

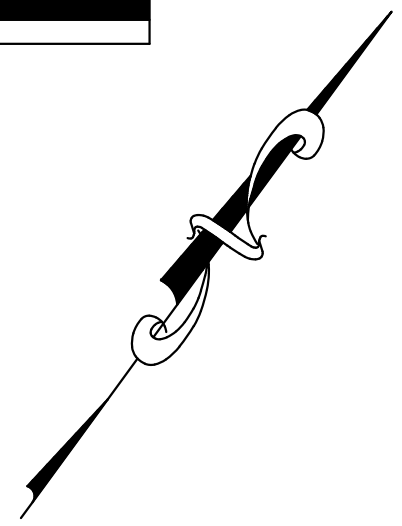
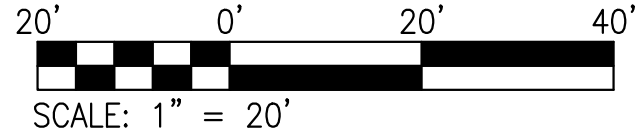
DIFFERENTIAL RUNOFF CALCULATIONS (15YR)
PRE DEVELOPED CONDITIONS 1.93 CFS
POST DEVELOPED CONDITIONS 2.83 CFS
DIFFERENTIAL RUNOFF RATE +0.90 CFS

IMPERVIOUS AREA INCREASE = 0.39 ACRES
DISTURBED AREA = ±0.69 ACRES

STORM WATER COMPLIANCE

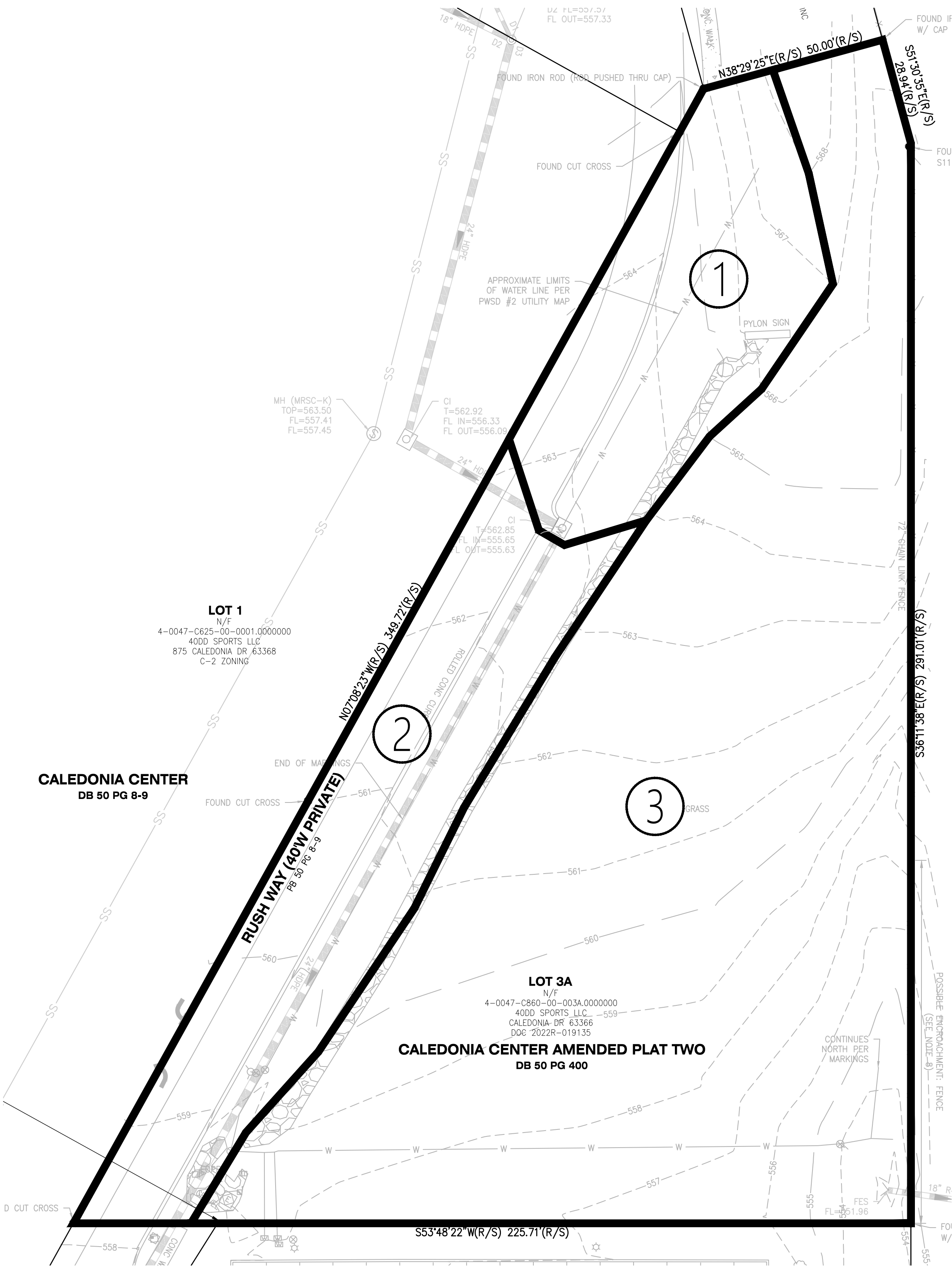
PER THE APPROVED CIVIL CONSTRUCTION PLANS FOR MISSOURI RUSH SOCCER COMPLEX BY COLE AND ASSOCIATES, INC., DATED APRIL 28, 2017, THE ±0.995 AC SUBJECT SITE (LOT 3A) WAS ALLOTTED A PI VALUE OF 3.49, WITH AN ALLOWED 15-YR RUNOFF OF 3.47 CFS.

PER THE PROPOSED DRAINAGE AREA CALCULATIONS PROVIDED IN THE PROPOSED DRAINAGE AREA TABLE BELOW, THE TOTAL PROPOSED RUNOFF WAS CALCULATED USING A TOTAL WEIGHTED 15-YR PI VALUE OF 2.84. THIS RESULTS IN A 15-YR RUNOFF OF 2.83 CFS, WHICH IS LESS THAN THE ALLOTTED VALUE OF 3.47 CFS (PER THE OVERALL DEVELOPMENT PLANS), THEREFORE, NO ADDITIONAL MITIGATION IS REQUIRED. ADDITIONALLY, PER COORDINATION WITH THE CITY OF O'FALLON, WATER QUALITY IS ADDRESSED WITHIN THE MASTER BASIN PER THE OVERALL DEVELOPMENT PLANS AND ON-SITE WATER QUALITY TREATMENT IS NOT REQUIRED.

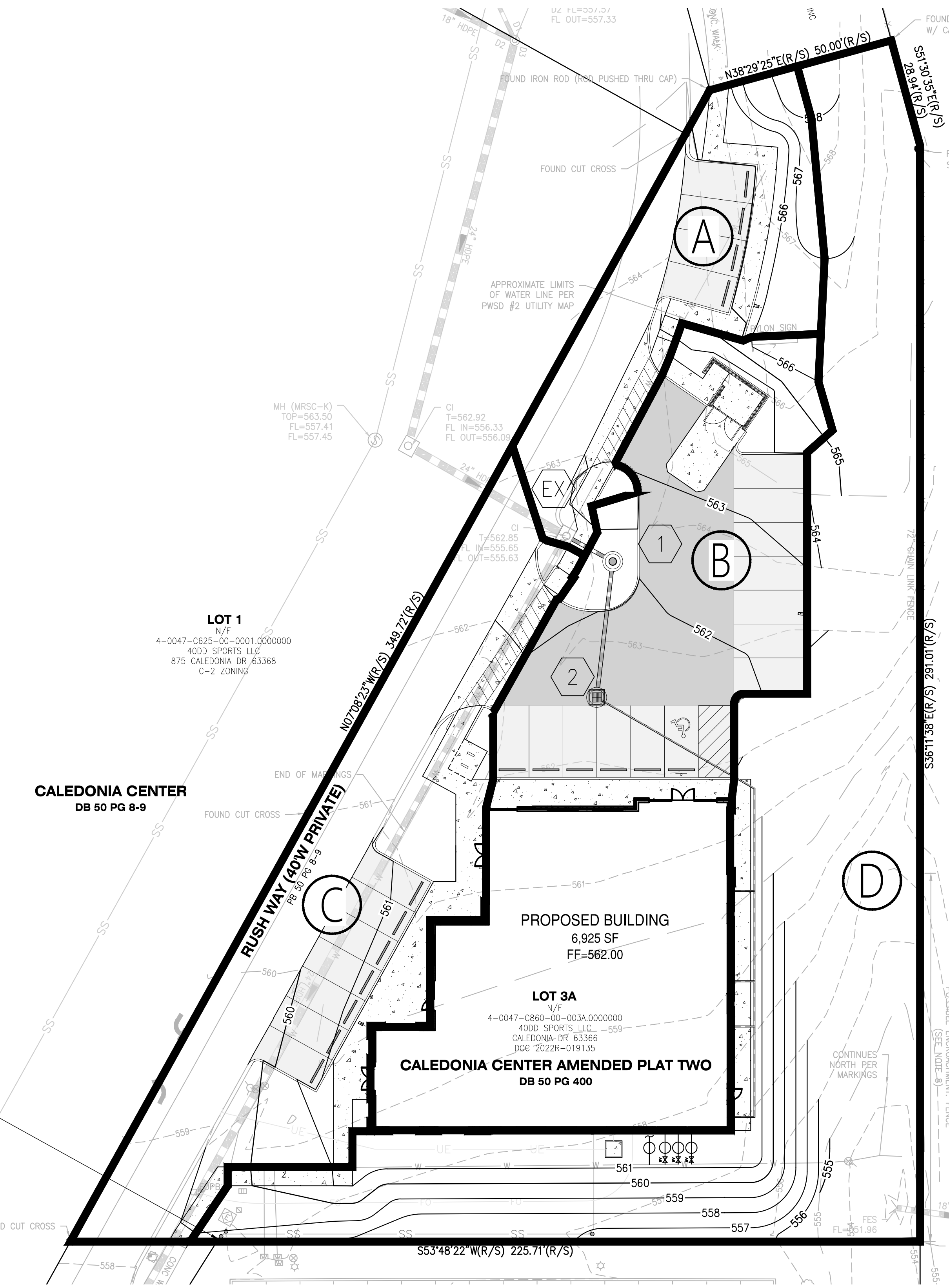


LEGEND

- # EXISTING DRAINAGE AREA.
- A PROPOSED DRAINAGE AREA.
- # STORM STRUCTURE DESIGNATOR.



EXISTING DRAINAGE AREA TABLE (PER EXISTING CONDITIONS)										
Designation	Pervious (sf)	Impervious (sf)	Roof Area (sf)	Total Area (sf)	Pervious (ac)	Impervious (ac)	Total Area (ac)	IMPERV %	PI (100 yr, 20 min)	PI (15 yr, 20 min)
1	3,998	1,871	-	5,869	0.09	0.04	0.13	31.9%	3.00	2.23
2	3,088	4,956	-	8,044	0.07	0.11	0.18	61.6%	3.77	2.80
3	28,815	622	-	29,437	0.66	0.01	0.68	2.1%	2.29	1.70
Total	35,901	7,449	0	43,350	0.82	0.17	1.00	17%	2.62	1.94
										Q100 (cfs)
										0.40
										0.70
										1.55
										1.93
										Q15 (cfs)
										0.30
										0.52
										1.15
										1.93
										TRIBUTARY STRUCTURE
										EX
										OFFSITE-EX STRUCTURE
										OFFSITE-DETENTION POND



PROPOSED DRAINAGE AREA TABLE										
Designation	Pervious (sf)	Impervious (sf)	Roof Area (sf)	Total Area (sf)	Pervious (ac)	Impervious (ac)	Total Area (ac)	IMPERV %	PI (100 yr, 20 min)	PI (15 yr, 20 min)
A	1,329	3,237	-	4,566	0.03	0.07	0.10	70.9%	4.01	2.98
B	1,185	6,093	6,925	14,203	0.03	0.30	0.33	91.7%	4.98	3.71
C	1,470	7,400	-	8,870	0.03	0.17	0.20	83.4%	4.34	3.22
D	14,849	861	-	15,710	0.34	0.02	0.36	5.5%	2.29	1.70
Total	18,833	17,591	6,925	43,349	0.43	0.56	1.00	57%	3.83	2.85
										3.81
										2.83
										Q100 (cfs)
										0.42
										1.21
										0.66
										0.61
										Q15 (cfs)
										0.31
										0.66
										0.61
										TRIBUTARY STRUCTURE
										EX
										2
										OFFSITE-EX STRUCTURE
										OFFSITE-DETENTION POND

THIS SHEET IS FOR DRAINAGE CALCULATION PURPOSES ONLY AND NOT TO BE USED AS CONSTRUCTION PLANS

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CIVIL ENGINEER
PE-2024026198
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ENGINEERING
CERTIFICATE #001165

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DRAINAGE AREA MAP

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LFD

DRAWING SCALE
AS SHOWN

DATE
09/16/2025

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