

Newark at the Crossroads

A 2032 Vision for the Newark Aerotropolis

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Table of Contents

Overview	3
Process and Background	5
Existing Conditions	10
Introduction and History	11
Community Demographics and Economy	12
Transportation	15
Land Uses and Zoning	17
SWOT Analysis	21
Recommendations	24
Zoning	25
Frelinghuysen Industrial Corridor	27
Frelinghuysen Junction	31
Airport Parking Revitalization	34
Community Benefits Plan	36
Action Plan and Further Considerations	45
Conclusion	47
Appendices	49

Overview

Newark stands at an historic junction. Behind it lies a half-century of tough readjustment, as the global economy shifted and northern New Jersey was forced to transition away from traditional heavy industry. Yet before it stands the possibility of a bold new future for Newark and her residents. The growing importance of international travel, global corporate headquarters, and just-in-time logistics leaves Newark and the broader New York metropolitan area poised for a half century of sustainable prosperity. Investments in transportation infrastructure new and old, from the trains to turnpikes to air terminals, ensure that Newark residents enjoy unparalleled mobility in an age when speed matters. The preceding growing pains of the past for half-century were not for naught: Newark enters this transition period with strengthened communities, bold leadership, and an ambitious emerging generation of residents.

Central to this bold new future will be the Newark Liberty International Airport. With record setting growth in both international and domestic travel over the past decade, EWR has grown into one of the most important global airports and Newark's gateway to a globalizing world.¹ Leveraging this gateway for long-term, sustainable, and shared growth has never been more important. With the extension of the PATH train planned to EWR planned for the upcoming decade, the airport will only grow in its importance to the region, and now is the time for city leaders to stock and plan for expected growth.²

¹ "Airport Traffic Reports." Airports Council International - North America, Airports Council International - North America, 2017, www.aci-na.org/content/airport-traffic-reports.

² Porter, David. "Proposed PATH Extension to Newark Airport Goes before Public." North Jersey, USA Today Network, 28 Nov. 2017, www.northjersey.com/story/news/new-jersey/2017/11/28/proposed-path-extension-newark-airport-goes-before-public/903469001/.

Toward this end, this studio report sets out a vision and action plan toward building an aerotropolis “New Town” adjacent to the existing Amtrak-NJ Transit-AirTrain that connects Newark to the world and provides tangible benefits for the existing community. First, this report turns to the history of and existing conditions in the Dayton and Frelinghuysen Avenue area. This section includes a detailed examination of existing community demographics, urban form and design, transportation connections, and land uses and zoning. For the purposes of this study, this report treats its study area as the section of the South Ward of Newark bounded to the north by East Peddie Street, to the south by the border with Elizabeth, to the west by Weequahic Park, and to the east by U.S. Highway 1 (MAP).

Second, based on this exploratory survey we put together a flexible toolbox of policies and design proposals that policy makers can use to guide the development of this community into a prosperous, mobile, and equitable aerotropolis over the next 15 years. This toolbox includes a proposed zoning overhaul that integrates into the existing ordinance,³ a reimagining of transportation that connects current South Ward residents to new employment opportunities, a series of site designs that can guide the thinking of planners and developers, and a community benefits package that ensures that the wealth and opportunity from this new development extends to the Dayton community. Finally, this studio report concludes by providing policymakers with a tentative action plan and summarizing the key components of this exciting new vision for a Newark aerotropolis.

Process and Background

³ “Zoning.” City of Newark, City of Newark, 2017, www.newarknj.gov/zoning.

In the process of drafting developing site design and policy proposals for this neighborhood, the authors of this report met with the active planning director of Newark. Additionally, we conducted multiple interviews, organized a design charrette, identified and examined comparables that reflected aerotropolis designs, and extensively studied existing conditions.

Before beginning work on this report, we put together a scope of work detailing out goals, objectives, and expected deliverables. We set out a broad goal of creating an aerotropolis New Town that connects to Newark and provides tangible benefits for the existing community. This goal was then broken out into four objectives:”

- Zoning Objective: Craft a zoning ordinance and map that enables the development of a mixed-use aerotropolis while empowering existing communities.
- Site Plan Objective: Create a site plan and model that reimagines Newark's underutilized industrial land into a high density, mixed-use, multi-modal aerotropolis.
- Transportation Objective: Reimagine the Frelinghuysen Avenue corridor as a multi-modal boulevard that leverages the new PATH station to reintegrate Dayton, Elizabeth, and downtown Newark.
- Community Benefits Objective: Develop a community benefits agreement that ensures that the wealth and opportunity resulting from the new aerotropolis extends to the Dayton community.

Given the primacy of the airport in planning for the Dayton-Weequahic Park neighborhood, we spoke with two experts on the airport management with regard to land use, community outreach, and the role of air travel and shipping in economic development. Interviews included:

- Benjamin DeCosta, Principal at DeCosta Consulting, LLC and former Aviation General Manager at the Hartsfield-Jackson Atlanta International Airport and Newark International Airport
- Shelly Lamar, Executive Director of the Aerotropolis Atlanta Alliance and Director of Planning for the Atlanta International Airport.
- Adelee Marie Le Grand, AICP, Chief Strategy Officer/Vice President of Transdev, NORTA
- Louis E. Prezeau Jr., Director of Community and Economic Development, La Casa de Don Pedro

Each emphasized the growing need for international offices and warehousing near airports, the value of community outreach and clearly articulated community partnerships, and the need for interjurisdictional cooperation to capitalize on the growing impact of international airports.

In order to generate ideas for the design portion of this proposal and understand the needs and preferences of young professionals, we coordinated a design charrette with graduate and undergraduate city planning students representing Rutgers University and University of Pennsylvania on November 2. Certain themes emerged from the design process that were integrated into this proposal. First, charrette participants emphasized the centrality of the proposed train station. Multiple groups produced

designs that added a new road between Victoria Street and Noble Street that would have the train station as a termination point. Second, charrette participants were in agreement about the opportunity for more housing. Given that the new PATH station could give residents of the area a 30-minute commute to Manhattan, young professionals will almost certainly find apartments in this area attractive. Finally, charrette participants were universally attracted to the idea of gridding out streets in the area and reducing block widths. This would ultimately make the neighborhood more walkable and more attractive to area residents visiting the park by train.

In addition to these interviews and early design alternatives, the aerotropolis concept played a crucial role in our thinking about this project. As developed by air commerce researcher Dr. John D. Kasarda of the Kenan-Flagler Business School at the University of North Carolina, Chapel Hill, an aerotropolis is a community where the airport serves as the economic core of the city.⁴ According to Kasarda, these aerotropolises will grow in importance as international trade, tourism, and migration grow as a result of globalization and companies increasingly prioritize speed and connectivity in site selection. An aerotropolis' great advantage is speed, both in international travel through the air and locally along roads and rail. With PATH connecting to America's busiest 15th airports--Newark Liberty International--to two of America's most robust commerce centers--Newark and New York City--we expect this area to gradually evolve into an aerotropolis and have integrated this thinking into our design and policy proposals.⁵

⁴ "John Kasarda | Faculty ." UNC Kenan-Flagler Business School, UNC Kenan-Flagler Business School, www.kenan-flagler.unc.edu/faculty/directory/strategy-and-entrepreneurship/john-kasarda. Kasarda, John D., and Greg Lindsay. Aerotropolis: The Way We'll Live Next. Farrar, Straus and Giroux, 2011.

⁵ Calendar Year 2014 Passenger Boardings at Commercial Service Airports . Bureau of Transportation Statistics, 2015, Calendar Year 2014 Passenger Boardings at Commercial Service Airports.

Major comparables that aided us in this thinking include Amsterdam Zuidas, the Songdo International Business District, and Frankfurt International Airport. Located just a short train ride away from the Amsterdam International Airport, the recently developed aerotropolis is geared around international business, featuring Amsterdam's World Trade Center and regional offices for major firms like Google.⁶ While Zuidas is somewhat removed from the airport and constitutes a full neighborhood, the Frankfurt International Airport's aerotropolis is essentially an extension of the airport itself. Without stepping outside, one can access The Squire, a full-scale mall with various restaurant, hotels, and offices designed around international business and travel.⁷ Like Zuidas, The Squire and related developments at the Frankfurt International Airport enjoy ready transit access to downtown. If Amsterdam's aerotropolis is a neighborhood and Frankfurt's aerotropolis is a mall, Seoul, South Korea's aerotropolis--the Songdo International Business District--is its own city. In addition to ready access to the transit access, retail, and officers catered to international business, Songdo also houses thousands of South Korean residents, helping to defray the county's housing crunch.⁸ Each of these comparables offers insight into the possibilities of a Newark aerotropolis, which were heavily integrated into the site design proposals discussed below.

Fiegerman, Seth. "Newark Starts a New Life as a Technology Hub and Favorite Cause of Millionaires." Mashable, Mashable, 20 July 2015, mashable.com/2015/07/20/newark-tech-hub/#R9_x2h9tsqS.

⁶ Amsterdam. "City of Amsterdam." Zuidas, Gemeente Amsterdam, 5 Dec. 2017, www.amsterdam.nl/zuidas/english/.

⁷ "Facts & Figures." The Squire - The Project, www.thesquire.com/en/the_squire/the_project.html.

⁸ Shapiro, Ari. "A South Korean City Designed For The Future Takes On A Life Of Its Own." NPR, NPR, 1 Oct. 2015, www.npr.org/sections/parallels/2015/10/01/444749534/a-south-korean-city-designed-for-the-future-takes-on-a-life-of-its-own.

Existing Conditions

2.1 Introduction and History

The Dayton-Weequahic Park neighborhood lies in Newark's South Ward, bounded by Weequahic Park in the west, Peddie Street to the north, the Northeast Corridor to the east, the border with Elizabeth, New Jersey to the south (see FIGURE X). For the purposes of this study, we also integrated partially developed areas to the east of the Northeast Corridor, including the large parking and commercial area bounded by Highway 1 to the east and the Anheuser-Busch facility to the south. With major highways, rail lines, and an international airport, this area serves as Newark's gateway to the world and one of the northeast region's most essential transportation hubs.

Since the 1930s, the Dayton-Weequahic Park neighborhood has been home to major public housing developments, including, Seth Boyden Terrace, which closed in 2012.⁹ The community had long been home to recent immigrants from Ireland and southern Europe. By the 1950s, African Americans gradually moved into the area alongside new manufacturing. As in other major cities like Detroit, Cleveland, and Los Angeles, race riots in the late 1960s led to a significant decline in investment in the area. Today, the iconic Dayton-Weequahic Park neighborhood continues to host many of Newark's public housing facilities and much of its surviving industry. Since 2012, Essex County has spent over \$11 million upgrading and expanding park facilities.¹⁰ Alongside other industrial cities like Pittsburgh, Baltimore, and Philadelphia, Newark is

⁹ *Dayton Street Transformation Plan*. Newark Housing Authority, 2014,

¹⁰ "Essex County Executive DiVincenzo Announces Completion of Essex County Weequahic Park Playground Reconstruction." *County of Essex New Jersey*, County of Essex New Jersey, essexcountynj.org/essex-county-executive-divincenzo-announces-completion-of-essex-county-weequahic-park-playground-reconstruction/.

undergoing a major “urban renaissance.” Today, this growth is centered in the northern wards, but it is only a matter of time before new opportunities and investment emerge in this neighborhood. The expansion of the PATH train--the focus of this report--will almost certainly expedite this process.

2.2 Community Demographics and Economy

2.2.1 Introduction

In this analysis of our demographic data, we will compare the Dayton community to the entire city of Newark, NJ using the American Community Survey from the year 2015. The Dayton Community is the majority of what comprises Census Tract 48.02. For purposes of simplicity, we substitute the term ‘Census tract 48.02’ with ‘Dayton’. We have collected data over various time periods and compared them to the standards of the encompassing City of Newark. The Dayton community shoulders the Newark Liberty International Airport and other areas such as the Weequahic Park, which have immense potential to revitalize this community. This comparative analysis of the data between Newark and Dayton will highlight more specifically major disparities between the two.

2.2.2 Demographics

The Dayton community on average is older than that of the rest of the City of Newark. This is large in part due to the senior residences located near the lower region of the municipality. The local 18 hole course in the Weequahic Park has also attracted a number of senior citizens over the course of its existence. Only 19.1% of the Dayton

population are minors (17 and younger) versus 25% being minors in the City of Newark. In addition, 38% of Dayton's population is between the ages of 45 to 64 versus 23% in Newark. Dayton is an aging community that is seeking financial stability, independence and opportunity.

There is a higher concentration of African-Americans (75.6%) in Dayton, and a significantly fewer Whites (12.6%). In addition, there are 63% family households in Newark versus 42.9% family households in Dayton which suggests that more people in this community are living on their own. This data may also suggest that there should be an increase in single resident housing or some other underlying issue causing the disparity.

2.2.3 Education

Across the board between both Newark and Dayton, we see that there is an extreme lack of formal education. While only 9.3% of residents over 25 in Newark have a Bachelor's degree, there are only 1.4% or 36 people in Dayton with a 4-year college degree. On the other hand, there is a higher percentage of residents in Dayton who have graduated high school (43.2%) versus Newark high schools (35.3%). High school students between the ages of 16-19 have still struggled in the Dayton community more so than the rest of Newark. Dayton suffers a higher high school drop-out rate (13.6%) and lower enrollment rate (86.4%) than Newark (94.5%).

2.2.4 Employment

Newark has an 18.4% unemployment rate versus Dayton's 31.1% for individuals

16 years and over. Dayton's leading occupation is in the healthcare support system with 16.2% of the employment population. With an emergence of various site plans, we suspect those numbers to be shifting towards transportation, technology and airport services. The goal is not to force people from their employed positions, but to provide a wider variety of opportunities and create economic mobility.

2.2.5 Income

One of the major reason we are seeking to create a business district, and integrate Dayton into the rest of the Newark area is because there are very few individuals in the community who make what would be considered a livable wage. The median household income in Dayton is \$12,028 versus Newark's \$33,139. The median family income is slightly higher for both groups. One of the biggest reasons for this is that 64.3% of households in Dayton have no wage or salary income. While 32% receive social security income and 33.4% receive supplemental security income, there is not enough income to account for such a large portion of the community without a wage or salary. The per capita income for Newark is \$16,791 compared to Dayton's \$12,793. To get a better understanding, 76.3% of Dayton's households make less than \$25,000 per year.

2.2.6 Housing

Housing is a growing issue for both Newark and Dayton. Dayton, however, has a median gross rent rate of \$323. While many would suggest that this is extremely inexpensive and should be affordable for essentially everybody, we must reconsider the

low-income rates for the majority of residents. Also, rates may be this low due to the poor quality of the establishment or it may simply be the difference of what was left after the subsidy was applied. The poverty rates are also higher compared to Newark for all age groups: 18 and under, 18-64, and 65 and older.

2.3 Transportation

2.3.1 Existing Street Network

Frelinghuysen Avenue is an essential north-south corridor connecting downtown Newark and downtown Elizabeth. This avenue serves as the *de facto* main street of the Dayton-Weequahic Park neighborhood. In this capacity, Frelinghuysen Avenue is poorly designed. The full right-of-way today is approximately 100 feet, with two 12-foot travel lanes in both directions. There are also on-street, 12-foot parking lanes on both sides of the street. These parking lanes are unmarked, which gives the right lane in both directions an unusually wide appearance. Blocks to the east of Frelinghuysen Avenue are exceptionally long; the block between the Route 22 on-ramp and Legal Street runs unbroken for approximately 1,725 feet. Along with wide blocks, there are also long stretches along Frelinghuysen Avenue with no marked pedestrian crosswalk. While the corridor today may work for drivers, these design flaws--wide travel lanes, long blocks, the absence of pedestrian crosswalks--make for an unsafe, unpleasant pedestrian experience. This is reflect in the street's high incidence of pedestrian-automobile collisions.

Other important streets include Dayton Street, Meeker Avenue, and Haynes Avenue. Dayton Street runs along Weequahic Park, connecting the park to the Dayton

Neighborhood. The street has 10-foot travel lanes in both direction and on-street parking on both sides. The street also deploys multiple traffic calming techniques and pedestrian crosswalks. Meeker Avenue acts as an essential connection between Elizabeth Avenue and the west side of the South Ward to the Frelinghuysen Corridor. Like Frelinghuysen Avenue, Meeker Avenue hosts large blocks and few pedestrian crosswalks. This is particularly problematic given that a major entrance to Weequahic Park sits along Meeker Avenue. Haynes Avenue hosts two 12-foot travel lanes and connects Frelinghuysen Avenue and Highway 1 via the historic Haynes Bridge. This bridge is currently being renovated.

Dayton's three major northern roads--Meeker Avenue, Haynes Avenue, and Frelinghuysen Avenue--converge at a three intersections around a triangular block just east of Weequahic Park. This arrangement is a substantial source of traffic, particularly on weekdays between 11am and 4pm, indicating that this traffic is mostly the result of industrial and commercial users rather than commuters. Mid-day traffic is also an issue along Victoria Street and Empire Street, just off of the Route 22 exit ramp. Evidence of commuter traffic is only present along Frelinghuysen Avenue. Much of this traffic flows from Route 22 and Highway 1, which lie to the north and east of this neighborhood, respectively.

2.3.2 Existing Transit

According to the U.S. Census, 66% of area residents depend on transit to get to work, despite the fact that the Dayton-Weequahic Park neighborhood is heavily underserved by transit. While the neighborhood is home to the AirTrain Newark Liberty

International Airport station, which hosts NJ Transit, Amtrak, and AirTrain stops, this station is inaccessible to the neighborhood. Residents visiting the airport must instead take a long and complicated bus ride to the airport or travel to Newark Penn Station only to travel back on the train. The closest rail transit lies just south of the municipal line in Elizabeth. Approximately a half-mile south of Dayton lies the NJ Transit North Elizabeth train station.

Public bus transit is also highly limited. Only two NJ Transit bus lines pick up in the Dayton-Weequahic Park neighborhood: the 107 line, which terminates at the Port Authority Bus Terminal in Manhattan by way of Journal Square, and 37 line, which travels toward the same destination but with stops at the Newark Liberty International Airport. Both lines pick up at three stops at the intersection of Meeker Avenue and Empire Street, Frelinghuysen Avenue and Noble Street, and Frelinghuysen Avenue and Victoria Street. Regular site visits revealed that these stops were heavily used, with as many as 10 riders waiting at the stops at any given time. Despite this, there are no shelters or benches at any of the stops. Conspicuously, there is not a single bus stop between Meeker Avenue and the municipal border with Elizabeth. There are also no bus routes to or from downtown Newark or Elizabeth.

2.4 Land Uses and Zoning

2.4.1 Existing Land Uses

The site contains a variety of disparate land uses separated by two major features: the Northeast Corridor and Frelinghuysen Avenue (MAP). To the east of the Northeast Corridor, primary uses include parking, industrial and commercial. Anheuser-

Busch operates a large manufacturing and distribution center taking up most of the land south of the Newark Liberty AirTrain. The rest of the site consists of a patchwork of surface parking and hotels supporting airport travelers. A major exception to these land use patterns are a series of cemeteries south of the Anheuser-Busch plant and north of the AirTrain. To the west of the Northeast Corridor and east of Frelinghuysen Avenue, land use is almost entirely industrial with pockets of commercial. Industrial activity has declined, leaving several parcels in this area vacant or abandoned.

Moving west of Frelinghuysen Avenue, the land use transitions into a mix of uses in the neighborhood of Dayton. Commercial and light industrial uses front onto Frelinghuysen Avenue, while residential uses comprise the remaining area ending at Weequahic Park. The residential land is a mixture of single family homes on block interiors, duplexes fronting Dayton Street, and high-density Newark Housing Authority towers interspersed throughout the area. One of the most notable land uses west of Frelinghuysen Avenue is the vacant and dilapidated housing project, Seth Boyden Terrace, which occupies a 15-acre parcel of land.

2.4.2 Vacant and Abandoned Properties

A significant number of parcels in the study area are either vacant or abandoned (MAP). While these represent a nuisance to the community, they represent potential sites for redevelopment going forward. Abandoned properties are those properties for which the owner is no longer paying property taxes. Vacant properties are those properties on which no development has taken place. While the former is a legal definition and can easily be mapped using public data, the latter were manually identified using

orthophotography interpretation. Given the human element in identifying vacant properties, caution should be taken in utilizing this data. That said, we can identify certain general trends.

First, a number of former industrial sites lie vacant along Frelinghuysen Avenue north of Haynes Avenue. This is particularly the case around the proposed PATH station, which means that there will be ample space for transit-oriented development in the near term. Second, a substantial chunk of the parcels to the east of the Northeast Corridor and west of U.S. Highway 1 remain vacant surface parking. With new investment from the city and transit improvements, these areas will likely redevelop into higher and better uses. Finally, there many vacant and abandoned parcels spread across Dayton. Most notable, the former site of the Seth Boyden Terrace, sits empty. This parcel is still owned by the Newark Housing Authority, which has drafted plans for redeveloping the parcel. Not to be missed, however, are the many vacant and abandoned small parcels in the neighborhood. In many cases, these are abandoned homes or vacant parcels. At present, they serve to lower property values and limit investment in the neighborhood. Any redevelopment of this area must prioritize the reuse of these properties.

2.4.3 Existing Zoning

The site area zoning can be broken out into three major classes (MAP): First, the along the east and west side Northeast Corridor is zoned “EWR-S” or “Airport Support.” Permitted uses are mostly limited to airport-support industrial and commercial activities, including light industry, logistics, and shipping. Second, the area to the north of Meeker

Avenue and west of Frelinghuysen Avenue is zoned “I-1, or “Light Industrial,” and “I-2,” or “Medium Industrial.” This incorporates many of the industrial uses of the EWR-S zone, without some of the permitted commercial activity. Finally, the Dayton neighborhood to the southwest of the site area is zoned for a mixture of residential and commercial at various densities. The Newark Housing Authority sites, including the defunct Seth Boyden Terrace site, are zoned for high density multi-family housing. Many of the interiors of the block are zoned “R-2” and “R-3,” allowing at most up to three units per structure. Along Frelinghuysen Avenue, most parcels are zoned either “MX-1” or “C-1.” The former allows for a mixture of residential and commercial uses and lies mostly to the south, while the latter only allows commercial uses and lies mostly to the north. There are a number of nonconforming uses, largely in the Dayton area. The proposed zoning overhaul, discussed in Section 3a, discusses this in greater detail.

2.4.4 Historic and Valuable Properties

There are a total of six historic properties in the study area, including three historic parcels, two historic infrastructure installations, and the historic Weequahic Park. (MAP). One of these three historic parcels, lying just south of Haynes Avenue, used to host the historic Stengle Tannery Building Complex, but this structure was recently demolished. The two remaining historic parcels lie at or near the intersection of Meeker Avenue, Frelinghuysen Avenue, and Waverly Avenue and host the Engine Company Number 19 Firehouse and Waverly Avenue Substation, respectively. Among the historic infrastructure installations, the most prominent is the Haynes Avenue Bridge. The bridge is currently being rehabilitated and is slated for reopening in Summer

2018. The south of the site area, just east of the Northeast Corridor, there is a historic underground section of the Newark sewage system. The Weequahic Park, designed by famous landscape architect Frederick Law Olmsted, is also a protected historic site. A number of cemeteries to the southeast of the site area are also considered for the purposes of this project to be historic properties worthy of protection.

2.4.5 Contaminated Sites

There are a number of known contaminated sites along Frelinghuysen Avenue corridor that must be taken into account prior to redevelopment (MAP). There are a total of 30 contaminated sites spread across the study area, largely clustered at the intersection of Haynes Avenue, Meeker Avenue, and Frelinghuysen Avenue. A number of contaminated sites lie between Frelinghuysen Avenue and the Northeast Corridor. The large surface parking lots to the east of the station are also known contaminated sites. The community benefits package, discussed in Section 3e, sets out a plan for addressing these sites.

2.5: SWOT Analysis

Before developing any design or policy proposals, we identified the important strengths, weaknesses, opportunities, and threats that would inform our thinking on this these proposals:

- Strengths:
 - Situated at the intersection of major roads, rail networks, and a large and growing international airport

- Significant support from local and regional leaders
- Host to the Weequahic Park, designed by renowned landscape architect Frederick Law Olmsted
- Weaknesses:
 - Various known contaminated sites spread across the study area
 - Extremely limited transit access and poor street design with regard to walkability, despite relatively low levels of automobile use
 - Noise from the airport, rail lines, and major highways
- Opportunities:
 - Substantial interest from developers and companies in developing and locating near the airport
 - Plentiful demand in the New York Metropolitan Area for new housing with ready transit access
 - Multiple vacant and/or abandoned properties that could be redeveloped without any displacement
 - Opportunity to reposition Weequahic Park as a local “staycation” destination
- Threats:
 - Absent integration into the planning process and defined community benefits, local residents may resist new development
 - A lack of regional cooperation could undermine efforts to leverage the PATH extension into a new aerotropolis

- Leaving the neighborhood disconnected from Newark and Elizabeth could stymie new development

Recommendations

3: Recommendations

The following proposal integrates five components: First, overhaul of the neighborhood's existing zoning in order to facilitate dense, mixed-use redevelopment and attract new investment. Second, a redesign of the Frelinghuysen Corridor which lies between Frelinghuysen Avenue. Third, a redesign of the area immediately adjacent to the proposed train station. This section also incorporates a redesign of Frelinghuysen Avenue. Fourth, a redesign of the parking and commercial area to the east of the proposed station. Fifth and finally, a community benefits agreement which sets out ideas for integrating existing residents into the redevelopment process.

3a: Zoning Reform

Reevaluating zoning and land-use regulations is an important first step in any redevelopment plan. The following zoning reform approaches this challenge with three values in mind: First, to keep the proposed zoning in line with the existing zoning ordinance. Wherever possible, this proposal utilized existing zones, and where new zones are required the existing ordinance's logic and vocabulary were used. Second, to maximize flexibility within the range of possible aerotropolis uses. As with building a city more broadly, it is important to remain humble in predicting and assigning land uses. Toward this end, this proposal largely takes a "hands-off" approach to use regulation and aims to avoid creating non-conforming uses. Finally, this zoning proposal envisions the Newark aerotropolis as a transit-oriented development. This means that the zoning is designed to accommodate and encourage a mixture of uses, high urban densities, and a relative lack car dependence. This report's site design proposals, discussed

below in sections 3a through 3d, provide examples of possible development scenarios under this flexible zoning framework.

The most conspicuous detail about the proposed zoning map is that nearly all of the existing I-1, I-2, and EWR-S parcels have been rezoned to the new “MX-4” zone. This zone is in nearly every way identical to the existing “MX-2” zone, allowing a mixture of residential, commercial, and industrial uses, except that it features a height limit of eight rather than four, does not feature minimum parking requirements, and allows for hotels. The benefit of this zoning is that it would allow for dense, mixed-use urban development, including apartments with ground floor retail, without necessarily crowding out the area’s existing industrial land users. Depending on market demand, this area could accommodate traveling shoppers, commuter apartments, and/or global offices. This new zoning encompasses the industrial cluster to the north of the site around the proposed train station, the existing surface parking and retail area to the east of the Northeast Corridor, and the industrial corridor sandwiched between Frelinghuysen Avenue and the northeast Corridor. Properties along the northern border of Weequahic Park are one exception to this new zoning. They have been rezoned to R-6, accommodating up to 20-stories of residential, in order to access the unparalleled views of the park and integrate with the existing high-rise residential towers west of Route 22.

In the Dayton area to the southwest of the study area, similar minor changes have been made in the proposal. Existing C-1 and MX-1 parcels have been rezoned to “MX-3,” a mixed-use residential and commercial zone that is identical to MX-1 except that it allows for heights up to eight stories and does not include parking requirements. Industrial uses would *not* be permitted to operate in this area. This new zoning notably

includes the defunct Seth Boyden Terrace parcel. The goal of this rezoning is to continue to allow for street-level commercial activity along Frelinghuysen Avenue while allowing for higher densities of residential. Parcels adjacent to the park to the north were similarly rezoned to MX-3. Beyond these changes, vacant and/or abandoned parcels on the interior of the block have rezoned to MX-1 in order to encourage redevelopment.

Beyond these major changes, a number of parcels maintain their existing zoning. Many of the existing single-family homes and townhomes have maintained their R-2F and R-3F zoning in order to minimize disruption of the existing community. The Newark Housing Authority-owned properties remain R-6. Finally, all areas zoned for parks or cemeteries maintain their existing zoning. Within zoning, limited changes beyond height limits and parking requirements have been made. Most zones maintain existing site design and subdivision regulations, which were taken into consideration in drafting the proposed site designs offered below. For more information on the site design guidelines, please see Appendix 1.

3b: Frelinghuysen Junction and Frelinghuysen Avenue Redesign

3b.1: SWOT Analysis

- Strengths:
 - Located immediately adjacent to the proposed PATH station.
 - Multiple historic sites and industrial structures that add character to the area.

- Weaknesses:
 - High levels of industrial and commercial traffic at present, particularly near the on- and off-ramps for Route 22.
 - Multiple known contaminated sites
- Opportunities:
 - New PATH station will almost certainly generate significant interest in residential at this site.
 - Added mobility to and from Weequahic Park could make the area a “staycation” destination for Newark and New York City residents.
- Threats:
 - Continuing high levels of traffic could undermine the pedestrian experience.
 - Existing block structure could inhibit granular new development.

3b.2: Principles and Key Goals of Redesign

Frelinghuysen Junction will be the new central district for this development. A mix of uses, ranging from green spaces to light industrial, will make up the area surrounding the new approved PATH Station. The PATH station will improve access to NYC and other North Jersey towns that was previously lacking. A new community will be developed around the station, creating a pedestrian friendly area for residents, commuters, and visitors alike.

Frelinghuysen Junction will be a new community a part of the greater Newark area. This area has been largely left to industry for numerous years, with many of the

lots and buildings sitting vacant or abandoned. Remediation and cleanup of the site will be required, as most of the sites were previously for industrial or light industrial uses. Two parking decks will make all areas of the Junction accessible by a five to ten-minute walk, ensuring easy access to the PATH station for multi-modal commuters. A new street grid was designed for the Junction area, making mobility throughout the site much easier, as well as creating new pockets of areas for different uses. The layout of the buildings and lots will create a sense of community as you walk through the site, with numerous options for dining and shopping. The main pedestrian corridor going from West to East of the site, leading to the train station, will be heavily landscaped with restaurants, cafes, and retail outlets lining the path. Crossing Frelinghuysen leading up to the train station will be a large open green space, filled with different plantings and water features.

The design of the junction creates easy access to station for Newark residents living to the west of Weequahic Park and to the south in the Dayton-Weequahic Park neighborhood. In order to improve mobility in this neighborhood, we suggest the introduction of a new Bus Rapid Transit (BRT) system. This new BRT will help link the Dayton Neighborhood to Frelinghuysen Junction, downtown Newark, and downtown Elizabeth. The BRT offers a simpler approach to bus transit, incorporating platform staging and pre-boarding payment. There are also fewer stops and a dedicated bus line, making commute times faster. One of these stops will be on Frelinghuysen Avenue, right in front of the proposed PATH station entrance.

3b.2.1: Frelinghuysen Avenue Redesign

To account for the addition of the bus-only lane, a total street redesign was done for Frelinghuysen Avenue. The right-of-way was extended to 150 feet and the cartway to 120 (Appendix Q). This allows for wider sidewalks, street parking, two lanes of traffic each way, BRT platforms, dedicated bus lanes, and a protected bike lane at the center. These wider sidewalks and center bike lanes will add to the mobility and sense of community that this design proposal strives to create. The BRT will connect the Dayton Neighborhood, the Frelinghuysen Industrial Corridor, and Frelinghuysen Junction to downtown of Newark, downtown Elizabeth, and the new airport train station, making it an essential north-south transit connection in the area.

3b.3: Goals and Targets

The projected design of the site calls for the following square footages (or units where indicated) of each use:

- Residential - 4,275 units
- Commercial/Retail – 736,765
- Office – 3,213,660
- Light Industrial – 448,872
- Green Space – 285,662
- Civic – 61,842
- Parking – 1,762,880

The Junction will provide many new jobs, as well as improving access to current jobs, including work in the Newark Liberty International Airport. These jobs could include light industrial work, PATH employment, retail work, office, and numerous other

opportunities. The new station and area design also create opportunities for those working in New York City to enjoy a short and cost-efficient commute, while living at Frelinghuysen Junction for much less than living in the city. It will also serve as an area where airport travelers can eat, sleep, and play between flights.

3c: Frelinghuysen Industrial Corridor and Dayton Site Plan

3c.1: SWOT Analysis

- Strengths:
 - Proximity to Weequahic Park, Newark Liberty International Airport, and the proposed PATH station.
 - Large parcels mean that land assembly costs, typically high for development, won't be an issue.
- Weaknesses:
 - Long and wide blocks and parcels prevent granular redevelopment.
 - Multiple parcels are known contaminated sites.
- Opportunities:
 - Plentiful vacant and abandoned property that can easily be redeveloped.
 - Stronger integration with Weequahic Park and the PATH station could stimulate interest in housing and office space along this corridor.
- Threats:
 - Noise from the Northeast Corridor and environmental contamination could be barriers to redevelopment.
 - Existing inflexible land use might prevent mixed-use redevelopment.

3c.2: Principles and Key Goals of Redesign

The Frelinghuysen Industrial Corridor and Dayton neighborhood presents an opportunity for substantial redevelopment into a large, cohesive neighborhood along Newark's southern border with Elizabeth. This section proposes a redevelopment plan to address two major factors currently limiting the success of the site: lack of resiliency and poor integration with transit.

First, investment in the Dayton-Weequahic Park neighborhood has been restricted by a street network and land-use regulations conducive exclusively to light industrial and commercial land uses. For instance, zoning along much of the Frelinghuysen Avenue corridor prescribes only industrial and commercial uses. The massive size of the parcels between Frelinghuysen Avenue and the Northeast Corridor solidifies large-scale industrial and commercial operations as the only practical uses for the site. As evidenced by the increasing amount of vacant land throughout the site, the lack of land-use flexibility has limited opportunities for private investment in the area to keep up with changing market demands.

Second, the site has failed to leverage its proximity to the Northeast Corridor and Newark Liberty International Airport, both major transportation assets (see Section 2: Existing Conditions). Area transit are limited to local bus service and residents have no access to the airport train station. This site design aims to redirect development toward the new PATH station and encourage a mixture of supporting land uses. To address the aforementioned limiting factors, the redevelopment plan has embraced the following guiding principles: resiliency, and transit-orientation.

3c.2.1: Resiliency

To encourage resilient development patterns, this site redesign incorporates a new street grid to break up the industrial area between Frelinghuysen Avenue and the Northeast Corridor as developer interest allows. A street grid could allow for small parcels which in turn would facilitate new urban residential and commercial development. Dividing the land into smaller blocks encourages residential and commercial development by improving mobility across the site, particularly for pedestrians.

A traditional street grid also offers the most flexible platform for developers to respond to the diverse and complex demands of the housing market. With appropriate lot subdivisions, the grid could support more traditional urban development like that found in the Ironbound neighborhood, as well as the larger-scale “New Town” style development seen in Harrison. Examples of both development patterns are included in our physical master plan (Appendix R). The proposed street grid will work in conjunction with the overhauled MX-4 zoning to create a resilient neighborhood capable of supporting a wider range of development to keep up with market demands.

3c.2.2: Transit-Oriented

The Dayton-Weequahic Park neighborhood’s proximity to the future PATH station provides a valuable opportunity for transit-oriented development. The proposed site plan considers mass transit as a viable mode of transportation for area residents. The street grid includes a central corridor capable of supporting a shared street

concept, enabling easy pedestrian access to the airport train station. The anticipated land uses support the idea of transit-oriented development by increasing residential densities approaching the train station, as well as around the proposed Bus Rapid Transit (BRT) stops along Frelinghuysen Avenue (appendix Q). With the PATH extension and proposed BRT offering direct access to major employment centers in Newark and New York City, residential growth is expected to maximize usage of existing transit infrastructure and minimize the impact on automobile traffic in the area.

Transit-oriented development caters to the needs of those looking to support a lifestyle without dependency on the private automobile, a valuable asset in congested regions such as the tri-state area. This report seeks to leverage the Frelinghuysen/Dayton area's proximity to substantial public transit options to leverage private investment and redevelop the neighborhood.

3c.3: Goals and Targets

The redevelopment of the Frelinghuysen Industrial Corridor lays the groundwork for a tremendous resurgence of investment in disadvantaged neighborhood. The new development patterns proposed have the potential of supporting an enormous number of jobs for existing and homes for new residents looking to invest both financially and socially in Newark. The following numbers represent the potential scale of development in just this subsection of our overall site plan:

Commercial: 1,746,866 sq. ft.

Residential: 5,930 units

3d: Airport Parking Redevelopment

Key principles of the redesign include:

- Create a pedestrian friendly mixed-use development with a presence of commercial activity throughout.
- Build highest around the train station area with larger offices and residential buildings to the north of the site.
- Strong use of contemporary architecture and landscape architecture with an abundance of open water and green leafy spaces throughout.
- Use a variety of building shapes and heights to add a greater sense of scale and depth to the site.

The airport parking revitalization zone consists of a mix of high density residential apartments, commercial and services (in this case shops, offices, tech and distribution), mixed-use developments, and areas of aesthetic landscape architecture. Parking will be heavily incorporated into the site with much of the parking being pushed underground beneath the various buildings and linked by underground roadways. The large mixed-use structures to the north of the site will contain their own underground and aboveground parking lots, which will serve both the shopping districts and offices.

Due to the large scale of development that will be taking place within this area, training will be provided to local residents who wish to engage in not only the construction of the various developments, but also the resulting commercial and technological opportunities that will be in abundance in and around the newly built train station. The overall vision is for the airport revitalization zone is be a powerhouse of job opportunity within the area, with people commuting to work from far and wide.

Vehicular traffic passing through the development will predominantly be underground and the site will be mostly walkable in terms of getting to and from the train station. Residents, visitors and workers will all be encouraged to travel by foot through the development as much as possible so as to activate the commercial economy within the site. The design of the site is relatively tight-knit and the various twists and turns combine with the rich areas of landscape and water to give the site greater sense of depth and dimension as people move through it. The site will be an area of great interest to visitors, residents, and workers alike.

3e: Community Benefits Plan

3e.1: Overview

There are several ways to go about enhancing the quality of life within the community of Dayton. It is important to consider various ways to upgrade the community while avoiding gentrifying the area. These methods include: creating jobs for local residents, job training for community members to enhance employment longevity, provide community based grants to ensure affordable housing, improving existing services to ensure that local community members have primary access to various amenities, making public transportation more efficient/accessible, and enact programs that encourage neighborhood cleanup. Each of these areas for improvement falls under what will be within the scope of our Community Benefits Agreement (CBA).

3e.2: Existing Conditions

In an article “Community Perceptions of Newark: Neighborhood Quality of Life, Safety, and the Justice System,” by Josephine Hahn¹¹, she used a survey reaching 577 Newark community residents to find out what the public opinion was on various topics concerning their municipality. She highlighted the top problems, youth issues, quality of life, safety, school-related issues and various recommendations from the community. The top five problems that the Newark community references in order are: unemployment, drug selling, guns, gang activity and homelessness. Despite the survey including the total Newark community, it would be naive to isolate Dayton from some of these issues. Many of the issues stem from the main issue of unemployment. Without jobs, oftentimes members within the community feel the need to resort to unconventional means as a source of income or fall into the category of homelessness. This gives the CBA such a great significance and importance that it is properly executed.

Also, according to the survey, after unemployment the highest youth problem was that there were too few adult role models. The lack of positive influence on the youth can ultimately lead to major societal issues both short and long-term. The new land use plan will allow for more mentorship programs to be created within the community. Tax incentives can be given to developers who plan around programs that will uplift the community. Community arts, youth and cultural programs will help deter crime, promote community values and teach valuable skills.

¹¹Hahn, Josephine Wonsun. *Community Perceptions of Newark: Neighborhood Quality of Life, Safety, and the Justice System*. Center for Court Innovation, Feb. 2014, www.courtinnovation.org/sites/default/files/documents/NewarkCommunitySurvey_0.pdf.

A community coalition must be formed in order to ensure that the agreement is fair and carried out not just to begin the process, but to ensure its stability for years after. Currently, there is no definitive community coalition. I believe some of the best groups to align are the existing community service centers, trusted religious leaders, and senior members of the community. It is essential that the community be equally represented and it be represented by individuals who understand its dynamics.

There must be advantages created for the local residents in order to compete with those who may potentially come from neighboring communities and reap the benefits that were meant for the local residents. Many programs or events within organizations cost money that could ultimately disadvantage those who it was intended to help.

3e.3: Creating Jobs

One of the major reasons for lack of jobs within the Dayton community has to do with a lack of educational opportunity. This community is highly segregated from many thriving businesses that would allow them to reach competitive salaries and in turn become less reliant on government subsidies. This area has been cut off from the surrounding area of Newark and its thriving industries. Dayton has an unemployment rate of 31.1% for individuals 16 years and over compared to the rest of Newark at an 18.4% unemployment rate. Formally known for its involvement in manufacturing, the city has slowly progressed to becoming one of the nation's leaders in transportation and telecommunication firms--however, the largest occupational category for Dayton civilians is within Healthcare Support at 16.2%. Almost symbolic of its current condition,

many abandoned factories have been left in Dayton while the rest of Newark has progressed on. Newark is becoming a central hub in the northeast for air, sea, road and rail transportation networks. If we can find a more viable means as to connecting Dayton to the surrounding, developing areas of Newark, these local residents may have a chance to integrate themselves into a competitive market.

One of the reasons for proposing the land use alteration from airport support to mixed use residential and retail was to provide a more viable option for members of the low-income areas to have options to integrate themselves in the workforce. With the median household income at approximately \$12,028 versus \$33,139 for the entire city of Newark, we can see that there is an obvious need for workforce integration and diversification. A retail district in the lower region of Dayton will provide more jobs and competitive living wages. The CBA will call for local businesses to also have first source and minority hiring provisions. With the majority of Newark employees living outside of the city, it becomes difficult for even local residents to compete. In order to ensure that the revenue stays within the community, it is important that the local businesses reinvest into the Dayton area and the people of Dayton. If roughly 70% of the jobs created by this redevelopment plan pay livable wages, and employ local residents, the overall community will have a better opportunity to fend for themselves and rely less on financial assistance.

3e.4: Workforce Training

Not only is there a lack of opportunity within our target area, we have noticed an absence of job training programs meant to equip the residents to partake in their

community. With the expected influx of industry in our main business district, we expect these various corporations to not only train a percentage of local residents but also hire them once the process of training is complete. The idea is to keep much of the labor force in house without having to outsource employees from other areas.

While there has been an increase in attempts to engage the community and recreational facilities such as the Training Recreational Education Center (TREC) recently opened on Nov 2, 2016, we have not seen a substantial amount of financial progress from the Dayton community. There must be a greater focus on programs that help integrate this community and provide appropriate resources for the demographic. Job training is only beneficial for these residents if it allows them to have a viable opportunity to become employed once the training is complete. It is important to insure that the job skills being taught are in line with what their market demands. With the influx of transportation and telecommunication services, it would behoove surrounding community centers to invest in developing these skillsets.

Moreover, because this neighborhood still heavily relies on industrial workers, the CBA proposal is to provide a trade school located in the office and retail district in Frelinghuysen Junction that would bring workers closer to the main business district. These programs will include various training in technology, industry, retail and transportation services. The Newark Port Authority would benefit greatly by staffing people who work in the airport industry to train local residents in readily integrate them into the workforce within 30 days of completing the program. This as well as the neighboring hiring program will be exclusive to Dayton residents. A small wage offered

to individuals to attend this trade school might give further incentive for individuals to participate and invest in themselves and future career.

3e.5: Low-Income Housing Availability

Low-income housing has become the staple upon how we keep the area from gentrifying. With almost the entire Dayton community classified as renters versus owners, it is important that we provide some form of incentive for landlords to keep rent rates affordable while the economy of Dayton rises. If residents forgo 30% of their income to pay for rent, we can potentially find someone to cover the difference in market value for the apartment. With a yearly reevaluation of the income taxes, the local government may be able to adjust the necessary amount of funding needed whether there is a gain or loss of wages. Another option would be to provide tax breaks to landlords who keep their rates low despite what the current market rates demand. Although the median gross rent for Dayton is \$323 compared to the rest of Newark at \$973, this low rate may still serve to be a tremendous burden for the residents. Moreover, annual funds may be given to apartment owners for the purpose of repairs from damages suffered from general wear and tenant abuse.

I believe it is also important to implement parcel purchasing programs. By offering to sell abandoned homes to residents for essentially \$1 with the availability of zero percent interest loans for the first 5-10 years, we can gain an effective method of revitalizing abandoned properties and allow the residents a more stable place to live. By residents having a more permanent footing in the community, it strengthens the demands within the community coalition.

3e.6: General Community Enhancement Ideas

Community sponsored youth workshops created within the Frelinghuysen improvement district in a walkable distance can promote skills and alternative constructive avenues. With the completion of various community service programs, job training programs or taking on community leadership roles, there should be money set aside to award these members through scholarship. With only 1.8% of the Dayton residents holding a Bachelor's Degree, there is a desperate need for further education.

Grocery stores with living wages and benefits located within the walkable retail district may also help much of the senior community within the south ward. Opening more entrances to the park along broad street will naturally connect it to the community. Job fair events hosted at Weequahic Park by Newark Airport and various companies in the business improvement district may hire residents or simply use it as an opportunity to inform the community of its plans for the future. Hiring events can even be exclusive to low-income residents.

Child-care services is an area that has little to no presence within the Dayton community. Because there are almost no licensed child-care services, many single parent homes must sacrifice the ability to work in order to tend to their child until they are able to enter into the school system. This is obviously a disadvantage to those who are capable workers, yet forced to miss out on employment opportunities.

Investing funding into faith-based organizations is also a strategy to further community ties. Churches and other religious organizations are generally staples of trust and reliability within a community. By the local government supplying faith-based

organizations with resources and guided funds, the community may be more accepting of the evolving policies.

3e.7: Mobility and Transportation

Of the approximate 1558 total households in Dayton, there are approximately 1,021 households without a vehicle. 226 households use public transportation and the remaining 311 use other means of transportation whether walk, bike, or carpool. Transportation around this neighborhood is crucial to its sustainability. By forming a main business district in the northeast corridor there becomes a greater demand for mobility. Assuming a large portion of the employment for these new businesses will be made up of local residents, they need more efficient and flexible transportation options. In addition, it takes an average of 56 minutes for local residents to commute to work. By providing job site shuttles and other bus voucher services, local residents may at least have more than one option. Free shuttle services should be offered to local residents in order to avoid hazardous conditions such as overcrowded bus stops.

In addition to having job shuttles, it will be important to improve the quality of the bus stops. Before we can work on expanding the transportation options, it is important to fix what is already there. There have been noteworthy issues primarily at the bus stops along Frelinghuysen Avenue. Knowing that there is such an enormous number of individuals who rely on public transportation, we believe that ensuring the safety of the bus stops is of the utmost importance. Adequate seating, covering, trash cans, and an

appropriate level of sanitation should be sustained at each bus stop along the major roadways.

There also needs to be an effort to improve the walkway conditions along Dayton Street. Most of the sidewalk is lost after headed southbound past Dayton Terrace. There should be efforts put into making that pathway less obscure and inviting a more walkable mode of transportation.

3e.8: Contaminated Site Cleanup

Dayton is comprised of tons of contaminated waste as well as abandoned and neglected parcels. Allowing the developers to be responsible for properly disposing of the waste where they wish to build in exchange for some form of incentive may be a reasonable option to get rid of some of the contaminated sites. In return, they may be given tax credits as well as 0% financing options for the first few years of being established. Sites that can be cleaned without risk of serious bodily harm should be a target of focus by local community development corporations and other community service organizations. Because there may not be room in the budget for such a massive cleanup, I believe that it may be a better option to leverage developers and entrepreneurial funds in order to spearhead this issue.

3e.9: Funding Suggestions

Incentive programs such as The Department of Economic Development, Training and Employment of Essex County, Newark's Urban Enterprise Zone (UEZ), Workforce New Jersey, HUD's Capital Fund Education and Training Community Facilities Program

and substantial donations are all considerable financial sources to fund such programs.

3f: Action Plan and Further Considerations

Considering the complexity of such a large plan, this report provides a timeline to guide implementation:

2017 to 2022:

- Zoning reform
- Development and implement CBA elements
- Coordinate with regional partners to establish aerotropolis working group
- Redevelop Seth Boyden Terrace
- Perform further analysis of integrating Port Newark into the plan
- Public outreach to the many property owners along Frelinghuysen Avenue and surrounding Dayton community
- Perform/analyze feasibility studies to better gauge possible development

2022 to 2027:

- Estimated PATH station completion
- Frelinghuysen Avenue improvements
- Construct the Newark-Elizabeth BRT/Implement autonomous vehicle system

2027 to 2032:

- Recreate the grid as development proposals come in
- Gradually build out a world-class Newark aerotropolis

This report is designed to offer preliminary policy proposals and design visioning.

As this project moves from ideation to reality, planners and policymakers must examine

other facets of this proposal. Early feedback from the client suggests further research into the following:

1. More research into the potential jobs and rates associated with the project, with particular attention paid to how the neighborhood might be revitalized as a logistics and warehousing hub.
2. A detailed investigation into needed workplace skills, with particular focus on the most viable potential employers going forward.
3. A plan for further integration with the Newark-Elizabeth Port. This facility is a major international trade junction in the northeast and may be a significant driver of a logistics and warehouse hub.
4. An in-depth study of the parking and public finance impacts of potential development and redevelopment scenarios in this area.
5. An action plan for addressing land assembly and contamination costs in the redevelopment process.
6. Further outreach and coordination with existing residents and community groups.

Each of these issues requires comprehensive study. Our hope is that future studios at Rutgers University and the New Jersey Institute of Technology can draw on a diversity of skills and backgrounds to address these questions and continue to flesh out the broad and flexible vision set out in this initial proposal.

Conclusion

4: Conclusion

The goal of this report has been to set out a vision and action plan toward building an aerotropolis adjacent to the existing Amtrak-NJ Transit-AirTrain station that connects Newark to the world and provides tangible benefits to the community. Proposal unfolds in four major steps: First, we set out a ready-to-implement zoning reform that could immediately enable the development of a mixed-use aerotropolis while empowering existing communities. Second, we developed three site plans and models that reimagine Newark's underutilized industrial land into a high density, mixed-use, multi-modal aerotropolis. Third, we reimagined the Frelinghuysen Avenue corridor as a multi-modal boulevard that leverages the new PATH station to reintegrate Dayton, Elizabeth, and Newark. Finally, we developed a community benefits agreement that ensures that the wealth and opportunities resulting from the new aerotropolis extends to current Dayton residents.

As policy makers, planners, and community leaders begin the task of building an aerotropolis in the South Ward, we can be sure that many of the details of this plan may be tinkered with, overhauled, or scrapped altogether. Toward this end, we aimed to provide not a flawless final product, but a vision to drive the process and a toolbox to assist Newark leaders in this ambitious undertaking. Elements like the zoning overhaul, street redesigns, land uses, and community benefits can be remixed and modified as Newark's renaissance unfolds. The only key element of this proposal is that now is the time for Newark leaders to start work on this once-in-a-generation opportunity.

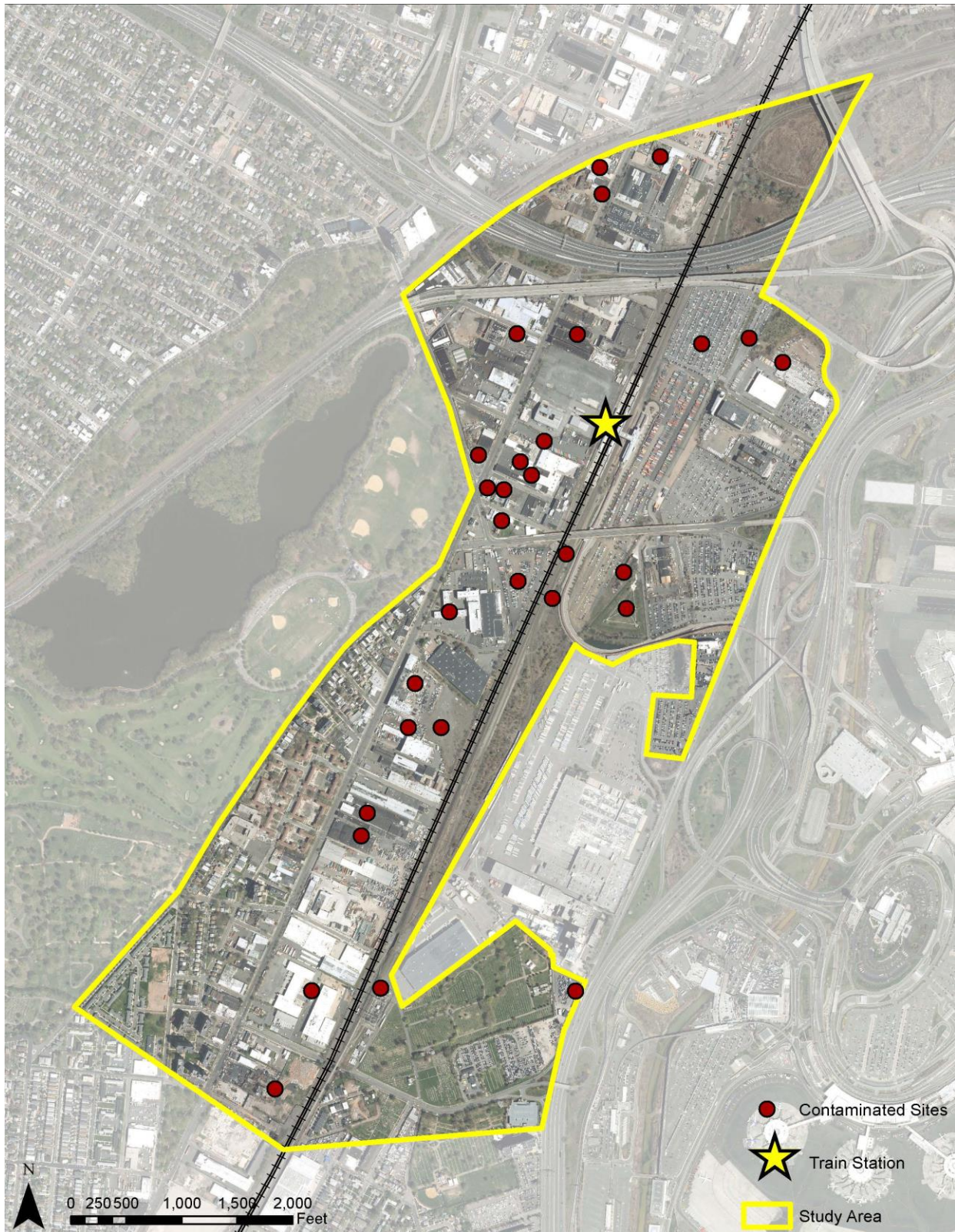
Appendices

Appendix A: Study Area



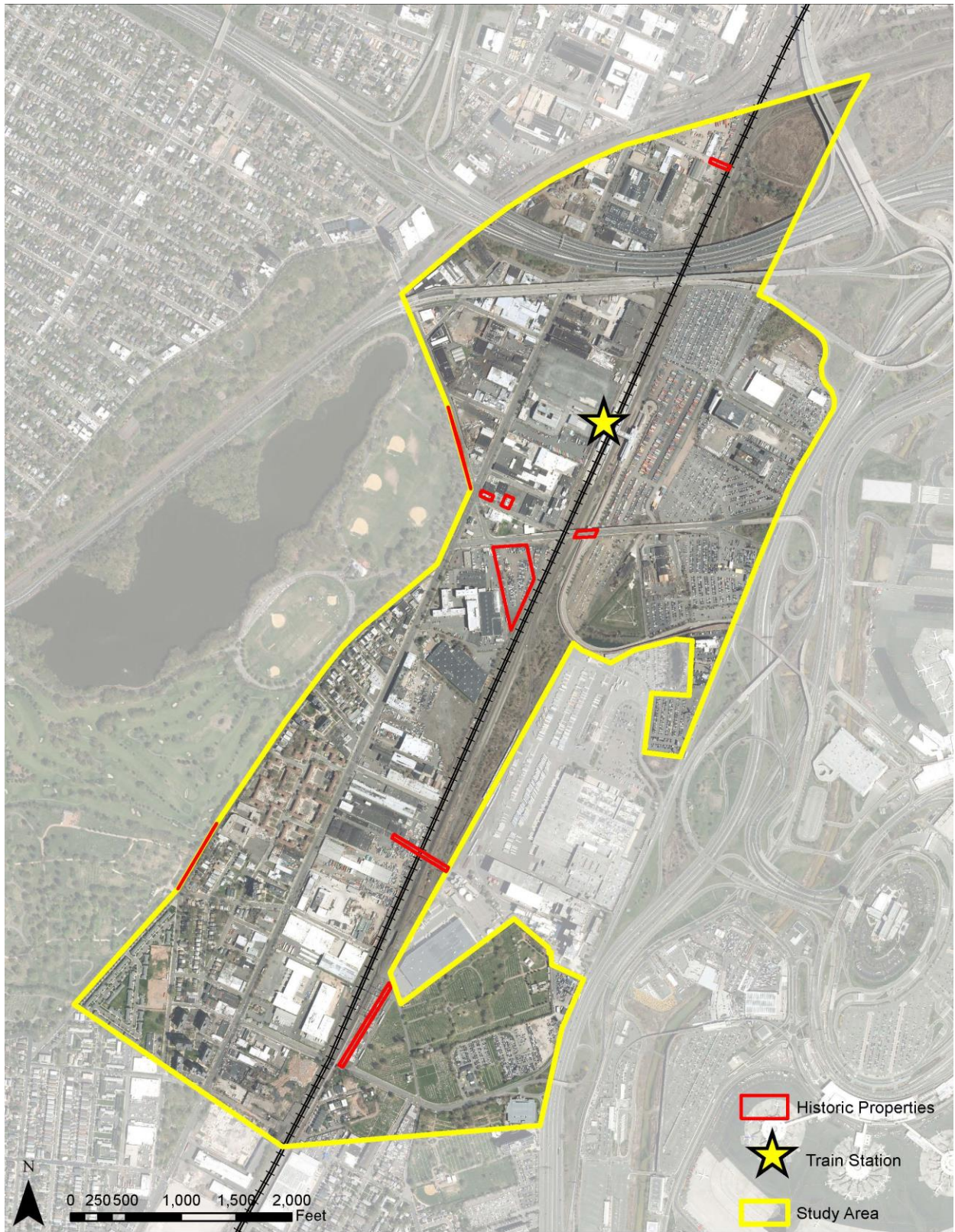
Source: New Jersey Geographic Information Network (NJGIN)

Appendix B: Contaminated Sites



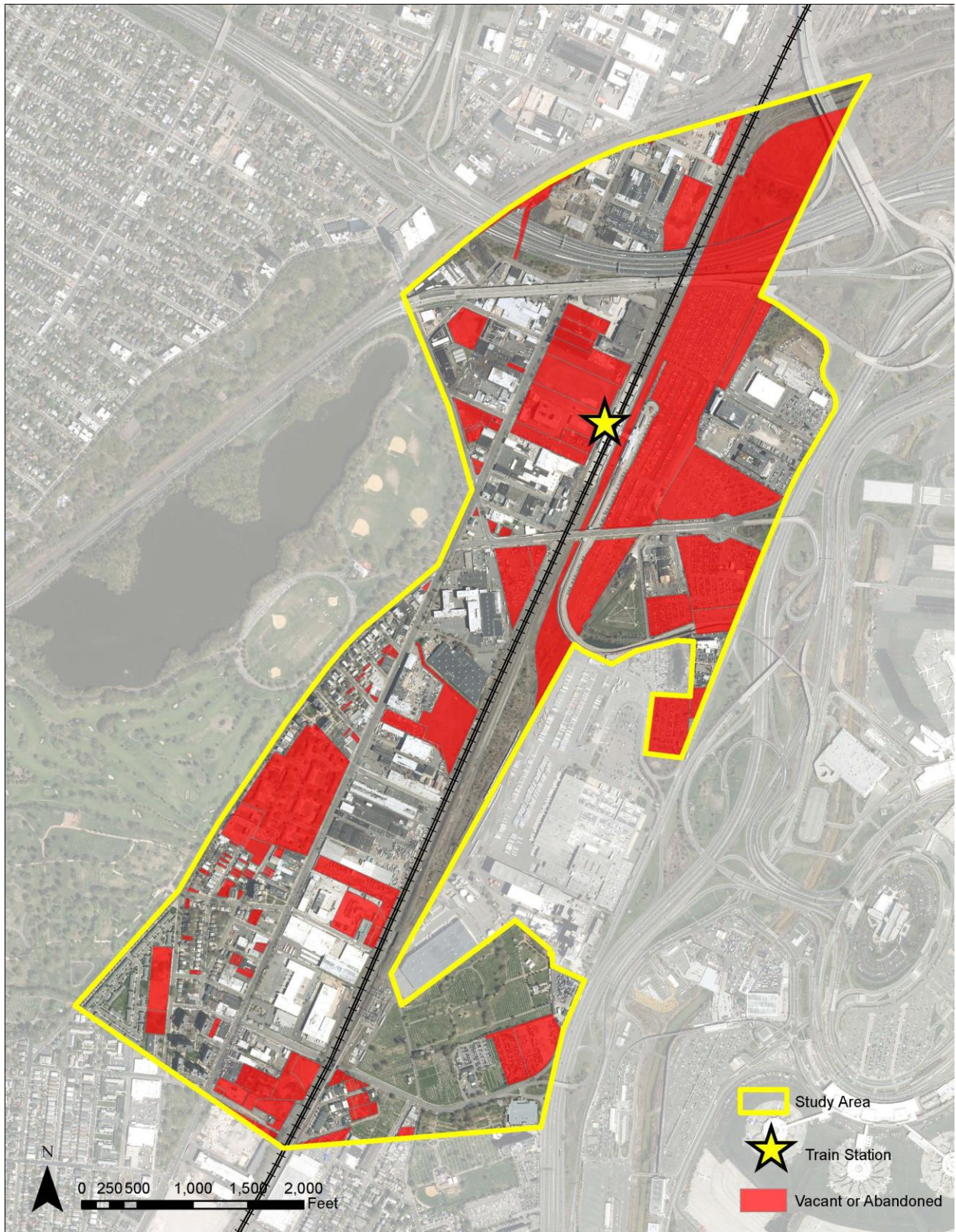
Sources: NJGIN, New Jersey Department of Environmental Protection (DEP)

Appendix C: Historic Properties



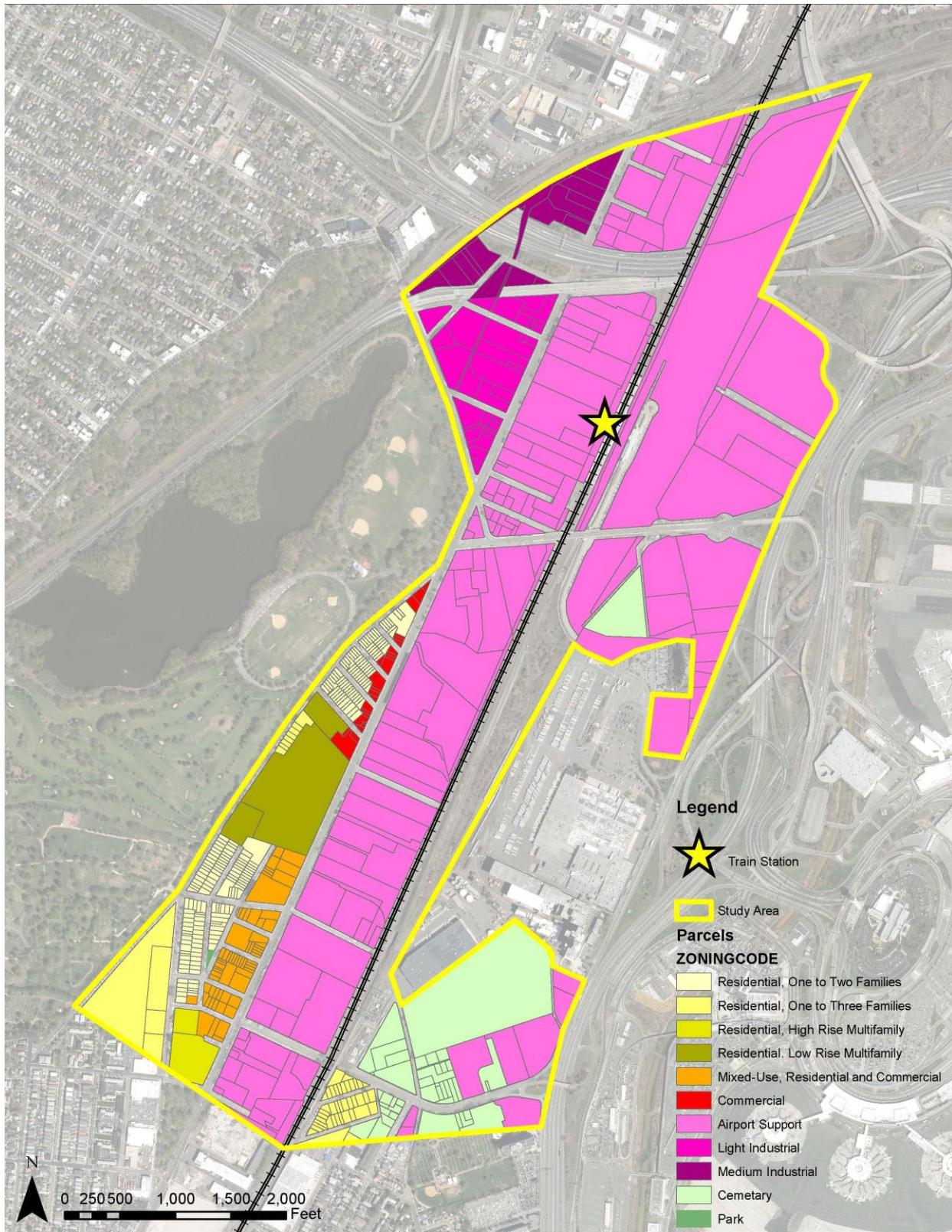
Sources: NJGIN, DEP

Appendix D: Vacant or Abandoned Properties



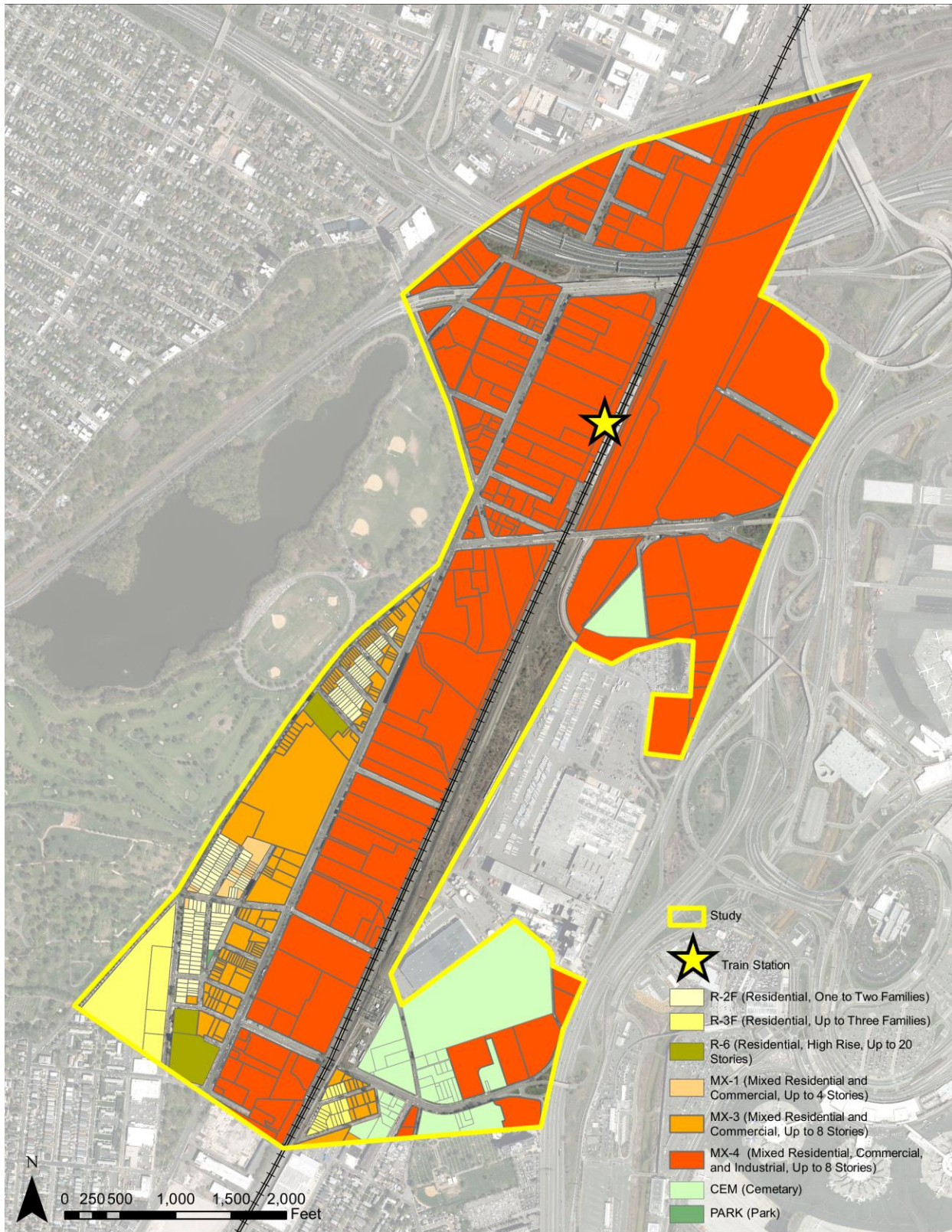
Sources: NJGIN, Newark Open Data

Appendix E: Existing Zoning



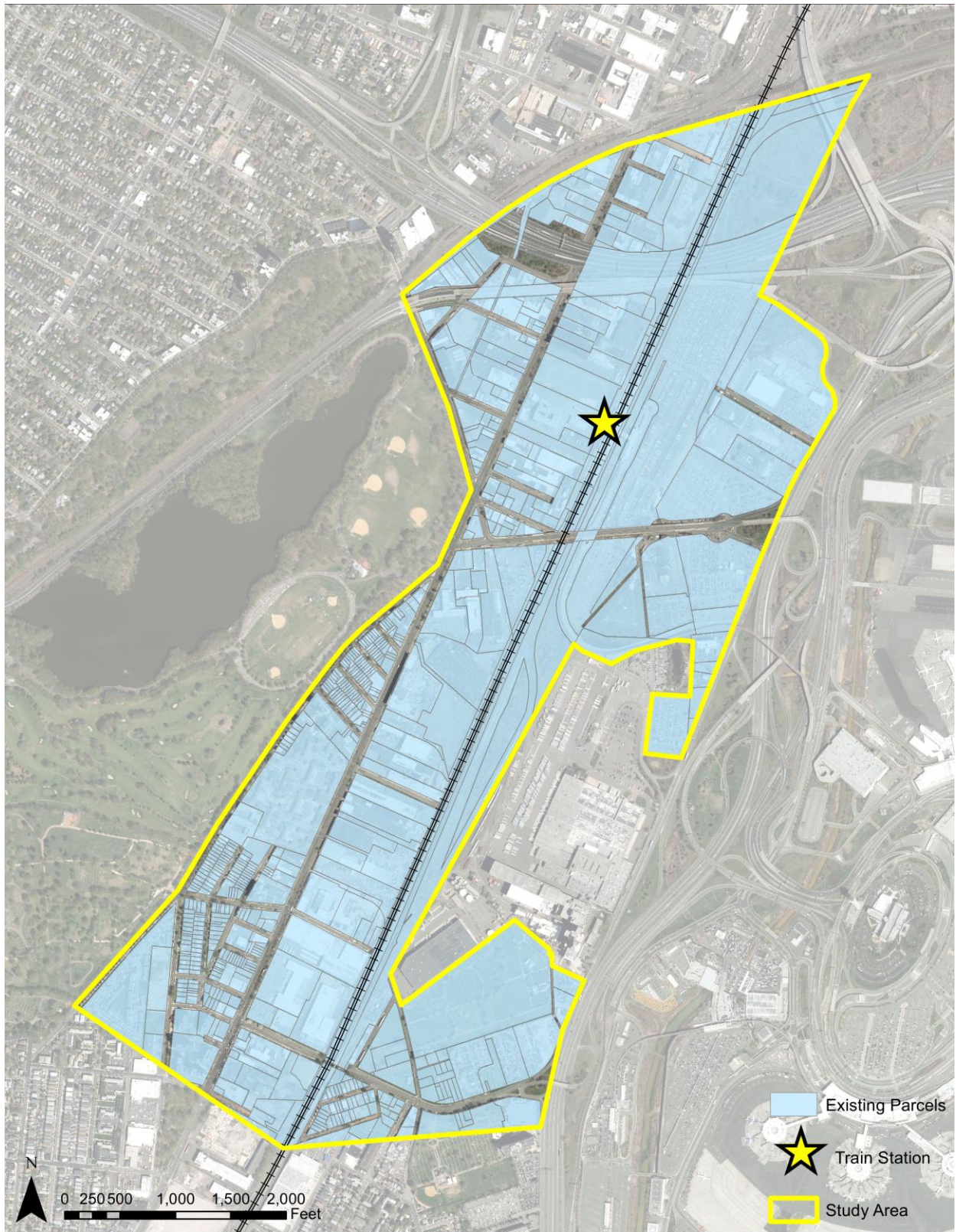
Sources: NJGIN, Newark Open Data

Appendix F: Proposed Zoning



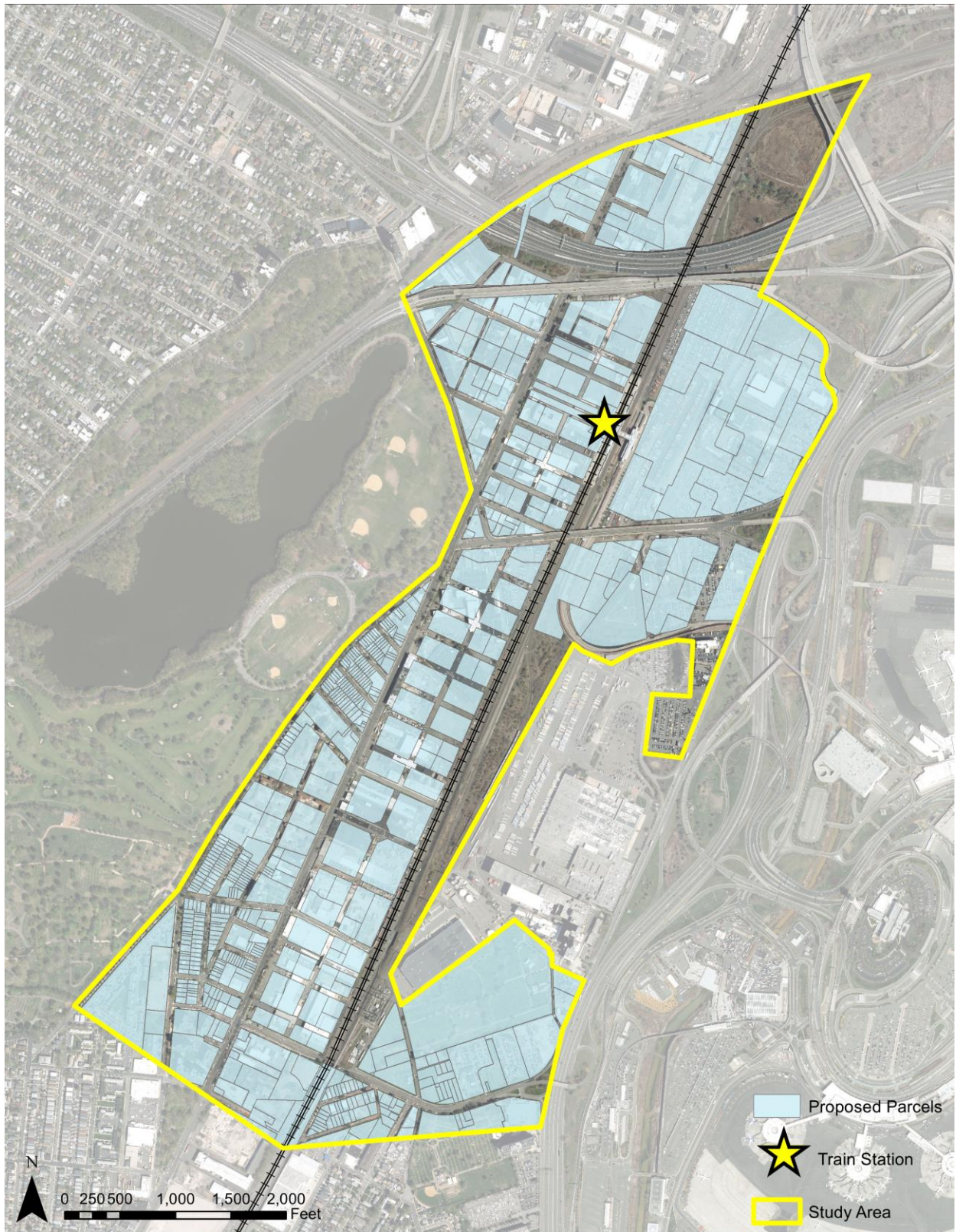
Sources: NJGIN, Newark Open Data

Appendix G: Existing Parcels



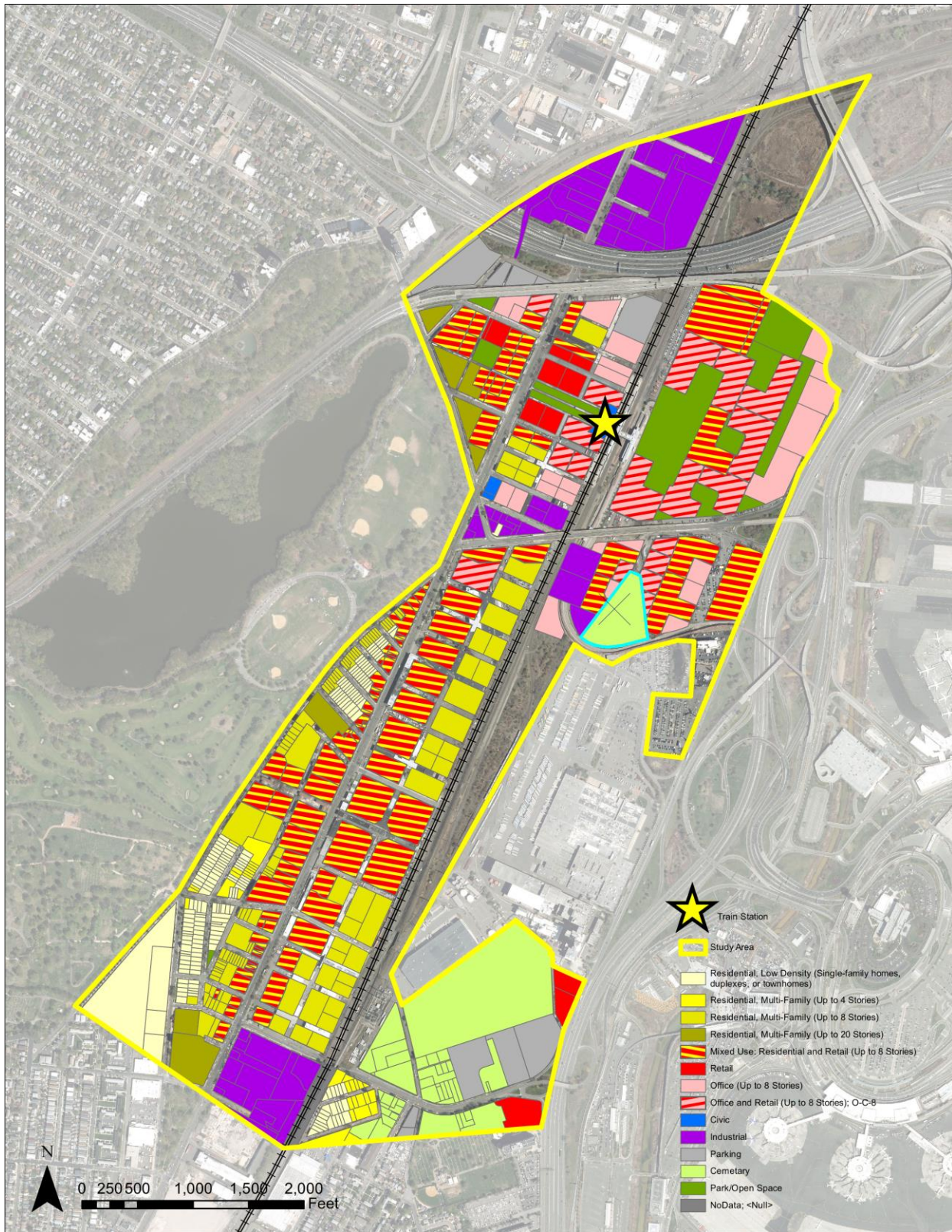
Sources: NJGIN, Newark Open Data

Appendix H: Proposed Parcels



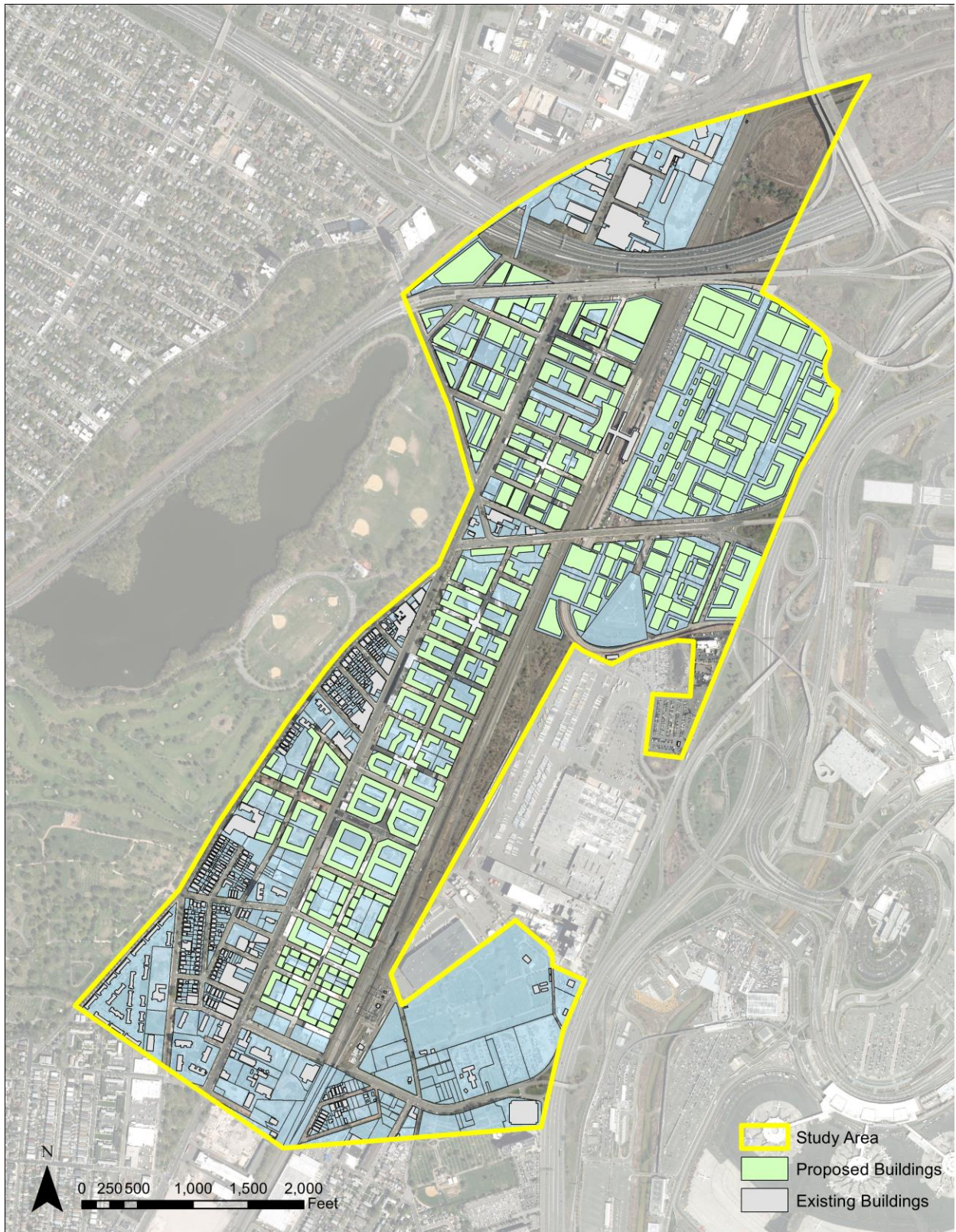
Source: NJGIN

Appendix I: Proposed Land Use



Source: NJGIN

Appendix J: Proposed Site Plan



Source: NJGIN

Appendix K: Frelinghuysen Junction Before



Source: NJGIN

Appendix L: Frelinghuysen Junction After



Source: NJGIN

Appendix M: Frelinghuysen Industrial Corridor Before



Source: NJGIN

Appendix N: Frelinghuysen Industrial Corridor After



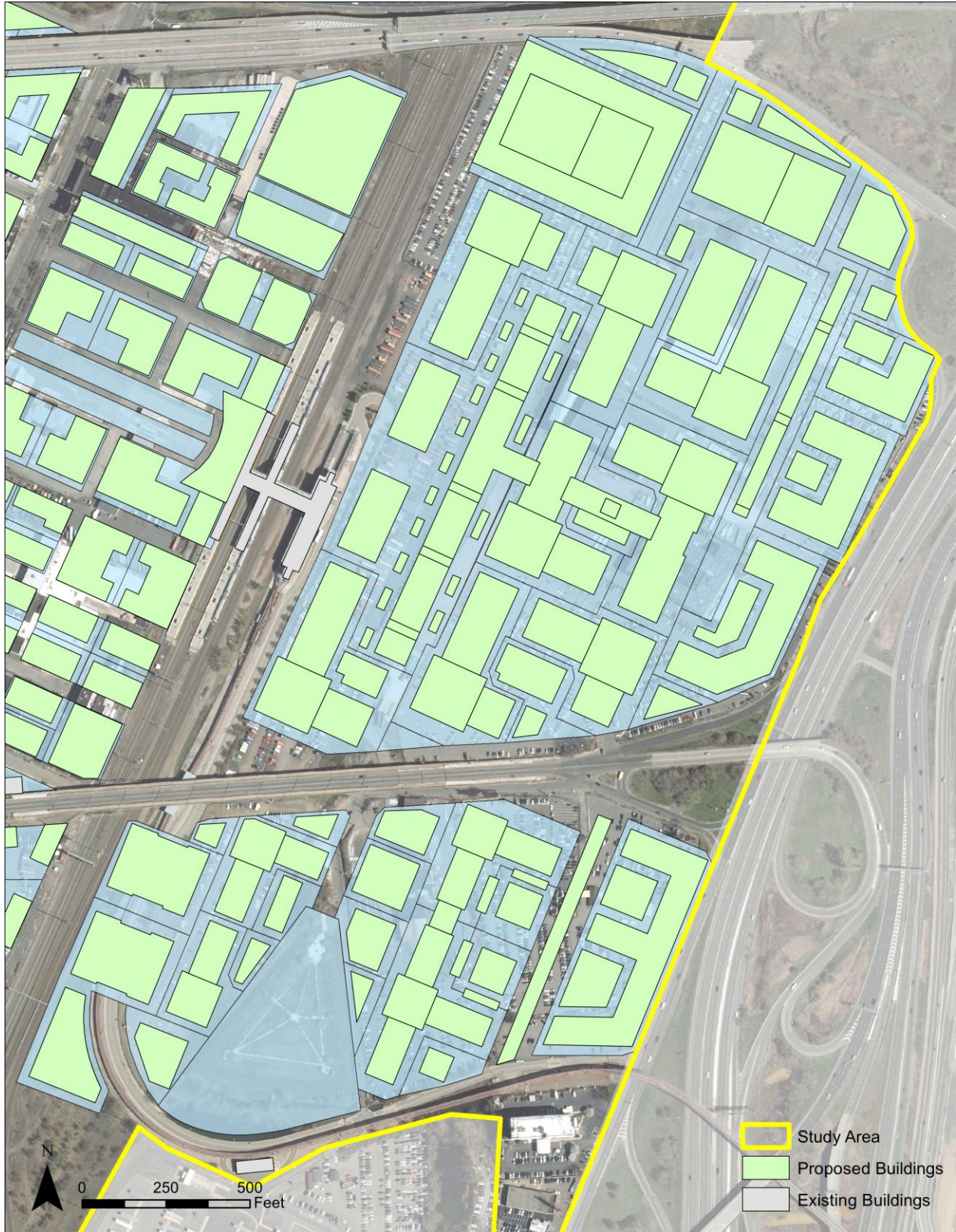
Source: NJGIN

Appendix O: Airport Parking Redevelopment Before



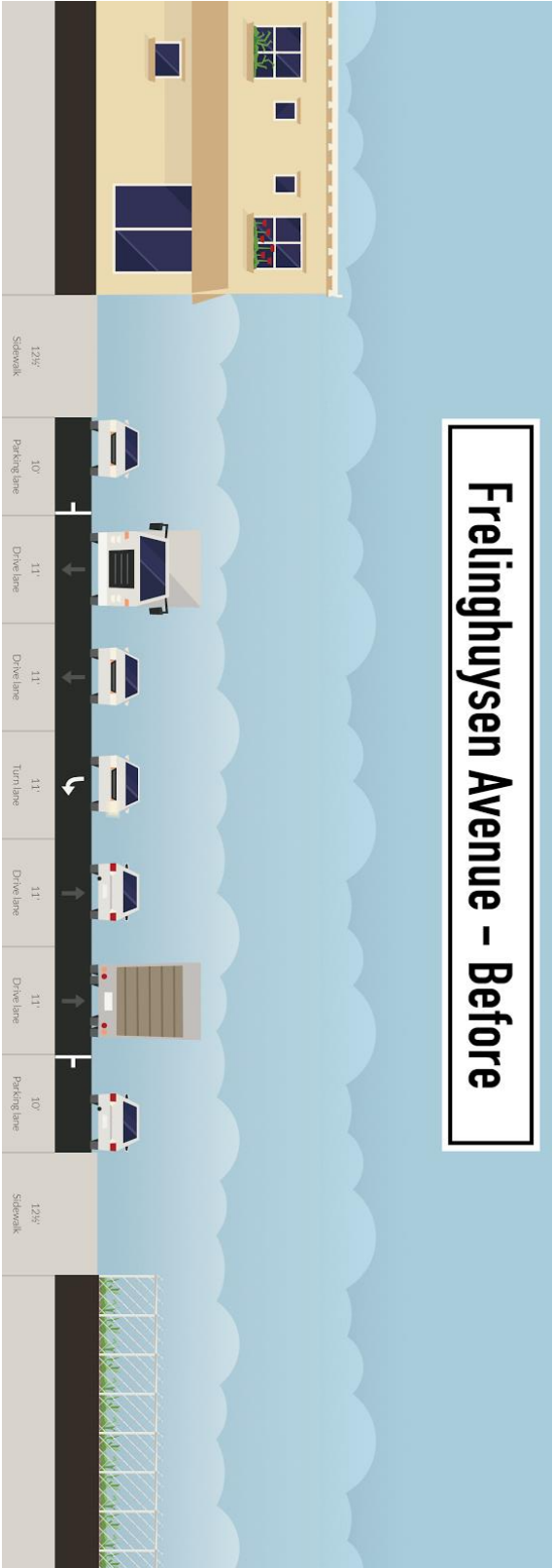
Source: NJGIN

Appendix P: Airport Parking Redevelopment After



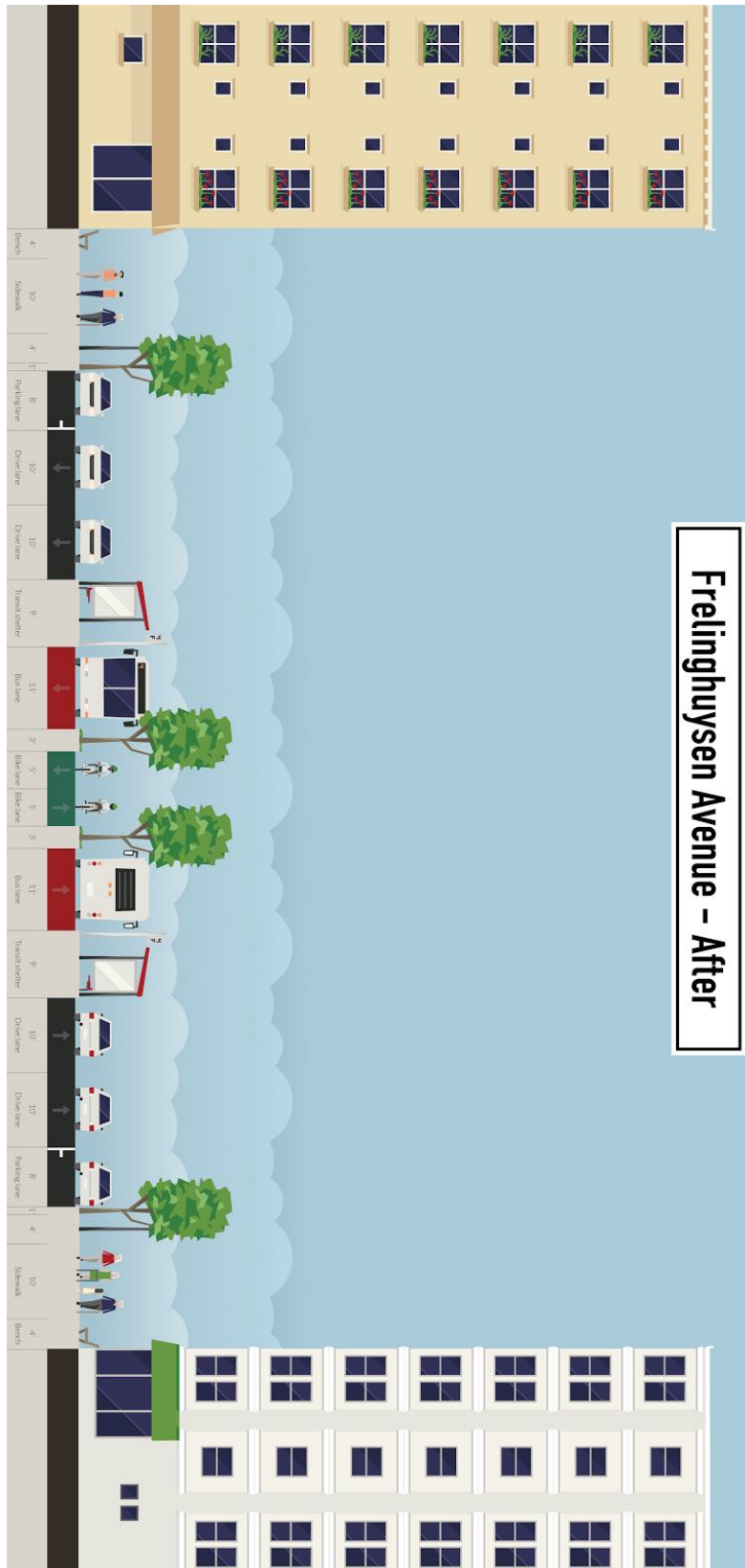
Source: NJGIN

Appendix P: Frelinghuysen Avenue Before



Source: Streetmix

Appendix Q: Frelinghuysen Avenue After



Source: Streetmix

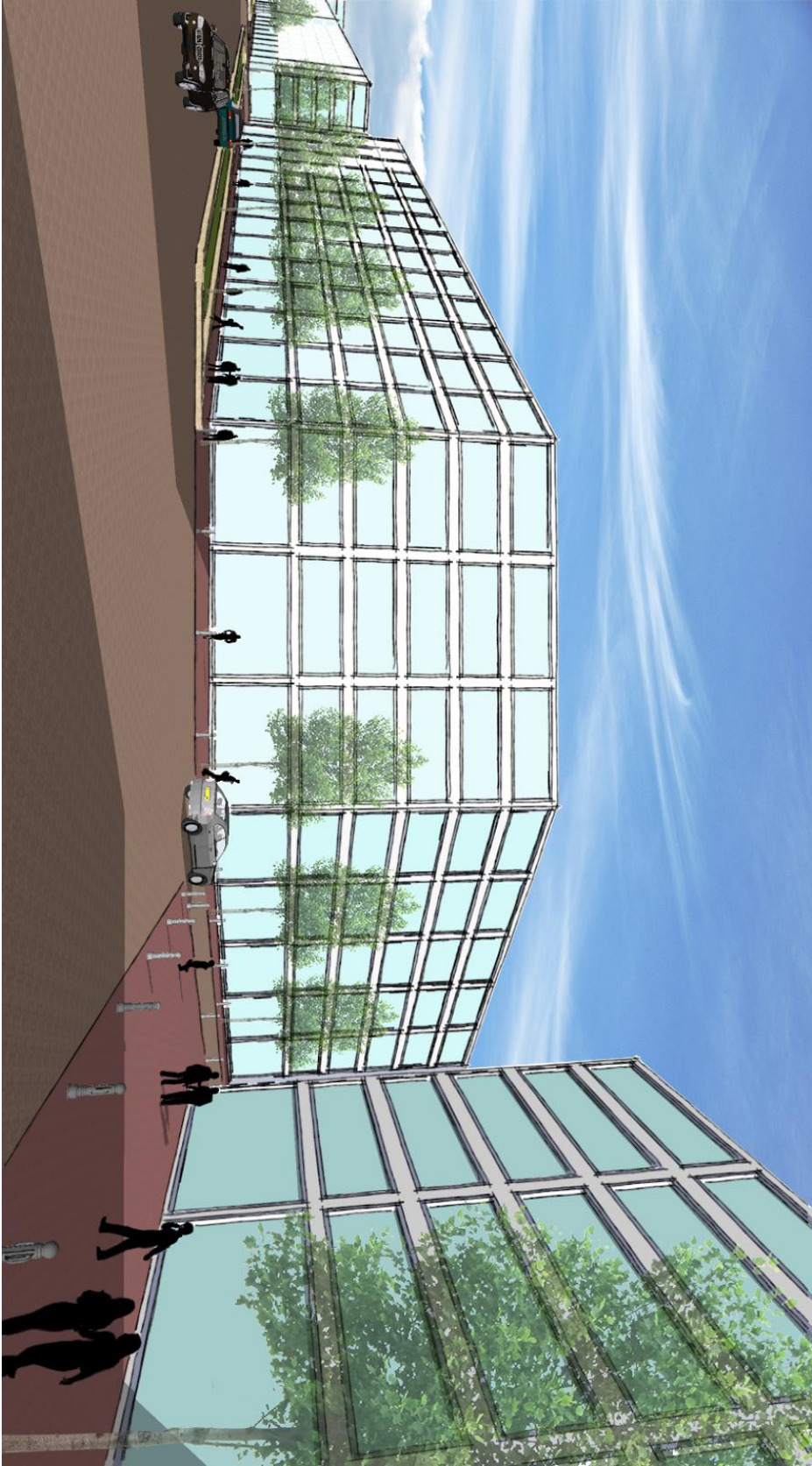
Appendix R: Proposed Development Massing Model



Appendix S: Frelinghuysen Junction Visualization



Appendix T: Frelinghuysen Industrial Corridor Visualization



Appendix U: Airport Parking Redevelopment Visualization



