ANDERSON

Storm Water Management Plan

Calculations & Summaries

Mayo Employees Credit Union

La Crosse, WI

Project No. 18994

March 02, 2026
REVISED March 24, 2026

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Wisconsin.

_____

Eric Sautbine, P.E. Reg. No. E-43034-6

Prepared By:
Anderson Engineering of MN, LLC
13605 1st Avenue North, Suite 100
Plymouth, MN 55441
Ph: 763.412.4000
Fax: 763.412.4090

Prepared For:
HTG Architects
1010 Mainstreet, Suite 100
Hopkins, MN 55343

ANDERSON
Anderson Engineering of Minnesota, LLC • 13605 1st Avenue North, Suite 100 • Plymouth, Minnesota 55441 • (763) 412-4000 Main • (763) 412-4090 Fax • www.ae-mn.com

Table of Contents

Appendix – Exhibits and Calculations

Project Overview

Site redevelopment of the Mayo Employees Credit Union is proposed at 605 West Ave S, La Crosse, WI 54601. The parcel encompasses 0.82 acres. The project includes site clearing and demolishing the existing building, concrete and asphalt paving. Construction will include a new building, parking lot, and teller drive thru.

Existing Site Conditions

The 0.82 acre lot is bounded by Ferry St to the north, West Ave to the west, and residential lots to the south and east. The existing building has a finished floor of 673.25. The existing parking lot is located south of the building, the existing drive thru is on the east side of the building, and the driveway comes from the west off West Ave along the south of the parking lot and turns north through the drive thru up to Ferry St to the north. The site generally drains from the southeast corner to the north west corner. There is currently no storm sewer on site. An existing 12" storm sewer runs under Ferry Street and belongs to the city of La Crosse. The existing drainage pattern can be seen in **Exhibit A: Existing Drainage Map** within the appendices of this report.

Soils

Chosen Valley Testing conducted 7 soil borings on site in January of 2026. Per the report issued March 11, 2026, the surface of the boring locations consists of fill approximately 1-2 feet of except for borings 2, 3, and 6 that had fill up to 7 feet. The fill soil exhibits mostly loose conditions with SPT values averaging around 10 bpf. The fill was found to be moist. Underlying the fill soils were finely to medium graded loose sand glacial outwash with SPT values averaging around 7 bpf. Bedrock was not found in the exploration and is expected to lie deeper than 200 feet. Ground water was encountered at any boring locations.

The underlying soils generally are found to be SP or sand soils corresponding to Hydraulic group A. This soil is very well draining and is considered suitable for infiltration practices with an infiltration rate of 3.6 in/hr per the Wisconsin DNR technical standard. Per the Wisconsin Admin code, redevelopment projects do not require infiltration practices but infiltration will help with TSS requirements discussed later in this report.

Proposed Site Conditions

The proposed redevelopment will consist of a new building with parking lots located north and south of the building and a teller drive thru to the east. The grades around the site will be around 2% in the parking lots and driveways. The building is proposed to have a finished floor elevation of 673.80. The site will generally flow from south to north. New 12" storm sewer will be installed throughout the site and be broken into 2 drainage areas. The east drainage area will include the south parking lot, the drive thru, and the north driveway. The west drainage area will include the building, half the south parking lot, the north parking lot and the west driveway. Both drainage areas will outlet into an infiltration pond located in the northwest corner of the site to be treated before heading into the city storm sewer system located along Ferry St. See **Exhibit B: Proposed Drainage Map** located in the appendices of this report.

Post construction Management Devices

The proposed redevelopment will include an infiltration basin located in the northwest corner of the property and will treat stormwater coming from the site before it enters the city storm sewer.

Methodology

P8 Urban Catchment Model - TSS

The project is redeveloping a previously developed site meaning only 40% total suspended solids (TSS) removal is required. The P8 Urban Catchment Modeling software was used to calculate TSS removal. The climate files for Wisconsin were used to determine rainfall events with the Madison location being the closest to La Crosse. The NURP 50 file was used for determining the TSS particle size.

Runoff from pervious and impervious surfaces were calculated separately by water shed area in order to more accurately model the runoff volume from the site surfaces. Results of this analysis are summarized below, and a report can be seen in **Exhibit C: P8 Calculations Report**.

HydroCAD – Peak Discharge

The Hydrologic characteristics of the site were modeled using HydroCAD software for peak discharge. TR55/TR20 methods were utilized. Existing and proposed drainage areas were determined via review of as-built data, current land survey data, and aerial photos.

The 2, 10, & 100-year frequency events were analyzed for peak runoff rate control in the existing and proposed conditions. The MSE-3 24-hr distribution was used in analysis. Storm frequency depths were determined by the City of La Crosse Guidelines using Atlas 14 data. Depths for the 2, 10, & 100-year storms were found to be 2.94", 4.32", and 7.31" respectively.

Runoff from pervious and impervious surfaces were calculated separately in order to more accurately model the runoff volume from the site surfaces. Results of this analysis are summarized below, and a report can be seen in **Exhibit D: HydroCAD Report**.

City of La Crosse Rules & Regulations

In addition to the rules described below, the proposed design and report will utilize those definitions and procedural requirements as described by the City of La Crosse Municipal Code Chapter 105 Section 61, and the Wisconsin DNR stormwater rules and regulations in the Wisconsin Administrative Code Section NR151 Ch3. The construction and stormwater management plans have also been designed to meet general standards described within the Stormwater Management Rule and Erosion Control Rule. **Table 1** below summarizes the watershed rules that are **not** applicable to this site and reasoning for exclusion:

Table 1: Non-Applicable DNR Watershed Rules	
NR151.105(1)(a) State Storm Water Management Plan	Disturbance under 1 acre
City 105-61(b)(4)d Infiltration	Redevelopment
City 105-61(b)(4)e Protective Areas	No disturbance of wetland or discharge to open waters
City 105-61(b)(4)f Fuel and Maintenance Area	No fueling or maintenance on site proposed
City 105-61(b)(4)g Swale treatment for transportation facilitates	Project is not a transportation facility

Below is a summary of other applicable watershed rules and regulations have been met for this project:

Stormwater Management Rule

City 105-61(b)(4)a – *Total Suspended Solids (TSS)*

Criteria: Total suspended solids. BMPs shall be designed, installed and maintained to control total suspended solids carried in runoff from the post-construction site as follows: Redevelopment - 40 percent of load from parking areas and roads. The design shall be based on an average annual rainfall, as compared to no runoff management controls.

The P8 Urban Catchment Modeling software was used to calculate TSS. The software analyzed the proposed runoff without management controls and compared it to the proposed runoff with management controls.

Because we are using an infiltration basin in P8 for the control, we need to follow the Wisconsin DNR modeling post construction storm water treatment guide B.7 along with Technical Standard 1003. The standards allow P8 to keep 100% of TSS removal from infiltration, but only 50% from settling due to scouring for ponds that are 1.5' deep.

In addition to the P8 calculation outputs in **Exhibit C**, See **Table 2** below for a summary of the results. The calculation breakdown in **Table 3** shows the allowed TSS removal per Modeling guide B7.

Table 2 – Annual Load TSS

Variable: TSS	Loads(lbs)				
Mass Balance Term	OVERALL	North Storm Pipe	South Storm Pipe	Infiltration Basin	Offsite Storm
01 watershed inflows	335.40	135.94	180.34	0.00	19.12
02 upstream device	0.00	0.00	0.00	316.28	5.85
03 infiltrate	93.42	0.00	0.00	93.42	0.00
05 filtered	93.42	0.00	0.00	93.42	0.00
06 normal outlet	24.97	135.94	180.34	0.00	24.97
07 spillway outlet	0.00	0.00	0.00	5.85	0.00
08 sediment + decay	216.54	0.00	0.00	216.54	0.00
09 total inflow	335.40	135.94	180.34	316.28	24.97
10 surface outflow	24.97	135.94	180.34	5.85	24.97
12 total outflow	24.97	135.94	180.34	5.85	24.97
13 total trapped	309.96	0.00	0.00	309.96	0.00
14 storage increase	0.00	0.00	0.00	0.00	0.00
15 mass balance check	0.47	0.00	0.00	0.47	0.00
Load Reduction (%)	92.41	0.00	0.00	98.00	0.00

Table 3 – Annual TSS load	
Site	TSS
Proposed Conditions without Controls	335.40 lbs
100% Infiltration Removal	93.42 lbs
50% Sediment Removal	108.27 lbs
Total TSS Removal	201.69 lbs
Removal Efficiency	60.2%

City 105-61(b)(4)b – *Peak Discharge (Rate Control)*

Criteria: By design, BMPs shall be employed to maintain or reduce the two-year, 24-hour; and the ten-year, 24-hour post-construction peak runoff discharge rates to the two-year, 24-hour; and the ten-year, 24-hour pre-development peak runoff discharge rates respectively, or to the maximum extent practicable.

Rate control was analyzed for the 2, 10, and 100-year - 24 hour storm event. Existing condition rates and proposed rates were compared for the entire property area. Runoff rates for the proposed activity shall not exceed existing runoff rates for the 2 and 10-year critical storm. The 100-year storm is shown for information only and is not required to be decreased per the municipal code. Per **Exhibits A & B and Table 4,** impervious surface on site will increase. With an overall increase in impervious surface, further analysis was needed.

A full summary of the existing and proposed HydroCAD results can be found within **Exhibit D: HydroCAD Report** in the appendices of this report. Tabulations of the existing and proposed peak runoff rates can be found in **Table 5** shows that post development rates are held below existing conditions:

Table 4 – Impervious Areas	
Site	TSS
Existing Impervious Area	0.335 Ac
Proposed Impervious Area	0.498 Ac
Net Increase	0.163 Ac

Table 5: Rate Control Offsite		
Storm Event	Existing Rate (CFS) **1R**	Post Development Rate (CFS) **10R**
2-year	0.32	0.11
10-year	1.11	1.02
100-year	3.42	3.14

City 105-61(b)(4)c – *Safe Outlet*

Criteria: By design, the site shall provide for the safe passage of run-off from events up to and including the 100 year, 24-hour event. Safe passage implies buildings in and around the site will not be negatively impacted by run-off from the site.

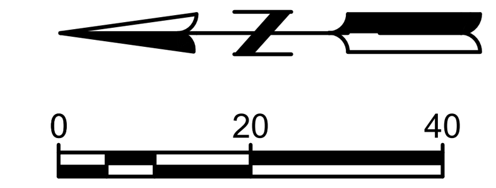
The 100-year, 24 hour storm event will be retained in the infiltration basin. The 100-year high water level in the basin will reach 670.51' which is below the overflow elevation of 670.80'. This can be seen in **Exhibit D: HydroCAD Report.** The 100-year, 24 hour storm event will have safe passage through the infiltration basin and city storm sewer and will not negatively impact buildings in the area.

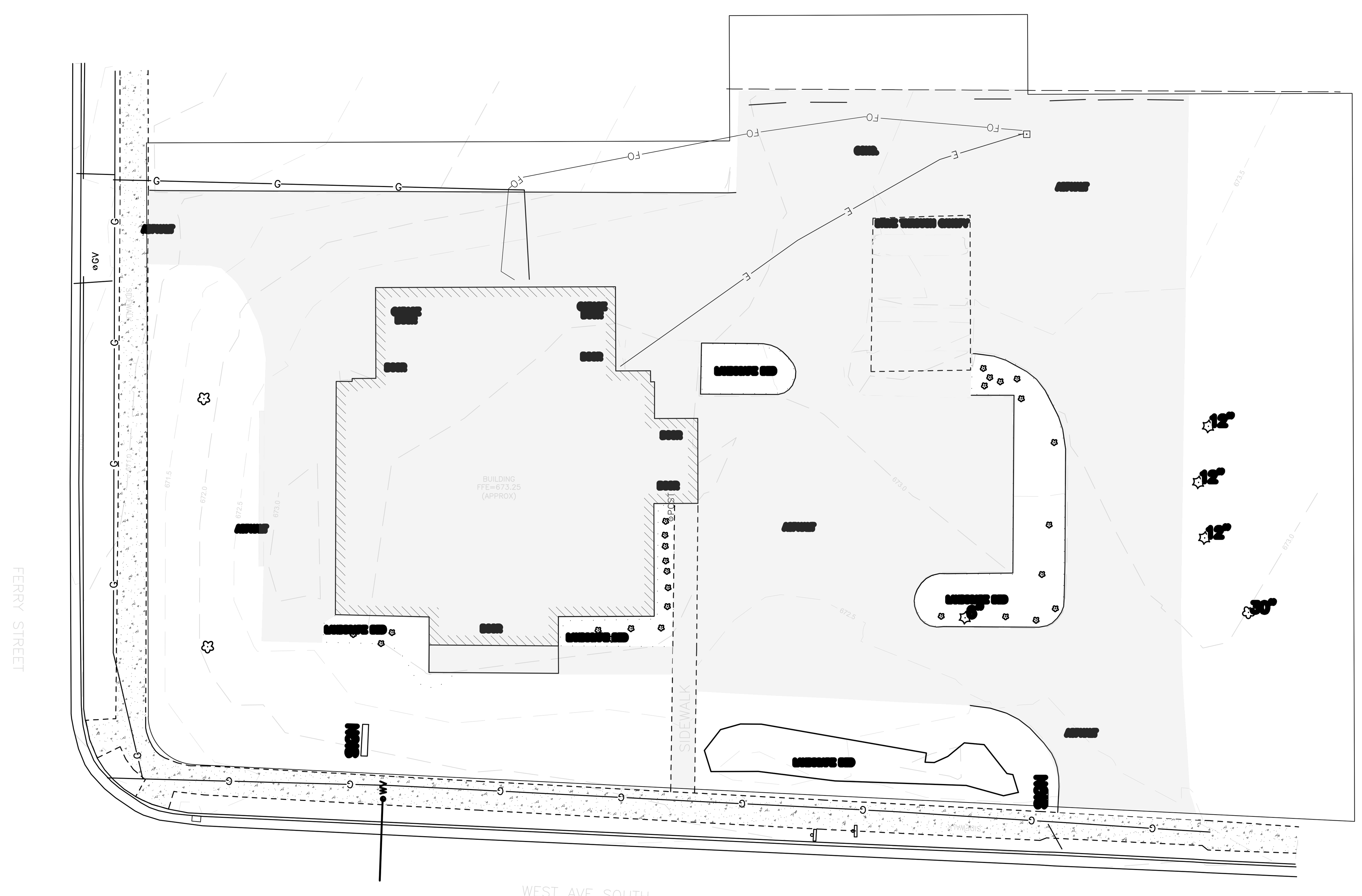
Erosion and Sediment Control Rule

A NDPES permit is not required with this project because the disturbed area is under 1 acre. If additional disturbances occur during construction, the contractor will be responsible for initiating a NDPES construction permit. Anderson Engineering completed an erosion control map for the city submittal for the contractor to use.

Summary

The site layout and final grades are designed to maintain the general drainage of the existing landscape. Within the project boundary, some changes to the existing drainage patterns are expected due to the proposed structures and other site improvements. The project design does not propose to make major changes to drainage divides. A new storm sewer system is designed to prevent as much storm water runoff to flow directly onto Ferry St and West Ave than the previous existing development while also lowering the peak discharge into the city storm system.





HTG architects

www.htg-architects.com
Minneapolis
Bismarck

1010 Mainstreet, Suite 100
Hopkins, MN. 55343
Tel: 952.278.8880

PROJECT

MAYO EMPLOYEES CREDIT UNION

ADDITION/REMODELING

LA CROSSE, WI

ISSUED SET MARCH 02, 2026
REVISIONS
DATE NO.

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION, AND THAT I AM A DULY LICENSED ENGINEER UNDER THE LAWS OF THE STATE OF WISCONSIN.

NOT FOR CONSTRUCTION
ERIC SAUTBINE, P.E.
03/02/2026
REG. NO. DATE

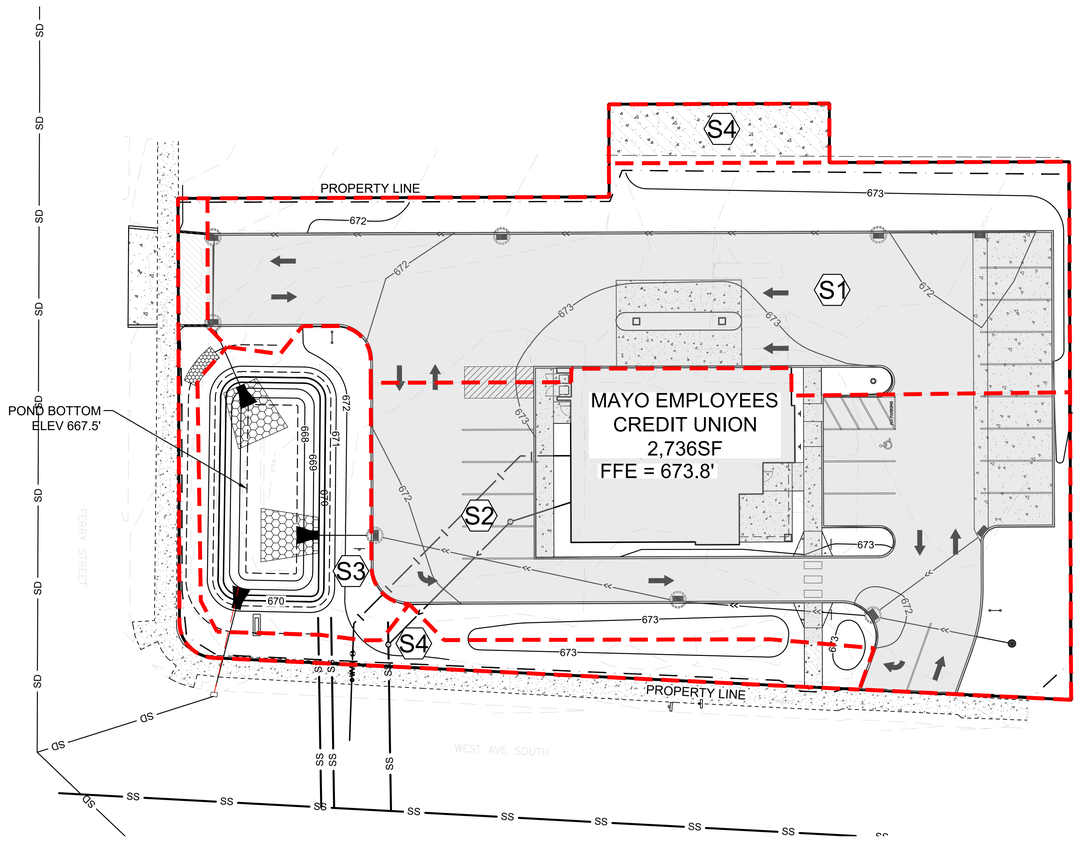
ANDERSON
13605 1st Avenue N. #100
Plymouth, MN 55441 | ae-mn.com
P 763.412.4000 | F 763.412.4090
Anderson Engineering of Minnesota, LLC

EXISTING DRAINAGE MAP

DRAWN BY: CHECKED BY:

EX A

231139 - AE PROJ # 18994
COPYRIGHT © BY HTG ARCHITECTS



N

0 20' 40'

LEGEND

- PROPERTY LIMITS
- CONSTRUCTION LIMITS
- DRAINAGE AREA
- 1189 EXISTING MINOR CONTOUR
- 1190 EXISTING MAJOR CONTOUR
- 1189 PROPOSED MINOR CONTOUR
- 1190 PROPOSED MAJOR CONTOUR
- × 1190.25 EXISTING SPOT ELEVATION
- DRAINAGE ARROW
- PROPOSED CONCRETE C&G
- PROPOSED STORM SEWER
- PROPOSED HARD SURFACE (TREATED)
- PROPOSED HARD SURFACE (UNCAPTURED)

HTG architects

www.htg-architects.com
Minneapolis
Bismarck

1010 Mainstreet, Suite 100
Hopkins, MN. 55343
Tel: 952.278.8880

PROJECT

MAYO EMPLOYEES CREDIT UNION

ADDITION/REMODELING

LA CROSSE, WI

ISSUED SET MARCH 02, 2026
REVISIONS

DATE	NO.	

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION, AND THAT I AM A DULY LICENSED ENGINEER UNDER THE LAWS OF THE STATE OF WISCONSIN.

NOT FOR CONSTRUCTION

ERIC SAUTBINE, P.E.

03/02/2026
REG. NO. DATE

ANDERSON
13605 1st Avenue N. #100
Plymouth, MN 55441 | ae-mn.com
P 763.412.4000 | F 763.412.4090
Anderson Engineering of Minnesota, LLC

PROPOSED DRAINAGE MAP

DRAWN BY: CHECKED BY:

EX B

231139 - AE PROJ # 18994

COPYRIGHT © BY HTG ARCHITECTS

P8 Urban Catchment Model, Version 3.5				Run Date	03/24/26
Case	18994_MayoCU_LaCrosse_TypeA.p8c	FirstDate	10/11/80	Precip(in)	30.4
Title	Startup Case	LastDate	09/30/81	Rain(in)	28.02
PrecFile	Mdsn6095.pcp	Events	76	Snow(in)	2.33
PartFile	nurp50.p8p	TotalHrs	8406	TotalYrs	0.96

File Directory	Y:\18900\18994 - HTG - MAYO EMPLOYEES CREDIT UNION - LA CROSSE WI_17 SWMP\03-P8\
Case Title	Startup Case
Case File	18994_MayoCU_LaCrosse_TypeA.p8c
Particle File	nurp50.p8p
Temperature File	madison_6190.tem
Storm File	Mdsn6095.pcp
Precip Scale Factor	1
Watersheds	4
Devices	4
Particles	5
WQ Components	7
Start Date	09/13/79
Keep Date	10/11/80
Stop Date	09/30/81
Storm Count	76
Total Hours	8406
Wet Hours	722
Precip (in)	30
Rain (in)	28
Snowfall (in)	2
Snowmelt (in)	2
EvapoTran(in)	23
Overall TSS Removal(%)	1
Water Balance Error(%)	0
TSS Mass Balance Error (%)	0

P8 Urban Catchment Model, Version 3.5				Run Date	03/24/26
Case	18994_MayoCU_LaCrosse_TypeA.p8c	FirstDate	10/11/80	Precip(in)	30.4
Title	Startup Case	LastDate	09/30/81	Rain(in)	28.02
PrecFile	Mdsn6095.pcp	Events	76	Snow(in)	2.33
PartFile	nurp50.p8p	TotalHrs	8406	TotalYrs	0.96

Case Title	Startup Case
Case Data File	18994_MayoCU_LaCrosse_TypeA.p8c
Path	Y:\18900\18994 - HTG - MAYO EMPLOYEES CREDIT UNION - LA CROSSE WI_17 SWMP\03-P8\
Case Notes:	
Storm Data File	Mdsn6095.pcp
Particle File	nurp50.p8p
Air Temp File File	madison_6190.tem

Time Steps Per Hour	4
Minimum Inter-Event Time (hrs)	10
Maximum Continuity Error %	2
Rainfall Breakpoint (inches)	0.8
Precipitation Scale Factor	1
Air Temp Offset (deg-F)	0
Loops Thru Storm File	1
Simulation Dates	
Start	9/11/1979
Keep	10/11/1980
Stop	9/30/1981

Max Snowfall Temperature (deg-f)	32.0
SnowMelt Temperature (deg-f)	32.0
Snowmelt Coef (in/degF-Day)	0.06
Soil Freeze Temp (deg-F)	32.0
Snowmelt Abstraction Factor	1.00
Evapo-Trans. Calibration Factor	1.00
Growing Season Start Month	5
Growing Season End Month	10

5-Day Antecedent Rainfall + Runoff (inches)		
CN Antecedent Moisture Condition	AMC-II	AMC-III
Growing Season	1.40	2.10
NonGrowing Season	0.50	1.10

Watershed Data						
Watershed Name	S2	S1	S3	S4		
Runoff to Device	South Storm Pipe	North Storm Pipe	Infilitration Basin	Offsite Storm		
Infiltration to Device						
Watershed Area	0.339	0.302	0.092	0.087		
SCS Curve Number (Pervious)	39	39	39	39		
Scale Factor for Pervious Runoff Load	1	1	1	1		
Indirectly Connected Imperv Fraction	0	0	0	0		

UnSwept Impervious Fraction	0.185	0	0	0		
UnSwept Depression Storage (inches)	0.08	0.02	0.02	0.02		
UnSwept Imperv. Runoff Coefficient	0.909	1	1	1		
UnSwept Scale Factor for Particle Loads	1	1	1	1		
Swept Impervious Fraction	0.59	0.635	0	0.31		
Swept Depression Storage (inches)	0.02	0.02	0.02	0.02		
Swept Imperv. Runoff Coefficient	0.973	0.973	1	0.973		
Swept Scale Factor for Particle Loads	1	1	1	1		
Sweeping Frequency	0	0	0	0		
Sweeping Efficiency	0	0	0	0		
Sweeping Start Date (MMDD)	101	101	101	101		
Sweeping Stop Date (MMDD)	1231	1231	1231	1231		

Device Data						
Device Name	Infilitration Basin	Offsite Storm	North Storm Pipe	South Storm Pipe		
Device Type	INF_BASIN	PIPE	PIPE	PIPE		
Infiltration Outlet						
Normal Outlet			Infilitration Basin	Infilitration Basin		
Spillway Outlet	Offsite Storm					
Particle Removal Scale Factor	1					
Bottom Elevation (ft)	667.5					
Bottom Area (acres)	0.012					
Permanent Pool Area (acres)						
Permanent Pool Volume (ac-ft)						
Perm Pool Infilt Rate (in/hr)						
Flood Pool Area (acres)	0.019					
Flood Pool Volume (ac-ft)	0.027					
Flood Pool Infilt Rate (in/hr)	3.6					
Infilt Basin Void Fraction (%)	100					
Detention Pond Outlet Parameters						
Outlet Type						
Outlet Orifice Diameter (in)						
Orifice Discharge Coef						
Outlet Weir Length (ft)						
Weir Discharge Coef						
Perforated Riser Height (ft)						
Number of Holes in Riser						
Holes Diameter						
Flood Pool Drain Time (hrs)						
Swale Parameters						
Length of Flow Path (ft)						
Slope of Flow Path %						
Bottom Width (ft)						
Side Slope (ft-v/ft-h)						
Maximum Depth of Flow (ft)						
Mannings n Constant						
Hydraulic Model						
Pipe, Splitter, Aquifer Parameter						
Hydraulic Res. Time (hrs)		0	0	0		

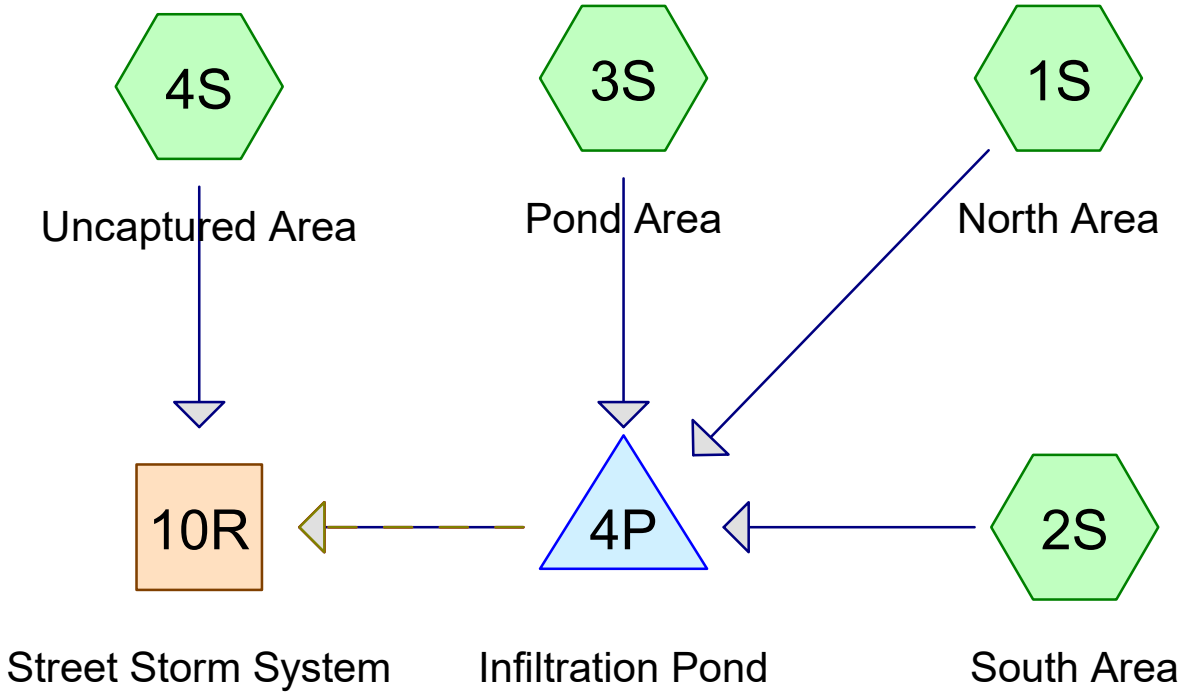
Particle Data					
Particle File	nurp50.p8p				
Particle Class	P0%	P10%	P30%	P50%	P80%
Filtration Efficiency (%)	90	100	100	100	100
Settling Velocity (ft/hr)	0	0.03	0.3	1.5	15
First Order Decay Rate (1/day)	0	0	0	0	0
2nd Order Decay (1/day-ppm)	0	0	0	0	0
Impervious Runoff Conc (ppm)	1	0	0	0	0
Pervious Runoff Conc (ppm)	1	100	100	100	200
Pervious Conc Exponent	0	1	1	1	1
Accum. Rate (lbs-ac-day)	0	1.75	1.75	1.75	3.5
Particle Removal Rate (1/day)	0	0.25	0.25	0.25	0.25
Washoff Coefficient	0	20	20	20	20
Washoff Exponent	0	2	2	2	2
Sweeper Efficiency	0	0	0	5	15

Water Quality Component Data							
Component Name	TSS	TP	TKN	CU	PB	ZN	HC
Water Quality Criteria (ppm)							
Level 1	5	0.025	2	2	0.02	5	0.1
Level 2	10	0.05	1	0.0048	0.014	0.0362	0.5
Level 3	20	0.1	0.5	0.02	0.15	0.38	1
Content Scale Factor	1	1	1	1	1	1	1
Particle Composition (mg/kg)							
P0%	0	99000	600000	13600	2000	64000	250000
P10%	1000000	3850	15000	340	180	1600	22500
P30%	1000000	3850	15000	340	180	1600	22500
P50%	1000000	3850	15000	340	180	1600	22500
P80%	1000000	0	0	340	180	0	22500

P8 Urban Catchment Model, Version 3.5				Run Date	03/24/26
Case	18994_MayoCU_LaCrosse_TypeA.p8c	FirstDate	10/11/80	Precip(in)	30.4
Title	Startup Case	LastDate	09/30/81	Rain(in)	28.02
PrecFile	Mdsn6095.pcp	Events	76	Snow(in)	2.33
PartFile	nurp50.p8p	TotalHrs	8406	TotalYrs	0.96

Devices Listed in Downstream Order

Device:	North Storm Pipe	Type:	PIPE
	Discharges normal outlet to		Infilitration Basin
	Runoff from watershed		S1
Device:	South Storm Pipe	Type:	PIPE
	Discharges normal outlet to		Infilitration Basin
	Runoff from watershed		S2
Device:	Infilitration Basin	Type:	INF_BASIN
	Discharges spillway to		Offsite Storm
	Runoff from watershed		S3
Device:	Offsite Storm	Type:	PIPE
	Runoff from watershed		S4



PROPOSED

Subcat Reach Pond Link

Routing Diagram for 18994_MayoCU_LaCrosse
Prepared by Anderson Engineering Of MN, LLC, Printed 2/20/2026
HydroCAD® 10.20-7a s/n 00837 © 2025 HydroCAD Software Solutions LLC

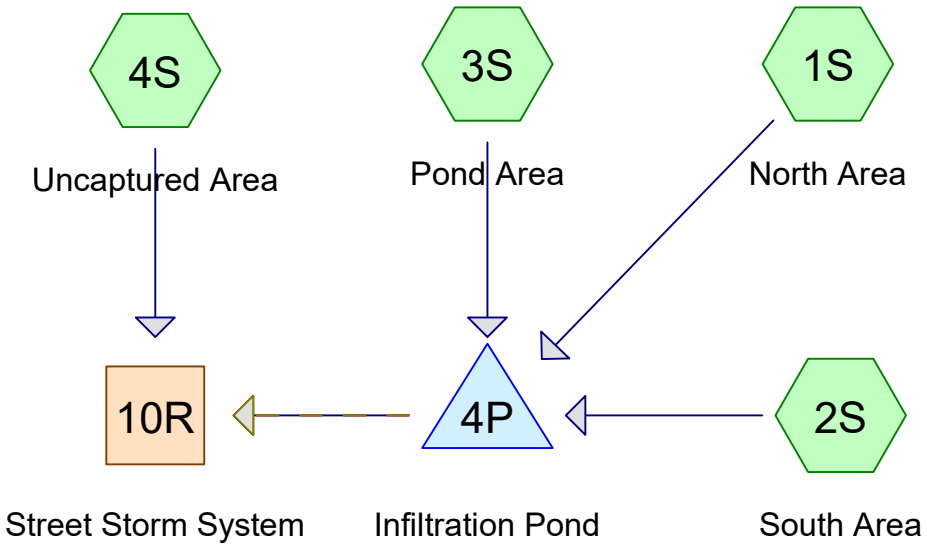
P8 Urban Catchment Model, Version 3.5

Case	18994_MayoCU_LaCrosse_TypeA.p8c	FirstDate	10/11/80	Precip(in)	30.4
Title	Startup Case	LastDate	09/30/81	Rain(in)	28.02
PrecFile	Mdsn6095.pcp	Events	76	Snow(in)	2.33
PartFile	nurp50.p8p	TotalHrs	8406	TotalYrs	0.96

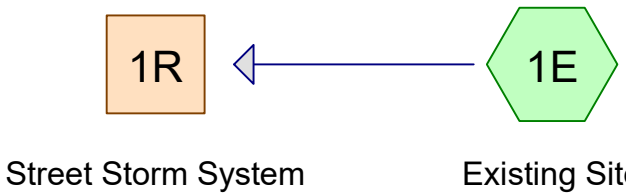
Mass Balances by Variable

Variable: Flow	Flow ac-ft									
Mass Balance Term	OVERALL	North Storm Pipe	South Storm Pipe	Infilitration Basin	Offsite Storm	OVERALL	orth Storm Pipe	outh Storm Pipe	Infilitration Basin	Offsite Storm
01 watershed inflows	1.11	0.45	0.60	0.00	0.06					
02 upstream device	0.00	0.00	0.00	1.05	0.09					
03 infiltrate	0.96	0.00	0.00	0.96	0.00					
04 exfiltrate	0.96	0.00	0.00	0.96	0.00					
06 normal outlet	0.15	0.45	0.60	0.00	0.15					
07 spillway outlet	0.00	0.00	0.00	0.09	0.00					
09 total inflow	1.11	0.45	0.60	1.05	0.15					
10 surface outflow	0.15	0.45	0.60	0.09	0.15					
11 groundw outflow	0.96	0.00	0.00	0.96	0.00					
12 total outflow	1.11	0.45	0.60	1.05	0.15					
14 storage increase	0.00	0.00	0.00	0.00	0.00					
15 mass balance check	0.00	0.00	0.00	0.00	0.00					
Load Reduction (%)	0.00	0.00	0.00	0.00	0.00					

Variable: TSS	Loads(lbs)					Concs (ppm)				
Mass Balance Term	OVERALL	North Storm Pipe	South Storm Pipe	Infilitration Basin	Offsite Storm	OVERALL	orth Storm Pipe	outh Storm Pipe	Infilitration Basin	Offsite Storm
01 watershed inflows	335.40	135.94	180.34	0.00	19.12	110.83	110.45	111.15		110.45
02 upstream device	0.00	0.00	0.00	316.28	5.85				110.85	24.46
03 infiltrate	93.42	0.00	0.00	93.42	0.00	35.74			35.74	
05 filtered	93.42	0.00	0.00	93.42	0.00					
06 normal outlet	24.97	135.94	180.34	0.00	24.97	60.55	110.45	111.15		60.55
07 spillway outlet	0.00	0.00	0.00	5.85	0.00				24.46	
08 sedimen + decay	216.54	0.00	0.00	216.54	0.00					
09 total inflow	335.40	135.94	180.34	316.28	24.97	110.83	110.45	111.15	110.85	60.55
10 surface outflow	24.97	135.94	180.34	5.85	24.97	60.55	110.45	111.15	24.46	60.55
12 total outflow	24.97	135.94	180.34	5.85	24.97	8.25	110.45	111.15	2.05	60.55
13 total trapped	309.96	0.00	0.00	309.96	0.00					
14 storage increase	0.00	0.00	0.00	0.00	0.00					
15 mass balance check	0.47	0.00	0.00	0.47	0.00					
Load Reduction (%)	92.41	0.00	0.00	98.00	0.00					



PROPOSED



EXISTING

Subcat Reach Pond Link

Routing Diagram for 18994_MayoCU_LaCrosse
Prepared by Anderson Engineering Of MN, LLC, Printed 3/24/2026
HydroCAD® 10.20-7a s/n 00837 © 2025 HydroCAD Software Solutions LLC

Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.485	39	>75% Grass cover, Good, HSG A (1E)
0.335	98	Paved parking, HSG A (1E)

Soil Listing (selected nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.820	HSG A	1E
0.000	HSG B	
0.000	HSG C	
0.000	HSG D	
0.000	Other	

Ground Covers (selected nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.485	0.000	0.000	0.000	0.000	0.485	>75% Grass cover, Good	1E
0.335	0.000	0.000	0.000	0.000	0.335	Paved parking	1E

Time span=5.00-24.00 hrs, dt=0.05 hrs, 381 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1E: Existing Site Runoff Area=35,720 sf 40.90% Impervious Runoff Depth>0.41"
Tc=10.0 min CN=63 Runoff=0.32 cfs 0.028 af

Reach 1R: Street Storm System Inflow=0.32 cfs 0.028 af
Outflow=0.32 cfs 0.028 af

Summary for Subcatchment 1E: Existing Site

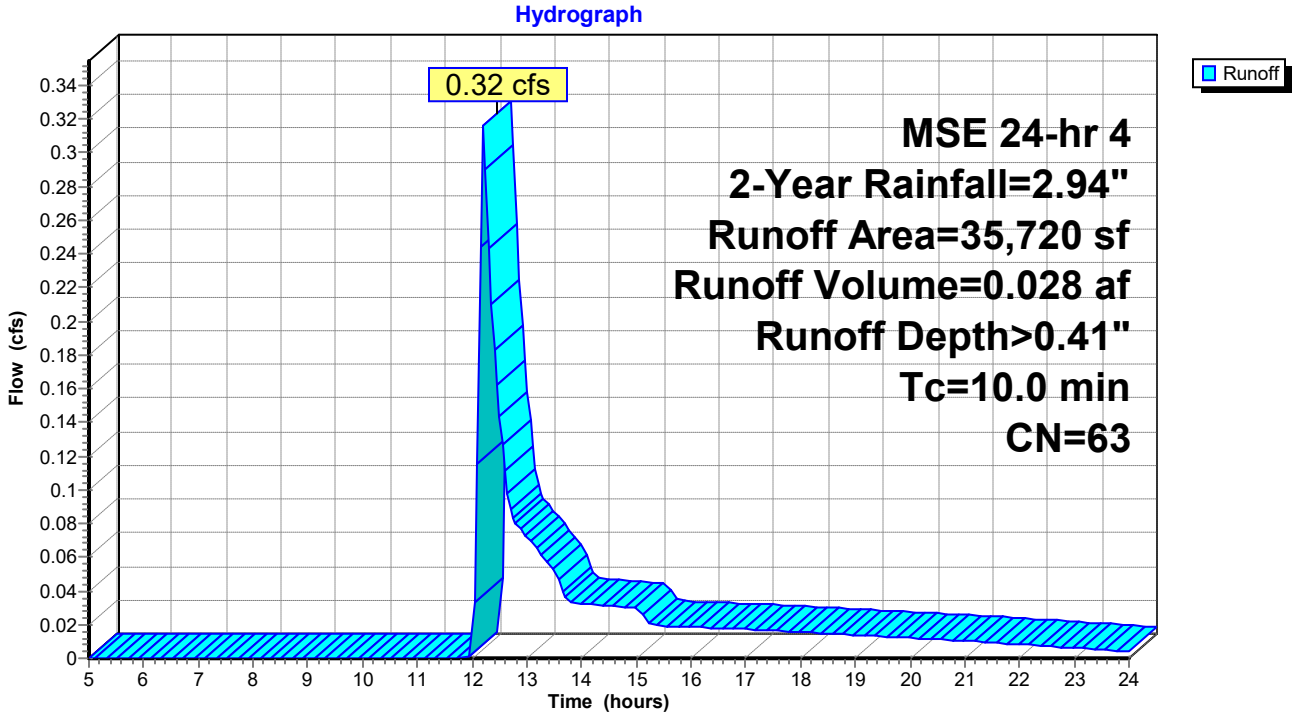
Runoff = 0.32 cfs @ 12.21 hrs, Volume= 0.028 af, Depth> 0.41"
Routed to Reach 1R : Street Storm System

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 2-Year Rainfall=2.94"

Area (sf)	CN	Description
21,110	39	>75% Grass cover, Good, HSG A
14,610	98	Paved parking, HSG A
35,720	63	Weighted Average
21,110		59.10% Pervious Area
14,610		40.90% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					**Direct Entry, Small Drainage Area**

Subcatchment 1E: Existing Site

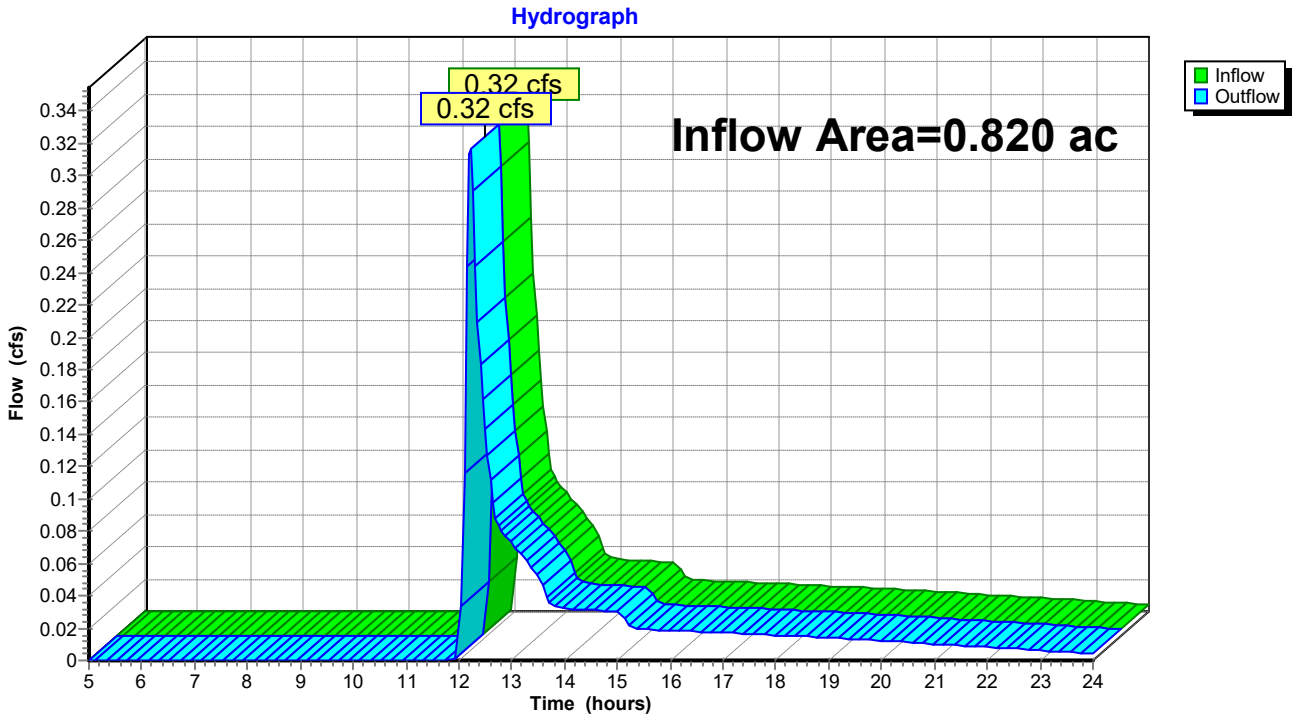


Summary for Reach 1R: Street Storm System

Inflow Area = 0.820 ac, 40.90% Impervious, Inflow Depth > 0.41" for 2-Year event
Inflow = 0.32 cfs @ 12.21 hrs, Volume= 0.028 af
Outflow = 0.32 cfs @ 12.21 hrs, Volume= 0.028 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs

Reach 1R: Street Storm System



Time span=5.00-24.00 hrs, dt=0.05 hrs, 381 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1E: Existing Site Runoff Area=35,720 sf 40.90% Impervious Runoff Depth>1.10"
Tc=10.0 min CN=63 Runoff=1.11 cfs 0.075 af

Reach 1R: Street Storm System Inflow=1.11 cfs 0.075 af
Outflow=1.11 cfs 0.075 af

Summary for Subcatchment 1E: Existing Site

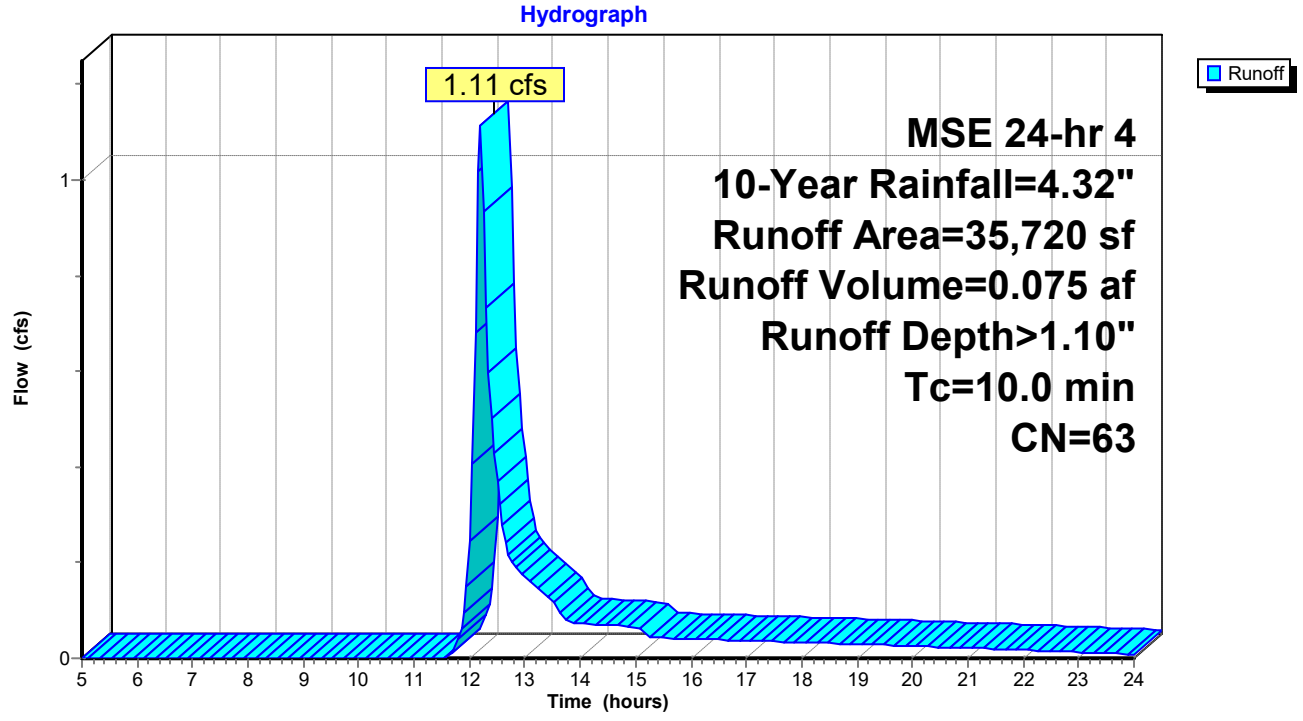
Runoff = 1.11 cfs @ 12.19 hrs, Volume= 0.075 af, Depth> 1.10"
Routed to Reach 1R : Street Storm System

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 10-Year Rainfall=4.32"

Area (sf)	CN	Description
21,110	39	>75% Grass cover, Good, HSG A
14,610	98	Paved parking, HSG A
35,720	63	Weighted Average
21,110		59.10% Pervious Area
14,610		40.90% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					**Direct Entry, Small Drainage Area**

Subcatchment 1E: Existing Site

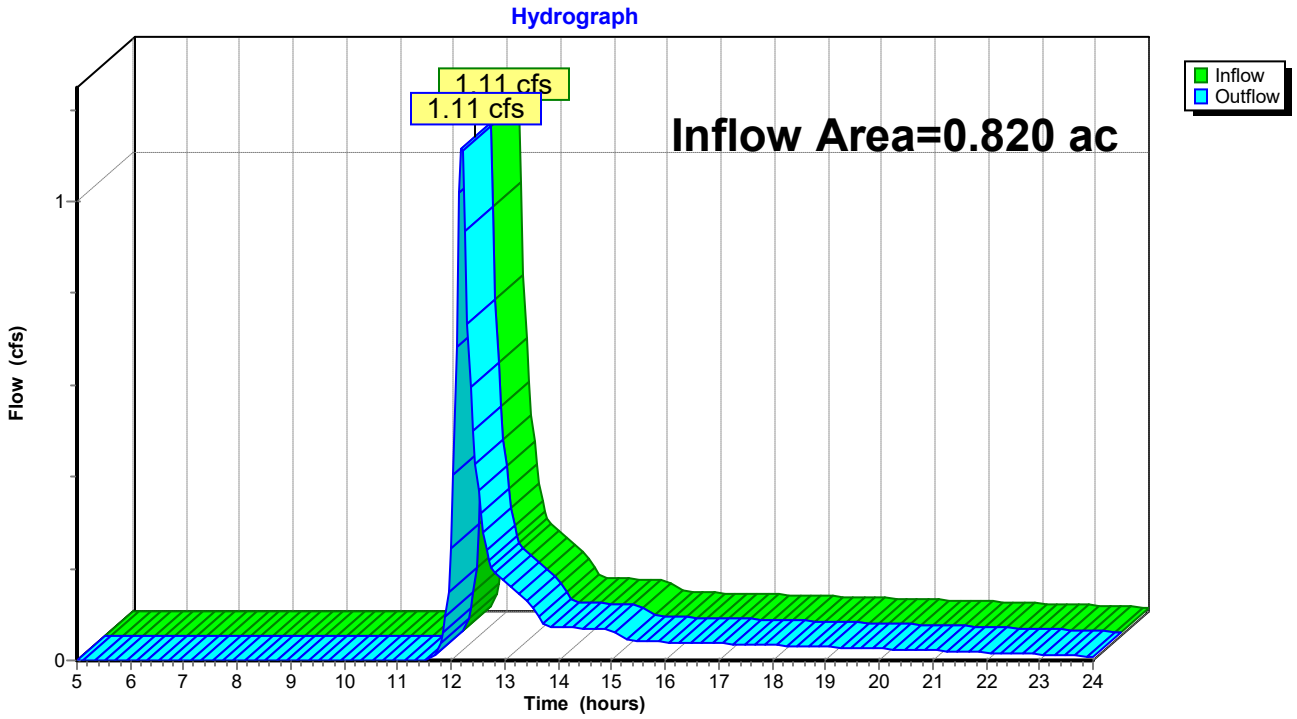


Summary for Reach 1R: Street Storm System

Inflow Area = 0.820 ac, 40.90% Impervious, Inflow Depth > 1.10" for 10-Year event
Inflow = 1.11 cfs @ 12.19 hrs, Volume= 0.075 af
Outflow = 1.11 cfs @ 12.19 hrs, Volume= 0.075 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs

Reach 1R: Street Storm System



Time span=5.00-24.00 hrs, dt=0.05 hrs, 381 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1E: Existing Site Runoff Area=35,720 sf 40.90% Impervious Runoff Depth>3.13"
Tc=10.0 min CN=63 Runoff=3.42 cfs 0.214 af

Reach 1R: Street Storm System Inflow=3.42 cfs 0.214 af
Outflow=3.42 cfs 0.214 af

Summary for Subcatchment 1E: Existing Site

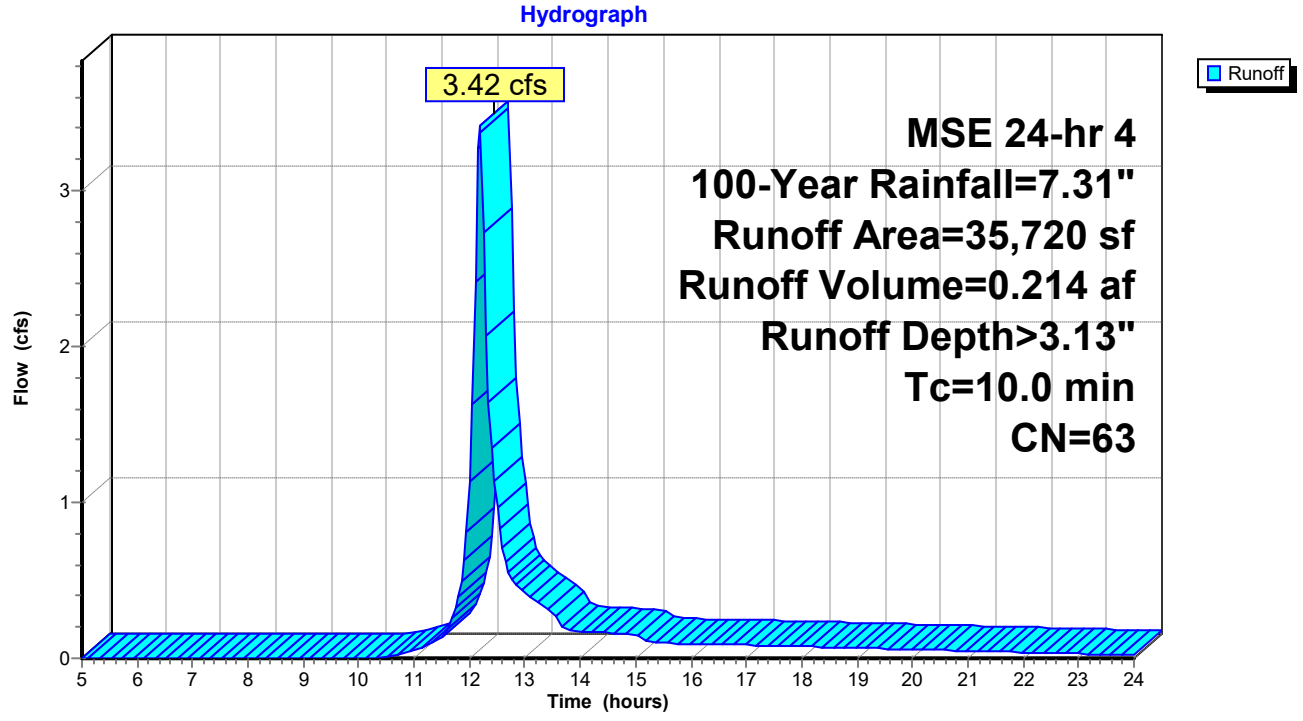
Runoff = 3.42 cfs @ 12.18 hrs, Volume= 0.214 af, Depth> 3.13"
Routed to Reach 1R : Street Storm System

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 100-Year Rainfall=7.31"

Area (sf)	CN	Description
21,110	39	>75% Grass cover, Good, HSG A
14,610	98	Paved parking, HSG A
35,720	63	Weighted Average
21,110		59.10% Pervious Area
14,610		40.90% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					**Direct Entry, Small Drainage Area**

Subcatchment 1E: Existing Site

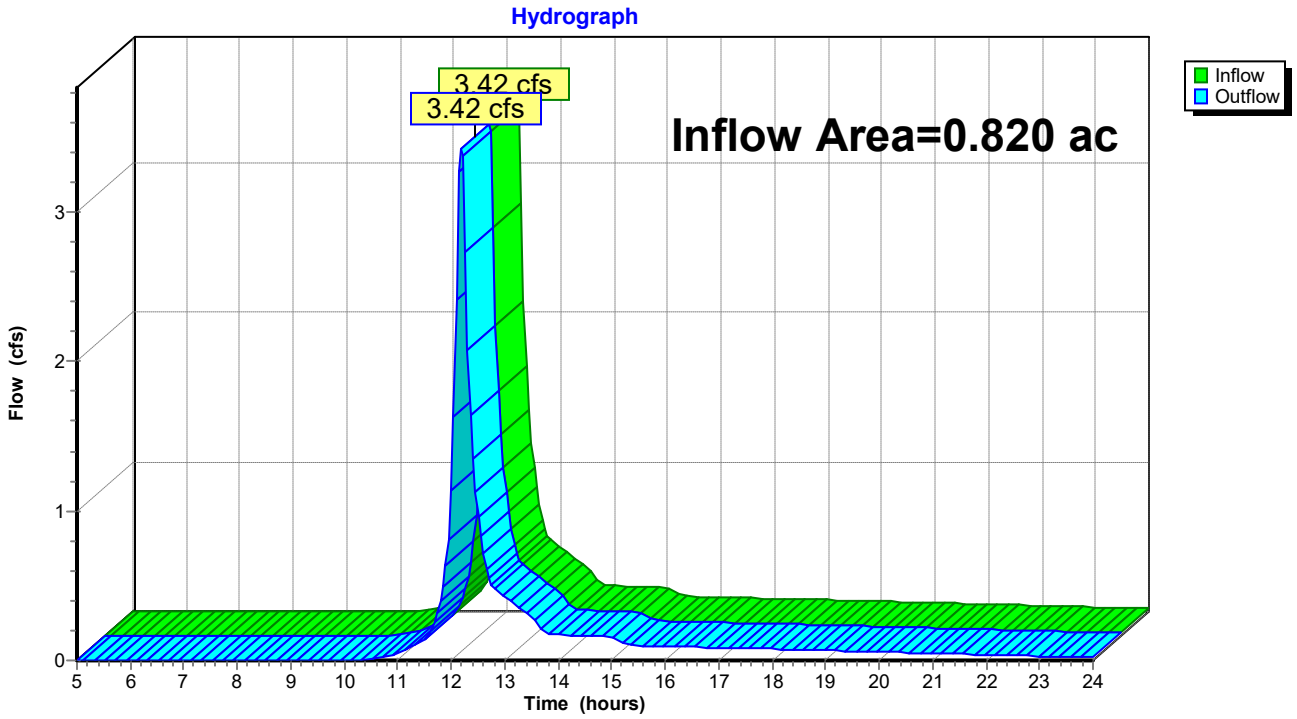


Summary for Reach 1R: Street Storm System

Inflow Area = 0.820 ac, 40.90% Impervious, Inflow Depth > 3.13" for 100-Year event
Inflow = 3.42 cfs @ 12.18 hrs, Volume= 0.214 af
Outflow = 3.42 cfs @ 12.18 hrs, Volume= 0.214 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs

Reach 1R: Street Storm System



Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.322	39	>75% Grass cover, Good, HSG A (1S, 2S, 3S, 4S)
0.435	98	Paved parking, HSG A (1S, 2S, 4S)
0.063	98	Roofs, HSG A (2S)

Soil Listing (selected nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.820	HSG A	1S, 2S, 3S, 4S
0.000	HSG B	
0.000	HSG C	
0.000	HSG D	
0.000	Other	

Ground Covers (selected nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.322	0.000	0.000	0.000	0.000	0.322	>75% Grass cover, Good	1S, 2S, 3S, 4S
0.435	0.000	0.000	0.000	0.000	0.435	Paved parking	1S, 2S, 4S
0.063	0.000	0.000	0.000	0.000	0.063	Roofs	2S

Pipe Listing (selected nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Width (inches)	Diam/Height (inches)	Inside-Fill (inches)	Node Name
1	4P	669.25	667.32	30.0	0.0643	0.012	0.0	12.0	0.0	

Time span=5.00-24.00 hrs, dt=0.05 hrs, 381 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: North Area Runoff Area=13,167 sf 68.38% Impervious Runoff Depth>1.14"
Tc=10.0 min CN=79 Runoff=0.46 cfs 0.029 af

Subcatchment 2S: South Area Runoff Area=14,779 sf 77.86% Impervious Runoff Depth>1.54"
Tc=10.0 min CN=85 Runoff=0.70 cfs 0.043 af

Subcatchment 3S: Pond Area Runoff Area=3,988 sf 0.00% Impervious Runoff Depth=0.00"
Tc=10.0 min CN=39 Runoff=0.00 cfs 0.000 af

Subcatchment 4S: Uncaptured Area Runoff Area=3,788 sf 31.05% Impervious Runoff Depth>0.23"
Tc=10.0 min CN=57 Runoff=0.01 cfs 0.002 af

Reach 10R: Street Storm System Inflow=0.11 cfs 0.022 af
Outflow=0.11 cfs 0.022 af

Pond 4P: Infiltration Pond Peak Elev=669.41' Storage=1,797 cf Inflow=1.15 cfs 0.072 af
Discarded=0.02 cfs 0.016 af Primary=0.10 cfs 0.020 af Secondary=0.00 cfs 0.000 af Outflow=0.12 cfs 0.036 af

Summary for Subcatchment 1S: North Area

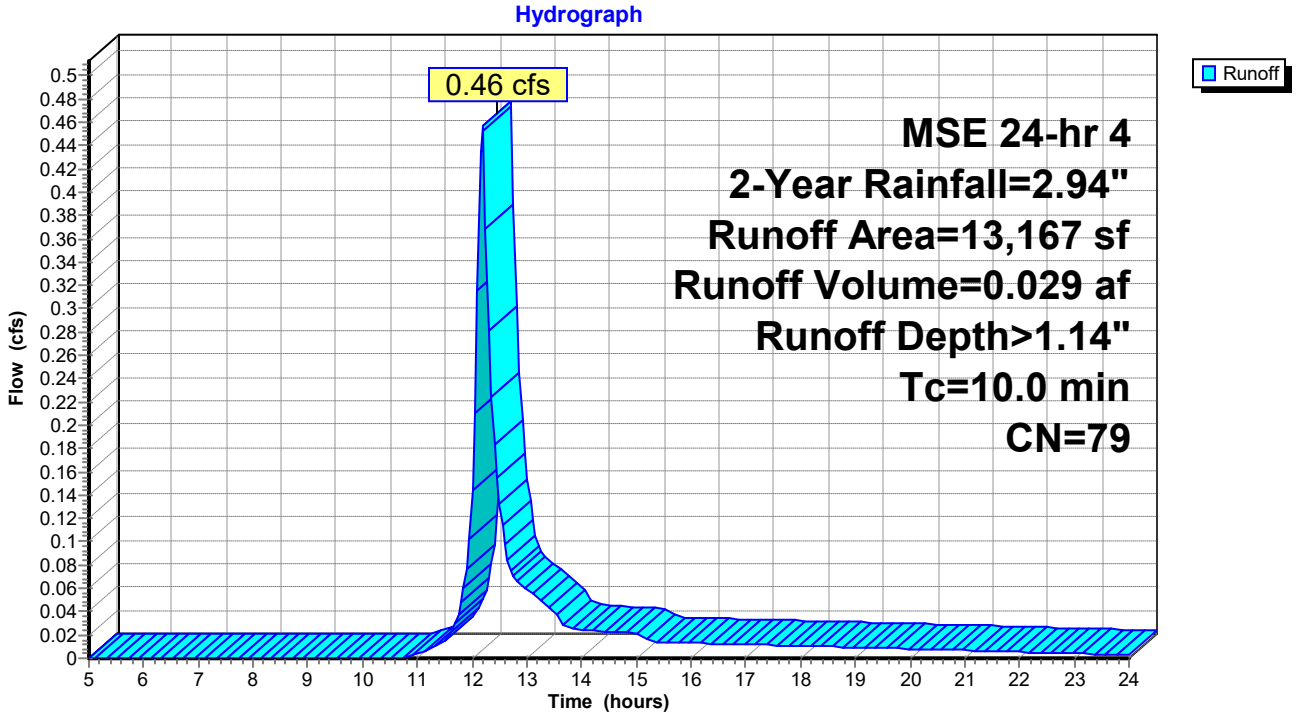
Runoff = 0.46 cfs @ 12.18 hrs, Volume= 0.029 af, Depth> 1.14"
Routed to Pond 4P : Infiltration Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 2-Year Rainfall=2.94"

Area (sf)	CN	Description
9,003	98	Paved parking, HSG A
4,164	39	>75% Grass cover, Good, HSG A
13,167	79	Weighted Average
4,164		31.62% Pervious Area
9,003		68.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					**Direct Entry, Small Drainage Area**

Subcatchment 1S: North Area



Summary for Subcatchment 2S: South Area

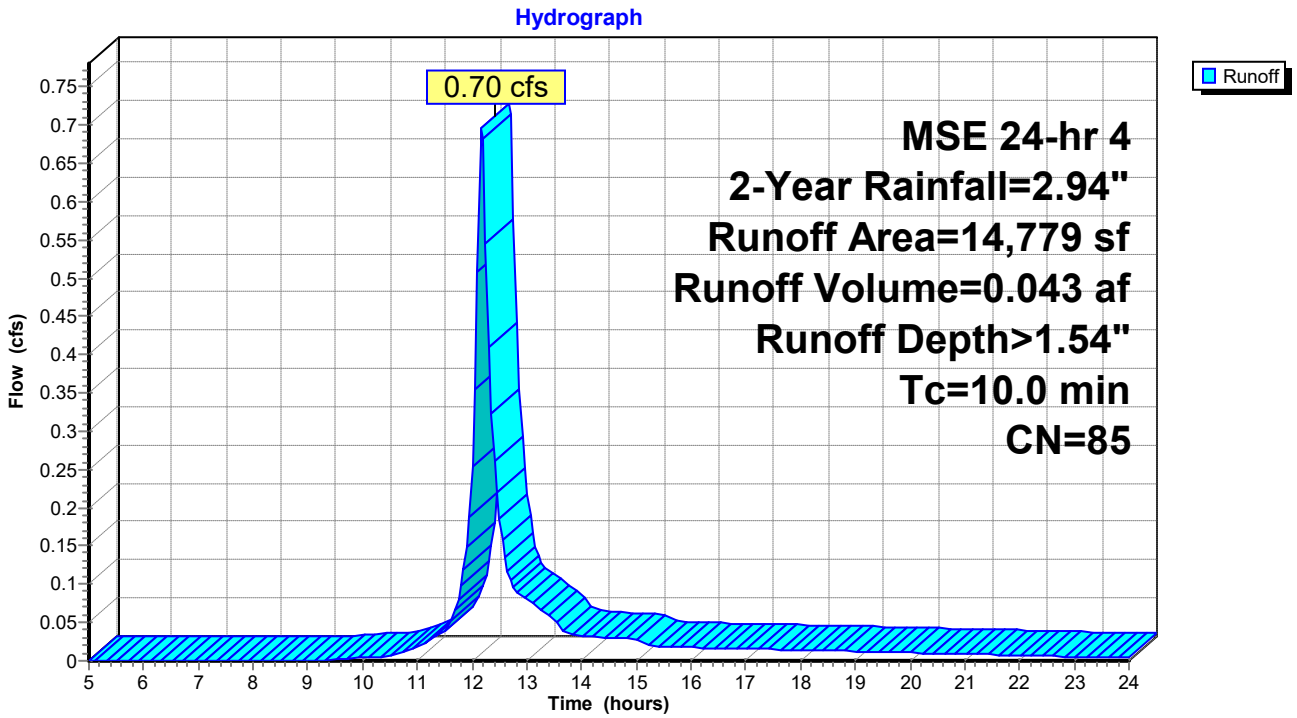
Runoff = 0.70 cfs @ 12.18 hrs, Volume= 0.043 af, Depth> 1.54"
Routed to Pond 4P : Infiltration Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 2-Year Rainfall=2.94"

Area (sf)	CN	Description
2,735	98	Roofs, HSG A
8,772	98	Paved parking, HSG A
3,272	39	>75% Grass cover, Good, HSG A
14,779	85	Weighted Average
3,272		22.14% Pervious Area
11,507		77.86% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					**Direct Entry, Small Drainage Area**

Subcatchment 2S: South Area



Summary for Subcatchment 3S: Pond Area

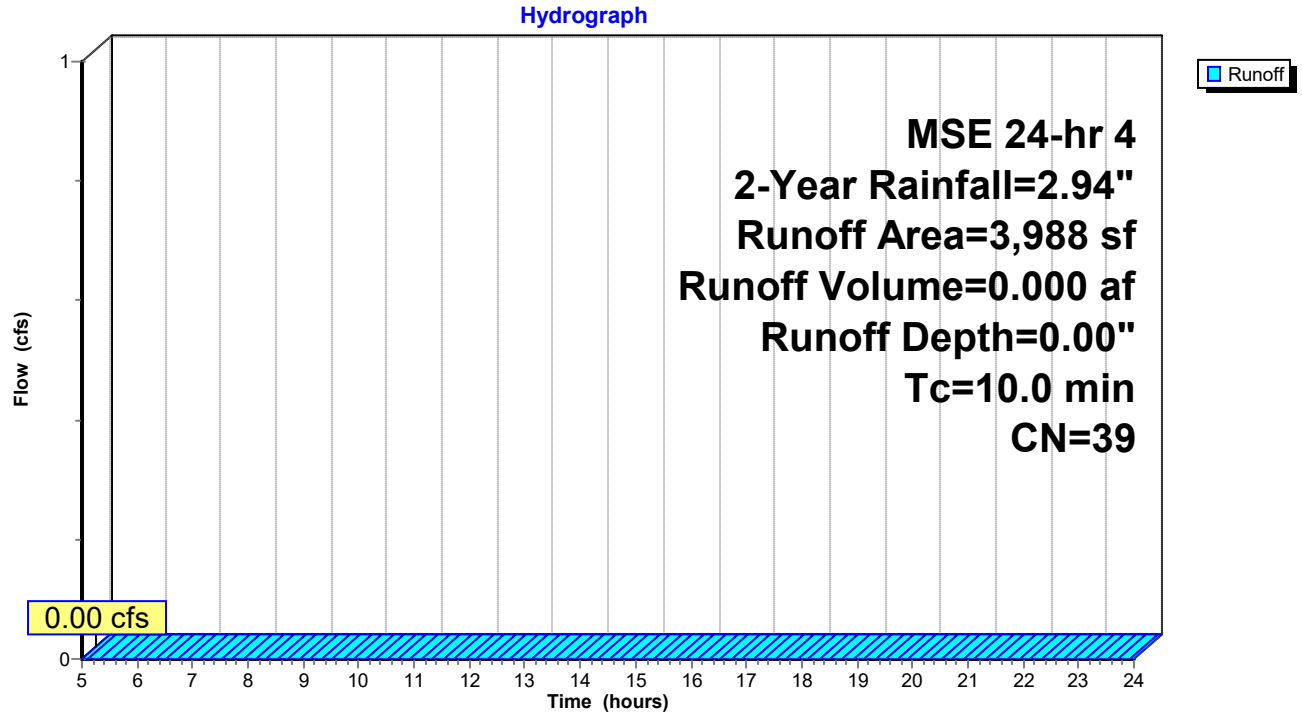
Runoff = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Depth= 0.00"
Routed to Pond 4P : Infiltration Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 2-Year Rainfall=2.94"

Area (sf)	CN	Description
3,988	39	>75% Grass cover, Good, HSG A
3,988		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					**Direct Entry, Small Drainge Area**

Subcatchment 3S: Pond Area



Summary for Subcatchment 4S: Uncaptured Area

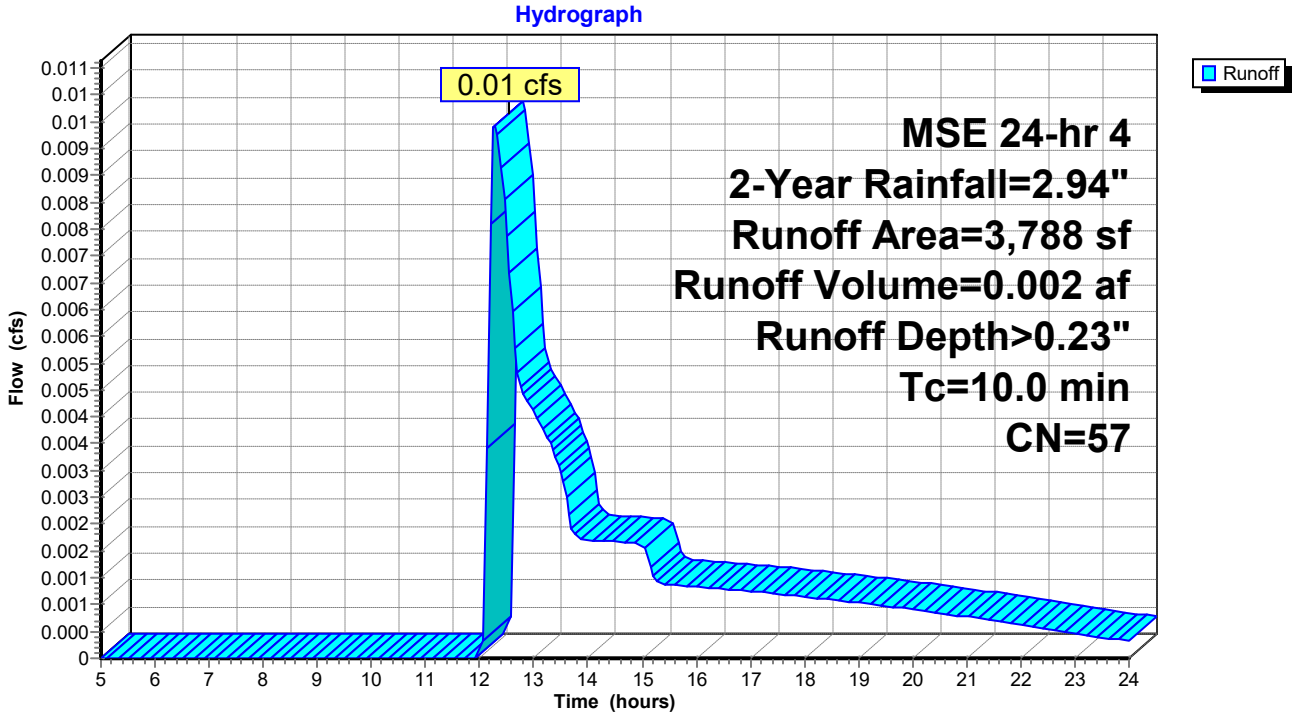
Runoff = 0.01 cfs @ 12.28 hrs, Volume= 0.002 af, Depth> 0.23"
Routed to Reach 10R : Street Storm System

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 2-Year Rainfall=2.94"

Area (sf)	CN	Description
1,176	98	Paved parking, HSG A
2,612	39	>75% Grass cover, Good, HSG A
3,788	57	Weighted Average
2,612		68.95% Pervious Area
1,176		31.05% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					**Direct Entry, Small Drainage Area**

Subcatchment 4S: Uncaptured Area

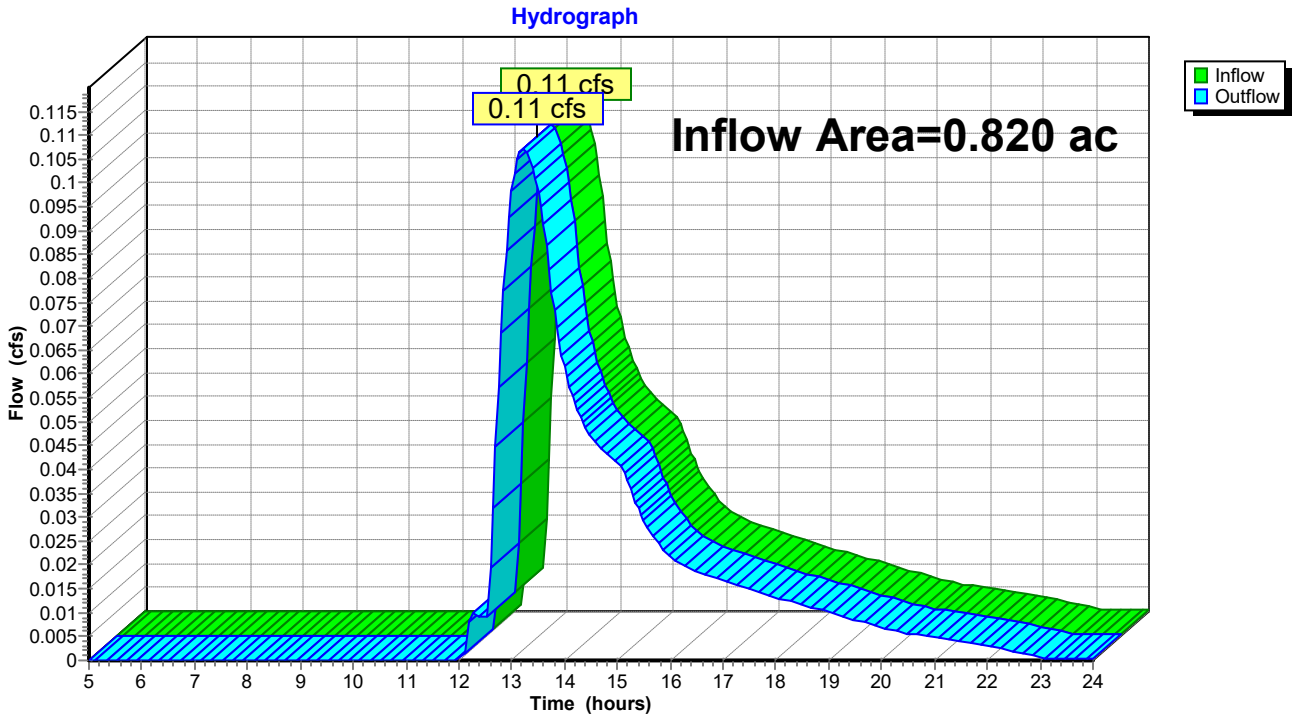


Summary for Reach 10R: Street Storm System

Inflow Area = 0.820 ac, 60.71% Impervious, Inflow Depth > 0.32" for 2-Year event
Inflow = 0.11 cfs @ 13.22 hrs, Volume= 0.022 af
Outflow = 0.11 cfs @ 13.22 hrs, Volume= 0.022 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs

Reach 10R: Street Storm System



Summary for Pond 4P: Infiltration Pond

Inflow Area = 0.733 ac, 64.23% Impervious, Inflow Depth > 1.18" for 2-Year event
Inflow = 1.15 cfs @ 12.18 hrs, Volume= 0.072 af
Outflow = 0.12 cfs @ 13.23 hrs, Volume= 0.036 af, Atten= 90%, Lag= 62.8 min
Discarded = 0.02 cfs @ 13.23 hrs, Volume= 0.016 af
Primary = 0.10 cfs @ 13.23 hrs, Volume= 0.020 af
Routed to Reach 10R : Street Storm System
Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af
Routed to Reach 10R : Street Storm System

Routing by Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 669.41' @ 13.23 hrs Surf.Area= 1,338 sf Storage= 1,797 cf

Plug-Flow detention time= 242.3 min calculated for 0.036 af (50% of inflow)
Center-of-Mass det. time= 141.6 min (967.8 - 826.2)

Volume	Invert	Avail.Storage	Storage Description
#1	667.50'	4,496 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
667.50	540	0	0
670.00	1,583	2,654	2,654
671.00	2,102	1,843	4,496

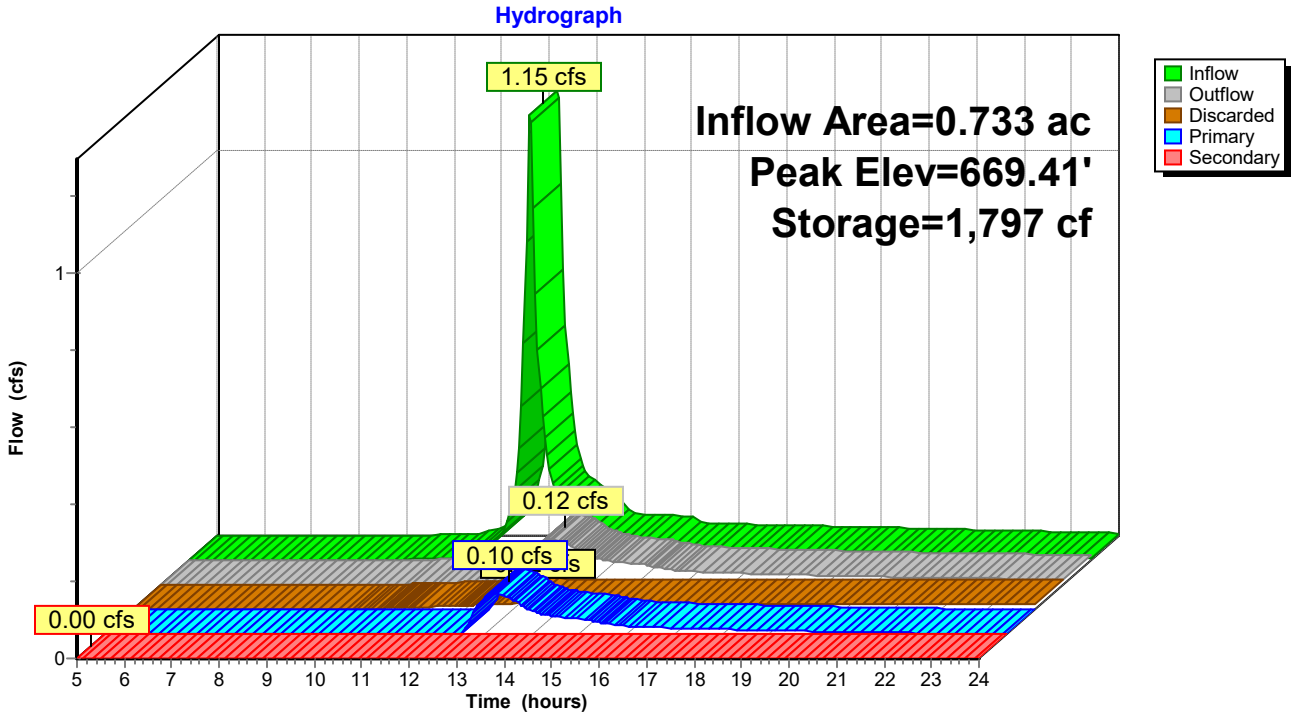
Device	Routing	Invert	Outlet Devices
#1	Secondary	670.80'	**4.0' long x 4.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32
#2	Primary	669.25'	**12.0" Round RCP_Round 12"** L= 30.0' RCP, mitered to conform to fill, Ke= 0.700 Inlet / Outlet Invert= 669.25' / 667.32' S= 0.0643 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf
#3	Discarded	667.50'	**0.500 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 620.00'

Discarded OutFlow Max=0.02 cfs @ 13.23 hrs HW=669.41' (Free Discharge)
3=Exfiltration (Controls 0.02 cfs)

Primary OutFlow Max=0.10 cfs @ 13.23 hrs HW=669.41' (Free Discharge)
2=RCP_Round 12" (Inlet Controls 0.10 cfs @ 1.22 fps)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=667.50' (Free Discharge)
1=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond 4P: Infiltration Pond



Time span=5.00-24.00 hrs, dt=0.05 hrs, 381 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: North Area Runoff Area=13,167 sf 68.38% Impervious Runoff Depth>2.22"
Tc=10.0 min CN=79 Runoff=0.90 cfs 0.056 af

Subcatchment 2S: South Area Runoff Area=14,779 sf 77.86% Impervious Runoff Depth>2.74"
Tc=10.0 min CN=85 Runoff=1.23 cfs 0.078 af

Subcatchment 3S: Pond Area Runoff Area=3,988 sf 0.00% Impervious Runoff Depth>0.08"
Tc=10.0 min CN=39 Runoff=0.00 cfs 0.001 af

Subcatchment 4S: Uncaptured Area Runoff Area=3,788 sf 31.05% Impervious Runoff Depth>0.76"
Tc=10.0 min CN=57 Runoff=0.07 cfs 0.006 af

Reach 10R: Street Storm System Inflow=1.02 cfs 0.085 af
Outflow=1.02 cfs 0.085 af

Pond 4P: Infiltration Pond Peak Elev=669.80' Storage=2,340 cf Inflow=2.13 cfs 0.134 af
Discarded=0.02 cfs 0.017 af Primary=0.97 cfs 0.080 af Secondary=0.00 cfs 0.000 af Outflow=0.99 cfs 0.097 af

Summary for Subcatchment 1S: North Area

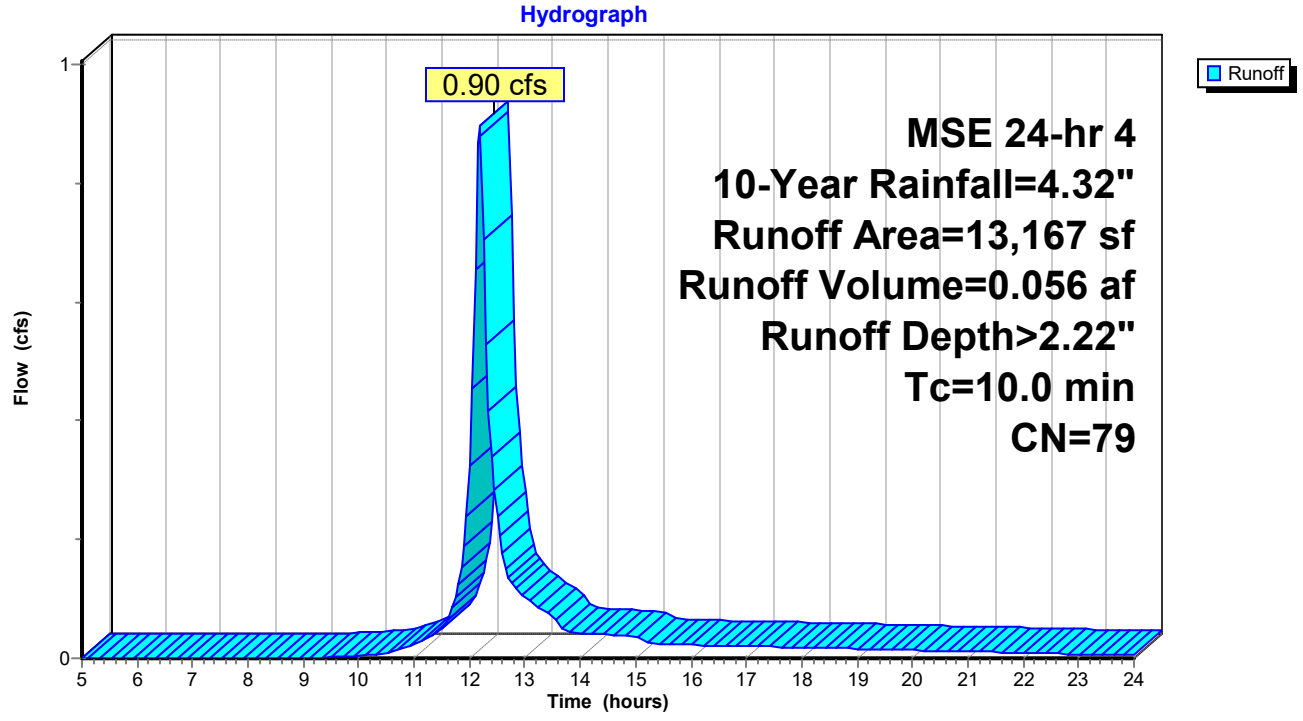
Runoff = 0.90 cfs @ 12.18 hrs, Volume= 0.056 af, Depth> 2.22"
Routed to Pond 4P : Infiltration Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 10-Year Rainfall=4.32"

Area (sf)	CN	Description
9,003	98	Paved parking, HSG A
4,164	39	>75% Grass cover, Good, HSG A
13,167	79	Weighted Average
4,164		31.62% Pervious Area
9,003		68.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					**Direct Entry, Small Drainage Area**

Subcatchment 1S: North Area



Summary for Subcatchment 2S: South Area

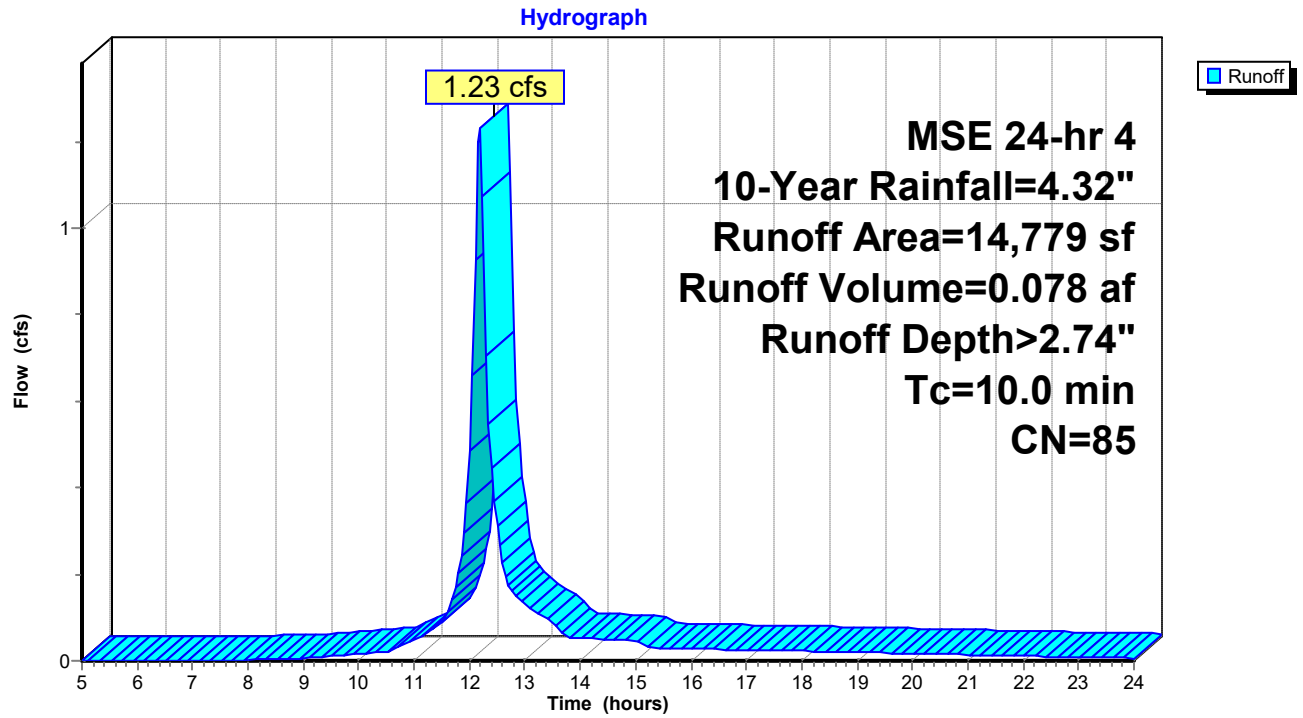
Runoff = 1.23 cfs @ 12.17 hrs, Volume= 0.078 af, Depth> 2.74"
Routed to Pond 4P : Infiltration Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 10-Year Rainfall=4.32"

Area (sf)	CN	Description
2,735	98	Roofs, HSG A
8,772	98	Paved parking, HSG A
3,272	39	>75% Grass cover, Good, HSG A
14,779	85	Weighted Average
3,272		22.14% Pervious Area
11,507		77.86% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					**Direct Entry, Small Drainage Area**

Subcatchment 2S: South Area



Summary for Subcatchment 3S: Pond Area

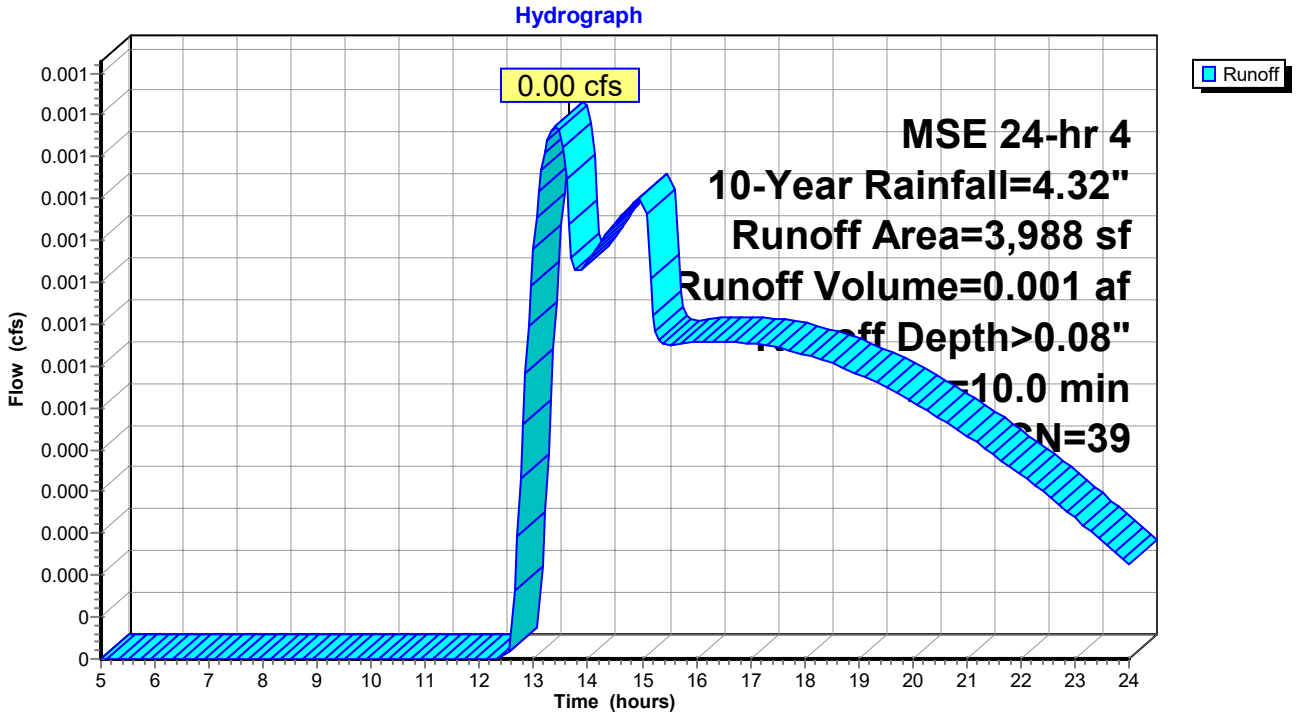
Runoff = 0.00 cfs @ 13.39 hrs, Volume= 0.001 af, Depth> 0.08"
Routed to Pond 4P : Infiltration Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 10-Year Rainfall=4.32"

Area (sf)	CN	Description
3,988	39	>75% Grass cover, Good, HSG A
3,988		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					**Direct Entry, Small Drainge Area**

Subcatchment 3S: Pond Area



Summary for Subcatchment 4S: Uncaptured Area

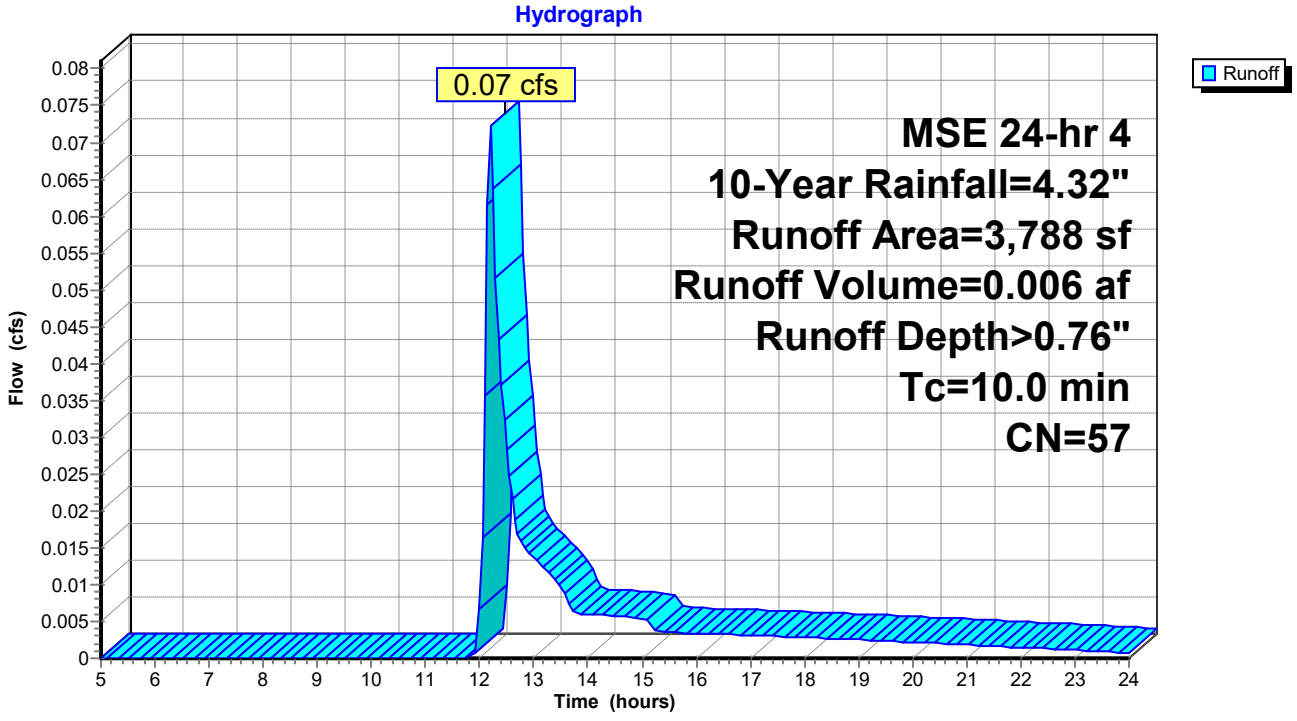
Runoff = 0.07 cfs @ 12.20 hrs, Volume= 0.006 af, Depth> 0.76"
Routed to Reach 10R : Street Storm System

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 10-Year Rainfall=4.32"

Area (sf)	CN	Description
1,176	98	Paved parking, HSG A
2,612	39	>75% Grass cover, Good, HSG A
3,788	57	Weighted Average
2,612		68.95% Pervious Area
1,176		31.05% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					**Direct Entry, Small Drainage Area**

Subcatchment 4S: Uncaptured Area

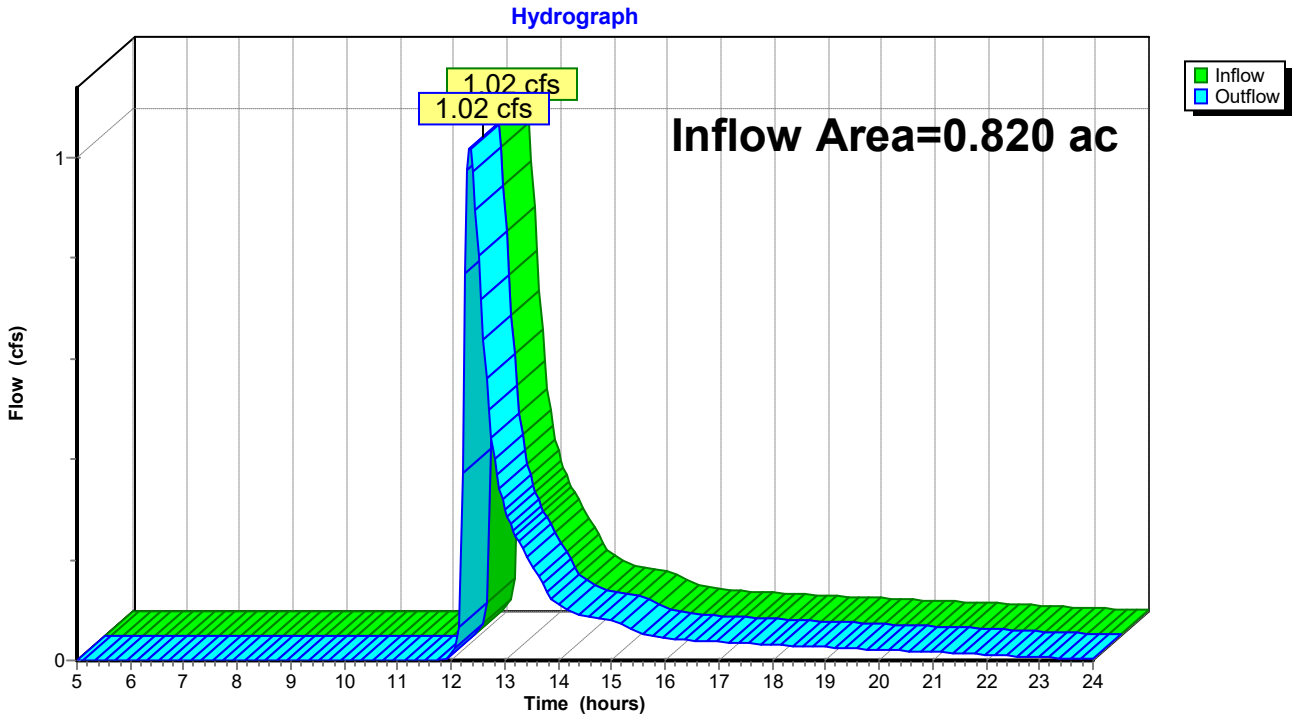


Summary for Reach 10R: Street Storm System

Inflow Area = 0.820 ac, 60.71% Impervious, Inflow Depth > 1.25" for 10-Year event
Inflow = 1.02 cfs @ 12.35 hrs, Volume= 0.085 af
Outflow = 1.02 cfs @ 12.35 hrs, Volume= 0.085 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs

Reach 10R: Street Storm System



Summary for Pond 4P: Infiltration Pond

Inflow Area = 0.733 ac, 64.23% Impervious, Inflow Depth > 2.20" for 10-Year event
Inflow = 2.13 cfs @ 12.18 hrs, Volume= 0.134 af
Outflow = 0.99 cfs @ 12.35 hrs, Volume= 0.097 af, Atten= 53%, Lag= 10.6 min
Discarded = 0.02 cfs @ 12.35 hrs, Volume= 0.017 af
Primary = 0.97 cfs @ 12.35 hrs, Volume= 0.080 af
Routed to Reach 10R : Street Storm System
Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af
Routed to Reach 10R : Street Storm System

Routing by Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 669.80' @ 12.35 hrs Surf.Area= 1,498 sf Storage= 2,340 cf

Plug-Flow detention time= 142.1 min calculated for 0.097 af (72% of inflow)
Center-of-Mass det. time= 62.1 min (875.0 - 812.9)

Volume	Invert	Avail.Storage	Storage Description
#1	667.50'	4,496 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
667.50	540	0	0
670.00	1,583	2,654	2,654
671.00	2,102	1,843	4,496

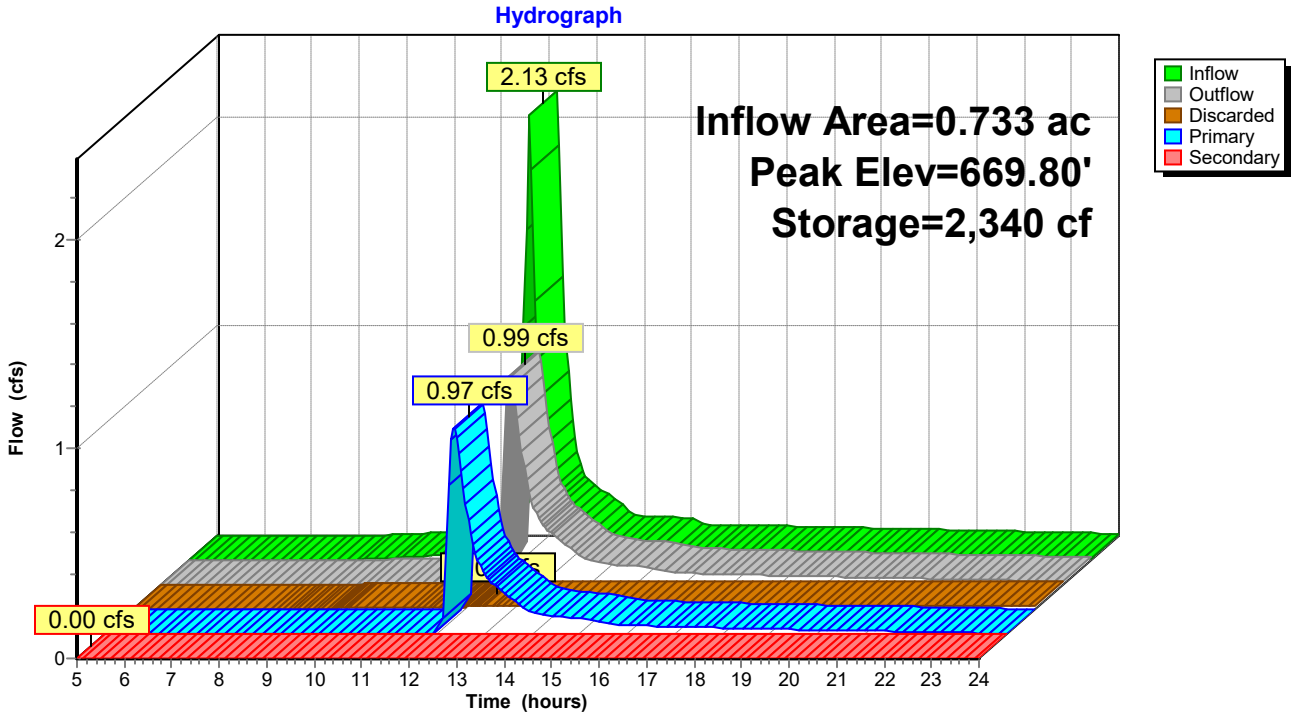
Device	Routing	Invert	Outlet Devices
#1	Secondary	670.80'	**4.0' long x 4.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32
#2	Primary	669.25'	**12.0" Round RCP_Round 12"** L= 30.0' RCP, mitered to conform to fill, Ke= 0.700 Inlet / Outlet Invert= 669.25' / 667.32' S= 0.0643 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf
#3	Discarded	667.50'	**0.500 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 620.00'

Discarded OutFlow Max=0.02 cfs @ 12.35 hrs HW=669.80' (Free Discharge)
↑—**3=Exfiltration** (Controls 0.02 cfs)

Primary OutFlow Max=0.97 cfs @ 12.35 hrs HW=669.80' (Free Discharge)
↑—**2=RCP_Round 12"** (Inlet Controls 0.97 cfs @ 2.22 fps)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=667.50' (Free Discharge)
↑—**1=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 4P: Infiltration Pond



Time span=5.00-24.00 hrs, dt=0.05 hrs, 381 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: North Area Runoff Area=13,167 sf 68.38% Impervious Runoff Depth>4.87"
Tc=10.0 min CN=79 Runoff=1.94 cfs 0.123 af

Subcatchment 2S: South Area Runoff Area=14,779 sf 77.86% Impervious Runoff Depth>5.55"
Tc=10.0 min CN=85 Runoff=2.41 cfs 0.157 af

Subcatchment 3S: Pond Area Runoff Area=3,988 sf 0.00% Impervious Runoff Depth>0.88"
Tc=10.0 min CN=39 Runoff=0.07 cfs 0.007 af

Subcatchment 4S: Uncaptured Area Runoff Area=3,788 sf 31.05% Impervious Runoff Depth>2.52"
Tc=10.0 min CN=57 Runoff=0.29 cfs 0.018 af

Reach 10R: Street Storm System Inflow=3.14 cfs 0.247 af
Outflow=3.14 cfs 0.247 af

Pond 4P: Infiltration Pond Peak Elev=670.51' Storage=3,537 cf Inflow=4.41 cfs 0.286 af
Discarded=0.02 cfs 0.020 af Primary=2.92 cfs 0.228 af Secondary=0.00 cfs 0.000 af Outflow=2.94 cfs 0.248 af

Summary for Subcatchment 1S: North Area

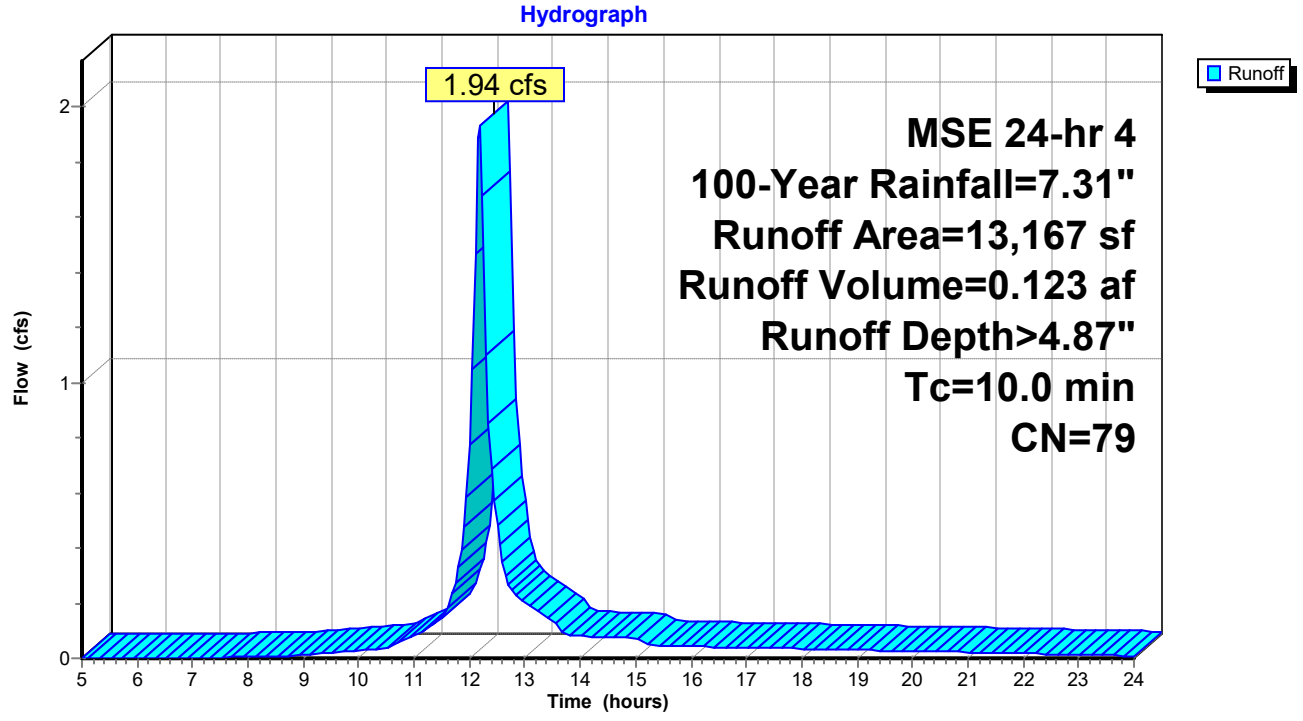
Runoff = 1.94 cfs @ 12.17 hrs, Volume= 0.123 af, Depth> 4.87"
Routed to Pond 4P : Infiltration Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 100-Year Rainfall=7.31"

Area (sf)	CN	Description
9,003	98	Paved parking, HSG A
4,164	39	>75% Grass cover, Good, HSG A
13,167	79	Weighted Average
4,164		31.62% Pervious Area
9,003		68.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					**Direct Entry, Small Drainage Area**

Subcatchment 1S: North Area



Summary for Subcatchment 2S: South Area

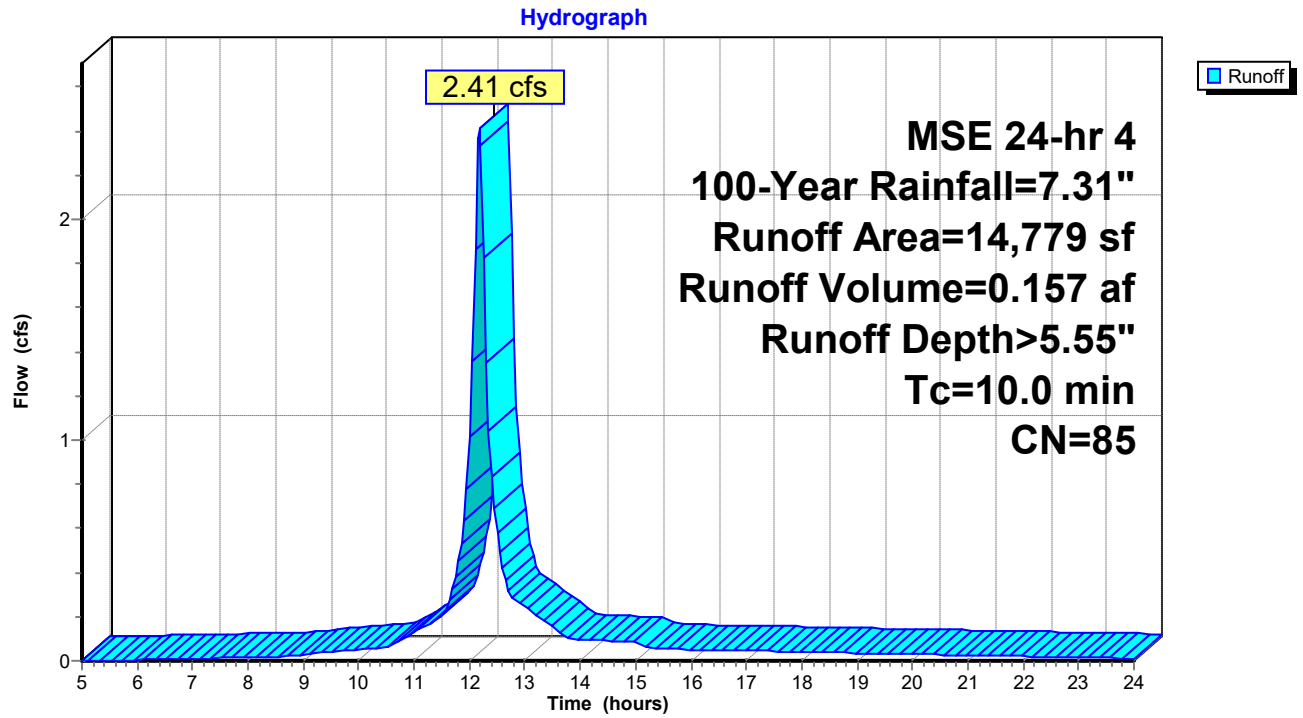
Runoff = 2.41 cfs @ 12.17 hrs, Volume= 0.157 af, Depth> 5.55"
Routed to Pond 4P : Infiltration Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 100-Year Rainfall=7.31"

Area (sf)	CN	Description
2,735	98	Roofs, HSG A
8,772	98	Paved parking, HSG A
3,272	39	>75% Grass cover, Good, HSG A
14,779	85	Weighted Average
3,272		22.14% Pervious Area
11,507		77.86% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					**Direct Entry, Small Drainage Area**

Subcatchment 2S: South Area



Summary for Subcatchment 3S: Pond Area

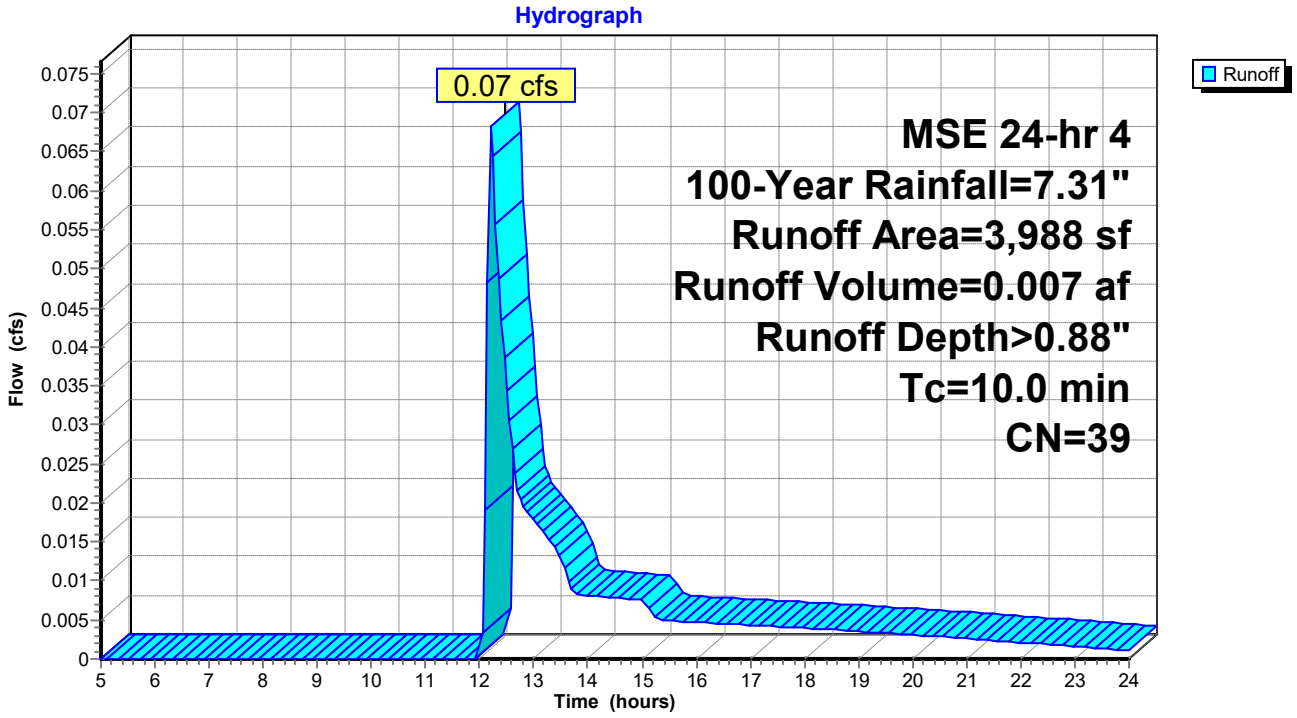
Runoff = 0.07 cfs @ 12.22 hrs, Volume= 0.007 af, Depth> 0.88"
Routed to Pond 4P : Infiltration Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 100-Year Rainfall=7.31"

Area (sf)	CN	Description
3,988	39	>75% Grass cover, Good, HSG A
3,988		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					**Direct Entry, Small Drainge Area**

Subcatchment 3S: Pond Area



Summary for Subcatchment 4S: Uncaptured Area

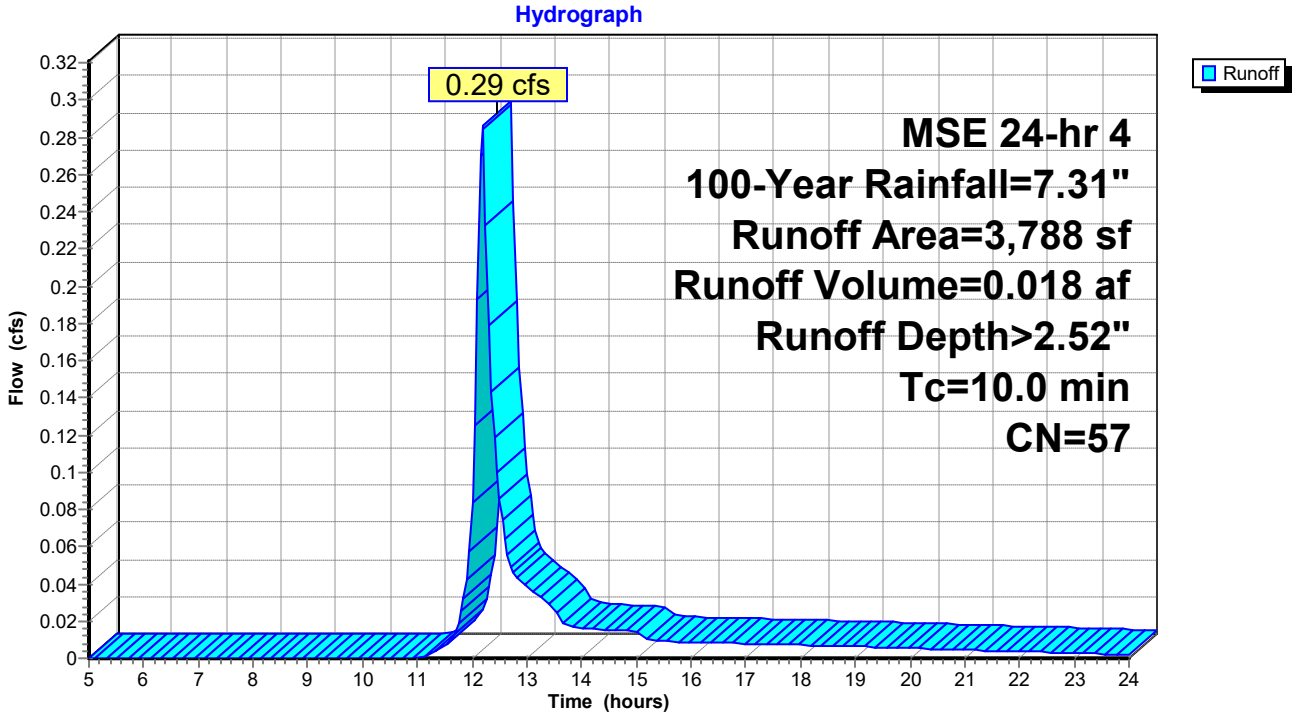
Runoff = 0.29 cfs @ 12.19 hrs, Volume= 0.018 af, Depth> 2.52"
Routed to Reach 10R : Street Storm System

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 100-Year Rainfall=7.31"

Area (sf)	CN	Description
1,176	98	Paved parking, HSG A
2,612	39	>75% Grass cover, Good, HSG A
3,788	57	Weighted Average
2,612		68.95% Pervious Area
1,176		31.05% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					**Direct Entry, Small Drainage Area**

Subcatchment 4S: Uncaptured Area

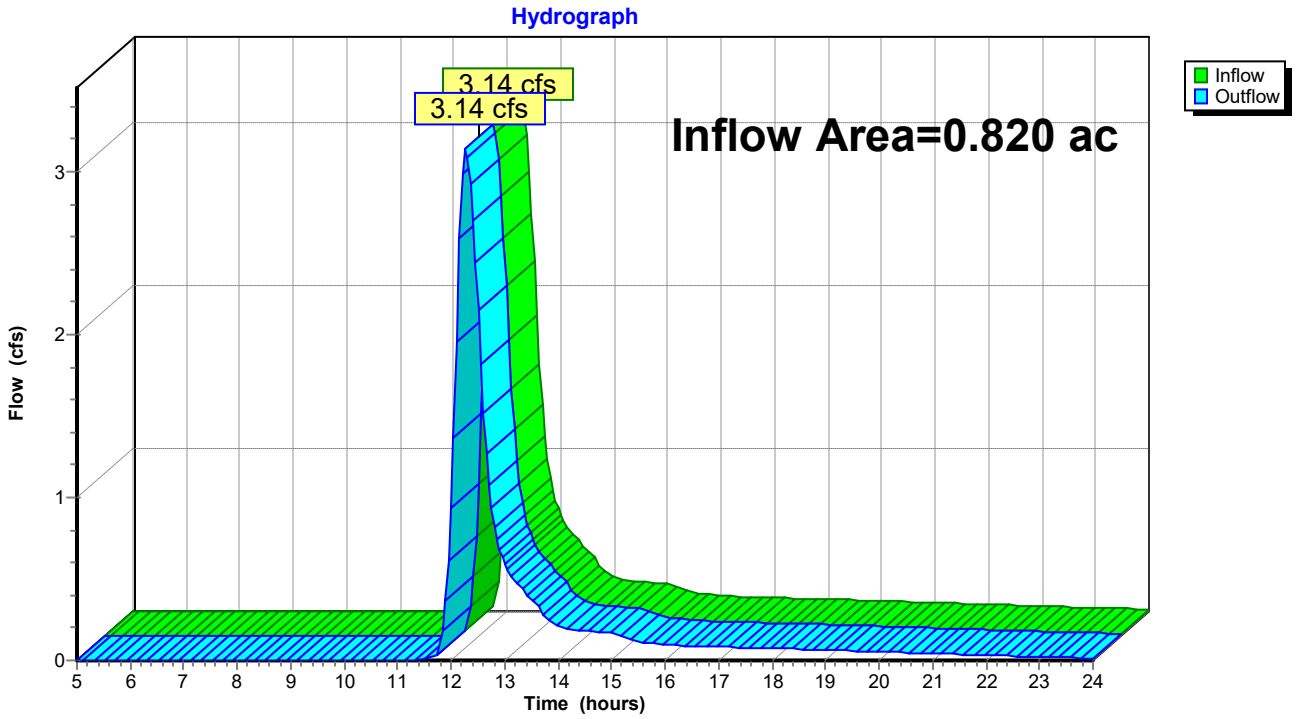


Summary for Reach 10R: Street Storm System

Inflow Area = 0.820 ac, 60.71% Impervious, Inflow Depth > 3.61" for 100-Year event
Inflow = 3.14 cfs @ 12.26 hrs, Volume= 0.247 af
Outflow = 3.14 cfs @ 12.26 hrs, Volume= 0.247 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs

Reach 10R: Street Storm System



Summary for Pond 4P: Infiltration Pond

Inflow Area = 0.733 ac, 64.23% Impervious, Inflow Depth > 4.68" for 100-Year event
Inflow = 4.41 cfs @ 12.17 hrs, Volume= 0.286 af
Outflow = 2.94 cfs @ 12.28 hrs, Volume= 0.248 af, Atten= 33%, Lag= 6.1 min
Discarded = 0.02 cfs @ 12.28 hrs, Volume= 0.020 af
Primary = 2.92 cfs @ 12.28 hrs, Volume= 0.228 af
Routed to Reach 10R : Street Storm System
Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af
Routed to Reach 10R : Street Storm System

Routing by Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 670.51' @ 12.28 hrs Surf.Area= 1,850 sf Storage= 3,537 cf

Plug-Flow detention time= 90.8 min calculated for 0.248 af (87% of inflow)
Center-of-Mass det. time= 36.4 min (833.7 - 797.2)

Volume	Invert	Avail.Storage	Storage Description
#1	667.50'	4,496 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
667.50	540	0	0
670.00	1,583	2,654	2,654
671.00	2,102	1,843	4,496

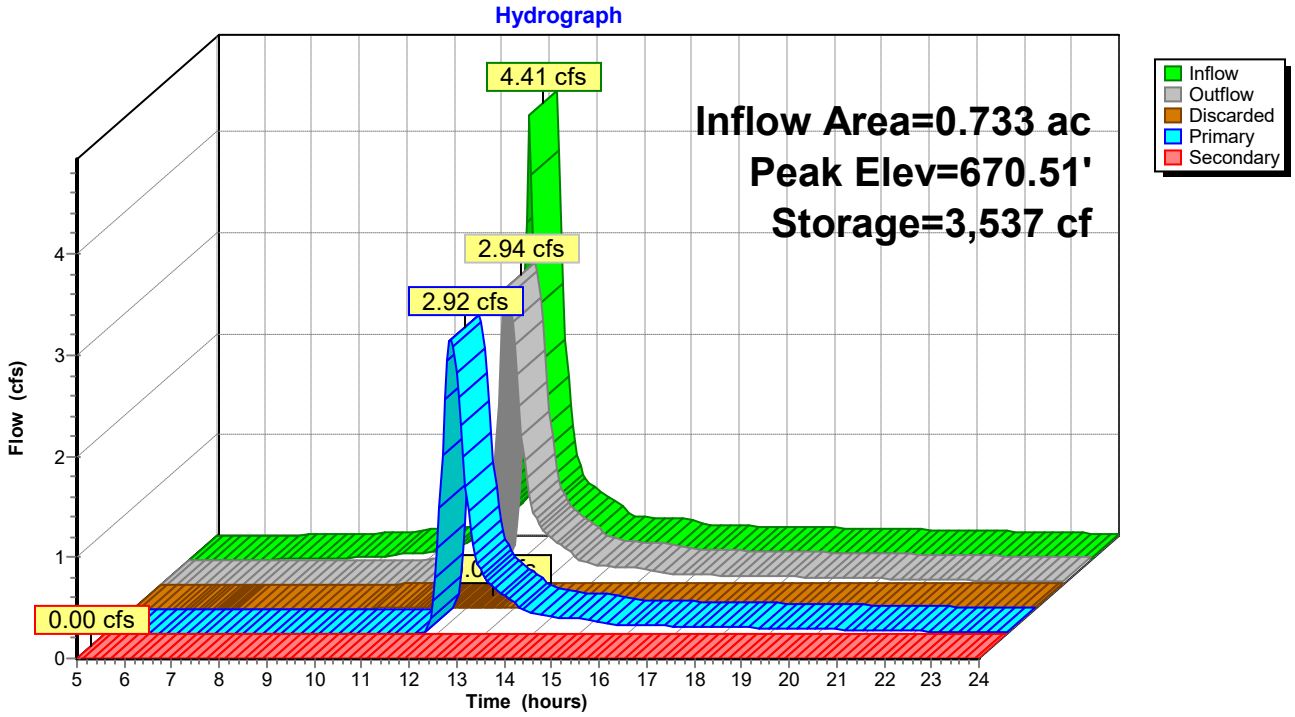
Device	Routing	Invert	Outlet Devices
#1	Secondary	670.80'	**4.0' long x 4.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32
#2	Primary	669.25'	**12.0" Round RCP_Round 12"** L= 30.0' RCP, mitered to conform to fill, Ke= 0.700 Inlet / Outlet Invert= 669.25' / 667.32' S= 0.0643 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf
#3	Discarded	667.50'	**0.500 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 620.00'

Discarded OutFlow Max=0.02 cfs @ 12.28 hrs HW=670.51' (Free Discharge)
3=Exfiltration (Controls 0.02 cfs)

Primary OutFlow Max=2.90 cfs @ 12.28 hrs HW=670.51' (Free Discharge)
2=RCP_Round 12" (Inlet Controls 2.90 cfs @ 3.70 fps)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=667.50' (Free Discharge)
1=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond 4P: Infiltration Pond



Chosen Valley Testing, Inc.

Design Phase Geotechnical Report:

New Mayo Employees Federal Credit Union
605 West Ave S
La Crosse, Wisconsin
CVT# 26630.25.WIL

Prepared for:

Susan Palen
Mayo Employees Federal Credit Union

Certification:

I hereby certify that this report was prepared by me or under my direct supervision, and that I am a duly Licensed Professional Engineer under the laws of the State of Wisconsin.

Devin M. Ehler, PE
Geotechnical Engineer
Registration Number 44630
Date: March 11, 2026

Chosen Valley Testing, Inc.

Geotechnical Engineering & Testing • 1019 2nd Ave. SW, Onalaska, WI 54650 • Telephone (608) 782-5505 • E-mail lacrosse@cvtesting.com

Susan Palen
Mayo Employees Federal Credit Union
130 23rd Avenue SW
Rochester, MN 55902

March 11, 2026

cc: Sam Challe
HTG Architects
1010 Mainstreet, Suite 100
Hopkins, MN 55343
schalle@htg-architects.com

Re: Design Phase Geotechnical Evaluation
Proposed New Mayo Employees Federal Credit Union
605 West Avenue S
La Crosse, Wisconsin
CVT Project 26630.25.WIL

Dear Ms. Palen,

As authorized, we have completed the geotechnical evaluation for the proposed New Mayo Employees Federal Credit Union in La Crosse, Wisconsin. This letter briefly summarizes the findings, analysis, and recommendations in the attached report.

Summary of Boring Results

The borings drilled in the existing paved areas encountered between 3 and 4 inches of asphalt over 5 to 7½ inches of aggregate base. The stormwater and parking lot borings drilled in the green areas on the north and south ends of the site met approximately ½ to 2 ½ feet of topsoil. Fill materials followed in the western building borings, north stormwater boring, and south parking lot boring to depths of roughly 6 ½ to 7 ½ feet, with the exception of the south parking lot boring terminated around 2 ½ feet due to refusal of auger advancement on concrete/potential utility. The fill material samples consisted of clayey sand and cleaner sands occasionally containing clay inclusions and masonry/concrete debris.

Beneath the pavements sections and fill materials, the building and stormwater borings dominantly found native clean sands to their planned termination depths around 10 to 26 feet below the surface.

Water was not observed in any of the borings during our exploration and none of the samples appeared to be overly wet or water bearing. We would expect moisture to be capable of perching above clayey layers. Groundwater levels on site would be expected to fluctuate seasonally with local weather patterns and similar to water levels in nearby bodies of water.

Summary of Analysis and Recommendations

The soil borings generally encountered pavement sections or topsoil over fill materials in the western building and stormwater/parking lot borings over native clean sand. The topsoil, pavements, and fill are unsuitable and/or unreliable for support of the structure and should be completely removed from below the new building slabs and footings. The fill was about 6 ½ to 7 ½ feet deep in the two western building borings.

Clean sand or gravel should be used as structural fill for replacement below slabs and footings. Some of the existing fill samples consisted of "poorly graded" sand that would be anticipated to meet this specification, provided clay inclusions and masonry/concrete debris is separated and removed. Proposed fill material should still be evaluated by geotechnical personnel prior to its use.

Based on the boring data, assumed structural loads, assumed floor elevation, typical frost-footing depths, and proper implementation of our earthwork recommendations, we are of the opinion that foundations may be designed using an allowable bearing capacity up to 4,000 psf (pounds per square foot). Total settlement is then expected to be less than 1 inch and differential settlement between similarly loaded footings is anticipated to be less than ½ inch.

Remarks

CVT appreciates the opportunity to provide geotechnical services for this project. The attached report provides further details of our analysis and recommendations for the building, paved areas, and stormwater area. If you have any questions or need additional information, please contact us at (608) 782-5505 or (507) 281-0968.

Sincerely,
Chosen Valley Testing, Inc.

Devin M. Ehler, PE
Geotechnical Engineer

TABLE OF CONTENTS

Design Phase Geotechnical Evaluation
Proposed New Mayo Employees Federal Credit Union
605 West Ave S
La Crosse, Wisconsin

CVT Project Number: 26630.25.WIL
Date: March 11, 2026

A. Introduction

The intent of this report is to present our findings to the client in the same logical sequence that led us to arrive at the opinions and recommendations expressed. Since our services often must be completed before the design is finished, assumptions are often needed to prepare a proper scope and to analyze the data. A complete and thorough review of the entire document, including its assumptions and its appendices, should be undertaken immediately upon receipt.

A.1. Purpose

This geotechnical report was prepared to aid in the design and construction of the proposed New Mayo Employees Federal Credit Union in La Crosse, Wisconsin. Our services were authorized by Susan Palen, Executive Vice President of Mayo Employees Federal Credit Union.

A.2. Scope

To obtain data for analysis, a total of 7 penetration test borings were authorized with 5 borings for the building, 1 boring for the parking lot, and 1 boring for a proposed stormwater area. The building borings were drilled to depths of about 26 feet, the parking lot boring to an auger refusal depth of approximately 2½ feet, and the stormwater boring to roughly 10 feet. Our engineering scope included providing geotechnical recommendations for the building, paved areas, and stormwater area.

A.3. Boring Locations and Elevations

The desired boring locations were indicated to Chosen Valley Testing (CVT) on a site layout provided by HTG Architects. The Boring Location Sketch in the Appendix shows the approximate locations as drilled according to GPS coordinates recorded in the field from a handheld device which were plotted onto aerial imagery with the site layout overlain using Google Earth software.

Ground surface elevations for the borings were estimated using a laser level. The finished floor of the existing building was used as a benchmark and is understood to be near elevation 673.25 feet.

A.4. Geologic Background

A geotechnical report is based on subsurface data collected for the specific structure or problem. Available geologic data from the region can help interpretation of the data and is briefly summarized in this section.

Geologic maps indicate that the natural surficial soils in the area are dominated by glacial outwash deposited sands and gravels. Bedrock is commonly mapped on the order of 100 to 200 feet below the surface with the uppermost formation typically consisting of sandstone, dolomite, and shale of the Trempealeau Formation.

B. Subsurface Data

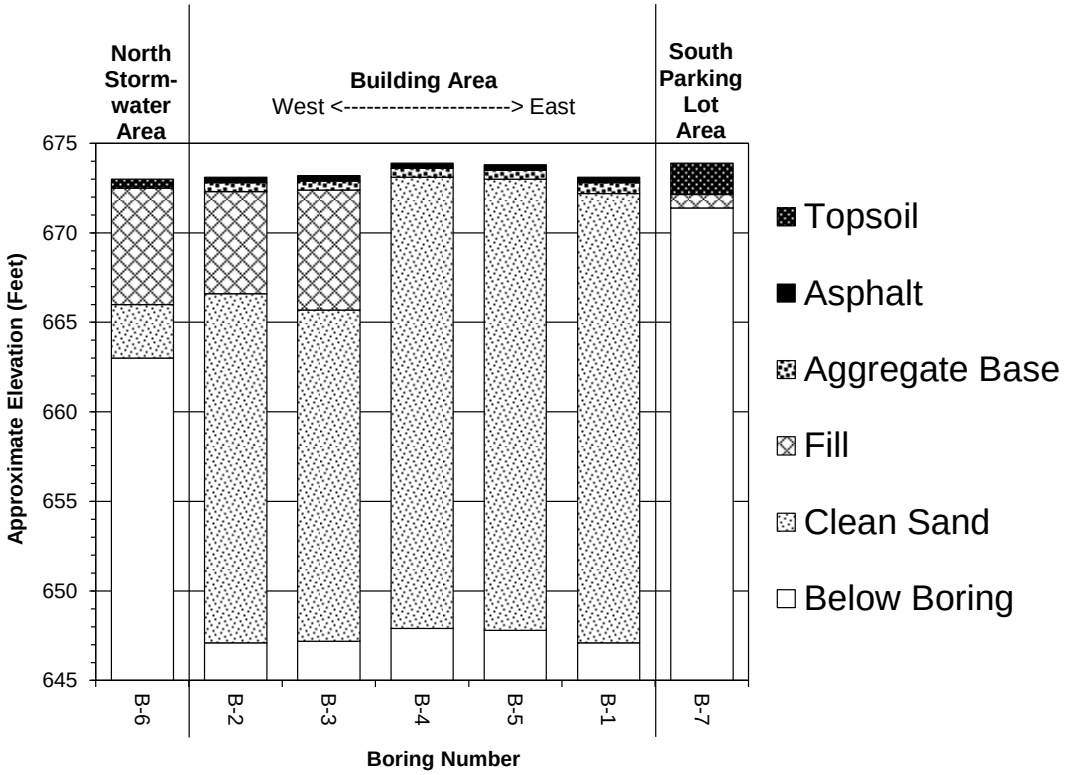
Procedures: The borings were performed using penetration test procedures (Method of Test ASTM D1586). This procedure allows for the extraction of intact soil specimens from deep in the ground. With this method, a hollow-stem auger is drilled to the desired sampling depth. A 2-inch OD sampling tube is then screwed onto the end of a sampling rod, inserted through the hole in the auger's tip, and then driven into the soil with a 140-pound hammer dropped repeatedly from a height of 30 inches above the sampling rod. The sampler is driven 18 inches into the soil unless the material is too hard. The samples are generally taken at 2½ to 5-foot intervals. The core of soil obtained was classified and logged by the driller on site and a representative portion was then sealed and delivered to the geotechnical engineer for further review.

B.1. Stratification

The borings drilled in the existing paved areas encountered between 3 and 4 inches of asphalt over 5 to 7½ inches of aggregate base. The stormwater and parking lot borings (B-6 and B-7) drilled in the green areas on the north and south ends of the site met approximately ½ to 2 ½ feet of topsoil. Fill materials followed in the western building borings (B-2 and B-3), north stormwater boring (B-6), and south parking lot boring (B-7) to depths of roughly 6 ½ to 7 ½ feet, with the exception of the south parking lot boring (B-7) terminated around 2 ½ feet due to refusal of auger advancement on concrete/potential utility. The fill material samples consisted of clayey sand and cleaner sands occasionally containing clay inclusions and masonry/concrete debris.

Beneath the pavements sections and fill materials, the building and stormwater borings dominantly found native clean sands to their planned termination depths around 10 to 26 feet below the surface.

The boring data has been summarized in the following cross-section. Please refer to the individual Log of Boring sheets in the Appendix for more detailed information.



B.2. Penetration Test and Laboratory Test Results

The number of blows needed for the hammer to advance the penetration test sampler is an indicator of soil characteristics. The results tend to be more meaningful for natural mineral soils than for fill soils. In fill soils, compaction tests are more meaningful.

Penetration resistance values ("N"-Values) ranging from 6 to 12 BPF (Blows per Foot) were recorded in the fill materials, indicating they were somewhat variable.

In the native clean sand returned values of 7 to 15 BPF, indicating it was loose to medium dense.

A key to descriptors used to qualify the relative density of soil (such as *soft, stiff, loose*, and *dense*) can be found on the Legend to Soil Description in the Appendix.

B.3. Groundwater Data

During drilling, the drillers may note the presence of moisture on the sampler, in the cuttings, or in the borehole itself. These findings are reported on the boring logs. Because water levels vary with weather, time of year, and other factors, the presence or lack of water during exploration is subject to interpretation and is not always conclusive.

Water was not observed in any of the borings during our exploration and none of the samples appeared to be overly wet or water bearing. We would expect moisture to be capable of perching above clayey layers. Groundwater levels on site would be expected to fluctuate seasonally with local weather patterns and similar to water levels in nearby bodies of water.

C. Design Data

Because each structure has a different loading configuration and intensity, different grades, and different structural or performance tolerances, the results of a geotechnical exploration will mean different things for different facilities. If the facility changes, Chosen Valley Testing should be contacted to discuss possible implications of the changes. Without a chance to review such changes, the recommendations of the soils engineer may no longer be valid or appropriate.

The project consist of constructing a New Mayo Employees Federal Credit Union in La Crosse, WI. The building is understood to be a single story, slab-on-grade structure primarily consisting of metal framing supported by concrete foundations. Structural loads were not provided. To facilitate analysis, maximum wall loads are assumed to be on the order of 3,000 pounds per linear foot or less and maximum column loads assumed to be on the order of 50,000 pounds or less. The finished floor elevation is assumed to be near that of the existing building, or around 673 ¼ feet.

The new parking lots and drives are assumed to preferably be asphalt over dense graded aggregate base sections. Design traffic volumes were not provided. Traffic is assumed to primarily consist of standard automobiles with occasional heavy trucks.

A stormwater area is presumably being considered on the north end of the site. Grading plans were not provided, so bottom elevation of any potential infiltration pond was not known at the time of this report.

D. Analysis

The soil borings generally encountered pavement sections or topsoil over fill materials in the western building and stormwater/parking lot borings over native clean sand. The topsoil, pavements, and fill are unsuitable and/or unreliable for support of the structure and should be completely removed from below the new building slabs and footings. The fill was about 6 ½ to 7 ½ feet deep in the two western building borings (B-2 and B-3).

Clean sand or gravel should be used as structural fill for replacement below slabs and footings. Some of the existing fill samples consisted of "poorly graded" sand that would be anticipated to meet this specification, provided clay inclusions and masonry/concrete debris is separated and removed. Proposed fill material should still be evaluated by geotechnical personnel prior to its use.

Based on the boring data, assumed structural loads, assumed floor elevation, typical frost-footing depths, and proper implementation of our earthwork recommendations, we are of the opinion that foundations may be designed using an allowable bearing capacity up to 4,000 psf (pounds per square foot). Total settlement is then expected to be less than 1 inch and differential settlement between similarly loaded footings is anticipated to be less than ½ inch.

The remainder of this report provides more details of our recommendations for the building, paved areas, and stormwater area.

E. Building Grading Recommendations

E.1. Excavation

As previously mentioned, we recommend removing all topsoil, pavements, and fill materials from below the new building slabs and footings, along with any old foundations, slabs, utilities, or otherwise deleterious materials that may be discovered during construction. The following table presents the apparent depths of the unsuitable materials at the building boring locations. The values in the table have been rounded to the nearest ½-foot.

Boring I.D.	Approximate Ground Surface Elevation (Feet)	Apparent Depth of Unsuitable Material (Feet)	Apparent Elevation at Bottom of Unsuitable Material (Feet)
B-1	673	1	672
B-2	673	6 ½	666 ½
B-3	673	7 ½	665 ½
B-4	674	1	673
B-5	674	1	673

E.2. Geotechnical Review

It is recommended that geotechnical personnel from CVT be retained to observe and evaluate grading and excavating. Especially, regarding soil correction depths and oversizing. Subject to evaluations, deeper soil corrections or changes to our recommendations may be deemed warranted but are not anticipated.

E.3. Oversizing

Any stripping or corrective excavations should be oversized at least 1-foot horizontally beyond the edge of the building for each foot of fill needed below footing grade. This oversizing can be reduced by up to 50% if rather precise staking is present during grading. However, additional oversizing provides the Owner some protection against stakes getting moved, knocked down, or slight repositioning of the building after corrections.

E.4. Fill Placement and Compaction

We recommend using clean sands or gravels having less than 12% particles passing a #200 sieve as structural fill below footings and slabs. Some of the existing fill samples consisted of "poorly graded" sand that would be anticipated to meet this specification, provided clay inclusions and masonry/concrete debris is separated and removed. Proposed fill materials should still be evaluated by geotechnical personnel prior to its use.

All fill materials below the building, in the oversized areas, and used as backfill for walls should be compacted to a minimum of 95% of its maximum standard Proctor density (ASTM D698).

F. Building Design

F.1. Foundation Depth

For frost protection, foundations should be placed at least 48 inches below the exposed ground surface for heated structures. Interior foundations in heated areas may be placed directly below slabs. Footings for unheated structures should be placed at least 60 inches below the exposed ground surface.

F.2 Bearing Capacity and Settlement

Based on the boring data, assumed structural loads, assumed floor elevation, typical frost-footing depths, and proper implementation of our earthwork recommendations, we are of the opinion that foundations may be designed to exert pressures of up to 4,000 psf. This allowable bearing capacity includes a safety factor of at least 3 against shear failure. Total settlement is then expected to be less than 1 inch and differential settlement between similarly loaded footings is anticipated to be less than ½ inch.

F.3. Vapor Barrier

If the slab receives coverings that are less permeable than concrete, a vapor barrier should be placed below the slab. Some contractors prefer to place this barrier below a sand layer to limit the potential for curling.

F.4. Slab Design

The completed slab subgrade is expected to consist native clean sand or clean granular fill over native clean sand. We recommend using a modulus of subgrade reaction of no more than 200 psi/inch for slab design. It is noted that this is a plate load test value that has not been modified for mat foundation design purposes.

G. Paved Area Recommendations

G.1. Surface Stripping and Grading

We recommend stripping and removing all topsoil from areas planned to receive pavements, along with existing pavement sections if total reconstruction is planned.

After the surface removals and grading, we recommend deeply scarifying, moisture conditioning, and compacting subgrade soils to promote uniformity and create more gradual transitions between differing soils. All fill should be compacted to at least 95% of its maximum standard Proctor density.

Regardless of densities, the completed pavement subgrade should be able to pass a proof roll test using a loaded tandem-axle truck. Areas not passing the proof roll test should be reworked and stabilized as needed to pass the test roll. If weather and schedule do not cooperate, placement of a layer of breaker rock, clean sand subbase, or additional aggregate base over high strength woven geosynthetic fabric will likely be necessary to stabilize subgrades.

G.2. Pavement Design

After subgrade preparation, subgrade soils are expected to primarily consist of clean sand with some areas of clayey sand. We recommend designing pavements for the soils present at subgrade elevations using the following soil parameters.

Soil Type	AASHTO Classification	Frost Index	Wisconsin Design Group Index	K-Value (psi/inch)	Soil Support Factor	Est. California Bearing Ratio
Sand	A-3	F-2	6	200	5.0	10 – 20
Clayey Sand	A-4	F-3	12	150	4.2	5 – 15

In the absence of design traffic volumes, we recommend a flexible pavement section consisting of at least 4 inches of asphalt over 8 inches of dense graded aggregate base. This pavement section should be considered preliminary and subject to review by the civil consultant and Owner, based on more specific traffic volumes and their experience with pavement performance in the project area.

G.3. Pavement Maintenance

Routine maintenance is recommended for improved pavement performance and to increase pavement life. Some thermal shrinkage cracks may develop over time. Therefore, pavements should be sealed with a liquid bitumen sealer to mitigate water intrusion into the base course and subgrade sections. Localized patch failures may also develop, which should be cut out and repaired. Periodic seal coating would also help preserve and assure a longer pavement life.

H. Stormwater Infiltration Recommendations

As requested, stormwater infiltration was evaluated in the form of SBD 10793 for the stormwater boring (B-6). This boring encountered sandy man-made fill materials over native sand. Infiltration rate for the native sand is estimated to be on the order of 3.60 inches per hour, based on USDA soil classification and the recommended design values from the Wisconsin DNR. Please see the Soil and Site Evaluation – Storm sheets in the Appendix for more details.

Double-ring infiltrometer testing could be performed to provide more site specific infiltration values, but this was not part of our work scope and would need to be performed at the bottom of the pond during appropriate weather conditions.

I. General Earthwork Recommendations

I.1. Earthwork

Earthwork will likely need to be performed using tracked equipment. Excavations should be performed using a backhoe or excavator.

I.2. Sideslopes

The contractor will be required to slope or shore the excavations as needed to meet OSHA requirements for safety and to limit disturbance to surrounding structures. The sands on site would be expected to classify as Type C soils as defined by OSHA. Trench boxes or other stabilization methods may be necessary near existing structures, utilities, or property lines.

I.3. Cold Weather

If earthwork occurs during freezing temperatures, good winter construction practices should be used. No frozen fill should be used nor should filling take place on frozen subgrades. Footing and slab areas should be completely thawed prior to placing concrete.

I.4. Construction Testing and Documentation

Grading and excavations should be evaluated and documented by qualified geotechnical personnel to assess the soils below foundations, slabs, and pavements. Any fill placed below building and paved areas should be evaluated for conformance to the project gradation recommendations and should be tested for

compaction. If filling proceeds during periods of freezing weather, full-time testing should be considered to help confirm that imported fill is thawed prior to and during compaction, and that all snow has been removed before placement of the fill.

Although our firm offers testing services relating to civil and structural components of the structure (such as concrete testing, reinforcement observations, etc.), specification of such services is beyond our work scope and the designer should be consulted as to such requirements.

J. Level of Care

The services provided for this project have been conducted in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing in this area, under similar budget and time constraints. This is our professional responsibility. No other warranty, expressed or implied, is made.

Appendix

Boring Location Sketch

Log of Boring 1-7

Gradation Curves

Soil and Site Evaluation - Storm

Legend to Soil Description

Boring Location Sketch

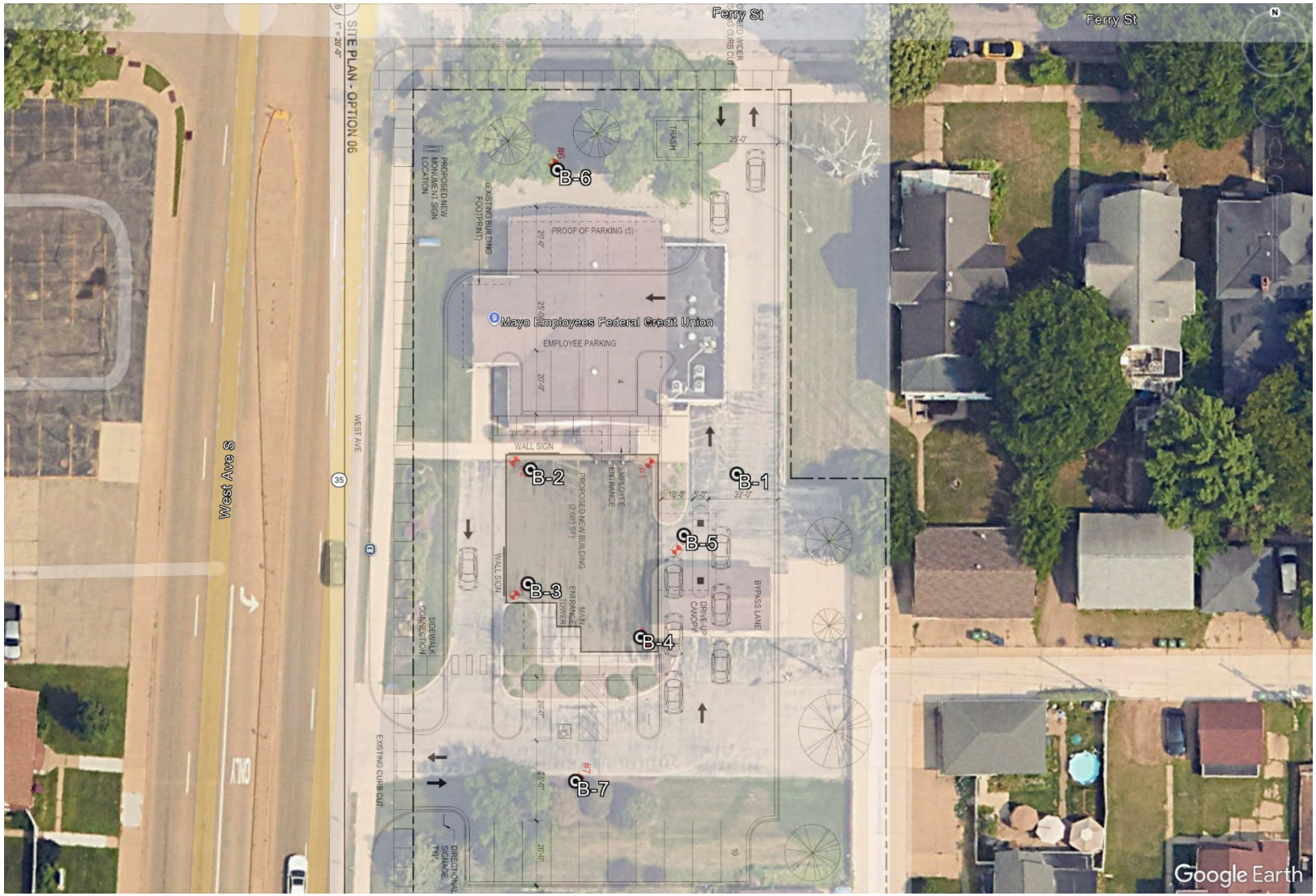
Proposed New Mayo Employees FCU
605 West Ave S
La Crosse, Wisconsin
CVT Project: 26630.25.WIL

Chosen Valley Testing, Inc.

Legend

Boring Location

N



LOG OF BORING

CHOSEN VALLEY TESTING CVT

PROJECT: 26630.25.WIL Design Phase Geotechnical Evaluation New Mayo Employees Federal Credit Union 605 West Avenue S. La Crosse, Wisconsin	BORING: **B-1** LOCATION: See attached sketch. DATE: 1/15/2026 SCALE: 1" = 4'

Elev.	Depth	USCS Symbol	Description of Materials (ASTM D 2487/2488)	BPF	WL	Tests and Notes
673.1	0.0					
672.8	0.3		**3.5" ASPHALT**			Boring elevation datum based on Finished Floor Elevation of existing building, indicated on Mead & Hunt site survey as being approximately 673.25 ft.
672.1	0.9		**7.5" AGGREGATE BASE**			
		SP	**POORLY GRADED SAND**, fine grained, light brown, moist, loose. (Glacial Outwash)	9		
			Trace gravel from 4' to 6.5'	10		
				7		
				7		
				7		
				9		
				10		
647.1	26.0			10		
			End of boring. Water not observed during drilling. Boring sealed upon completion.			

CVT STANDARD 26630.25.WIL (LA CROSSE NEW MAYO EMPLOYEES CREDIT UNION).GPJ LOG A GNNN06.GDT 3/11/26

LOG OF BORING

CHOSEN VALLEY TESTING CVT

PROJECT: 26630.25.WIL Design Phase Geotechnical Evaluation New Mayo Employees Federal Credit Union 605 West Avenue S. La Crosse, Wisconsin	BORING: **B-2** LOCATION: See attached sketch. DATE: 1/15/2026 SCALE: 1" = 4'

Elev.	Depth	USCS Symbol	Description of Materials (ASTM D 2487/2488)	BPF	WL	Tests and Notes
673.1	0.0					
672.7	0.3		**4" ASPHALT**			Boring elevation datum based on Finished Floor Elevation of existing building, indicated on Mead & Hunt site survey as being approximately 673.25 ft.
672.3	0.8	SC	**5" AGGREGATE BASE** **FILL**, clayey sand, fine grained, dark brown, moist, loose.	6		
669.1	4.0	SP SC	**FILL**, poorly graded sand with clay, trace gravel, fine grained, brown, moist, loose.	6		
666.6	6.5	SP	**POORLY GRADED SAND**, trace gravel, fine to medium grained, light brown, moist, loose. (Glacial Outwash)	8 9 10 9 10 10		
647.1	26.0		End of boring. Water not observed during drilling. Boring sealed upon completion.			

CVT STANDARD 26630.25.WIL (LA CROSSE NEW MAYO EMPLOYEES CREDIT UNION).GPJ LOG A GNNN06.GDT 3/11/26

LOG OF BORING

CHOSEN VALLEY TESTING CVT

PROJECT: 26630.25.WIL Design Phase Geotechnical Evaluation New Mayo Employees Federal Credit Union 605 West Avenue S. La Crosse, Wisconsin	BORING: **B-3** LOCATION: See attached sketch. DATE: 1/15/2026 SCALE: 1" = 4'

Elev.	Depth	USCS Symbol	Description of Materials (ASTM D 2487/2488)	BPF	WL	Tests and Notes
673.2	0.0					
672.9	0.3		**3" ASPHALT**			Boring elevation datum based on Finished Floor Elevation of existing building, indicated on Mead & Hunt site survey as being approximately 673.25 ft.
672.4	0.8	SC	**6" AGGREGATE BASE**			
			FILL, poorly graded sand with clay, masonry, and trace concrete debris, fine to medium grained, brown, moist, loose to medium dense.	12		
				10		
665.7	7.5	SP	**POORLY GRADED SAND**, trace gravel, fine to medium grained, light brown, moist, loose to medium dense. (Glacial Outwash)	11		
				12		
				11		
				10		
				11		
647.2	26.0			9		
			End of boring. Water not observed during drilling. Boring sealed upon completion.			

CVT STANDARD 26630.25.WIL (LA CROSSE NEW MAYO EMPLOYEES CREDIT UNION).GPJ LOG A GNNN06.GDT 3/11/26

LOG OF BORING

CHOSEN VALLEY TESTING CVT

PROJECT: 26630.25.WIL Design Phase Geotechnical Evaluation New Mayo Employees Federal Credit Union 605 West Avenue S. La Crosse, Wisconsin	BORING: **B-4** LOCATION: See attached sketch. DATE: 1/15/2026 SCALE: 1" = 4'

Elev.	Depth	USCS Symbol	Description of Materials (ASTM D 2487/2488)	BPF	WL	Tests and Notes
673.9	0.0					
673.6	0.3		**3" ASPHALT**			Boring elevation datum based on Finished Floor Elevation of existing building, indicated on Mead & Hunt site survey as being approximately 673.25 ft.
673.0	0.8	SP	**7" AGGREGATE BASE**			
			POORLY GRADED SAND, fine grained, light brown, moist, loose to medium dense. (Glacial Outwash)	9		
			Trace gravel from 4' to 6.5'	11		
				8		
				7		
				8		
				6		
				10		
				12		
647.9	26.0		End of boring. Water not observed during drilling. Boring sealed upon completion.			

CVT STANDARD 26630.25.WIL (LA CROSSE NEW MAYO EMPLOYEES CREDIT UNION).GPJ LOG A GNNN06.GDT 3/11/26

LOG OF BORING

CHOSEN VALLEY TESTING CVT

PROJECT: 26630.25.WIL Design Phase Geotechnical Evaluation New Mayo Employees Federal Credit Union 605 West Avenue S. La Crosse, Wisconsin	BORING: **B-5** LOCATION: See attached sketch. DATE: 1/15/2026 SCALE: 1" = 4'

Elev.	Depth	USCS Symbol	Description of Materials (ASTM D 2487/2488)	BPF	WL	Tests and Notes
673.8	0.0					
673.5	0.3		**3.5" ASPHALT**			Boring elevation datum based on Finished Floor Elevation of existing building, indicated on Mead & Hunt site survey as being approximately 673.25 ft.
673.0	0.8	SP	**6" AGGREGATE BASE**			
			POORLY GRADED SAND, fine grained, light brown, moist, loose to medium dense. (Glacial Outwash)	13		
			Trace gravel from 4' to 6.5'	15		
				7		
				6		
				9		
				11		
				11		
647.8	26.0			12		
			End of boring. Water not observed during drilling. Boring sealed upon completion.			

CVT STANDARD 26630.25.WIL (LA CROSSE NEW MAYO EMPLOYEES CREDIT UNION).GPJ LOG A GNNN06.GDT 3/11/26

LOG OF BORING

CHOSEN VALLEY TESTING CVT

PROJECT: 26630.25.WIL Design Phase Geotechnical Evaluation New Mayo Employees Federal Credit Union 605 West Avenue S. La Crosse, Wisconsin	BORING: **B-6** LOCATION: See attached sketch. DATE: 1/15/2026 SCALE: 1" = 4'

Elev.	Depth	USCS Symbol	Description of Materials (ASTM D 2487/2488)	BPF	WL	Tests and Notes
673.0	0.0					
672.5	0.5	SM	**Slightly Organic SILTY SAND**, trace roots, black, wet.			Boring elevation datum based on Finished Floor Elevation of existing building, indicated on Mead & Hunt site survey as being approximately 673.25 ft.
671.6	1.3	OL	(Topsoil)	*		* 5 / 4 / 4 / 5
671.0	2.0	SP	**FILL**, poorly graded sand, fine grained, light brown, moist, loose.			* 4 / 4 / 4 / 4
		SC	**FILL**, clayey sand, fine grained, dark brown, moist, loose.	*		* 4 / 4 / 4 / 5
		SP	**FILL**, poorly graded sand, fine grained, dark brown, moist, loose.			
666.0	7.0			*		* 4 / 3 / 4 / 5
		SP	**POORLY GRADED SAND**, fine to medium grained, light brown, moist, loose.			
			(Glacial Outwash)	*		* 3 / 3 / 4 / 4
663.0	10.0					
			End of boring. Water not observed during drilling. Boring sealed upon completion.			

CVT STANDARD 26630.25.WIL (LA CROSSE NEW MAYO EMPLOYEES CREDIT UNION).GPJ LOG A GNNN06.GDT 3/11/26

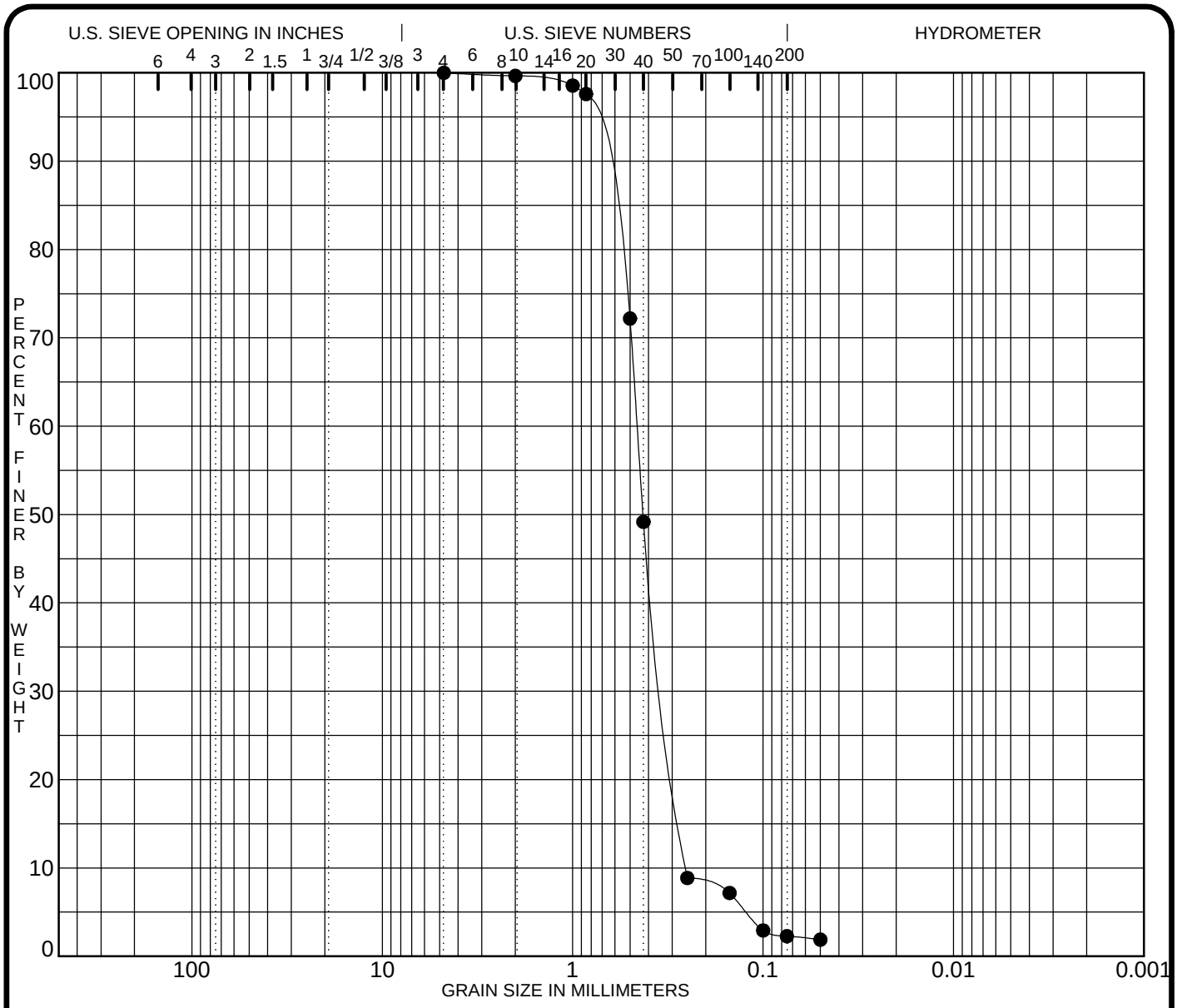
LOG OF BORING

CHOSEN VALLEY TESTING CVT

PROJECT: 26630.25.WIL Design Phase Geotechnical Evaluation New Mayo Employees Federal Credit Union 605 West Avenue S. La Crosse, Wisconsin	BORING: **B-7** LOCATION: See attached sketch. DATE: 1/15/2026 SCALE: 1" = 4'

Elev.	Depth	USCS Symbol	Description of Materials (ASTM D 2487/2488)	BPF	WL	Tests and Notes
673.9	0.0	SM OL	**Slightly Organic SILTY SAND**, trace roots, fine to medium grained, black, concrete in tip of sampler.	*		Boring elevation datum based on Finished Floor Elevation of existing building, indicated on Mead & Hunt site survey as being approximately 673.25 ft. * 1 / 50 = 0"
671.4	2.5		End of boring. Boring terminated due to auger refusal around 2.5', presumably on concrete / potential utility. Water not observed during drilling. Boring sealed upon completion.			

CVT STANDARD 26630.25.WIL (LA CROSSE NEW MAYO EMPLOYEES CREDIT UNION).GPJ LOG A GNNN06.GDT 3/11/26



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification		Classification	MC%	LL	PL	PI	Cc	Cu
● **B-6**	**7.5**	**POORLY GRADED SAND SP**					**0.94**	**1.8**

Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● **B-6**	**7.5**	**4.75**	**0.46**	**0.330**	**0.2538**	**0.0**	**97.7**	**2.3**	

PROJECT **New Mayo Employees Federal Credit Union - 605 West Avenue S.**

JOB NO. **26630.25.WIL**

DATE **3/9/26**

GRADATION CURVES

Chosen Valley Testing

Chosen Valley Testing, Inc.

1002-CPS-23
Division of Industry Services
P. O. Box 2658
Madison, Wisconsin 53701
Scott Walker, Governor
Laura Gutierrez, Secretary

Attachment 2:

SOIL AND SITE EVALUATION – STORM

In accordance with SPS 382.365, 385, Wis. Adm. Code, and WDNR Standard 1002

Attach a complete site plan on paper not less than 8 ½ x 11 inches in size. Plan must include, but not limited to: vertical and horizontal reference point (BM), direction and percent of slope, scale or dimensions, north arrow, and BM referenced to nearest road

Please print all information

Personal information you provide may be used for secondary purposes [Privacy Law, s. 15.04(1)(m)]

County: La Crosse
Parcel I.D.: 17-30198-050
Reviewed by:
Date:

Property Owner	Property Location
Mayo Employees Federal Credit Union	Govt. Lot SW ¼ NE ¼ S 05 T 15 N R 07 ☒ (or) W
Property Owner' Mail Address: 605 West Ave S	Lot #: 4/16 · Block #: · Subd. Name or CSM #: Rublee & Obers Subd.
City: La Crosse, WI · State · Zip Code: 54601 · Phone Number: (507) 535-1460	☑ City ☐ Village ☐ Town · Nearest Road: La Crosse West Ave S

Drainage area _____ ☐ sq .ft ☐ acres

Test site suitable for (check all that apply): ☐ Site not suitable;

☐ Bioretention; ☐ Subsurface Dispersal System;

☐ Reuse; ☐ Irrigation; ☐ Other _____

Hydraulic Application Test Method

☑ Morphological Evaluation
☐ Double Ring Infiltrometer
☐ Other: (specify) _____

Soil Moisture
Date of soil borings: 1/15/26

USDA-NRCS WETS Value:
☐ Dry =1;
☐ Normal = 2;
☐ Wet = 3.

B-6 #OBS. ☐ Pit ☑ Boring Ground surface elevation. 673.0 ft. Elevation of limiting factor N/A ft.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frags.	% Fines	Hydraulic App Rate Inches/Hr
1	0-6	10YR 2/1		SL	0 sg	ml	as	<10	15-25	N/A
2	6-16	10YR 6/4		S	0 sg	ml	as	<10	<15	N/A
3	16-24	10YR 2/1		LS	0 sg	ml	as	<10	15-25	N/A
4	24-84	10YR 3/3		S	0 sg	ml	as	<10	<15	N/A
5	84-120	10YR 4/3		S	0 sg	ml	as	0	<5	3.60

Comments: Man-made fill in upper 84 inches. No water observed within boring during exploration.

☐ #OBS. ☐ Pit ☐ Boring Ground surface elevation. _____ ft. Elevation of limiting factor _____ ft.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frags.	% Fines	Hydraulic App Rate Inches/Hr

Comments:

Name (Please Print): Devin M. Ehler, PE (MN, WI, IA)
Signature: Devin Ehler
Credential Number: CST 081500002 - SP / WI PE 44630

Address: 1410 7th Street NW, Rochester, MN 55901
Date Evaluation Conducted: 1-27-26
Telephone Number: 507-281-0968

SBD-10793 (R01/17)

WDNR
September 2017

Page ___ of ____

☐ #OBS. ☐ Pit ☐ Boring Ground surface elevation. __________ ft. Elevation of limiting factor __________ ft.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frags.	% Fines	Hydraulic App Rate Inches/Hr
Comments:										

☐ #OBS. ☐ Pit ☐ Boring Ground surface elevation. __________ ft. Elevation of limiting factor __________ ft.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frags.	% Fines	Hydraulic App Rate Inches/Hr
Comments:										

☐ #OBS. ☐ Pit ☐ Boring Ground surface elevation. __________ ft. Elevation of limiting factor __________ ft.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frags.	% Fines	Hydraulic App Rate Inches/Hr
Comments:										

☐ #OBS. ☐ Pit ☐ Boring Ground surface elevation. __________ ft. Elevation of limiting factor __________ ft.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frags.	% Fines	Hydraulic App Rate Inches/Hr
Comments:										

SBD-10793 (R 7/17)

Overall Site Comments:

UNIFIED SOIL CLASSIFICATION (ASTM D-2487/2488)

MATERIAL TYPES	CRITERIA FOR ASSIGNING SOIL GROUP NAMES			GROUP SYMBOL	SOIL GROUP NAMES & LEGEND
COARSE-GRAINED SOILS >50% RETAINED ON NO. 200 SIEVE	GRAVELS >50% OF COARSE FRACTION RETAINED ON NO 4. SIEVE	CLEAN GRAVELS <5% FINES	Cu>4 AND 1<Cc<3	GW	WELL-GRADED GRAVEL
			Cu>4 AND 1>Cc>3	GP	POORLY-GRADED GRAVEL
		GRAVELS WITH FINES >12% FINES	FINES CLASSIFY AS ML OR CL	GM	SILTY GRAVEL
			FINES CLASSIFY AS CL OR CH	GC	CLAYEY GRAVEL
	SANDS >50% OF COARSE FRACTION PASSES ON NO 4. SIEVE	CLEAN SANDS <5% FINES	Cu>6 AND 1<Cc<3	SW	WELL-GRADED SAND
			Cu>6 AND 1>Cc>3	SP	POORLY-GRADED SAND
		SANDS AND FINES >12% FINES	FINES CLASSIFY AS ML OR CL	SM	SILTY SAND
			FINES CLASSIFY AS CL OR CH	SC	CLAYEY SAND
FINE-GRAINED SOILS >50% PASSES NO. 200 SIEVE	SILTS AND CLAYS LIQUID LIMIT<50	INORGANIC	PI>7 AND PLOTS>"A" LINE	CL	LEAN CLAY
			PI>4 AND PLOTS<"A" LINE	ML	SILT
		ORGANIC	LL (oven dried)/LL (not dried)<0.75	OL	ORGANIC CLAY OR SILT
	SILTS AND CLAYS LIQUID LIMIT>50	INORGANIC	PI PLOTS >"A" LINE	CH	FAT CLAY
			PI PLOTS <"A" LINE	MH	ELASTIC SILT
		ORGANIC	LL (oven dried)/LL (not dried)<0.75	OH	ORGANIC CLAY OR SILT
HIGHLY ORGANIC SOILS		PRIMARILY ORGANIC MATTER, DARK IN COLOR, AND ORGANIC ODOR		PT	PEAT

Relative Proportions of Sand and Gravel

TERM	PERCENT
Trace	< 15
With	15 - 29
Modifier	> 30

Relative Proportions of Fines

TERM	PERCENT
Trace	< 5
With	5 - 12
Modifier	> 12

Grain Size Terminology

TERM	SIZE
Boulder	> 12 in.
Cobble	3 in. - 12 in.
Gravel	#4 sieve to 3 in.
Sand	#200 sieve to #4 sieve
Silt or Clay	Passing #200 sieve

SAMPLE TYPES

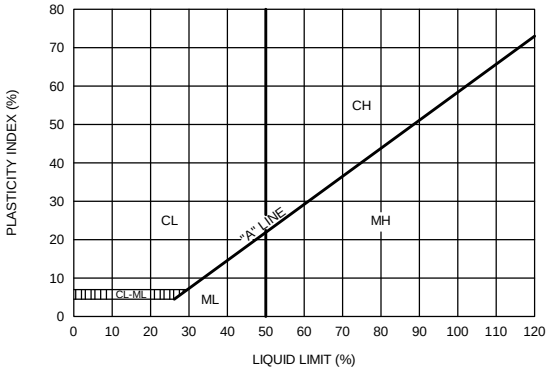
- Continuos Sampler
- Hollow Stem
- Standard Penetration Test

TEST SYMBOLS

MC	-	MOISTURE CONTENT	LL	-	LIQUID LIMIT
OC	-	ORGANIC CONTENT	PI	-	PLASTISITY INDEX
CN	-	CONSOLIDATION	SW	-	SWELL TEST
DD	-	DRY DENSITY	UU		Unconsolidated Undrained triaxial
PP	-	POCKET PENETROMETER			
RV	-	R-VALUE			
SA	-	SIEVE ANALYSIS			
P200	-	% PASSING #200 SIEVE			

- WATER LEVEL (WITH TIME OF) MEASUREMENT

PLASTICITY CHART



PENETRATION RESISTANCE
(RECORDED AS BLOWS / 0.5 FT)

SAND & GRAVEL		SILT & CLAY		
RELATIVE DENSITY	BLOWS/FOOT*	CONSISTENCY	BLOWS/FOOT*	COMPRESSIVE STRENGTH (TSF)
VERY LOOSE	0 - 4	VERY SOFT	0 - 1	0 - 0.25
LOOSE	4 - 10	SOFT	2 - 3	0.25 - 0.50
MEDIUM DENSE	10 - 30	RATHER SOFT	4 - 5	0.50 - 1.0
DENSE	30 - 50	MEDIUM	6 - 8	
VERY DENSE	OVER 50	RATHER STIFF	9 - 12	1.0 - 2.0
		STIFF	13 - 16	
		VERY STIFF	17 - 30	2.0 - 4.0
		HARD	OVER 30	OVER 4.0

* NUMBER OF BLOWS OF 140 LB HAMMER FALLING 30 INCHES TO DRIVE A 2 INCH O.D. (1-3/8 INCH I.D.) SPLIT-BARREL SAMPLER THE LAST 12 INCHES OF AN 18-INCH DRIVE (ASTM-1586 STANDARD PENETRATION TEST).

Chosen Valley Testing

Job No. 26630.25.WIL

LEGEND TO SOIL DESCRIPTIONS

CVT

CVT 26630.25.WIL (LA CROSSE NEW MAYO EMPLOYEES CREDIT UNION).GPJ 3/9/26

EXHIBIT G

Mayo Employees Federal Credit Union - La Crosse
STORM SIZING WORK SHEET
AE PROJ # 18994 DATE: 3/25/2026

"C" Values	
Imp.	Per.
0.9	0.3

Project Location	Possible Regions
Wisconsin	3,4

Designed For	
Region	Storm (yr)
3	10

DESIGN CHECKS

Pipe Run						Flow Calculation								Pipe Sizing						Pipe Properties	Cover					Pipe Capacity		Pipe Cover	
Struc.		Rim	Struc.		Rim	Per. Area	Imp. Area	Total Area	Area	Cumm. Area	Time of Conc (T_c)	Intensity	Q = clA	Q cumm Q10	Pipe size	Pipe Material	slope	k	Pipe		Length of	Invert Upstream	Invert Downstream	Minimum Cover	Depth Upstream	Depth Downstream	Pipe inc Flow as Perc. of Capacity (%)	Flow Capacity Condition?	Pipe Cover (ft)	Cover Condition?
						(sf)	(sf)	(sf)	(acres)	"c" value	(min.)	I (in/24 hr)	(cfs)	(cfs)	(in.)	(material)	Slope (%)	Manning's	Capacity (cfs)	Velocity (fps)	Pipe Run (ft)	Upstream	(ft)	(ft)	(ft)	(ft)				
CBMH	2	671.00	FES	1	667.50	140	1,111	1,251	0.03	0.83	7.00	5.67	0.14	1.22	12	RCP	0.50	35.6	2.52	2.74	27	667.63	667.50	2.20	3.37	0.00	48.5%	GOOD	2.20	GOOD
CBMH	3	671.00	CBMH	2	672.05	620	1,333	1,953	0.04	0.71	7.00	5.67	0.18	1.09	12	RCP	0.50	35.6	2.52	2.62	25	667.75	667.63	2.08	3.25	4.42	43.1%	GOOD	2.08	GOOD
CBMH	4	672.05	CBMH	3	671.71	831	2,205	3,036	0.07	0.74	7.00	5.67	0.29	0.91	12	RCP	0.50	35.6	2.52	2.46	63	668.06	667.75	2.80	3.99	3.97	36.0%	GOOD	2.80	GOOD
CBMH	5	672.33	CBMH	4	672.05	661	1,034	1,695	0.04	0.67	7.00	5.67	0.15	0.62	12	RCP	0.50	35.6	2.52	2.22	99	668.55	668.06	2.61	3.78	4.00	24.5%	GOOD	2.61	GOOD
CB	6	671.70	CBMH	5	672.33	1,836	3,397	5,233	0.12	0.69	7.00	5.67	0.47	0.47	12	RCP	0.50	35.6	2.52	2.10	53	668.81	668.55	1.72	2.89	3.79	18.6%	GOOD	1.72	CAUTION
CBMH	8	671.71	FES	7	667.50	598	3,257	3,855	0.09	0.81	7.00	5.67	0.40	1.47	12	RCP	0.50	35.6	2.52	2.90	21	667.60	667.50	2.94	4.11	0.00	58.3%	GOOD	-1.16	
CBMH	9	672.00	CBMH	8	671.71	944	3,750	4,694	0.11	0.78	7.00	5.67	0.48	1.06	12	RCP	0.50	35.6	2.52	2.60	87	668.13	667.70	2.70	3.87	4.01	42.2%	GOOD	2.70	GOOD
CBMH	10	671.85	CBMH	9	672.00	316	1,372	1,688	0.04	0.79	7.00	5.67	0.17	0.59	12	RCP	0.50	35.6	2.52	2.20	57	668.41	668.13	2.27	3.44	3.88	23.4%	GOOD	2.27	GOOD
CB	11	672.00	CBMH	10	671.85	1,250	0	1,250	0.03	0.30	7.00	5.67	0.05	0.05	12	RCP	0.50	35.6	2.52	0.91	38	668.70	668.51	2.13	3.30	3.34	1.9%	GOOD	2.13	GOOD
CB	12	672.00	CBMH	10	671.85	240	3,051	3,291	0.08	0.86	7.00	5.67	0.37	0.37	12	RCP	0.50	35.6	2.52	1.97	42	668.72	668.51	2.11	3.28	3.34	14.6%	GOOD	2.11	GOOD