

Age-Restricted Communities Transit and Sidewalk Analysis

Overview of Project

This data report evaluates public transit and sidewalk accessibility of age-restricted communities in Cecil County, Maryland and New Castle County, Delaware. The age-restricted communities considered include existing and planned “active-living” developments collected from county land use departments and internet databases. Each location is assessed for potential improvements to DART and Cecil County Community Transit’s fixed-route public transit systems and sidewalk/pedestrian accessibility. Transit access is assessed based on the distance between the communities and existing bus service. Sidewalk accessibility is analyzed using the existing sidewalk network and air photos. The report identifies age-restricted communities where improvements are possible, and draws some overall conclusions.

Existing and Planned Communities without Fixed-Route Transit Access

The map shows existing and planned adult communities in our region that fall outside walking distance (1/4 mile) to a bus stop. In total, over half (53%) lacked public transit access in 2009.

#	Community	#	Community	#	Community
1	Adare Village	16	Jeanette Weber Home	31	Silver Maple Farm
2	AllCare Assisted Living	17	Liberty Gardens	32	Singerly Manor
3	Bayberry South	18	Longmeadow	33	Springer Woods
4	Booth II	19	Lowes Assisted Living Homes I	34	Springmill
5	Briarcreek	20	Lowes Assisted Living Homes II	35	Steeple Glen
6	Canal Town Village	21	McKinley Apartments	36	Stonevale
7	Caraway Manor	22	Meridian Crossing	37	Sunny Acres Bay
8	Caraway Manor at Brownfield	23	Methodist Country House-Phase 4	38	Sunrise of Hockessin
9	Covenant Care	24	Millcroft Senior Living	39	Traditions at Southridge
10	D & G Home Care I	25	Milltown Village	40	Village of Jester Crossing
11	D & G Home Care II	26	Montrose Senior Living	41	Village of Llangollen
12	Fairview	27	3712 Newport Gap Pike	42	Village of Long Creek
13	Fountainview Apartments	28	Odessa National	43	Village of Red Lion Creek
14	Golden Legends	29	Paper Mill Falls	44	Vista at Red Lion
15	Hill Top Manor	30	Saw Mill Place		

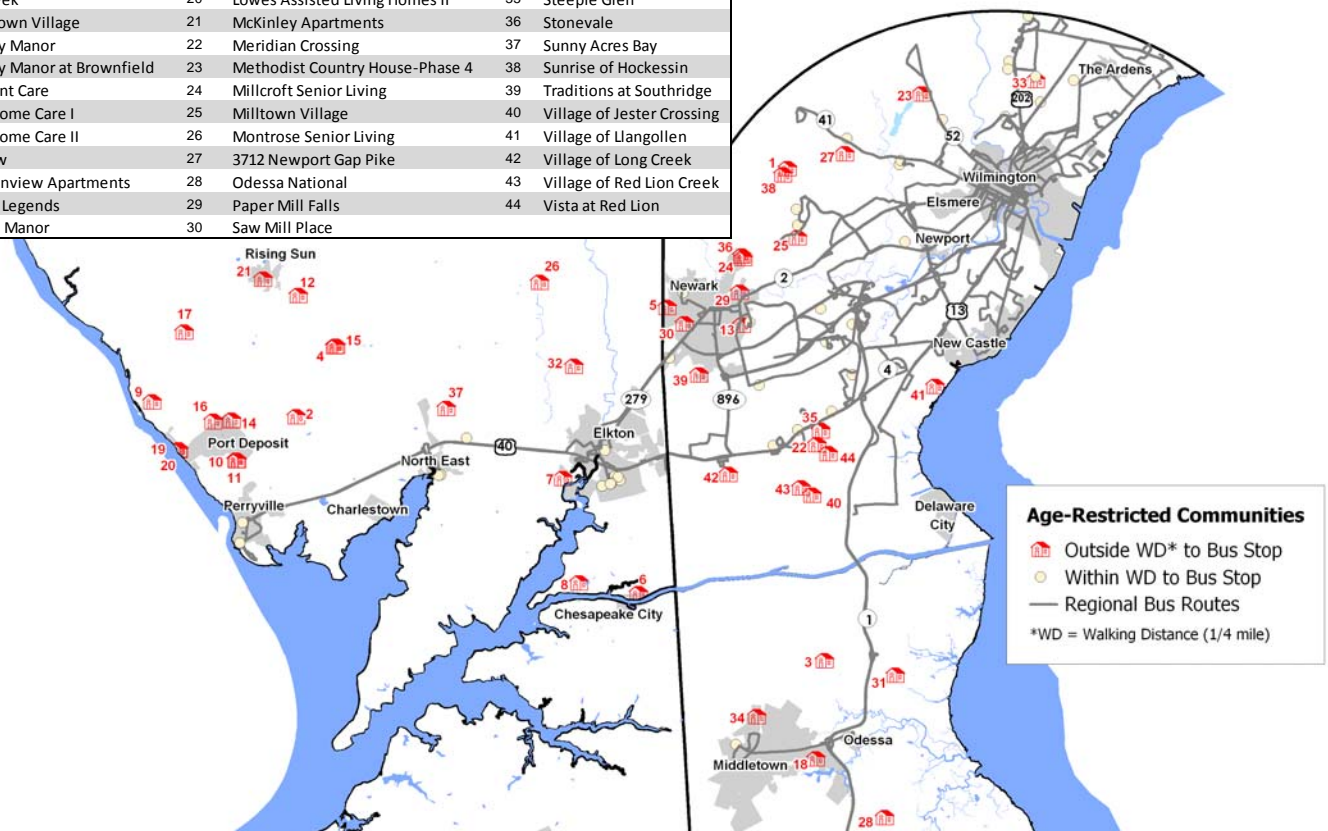


Figure 1– Existing and Proposed Age-Restricted Communities without Fixed-Route Transit Access (2009)

Age-Restricted Communities

THE VILLAGE OF TWIN LAKES, Newark, DE

General Issues

- More seniors buying homes in age-restricted communities.
- Developers have been careless about where they locate these types of communities.
- Typical locations of age-restricted communities:
 - Sprawling fringe
 - Away from town and city services
 - Disconnected from public transit networks
- Seniors without transportation options are at-risk of a loss of independence, social isolation, and the ability to “age in place”.



Source: Cornell Homes

Transit Mobility

- Transit mobility is key for seniors with limited transportation options.
- A reasonable walking distance from place of residence to a transit stop is about a quarter mile.
- Communities that do not have transit service within the quarter mile buffer may be unable to provide sufficient transit mobility to its residents.



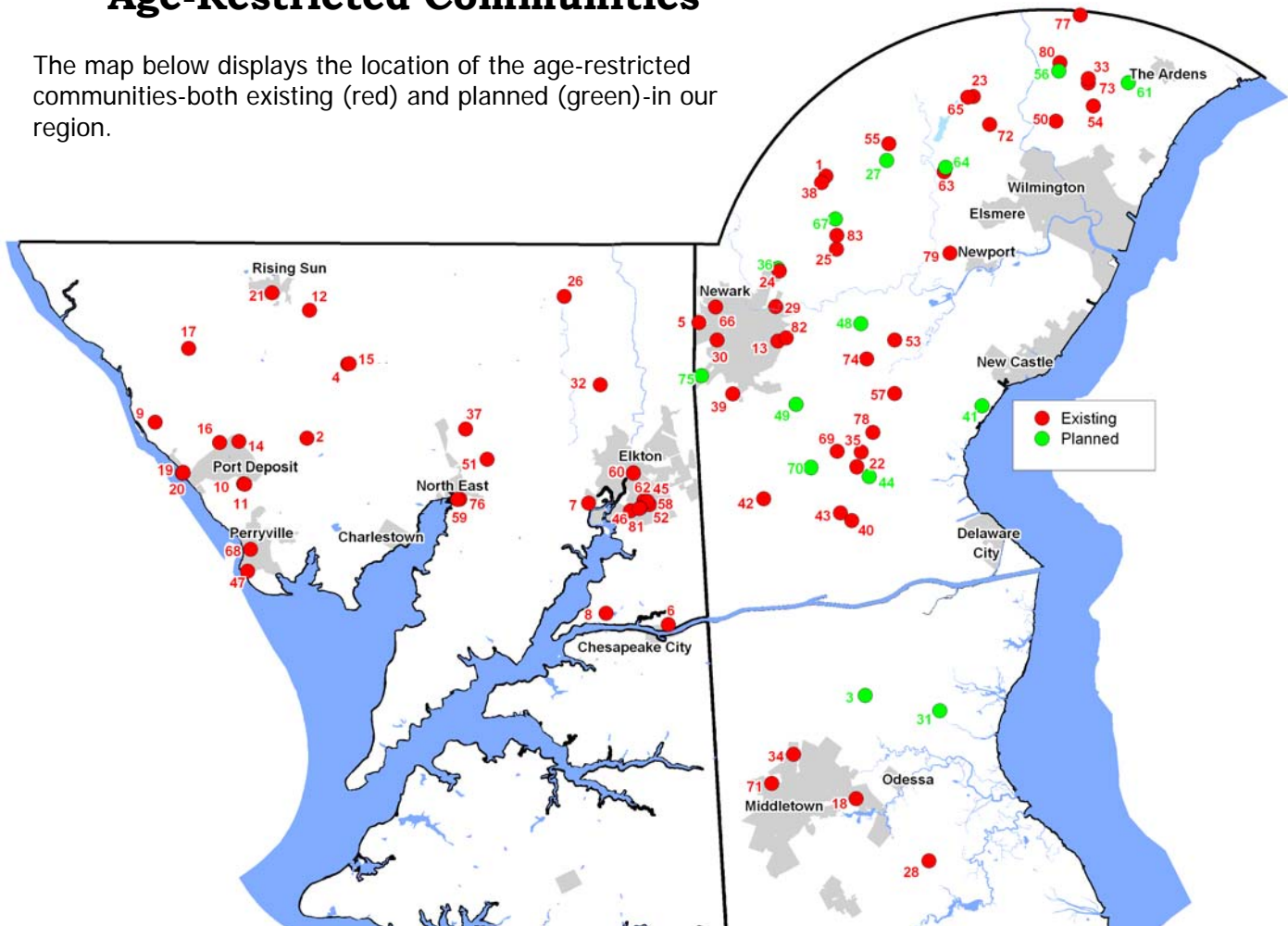
Pedestrian Accessibility

- Pedestrian accessibility is vital to fostering community interaction, independence, and physical fitness in age-restricted communities.
- Sidewalk networks both within the community as well as connecting to adjacent neighborhoods and surrounding activities can increase walkability.
- Short-term and long-term improvements in sidewalk connections can encourage walking.



Location of Existing and Planned Age-Restricted Communities

The map below displays the location of the age-restricted communities-both existing (red) and planned (green)-in our region.



#	Community	#	Community	#	Community	#	Community
1	Adare Village	22	Meridian Crossing	43	Village of Red Lion Creek	64	Little Falls Village II
2	AllCare Assisted Living	23	Methodist Country House-Phase 4	44	Vista at Red Lion	65	Methodist Country House
3	Bayberry South	24	Millcroft Senior Living	45	Abbey Manor I	66	Phillips Mill
4	Booth II	25	Milltown Village	46	Abbey Manor II	67	Pike Creek Nursing Home and Medical Buildings
5	Briarcreek	26	Montrose Senior Living	47	AllCare Assisted Living at Perryville	68	Richmond Hill Manor
6	Canal Town Village	27	3712 Newport Gap Pike	48	Alterra/Alternative Living Services East	69	Salem Church Road Senior Housing
7	Caraway Manor	28	Odessa National	49	Bradford Pond	70	Shuman Property Housing
8	Caraway Manor at Brownfield	29	Paper Mill Falls	50	Carillon Crossing	71	Spring Arbor
9	Covenant Care	30	Saw Mill Place	51	Cecil Woods	72	Stonegates
10	D & G Home Care I	31	Silver Maple Farm	52	Chesapeake Elderly Apartments	73	Sunrise Assisted Living of Wilmington
11	D & G Home Care II	32	Singerly Manor	53	Churchmans Meadows	74	Traditions at Christiana
12	Fairview	33	Springer Woods	54	Cloutier Court	75	Twin Lakes
13	Fountainview Apartments	34	Springmill	55	Cokesbury Village	76	Victoria Park at North East
14	Golden Legends	35	Steeple Glen	56	Columbia Place	77	Village of Branywine
15	Hill Top Manor	36	Stonevale	57	Crossings at Christiana	78	Village of Fox Meadow
16	Jeanette Weber Home	37	Sunny Acres Bay	58	Elk Chase Apartments	79	Village of Hershey Run
17	Liberty Gardens	38	Sunrise of Hockessin	59	Elk River Manor	80	Village of Rocky Run
18	Longmeadow	39	Traditions at Southridge	60	Elkton Housing	81	Villas at Whitehall
19	Lowes Assisted Living Homes I	40	Village of Jester Crossing	61	Forwood School Retirement and Off. Campus	82	Whitechapel Village
20	Lowes Assisted Living Homes II	41	Village of Llangollen	62	Fox Ridge Manor	83	Woodlea
21	McKinley Apartments	42	Village of Long Creek	63	Little Falls Village		

Figure 2- Existing and Planned Age-Restricted Communities in the WILMAPCO Region

Transit Analysis

In order to investigate the likelihood of adding transit service to communities outside of a reasonable walking distance to bus stops the following methodology was used:

1. A quarter mile buffer was applied based on a reasonable walking distance to access a transit stop. The communities that fall within this buffer are noted as "connection exists".
2. For communities that fall outside of the buffer the following steps were followed:
 - A. Does a transit line run directly next to the community? If YES, then a "short-term" connection is possible. If NO, then see question B.
 - B. Is a transit line within one mile (following the road network) to the community? If YES, then a "long-term connection" is possible. If NO, then the addition of a connection is "unlikely".

Using this methodology there are four levels of connectivity:

- Connection Exists
- Short-Term Possibility
- Long-Term Possibility
- Unlikely/Difficult

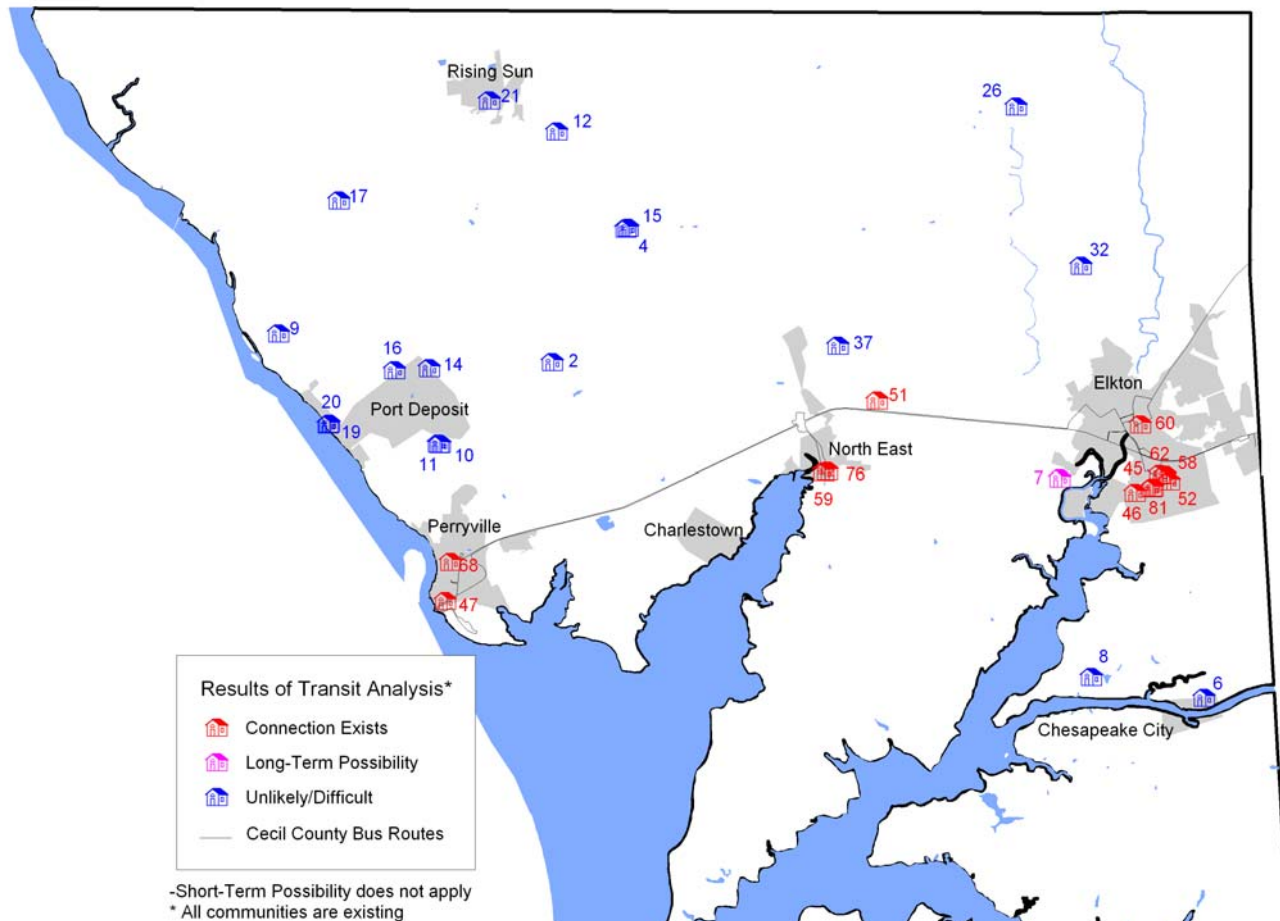


Figure 3– Results of the Transit Analysis for Cecil County, Maryland

Transit Analysis, Continued

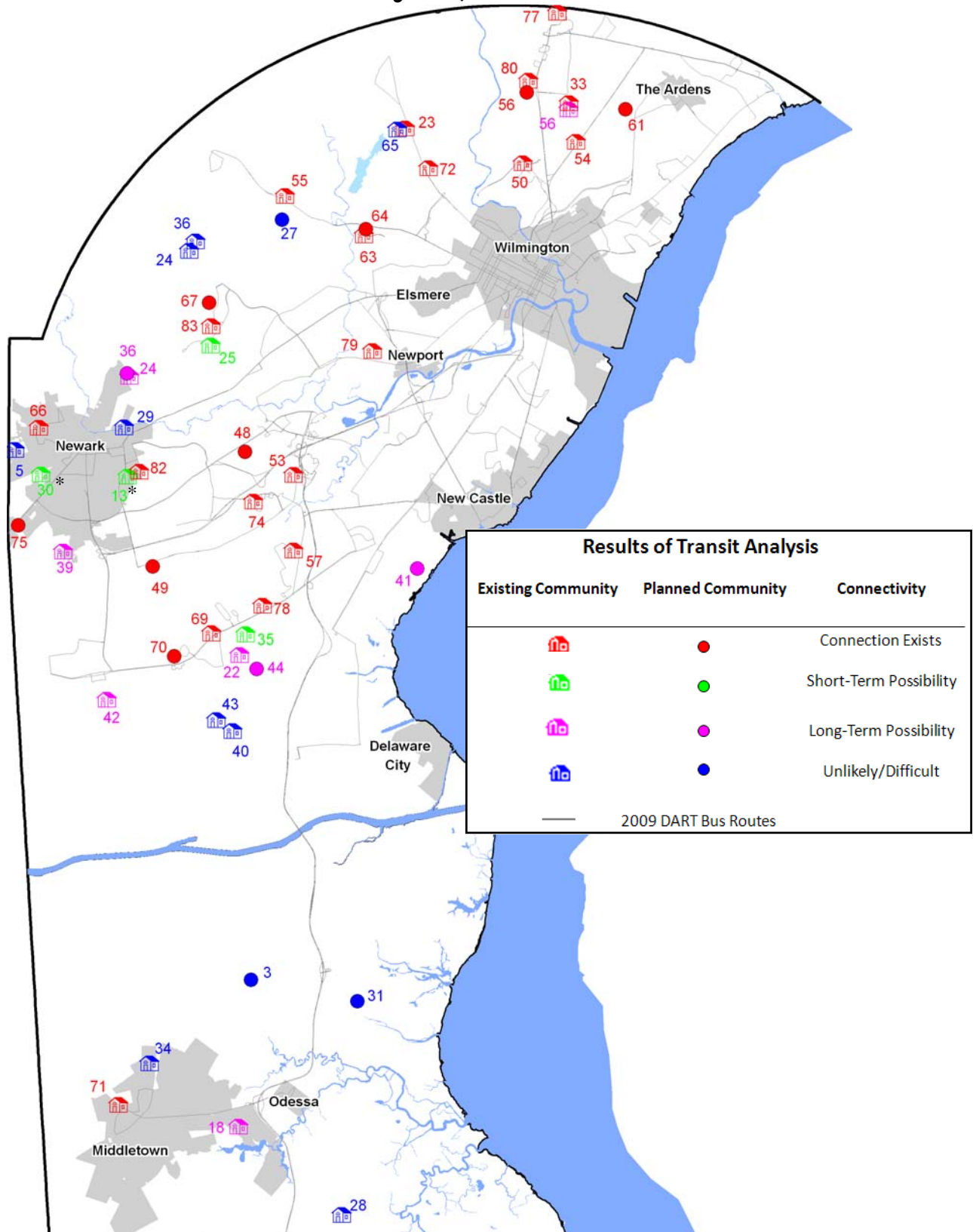


Figure 4– Results of the Transit Analysis for New Castle County, Delaware

*Fountainview Apartments (13) and Saw Mill Place (30) are served by Unicity, a local limited-service route in Newark.

Transit Analysis Summary

The table below lists the results from the transit analysis. The communities are listed based on their status (existing or planned) and connection to a transit stop from “connection exists” to “unlikely/difficult” as described below:

- Connection Exists
- Short-Term Possibility– Transit line runs next to community
- Long-Term Possibility-Transit line is within one mile of road network
- Unlikely/Difficult– Transit line is not within one mile of road network

Existing communities are listed in black, while planned ones appear in gray.

Table 1– Summary of Transit Analysis Results for New Castle County and Cecil County

New Castle County		Cecil County	
Connection Exists	Short-Term Possibility	Connection Exists	Unlikely/Difficult
Alterra/Alternative Living Services East (48)	Fountainview Apartments (13)	Chesapeake Elderly Apartments (52)	Canal Town Village (6)
Bradford Pond (70)	Milltown Village (25)	Elk Chase Apartments (58)	Fairview (12)
Carillon Crossing (71)	Saw Mill Place (30)	Elk River Manor (59)	McKinley Apartments (21)
Churchmans Meadows (53)	Steeple Glen (35)	Elkton Housing (60)	AllCare Assisted Living (2)
Cloutier Court (54)	Long-Term Possibility	Fox Ridge Manor (62)	Booth II (4)
Cokesbury Village (55)	Longmeadow (18)	Richmond Hill Manor (68)	Caraway Manor at Brownfield (8)
Columbia Place (56)	Meridian Crossing (22)	Victoria Park at North East (76)	Covenant Care (9)
Crossings at Christiana (57)	Millcroft Senior Living (24)	Villas at Whitehall (81)	D & G Home Care I (10)
Forwood School Retirement and Off. Campus (61)	Springer Woods (33)	Abbey Manor I (45)	D & G Home Care II (11)
Little Falls Village (63)	Stonevale (36)	Abbey Manor II (46)	Golden Legends (14)
Little Falls Village II (64)	Traditions at Southridge (39)	AllCare Assisted Living at Perryville (47)	Hill Top Manor (15)
Methodist Country House (65)	Village of Llangollen (41)	Cecil Woods (51)	Jeanette Weber Home (16)
Phillips Mill (66)	Village of Long Creek (42)	Long-Term Possibility	Liberty Gardens (17)
Pike Creek Nursing Home and Medical Bldgs (67)	Vista at Red Lion (44)	Caraway Manor (7)	Lowes Assisted Living Homes I (19)
Salem Church Road Senior Housing (69)	Unlikely/Difficult		Lowes Assisted Living Homes II (20)
Shuman Property Housing (70)	3712 Newport Gap Pike (27)		Montrose Senior Living (26)
Spring Arbor (71)	Adare Village (1)		Singerly Manor (32)
Stonegates (72)	Bayberry South (3)		Sunny Acres Bay (37)
Sunrise Assisted Living of Wilmington (73)	Briarcreek (5)		
Traditions at Christiana (74)	Methodist Country House-Phase 4 (23)		
Twin Lakes (75)	Odessa National (28)		
Village of Branywine (77)	Paper Mill Falls (29)		
Village of Fox Meadow (78)	Silver Maple Farm(31)		
Village of Hershey Run (79)	Springmill (34)		
Village of Rocky Run (80)	Sunrise of Hockessin (38)		
Whitechapel Village (82)	Village of Jester Crossing (40)		
Woodlea (83)	Village of Red Lion Creek (43)		

LEGEND

Existing Communities

Planned Communities

Sidewalk Analysis

In order to investigate how well the communities are served by the existing sidewalk network, the following methodology was used:

1. Based on a review of the air photos, sidewalk, and parcel layers, does the community already appear to have good sidewalk connections to surrounding activities (parks, commercial, etc.)? If YES, then no improvement needed and is noted as "Good". If NO, see question 2.
2. Does the community appear to have acceptable connections, but is missing some segment of sidewalk that would connect it to surrounding uses? If YES, this is a "Short-Term Possibility". If NO, go to question 3.
3. Does the community appear to have poor sidewalk connections but is located near activities served by a decent sidewalk network? If YES, this is a "Long-Term Possibility". If NO, then sidewalk connections are "Unlikely/Difficult" to be developed.

Using this methodology there are four levels of connectivity:

- Connection Exists
- Short-Term Possibility
- Long-Term Possibility
- Unlikely/Difficult

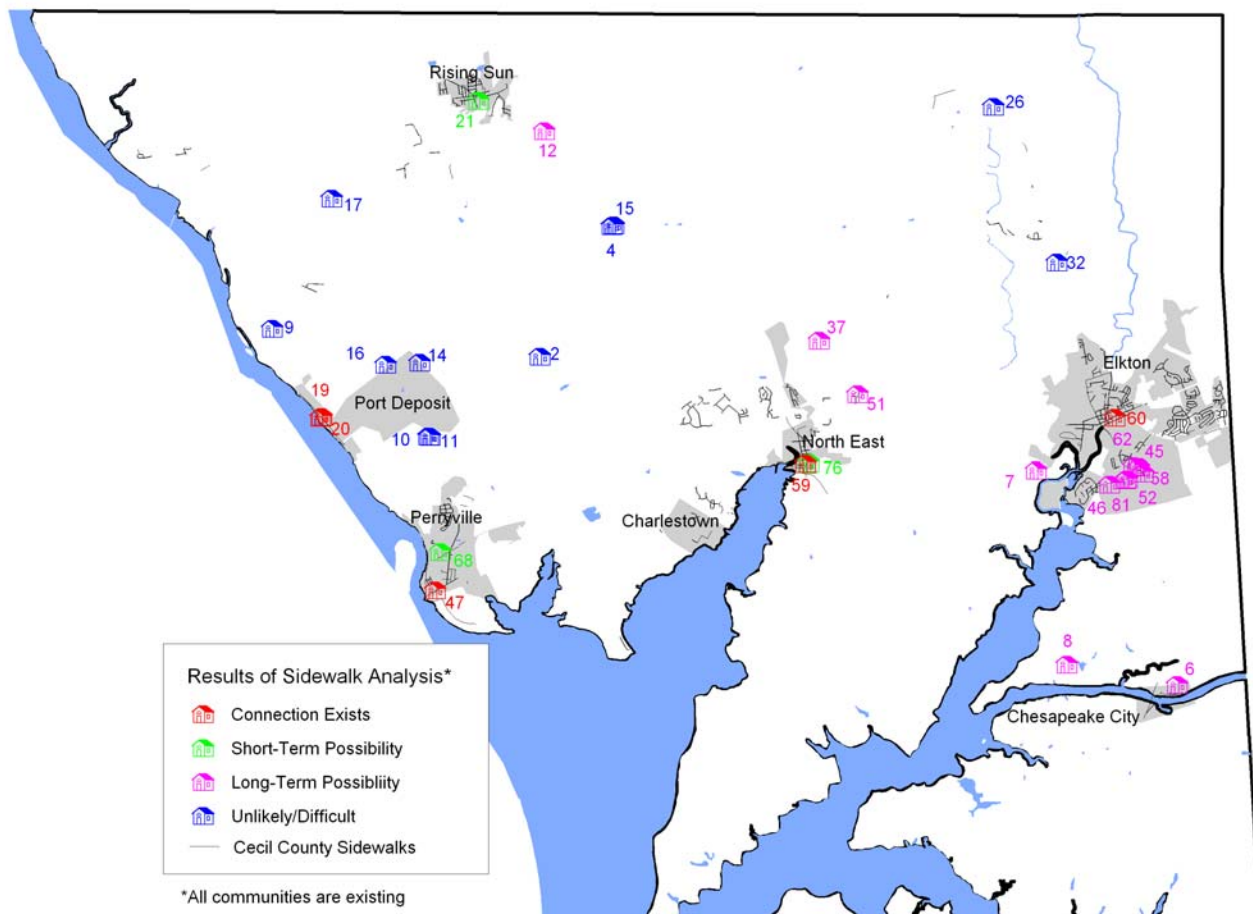


Figure 5– Results of the Sidewalk Analysis for Cecil County, Maryland

Sidewalk Analysis, Continued

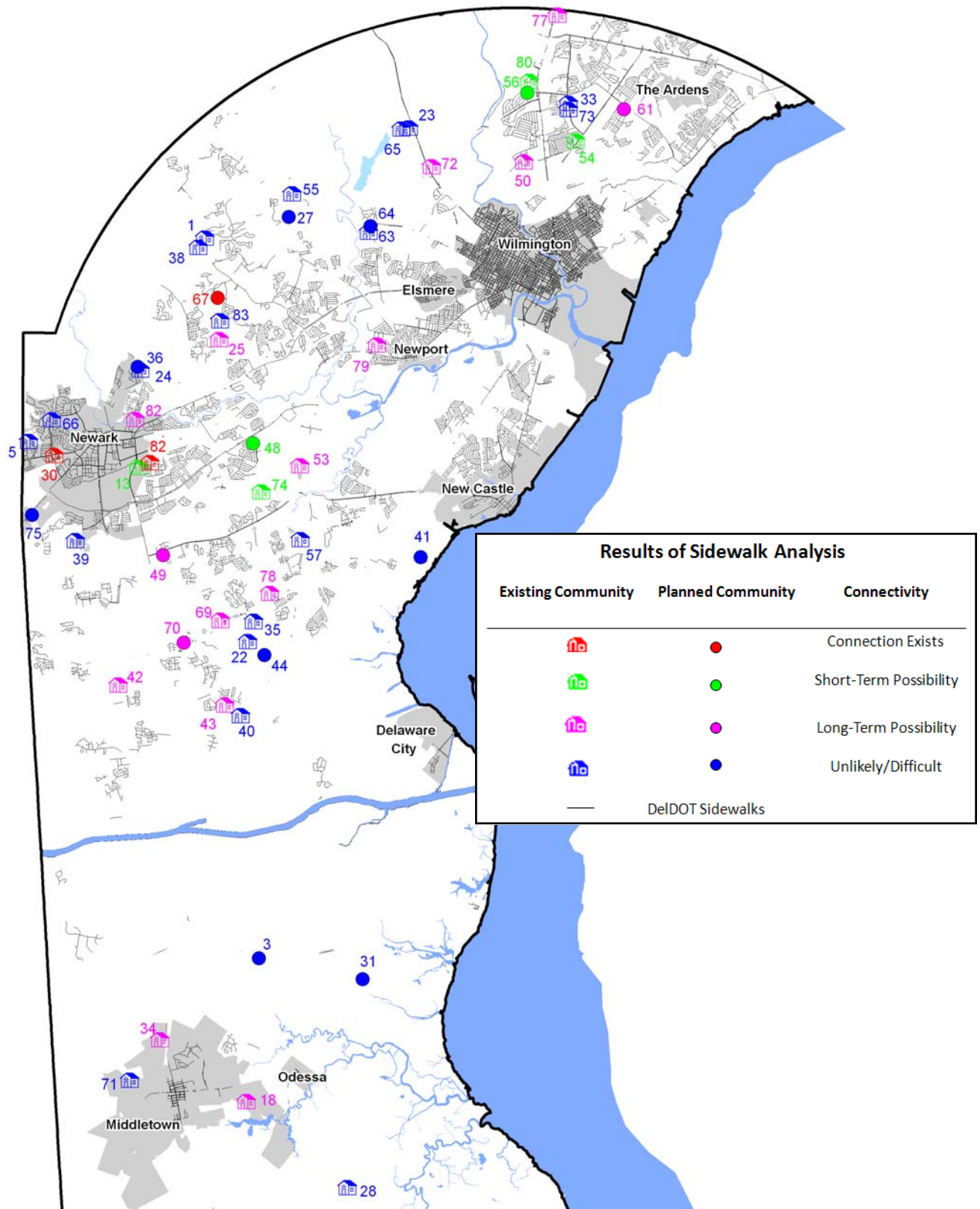


Figure 6– Results of Sidewalk Analysis for New Castle County, Delaware

Sidewalk Analysis Summary

Table 2 displays the results from the sidewalk analysis. The communities are listed based on their status (existing or planned) and connection to sidewalks from “connection exists” to “unlikely/difficult” as described below:

- Connection Exists-Community has good sidewalk connections to surrounding uses (parks, commercial, etc.)
- Short-Term Possibility- Community has some sidewalk connections but is missing some segments.
- Long-Term Possibility-Community has poor sidewalk connections but is located near activities served by a decent sidewalk network.
- Unlikely/Difficult- Community is isolated from surrounding activities.

Existing communities are listed in black, while planned ones appear in gray.

Table 2- Summary of Sidewalk Analysis Results for New Castle County and Cecil County

New Castle County		Cecil County	
Connection Exists	Unlikely/Difficult	Connection Exists	Unlikely/Difficult
Pike Creek Nursing Home and Medical Buildings (67)	3712 Newport Gap Pike (27)	AllCare Assisted Living at Perryville (47)	AllCare Assisted Living (2)
Saw Mill Place (30)	Adare Village (1)	Elkton Housing (60)	Booth II (4)
Whitechapel Village (82)	Bayberry South (3)	Lowes Assisted Living Homes I (19)	Covenant Care (9)
Short-Term Possibility	Briarcreek (5)	Lowes Assisted Living Homes II (20)	D & G Home Care I (10)
Alterra/Alternative Living Services East (48)	Cokesbury Village (55)	Victoria Park at North East (76)	D & G Home Care II (11)
Cloutier Court (54)	Crossings at Christiana (57)	Short-Term Possibility	Golden Legends (14)
Columbia Place (56)	Little Falls Village (63)	Elk River Manor (59)	Hill Top Manor (15)
Fountainview Apartments (13)	Little Falls Village II (64)	Richmond Hill Manor (68)	Jeanette Weber Home (16)
Traditions at Christiana (74)	Meridian Crossing (22)	McKinley Apartments (21)	Liberty Gardens (17)
Village of Rocky Run (80)	Methodist Country House (65)	Long-Term Possibility	Montrose Senior Living (26)
Long-Term Possibility	Methodist Country House-Phase 4 (23)	Chesapeake Elderly Apartments (52)	Singerly Manor (32)
Bradford Pond (49)	Millcroft Senior Living (24)	Abbey Manor I (45)	
Carillon Crossing (50)	Odessa National (28)	Abbey Manor II (46)	
Churchmans Meadows (53)	Phillips Mill (66)	Canal Town Village (6)	
Forwood School Retirement and Off. Campus (61)	Silver Maple Farm (31)	Caraway Manor (7)	
Longmeadow (18)	Spring Arbor (71)	Caraway Manor at Brownfield (8)	
Milltown Village (25)	Springer Woods (33)	Cecil Woods (51)	
Paper Mill Falls (29)	Steeple Glen (35)	Elk Chase Apartments (58)	
Salem Church Road Senior Housing (69)	Stonevale (36)	Fairview (12)	
Shuman Property Housing (70)	Sunrise Assisted Living of Wilmington (73)	Fox Ridge Manor (62)	
Springmill (34)	Sunrise of Hockessin (38)	Sunny Acres Bay (37)	
Stonegates (72)	Traditions at Southridge (39)	Villas at Whitehall (81)	
Village of Branywine (77)	Twin Lakes (75)		
Village of Fox Meadow (78)	Village of Jester Crossing (40)		
Village of Hershey Run (79)	Village of Llangollen (41)		
Village of Long Creek (42)	Vista at Red Lion (44)		
Village of Red Lion Creek (43)	Woodlea (83)		

LEGEND

Existing Communities

Planned Communities

Analysis Summary

Transit Accessibility

- A connection exists for 47% of the existing and planned communities within the region. This leaves 53% outside of the buffer.
- Five percent of the existing communities have the possibility for a short-term connection.
- Twelve percent of the communities have the possibility for a long-term connection.
- A transit connection would be unlikely/difficult for 37% of communities currently without service.

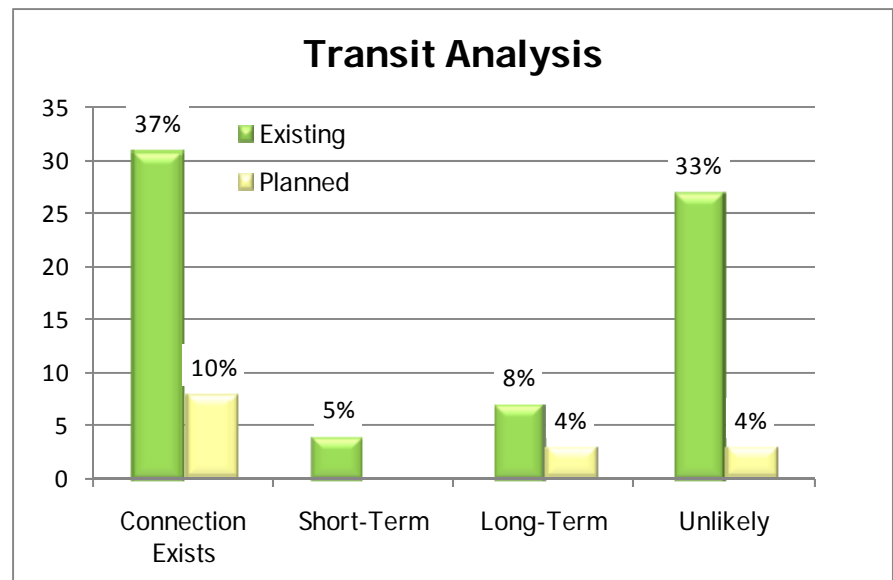


Figure 7– Transit Analysis Summary by Connection Level

Sidewalk Accessibility

- A connection exists for 9% of the existing and planned communities in the region.
- Ten percent of the communities have the possibility for a short-term connection.
- Thirty-four percent of the communities have a possibility for a long-term connection.
- Having a meaningful sidewalk connection to an existing, relevant use would be unlikely/difficult for 46% of age-restricted communities.

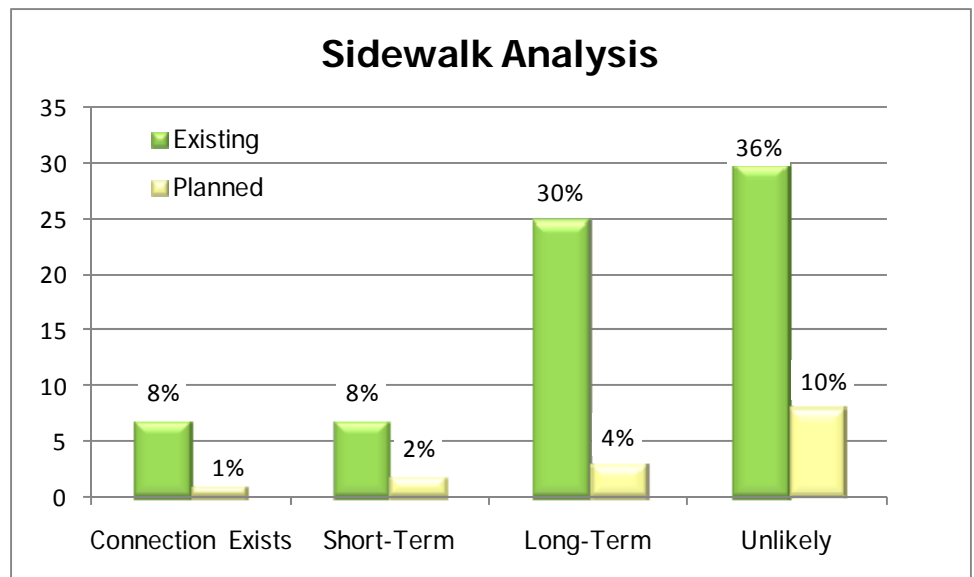


Figure 8– Sidewalk Analysis Summary by Connection Level

Overall Observations

Planned Communities

- Planned communities are those currently either in the design phase or in the preliminary review process.
- Evaluating these communities is beneficial in terms of the ability to address transit and sidewalk connections prior to development.
- Currently there are two communities that have the possibility for a short-term connection and six for a long-term connection.
- Efforts should be focused on these eight communities for a possible connection prior to development.

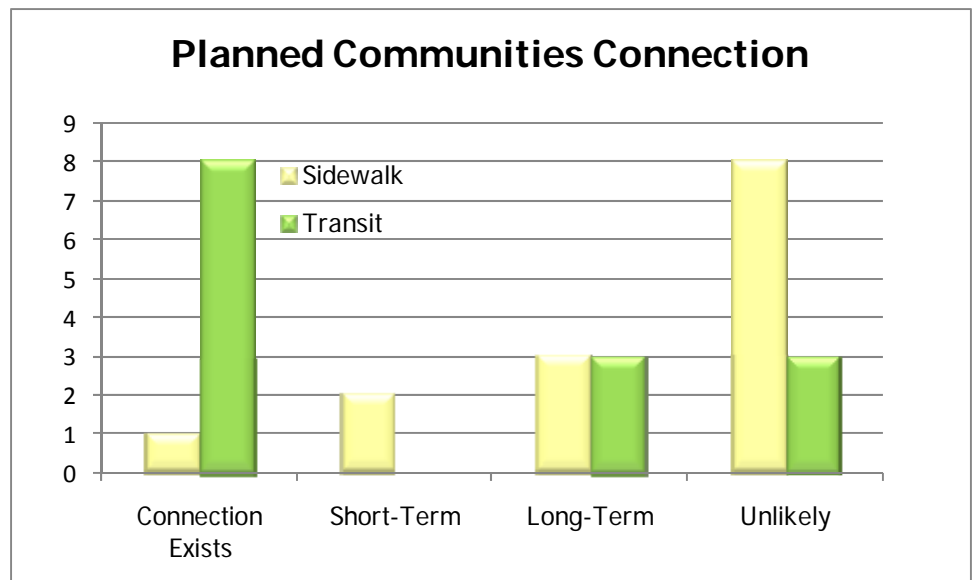


Figure 9- Planned Communities Connection to Transit and Sidewalk Access

Addressing the Issues

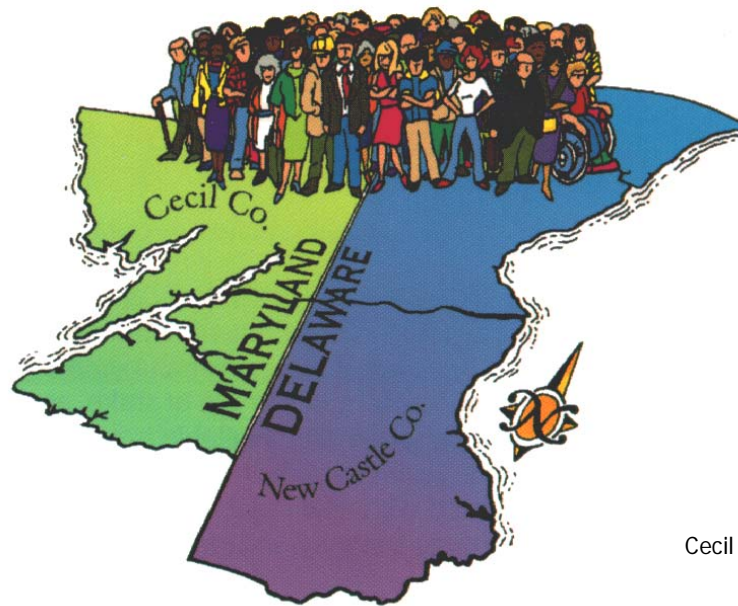
- Developers appear to be focused on building in areas where it is cost efficient, rather than focusing on developing a community that is transit accessible and walkable. As a result, the location of age-restricted communities can hinder a resident's independence and ability to stay active.
- Currently less than half of the age-restricted communities in the WILMAPCO region have a transit connection. Efforts to address the 17% that have the possibility for a short-term or long-term connection should be a priority, particularly for the planned communities.



- The majority of age-restricted communities lack decent access to sidewalk connections. Currently, 48% of the communities analyzed have the potential for a short-term or long-term sidewalk connection. These possible connections can improve walkability, health, well-being, and the environment.
- Overall, developers should avoid developing age-restricted communities in areas that are disconnected from public transit networks or lack pedestrian connections to promote mobility for seniors. Restrictions and/or incentives should be explored to accomplish this.

Source: Federal Transit Administration

The Wilmington Area Planning Council (WILMAPCO) is a Metropolitan Planning Organization serving New Castle County, DE and Cecil County, MD. Our mission is to serve the residents of our region by creating the best possible transportation plan. This series of data reports summarizes key data to allow both residents and decision-makers to better understand changes within our region. This document was created by the WILMAPCO staff. For more information on this and other data reports, please visit our website at: www.wilmapco.org/data.



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Other WILMAPCO Data Reports

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Report #2: Changes in Regional Population & Household Characteristics 1980-2000, December 2004

Report #3: Analysis of Commuter Flows to and from the WILMAPCO Region 1990-2000, July 2005

Report # 4: Regional Population Changes: 2000-2030, January 2006 (updated May 2007)

Report #5: Employment: 1990-2004, July 2006

Report #6: Crash Data: 2000-2006, September 2008

Report #7: Travel Times: 2000-2007, December 2008

Report #8: Transit Trends: 2000-2007, July 2009

Report #9: Travel Patterns (DeIDOT Household Survey), July 2009

Report # 10: Dirty Roads: Highway Traffic Emissions in New Castle County, Delaware, June 2010