RTP APPENDIX - N

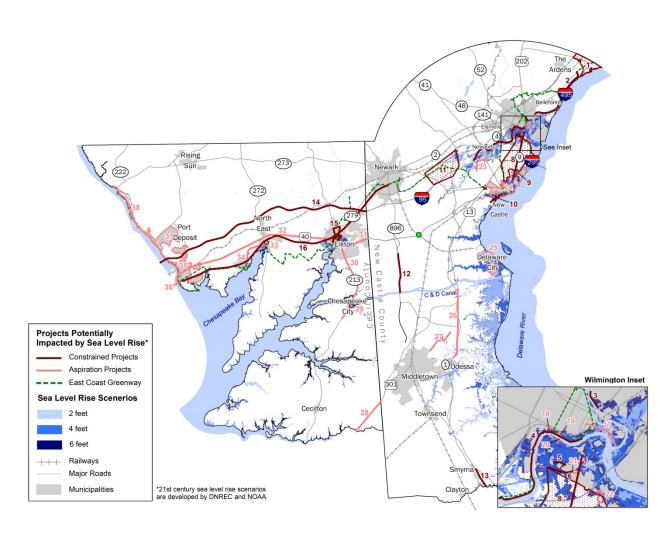
Potential Sea Level Rise Impacts vs Projects

The map and listing below identify which projects in our constrained and aspiration list may be impacted by sea level rise (SLR). This is an updated assessment of the vulnerability of planned projects, following the identification methodology pioneered in the 2011 SLR Transportation Vulnerability Assessment (www.wilmapco.org/slr).

Projects were overlaid with SLR scenarios developed by DNREC and NOAA – which range from 2 feet, to 4 feet, to a 6 foot surge.

This should be considered a preliminary assessment of potential impacts. The scenarios in both counties are rough estimates of potential SLR impacts, which do not fully account for local conditions. Still, SLR impacts to the projects below should be considered during project development.

Map of Planned Projects Vulnerable to Sea Level Rise



List of Planned Projects Vulnerable to Sea Level Rise

ID	PROJECT	LIST	IN SERVICE	SCENARIO IMPACT
n/a	East Coast Greenway	Constrained	2028-2035	2 ft
1	North Claymont Area Master Plan (projects grouped for mapping purposes)	Constrained	2050	2 ft
2	Governor Printz Boulevard Road Diet	Constrained	2030	6 ft
3	Wilmington Traffic Calming; 12th St. Connector	Constrained	2028	2 ft
4	Newport River Trail	Constrained	2030	2 ft
5	New Sweden Road Extension (South Wilmington)	Constrained	2040	4 ft
6	Garasches Lane	Constrained	2030	4 ft
7	SR 9: Landers Ln - A St	Constrained	2026	4 ft
8	Route 9 Corridor Master Plan (projects grouped for mapping purposes)	Constrained	2026	2 ft
9	SR 9, New Castle Ave: 3rd St - Landers Ln	Constrained	2030	6 ft
10	SR 9, River Rd. Area, Dobbinsville (viaduct)	Constrained	2030	6 ft
11	Churchmans Crossing Plan Implementation	Constrained	2030	2 ft
12	Glasgow Pathway: Porter Rd - Canal	Constrained	2035	2 ft
13	US 13: Duck Creek to SR 1	Constrained	2030	6 ft
14	I-95: Susquehanna River - DE Line	Constrained	2050	2 ft
15	Elkton Bus Service Circulator	Constrained	2030	2 ft
	Maryland Commuter Rail: Perryville to Newark	Constrained	2029	2 ft
17	7th St Improvements (Wilmington)	Aspiration	n/a	2 ft
	Water St. West: Shipley Street to West Street	Aspiration	n/a	6 ft
	Water St. East Extended (French St. to Front St.)	Aspiration	n/a	4 ft
	S. Walnut Street Bridge Area	Aspiration	n/a	4 ft
21	Garashes Lane Extension	Aspiration	n/a	4 ft
22	Port of Wilmington Truck Staging Area (site location undetermined)	Aspiration	n/a	4 ft
	Airport Rd: Commons Blvd – I-95	Aspiration	n/a	2 ft
24	City of New Castle Transportation Plan (grouped for mapping purposes)	Aspiration	n/a	2 ft
25	Delaware City Plan Implementation	Aspiration	n/a	2 ft
26	US 13: south of Marl Pit Rd. to Lorewood Grove Rd.	Aspiration	n/a	6 ft
	Shallcross Lake Road (portion south of Greylag Rd only)	Aspiration	n/a	6 ft
28	US 301: Kent Co line - DE line	Aspiration	n/a	2 ft
	Chesapeake City Parking Plan Implementation	Aspiration	n/a	6 ft
30	MD 213: Basil Ave - US 40	Aspiration	n/a	6 ft
31	US 40: MD 279 - DE Line	Aspiration	n/a	2 ft
32	US 40 Corridor and Intersection Improvements	Aspiration	n/a	2 ft
_	North East TOD Pedestrian Improvements	Aspiration	n/a	4 ft
_	MD 7, Philadelphia Rd Cecil Ave: East limits of Charlestown to MD 272, 2 lane reconstruction	Aspiration	n/a	2 ft
	Perryville Bicycle and Pedestrian Improvements	Aspiration	n/a	2 ft
	Susquehanna River Pedestrian/Bicycle Crossing	Aspiration	n/a	4 ft
	Port Deposit Shared Ride Service	Aspiration	n/a	2 ft
38	Lower Susquehanna Heritage Greenway	Aspiration	n/a	2 ft

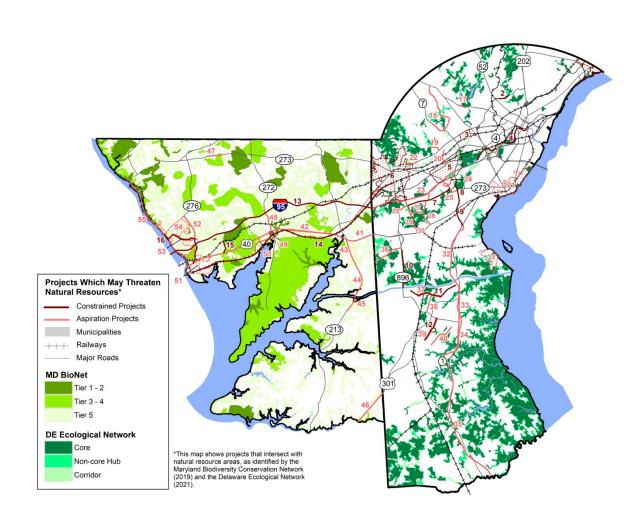
Sensitive Natural Networks vs Projects

The map and listing below identify which projects in our constrained and aspiration list may impact sensitive natural networks.

Projects in New Castle County were compared against Delaware's Ecological Network, while those in Cecil County were overlaid with Maryland's BioNet data.

As with potential sea level rise impacts, this should be considered a preliminary, high level, analysis of impacts. Project level environmental mitigation measures can be put into place for many of these projects.





¹ Maryland Department of Natural Resources; Delaware Department of Natural Resources and Environmental Control

List of Projects within Sensitive Natural Networks

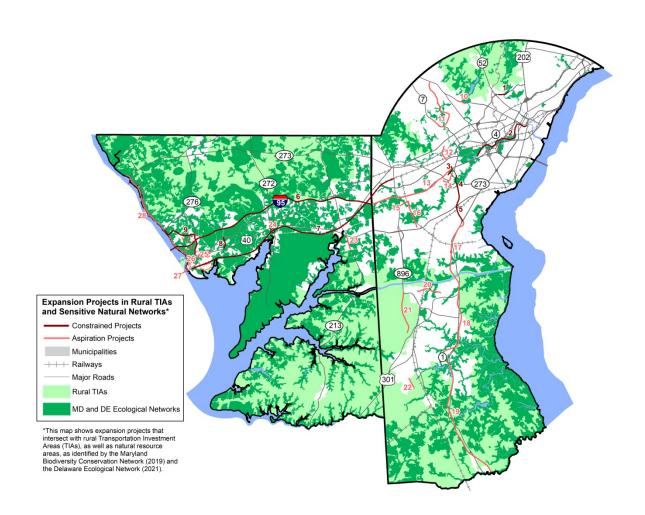
ID	PROJECT	LIST	IN SERVICE	HIGHEST IMPACT
1	North Claymont Area Master Plan (projects grouped for mapping purposes)	Constrained	2050	Core
2	Tyler McConnell Bridge, SR 141: Montchannin Road - Alapocas Road	Constrained	2045	Non-core Hub
3	Marshallton Circulation Study Improvements	Constrained	2030	Corridor
4	Newport River Trail	Constrained	2030	Core
5	Churchmans Crossing Plan Implementation	Constrained	2030	Non-core Hub
6	Newark Transportation Plan Implementation	Constrained	2036	Corridor
7	Old Baltimore Pike: SR 72 - SR 273, Sidepath	Constrained	2030	Non-core Hub
8	SR 1: Road A - US 40	Constrained		Corridor
9	SR 1: Tybouts Corner - Road A	Constrained	2024	Corridor
	Glasgow Pathway: Porter Rd - Canal	Constrained	2035	Core
	N412, Lorewood Grove Road: Rd 412A - SR 1	Constrained	2027	Non-core Hub
	Cedar Lane: Marl Pit Rd Boyds Corner Rd.	Constrained		Corridor
	I-95: Susquehanna River - DE Line	Constrained		Tier 5
	Maryland Commuter Rail: Perryville to Newark	Constrained		Tier 5
	Belvidere Rd: US 40 to BR over CSX	Constrained		Tier 4
_	MD 222, Perryville/Bainbridge Rd: US 40 to MD 275 / I-95 / MD 222 Interchange	Constrained		Tier 4
_	EB SR 48 between Stratton Dr and Hercules Rd	Aspiration	n/a	Non-core Hub
	Mill Creek/Hockessin Greenway	Aspiration	n/a	Non-core Hub
	Pike Creek Road Sidewalks	Aspiration	n/a	Non-core Hub
	Churchmans Road Extended, SR 2 to SR 4	Aspiration	n/a	Corridor
	City of New Castle Transportation Plan (grouped for mapping purposes)	Aspiration	n/a	Core
	WCC Old Paper Mill Pathway	Aspiration	n/a	Corridor
_	I-95: MD Line to SR 1	Aspiration	n/a	Corridor
	Christiana Bypass: Chapman to Eagle Run	Aspiration	n/a	Non-core Hub
	SR 273: I-95 to SR 1	Aspiration	n/a	Corridor
	Salem Church Rd: I-95 to US 40, Sidewalks	Aspiration	n/a	Corridor
27	Reybold Road: SR 72 to Salem Church Rd	Aspiration	n/a	Non-core Hub
28	Cooch's Bridge/Old Baltimore Pike Greenway	Aspiration	n/a	Corridor
29	SR 72 Widening - South of Old Baltimore Pike to Broadleaf Drive	Aspiration	n/a	Non-core Hub
30	SR 72: Reybold to US 40	Aspiration	n/a	Non-core Hub
31	Delaware City Plan Implementation	Aspiration	n/a	Non-core Hub
32	SR 1 Widening, Tybouts Corner to US 301	Aspiration	n/a	Corridor
33	US 13: south of Marl Pit Rd. to Lorewood Grove Rd.	Aspiration	n/a	Corridor
34	SR 1 Widening, US 301 to Puncheon Run (excluding Odessa to Smyrna Section)	Aspiration	n/a	Non-core Hub
35	SR 1 Widening (Odessa to North Smyrna)*	Aspiration	n/a	Core
36	Old County Road	Aspiration	n/a	Non-core Hub
37	Lorewood Grove Road West (portions not done by Whitehall)	Aspiration	n/a	Non-core Hub
	Ratledge Road: local road standards and multi-modal facilities	Aspiration	n/a	Non-core Hub
39	Cedar Lane Road: local road standards and multi-modal facilities	Aspiration	n/a	Corridor
40	Shallcross Lake Road (portion south of Greylag Rd only)	Aspiration	n/a	Core
	US 40 Corridor and Intersection Improvements	Aspiration	n/a	Tier 5
42	US 40: MD 272 - MD 279	Aspiration	n/a	Tier 1
43	MD 213: Frenchtown Road to US 40	Aspiration	n/a	Tier 5
	MD 213: Basil Ave - US 40	Aspiration	n/a	Tier 5
	Chesapeake City Parking Plan Implementation	Aspiration	n/a	Tier 5
_	US 301: Kent Co line - DE line	Aspiration	n/a	Tier 3
	MD 273, Telegraph Rd: East Limits of Rising Sun to Sylmar Rd, 2 lane reconstruction	Aspiration	n/a	Tier 4
	MD 272: US 40 - Seahawk Dr	Aspiration	n/a	Tier 1
	North East Transit Hub and Pedestrian Improvements	Aspiration	n/a	Tier 1
	MD 7, Philadelphia RdCecil Ave: East limits of Charlestown to MD 272, 2 lane reconstruction	Aspiration	n/a	Tier 1
	Perryville Bicycle and Pedestrian Improvements and Connector Streets	Aspiration	n/a	Tier 5
	MD 275, Perrylawn Drive: MD 222 to MD 276 (divided highway reconstruct)	Aspiration	n/a	Tier 4
_	MD 222, Bainbridge Rd: MD 275 to Bainbridge entrance, 2 lane reconstruction	Aspiration	n/a	Tier 5
_	Port Deposit Shared Ride Service	Aspiration	n/a	Tier 5
_	·			
၂၁၁	Lower Susquehanna Heritage Greenway	Aspiration	n/a	Tier 5

Planned RTP Expansion Projects in Rural TIAs and Sensitive Natural Networks

The map and listing below identify which expansion projects in our constrained and aspiration list may impact rural Transportation Investment Areas (TIAs) or sensitive natural networks. The sensitive natural networks are shown in more detail in the previous map.

The RTP identified certain types of projects to be discouraged in rural TIAs, including most expansion projects. While many of these projects serve transportation needs in center and core TIAs, they would pass through rural and/or ecologically sensitive areas. In particular, roadway expansion projects would bring lasting change to a sensitive landscape and encourage nearby land development. Bicycle and pedestrian projects would have a lesser but still notable impact.

Map of Expansion Projects within Rural TIAs and Sensitive Natural Networks



List of Expansion Projects within Rural TIAs and Sensitive Natural Networks

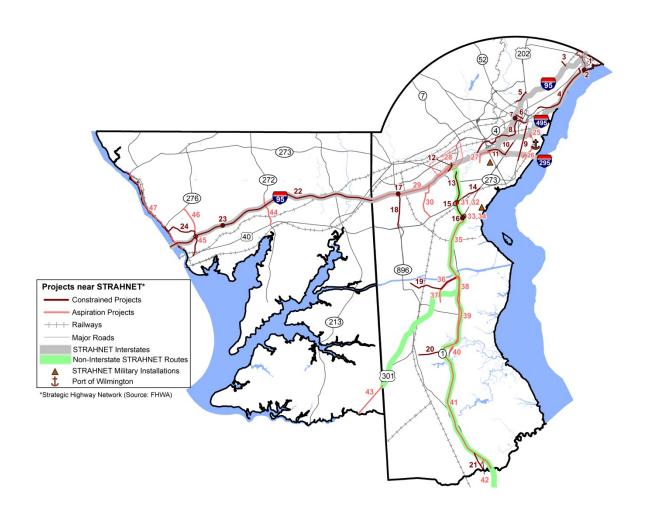
ID	PROJECT	LIST	IN SERVICE	HIGHEST IMPACT
1	Tyler McConnell Bridge, SR 141: Montchannin Road - Alapocas Road	Constrained	2045	Non-core Hub, Rural TIA
2	Newport River Trail	Constrained	2030	Core
3	Eagle Run Rd to Continental Drive Connector	Constrained	2040	Non-core Hub
4	SR 1: Road A - US 40	Constrained	2036	Corridor
5	SR 1: Tybouts Corner - Road A	Constrained	2024	Corridor
6	I-95: Susquehanna River - DE Line	Constrained	2050	Tier 5, Rural TIA
7	Maryland Commuter Rail: Perryville to Newark	Constrained	2029	Tier 5, Rural TIA
8	Belvidere Rd: US 40 to BR over CSX	Constrained	2027	Tier 4
9	MD 222, Perryville/Bainbridge Rd: US 40 to MD 275 / I-95 / MD 222 Interchange	Constrained	2045	Tier 4
10	EB SR 48 between Stratton Dr and Hercules Rd	Aspiration	n/a	Non-core Hub
11	Mill Creek/Hockessin Greenway	Aspiration	n/a	Non-core Hub
12	Churchmans Road Extended, SR 2 to SR 4	Aspiration	n/a	Corridor
13	I-95: MD Line to SR 1	Aspiration	n/a	Corridor
14	Christiana Bypass: Chapman to Eagle Run	Aspiration	n/a	Non-core Hub
	Cooch's Bridge/Old Baltimore Pike Greenway	Aspiration	n/a	Corridor
16	SR 72 Widening - South of Old Baltimore Pike to Broadleaf Drive	Aspiration	n/a	Non-core Hub
17	SR 1 Widening, Tybouts Corner to US 301	Aspiration	n/a	Corridor, Rural TIA
18	SR 1 Widening, US 301 to Puncheon Run (excluding Odessa to Smyrna Section)	Aspiration	n/a	Non-core Hub, Rural TIA
19	SR 1 Widening (Odessa to North Smyrna)*	Aspiration	n/a	Core, Rural TIA
	Lorewood Grove Road West (portions not done by Whitehall)	Aspiration	n/a	Non-core Hub
21	US 301: Spur	Aspiration	n/a	Rural TIA
22	Wiggins Mill Road from St. Anne's Church Rd to Green Giant Rd	Aspiration	n/a	Rural TIA
23	MD 213: Frenchtown Road to US 40	Aspiration	n/a	Tier 5, Rural TIA
24	North East Transit Hub/ Train Station	Aspiration	n/a	Tier 1
25	Perryville Bicycle and Pedestrian Improvements	Aspiration	n/a	Tier 5, Rural TIA
	Perryville Connector Streets	Aspiration	n/a	Tier 5
27	Susquehanna River Pedestrian/Bicycle Crossing	Aspiration	n/a	Tier 1
28	Lower Susquehanna Heritage Greenway	Aspiration	n/a	Tier 5, Rural TIA

Planned RTP Projects vs STRAHNET

The map and listing below identify which projects in our constrained and aspiration list may impact the Strategic Highway Network (STRAHNET). Identified by the FHWA, STRAHNET is a network of highways which are important to the United States' strategic defense policy by providing emergency and defense access to military installations and port terminals.

These projects may require coordination with FHWA to determine what, if any, impact they may have on US defense operations.

Map of Projects near the Strategic Highway Network (STRAHNET)



List of Projects near the Strategic Highway Network (STRAHNET)

ID	PROJECT	LIST	IN SERVICE	NEAR ROUTE
1	North Claymont Area Master Plan (projects grouped for mapping purposes)	Constrained	2050	I-495
2	Claymont Train Station	Constrained	2024	I-495
3	Harvey Road Traffic Calming	Constrained	2036	I-95
4	Governor Printz Boulevard Road Diet	Constrained	2030	I-495
5	Augustine Cutoff Pathway	Constrained	2024	I-95
6	4th St.: Walnut St Adams	Constrained	2026	I-95
7	Maryland Ave. / Monroe Street	Constrained	2030	I-95
8	Newport River Trail	Constrained	2030	I-495
9	SR 9: Landers Ln - A St	Constrained	2026	I-495
10	US 13: US 40 - Memorial Drive	Constrained	2025	I-295
11	I-295, Northbound	Constrained	2026	I-295
12	Eagle Run Rd to Continental Drive Connector	Constrained	2040	I-95
13	SR 1: Road A - US 40	Constrained	2036	SR 1
14	US 40: SR 1 - US 13, Sidepaths	Constrained	2028	SR 1
15	SR 1: Tybouts Corner - Road A	Constrained	2024	SR 1
16	SR 1 at Tybouts Corner (interchange reconstruction)	Constrained	2035	SR 1
17	L95 / SR 896 Interchange	Constrained	2026	I-95
18	SR 896: US 40 - I-95	Constrained	2035	I-95
19	N412, Lorewood Grove Road: Rd 412A - SR 1	Constrained	2027	SR 1
20	SR 299: SR 1 - Catherine Street	Constrained	2024	SR 1
21	US 13: Duck Creek to SR 1	Constrained	2030	SR 1
22	L95: Susquehanna River - DE Line	Constrained	2050	I-95
	L95 / Belvidere Road Interchange	Constrained	2025	I-95
24	MD 222, Perryville/Bainbridge Rd: US 40 to MD 275 / I-95 / MD 222 Interchange	Constrained	2045	I-95
25	Port of Wilmington Truck Staging Area (site location undetermined)	Aspiration	n/a	I-495
	Pigeon Point Extension (Options 1 & 2)	Aspiration	n/a	I-295
27	Airport Rd: Commons Blvd – I-95	Aspiration	n/a	I-295
28	Churchmans Crossing Plan Implementation	Aspiration	n/a	I-95
29	L95: MD Line to SR 1	Aspiration	n/a	SR 1
30	Salem Church Rd: I-95 to US 40, Sidewalks	Aspiration	n/a	I-95
31	SR 1 NB Ramp to US 40	Aspiration	n/a	SR 1
32	DE 1 southbound ramp/US 40 Intersection	Aspiration	n/a	SR 1
33	New Truck Parking facility - NCC Location at Intersection of US 13 and Bear Rd./Hamburg Rd.	Aspiration	n/a	SR 1
34	US 13 and SR 71 Intersection	Aspiration	n/a	SR 1
35	SR 1 Widening, Tybouts Corner to US 301	Aspiration	n/a	SR 1
36	Lorewood Grove Road East: local road standards and multi-modal facilities	Aspiration	n/a	SR 1
37	Jamison Corner Rd. South of Lorewood Grove Rd: local road standards and dualization	Aspiration	n/a	US 301
38	US 13: south of Marl Pit Rd. to Lorewood Grove Rd.	Aspiration	n/a	US 301
39	SR 1 Widening, US 301 to Puncheon Run (excluding Odessa to Smyrna Section)	Aspiration	n/a	US 301
40	US 13: Odessa Transportation Plan Implementation	Aspiration	n/a	SR 1
	SR 1 Widening (Odessa to North Smyrna)*	Aspiration	n/a	SR 1
	Paddock Rd US 13 to US 1	Aspiration	n/a	SR 1
	US 301: Kent Co line - DE line	Aspiration	n/a	US 301
44	MD 272: US 40 - Seahawk Dr	Aspiration	n/a	I-95
	I-95 / MD 222 Interchange	Aspiration	n/a	I-95
	MD 275, Perrylawn Drive: MD 222 to MD 276 (divided highway reconstruct)	Aspiration	n/a	I-95
	Lower Susquehanna Heritage Greenway	Aspiration	n/a	I-95

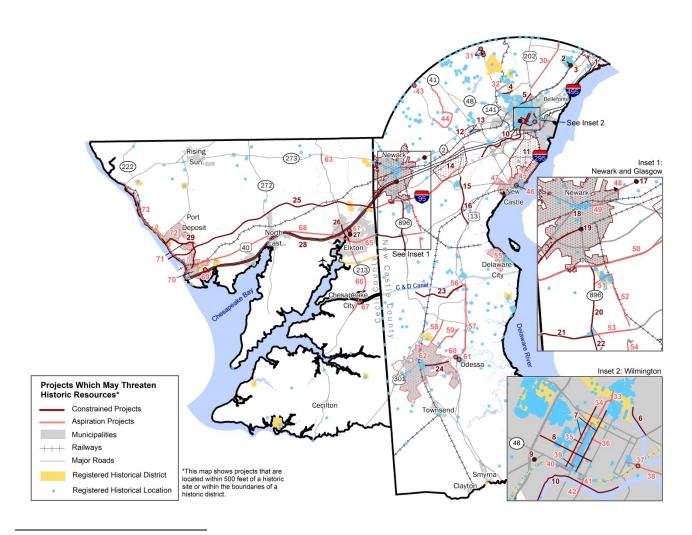
Cultural Resources vs Projects

The map and listing below identify which projects in our constrained and aspiration list may impact key cultural resources.

Projects in New Castle County were compared against registered sites of historic significance. If a project fell within 500 ft. of the site, or within a specified district, it was flagged.

As with the other analyses in this section, this should be considered a preliminary, high level, analysis of impacts. Project level mitigation measures can be put into place for many of these projects.





² Maryland Historical Trust; Delaware Division of Historical and Cultural Affairs; National Register

List of Projects Nearby Registered Historic Places

ID	PROJECT	LIST	IN SERVICE
1	North Claymont Area Master Plan (projects grouped for mapping purposes)	Constrained	2050
2	Harvey Road Traffic Calming	Constrained	2036
3	Harvey Road and Sconset Road Pedestrian Improvements	Constrained	2025
4	Tyler McConnell Bridge, SR 141: Montchannin Road - Alapocas Road	Constrained	2045
5	Augustine Cutoff Pathway	Constrained	2024
6	Wilmington Traffic Calming; 12th St. Connector	Constrained	2028
7	King & Orange Streets: MLK Blvd 13th St.	Constrained	2024
8	4th St.: Walnut St Adams	Constrained	2026
9	Maryland Ave. / Monroe Street	Constrained	2030
	Newport River Trail	Constrained	2030
11	Route 9 Corridor Master Plan (projects grouped for mapping purposes)	Constrained	2026
12	Marshallton Circulation Study Improvements	Constrained	2030
13	Old Capital Trail: Newport Road to Stanton Rd	Constrained	2028
14	Churchmans Crossing Plan Implementation	Constrained	2030
15	SR 1: Road A - US 40	Constrained	2036
16	SR 1: Tybouts Corner - Road A	Constrained	2024
17	SR 2 / Red Mill Rd. Intersection	Constrained	2024
18	Newark Transportation Plan Implementation	Constrained	2036
19	Newark Regional Transportation Center, Phase III	Constrained	2024
20	SR 896: US 40 - I-95	Constrained	2035
21	US 40: MD State Line to SR 896, Sidepaths	Constrained	2030
22	Glasgow Ave Improvements	Constrained	2026
23	N412, Lorewood Grove Road: Rd 412A - SR 1	Constrained	2027
24	SR 299: SR 1 - Catherine Street	Constrained	2024
25	I-95: Susquehanna River - DE Line	Constrained	2050
26	MD 213, Bridge St.: US 40 - MD 279	Constrained	2036
27	Elkton Bus Service Circulator	Constrained	2030
	Maryland Commuter Rail: Perryville to Newark	Constrained	2029
29	MD 222, Perryville/Bainbridge Rd: US 40 to MD 275 / I-95 / MD 222 Interchange	Constrained	2045

List of Projects Nearby Registered Historic Places (continued)

ID	PROJECT	LIST	IN SERVICE
30	Foulk Road Sidewalks	Aspiration	n/a
31	SR 52 and Snuff Mill Rd, Center Meeting Rd Intersections	Aspiration	n/a
	Buck Rd Sidewalk	Aspiration	n/a
33	Convert 1500 block of King St to two-way street	Aspiration	n/a
	Market Street: 11th to 16th Sts.	Aspiration	n/a
35	Shipley Street Enhancements: 12th Street to MLK Blvd.	Aspiration	n/a
36	Two-way traffic on 8th St between King & Walnut Sts	Aspiration	n/a
37	Swedes Landing and 7th Street Intersection Improvments	Aspiration	n/a
38	7th St Improvements (Wilmington)	Aspiration	n/a
39	Add Southbound lanes on Market St. between 2nd St and MLK Blvd.	Aspiration	n/a
40	Water St. West: Shipley Street to West Street	Aspiration	n/a
41	Water St. East Extended (French St. to Front St.)	Aspiration	n/a
42	S. Walnut Street Bridge Area	Aspiration	n/a
	NB SR 7 between Tims Ln and PA State Line	Aspiration	n/a
44	Mill Creek/Hockessin Greenway	Aspiration	n/a
45	City of New Castle Transportation Plan (grouped for mapping purposes)	Aspiration	n/a
	Ferry Cutoff/Delaware St Gateway	Aspiration	n/a
	SR 273 Widening, City of New Castle	Aspiration	n/a
	WCC Old Paper Mill Pathway	Aspiration	n/a
	Main St. McKee Connector	Aspiration	n/a
50	I-95: MD Line to SR 1	Aspiration	n/a
51	Cooch's Bridge/Old Baltimore Pike Greenway	Aspiration	n/a
	SR 72 Widening - South of Old Baltimore Pike to Broadleaf Drive	Aspiration	n/a
	US 40: SR 896 to SR72	Aspiration	n/a
54	Del Laws Road, Sidewalks	Aspiration	n/a
55	Delaware City Plan Implementation	Aspiration	n/a
	Lorewood Grove Road East: local road standards and multi-modal facilities	Aspiration	n/a
57	US 13: south of Marl Pit Rd. to Lorewood Grove Rd.	Aspiration	n/a
58	Cedar Lane Road: local road standards and multi-modal facilities	Aspiration	n/a
59	Shallcross Lake Road (portion south of Greylag Rd only)	Aspiration	n/a
	US 13: Odessa Transportation Plan Implementation	Aspiration	n/a
	US 13 NB and SR 299 Intersection	Aspiration	n/a
62	Westown TID and Eastown TID (projects grouped for mapping purposes)	Aspiration	n/a
	MD 213, Singerly Rd: North of Providence Rd. to MD 273, 2 lane reconstruction	Aspiration	n/a
	Elkton Downtown Connector Streets & Streetscaping	Aspiration	n/a
	US 40: MD 279 - DE Line	Aspiration	n/a
66	MD 213: Basil Ave - US 40	Aspiration	n/a
	Chesapeake City Parking Plan Implementation	Aspiration	n/a
	US 40 Corridor and Intersection Improvements	Aspiration	n/a
	MARC Maintenance Facility	Aspiration	n/a
	Perryville Bicycle and Pedestrian Improvements	Aspiration	n/a
	MD 222, Bainbridge Rd: MD 275 to Bainbridge entrance, 2 lane reconstruction	Aspiration	n/a
	Port Deposit Shared Ride Service	Aspiration	n/a
	Lower Susquehanna Heritage Greenway	Aspiration	n/a