DATE OF SUBMITTAL: AUGUST 19, 2022

LEGAL DESCRIPTION:

BEING A 93.101-ACRE TRACT OF LAND SITUATED IN THE J. DAVIS SURVEY, ABSTRACT NO. 231, AND THE S. EISELIN SURVEY, ABSTRACT NO. 265, TRAVIS COUNTY, TEXAS, AND BEING A PORTION OF THE REMAINDER OF THAT CERTAIN TRACT OF LAND CALLED TO CONTAIN 535 ACRES TO TIMMERMAN & HAGN, LTD. AS DESCRIBED IN VOLUME 8394, PAGE 544, CORRECTED IN VOLUME 8517, PAGE 875 OF THE REAL PROPERTY RECORDS OF TRAVIS COUNTY, TEXAS AND FURTHER DESCRIBED BY METES AND BOUNDS IN VOLUME 365, PAGE 165 OF THE DEED RECORDS OF TRAVIS COUNTY, TEXAS, AND A PORTION OF THE REMAINDER OF A CALLED 300.03 ACRE TRACT TO TIMMERMAN & HAGN, LTD., AS DESCRIBED IN A SPECIAL WARRANTY DEED IN DOCUMENT NO. 2004025616 OF THE OFFICIAL PUBLIC RECORDS OF TRAVIS COUNTY, TEXAS; SAID 93.101 ACRE TRACT OF LAND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS, WITH BEARINGS BASED ON THE TEXAS COORDINATE SYSTEM OF 1983, CENTRAL ZONE: (SEE SHEET 2)

GENERAL NOTES:

1. All responsibility for the adequacy of these plans remains with the engineer who prepared them. In reviewing these plans, the City of Pflugerville must rely on the adequacy of the work of the design engineer.

SURVEYOR'S CERTIFICATION

STATE OF TEXAS:
KNOW ALL MEN BY THESE PRESENTS:
COUNTY OF TRAVIS:

THAT I, ____REX HACKETT___, DO HEREBY CERTIFY THAT I PREPARED THIS PLAN FROM AN ACTUAL AND ACCURATE ON-THE-GROUND SURVEY OF THE LAND, AND THAT THE CORNER MONUMENTS SHOWN THEREON MARKING THE BOUNDARY OF THE PROPOSED SUBDIVISION, BUT NOT INTERIOR LOT LINES, WERE PROPERLY PLACED UNDER MY PERSONAL SUPERVISION, IN ACCORDANCE WITH ALL CITY OF PFLUGERVILLE, TEXAS CODES AND ORDINANCES AND THAT ALL KNOWN EASEMENTS WITHIN THE BOUNDARY OF THE PLAT ARE SHOWN HEREON.
(SEAL)

_____
SIGNATURE OF REGISTERED PROFESSIONAL LAND SURVEYOR

OWNER

TIMMERMAN HAGN, LTD.
230 KLATTEN HUFF LANE, SUITE 100
HUTTO, TEXAS 78634
512-846-1733
CONTACT: TIM TIMMERMAN

CIVIL ENGINEER/SURVEYOR

QUIDDITY ENGINEERING
4350 LOCKHILL SELMA RD, SUITE 100
SAN ANTONIO, TEXAS 78249
PH 210.494.5511
CONTACT: JOSEPH E. YORK, PE

PRELIMINARY PLAN
OF
EAST PFLUGERVILLE PARKWAY COMMERCIAL CENTER

E. PFLUGERVILLE PARKWAY
PFLUGERVILLE,
TRAVIS COUNTY, TEXAS

LIST OF REPORTS

TRAFFIC IMPACT ANALYSIS
BOE CONSULTING SERVICES
AUTHOR: BOBAK J. TEHRANY, P.E.
DATE: JULY 27, 2022

ENGINEERING REPORT
QUIDDITY ENGINEERING
AUTHOR: JOSEPH E. YORK, P.E.
DATE: MARCH 18, 2022

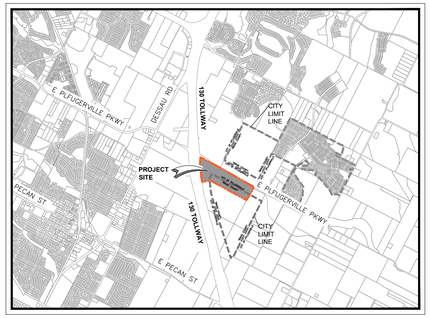
WATER MODEL
QUIDDITY ENGINEERING
AUTHOR: KYLE KASPAR, P.E.
DATE: JUNE 29, 2022

DRAINAGE REPORT
QUIDDITY ENGINEERING
AUTHOR: JOSEPH E. YORK, P.E.
DATE: MARCH 18, 2022

WASTEWATER ANALYSIS
QUIDDITY ENGINEERING
AUTHOR: JOSEPH E. YORK, P.E.
DATE: MARCH 18, 2022

DEVELOPMENT SUMMARY

LOT	ACREAGE	LAND USE	PHASE
LOT 2, BLK -A-	4.643 AC	COMMERCIAL	PHASE 2
LOT 1, BLK -A-	22.093 AC	COMMERCIAL	PHASE 1
LOT 1, BLK -B-	0.702 AC	PUBLIC DRAINAGE	PHASE 1
LOT 1, BLK -C-	61.600 AC	AGRICULTURAL	PHASE 3
LOT 2, BLK -B-	0.413 AC	AGRICULTURAL	PHASE 3
COLORADO SAND DR. AREA	2.376 AC	PUBLIC ROW	PHASE 1
COLORADO SAND DR. LENGTH	1,061 FT	PUBLIC ROW	PHASE 1
COLORADO SAND DR. WIDTH	80 FT	PUBLIC ROW	PHASE 1
UTAH SANDS DRIVE AREA	1.083 AC	PUBLIC ROW	PHASE 1
UTAH SANDS DRIVE LENGTH	877 FT	PUBLIC ROW	PHASE 1
UTAH SANDS DRIVE WIDTH	60 FT	PUBLIC ROW	PHASE 1
E PFLUGERVILLE PKWY ROW AREA	0.191 AC	PUBLIC ROW	PHASE 1
E PFLUGERVILLE PKWY ROW LEN.	679 FT	PUBLIC ROW	PHASE 1
E PFLUGERVILLE PKWY ROW WIDTH	VARIES	PUBLIC ROW	PHASE 1
TOTAL ACREAGE	93.101 AC		
TOTAL NO. OF LOTS	5		



VICINITY MAP

1" = 5,000'

INDEX OF PLANS

SUBMITTAL DATE: AUGUST 19, 2022

PREPARED BY

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290
4350 Lockhill Selma Road, Suite 100•San Antonio, Texas 78249•210.494.5511

JOB NUMBER S0977-0008-00

STANDARD PRELIMINARY PLAN NOTES:

1. This plan lies within the City of Pflugerville and the City of Pflugerville ETJ.
2. Water and wastewater shall be provided by the City of Pflugerville. No lot in this subdivision shall be occupied until connected to water and wastewater facilites.
3. A 10-foot Public Utility Easement (P.U.E.) shall be dedicated along all street frontage(s).
4. Easement(s) dedicated to the public by this plan shall also be subject to the terms and conditions of the Engineering Design Manual, as amended. The property owner, heirs, successors and assigns shall retain the obligation to maintain the surface of the easement property, including the obligation to regularly mow or cut back vegetation and to keep the surface of the easement property free of liter, debris, and trash.
5. No improvements including but not limited to structures, fences, or landscaping shall be allowed in a public easement, except as approved by the City.
6. The property owner shall provide access to drainage and utility easements as may be necessary and shall not prohibit access for the placement, construction, installation, replacement, repair, maintenance, relocation, removal, operation and inspection of such drainage and utility facilities, and related appurtenances.
7. A six (6) foot wide sidewalk shall be provided on both sides of East Pflugerville Parkway and Colorado Sands Drive.
8. Streetlights shall be installed and in full working order with the public improvements. All streetlights shall be in conformance with all City of Pflugerville ordinances including but not limited to being downcast and full cut off type. All locations will be finalized with the construction plans.
9. This subdivision is subject to all City of Pflugerville ordinances or technical manuals related to Tree Preservation per City Ordinance # 1203-15-02-24 and City Resolution # 1224-09-08-25-8A. The fiscal for tree protection or tree mitigation fee will be required prior to any issuance of a disturbance permit.
10. The Community Impact Fee rate for water and wastewater will be assessed at the time of final plat.
11. On-site storm water facilities shall be provided to mitigate post-development peak runoff rates for the 2 year, 25 year and 100 year storm events.
12. All electric utility infrastructure including but not limited to telephone, cable television, electric utility lateral and service lines shall be installed in accordance with the City of Pflugerville Engineering Design Manual.
13. The owner of this subdivision, and his or her successors and assigns, assumes responsibility for plans for construction of subdivision improvements which comply with applicable codes and requirements of the City of Pflugerville.
14. Construction plans and specifications for all subdivision improvements shall be reviewed and approved by the City of Pflugerville prior to any construction within the subdivision.
15. Site development construction plans shall be reviewed and approved by the City of Pflugerville prior to any construction.
16. No portion of this tract is within a flood hazard area as delineated on the FEMA Flood Insurance Rate Map Panel #48453C0280J for Travis County, effective August 18, 2014.
17. All proposed fences and walls adjacent to intersecting public roadway right-of-way or adjacent to private access drives shall be in compliance with the sight distance requirements of the City of Pflugerville Engineering Design Manual, as amended.
18. Wastewater and water systems shall conform to TCEQ (Texas Commission on Environmental Quality) and State Board of Insurance requirements. The owner understands and acknowledges that plat vacation or re-platting may be required at the owner's sole expense if plans to develop this subdivision do not comply with such codes and requirements.
19. Development plans for Remainder Tract 1 & 2 shown herein are unknown at this time. Any division or proposed development of Remainder Tract 1 & 2 shall require a new/revision to the preliminary plan (as determined by the Planning Director) to define the full configuration of the development, including but not limited to the proposed land use, lot configuration, traffic impact analysis, all road extensions and alignments, drainage and floodplain, and all utility extensions."

BENCHMARKS:

T.B.M."A":

CHISELED "X" IN CONCRETE SET IN CENTER OF CURB INLET ON THE NORTHEASTERN SIDE OF EAST PFLUGERVILLE PARKWAY APPROXIMATELY 638 FEET NORTHWEST OF THE CENTER MEDIAN OF COLORADO SAND DRIVE AND APPROXIMATELY 114 FEET NORTHEAST FROM THE NORTHWESTERN CORNER OF THE PROJECT SITE. ELEVATION 687.45' (NAVD 88) AS A RESULT OF THE ON THE GROUND SURVEY COMPLETED MARCH 2022.

(GRID COORDINATES)
N = 10,138,211.9498
E = 3,160,501.9799
ELV. 687.45'

T.B.M."B":

CHISELED "X" IN CONCRETE SET ON TOP OF CURB ON THE NORTHEASTERN SIDE OF EAST PFLUGERVILLE PARKWAY APPROXIMATELY 125 FEET SOUTHEAST OF THE CENTER MEDIAN OF COLORADO SAND DRIVE AND APPROXIMATELY 242 FEET NORTHEAST FROM THE NORTHEASTERN CORNER OF THE PROJECT SITE. ELEVATION OF 687.73' (NAVD 88) AS RESULT OF THE ON THE GROUND SURVEY COMPLETED MARCH 2022.

(GRID COORDINATES)
N = 10,137,834.3688
E = 3,161,165.4069
ELV. 687.73'

UTILITY PROVIDERS

AT&T - TEXAS NORTH ENGINEERING
--
817 W NORTH LOOP BLVD.
AUSTIN, TX 78756
737-255-4863

CITY OF PFLUGERVILLE PUBLIC WORKS
512-990-6400

ATMOS
JACKY YU
3110 N. I-35
ROUND ROCK, TX 78681
512-310-3801

ONCOR
SCOTT BAUMBACH
350 TEXAS AVE.
ROUND ROCK, TX 78664
512-244-5693

REVISIONS/CORRECTIONS

No.	DESCRIPTION	REVISE (R) DELETE (D) ADD (A) SHEET No'S	TOTAL SHEETS IN PLAN SET	NET CHANGE IMPERV. COVER SF	TOTAL SITE IMPERV. COVER SF / %	CITY OF PFLUGERVILLE APPROVAL DATE	DATE IMAGED

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STATE OF TEXAS
JOSEPH E. YORK V
124934
PROFESSIONAL ENGINEER
10/28/2022

PRELIMINARY PLAN ONLY
NOT FOR RECORDATION

SHEET NO. 1
OF 19

07.05.2022 PRELIMINARY PLAN
EAST PFLUGERVILLE PARKWAY COMMERCIAL CENTER
JOB NUMBER S0977-0008-00

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290
4350 Lockhill Selma Road, Suite 100•San Antonio, Texas 78249•210.494.5511

CURVE TABLE						
CURVE	RADIUS	ARC LENGTH	DELTA ANGLE	CHORD BEARING	CHORD LENGTH	TANGENT
C1	50.00'	78.32'	89°44'36"	N15°38'32"W	70.55'	49.78'
C2	840.00'	588.69'	40°09'16"	N9°09'08"E	576.72'	307.02'
C3	50.00'	78.54'	89°59'56"	N34°04'30"E	70.71'	50.00'
C4	10982.11'	729.64'	3°48'24"	S6°49'42"E	729.51'	364.95'
C5	50.00'	78.77'	90°15'58"	S74°21'45"W	70.87'	50.23'
C6	760.00'	532.63'	40°09'16"	S9°09'08"W	521.79'	277.78'
C7	50.00'	78.54'	90°00'00"	N55°55'30"W	70.71'	50.00'
C8	2059.3.90'	100.69'	0°16'48"	N4°39'45"W	100.69'	50.35'

BENCHMARKS:

T.B.M."A":

CHISELED "X" IN CONCRETE SET IN CENTER OF CURB INLET ON THE NORTHEASTERN SIDE OF EAST PFLUGERVILLE PARKWAY APPROXIMATELY 638 FEET NORTHWEST OF THE CENTER MEDIAN OF COLORADO SAND DRIVE AND APPROXIMATELY 114 FEET NORTHEAST FROM THE NORTHWESTERN CORNER OF THE PROJECT SITE. ELEVATION 687.45' (NAVD 88) AS A RESULT OF THE ON THE GROUND SURVEY COMPLETED MARCH 2022.

(GRID COORDINATES)
N = 10,138,211.9498
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ELV. 687.45'

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(GRID COORDINATES)
N = 10,137,834.3688
E = 3,161,165.4069
ELV. 687.73'

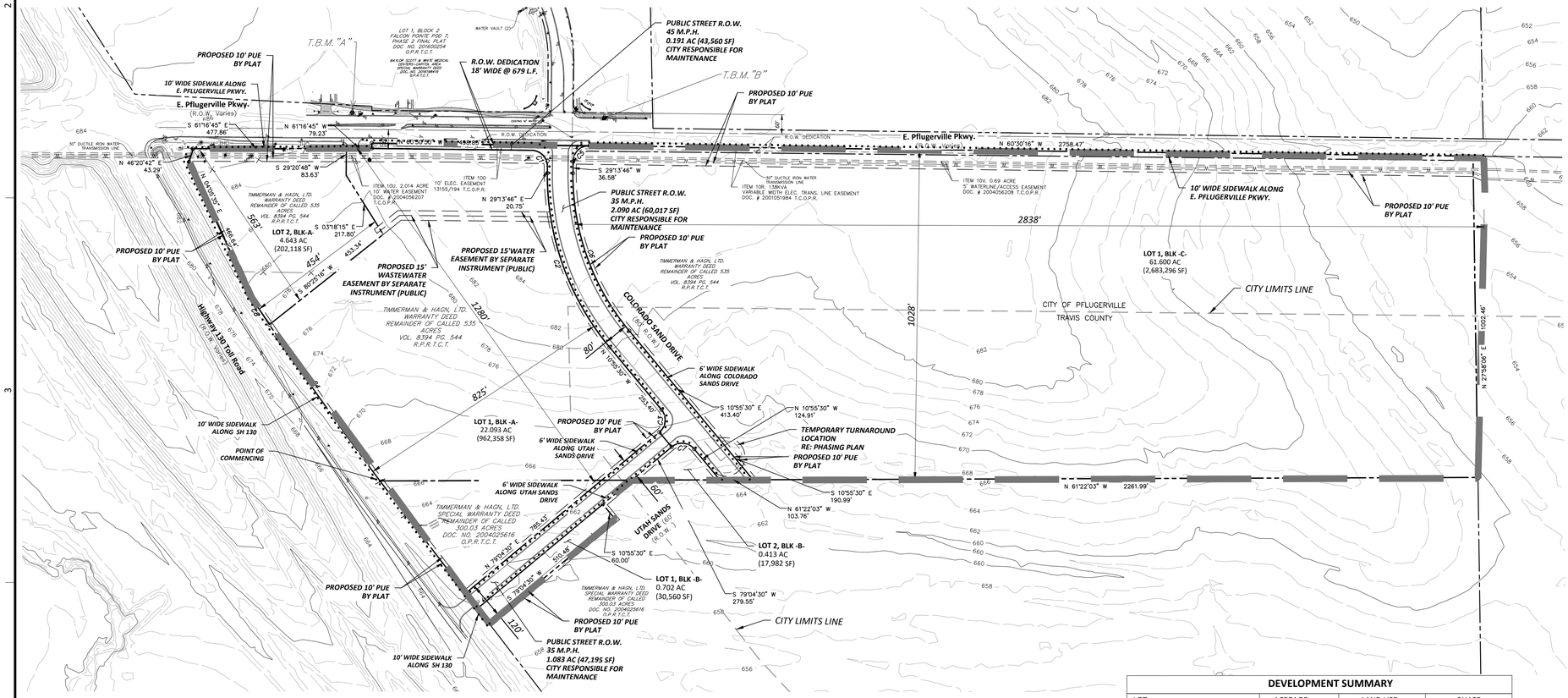
GENERAL PLAN NOTES:

1. NO PORTION OF THIS TRACT IS WITHIN A FLOOD HAZARD AREA AS DELINEATED ON THE FEMA FLOOD INSURANCE RATE MAP PANEL #48453C0280J FOR TRAVIS COUNTY, EFFECTIVE AUGUST 18, 2014.
2. DEVELOPMENT PLANS FOR RESERVE TRACT 2 SHOWN HEREIN ARE UNKNOWN AT THIS TIME. ANY DIVISION OR PROPOSED DEVELOPMENT OF RESERVE TRACT 2 SHALL REQUIRE A NEW/REVISION TO THE PRELIMINARY PLAN (AS DETERMINED BY THE PLANNING DIRECTOR) TO DEFINE THE FULL CONFIGURATION OF THE DEVELOPMENT, INCLUDING BUT NOT LIMITED TO THE PROPOSED LAND USE, LOT CONFIGURATION, TRAFFIC IMPACT ANALYSIS, ALL ROAD EXTENSIONS AND ALIGNMENTS, DRAINAGE AND FLOODPLAIN, AND ALL UTILITY EXTENSIONS.
3. DEVELOPMENT PHASING IS SHOWN ON SHEET 19 - PRELIMINARY DEVELOPMENT PHASING PLAN.
4. L OT 1, BLOCK B WILL BE OWNED AND MAINTAINED BY THE CITY OF PFLUGERVILLE.

LEGEND

- PROPERTY LINE
- PROPOSED SIDEWALK
- PROPOSED LOT LINE
- 100-YEAR FLOOD PLAIN
- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WATERLINE W/ METER
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- STORM SEWER W/ CURB INLET
- OVERHEAD ELEC W/POWER POLE
- GAS LINE
- LIMITS OF PRELIMINARY PLAN BOUNDARY
- XX.XX PROPOSED — PROPOSED TEXT CALL-OUT
- XX.XX EXISTING — EXISTING TEXT CALL-OUT

0 50 100 200 400 600
SCALE: 1" = 200'



ROADWAY CLASSIFICATION TABLE				
STREET NAME	SPEED LIMIT	ROW DEDICATION ACRES / (SF)	MAINTENANCE RESPONSIBLE	ROAD CLASSIFICATION
E. PFLUGERVILLE PKWY	45 MPH	0.22 Ac. (43,560 SF)	CITY	MAJOR ARTERIAL
COLORADO SAND DRIVE	35 MPH	2.07 Ac (60,017 SF)	CITY	URBAN 3 LANE
UTAH SANDS DRIVE	35 MPH	1.75 Ac. (766,267 SF)	CITY	MINOR COLLECTOR

DEVELOPMENT SUMMARY			
LOT	ACREAGE	LAND USE	PHASE
LOT 2, BLK -A-	4.643 AC	COMMERCIAL	PHASE 2
LOT 1, BLK -A-	22.093 AC	COMMERCIAL	PHASE 1
LOT 1, BLK -B-	0.702 AC	PUBLIC DRAINAGE	PHASE 1
LOT 1, BLK -C-	61.600 AC	AGRICULTURAL	PHASE 3
LOT 2, BLK -B-	0.413 AC	AGRICULTURAL	PHASE 3
COLORADO SAND DR. AREA	2.376 AC	PUBLIC ROW	PHASE 1
COLORADO SAND DR. LENGTH	1,061 FT	PUBLIC ROW	PHASE 1
COLORADO SAND DR. WIDTH	80 FT	PUBLIC ROW	PHASE 1
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UTAH SANDS DRIVE LENGTH	877 FT	PUBLIC ROW	PHASE 1
UTAH SANDS DRIVE WIDTH	60 FT	PUBLIC ROW	PHASE 1
E PFLUGERVILLE PKWY ROW AREA	0.191 AC	PUBLIC ROW	PHASE 1
E PFLUGERVILLE PKWY ROW LEN.	679 FT	PUBLIC ROW	PHASE 1
E PFLUGERVILLE PKWY ROW WIDTH	VARIES	PUBLIC ROW	PHASE 1
TOTAL ACREAGE	93.101 AC		
TOTAL NO. OF LOTS	5		

LEGAL DESCRIPTION

BEING a 93.101-acre tract of land situated in the J. Davis Survey, Abstract No. 231, and the S. Eiselin Survey, Abstract No. 265, Travis County, Texas, and being a portion of the remainder of that certain tract of land called to contain 535 acres to Timmerman & Hagn, LTD. as described in Volume 8394, Page 544, corrected in Volume 8517, Page 875 of the Real Property Records of Travis County, Texas and further described by metes and bounds in Volume 365, Page 165 of the Deed Records of Travis County, Texas, and a portion of the remainder of a called 300.03 acre tract to Timmerman & Hagn, Ltd., as described in a Special Warranty Deed in Document No. 2004025616 of the Official Public Records of Travis County, Texas; said 93.101 acre tract of land being more particularly described as follows, with bearings based on the Texas Coordinate System of 1983, Central Zone:

BEGINNING: at a 1/2-inch iron rod with TxDOT aluminum cap found on the northeastern line of State Highway 130, the southern line of the remainder of the said 535-acre tract, the northern line of the remainder of that certain tract of land called to contain 300.03 acres to Timmerman & Hagan, LTD as described in a Special Warranty Deed in Document No. 2004025616 of the Official Public Records of Travis County, Texas, 1/2-inch iron being the southeastern corner of Parcel 163A – 22.067 acres to the State of Texas as described in a Special Warranty Deed in Document No. 2004016878 of the Official Public Records of Travis County, Texas and the northeastern corner of Parcel 163B – 35.165 acres to the State of Texas as described in a Special Warranty Deed in Document No. 2004016876 of the Official Public Records of Travis County, Texas, for a corner of this herein described tract;

THENCE: Along the eastern line of said State Highway 130, the eastern line of said Parcel 163A with a curve to the right having a Delta angle of 03°38'32", a Radius of 10982.11 feet, at an Arc length of 597.45 feet pass a 1/2-inch iron rod with cap stamped "CTLS" found, **a total Arc length of 698.14 feet** with the chord of the curve North 06°13'16" West a distance of 698.03 feet to a 5/8-inch iron rod with cap stamped "Jones|Carter" set for a corner of said State Highway 130, a corner of said Parcel 163A, for a corner of this herein described tract;

THENCE: North 04°05'28" East a distance of 466.38 feet continuing along the eastern line of said State Highway 130, the eastern line of said Parcel 163A to a 5/8-inch iron rod with cap stamped "Jones|Carter" set for a corner of said State Highway 130, a corner of said Parcel 163A, for a corner of this herein described tract;

THENCE: North 46°20'42" East a distance of 43.29 feet continuing along the eastern line of said State Highway 130, an eastern line of said Parcel 163A to a 5/8-inch iron rod with cap stamped "Jones|Carter" set for a corner of said State Highway 130, a corner of said Parcel 163A, for a corner of this herein described tract;

THENCE: South 61°16'45" East a distance at 477.96 feet pass a 1/2-inch iron rod with cap stamped "CTLS" found, **a distance in all of 557.15 feet** along a line of said Parcel 163A, a line of East Pflugerville Parkway (Right of Way varies) to a 1/2-inch iron rod with cap stamped "CTLS" found for a corner of said Parcel 163A, a corner of said East Pflugerville Parkway, for a corner of this herein described tract;

THENCE: North 28°43'20" East a distance of 16.66 feet along a line of said Parcel 163A, a line of said East Pflugerville Parkway to a 1/2-inch iron rod with cap stamped "CTLS" found for a corner of said Parcel 163A, a corner of said East Pflugerville Parkway, for a corner of this herein described tract;

THENCE: South 60°30'50" East a distance of 499.07 feet along the southern line of said East Pflugerville Parkway to a 1/2-inch iron rod with cap stamped "CTLS" found for a corner of this herein described tract;

THENCE: South 60°30'15" East a distance of 179.91 feet continuing along the southern line of said East Pflugerville Parkway to a 5/8-inch iron rod with cap stamped "Jones|Carter" set for a corner of this herein described tract;

THENCE: South 60°30'16" East a distance of 2758.47 feet continuing along the southern line of said East Pflugerville Parkway, at 179.91 feet to a 5/8-inch iron rod with cap stamped "Jones|Carter" set for the northeastern corner of this herein described tract;

THENCE: South 27°58'06" West a distance of 1002.46 feet across the remainder of the said 535 acre tract to a 5/8-inch iron rod with cap stamped "Jones|Carter" set for the northeastern corner of the said 300.03-acre tract, for the southeastern corner of this herein described tract, from which a 1/2-inch iron rod (disturbed) found for the southeastern corner of the said 300.03-acre tract, the northeastern corner of that certain tract of land called to contain 236.03 acres to Timmerman & Hagn, LTD as described in a Special Warranty Deed in Document No. 2004025617 of the Official Public Records of Travis County, Texas, the northwestern corner of the remainder of that certain tract of land called to contain 97 1/2 acres to Timmerman Farms, Ltd as described in a Special Warranty Deed in Document NO. 2004240371 of the Official Public Record of Travis County, Texas bears South 27°58'06" West a distance of 1760.70 feet;

THENCE: North 61°22'03" West a distance of 2261.99 feet along the southern line of the remainder of the said 535-acre tract, the northern line of the remainder of the said 300.03-acre tract to a calculated point for a corner of this herein described tract;

THENCE: South 79°04'30" West a distance of 117.80 feet across the remainder of the said 300.03-acre tract to a 5/8-inch iron rod with cap stamped "Jones|Carter" set for a corner of this herein described tract;

THENCE: South 10°55'30" East a distance of 60.00 feet continuing across the remainder of the said 300.03-acre tract to a 5/8-inch iron rod with cap stamped "Jones|Carter" set for a corner of this herein described tract;

THENCE: South 79°04'30" West a distance of 510.48 feet continuing across the remainder of the said 300.03-acre tract to a 5/8-inch iron rod with cap stamped "Jones|Carter" set on the eastern line of said State Highway 130 (Parcel 163B), a western line of the remainder of the said 300.03-acre tract, for the westernmost southwestern corner of this herein described tract;

THENCE: North 08°43'50" West along the eastern line of the said State Highway 130 (Parcel 163B), a western line of the remainder of the said 300.03-acre tract, at 120.09 feet pass a 1/2-inch iron rod with cap stamped "CTLS" found, a distance in all of 428.83 feet to a 1/2-inch iron rod with TxDOT aluminum cap found for a corner of said State Highway 130, a corner of the remainder of the said 300.03-acre tract, for a corner of this herein described tract;

THENCE: Continuing along the eastern line of said State Highway 130 (Parcel 163B), a western line of the remainder of the said 300.03-acre tract with a curve to the right having a Delta angle of 00°41'23", a Radius of 10982.11 feet, an Arc length of 132.19 feet with the chord of the curve North 08°23'13" West a distance of 132.19 feet to the POINT OF BEGINNING and CONTAINING an area of 93.101 acres of land.

PRELIMINARY PLAN ONLY
NOT FOR RECORDATION

REVISIONS

No.	Date	App.

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290
4350 Lockhill-Selma Road, Suite 100 • San Antonio, Texas 78249 • 210.494.3511

SCALE: AS SHOWN
DATE: 07.05.2022
JOB NO.: S0977-0008-00
DESIGNED BY: KF
CHECKED BY: KF/JY
DRAWN BY: CAD

STATE OF TEXAS
JOSEPH E. YORK V.
124934
LICENSED PROFESSIONAL ENGINEER
10/28/2022

EAST PFLUGERVEILLE PARKWAY
COMMERCIAL CENTER

PRELIMINARY PLAN

SHEET NO. 2
OF 19

K:\S0977\s0977-0008-00 heb pflugerville - store planning\2 design phase\CAD\Plans\Site\preliminary plan\S0977-0008 Prelim Plan.dwg KS: October 28, 2022

CURVE TABLE						
	RADIUS	ARC LENGTH	DELTA ANGLE	CHORD BEARING	CHORD LENGTH	TANGENT
C1	50.00'	78.32'	89°44'36"	N15°38'32"W	70.55'	49.78'
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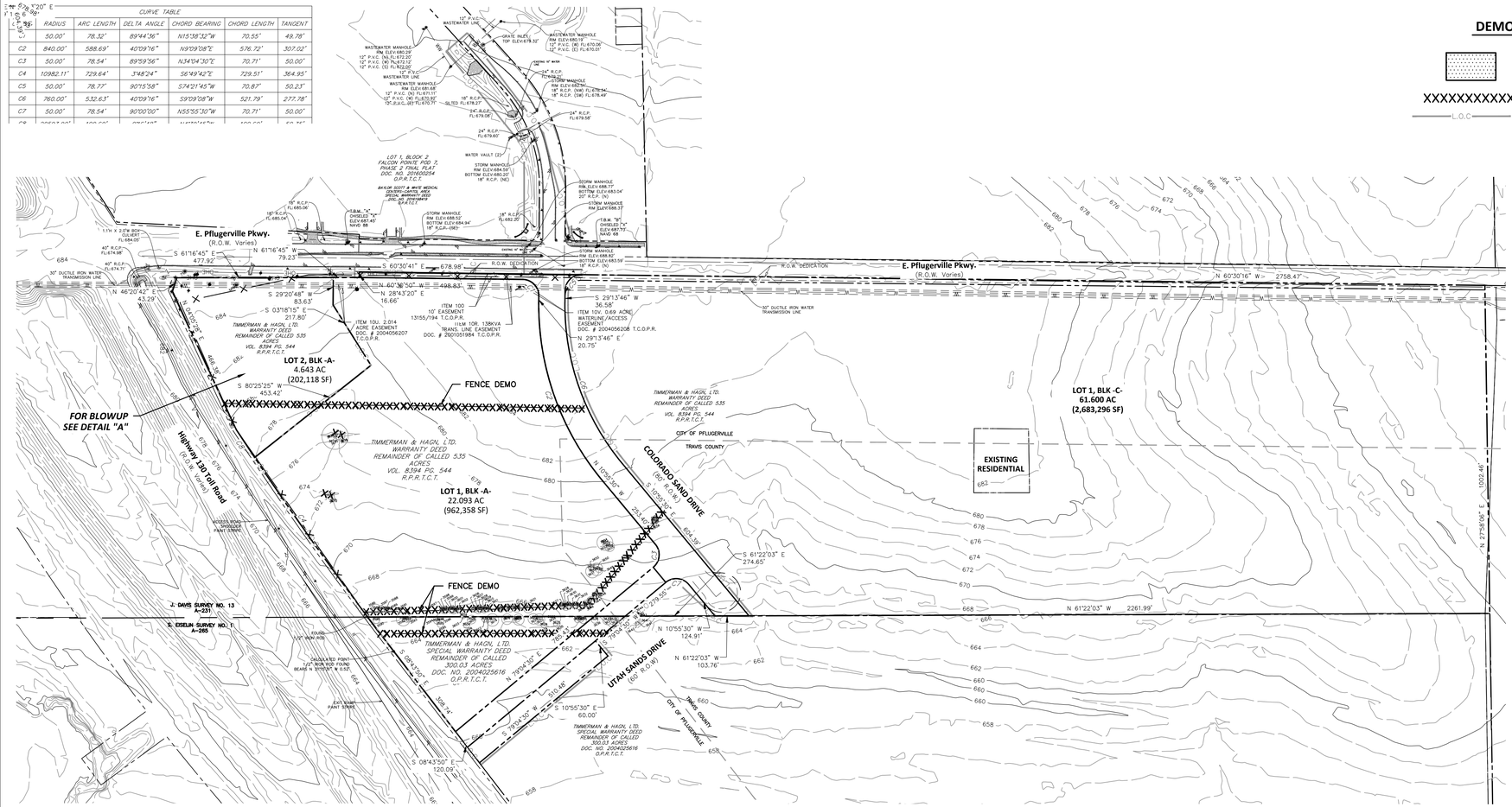
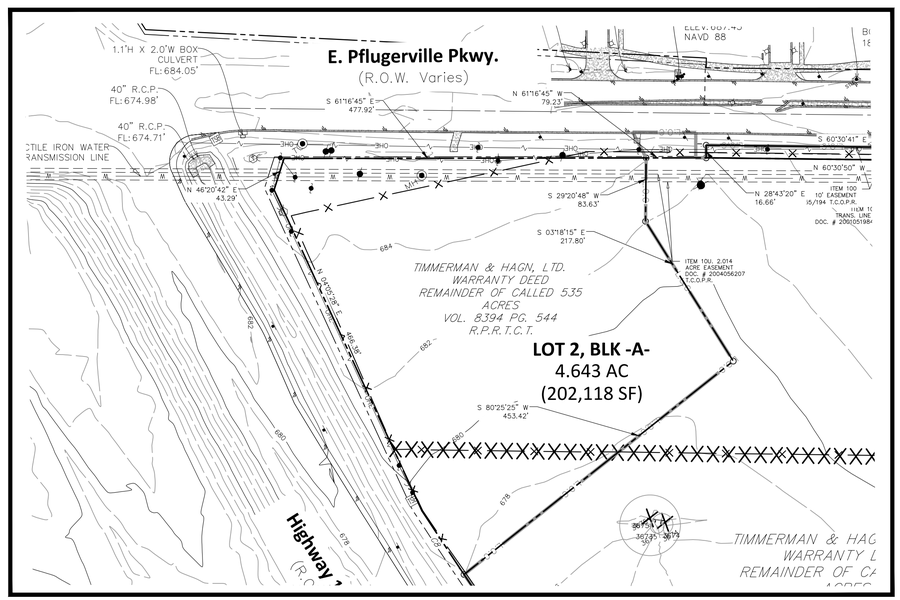
C6	760.00'	532.63'	40°09'16"	S19°09'08"W	521.79'	277.78'
C7	50.00'	78.54'	90°00'00"	N55°55'30"W	70.71'	50.00'
C8	20010.00'	109.00'	0°06'15"	N10°16'53"W	109.00'	54.50'





DETAIL "A"
SCALE: 1" = 100'

DEMOLITION LEGEND

- DEMOLITION AREAS
- XXXXXXXXXXX DEMOLITION SPECIFIC ITEMS
- L.O.C. LIMIT OF CONSTRUCTION

0 50 100 200 400 600
SCALE: 1" = 200'

LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WATERLINE W/ METER
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- STORM SEWER W/ CURB INLET
- OVERHEAD ELEC W/POWER POLE
- GAS LINE
- 700 GROUND CONTOUR
- TREE TO REMAIN
- TREE TO BE REMOVED

TREE LOG

TREE TAG NUMBER	TREE TYPE	CALIPER INCH	REMOVED	PROTECTED	HERITAGE	NOTES
3586	Hackberry	14	Yes			Fair
3587	Hackberry	11	Yes			Fair
3588	Hackberry	8	Yes			Fair
3589	Hackberry	10	Yes			Fair
3590	Hackberry	10	Yes			Fair
3591	Hackberry	8	Yes			Fair
3592	Hackberry	21	Yes	Yes		Multi-stem
3593	Hackberry	8	Yes			Fair
3594	Hackberry	8	Yes			Fair
3595	Hackberry	9	Yes			Fair
3596	Hackberry	11	Yes			Fair
3597	Hackberry	11	Yes			Fair
3598	Hackberry	11	Yes			Fair
3599	Hackberry	11	Yes			Fair
3600	Hackberry	12	Yes			Fair
3601	Hackberry	8	Yes			Fair
3602	Hackberry	10	Yes			Fair
3603	Bois D'arc	8	Yes			Fair
3604	Hackberry	9	Yes			Fair
3605	Hackberry	13	Yes			Fair
3606	Hackberry	9	Yes			Fair
3607	Hackberry	13	Yes			Fair
3608	Hackberry	10	Yes			Fair
3609	Hackberry	10	Yes			Fair
3610	Hackberry	9	Yes			Fair
3611	Hackberry	8	Yes			Fair
3612	Hackberry	8	Yes			Fair
3613	Hackberry	8	Yes			Fair
3614	Bois D'arc	19	Yes	Yes		Multi-stem
3615	Hackberry	9	Yes			Fair
3616	Hackberry	16	Yes			Fair
3617	Hackberry	11	Yes			Fair
3618	Hackberry	13	Yes			Fair
3619	Hackberry	17	Yes			Fair
3620	Hackberry	8	Yes			Fair
3621	Hackberry	16	Yes			Twin
3622	Bois D'arc	16	Yes			Twin
3623	Hackberry	17	Yes			Fair
3624	Hackberry	8	Yes			Fair
3625	Hackberry	10	Yes			Fair
3626	Bois D'arc	28	Yes		Yes	Fair
3627	Hackberry	10	Yes			Fair
3628	Hackberry	9	Yes			Twin
3629	Hackberry	14	Yes			Fair
3630	Hackberry	8	Yes			Fair
3631	Hackberry	8	Yes			Fair
3632	Hackberry	10	Yes			Fair
3633	Hackberry	10	Yes			Fair
3634	Hackberry	9	Yes			Fair
3635	Hackberry	11	Yes			Fair
3636	Hackberry	10	Yes			Twin
3637	Gum Bumelia	14	Yes			Multi-stem
3638	Hackberry	15	Yes			Twin
3639	Hackberry	8	Yes			Fair
3640	Hackberry	9	No			Fair
3641	Hackberry	12	No			Fair
3642	Hackberry	8	No			Fair
3643	Hackberry	15	No			Twin
3644	Hackberry	8	No			Fair
3645	Hackberry	11	Yes			Fair
3646	Hackberry	8	Yes			Fair
3647	Bois D'arc	13	Yes			Twin
3648	Hackberry	10	Yes			Fair
3649	Hackberry	8	Yes			Fair
3650	Bois D'arc	19	Yes	Yes		Multi-stem
3651	Bois D'arc	20	Yes	Yes		Multi-stem
3652	Hackberry	8	Yes			Fair
3653	Bois D'arc	10	Yes			Fair
3654	Bois D'arc	24	Yes		Yes	Multi-stem
3655	Bois D'arc	15	Yes			Multi-stem
3656	Hackberry	9	Yes			Fair
3657	Hackberry	8	Yes			Fair
3672	Hackberry	11	No			Fair
3673	Cottonwood	9	No			Fair
3674	Hackberry	14	No			Twin
3675	Cottonwood	40	No		Yes	Dying

PRELIMINARY PLAN ONLY
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REVISIONS

No.	Date	App.

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290
4350 Lockhill-Selma Road, Suite 100 • San Antonio, Texas 78249 • 210.494.3511

SCALE: AS SHOWN
DATE: 07.05.2022
JOB NO.: 50977-0008-00
DESIGNED BY: KF
CHECKED BY: KF/JY
DRAWN BY: CAD

STATE OF TEXAS
JOSEPH E. YORK V
124934
LICENSED PROFESSIONAL ENGINEER
10/28/2022

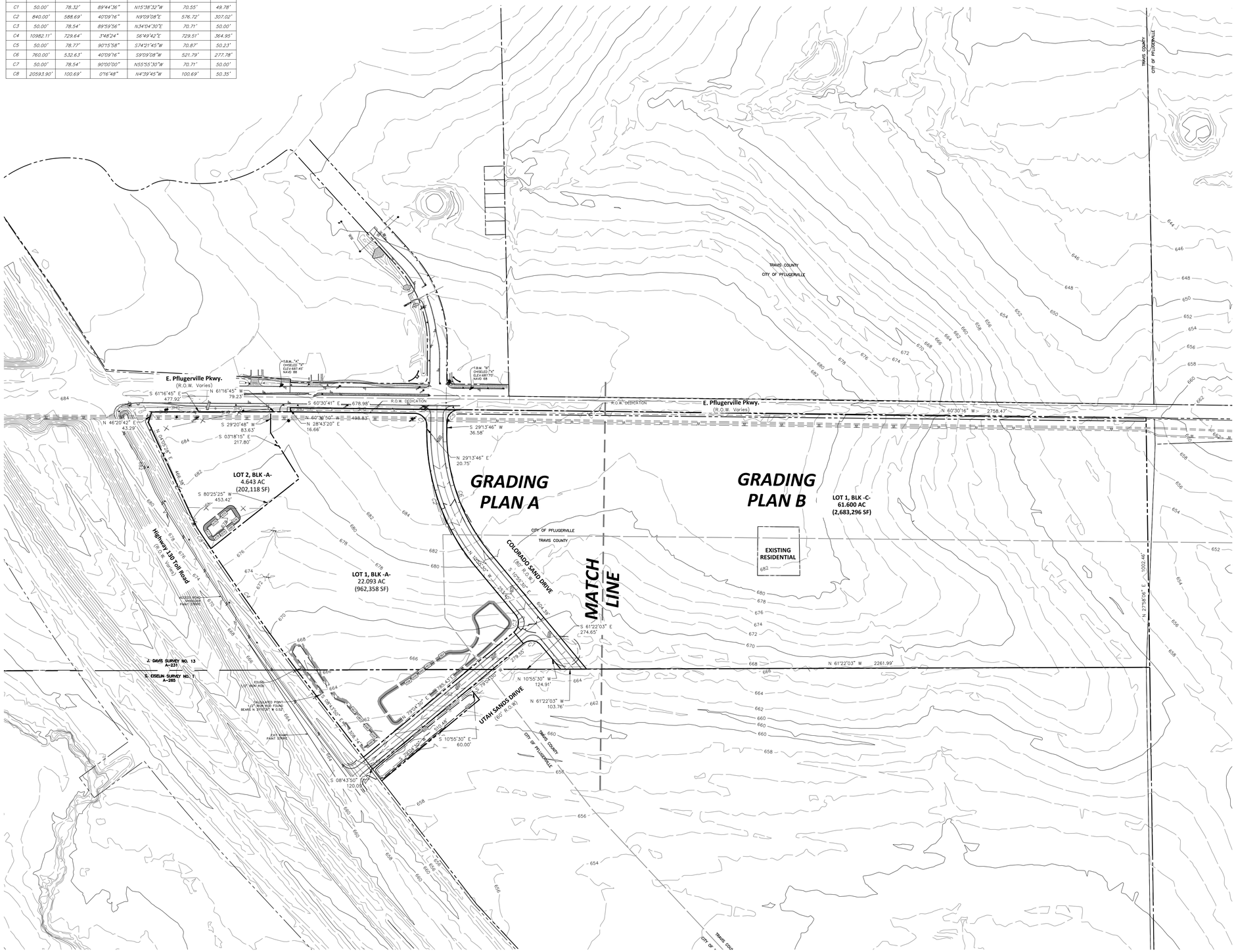
EAST PFLUGERVEILLE PARKWAY
COMMERCIAL CENTER

EXISTING CONDITIONS

SHEET NO. 3
OF 19

K:\50977\u0977-0008-00 heb pflugerville - store planning\2 design phase\CAD\Plans\Site\preliminary plan\50977-0008 Prelim Existing Cond.dwg KS: October 28, 2022

CURVE TABLE						
CURVE	RADIUS	ARC LENGTH	DELTA ANGLE	CHORD BEARING	CHORD LENGTH	TANGENT
C1	50.00'	78.32'	89°44'36"	N15°38'32"W	70.55'	49.78'
C2	840.00'	588.69'	40°09'16"	N19°09'08"E	576.72'	307.02'
C3	50.00'	78.54'	89°59'56"	N34°04'30"E	70.71'	50.00'
C4	10982.11'	729.64'	3°48'24"	S6°49'42"E	729.51'	364.95'
C5	50.00'	78.77'	90°15'58"	S74°21'45"W	70.87'	50.23'
C6	760.00'	532.63'	40°09'16"	S19°09'08"W	521.79'	277.78'
C7	50.00'	78.54'	90°00'00"	N55°55'30"W	70.71'	50.00'
C8	20593.90'	100.69'	0°16'48"	N4°39'45"W	100.69'	50.35'



GENERAL PLAN NOTES:

1. NO PORTION OF THIS TRACT IS WITHIN A FLOOD HAZARD AREA AS DELINEATED ON THE FEMA FLOOD INSURANCE RATE MAP PANEL #48453C0280J FOR TRAVIS COUNTY, EFFECTIVE AUGUST 18, 2014.

GRADING LEGEND

→	SLOPE ARROW
FF 780	FINISHED FLOOR ELEVATION
125	FINISHED CONTOUR
750	EXISTING CONTOUR
HP	HIGH POINT
60.0	FINISHED SPOT ELEVATION
+60.0	EXISTING SPOT ELEVATION
▶ ···	EARTH SWALE

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JOB NO.: 50977-0008-00 | DRAWN BY: CAD

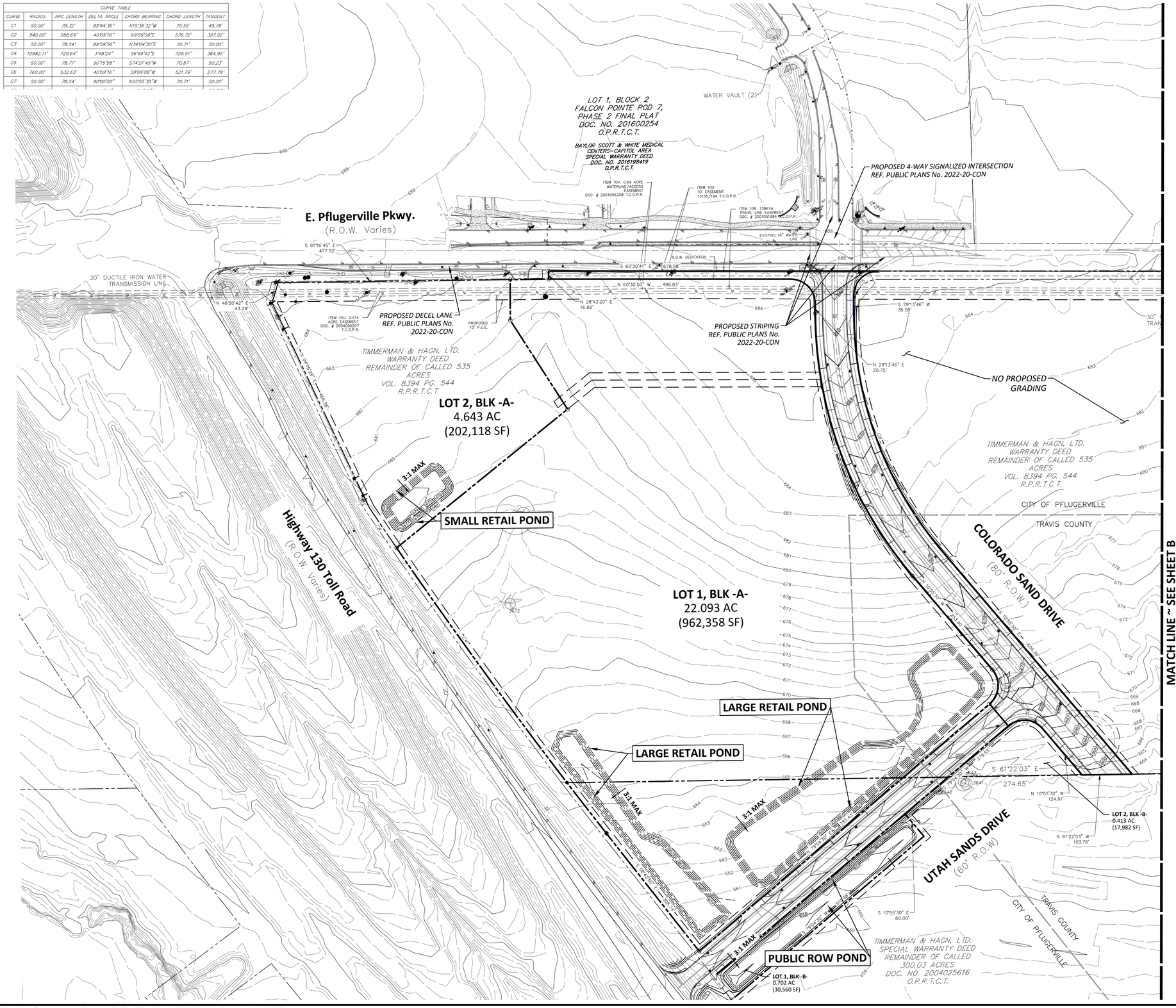
STATE OF TEXAS
JOSEPH E. YORK V
124934
LICENSED
PROFESSIONAL ENGINEER
10/28/2022

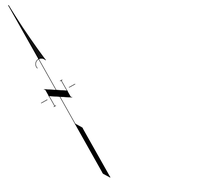
EAST PFLUGERVEILLE PARKWAY COMMERCIAL CENTER

PRELIMINARY GRADING PLAN (OVERALL)

SHEET NO. 4
OF 19

CURVE TABLE						
CURVE	RADIUS	ARC LENGTH	DELTA ANGLE	CHORD BEARING	CHORD LENGTH	TANGENT
C1	50.00'	78.32'	89°44'36"	N15°38'32"W	70.55'	49.78'
C2	840.00'	588.69'	40°09'16"	N39°09'08"E	576.72'	307.02'
C3	50.00'	78.54'	89°59'56"	N34°04'30"E	70.71'	50.00'
C4	10982.11'	729.64'	3°48'24"	S6°49'42"E	729.51'	364.95'
C5	50.00'	78.77'	90°15'58"	S74°21'45"W	70.87'	50.23'
C6	760.00'	532.63'	40°09'16"	S39°09'08"W	521.79'	277.78'
C7	50.00'	78.54'	90°00'00"	N55°55'30"W	70.71'	50.00'





0 50 100 200 300

SCALE: 1" = 100'

GENERAL PLAN NOTES:

1. THE LOCATION OF THE SMALL RETAIL POND MAY BE RELOCATED TO THE CORNER OF LOT 1, BLOCK A, BUT WILL STILL PROVIDE DETENTION FOR LOT 2, BLOCK A.

GRADING LEGEND

	SLOPE ARROW
FF 780	FINISHED FLOOR ELEVATION
125	FINISHED CONTOUR
750	EXISTING CONTOUR
HP	HIGH POINT
60.0	FINISHED SPOT ELEVATION
+60.0	EXISTING SPOT ELEVATION
	EARTH SWALE

No.	Date	REVISIONS	App.

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JOB NO.: S0977-0008-00
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DRAWN BY: CAD

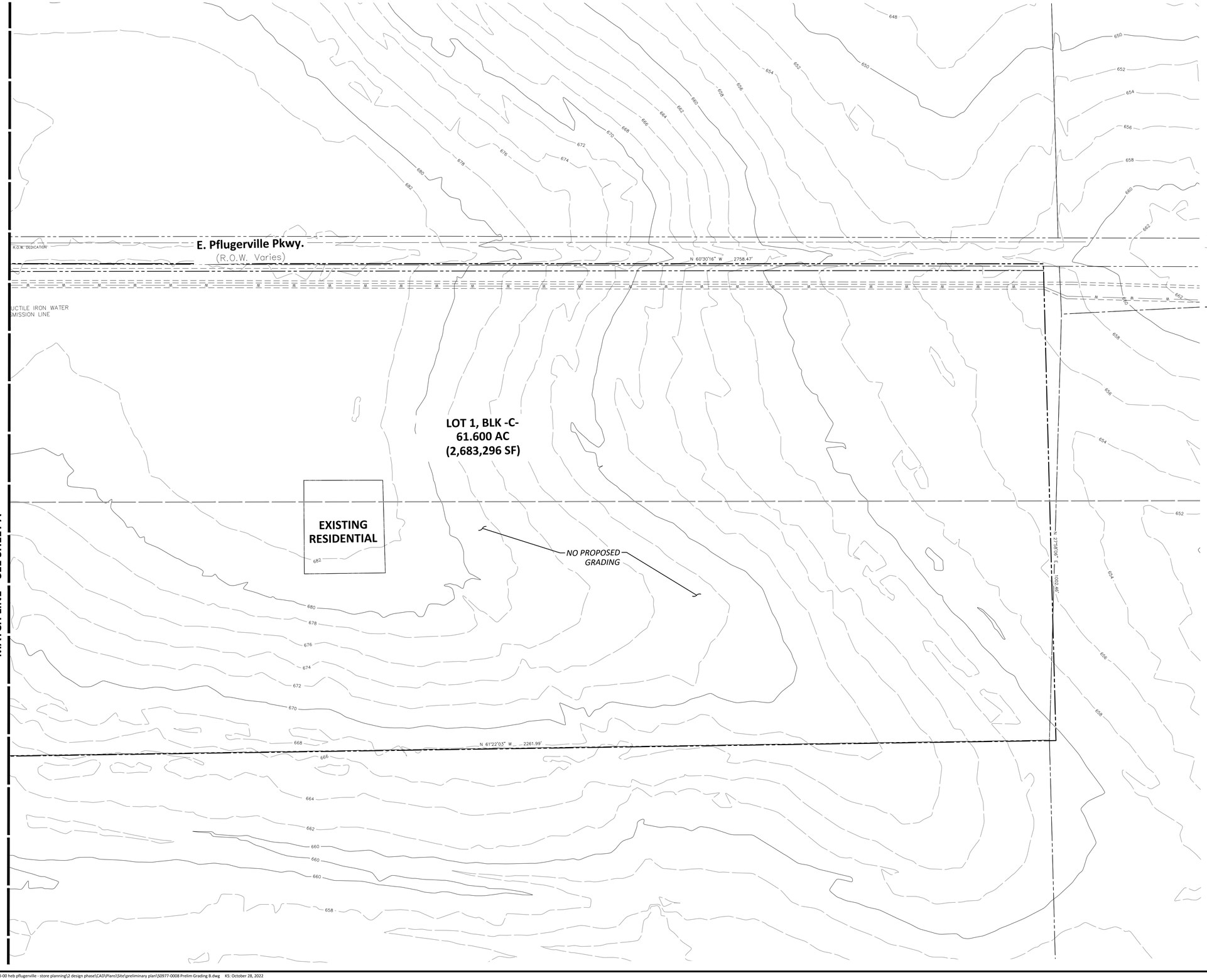
STATE OF TEXAS
JOSEPH E. YORK V
124934
LICENSED PROFESSIONAL ENGINEER
10/28/2022

EAST PFLUGERVEILLE PARKWAY
COMMERCIAL CENTER

PRELIMINARY GRADING PLAN A

SHEET NO. 5
OF 19

K:\S0977\s0977-0008-00 heb pflugerville - store planning\2 design phase\CAD\Plans\Site\preliminary plan\S0977-0008 Prelim Grading A.dwg KS: October 28, 2022



No.	Date	App.
REVISIONS		

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JOB NO.:	S0977-0008-00	DRAWN BY:	CAD

STATE OF TEXAS
JOSEPH E. YORK V
124934
LICENSED
PROFESSIONAL ENGINEER
10/28/2022

EAST PFLUGERVILLE PARKWAY
COMMERCIAL CENTER

PRELIMINARY GRADING PLAN B

SHEET NO. 6
OF 19

CURVE TABLE						
CURVE	RADIUS	ARC LENGTH	DELTA ANGLE	CHORD BEARING	CHORD LENGTH	TANGENT
C1	50.00'	78.32'	89°44'36"	N15°38'32"W	70.55'	49.78'
C2	840.00'	588.69'	40°09'16"	N19°09'08"E	576.72'	307.02'
C3	50.00'	78.54'	89°59'56"	N34°04'30"E	70.71'	50.00'
C4	10982.11'	729.64'	3°48'24"	S6°49'42"E	729.51'	364.95'
C5	50.00'	78.77'	90°15'58"	S74°21'45"W	70.87'	50.23'
C6	760.00'	532.63'	40°09'16"	S9°09'08"W	521.79'	277.78'
C7	50.00'	78.54'	90°00'00"	N55°55'30"W	70.71'	50.00'

12" P.V.C. (N) FL:671.11'
12" P.V.C. (W) FL:670.92'
12" P.V.C. (E) FL:670.71'

WATER VAULT (2)

T.B.M. "A"
CHISELED "X"
ELEV:687.45'
NAVD 88

T.B.M. "B"
CHISELED "X"
ELEV:687.73'
NAVD 68

E. Pflugerville Pkwy.
(R.O.W. Varies)

EXISTING 16" WATER LINE

R.O.W. DEDICATION

S 61°16'45" E
477.92'

S 60°30'41" E 678.98'

N 60°30'50" W 498.83'

N 28°43'20" E
16.66'

S 29°13'46" W
36.58'

N 29°13'46" E
20.75'

30" DUCTILE IRON WATER TRANSMISSION LINE

N 46°20'42" E
43.29'

N 61°29'28" E 466.48'

Highway 130 Toll Road
(R.O.W. Varies)

ACCESS ROAD
SHOULDER
PAINT STRIPE

EXIT RAMP
PAINT STRIPE

FOUND
1/2" IRON ROD

CALCULATED POINT
1/2" IRON ROD FOUND
BEARS N 31°16'31" W 0.52'

S 08°43'50" E 398.47'

CITY OF PFLUGERVILLE

TRAVIS COUNTY

COLORADO SAND DRIVE
(80' R.O.W.)

N 10°55'30" W 654.39'

S 10°55'30" E 654.39'

UTAH SANDS DRIVE
(60' R.O.W.)

N 79°04'30" E 785.43'

S 10°55'30" E
60.00'

N 10°55'30" W
124.91'

N 61°22'03" W
103.76'

279.55'

C1 C2 C3 C4 C5 C6 C7

0 50 100 200 300
SCALE: 1" = 100'

GRADING LEGEND

	SLOPE ARROW
FF 780	FINISHED FLOOR ELEVATION
125	FINISHED CONTOUR
750	EXISTING CONTOUR
HP	HIGH POINT
60.0	FINISHED SPOT ELEVATION
+60.0	EXISTING SPOT ELEVATION
	EARTH SWALE
	EXTREME EVENT ARROW
L.O.C.	LIMITS OF CONSTRUCTION
	LIMITS OF CUT
	LIMITS OF FILL

No.	Date	REVISIONS	App.

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STATE OF TEXAS
JOSEPH E. YORK V
124934
LICENSED PROFESSIONAL ENGINEER
10/28/2022

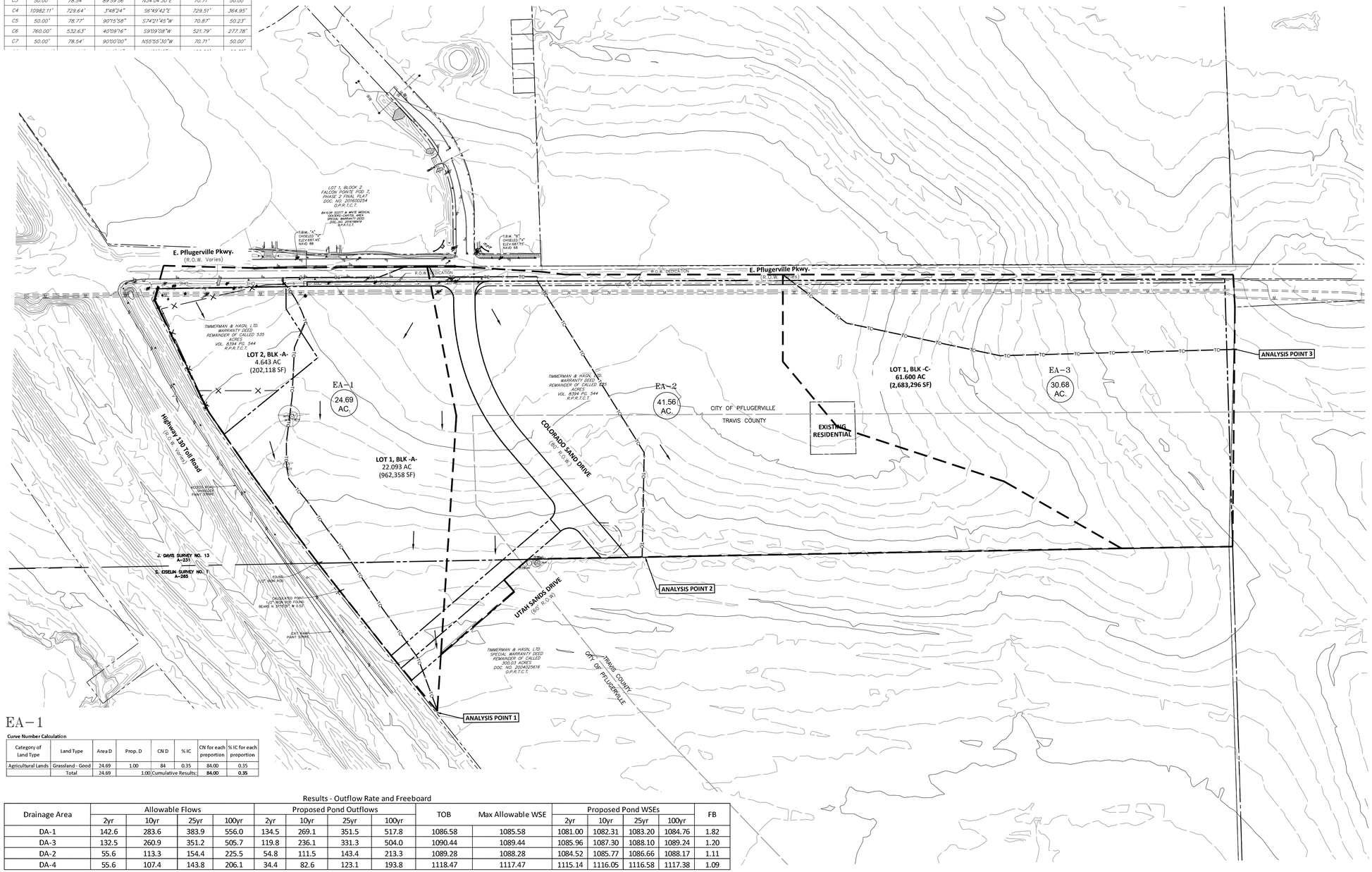
EAST PFLUGERVEILLE PARKWAY COMMERCIAL CENTER

PRELIMINARY CUT AND FILL PLAN

SHEET NO. 7
OF 19

K:\S0977\s0977-0008-00 heb pflugerville - store planning\2 design phase\CAD\Plans\Site\preliminary plan\S0977-0008 Prelim Cut and Fill.dwg KS: October 28, 2022

CURVE TABLE						
CURVE	RADIUS	ARC LENGTH	DELTA ANGLE	CHORD BEARING	CHORD LENGTH	TANGENT
C1	50.00'	78.32'	89°44'36"	N15°38'32"W	70.55'	49.78'
C2	840.00'	588.69'	40°09'16"	N19°09'08"E	576.72'	307.02'
C3	50.00'	78.54'	89°59'56"	N34°04'30"E	70.71'	50.00'
C4	10982.11'	729.64'	3°48'24"	S56°49'42"E	729.51'	364.95'
C5	50.00'	78.77'	90°15'58"	S74°21'45"W	70.87'	50.23'
C6	760.00'	532.63'	40°09'16"	S19°09'08"W	521.79'	277.78'
C7	50.00'	78.54'	90°00'00"	N55°55'30"W	70.71'	50.00'



0 50 100 200 400 600

SCALE: 1" = 200'

DRAINAGE LEGEND

- INLET 1.82 AC. — DRAINAGE AREA IN ACRES
- STORM SEWER 8.83 / 12.99 — RUNOFF IN C.F.S.
- DRAINAGE AREA LINE
- X — DRAINAGE AREA NUMBER
- TC — TC — TIME OF CONCENTRATION
- SHEET FLOW/RUNOFF

EA–1

Curve Number Calculation

Category of Land Type	Land Type	Area D	Prop. D	CN D	% IC	CN for each proportion	% IC for each proportion
Agricultural Lands	Grassland - Good	24.69	1.00	84	0.35	84.00	0.35
	Total	24.69	1.00	Cumulative Results:		**84.00**	**0.35**

Results - Outflow Rate and Freeboard

Drainage Area	Allowable Flows				Proposed Pond Outflows				TOB	Max Allowable WSE	Proposed Pond WSEs				FB
	2yr	10yr	25yr	100yr	2yr	10yr	25yr	100yr			2yr	10yr	25yr	100yr	
DA-1	142.6	283.6	383.9	556.0	134.5	269.1	351.5	517.8	1086.58	1085.58	1081.00	1082.31	1083.20	1084.76	1.82
DA-3	132.5	260.9	351.2	505.7	119.8	236.1	331.3	504.0	1090.44	1089.44	1085.96	1087.30	1088.10	1089.24	1.20
DA-2	55.6	113.3	154.4	225.5	54.8	111.5	143.4	213.3	1089.28	1088.28	1084.52	1085.77	1086.66	1088.17	1.11
DA-4	55.6	107.4	143.8	206.1	34.4	82.6	123.1	193.8	1118.47	1117.47	1115.14	1116.05	1116.58	1117.38	1.09

EA–2

Curve Number Calculation

Category of Land Type	Land Type	Area D	Prop. D	CN D	% IC	CN for each proportion	% IC for each proportion
Agricultural Lands	Grassland - Good	41.56	1.00	84	1.37	84.00	1.37
	Total	41.56	1.00	Cumulative Result:		**84.00**	**1.37**

Time of Concentration

$P_2 =$ 4.03 *in.*

$$t_{ch} = \frac{0.007(n_o L_{ch})^{0.8}}{P_2^{0.5} S_{ch}^{0.4}} \qquad t_{sc} = \frac{L_{sc}}{3600\,K\,S_{sc}^{0.5}} \qquad t_c = \left(3600\frac{1.49}{n}R^{2/3}S_{ch}^{1/2}\right)$$

catchment name	L_{sh} sheet flow length	S_{sh} sheet flow slope (ft/ft)	surface description	P_2 2-yr, 24-hr rainfall depth (in.)	n_{sc} overland flow roughness coeff.	t_{sh} sheet flow travel time (hr)	L_{sc} shallow conc. flow length (ft)	S_{sc} shallow conc. flow slope (ft/ft)	K 20.32 - paved / 16.13 unpaved	t_{sc} shallow conc flow time (hr)	Channel #	L_{ch} channel Length (ft)	S_{ch} channel flow slope (ft/ft)	n Manning's roughness coeff.	R hydraulic radius (ft)	t TC	t_c time of conc. (hr)	t_c time of conc. (min)	t_c lag time (min)
	100	0.0184	Prairie Grass	4.03	0.150	**0.1504**	1491	0.018	16.13	**0.1891**	1	0	1.000	0.035	0.5	**0.000**	**0.3395**	**20.37**	**12.22**

EA–3

Curve Number Calculation

Category of Land Type	Land Type	Area D	Prop. D	CN D	% IC	CN for each proportion	% IC for each proportion
Agricultural Lands	Grassland - Good	30.68	1.00	84	2.88	84.00	2.88
	Total	30.68	1.00	Cumulative Result:		**84.00**	**2.88**

Time of Concentration

$P_2 =$ 4.03 *in.*

$$t_{ch} = \frac{0.007(n_o L_{ch})^{0.8}}{P_2^{0.5} S_{ch}^{0.4}} \qquad t_{sc} = \frac{L_{sc}}{3600\,K\,S_{sc}^{0.5}} \qquad t_c = \left(3600\frac{1.49}{n}R^{2/3}S_{ch}^{1/2}\right)$$

catchment name	L_{sh} sheet flow length	S_{sh} sheet flow slope (ft/ft)	surface description	P_2 2-yr, 24-hr rainfall depth (in.)	n_{sc} overland flow roughness coeff.	t_{sh} sheet flow travel time (hr)	L_{sc} shallow conc. flow length (ft)	S_{sc} shallow conc. flow slope (ft/ft)	K 20.32 - paved / 16.13 unpaved	t_{sc} shallow conc. flow time (hr)	Channel #	L_{ch} channel Length (ft)	S_{ch} channel flow slope (ft/ft)	n Manning's roughness coeff.	R hydraulic radius (ft)	t TC	Pipe #	L_p Pipe flow length (ft)	S_p Assumed Velocity (ft/s)	t_p Pipe time (hr)	t_c time of conc. (hr)	t_c time of conc. (min)	t_c lag time (min)
	100	0.0171	Prairie Grass	4.03	0.150	**0.1549**	1667	0.017	16.13	**0.2196**	1	0	1.000	0.035	0.5	**0.000**	1	0	6.00	0.0000	**0.3745**	**22.47**	**13.48**

Element	Drainage Area	2-Year Peak Q	25-Year Peak Q	100-Year Peak Q
	(ac.)	*(cfs)*	*(cfs)*	*(cfs)*
EA-1	24.69	50.7	115.8	159.2
EA-2	41.56	100.4	227.1	311.4
EA-3	30.68	70.6	160.1	160.1

PRELIMINARY PLAN ONLY
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REVISIONS

No.	Date	App.

QUIDDITY
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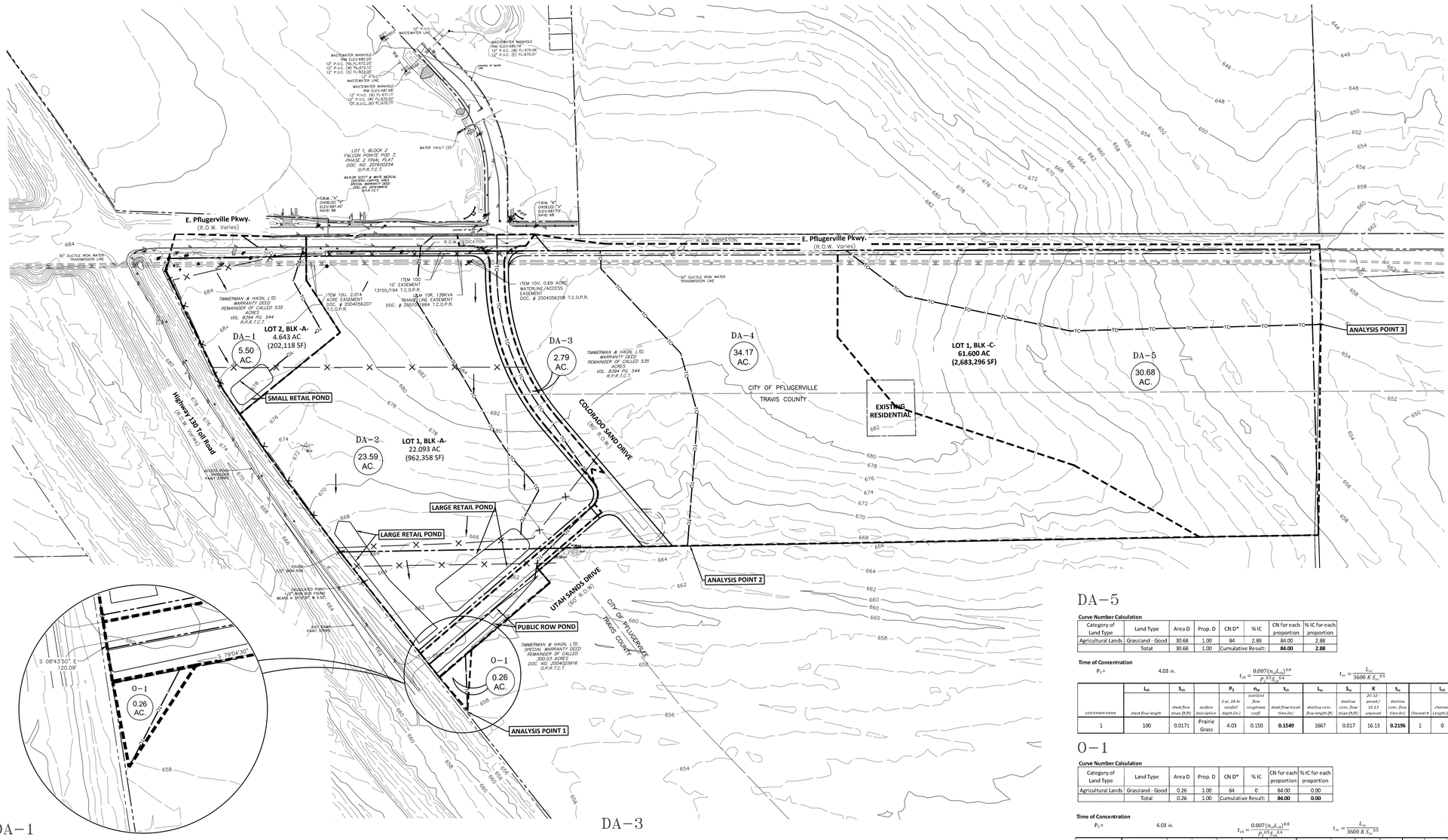
STATE OF TEXAS
JOSEPH E. YORK V
124934
LICENSED PROFESSIONAL ENGINEER
10/28/2022

EAST PFLUGERVILLE PARKWAY
COMMERCIAL CENTER

PRELIMINARY EXISTING DRAINAGE AREA MAP

SHEET NO. 8
OF 19

K:\50977\u0977-0008-00 heb pflugerville - store planning\2 design phase\CAD\Plans\Site\preliminary plan\50977-0008 Prelim Existing DAM.dwg KS: October 28, 2022



DRAINAGE LEGEND

- 1.82 AC. — DRAINAGE AREA IN ACRES
- 8.83 / 12.99 — RUNOFF IN C.F.S.
- DRAINAGE AREA LINE
- X — DRAINAGE AREA NUMBER
- TC — TC — TIME OF CONCENTRATION
- SHEET FLOW/RUNOFF

DA-1

Curve Number Calculation

Category of Land Type	Land Type	Area D	Prop. D	CN D	% IC	CN for each proportion	% IC for each proportion
Fully Dev Urban Areas	Retail	4.68	0.85	98	100.00	83.39	85.09
Agricultural Lands	Grassland - Good	0.82	0.15	84	100.00	12.52	14.91
	Total	5.50	0.85	Cumulative Result:		**95.91**	**100.00**

Time of Concentration

P_2 = 4.03 *in.*

$$t_{ch} = \frac{0.007(n_o L_{ch})^{0.8}}{P_2^{0.5} S_{ch}^{0.4}} \qquad t_{sc} = \frac{L_{sc}}{3600\,K\,S_{sc}^{0.5}} \qquad t_{ch} = \frac{L_{ch}}{\left(3600\frac{1.49}{n}R^{2/3}S_{ch}^{1/2}\right)}$$

	L_{ch}	S_{ch}		P_2	n_{sf}	t_{ch}	L_{sc}	S_{sc}	K	t_{sc}		L_{ch}	S_{ch}	n	R	t	t_c	t_c	t_c
catchment name	*sheet flow length*	*sheet flow slope (ft/ft)*	*surface description*	*2-yr, 24-hr rainfall depth (in.)*	*overland flow roughness coeff*	*sheet flow travel time (hr)*	*shallow conc. flow length (ft)*	*shallow conc. flow slope (ft/ft)*	*20.32 - paved / 16.13 unpaved*	*shallow conc. flow time (hr)*	*Channel #*	*channel Length (ft)*	*channel flow slope (ft/ft)*	*Manning's roughness coeff.*	*hydraulic radius (ft)*	*TC*	*time of conc. (hr)*	*time of conc. (min)*	*lag time (min)*
	100	0.0150	pavement	4.03	0.150	**0.1633**	675	0.019	20.32	**0.0678**	1	0	0.020	0.022	1.36	**0.000**	**0.2311**	**13.86**	**8.32**

DA-2

Curve Number Calculation

Category of Land Type	Land Type	Area D	Prop. D	CN D	% IC	CN for each proportion	% IC for each proportion
Fully Dev Urban Areas	Retail	20.05	0.85	98	100.00	83.29	84.99
Agricultural Lands	Grassland - Good	3.54	0.15	84	0.00	12.61	0.00
	Total	23.59	0.85	Cumulative Result:		**95.90**	**84.99**

Time of Concentration

P_2 = 4.03 *in.*

$$t_{ch} = \frac{0.007(n_o L_{ch})^{0.8}}{P_2^{0.5} S_{ch}^{0.4}} \qquad t_{sc} = \frac{L_{sc}}{3600\,K\,S_{sc}^{0.5}} \qquad t_{ch} = \frac{L_{ch}}{\left(3600\frac{1.49}{n}R^{2/3}S_{ch}^{1/2}\right)}$$

	L_{ch}	S_{ch}		P_2	n_{sf}	t_{ch}	L_{sc}	S_{sc}	K	t_{sc}		L_{ch}	S_{ch}	n	R	t	t_c	t_c	t_c
catchment name	*sheet flow length*	*sheet flow slope (ft/ft)*	*surface description*	*2-yr, 24-hr rainfall depth (in.)*	*overland flow roughness coeff*	*sheet flow travel time (hr)*	*shallow conc. flow length (ft)*	*shallow conc. flow slope (ft/ft)*	*20.32 - paved / 16.13 unpaved*	*shallow conc. flow time (hr)*	*Channel #*	*channel Length (ft)*	*channel flow slope (ft/ft)*	*Manning's roughness coeff.*	*hydraulic radius (ft)*	*TC*	*time of conc. (hr)*	*time of conc. (min)*	*lag time (min)*
	100	0.0200	pavement	4.03	0.150	**0.1455**	1116	0.022	20.32	**0.1030**	1	0	0.020	0.022	1.36	**0.000**	**0.2485**	**14.91**	**8.95**

DA-3

Curve Number Calculation

Category of Land Type	Land Type	Area D	Prop. D	CN D*	% IC	CN for each proportion	% IC for each proportion
Fully Dev Urban Areas	Retail	1.91	0.68	98	100.00	67.09	68.46
Agricultural Lands	Grassland - Good	0.88	0.32	84	0.00	26.49	0.00
	Total	2.79	1.00	Cumulative Result:		**93.58**	**68.46**

Time of Concentration

P_2 = 4.03 *in.*

$$t_{ch} = \frac{0.007(n_o L_{ch})^{0.8}}{P_2^{0.5} S_{ch}^{0.4}} \qquad t_{sc} = \frac{L_{sc}}{3600\,K\,S_{sc}^{0.5}} \qquad t_{ch} = \frac{L_{ch}}{\left(3600\frac{1.49}{n}R^{2/3}S_{ch}^{1/2}\right)}$$

	L_{ch}	S_{ch}		P_2	n_{sf}	t_{ch}	L_{sc}	S_{sc}	K	t_{sc}		L_{ch}	S_{ch}	n	R	t	t_c	t_c
catchment name	*sheet flow length*	*sheet flow slope (ft/ft)*	*surface description*	*2-yr, 24-hr rainfall depth (in.)*	*overland flow roughness coeff*	*sheet flow travel time (hr)*	*shallow conc. flow length (ft)*	*shallow conc. flow slope (ft/ft)*	*20.32 - paved / 16.13 unpaved*	*shallow conc. flow time (hr)*	*Channel #*	*channel Length (ft)*	*channel flow slope (ft/ft)*	*Manning's roughness coeff.*	*hydraulic radius (ft)*	*TC*	*time of conc. (hr)*	*time of conc. (min)*
	100	0.0180	pavement	4.03	0.150	**0.1518**	828	0.022	20.32	**0.0770**	1	0	0.020	0.022	1.97	**0.000**	**0.2288**	**13.73**	**8.24**

DA-4

Curve Number Calculation

Category of Land Type	Land Type	Area D	Prop. D	CN D*	% IC	CN for each proportion	% IC for each proportion
Agricultural Lands	Grassland - Good	32.95	0.96	84	0.00	81.00	0.00
Street/Roadway	Pavment	1.22	0.04	98	100.00	3.50	3.57
	Total	34.17	0.96	Cumulative Result:		**84.50**	**3.57**

Time of Concentration

P_2 = 4.03 *in.*

$$t_{ch} = \frac{0.007(n_o L_{ch})^{0.8}}{P_2^{0.5} S_{ch}^{0.4}} \qquad t_{sc} = \frac{L_{sc}}{3600\,K\,S_{sc}^{0.5}} \qquad t_{ch} = \frac{L_{ch}}{\left(3600\frac{1.49}{n}R^{2/3}S_{ch}^{1/2}\right)}$$

	L_{ch}	S_{ch}		P_2	n_{sf}	t_{ch}	L_{sc}	S_{sc}	K	t_{sc}		L_{ch}	S_{ch}	n	R	t	t_c	t_c	t_c
catchment name	*sheet flow length*	*sheet flow slope (ft/ft)*	*surface description*	*2-yr, 24-hr rainfall depth (in.)*	*overland flow roughness coeff*	*sheet flow travel time (hr)*	*shallow conc. flow length (ft)*	*shallow conc. flow slope (ft/ft)*	*20.32 - paved / 16.13 unpaved*	*shallow conc. flow time (hr)*	*Channel #*	*channel Length (ft)*	*channel flow slope (ft/ft)*	*Manning's roughness coeff.*	*hydraulic radius (ft)*	*TC*	*time of conc. (hr)*	*time of conc. (min)*	*lag time (min)*
1	100	0.029	Short prairie grass	4.03	0.150	**0.1254**	1312	0.03	16.13	**0.1328**	1	0	0.020	0.022	1.325	**0.000**	**0.2582**	**15.49**	**9.29**

DA-5

Curve Number Calculation

Category of Land Type	Land Type	Area D	Prop. D	CN D*	% IC	CN for each proportion	% IC for each proportion
Agricultural Lands	Grassland - Good	30.68	1.00	84	2.88	84.00	2.88
	Total	30.68	1.00	Cumulative Result:		**84.00**	**2.88**

Time of Concentration

P_2 = 4.03 *in.*

$$t_{ch} = \frac{0.007(n_o L_{ch})^{0.8}}{P_2^{0.5} S_{ch}^{0.4}} \qquad t_{sc} = \frac{L_{sc}}{3600\,K\,S_{sc}^{0.5}} \qquad t_{ch} = \frac{L_{ch}}{\left(3600\frac{1.49}{n}R^{2/3}S_{ch}^{1/2}\right)}$$

	L_{ch}	S_{ch}		P_2	n_{sf}	t_{ch}	L_{sc}	S_{sc}	K	t_{sc}		L_{ch}	S_{ch}	n	R	t	t_c	t_c	t_c
catchment name	*sheet flow length*	*sheet flow slope (ft/ft)*	*surface description*	*2-yr, 24-hr rainfall depth (in.)*	*overland flow roughness coeff*	*sheet flow travel time (hr)*	*shallow conc. flow length (ft)*	*shallow conc. flow slope (ft/ft)*	*20.32 - paved / 16.13 unpaved*	*shallow conc. flow time (hr)*	*Channel #*	*channel Length (ft)*	*channel flow slope (ft/ft)*	*Manning's roughness coeff.*	*hydraulic radius (ft)*	*TC*	*time of conc. (hr)*	*time of conc. (min)*	*lag time (min)*
1	100	0.0100	Prairie Grass	4.03	0.150	**0.1920**	94	0.011	16.13	**0.0157**	1	0	1.000	0.035	0.5	**0.000**	1	0	6.00	0.0000	**0.2077**	**12.46**	**7.48**

O-1

Curve Number Calculation

Category of Land Type	Land Type	Area D	Prop. D	CN D*	% IC	CN for each proportion	% IC for each proportion
Agricultural Lands	Grassland - Good	0.26	1.00	84	0	84.00	0.00
	Total	0.26	1.00	Cumulative Result:		**84.00**	**0.00**

Time of Concentration

P_2 = 4.03 *in.*

$$t_{ch} = \frac{0.007(n_o L_{ch})^{0.8}}{P_2^{0.5} S_{ch}^{0.4}} \qquad t_{sc} = \frac{L_{sc}}{3600\,K\,S_{sc}^{0.5}} \qquad t_{ch} = \frac{L_{ch}}{\left(3600\frac{1.49}{n}R^{2/3}S_{ch}^{1/2}\right)}$$

	L_{ch}	S_{ch}		P_2	n_{sf}	t_{ch}	L_{sc}	S_{sc}	K	t_{sc}		L_{ch}	S_{ch}	n	R	t	t_c	t_c	t_c
catchment name	*sheet flow length*	*sheet flow slope (ft/ft)*	*surface description*	*2-yr, 24-hr rainfall depth (in.)*	*overland flow roughness coeff*	*sheet flow travel time (hr)*	*shallow conc. flow length (ft)*	*shallow conc. flow slope (ft/ft)*	*20.32 - paved / 16.13 unpaved*	*shallow conc. flow time (hr)*	*Channel #*	*channel Length (ft)*	*channel flow slope (ft/ft)*	*Manning's roughness coeff.*	*hydraulic radius (ft)*	*TC*	*time of conc. (hr)*	*time of conc. (min)*	*lag time (min)*
1	100	0.0171	Prairie Grass	4.03	0.150	**0.1549**	1667	0.017	16.13	**0.2196**	1	0	1.000	0.035	0.5	**0.000**	1	0	6.00	0.0000	**0.3745**	**22.47**	**13.48**

Element	Drainage Area	2-Year Peak Q	25-Year Peak Q	100-Year Peak Q
	(ac.)	*(cfs)*	*(cfs)*	*(cfs)*
DA-1	5.5	21.8	39.3	51.1
DA-2	23.6	90.5	163.1	212.5
DA-3	2.8	10.9	19.9	26
DA-4	34.2	92.1	206.6	282.6
DA-5	30.7	70.7	160.2	219.8
O-1	0.3	0.8	1.7	2.3
Small Retail Pond	5.5	10.6	15.2	17.7
Large Retail Pond	23.6	27.4	79	100.9
Public ROW Pond	3.1	7.8	11.9	14.3

Note: Drainage analysis for Drainage Areas 4 and 5 and Analysis Points 2 and 3 assume no additional development or impervious cover. If these lots are developed, a revised preliminary plan and associated drainage calculations will be required.

PRELIMINARY PLAN ONLY
NOT FOR RECORDATION

REVISIONS

No.	Date	App.

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290
4350 Lockhill-Selma Road, Suite 100 • San Antonio, Texas 78249 • 210.494.5511

SCALE:	AS SHOWN	DESIGNED BY:	KF
DATE:	07.05.2022	CHECKED BY:	KF/JY
JOB NO.:	50977-0008-00	DRAWN BY:	CAD

STATE OF TEXAS
JOSEPH E. YORK V
124934
LICENSED PROFESSIONAL ENGINEER
10/28/2022

EAST PFLUGERVILLE PARKWAY COMMERCIAL CENTER

PRELIMINARY PROPOSED DRAINAGE AREA MAP

SHEET NO. 9
OF 19

K:\50977\u0977-0008-00 heb pflugerville - store planning\2 design phase\CAD\Plans\Site\preliminary plan\50977-0008 Prelim Proposed DAM.dwg KS: October 28, 2022

CURVE TABLE						
CURVE	RADIUS	ARC LENGTH	DELTA ANGLE	CHORD BEARING	CHORD LENGTH	TANGENT
C1	50.00'	78.37'	89°48'08"	S15°40'18"E	70.59'	49.83'
C2	840.00'	588.69'	40°09'16"	N9°09'08"E	576.72'	307.02'
C3	50.00'	78.54'	90°00'00"	N34°04'30"E	70.71'	50.00'
C4	11107.16'	729.83'	3°45'53"	S6°50'53"E	729.69'	365.04'
C5	11107.16'	100.42'	0°31'05"	N4°42'24"W	100.42'	50.21'
C7	50.00'	78.86'	90°22'01"	S74°24'46"W	70.94'	50.32'
C8	760.00'	532.63'	40°09'16"	S9°09'08"W	521.79'	277.78'

GENERAL PLAN NOTES:

1. NO PORTION OF THIS TRACT IS WITHIN A FLOOD HAZARD AREA AS DELINEATED ON THE FEMA FLOOD INSURANCE RATE MAP PANEL #48453C0280J FOR TRAVIS COUNTY, EFFECTIVE AUGUST 18, 2014.

PROPOSED LEGEND

- STORM SEWER W/ MANHOLE
- SS SS STORM SEWER W/ CURB INLET

DRAINAGE LEGEND

- INLET 1.82 AC. — DRAINAGE AREA IN ACRES
- STORM SEWER 8.83 / 12.99 — RUNOFF IN C.F.S.
- DRAINAGE AREA LINE
- VII DRAINAGE AREA NUMBER

0 50 100 200 300
SCALE: 1" = 100'

E. Pflugerville Pkwy.
(R.O.W. Varies)

Highway 130 Toll Road
(R.O.W. Varies)

COLORADO SAND DRIVE
(80' R.O.W.)

UTAH SANDS DRIVE
(60' R.O.W.)

A-1 0.39 AC.
A-2 0.37 AC.
A-3 0.28 AC.
A-4 0.27 AC.
A-5 0.12 AC.
A-6 0.12 AC.
A-7 0.19 AC.
A-8 0.19 AC.
0-1 29.13 AC.
0-2 35.21 AC.

TIMMERMAN & HAGN, LTD.
WARRANTY DEED
REMAINDER OF CALLED 535 ACRES
VOL. 8394 PG. 544
R.P.R.T.C.T.

TIMMERMAN & HAGN, LTD.
SPECIAL WARRANTY DEED
REMAINDER OF CALLED 300.03 ACRES
DOC. NO. 2004025616
O.P.R.T.C.T.

TIMMERMAN & HAGN, LTD.
SPECIAL WARRANTY DEED
REMAINDER OF CALLED 300.03 ACRES
DOC. NO. 2004025616
O.P.R.T.C.T.

CITY OF PFLUGERVILLE
TRAVIS COUNTY

EXISTING RESIDENTIAL

J. DAVIS SURVEY NO. 13
A-231

S. EISELIN SURVEY NO. 1
A-265

ROUND 1/2" IRON ROD

CALCULATED POINT
1/2" IRON ROD FOUND
BEARS N 31°16'31" W 0.52'

ACCESS ROAD SHOULDER PAINT STRIPE

EXIT RAMP PAINT STRIPE

PROPOSED 10" PIPE

CONCRETE PILOT CHANNEL

MATCH LINE THIS SHEET

MATCH LINE THIS SHEET

2022-20-CON

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K:\S0977\u\0977-0008-00 heb pflugerville - store planning\2 design phase\CAD\Plans\Site\preliminary plan\S0977-0008 Street PDAM.dwg KS: October 28, 2022

No.	Date	REVISIONS	App.

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290
4350 Lockhill-Selma Road, Suite 100 • San Antonio, Texas 78249 • 210.494.3511

SCALE: AS SHOWN
DATE: 07.05.2022
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DESIGNED BY: KF
CHECKED BY: KF/JY
DRAWN BY: CAD

STATE OF TEXAS
JOSEPH E. YORK V
124934
LICENSED PROFESSIONAL ENGINEER
10/28/2022

PUBLIC PLAN FOR
E. PFLUGERVILLE RETAIL CENTER

PRELIMINARY SUB-DRAINAGE AREA MAP

SHEET NO. 10
OF 19

Tc (Post Development)

Rational Method

Note

*Minimum Time of Concentration is 5 min per Pflugerville Drainage Criteria Manual.

			TC	(T_i) Up to 100 feet				T_{SC} (L > 100 ft)				
DA	Area (ac.)	Slope (ft/ft)	L_total (ft)	L_1 (ft)	Slope (ft/ft)	n	T_t	L_2 (ft)	Slope (ft/ft)	n	Tsc	Tc
A-1	0.39	0.01	559	100	0.01	0.013	1.63	459	0.01	0.016	3.76	5.39
A-2	0.37	0.01	541	100	0.01	0.013	1.42	441	0.01	0.016	3.06	5.00
A-3	0.28	0.02	504	100	0.02	0.013	1.19	404	0.02	0.016	2.23	5.00
A-4	0.27	0.02	498	100	0.01	0.013	1.55	398	0.01	0.016	3.07	5.00
A-5	0.12	0.01	312	100	0.01	0.013	1.47	212	0.01	0.016	1.52	5.00
A-6	0.12	0.01	312	100	0.01	0.013	1.63	212	0.01	0.016	1.74	5.00
A-7	0.19	0.01	516	100	0.01	0.013	1.63	416	0.01	0.016	3.41	5.00
A-8	0.19	0.01	515	100	0.01	0.013	1.63	415	0.01	0.016	3.40	5.00
MH-1	0.00	0.01	0	0	0.01	0.013	0.00	0	0.01	0.016	0.00	5.00
MH-2	0.00	0.01	0	0	0.01	0.013	0.00	0	0.01	0.016	0.00	5.00
MH-3	0.00	0.01	0	0	0.01	0.013	0.00	0	0.01	0.016	0.00	5.00
MH-4	0.00	0.01	0	0	0.01	0.013	0.00	0	0.01	0.016	0.00	5.00
MH-5	0.00	0.01	0	0	0.01	0.013	0.00	0	0.01	0.016	0.00	5.00
MH-6	0.00	0.01	0	0	0.01	0.013	0.00	0	0.01	0.016	0.00	5.00
MH-7	0.00	0.01	0	0	0.01	0.013	0.00	0	0.01	0.016	0.00	5.00

FLOWS (Post Development)

Note

*Grass is assumed to be Fair Condition and Average Slope

C Values	2 yr	10 yr	25 yr	100 yr
Grass	0.32	0.37	0.4	0.47
Concrete	**0.75**	**0.83**	**0.88**	**0.97**
Cultivated Fl	0.31	0.36	0.4	0.47

city of pflugerville

	2 yr	10 yr	25 yr	100 yr
a	45.97	60.02	67.9	78.75
b	9.37	8.44	7.88	7.05
c	0.7472	0.7184	0.6998	0.6691

DA	Area (ac.)	C2	C10	C25	C100	Tc (min)	I2 (in/hr)	I10 (in/hr)	I25 (in/hr)	I100 (in/hr)	Q2 (cfs)	Q10 (cfs)	Q25 (cfs)	Q100 (cfs)
A-1	0.39	0.75	0.83	0.88	0.97	5.39	6.15	9.09	11.12	14.58	1.80	2.94	3.82	5.51
A-2	0.37	0.75	0.83	0.88	0.97	5.00	6.28	9.28	11.35	14.89	1.74	2.85	3.70	5.34
A-3	0.28	0.75	0.83	0.88	0.97	5.00	6.28	9.28	11.35	14.89	1.32	2.16	2.80	4.04
A-4	0.27	0.75	0.83	0.88	0.97	5.00	6.28	9.28	11.35	14.89	1.27	2.08	2.70	3.90
A-5	0.12	0.75	0.83	0.88	0.97	5.00	6.28	9.28	11.35	14.89	0.56	0.92	1.20	1.73
A-6	0.12	0.75	0.83	0.88	0.97	5.00	6.28	9.28	11.35	14.89	0.56	0.92	1.20	1.73
A-7	0.19	0.75	0.83	0.88	0.97	5.00	6.28	9.28	11.35	14.89	0.89	1.46	1.90	2.74
A-8	0.19	0.75	0.83	0.88	0.97	5.00	6.28	9.28	11.35	14.89	0.89	1.46	1.90	2.74
MH-1	0.00	0.75	0.83	0.88	0.97	5.00	6.28	9.28	11.35	14.89	0.00	0.00	0.00	0.00
MH-2	0.00	0.75	0.83	0.88	0.97	5.00	6.28	9.28	11.35	14.89	0.00	0.00	0.00	0.00
MH-3	0.00	0.75	0.83	0.88	0.97	5.00	6.28	9.28	11.35	14.89	0.00	0.00	0.00	0.00
MH-4	0.00	0.75	0.83	0.88	0.97	5.00	6.28	9.28	11.35	14.89	0.00	0.00	0.00	0.00
MH-5	0.00	0.75	0.83	0.88	0.97	5.00	6.28	9.28	11.35	14.89	0.00	0.00	0.00	0.00
MH-6	0.00	0.75	0.83	0.88	0.97	5.00	6.28	9.28	11.35	14.89	0.00	0.00	0.00	0.00
MH-7	0.00	0.75	0.83	0.88	0.97	5.00	6.28	9.28	11.35	14.89	0.00	0.00	0.00	0.00

SEWER 25 yr

25-yr Intensity = a/(t+b)^c	
a_{25} =	67.9
b_{25} =	7.88
c_{25} =	0.6998

"*" Indicates an inlet lateral connection with unique formula for junction loss.

										Trunk Line Design																	
	Sewer No.	Inlet / MH From	Inlet / MH To	Area (acres)	Total Area (acres)	Time Conc. (min)	Runoff "C"	C (Weighted)	Intensity "I" (in/hr)	Q_{25} (cfs)	Mannings "n"	Length (ft.)	Pipe Diam. or Box Rise (in.)	Box Span (in.)	Grade (ft./ft.)	Full Flow Velocity (fps)	Full Flow Capacity (cfs)	Actual Velocity (out)	Hydraulic Gradient (ft/ft)	K (Constant)	Junction/ MH Loss (feet)	Hydraulic Grade Elevation (ft)	Dwnstm Flowline (ft)	Vert Adj (ft)	Upstrm Flowline (ft)	Rise in Pipe (ft)	Pipe Crown (ft)	Top of MH/Inlet Elevation (ft)	Inlet Name
Drain A																							TO			FROM			
		A-1	MH-1	0.39	0.39	5.39	0.88	0.88	11.12	**3.82**	0.013	22.0	15		0.0100	5.26	6.46	3.11	0.0035	0.5	0.0751	679.72	678.17	0.10	678.39	0.22	679.64	681.35	-
		A-2	MH-1	0.37	0.37	5.00	0.88	0.88	11.35	**3.70**	0.013	32.0	15		0.0100	5.26	6.46	3.01	0.0032	0.5	0.0705	679.74	678.17	0.10	678.49	0.32	679.74	681.13	-
		MH-1	MH-2	0.00	0.76	5.00	0.88	0.88	11.35	**7.59**	0.013	104.0	18		0.0200	8.41	14.85	4.30	0.0052	0.37	0.1061	679.57	675.99	0.10	678.07	2.08	679.57	681.79	-
		MH-2	MH-3	0.00	0.76	5.00	0.88	0.88	11.35	**7.59**	0.013	125.0	18		0.0200	8.41	14.85	4.30	0.0052	0.37	0.1061	677.39	673.39	0.10	675.89	2.50	677.39	681.79	-
		MH-3	MH-4	0.00	0.76	5.00	0.88	0.88	11.35	**7.59**	0.013	250.0	15		0.0200	7.44	9.13	6.19	0.0137	0.37	0.2200	674.64	668.29	0.10	673.29	5.00	674.54	681.79	-
		A-3	MH-4	0.28	0.28	5.00	0.88	0.88	11.35	**2.80**	0.013	22.0	15		0.0100	5.26	6.46	2.28	0.0019	0.5	0.0404	671.08	668.29	0.10	668.51	0.22	669.76	672.37	-
		A-4	MH-4	0.27	0.27	5.00	0.88	0.88	11.35	**2.70**	0.013	32.0	18		0.0100	5.94	10.50	1.53	0.0007	0.5	0.0181	671.04	668.29	0.10	668.61	0.32	670.11	672.15	
		MH-4	MH-5	0.00	1.31	5.00	0.88	0.88	11.35	**13.09**	0.013	88.0	18		0.0200	8.41	14.85	7.41	0.0154	0.37	0.3152	671.00	666.43	0.10	668.19	1.76	669.69	672.81	-
		MH-5	MH-6	0.00	1.31	5.00	0.88	0.88	11.35	**13.09**	0.013	190.0	18		0.0200	8.41	14.85	7.41	0.0154	0.37	0.3152	669.33	662.53	0.10	666.33	3.80	667.83	669.81	
		MH-6	MH-7	0.00	1.31	5.00	0.88	0.88	11.35	**13.09**	0.013	189.0	18		0.0100	5.94	10.50	7.41	0.0154	0.37	0.3152	666.09	660.54	0.10	662.43	1.89	663.93	669.81	
		A-5	MH-7	0.12	0.12	5.00	0.88	0.88	11.35	**1.20**	0.013	25.0	15		0.0100	5.26	6.46	0.98	0.0003	0.5	0.0074	662.88	660.54	0.10	660.79	0.25	662.04	665.40	-
		A-6	MH-7	0.12	0.12	5.00	0.88	0.88	11.35	**1.20**	0.013	15.0	15		0.0100	5.26	6.46	0.98	0.0003	0.5	0.0074	662.88	660.54	0.10	660.69	0.15	661.94	665.40	
		MH-7	POND	0.00	1.55	5.00	0.88	0.88	11.35	**15.49**	0.013	42.0	18		0.0100	5.94	10.50	8.76	0.0215	0.37	0.4413	662.87	660.02	0.00	660.44	0.42	661.94	665.50	
																						661.52			660.02				
		A-7	A-8	0.19	0.19	5.00	0.97	0.97	11.35	**2.09**	0.013	40.0	18		0.0100	5.94	10.50	1.18	0.0004	0.5	0.0435	659.46	657.58	0.10	657.96	0.38	659.46	659.80	-
		A-8	POND	0.19	0.38	5.00	0.97	0.97	11.35	**4.19**	0.013	38.0	18		0.0100	5.94	10.50	2.37	0.0016	0.5	0.0000	658.50	657.10	0.10	657.48	0.38	657.48	659.80	-
																						658.50			657.00				

	Sewer No.	Inlet / MH From	Inlet / MH To	Area (acres)	Total Area (acres)	Time Conc. (min)	Runoff "C"	C (Weighted)	Intensity "I" (in/hr)	Q_{100} (cfs)	Mannings "n"	Length (ft.)	Pipe Diam. or Box Rise (in.)	Box Span (in.)	Grade (ft./ft.)	Full Flow Velocity (fps)	**Full Flow Capacity (cfs)**	Actual Velocity (out)	Hydraulic Gradient (ft/ft)	K (Constant)	Junction/ MH Loss (feet)	Hydraulic Grade Elevation (ft)	Dwnstm Flowline (ft)	Vert Adj (ft)	Upstrm Flowline (ft)	Rise in Pipe (ft)	Pipe Crown (ft)	Top of MH/Inlet Elevation (ft)	Inlet Name
Drain A																							TO			FROM			
		A-1	MH-1	0.39	0.39	5.39	0.97	0.97	14.58	**5.51**	0.013	22.0	24		0.0100	7.20	22.62	1.76	0.0006	0.5	0.0239	680.39	678.17	0.10	678.39	0.22	680.39	681.35	-
		A-2	MH-1	0.37	0.37	5.00	0.97	0.97	14.89	**5.34**	0.013	32.0	24		0.0100	7.20	22.62	1.70	0.0006	0.5	0.0225	680.49	678.17	0.10	678.49	0.32	680.49	681.13	-
		MH-1	MH-2	0.00	0.76	5.00	0.97	0.97	14.89	**10.98**	0.013	104.0	24		0.0200	10.18	31.99	3.49	0.0023	0.37	0.0702	680.07	675.99	0.10	678.07	2.08	680.07	681.79	-
		MH-2	MH-3	0.00	0.76	5.00	0.97	0.97	14.89	**10.98**	0.013	125.0	24		0.0200	10.18	31.99	3.49	0.0023	0.37	0.0702	677.89	673.39	0.10	675.89	2.50	677.89	680.22	-
		MH-3	MH-4	0.00	0.76	5.00	0.97	0.97	14.89	**10.98**	0.013	250.0	24		0.0200	10.18	31.99	3.49	0.0023	0.37	0.0702	675.29	668.29	0.10	673.29	5.00	675.29	678.90	-
		A-3	MH-4	0.28	0.28	5.00	0.97	0.97	14.89	**4.04**	0.013	22.0	24		0.0100	7.20	22.62	1.29	0.0003	0.5	0.0129	670.51	668.29	0.10	668.51	0.22	670.51	672.37	-
		A-4	MH-4	0.27	0.27	5.00	0.88	0.88	14.89	**3.54**	0.013	32.0	24		0.0100	7.20	22.62	1.13	0.0002	0.5	0.0098	670.61	668.29	0.10	668.61	0.32	670.61	672.15	
		MH-4	MH-5	0.00	1.31	5.00	0.88	0.88	14.89	**17.17**	0.013	88.0	24		0.0200	10.18	31.99	5.46	0.0057	0.37	0.1716	670.19	666.43	0.10	668.19	1.76	670.19	672.81	-
		MH-5	MH-6	0.00	1.31	5.00	0.88	0.88	14.89	**17.17**	0.013	190.0	24		0.0200	10.18	31.99	5.46	0.0057	0.37	0.1716	668.33	662.53	0.10	666.33	3.80	668.33	669.81	
		MH-6	MH-7	0.00	1.31	5.00	0.88	0.88	14.89	**17.17**	0.013	189.0	24		0.0100	7.20	22.62	5.46	0.0057	0.37	0.1716	664.43	660.54	0.10	662.43	1.89	664.43	669.81	
		A-5	MH-7	0.12	0.12	5.00	0.88	0.88	14.89	**1.57**	0.013	25.0	24		0.0100	7.20	22.62	0.50	0.0000	0.5	0.0019	662.79	660.54	0.10	660.79	0.25	662.79	665.40	-
		A-6	MH-7	0.12	0.12	5.00	0.88	0.88	14.89	**1.57**	0.013	15.0	24		0.0100	7.20	22.62	0.50	0.0000	0.5	0.0019	662.69	660.54	0.10	660.69	0.15	662.69	665.40	
		MH-7	POND	0.00	1.55	5.00	0.88	0.88	14.89	**20.31**	0.013	42.0	24		0.0100	7.20	22.62	6.47	0.0080	0.37	0.2402	662.60	660.02	0.00	660.44	0.42	662.44	665.50	
																						662.02			660.02				
		A-7	A-8	0.19	0.19	5.00	0.97	0.97	14.89	**2.74**	0.013	40.0	18		0.0100	5.94	10.50	1.55	0.0007	0.5	0.0773	659.50	657.60	0.10	658.00	0.40	659.50	659.95	-
		A-8	POND	0.19	0.19	5.00	1.97	1.97	14.89	**5.57**	0.013	40.0	18		0.0100	5.94	10.50	3.15	0.0028	0.5	0.0000	658.50	657.10	0.10	**657.50**	0.40	657.50	659.95	-
																						658.50			657.00				

	Analysis Point 1			Analysis Point 2			Analysis Point 3		
	2-yr	25-yr	100-yr	2-yr	25-yr	100-yr	2-yr	25-yr	100-yr
Existing Q_p (cfs)	50.7	115.8	159.2	100.4	227.1	311.4	70.6	160.1	219.8
Proposed Q_p (cfs)	43.1	106.6	133.8	92.1	206.6	282.6	70.6	160.1	219.8
Increase Q_p (cfs)	-7.6	-9.2	-25.4	-8.3	-20.5	-28.8	0	0	0

REVISIONS

No.	Date	App.

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290
4250 Lockhill-Selma Road, Suite 150• San Antonio, Texas 78249• 210.494.9511

SCALE: AS SHOWN | DESIGNED BY: KF
DATE: 07.05.2022 | CHECKED BY: KF/JY
JOB NO.: S0977-0008-00 | DRAWN BY: CAD

STATE OF TEXAS
JOSEPH E. YORK V
124934
LICENSED PROFESSIONAL ENGINEER
10/28/2022

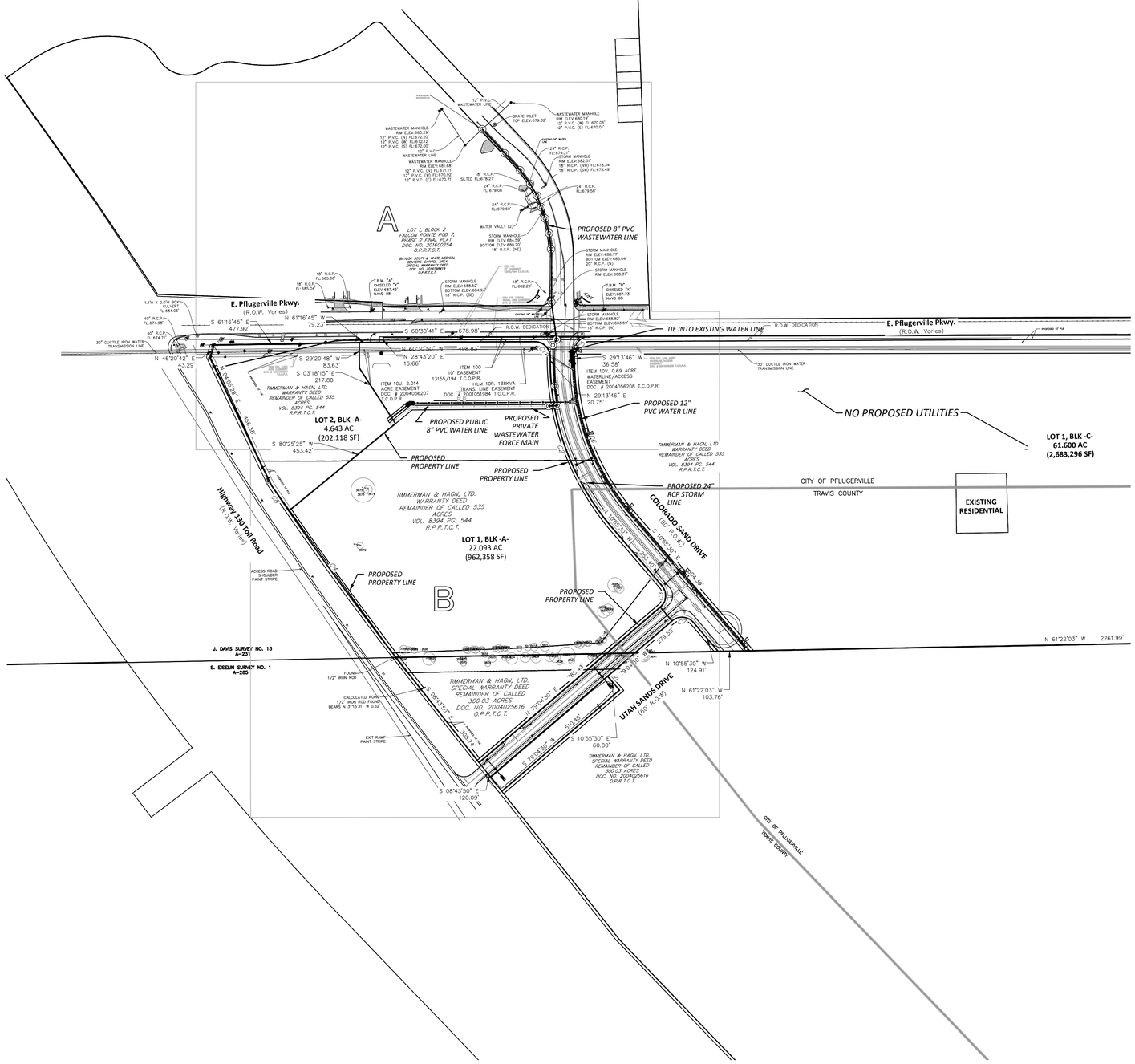
PUBLIC PLAN FOR
E. PFLUGERVILLE RETAIL CENTER

PRELIMINARY
SUB-DRAINAGE AREA CALCULATIONS

SHEET NO. 11
OF 19

2022-20-CON

CURVE TABLE						
CURVE	RADIUS	ARC LENGTH	DELTA ANGLE	CHORD BEARING	CHORD LENGTH	TANGENT
C1	50.00'	78.32'	89°44'36"	N15°38'32"W	70.55'	49.78'
C2	840.00'	588.69'	40°09'16"	N19°09'08"E	576.72'	307.02'
C3	50.00'	78.54'	89°59'56"	N34°04'30"E	70.71'	50.00'
C4	10982.11'	729.64'	3°48'24"	S6°49'42"E	729.51'	364.95'
C5	50.00'	78.77'	90°15'58"	S74°21'45"W	70.87'	50.23'
C6	760.00'	532.63'	40°09'16"	S19°09'08"W	521.79'	277.78'
C7	50.00'	78.54'	90°00'00"	N55°55'30"W	70.71'	50.00'



Engineering Calculations for Water Demand:

The Pflugerville East

From COP UCM Section 5:

[DG5.1.L]	Peak Hour water demand = 3150gal/person/day = 2.19 gpm/lue
[DG5.1.L]	Peak Day water demand = 1855 gal/person/day = 1.29 gpm/lue
[DG5.1.L]	Average Day water demand = 700gal/person/day = 0.49 gpm/LUE
[DG5.1.L]	Tract 1 = 1 LUE/1660 sqft
[Historic Usage Data from Similar Sized Stores]	Lot 1, Block A = 1 LUE = 700 GDP

Tract 1 = 36,250 sqft
Lot 1, Block A = 117,000 sqft

Proposed Development

Tract 1 LUE	21.84
Lot 1, Block A LUE	20
Total LUE =	42

Water Utility Requirements:

Peak Hour = (3150/1440)*(#LUE) =	92	gpm
Peak Day = (530/1440)*(#LUE) =	54	gpm
Average Day = (200/1440)*(#LUE) =	20.3	gpm
Fire Flow Requirement = 1000 gpm measured at 20 psi residual		
Total Sizing Requirement = Peak Day + Fire Flow =	**1554**	**GPM**

Engineering Calculations for Wastewater Demand:

Elevation (Remote Hydrant)

From COP UCM Section 5:

[DG5.1.L]	Peak Hour water demand = 3150gal/person/day = 2.19 gpm/lue
[DG5.1.L]	Peak Day water demand = 1855 gal/person/day = 1.29 gpm/LUE
[DG5.1.L]	Average Day water demand = 700gal/person/day = 0.49 gpm/LUE
[DG5.1.L]	Tract 1 = 1 LUE/1660 sqft
[Historic Usage Data from Similar Sized Stores]	Lot 1, Block A = 1 LUE = 700 GDP

Tract 1 = 36,250 sqft
Lot 1, Block A = 117,000 sqft

Proposed Development

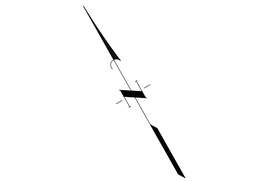
Tract 1 LUE	21.84
Lot 1, Block A LUE	20
Total LUE =	42

Wastewater Utility Requirements for Tract 1

Average Dry Q (gpd) (F) = (270 gal/day/LUE)*(#LUE) =	5897	gpd
Peak Dry Q (gpd) = (18+(0.0206(F))^(0.5))/(4+(0.0206(F)^(0.5))*F =	11393	gpd
Inflow/Infiltration Q (gdp) = (750 gdp/acre * 4.6 acres) =	3450.0	gpd
Peak Wet Q (gpd) = Peak Dry Q + I/I =	14843	gpd

Wastewater Utility Requirements for Lot 1, Block A

Average Dry Q (gpd) (F) = (270 gal/day/LUE)*(#LUE) =	5400	gpd
Peak Dry Q (gpd) = (18+(0.0206(F))^(0.5))/(4+(0.0206(F)^(0.5))*F =	10597	gpd
Inflow/Infiltration Q (gdp) = (750 gdp/acre * 4.6 acres) =	435.0	gpd
Peak Wet Q (gpd) = Peak Dry Q + I/I =	11032	gpd



EXISTING LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WATERLINE W/ METER
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- STORM SEWER W/ CURB INLET
- OVERHEAD ELEC W/POWER POLE
- GAS LINE
- GROUND CONTOUR
- TREE TO REMAIN
- TREE TO BE REMOVED (R)

PROPOSED LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WATERLINE W/ METER
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- STORM SEWER W/ CURB INLET
- OVERHEAD ELEC W/POWER POLE
- GAS LINE

GENERAL UTILITY NOTES:

1. *Water and Sewer mains shall be constructed and tested in accordance with TCEQ rules and regulations.*
2. *Contractor is responsible for verifying the depth and location of all existing utilities, shown or not, during construction. Some existing utility lines shown have been taken from the corresponding utility company's record maps or survey performed by others.*
3. *Contractor shall be responsible for securing all utility permits, prior to installation of any utilities including water, sewer, electric, fiber, and gas.*
4. *Domestic water service shall be PVC pipe Schedule 80. Fittings and Joints shall be rated the same as the pipe. Domestic service line should have a minimum of 24 inches of cover.*
5. *Gravity Sewer Lateral shall be SDR 26 (ASTM D-3034) installed with cleanouts as per plumbing code.*
6. *RCP to conform to standard specification ASTM C76, Class III, Wall B, for reinforced concrete pipe (RCP), with ASTM C443 rubber gasket joints, including all appurtenant specifications as currently amended. HDPE shall be Type S double wall, smooth interior.*
7. *Fire Main shall be PVC, C-900, DR-14, PC 235 with Mechanical Joint Restraint.*
8. *Mega-lug Pipe Restraints shall be provided for all Tees, Bends and Valves for 4" water line.*
9. *Site work contractor to terminate all utilities (except roof drain header) 5' from building perimeter with temporary plug and visual marker.*
10. *Sanitary sewer cleanouts shall be installed within 5 feet of building perimeter and are the responsibility of the building plumber.*
11. *Waterline design will be further reviewed with future construction plan applications and must meet EDM Chapter 5 criteria.*
12. *Wastewater design will be further reviewed with future construction plan applications and must meet EDM Chapter 6 criteria.*
13. *LUE calculations for Lot 3 are not shown because Lot 3 is not being developed at this time. If this Lot is developed, a revised preliminary plan and associated LUE calculations will be required.*
14. *The Public Utility Director has approved the 12" x 30" water line connection however this connection is susceptible to pressure swings when the High Service Pumps start/stop throughout the day. These pressure swings can fluctuate ~ 30 psi and can be upwards of 130 psi. Therefore, the 8" water line is equipped with pressure reducing valves to mitigate any damage to private plumbing. See proposed 8" PRV in 10' x 25' vault.*

PRELIMINARY PLAN ONLY
NOT FOR RECORDATION

REVISIONS

No.	Date	App.

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290
4350 Lockhill-Selma Road, Suite 100 • San Antonio, Texas 78249 • 210.494.3511

SCALE:	AS SHOWN	DESIGNED BY:	KF
DATE:	07.05.2022	CHECKED BY:	KF/JY
JOB NO.:	S0977-0008-00	DRAWN BY:	CAD

STATE OF TEXAS
JOSEPH E. YORK V
124934
LICENSED
PROFESSIONAL ENGINEER
10/28/2022

EAST PFLUGERVEILLE PARKWAY
COMMERCIAL CENTER

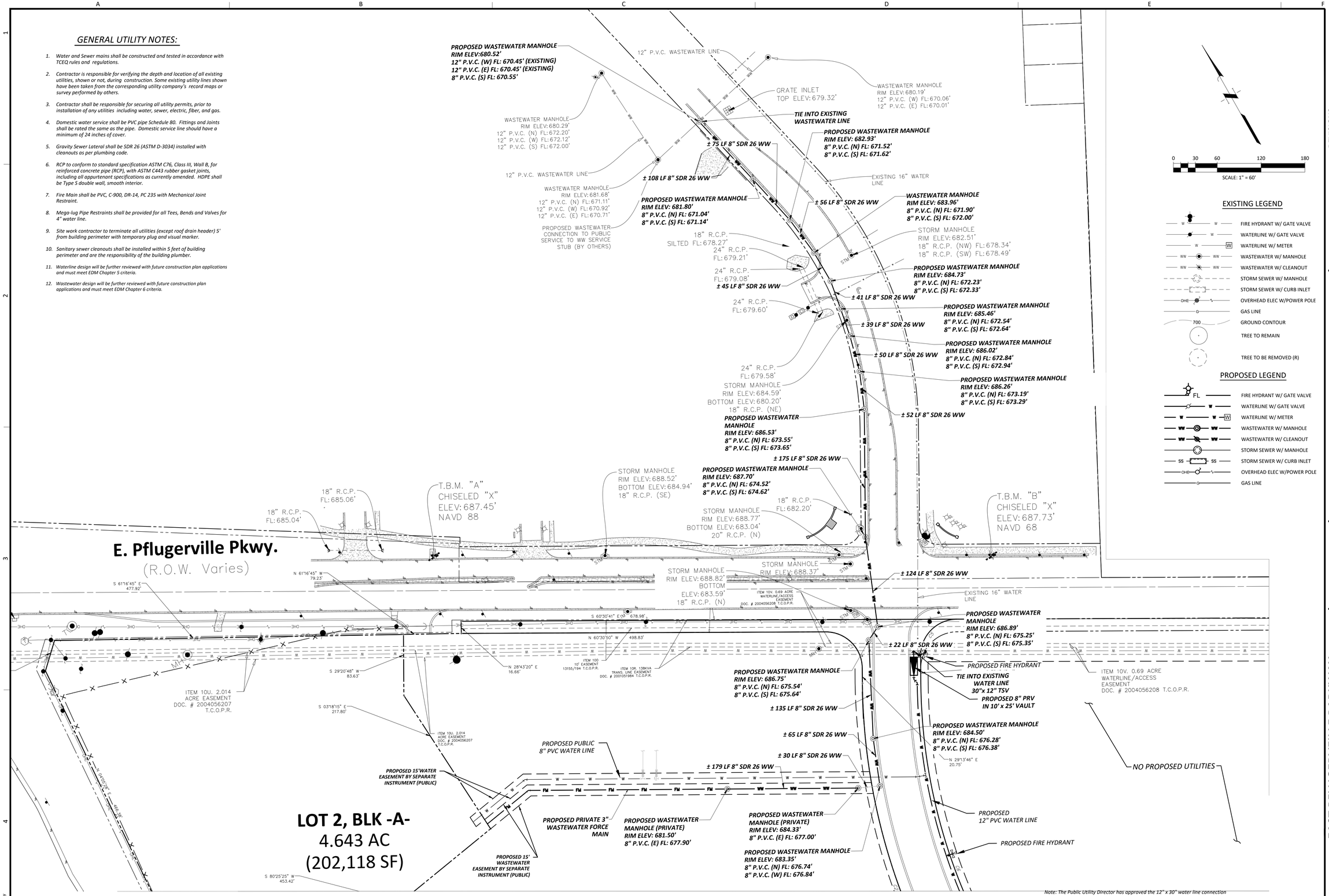
OVERALL PRELIMINARY WATER AND WASTEWATER PLAN

SHEET NO. 12
OF 19

K:\S0977\s0977-0008-00 heb pflugerville - store planning\2 design phase\CAD\Plans\Site\preliminary plan\S0977-0008 Prelim Utility Overall.dwg KS: October 28, 2022

GENERAL UTILITY NOTES:

1. *Water and Sewer mains shall be constructed and tested in accordance with TCEQ rules and regulations.*
2. *Contractor is responsible for verifying the depth and location of all existing utilities, shown or not, during construction. Some existing utility lines shown have been taken from the corresponding utility company's record maps or survey performed by others.*
3. *Contractor shall be responsible for securing all utility permits, prior to installation of any utilities including water, sewer, electric, fiber, and gas.*
4. *Domestic water service shall be PVC pipe Schedule 80. Fittings and Joints shall be rated the same as the pipe. Domestic service line should have a minimum of 24 inches of cover.*
5. *Gravity Sewer Lateral shall be SDR 26 (ASTM D-3034) installed with cleanouts as per plumbing code.*
6. *RCP to conform to standard specification ASTM C76, Class III, Wall B, for reinforced concrete pipe (RCP), with ASTM C443 rubber gasket joints, including all appurtenant specifications as currently amended. HDPE shall be Type S double wall, smooth interior.*
7. *Fire Main shall be PVC, C-900, DR-14, PC 235 with Mechanical Joint Restraint.*
8. *Mega-lug Pipe Restraints shall be provided for all Tees, Bends and Valves for 4" water line.*
9. *Site work contractor to terminate all utilities (except roof drain header) 5' from building perimeter with temporary plug and visual marker.*
10. *Sanitary sewer cleanouts shall be installed within 5 feet of building perimeter and are the responsibility of the building plumber.*
11. *Waterline design will be further reviewed with future construction plan applications and must meet EDM Chapter 5 criteria.*
12. *Wastewater design will be further reviewed with future construction plan applications and must meet EDM Chapter 6 criteria.*



Note: The Public Utility Director has approved the 12" x 30" water line connection however this connection is susceptible to pressure swings when the High Service Pumps start/stop throughout the day. These pressure swings can fluctuate ~30 psi and can be upwards of 130 psi. Therefore, the 8" water line is equipped with pressure reducing valves to mitigate any damage to private plumbing. See proposed 8" PRV in 10' x 25' vault.

EXISTING LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WATERLINE W/ METER
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- STORM SEWER W/ CURB INLET
- OVERHEAD ELEC W/POWER POLE
- GAS LINE
- GROUND CONTOUR
- TREE TO REMAIN
- TREE TO BE REMOVED (R)

PROPOSED LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WATERLINE W/ METER
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- STORM SEWER W/ CURB INLET
- OVERHEAD ELEC W/POWER POLE
- GAS LINE

REVISIONS

No.	Date	App.

QUIDDITY

Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290
4350 Lockhill-Selma Road, Suite 100 • San Antonio, Texas 78249 • 210.494.3511

SCALE: AS SHOWN | DESIGNED BY: KF
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JOB NO.: S0977-0008-00 | DRAWN BY: CAD

STATE OF TEXAS
JOSEPH E. YORK V.
124934
LICENSED PROFESSIONAL ENGINEER
10/28/2022

EAST PFLUGERVEILLE PARKWAY
COMMERCIAL CENTER

PRELIMINARY UTILITY PLAN A

SHEET NO. 13
OF 19

K:\S0977\z0977-0008-00 heb pflugerville - store planning\2 design phase\CAD\Plans\Site\preliminary plan\S0977-0008 Prelim Utility.dwg KS: October 28, 2022

MATCH LINE ~ SEE SHEET B

LOT 1, BLK -A-
22.093 AC
(962,358 SF)

Highway 130 Toll Road
(R.O.W. Varies)

COLORADO SAND DRIVE
(80' R.O.W.)

UTAH SANDS DRIVE
(60' R.O.W.)

CITY OF PFLUGERVILLE
TRAVIS COUNTY

CURB INLET

STORM MANHOLE
RIM ELEV: 679.86'
FL OUT: 676.36
24" R.C.P.

PROPOSED FIRE SERVICE CONNECTION TO PUBLIC WATER:
1 - 12"X 8" TEE
1 - 8" GV & BOX

PROPOSED FIRE HYDRANT

PROPOSED STORM LINE

STORM MANHOLE
RIM ELEV: 671.41'
FL IN: 666.95'
FL OUT: 666.85'
24" R.C.P.

PROPOSED 12" RESTRAINED PLUG

PROPOSED DOMESTIC WATER CONNECTION TO PUBLIC SERVICE TO WATER SERVICE STUB
1 - 3" SERVICE TAP
1 - 3" DOMESTIC METER AND BOX

PROPOSED 8" FIRE LINE CONNECTION TO PUBLIC SERVICE TO WATER SERVICE STUB

STORM MANHOLE
RIM ELEV:669.81'
FL IN: 665.23'
FL OUT: 665.13'
24" R.C.P.

BLOW OFF VALVE

STORM MANHOLE
RIM ELEV:665.50''
FL IN: 657.72'
FL OUT: 657.62'
24" R.C.P.

N 10°55'30" W 124.91'

N 61°22'03" W 103.76'

S 10°55'30" E 60.00'

S 08°43'50" E 320.09'

N 79°04'30" W 289.43'

S 10°55'30" E 294.60'

N 79°04'30" W 229.05'

S 10°55'30" E 277.48'

0 50 100 200 400 600
SCALE: 1" = 200'

EXISTING LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WATERLINE W/ METER
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- STORM SEWER W/ CURB INLET
- OVERHEAD ELEC W/POWER POLE
- GAS LINE
- GROUND CONTOUR
- TREE TO REMAIN
- TREE TO BE REMOVED (R)

PROPOSED LEGEND

- FIRE HYDRANT W/ GATE VALVE
- WATERLINE W/ GATE VALVE
- WATERLINE W/ METER
- WASTEWATER W/ MANHOLE
- WASTEWATER W/ CLEANOUT
- STORM SEWER W/ MANHOLE
- STORM SEWER W/ CURB INLET
- OVERHEAD ELEC W/POWER POLE
- GAS LINE

GENERAL UTILITY NOTES:

1. *Water and Sewer mains shall be constructed and tested in accordance with TCEQ rules and regulations.*
2. *Contractor is responsible for verifying the depth and location of all existing utilities, shown or not, during construction. Some existing utility lines shown have been taken from the corresponding utility company's record maps or survey performed by others.*
3. *Contractor shall be responsible for securing all utility permits, prior to installation of any utilities including water, sewer, electric, fiber, and gas.*
4. *Domestic water service shall be PVC pipe Schedule 80. Fittings and Joints shall be rated the same as the pipe. Domestic service line should have a minimum of 24 inches of cover.*
5. *Gravity Sewer Lateral shall be SDR 26 (ASTM D-3034) installed with cleanouts as per plumbing code.*
6. *RCP to conform to standard specification ASTM C76, Class III, Wall B, for reinforced concrete pipe (RCP), with ASTM C443 rubber gasket joints, including all appurtenant specifications as currently amended. HDPE shall be Type S double wall, smooth interior.*
7. *Fire Main shall be PVC, C-900, DR-14, PC 235 with Mechanical Joint Restraint.*
8. *Mega-lug Pipe Restraints shall be provided for all Tees, Bends and Valves for 4" water line.*
9. *Site work contractor to terminate all utilities (except roof drain header) 5' from building perimeter with temporary plug and visual marker.*
10. *Sanitary sewer cleanouts shall be installed within 5 feet of building perimeter and are the responsibility of the building plumber.*
11. *Waterline design will be further reviewed with future construction plan applications and must meet EDM Chapter 5 criteria.*
12. *Wastewater design will be further reviewed with future construction plan applications and must meet EDM Chapter 6 criteria.*

REVISIONS

No.	Date	App.

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290
4350 Lockhill-Selma Road, Suite 100• San Antonio, Texas 78249• 210.494.3511

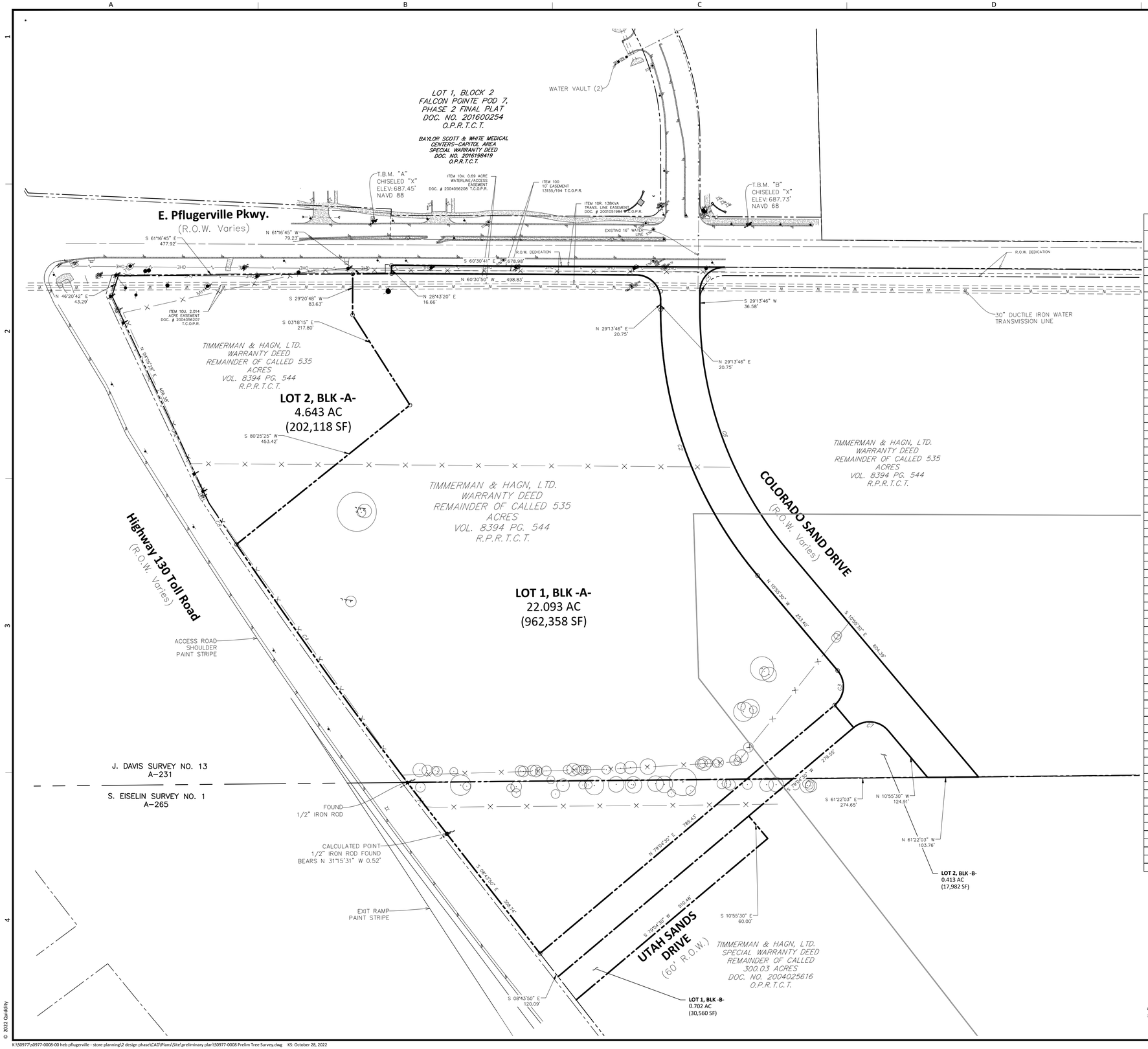
SCALE: AS SHOWN
DATE: 07.05.2022
JOB NO.: S0977-0008-00
DESIGNED BY: KF
CHECKED BY: KF/JY
DRAWN BY: CAD

STATE OF TEXAS
JOSEPH E. YORK V
124934
LICENSED
PROFESSIONAL ENGINEER
10/28/2022

EAST PFLUGERVEILLE PARKWAY
COMMERCIAL CENTER

PRELIMINARY UTILITY PLAN B

SHEET NO. 14
OF 19



TREE LOG

TREE TAG NUMBER	TREE TYPE	CALIPER INCH	REMOVED	PROTECTED	HERITAGE	NOTES
3586	Hackberry	14	Yes			
3587	Hackberry	11	Yes			
3588	Hackberry	8	Yes			
3589	Hackberry	10	Yes			
3590	Hackberry	10	Yes			
3591	Hackberry	8	Yes			
3592	Hackberry	21	Yes	Yes		Multi-stem
3593	Hackberry	8	Yes			
3594	Hackberry	8	Yes			
3595	Hackberry	9	Yes			
3596	Hackberry	11	Yes			
3597	Hackberry	11	Yes			
3598	Hackberry	11	Yes			
3599	Hackberry	11	Yes			
3600	Hackberry	12	Yes			
3601	Hackberry	8	Yes			
3602	Hackberry	10	Yes			
3603	Bois D'arc	8	Yes			
3604	Hackberry	9	Yes			
3605	Hackberry	13	Yes			
3606	Hackberry	9	Yes			
3607	Hackberry	13	Yes			
3608	Hackberry	10	Yes			
3609	Hackberry	10	Yes			
3610	Hackberry	9	Yes			
3611	Hackberry	8	Yes			
3612	Hackberry	8	Yes			
3613	Hackberry	8	Yes			
3614	Bois D'arc	19	Yes	Yes		Multi-stem
3615	Hackberry	9	Yes			
3616	Hackberry	16	Yes			
3617	Hackberry	11	Yes			
3618	Hackberry	13	Yes			
3619	Hackberry	17	Yes			
3620	Hackberry	8	Yes			
3621	Hackberry	16	Yes			Twin
3622	Bois D'arc	16	Yes			Twin
3623	Hackberry	17	Yes			
3624	Hackberry	8	Yes			
3625	Hackberry	10	Yes			
3626	Bois D'arc	28	Yes		Yes	
3627	Hackberry	10	Yes			
3628	Hackberry	9	Yes			Twin
3629	Hackberry	14	Yes			
3630	Hackberry	8	Yes			
3631	Hackberry	8	Yes			
3632	Hackberry	10	Yes			
3633	Hackberry	10	Yes			
3634	Hackberry	9	Yes			
3635	Hackberry	11	Yes			
3636	Hackberry	10	Yes			Twin
3637	Gum Bumelia	14	Yes			Multi-stem
3638	Hackberry	15	Yes			Twin
3639	Hackberry	8	Yes			
3640	Hackberry	9	No			
3641	Hackberry	12	No			
3642	Hackberry	8	No			
3643	Hackberry	15	No			Twin
3644	Hackberry	8	No			
3645	Hackberry	11	Yes			
3646	Hackberry	8	Yes			
3647	Bois D'arc	13	Yes			Twin
3648	Hackberry	10	Yes			
3649	Hackberry	8	Yes			
3650	Bois D'arc	19	Yes	Yes		Multi-stem
3651	Bois D'arc	20	Yes	Yes		Multi-stem
3652	Hackberry	8	Yes			
3653	Bois D'arc	10	Yes			
3654	Bois D'arc	24	Yes		Yes	Multi-stem
3655	Bois D'arc	15	Yes			Multi-stem
3656	Hackberry	9	Yes			
3657	Hackberry	8	Yes			
3672	Hackberry	11	No			
3673	Cottonwood	9	No			
3674	Hackberry	14	No			Twin
3675	Cottonwood	40	No		Yes	Dying

Note: Tree mitigation ratios and fees will be evaluated and required during the site plan process.

PRELIMINARY PLAN ONLY
NOT FOR RECORDATION

REVISIONS

No.	Date	App.

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290
4350 Lockhill-Selma Road, Suite 100 • San Antonio, Texas 78249 • 210.494.5511

SCALE: AS SHOWN
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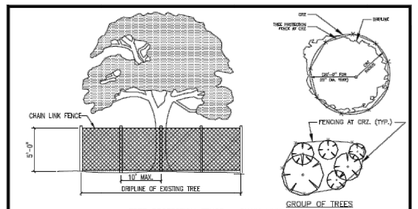
STATE OF TEXAS
JOSEPH E. YORK V
124934
LICENSED PROFESSIONAL ENGINEER
10/28/2022

EAST PFLUGERVEILLE PARKWAY
COMMERCIAL CENTER

PRELIMINARY TREE SURVEY

SHEET NO. 15
OF 19

K:\S0977\S0977-0008-00 heb pflugerville - store planning\2 design phase\CAD\Plans\Site\preliminary plan\S0977-0008 Prelim Tree Survey.dwg KS: October 28, 2022



TREE PROTECTION FENCE – CHAIN LINK

NOTES:

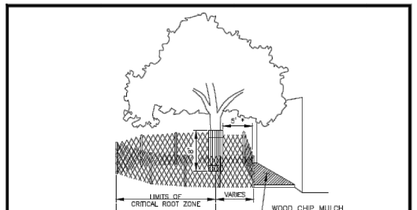
1. TREE PROTECTION FENCES SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF ANY SITE PREPARATION WORK (CLEARING, GRUBBING, OR GRADING) AND SHALL BE MAINTAINED THROUGHOUT ALL PHASES OF THE CONSTRUCTION PROJECT CONSISTENT WITH THE APPROVED PLAN.
2. EROSION AND SEDIMENTATION CONTROL BARRIERS SHALL BE INSTALLED AND MAINTAINED IN A MANNER WHICH DOES NOT RESULT IN TRENCHING OR SOIL BUILD-UP WITHIN A TREE'S CRZ OR DRIPLINES, WHICHEVER IS GREATER.
3. (STANDARD) TREE PROTECTION FENCES SHALL COMPLETELY SURROUND THE TREE OR CLUSTERS OF TREES AND BE PLACED AT THE OUTERMOST LIMITS OF THE TREE BRANCHES (DRIPLINE) OR CRZ, WHICHEVER IS GREATER; AND SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PROJECT IN ORDER TO PREVENT THE FOLLOWING:
   A. SOIL COMPACTION IN ROOT ZONE AREA RESULTING FROM VEHICULAR TRAFFIC OR STORAGE OF EQUIPMENT OR MATERIALS.
   B. ROOT ZONE DISTURBANCES DUE TO GRADE CHANGES (GREATER THAN SIX INCHES (6") CUT OR FILL) OR TRENCHING NOT REVIEWED AND AUTHORIZED BY THE CITY FORESTER OR ADMINISTRATOR.
   C. WOUNDS TO EXPOSED ROOTS, TRUNKS, OR LIMBS BY MECHANICAL EQUIPMENT.
   D. OTHER ACTIVITIES DETRIMENTAL TO TREES, SUCH AS CHEMICAL STORAGE, CONCRETE TRUCK CLEANING AND FIRES.
4. PARKING AREAS: IF THE FENCING MUST BE LOCATED ON PAVING OR SIDEWALK THAT WILL NOT BE DEMOLISHED, THE POSTS MAY BE SUPPORTED BY AN APPROPRIATE GRADE LEVEL CONCRETE BASE.
5. A WARNING SIGN SHALL BE PROMINENTLY DISPLAYED ON EACH FENCE. THE SIGN SHALL BE A MINIMUM OF 16 X 24 INCHES.

FOR QUESTIONS CONCERNING THIS DETAIL, PLEASE CONTACT THE DEVELOPMENT SERVICES CENTER.

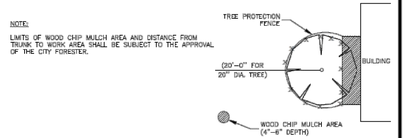
ISSUE DATE:	CITY OF PFLUGERVILLE	DWG. #TP-01
REVISIONS	TYPE I TREE PROTECTION – (STANDARD) CHAIN LINK FENCE	TP01.DWG
DATE / APPROVED / DRAWN	CONSTRUCTION STANDARDS AND DETAILS	
SCALE: N.T.S.		

Appendix C-2

A3	TYPE I TREE PROTECTION - (STANDARD) CHAIN LINK FENCE
NOT TO SCALE	CITY OF PFLUGERVILLE



*AS NEEDED TO PROVIDE NECESSARY WORK SPACE. IF LESS THAN 5', THEN ADD BOARDS STRAPPED TO TRUNK.



TREE PROTECTION FENCE (MODIFIED) – CHAIN LINK

FOR QUESTIONS CONCERNING THIS DETAIL, PLEASE CONTACT THE DEVELOPMENT SERVICES CENTER.

ISSUE DATE:	CITY OF PFLUGERVILLE	DWG. #TP-02a
REVISIONS	TYPE II TREE PROTECTION – (MODIFIED) CHAIN LINK FENCE	TP02a.DWG
DATE / APPROVED / DRAWN	CONSTRUCTION STANDARDS AND DETAILS	
SCALE: N.T.S.		

Appendix C-3

B3	TYPE II TREE PROTECTION - (MODIFIED) CHAIN LINK FENCE
NOT TO SCALE	CITY OF PFLUGERVILLE

TREE PROTECTION FENCE (MODIFIED) – CHAIN LINK EXCEPTIONS

EXCEPTIONS TO FENCING ALONG THE CRZ:

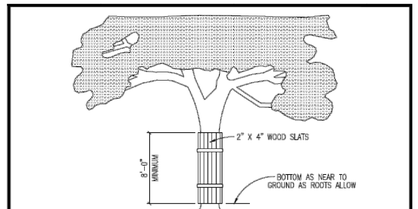
1. IF APPROVED BY THE CITY FORESTER, EXCEPTIONS TO INSTALLING TREE FENCES AT THE TREE DISCIPLINES OR CRZ, WHICHEVER IS GREATER, MAY BE PERMITTED IN THE FOLLOWING CASES:
   A. WHERE THERE IS TO BE AN APPROVED GRADE CHANGE, IMPERMEABLE PAVING SURFACE, OR TREE WELL.
   B. WHERE PERMEABLE PAVING IS TO BE INSTALLED, ERECT THE FENCE AT THE OUTER LIMITS OF THE PERMEABLE PAVING AREA.
   C. WHERE TREES ARE CLOSE TO PROPOSED BUILDINGS, ERECT THE FENCE NO CLOSER THAN SIX (6') FEET TO THE BUILDING, PROVIDED THAT THE FENCE DOES NOT ENCROACH INTO THE CRZ BY 50% MEASURED FROM THE BASE OF THE TREE, AND FENCING REMAINS A MINIMUM OF FIVE (5') FEET FROM THE BASE OF THE TREE.
   D. WHERE THERE ARE SEVERE SPACE CONSTRAINTS DUE TO TRACT SIZE, OR OTHER SPECIAL REQUIREMENTS, CONTACT THE CITY FORESTER TO DISCUSS ALTERNATIVES.
2. WHERE ANY OF THE ABOVE EXCEPTIONS RESULT IN A FENCE THAT IS CLOSER THAN 5 FEET TO A TREE TRUNK, PROTECT THE TRUNK WITH STRAPPED-ON PLANKING TO A HEIGHT OF 8 FEET (OR TO THE LIMITS OF LOWER BRANCHING) IN ADDITION TO THE REDUCED FENCING.
3. WHERE ANY OF THIS ABOVE EXCEPTIONS RESULT IN AREAS OF UNPROTECTED ROOT ZONES UNDER THE DRIPLINE OR CRZ, WHICHEVER IS GREATER, THOSE AREAS SHOULD BE COVERED WITH 4–6 INCHES OF ORGANIC MULCH TO MINIMIZE SOIL COMPACTION.
4. WHERE ANY OF THE ABOVE EXCEPTIONS RESULT IN DAMAGE TO THE FINE, WATER ABSORBING ROOTS, SUPPLEMENT WATERING SHALL BE REQUIRED:
   A. TREES SHALL BE WATERED ONCE EVERY TWO WEEKS DURING PERIODS OF HOT, DRY WEATHER.
   B. TREE CROWNS ARE TO BE SPRAYED WITH WATER TO REDUCE DUST ACCUMULATION ON LEAVES.
   C. A SIGNALED WATERING CONTRACT SHALL BE REQUIRED PRIOR TO THE START OF CONSTRUCTION.
5. PRIOR TO EXCAVATION OR GRADE CUTTING WITHIN TREE DRIPLINES, A CLEAN CUT SHALL BE MADE BETWEEN THE DISTURBED AND UNDISTURBED ROOT ZONES WITH A ROCK SAW OR SIMILAR EQUIPMENT TO MINIMIZE DAMAGE TO REMAINING ROOTS. THE CONTRACTOR SHALL CONTACT THE CITY FORESTER OR ADMINISTRATOR FOR SUPERVISION.
6. ALL GRADING WITHIN PROTECTED ROOT ZONES AREAS SHALL BE DONE BY HAND OR WITH SMALL EQUIPMENT TO MINIMIZE ROOT DAMAGE. PRIOR TO GRADING, RELOCATE PROTECTIVE FENCING TO TWO (2') FEET BEHIND THE GRADE CHANGE AREA.
7. A WARNING SIGN SHALL BE PROMINENTLY DISPLAYED ON EACH FENCE. THE SIGN SHALL BE A MINIMUM OF 16 X 24 INCHES.

FOR QUESTIONS CONCERNING THIS DETAIL, PLEASE CONTACT THE DEVELOPMENT SERVICES CENTER.

ISSUE DATE:	CITY OF PFLUGERVILLE	DWG. #TP-02b
REVISIONS	TYPE II TREE PROTECTION – (MODIFIED) CHAIN LINK FENCE	TP02b.DWG
DATE / APPROVED / DRAWN	CONSTRUCTION STANDARDS AND DETAILS	
SCALE: N.T.S.		

Appendix C-4

C3	TYPE II TREE PROTECTION - (MODIFIED) CHAIN LINK FENCE
NOT TO SCALE	CITY OF PFLUGERVILLE



EXAMPLE OF BARK PROTECTION – DONE WHEN CRZ IS LESS THAN AN EIGHT (8') FOOT DIAMETER, UPON APPROVAL BY THE CITY FORESTER.

NOTES:

1. WHERE ANY EXCEPTIONS RESULT IN A FENCE BEING CLOSER THAN FIVE FEET (5'-0") TO A TREE TRUNK; PROTECT THE TRUNK WITH STRAPPED-ON-PLANKING TO A HEIGHT OF EIGHT FEET (8'-0"), OR TO THE LIMITS OF LOWER BRANCHING IN ADDITION TO THE REDUCED FENCING PROVIDED. MAJOR SCAFFOLD LIMBS MAY ALSO NEED PROTECTION AS DIRECTED BY THE CITY FORESTER.
2. TREES SITUATED IN A SMALL TREE WELL OR SIDEWALK PLANTER PIT, OR WHEN (ABOVE GROUND), NO GRADING OR TRENCHING WITHIN CRZ) CONSTRUCTION WILL COME WITHIN FIVE (5') FEET OF A TRUNK, SHALL HAVE THE TRUNK PROTECTED WITH STRAPPED-ON PLANKING TO A HEIGHT OF EIGHT (8') FEET, OR TO THE LIMITS OF LOWER BRANCHES. MAJOR SCAFFOLD LIMBS MAY ALSO NEED PROTECTION AS DIRECTED BY THE CITY FORESTER.

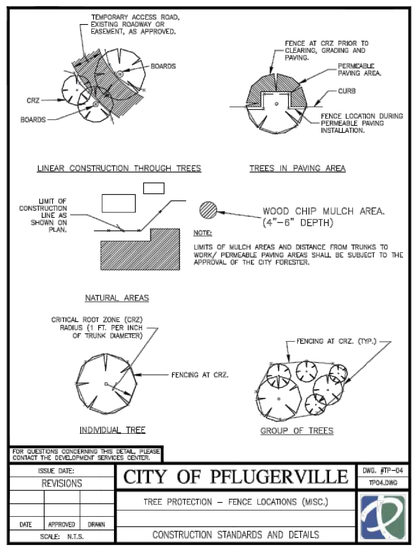
FOR QUESTIONS CONCERNING THIS DETAIL, PLEASE CONTACT THE DEVELOPMENT SERVICES CENTER.

ISSUE DATE:	CITY OF PFLUGERVILLE	DWG. #TP-03
REVISIONS	TYPE III TREE PROTECTION – (MODIFIED) WOOD SLATS	TP03.DWG
DATE / APPROVED / DRAWN	CONSTRUCTION STANDARDS AND DETAILS	
SCALE: N.T.S.		

Appendix C-5

D3	TYPE III TREE PROTECTION - (MODIFIED) WOOD SLATS
NOT TO SCALE	CITY OF PFLUGERVILLE

E3	NOT USED
NOT TO SCALE	

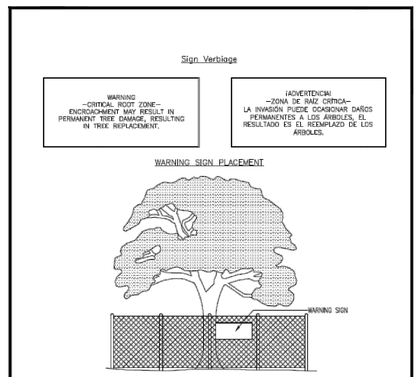


FOR QUESTIONS CONCERNING THIS DETAIL, PLEASE CONTACT THE DEVELOPMENT SERVICES CENTER.

ISSUE DATE:	CITY OF PFLUGERVILLE	DWG. #TP-04
REVISIONS	TREE PROTECTION – FENCE LOCATIONS (MISC.)	TP04.DWG
DATE / APPROVED / DRAWN	CONSTRUCTION STANDARDS AND DETAILS	
SCALE: N.T.S.		

Appendix C-6

A4	TREE PROTECTION - FENCE LOCATIONS (MISC)
NOT TO SCALE	CITY OF PFLUGERVILLE



NOTES:

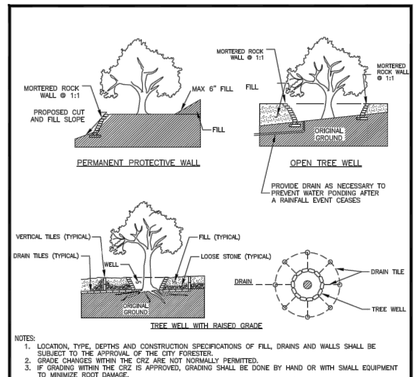
1. A WARNING SIGN SHALL BE PROMINENTLY DISPLAYED ON EACH FENCE. THE SIGN SHALL BE A MINIMUM OF 16 X 24 INCHES.

FOR QUESTIONS CONCERNING THIS DETAIL, PLEASE CONTACT THE DEVELOPMENT SERVICES CENTER.

ISSUE DATE:	CITY OF PFLUGERVILLE	DWG. #TP-05
REVISIONS	TREE PROTECTION – WARNING SIGN	TP05.DWG
DATE / APPROVED / DRAWN	CONSTRUCTION STANDARDS AND DETAILS	
SCALE: N.T.S.		

Appendix C-7

B4	TREE PROTECTION - WARNING SIGN
NOT TO SCALE	CITY OF PFLUGERVILLE



NOTES:

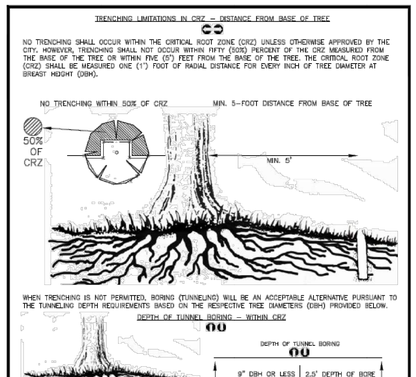
1. LOCATION, TYPE, DEPTHS AND CONSTRUCTION SPECIFICATIONS OF FILL, DRAINS AND WALLS SHALL BE SUBJECT TO THE APPROVAL OF THE CITY FORESTER.
2. GRADE CHANGES WITHIN THE CRZ ARE NOT NORMALLY PERMITTED.
3. IF GRADING WITHIN THE CRZ IS APPROVED, GRADING SHALL BE DONE BY HAND OR WITH SMALL EQUIPMENT TO MINIMIZE ROOT DAMAGE.
4. GRADE CHANGES OUTSIDE THE CRZ SHALL NOT SIGNIFICANTLY ALTER DRAINAGE TO THE TREE.
5. GRADE CHANGES UNDER SPECIFICALLY APPROVED CIRCUMSTANCES SHALL NOT ALLOW MORE THAN SIX (6") INCHES OF FILL SOIL ADDED OR ALLOW MORE THAN SIX (6") INCHES OF EXISTING SOIL TO BE REMOVED FROM NATURAL GRADE UNLESS MITIGATED.
6. GRADE FILLS OVER SIX (6") INCHES OR IMPERVIOUS OVERLAY SHALL INCORPORATE AN APPROVED PERMANENT AERATION SYSTEM, PERMEABLE MATERIAL OR OTHER APPROVED MITIGATION.
7. GRADE CUTS EXCEEDING SIX (6") INCHES SHALL INCORPORATE RETAINING WALLS OR AN APPROPRIATE TRANSITION EQUIVALENT.

FOR QUESTIONS CONCERNING THIS DETAIL, PLEASE CONTACT THE DEVELOPMENT SERVICES CENTER.

ISSUE DATE:	CITY OF PFLUGERVILLE	DWG. #TP-06
REVISIONS	TREE PROTECTION – TREE WELLS	TP06.DWG
DATE / APPROVED / DRAWN	CONSTRUCTION STANDARDS AND DETAILS	
SCALE: N.T.S.		

Appendix C-8

C4	TREE PROTECTION - TREE WELLS
NOT TO SCALE	CITY OF PFLUGERVILLE



FOR QUESTIONS CONCERNING THIS DETAIL, PLEASE CONTACT THE DEVELOPMENT SERVICES CENTER.

ISSUE DATE:	CITY OF PFLUGERVILLE	DWG. #TP-07
REVISIONS	TREE PROTECTION – TRENCHING & BORING STANDARDS	TP07.DWG
DATE / APPROVED / DRAWN	CONSTRUCTION STANDARDS AND DETAILS	
SCALE: N.T.S.		

Appendix C-9

D4	TREE PROTECTION - TRENCHING & BORING STANDARDS
NOT TO SCALE	CITY OF PFLUGERVILLE

STANDARD TREE PROTECTION NOTES:

1. ALL TREES NOT LOCATED WITHIN THE LIMITS OF CONSTRUCTION AND OUTSIDE OF DISTURBED AREAS SHALL BE PRESERVED.
2. ALL TREES SHOWN ON THIS PLAN TO BE RETAINED SHALL BE PROTECTED DURING CONSTRUCTION WITH FENCING CONSISTENT WITH THE CITY'S CONSTRUCTION DETAIL(S).
3. TREE PROTECTION FENCES SHALL BE ERECTED ACCORDING TO CITY STANDARDS FOR TREE PROTECTION, FENCE MATERIAL, AND FENCE SIGNAGE.
4. TREE PROTECTION FENCES SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF ANY SITE PREPARATION WORK (CLEARING, GRUBBING, OR GRADING) AND SHALL BE MAINTAINED THROUGHOUT ALL PHASES OF THE CONSTRUCTION PROJECT CONSISTENT WITH THE APPROVED PLAN. TREE PROTECTION FENCES SHALL COMPLETELY SURROUND THE TREE OR CLUSTERS OF TREES AND BE PLACED AT THE OUTERMOST LIMITS OF THE TREE BRANCHES (DRIPLINE) OR CRZ, WHICHEVER IS GREATER.
5. EROSION AND SEDIMENTATION CONTROL BARRIERS SHALL BE INSTALLED AND MAINTAINED IN A MANNER WHICH DOES NOT RESULT IN TRENCHING OR SOIL BUILD–UP WITHIN A TREE'S CRZ OR DRIPLINES, WHICHEVER IS GREATER.
6. ANY ROOTS EXPOSED BY CONSTRUCTION ACTIVITY SHALL BE PRUNED FLUSH WITH THE SOIL. BACKFILL ROOT AREAS WITH GOOD QUALITY TOP SOIL AS SOON AS POSSIBLE. IF EXPOSED ROOT AREAS ARE NOT BACKFILLED WITHIN TWO (2) DAYS, COVER THEM WITH ORGANIC MATERIAL IN A MANNER WHICH REDUCES SOIL TEMPERATURE AND MINIMIZES WATER LOSS DUE TO EVAPORATION.
7. WHEN CONSTRUCTION OCCURS IMMEDIATELY OUTSIDE OF THE CRZ OR DRIPLINE OF A PRESERVED TREE, A CLEAN CUT SHALL BE MADE BETWEEN THE DISTURBED AND UNDISTURBED ROOT ZONES WITH A ROCK SAW OR SIMILAR EQUIPMENT PRIOR TO EXCAVATION OR GRADE CUTTING. THE PURPOSE OF THIS PROVISION IS TO MINIMIZE DAMAGE TO THE REMAINING ROOTS OF PRESERVED TREES. THE CONTRACTOR SHALL CONTACT THE CITY FORESTER OR ADMINISTRATOR FOR SUPERVISION.
8. WHEN INSTALLING CONCRETE ADJACENT TO THE ROOT ZONE OF A TREE, USE A PLASTIC VAPOR BARRIER BEHIND THE CONCRETE TO PROHIBIT LEACHING OF LIME INTO THE ROOT ZONE.
9. ANY TRENCHING SHALL BE AS FAR FROM EXISTING TREE TRUNKS AS POSSIBLE. TRENCH LINES SHALL NOT RUN WITHIN THE CRZ. BORING, TUNNELING OR OTHER TECHNIQUES MAY BE APPROVED BY THE CITY FORESTER OR ADMINISTRATOR IF THERE ARE NO OTHER ALTERNATIVES AVAILABLE. REFER TO TREE PROTECTION DETAIL – TRENCHING AND BORING STANDARDS.
10. NO LANDSCAPE TOPSOIL DRESSING GREATER THAN SIX (6") INCHES SHALL BE PERMITTED WITHIN THE DRIPLINE OR CRZ, WHICHEVER IS GREATER, OF TREES. NO TOPSOIL IS PERMITTED ON ROOT FLARES OR WITHIN SIX (6") INCHES OF TREE TRUNKS.
11. TREES MOST HEAVILY IMPACTED BY CONSTRUCTION ACTIVITIES SHALL BE WATERED DEEPLY ONCE A WEEK DURING PERIODS OF HOT, DRY WEATHER. TREE CROWNS SHALL BE SPRAYED WITH WATER PERIODICALLY TO REDUCE DUST ACCUMULATION ON THE LEAVES.
12. PRUNING TO PROVIDE CLEARANCE FOR STRUCTURES, VEHICULAR TRAFFIC AND CONSTRUCTION EQUIPMENT SHALL TAKE PLACE BEFORE CONSTRUCTION BEGINS. ALL PRUNING MUST BE DONE ACCORDING TO CITY STANDARDS PURSUANT TO SECTION 4.09 OF THE TREE TECHNICAL MANUAL AND AS OUTLINED IN LITERATURE PROVIDED BY THE INTERNATIONAL SOCIETY OF ARBORICULTURE (ISA PRUNING TECHNIQUES).
13. ALL OAK TREE CUTS, INTENTIONAL OR UNINTENTIONAL, SHALL BE PAINTED IMMEDIATELY (WITHIN 10 MINUTES). TREE PAINT MUST BE KEPT ON SITE AT ALL TIMES. ALL PRUNING OR CUTTING TOOLS MUST BE STERILIZED BETWEEN TREES TO PREVENT THE SPREAD OF DISEASE.
14. TREES APPROVED FOR REMOVAL SHALL BE REMOVED IN A MANNER WHICH DOES NOT IMPACT TREES TO BE PRESERVED. REFER TO THE CITY OF PFLUGERVILLE TREE TECHNICAL MANUAL FOR APPROPRIATE REMOVAL METHODS.
15. DEVIATIONS FROM THE ABOVE NOTES ARE CONSIDERED ORDINANCE VIOLATIONS IF THERE IS SUBSTANTIAL NONCOMPLIANCE OR IF A TREE SUSTAINS DAMAGE AS A RESULT.
16. (PRE–CONSTRUCTION CONFERENCE) THE DEMOLITION, GRADING AND UNDERGROUND CONTRACTORS, CONSTRUCTION SUPERINTENDENT AND OTHER PERTINENT PERSONNEL ARE REQUIRED TO MEET WITH THE CITY FORESTER AND/OR ADMINISTRATOR PRIOR TO BEGINNING WORK TO REVIEW PROCEDURES, TREE PROTECTION MEASURES AND TO ESTABLISH HAUL ROUTES, STAGING AREAS, CONTACTS, WATERING, ETC.
17. (VERIFICATION OF TREE PROTECTION) THE PROJECT ARBORIST, LANDSCAPE ARCHITECT OR CONTRACTOR SHALL VERIFY, IN WRITING, THAT ALL PRECONSTRUCTION CONDITIONS HAVE BEEN MET (TREE FENCING, EROSION CONTROL, PRUNING, ETC.) AND ARE IN PLACE. WRITTEN VERIFICATION MUST BE SUBMITTED TO AND APPROVED BY THE CITY FORESTER OR THE ADMINISTRATOR BEFORE DEMOLITION OR GRADING BEGINS.

FOR QUESTIONS CONCERNING THIS DETAIL, PLEASE CONTACT THE DEVELOPMENT SERVICES CENTER.

ISSUE DATE:	CITY OF PFLUGERVILLE	DWG. #TP-08
REVISIONS	STANDARD TREE PROTECTION NOTES	TP08.DWG
DATE / APPROVED / DRAWN	CONSTRUCTION STANDARDS AND DETAILS	
SCALE: N.T.S.		

Appendix C-10

E4	STANDARD TREE PROTECTION NOTES
NOT TO SCALE	CITY OF PFLUGERVILLE

PRELIMINARY PLAN ONLY
NOT FOR RECORDATION

REVISIONS

No.	Date	App.

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290
4350 Lockhill-Selma Road, Suite 100 • San Antonio, Texas 78249 • 210.494.5511

SCALE:	AS SHOWN	DESIGNED BY:	KF
DATE:	07.05.2022	CHECKED BY:	KF/JY
JOB NO.:	S0977-0008-00	DRAWN BY:	CAD

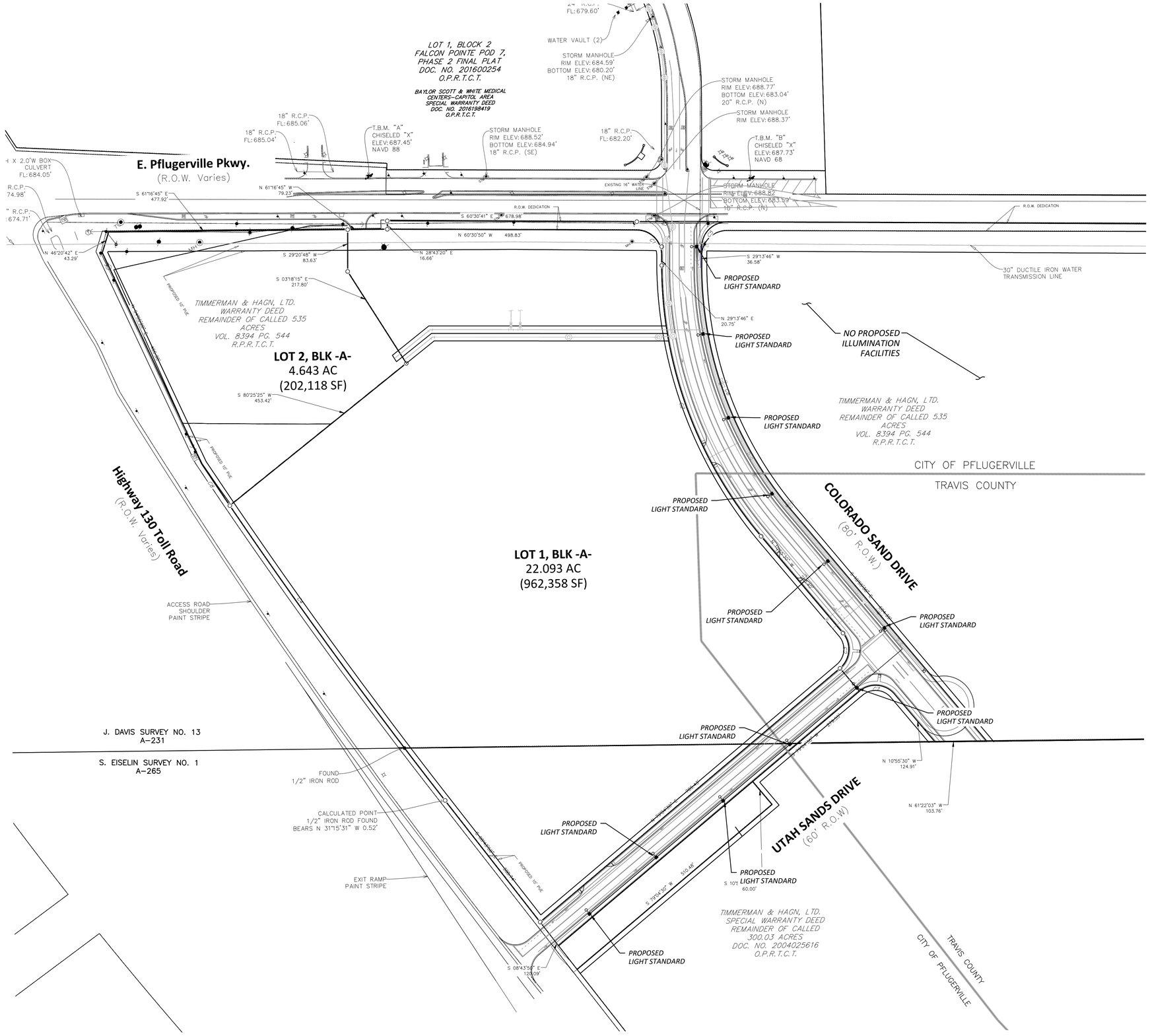
STATE OF TEXAS
JOSEPH E. YORK V.
124934
LICENSED PROFESSIONAL ENGINEER
10/08/2022

EAST PFLUGERVEILLE PARKWAY
COMMERCIAL CENTER

PRELIMINARY TREE SURVEY DETAILS

SHEET NO. 16
OF 19

K:\S0977\z0977-0008-00 heb pflugerville - store planning\2 design phase\CAD\Plans\Site\preliminary plan\S0977-0008 Prelim Tree Survey.dwg KS: October 28, 2022



PRELIMINARY PLAN ONLY
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REVISIONS

No.	Date	App.

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290
4350 Lockhill-Selma Road, Suite 100 • San Antonio, Texas 78249 • 210.494.3511

SCALE:	AS SHOWN	DESIGNED BY:	KF
DATE:	07.05.2022	CHECKED BY:	KF/JY
JOB NO.:	S0977-0008-00	DRAWN BY:	CAD

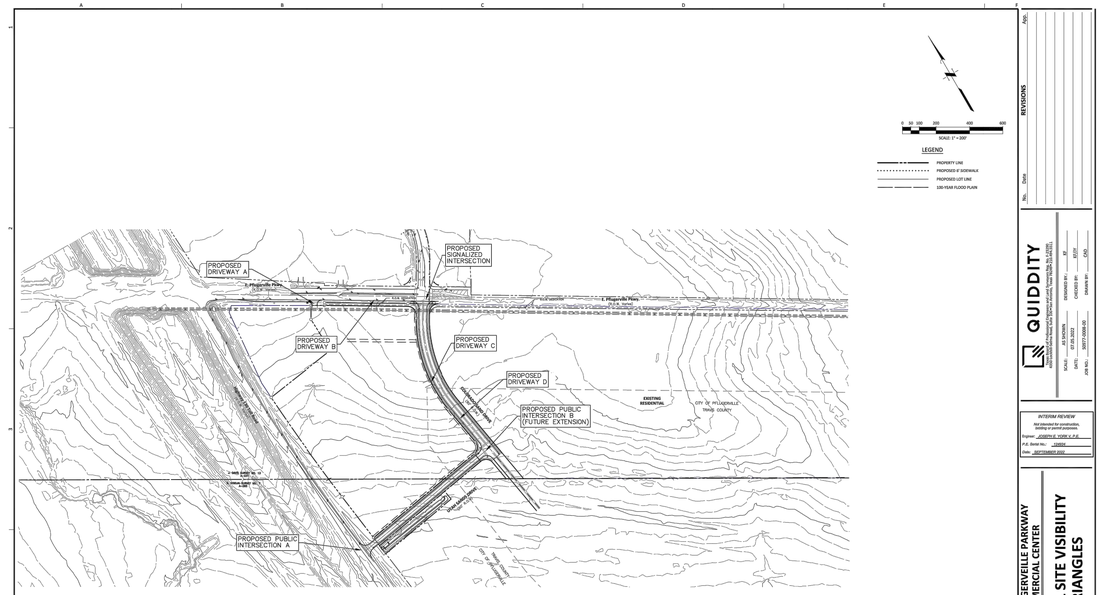
STATE OF TEXAS
JOSEPH E. YORK V
124934
LICENSED PROFESSIONAL ENGINEER
10/28/2022

EAST PFLUGERVEILLE PARKWAY
COMMERCIAL CENTER

PRELIMINARY ILLUMINATION PLAN

SHEET NO. 17
OF 19

K:\S0977\s0977-0008-00 heb pflugerville - store planning\2 design phase\CAD\Plans\Site\preliminary plan\S0977-0008 Prelim Illumination.dwg KS: October 28, 2022



PRELIMINARY PLAN ONLY
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No.	Date	REVISIONS	Appr.

QUIDDITY
Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290
4350 Lockhill-Selma Road, Suite 100 • San Antonio, Texas 78249 • 210.494.3511

DESIGNED BY: KF
CHECKED BY: KF/JY
DRAWN BY: CAD

SCALE: AS SHOWN
DATE: 07.05.2022
JOB NO.: S0977-0008-00

INTERIM REVIEW
Not intended for construction, bidding or permit purposes.
Engineer: JOSEPH E. YORK V.P.E.
P.E. Serial No.: 124934
Date: SEPTEMBER 2022

EAST PFLUGERVILLE PARKWAY
COMMERCIAL CENTER

OVERALL SITE VISIBILITY TRIANGLES

SHEET NO. 1
OF 4

A3	SITE VISIBILITY TRIANGLE - OVERALL
NOT TO SCALE	

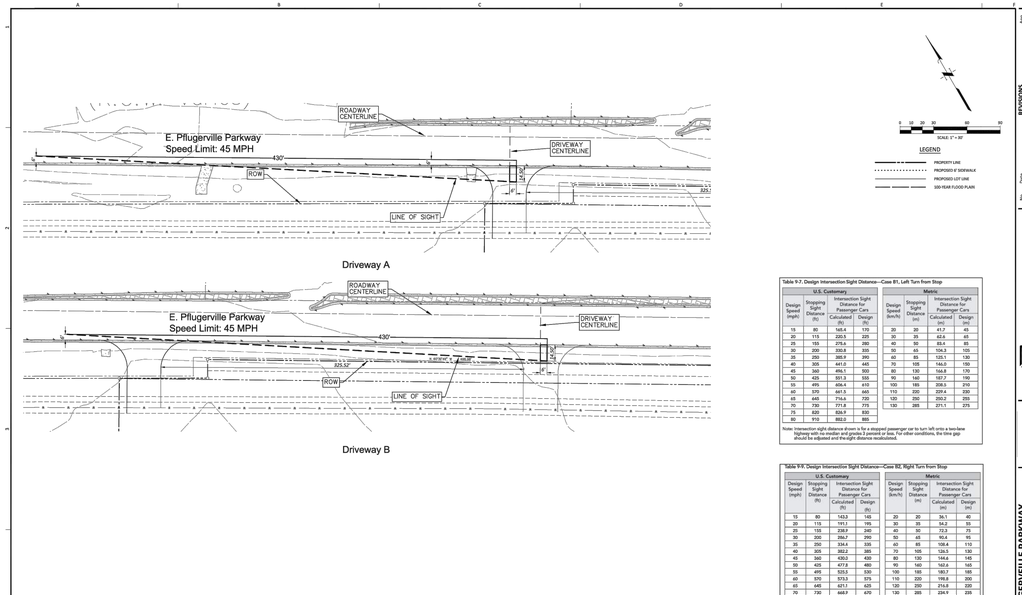

Table 9.7: Design Intersection Sight Distance—Case B1, Left Turn from Stop

U.S. Customary				Metric			
Design Speed (mph)	Stopping Sight Distance (ft)	Intersection Sight Distance for Passenger Cars		Design Speed (km/h)	Stopping Sight Distance (m)	Intersection Sight Distance for Passenger Cars	
		Calculated (ft)	Design (ft)			Calculated (m)	Design (m)
15	80	166.4	170	20	20	41.7	45
20	115	220.5	225	30	35	62.6	65
25	155	275.6	280	40	50	83.4	85
30	200	330.8	335	50	65	104.3	105
35	250	385.9	390	60	85	125.1	130
40	305	441.0	445	70	105	146.0	150
45	360	496.1	500	80	130	166.8	170
50	425	551.3	555	90	160	187.7	190
55	495	606.4	610	100	185	208.5	210
60	570	661.5	665	110	220	229.4	230
65	645	716.6	720	120	250	250.2	255
70	730	771.8	775	130	285	271.1	275
75	820	826.9	830				
80	910	882.0	885				

Note: Intersection sight distance shown is for a stopped passenger car to turn left onto a two-lane highway with no median and grades 3 percent or less. For other conditions, the time gap should be adjusted and the sight distance recalculated.

Table 9.9: Design Intersection Sight Distance—Case B2, Right Turn from Stop

U.S. Customary				Metric			
Design Speed (mph)	Stopping Sight Distance (ft)	Intersection Sight Distance for Passenger Cars		Design Speed (km/h)	Stopping Sight Distance (m)	Intersection Sight Distance for Passenger Cars	
		Calculated (ft)	Design (ft)			Calculated (m)	Design (m)
15	80	143.2	145	20	20	36.1	45
20	115	191.1	195	30	35	54.2	55
25	155	238.9	240	40	50	72.3	75
30	200	286.7	290	50	65	90.4	95
35	250	334.4	335	60	85	108.4	110
40	305	382.2	385	70	105	126.5	130
45	360	430.0	430	80	130	144.6	145
50	425	477.8	480	90	160	162.6	165
55	495	525.5	530	100	185	180.7	185
60	570	573.3	575	110	220	198.8	200
65	645	621.1	625	120	250	216.8	220
70	730	668.9	670	130	285	234.9	235
75	820	716.6	720				
80	910	764.4	765				

Note: Intersection sight distance shown is for a stopped passenger car to turn right onto or to cross a two-lane roadway with no median and with grades of 3 percent or less. For other conditions, the time gap should be adjusted and the sight distance recalculated.

Note: Table 9.7 and 9.9 from section 9.5.3.2 per 'A Policy on Geometric Design of Highways and Streets'

PRELIMINARY PLAN ONLY
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EAST PFLUGERVILLE PARKWAY
COMMERCIAL CENTER

DRIVEWAYS (1 OF 2)

SHEET NO. 2
OF 4

D3	SITE VISIBILITY TRIANGLE - DRIVEWAY (1 OF 2)
NOT TO SCALE	

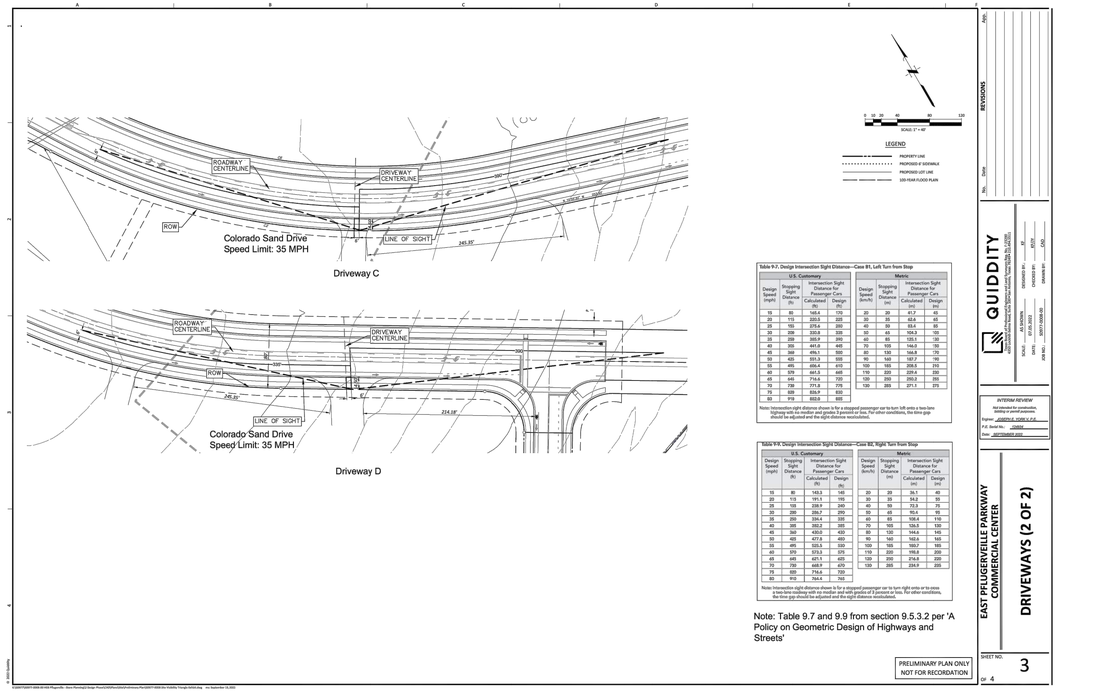

Table 9.7: Design Intersection Sight Distance—Case B1, Left Turn from Stop

U.S. Customary				Metric			
Design Speed (mph)	Stopping Sight Distance (ft)	Intersection Sight Distance for Passenger Cars		Design Speed (km/h)	Stopping Sight Distance (m)	Intersection Sight Distance for Passenger Cars	
		Calculated (ft)	Design (ft)			Calculated (m)	Design (m)
15	80	166.4	170	20	20	41.7	45
20	115	220.5	225	30	35	62.6	65
25	155	275.6	280	40	50	83.4	85
30	200	330.8	335	50	65	104.3	105
35	250	385.9	390	60	85	125.1	130
40	305	441.0	445	70	105	146.0	150
45	360	496.1	500	80	130	166.8	170
50	425	551.3	555	90	160	187.7	190
55	495	606.4	610	100	185	208.5	210
60	570	661.5	665	110	220	229.4	230
65	645	716.6	720	120	250	250.2	255
70	730	771.8	775	130	285	271.1	275
75	820	826.9	830				
80	910	882.0	885				

Note: Intersection sight distance shown is for a stopped passenger car to turn left onto a two-lane highway with no median and grades 3 percent or less. For other conditions, the time gap should be adjusted and the sight distance recalculated.

Table 9.9: Design Intersection Sight Distance—Case B2, Right Turn from Stop

U.S. Customary				Metric			
Design Speed (mph)	Stopping Sight Distance (ft)	Intersection Sight Distance for Passenger Cars		Design Speed (km/h)	Stopping Sight Distance (m)	Intersection Sight Distance for Passenger Cars	
		Calculated (ft)	Design (ft)			Calculated (m)	Design (m)
15	80	143.2	145	20	20	36.1	45
20	115	191.1	195	30	35	54.2	55
25	155	238.9	240	40	50	72.3	75
30	200	286.7	290	50	65	90.4	95
35	250	334.4	335	60	85	108.4	110
40	305	382.2	385	70	105	126.5	130
45	360	430.0	430	80	130	144.6	145
50	425	477.8	480	90	160	162.6	165
55	495	525.5	530	100	185	180.7	185
60	570	573.3	575	110	220	198.8	200
65	645	621.1	625	120	250	216.8	220
70	730	668.9	670	130	285	234.9	235
75	820	716.6	720				
80	910	764.4	765				

Note: Table 9.7 and 9.9 from section 9.5.3.2 per 'A Policy on Geometric Design of Highways and Streets'

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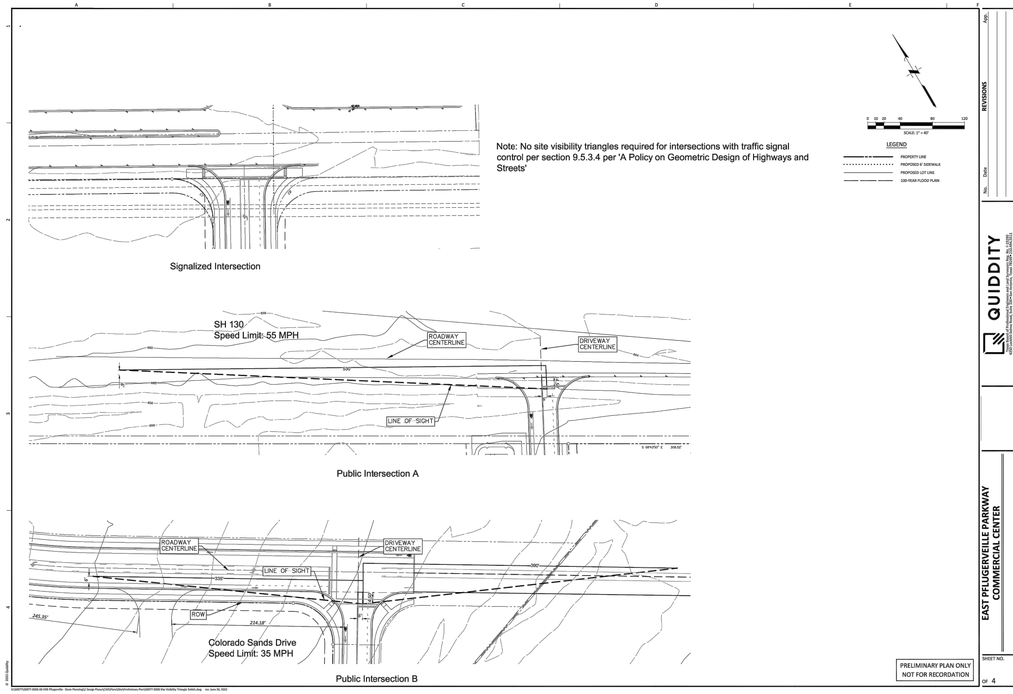
EAST PFLUGERVILLE PARKWAY
COMMERCIAL CENTER

DRIVEWAYS (2 OF 2)

SHEET NO. 3
OF 4

A4	SITE VISIBILITY TRIANGLE - DRIVEWAY (2 OF 2)
NOT TO SCALE	



Note: No site visibility triangles required for intersections with traffic signal control per section 9.5.3.4 per 'A Policy on Geometric Design of Highways and Streets'

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EAST PFLUGERVILLE PARKWAY
COMMERCIAL CENTER

INTERSECTION

SHEET NO. 4
OF 4

D4	SITE VISIBILITY TRIANGLE - INTERSECTIONS
NOT TO SCALE	

STATE OF TEXAS
JOSEPH E. YORK V.
124934
LICENSED PROFESSIONAL ENGINEER
10/28/2022

EAST PFLUGERVEILLE PARKWAY
COMMERCIAL CENTER

PRELIMINARY SITE VISIBILITY TRIANGLE EXHIBIT

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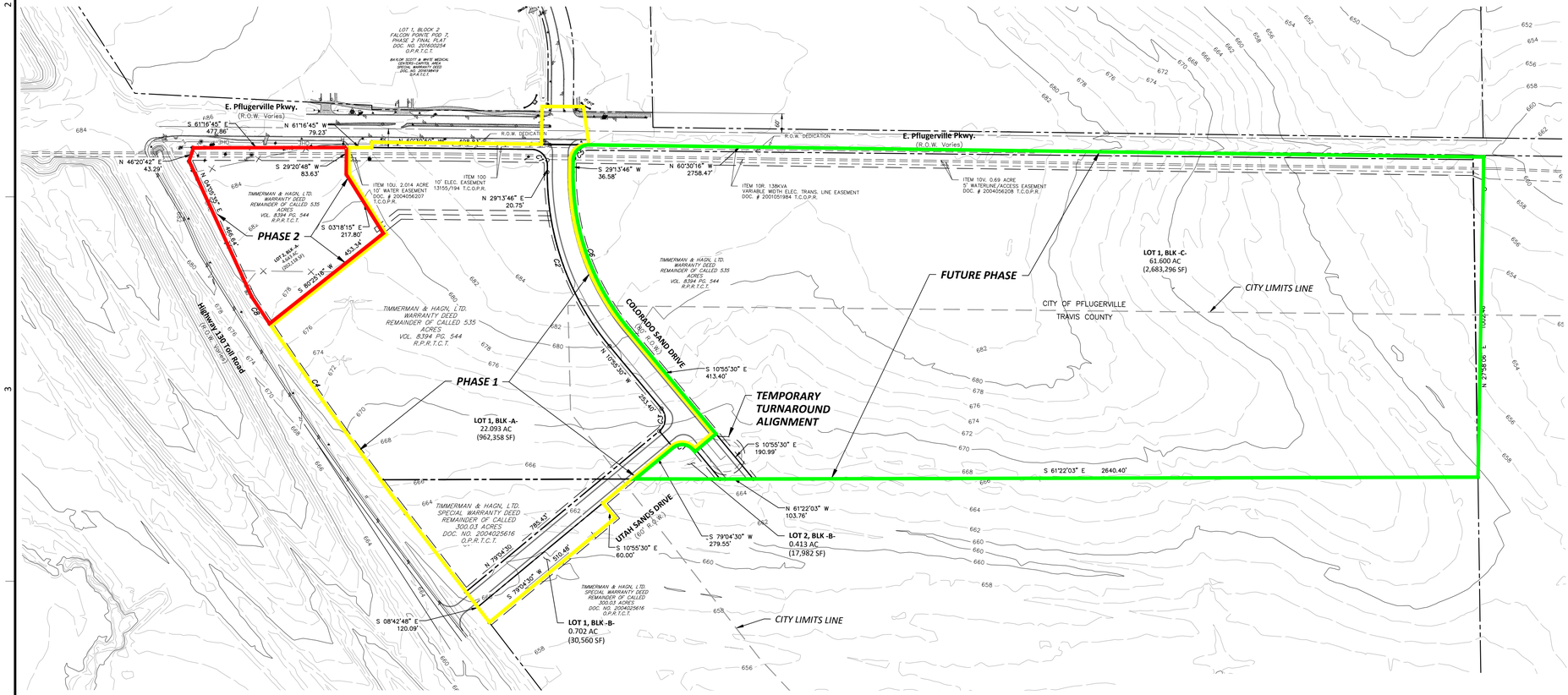
SHEET NO. 18
OF 19

K:\S0977\z\S0977-0008-00 heb pflugerville - store planning\2 design phase\CAD\Plans\Site\preliminary plan\S0977-0008 Prelim Tree Survey.dwg KS: October 28, 2022

CURVE TABLE						
CURVE	RADIUS	ARC LENGTH	DELTA ANGLE	CHORD BEARING	CHORD LENGTH	TANGENT
C1	50.00'	78.32'	89°44'38"	N15°38'32"W	70.55'	49.78'
C2	840.00'	588.69'	40°09'16"	N9°09'08"E	576.72'	307.02'
C3	50.00'	78.54'	89°59'56"	N34°04'30"E	70.71'	50.00'
C4	10982.11'	729.64'	3°48'24"	S6°49'42"E	729.51'	364.95'
C5	50.00'	78.77'	90°15'58"	S74°21'45"W	70.87'	50.23'
C6	760.00'	532.63'	40°09'16"	S9°09'08"W	521.79'	277.78'
C7	50.00'	78.54'	90°00'00"	N55°55'30"W	70.71'	50.00'
C8	2059.390'	100.69'	0°16'48"	N4°39'45"W	100.69'	50.35'



0 50 100 200 400 600

SCALE: 1" = 200'

LEGEND

- PHASE 1
- PHASE 2
- FUTURE PHASE

BENCHMARKS:

T.B.M."A":

CHISELED "X" IN CONCRETE SET IN CENTER OF CURB INLET ON THE NORTHEASTERN SIDE OF EAST PFLUGERVILLE PARKWAY APPROXIMATELY 638 FEET NORTHWEST OF THE CENTER MEDIAN OF COLORADO SAND DRIVE AND APPROXIMATELY 114 FEET NORTHEAST FROM THE NORTHWESTERN CORNER OF THE PROJECT SITE. ELEVATION 687.45' (NAVD 88) AS A RESULT OF THE ON THE GROUND SURVEY COMPLETED MARCH 2022.

(GRID COORDINATES)
N = 10,138,211.9498
E = 3,160,501.9799
ELV. 687.45'

T.B.M."B":

CHISELED "X" IN CONCRETE SET ON TOP OF CURB ON THE NORTHEASTERN SIDE OF EAST PFLUGERVILLE PARKWAY APPROXIMATELY 125 FEET SOUTHEAST OF THE CENTER MEDIAN OF COLORADO SAND DRIVE AND APPROXIMATELY 242 FEET NORTHEAST FROM THE NORTHEASTERN CORNER OF THE PROJECT SITE. ELEVATION OF 687.73' (NAVD 88) AS RESULT OF THE ON THE GROUND SURVEY COMPLETED MARCH 2022.

(GRID COORDINATES)
N = 10,137,834.3688
E = 3,161,165.4069
ELV. 687.73'

GENERAL PLAN NOTES:

1. NO PORTION OF THIS TRACT IS WITHIN A FLOOD HAZARD AREA AS DELINEATED ON THE FEMA FLOOD INSURANCE RATE MAP PANEL #48453C0280J FOR TRAVIS COUNTY, EFFECTIVE AUGUST 18, 2014.
2. DEVELOPMENT PLANS FOR RESERVE TRACT 2 SHOWN HEREIN ARE UNKNOWN AT THIS TIME. ANY DIVISION OR PROPOSED DEVELOPMENT OF RESERVE TRACT 2 SHALL REQUIRE A NEW/REVISION TO THE PRELIMINARY PLAN (AS DETERMINED BY THE PLANNING DIRECTOR) TO DEFINE THE FULL CONFIGURATION OF THE DEVELOPMENT, INCLUDING BUT NOT LIMITED TO THE PROPOSED LAND USE, LOT CONFIGURATION, TRAFFIC IMPACT ANALYSIS, ALL ROAD EXTENSIONS AND ALIGNMENTS, DRAINAGE AND FLOODPLAIN, AND ALL UTILITY EXTENSIONS.
3. PHASE DEVELOPMENT IS SHOWN ON SHEET 19 - PRELIMINARY PHASE DEVELOPMENT.

PRELIMINARY PLAN ONLY
NOT FOR RECORDATION

REVISIONS

No.	Date	App.

QUIDDITY

Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290
4350 Lockhill-Selma Road, Suite 100• San Antonio, Texas 78249• 210.494.3511

SCALE:	AS SHOWN	DESIGNED BY:	KF
DATE:	07.05.2022	CHECKED BY:	KF/JY
JOB NO.:	S0977-0008-00	DRAWN BY:	CAD

STATE OF TEXAS
JOSEPH E. YORK V
124934
LICENSED
PROFESSIONAL ENGINEER
10/28/2022

EAST PFLUGERVEILLE PARKWAY
COMMERCIAL CENTER

PRELIMINARY DEVLOPMENT PHASING PLAN

SHEET NO. 19
OF 19

K:\S0977\s0977-0008-00 heb pflugerville - store planning\2 design phase\CAD\Plans\Site\preliminary plan\S0977-0008 Prelim Phase Boundary.dwg KS: October 28, 2022