TerrainLogic realistic small-field terrace example

Preliminary CPS 600 terrace system design

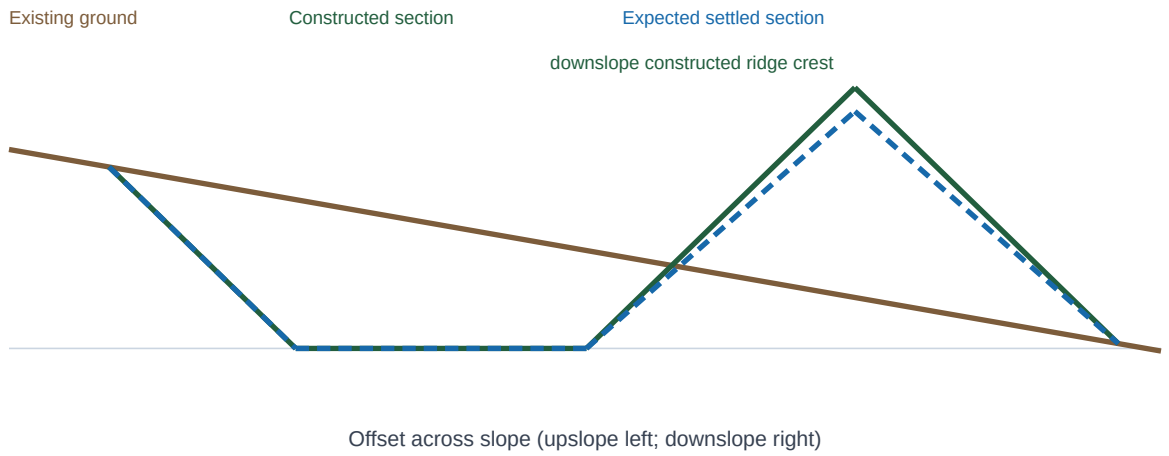
Planning document only. Confirm the applicable state Field Office Technical Guide, field survey, utilities, hydrology, outlet design, and required engineering approval before construction.

Design item	Value
Terrace type	Graded
Terrace length	450.0 ft
Horizontal spacing	90.0 ft
Vertical interval	4.05 ft
Constructed depth	0.92 ft
Expected settled crest height	0.84 ft above channel invert
Constructed top width	11.39 ft
Outlet	Grassed waterway (CPS 412)
Preliminary excavation	43.8 yd³
Compacted ridge fill	38.0 yd³
Cut-to-fill allowance	1.15:1
Earthwork balance	BALANCED

Design checks

Check	Result	Computed
State FOTG criteria reviewed	PASS	Confirmed
Vertical interval	PASS	4.05 ft
Hydraulic capacity	PASS	4.20 cfs
Preliminary velocity	PASS	1.26 ft/s
Stable outlet selected	PASS	Grassed waterway (CPS 412)

Transverse terrace section



The ridge crest is laterally offset on the downslope side. The constructed crest includes the specified settlement allowance; the expected settled crest excludes that allowance.

Construction survey profile

Station	Existing	Channel	Constructed crest	Settled crest	Cut/fill
0.0	1010.50	1010.06	1010.99	1010.90	-0.44
50.0	1010.42	1009.86	1010.79	1010.70	-0.56
100.0	1010.20	1009.66	1010.59	1010.50	-0.54
150.0	1010.08	1009.46	1010.39	1010.30	-0.62
200.0	1009.78	1009.26	1010.19	1010.10	-0.52
250.0	1009.65	1009.06	1009.99	1009.90	-0.59
300.0	1009.41	1008.86	1009.79	1009.70	-0.55
350.0	1009.30	1008.66	1009.59	1009.50	-0.64
400.0	1009.03	1008.46	1009.39	1009.30	-0.57
450.0	1008.82	1008.26	1009.19	1009.10	-0.56