

205 N. Wooddale Rd.



Benefits of Compromise

- Preserve a wildlife corridor between two subdivisions
- Allow for more housing on the front acreage
- Protect neighboring property lines from grading
- Reduce costs for the property owner and developer
- Solve some of the traffic concerns on the narrow road that is Wooddale

Advance Knox Vision, Goals, and Policies

- “A thriving county that honors its natural beauty and cultural heritage, while supporting diverse people and businesses.” - Advance Knox vision statement (p.g. 6 & 26)
- “It is important to ensure that open space is integrated into significant new development and provided throughout the county. Preserved open space is private land on a development site that is set aside in perpetuity for the purpose of preserving environmentally sensitive lands, buffer areas, rural vistas, tree canopy, recreational lands, etc.” (Policies 2.3 & 2.4, p.g. 54)
- “Create standards to encourage conservation subdivisions. These subdivisions devote at least half of their potentially buildable land area to undivided, permanently protected open space.” (Policy 7.2, p.g. 59)



TOPOGRAPHY OF E. TENNESSEE

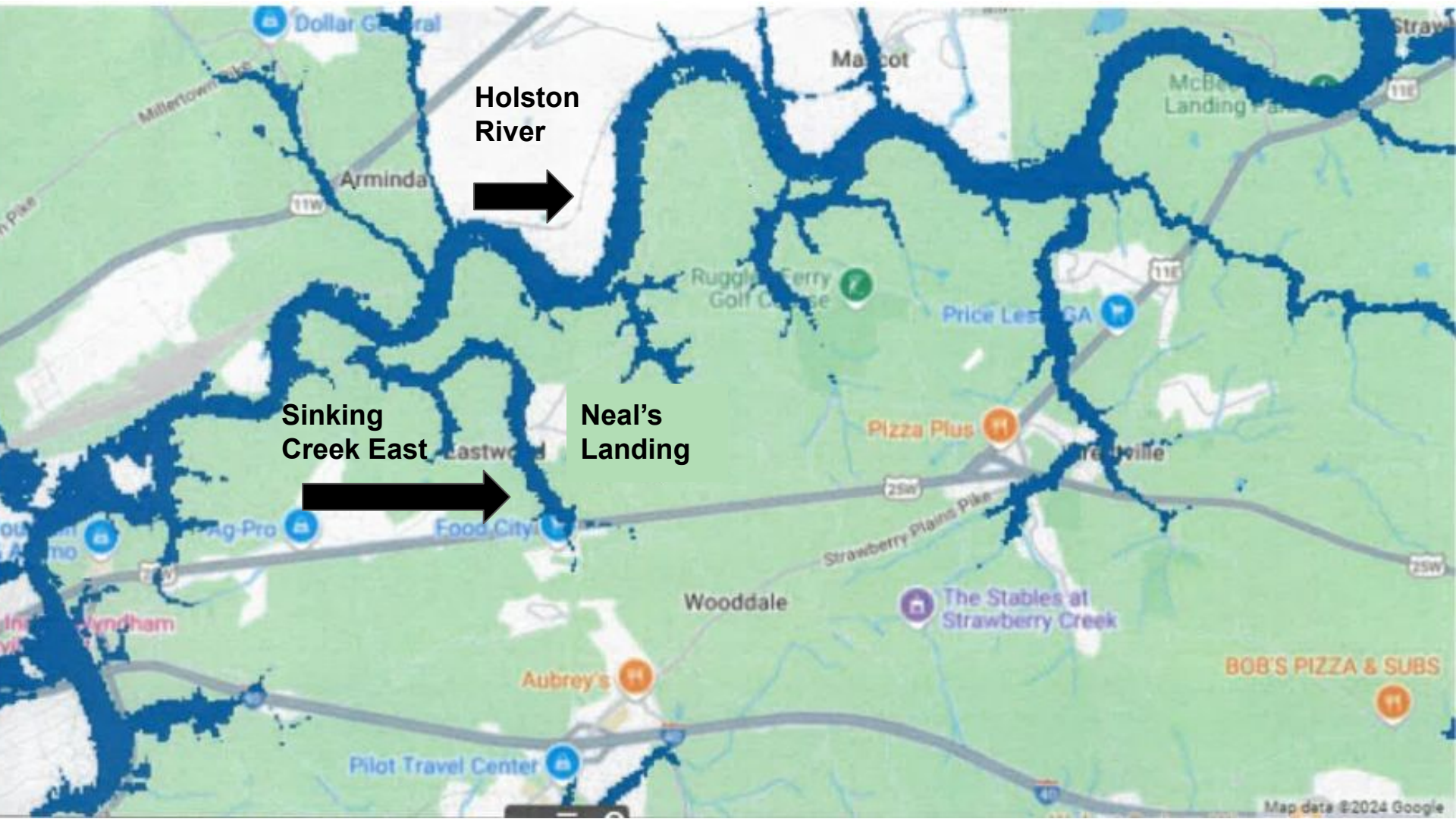
1500' - 2500'

Plateau

800' - 1000'
Valley

1700' - 6600'

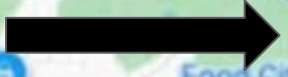
Mountains



Holston River



Sinking Creek East



Neal's Landing

Detention basins temporarily hold excess stormwater runoff then release into downstream infrastructure to minimize flooding. Three were built in Neal's Landing and this is how much water they each hold.

Pond A: At 3.7ft deep, holds 13,500 cubic ft. $\times 7.48 = 100,980$ gallons

Pond B: At 2.8ft deep, holds 23,960 cubic ft. $\times 7.48 = 179,220$ gallons

Pond C: At 2.6ft deep, holds 7,400 cubic ft. $\times 7.48 = 55,352$ gallons

Total holding capacity for these three detention basins is 335,552 gallons of water.



CtC

NnD3

NnD3

CtC

CtB

HeB

NnD3

CtB

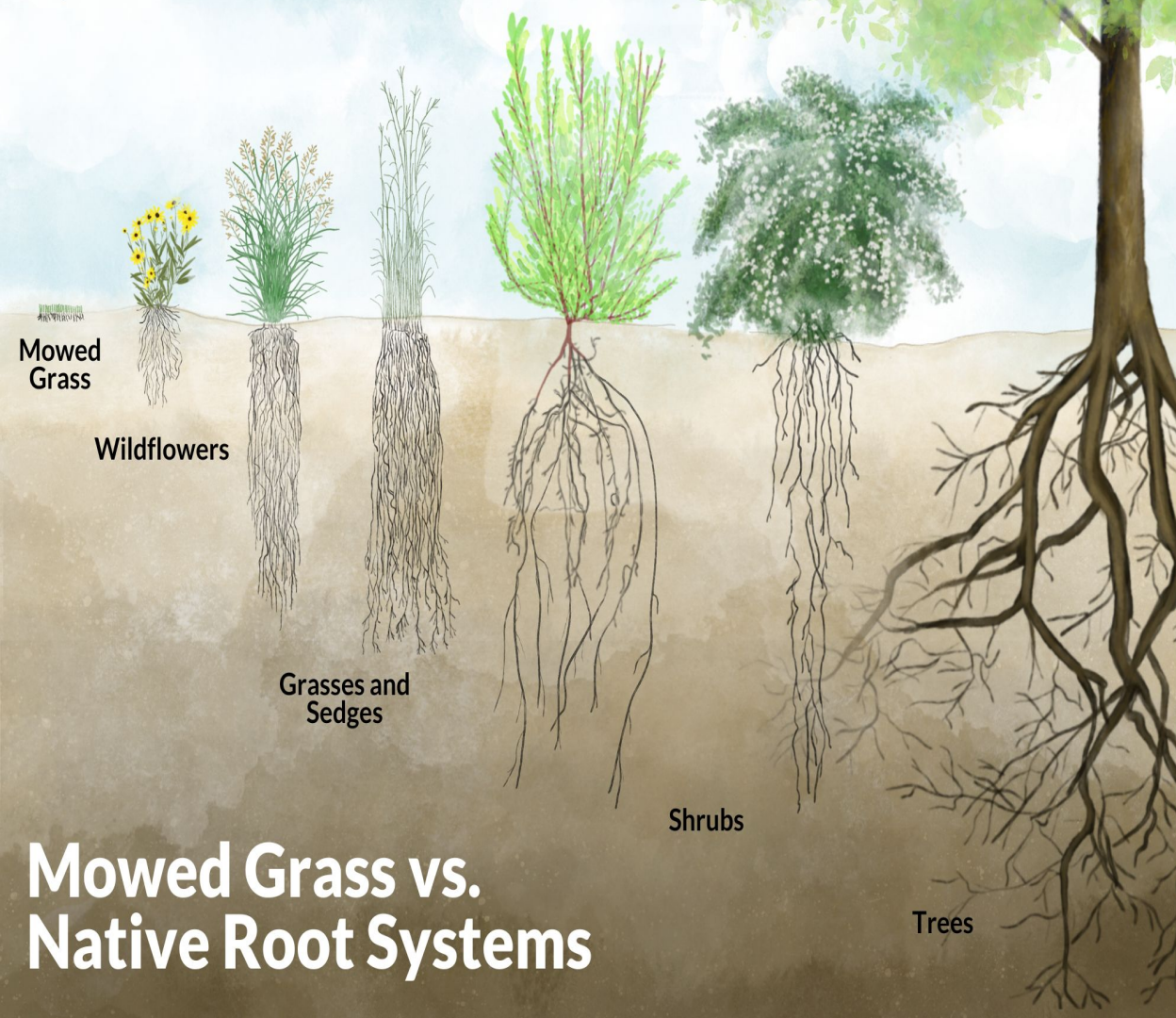
CtC

N Wooddale Rd

Vista View Ln

Water holding capacity for 205 North Wooddale Rd.

- The dominant soil texture for the property is Corryton-Townley which is composed of silt, loam, clay loam, and clay. The water holding capacity for silty clay loam is 1.8-2 inches of water per foot of soil.
- Average depth for this soil profile in Tennessee is 3-6ft.
- To determine the total water capacity multiply water per foot by the soil depth. For Wooddale Rd. that is approximately $2 \text{ in./ft} \times 3\text{ft} = 6''$ of water per acre.
- An acre-foot of water is equal to 325,851 gallons of water. To convert inches of water to gallons divide inches of water per acre by 12 inches and then multiply by 325,851.
- For Wooddale Rd. that looks like $2 \times 3 = 6''$ of water per acre, 6 divided by 12 = .5 $\times 325,851$ gallons per acre foot = 162,925 gallons of water per acre, and if we multiply that by the proposed 4.43 acre conservation area our water holding capacity is approximately 721,727 total gallons of water.



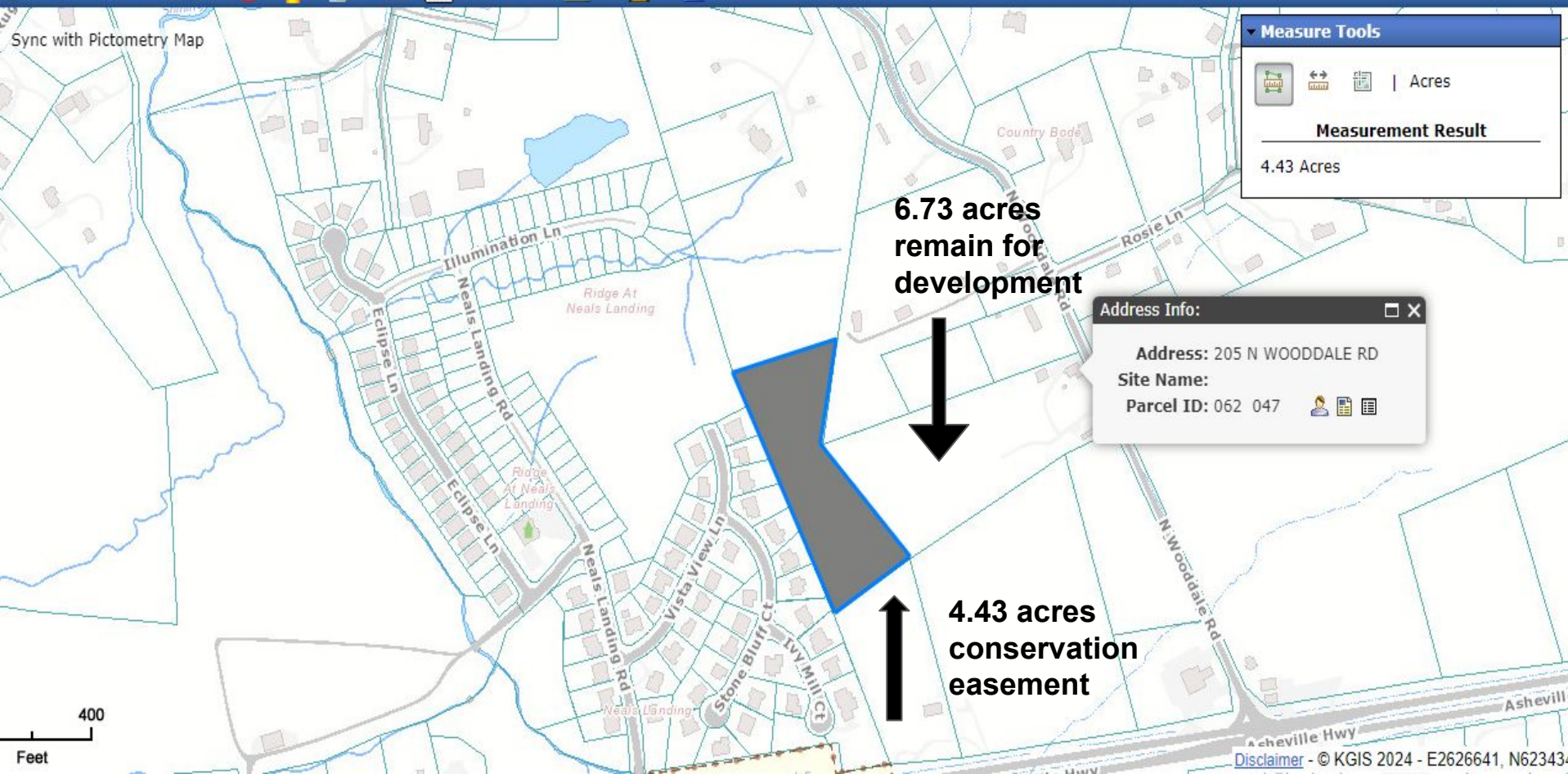
- A tree with a 30" diameter can take up 300 gallons of water a day.
- Native plants have extensive root systems that stabilize soil.
- Goldenrod roots grow up to 11 feet deep.

Mowed Grass vs. Native Root Systems

Search By:	Address	Parcel	Owner	Place	Other
Enter Address:	205 N. WOODDALE RD			Search	Advanced



Sync with Pictometry Map



Measure Tools

Acres

Measurement Result

4.43 Acres

Address Info:

Address: 205 N WOODDALE RD
 Site Name:
 Parcel ID: 062 047

400
Feet

Conservation Easement Benefits

- Create a safe wildlife corridor
- Preserve the most ecologically valuable part of the land
- Reduce grading and infrastructure costs
- Eliminate the need for expensive detention basins
- Stormwater “credits” provided to developers and site designers as an incentive to implement better site design practices that can reduce the volume of stormwater runoff and minimize the pollutant loads from a site.
- Provide a tax incentive for the land owner through partnership with a land conservancy such as the Tennessee or Foothills Land Conservancy.

