TerrainLogic realistic grassed-waterway example

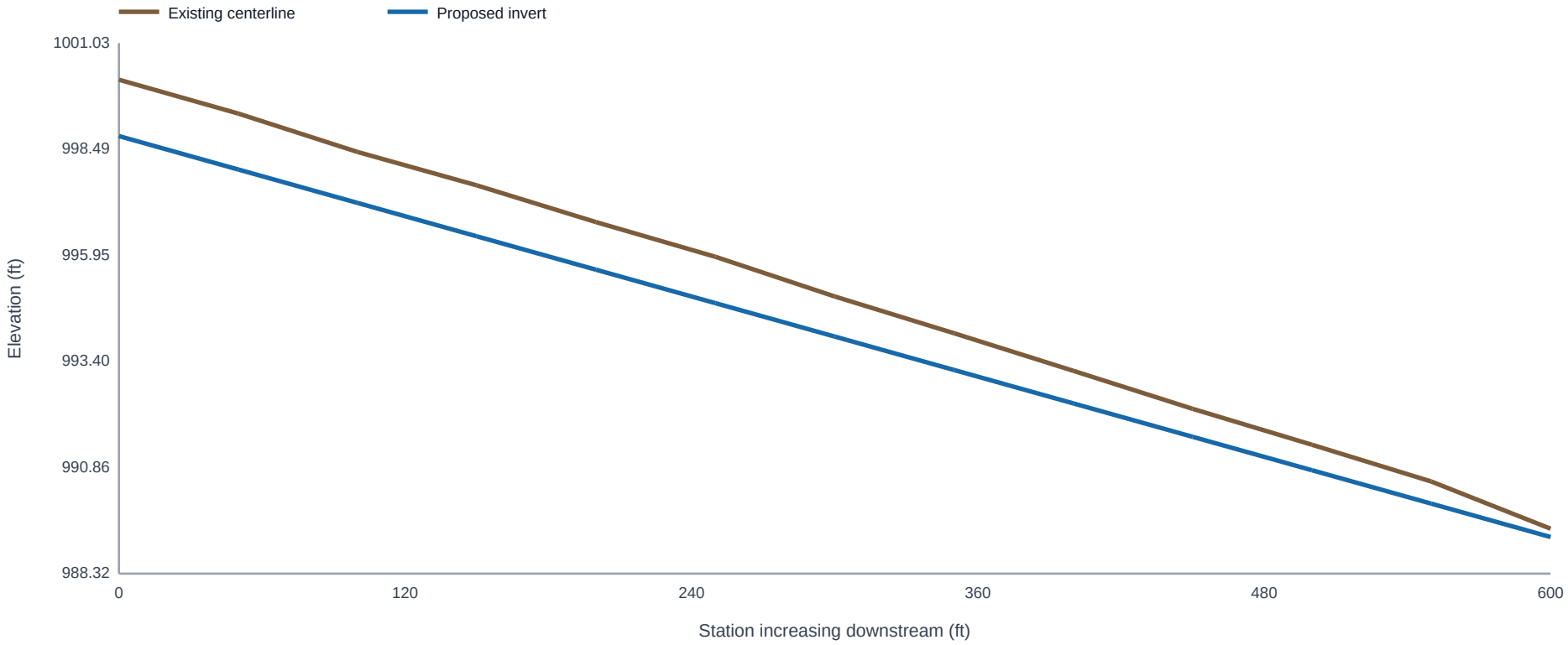
Preliminary grassed-waterway design and construction survey

Demonstration field · 42-acre contributing area · assumed local survey datum

Hydrology	Value	Section/design	Value
Design event	10-year frequency, 24-hour duration peak runoff	Design reach	600.0 ft at 1.60%
Peak discharge used	18.00 cfs	Flow section	15.4 ft wide x 0.96 ft deep
Peak-flow source	WinTR-55 documented 10-year, 24-hour peak discharge	Excavated section	19.0 ft wide x 1.46 ft deep
Drainage area	42.00 ac	Vegetation	Meadow - continuous grass, protected from grazing
NOAA Atlas 14 10-year/24-hour rainfall	4.10 in	Design status	Preliminary Section Found
Rainfall source	Demonstration Atlas 14 depth; peak discharge documented separately with WinTR-55		

Preliminary planning document. Confirm hydrology, survey datum, outlet stability, utilities, earthwork, seeding, state FOTG criteria, and engineering authority before construction.

Centerline dig profile

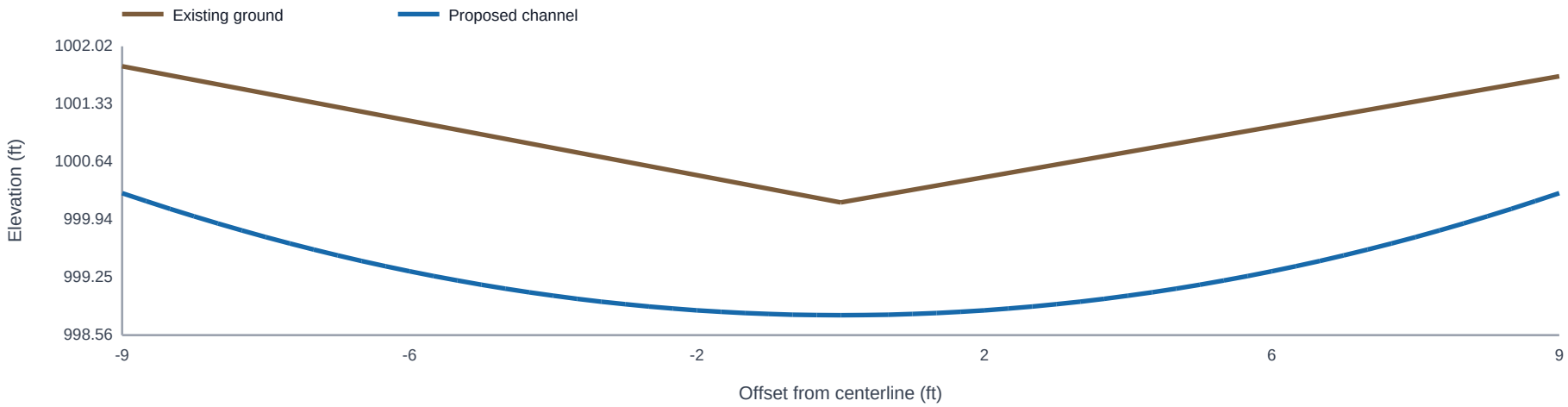


Construction survey table

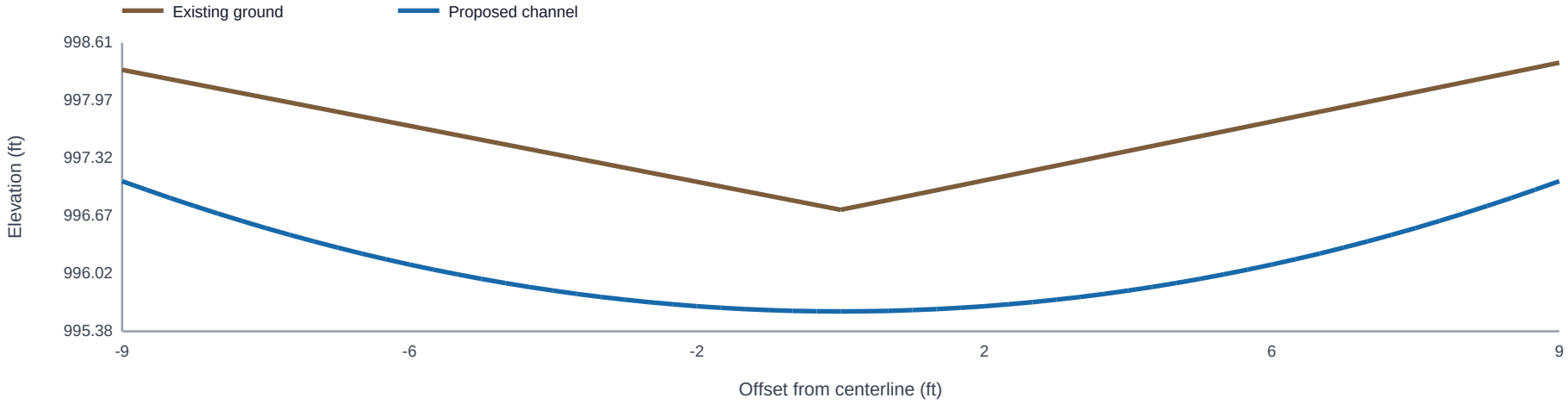
Station	Left edge	Centerline	Right edge	Proposed invert	Center cut	Left edge cut	Right edge cut
0.0	1001.78	1000.15	1001.66	998.80	1.35	1.52	1.40
50.0	1000.97	999.34	1000.89	998.00	1.34	1.51	1.43
100.0	1000.02	998.42	999.94	997.20	1.22	1.36	1.28
150.0	999.24	997.62	999.16	996.40	1.22	1.38	1.30
200.0	998.31	996.74	998.39	995.60	1.14	1.25	1.33
250.0	997.55	995.91	997.48	994.80	1.11	1.29	1.22
300.0	996.58	994.96	996.52	994.00	0.96	1.12	1.06
350.0	995.62	994.08	995.70	993.20	0.88	0.96	1.04
400.0	994.80	993.18	994.73	992.40	0.78	0.94	0.87
450.0	993.83	992.27	993.91	991.60	0.67	0.77	0.85
500.0	993.02	991.41	992.95	990.80	0.61	0.76	0.69
550.0	992.10	990.53	992.17	990.00	0.53	0.64	0.71
600.0	990.98	989.40	990.91	989.20	0.20	0.32	0.25

Representative cross sections

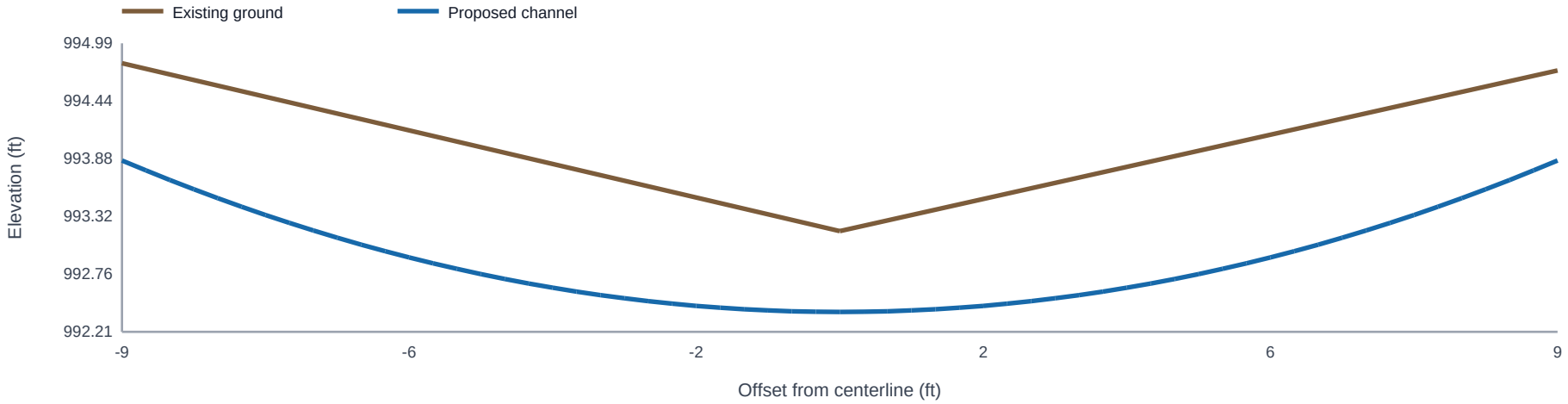
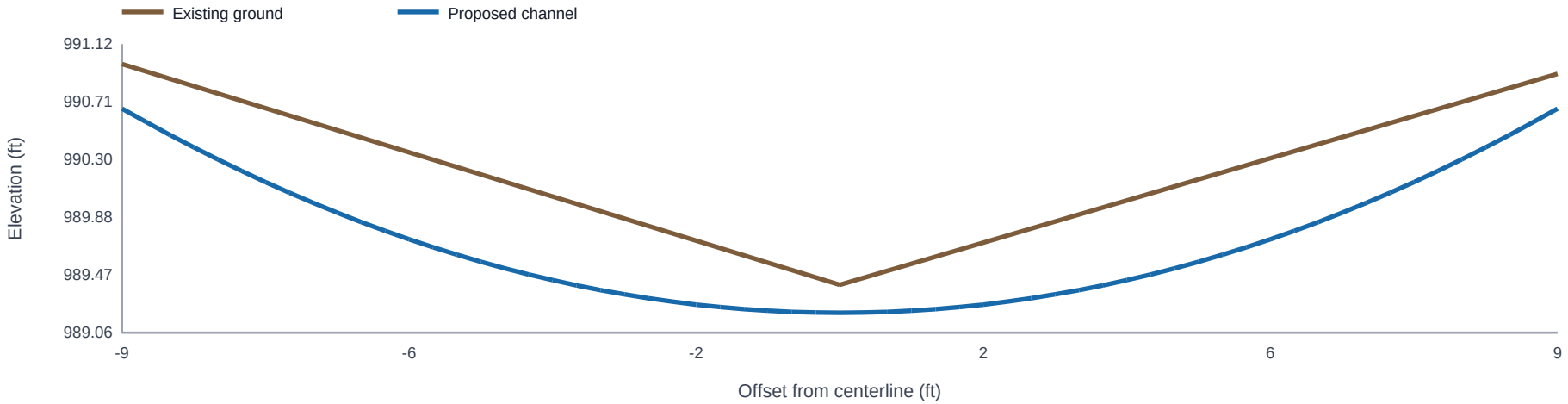
Station 0.0 ft



Station 200.0 ft



Station 400.0 ft



Station 600.0 ft