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FINAL STORM WATER DRAINAGE STUDY

Platte Ridge Park

(17130 MO-371, Platte County, Missouri)

Platte City, MO

South Half of Section 14, Township 53N, Range 35W

Prepared by:

McClure

Prepared for:

Platte County Parks



April 18, 2022

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GENERAL INFORMATION:

The proposed Platte Ridge Park improvements project is located west of MO-371 in Platte City, Missouri; see **Appendix A-1** for the project location map. The site is in the south half of section 14, township 53N, range 35W. The property currently has three (3) sports fields, bleachers, a small parking lot and an asphalt drive connecting the park. The proposed improvements will consist of additional parking with ADA parking and access, trails around all of the existing sports fields, a concessions building, area for a future playground, an additional access road and a septic field. The development will utilize detention basins to meter the flow from the site. The detention basins will be sized to detain the storm water runoff and release it at a rate that is equal to or less than the existing flow rate for the 10- and 100- year storm event. The detention basins will also be designed to detain the 1.37" water quality for the area flowing to the detention basin. The detention basin outfall structures will be sized to release the water quality volume over a 40-hour period.

The 16.88 acre site drains to an unnamed tributary in the Lower Platte River watershed, which drains southwest and eventually into the Missouri River. The site is outside of the FEMA regulated floodplain.

The site soils are largely classified as Sharpsburg silt loam with hydrologic soil group (HSG) C assigned and Sharpsburg silt loam with HSG D assigned. Refer to **Appendix A-2** for the soils map.

METHODOLOGY:

The stormwater management design criteria consist of the KC-APWA Standard Specifications and Design Criteria Section 5600 and the MARC BMP 2012 Manual. Runoff volumes and hydrographs were generated using the SCS TR-55 method within Bentley's PondPack. Rainfall rates match those noted in NOAA ATLAS-14, which stipulates the 24hr rainfall amount to be 3.0 inches for the 100% (1-year) storm, 3.6 inches for the 50% (2-year) storm, 5.4 inches for the 10% (10-year) storm and 8.6 inches for the 1% (100-year) storm. Post-development peak flow rates must also match or be less than pre-development rates for the 1%, 10%, and 100% storms.

EXISTING CONDITION ANALYSIS:

As previously indicated, the site currently consists of three (3) sports fields, a small parking lot, bleachers and an asphalt drive connecting the park. The approximate north half of the development flows east, enters a culvert, then drains southeast and enters an unnamed tributary. The approximate south half of the development flows southeast and enters the same unnamed tributary. The whole site drains to an unnamed tributary in the Lower Platte River watershed. Refer to **Appendix DM-1** for the existing drainage area map.

The below table shows the existing basin characteristics and weighted curve numbers.

BASIN CHARACTERISTICS - EXISTING CONDITION					
Basin ID	Total Area (acres)	Open Space (Good) - C CN = 74	Open Space (Good) - D CN = 80	Impervious CN = 98	Weighted CN
DA - A1	11.60	3.56	7.10	0.94	79.62
DA - B1	36.93	15.51	17.95	3.47	79.17

The following table shows the pre-developed peak flow rates analyzed at certain points of interest, as seen in **Appendix DM-1**. POI A and POI B both drain southeast into an unnamed tributary and enter the Platte River watershed.

EXISTING FLOWS			
POI	A	B	TOTAL INTO UNNAMED TRIBUTARY & PLATTE RIVER WATERSHED
Design Storm	(cfs)	(cfs)	(cfs)
1 Year	18.81	50.57	69.38
10 Year	48.30	132.34	180.64
100 Year	91.07	251.92	342.99

PROPOSED CONDITION ANALYSIS:

The proposed development will consist of additional parking with ADA parking and access, trails around all of the existing sports fields, a concessions building, area for a future playground, an additional access road and a septic field. Two (2) extended dry detention basins are proposed and control structures will be provided to control flow out of the basins. This measure is to prevent any increase in peak run-off flows from the pre-development condition as well as reduce any potential impacts to downstream bodies of water. Refer to **Appendix DM-2** for the proposed drainage area map.

The table below shows the proposed basin characteristics and weighted curve numbers.

BASIN CHARACTERISTICS - PROPOSED CONDITION					
Basin ID	Total Area (acres)	Open Space (Good) - C CN = 74	Open Space (Good) - D CN = 80	Impervious CN = 98	Weighted CN
DA - A1	2.72		2.20	0.52	83.4
DA - A2	4.75		3.37	1.38	85.2
DA - A3	3.96	0.41	3.11	0.44	81.4
DA - B1	37.10	15.09	18.01	4.00	79.5

The table below shows the peak flows for the two points of interest related to the Platte Ridge Park

improvements. These points are the major locations for comparison between the existing and proposed conditions. Refer to **Appendix DM-1** and **Appendix DM-2** to determine the locations of the points of interest. The flow rates shown below are for the 1-, 10-, and 100-year storm events. POI A and POI B both drain southeast into an unnamed tributary and enter the Platte River watershed.

EXISTING FLOWS				PROPOSED FLOWS			
POI	A	B	TOTAL INTO UNNAMED TRIBUTARY & PLATTE RIVER WATERSHED	POI	A	B	TOTAL INTO UNNAMED TRIBUTARY & PLATTE RIVER WATERSHED
Design Storm	(cfs)	(cfs)	(cfs)	Design Storm	(cfs)	(cfs)	(cfs)
1 Year	18.81	50.57	69.38	1 Year	10.79	51.75	62.54
10 Year	48.30	132.34	180.64	10 Year	43.41	134.25	177.66
100 Year	91.07	251.92	342.99	100 Year	72.45	254.49	326.94

The proposed flow at POI A is less than the existing flow at POI A. The proposed flow at POI B slightly exceeds that of the existing POI B, however when considering the overall drainage pattern into the tributary and Platte River watershed, the overall flow is reduced in the proposed condition.

Required Detention:

Due to the increase in peak runoff from the developed condition, detention will be required. The difference between the Hydrograph Volumes in the 100-yr peak flows between existing and proposed conditions have been calculated and can be found in **Appendix A-3**.

The tables below summarize the detention basin performance that are to be constructed with the proposed improvements. The outfall structures will be designed to retain the 40-hour water quality volume and release the rate equal to or less than the existing flow rates for the 10- and 100- year storm events.

DETENTION BASIN PERFORMANCE - EDDB A1			
	Water Elevation	Top Elevation	Free Board
Design Storm	(ft)	(ft)	(ft)
1 Year	936.17	940.00	3.83
10 Year	936.67	940.00	3.33
100 Year	937.51	940.00	2.49

DETENTION BASIN PERFORMANCE - EDDB A2			
	Water Elevation	Top Elevation	Free Board
Design Storm	(ft)	(ft)	(ft)
1 Year	934.23	938.00	3.77
10 Year	934.98	938.00	3.02
100 Year	935.98	938.00	2.02

BEST MANAGEMENT PRACTICES (BMP's):

Based on the changes in curve numbers from the existing to the proposed condition, the required level of service is 5.3. To meet the required level of service, the runoff of the site will be treated by native vegetation and extended dry detention basins. The provided BMP mitigation calculated is 5.42 and follows the October 2012 Best Management Practices Manual. The worksheets and BMP design calculations can be found in **Appendix A-5**.

CORPS OF ENGINEERS REQUIREMENTS:

N/A

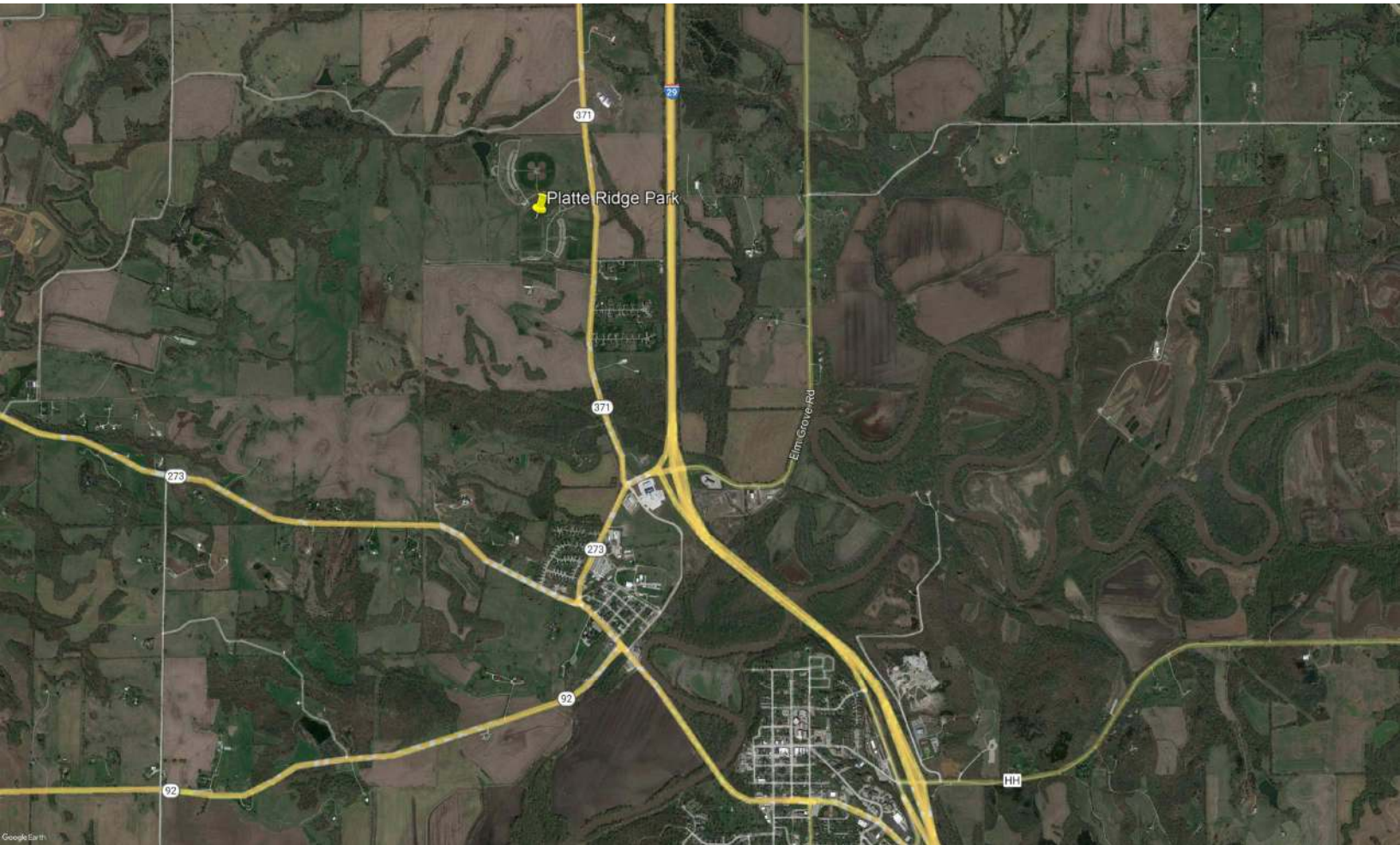
FEMA REQUIREMENTS:

The site does not lie within a FEMA established floodplain or floodway.

SUMMARY & CONCLUSION:

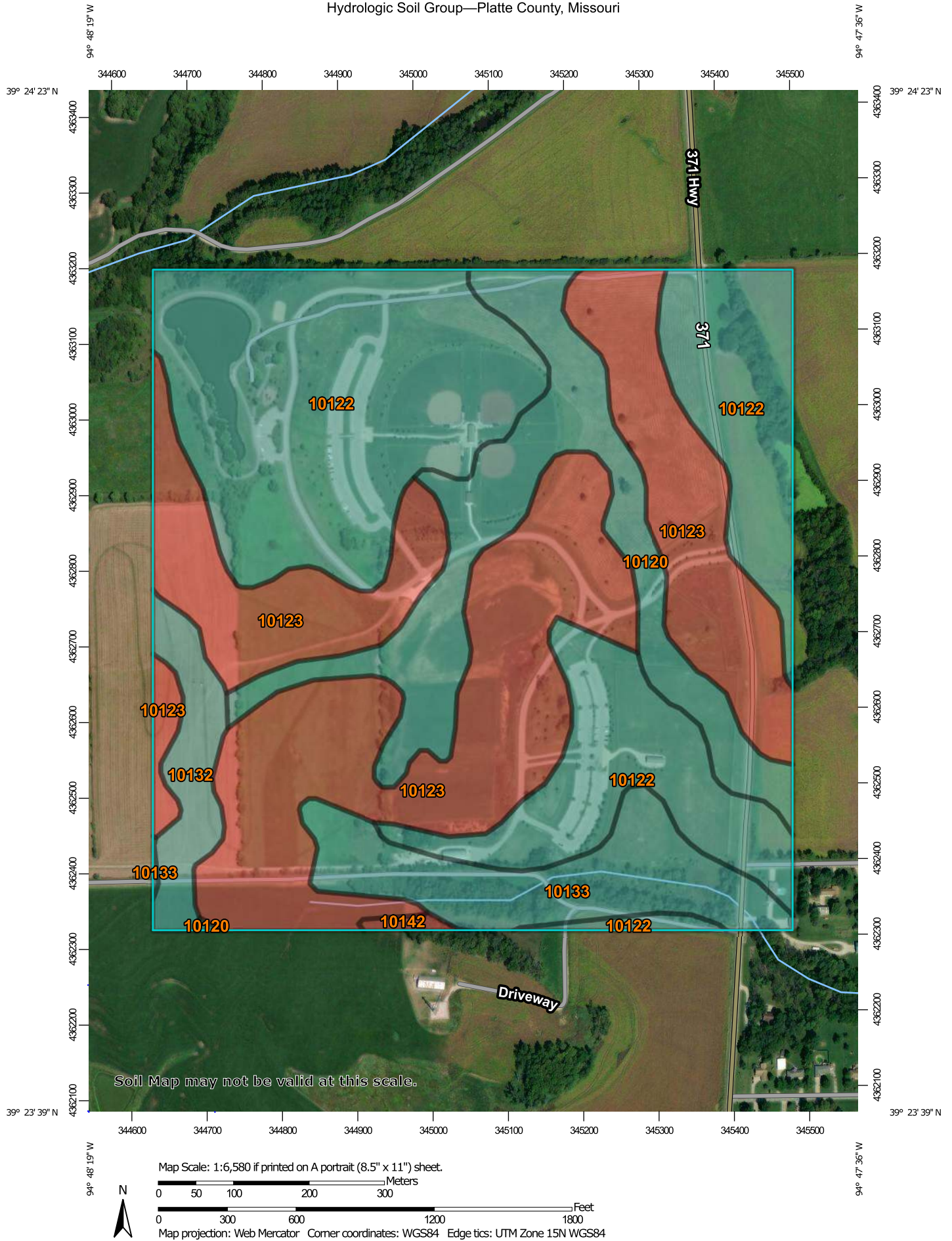
The proposed Platte Ridge Park additions will be constructed west of MO-371 in Platte City, Missouri. The site currently has three (3) sports fields, bleachers, a small parking lot and an asphalt drive connecting the park. The proposed development will consist of additional parking with ADA parking and access, trails around all the existing sports fields, a concessions building, area for a future playground, an additional access road and a septic field. Stormwater runoff from the proposed development will need to be controlled with two proposed detention basins. The proposed measures will control the 1-, 10-, and 100-year storms so that there is no increase in peak runoff rate from the pre-development to post-development condition. Water quality will be controlled through BMP measures on site.

A-1
PROJECT LOCATION MAP




A-2
SOILS MAP

Hydrologic Soil Group—Platte County, Missouri



MAP LEGEND

Area of Interest (AOI)









 Area of Interest (AOI)

Soils

Soil Rating Polygons





 A
 A/D
 B
 B/D
 C
 C/D
 D
 Not rated or not available

Soil Rating Lines

 A
 A/D
 B
 B/D
 C
 C/D
 D
 Not rated or not available

Soil Rating Points






 A
 A/D
 B
 B/D

 C
 C/D
 D
 Not rated or not available


Water Features

 Streams and Canals

Transportation

 Rails
 Interstate Highways
 US Routes
 Major Roads
 Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

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

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

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

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

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

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

Soil Survey Area: Platte County, Missouri
 Survey Area Data: Version 21, May 29, 2020

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

Date(s) aerial images were photographed: Jun 18, 2015—Sep 22, 2017

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

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
10120	Sharpsburg silt loam, 2 to 5 percent slopes	C	24.4	13.3%
10122	Sharpsburg silt loam, 5 to 9 percent slopes, eroded	C	70.1	38.1%
10123	Sharpsburg silt loam, 9 to 14 percent slopes, eroded	D	67.5	36.7%
10132	Sibley silt loam, 2 to 5 percent slopes	C	6.6	3.6%
10133	Sibley silt loam, 5 to 9 percent slopes	C	14.9	8.1%
10142	Snead-Rock outcrop complex, 5 to 14 percent slopes	D	0.5	0.3%
Totals for Area of Interest			184.0	100.0%

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

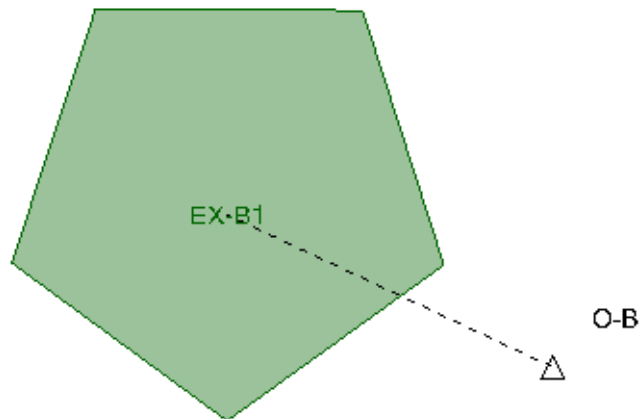
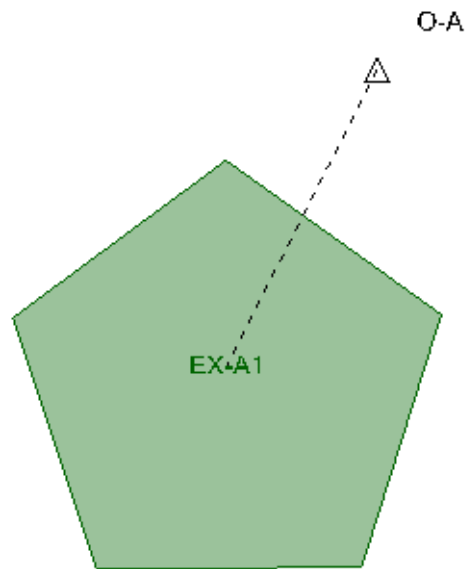
Component Percent Cutoff: None Specified

Tie-break Rule: Higher

A-3
PONDPACK OUTPUT

PondPack Model

Existing Conditions



Subsection: Master Network Summary

Catchments Summary

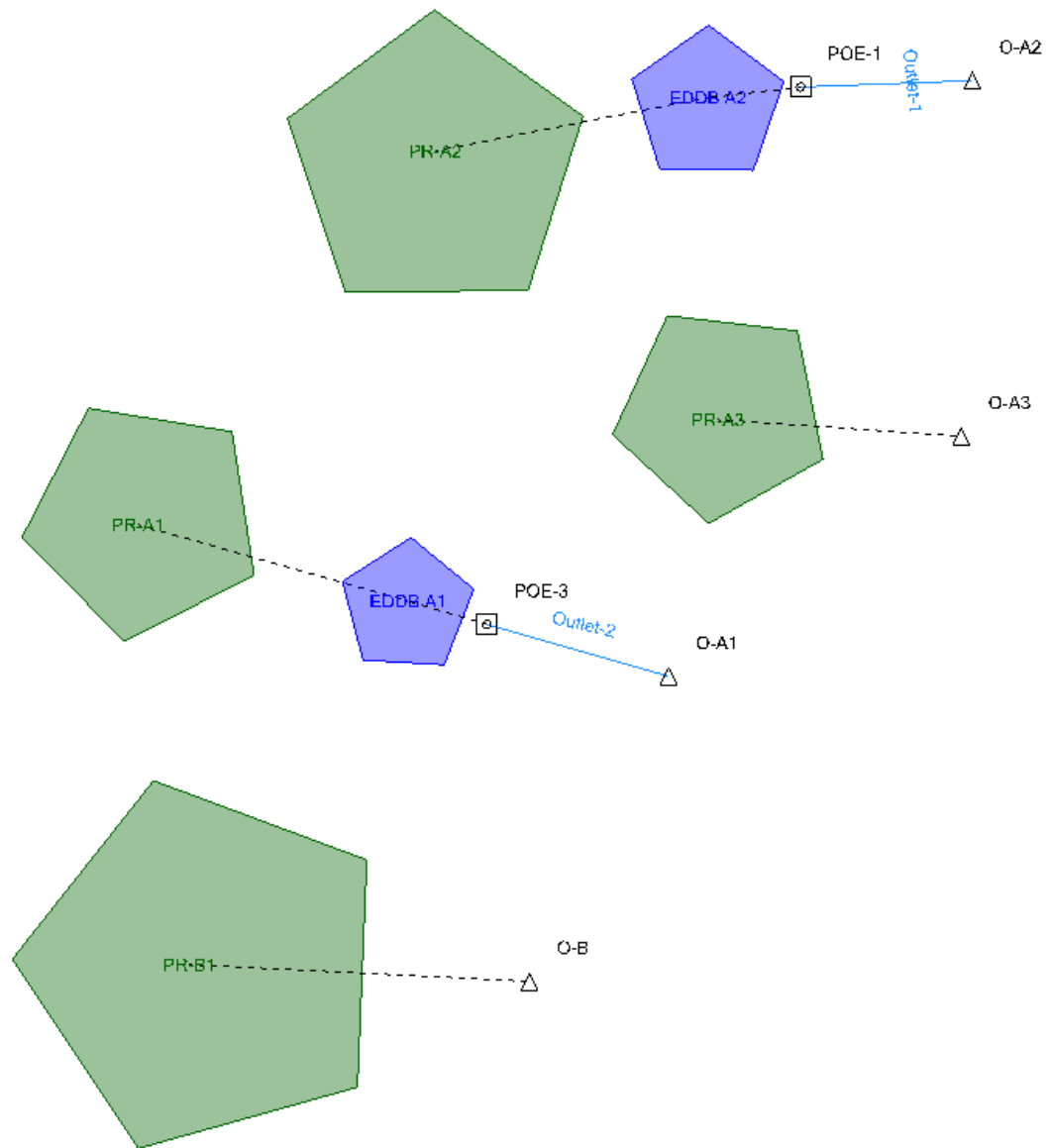
Label	Scenario	Return Event (years)	Hydrograph Volume (ac-ft)	Time to Peak (hours)	Peak Flow (ft ³ /s)
EX-A1	1 Year	1	1.204	12.000	18.81
EX-A1	10 Year	10	3.061	12.000	48.30
EX-A1	100 Year	100	5.892	12.000	91.07
EX-B1	1 Year	1	3.740	12.050	50.57
EX-B1	10 Year	10	9.597	12.050	132.34
EX-B1	100 Year	100	18.563	12.050	251.92

Node Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ac-ft)	Time to Peak (hours)	Peak Flow (ft ³ /s)
O-A	1 Year	1	1.204	12.000	18.81
O-A	10 Year	10	3.061	12.000	48.30
O-A	100 Year	100	5.892	12.000	91.07
O-B	1 Year	1	3.740	12.050	50.57
O-B	10 Year	10	9.597	12.050	132.34
O-B	100 Year	100	18.563	12.050	251.92

PondPack Model

Proposed Conditions



Subsection: Master Network Summary

Catchments Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ac-ft)	Time to Peak (hours)	Peak Flow (ft ³ /s)
PR-A2	1 Year	1	0.643	12.000	10.65
PR-A2	10 Year	10	1.471	12.000	23.61
PR-A2	100 Year	100	2.678	11.950	41.64
PR-A1	1 Year	1	0.339	11.950	5.85
PR-A1	10 Year	10	0.801	11.950	13.71
PR-A1	100 Year	100	1.485	11.950	24.75
PR-A3	1 Year	1	0.448	12.050	6.70
PR-A3	10 Year	10	1.100	12.050	16.23
PR-A3	100 Year	100	2.080	12.000	30.02
PR-B1	1 Year	1	3.820	12.050	51.75
PR-B1	10 Year	10	9.738	12.050	134.25
PR-B1	100 Year	100	18.771	12.050	254.49

Node Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ac-ft)	Time to Peak (hours)	Peak Flow (ft ³ /s)
O-A2	1 Year	1	0.399	12.150	4.53
O-A2	10 Year	10	1.169	12.100	17.00
O-A2	100 Year	100	2.302	12.100	23.38
O-A1	1 Year	1	0.217	12.100	3.27
O-A1	10 Year	10	0.679	12.000	11.98
O-A1	100 Year	100	1.362	12.050	19.05
O-A3	1 Year	1	0.448	12.050	6.70
O-A3	10 Year	10	1.100	12.050	16.23
O-A3	100 Year	100	2.080	12.000	30.02
O-B	1 Year	1	3.820	12.050	51.75
O-B	10 Year	10	9.738	12.050	134.25
O-B	100 Year	100	18.771	12.050	254.49

Pond Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ac-ft)	Time to Peak (hours)	Peak Flow (ft ³ /s)	Maximum Water Surface Elevation (ft)	Maximum Pond Storage (ac-ft)
EDDB A2 (IN)	1 Year	1	0.643	12.000	10.65	(N/A)	(N/A)
EDDB A2 (OUT)	1 Year	1	0.399	12.150	4.53	934.23	0.278
EDDB A2 (IN)	10 Year	10	1.471	12.000	23.61	(N/A)	(N/A)
EDDB A2 (OUT)	10 Year	10	1.169	12.100	17.00	934.98	0.490

Subsection: Master Network Summary

Pond Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ac-ft)	Time to Peak (hours)	Peak Flow (ft ³ /s)	Maximum Water Surface Elevation (ft)	Maximum Pond Storage (ac-ft)
EDDB A2 (IN)	100 Year	100	2.678	11.950	41.64	(N/A)	(N/A)
EDDB A2 (OUT)	100 Year	100	2.302	12.100	23.38	935.98	0.869
EDDB A1 (IN)	1 Year	1	0.339	11.950	5.85	(N/A)	(N/A)
EDDB A1 (OUT)	1 Year	1	0.217	12.100	3.27	936.17	0.136
EDDB A1 (IN)	10 Year	10	0.801	11.950	13.71	(N/A)	(N/A)
EDDB A1 (OUT)	10 Year	10	0.679	12.000	11.98	936.67	0.180
EDDB A1 (IN)	100 Year	100	1.485	11.950	24.75	(N/A)	(N/A)
EDDB A1 (OUT)	100 Year	100	1.362	12.050	19.05	937.51	0.264

Subsection: Unit Hydrograph Summary
Label: PR-A1
Scenario: 1 Year

Return Event: 1 years
Storm Event: 1

Storm Event	1
Return Event	1 years
Duration	24.000 hours
Depth	3.0 in
Time of Concentration (Composite)	0.130 hours
Area (User Defined)	2.720 acres
Computational Time Increment	0.017 hours
Time to Peak (Computed)	11.960 hours
Flow (Peak, Computed)	5.88 ft ³ /s
Output Increment	0.050 hours
Time to Flow (Peak Interpolated Output)	11.950 hours
Flow (Peak Interpolated Output)	5.85 ft ³ /s
Drainage Area	
SCS CN (Composite)	83.400
Area (User Defined)	2.720 acres
Maximum Retention (Pervious)	2.0 in
Maximum Retention (Pervious, 20 percent)	0.4 in
Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	1.5 in
Runoff Volume (Pervious)	0.340 ac-ft
Hydrograph Volume (Area under Hydrograph curve)	
Volume	0.339 ac-ft
SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	0.130 hours
Computational Time Increment	0.017 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	23.71 ft ³ /s

Subsection: Unit Hydrograph Summary
Label: PR-A1
Scenario: 1 Year

Return Event: 1 years
Storm Event: 1

SCS Unit Hydrograph Parameters	
Unit peak time, Tp	0.087 hours
Unit receding limb, Tr	0.347 hours
Total unit time, Tb	0.433 hours

Subsection: Unit Hydrograph (Hydrograph Table)
 Label: PR-A1
 Scenario: 1 Year

Return Event: 1 years
 Storm Event: 1

Storm Event	1
Return Event	1 years
Duration	24.000 hours
Depth	3.0 in
Time of Concentration (Composite)	0.130 hours
Area (User Defined)	2.720 acres

HYDROGRAPH ORDINATES (ft³/s)

Output Time Increment = 0.050 hours

Time on left represents time for first value in each row.

Time (hours)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
8.600	0.00	0.00	0.00	0.00	0.00
8.850	0.01	0.01	0.01	0.01	0.01
9.100	0.01	0.01	0.01	0.02	0.02
9.350	0.02	0.02	0.02	0.02	0.02
9.600	0.02	0.03	0.03	0.03	0.03
9.850	0.03	0.04	0.04	0.04	0.04
10.100	0.05	0.05	0.05	0.05	0.06
10.350	0.06	0.07	0.07	0.07	0.08
10.600	0.08	0.09	0.09	0.10	0.11
10.850	0.11	0.12	0.13	0.14	0.14
11.100	0.16	0.17	0.18	0.20	0.22
11.350	0.23	0.25	0.27	0.30	0.37
11.600	0.53	0.77	1.18	1.66	2.36
11.850	3.34	4.91	5.85	5.68	4.83
12.100	3.05	1.84	1.33	1.10	0.96
12.350	0.87	0.79	0.73	0.66	0.61
12.600	0.56	0.53	0.50	0.49	0.47
12.850	0.45	0.44	0.42	0.41	0.40
13.100	0.38	0.37	0.36	0.35	0.34
13.350	0.34	0.33	0.32	0.31	0.30
13.600	0.30	0.29	0.28	0.28	0.27
13.850	0.27	0.26	0.25	0.25	0.24
14.100	0.24	0.23	0.23	0.23	0.23
14.350	0.22	0.22	0.22	0.22	0.22
14.600	0.21	0.21	0.21	0.21	0.21
14.850	0.20	0.20	0.20	0.20	0.19
15.100	0.19	0.19	0.19	0.19	0.18
15.350	0.18	0.18	0.18	0.18	0.17
15.600	0.17	0.17	0.17	0.17	0.16
15.850	0.16	0.16	0.16	0.15	0.15
16.100	0.15	0.15	0.15	0.15	0.15
16.350	0.15	0.14	0.14	0.14	0.14
16.600	0.14	0.14	0.14	0.14	0.14
16.850	0.14	0.14	0.14	0.14	0.14

Subsection: Unit Hydrograph (Hydrograph Table)
 Label: PR-A1
 Scenario: 1 Year

Return Event: 1 years
 Storm Event: 1

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
17.100	0.13	0.13	0.13	0.13	0.13
17.350	0.13	0.13	0.13	0.13	0.13
17.600	0.13	0.13	0.13	0.12	0.12
17.850	0.12	0.12	0.12	0.12	0.12
18.100	0.12	0.12	0.12	0.12	0.12
18.350	0.11	0.11	0.11	0.11	0.11
18.600	0.11	0.11	0.11	0.11	0.11
18.850	0.11	0.11	0.11	0.10	0.10
19.100	0.10	0.10	0.10	0.10	0.10
19.350	0.10	0.10	0.10	0.10	0.10
19.600	0.09	0.09	0.09	0.09	0.09
19.850	0.09	0.09	0.09	0.09	0.09
20.100	0.09	0.09	0.09	0.09	0.09
20.350	0.09	0.09	0.09	0.09	0.09
20.600	0.09	0.08	0.08	0.08	0.08
20.850	0.08	0.08	0.08	0.08	0.08
21.100	0.08	0.08	0.08	0.08	0.08
21.350	0.08	0.08	0.08	0.08	0.08
21.600	0.08	0.08	0.08	0.08	0.08
21.850	0.08	0.08	0.08	0.08	0.08
22.100	0.08	0.08	0.08	0.08	0.08
22.350	0.08	0.08	0.08	0.08	0.08
22.600	0.08	0.08	0.08	0.08	0.08
22.850	0.08	0.08	0.08	0.08	0.08
23.100	0.08	0.08	0.08	0.08	0.08
23.350	0.08	0.08	0.08	0.08	0.08
23.600	0.08	0.08	0.08	0.08	0.08
23.850	0.08	0.08	0.08	0.07	(N/A)

Subsection: Unit Hydrograph Summary
Label: PR-A1
Scenario: 10 Year

Return Event: 10 years
Storm Event: 10

Storm Event	10
Return Event	10 years
Duration	24.000 hours
Depth	5.4 in
Time of Concentration (Composite)	0.130 hours
Area (User Defined)	2.720 acres
Computational Time Increment	0.017 hours
Time to Peak (Computed)	11.960 hours
Flow (Peak, Computed)	13.71 ft ³ /s
Output Increment	0.050 hours
Time to Flow (Peak Interpolated Output)	11.950 hours
Flow (Peak Interpolated Output)	13.71 ft ³ /s
Drainage Area	
SCS CN (Composite)	83.400
Area (User Defined)	2.720 acres
Maximum Retention (Pervious)	2.0 in
Maximum Retention (Pervious, 20 percent)	0.4 in
Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	3.5 in
Runoff Volume (Pervious)	0.803 ac-ft
Hydrograph Volume (Area under Hydrograph curve)	
Volume	0.801 ac-ft
SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	0.130 hours
Computational Time Increment	0.017 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	23.71 ft ³ /s

Subsection: Unit Hydrograph Summary
Label: PR-A1
Scenario: 10 Year

Return Event: 10 years
Storm Event: 10

SCS Unit Hydrograph Parameters	
Unit peak time, T_p	0.087 hours
Unit receding limb, T_r	0.347 hours
Total unit time, T_b	0.433 hours

Subsection: Unit Hydrograph (Hydrograph Table)
 Label: PR-A1
 Scenario: 10 Year

Return Event: 10 years
 Storm Event: 10

Storm Event	10
Return Event	10 years
Duration	24.000 hours
Depth	5.4 in
Time of Concentration (Composite)	0.130 hours
Area (User Defined)	2.720 acres

HYDROGRAPH ORDINATES (ft³/s)

Output Time Increment = 0.050 hours

Time on left represents time for first value in each row.

Time (hours)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
5.800	0.00	0.00	0.00	0.00	0.01
6.050	0.01	0.01	0.01	0.01	0.01
6.300	0.01	0.01	0.02	0.02	0.02
6.550	0.02	0.02	0.02	0.02	0.03
6.800	0.03	0.03	0.03	0.03	0.03
7.050	0.03	0.04	0.04	0.04	0.04
7.300	0.04	0.04	0.04	0.05	0.05
7.550	0.05	0.05	0.05	0.05	0.06
7.800	0.06	0.06	0.06	0.06	0.06
8.050	0.07	0.07	0.07	0.07	0.08
8.300	0.08	0.08	0.09	0.09	0.09
8.550	0.10	0.10	0.10	0.11	0.11
8.800	0.12	0.12	0.12	0.13	0.13
9.050	0.14	0.14	0.14	0.15	0.15
9.300	0.15	0.15	0.16	0.16	0.16
9.550	0.16	0.17	0.17	0.18	0.18
9.800	0.19	0.20	0.20	0.21	0.22
10.050	0.23	0.23	0.24	0.25	0.26
10.300	0.27	0.29	0.30	0.31	0.32
10.550	0.33	0.35	0.36	0.38	0.40
10.800	0.42	0.44	0.46	0.48	0.50
11.050	0.52	0.55	0.59	0.63	0.68
11.300	0.73	0.77	0.82	0.87	0.93
11.550	1.14	1.61	2.28	3.37	4.59
11.800	6.26	8.48	11.94	13.71	12.95
12.050	10.78	6.74	4.03	2.89	2.36
12.300	2.06	1.86	1.69	1.56	1.41
12.550	1.29	1.18	1.11	1.06	1.02
12.800	0.99	0.96	0.92	0.89	0.86
13.050	0.83	0.80	0.78	0.76	0.74
13.300	0.72	0.70	0.68	0.67	0.65
13.550	0.63	0.62	0.60	0.59	0.57
13.800	0.56	0.55	0.54	0.52	0.51
14.050	0.50	0.49	0.48	0.48	0.47

Subsection: Unit Hydrograph (Hydrograph Table)
 Label: PR-A1
 Scenario: 10 Year

Return Event: 10 years
 Storm Event: 10

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
14.300	0.47	0.46	0.46	0.45	0.45
14.550	0.44	0.44	0.44	0.43	0.43
14.800	0.42	0.42	0.41	0.41	0.40
15.050	0.40	0.40	0.39	0.39	0.38
15.300	0.38	0.37	0.37	0.36	0.36
15.550	0.36	0.35	0.35	0.34	0.34
15.800	0.33	0.33	0.32	0.32	0.31
16.050	0.31	0.31	0.30	0.30	0.30
16.300	0.30	0.30	0.29	0.29	0.29
16.550	0.29	0.29	0.29	0.29	0.28
16.800	0.28	0.28	0.28	0.28	0.28
17.050	0.27	0.27	0.27	0.27	0.27
17.300	0.27	0.26	0.26	0.26	0.26
17.550	0.26	0.26	0.25	0.25	0.25
17.800	0.25	0.25	0.25	0.25	0.24
18.050	0.24	0.24	0.24	0.24	0.24
18.300	0.23	0.23	0.23	0.23	0.23
18.550	0.23	0.22	0.22	0.22	0.22
18.800	0.22	0.22	0.21	0.21	0.21
19.050	0.21	0.21	0.21	0.20	0.20
19.300	0.20	0.20	0.20	0.20	0.19
19.550	0.19	0.19	0.19	0.19	0.19
19.800	0.18	0.18	0.18	0.18	0.18
20.050	0.18	0.18	0.17	0.17	0.17
20.300	0.17	0.17	0.17	0.17	0.17
20.550	0.17	0.17	0.17	0.17	0.17
20.800	0.17	0.17	0.17	0.17	0.17
21.050	0.17	0.17	0.17	0.17	0.17
21.300	0.17	0.17	0.17	0.17	0.17
21.550	0.17	0.16	0.16	0.16	0.16
21.800	0.16	0.16	0.16	0.16	0.16
22.050	0.16	0.16	0.16	0.16	0.16
22.300	0.16	0.16	0.16	0.16	0.16
22.550	0.16	0.16	0.16	0.16	0.16
22.800	0.16	0.16	0.16	0.16	0.16
23.050	0.16	0.16	0.15	0.15	0.15
23.300	0.15	0.15	0.15	0.15	0.15
23.550	0.15	0.15	0.15	0.15	0.15
23.800	0.15	0.15	0.15	0.15	0.15

Subsection: Unit Hydrograph Summary
Label: PR-A1
Scenario: 100 Year

Return Event: 100 years
Storm Event: 100

Storm Event	100
Return Event	100 years
Duration	24.000 hours
Depth	8.6 in
Time of Concentration (Composite)	0.130 hours
Area (User Defined)	2.720 acres
Computational Time Increment	0.017 hours
Time to Peak (Computed)	11.943 hours
Flow (Peak, Computed)	24.80 ft ³ /s
Output Increment	0.050 hours
Time to Flow (Peak Interpolated Output)	11.950 hours
Flow (Peak Interpolated Output)	24.75 ft ³ /s
Drainage Area	
SCS CN (Composite)	83.400
Area (User Defined)	2.720 acres
Maximum Retention (Pervious)	2.0 in
Maximum Retention (Pervious, 20 percent)	0.4 in
Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	6.6 in
Runoff Volume (Pervious)	1.487 ac-ft
Hydrograph Volume (Area under Hydrograph curve)	
Volume	1.485 ac-ft
SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	0.130 hours
Computational Time Increment	0.017 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	23.71 ft ³ /s

Subsection: Unit Hydrograph Summary
Label: PR-A1
Scenario: 100 Year

Return Event: 100 years
Storm Event: 100

SCS Unit Hydrograph Parameters	
Unit peak time, Tp	0.087 hours
Unit receding limb, Tr	0.347 hours
Total unit time, Tb	0.433 hours

Subsection: Unit Hydrograph (Hydrograph Table)
 Label: PR-A1
 Scenario: 100 Year

Return Event: 100 years
 Storm Event: 100

Storm Event	100
Return Event	100 years
Duration	24.000 hours
Depth	8.6 in
Time of Concentration (Composite)	0.130 hours
Area (User Defined)	2.720 acres

HYDROGRAPH ORDINATES (ft³/s)

Output Time Increment = 0.050 hours

Time on left represents time for first value in each row.

Time (hours)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
4.000	0.00	0.00	0.00	0.01	0.01
4.250	0.01	0.01	0.01	0.02	0.02
4.500	0.02	0.02	0.02	0.03	0.03
4.750	0.03	0.03	0.04	0.04	0.04
5.000	0.04	0.05	0.05	0.05	0.05
5.250	0.06	0.06	0.06	0.06	0.07
5.500	0.07	0.07	0.07	0.08	0.08
5.750	0.08	0.08	0.09	0.09	0.09
6.000	0.09	0.10	0.10	0.10	0.11
6.250	0.11	0.11	0.11	0.12	0.12
6.500	0.12	0.12	0.13	0.13	0.13
6.750	0.14	0.14	0.14	0.15	0.15
7.000	0.15	0.15	0.16	0.16	0.16
7.250	0.17	0.17	0.17	0.17	0.18
7.500	0.18	0.18	0.19	0.19	0.19
7.750	0.20	0.20	0.20	0.21	0.21
8.000	0.21	0.22	0.22	0.23	0.23
8.250	0.24	0.25	0.25	0.26	0.27
8.500	0.28	0.29	0.30	0.30	0.31
8.750	0.32	0.33	0.34	0.35	0.36
9.000	0.37	0.37	0.38	0.39	0.39
9.250	0.39	0.40	0.40	0.41	0.41
9.500	0.41	0.42	0.42	0.43	0.45
9.750	0.46	0.47	0.49	0.50	0.52
10.000	0.53	0.55	0.56	0.58	0.60
10.250	0.63	0.65	0.67	0.69	0.71
10.500	0.74	0.76	0.79	0.82	0.86
10.750	0.90	0.93	0.97	1.01	1.05
11.000	1.09	1.14	1.20	1.27	1.35
11.250	1.44	1.53	1.62	1.72	1.82
11.500	1.93	2.33	3.27	4.58	6.68
11.750	8.94	11.98	15.90	21.91	24.75
12.000	23.06	19.01	11.82	7.04	5.02
12.250	4.09	3.55	3.22	2.92	2.68

Subsection: Unit Hydrograph (Hydrograph Table)
 Label: PR-A1
 Scenario: 100 Year

Return Event: 100 years
 Storm Event: 100

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
12.500	2.42	2.21	2.03	1.91	1.82
12.750	1.75	1.69	1.64	1.58	1.52
13.000	1.46	1.41	1.36	1.33	1.29
13.250	1.26	1.23	1.20	1.17	1.14
13.500	1.10	1.08	1.05	1.02	1.00
13.750	0.98	0.96	0.93	0.91	0.89
14.000	0.87	0.85	0.83	0.82	0.81
14.250	0.80	0.79	0.79	0.78	0.77
14.500	0.76	0.75	0.75	0.74	0.73
14.750	0.72	0.72	0.71	0.70	0.69
15.000	0.68	0.68	0.67	0.66	0.65
15.250	0.65	0.64	0.63	0.62	0.62
15.500	0.61	0.60	0.59	0.58	0.58
15.750	0.57	0.56	0.55	0.55	0.54
16.000	0.53	0.52	0.52	0.51	0.51
16.250	0.51	0.50	0.50	0.50	0.50
16.500	0.49	0.49	0.49	0.48	0.48
16.750	0.48	0.48	0.47	0.47	0.47
17.000	0.46	0.46	0.46	0.46	0.45
17.250	0.45	0.45	0.45	0.44	0.44
17.500	0.44	0.43	0.43	0.43	0.43
17.750	0.42	0.42	0.42	0.42	0.41
18.000	0.41	0.41	0.40	0.40	0.40
18.250	0.40	0.39	0.39	0.39	0.38
18.500	0.38	0.38	0.38	0.37	0.37
18.750	0.37	0.37	0.36	0.36	0.36
19.000	0.35	0.35	0.35	0.35	0.34
19.250	0.34	0.34	0.33	0.33	0.33
19.500	0.33	0.32	0.32	0.32	0.32
19.750	0.31	0.31	0.31	0.30	0.30
20.000	0.30	0.30	0.29	0.29	0.29
20.250	0.29	0.29	0.29	0.29	0.29
20.500	0.29	0.29	0.29	0.29	0.29
20.750	0.29	0.28	0.28	0.28	0.28
21.000	0.28	0.28	0.28	0.28	0.28
21.250	0.28	0.28	0.28	0.28	0.28
21.500	0.28	0.28	0.28	0.28	0.28
21.750	0.27	0.27	0.27	0.27	0.27
22.000	0.27	0.27	0.27	0.27	0.27
22.250	0.27	0.27	0.27	0.27	0.27
22.500	0.27	0.27	0.26	0.26	0.26
22.750	0.26	0.26	0.26	0.26	0.26
23.000	0.26	0.26	0.26	0.26	0.26

Subsection: Unit Hydrograph (Hydrograph Table)
 Label: PR-A1
 Scenario: 100 Year

Return Event: 100 years
 Storm Event: 100

HYDROGRAPH ORDINATES (ft³/s)

Output Time Increment = 0.050 hours

Time on left represents time for first value in each row.

Time (hours)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
23.250	0.26	0.26	0.26	0.26	0.26
23.500	0.26	0.25	0.25	0.25	0.25
23.750	0.25	0.25	0.25	0.25	0.25
24.000	0.25	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Unit Hydrograph Summary
Label: PR-A2
Scenario: 1 Year

Return Event: 1 years
Storm Event: 1

Storm Event	1
Return Event	1 years
Duration	24.000 hours
Depth	3.0 in
Time of Concentration (Composite)	0.159 hours
Area (User Defined)	4.750 acres
Computational Time Increment	0.021 hours
Time to Peak (Computed)	11.978 hours
Flow (Peak, Computed)	10.68 ft ³ /s
Output Increment	0.050 hours
Time to Flow (Peak Interpolated Output)	12.000 hours
Flow (Peak Interpolated Output)	10.65 ft ³ /s
Drainage Area	
SCS CN (Composite)	85.200
Area (User Defined)	4.750 acres
Maximum Retention (Pervious)	1.7 in
Maximum Retention (Pervious, 20 percent)	0.3 in
Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	1.6 in
Runoff Volume (Pervious)	0.645 ac-ft
Hydrograph Volume (Area under Hydrograph curve)	
Volume	0.643 ac-ft
SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	0.159 hours
Computational Time Increment	0.021 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	33.85 ft ³ /s

Subsection: Unit Hydrograph Summary
Label: PR-A2
Scenario: 1 Year

Return Event: 1 years
Storm Event: 1

SCS Unit Hydrograph Parameters	
Unit peak time, T_p	0.106 hours
Unit receding limb, T_r	0.424 hours
Total unit time, T_b	0.530 hours

Subsection: Unit Hydrograph (Hydrograph Table)
 Label: PR-A2
 Scenario: 1 Year

Return Event: 1 years
 Storm Event: 1

Storm Event	1
Return Event	1 years
Duration	24.000 hours
Depth	3.0 in
Time of Concentration (Composite)	0.159 hours
Area (User Defined)	4.750 acres

HYDROGRAPH ORDINATES (ft³/s)

Output Time Increment = 0.050 hours

Time on left represents time for first value in each row.

Time (hours)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
7.900	0.00	0.00	0.00	0.00	0.01
8.150	0.01	0.01	0.01	0.01	0.01
8.400	0.01	0.02	0.02	0.02	0.02
8.650	0.02	0.03	0.03	0.03	0.03
8.900	0.04	0.04	0.04	0.04	0.05
9.150	0.05	0.05	0.05	0.06	0.06
9.400	0.06	0.06	0.06	0.07	0.07
9.650	0.07	0.08	0.08	0.08	0.09
9.900	0.09	0.10	0.10	0.11	0.11
10.150	0.12	0.12	0.13	0.14	0.15
10.400	0.15	0.16	0.17	0.18	0.19
10.650	0.20	0.21	0.22	0.23	0.25
10.900	0.26	0.28	0.29	0.31	0.33
11.150	0.35	0.38	0.41	0.44	0.48
11.400	0.52	0.55	0.60	0.70	0.97
11.650	1.38	2.06	2.93	4.11	5.72
11.900	8.24	10.29	10.65	9.56	6.92
12.150	4.40	3.06	2.37	1.98	1.74
12.400	1.56	1.42	1.28	1.17	1.08
12.650	1.00	0.95	0.91	0.88	0.85
12.900	0.82	0.79	0.76	0.74	0.71
13.150	0.69	0.67	0.66	0.64	0.63
13.400	0.61	0.60	0.58	0.56	0.55
13.650	0.54	0.52	0.51	0.50	0.49
13.900	0.48	0.47	0.46	0.45	0.44
14.150	0.43	0.42	0.42	0.42	0.41
14.400	0.41	0.40	0.40	0.40	0.39
14.650	0.39	0.39	0.38	0.38	0.37
14.900	0.37	0.37	0.36	0.36	0.35
15.150	0.35	0.35	0.34	0.34	0.33
15.400	0.33	0.33	0.32	0.32	0.31
15.650	0.31	0.31	0.30	0.30	0.29
15.900	0.29	0.29	0.28	0.28	0.28
16.150	0.27	0.27	0.27	0.27	0.27

Subsection: Unit Hydrograph (Hydrograph Table)
 Label: PR-A2
 Scenario: 1 Year

Return Event: 1 years
 Storm Event: 1

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
16.400	0.26	0.26	0.26	0.26	0.26
16.650	0.26	0.26	0.26	0.25	0.25
16.900	0.25	0.25	0.25	0.25	0.25
17.150	0.24	0.24	0.24	0.24	0.24
17.400	0.24	0.24	0.23	0.23	0.23
17.650	0.23	0.23	0.23	0.23	0.22
17.900	0.22	0.22	0.22	0.22	0.22
18.150	0.22	0.21	0.21	0.21	0.21
18.400	0.21	0.21	0.21	0.20	0.20
18.650	0.20	0.20	0.20	0.20	0.20
18.900	0.19	0.19	0.19	0.19	0.19
19.150	0.19	0.18	0.18	0.18	0.18
19.400	0.18	0.18	0.18	0.17	0.17
19.650	0.17	0.17	0.17	0.17	0.17
19.900	0.16	0.16	0.16	0.16	0.16
20.150	0.16	0.16	0.16	0.16	0.16
20.400	0.16	0.16	0.16	0.16	0.15
20.650	0.15	0.15	0.15	0.15	0.15
20.900	0.15	0.15	0.15	0.15	0.15
21.150	0.15	0.15	0.15	0.15	0.15
21.400	0.15	0.15	0.15	0.15	0.15
21.650	0.15	0.15	0.15	0.15	0.15
21.900	0.15	0.15	0.15	0.15	0.15
22.150	0.15	0.15	0.15	0.15	0.15
22.400	0.14	0.14	0.14	0.14	0.14
22.650	0.14	0.14	0.14	0.14	0.14
22.900	0.14	0.14	0.14	0.14	0.14
23.150	0.14	0.14	0.14	0.14	0.14
23.400	0.14	0.14	0.14	0.14	0.14
23.650	0.14	0.14	0.14	0.14	0.14
23.900	0.14	0.14	0.14	(N/A)	(N/A)

Subsection: Unit Hydrograph Summary
Label: PR-A2
Scenario: 10 Year

Return Event: 10 years
Storm Event: 10

Storm Event	10
Return Event	10 years
Duration	24.000 hours
Depth	5.4 in
Time of Concentration (Composite)	0.159 hours
Area (User Defined)	4.750 acres
Computational Time Increment	0.021 hours
Time to Peak (Computed)	11.978 hours
Flow (Peak, Computed)	23.94 ft ³ /s
Output Increment	0.050 hours
Time to Flow (Peak Interpolated Output)	12.000 hours
Flow (Peak Interpolated Output)	23.61 ft ³ /s
Drainage Area	
SCS CN (Composite)	85.200
Area (User Defined)	4.750 acres
Maximum Retention (Pervious)	1.7 in
Maximum Retention (Pervious, 20 percent)	0.3 in
Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	3.7 in
Runoff Volume (Pervious)	1.474 ac-ft
Hydrograph Volume (Area under Hydrograph curve)	
Volume	1.471 ac-ft
SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	0.159 hours
Computational Time Increment	0.021 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	33.85 ft ³ /s

Subsection: Unit Hydrograph Summary
Label: PR-A2
Scenario: 10 Year

Return Event: 10 years
Storm Event: 10

SCS Unit Hydrograph Parameters	
Unit peak time, Tp	0.106 hours
Unit receding limb, Tr	0.424 hours
Total unit time, Tb	0.530 hours

Subsection: Unit Hydrograph (Hydrograph Table)
 Label: PR-A2
 Scenario: 10 Year

Return Event: 10 years
 Storm Event: 10

Storm Event	10
Return Event	10 years
Duration	24.000 hours
Depth	5.4 in
Time of Concentration (Composite)	0.159 hours
Area (User Defined)	4.750 acres

HYDROGRAPH ORDINATES (ft³/s)

Output Time Increment = 0.050 hours

Time on left represents time for first value in each row.

Time (hours)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
5.200	0.00	0.00	0.00	0.00	0.01
5.450	0.01	0.01	0.01	0.02	0.02
5.700	0.02	0.02	0.02	0.03	0.03
5.950	0.03	0.03	0.04	0.04	0.04
6.200	0.04	0.05	0.05	0.05	0.05
6.450	0.06	0.06	0.06	0.06	0.07
6.700	0.07	0.07	0.08	0.08	0.08
6.950	0.08	0.09	0.09	0.09	0.09
7.200	0.10	0.10	0.10	0.11	0.11
7.450	0.11	0.11	0.12	0.12	0.12
7.700	0.13	0.13	0.13	0.14	0.14
7.950	0.14	0.14	0.15	0.15	0.16
8.200	0.16	0.17	0.17	0.18	0.19
8.450	0.19	0.20	0.21	0.21	0.22
8.700	0.23	0.24	0.24	0.25	0.26
8.950	0.27	0.28	0.29	0.29	0.30
9.200	0.30	0.31	0.31	0.32	0.32
9.450	0.32	0.33	0.33	0.34	0.35
9.700	0.36	0.37	0.38	0.39	0.41
9.950	0.42	0.44	0.45	0.47	0.48
10.200	0.50	0.52	0.54	0.56	0.58
10.450	0.60	0.63	0.65	0.67	0.70
10.700	0.74	0.77	0.80	0.84	0.88
10.950	0.91	0.95	1.00	1.05	1.11
11.200	1.19	1.27	1.36	1.44	1.54
11.450	1.63	1.74	2.02	2.72	3.82
11.700	5.54	7.65	10.39	13.96	19.34
11.950	23.41	23.61	20.79	14.89	9.40
12.200	6.47	4.98	4.15	3.63	3.24
12.450	2.93	2.65	2.41	2.21	2.06
12.700	1.95	1.87	1.80	1.74	1.68
12.950	1.62	1.56	1.50	1.45	1.41
13.200	1.37	1.34	1.30	1.27	1.24
13.450	1.21	1.17	1.14	1.11	1.09

Subsection: Unit Hydrograph (Hydrograph Table)
 Label: PR-A2
 Scenario: 10 Year

Return Event: 10 years
 Storm Event: 10

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
13.700	1.06	1.04	1.01	0.99	0.97
13.950	0.95	0.92	0.90	0.88	0.87
14.200	0.86	0.85	0.84	0.83	0.82
14.450	0.81	0.81	0.80	0.79	0.78
14.700	0.77	0.77	0.76	0.75	0.74
14.950	0.73	0.73	0.72	0.71	0.70
15.200	0.69	0.68	0.68	0.67	0.66
15.450	0.65	0.64	0.64	0.63	0.62
15.700	0.61	0.60	0.60	0.59	0.58
15.950	0.57	0.56	0.56	0.55	0.54
16.200	0.54	0.54	0.53	0.53	0.53
16.450	0.52	0.52	0.52	0.52	0.51
16.700	0.51	0.51	0.50	0.50	0.50
16.950	0.50	0.49	0.49	0.49	0.48
17.200	0.48	0.48	0.48	0.47	0.47
17.450	0.47	0.46	0.46	0.46	0.45
17.700	0.45	0.45	0.45	0.44	0.44
17.950	0.44	0.43	0.43	0.43	0.43
18.200	0.42	0.42	0.42	0.41	0.41
18.450	0.41	0.41	0.40	0.40	0.40
18.700	0.39	0.39	0.39	0.38	0.38
18.950	0.38	0.38	0.37	0.37	0.37
19.200	0.36	0.36	0.36	0.36	0.35
19.450	0.35	0.35	0.34	0.34	0.34
19.700	0.33	0.33	0.33	0.33	0.32
19.950	0.32	0.32	0.31	0.31	0.31
20.200	0.31	0.31	0.31	0.31	0.31
20.450	0.31	0.31	0.31	0.30	0.30
20.700	0.30	0.30	0.30	0.30	0.30
20.950	0.30	0.30	0.30	0.30	0.30
21.200	0.30	0.30	0.30	0.30	0.30
21.450	0.29	0.29	0.29	0.29	0.29
21.700	0.29	0.29	0.29	0.29	0.29
21.950	0.29	0.29	0.29	0.29	0.29
22.200	0.29	0.29	0.28	0.28	0.28
22.450	0.28	0.28	0.28	0.28	0.28
22.700	0.28	0.28	0.28	0.28	0.28
22.950	0.28	0.28	0.28	0.28	0.28
23.200	0.27	0.27	0.27	0.27	0.27
23.450	0.27	0.27	0.27	0.27	0.27
23.700	0.27	0.27	0.27	0.27	0.27
23.950	0.27	0.27	(N/A)	(N/A)	(N/A)

Subsection: Unit Hydrograph Summary
Label: PR-A2
Scenario: 100 Year

Return Event: 100 years
Storm Event: 100

Storm Event	100
Return Event	100 years
Duration	24.000 hours
Depth	8.6 in
Time of Concentration (Composite)	0.159 hours
Area (User Defined)	4.750 acres
Computational Time Increment	0.021 hours
Time to Peak (Computed)	11.978 hours
Flow (Peak, Computed)	42.30 ft ³ /s
Output Increment	0.050 hours
Time to Flow (Peak Interpolated Output)	11.950 hours
Flow (Peak Interpolated Output)	41.64 ft ³ /s
Drainage Area	
SCS CN (Composite)	85.200
Area (User Defined)	4.750 acres
Maximum Retention (Pervious)	1.7 in
Maximum Retention (Pervious, 20 percent)	0.3 in
Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	6.8 in
Runoff Volume (Pervious)	2.683 ac-ft
Hydrograph Volume (Area under Hydrograph curve)	
Volume	2.678 ac-ft
SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	0.159 hours
Computational Time Increment	0.021 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	33.85 ft ³ /s

Subsection: Unit Hydrograph Summary
Label: PR-A2
Scenario: 100 Year

Return Event: 100 years
Storm Event: 100

SCS Unit Hydrograph Parameters	
Unit peak time, Tp	0.106 hours
Unit receding limb, Tr	0.424 hours
Total unit time, Tb	0.530 hours

Subsection: Unit Hydrograph (Hydrograph Table)
 Label: PR-A2
 Scenario: 100 Year

Return Event: 100 years
 Storm Event: 100

Storm Event	100
Return Event	100 years
Duration	24.000 hours
Depth	8.6 in
Time of Concentration (Composite)	0.159 hours
Area (User Defined)	4.750 acres

HYDROGRAPH ORDINATES (ft³/s)

Output Time Increment = 0.050 hours

Time on left represents time for first value in each row.

Time (hours)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
3.550	0.00	0.00	0.01	0.01	0.01
3.800	0.02	0.02	0.02	0.03	0.03
4.050	0.03	0.04	0.04	0.05	0.05
4.300	0.05	0.06	0.06	0.07	0.07
4.550	0.07	0.08	0.08	0.09	0.09
4.800	0.10	0.10	0.10	0.11	0.11
5.050	0.12	0.12	0.13	0.13	0.14
5.300	0.14	0.14	0.15	0.15	0.16
5.550	0.16	0.17	0.17	0.18	0.18
5.800	0.19	0.19	0.20	0.20	0.21
6.050	0.21	0.22	0.22	0.23	0.23
6.300	0.24	0.24	0.25	0.25	0.26
6.550	0.26	0.27	0.27	0.28	0.29
6.800	0.29	0.30	0.30	0.31	0.31
7.050	0.32	0.32	0.33	0.33	0.34
7.300	0.34	0.35	0.36	0.36	0.37
7.550	0.37	0.38	0.38	0.39	0.39
7.800	0.40	0.41	0.41	0.42	0.42
8.050	0.43	0.44	0.45	0.46	0.47
8.300	0.48	0.50	0.51	0.53	0.54
8.550	0.56	0.57	0.59	0.61	0.62
8.800	0.64	0.65	0.67	0.69	0.70
9.050	0.72	0.73	0.74	0.75	0.76
9.300	0.77	0.77	0.78	0.78	0.79
9.550	0.80	0.81	0.82	0.84	0.87
9.800	0.89	0.92	0.94	0.97	1.00
10.050	1.03	1.06	1.09	1.13	1.17
10.300	1.21	1.25	1.29	1.33	1.37
10.550	1.41	1.47	1.52	1.58	1.65
10.800	1.72	1.78	1.85	1.92	2.00
11.050	2.08	2.18	2.30	2.44	2.59
11.300	2.76	2.92	3.10	3.27	3.46
11.550	4.00	5.34	7.43	10.66	14.53
11.800	19.43	25.68	34.92	41.64	41.50

Subsection: Unit Hydrograph (Hydrograph Table)
 Label: PR-A2
 Scenario: 100 Year

Return Event: 100 years
 Storm Event: 100

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
12.050	36.22	25.80	16.22	11.13	8.53
12.300	7.08	6.18	5.51	4.99	4.50
12.550	4.09	3.75	3.49	3.30	3.17
12.800	3.05	2.94	2.84	2.74	2.64
13.050	2.54	2.45	2.38	2.31	2.25
13.300	2.20	2.14	2.09	2.03	1.98
13.550	1.93	1.88	1.83	1.79	1.75
13.800	1.71	1.67	1.63	1.59	1.55
14.050	1.51	1.48	1.46	1.44	1.42
14.300	1.41	1.39	1.38	1.36	1.35
14.550	1.34	1.32	1.31	1.30	1.28
14.800	1.27	1.26	1.24	1.23	1.22
15.050	1.20	1.19	1.18	1.16	1.15
15.300	1.13	1.12	1.11	1.09	1.08
15.550	1.07	1.05	1.04	1.02	1.01
15.800	1.00	0.98	0.97	0.96	0.94
16.050	0.93	0.92	0.91	0.90	0.90
16.300	0.89	0.89	0.88	0.88	0.87
16.550	0.87	0.86	0.86	0.85	0.85
16.800	0.84	0.84	0.83	0.83	0.82
17.050	0.82	0.81	0.81	0.80	0.80
17.300	0.79	0.79	0.78	0.78	0.77
17.550	0.77	0.76	0.76	0.75	0.75
17.800	0.74	0.74	0.73	0.73	0.72
18.050	0.72	0.71	0.71	0.70	0.70
18.300	0.70	0.69	0.69	0.68	0.68
18.550	0.67	0.67	0.66	0.66	0.65
18.800	0.65	0.64	0.64	0.63	0.63
19.050	0.62	0.62	0.61	0.61	0.60
19.300	0.60	0.59	0.59	0.58	0.58
19.550	0.57	0.57	0.56	0.56	0.55
19.800	0.55	0.54	0.54	0.53	0.53
20.050	0.52	0.52	0.52	0.51	0.51
20.300	0.51	0.51	0.51	0.51	0.51
20.550	0.51	0.51	0.50	0.50	0.50
20.800	0.50	0.50	0.50	0.50	0.50
21.050	0.50	0.50	0.50	0.49	0.49
21.300	0.49	0.49	0.49	0.49	0.49
21.550	0.49	0.49	0.49	0.48	0.48
21.800	0.48	0.48	0.48	0.48	0.48
22.050	0.48	0.48	0.48	0.47	0.47
22.300	0.47	0.47	0.47	0.47	0.47
22.550	0.47	0.47	0.47	0.47	0.46

Subsection: Unit Hydrograph (Hydrograph Table)
Label: PR-A2
Scenario: 100 Year

Return Event: 100 years
Storm Event: 100

HYDROGRAPH ORDINATES (ft³/s)

Output Time Increment = 0.050 hours

Time on left represents time for first value in each row.

Time (hours)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
22.800	0.46	0.46	0.46	0.46	0.46
23.050	0.46	0.46	0.46	0.46	0.45
23.300	0.45	0.45	0.45	0.45	0.45
23.550	0.45	0.45	0.45	0.45	0.44
23.800	0.44	0.44	0.44	0.44	0.44

Subsection: Unit Hydrograph Summary
Label: PR-A3
Scenario: 1 Year

Return Event: 1 years
Storm Event: 1

Storm Event	1
Return Event	1 years
Duration	24.000 hours
Depth	3.0 in
Time of Concentration (Composite)	0.227 hours
Area (User Defined)	3.960 acres
Computational Time Increment	0.030 hours
Time to Peak (Computed)	12.046 hours
Flow (Peak, Computed)	6.75 ft ³ /s
Output Increment	0.050 hours
Time to Flow (Peak Interpolated Output)	12.050 hours
Flow (Peak Interpolated Output)	6.70 ft ³ /s
Drainage Area	
SCS CN (Composite)	81.400
Area (User Defined)	3.960 acres
Maximum Retention (Pervious)	2.3 in
Maximum Retention (Pervious, 20 percent)	0.5 in
Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	1.4 in
Runoff Volume (Pervious)	0.450 ac-ft
Hydrograph Volume (Area under Hydrograph curve)	
Volume	0.448 ac-ft
SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	0.227 hours
Computational Time Increment	0.030 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	19.77 ft ³ /s

Subsection: Unit Hydrograph Summary
Label: PR-A3
Scenario: 1 Year

Return Event: 1 years
Storm Event: 1

SCS Unit Hydrograph Parameters	
Unit peak time, Tp	0.151 hours
Unit receding limb, Tr	0.605 hours
Total unit time, Tb	0.757 hours

Subsection: Unit Hydrograph (Hydrograph Table)
 Label: PR-A3
 Scenario: 1 Year

Return Event: 1 years
 Storm Event: 1

Storm Event	1
Return Event	1 years
Duration	24.000 hours
Depth	3.0 in
Time of Concentration (Composite)	0.227 hours
Area (User Defined)	3.960 acres

HYDROGRAPH ORDINATES (ft³/s)

Output Time Increment = 0.050 hours

Time on left represents time for first value in each row.

Time (hours)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
9.250	0.00	0.00	0.00	0.00	0.01
9.500	0.01	0.01	0.01	0.01	0.01
9.750	0.02	0.02	0.02	0.02	0.02
10.000	0.03	0.03	0.03	0.04	0.04
10.250	0.04	0.05	0.05	0.05	0.06
10.500	0.06	0.07	0.07	0.08	0.08
10.750	0.09	0.10	0.11	0.11	0.12
11.000	0.13	0.14	0.15	0.16	0.18
11.250	0.20	0.21	0.23	0.26	0.28
11.500	0.30	0.35	0.44	0.61	0.91
11.750	1.34	1.93	2.79	4.05	5.50
12.000	6.50	6.70	5.92	4.62	3.38
12.250	2.53	2.01	1.66	1.43	1.25
12.500	1.11	1.00	0.90	0.82	0.76
12.750	0.72	0.69	0.66	0.64	0.61
13.000	0.59	0.57	0.55	0.53	0.52
13.250	0.50	0.49	0.48	0.47	0.46
13.500	0.45	0.43	0.42	0.41	0.40
13.750	0.39	0.39	0.38	0.37	0.36
14.000	0.35	0.34	0.34	0.33	0.32
14.250	0.32	0.32	0.31	0.31	0.31
14.500	0.30	0.30	0.30	0.30	0.29
14.750	0.29	0.29	0.28	0.28	0.28
15.000	0.28	0.27	0.27	0.27	0.26
15.250	0.26	0.26	0.26	0.25	0.25
15.500	0.25	0.24	0.24	0.24	0.24
15.750	0.23	0.23	0.23	0.22	0.22
16.000	0.22	0.21	0.21	0.21	0.21
16.250	0.21	0.20	0.20	0.20	0.20
16.500	0.20	0.20	0.20	0.20	0.20
16.750	0.19	0.19	0.19	0.19	0.19
17.000	0.19	0.19	0.19	0.19	0.19
17.250	0.18	0.18	0.18	0.18	0.18
17.500	0.18	0.18	0.18	0.18	0.17

Subsection: Unit Hydrograph (Hydrograph Table)
 Label: PR-A3
 Scenario: 1 Year

Return Event: 1 years
 Storm Event: 1

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
17.750	0.17	0.17	0.17	0.17	0.17
18.000	0.17	0.17	0.17	0.17	0.16
18.250	0.16	0.16	0.16	0.16	0.16
18.500	0.16	0.16	0.16	0.15	0.15
18.750	0.15	0.15	0.15	0.15	0.15
19.000	0.15	0.15	0.14	0.14	0.14
19.250	0.14	0.14	0.14	0.14	0.14
19.500	0.14	0.13	0.13	0.13	0.13
19.750	0.13	0.13	0.13	0.13	0.13
20.000	0.12	0.12	0.12	0.12	0.12
20.250	0.12	0.12	0.12	0.12	0.12
20.500	0.12	0.12	0.12	0.12	0.12
20.750	0.12	0.12	0.12	0.12	0.12
21.000	0.12	0.12	0.12	0.12	0.12
21.250	0.12	0.12	0.12	0.12	0.12
21.500	0.11	0.11	0.11	0.11	0.11
21.750	0.11	0.11	0.11	0.11	0.11
22.000	0.11	0.11	0.11	0.11	0.11
22.250	0.11	0.11	0.11	0.11	0.11
22.500	0.11	0.11	0.11	0.11	0.11
22.750	0.11	0.11	0.11	0.11	0.11
23.000	0.11	0.11	0.11	0.11	0.11
23.250	0.11	0.11	0.11	0.11	0.11
23.500	0.11	0.11	0.11	0.11	0.11
23.750	0.11	0.11	0.11	0.10	0.10
24.000	0.10	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Unit Hydrograph Summary
 Label: PR-A3
 Scenario: 10 Year

Return Event: 10 years
 Storm Event: 10

Storm Event	10
Return Event	10 years
Duration	24.000 hours
Depth	5.4 in
Time of Concentration (Composite)	0.227 hours
Area (User Defined)	3.960 acres
Computational Time Increment	0.030 hours
Time to Peak (Computed)	12.016 hours
Flow (Peak, Computed)	16.50 ft ³ /s
Output Increment	0.050 hours
Time to Flow (Peak Interpolated Output)	12.050 hours
Flow (Peak Interpolated Output)	16.23 ft ³ /s
Drainage Area	
SCS CN (Composite)	81.400
Area (User Defined)	3.960 acres
Maximum Retention (Pervious)	2.3 in
Maximum Retention (Pervious, 20 percent)	0.5 in
Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	3.3 in
Runoff Volume (Pervious)	1.104 ac-ft
Hydrograph Volume (Area under Hydrograph curve)	
Volume	1.100 ac-ft
SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	0.227 hours
Computational Time Increment	0.030 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	19.77 ft ³ /s

Subsection: Unit Hydrograph Summary
Label: PR-A3
Scenario: 10 Year

Return Event: 10 years
Storm Event: 10

SCS Unit Hydrograph Parameters	
Unit peak time, Tp	0.151 hours
Unit receding limb, Tr	0.605 hours
Total unit time, Tb	0.757 hours

Subsection: Unit Hydrograph (Hydrograph Table)
 Label: PR-A3
 Scenario: 10 Year

Return Event: 10 years
 Storm Event: 10

Storm Event	10
Return Event	10 years
Duration	24.000 hours
Depth	5.4 in
Time of Concentration (Composite)	0.227 hours
Area (User Defined)	3.960 acres

HYDROGRAPH ORDINATES (ft³/s)

Output Time Increment = 0.050 hours

Time on left represents time for first value in each row.

Time (hours)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
6.450	0.00	0.00	0.00	0.00	0.01
6.700	0.01	0.01	0.01	0.01	0.02
6.950	0.02	0.02	0.02	0.02	0.03
7.200	0.03	0.03	0.03	0.03	0.04
7.450	0.04	0.04	0.04	0.04	0.05
7.700	0.05	0.05	0.05	0.05	0.06
7.950	0.06	0.06	0.06	0.07	0.07
8.200	0.07	0.07	0.08	0.08	0.09
8.450	0.09	0.09	0.10	0.10	0.11
8.700	0.11	0.12	0.12	0.13	0.13
8.950	0.14	0.14	0.15	0.15	0.16
9.200	0.16	0.17	0.17	0.17	0.18
9.450	0.18	0.18	0.19	0.19	0.20
9.700	0.20	0.21	0.22	0.22	0.23
9.950	0.24	0.25	0.26	0.27	0.28
10.200	0.29	0.31	0.32	0.33	0.35
10.450	0.36	0.38	0.39	0.41	0.43
10.700	0.45	0.47	0.49	0.52	0.54
10.950	0.57	0.60	0.62	0.66	0.70
11.200	0.74	0.79	0.85	0.91	0.97
11.450	1.04	1.11	1.24	1.53	2.06
11.700	2.94	4.15	5.74	7.90	10.90
11.950	14.17	16.16	16.23	14.06	10.84
12.200	7.86	5.83	4.57	3.75	3.19
12.450	2.78	2.46	2.19	1.97	1.79
12.700	1.66	1.57	1.50	1.44	1.38
12.950	1.33	1.28	1.24	1.19	1.15
13.200	1.12	1.09	1.06	1.03	1.01
13.450	0.98	0.96	0.93	0.91	0.88
13.700	0.86	0.84	0.82	0.81	0.79
13.950	0.77	0.75	0.73	0.72	0.70
14.200	0.69	0.68	0.67	0.67	0.66
14.450	0.65	0.65	0.64	0.63	0.63
14.700	0.62	0.61	0.61	0.60	0.60

Subsection: Unit Hydrograph (Hydrograph Table)
 Label: PR-A3
 Scenario: 10 Year

Return Event: 10 years
 Storm Event: 10

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
14.950	0.59	0.58	0.58	0.57	0.56
15.200	0.56	0.55	0.54	0.54	0.53
15.450	0.53	0.52	0.51	0.51	0.50
15.700	0.49	0.49	0.48	0.47	0.47
15.950	0.46	0.46	0.45	0.44	0.44
16.200	0.43	0.43	0.43	0.43	0.42
16.450	0.42	0.42	0.42	0.41	0.41
16.700	0.41	0.41	0.40	0.40	0.40
16.950	0.40	0.40	0.39	0.39	0.39
17.200	0.39	0.38	0.38	0.38	0.38
17.450	0.37	0.37	0.37	0.37	0.37
17.700	0.36	0.36	0.36	0.36	0.35
17.950	0.35	0.35	0.35	0.34	0.34
18.200	0.34	0.34	0.34	0.33	0.33
18.450	0.33	0.33	0.32	0.32	0.32
18.700	0.32	0.31	0.31	0.31	0.31
18.950	0.31	0.30	0.30	0.30	0.30
19.200	0.29	0.29	0.29	0.29	0.28
19.450	0.28	0.28	0.28	0.28	0.27
19.700	0.27	0.27	0.27	0.26	0.26
19.950	0.26	0.26	0.25	0.25	0.25
20.200	0.25	0.25	0.25	0.25	0.25
20.450	0.25	0.25	0.24	0.24	0.24
20.700	0.24	0.24	0.24	0.24	0.24
20.950	0.24	0.24	0.24	0.24	0.24
21.200	0.24	0.24	0.24	0.24	0.24
21.450	0.24	0.24	0.24	0.24	0.23
21.700	0.23	0.23	0.23	0.23	0.23
21.950	0.23	0.23	0.23	0.23	0.23
22.200	0.23	0.23	0.23	0.23	0.23
22.450	0.23	0.23	0.23	0.23	0.23
22.700	0.23	0.22	0.22	0.22	0.22
22.950	0.22	0.22	0.22	0.22	0.22
23.200	0.22	0.22	0.22	0.22	0.22
23.450	0.22	0.22	0.22	0.22	0.22
23.700	0.22	0.22	0.22	0.21	0.21
23.950	0.21	0.21	(N/A)	(N/A)	(N/A)

Subsection: Unit Hydrograph Summary
Label: PR-A3
Scenario: 100 Year

Return Event: 100 years
Storm Event: 100

Storm Event	100
Return Event	100 years
Duration	24.000 hours
Depth	8.6 in
Time of Concentration (Composite)	0.227 hours
Area (User Defined)	3.960 acres
Computational Time Increment	0.030 hours
Time to Peak (Computed)	12.016 hours
Flow (Peak, Computed)	30.52 ft ³ /s
Output Increment	0.050 hours
Time to Flow (Peak Interpolated Output)	12.000 hours
Flow (Peak Interpolated Output)	30.02 ft ³ /s
Drainage Area	
SCS CN (Composite)	81.400
Area (User Defined)	3.960 acres
Maximum Retention (Pervious)	2.3 in
Maximum Retention (Pervious, 20 percent)	0.5 in
Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	6.3 in
Runoff Volume (Pervious)	2.086 ac-ft
Hydrograph Volume (Area under Hydrograph curve)	
Volume	2.080 ac-ft
SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	0.227 hours
Computational Time Increment	0.030 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	19.77 ft ³ /s

Subsection: Unit Hydrograph Summary
Label: PR-A3
Scenario: 100 Year

Return Event: 100 years
Storm Event: 100

SCS Unit Hydrograph Parameters	
Unit peak time, Tp	0.151 hours
Unit receding limb, Tr	0.605 hours
Total unit time, Tb	0.757 hours

Subsection: Unit Hydrograph (Hydrograph Table)
 Label: PR-A3
 Scenario: 100 Year

Return Event: 100 years
 Storm Event: 100

Storm Event	100
Return Event	100 years
Duration	24.000 hours
Depth	8.6 in
Time of Concentration (Composite)	0.227 hours
Area (User Defined)	3.960 acres

HYDROGRAPH ORDINATES (ft³/s)

Output Time Increment = 0.050 hours

Time on left represents time for first value in each row.

Time (hours)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
4.500	0.00	0.00	0.00	0.01	0.01
4.750	0.01	0.01	0.02	0.02	0.02
5.000	0.03	0.03	0.03	0.04	0.04
5.250	0.04	0.05	0.05	0.05	0.06
5.500	0.06	0.06	0.07	0.07	0.07
5.750	0.08	0.08	0.08	0.09	0.09
6.000	0.09	0.10	0.10	0.10	0.11
6.250	0.11	0.12	0.12	0.12	0.13
6.500	0.13	0.13	0.14	0.14	0.15
6.750	0.15	0.15	0.16	0.16	0.17
7.000	0.17	0.17	0.18	0.18	0.19
7.250	0.19	0.19	0.20	0.20	0.21
7.500	0.21	0.22	0.22	0.22	0.23
7.750	0.23	0.24	0.24	0.25	0.25
8.000	0.25	0.26	0.26	0.27	0.28
8.250	0.29	0.29	0.30	0.31	0.32
8.500	0.33	0.34	0.36	0.37	0.38
8.750	0.39	0.40	0.41	0.42	0.44
9.000	0.45	0.46	0.47	0.48	0.49
9.250	0.50	0.51	0.51	0.52	0.52
9.500	0.53	0.53	0.54	0.55	0.56
9.750	0.58	0.59	0.61	0.63	0.65
10.000	0.67	0.69	0.71	0.73	0.76
10.250	0.79	0.81	0.84	0.87	0.90
10.500	0.94	0.97	1.00	1.04	1.08
10.750	1.13	1.18	1.23	1.28	1.33
11.000	1.39	1.45	1.51	1.59	1.68
11.250	1.79	1.90	2.02	2.15	2.28
11.500	2.42	2.68	3.28	4.36	6.13
11.750	8.51	11.55	15.57	21.01	26.76
12.000	30.02	29.77	25.55	19.58	14.12
12.250	10.43	8.14	6.64	5.64	4.90
12.500	4.32	3.84	3.45	3.13	2.90
12.750	2.73	2.61	2.50	2.41	2.32

Subsection: Unit Hydrograph (Hydrograph Table)
 Label: PR-A3
 Scenario: 100 Year

Return Event: 100 years
 Storm Event: 100

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
13.000	2.23	2.15	2.07	2.00	1.94
13.250	1.89	1.84	1.79	1.74	1.70
13.500	1.65	1.61	1.57	1.53	1.49
13.750	1.46	1.42	1.39	1.36	1.33
14.000	1.29	1.26	1.24	1.21	1.19
14.250	1.17	1.16	1.15	1.13	1.12
14.500	1.11	1.10	1.09	1.08	1.07
14.750	1.06	1.05	1.03	1.02	1.01
15.000	1.00	0.99	0.98	0.97	0.96
15.250	0.95	0.93	0.92	0.91	0.90
15.500	0.89	0.88	0.87	0.86	0.85
15.750	0.84	0.82	0.81	0.80	0.79
16.000	0.78	0.77	0.76	0.75	0.74
16.250	0.74	0.73	0.73	0.72	0.72
16.500	0.71	0.71	0.71	0.70	0.70
16.750	0.69	0.69	0.69	0.68	0.68
17.000	0.67	0.67	0.67	0.66	0.66
17.250	0.65	0.65	0.65	0.64	0.64
17.500	0.64	0.63	0.63	0.62	0.62
17.750	0.62	0.61	0.61	0.60	0.60
18.000	0.60	0.59	0.59	0.58	0.58
18.250	0.58	0.57	0.57	0.56	0.56
18.500	0.56	0.55	0.55	0.54	0.54
18.750	0.54	0.53	0.53	0.52	0.52
19.000	0.52	0.51	0.51	0.50	0.50
19.250	0.50	0.49	0.49	0.48	0.48
19.500	0.48	0.47	0.47	0.46	0.46
19.750	0.46	0.45	0.45	0.44	0.44
20.000	0.44	0.43	0.43	0.43	0.42
20.250	0.42	0.42	0.42	0.42	0.42
20.500	0.42	0.42	0.41	0.41	0.41
20.750	0.41	0.41	0.41	0.41	0.41
21.000	0.41	0.41	0.41	0.41	0.41
21.250	0.40	0.40	0.40	0.40	0.40
21.500	0.40	0.40	0.40	0.40	0.40
21.750	0.40	0.40	0.39	0.39	0.39
22.000	0.39	0.39	0.39	0.39	0.39
22.250	0.39	0.39	0.39	0.39	0.39
22.500	0.38	0.38	0.38	0.38	0.38
22.750	0.38	0.38	0.38	0.38	0.38
23.000	0.38	0.38	0.37	0.37	0.37
23.250	0.37	0.37	0.37	0.37	0.37
23.500	0.37	0.37	0.37	0.37	0.37

Subsection: Unit Hydrograph (Hydrograph Table)
Label: PR-A3
Scenario: 100 Year

Return Event: 100 years
Storm Event: 100

HYDROGRAPH ORDINATES (ft³/s)

Output Time Increment = 0.050 hours

Time on left represents time for first value in each row.

Time (hours)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
23.750	0.36	0.36	0.36	0.36	0.36
24.000	0.36	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Unit Hydrograph Summary
 Label: PR-B1
 Scenario: 1 Year

Return Event: 1 years
 Storm Event: 1

Storm Event	1
Return Event	1 years
Duration	24.000 hours
Depth	3.0 in
Time of Concentration (Composite)	0.282 hours
Area (User Defined)	37.100 acres
Computational Time Increment	0.038 hours
Time to Peak (Computed)	12.070 hours
Flow (Peak, Computed)	52.76 ft ³ /s
Output Increment	0.050 hours
Time to Flow (Peak Interpolated Output)	12.050 hours
Flow (Peak Interpolated Output)	51.75 ft ³ /s
Drainage Area	
SCS CN (Composite)	79.500
Area (User Defined)	37.100 acres
Maximum Retention (Pervious)	2.6 in
Maximum Retention (Pervious, 20 percent)	0.5 in
Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	1.2 in
Runoff Volume (Pervious)	3.838 ac-ft
Hydrograph Volume (Area under Hydrograph curve)	
Volume	3.820 ac-ft
SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	0.282 hours
Computational Time Increment	0.038 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	149.06 ft ³ /s

Subsection: Unit Hydrograph Summary
Label: PR-B1
Scenario: 1 Year

Return Event: 1 years
Storm Event: 1

SCS Unit Hydrograph Parameters	
Unit peak time, Tp	0.188 hours
Unit receding limb, Tr	0.752 hours
Total unit time, Tb	0.940 hours

Subsection: Unit Hydrograph (Hydrograph Table)
 Label: PR-B1
 Scenario: 1 Year

Return Event: 1 years
 Storm Event: 1

Storm Event	1
Return Event	1 years
Duration	24.000 hours
Depth	3.0 in
Time of Concentration (Composite)	0.282 hours
Area (User Defined)	37.100 acres

HYDROGRAPH ORDINATES (ft³/s)

Output Time Increment = 0.050 hours

Time on left represents time for first value in each row.

Time (hours)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
9.800	0.00	0.00	0.01	0.02	0.03
10.050	0.05	0.07	0.09	0.11	0.13
10.300	0.16	0.18	0.21	0.24	0.28
10.550	0.31	0.35	0.39	0.43	0.48
10.800	0.53	0.59	0.65	0.71	0.78
11.050	0.85	0.93	1.02	1.12	1.24
11.300	1.38	1.52	1.68	1.86	2.05
11.550	2.34	2.88	3.88	5.58	8.30
11.800	12.16	17.98	26.45	36.89	46.51
12.050	51.75	51.08	44.51	35.85	27.87
12.300	21.95	18.02	15.16	13.04	11.41
12.550	10.09	9.00	8.13	7.42	6.86
12.800	6.43	6.09	5.82	5.60	5.40
13.050	5.20	5.02	4.85	4.70	4.56
13.300	4.44	4.33	4.22	4.12	4.02
13.550	3.92	3.82	3.72	3.64	3.55
13.800	3.47	3.40	3.32	3.25	3.17
14.050	3.10	3.03	2.97	2.92	2.87
14.300	2.83	2.80	2.77	2.74	2.72
14.550	2.69	2.67	2.64	2.62	2.59
14.800	2.57	2.54	2.52	2.49	2.47
15.050	2.44	2.42	2.39	2.37	2.34
15.300	2.32	2.29	2.26	2.24	2.21
15.550	2.19	2.16	2.13	2.11	2.08
15.800	2.06	2.03	2.00	1.98	1.95
16.050	1.92	1.90	1.88	1.86	1.84
16.300	1.83	1.82	1.80	1.79	1.78
16.550	1.77	1.77	1.76	1.75	1.74
16.800	1.73	1.72	1.71	1.70	1.69
17.050	1.68	1.67	1.67	1.66	1.65
17.300	1.64	1.63	1.62	1.61	1.60
17.550	1.59	1.58	1.57	1.56	1.55
17.800	1.54	1.54	1.53	1.52	1.51
18.050	1.50	1.49	1.48	1.47	1.46

Subsection: Unit Hydrograph (Hydrograph Table)
 Label: PR-B1
 Scenario: 1 Year

Return Event: 1 years
 Storm Event: 1

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
18.300	1.45	1.44	1.43	1.42	1.41
18.550	1.40	1.39	1.38	1.37	1.36
18.800	1.35	1.34	1.33	1.32	1.31
19.050	1.31	1.30	1.29	1.28	1.27
19.300	1.26	1.25	1.24	1.23	1.22
19.550	1.21	1.20	1.19	1.18	1.17
19.800	1.16	1.15	1.14	1.13	1.12
20.050	1.11	1.10	1.09	1.08	1.08
20.300	1.07	1.07	1.07	1.07	1.06
20.550	1.06	1.06	1.06	1.06	1.05
20.800	1.05	1.05	1.05	1.05	1.05
21.050	1.04	1.04	1.04	1.04	1.04
21.300	1.04	1.03	1.03	1.03	1.03
21.550	1.03	1.02	1.02	1.02	1.02
21.800	1.02	1.02	1.01	1.01	1.01
22.050	1.01	1.01	1.00	1.00	1.00
22.300	1.00	1.00	1.00	0.99	0.99
22.550	0.99	0.99	0.99	0.98	0.98
22.800	0.98	0.98	0.98	0.98	0.97
23.050	0.97	0.97	0.97	0.97	0.96
23.300	0.96	0.96	0.96	0.96	0.95
23.550	0.95	0.95	0.95	0.95	0.95
23.800	0.94	0.94	0.94	0.94	0.93

Subsection: Unit Hydrograph Summary
Label: PR-B1
Scenario: 10 Year

Return Event: 10 years
Storm Event: 10

Storm Event	10
Return Event	10 years
Duration	24.000 hours
Depth	5.4 in
Time of Concentration (Composite)	0.282 hours
Area (User Defined)	37.100 acres
Computational Time Increment	0.038 hours
Time to Peak (Computed)	12.070 hours
Flow (Peak, Computed)	135.37 ft ³ /s
Output Increment	0.050 hours
Time to Flow (Peak Interpolated Output)	12.050 hours
Flow (Peak Interpolated Output)	134.25 ft ³ /s
Drainage Area	
SCS CN (Composite)	79.500
Area (User Defined)	37.100 acres
Maximum Retention (Pervious)	2.6 in
Maximum Retention (Pervious, 20 percent)	0.5 in
Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	3.2 in
Runoff Volume (Pervious)	9.774 ac-ft
Hydrograph Volume (Area under Hydrograph curve)	
Volume	9.738 ac-ft
SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	0.282 hours
Computational Time Increment	0.038 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	149.06 ft ³ /s

Subsection: Unit Hydrograph Summary
Label: PR-B1
Scenario: 10 Year

Return Event: 10 years
Storm Event: 10

SCS Unit Hydrograph Parameters	
Unit peak time, Tp	0.188 hours
Unit receding limb, Tr	0.752 hours
Total unit time, Tb	0.940 hours

Subsection: Unit Hydrograph (Hydrograph Table)
 Label: PR-B1
 Scenario: 10 Year

Return Event: 10 years
 Storm Event: 10

Storm Event	10
Return Event	10 years
Duration	24.000 hours
Depth	5.4 in
Time of Concentration (Composite)	0.282 hours
Area (User Defined)	37.100 acres

HYDROGRAPH ORDINATES (ft³/s)

Output Time Increment = 0.050 hours

Time on left represents time for first value in each row.

Time (hours)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
6.950	0.00	0.00	0.01	0.02	0.03
7.200	0.04	0.06	0.07	0.09	0.11
7.450	0.12	0.14	0.16	0.18	0.19
7.700	0.21	0.23	0.25	0.27	0.28
7.950	0.30	0.32	0.34	0.36	0.38
8.200	0.40	0.43	0.45	0.48	0.51
8.450	0.54	0.57	0.61	0.64	0.68
8.700	0.71	0.75	0.79	0.83	0.87
8.950	0.92	0.96	1.00	1.05	1.09
9.200	1.13	1.17	1.21	1.24	1.27
9.450	1.30	1.33	1.37	1.40	1.44
9.700	1.48	1.54	1.59	1.66	1.73
9.950	1.80	1.87	1.95	2.03	2.11
10.200	2.21	2.31	2.41	2.52	2.64
10.450	2.76	2.88	3.01	3.15	3.29
10.700	3.45	3.63	3.82	4.02	4.22
10.950	4.44	4.67	4.91	5.17	5.47
11.200	5.82	6.22	6.66	7.15	7.67
11.450	8.22	8.81	9.75	11.58	14.93
11.700	20.48	28.89	40.19	56.06	77.71
11.950	102.99	124.55	134.25	129.36	110.86
12.200	88.21	67.87	52.91	43.01	35.82
12.450	30.52	26.52	23.27	20.65	18.55
12.700	16.86	15.52	14.52	13.73	13.09
12.950	12.57	12.09	11.64	11.22	10.82
13.200	10.47	10.16	9.88	9.62	9.37
13.450	9.13	8.90	8.67	8.45	8.23
13.700	8.03	7.84	7.65	7.48	7.31
13.950	7.14	6.98	6.81	6.66	6.52
14.200	6.40	6.30	6.21	6.13	6.06
14.450	6.00	5.94	5.88	5.82	5.76
14.700	5.70	5.65	5.59	5.53	5.48
14.950	5.42	5.36	5.31	5.25	5.19
15.200	5.13	5.08	5.02	4.96	4.91

Subsection: Unit Hydrograph (Hydrograph Table)
 Label: PR-B1
 Scenario: 10 Year

Return Event: 10 years
 Storm Event: 10

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
15.450	4.85	4.79	4.73	4.67	4.62
15.700	4.56	4.50	4.44	4.38	4.32
15.950	4.27	4.21	4.15	4.09	4.04
16.200	4.00	3.96	3.93	3.91	3.88
16.450	3.86	3.84	3.81	3.79	3.77
16.700	3.75	3.73	3.71	3.69	3.67
16.950	3.65	3.63	3.61	3.59	3.57
17.200	3.55	3.52	3.50	3.48	3.46
17.450	3.44	3.42	3.40	3.38	3.36
17.700	3.34	3.32	3.30	3.28	3.25
17.950	3.23	3.21	3.19	3.17	3.15
18.200	3.13	3.11	3.09	3.07	3.05
18.450	3.02	3.00	2.98	2.96	2.94
18.700	2.92	2.90	2.88	2.86	2.83
18.950	2.81	2.79	2.77	2.75	2.73
19.200	2.71	2.69	2.66	2.64	2.62
19.450	2.60	2.58	2.56	2.54	2.51
19.700	2.49	2.47	2.45	2.43	2.41
19.950	2.39	2.37	2.34	2.32	2.31
20.200	2.29	2.28	2.27	2.26	2.26
20.450	2.25	2.25	2.24	2.24	2.23
20.700	2.23	2.23	2.22	2.22	2.21
20.950	2.21	2.21	2.20	2.20	2.19
21.200	2.19	2.19	2.18	2.18	2.17
21.450	2.17	2.17	2.16	2.16	2.15
21.700	2.15	2.14	2.14	2.14	2.13
21.950	2.13	2.12	2.12	2.12	2.11
22.200	2.11	2.10	2.10	2.10	2.09
22.450	2.09	2.08	2.08	2.07	2.07
22.700	2.07	2.06	2.06	2.05	2.05
22.950	2.05	2.04	2.04	2.03	2.03
23.200	2.03	2.02	2.02	2.01	2.01
23.450	2.00	2.00	2.00	1.99	1.99
23.700	1.98	1.98	1.98	1.97	1.97
23.950	1.96	1.95	(N/A)	(N/A)	(N/A)

Subsection: Unit Hydrograph Summary
Label: PR-B1
Scenario: 100 Year

Return Event: 100 years
Storm Event: 100

Storm Event	100
Return Event	100 years
Duration	24.000 hours
Depth	8.6 in
Time of Concentration (Composite)	0.282 hours
Area (User Defined)	37.100 acres
Computational Time Increment	0.038 hours
Time to Peak (Computed)	12.070 hours
Flow (Peak, Computed)	255.31 ft ³ /s
Output Increment	0.050 hours
Time to Flow (Peak Interpolated Output)	12.050 hours
Flow (Peak Interpolated Output)	254.49 ft ³ /s
Drainage Area	
SCS CN (Composite)	79.500
Area (User Defined)	37.100 acres
Maximum Retention (Pervious)	2.6 in
Maximum Retention (Pervious, 20 percent)	0.5 in
Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	6.1 in
Runoff Volume (Pervious)	18.833 ac-ft
Hydrograph Volume (Area under Hydrograph curve)	
Volume	18.771 ac-ft
SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	0.282 hours
Computational Time Increment	0.038 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	149.06 ft ³ /s

Subsection: Unit Hydrograph Summary
Label: PR-B1
Scenario: 100 Year

Return Event: 100 years
Storm Event: 100

SCS Unit Hydrograph Parameters	
Unit peak time, Tp	0.188 hours
Unit receding limb, Tr	0.752 hours
Total unit time, Tb	0.940 hours

Subsection: Unit Hydrograph (Hydrograph Table)
 Label: PR-B1
 Scenario: 100 Year

Return Event: 100 years
 Storm Event: 100

Storm Event	100
Return Event	100 years
Duration	24.000 hours
Depth	8.6 in
Time of Concentration (Composite)	0.282 hours
Area (User Defined)	37.100 acres

HYDROGRAPH ORDINATES (ft³/s)

Output Time Increment = 0.050 hours

Time on left represents time for first value in each row.

Time (hours)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
4.900	0.00	0.00	0.01	0.03	0.04
5.150	0.06	0.09	0.11	0.14	0.16
5.400	0.19	0.22	0.25	0.28	0.30
5.650	0.33	0.36	0.39	0.42	0.45
5.900	0.48	0.52	0.55	0.58	0.61
6.150	0.64	0.67	0.71	0.74	0.77
6.400	0.80	0.84	0.87	0.90	0.94
6.650	0.97	1.01	1.04	1.08	1.11
6.900	1.15	1.18	1.22	1.25	1.29
7.150	1.32	1.36	1.40	1.43	1.47
7.400	1.51	1.54	1.58	1.62	1.66
7.650	1.69	1.73	1.77	1.81	1.85
7.900	1.89	1.92	1.96	2.00	2.05
8.150	2.10	2.15	2.21	2.28	2.36
8.400	2.44	2.52	2.61	2.70	2.79
8.650	2.88	2.97	3.07	3.17	3.27
8.900	3.37	3.48	3.58	3.69	3.79
9.150	3.88	3.97	4.05	4.11	4.18
9.400	4.23	4.28	4.34	4.39	4.45
9.650	4.52	4.61	4.73	4.86	5.00
9.900	5.16	5.32	5.49	5.66	5.85
10.150	6.04	6.25	6.48	6.71	6.96
10.400	7.22	7.49	7.76	8.04	8.33
10.650	8.65	9.00	9.38	9.79	10.22
10.900	10.67	11.13	11.60	12.11	12.66
11.150	13.29	14.02	14.87	15.81	16.83
11.400	17.91	19.04	20.25	22.19	26.06
11.650	33.14	44.74	61.97	84.53	115.22
11.900	155.82	201.93	239.65	254.49	242.48
12.150	206.13	163.08	124.85	96.84	78.33
12.400	64.91	55.06	47.66	41.68	36.88
12.650	33.04	29.96	27.54	25.73	24.29
12.900	23.15	22.21	21.35	20.53	19.77
13.150	19.07	18.44	17.89	17.38	16.91

Subsection: Unit Hydrograph (Hydrograph Table)
 Label: PR-B1
 Scenario: 100 Year

Return Event: 100 years
 Storm Event: 100

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
13.400	16.47	16.04	15.62	15.21	14.82
13.650	14.43	14.07	13.73	13.41	13.10
13.900	12.80	12.50	12.20	11.91	11.64
14.150	11.40	11.18	11.00	10.84	10.70
14.400	10.58	10.47	10.36	10.25	10.15
14.650	10.04	9.94	9.84	9.74	9.64
14.900	9.53	9.43	9.33	9.23	9.13
15.150	9.03	8.93	8.82	8.72	8.62
15.400	8.52	8.42	8.32	8.21	8.11
15.650	8.01	7.91	7.81	7.70	7.60
15.900	7.50	7.40	7.29	7.19	7.10
16.150	7.01	6.93	6.87	6.81	6.76
16.400	6.72	6.68	6.64	6.60	6.56
16.650	6.53	6.49	6.45	6.42	6.38
16.900	6.34	6.31	6.27	6.23	6.20
17.150	6.16	6.13	6.09	6.05	6.02
17.400	5.98	5.94	5.91	5.87	5.83
17.650	5.80	5.76	5.72	5.69	5.65
17.900	5.61	5.58	5.54	5.50	5.47
18.150	5.43	5.39	5.36	5.32	5.28
18.400	5.25	5.21	5.17	5.14	5.10
18.650	5.06	5.03	4.99	4.95	4.92
18.900	4.88	4.84	4.80	4.77	4.73
19.150	4.69	4.66	4.62	4.58	4.55
19.400	4.51	4.47	4.43	4.40	4.36
19.650	4.32	4.29	4.25	4.21	4.18
19.900	4.14	4.10	4.06	4.03	3.99
20.150	3.96	3.94	3.92	3.90	3.89
20.400	3.88	3.87	3.86	3.85	3.84
20.650	3.84	3.83	3.82	3.81	3.81
20.900	3.80	3.79	3.79	3.78	3.77
21.150	3.76	3.76	3.75	3.74	3.73
21.400	3.73	3.72	3.71	3.71	3.70
21.650	3.69	3.68	3.68	3.67	3.66
21.900	3.65	3.65	3.64	3.63	3.63
22.150	3.62	3.61	3.60	3.60	3.59
22.400	3.58	3.57	3.57	3.56	3.55
22.650	3.55	3.54	3.53	3.52	3.52
22.900	3.51	3.50	3.49	3.49	3.48
23.150	3.47	3.47	3.46	3.45	3.44
23.400	3.44	3.43	3.42	3.41	3.41
23.650	3.40	3.39	3.38	3.38	3.37
23.900	3.36	3.36	3.34	(N/A)	(N/A)

Subsection: Elevation-Area Volume Curve
 Label: EDDDB A1
 Scenario: 1 Year

Return Event: 1 years
 Storm Event: 1

Elevation (ft)	Planimeter (ft ²)	Area (acres)	A1+A2+sqr (A1*A2) (acres)	Volume (ac-ft)	Volume (Total) (ac-ft)
934.00	0.0	0.044	0.000	0.000	0.000
935.00	0.0	0.061	0.157	0.052	0.052
936.00	0.0	0.079	0.209	0.070	0.122
937.00	0.0	0.099	0.266	0.089	0.211
938.00	0.0	0.121	0.329	0.110	0.321
939.00	0.0	0.143	0.396	0.132	0.453
940.00	0.0	0.167	0.465	0.155	0.607

Subsection: Elevation-Area Volume Curve

Return Event: 10 years

Label: EDDB A1

Storm Event: 10

Scenario: 10 Year

Elevation (ft)	Planimeter (ft ²)	Area (acres)	A1+A2+sqr (A1*A2) (acres)	Volume (ac-ft)	Volume (Total) (ac-ft)
934.00	0.0	0.044	0.000	0.000	0.000
935.00	0.0	0.061	0.157	0.052	0.052
936.00	0.0	0.079	0.209	0.070	0.122
937.00	0.0	0.099	0.266	0.089	0.211
938.00	0.0	0.121	0.329	0.110	0.321
939.00	0.0	0.143	0.396	0.132	0.453
940.00	0.0	0.167	0.465	0.155	0.607

Subsection: Elevation-Area Volume Curve

Label: EDDB A1

Scenario: 100 Year

Return Event: 100 years

Storm Event: 100

Elevation (ft)	Planimeter (ft ²)	Area (acres)	A1+A2+sqr (A1*A2) (acres)	Volume (ac-ft)	Volume (Total) (ac-ft)
934.00	0.0	0.044	0.000	0.000	0.000
935.00	0.0	0.061	0.157	0.052	0.052
936.00	0.0	0.079	0.209	0.070	0.122
937.00	0.0	0.099	0.266	0.089	0.211
938.00	0.0	0.121	0.329	0.110	0.321
939.00	0.0	0.143	0.396	0.132	0.453
940.00	0.0	0.167	0.465	0.155	0.607

Subsection: Elevation-Area Volume Curve
 Label: EDDB A2
 Scenario: 1 Year

Return Event: 1 years
 Storm Event: 1

Elevation (ft)	Planimeter (ft ²)	Area (acres)	A1+A2+sqr (A1*A2) (acres)	Volume (ac-ft)	Volume (Total) (ac-ft)
932.00	0.0	0.096	0.000	0.000	0.000
933.00	0.0	0.122	0.326	0.109	0.109
934.00	0.0	0.148	0.404	0.135	0.244
935.00	0.0	0.177	0.487	0.162	0.406
936.00	0.0	0.205	0.572	0.191	0.597
937.00	0.0	0.237	0.662	0.221	0.817
938.00	0.0	0.268	0.757	0.252	1.070

Subsection: Elevation-Area Volume Curve

Label: EDDB A2

Scenario: 10 Year

Return Event: 10 years

Storm Event: 10

Elevation (ft)	Planimeter (ft ²)	Area (acres)	A1+A2+sqr (A1*A2) (acres)	Volume (ac-ft)	Volume (Total) (ac-ft)
932.00	0.0	0.125	0.000	0.000	0.000
933.00	0.0	0.150	0.412	0.137	0.137
934.00	0.0	0.175	0.487	0.162	0.300
935.00	0.0	0.212	0.580	0.193	0.493
936.00	0.0	0.249	0.691	0.230	0.723
937.00	0.0	0.290	0.808	0.269	0.992
938.00	0.0	0.332	0.932	0.311	1.303

Subsection: Elevation-Area Volume Curve
 Label: EDDDB A2
 Scenario: 100 Year

Return Event: 100 years
 Storm Event: 100

Elevation (ft)	Planimeter (ft ²)	Area (acres)	A1+A2+sqr (A1*A2) (acres)	Volume (ac-ft)	Volume (Total) (ac-ft)
932.00	0.0	0.156	0.000	0.000	0.000
933.00	0.0	0.188	0.515	0.172	0.172
934.00	0.0	0.214	0.603	0.201	0.373
935.00	0.0	0.251	0.697	0.232	0.605
936.00	0.0	0.290	0.811	0.270	0.875
937.00	0.0	0.342	0.947	0.316	1.191
938.00	0.0	0.397	1.107	0.369	1.560

Subsection: Outlet Input Data
Label: Outlet - EDDB A1
Scenario: 10 Year

Return Event: 10 years
Storm Event: 10

Requested Pond Water Surface Elevations	
Minimum (Headwater)	934.00 ft
Increment (Headwater)	0.50 ft
Maximum (Headwater)	940.00 ft

Outlet Connectivity

Structure Type	Outlet ID	Direction	Outfall	E1 (ft)	E2 (ft)
Orifice-Area	Orifice - 2	Forward	Culvert - 1	936.00	940.00
Inlet Box	Riser - 1	Forward	Culvert - 1	937.75	940.00
Orifice-Circular	Orifice - 1	Forward	Culvert - 1	934.00	940.00
Culvert-Circular	Culvert - 1	Forward	TW	934.00	940.00
Tailwater Settings	Tailwater			(N/A)	(N/A)

Subsection: Outlet Input Data
Label: Outlet - EDDB A1
Scenario: 10 Year

Return Event: 10 years
Storm Event: 10

Structure ID: Riser - 1	
Structure Type: Inlet Box	
Number of Openings	1
Elevation	937.75 ft
Orifice Area	0.0 ft ²
Orifice Coefficient	0.600
Weir Length	5.00 ft
Weir Coefficient	3.00 (ft ^{0.5})/s
K Reverse	1.000
Manning's n	0.000
Kev, Charged Riser	0.000
Weir Submergence	False
Orifice H to crest	False
Structure ID: Orifice - 1	
Structure Type: Orifice-Circular	
Number of Openings	1
Elevation	934.00 ft
Orifice Diameter	1.3 in
Orifice Coefficient	0.600

Subsection: Outlet Input Data
Label: Outlet - EDDB A1
Scenario: 10 Year

Return Event: 10 years
Storm Event: 10

Structure ID: Culvert - 1	
Structure Type: Culvert-Circular	
Number of Barrels	1
Diameter	24.0 in
Length	122.00 ft
Length (Computed Barrel)	122.07 ft
Slope (Computed)	0.033 ft/ft
Outlet Control Data	
Manning's n	0.013
Ke	0.200
Kb	0.012
Kr	0.000
Convergence Tolerance	0.00 ft
Inlet Control Data	
Equation Form	Form 1
K	0.0045
M	2.0000
C	0.0317
Y	0.6900
T1 ratio (HW/D)	1.079
T2 ratio (HW/D)	1.181
Slope Correction Factor	-0.500

Use unsubmerged inlet control 0 equation below T1 elevation.

Use submerged inlet control 0 equation above T2 elevation

In transition zone between unsubmerged and submerged inlet control,
interpolate between flows at T1 & T2...

T1 Elevation	936.16 ft	T1 Flow	15.55 ft ³ /s
T2 Elevation	936.36 ft	T2 Flow	17.77 ft ³ /s

Subsection: Outlet Input Data
Label: Outlet - EDDB A1
Scenario: 10 Year

Return Event: 10 years
Storm Event: 10

Structure ID: Orifice - 2	
Structure Type: Orifice-Area	
Number of Openings	1
Elevation	936.00 ft
Orifice Area	4.0 ft ²
Top Elevation	937.00 ft
Datum Elevation	936.00 ft
Orifice Coefficient	0.600
Structure ID: TW	
Structure Type: TW Setup, DS Channel	
Tailwater Type	Free Outfall
Convergence Tolerances	
Maximum Iterations	30
Tailwater Tolerance (Minimum)	0.01 ft
Tailwater Tolerance (Maximum)	0.50 ft
Headwater Tolerance (Minimum)	0.01 ft
Headwater Tolerance (Maximum)	0.50 ft
Flow Tolerance (Minimum)	0.001 ft ³ /s
Flow Tolerance (Maximum)	10.000 ft ³ /s

Subsection: Outlet Input Data
 Label: Outlet - EDDB A2
 Scenario: 10 Year

Return Event: 10 years
 Storm Event: 10

Requested Pond Water Surface Elevations	
Minimum (Headwater)	932.00 ft
Increment (Headwater)	0.50 ft
Maximum (Headwater)	938.00 ft

Outlet Connectivity

Structure Type	Outlet ID	Direction	Outfall	E1 (ft)	E2 (ft)
Orifice-Area	Orifice - 2	Forward	Culvert - 1	934.00	938.00
Inlet Box	Riser - 1	Forward	Culvert - 1	936.25	938.00
Orifice-Circular	Orifice - 1	Forward	Culvert - 1	932.00	938.00
Culvert-Circular	Culvert - 1	Forward	TW	932.00	938.00
Tailwater Settings	Tailwater			(N/A)	(N/A)

Subsection: Outlet Input Data
Label: Outlet - EDDB A2
Scenario: 10 Year

Return Event: 10 years
Storm Event: 10

Structure ID: Culvert - 1	
Structure Type: Culvert-Circular	
Number of Barrels	1
Diameter	30.0 in
Length	80.00 ft
Length (Computed Barrel)	80.06 ft
Slope (Computed)	0.038 ft/ft
Outlet Control Data	
Manning's n	0.013
Ke	0.200
Kb	0.009
Kr	0.000
Convergence Tolerance	0.00 ft
Inlet Control Data	
Equation Form	Form 1
K	0.0045
M	2.0000
C	0.0317
Y	0.6900
T1 ratio (HW/D)	1.077
T2 ratio (HW/D)	1.178
Slope Correction Factor	-0.500

Use unsubmerged inlet control 0 equation below T1 elevation.

Use submerged inlet control 0 equation above T2 elevation

In transition zone between unsubmerged and submerged inlet control,
interpolate between flows at T1 & T2...

T1 Elevation	934.69 ft	T1 Flow	27.16 ft ³ /s
T2 Elevation	934.95 ft	T2 Flow	31.05 ft ³ /s

Subsection: Outlet Input Data
Label: Outlet - EDDB A2
Scenario: 10 Year

Return Event: 10 years
Storm Event: 10

Structure ID: Orifice - 1	
Structure Type: Orifice-Circular	
Number of Openings	1
Elevation	932.00 ft
Orifice Diameter	1.8 in
Orifice Coefficient	0.600
Structure ID: Riser - 1	
Structure Type: Inlet Box	
Number of Openings	1
Elevation	936.25 ft
Orifice Area	0.1 ft ²
Orifice Coefficient	0.600
Weir Length	5.00 ft
Weir Coefficient	3.00 (ft ^{0.5})/s
K Reverse	1.000
Manning's n	0.000
Kev, Charged Riser	0.000
Weir Submergence	False
Orifice H to crest	False
Structure ID: Orifice - 2	
Structure Type: Orifice-Area	
Number of Openings	1
Elevation	934.00 ft
Orifice Area	4.0 ft ²
Top Elevation	935.00 ft
Datum Elevation	934.00 ft
Orifice Coefficient	0.600
Structure ID: TW	
Structure Type: TW Setup, DS Channel	
Tailwater Type	Free Outfall
Convergence Tolerances	
Maximum Iterations	30
Tailwater Tolerance (Minimum)	0.01 ft
Tailwater Tolerance (Maximum)	0.50 ft
Headwater Tolerance (Minimum)	0.01 ft
Headwater Tolerance (Maximum)	0.50 ft

Subsection: Outlet Input Data
Label: Outlet - EDDB A2
Scenario: 10 Year

Return Event: 10 years
Storm Event: 10

Convergence Tolerances	
Flow Tolerance (Minimum)	0.001 ft ³ /s
Flow Tolerance (Maximum)	10.000 ft ³ /s

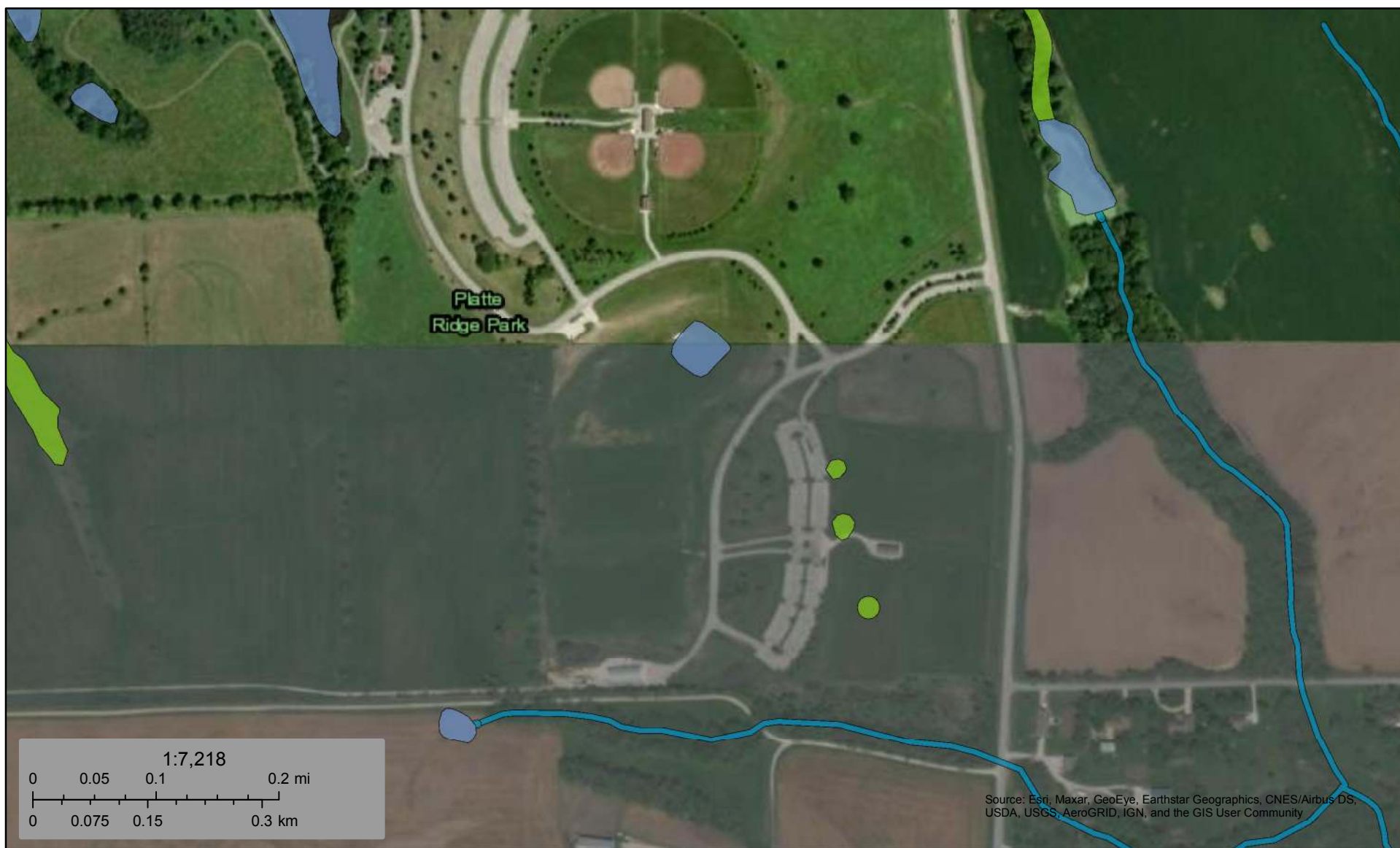
A-4
WETLAND MAP



U.S. Fish and Wildlife Service







National Wetlands Inventory

Wetlands Map - Platte Ridge Park



February 23, 2022

Wetlands

	Estuarine and Marine Deepwater		Freshwater Emergent Wetland		Lake
	Estuarine and Marine Wetland		Freshwater Forested/Shrub Wetland		Other
			Freshwater Pond		Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

A-5
BMP CALCULATIONS

WORKSHEET 1: REQUIRED LEVEL OF SERVICE

Project: Platte Ridge Park

Location: Platte County, MO

Check one: Undeveloped ☒Developed ☐**1. Runoff Curve Number****A. Predevelopment CN**

Cover Description	Soil HSG	CN	Area (ac.)	CN x Area
OPEN SPACE - GOOD	C	74	5.40	399.6
OPEN SPACE - GOOD	D	80	11.23	898.4
IMPERVIOUS	---	98	0.25	24.5
				0.0
				0.0
Totals:			16.88	1322.5

Area-Weighted CN = total product/total area =

78.3 (round to integer)**B. Post Development CN**

Cover Description	Soil HSG ¹	CN	Area (ac.)	CN x Area
OPEN SPACE - GOOD	C	74	2.22	164.3
OPEN SPACE - GOOD	D	80	12.16	972.8
IMPERVIOUS	---	98	2.50	245.0
Totals:			16.88	1382.1

¹ Postdevelopment CN is one HSG higher for all cover types except preserved vegetation, absent documentation showing how postdevelopment soil structure will be preserved.

Area-Weighted CN = total product/total area =

81.9 (round to integer)**C. Level of Service (LS) Calculation**Predevelopment CN: **78**Postdevelopment CN: **82**Difference: **4**LS Required (see scale at right): **5.3**

Source: U.S. Department of Agriculture, Natural Resource Conservation Service. *Urban Hydrology for Small Watersheds, Technical Release 55 (TR-55)*. 1986.

Table 4.2 LS for Previously Undeveloped Sites			
Change in CN	LS	Change in CN	LS
1	4.3	17	7.1
2	4.7	18	7.2
3	5	19	7.3
4	5.3	20	7.4
5	5.7	21	7.6
6	6	22	7.7
7	6.1	23	7.8
8	6.2	24	7.9
9	6.3	25	8
10	6.4	25+	8
11	6.5		
12	6.6		
13	6.7		
14	6.8		
15	6.9		
16	7		

WORKSHEET 2: DEVELOP MITIGATION PACKAGE(S) THAT MEET THE REQUIRED LS

Project: Platte Ridge Park
Location: Platte County, MO

1. Required LS

5.3

2. Proposed BMP Option Package No.

1

Drainage Basin	Cover/BMP Description	Treatment Area	VR from Table 2 or Table 3	Area x VR Total Treatment Area
A1	EDDB	2.72	4.00	10.88
A2	NV > EDDB	4.75	9.25	43.94
B1.1	NV	2.92	9.25	27.01
B1.2	NV	1.42	9.25	13.14
	Untreated	5.07	0.00	0.00
Total:		16.88	LS:	5.63

MEETS REQUIRED LS (YES/NO)?

YES

KEY	
NV	Native Vegetation
EDDB	Extended Dry Detention

NOTES: - ADDITIONAL 0.25 VR FOR SIGNAGE INCLUDED
- TREATMENT TRAIN VALUE RATINGS RETRIEVED FROM TABLE 4.6 OR CALCULATIONS PROVIDED

NOTICE:
McClure Engineering Company waives any and all responsibility and liability for problems which arise from failure to follow these Plans, Specifications, and the engineering intent they convey, or for problems which arise from failure to obtain and/or follow the engineers guidance with respect to any errors, omissions, inconsistencies, ambiguities, or conflicts which are alleged.

MISSOURI CERTIFICATE OF
AUTHORITY NO. E-2006023253
EXPIRES: DECEMBER 31, 2022

**PLATTE RIDGE PARK
DRAINAGE EXHIBIT**
**PLATTE CITY
PLATTE COUNTY, MO**

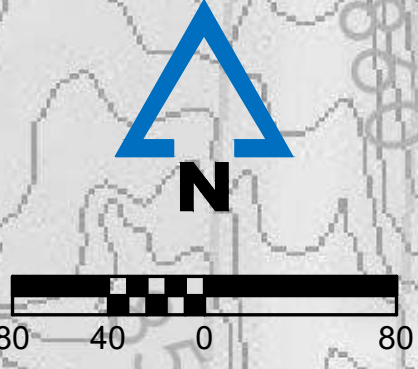
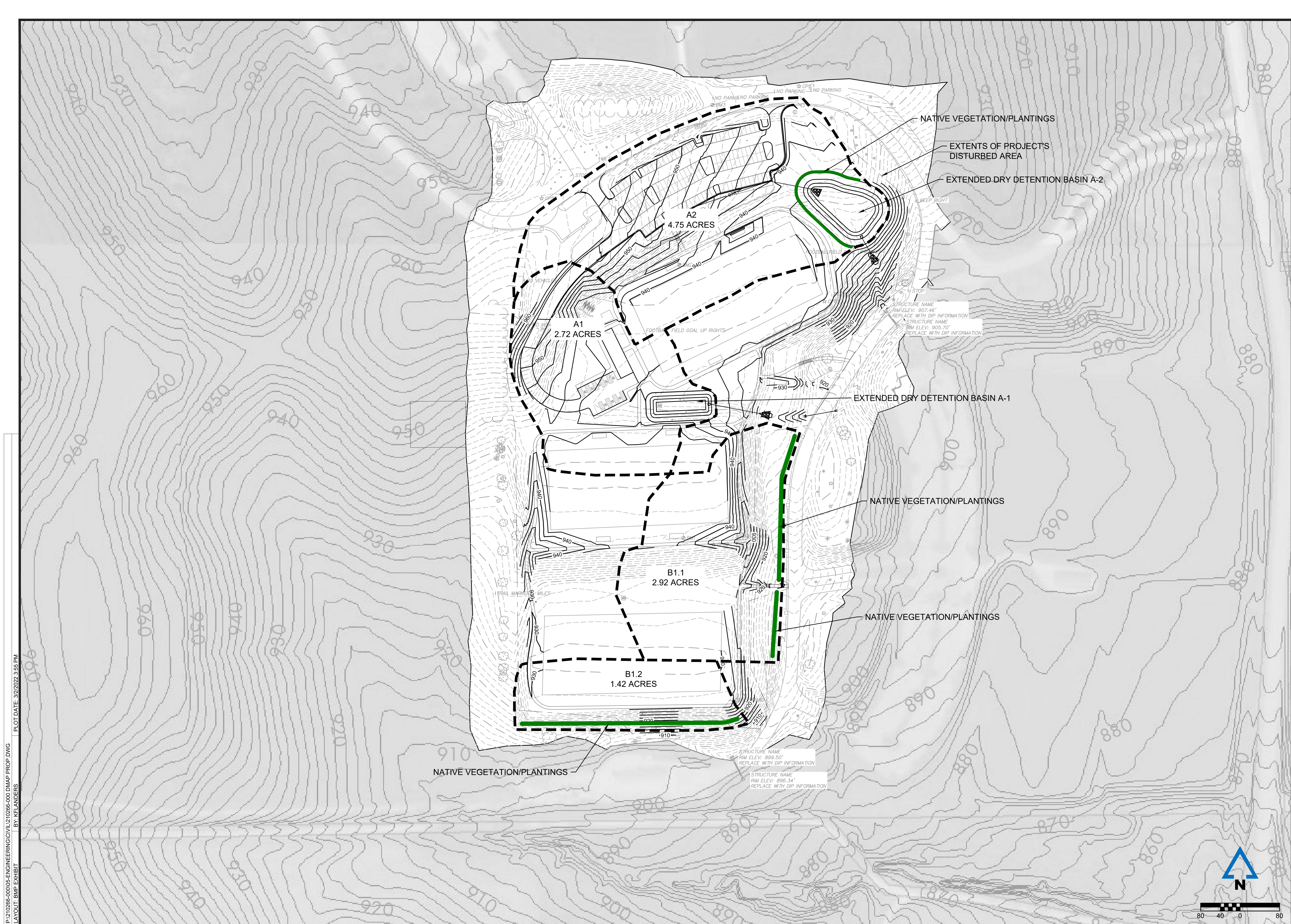
DRAWN: KF
CHECKED: AVD
DATE: 03-11-2022
JOB #: 210266-000

DRAWING REVISIONS
DESCRIPTION DATE

BMP EXHIBIT

DRAWING NO.

P:\210266-000\05-ENGINEERING\CIVIL\210266-000 DMAP PROP.DWG
BY: KFLANDERS
PLOT DATE: 3/2/2022 3:55 PM
LAYOUT: BMP EXHIBIT



WORKSHEET: EXTENDED DRY DETENTION BASIN (EDDB) DESIGN

Project: Platte Ridge Park

Location: Platte City, MO

Basin ID: EDDB A1**Required Volume Calculation**

$$WQv = P * Rv * A / 12 \text{ (ac-ft)}$$

P = Water Quality Storm rainfall depth = 1.37 in.

A = Local Treatment Drainage Area (acres)

Rv = Volumetric Runoff Coefficient = $0.05 + 0.009 * I$

I = Percent Site Imperviousness (%)

Drainage Area:	2.72 acres
% Impervious:	22 %

WQv (required): **0.08 ac-ft****Proposed Volume Calculation**

Note: Incremental volume calculated by the Conic Method for Reservoir Volumes.

$$\text{Volume} = (1/3) * (\text{Elev2} - \text{Elev1}) * (\text{Area1} + \text{Area2} + \text{sq.rt.}(\text{Area1} * \text{Area2}))$$

Bottom of Basin Elevation = 934.0

Dedicated WQv Elevation = 936.0

Elevation (ft)	Area (acres)	Volume (ac-ft)	Volume Sum (ac-ft)
933.9	0.001	0.000	0.000
934.0	0.044	0.002	0.002
935.0	0.061	0.052	0.054
936.0	0.079	0.070	0.124
937.0	0.099	0.089	0.213
938.0	0.121	0.110	0.323
939.0	0.143	0.132	0.455
940.0	0.167	0.155	0.610

WQv (proposed): **0.12 ac-ft****40-Hour WQv Outlet**

Depth of WQv above Normal Pool Elevation, Z_{wq} (ft)

2.00 ft

Average head of WQv over invert of orifice, H_{wq} (ft)

$$H_{wq} = 0.5 * Z_{wq} = 0.5 * 1.0$$

1.00 ft

Average WQv outflow rate, Q_{wq} (cfs)

$$Q_{wq} = (WQv * 43,560) / (40 * 3,600)$$

0.04 cfs

$$D_o = 12 * 2 * (Q_{wq} / (C_o * 3.14 * (2 * g * H)^{0.5}))^{0.5}$$

1.18 in**40-Hour WQv Outlet**

Outlet Elevation:	934.00
Outlet Type:	Orifice
Outlet Size:	1.25" Diameter
Outlet Protection:	Inside control structure

Trapezoidal Weir - Side Slope (3:1)		
$Q = 3.33(L)H^{3/2}$ (cfs)		
Head (ft)	Base Length (ft)	$Q_{\text{OVERFLOW WEIR}}$ (cfs)
0.83	10	25.00
100-yr Inflow =		24.95 cfs < $Q_{\text{OVERFLOW WEIR}}$
100-yr WSE =		937.51 ft (See Final Stormwater Management Plan)
Perimeter Berm El. =		940.00 ft
Overflow Weir Base Elev. =		938.10 ft
Overflow Weir Full Flow WSE =		938.93 ft
Freeboard (Per. Berm to 100YR WSE) =		2.49 ft
Freeboard (Overflow Base to 100YR WSE) =		0.59 ft ≥ 0.50 ft min. per APWA 5600
Freeboard (Per. Berm to Full Depth Overflow) =		1.07 ft ≥ 1.00 ft min. per APWA 5600

WORKSHEET: EXTENDED DRY DETENTION BASIN (EDDB) DESIGN

Project: Platte Ridge Park

Location: Platte City, MO

Basin ID: EDDB A2**Required Volume Calculation**

$$WQv = P * Rv * A / 12 \text{ (ac-ft)}$$

P = Water Quality Storm rainfall depth = 1.37 in.

A = Local Treatment Drainage Area (acres)

Rv = Volumetric Runoff Coefficient = 0.05 + 0.009 * I

I = Percent Site Imperviousness (%)

Drainage Area:	4.75 acres
% Impervious:	33 %

WQv (required): **0.19 ac-ft****Proposed Volume Calculation***Note: Incremental volume calculated by the Conic Method for Reservoir Volumes.*

$$\text{Volume} = (1/3) * (\text{Elev2} - \text{Elev1}) * (\text{Area1} + \text{Area2} + \text{sq.rt.}(\text{Area1} * \text{Area2}))$$

Bottom of Basin Elevation = 932.0

Dedicated WQv Elevation = 934.0

Elevation (ft)	Area (acres)	Volume (ac-ft)	Volume Sum (ac-ft)
931.8	0.001	0.000	0.000
932.0	0.096	0.007	0.007
933.0	0.122	0.109	0.116
934.0	0.148	0.135	0.251
935.0	0.177	0.162	0.413
936.0	0.205	0.191	0.604
937.0	0.237	0.221	0.825
938.0	0.268	0.252	1.077

WQv (proposed): **0.25 ac-ft****40-Hour WQv Outlet**

Depth of WQv above Normal Pool Elevation, Zwq (ft)

2.00 ft

Average head of WQv over invert of orifice, Hwq (ft)

$$Hwq = 0.5 * Zwq = 0.5 * 1.0$$

1.00 ft

Average WQv outflow rate, Qwq (cfs)

$$Qwq = (WQv * 43,560) / (40 * 3,600)$$

0.08 cfs

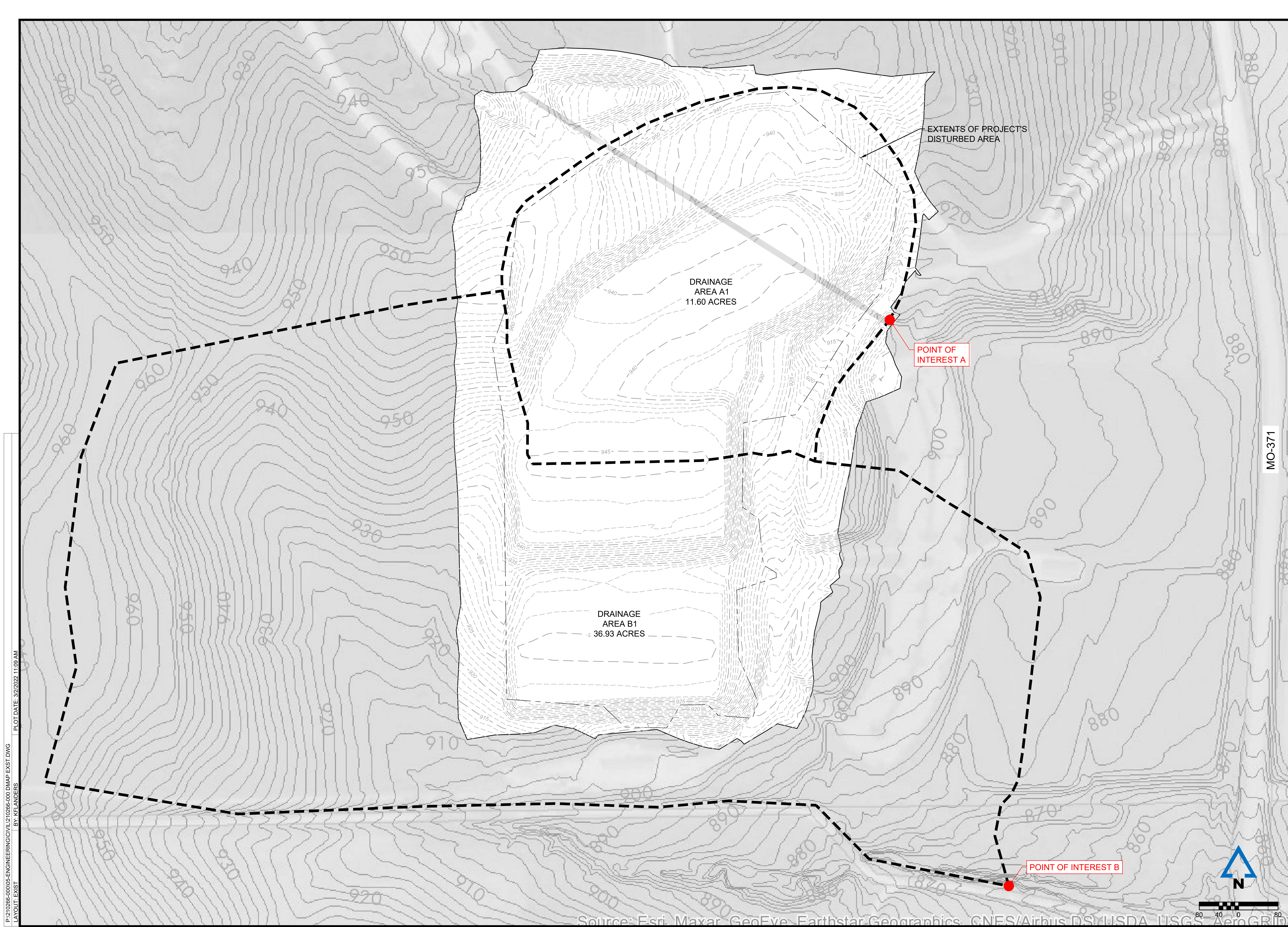
$$Do = 12 * 2 * (Qwq / (Co * 3.14 * (2 * g * H)^{0.5}))^{0.5}$$

1.69 in**40-Hour WQv Outlet**

Outlet Elevation:	932.00
Outlet Type:	Orifice
Outlet Size:	1.75" Diameter
Outlet Protection:	Inside control structure

Trapezoidal Weir - Side Slope (3:1)			
Q=3.33(L)H ^(3/2) (cfs)			
Head (ft)	Base Length (ft)	Q _{OVERFLOW WEIR} (cfs)	
0.50	35	41.70	
100-yr Inflow =		41.64	cfs < Q _{OVERFLOW WEIR}
100-yr WSE =		935.98	ft (See Final Stormwater Management Plan)
Perimeter Berm El. =		938.00	ft
Overflow Weir Base Elev. =		936.50	ft
Overflow Weir Full Flow WSE =		937.00	ft
Freeboard (Per. Berm to 100YR WSE) =		2.02	ft
Freeboard (Overflow Base to 100YR WSE) =		0.52	ft ≥ 0.50 ft min. per APWA 5600
Freeboard (Per. Berm to Full Depth Overflow) =		1.00	ft ≥ 1.00 ft min. per APWA 5600

DM-1
EXISTING DRAINAGE MAP



**PLATTE RIDGE PARK
DRAINAGE EXHIBIT**
PLATTE CITY
PLATTE COUNTY, MO

DRAWN: KF
CHECKED: AVD
DATE: 03-11-2022
JOB #: 210266-000

DRAWING REVISIONS

DESCRIPTION	DATE
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**EXISTING
DRAINAGE
MAP**

DRAWING NO.

DM-2
PROPOSED DRAINAGE MAP

**PLATTE RIDGE PARK
DRAINAGE EXHIBIT**
**PLATTE CITY
PLATTE COUNTY, MO**

DRAWN: KF
CHECKED: AVD
DATE: 03-11-2022
JOB #: 210266-000

DRAWING REVISIONS
DESCRIPTION DATE

**PROPOSED
DRAINAGE
MAP**

DRAWING NO.

MO-371

