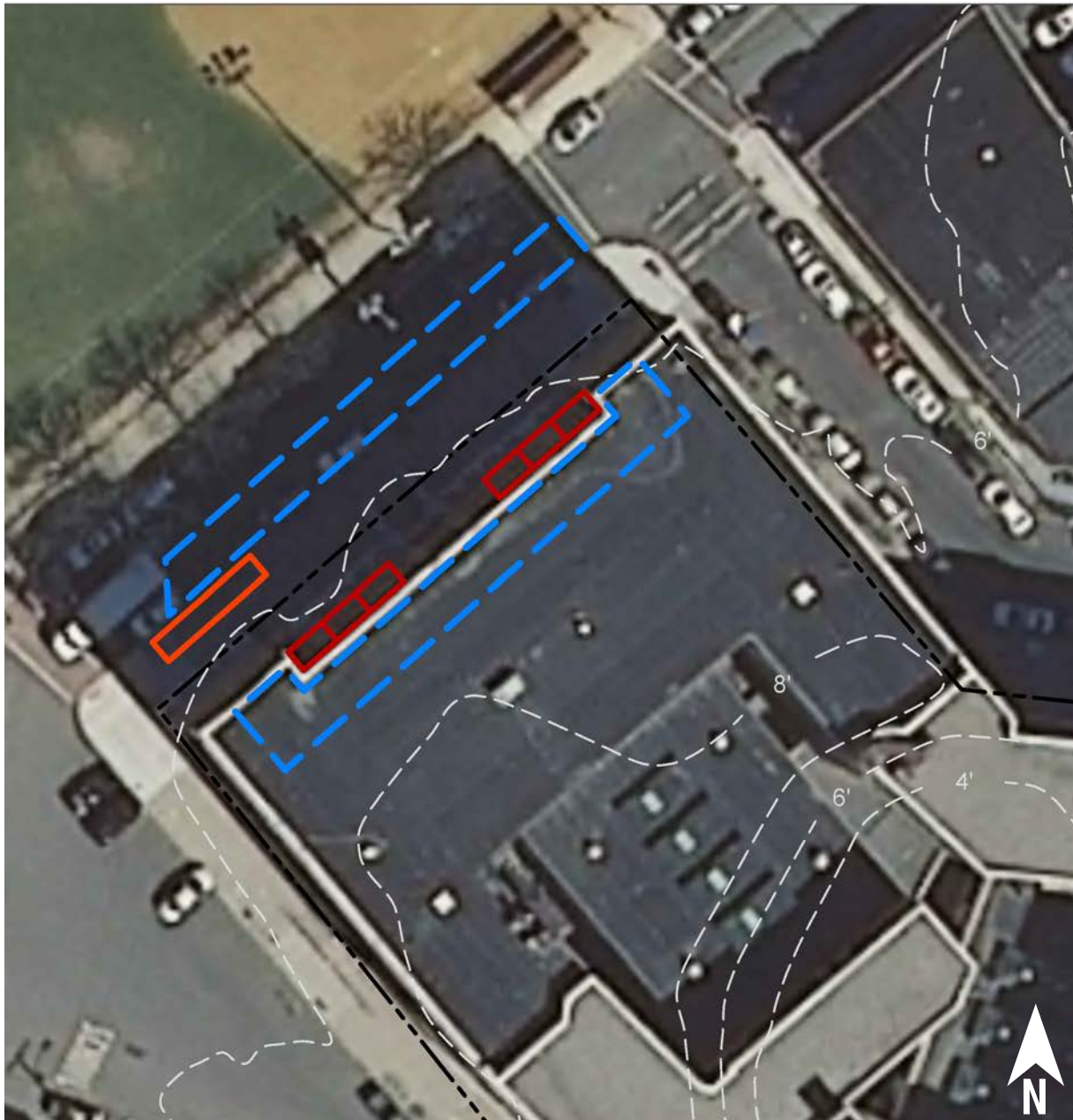







Jersey City Public School No. 5  
Green Infrastructure Information Sheet

<p><b>Location:</b> 35 Colgate Street, Jersey City, NJ 07302</p>	<p><b>Site Use:</b> School</p>
<p><b>Lead Project Partner:</b> Rutgers Cooperative Extension (RCE) Water Resources Program</p>	<p><b>Watershed Name:</b> Hudson River</p> <p><b>Targeted Pollutants:</b> total nitrogen (TN), total phosphorus (TP), and total suspended solids (TSS) in surface runoff</p>
<p><b>Ward:</b> E</p>	<p><b>Estimated Stormwater Captured and Treated Per Year:</b> To be determined</p>
<p><b>Green Infrastructure Description:</b> Stormwater planters, pervious pavement, and tree trenches</p>	
<p><b>Existing Conditions and Issues:</b> Public School No. 5 is surrounded by pavement. There are two existing downspouts that discharge rooftop runoff onto the sidewalk and roadway. In heavy storms, the runoff contributes to flooding the front of the school.</p>	
<p><b>Proposed Solution(s):</b> Public School No. 5 has internally-fed drainage that can be diverted into demonstration planter boxes. Stormwater runoff from the street can be managed in stormwater planters.</p>	
<p><b>Potential Partners/Stakeholders:</b> Igtug{ 'Ek{ 'Dqctf "qh'Gf wecvkqp.'TEG'Y cvgt 'T guqwtegu" Rtqi tco . 'Lgtug{ 'Ek{ 'O wplekr cnWkrklgu' Cwj qtkv{</p>	
<p><b>Appendix A:</b> Green Infrastructure Feasibility Study for Jersey City</p> <p><b>Appendix B:</b> Public School No. 5 Newsletter</p> <p><b>Appendix C:</b> Design Renderings</p>	



-  planter boxes
-  stormwater planters
-  drainage area
-  property line
-  2012 Aerial: NJOIT, OGIS

0' 20' 40'





Public School No. 5 has internally-fed drainage that can be diverted into demonstration planter boxes. Stormwater runoff from the street can be managed in stormwater planters.

Impervious Cover		Existing Loads from Impervious Cover (lbs/yr)			Runoff Volume from Impervious Cover (Mgal)	
%	sq. ft.	TP	TN	TSS	From the 1.25" Water Quality Storm	For an Annual Rainfall of 44"
90.0	43,537	2.1	22.0	199.9	0.034	1.19

Recommended 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
Planter boxes	0.034	5	n/a	n/a	72	\$72,000
Stormwater planters	0.039	7	2,865	0.11	210	\$21,000



# GREEN INFRASTRUCTURE COMING TO JERSEY CITY PUBLIC SCHOOL #5!

Rutgers Cooperative Extension Water Resources Program

March 2015

## The Beginning of Our Partnership

In October 2013, Mr. Albert Padilla contacted the Rutgers Cooperative Extension (RCE) Water Resources Program to assist his students in developing a plan for water conservation and stormwater management at the Public School #5. To support maintain momentum, the RCE Water Resources Program provided an overview of sustainable stormwater management through green infrastructure and evaluate the school's surroundings to identify the possible green infrastructure practices. This effort was supported by the Passaic Valley Sewerage Commission as part of a green infrastructure pilot outreach program. Following this program, the RCE Water Resources Program continued to support Mr. Padilla's curriculum goals for the student project by providing resources, data and information on sustainable green infrastructure practices. Mr. Padilla's students were enthusiastic to learn about green infrastructure practices, identified what they wanted to see at their school and presented their ideas to the City Council.

## Making a Vision into a Reality

Motivated by the enthusiasm and efforts of the students, the RCE Water Resources Program secured funding from the New Jersey Department of Environmental Protection (NJDEP) to continue to work with Mr. Padilla and students to support the vision of PS#5 becoming one of the first schools in Jersey City to implement green infrastructure practices. In collaboration with the students' vision of green infrastructure practices for the school, the RCE Water Resources Program began to develop designs of sustainable green infrastructure practices that would have the greatest impact on not only reducing the flooding that occurs in front of the school, but also reducing nonpoint source pollution, or people pollution, to our waterways.



Students in October 2013 conducting an on-site evaluation with the RCE Water Resources Program to identify practical and sustainable green infrastructure practices to manage stormwater runoff from the school's rooftop.

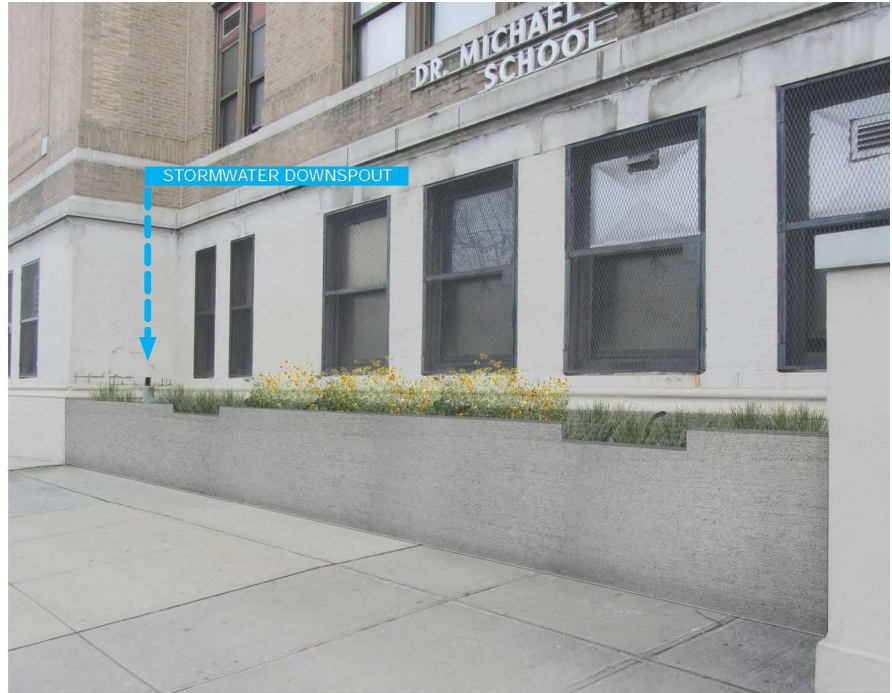




BEFORE



CROSS SECTIONAL DIAGRAM (Proposed)



CONCEPT RENDERING (Proposed)

## Green Infrastructure Coming Soon to PS #5!

The enthusiasm of PS #5 and the community, PS #5 was able to raise \$5,000 towards the project. The RCE Water Resources Program, with funding from NJDEP, is able to match \$8,000 towards the construction of the downspout planter boxes.

With the support and efforts made by PS #5 to implement green infrastructure on school grounds, the RCE Water Resources Program and local stakeholders want to capitalize efforts to make the greatest, positive impact we can have on site by increasing the number of green infrastructure practices to disconnect the stormwater running off the school's rooftop to the front of the school completely. This has led to a greater project estimated at \$195,000!

In partnership with local stakeholders, the RCE Water Resources Program is working towards securing funds to implement a series of concrete downspout planter boxes and pervious concrete that will allow stormwater to infiltrate through the pavement and prevents the water to become runoff and increasing flooding conditions at the school. The conceptual image above is a proposed vision of what PS#5 will look like once implementation is completed. Not only will these green infrastructure practices manage stormwater, but they will also provide an outdoor classroom to PS#5 for discussing environmental and human impacts, engineering design, and solutions to stormwater impacts.

### Estimated Timeline for Implementation

Our goal is to begin portions of the project's implementations in the summer of 2015 to complete the final stages of construction by the summer of 2016. We are excited to be working with local stakeholders on this larger initiative that will create a sustainable community and become an example for communities in New Jersey of the benefits in going green.

For more information, please contact us

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Rutgers Cooperative Extension  
Water Resources Program

(848) 932-6714

[rdasilva@envsci.rutgers.edu](mailto:rdasilva@envsci.rutgers.edu)

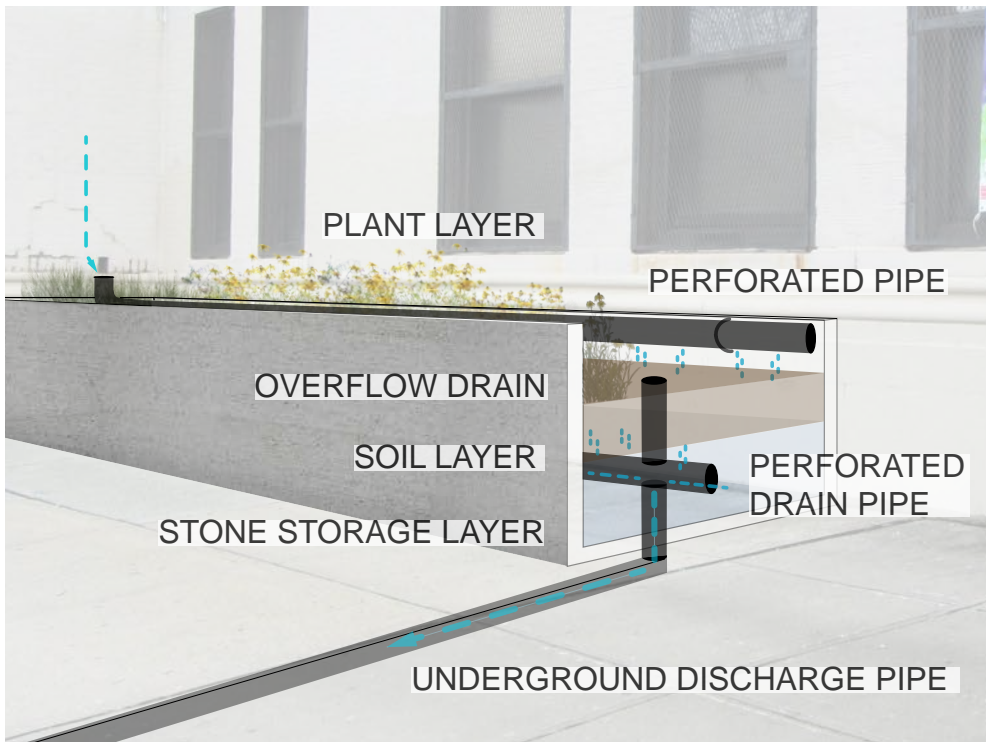
Visit us on the web at  
[www.water.rutgers.edu](http://www.water.rutgers.edu)



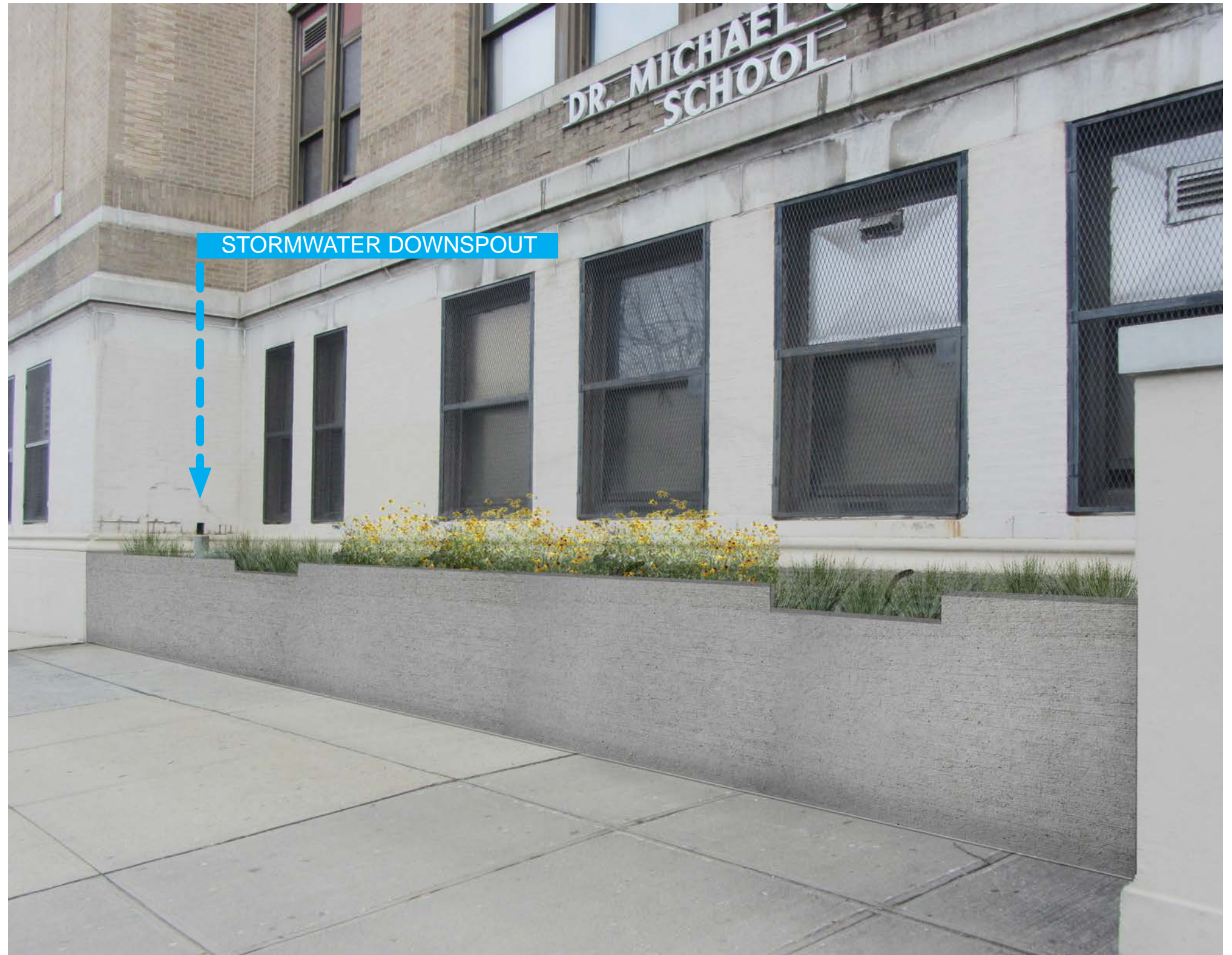
JERSEY CITY PUBLIC SCHOOL NO. 5  
DOWNSPOUT STORMWATER PLANTER



BEFORE



CROSS SECTIONAL DIAGRAM

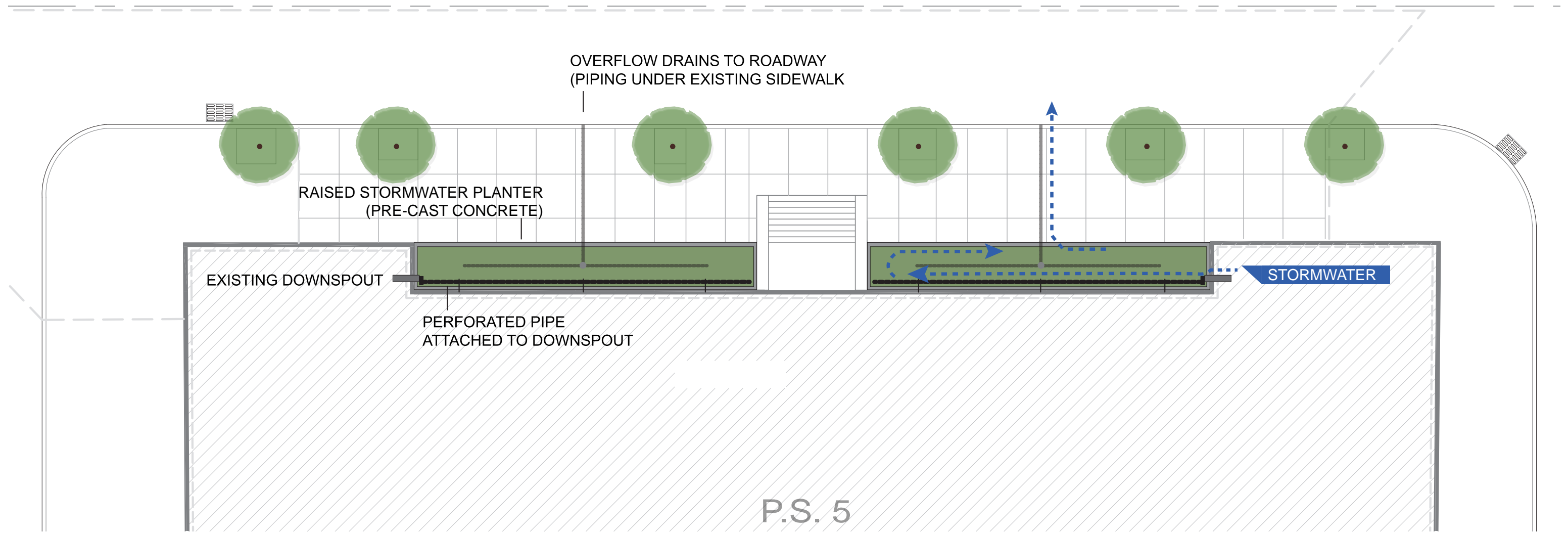


CONCEPT RENDERING

JERSEY CITY PUBLIC SCHOOL NO. 5  
OPTION 1 - DOWNSPOUT PLANTERS



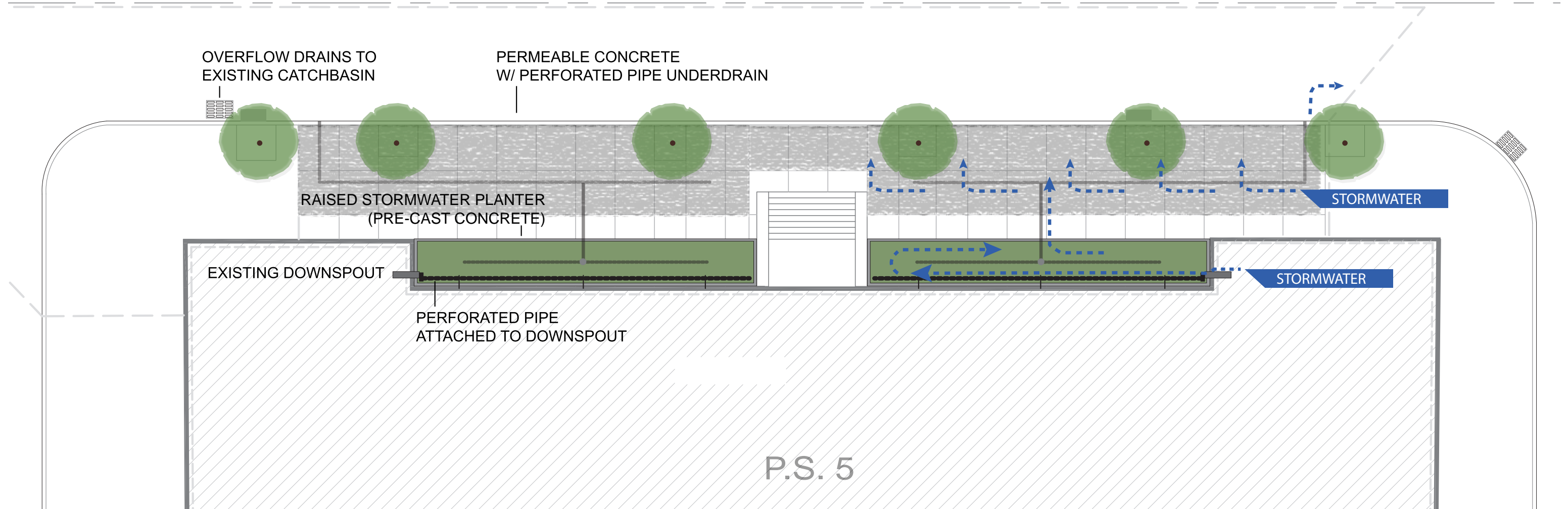
MERCELES ST.



JERSEY CITY PUBLIC SCHOOL NO. 5  
OPTION 2 - DOWNSPOUT PLANTERS + PERVIOUS CONCRETE

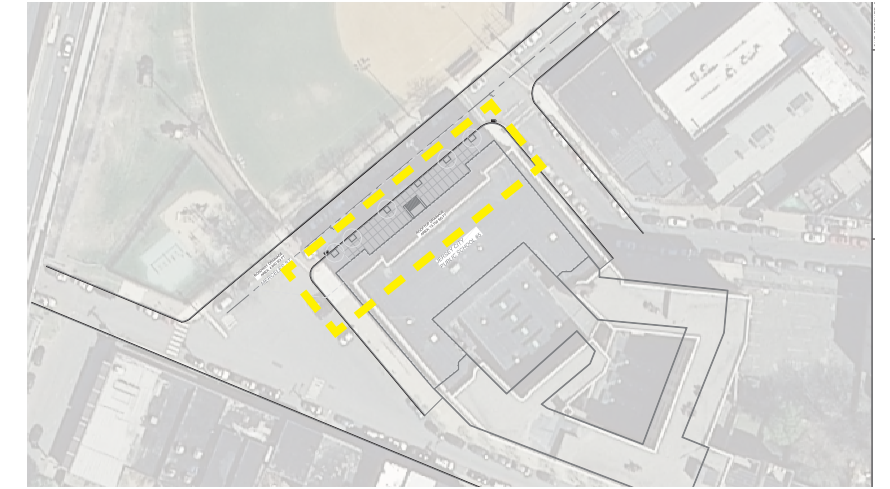


MERCELES ST.





JERSEY CITY PUBLIC SCHOOL NO. 5  
OPTION 3 - DOWNSPOUT STORMWATER PLANTERS + PERVIOUS CONCRETE + CURBSIDE  
STORMWATER PLANTERS



MERCELES ST.

