

FINAL STORMWATER MANAGEMENT REPORT

FOR

**Professional Office Building
405 S Main Street & 115 Aurora Avenue
Naperville, DuPage County, Illinois**



Prepared By:

Stephanie L. Thomas

**4/30/26
EXPIRES
11/30/27**



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Dated: June 12, 2026

CITY OF NAPERVILLE CONCEPT PROJECT #25.051

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PROJECT NARRATIVE
405 S Main Street & 115 Aurora Ave
June 12, 2026

Introduction

The proposed professional office building project site is located at the northwest corner of Main Street and Aurora Avenue in Naperville, Illinois. The total site area is 0.53 acres. The development will disturb the entire site (0.53 acres) and will include the construction of the proposed commercial building, and a proposed parking lot with a total of 25 parking stalls.

The stormwater management for the project site has been developed in accordance with the DuPage County Stormwater Ordinance and the City of Naperville requirements.

Description of Existing Conditions

The site currently consists of two residential buildings with garages and parking provided in the rear of the lots off the existing alley. Stormwater currently runs off towards the rear of the lots to the alley north of the property, where water is conveyed via Naperville storm sewer.

Soils Review

A NRCS Soil Survey of the site was used to determine the overall soil group classification. Refer to Tab 8 for the NRSC Soil Survey Map. The soil on the site is 50.2% Elliot silt loam, soil group C/D, and the other 49.8% is Varna silt loam, soil group C.

Wetland Review

Per the National Wetlands Inventory Map, provided in Tab 8, there are no existing wetlands on the proposed site.

Floodplain Review

The FEMA Flood Insurance Rate Map, panel 17043C0144J, shows the site in Zone X with no mapped floodplain. The property north of the alley (a parking garage is partially in Zone X floodplain. The map is provided within Tab 8 of this report.

Impervious Area Calculations

To determine if detention is required, impervious area calculations are provided below. The total existing impervious area is 11,671 SF and the proposed impervious area is 17,466 SF. The increase in impervious area will be 5,795 SF. This increase is not more than 25,000 SF; therefore detention (site runoff storage) is not required. The increase is greater than 2,500 SF, which means that Post Construction Best Management Practices (PCBMPs) are required for all the new proposed impervious surfaces.

Post Construction Best Management Practices (PCBMPs)

Since the impervious area increase is greater than 2,500 SF, PCBMPs are required for all new impervious surfaces. The volume of volume and pollutant control required is for 1.25" of rainfall over the proposed impervious surfaces:

$$17,466 \times 1.25'' = 1,820 \text{ CF or } 0.042 \text{ AC-FT}$$

It is proposed that the volume be treated using an aggregate infiltration basin below the parking lot.

Illinois Environmental Protection Agency – NPDES Permit for Construction Activities

The disturbed area for the project is less than 1 acre; therefore, the NPDES permit is not required for this project. Soil Erosion/Sediment Control measures are provided as part of the Final Engineering Plans.

Storm Sewer Sizing

The storm sewers are designed to handle the 100-year storm event. Calculations are provided.

Emergency Overland Flood Route

An emergency overland flood route has been provided to direct the flow greater than the 100-year storm event to the alley north of the property.

Soil Borings

Attached as part of the PCBMP calculations are the soil boring logs. Additional borings are being performed on 405 S Main Street. The boring logs indicate that no groundwater was encountered, but bedrock was encountered. In this case underdrain was provided to the PCBMP. Using the drawdown range of 48-96 hours, the release rate as calculated for the volume provided was between 0.006 and 0.011 cfs. This resulted in an orifice restrictor of 0.45". The minimum restrictor size is 4", and a calculation of the release rate from the PCBMP to the storm sewer in the alley is provided.

Soil Erosion/Sediment Control Measures

An extensive Stormwater Pollution Prevention Plan (SWPPP) has been created in the Final Engineering Plans to protect the existing natural resources located within the general proximity to the project site.

Maintenance & Monitoring Plan

An ongoing stormwater system maintenance plan must be undertaken for the storm water system to operate as designed. Maintenance of the infiltration basin will be provided by the owner. While these systems will be privately maintained, easements will be provided to facilitate maintenance and public access to the system. Please refer to Tab 9 for the Maintenance Plan, including additional considerations and checklists for managing the stormwater systems.

Summary

The proposed Stormwater Management Plan has been developed in accordance with the DuPage County Stormwater Management Ordinance and City of Naperville requirements.

SITE RUNOFF STORAGE
405 S Main Street & 115 Aurora Avenue
June 12, 2026

Impervious Area Calculations

To determine if detention is required, impervious area calculations are provided below. The total existing impervious area is 11,671 SF and the proposed impervious area is 17,466 SF. The increase in impervious area will be 5,795 SF. This increase is not more than 25,000 SF; therefore detention (site runoff storage) is not required. The increase is greater than 2,500 SF, which means that Post Construction Best Management Practices (PCBMP's) are required for all the new proposed impervious surfaces.



Existing Impervious Areas

405 S Main Street & 115 Aurora Avenue
Naperville, IL
April 30, 2026

Total Development Area	23,072.6 sq. feet	0.53 acres
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Total Impervious Area :

Buildings:

Building (Lot 15)	2,567.0	sq. feet	0.06	acres
Building (Lot 14)	1,777.0	sq. feet	0.04	acres
Garage (Lot 14)	547.2	sq. feet	0.01	acres

Parking Lot:

Parking Lot (Lot 15)	3,990.3	sq. feet	0.09	acres
Parking Lot (Lot 14)	1,783.6	sq. feet	0.04	acres

Concrete:

Concrete (Lot 15)	328.7	sq. feet	0.01	acres
Concrete (Lot 14)	677.5	sq. feet	0.02	acres

Total Impervious Area :	11,671.3 sq. feet	0.27 acres
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% Impervious :	50.6%
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Proposed Impervious Areas

405 S Main Street & 115 Aurora Avenue

Naperville, IL

June 12, 2026

Total Development Area	23,072.6 sq. feet	0.53 acres
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Total Impervious Area :

Buildings:

Building	7,225.5 sq. feet	0.17 acres
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Parking Lot:

Parking Lot:	8,844.6 sq. feet	0.20 acres
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Concrete:

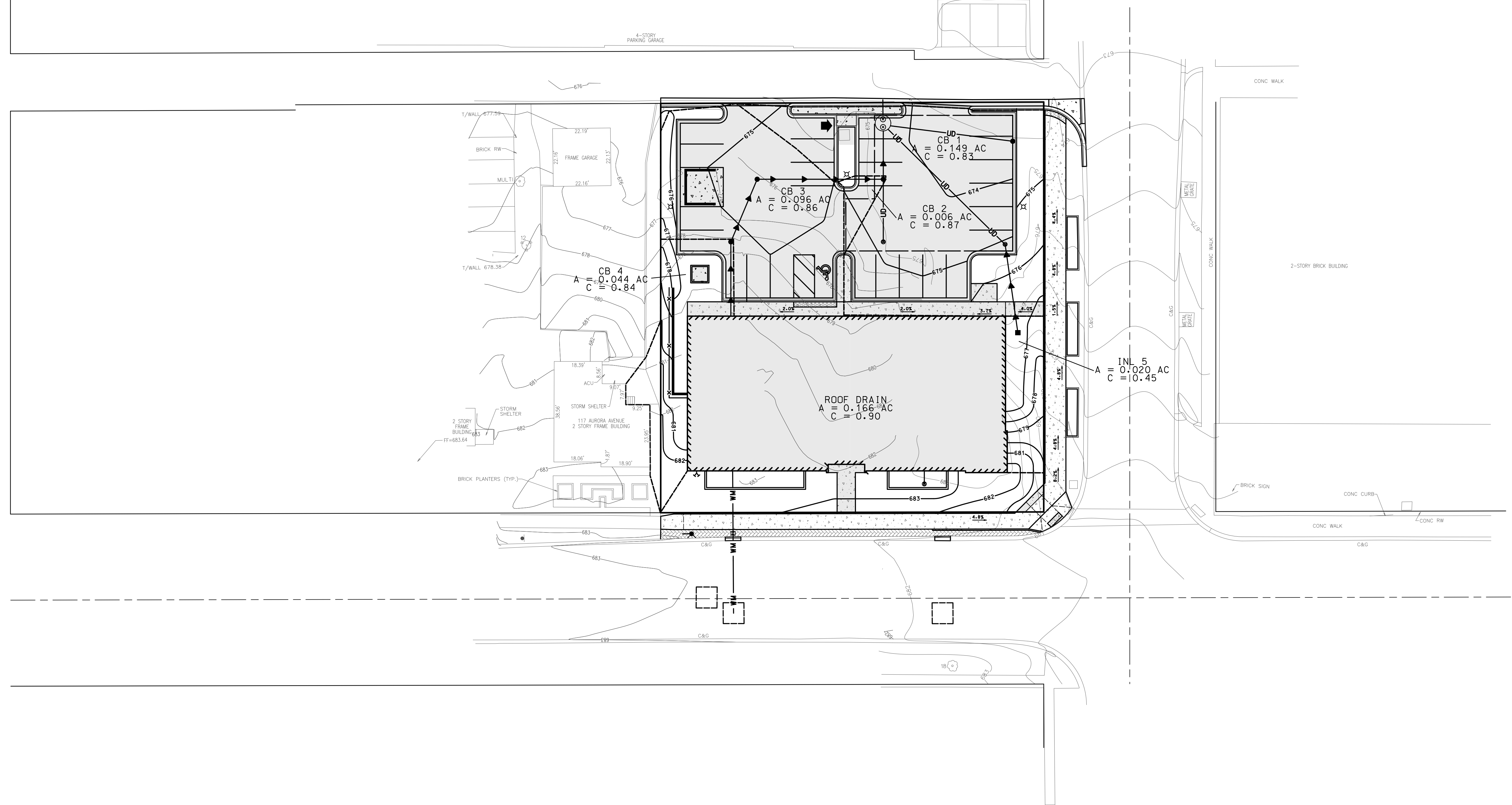
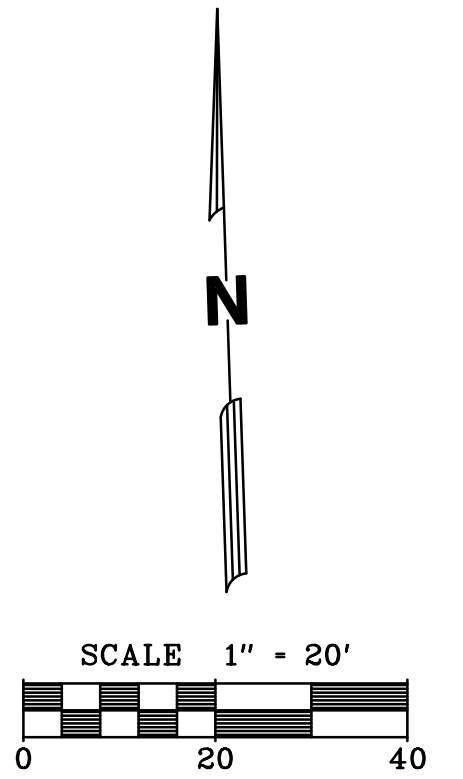
Concrete	1,396.2 sq. feet	0.03 acres
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Total Impervious Area :	17,466.3 sq. feet	0.40 acres
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% Impervious :	75.7%
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Total Increase in Impervious Area :	5,795.0 sq. feet	0.13 acres
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STORM SEWER CALCULATIONS
405 S Main Street & 115 Aurora Avenue
April 30, 2026



6/12/2026 1:56:00 PM
M:\26681\Stormwater\115\115-01\115-01-01.dgn Stormwater.dgn



Mackie Consultants, LLC
9575 W. Higgins Road, Suite 500
Rosemont, IL 60018
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CLIENT:



**JOHN GREENE
REAL ESTATE**

1311 S. IL-59
NAPERVILLE, IL 60564
(630)615-5562

			DESIGNED	ST
			DRAWN	JD/TS
			APPROVED	ST
			DATE	11/07/2025
			SCALE	04/30/2026
6/12/26	REVISED PER CITY COMMENTS	ST		
DATE	DESCRIPTION OF REVISION	BY		

STORM SEWER TRIBUTARY AREA EXHIBIT
405 S MAIN STREET & 115 AURORA AVENUE
NAPERVILLE, ILLINOIS

SHEET

1 OF **1**

PROJECT NUMBER: 5268
© MACKIE CONSULTANTS LLC, 2025
ILLINOIS FIRM LICENSE 184-002694



Proposed C-Value Calculations

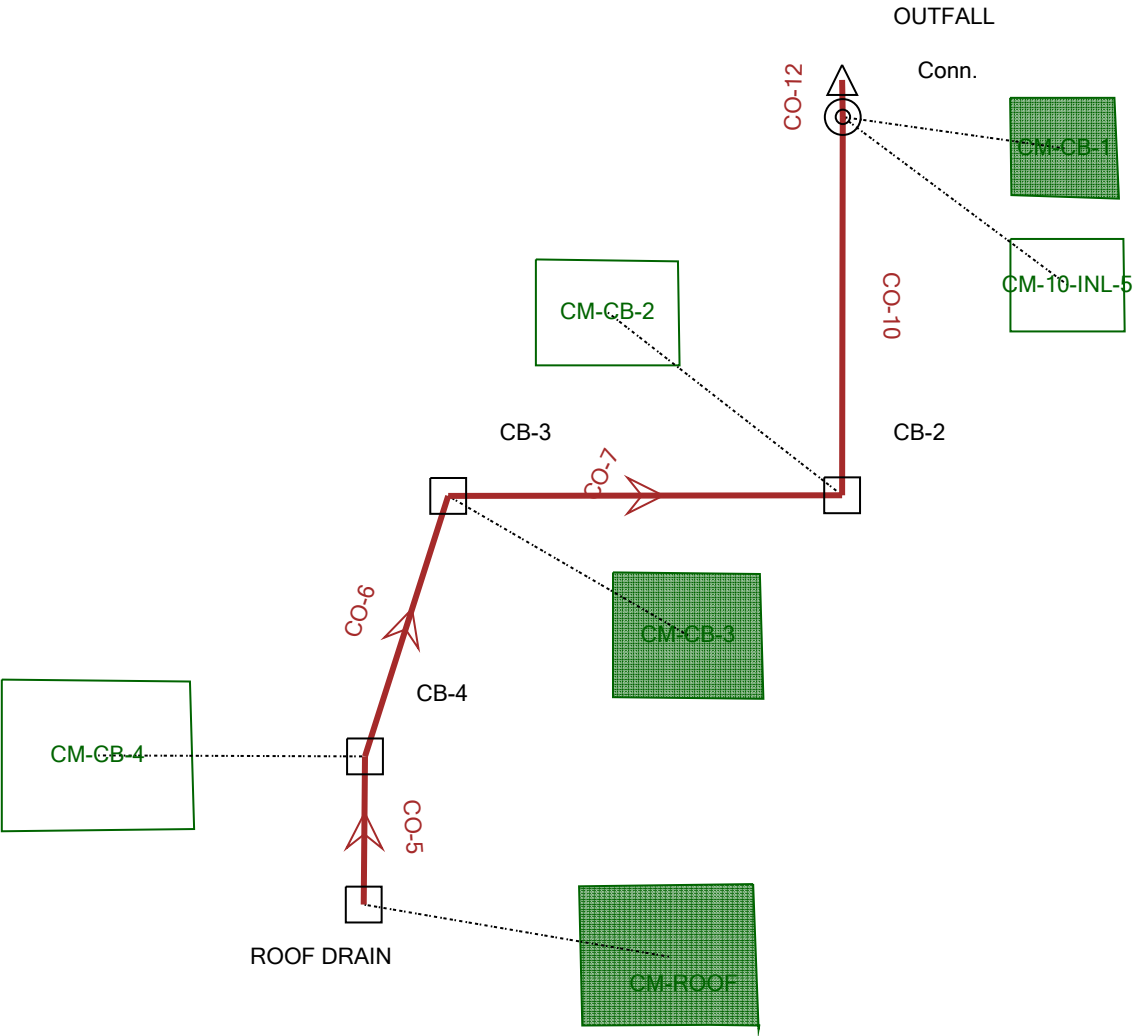
405 S Main Street & 115 Aurora Avenue

Naperville IL

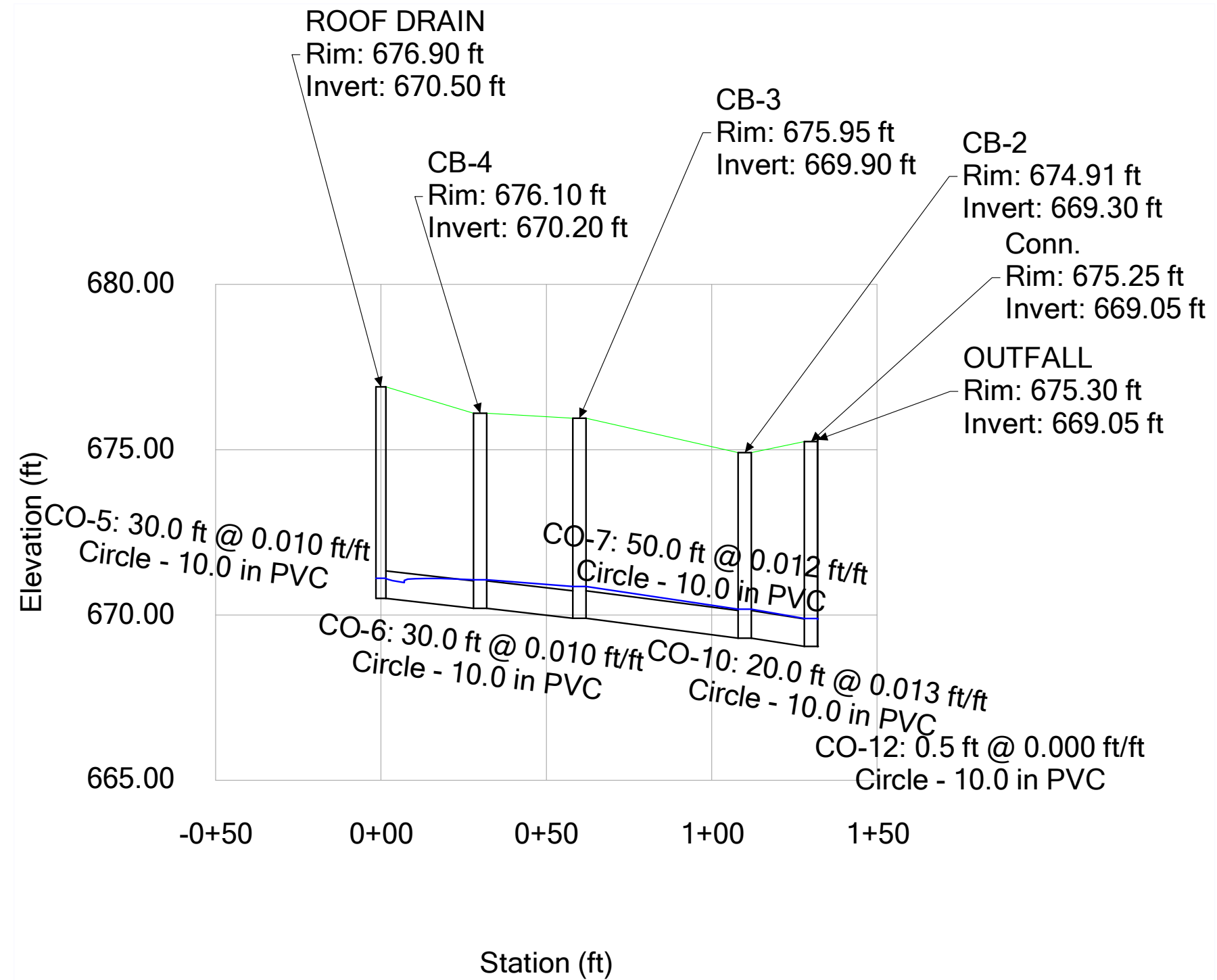
June 12, 2026

CB-1 Area:	6,469.0 sq. feet	0.149 acres
Impervious Area:	5,461.0 sq. feet	0.125 acres
Pervious Area:	1,008.0 sq. feet	0.023 acres
C-Value:	0.83	
CB-2 Area:	255.0 sq. feet	0.006 acres
Impervious Area:	238.0 sq. feet	0.005 acres
Pervious Area:	17.0 sq. feet	0.000 acres
C-Value:	0.87	
CB-3 Area:	4,180.0 sq. feet	0.096 acres
Impervious Area:	3,823.0 sq. feet	0.088 acres
Pervious Area:	357.0 sq. feet	0.008 acres
C-Value:	0.86	
CB-4 Area:	1,899.0 sq. feet	0.044 acres
Impervious Area:	1,654.0 sq. feet	0.038 acres
Pervious Area:	245.0 sq. feet	0.006 acres
C-Value:	0.84	
INL-5 Area:	870.0 sq. feet	0.020 acres
Impervious Area:	0.0 sq. feet	0.000 acres
Pervious Area:	870.0 sq. feet	0.020 acres
C-Value:	0.45	
Roof Drain Area:	7,226.0 sq. feet	0.166 acres
Impervious Area:	7,226.0 sq. feet	0.166 acres
Pervious Area:	0.0 sq. feet	0.000 acres
C-Value:	0.90	

Scenario: 100-yr Storm



Profile Report
Engineering Profile - Profile - 1 (260428.StormSewer100yr.stsw)



Scenario: 100-yr Storm
Current Time Step: 0.000 h
Conduit FlexTable: Combined Pipe/Node Report

Label	Start Node	Stop Node	Elevation Ground (Start) (ft)	Elevation Ground (Stop) (ft)	Invert (Start) (ft)	Invert (Stop) (ft)	Diameter (in)	Length (Unified) (ft)	Slope (Calculated) (ft/ft)	Material	Manning's n	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Cover (Start) (ft)	Cover (Stop) (ft)	Upstream Inlet Area (acres)	Upstream Inlet C	Upstream Inlet Tc (hours)	System Flow Time (min)	System Intensity (in/h)	System CA (acres)	System Rational Flow (cfs)	Velocity (ft/s)	Flow (cfs)
CO-5	ROOF DRAIN	CB-4	676.90	676.10	670.50	670.20	10.0	30.0	0.010	PVC	0.010	671.11	671.06	5.57	5.07	0.166	0.900	0.083	5.000	12.359	0.149	1.86	5.57	1.86
CO-6	CB-4	CB-3	676.10	675.95	670.20	669.90	10.0	30.0	0.010	PVC	0.010	671.06	670.86	5.07	5.22	0.044	0.840	0.083	5.090	12.331	0.186	2.32	4.25	2.32
CO-7	CB-3	CB-2	675.95	674.91	669.90	669.30	10.0	50.0	0.012	PVC	0.010	670.86	670.18	5.22	4.78	0.096	0.860	0.083	5.208	12.295	0.269	3.33	6.11	3.33
CO-10	CB-2	Conn.	674.91	675.25	669.30	669.05	10.0	20.0	0.013	PVC	0.010	670.18	669.89	4.78	5.36	0.006	0.870	0.083	5.344	12.252	0.274	3.39	6.21	3.39
CO-12	Conn.	OUTFALL	675.25	675.30	669.05	669.05	10.0	0.5	0.000	PVC	0.010	669.89	669.87	5.36	5.42	0.169	(N/A)	0.083	5.398	12.235	0.401	4.94	9.06	4.94

N:\5268\Stormwater\Final\StormCAD\260428.StormSewer100yr.stsw

FLOODPLAIN
405 S Main Street & 115 Aurora Ave
April 30, 2026

Floodplain Review

The FEMA Flood Insurance Rate Map, panel 17043C0144J, shows the site in Zone X with no mapped floodplain. The property north of the alley (a parking garage is partially in Zone X floodplain. The map is provided within Tab 8 of this report.

WETLANDS/WETLAND BUFFER
405 S Main Street & 115 Aurora Ave
April 30, 2026

Wetland Review

Per the National Wetlands Inventory Map, provided in Tab 8, there are no existing wetlands on the proposed site.

WATERWAY BUFFER
405 S Main Street & 115 Aurora Ave
April 30, 2026

Waterway Buffer

There are no existing waterways on the proposed site.



PCBMP Calculation

405 S Main Street & 115 Aurora Avenue

Naperville IL

June 12, 2026

Proposed Impervious Area: 17,466.00 sf
Rainfall Depth: 1.25 inches

Total Volume Required = 1,819.4 cubic feet
0.042 acre-feet

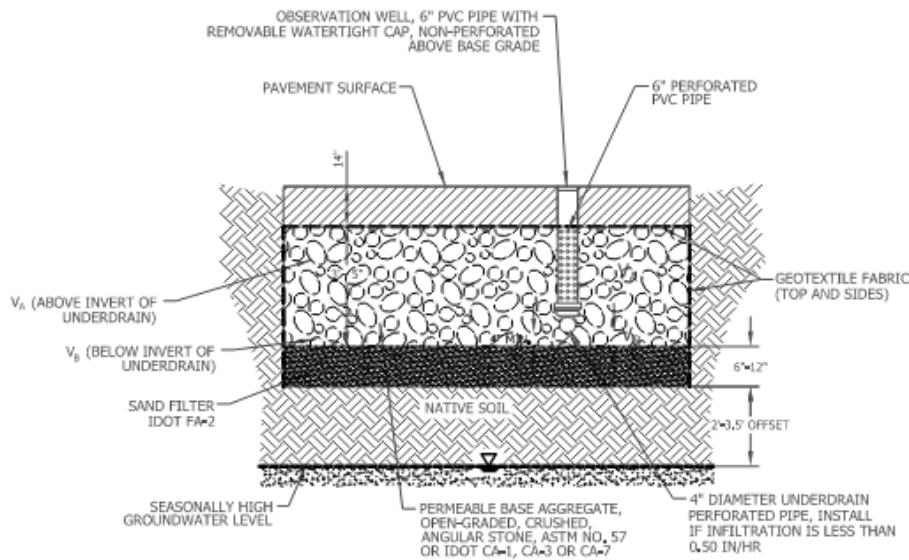


Infiltration Ditch Calculation

405 S Main Street & 115 Aurora Avenue

Naperville IL

April 30, 2026



Area of Bio-retention Facility: 2,947 square feet

Pea Gravel (V_A): 0 inches

Depth of Coarse Aggregate above Underdrain (V_B): 37 inches

Depth of Coarse Aggregate below Underdrain (V_C): 4 inches

Volume Control Storage Provided:

	Porosity	Percentage	Volume Provided
V_A	0.25	50%	0
V_B	0.36	50%	1,636
V_C	0.36	100%	354

Total Volume Provided = 1,989 cubic feet
0.05 acre-feet



ORIFICE ANALYSIS

405 S Main Street & 115 Aurora Avenue
Naperville IL
April 30, 2026

OUTLET: ORIFICE: 0.45 IN. DIA. @ ELEV 669.05

48 HOUR DRAW DOWN RELEASE RATE: 0.012 CFS

96 HOUR DRAW DOWN RELEASE RATE: 0.006 CFS

ORIFICE FLOW EQUATION: $Q = C_d A (2gH)^{0.5}$

WEIR FLOW EQUATION: $Q = 3.0L(H)^{1.5}$

* DRAW DOWN CFS IS COMPUTED FROM THE
ACTUAL VOLUME PROVIDED DIVIDED BY 48 OR
96 HOURS

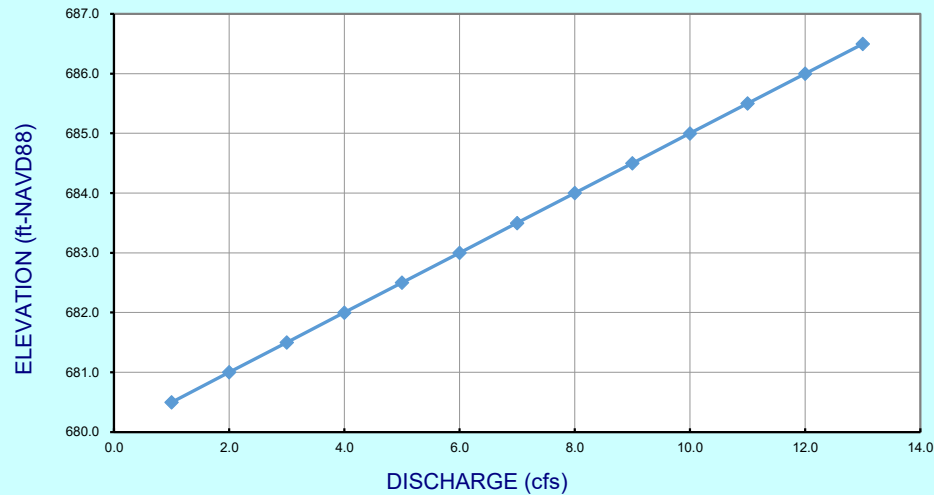
HYDRAULIC DIMENSIONS

	# 1
ORIFICE AREA (ft ²)	0.0011
ORIFICE DIAMETER (in)	0.45
ORIFICE DISCHARGE COEFFICIENT	0.61
ORIFICE ELEV. (ft-NAVD88)	669.05
TAILWATER OR CENTROID (ft-NAVD88)	672.13

ELEVATION-DISCHARGE RELATIONSHIP

Elevation (feet)	Q-Orifice (cfs)
669.05	0.0000
669.50	0.0036
670.00	0.0053
670.50	0.0065
671.00	0.0075
671.50	0.0085
672.00	0.0093
672.50	0.0100
673.00	0.0107
673.50	0.0114
674.65	0.0128

OUTLET RATING CURVE



USE MINIMUM 4" RESTRICTOR

4" RESTRICTOR ORIFICE ANALYSIS



405 S Main Street & 115 Aurora Avenue
Naperville IL
April 30, 2026

OUTLET: ORIFICE: 4 IN. DIA. @ ELEV 669.05

48 HOUR DRAW DOWN RELEASE RATE: 0.012 CFS

96 HOUR DRAW DOWN RELEASE RATE: 0.006 CFS

ORIFICE FLOW EQUATION: $Q = C_d A (2gH)^{0.5}$

WEIR FLOW EQUATION: $Q = 3.0L(H)^{1.5}$

* DRAW DOWN CFS IS COMPUTED FROM THE
ACTUAL VOLUME PROVIDED DIVIDED BY 48 OR
96 HOURS

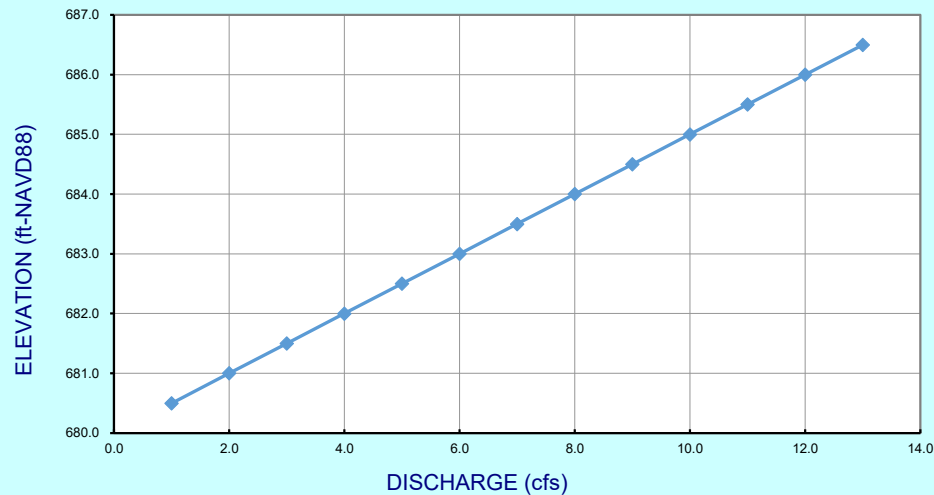
HYDRAULIC DIMENSIONS

	# 1
ORIFICE AREA (ft ²)	0.0873
ORIFICE DIAMETER (in)	4.00
ORIFICE DISCHARGE COEFFICIENT	0.61
ORIFICE ELEV. (ft-NAVD88)	669.05
TAILWATER OR CENTROID (ft-NAVD88)	672.13

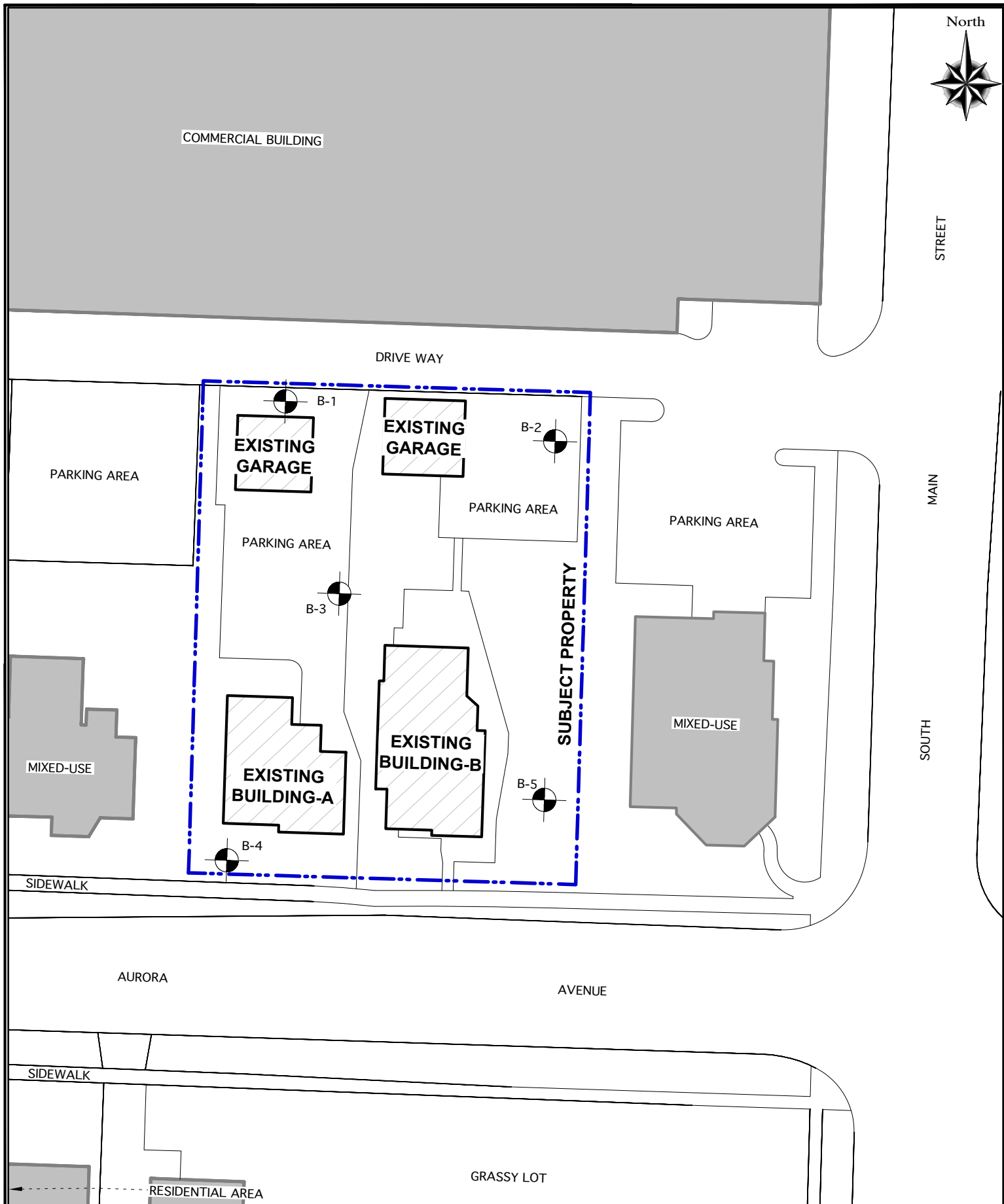
ELEVATION-DISCHARGE RELATIONSHIP

Elevation (feet)	Q-Orifice (cfs)
669.05	0.0000
669.50	0.2866
670.00	0.4164
670.50	0.5144
671.00	0.5965
671.50	0.6687
672.00	0.7337
672.50	0.7935
673.00	0.8490
673.50	0.9012
674.65	1.0109

OUTLET RATING CURVE



USE MINIMUM 4" RESTRICTOR





Pioneer Engineering & Environmental Services
2753 W. 31st Street
Chicago, Illinois 60608
Telephone: 773-722-9200
Fax: 773-722-9201

BORING LOG B-1

Sheet 1 of 1

Project No.: 20-0393-151
Project: Proposed 3 to 4-Story Building
Location: 115-117 Aurora Avenue
Naperville, Illinois
Client: John Greene Realtor

Drilling Method: 3.25" Hollow Stem Augers
Sampling Method: Split-Spoon Sampling
Hammer Type: Automatic Hammer
Drill Rig Type: Geoprobe 7822DT
Backfill Method: Auger Cuttings

WATER LEVELS

▽ During Drilling None ft
▼ At Completion ft
▼ After 5 Days ft

Elevation, (feet)	Depth, (feet)	Graphic Log	Sample Type	USCS Classification	MATERIAL DESCRIPTION	Sample No.	Recovery (inches)	SPT Blows per 6-inch N-values	Hand Penetrometer Qp (tsf)	Unconfined Compressive Strength Qu (tsf)	Vane Shear (Peak) Su (tsf)	Moisture, %	Dry Density (pcf)	STANDARD PENETRATION TEST DATA N in blows/ft © × Moisture ▣ PL + LL				STRENGTH, tsf ▲ Qu * Qp			
	0			ASPH	Surface Elev.: 676.00 ft MSL 3.5-Inch Bituminous Concrete Pavement 12-Inch Gravel Base Course	1						7.1		×							
675				TPSOIL	Black and Dark Brown Silty Clay TOPSOIL, little sand	2	13	1/1/3 N=4	0.75	1.0		34.3	83.5	◎	*	▲		×			
				CL	Brown Silty CLAY, little medium to fine sand																
				GM	Light Brown and Light Gray SAND and GRAVEL, little silt, weathered limestone bedrock	3	10	4/6/10 N=16				6.0		×		◎					
670	5			GM		4	2	50/2"/ N=				4.5		×							
					Auger Refusal at 7 Feet. Apparent Bedrock Surface.																

Completion Depth: 7.0 ft
Date Boring Started: 10/12/20
Driller: GA
Checked By: JS
Logged By: JV

Sample Types:



Vane Shear
Split-Spoon
Rock Core



Shelby Tube
Hand Auger
Auger Cutting

Remarks: Approximate Elevation Based on Dupage County ArcGIS Web Map.

The stratification lines represent approximate boundaries. The transition may be gradual.



Pioneer Engineering & Environmental Services
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Chicago, Illinois 60608
Telephone: 773-722-9200
Fax: 773-722-9201

BORING LOG B-2

Sheet 1 of 1

Project No.: 20-0393-151
Project: Proposed 3 to 4-Story Building
Location: 115-117 Aurora Avenue
Naperville, Illinois
Client: John Greene Realtor

Drilling Method: 3.25" Hollow Stem Augers
Sampling Method: Split-Spoon Sampling
Hammer Type: Automatic Hammer
Drill Rig Type: Geoprobe 7822DT
Backfill Method: Auger Cuttings

WATER LEVELS

During Drilling None ft
At Completion ft
After 5 Days ft

Elevation, (feet)	Depth, (feet)	Graphic Log	Sample Type	USCS Classification	MATERIAL DESCRIPTION	Sample No.	Recovery (inches)	SPT Blows per 6-inch N-values	Hand Penetrometer Qp (tsf)	Unconfined Compressive Strength Qu (tsf)	Vane Shear (Peak) Su (tsf)	Moisture, %	Dry Density (pcf)	STANDARD PENETRATION TEST DATA N in blows/ft © × Moisture ■ PL + LL			
					Surface Elev.: 676.00 ft MSL									STRENGTH, tsf ▲ Qu * Qp			
675	0			ASPH	4-Inch Bituminous Concrete Pavement 7-Inch Gravel Base Course	1											
				TPSOIL	Black Silty Clay TOPSOIL, little sand, trace gravel	2	14	2/3/4 N=7				24.7					
				CL	Brown and Dark Brown Silty CLAY, little medium to fine sand	3						27.9					
				GM	Light Brown and Light Gray SAND and GRAVEL, little silt, weathered limestone bedrock	4	9	16/21/3.1 N=24.1				7.4					
670	5			GM		5	1	50/1"// N=				4.0					
					Auger Refusal at 7.5 Feet. Apparent Bedrock Surface.												

Completion Depth: 7.5 ft
Date Boring Started: 10/12/20
Driller: GA
Checked By: JS
Logged By: JV

Sample Types:

Vane Shear
Split-Spoon
Rock Core

Shelby Tube
Hand Auger
Auger Cutting

Remarks: Approximate Elevation Based on
Dupage County ArcGIS Web Map.

The stratification lines represent approximate boundaries. The transition may be gradual.



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2753 W. 31st Street
Chicago, Illinois 60608
Telephone: 773-722-9200
Fax: 773-722-9201

BORING LOG B-3

Sheet 1 of 1

Project No.: 20-0393-151
Project: Proposed 3 to 4-Story Building
Location: 115-117 Aurora Avenue
Naperville, Illinois
Client: John Greene Realtor

Drilling Method: 3.25" Hollow Stem Augers
Sampling Method: Split-Spoon Sampling
Hammer Type: Automatic Hammer
Drill Rig Type: Geoprobe 7822DT
Backfill Method: Auger Cuttings

WATER LEVELS

▽ During Drilling None ft
▼ At Completion ft
▼ After 5 Days ft

Elevation, (feet)	Depth, (feet)	Graphic Log	Sample Type	USCS Classification	MATERIAL DESCRIPTION	Sample No.	Recovery (inches)	SPT Blows per 6-inch N-values	Hand Penetrometer Qp (tsf)	Unconfined Compressive Strength Qu (tsf)	Vane Shear (Peak) Su (tsf)	Moisture, %	Dry Density (pcf)	STANDARD PENETRATION TEST DATA N in blows/ft © × Moisture ▣ PL + LL				STRENGTH, tsf ▲ Qu * Qp			
	0			TPSOIL	Surface Elev.: 678.00 ft MSL Black and Dark Brown Silty Clay TOPSOIL, little sand	1						27.9									
				TPSOIL								33.1									
				CL	Brown Silty CLAY, some sand and gravel	2	13	2/5/7 N=12				13.2									
675					Light Brown and Light Gray SAND and GRAVEL, little silt, weathered limestone bedrock																
				GM		3	6	26/50/4"/ N=				4.0									
5																					
				GM		4	4	39/50/1"/ N=				5.1									
					Auger Refusal at 7.5 Feet. Apparent Bedrock Surface.																

Completion Depth: 7.5 ft
Date Boring Started: 10/12/20
Driller: GA
Checked By: JS
Logged By: JV

Sample Types:



Vane Shear
Split-Spoon
Rock Core



Shelby Tube
Hand Auger
Auger Cutting

Remarks: Approximate Elevation Based on Dupage County ArcGIS Web Map.

The stratification lines represent approximate boundaries. The transition may be gradual.



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Fax: 773-722-9201

BORING LOG B-4

Sheet 1 of 1

Project No.: 20-0393-151
Project: Proposed 3 to 4-Story Building
Location: 115-117 Aurora Avenue
Naperville, Illinois
Client: John Greene Realtor

Drilling Method: 3.25" Hollow Stem Augers
Sampling Method: Split-Spoon Sampling
Hammer Type: Automatic Hammer
Drill Rig Type: Geoprobe 7822DT
Backfill Method: Auger Cuttings

WATER LEVELS

▽ During Drilling None ft
▼ At Completion ft
▼ After 5 Days ft

Elevation, (feet)	Depth, (feet)	Graphic Log	Sample Type	USCS Classification	MATERIAL DESCRIPTION	Sample No.	Recovery (inches)	SPT Blows per 6-inch N-values	Hand Penetrometer Qp (tsf)	Unconfined Compressive Strength Qu (tsf)	Vane Shear (Peak) Su (tsf)	Moisture, %	Dry Density (pcf)	STANDARD PENETRATION TEST DATA N in blows/ft ◎ × Moisture ■ PL + LL				STRENGTH, tsf ▲ Qu * Qp			
	0			TPSOIL	Surface Elev.: 683.00 ft MSL Black Silty Clay TOPSOIL, little sand	1						22.0									
				TPSOIL		2	13	2/2/5 N=7	3.0			19.7									
680				CL	Dark Brown Silty CLAY, little medium to fine sand																
				GM	Light Brown and Light Gray SAND and GRAVEL, little silt, weathered limestone bedrock	3	9	13/18/35 N=53				3.7									
5				GM		4	2	50/2"// N=				3.6									
					Auger Refusal at 7.5 Feet. Apparent Bedrock Surface.																

Completion Depth: 7.5 ft
Date Boring Started: 10/12/20
Driller: GA
Checked By: JS
Logged By: JV

Sample Types:



Vane Shear
Split-Spoon
Rock Core



Shelby Tube
Hand Auger
Auger Cutting

Remarks: Approximate Elevation Based on Dupage County ArcGIS Web Map.

The stratification lines represent approximate boundaries. The transition may be gradual.



Pioneer Engineering & Environmental Services
2753 W. 31st Street
Chicago, Illinois 60608
Telephone: 773-722-9200
Fax: 773-722-9201

BORING LOG B-5

Sheet 1 of 1

Project No.: 20-0393-151
Project: Proposed 3 to 4-Story Building
Location: 115-117 Aurora Avenue
Naperville, Illinois
Client: John Greene Realtor

Drilling Method: 3.25" Hollow Stem Augers
Sampling Method: Split-Spoon Sampling
Hammer Type: Automatic Hammer
Drill Rig Type: Geoprobe 7822DT
Backfill Method: Auger Cuttings

WATER LEVELS

▽ During Drilling None ft
▼ At Completion ft
▼ After 5 Days ft

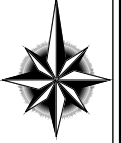
Elevation, (feet)	Depth, (feet)	Graphic Log	Sample Type	USCS Classification	MATERIAL DESCRIPTION	Sample No.	Recovery (inches)	SPT Blows per 6-inch N-values	Hand Penetrometer Qp (tsf)	Unconfined Compressive Strength Qu (tsf)	Vane Shear (Peak) Su (tsf)	Moisture, %	Dry Density (pcf)	STANDARD PENETRATION TEST DATA N in blows/ft © × Moisture ▣ PL + LL				STRENGTH, tsf ▲ Qu * Qp			
	0				Surface Elev.: 682.00 ft MSL									1	25	50		0	2.0	4.0	
				TPSOIL	Black Silty Clay TOPSOIL, little sand	1						24.6									
				TPSOIL		2	13	4/5/11 N=16	3.0			27.8									
680				CL	Brown Silty CLAY, little sand																
				GM	Light Brown and Light Gray SAND and GRAVEL, little silt, weathered limestone bedrock	3	10	19/23/31 N=54				2.9		×							>> ©
5				GM		4	1	50/1"/ N=				2.4		×							
675					Auger Refusal at 7.5 Feet. Apparent Bedrock Surface.																
Completion Depth: 7.5 ft					Sample Types:					Remarks: Approximate Elevation Based on Dupage County ArcGIS Web Map.											
Date Boring Started: 10/12/20					Vane Shear																
Driller: GA					Split-Spoon																
Checked By: JS					Rock Core																
Logged By: JV					Shelby Tube																
					Hand Auger																
					Auger Cutting																

The stratification lines represent approximate boundaries. The transition may be gradual.

PUBLIC

ALLEY

North



B-3

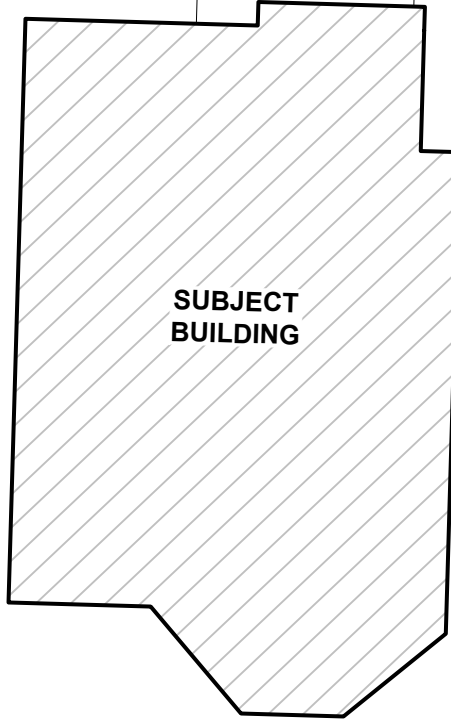


PARKING
LOT

B-2



SUBJECT
BUILDING



B-1



STREET

MAIN

SOUTH

RESIDENTIAL
PROPERTY



AURORA

AVENUE

Legend: Approximate Property Line



Geotechnical Soil
Boring Location

Scale:

0' 1" = 20' 20'

Drawn by:

M. S. Valadez

Job No.:

26-0176-151

Date:

May 2026

Checked by:

Kevin Gosiewski

FIGURE 1
Soil Boring Locations
& Site Diagram
405 South Main Street
Naperville, IL



Soil BoringNumber: B-1

Page 1 of 1

CLIENT John Greene Real Estate

PROJECT NUMBER 26-0176-151

DATE STARTED 04/27/2026 **COMPLETED** 04/27/2026

CONTRACTOR Pioneer **DRILLER** GA

LATITUDE 41.770000 **LONGITUDE** -88.149907

LOGGED BY JV **CHECKED BY** KG

METHOD Auger

PROJECT DESCRIPTION Proposed 3 to 4-Story Building

PROJECT LOCATION 405 South Main Street - Naperville, IL

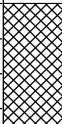
GROUND ELEVATION 683.00' ELEVATION DATUM MSL

RIG TYPE Geoprobe 3126GT

 AT TIME OF DRILLING 12'

▼ AFTER DRILLING N/A

SAMPLER TYPE Split Spoon

Elevation (ft)	Depth (ft)	Graphic Log	Visual Classification and Remarks	Samples						Lab			
				Sample Number	Sample Type	Sample Graphic	Blow Counts (N Value)	% Recovery	Vane Shear (psf)	Qp-Pocket Penetrometer (tsf)	Qu-Unconfined Compressive Strength (tsf)	Moisture Content (%)	Dry Density (pcf)
683													
680	3.5		FILL Black, clayey topsoil mix	1	Auger							27.2	
				2	SS		3-3-4 (7)	61				22.7	
675	6.5		Brown, Silty Clay, trace sand and gravel (CL)	3	SS		4-5-7 (12)	78				3.5	26.0
670	8		Brown, Gravel, with sand and cobbles (GP)	4	SS		13-19-21 (40)	72				3.0	5.8
665	10		Weathered/Fractured Limestone Bedrock Spoon refusals, but no auger refusal	5	SS		23-33-40 (73)	56				7.7	
660	15			6	SS		28-50/2"	75				9.3	
655	20			7	SS		31-50/1"	57				11.9	
650	25			8	SS		50/3"	67	7.0				
645	25			9	SS		50/2"	50	7.5				
End of boring at 25'													

 At Time of Drilling (ATD)	 SS - Small Split Spoon
 CL	 Auger - Auger Sample
 GP	-

REMARKS

Elevation interpolated via Google Earth data.

CLIENT John Greene Real Estate

PROJECT DESCRIPTION Proposed 3 to 4-Story Building

PROJECT NUMBER 26-0176-151

PROJECT LOCATION 405 South Main Street - Naperville, IL

DATE STARTED 04/27/2026 **COMPLETED** 04/27/2026

GROUND ELEVATION 677.00' **ELEVATION DATUM** MSL

CONTRACTOR Pioneer **DRILLER** GA

RIG TYPE Geoprobe 3126GT

LATITUDE 41.770247 **LONGITUDE** -88.149959

▽ **AT TIME OF DRILLING** 12'

LOGGED BY JV **CHECKED BY** KG

▼ **AFTER DRILLING** N/A

METHOD Auger

SAMPLER TYPE Split Spoon

Elevation (ft)	Depth (ft)	Graphic Log		Samples					Lab				
				Sample Number	Sample Type	Sample Graphic	Blow Counts (N Value)	% Recovery	Vane Shear (psf)	Qp-Pocket Penetrometer (tsf)	Qu-Unconfined Compressive Strength (tsf)	Moisture Content (%)	Dry Density (pcf)
677			Visual Classification and Remarks										
			4" Asphalt 0.33	1	Auger							3.1	
675			11" Gravel Base 1.25	2	SS		3-4-4 (8)	67			6.1		
			FILL Black, clayey topsoil mix 3.5										
	5		Brown, Silty Clay, trace sand and gravel (CL) 6.5	3	SS		4-6-8 (14)	61		3.5	1.2	30.0	89.2
670			Brown, Gravel, with sand and cobbles (GP) 8	4	SS		15-18-23 (41)	56		3.0		5.2	
			Weathered/Fractured Limestone Bedrock Spoon refusals, but no auger refusal	5	SS		28-31-39 (70)	39				13.1	
	10			6	SS		31-50/2"	75				9.8	
665				7	SS		38-50/1"	57				10.6	
	15												
660				8	SS		50/4"	50				4.7	
	20												
655				9	SS		50/2"	50			6.0		
	25												

▽ At Time of Drilling (ATD)	 Auger - Auger Sample
 CL	 SS - Small Split Spoon
 GP	-

REMARKS

Elevation interpolated via Google Earth data.

CLIENT John Greene Real Estate

PROJECT DESCRIPTION Proposed 3 to 4-Story Building

PROJECT NUMBER 26-0176-151

PROJECT LOCATION 405 South Main Street - Naperville, IL

DATE STARTED 04/27/2026 **COMPLETED** 04/27/2026

GROUND ELEVATION 675.00' **ELEVATION DATUM** MSL

CONTRACTOR Pioneer **DRILLER** GA

RIG TYPE Geoprobe 3126GT

LATITUDE 41.770382 **LONGITUDE** -88.150035

▽ **AT TIME OF DRILLING** 12.5'

LOGGED BY JV **CHECKED BY** KG

▼ **AFTER DRILLING** N/A

METHOD Auger

SAMPLER TYPE Split Spoon

Elevation (ft)	Depth (ft)	Graphic Log		Samples						Lab			
				Sample Number	Sample Type	Sample Graphic	Blow Counts (N Value)	% Recovery	Vane Shear (psf)	Qp-Pocket Penetrometer (tsf)	Qu-Unconfined Compressive Strength (tsf)	Moisture Content (%)	Dry Density (pcf)
675			Visual Classification and Remarks										
670	5	                 	4" Asphalt 0.33	1	Auger							4.7	92.2
			11" Gravel Base 1.25	2	SS		3-4-4 (8)	56		2.5	30.7		
			FILL Black, clayey topsoil mix 3										
			Brown, Silty Clay, trace sand and gravel (CL) 6.5	3	SS		3-5-8 (13)	78		3.0	2.0	27.7	
			Brown, Gravel, with sand and cobbles (GP) 8	4	SS		15-19-28 (47)	33		3.5	1.7		
			Weathered/Fractured Limestone Bedrock Spoon refusals, but no auger refusal										
				5	SS		19-23-50 (73)	39			9.5		
				6	SS		26-50/2"	38		14.9			
				7	SS		29-50/1"	43		8.8			
				8	SS		39-50/1"	29		10.0			
				9	SS		42-50/1"	29		10.3			
650	25												

End of boring at 25'

▽ At Time of Drilling (ATD)	Auger - Auger Sample
CL	SS - Small Split Spoon
GP	-

REMARKS

Elevation interpolated via Google Earth data.

SESC
405 S Main Street & 115 Aurora Ave
April 30, 2026

Soil Erosion/Sediment Control Measures

An extensive Stormwater Pollution Prevention Plan (SWPPP) has been created in the Final Engineering Plans to protect the existing natural resources located within the general proximity to the project site.

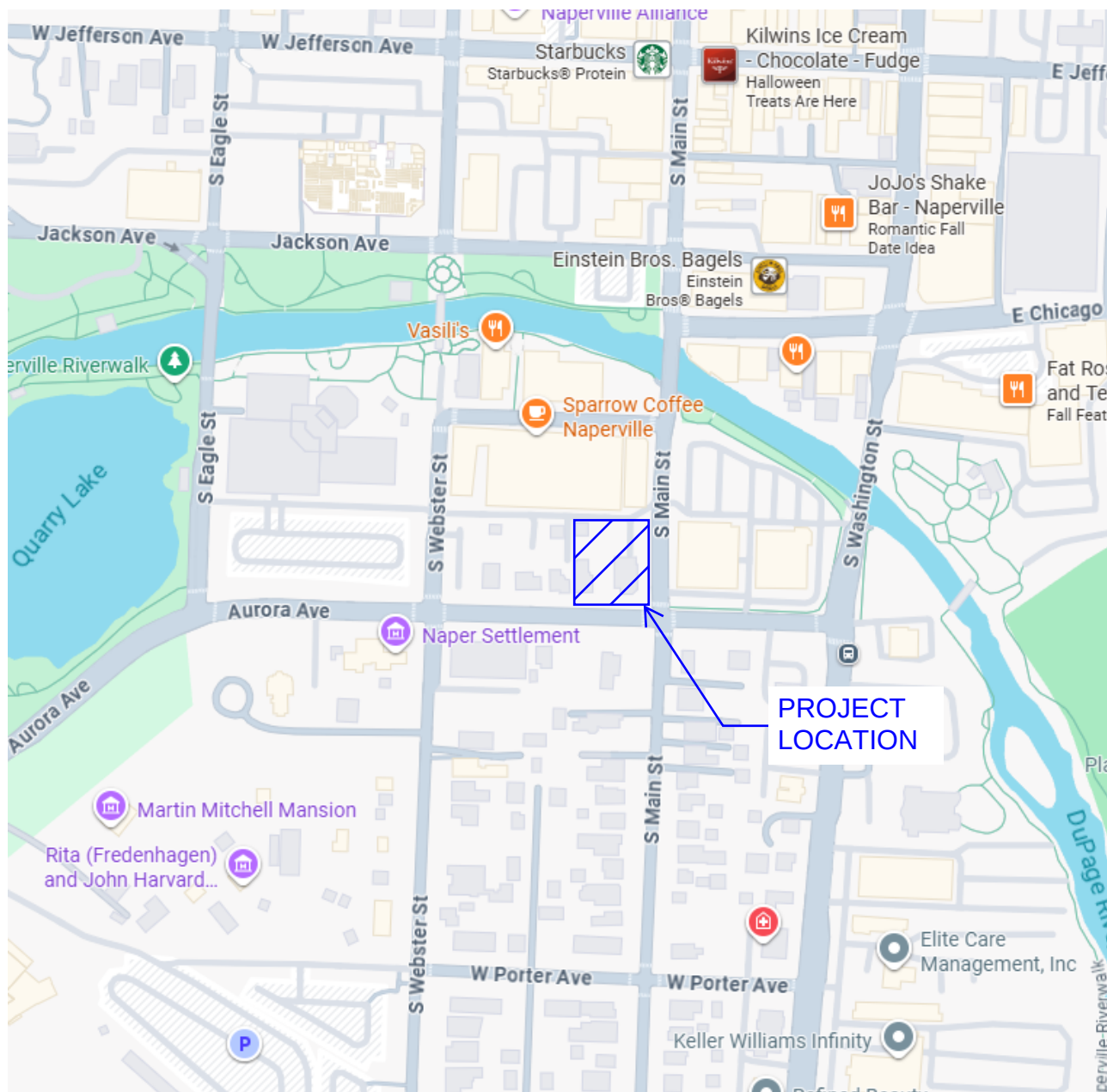


**405 Main Street & 115 Aurora Avenue
Naperville, Illinois**

**AERIAL LOCATION MAP
NOT TO SCALE**



Mackie Consultants, LLC
9575 W. Higgins Road, Suite 500
Rosemont, IL 60018
(847)696-1400
www.mackieconsult.com

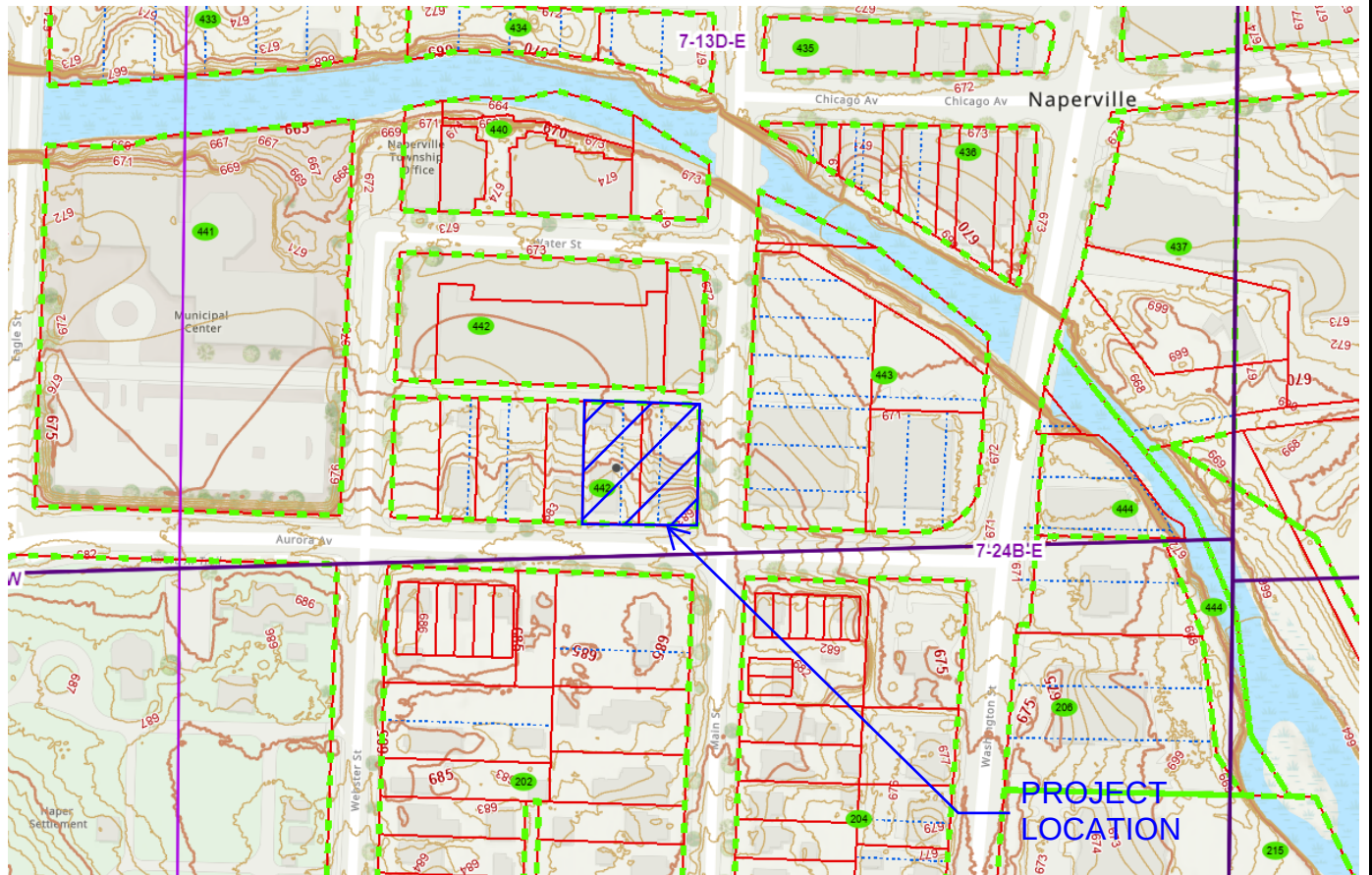


**405 Main Street & 115 Aurora Avenue
Naperville, Illinois**

**LOCATION MAP
NOT TO SCALE**



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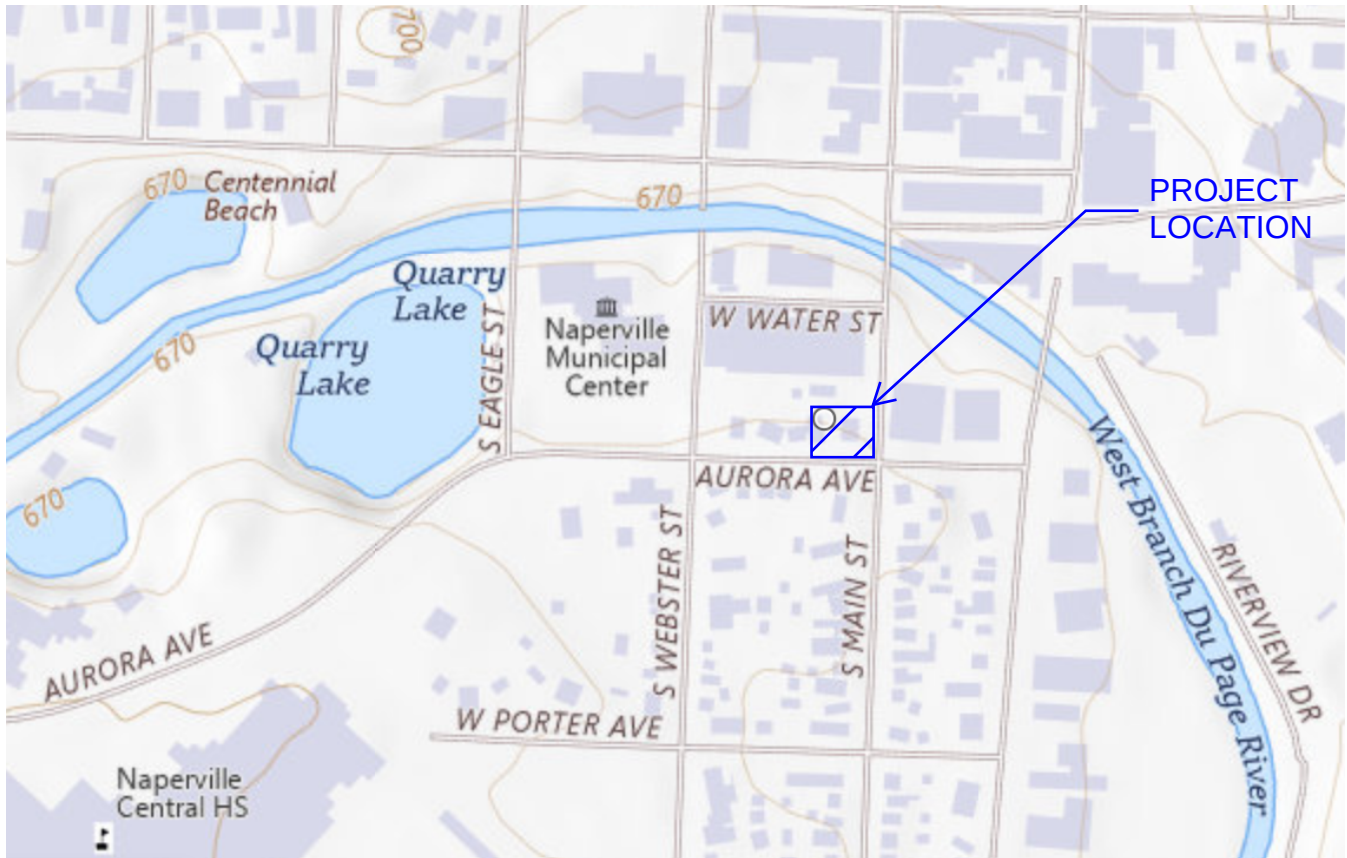


**405 Main Street & 115 Aurora Avenue
Naperville, Illinois**

**DUPAGE COUNTY GIS
NOT TO SCALE**



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**405 Main Street & 115 Aurora Avenue
Naperville, Illinois**

**USGS MAP
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**405 Main Street & 115 Aurora Avenue
Naperville, Illinois**

**NRCS HYDROLOGIC SOILS MAP
NOT TO SCALE**



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MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

Water Features



Streams and Canals

Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

Background



Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: DuPage County, Illinois

Survey Area Data: Version 21, Aug 31, 2025

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 13, 2020—Jul 6, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
146A	Elliott silt loam, 0 to 2 percent slopes	0.3	50.2%
223B	Varna silt loam, 2 to 4 percent slopes	0.3	49.8%
Totals for Area of Interest		0.6	100.0%

405 Main Street & 115 Aurora Avenue
Naperville, Illinois

NRCS HYDROLOGIC SOILS MAP
NOT TO SCALE



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National Wetlands Inventory

surface waters and wetlands

(<https://www.fws.gov>)

Wetlands Inventory Maps and Wetlands Data are not being updated and the agency will not be able to respond to inquiries until appropriations are enacted. For more information please visit: <https://www.doi.gov/shutdown> (<https://www.doi.gov/shutdown>)

Because of the federal government shutdown, the

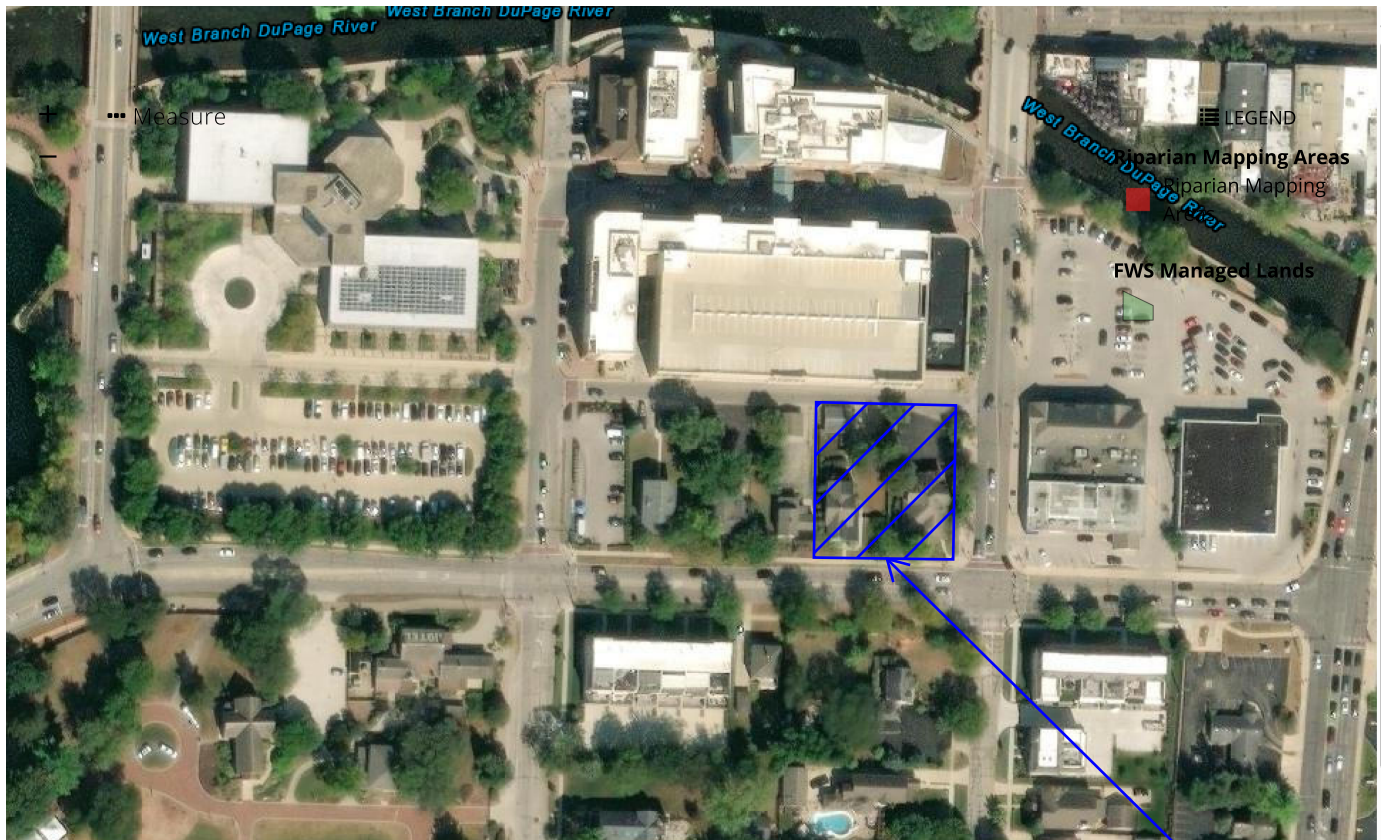
Wetlands Inventory Maps and Wetlands Data are not being updated and the agency will not be able to respond to inquiries until appropriations are enacted. For more information please visit: <https://www.doi.gov/shutdown> (<https://www.doi.gov/shutdown>)

ABOUT

Get Data

Print

Find Location



PROJECT
LOCATION

405 Main Street & 115 Aurora Avenue
Naperville, Illinois

US WILDLIFE WETLANDS MAP
NOT TO SCALE

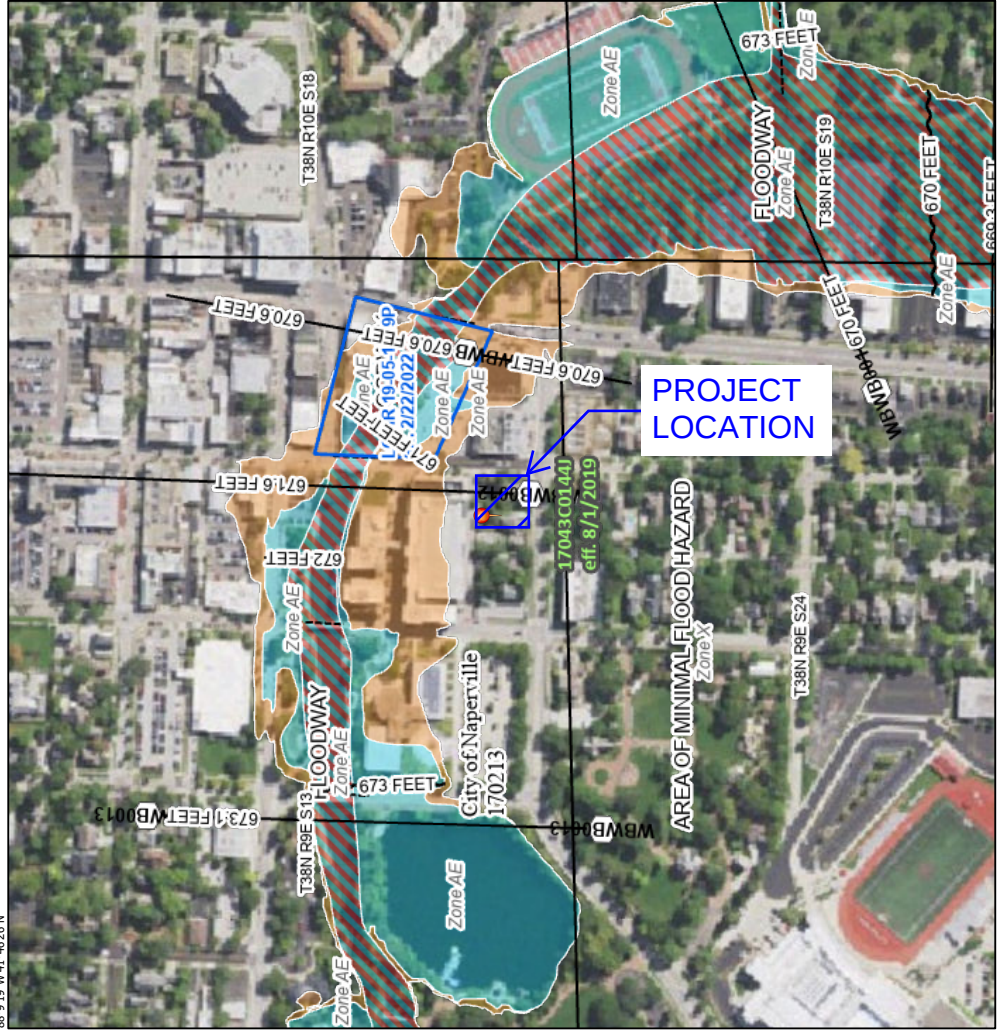


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National Flood Hazard Layer FIRMette



88°59'19"W 41°46'26"N



0 250 500 1,000 1,500 2,000 Feet 1:6,000

Basemap Imagery Source: USGS National Map 2023

Legend

SEE THIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS	Without Base Flood Elevation (BFE) Zone A, V, A99
	With BFE or Depth Zone AE, AO, AH, VE, AR
OTHER AREAS OF FLOOD HAZARD	Regulatory Floodway
	0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
OTHER AREAS OF FLOOD HAZARD	Future Conditions 1% Annual Chance Flood Hazard Zone X
	Area with Reduced Flood Risk due to Levee, See Notes, Zone X
OTHER AREAS	Area with Flood Risk due to Levee Zone D
	Area of Minimal Flood Hazard Zone X
GENERAL STRUCTURES	Effective LOMRs
	Area of Undetermined Flood Hazard Zone D
OTHER FEATURES	Channel, Culvert, or Storm Sewer
	Levee, Dike, or Floodwall
MAP PANELS	Cross Sections with 1% Annual Chance
	Water Surface Elevation
OTHER FEATURES	Coastal Transect
	Base Flood Elevation Line (BFE)
OTHER FEATURES	Limit of Study
	Jurisdiction Boundary
OTHER FEATURES	Coastal Transect Baseline
	Profile Baseline
OTHER FEATURES	Hydrographic Feature
	Digital Data Available
OTHER FEATURES	No Digital Data Available
	Unmapped

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards.

The flood hazard information is derived directly from the authoritative flood maps published by FEMA. This map reflects changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

405 Main Street & 115 Aurora Avenue
Naperville, Illinois

FEMA MAP
NOT TO SCALE



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STORMWATER MANAGEMENT SYSTEM MAINTENANCE PLAN FOR NEW FACILITIES

FOR

**405 S Main Street & 115 Aurora Avenue
Naperville, DuPage County, Illinois**

Prepared By:



Mackie Consultants, LLC
9575 W. Higgins Road, Suite 500
Rosemont, IL 60018
(847)696-1400
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Dated: June 12, 2026

**STORMWATER MANAGEMENT SYSTEM
MAINTENANCE PLAN FOR NEW FACILITIES**

Subject: 405 S Main Street & 115 Aurora Avenue
Naperville, Illinois

JOHN GREENE REAL ESTATE HEREBY MAKES THE FOLLOWING DECLARATIONS
OF MAINTENANCE RESPONSIBILITIES.

Responsibilities

Adequate provisions for maintenance of the stormwater system are an essential aspect of long-term drainage performance. Responsibility for the overall maintenance shall rest with the OWNER.

Interpretation as to Requirements Under This Maintenance Plan:

The requirement for this Maintenance Plan is generated by the Will County Watershed Development Ordinance. Therefore, the interpretation of the maintenance requirements set forth in this Maintenance Plan shall be interpreted based on the intent and requirements of said Ordinance.

Inspection Frequency:

Inspection experience will determine the required cleaning frequencies for the components of the stormwater management system. At a minimum, the attached checklist items should be inspected annually.

Maintenance Considerations:

Whenever possible, maintenance activities should be performed during the inspection. These activities should be supplemented by repair / replacement as required. A Registered Professional Engineer (PE) shall be hired for design resolution of specific items as indicated on the checklist below.

Cost Considerations:

Frequent maintenance program work execution will lead to less frequent and less costly long-term maintenance and repair. The attached checklist items may need to be amended based on experience recorded over the initial period of occupancy of the subdivision.

Record Keeping:

Separate and distinct records shall be maintained by the party responsible for all tasks performed associated with this plan. The records shall include the dates of maintenance visits, who performed the inspection, and a description of the work performed.

_____, the owner's agent, has caused these presents to be signed and

acknowledged, this _____ day of _____, 20_____.

By: _____

Post-Construction Stormwater Management System Inspection Checklist

The following checklist describes the suggested routine inspection items and recommended measures to be taken to ensure that the Stormwater Management System functions as designed. Please note that the sole Stormwater Management System which the owner of the Islamic Center of Naperville is responsible for the proposed storm sewer. The General section outlines items that should be taken into consideration during inspection and maintenance activities. While performing an overall inspection of your system, please check for the following items.

General -

- Litter and debris shall be controlled.
- Accumulated sediment shall be disposed of properly, along with any wastes generated during maintenance operations.
- Roads and parking lots (if applicable) shall be swept or vacuumed on a periodic basis.

Storm Sewers -

- _____ System is free draining into collection channels or catch basins. If concerned, clean or repair.
- _____ Catch basins. Remove sediment when more than 50% of basin sump is filled.
- _____ Inspect and Clean restrictor and Tideflex Valve.

Swales –

- _____ Verify systems (both drainage ditches and sideyard swales) are maintaining originally constructed design slope and cross-sectional area. If fill or sediment contributes to elevation changes in swale, re-grading and re-shaping shall be performed. Licensed surveyors shall be hired to lay-out and check grades. No landscaping, earthen fill, gardens, or other obstructions (including sheds and other structures) shall be allowed in the swales that would impede design drainage flow patterns.

Vegetated Areas –

- _____ Need for planting, reseeding or sodding of turf areas. Supplement alternative native vegetation if a significant portion has not established (75% of the surface area). Reseed with alternative grass species if original grass cover has not successfully established.

N:\5268\Stormwater\Final\Report\5268 - Naperville_Maintenance Plan.docx

