



2015 Master Plan Reexamination Report & Amendments

Aberdeen Township
Monmouth County, New Jersey

2015 Master Plan Reexamination Report & Amendments

May 2015

Prepared for:



Aberdeen Township
Monmouth County, New Jersey

*The original of this document was signed
and sealed in accordance with New Jersey Law.*

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I. Introduction

The New Jersey Municipal Land Use Law (MLUL) requires that each municipality in New Jersey undertake a periodic review and reexamination of its local Master Plan. The purpose of the Reexamination Report is to review and evaluate the master plan and municipal development regulations on a regular basis in order to determine the need for updates and revisions. In addition, the preparation of a statutorily compliant Reexamination Report provides a presumption of validity of the Township zoning ordinance under the law. The report constitutes the Master Plan Reexamination Report for Aberdeen Township as required by the MLUL N.J.S.A. (40:55D-89).

Aberdeen Township adopted its last comprehensive Master Plan in 1983. The Township has subsequently adopted Periodic Reexamination Reports and Supplemental Modification Reports in 1998, 1999, 2002, 2003, and 2006. The current document (hereinafter referred to as the 2015 Master Plan Reexamination Report) serves as a reexamination of the 1983 Land Use Plan as required by the Municipal Land Use Law at NJSA 40:55D-89.

While the 2015 Master Plan Reexamination Report is broad in scope, it has been prepared in light of the experience of Hurricane Sandy. It therefore places special emphasis on facilitating recovery from Hurricane Sandy's impacts, as well as promoting resiliency to future storm impacts and other potential natural hazards. To achieve this, the 2015 Master Plan Reexamination Report recommends a number of updates and revisions to the 1983 Land Use Plan. These changes have been compiled into a master plan amendment, which is appended to this document.

II. Requirements of the Periodic Reexamination Report

The Municipal Land Use Law requires that Aberdeen Township provide for the reexamination of the municipal master plan and development regulations at least once every ten years. The purpose of the reexamination is to review the progress of the Township in achieving its planning objectives, and to consider the need for changes in order to ensure that the municipal plan is current and meets the needs of the Township. The municipal Planning Board is responsible for completing the reexamination, and preparing and adopting by resolution a report on the findings of the reexamination.

The MLUL requires that the Reexamination Report describe the following:

- The major problems and objectives relating to land development in the municipality at the time of the adoption of the last reexamination report.
- The extent to which such problems and objectives have been reduced or have increased subsequent to such date.
- The extent to which there have been significant changes in assumptions, policies, and objectives forming the basis for the master plan or development regulations as last revised, with particular regard to the density and distribution of population and land uses, housing conditions, circulation, conservation of natural resources, energy conservation, collection, disposition, and recycling of designated recyclable materials, and changes in State, county and municipal policies and objectives.
- The specific changes recommended for the master plan or development regulations, if any, including underlying objectives, policies and standards, or whether a new plan or regulation should be prepared.
- The recommendations of the planning board concerning the incorporation of redevelopment plans adopted pursuant to the "Local Redevelopment and Housing Law," P.L.1992, c. 79 (C.40A:12A-1 et seq.) into the land use plan element of the municipal master plan, and recommended changes, if any, in the local development regulations necessary to effectuate the redevelopment plans of the municipality.

The 2015 Master Plan Reexamination Report addresses each of these statutory requirements.

III. The Major Problems and Objectives Relating to Land Development in Aberdeen Township at the Time of the Adoption of the Last Reexamination Report

Land Use Plan Objectives and Policies

The Land Use Plan, first adopted August 17, 1983, set forth specific objectives and policies for the future development of the Township of Aberdeen. The Land Use Plan stated that at that point in time in 1983, Aberdeen Township was almost entirely developed. Planned future land use for Aberdeen consequently focused on development in the few remaining vacant and developable tracts of land, as well as sites highlighted for future infill redevelopment .

The Township adopted eleven (11) land use objectives and policies that focused on land use. These objectives and policies were formulated into four (4) major land use categories: residential, commercial, industrial, and conservation. The objectives and policies as set forth in the Land Use Plan are as follows:

Residential

- New single family residential lots should not be smaller than the minimum lot size permitted in the district.
- The quality of existing housing should be maintained or improved by means of rehabilitation, code enforcement, supportive public improvements, and other available means.
- Smaller, moderately priced housing units should be encouraged.
- Senior citizen housing and adult communities should be encouraged as a conditional use.

Commercial

- Renovations should meet present zoning and site design standards. In particular, the required spacing between street line and building front and between parking areas and property lines should be followed. Buffer areas should be adequately landscaped and maintained.
- Scattered commercial uses should continue to be phased out.

Industrial

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- Adverse environmental impacts shall be controlled by the use of performance standards which reference and reinforce state performance standards and regulations.
- Visual incompatibilities between industrial development and adjoining residential areas should be minimized by adequate buffering and other design techniques.
- Scattered industrial operations should be gradually eliminated.
- Renovations and expansions should bring site improvements to a level consistent with current site planning standards.

Conservation

- Tidal and inland wetlands, as well as stream banks, should be conserved.

At the last reexamination report, the 2006 Master Plan and Development Regulations Periodic Reexamination and Land Use Plan Update Report, these eleven (11) objectives and policies remained valid for the Township of Aberdeen. At the time of this Reexamination Report, they continue to remain valid.

Issues in 2006

The 2006 Master Plan and Development Regulations Periodic Reexamination and Land Use Plan Update Report highlighted three (3) land use planning issues that the Township addressed in its October 1998 Reexamination Report. The 2006 Reexamination Report stated that these issues require continued attention and action by the Township. These three issues, as of their status in 2006, are detailed below.

COAH Obligations for Affordable Housing

The 2006 Reexamination Report cited an increase in the Township's prior round affordable housing obligation from 270 to 281 new construction units. Based on a previously granted vacant land adjustment, realistic development potential remained at 228 units, and the unmet need was adjusted from 42 to 53 units. The report also noted that the Township no longer had an obligation for rehabilitated units for that cycle.

Vehicular Traffic Impacts

Another concern raised in the 2006 Reexamination Report is the impact of resulting vehicular traffic from development or redevelopment of lands within Aberdeen on the Township's existing circulation system. The 2006 Reexamination Report states that no significant adverse impact upon the residential neighborhoods in the Township and the quality of life of the residents therein should be created by the traffic generated by any development or redevelopment.

Furthermore, the commuter traffic through the Township has put additional strain on the circulation system. The Aberdeen-Matawan Railway Station attracts a number of commuters. There are insufficient parking areas for commuter vehicles, which has resulted in the use of existing commercial parking lots to accommodate the need.

The Township has been committed to the goal that no development or redevelopment of the remaining large tracts of land within the Township will be approved unless there is a bona fide plan to handle the traffic expected to be generated. As of the 2006 Reexamination Report, Aberdeen Township had four (4) designated Redevelopment Areas. These designations give more authority to the Township to require significant roadway improvements, possibly including direct ramps or roadways to the Garden State Parkway.

Planning for Open Space & Recreational Facilities

The 1983 Land Use Plan emphasized the need to plan for, and provide parkland and recreational facilities. The plan noted problems with the parks and recreation areas within the Township due to poor distribution of the areas, the overuse of some of the recreational facilities, and the unsustainability of some recreation areas in the Strathmore section due to poor drainage. Additionally, a shortage of recreational facilities existed in the Cliffwood area, and no recreational areas existed in the Freneau area of the Township.

The 2006 Reexamination Report also describes the planning efforts Aberdeen Township has undertaken to promote open space and recreation lands:

- The Township adopted a Natural Resources Inventory in 2002.
- Also in 2002 the Township Planning Board amended the Master Plan to expand the “CR” Conservation/Recreation zoning district and preserve more environmentally fragile lands, and this expansion was endorsed in ordinance form by the Township Council.
- The Township Council also adopted an Open Space and Recreation Plan in 2006, which included specific sites to be set aside for land conservation and/or recreational purposes, as well as a list of properties to be acquired by the Township (also to be set aside for land conservation and/or recreational purposes).

IV. Extent to Which Such Problems and Objectives Have Been Reduced or Increased

Status of 2006 Objectives and Assumptions

This section reiterates most of the objectives and assumptions of the 2006 Master Plan (that are discussed above in Chapter III: The Major Problems and Objectives Relating to Land Development in Aberdeen Township at the Time of the Adoption of the Last Reexamination Report), with commentary concerning the extent that the objective has been reduced or increased, as well as some new objectives and a new category: Resiliency. The updated commentary and new objectives are in italic text.

Residential

- New single-family residential lots should not be smaller than the minimum lot size permitted in the district.

Update to read as follows: "New single family residential lots should not be smaller than the minimum lot size permitted in the district and should also meet bulk requirements." This is on-going and new developments should continue to reflect Land Development Ordinance standards.

- The quality of existing housing should be maintained or improved by means of rehabilitation, code enforcement, supportive public improvements, and other available means.

This is on-going, and has been re-emphasized by Hurricane Sandy's impacts on the Township.

- Smaller, moderately priced housing units should be encouraged.

Update to read as follows: "Smaller, moderately priced housing units should be encouraged in the appropriate designated zone districts." This objective is supported by the Township's redevelopment efforts.



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- Senior citizen housing and adult communities should be encouraged as a conditional use.

Update to read as follows: "Senior citizen housing and adult communities should be encouraged." This objective is still a need and is something that needs to be addressed. It has been supported by recent efforts to provide age restricted affordable housing in the South River Metals Redevelopment Plan, adopted in 2014.

Commercial

- Renovations should meet present zoning and site design standards. In particular, the required spacing between street line and building front and between parking areas and property lines should be followed. Buffer areas should be adequately landscaped and maintained.

This is on-going, and new developments and renovations should continue to reflect Land Development Ordinance standards.

- Scattered commercial uses should continue to be phased out.

Scattered commercial uses are becoming increasingly vacant. The Township is seeing interest in redeveloping these sites with residential land uses.

This Master Plan Reexamination Report also provides two new objectives for commercial land use:

- *New commercial development should meet minimum loading and circulation access standards in order to minimize conflict between access for loading, clientele access, and emergency access. Loading zones shall be located so that they do not conflict with front and emergency access. This shall apply only to new construction and substantial rehabilitation.*
- *Mixed-use development should be investigated for the commercial zone.*

Industrial

Overall, much of the Township's industrial tax base has declined and is more generally characterized by "lighter" industrial uses than were present in the past, as evidenced by light industrial uses located in the LI Zone along Route 35 and County Road.



- Adverse environmental impacts shall be controlled by the use of performance standards which reference and reinforce state performance standards and regulations.

This objective is still valid.

- Visual incompatibilities between industrial development and adjoining residential areas should be minimized by adequate buffering and other design techniques.

This objective is supported by the recent adoption of the South River Metals Redevelopment Plan.

- Scattered industrial operations should be gradually eliminated.

This objective is removed.

- Renovations and expansions should bring site improvements to a level consistent with current site planning standards.

This objective is still valid.

Conservation

- Tidal and inland wetlands, as well as stream banks, should be conserved.

Hurricane Sandy has placed priority on this effort. There is a need to preserve and enhance these areas to increase resiliency and protect developed areas.

Resiliency

- Plan for new development to minimize risk from natural hazards.
- Promote public awareness of hazard mitigation and resiliency issues.
- Focus public agencies on community vulnerabilities to hazards such as flooding.

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- *Encourage future capital projects to locate outside of flood hazard areas.*
- *Encourage renovations and modifications that are resilient to flood- and storm-related impacts.*
- *Encourage municipal efforts and initiatives in FEMA's Community Rating System (CRS).*

Changes to 2006 Issues

This section addresses the issues addressed in the 2006 Reexamination Report (discussed above in Chapter III. The Major Problems and Objectives Relating to Land Development in Aberdeen Township at the Time of the Adoption of the Last Reexamination Report), and the extent to which they have been reduced or increased. The updated commentary is in italic text.

COAH Obligations for Affordable Housing

The Township adopted its Housing Plan Element and Fair Share Plan in 2008, and subsequently amended it in 2010. The 2008 Plan describes how Aberdeen will address its affordable housing obligation as determined by the Council on Affordable Housing (COAH). The plan contains a baseline inventory of the Township's housing, population, and economic characteristics as of 2008. It also states the Township's "prior round" affordable housing obligation was 270 units and its "third round" (growth share) obligation was 170 units, totaling an affordable housing obligation of 440 units. In order to meet these obligations, the plan outlines a compliance plan which includes a mix of existing group homes, proposed age-restricted rental units, and proposed family rental units.

The amended 2010 Housing Plan Element and Fair Share Plan Amendment identified modifications to the Township's compliance plan. These revisions included density reductions to two proposed affordable housing projects and the addition of a new inclusionary housing development adjacent to the Aberdeen-Matawan Train Station.

The current status of COAH regulations is discussed further in this Reexamination Report in Chapter V: Extent to Which There Have Been Significant Changes in the Assumptions, Policies, and Objectives, in the subsection "Changes at the State Level."

Vehicular Traffic Impacts

The vehicular traffic impact issues addressed in the 2006 Reexamination Report are on-going, and Aberdeen Township has not prepared a Circulation Plan Element. Additionally, the 2006 Reexamination Report stated that the Township has been committed to the goal that no development or redevelopment of the remaining large tracts of land within the Township will be

approved unless there is a bona fide plan to handle the traffic expected to be generated. Since 2006, the number of designated redevelopment areas in the Township has increased from four (4) to seven (7), as are outlined below in Chapter VII: Recommendations Concerning the Incorporation of Redevelopment Plans. These designations give the Township the ability to obtain significant roadway improvements.

Planning for Open Space & Recreational Facilities

These specific issues mentioned above (in Chapter III: The Major Problems and Objectives Relating to Land Development in Aberdeen Township at the Time of the Adoption of the Last Reexamination Report) have all been addressed, as evidenced by the following: adoption of the Natural Resources Inventory; Open Space and Recreation Plan; and the 2002 Reexamination Report, which expanded the "CR" Conservation/Recreation zoning district and preserved more environmentally fragile lands. However, the importance of planning for open space and recreational facilities has been renewed as a priority due to Hurricane Sandy.

Recommendations of the 2006 Reexamination Report

The 2006 Reexamination Report recommended changes to the Zoning Map and the Land Development Ordinance Provisions. The recommendations from the 2006 Reexamination Report are revisited below, with updated commentary to bring those recommendations up to date italicized:

Zoning Map

1. Twelve (12) land areas in the Township were proposed to be rezoned. Most of the changes were housekeeping-type changes that rectify certain inconsistencies of the current Zoning Map relative to existing uses on the properties and/or their inability to be developed as zoned without variance relief. Other recommended changes were the results of petitions for zoning changes which have been received by the Township and which have been deemed appropriate and positive for the citizens of Aberdeen Township.

This recommendation has been completed. All of the proposed map changes are reflected on the 2012 Zoning Map.

Land Development Ordinance Provisions

1. Add provisions for total impervious surface lot coverage in the zoning requirements for the nonresidential zoning districts in the Township as follows:
 - a. "NC" Neighborhood Commercial District: 65%
 - b. "HC" Highway Commercial District: 60%

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- c. "RC" Regional Commercial District: 55%
- d. "RO" Research/Office District: 60%
- e. "MFG" Manufacturing District: 70%
- f. "LI" Light Industrial District: 70%

These provisions are currently not addressed in the Land Development Ordinance. The Planning Board recommends revisiting the proposed lot coverage percentages in order to determine if they are still applicable. This comment may be modified, pending the consideration of consolidating the "MFG" Manufacturing and "LI" Light Industrial zoning districts.

- 2. Add general offices as a permitted land use in the "NC" Neighborhood Commercial zoning district; currently only the oftentimes more intensive offices of professionals, including medical practitioners, are permitted.

This recommendation is still valid. Permitted offices are limited to doctors, dentists, architects, engineers, lawyers, real estate agents, insurance brokers, or similar professional uses.

- 3. In order to prevent the construction of "big box" uses in the "HC" Highway Commercial zoning district, limit the size of buildings in the "HC" district to 75,000 square feet of gross floor area.

Update to read as follows: "In order to encourage small businesses to locate in the "HC" Highway Commercial zoning district, limit the size of buildings in the "HC" district to 75,000 square feet of gross floor area." Minimum gross floor area is currently three thousand (3,000) square feet, but there is no maximum.

- 4. Add "Self-Storage Facilities" as a permitted use, with special conditions, within the "RC" Regional Commercial zoning district along Route 34 only.

This recommendation is removed.

- 5. Consider modifying the provisions of the ordinance governing fences on corner lots to require landscape plantings and conservation easements to assure an attractive appearance.

This recommendation is still valid. Require that plantings be located on the street side of fencing.

- 6. Consider requiring larger street frontages for new lots created with direct driveway access to an existing major street in the Township that carries through traffic, since such driveway access points limit the capacity of the street to carry through traffic violations.

Update to read as follows: Consider requiring larger street frontages for new lots created with direct driveway access to an existing major collector or higher class street, since increasing driveway access points decreases the capacity of the street to carry through traffic volumes.

7. Consider requiring that all newly created corner lots in the Township have at least 10,000 square feet of lot area, regardless of the zoning district.

Update to read as follows: "Consider requiring all newly created corner lots in the Township to have a lot area of at least 50% more than the minimum required lot area of the zone in which they are located."

Recommendations that are still considered valid are further discussed in Chapter VI: "Specific Changes Recommended for the Master Plan and Development Regulations."

V. Extent to Which There Have Been Significant Changes in the Assumptions, Policies, and Objectives

The Planning Board continues to find that the overall assumptions, policies, and objectives described in the 1983 Land Use Plan are consistent with and reflect the Planning Board's current assumptions, policies, and objectives for future development.

Since 2006, the following significant changes in the assumptions, policies, and objectives related to land development in Aberdeen Township have taken place:

Changes at the Local Level

Impacts of Hurricane Sandy

Hurricane Sandy struck the coast of New Jersey on October 29, 2012, and brought extensive damage to Aberdeen Township from both storm surge and wind damage. Aberdeen reported that 26 properties within the Township's jurisdiction faced substantial damage. The Township also faced significant damage to both critical infrastructure and integral community features. Two of the Township's sewage pump stations were destroyed from storm surge. Township facilities along the Raritan Bayfront including its dune system, sea wall, and several recreational facilities also sustained significant damage. Downed trees and power lines created additional problems, and the Township faced power outages for more than seven days.

Despite the extent of damages Aberdeen Township sustained from Hurricane Sandy, existing land use patterns and prevailing land uses are not anticipated to substantially change. Aberdeen's Land Development Ordinance limits the uses permitted within floodways, flood fringes, and stream corridor areas and requires robust stream corridor and riparian buffer setback standards. In addition, the Township's Flood Damage Prevention provisions require compliance with FEMA's construction requirements for projects located within designated FEMA Flood Hazard Areas in order to limit damages to private property. Furthermore, new FEMA Flood insurance maps are in the process of being adopted. These maps increase the flood zone and base flood elevations for some coastal areas of the Township. Property owners will need to take preventative measures to ensure they are in compliance with the new regulations.

The long-term impacts of Hurricane Sandy have yet to be seen, but will be affected by a variety of factors including insurance payouts, flood insurance regulations, as well as the ability of residents, businesses, and the Township to rebuild. Hurricane Sandy has

provided new opportunities for redevelopment, but care must be taken to ensure all new development keeps with the character of the community.

Aberdeen Township has significant concern and reason for promoting both recovery from Sandy, and also building resiliency to future storm impacts and other potential natural hazards. While the current 2015 Master Plan Reexamination Report is broad in scope, the experience of Hurricane Sandy and the need to incorporate resiliency has influenced and informed its development.

Strategic Recovery Planning Report

As a response to Hurricane Sandy, Aberdeen Township adopted a Strategic Recovery Planning Report in 2014. The purpose of the Strategic Recovery Planning Report is to outline a recommended set of actions to guide the Township in promoting recovery from the impacts of Hurricane Sandy and resiliency to future storms.

The actions recommended by the Strategic Recovery Planning Report include:

- Reconstruct Sanitary Sewer Pump Station 4 and 10;
- Continue and complete Route 35 elevation in Aberdeen and Old Bridge (NJDOT);
- Complete the Cypress Lane Culvert replacement;
- Complete dune restoration/replacement along Raritan Bay Waterfront;
- Complete Cliffwood Park improvements;
- Repair the Cliffwood Beach seawall and replace damaged walkway sections and amenities;
- Replace the Deerfield Lane pedestrian bridge;
- Conduct a reexamination report to address hazard mitigation and resiliency measures undertaken and to be undertaken by the Township;
- Lakeshore Drive road elevations and culvert replacement;
- Complete upstream development impact study and flood control assessment;
- Continue participation in the Community Rating System; and
- Master Plan Reexamination Report preparation.



Implementation of the recommendations that have been listed above will promote recovery from Hurricane Sandy and increased resiliency to future storms.

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Demographic Changes

Table 1: Population Trends 1970-2012

	Aberdeen Township		Monmouth County		New Jersey	
Year	Population	% Change	Population	% Change	Population	% Change
1970	17,680	-	459,379	-	7,168,164	-
1980	17,235	-2.5%	503,173	9.5%	7,364,823	2.7%
1990	17,038	-1.1%	553,124	9.9%	7,730,188	5.0%
2000	17,454	2.4%	615,301	11.2%	8,414,350	8.9%
2010	18,210	4.3%	630,380	2.5%	8,791,894	4.5%
2012	18,155	-0.3%	629,384	-0.2%	8,864,590	0.8%

Sources: US Census, 1970, 1980, 1990, 2000, 2010, American Community Survey, 2012.

Table 1 provides a comparison of the population trends of Aberdeen Township, Monmouth County, and New Jersey since 1970. Following the 1970 Census, Aberdeen's population declined in 1980 and 1990. While the 2000 Census recorded a population increase, it was not until 2010 that Aberdeen's population finally exceeded its 1970 apex. Nonetheless, the 2012 American Community Survey estimates a slight decrease in Aberdeen's population. Monmouth County and New Jersey also experienced the most population growth from 1990 to 2000.

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Table 2: Population by Age Category- 2010 Census

	Aberdeen Township		Monmouth County		New Jersey	
	Number	Percent	Number	Percent	Number	Percent
Total Population	18,210	100	630,380	100	8,791,894	100
Preschool Age (0-4 Years)	1,228	6.7	34,755	5.5	541,020	6.2
School Age (5-19 Years)	3,365	18.4	130,723	20.7	1,750,184	19.9
Working Age (20-64 Years)	11,689	64	378,211	60	5,314,697	60.5
Seniors (65+)	1,928	10.6	86,691	13.8	1,185,993	13.5
Median Age	39.0	N/A	41.3	N/A	39.0	N/A
Male	8,867	48.7	306,654	48.6	4,279,600	48.7
Female	9,343	51.3	323,726	51.4	4,512,294	51.3

Source: US Census, 2010.

Table 2 describes the age profile of the Township in 2010 in comparison with Monmouth County and the State of New Jersey. Aberdeen contained a slightly larger proportion of working-age persons (20 to 64 years) than the County and the State in 2010. The median age in the Township (39) is similar to that of the State (39), but slightly lower than that of the County (41.3).

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Housing

The 2010 Census data describes the characteristics of housing units in Aberdeen Township. A comparison of three of these characteristics: occupancy, tenure and household size is included in Table 3 below.

Table 3: Population by Age Category- 2010 Census

	Aberdeen Township		Monmouth County	
	Number	Percent	Number	Percent
Occupancy Status				
Total Housing Units	7,102	100.0	258,410	100.0
Occupied Housing Units	6,876	96.8	233,983	90.5
Vacant Housing Units	226	3.2	24,427	9.5
Tenure				
Occupied Housing Units	6,876	100.0	233,983	100.0
Owner-Occupied	5,211	75.8	175,157	74.9
Renter-Occupied	1,665	24.2	58,826	25.1
Average Household Size	2.64	N/A	2.66	N/A
Average Family Size	3.13	N/A	3.22	N/A

Source: US Census, 2010.

In Table 4 (below) describes the changes in the housing stock for occupancy and tenure between 2000 and 2010.

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Table 4: Housing Occupancy and Tenure 2000-2010

	2000	2010	Number Change	Percent Change
Occupancy Status				
Total Housing Units	6,558	7,102	544	8.3%
Occupied Housing Units	6,421	6,876	455	7.1%
Vacant Housing Units	137	226	89	65.0%
Tenure				
Occupied Housing Units	6,421	6,876	455	7.1%
Owner-Occupied	5,006	5,211	205	4.1%
Renter-Occupied	1,415	1,665	250	17.7%

Source: US Census, 2000 and 2010.

Along with a slight increase in population in the same time period, total housing units increased by 544 units or 8.3% during this decade. Renter-occupied units comprised about 24% of the Township's housing stock in 2010 and increased by almost 18% between 2000 and 2010.

Based on Aberdeen Township's land use plan and development pattern, the Township's future population is expected to increase slightly from its current level. According to projections from the New Jersey Transportation Planning Agency, the public agency that oversees the allocation of transportation funding for the northern half of New Jersey, Aberdeen's population will reach 20,070 persons by 2040.

Changes at the County/ Regional Level

Since the adoption of the 2006 Master Plan Reexamination Report, there have been several changes at the county and regional level, including the adoption of the Monmouth County Water Quality Management Plan. In addition, the County is undergoing the process of updating both its Master Plan and the Monmouth County Multi-Jurisdictional Natural Hazards Mitigation Plan.

Monmouth County Water Quality Management Plan

In accordance with the Statewide Water Quality Management Planning rules (N.J.A.C. 7:15-3.4), a public notice for a Proposed Amendment to the Monmouth County Water Quality Management (WQM) Plan was published on January 7th, 2013 in the New Jersey Register and the Asbury Park Press. This amendment proposal would provide for a Future Wastewater Service Area (FWSA) for Monmouth County.

The revised WQM Plan does not affect developed properties in Aberdeen Township. The areas of the Township that are not identified in the sewer service area include environmentally sensitive areas such as lands within stream corridors, wetlands or steep slope areas that cannot be developed due to topography or state regulations. This includes sections of the Freneau area of the Township, which are slated for conservation as a new county park. The Freneau area (specifically the R-100 zone) is also in a proposed sewer service area. The changes to the Wastewater Plan are not expected to affect development in Aberdeen Township.

Bayshore Region Strategic Plan

The Monmouth County Planning Board prepared a regional planning study of the Bayshore area in 2005 and 2006. The study was prepared with input from all of the municipalities in the Bayshore region, stakeholder and citizens. The Plan was adopted in May 2006 and contains a number of action-oriented strategies relating to growth initiatives, preservation strategies, transportation improvements, housing issues and design guidelines.

The Bayshore Region Strategic Plan outlines a municipal vision for Aberdeen Township that includes: redeveloping underutilized land and former industrial sites; creating a mixed-use center near the train station; preserving remaining natural areas; and developing new recreational resources.

Additionally, the plan offers recommendations and planning strategies specific to resiliency in Aberdeen Township. These recommendations and planning strategies have been reviewed by the Master Plan sub-committee as a part of the planning process for this Reexamination Report. Some of the planning strategies outlined in the Bayshore Region Strategic Plan have been carried forward, and are discussed below in Chapter VI: Specific Changes Recommended for the Master Plan and Development Regulations.

Monmouth County Master Plan

The Monmouth County Master Plan is currently in the process of being updated. In the summer and fall of 2014, Monmouth County was involved in working group meetings for each master plan element, including: Natural Resources; Open Space; Farmland Preservation; Arts, Cultural, and Historic Resources; Utilities; Community and Educational Facilities; Transportation and Mobility; Agricultural and Economic Development; Community Development and Housing; Community Resiliency; Community Sustainability; and Healthy Communities. The Master Plan Update is scheduled to be formally adopted by the Monmouth County Planning Board in 2015.

Monmouth County Multi-Jurisdictional Natural Hazard Mitigation Plan

The Monmouth County Multi-Jurisdictional Natural Hazard Mitigation Plan (HMP) identifies natural hazards that could affect the County's jurisdictions, evaluates the risks associated with these hazards, identifies the mitigation actions to lessen the impacts of a disaster on Monmouth County communities, and prioritizes them based on the municipal master plans and other planning documents. Monmouth County employed a multi-jurisdictional approach to develop the plan, and every municipality in the County was invited to participate as an equal partner with the County.

As part of its participation in the HMP outreach process, Aberdeen Township has identified the following recovery actions:

- Creating a mitigation outreach program that helps residents prepare for and mitigate disasters; increase awareness of natural hazard risks and safety; educate the public about hazard mitigation techniques and promote disaster-resistant development.
- Developing specific mitigation solutions for flood prone roadways, specifically State Highway 35 at Long Neck Creek, under leadership of NJDOT; Lakeshore Drive at Greenwood Avenue, by the Township; and Amboy Avenue, under the leadership of Monmouth County.
- Assisting homeowners in elevating flood prone residential structures.
- Raising municipally-owned wastewater pump stations, or vulnerable components thereof, to either be above current BFEs, or to be otherwise waterproofed, to provide resiliency in future events and minimize waste water overflows.
- Developing specific mitigation solutions for both dunes and the seawall sidewalk that would help mitigate future damages and provide a greater level of resiliency.

- Developing specific mitigation solutions that help residents prepare for and mitigate loss of communications and seasonal severe temperature events by providing a community shelter.

Since adoption of the 2009 HMP and during the aftermath of Hurricane Sandy, the County underwent an extensive process of updating the HMP to incorporate post Hurricane Sandy elements of mitigation planning. A draft plan was released for review in October of 2014, which was subsequently approved by FEMA on April 14, 2015. Aberdeen Township adopted the HMP on April 21, 2015 via Resolution # 2015-48.

Changes at the State Level

As indicated in the following subsections, there have been considerable changes at the state level since the adoption of the 2006 Master Plan Reexamination Report.

Time of Decision

On May 5, 2010, P.L. 2010 c.9 was signed into law, effectively nullifying the “time of decision” rule which had previously allowed municipalities the ability to alter zoning requirements even after an application for development had been filed but before a formal decision on the application had been rendered. The new time of decision law provides that the development regulations applicable to a property at the time an application for development is filed will govern the review of the application and any decision made pertaining to it. The law became effective on May 5, 2011.

Solar and Wind Facilities as Permitted Uses in Industrial Zones

The NJ Municipal Land Use Law (MLUL) was amended in 2008 so that solar and wind facilities on parcels of 20 acres or more shall be deemed as permitted uses in industrial zone districts. Amendments to the MLUL also revised the definition of inherently beneficial use to include a wind, solar, or photovoltaic energy facility or structure.

Green Buildings and Environmental Sustainability Element

Many New Jersey municipalities have endorsed efforts to reduce their carbon footprint, decrease greenhouse gas emissions, encourage the use of renewable energy sources, conserve energy, and minimize the use of natural resources. Federal and state programs have been established to assist municipalities address these goals. In the private sector, the US Green Building Council, a private organization, has established the Leadership for Energy and Environmental Design (LEED) certification programs to encourage and standardize the certification of buildings which are energy efficient and incorporate sustainable environmental design concepts.

Recognizing the importance of green building and sustainability, the Legislature amended the Municipal Land Use Law (MLUL) in 2008 to add the “Green Building and Environmental Sustainability Plan Element” to the list of optional elements of municipal master plans. The scope of the new element is as follows: “A green buildings and environmental sustainability plan element, which shall provide for, encourage and promote the efficient use of natural resources and the installation and usage of renewable energy systems, consider the impact of buildings on the local, regional, and global environment; allow ecosystems to function naturally; conserve and reuse water; treat storm water on site; and optimize climatic conditions through site orientation and design.”

Aberdeen Township should consider the development of a green building, sustainability, and resiliency component as part of this Reexamination Report.

Complete Streets

In late 2009 the New Jersey Department of Transportation (NJDOT) adopted a Complete Streets Policy. A “complete street” is defined by the NJDOT as a “means to provide safe access for all users by designing and operating a comprehensive, integrated, connected multi-modal network of transportation options.” Seven (7) counties and 111 municipalities have adopted complete streets policies. This list was last updated in October 2014. The intent of the policy is to provide streets to meet the needs of all types of users and all modes of circulation- walking, bikes, cars, trucks, and buses.

Sustainable Jersey

Sustainable Jersey is a certification program for municipalities in New Jersey that want to go green, save money, and take steps to sustain their quality of life over the long term. The program provides tools, training, and financial incentives to support and reward communities as they pursue sustainability programs.

Aberdeen Township adopted a resolution in 2009 supporting participation in the Sustainable Jersey program.

Stormwater Management

In 2004, the New Jersey Department of Environmental Protection (NJDEP) adopted municipal stormwater regulations that required preparation and adoption of a stormwater management plan and ordinance by the Township to address the need for promoting groundwater recharge and controlling the impacts of stormwater runoff from development. The Township prepared a Stormwater Management Plan in 2008.

State Strategic Plan

The NJ State Planning Commission is now staffed by the Office of Planning Advocacy (OPA) which is within the Department of State. The OPA has released a draft State Strategic Plan that would supersede the current State Development and Redevelopment Plan. The draft State Strategic Plan differs from previous plans in that it is based upon a criteria-based system rather than a geographic planning area. While public hearings were held in February, March, and September of 2012, the draft State Strategic Plan was put on hold following Hurricane Sandy, and has yet to be adopted by the State Planning Commission. Aberdeen Township should continue to monitor the progress of the new plan and how it will affect local-level planning decisions.

Redevelopment Case Law

There have been a number of recent court decisions concerning the use of criteria for determining an area “in need of redevelopment” pursuant to the Local Redevelopment and Housing Law (LRHL). The most significant of these decisions is the NJ Supreme Court’s decision in Gallenthin vs. Paulsboro, which reevaluated and set guidelines for the use of the statutory criteria for determining an area in need of redevelopment. The New Jersey Legislature also held hearings in 2010 on legislation to update the NJ Redevelopment and Housing Law. In 2013 Assembly Bill 3615 became law and is intended to protect property owners by limiting the redevelopment powers of municipalities under the LRHL. This amendment raises the standard for a blight finding to one in which the property must be unproductive.

Given that some of the Township’s revitalization efforts are based on redevelopment, municipal officials should monitor these legal decisions and legislative initiatives.

New Jersey Council on Affordable Housing (COAH)

COAH originally adopted affordable housing rules for the third round period in 2004. However, an Appellate Division decision in 2007 stayed COAH from reviewing any plans as part of a petition for substantive certification, and resulted in a remand of the 2004 rules back to COAH to revise them consistent with the Appellate Division decision. COAH subsequently adopted revised third round rules in 2008.

In 2010, the Appellate Division invalidated COAH’s 2008 third round rules, and the “growth share” methodology upon which they were based. In 2013, the New Jersey Supreme Court upheld and modified the Appellate Division’s 2010 decision that invalidated COAH’s third round rules. As a result, COAH was then charged with the task of adopting new affordable housing rules.

COAH has since failed twice to adopt new affordable housing rules for the third round period. Due to COAH's failure to adopt such rules, the New Jersey Supreme Court concluded on March 10, 2015 that there no longer exists a legitimate basis to block access to the courts, which was the original intent of the COAH process. The New Jersey Supreme Court's March 10 decision notes that: "parties concerned about municipal compliance with constitutional affordable housing obligations are [now] entitled to such access, and municipalities that believe they are constitutionally compliant[,] or that are ready and willing to demonstrate ... compliance [with such obligations,] should be able to secure declarations that their housing plans and implementing ordinances are presumptively valid in the event they ... must defend [themselves] against exclusionary zoning litigation."

In its March 10 decision, the New Jersey Supreme Court established a transitional process to not immediately allow exclusionary zoning actions to proceed in court. The decision notes that: "[d]uring the first thirty days following [June 8, 2015] ..., the only actions that will be entertained by the courts will be declaratory judgment actions filed by any [municipality] ... that either (1) had achieved substantive certification from COAH under prior iterations of Third Round Rules before they were invalidated, or (2) had "participating" status before COAH. Assuming [that] any such [municipality] ... waits and does not file a declaratory judgment action during [the] ... thirty-day period, an action may thereafter be brought by a party against [the municipality] ..., provided the action's sole focus is on whether the [municipality's] ... housing plan meets its Mount Laurel obligations (a constitutional compliance challenge). The court's evaluation of a [municipality's] ... plan that had received substantive certification, or that will be submitted to the court as proof of constitutional compliance, may result in the [municipality's] ... receipt of the judicial equivalent of substantive certification and accompanying protection as provided under the [Fair Housing Act]"

Aberdeen Township has filed a plan with COAH, but the plan has not been certified. Therefore, Aberdeen Township fulfills Criterion 2 as outlined in the transitional process that has been described above. The Township will, as a result, be able to file a declaratory judgment action immediately upon the March 10 decision becoming effective on June 8, 2015.

Changes at the Federal Level

Executive Order Establishing a Federal Flood Risk Management Standard

In 2013, the President's Hurricane Sandy Rebuilding Task Force adopted a higher flood standard for the Sandy-affected region to ensure that federally funded buildings, roads,

and other projects were rebuilt stronger to withstand future storms. The Sandy Task Force also recommended that the Federal Government create a national flood risk standard for federally funded projects beyond the Sandy-affected region. The new standard gives the flexibility to select one of three approaches for establishing the flood elevation and hazard area they use in siting, design, and construction. They can:

- Use data and methods informed by best-available, actionable climate science;
- Build two-feet above the 100-year (1%-annual-chance) flood elevation for standard projects, and three feet above for crucial buildings like hospitals and evacuation centers; or
- Build to the 500-year (0.2% -annual-chance) flood elevation.

On January 30, 2015 the President released proposed guidelines for these standards that were available for 60 days of public comment. Once public input has been considered, including from a series of public listening sessions that will be held across the country, and the guidelines are finalized, agencies will implement the standard through their own rulemaking or other procedures, which also will incorporate input from the public and stakeholders.

The new flood standards will apply when Federal funds are used to build, or significantly retrofit or repair, structures and facilities in and around floodplains to ensure that those structures are resilient, safer, and long-lasting. It will not affect the standards or rates of the National Flood Insurance Program. Each agency will carefully consider how to appropriately apply this standard, and consider robust public input before deciding how to implement it.

VI. Specific Changes Recommended for the Master Plan and Development Regulations

Given the extent to which there have been significant changes in assumptions, policies, and objectives at the local, county, and state levels, the 2015 Master Plan Reexamination Report recommends the following changes to the Township's municipal master plan and development regulations:

Changes to the Master Plan

- **Land Use Plan Element**

The Master Plan and Land Use Plan Element should be amended to facilitate increased sustainability and promote resilience through the use of green building and infrastructure techniques; and indicate the need for current existing land use mapping.

- **Green Buildings and Environmental Sustainability Element**

The Township should prepare a green buildings and environmental sustainability element, which, concurrent with the Municipal Land Use Law, can provide for, encourage, and promote the efficient use of natural resources and the installation and usage of renewable energy systems, consider the impact of buildings on the local, regional, and global environment; allow ecosystems to function naturally; conserve and reuse water; treat stormwater on site; and optimize climatic conditions through site orientation and design.

- **Circulation Plan Element**

A Circulation Plan Element should be prepared, which utilizes the existing roadways in the Township to the extent possible, so that the improvements to the existing system of roads and sidewalks can be small-scale, "doable" endeavors which have a reasonable probability of being accomplished, and which will result in the greatest probability of preserving the residential character throughout most of the municipality.

The Circulation Plan Element should generally address vehicular, traffic, pedestrian, and emergency/evacuation circulation needs.

More specifically, the Circulation Plan Element should address the following:

- Providing connections between existing sidewalks and between residential areas and commercial areas;
- Completion of the Henry Hudson Trail;

- The needs of commuters utilizing the Aberdeen-Matawan Railway Station and improvement to pedestrian access in the transit village plans;
 - Resiliency and evacuation issues, including (but not limited to) the following actions: providing backup power supplies at key intersections; emphasizing evacuation routes; and elevating bridges;
 - Specific design standards aimed to achieve designing and constructing roadways within Aberdeen Township with the minimum improvements necessary to provide safe travel;
 - Pursuing funding from state agencies for traffic studies, design, and construction of roadway improvements
- **Capital Improvement Plan**
Prepare a Capital Improvement Plan identifying needed capital improvements to improve local resiliency. The Township should ensure that critical facilities be located outside of flood hazard areas.
 - **Community Facilities Plan Element**
The Township should prepare a Community Facilities Plan Element to provide current mapping of public facilities and other critical infrastructure within the Township. The Community Facilities Plan Element will recommend and provide an updated status of the following projects:
 - Reconstruction of Sanitary Sewer Pump Stations Number 4 and 10
 - Cypress Lane Culvert replacement
 - Dune restoration/replacement along the Raritan Bay waterfront
 - Cliffwood Beach Park improvements
 - Repairs to the Cliffwood Beach seawall and replacement of damaged walkway sections and amenities
 - Replacement of the Deerfield Lane pedestrian bridge.
 - **Stormwater Management Plan**
Update the Township's Stormwater Management Plan to address green infrastructure techniques to promote resiliency in the Township, while keeping in



mind hazard mitigation, community resiliency, and sea level rise. As part of this effort, the Township should complete an upstream development impact study and a flood control assessment.

Changes to Development Regulations

- **Redevelopment Areas**

Amend the zoning map to incorporate all seven (7) of the Township's Redevelopment Areas, as modified by the recommendations herein.

- **Height Regulations**

Height regulations per zoning district should be evaluated to reflect the new FEMA flood elevations.

- **Permitted Uses in "NC" Neighborhood Commercial Zone along Lower Main Street**

Review zoning in the "NC" Neighborhood Commercial zone section along Lower Main Street to determine the appropriateness of allowing mixed-use buildings and home professional offices as permitted uses here. The NC zone district permits more intensive professional offices, including medical practitioners. Furthermore, while this area is currently zoned commercial, the prevailing land use here is residential. As this area is in the vicinity of the train station redevelopment area, the review of zoning should address to what extent allowing mixed uses and home professional offices will help facilitate revitalization. This recommendation should await completion of the redevelopment of the train station.

- **Permitted Uses in Flood Zones and Waterfront Areas**

Some areas in Aberdeen Township north of the Garden State Parkway and in the waterfront areas of town are located in FEMA-designated flood zones. Zoning regulations should be evaluated and amended as necessary to make sure that losses due to flooding are minimized. This can be attained through ensuring that appropriate land uses, densities, and height limits in the waterfront area are consistent with visual and environmental goals and with CAFRA regulations.

- **Zoning in Flood Zones and Waterfront Areas**

Zoning in flood zones and waterfront areas should be evaluated, to determine if (and where) rezoning to conservation/recreation is necessary.

- **Zoning in Cliffwood Beach Area of the "CR" Conservation/Recreation Zone**

Boundaries of the "CR" Conservation/Recreation zone in the Cliffwood Beach area should be reaffirmed. The continued conservation of this area is essential for the

area to maintain flood control, groundwater recharge and discharge, water quality improvements, shoreline stabilization, fish and wildlife habitat, recreational opportunities, and aesthetic values.

- **Zoning in the Freneau Area of Town**

The zoning standards for the R-100 residential zone in the Freneau area of the Township should be reaffirmed. For lots within the sewer service area, the 10,000 square foot minimum lot size should be reaffirmed.

- **Medical/Commercial Facilities in “HC” Highway Commercial and “RC” Regional Commercial Zones**

The HC and RC zones should be amended to explicitly allow medical/commercial uses as permitted uses.

- **Consolidation of “MFG” Manufacturing and “LI” Light Industrial Zones**

Investigate the appropriateness of combining the MFG and LI zones into one zone, “Industrial.” Both zones currently allow industrial uses, while the MFG zone allows processing and manufacturing/“heavy” industrial uses. Previously, the significant manufacturing use took place at the Anchor Glass site, which has terminated operation and the site has been approved for redevelopment. As such, two types of industrial zones are no longer appropriate.

- **Total Impervious Surface Lot Coverage**

Revisit the following proposed standards from the 2006 Reexamination Report for total impervious surface lot coverage to determine if they are still applicable:

- a. “NC” Neighborhood Commercial District: 65%
- b. “HC” Highway Commercial District: 60%
- c. “RC” Regional Commercial District: 55%
- d. “RO” Research/Office District: 60%
- e. “I” Industrial District: 70%

- **Gross Floor Area in “HC” Highway Commercial” Zone**

In order to encourage small businesses to locate in the “HC” Highway Commercial zoning district, limit the maximum size of buildings in the “HC” district to 75,000 square feet of gross floor area. Currently, minimum gross floor area is 3,000 feet, but there is no maximum.

- **Minimum Lot Area for Corner Lots**

Consider requiring that all newly created corner lots in the Township have a lot area of at least 50% more than the minimum required lot area of the zone in which they are located.

- **Fencing on Corner Lots**

Consider modifying the provisions of the ordinance governing fences on corner lots to require landscape plantings and conservation easements to assure an attractive appearance. Plantings should be located on the street side of fencing.

- **Street Frontages for New Lots**

Consider requiring larger street frontages for new lots created with direct driveway access to an existing major collector or higher class street, since increasing driveway access points decreases the capacity of the street to carry through traffic volumes.

- **Conservation Easements**

Develop and adopt ordinance provisions to require conservation easements with public access along identified stream corridors in the Township.

Other Recommendations/Capital Recommendations

- **State Development and Redevelopment Plan**

Consider the specific policies and objectives of the State Development and Redevelopment Plan, Monmouth County plans, and any modifications in the master plans of adjacent municipalities as they may relate to the Township of Aberdeen. The State Strategic Plan has been updated and is proposed for adoption.

- **Municipal and School Recreational Facilities**

Encourage the sharing of municipal and school recreational facilities with Aberdeen Township and the development of new facilities. This recommendation has already been encouraged in the 2004 Open Space and Recreation Plan, but is still valid.

- **Trail System**

Promote the development of a coordinated system of continuous greenbelts, walking trails, pedestrian-bikeway corridors, and sidewalks to provide possible linkages between active recreation, school, and open space facilities within Aberdeen Township. This recommendation has also been identified as an objective in the 2004 Open Space and Recreation Plan, and is also still valid.

- **Henry Hudson Bike Trail**

The Township should coordinate with the Monmouth County Parks system to make the Henry Hudson Trail extend with continuity along the railway right-of-way from Aberdeen and Matawan through Marlboro to Freehold. A plan should

be developed for the extension of the trail in this area and funding for its completion should be secured.

- **Waterfront and Open Space Lands**

Promote both the acquisition of unprotected identified waterfront and open space lands, and construction of additional recreational facilities needed and desired by the Township. Seek funding from the New Jersey Department of Environmental Protection and/or other available sources.



On the regional level, work in cooperation with county, state, and federal agencies, and with other Bayshore municipalities, to progress and complete the restoration and acquisition of key regional waterfront and open space lands and regional trails.

The 2004 Open Space and Recreation Plan identified as an objective the preservation and protection of environmentally sensitive lands and lands with natural resources. This is further recommended in this Reexamination Report.

The 2004 Open Space and Recreation Plan identified as an objective the preservation and protection of environmentally sensitive lands and lands with natural resources. This is further recommended in this Reexamination Report.

- **Open Space Outreach & Education**

Promote public support for open space protection and acquisition via education and communication, with help of the Township Environmental & Shade Tree Advisory Board.

- **Mitigation Outreach & Education Program**

Create a mitigation outreach program which will:

- Help residents prepare for and mitigate disasters;
- Increase awareness of natural hazard risks and safety;
- Educate the public about hazard mitigation techniques; and
- Promote disaster-resistant development.

- **FEMA's Community Rating System (CRS)**

Continue participation in the CRS. Aberdeen Township has met all requirements for increasing its participation to a Class 8 level, and this change will go into effect in October 2015. The Township should consider an increased level of participation in order to receive further discounted flood insurance premium rates, reduce flood

damage to insurable property, and to encourage a comprehensive approach to floodplain management.

- **Radio Station for Communication**

Consider designating local radio stations to be used as a means of communication to broadcast emergency evacuation and shelter information during storm events and other emergencies.

- **Elevate Pump Stations**

Elevate municipally-owned wastewater pump stations, or vulnerable components thereof, to either be above current BFEs, or to be otherwise waterproofed, to provide resiliency in future storm events and minimize wastewater overflows.

- **Community Shelter**

Develop specific mitigation solutions that help residents prepare for and mitigate loss of communications and seasonal severe temperature events by providing a community shelter. This project is intended to protect public health and safety and to reduce the number of emergency calls during storm events.

- **Comfort Station at Municipal Building**

Develop the Municipal Building as a comfort station during emergencies. The comfort station should include the installation of an emergency standby generator, installation of a high-speed wireless network, acquisition of comfort supplies (emergency cots, food and water supplies), installation of electronic device charging stations, preparation of computer terminals, and installation of a television with a cable feed for news updates.

- **Dunes and Seawall Sidewalk**

Develop specific mitigation solutions for both dunes and seawall sidewalk that would help mitigate future damages and provide a greater level of resiliency. The previously existing dunes and an ADA sidewalk on top of the seawall were damaged by Hurricane Sandy's storm surge. The breaching of the dunes permitted the storm surge to adversely impact the Veterans Memorial Park recreation facilities.

- **Elevation of Residential Structures**

Counsel and encourage owners of flood prone residential structures in their efforts to elevate their homes. The Township supports homeowners moving forward and has assisted in expediting applicable permits.

- **Flood Prone Roadways**

Develop specific mitigation solutions for flood prone roadways, specifically at the following locations:

- State Highway 35 at Long Neck Creek, under the leadership of and funding from the New Jersey Department of Transportation. Elevation of Route 35 is currently underway in Aberdeen;
- Lakeshore Drive at Greenwood Avenue. This includes road elevation and culvert replacement, for which grant funding has already been received;
- Amboy Avenue, under the leadership of Monmouth County.

One specific mitigation solution at these sites includes the use of backup power supply at traffic lights.

- **Bayshore Regional Collaborative**

Aberdeen should continue to work with the Bayshore Regional Collaborative to address waterfront maintenance issues. Working on behalf of the region, the Collaborative can prioritize local issues and develop regional strategies and, thereby, more effectively assist in advocating federal, state, and county agencies to raise funds for waterfront maintenance.

The Township should also collaborate to market the Bayshore Region as a tourist destination, including developing an inventory of key recreational, waterfront, historic, and other assets.

- **Clean Marina Program**

Work with local marinas in Aberdeen Township and across the Bayshore Region to implement a clean marina program, as addressed in the Bayshore Regional Plan.

- **New Housing Development**

Aberdeen Township has pursued housing development through the use of redevelopment. The Township should continue to identify locations where new housing development is appropriate and should be encouraged.

- **Senior Housing**

Consider specific areas appropriate for the development of senior citizen housing and services within Aberdeen Township. The Township has supported the inclusion of age-restricted affordable housing in recent redevelopment efforts. New senior citizen housing development should, to the extent possible, be located in pedestrian-friendly areas of the Township, and should also be located in an area that can provide safe evacuation in the event of an emergency.

- **Residential Development Adjacent to Beachfront**

Continue to limit or prohibit new residential development immediately adjacent to the beach front. Where development is appropriate, create incentives or require public open space to be provided between development and water/marsh edge.

- **Tree Planting**

Where possible, Aberdeen Township should encourage tree planting throughout the Township, increasing the urban tree canopy. An increase in the urban tree canopy can help to: improve air quality by mitigating air pollution and greenhouse gases; reduce stormwater runoff and improve water quality; reduce and eliminate erosion; increase property values; reduce heating and cooling costs for buildings; define a sense of place and provide desirable landscapes; and help improve road safety along tree-lined streets.

VII. Recommendations Concerning the Incorporation of Redevelopment Plans

The following areas have been designated “Redevelopment Areas” by Aberdeen Township in accordance with the “Local Redevelopment and Housing Law,” P.L. 1992, c. 79 (C.40A:12A-1, et al.):

1. **PACRP Planned Adult Community Overlay Redevelopment Zone:** This includes lands in the Freneau portion of the Township which are to be developed with a component of affordable non age-restricted housing to help satisfy the Township’s COAH mandated housing obligations. Portions of the Freneau area include farmland and a wetland area in the process of being acquired for public use/conservation. The Bayshore Region Strategic Plan recommends reviewing the Redevelopment Plan to determine if there are any additional areas that can be preserved. This area has not been developed yet.

In February 2015 Monmouth County passed Resolution #2015-0145, authorizing the acquisition of approximately 87.88 acres of land owned by Aberdeen/Wilson Associates LLC in this Redevelopment Area to be set aside for a new county and regional park in the area. The resolution amended Resolution #2014-0059 to increase the amount of funding authorized by Monmouth County in order to make the purchase.

In light of these land purchases, the rationale for this Redevelopment Area is invalidated. The Township should review the basis of the Redevelopment Area and consider modifying the development ordinances and zoning map accordingly.

2. **Commerce & Transportation Center Redevelopment Area:** This Redevelopment Area is comprised of two sections, as follows:

Section I – Train Station Luxury Apartment Overlay: The property is located adjacent to Exit 117 of the Garden State Parkway and was developed to provide housing within a reasonable vicinity of the



Aberdeen/Matawan train station. This portion of the Redevelopment Area has already been approved and built.

Section II – Train Station Mixed Use Inclusionary Overlay: Lands in the vicinity of the Aberdeen/Matawan train station, with the intent of improving the operation of the station and providing a “Commerce Transportation Center” with primarily multi-use commercial buildings and additional commuter parking. Transit-oriented development plans should be encouraged in this area. The Township has also expressed interest in pursuing affordable housing opportunities in this portion of the Redevelopment Area.

3. **IH Inclusionary Housing County Road & Route 35 Overlay Redevelopment Zone:** This Redevelopment Area includes land close to the intersection of County Road and Route 35, and backs on Whale Creek. This is currently being developed with townhomes and is under construction.
4. **The Glassworks Mixed Use Inclusionary Overlay Redevelopment Zone:** The property along Cliffwood Avenue which once was occupied by Anchor Glass (a.k.a. Midland Glass) and which now is being considered for a mixed-use planned development. The development has been approved.
5. **Route 34 Redevelopment Area:** Lands along Route 34 and in the vicinity of the Aberdeen’s border with Marlboro, which will be developed as a multi-family residential development. This Redevelopment Area received site plan approval in early 2015.
6. **South River Metals Redevelopment Area:** The property along Church Street was once occupied by the South River Metal Products Company, Inc.. The Redevelopment Plan proposes the development of affordable age-restricted and non-age restricted housing units to help satisfy the Township’s COAH mandated housing obligations. This development received final site plan approval in October 2014, however, the number of COAH units was reduced from the original number proposed in the Township’s Housing Plan Element.
7. **The Villages at Aberdeen Redevelopment Area:** The property along Route 34 and White Oak Lane. This Redevelopment Area has been developed with 54 market rate townhomes and eight affordable units.

To date, a Redevelopment Plan and implementing ordinance provisions have been adopted for the seven (7) plans. These redevelopment areas should be adopted on the Township zoning map. The Township also supports continued planning efforts related to designating future areas in need of redevelopment.

Master Plan Amendment

Introduction

The purpose of this Master Plan amendment is to incorporate the recommendations and changes that have been outlined in the 2015 Reexamination Report into the Township's Master Plan, or to establish the basis for future actions through the definition of new goals and objectives. This Master Plan amendment: updates and adds to the Master Plan objectives and policies; updates the Land Use Plan Element with updated existing land use mapping and a discussion on building resiliency; and includes an update to the community facilities plan element to promote resiliency and include updated mapping of community facilities and critical infrastructure.

Hurricane Sandy struck the coast of New Jersey on October 29, 2012, and its storm surge and winds caused extensive damage to Aberdeen Township's roadways, critical infrastructure, utility services, and to buildings and homes. This document is the Township's response to Hurricane Sandy's impacts, and offers new opportunities for examining community resiliency and ensuring that recovery efforts address the Township's needs for the future.

Master Plan Objectives and Policies

Given the experience of Hurricane Sandy, it is important that the Master Plan objectives promote sustainability and resiliency, as well as the local-level implementation of the Monmouth County Multi-Jurisdictional Hazard Mitigation Plan Draft Update and the recommendations of the 2014 Strategic Recovery Planning Report. The Master Plan is, therefore, amended to include new resiliency objectives, provided below. In addition, the existing objectives and policies that underpin Township planning are reproduced to promote clarity and centrality of information and updated to the extent necessary in order to adequately reflect conditions as of 2015.

The Master Plan's objectives and policies are divided into five major categories, and are listed below.

Residential

- New single family residential lots should not be smaller than the minimum lot size permitted in the district and should also meet bulk requirements. New developments should continue to reflect Land Development Ordinance standards.
- The quality of existing housing should be maintained or improved by means of rehabilitation, code enforcement, supportive public improvements, and other available means.
- Smaller, moderately priced housing units should be encouraged in the appropriate designated zone districts.
- Senior citizen housing and adult communities should be encouraged.

Commercial

- Renovations should meet present zoning and site design standards. In particular, the required spacing between street line and building front and between parking areas and property lines should be followed. Buffer areas should be adequately landscaped and maintained.
- Scattered commercial uses should continue to be phased out.
- New commercial development should meet minimum loading and circulation access standards in order to minimize conflict between access for loading, clientele access, and emergency access. Loading zones shall be located so that they do not conflict with front and emergency access. This shall apply only to new construction and substantial rehabilitation.
- Mixed-use development should be investigated for the commercial zone.

Industrial

- Adverse environmental impacts shall be controlled by the use of performance standards which reference and reinforce state performance standards and regulations.
- Visual incompatibilities between industrial development and adjoining residential areas should be minimized by adequate buffering and other design techniques.
- Renovations and expansions should bring site improvements to a level consistent with current site planning standards.

Conservation

- Tidal and inland wetlands, as well as stream banks, should be conserved. There is a need to preserve and enhance these areas to increase resiliency and protect developed areas.

Resiliency

- Plan for new development to minimize risk from natural hazards.
- Promote public awareness of hazard mitigation and resiliency issues.
- Focus public agencies on community vulnerabilities to hazards such as flooding.
- Encourage future capital projects to locate outside flood hazard areas.
- Encourage renovations and modifications that are resilient to flood- and storm-related impacts.
- Encourage municipal efforts and initiatives in FEMA's Community Rating System (CRS).

Land Use Plan Element

As has been previously noted, the 2015 Master Plan Reexamination Report recommends that the Land Use Element be amended to facilitate increased sustainability and promote resiliency through the use of green building and infrastructure techniques. The 2015 Master Plan Reexamination Report also recommends that the Land Use Element be amended to include current existing land use mapping. This is achieved below.

Current Land Use Mapping

The Land Use Element should be updated to include the following mapping presented in Appendices A through C of this document:

- Current land use mapping that is presented in Appendix A;
- Critical environmental areas that are presented in Appendix B; and
- The Zoning Map that is presented in Appendix C.

Zoning in Freneau Area

The 2015 Master Plan Reexamination Report recommends the following for the Freneau area of the Township: reaffirming the zoning standards for the R-100 residential zone; and reaffirming the 10,000 square foot minimum lot size for lots within the sewer service area.

The entire R-100 zone in the Freneau Area of town is located within the proposed sanitary sewer service area. Additionally, the minimum lot area for properties in the R-100 zone is 10,000 square feet. The Land Use Plan Element reaffirms the zoning in the R-100 zone and in the Freneau area of Aberdeen Township.

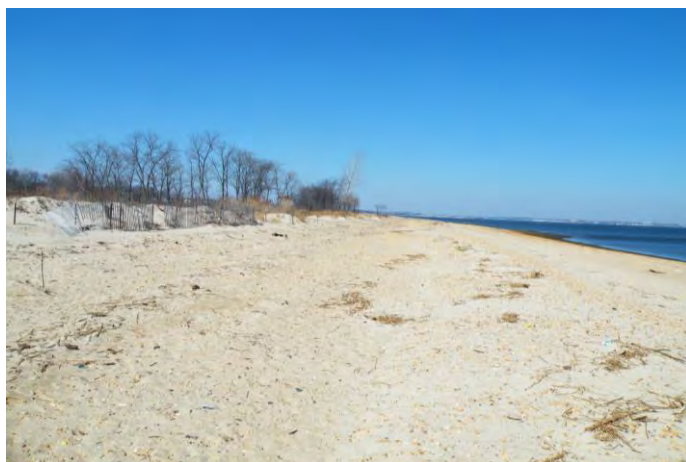
Zoning in Cliffwood Beach Area

The 2015 Master Plan Reexamination Report recommends reaffirming the boundaries of the “CR” Conservation/Recreation zone in Cliffwood Beach. The continued conservation of this area is essential for the area to maintain flood control, groundwater recharge and discharge, water quality improvements, shoreline stabilization, fish and wildlife habitat, recreational opportunities, and aesthetic values.

In general, FEMA designated flood hazard areas in Cliffwood Beach are almost entirely located within the CR zone, minimizing the threat of flooding to residences located in the

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adjoining R-50 zone of Cliffwood Beach. This Land Use Element reaffirms the boundaries, to reflect the updated zoning map, as discussed above and as presented in Appendix C.



“NC” Neighborhood Commercial Zone

The 2015 Master Plan Reexamination Report recommends reviewing zoning in the “NC” Neighborhood Commercial zone section along Lower Main Street to determine if it would be appropriate to allow mixed-use buildings and home professional offices here. This review is done below.

The area in question is comprised of 43 properties, listed below:

Block	Lots	Block	Lots	Block	Lots
253	5.01, 7-13	265	5, 6	274	6.01, 6.02
254	1, 5, 6, 8-10	266	1.01, 1.02, 2-4, 14, 15	275	11.01, 11.02, 13, 14
255	1, 2	267	6, 8	276	18-20
256	1-6	268	11		

A review of Monmouth County MOD-IV data reveals that the breakdown of the land use classifications of the 43 properties in this area are as follows:

- Residential: 27 lots
- Commercial: 12 lots
- Public: 1 lot
- Church/Charitable: 1 lots
- Vacant: 2 lots

While currently zoned commercial, this area is mainly residential. Residential uses are not permitted in the NC zone. The Township's Land Development Ordinance allows buildings with more than one use in the NC zone, with requirements for building coverage and minimum gross floor area. These provisions do not, however, specifically allow residential uses in the NC zone.

Furthermore, the Township's Land Development Ordinance states that the purpose of the NC zone is: "to allow for small areas throughout the Township where small retail and service businesses may be located primarily for the convenience of the residents in the immediate neighborhood." As the NC zone is intended to support the needs of the immediate residences, the area would benefit from permitting both mixed-use commercial and residential buildings as well as home professional offices.

Furthermore, this portion of the NC zone is located in close proximity to the Aberdeen/Matawan station of the New Jersey Transit North Jersey Coast Line. Allowing home professional offices in this area will help facilitate the Township's revitalization efforts and will help cater to commuters.

Based on the explanation provided above, the Land Use Plan Element finds it appropriate to allow mixed-use buildings and home professional offices in the aforementioned areas of the Neighborhood Commercial zone. However, a further study is recommended and may be appropriate upon completion of the redevelopment of the train station site.

Medical/Commercial Facilities in "HC" Highway Commercial and "RC" Regional Commercial Zones

The 2015 Master Plan Reexamination Report recommends amending the "HC" Highway Commercial and "RC" Regional Commercial zones to explicitly allow medical/commercial uses as permitted uses. Currently, permitted uses in the HC zone include the following:

1. Retail sales of goods and services;
2. Restaurants, bars, taverns, and nightclubs;
3. Banks;
4. Offices and office buildings;
5. Theaters;
6. Department stores;
7. Shopping centers;
8. Garden centers;
9. Bowling alleys;
10. Automobile sales;

11. Car washes as conditional uses;
12. Service stations as conditional uses;
13. Public utilities as conditional uses;
14. Public purpose uses;
15. Storage yards as conditional uses;
16. Amusement arcades as conditional uses; and
17. Wireless communication antennas.

Permitted uses in the RC zone include the following:

1. Permitted uses 1-6 under the HC zone;
2. Research or testing laboratories;
3. Hotels and motels as conditional uses;
4. Public utilities as conditional uses;
5. Public purpose uses; and
6. Amusement arcades as conditional uses.

As seen above, medical uses are not explicitly permitted in either the HC or RC zones. It is the intent of this Land Use Plan Element to allow medical/commercial services that are not harmful, but rather beneficial to the health, welfare, and general well-being to the adjoining neighborhood. This Land Use Plan Element therefore expands permitted uses in both the HC and RC zones to allow such medical/commercial uses as: medical walk-in facilities; physician/dental offices; pharmacies; day surgical centers; and adult daycares; provided that there are no overnight residents at any medical facilities. This amendment will require off-street parking requirements for such medical/commercial facilities.

Redevelopment Areas

The Land Use Plan Element is updated to include all of the Redevelopment Areas within the Township, as outlined in the 2015 Master Plan Reexamination Report and seen on the zoning map.

The following properties have been designated “Redevelopment Areas” by Aberdeen Township in accordance with the “Local Redevelopment and Housing Law,” P.L. 1992, c. 79 (C.40A:12A-1, et al.):

1. **PACRP Planned Adult Community Overlay Redevelopment Zone:** This includes lands in the Freneau portion of the Township which are to be developed with a component of affordable non age-restricted housing to help satisfy the Township’s COAH mandated housing obligations. Portions of the Freneau area include farmland and a wetland area in the process of being acquired for public

use/conservation. The Bayshore Region Strategic Plan recommends reviewing the Redevelopment Plan to determine if there are any additional areas that can be preserved. This area has not been developed yet.

In February 2015 Monmouth County passed Resolution #2015-0145, authorizing the acquisition of approximately 87.88 acres of land owned by Aberdeen/Wilson Associates LLC in this Redevelopment Area to be set aside for a new county and regional park in the area. The resolution amended Resolution #2014-0059 to increase the amount of funding authorized by Monmouth County in order to make the purchase.

In light of these land purchases, the rationale for this Redevelopment Area is invalidated. The Township should review the basis of the Redevelopment Area and consider modifying the development ordinances and zoning map accordingly.

2. **Commerce & Transportation Center Redevelopment Area:** This Redevelopment Area is comprised of two sections, as follows:

Section I – Train Station Luxury Apartment Overlay: The property is located adjacent to Exit 117 of the Garden State Parkway and was developed to provide housing within a reasonable vicinity of the Aberdeen/Matawan train station. This portion of the Redevelopment Area has already been approved and built.



Section II – Train Station Mixed Use Inclusionary Overlay: Lands in the vicinity of the Aberdeen/Matawan train station, with the intent of improving the operation of the station and providing a “Commerce Transportation Center” with primarily multi-use commercial buildings and additional commuter parking. Transit-oriented development plans should be encouraged in this area. The Township has also expressed interest in pursuing affordable housing opportunities in this portion of the Redevelopment Area.

3. **IH Inclusionary Housing County Road & Route 35 Overlay Redevelopment Zone:** This Redevelopment Area includes land close to the intersection of County

Road and Route 35, and backs on Whale Creek. This is currently being developed with townhomes and is under construction.

4. **The Glassworks Mixed Use Inclusionary Overlay Redevelopment Zone:** The property along Cliffwood Avenue which once was occupied by Anchor Glass (a.k.a. Midland Glass) and which now is being considered for a mixed-use planned development. The development has been approved.
5. **Route 34 Redevelopment Area:** Lands along Route 34 and in the vicinity of the Aberdeen's border with Marlboro, which will be developed as a multi-family residential development. This Redevelopment Area received site plan approval in early 2015.
6. **South River Metals Redevelopment Area:** The property along Church Street was once occupied by the South River Metal Products Company, Inc.. The Redevelopment Plan proposes the development of affordable age-restricted and non-age restricted housing units to help satisfy the Township's COAH mandated housing obligations. This development received final site plan approval in October 2014, however, the number of COAH units was reduced from the original number proposed in the Township's Housing Plan Element.
7. **The Villages at Aberdeen Redevelopment Area:** The property along Route 34 and White Oak Lane. This Redevelopment Area has been developed with 54 market rate townhomes and eight affordable units.

Building Resiliency through Development Regulations

Given the experience of Hurricane Sandy and the potential for future storms, there is a compelling need to build resiliency in Aberdeen Township. The Land Use Plan Element, therefore, recommends that the Township's development regulations be designed to build resiliency throughout the Township. This should be done through the promotion of green building and infrastructure techniques. This section of the Land Use Plan Element overviews green building and infrastructure techniques, and is meant to inform the future development of municipal development regulations.

Green Building and Infrastructure Techniques

Green building and infrastructure techniques are an important tool for promoting resiliency in Aberdeen Township. They use permeable surfaces (e.g., porous concrete, gravel, mulch, etc.), landscape formations (e.g., channels, depressions), plant material, or other technologies to reduce stormwater runoff by promoting natural infiltration. Their use can promote resiliency by mitigating flooding (i.e., reducing the risk and impacts of

flooding) and helping the Township to quickly recover from storms. In addition, they provide numerous co-benefits, not the least of which are: reducing long-term maintenance and operation costs of stormwater infrastructure; and, capturing runoff pollution (e.g., particulate matter, heavy metals) and preventing their entry into sensitive terrestrial waterways.

The Land Use Plan Element recommends the incorporation of green building and infrastructure techniques in the Township's development regulations. Recommended green building and infrastructure techniques are described in the following subsections.

Downspout Disconnection

Downspout disconnection refers to the rerouting of rooftop drainage pipes to specialized containment devices (e.g., rain barrels, cisterns) and permeable areas, instead of traditional stormwater drainage systems. This allows stormwater runoff from building roofs not only to infiltrate soil, but also to be collected for later use (e.g., watering lawns and gardens), which reduces demand on public water supplies.



Rain Gardens

Rain gardens are shallow, vegetated basins that absorb stormwater runoff from impervious surfaces (e.g., rooftops, sidewalks, and streets). Runoff is channeled into rain gardens, and is then used by plants, infiltrated into the ground, and evaporated. They may be installed in a variety of locations, and can be an attractive element of site design. Indeed, they may be installed in any properly graded unpaved space, and in parking lots and paved areas through the construction of specialized planter boxes that collect and absorb runoff.



Bioswales

Bioswales are open, linear channels with vegetation, mulching, or xeriscaping that slow stormwater runoff and attenuate flooding potential while conveying stormwater runoff away from critical infrastructure. Their permeable surface also permits the natural infiltration of stormwater. They are often used as an alternative to, or enhancement of, traditional stormwater drainage systems.



Permeable Pavements

Permeable pavements help to reduce stormwater runoff, which helps to improve the quality of terrestrial waters and mitigate flooding. With traditional (i.e., impervious) pavement, stormwater runs into drains and inlets, which places a burden on such infrastructure, and may result in the discharge of pollutants (e.g., sediment, oil residue, etc.) into terrestrial waters. Permeable pavements, however, infiltrate, treat, or store rainwater where it falls. Key examples of permeable pavements include pervious concrete, porous asphalt, and permeable interlocking pavers.



Green Roofs

Green roofs are roofs that are covered with substrate and vegetation that enable the infiltration of rainwater. This not only minimizes stormwater runoff, but leads to reduced building operating costs and energy consumption by providing improved insulation of the roof surface, and absorbing less heat on the roof surface (i.e., increasing the roof surface albedo over traditional roof surfaces). Flat and low-pitched roofs are most suited to green roof development and retrofitting therewith.



Tree Cover

Increased tree cover in developed areas is an important example of green infrastructure. Trees reduce and slow stormwater by intercepting precipitation in their leaves and branches. In addition, their root systems help to aerate soil, which facilitates natural infiltration of stormwater and reduces runoff. Trees also purify the air, and can help to cool developed areas by providing shade, and through evaporative cooling and increased latent heat flux (i.e., the dissipation of sensible heat).



Living Shorelines

Living shorelines are an approach to shoreline stabilization that uses wetland plants, submerged aquatic plants, oyster reefs, coir fiber logs, sand fill, and stone to provide shoreline protection and maintain important habitat areas. They offer numerous benefits over hardened structures (e.g., bulkheads and concrete walls), including protection of the riparian and intertidal environments, improvement of water quality via filtration of upland runoff; and creation of habitat for aquatic and terrestrial species.

Open Space Preservation

Preservation of open space areas within and adjacent to developed areas can help to mitigate the water quality and flooding impacts of stormwater. Indeed, natural open space areas promote increased groundwater recharge, lower stormwater runoff, and reduced levels of nutrients and sediment in terrestrial waters. They also help to cool developed areas through evaporative cooling and increased latent heat flux. The use of building coverage and impervious surface limits, tree-save requirements, and noncontiguous clustering are key ways to promote open space preservation through development regulation.

Community Facilities and Resiliency Plan Element

The Community Facilities Plan Element should be updated to include updated mapping of community facilities and critical infrastructure, and to promote resiliency at community facility and critical infrastructure sites. This is achieved in the following subsections.

Promoting Resiliency

The following section on promoting resiliency should be added to the Community Facilities and Resiliency Plan Element:

Hurricane Sandy caused significant damage to critical infrastructure and community facilities in Aberdeen Township. Two of the Township's sewage pump stations were destroyed at the hands of Hurricane Sandy's storm surge. Township facilities along the Raritan Bayfront also sustained significant damage, including the dune system, sea wall, and several recreational facilities. Trees and power lines throughout the Township fell, and the Township faced power outages for more than seven days.

Given the experience of Hurricane Sandy and the potential for similar storms in the future, it is important that the Township promote the resiliency of its community facilities and critical infrastructure. This can be done through the application of green building and infrastructure techniques, which are discussed in the Land Use Element of this Master Plan. It can also be achieved through physical flood control and related devices, elevation of facilities above the advisory base flood elevation, careful site selection for new facilities, or other means. As well, resiliency can be promoted by providing new and upgraded emergency power generation facilities at important sites, such as municipal buildings, police station, schools, and pump stations, which will help the Township to function in times of crisis. By promoting the resiliency of community facilities and critical infrastructure, the Township is not only protecting its investment, but may also set an important example for others to follow and thereby increase the overall sustainability and resiliency of the Township.

Public Facilities and other Critical Infrastructure Mapping

The Community Facilities and Resiliency Plan Element should be updated to include the following list of resiliency improvements to public facilities and critical infrastructure. This list of improvements is included in the Recommendations section of the 2015 Master Plan Reexamination Report.

- **Trail System**

Promote the development of a coordinated system of continuous greenbelts, walking trails, pedestrian-bikeway corridors, and sidewalks to provide possible linkages between active recreation, school, and open space facilities within Aberdeen Township. This recommendation has also been identified as an objective in the 2004 Open Space and Recreation Plan, and is also still valid.

- **Henry Hudson Bike Trail**

The Township should coordinate with the Monmouth County Parks system to make the Henry Hudson Trail extend with continuity along the railway right-of-way from Aberdeen and Matawan through Marlboro to Freehold. A plan should be developed for the extension of the trail in this area and funding for its completion should be secured.

- **Waterfront and Open Space Lands**

Promote both the acquisition of unprotected identified waterfront and open space lands, and construction of additional recreational facilities needed and desired by the Township. Seek funding from the New Jersey Department of Environmental Protection and/or other available sources.

On the regional level, work in cooperation with county, state, and federal agencies, and with other Bayshore municipalities, to progress and complete the restoration and acquisition of key regional waterfront and open space lands and regional trails.

The 2004 Open Space and Recreation Plan identified as an objective the preservation and protection of environmentally sensitive lands and lands with natural resources. This is further recommended in this Reexamination Report.

- **Open Space Outreach & Education**

Promote public support for open space protection and acquisition via education and communication, with help of the Township Environmental & Shade Tree Advisory Board.

- **Mitigation Outreach & Education Program**

Create a mitigation outreach program which will:

- Help residents prepare for and mitigate disasters;
- Increase awareness of natural hazard risks and safety;
- Educate the public about hazard mitigation techniques; and
- Promote disaster-resistant development.

- **FEMA's Community Rating System (CRS)**

Continue participation in the CRS. The Township should consider increased participation in order to receive further discounted flood insurance premium

rates, reduce flood damage to insurable property, and to encourage a comprehensive approach to floodplain management.

- **Elevate Pump Stations**

Elevate municipally-owned wastewater pump stations, or vulnerable components thereof, to either be above current BFEs, or to be otherwise waterproofed, to provide resiliency in future storm events and minimize wastewater overflows.

- **Community Shelter**

Develop specific mitigation solutions that help residents prepare for and mitigate loss of communications and seasonal severe temperature events by providing a community shelter. This project is intended to protect public health and safety and to reduce the number of emergency calls during storm events.

- **Dunes and Seawall Sidewalk**

Develop specific mitigation solutions for both dunes and seawall sidewalk that would help mitigate future damages and provide a greater level of resiliency. The previously existing dunes and an ADA sidewalk on top of the seawall were damaged by Hurricane Sandy's storm surge. The breaching of the dunes permitted the storm surge to adversely impact the Township's Beach Park recreation facilities.

- **Elevation of Residential Structures**

Assist owners of flood prone residential structures in their efforts to elevate their homes. The Township supports homeowners moving forward and has assisted in expediting applicable permits.

- **Flood Prone Roadways**

Develop specific mitigation solutions for flood prone roadways, specifically at the following locations:

- State Highway 35 at Long Neck Creek, under the leadership of and funding from the New Jersey Department of Transportation. Elevation of Route 35 is currently underway in Aberdeen;
- Lakeshore Drive at Greenwood Avenue. This includes road elevation and culvert replacement, which has already been completed;
- Amboy Avenue, under the leadership of Monmouth County.

One specific mitigation solution at these sites includes the use of backup solar power at traffic lights.

- **Bayshore Regional Collaborative**

Aberdeen should continue to work with the Bayshore Regional Collaborative to address waterfront maintenance issues. Working on behalf of the region, the Collaborative can prioritize local issues and develop regional strategies and,

thereby, more effectively assist in advocating federal, state, and county agencies to raise funds for waterfront maintenance.

The Township should also collaborate to market the Bayshore Region as a tourist destination, including developing an inventory of key recreational, waterfront, historic, and other assets.

- **Clean Marina Program**

Work with local marinas in Aberdeen Township and across the Bayshore Region to implement a clean marina program, as addressed in the Bayshore Regional Plan.

- **Redevelopment Areas**

Amend the zoning map to incorporate all of the Township's Redevelopment Areas.

- **New Housing Development**

Aberdeen Township has pursued housing development through the use of redevelopment. The Township should continue to identify locations where new housing development is appropriate and should be encouraged.

- **Senior Housing**

Consider specific areas appropriate for the development of senior citizen housing and services within Aberdeen Township. The Township has supported the inclusion of age-restricted affordable housing in recent redevelopment efforts. New senior citizen housing development should, to the extent possible, be located in pedestrian-friendly areas of the Township, and should also be located in an area that can provide safe evacuation in the event of an emergency.

- **Residential Development Adjacent to Beachfront**

Continue to limit or prohibit new residential development immediately adjacent to the beach front. Where development is appropriate, create incentives or require public open space to be provided between development and water/marsh edge.

Furthermore, this Community Facilities and Resiliency Plan Element is updated to include public facilities and critical infrastructure mapping that is presented in Appendix D of this document. Note that this mapping shows the relation of these features to mapped flood hazard areas.

Circulation Plan Element

As has been previously mentioned in the 2015 Master Plan Reexamination Report, the Circulation Plan Element should be updated to: include recommendations for the development of emergency evacuation routes; and promote the development of bicycle and pedestrian connections. The following subsections describe the amendments to the Circulation Plan Element.

Emergency Evacuation Routes

Aberdeen Township's location on waterways and the potential for additional hurricanes and storms in the future make it necessary to plan for emergency evacuation routes to move people and equipment in times of emergency, and provide safe, efficient routes to emergency shelters and similar facilities within the region. This is particularly important for the Cliffwood Beach area as well as other flood-prone areas of the Township.

Key aspects of emergency evacuation route planning include identification of potential routes, completing necessary modernization and upgrading, ensuring that routes are properly maintained and marked through signage, and informing the public about the presence of such routes. To elaborate, it is noted that potential routes should provide regional connections. Modernizing and upgrading roadways to be used as emergency evacuation routes will improve mobility and facilitate the evacuation of the Township in times of crisis.

In addition to the above, it is noted that the planning of emergency evacuation routes should be coordinated with the New Jersey Department of Transportation, Monmouth County, and neighboring municipalities. This is important not only because evacuation routes would provide connections to the broader region, but also because roadways used as potential evacuation routes may fall under state, county, or municipal jurisdictions.

Bicycle and Pedestrian Connections

Bicycle and pedestrian connections are encouraged and should be provided to the maximum extent possible in all areas of the Township, and particularly between parks, recreation, and open space areas, and between important population centers. Completion of the Henry Hudson Trail should be encouraged as well. Providing such connections will not only help to make Aberdeen Township more sustainable by promoting non-motorized transportation, but also greatly improve the quality of life for Township residents. While sidewalks are an important pedestrian facility, the focus of this Circulation Plan Element is on dedicated and shared bicycle lanes, greenways, and multipurpose trails.

To maximize the provision of bicycle and pedestrian linkages, this Circulation Plan Element does not specify the exact locations where they should be provided (with the exception of the completion of the Henry Hudson Trail), but rather establishes a vision, discusses key principles of the design and maintenance of bicycle and pedestrian facilities, and outlines important goals and objectives for their provision.

Vision for Bicycle and Pedestrian Linkages

The Circulation Plan Element's vision is to develop the Township's network of bicycle and pedestrian linkages and secure the recreation and transportation benefits of bicycling and walking for Township residents. The Circulation Plan Element envisions a network of bicycle and pedestrian linkages that connects the Township's population centers with: open space and recreation areas; schools; commercial nodes; and other key destinations in Aberdeen Township and neighboring municipalities.

The Circulation Plan Element also envisions that linkages will be provided in the form of: on-road bicycle lanes, lanes shared between bicycles and vehicles, where appropriate; greenways; and protected multipurpose trails. In all variations, bicyclists and pedestrians will be able to travel in a safe and efficient manner throughout the network, which will boost bicycling and walking for recreation, and increase their use as a means of transport.

Facility Design and Maintenance

When planning bicycle and pedestrian linkages, it is important to pay attention to the needs and expectations of users, the facility's visual appeal and design, and its upkeep. The following subsections provide an overview of basic concepts to guide the planning and development of bicycle and pedestrian facilities within Aberdeen Township.

High Quality Experience

As a starting point, it is important to consider the elements that lead to a high quality experience. Examples of such elements include: visual appeal; pleasantness and convenience of location; presence of interconnections, residential areas, and community facilities; sufficient length, accessibility for users with limited mobility; and the availability of special features, such as educational opportunities, benches, shelters, and similar amenities. When planning bicycle and pedestrian facilities, it is important to maximize the availability of these elements in order to provide a high quality experience.

User Needs

It is also important to consider the needs and physical ability of the user. For example, the elderly and disabled will typically have different levels of ability than the remainder of the population. By giving consideration to the needs and physical ability of all users,

use and success of the network will be maximized. Accommodating a broad cross section of users of all ages and abilities will help to maximize the use and success of the network.

Connectivity

Connectivity refers to the linkages a network provides from a given point to another. When planning bicycle and pedestrian facilities, it is important to consider possible connections between neighborhoods, business districts, parks, community facilities, and natural environments. By providing such connections, bicycle and pedestrian facilities can provide a viable route to a destination.

Facility Type

Facility type will affect its design. The basic types of bicycle and pedestrian facilities are: on-road bicycle lanes; shared lanes; greenways; and multipurpose trails.

- **Dedicated, On-Road Bicycle Lanes:** On-road bicycle lanes provide dedicated space for cyclists where motorists are not allowed to park, stand, or drive. They are designated with striping, signage, and pavement markings, and make the movements of motorists and cyclists more predictable, thereby increasing safety. They are generally unidirectional, and travel in the same direction as the adjacent vehicle travel lanes. They are located on the right side of the roadway (i.e., along the curb), and when on-street parking is available they are generally situated between vehicle travel and parking lanes. According to guidelines of the American Association of State Highway and Transportation Officials, the minimum recommended width of an on-road bicycle lane is four feet. However, six feet is the preferred width recommended by this Circulation Plan Element. The additional width provides a greater degree of separation between bicycles and motor vehicles. Standards of the American Association of State Highway and Transportation Officials indicate that striping to separate on-road bicycle lanes from vehicle travel lanes should be six inches in width. Striping to separate on-road bicycle lanes from parking lanes should be four inches.
- **Shared Lanes:** Bicycle facilities may be provided in lanes shared between bicycles and motor vehicles. Shared lanes may be suitable on roadways with low traffic volumes or wide roadway shoulders, and are generally a low-cost solution because they can be provided without the requirement for physical changes to the roadway. Indeed, shared lanes only require bikeway network signage; they can, however, be supplemented with pavement markings. The width of a shared lane should ideally be 15 feet to allow for enough clearance between bicycles and large vehicles.

- **Greenways:** Greenways are long, linear open spaces that provide a setting for nature conservation and recreation. They often contain trails and link parks. The corridors of streams and rivers, and utility easements lend themselves to greenway development. Greenways are often the location of bicycle and pedestrian facilities.
- **Multipurpose Trails:** Multipurpose trails facilitate connections within the community. They provide for safe, non-motorized passage between residential and commercial areas, parks and open space areas, and other community features. A width of eight to ten feet is appropriate for multipurpose trails. In certain high-traffic areas, however, a width of ten to twelve feet may be appropriate. In all cases, the width should be enough to accommodate bidirectional passage. Multipurpose trails may be provided in roadway rights-of-way, but when they are provided in such areas, they are physically separated from motor vehicle traffic by open space or some other type of physical barrier (e.g., guard rail, curbing, etc.).
- **Signage:** Signage serves a number of important functions. Most importantly, it helps a user to identify his or her location and conveys information about facility characteristics. As such, proper signage is an important part of bicycle and pedestrian facility design.

Signage at the trailhead should include: the name of the facility; a large-format map; length; permitted activities; and information on connections. Signage should contain a minimal amount of text by making extensive use of icons and pictograms. Locational markers placed at regular intervals along the route should supplement this information. Additionally, interpretative signage should be provided where significant natural or cultural features are present. All signage should be made of durable materials that resist fading, water damage, and vandalism.

With regard to traffic signage, it is noted that the Federal Highway Administration's Manual on Uniform Traffic Control Devices (MUTCD) provides standards for all traffic control devices nationwide, including signs for bicycle facilities. All traffic control devices nationwide must conform to its standards. It is, therefore, the recommendation of the Circulation Plan Element that the current MUTCD be consulted when planning traffic control signage.

- **Amenities:** When planning bicycle and pedestrian facilities, it is important to provide appropriate amenities. The appropriateness of a particular amenity will be determined by the function, type, and anticipated users of the facility.

Amenities have a significant impact on a user's overall experience, and may include: bicycle racks; resting areas; benches; picnic areas; drinking fountains; animal-proof refuse containers; observation areas; and shelters, among others.

- **Maintenance:** The proper maintenance and upkeep of Aberdeen Township's bicycle and pedestrian facilities will ensure the public's continued use, safety, and enjoyment. As such, maintenance is an integral part of the bicycle and pedestrian facility planning process.

The maintenance required for a specific facility will be determined by type, surface, and amenities. Consequently, it is the recommendation of this Circulation Plan Element that a maintenance plan be written for the bicycle and pedestrian network in Aberdeen Township.

A facility's future maintenance needs must also be considered during the design process. For instance, off-road facilities should be designed to be accessible to maintenance vehicles. Additionally, benches and other amenities should be designed to be low maintenance. By giving forethought to maintenance in the design process, a facility's future maintenance requirements can be simplified.

Goals for Bicycle and Pedestrian Linkages

The Township's goals for bicycle and pedestrian linkages are as follows:

- Provide bicycle and pedestrian linkages between neighborhoods and key destinations within the Township, and to neighboring municipalities.
- Establish a permanent advisory committee for bicycle and pedestrian facilities.
- To the greatest extent possible, develop bicycle and pedestrian linkages between dead-end streets and cul-de-sacs.
- Provide identification and guide signs for bicyclists and pedestrians.
- Provide safe and adequate bicycle parking options at key destinations, and in all public parks.
- Work with Monmouth County to provide signage that alerts motorists of the presence of bicyclists along county roadways.
- Provide only bicycle-safe storm drain grates in all areas of the Township.
- Provide adequate lighting to ensure safety for bicyclists and pedestrians.
- Ensure that all bicycle projects comply with recognized design standards, such as the *Guide for the Development of Bicycling Facilities* prepared by the American Association of State Highway and Transportation Officials.
- Investigate potential funding mechanisms for bicycle and pedestrian facilities, including grants and open space trust funds.

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- Coordinate bicycle planning with adjoining municipalities, Monmouth County, and the State of New Jersey.
- Develop a township-wide bicycle and pedestrian facility map that is displayed at parks and other major destinations.
- Provide traffic calming at key locations to improve bicycle and pedestrian safety and encourage use of facilities.

Furthermore, this Circulation Plan Element is updated to include the public facilities and critical infrastructure mapping that is discussed in the Community Facilities and Resiliency Plan Element, as shown in Appendix D of this document. Note that this mapping shows the relation of these features to mapped flood hazard areas.

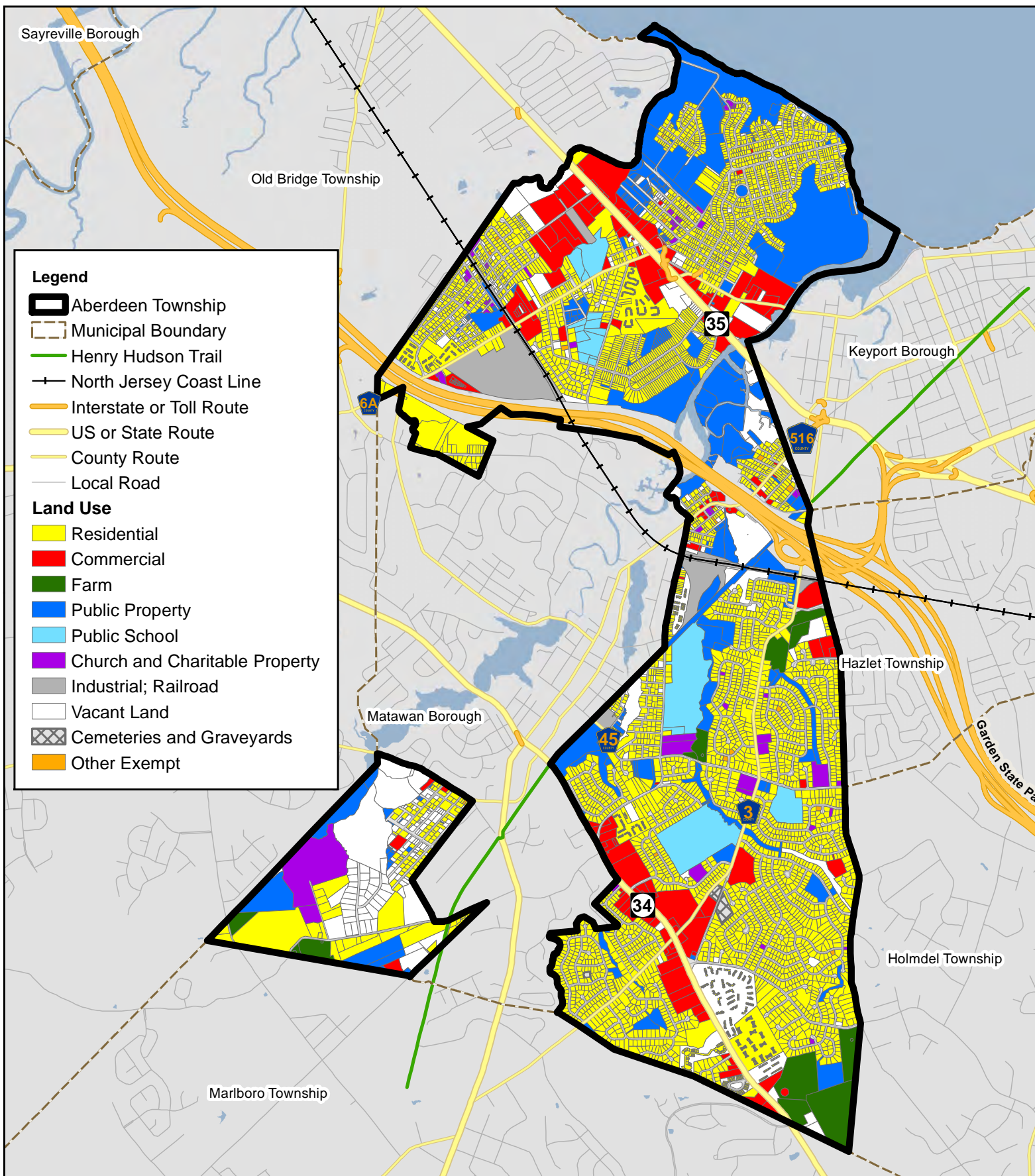
Appendices

Appendix A: Existing Land Use Map

Appendix B: Critical Environmental Areas

Appendix C: Existing Zoning & Flood Hazard Areas Overlay

Appendix D: Community Facilities & Flood Hazard Areas



T&M Associates
11 Tindall Road
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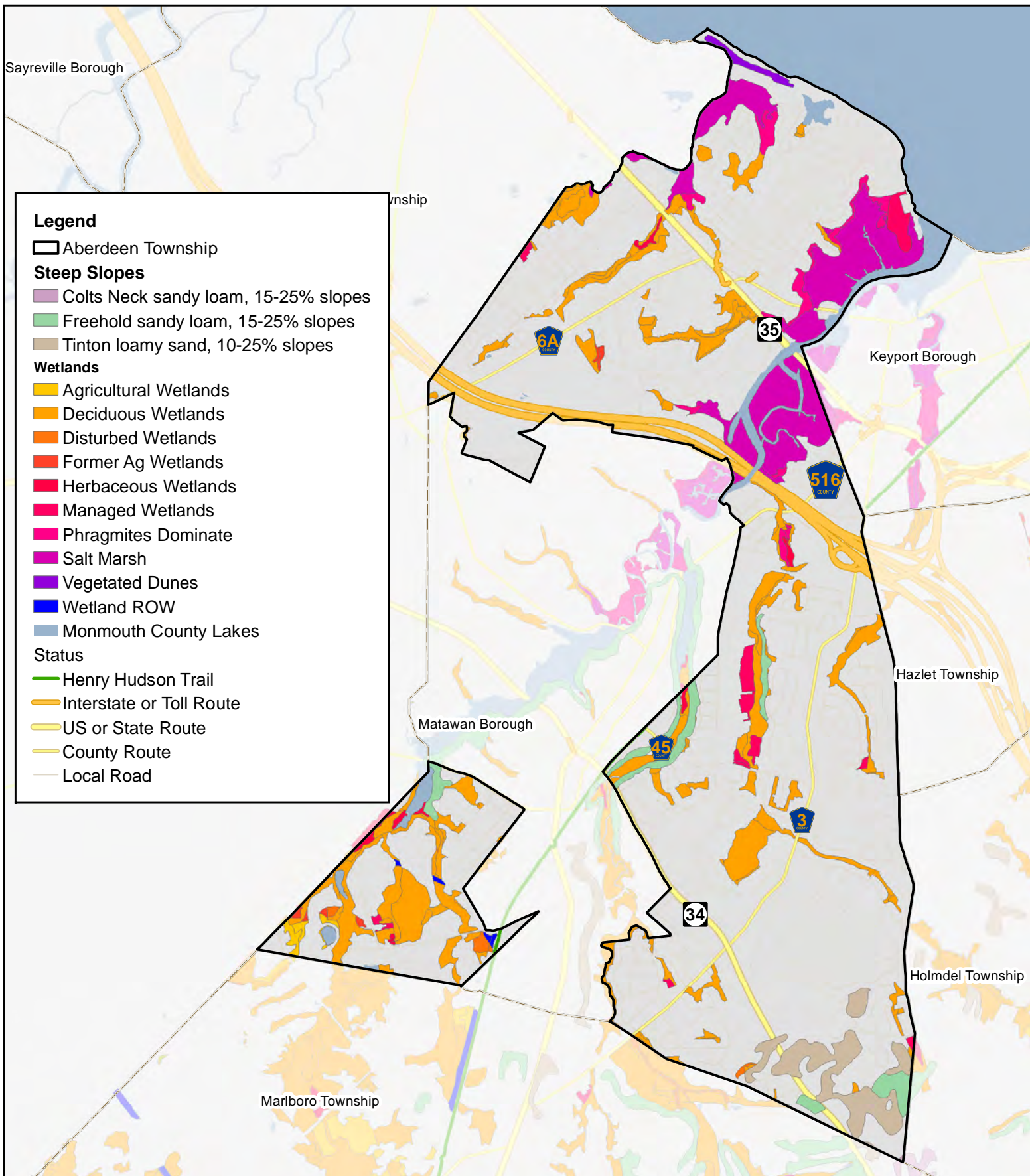
Prepared by: CLB, August 27, 2014
Revised by: JAC, September 15, 2014
Source: NJDEP; NJDOT; NJGIN
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0 900 1,800 3,600 5,400 7,200 Feet

Existing Land Use Township of Aberdeen Monmouth County, New Jersey

NOTE: This map was developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been verified by NJDEP and is not State-authorized.



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Critical Environmental Areas Township of Aberdeen Monmouth County, New Jersey

Prepared by: CLB, August 27, 2014
Revised by: JAC, September 15, 2014
Source: NJDEP; NJDOT; NJGIN
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0 875 1,750 3,500 5,250 7,000 Feet

NOTE: This map was developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been verified by NJDEP and is not State-authorized.

ZONING DISTRICTS	
APT/TH	Apartment/Townhouse Multi-Family Residential
ARAH	Age-Restricted Affordable Housing
CR	Conservation/Recreation
HC	Highway Commercial
LI	Light Industrial
MFG	Manufacturing
NC	Neighborhood Commercial
OR	Office Residential
PC	Planned Community Single-Family Residential
R-50	Single-Family Residential
R-60	Single-Family Residential
R-70	Single-Family Residential
R-75	Single-Family Residential
R-100	Single-Family Residential
RA	Agricultural & Very Low Density Single-Family Residential
RC	Regional Commercial
RO	Research/Office

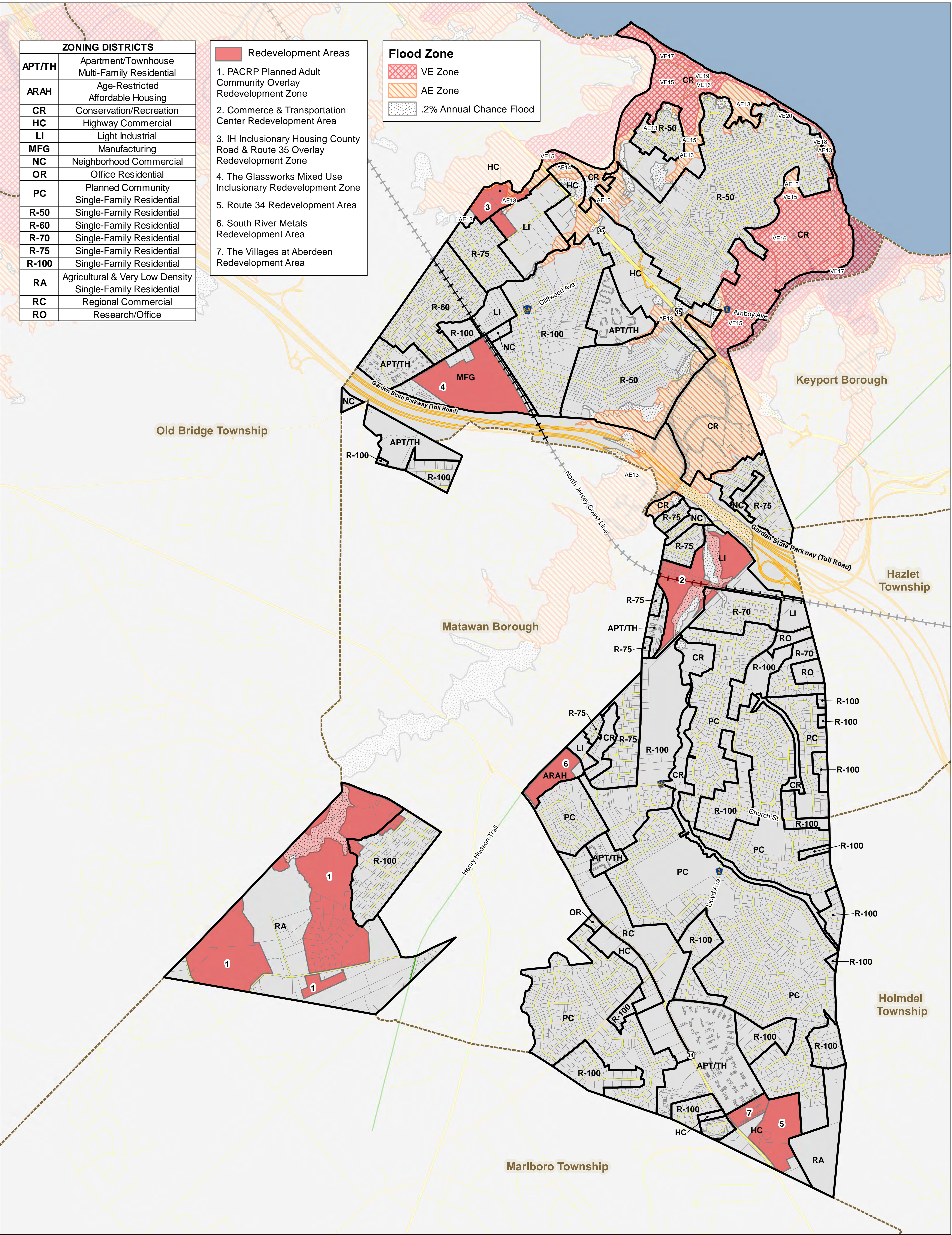
- Redevelopment Areas
1. PACRP Planned Adult Community Overlay Redevelopment Zone
2. Commerce & Transportation Center Redevelopment Area
3. IH Inclusionary Housing County Road & Route 35 Overlay Redevelopment Zone
4. The Glassworks Mixed Use Inclusionary Redevelopment Zone
5. Route 34 Redevelopment Area
6. South River Metals Redevelopment Area
7. The Villages at Aberdeen Redevelopment Area

Flood Zone

VE Zone

AE Zone

.2% Annual Chance Flood

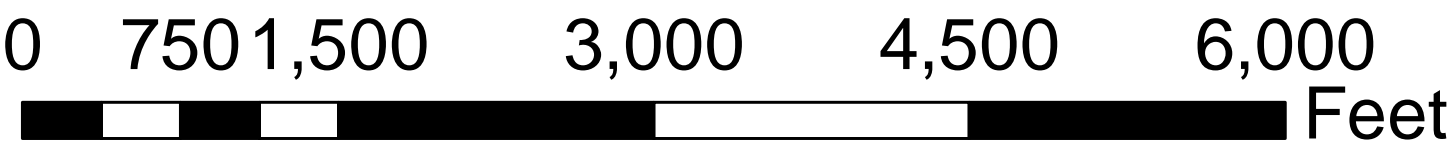


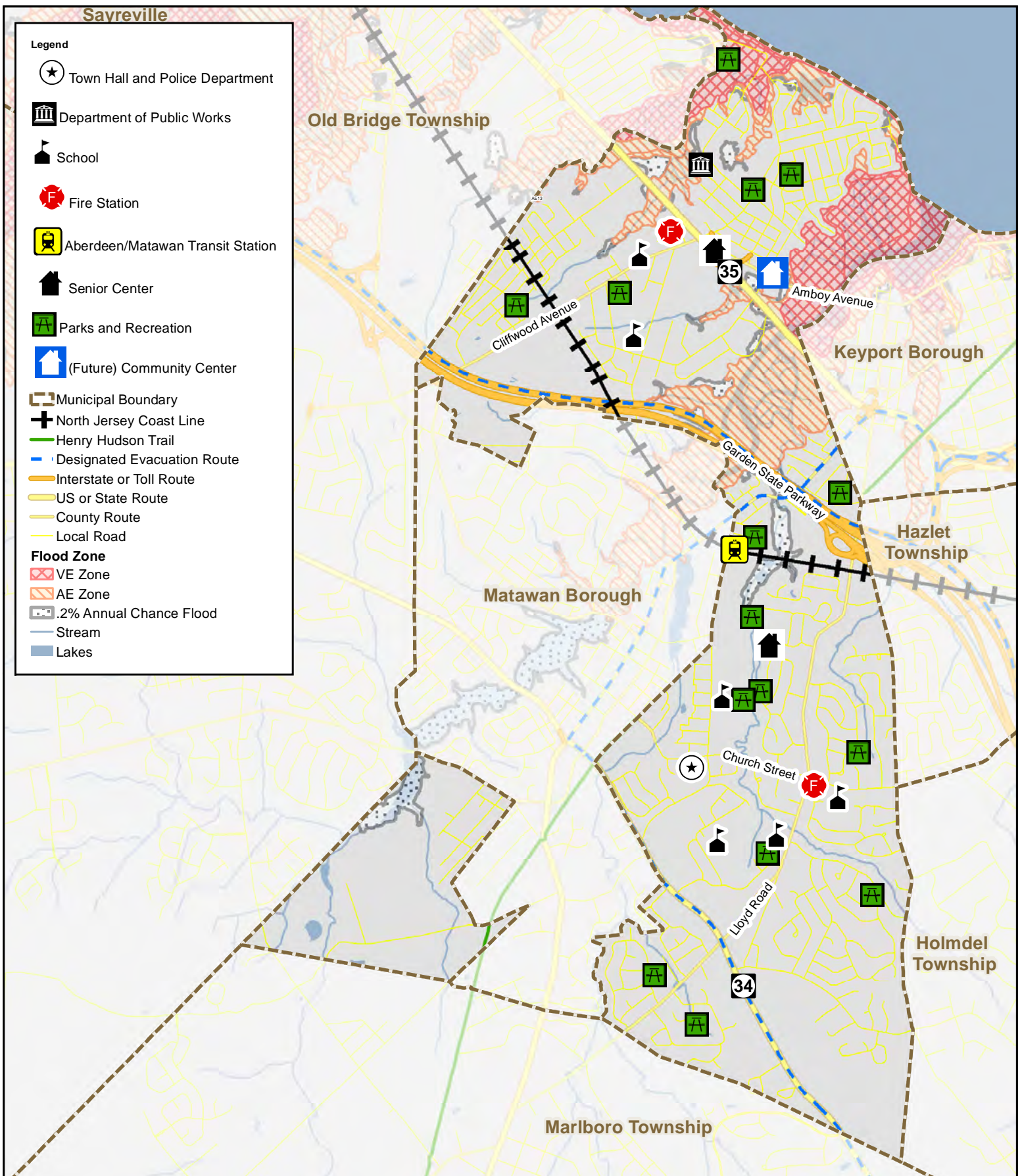
T&M Associates
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Existing Zoning & Flood Hazard Areas Overlay
Township of Aberdeen
Monmouth County, New Jersey

Prepared by: JAC, 7/10/2015
Source: FEMA; NJGIN; Monmouth County; Township of Aberdeen
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Prepared by: JAC, 6/3/2015
 Source: NJDEP; NJDOT; NJGIN; Monmouth County
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 Aberdeen Community Facilities + FHA.mxd



0 750 1,500 3,000 4,500 6,000 Feet

Community Facilities & Flood Hazard Areas Township of Aberdeen Monmouth County, New Jersey

NOTE: This map was developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been verified by NJDEP and is not State-authorized.