

between individual station and VMF area data identified in the table and the aggregate totals for the station and VMF area findings mentioned above.

**Table 34: Population, Housing, and Employment within ½ mile of Proposed Stations and Vehicle Maintenance Facilities, 2015**

Proposed Station & Vehicle Maintenance Facility (VMF) Area (½ mile radius)	Population	Households	Employment
Walter Rand Transportation Center (existing station)	19,483	6,224	27,066
Cooper Hospital	17,099	5,113	21,792
South Camden	14,570	5,203	8,238
Gloucester City	15,775	5,558	5,150
Crown Point Road	11,383	4,436	3,876
Red Bank Avenue	17,355	6,907	10,903
Woodbury	13,732	5,757	10,414
Woodbury Heights	8,233	3,064	2,515
VMF #1	15,058	5,422	3,709
Wenonah	9,521	3,347	2,151
Mantua Boulevard	5,439	1,939	1,222
Sewell	5,022	1,740	1,949
Mantua-Pitman	12,214	4,663	4,663
Pitman	8,898	3,389	2,481
Rowan University	11,416	3,303	5,123
Glassboro	11,015	3,160	5,186
VMF Site #2	9,342	2,479	4,281

Source: DVRPC (VISSUM Model) Transportation Analysis Zone (TAZ) projections for proposed station areas, 2017

Several major employers of Camden and Gloucester Counties are located within the ½ mile areas surrounding the proposed stations:

- **Rutgers University – Camden.** Rutgers University is a national research university and the largest institute of higher education in New Jersey, with three regional campuses located in Camden, Newark, and New Brunswick. Approximately 1,355 employees are employed at the Rutgers University – Camden campus.
- **American Water – Camden.** American Water, a water and wastewater services company, has recently relocated its corporate headquarters from Voorhees, New Jersey to a parcel on the Camden waterfront. The new headquarters now employs over 600 people.
- **L-3 Communications – Camden.** L-3 Communications is a prime defense contractor in intelligence, surveillance, and reconnaissance and other government services. Approximately 1,075 employees are employed at the Camden Waterfront facility.
- **Cooper Hospital – Camden.** The main campus of Cooper Hospital is located in Camden and serves as the clinical campus of the Cooper Medical School of Rowan University. The hospital employs more than 630 physicians. The hospital is adjacent to Cooper Plaza and the Lanning Square neighborhood. Recent expansion of the hospital includes the construction of a medical tower and new medical school.

- Subaru – Camden. The automaker moved their U.S. corporate headquarters from Cherry Hill, New Jersey to a 13 acre parcel in Camden adjacent to Campbell Soup Company. The campus, called Knight’s Crossings, opened in 2018. Subaru employs over 500 workers at this location.
- Campbell Soup Company – Camden. The world headquarters and principal executive offices of the Campbell Soup Company, located in Camden, employs 1,582 administrative and sales employees.
- Holtec – Camden. The energy company opened a technology campus which includes a corporate office and manufacturing plant on a 50 acre parcel on the South Camden waterfront in early 2018. Presently Holtec is hosting approximately 400 employees..
- Delaware Valley Wholesale Florist – Sewell. The Delaware Valley Wholesale Florist corporate headquarters employs 500 employees and is the eighth largest employer in Gloucester County.
- Rowan University – Glassboro. Rowan University is the third largest employer in Gloucester County. The university employs approximately 1,483 employees and enrolls approximately 14,000 students.

#### **2.4.4 Development and Redevelopment Opportunities**

The GCL corridor traverses several established communities that contain underutilized and vacant parcels available for redevelopment. Many of these municipalities promote redevelopment of underutilized land and encourage infill development opportunities. The City of Camden is in the process of converting 26 acres of waterfront surface parking lots to a mixed-use center with 1.5 million square feet of commercial retail space, 211 residential units, a 180 room hotel, and 4,000 parking spaces. Development at Rowan University, near the southern terminus of the alignment, has also been developing quickly; the 1,400 bed Holly Pointe Commons dormitory opened in late 2017, and the University has released preliminary plans to lease 300 acres to develop an arena, dozens of sports fields, and a hotel on Route 322.

Several vacant and underutilized land parcels are located within the ½ mile radius of the station areas. Section 1, “Land Use, Public Policy and Zoning,” shows the vacant land coverage within the station areas which varies from less than 1 percent to over 17 percent. The proposed Crown Point Road and Cooper Hospital Station areas contain over 10 percent vacant land coverage.

Municipalities within the GCL corridor also contain areas designated by the New Jersey Department of Community Affairs (NJDCAs) as in need of redevelopment or rehabilitation. Areas designated by the NJDCAs as in need of redevelopment or rehabilitation areas exist within ½ mile of ten proposed station sites. Section 1, “Land Use, Public Policy and Zoning,” identifies the percentage of land designated as being in need of redevelopment or rehabilitation within each impacted station area.

The State of New Jersey has established a number of Urban Enterprise Zones (UEZs), where the sales tax rate is cut in half, to 3.5 percent, to encourage economic development (State of New Jersey, 2013). There are currently two UEZs located within close proximity of the Study Area: in the City of Camden and Gloucester City. All state tax revenue is allocated to general state use. This includes a variety of services and programs in environmental protection, human services, public safety, and others (State of New Jersey, 2011).

The New Jersey Economic Opportunity Act of 2013 also bolsters economic development by providing tax credit/incentive programs to attract new jobs and increase economic development throughout the state. This law expands the Economic Redevelopment and Growth (ERG) and Grow New Jersey Assistance (GROWNJ) programs to promote real estate development and encourage capital investment throughout the state. Additional incentives in the form of increased grants and reduced requirements for tax credits are available for Garden State Growth Zone areas, which includes the City of Camden (NJEDA, 2013).

## **2.5 Environmental Consequences**

A comparative analysis that examines anticipated future socio-economic conditions for a No-Action Alternative and the future with the GCL provides the opportunity to evaluate the potential socio-economic impacts that each alternative may have within the Study Area. This evaluation helps to summarize the anticipated impacts regarding population, employment, housing, jobs, and economic output to name a few. The two Project Alternatives are described below.

### **2.5.1 No-Action Alternative**

The No-Build Alternative is the future scenario that considers the current transportation services provided and planned investments that are expected to be implemented without the addition of the GCL. Potential negative impacts of not constructing the GCL may result in reduced opportunities for redevelopment and revitalization within the Study Area and particularly near the proposed station sites further impacting the future population, employment and economic conditions near the station areas.

### **2.5.2 The GCL**

The proposed GCL would provide an additional transportation service to the residents, employees, and visitors along the 18 mile transit corridor from Camden to Glassboro. The proposed GCL offers several potential benefits including increased connectivity, mobility, and expanded transportation mode choice. Redevelopment, an important theme identified in many of the Master Plans of the municipalities within the project corridor, could also be an outcome of this investment.

Other development projects in the study area are not anticipated to have a significant impact on population, households, or employment, and are not expected to result in adverse impacts to economic output, jobs creation, or income.

#### **2.5.2.1 Population, Households and Employment**

Transportation Analysis Zone data from DVRPC's model output was used to generate the GCL projections. Table 35, "Projected Population, Household, and Employment within Proposed Station Areas and Vehicle Maintenance Facility Sites, 2040," provides the 2040 projections for population, households, and employment for the WRTC station area, 14 proposed station areas and two proposed VMF site locations. In general, the proposed station areas in Gloucester County are projected to experience a greater increase in population, households, and employment than the station areas in Camden County. The proposed Sewell and Glassboro station areas are projected to experience the greatest increase in population at 39.1 percent and 31.3 percent, respectively. This significant population growth at Glassboro is likely due

to plans for expansion of the University. The Sewell Station area is also projected to experience the greatest increase in households (39.1 percent). The Mantua Boulevard Station is projected to experience the greatest increase in employment (111.1 percent). Household and employment projections for the Glassboro station area also indicate considerable growth with an increase of 31.7 percent and 35.8 percent, respectively.

The construction of the proposed GCL would not have a significant effect on population, household, and employment within the proposed station and VMF areas before 2040. The impact of the proposed GCL on population, household, and employment would likely be realized beyond 2040.

**Table 35: Projected Population, Household, and Employment within Proposed Station Areas and Vehicle Maintenance Facility Sites, 2040**

Proposed Station & VMF Area (½ mile radius)	2040 Population	Percentage Change from 2015	2040 Households	Percentage Change from 2015	2040 Employment	Percentage Change from 2015
Walter Rand Transportation Center (existing station)	19,945	2.4%	6,371	2.4%	29,434	2.4%
Cooper Hospital	17,506	2.4%	5,113	0.0%	21,792	0.0%
South Camden	14,917	2.4%	5,326	2.4%	9,519	2.4%
Gloucester City	15,869	0.6%	5,591	0.6%	6,410	0.6%
Crown Point Road	12,519	10.0%	4,884	10.1%	4,308	10.1%
Red Bank Avenue	19,454	12.1%	7,737	12.0%	11,790	12.0%
Woodbury	14,849	8.1%	6,242	8.4%	11,122	8.4%
Woodbury Heights and VMF Site #10	9,246	12.3%	3,448	12.5%	2,722	12.5%
Wenonah	17,075	13.4%	6,152	13.5%	4,094	13.5%
Mantua Boulevard	11,498	20.8%	4,051	21.0%	2,697	21.0%
Sewell	6,783	24.7%	2,425	25.1%	2,580	25.1%
Mantua-Pitman	6,986	39.1%	2,421	39.1%	2,782	39.1%
Pitman	14,625	19.7%	5,555	19.1%	5,889	19.1%
Rowan University	9,791	10.0%	3,729	10.0%	2,908	10.0%
Glassboro	14,596	27.9%	4,224	27.9%	6,879	27.9%
VMF Site #1	14,460	31.3%	4,163	31.7%	7,042	31.7%
VMF Site #2	12,321	31.9%	3,291	32.8%	5,826	32.8%

Source: DVRPC (VISSUM Model) Transportation Analysis Zone (TAZ) projections for proposed station areas, 2017

### 2.5.2.2 Development and Redevelopment

Construction of the proposed GCL would result in significant, positive development and redevelopment impacts in land use throughout the 18 mile corridor. Significant and positive effects from development and redevelopment would not result in any impacts to socioeconomic conditions. This development activity would most likely be focused near the proposed transit station sites. Several established communities along the proposed alignment have redevelopment plans and/or future land use policies in place to promote new economic development, and in some instances specifically encourage transit-supportive land uses. The proposed GCL would encourage growth and economic development consistent with these local plans and policies. One specific example of potential future transit-supportive development is located in Woodbury. The City's Master Plan identifies a future transit village near and

within the proposed Woodbury Station area. Section 1, “Land Use, Public Policy and Zoning,” identifies additional potential transit-supportive development areas within the proposed station areas.

### **2.5.2.3 Government Finance and Tax Sources**

The significance of the impacts caused by the construction of the proposed GCL on government finance and tax sources requires further information that will be provided after Attachment 12, “Acquisitions and Displacements Technical Report,” is complete. A total of 74 parcels along the alignment or proposed station and VMF areas would be impacted by full or partial acquisition due to construction of the GCL. These acquisitions would result in the relocation of businesses and employees.

### **2.5.2.4 Economic Output, Jobs Creation and Income**

Input-output (I/O) modeling was used to estimate the total economic effect of the proposed GCL. I/O analysis examines relationships within an economy, both between businesses, as well as between businesses and consumers. The analysis captures consumptive market transactions and estimates the resulting “indirect” and “induced” economic effects.

Regional economic analysis and I/O models produce quantitative estimates of the magnitude of regional economic activity resulting from a specified change in the regional economy. I/O models rely on multipliers that mathematically represent the relationship between the initial change in one sector of the economy and the effect of that change on economic output, income, or employment in other regional industries.

This regional economic analysis utilizes RIMS II multipliers, an I/O model developed and maintained by the US Bureau of Economic Analysis (BEA). The RIMS II multipliers are widely used across the United States by government and private entities to prepare location-specific economic impact analysis.

Regional economic analysis provides a means of estimating the significance of economic activity in a regional economy by quantifying contributions to output and employment. Because industries in a geographic area are interdependent, the total economic contribution of any one specific project will be larger than its individual (direct) effect on regional output and employment, a concept referred to as the “multiplier” effect. Industries in a geographic region are interdependent in the sense that they both purchase output from and supply input to other industries in the region.

The economic impact analysis for the proposed GCL does not take into account geographical purchasing coefficients as the anticipated financing structure is unknown at the time of publication. As such, this early analysis should be considered hypothetical and for illustrative purposes includes total economic impacts of project construction and operations and maintenance (O&M) without factoring in the location of purchasing or production. For example, the manufacturing of vehicles has been included in the analysis even though a considerable proportion of these expenditures would occur outside of the MSA capture area.

**Interpretation of Model Results.** Economic impacts can be described as the sum of economic activity within a defined geographic region resulting from an initial change in the economy. This initial change spurs a series of subsequent indirect and induced activities as a result of interconnected economic relationships. The total economic impacts presented in this analysis include *direct*, *indirect*, and *induced* impacts.

- **Direct Impact:** Direct impacts represent the change in output attributable to a change in demand or supply. For example, total expenditures associated with the construction phase of the proposed GCL would represent the direct impact of the project on the economy.
- **Indirect and Induced Impacts, commonly referred to as the “multiplier effect”:**
  - **Indirect Impacts:** Indirect impacts result from industry-to-industry transactions. This effect is a measure of the change in the output of suppliers linked to the industry that is directly affected. For example, the proposed GCL project would purchase goods and services from suppliers, who in turn would make purchases from their own upstream suppliers. When the rail project begins construction, and subsequently operations, direct and indirect suppliers would experience an increase in demand for their goods and services.
  - **Induced Impacts:** Induced impacts consist of impacts from employee spending in the regional economy. Employees of the GCL and affected businesses would contribute to this effect.
- **Total Impacts:** The cumulative impact of the above components.

For this analysis, impacts are expressed in terms of three variables: Output, Employment, and Wages, which are defined as:

- **Output:** Output represents the change in regional sales or revenue.
- **Employment:** Employment represents the change in the number of jobs in the regional economy resulting from a change in regional output.
- **Wages:** Wages represent the change in gross employee wages and salaries in the regional economy resulting from a change in regional output.

**Key Assumptions.** The following are key assumptions of this economic impact analysis:

- All dollar values are presented in 2018 constant dollars (budget base year) using 2015 multipliers (the most recent multiplier data available) unless otherwise noted.
- The region of influence used in this analysis is the Philadelphia-Camden-Wilmington MSA.
- Impacts from the proposed GCL are based on the Project’s capital and O&M cost estimates.
- Separate BEA RIMS II multipliers were used for differing economic activities.

This regional economic impact analysis considers economic impacts expected to occur within the Philadelphia metropolitan area as a result of both the increased short-term employment and expenditures

in the project area during construction, as well as long-term economic benefits resulting from the project operations and maintenance (O&M) expenditures necessary after service initiation. The following discussion provides an overview of the categories of analysis, selection of input data and final results.

**Project Construction.** Construction of the proposed GCL and its employees would be a source of economic stimulus within the Philadelphia-Camden-Wilmington MSA. The construction project would purchase inputs to production from other businesses, supporting jobs and employee compensation. Demand that is met by suppliers would further stimulate the economy by supporting additional jobs and creating additional new demand for raw inputs. The employees of the project would spend their income on local retail purchases, housing, and other services. These expenditures support regional jobs in the associated industries.

Construction of the proposed GCL is expected to provide a significant one-time direct benefit to the regional economy. In addition to temporarily supporting local construction labor, the project is expected to require regionally supplied construction materials. Specifically, it is anticipated that development and construction of the transportation project itself would generate total *direct spending* of approximately \$1.40 billion, as shown in Table 36, “Capital Expenditures – The GCL”. Direct construction-related expenditures are expected to constitute approximately \$839 million, or 60 percent, of the project budget. Professional services would account for \$248 million, or 18 percent, of the budget. The purchase of rail vehicles would cost approximately \$264 million, or 19 percent, of the total budget. In order to conduct the economic impact analysis to estimate the multiplier effects of this direct spending, the budget line items were translated to corresponding BEA RIMS II sector classifications.

**Table 36: Capital Expenditures – the GCL**

Industry Description	BEA RIMS II Sector Classification	Cost	% of Total Budget
Construction	Construction	\$839,981,000	60%
Guideway & Track Elements	Construction	\$318,564,000	23%
Stations, Stops, Terminals, Intermodal	Construction	\$64,444,000	5%
Support Facilities	Construction	\$200,297,000	14%
Site work & Special Conditions	Construction	\$142,790,000	10%
Systems	Construction	\$113,886,000	8%
Vehicles	Railroad rolling stock manufacturing	\$263,970,000	19%
Professional Services	Professional, scientific, and technical services	\$248,380,000	18%
Contingency: Construction	Construction	\$41,999,000	3%
Contingency: Vehicles	Railroad rolling stock manufacturing	\$5,279,400	0.4%
Contingency: Professional Services	Professional, scientific, and technical services	\$4,967,600	0.4%
<b>Total</b>		<b>\$1,404,577,000</b>	<b>100%</b>
Note: The cost estimate does not include the purchase or lease of real estate and the budget breakdown and industry categorization was reclassified into appropriate BEA sectors for the purposes of this analysis.			

Source: GCL Project Team data, April 2018; US Bureau of Economic Analysis, RIMS II, 2015 multipliers.

Based on the anticipated multiplier effects for the various industry sectors affected by the project, Table 37, “Regional Economic Impacts of Construction – the GCL (2018)” presents the estimated total regional

economic impacts in 2018 constant dollars (sum of direct, indirect, and induced impacts) resulting from construction of the GCL.

**Table 37: Regional Economic Impacts of Construction – the GCL (2018)**

Expenditure Type	Regional Expenditures	Employment Impacts	Wages Impacts	Output Impacts
Construction	\$881,980,000	10,425	\$557,852,350	\$1,812,557,098
Other Transportation Equipment Manufacturing	\$269,249,400	1,943	\$111,819,276	\$538,848,824
Professional, Scientific, and Technical Services	\$253,347,600	3,283	\$195,407,004	\$549,409,605
<b>Total Regional Impact</b>	<b>\$1,404,577,000</b>	<b>15,650</b>	<b>\$865,078,630</b>	<b>\$2,900,815,528</b>

Source: GCL Project Team data, US Bureau of Economic Analysis. Estimates are in 2018 dollars.

Construction of the project is estimated to have a *total one-time regional impact* of approximately \$2.9 billion. The regional economic impact represents revenue generated by direct regional spending, indirect spending by suppliers, and induced impacts from employee expenditures in the Philadelphia-Camden-Wilmington MSA regional economy. The construction phase of the proposed GCL is projected to support full-time equivalent construction and ancillary employment of approximately 15,560 jobs with total associated wages of approximately \$865 million.

**Project Operations and Maintenance.** The project would also create jobs and output from O&M expenditures. O&M expenditures include, but are not limited to, the expenses associated with general maintenance and administration, fare inspectors, insurance, fuel, purchased transportation, vehicle and non-vehicle maintenance, and operations. O&M expenditures and the anticipated impact of those expenditures will be determined in the subsequent design phase of the project.

Direct spending in O&M for the proposed GCL is estimated at approximately \$27 million annually (see Table 38, “Regional Economic Impacts of Annual O&M Costs – the GCL (2018)”). Applying the anticipated multiplier effects for the transit and ground passenger transportation industry category to these expenditures results in a total annual regional impact of approximately \$60 million. The O&M expenditures are projected to support total annual employment of approximately 651 jobs related to the operations of the proposed GCL with total associated wages of approximately \$20 million.

**Table 38: Regional Economic Impacts of Annual O&M Costs – the GCL (2018)**

	Regional Expenditures	Employment Impacts	Wages Impacts	Output Impacts
Transit and ground passenger transportation	\$27,070,879	651	\$20,258,913	\$60,511,884

Source: GCL Project Team data, US Bureau of Economic Analysis

## 2.6 Mitigation

### 2.6.1 No-Action Alternative

Under the No-Action Alternative, there would not be any changes to the existing transportation system. The projected change in population, housing, and employment within the project corridor would be a result of other influences. The No-Action Alternative may have a negative impact on the potential for



redevelopment and future economic development by not providing a catalyst within the project corridor, particularly within the proposed ½ mile station areas.

### **2.6.2 The Proposed GCL**

The proposed GCL is not expected to have an immediate impact on population, households, or employment, and is not expected to result in adverse impacts to economic output, jobs creation, or income. Therefore, no mitigation measures would be warranted. Other development projects in the study area resulting from the proposed GCL are not anticipated to have a significant impact on population, households, or employment, and are not expected to result in adverse impacts to economic output, jobs creation, or income.

### **3 NEIGHBORHOODS AND COMMUNITY SERVICES**

#### **3.1 Introduction**

This technical report includes an evaluation of impacts of the GCL on existing neighborhoods and community services. Issues that are important to neighborhoods (access, neighborhood travel patterns, loss of parking, overflow parking from stations, relocation, separation, isolation, noise, and vibration) were identified and assessed against the impacts of the GCL corridor, stations, and maintenance facilities. Where necessary, mitigation measures for potential impacts are identified.

The proposed GCL would operate primarily within the ROW of an existing Conrail line. Given that the proposed GCL would primarily run within an existing rail corridor, the proposed project would not physically divide neighborhoods, reduce access to, or disrupt the cohesion of existing communities. The alignment would also not be likely to alter neighborhood boundaries or the setting in which these neighborhoods exist. In addition, access to neighborhoods would not be severed. While corridor, station, and maintenance facility areas may result in displacements, there is a positive impact for the overall communities, which would benefit from enhanced access to transit that would be associated with the implementation of the proposed light rail.

#### **3.2 Principal Conclusions**

The potential impacts of the proposed GCL on the 28 neighborhoods that comprise the corridor were analyzed to determine the effects of the proposed project on the cohesiveness of residential areas and the neighborhood setting in general. Direct impacts related to travel patterns and accessibility, noise and vibration, displacements and relocation, and neighborhood cohesion were studied. In many cases, details on specific impacts, such as land use changes, noise and vibration effects, and traffic access impacts are presented in their respective sections and technical reports (see Section 1, “Land Use, Zoning, and Public Policy,” Attachment 11, “Noise and Vibration Technical Report,” and Attachment 5, “Traffic Analysis Report”). In this section, overall impacts to the neighborhoods and community services within the project corridor are assessed and expressed quantitatively or qualitatively as appropriate.

Seven neighborhoods may experience potential impacts to travel patterns and accessibility. While the proposed project would not sever or divide any streets within the corridor, as the majority of the proposed project would be constructed primarily along existing railway and roadway, there are locations where the proposed project would cross streets and require motorists to wait for the light rail traffic to pass. Some of these locations already experience wait times for vehicles due to the existing railway traffic. In addition, overflow parking in neighborhoods would affect available on-street parking in those neighborhoods, as well as introduce additional traffic.

It was found that 12 neighborhoods may experience potential impacts relating to displacements and relocations. Acquisitions would primarily be required for development of the station areas with parking facilities. Development of the proposed GCL would require the full and partial acquisitions of approximately 182 parcels across Camden and Gloucester counties, including 50 full, 24 partial, and 108

de minimis acquisitions. De minimis acquisitions refer to those acquisitions which would require a very small minor portion of the property to be acquired that would not adversely effect the features, attributes, or activities on the property.

Ten neighborhoods may experience potential impacts from noise and vibration. Corridor-wide, a total of 815 dwellings (equivalent single-family units) are estimated to experience impacts according to FTA noise impact criteria; these consist of 577 moderate impacts and 188 severe impacts from daily GCL operations. In addition, 50 dwellings will experience moderate noise impacts associated with maintenance yard activities from the Woodbury Heights and Glassboro yards. For a detailed explanation of impact criteria regarding noise and vibration, and specific information regarding project related impacts and mitigation measures, refer to Attachment 11, “Noise and Vibration Technical Report”.

Approximately 164 community facilities have been identified within the GCL corridor including approximately 91 religious/faith-based facilities, 36 schools, seven fire stations, six libraries, nine police stations, two medical centers, and one YMCA. The majority of these facilities would experience a positive impact that increased access to transit and transportation choices would offer.

### **3.3 Methodology**

#### **3.3.1 Study Area**

The study area for the assessment of neighborhoods includes all neighborhoods, cities, boroughs, and townships located adjacent to the project corridor. Existing community facilities within ½ mile of the project corridor have been identified. The GCL study area is shown on Figure 28 (Plates “a” – “c”), “Neighborhoods”.

#### **3.3.2 Existing Conditions**

Information on existing neighborhoods and community facilities was obtained from Camden and Gloucester counties and the United States Census Bureau. The following plans and data were obtained and reviewed as part of the assessment for this technical report.

- Community Facilities – Field observations; Google Earth
- Demographic Data – 2014-2018 American Community Survey Five-Year Estimates
- Community issues and concerns gathered through public involvement.
- STV field surveys (February/March 2013).
- STV supplemental field tours of station areas (2017).

#### **3.3.3 Impact Assessment**

The assessment of neighborhoods and community services includes an evaluation of the effects of the proposed project on the cohesiveness of residential areas and the neighborhood setting in general. Issues that are important to neighborhoods (access, neighborhood travel patterns, loss of parking, overflow

parking from stations, relocation, separation, isolation, noise, and vibration) were identified. The technical report evaluates the direct impacts that would result from the proposed project on these communities and services and the effect that it would potentially have on their quality of life.

Effects on neighborhoods and community facilities were evaluated and the types of impacts assessed are as follows:

- Travel patterns and accessibility
- Acquisitions and displacements
- Potential noise and vibration effects
- Disruption of community cohesion and the physical division of a neighborhood
- Disruption of community facilities and services

Data was collected at the census tract level for the study area and for Camden and Gloucester counties for comparative purposes. Entire counties were selected as the appropriate comparison tool because of the potential regional influence of the proposed project and because it best represents the regional project area.

In many cases, details on specific impacts, such as land use changes, noise and vibration effects, and traffic access impacts are presented in their respective sections and technical reports (see Section 1, “Land Use, Zoning, and Public Policy,” Attachment 11, “Noise and Vibration Technical Report,” and Attachment 5, “Traffic Analysis Report”). In this section, overall impacts to the neighborhoods and community services within the project corridor are assessed. The potential for impacts is expressed quantitatively or with the following qualitative terms:

- **No impact:** This category applies if the GCL is not expected to result in impacts on existing conditions. Positive impacts, such as improved access to neighborhoods and community facilities, may also occur and are represented as no impact. Also included in this category are impacts to individual residential properties that would not result in an impact to the collective neighborhood.
- **Potential impact:** This category applies if the GCL may result in a minimal or moderate impact. Minimal impacts include changes from the existing conditions that typically would not need mitigation; moderate impacts include changes from existing conditions that could be addressed through mitigation. For neighborhoods and community facilities, minimal impacts include proximity impacts that do not alter the primary use of the resource. For example, the introduction of increased noise and vibration in areas with high noise and vibration levels, like active transportation corridors. Moderate noise and vibration levels are also classified as a potential impact. In addition, minor acquisitions that would not cause displacements or interfere with the functioning of a property are considered potential impacts.
- **Potentially significant impact:** This category applies if the GCL would likely result in substantial changes that represent an “adverse impact” to the activities relating to neighborhoods and

community facilities. In some cases, the impacts might not be fully addressed through the proposed mitigation. Significant impacts could include severe noise impacts to several properties within a neighborhood, as well as acquiring property that would result in multiple displacements.

Only the direct impacts of the GCL are presented in this technical report. Historic and cultural resources, parks and recreational facilities, and natural resources are community features that are addressed in detail in other technical reports, specifically, Attachment 7, “Cultural Resources Technical Report,” Attachment 9, “Parklands Technical Report,” and Attachment 1, “Natural Resources Technical Report,” respectively. In addition, impacts to the transportation network are analyzed in Attachment 5, “Traffic Analysis Technical Report” and Attachment 6, “Transit Analysis Technical Report.” A detailed list of property acquisitions and potential displacements is included in Attachment 12, “Acquisitions and Displacements Technical Report.” The safety and security measures related to the development and operation of the proposed project are included in Attachment 8, “Safety and Security Technical Report.”

### **3.4 Affected Environment**

The corridor generally spans south from the city of Camden through the northwest section of Camden County and into the northern section of Gloucester County, ending just south of Glassboro. The project corridor would travel through various neighborhoods, populations, and land uses including high to low density residential and commercial, industrial, historic communities, suburban communities, and rural lands.

#### **3.4.1 Neighborhoods**

Descriptions of study area neighborhoods are based on-site visits, aerial photography, and research conducted on each specific neighborhood. Utilizing city/borough websites and community organization resources, descriptions of land use, community facilities, and other characteristics were created for each neighborhood.

Table 39, “Summary of GCL Corridor Neighborhoods,” presents demographics on each neighborhood along the project corridor. Due to the fact that several neighborhoods and boroughs have unofficial boundaries, the census tract in which they are located are used to calculate median income and average home value. Population is calculated using 2014-2018 American Community Survey data at the neighborhood and block level. For those neighborhoods with more than one census tract associated with it, the average of all the incomes is calculated. Neighborhood delineations within the GCL study area are shown on Figure 28 (Plates “a” – “c”), “Neighborhoods.”

**Table 39: Summary of GCL Corridor Neighborhoods**

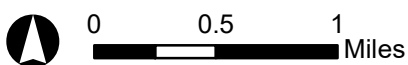
Census Tract	Neighborhood	Population	Median Income	Average Home Value (\$)
6007	Cooper Poynt	1,497	\$27,708	\$80,700
6008	Pyne Point	5,270	\$19,520	\$82,500
6103	Cooper Grant/Central Waterfront	2,151	\$32,000	\$123,100
6104	Central Business District/Lanning Square	4,939	\$29,063	\$91,600
6002	Gateway	1,933	\$25,705	\$62,700
6004	Bergen Square	2,904	\$19,621	\$71,400
6014	Parkside	4,623	\$34,549	\$86,300
6016	Liberty Park	2,649	\$23,638	\$68,200
6015	Whitman Park	4,932	\$19,011	\$67,700
6018	Waterfront South	1,206	\$29,229	\$55,600
6017	Centerville	3,146	\$12,443	\$73,400
6019	Morgan Village	2,727	\$23,995	\$77,300
6020	Fairview	6,478	\$31,427	\$69,500
6110 6051 6052	Gloucester City	11,246	\$59,040	\$130,367
6053	Brooklawn	2,023	\$63,897	\$134,600
6070	Western Bellmawr	4,480	\$42,384	\$152,700
5001	Westville	4,185	\$53,986	\$148,700
5002.01	Verga	2,427	\$76,964	\$172,300
5010.01 5010.02 5010.03	Woodbury	9,929	\$60,722	\$163,733
5009	Woodbury Heights	2,993	\$82,188	\$200,700
5011.07	Oak Valley	4,394	\$78,553	\$168,200
5011.06	Jericho	3,882	\$67,092	\$203,600
5008	Wenonah	2,225	\$122,159	\$273,700
5007.02	Sewell	5,907	\$95,724	\$236,900
5013.01 5013.02 5013.03	Pitman	8,830	\$72,667	\$180,700
5014.02 5014.03 5014.04 5014.06	Glassboro	15,106	\$55,817	\$186,650

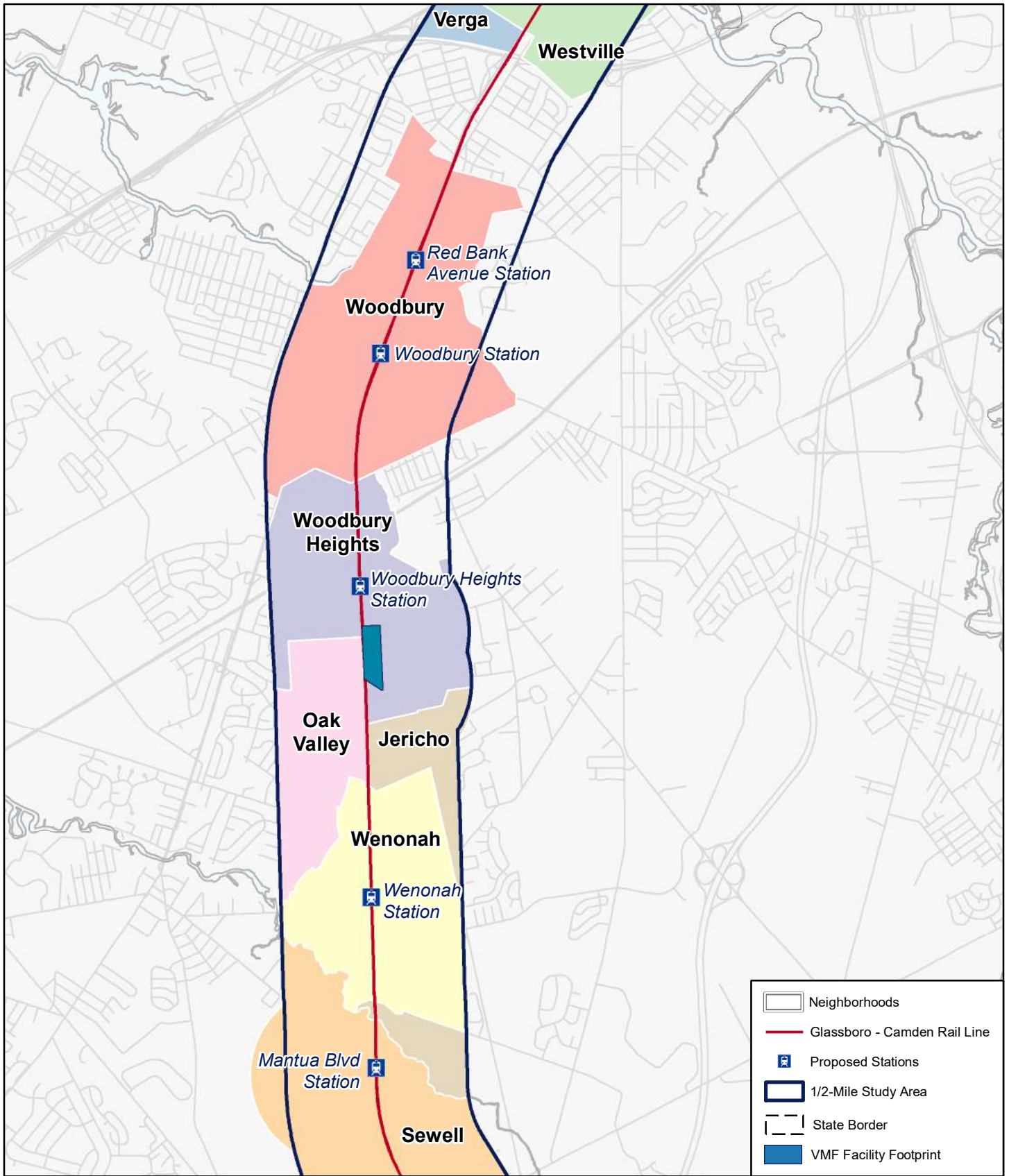
Source: 2014-2018 American Community Survey.



Source: U.S. Census Bureau TIGER/Line Shapefiles; STV Incorporated, 2019.

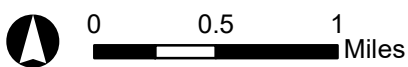
Figure 28a



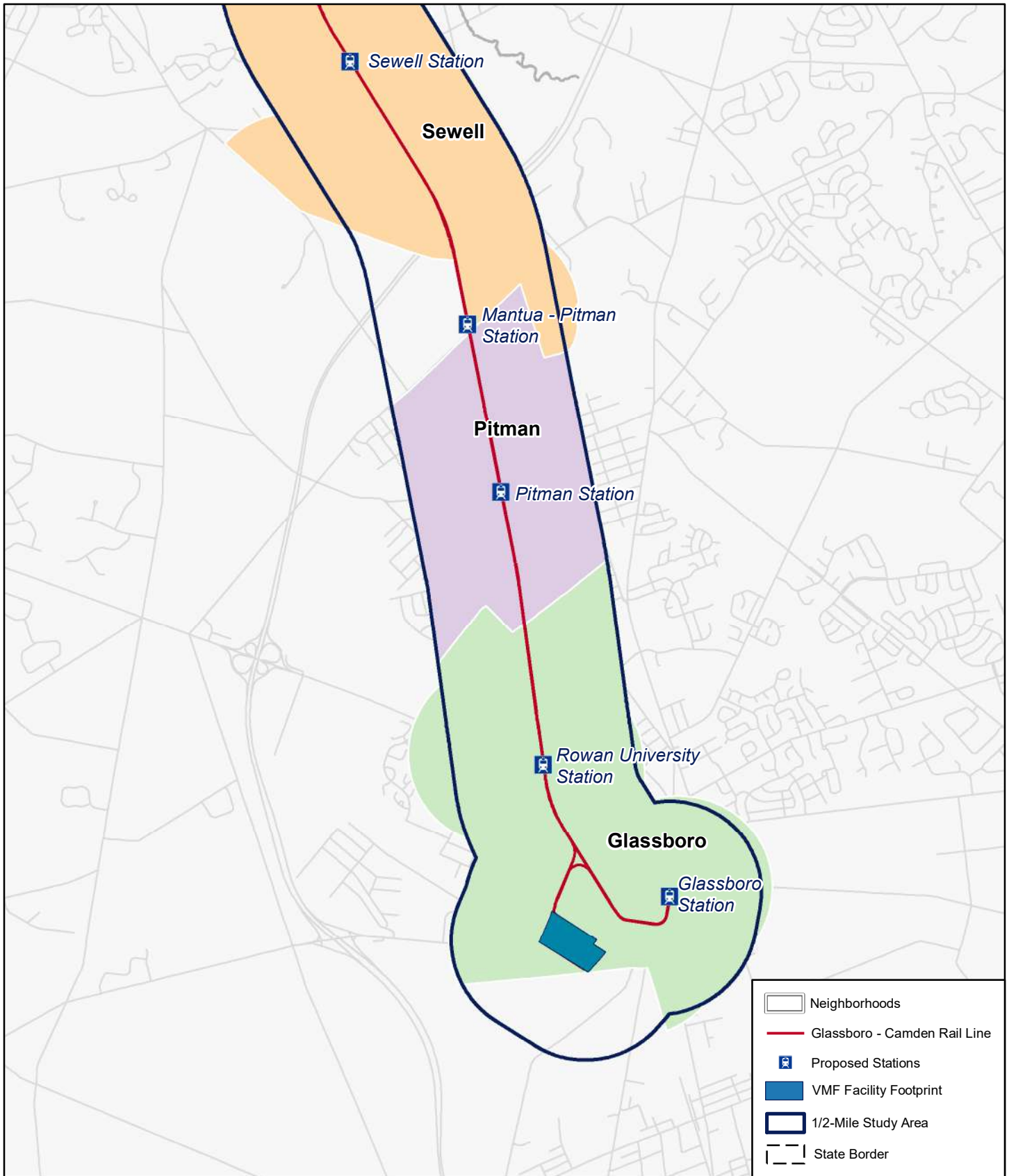


Source: U.S. Census Bureau TIGER/Line Shapefiles; STV Incorporated, 2019.

Figure 28b

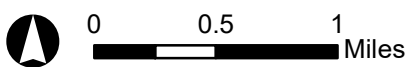






Source: U.S. Census Bureau TIGER/Line Shapefiles; STV Incorporated, 2019.

Figure 28c



Individual neighborhood characteristics are further described below:

- Cooper Poynt: The Cooper Poynt neighborhood is located in the northwestern part of the City of Camden. The neighborhood is bound on the north and west by the Delaware River, on the east by North 4<sup>th</sup> Street, and extends south to I-676. Cooper Poynt encompasses a mix of uses including single- and multi-family residential, as well as light industrial. The neighborhood is also home to community facilities including a school, a church, and a park. The neighborhood includes sidewalks throughout and is within walking distance to many downtown amenities within the City of Camden.
- Pyne Point: The Pyne Point neighborhood is located in the northwestern part of the City of Camden. The neighborhood is bound on the north by the Delaware River, on the west by North 4<sup>th</sup> Street, on the east by the Cooper River, and extends south to the intersection of US-30 and I-676. Pyne Point includes a mixture of land uses including both single- and multi-family residential, neighborhood retail, light industrial, and institutional. The neighborhood also contains community facilities including four parks, four schools, and several religious institutions. Pyne Point is within walking distance to many of the City of Camden’s downtown amenities.
- Cooper Grant: The Cooper Grant neighborhood is located in the northwestern part of the City of Camden. The neighborhood is roughly bound on the north by I-676, on the west by the Delaware River, on the east by North 3<sup>rd</sup> Street, and Clinton Street to the south. The area was historically an industrial neighborhood. The proximity to downtown has made it a popular area for redevelopment, particularly in recent years with the construction of American Water’s headquarters and several other office and residential buildings. This neighborhood includes several entertainment venues including Adventure Aquarium, Wiggins Waterfront Park and marina, and a BB&T concert and entertainment venue. The neighborhood encompasses a mix of land uses including single- and multi-family residential, retail, and commercial. The neighborhood includes sidewalks throughout and is within walking distance of many downtown amenities.
- Central Business District: The Central Business District (CBD) is located in downtown Camden just north of Dr. Martin Luther King (MLK) Boulevard. The neighborhood is bound by I-676 to the north and east, as well as North 3<sup>rd</sup> Street to the west. The area is comprised of mainly office, governmental and institutional, light commercial, and light industrial land uses. The CBD contains several community facilities such as three police stations, a fire station, three colleges and universities, several schools and religious institutions, and a park. The area is considered pedestrian friendly. It also contains two PATCO stations (City Hall and Broadway).
- Lanning Square: Lanning Square is located just south of the CBD in downtown Camden. It is roughly bordered by MLK Boulevard, I-676, Pine Street, and South 3<sup>rd</sup> Street. Lanning Square is comprised of mainly single-family residences, light commercial, neighborhood retail, and institutional land uses. The neighborhood houses several religious institutions, a few parks, one school, and the Cooper University Medical Center. Lanning Square contains sidewalks throughout and is within walking distance of many downtown amenities.
- Central Waterfront: The area of Central Waterfront is located in the northwestern part of the City of Camden, on the banks of the Delaware River. The area is bound on the north by Clinton Street, on

the east by South 3<sup>rd</sup> Street, the Delaware River to the west, and extends south toward Atlantic Avenue. Central Waterfront's land use is comprised of mainly industrial and vacant land with a small area of residential along Mt. Vernon Street. The neighborhood is home to community facilities including three churches, a school, and a park.

- Gateway: The Gateway neighborhood is located in the central area of the City of Camden. The neighborhood is roughly bordered by I-676 to the west, Federal Street to the north, the Cooper River to the east, and Atlantic Avenue to the south. There are a variety of land uses within the neighborhood including single- and multi-family residential, institutional, office, and commercial uses. There is a large concentration of commercial uses along Haddon Avenue. The Gateway neighborhood also contains several community facilities including churches, schools, and a large park along the Cooper River.
- Bergen Square: The Bergen Square neighborhood is located in the central area of Camden. The neighborhood bordered by I-676 to the east, Atlantic Avenue to the south, South 3<sup>rd</sup> Street to the west, and extends north toward Pine Street. Land use in the neighborhood is predominantly residential, (primarily single-family), with neighborhood retail scattered throughout the area. The neighborhood also includes several schools, churches, and a park.
- Parkside: The Parkside neighborhood is located in the eastern central area of the City of Camden. The neighborhood is bound by Haddon Avenue to the southwest, Ferry Avenue to the southeast, and extends north to the Cooper River. Parkside includes the 72 acre Farnham Park, which recently underwent a \$1,000,000 million renovation. Parkside is made up of mainly single-family residences, and also includes commercial uses specifically along Haddon Avenue. The neighborhood also includes three schools, several churches, and a cemetery. Sidewalks can be found throughout Parkside.
- Liberty Park: The Liberty Park neighborhood is located in the central part of the City of Camden and is bordered by Ferry Avenue to the south, Mt. Ephraim Avenue to the east, Atlantic Avenue to the north, and I-676 to the west. The neighborhood is made up of mainly single-family residences with some multi-family residential along Atlantic Avenue as well as South 8<sup>th</sup> Street. Liberty Park also includes some neighborhood retail along Mt. Ephraim Avenue. Liberty Park has three churches, two parks, and three schools. Sidewalks can be found throughout the neighborhood.
- Whitman Park: The Whitman Park neighborhood is located north of Ferry Avenue and is bordered by Mt. Ephraim Avenue, Kaighns Avenue, and Haddon Avenue. The southern portion of the neighborhood is composed of multi-family residential, surface parking lots, and a cemetery, while the northern portion includes mainly single-family and light industrial uses. The neighborhood is divided by the PATCO rail line. Two schools, one park, and several churches can also be found within this neighborhood. Whitman Park includes sidewalks throughout.
- Waterfront South: This neighborhood is located along the Delaware River and is bound by I-676 to the east, Atlantic Avenue to the north, and extends south to the Walt Whitman Bridge (I-76). The area is celebrated as a federal and state historic district. The area has historically housed Camden's largest employer during World War II, the New York Shipbuilding Company. Waterfront South provided homes to many of the company's workers and their families. The proximity of the neighborhood to

the CBD of Camden has made it a popular area for revitalization and infill housing. The neighborhood is composed of mainly industrial uses but includes single-family residential, commercial, and vacant/undeveloped land. The neighborhood also includes several parks and churches and has plans for a large community center in the historic Star Theater building at Broadway and Viola Streets.

- Centerville: The Centerville neighborhood is located in the central area of Camden, bound by Van Hook Street to the north, Mt. Ephraim Avenue to the east, Bulson Street to the south, and I-676 to the west. The neighborhood is dominated by multi-family residential uses, with few single-family residences. The area also contains industrial uses (primarily along the existing railway corridor), with neighborhood retail scattered throughout. Centerville includes several community facilities such as a school, two parks, several churches, a cemetery, and a library.
- Morgan Village: Morgan Village is located in the southeastern part of the City of Camden. The neighborhood is bound by I-676 to the west, Bulson Street to the north, Mt. Ephraim Avenue to the east, and extends south toward an arm of the Delaware River. Morgan Village contains several different land uses including single- and multi-family residential with industrial uses located in the northeastern portion of the neighborhood. The neighborhood also contains community facilities including two parks, three schools, and a few religious institutions.
- Fairview: Fairview is located in the southern part of Camden City and is bound Newton Creek North Branch to the north, Newton Creek to the south, I-676 to the west, and Mt. Ephraim Avenue to the east. Historically, the area was built to provide housing for ship builders and is one of the first federally funded planned communities in the United States. It is now classified as a historic area and was placed on the National Register of Historic Places. The primary land use in the neighborhood is residential (single-family and multi-family) with some neighborhood retail scattered throughout. The neighborhood also includes two schools, two parks, and three churches.
- Gloucester City: Gloucester City is located in the northwestern portion of Camden County. The City's defining borders on the north, south, and west are Newtown Creek, Little Timber Creek, and the Delaware River respectively. The eastern-most part of the City extends just east of I-76. As a small city, Gloucester City contains several different land uses. Most of the community's retail and commercial space is located along North Broadway and South Broadway, with neighborhood retail scattered throughout the surrounding areas. Many construction and redevelopment projects are planned throughout the City, specifically in the North King Street, South Port, West Market Street, and Sixth Street areas. Gloucester's historic district is located in the western portion of the city, roughly between Mercer Street and Jersey Avenue along King and South Burlington Streets. Single-family residential is the dominant land use of the city with industrial uses being found in the western area of the city along the Delaware River, as well as along Crescent Boulevard near Gloucester City High School. Office and institutional uses can also be found in the downtown area of the city. Gloucester City includes numerous community facilities including over ten parks, several religious institutions, a marina and fishing pier, four schools, a few cemeteries, a police and fire department, and a library. The north-central area of the city encompasses a few of the parks and includes a greenway, bike paths, and trails.

- Brooklawn: Brooklawn is a borough of Camden County and located in the northwestern part of the county. Brooklawn is bound by the Delaware River to the west, Little Timber Creek to the north, and Big Timber Creek to the south and extends east toward West Kings Highway and McClelland Avenue. The area is predominantly single-family residential, with some multi-family residences and light industrial uses scattered throughout. Commercial uses can be found along Crescent Boulevard. Brooklawn contains a few community facilities including one school, one church, a police department, and several small parks.
- Western Bellmawr: The Western Bellmawr neighborhood is located west of I-76, north of I-295, east of Big Timber Creek, and south of County Road 551. Bellmawr is a borough of Camden County. Land uses throughout Western Bellmawr include mainly single-family residential with multi-family residential located in the western and northwestern part of the area. Commercial uses can be found along County Road 551, while industrial uses can be found at the southern intersection of I-76 and I-295. Community facilities in the neighborhood include two schools, three churches, a marina, and a few small parks/recreation fields.
- Westville: Westville is a borough located in Gloucester County, NJ. It is in the northern portion of the county and is bound by I-295 to the south, Big Timber Creek to the east and north, and extends west toward Crown Point Road and the Delaware River. The neighborhood is composed of mainly single-family residential, with some industrial uses located between Gateway Boulevard and Crown Point Road, as well as along Harvard Avenue in the southern portion of Westville. Neighborhood retail and light commercial uses can be found scattered throughout. Westville also shares a large industrial campus with West Deptford township; the industrial site is located in the western portion of Westville. Several religious institutions, a library, an elementary school, police and fire departments, and several parks (including the Wheelabrator Wildlife Refuge and Butterfly Garden) are also located within this neighborhood.
- Verga: Verga is an unincorporated community within the township of West Deptford. It is located in the northern part of Gloucester County. Verga is roughly bound by Red Bank Avenue to the west, I-295 to the south, Gateway Boulevard to the east, and extends north to the Delaware River. The Verga community is composed of mainly industrial uses, with single-family residential and light commercial uses scattered throughout. Just north of Crown Point Road is the Coastal Eagle Point Plant, a large industrial campus, which sits on the bank of Delaware River. There are three churches, two schools, and several parks located in the Verga community. A portion of the Wheelabrator Wildlife Refuge and Butterfly Garden is included in Verga.
- Woodbury: Woodbury is a small city in Gloucester County, located in the northern portion of the county. It is the County seat for Gloucester County. Woodbury is located between the New Jersey Turnpike and I-295, just west of Highway 47/Delsea Drive. Woodbury is the county seat and is home to the county's largest employer, the Inspira Medical Center. Woodbury contains several land uses, but is predominantly made up of single-family residential. Multi-family residences can be found in the northeastern area of the city. Commercial uses exist mainly along North Broad and South Broad Streets, and in the southern area along Mantua Pike. Office and governmental uses are scattered throughout the downtown area and a rail yard can be found in the southern portion of the city, just

west of the project corridor. Woodbury includes police and fire departments, two libraries, several parks and religious institutions, four schools, one university, and a YMCA.

- Woodbury Heights: The Borough of Woodbury Heights is located in Gloucester County. Woodbury Heights is bordered by Mantua Pike to the west, Tanyard Road to the east, the freight rail line to the north, and Vanderbilt Avenue to the south. Woodbury Heights is mainly made up of single-family residential, with commercial uses focused around Mantua Pike. Light industrial uses can be found scattered throughout the area. Woodbury Heights contains several community facilities, including three schools, two parks, three churches, and fire and police departments.
- Oak Valley: The Oak Valley neighborhood is an unincorporated community within Deptford Township in Gloucester County. Oak Valley is roughly bound by Mantua Pike to the west, Ogden Station Road to the south, the existing rail corridor to the east, and Vanderbilt Avenue and Haverford Avenue to the north. The neighborhood is composed of mainly single-family residential; commercial uses can be found along Mantua Pike. A fire and police department, a church, two schools, and several parks/recreational areas can be found within this neighborhood.
- Jericho: Jericho is a small neighborhood located in the Deptford Township of Gloucester County. It is roughly bound by the Conrail/GCL corridor to the west, Woodland Avenue to the north, Boundary Road to the east, and Cattell Road to the south. Jericho is comprised of mostly single-family residences, along with some undeveloped/wooded land. Jericho contains three churches and several parks.
- Wenonah: Wenonah is a borough in northeastern Gloucester County. Wenonah is bordered by Glassboro Road to the East, Bark Bridge Road and Greenes Lake to the south, Mantua Creek to the west, and East Linden Street to the north. Historically, numerous dams were installed to create recreational lakes around Wenonah; there are more than six miles of hiking trails threaded around the lakes and waterways. Over 21 percent of Wenonah's land area is conservation land, which is protected by ordinance from development. This borough is comprised mainly of single-family residential. Neighborhood retail can be found scattered along the "main street" area of Wenonah, along West and East Avenues. Wenonah contains a fire and police station, a library, one school, and four churches.
- Sewell: Sewell is an unincorporated community within Mantua Township in Gloucester County. It is located in the northeastern part of Gloucester County. Sewell is a large community, straddling the project rail corridor, generally bordering Main Street to the west, Tylers Mill Road to the south, Mantua Creek to the east, and Wenonah Avenue to the north. Sewell encompasses a mix of single- and multi-family residential, commercial and light industrial uses, as well as areas of undeveloped/wooded lands. Most of the commercial establishments can be found along Glassboro Road. The community includes five churches, one school, a cemetery, and several parks/recreational areas.
- Pitman: Pitman is a borough in central Gloucester County. This community is bound by NJ-55 to the west and north, Delsea Drive to the east, and extends south to US-322. Pitman contains several different land uses including single- and multi-family residential with industrial uses located in the

northeastern portion of the neighborhood. Commercial uses are mainly located along Main Street and neighborhood retail is scattered throughout the area. The Pitman Grove historic district is located in the center of the borough, roughly bounded by West Holly Avenue (County Route 624) to the north, West Avenue to the west, East Avenue to the east, and Laurel Avenue to the south. Pitman also contains community facilities including three schools, several religious institutions, a police and fire department, a theater, one library, and over ten parks, including the Alcyon Lake Park which offers trails, an arboretum, a butterfly garden, and a boat ramp.

- **Glassboro:** Glassboro is a borough located in the central portion of Gloucester County. It is located south of Pitman and north of Clayton extending east to Fries Mill Road and West to Aura Road. Being larger in size, Glassboro contains several different land uses. Single-family residential is the dominant land use of the area with multi-family residences also being present throughout the borough. Industrial uses are found in the southern area along the Delsea Drive, as well as near the intersection of Sewell and Ellis Streets. Office and governmental uses can be found in the downtown area of Glassboro. Most of the community's retail and commercial is located along Delsea Drive, with smaller, neighborhood retail scattered throughout the surrounding areas. Many construction and redevelopment projects are planned throughout the borough, specifically around the Rowan University campus and in downtown Glassboro. Glassboro includes numerous community facilities including several religious institutions, six schools, including Rowan University, four cemeteries, a police and fire department, and two libraries. The area also contains several parks including the Glassboro Fish and Wildlife Management area.

### **3.4.2 Community Services and Social Service Providers**

Community services/facilities and social service providers accommodate a range of social needs within a neighborhood or, in some cases, within a larger geographic area. These services and facilities range from, but are not limited to, educational, religious, and healthcare facilities to public libraries, police/fire stations, and post offices. Community services/facilities and social services are typically supported by local (private and public), state, or federal organizations/entities. The evaluation of the impact of the proposed GCL on neighborhoods and communities includes consideration of the potential direct and indirect impacts of the proposed project on these services/facilities as these services/facilities contribute to the overall quality of life and sense of community in these areas. The number of community services/facilities provided typically corresponds to the density of development and proximity to neighborhoods. For example, more densely populated areas (i.e., Camden County) have more services/facilities. As density decreases from the center of Camden to the Camden-Gloucester County line, fewer services/facilities are present. Activity Centers, such as the Camden Waterfront area, also have an increase in services/facilities.

Services/facilities within ½ mile of the proposed GCL have been identified and are summarized in Table 40, "Community Services and Social Service Providers," and shown on Figure 29 (Plates "a" – "r"), "Community Facilities." Community services/facilities located within the GCL Corridor include 91 religious institutions, 36 schools, 12 government facilities, nine police departments or stations, seven fire departments or stations, six libraries, two medical centers, and one YMCA facility. The highest

concentration of community facilities are clustered in and around Camden City, particularly the more densely developed areas such as the Central Business District/Lanning Square and Bergen Square neighborhoods. Religious institutions, schools, government facilities, libraries, and police and fire departments were all found throughout the study area. Sewell Township, which contains both the Mantua Boulevard and Sewell GCL Stations, is the one notable exception, containing just one school (Sewell Elementary School) and one religious facility (Sewell Community Baptist Church).



**Table 40: Community Services and Social Service Providers**

ID No.	Facility Name	Address	Facility Type
1	Rutgers University – Camden	303 Cooper Street, Camden	School
2	Camden Community College	200 N. Broadway, Camden	School
3	Delaware River Port Authority	2 Riverside Drive, Camden	Government Facility
4	Leap Academy University Charter School	549 Cooper Street, Camden	School
5	Mt. Zion Highway of Holiness	295 Chestnut Street, Camden	Religious Institution
6	Holy Trinity Baptist Church	253 Mechanic Street, Camden	Religious Institution
7	Powell Elementary School	1000 Linden Street, Camden	School
8	Mt. Calvary Baptist Church	119698 Penn Street, Camden	Religious Institution
9	U.S. District Court Clerk	401 Market Street, Camden	Government Facility
10	St. Paul’s Episcopal Church	422 Market Street, Camden	Religious Institution
11	Camden County City Hall	520 Market Street, Camden	Government Facility
12	Rowan University – Camden	129 N. Broadway, Camden	School
13	Mt. Calvary Church – God in Christ	106 N. 7 <sup>th</sup> Street, Camden	Religious Institution
14	Cathedral of the Immaculate Conception	642 Market Street, Camden	Religious Institution
15	Life Assembly of God	815 Federal Street, Camden	Religious Institution
16	Camden City Police Department	800 Federal Street, Camden	Police Station
17	US Department of Housing and Urban Development	800 Cooper Street, Camden	Government Facility
18	Camden Courthouse	101 S. 5 <sup>th</sup> Street, Camden	Government Facility
19	Emmanuel United Pentecostal	438 Stevens Street, Camden	Religious Institution
20	New Mickle Baptist Church	416 S. 4 <sup>th</sup> Street, Camden	Religious Institution
21	Cooper University Medical Center	1 Cooper Plaza, Camden	Medical Facility
22	Shalom Baptist Church	435 Chambers Avenue, Camden	Religious Institution
23	Camden County Health Department	519 West Street, Camden	Government Facility
24	St. Augustine Episcopal Church	525 Royal Street, Camden	Religious Institution
25	Sword of the Spirit Christian	1237 Kaighns Avenue, Camden	Religious Institution
26	New Jerusalem Baptist Church	1306 Mt. Ephraim Avenue, Camden	Religious Institution
27	St. Joseph’s Church	1010 Liberty Street, Camden	Religious Institution
28	Kaighn Avenue Baptist Church	831 Kaighns Avenue, Camden	Religious Institution
29	House of God – Living God	1300 S. 9 <sup>th</sup> Street, Camden	Religious Institution
30	St. Luke UAME Church	821 S. 8 <sup>th</sup> Street, Camden	Religious Institution
31	New Wesley AME Zion	701 Ramona Gonzalez Street, Camden	Religious Institution
32	Faith Tabernacle Church	553 Spruce Street, Camden	Religious Institution
33	US Wiggins Elementary School	400 Mt Vernon Street	School
34	Baptist Temple Church	1029 S. 4 <sup>th</sup> Street, Camden	Religious Institution
35	Shalom Baptist Church	1036 S. Broadway, Camden	Religious Institution
36	South Camden Alternative School	555 Mt. Vernon Street, Camden	School
37	Friendship Baptist Church	1002 S. 8 <sup>th</sup> Street, Camden	Religious Institution
38	Whittier Elementary School	740 Chestnut Street, Camden	School
39	Chestnut Street UAME Church	718 Chestnut Street, Camden	Religious Institution
40	First Church Deliverance	1117 S. Broadway, Camden	Religious Institution
41	New Freedom Full Gospel Church	441 Liberty Street, Camden	Religious Institution
42	St. Bartholomew’s Church	751 Kaighns Avenue, Camden	Religious Institution
43	Zion Baptist Church	1419 S. Broadway, Camden	Religious Institution
44	Grace Apostolic Church	440 Lansdowne Avenue, Camden	Religious Institution
45	New Hope Temple	448 Jackson Street, Camden	Religious Institution

**Table 40: Community Services and Social Service Providers (continued)**

ID No.	Facility Name	Address	Facility Type
165	Camden County Municipal Utility	1645 Ferry Avenue, Camden	Government Facility
46	Holy Bethel Pentecostal Temple	1800 S. Broadway, Camden	Religious Institution
47	Camden County Energy Recovery	600 Morgan Street, Camden	Government Facility
48	First Nazarene Baptist church	1500 S. 8 <sup>th</sup> Street, Camden	Religious Institution
49	Due Season Charter School	1000 Atlantic Avenue, Camden	School
50	Sumner Elementary School	1600 S. 8 <sup>th</sup> Street, Camden	School
51	Community Baptist Church	1529 Mt. Ephraim Avenue, Camden	Religious Institution
52	Antioch Baptist Church	690 Ferry Avenue, Camden	Religious Institution
53	Bethel AME Church	1841 Phillips Street, Camden	Religious Institution
54	Ferry Avenue United Methodist Church	768 Ferry Avenue, Camden	Religious Institution
55	Ferry Avenue Branch Library	852 Ferry Avenue, Camden	Library
56	Tenth Street Baptist Church	1860 S. 10 <sup>th</sup> Street, Camden	Religious Institution
57	R.T. Cream Elementary School	1875 Leon Huff Street, Camden	School
58	Mt. Olivet Seventh Day Adventist	800 Chelton Avenue, Camden	Religious Institution
59	Woodland Avenue Presbyterian Church	2300 S. 8 <sup>th</sup> Street, Camden	Religious Institution
60	HB Wilson Elementary School	2250 S. 8 <sup>th</sup> Street, Camden	School
61	Harris Temple AME Zion Church	926 Florence Street, Camden	Religious Institution
62	Gloucester Police Department	313 Monmouth Street, Gloucester	Police Station
63	Gloucester Fire Department	S. 9 <sup>th</sup> Street, Gloucester	Fire Station
64	Morgan Village Middle School	1000 Morgan Street, Camden	School
65	Cornerstone Bible Baptist Church	2523 Morgan Boulevard, Camden	Religious Institution
66	First Presbyterian Church of Gloucester City	301 Monmouth Street, Gloucester	Religious Institution
67	Gloucester City Municipal Court	313 Monmouth Street, Gloucester	Government Facility
68	Gloucester Catholic High School	333 Ridgeway Street, Gloucester	School
69	First Baptist Church of Gloucester City	400 Monmouth Street, Gloucester	Religious Institution
70	St. Mary's Church	426 Monmouth Street, Gloucester	Religious Institution
71	Church of the Ascension	110 S. Sussex Street, Gloucester	Religious Institution
72	Gloucester County Public Library	50 N. Railroad Avenue, Gloucester	Library
73	Trinity United Methodist Church	741 Division Street, Gloucester	Religious Institution
74	Fairview Community Baptist Church	2995 Sumter Road, Camden	Religious Institution
75	Lighthouse Baptist Church	811 Market Street, Gloucester	Religious Institution
76	Brooklawn Police Department	30 Haakon Road, Gloucester	Police Station
77	Church of God	111 Baynes Avenue, Gloucester	Religious Institution
78	Cold Springs Elementary School	1 Cold Springs Avenue, Gloucester	School
79	Highland Park School	1300 Market Street, Gloucester	School
80	Gloucester City High School	1300 Market Street, Gloucester	School
81	Brooklawn United Methodist	213 Maude Avenue, Gloucester	Religious Institution
82	Westville Baptist Church	225 Summit Avenue, Westville	Religious Institution
83	St. Luke's Episcopal Church	3 <sup>rd</sup> Street and Highland Avenue, Westville	Religious Institution
84	St. Anne's Roman Catholic Church	213 Woodbine Avenue, Westville	Religious Institution
85	Westville Police Department	114 Crown Point Road, Westville	Police Station
86	Westville Fire Department	230 Olive Street, Westville	Fire Station
87	Westville United Methodist Church	14 Center Avenue, Westville	Religious Institution
88	Bible Church of Westville	307 Delsea Drive, Westville	Religious Institution
89	Parkview Elementary	101 Birch Avenue, Westville	School
90	Westville Public Library	1035 Broadway, Westville	Library
91	Colonial Manor United Methodist Church	56 Elbern Avenue, West Deptford	Religious Institution
92	Woodbury Community of Christ	62 Progress Avenue, West Deptford	Religious Institution

**Table 40: Community Services and Social Service Providers (continued)**

<b>ID No.</b>	<b>Facility Name</b>	<b>Address</b>	<b>Facility Type</b>
93	Inspira Health Center	75 W. Red Bank Avenue, Woodbury	Medical Facility
94	YMCA	235 E. Red Bank Avenue, Woodbury	YMCA
95	Campbell AME Church	220 Park Avenue, Woodbury	Religious Institution
96	North Baptist Church	1020 N. Evergreen Avenue, Woodbury	Religious Institution
97	Walnut Street Elementary School	60 Walnut Street, Woodbury	School
98	First Baptist Church – Woodbury	554 N. Broad Street, Woodbury	Religious Institution
99	Woodbury Junior/Senior High School	25 N. Broad Street, Woodbury	School
100	Christ Episcopal Church	62 Delaware Street, Woodbury	Religious Institution
101	Gloucester County Courthouse	1 N. Broad Street, Woodbury	Government Facility
102	Woodbury Public Library	33 Delaware Street, Woodbury	Library
103	Kemble Memorial Church	19 S. Broad Street, Woodbury	Religious Institution
104	Presbyterian Church – Woodbury	67 S. Broad Street, Woodbury	Religious Institution
105	Stephen’s Lutheran Church	230 N. Evergreen Avenue, Woodbury	Religious Institution
106	Woodbury Police Department	200 N. Broad Street, Woodbury	Police Department
107	Evergreen Avenue Elementary	160 N. Evergreen Avenue, Woodbury	School
108	St. Patrick’s Church	64 County Road 706, Woodbury	Religious Institution
109	St. Patrick’s Elementary School	211 Cooper Street, Woodbury	School
110	Bethlehem Baptist Church	515 Mantua Pike, Woodbury	Religious Institution
111	Holy Trinity Church of God	20 Railroad Avenue, Woodbury	Religious Institution
112	Gethsemane Church of God	43 Stuart Street, Woodbury	Religious Institution
113	Highway Church of Christ	69 Stuart Street, Woodbury	Religious Institution
114	Spoken Word Evangelical Church	667 S. Evergreen Avenue, Woodbury	Religious Institution
115	Woodbury Heights Police Department	500 Elm Avenue, Woodbury Heights	Police Department
116	Woodbury Heights Fire Department	534 Elm Avenue, Woodbury Heights	Fire Department
117	First Presbyterian Church	335 Elm Avenue, Woodbury Heights	Religious Institution
118	Woodbury Heights Fire Department	534 Elm Avenue, Woodbury Heights	Fire Department
119	Woodbury Heights Elementary School	100 Academy Avenue, Woodbury Heights	School
120	Gateway Regional High School	775 Woodbury Heights, Woodbury Heights	School
121	St. Margaret Regional School	773 3 <sup>rd</sup> Street, Woodbury Heights	School
122	Oak Valley Elementary School	525 College Boulevard, Wenonah	School
123	Oak Valley Fire Department	595 Princeton Boulevard, Wenonah	Fire Department
124	Deptford Church of God	1076 Mail Avenue, Deptford	Religious Institution
125	Wenonah Elementary School	200 N. Clinton Avenue, Wenonah	School
126	Holy Trinity Episcopal Church	11 N. Monroe Avenue, Wenonah	Religious Institution
127	Wenonah Public Library	101 E. Mantua Avenue, Wenonah	Library
128	Wenonah Fire Department	14 SW Avenue, Wenonah	Fire Department
129	Wenonah Police Department	1 SW Avenue, Wenonah	Police Department
130	Memorial Presbyterian	202 E. Mantua Avenue, Wenonah	Religious Institution
131	Holy Nativity Lutheran Church	3 Lenape Trail, Wenonah	Religious Institution
132	Sewell Community Baptist Church	806 Mantua Boulevard, Sewell	Religious Institution
133	Sewell Elementary School	40 McAnally Drive, Sewell	School
134	Jesus Christ of Latter-Day Saints	259 Lambs Road, Sewell	Religious Institution
135	Pitman High School	225 Linden Avenue, Pitman	School
136	Rock Church	205 E. Esplanade Avenue, Pitman	Religious Institution
137	Pitman Middle School	138 E. Holly Avenue, Pitman	School
138	Church of the Good Shepherd	315 Highland Terrace, Pitman	Religious Institution
139	First Baptist Church	30 N. Broadway, Pitman	Religious Institution

**Table 40: Community Services and Social Service Providers (continued)**

ID No.	Facility Name	Address	Facility Type
140	Pitman Fire Department	199 West Avenue, Pitman	Fire Department
141	Pitman Police Station	110 S. Broadway Avenue, Pitman	Police Station
142	McCowan Memorial Library	15 Pitman Avenue, Pitman	Library
143	WCK Wall Elementary School	320 Grant Avenue, Pitman	School
144	New Philippian Baptist Church	711 Donald Barger Boulevard, Pitman	Religious Institution
145	Ambassador Christ Academy	535 Mullica Hill Road, Glassboro	School
146	Calvary Hill Church	535 Mullica Hill road, Glassboro	Religious Institution
147	Glassboro High School	569 Joseph L. Bowe Boulevard, Glassboro	School
148	Rowan University	201 Mullica Hill Road, Glassboro	School
149	First Presbyterian Church	300 University Boulevard, Glassboro	Religious Institution
150	Rodgers School	301 Georgetown Road, Glassboro	School
151	Faith and Hope Fellowship	213 Cornell Road, Glassboro	Religious Institution
152	Faith Fellowship Church	Main Street and Arthur Avenue, Glassboro	Religious Institution
153	Church of Saint Bridget	202 Ellis Street, Glassboro	Religious Institution
154	Saint Bridget Regional School	25 High Street, Glassboro	School
155	Glassboro Municipal Court	1 S. Main Street, Glassboro	Government Facility
156	Bethel AME Church	115 S. Main Street, Glassboro	Religious Institution
157	Trinity Bible Church	115 S. Main Street, Glassboro	Religious Institution
158	Bethel United Church – Christ	1375 S. Main Street, Glassboro	Religious Institution
159	First Baptist Church	103 Grove Street, Glassboro	Religious Institution
160	New Birth Missionary Baptist Church	230 Academy Street, Glassboro	Religious Institution
161	St. John’s Holy Church	Academy Street and Lincoln Avenue	Religious Institution
162	Glassboro Housing Authority	30 Williams Street, Glassboro	Government Facility
163	Glassboro Fire Department	27 High Street E, Glassboro	Fire Station
164	Glassboro Police Station	1 S. Main Street, Glassboro	Police Station

Source: New Jersey Department of Treasury MOD-IV dataset.

### 3.5 Environmental Consequences

This section discusses the potential impacts of the proposed GCL, including the No-Action Alternative and the GCL on neighborhoods and community facilities. Table 41, “Summary of Potential Impacts on Neighborhoods,” is a summary of those impacts.

**Table 41: Summary of Potential Impacts on Neighborhoods**

Neighborhood	No-Action Alternative	With the GCL
Cooper Poynt	No Impact	No Impact
Pyne Point	No Impact	No Impact
Cooper grant	No Impact	No Impact
Central Business District	No Impact	Potential Impact (DR, NV)
Lanning Square	No Impact	Potential Impact (DR)
Central Waterfront	No Impact	No Impact
Gateway	No Impact	No Impact
Bergen Square	No Impact	Potential Impact (DR, NV)
Parkside	No Impact	No Impact
Liberty Park	No Impact	No Impact
Whitman Park	No Impact	No Impact
Waterfront South	No Impact	Potential Impact (DR)
Centerville	No Impact	No Impact
Morgan Village	No Impact	No Impact
Fairview	No Impact	No Impact
Gloucester City	No Impact	Potential Impact (TA, DR, NV)
Brooklawn	No Impact	Potential Impact (DR)
Western Bellmawr	No Impact	No Impact
Westville	No Impact	Potential Impact (TA, DR, NV)
Verga	No Impact	No Impact
Woodbury	No Impact	Potential Impact (TA, DR, NV)
Woodbury Heights	No Impact	Potential Impact (TA, DR, NV)
Oak Valley	No Impact	No Impact
Jericho	No Impact	No Impact
Wenonah	No Impact	Potential Impact (TA, NV)
Sewell	No Impact	Potential Impact (DR, NV)
Pitman	No Impact	Potential Impact (TA, DR, NV)
Glassboro	No Impact	Potential Impact (TA, DR, NV)
“...”	Indicates no additional impacts over the GCL	
TA	Indicates impacts to neighborhood travel patterns and accessibility	
DR	Indicates impacts from displacements and relocations	
NV	Indicates impacts from noise and vibrations	
CO	Indicates impacts to neighborhood cohesion	

Source: GCL Project Team, 2020.

**3.5.1 No-Action Alternative**

The No-Action Alternative would consist of a future scenario with no changes to transportation services or facilities in the GCL Corridor, beyond the projects that are already committed. As a result, project-generated impacts to neighborhoods and community facilities would not occur under the No-Action Alternative. With the No-Action Alternative, neighborhoods and community facilities in the GCL Corridor would not benefit from enhanced access to transit that would be associated with the implementation of the proposed light rail.

**3.5.2 The Future With the GCL**

The following sections describe the direct impacts to neighborhoods and community services. The introduction of the physical elements of proposed GCL, when proximate to neighborhoods and community facilities would have the potential to cause both positive and negative impacts.

The GCL would include new stations, park-and-ride facilities, and trackwork to be located along neighborhoods within the corridor which would result in a permanent physical change of the corridor as well as changes to local traffic operations and street patterns. Physical effects include residential or business displacements, new access barriers, or noise and vibration impacts. While some impacts would have a negative impact resulting from these physical changes, the GCL would also provide mobility benefits to neighborhood residents by providing improved access to transit and destinations along the GCL Corridor.

As part of the proposed GCL, two vehicle maintenance facilities are planned. The Woodbury Heights Vehicle Maintenance Facility, in the middle of the line in Woodbury Heights, will function as a light-maintenance location and will host activities such as inspection, cleaning, fueling and overnight storage. The Glassboro Vehicle Maintenance Facility (Glassboro VMF), at the end of the line in Glassboro, will operate as a full-service maintenance and vehicle storage facility. The Glassboro VMF will sit on an approximately 26-acre parcel on Sewell Street. The site is mostly zoned for industrial use with a small portion of the eastern side zone for medium-density residential. The current land use is industrial. The surrounding area also consists of mostly industrial development with some residential development to the east. Small amounts of rezoning may be required for the use of a VMF on the site; however, the change in zoning classification should not have an adverse impact on the surrounding properties.

The Woodbury Heights VMF will sit on an approximately 18-acre parcel on Academy Avenue. The site is zoned as limited industrial, and the current land use is vacant. The surrounding areas consist of residential developments. Rezoning may be required for the use of a VMF on the site, however, the change in zoning classification should not have an adverse impact on the surrounding properties.

Neither VMF is expected to produce noise or vibration impacts. Traffic generated from the VMFs would be primarily be employee trips, and, therefore, minimal. Further, traffic impacts anticipated from the GCL are generally minimal due in part to the associated reduction in auto trips in the future with the GCL. Where traffic impacts represent a significant adverse impact, mitigation measures have been proposed to minimize adverse effects. Detailed information on traffic impacts and mitigation is discussed in Attachment 05, "Traffic Analysis Technical Report."

Citizens within the proposed project corridor have been involved throughout the planning process in an attempt to avoid or minimize potential impacts from the proposed GCL on surrounding neighborhoods. As part of this involvement, a Public Involvement Plan (PIP) was developed and implemented for the planning and design phases of the proposed project. The PIP serves as the guideline for coordinating public activities, distributing public information, and engaging the public and interested parties throughout the EIS process. This plan outlines and identifies public outreach strategies, public comment opportunities, and methods for disseminating project information. The PIP reflects the GCL Project Team's well-established history of conducting proactive outreach programs in the community and focuses on achieving public awareness and interaction throughout the entire project development process.

### 3.5.2.1 Neighborhoods

Given that the proposed GCL would run within an existing rail corridor, the proposed project would not physically divide neighborhoods, reduce access to, or disrupt the cohesion of existing communities. The alignment would also not be likely to alter neighborhood boundaries or the setting in which these neighborhoods exist. In addition, access to neighborhoods would not be severed. However, noise and vibration impacts would occur in some areas.

The proposed GCL makes use of an active rail corridor. While the commercial areas along the rail corridor are within the boundaries of specific neighborhoods, these commercial areas are typically not part of the core residential part of the neighborhood. As a result, an impact to a non-residential use within a neighborhood would not be considered an impact to the entire neighborhood.

#### **Travel Patterns and Accessibility**

Given the use of the existing rail corridor, overall negative impacts to automobile travel patterns and accessibility are not anticipated within these neighborhoods. The proposed project would not sever or divide any streets within the corridor, as the majority of the proposed project would be constructed along existing railway and roadway.

The proposed project would be both at-grade and grade-separated along the corridor to eliminate most conflicts between vehicular traffic and the proposed GCL. In addition, new signals and the addition of turn lanes would also help to alleviate vehicular traffic conflicts resulting from the proposed project. There are locations where the proposed project would cross streets and require motorists to wait for the light rail traffic to pass. Some of these locations already experience wait times for vehicles due to the existing railway traffic. Increased wait times at these locations are not expected to negatively affect vehicular travel patterns or accessibility within the corridor. As a result, accessibility for vehicles within the corridor is not anticipated to change significantly in the future with the GCL.

Generally, accessibility for transit patrons, bicyclists, and pedestrians within the GCL Corridor would be positively affected by the proposed project. The proposed GCL would provide another mode of transportation for residents and provide a more efficient option to automobile and bus travel. In addition, the frequency at which transit would be provided within this corridor would also increase with the proposed project. Pedestrian improvements (sidewalks, crossings, etc.) are also proposed, including bicycle parking spaces at stations. Specific details on how travel and accessibility would be altered as a result of the proposed project are included in Attachment 5, "Traffic Analysis Technical Report," and Attachment 6, "Transit Analysis Technical Report."

There is potential for transit patrons to utilize neighborhood streets for parking. This potential exists at "walk-up" stations where park-and-ride lots would not exist, as well as at park-and-ride stations where dedicated parking could overflow. Overflow parking in neighborhoods would affect available on-street parking in neighborhoods, as well as introduce additional traffic.

### **Displacements and Relocations**

Property acquisitions would be required for development of the proposed GCL. Acquisitions would primarily be required for development of the station areas with parking facilities. Development of the proposed GCL would require the full and partial acquisition of approximately 182 parcels across Camden and Gloucester counties, including 50 full, 24 partial, and 108 de minimis acquisitions. The full acquisition of 50 parcels is anticipated to result in significant adverse impacts to 17 commercial and 13 residential parcels. These full acquisitions would, in turn, generate the displacement of an estimated 25 businesses and 41 residents living within 17 single- or multi-family residential properties. The other 20 parcels that would be fully acquired feature a range of uses but are not actively used for commercial or residential purposes. Therefore, no significant impacts would result on these 20 parcels because acquiring them would not result in the displacement of businesses or residents. Relocation assistance would be provided and property owners would be fairly compensated according to federal, state, and local laws. Specific details on guidelines for these relocations and compensation are included in Attachment 12, “Acquisitions and Displacements Technical Report.”

### **Noise and Vibration**

As part of the Noise and Vibration Impact Analysis, noise monitoring was conducted at noise-sensitive receptors within the neighborhoods immediately adjacent to the proposed alignment. A noise and vibration impact assessment was conducted and is detailed in Attachment 11, “Noise and Vibration Technical Report.” While individual noise and vibration impacts may occur at various sites along the project corridor, those individual impacts do not necessarily constitute an effect on the overall neighborhood. The results of the noise and vibration assessment indicates that corridor-wide, a total of 754 dwellings (equivalent single-family units) are projected to experience impacts; these consist of 577 moderate impacts and 177 severe impacts from daily GCL operations. In addition, 50 dwellings will experience moderate noise impacts associated with maintenance yard activities. However, no peak hour noise impacts are expected to occur from daily traffic movement entering and departing the major parking facilities proposed along the corridor. Noise mitigation measures consists of undercar sound absorption treatment, rail car vehicle skirts and track lubrication to mitigate wheel squeal on tight curves. These abatement measures are expected to eliminate noise impacts at 569 out of 754 impacted properties. The remaining noise impacts are all attributable to horn noise soundings. Ground vibration generated through proposed GCL operations would not exceed FTA impact thresholds during daily service operations. Therefore, no vibration-related mitigation measures would be required.

### **Cohesion**

Generally, the proposed GCL would be located along an existing rail corridor. As a result, the proposed project would not create a new physical barrier to neighborhood residents or physically divide neighborhoods.

#### **3.5.2.2 Neighborhood Assessments**

Generally, the proposed GCL would be located along an existing rail corridor. Where the proposed GCL would introduce new rail infrastructure where none currently exists, it would be operating on an elevated



viaduct structure adjacent to I-676, or along former rail corridor. As a result, the proposed GCL would not create a new physical barrier to neighborhood residents or physically divide neighborhoods.

An assessment of each neighborhood was undertaken with regards to effects of the proposed GCL on travel patterns and accessibility, displacements and relocations, noise and vibration, visual and aesthetics, and cohesion. The following summarizes the assessment of impacts to neighborhoods that would be affected by the proposed GCL. Neighborhoods that would experience no impacts are not included in this discussion.

### **Central Business District**

The proposed GCL would begin in Camden City at the WRTC, utilizing existing NJ TRANSIT River LINE tracks. At approximately Haddon Avenue, the proposed GCL alignment would be elevated onto a viaduct structure that would run parallel to the existing elevated I-676 structure. The proposed GCL would utilize the existing WRTC and introduce a new station at Cooper Hospital, adjacent to the Camden County Police Department building and the Camden County Community Affairs Department building.

In Camden's Central Business District, the proposed GCL would be surrounded primarily by commercial land uses that are set back approximately 100-150 feet from the rail ROW. As the proposed GCL nears Cooper Hospital, it would be approximately 35 feet from Cooper Hospital alongside I-676. Before reaching Cooper Hospital, the land uses east of the track become more residential.

One property in Camden City's Central Business District would have to be acquired to accommodate the GCL. 525 Martin Luther King Boulevard is a 55,815 square feet parcel that formerly contained a CVS pharmacy and is currently vacant.

Additionally, as part of the Noise and Vibration Impact Analysis, it was determined that the proposed GCL would result in moderate noise impacts at 30 residential units in the Central Business District.

### **Lanning Square**

The proposed GCL would operate on an elevated viaduct structure adjacent to I-676 through Lanning Square. Land uses in the vicinity of the Cooper Hospital Station are generally residential. While Cooper Hospital would be as close as 40 feet away from the GCL corridor, residential homes are set back 50-75 feet away from the station and down the corridor. The Lanning Square neighborhood is on the west side of the GCL corridor.

### **Bergen Square**

The proposed GCL would operate within existing Conrail ROW through Bergen Square. There would be no stops in Bergen Square. Community facilities adjacent to the proposed GCL corridor include Whittier Elementary School, Bethel Deliverance Church, and Kaighn Avenue Baptist Church.

The proposed GCL extends past Lanning Square into Bergen Square east of the tracks as it rises onto I-676. The proposed corridor passes mostly residential housing which comes within 50-100 feet of the tracks.

The proposed GCL would require full acquisition of five residential multi-family properties and two vacant properties in Bergen Square. Acquisition of these properties would result in one business impacted and three employees displaced, as well as two residences impacted, and 2.55 residents displaced.

Additionally, as determined in the Noise and Vibration Impact Analysis, moderate noise impacts would occur at 51 residential units in Bergen Square.

### **Waterfront South**

The proposed GCL would continue on the elevated viaduct structure as it passes along the eastern edge of the Waterfront South neighborhood. The proposed South Camden Station would be located within the Waterfront South neighborhood and directly adjacent to the Centerville neighborhood. The closest community facilities include Grace Baptist Church and Memorial Park.

As the proposed GCL passes along the eastern edge of the neighborhood, the proposed GCL would pass within 75 feet of commercial uses and within 75-100 feet of residential uses.

It is expected that the GCL would require full acquisition of three properties in Camden City's Waterfront South neighborhood. Full acquisitions would include two residential multi-family properties and one vacant property. It is estimated that these acquisitions would affect two residences and displace approximately 2.5 residents.

### **Gloucester City**

The proposed GCL would be located within the existing Conrail ROW through Gloucester City operating at-grade directly adjacent to the existing tracks. A proposed GCL station (Gloucester City Station) would be constructed between Cumberland and Market Streets.

As the proposed GCL would be located within existing Conrail ROW, it would not create a new physical barrier to Gloucester City or physically divide the neighborhood. Therefore, neighborhood cohesion would not be altered by the proposed GCL.

A total of 39 parcels in Gloucester City would be affected by the proposed GCL. These include nine commercial, four manufacturing, 15 multi-family residential, 10 single-family residential, and one vacant property. Of these, full acquisitions would result in the displacement of two businesses and six residences, affecting approximately 20-38 employees and 15 residents.

Additionally, as determined in the Noise and Vibration Impact Analysis, moderate noise impacts would occur around 56 S. Railroad Avenue and Thompson Street/Lane Avenue Park, affecting 34 residential units in Gloucester City. No noise impacts would occur at Gloucester Public Library.

Construction of the proposed GCL would have impacts on travel patterns. In Gloucester City, the location of LOD line encroaches the roadway of S. Railroad Avenue, requiring it to be narrowed from a two-way to a one-way road northbound. At-grade crossings at Market Street would be installed, causing minor delays. Due to the reduction of traffic as a result of the proposed GCL, delays and traffic volume are slightly lower in the A.M./P.M. peak hours at the intersections of N. Broadway and Hudson Street, S.

Broadway and Monmouth Street, Market Street and S. Broadway, and S. Broadway and Koehler Street. N. Broadway and Hudson Street will experience a decrease in LOS from B to C. A proposed GCL surface parking facility at Gloucester City station will result in 160 new parking spots.

### **Brooklawn**

The proposed GCL would be located within the existing Conrail ROW through Brooklawn. There would be no proposed GCL station within the neighborhood; however, tracks would run next to the Brooklawn American Legion/Senior Citizen Center.

Residential uses, primarily along New Broadway, Old Broadway, Marne Road, and N. Wilson Avenue where homes are situated parallel to existing Conrail track on both sides, are less than 75 feet away from the proposed project. Commercial uses are found on New Broadway on the south side of town past Marne Road, and on the west side of the corridor, about 50 feet away from the tracks.

A total of five parcels in Brooklawn would be affected by the proposed GCL. One full acquisition would be required. No displacements or impacts to businesses or residents are anticipated in Brooklawn.

### **Westville**

The proposed GCL would be located within the existing Conrail ROW through Westville. The proposed Crown Point Road Station would be located on Broadway and Willow Drive across from the Westville US Post Office. The proposed GCL would be located to the west of Westville Fire Department.

All residential and commercial uses near the Crown Point Road Station are about 75 feet apart on the east side of the proposed GCL. Development on the east side of the proposed GCL corridor is closer in proximity than the west, as the tracks run parallel with Route 45 and Route 130. Land uses north and south of the proposed station are mostly commercial, while development towards the center between Olive and Pine streets is more residential. Commercial land uses are much closer in proximity, getting as close as 20 feet away from the proposed GCL. Multi-family residences are located approximately 50 feet away on the north and south ends of the proposed station site.

A total of 27 parcels in Westville would be affected by the proposed GCL. Five of these properties, all of which are located along Broadway, would be fully acquired for the construction of the proposed GCL. One business would be affected, resulting in the displacement of approximately 10 employees.

Additionally, as determined in the Noise and Vibration Impact Analysis, moderate noise impacts would occur at 75 residential units in Westville.

The proposed Crown Point Station, which is a center island station, would encroach onto Woodbine Avenue, requiring the width of the road to be decreased from 24 feet to 22 feet. At-grade crossings at E. Olive Street and Broadway would be installed, causing minor delays. The propagating eastbound queue approaching the Olive Street Grade Crossing would extend through intersection at Olive Street and NJ Route 45, which requires coordination of traffic signal with grade crossing equipment. Broadway and Delsea Drive will experience an increase in LOS from F to B. A proposed GCL surface parking facility at Crown Point Road Station would result in 325 new parking spots. 26 parking spots would be lost at 1060

Broadway, 368 Broadway, and at the parking lot adjacent to the vacant properties between 368-300 Broadway.

### **Woodbury**

The proposed GCL would be located within the Conrail ROW through Woodbury. Two stations would be constructed in Woodbury, Red Bank Avenue Station, adjacent to the Gloucester YMCA, and Woodbury Station, parallel to St. Patrick's Church on Green Avenue.

Commercial uses are located on both sides of Red Bank Station, approximately 100-150 feet away from the tracks. Across the lake, land use is mostly residential and is setback approximately 75 feet away from track on both sides.

At Woodbury Station, a large multi-family residence is about 150 feet away and east of the tracks. Homes on the west are slightly closer at 125 feet to the tracks, where the proposed Woodbury Station will be built. Further down the tracks are slightly closer to homes at 100 feet before entering Woodbury Heights.

A total of 14 parcels in Woodbury would be affected by the proposed GCL. Two commercial properties would require full acquisition. A total of three businesses would be affected, one of which is a construction yard. This would result in the displacement of 11 employees.

Additionally, as determined in the Noise and Vibration Impact Analysis, moderate noise impacts would affect 68 residential units.

Green Avenue, a 17-foot-wide one-way southbound street, overlaps with the proposed GCL alignment and would be required to be reduced to 13 feet. This would be sufficient for access to the Woodbury Mews senior-care facility, however, the passenger loading zone would be displaced. Impacts to at-grade crossings on Cooper Street and E. Barber Avenue would result in minor delays. E Red Bank Avenue and N. Broad Street would experience a decrease in LOS from D to C. Increases in LOS would occur at the intersections of E. Barber Avenue and S. Evergreen Avenue (E to F), E. Barber Avenue and Railroad Avenue (A to B), Cooper Street and S. Evergreen Avenue (B to E), and E. Red Bank Avenue and N. Evergreen Avenue (C to E). Woodbury would lose 125 parking spots in lots adjacent to Green Avenue and Laurel Street, as well as Railroad Avenue.

### **Woodbury Heights**

The proposed GCL would be located within the Conrail ROW through Woodbury Heights. The proposed Woodbury Heights Station would be constructed on W Jersey Avenue from Elm Avenue to Central Avenue. Woodbury Heights Fire Department is located adjacent to the track on Elm Avenue to the east.

North of the proposed Woodbury Heights Station, the proposed GCL passes through a commercial area and is approximately 50 feet apart from these facilities. After crossing the NJ Turnpike, land use is generally residential, with single-family residential on the west side and commercial uses on the east. Residences are more than 125 feet apart from the tracks until passing the maintenance facility where houses to the east border the tracks by about 30 feet separated by brush. On the east side, track is located just beyond the backyards of the adjacent neighborhood.

Three parcels in Woodbury Heights would be affected by the proposed GCL. One of these properties, a vacant 17.5-acre parcel, would require full acquisition to accommodate parking, access, and landscaping.

Additionally, as determined in the Noise and Vibration Impact Analysis, the VMF in Woodbury Heights would have moderate noise impacts, while remaining below the 72 VdB impact threshold. Further refinement during future project phases may alter noise exposure levels later in the project. Comparing existing noise conditions against anticipated project-related noise, it was determined that moderate impacts would also occur at Veterans Park, with severe impacts occurring at 348 East-West Jersey Avenue, affecting a total of 90 residential units in Woodbury Heights.

At-grade crossings on Elm Avenue would be installed, causing minor delays. Due to the reduction of traffic as a result of the proposed GCL, delays and traffic volume are slightly lower in the A.M./P.M. peak hours at the intersection of Elm Avenue and W Jersey Avenue, which would experience a decrease in LOS from B to C. A proposed GCL surface parking facility at the Woodbury Heights Station would result in 25 new parking spots. Ten parking spots would be affected in order to accommodate the proposed GCL alignment.

### **Wenonah**

The proposed GCL would be located in the Conrail ROW through Wenonah. The proposed Wenonah Station would be constructed adjacent to N. West Avenue and N. East Avenue from approximately E Poplar Street to W Mantua Avenue. The tracks run through the center of town along the US Post Office and Wenonah Police Department on S. West Avenue as well as Wenonah Elementary School on N. East Avenue.

On both sides of the proposed GCL alignment, the land use is predominantly residential. Single-family residences run parallel with tracks along S West Avenue and N. East Avenue, setback a little under 100 feet from the tracks. Town facilities, such as the County Clerk's Office, are directly next to the tracks.

Two parcels in Wenonah would be affected by GCL. No properties would require full acquisition.

Additionally, as determined in the Noise and Vibration Impact Analysis, moderate noise impacts would occur at 64 residential units.

The proposed Wenonah Station would affect parking along N. West Avenue and N. East Avenue immediately adjacent to the station; however, the station would not encroach on roadway lanes, and as such, would have no effect on street circulation. At-grade crossings at Maple Street, Mantua Avenue, and Willow Street would be installed, causing minor delays. Delays and traffic volume would be slightly higher in the A.M./P.M. peak hours at the intersection of N. East Avenue and E. Mantua Avenue, which would experience a slight increase in peak traffic volume. Due to construction, 11 parking spots would be lost at the surface lot adjacent to East Avenue.

**Sewell**

The proposed GCL would be located within the Conrail ROW through Sewell. The proposed Sewell Station would be constructed on Atlantic Avenue between Center Street and Essex Street. The US Post Office in Sewell is east of the station on Center Street.

Coming from Mantua Boulevard into Sewell, residential use is mainly on the east side over 100 feet away while commercial is on the west at least 150 feet away until reaching the baseball fields. Running through the center of Sewell, the tracks are surrounded by residential, single family uses, about 100 feet on each side as well. Before crossing Route 55, the proposed GCL would pass through southern Sewell between backyards of houses set about 50 feet away from the track.

One commercial property would require full acquisition in Sewell. The property appears to be vacant and is not anticipated to result in any displaced businesses or residences.

Additionally, as determined in the Noise and Vibration Impact Analysis, moderate noise impacts would occur at 92 residential units in Sewell.

**Pitman**

The proposed GCL would be located within the Conrail ROW through Pitman. The proposed Pitman Station would be located in the center of town adjacent to Simpson Avenue. The Pitman Boro Municipal building is adjacent to the tracks/station on S. Broadway.

The proposed GCL would pass mostly residential, single-family homes in the north of Pitman, about 75 feet away from homes on the west side of the tracks. Homes to the east are a little further as their backyards border the rails until reaching the proposed Pitman Station site, which is surrounded by commercial land use approximately 100 feet away on both sides. As tracks depart the town, the track is surrounded by single-family homes on both sides which are approximately 90 feet from the tracks until the track runs through Cedar Avenue.

A total of two parcels in Pitman would be affected by the proposed GCL. Both parcels are commercial and would require full acquisition. The Bank of Gloucester County on Ballard Avenue is the only business that would be directly affected; however, the commercial parcel on Commerce Avenue would be used as overflow parking for a nearby auto body shop and may require the business to be relocated. Overall, the proposed GCL would affect two businesses.

Additionally, as determined in the Noise and Vibration Impact Analysis, moderate noise impacts would affect 50 residential units.

Parking along W. Jersey Avenue would be affected by the proposed GCL's double-track alignment, but street functionality and circulation would not be affected. At-grade crossings at Pitman Avenue and S. Broadway would be installed, causing minor delays. Delays and traffic volume are slightly higher in the A.M./P.M. peak hours at the intersections of Broadway & Holly Avenue and Pitman Avenue & S. Broadway, which would experience a slight increase but would not change LOS. Due to construction, 110 parking spots would be lost along W. Jersey Avenue and the vacant surface lot on Commerce Avenue.

Pitman Station would consist of two outside platforms surrounded by landscaping consistent with the railway corridor. Existing trees and vegetation would be replaced in the area proposed for new station development, with new trees and vegetation being planted in their place to ensure the station contributes positively to the adjacent properties. However, views to the station may be increased as a result of tree removal, diminishing the visual “buffer” enjoyed by current residents to the west which will expose their rear yards and the rail corridor. The proposed landscaping would enhance the appearance of the station area and integrate it with the surrounding neighborhood while buffering views of the rail corridor. Therefore, no significant effects to the aesthetic character of the station will occur.

### **Glassboro**

The proposed GCL would be located within the Conrail ROW as well as two historic rail corridors (one going to the proposed Glassboro VMF, and the other to the Glassboro Station) through Glassboro. Two stations, Rowan University Station and Glassboro Station, would be located in Glassboro. The track runs through Glassboro High School as well as Bethlehem United Church of Christ and Faith Fellowship Church.

The proposed GCL would first run through Glassboro High School and then into downtown Glassboro where Rowan University is located. Running through residential neighborhoods, the track would be surrounded by both single and multi-family residences as it runs parallel down Girard Road N/S. The distance between tracks and homes ranges from less than 60 feet to a little more than 100 feet away between the Rowan University Station and the Glassboro Station.

A total of 55 parcels in Glassboro would be affected by the proposed GCL. Sixteen of these properties would require full acquisition. The parcels that would need to be acquired include one community service, seven manufacturing, seven single-family, and one wooded. Overall, the proposed GCL would affect one business, six residences, and displace an estimated 30 employees and 15 residents.

Additionally, as determined in the Noise and Vibration Impact Analysis, the VMF in Glassboro would have moderate noise impacts while remaining below the 72 VdB impact threshold. Further refinement during future project phases may alter noise exposure levels later in the project. These moderate impacts would affect 70 residential units. Severe noise impacts would affect 123 residential units in Glassboro.

Construction of the proposed GCL through Glassboro would have numerous impacts on travel patterns. At the proposed Rowan University Station, Mullica Hill Road would face major delays, reducing roadway capacity and contribute to increasing delays, with its westbound LOS dropping to E. Potential mitigation includes widening Mullica Hill Road to a three-lane roadway, with two lanes westbound and one eastbound. Bove Boulevard would cause a propagation of cars northbound which would extend through Mullica Hill Road and Bove Boulevard. Potential mitigation includes widening Bove Boulevard to a three-lane roadway, with two lanes northbound and one lane southbound. This would allow both the A.M. and P.M. peak delays to reduce greatly, changing LOS from F to E.

The proposed Glassboro Station would also generate impacts. Zane Street coincides with a portion of the proposed double track GCL alignment and should be terminated as a dead end at the Conrail ROW. The proposed Glassboro Station would include a new roadway for vehicular station access that extends from

Wilmer Street and Main Street east to Academy Street. The proposed extension is a two-way road and may potentially warrant a signal at Wilmer Street and Main Street. The proposed Wilmer Street Extension could act as a shorter route for traffic along Main Street or Wilmer Street, which would reduce traffic volumes at the signalized intersection of Main Street and High Street but could potentially increase traffic along the stop-controlled approach on Academy Street at High Street. It is recommended that Glassboro installs marked crossing at Wilmer Street with traffic calming measures.

Grade crossings within Glassboro are located at Carpenter Street, Bowe Boulevard, Mullica Hill Road, and S Main Street. It is recommended that Glassboro install a new crosswalk on west leg of intersection on Girard Avenue North with traffic calming measures at Rowan University Townhomes about 380 feet east of the grade crossing. After construction of the proposed GCL, the crossing at S. Main Street would decrease from LOS C to D. Construction of the proposed GCL would result in the loss of three parking spots in a Rowan University lot and 23 parking spots at 137 S. Main Street, 102 S. Main Street, and 38 S. Main Street.

The Rowan University Station would consist of two outside platforms surrounded by extensive landscaping and consistent with the railway corridor landscape, which would not be visible from adjacent parking areas. The proposed landscaping would enhance the station area, integrating it with the strip of naturalized area bordering the tracks and buffering views between the proposed GCL corridor to the east and west. No significant effects to the aesthetic character would be associated with this station.

The Glassboro Station would consist of two outside platforms, new to the historic railway corridor landscape. Parking spots would be introduced at the end of the station area and the proposed landscaping would enhance the appearance of the station area, integrating it with the surrounding neighborhood. No significant effects to the aesthetic character of the landscape would be associated with this station.

### **3.5.2.3 Community Services and Social Service Providers**

The development of transit projects (specifically rail) have the potential to delay law enforcement and emergency services when these vehicles are required to wait for the light rail to cross an intersection. As shown on Figure 29 (Plates “a” – “r”), “Community Facilities,” several police and fire stations are located within the GCL Corridor as well as two medical facilities. It is not anticipated that the proposed GCL would cause an increase or decrease in the demand for local law enforcement services. NJ TRANSIT and/or DRPA would be responsible for providing transit police on GCL vehicles and at station areas. In addition to patrolling vehicles and stations along the proposed GCL, law enforcement at all proposed stations would be provided. The GCL project is also not anticipated to cause an increase or decrease in the demand for local emergency response services. The GCL project will be designed in a manner that would not compromise the access to roads, buildings, neighborhoods, or the railway in the event of an emergency. Additional safety and security measures are detailed in Attachment 8, “Safety and Security Technical Report.”

Approximately 164 community facilities have been identified within the GCL corridor including approximately 91 religious/faith-based facilities, 36 schools, seven fire stations, six libraries, nine police



stations, two medical centers, and one YMCA. The majority of these facilities would experience a positive impact that increased access to transit and transportation choices would offer.

One community facility would experience potentially negative impacts from the proposed project in the terms of a full acquisition:

**Bethlehem United Church of Christ (Glassboro)**

In the portion abutting County Road 553, this parcel backs up to Bethlehem United Church of Christ's primary building. Acquisition of this parcel would directly eliminate ten parking spaces for that use and may potentially impact pick-up/drop-off activities and use of the ADA ramp that leads to the back of the church.

**Travel Patterns and Accessibility**

With respect to transit service, the GCL would provide a significant level of benefit to the communities along the GCL corridor, and particularly transit-dependent populations. The GCL would utilize an exclusive guideway that would provide increased reliability, increased service frequencies, and significant travel time savings over the No-Action Alternative. There would be an increase in transit accessibility as well as mobility to origins and destinations throughout the entire NJT system. Improved access to employment centers along the GCL light rail service and within the project corridor would result.

However, negative impacts to local streets near the GCL include reduction of lanes widths, slight relocation of roadways, and full closures of one-way streets affecting local circulation patterns; street circulation patterns would be most-heavily affected in Gloucester City. At-grade crossings could potentially have significant impacts on the roadway network adjacent to the GCL. In addition, public and private parking spaces may be lost. In total, approximately 233 public parking spaces are anticipated to be lost. In total, approximately 132 private parking spaces are anticipated to be lost.

The GCL would also have at-grade crossings at 39 public roadways and one private driveway location. These roadway modifications would change travel patterns for both drivers and pedestrians; however, they would provide a safer environment. The results of the analysis reveal that there would be minor delays throughout the corridor, with most at-grade crossings operating at LOS A or LOS B with delays up to 21 seconds per vehicle. The following 15 grade crossings would experience minor delays as a result of the proposed GCL:

- Market Street
- Olive Street
- E.Barber Ave
- Elm Ave
- Maple St
- Mantua Ave
- Center St
- Lambs Road
- Pitman Ave

- S. Broadway
- Carpenter St
- Bowe Blvd
- Mullica Hill Rd
- Ellis St
- South Main St

While all of these intersections would experience delays, none of these represent significant adverse impacts.

In addition, the GCL Project Team analyzed transportation conditions at 42 key intersections and roadways adjacent to or within proximity of proposed station areas. Due to the reduction in traffic anticipated for the future with the GCL, roadway and intersection delays with the GCL are generally lower compared to the No-Action condition at locations where no new trips would be generated by GCL stations and parking facilities; they are generally higher compared to the No-Action condition at locations where new drive access trips would be anticipated as a direct result of the proposed GCL parking facilities. Detailed information on the intersections that would be adversely affected and the proposed mitigation to minimize these effects can be found in Attachment 5, “Traffic Analysis Technical Report”.

#### **Displacements and Relocations**

Overall, impacts resulting from acquisitions and displacements would not be adverse or disproportionate among minority and low-income communities in the future with the proposed GCL. Of the 46 full property acquisitions expected with the GCL corridor, 41 are located within communities of concern. Of these, 10 are commercial, 1 is community service, 7 are manufacturing, 1 is parking, 17 are residential, 4 are vacant land, and 1 is wooded land. These acquisitions will impact 10 businesses, displace approximately 84 to 120 employees, and impact 15 residences. These full acquisitions are potentially significant, and therefore adverse, but not disproportionate within communities of concern.

The GCL would require partial acquisition or de minimis acquisition of approximately 170 parcels. Of these, 27 partial acquisitions and 123 de minimis acquisitions would occur in communities of concern. There is no evidence that the impact would be disproportionate.

#### **Community Services and Facilities**

As stated in Section 3.5.2.3, “Community Services and Social Service Providers,” in the future with the proposed GCL, one community facility (Bethlehem United Church of Christ) located within a community of concern (Glassboro) would experience impacts relating to direct acquisition of ten parking spaces which may impact activities and ADA ramp usage at the back of the church. The church itself would not be displaced and no physical alteration to the building would occur. This impact would not be considered adverse or disproportionate.

#### **Neighborhoods**

The GCL would not adversely affect character or connectivity of neighborhoods within the proposed project corridor. While some impacts would occur to specific properties, none of these impacts would

collectively affect a neighborhood. The improved access to transit and increased mobility to other destinations in the region would provide residents, particularly transit-dependent populations, with improved connectivity within and between neighborhoods.

### **Noise and Vibration**

Of 27 representative locations used as receptor sites, moderate noise impacts are likely to occur at 13 representative locations within communities of concern as a result of the proposed GCL activities and severe noise impacts are likely to occur at two representative locations within communities of concern. The severe impacts are anticipated at Zane Street in Glassboro and at Rowan University's Girard House. The severe noise impact at these locations would be considered adverse; however, no disproportionate impacts are anticipated.

In addition, moderate noise impacts at residential properties adjacent to the proposed vehicle maintenance and storage facilities are expected to occur at each of the two proposed yards located in the communities of Woodbury Heights and Glassboro, with Glassboro considered a community of concern. Further refinement of the maintenance facility activities at the two proposed storage yards would occur during a future project phase at which more details related to the location, types, and duration of various maintenance activities would be developed. These changes may alter noise exposure levels.

Mitigation for these impacts from noise exposure would be determined during final design and it is likely that the impacts can be successfully mitigated. The GCL team estimated with future project noise exposure levels with mitigation measures and found that severe noise impacts at receptor sites would be eliminated but moderate noise impacts would remain at four receptor sites within communities of concern in Gloucester City and Glassboro. The remaining moderate noise impacts are all caused by noise generated from horn soundings.

Vibration levels during daily service operations at all receptor sites were found to be below the FTA Impact Threshold.

## **3.6 Mitigation**

Through the course of the EIS, the GCL team has undertaken extensive public information activities to inform residents and provide the opportunity for participation in evaluating the proposed project, station locations, environmental concerns, etc. Public presentations have been offered to the public at large, community groups, public officials, institutional officials, and local, state, and federal agencies. As a result of public involvement, several design decisions were made. Public involvement will continue through the end of the environmental review process, and comments and concerns from area residents will continue to be solicited.

### **3.6.1 No-Action Alternative**

#### **3.6.1.1 Neighborhoods**

The No-Action Alternative would consist of a future scenario with no changes to transportation services or facilities in the Glassboro to Camden Corridor, beyond the projects that are already committed. As a result, project-generated impacts to neighborhoods would not occur under the No-Action Alternative.

#### **3.6.1.2 Community Services**

The No-Action Alternative would consist of a future scenario with no changes to transportation services or facilities in the Glassboro to Camden Corridor, beyond the projects that are already committed. As a result, project-generated impacts to community services would not occur under the No-Action Alternative.

### **3.6.2 The Proposed GCL**

#### **3.6.2.1 Neighborhoods**

Impacts to neighborhoods resulting from the proposed GCL would be reduced through a number of mitigation measures. Neighborhoods of particular concern include Gloucester City, Brooklawn, Westville, Woodbury, Woodbury Heights, Wenonah, Sewell, Pitman, and Glassboro, which would be affected by displacements/relocations, changes to noise/vibration level, and/or changes to the existing visual/aesthetic character. Mitigation measures that would be employed are as follows:

#### **Travel Patterns and Accessibility**

As detailed in Attachment 5, “Traffic Analysis Technical Report,” signal timing adjustments, intersection relocations, and modifications to traffic lanes would help mitigate the effects of the GCL in certain locations within the corridor. No additional mitigation, beyond what is listed in Attachment 5, “Traffic Analysis Technical Report,” would be required.

Overflow parking in neighborhoods located near to proposed stations would be monitored through visual survey to determine whether additional parking is needed. Additional parking would be added with the development of park-and-ride facilities within and near neighborhoods near to proposed park-and-ride stations. Where existing parking would be impacted, if overflow parking becomes an issue for adjacent neighborhood streets, local resources near to the problematic stations would be assessed to determine whether additional dedicated or shared parking could be secured. If necessary, parking enforcement would be instituted, allowing only residents of particular neighborhoods to park on specified streets.

#### **Displacements and Relocations**

Where displacements and relocations are unavoidable, relocation services and payments would be provided. Property owners would be paid for property acquired, and relocation procedures for displaced residents would be guided by the Uniform Relocation Assistance and Real Property Acquisition Policies Act. The Act requires that comparable replacement housing be available before displacements occur. Refer to Attachment 12, “Acquisitions and Displacements Technical Report,” for additional mitigation details.

**Noise and Vibration**

The FTA requires that mitigation for moderate impacts be incorporated into the proposed project when it is considered reasonable. For severe impacts, mitigation should be incorporated into the proposed project unless there are extenuating circumstances to prevent it. The goal is to gain substantial reductions in noise level. Example of general noise mitigation measures include, but are not limited to, operational restrictions, the use of vehicle skirts, and resilient or damped wheels, sound barriers, and buffer zone acquisitions.

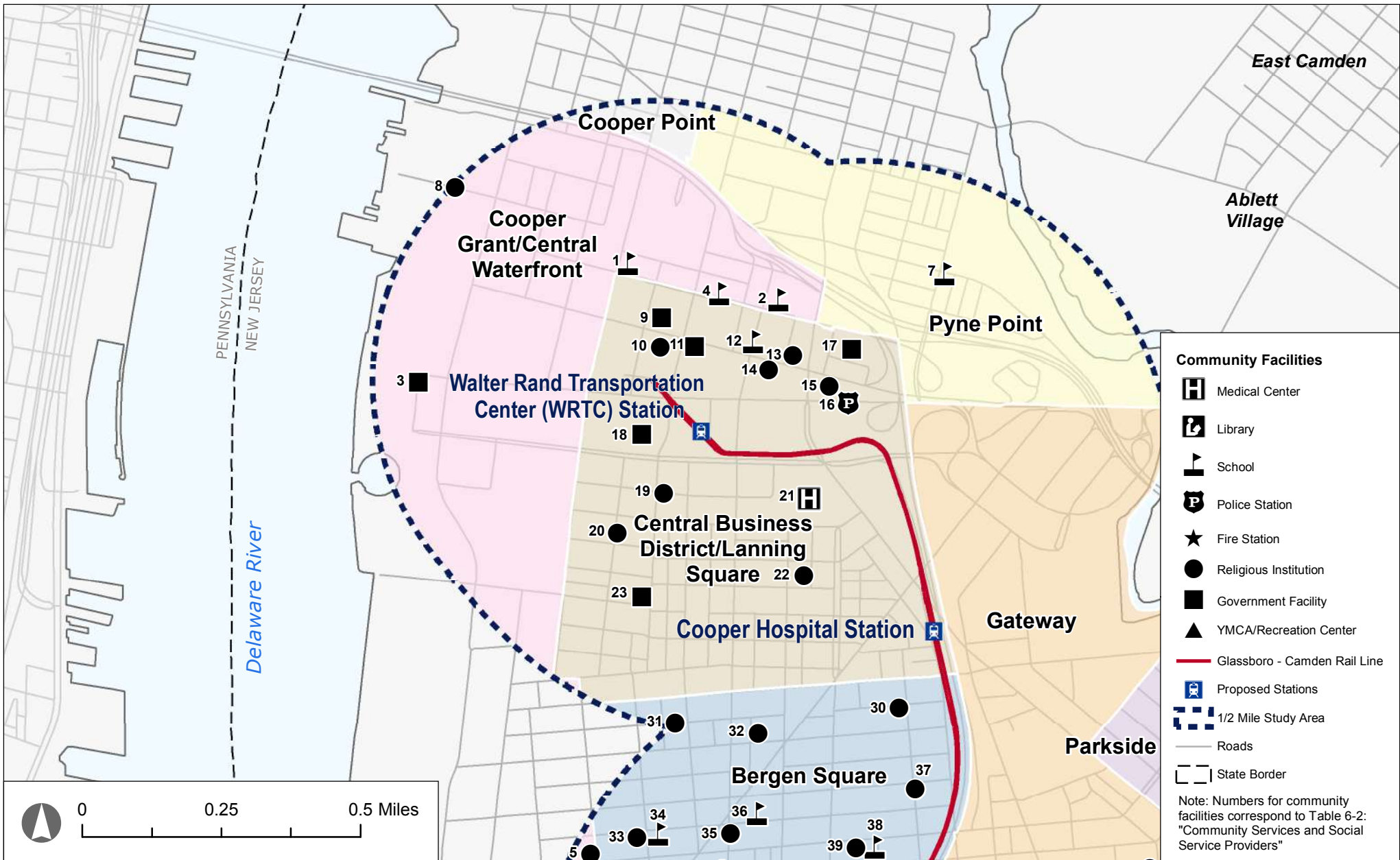
The most practical noise and vibration mitigation recommendations for properties affected by the GCL include the modification of light rail vehicle skirts, sound barriers, and sound insulation. Specific mitigation measures designed for each property would be proposed during final design. These measures will be based on more accurate and specific operational engineering and environmental data that will be available for use in a detailed noise assessment. As such, the final mitigation methods may differ with those mitigation measures recommended here. Coordination with property owners regarding acceptable mitigation methods would occur during final design.

**Cohesion**

Neighborhood cohesion would not be negatively affected by the GCL. Therefore, mitigation measures are not needed.

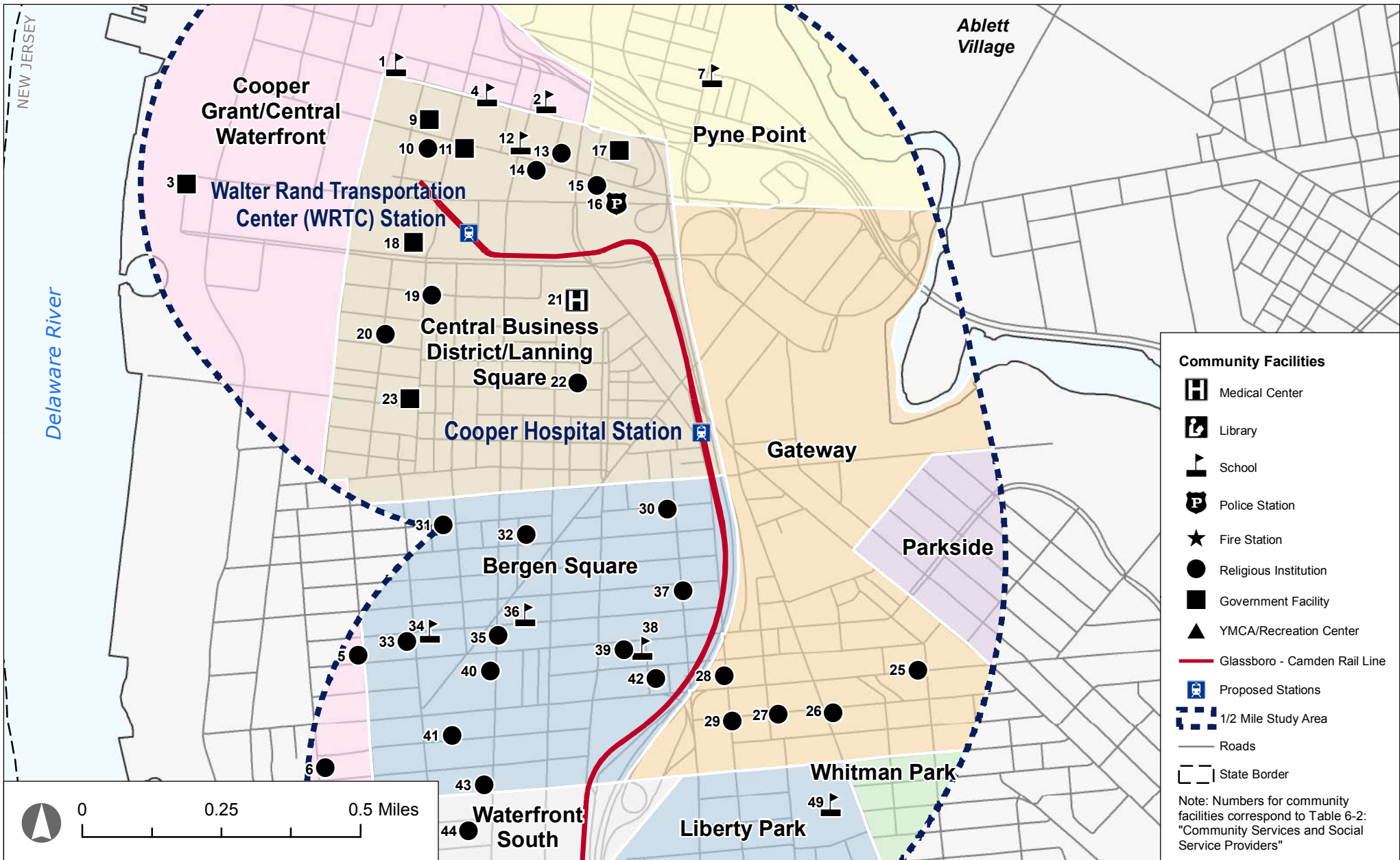
**3.6.2.2 Community Services**

The GCL project sponsor will work Bethlehem United Church of Christ in Glassboro if property is acquired for the project which would impact church parking and ADA access.

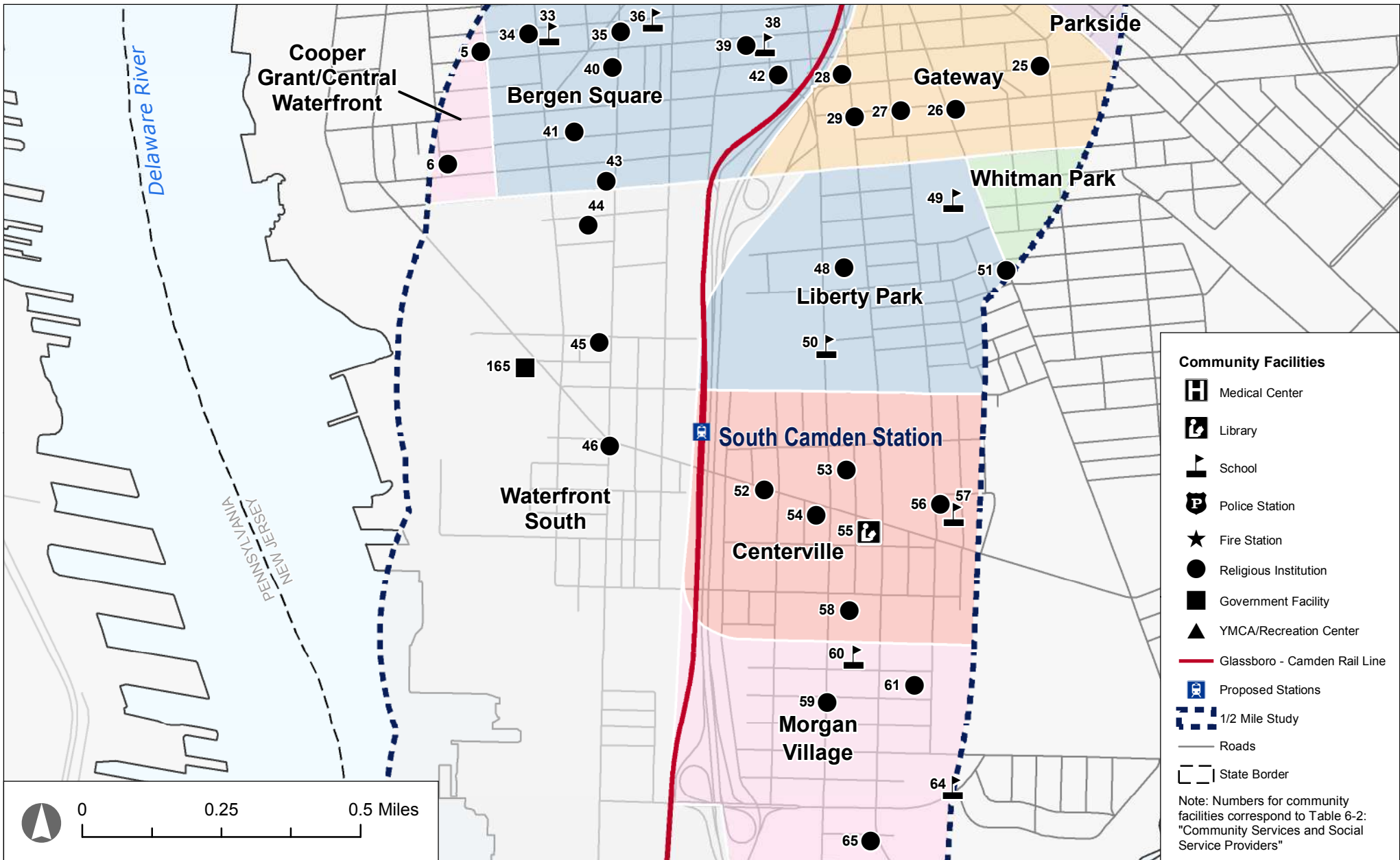


**Figure 29a: Community Facilities**  
*Walter Rand Transportation Center Station*

Source: EPA Environmental Justice Screening and Mapping Tool; U.S. Census Bureau TIGER/Line Shapefiles; STV Incorporated, 2018.



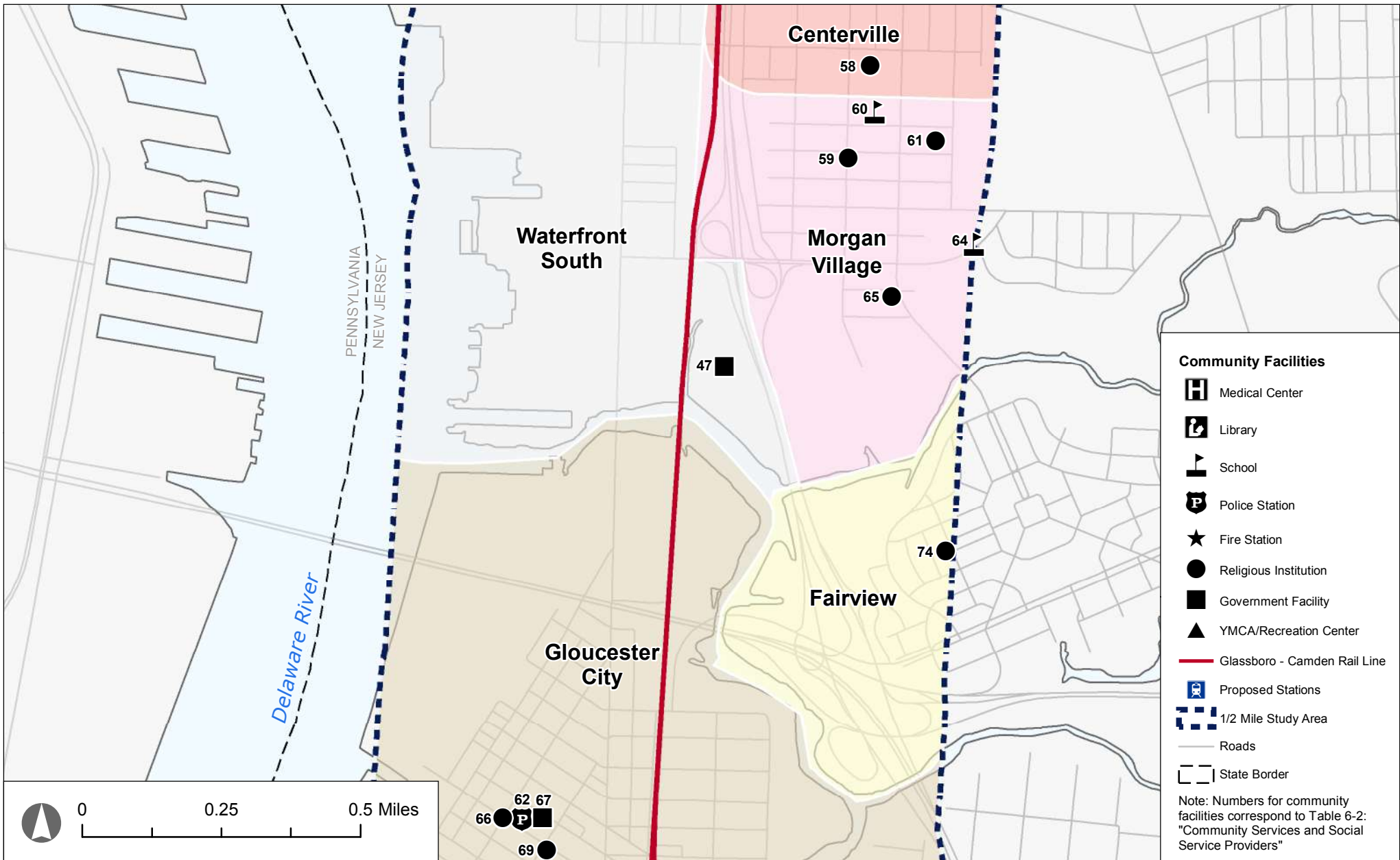
Source: EPA Environmental Justice Screening and Mapping Tool; U.S. Census Bureau TIGER/Line Shapefiles; STV Incorporated, 2018.



**Figure 29c:** Community Facilities  
South Camden Station

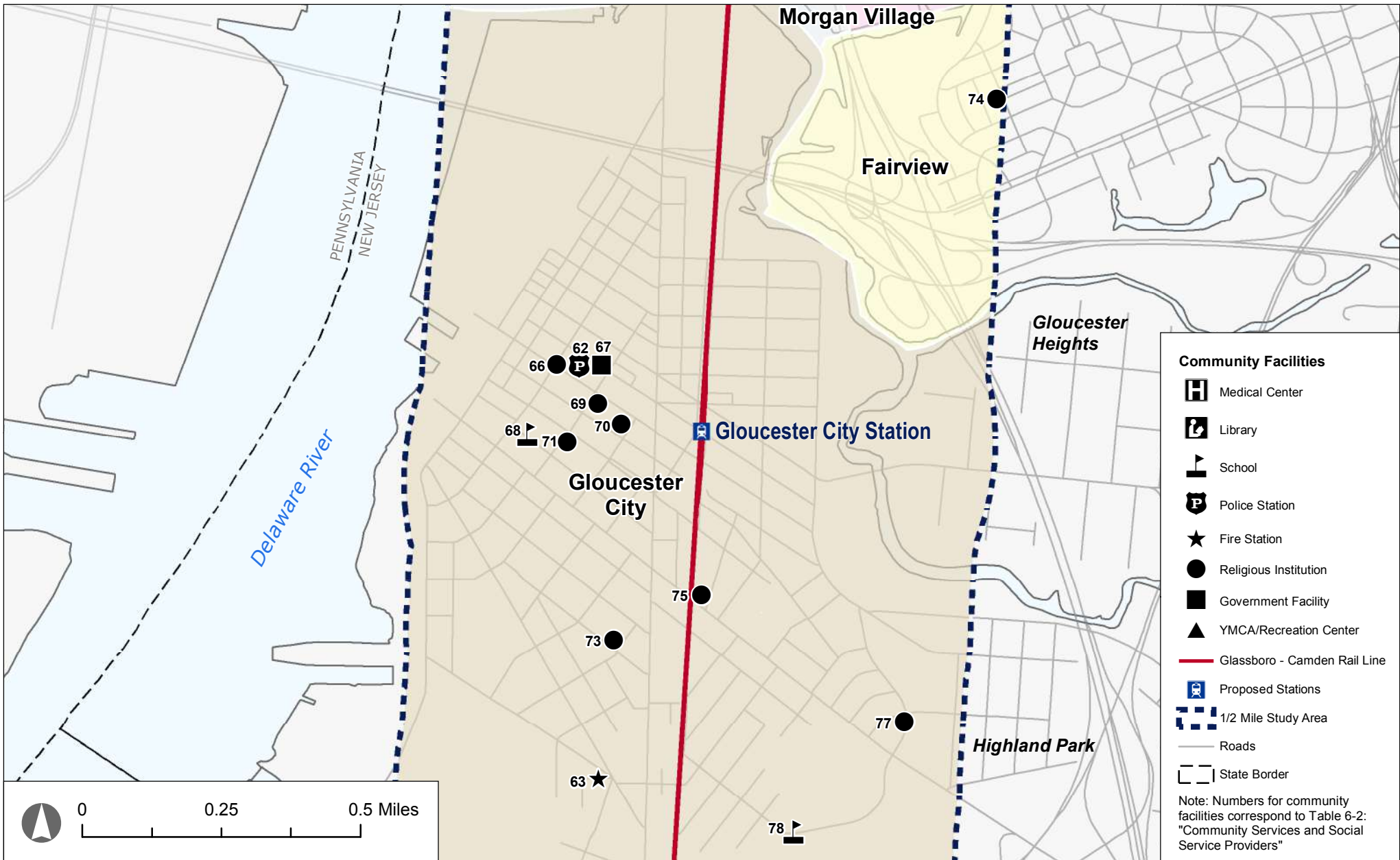
Source: EPA Environmental Justice Screening and Mapping Tool; U.S. Census Bureau TIGER/Line Shapefiles; STV Incorporated, 2018.





**Figure 29d:** Community Facilities

Source: EPA Environmental Justice Screening and Mapping Tool; U.S. Census Bureau TIGER/Line Shapefiles; STV Incorporated, 2018.



**Figure 29e: Community Facilities**  
*Gloucester City Station*

Source: EPA Environmental Justice Screening and Mapping Tool; U.S. Census Bureau TIGER/Line Shapefiles; STV Incorporated, 2018.