

A2 DETERMINATION OF “C” VALUE

Land Use	C	Land Use	C
<u>Business</u>		<u>Lawns</u>	
Downtown Areas	0.70-0.95	Sandy soil, flat, 2%	0.05-0.10
Neighborhood areas	0.50-0.070	Sandy soil, ave., 2-7%	0.10-0.015 0.15-0.20
<u>Residential</u>		Sandy soil, steep, 7%	0.13-0.17
Single-family areas	0.30-0.50	Heavy soil, flat, 2%	0.18-0.22
Multi units, Detached	0.40-0.60	Heavy soil, ave., 2-7%	0.25-0.35
Multi units, Attached	0.60-0.75	Heavy soil, steep, 7%	
Suburban	0.25-0.40		0.30-0.60
<u>Industrial</u>			0.20-0.50
Light areas	0.50-0.80		
Heavy Areas	0.60-0.90		
<u>Parks, Cemeteries</u>	0.10-0.25	<u>Agricultural Land</u>	
<u>Playgrounds</u>	0.20-0.35	Bare packed soil	0.30-0.60
<u>Railroad Yard Areas</u>	0.20-0.40	Smooth	0.20-0.50
<u>Unimproved Areas</u>	0.10-0.30	Rough	0.20-0.40
<u>Streets</u>		Cultivated rows	0.10-0.25
Asphalt	0.70-0.95	Heavy soil no crop	0.15-0.45
Concrete	0.80-0.95	Heavy soil with crop	0.05-0.25
Brick	0.70-0.85	Sandy soil no crop	0.05-0.25
		Sandy soil with crop	0.10-0.25
<u>Drives and Walks</u>	0.75-0.85	<u>Pasture</u>	
<u>Roofs</u>	0.75-0.85	Heavy soil	0.15-0.45
		Sandy soil	0.05-0.25
		Woodlands	0.05-0.25

NOTE: The designer must use judgment to select the appropriate C value within the range for the appropriate land use. Generally, larger areas with permeable soils, flat slopes, and dense vegetation should have the lowest C values. Smaller areas with slowly permeable soils, steep slopes, and sparse vegetation should be assigned the highest C values

From the American Society of Civil Engineers

Adapted from the NCDENR Erosion and Sedimentation Control Planning and Design Manual