



Draft

**Impervious Cover Reduction Action Plan
for
South Bound Brook Borough, Somerset, New Jersey**

*Prepared for South Bound Brook Borough by the
Rutgers Cooperative Extension Water Resources Program*

October 12, 2015



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Introduction

Located in Somerset County in central New Jersey, South Bound Brook Borough covers approximately 0.74 square miles. Figures 1 and 2 illustrate that South Bound Brook Borough is dominated by urban land uses. A total of 71.7% of the municipality's land use is classified as urban. Of the urban land in South Bound Brook Borough, medium density residential is the dominant land use (Figure 3).

The New Jersey Department of Environmental Protection's (NJDEP) 2007 land use/land cover geographical information system (GIS) data layer categorizes South Bound Brook Borough into many unique land use areas, assigning a percent impervious cover for each delineated area. These impervious cover values were used to estimate the impervious coverage for South Bound Brook Borough. Based upon the 2007 NJDEP land use/land cover data, approximately 33.4% of South Bound Brook Borough has impervious cover. This level of impervious cover suggests that the streams in South Bound Brook Borough are likely non-supporting streams.¹

Methodology

South Bound Brook Borough contains portions of one subwatershed (Figure 4). For this impervious cover reduction action plan, projects have been identified in each of these watersheds. Initially, aerial imagery was used to identify potential project sites that contain extensive impervious cover. Field visits were then conducted at each of these potential project sites to determine if a viable option exists to reduce impervious cover or to disconnect impervious surfaces from draining directly to the local waterway or storm sewer system. During the site visit, appropriate green infrastructure practices for the site were determined. Sites that already had stormwater management practices in place were not considered.

¹ Caraco, D., R. Claytor, P. Hinkle, H. Kwon, T. Schueler, C. Swann, S. Vysotsky, and J. Zielinski. 1998. Rapid Watershed Planning Handbook. A Comprehensive Guide for Managing Urbanizing Watersheds. Prepared by Center For Watershed Protection, Ellicott City, MD. Prepared for U.S. Environmental Protection Agency, Office of Wetlands, Oceans and Watersheds and Region V. October 1998

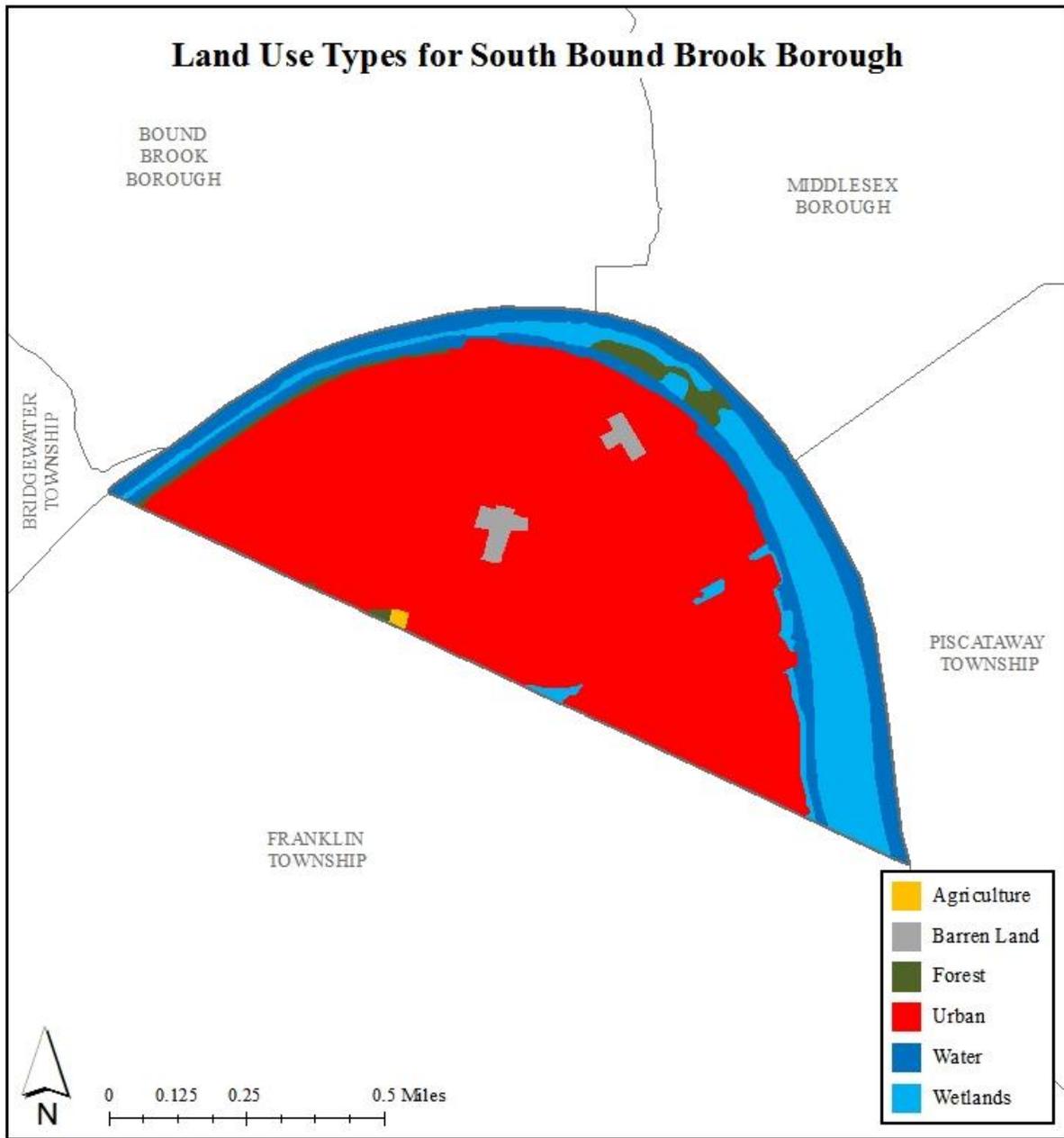


Figure 1: Map illustrating the land use in South Bound Brook Borough

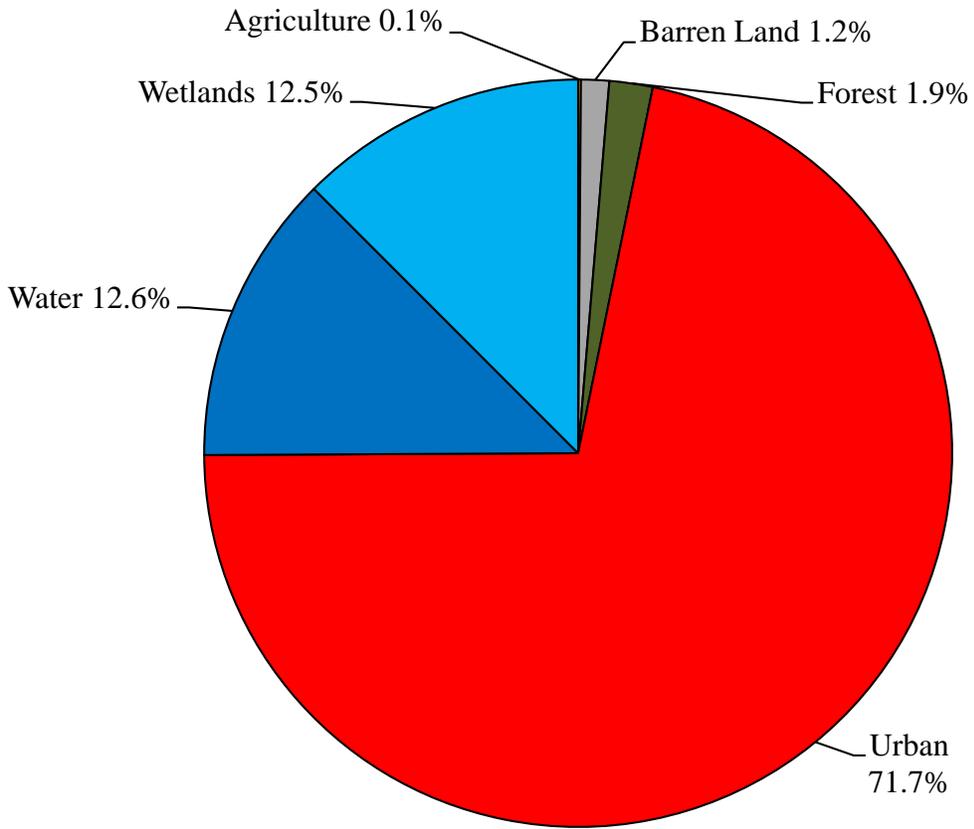


Figure 2: Pie chart illustrating the land use in South Bound Brook Borough

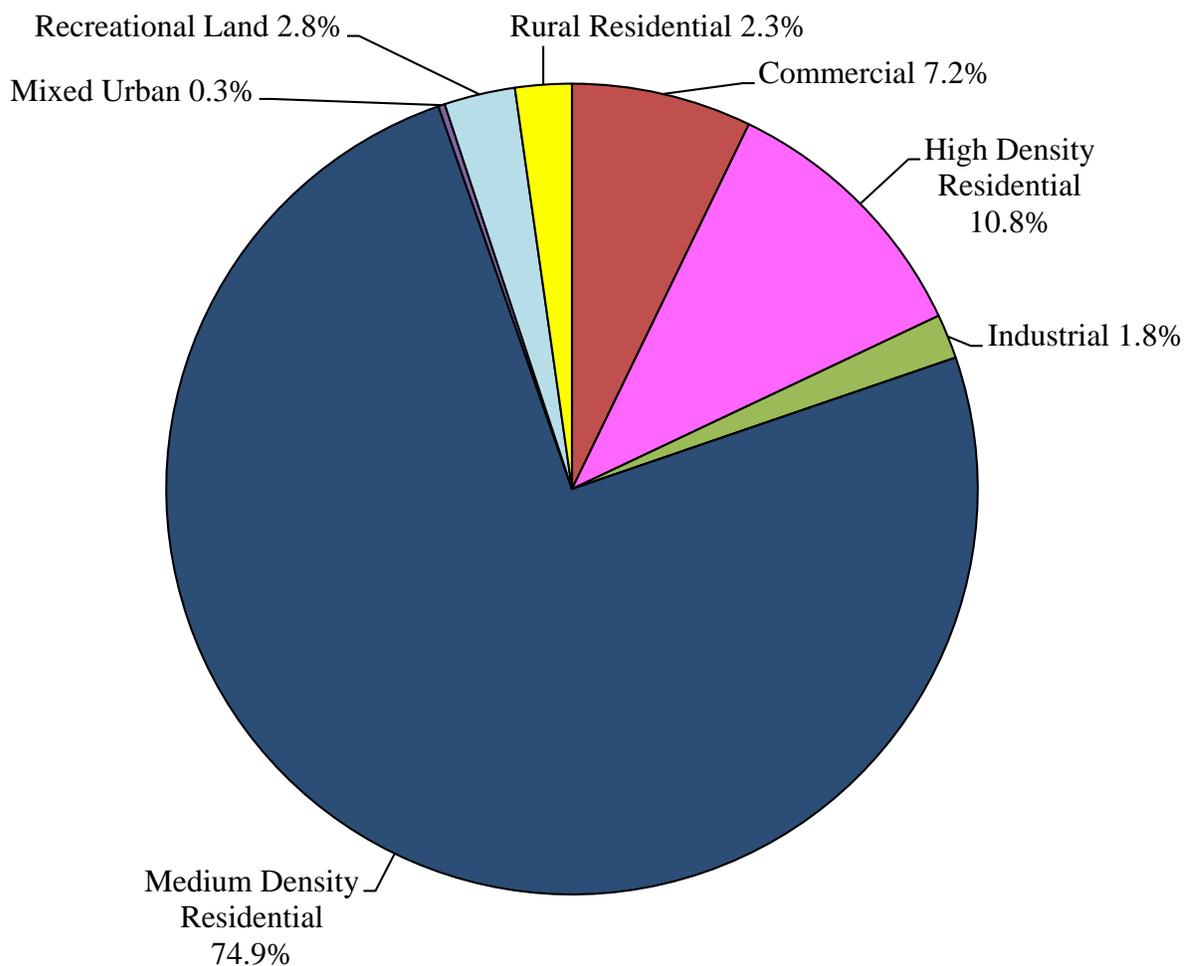


Figure 3: Pie chart illustrating the various types of urban land use in South Bound Brook Borough

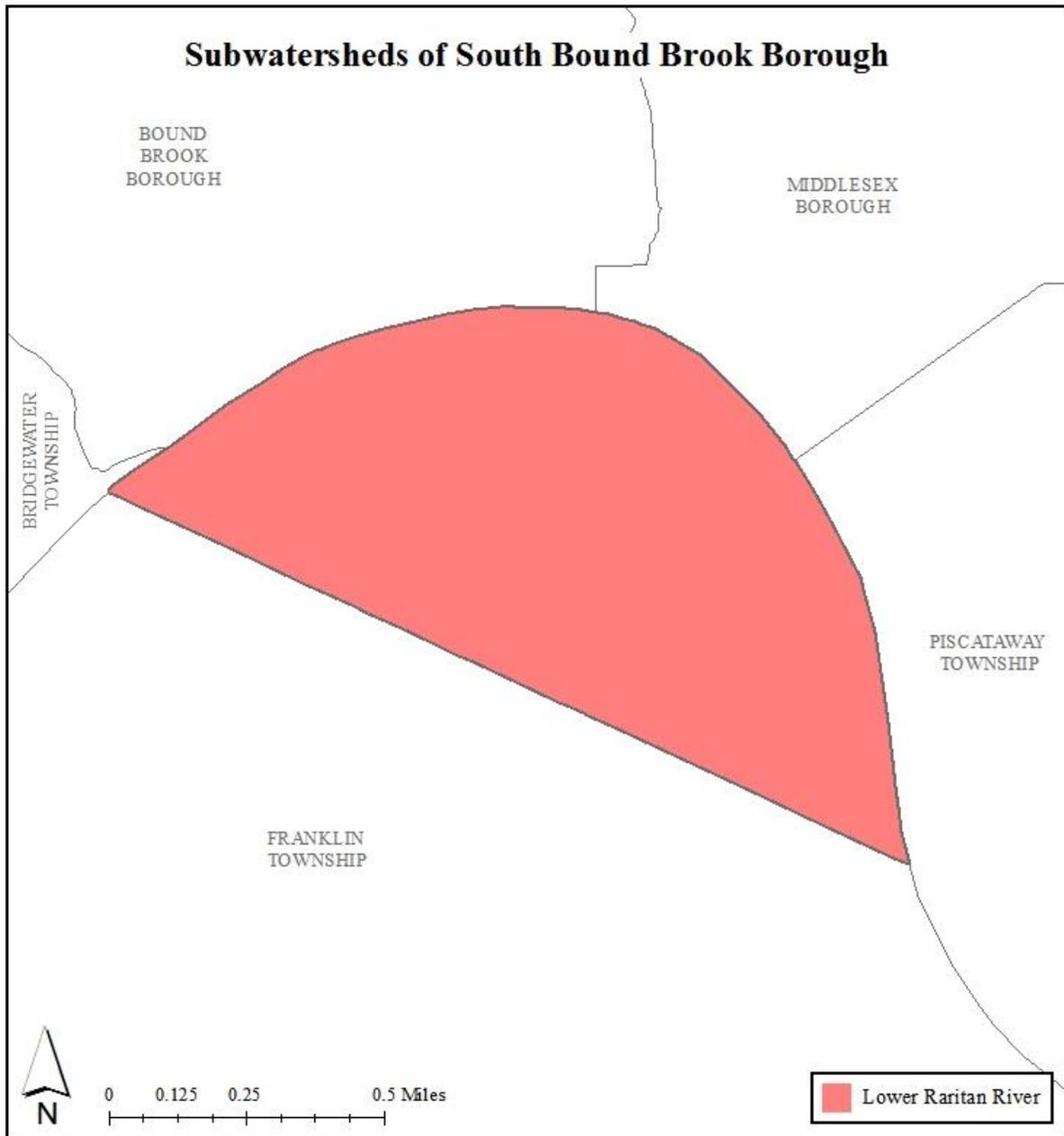


Figure 4: Map of the subwatersheds in South Bound Brook Borough

For each potential project site, specific aerial loading coefficients for commercial land use were used to determine the annual runoff loads for total phosphorus (TP), total nitrogen (TN), and total suspended solids (TSS) from impervious surfaces (Table 1). These are the same aerial loading coefficients that NJDEP uses in developing total maximum daily loads (TMDLs) for impaired waterways of the state. The percentage of impervious cover for each site was extracted from the 2007 NJDEP land use/land cover database. For impervious areas, runoff volumes were determined for the water quality design storm (1.25 inches of rain over two-hours) and for the annual rainfall total of 44 inches.

Preliminary soil assessments were conducted for each potential project site identified in South Bound Brook Borough using the United States Department of Agriculture Natural Resources Conservation Service Web Soil Survey, which utilizes regional and statewide soil data to predict soil types in an area. Several key soil parameters were examined (e.g., natural drainage class, saturated hydraulic conductivity of the most limiting soil layer (K_{sat}), depth to water table, and hydrologic soil group) to evaluate the suitability of each site's soil for green infrastructure practices. In cases where multiple soil types were encountered, the key soil parameters were examined for each soil type expected at a site.

For each potential project site, drainage areas were determined for each of the green infrastructure practices proposed at the site. These green infrastructure practices were designed to manage the 2-year design storm, enabling these practices to capture 95% of the annual rainfall. Runoff volumes were calculated for each proposed green infrastructure practice. The reduction in TSS loading was calculated for each drainage area for each proposed green infrastructure practice using the aerial loading coefficients in Table 1. The maximum volume reduction in stormwater runoff for each green infrastructure practice for a storm was determined by calculating the volume of runoff captured from the 2-year design storm. For each green infrastructure practice, peak discharge reduction potential was determined through hydrologic modeling in HydroCAD. For each green infrastructure practice, a cost estimate is provided. These costs are based upon the square footage of the green infrastructure practice and the real cost of green infrastructure practice implementation in New Jersey.

Table 1: Aerial Loading Coefficients²

Land Cover	TP load (lbs/acre/yr)	TN load (lbs/acre/yr)	TSS load (lbs/acre/yr)
High, Medium Density Residential	1.4	15	140
Low Density, Rural Residential	0.6	5	100
Commercial	2.1	22	200
Industrial	1.5	16	200
Urban, Mixed Urban, Other Urban	1.0	10	120
Agriculture	1.3	10	300
Forest, Water, Wetlands	0.1	3	40
Barrenland/Transitional Area	0.5	5	60

² New Jersey Department of Environmental Protection (NJDEP), Stormwater Best Management Practice Manual, 2004.

Green Infrastructure Practices

Green infrastructure is an approach to stormwater management that is cost-effective, sustainable, and environmentally friendly. Green infrastructure projects capture, filter, absorb, and reuse stormwater to maintain or mimic natural systems and to treat runoff as a resource. As a general principal, green infrastructure practices use soil and vegetation to recycle stormwater runoff through infiltration and evapotranspiration. When used as components of a stormwater management system, green infrastructure practices such as bioretention, green roofs, porous pavement, rain gardens, and vegetated swales can produce a variety of environmental benefits. In addition to effectively retaining and infiltrating rainfall, these practices can simultaneously help filter air pollutants, reduce energy demands, mitigate urban heat islands, and sequester carbon while also providing communities with aesthetic and natural resource benefits³. A wide range of green infrastructure practices have been evaluated for the potential project sites in South Bound Brook Borough. Each practice is discussed below.

Disconnected downspouts

This is often referred to as simple disconnection. A downspout is simply disconnected, prevented from draining directly to the roadway or storm sewer system, and directed to discharge water to a pervious area (i.e., lawn).



Pervious pavements

There are several types of permeable pavement systems including porous asphalt, pervious concrete, permeable pavers, and grass pavers. These surfaces are hard and support vehicle traffic but also allow water to infiltrate through the surface. They have an underlying stone layer to store stormwater runoff and allow it to slowly seep into the ground.



³ United States Environmental Protection Agency (USEPA), 2013. Watershed Assessment, Tracking, and Environmental Results, New Jersey Water Quality Assessment Report.
http://ofmpub.epa.gov/waters10/attains_state.control?p_state=NJ

Bioretention systems/rain gardens

These are landscaped features that are designed to capture, treat, and infiltrate stormwater runoff. These systems can easily be incorporated into existing landscapes, improving aesthetics and creating a wildlife habitat while managing stormwater runoff. Bioretention systems also can be used in soils that do not quickly infiltrate by incorporating an underdrain into the system.



Downspout planter boxes

These are wooden boxes with plants installed at the base of a downspout that provide an opportunity to beneficially reuse rooftop runoff.



Rainwater harvesting systems (cistern or rain barrel)

These systems capture rainwater, mainly from rooftops, in cisterns or rain barrels. The water can then be used for watering gardens, washing vehicles, or for other non-potable uses.



Bioswale

Bioswales are landscape features that convey stormwater from one location to another while removing pollutants and providing water an opportunity to infiltrate.



Stormwater planters

Stormwater planters are vegetated structures that are built into the sidewalk to intercept stormwater runoff from the roadway or sidewalk. Many of these planters are designed to allow the water to infiltrate into the ground while others are designed simply to filter the water and convey it back into the stormwater sewer system.



Tree filter boxes

These are pre-manufactured concrete boxes that contain a special soil mix and are planted with a tree or shrub. They filter stormwater runoff but provide little storage capacity. They are typically designed to quickly filter stormwater and then discharge it to the local sewer system.



Potential Project Sites

Attachment 1 contains information on potential project sites where green infrastructure practices could be installed. The recommended green infrastructure practice and the drainage area that the green infrastructure practice can treat are identified for each potential project site. For each practice, the recharge potential, TSS removal potential, maximum volume reduction potential per storm, and the peak reduction potential are provided. This information is also provided so that proposed development projects that cannot satisfy the New Jersey stormwater management requirements for major development can use one of the identified projects to offset a stormwater management deficit.⁴

⁴ New Jersey Administrative Code, N.J.A.C. 7:8, Stormwater Management, Statutory Authority: N.J.S.A. 12:5-3, 13:1D-1 et seq., 13:9A-1 et seq., 13:19-1 et seq., 40:55D-93 to 99, 58:4-1 et seq., 58:10A-1 et seq., 58:11A-1 et seq. and 58:16A-50 et seq., *Date last amended: April 19, 2010.*

Conclusion

This impervious cover reduction action plan is meant to provide the municipality with a blueprint for implementing green infrastructure practices that will reduce the impact of stormwater runoff from impervious surfaces. These projects can be implemented by a wide variety of people such as boy scouts, girl scouts, school groups, faith-based groups, social groups, watershed groups, and other community groups.

Additionally, development projects that are in need of providing off-site compensation for stormwater impacts can use the projects in this plan as a starting point. The municipality can quickly convert this impervious cover reduction action plan into a stormwater mitigation plan and incorporate it into the municipal stormwater control ordinance.

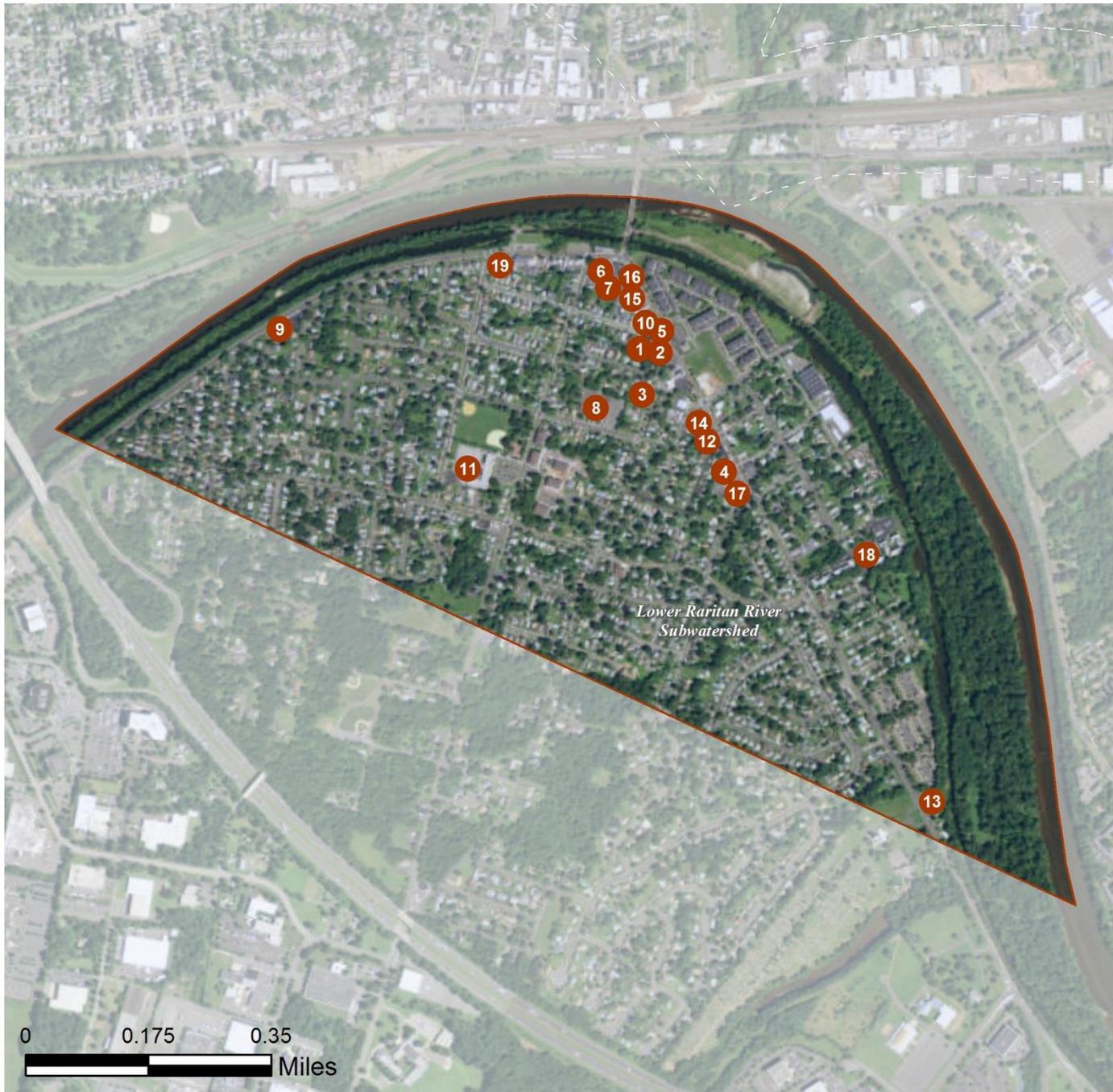
a. Overview Map of the Project

SOUTH BOUND BROOK: CLIMATE RESILIENT GREEN INFRASTRUCTURE FOR THE RARITAN BASIN



b. Green Infrastructure Sites

SOUTH BOUND BROOK: GREEN INFRASTRUCTURE SITES



SITES WITHIN THE LOWER RARITAN RIVER SUBWATERSHED:

1. Abuduant Life Evangelico
2. BMC Dollar Zone (Complex)
3. C-Town Supermarket
4. Cleary Machinery
5. Joe's Meat Market
6. Melick-Tully & Associates P.C.
7. Municipal Parking Lot: 16 Elm Street
8. Our Lady of Mercy Church
9. Ovations Restaurant and Bar
10. Reformed Church Of Bound Brook
11. Robert Morris Elementary School
12. Royal Mini Mart
13. SnS Motor Sports LLC
14. South Bound Brook Mall
15. South Bound Brook Police Department
16. South Side Grill
17. Sunoco Gas Station
18. Town Oaks Apartments
19. US Post Office

c. Proposed Green Infrastructure Concepts

ABUNDUANT LIFE EVANGELICO



Subwatershed: Lower Raritan River

Site Area: 22,799 sq. ft.

Address: 113 Clinton Street
South Bound Brook, NJ 08880

Block and Lot: Block 53, Lot 17

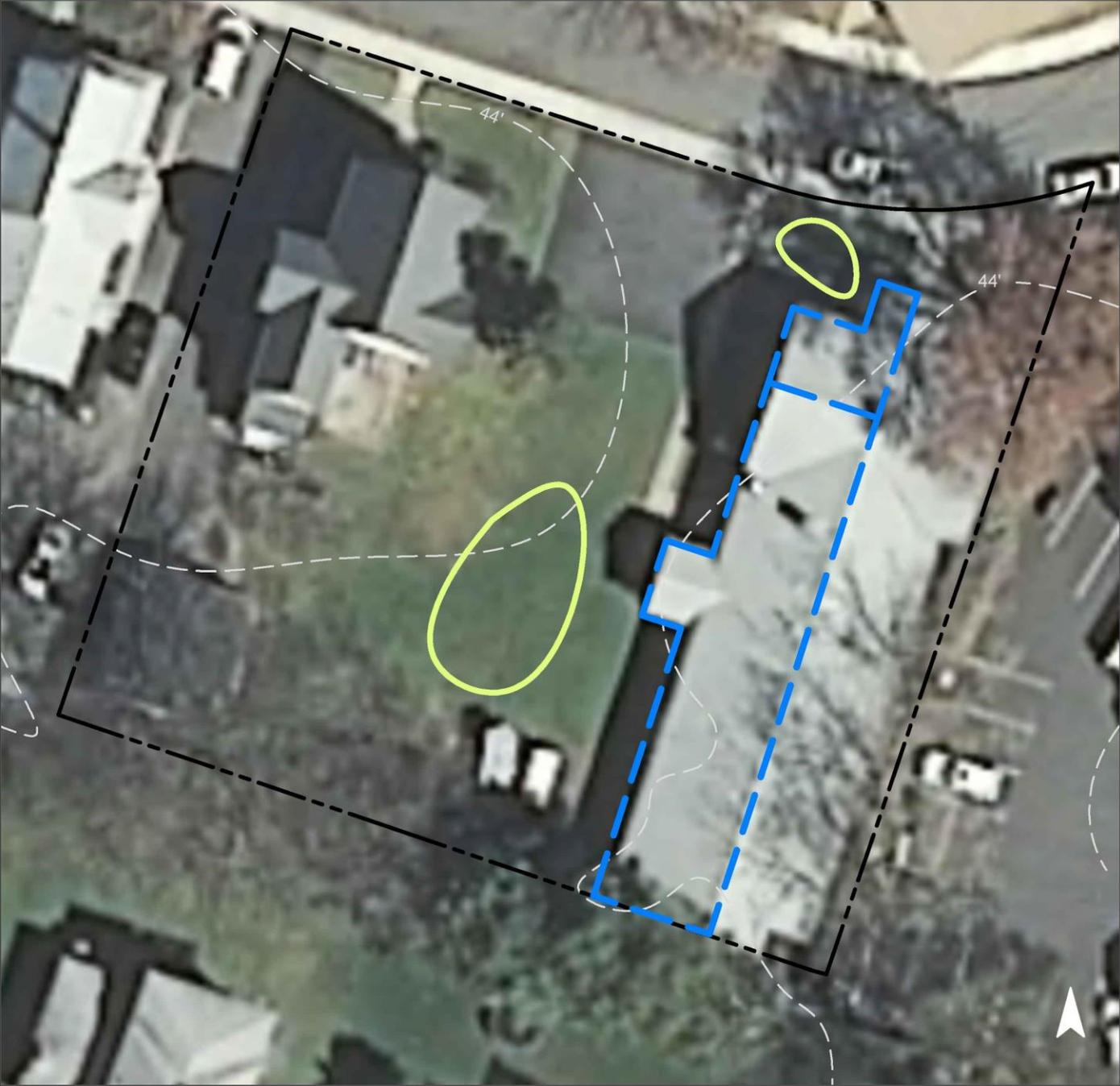


Two bioretention systems can be installed in the turf grass areas to capture the building's roof runoff. A preliminary soil assessment suggests that the existing soils have suitable drainage characteristics for green infrastructure.

Impervious Cover		Existing Loads from Impervious Cover (lbs/yr)			Runoff Volume from Impervious Cover (Mgal)	
%	sq. ft.	TP	TN	TSS	For the 1.25" Water Quality Storm	For an Annual Rainfall of 44"
51	11,724	0.6	5.9	53.8	0.009	0.32

Recommended Green Infrastructure Practices	Recharge Potential (Mgal/yr)	TSS Removal Potential (lbs/yr)	Maximum Volume Reduction Potential (gal/storm)	Peak Discharge Reduction Potential (cu. ft./second)	Estimated Size (sq. ft.)	Estimated Cost
Bioretention systems	0.079	13	5,775	0.22	990	\$4,950

GREEN INFRASTRUCTURE RECOMMENDATIONS



Abundant Life Evangelico

-  bioretention / rain gardens
-  drainage areas
-  property line
-  2012 Aerial: NJOIT, OGIS



BMC DOLLAR ZONE (COMPLEX)



Subwatershed: Lower Raritan River

Site Area: 19,989 sq. ft.

Address: 32 Main Street
South Bound Brook, NJ 08880

Block and Lot: Block 53, Lot 15

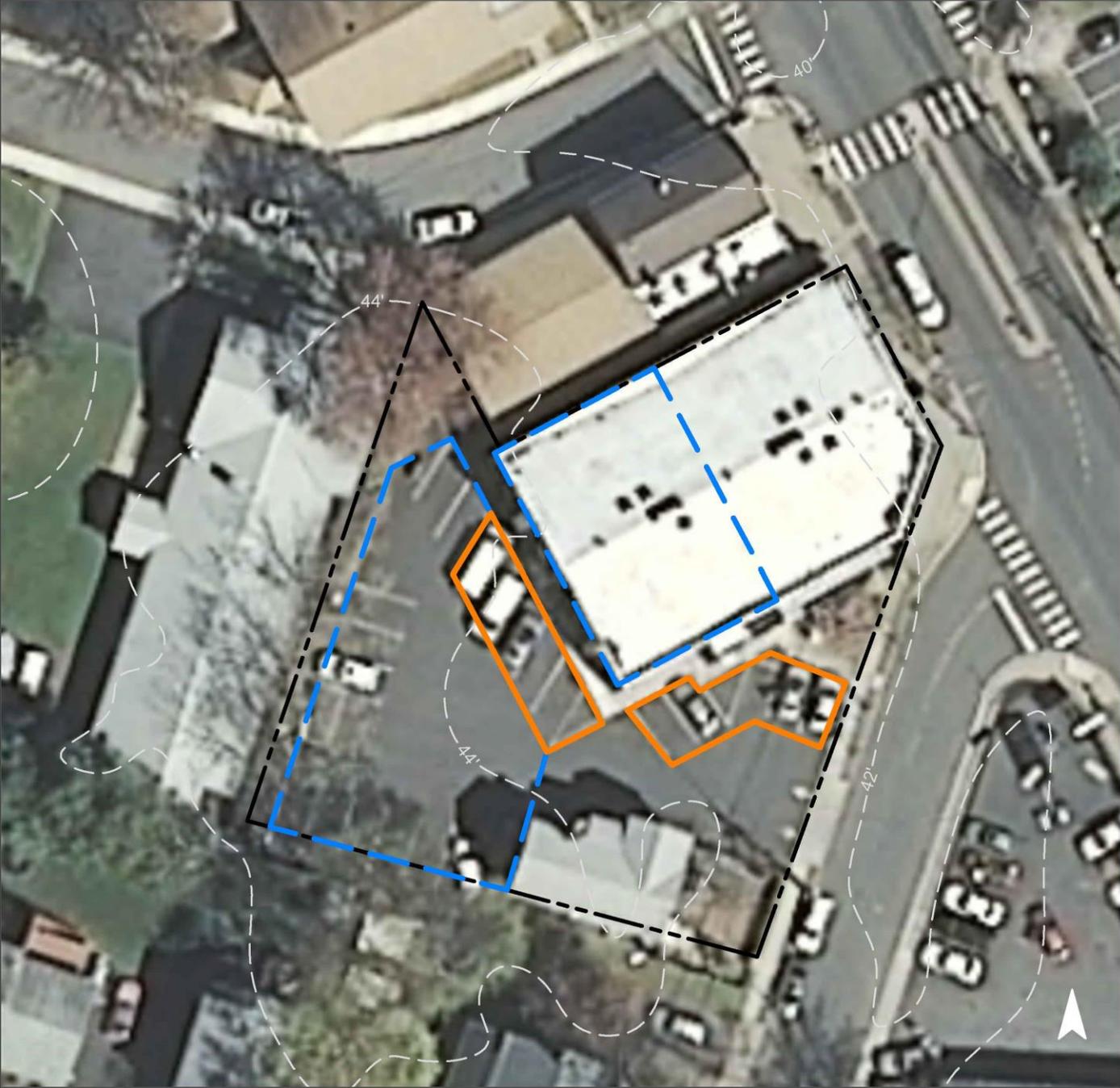


The rear of the shopping complex has a parking area which drains toward the street. Porous asphalt can be installed in the spaces along the building to infiltrate stormwater and capture roof runoff from the disconnected downspout. A preliminary soil assessment suggests that the existing soils have suitable drainage characteristics for green infrastructure.

Impervious Cover		Existing Loads from Impervious Cover (lbs/yr)			Runoff Volume from Impervious Cover (Mgal)	
%	sq. ft.	TP	TN	TSS	For the 1.25" Water Quality Storm	For an Annual Rainfall of 44"
85	16,990	0.8	8.6	78.0	0.013	0.47

Recommended Green Infrastructure Practices	Recharge Potential (Mgal/yr)	TSS Removal Potential (lbs/yr)	Maximum Volume Reduction Potential (gal/storm)	Peak Discharge Reduction Potential (cu. ft./second)	Estimated Size (sq. ft.)	Estimated Cost
Pervious pavements	0.206	34	15,095	0.57	1,785	\$44,625

GREEN INFRASTRUCTURE RECOMMENDATIONS



BMC Dollar Zone (Complex)

-  pervious pavements
-  drainage areas
-  property line
-  2012 Aerial: NJOIT, OGIS



C-TOWN SUPERMARKET



Subwatershed: Lower Raritan River

Site Area: 31,177 sq. ft.

Address: 84 Main Street
South Bound Brook, NJ 08880

Block and Lot: Block 42, Lot 11



The parking lots drain through a series of catch basins. The building has connected downspouts which can be disconnected, and pervious pavement can be used in the parking lot to capture both road and roof stormwater runoff. A preliminary soil assessment suggests that the existing soils have suitable drainage characteristics for green infrastructure.

Impervious Cover		Existing Loads from Impervious Cover (lbs/yr)			Runoff Volume from Impervious Cover (Mgal)	
%	sq. ft.	TP	TN	TSS	For the 1.25" Water Quality Storm	For an Annual Rainfall of 44"
91	28,231	1.4	14.3	129.6	0.022	0.77

Recommended Green Infrastructure Practices	Recharge Potential (Mgal/yr)	TSS Removal Potential (lbs/yr)	Maximum Volume Reduction Potential (gal/storm)	Peak Discharge Reduction Potential (cu. ft./second)	Estimated Size (sq. ft.)	Estimated Cost
Pervious pavements	0.313	52	22,590	0.22	2,702	\$67,550

GREEN INFRASTRUCTURE RECOMMENDATIONS



C-Town Supermarket

-  disconnected downspouts
-  pervious pavements
-  drainage areas
-  property line
-  2012 Aerial: NJOIT, OGIS



CLEARY MACHINERY



Subwatershed: Lower Raritan River

Site Area: 10,612 sq. ft.

Address: 24 Cedar Avenue
South Bound Brook, NJ 08880

Block and Lot: Block 48, Lot 16

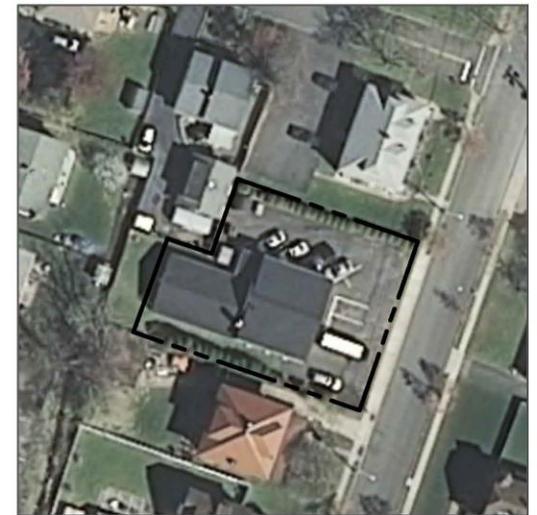
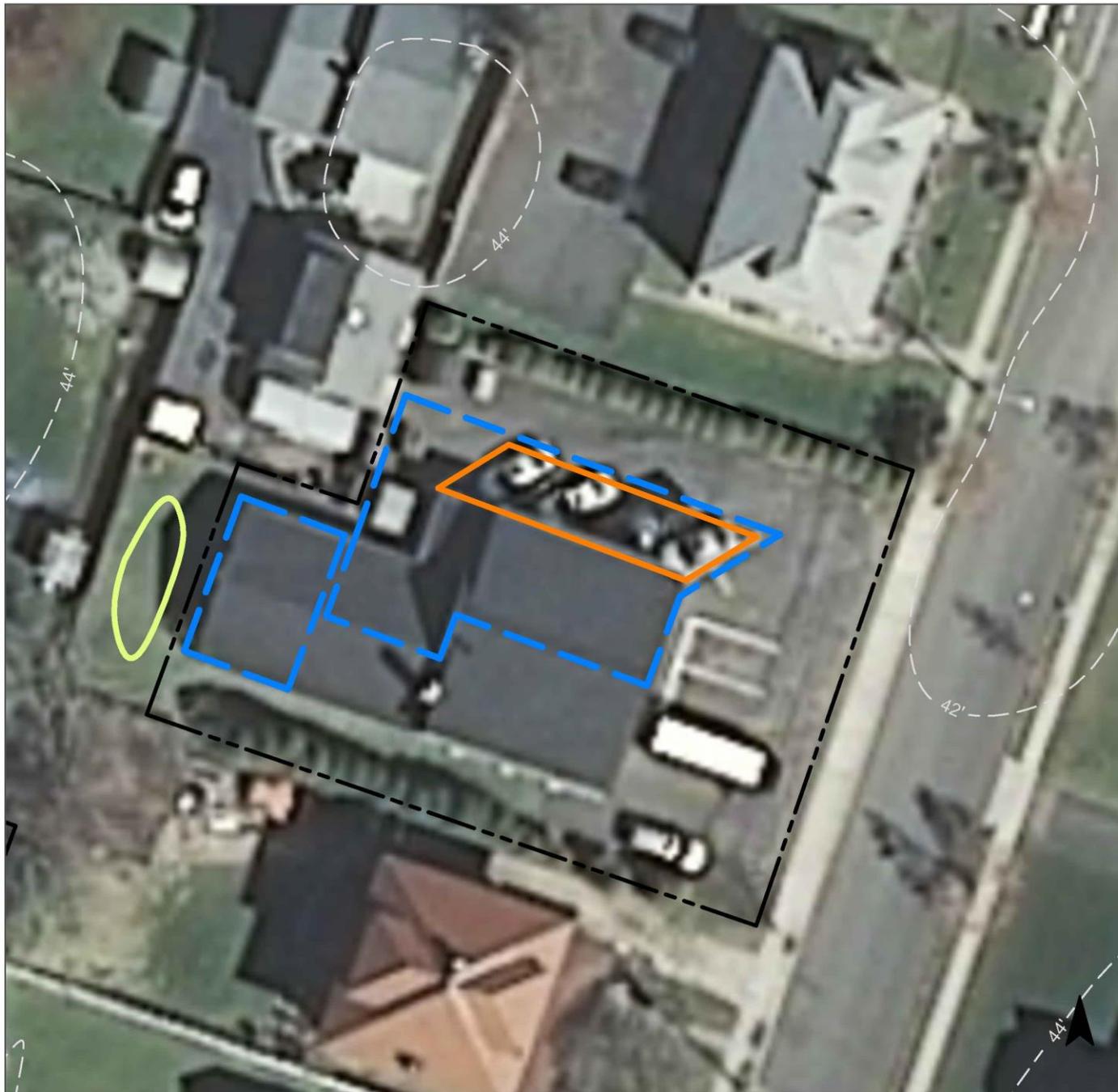


Two downspouts at the rear of the building can be redirected into a rain garden to capture and treat roof runoff. The paved area drains to the street. Pervious pavement can be used in the parking spaces to capture stormwater from the this area and roof runoff from disconnected downspouts next to these spaces. A preliminary soil assessment suggests that more soil testing would be required before determining the soil's suitability for green infrastructure.

Impervious Cover		Existing Loads from Impervious Cover (lbs/yr)			Runoff Volume from Impervious Cover (Mgal)	
%	sq. ft.	TP	TN	TSS	For the 1.25" Water Quality Storm	For an Annual Rainfall of 44"
81	8,625	0.4	4.4	39.6	0.007	0.24

Recommended Green Infrastructure Practices	Recharge Potential (Mgal/yr)	TSS Removal Potential (lbs/yr)	Maximum Volume Reduction Potential (gal/storm)	Peak Discharge Reduction Potential (cu. ft./second)	Estimated Size (sq. ft.)	Estimated Cost
Bioretention systems	0.020	3	1,436	0.05	250	\$1,250
Pervious pavements	0.069	12	5,064	0.19	650	\$16,250

GREEN INFRASTRUCTURE RECOMMENDATIONS



Cleary Machinery

-  pervious pavements
-  bioretention / rain gardens
-  drainage areas
-  property line
-  2012 Aerial: NJOIT, OGIS



JOE'S MEAT MARKET



Subwatershed: Lower Raritan River

Site Area: 5,462 sq. ft.

Address: 28 Main Street
South Bound Brook, NJ 08880

Block and Lot: Block 53, Lot 16

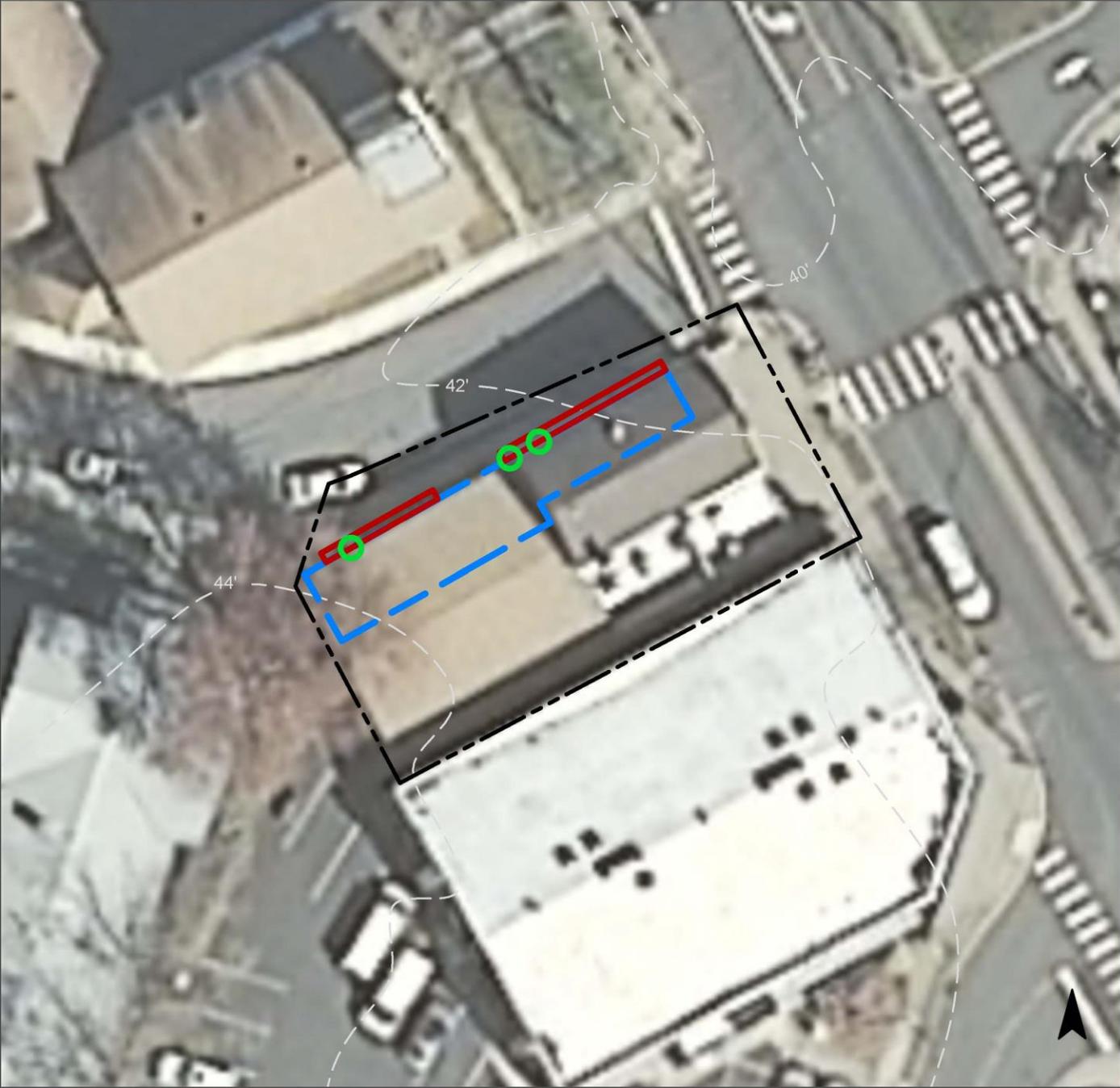


The building's downspouts are directly connected to the sewer system. Downspouts can be disconnected into planter boxes to treat the roof runoff before flowing into the street's drainage system. A preliminary soil assessment suggests that the existing soils have suitable drainage characteristics for green infrastructure.

Impervious Cover		Existing Loads from Impervious Cover (lbs/yr)			Runoff Volume from Impervious Cover (Mgal)	
%	sq. ft.	TP	TN	TSS	For the 1.25" Water Quality Storm	For an Annual Rainfall of 44"
85	4,643	0.2	2.3	21.3	0.004	0.13

Recommended Green Infrastructure Practices	Recharge Potential (Mgal/yr)	TSS Removal Potential (lbs/yr)	Maximum Volume Reduction Potential (gal/storm)	Peak Discharge Reduction Potential (cu. ft./second)	Estimated Size (sq. ft.)	Estimated Cost
Downspout planter boxes	0.028	4	n/a	n/a	60	\$5,000

GREEN INFRASTRUCTURE RECOMMENDATIONS



Joe's Meat Market

-  disconnected downspouts
-  downspout planter boxes
-  drainage areas
-  property line
-  2012 Aerial: NJOIT, OGIS



MELICK-TULLY & ASSOCIATES P.C.



Subwatershed: Lower Raritan River

Site Area: 24,626 sq. ft.

Address: 117 Canal Road
South Bound Brook, NJ 08880

Block and Lot: Block 55, Lot 1

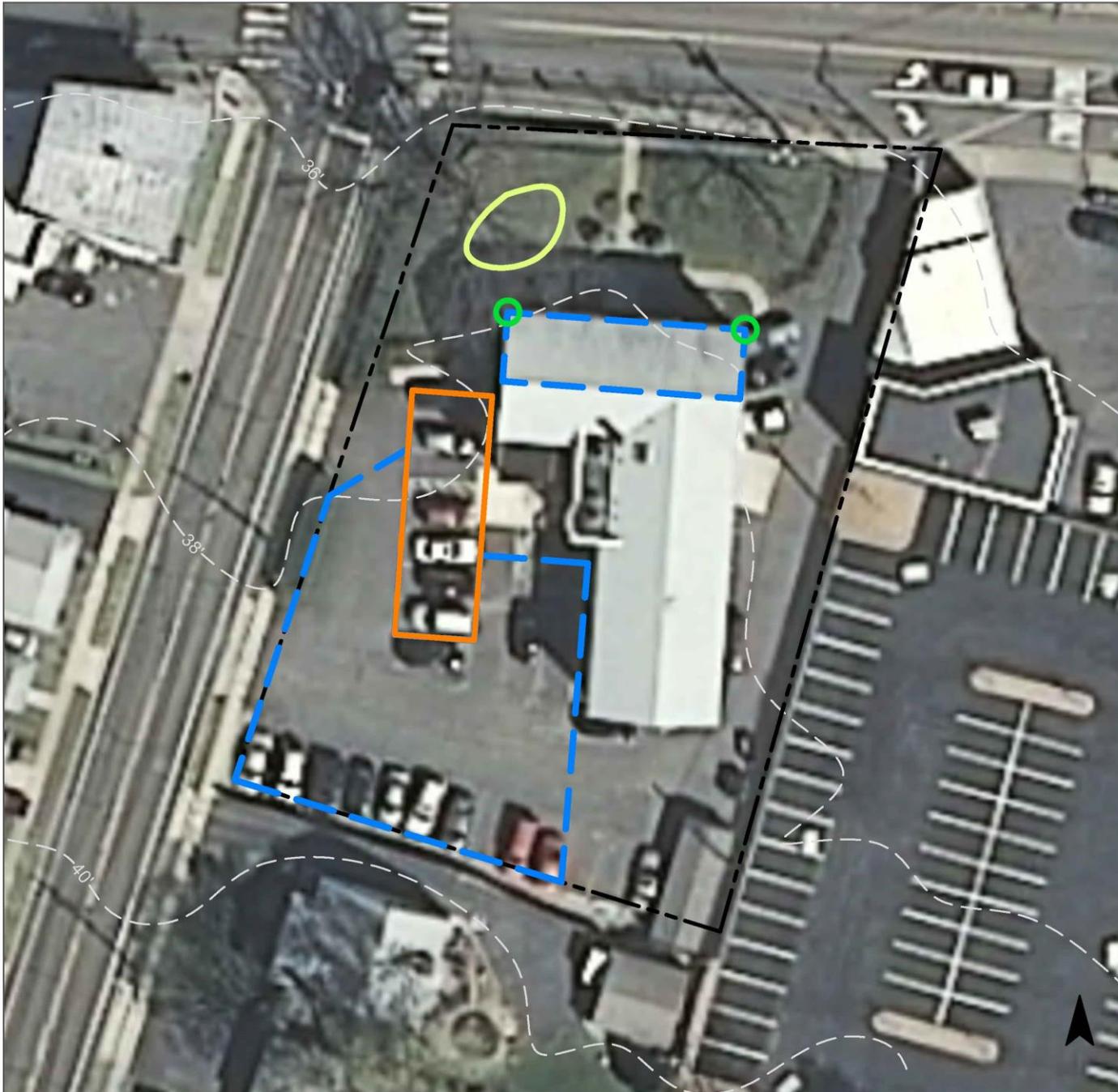


The building's parking lot slopes toward the road. Pervious pavement can be installed in the parking spaces near the building to capture this runoff. In front of the building the turf grass area can be converted into a bioretention system, and downspouts can be disconnected and redirected to allow roof runoff to infiltrate. A preliminary soil assessment suggests that the existing soils have suitable drainage characteristics for green infrastructure.

Impervious Cover		Existing Loads from Impervious Cover (lbs/yr)			Runoff Volume from Impervious Cover (Mgal)	
%	sq. ft.	TP	TN	TSS	For the 1.25" Water Quality Storm	For an Annual Rainfall of 44"
95	23,361	1.1	11.8	107.4	0.018	0.64

Recommended Green Infrastructure Practices	Recharge Potential (Mgal/yr)	TSS Removal Potential (lbs/yr)	Maximum Volume Reduction Potential (gal/storm)	Peak Discharge Reduction Potential (cu. ft./second)	Estimated Size (sq. ft.)	Estimated Cost
Bioretention systems	0.029	5	2,102	0.08	370	\$1,850
Pervious pavements	0.149	25	10,936	0.41	1,308	\$32,700

GREEN INFRASTRUCTURE RECOMMENDATIONS



Melick-Tully & Associates P.C.

-  disconnected downspouts
-  pervious pavements
-  bioretention / rain gardens
-  drainage areas
-  property line
-  2012 Aerial: NJOIT, OGIS



MUNICIPAL PARKING LOT: 16 ELM STREET



Subwatershed: Lower Raritan River

Site Area: 23,130 sq. ft.

Address: 16 Elm Street
South Bound Brook, NJ 08880

Block and Lot: Block 55, Lot 3



Pervious pavement can be installed in the parking lot in the parking spaces to the north and east to capture stormwater runoff. A preliminary soil assessment suggests that the existing soils have suitable drainage characteristics for green infrastructure.

Impervious Cover		Existing Loads from Impervious Cover (lbs/yr)			Runoff Volume from Impervious Cover (Mgal)	
%	sq. ft.	TP	TN	TSS	For the 1.25" Water Quality Storm	For an Annual Rainfall of 44"
95	21,904	1.1	11.1	100.6	0.017	0.60

Recommended Green Infrastructure Practices	Recharge Potential (Mgal/yr)	TSS Removal Potential (lbs/yr)	Maximum Volume Reduction Potential (gal/storm)	Peak Discharge Reduction Potential (cu. ft./second)	Estimated Size (sq. ft.)	Estimated Cost
Pervious pavements	0.504	84	37,004	1.39	3,500	\$87,500

GREEN INFRASTRUCTURE RECOMMENDATIONS



**Municipal Parking Lot:
16 Elm Street**

-  pervious pavements
-  drainage areas
-  property line
-  2012 Aerial: NJOIT, OGIS



OUR LADY OF MERCY CHURCH



Subwatershed: Lower Raritan River

Site Area: 72,995 sq. ft.

Address: 122 High Street
South Bound Brook, NJ 08880

Block and Lot: Block 6.01; 9.01, Lot 48; 50

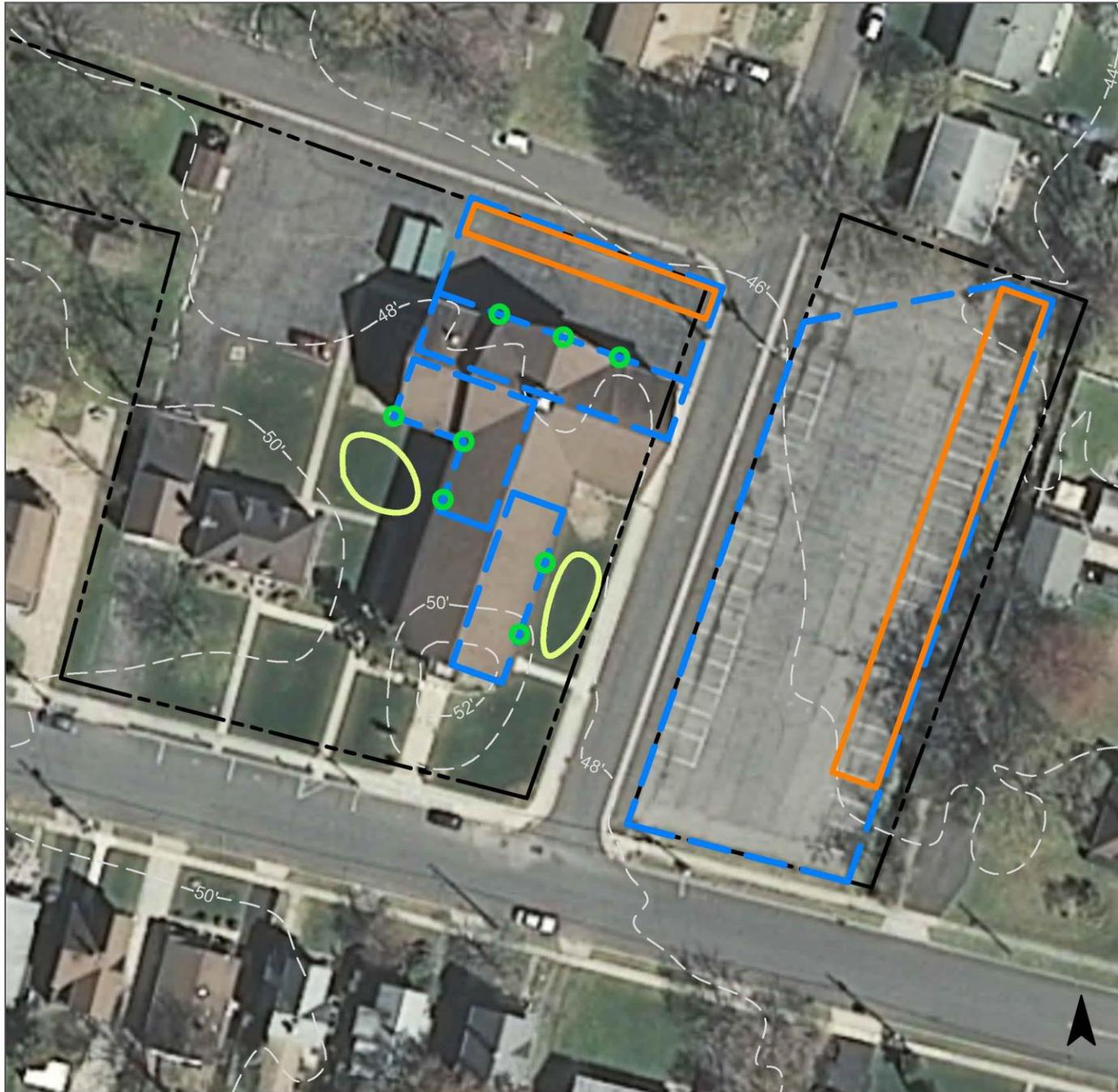


Parking spaces can be replaced with pervious pavement to capture the parking lot's runoff. At the northern side of the church, a strip of pervious pavement can be installed to capture both runoff from the paved area and roof if downspouts are disconnected. Rain gardens can be installed on both sides of the building to treat roof runoff by disconnecting and redirecting downspouts. A preliminary soil assessment suggests that the existing soils have suitable drainage characteristics for green infrastructure.

Impervious Cover		Existing Loads from Impervious Cover (lbs/yr)			Runoff Volume from Impervious Cover (Mgal)	
%	sq. ft.	TP	TN	TSS	For the 1.25" Water Quality Storm	For an Annual Rainfall of 44"
71	51,961	2.5	26.2	238.6	0.040	1.43

Recommended Green Infrastructure Practices	Recharge Potential (Mgal/yr)	TSS Removal Potential (lbs/yr)	Maximum Volume Reduction Potential (gal/storm)	Peak Discharge Reduction Potential (cu. ft./second)	Estimated Size (sq. ft.)	Estimated Cost
Bioretention systems	0.093	16	6,837	0.26	1,180	\$5,900
Pervious pavements	0.689	115	50,565	1.90	4,722	\$118,050

GREEN INFRASTRUCTURE RECOMMENDATIONS



Our Lady of Mercy Church

-  disconnected downspouts
-  pervious pavements
-  bioretention / rain gardens
-  drainage areas
-  property line
-  2012 Aerial: NJOIT, OGIS



OVATIONS RESTAURANT AND BAR



Subwatershed: Lower Raritan River

Site Area: 23,513 sq. ft.

Address: 295 Canal Road
South Bound Brook, NJ 08880

Block and Lot: Block 16, Lot 1;19;20

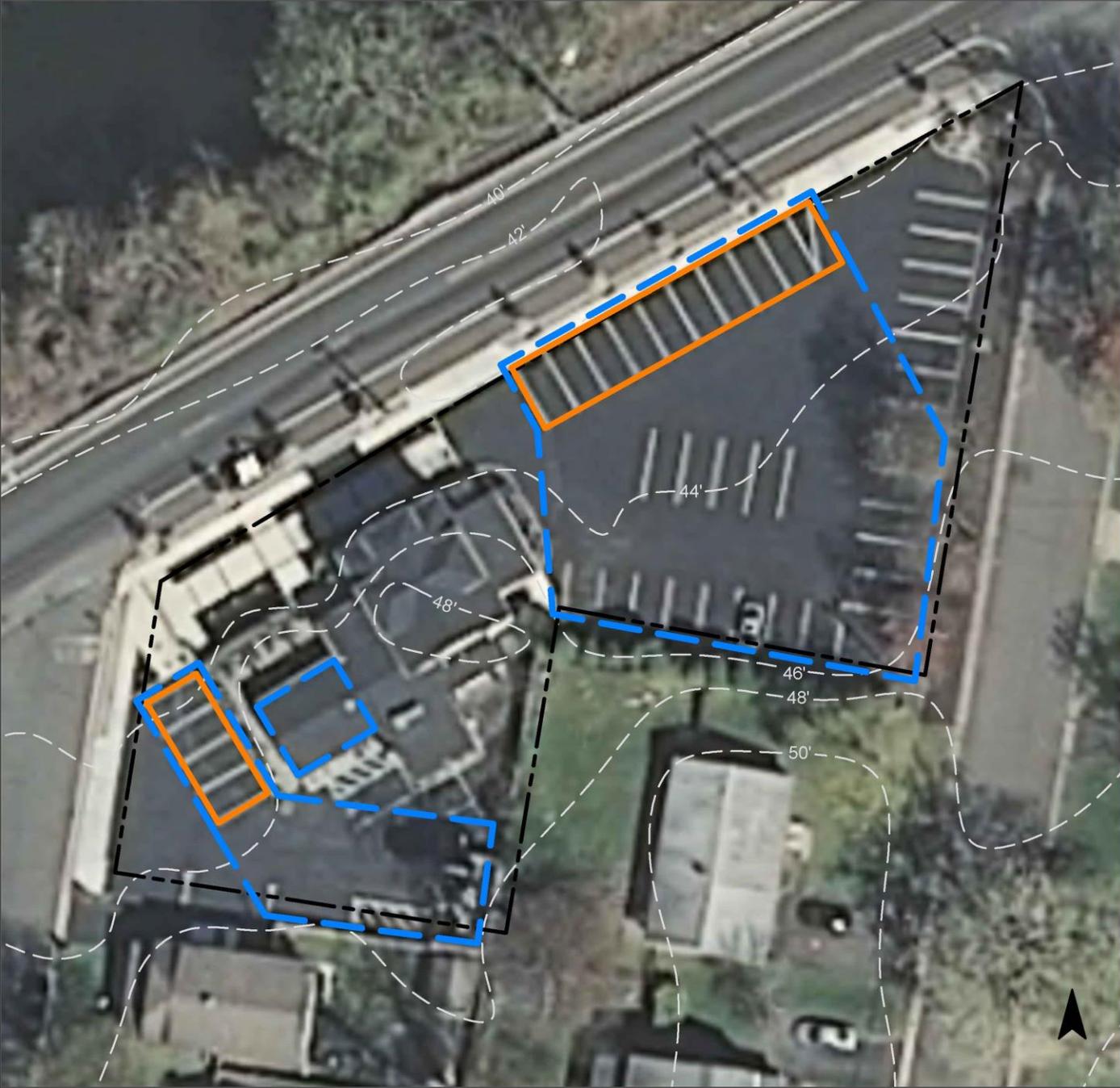


The paved areas are pitched to the street. Parking spaces on the west and northeast sides of the building can be replaced with pervious pavement. The west side can also capture rooftop runoff from existing downspouts. A preliminary soil assessment suggests that the existing soils have suitable drainage characteristics for green infrastructure.

Impervious Cover		Existing Loads from Impervious Cover (lbs/yr)			Runoff Volume from Impervious Cover (Mgal)	
%	sq. ft.	TP	TN	TSS	For the 1.25" Water Quality Storm	For an Annual Rainfall of 44"
95	22,337	1.1	11.3	102.6	0.017	0.61

Recommended Green Infrastructure Practices	Recharge Potential (Mgal/yr)	TSS Removal Potential (lbs/yr)	Maximum Volume Reduction Potential (gal/storm)	Peak Discharge Reduction Potential (cu. ft./second)	Estimated Size (sq. ft.)	Estimated Cost
Pervious pavements	0.339	57	24,856	0.71	2,150	\$53,750

GREEN INFRASTRUCTURE RECOMMENDATIONS



Ovation's Restaurant and Bar

-  pervious pavements
-  drainage areas
-  property line
-  2012 Aerial: NJOIT, OGIS



REFORMED CHURCH OF BOUND BROOK



Subwatershed: Lower Raritan River

Site Area: 20,886 sq. ft.

Address: 113 Clinton Street
South Bound Brook, NJ 08880

Block and Lot: Block 56, Lot 5

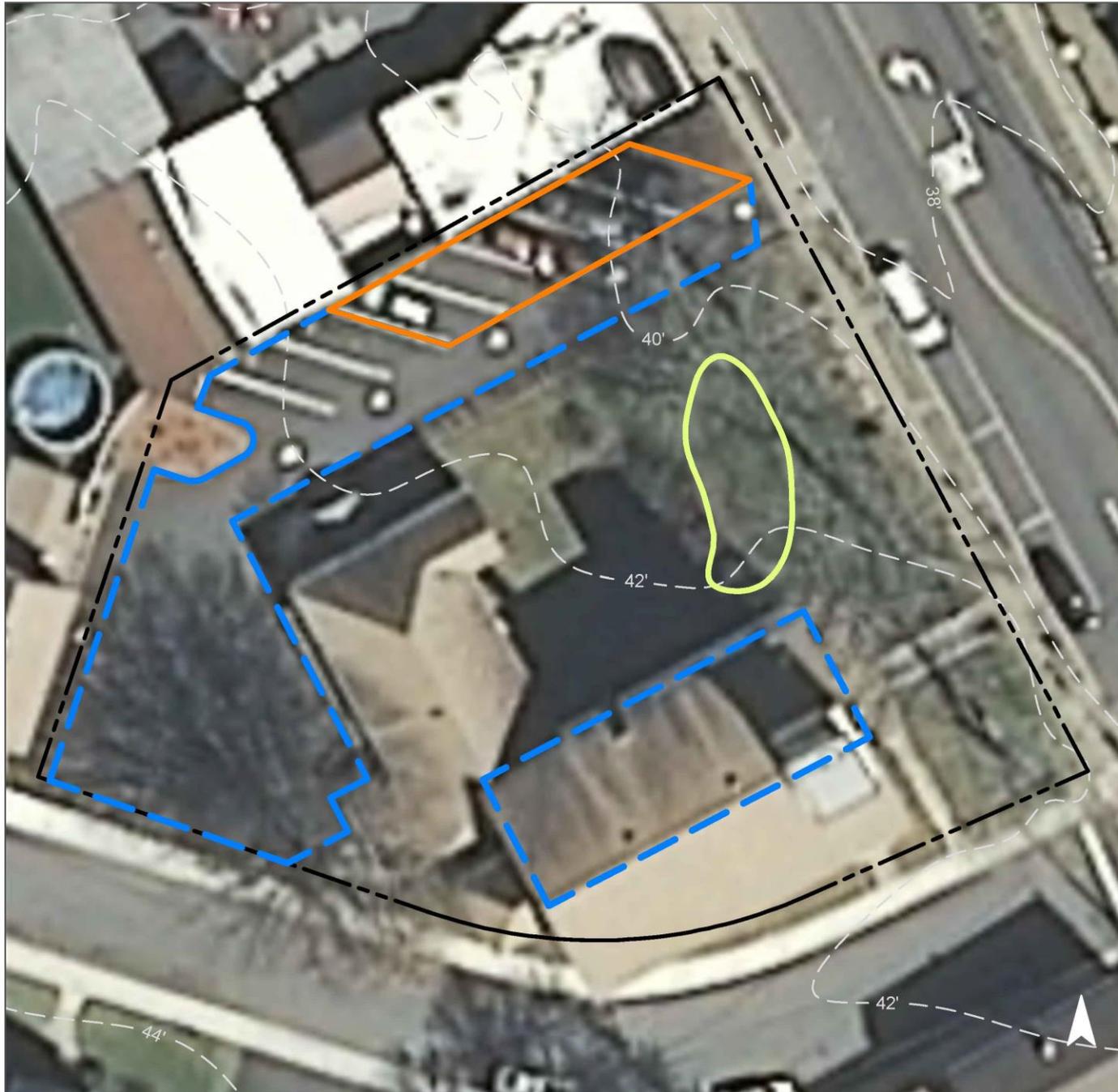


A rain garden can be installed to capture roof runoff from the disconnected downspouts in the gazebo area. The parking lot and driveway slope toward the road. Parking spots can be replaced with porous asphalt to infiltrate stormwater. A preliminary soil assessment suggests that the existing soils have suitable drainage characteristics for green infrastructure.

Impervious Cover		Existing Loads from Impervious Cover (lbs/yr)			Runoff Volume from Impervious Cover (Mgal)	
%	sq. ft.	TP	TN	TSS	For the 1.25" Water Quality Storm	For an Annual Rainfall of 44"
85	17,753	0.9	9.0	81.5	0.014	0.49

Recommended Green Infrastructure Practices	Recharge Potential (Mgal/yr)	TSS Removal Potential (lbs/yr)	Maximum Volume Reduction Potential (gal/storm)	Peak Discharge Reduction Potential (cu. ft./second)	Estimated Size (sq. ft.)	Estimated Cost
Bioretention systems	0.051	9	3,725	0.14	650	\$3,250
Pervious pavements	0.118	20	8,639	0.32	1,156	\$28,900

GREEN INFRASTRUCTURE RECOMMENDATIONS



Reformed Church of Bound Brook

-  pervious pavements
-  bioretention / rain gardens
-  drainage areas
-  property line
-  2012 Aerial: NJOIT, OGIS



ROBERT MORRIS ELEMENTARY SCHOOL



Subwatershed: Lower Raritan River

Site Area: 323,031 sq. ft.

Address: 122 Elizabeth Street,
South Bound Brook, NJ 08880

Block and Lot: Block 33, Lot 1.01, 4



The school's parking lot stormwater can be captured and infiltrated through strips of pervious pavement. By disconnecting and redirecting downspouts around the north and west side of the building, roof runoff can be treated by installing rain gardens. A preliminary soil assessment suggests that more soil testing would be required before determining the soil's suitability for green infrastructure.

Impervious Cover		Existing Loads from Impervious Cover (lbs/yr)			Runoff Volume from Impervious Cover (Mgal)	
%	sq. ft.	TP	TN	TSS	For the 1.25" Water Quality Storm	For an Annual Rainfall of 44"
39	126,928	6.1	64.1	582.8	0.099	3.48

Recommended Green Infrastructure Practices	Recharge Potential (Mgal/yr)	TSS Removal Potential (lbs/yr)	Maximum Volume Reduction Potential (gal/storm)	Peak Discharge Reduction Potential (cu. ft./second)	Estimated Size (sq. ft.)	Estimated Cost
Bioretention systems	0.287	48	21,034	0.79	3,650	\$18,250
Pervious pavements	0.881	148	64,650	2.43	6,100	\$152,500

GREEN INFRASTRUCTURE RECOMMENDATIONS



**Robert Morris
Elementary School**

-  disconnected downspouts
-  pervious pavements
-  bioretention / rain gardens
-  drainage areas
-  property line
-  2012 Aerial: NJOIT, OGIS



ROYAL MINI MART



Subwatershed: Lower Raritan River

Site Area: 14,033 sq. ft.

Address: 66 Main Street
South Bound Brook, NJ 08880

Block and Lot: Block 46, Lot 13



The paved parking lot drains toward the street. Pervious pavement could be utilized in the parking spaces to allow infiltration of runoff before it reaches the street's drainage system. A preliminary soil assessment suggests that the existing soils have suitable drainage characteristics for green infrastructure.

Impervious Cover		Existing Loads from Impervious Cover (lbs/yr)			Runoff Volume from Impervious Cover (Mgal)	
%	sq. ft.	TP	TN	TSS	For the 1.25" Water Quality Storm	For an Annual Rainfall of 44"
93	13,100	0.6	6.6	60.1	0.010	0.36

Recommended Green Infrastructure Practices	Recharge Potential (Mgal/yr)	TSS Removal Potential (lbs/yr)	Maximum Volume Reduction Potential (gal/storm)	Peak Discharge Reduction Potential (cu. ft./second)	Estimated Size (sq. ft.)	Estimated Cost
Pervious pavements	0.132	22	9,687	0.36	1,110	\$27,750

GREEN INFRASTRUCTURE RECOMMENDATIONS



Royal Mini Mart

-  pervious pavements
-  drainage areas
-  property line
-  2012 Aerial: NJOIT, OGIS



SnS MOTOR SPORTS LLC



Subwatershed: Lower Raritan River

Site Area: 17,719 sq. ft.

Address: 267 Main Street
South Bound Brook, NJ 08880

Block and Lot: Block 77, Lot 4



Stormwater from this site flows from the paved parking lot, and from the roof through disconnected downspouts. The downspouts can be redirected to infiltrate into the turf grass, and the parking spaces can be converted into pervious pavement to capture runoff. The gravel area should remain as it is partially pervious. A preliminary soil assessment suggests that more soil testing would be required before determining the soil's suitability for green infrastructure.

Impervious Cover		Existing Loads from Impervious Cover (lbs/yr)			Runoff Volume from Impervious Cover (Mgal)	
%	sq. ft.	TP	TN	TSS	For the 1.25" Water Quality Storm	For an Annual Rainfall of 44"
76	13,513	0.7	6.8	62.0	0.011	0.37

Recommended Green Infrastructure Practices	Recharge Potential (Mgal/yr)	TSS Removal Potential (lbs/yr)	Maximum Volume Reduction Potential (gal/storm)	Peak Discharge Reduction Potential (cu. ft./second)	Estimated Size (sq. ft.)	Estimated Cost
Pervious pavements	0.077	13	5,647	0.21	1,280	\$32,000

GREEN INFRASTRUCTURE RECOMMENDATIONS



SnS Motor Sports LCC

-  pervious pavements
-  drainage areas
-  property line
-  2012 Aerial: NJOIT, OGIS



SOUTH BOUND BROOK MALL



Subwatershed: Lower Raritan River

Site Area: 31,477 sq. ft.

Address: 60 Main Street
South Bound Brook, NJ 08880

Block and Lot: Block 46, Lot 12



The runoff from the parking area can be captured if the parking spaces were converted to pervious pavement. The building has disconnected downspouts which can be redirected into downspout planter boxes to treat the runoff from the roof. A preliminary soil assessment suggests that the existing soils have suitable drainage characteristics for green infrastructure.

Impervious Cover		Existing Loads from Impervious Cover (lbs/yr)			Runoff Volume from Impervious Cover (Mgal)	
%	sq. ft.	TP	TN	TSS	For the 1.25" Water Quality Storm	For an Annual Rainfall of 44"
84	26,466	1.3	13.4	121.5	0.021	0.73

Recommended Green Infrastructure Practices	Recharge Potential (Mgal/yr)	TSS Removal Potential (lbs/yr)	Maximum Volume Reduction Potential (gal/storm)	Peak Discharge Reduction Potential (cu. ft./second)	Estimated Size (sq. ft.)	Estimated Cost
Downspout planter boxes	0.028	5	n/a	n/a	60	\$5,000
Pervious pavements	0.141	24	10,345	0.39	1,140	\$28,500

GREEN INFRASTRUCTURE RECOMMENDATIONS



South Bound Brook Mall

-  pervious pavements
-  downspout planter boxes
-  drainage areas
-  property line
-  2012 Aerial: NJOIT, OGIS



SOUTH BOUND BROOK POLICE DEPARTMENT



Subwatershed: Lower Raritan River

Site Area: 12,389 sq. ft.

Address: 12 Main Street
South Bound Brook, NJ 08880

Block and Lot: Block 56, Lot 3

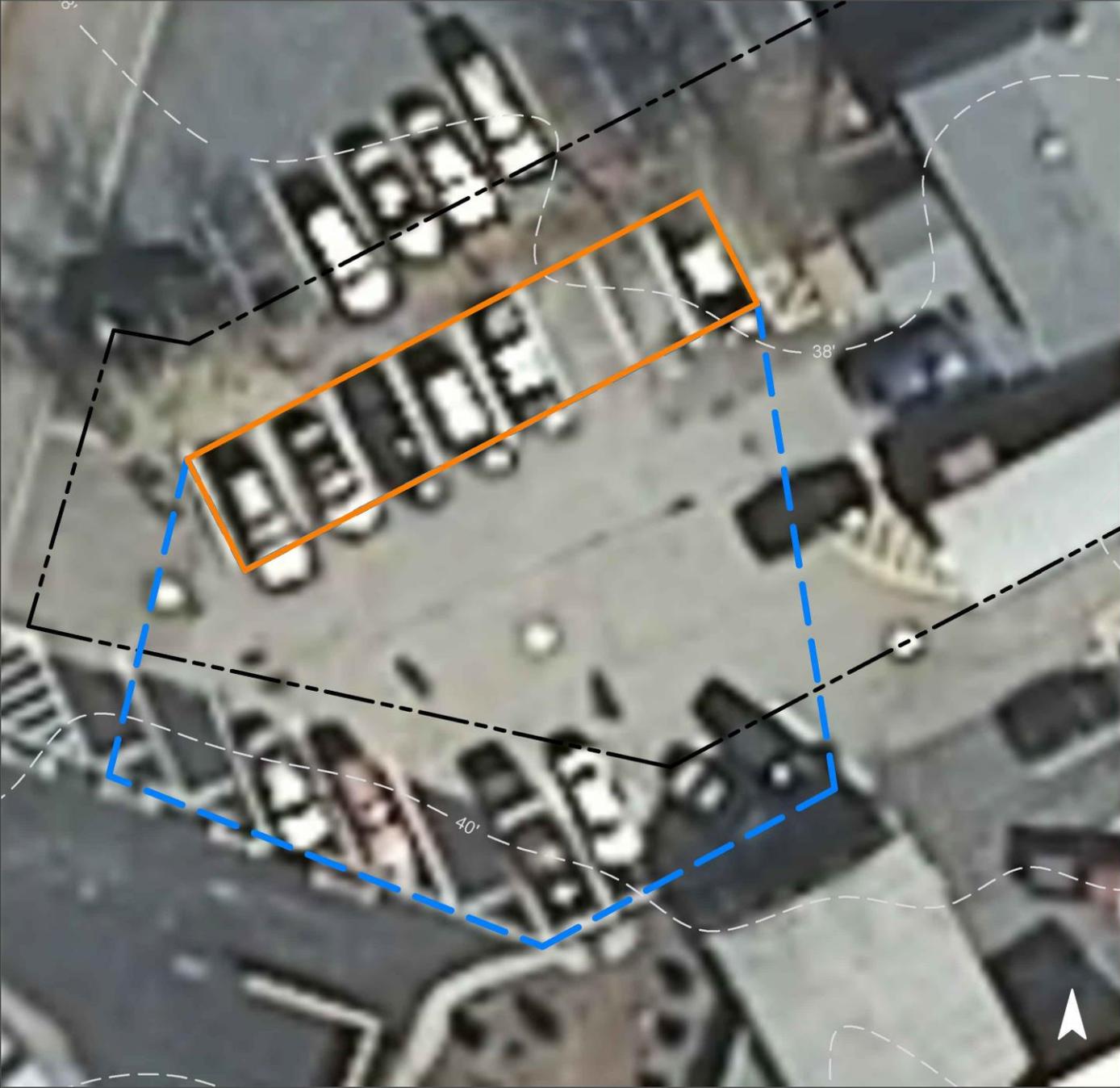


The parking lot slopes toward the building, down the driveway, and into the street. Parking spots can be replaced with porous asphalt to infiltrate stormwater. A preliminary soil assessment suggests that the existing soils have suitable drainage characteristics for green infrastructure.

Impervious Cover		Existing Loads from Impervious Cover (lbs/yr)			Runoff Volume from Impervious Cover (Mgal)	
%	sq. ft.	TP	TN	TSS	For the 1.25" Water Quality Storm	For an Annual Rainfall of 44"
85	10,554	0.5	5.3	48.5	0.008	0.29

Recommended Green Infrastructure Practices	Recharge Potential (Mgal/yr)	TSS Removal Potential (lbs/yr)	Maximum Volume Reduction Potential (gal/storm)	Peak Discharge Reduction Potential (cu. ft./second)	Estimated Size (sq. ft.)	Estimated Cost
Pervious pavements	0.124	21	9,088	0.34	1,220	\$30,500

GREEN INFRASTRUCTURE RECOMMENDATIONS



South Bound Brook Police Department

-  pervious pavements
-  drainage areas
-  property line
-  2012 Aerial: NJOIT, OGIS



SOUTH SIDE GRILL



Subwatershed: Lower Raritan River

Site Area: 13,894 sq. ft.

Address: 2 Main Street
South Bound Brook, NJ 08880

Block and Lot: Block 56, Lot 1.01



The parking lot drains to the roadway. Parking spaces can be replaced with porous asphalt to infiltrate stormwater. Pervious concrete can be installed to capture roof runoff draining onto the sidewalk on the west side of the building. A preliminary soil assessment suggests that the existing soils have suitable drainage characteristics for green infrastructure.

Impervious Cover		Existing Loads from Impervious Cover (lbs/yr)			Runoff Volume from Impervious Cover (Mgal)	
%	sq. ft.	TP	TN	TSS	For the 1.25" Water Quality Storm	For an Annual Rainfall of 44"
95	13,190	0.6	6.7	60.6	0.010	0.36

Recommended Green Infrastructure Practices	Recharge Potential (Mgal/yr)	TSS Removal Potential (lbs/yr)	Maximum Volume Reduction Potential (gal/storm)	Peak Discharge Reduction Potential (cu. ft./second)	Estimated Size (sq. ft.)	Estimated Cost
Pervious pavements	0.168	28	12,290	0.46	1,500	\$37,500

GREEN INFRASTRUCTURE RECOMMENDATIONS



South Side Grill

-  pervious pavements
-  drainage areas
-  property line
-  2012 Aerial: NJOIT, OGIS



SUNOCO GAS STATION



Subwatershed: Lower Raritan River

Site Area: 20,088 sq. ft.

Address: 96 Main Street
South Bound Brook, NJ 08880

Block and Lot: Block 42, Lot 8

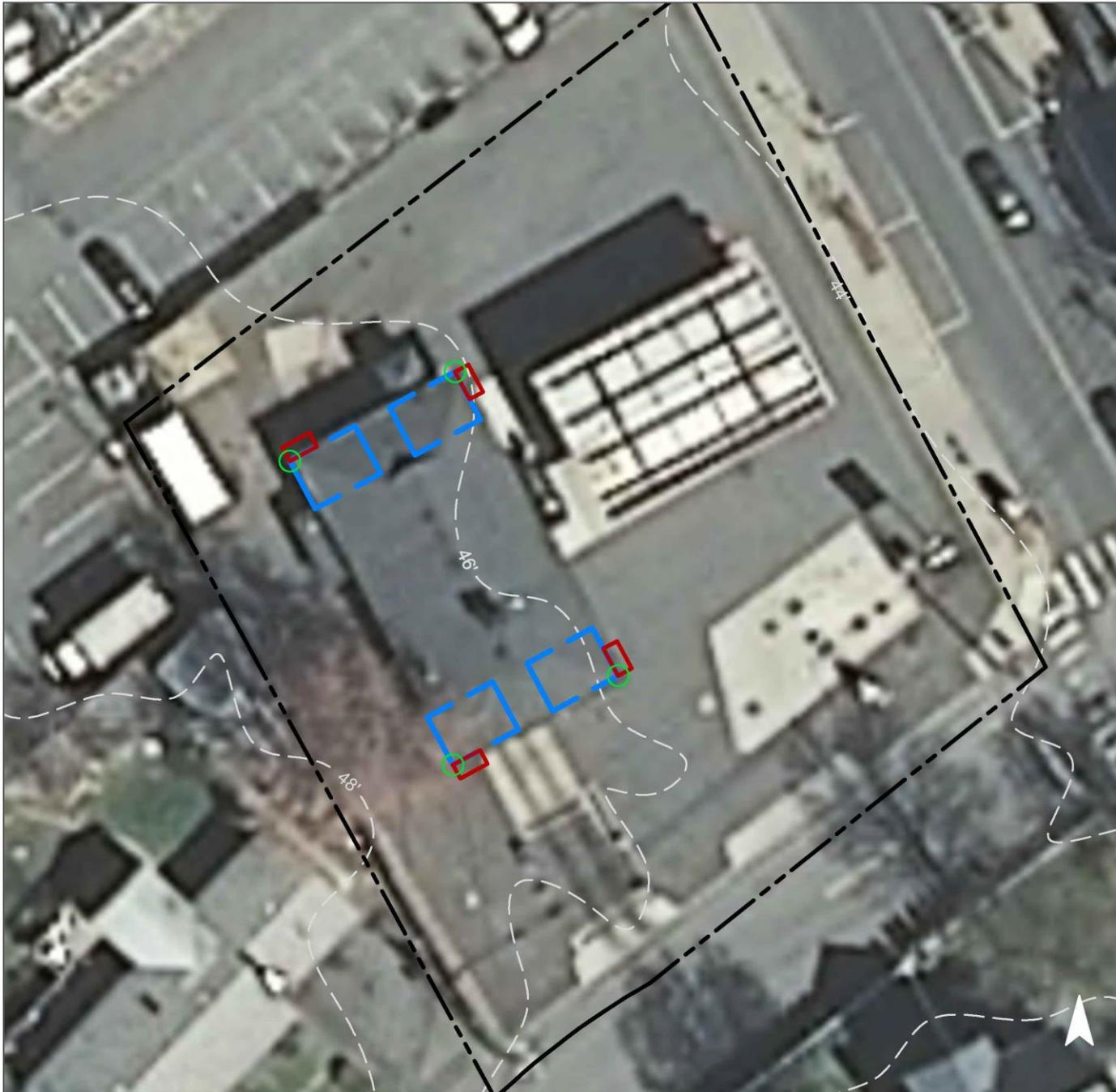


The building at the gas station has four connected downspouts that can be disconnected into planter boxes to treat the stormwater before being discharged into the street. A preliminary soil assessment for this site suggests that the existing soils have suitable drainage characteristics for green infrastructure.

Impervious Cover		Existing Loads from Impervious Cover (lbs/yr)			Runoff Volume from Impervious Cover (Mgal)	
%	sq. ft.	TP	TN	TSS	For the 1.25" Water Quality Storm	For an Annual Rainfall of 44"
94	18,948	0.9	9.6	87.0	0.015	0.52

Recommended Green Infrastructure Practices	Recharge Potential (Mgal/yr)	TSS Removal Potential (lbs/yr)	Maximum Volume Reduction Potential (gal/storm)	Peak Discharge Reduction Potential (cu. ft./second)	Estimated Size (sq. ft.)	Estimated Cost
Downspout planter boxes	0.022	4	n/a	n/a	48	\$4,000

GREEN INFRASTRUCTURE RECOMMENDATIONS



Sunoco Gas Station

-  disconnected downspouts
-  downspout planter boxes
-  drainage areas
-  property line
-  2012 Aerial: NJOIT, OGIS



TOWN OAKS APARTMENTS



Subwatershed: Lower Raritan River

Site Area: 180,325 sq. ft.

Address: 159 Main Street
South Bound Brook, NJ 08880

Block and Lot: Block 74, Lot 3



The apartment complex has large areas of pavement for parking that drain to catch basins. Portions of the parking lot can be replaced with porous asphalt to capture and infiltrate stormwater. Bioretention systems can be installed around the apartments to capture and treat roof runoff. A preliminary soil assessment suggests that further testing will need to be done to determine if it has suitable drainage characteristics for green infrastructure.

Impervious Cover		Existing Loads from Impervious Cover (lbs/yr)			Runoff Volume from Impervious Cover (Mgal)	
%	sq. ft.	TP	TN	TSS	For the 1.25" Water Quality Storm	For an Annual Rainfall of 44"
79	142,055	6.8	71.7	652.2	0.111	3.90

Recommended Green Infrastructure Practices	Recharge Potential (Mgal/yr)	TSS Removal Potential (lbs/yr)	Maximum Volume Reduction Potential (gal/storm)	Peak Discharge Reduction Potential (cu. ft./second)	Estimated Size (sq. ft.)	Estimated Cost
Bioretention systems	0.231	39	16,957	0.64	2,945	\$14,725
Pervious pavements	0.180	30	13,195	0.50	1,510	\$37,750

GREEN INFRASTRUCTURE RECOMMENDATIONS



Town Oaks Apartments

-  disconnected downspouts
-  pervious pavements
-  bioretention / rain gardens
-  drainage areas
-  property line
-  2012 Aerial: NJOIT, OGIS



US POST OFFICE



Subwatershed: Lower Raritan River

Site Area: 17,064 sq. ft.

Address: 11 Madison Street,
South Bound Brook, NJ 08880

Block and Lot: Block 54, Lot 1

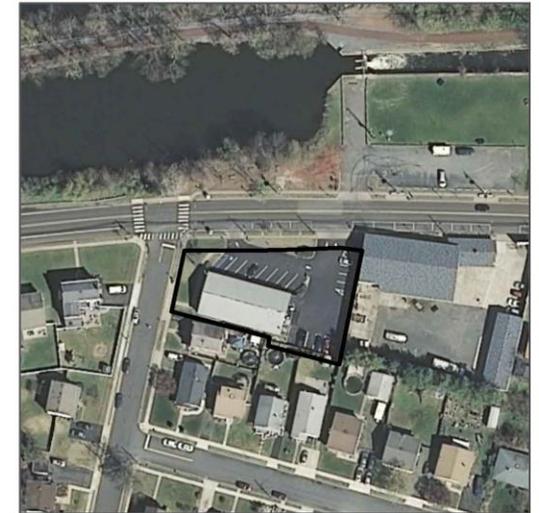
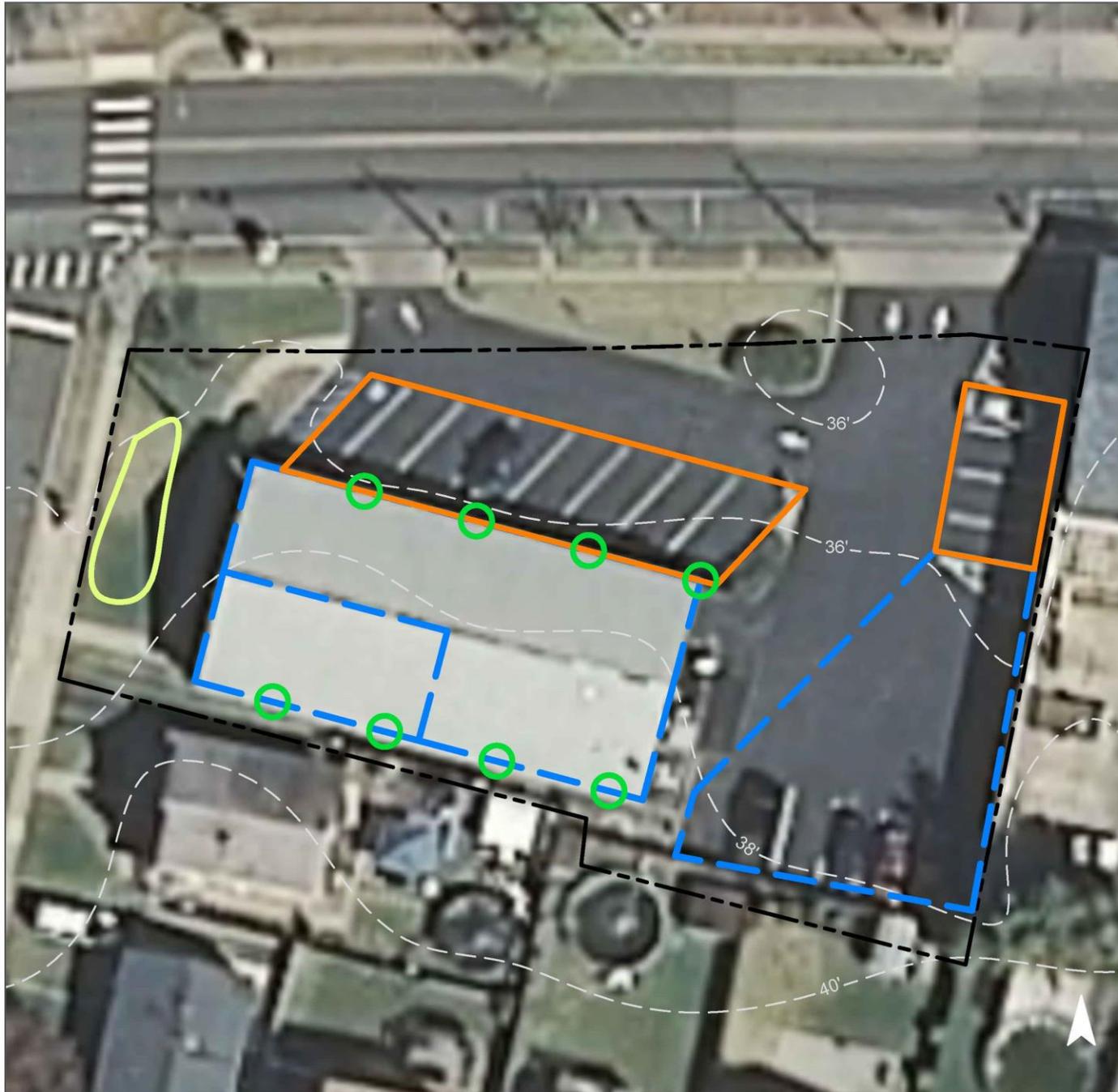


The downspouts are directly connected. The parking spaces north of the building can be converted into pervious pavement, and the downspouts can be disconnected and redirected into them to allow stormwater to infiltrate. Additional parking spaces on the east side can be replaced with porous asphalt to capture parking lot runoff. In front of the building, a rain garden can be installed to capture, treat and infiltrate roof runoff. A preliminary soil assessment suggests that the existing soils have suitable drainage characteristics for green infrastructure.

Impervious Cover		Existing Loads from Impervious Cover (lbs/yr)			Runoff Volume from Impervious Cover (Mgal)	
%	sq. ft.	TP	TN	TSS	For the 1.25" Water Quality Storm	For an Annual Rainfall of 44"
81	13,749	0.7	6.9	63.1	0.011	0.38

Recommended Green Infrastructure Practices	Recharge Potential (Mgal/yr)	TSS Removal Potential (lbs/yr)	Maximum Volume Reduction Potential (gal/storm)	Peak Discharge Reduction Potential (cu. ft./second)	Estimated Size (sq. ft.)	Estimated Cost
Bioretention systems	0.026	4	1,915	0.07	350	\$1,750
Pervious pavements	0.151	25	11,055	0.42	2,580	\$64,500

GREEN INFRASTRUCTURE RECOMMENDATIONS



US Post Office

-  disconnected downspouts
-  pervious pavements
-  bioretention / rain gardens
-  drainage areas
-  property line
-  2012 Aerial: NJOIT, OGIS



d. Summary of Existing Conditions

Summary of Existing Site Conditions

Subwatershed/Site Name/Total Site Info/GI Practice	Area (ac)	Area (SF)	Block	Lot	Existing Annual Loads			I.C. %	I.C. Area (ac)	I.C. Area (SF)	Runoff Volumes from I.C.	
					TP (lb/yr)	TN (lb/yr)	TSS (lb/yr)				Water Quality Storm (1.25" over 2-hours) (Mgal)	Annual (Mgal)
LOWER RARITAN RIVER SUBWATERSHED	20.32	885,208			28.3	296.0	2,690.8		13.45	586,033	0.457	16.07
Abundant Life Evangelico												
Total Site Info	0.52	22,799	53	17	0.6	5.9	53.8	51.4	0.27	11,724	0.009	0.32
BMC Dollar Zone (Complex)												
Total Site Info	0.46	19,989	53	15	0.8	8.6	78.0	85.0	0.39	16,990	0.013	0.47
C-Town Supermarket												
Total Site Info	0.72	31,177	42	11	1.4	14.3	129.6	90.6	0.65	28,231	0.022	0.77
Cleary Machinery												
Total Site Info	0.24	10,612	48	16	0.4	4.4	39.6	81.3	0.20	8,625	0.007	0.24
Joe's Meat Market												
Total Site Info	0.13	5,462	53	16	0.2	2.3	21.3	85.0	0.11	4,643	0.004	0.13
Melick-Tully & Associates P.C.												
Total Site Info	0.57	24,626	55	1	1.1	11.8	107.4	95.0	0.54	23,361	0.018	0.64
Municipal Parking Lot: 16 Elm Street												
Total Site Info	0.53	23,130	55	3	1.1	11.1	100.6	94.7	0.50	21,904	0.017	0.60
Our Lady of Mercy Church												
Total Site Info	1.68	72,995	6.01, 9.01	48,50	2.5	26.2	238.6	71.2	1.19	51,961	0.040	1.43
Ovations Restaurant and Bar												
Total Site Info	0.54	23,513	16	1, 19, 20	1.1	11.3	102.6	95.0	0.51	22,337	0.017	0.61
Reformed Church of Bound Brook												
Total Site Info	0.48	20,886	56	5	0.9	9.0	81.5	85.0	0.41	17,753	0.014	0.49
Robert Morris Elementary School												
Total Site Info	7.42	323,031	33	1.01, 4	6.1	64.1	582.8	39.3	2.91	126,928	0.099	3.48
Royal Mini Mart												
Total Site Info	0.32	14,033	46	13	0.6	6.6	60.1	93.4	0.30	13,100	0.010	0.36

Summary of Existing Site Conditions

Subwatershed/Site Name/Total Site Info/GI Practice	Area (ac)	Area (SF)	Block	Lot	Existing Annual Loads			I.C. %	I.C. Area (ac)	I.C. Area (SF)	Runoff Volumes from I.C.	
					TP (lb/yr)	TN (lb/yr)	TSS (lb/yr)				Water Quality Storm (1.25" over 2-hours) (Mgal)	Annual (Mgal)
SnS Motor Sports LLC												
Total Site Info	0.41	17,719	77	4	0.7	6.8	62.0	76.3	0.31	13,513	0.011	0.37
South Bound Brook Mall												
Total Site Info	0.72	31,477	46	12	1.3	13.4	121.5	84.1	0.61	26,466	0.021	0.73
South Bound Brook Police Department												
Total Site Info	0.28	12,389	56	3	0.5	5.3	48.5	85.2	0.24	10,554	0.008	0.29
South Side Grill												
Total Site Info	0.32	13,894	56	1.01	0.6	6.7	60.6	94.9	0.30	13,190	0.010	0.36
Sunoco Gas Station												
Total Site Info	0.46	20,088	42	8	0.9	9.6	87.0	94.3	0.43	18,948	0.015	0.52
Town Oaks Apartments												
Total Site Info	4.14	180,325	74	3	6.8	71.7	652.2	78.8	3.26	142,055	0.111	3.90
US Post Office												
Total Site Info	0.39	17,064	54	1	0.7	6.9	63.1	80.6	0.32	13,749	0.011	0.38

e. Summary of Proposed Green Infrastructure Practices

Summary of Proposed Green Infrastructure Practices

Subwatershed/Site Name/Total Site Info/GI Practice	Potential Management Area		Recharge Potential (Mgal/yr)	TSS Removal Potential (lbs/yr)	Max Volume Reduction Potential (gal/storm)	Peak Discharge Reduction Potential (cfs)	Size of BMP (SF)	Unit Cost (\$)	Unit	Total Cost (\$)	I.C. Treated %
	Area (SF)	Area (ac)									
LOWER RARITAN RIVER SUBWATERSHED	196,970	4.52	5.132	858	370,487	13.07	44,966			\$926,250	33.6%
1 Abundant Life Evangelico											
Bioretention systems/rain gardens	3,020	0.07	0.079	13	5,775	0.22	990	5	SF	\$4,950	25.8%
Total Site Info	3,020	0.07	0.079	13	5,775	0.22	990			\$4,950	25.8%
2 BMC Dollar Zone (Complex)											
Pervious pavements	7,896	0.18	0.206	34	15,095	0.57	1,785	25	SF	\$44,625	46.5%
Total Site Info	7,896	0.18	0.206	34	15,095	0.57	1,785			\$44,625	46.5%
3 C-Town Supermarket											
Pervious pavements	12,004	0.28	0.313	52	22,590	0.22	2,702	25	SF	\$67,550	42.5%
Total Site Info	12,004	0.28	0.313	52	22,590	0.22	2,702			\$67,550	42.5%
4 Cleary Machinery											
Bioretention systems/rain gardens	750	0.02	0.020	3	1,436	0.05	250	5	SF	\$1,250	8.7%
Pervious pavements	2,647	0.06	0.069	12	5,064	0.19	650	25	SF	\$16,250	30.7%
Total Site Info	3,397	0.08	0.089	15	6,500	0.24	900			\$17,500	39.4%
5 Joe's Meat Market											
Downspout planter boxes	1,075	0.02	0.028	4	n/a	n/a	60	1000	box	\$5,000	23.2%
Total Site Info	1,075	0.02	0.028	4			60			\$5,000	23.2%
6 Melick-Tully & Associates PC											
Bioretention systems/rain gardens	1,100	0.03	0.029	5	2,102	0.08	370	5	SF	\$1,850	4.7%
Pervious pavements	5,719	0.13	0.149	25	10,936	0.41	1,308	25	SF	\$32,700	24.5%
Total Site Info	6,819	0.16	0.178	30	13,038	0.49	1,678			\$34,550	29.2%
7 Municipal Parking Lot: 16 Elm St.											
Pervious pavements	19,354	0.44	0.504	84	37,004	1.39	3,500	25	SF	\$87,500	88.4%
Total Site Info	19,354	0.44	0.504	84	37,004	1.39	3,500			\$87,500	88.4%
8 Our Lady of Mercy Church											
Bioretention systems/rain gardens	3,576	0.08	0.093	16	6,837	0.26	1,180	5	SF	\$5,900	6.9%
Pervious pavements	26,448	0.61	0.689	115	50,565	1.90	4,722	25	SF	\$118,050	50.9%
Total Site Info	30,024	0.69	0.782	131	57,402	2.16	5,902			\$123,950	57.8%

Summary of Proposed Green Infrastructure Practices

Subwatershed/Site Name/Total Site Info/GI Practice	Potential Management Area		Recharge Potential (Mgal/yr)	TSS Removal Potential (lbs/yr)	Max Volume Reduction Potential (gal/storm)	Peak Discharge Reduction Potential (cfs)	Size of BMP (SF)	Unit Cost (\$)	Unit	Total Cost (\$)	I.C. Treated %
	Area (SF)	Area (ac)									
9 Ovations Restaurant and Bar											
Pervious pavements	13,000	0.30	0.339	57	24,856	0.71	2,150	25	SF	\$53,750	58.2%
Total Site Info	13,000	0.30	0.339	57	24,856	0.71	2,150			\$53,750	58.2%
10 Reformed Church of Bound Brook											
Bioretention systems/rain gardens	1,950	0.04	0.051	9	3,725	0.14	650	5	SF	\$3,250	11.0%
Pervious pavements	4,517	0.10	0.118	20	8,639	0.32	1,156	25	SF	\$28,900	25.4%
Total Site Info	6,467	0.15	0.168	28	12,364	0.46	1,806			\$32,150	36.4%
11 Robert Morris Elementary School											
Bioretention systems/rain gardens	11,000	0.25	0.287	48	21,034	0.79	3,650	5	SF	\$18,250	8.7%
Pervious pavements	33,817	0.78	0.881	148	64,650	2.43	6,100	25	SF	\$152,500	26.6%
Total Site Info	44,817	1.03	1.168	195	85,684	3.22	9,750			\$170,750	35.3%
12 Royal Mini Mart											
Pervious pavements	5,065	0.12	0.132	22	9,687	0.36	1,110	25	SF	\$27,750	38.7%
Total Site Info	5,065	0.12	0.132	22	9,687	0.36	1,110			\$27,750	38.7%
13 S n S Motor Sports LLC											
Pervious pavements	2,954	0.07	0.077	13	5,647	0.21	1,280	25	SF	\$32,000	21.9%
Total Site Info	2,954	0.07	0.077	13	5,647	0.21	1,280			\$32,000	21.9%
14 South Bound Brook Mall											
Downspout planter boxes	1,075	0.02	0.028	5	n/a	n/a	60	1000	box	\$5,000	4.1%
Pervious pavements	5,409	0.12	0.141	24	10,345	0.39	1,140	25	SF	\$28,500	20.4%
Total Site Info	6,484	0.15	0.169	28	10,345	0.39	1,200			\$33,500	24.5%
15 South Bound Brook Police Department											
Pervious pavements	4,753	0.11	0.124	21	9,088	0.34	1,220	25	SF	\$30,500	45.0%
Total Site Info	4,753	0.11	0.124	21	9,088	0.34	1,220			\$30,500	45.0%
16 South Side Grill											
Pervious pavements	6,429	0.15	0.168	28	12,290	0.46	1,500	25	SF	\$37,500	48.7%
Total Site Info	6,429	0.15	0.168	28	12,290	0.46	1,500			\$37,500	48.7%

Summary of Proposed Green Infrastructure Practices

Subwatershed/Site Name/Total Site Info/GI Practice	Potential Management Area		Recharge Potential (Mgal/yr)	TSS Removal Potential (lbs/yr)	Max Volume Reduction Potential (gal/storm)	Peak Discharge Reduction Potential (cfs)	Size of BMP (SF)	Unit Cost (\$)	Unit	Total Cost (\$)	I.C. Treated %
	Area (SF)	Area (ac)									
17 Sunoco Gas Station											
Downspout planter boxes	860	0.02	0.022	4	n/a	n/a	48	1000	box	\$4,000	4.5%
Total Site Info	860	0.02	0.022	4			48			\$4,000	4.5%
18 Town Oaks Apartments											
Bioretention systems/rain gardens	8,870	0.20	0.231	39	16,957	0.64	2,945	5	SF	\$14,725	6.2%
Pervious pavements	6,901	0.16	0.180	30	13,195	0.50	1,510	25	SF	\$37,750	4.9%
Total Site Info	15,771	0.36	0.411	69	30,152	1.14	4,455			\$52,475	11.1%
19 US Post Office											
Bioretention systems/rain gardens	1,000	0.02	0.026	4	1,915	0.07	350	5	SF	\$1,750	7.3%
Pervious pavements	5,781	0.13	0.151	25	11,055	0.42	2,580	25	SF	\$64,500	42.0%
Total Site Info	6,781	0.16	0.177	30	12,970	0.49	2,930			\$66,250	49.3%