



TABLE 43
STREAM DESIGN REFERENCE REACH MORPHOLOGY

Morphological Parameter	Parameter Name	Reference Reach		
		103C	106A	107A
Rosgen Classification		E5	C5	C5
Drainage Area (mi ²)	DA	0.12	2.52	1.34
Mean Chanel Slope (ft/ft)	S_{ave}	0.0063	0.0022	0.0005
Riffle Bankfull Area (ft ²)	RA_{bkf}	3.5	9.5	7.5
Riffle Bankfull Width	RW_{bkf}	5.4	12.5	10.8
Riffle Bankfull Depth	RD_{bkf}	0.64	0.76	0.69
Riffle Max Depth	RD_{max}	1	1.3	1.1
Pool Bankfull Area (ft ²)	PA_{bkf}	13.3	13.5	14.3
Pool Bankfull Width	PW_{bkf}	12.2	12.4	14
Pool Bankfull Depth	PD_{bkf}	1.1	1.1	1
Pool Max Depth	PD_{max}	1.9	1.7	1.5
Meander Radius	R_m	8	20	16
Meander Length	L_m	28	47	43
Meander Beltwidth	BW_m	19	36	47
Sinuosity	K	1.4	1.2	1.4
Entrenchment Ratio				
Riffle Width:Depth Ratio	$[W_{bkf}/D_{bkf}]$	8.4	16.5	15.7
Riffle Max Depth Ratio	$[RD_{max}/RD_{bkf}]$	1.56	1.71	1.59
Pool Width Ratio	$[PW_{bkf}/RW_{bkf}]$	2.26	0.99	1.30
Pool Max Depth Ratio	$[PD_{max}/RD_{bkf}]$	2.97	2.24	2.17
Meander Radius Ratio	$[R_m/RW_{bkf}]$	1.48	1.60	1.48
Meander Length Ratio	$[L_m/RW_{bkf}]$	5.19	3.76	3.98
Meander Beltwidth Ratio	$[BW_m/RW_{bkf}]$	3.52	2.88	4.35
Bankfull Discharge (cfs)		5.99	10.83	3.83
Bankfull Velocity (ft/s)		1.71	1.14	0.51
Unit Stream Power (lb/s/ft)		0.44	0.12	0.01
Shear Stress (lb/ft ²)		0.24	0.10	0.02