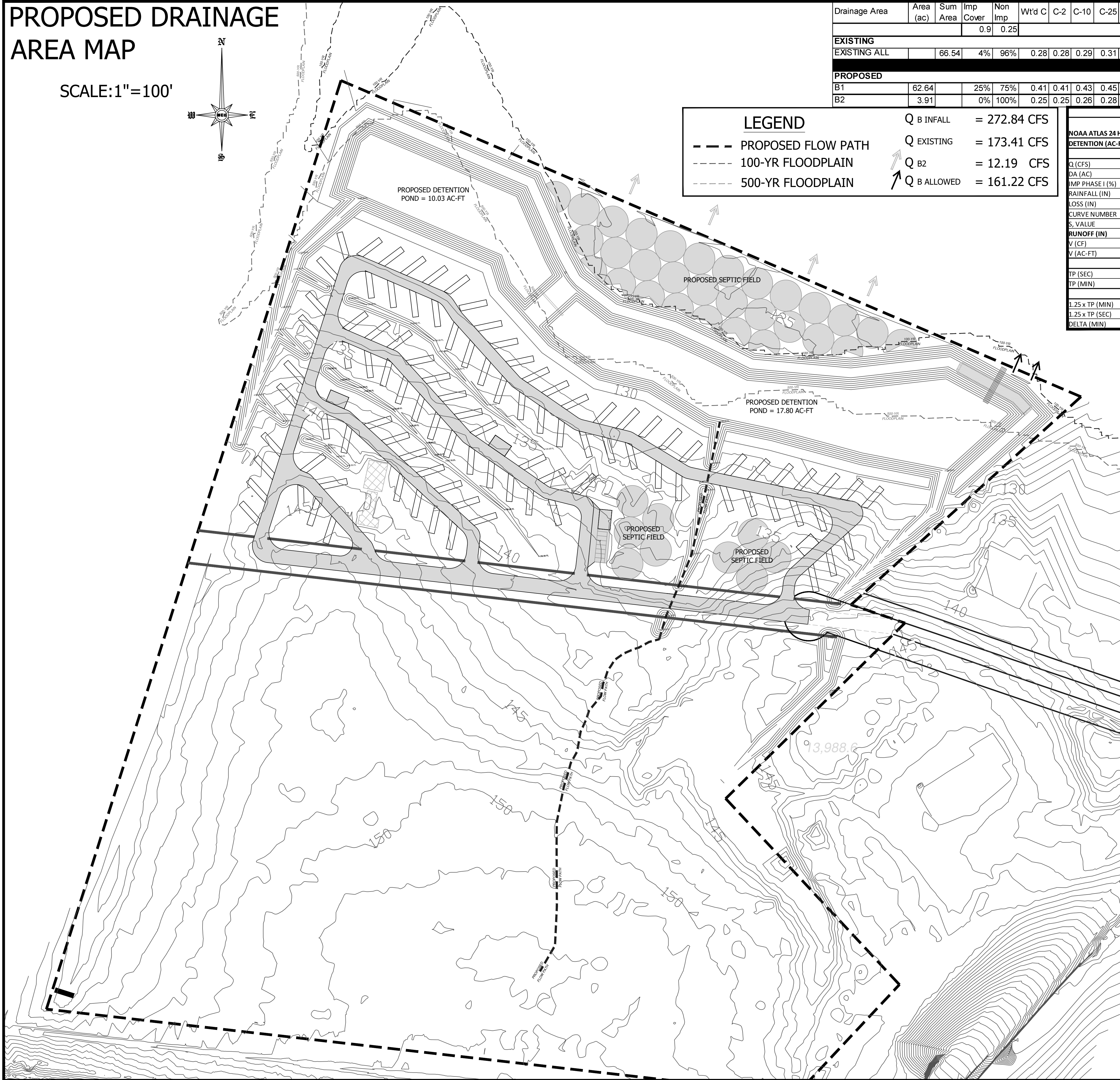
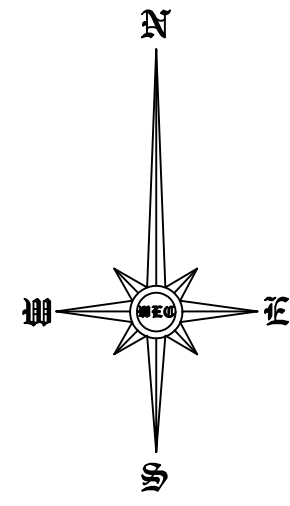


# PROPOSED DRAINAGE AREA MAP

SCALE: 1" = 100'



**LEGEND**

- PROPOSED FLOW PATH
- 100-YR FLOODPLAIN
- 500-YR FLOODPLAIN

$Q_B$  INFALL = 272.84 CFS  
 $Q$  EXISTING = 173.41 CFS  
 $Q_{B2}$  = 12.19 CFS  
 $Q_B$  ALLOWED = 161.22 CFS

Drainage Area	Area (ac)	Sum Area	Imp Cover	Non Imp	Wt'd C	C-2	C-10	C-25	C-100	Ltotal	Lsh	Lsc	Lch	Tsh	Tsc	Tch	Tc	i-2	i-10	i-25	i-100	Q2	Q10	Q25	Q100
<b>EXISTING</b>																									
EXISTING ALL	66.54	4%	96%	0.28	0.28	0.29	0.31	0.35	1613	100	1513	0	6.67	20.17	0.00	22.31	3.72	5.20	6.11	7.48	68.92	101.25	124.62	173.41	
<b>PROPOSED</b>																									
B1	62.64	25%	75%	0.41	0.41	0.43	0.45	0.52	1609	100	718	790	6.67	9.57	6.58	17.00	4.25	5.92	6.93	8.45	109.62	160.40	196.89	272.84	
B2	3.91	0%	100%	0.25	0.25	0.26	0.28	0.31	190	100	90	0	10.70	0.46	0.00	11.16	5.07	7.03	8.22	9.98	4.95	7.22	8.84	12.19	

NOAA ATLAS 24 HR RAINFALL (IN)	2-YR		10-YR		25-YR		100-YR	
	EXIST	PROP	EXIST	PROP	EXIST	PROP	EXIST	PROP
DETENTION (AC-FT)		3.75		15.28		14.26		23.90
Q (CFS)	68.92	109.62	101.25	196.89	124.62	209.18	161.22	272.84
DA (AC)	66.54	66.54	66.54	66.54	66.54	66.54	66.54	66.54
IMP PHASE I (%)	4%	23%	4%	23%	4%	23%	4%	23%
RAINFALL (IN)	4.64	4.64	7.75	7.75	10.20	10.20	14.90	14.90
LOSS (IN)	2.67	2.21	3.21	2.56	3.45	2.71	3.73	2.88
CURVE NUMBER	72.6	78.3	72.6	78.3	72.6	78.3	72.6	78.3
S VALUE	3.77	2.77	3.77	2.77	3.77	2.77	3.77	2.77
RUNOFF (IN)	1.97	2.43	4.54	5.19	6.75	7.49	11.17	12.02
V (CF)	476,054	588,055	1,097,572	#####	1,630,176	1,809,968	2,697,232	2,904,265
V (AC-FT)	10.9	13.5	25.2	28.8	37.4	41.6	61.92	66.67
TP (SEC)	4,969	3,859	7,798	4,585	9,411	6,225	12,036	7,658
TP (MIN)	82.8	64.3	130.0	76.4	156.9	103.7	200.6	127.6
1.25 x TP (MIN)	103.5	80.4	162.5	95.5	196.1	129.7	250.7	159.5
1.25 x TP (SEC)	6211.8	4824.3	9748.1	5731.6	11764.1	7781.2	15044.7	9572.6
DELTA (MIN)	1	1	1	1	1	1	1	1

EXISTING	MINUTES		HOURS		HOURS		HOURS	
	Tc	Tc + Tsh + Tch	Tsh	Tsc	Tch	Tc	Tc + Tsh + Tch	Tsh
Tc	22.31	22.31	0.178366219	0.193563276	0			
Tsh	10.7	10.7	Constant 0.007	Constant 3600	Constant 3600			
Tsc	11.61	11.61	Noi 0.15	Lsc 1513	Lch 0			
Tch	0	0	Lsh 100	K 16.13	n 0.024			
			P2 4.67	Ssc 0.01812	R 0.9968			
			Ssh 0.01		Sch 0.0008			
				.01 = 1.0%				.01 = 1.0%

PROPOSED	MINUTES		HOURS		HOURS		HOURS	
	Tc	Tc + Tsh + Tch	Tsh	Tsc	Tch	Tc	Tc + Tsh + Tch	Tsh
Tc	17	17	0.178366219	0.090092872	0.01490011			
Tsh	10.7	10.7	Constant 0.007	Constant 3600	Constant 3600			
Tsc	5.41	5.41	Noi 0.15	Lsc 672	Lch 460			
Tch	0.89	0.89	Lsh 100	K 16.13	n 0.035			
			P2 4.67	Ssc 0.0165	R 1.7			
			Ssh 0.01		Sch 0.02			
				.01 = 1.0%				.01 = 1.0%

**Rainfall Intensity-Duration-Frequency Coefficients for Texas**

Based on "National Oceanic and Atmospheric Administration's (NOAA) Atlas 14 Precipitation-Frequency Atlas of the United States, Volume 11 Version 2.0: Texas" (Pena et al. 2018)

Parameter Selection:  
 1. Select Units: English  
 2. Select Methodology: Annual Maximum Series (AMS)  
 3. Select County: AUSTIN  
 4. Select County Zone: Zone-1  
 5. Select Time of Concentration (Tc): 10 Minute

Coefficient	Design Annual Exceedance Probability (Design Annual Recurrence Interval)							
	50% (2-year)	20% (5-year)	10% (10-year)	4% (25-year)	2% (50-year)	1% (100-year)	0.5% (200-year)	0.2% (500-year)
a	0.8153	0.7779	0.7533	0.7233	0.6977	0.6768	0.6663	
b	63.0473	69.2679	72.9734	76.6416	76.6776	76.4515	102.5443	
d (min)	12.7158	11.9610	11.4433	10.8440	10.9987	9.8895	13.6075	
Intensity (inches/hour)	4.94	6.26	7.25	8.92	9.45	10.37	12.48	

Note: Austin County has 1 rainfall zone.

ISSUES AND REVISIONS

R.	DESCRIPTION	DATE
1.		

**WILSON ENGINEERING COMPANY, PLLC**  
 208 FOWLKES STREET  
 SEALY, TEXAS 77474  
 PHONE: 979-885-3344  
 www.wilsonengr.com  
 TXBPE FIRM NO. F-7678



**AUSTIN COUNTY RV PARK**  
 58.57 AC. BARTLETT ROAD  
 AUSTIN COUNTY, TX



PROJ. ENG.:	PROJ. NO.:
SAW	22003
DRAWN BY:	CHECKED BY:
SCW	SAW

**SHEET DESCRIPTION:**  
DRAINAGE PROPOSED

SHEET NO:  
**C6.2**  
 20230208