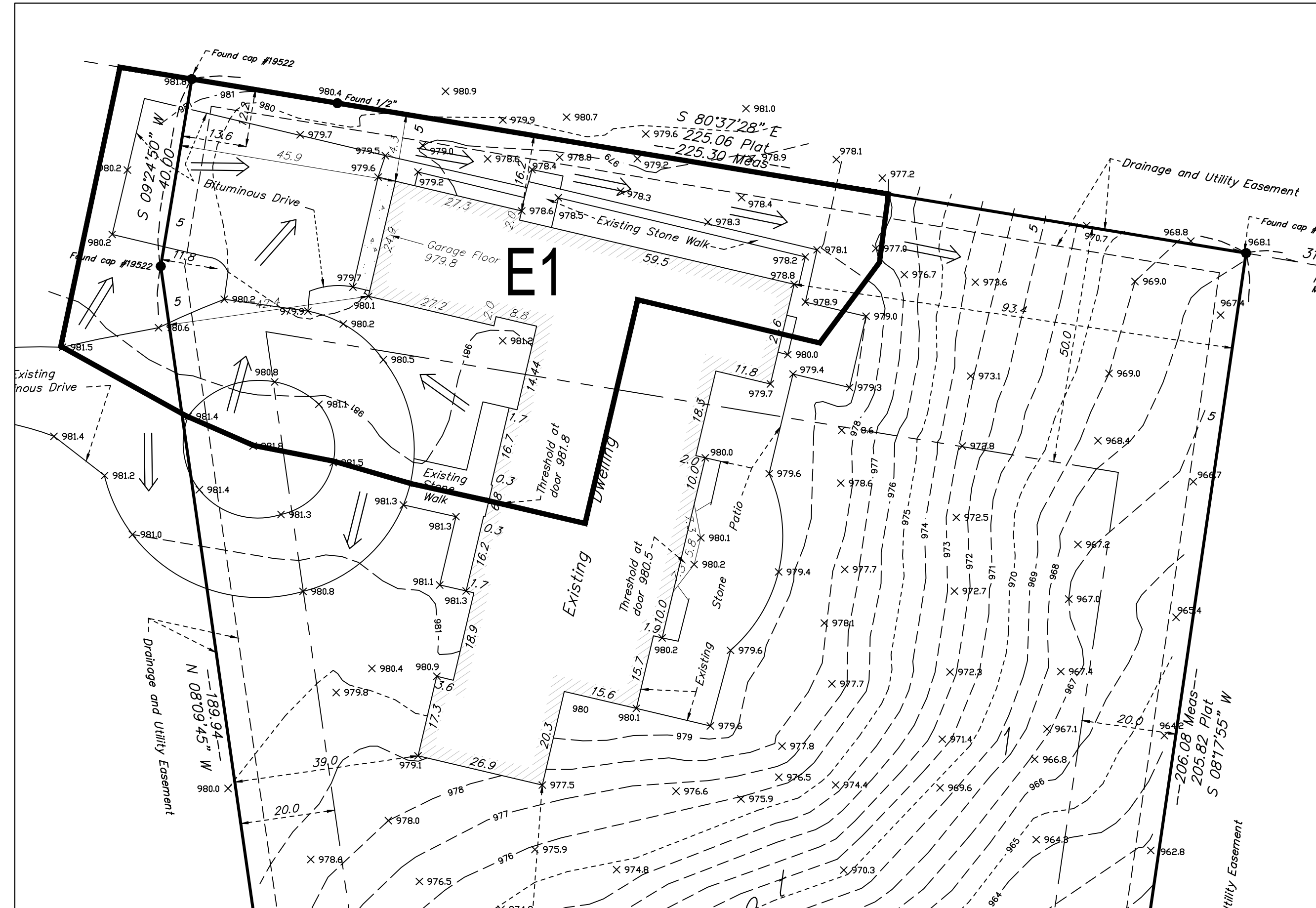
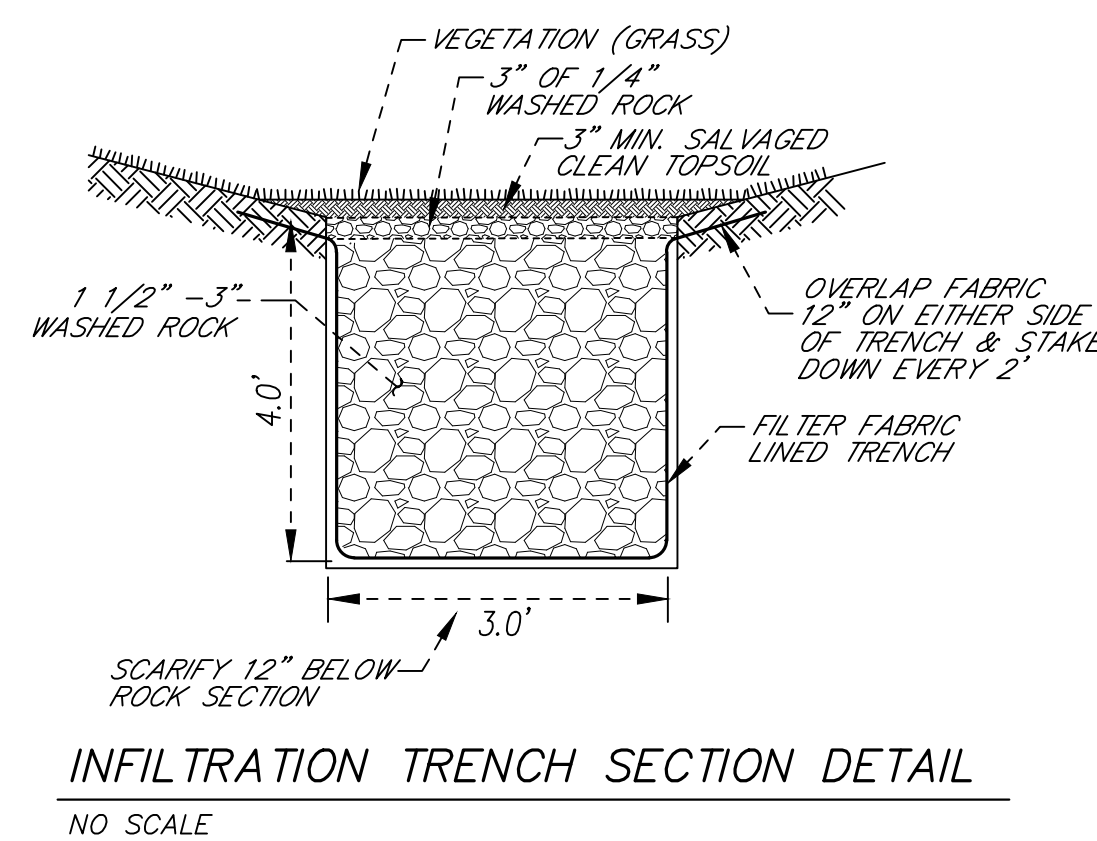
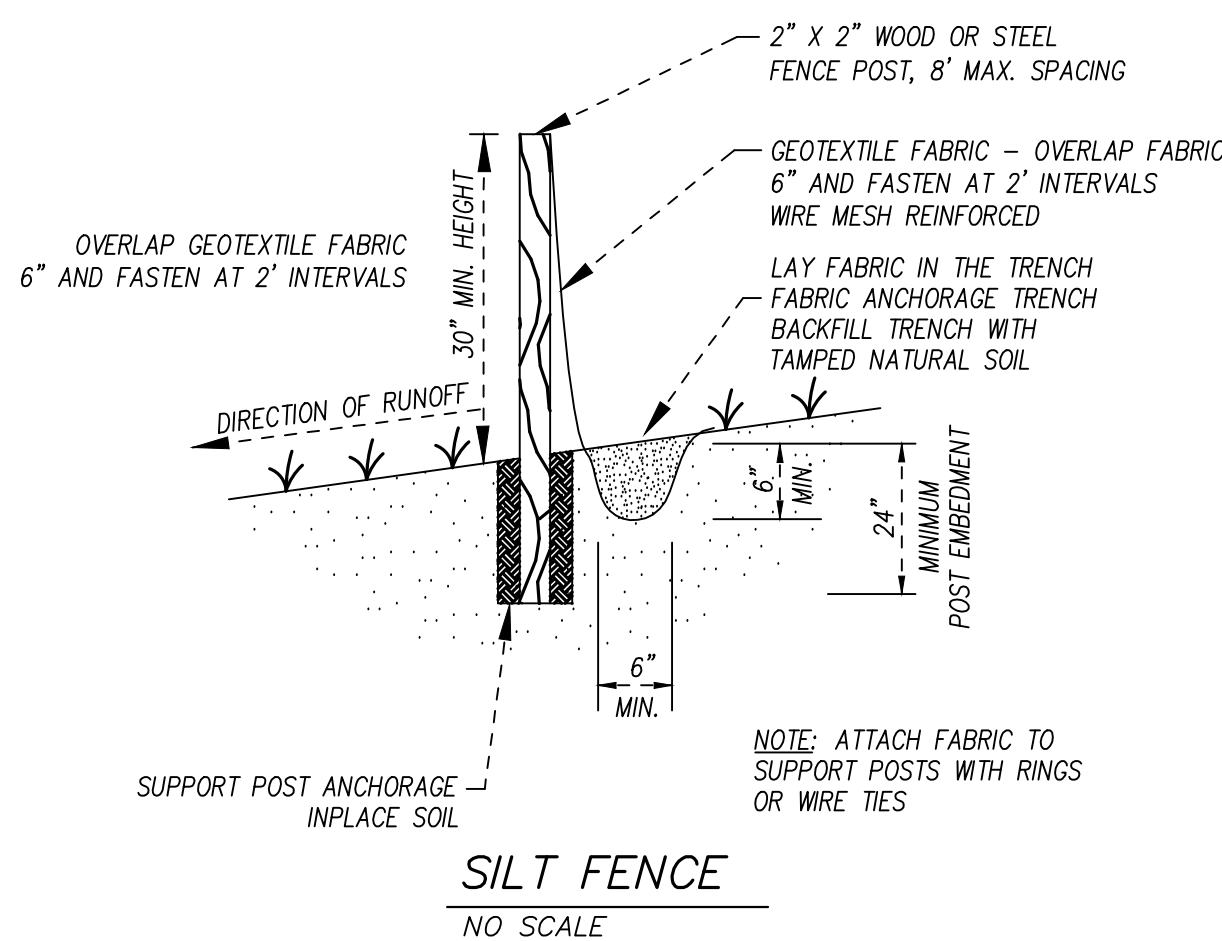
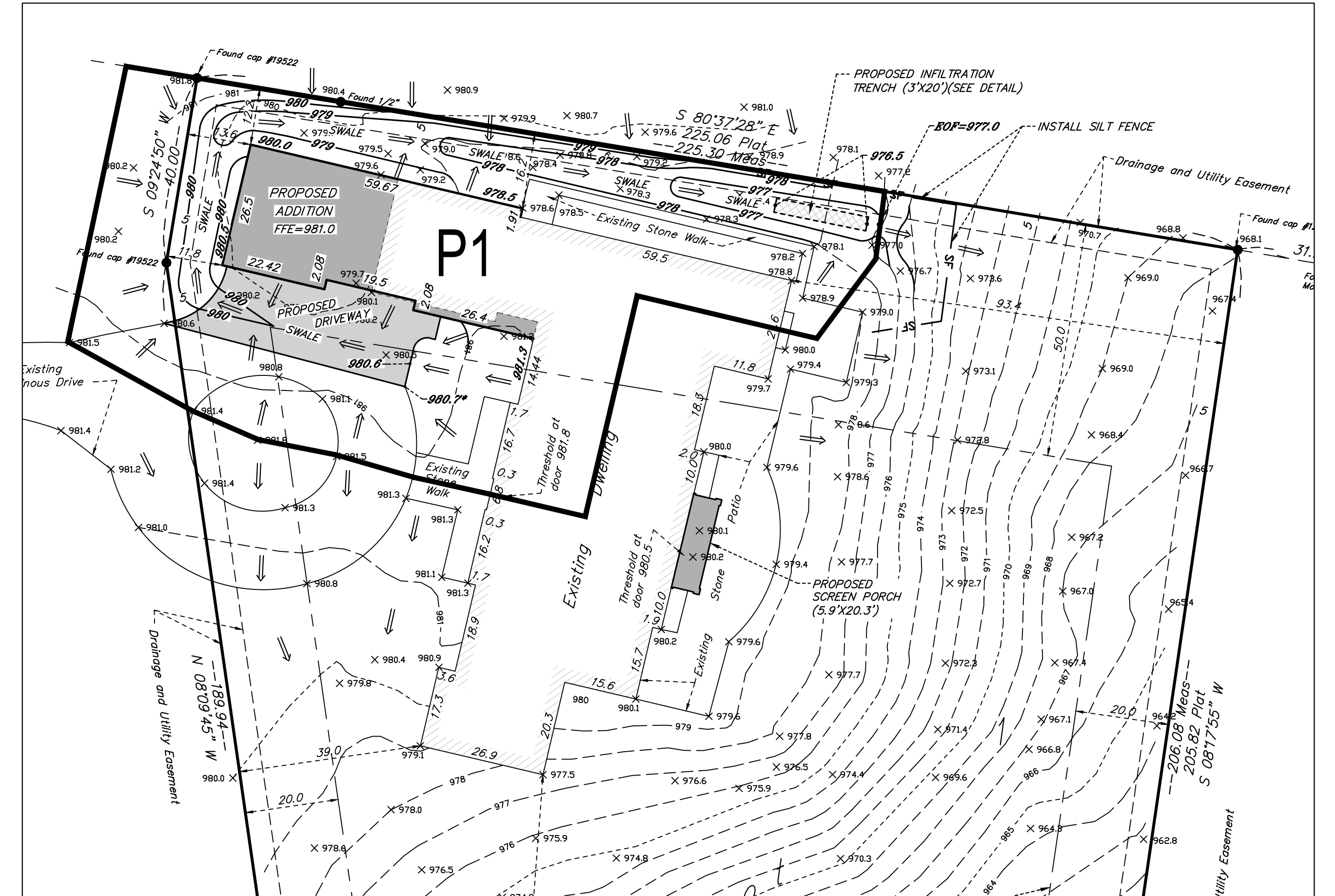


EXISTING DRAINAGE MAP



PROPOSED DRAINAGE MAP



STORMWATER REQUIREMENTS

- VOLUME CONTROL – ONSITE RETENTION OF MIDS 1.1-INCH STORM EVENT ON PROPOSED IMPERVIOUS SURFACES OVER 20% MAX HARDCOVER REQUIREMENT.
 MAX ALLOWED HARDCOVER = 43,800 SF X 0.2 = 8,760 SF
 PROPOSED IMPERVIOUS AREA = 10,509 SF
 PROPOSED IMPERVIOUS AREA OVER MAX = 10,509 SF – 8,760 SF = 1,749 CF
 REQUIRED VOLUME TO RETAIN = 1,749 X (1.1/12) = 161 CF
 VOLUME OF RETENTION PROVIDED (INFL. TRENCH) = 171 CF
- RATE CONTROL – NO NET INCREASE IN RUNOFF RATE FROM EXISTING TO PROPOSED SITE CONDITIONS FOR THE ATLAS 14, 1, 10, 100-YEAR STORM EVENT. REFER TO STORMWATER RUNOFF RATE SUMMARY TABLE.

STORMWATER RUNOFF RATE SUMMARY

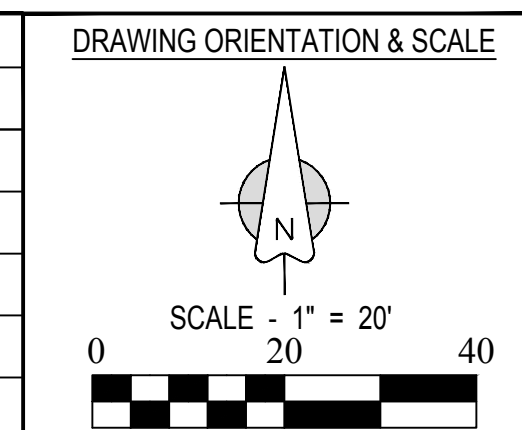
STORM EVENT	EXISTING DISCHARGE EAST (CFS)	PROPOSED DISCHARGE EAST (CFS)
1-YEAR	0.38	0.24
10-YEAR	0.99	0.88
100-YEAR	1.85	7.71

- *NOTES:
- RESULTS ARE DERIVED FROM HYDROCAD MODELING SOFTWARE UTILIZING ATLAS 14 STORM DATA.
 - TYPE A/B SOILS PER WEB SOILS SURVEY. B SOILS ARE USED FOR DESIGN.
 - RESULTS CONFIRM THAT THE RATE CONTROL REQUIREMENTS HAVE BEEN MET.

LEGEND

EXISTING CONTOUR	--- 980 ---
EXISTING SPOT ELEVATION	X 980.5
PROPOSED CONTOUR	— 980 —
DRAINAGE ARROW - FLOW	⇒
SILT FENCE/BIO ROLL	— SF —
EXISTING DRAINAGE AREA ID	E1
PROPOSED DRAINAGE AREA ID	P1

DATE	REVISION DESCRIPTION
4-21-22	ADDED STORMWATER MANAGEMENT



CLIENT NAME / JOB ADDRESS

MURPHY & CO. DEIGN

341 RAMSEY ROAD
WAYZATA, MN

Advance
Surveying & Engineering, Co.

17917 Highway 7
Minnetonka, Minnesota 55345
Phone (952) 474-7964
Web: www.advsur.com

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Josida S. Rinke
Josida S. Rinke
52716
LICENSE NO.
APRIL 21, 2022
DATE

DATE SURVEYED: OCT. 2, 2020

SURVEYED BY:
THOMAS M. BLOOM, PLS. #42379
ADVANCE SURVEYING & ENG., CO.

DATE DRAFTED: APRIL 21, 2022

SHEET TITLE
PROPOSED STORMWATER MANAGEMENT PLAN

DRAWING NUMBER
220216 JR

SHEET SIZE 22 X 34

SHEET NO.
S2

SHEET 2 OF 2