

LEGEND

- 1 (with 0.36) — DRAINAGE AREA NUMBER
- 0.36 — DRAINAGE AREA SIZE (AC)
- DRAINAGE DIVIDE
- FLOW DIRECTION
- - - 530 - - - EXISTING CONTOURS

Design Point Table

Design Point	Contributing DA	Gutter Capacity (CFS)	Q (CFS)	S _s (%)	S (%)	v (FT/S)	d (FT)
1	10	19.29	5.22	4.56	2.56	4.92	0.31
2	10 & 11	10.53	9.01	7.72	2.29	6.30	0.47
3	12	10.30	2.22	7.72	2.19	4.08	0.29

INLET CALCULATION TABLE

INLET ID	DA	DRAINAGE CONDITION	TYPE	INLET LENGTH (FEET)	Q (CFS)	CAPACITY (CFS)
1	3 & 06.6	SAG	Y-INLET	3'x3'	4.12	6.09
1C	4	SAG	CURB	5'	5.49	6.99
1B	5	SAG	CURB	5'	4.53	6.99
1A	6	SAG	CURB	5'	2.75	6.99
2	7	SAG	CURB	5'	3.45	6.99
2B	8	SAG	CURB	5'	2.71	6.99
2A	9	SAG	CURB	5'	3.84	6.99
3	10, 11 & 12	SAG	CURB	10'	11.23	14.54

CURB INLET CAPACITY $Q = 2.3(L+1.8W)^{1.5}$; $y = 0.6 W - 2$
 Y-INLET CAPACITY $Q = 3.087L^{0.75}$; $y = 0.3 L - 4$ SIDE LENGTH

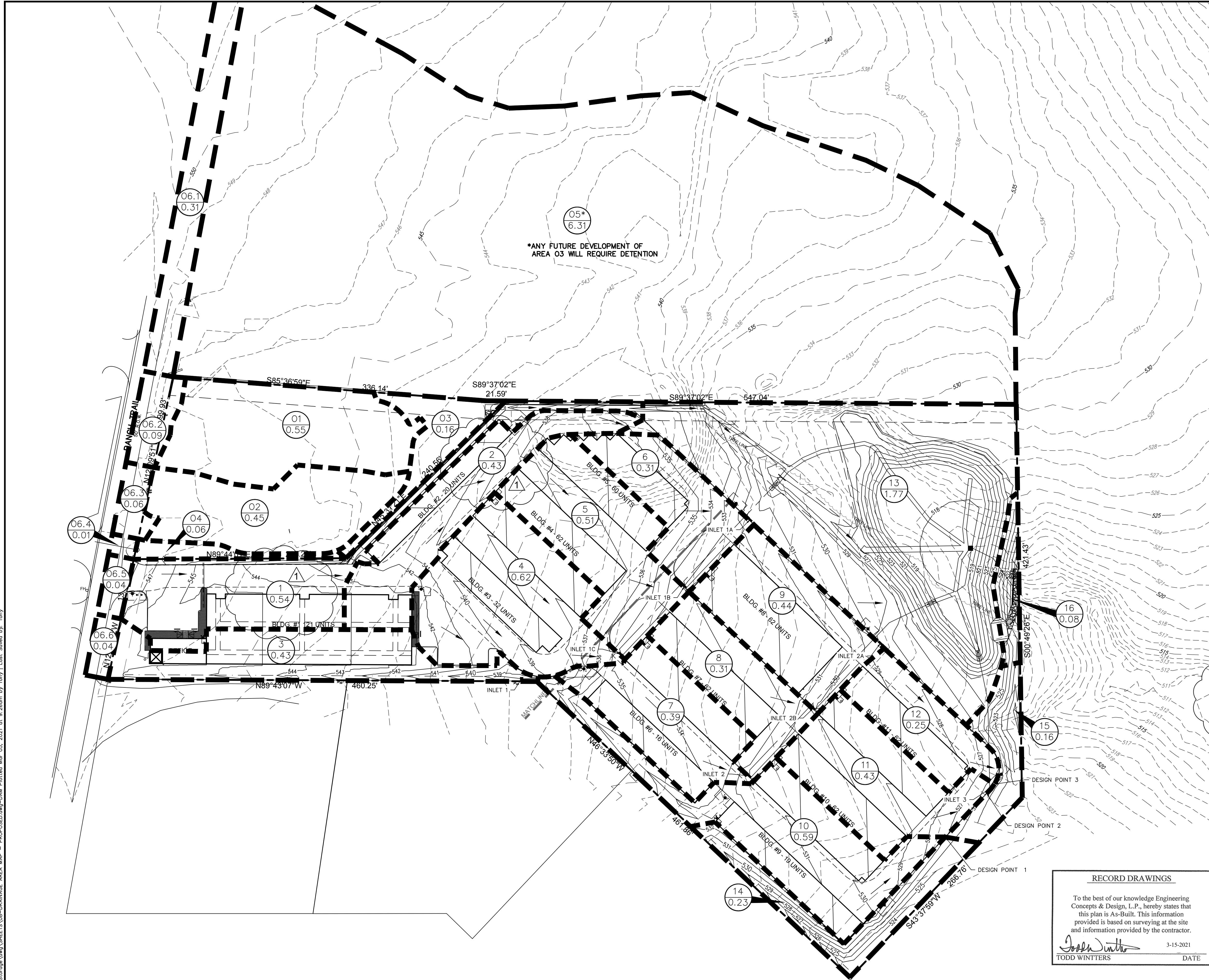
DRAINAGE CALCULATIONS - PROPOSED CONDITIONS

AREA NO.	AREA (ACRES)	C	T _c	I _s (IN/HR)	Q _s (CFS)	I ₁₀ (IN/HR)	Q ₁₀ (CFS)	I ₂₅ (IN/HR)	Q ₂₅ (CFS)	I ₁₀₀ (IN/HR)	Q ₁₀₀ (CFS)	COMMENTS
01	0.55	0.90	10.00	6.10	3.03	7.10	3.52	8.30	4.12	9.80	4.86	TO AREA 2 / CONC FLUME
02	0.45	0.90	10.00	6.10	2.48	7.10	2.89	8.30	3.37	9.80	3.98	TO AREA 2 / CONC FLUME
03	0.16	0.90	10.00	6.10	0.85	7.10	0.99	8.30	1.16	9.80	1.37	TO AREA 2 / CONC FLUME
04	0.06	0.90	10.00	6.10	0.31	7.10	0.36	8.30	0.42	9.80	0.50	TO AREA 2 / CONC FLUME
05	6.21	0.50	10.00	6.10	19.25	7.10	22.41	8.30	26.19	9.80	30.93	TO DETENTION POND
06.1	0.31	0.90	10.00	6.10	1.70	7.10	1.98	8.30	2.32	9.80	2.74	TO AREA 05
06.2	0.09	0.90	10.00	6.10	0.51	7.10	0.59	8.30	0.69	9.80	0.82	TO AREA 01
06.3	0.06	0.90	10.00	6.10	0.33	7.10	0.38	8.30	0.45	9.80	0.53	TO AREA 02
06.4	0.01	0.90	10.00	6.10	0.08	7.10	0.09	8.30	0.11	9.80	0.13	TO AREA 04
06.5	0.04	0.90	10.00	6.10	0.22	7.10	0.26	8.30	0.30	9.80	0.36	TO AREA 1
06.6	0.04	0.90	10.00	6.10	0.21	7.10	0.25	8.30	0.29	9.80	0.34	TO AREA 3
1	0.43	0.90	10.00	6.10	2.36	7.10	2.75	8.30	3.21	9.80	3.79	CONC FLUME/TO AREA 13
2	0.54	0.90	10.00	6.10	2.96	7.10	3.45	8.30	4.03	9.80	4.76	CONC FLUME/TO AREA 13
3	0.43	0.90	10.00	6.10	2.35	7.10	2.74	8.30	3.20	9.80	3.78	TO STORM LINE 1
4	0.62	0.90	10.00	6.10	3.42	7.10	3.98	8.30	4.65	9.80	5.49	TO STORM LINE 1
5	0.51	0.90	10.00	6.10	2.82	7.10	3.28	8.30	3.84	9.80	4.53	TO STORM LINE 1
6	0.31	0.90	10.00	6.10	1.71	7.10	2.00	8.30	2.33	9.80	2.75	TO STORM LINE 1
7	0.39	0.90	10.00	6.10	2.15	7.10	2.50	8.30	2.92	9.80	3.45	TO STORM LINE 2
8	0.31	0.90	10.00	6.10	1.69	7.10	1.97	8.30	2.30	9.80	2.71	TO STORM LINE 2
9	0.44	0.90	10.00	6.10	2.39	7.10	2.79	8.30	3.26	9.80	3.84	TO STORM LINE 2
10	0.59	0.90	10.00	6.10	3.25	7.10	3.78	8.30	4.42	9.80	5.22	TO STORM LINE 3
11	0.43	0.90	10.00	6.10	2.36	7.10	2.74	8.30	3.21	9.80	3.78	TO STORM LINE 3
12	0.25	0.90	10.00	6.10	1.38	7.10	1.61	8.30	1.88	9.80	2.22	TO STORM LINE 3
13	1.77	0.90	10.00	6.10	9.71	7.10	11.30	8.30	13.21	9.80	15.59	TO DETENTION POND
14	0.23	0.90	10.00	6.10	1.25	7.10	1.46	8.30	1.71	9.80	2.01	OFF SITE BY-PASS
15	0.16	0.90	10.00	6.10	0.87	7.10	1.01	8.30	1.18	9.80	1.39	OFF SITE BY-PASS
16	0.08	0.90	10.00	6.10	0.44	7.10	0.51	8.30	0.60	9.80	0.71	OFF SITE BY-PASS

RECORD DRAWINGS

To the best of our knowledge Engineering Concepts & Design, L.P., hereby states that this plan is As-Built. This information provided is based on surveying at the site and information provided by the contractor.

Todd Winters 3-15-2021
 TODD WINTERS DATE



Z:\PROJECTS\05211 Rockwall Mini Storage\08-DRAINAGE AREA MAP - PROPOSED.dwg - DAW Plotted Mar 05, 2021 at 9:26am by Tony J. Last Saved by: Tony

BENCHMARKS: CITY OF ROCKWALL, TEXAS - CONTROL MONUMENTATION

ROCKWALL MONUMENT "RESET #1 3" BRASS DISK FOUND AT FM 740 (RIDGE ROAD) AND SUMMER LEE DRIVE NEAR NORTHWEST CORNER OF THE PARKING LOT FOR THE COMMUNITY BANK.

N: 7011544.252; E: 2590135.160; ELEVATION: 567.704
 BASED ON NAD-83 TX, STATE PLANE, NORTH CENTRAL ZONE.

ENGINEERINGCONCEPTS & DESIGN, L.P.

ENGINEERING / PROJECT MANAGEMENT / CONSTRUCTION SERVICES - FIRM REG. #F-001145
 201 WINDCO CIR, STE 200, WYLIE, TX 75098
 972-941-8400 FAX: 972-941-8401 WWW.ECDLP.COM

REVISIONS: REVISED DRAINAGE AREA 1 AND 2. 09/29/2020

DRAWN: ECDLP	DATE: September 29, 2020
CHECKED: TW	DATE: January 7, 2020
PROJECT NO.: 5211	
DWG FILE NAME: 08-DRAINAGE AREA MAP - PROPOSED.DWG	

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF CONSTRUCTION.



DRAINAGE AREA MAP - PROPOSED
HORIZON ROAD SELF STORAGE
PHASE 1 & 2 - 575 UNITS
TRACT 23 OF RAINBOW ACRES
 CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS

SHEET
10

"Case No. SP2019-027"