



Mid Atlantic Region

Kentlands

**A Neotraditional
Development**



Before Development

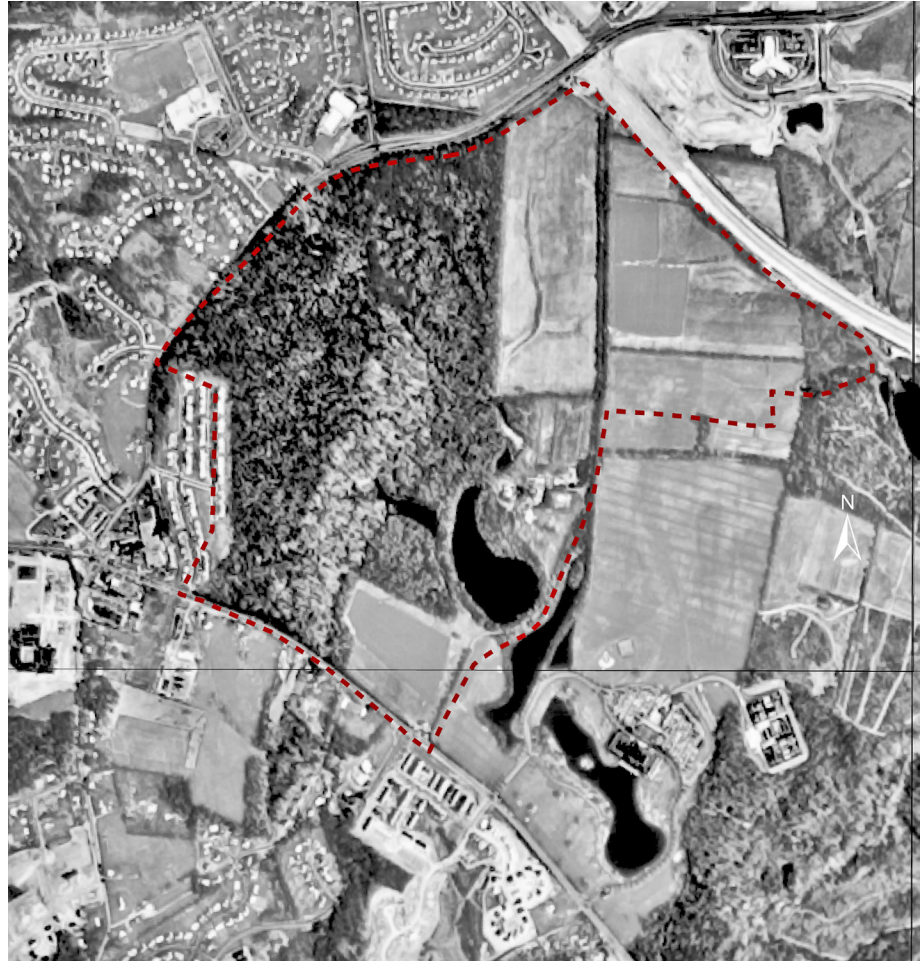


Figure 1: The site before development in 1988 is largely forested. The open, agricultural fields to the north were developed as multi-family housing and the commercial areas for the development.

Location: City of Gaithersburg, Maryland
Washington, DC metropolitan area

Year: 1988 (plan) 1989 (began construction)

Developer: Joseph Alfandre (pre-1991)
Great Seneca Development Corporation (post-1991)

Planner/Designer: Andres Duany, Elizabeth Plater-Zyberk, DPZ Inc.

Development Size: 356.34 acres (144.32 ha.)

Number of Units: approximately 1,800

Open Space: 95.12 acres 26.7% of total area

Overview

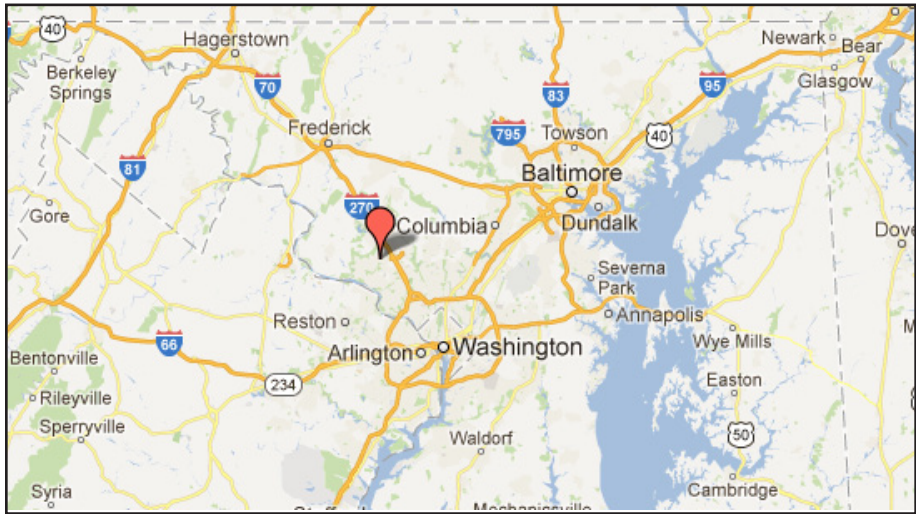



Figure 2: Location of the site, north of Baltimore in the state of Maryland.

Kentlands is located in the metropolitan Washington region, about 25 miles northwest of Washington, DC. Kentlands was one of the first neotraditional communities in the United States designed and built for year-round residents. Later termed New Urbanism, the neotraditional development movement started in the late 1980's as an antidote to conventional suburban development.

The development plan for Kentlands was approved in 1988, at a time when there was a strong state requirement for protecting forest stands as a way of protecting the water quality of the Chesapeake Bay. The development was planned and approved in this context, with a strong emphasis on protecting the most significant mature trees on the site, and also some significant stands of trees. In addition, the subdivision ordinance required a development setback for all streams (100 feet), and the floodplain ordinance required a setback from the lakes (also 100 feet). Both of these requirements led to the protection of significant areas of existing forest stands and native vegetation.



Prior to the approval of the Kentlands development, most new suburban development in the region (see the Dufief case study) were permitted as planned unit developments. However, the Mayor of Gaithersburg at the time, Mayor Boer, became a believer in the opportunities presented by the new concepts of neotraditional development. Subsequent to the permitting of Kentlands, the City of Gaithersburg adopted a new MXD zone, that required 40% green space, including lakes, sidewalks and amenities. The entire development today, including the commercial areas and Lakelands only achieves approximately 27% open space, although this figure does not include sidewalks.

Later legislation put in place a requirement for a Natural Resources Inventory that “must include specific information pertaining to soils, streams, floodplains, steep slopes, threatened or endangered species, existing wildlife, [etc.] . . .as well as all the information previously required for a Forest Stand Delineation.” The Inventory was used in the Lakelands development, and covers all potential redevelopment of the Kentlands site.

Construction began on the first units in 1989, in the area of the Manor house complex. The initial neighborhood was constructed in what was called the Gatehouse District, and the first residents moved in in 1991. Today Kentlands consists of approximately 1,800 homes in 12 districts: Gatehouse, Old Farm, Upper Lake, Middle Lake, Lower Lake, Tschiffely Square, Upper Hill, Middle and Lower Hill, Midtown, Lakeside and Kentlands Bluff.

A major aspect of Kentlands development that sets it apart from other suburban developments of the period is the office and commercial development that was planned and implemented as part of the community. Initially envisioned as a live-work community, the commercial district to the northeast has over 1 million square feet of commercial and office space.

As with many successful and visionary developments, during the initial years of the development of Kentlands Joseph Alfandre and later the Great Seneca Development Corporation exerted tight control over the planning and design of the community. Only one citizen sat on the five-member Board of Trustees in 1992, and by 1994, another citizen was given a seat. However, the developer maintained board majority until June 2000, more than 10 years into the development of the community.



Figure 3: Kentlands in 2005 is fully constructed. The accompanying development of Lakelands, located to the southeast is still under construction.

Ownership

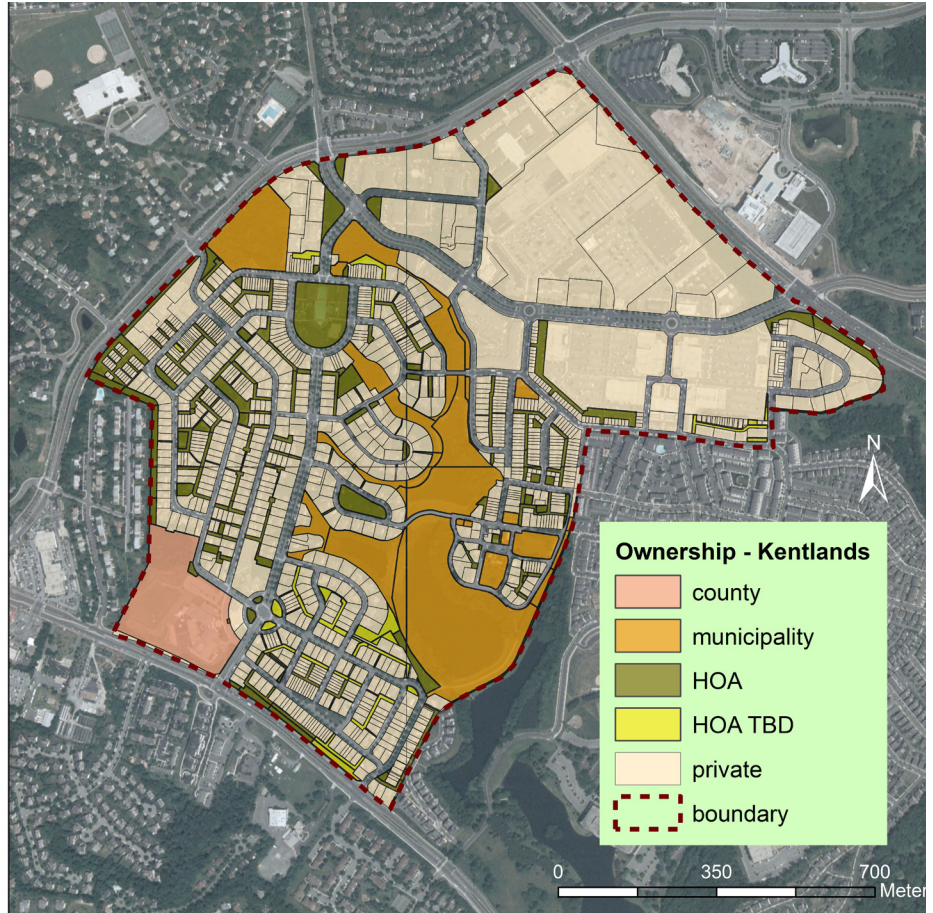


Figure 4: Ownership of the open space in Kentlands, showing areas owned by the county, City (municipality) and the home owners association (HOA). The parcels designated HOA TBD were designated for the HOA but not transferred at the time this analysis was completed.

Table 1: Breakdown of the ownership of the open space by area and percent of total.

Ownership	Parcels	Area		
		acres	ha	%
County	1	12.38	5.02	3.5
City	34	47.97	19.43	13.5
TBD City	1	0.34	0.14	0.1
HOA	173	29.11	11.79	8.2
HOA TBD	50	5.31	2.15	1.5
Private	1153	200.55	81.22	56.3
Roads		60.75	24.60	17.0
Total Area		356.41	144.34	100.0

Habitat



Figure 5: The land cover of the common open space in the development includes natural and ornamental landscapes.

Table 2: Breakdown of the open space vegetation cover by area and percent of total.

	<i>area</i>			
	<i>acres</i>	<i>ha</i>	<i>% open space</i>	<i>% total</i>
natural no intervention	7.04	2.85	11.3	2.0
natural moderate intervention	17.09	6.92	27.6	4.8
natural managed	19.26	7.80	31.0	5.4
ornamental minimal	14.22	5.76	22.9	4.0
ornamental intensive	4.42	1.79	7.1	1.2
Total open space	62.03	22.27	88.7	
Total development	356.41	144.35		15.4

Table 3: A summary of the native plant analysis for the site. The conservancy rated very high in native plants and had a very high overall site rating for habitat potential.

	<i>Native Plants</i> %	<i>Plant Cover</i> %	<i>Notes</i>	<i>Rating</i> % of total possible points
<i>Transect 1</i>	77.27	88	Stormwater check dams throughout stream, metal panels with pvc pipes on top. Some garbage in area. Narrow strip of woodland open space, some trails throughout. Almost no herbaceous species.	35
<i>Transect 2</i>	68.18	100	Site very narrow, same notes as #1. Edge is planted with some ornamentals that were left to grow "naturally". Sidewalk edge planted with turf. <i>Styphnolobium japonicum</i> is the street tree in this area. Multiflora rose and greenbrier dominate.	46.67
<i>Transect 3</i>	61.11	90	Manmade stormwater drainage area, near bridge, and one of the stormwater ponds. Can hear water trickling through underneath large rocks. Narrow area of open space. Chainlink fence nearby is buried in honeysuckle and greenbrier.	30
<i>Transect 4</i>	30	100	Narrow strip of naturalistic vegetation surrounding pond. Contains several ornamental species. Wide turf strip surrounding ornamental vegetation. Pathways around pond. Ornamental and non native species dominate plant cover.	45
<i>Transect 5</i>	100	85.71	Understory in poor condition. No herbaceous layer, shrubs struggling due to vines. Garbage observed, either from recreational use, or came in with stormwater. Soil is saturated, area very close to pond. Younger woodland, tree age ranges 10 to 30 years.	36.67
<i>Transect 6</i>	52.94	89.47	Pathway near largest stormwater pond, wooded. Understory has poor structure. One side of the pathway has ornamental plantings, while the other side was left natural. Transect took place in natural side.	40
<i>Transect 7</i>	82.76	90.63	Older woodland, several trees 60 +. Understory poorly developed, little regeneration, no saplings or seedlings observed. A lot of turf escapees observed.	60
<i>Transect 8</i>	70	90	Majority of trees range in age 25 to 50 years, some 100 + year old oaks present. Area is a little larger than other open space areas. Receives a lot of recreational use, 7 picnic tables, wider trails than found elsewhere in the development. A lot of greenbrier, Japanese honeysuckle, and wine raspberry in understory.	50
<i>Transect 9</i>	n/a	n/a	Tree save area has a 9 to 12 foot turf area surrounding it, the interior is mulched. Understory is completely removed.	n/a
<i>Transect 10</i>	n/a	n/a	Mulched area surrounded by turf. Understory completely removed. Some hedged landscaping exists on one end of the area.	n/a
<i>Transect 11</i>	n/a	n/a	Has a tot lot. Understory removed, and mulched. Area is raised up at one end to create a level playing area. Some of the tree trunks are buried in mulch.	n/a
<i>Transect 12</i>	n/a	n/a	Understory removed, area is mulched. Contains benches.	n/a
Site Average	67.78	91.73		42.92

Stormwater



Figure 3: The water flow on site is from the north (top of map) to the south through a series of four ponds, increasing in size as the flow progresses to the south. The ponds pre-date the development, and serve an important stormwater management function before the water enters the Muddy Branch and then the Potomac River.

Table 3: Total imperviousness of the development is high at almost 49%.

	Acres	% of Subdivision
Roads	47.50	13.3
Roofs	84.60	23.7
Driveways	15.93	4.5
Parking Lots	24.80	7.0
Total Area	172.83	48.5

Recreation



Figure 4: The Kentlands development has an extensive trail network, and a considerable amount of passive open space centered around the ponds system.

Table 4: Characteristics of the open space, showing over 17 percent of the development serving as passive open space and almost 5 kilometers of trails.

	<i>acres</i>	<i>ha</i>	<i>% of open space</i>	<i>% of total development</i>
passive	60.98	24.7	95.55	17.11
active	2.84	1.15	4.45	0.80
Total open space	63.82	25.85		
Total development	356.40			
Trail length	4,895.29			

Visual quality, defined as access to open space is high for the Kentlands development. The visual quality rating for the development was calculated by identifying the average distance from each home to the nearest community open space. Since the community open space is so well dispersed throughout the community, the average distance to a greenspace was relatively low. The average distance to open space from each residential parcel was 54.9 meters, or 180.2 feet.

Visual Quality

Table 5: Average distance to open space from each residential parcel.

Number of residential parcels	982	
Maximum distance to open space	180.16 m	591.10 ft.
Average distance to open space	42.97 m	140.98 ft.