STORMWATER MANAGEMENT REPORT

For

RESIDENTIAL

4 STORY MULTI-FAMILY

88 RT 1 & 9

Block 6303, Lot 31

JERSEY CITY

HUDSON COUNTY, NJ

MARCH 10, 2022

Prepared by

Douglas C. Pelikan, PE

Civil & Architectural Engineering

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INTRODUCTION

The drainage calculations for this report have been prepared in accordance with the general requirements of JERSEY CITY Land Development Ordinances, the HUDSON COUNTY Land Development Standards, and the NJDEP Storm Water Management Regulations.

The ANY proposed internal drainage systems and/or detention/infiltration systems were designed with the following standards:

1. For water quality, the NJ DEP 2-hr 1.25 NJ WQ STORM was used.
2. The 100 yr. storm frequency design storm was used for the internal drainage system.
3. Peak outflows from the basins will be attenuated such that, in the developed condition, the 2 yr. design flow will be a maximum of 50% of the pre-developed condition; the 10 yr. design flow will be a maximum of 75% of the pre-developed condition; and the 100 yr. design flow will be a maximum of 80% of the pre- developed condition, **if the project should increase the impervious surface by more than ¼ ac. The project is 5,000 sf in total therefore attenuation is not required. However runoff in the proposed condition may not exceed the runoff in the existing condition.**
4. The project consists of 6,638 sf of existing impervious surfaces & 175 sf of existing pervious surfaces for a total of 6813 sf.

   The proposed condition of the site consists of 6,673 sf of impervious surface. The net increase of 140 sf of regulated impervious surface is below the limits of regulation.

   Since the total area of the site, 6,813 sf of disturbance will be made, a net increase of regulated impervious surface is being made of 35 sf, no motor surface is being created, and the project fits the criteria for minor site plan. Therefore detention of 0.6 gal /sf of impervious surface increase is NOT required.

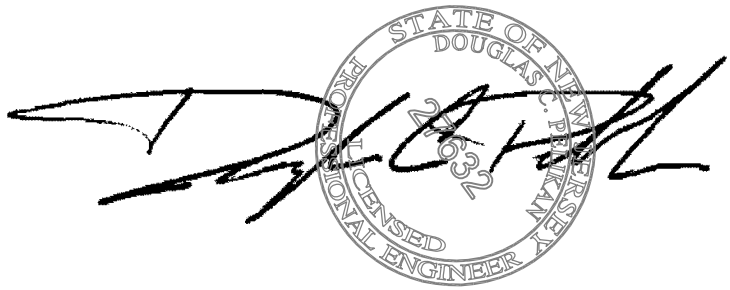
5. See sheet 1 & 2 of site plans for summary of flows and runoff area plan

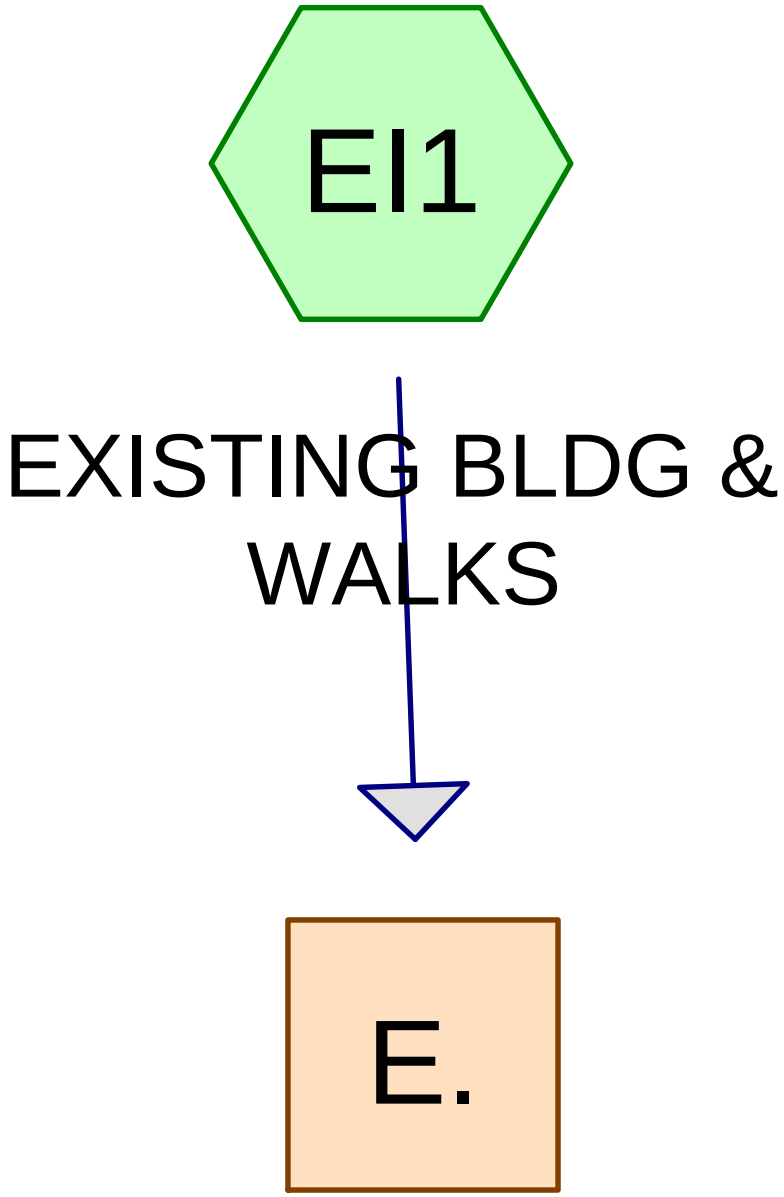
We are available to discuss any questions concerning this report.

Douglas C. Pelikan, PE: NJ PE# GE27632

SUMMARY OF FLOWS

	EXISTING CONDITION		PROPOSED CONDITION	
	PEAK RUNOFF		PEAK RUNOFF	
EVENT	SCS (CFS)	DELMARVA (CFS)	SCS (CFS)	DELMARVA (CFS)
WTR QUAL	0.46	0.46	0.46	0.46
2 YR	0.58	0.54	0.58	0.54
10 YR	0.95	0.88	0.95	0.88
100 YR	1.49	1.39	1.49	1.39





Subcat Reach Pond Link

Drainage Diagram for 88 RT 1+9-MUKTI
Prepared by DOUGLAS C. PELIKAN,PE NJPEGE27632

Summary for Subcatchment EI1: EXISTING BLDG & WALKS

Runoff = 0.46 cfs @ 1.08 hrs, Volume= 0.012 af, Depth= 0.94"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-96.00 hrs, dt= 0.01 hrs
NJ DEP 2-hr 1 WQ Rainfall=1.25"

Area (sf)	CN	Description
6,638	98	Paved parking & roofs
175	61	>75% Grass cover, Good, HSG B
6,813	97	Weighted Average
175		Pervious Area
6,638		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
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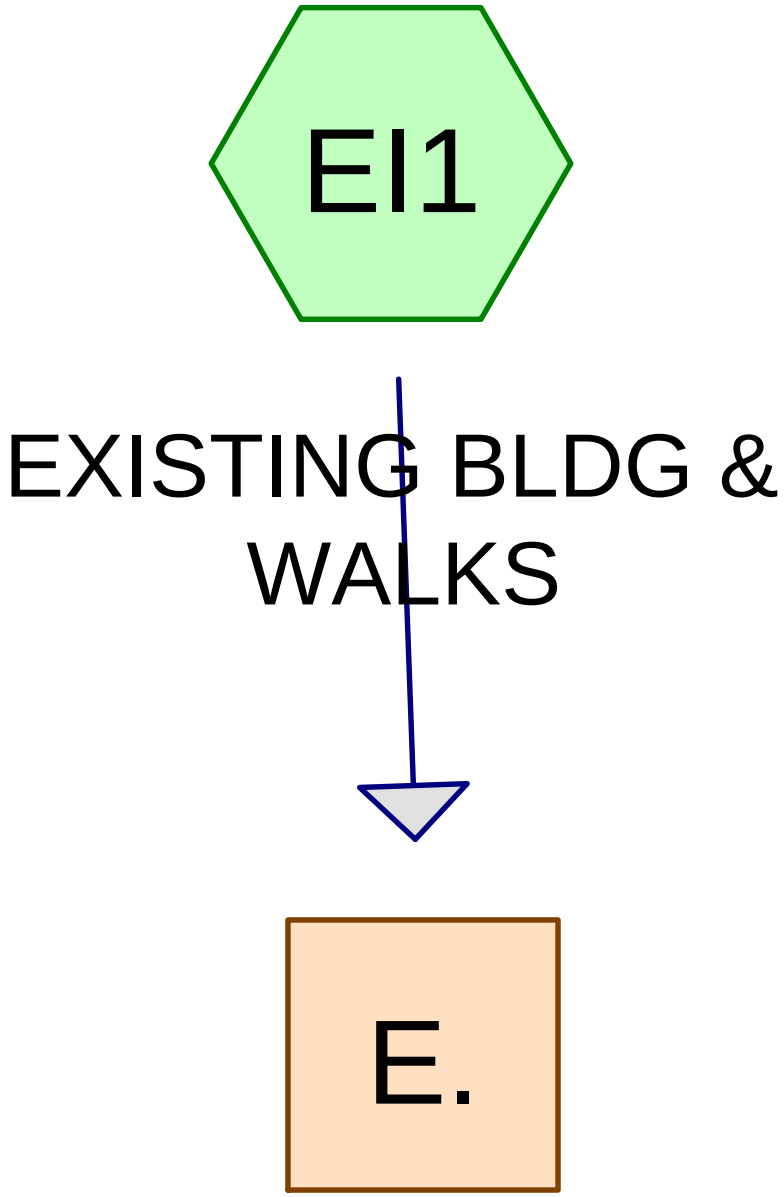

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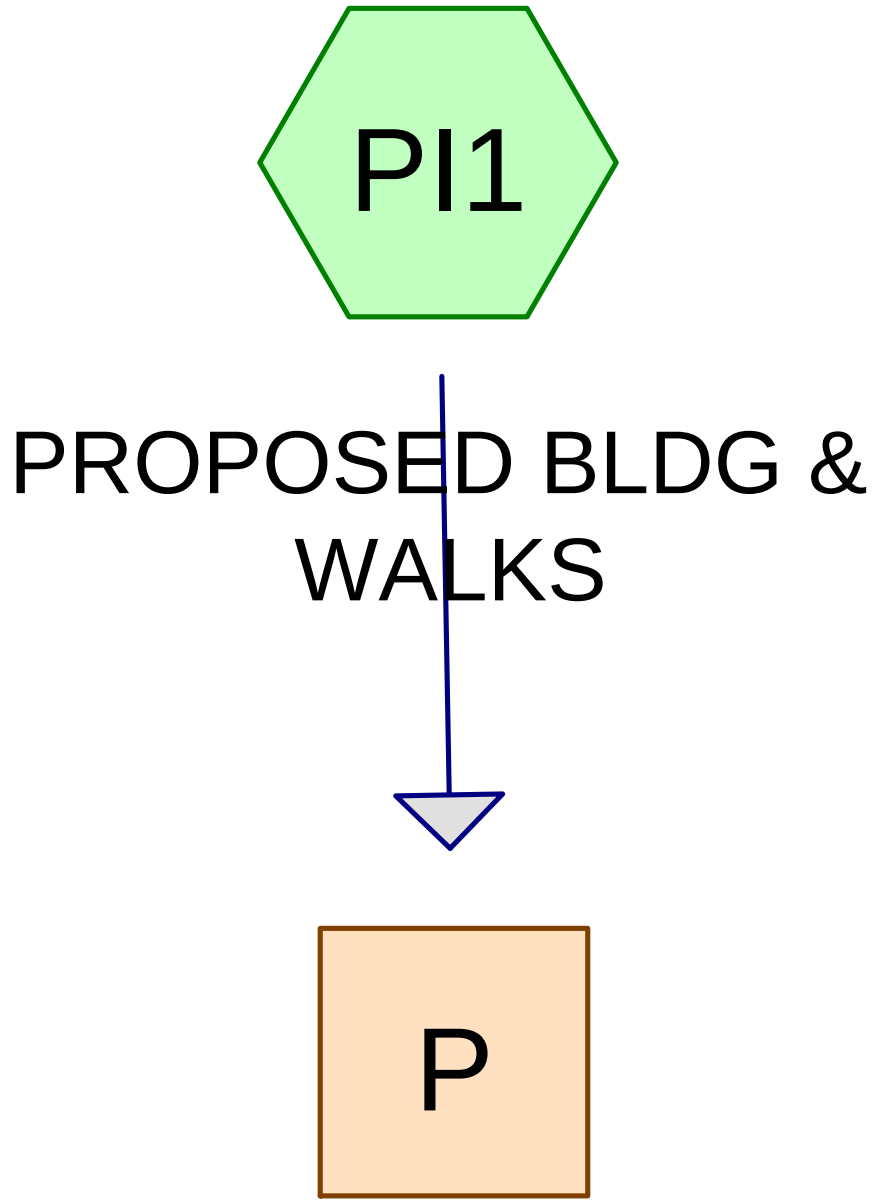

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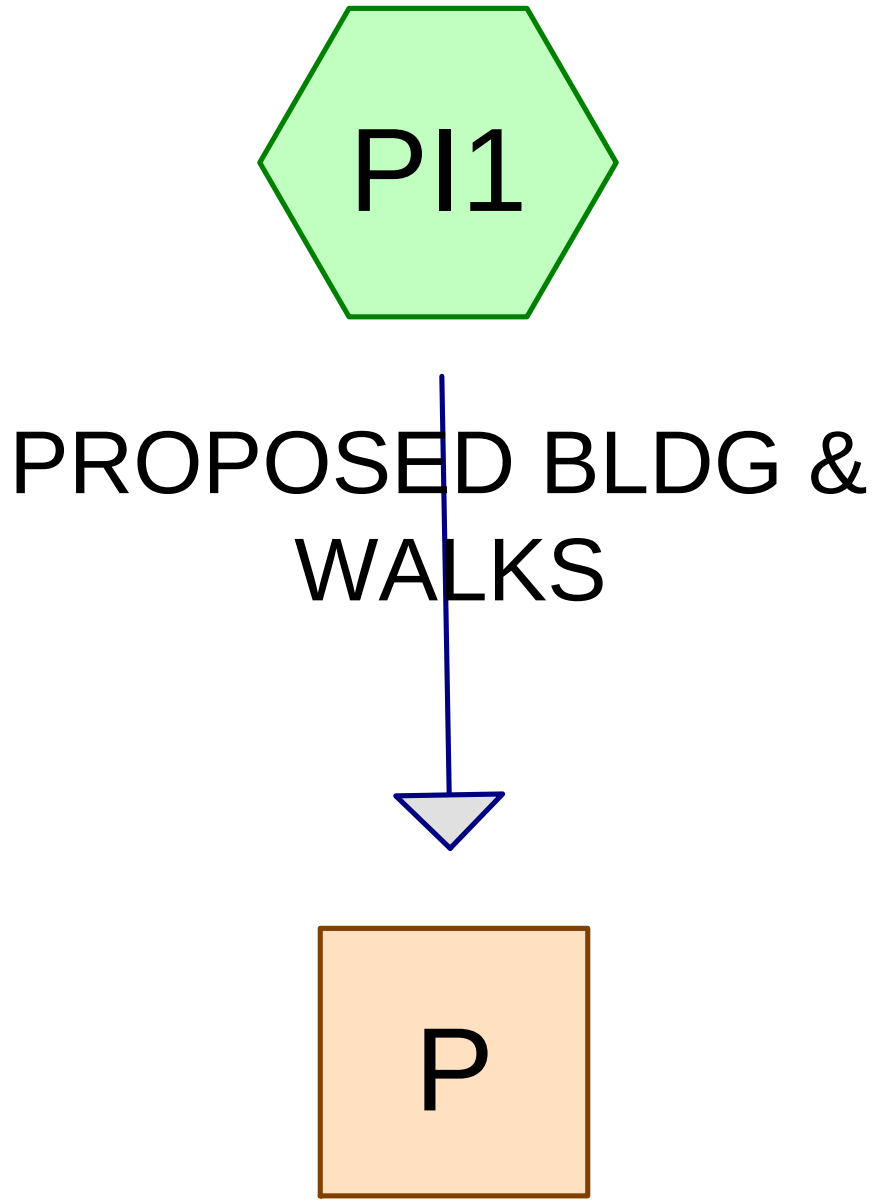

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