

An Evaluation of Open Space Quality in Suburban Residential Communities: A Comparison of Case Studies

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Open space in communities is critical to quality of life in urban areas

Case Study Sites

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Region	Subdivision Type		
	Neo-traditional	Conservation	Conventional
Mid-Atlantic	Kentlands City of Gaithersburg, Maryland	Wesley Chapel Woods, Baltimore County, Maryland	Dufief City of Gaithersburg, Maryland
Southeast	Iron Mt. Pleasant, South Carolina	Spring Island Beaufort County, South Carolina	Sea Pines Hilton Head Island, South Carolina
Mid-West	Prairie Crossing Lake County, Illinois	The Fields of St. Croix, Lake Elmo, MN	Cloverdale, Washington County, MN
Mountain West	Stapleton Denver, Colorado	Hidden Springs Boise, Idaho	Rosecreek, Herriman, Utah
Pacific Northwest	Northwest Landing, Pierce County, Washington	Defiance Park / Lincoln Green, Whatcom County, Washington	High Point, Seattle, Washington

Evaluation Scheme



- ecological
- water quality and quantity mitigation
- recreation
- visual quality

Numbered each patch or corridor



PHASE 1 PARKS AND OPEN SPACE
Schematic Design
Kennecott Land
July 16, 2003

		Method		
		GIS	Site Survey	Documents
Ecological	quality		rapid assessment	
	patch size	acreage		
	veg. type		transect	
	connectivity	ID patches and corridors		
	management			community docs
Water Quality/Quantity	impervious surface	% land area		
	BMPs		Visual ID	site plans
Recreation	connectivity			engineering docs
	type	aerial photos	visual	
Visual	amount	acreage		
	views		visual	
	access	distance to patch		
	satisfaction			survey

Ecological

- maintenance schemes for common areas
- impact of private easements
- encroachment on common areas



Exotic invasive plants are a critical management problem



Differing management schemes for protected open space can be very obvious between two different owners, here the city and home owners association.



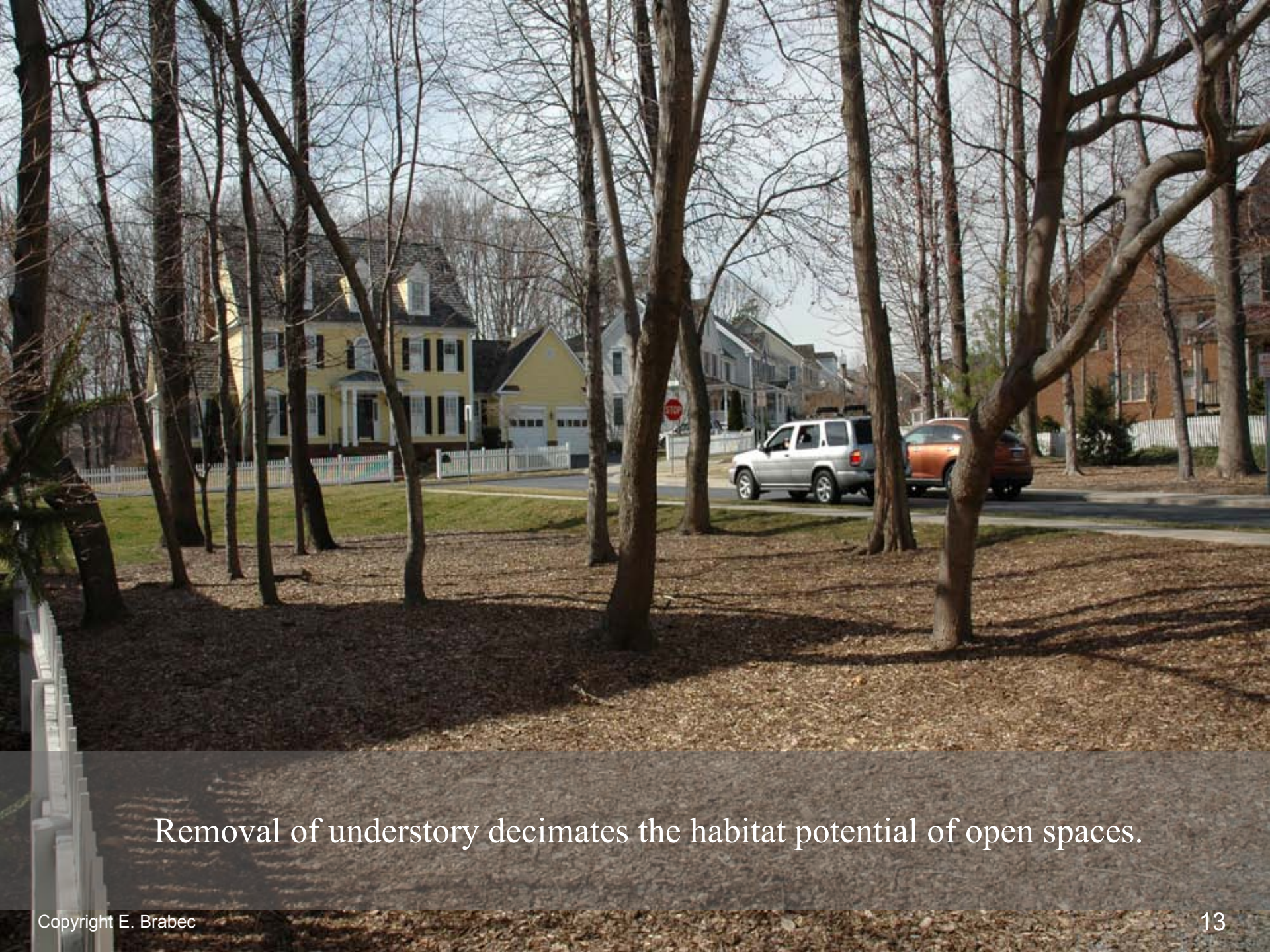
Intensive management schemes are necessary to maintain native habitats in urban situations.



Careful monitoring of the native/non-native/invasive populations are critical to success.



Management schemes that protect only canopy and not understory can be detrimental to habitat.



Removal of understory decimates the habitat potential of open spaces.





Enforcement of easements on private lands is a multi-faceted issue.



Here the pre-development stream channel is under easement, however native ground cover has been replaced with ornamental plantings.



The forest canopy in private yards is under easement (right) as is the stream corridor to the left (City ownership).



Tree-save lots such as this one can save significant heritage trees on a development site.



It is critical to protect trees during the development phase, and to educate construction workers about their value.

Water Quality

- direct discharge
- BMP maintenance
- refinement of BMPs



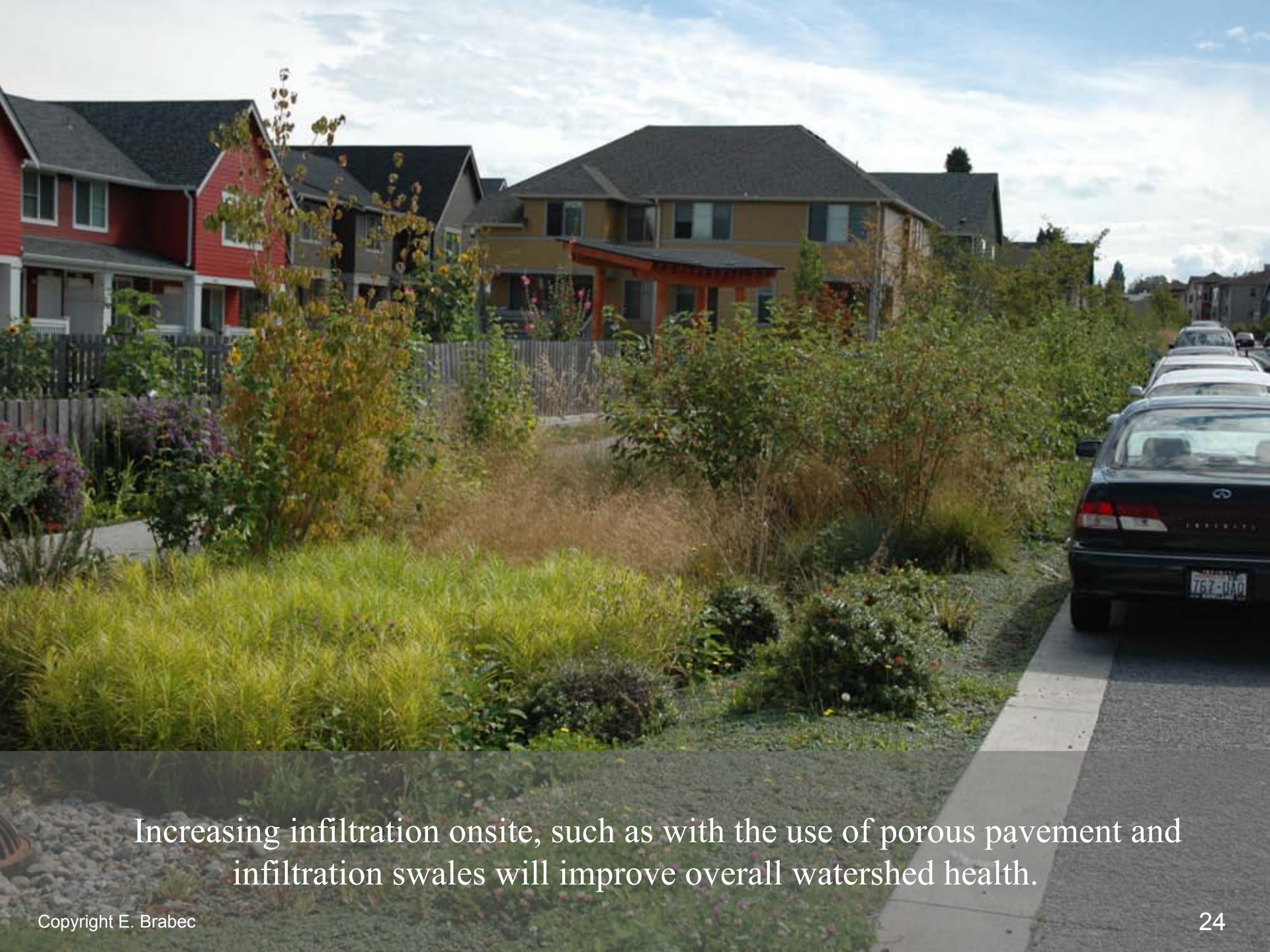
Stabilization of stream corridors is important to protecting them from the erosive action of higher flow rates after urbanization.



Care should be taken to avoid piping and channelization of flows from impervious surface into existing stream corridors.



Retro-fitting of stream corridors, such as this use of check dams, may be necessary to compensate for higher flows



Increasing infiltration onsite, such as with the use of porous pavement and infiltration swales will improve overall watershed health.

Recreation

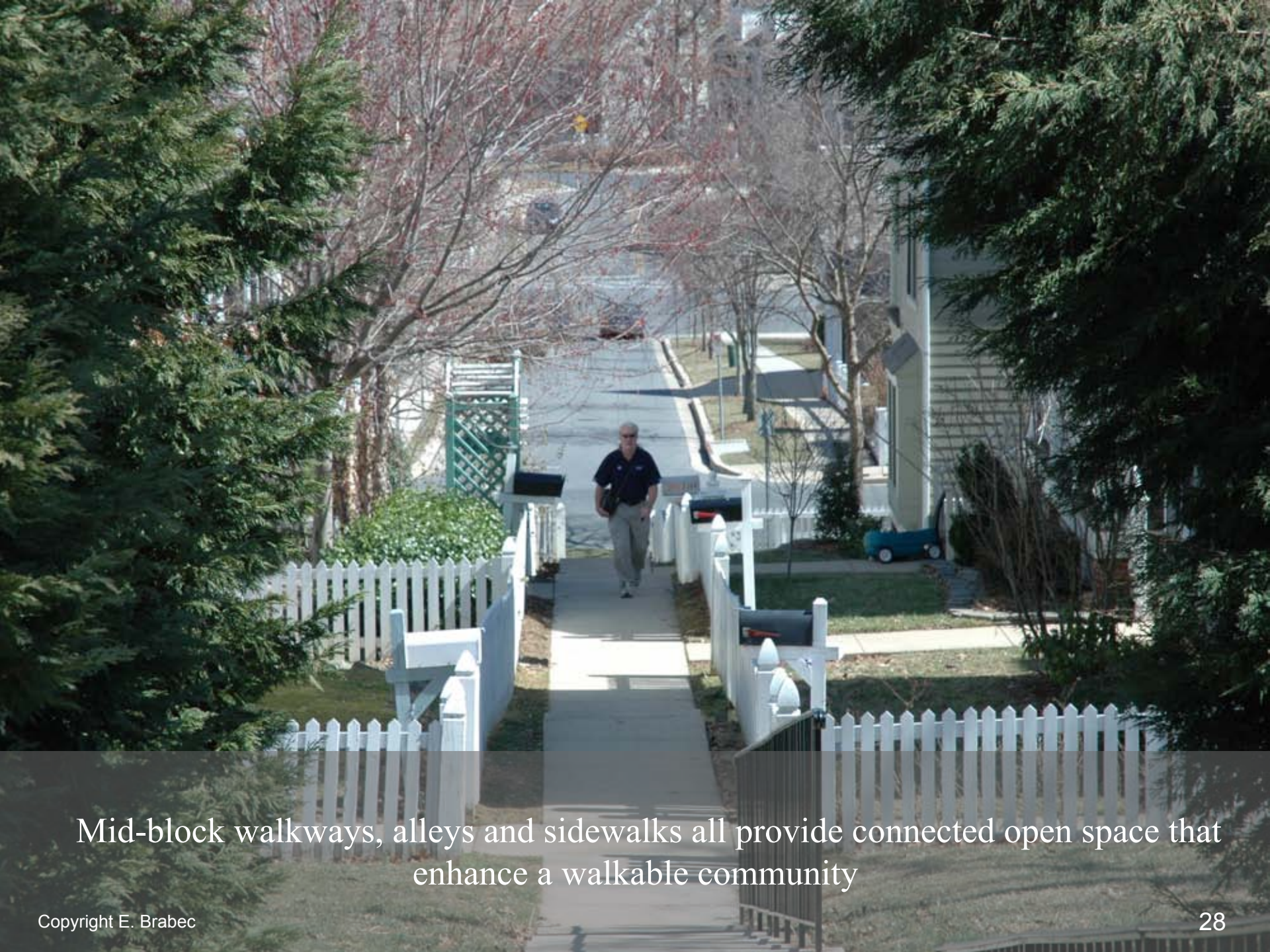
- separation of active and passive uses
- formal vs. informal



Active and passive recreation opportunities are an important aspect of liveable communities.



Trail connections between blocks increases the walkability of communities.



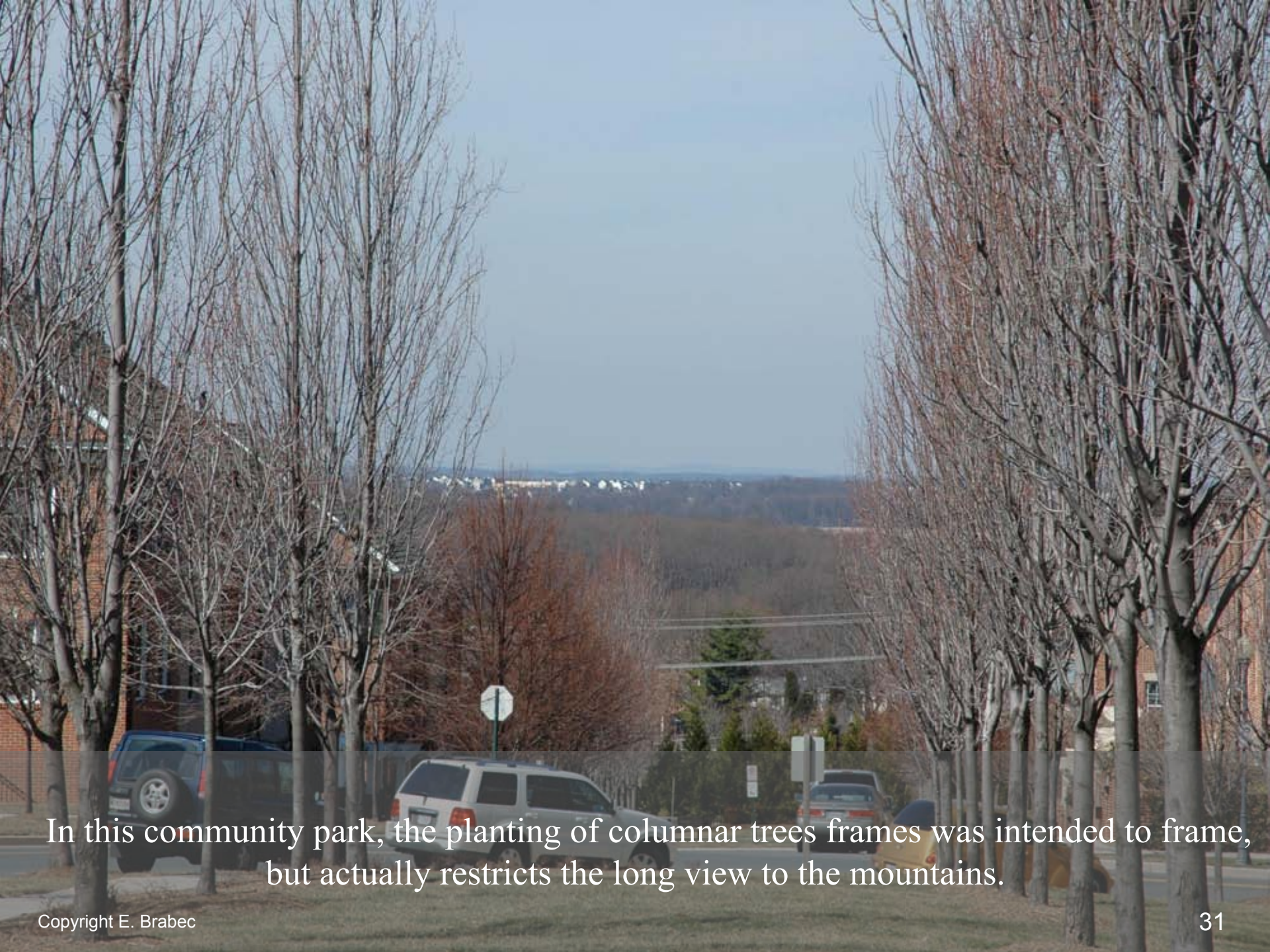
Mid-block walkways, alleys and sidewalks all provide connected open space that enhance a walkable community

Visual Quality

- maintenance of views
- level of visual access to open space



Long views provide a sense of connection to the regional landscape.



In this community park, the planting of columnar trees frames was intended to frame, but actually restricts the long view to the mountains.

Citation

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