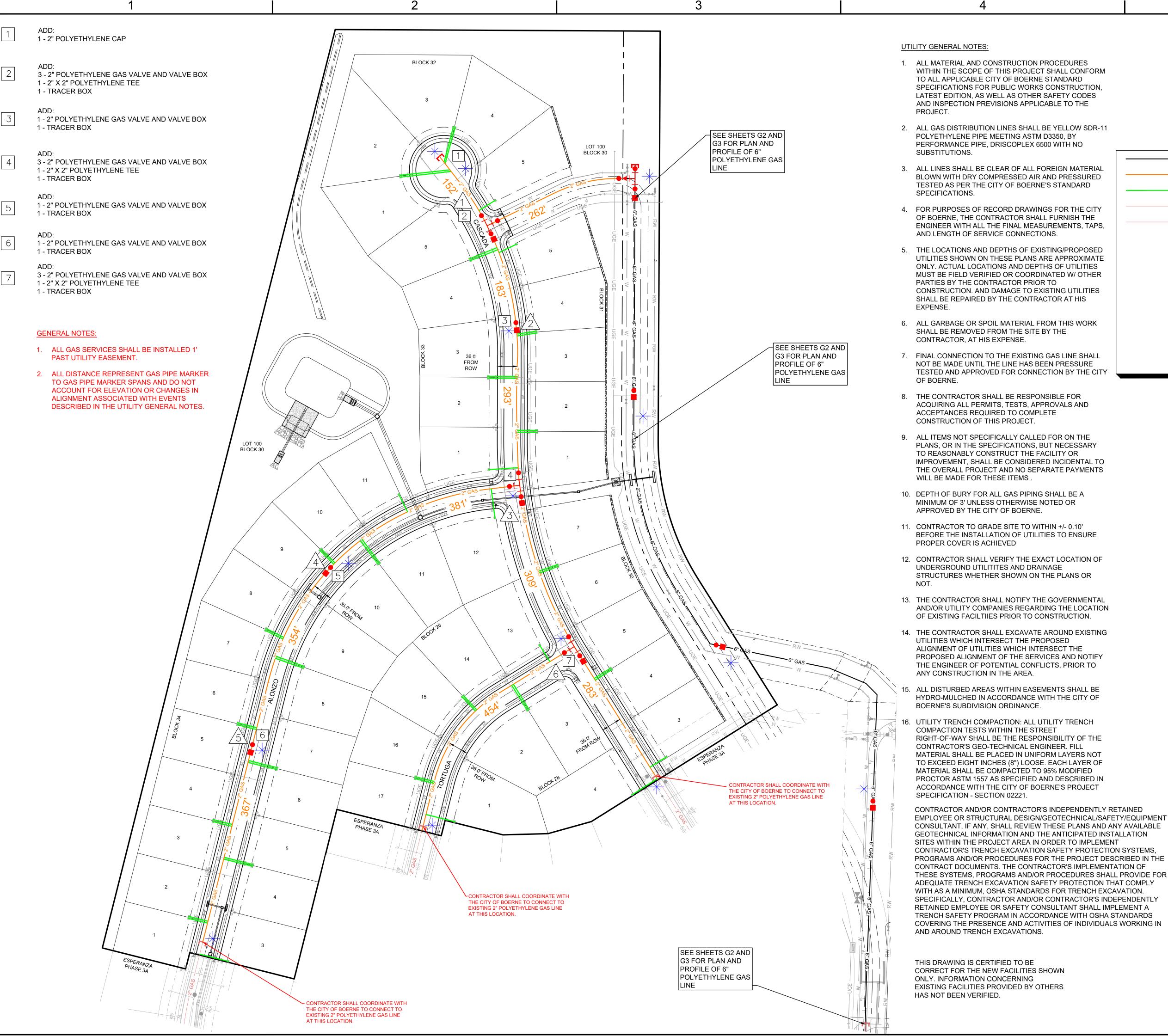
PHASE 3F
WATER DETAILS
(SHEET 2 OF 2)

9

KENDALL COUNTY WATER
CONTROL AND IMPROVEMENT
DISTRICT NO. 2B

SHEET NUMBER

KHA



D

THESE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR



GRAPHIC SCALE IN FEET

LEGEND

PROPOSED 6" POLYETHYLENE GAS LINE 6" GAS ——— PROPOSED 2" POLYETHYLENE GAS LINE PROPOSED 1" POLYETHYLENE GAS SERVICE EXISTING 6" POLYETHYLENE GAS LINE EXISTING 2" POLYETHYLENE GAS LINE POLYETHYLENE TEE POLYETHYLENE GAS VALVE & VALVE BOX PROPOSED POLYETHYLENE CAP

TRACER BOX

TRACER BOX NUMBER MATERIAL REFERENCE NUMBER

EXISTING POLYETHYLENE CAP

POLYETHYLENE REDUCER

GAS PIPE MARKERS

BENCHMARK LIST

LOOP NO. 256

ELEVATION: 569.91'

LOCATED ON THE EAST SIDE OF SOUTH SYCAMORE

IS RESPONSIBLE FOR DETERMINING THE HORIZONTAL AND

VERTICAL LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.

CONTRACTOR SHALL BE RESPONSIBLE FOR ANY REPAIRS TO

CONSTRUCTION. CONTRACTOR SHALL NOTIFY THE ENGINEER OF

ANY DISCREPANCIES ON THE PLANS.

EXISTING UTILITIES DUE TO DAMAGE INCURRED DURING

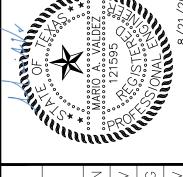
EXISTING UNDERGROUND UTILITIES IN THE AREA CONTRACTOR

STREET, APPROX. ±175 NORTH OF THE INTERSECTION OF SOUTH SYCAMORE STREET AND STATE HIGHWAY

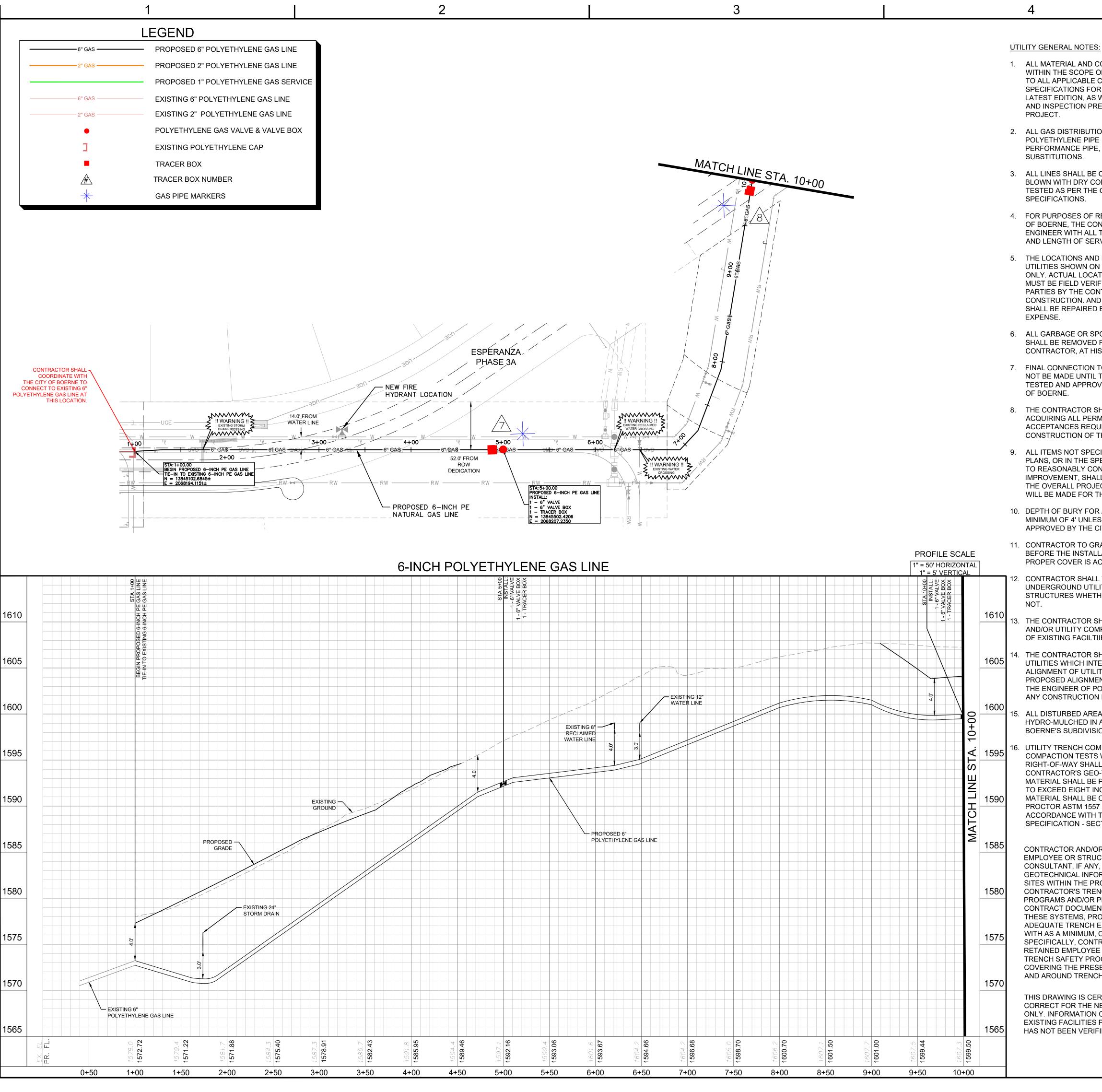
Know what's **below**.

Call before you dig.

0



KENDALL COUNTY WATER CONTROL AND IMPROVEMENT DISTRICT NO. 2B



- 1. ALL MATERIAL AND CONSTRUCTION PROCEDURES WITHIN THE SCOPE OF THIS PROJECT SHALL CONFORM TO ALL APPLICABLE CITY OF BOERNE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, LATEST EDITION, AS WELL AS OTHER SAFETY CODES AND INSPECTION PREVISIONS APPLICABLE TO THE
- 2. ALL GAS DISTRIBUTION LINES SHALL BE YELLOW SDR-11 POLYETHYLENE PIPE MEETING ASTM D3350, BY PERFORMANCE PIPE, DRISCOPLEX 6500 WITH NO
- 3. ALL LINES SHALL BE CLEAR OF ALL FOREIGN MATERIAL BLOWN WITH DRY COMPRESSED AIR AND PRESSURED TESTED AS PER THE CITY OF BOERNE'S STANDARD
- 4. FOR PURPOSES OF RECORD DRAWINGS FOR THE CITY OF BOERNE, THE CONTRACTOR SHALL FURNISH THE ENGINEER WITH ALL THE FINAL MEASUREMENTS, TAPS, AND LENGTH OF SERVICE CONNECTIONS.
- 5. THE LOCATIONS AND DEPTHS OF EXISTING/PROPOSED UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE ONLY. ACTUAL LOCATIONS AND DEPTHS OF UTILITIES MUST BE FIELD VERIFIED OR COORDINATED W/ OTHER PARTIES BY THE CONTRACTOR PRIOR TO CONSTRUCTION. AND DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED BY THE CONTRACTOR AT HIS
- 6. ALL GARBAGE OR SPOIL MATERIAL FROM THIS WORK SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR, AT HIS EXPENSE.
- 7. FINAL CONNECTION TO THE EXISTING GAS LINE SHALL NOT BE MADE UNTIL THE LINE HAS BEEN PRESSURE TESTED AND APPROVED FOR CONNECTION BY THE CITY
- 8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ALL PERMITS, TESTS, APPROVALS AND ACCEPTANCES REQUIRED TO COMPLETE CONSTRUCTION OF THIS PROJECT.
- 9. ALL ITEMS NOT SPECIFICALLY CALLED FOR ON THE PLANS, OR IN THE SPECIFICATIONS, BUT NECESSARY TO REASONABLY CONSTRUCT THE FACILITY OR IMPROVEMENT, SHALL BE CONSIDERED INCIDENTAL TO THE OVERALL PROJECT AND NO SEPARATE PAYMENTS WILL BE MADE FOR THESE ITEMS.
- 10. DEPTH OF BURY FOR ALL GAS PIPING SHALL BE A MINIMUM OF 4' UNLESS OTHERWISE NOTED OR APPROVED BY THE CITY OF BOERNE.
- 11. CONTRACTOR TO GRADE SITE TO WITHIN +/- 0.10' BEFORE THE INSTALLATION OF UTILITIES TO ENSURE PROPER COVER IS ACHIEVED
- CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF UNDERGROUND UTILITITES AND DRAINAGE STRUCTURES WHETHER SHOWN ON THE PLANS OR
- 13. THE CONTRACTOR SHALL NOTIFY THE GOVERNMENTAL AND/OR UTILITY COMPANIES REGARDING THE LOCATION OF EXISTING FACILTIIES PRIOR TO CONSTRUCTION.
- 14. THE CONTRACTOR SHALL EXCAVATE AROUND EXISTING UTILITIES WHICH INTERSECT THE PROPOSED ALIGNMENT OF UTILITIES WHICH INTERSECT THE PROPOSED ALIGNMENT OF THE SERVICES AND NOTIFY THE ENGINEER OF POTENTIAL CONFLICTS, PRIOR TO ANY CONSTRUCTION IN THE AREA.
- 15. ALL DISTURBED AREAS WITHIN EASEMENTS SHALL BE HYDRO-MULCHED IN ACCORDANCE WITH THE CITY OF BOERNE'S SUBDIVISION ORDINANCE.
- 16. UTILITY TRENCH COMPACTION: ALL UTILITY TRENCH COMPACTION TESTS WITHIN THE STREET RIGHT-OF-WAY SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR'S GEO-TECHNICAL ENGINEER. FILL MATERIAL SHALL BE PLACED IN UNIFORM LAYERS NOT TO EXCEED EIGHT INCHES (8") LOOSE. EACH LAYER OF MATERIAL SHALL BE COMPACTED TO 95% MODIFIED PROCTOR ASTM 1557 AS SPECIFIED AND DESCRIBED IN ACCORDANCE WITH THE CITY OF BOERNE'S PROJECT SPECIFICATION - SECTION 02221.

CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL DESIGN/GEOTECHNICAL/SAFETY/EQUIPMENT CONSULTANT, IF ANY, SHALL REVIEW THESE PLANS AND ANY AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITES WITHIN THE PROJECT 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 EXCAVATION. SPECIFICALLY, CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS COVERING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATIONS.

THIS DRAWING IS CERTIFIED TO BE CORRECT FOR THE NEW FACILITIES SHOWN ONLY. INFORMATION CONCERNING EXISTING FACILITIES PROVIDED BY OTHERS HAS NOT BEEN VERIFIED.



GRAPHIC SCALE IN FEET 50

GENERAL NOTES:

1. ALL GAS SERVICES SHALL BE INSTALLED 1' PAST UTILITY EASEMENT.

◆ BENCHMARK LIST

LOOP NO. 256 ELEVATION: 569.91'

LOCATED ON THE EAST SIDE OF SOUTH SYCAMORE

OF SOUTH SYCAMORE STREET AND STATE HIGHWAY

EXISTING UNDERGROUND UTILITIES IN THE AREA CONTRACTOR

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ANY DISCREPANCIES ON THE PLANS.

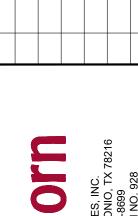
STREET, APPROX. ±175 NORTH OF THE INTERSECTION

Know what's **below**.

Call before you dig.

2. ALL DISTANCE REPRESENT GAS PIPE MARKER TO GAS PIPE MARKER SPANS AND DO NOT ACCOUNT FOR ELEVATION OR CHANGES IN ALIGNMENT ASSOCIATED WITH EVENTS DESCRIBED IN THE UTILITY GENERAL NOTES.



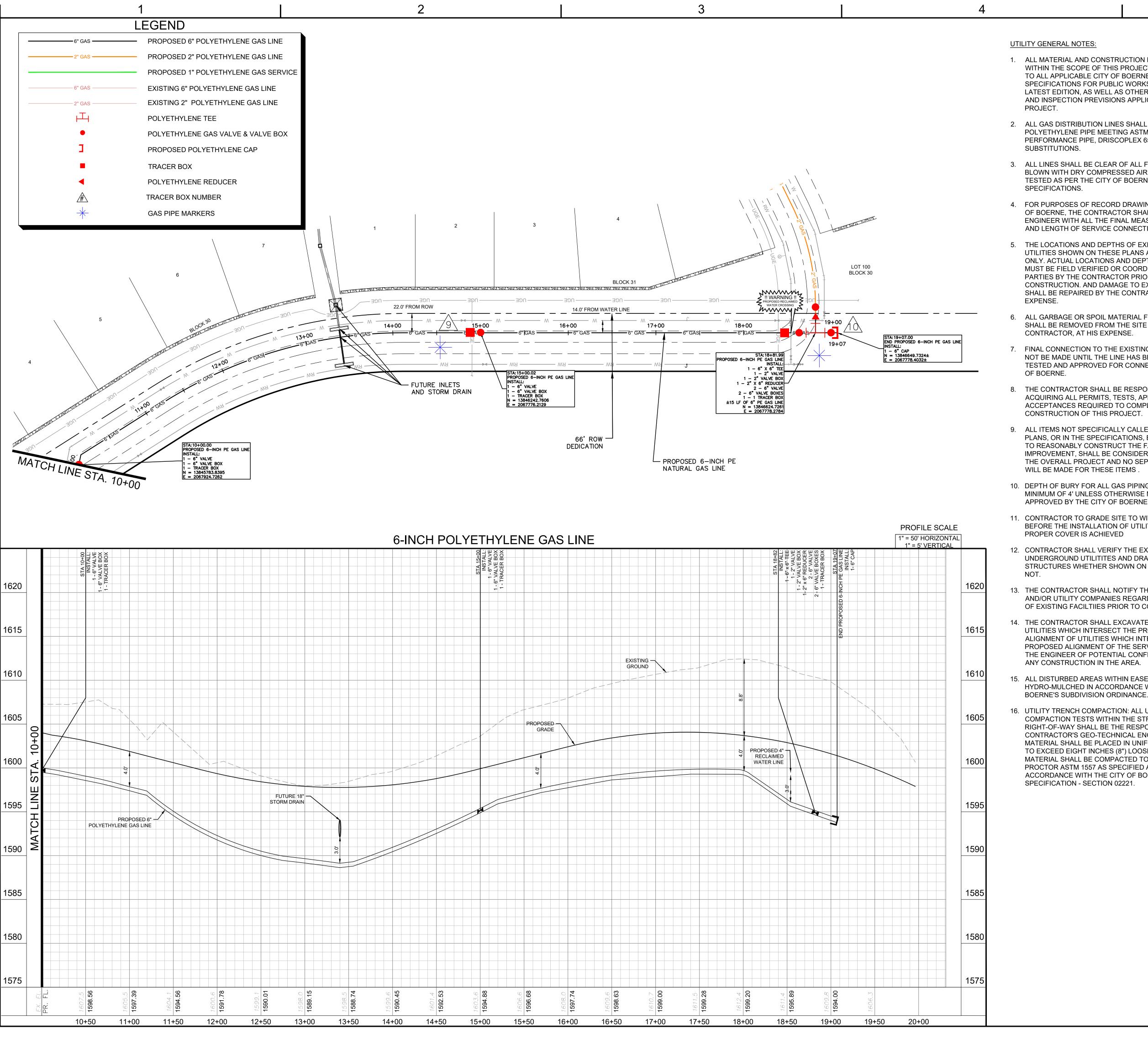


Kimley



3F 'URAL G' PROFILE PH

KENDALL COUNTY WATER CONTROL AND IMPROVEMENT



- 1. ALL MATERIAL AND CONSTRUCTION PROCEDURES WITHIN THE SCOPE OF THIS PROJECT SHALL CONFORM TO ALL APPLICABLE CITY OF BOERNE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, LATEST EDITION, AS WELL AS OTHER SAFETY CODES AND INSPECTION PREVISIONS APPLICABLE TO THE
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GENERAL NOTES:

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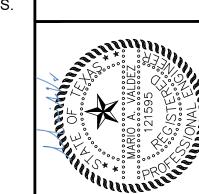
GRAPHIC SCALE IN FEET

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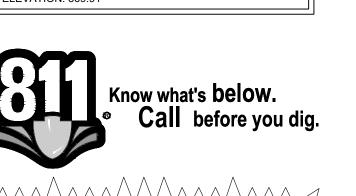
区

PLAN OF 2) 3F

S E E TURAL GAS PROFILE PH

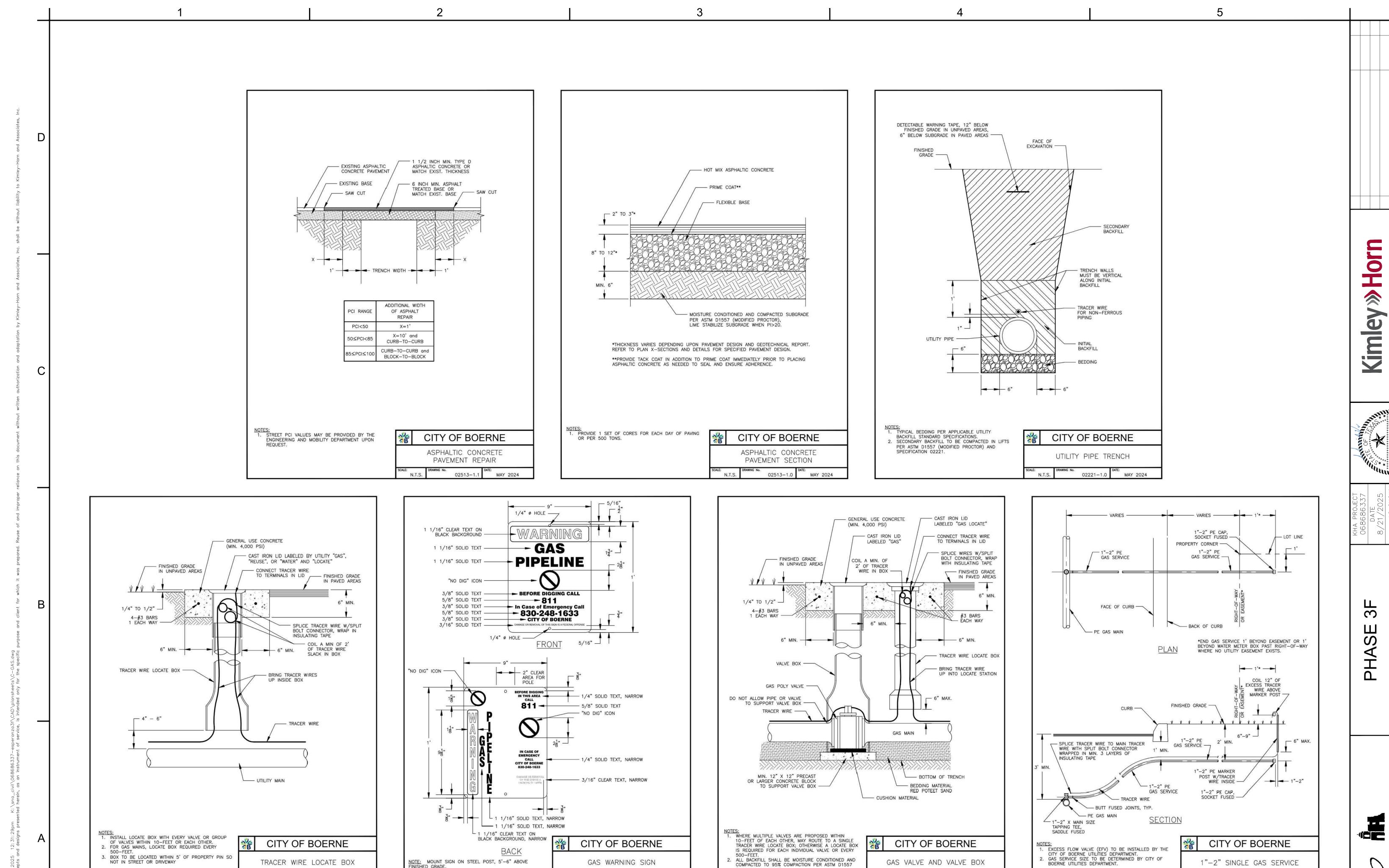
◆ BENCHMARK LIST

LOCATED ON THE EAST SIDE OF SOUTH SYCAMORE STREET, APPROX. ±175 NORTH OF THE INTERSECTION OF SOUTH SYCAMORE STREET AND STATE HIGHWAY LOOP NO. 256 ELEVATION: 569.91'



EXISTING UNDERGROUND UTILITIES IN THE AREA CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY REPAIRS TO EXISTING UTILITIES DUE TO DAMAGE INCURRED DURING CONSTRUCTION. CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES ON THE PLANS.

KENDALL COUNTY WATER CONTROL AND IMPROVEMENT DISTRICT NO. 2B SHEET NUMBER G3



3. BOX TO BE LOCATED WITHIN 5' OF PROPERTY PIN SO

TRACER WIRE LOCATE BOX

NOT IN STREET OR DRIVEWAY

NOTE: MOUNT SIGN ON STEEL POST, 5'-6" ABOVE FINISHED GRADE.

GAS WARNING SIGN

IS REQUIRED FOR EACH INDIVIDUAL VALVE OR EVERY

ALL BACKFILL SHALL BE MOISTURE CONDITIONED AND COMPACTED TO 95% COMPACTION PER ASTM D1557

(MODIFIED PROCTOR).

GAS VALVE AND VALVE BOX

MAY 2024



1"-2" SINGLE GAS SERVICE

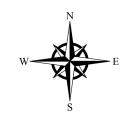
02560-1.3

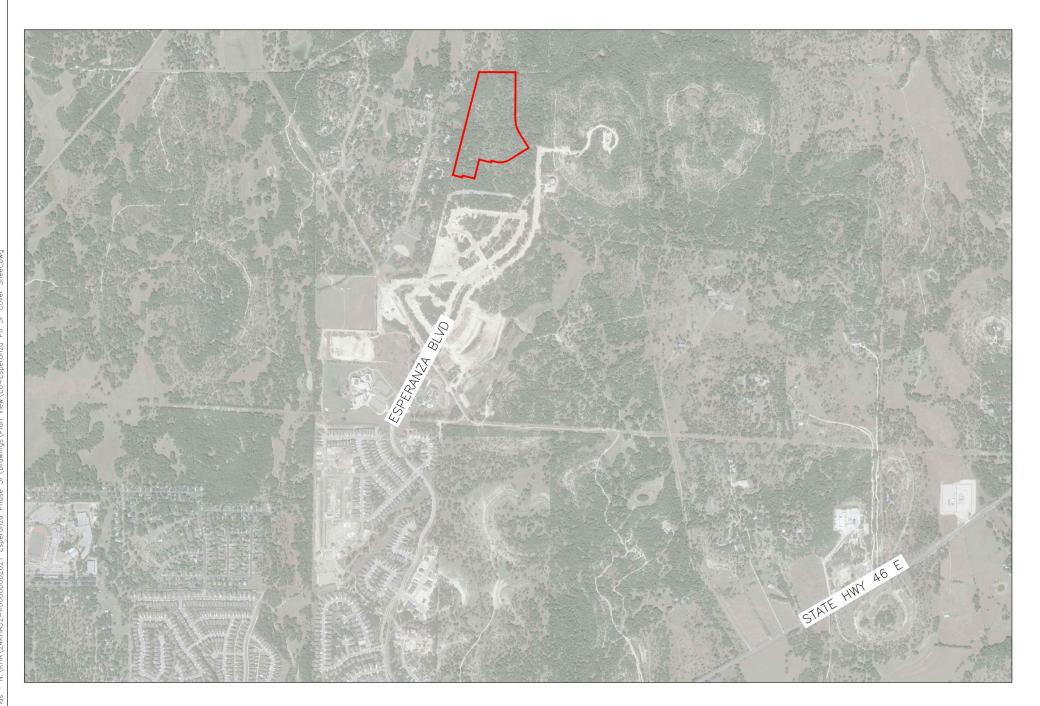
DE

GAS

NATURAL

KIMLEY HORN AND ASSOCIATES ESPERANZA PHASE 3F UNDERGROUND ELECTRICAL PLANS





Kimley» Horn

GENERAL DRAWINGS

PROJECT COVER SHEET AND DRAWING LIST UNDERGROUND ELECTRICAL DISTRIBUTION LAYOUT UNDERGROUND ELECTRIC ALIGNMENT & STREETLIGHT DETAIL

REV LIST:

REVISION 1: EO, E1

HIS DRAWING IS CERTIFIED TO BE CORRECT FOR THE NEW FACILITIES SHOWN ONLY. FORMATION CONCERNING EXISTING FACILITIES ROVIDED BY OTHERS HAS NOT BEEN VERIFIED

ISSUED: 06-19-24 FOR CONSTRUCTION



Chris Harper 2025.08.20 16:59:04 -05'00'

POWEREDBYSENERGY.C	ы	DATE		•
TOWEREDD TOENEROT.	JLP	05-23-24	DRWN	
TEXAS REGISTRATIO	CTH	06-19-24	CHK	
NUMBER F-1594	CTH	06-19-24	APPD	



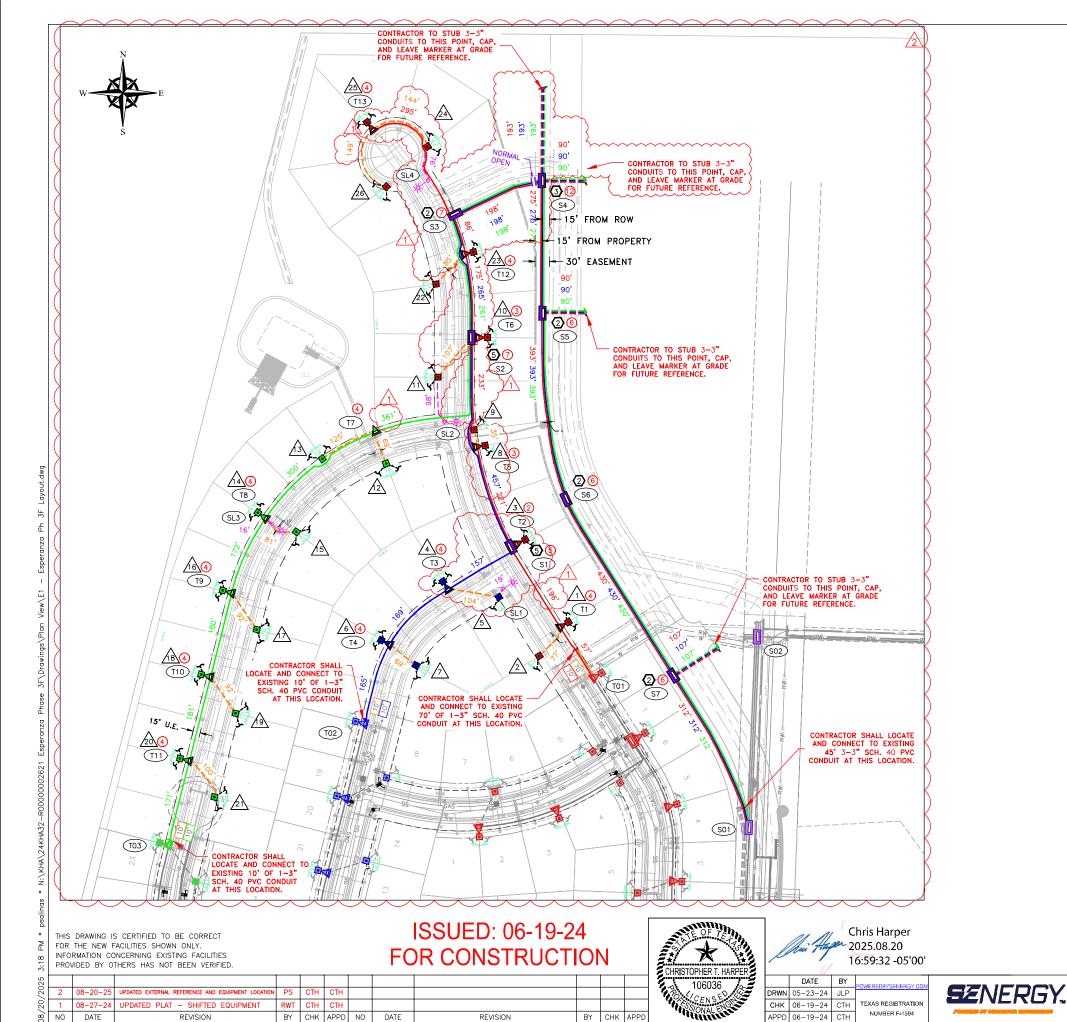
KIMLEY-HORN AND ASSOCIATES

ESPERANZA PHASE 3F

PROJECT COVER SHEET AND DRAWING LIST

N.T.S. DRAWING NO.

SYSTEM VOLTAGE: 14.4/24.9 kV



REVISION

APPD 06-19-24

REVISION

24KHA32-R00000000408

PROPOSED SMALL PAD FOR 1¢ SECTIONALIZING BOX (DETAIL 530-010)

PROPOSED SMALL PAD FOR 3¢ SECTIONALIZING BOX (DETAIL 530-020)

PROPOSED LARGE PAD FOR 30 SECTIONALIZING BOX (DETAIL 530-022)

PROPOSED SMALL PAD FOR 1¢ COMBINATION SECTIONALIZING BOX (DETAIL 530-023)

PROPOSED SMALL PAD FOR 3¢ COMBINATION SECTIONALIZING BOX (DETAIL 530-024)

PROPOSED LARGE PAD FOR 30 COMBINATION SECTIONALIZING BOX (DETAIL 530-026)

SYMBOLS

® EXISTING		
REMOVE	RISER POLE	
® NEW		
EXISTING		
REMOVE	POLE	
O NEW		AØ PRIMARY: 1/O AL W/ FULL CONCENTRIC JACKETED BØ NEUTRAL, 25 kV, XLPE, 260 MIL INSUL, IN 3" MIN.
NEW 200A 1Ø SECTIONALIZING BOX		Cø PVC SCH. 40, ELECT. CONDUIT
A PHASE B F	PHASE C PHASE	100' - 3Ø CONDUIT POINT TO POINT DISTANCE
NEW 10 PADMOUNT TRANSFORMER A PHASE B PHASE C PHASE		100' — 10, PHASE A CONDUIT POINT TO POINT DISTANCE 100' — 10, PHASE B CONDUIT POINT TO POINT DISTANCE 100' — 10, PHASE C CONDUIT POINT TO POINT DISTANCE
A PROPOSED 10 & 30 COMBINATION		VACANT AØ(EMPTY) 3" CONDUIT OR AS SPECIFIED
PAD (COLOR BY PHASE)		VACANT BØ(EMPTY) 3" CONDUIT OR AS SPECIFIED
NEW 10 SECONDARY PEDESTAL		
	PHASE C PHASE	. , ,
	(COLOR BY PHASE)	SECONDARY: 4/0 AL, 600V, TRIPLEX IN 3" PVC SCH 40, ELECT. CONDUIT
	FMR SEC PED A 3¢ JUNCTION BOX	SECONDARY: 350 MCM AL, 600V, TRIPLEX IN 3" PVC SCH 40, ELECT. CONDUIT
EXISTING 600	A 3¢ JUNCTION BOX	2" TEMPORARY ELECTRIC SERVICE
•* EXISTING STR	REET LIGHT	STREET LIGHT CABLE, 600V, #10 COPPER (2EA.),
○────────────────────────────────────		EXISTING UNDERGROUND ELECTRICAL CONDUIT
# NUMBER OF	CONDUITS EXITING	EXISTING UNDERGROUND ELECTRICAL CONDUIT
BOLLARD		ELECTRICAL UTILITY EASEMENT

- ALL PRIMARY CONDUIT SHALL BE SCHEDULE 40 3" PVC PER LEGEND.
- CONSTRUCTION SHALL TAG AND CODE CABLE IN THE FIELD TO IDENTIFY PHASES.
- ALL PAD-MOUNTED ENCLOSURES INCLUDING TRANSFORMERS, SHALL BE GROUNDED IN SUCH A MANNER THAT TWO SEPARATE CONNECTIONS EXIST BETWEEN THE ENCLOSURE AND THE GROUND ROD(S). IF METER PEDESTALS, TRANSFORMERS, AND SECTIONALIZING CABINETS ARE WITHIN 10 FEET OF EACH OTHER A #2 CU. SOLID BARE WIRE SHALL TIE ALL GROUND RODS TOGETHER.
- SECTIONALIZING CABINETS, TRANSFORMERS, EASEMENTS, CABLE, AND WIRE ARE NOT SHOWN TO SCALE IN THIS
- EASEMENTS TO BE DEDICATED BY DEVELOPER TO COVER ALL ELECTRIC FACILITIES.
- ALL ELECTRIC STREET CROSSINGS AND SERVICE EXTENSION TRENCHES TO INCLUDE TEL. & CATV.

 IF ANY ELECTRIC FACILITIES ARE SUSCEPTIBLE TO DAMAGE FROM VEHICULAR TRAFFIC, BOLLARDS SHALL BE
- PLACED AROUND THE EQUIPMENT TO PREVENT DAMAGE.
- FOR ANY PAD LOCATED IN DRAINAGE EASEMENT OR EROSION PRONE AREAS, CONTRACTOR SHALL BUILD UP PAD SITE AND REINFORCE WITH CONCRETE TO PREVENT EROSION.

 10. ALL CONSTRUCTION SHALL CONFORM TO PEC STANDARDS AND PRACTICES,
- 11. DEVELOPER SHALL PROVIDE ALL WEATHER ACCESS ROAD WHERE UNDERGROUND ELECTRIC IS INSTALLED ON BACK OR SIDE OF LOT.
- 12. CONTRACTOR SHALL REFER TO PEC'S UNDERGROUND INSTALLATION SPECIFICATIONS DOCUMENTS FOUND ON THEIR WEBSITE: WWW.PEC.COOP/YOUR-SERVICE/CONSTRUCTION-DEVELOPMENT/ FOR INSTALLATION OF ELECTRICAL FACILITIES.
- 13. STREETLIGHT SHALL BE MANUFACTURED BY VISIONAIRE LIGHTING AND MODEL NUMBERS AS FOLLOWS: STREETLIGHT BASE: DCB-21 (BZ)

STREETLIGHT POLE: RTSP-25-11-12BC-136-T3R-BZ-HHC

STREETLIGHT ARM: VA101 (BZ)

STREETLIGHT LED: ODN-2-L-T2-96LC-5-4K-UNV-UAM-BZ-C5-H3

UNDERGROUND ELECTRICAL

SCALE FOR 34 x 22 DW 1" = 100'DRAWING NO.

KIMLEY-HORN AND ASSOCIATES **DISTRIBUTION LAYOUT ESPERANZA PHASE 3F**

- MOUNTING ARM (SINGLE) MODEL VA101-S1 BRONZE FINISH (BZ) — 160 WATT LED SPECIFICATION: # OF LEDs: 96 MODEL: ODN-2-L-T2-96LC-5-4K-UNV-UAM-BZ-C5-H3 CURRENT: 530mA - ROUND TAPERED STEEL POLE (RTSP) RTSP-25-11-12BC-136-T3R-BZ-HHC 25' HEIGHT BRONZE FINISH — BASE MODEL: DCB—21 BRONZE FINISH (BZ)

UNDERGROUND ELECTRIC ALIGNMENT DETAIL

BY CHK APPD NO DATE

STREETLIGHT DETAIL

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ISSUED: 06-19-24 FOR CONSTRUCTION

REVISION

Chris Harper Chris naipei 2025.08.20 16:59:57 -05'00' DATE BY

DRWN 05-23-24 JLP

SENERGY. CHK 06-19-24 CTH TEXAS REGISTRATION APPD 06-19-24 CTH

KIMLEY-HORN AND ASSOCIATES ESPERANZA PHASE 3F

UNDERGROUND ELECTRIC ALIGNMENT & STREETLIGHT DETAIL

SCALE FOR 34 x 22 DWG N.T.S. DRAWING NO.

REVISION 24KHA32-R00000000408