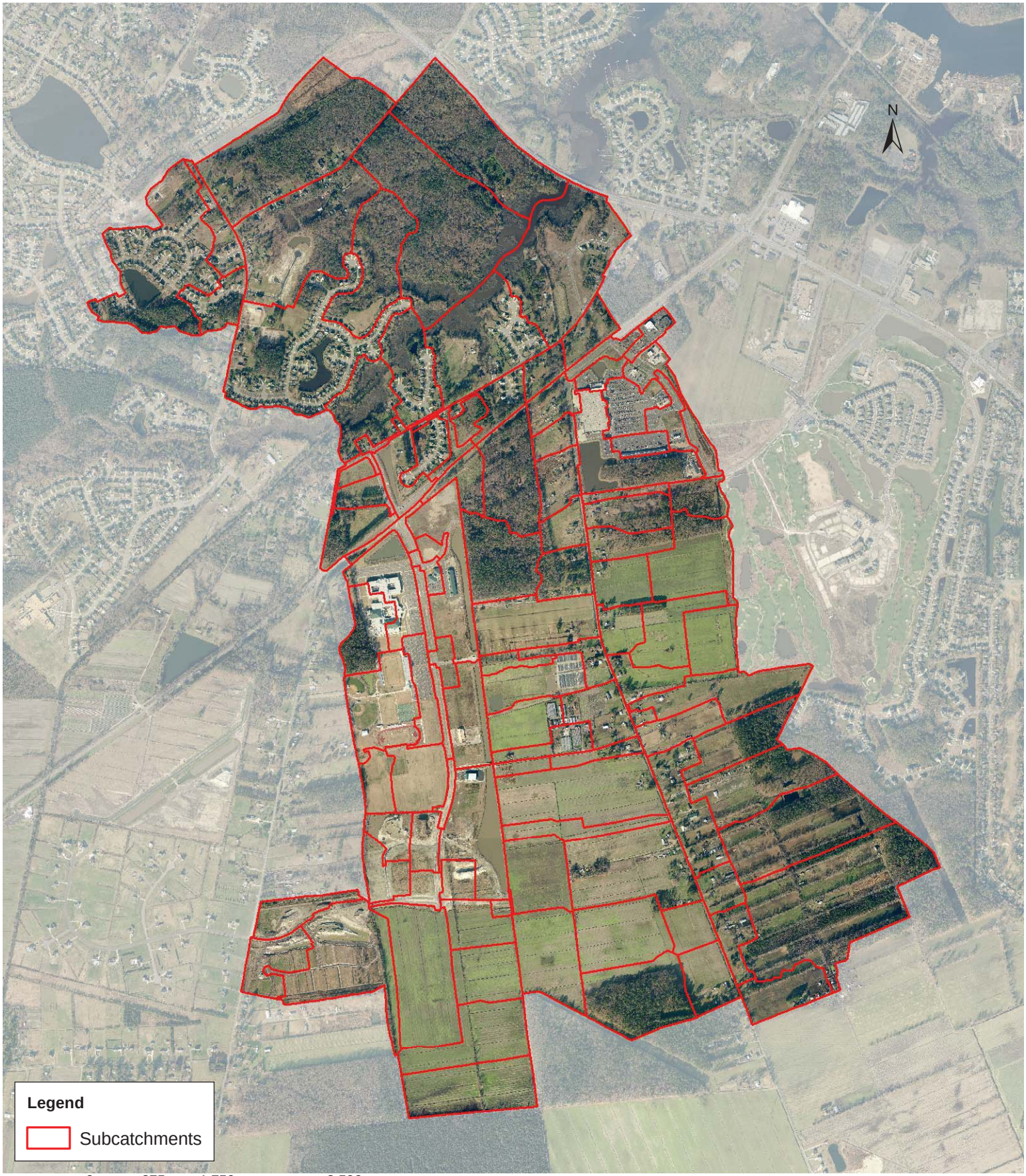
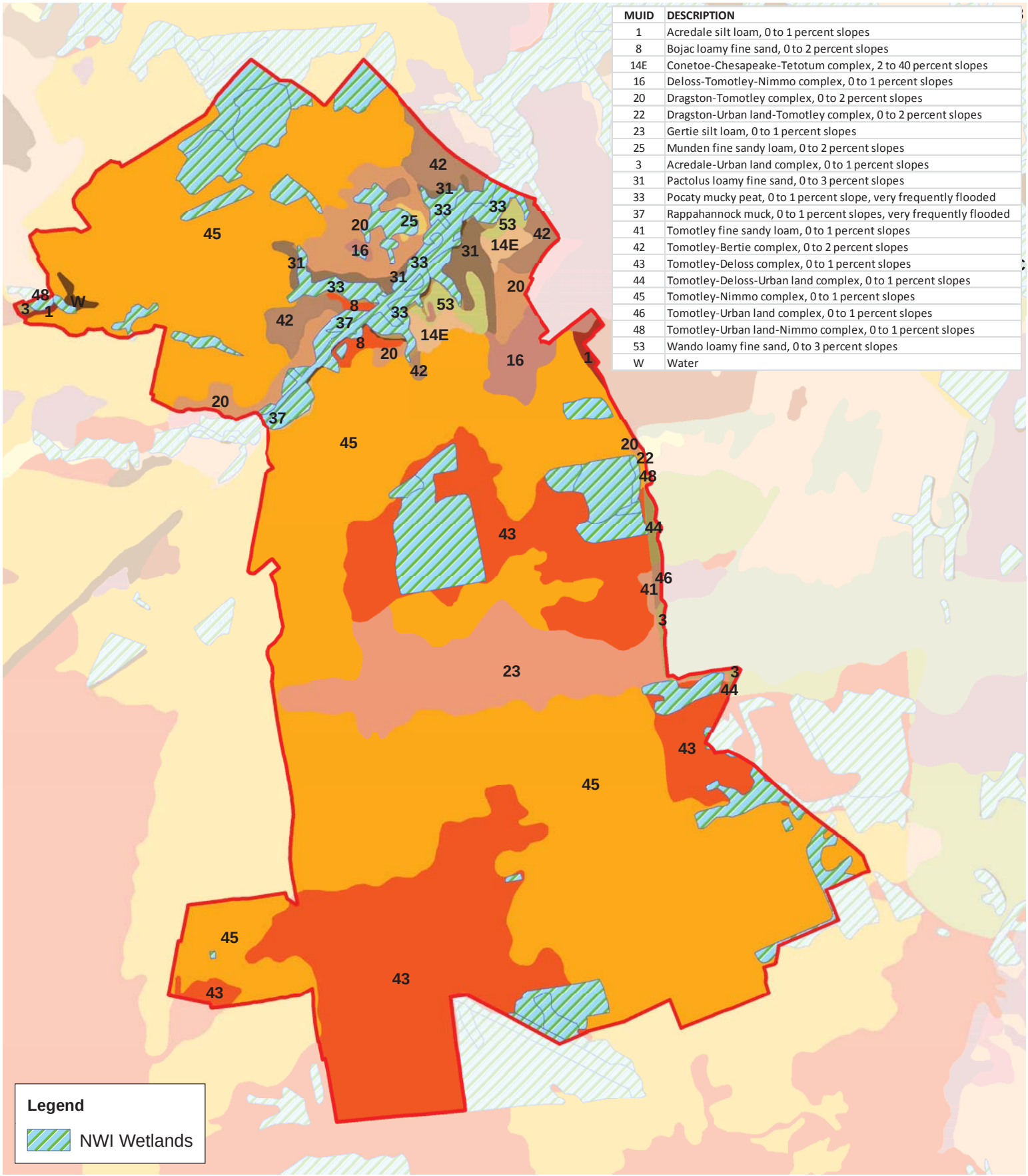


0 875 1,750 3,500 Feet

Aerial Imagery @ 2009 Commonwealth of Virginia.

See GIS for Complete Details

Figure 1. New Mill Creek 3&4 Watershed Map



MUID	DESCRIPTION
1	Acredale silt loam, 0 to 1 percent slopes
8	Bojac loamy fine sand, 0 to 2 percent slopes
14E	Conetoe-Chesapeake-Tetotum complex, 2 to 40 percent slopes
16	Deloss-Tomotley-Nimmo complex, 0 to 1 percent slopes
20	Dragston-Tomotley complex, 0 to 2 percent slopes
22	Dragston-Urban land-Tomotley complex, 0 to 2 percent slopes
23	Gertie silt loam, 0 to 1 percent slopes
25	Munden fine sandy loam, 0 to 2 percent slopes
3	Acredale-Urban land complex, 0 to 1 percent slopes
31	Pactolus loamy fine sand, 0 to 3 percent slopes
33	Pocaty mucky peat, 0 to 1 percent slope, very frequently flooded
37	Rappahannock muck, 0 to 1 percent slopes, very frequently flooded
41	Tomotley fine sandy loam, 0 to 1 percent slopes
42	Tomotley-Bertie complex, 0 to 2 percent slopes
43	Tomotley-Deloss complex, 0 to 1 percent slopes
44	Tomotley-Deloss-Urban land complex, 0 to 1 percent slopes
45	Tomotley-Nimmo complex, 0 to 1 percent slopes
46	Tomotley-Urban land complex, 0 to 1 percent slopes
48	Tomotley-Urban land-Nimmo complex, 0 to 1 percent slopes
53	Wando loamy fine sand, 0 to 3 percent slopes
W	Water

0 875 1,750 3,500 Feet

N

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Figure 2. Soils with Wetlands Overlay

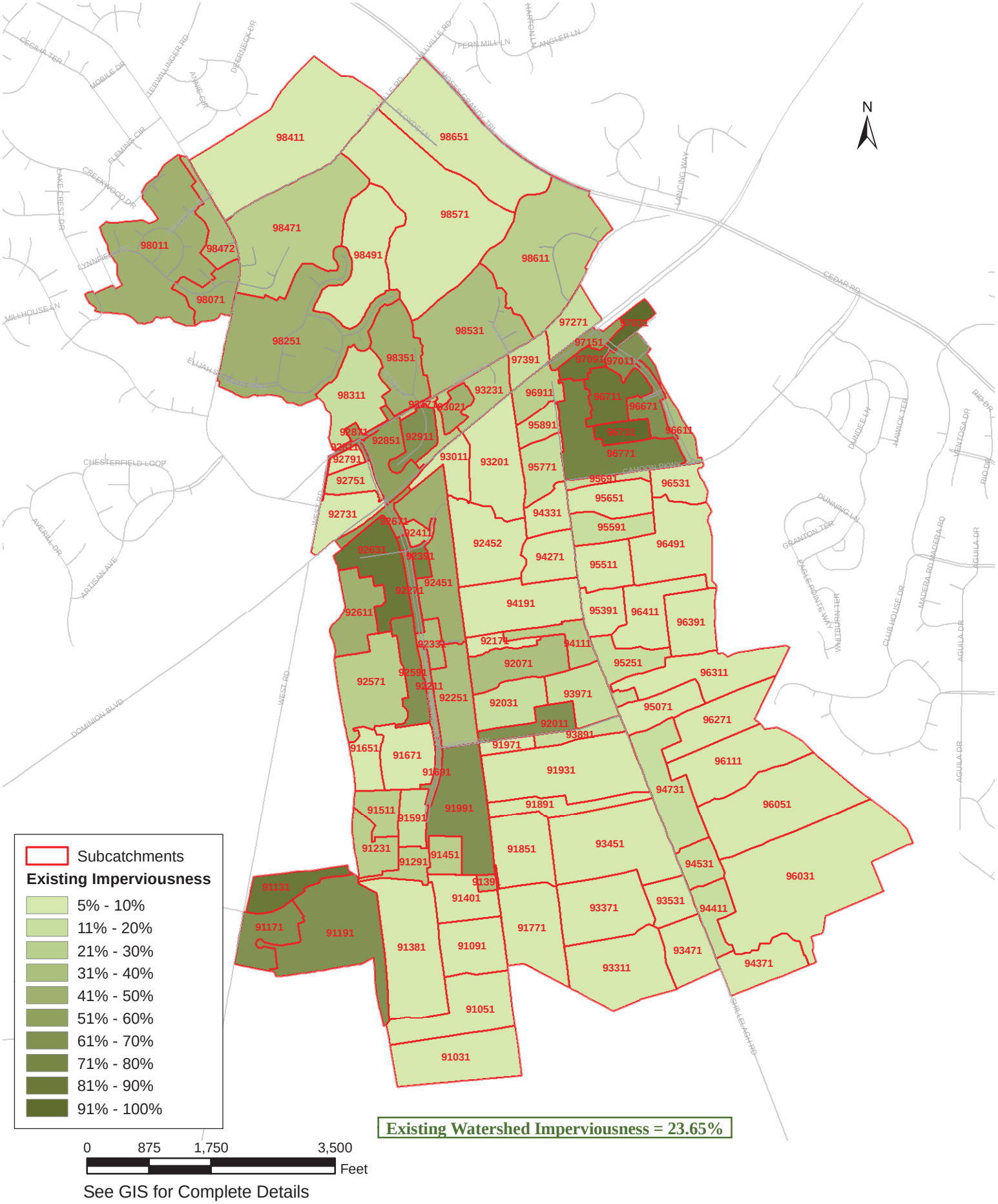

Figure 3. Existing Conditions Subcatchments with Shaded Imperviousness

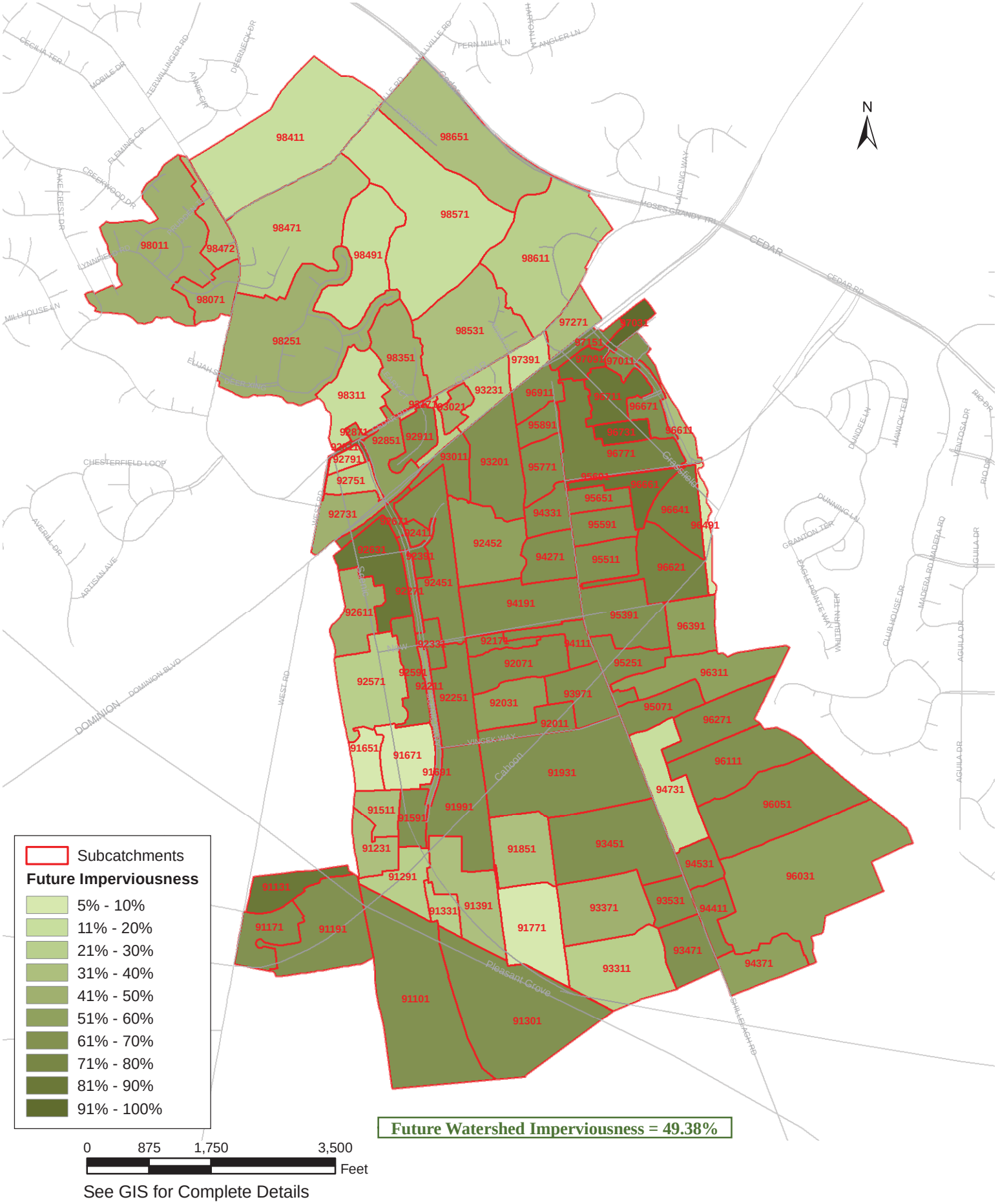

Figure 4. Future Conditions Subcatchments with Shaded Imperviousness

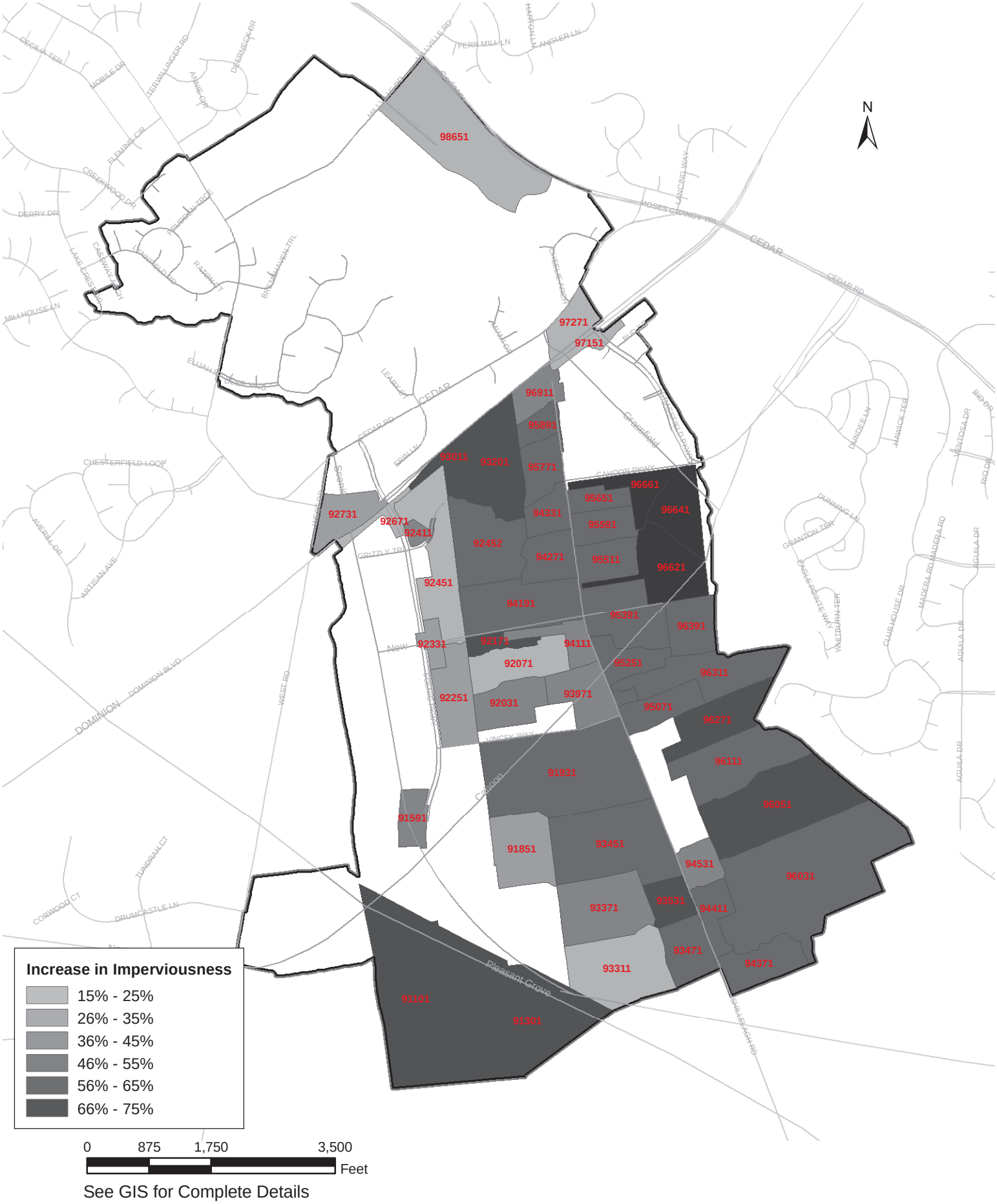

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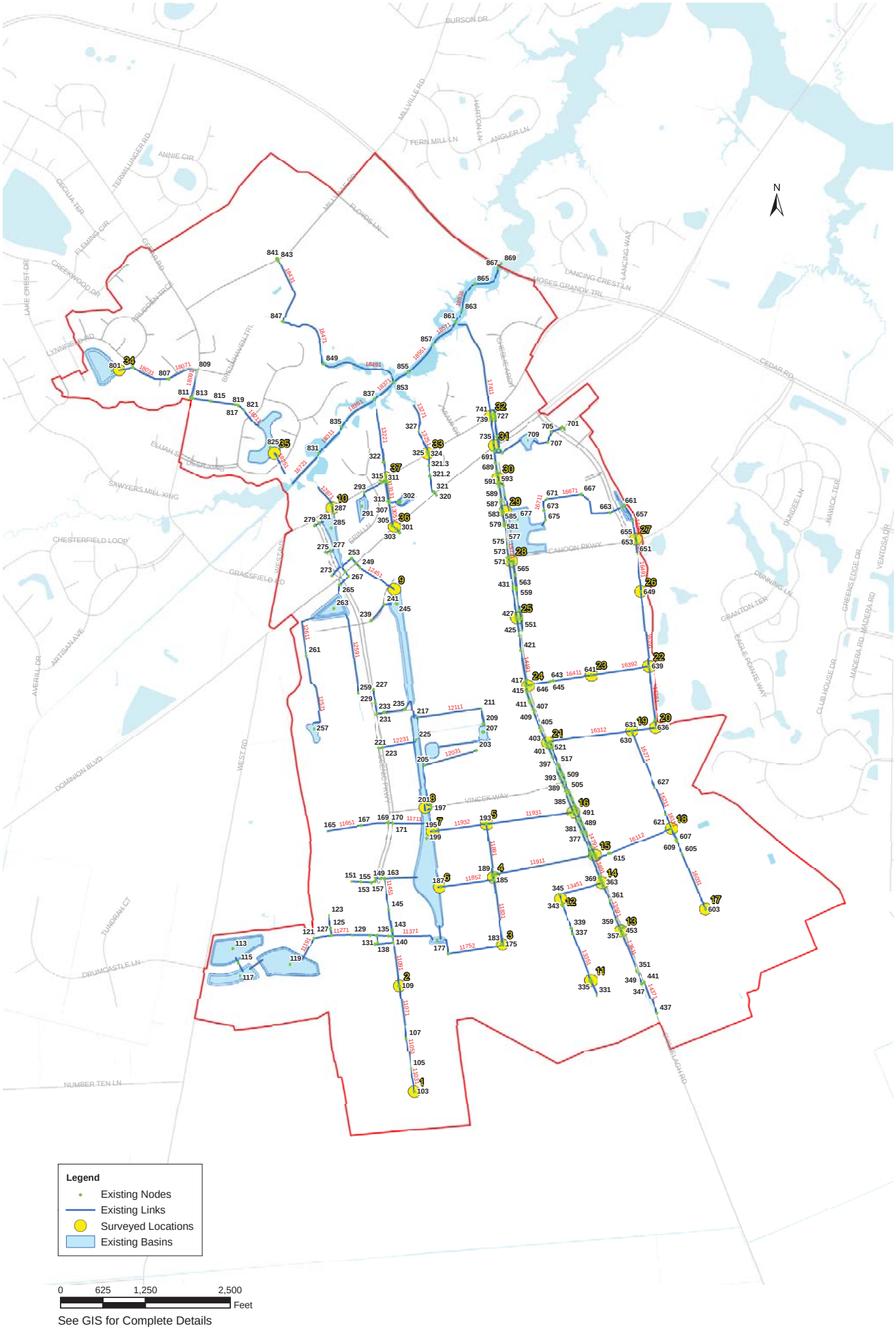
Figure 5. Subcatchments with Potential Increase in Imperviousness



See GIS for Complete Details

Figure 6. Link-Node Diagram - Existing Conditions and Surveyed Locations

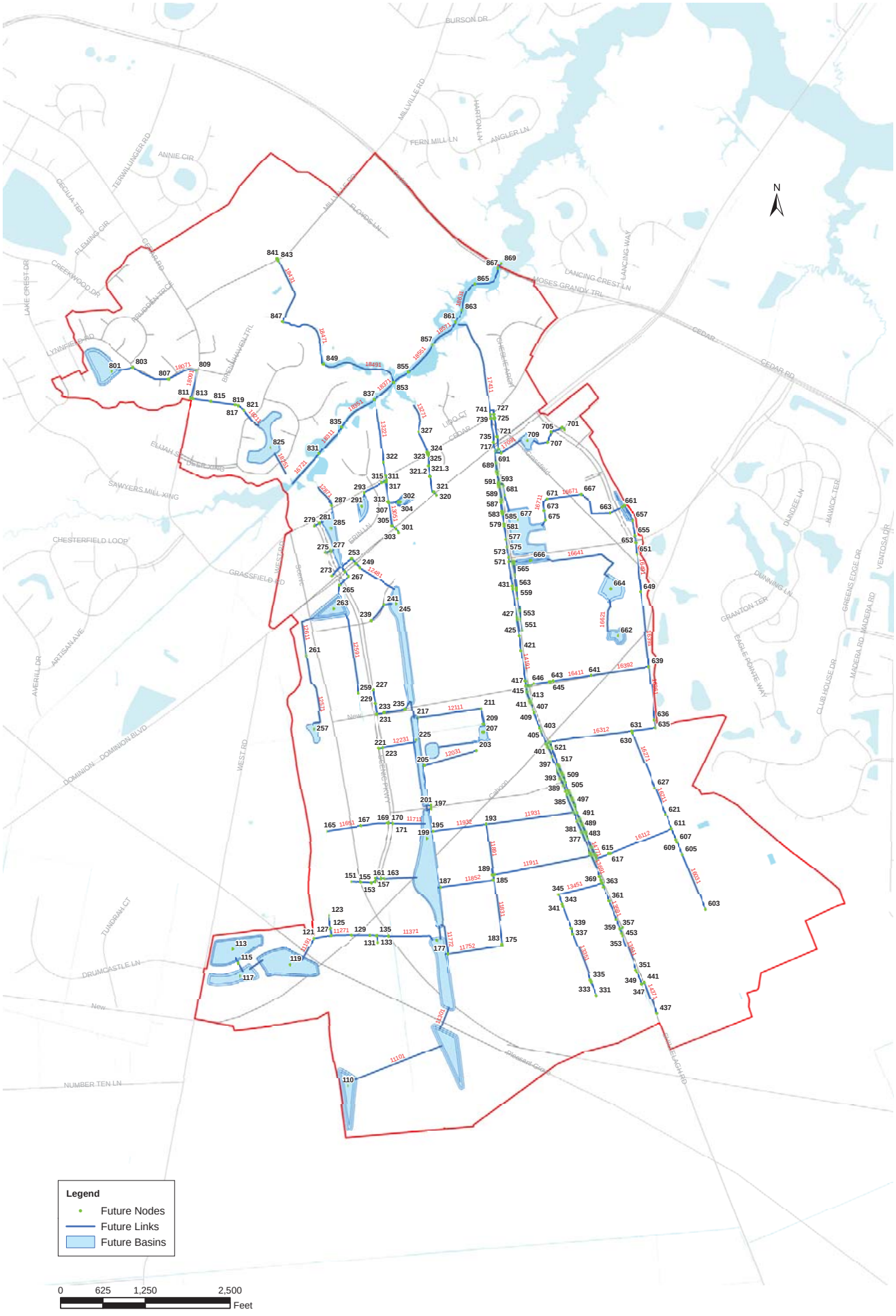


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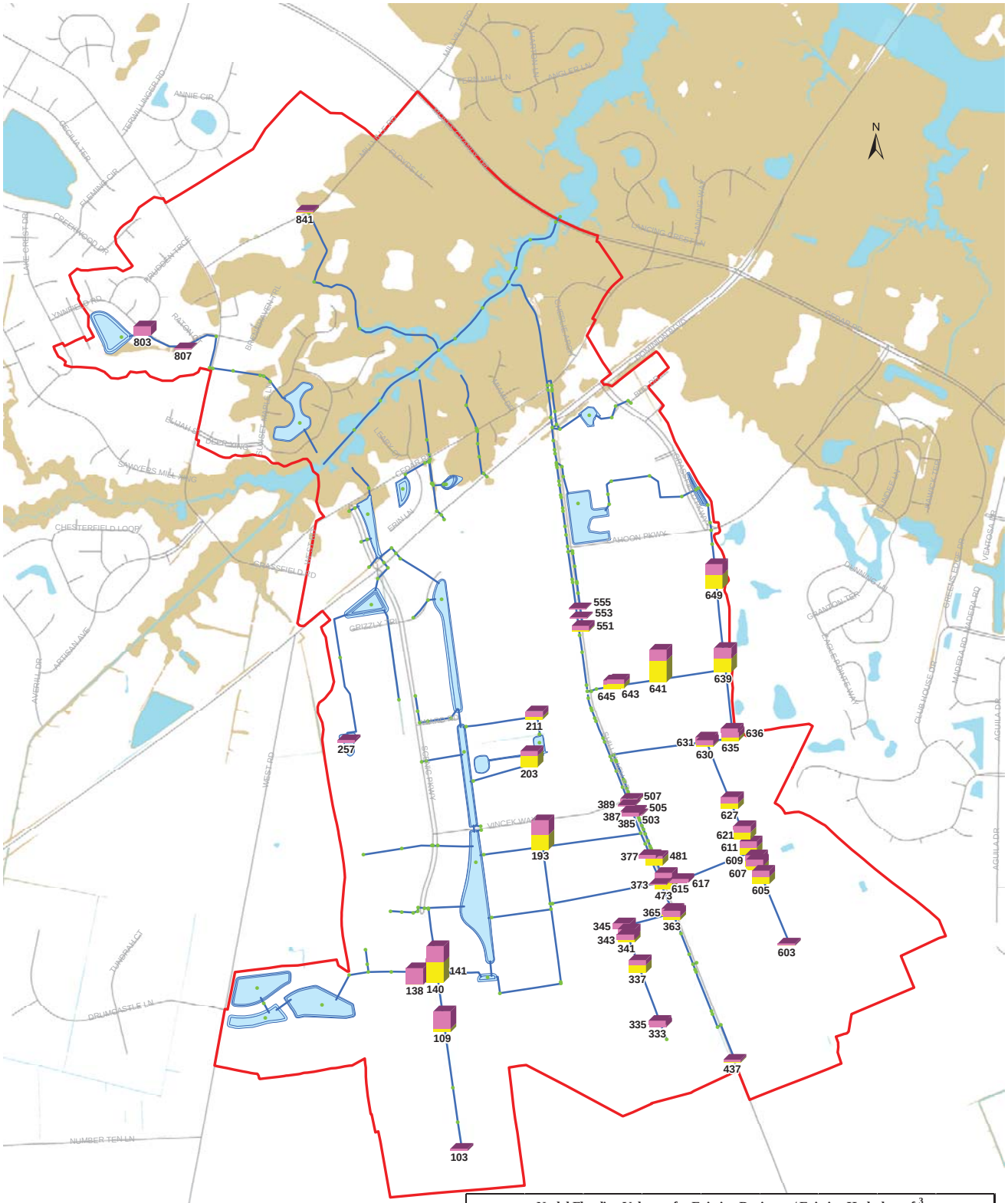
Figure 7. Link-Node Diagram - Future Conditions



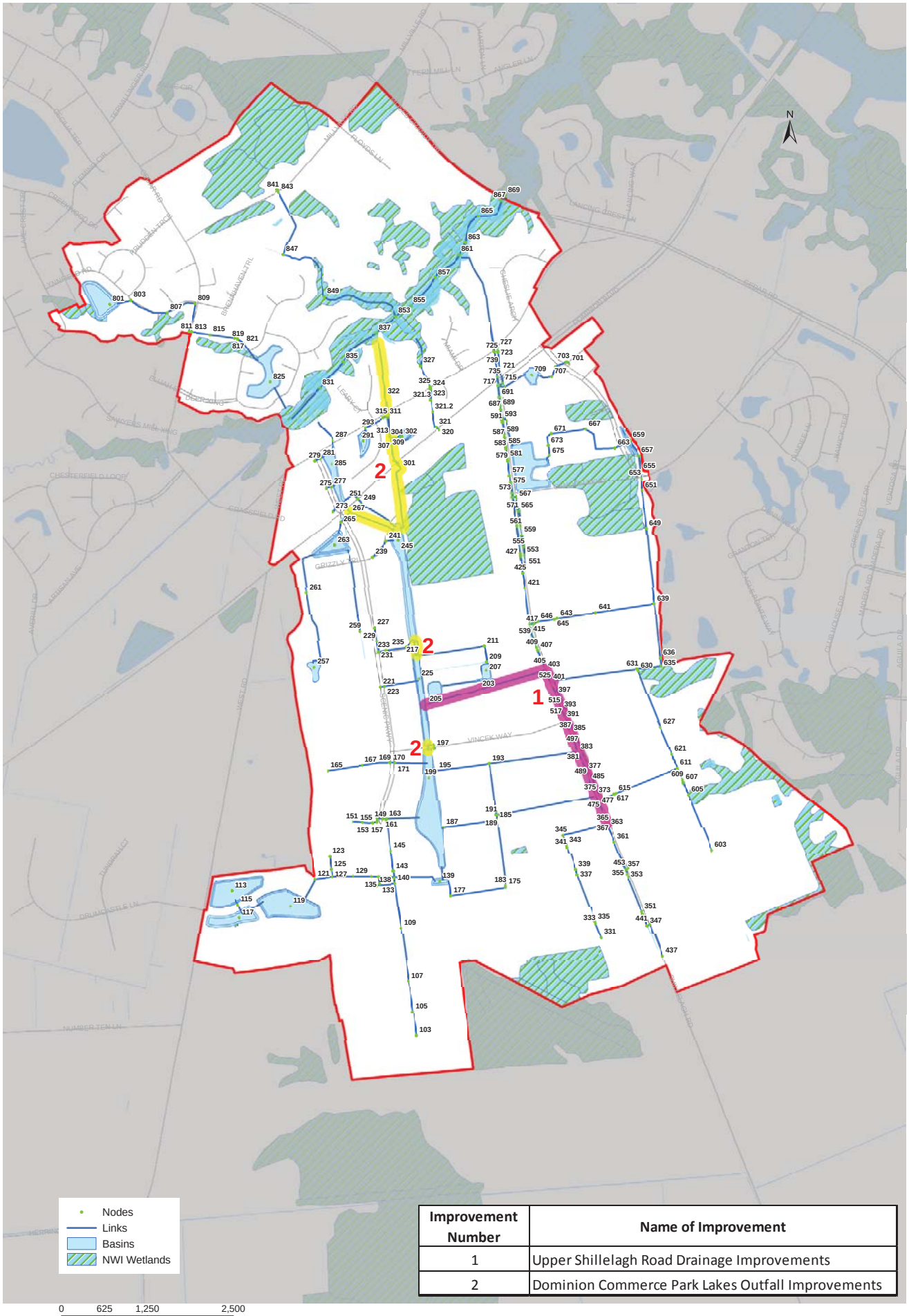
Nodal Flooding Volumes for Existing Drainage / Existing Hydrology, ft^3								
Node #	10-year	50-year	Node #	10-year	50-year	Node #	10-year	50-year
103	-	22,000	377	-	35,000	615	-	36,000
109	34,000	212,000	385	-	38,000	617	-	38,000
138	-	167,000	387	-	17,000	621	70,000	134,000
140	207,000	369,000	389	-	11,000	627	59,000	122,000
141	110,000	180,000	437	10,000	32,000	630	13,000	66,000
193	150,000	299,000	473	88,000	165,000	631	19,000	73,000
203	113,000	162,000	481	65,000	96,000	635	35,000	88,000
211	31,000	84,000	503	-	11,000	636	-	40,000
257	-	24,000	505	-	16,000	639	140,000	248,000
333	-	36,000	507	11,000	39,000	641	219,000	330,000
335	-	43,000	551	12,000	58,000	643	46,000	91,000
337	80,000	130,000	553	-	12,000	645	44,000	89,000
341	59,000	133,000	555	-	10,000	649	139,000	248,000
343	-	56,000	603	-	22,000	803	-	93,000
345	-	56,000	605	73,000	136,000	807	-	10,000
363	35,000	95,000	607	44,000	107,000	841	12,000	27,000
365	11,000	70,000	609	59,000	121,000			
373	-	11,000	611	73,000	136,000			

Existing Nodes
Existing Links
Relative Volume
50-yr Adtl. Flood Vol., cf
10-yr Flood Vol., cf
Low Topography

0 625 1,250 2,500 Feet

See GIS for Complete Details

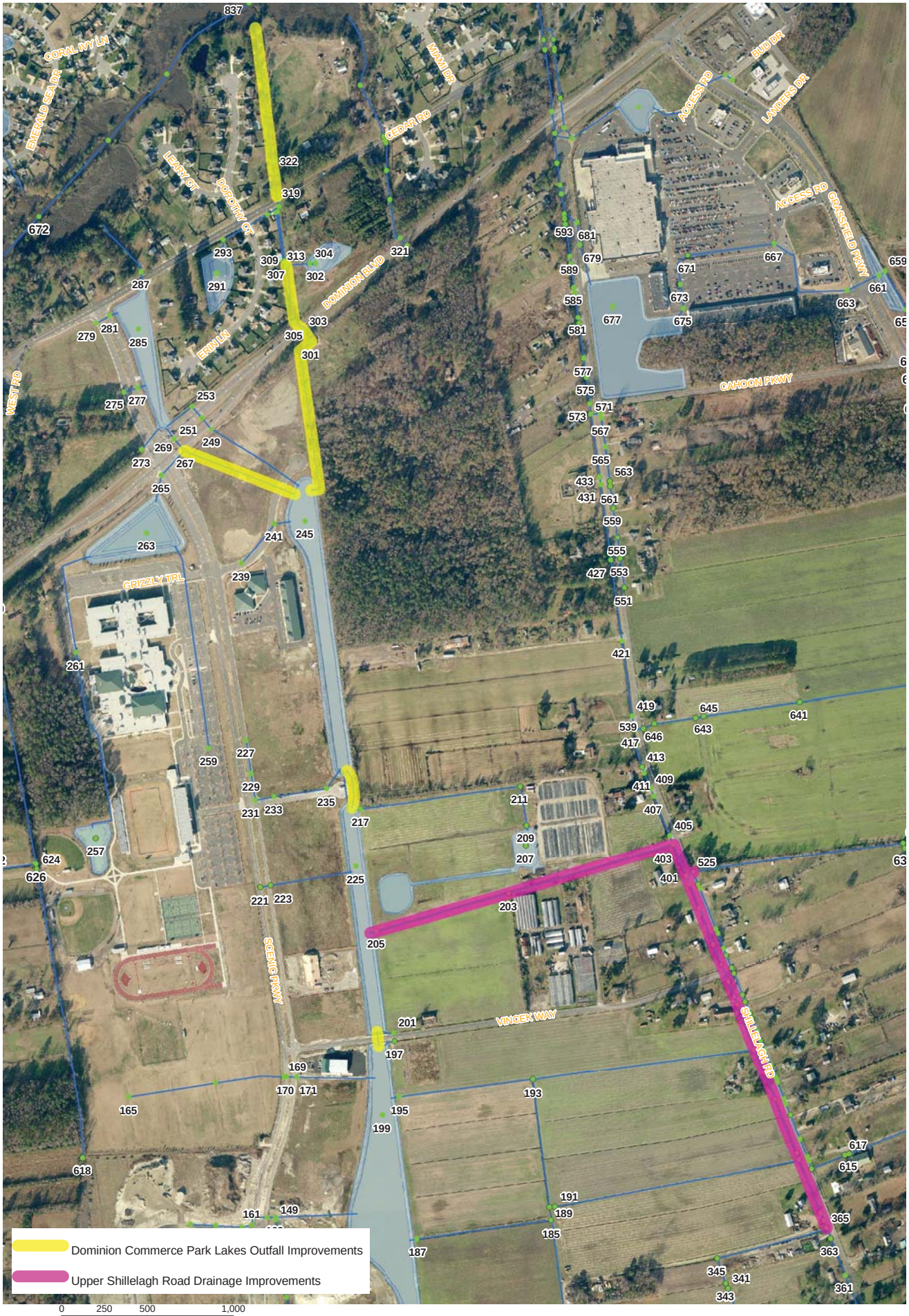
Figure 8. Flooding for 10-Yr and 50-Yr Storms: Existing Hydrology, Existing Drainage



Improvement Number	Name of Improvement
1	Upper Shillelagh Road Drainage Improvements
2	Dominion Commerce Park Lakes Outfall Improvements

See GIS for Complete Details

Figure 9. Improvements with Wetlands Underlay

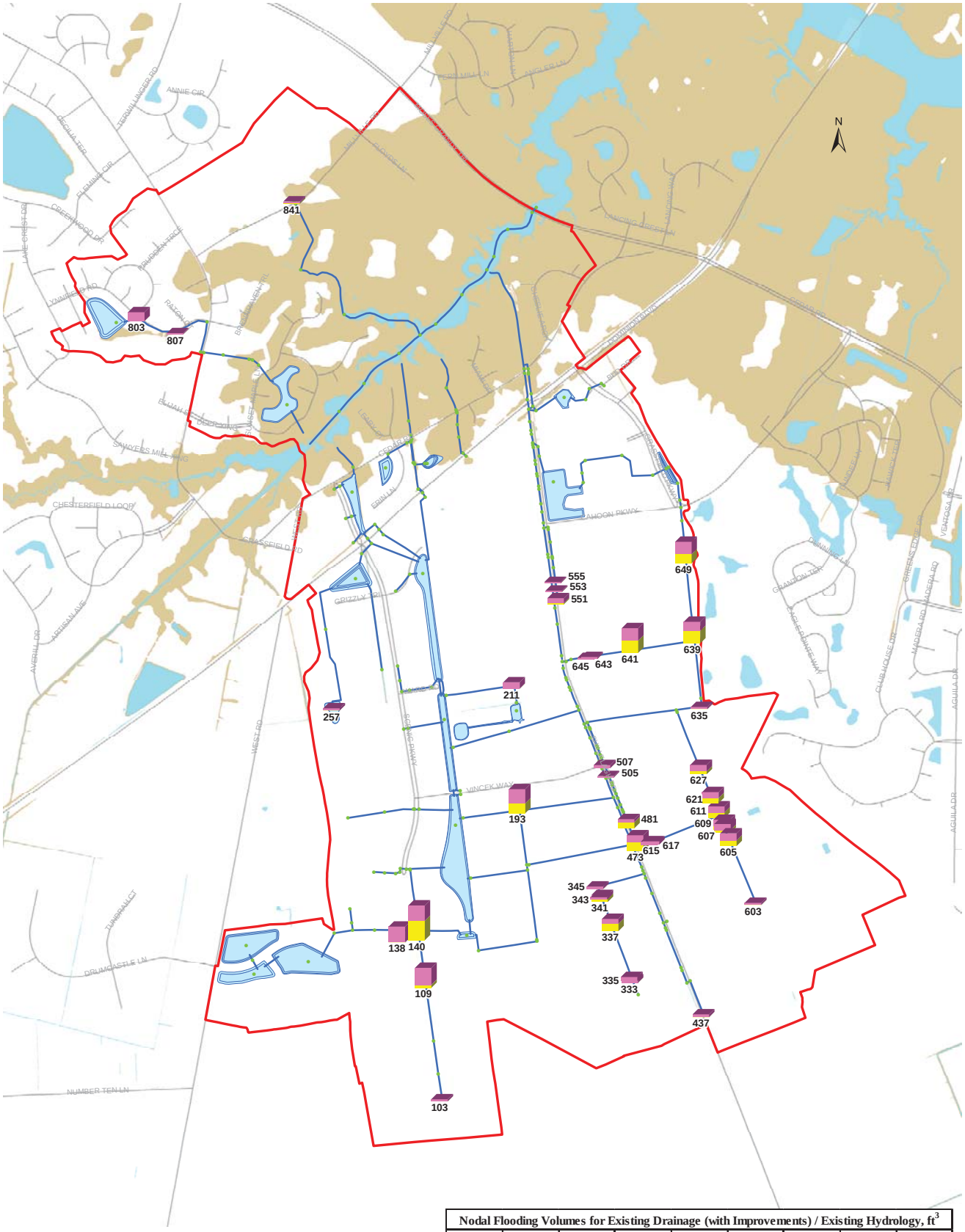


0 250 500 1,000 Feet

See GIS for Complete Details

N

Figure 9a. Improvements (Close-up)



See GIS for Complete Details

Nodal Flooding Volumes for Existing Drainage (with Improvements) / Existing Hydrology, ft^3								
Node #	10-year	50-year	Node #	10-year	50-year	Node #	10-year	50-year
103	-	22,000	437	-	29,000	615	-	34,000
109	32,000	211,000	473	88,000	165,000	617	-	37,000
138	-	166,000	481	64,000	96,000	621	54,000	117,000
140	206,000	368,000	505	-	13,000	627	30,000	99,000
193	104,000	254,000	507	-	32,000	635	-	22,000
211	-	67,000	551	12,000	65,000	639	132,000	228,000
257	-	23,000	553	-	13,000	641	130,000	261,000
333	-	35,000	555	-	11,000	643	-	19,000
335	-	41,000	603	-	22,000	645	-	17,000
337	78,000	129,000	605	59,000	134,000	649	96,000	227,000
341	35,000	72,000	607	30,000	93,000	803	-	93,000
343	-	25,000	609	45,000	107,000	807	-	10,000
345	-	25,000	611	59,000	122,000	841	12,000	27,000

Figure 10. Flooding for 10-Yr and 50-Yr Storms: Existing Hydrology, Existing Drainage with Improvements