

2018 Complete Streets Case Study

Camden, New Jersey



About

This report was written by Charles Brown, MPA, James Sinclair, Lisa Cintron, and Sam Salvesen of the Alan M. Voorhees Transportation Center (VTC) at Rutgers, The State University of New Jersey.

The Alan M. Voorhees Transportation Center (VTC) is a national leader in the research and development of innovative transportation policy. Located within the Edward J. Bloustein School of Planning and Public Policy at Rutgers University, VTC has the full array of resources from a major research university on transportation issues of regional and national significance.

The New Jersey Bicycle and Pedestrian Resource Center (BPRC) assists public officials, transportation and health professionals, and the public in creating a safer and more accessible walking and bicycling environment through primary research, education, and dissemination of information about best practices in policy and design. The Center is supported by the New Jersey Department of Transportation (NJDOT) through funds provided by the Federal Highway Administration (FHWA).

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Figure 1. Dr. Martin Luther King Boulevard, Camden, New Jersey

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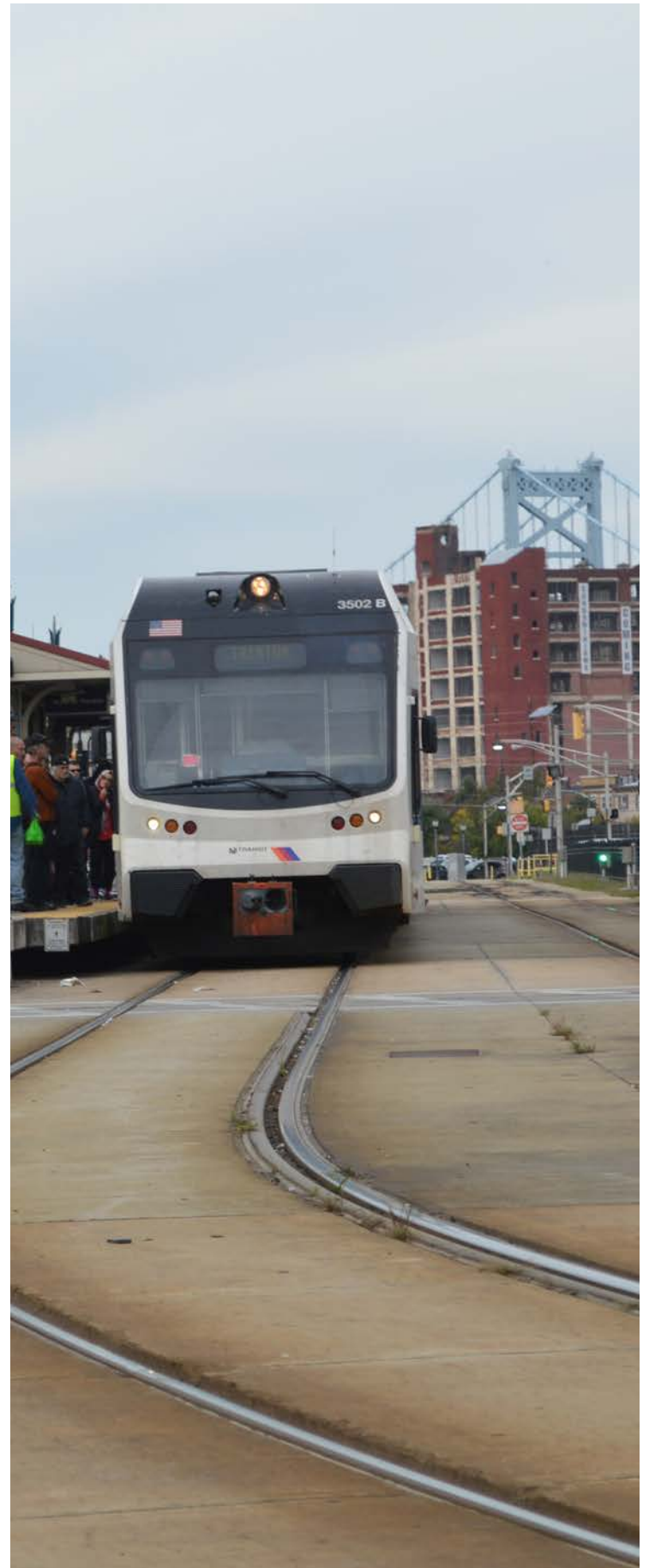


Figure 2. NJ TRANSIT RiverLINE in Camden

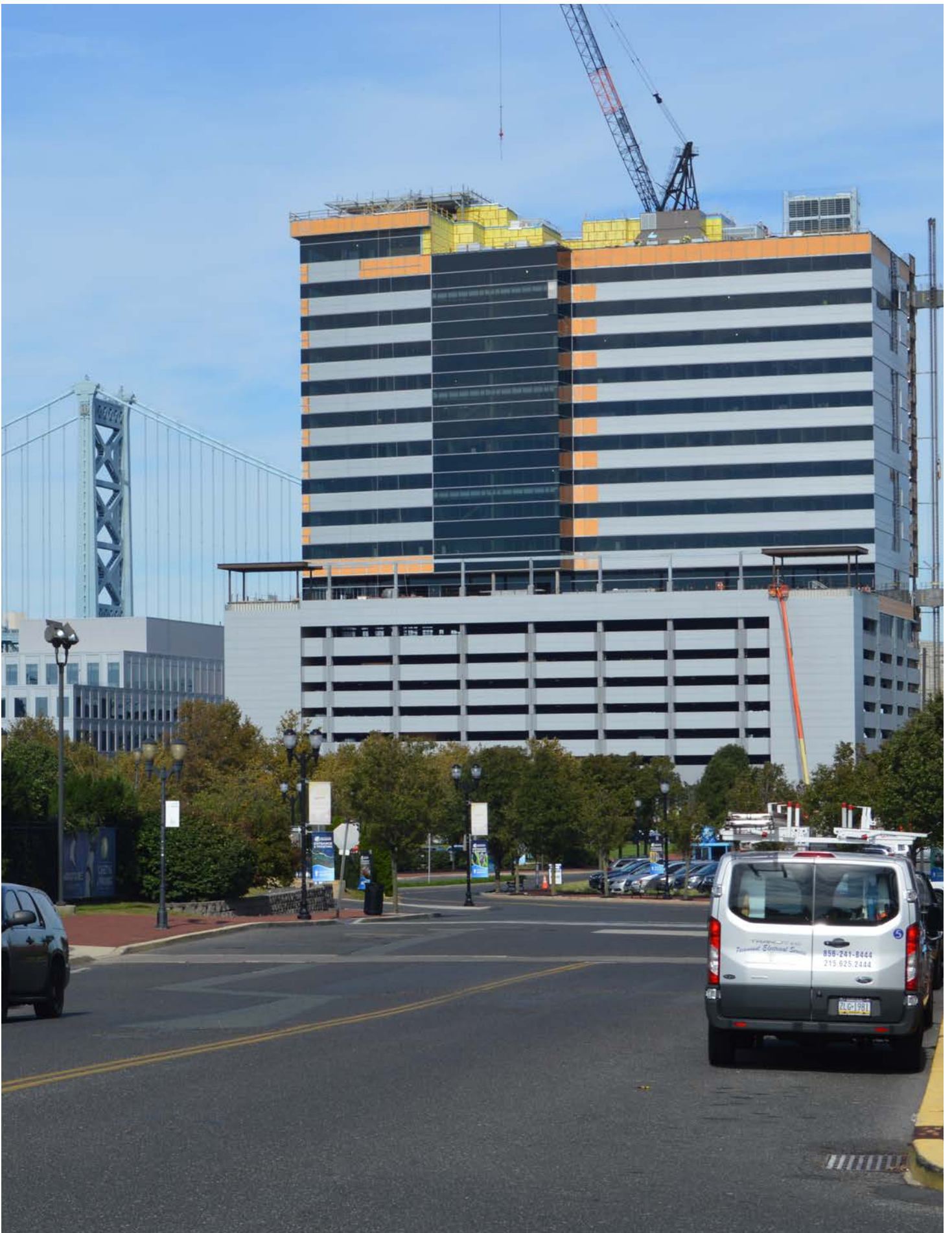


Figure 3. Downtown Camden, New Jersey

Introduction

In 2009, the New Jersey Department of Transportation adopted a Complete Streets policy which defined a Complete Street as street designed to provide safe access for all users by implementing a comprehensive and integrated multi-modal network of transportation options. The benefits include increased safety for all users, connections between origins and destinations, and the promotion of healthier, more livable communities. Since the policy's adoption, Complete Streets has built momentum throughout the state. As of December 2018, eight counties and 149 municipalities have followed the lead and adopted their own local Complete Streets policy.

With inspiration from Sustainable Jersey's Complete Streets action points, the Camden Green Team gathered to develop and promote the city's Complete Streets policy, which passed in June 2013. Cooper's Ferry Partnership (CFP) has a long-established commitment to, and financial support for, off-road trails which helped make the policy an easy sell. The Complete Streets policy in Camden allowed the municipality to systematically incorporate Complete Streets goals into each of their projects. Traffic calming initiatives combined with installation of pedestrian and bicyclist infrastructure have been successful in making Camden's streets safer and more accessible for all users.

The Bicycle and Pedestrian Resource Center, part of the Alan M. Voorhees Transportation Center at Rutgers University, has developed a series of case studies intended to highlight Complete Streets leaders in New Jersey. The purpose of this report, funded by NJDOT, is to highlight Camden City's Complete Streets policy and accomplishments. The report is based on findings provided in interviews with CFP staff Valeria Galarza, Meishka L. Mitchell, Kathy Cullen, and Linda Schneider. Speaking with CFP was important in the research stages of this report, as the non-profit is "committed to planning for the future of Camden and helping to implement the visions outlined in neighborhood plans throughout the city," according to the CFP mission. Additionally, the organization plays an integral role in garnering grant funding for projects throughout the city, including the city's many Complete Streets improvements.

The report begins with a summary of key findings followed by background information on historical, demographic, and land use data collected from county and Census documents. This information is essential to understanding the context of Complete Streets in Camden. The report then explores the history of the Camden Complete Streets policy, including how the policy was developed, promoted, and implemented. Successes and challenges are then highlighted for the benefit of other communities looking to implement Complete Streets and a number of next steps provide readers with insight into the policy's future. This report will serve as a valuable tool for engineers, planners, elected officials, and advocates who want to move forward with Complete Streets in their communities.

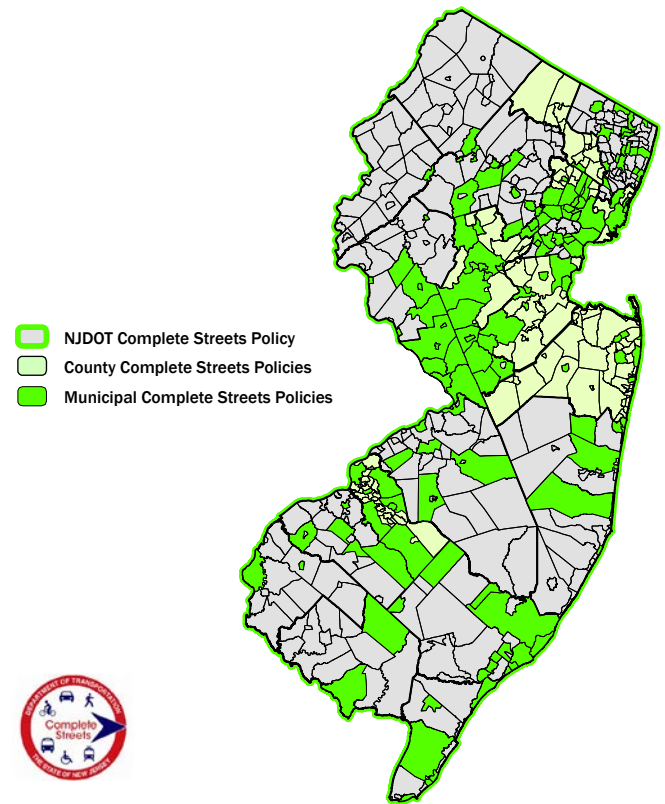


Figure 4. Map of New Jersey's Complete Streets policies

Complete Streets in New Jersey

New Jersey is a national leader in the campaign to complete the streets. According to the National Complete Streets Coalition, New Jersey ranked 1st nationally in terms of local policy adoption in addition to NJDOT's award-winning internal policy.

- 1 statewide award-winning policy
- 8 out of 21 counties have a policy
- 148 out of 565 municipalities have a policy
- 43% of New Jersey residents are covered by a municipal Complete Streets policy
- 57% of New Jersey residents are covered by a county Complete Streets policy

As of January 9, 2019



Camden, New Jersey

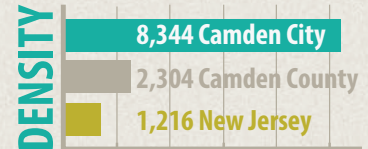
Background Data

Camden City
Camden County



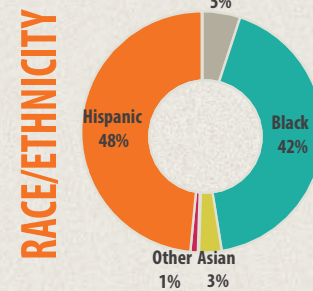
Population

74,417
RESIDENTS

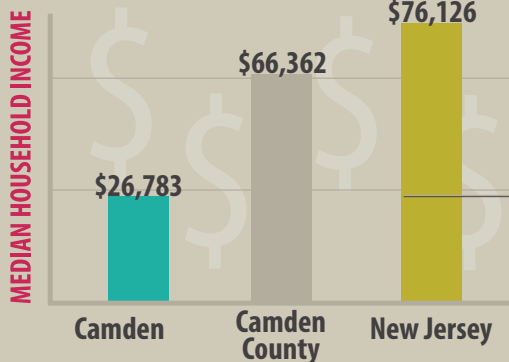


MEDIAN AGE
31.1 Yrs

That is 7 years younger than the county and 8 years below the state average.

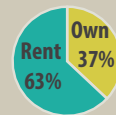
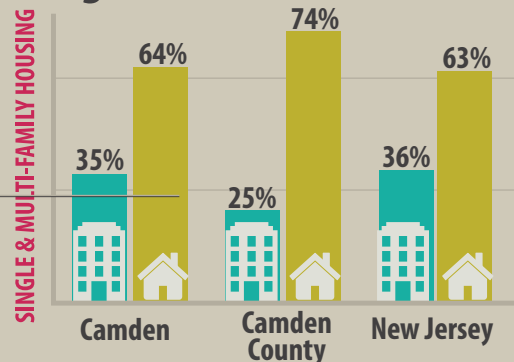


Economics



\$3,955 RETAIL SALES PER PERSON
which is nearly one third of the county average

Housing



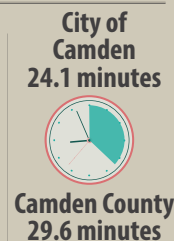
Nearly twice as many people rent in the City of Camden as in Camden County.



Commute Mode



The proportion of carpooling is
2X HIGHER
Than Camden County



Key Findings

1. Green Team and Developing a Policy: The Green Team was a Working Group of the Camden Collaborative Initiative, which formed in 2013 as a “solutions-oriented partnership between governmental, non-profit, private, and community-based agencies formed to plan and implement innovative strategies to improve the environment and the quality of life for Camden’s residents.” The City of Camden’s action to pass their Complete Streets resolution in 2013 was, in a major way, a result of the Green Team which led the conversation, researched other Complete Streets policies, and helped draft the resolution.

2. Redevelopment: After decades of disinvestment, Camden has experienced a wave of new developments, particularly centered around the downtown and waterfront areas. Several of the projects are incorporating outdoor space, connectivity to public transportation, and sidewalk and trail improvements.

3. Creating a Culture of Active Transportation: The City of Camden has three times the proportion of zero-car households in Camden County and New Jersey. The Connect the Lots initiative is an example of how community programming can garner enthusiasm around healthier lifestyles, including walking and biking more. The Connect the Lots mission is to “activate Camden, New Jersey’s parks and underutilized spaces through the implementation of artistic, cultural, and recreational projects and activities.”

4. County Support and Leading by Example: The City of Camden has 10 projects currently under concept development, eight of which are county roads. Camden County, which passed a Complete Streets resolution shortly after Camden City, has a more comprehensive checklist than Camden City’s policy.

5. Community Involvement: Camden’s Complete Streets implementation received tremendous community support. This support can be attributed to the organization’s commitment to ensuring all proposed projects include at least two community outreach events. Community engagement, moreover, starts early in the design process and a community steering committee is formed for all bike projects.

6. Successes:

- Camden GreenWay Circuit Trial Phase 1
- Cooper’s Poynt Waterfront Park
- 7th Street Gateway Streetscape Improvements

7. Challenges:

- Abundance of Surface Parking
- Stormwater Infrastructure
- Lack of Funding
- Industrial District
- Obsolete Layout

6. Next Steps:

- Cooper’s Poynt Road Reconstruction Project
- Cooper Street Pedestrian Access Project
- Ben Franklin Bridge Bike Ramp
- Incorporation of Complete Streets



Figure 5. Dr. Ulysses Wiggins Waterfront Park

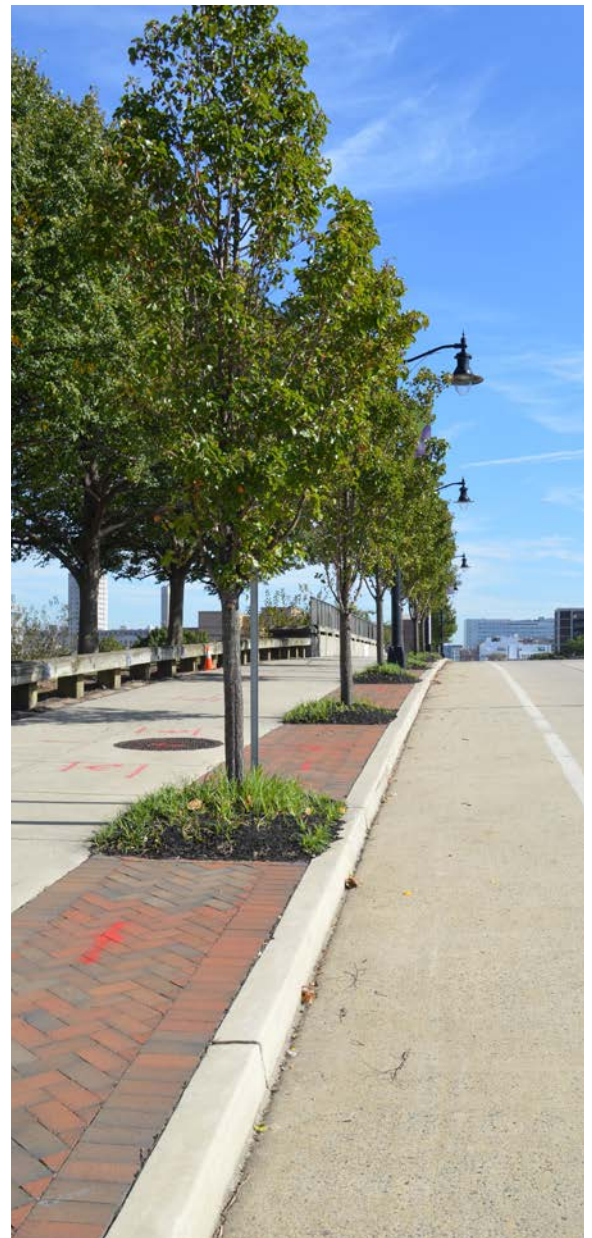


Figure 6. Streetscaping in downtown Camden

Background

The City of Camden occupies approximately nine square miles along the Delaware River across from Philadelphia. With a census-estimated 76,005 residents, Camden is the most populous city in Camden County and the 12th most populous city in New Jersey. Camden has grappled with decades of disinvestment, indicative of a poverty rate that is more than three times the average for the state of New Jersey (Table 1), although recent developments reveal growing interest in the city. Camden is home to state-of-the-art medical facilities, several higher educational institutions, and a transportation hub for South Jersey and the Delaware Valley.

Since the seventeenth century, when Dutch and Swedish fur traders occupied the banks of the Delaware River, Camden’s greatest resource has been its location. By the turn of the nineteenth century, the intersection of the Cooper and Delaware Rivers was home to a burgeoning ferry industry, whose growth preceded the consolidation of a few small settlements which would later become the City of Camden, incorporated in 1828.¹ Ten years later, the establishment of the Camden and Amboy Railroad positioned the city as a transportation and manufacturing stronghold, as its location amid myriad rail lines and waterways connected Camden to Philadelphia, New York, Trenton, and other towns in South Jersey.

As a result, Camden’s population increased five times over from 20,000 to 116,000 between 1870 to 1920, largely from an influx of African-American migrants and European immigrants. By 1917, RCA Victor, Campbell Soup Company, and the New York Shipbuilding Company, along with more than 100 manufacturing companies, employed over 51,000 people. A testament to the city’s prominence was the construction of then the largest single-span suspension bridge in the world, the Benjamin Franklin Bridge, completed in 1926. Indeed, Camden’s prolific manufacturing industry led to the common refrain, “On Camden’s supplies, the world relies.”

Camden weathered the Great Depression and experienced a second wind with soaring demand for manufactured goods during the Second World War. More than a manufacturing city, Camden was a regional hub for shopping and entertainment activities, but its commercial prowess subsided with the nationwide trend of suburbanization beginning in the 1950s and 1960s. In fact, the neighboring Cherry Hill Mall became the first enclosed shopping center on the east coast when it opened in Delaware Township (later renamed Cherry Hill) in 1961. Decentralization coincided with a precipitous drop in manufacturing jobs, and by the 1970s Camden was in the throes of economic and population decline.

Camden has demonstrated signs of stabilization, however. Several drivers of Camden’s resurgence include efforts by the Camden County Police Department as well as community-development initiatives like Cure4Camden, which works to mitigate the city’s crime rate by detecting conflicts, identifying and treating high-risk individuals, and linking residents to employment opportunities.² These complimentary efforts have demonstrated progress: The Camden County Police Department reported that all Part 1 Crimes (murder, assault, burglary, etc.) had fallen from the highest rates reported in 1991 (14,685) to just over 4,000 in 2017. And in 2015, the American Census Bureau highlighted a significant drop in the poverty rate from 42.6 percent to 36.5 percent.

Currently, a series of public and private investments are moving the needle in downtown Camden’s revitalization. Of particular importance was Camden’s designation as a federal Promise Zone in 2015, which prioritized Camden for grants from 14 federal departments. In tandem with federal efforts is a series of new developments spurred by Camden’s anchor institutions to create an “eds and meds” district. In 2012, Rowan University partnered with Cooper University Hospital to establish the Cooper Medical School of Rowan University, while a partnership between Rowan University and Rutgers-Camden will realize a 65,000 square-foot Joint Health Sciences Center. Rutgers-Camden, meanwhile, opened a 107,000 square-foot School of Nursing Sciences in 2017. These projects are catalyzing housing construction, too, as Cooper University Health Care is working with the Camden Redevelopment Agency to develop new market-rate homeownership opportunities in the Cooper Plaza neighborhood to encourage employees to live near the hospital.

Table 1. Comparison of population and housing

Metric	Camden City	Camden County	New Jersey
Land Area	8.9 mi ²	221 mi ²	7,354 mi ²
Population	76,005	511,145	8,915,456
Population per square mile	8,670	2,322	1,196
Retail Sales per Capita	\$3,955	\$12,552	\$15,079
Median Household Income	\$26,214	\$63,028	\$73,702
Median Home Value	\$82,800	\$193,500	\$316,400
Median Rent	\$880	\$991	\$1,213
Housing Type: Single-family	70%	73%	63%
Housing Type: Multi-family	30%	26%	36%
Persons below poverty line	38%	12%	10%
Median Age	29	38	40
Persons with Bachelor’s Degree or higher	9%	33%	40%

US Census Bureau, 2017

1 <https://www.ci.camden.nj.us/history/>

2 Cure4Camden: <https://www.centerffs.org/our-services/victim-trauma-services/cure4camden>

Consequently, major employers are noticing the draw of the city. At the time of this writing, the 18-story Camden Tower is under construction, which will serve as the new headquarters for Conner Strong & Buckelew, NFI, and The Michaels Organization. On a parcel adjacent to the Camden Tower, American Water recently completed their new headquarters. Meanwhile, Campbell Soup Company has maintained its presence in Camden since its founding in 1869 and recently invested \$130 million in the renovation and expansion of its world headquarters in the Gateway District. These new investments are a sign of the city's revitalization and will bring increased pedestrian, bicycle, and automobile traffic through Camden's comprehensive transportation network.

Transportation

Public Transportation

Camden is located at the nexus of several transit routes, making it South Jersey's largest transportation hub. As part of the Philadelphia metropolitan area, Camden benefits from an extensive network of multi-modal transportation. The Walter Rand Transportation Center (WRTC), for instance, services 26 regional NJ TRANSIT bus lines as well as NJ TRANSIT and PATCO commuter rails. Additionally, the RiverLink ferry system connects the Camden and Philadelphia waterfronts, carrying 150,000 passengers each year between May and September, while NJ TRANSIT's RiverLINE, a light rail service, runs from Camden to Trenton, where riders can access the Northeast Corridor to New York City. Part of Camden's Complete Streets Policy includes connecting these stations to pedestrian and bicycle networks, particularly those that can be considered as part of a Safe Routes to Transit program.

Highways

Beyond mass transit, two major highways intersect at the eastern edge of downtown Camden, connecting the city to Philadelphia and municipalities along the New Jersey Turnpike. U.S. 30 is the third longest U.S. route, stretching from Atlantic City, New Jersey to Astoria, Oregon, while I-676 is a 6.9-mile auxiliary route linking Camden to Center City Philadelphia via the Benjamin Franklin Bridge. I-676 feeds into I-76 (Schuylkill Expressway), which runs through southern Pennsylvania and terminates west of Akron, Ohio. Camden's highway network positions the city within a day's drive of 40 percent of the U.S. population. Additionally, downtown Camden is within a three-hour drive to Washington, D.C., and two-hour drive to New York City.

Multi-use Trails

More than 300 miles of completed trails, part of a planned 750-mile, \$250 million Circuit Trails network, connect nine counties in Pennsylvania and New Jersey through roadways, footpaths, and trails. When completed, the Camden GreenWay will provide residents and visitors access to the extensive Circuit Trail's 128-mile network connecting Camden, Philadelphia, and the South Jersey suburbs.

The City of Camden, in its master plan reexamination, prioritizes integrating multimodal transportation that links residents to jobs, shopping, and community facilities. Looking ahead, the State of New Jersey is advancing a \$2.8 billion investment in mass transit improvements in Camden County and South Jersey, including a reconstruction of Walter Rand Transportation Center, a new South Jersey Bus Rapid Transit service, and the Glassboro-Camden Line (GCL), a new 18-mile light rail system.

Table 2. Comparison of race and ethnicity of residents

Metric	Cape May County	New Jersey
White	91.2%	57%
Black	4.6%	12.8%
Native American	0.7%	0.3%
Asian	1.3%	8.3%
Hawaiian/Pacific Islander	0.2%	0.1%
Two or More races	1.7%	2.7%
Hispanic or Latino	7.2%	17.7%

US Census Bureau, 2017



Figure 7. Walter Rand Transportation Center

Table 3. Transportation to Work

Metric	Camden City	Camden County	New Jersey
Drove alone	59.1%	76.9%	71.7%
Carpooled	17.3%	9.3%	8.1%
Public Transit	13.5%	7.4%	11.2%
Bicycle	0.3%	0.1%	0.3%
Walked	6.0%	1.9%	3.0%
Worked from Home	2.1%	3.3%	4.1%
Other	1.8%	1.1%	1.5%
Households with no vehicle available	34.9%	11.5%	11.6%
Avg. Commute to Work	24.1 min.	29.6 min.	32.1 min.

US Census Bureau, 2017

City of Camden: Transportation and Key Locations



*Largest employers in Camden County
Source: DVRPC; Choose New Jersey

0 0.5 1 mile



Figure 8. Map showing major transportation links throughout Camden



Figure 9. Boardwalk along the Delaware River

Creating Complete Streets Successes

Green Team and Developing a Policy

On June 11, 2013, the Camden City Council unanimously approved the adoption of a Complete Streets resolution to continue developing an integrated, connected multi-modal street network that accommodates all road users. Camden's Complete Streets policy was a logical successor of the city's existing bicycle-pedestrian infrastructure, especially considering the city's high proportion of zero-car households (see Figure 10).

Under Camden's Complete Streets policy, municipal road projects are required to accommodate pedestrians, bicyclists, and public transportation riders. However, the City Council and Planning Director can issue a cost exemption to road projects whose Complete Street improvements exceed 20 percent of the overall budget. By design, Camden's Complete Streets policy ensures collaboration across municipal departments and Camden County. The inclusion of the Engineering Department, for instance, streamlined bike-lane separation. The City of Camden also enjoys support from multiple public and private institutions, including Camden County, the Delaware River Port Authority (DRPA), New Jersey Department of Transportation (NJDOT), Federal Highway Administration (FHWA), Cooper's Ferry Partnership, and the William Penn Foundation.

Prior to the resolution, Camden featured an extensive network of sidewalks and bicycle facilities, including the 1.5-mile Camden Central Waterfront trail and a streetscape project at the intersection of River Avenue and 25th Street in the Cramer Hill neighborhood. Camden, along with the City of Philadelphia, received a \$23 million TIGER grant in 2010 to build 10 new sections of multi-use trails. The City of Camden completed its first TIGER project in 2013, which functioned as the city's initial Complete Streets implementation project.

As with any new policy, community buy-in is vital. One of the most vocal proponents of the Complete Streets policy was the Green Team, then a working group of the Camden Collaborative Initiative, which organized a broad group of public and private institutions and community organizations to gather community input to inform the resolution. Camden's policy draws from other municipal policies available on the Alan M. Voorhees Transportation Center's (VTC) website, NJDOT's Complete Streets policy, and Sustainable Jersey guidelines.

In its fifth year, Camden's Complete Streets policy has garnered success, particularly in raising funds and executing Complete Streets projects. A year after the policy was implemented, Sustainable Jersey upgraded Camden from a Bronze Certification to

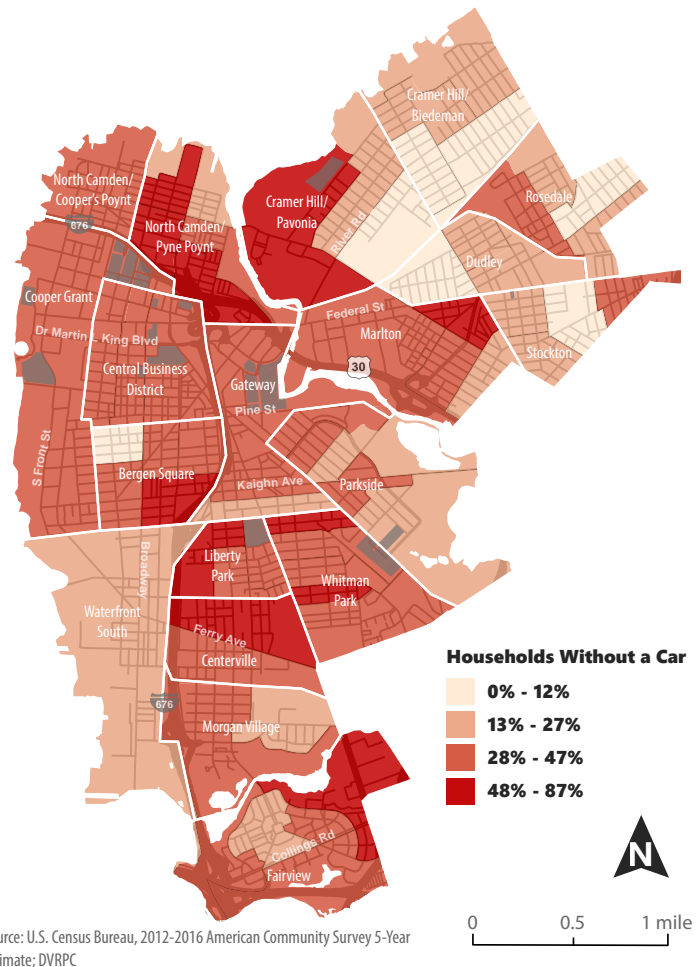


Figure 10. Percent of Households without a Car in Census Tracts across the City of Camden

Consider Complete Connections, Not Just Streets

CFP looks at the city as a whole, connecting different neighborhoods not just with bike lanes and sidewalks, but with trail networks allowing for safe connections between key locations like downtown Camden and the Kroc Community Center. This strategy amplifies the connection between Complete Streets and public health.



Figure 11. Bicycle lanes in front of the Kroc Community Center

Silver. Camden County, which passed its own Complete Streets policy six months after Camden City, has been instrumental in developing pedestrian- and bike-friendly corridors. Currently, Camden County has eight roads in the city that are under concept development, making for an exciting future for Complete Streets in Camden.

Redevelopment

Camden has experienced a windfall of development over the past few years, and momentum shows little sign of subsiding. Developers have invested billions of dollars in the city. Many new developments have incorporated Complete Streets and active transportation components.

The Camden Waterfront is, so far, the most eye-catching project under development. Initially proposed as a \$1 billion mixed-use master plan—developers have since scaled down the project to \$800 million—the Camden Waterfront is anchored by a 222,376-square-foot headquarters for American Water. Proposed additions include a Hilton Garden Inn, 188 residential units (20 percent of which will be affordable), 2.5 acres of public space, new bike paths and sidewalks, a new ferry stop, and a shuttle connecting the WRTC and City Hall.

Camden's waterfront is not the only area with redevelopment projects, as the city's inland neighborhoods are benefiting from similar levels of investment. The Gateway neighborhood is currently undergoing a number of redevelopment projects near the cross-section of U.S. Route 30, the Cooper River, and Interstate 676. The area is home to the recently renovated headquarters for Campbell's Soup Company as well as the newly built Subaru headquarters. Brandywine Realty Trust is also working on a larger scale plan for the area it has termed Knight's Crossing. Plans include retail space, trails, a hotel, and a PATCO station, which will improve the area's connection with the rest of Camden. The station will also provide service along the proposed Camden-Glassboro light rail line. As more elements of the plan are completed, the Gateway neighborhood will begin to attract more people to the area's jobs, shopping, and entertainment.

Creating a Culture of Active Transportation Through Events and Placemaking

Connect the Lots

There is a lot to do in Camden, thanks in part to free community events offered all over the city. CTL, a collaboration between CFP and the City of Camden, activates underutilized spaces by programming artistic, cultural, and recreational events. CTL was first piloted in 2014 in the North Camden and Cooper-Grant neighborhoods. Since then, CTL has expanded city-wide and incorporated themes of health and sustainability. In the summer of 2018, CTL hosted free five-day-a-week fitness classes, Friday movie nights, live lunchtime concerts, and art installations, engaging over 10,000 residents.

The goals of CTL align with Complete Streets in that they seek to create safe nodes of activity, promote public health, and bring vibrancy to Camden's corridors and public spaces. In fact, Camden's robust network of bike paths, off-road trails, and waterways spurred I Bike, I Walk, & I Paddle Camden. Throughout the summer of 2018, CTL led a 12.5-mile bike ride on the Camden GreenWay, hosted a two-mile walk in East Camden led by Camden Mayor Frank Moran, and two boat trips along sections of Newton Creek and the Cooper River. These free events provided healthy outlets for residents to go outside and explore the beauty of their city, both natural and man-made.

In addition to the active transportation events, CFP developed the Camden Night Gardens event. What started as a free nighttime art and bike festival is now one of Camden's premier summer events. In 2014, CFP partnered with Nuit Blanche New York (NBNY), which specializes in large-scale light and sound projections, to host a nighttime festival on the site of the former Riverfront State Prison (now Cooper's Poynt Waterfront Park). Despite the rain, more than 3,000 people attended Camden Night Gardens, which featured installations by local artists, live music, an illuminated BMX performance, food, and



Figure 12. Cooper's Poynt Waterfront Park, location of the Camden Night Gardens

games. Other features of the event included music from an original RCA Victrola, which put Camden on the map, and a bike tune-up station.

The Camden Night Gardens was the first major event held at the former site of the Riverfront State Prison and demonstrated the potential to redevelop the site into a park, rather than another building. In 2018, Camden Night Gardens returned to Cooper's Poynt for "TIDES OF CHANGE," featuring live music, food trucks, acrobats, sandcastles, fireworks, and a 300-foot zip line.

Community Involvement

Complete Streets initiatives are typically well-received due, in part, to Camden's relatively high proportion of zero-vehicle households (see Figure 10). The community events above are another driver; Connect the Lots is instrumental in promoting the exploration of Camden's outdoor amenities. Additionally, every project includes at least two community outreach events early in the planning process. CFP works with community groups and trusted local leadership to connect with residents where projects are expected. Outreach begins as soon as a project early in the planning process and prior to the design phase. All bicycle projects, for instance, include a steering committee of local residents.



Figure 13. Placemaking along Camden's waterfront emphasizes the city's ties to the shipbuilding industry



Figure 14. Bicycle and Pedestrian infrastructure in Camden prioritizes connections between the city's waterfront and anchor institutions

Successes

Camden GreenWay Circuit Project - Phase 1

Cost Estimate: Design: \$60,000; Construction: \$146,000

Source of Funding: William Penn Foundation

In September 2015, the City of Camden opened 4.3 miles of on-road trails spanning from 36th Street to Delaware Avenue. This phase of the GreenWay Circuit connects existing trails along the Camden waterfront and Ben Franklin Bridge, linking travelers to a bevy of open space and commercial corridors between the North Camden and Cramer Hill neighborhoods. The GreenWay Circuit introduced the first buffered bike lanes in the City of Camden and connects to the larger Circuit Trails network, which currently has 300 miles of completed trails and an additional 450 miles of planned routes across nine counties in the Delaware River Valley.

Cooper's Poynt Waterfront Park

Cost Estimate: Design: \$380,000; **Construction:** \$3.8 million

Source of Funding: Design: NJEDA Economic Recovery Board through CFP. **Construction:** DRPA through the NJEDA, William Penn Foundation, Wells Fargo Regional Foundation, NJDCA

From 1985 to 2009, the Riverfront State Prison occupied the waterfront in North Camden. Two comprehensive plans, the 1993 North Camden Plan and the 2008 Neighborhood Plan, prioritized transforming the space into a community park. Project funding was sourced from a range of public and private grants and managed by CFP (design) and NJEDA (construction).



Figure 15. Bike path with a view of the Ben Franklin Bridge (photo credit: CFP)



Figure 16. Improved pedestrian infrastructure in East Camden

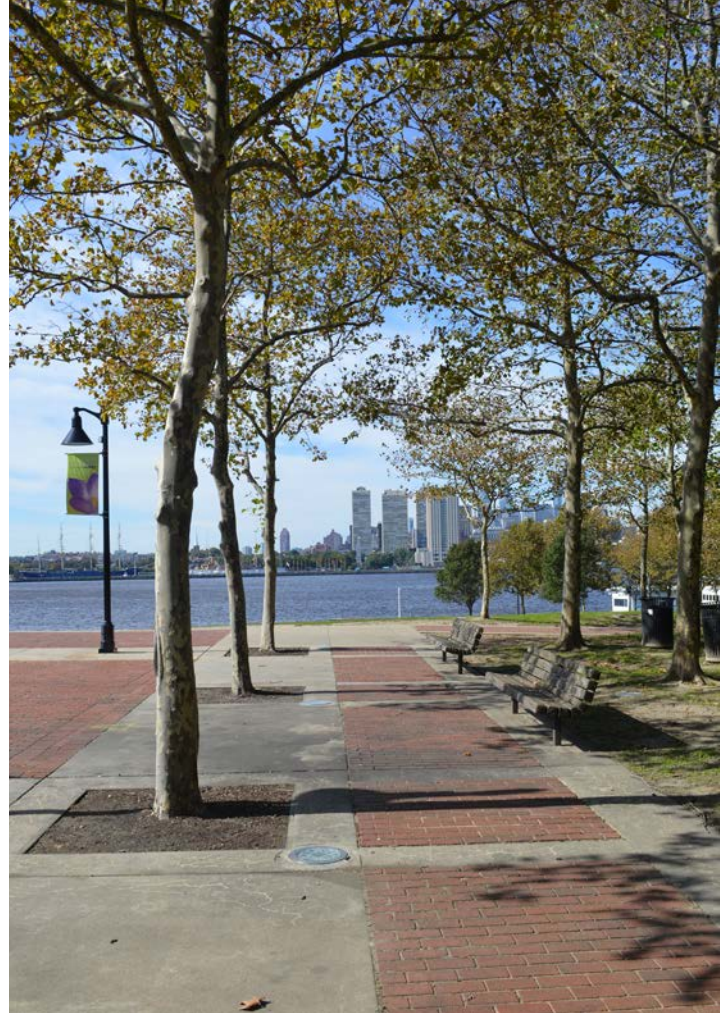


Figure 17. Camden waterfront



Figure 18. Streetscaping near Camden's waterfront

Figure 19. Pedestrian crossing in North Camden

Cooper's Poynt Waterfront Park opened in May 2017, replete with five acres of green space, multi-use trails, an ADA-accessible playground, lighting, and unimpeded views of the Ben Franklin Bridge and Philadelphia skyline. Additionally, the park added a half-mile of off-road bike paths, connecting to the Circuit Trails with access points from bike lanes on Delaware Avenue, sharrows on Erie Street, and the new pedestrian path on the Ben Franklin Bridge.

7th Street Gateway Streetscape Improvement Project

Cost Estimate: Design: \$190,000. **Construction:** \$2.3 million

Source of Funding: Design funded by NJDOT through CFP. Construction funded by US Economic Development Administration, NJEDA Economic Recovery Board, and NJDOT Bikeways Grants

This project will realize much-needed improvements to 7th Street between Linden and Elm Streets, a two-mile road network north of the Ben Franklin Bridge. Already a high-traffic corridor for pedestrians, drivers, and cyclists, conditions on 7th Street posed a threat to all users: drivers swerved around potholes, cyclists traversed unmarked bike lanes, while pedestrian accommodations lacked adequate lighting and properly identified crosswalks. The TIGER grant, then, will embrace complete streets design and narrow the roadway to accommodate a bike lane, install crosswalks and ADA-compliant sidewalks, construct a landscaped median with stormwater improvements, and upgrade traffic signals. When completed, 7th Street will become a neighborhood gateway, connecting downtown Camden to the waterfront.



Figure 20. Rendering of the 7th Street Gateway Streetscape Improvement Project

Challenges

Camden has positioned itself for continued success in ensuing years. Understanding the city's greatest challenges, however, could help other communities prepare for and overcome potential obstacles.

Abundance of Parking

In 2011, a report by the Delaware Valley Regional Planning Commission (DVRPC) counted 13,345 off-street parking spaces in a study area of downtown. Of those spaces, 8,922 were dispersed throughout 62 surface lots, while the remaining 4,423 were contained within five structured lots, according to the report. Of particular concern is the concentration of surface lots bordering the Delaware River whose impervious surfaces cause a strain on stormwater runoff (see Figure 21), not to mention the valuable real estate occupied by parking.

Current parking and loading requirements under the City of Camden Zoning Ordinance (577-230) stipulate that retail establishments provide up to 5.5 parking spaces per 1,000 square-foot of gross floor area. DVRPC recommended that the city could reduce the general parking requirement to three or four spaces per 1,000 square feet. Making such changes to parking requirements, in conjunction with the city's concerted active transportation efforts, could provide opportunities to further activate underutilized spaces, promote active transportation, and better control stormwater runoff.

Stormwater Infrastructure

In the late 1800s, Camden was one of the first cities in the U.S. to build a combined sewer-stormwater system. At the time, a relative abundance of green space existed to capture stormwater runoff, diverting it from storm drains. Today, however, various large scale development projects coupled with large tracts of parking lots ensure that a considerable portion of the city is covered with impervious surface. (The 2015 Cooper-Grant/Central Waterfront Neighborhood Plan reported 106 acres of parking lots in a study area of the downtown).

As a result of excess impervious land uses and an aging sewer system, one inch of rain can leave major roads impassable, turn parking lots into stagnant lakes, and carry sewage to parks, homes, and waterways. The unseasonably wet summer of 2013, for instance, created several street floods, paralyzing public transportation; a fire company's boat was needed to rescue passengers from train platforms surrounded by floodwaters, according to Camden SMART (Stormwater Management And Resource Training). More than a Complete Streets issue, the city's sewer system is a public health concern and negatively impacts the City's economic viability and environmental quality.

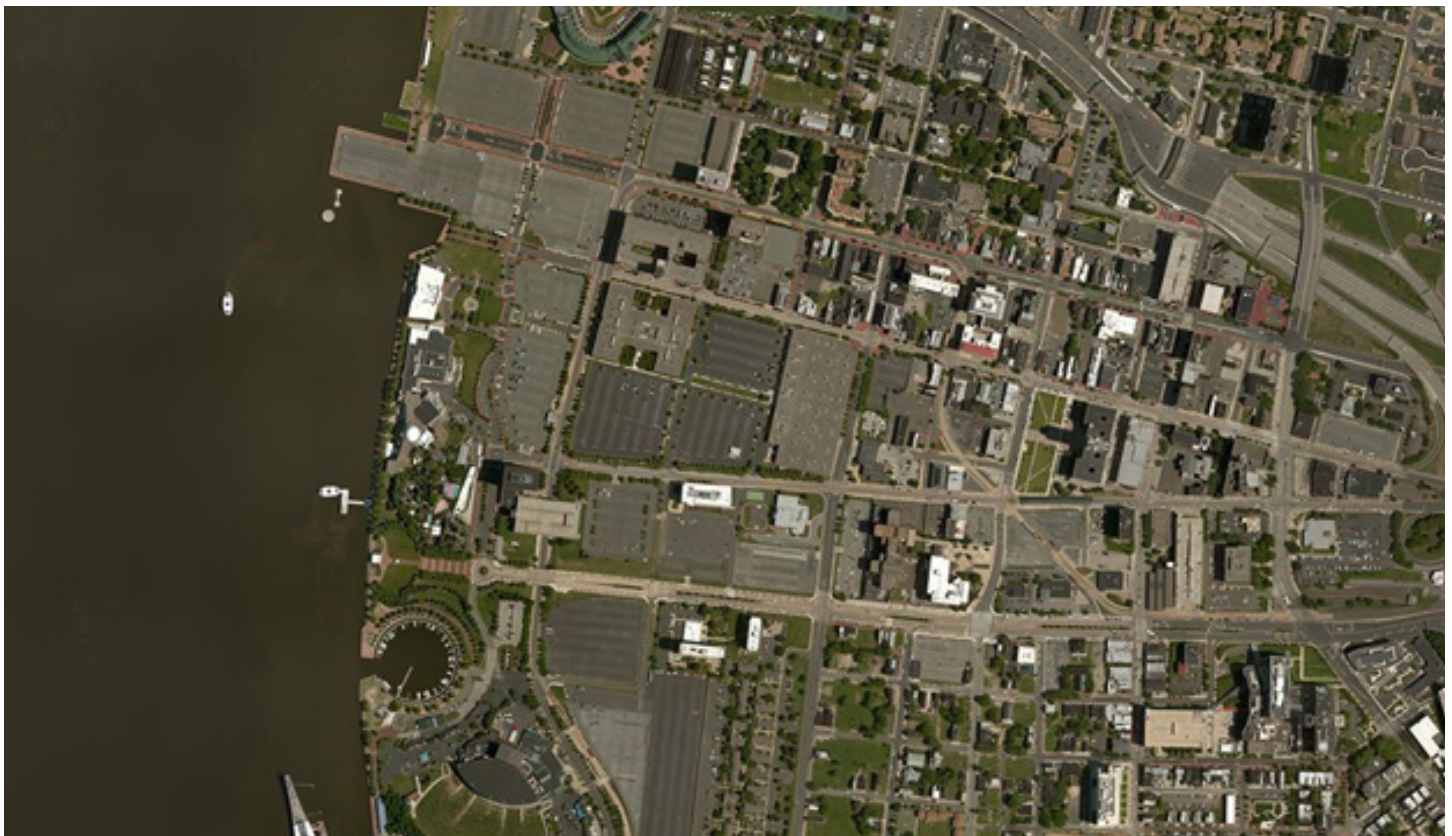


Figure 21. Satellite image of downtown Camden

To be sure, the City of Camden is approaching its water infrastructure challenges through a dynamic partnership called the Camden SMART Initiative, a working group of CCI. Founded in 2011 by a coalition of six entities—CFP, the City of Camden, Camden County Municipal Utilities Authority (CCMUA), Rutgers Cooperative Extension Water Resources Program (RCE), New Jersey Tree Foundation (NJTF), and the NJ Department of Environmental Protection (NJDEP)—the Camden SMART Initiative is employing a broad use of green and grey infrastructure techniques for stormwater management. For Camden to move forward with its Complete Streets policy, the city must embrace green infrastructure strategies that reduce stormwater runoff.

Need for Consistent Funding

The City of Camden has demonstrated success in leveraging public and private financing to implement Complete Streets projects. However, grants seldom account for continued maintenance. Moving forward, the city should review the projected costs of maintenance before constructing Complete Streets improvements.

Geographic Layout of the City

Camden's streets were designed long before the advent of the automobile. In several sections narrow cobblestone roadways, though charming, present a critical challenge to accommodating bike lanes and adequate sidewalks. Additionally, large interstate highways and bridges dissect the city in several directions. While bicycle and pedestrian improvements are underway on the Ben Franklin Bridge, highways throughout the city remain a challenge.

Next Steps

Cooper's Poynt Road Reconstruction Project

The \$16.2 million TIGER grant that City received in July 2016 includes upgrades to vehicular, pedestrian, and bicycle infrastructure. The project will reconstruct seven street segments whose current state of disrepair pose an imminent threat to all road users. The road segments, pockmarked by exposed cobblestone and potholes, are a drain on maintenance costs to city agencies.

With design funding from NJEDA, managed by CFP at a cost of \$320,000, construction is expected to start in the spring of 2019 and will include complete street elements, such as sidewalks and ADA-accessible ramps, bicycle lanes, trash receptacles, lighting, and stormwater infrastructure elements. Additionally, construction will replace obsolete water and sewer systems and improve the street grid just north of the Ben Franklin Bridge. This project creates another critical connection between North Camden and several important destinations, including the Ben Franklin Bridge to Philadelphia, Admiral Wilson Boulevard to the South Jersey suburbs and downtown Camden, as well as access points to the NJ TRANSIT River LINE and PATCO.

Cooper Street Pedestrian Access Project

The 2016 TIGER grant will also construct the Cooper Street Pedestrian Access Project which includes the construction of two through-lanes of traffic, improvements to traffic flow along the Cooper Street corridor between Delaware and Haddon Avenues, upgrades to traffic-signal timing, and construction of pedestrian crosswalks and ADA-compliant sidewalk infrastructure.



Figure 22. Construction in Camden



Figure 23. Bicycle and Pedestrian path along the Garden State Parkway Causeway



Figure 24. Wayfinding signage in downtown Camden

Ben Franklin Bridge Bike Ram

Renovations to the Ben Franklin Bridge bicycle and pedestrian walkway began in 2018 and were commissioned by the Delaware River Port Authority (DRPA). The \$7.9 million renovation to the iconic Ben Franklin Bridge connects Camden and Philadelphia and is expected to be completed in the spring of 2019. The project will create an ADA-compliant ramp to the south walkway over the bridge, replacing the existing stairway on the bridge's south side. Previously, the 25-foot-high stairway was an obstacle for disabled users and bicyclists who had to carry their bikes up and down the stairs.

The improvement is critical to facilitating a connection between Camden and Philadelphia as, according to CFP, bicycle ridership over the bridge increased by 162 percent from 2006 to 2015. The project is funded in part by a \$3.8 million grant from the Federal Highway Administration's Transportation Alternatives Program (TAP) and \$400,000 grant from the William Penn Foundation.

River Birch Trail

At approximately one-tenth of a mile, the River Birch Trail will serve as a critical link between Gateway Park and the Ben Franklin Bridge. Though still in the design phase, the River Birch Trail will consist of a short boardwalk between South 11th Street and Admiral Wilson Boulevard, filling a gap in sidewalks adjacent to the corporate campuses for Campbell Soup Company and Subaru of America. The River Birch Trail will also connect to the Circuit Trail network, and users will have access to Cooper River Park and suburban towns outside Camden.

Incorporating Complete Streets Throughout Camden

In addition to the above projects, CFP plans to develop better ways to ensure that Complete Streets are incorporated into all re-engineering projects. It is possible that such a plan might incorporate the use of a Complete Streets Checklist, though, as previously mentioned, a lack of funding poses a significant obstacle.

Conclusion

Camden is experiencing an exciting era of new developments that will alter the urban fabric of the city. The increase in jobs to the “eds and meds” district will, doubtless, cause an uptick in traffic—both from automobiles and alternative modes of transportation, and already the healthcare and educational institutions are demonstrating their commitment to Complete Streets by improving their properties with better lighting and pathways. Meanwhile, the City of Camden has raised millions of dollars from private, state, and federal financiers to implement projects that will enhance accessibility to the city's waterfront and anchor institutions. The onus, nonetheless, will be on the county and municipal governments to ensure continued maintenance to bicycle and pedestrian infrastructure.

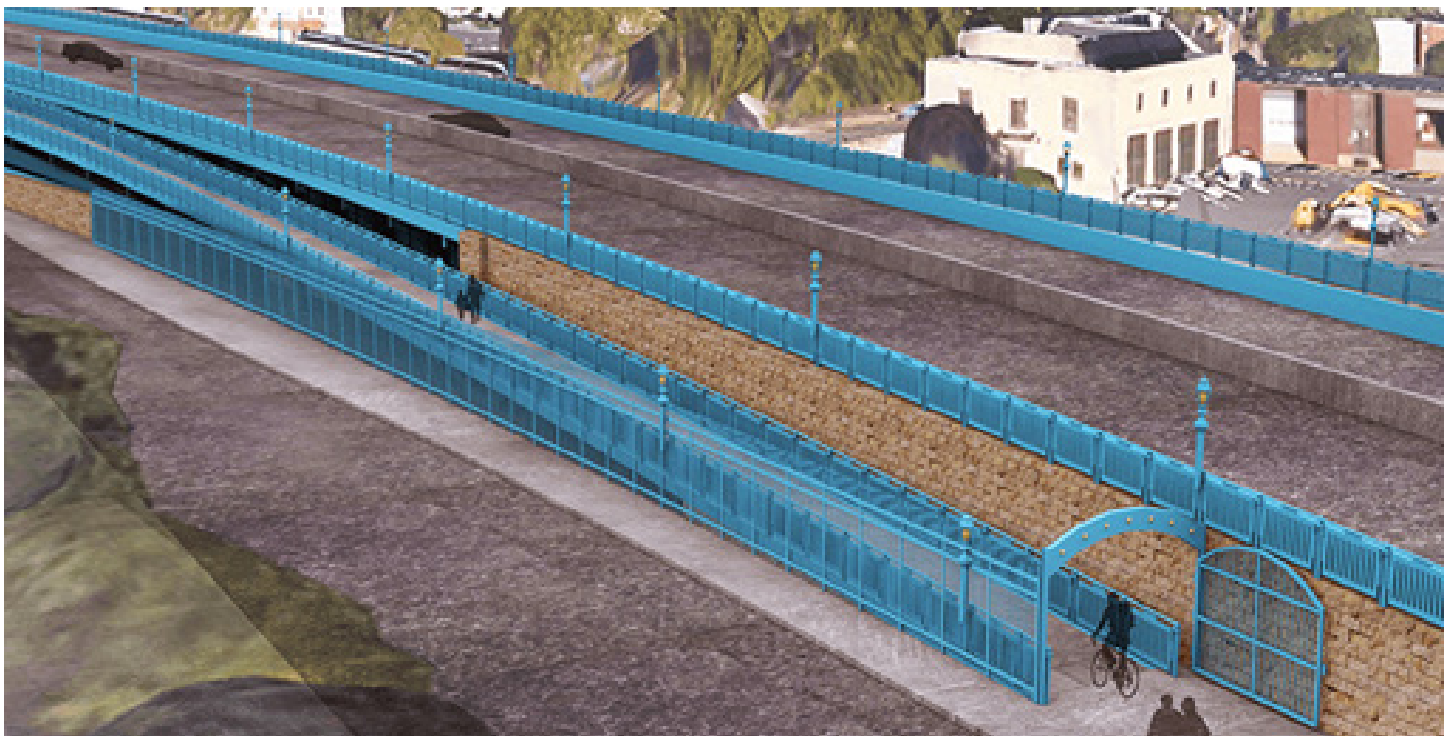


Figure 25. DRPA rendering of the Ben Franklin Bridge Bike Ramp



Complete Streets Case Study: Appendix

City of Camden, New Jersey



Appendix

RESOLUTION ESTABLISHING A “COMPLETE STREETS” POLICY FOR THE CITY OF CAMDEN

WHEREAS, a “complete street” is a street that is designed for all users, including pedestrians, bicyclists, transit riders, motorists and people of all ages and abilities; and

WHEREAS, a “complete street” is defined as a means to provide safe access for all users by designing and operating a comprehensive, integrated, connected multi-modal network of transportation options; and

WHEREAS, the benefits of complete streets include improving safety for pedestrians, bicyclists, transit riders, drivers, children, older citizens, non-drivers and the mobility challenged as well as those that cannot afford a car or choose to live car free; providing connections to bicycling and walking trip generators such as employment, education, residential, recreation, retail centers and public facilities; promoting healthy lifestyles; creating more livable communities and economic development opportunities; reducing traffic congestion and reliance on carbon fuels thereby reducing greenhouse gas emissions; and, saving money by incorporating sidewalks, on-street bike facilities, safe crossings and transit amenities into the initial design of a project, thus sparing the expense of retrofits later; and

WHEREAS, the City of Camden recognizes that all streets are different and is committed to creating context-sensitive street corridors that balance user needs and accommodate all road users of all ages and abilities for all trips; and

WHEREAS, the City Council wishes to reinforce its commitment to creating a comprehensive, integrated, connected street network that accommodates all road users or all abilities and for all trips;

NOW THEREFORE BE IT RESOLVED that all public streets projects, including new construction, reconstruction, retrofitting, extensive maintenance and operations, in the City of Camden, shall be designed and constructed as complete streets. This policy shall be implemented as follows:

1. All City streets shall be designed and constructed to include accommodations for pedestrians, bicyclists, public transit and motorists. Complete streets shall accommodate users of all ages and abilities.
2. Recognizing the inter-connected multi-modal network of the street grid, the City of Camden will work with Camden County, the Delaware River Port Authority, the New Jersey Department of Transportation and other related agencies to ensure complete streets principles are incorporated in a context-sensitive manner.
3. While complete streets principles are context-sensitive, complete streets features will be considered from the earliest stages of project delivery and throughout project life cycle, including project development and scoping, roadway design standards, capital programming procedures, and operation and maintenance practices. Departments shall reference the New Jersey Roadway Design Manual; the NACTO Urban Bikeway Design Guide; the AASHTO Guide for the Development of Bicycle Facilities; AASHTO Guide for the Planning, Design and Operation of Pedestrian Facilities; the Manual of Uniform Traffic Control Devices; and other design criteria as necessary, striving to balance all needs, when repaving, retrofitting, or reconstructing streets.

4. The City of Camden Division of Capital Improvements and Project Management should make complete streets practices a routine part of everyday operations, should approach every transportation project (including new and retrofitted projects) as an opportunity to improve public streets and the transportation network for all users and should work in coordination with other departments, agencies and jurisdiction to achieve complete streets.
 - a. The Division is authorized to coordinate with Camden County to suggest the inclusion of complete streets improvements as part of County new construction, reconstruction, retrofitting, extensive maintenance and operations road projects at the earliest stages of project delivery and throughout the project life cycle to create complete streets accommodations on County roads within the City of Camden.
5. The City of Camden Planning Board and the Zoning Board of Adjustment, along with their respective planning and engineering professionals, shall incorporate this complete streets policy into its reviews of major site plans and redevelopment projects; all initial planning and design studies, environmental reviews, and other project reviews for projects requiring funding approval by the City of Camden should: 1) evaluate the effect of the proposed project on safe travel by all users, and 2) identify measures to mitigate any adverse impacts on such travel that are identified.
6. The City of Camden shall incorporate the goals and objectives of the Complete Streets Policy into the next reexamination, update, revision, amendment or adoption of the City of Camden Master Plan.
7. To facilitate timely implementation of the new policy, the following steps shall be taken:
 - a. A memorandum outlining this new policy will be distributed to all department heads within 90 days of this resolution.
 - b. NJDOT's "Complete Streets Implementation Checklist" will be reviewed within 90 days and will be used to assist in project planning, design and development of proposed alternatives, as well as construction and maintenance of publicly funded projects. This checklist can be found within the *NJDOT Complete Streets Implementation Guide* at: <http://www.state.nj.us/transportation/eng/completestreets/pdf/cscreateimplementationplan.pdf>
 - c. At least one training about complete streets will be conducted for appropriate staff within 180 days of this resolution.
 - d. Oversight of the new complete streets policy will be handled by the Public Works Director, or other appropriate cabinet officials approved by City Council.
8. Exceptions may be made to this policy under any one of the following conditions:
 - a. Bicycle and pedestrian facilities are not required where they are prohibited by law.
 - b. When the cost of incorporating a new bicycle, pedestrian, and/or public transit facilities is excessive, defined as greater than 20% of the overall project cost, the need for and/or probable use of the facility shall be considered in making the determination as to whether or not an exception should be approved at this time or held for future consideration. This determination may occur during the budget and capital improvements program approval process or when project plans and specifications are

being prepared. *Exceptions due to cost increases shall be sent to City Council and Planning Director for formal approval.*

NOW, THEREFORE, BE IT RESOLVED, that the City Council of the City of Camden hereby consents that all public street projects, both new construction and reconstruction, in the City of Camden shall be designed and constructed as complete streets; and

BE IT FURTHER RESOLVED, that this resolution shall remain on file in the City Clerk's office.

Alan M. Voorhees Transportation Center

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