

DRESDNER ROBIN

STORMWATER MANAGEMENT REPORT

15 AND 19 MEEKER STREET

BLOCK 2 AND LOTS 43.01 AND 50

TOWNSHIP OF WEST ORANGE, ESSEX COUNTY, NEW JERSEY

DRESDNER ROBIN PROJECT NO.: 11401-001

PREPARED FOR

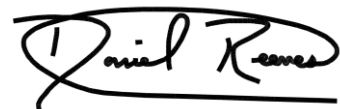
E & J MASONRY SUPPLY, LLC
15 AND 19 MEEKER STREET
WEST ORANGE, NJ 07052

PREPARED BY

DRESDNER ROBIN
55 LANE ROAD, SUITE 220
FAIRFIELD, NEW JERSEY 07004

DATE

NOVEMBER 2020
REVISED APRIL 2021



DANIEL G. REEVES, PE
ASSITANT PROJECT MANAGER
LICENSE NO. 24GE05292000

TABLE OF CONTENTS

1.0	INTRODUCTION	1
2.0	EXISTING CONDITIONS	1
3.0	PROPOSED CONDITIONS	1
3.1	STORM SEWER DESIGN	1
4.0	CONCLUSION.....	1

LIST OF APPENDICES

APPENDIX A: STORM SEWER MODEL

1.0 INTRODUCTION

This Stormwater Management Report has been prepared on behalf of the E & J Masonry Supply, LLC. The site (known as Lot 43.01 & 50 in Block 2 in the Township of West Orange, New Jersey) is located at 15 and 19 Meeker Street. The site is currently occupied by a 2 and a half story mixed use residential building, 2-story commercial building, 1-story garage and paved surface lot. The parcel contains approximately 31,500 s.f. (0.723 acres) of property.

The Project proposes to construct an addition of approximately 2,211 s.f. to the existing rear commercial building. Additionally, the entire footprint of the commercial building is proposed to be raised two feet for compliance with the NJDEP Flood Hazard Area Control Act Rules. Site improvements also include the removal of existing garage structure along the east side of the property and minor replacement of paved surface lot.

2.0 EXISTING CONDITIONS

Under existing conditions, the site generally flows from north to south toward Meeker Street. The property does contain an existing catch basin off the northeast corner of the residential dwelling that captures stormwater runoff and conveys to the adjacent East Branch of the Rahway River. Runoff in the southern portion of the property runs undetained toward Meeker Street and into the township's stormwater system. The site consists of 99.4% impervious cover in the form of the paved surface lot and existing buildings.

3.0 PROPOSED CONDITIONS

This project does not meet the NJDEP's Stormwater Management definition of a "major development" as it will not result in the disturbance of more than 1 acre of land disturbance or increase the impervious surface by more than 0.25 acres and is therefore NOT required to satisfy the storm water management requirements at N.J.A.C. 7:8.

The proposed improvements will be sited in areas of existing impervious areas of the property and result in a total disturbance of 20,480 square feet or 0.470 acres. The project will convert approximately 848 square feet of existing pavement to pervious landscape buffer and therefore reduce the existing stormwater runoff volume and peak flow discharge rates from the property. Additionally, to reduce stormwater sheet flowing on-site, the 2-story commercial building proposed roof leaders will connect to the on-site underground drainage conveyance system.

3.1 STORM SEWER DESIGN

The proposed on-site storm sewer collection system has been designed to collect runoff from the proposed building and parking areas. On-site storm sewer piping systems have been analyzed based upon a 25-year storm event and detailed storm sewer pipe sizing calculations are located in **Appendix A** of this report.

4.0 CONCLUSION

The project does not meet the NJDEP's definition of a major development per N.J.A.C. 7:8. The project will not increase storm water runoff rates resulting in no impact to the adjacent public storm sewer system during storm events. This project will not have any negative impacts on the drainage patterns of the site, neighboring properties, or the area as a whole.

APPENDIX A

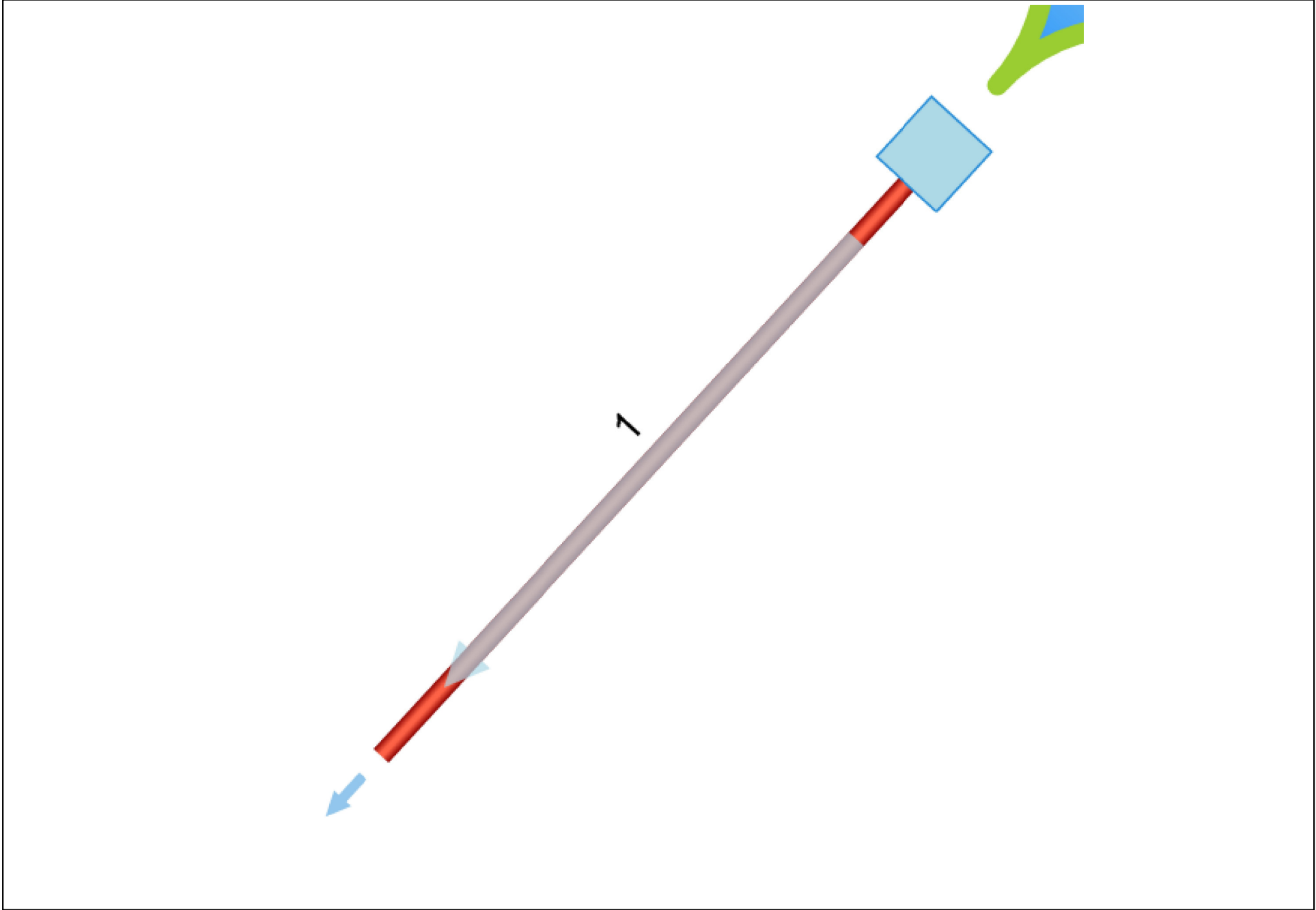
STORM SEWER MODEL

Plan View

Stormwater Studio 2021 v 3.0.0.24

Project Name: Enter Project Name...

04-05-2021



Storm Sewer Tabulation

Stormwater Studio 2021 v 3.0.0.24

Project Name: Enter Project Name...

04-05-2021

Line ID	Length (ft)	Drng Area		Rational (C)	C x A		Tc		Intensity (in/hr)	Total Q (cfs)	Capacity (cfs)	Velocity (ft/s)	Line		Invert Elev		HGL Elev		Surface Elev		Line No
		Incr (ac)	Total (ac)		Incr	Total	Inlet (min)	Syst (min)					Size (in)	Slope (%)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	
Line 1	40.00	0.495	0.495	0.97	0.48	0.48	10.0	10.00	5.76	2.76	5.21	4.09	12	1.83	147.88	147.15	148.59	148.15	0.00	0.00	1