



BURLEIGH COUNTY WATER RESOURCE DISTRICT AGENDA
Wednesday, December 13, 2023 at 8:00 am
Tom Baker Room, 221 N. 5th Street Bismarck

8:00 a.m. – Call to Order

- Roll Call (Reep, Landenberger, Palm, Smith, Binegar):
- **Approval of 11/08/2023 Minutes:3-5**
- **Amendments and Approval of Agenda:**
- Comments from Members of the Public: (For Items Not on the agenda):
- McDowell Dam (Binegar/Landenberger):
 - Facility Update and Presentation – Power Point (BPRD/HEI)
 - Supplemental Water Supply
 - Easement Acquisition and Status Map
 - Landowner/BCHD (old Hwy #10) Easements
 - Budget Items
 - 2023 – 2 paddle boats (\$8,000)
 - 2024 – Chip Seal (\$60,000)
- Financial Reports (Reep):
 - **Balance Sheet 11/30/20236-7**
 - **P&L 11/30/20238-9**
 - Property Insurance Policy Changes
 - Bravera Pledged Securities
- Drainage Permits/Complaints/Issues: *Open (Palm)*:
- Drainage Permits/Complaints/Issues: *Closed (Palm)*:
 - 7232 Signal St – Schaff (Notice and Order) – Resolution Pending (2024)
- Projects:
 - Sibley Island (Gunsch\Reep):
 - Preliminary Engineering Report – (Draft still being prepared)
 - Special Meeting to accept PER and request DWR/SWC final design funding
 - December 24, 2023 Subcommittee Deadline (SWC Meeting – Feb 8, 2023)
 - Economic Assessment – DWR (revisions completed verification to DWR)
 - Sibley Island Information Letter – Sent (no responses)
 - Public Comments
 - Hoge Island Stabilization (Binegar):
 - Bolhman Trenching – Construction Progress (Travis Johnson)
 - **Reimbursement Resolution – Bonding (Bliss) 10-11**
 - **Partial Payment #1**
 - Rock Placement near completion.....12-14
 - Clean up and seeding – Spring 2024
 - Expense Review and Status (Section 32, and Special Assessment District)..... 15
 - SWC Cost share request (Partial) – January 2024
 - **Issuance of Bonds**

- Other Old Business:
 - Burleigh County WRD Assessment District Projects
 - Highway Dept O&M Agreements (draft updates to BCHD-Pending)
 - Annual project inspections – November 2023 (Pending)
 - Missouri River Joint Board Update
 - Policy Manual (No Update)
 - 149th Avenue Outfall Restoration (BCHD – Casey Einrem)

- New Business
 - North Dakota Water Users Meeting – Dec 5-Dec 8th
 - 2024 Proposed Meeting Dates.....16
 - Tree Top 2nd Addition – NDDOT Permit To Drain17-155
 - Watercourse Definition (Manager Reep) 156
 - BCWRD Board Appointment

- Correspondence or Document Information:
 - Temporary Water Permit – Carvell157-158
 - Plats & SWMP's – Not included due to size...Available on request.
 - Hartmann Subdivision Final Plat
 - Misty Waters Second Replat
 - Braunagel Subdivision Final Plat
 - Silver Ranch Third Addition First Replat

- **Approval of Bills (\$469,905.21) 159**
- Detailed Bills160-252
- Next Meeting: Wednesday, January 10, 2024, 8:00 AM, Tom Baker Room
- Adjourn

Note: Bold Items Require Board Action

BCWRD Meeting Minutes
November 8, 2023
Draft – Not Approved Yet

Agenda Items	Discussion	Board Action	Responsible Party(s)	Due Date
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Present: James Landenberger; Dennis Reep; Roger Smith; Randy Binegar; Cory Palm; Jerry Woodcox, Burleigh County Commissioner; Michael Gunsch & Travis Johnson, Houston Engineering; Dave Bliss, Bliss Law Firm, and Lenora Reidman, Fronteer Professional Services
Others Present: Mitch Flanagan, Burleigh County Planning and Zoning.

Chairman Landenberger called the meeting to order at 8:00 am. Roll call was taken and a quorum was declared.

	Discussion	Action Taken	Responsible Party(s)	Due Date
Approval of 10/11/2023 and 10/19/2023 Minutes	One small change – start time of 10/19 meeting says 8pm instead of 8am. Wendy will correct	Mgr. Reep motions to approve 10/11/2023 and 10/19/2023 minutes as amended, Mgr. Palm seconds. Carried by voice vote		
Amendments and Approval of Agenda	Add EAE Meeting in Linton to old business, add Project out near McKenzie to new business (Arnold Burian Wetland Restoration)	Mgr. Binegar motions to approve agenda as amended, Mgr. Smith seconds. Carried by voice vote.		
Comments from Members of the Pubic	None			
McDowell Dam				
Facility Update	No Updates			
Supplemental Water Supply	Discussions are still ongoing. Downstream easements are pretty much secured. Process is a little bogged down at the present time. If easements are unsuccessful then we could still fall back on eminent domain. Some discussion was had about a way to make the public more aware of what is being done. Possibly a presentation at our next meeting in December.			
Financial Reports				
Balance Sheet	None noted.	Mgr. Reep motion to approve balance sheet; Mgr. Smith second. Motion passed by unanimous roll call vote.		
Profit & Loss	None Noted	Mgr. Reep motion to approve profit & loss; Mgr. Palm second. Motion passed by unanimous roll call vote.		
Property Insurance Policy Changes	No Discussion			

Agenda Items	Discussion	Board Action	Responsible Party(s)	Due Date
Drainage Permits/Complaints/ Issues: Open	7232 Signal St – Schaff – This letter has gone out Mgr. Palm will follow up. He requests that we close this complaint. Trees have until spring to be moved.			
Drainage Permits/Complaints/ Issues: Closed	None			
Projects				
Sibley Island				
	An information letter will be shared with landowners. Preliminary engineering report should be completed Dec/Jan with the voting process to follow. Deadline to be put on the state Water Commissions agenda for February’s meeting is December 24 th . There was an offer letter presented on the easement. We are waiting for a reply.			
Hoge Island				
DWR/USACE Regulatory permitting discussions	Permit is secured			
Bid opening	Bid Tab is in agenda book			
Bohlman Trenching	<p>Project has been awarded to Bohlman Trenching. A few contract documents are still in the process of being completed. Equipment could be moved as early as next week as he is completing another project now.</p> <p>Discussions have been had with Nat Strutz as to a location for access.</p> <p>Easements will need to be redone to be set outside of residences and property pins will be reset.</p> <p>Some discussion was had about how to fund. Dave Bliss and Michael Gunsch will look into our options.</p>			
Other Old Business				
Highway Dept O&M Agreements				
Policy Manual	No Updates			
EAE Meeting	No Updates			

Agenda Items	Discussion	Board Action	Responsible Party(s)	Due Date
	Educate, Advocate, Engage meetings were held in various locations. Mgr. Smith gave an update on the one held in Linton. No new director was found, so Ken Royse will continue on from afar. More discussion on additional funding requests will be forthcoming, possibly at December's meeting.			
New Business				
Upper Missouri Water Association Conference				
USACE Fall Annual Operating Plan Meeting	Mgr. Reep attended along with 2 other board members from ND. 2024 conference will be in Western MT			
Stutsman County Project	ND has very wet soil which could lead to some flooding. Operation of reservoirs should be standard going forward. A release test is to be done at Fort Peck Dam next year for environmental reasons. Houston will provided a copy of the report to the board.			
Legislative Update	Crystal Springs Bible Camp is continually impacted by flooding. They would like a pumping system going along the railroad track and eventually empty into Long Lake. Long Lake is a wildlife refuge and flows into Apple Creek. Discussions are ongoing with all parties impacted.			
Surface Drain Permit Application No. 6253	There was some discussion about water issues during special session. Although there is still a requirement to be part of a water board, there is no requirement to assign mil levee.			
McKenzie County Project	Informational purposes only. Question was if this would impact the Sibley Island project. Houston states that they are placing fill only and it will not impact the project.			
Correspondence or Document Information	New Project in McKenzie County for Arnold Burian Wetland Restoration. Based on the maps it seems that there will be some spillage into another landowner's property. BCW believes a comment needs to be made regarding this. Mgr. Reep will draft this comment.			
	Plats received are listed			
Approval of Bills				
Next Meeting	Bills and payroll were presented totaling \$64,619.58	Mgr. Reep motions to approve payment of bills. Mr. Binegar 2nd. Motion passed by unanimous roll call vote.		
	The next meeting date is December 13, 2023 at 8:00 AM in the Tom Baker Room.			

With no further business the meeting adjourned at 9:18 a.m.
Wendy Egli, BCWRD Admin. Secretary

Burleigh County Water Resource District (BCWRD)

Balance Sheet

12/08/23

As of November 30, 2023

Accrual Basis

	Nov 30, 23
ASSETS	
Current Assets	
Checking/Savings	
Bravera Bank Center Checking	
General Funds	2,033,814.81
O & M Funds	
Brookfield O&M	-2,591.17
Burnt Creek O&M	78,695.17
Country Creek 3rd O&M	221.57
Fox Island O&M	15,547.22
Total O & M Funds	91,872.79
Special Assessment Districts	
Apple Valley Special Assessment	3,545.87
Fox Island Special Assessment	25,688.47
MRCC Special Assessment	9,476.82
Total Special Assessment Districts	38,711.16
Total Bravera Bank Center Checking	2,164,398.76
Designated Reserve Funds	
Aero Club Rent	13.00
Apple Valley	19,000.00
Apple Valley Spec. Assessment	12,626.81
Brookfield Estates	2,377.34
Burnt Creek	115,000.00
Emergency Fund	265,037.13
Hay Creek Watershed	100,000.00
McDowell Dam (Buffer Zone)	80,000.00
McDowell Dam Capital Improvemen	60,000.00
McDowell Dam Fresh Water Intake	410,000.00
McDowell Rent	10,609.00
Missouri River Bank Stabilizati	124,906.33
Sibley Island	500,000.00
Designated Reserve Funds - Other	674.76
Total Designated Reserve Funds	1,700,244.37
Total Checking/Savings	3,864,643.13
Other Current Assets	
11010 · Taxes Receivable	492.18
Total Other Current Assets	492.18
Total Current Assets	3,865,135.31
Fixed Assets	
15005 · Land	112,481.50
15010 · Infrastructure	6,679,991.93
15015 · Land Improvements	1,810,033.62
15020 · Buildings	187,659.68
15025 · Office Furniture & Equipment	162,206.58
15051 · Acc Depr - Infrastructure	-230,788.13
15052 · Acc Depr - Land Improvements	-989,289.34
15053 · Acc Depr - Building	-151,017.71
15054 · Acc Depr - Office Furn & Equip	-114,986.82
Total Fixed Assets	7,466,291.31
TOTAL ASSETS	11,331,426.62
LIABILITIES & EQUITY	
Liabilities	
Current Liabilities	
Accounts Payable	
20000 · Accounts Payable	79,273.48

Burleigh County Water Resource District (BCWRD)

Balance Sheet

As of November 30, 2023

	Nov 30, 23
Total Accounts Payable	79,273.48
Other Current Liabilities	
24000 · Payroll Liabilities	1,061.63
Total Other Current Liabilities	1,061.63
Total Current Liabilities	80,335.11
Long Term Liabilities	
23200 · Rehab Apple Valley Waste Water	130,000.00
237 · Burnt Creek Floodway	250,000.00
23800 · Missouri River Correctional Cen	260,000.00
23900 · Fox Island Improvement	1,210,000.00
25000 · Bond Discount	-26,477.50
Total Long Term Liabilities	1,823,522.50
Total Liabilities	1,903,857.61
Equity	
32000 · Retained Earnings	9,014,347.76
Net Income	413,221.25
Total Equity	9,427,569.01
TOTAL LIABILITIES & EQUITY	11,331,426.62

Burleigh County Water Resource District (BCWRD)
Profit & Loss by Class
January through November 2023

	TOTAL	- General	Apple Valley	Brookfield Est.	Burnt Creek Floodway	Country Ridge/Creek	Fox Island	Hoge Island	McDowell Dam	Missouri River Gen.	MRCC	Sibley Island	TOTAL
Income													
31110 · Real Estate Tax	885,964.74	885,964.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	885,964.74
31810 · In Lieu of Tax	444.86	444.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	444.86
36110 · Interest	346.67	346.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	346.67
36210 · McDowell Dam Recreation Income	22,609.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	22,609.57	0.00	0.00	0.00	22,609.57
43610 · State Aid Distribution	46,428.06	46,428.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	46,428.06
43810 · Reimbursements	246,942.20	1,140.52	13,555.51	0.00	35,900.83	0.00	112,753.66	0.00	17,721.60	0.00	31,247.53	34,622.55	246,942.20
Total Income	1,202,736.10	934,324.85	13,555.51	0.00	35,900.83	0.00	112,753.66	0.00	40,331.17	0.00	31,247.53	34,622.55	1,202,736.10
Gross Profit	1,202,736.10	934,324.85	13,555.51	0.00	35,900.83	0.00	112,753.66	0.00	40,331.17	0.00	31,247.53	34,622.55	1,202,736.10
Expense													
111 · Payroll Expenses													
111A · Payroll Taxes	2,025.64	2,025.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2,025.64
111B · Workforce Safety & Insurance	250.00	250.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	250.00
111 · Payroll Expenses - Other	25,818.75	25,818.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	25,818.75
Total 111 · Payroll Expenses	28,094.39	28,094.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	28,094.39
113 · Accounting & Contract Services	24,296.25	24,296.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24,296.25
114 · Audit	9,896.09	9,896.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9,896.09
312 · Legal Fees	15,870.95	15,870.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15,870.95
315 · Engineering Administration	15,737.50	15,385.00	0.00	0.00	0.00	352.50	0.00	0.00	0.00	0.00	0.00	0.00	15,737.50
328 · Liability Insurance	5,425.00	5,425.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5,425.00
376 · Dues & Publications	3,275.00	3,275.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3,275.00
411 · Office Expense	1,846.67	1,846.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1,846.67
50913 · Interest Expense	33,730.00	0.00	3,500.00	0.00	7,050.00	0.00	16,367.50	0.00	0.00	0.00	6,812.50	0.00	33,730.00
904 · McDowell Dam	255,420.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	255,420.39	0.00	0.00	0.00	255,420.39
905 · McDowell Dam-Capital Improvemen	93,858.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	93,858.01	0.00	0.00	0.00	93,858.01
910 · Projects													
Administration	3,620.00	0.00	700.00	0.00	1,095.00	0.00	730.00	0.00	0.00	0.00	1,095.00	0.00	3,620.00
Legal Fees	19,250.10	0.00	0.00	0.00	0.00	0.00	0.00	11,807.90	2,783.50	0.00	0.00	4,658.70	19,250.10
O&M	2,244.62	0.00	0.00	2,064.87	0.00	179.75	0.00	0.00	0.00	0.00	0.00	0.00	2,244.62
Total 910 · Projects	25,114.72	0.00	700.00	2,064.87	1,095.00	179.75	730.00	11,807.90	2,783.50	0.00	1,095.00	4,658.70	25,114.72
934 · Missouri River Bank Stabilizati	4,449.48	0.00	0.00	0.00	0.00	0.00	0.00	4,449.48	0.00	0.00	0.00	0.00	4,449.48
937 · Design/Special Assessment	234,454.80	715.00	0.00	0.00	0.00	949.00	98.00	119,954.43	0.00	50,882.00	0.00	61,856.37	234,454.80
940 · Operations & Maintenances													
940A · Burnt Creek Watershed	1,046.25	0.00	0.00	0.00	1,046.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1,046.25
940 · Operations & Maintenances - Other	13,327.10	1,967.50	0.00	1,820.00	9,539.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13,327.10
Total 940 · Operations & Maintenances	14,373.35	1,967.50	0.00	1,820.00	10,585.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14,373.35
941 · Stream Gages	6,000.00	6,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6,000.00
960 · Drainage Complaints	17,672.25	17,672.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17,672.25
Total Expense	789,514.85	130,444.10	4,200.00	3,884.87	18,730.85	1,481.25	17,195.50	136,211.81	352,061.90	50,882.00	7,907.50	66,515.07	789,514.85
Net Income	413,221.25	803,880.75	9,355.51	-3,884.87	17,169.98	-1,481.25	95,558.16	-136,211.81	-311,730.73	-50,882.00	23,340.03	-31,892.52	413,221.25

Burleigh County Water Resource District (BCWRD)

12/08/23

Profit & Loss Budget vs. Actual

Accrual Basis

January through November 2023

	Jan - Nov 23	Budget	\$ Over Budget
Income			
31110 · Real Estate Tax	885,964.74	1,014,125.00	-128,160.26
31810 · In Lieu of Tax	444.86	1,000.00	-555.14
33620 · Homestead Credit	0.00	6,000.00	-6,000.00
36110 · Interest	346.67	200.00	146.67
36210 · McDowell Dam Recreation Income	22,609.57	26,500.00	-3,890.43
36215 · McDowell Dam Land Lease	0.00	3,200.00	-3,200.00
43610 · State Aid Distribution	46,428.06	36,000.00	10,428.06
43810 · Reimbursements	246,942.20		
46910 · Misc Revenue	0.00	500.00	-500.00
Total Income	1,202,736.10	1,087,525.00	115,211.10
Gross Profit	1,202,736.10	1,087,525.00	115,211.10
Expense			
111 · Payroll Expenses			
111A · Payroll Taxes	2,025.64	3,000.00	-974.36
111B · Workforce Safety & Insurance	250.00		
111 · Payroll Expenses - Other	25,818.75	30,000.00	-4,181.25
Total 111 · Payroll Expenses	28,094.39	33,000.00	-4,905.61
113 · Accounting & Contract Services	24,296.25	32,000.00	-7,703.75
114 · Audit	9,896.09	11,000.00	-1,103.91
312 · Legal Fees	15,870.95	24,000.00	-8,129.05
315 · Engineering Administration	15,737.50	24,000.00	-8,262.50
328 · Liability Insurance	5,425.00	5,000.00	425.00
341 · Travel	0.00	2,000.00	-2,000.00
376 · Dues & Publications	3,275.00	5,000.00	-1,725.00
411 · Office Expense	1,846.67	3,000.00	-1,153.33
50913 · Interest Expense	33,730.00		
904 · McDowell Dam	255,420.39	300,000.00	-44,579.61
905 · McDowell Dam-Capital Improvemen			
905-A · Fresh Water Intake	0.00	22,525.00	-22,525.00
905 · McDowell Dam-Capital Improvemen - Other	93,858.01	20,000.00	73,858.01
Total 905 · McDowell Dam-Capital Improvemen	93,858.01	42,525.00	51,333.01
910 · Projects			
Administration	3,620.00		
Legal Fees	19,250.10		
O&M	2,244.62		
910 · Projects - Other	0.00	320,000.00	-320,000.00
Total 910 · Projects	25,114.72	320,000.00	-294,885.28
911 · Misc	0.00	2,500.00	-2,500.00
920 · Continuing Education	0.00	2,500.00	-2,500.00
933 · Missouri River General Services	0.00	15,000.00	-15,000.00
934 · Missouri River Bank Stabilizati	4,449.48		
937 · Design/Special Assessment	234,454.80	200,000.00	34,454.80
940 · Operations & Maintenances			
940A · Burnt Creek Watershed	1,046.25		
940 · Operations & Maintenances - Other	13,327.10	20,000.00	-6,672.90
Total 940 · Operations & Maintenances	14,373.35	20,000.00	-5,626.65
941 · Stream Gages	6,000.00	6,000.00	0.00
960 · Drainage Complaints	17,672.25	20,000.00	-2,327.75
970 · Storm Water Management Plans	0.00	20,000.00	-20,000.00
Total Expense	789,514.85	1,087,525.00	-298,010.15
Net Income	413,221.25	0.00	413,221.25

**RESOLUTION OF BURLEIGH COUNTY WATER RESOURCE DISTRICT
RELATING TO THE ISSUANCE OF BONDS AND
THE REIMBURSEMENT OF CERTAIN EXPENDITURES**

BE IT RESOLVED by the Water Resource Board of Burleigh County Water Resource District (the "District") as follows:

Section 1. RECITALS.

(a) Treasury Regulation Section 1.150-2 (the "Regulations") restricts the use of tax-exempt bond proceeds to reimburse the District for project expenditures made by the District prior to the date of issuance of such bonds.

(b) The Regulations generally require that (i) the District declare its official intent to reimburse itself for prior expenditures from the proceeds of a subsequent issue of tax-exempt bonds no later than 60 days after making such expenditures, (ii) the bonds be issued within 18 months after making an expenditure or within 18 months after the project is placed in service, but in no event more than three years after the date the original expenditure was made, and (iii) the expenditure be either a capital expenditure or a cost of issuance of the bonds.

(c) The District plans to construct the Hogue Island Bank Stabilization project consisting of placing rock rip rap bank stabilization measures along the Missouri River, otherwise documented in the Special Assessment District as Lot 3&4A, 3A&4, 5, 6, 7, 8, and 9, Block 1 Island Park Estates, Burleigh County, North Dakota. The total costs of the improvements to be paid by the District are estimated to be approximately \$500,000. The District desires to comply with the Regulations in order to preserve the option of the District to be reimbursed for certain expenditures from the proceeds of tax-exempt bonds. The District currently expects to pay a portion of the costs from funds on hand until the District can be reimbursed for such expenditure from the proceeds of bonds.

Section 2. OFFICIAL INTENT DECLARATION. The District reasonably expects to be reimbursed for all or part of t expenditures made for the construction of the project from the proceeds of bonds to be issued by the District. The maximum principal amount of such bonds or other obligations which may be issued for such purposes in the aggregate is approximately \$500,000.

Dated: December 13, 2023.

BURLEIGH COUNTY
WATER RESOURCE DISTRICT

Attest:

Chairman, Water Resource Board

Secretary

The governing body of the District acted on the foregoing resolution at a properly noticed meeting held in Bismarck, North Dakota, on December 13, 2023, with the motion for adoption made by _____ and seconded by _____, and the roll call vote on the motion was as follows:

"Aye" _____

"Nay" _____

Absent _____







From: Michael Gunsch <mgunsch@houstoneng.com>
Sent: Tuesday, December 05, 2023 11:25 AM
To: Travis Johnson; Fridgen, Patrick M. <; Aaron J. Carranza (acarranza@nd.gov); Heiser, Gerald R. (gheiser@nd.gov); John Paczkowski; 'Erhardt, Toni R CIV USARMY CENWO (US)'; Cory Palm; David Bliss; Dennis Reep; James Landenberger; Jerry Woodcox, Commissioner; Nic Cullen; Randy Binegar; rsmithbcwrđ@gmail.com; Secretary (bcwrđ@midco.net); David Bohlman (bohlmantrenching@yahoo.com)
Subject: RE: Hogue Island Property Owners - Construction Update (Agency) 12-5-2023
Importance: High

Good Morning

This is a separate update related to the Section 32 project revetments.

Things are going well; however, it was determined that Hardpoint #5 was in far worse condition than expected.

The north side had failed exposing the tires, and the thought was to simply cap over them. Subsequently, we way underestimated the amount of rock this required considering the now vertical slope and deeper area on the north lower toe.

Do not have the final numbers yet, but the 50 tons is potentially going to be in the “hundreds” of tons to rehabilitate this structure.

We are tracking the loads that are placed in this location.

History has it that this is the original site for Peter Hogue’s irrigation intake, so he was the source for the tires in this location.

Interesting that the USACE included and incorporated it as a Hardpoint.

Any questions let me know. The BCWRD will be making the first progress payment next week. After that we will being the internal accounting process to assign the cost for rock to the responsible parties.

Once we have a final cost distribution we will look to request funding for the SWC 50% share.

Thanks, Merry Christmas!!

Michael Gunsch, PE*, CFM
Senior Civil Engineer | Principal
Houston Engineering, Inc.
O 701.323.0200 | D 701.751.6277 | C 701.527.2134
**Licensed in ND*

Burleigh County Water Resource District Proposed 2024 Meeting Dates

January 10, 2024

February 14, 2024

March 13, 2024

April 10, 2024

May 8, 2024

June 12, 2024

July 10, 2024

August 14, 2024

September 11, 2024

October 9, 2024

November 13, 2024

December 11, 2024

REQUEST FOR DRAINAGE ON HIGHWAY RIGHT OF WAY

North Dakota Department of Transportation, Maintenance
SFN 50909 (11-2017)

Highway & Mile Posts

--	--	--	--	--	--	--	--

District
Number

--	--

Name of Person Requesting Permit (Applicant) Malloy 57, LLC - Howard Malloy			Date 11/03/23
Address 207 South Washinton Street	City Bismarck	State ND	ZIP Code 58504
Telephone Number 1-701-222-4247	Email Address howard@bismarcktitle.com		

LOCATION OF PROPOSED WORK (to be completed by the applicant)

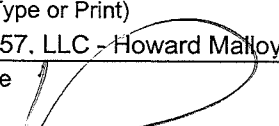
Size of Drainage Area in Total Acres 6.8	Water Resource District Burleigh		
County Burleigh	Section 16	Township 139 N	Range 80 W
Description of proposed work Improvements include construction of a private access road (Tree Top Lane) & utilities. Stormwater detention ponds will be constructed for Lot 5 & Tree Top Lane. The ponds will outlet into the US-83 R/W ditch through a 15" storm sewer pipe with a flared end section which will extend 30' into the R/W. Under existing conditions, runoff is conveyed overland from the property to the R/W ditch. Post-Construction runoff rates will not exceed the existing runoff rates during the 10, 25, 50, & 100yr 24hr events.			

WETLAND REVIEW (to be completed by the applicant)

This application is for the single purpose of cleaning a ditch to its original design evaluation and will not require a wetlands review:
 Yes No

If you answered no to the above, the applicant is required to work with the National Resources Conservation Service and, if necessary, the Corps of Engineers, US Fish and Wildlife and North Dakota Game and Fish, to ensure no wetlands are impacted by the proposed project.
 Wetland impacted: Yes No

APPLICANT:

Name (Type or Print) Malloy 57, LLC - Howard Malloy	Title President - Malloy 57, LLC
Signature 	Date 11-3-2023

TO BE COMPLETED BY THE WATER RESOURCE DISTRICT AND NDDOT

Action Required by Water Resource District - **Please note:** The signature receiving or approving the Water Resource Districts Action should be by a representative of the Water Resource District given the authority to sign.

Received by Water Resource District:	Approved by Water Resource District:	Approved by ND Department of Transportation
Signature	Signature	Signature
Name (Type or Print)	Name (Type or Print)	Name (Type or Print)
Date	Date	Date
		Work shall be completed by:
		Date

Original to District File, Copy to Applicant

See Specifications on Back



November 20, 2023

Howard Malloy
Malloy 57, LLC.
207 S. Washington St.
Bismarck, ND 58504

Re: **CONDITIONAL APPROVAL**
Post-Construction Stormwater Management Permit (PCSMP2023-027) -
Amendment

Dear Mr. Malloy:

The referenced Post-Construction Stormwater Management Permit (PCSMP) Amendment associated with Treetop Second Addition, initially received on November 9, 2023, with the final revision to the Stormwater Management Plan Amendment received on November 17, 2023, has been **CONDITIONALLY APPROVED** by the Bismarck City Engineer with the following comments:

- The PCSMP is Conditionally Approved, as outlined in the City of Bismarck Stormwater Design Standards Manual (SWDSM).
- **Conditional approval of this amendment supersedes the original PCSMP conditional approval, dated July 21, 2023.**
- **The waiver request for flow rate increases on the two- and five-year events is acknowledged.**
- **A NDDOT permit will be required for storm water discharge into the US Highway 83 right-of-way prior to any land-disturbing activities within the right-of-way.**
- Include a copy of this conditional approval with your submittal materials for a minor plat.
- This is NOT the final approval for the PCSMP. Additionally, the basis of design form (SM-06), operation and maintenance manuals (if applicable), construction plans, post-construction certification report (SM-07), a final City inspection, and record drawings



are required prior to receiving final approval of the PCSMP. Failure to comply with the conditions of the PCSMP may result in enforcement activities by the City as described in Title 14.1 of the City of Bismarck Code of Ordinances.

- **The applicant is required to obtain a Construction Stormwater Management Permit (CSMP) from the City of Bismarck prior to undertaking any land disturbing activities related to this development.** A permit application form and full submittal requirements can be found at www.bismarcknd.gov/1177/Stormwater-Management. The CSMP shall be active until such time as the site reaches final stabilization, as outlined in the SWDSM Section 7.1.4. If you have any questions, please contact Terry Halstengard, Public Works Department, 355-1700.
- As this development includes more than one acre, the applicant will be required to obtain a NPDES permit from the North Dakota Department of Environmental Quality prior to beginning any land-disturbing activities. The CSMP can be utilized as an attachment to the NPDES permit.

If you have any questions, please call or email Michael Greer, PE, at 355-1535, or mgreer@bismarcknd.gov.

Sincerely,

/s/ Gabe Schell

Gabe Schell, PE
City Engineer

GJS/MG/
email cc: PCSMP Distribution Group
Andy Werder, PE, KLJ

Memorandum

Date: 10/31/2019
To: Costco Wholesale
From: KLJ: Steve Czczok
RE: Desktop Aquatic Resources Assessment
Bismarck, North Dakota



KLJ was contracted by Costco Wholesale to conduct a desktop aquatic resource assessment for proposed improvements associated with the development of a new Costco facility in Bismarck, North Dakota. The study area is located along US Highway 83 within the City of Bismarck, near 57th Avenue NE and Brookside Lane. The desktop aquatic resource assessment was conducted on September 27, 2019 by Jacob Lardy of KLJ and encompassed an approximate 21-acre study area. Construction of the proposed project is planned to occur during the 2019-2020 construction season.

The desktop aquatic resource assessment conducted by KLJ was in accordance with the 1987 USACE Wetland Delineation Manual. A Level 1 routine determination was utilized for aquatic resource identification. United States Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) maps, United States Geological Survey (USGS) National Hydrography Dataset (NHD), and United States Department of Agriculture Web Soil Survey data for the study area was reviewed along with aerial imagery analysis. Due to the proximity of the project to the KLJ office in Bismarck, photos were taken of potential wetland areas. The photos are attached at the end of this memo.

The desktop aquatic resource assessment identified two potential wetlands within the study area. Potential Wetland #1 is located just north of the Lasalle Drive/US Highway 83 intersection and appears to be associated with a drainage that flows into Hay Creek. Potential Wetland #1 has also been identified by the USGS NHD and USFWS NWI. Potential Wetland #2 is located in the west ditch of US Highway 83, approximately 800 feet north of the 57th Avenue Northwest/US Highway 83 intersection.

Due to the presence of potential wetlands within the study area, KLJ recommends a field aquatic resource delineation if construction activities are planned within these areas. If you



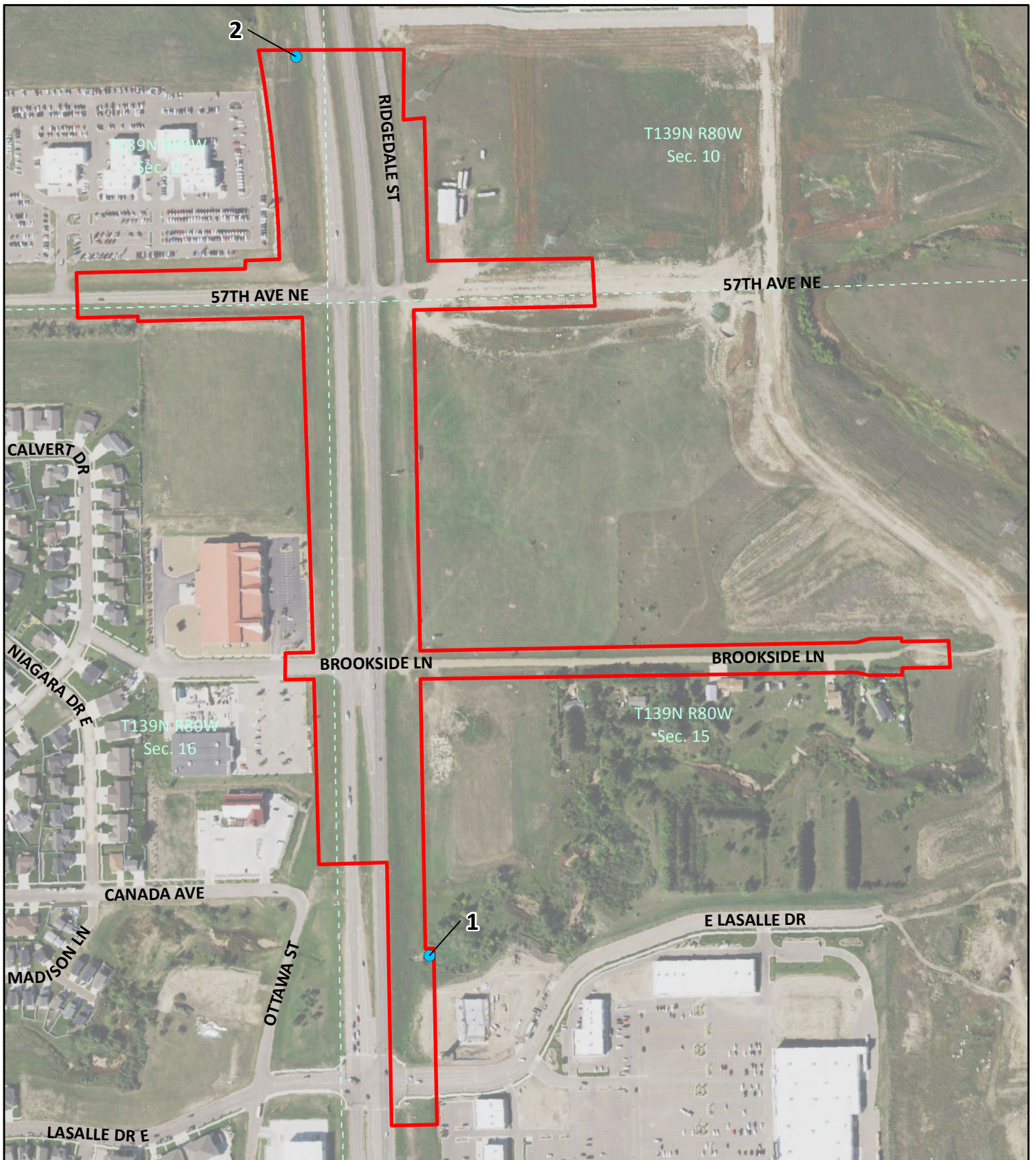
have any questions regarding this assessment, please feel free to call Steve Czczok at 701-355-8452 or email at steve.czczok@kljeng.com.



Potential Wetland #1, View North



Potential Wetland #2, View North

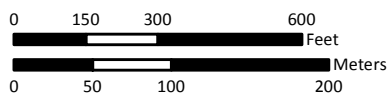


**Costco Wholesale
Offsite Improvements
Bismarck, North Dakota**

- Study Area
- Potential Wetland

Imagery Source: ©2018, USDA-FSA-APFO

KLJ Project Number: 1920-01334
Date Created: 10/31/2019
Created By: jeffprice





ENGINEERING, REIMAGINED

POST-CONSTRUCTION STORMWATER MANAGEMENT PLAN

*Tree Top 2nd Addition – Minor Plat and Access Road
Bismarck, North Dakota*

Prepared for:

Malloy 57, LLC
Bismarck, North Dakota

July 2023

Revised November 2023



eTRAKit #PCSMP2023-027
Project #1906-02283.2

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Appendix B: Post-Construction Conditions Hydrology

1.0 SITE & APPLICANT INFORMATION

Applicant Information

Malloy 57, LLC
Project Representative: Howard Malloy
207 South Washington Street
Bismarck, ND 58504
Telephone: 701-222-4247
Email: howard@bismarcktitle.com

Engineer Information

KLJ
Project Manager: Brad Krogstad, PE
4585 Coleman Street
Bismarck, ND 58503
Telephone: 701-355-8437
Email: brad.krogstad@kljeng.com

Location

Tree Top 2nd Addition is a 7.47-acre re-plat of Lot 1 and the north 141.43' of Lot 2, Block 1, Tree Top Addition located in north Bismarck. The plat is generally bounded by Sonnet Heights Addition on the west, Tree Top Addition to the south, 57th Ave NE to the north, and State Street/US-83 to the east. The general location is a part of the northeast 1/4 of the northeast 1/4 of Section 16, Township 139 North, Range 80 West, Burleigh County, North Dakota.

See **Exhibit 1**: Vicinity Map for site location.

1.1 Project Background & Description

The proposed Minor Plat will split the property into five lots to allow for potential future development or sale. There are currently no plans to develop the lots beyond the access road improvements and utilities. Actual area of land disturbance and proposed area impervious surface created are undetermined at this time and shall be provided with potential future development plans.

This report is revised to include a revision to the minor plat and to include the private access road (Tree Top Lane) improvement plans. Detailed information for the detention ponds to be shared by Lot 5 and the access road are provided in this revised report.

Project Size: 7.47 acre replat

Impervious Surface Created: 276,491 SF (6.35 acres); This report assumes max impervious coverage for commercial zone property at 85% coverage.

Datum

All elevations listed in this report refer to the NGVD29 datum.

2.0 RECOMMENDATIONS FOR THE PROJECT AREA

Regulations

This report was prepared in accordance with the City of Bismarck Ordinance Number 4817 and follows the guidelines set forth in the City of Bismarck “Stormwater Design Standards Manual”.

It is assumed that the proposed development does not impact the 100-year floodplain or floodway, navigable waterways, delineated wetlands, historic sites, or public properties and, therefore, this plan does not address regulations regarding those issues.

TABLE 2-1: POST CONSTRUCTION RECOMMENDATIONS SUMMARY – TREE TOP 2ND ADDITION

Block #	Lot #	Pervious CN	% Impervious
Block 1 – Tree Top 2 nd Addition	Lot 1 – Lot 5	Per soils & Design Manual (See Exhibit 3 & Table 4-2)	Per Zoning requirement (85% Impervious coverage)

Table 2-1 provides a recommendation summary for the proposed lots. Lots 1-5 can follow the zoning ordinance of 85% impervious coverage per zoning type CG. However, post-construction runoff rates to the US-83 R/W must be equal or less than pre-construction rates during the 10-year, 25-year, 50-year, and 100-year storm events. To allow any change in drainage to North Dakota Department of Transportation (NDDOT) right of way (R/W) east of the property, NDDOT would require a drainage permit to include a hydrologic and hydraulic study to ensure that the R/W could handle the increase in volume. Additional requirements may be required for draining into the NDDOT R/W.

A “Request for Drainage on Highway Right of Way” (SFN 50909) will be submitted to the Burleigh County Water Resource District and the NDDOT as part of the private access road improvements for installation of storm sewer discharge piping within US HWY 83 Right-of-way.

Runoff rates and volumes in **Table 2-2** at the points of analysis, POA, are taken where runoff discharges east to the NDDOT R/W (POA-A) and south to Lot 2, Block 1, Tree Top Addition (POA-B). Runoff rates to the respective POA’s indicated reflect storage volumes, attenuation, and lag times within the site.

Table 2-2 provided below summarizes runoff rates at POA-A and POA-B during the existing and post-construction conditions.

TABLE 2-2: RUNOFF RATE SUMMARY – 24-HOUR STORM EVENT

POA	Runoff (cfs)			Runoff (cfs)			Runoff (cfs)			Runoff (cfs)			Runoff (cfs)			Runoff (cfs)		
	Ex-. Q ₂	PC. Q ₂	D Q ₂	Ex-. Q ₅	PC. Q ₅	D Q ₅	Ex-. Q ₁₀	PC. Q ₁₀	D Q ₁₀	Ex-. Q ₂₅	PC. Q ₂₅	D Q ₂₅	Ex-. Q ₅₀	PC. Q ₅₀	D Q ₅₀	Ex-. Q ₁₀₀	PC. Q ₁₀₀	D Q ₁₀₀
A	0.17	3.05	+2.88	1.74	3.50	+1.76	4.24	4.04	-0.20	9.39	7.12	-2.27	14.45	13.64	-0.81	20.63	18.70	-1.93
B	0.01	3.29	+3.28	0.13	4.16	+4.03	0.31	5.10	+4.79	0.70	6.65	+5.95	1.07	8.00	+6.93	1.53	9.49	+7.96

As indicated in the table above, runoff to POA-A will decrease during the 10-year, 25-year, 50-year, and 100-year storm events following development. Runoff to POA-A will increase during the 2-year and 5-year storm events, and runoff detention will be provided at the existing regional detention pond/US-83 roadway crossing facility as described within the Tree Top Addition SWMP.

A waiver for the stormwater runoff rates to the US-83 R/W (POA-A) was requested from the City of Bismarck for the 2-year and 5-year storm events in Section 7.0 of this report. NDDOT does not require analysis of the 2-year and 5-year storm events.

Runoff to POA-B will increase during all analyzed storm events following development. However, runoff to POA-B shall be less than or equal to 10 cfs in the 100-year storm event, which complies with the SWMP from Tree Top Addition and Furniture Row as described in Section 2.5.

POA-C was not impacted upstream of the approach culvert. Runoff to POA-C was used to size the proposed approach culverts and development of the site will not impact runoff to this area.

2.1 DESCRIPTION OF EASEMENTS

Multiple easements will be located on the property. Existing 10' utility easements are located along the north, south, east, and west property lines. An existing 40' storm sewer drainage, water, and sanitary sewer easement is located 10' west of the east property line. One existing easement, a 20' landscape and greenspace easement, will be released along the west property line as part of the proposed replat. A proposed 50' water, sanitary, stormwater, and access easement will run north and south through the property along the access road. There will also be a proposed stormwater easement located in Lot 5 to provide detention and water quality for runoff from the access road and Lot 5. A proposed 35' water and sanitary sewer easement will also run between Lot 3 and Lot 4, and a proposed 30' storm water and drainage easement will run along the south side of Lot 4.

2.2 INTER-LOT DRAINAGE REQUIREMENTS

Runoff from the access road will be conveyed to the detention pond located within a stormwater easement in Lot 5. Runoff from the Lot 5 detention ponds will then flow through the storm sewer and drainage easement on the south side of Lot 4 to the US-83 R/W. Any additional inter-lot drainage requirements will be designed as part of future site plans.

The proposed storm sewer and inlets within the access road has capacity for runoff from Lot 5 in the undeveloped conditions. Runoff from Lot 5 shall be diverted directly to the west detention pond (PA-5) under Post-Construction, developed, conditions.

2.3 REQUIRED POST-CONSTRUCTION STORMWATER BMPS

Lots 1, 2, and 3 will be required to provide a detention pond to control runoff and provide water quality prior to discharging to the US-83 R/W.

Lot 4 will be required to provide a water quality feature prior to discharging to the stormwater easement on the east side of the Furniture Row parking lot. Detention is not required as it is provided in the regional pond to the south of Bismarck Brewing/Aleworks and Canada Avenue.

Lot 5 and the private access road, Tree Top Lane, will share detention ponds (PA-5 and PA-10) to control runoff and provide water quality. The detention ponds will discharge into the US-83 R/W via a storm sewer pipe located in an easement along the south side of Lot 4.

Post-construction BMPs for the lots will be designed as part of a potential future site plans to include permanent lawn/grass establishment and construction of the detention ponds. Proposed and future conceptual detention pond calculations are provided in **Table 5-1**. Water quality features, such as ponds, mechanical separators, or swales, will be required to provide onsite water quality.

2.4 ADDITIONAL PROJECT RECOMMENDATIONS

Post-construction flow rates to US-83 R/W shall not exceed the existing runoff rates during 10-year, 25-year, 50-year, and 100-year storm event once the site has been fully developed.

Development of lots 1-4 and drainage to NDDOT R/W may require coordination of a separate “Request for Drainage on Highway Right of Way” (SFN 50909) with NDDOT during future development. An SFN 5090 will be required if storm sewer piping is installed within the R/W or runoff rates increase during the 10-year, 25-year, 50-year, or 100-year storm events.

Stormwater Pollution Prevention – General Permit

The project requires that a General Permit be obtained by the North Dakota Department of Environmental Quality if land disturbance is greater than or equal to one acre. An application package with all related and subsequent requirements may be acquired by contacting the North Dakota Department of Environmental Quality at 701-328-5150. The forms and requirements outlined in the package are also available on the State of North Dakota’s website at: https://deq.nd.gov/WQ/2_NDPDES_Permits/7_Stormwater/StW.aspx

2.5 PREVIOUS DRAINAGE STUDIES OR MASTER PLANS

This SWMP is an update to the previous Tree Top 2nd Addition SWMP dated July 20, 2023.

This property falls within the Bismarck Watershed Master Plan for North Washington and was also previously studied as part of the “Tree Top Addition Plat Stormwater Management Plan” completed by Bartlett and West Engineers on April 26, 2005, herein referred to as Tree Top Addition SWMP.

The previous Tree Top Addition SWMP identified the regional detention pond south of Canada Ave as having adequate capacity for water volume/rate control. No onsite detention will be required from the City of Bismarck if post-construction condition weighted curve numbers (WCN) match the Tree Top Addition SWMP, which allows post-construction WCN of 92. However, NDDOT has separate stormwater requirements, and runoff rates discharging to the US-83 R/W should be less than or equal to existing conditions during the 10-year, 25-year, 50-year, and 100-year storm events.

The Tree Top Addition SWMP states that 41 cfs will flow south through the stormwater easement along the east side of the Furniture Row property during the 100-year storm event. However, the Furniture Row Stormwater Technical Memorandum, completed 4/26/2006 by Bartlett & West Engineers, states that runoff from the Furniture Row site will be 31 cfs, which will limit available capacity from Tree Top 2nd Addition within the Furniture Row east curb line to 10 cfs during the 100-year storm event.

The drainage channel described in the Tree Top Addition SWMP was substituted with parking lot curb and gutter as described in the Furniture Row Stormwater Memo.

Runoff from the Furniture Row east curb line is conveyed to an existing double inlet located in the southeast corner of the Furniture Row parking lot. The double inlet outlets through an existing 30" RCP pipe which flows south across Brookside Lane, Tractor Supply Co., and discharges on the east side of Bismarck Brewing/Aleworks. Runoff continues south to an existing culvert crossing Canada Ave and discharges into the existing regional detention pond/US-83 roadway crossing facility.

3.0 PROJECT STORMWATER MANAGEMENT SUMMARY

Purpose

The purpose of this Storm Water Management Plan (SWMP) is to satisfy the City of Bismarck Stormwater Management Plan requirement for development of the Tree Top 2nd Addition private access road, Tree Top Lane. There is the potential for construction of new commercial buildings with parking lots upon each lot within the subdivision. Analysis and design recommendations contained herein are intended to provide guidance for potential future development plans and stormwater considerations.

Future SWMP reports or technical memorandums should be required as part of actual development plans to detail project specific stormwater controls and ensure the site is developed within the recommendations of this report.

Analysis Methods

The hydrological analysis is based on the SCS TR-20 Unit Hydrograph Method. This method utilizes rainfall frequencies and runoff characteristics from a watershed to predict peak discharges during storm events. This method is built into the HydroCad software used to analyze the project area. The SCS unit hydrograph procedure commonly utilizes a synthetic rainfall distribution. The SCS has developed several standard distributions that cover the entire U.S., commonly known as the Type I, IA, II, and III storms. When combined with the 24-hour rainfall depth, these distributions contain all the rainfall data required for most studies. The HydroCAD software also utilizes all the SCS TR-55 procedures for time-of-concentration, which are widely used

in conjunction with the TR-20 methodology. The combination is suitable for any application that specifies the TR-55 method.

HydroCAD integrates sub-basin hydrology with the calculation of closed conduits and open channels to route stormwater flow within a continuous, dynamic model. The hydraulic analysis of the pipes, and detention pond were modeled within the HydroCAD program as described above. The approach culvert at the connection to 57th Ave NE was sized with HY-8 software.

Appendix B provides the HY-8 calculations for the analyzed culvert.

Curb inlets along the access road were analyzed utilizing Autodesk Storm & Sanitary Analysis (SSA) software. SSA is a comprehensive software capable of performing hydraulic and hydrologic analysis. Curb inlets were analyzed to ensure capacity and bypass of on-grade inlets.

3.1 DESCRIPTION OF POINT(S) OF ANALYSIS (IF APPLICABLE)

The property is located within the Hay Creek Watershed in north central Bismarck. Runoff from the property drains to two points of analysis. Point of analysis A (POA-A) is located within the west ditch of the US-83 R/W at the SE corner of the proposed development. Point of analysis B (POA-B) is the Furniture Row site located south of the property and is defined by runoff that flows to the Furniture Row site including both the east and west side.

3.2 DESCRIPTION OF POINT(S) OF DISCHARGE

Runoff from the property, whether conveyed through POA-A or POA-B, will enter the City storm water system south of Canada Ave. Runoff will enter the existing regional detention pond facility and roadway crossing located between Canada Ave and E LaSalle Dr, which is considered a regional detention pond. Runoff continues flowing east approximately 1/2 mile through the regional stormwater system to Hay Creek and ultimately discharges into the Missouri River.

3.3 DESCRIPTION OF EXISTING STORMWATER FEATURES

The site is currently undeveloped and drains overland to the southeast. Portions of the adjacent lots to the west drain onto the property. There are no existing stormwater features onsite.

3.4 DESCRIPTION OF EXISTING WETLANDS

Based on the US Fish & Wildlife Services National Wetlands Inventory, the property does not contain any known jurisdictional wetlands.

3.5 FEMA FIRM

The property does not lie within the 100-year floodplain, and this report will therefore not cover floodplain-related concerns. The project area lies within FEMA FIRM panel 38015C0785D, effective on 8/04/2014.

See **Exhibit 2** for FEMA FIRMette.

3.6 NRCS SOIL TYPES

The soil in the area consists of primarily Temvik silt loam which is classified as a hydrologic soil group (HSG) B soil. Refer to the soils map in the Appendix. The majority of the slopes range from 0 to 6%.

See **Exhibit 3** for additional soils information.

3.7 DESCRIPTION OF POST-CONSTRUCTION RUNOFF MANAGEMENT

An increase in runoff from existing to post-construction conditions will be experienced due to the increase in future impervious coverage.

Runoff from the slope on the far south side of the property will continue to flow overland onto Furniture Row site un-detained. Runoff from most of the property will flow overland to proposed or potential future detention ponds. Mitigation of increased runoff rates will occur within planned detention ponds at the southeast corner of each lot. Future development could also utilize one larger detention pond capable of handling the entire Tree Top 2nd Addition.

The proposed detention ponds in Lot 5 will provide water quality utilizing a forebay with filtration in the west pond (PA-5), which will be adequate for Lot 5 and the access road.

Water quality features will also be required for each lot (1-4) or at minimum one large enough to meet the requirements of City of Bismarck "Stormwater Design Standards Manual for water quality for lots 1-4.

4.0 HYDROLOGIC ANALYSIS SUMMARY

Hydrologic modeling was completed using the 2-year, 5-year, 10-year, 25-year, 50-year, and 100-year frequency rainfall events as report in NOAA Atlas-14, Volume 8, Version 2, Rainfall Frequency Atlas of the United States. The 10-year, 25-year, 50-year, and 100-year rainfall event were analyzed based on NDDOT drainage permit requirements. The runoff response from the 24-hour duration storm events has been predicted for a Type II rainfall distribution.

TABLE 4-1: RAINFALL DEPTHS

Rainfall Duration	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year
24-Hour	2.10"	2.60"	3.10"	3.90"	4.57"	5.30"

The minimum time of concentration, T_c , was 5 minutes. Sheet flow was limited to a maximum length of 100 feet. Shallow concentrated flow is assumed not to have a well-defined channel and has flow depths of 0.1 to 0.5 feet.

The hydrologic Curve Number (CN) for each studied drainage area is based on criteria listed in the Stormwater Design Standards Manual:

TABLE 4-2: HYDROLOGIC CURVE NUMBERS

Land Cover	Condition	HSG			
		A	B	C	D
Impervious		98	98	98	98
Grass (Lawn)	Good	39	61	74	80
*CN values are the maximum allowable for existing conditions analyses *CN values are the minimum allowable for post-construction condition analyses. *Gravel surfaces shall be modeled as impervious area					

The site was modeled with 85% impervious coverage with HSG B soils. Surface coverage for adjacent lots were analyzed using existing conditions. For comparison purposes, offsite lots were modeled undeveloped in the existing and post-construction conditions. Development of offsite lots draining onto Tree Top 2nd Addition shall control runoff rates to existing conditions.

4.1 DESCRIPTION OF EXISTING ZONING & LAND USE

The property is located within the City of Bismarck, zoned heavy commercial, CG, and is currently undeveloped.

Basin A

Basin A (7.55 acres) contains most of Tree Top 2nd Addition and an off-site portion (0.67 acres) of Sonnet Heights Subdivision Second Replat. Basin A flows overland un-detained to the southeast toward the west ditch of US-83 R/W. Runoff continues flowing south within the west ditch to an existing culvert on the north side of Canada Ave. Runoff then discharges south to the existing regional detention pond/US-83 roadway crossing facility.

Basin B

Basin B (0.56 acres) contains the southern slope portion of Tree Top 2nd Addition. Basin B flows overland un-detained onto the Furniture Row site. A small berm separates runoff between Basin A and Basin B.

Basin C

Basin C (2.85 acres) consists of portions of the south half of 57th Ave NE R/W. Basin C flows east overland along the south ditch of 57th Ave NE to the proposed private access road approach. The proposed culverts have been sized according to City of Bismarck requirements. The post-construction improvements will not impact flows to the proposed culverts. See Section 5.3.3 for additional information.

See **Exhibit 4** for a graphical representation of the existing conditions sub-basins.

4.2 EXISTING CONDITIONS POINT OF ANALYSIS SUMMARY

TABLE 4-3: EXISTING CONDITIONS POINT OF ANALYSIS SUMMARY

	Point(s) of Analysis	
	A	B
Tributary Area (on-site & off-site)	7.550	0.560
Weighted CN	61	61
Impervious Area (acres)	0	0
Impervious CN	98	98
Pervious Area (acres)	7.550	0.560
Pervious CN	61	61

(Refer to Table 2-2 for runoff rates)

4.3 DESCRIPTION OF POST-CONSTRUCTION ZONING & LAND USE

The zoning is heavy commercial, CG, for the proposed plat and future development.

Basin A

Basin A (6.80 acres) contains most of proposed Lots 1, 2, 3, and 5. Runoff from these lots will flow overland to the planned detention ponds in the southeast corner of each lot. Runoff from the off-site area (PC-A7), most of Lot 5 (PC-A5), and from the access easement (PC-A6) will be conveyed to the proposed detention pond in the south corner Lot 5. Detention pond P-A5 is designed to receive runoff from off-site Sub-basin PC-A7 with a curve number, CN, of 61. The proposed detention pond P-A5 in Lot 5 will utilize underdrain with filtration for water quality treatment.

Lots 1, 2, and 3 will be required to provide a detention pond to control runoff and provide water quality prior to discharging to the US-83 R/W.

Lot 4 will be required to provide a water quality feature prior to discharging to the stormwater easement on the east side of the Furniture Row parking lot. Detention is not required (if runoff rates are less than 10 cfs) as it is provided in the regional pond to the south of Bismarck Brewing/Aleworks and Canada Avenue. See Basin B for further information.

Lot 5 and the private access road, Tree Top Lane, will share detention ponds (PA-5 and PA-10) to control runoff and provide water quality. The detention ponds will discharge into the US-83 R/W via a storm sewer pipe located in an easement along the south side of Lot 4.

Future flow rates shall adhere to the flow rates described in Table 5-1.

Basin B

Basin B (1.31 acres) contains most of Lot 4 and south slope of the site. Runoff from Lot 4 (PC-B4) will flow overland to the southeast corner of the lot. Runoff from Sub-basin PC-B4 should be conveyed to the southeast corner of the property and discharge overland within the existing stormwater easement south to Furniture Row east curb line. Sub-basin PC-B9 contains the very south slope of the property and will flow south undetained onto the Furniture Row site as it does today. No detention is required if runoff rates are less than 10 cfs. Water quality for Lot 4 will be provided in a small future pond or flow-through device located in the southeast corner of Lot 4.

An alternative to conveying runoff to the Furniture Row east curb line is to extend a new storm sewer pipe north from the existing double inlet located in the southeast corner of the Furniture Row parking lot. The storm sewer extension would connect to the existing 30" RCP pipe which flows south across Brookside Lane, Tractor Supply Co., and discharges on the east side of Bismarck Brewing/Aleworks. Runoff continues south to an existing culvert crossing Canada Ave and discharging into the regional detention pond. This option is not part of the proposed plan presented herein.

See **Exhibit 5** for a graphical representation of the post-construction conditions sub-basins.

4.4 POST-CONSTRUCTION POINT OF ANALYSIS SUMMARY

Table 4-4 provided below summarizes the changes from existing to post-construction conditions for the analyzed sub-basins. This information is provided based on the potential future development concept. Prior to any development of the property, the proposed site plan should be analyzed and reviewed to ensure post-construction impervious area is consistent with this report.

TABLE 4-4: POST-CONSTRUCTION POINT OF ANALYSIS SUMMARY

	Point(s) of Analysis	
	A	B
Tributary Area (on-site & off-site)	6.80 acres	1.31 acres
Impervious Area	5.00 acres	1.11 acres
Impervious CN	98	98
Pervious Area	1.80 acres	0.20 acres
Pervious CN	61	61

(Refer to Table 2-2 for runoff rates)

As indicated in the tables above, impervious coverage in Basin A will increase, but the tributary area to point of analysis A will decrease from the existing conditions. The tributary area to point of analysis B and impervious coverage in Basin B will both increase, but discharge rates will be controlled in the regional detention pond as

stated in Tree Top Addition SWMP. Discharge to point of analysis B can't exceed 10 cfs in the 100-year storm event.

4.5 HYDROLOGIC ANALYSIS CONSIDERATIONS

Additional PCSMP's or technical memoranda may be required for future construction site plans as this report is based on a potential conceptual layout. See the **Appendices** for HydroCAD calculations for the proposed post-construction conditions.

5.0 POST-CONSTRUCTION STORMWATER MANAGEMENT BMPS

5.1 POST-CONSTRUCTION PEAK FLOW COMPLIANCE BMP

Onsite detention will be provided to mitigate the increased flow to POA-A due to potential site development. The proposed and conceptual future detention ponds modeled herein were analyzed for the potential maximum impervious coverage. The detention ponds in Lot 5 will be constructed as part of the proposed access road improvements. The future detention ponds should be evaluated based on the future development plans as each proposed lot (1-4) is developed. **Tables 5-1** provided below summarizes the proposed and potential future detention ponds requirements for each lot.

TABLE 5-1: DETENTION POND SUMMARY

Lot/ Pond	Max Q _{out} (cfs) 2-yr	Storage Req. (cu-ft) 2-yr	Max Q _{out} (cfs) 5-yr	Storage Req. (cu-ft) 5-yr	Max Q _{out} (cfs) 10-yr	Storage Req. (cu-ft) 10-yr	Max Q _{out} (cfs) 25-yr	Storage Req. (cu-ft) 25-yr	Max Q _{out} (cfs) 50-yr	Storage Req. (cu-ft) 50-yr	Max Q _{out} (cfs) 100-yr	Storage Req. (cu-ft) 100-yr
1/ P-A1	0.59	1,734	0.64	2,311	0.99	2,828	1.91	3,519	2.70	4,027	3.49	4,561
2/ P-A2	0.59	1,734	0.64	2,311	0.99	2,828	1.91	3,519	2.70	4,027	3.49	4,561
3/ P-A3	0.59	1,734	0.64	2,311	0.99	2,828	1.91	3,519	2.70	4,027	3.49	4,561
4/Basin B	10		10		10		10		10		10	
5/ P-A5	1.86	2,806	1.99	4,121	2.10	5,588	4.26	7,613	7.96	8,710	10.45	9,763
5/P-A10	1.24	4,991	1.72	5,159	1.97	5,236	2.71	5,446	5.84	6,178	7.20	7,522

*5/ P-A5 and 5/ P-A10 will be constructed as part of the planned access road improvements.

An increase in runoff from the existing conditions will be experienced due to the increase in impervious coverage within the potential future development. Detention should be provided to control post-construction runoff release to the US-83 R/W. Post-construction runoff rates to the US-83 R/W should be equal to or less than the existing condition during the 10-yr, 25-yr, 50-yr, and 100-yr storm events. Detention is not required through the Furniture Row site for the City of Bismarck requirements according to the Tree Top Addition SWMP as long as discharge from Lot 4/Basin B remains below 10 cfs in the 100-year storm event.

A waiver for the stormwater runoff rates to the US-83 R/W (POA-A) is requested from the City of Bismarck for the 2-year and 5-year storm events in Section 7.0 of this report.

The proposed detention ponds, P-A5 and P-A10, have been designed to control runoff rates from Lot 5, developed to 85% impervious and the access road easement. The proposed detention ponds provide a minimum of 1-foot freeboard during all analyzed storm events.

The future detention ponds should be designed to provide a minimum of 1-foot freeboard during all analyzed storm events.

5.1.1 ENGINEERED OUTLETS

As part of this report, conceptual future outlet control structures were analyzed. Future outlet control structures for Lots 1, 2, and 3 were analyzed with a 4" outlet pipe from the pond bottom to the control structure to control events up to the 5-year storm event, and a 12" outlet pipe or vertical orifice to the control structure to control the 10-year, 25-year, 50-year, and 100-year storm events. A 12" pipe from the control structure was modeled to discharge into the US-83 ROW.

The proposed detention ponds P-A5 and P-A10, located in Lot 5, will work in conjunction with each other. Pond P-A5 will provide water quality for Lot 5 and the access road acting as a forebay. The proposed outlet control structure for Lot 5 Pond P-A5 was designed with a 6" perforated outlet pipe installed inside a French drain which drains into a 6" solid wall pipe and then into the control structure to control events up to the 10-year storm event, and a 24" diameter beehive grate to control the 25-year, 50-year, and 100-year storm events. A 15" outlet pipe will discharge runoff from the outlet control structure from the Lot 5 Pond P-A5 into Pond P-A10. The proposed outlet control structure for Lot 5 Pond P-A10 was designed with a 4" outlet pipe installed at the pond bottom to control small storm events and to serve as a pond drain down, and a 24" diameter beehive grate to control the 2-year, 5-year, 10-year, 25-year, 50-year, and 100-year storm events. A 15" outlet pipe from P-A10 control structure will discharge into the US-83 ROW.

Future outlet control structures will be designed as part of the future site plans on lots 1-4, but they must be able to control runoff discharge rates as described within this report. Water quality BMP's will be required for each of these lots. It is recommended that future ponds or outlet control structures include an integrated hydrodynamic/hydraulic separator or other water quality BMPs to meet water quality requirements.

TABLE 5-2: ENGINEERED OUTLET SUMMARY – POND P-A5

Outlet Size	15" Storm Sewer pipe	
Upstream Invert	1839.85	
Downstream Invert	1737.03	
Outlet Velocity and Depth	*Taken at 15" pipe	
2-Year Event	6.81 ft/sec	0.32 ft
5-Year Event	6.96 ft/sec	0.33 ft
10-Year Event	7.08 ft/sec	0.34 ft
100-Year Event	10.84 ft/sec	0.91 ft
Maximum Basin Storage	0.365 acre-feet @ elevation 1848.50	
Pervious CN	61	
Time at Peak Storage	12.04 hrs (100-year event)	
Stage/Storage/Discharge Location	6" perforated outlet pipe installed inside a French drain 1840.75, 6" pipe inv. 1840.70 (2-, 5-, & 10-year), Neenah R-2560-E1 rim elev. 1846.22 (+10-year events), Earthen Weir 1847.70 Top of berm 1848.50	
Calculated Water Surface Elevation		
2-Year Event	1844.85	
5-Year Event	1845.39	
10-Year Event	1845.91	
100-Year Event	1847.11	

TABLE 5-3: ENGINEERED OUTLET SUMMARY – POND P-A10

Outlet Size	15" Storm Sewer pipe	
Upstream Invert	1836.70	
Downstream Invert	1835.00	
Outlet Velocity and Depth	*Taken at 15" pipe	
2-Year Event	2.88 ft/sec	0.40 ft
5-Year Event	3.23 ft/sec	0.50 ft
10-Year Event	3.38 ft/sec	0.55 ft
100-Year Event	5.87 ft/sec	1.25 ft
Maximum Basin Storage	0.266 acre-feet @ elevation 1842.75	
Pervious CN	80	
Time at Peak Storage	12.15 hrs (100-year event)	
Stage/Storage/Discharge Location	4" pipe inv. 1836.78 (2-yr to 100-year), Neenah R-2560-E1 rim elev. 1840.60 (100-year), Earthen Weir 1842.25 Top of berm 1842.75	
Calculated Water Surface Elevation		
2-Year Event	1840.72	
5-Year Event	1840.79	
10-Year Event	1840.82	
100-Year Event	1841.62	

5.1.2 EMERGENCY SPILLWAY AND UNCONTROLLED OVERFLOWS

In the event of flooding, storm events in excess of the 100-year 24-hour storm event, or failure of the outlet control structures, runoff will flow through controlled overflow weirs.

For future ponds on Lots 1-3, controlled overflow weirs will be located along the east side of the potential future detention ponds. The controlled overflow weirs will convey overflow safely off the property. If runoff were to continue ponding above the designed 1-foot freeboard, runoff would overtop the detention pond berm and flow generally southeast.

For the proposed ponds in Lot 5, controlled overflow weirs will be constructed at the elevations indicated in the table above which will safely convey overflow off the property. The controlled earthen overflow weir from pond PA-5 will be 8-feet wide and the controlled earthen overflow weir from pond PA-10 will be 10-feet wide. Overflow would flow south along the access road curb through the Furniture Row property before discharging onto Brookside Lane and continuing south to a drainage swale on the west side of Tractor Supply, ultimately discharges into the existing regional detention pond.

5.2 POST-CONSTRUCTION WATER QUALITY COMPLIANCE BMP

Water quality BMPs will be provided both on and off-site. Water quality for the proposed access road and Lot 5 development will be provided by filtration within pond P-A5, which acts as a forebay for pond P-A10. Runoff to POA-A will flow overland through grassed ditches until the regional detention pond south of the property.

Future water quality BMPs will be provided in at potential outlet control structures. Water quality BMPs are recommended to be integrated with the outlet control structure or a forebay prior to the detention pond to provide water quality prior to discharge. Water quality for Lot 4 will be provided in a small future pond or flow-through device located in the southeast corner of Lot 4. Each lot will be required to meet water quality requirements onsite.

5.2.1 WET DETENTION BASINS

This analysis does not include use of wet detention basins.

5.2.2 DRY DETENTION BASINS

Future dry detention basins on lots 1-4 may be constructed to provide runoff rate control and storage.

Dry detention ponds for Lot 5 and the access road were analyzed in Section 5.1 and 5.1.1.

5.2.3 INFILTRATION

The proposed site improvements will include detention pond P-A5, which will act as a forebay, that make use of filtration for water quality. The filtration basin will have a 6" diameter drain tile wrapped with filter sock running along the bottom of the pond. The drain tile will be 2' below the finished grade and sloped to drain to an outlet. A detail of the drain tile is provided with the utility plans.

The existing soils are shown as HSG B according to the NRCS soils survey. Infiltration has been modeled within the detention pond forebay as discarded runoff. Filtration will occur within the forebay, P-A5, where a drain tile will be installed. Filtration rates were modeled based on perforation specification of the drain tile. Class 43 aggregate base will be installed above the drain tile to facilitate drainage. The grassed swale provides minimal water quality volume and is not included in the table below.

TABLE 5-4: FILTRATION BASINS

Condition	Post-Construction Conditions
Water Quality Feature	Pond P-A5
Required Water Quality Volume (Vwqreq)	3,654 cu-ft (2.03 acres Impervious)
Water Quality Depth	$1846.22 - 1842.75 = 3.47'$
Provided Water Quality Volume	6,568 cu-ft
Calculated Drawdown Time	24.10 hrs
Stage/Storage/Discharge Location	Filtration to 6" perforated pipe with geo-sock; Detention pond P-A5 grate elev. 1846.22

Total water quality volume calculated from pond bottom to outlet control structure grate rim. Filtration drawdown time will occur within approximately 24 hours allowing the detention pond to be dry most of the time. Pond P-A5 will act as a forebay for pond P-A10.

5.2.4 ALTERNATIVE BMP METHOD REQUIREMENTS

Future detention ponds may include forebays designed for water quality volume required in the SWDSM.

Hydrodynamic/hydraulic separators are recommended as an alternative to water quality ponds to meet the City of Bismarck water quality requirements. Hydrodynamic/hydraulic separators could be installed at each detention pond/discharge point except for Lot 5 which will have a water quality pond. The separators shall be designed to treat the peak discharge rate from the 2-year storm event with a bypass to accommodate larger storm events.

Design and installation of the alternative BMP will be part of future PCSMP and site plans.

5.3 POST-CONSTRUCTION DRAINAGE & CONVEYANCE BMPS

5.3.1 STREETS

Analysis of City streets is not applicable to this project. Drainage areas to the existing streets have been reduced and no new City streets are being added as part of this project.

The proposed private access road, Tree Top Lane, will be completed prior to development of the first lot. The private access road will consist of concrete roadway with curb and gutter. Total width of the roadway will be 36' from back of curb to back of curb. Multiple curb inlets will be constructed along the private roadway and discharge into detention ponds P-A5 and P-A10.

5.3.2 STORM SEWER

Storm sewer will be installed with potential future development of the lots to capture runoff and convey it through the easements to the detention ponds. Inlets and pipes will be analyzed in future site plans to determine the sizing and location of the inlet structures and pipes on individual lots.

Storm sewer within the private access road will be constructed simultaneously with the access road. The planned detention ponds within Lot 5, P-A5 and P-A10, will be constructed to receive runoff from the access road and Lot 5. The storm sewer within the private access has been designed to accommodate runoff flow from the access road. Runoff from Lot 5 and off-site areas to the west should be conveyed directly in the detention pond on the south end of Lot 5.

On-grade curb inlets have been analyzed within SSA to properly size structures and determine runoff bypass during the storm events. Runoff bypass south in the curb line of the access road will be less than 1 cfs during the 100-year, 24-hour storm event.

See **Exhibit 5** for a graphical representation of the proposed storm sewer system.

5.3.3 CULVERTS

One roadway crossing with two culverts is proposed across the private roadway approach (Tree Top Lane) on the south side of 57th Ave NE. The size and location are identified on **Exhibit 5**. The proposed culverts were sized to not overtop the roadway during the 100-year, 24-hour storm event. The proposed culverts shall be installed during construction of Tree Top Lane.

Sub-basin C, shown on the exhibits as EX-C and PC-C, is the area contributing to the approach culvert. This area consists mainly of 57th Ave NE ROW and a small portion of lots located west of Tree Top 2nd Addition. Runoff flow east along the south ditch of 57th Ave NE to the proposed approach culverts.

Table 5-2 provided below summarize the future culvert diameter, flow, and peak ponding elevations at the culvert entrances.

TABLE 5-5: CULVERT ANALYSIS, POST-CONSTRUCTION CONDITIONS

Culvert Location	Size (in)	Event	In-Flow (ft ³ /s)	Peak Ponding Elevation	Proposed Top of Road/Spillway
57 th Ave Approach at Tree Top Lane	18" (x2)	5	7.30	1855.94	1857.23
		25	12.31	1856.37	1857.23
		100	17.89	1856.90	1857.23

*Culvert upstream invert elevations: 1854.79 (north culvert), 1854.98 (south Culvert)

Under post-construction conditions, two 18" culverts shall be installed under Tree Top Lane, the private street connecting to 57th Ave NE. Installation of the 18" culverts will require erosion control/outlet protection. Outlet protections were designed as part of the proposed access road improvement plans. The culverts will be

included with other storm water, sanitary, water, and access road site improvements prior to development of the first lot.

5.3.4 OPEN CHANNELS

The drainage swale along the south side of Lot 4 was designed to accommodate runoff for undeveloped and developed conditions. Drainage swale may be filled if site design for Lot 4 is able to convey runoff to the southeast corner of the property prior to discharge south in the existing storm sewer drainage easement on the Furniture Row property.

The drainage swale has a design capacity of 18.9 cfs, which is greater than peak runoff from Lot 4 during the Post-Construction 100-year storm event.

5.4 POST-CONSTRUCTION BMP OPERATION AND MAINTENANCE

Once construction is complete and the site is turned over to the owner, the owner of Lot 5 shall accept responsibility for maintenance and operation of the Lot 5 ponds and discharge pipes, the Lot 5 pond discharge pipe on the south side of Lot 4, and the access road storm sewer post-construction BMPs. The owners of Lots 1-4 shall each be responsible for the post-construction BMPs on each of their lots.

Permanent Erosion Controls & BMP

Permanent erosion controls & BMPs should be developed during site plans and include permanent seeding and planting of the site, detention pond, and grassed swales.

The proposed and future detention ponds should be maintained to be free of trash and debris which may limit proper operation or block the outlet structures. Onsite inlets and storm sewer structures should be checked at least annually for buildup of sediment or other debris that will limit operation and if required cleaned out.

6.0 CONSTRUCTION SCHEDULE & PHASING

6.1 DESCRIPTION

This report has been based on proposed and potential future concept for this project site. Construction plans for the proposed access road improvement are included in the scope of this project. Future construction plans for lot development are not within the scope of this report. An additional PCSMP or technical memorandum supplementing this report may be required during a future site plan application process.

TABLE 6-1: FUTURE PCSMP APPLICATION MATERIALS

Application Material	Approximate Timing
Geotechnical Report	Upon Site plan application process
Construction Plans	Access Road Improvements –November, 2023
Basis of Design Report	Upon Site plan application process
Large Site Construction Stormwater Management Permit	Upon Site plan application process
Certification Report	Upon Site plan application process

7.0 STORMWATER WAIVER REQUEST

A waiver for the stormwater runoff rates to the US-83 R/W (POA-A) is requested from the City of Bismarck for the 2-year and 5-year storm events. Post-Construction runoff rates will increase during these events, but rates will be less than or equal to the existing conditions during the 10-year, 25-year, 50-year, and 100-year storm event which will meet the NDDOT drainage requirements.

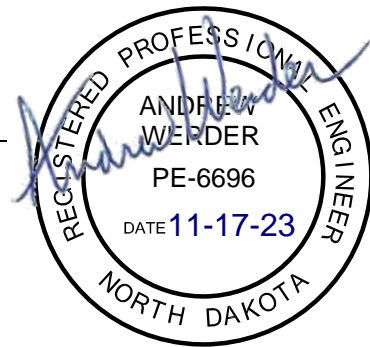
7.1 ENGINEER’S STATEMENT OF COMPLIANCE & SEAL

The below hereby certify that this report and exhibits were completed per the Stormwater Design Standards Manual and City of Bismarck ordinances under their direct supervision/authority. The below certify that they are duly registered professional engineer(s) in the state of North Dakota.

Date: 11/17/2023

Andrew Werder, P.E.

PE-6696



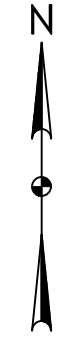
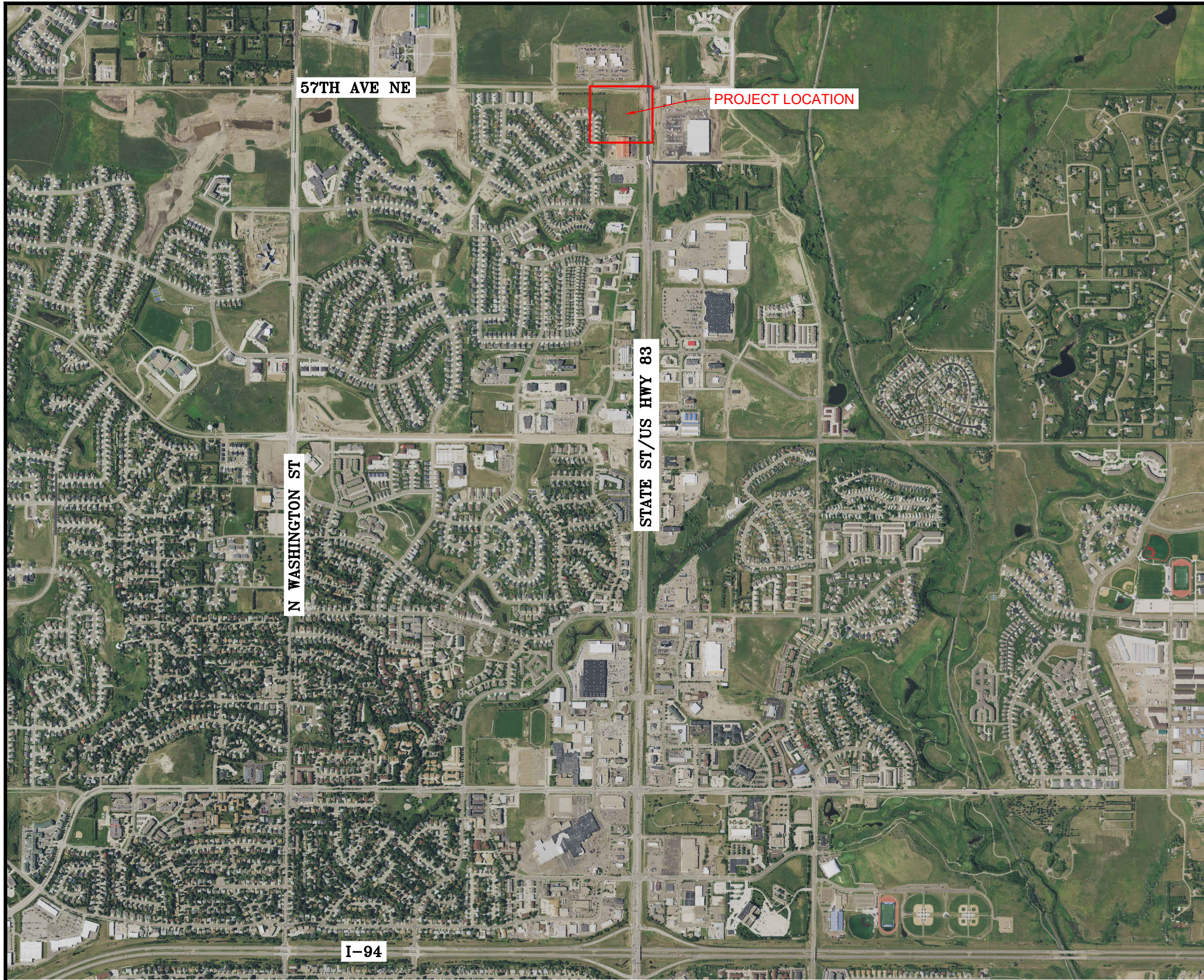
8.0 ATTACHMENTS

EXHIBIT 1: VICINITY MAP

and Access Road

Tree Top 2nd Addition-Minor Plat

Malloy 57, LLC
October 2023



NO.	DATE
REVISION	
DRAFTED KRK	
REVIEWED BJN	
PROJECT NUMBER 1906-02283	
ISSUE DATE 6/2023	
TREE TOP 2ND ADDITION MALLOY 57, LLC BISMARCK, NORTH DAKOTA VICINITY MAP	
SHEET EX1	

EXHIBIT 2: FEMA FIRMETTE

and Access Road

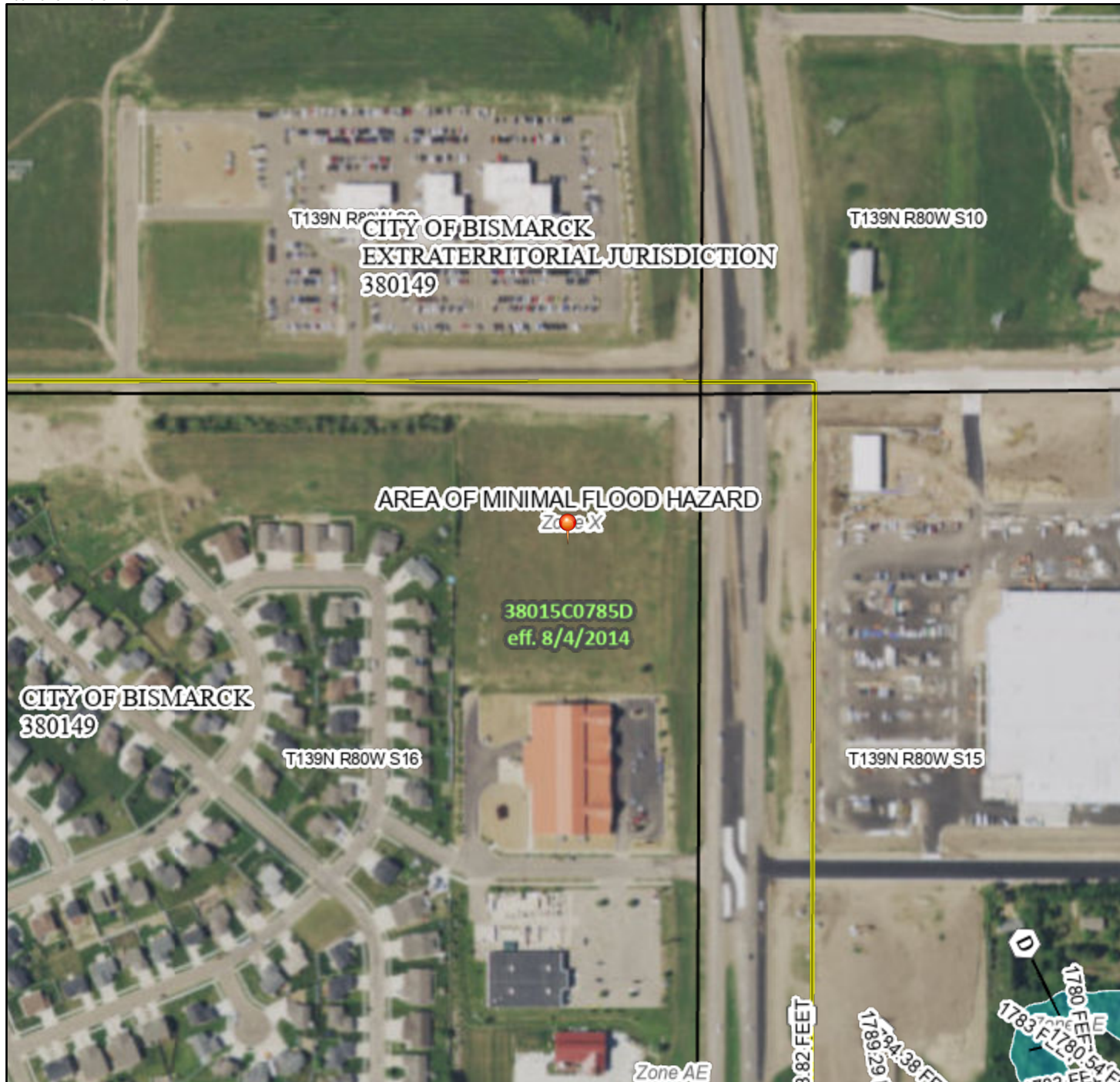
Tree Top 2nd Addition-Minor Plat

Malloy 57, LLC
October 2023

National Flood Hazard Layer FIRMMette



100°46'45"W 46°52'10"N



Legend

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

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D

OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
		Area of Undetermined Flood Hazard Zone D

GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall

OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance
		17.5 Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
		Profile Baseline
		Hydrographic Feature

MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped
		The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.



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

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 6/21/2023 at 1:00 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmmodernized areas cannot be used for regulatory purposes. BCWRD Dec 2023

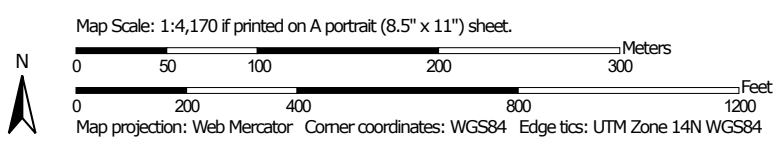
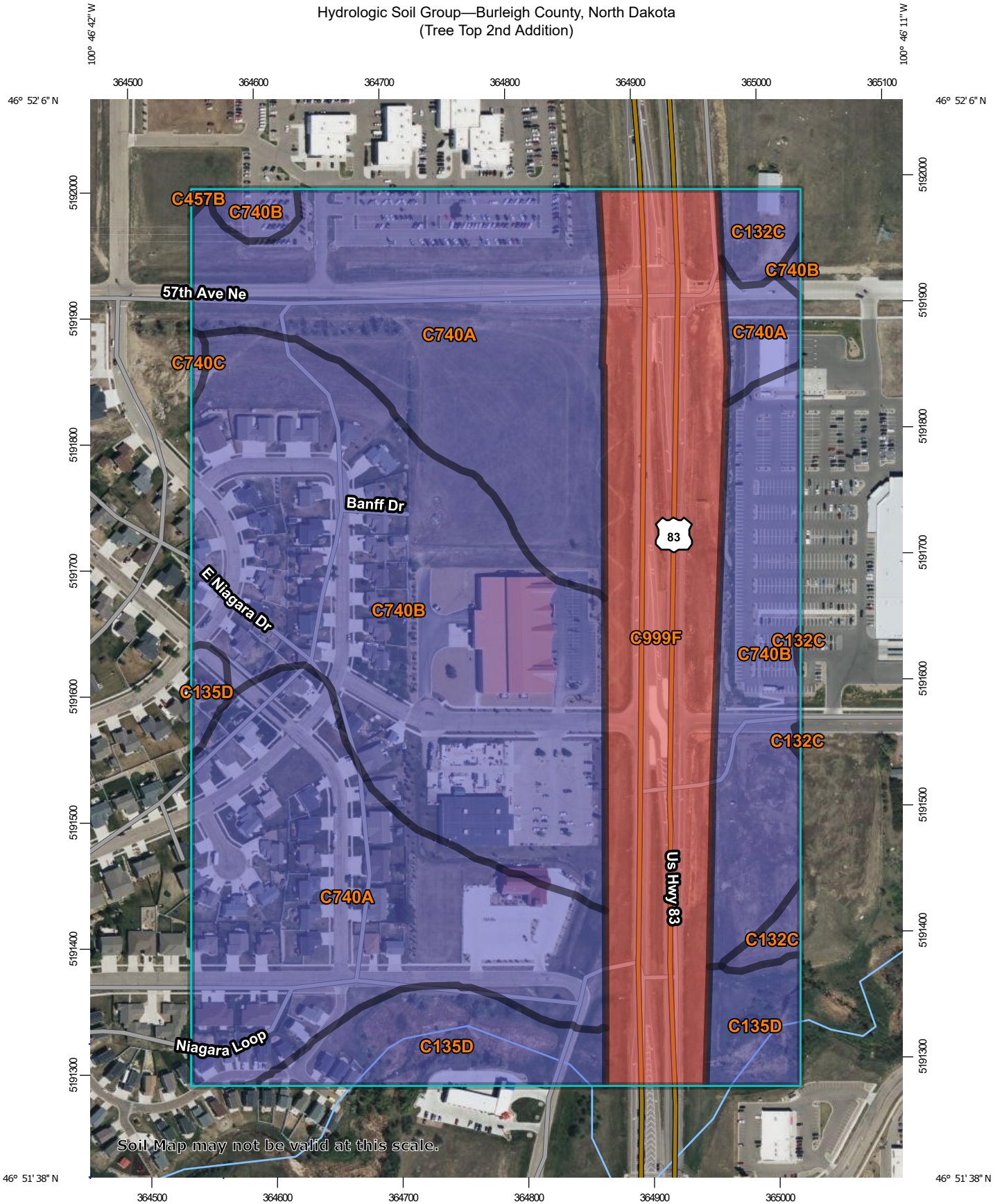
EXHIBIT 3: NRCS SOILS MAP

and Access Road

Tree Top 2nd Addition-Minor Plat

Malloy 57, LLC
October 2023


Hydrologic Soil Group—Burleigh County, North Dakota
(Tree Top 2nd Addition)



Hydrologic Soil Group—Burleigh County, North Dakota
(Tree Top 2nd Addition)

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 1:20,000.

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: Burleigh County, North Dakota
Survey Area Data: Version 23, Sep 8, 2022

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

Date(s) aerial images were photographed: May 17, 2021—May 30, 2021

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
C132C	Williams-Zahl-Zahill complex, 6 to 9 percent slopes	B	1.5	1.8%
C135D	Zahl-Williams loams, 9 to 15 percent slopes	B	6.1	7.1%
C457B	Grassna silt loam, 2 to 6 percent slopes	B	0.0	0.1%
C740A	Temvik silt loam, 0 to 3 percent slopes	B	31.6	36.9%
C740B	Temvik silt loam, 3 to 6 percent slopes	B	30.4	35.5%
C740C	Temvik silt loam, 6 to 9 percent slopes	B	0.1	0.1%
C999F	Orthents-Aquents-Urban land, highway complex, 0 to 35 percent slopes	D	15.8	18.5%
Totals for Area of Interest			85.6	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

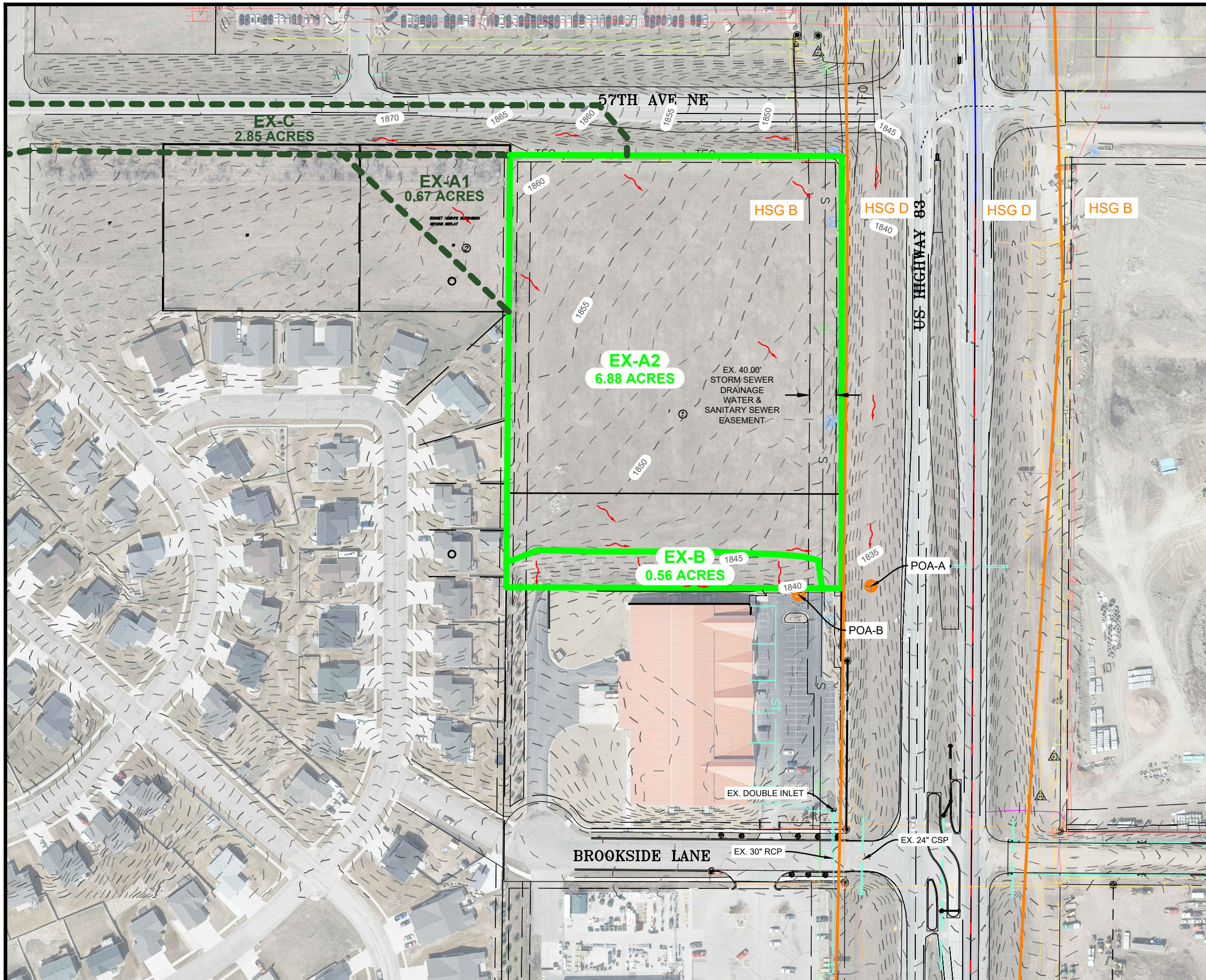
Tie-break Rule: Higher

EXHIBIT 4: EXISTING CONDITIONS MAP

and Access Road

Tree Top 2nd Addition-Minor Plat

Malloy 57, LLC
October 2023

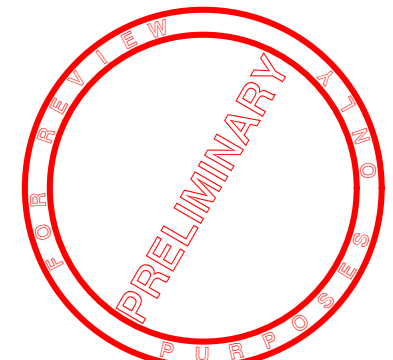


LEGEND

- POINT OF ANALYSIS
- EXISTING SUB-BASIN BOUNDARY
- JC 2-2.1**
2.58 ACRES
 EXISTING SUB-BASIN LABEL
 EXISTING SUB-BASIN AREA
- DIRECTION OF FLOW
- HSG BOUNDARY
- PROPOSED LOT LINE
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR

NOTE(S)

1. EXISTING CONTOURS SHOWN AT 1' INTERVALS.



NO.	DATE	REVISION

DRAFTED	KRK
REVIEWED	BJN
PROJECT NUMBER	1906-02283
ISSUE DATE	7/2023

TREE TOP 2ND ADDITION
MALLOY 57, LLC
BISMARCK, NORTH DAKOTA
EXISTING CONDITIONS MAP

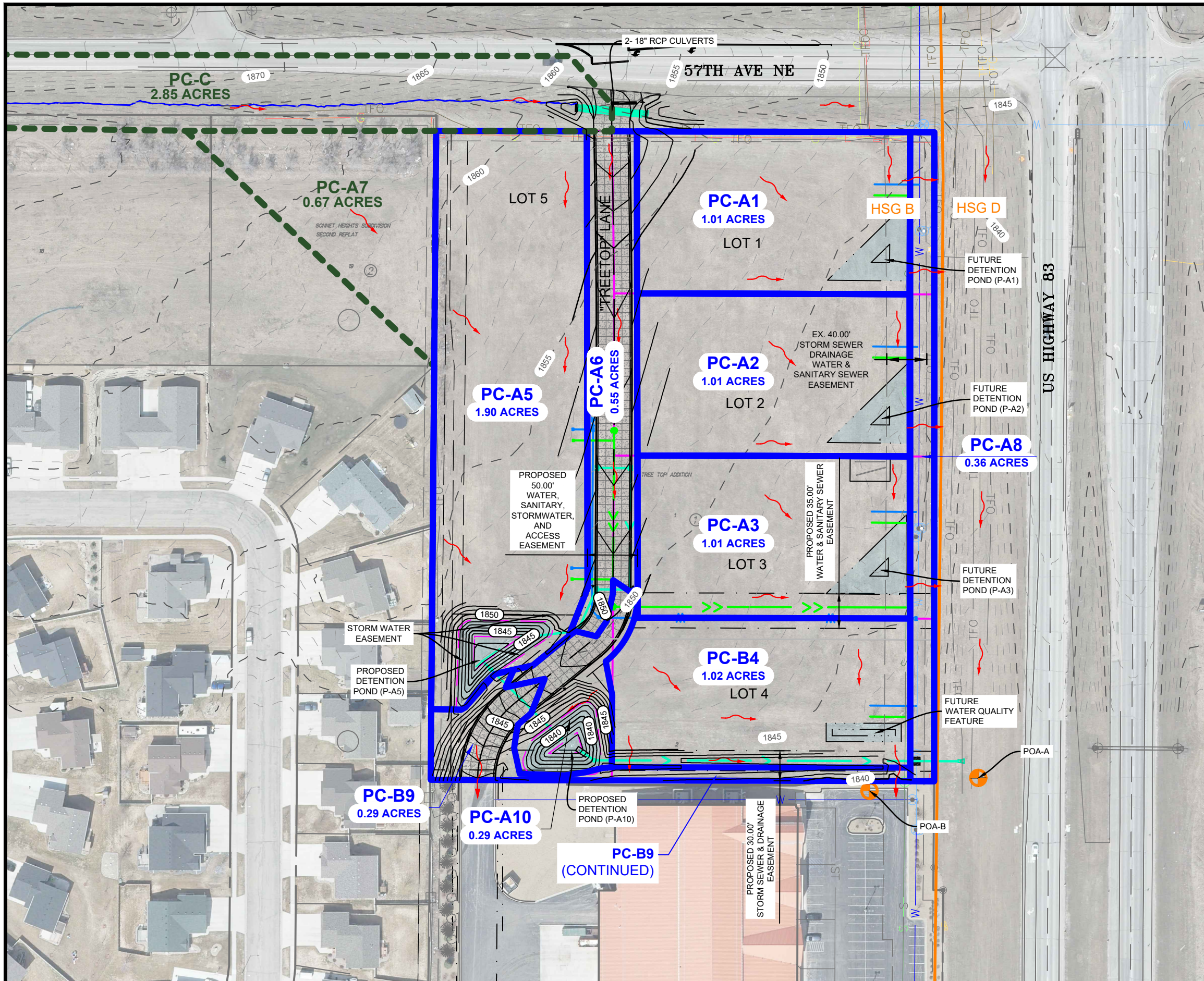
SHEET
EX4

EXHIBIT 5: POST-CONSTRUCTION CONDITIONS MAP

and Access Road

Tree Top 2nd Addition-Minor Plat

Malloy 57, LLC
October 2023

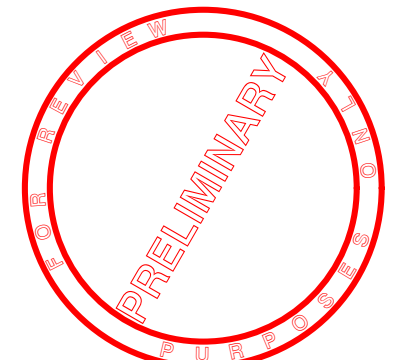
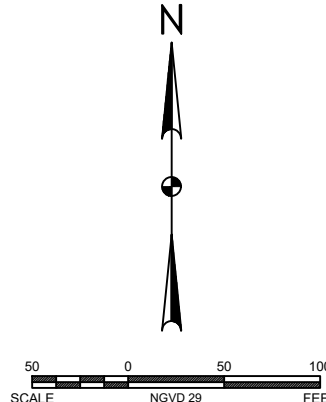


LEGEND

- POINT OF ANALYSIS
- SUB-BASIN BOUNDARY
- SUB-BASIN LABEL
- SUB-BASIN AREA
- DIRECTION OF FLOW
- HSG BOUNDARY
- PROPOSED LOT LINE
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR

NOTE(S)

- EXISTING CONTOURS SHOWN AT 1' INTERVALS.
- THE POTENTIAL FUTURE LOTS, AND FUTURE DETENTION PONDS SHOWN ARE ONLY CONCEPTUAL.
- ACTUAL POST-CONSTRUCTION CONDITIONS FOR LOTS SHOULD BE PROVIDED WITH POTENTIAL FUTURE DEVELOPMENT PLANS.

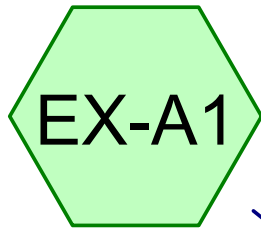


NO.	DATE	REVISION
		DRAFTED KRK
		REVIEWED BJN
		PROJECT NUMBER 1906-02283
		ISSUE DATE 11/2023

TREE TOP 2ND ADDITION - ACCESS ROAD
 MALLOY 57, LLC
 BISMARCK, NORTH DAKOTA
POST-CONSTRUCTION CONDITIONS MAP

SHEET EX5

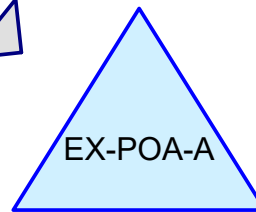
APPENDIX A: EXISTING CONDITIONS HYDROCAD



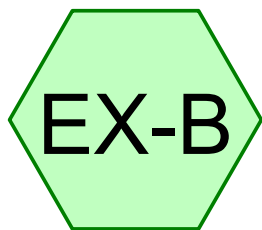
Existing: Off-site



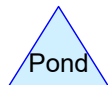
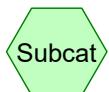
Existing



West Ditch US-83



Existing



Routing Diagram for 1906-02283-TreeTop2nd-Existing&PC
Prepared by KLJ Engineering LLC, Printed 7/20/2023
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1906-02283-TreeTop2nd-Existing&PC

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Existing Conditions

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Project Notes

Rainfall events imported from "RainfallEvents-BismarckMandan-24&6hr.hcp"

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Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	Bismarck 24-hr, 2-yr	Type II 24-hr		Default	24.00	1	2.10	2
2	Bismarck 24-hr, 5-yr	Type II 24-hr		Default	24.00	1	2.60	2
3	Bismarck 24-hr, 10-yr	Type II 24-hr		Default	24.00	1	3.10	2
4	Bismarck 24-hr, 25-yr	Type II 24-hr		Default	24.00	1	3.90	2
5	Bismarck 24-hr, 50-yr	Type II 24-hr		Default	24.00	1	4.57	2
6	Bismarck 24-hr, 100-yr	Type II 24-hr		Default	24.00	1	5.30	2
7	Vwqreq	Type II 24-hr		Default	24.00	1	0.50	2

1906-02283-TreeTop2nd-Existing&PC

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Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
8.110	61	>75% Grass cover, Good, HSG B (EX-A1, EX-A2, EX-B)
8.110	61	TOTAL AREA

1906-02283-TreeTop2nd-Existing&PC

Type II 24-hr Bismarck 24-hr, 2-yr Rainfall=2.10"

Existing Conditions

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Time span=0.00-30.00 hrs, dt=0.05 hrs, 601 points x 2
Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv.
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment EX-A1: Existing: Off-site Runoff Area=0.670 ac 0.00% Impervious Runoff Depth=0.09"
Tc=5.0 min CN=61/0 Runoff=0.01 cfs 0.005 af

Subcatchment EX-A2: Existing Runoff Area=6.880 ac 0.00% Impervious Runoff Depth=0.09"
Tc=5.0 min CN=61/0 Runoff=0.15 cfs 0.054 af

Subcatchment EX-B: Existing Runoff Area=0.560 ac 0.00% Impervious Runoff Depth=0.09"
Tc=5.0 min CN=61/0 Runoff=0.01 cfs 0.004 af

Pond EX-POA-A: West Ditch US-83 Inflow=0.17 cfs 0.059 af
Primary=0.17 cfs 0.059 af

Total Runoff Area = 8.110 ac Runoff Volume = 0.063 af Average Runoff Depth = 0.09"
100.00% Pervious = 8.110 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment EX-A1: Existing: Off-site

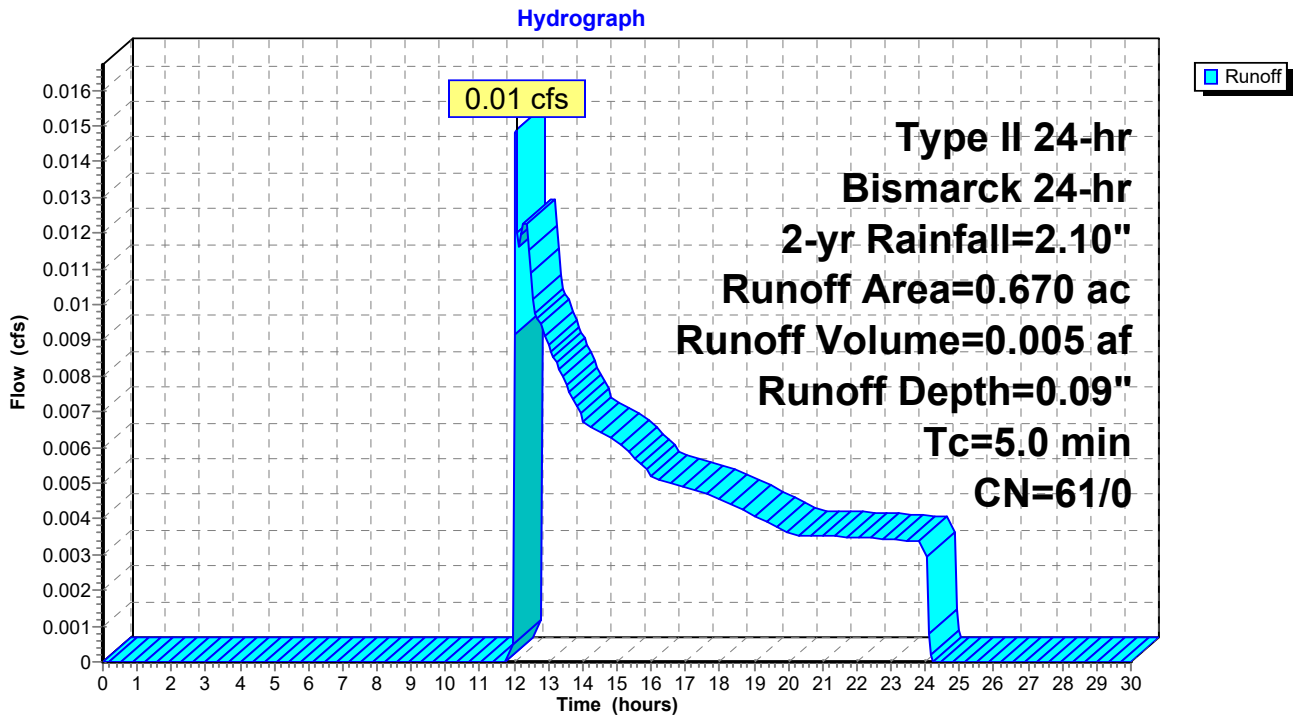
Runoff = 0.01 cfs @ 12.06 hrs, Volume= 0.005 af, Depth= 0.09"
Routed to Pond EX-POA-A : West Ditch US-83

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr Bismarck 24-hr, 2-yr Rainfall=2.10"

Area (ac)	CN	Description
0.670	61	>75% Grass cover, Good, HSG B
0.670	61	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, Min. Tc

Subcatchment EX-A1: Existing: Off-site



Summary for Subcatchment EX-A2: Existing

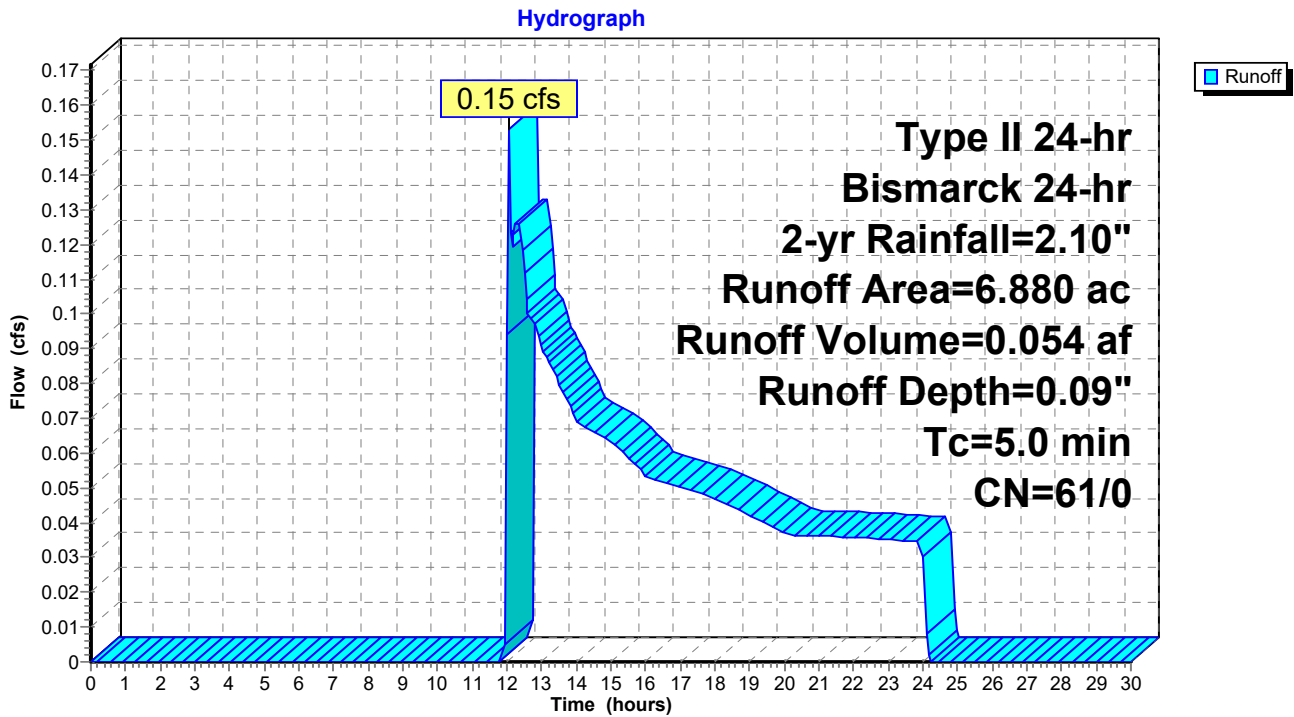
Runoff = 0.15 cfs @ 12.06 hrs, Volume= 0.054 af, Depth= 0.09"
Routed to Pond EX-POA-A : West Ditch US-83

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr Bismarck 24-hr, 2-yr Rainfall=2.10"

Area (ac)	CN	Description
6.880	61	>75% Grass cover, Good, HSG B
6.880	61	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment EX-A2: Existing



Summary for Subcatchment EX-B: Existing

Runoff = 0.01 cfs @ 12.06 hrs, Volume= 0.004 af, Depth= 0.09"

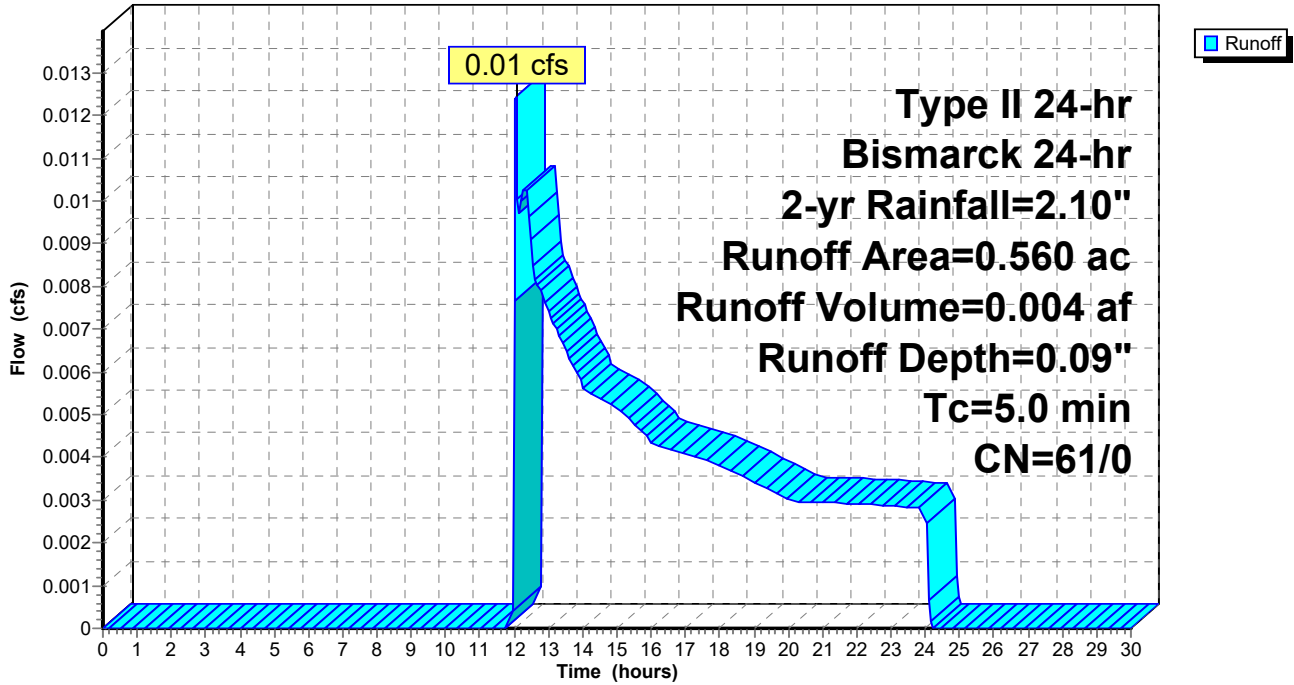
Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr Bismarck 24-hr, 2-yr Rainfall=2.10"

Area (ac)	CN	Description
0.560	61	>75% Grass cover, Good, HSG B
0.560	61	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, Min. Tc

Subcatchment EX-B: Existing

Hydrograph



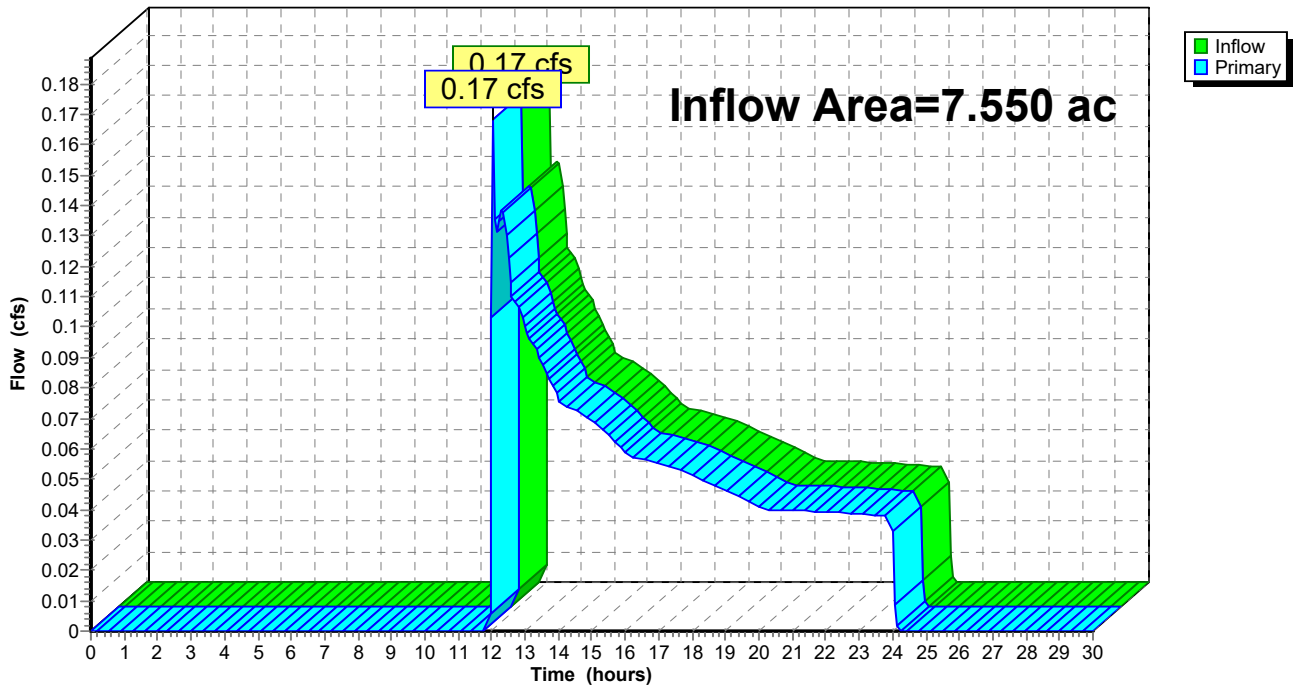
Summary for Pond EX-POA-A: West Ditch US-83

Inflow Area = 7.550 ac, 0.00% Impervious, Inflow Depth = 0.09" for Bismarck 24-hr, 2-yr event
Inflow = 0.17 cfs @ 12.06 hrs, Volume= 0.059 af
Primary = 0.17 cfs @ 12.06 hrs, Volume= 0.059 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs / 2

Pond EX-POA-A: West Ditch US-83

Hydrograph



1906-02283-TreeTop2nd-Existing&PC

Type II 24-hr Bismarck 24-hr, 5-yr Rainfall=2.60"

Existing Conditions

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Time span=0.00-30.00 hrs, dt=0.05 hrs, 601 points x 2
Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv.
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment EX-A1: Existing: Off-site Runoff Area=0.670 ac 0.00% Impervious Runoff Depth=0.23"
Tc=5.0 min CN=61/0 Runoff=0.15 cfs 0.013 af

Subcatchment EX-A2: Existing Runoff Area=6.880 ac 0.00% Impervious Runoff Depth=0.23"
Tc=5.0 min CN=61/0 Runoff=1.58 cfs 0.130 af

Subcatchment EX-B: Existing Runoff Area=0.560 ac 0.00% Impervious Runoff Depth=0.23"
Tc=5.0 min CN=61/0 Runoff=0.13 cfs 0.011 af

Pond EX-POA-A: West Ditch US-83 Inflow=1.74 cfs 0.142 af
Primary=1.74 cfs 0.142 af

Total Runoff Area = 8.110 ac Runoff Volume = 0.153 af Average Runoff Depth = 0.23"
100.00% Pervious = 8.110 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment EX-A1: Existing: Off-site

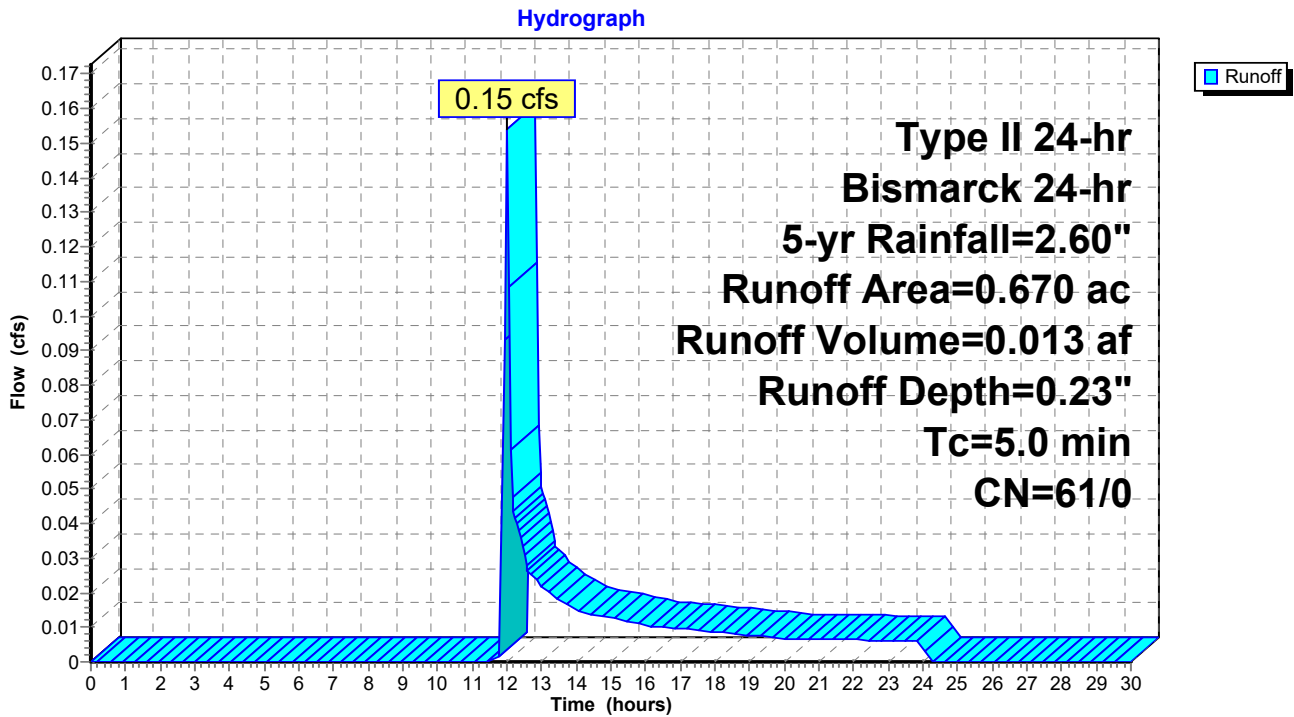
Runoff = 0.15 cfs @ 12.00 hrs, Volume= 0.013 af, Depth= 0.23"
Routed to Pond EX-POA-A : West Ditch US-83

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr Bismarck 24-hr, 5-yr Rainfall=2.60"

Area (ac)	CN	Description
0.670	61	>75% Grass cover, Good, HSG B
0.670	61	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, Min. Tc

Subcatchment EX-A1: Existing: Off-site



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Existing Conditions
Type II 24-hr Bismarck 24-hr, 5-yr Rainfall=2.60"

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Summary for Subcatchment EX-A2: Existing

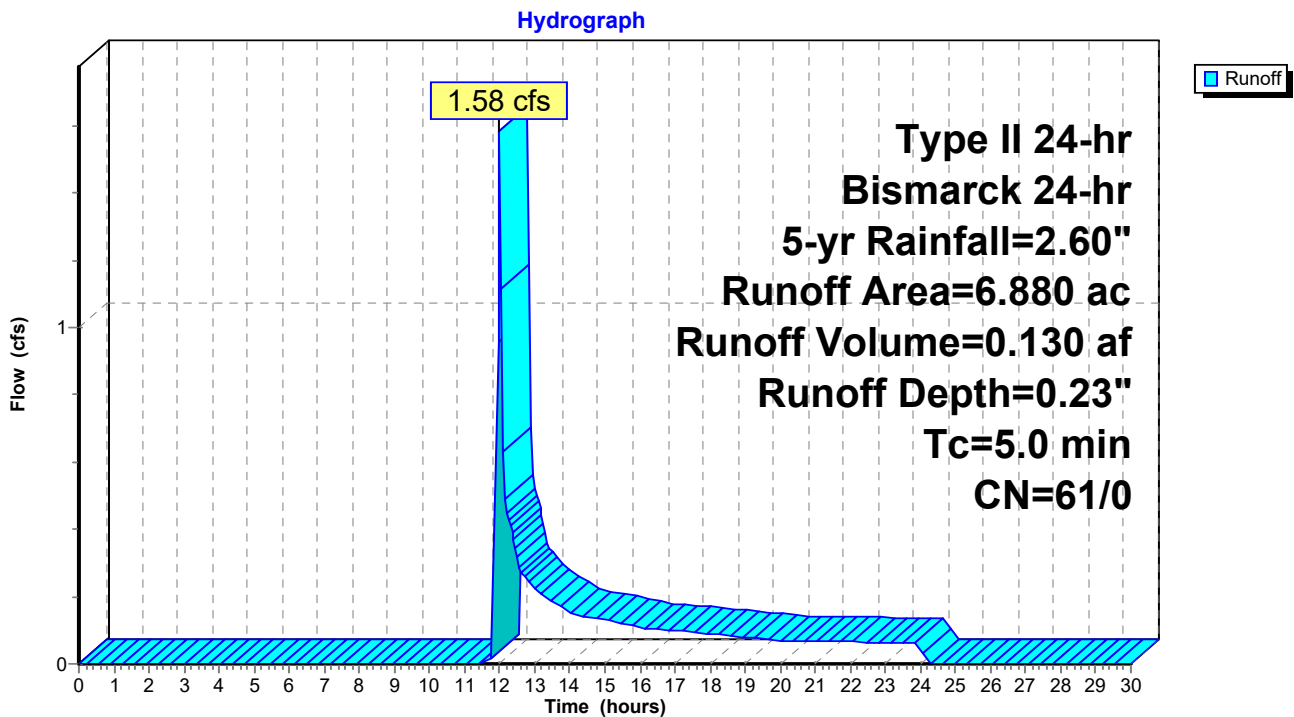
Runoff = 1.58 cfs @ 12.00 hrs, Volume= 0.130 af, Depth= 0.23"
Routed to Pond EX-POA-A : West Ditch US-83

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr Bismarck 24-hr, 5-yr Rainfall=2.60"

Area (ac)	CN	Description
6.880	61	>75% Grass cover, Good, HSG B
6.880	61	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment EX-A2: Existing



Summary for Subcatchment EX-B: Existing

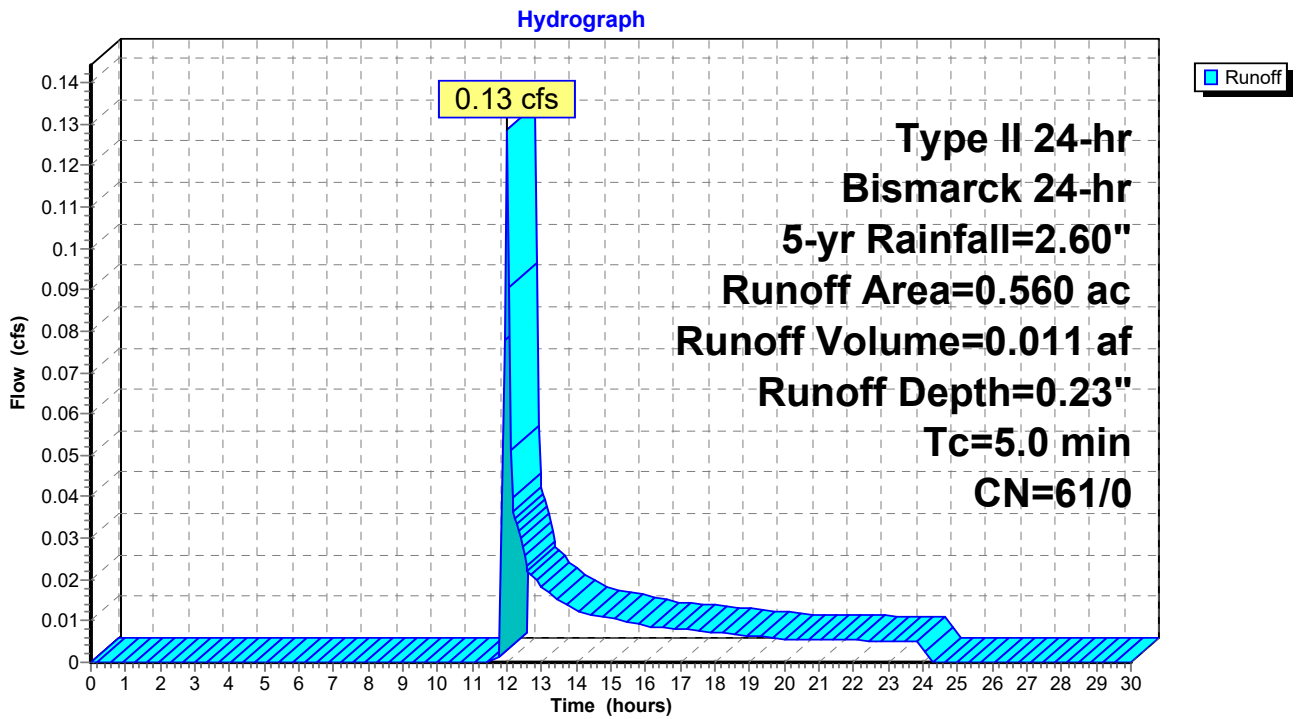
Runoff = 0.13 cfs @ 12.00 hrs, Volume= 0.011 af, Depth= 0.23"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr Bismarck 24-hr, 5-yr Rainfall=2.60"

Area (ac)	CN	Description
0.560	61	>75% Grass cover, Good, HSG B
0.560	61	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, Min. Tc

Subcatchment EX-B: Existing

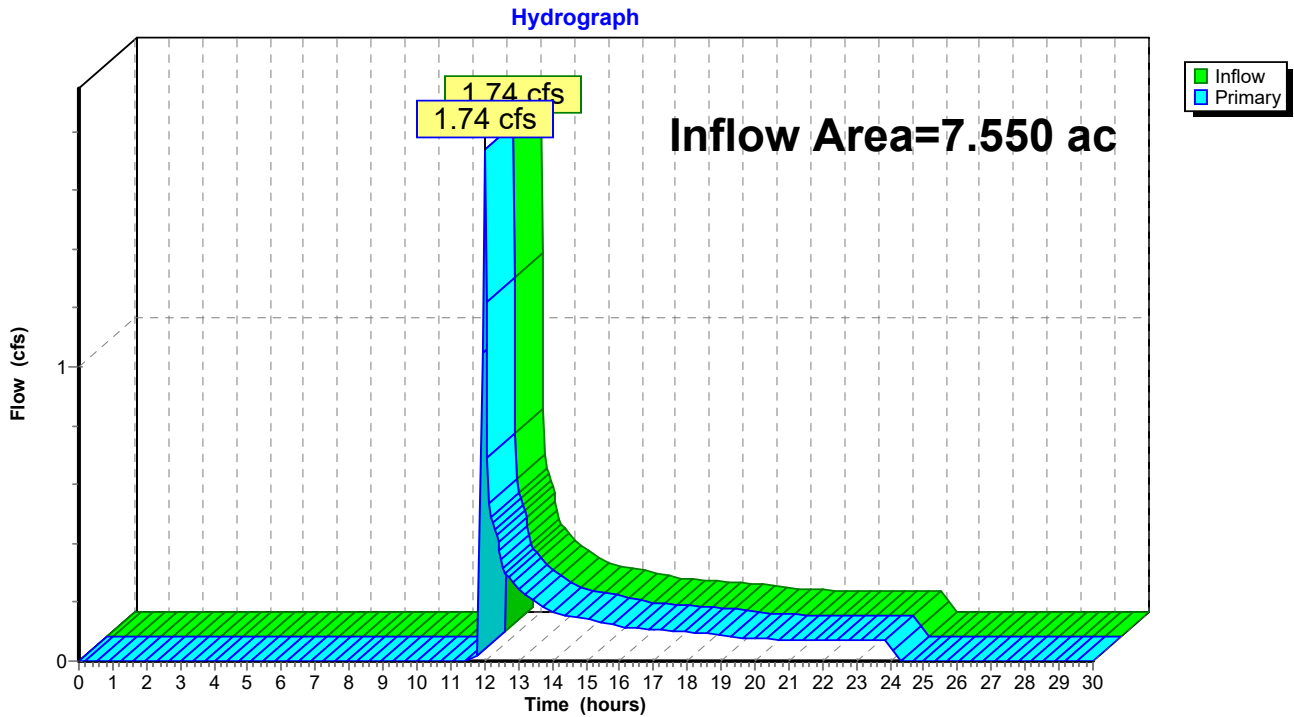


Summary for Pond EX-POA-A: West Ditch US-83

Inflow Area = 7.550 ac, 0.00% Impervious, Inflow Depth = 0.23" for Bismarck 24-hr, 5-yr event
Inflow = 1.74 cfs @ 12.00 hrs, Volume= 0.142 af
Primary = 1.74 cfs @ 12.00 hrs, Volume= 0.142 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs / 2

Pond EX-POA-A: West Ditch US-83



1906-02283-TreeTop2nd-Existing&PC

Type II 24-hr Bismarck 24-hr, 10-yr Rainfall=3.10"

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Time span=0.00-30.00 hrs, dt=0.05 hrs, 601 points x 2
Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv.
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment EX-A1: Existing: Off-site Runoff Area=0.670 ac 0.00% Impervious Runoff Depth=0.40"
Tc=5.0 min CN=61/0 Runoff=0.38 cfs 0.023 af

Subcatchment EX-A2: Existing Runoff Area=6.880 ac 0.00% Impervious Runoff Depth=0.40"
Tc=5.0 min CN=61/0 Runoff=3.87 cfs 0.232 af

Subcatchment EX-B: Existing Runoff Area=0.560 ac 0.00% Impervious Runoff Depth=0.40"
Tc=5.0 min CN=61/0 Runoff=0.31 cfs 0.019 af

Pond EX-POA-A: West Ditch US-83 Inflow=4.24 cfs 0.254 af
Primary=4.24 cfs 0.254 af

Total Runoff Area = 8.110 ac Runoff Volume = 0.273 af Average Runoff Depth = 0.40"
100.00% Pervious = 8.110 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment EX-A1: Existing: Off-site

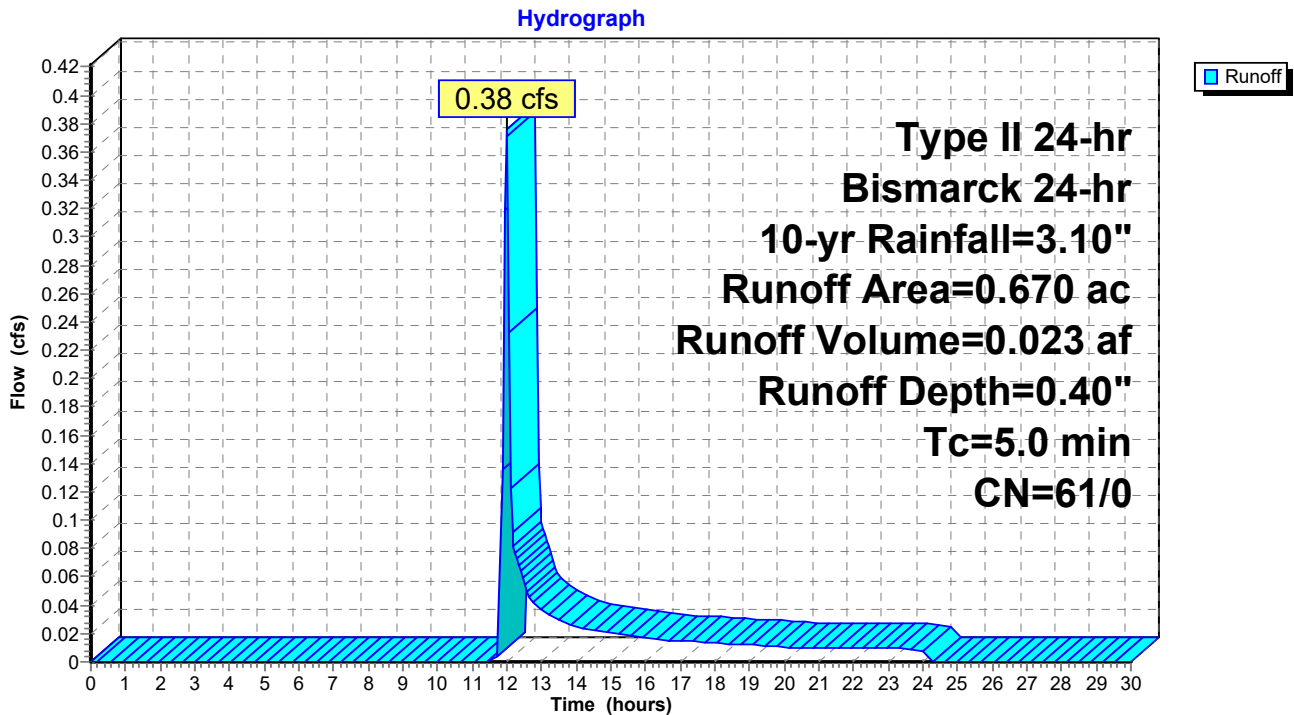
Runoff = 0.38 cfs @ 11.99 hrs, Volume= 0.023 af, Depth= 0.40"
Routed to Pond EX-POA-A : West Ditch US-83

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr Bismarck 24-hr, 10-yr Rainfall=3.10"

Area (ac)	CN	Description
0.670	61	>75% Grass cover, Good, HSG B
0.670	61	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, Min. Tc

Subcatchment EX-A1: Existing: Off-site



Summary for Subcatchment EX-A2: Existing

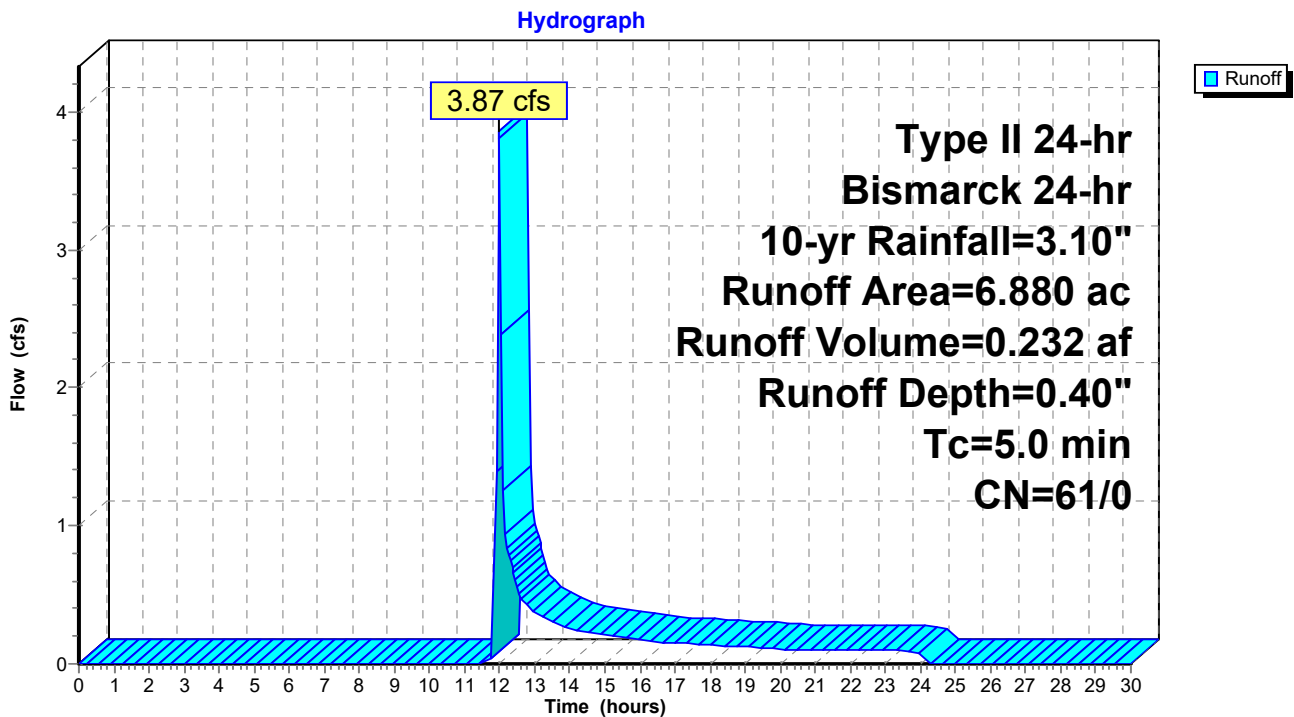
Runoff = 3.87 cfs @ 11.99 hrs, Volume= 0.232 af, Depth= 0.40"
Routed to Pond EX-POA-A : West Ditch US-83

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr Bismarck 24-hr, 10-yr Rainfall=3.10"

Area (ac)	CN	Description
6.880	61	>75% Grass cover, Good, HSG B
6.880	61	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment EX-A2: Existing



Summary for Subcatchment EX-B: Existing

Runoff = 0.31 cfs @ 11.99 hrs, Volume= 0.019 af, Depth= 0.40"

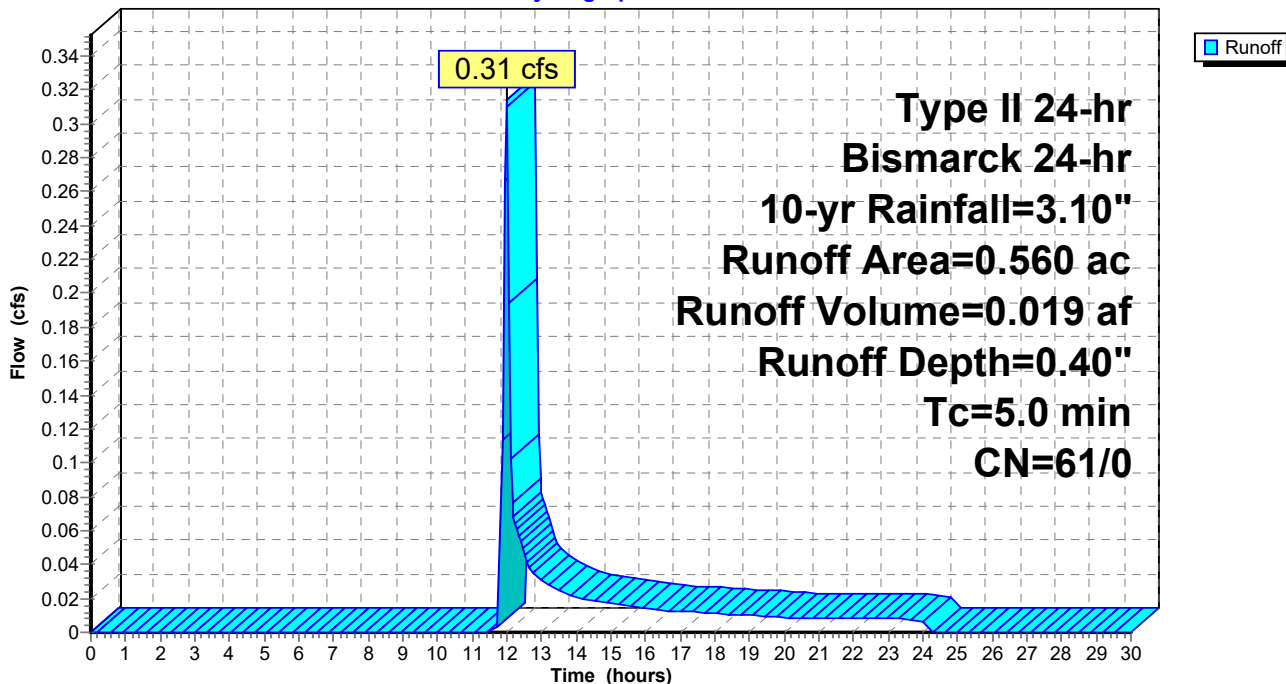
Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr Bismarck 24-hr, 10-yr Rainfall=3.10"

Area (ac)	CN	Description
0.560	61	>75% Grass cover, Good, HSG B
0.560	61	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, Min. Tc

Subcatchment EX-B: Existing

Hydrograph

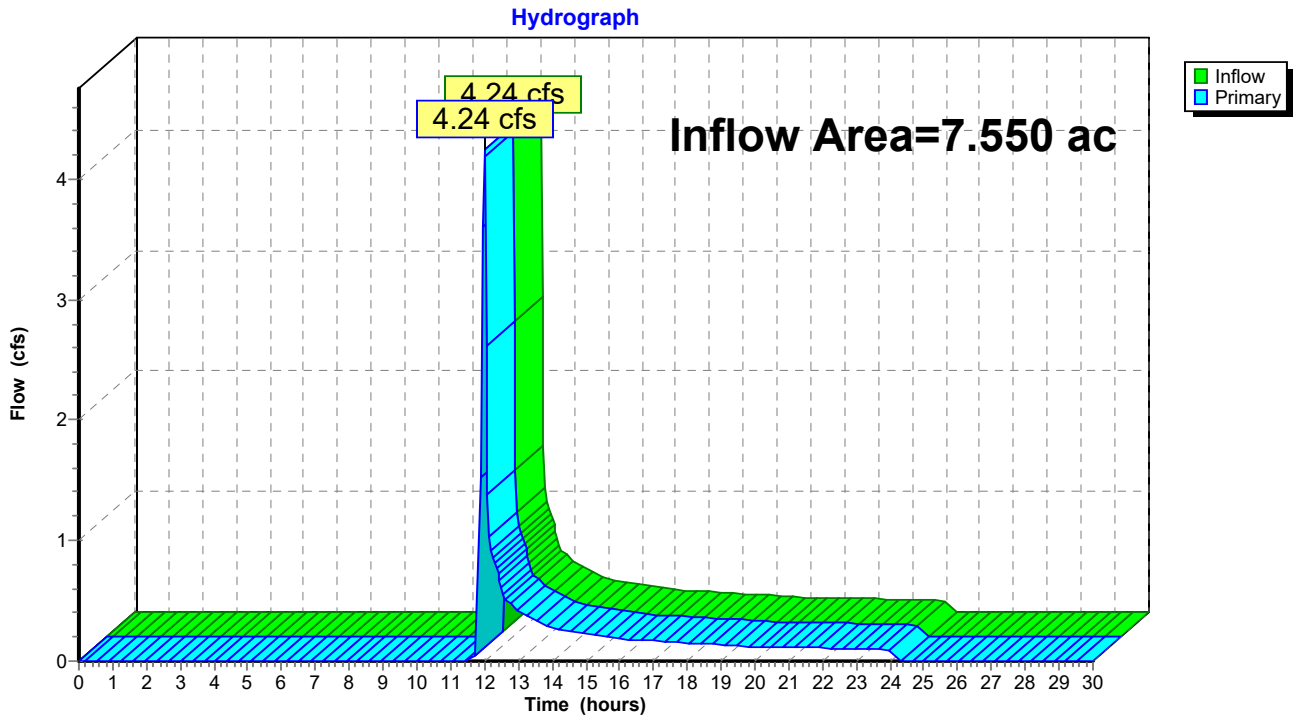


Summary for Pond EX-POA-A: West Ditch US-83

Inflow Area = 7.550 ac, 0.00% Impervious, Inflow Depth = 0.40" for Bismarck 24-hr, 10-yr event
Inflow = 4.24 cfs @ 11.99 hrs, Volume= 0.254 af
Primary = 4.24 cfs @ 11.99 hrs, Volume= 0.254 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs / 2

Pond EX-POA-A: West Ditch US-83



Time span=0.00-30.00 hrs, dt=0.05 hrs, 601 points x 2
 Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv.
 Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment EX-A1: Existing: Off-site	Runoff Area=0.670 ac 0.00% Impervious Runoff Depth=0.76" Tc=5.0 min CN=61/0 Runoff=0.83 cfs 0.043 af
Subcatchment EX-A2: Existing	Runoff Area=6.880 ac 0.00% Impervious Runoff Depth=0.76" Tc=5.0 min CN=61/0 Runoff=8.55 cfs 0.437 af
Subcatchment EX-B: Existing	Runoff Area=0.560 ac 0.00% Impervious Runoff Depth=0.76" Tc=5.0 min CN=61/0 Runoff=0.70 cfs 0.036 af
Pond EX-POA-A: West Ditch US-83	Inflow=9.39 cfs 0.480 af Primary=9.39 cfs 0.480 af

Total Runoff Area = 8.110 ac Runoff Volume = 0.515 af Average Runoff Depth = 0.76"
100.00% Pervious = 8.110 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment EX-A1: Existing: Off-site

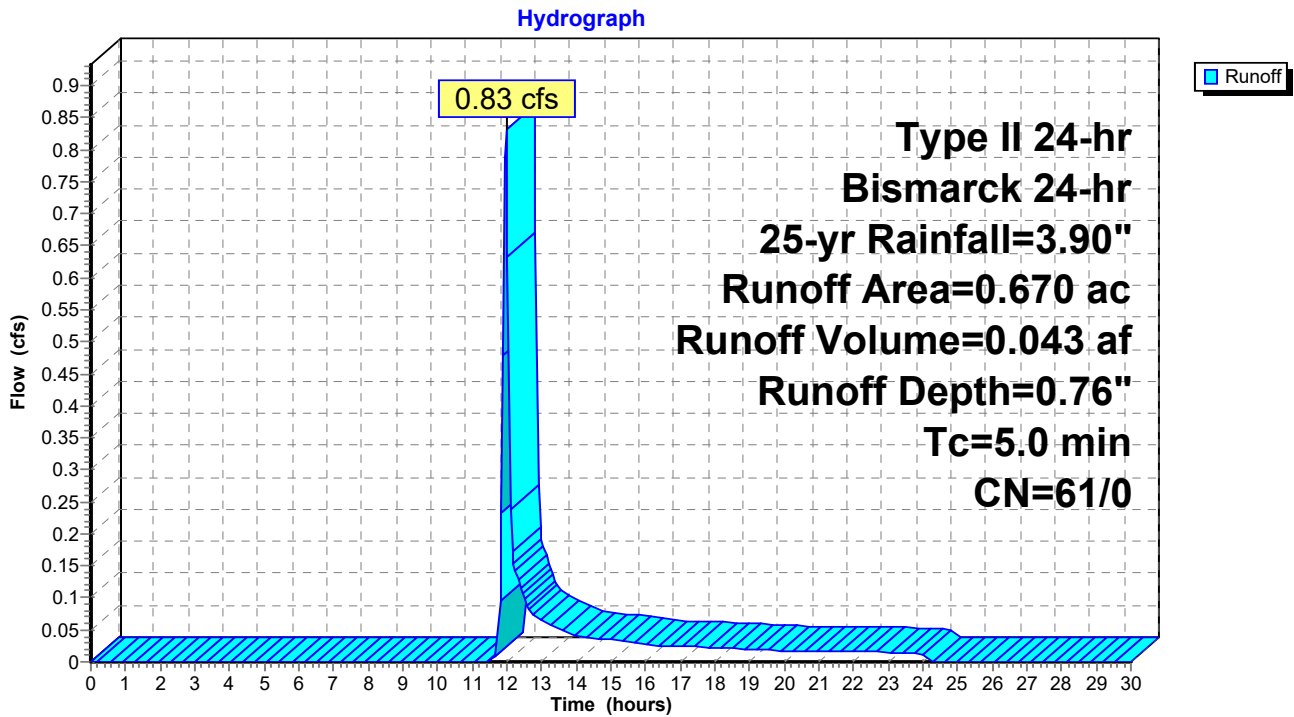
Runoff = 0.83 cfs @ 11.98 hrs, Volume= 0.043 af, Depth= 0.76"
Routed to Pond EX-POA-A : West Ditch US-83

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr Bismarck 24-hr, 25-yr Rainfall=3.90"

Area (ac)	CN	Description
0.670	61	>75% Grass cover, Good, HSG B
0.670	61	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, Min. Tc

Subcatchment EX-A1: Existing: Off-site



Summary for Subcatchment EX-A2: Existing

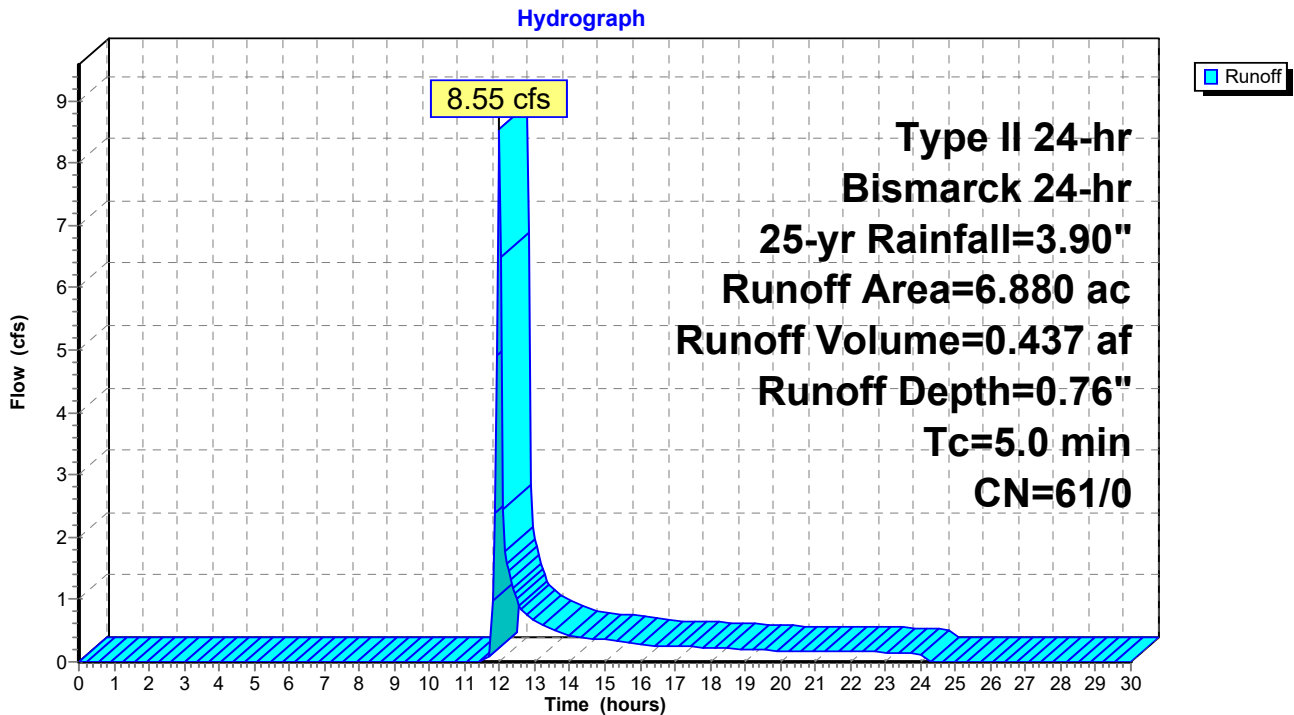
Runoff = 8.55 cfs @ 11.98 hrs, Volume= 0.437 af, Depth= 0.76"
Routed to Pond EX-POA-A : West Ditch US-83

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr Bismarck 24-hr, 25-yr Rainfall=3.90"

Area (ac)	CN	Description
6.880	61	>75% Grass cover, Good, HSG B
6.880	61	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment EX-A2: Existing



Summary for Subcatchment EX-B: Existing

Runoff = 0.70 cfs @ 11.98 hrs, Volume= 0.036 af, Depth= 0.76"

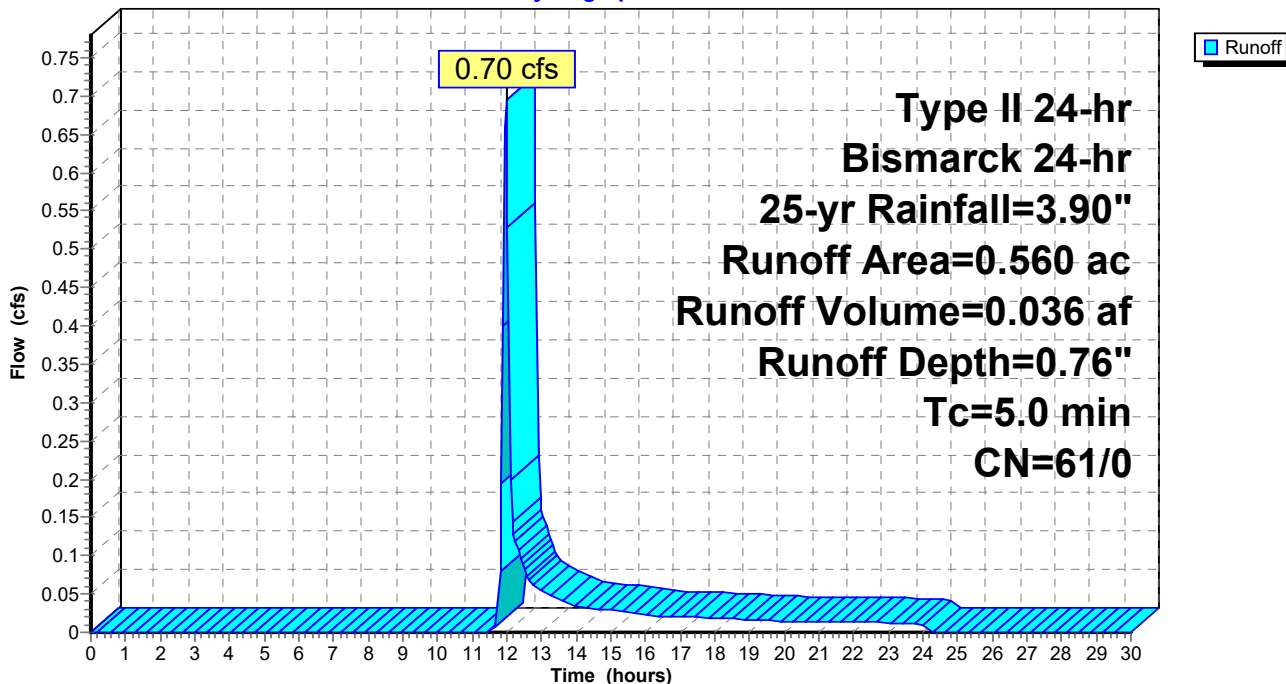
Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr Bismarck 24-hr, 25-yr Rainfall=3.90"

Area (ac)	CN	Description
0.560	61	>75% Grass cover, Good, HSG B
0.560	61	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, Min. Tc

Subcatchment EX-B: Existing

Hydrograph

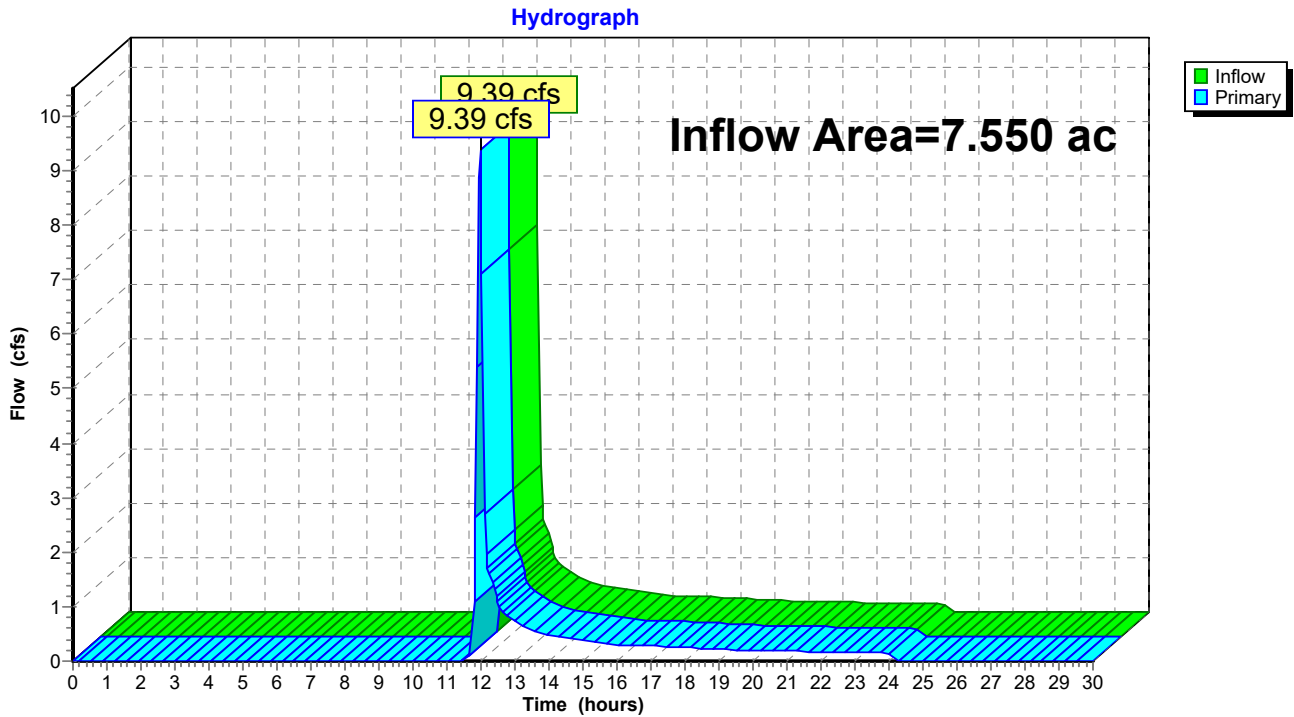


Summary for Pond EX-POA-A: West Ditch US-83

Inflow Area = 7.550 ac, 0.00% Impervious, Inflow Depth = 0.76" for Bismarck 24-hr, 25-yr event
Inflow = 9.39 cfs @ 11.98 hrs, Volume= 0.480 af
Primary = 9.39 cfs @ 11.98 hrs, Volume= 0.480 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs / 2

Pond EX-POA-A: West Ditch US-83



1906-02283-TreeTop2nd-Existing&PC

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Existing Conditions
Type II 24-hr Bismarck 24-hr, 50-yr Rainfall=4.57"

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Summary for Subcatchment EX-A1: Existing: Off-site

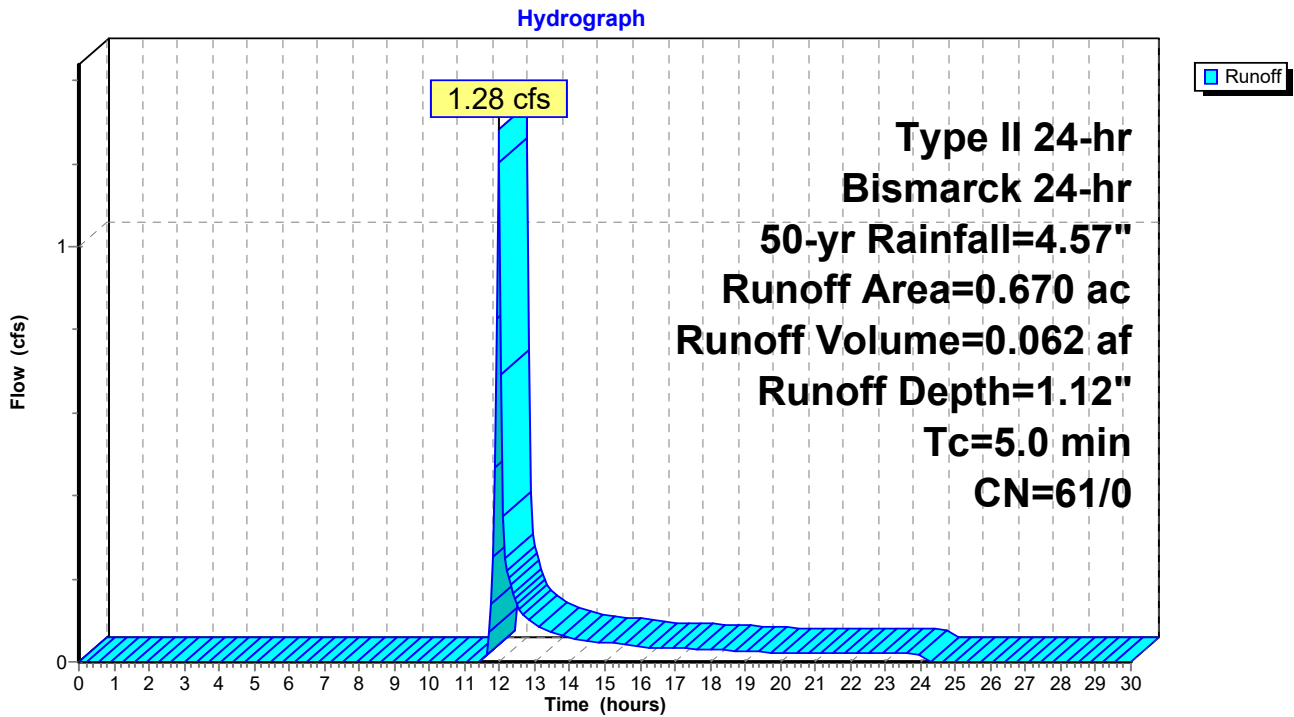
Runoff = 1.28 cfs @ 11.97 hrs, Volume= 0.062 af, Depth= 1.12"
Routed to Pond EX-POA-A : West Ditch US-83

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr Bismarck 24-hr, 50-yr Rainfall=4.57"

Area (ac)	CN	Description
0.670	61	>75% Grass cover, Good, HSG B
0.670	61	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, Min. Tc

Subcatchment EX-A1: Existing: Off-site



Summary for Subcatchment EX-A2: Existing

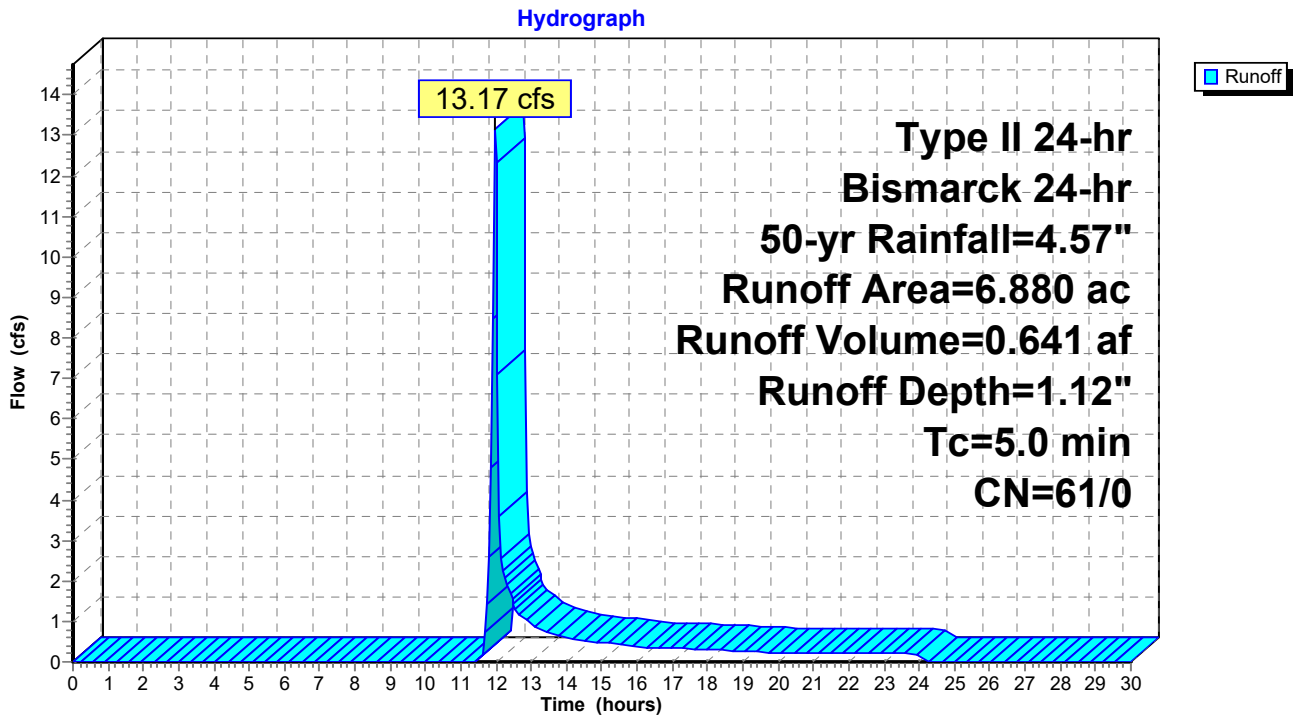
Runoff = 13.17 cfs @ 11.97 hrs, Volume= 0.641 af, Depth= 1.12"
Routed to Pond EX-POA-A : West Ditch US-83

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr Bismarck 24-hr, 50-yr Rainfall=4.57"

Area (ac)	CN	Description
6.880	61	>75% Grass cover, Good, HSG B
6.880	61	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment EX-A2: Existing



Summary for Subcatchment EX-B: Existing

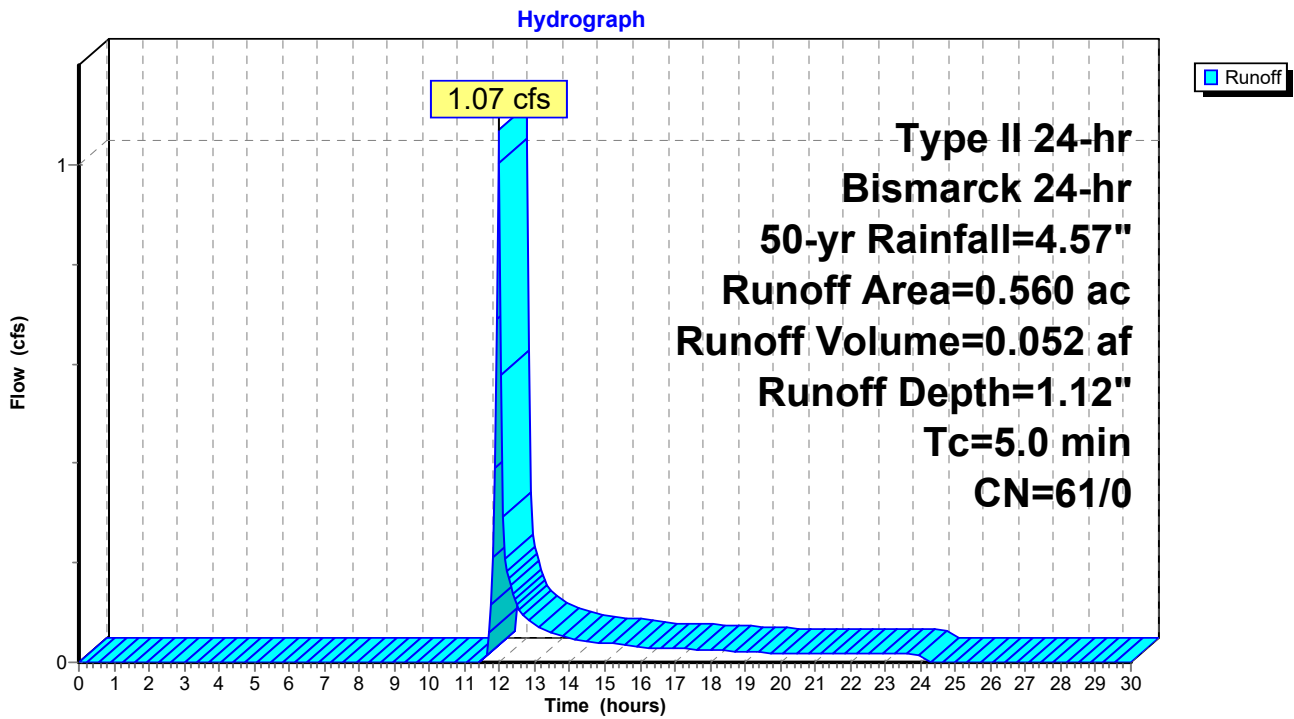
Runoff = 1.07 cfs @ 11.97 hrs, Volume= 0.052 af, Depth= 1.12"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr Bismarck 24-hr, 50-yr Rainfall=4.57"

Area (ac)	CN	Description
0.560	61	>75% Grass cover, Good, HSG B
0.560	61	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, Min. Tc

Subcatchment EX-B: Existing

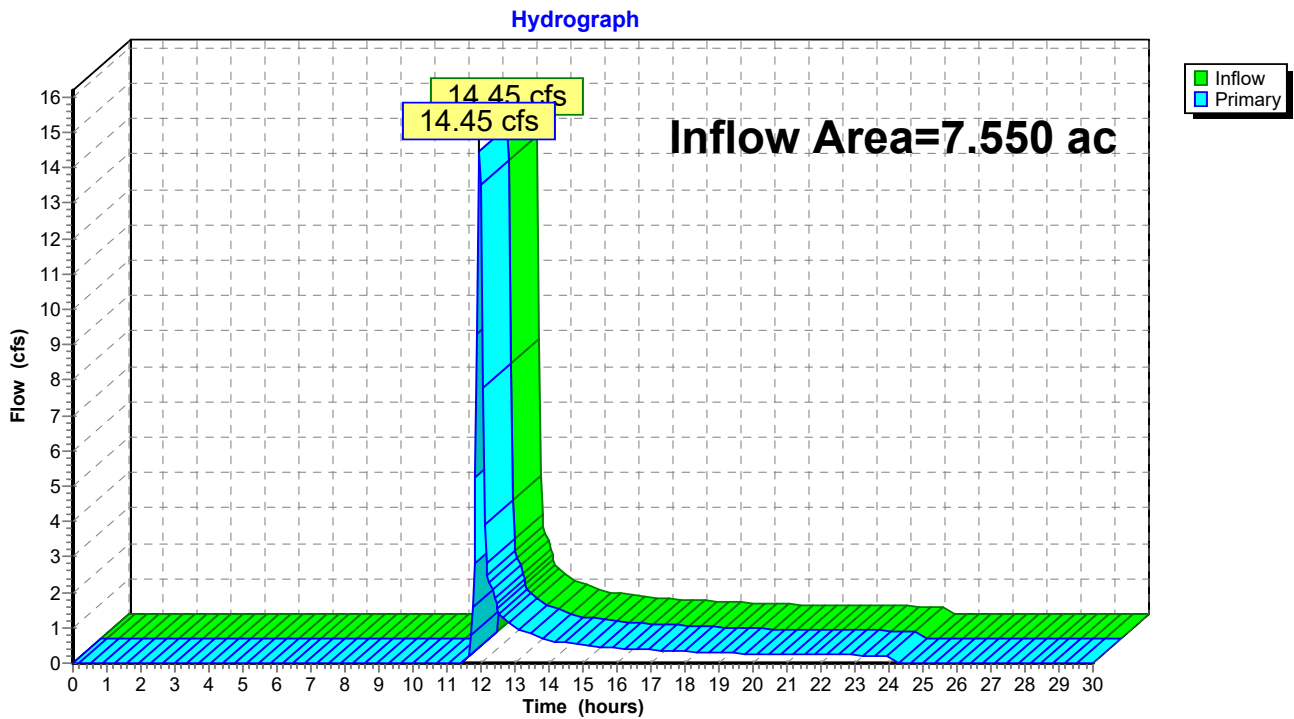


Summary for Pond EX-POA-A: West Ditch US-83

Inflow Area = 7.550 ac, 0.00% Impervious, Inflow Depth = 1.12" for Bismarck 24-hr, 50-yr event
Inflow = 14.45 cfs @ 11.97 hrs, Volume= 0.704 af
Primary = 14.45 cfs @ 11.97 hrs, Volume= 0.704 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs / 2

Pond EX-POA-A: West Ditch US-83



Time span=0.00-30.00 hrs, dt=0.05 hrs, 601 points x 2
 Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv.
 Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment EX-A1: Existing: Off-site	Runoff Area=0.670 ac 0.00% Impervious Runoff Depth=1.55" Tc=5.0 min CN=61/0 Runoff=1.83 cfs 0.087 af
Subcatchment EX-A2: Existing	Runoff Area=6.880 ac 0.00% Impervious Runoff Depth=1.55" Tc=5.0 min CN=61/0 Runoff=18.80 cfs 0.890 af
Subcatchment EX-B: Existing	Runoff Area=0.560 ac 0.00% Impervious Runoff Depth=1.55" Tc=5.0 min CN=61/0 Runoff=1.53 cfs 0.072 af
Pond EX-POA-A: West Ditch US-83	Inflow=20.63 cfs 0.977 af Primary=20.63 cfs 0.977 af

Total Runoff Area = 8.110 ac Runoff Volume = 1.049 af Average Runoff Depth = 1.55"
100.00% Pervious = 8.110 ac 0.00% Impervious = 0.000 ac

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Type II 24-hr Bismarck 24-hr, 100-yr Rainfall=5.30"

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Summary for Subcatchment EX-A1: Existing: Off-site

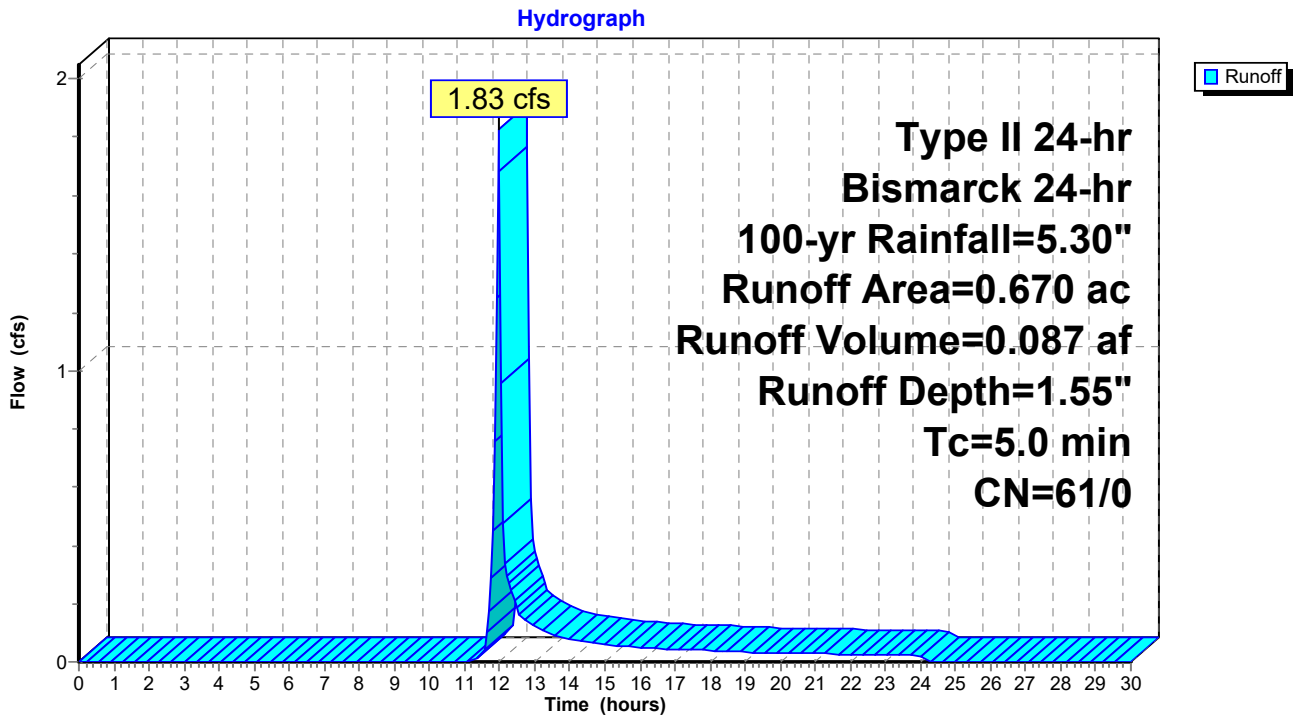
Runoff = 1.83 cfs @ 11.97 hrs, Volume= 0.087 af, Depth= 1.55"
Routed to Pond EX-POA-A : West Ditch US-83

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr Bismarck 24-hr, 100-yr Rainfall=5.30"

Area (ac)	CN	Description
0.670	61	>75% Grass cover, Good, HSG B
0.670	61	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, Min. Tc

Subcatchment EX-A1: Existing: Off-site



1906-02283-TreeTop2nd-Existing&PC

Type II 24-hr Bismarck 24-hr, 100-yr Rainfall=5.30"

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Summary for Subcatchment EX-A2: Existing

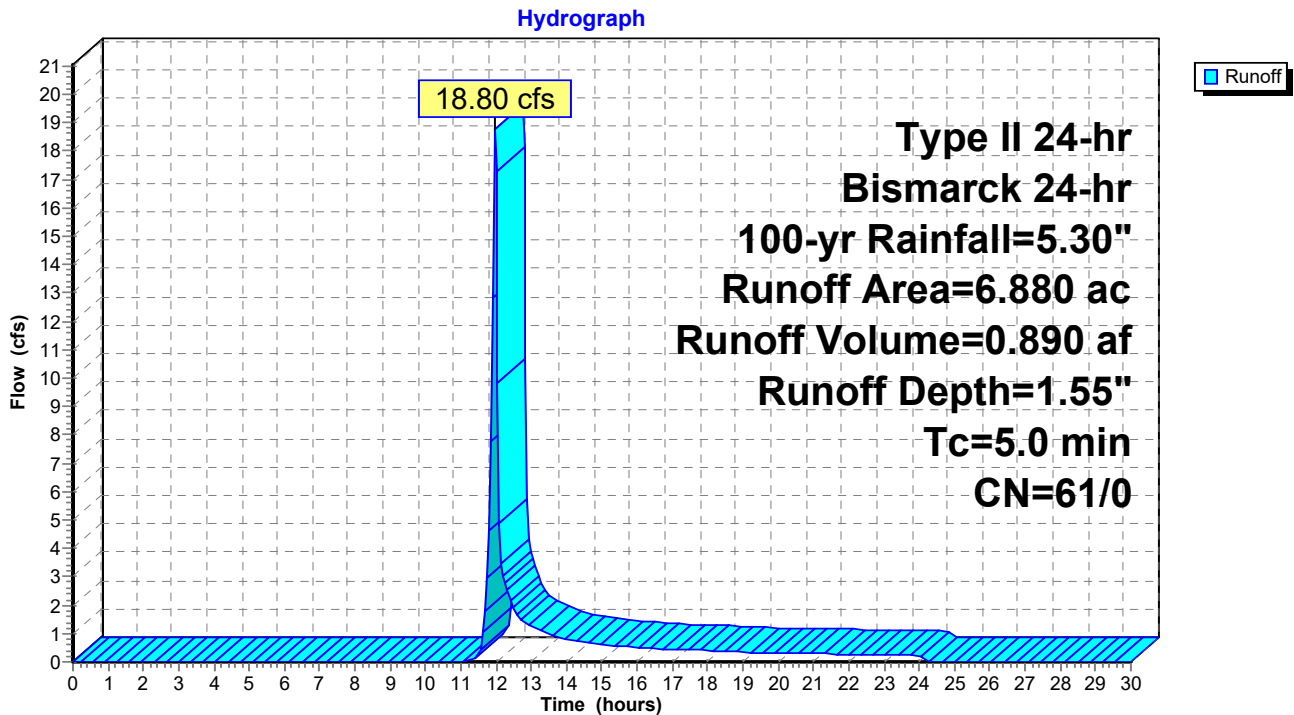
Runoff = 18.80 cfs @ 11.97 hrs, Volume= 0.890 af, Depth= 1.55"
Routed to Pond EX-POA-A : West Ditch US-83

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr Bismarck 24-hr, 100-yr Rainfall=5.30"

Area (ac)	CN	Description
6.880	61	>75% Grass cover, Good, HSG B
6.880	61	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment EX-A2: Existing



Summary for Subcatchment EX-B: Existing

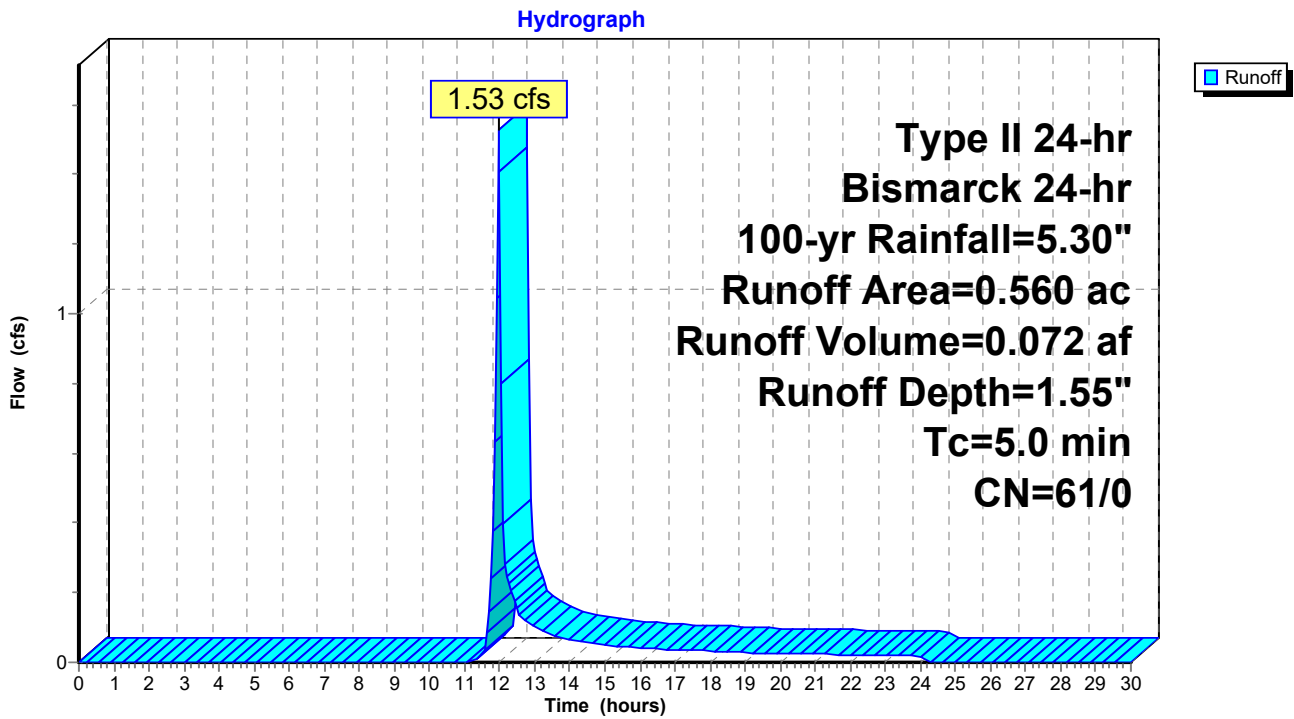
Runoff = 1.53 cfs @ 11.97 hrs, Volume= 0.072 af, Depth= 1.55"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
 Type II 24-hr Bismarck 24-hr, 100-yr Rainfall=5.30"

Area (ac)	CN	Description
0.560	61	>75% Grass cover, Good, HSG B
0.560	61	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, Min. Tc

Subcatchment EX-B: Existing



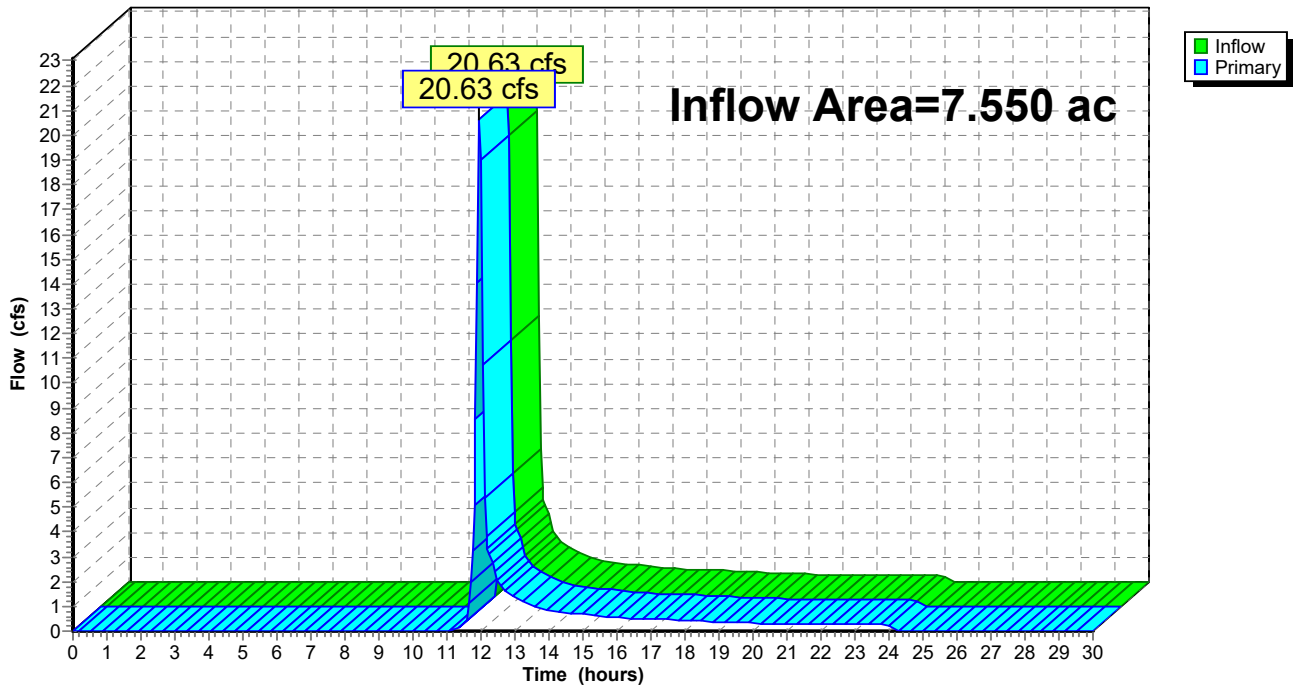
Summary for Pond EX-POA-A: West Ditch US-83

Inflow Area = 7.550 ac, 0.00% Impervious, Inflow Depth = 1.55" for Bismarck 24-hr, 100-yr event
 Inflow = 20.63 cfs @ 11.97 hrs, Volume= 0.977 af
 Primary = 20.63 cfs @ 11.97 hrs, Volume= 0.977 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs / 2

Pond EX-POA-A: West Ditch US-83

Hydrograph



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Type II 24-hr Vwqreq Rainfall=0.50"

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Summary for Subcatchment EX-A1: Existing: Off-site

Runoff = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Depth= 0.00"
 Routed to Pond EX-POA-A : West Ditch US-83

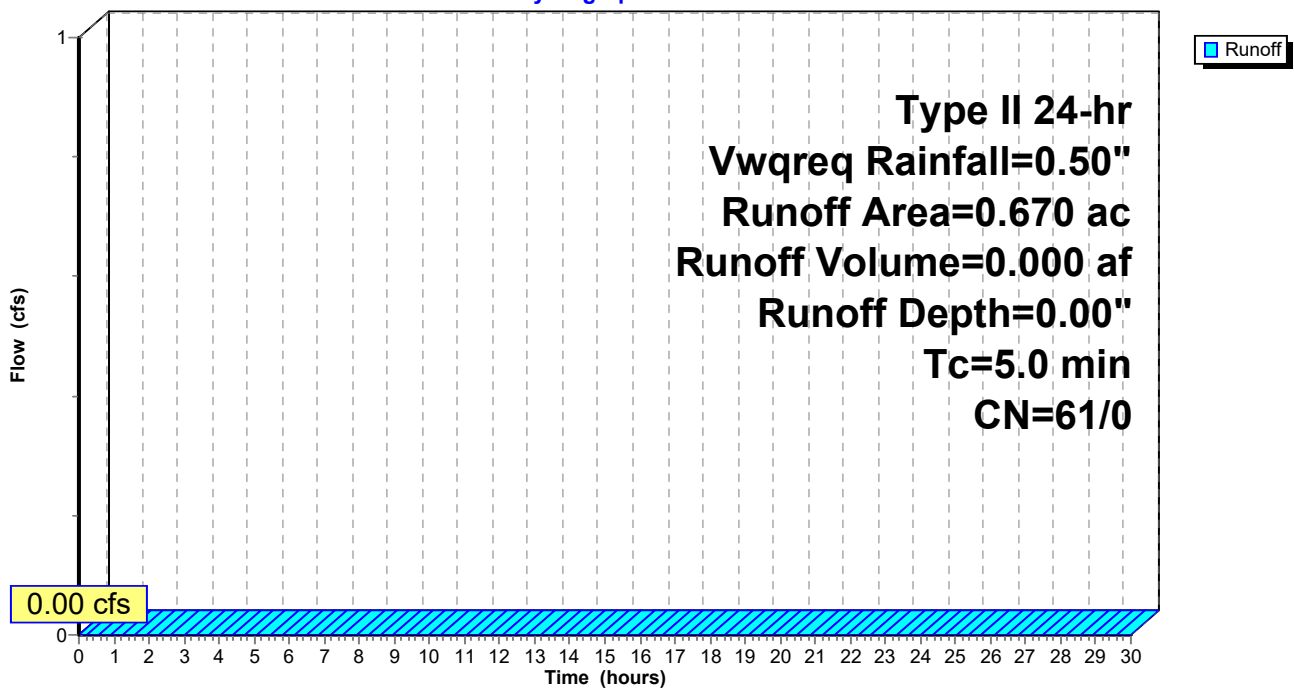
Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
 Type II 24-hr Vwqreq Rainfall=0.50"

Area (ac)	CN	Description
0.670	61	>75% Grass cover, Good, HSG B
0.670	61	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, Min. Tc

Subcatchment EX-A1: Existing: Off-site

Hydrograph



1906-02283-TreeTop2nd-Existing&PC

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Type II 24-hr Vwqreq Rainfall=0.50"

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Summary for Subcatchment EX-A2: Existing

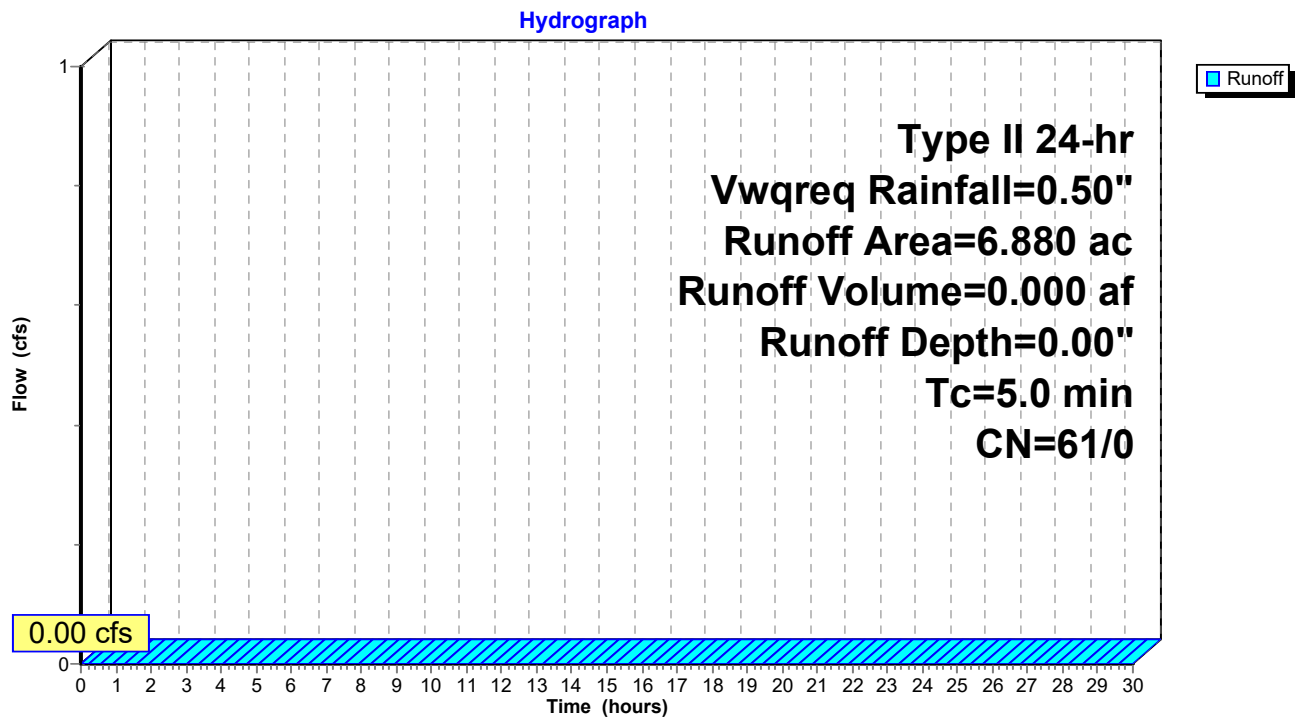
Runoff = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Depth= 0.00"
Routed to Pond EX-POA-A : West Ditch US-83

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr Vwqreq Rainfall=0.50"

Area (ac)	CN	Description
6.880	61	>75% Grass cover, Good, HSG B
6.880	61	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment EX-A2: Existing



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Existing Conditions

Type II 24-hr Vwqreq Rainfall=0.50"

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Summary for Subcatchment EX-B: Existing

Runoff = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Depth= 0.00"

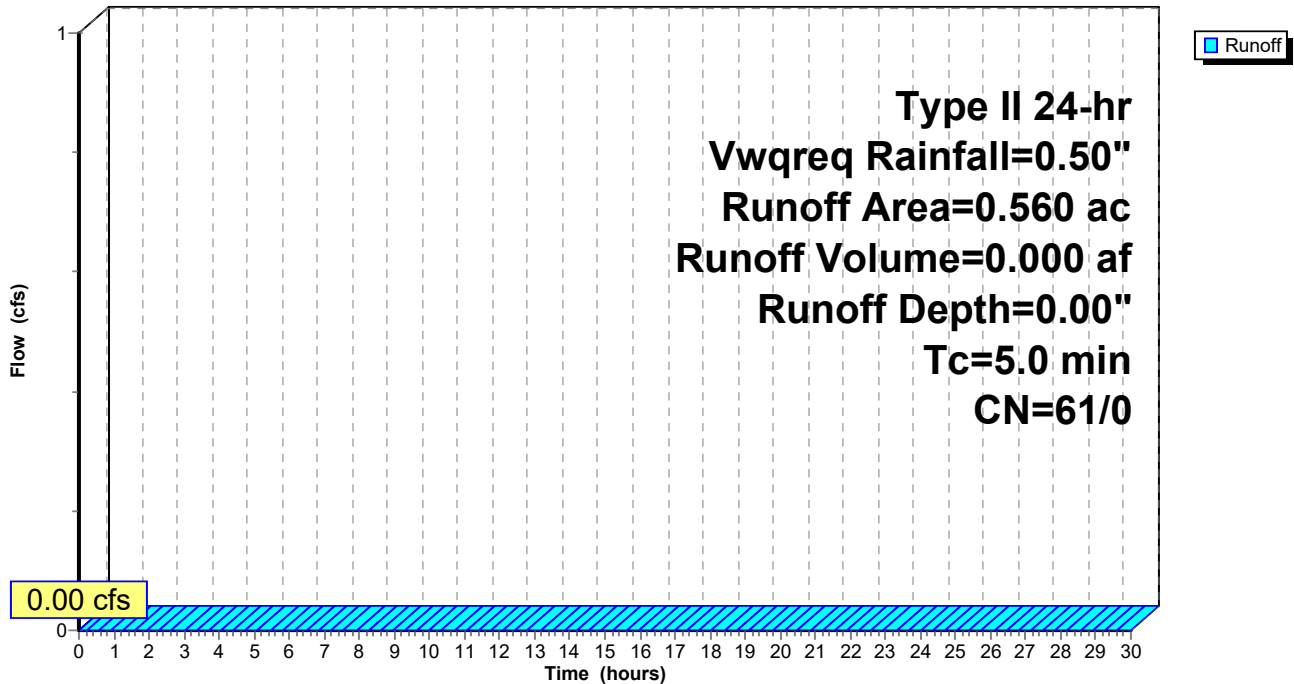
Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr Vwqreq Rainfall=0.50"

Area (ac)	CN	Description
0.560	61	>75% Grass cover, Good, HSG B
0.560	61	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, Min. Tc

Subcatchment EX-B: Existing

Hydrograph



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Existing Conditions

Type II 24-hr Vwqreq Rainfall=0.50"

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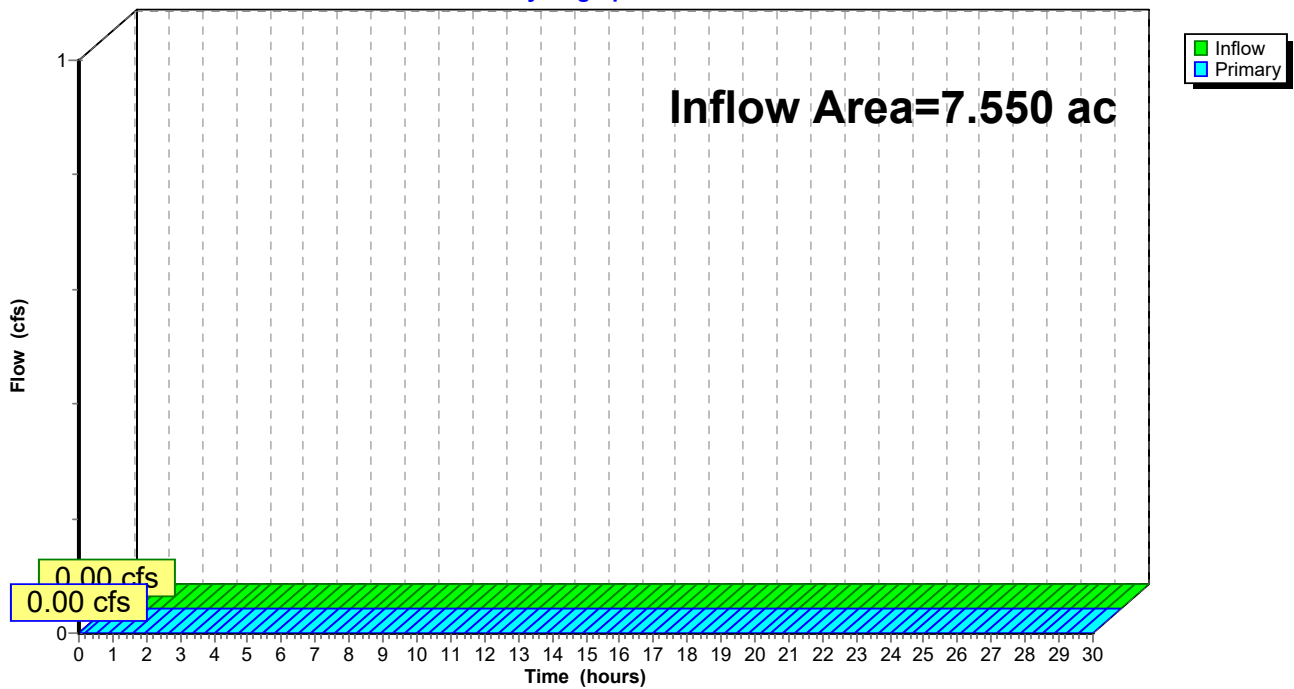
Summary for Pond EX-POA-A: West Ditch US-83

Inflow Area = 7.550 ac, 0.00% Impervious, Inflow Depth = 0.00" for Vwqreq event
Inflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

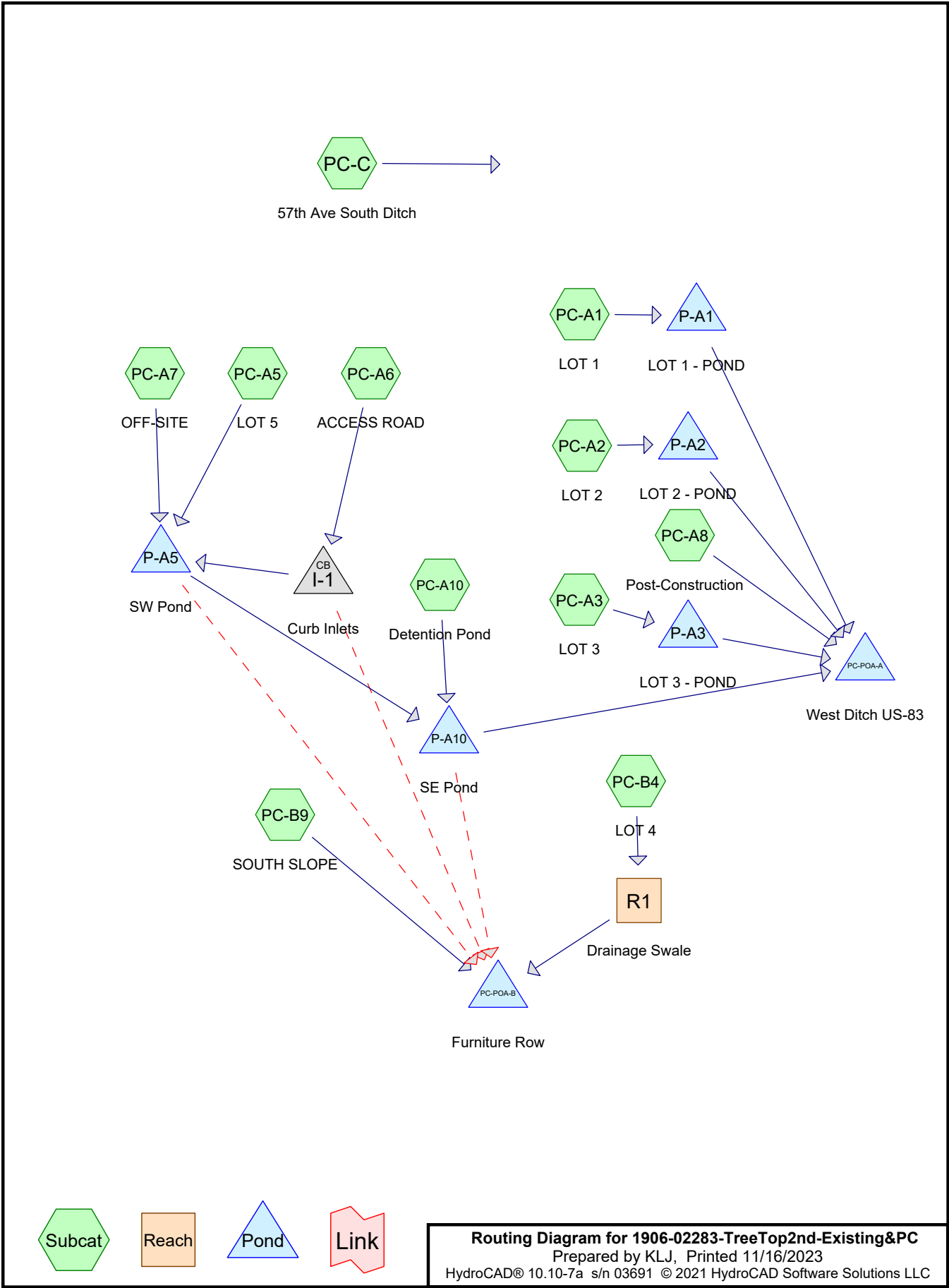
Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs / 2

Pond EX-POA-A: West Ditch US-83

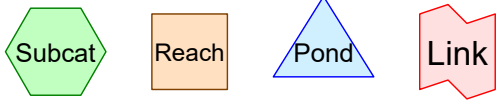
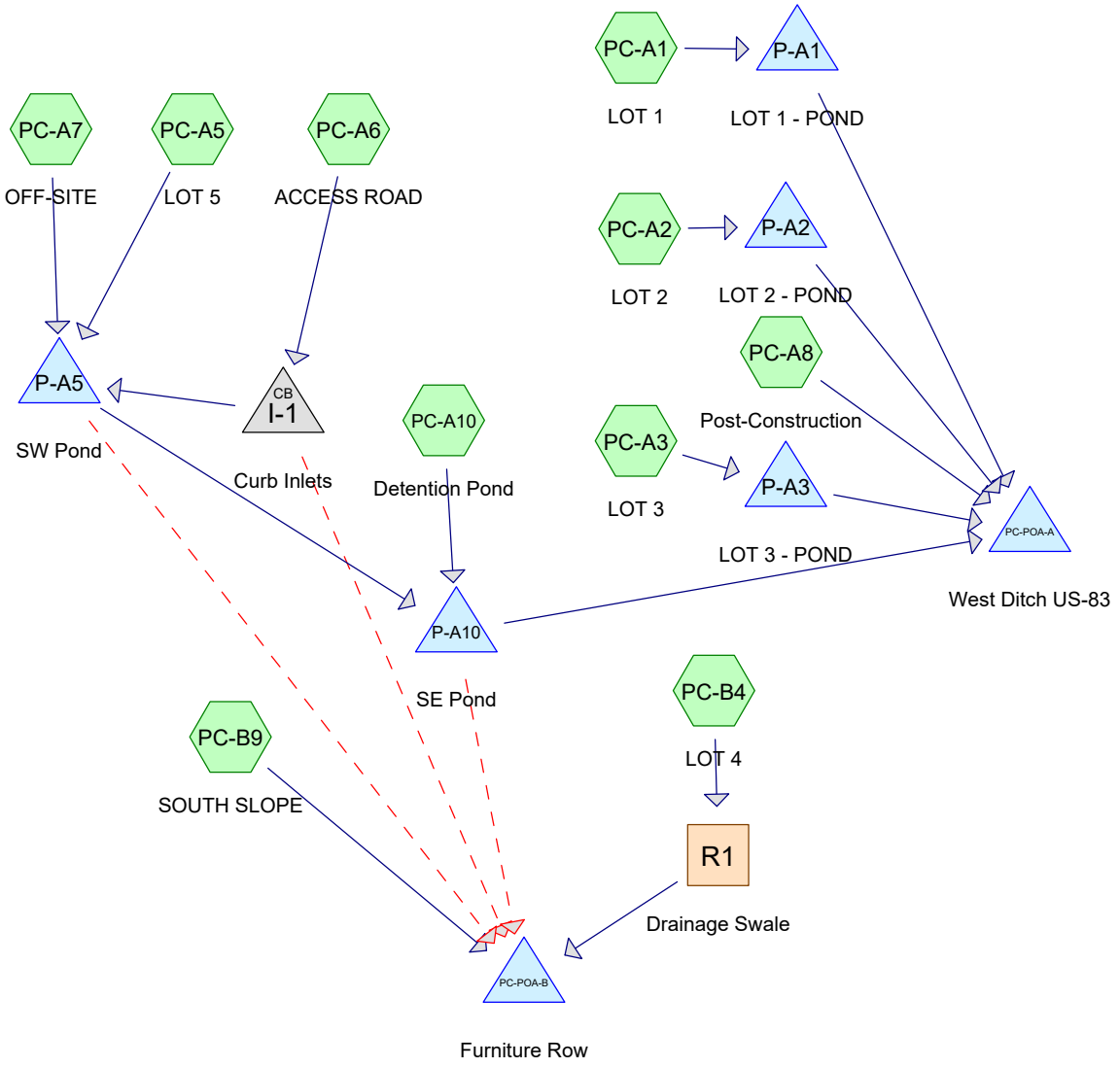
Hydrograph



APPENDIX B: POST-CONSTRUCTION CONDITIONS HYDROCAD



PC-C →
57th Ave South Ditch



Routing Diagram for 1906-02283-TreeTop2nd-Existing&PC
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Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	Bismarck 24-hr, 2-yr	Type II 24-hr		Default	24.00	1	2.10	2
2	Bismarck 24-hr, 5-yr	Type II 24-hr		Default	24.00	1	2.60	2
3	Bismarck 24-hr, 10-yr	Type II 24-hr		Default	24.00	1	3.10	2
4	Bismarck 24-hr, 25-yr	Type II 24-hr		Default	24.00	1	3.90	2
5	Bismarck 24-hr, 50-yr	Type II 24-hr		Default	24.00	1	4.57	2
6	Vwqreq	Type II 24-hr		Default	24.00	1	0.50	2

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Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
2.002	61	>75% Grass cover, Good, HSG B (PC-A1, PC-A10, PC-A2, PC-A3, PC-A5, PC-A6, PC-A7, PC-A8, PC-B4, PC-B9)
6.108	98	Paved parking, HSG B (PC-A1, PC-A10, PC-A2, PC-A3, PC-A5, PC-A6, PC-A8, PC-B4, PC-B9)
2.850	89	Paved roads w/open ditches, 50% imp, HSG B (PC-C)
10.960	89	TOTAL AREA

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Ground Covers (selected nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	2.002	0.000	0.000	0.000	2.002	>75% Grass cover, Good	PC-A1, PC-A10, PC-A2, PC-A3, PC-A5, PC-A6, PC-A7, PC-A8, PC-B4, PC-B9
0.000	6.108	0.000	0.000	0.000	6.108	Paved parking	PC-A1, PC-A10, PC-A2, PC-A3, PC-A5, PC-A6, PC-A8, PC-B4, PC-B9
0.000	2.850	0.000	0.000	0.000	2.850	Paved roads w/open ditches, 50% imp	PC-C
0.000	10.960	0.000	0.000	0.000	10.960	TOTAL AREA	

1906-02283-TreeTop2nd-Existing&PC

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Proposed Conditions

Type II 24-hr Bismarck 24-hr, 2-yr Rainfall=2.10"

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Time span=0.00-30.00 hrs, dt=0.05 hrs, 601 points x 2
 Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv.
 Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

SubcatchmentPC-A1: LOT 1	Runoff Area=1.010 ac 85.05% Impervious Runoff Depth=1.61" Tc=5.0 min CN=61/98 Runoff=2.54 cfs 0.135 af
SubcatchmentPC-A10: Detention Pond	Runoff Area=0.290 ac 34.48% Impervious Runoff Depth=0.71" Tc=5.0 min CN=61/98 Runoff=0.30 cfs 0.017 af
SubcatchmentPC-A2: LOT 2	Runoff Area=1.010 ac 85.05% Impervious Runoff Depth=1.61" Tc=5.0 min CN=61/98 Runoff=2.54 cfs 0.135 af
SubcatchmentPC-A3: LOT 3	Runoff Area=1.010 ac 85.05% Impervious Runoff Depth=1.61" Tc=5.0 min CN=61/98 Runoff=2.54 cfs 0.135 af
SubcatchmentPC-A5: LOT 5	Runoff Area=1.900 ac 85.00% Impervious Runoff Depth=1.61" Tc=5.0 min CN=61/98 Runoff=4.78 cfs 0.254 af
SubcatchmentPC-A6: ACCESS ROAD	Runoff Area=0.550 ac 72.18% Impervious Runoff Depth=1.38" Tc=5.0 min CN=61/98 Runoff=1.17 cfs 0.063 af
SubcatchmentPC-A7: OFF-SITE	Runoff Area=0.670 ac 0.00% Impervious Runoff Depth=0.09" Tc=5.0 min CN=61/0 Runoff=0.01 cfs 0.005 af
SubcatchmentPC-A8: Post-Construction	Runoff Area=0.360 ac 85.00% Impervious Runoff Depth=1.61" Tc=5.0 min CN=61/98 Runoff=0.91 cfs 0.048 af
SubcatchmentPC-B4: LOT 4	Runoff Area=1.020 ac 85.00% Impervious Runoff Depth=1.61" Tc=5.0 min CN=61/98 Runoff=2.57 cfs 0.137 af
SubcatchmentPC-B9: SOUTH SLOPE	Runoff Area=0.290 ac 84.83% Impervious Runoff Depth=1.60" Tc=5.0 min CN=61/98 Runoff=0.73 cfs 0.039 af
SubcatchmentPC-C: 57th Ave South Ditch	Runoff Area=2.850 ac 50.00% Impervious Runoff Depth=1.25" Flow Length=1,475' Tc=6.3 min CN=80/98 Runoff=5.46 cfs 0.297 af
Reach R1: Drainage Swale	Avg. Flow Depth=0.34' Max Vel=1.49 fps Inflow=2.57 cfs 0.137 af n=0.030 L=10.0' S=0.0050 '/' Capacity=18.92 cfs Outflow=2.56 cfs 0.137 af
Pond I-1: Curb Inlets	Peak Elev=1,849.13' Inflow=1.17 cfs 0.063 af Primary=1.17 cfs 0.063 af Secondary=0.00 cfs 0.000 af Outflow=1.17 cfs 0.063 af
Pond P-A1: LOT 1 - POND	Peak Elev=1,846.13' Storage=1,734 cf Inflow=2.54 cfs 0.135 af Outflow=0.59 cfs 0.135 af
Pond P-A10: SE Pond	Peak Elev=1,840.72' Storage=4,991 cf Inflow=2.07 cfs 0.341 af Primary=1.24 cfs 0.341 af Secondary=0.00 cfs 0.000 af Outflow=1.24 cfs 0.341 af
Pond P-A2: LOT 2 - POND	Peak Elev=1,846.13' Storage=1,734 cf Inflow=2.54 cfs 0.135 af Outflow=0.59 cfs 0.135 af
Pond P-A3: LOT 3 - POND	Peak Elev=1,844.13' Storage=1,734 cf Inflow=2.54 cfs 0.135 af Outflow=0.59 cfs 0.135 af
Pond P-A5: SW Pond	Peak Elev=1,844.85' Storage=2,806 cf Inflow=5.95 cfs 0.323 af Discarded=0.00 cfs 0.000 af Primary=1.86 cfs 0.324 af Secondary=0.00 cfs 0.000 af Outflow=1.87 cfs 0.325 af
Pond PC-POA-A: West Ditch US-83	Inflow=3.05 cfs 0.795 af Primary=3.05 cfs 0.795 af
Pond PC-POA-B: Furniture Row	Inflow=3.29 cfs 0.175 af Primary=3.29 cfs 0.175 af

1906-02283-TreeTop2nd-Existing&PC

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Proposed Conditions

Type II 24-hr Bismarck 24-hr, 2-yr Rainfall=2.10"

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Total Runoff Area = 10.960 ac Runoff Volume = 1.266 af Average Runoff Depth = 1.39"
31.27% Pervious = 3.427 ac 68.73% Impervious = 7.533 ac

1906-02283-TreeTop2nd-Existing&PC

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Proposed Conditions

Type II 24-hr Bismarck 24-hr, 5-yr Rainfall=2.60"

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Time span=0.00-30.00 hrs, dt=0.05 hrs, 601 points x 2
 Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv.
 Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

SubcatchmentPC-A1: LOT 1	Runoff Area=1.010 ac 85.05% Impervious Runoff Depth=2.05" Tc=5.0 min CN=61/98 Runoff=3.19 cfs 0.173 af
SubcatchmentPC-A10: Detention Pond	Runoff Area=0.290 ac 34.48% Impervious Runoff Depth=0.97" Tc=5.0 min CN=61/98 Runoff=0.40 cfs 0.023 af
SubcatchmentPC-A2: LOT 2	Runoff Area=1.010 ac 85.05% Impervious Runoff Depth=2.05" Tc=5.0 min CN=61/98 Runoff=3.19 cfs 0.173 af
SubcatchmentPC-A3: LOT 3	Runoff Area=1.010 ac 85.05% Impervious Runoff Depth=2.05" Tc=5.0 min CN=61/98 Runoff=3.19 cfs 0.173 af
SubcatchmentPC-A5: LOT 5	Runoff Area=1.900 ac 85.00% Impervious Runoff Depth=2.05" Tc=5.0 min CN=61/98 Runoff=6.01 cfs 0.324 af
SubcatchmentPC-A6: ACCESS ROAD	Runoff Area=0.550 ac 72.18% Impervious Runoff Depth=1.77" Tc=5.0 min CN=61/98 Runoff=1.49 cfs 0.081 af
SubcatchmentPC-A7: OFF-SITE	Runoff Area=0.670 ac 0.00% Impervious Runoff Depth=0.23" Tc=5.0 min CN=61/0 Runoff=0.15 cfs 0.013 af
SubcatchmentPC-A8: Post-Construction	Runoff Area=0.360 ac 85.00% Impervious Runoff Depth=2.05" Tc=5.0 min CN=61/98 Runoff=1.14 cfs 0.061 af
SubcatchmentPC-B4: LOT 4	Runoff Area=1.020 ac 85.00% Impervious Runoff Depth=2.05" Tc=5.0 min CN=61/98 Runoff=3.22 cfs 0.174 af
SubcatchmentPC-B9: SOUTH SLOPE	Runoff Area=0.290 ac 84.83% Impervious Runoff Depth=2.04" Tc=5.0 min CN=61/98 Runoff=0.91 cfs 0.049 af
SubcatchmentPC-C: 57th Ave South Ditch	Runoff Area=2.850 ac 50.00% Impervious Runoff Depth=1.66" Flow Length=1,475' Tc=6.3 min CN=80/98 Runoff=7.30 cfs 0.395 af
Reach R1: Drainage Swale	Avg. Flow Depth=0.39' Max Vel=1.61 fps Inflow=3.22 cfs 0.174 af n=0.030 L=10.0' S=0.0050 '/' Capacity=18.92 cfs Outflow=3.21 cfs 0.174 af
Pond I-1: Curb Inlets	Peak Elev=1,849.14' Inflow=1.49 cfs 0.081 af Primary=1.46 cfs 0.081 af Secondary=0.03 cfs 0.000 af Outflow=1.49 cfs 0.081 af
Pond P-A1: LOT 1 - POND	Peak Elev=1,846.50' Storage=2,311 cf Inflow=3.19 cfs 0.173 af Outflow=0.64 cfs 0.173 af
Pond P-A10: SE Pond	Peak Elev=1,840.79' Storage=5,159 cf Inflow=2.29 cfs 0.443 af Primary=1.72 cfs 0.443 af Secondary=0.00 cfs 0.000 af Outflow=1.72 cfs 0.443 af
Pond P-A2: LOT 2 - POND	Peak Elev=1,846.50' Storage=2,311 cf Inflow=3.19 cfs 0.173 af Outflow=0.64 cfs 0.173 af
Pond P-A3: LOT 3 - POND	Peak Elev=1,844.50' Storage=2,311 cf Inflow=3.19 cfs 0.173 af Outflow=0.64 cfs 0.173 af
Pond P-A5: SW Pond	Peak Elev=1,845.39' Storage=4,121 cf Inflow=7.56 cfs 0.418 af Discarded=0.00 cfs 0.000 af Primary=1.99 cfs 0.419 af Secondary=0.00 cfs 0.000 af Outflow=1.99 cfs 0.420 af
Pond PC-POA-A: West Ditch US-83	Inflow=3.50 cfs 1.022 af Primary=3.50 cfs 1.022 af
Pond PC-POA-B: Furniture Row	Inflow=4.16 cfs 0.224 af Primary=4.16 cfs 0.224 af

1906-02283-TreeTop2nd-Existing&PC

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Proposed Conditions

Type II 24-hr Bismarck 24-hr, 5-yr Rainfall=2.60"

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Total Runoff Area = 10.960 ac Runoff Volume = 1.639 af Average Runoff Depth = 1.80"
31.27% Pervious = 3.427 ac 68.73% Impervious = 7.533 ac

1906-02283-TreeTop2nd-Existing&PC

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Proposed Conditions

Type II 24-hr Bismarck 24-hr, 10-yr Rainfall=3.10"

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Time span=0.00-30.00 hrs, dt=0.05 hrs, 601 points x 2
 Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv.
 Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

SubcatchmentPC-A1: LOT 1	Runoff Area=1.010 ac 85.05% Impervious Runoff Depth=2.50" Tc=5.0 min CN=61/98 Runoff=3.87 cfs 0.210 af
SubcatchmentPC-A10: Detention Pond	Runoff Area=0.290 ac 34.48% Impervious Runoff Depth=1.25" Tc=5.0 min CN=61/98 Runoff=0.54 cfs 0.030 af
SubcatchmentPC-A2: LOT 2	Runoff Area=1.010 ac 85.05% Impervious Runoff Depth=2.50" Tc=5.0 min CN=61/98 Runoff=3.87 cfs 0.210 af
SubcatchmentPC-A3: LOT 3	Runoff Area=1.010 ac 85.05% Impervious Runoff Depth=2.50" Tc=5.0 min CN=61/98 Runoff=3.87 cfs 0.210 af
SubcatchmentPC-A5: LOT 5	Runoff Area=1.900 ac 85.00% Impervious Runoff Depth=2.50" Tc=5.0 min CN=61/98 Runoff=7.28 cfs 0.396 af
SubcatchmentPC-A6: ACCESS ROAD	Runoff Area=0.550 ac 72.18% Impervious Runoff Depth=2.18" Tc=5.0 min CN=61/98 Runoff=1.83 cfs 0.100 af
SubcatchmentPC-A7: OFF-SITE	Runoff Area=0.670 ac 0.00% Impervious Runoff Depth=0.40" Tc=5.0 min CN=61/0 Runoff=0.38 cfs 0.023 af
SubcatchmentPC-A8: Post-Construction	Runoff Area=0.360 ac 85.00% Impervious Runoff Depth=2.50" Tc=5.0 min CN=61/98 Runoff=1.38 cfs 0.075 af
SubcatchmentPC-B4: LOT 4	Runoff Area=1.020 ac 85.00% Impervious Runoff Depth=2.50" Tc=5.0 min CN=61/98 Runoff=3.91 cfs 0.212 af
SubcatchmentPC-B9: SOUTH SLOPE	Runoff Area=0.290 ac 84.83% Impervious Runoff Depth=2.49" Tc=5.0 min CN=61/98 Runoff=1.11 cfs 0.060 af
SubcatchmentPC-C: 57th Ave South Ditch	Runoff Area=2.850 ac 50.00% Impervious Runoff Depth=2.10" Flow Length=1,475' Tc=6.3 min CN=80/98 Runoff=9.20 cfs 0.498 af
Reach R1: Drainage Swale	Avg. Flow Depth=0.43' Max Vel=1.71 fps Inflow=3.91 cfs 0.212 af n=0.030 L=10.0' S=0.0050 '/' Capacity=18.92 cfs Outflow=3.90 cfs 0.212 af
Pond I-1: Curb Inlets	Peak Elev=1,849.15' Inflow=1.83 cfs 0.100 af Primary=1.75 cfs 0.099 af Secondary=0.09 cfs 0.001 af Outflow=1.83 cfs 0.100 af
Pond P-A1: LOT 1 - POND	Peak Elev=1,846.79' Storage=2,828 cf Inflow=3.87 cfs 0.210 af Outflow=0.99 cfs 0.210 af
Pond P-A10: SE Pond	Peak Elev=1,840.82' Storage=5,236 cf Inflow=2.51 cfs 0.548 af Primary=1.97 cfs 0.548 af Secondary=0.00 cfs 0.000 af Outflow=1.97 cfs 0.548 af
Pond P-A2: LOT 2 - POND	Peak Elev=1,846.79' Storage=2,828 cf Inflow=3.87 cfs 0.210 af Outflow=0.99 cfs 0.210 af
Pond P-A3: LOT 3 - POND	Peak Elev=1,844.79' Storage=2,828 cf Inflow=3.87 cfs 0.210 af Outflow=0.99 cfs 0.210 af
Pond P-A5: SW Pond	Peak Elev=1,845.91' Storage=5,588 cf Inflow=9.35 cfs 0.518 af Discarded=0.01 cfs 0.001 af Primary=2.10 cfs 0.518 af Secondary=0.00 cfs 0.000 af Outflow=2.11 cfs 0.519 af
Pond PC-POA-A: West Ditch US-83	Inflow=4.04 cfs 1.254 af Primary=4.04 cfs 1.254 af
Pond PC-POA-B: Furniture Row	Inflow=5.10 cfs 0.273 af Primary=5.10 cfs 0.273 af

1906-02283-TreeTop2nd-Existing&PC

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Proposed Conditions

Type II 24-hr Bismarck 24-hr, 10-yr Rainfall=3.10"

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Total Runoff Area = 10.960 ac Runoff Volume = 2.025 af Average Runoff Depth = 2.22"
31.27% Pervious = 3.427 ac 68.73% Impervious = 7.533 ac

1906-02283-TreeTop2nd-Existing&PC

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Proposed Conditions
Type II 24-hr Bismarck 24-hr, 25-yr Rainfall=3.90"

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Time span=0.00-30.00 hrs, dt=0.05 hrs, 601 points x 2
Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv.
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

SubcatchmentPC-A1: LOT 1	Runoff Area=1.010 ac 85.05% Impervious Runoff Depth=3.23" Tc=5.0 min CN=61/98 Runoff=4.98 cfs 0.272 af
SubcatchmentPC-A10: Detention Pond	Runoff Area=0.290 ac 34.48% Impervious Runoff Depth=1.76" Tc=5.0 min CN=61/98 Runoff=0.79 cfs 0.043 af
SubcatchmentPC-A2: LOT 2	Runoff Area=1.010 ac 85.05% Impervious Runoff Depth=3.23" Tc=5.0 min CN=61/98 Runoff=4.98 cfs 0.272 af
SubcatchmentPC-A3: LOT 3	Runoff Area=1.010 ac 85.05% Impervious Runoff Depth=3.23" Tc=5.0 min CN=61/98 Runoff=4.98 cfs 0.272 af
SubcatchmentPC-A5: LOT 5	Runoff Area=1.900 ac 85.00% Impervious Runoff Depth=3.23" Tc=5.0 min CN=61/98 Runoff=9.37 cfs 0.511 af
SubcatchmentPC-A6: ACCESS ROAD	Runoff Area=0.550 ac 72.18% Impervious Runoff Depth=2.86" Tc=5.0 min CN=61/98 Runoff=2.40 cfs 0.131 af
SubcatchmentPC-A7: OFF-SITE	Runoff Area=0.670 ac 0.00% Impervious Runoff Depth=0.76" Tc=5.0 min CN=61/0 Runoff=0.83 cfs 0.043 af
SubcatchmentPC-A8: Post-Construction	Runoff Area=0.360 ac 85.00% Impervious Runoff Depth=3.23" Tc=5.0 min CN=61/98 Runoff=1.78 cfs 0.097 af
SubcatchmentPC-B4: LOT 4	Runoff Area=1.020 ac 85.00% Impervious Runoff Depth=3.23" Tc=5.0 min CN=61/98 Runoff=5.03 cfs 0.275 af
SubcatchmentPC-B9: SOUTH SLOPE	Runoff Area=0.290 ac 84.83% Impervious Runoff Depth=3.22" Tc=5.0 min CN=61/98 Runoff=1.43 cfs 0.078 af
SubcatchmentPC-C: 57th Ave South Ditch	Runoff Area=2.850 ac 50.00% Impervious Runoff Depth=2.81" Flow Length=1,475' Tc=6.3 min CN=80/98 Runoff=12.31 cfs 0.668 af
Reach R1: Drainage Swale	Avg. Flow Depth=0.50' Max Vel=1.84 fps Inflow=5.03 cfs 0.275 af n=0.030 L=10.0' S=0.0050 '/' Capacity=18.92 cfs Outflow=5.02 cfs 0.275 af
Pond I-1: Curb Inlets	Peak Elev=1,849.17' Inflow=2.40 cfs 0.131 af Primary=2.19 cfs 0.129 af Secondary=0.21 cfs 0.002 af Outflow=2.40 cfs 0.131 af
Pond P-A1: LOT 1 - POND	Peak Elev=1,847.14' Storage=3,519 cf Inflow=4.98 cfs 0.272 af Outflow=1.91 cfs 0.272 af
Pond P-A10: SE Pond	Peak Elev=1,840.90' Storage=5,446 cf Inflow=4.66 cfs 0.726 af Primary=2.71 cfs 0.726 af Secondary=0.00 cfs 0.000 af Outflow=2.71 cfs 0.726 af
Pond P-A2: LOT 2 - POND	Peak Elev=1,847.14' Storage=3,519 cf Inflow=4.98 cfs 0.272 af Outflow=1.91 cfs 0.272 af
Pond P-A3: LOT 3 - POND	Peak Elev=1,845.14' Storage=3,519 cf Inflow=4.98 cfs 0.272 af Outflow=1.91 cfs 0.272 af
Pond P-A5: SW Pond	Peak Elev=1,846.53' Storage=7,613 cf Inflow=12.35 cfs 0.683 af Discarded=0.01 cfs 0.001 af Primary=4.26 cfs 0.683 af Secondary=0.00 cfs 0.000 af Outflow=4.26 cfs 0.684 af
Pond PC-POA-A: West Ditch US-83	Inflow=7.12 cfs 1.639 af Primary=7.12 cfs 1.639 af
Pond PC-POA-B: Furniture Row	Inflow=6.65 cfs 0.354 af Primary=6.65 cfs 0.354 af

1906-02283-TreeTop2nd-Existing&PC

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Proposed Conditions

Type II 24-hr Bismarck 24-hr, 25-yr Rainfall=3.90"

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Total Runoff Area = 10.960 ac Runoff Volume = 2.661 af Average Runoff Depth = 2.91"
31.27% Pervious = 3.427 ac 68.73% Impervious = 7.533 ac

1906-02283-TreeTop2nd-Existing&PC

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Proposed Conditions

Type II 24-hr Bismarck 24-hr, 50-yr Rainfall=4.57"

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Time span=0.00-30.00 hrs, dt=0.05 hrs, 601 points x 2
 Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv.
 Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

SubcatchmentPC-A1: LOT 1	Runoff Area=1.010 ac 85.05% Impervious Runoff Depth=3.85" Tc=5.0 min CN=61/98 Runoff=5.92 cfs 0.324 af
SubcatchmentPC-A10: Detention Pond	Runoff Area=0.290 ac 34.48% Impervious Runoff Depth=2.23" Tc=5.0 min CN=61/98 Runoff=1.01 cfs 0.054 af
SubcatchmentPC-A2: LOT 2	Runoff Area=1.010 ac 85.05% Impervious Runoff Depth=3.85" Tc=5.0 min CN=61/98 Runoff=5.92 cfs 0.324 af
SubcatchmentPC-A3: LOT 3	Runoff Area=1.010 ac 85.05% Impervious Runoff Depth=3.85" Tc=5.0 min CN=61/98 Runoff=5.92 cfs 0.324 af
SubcatchmentPC-A5: LOT 5	Runoff Area=1.900 ac 85.00% Impervious Runoff Depth=3.85" Tc=5.0 min CN=61/98 Runoff=11.14 cfs 0.610 af
SubcatchmentPC-A6: ACCESS ROAD	Runoff Area=0.550 ac 72.18% Impervious Runoff Depth=3.44" Tc=5.0 min CN=61/98 Runoff=2.89 cfs 0.158 af
SubcatchmentPC-A7: OFF-SITE	Runoff Area=0.670 ac 0.00% Impervious Runoff Depth=1.12" Tc=5.0 min CN=61/0 Runoff=1.28 cfs 0.062 af
SubcatchmentPC-A8: Post-Construction	Runoff Area=0.360 ac 85.00% Impervious Runoff Depth=3.85" Tc=5.0 min CN=61/98 Runoff=2.11 cfs 0.116 af
SubcatchmentPC-B4: LOT 4	Runoff Area=1.020 ac 85.00% Impervious Runoff Depth=3.85" Tc=5.0 min CN=61/98 Runoff=5.98 cfs 0.327 af
SubcatchmentPC-B9: SOUTH SLOPE	Runoff Area=0.290 ac 84.83% Impervious Runoff Depth=3.85" Tc=5.0 min CN=61/98 Runoff=1.70 cfs 0.093 af
SubcatchmentPC-C: 57th Ave South Ditch	Runoff Area=2.850 ac 50.00% Impervious Runoff Depth=3.43" Flow Length=1,475' Tc=6.3 min CN=80/98 Runoff=14.97 cfs 0.814 af
Reach R1: Drainage Swale	Avg. Flow Depth=0.55' Max Vel=1.94 fps Inflow=5.98 cfs 0.327 af n=0.030 L=10.0' S=0.0050 '/' Capacity=18.92 cfs Outflow=5.97 cfs 0.327 af
Pond I-1: Curb Inlets	Peak Elev=1,849.18' Inflow=2.89 cfs 0.158 af Primary=2.56 cfs 0.154 af Secondary=0.33 cfs 0.003 af Outflow=2.89 cfs 0.158 af
Pond P-A1: LOT 1 - POND	Peak Elev=1,847.38' Storage=4,027 cf Inflow=5.92 cfs 0.324 af Outflow=2.70 cfs 0.324 af
Pond P-A10: SE Pond	Peak Elev=1,841.17' Storage=6,178 cf Inflow=8.44 cfs 0.881 af Primary=5.84 cfs 0.881 af Secondary=0.00 cfs 0.000 af Outflow=5.84 cfs 0.881 af
Pond P-A2: LOT 2 - POND	Peak Elev=1,847.38' Storage=4,027 cf Inflow=5.92 cfs 0.324 af Outflow=2.70 cfs 0.324 af
Pond P-A3: LOT 3 - POND	Peak Elev=1,845.38' Storage=4,027 cf Inflow=5.92 cfs 0.324 af Outflow=2.70 cfs 0.324 af
Pond P-A5: SW Pond	Peak Elev=1,846.84' Storage=8,710 cf Inflow=14.95 cfs 0.827 af Discarded=0.01 cfs 0.001 af Primary=7.96 cfs 0.827 af Secondary=0.00 cfs 0.000 af Outflow=7.97 cfs 0.828 af
Pond PC-POA-A: West Ditch US-83	Inflow=13.64 cfs 1.969 af Primary=13.64 cfs 1.969 af
Pond PC-POA-B: Furniture Row	Inflow=8.00 cfs 0.424 af Primary=8.00 cfs 0.424 af

1906-02283-TreeTop2nd-Existing&PC

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Proposed Conditions

Type II 24-hr Bismarck 24-hr, 50-yr Rainfall=4.57"

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Total Runoff Area = 10.960 ac Runoff Volume = 3.207 af Average Runoff Depth = 3.51"
31.27% Pervious = 3.427 ac 68.73% Impervious = 7.533 ac

1906-02283-TreeTop2nd-Existing&PC

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Proposed Conditions
Type II 24-hr Bismarck 24-hr, 100-yr Rainfall=5.30"

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Time span=0.00-30.00 hrs, dt=0.05 hrs, 601 points x 2
 Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv.
 Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

SubcatchmentPC-A1: LOT 1	Runoff Area=1.010 ac 85.05% Impervious Runoff Depth=4.54" Tc=5.0 min CN=61/98 Runoff=6.96 cfs 0.382 af
SubcatchmentPC-A10: Detention Pond	Runoff Area=0.290 ac 34.48% Impervious Runoff Depth=2.76" Tc=5.0 min CN=61/98 Runoff=1.28 cfs 0.067 af
SubcatchmentPC-A2: LOT 2	Runoff Area=1.010 ac 85.05% Impervious Runoff Depth=4.54" Tc=5.0 min CN=61/98 Runoff=6.96 cfs 0.382 af
SubcatchmentPC-A3: LOT 3	Runoff Area=1.010 ac 85.05% Impervious Runoff Depth=4.54" Tc=5.0 min CN=61/98 Runoff=6.96 cfs 0.382 af
SubcatchmentPC-A5: LOT 5	Runoff Area=1.900 ac 85.00% Impervious Runoff Depth=4.54" Tc=5.0 min CN=61/98 Runoff=13.09 cfs 0.718 af
SubcatchmentPC-A6: ACCESS ROAD	Runoff Area=0.550 ac 72.18% Impervious Runoff Depth=4.09" Tc=5.0 min CN=61/98 Runoff=3.44 cfs 0.187 af
SubcatchmentPC-A7: OFF-SITE	Runoff Area=0.670 ac 0.00% Impervious Runoff Depth=1.55" Tc=5.0 min CN=61/0 Runoff=1.83 cfs 0.087 af
SubcatchmentPC-A8: Post-Construction	Runoff Area=0.360 ac 85.00% Impervious Runoff Depth=4.54" Tc=5.0 min CN=61/98 Runoff=2.48 cfs 0.136 af
SubcatchmentPC-B4: LOT 4	Runoff Area=1.020 ac 85.00% Impervious Runoff Depth=4.54" Tc=5.0 min CN=61/98 Runoff=7.02 cfs 0.386 af
SubcatchmentPC-B9: SOUTH SLOPE	Runoff Area=0.290 ac 84.83% Impervious Runoff Depth=4.53" Tc=5.0 min CN=61/98 Runoff=1.99 cfs 0.109 af
SubcatchmentPC-C: 57th Ave South Ditch	Runoff Area=2.850 ac 50.00% Impervious Runoff Depth=4.11" Flow Length=1,475' Tc=6.3 min CN=80/98 Runoff=17.89 cfs 0.976 af
Reach R1: Drainage Swale	Avg. Flow Depth=0.59' Max Vel=2.04 fps Inflow=7.02 cfs 0.386 af n=0.030 L=10.0' S=0.0050 '/' Capacity=18.92 cfs Outflow=7.01 cfs 0.386 af
Pond I-1: Curb Inlets	Peak Elev=1,849.19' Inflow=3.44 cfs 0.187 af Primary=2.96 cfs 0.182 af Secondary=0.48 cfs 0.006 af Outflow=3.44 cfs 0.187 af
Pond P-A1: LOT 1 - POND	Peak Elev=1,847.61' Storage=4,561 cf Inflow=6.96 cfs 0.382 af Outflow=3.49 cfs 0.382 af
Pond P-A10: SE Pond	Peak Elev=1,841.62' Storage=7,522 cf Inflow=11.77 cfs 1.053 af Primary=7.20 cfs 1.053 af Secondary=0.00 cfs 0.000 af Outflow=7.20 cfs 1.053 af
Pond P-A2: LOT 2 - POND	Peak Elev=1,847.61' Storage=4,561 cf Inflow=6.96 cfs 0.382 af Outflow=3.49 cfs 0.382 af
Pond P-A3: LOT 3 - POND	Peak Elev=1,845.61' Storage=4,561 cf Inflow=6.96 cfs 0.382 af Outflow=3.49 cfs 0.382 af
Pond P-A5: SW Pond	Peak Elev=1,847.11' Storage=9,763 cf Inflow=17.84 cfs 0.987 af Discarded=0.01 cfs 0.001 af Primary=10.45 cfs 0.987 af Secondary=0.00 cfs 0.000 af Outflow=10.46 cfs 0.988 af
Pond PC-POA-A: West Ditch US-83	Inflow=18.70 cfs 2.335 af Primary=18.70 cfs 2.335 af
Pond PC-POA-B: Furniture Row	Inflow=9.49 cfs 0.501 af Primary=9.49 cfs 0.501 af

1906-02283-TreeTop2nd-Existing&PC

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Proposed Conditions

Type II 24-hr Bismarck 24-hr, 100-yr Rainfall=5.30"

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Total Runoff Area = 10.960 ac Runoff Volume = 3.812 af Average Runoff Depth = 4.17"
31.27% Pervious = 3.427 ac 68.73% Impervious = 7.533 ac

1906-02283-TreeTop2nd-Existing&PC

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Proposed Conditions
Type II 24-hr Bismarck 24-hr, 100-yr Rainfall=5.30"

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Summary for Subcatchment PC-A1: LOT 1

Runoff = 6.96 cfs @ 11.95 hrs, Volume= 0.382 af, Depth= 4.54"
Routed to Pond P-A1 : LOT 1 - POND

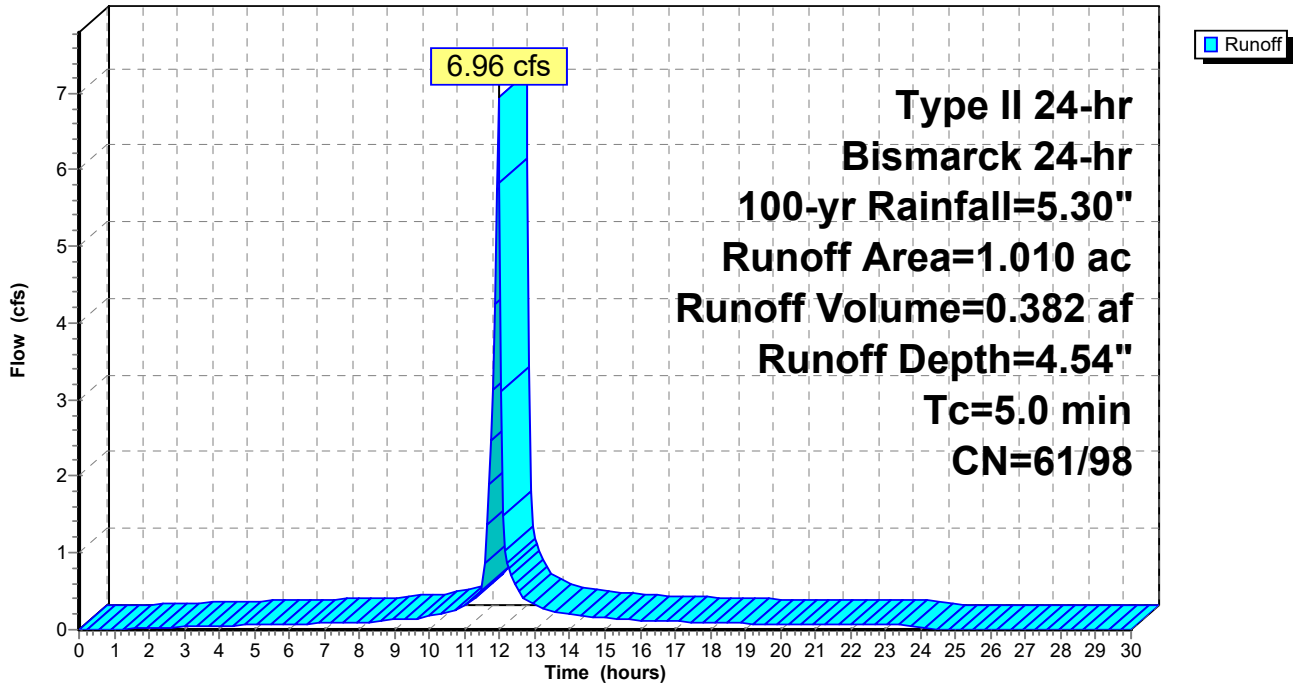
Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr Bismarck 24-hr, 100-yr Rainfall=5.30"

Area (ac)	CN	Description
0.151	61	>75% Grass cover, Good, HSG B
0.859	98	Paved parking, HSG B
1.010	92	Weighted Average
0.151	61	14.95% Pervious Area
0.859	98	85.05% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment PC-A1: LOT 1

Hydrograph



Summary for Subcatchment PC-A10: Detention Pond

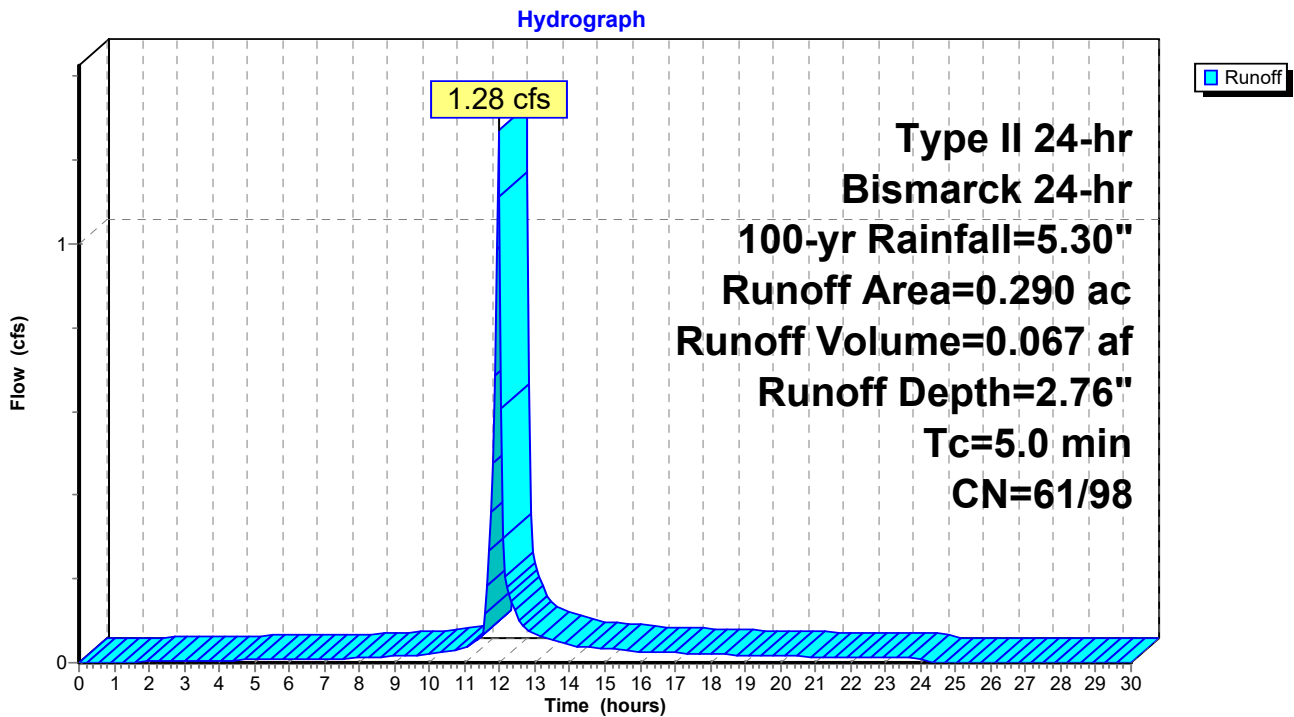
Runoff = 1.28 cfs @ 11.96 hrs, Volume= 0.067 af, Depth= 2.76"
 Routed to Pond P-A10 : SE Pond

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
 Type II 24-hr Bismarck 24-hr, 100-yr Rainfall=5.30"

Area (ac)	CN	Description
0.190	61	>75% Grass cover, Good, HSG B
0.100	98	Paved parking, HSG B
0.290	74	Weighted Average
0.190	61	65.52% Pervious Area
0.100	98	34.48% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, Min time

Subcatchment PC-A10: Detention Pond



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Proposed Conditions
Type II 24-hr Bismarck 24-hr, 100-yr Rainfall=5.30"

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Summary for Subcatchment PC-A2: LOT 2

Runoff = 6.96 cfs @ 11.95 hrs, Volume= 0.382 af, Depth= 4.54"
Routed to Pond P-A2 : LOT 2 - POND

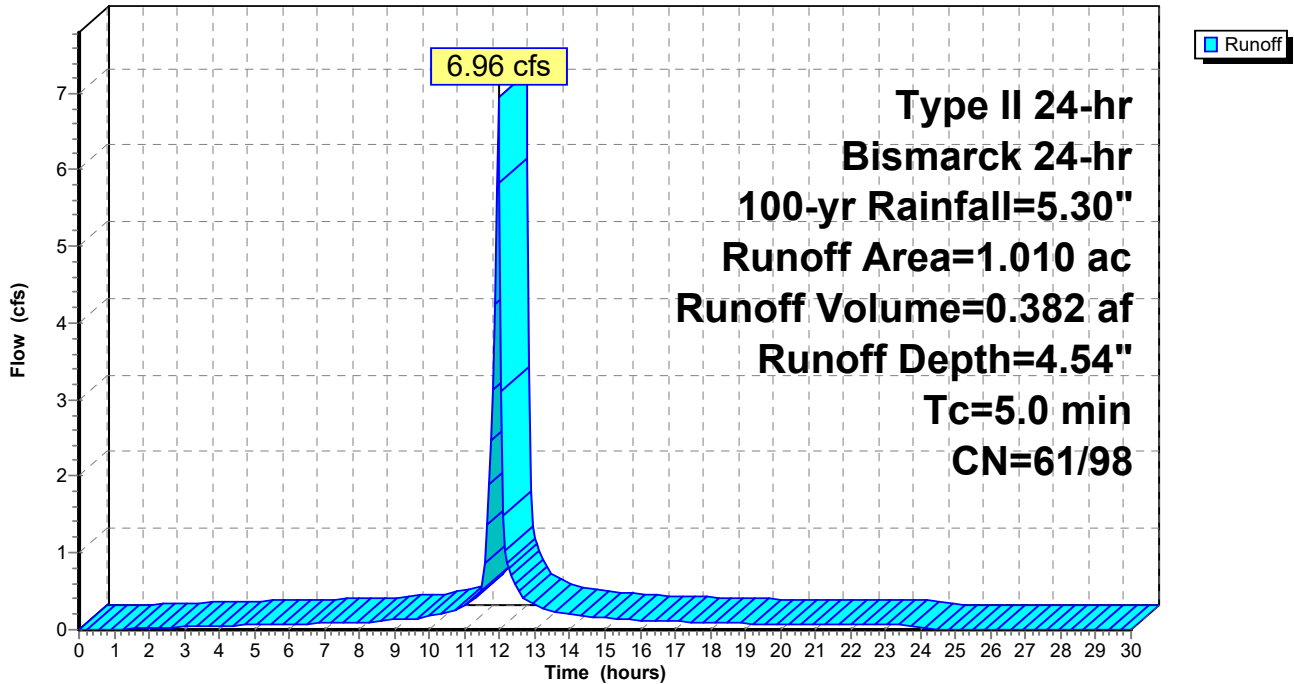
Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr Bismarck 24-hr, 100-yr Rainfall=5.30"

Area (ac)	CN	Description
0.151	61	>75% Grass cover, Good, HSG B
0.859	98	Paved parking, HSG B
1.010	92	Weighted Average
0.151	61	14.95% Pervious Area
0.859	98	85.05% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment PC-A2: LOT 2

Hydrograph



Summary for Subcatchment PC-A3: LOT 3

Runoff = 6.96 cfs @ 11.95 hrs, Volume= 0.382 af, Depth= 4.54"
Routed to Pond P-A3 : LOT 3 - POND

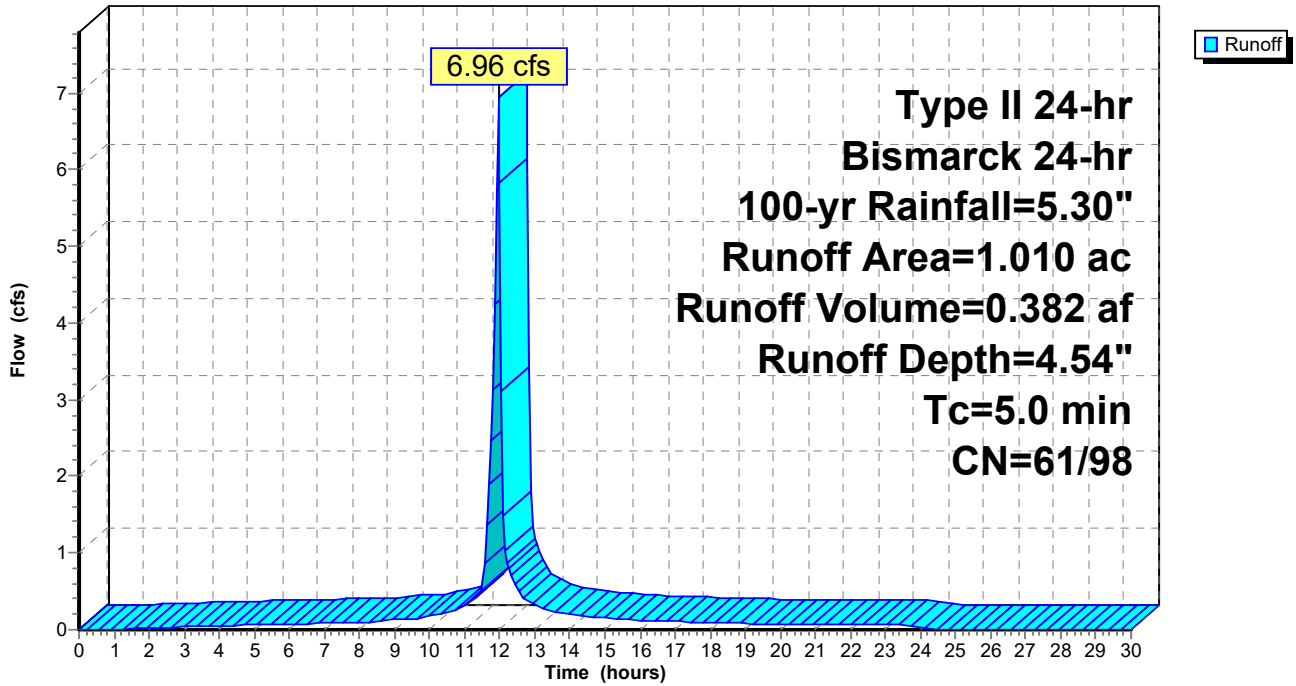
Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr Bismarck 24-hr, 100-yr Rainfall=5.30"

Area (ac)	CN	Description
0.151	61	>75% Grass cover, Good, HSG B
0.859	98	Paved parking, HSG B
1.010	92	Weighted Average
0.151	61	14.95% Pervious Area
0.859	98	85.05% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment PC-A3: LOT 3

Hydrograph



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Type II 24-hr Bismarck 24-hr, 100-yr Rainfall=5.30"

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Summary for Subcatchment PC-A5: LOT 5

Runoff = 13.09 cfs @ 11.95 hrs, Volume= 0.718 af, Depth= 4.54"
Routed to Pond P-A5 : SW Pond

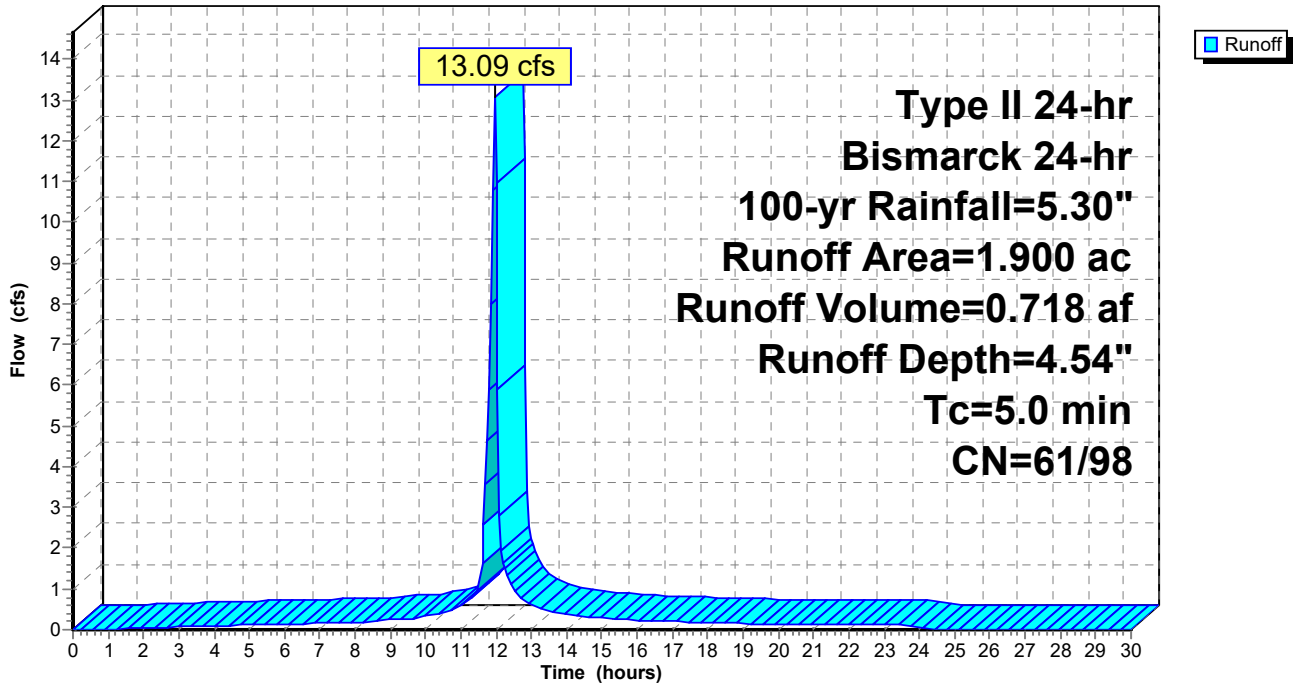
Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr Bismarck 24-hr, 100-yr Rainfall=5.30"

Area (ac)	CN	Description
0.285	61	>75% Grass cover, Good, HSG B
1.615	98	Paved parking, HSG B
1.900	92	Weighted Average
0.285	61	15.00% Pervious Area
1.615	98	85.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment PC-A5: LOT 5

Hydrograph



Summary for Subcatchment PC-A6: ACCESS ROAD

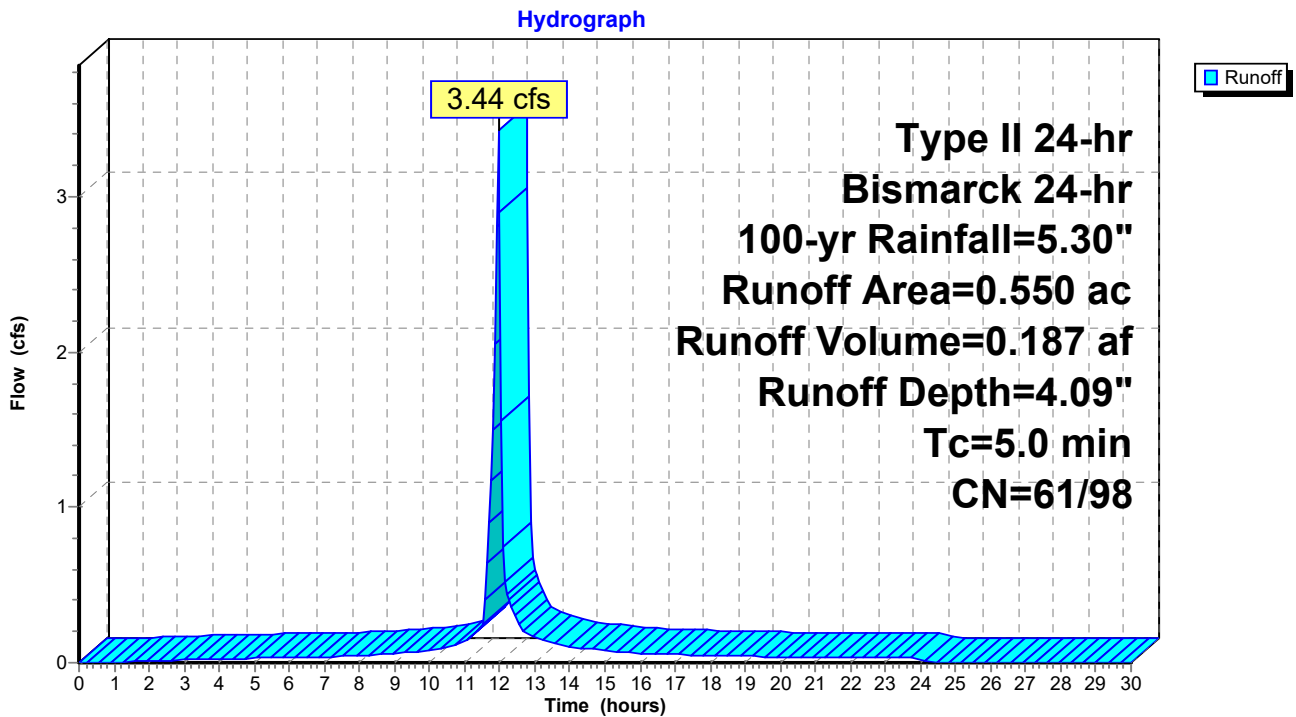
Runoff = 3.44 cfs @ 11.95 hrs, Volume= 0.187 af, Depth= 4.09"
 Routed to Pond I-1 : Curb Inlets

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
 Type II 24-hr Bismarck 24-hr, 100-yr Rainfall=5.30"

Area (ac)	CN	Description
0.397	98	Paved parking, HSG B
0.153	61	>75% Grass cover, Good, HSG B
0.550	88	Weighted Average
0.153	61	27.82% Pervious Area
0.397	98	72.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment PC-A6: ACCESS ROAD



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Type II 24-hr Bismarck 24-hr, 100-yr Rainfall=5.30"

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Summary for Subcatchment PC-A7: OFF-SITE

Runoff = 1.83 cfs @ 11.97 hrs, Volume= 0.087 af, Depth= 1.55"
 Routed to Pond P-A5 : SW Pond

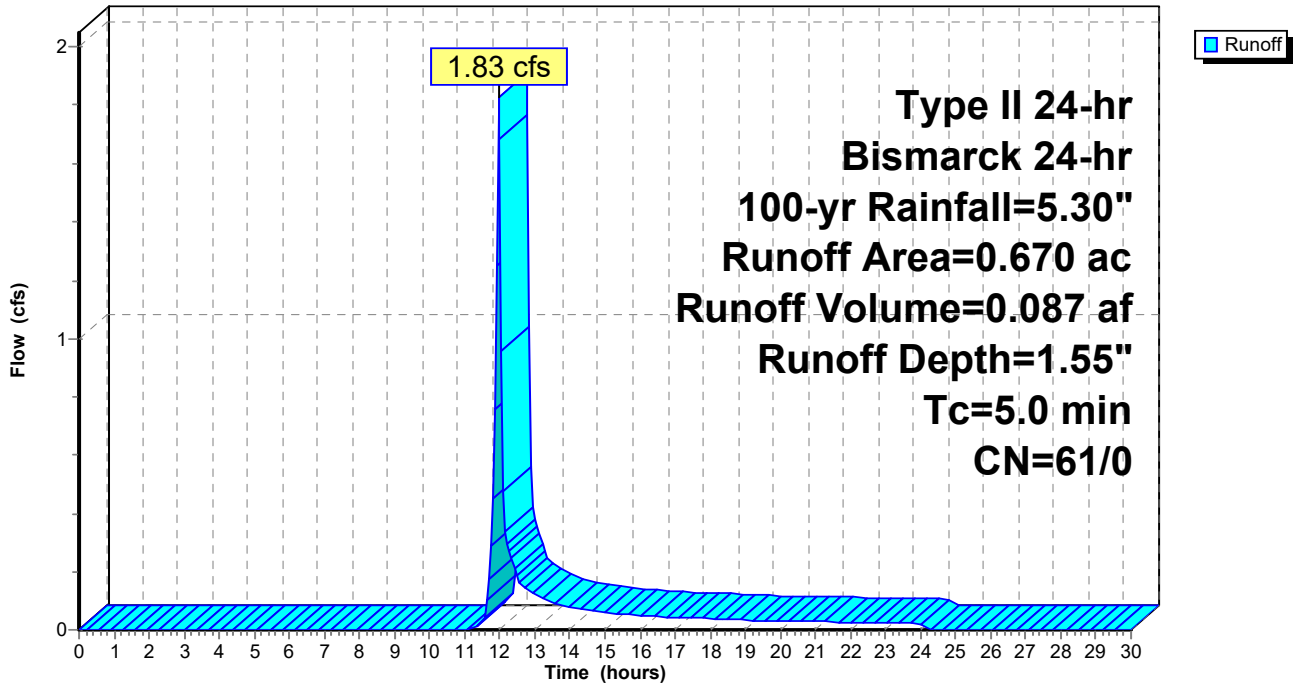
Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
 Type II 24-hr Bismarck 24-hr, 100-yr Rainfall=5.30"

Area (ac)	CN	Description
0.670	61	>75% Grass cover, Good, HSG B
0.670	61	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment PC-A7: OFF-SITE

Hydrograph



Summary for Subcatchment PC-A8: Post-Construction

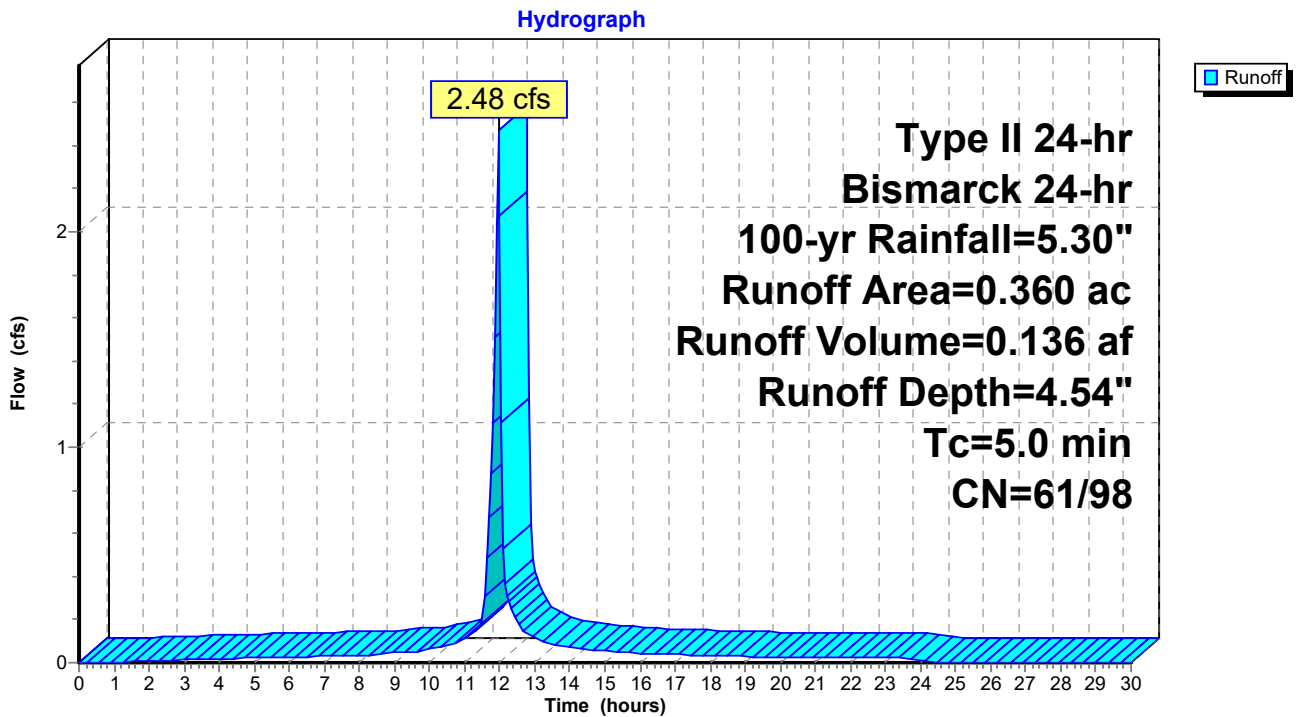
Runoff = 2.48 cfs @ 11.95 hrs, Volume= 0.136 af, Depth= 4.54"
Routed to Pond PC-POA-A : West Ditch US-83

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr Bismarck 24-hr, 100-yr Rainfall=5.30"

Area (ac)	CN	Description
0.054	61	>75% Grass cover, Good, HSG B
0.306	98	Paved parking, HSG B
0.360	92	Weighted Average
0.054	61	15.00% Pervious Area
0.306	98	85.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment PC-A8: Post-Construction



Summary for Subcatchment PC-B4: LOT 4

Runoff = 7.02 cfs @ 11.95 hrs, Volume= 0.386 af, Depth= 4.54"
Routed to Reach R1 : Drainage Swale

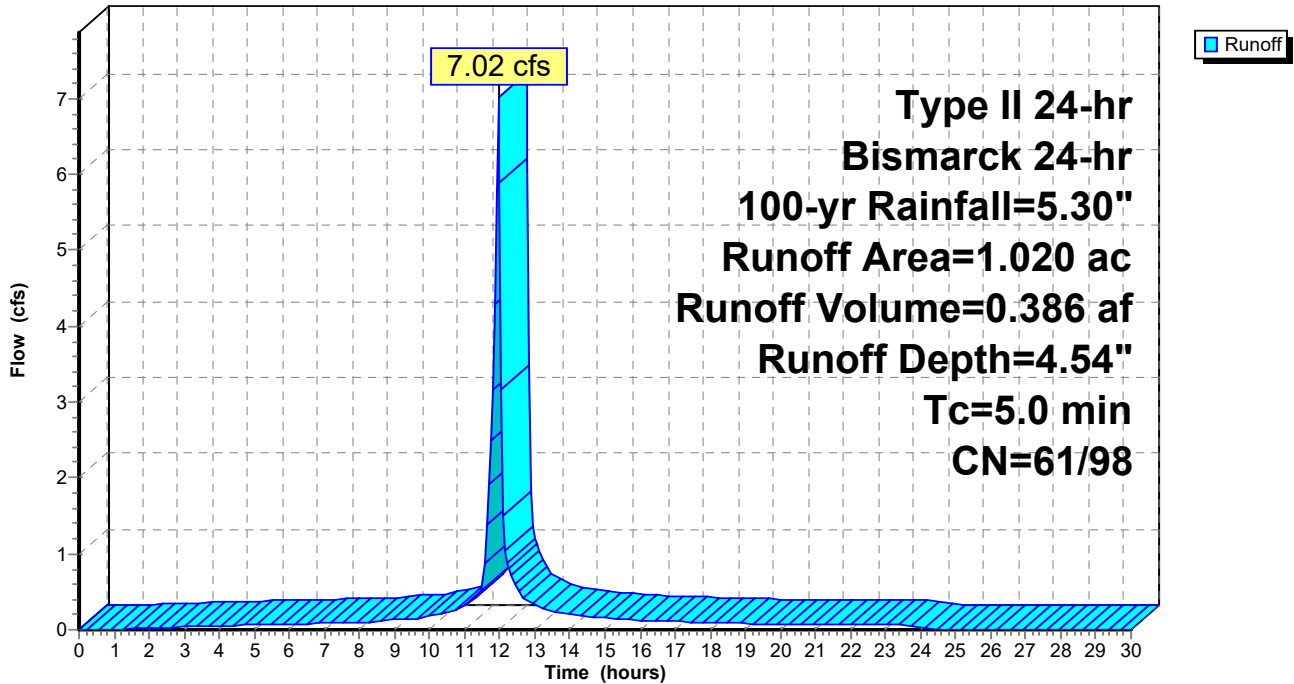
Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr Bismarck 24-hr, 100-yr Rainfall=5.30"

Area (ac)	CN	Description
0.153	61	>75% Grass cover, Good, HSG B
0.867	98	Paved parking, HSG B
1.020	92	Weighted Average
0.153	61	15.00% Pervious Area
0.867	98	85.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment PC-B4: LOT 4

Hydrograph



Summary for Subcatchment PC-B9: SOUTH SLOPE

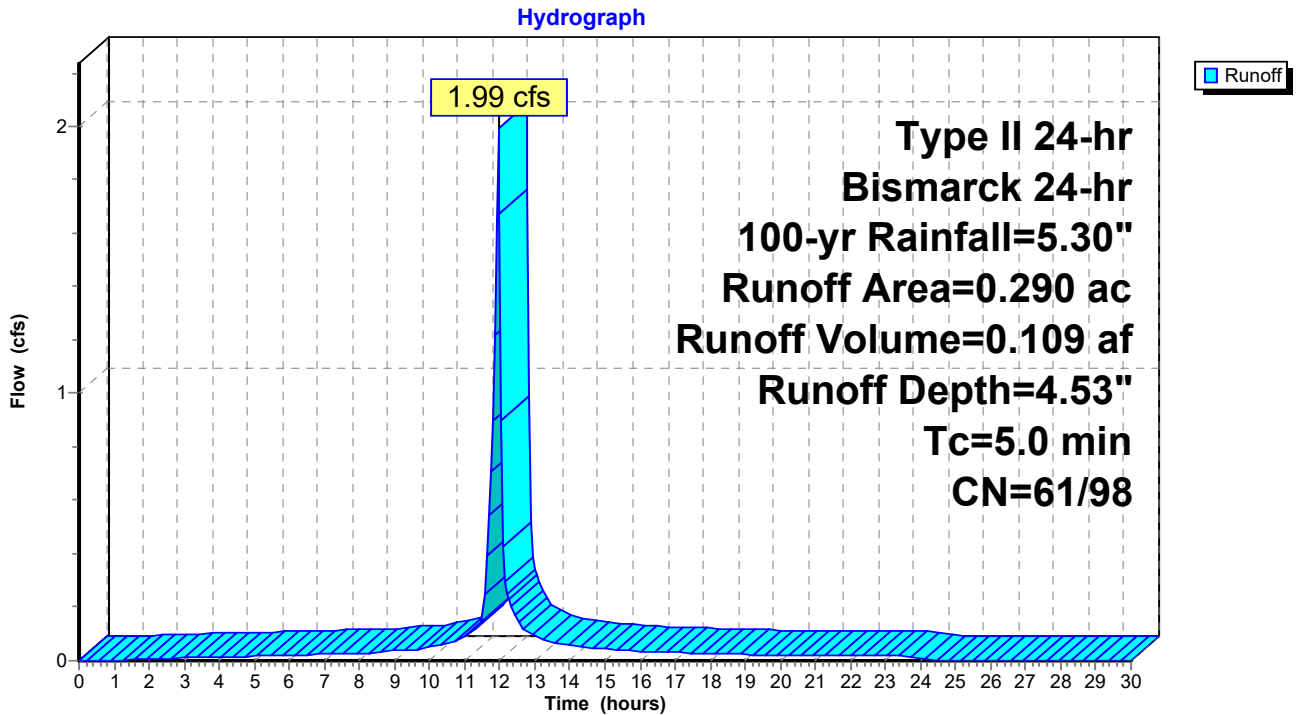
Runoff = 1.99 cfs @ 11.95 hrs, Volume= 0.109 af, Depth= 4.53"
Routed to Pond PC-POA-B : Furniture Row

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr Bismarck 24-hr, 100-yr Rainfall=5.30"

Area (ac)	CN	Description
0.044	61	>75% Grass cover, Good, HSG B
0.246	98	Paved parking, HSG B
0.290	92	Weighted Average
0.044	61	15.17% Pervious Area
0.246	98	84.83% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment PC-B9: SOUTH SLOPE



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Type II 24-hr Bismarck 24-hr, 100-yr Rainfall=5.30"

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Summary for Subcatchment PC-C: 57th Ave South Ditch

Runoff = 17.89 cfs @ 11.97 hrs, Volume= 0.976 af, Depth= 4.11"
Routed to Pond 1P : Approach Culvert

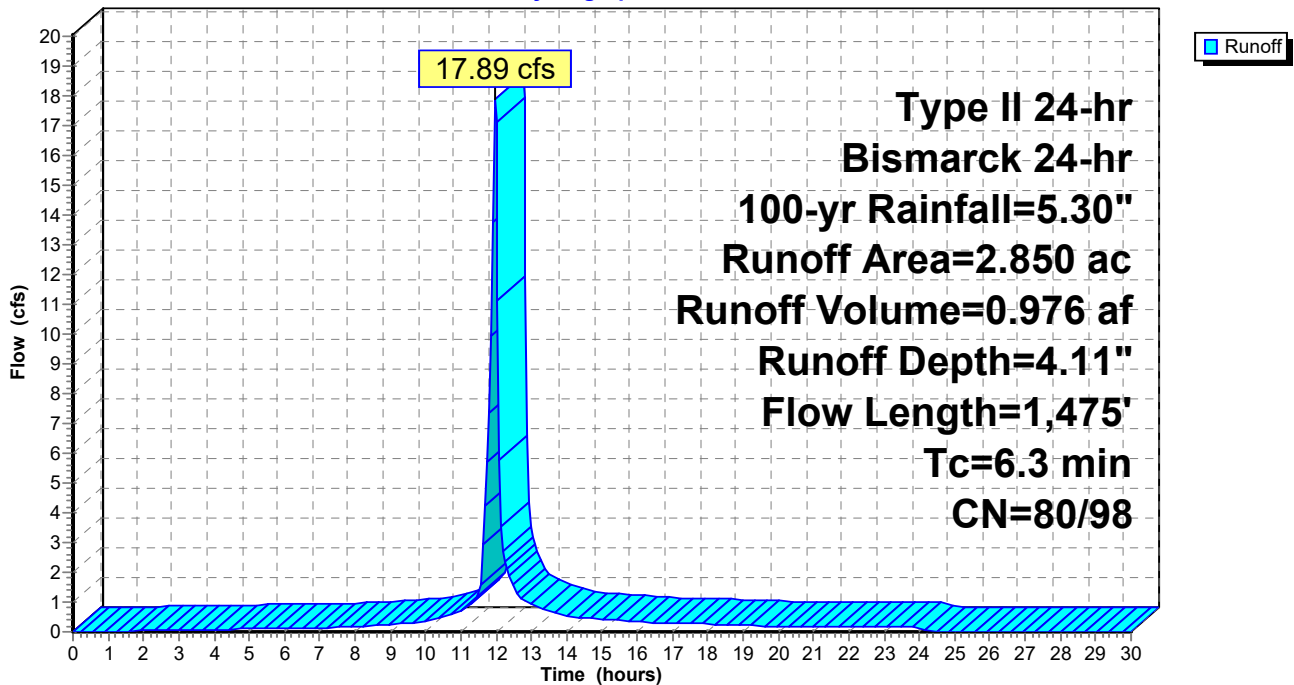
Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr Bismarck 24-hr, 100-yr Rainfall=5.30"

Area (ac)	CN	Description
2.850	89	Paved roads w/open ditches, 50% imp, HSG B
1.425	80	50.00% Pervious Area
1.425	98	50.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.4	30	0.0388	1.13		Sheet Flow, Smooth surfaces n= 0.011 P2= 2.06"
1.4	200	0.0270	2.46		Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps
1.9	385	0.0150	3.29	21.80	Trap/Vee/Rect Channel Flow, Bot.W=10.00' D=0.50' Z= 5.0 & 8.0 ' Top.W=16.50' n= 0.030 Earth, grassed & winding
2.6	860	0.0200	5.59	92.20	Trap/Vee/Rect Channel Flow, Bot.W=10.00' D=1.00' Z= 5.0 & 8.0 ' Top.W=23.00' n= 0.030 Earth, grassed & winding
6.3	1,475	Total			

Subcatchment PC-C: 57th Ave South Ditch

Hydrograph



Summary for Reach R1: Drainage Swale

Inflow Area = 1.020 ac, 85.00% Impervious, Inflow Depth = 4.54" for Bismarck 24-hr, 100-yr event
 Inflow = 7.02 cfs @ 11.95 hrs, Volume= 0.386 af
 Outflow = 7.01 cfs @ 11.95 hrs, Volume= 0.386 af, Atten= 0%, Lag= 0.1 min
 Routed to Pond PC-POA-B : Furniture Row

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs / 2
 Max. Velocity= 2.04 fps, Min. Travel Time= 0.1 min
 Avg. Velocity = 0.49 fps, Avg. Travel Time= 0.3 min

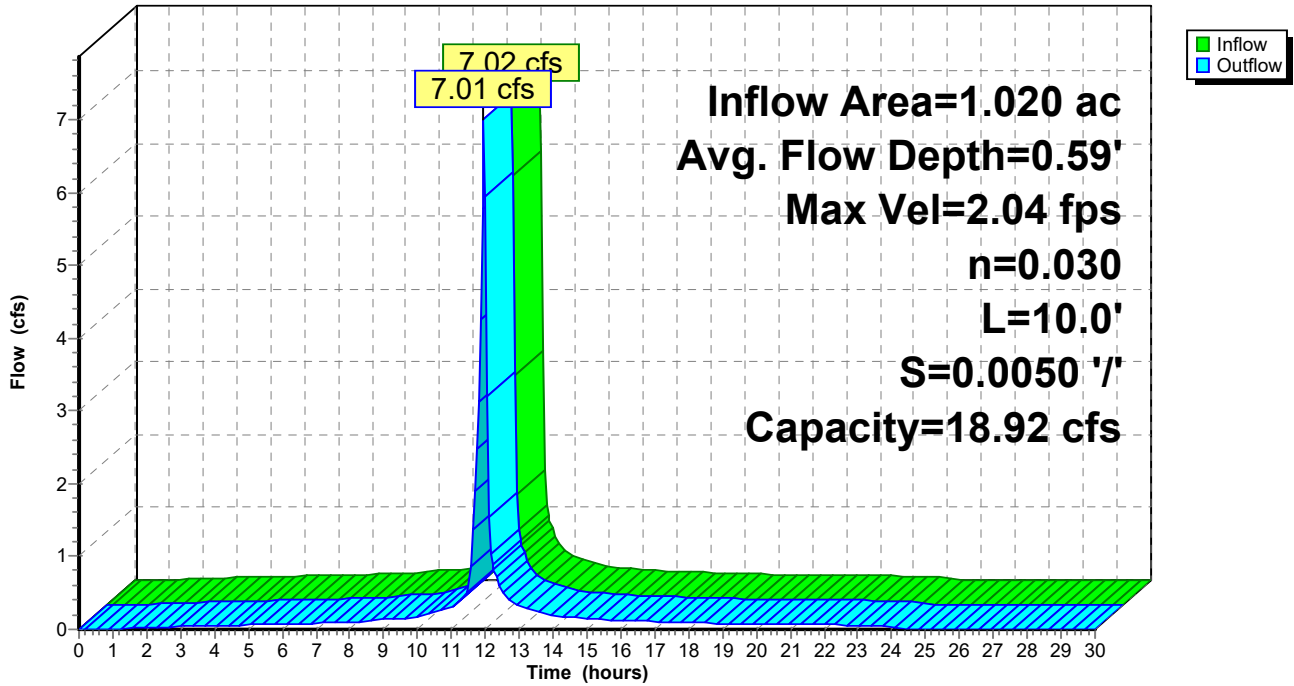
Peak Storage= 34 cf @ 11.95 hrs
 Average Depth at Peak Storage= 0.59' , Surface Width= 7.57'
 Bank-Full Depth= 1.00' Flow Area= 7.0 sf, Capacity= 18.92 cfs

4.00' x 1.00' deep channel, n= 0.030 Earth, grassed & winding
 Side Slope Z-value= 3.0 '/' Top Width= 10.00'
 Length= 10.0' Slope= 0.0050 '/'
 Inlet Invert= 100.00', Outlet Invert= 99.95'



Reach R1: Drainage Swale

Hydrograph



Summary for Pond I-1: Curb Inlets

Inflow Area = 0.550 ac, 72.18% Impervious, Inflow Depth = 4.09" for Bismarck 24-hr, 100-yr event
 Inflow = 3.44 cfs @ 11.95 hrs, Volume= 0.187 af
 Outflow = 3.44 cfs @ 11.95 hrs, Volume= 0.187 af, Atten= 0%, Lag= 0.0 min
 Primary = 2.96 cfs @ 11.95 hrs, Volume= 0.182 af
 Routed to Pond P-A5 : SW Pond
 Secondary = 0.48 cfs @ 11.95 hrs, Volume= 0.006 af
 Routed to Pond PC-POA-B : Furniture Row

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,849.19' @ 11.95 hrs

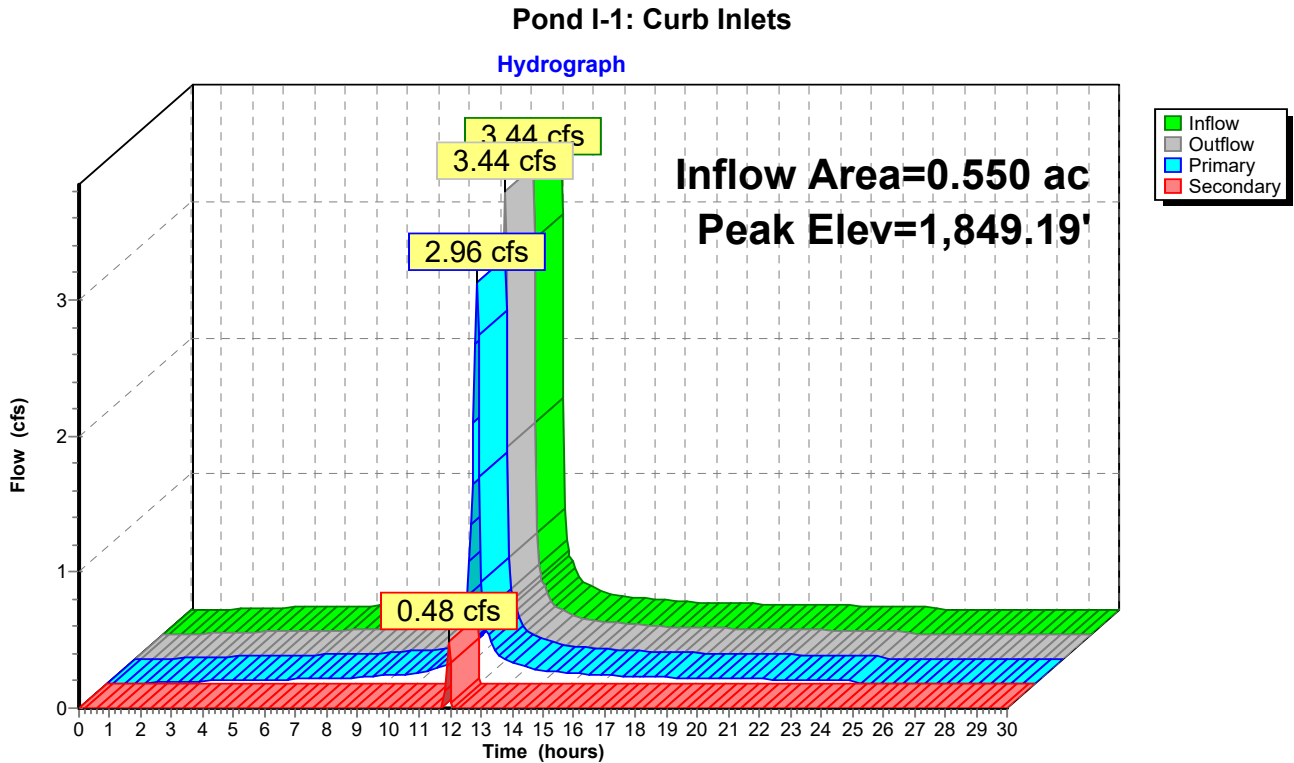
Device	Routing	Invert	Outlet Devices
#1	Primary	1,849.05'	35.2" x 17.7" Horiz. Orifice/Grate X 0.39 X 4 rows C= 0.600 Limited to weir flow at low heads
#2	Primary	1,849.05'	35.2" W x 4.0" H Vert. Orifice/Grate X 4 rows with 12.0" cc spacing C= 0.600 Limited to weir flow at low heads
#3	Secondary	1,849.13'	10.0' long + 25.0 ' SideZ x 1.0' 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 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=2.94 cfs @ 11.95 hrs HW=1,849.19' TW=1,846.62' (Dynamic Tailwater)

- ↑1=Orifice/Grate (Weir Controls 2.43 cfs @ 0.48 fps)
- ↑2=Orifice/Grate (Orifice Controls 0.51 cfs @ 1.21 fps)

Secondary OutFlow Max=0.48 cfs @ 11.95 hrs HW=1,849.19' TW=0.00' (Dynamic Tailwater)

- ↑3=Broad-Crested Rectangular Weir(Weir Controls 0.48 cfs @ 0.66 fps)



Summary for Pond P-A1: LOT 1 - POND

Inflow Area = 1.010 ac, 85.05% Impervious, Inflow Depth = 4.54" for Bismarck 24-hr, 100-yr event
 Inflow = 6.96 cfs @ 11.95 hrs, Volume= 0.382 af
 Outflow = 3.49 cfs @ 12.05 hrs, Volume= 0.382 af, Atten= 50%, Lag= 6.0 min
 Primary = 3.49 cfs @ 12.05 hrs, Volume= 0.382 af
 Routed to Pond PC-POA-A : West Ditch US-83

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,847.61' @ 12.05 hrs Surf.Area= 2,359 sf Storage= 4,561 cf

Plug-Flow detention time= 26.1 min calculated for 0.382 af (100% of inflow)
 Center-of-Mass det. time= 25.8 min (774.1 - 748.3)

Volume	Invert	Avail.Storage	Storage Description
#1	1,844.00'	18,464 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,844.00	0	0	0
1,844.01	172	1	1
1,849.00	3,200	8,413	8,414
1,852.00	3,500	10,050	18,464

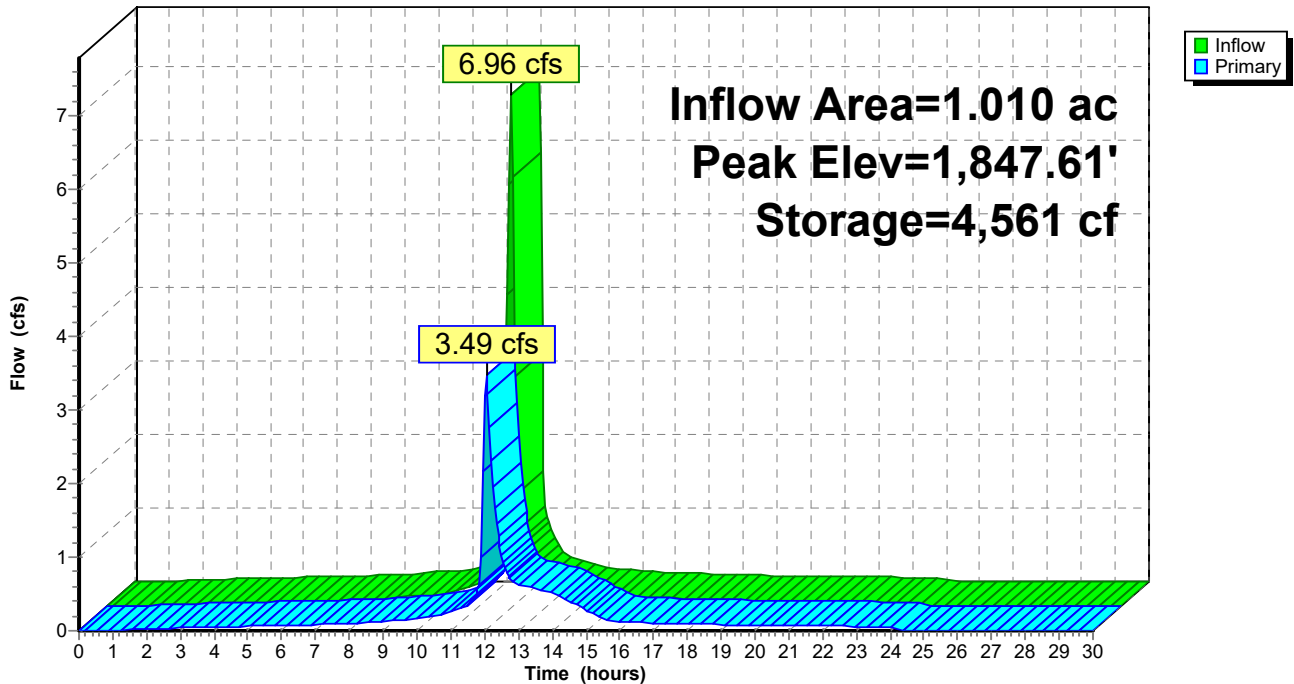
Device	Routing	Invert	Outlet Devices
#1	Primary	1,843.80'	12.0" Round RCP_Round 12" L= 50.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 1,843.80' / 1,842.80' S= 0.0200 '/' Cc= 0.900 n= 0.013 Concrete pipe, bends & connections, Flow Area= 0.79 sf
#2	Device 1	1,844.00'	4.0" Round RCP_Round 4" L= 10.0' RCP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 1,844.00' / 1,843.80' S= 0.0200 '/' Cc= 0.900 n= 0.013 Concrete pipe, bends & connections, Flow Area= 0.09 sf
#3	Device 1	1,846.50'	12.0" Round RCP_Round 12" L= 5.0' RCP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 1,846.50' / 1,846.40' S= 0.0200 '/' Cc= 0.900 n= 0.013 Concrete pipe, bends & connections, Flow Area= 0.79 sf

Primary OutFlow Max=3.48 cfs @ 12.05 hrs HW=1,847.61' TW=0.00' (Dynamic Tailwater)

- 1=RCP_Round 12" (Passes 3.48 cfs of 6.88 cfs potential flow)
- 2=RCP_Round 4" (Barrel Controls 0.77 cfs @ 8.85 fps)
- 3=RCP_Round 12" (Barrel Controls 2.71 cfs @ 3.88 fps)

Pond P-A1: LOT 1 - POND

Hydrograph



Summary for Pond P-A10: SE Pond

Inflow Area = 3.410 ac, 61.94% Impervious, Inflow Depth = 3.71" for Bismarck 24-hr, 100-yr event
 Inflow = 11.77 cfs @ 12.02 hrs, Volume= 1.053 af
 Outflow = 7.20 cfs @ 12.14 hrs, Volume= 1.053 af, Atten= 39%, Lag= 7.2 min
 Primary = 7.20 cfs @ 12.14 hrs, Volume= 1.053 af
 Routed to Pond PC-POA-A : West Ditch US-83
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Routed to Pond PC-POA-B : Furniture Row

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,841.62' @ 12.14 hrs Surf.Area= 3,174 sf Storage= 7,522 cf

Plug-Flow detention time= 40.3 min calculated for 1.052 af (100% of inflow)
 Center-of-Mass det. time= 40.3 min (816.4 - 776.1)

Volume	Invert	Avail.Storage	Storage Description
#1	1,836.78'	11,603 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,836.78	0	0	0
1,837.04	348	45	45
1,840.00	1,917	3,352	3,398
1,842.75	4,051	8,206	11,603

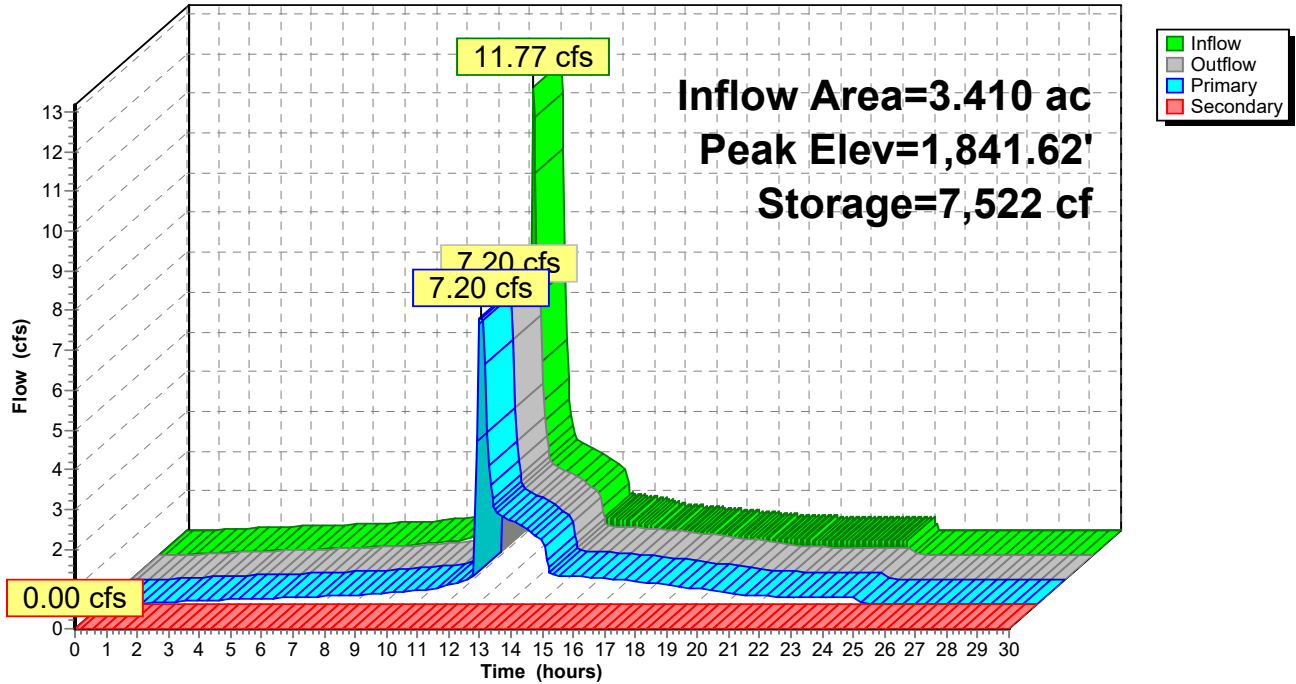
Device	Routing	Invert	Outlet Devices
#1	Primary	1,836.70'	15.0" Round RCP_Round 15" L= 366.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 1,836.70' / 1,835.00' S= 0.0046 '/' Cc= 0.900 n= 0.013 Concrete pipe, bends & connections, Flow Area= 1.23 sf
#2	Device 1	1,836.78'	4.0" Round RCP_Round 4" L= 14.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 1,836.78' / 1,836.70' S= 0.0057 '/' Cc= 0.900 n= 0.013 Concrete pipe, bends & connections, Flow Area= 0.09 sf
#3	Device 1	1,840.60'	24.0" Horiz. Orifice/Grate X 0.57 C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,842.25'	10.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)

Primary OutFlow Max=7.20 cfs @ 12.14 hrs HW=1,841.61' TW=0.00' (Dynamic Tailwater)
 ↑1=RCP_Round 15" (Barrel Controls 7.20 cfs @ 5.87 fps)
 ↑2=RCP_Round 4" (Passes < 0.81 cfs potential flow)
 ↑3=Orifice/Grate (Passes < 8.67 cfs potential flow)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,836.78' TW=0.00' (Dynamic Tailwater)
 ↑4=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)

Pond P-A10: SE Pond

Hydrograph



Summary for Pond P-A2: LOT 2 - POND

Inflow Area = 1.010 ac, 85.05% Impervious, Inflow Depth = 4.54" for Bismarck 24-hr, 100-yr event
 Inflow = 6.96 cfs @ 11.95 hrs, Volume= 0.382 af
 Outflow = 3.49 cfs @ 12.05 hrs, Volume= 0.382 af, Atten= 50%, Lag= 6.0 min
 Primary = 3.49 cfs @ 12.05 hrs, Volume= 0.382 af
 Routed to Pond PC-POA-A : West Ditch US-83

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,847.61' @ 12.05 hrs Surf.Area= 2,359 sf Storage= 4,561 cf

Plug-Flow detention time= 26.1 min calculated for 0.382 af (100% of inflow)
 Center-of-Mass det. time= 25.8 min (774.1 - 748.3)

Volume	Invert	Avail.Storage	Storage Description
#1	1,844.00'	18,464 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,844.00	0	0	0
1,844.01	172	1	1
1,849.00	3,200	8,413	8,414
1,852.00	3,500	10,050	18,464

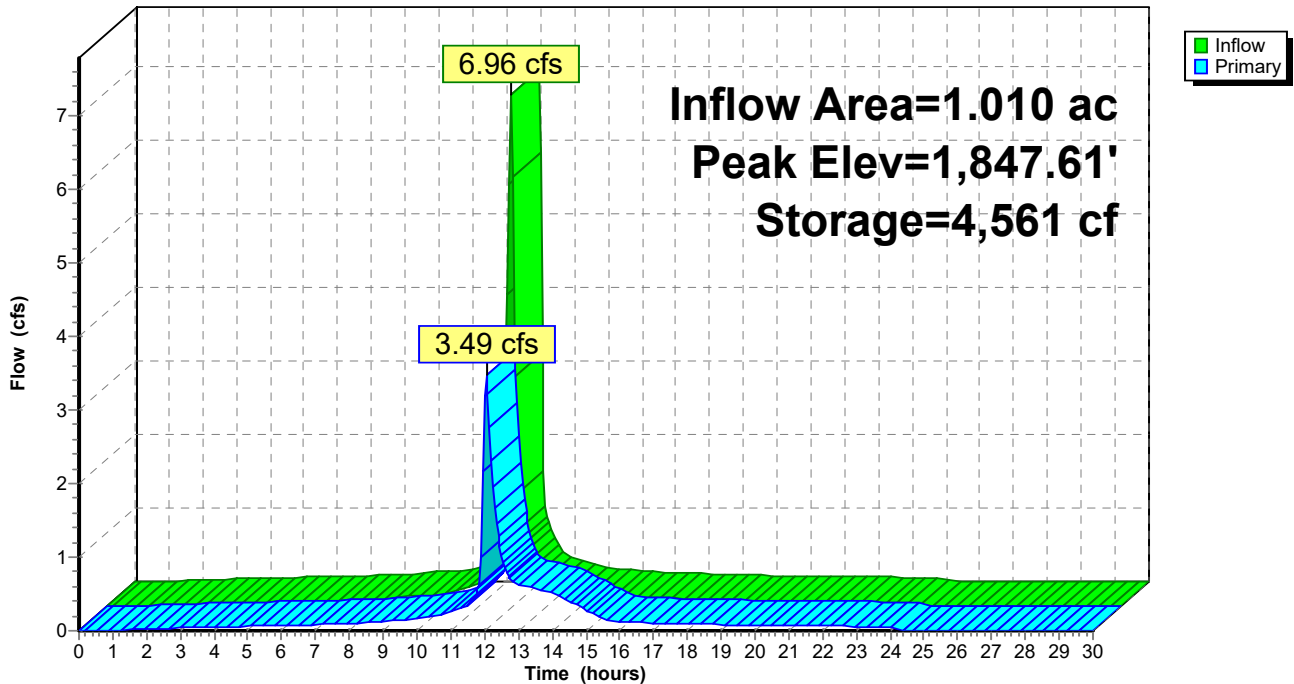
Device	Routing	Invert	Outlet Devices
#1	Primary	1,843.80'	12.0" Round RCP_Round 12" L= 50.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 1,843.80' / 1,842.80' S= 0.0200 '/' Cc= 0.900 n= 0.013 Concrete pipe, bends & connections, Flow Area= 0.79 sf
#2	Device 1	1,844.00'	4.0" Round RCP_Round 4" L= 10.0' RCP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 1,844.00' / 1,843.80' S= 0.0200 '/' Cc= 0.900 n= 0.013 Concrete pipe, bends & connections, Flow Area= 0.09 sf
#3	Device 1	1,846.50'	12.0" Round RCP_Round 12" L= 5.0' RCP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 1,846.50' / 1,846.40' S= 0.0200 '/' Cc= 0.900 n= 0.013 Concrete pipe, bends & connections, Flow Area= 0.79 sf

Primary OutFlow Max=3.48 cfs @ 12.05 hrs HW=1,847.61' TW=0.00' (Dynamic Tailwater)

- 1=RCP_Round 12" (Passes 3.48 cfs of 6.88 cfs potential flow)
- 2=RCP_Round 4" (Barrel Controls 0.77 cfs @ 8.85 fps)
- 3=RCP_Round 12" (Barrel Controls 2.71 cfs @ 3.88 fps)

Pond P-A2: LOT 2 - POND

Hydrograph



Summary for Pond P-A3: LOT 3 - POND

Inflow Area = 1.010 ac, 85.05% Impervious, Inflow Depth = 4.54" for Bismarck 24-hr, 100-yr event
 Inflow = 6.96 cfs @ 11.95 hrs, Volume= 0.382 af
 Outflow = 3.49 cfs @ 12.05 hrs, Volume= 0.382 af, Atten= 50%, Lag= 6.0 min
 Primary = 3.49 cfs @ 12.05 hrs, Volume= 0.382 af
 Routed to Pond PC-POA-A : West Ditch US-83

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,845.61' @ 12.05 hrs Surf.Area= 2,359 sf Storage= 4,561 cf

Plug-Flow detention time= 26.1 min calculated for 0.382 af (100% of inflow)
 Center-of-Mass det. time= 25.8 min (774.1 - 748.3)

Volume	Invert	Avail.Storage	Storage Description
#1	1,842.00'	18,464 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,842.00	0	0	0
1,842.01	172	1	1
1,847.00	3,200	8,413	8,414
1,850.00	3,500	10,050	18,464

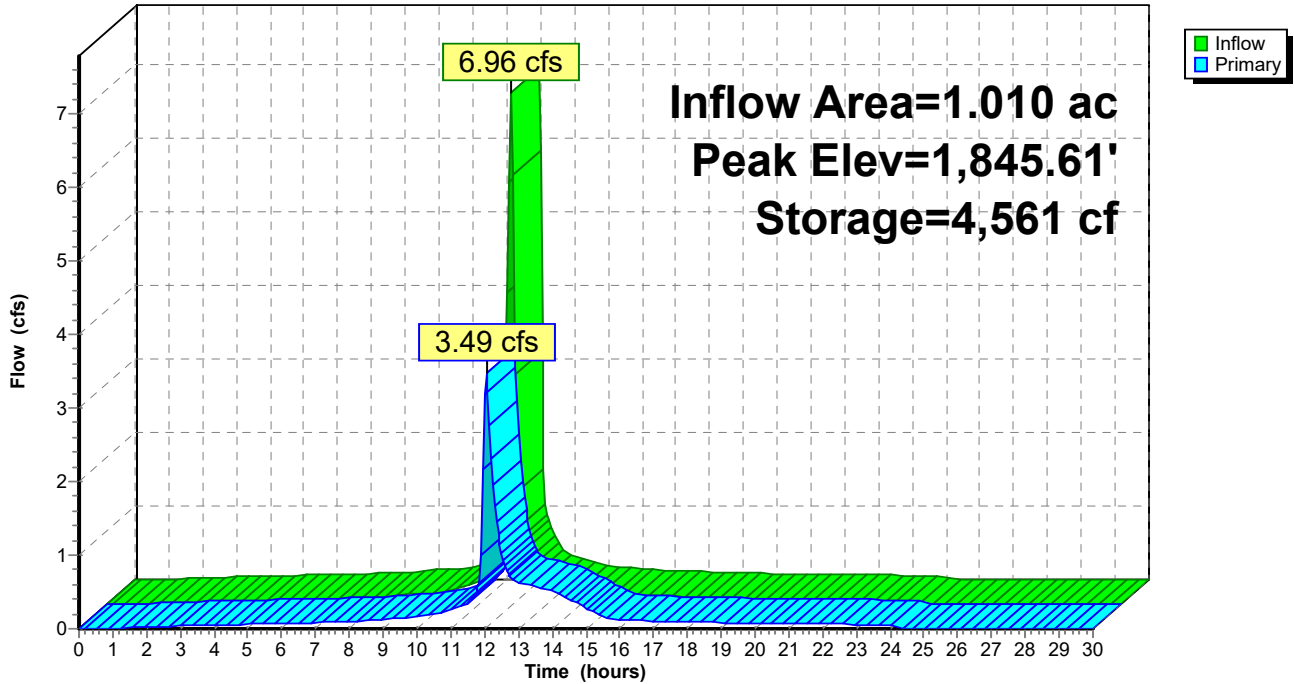
Device	Routing	Invert	Outlet Devices
#1	Primary	1,841.80'	12.0" Round RCP_Round 12" L= 50.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 1,841.80' / 1,840.80' S= 0.0200 '/' Cc= 0.900 n= 0.013 Concrete pipe, bends & connections, Flow Area= 0.79 sf
#2	Device 1	1,842.00'	4.0" Round RCP_Round 4" L= 10.0' RCP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 1,842.00' / 1,841.80' S= 0.0200 '/' Cc= 0.900 n= 0.013 Concrete pipe, bends & connections, Flow Area= 0.09 sf
#3	Device 1	1,844.50'	12.0" Round RCP_Round 12" L= 5.0' RCP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 1,844.50' / 1,844.40' S= 0.0200 '/' Cc= 0.900 n= 0.013 Concrete pipe, bends & connections, Flow Area= 0.79 sf

Primary OutFlow Max=3.48 cfs @ 12.05 hrs HW=1,845.61' TW=0.00' (Dynamic Tailwater)

- 1=RCP_Round 12" (Passes 3.48 cfs of 6.88 cfs potential flow)
- 2=RCP_Round 4" (Barrel Controls 0.77 cfs @ 8.85 fps)
- 3=RCP_Round 12" (Barrel Controls 2.71 cfs @ 3.88 fps)

Pond P-A3: LOT 3 - POND

Hydrograph



Summary for Pond P-A5: SW Pond

Inflow Area = 3.120 ac, 64.49% Impervious, Inflow Depth = 3.80" for Bismarck 24-hr, 100-yr event
 Inflow = 17.84 cfs @ 11.95 hrs, Volume= 0.987 af
 Outflow = 10.46 cfs @ 12.04 hrs, Volume= 0.988 af, Atten= 41%, Lag= 4.9 min
 Discarded = 0.01 cfs @ 12.04 hrs, Volume= 0.001 af
 Primary = 10.45 cfs @ 12.04 hrs, Volume= 0.987 af
 Routed to Pond P-A10 : SE Pond
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Routed to Pond PC-POA-B : Furniture Row

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,847.11' @ 12.04 hrs Surf.Area= 3,904 sf Storage= 9,763 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 15.5 min (775.4 - 759.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,843.09'	23,331 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,843.09	0	0	0
1,843.10	958	5	5
1,848.50	4,922	15,878	15,882
1,850.00	5,009	7,449	23,331

Device	Routing	Invert	Outlet Devices
#1	Primary	1,839.85'	15.0" Round RCP_Round 15" L= 97.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 1,839.85' / 1,837.03' S= 0.0291 '/' Cc= 0.900 n= 0.013 Concrete pipe, bends & connections, Flow Area= 1.23 sf
#2	Device 1	1,840.71'	6.0" Round RCP_Round 6" L= 11.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 1,840.71' / 1,840.60' S= 0.0100 '/' Cc= 0.900 n= 0.013 Concrete pipe, bends & connections, Flow Area= 0.20 sf
#3	Device 2	1,840.75'	1.1" Vert. Orifice/Grate X 30.00 C= 0.600 Limited to weir flow at low heads
#4	Device 1	1,846.22'	24.0" Horiz. Orifice/Grate X 0.57 C= 0.600 Limited to weir flow at low heads
#5	Discarded	1,843.09'	0.060 in/hr Infiltration over Surface area Conductivity to Groundwater Elevation = 1,835.00'
#6	Secondary	1,847.70'	8.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)

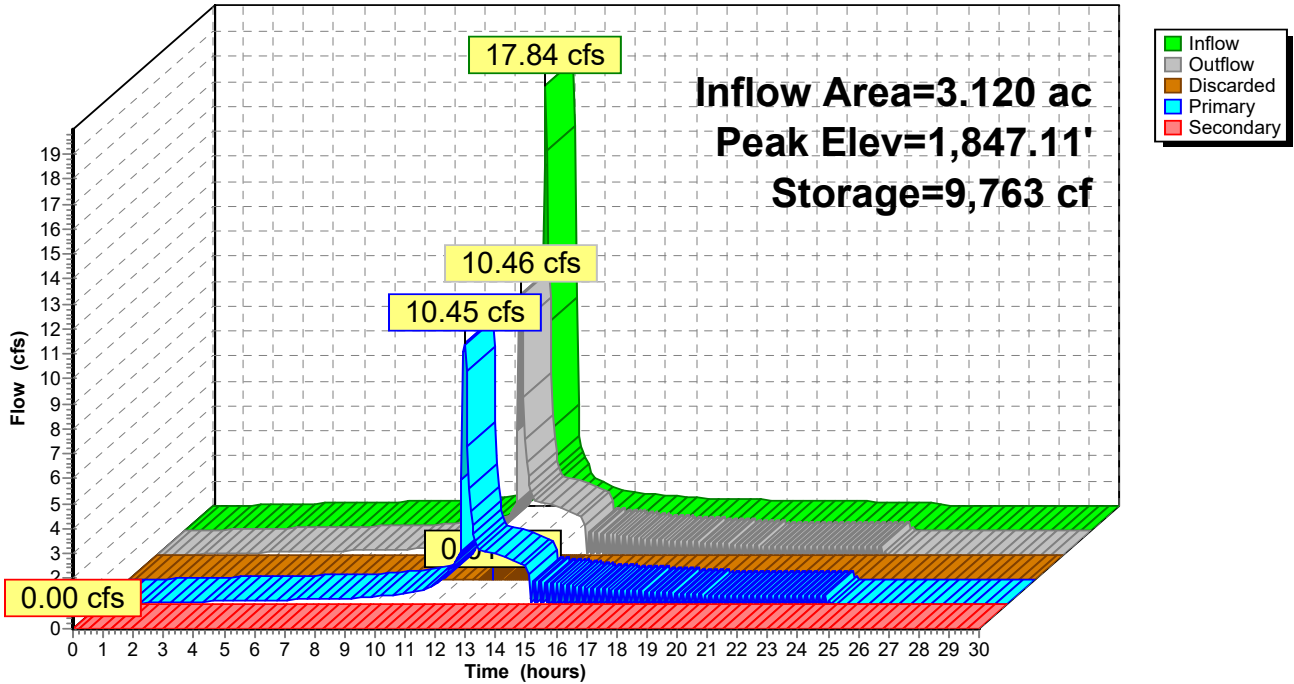
Discarded OutFlow Max=0.01 cfs @ 12.04 hrs HW=1,847.09' (Free Discharge)
 ↑5=Infiltration (Controls 0.01 cfs)

Primary OutFlow Max=10.31 cfs @ 12.04 hrs HW=1,847.09' TW=1,841.28' (Dynamic Tailwater)
 ↑1=RCP_Round 15" (Passes 10.31 cfs of 12.24 cfs potential flow)
 ↑2=RCP_Round 6" (Inlet Controls 2.28 cfs @ 11.61 fps)
 ↑3=Orifice/Grate (Passes 2.28 cfs of 2.30 cfs potential flow)
 ↑4=Orifice/Grate (Orifice Controls 8.03 cfs @ 2.56 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,843.09' TW=0.00' (Dynamic Tailwater)
 ↑6=Sharp-Crested Rectangular Weir(Controls 0.00 cfs)

Pond P-A5: SW Pond

Hydrograph



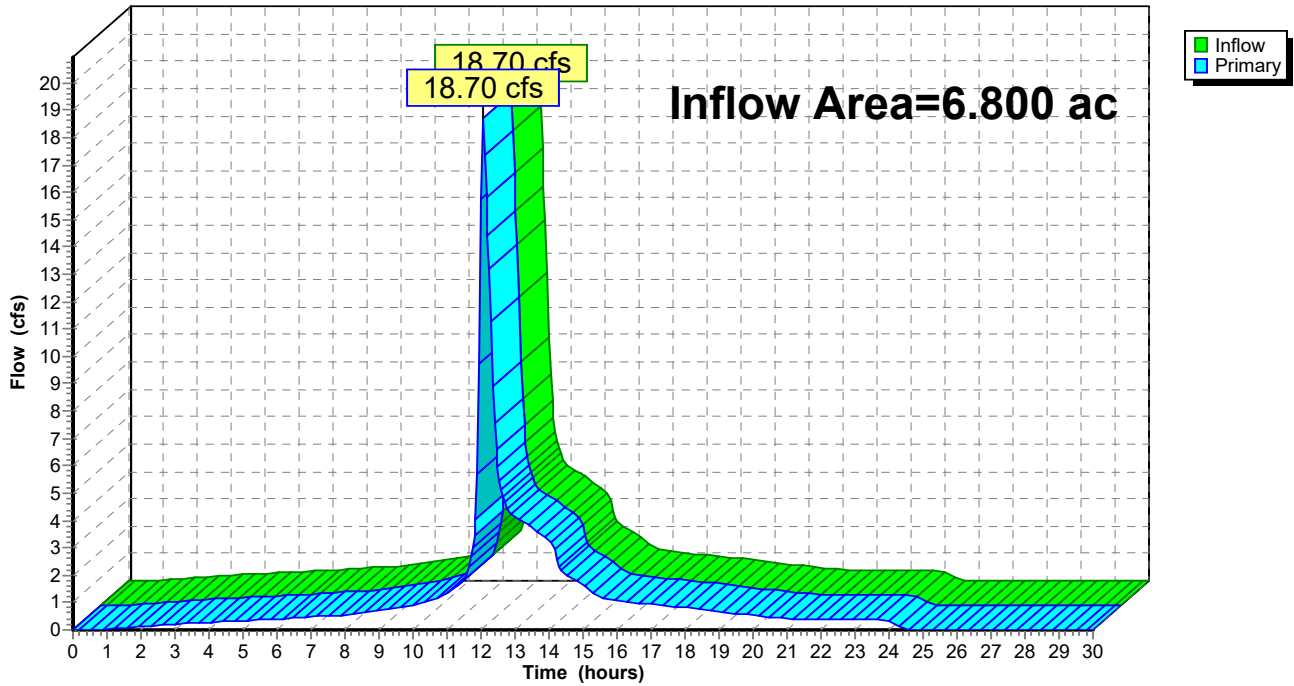
Summary for Pond PC-POA-A: West Ditch US-83

Inflow Area = 6.800 ac, 73.46% Impervious, Inflow Depth = 4.12" for Bismarck 24-hr, 100-yr event
Inflow = 18.70 cfs @ 12.06 hrs, Volume= 2.335 af
Primary = 18.70 cfs @ 12.06 hrs, Volume= 2.335 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs / 2

Pond PC-POA-A: West Ditch US-83

Hydrograph



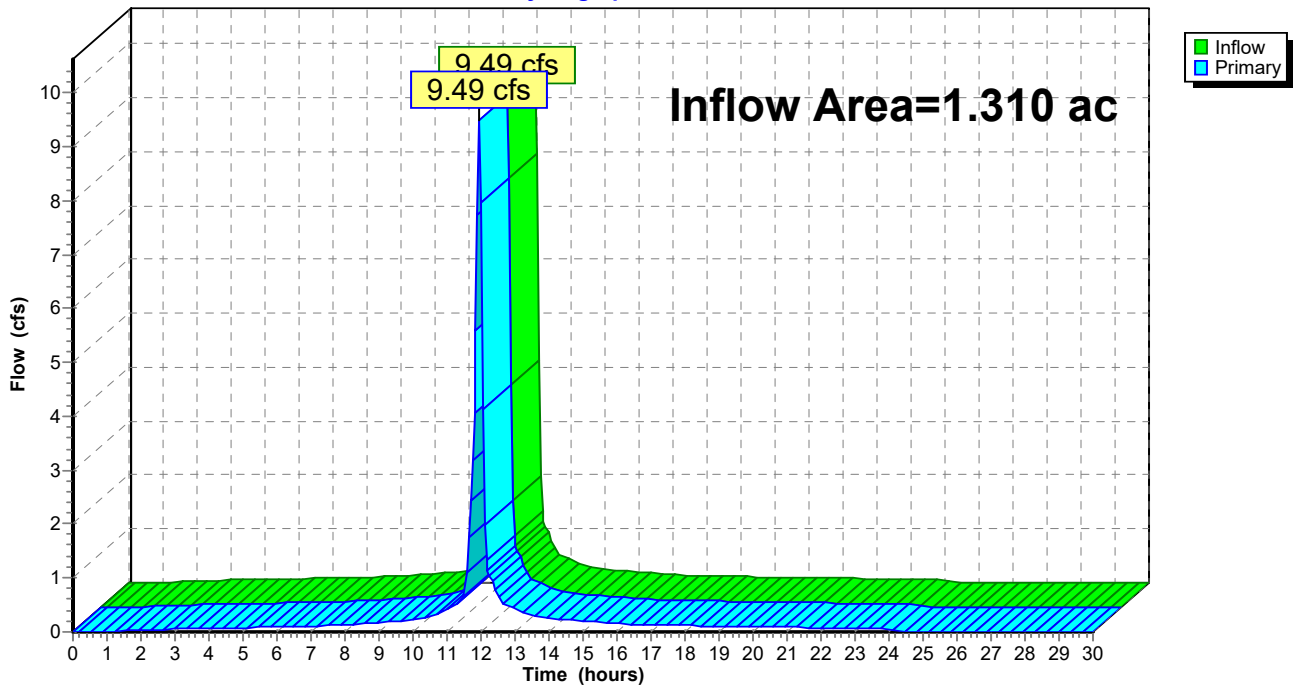
Summary for Pond PC-POA-B: Furniture Row

Inflow Area = 1.310 ac, 84.96% Impervious, Inflow Depth = 4.59" for Bismarck 24-hr, 100-yr event
Inflow = 9.49 cfs @ 11.95 hrs, Volume= 0.501 af
Primary = 9.49 cfs @ 11.95 hrs, Volume= 0.501 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs / 2

Pond PC-POA-B: Furniture Row

Hydrograph



HY-8 Culvert Analysis Report

Crossing Discharge Data

Discharge Selection Method: Specify Minimum, Design, and Maximum Flow

Minimum Flow: 7.30 cfs

Design Flow: 12.31 cfs

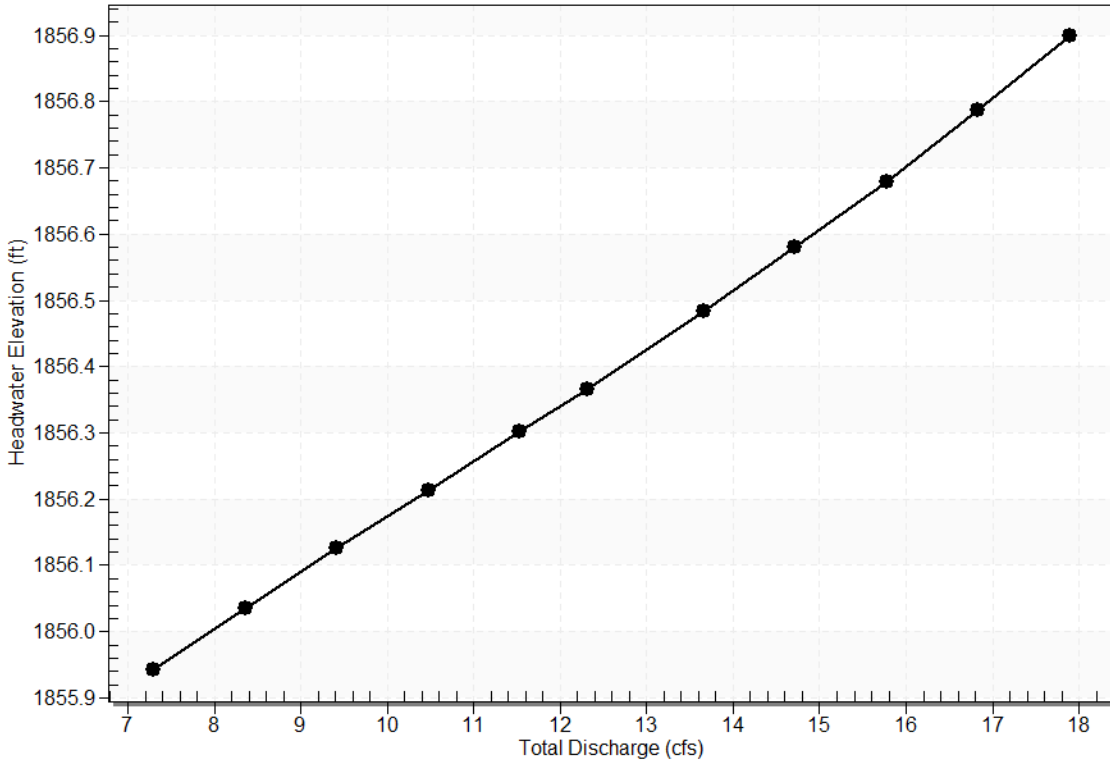
Maximum Flow: 17.89 cfs

Table 1 - Summary of Culvert Flows at Crossing: 57th Ave Approach

Headwater Elevation (ft)	Total Discharge (cfs)	North Approach Culvert Discharge (cfs)	South Approach Culvert Discharge (cfs)	Roadway Discharge (cfs)	Iterations
1855.94	7.30	4.17	3.13	0.00	5
1856.04	8.36	4.73	3.63	0.00	3
1856.13	9.42	5.27	4.15	0.00	4
1856.21	10.48	5.81	4.67	0.00	3
1856.30	11.54	6.33	5.20	0.00	4
1856.37	12.31	6.71	5.60	0.00	4
1856.48	13.65	7.35	6.30	0.00	4
1856.58	14.71	7.86	6.85	0.00	5
1856.68	15.77	8.36	7.40	0.00	6
1856.79	16.83	8.86	7.96	0.00	8
1856.90	17.89	9.36	8.52	0.00	9
1857.23	20.66	10.70	9.97	0.00	Overtopping

Rating Curve Plot for Crossing: 57th Ave Approach

Total Rating Curve
Crossing: 57th Ave Approach



Culvert Data: North Approach Culvert

Table 1 - Culvert Summary Table: North Approach Culvert

Total Discharge (cfs)	Culvert Discharge (cfs)	Headwater Elevation (ft)	Inlet Control Depth (ft)	Outlet Control Depth (ft)	Flow Type	Normal Depth (ft)	Critical Depth (ft)	Outlet Depth (ft)	Tailwater Depth (ft)	Outlet Velocity (ft/s)	Tailwater Velocity (ft/s)
7.30 cfs	4.17 cfs	1855.94	1.15	0.0*	1-S2n	0.54	0.78	0.55	0.24	7.15	3.08
8.36 cfs	4.73 cfs	1856.04	1.24	0.0*	1-S2n	0.58	0.84	0.58	0.26	7.52	3.24
9.42 cfs	5.27 cfs	1856.13	1.33	0.0*	1-S2n	0.61	0.88	0.62	0.28	7.62	3.40
10.48 cfs	5.81 cfs	1856.21	1.42	0.058	1-S2n	0.65	0.93	0.66	0.30	7.80	3.54

11.54 cfs	6.33 cfs	1856.3 0	1.51	0.18 5	5- S2 n	0.68	0.97	0.6 9	0.31	7.94	3.68
12.31 cfs	6.71 cfs	1856.3 7	1.57	0.28 0	5- S2 n	0.70	1.00	0.7 1	0.33	8.08	3.77
13.65 cfs	7.35 cfs	1856.4 8	1.69	0.44 9	5- S2 n	0.74	1.05	0.7 6	0.35	8.23	3.92
14.71 cfs	7.86 cfs	1856.5 8	1.79	0.58 7	5- S2 n	0.77	1.09	0.7 9	0.36	8.36	4.04
15.77 cfs	8.36 cfs	1856.6 8	1.89	0.73 1	5- S2 n	0.80	1.12	0.8 2	0.38	8.48	4.14
16.83 cfs	8.86 cfs	1856.7 9	1.99	1.05 2	5- S2 n	0.83	1.15	0.8 5	0.40	8.60	4.25
17.89 cfs	9.36 cfs	1856.9 0	2.11	1.18 8	5- S2 n	0.86	1.18	0.8 8	0.41	8.71	4.35

* Full Flow Headwater elevation is below inlet invert.

Culvert Barrel Data

Culvert Barrel Type Straight Culvert

Inlet Elevation (invert): 1854.79 ft,

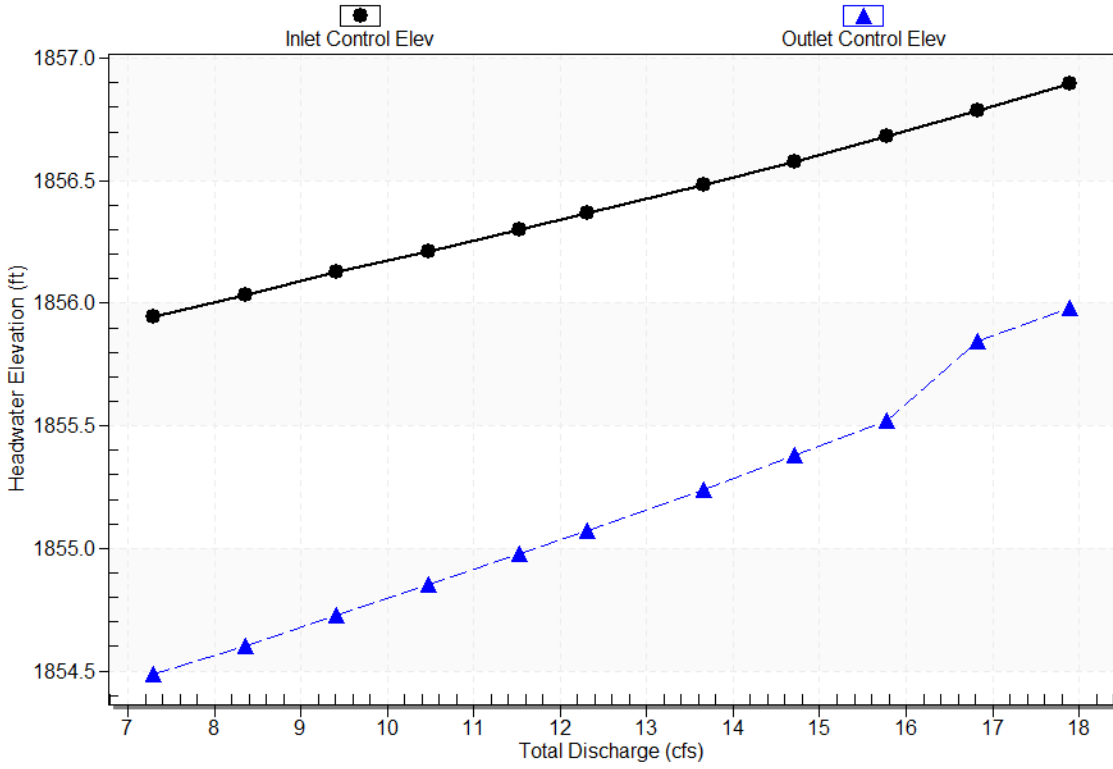
Outlet Elevation (invert): 1853.47 ft

Culvert Length: 76.47 ft,

Culvert Slope: 0.0173

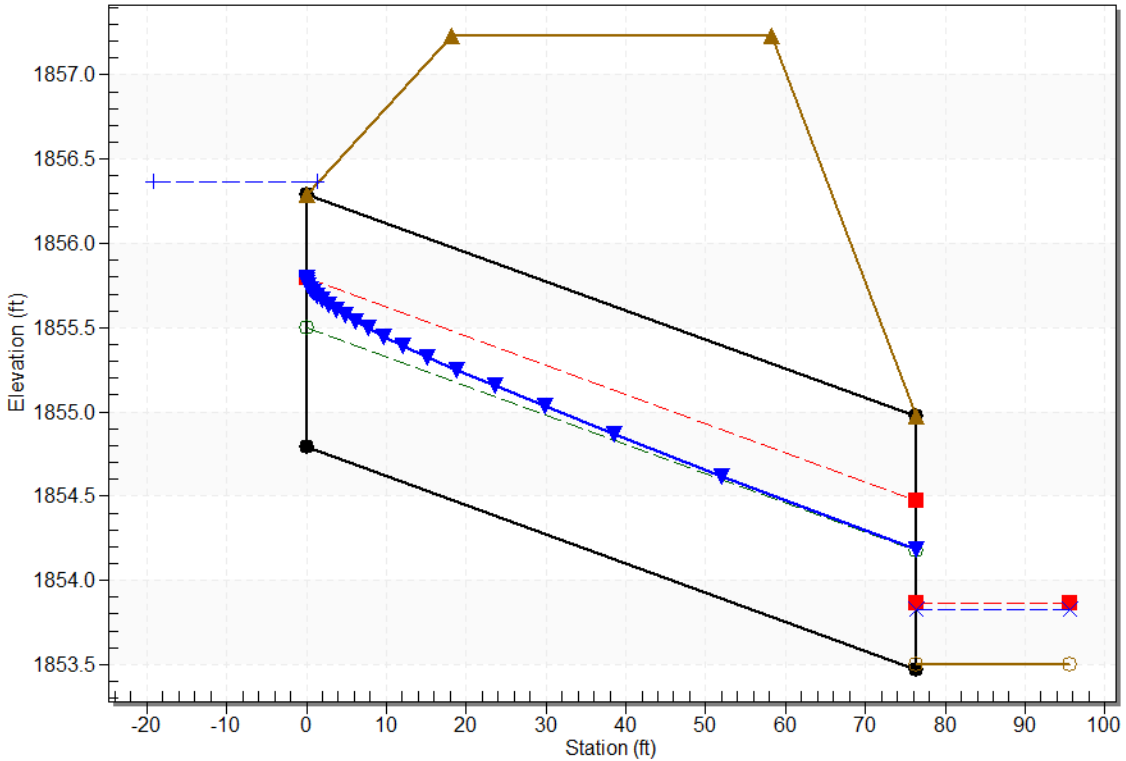
Culvert Performance Curve Plot: North Approach Culvert

Performance Curve
Culvert: North Approach Culvert



Water Surface Profile Plot for Culvert: North Approach Culvert

Crossing - 57th Ave Approach, Design Discharge - 12.3 cfs
Culvert - North Approach Culvert, Culvert Discharge - 6.7 cfs



Site Data - North Approach Culvert

Site Data Option: Culvert Invert Data

Inlet Station: 0.00 ft

Inlet Elevation: 1854.79 ft

Outlet Station: 76.46 ft

Outlet Elevation: 1853.47 ft

Number of Barrels: 1

Culvert Data Summary - North Approach Culvert

Barrel Shape: Circular

Barrel Diameter: 1.50 ft

Barrel Material: Concrete

Embedment: 0.00 in

Barrel Manning's n: 0.0120

Culvert Type: Straight

Inlet Configuration: Square Edge with Headwall (Ke=0.5)

Inlet Depression: None

Culvert Data: South Approach Culvert

Table 2 - Culvert Summary Table: South Approach Culvert

Total Discharge (cfs)	Culvert Discharge (cfs)	Headwater Elevation (ft)	Inlet Control Depth (ft)	Outlet Control Depth (ft)	Flow Type	Normal Depth (ft)	Critical Depth (ft)	Outlet Depth (ft)	Tailwater Depth (ft)	Outlet Velocity (ft/s)	Tailwater Velocity (ft/s)
7.30 cfs	3.13 cfs	1855.94	0.96	0.0*	1-S2n	0.46	0.67	0.46	0.24	6.86	3.08
8.36 cfs	3.63 cfs	1856.04	1.05	0.0*	1-S2n	0.49	0.73	0.50	0.26	7.03	3.24
9.42 cfs	4.15 cfs	1856.13	1.14	0.0*	1-S2n	0.53	0.78	0.53	0.28	7.42	3.40
10.48 cfs	4.67 cfs	1856.21	1.23	0.0*	1-S2n	0.57	0.83	0.57	0.30	7.67	3.54
11.54 cfs	5.20 cfs	1856.30	1.32	0.0*	1-S2n	0.60	0.88	0.60	0.31	7.74	3.68
12.31 cfs	5.60 cfs	1856.37	1.39	0.0*	1-S2n	0.62	0.91	0.62	0.33	7.87	3.77
13.65 cfs	6.30 cfs	1856.48	1.50	0.093	5-S2n	0.67	0.97	0.68	0.35	8.10	3.92
14.71 cfs	6.85 cfs	1856.58	1.60	0.233	5-S2n	0.70	1.01	0.71	0.36	8.27	4.04
15.77 cfs	7.40 cfs	1856.68	1.70	0.378	5-S2n	0.73	1.05	0.75	0.38	8.42	4.14
16.83 cfs	7.96 cfs	1856.79	1.81	0.531	5-S2n	0.76	1.09	0.78	0.40	8.57	4.25
17.89 cfs	8.52 cfs	1856.90	1.92	0.875	5-S2n	0.79	1.13	0.81	0.41	8.71	4.35

* Full Flow Headwater elevation is below inlet invert.

Culvert Barrel Data

Culvert Barrel Type Straight Culvert

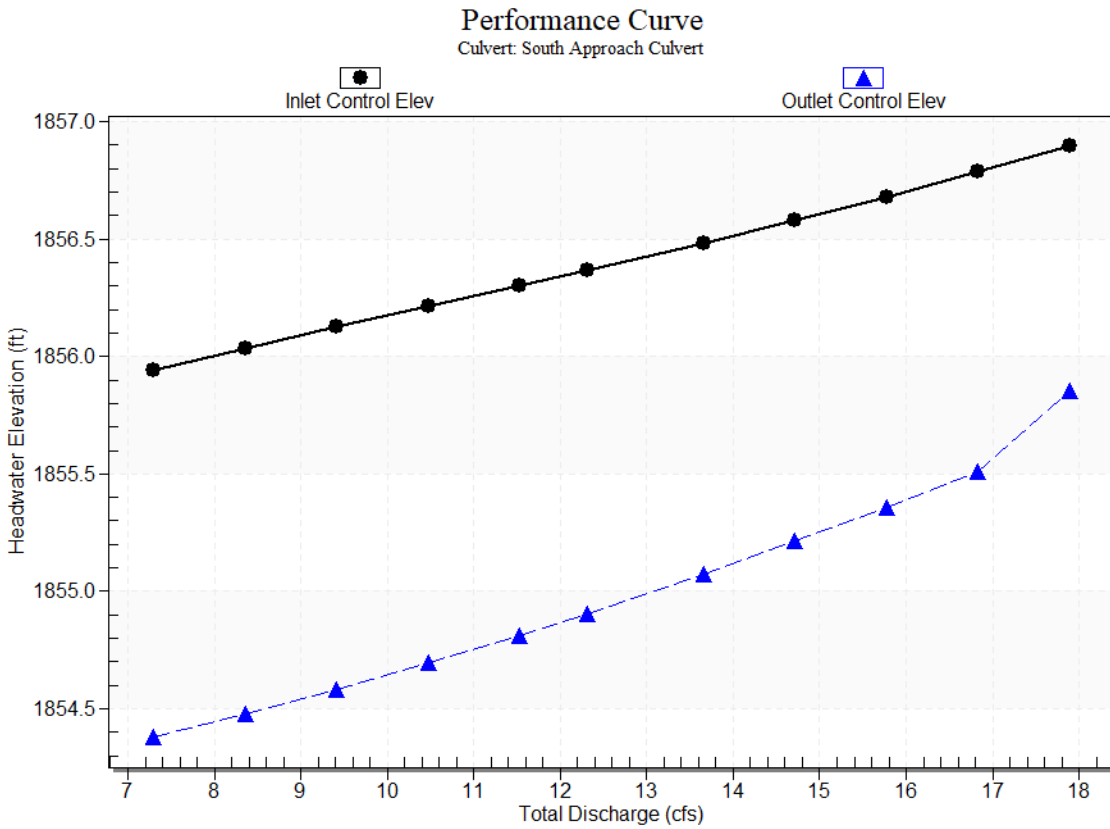
Inlet Elevation (invert): 1854.98 ft,

Outlet Elevation (invert): 1853.57 ft

Culvert Length: 76.49 ft,

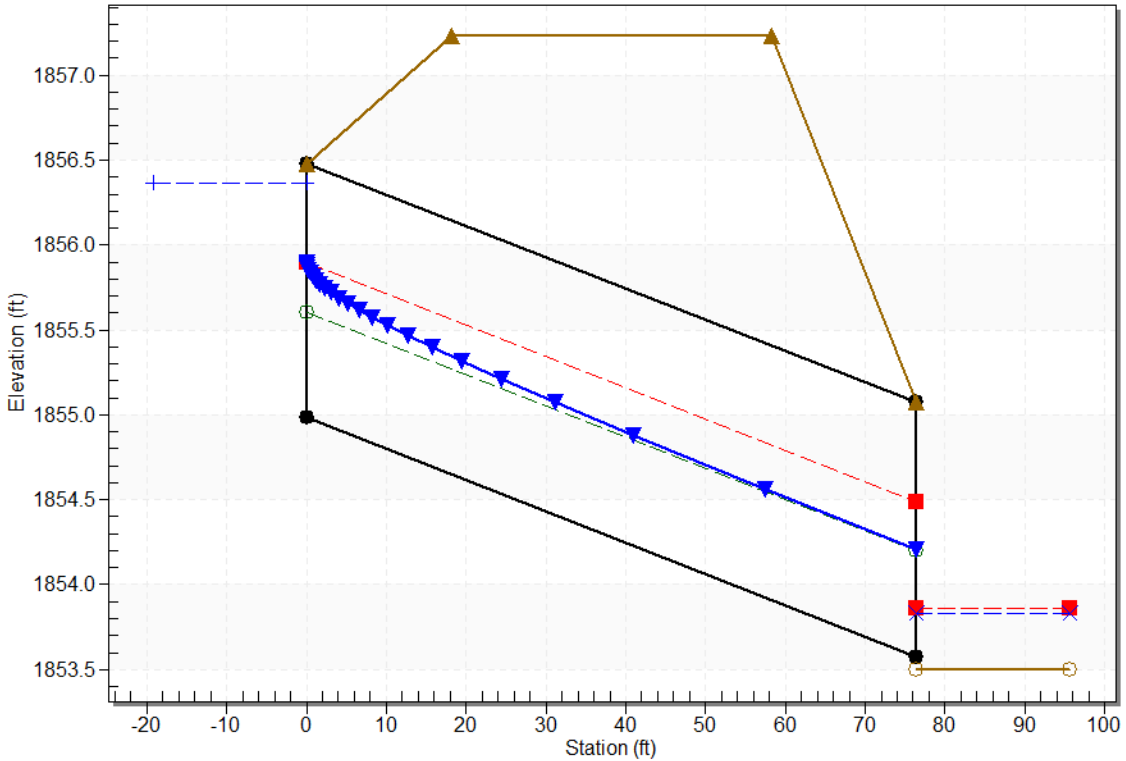
Culvert Slope: 0.0184

Culvert Performance Curve Plot: South Approach Culvert



Water Surface Profile Plot for Culvert: South Approach Culvert

Crossing - 57th Ave Approach, Design Discharge - 12.3 cfs
Culvert - South Approach Culvert , Culvert Discharge - 5.6 cfs



Site Data - South Approach Culvert

Site Data Option: Culvert Invert Data

Inlet Station: 0.00 ft

Inlet Elevation: 1854.98 ft

Outlet Station: 76.48 ft

Outlet Elevation: 1853.57 ft

Number of Barrels: 1

Culvert Data Summary - South Approach Culvert

Barrel Shape: Circular

Barrel Diameter: 1.50 ft

Barrel Material: Concrete

Embedment: 0.00 in

Barrel Manning's n: 0.0120

Culvert Type: Straight

Inlet Configuration: Square Edge with Headwall (Ke=0.5)

Inlet Depression: None

Tailwater Data for Crossing: 57th Ave Approach

Table 2 - Downstream Channel Rating Curve (Crossing: 57th Ave Approach)

Flow (cfs)	Water Surface Elev (ft)	Velocity (ft/s)	Depth (ft)	Shear (psf)	Froude Number
7.30	1853.74	0.24	3.08	0.41	1.11
8.36	1853.76	0.26	3.24	0.45	1.13
9.42	1853.78	0.28	3.40	0.48	1.14
10.48	1853.80	0.30	3.54	0.52	1.15
11.54	1853.81	0.31	3.68	0.55	1.16
12.31	1853.83	0.33	3.77	0.57	1.16
13.65	1853.85	0.35	3.92	0.61	1.17
14.71	1853.86	0.36	4.04	0.64	1.18
15.77	1853.88	0.38	4.14	0.66	1.18
16.83	1853.90	0.40	4.25	0.69	1.19
17.89	1853.91	0.41	4.35	0.72	1.19

Tailwater Channel Data - 57th Ave Approach

Tailwater Channel Option: Rectangular Channel

Bottom Width: 10.00 ft

Channel Slope: 0.0280

Channel Manning's n: 0.0300

Channel Invert Elevation: 1853.50 ft

Roadway Data for Crossing: 57th Ave Approach

Roadway Profile Shape: Constant Roadway Elevation

Crest Length: 10.00 ft

Crest Elevation: 1857.23 ft

Roadway Surface: Paved

Roadway Top Width: 40.00 ft

From: Vetter, Jennifer - FPAC-NRCS, ND <jennifer.vetter@usda.gov>
Sent: Wednesday, November 15, 2023 2:47 PM
To: Andrew Werder
Cc: Vetter, Jennifer - FPAC-NRCS, ND
Subject: RE: [EXTERNAL: Suspicious Link]RE: Urgent/Time Sensitive - Tree Top Lane - Request for Drainage on Highway Right of Way

Follow Up Flag: Follow up
Flag Status: Flagged

CAUTION: This email originated from outside the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Andrew,

My apologies. I thought I had responded on 11/6/23 to this item. The project is not occurring on farm land and is not owned or operated by a USDA program participant. The project is not making agricultural production possible. Therefore, the wetland conservation compliance provisions of the Food Security Act of 1985, as amended, do not apply and no certified wetland determination is required for the project

Thanks,
Jen

Jennifer Vetter
Assistant State Conservationist (Compliance)
Phone: 701-440-9403

From: Andrew Werder <Andrew.Werder@kljeng.com>
Sent: Tuesday, November 14, 2023 6:50 PM
To: Vetter, Jennifer - FPAC-NRCS, ND <jennifer.vetter@usda.gov>
Cc: Brad Krogstad <brad.krogstad@kljeng.com>
Subject: [EXTERNAL: Suspicious Link]RE: Urgent/Time Sensitive - Tree Top Lane - Request for Drainage on Highway Right of Way

You don't often get email from andrew.werder@kljeng.com. [Learn why this is important](#)

CAUTION: This message triggered warnings of **potentially** malicious web content. Consider whether you are expecting the message, along with inspection for suspicious links, prior to clicking. Any concerns with known senders, use a good contact method to verify.

Send Questions or Suspicious messages to: Spam.Abuse@usda.gov

Jen,

Just wondering if you've had time to review this or if you have any questions.

Thank you.
Please feel free to contact me with questions.

Andrew Werder PE



From: Andrew Werder

Sent: Friday, November 03, 2023 3:10 PM

To: jennifer.vetter@usda.gov

Subject: Urgent/Time Sensitive - Tree Top Lane - Request for Drainage on Highway Right of Way

Jen,

Thanks for speaking with me this afternoon.

As we discussed, we are submitting the attached Request for Drainage on Highway Right of Way (SFN 50909) to NDDOT for a project in north Bismarck. This application is required so we can install a storm sewer discharge pipe within the State Street / US 83 right-of-way. A preliminary copy of the construction plan overview sheet is also attached. It is our understanding is that NDDOT is only concerned about work within the right of way and not on the private property.

The Owner of the property is a Malloy 57, LLC which is a private development company.

The property is located in Section 16, Township 139 N, Range 80W

The legal description is Lot 1, Block 1, and the north 141.43 feet of Lot 2, Block 2, Tree Top Addition to the City of Bismarck. The property is currently being replatted as Lots 1-5, Treetop 2nd Addition.

The property was graded in 2004 and is not currently used for crop production. The photo below is from 2004.



Prior to 2004, the project site was a heavily forested farmstead. The photo below is from 1997.



In 2019, KLJ performed the attached office wetland delineation for the Brookside Lane, US 83, and 57th Ave NE roadway improvements associated with Costco. The two potential wetland areas identified in the memo are not adjacent to the proposed development.

In addition to the storm sewer proposed for this phase of the development, future development on Lots 1-4 adjacent to State Street / US 83 might each require installation of storm sewer discharge pipes within US 83 right of way.

Based on our observations of the site, current land use, historical aerial photographs, and the national wetland inventory map, it is our belief that no wetlands will be disturbed by the project and no cropland will be taken out of production. If you concur, will you please provide a letter of confirmation to accompany the NDDOT permit application and future NDDOT permit applications for Lots 1-4?

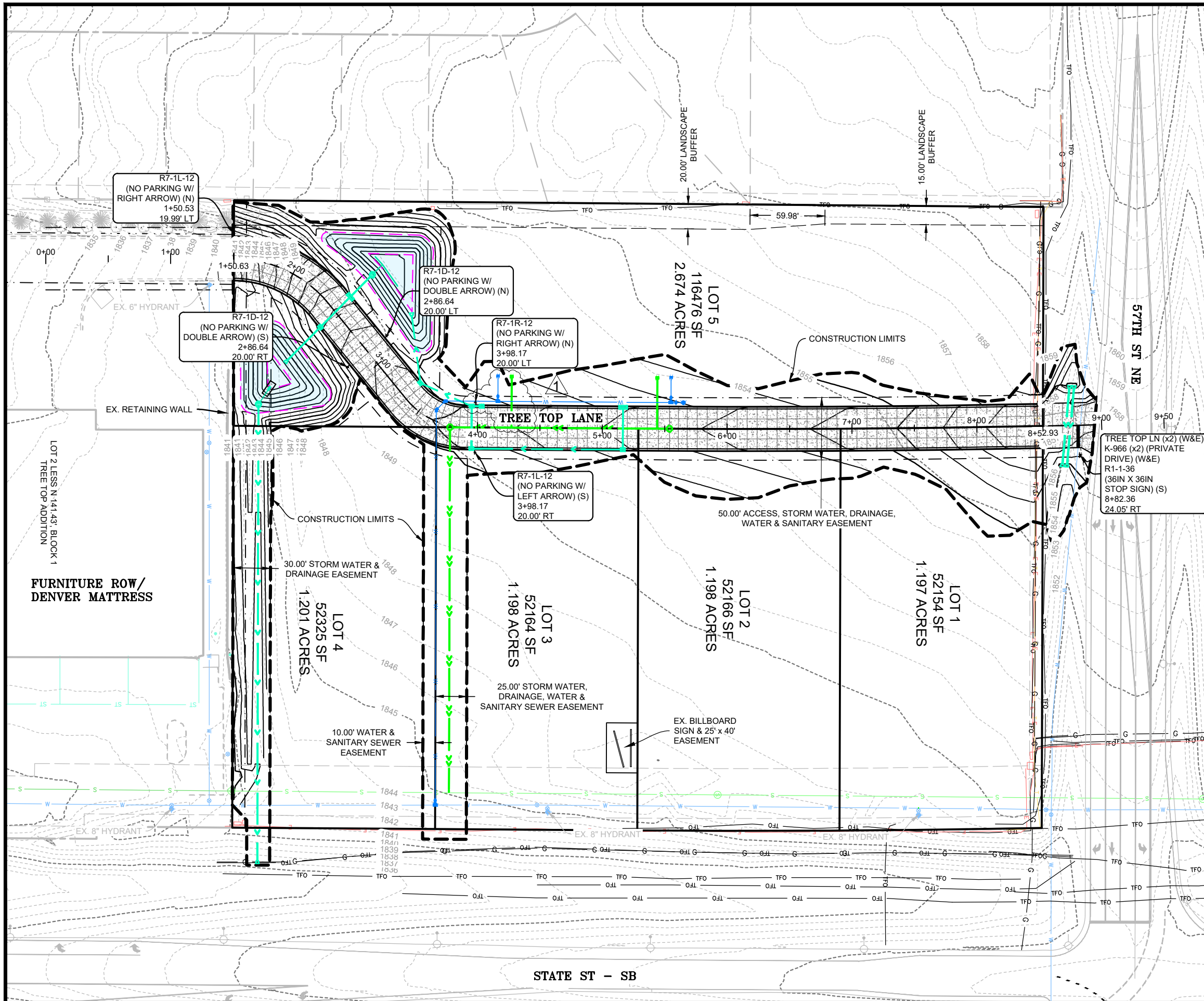
Please let me know if you need any additional information and feel free to contact me with questions.

Andrew Werder PE



701-355-8742 Direct
320-533-0571 Mobile
4585 Coleman Street
Bismarck, ND 58503-0431
kljeng.com

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STOP R1-1-36

18" **NO PARKING ANY TIME** R7-1D-12

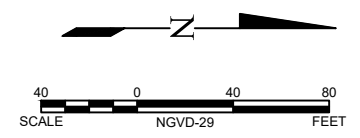
18" **NO PARKING ANY TIME** R7-1L-12

18" **NO PARKING ANY TIME** R7-1R-12

36" **Tree Top Ln** C 2000 Series

6" **PRIVATE DRIVE** K-5966

- NOTES:**
- EXISTING CONTOURS ARE SHOWN AT 1' INTERVALS.
 - PROPOSED CONTOURS ARE SHOWN AT 1' INTERVALS.
 - CONTRACTOR SHALL SEED ALL DISTURBED AREAS NOT TO BE PAVED.



NO.	DATE	REVISION
1	10/31/23	REVISION 1

DRAFTED: B.J.N.
REVIEWED: A.D.W.
PROJECT NUMBER: 1906-02283.1
ISSUE DATE: 10/23/2023

TREE TOP 2ND ADDITION
MALLOY 57, LLC
BISMARCK, NORTH DAKOTA
PLAN OVERVIEW

SHEET
C4.0

From: Reep, Dennis <Dennis.Reep@hdrinc.com>
Sent: Friday, December 01, 2023 11:36 AM
To: James Landenberger (James.Landenberger@BARTWEST.COM); dbliss@blisslaw.com
Cc: dwrburleighwrđ@gmail.com; Mona Livdahl - Burleigh Co WRD (bcwrđ@midco.net)
Subject: Watercourse Definition

The new draft rules for watercourse definition (and other subject matters) are out for comment. Worthy of WRD Board discussion?

[Department of Water Resources \(nd.gov\)](https://www.nd.gov)

PROPOSED CHANGES TO N.D. ADMINISTRATIVE CODE

The Department of Water Resources is seeking public input on proposed changes to N.D. Administrative Code 90. You can view the proposed rule changes below. A public hearing will be held **January 26, 2024 at 9 AM**. The public can participate in person at 1200 Memorial Highway in Bismarck or virtually via Microsoft Teams.

[Full Notice of Intent to Amend Administrative Rules](#)

[Proposed Changes](#)

[Virtual Hearing Participation Link](#)

The State Board of Water Well Contractors is seeking public input on proposed changes to N.D. Administrative Code 90. You can view the proposed rule changes below. A public hearing will be held **January 26, 2024 at 9 AM**. The public can participate in person at 1200 Memorial Highway in Bismarck or virtually via Microsoft Teams.

[Full Notice of Intent to Amend Administrative Rules](#)

[Proposed Changes](#)

[Virtual Hearing Participation Link](#)

Dennis W. Reep, PE, CFM
Managing Principal

HDR
3231 Greensboro Drive, Suite 200
Bismarck, North Dakota 58503-5413
D 701-557-9621 M 701-595-2142
dennis.reep@hdrinc.com

hdrinc.com/follow-us

Permit Number - ND2023-21983

**State of North Dakota
Temporary Water Permit**

In response to an application for a temporary water permit dated 12/1/23 as received in this office 12/1/23, authority is hereby granted to:

Elliot Carvell
800 149th Ave NW
Bismarck, ND 58503

Contact Person: Elliot Carvell

Telephone: (701) 426-2611

A Temporary Water Permit as follows:

Source: Apple Creek

Point of Diversion: SW1/4 Sec. 26 Twp. 138 Rng. 080

Nature of Use: Industrial

Total Quantity of Water: 2.000 Acre-Feet

Maximum Withdrawal Rate: 10.0 gpm

Period of authorized usage: 12/15/23 through 11/30/24

This temporary water permit does not authorize the construction of any dam or crossing. Future water use from this source for this purpose may require a conditional water permit. Temporary water permits are not a water right, are non-transferrable, cannot be modified, and water must only be used for the specified nature of use. This temporary water permit is granted subject to water use by senior appropriators. Withdrawals authorized by this temporary water permit must cease upon order of the Department of Water Resources. Noncompliance with permit conditions may result in possible civil or criminal penalties. Development of a water project with a temporary water permit is at the permitholder's risk.

Conditions

1. The Department of Water Resources may impose minimum flow restrictions.
2. The permitholder must not cause streamflow to cease.
3. Sufficient water for downstream superior water rights must flow past the point of diversion while water is being withdrawn under this permit.

Dated: 12/5/23

cc: Burleigh WRD

John A Pazckowski, P.E.
State Engineer
ND Department of Water Resources
1200 Memorial Hwy
Bismarck, ND 58504



Christopher D. Bader
Director, Water Appropriations Division

Permit Number - ND2023-21983

**State of North Dakota
Temporary Water Permit**

4. A weather-protected copy of this temporary water permit must be present and on display at the equipment withdrawing water at all times.
5. The permit holder must complete every enclosed Annual Water Use Report, even if no water is withdrawn based on the following:
 - a. For temporary water permits that are inclusive to one (1) calendar year:
 - i. One (1) Annual Water Use Report must be submitted to the Department of Water Resources within thirty (30) days after the expiration date of the permit.
 - b. For temporary water permits that span two (2) calendar years:
 - i. The first Annual Water Use Report must be submitted to the Department of Water Resources within thirty (30) days after the close of the first calendar year, which must report the total water withdrawn in the first calendar year, and
 - ii. The second Annual Water Use Report must be submitted to the Department of Water Resources within thirty (30) days after the expiration date of the permit, which must report the total water withdrawn in the second calendar year.
6. Any works associated with this temporary water permit are subject to inspection at any time by representatives of the Department of Water Resources. Refusal to allow inspection is grounds for temporary water permit cancellation.
7. Failure to comply with any order of the Department of Water Resources may result in temporary water permit forfeiture.

Dated: 12/5/23

cc: Burleigh WRD

John A Pazckowski, P.E.
State Engineer
ND Department of Water Resources
1200 Memorial Hwy
Bismarck, ND 58504



Christopher D. Bader
Director, Water Appropriations Division

December
2023 Bills

Name	Project	Invoice	Amount
Bismarck Parks & Rec	McDowell Dam (November)	4824	\$ 19,218.96
Bliss Law Firm	General	467 & 477	\$ 2,498.10
Bliss Law Firm	McDowell Dam	467 & 477	\$ 3,340.20
Bliss Law Firm	Hoge Island	477	\$ 586.00
Bliss Law Firm	Sibley Island	467	\$ 468.80
Bliss Law Firm	Drainage Complaint	467	\$ 293.00
Bliss Law Firm	Copies	467	\$ 36.89
Bohlman Trenching	Pay Request #1 Hoge Island	1	\$ 390,631.73
Fronteer Professional Services	Presort - October	3550	\$ 4.77
Fronteer Professional Services	November Admin	3561	\$ 2,165.00
Houston Engineering	Sibley Island	68395	\$ 22,814.62
Houston Engineering	Burnt Creek	68398	\$ 5,654.00
Houston Engineering	Drainage Complaint	68402	\$ 1,566.25
Houston Engineering	Hoge Island Stabilization - Special Assessment District	68449	\$ 11,818.14
Houston Engineering	Hoge Island Stabilization - Section 32 Revetments	68405	\$ 2,116.00
Houston Engineering	General Engineering Services	68400 & 68404	\$ 1,470.00
Houston Engineering	Apple-McDowell Water Supply Diversion	68414	\$ 4,547.75
ND Water Resource District	2024 Dues	2024	\$ 675.00
	Total		\$ 469,905.21
	Grand Total		\$ 469,905.21



BISMARCK PARKS AND RECREATION DISTRICT
Est. 1927

400 E Front Ave
Bismarck, ND 58504-5641
Phone: 701.222.6455

INVOICE

BILLED TO:
Burleigh County Water Resource District
Wendy Egli
PO Box 1255
Bismarck, ND 58502-1255

DATE: 12/4/2023
INVOICE #: 04824
DUE DATE: 1/4/2024
TOTAL DUE: 19,218.96

CUSTOMER ACCOUNT # : 1017

ITEM DESCRIPTION	UNITS	PRICE	AMOUNT
McDowell Dam November 2023	1.00	19,218.96	19,218.96
TOTAL THIS INVOICE			19,218.96

Please include account number with your payment.

For questions, contact Julie Fornshell 701.222.6455

REMIT TO:

Bismarck Parks and Recreation District
400 E Front Ave
Bismarck ND 58504-5641

Please remit bottom portion of invoice with your payment.
Thank you!

CUSTOMER ACCOUNT # : 1017
DATE: 12/4/2023
INVOICE #: 04824
DUE DATE: 1/4/2024
TOTAL DUE: 19,218.96

BURLEIGH COUNTY WATER RESOURCE DISTRICT
McDowell Dam Monthly Billing

Bismarck Parks & Recreation District
400 E. Front Ave
Bismarck, ND 58504

For The Month Ended November 30, 2023

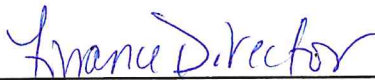
Date Submitted: 12/1/2023

Salaries & Wages	\$	6,544.51
Employer Payroll Taxes		500.66
Employee Pension & Health/Life/ Diability Benefits		2,425.02
Property & Liability Insurance		-
Operating Expenses		5,484.98
Capital Improvement Expenses		<u>500.00</u>
Total Expenses	\$	<u>15,455.17</u>
Administrative Fee		
(25% of Operating Expenses)	\$	3,738.79
(5% of Capital Improvement Expenses)		<u>25.00</u>
Total Amount Requested	\$	<u><u>19,218.96</u></u>



Prepared By

Board Member



Title

McDowell Dam Monthly Billing November-23

Salaries & Wages

Salaries - Full time	\$ 4,266.08	
Sick Leave Overage	-	
Wages - Part time	2,278.43	
Wages - Part time (Overtime)	-	
Total Salaries & Wages	-	\$ 6,544.51

Employer Payroll Taxes

Social Security/Medicare	500.66	
Unemployment- ND Job Service	-	
Total Employer Payroll Taxes	-	500.66

Employee Benefits

Pension	443.67	
Health, Life, & Disability Insurance	1,981.35	
Total Employee Benefits	-	2,425.02

Property & Liability Insurance

General Liability	-	
Multi Coverage	-	
Auto Liability	-	
Total Property & Liability Insurance	-	-

Operating Expenses

Professional Services	-	
Service Contracts	-	
Sanitary Systems	21.50	
Parking Lots & Trail Repair	-	
Shop Supplies	-	
Janitorial Supplies	265.88	
Miscellaneous Supplies	164.28	
Fuel	288.19	
Repairs & Replacement	1,702.20	
Uniforms	-	
Concession Purchases	-	
Tools & Small Equipment less \$500	919.66	
Equipment over \$500	-	
Misc. Charges, Permits, and Licenses	-	
Misc. Charges, Permits, and Licenses-Credit Card Terminal	-	

Expenses Incurred - NOT Previously Billed

Sep 2023 - Credit Card Fees	27.24	
	3,388.95	

Utilities

Natural Gas	-	
Electricity	432.76	
Garbage Removal	1,335.00	
Water	125.75	
Telephone	202.52	
Total Utilities	2,096.03	
Total Operating Expenses	-	5,484.98

Capital Improvements

Building and Building Remodeling	-	
Capital Equipment	500.00	
Capital Outlay	-	
Total Capital Improvements	500.00	

Total Expenses

500.00
 Page 162 of 252
 \$ 3,453.17 Dec 2023



Detail Report Account Detail

Date Range: 11/01/2023 - 11/30/2023

Account	Name		Beginning Balance	Total Activity	Ending Balance
Fund: 01 - GENERAL FUND					
<u>01.12.000.510100</u>	FULL-TIME SALARIES		44,793.84	4,266.08	49,059.92
Post Date	Packet Number	Source Transaction	Pmt Number	Description	Vendor
11/03/2023	PYPKT01353	PYPKT01353 - 2023-11		ROBINSON, DAVID H.:000415 - McDow	
11/17/2023	PYPKT01359	PYPKT01359 - 2023-11		ROBINSON, DAVID H.:000415 - McDow	
				Amount	Running Balance
				2,133.04	46,926.88
				2,133.04	49,059.92
<u>01.12.000.510200</u>	PART-TIME SALARIES		51,432.22	2,278.43	53,710.65
Post Date	Packet Number	Source Transaction	Pmt Number	Description	Vendor
11/03/2023	PYPKT01354	PYPKT01354 - 2023-11		KAMPHUIS, MARK A.:002976 - Operatio	
11/03/2023	PYPKT01354	PYPKT01354 - 2023-11		OSHANYK, JAMES L.:000366 - Operation	
11/03/2023	PYPKT01354	PYPKT01354 - 2023-11		JOHNSON, SETH M.:000217 - Operation	
11/17/2023	PYPKT01360	PYPKT01360 - 2023-11		JOHNSON, SETH M.:000217 - Operation	
11/17/2023	PYPKT01360	PYPKT01360 - 2023-11		KAMPHUIS, MARK A.:002976 - Operatio	
				Amount	Running Balance
				532.81	51,965.03
				422.50	52,387.53
				614.25	53,001.78
				547.31	53,549.09
				161.56	53,710.65
<u>01.12.000.520400</u>	SANITARY SYSTEMS		200.00	21.50	221.50
Post Date	Packet Number	Source Transaction	Pmt Number	Description	Vendor
11/30/2023	APPKT03269	33237		BILLING 10/8/23 - 11/4/23	0846 - SPIFFY BIFFS
					Amount
					21.50
					221.50
<u>01.12.000.530110</u>	JANITORIAL SUPPLIES		782.20	265.88	1,048.08
Post Date	Packet Number	Source Transaction	Pmt Number	Description	Vendor
11/08/2023	APPKT03241	077445	214645	TP, PLUNGER	0254 - D & E SUPPLY COMPANY
11/10/2023	APPKT03266	P016292	DFT0001346	CAN LINERS, URN SCREENS	0948 - US BANK - ONE CARD
				Purchased From Vendor: 0254 - D & E SUPPLY COMPANY	
					Amount
					83.73
					182.15
					1,048.08
<u>01.12.000.530140</u>	MISCELLANEOUS SUPPLIES		2,283.68	164.28	2,447.96
Post Date	Packet Number	Source Transaction	Pmt Number	Description	Vendor
11/10/2023	APPKT03266	10222023-00625	DFT0001346	PRINTER INK CTRDG, 951 COMBO	0948 - US BANK - ONE CARD
				Purchased From Vendor: 0964 - WALMART COMMUNITY BRC	
11/10/2023	APPKT03266	76104 05 7719	DFT0001346	CAUTION TAPE 1000 FT, 500 FT	0948 - US BANK - ONE CARD
				Purchased From Vendor: 0581 - MENARDS INC	
					Amount
					104.36
					59.92
					2,447.96
<u>01.12.000.531300</u>	FUEL		4,660.99	288.19	4,949.18
Post Date	Packet Number	Source Transaction	Pmt Number	Description	Vendor
11/22/2023	APPKT03259	FLTS-2023-00000010	214762	OCTOBER 23 FUEL USAGE	0209 - CITY OF BISMARCK
					Amount
					288.19
					4,949.18
<u>01.12.000.531400</u>	REPAIRS & REPLACEMENT		24,267.31	1,702.20	25,969.51
Post Date	Packet Number	Source Transaction	Pmt Number	Description	Vendor
11/08/2023	APPKT03241	1536-386243	214663	SOCKET, SPARK PLUG WIRES - 1999 CHE	0682 - O'REILLY AUTO PARTS
					Amount
					47.33
					24,314.64

Detail Report

Date Range: 11/01/2023 - 11/30/2023

Account		Name				Beginning Balance	Total Activity	Ending Balance
01.12.000.531400		REPAIRS & REPLACEMENT - Continued				24,267.31	1,702.20	25,969.51
Post Date	Packet Number	Source Transaction	Pmt Number	Description	Vendor	Amount	Running Balance	
11/10/2023	APPKT03266	092523-00433	DFT0001346	PHONE CORD, ADAPTER, COAX CBL, CA	0948 - US BANK - ONE CARD	32.26	24,346.90	
				Purchased From Vendor: 0964 - WALMART COMMUNITY BRC				
11/10/2023	APPKT03266	10122023-01013	DFT0001346	LUBRICANT, CARB CLEANERS, BATTERIE	0948 - US BANK - ONE CARD	119.03	24,465.93	
				Purchased From Vendor: 0964 - WALMART COMMUNITY BRC				
11/10/2023	APPKT03266	132726	DFT0001346	HYDRAULIC OIL - SNOWBLOWER	0948 - US BANK - ONE CARD	54.24	24,520.17	
				Purchased From Vendor: 0404 - GLENN'S WELDING & TRAILER SUPP				
11/10/2023	APPKT03266	142880	DFT0001346	DEADBOLT REPL LOCK - BATHROOM	0948 - US BANK - ONE CARD	53.50	24,573.67	
				Purchased From Vendor: 0419 - GUARDIAN LOCK & SECURITY				
11/10/2023	APPKT03266	1536-386767	DFT0001346	ANTIFREEZE (4) - WINTERIZING	0948 - US BANK - ONE CARD	59.96	24,633.63	
				Purchased From Vendor: 0682 - O'REILLY AUTO PARTS				
11/10/2023	APPKT03266	1610111.1	DFT0001346	BALL MOUNT	0948 - US BANK - ONE CARD	34.99	24,668.62	
				Purchased From Vendor: 0785 - RUNNINGS SUPPLY INC				
11/10/2023	APPKT03266	2000112-96457101	DFT0001346	TIRE VLV STEMS, LUBE, BUCKET, APPLIC	0948 - US BANK - ONE CARD	60.27	24,728.89	
				Purchased From Vendor: 0964 - WALMART COMMUNITY BRC				
11/10/2023	APPKT03266	20311 10 9875	DFT0001346	SAND MIX, CONCRETE MORTAR	0948 - US BANK - ONE CARD	58.51	24,787.40	
				Purchased From Vendor: 0581 - MENARDS INC				
11/10/2023	APPKT03266	51867 09 7293	DFT0001346	LUMBER, DRIVE BITS, MAGNETIC HOLD	0948 - US BANK - ONE CARD	232.74	25,020.14	
				Purchased From Vendor: 0581 - MENARDS INC				
11/10/2023	APPKT03266	52009 04 5636	DFT0001346	LUMBER	0948 - US BANK - ONE CARD	136.38	25,156.52	
				Purchased From Vendor: 0581 - MENARDS INC				
11/10/2023	APPKT03266	52171 04 9763	DFT0001346	TIN SNIPS, ADAPTER, PVC, PVC WYE	0948 - US BANK - ONE CARD	35.95	25,192.47	
				Purchased From Vendor: 0581 - MENARDS INC				
11/10/2023	APPKT03266	52188 07 0782	DFT0001346	12 FT PLANKING (13)	0948 - US BANK - ONE CARD	184.21	25,376.68	
				Purchased From Vendor: 0581 - MENARDS INC				
11/10/2023	APPKT03266	61240 07 1840	DFT0001346	ETHERNET CABLE, ELBOW	0948 - US BANK - ONE CARD	43.88	25,420.56	
				Purchased From Vendor: 0581 - MENARDS INC				
11/10/2023	APPKT03266	6492161	DFT0001346	COAX CABLE, SPLITTER, CONNECTORS	0948 - US BANK - ONE CARD	34.65	25,455.21	
				Purchased From Vendor: 0785 - RUNNINGS SUPPLY INC				
11/10/2023	APPKT03266	76375 06 7461	DFT0001346	LUMBER	0948 - US BANK - ONE CARD	50.75	25,505.96	
				Purchased From Vendor: 0581 - MENARDS INC				
11/10/2023	APPKT03266	IN001-1769108	DFT0001346	HYDRAULIC LINE REPAIR - SKIDSTEER	0948 - US BANK - ONE CARD	126.80	25,632.76	
				Purchased From Vendor: 0379 - FORCE AMERICA DISTRIBUTING LLC				
11/10/2023	APPKT03266	P4660646	DFT0001346	SPINDLE REBUILD - ZERO TURN MOWE	0948 - US BANK - ONE CARD	86.71	25,719.47	
				Purchased From Vendor: 0751 - RDO EQUIPMENT CO.				
11/22/2023	APPKT03259	410357262	214761	TIRE REPAIR ITEMS (PATCH, SEALER, RU	1201 - AUTO VALUE BISMARCK	71.94	25,791.41	

Detail Report

Date Range: 11/01/2023 - 11/30/2023

Account	Name	Beginning Balance	Total Activity	Ending Balance			
<u>01.12.000.531400</u>	REPAIRS & REPLACEMENT - Continued	24,267.31	1,702.20	25,969.51			
Post Date	Packet Number	Source Transaction	Pmt Number	Description	Vendor	Amount	Running Balance
11/22/2023	APPKT03259	72733	214765	ANNUAL FIRE EXTINGUISHER INSPECTI	0260 - DAKOTA FIRE STATION, INC.	178.10	25,969.51
<u>01.12.000.531700</u>	TOOLS & SMALL EQUIP LESS \$500	1,604.18	919.66	2,523.84			
Post Date	Packet Number	Source Transaction	Pmt Number	Description	Vendor	Amount	Running Balance
11/10/2023	APPKT03266	1536-384169	DFT0001346	TIRE TOOL	0948 - US BANK - ONE CARD	113.72	1,717.90
Purchased From Vendor: 0682 - O'REILLY AUTO PARTS							
11/10/2023	APPKT03266	6511442	DFT0001346	RATCHET SD SET, ELEC TOOL KIT, BITS	0948 - US BANK - ONE CARD	77.97	1,795.87
Purchased From Vendor: 0785 - RUNNINGS SUPPLY INC							
11/10/2023	APPKT03266	F15628-8	DFT0001346	JACK 4660LB	0948 - US BANK - ONE CARD	149.99	1,945.86
Purchased From Vendor: 0562 - MAC'S HARDWARE							
11/22/2023	APPKT03259	1536-389412	214785	BEARING PULLER - GOLF CART	0682 - O'REILLY AUTO PARTS	59.99	2,005.85
11/22/2023	APPKT03259	158447/30487	214783	MATERIAL HANDLER	0668 - NORTH DAKOTA SURPLUS PROPERTY	200.00	2,205.85
11/22/2023	APPKT03259	158447/30487	214783	AIR COMPRESSOR	0668 - NORTH DAKOTA SURPLUS PROPERTY	300.00	2,505.85
11/22/2023	APPKT03259	F27452-8	214775	TAPER PIPE TAP	0562 - MAC'S HARDWARE	17.99	2,523.84
<u>01.12.000.540130</u>	ELECTRICITY	4,980.97	432.76	5,413.73			
Post Date	Packet Number	Source Transaction	Pmt Number	Description	Vendor	Amount	Running Balance
11/21/2023	APPKT03257	OCTOBER 23	214713	OCTOBER 23 (10/1/23 - 11/1/23)	0175 - CAPITAL ELECTRIC COOPERATIVE	432.76	5,413.73
<u>01.12.000.540140</u>	GARBAGE	0.00	1,335.00	1,335.00			
Post Date	Packet Number	Source Transaction	Pmt Number	Description	Vendor	Amount	Running Balance
11/08/2023	APPKT03241	235232	214667	GARBAGE COLLECTION JAN - OCT 2023	4648 - STROM SANITATION	1,335.00	1,335.00
<u>01.12.000.540150</u>	WATER	2,248.60	125.75	2,374.35			
Post Date	Packet Number	Source Transaction	Pmt Number	Description	Vendor	Amount	Running Balance
11/30/2023	APPKT03268	NOVEMBER 23 BILLIN		NOVEMBER 23 BILLING	0837 - SOUTH CENTRAL REGIONAL WATER	125.75	2,374.35
<u>01.12.000.540160</u>	TELEPHONE	1,238.68	202.52	1,441.20			
Post Date	Packet Number	Source Transaction	Pmt Number	Description	Vendor	Amount	Running Balance
11/10/2023	APPKT03266	10012023	DFT0001346	OCT23 PHONE/INTERNET CHARGES	0948 - US BANK - ONE CARD	202.52	1,441.20
Purchased From Vendor: 0087 - BEK COMMUNICATIONS							
<u>01.12.000.550100</u>	HEALTH INSURANCE	19,813.50	1,981.35	21,794.85			
Post Date	Packet Number	Source Transaction	Pmt Number	Description	Vendor	Amount	Running Balance
11/21/2023	APPKT03257	EINS-2023-00000011	214714	NOVEMBER 23 HEALTH BENEFITS	0209 - CITY OF BISMARCK	1,981.35	21,794.85
<u>01.12.000.563200</u>	EQUIPMENT OVER \$500	848.00	500.00	1,348.00			
Post Date	Packet Number	Source Transaction	Pmt Number	Description	Vendor	Amount	Running Balance
11/22/2023	APPKT03259	158102/30331	214783	PNEUMATIC TIRE MACHINE W90NHW3	0668 - NORTH DAKOTA SURPLUS PROPERTY	500.00	1,348.00
Total Fund: 01 - GENERAL FUND:		Beginning Balance:	159,154.17	Total Activity:	14,483.60	Ending Balance:	173,637.77
Grand Totals:		Beginning Balance:	159,154.17	Total Activity:	14,483.60	Ending Balance:	173,637.77

Fund Summary

Fund	Beginning Balance	Total Activity	Ending Balance
01 - GENERAL FUND	159,154.17	14,483.60	173,637.77
Grand Total:	159,154.17	14,483.60	173,637.77

PURCHASE ORDER

BISMARCK PARKS AND RECREATION DISTRICT
 400 East Front Avenue • Bismarck, ND 58504
 Phone: (701) 222-6455 • Fax (701) 221-6838

No. 97665

ND Tax Exempt Number: E-4674
 Federal ID Number: 45-0409352

Name *P & T*

Vendor 854

Address _____

Date 10/24/23

Notes Winteration

Acct #	Description	Project Number	Cost
01.12.000.530110	Toilet paper + plunger		\$ 83.73
			}

Employee's Signature *[Signature]*

Total 83.73

Manager's Signature *[Signature]*

Approved By *[Signature]*

INVOICE

Phone 701-255-4755
 Fax 701-258-2925

Sold To

City of Bismarck Parks & Rec
 400 E Front Ave
 Bismarck ND 58504

Ship To

MCDOWELL DAM
 E OF CITY
 BISMARCK ND 58504

Customer # 0001235	Order Date 10/23/2023	Sales Order # 077445	Buyer	Customer P/O #	Ship Via Customer Pic	Salesman 01
Invoice # 077445	Invoice Date 10/23/2023	Ship Date 10/23/23	Freight Terms PREPAID	Job Number	Terms net 30	

LN	QNTY ORD	QNTY SHIP	QNTY B/O	PRODUCT NUMBER	DESCRIPTION	UOM	NET PRICE	EXTENSION	T
1	1	1		LV-21547	Bathroom Tissue, LIVI VPG SELECT, 80/500's	CS	74.52	\$74.52	N
2	1	1		TL-280174	Plunger, HD Plastic Handl	EA	9.209	\$9.21	N

Pay online by going to desupply.com and clicking on the "payments" tab at the top!
 Call today for email invoicing and statements!

Terms & Conditions
 Returns must be made within 60 days of invoice date. All returns must be approved. Product must be in original packaging. Returns are subject up to a 20% restocking fee.

Merchandise	83.73
Freight	0.00
Misc Charges	0.00
Sub Total	83.73
Taxable	0.00
Tax (091)	0.00
TOTAL	\$83.73

Sent Copy

Pay By 11/22/2023

Writer: DS

Walmart

Save money. Live better.

701-323-0530 Mgr:CHADLEY
 1400 SKYLINE BLVD
 BISMARCK ND 58503
 ST# 03648 OP# 008655 TE# 23 TR# 00625
 951 COMBO 088611160967 73.89 0
 INK CARTRIDG 068113130769 30.47 0
 SUBTOTAL 104.36
 TOTAL 104.36
 VISA TEND 104.36
 VISA CREDIT ***** 6485 I 2
 APPROVAL # 098086
 REF # 329500078203
 TRANS ID - 303295591137663
 VALIDATION - 9SR7
 PAYMENT SERVICE - E
 P.O. # 0
 AID A0000000031010
 AAC 0F8F50024DF121C4
 TERMINAL # SC010531
 *NO SIGNATURE REQUIRED
 10/22/23 11:25:26
 CHANGE DUE 0.00
 # ITEMS SOLD 2
 TC# 0993 2114 7121 6375 3335 7



Low Prices You Can Trust. Every Day.
 10/22/23 11:25:44
 CUSTOMER COPY

[Return to previous page](#)

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MENARDS - BISMARCK
3300 State Street
Bismarck, ND 58503

KEEP YOUR RECEIPT
RETURN POLICY VARIES BY PRODUCT TYPE

Unless noted below allowable returns for
items on this receipt will be in the form
of an in store credit voucher if the
return is done after 01/19/24

If you have questions regarding the
charges on your receipt; please
email us at:

BISMfrontend@menards.com



Sale Transaction

Tax Exempt Certificate ID: 5021339
Exempt Type: Local Government

1000' CAUTION TAPE		
2445100	2 @9.99	19.98 NT
500' REINF CAUTION TAPE		
2445101	2 @19.97	39.94 NT

TOTAL SALE 59.92
VISA CREDIT 6485 59.92
PO # MCDOWELL
Auth Code:031202
Chip Inserted
a0000000031010
TC - 8573aa836013c472

TOTAL NUMBER OF ITEMS = 4

THE FOLLOWING REBATE RECEIPTS WERE
PRINTED FOR THIS TRANSACTION:
2324

GUEST COPY

The Cardholder acknowledges receipt of
goods/services in the total amount shown
hereon and agrees to pay the card issuer
according to its current terms.

THIS IS YOUR CREDIT CARD SALES SLIP
PLEASE RETAIN FOR YOUR RECORDS.

THANK YOU, YOUR CASHIER, Drew

76104 05 7719 10/21/23 09:42AM 3055

COPY

PURCHASE ORDER

BISMARCK PARKS AND RECREATION DISTRICT

400 East Front Avenue • Bismarck, ND 58504

Phone: (701) 222-6455 • Fax (701) 221-6838

No. 98802

ND Tax Exempt Number: E-4674

Federal ID Number: 45-0409352

Name City of Bismarck

Vendor 209

Address _____

Date 11-14-23

Notes _____

Fuel usage October 2023

	Project Number	Cost
Acct # <u>01.04.000.531300</u>		
Description <u>Fuel - Park ops</u>		<u>4,032⁶⁷</u>
Acct # <u>01.12.000.531300</u>		
Description <u>Fuel - McDowell Dam</u>		<u>288¹⁹</u>
Acct # <u>01.15.000.531300</u>		
Description <u>Fuel - General Sibley</u>		<u>710²⁹</u>
Acct # <u>01.19.000.531300</u>		
Description <u>Fuel - Burleigh County</u>		<u>371⁰⁵</u>
Acct #		
Description		
Acct #		
Description		
Acct #		
Description		
Acct #		
Description		
Total		<u>5,402²⁰</u>

Employee's Signature [Signature]

Manager's Signature [Signature] DM

Approved By [Signature]

INVOICE

City of Bismarck
PO Box 5503
Bismarck, ND 58506
(701) 355-1615

DATE: 10/31/2023
DUE DATE: 11/30/2023
CUSTOMER NO: 509
INVOICE NO: FLTS-2023-00000010
DEPARTMENT: 660 Public Works Service Operations

PARKS & RECREATION
 400 E FRONT AVE

Billing Inquiries:
Public Works
(701)355-1700

BISMARCK, ND 58504-5641

Description	Quantity	Unit Price	Total Price
Sale of Fuel-Hwys/Streets	1	\$348.4300	\$348.43
Sale of Unleaded Fuel-Hwy/St	1	\$5,053.7700	\$5,053.77

Invoice Total: \$5,402.20
 Prepaid Amount: -\$0.00
Balance Due: \$5,402.20

Park Ops 4,032.01
 McDowell 288.19
 Sibley 710.29
 Burleigh 371.05
 = 5402.20



DEDICATED TO THE PROFESSIONAL
 Store 1536, 2201 E BISMARCK EXPY
 BISMARCK, ND 58504 (701) 258-8755

Invoice	1536-386243
Sale Type	CHARGE SALE
Date	10/20/2023 7:34 PM
Ship Via	
PO Number	mcdowll

Bill To:
 BISMARCK PARKS AND RECRE
 400 EAST FRONT AVENUE
 BISMARCK, ND 58504

Ship To:

Counter #	Customer Account	Ordered By	Special Instructions
686608	806814	seth	

Qty	Line	Item Number	Description	Warranty	Unit	Tax	List	Net	Extended
1	PTT	GM8287	SOCKET	LT	EA	NA	22.02	12.99	12.99
1	OMS	9515	IGN WIRE SET	LT	ST	NA	74.56	34.34	34.34

2 Items

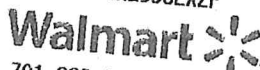
Original Invoice #: Original Invoice Date: Original Counter #:

Sub-Total	47.33
Sales Tax	.00
Total	47.33

x _____
 Customer Signature

WE APPRECIATE YOUR BUSINESS!

Give us feedback @ survey.walmart.com
Thank you! ID #:7SKL95JLXZP



701-223-3066 Mar:TIM
2717 ROCK ISLAND PL
BISMARCK ND 58504

ST# 01534	OP# 001939	TE# 90	TR# 00433	
ONN 7	CAT# 068113130831			4.98 0
CABLE TIE	071315329415			6.84 0
PHN CORD	068113131088			4.48 0
PHN ADAPTER	068113131085			4.48 0
PHN ADAPTER	068113131085			4.46 0
COAX CABLE	068113131008			7.00 0
	SUBTOTAL:			32.26
	TOTAL:			32.26
	VISA TEND			32.26

Phone card

VISA CREDIT ***** 6485 I 2

APPROVAL # 070431
REF # 326800321904
TRANS ID - 383268764185064
VALIDATION - 42RZ

PAYMENT SERVICE - E

AID A0000000031010

TC E4E0F85B2BA3A066

TERMINAL # SC010069

*NO SIGNATURE REQUIRED

09/25/23 16:13:50

CHANGE DUE 0.00

ITEMS SOLD 6

TC# 9295 5967 5107 9695 1350



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09/25/23 16:13:58

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Give us feedback @ survey.walmart.com
Thank you! ID #:7SKWBZJLYLD



701-223-3066 Mgr:TIM
2717 ROCK ISLAND PL
BISMARCK ND 58504
ST# 01534 OP# 001939 TE# 95 TR# 01013
ITEMS SOLD 16
TC# 3985 3532 1530 7999 1830 8



LUBRICANT	007874269452	
6 AT 1 FOR	3.87	23.22 0
CARB CLEANER	060538843075	
6 AT 1 FOR	2.98	23.84 0
BATTERIES	004133382701	14.97 0
EVDPR FILT2	088304936194	57.00 0
	SUBTOTAL	119.03
	TOTAL	119.03
	VISA TEND	119.03

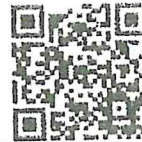
VISA CREDIT **** * 6465 1 2
APPROVAL # 094545
REF # 1042000314
TRANS ID - 463285591368298
VALIDATION - LDZD
PAYMENT SERVICE - E
P.O. # 1534
AID A0000000031010
AAC 1080022537FDD2D4
TERMINAL # SC010896
*NO SIGNATURE REQUIRED

Automotive

10/12/23 11:25:48
CHANGE DUE 0.00
Low Prices You Can Trust. Every Day.
10/12/23 11:25:56
CUSTOMER COPY



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COPY



Custom Truck Accessories

121 Eastdale Dr.
Bismarck, ND 58501
223-5043
223-9373

Sales Receipt

Transaction #: 132726
Account #: 20034
Page: 1 of 1
Date: 10/24/2023
Time: 4:27:59 PM
Cashier: 6
Register #: 4

Bill To: Bismarck Parks & Recreation
400 East Front Avenue
Bismarck, ND 58504-5841
701-222-6464/701-220-2807Greg

Ship To: Bismarck Parks & Recreation
400 East Front Avenue
Bismarck, ND 58504-5841
701-222-6464/701-220-2807Greg

Rep	Item Lookup Code	Description	Quantity	Price	Extended
	SP-MEYER-1307005	SNOWPLOW BLUE OIL	4	\$13.56	\$54.24

GLENN'S WELDING & TRAIL
121 EASTDALE DRIVE
BISMARCK ND-58501
701/223-5043

SALE

REF#: 00000028
RRN: 635595209
16:25:21

Batch #: 297001
Invoice #: 28
APPR CODE: 013746
VISA *****6485
Contactless **/**

AMOUNT \$54.24

APPROVED

VISA CREDIT
AID: A000000031010
TVR: 00 00 00 00 00

Thank You
Please Come Again
CUSTOMER COPY

COPY

Thank you for shopping
Custom Truck Accessories
Please come again!

Sub Total	\$54.24
Sales Tax	\$0.00
Total	\$54.24
Visa / Mastercard Tendered	\$54.24
Card: 6485	
Exp: 0225	
Auth:	
Change Due	\$0.00



SALES RECEIPT

BILL TO
 Bismarck Parks & Recreation
 400 E. Front Ave.
 Bismarck, ND 58504

SHIP TO
 Bismarck Parks & Recreation
 400 E. Front Ave.
 Bismarck, ND 58504

SALES # 142880
DATE 10/23/2023

DATE	DESCRIPTION	QTY	RATE	AMOUNT
	USCAN Deadbolt SS(630)	1	53.50	53.50T

We appreciate your business! Thank you!

SUBTOTAL 53.50
 TAX 0.00
 TOTAL 53.50
 BALANCE DUE **\$0.00**

*Replacement
 bathroom
 Lock*

Guardian Lock and Safe
 2017 E Main
 Bismarck, ND 58501
 (701) 258-1919

10/23/2023 12:12:10
 Terminal ID No.: 79596637

Credit Sale:

Transaction #: 4
 Card Type: Visa
 Account: *****6485
 Entry: Chip
Amount: USD\$53.50

Ref. Number: 329617831017
 Auth. Code: 067226
 Batch Number: 282
 Response: APPROVAL 067226

Mode:
 AID: A0000000031010
 TVR: 0080008000
 IAD: 0601120360A002
 TSI: E600
 ARC: 00
 APPN: 780C0D12FAD1937B
 IC: 01AE
 APPLAB: VISA CREDIT

CUSTOMER COPY

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Guardian Lock & Security
 2017 East Main Avenue
 Bismarck, ND 58501



DEDICATED TO THE PROFESSIONAL

Store 1536, 2201 E BISMARCK EXPY,
BISMARCK, ND 58504 (701) 258-8755

Bill To:

BISMARCK PARKS AND RECRE

400 EAST FRONT AVENUE
BISMARCK, ND 58504

Invoice	1536-386767
Sale Type	CHG. CARD SALE
Date	10/23/2023 12:23 PM
Ship Via	
PO Number	mcown1

Counter #	Customer Account	Ordered By	Special Instructions
686608	806814		

Qty	Line	Item Number	Description	Warr	Unit	Tax	List	Net	Extended
4	AFZ	87219	1GalAntifrez	3D	EA	N	25.41	14.99	59.96

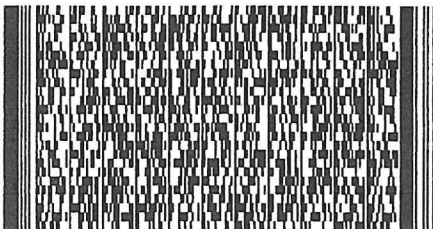
Winterizing

COPY

4 Items

We have banners to help promote your services! Ask Sales Rep for a full listing.

Chip Used: Y A000000031010 0000008000 E800 06011203A02002 Verified By Not Verified REF #: 964822626846 AUTH CD: 089281



Sub-Total 59.96
Sales Tax 0.00
Total 59.96
VISA #6485 59.96

WWW.FIRSTCALLONLINE.COM

Warranty/Garantia: www.firstcallonline.com/warranty

WE APPRECIATE YOUR BUSINESS!

1536WS150 Remit To: PO BOX 9464, SPRINGFIELD, MO 65801-9464

811123
BCWRD Dec 2023



701 South Washington
 Bismarck, ND 58504
 701-223-9582

PROD ID	QTY	UM	PRICE	TOTAL
READY TOW BALL MOUNT 2" DROP CHROME				
1C350423	1	EA	34.990	34.99 n
SUBTOTAL				34.99
				0.00
				34.99
				34.99

xxxxxx6485 (Approved)
 LNSON/DAVID

11/23 13:53:38 016 75800346016
 11 BISMARCK PARKS & RECREATION
 *ALL NEED A PO
 161011
 NUMBER: McDowell
 INVOICE #: 6496802 WSID: RSIWS1947
 4BEF605C-A079-433D-A588-C96A83AD9F39
 10E3VV 5.1.23.825 TILL ID: 05

Thanks for choosing Runnings!

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Oct 13, 2023 order
Order# 2000112-96457101



20pcs Short Tubeless Replacement Tire Valve Stems TS413 Truck Rubber TR-413 (Black)	Qty 1	\$8.37
Cody's Tire Snot Tire Mounting & Dismounting lube Bead Sealer, Non Hazardous, Tire Lube, 1 Gallon	Canceled Qty 1	\$25.00
10pcs TR412 Tubeless Tire Valve Stems Stubby for ATV, Lawn Mower, Etc.	Qty 1	\$7.83
3PK The Main Resource T150 Standard Tire Applicator Swab (11 1/2")	Qty 1	\$24.25
LBI06572 Angled Lube Bucket for Coats Tire Changers	Qty 1	\$19.82

Subtotal		\$63.42
Savings		-3.15
		\$60.27
Tax		\$0.00
Total		\$60.27

Charge history your transaction activity for this order >

Payment method Ending in 6485

COPY

MENARDS - BISMARCK
3300 State Street
Bismarck, ND 58503

KEEP YOUR RECEIPT.
RETURN POLICY VARIES BY PRODUCT TYPE

Unless noted below allowable returns for items on this receipt will be in the form of an in store credit voucher if the return is done after 12/29/23

If you have questions regarding the charges on your receipt, please email us at:
BISMfrontend@menards.com



Sale Transaction

Tax Exempt Certificate ID: 5021339
Exempt Type: Local Government

SAND MIX		
1891043	8 @6.19	49.52 NT
CONCRETE & MORTAR COLOR		
1895934		8.99 NT

TOTAL SALE	58.51
VISA CREDIT 6485	58.51
PO # MCDOWEL	
Auth Code:053322	
Chip Inserted	
a0000000031010	
TC - 5d3ee8ad2f6d8362	

TOTAL NUMBER OF ITEMS = 9

THE FOLLOWING REBATE RECEIPTS WERE
PRINTED FOR THIS TRANSACTION:
2321

GUEST COPY

The Cardholder acknowledges receipt of goods/services in the total amount shown and agrees to pay the card issuer according to its current terms.

THIS IS YOUR CREDIT CARD SALES SLIP
PLEASE RETAIN FOR YOUR RECORDS.

THANK YOU, YOUR CASHIER, Marilyn

20311 10 9875 09/30/23 10:10AM 3055

COPY

MENARDS - BISMARCK
3300 State Street
Bismarck, ND 58503

Prices shown are valid today only.

BISM 80927



Materials@menards.com

PICKING LIST - GUEST COPY

PAGE 1 OF 1

SOLD BY: IVY T.
 DATE: -10/09/23

GUEST NAME - ADDRESS - PHONE
 Nelson, Tim
 400 E Front Ave
 Bismarck, ND 58504-5641
 Ph: (701) 222-6455
 JOB DESC:

~~KEEP YOUR RECEIPT~~
 RETURN POLICY VARIES BY PRODUCT TYPE.

Unless noted below allowable returns for items on this receipt will be in the form of an in store credit voucher if the return is done after 01/07/24

If you have questions regarding the charges on your receipt, please email us at:
 BISMfrontend@menards.com



Sale Transaction

Cust name: Nelson, Tim

Tax Exempt Certificate ID: 5021339
 Exempt Type: Local Government

2-1/4" MAGNETIC BIT HOLDE		
2520704 3.00 P @1.99/PKG	5.97	NT
3" EXT DECK STAR DRIVE		
2303515	29.47	NT
1-1/4" EXT DECK STAR DRIV		
2300274	29.47	NT
1" INSERT DRIVE BIT T25		
2520700	9.98	NT
ORDER	80927	
2X8-14' AC2 GREEN TREATE-PICK		
1111354 3 @24.19	72.57	NT
2X8-8' AC2 GREEN TREATED-PICK		
1111325 2 @13.28	26.56	NT
2X4-8' AC2 GREEN TRTD -PICK		
1110818	6.58	NT
2X4-14' AC2 GREEN TREATE-PICK		
1110847 2 @13.09	26.18	NT
4X4-8' AC2 GREEN TREATED-PICK		
1112214 2 @12.98	25.96	NT
END OF ORDER		

TOTAL SALE 232.74
 VISA 6485 232.74
 003947
 Swiped
 PO # mcdowl

TOTAL NUMBER OF ITEMS = 16

THE FOLLOWING REBATE RECEIPTS WERE PRINTED FOR THIS TRANSACTION:
 2323

GUEST COPY

The Cardholder acknowledges receipt of goods/services in the total amount shown hereon and agrees to pay the card issuer according to its current terms.

THIS IS YOUR CREDIT CARD SALES SLIP
 PLEASE RETAIN FOR YOUR RECORDS.

SKU NUMBER	
GROUND CONTACT	111-0818
EDGROUND CONTACT	111-0847 ✓
ED GROUND CONTACT	111-1325 ✓
EDGROUND CONTACT	111-1354 ✓
ED GROUND CONTACT	111-2214

COPY

[NOT BEING AVAILABLE ON A LATER DATE ALL MERCHANDISE TODAY. THANK YOU.

yard picking list subject to the terms and conditions below. Quantities listed above may exceed quantities guest, but instead is available to the buying public on a first come, first serve basis. Please pickup all up products on this picking list today will result in additional charge to you if, on the day of pick up, the Menards liability to you is limited to refunding your original purchase price for any product not picked up.

ndise.
 All vehicles are subject to inspection.)
 I gladly help you load your materials

PRE-TAX TOTAL: 157.85

ndant. (The Gate Attendant will record the

ve received the merchandise.

trunk lid, etc. For your convenience, we supply twine, but you will have to decide whether or not your do not believe the twine will suffice, stronger material can be purchased inside the store.

ll returns are subject to Menards' posted return policy. In consideration for Menards low prices you agree will agree to exchange the merchandise or refund the purchase price based on the form of original payment. If there is a warranty provided by the manufacturer, that warranty shall govern your rights and Menards shall warranties, and are not a part of this contract. The guest agrees to inspect all merchandise prior to installing **RDS BE LIABLE FOR ANY SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES. PLIED, AS TO MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OF THE** relating to this contract, or the breach thereof, shall be settled by arbitration administered by the American ercial Arbitration Rules, and judgments on the award rendered by the arbitrator(s) may be entered in any s and conditions through purchase of merchandise contained on this document.

E ATTENDANT-SCAN HERE ==>



Page 1 of 252
 BOWFD Dec 2023

MENARDS - BISMARCK
3300 State Street
Bismarck, ND 58503

KEEP YOUR RECEIPT
 RETURN POLICY VARIES BY PRODUCT TYPE

Unless noted below allowable returns for items on this receipt will be in the form of an in store credit voucher if the return is done after 01/08/24

If you have questions regarding the charges on your receipt, please email us at:
 BISMfrontend@menards.com



Sale Transaction

Cust name: Nelson, Tim

Tax Exempt Certificate ID: 5021339
 Exempt Type: Local Government

ORDER 81335
 2X8-8' AC2 GREEN TREATED-PICK 26.56 NT
 1111325 2 @13.28
 2X4-8' AC2 GREEN TRTD -PICK 26.32 NT
 1110818 4 @6.58
 2X2-42" BEVELD 1END GREE-PICK 83.50 NT
 1113572 50 @1.67
 END OF ORDER

TOTAL SALE 136.38
 VISA CREDIT 6485 136.38

PO # mcdowell
 Auth Code:026244
 Chip Inserted
 a0000000031010
 TC - 15ef3b7be530d924

TOTAL NUMBER OF ITEMS = 56

THE FOLLOWING REBATE RECEIPTS WERE PRINTED FOR THIS TRANSACTION:
 2323

GUEST COPY

The Cardholder acknowledges receipt of goods/services in the total amount shown hereon and agrees to pay the card issuer according to its current terms.

THIS IS YOUR CREDIT CARD SALES SLIP
 PLEASE RETAIN FOR YOUR RECORDS.

THANK YOU, YOUR CASHIER, Ariana

52009 04 5636 10/10/23 03:25PM 3055

Prices shown are valid today only.

BISM 81335



6
 ingMaterials@menards.com

PICKING LIST - GUEST COPY
PAGE 1 OF 1

SOLD BY: KEN H.
 DATE:- 10/10/23

GUEST NAME - ADDRESS - PHONE
 Nelson, Tim
 400 E Front Ave
 Bismarck, ND 58504-5641
 Ph: (701) 222-6455
 JOB DESC:

SKU NUMBER	
GROUND CONTACT	111-0818
ED GROUND CONTACT	111-1325
EENABOVE GROUND	111-3572

COPY

**NOT BEING AVAILABLE ON A LATER DATE
 ALL MERCHANDISE TODAY. THANK YOU.**

This picking list subject to the terms and conditions below. Quantities listed above may exceed quantities rest, but instead is available to the buying public on a first come, first serve basis. Please pickup all products on this picking list today will result in additional charge to you if, on the day of pick up, the menards liability to you is limited to refunding your original purchase price for any product not picked up.

(The Cardholder acknowledges receipt of goods/services in the total amount shown hereon and agrees to pay the card issuer according to its current terms.)
 Vehicles are subject to inspection.
 Help you load your materials

PRE-TAX TOTAL: 136.38

(The Gate Attendant will record the received the merchandise.

lid, etc. For your convenience, we supply twine, but you will have to decide whether or not you believe the twine will suffice, stronger material can be purchased inside the store.

Items are subject to Menards' posted return policy. In consideration for Menards low prices you agree to exchange the merchandise or refund the purchase price based on the form of original payment. This is a warranty provided by the manufacturer, that warranty shall govern your rights and Menards shall not be liable for any special, incidental, or consequential damages. This contract, or the breach thereof, shall be settled by arbitration administered by the American Arbitration Rules, and judgments on the award rendered by the arbitrator(s) may be entered in any conditions through purchase of merchandise contained on this document.

ATTENDANT-SCAN HERE ==>



MENARDS - BISMARCK
3300 State Street
Bismarck, ND 58503

KEEP YOUR RECEIPT
RETURN POLICY VARIES BY PRODUCT TYPE

Unless noted below allowable returns for items on this receipt will be in the form of an in store credit voucher if the return is done after 12/24/23

If you have questions regarding the charges on your receipt, please email us at:

BISMfrontend@menards.com



Sale Transaction

Tax Exempt Certificate ID: 5021339
Exempt Type: Local Government

3 PC AVIATION SNIPS SET	LW	
2448262	13.99	NT
10" TIN SNIPS	LW	
2442190	8.99	NT
2" PVC CLEANOUT PLUG		
6892966	1.99	NT
2" FEM ADAPTER SCH40		
6891911	2.39	NT
2" LONG TURN PVC WYE		
6892869	8.59	NT
TOTAL SALE	35.95	
VISA CREDIT 6485	35.95	

PO # mcdowell damn
Auth Code:077786
Chip Inserted
a0000000031010
TC - 8594bf02ddd8b2bb

Plumbing tools

COPY

TOTAL NUMBER OF ITEMS = 5

THE FOLLOWING REBATE RECEIPTS WERE
PRINTED FOR THIS TRANSACTION:
2321

GUEST COPY

The Cardholder acknowledges receipt of goods/services in the total amount shown hereon and agrees to pay the card issuer according to its current terms.

THIS IS YOUR CREDIT CARD SALES SLIP
PLEASE RETAIN FOR YOUR RECORDS.

LW = Lifetime warranty item that ever fails to provide complete satisfaction is returnable to any Menards Store for the same or comparable item.

See menards.com for return policy details

MENARDS - BISMARCK
3300 State Street
Bismarck, ND 58503

Prices shown are valid today only.

BISM 82438



6
ingMaterials@menards.com

KEEP YOUR RECEIPT
RETURN POLICY VARIES BY PRODUCT TYPE

PICKING LIST - GUEST COPY
PAGE 1 OF 1

GUEST NAME - ADDRESS - PHONE

Unless noted below allowable returns for items on this receipt will be in the form of an in store credit voucher if the return is done after 01/11/24

SOLD BY: ADAM A.
DATE: 10/13/23

Nelson, Tim
400 E Front Ave
Bismarck, ND 58504-5641
Ph: (701) 222-6455
JOB DESC:

If you have questions regarding the charges on your receipt, please email us at:

BISMfrontend@menards.com



Sale Transaction

SKU NUMBER

CK ABOVE GROUND 111-0643

Guest name: Nelson, Tim

Exempt Certificate ID: 5021339
Exempt Type: Local Government

ORDER 82438

2' AC2 GREEN THICKDECK -PICK
110643 13 @14.17 184.21 NT
END OF ORDER

Blanking

TOTAL SALE 184.21
ISA CREDIT 6485 184.21
ID # mcdowel
Auth Code:024478
Chip Inserted
a000000031010
TC - 85b7c0bc05524341

COPY

TOTAL NUMBER OF ITEMS = 13

THE FOLLOWING REBATE RECEIPTS WERE
PRINTED FOR THIS TRANSACTION:
2323

GUEST COPY

The Cardholder acknowledges receipt of goods/services in the total amount shown hereon and agrees to pay the card issuer according to its current terms.

THIS IS YOUR CREDIT CARD SALES SLIP
PLEASE RETAIN FOR YOUR RECORDS.

THANK YOU, YOUR CASHIER, Kimberly

52188 07 0782 10/13/23 02:07PM 3055

NOT BEING AVAILABLE ON A LATER DATE
ALL MERCHANDISE TODAY. THANK YOU.

ward picking list subject to the terms and conditions below. Quantities listed above may exceed quantities guest, but instead is available to the buying public on a first come, first serve basis. Please pickup all products on this picking list today will result in additional charge to you if, on the day of pick up, the Menards liability to you is limited to refunding your original purchase price for any product not picked up.

disse.
I vehicles are subject to inspection.)
gladly help you load your materials

PRE-TAX TOTAL: 184.21

dant. (The Gate Attendant will record the

received the merchandise.

unk lid, etc. For your convenience, we supply twine, but you will have to decide whether or not your not believe the twine will suffice, stronger material can be purchased inside the store.

returns are subject to Menards' posted return policy. In consideration for Menards low prices you agree will agree to exchange the merchandise or refund the purchase price based on the form of original payment. there is a warranty provided by the manufacturer, that warranty shall govern your rights and Menards shall warranties, and are not a part of this contract. The guest agrees to inspect all merchandise prior to installing DS BE LIABLE FOR ANY SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES. LIED, AS TO MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OF THE iting to this contract, or the breach thereof, shall be settled by arbitration administered by the American pial Arbitration Rules, and judgments on the award rendered by the arbitrator(s) may be entered in any nd conditions through purchase of merchandise contained on this document.

ATTENDANT-SCAN HERE ==>



Page 188 of 252
BCWRD Dec 2023

MENARDS - BISMARCK
3300 State Street
Bismarck, ND 58503

KEEP YOUR RECEIPT
RETURN POLICY VARIES BY PRODUCT TYPE

Unless noted below allowable returns for
items on this receipt will be in the form
of an in store credit voucher if the
return is done after 12/24/23

If you have questions regarding the
charges on your receipt, please
email us at:
BISMfrontend@menards.com



Sale Transaction

Tax Exempt Certificate ID: 5021339
Exempt Type: Local Government

100' CAT6 PATCHCABLE BLU 3016120	39.99	NT
2" 90DEG SCH40 ELBOW 6897770	3.89	NT
<i>Ethernet Cable</i>		
TOTAL SALE	43.88	
VISA CREDIT 6485	43.88	

PO # mcdougall dam
Auth Code:072616
Chip Inserted
a0000000031010
TC - c46339ba6a7ff2eb

TOTAL NUMBER OF ITEMS = 2

THE FOLLOWING REBATE RECEIPTS WERE
PRINTED FOR THIS TRANSACTION:
2321

GUEST COPY

The Cardholder acknowledges receipt of
goods/services in the total amount shown
hereon and agrees to pay the card issuer
according to its current terms.

THIS IS YOUR CREDIT CARD SALES SLIP
PLEASE RETAIN FOR YOUR RECORDS.

THANK YOU, YOUR CASHIER, Janeane

61240 07 1840 09/25/23 10:31AM 3055

COPY



701 South Washington
 Bismarck, ND 58504
 701-223-9582

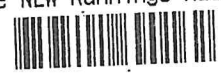
PROD ID	QTY	UM	PRICE	TOTAL
CABLE, COAXIAL 50' BLACK				
3281240	1	EA	17.490	17.49 n
SPLITTER, 2 WAY SIGNAL				
3280869	1	EA	4.990	4.99 n
CONNECTOR, COAX IN LINE				
3280940	1	EA	1.990	1.99 n
CONNECTOR, FEED THRU 4 PK				
3281169	1	EA	3.690	3.69 n
CABLE, COAXIAL 6'				
3281101	1	EA	6.490	6.49 n
SUBTOTAL				34.65
Tax				0.00
TOTAL				34.65

Electrical

Visa
 xxxxxxxxxxxx6485 (Approved)
 ROBINSON/DAVID

09/26/23 11:51:32 016 75740169016
 1610111 BISMARCK PARKS & RECREATION
 ATB: *ALL NEED A PO
 GOV: 1610111
 PO NUMBER: mcdowell
 INVOICE #: 6492161 WSID: RSIWS1949
 88E581B9-97F6-45B1-84B2-0DBD01BF4533
 0928SV 5.1.23.825 TILL ID: 03
 Thanks for choosing Runnings!

Earn rewards for every purchase.
 Apply for the NEW Runnings Mastercard®



COPY

MENARDS - BISMARCK
3300 State Street
Bismarck, ND 58503

KEEP YOUR RECEIPT
RETURN POLICY VARIES BY PRODUCT TYPE

Unless noted below allowable returns for items on this receipt will be in the form of an in store credit voucher if the return is done after 01/09/24

If you have questions regarding the charges on your receipt, please email us at:
BISMfrontend@menards.com



Sale Transaction

Tax Exempt Certificate ID: 5021339
Exempt Type: Local Government

ORDER 81616
2X8-14' AC2 GREEN TREATE-PICK 24.19 NT
1111354
2X8-8' AC2 GREEN TREATED-PICK 26.56 NT
1111325 2 @13.28
END OF ORDER

TOTAL SALE 50.75
VISA CREDIT 6485 50.75
PO # mcdowell
Auth Code:089378
Chip Inserted
a0000000031010
TC - 09dacaaca4643bd4

TOTAL NUMBER OF ITEMS = 3

THE FOLLOWING REBATE RECEIPTS WERE
PRINTED FOR THIS TRANSACTION:
2323

GUEST COPY

The Cardholder acknowledges receipt of goods/services in the total amount shown hereon and agrees to pay the card issuer according to its current terms.

THIS IS YOUR CREDIT CARD SALES SLIP
PLEASE RETAIN FOR YOUR RECORDS.

THANK YOU, YOUR CASHIER, Deb

76375 06 7461 10/11/23 01:31PM 3055

Prices shown are valid today only.

BISM 81616



ngMaterials@menards.com

PICKING LIST - GUEST COPY
PAGE 1 OF 1

SOLD BY: JAYCE Z.
DATE: 10/11/23

GUEST NAME - ADDRESS - PHONE

Ph:
JOB DESC:

	SKU NUMBER
TED GROUND CONTACT	111-1325
TEDGROUND CONTACT	111-1354

COPY

NOT BEING AVAILABLE ON A LATER DATE
ALL MERCHANDISE TODAY. THANK YOU.

yard picking list subject to the terms and conditions below. Quantities listed above may exceed quantities available to the buying public on a first come, first serve basis. Please pickup all products on this picking list today will result in additional charge to you if, on the day of pick up, the Menards liability to you is limited to refunding your original purchase price for any product not picked up

ndise.
ll vehicles are subject to inspection.)
I gladly help you load your materials

ndant. (The Gate Attendant will record the

e received the merchandise.

trunk lid, etc. For your convenience, we supply twine, but you will have to decide whether or not your twine will suffice, stronger material can be purchased inside the store.

returns are subject to Menards' posted return policy. In consideration for Menards low prices you agree to exchange the merchandise or refund the purchase price based on the form of original purchase. If there is a warranty provided by the manufacturer, that warranty shall govern your rights and Menards' warranties, and are not a part of this contract. The guest agrees to inspect all merchandise prior to installation, AS TO MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OF THE MERCHANDISE. ALL DAMAGES, INCLUDING CONSEQUENTIAL DAMAGES, SHALL BE SETTLED BY ARBITRATION ADMINISTERED BY THE AMERICAN ARBITRATION RULES, AND JUDGMENTS ON THE AWARD RENDERED BY THE ARBITRATOR(S) MAY BE ENTERED IN A COURT OF LAW. AND CONDITIONS THROUGH PURCHASE OF MERCHANDISE CONTAINED ON THIS DOCUMENT.

PRE-TAX TOTAL: 50

ATTENDANT-SCAN HERE





FORCE America Distributing, LLC.

A subsidiary of FORCE America, Inc.
501 East Cliff Road
Burnsville, MN 55337
(952) 707-1300

Invoice

INVOICE

IN001-1769108

DATE

10/12/2023

PAGE

1 OF 2

100247
Bismarck Parks & Rec District
400 E Front Ave
Bismarck ND 58504-5641
USA

59462
Bismarck Parks & Rec District
400 E Front Ave
Bismarck ND 58504-5641
USA

Order Number: SO001-1818817	Currency: USD	Remit To: FORCE America
Order Date: 10/12/2023	Cash Discount:	Distributing LLC
Customer P/O #: MCDOWELL DAM		501 East Cliff Rd.
Customer Ref.: DAVE 701-226-4955		Burnsville MN 55337
Contact:	Sales Rep: FAI	USA
Payment Terms: Due - CredCard	Mode of Delivery: WILL CALL	
Discount Terms:	Delivery Terms:	
Payment Mode: CreditCard	Carrier Account:	Fed Tax ID: 26-4767707

NOTES

	PRODUCT / DESCRIPTION	QTY ORD	QTY SHIPPED	QTY B/O	U/M	PRICE	EXTENSION
1	1013403 Adapter Tee 3/4 x 16 Male JIC X 3/4 x 16 Male JIC X 3/4 x 16 Male JIC Steel 2603-08-08-08	1	1	0	EA	5.2800	5.28
	Packing Slip: 001-0880765						
2	1053040 06 Female JIC Swivel Straight for 3/8" Hose 06Z-606 (C.O.O.: USA)\n	1	1	0	EA	14.7900	14.79
	Packing Slip: 001-0880765						
3	1070682 08 Female JIC Swivel Straight for 3/8" Hose 06Z-608 (C.O.O.: USA)\n	2	2	0	EA	15.6700	31.34
	Packing Slip: 001-0880765						
4	1111425 06 Female JIC 45 Elbow for 3/8" Hose 06Z-686 (C.O.O.: USA)\n	1	1	0	EA	33.0700	33.07
	Packing Slip: 001-0880765						
5	1143133 Rev. A Crimp Charges CrimpCharges	4	4	0	EA	5.0000	20.00
	Packing Slip:						
6	1128447 3/8" EN857 2SC - 5000 PSI Hose - 250 foot spool - Use with Z series or Winner ends only EC215-06-250-LRL (C.O.O.: TUR)\n	5	5	0	FT	3.5200	17.60
	Packing Slip: 001-0880765						

COPY



FORCE America Distributing, LLC.

A subsidiary of FORCE America, Inc.
501 East Cliff Road
Burnsville, MN 55337
(952) 707-1300

Invoice

INVOICE #: 001-1769108
CUSTOMER #: 100247
DATE: 10/12/2023
PAGE: 2 OF 2

PRODUCT / DESCRIPTION	QTY ORD	QTY SHIPPED	QTY B/O	U/M	PRICE	EXTENSION
7 1068606 1/2" Hose - Nylon Hose Sleeve Flat / Per Foot DBK-027	4	4	0	FT	1.1800	4.72

Packing Slip: 001-0880765

COPY

PAID BY CREDIT CARD

Signature: _____

Credit Card: *****6485;

Type: Visa;

I agree to pay above total amount of each charge listed according to card issuer agreement (merchant agreement if credit voucher)

MERCHANDISE TOTAL:	\$126.80
MISC CHARGE:	\$0.00
TAX:	\$0.00
FREIGHT:	\$0.00
INVOICE TOTAL:	\$126.80
PAYMENT RECEIVED:	\$0.00
TOTAL DUE:	\$0.00



RDO Equipment Co.
 1850 E. Bismarck
 Expressway
 Bismarck, ND 58504
 701-946-7165
 Fax: 701-222-6341

For Billing Inquiries or to
 receive invoices via E-mail or
 MyDealer website, please contact
 RDOAR@rdoequipment.com

Ship to: N/A

Branch
 BISMARCK CP
 Date
 10/19/23
 Account No.
 6455018
 Ship Via
 WILL CALL
 Tax Exemption Number
 E4674

Time
 14:54:24 (R)
 Phone No.
 7012226455
 Purchase Order
 Z997R
 Federal ID Number

CNNYYY
 Page
 01
 Invoice No.
 P4660646
 Salesperson
 GJ9

Invoice to: BISMARCK PARKS & REC
 MCDOWELL DAM
 400 EAST FRONT AVE
 BISMARCK ND 58504

PARTS INVOICE

ORDER#: 042966

* Buy parts online and view your invoices at RDOequipment.com/account
 Create your FREE RDO Account today!
 ** Ask how you can save 15% on select turf parts.

UNIT 1: LG FRAME MIDZ MOWER 1TCZ997RVKM060092 Z997R

Part#	Description	Bin	ORD	ISS	SHR	B/O	U	Price	Amount
AP24780	SEAL	BC00912	1	1	1			11.28	11.28
DMU211260	Spacer	BC00912	1	1	1			16.15	16.15
JD8935	BEARING CO	V08G10	1	1	1			7.62	7.62
24H1465	WASHER	BC00911	1	1	1			1.69	1.69
M43747	WASHER	BC00912	1	1	1			2.98	2.98
TCU26104	Lock Nut	BC00912	1	1	1			9.17	9.17
UC13867	Plug	V06E20	2	2	2			15.10	30.20
JD8935	BEARING CO	BC00912	1	1	1		1	7.62	7.62

DAVE 701-226-4955
 1TCZ997RVKM060092
 THANK YOU

*Spindle
 Rebuild
 Zero turn*

093962 XXXXXXXXXXXXX6485 CREDIT CARD CHARGE 86.71

 * TERMS AND CONDITIONS APPLICABLE TO THE SALES ARE IN
 * ACCORDANCE WITH YOUR AGREEMENT WITH THE ISSUER OF YOUR CARD.

TOTAL WEIGHT=> .72
 APPROVED
 Authorization Number:093962
 Account Number:#####6485

COPY

Thank you for your Business

Stocked parts can be returned within 30 days with copy of invoice. Special order parts \$20.00 and up may be returned within 30 days with copy of invoice. 20% restock charge will apply to all special order parts. All sales are final on special order non-returnable parts. All parts must be new, uninstalled and in original packaging. No returns on electrical components. No refunds on freight charges.



INVOICE

AUTO VALUE BISMARCK
122 NORTH 1ST STREET
BISMARCK, ND 58501
(701) 223-6625

DATE	10/25/2023	INVOICE #	4103572262
ORDER DATE	10/25/2023	REF #	
TIME	02:18 PM	ACCT #	41000163
SELLER	410032		
P.O. #	MCDOWELL		

Bill To
BISMARCK PARKS & RECREATION
400 E FRONT AVE
BISMARCK, ND 58504

Ship To
BISMARCK PARKS & RECREATION
605 W ARBOR AVE
BISMARCK, ND 58504

SLSMN: 100758

Page 1 of 1

QTY	MFG	PART NUMBER	DESCRIPTION	CORE	LIST	SELL	EXTENDED	TAX
1	PMT	14-100	RUBBER PREP SOLUTION	0.00	19.70	12.99	12.99	N/N
1	PMT	11-322	UNIVERSAL PATCH	0.00	16.80	11.99	11.99	N/N
1	PMT	14-101	BEAD SEALER	0.00	18.78	12.99	12.99	N/N
1	PMT	11-003	TUBE PATCH	0.00	15.20	9.99	9.99	N/N
1	PMT	14-008	CHEMICAL VULCANIZING	0.00	11.35	6.99	6.99	N/N
1	AGS	RG-18	RUGLYDE	0.00	25.35	16.99	16.99	N/N

CUSTOMER COPY

GO TO WWW.AUTOVALUECARES.COM
SHARE YOUR EXPERIENCE AND
YOU MAY WIN A \$100 GIFT CARD

Signature

Subtotal	71.94
Core	0.00
Tax	0.00
Total	71.94
Invoice Payment Type	CHRG
CHARGE	

INVOICE

DAKOTA FIRE STATION, INC
820 AIRPORT RD.
BISMARCK, ND 58504

Invoice

Date	11/14/2023
Invoice #	72733
Due Date	11/29/2023
Terms	NET 15
P.O. #	
Rep	DEREK

Bill To

BISMARCK PARKS & REC
400 E FRONT AVE
BISMARCK ND 58504

Ship To

MCDOWELL DAM
DAVID ROBINSON 223-7016
226-4955

Item	Qty	Description	Rate	Amount
FEPD5LB	2	VICTORY 5 LB ABC EXTINGUISHER 3A.40BC	62.50	125.00
AN5	4	ANNUAL INSPECTION OF A 5# FIRE EXTINGUISHER	8.00	32.00
RD10	1	RECHARGE OF A 10# DRY CHEMICAL FIRE EXT.	18.50	18.50
TASC2	1	GREY VERIFICATION OF SERVICE COLLAR	0.50	0.50
OR28	1	ANSUL ORING (NEW STYLE HEAD)	1.10	1.10
PPNPP	1	FIRE EXTINGUISHER PULL PIN	1.00	1.00

Please provide updated information on this invoice and include it with your payment, or contact us at the information provided below.

Subtotal \$178.10

Sales Tax (0.0%) \$0.00

Would you like to receive your statements via email? yes no
 E-mail: _____

Balance Due \$178.10

HD: _____ 6YR: _____ RPLC: _____

Thank you for your business. Please pay from this invoice.



DEDICATED TO THE PROFESSIONAL

Store 1536, 2201 E BISMARCK EXPY,
BISMARCK, ND 58504 (701) 258-8755

Bill To:

BISMARCK PARKS AND RECRE

400 EAST FRONT AVENUE
BISMARCK, ND 58504

Invoice	1536-384169
Sale Type	CHG. CARD SALE
Date	10/11/2023 9:23 AM
Ship Via	
PO Number	mcdowell

Counter #	Customer Account	Ordered By	Special Instructions
616701	806814		

Qty	Line	Item Number	Description	Warr	Unit	Tax	List	Net	Extended
1	XTS	14-978	COMBO TOOL	90	EA	N	223.71	105.59	105.59
			DC or Hub Pickup						
			This item has been ordered:						
			1 from DC 20 KANSAS CITY						
1	FRT	FREIGHT	XTS_14-978	NA	EA	N		8.13	8.13

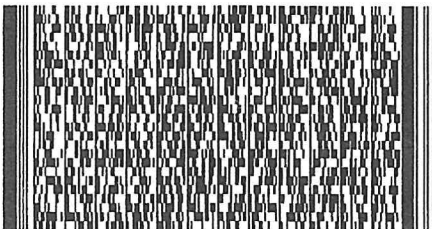
Tire tool

COPY

2 Items

Ask about our Battery Tester Earnback for alternators, starters & batteries!

Chip Used: Y A0000000031010 0000008000 E800 06011203A02002 Verified By Not Verified REF #: 843739868327 AUTH CD: 055339



Sub-Total 113.72
Sales Tax 0.00
Total 113.72
VISA #6485 113.72

WWW.FIRSTCALLONLINE.COM

Warranty/Garantia: www.firstcallonline.com/warranty

WE APPRECIATE YOUR BUSINESS!

1536WS150 Remit To: PO BOX 9464, SPRINGFIELD, MO 65801-9464

09 11 23
BCWRD Dec 2023



701 South Washington
 Bismarck, ND 58504
 701-223-9582

PROD ID	QTY	UM	PRICE	TOTAL
RATCHET SCREWDRIVER & BIT SET 135PC				
61482515	1	EA	43.990	43.99 n
TOOL KIT ELECTRONIC REPAIR 77PC				
5581948	1	EA	15.990	15.99 n
BITS IN A BOX 100 PC				
61910100	1	EA	17.990	17.99 n
SUBTOTAL				77.97
Tax				0.00
TOTAL				77.97
Visa				77.97
xxxxxxx6485 (Approved)				
ROBERTSON/DAVID				

*Specialty
 100!
 Bits*

10/20/23 11:57:30 016 75980304016

1610111 BISMARCK PARKS & RECREATION

ATB: **ALL NEED A PO

GOV: 1610111

PO NUMBER: McDowell

INVOICE #: 6511442 WSID: RSIWS1952

394EF41B-P0EE-46F1-8848-14BB5C3495FC

2980JLA 5.1.23.825 TILL ID: 02

Thanks for choosing Runnings!

Earn rewards for every purchase.
 Apply for the NEW Runnings Mastercard®



COPY

Mac's-Bismarck
 900 26th Street S
 Bismarck, ND 58504

PHONE: (701) 221-0654

INVOICE NO: 700850 JOB NO: 000 PURCHASE ORDER: MCDOWELL REFERENCE: PO # MCDOWELL TERMS: COTC CLERK: KM14633 DATE / TIME: 9/26/23 10:19

DUE DATE: 11/10/23 TERMINAL: 1812

SOLD TO:
 BISMARCK PARK & RECREATION
 400 E. FRONT AVE.

 BISMARCK ND 58504
 701-222-6464

SHIP TO:
 ROBINSON/DAVID

TAX: 108 BISMARCK 1.5 ND 5 CO.

INVOICE: F15628/8

LINE	SHIPPED	ORDERED	UM	SKU	DESCRIPTION	SUGG	UNITS	PRICE/ PER	EXTENSION
	1	1	EA	1144699	HL-604 JACK 4660LB <i>Hand made Jack</i>		1	149.99 /EA	149.99 N

** PAID IN FULL **

149.99

TAXABLE 0.00
 NON-TAXABLE 149.99
 SUBTOTAL 149.99

COPY



BANKCARD PAYMENT
 BKCRD#XXXXXXXXXXXX6485

TAX AMOUNT 0.00
 149.99 **TOTAL 149.99**

TOT WT: 0.00
 MID: ***6749

APP: 079891 XR: 515628

X _____
 Received By



DEDICATED TO THE PROFESSIONAL

Store 1536, 2201 E BISMARCK EXPY,
BISMARCK, ND 58504 (701) 258-8755

Bill To:

BISMARCK PARKS AND RECRE

400 EAST FRONT AVENUE
BISMARCK, ND 58504

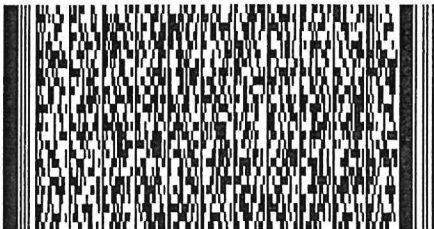
Invoice	1536-389412
Sale Type	CHARGE SALE
Date	11/03/2023 7:30 PM
Ship Via	
PO Number	mcdowell

Counter #	Customer Account	Ordered By	Special Instructions
682548	806814	thanks	

Qty	Line	Item Number	Description	Warr	Unit	Tax	List	Net	Extended
1	REN	67021	PULLER	RT	EA	N	101.68	59.99	59.99

1 Item

Power Torque Tools, Designed to work as hard as the automotive technician.



X _____
Customer Signature



Sub-Total	59.99
Sales Tax	0.00
Total	59.99

PURCHASE ORDER
BISMARCK PARKS AND RECREATION DISTRICT
 400 East Front Avenue • Bismarck, ND 58504
 Phone: (701) 222-6455 • Fax (701) 221-6838

No. 97668

ND Tax Exempt Number: E-4674
 Federal ID Number: 45-0409352

Name Dakota Surplus

Vendor Cole 8

Address _____

Date 11/14/23

Notes Shop tools

Acct #	Project Number	Cost
<u>01.12.000.563200</u>		<u>\$500.00</u>
Description <u>fire machine</u>		
<u>01.12.000.531700</u>		<u>500.00</u>
Description <u>air compressor & material handler</u>		
Acct # <u>200</u> <u>300</u>		
Description		
Acct #		
Description		
Acct #		
Description		
Acct #		
Description		
Acct #		
Description		
Acct #		
Description		

Employee's Signature [Signature]

Total 1,000.00

Manager's Signature [Signature] DM

Approved By [Signature]

Printed On: 11/14/2023

Page 1 of 1

Document Number: 158447 / 30487
 BISMARCK PARKS AND RECREATION
 DAVID ROBINSON
 400 EAST FRONT AVENUE

Number: BIS0012

11/14/2023

BISMARCK, NORTH DAKOTA 58504
 Phone: (701) 222-6455
 Remarks:

Inventory Number	Description of Property	Qty Unit	Cost	Handling Charge
ND-023-4696-42-005	MATERIAL HANDLING EQUIP, NONSELF-PROPEL CDA03M31860003	1	\$300.00	\$300.00
ND-023-8230-94-002	Compressor FB45283143T015	1	\$200.00	\$200.00

NDSASP REP: RANDY

Total: \$500.00
 Amount Applied: \$0.00
 Total Due: \$500.00

By signing and submitting this lower tier proposal, the prospective lower tier participant, as defined in 41 CFR 105-68, certifies to the best of its knowledge and belief that it and its principals are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency and where the prospective lower tier participant is unable to certify to any of the above, such prospective participant shall attach an explanation to this proposal.

THIS IS YOUR INVOICE

Remit To

North Dakota Surplus Property
 600 East Boulevard Ave., Dept. 15
 Bismarck, ND 58505-0608

As the authorized agent of the above donee, I accept the property listed above and commit the donee to comply with the terms and conditions printed on the other side of this document.

Mac's-Bismarck
 900 26th Street S
 Bismarck, ND 58504

PHONE: (701) 221-0654

CUST NO: 700850 JOB NO: 000 PURCHASE ORDER: MCDOWELL REFERENCE: SETH JOHNSON TERMS: COTC CLERK: JG15268 DATE/TIME: 11/4/23 11:24

DUE DATE: 12/10/23 TERMINAL: 1811

SOLD TO:
 BISMARCK PARK & RECREATION
 400 E. FRONT AVE.

SHIP TO:

BISMARCK ND 58504
 701-222-6464

TAX: 108 BISMARCK 1.5 ND 5 CO.

INVOICE: F27452/8

LINE	SHIPPED	ORDERED	UM	SKU	DESCRIPTION	SUGG	UNITS	PRICE/ PER	EXTENSION
1	1	1	EA	1166463	1905P 1/2IN TAPER PIPE TAP		1	17.99 /EA	17.99 N

17.99 TAXABLE 0.00
 NON-TAXABLE 17.99
 SUBTOTAL 17.99

TAX AMOUNT 0.00

17.99 **TOTAL 17.99**

** Capital One PAYMENT**



TOT WT: 0.00
 MID: ***6749

APP: 534954 XR: 527452

X *[Signature]*

Received By
 Mail Capital One Trade Credit payments to:
 Capital One Trade Credit
 PO Box 105525 BCWRD Dec 2023
 Atlanta, GA 30348-5525



A Touchstone Energy® Cooperative

7401 Yukon Drive
Bismarck, ND 58503
Office: (701) 223-1513
Payments: (877) 853-5928
www.capitalelec.com

Statement Date
Account Number
Due Date

11/06/2023
868001
11/24/2023

Billing Summary

Table with 2 columns: Description (Previous Balance, Payment(s) Received, Balance Forward, Charges, Amount Due) and Amount (\$201.01, \$-201.01, \$0.00, \$194.37, \$194.37)

BIS CITY PARK DISTRICT
PARK & REC
400 E FRONT AVE
BISMARCK ND 58504-5641

Message(s) Grid Capacity Occurred: 07/16/2023 2:15 PM - 3:15 PM

Service Address: SEC 27SW MCDOWELL HOUSE

Table with 9 columns: Meter #, Rate Description, From, To, Days, Previous, Present, Mult., kWh

Detail of Charges

Table with 3 columns: Description (Monthly Base Charge, Usage Charge, Grid Capacity Charge), Rate, Amount (\$31.00, \$122.42, \$16.67, \$194.37)

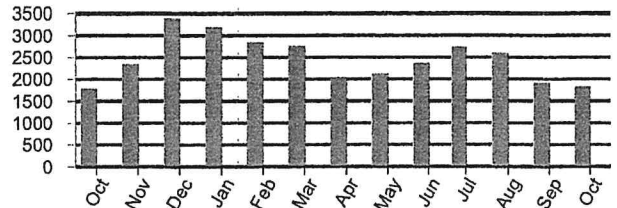


Table with 3 columns: PERIOD ENDING, OCT 2022, OCT 2023 (Avg Daily Temp, Avg Daily kWh)

RETURN BOTTOM PORTION WITH YOUR PAYMENT. PLEASE DO NOT FOLD, STAPLE, TAPE, OR PAPERCLIP.

Capital Electric Cooperative is an equal opportunity provider and employer.

BIS CITY PARK DISTRICT
PARK & REC
400 E FRONT AVE
BISMARCK ND 58504-5641
PRIMARY: (701) 222-6455

SECONDARY:

Account Number 868001
Due Date 11/24/2023
Amount Due \$194.37

See reverse side for payment options

Please notify us of any changes to your account information below:

Blank lines for account information changes

CAPITAL ELECTRIC COOPERATIVE, INC.
PO BOX 730
BISMARCK ND 58502-0730





A Touchstone Energy® Cooperative

7401 Yukon Drive
Bismarck, ND 58503
Office: (701) 223-1513
Payments: (877) 853-5928
www.capitalelec.com

Statement Date
Account Number
Due Date

11/06/2023
868002
11/24/2023

Billing Summary

Previous Balance \$233.65
Payment(s) Received Thank You! -\$233.65
Balance Forward \$0.00
Charges \$193.55
Amount Due \$193.55

BIS CITY PARK DISTRICT
PARK & REC
400 E FRONT AVE
BISMARCK ND 58504-5641

Message(s) Grid Capacity Occurred: 09/01/2023 4:30 PM - 5:30 PM

Service Address: SEC 27 MCDOWELL REC AREA

Table with columns: Meter #, Rate Description, From, To, Days, Previous, Present, Mult., kWh. Row 1: 78904864, RURAL SMALL COMM UNDER 10KW, 10/01/2023, 11/01/2023, 31, 2683, 2728, 40, 1800

Detail of Charges

Table with columns: Charge Description, Amount. Rows: Monthly Base Charge (\$31.00), Usage Charge (1500 kWh @ \$0.08161 = \$122.42, 300 kWh @ \$0.07711 = \$23.13), Grid Capacity Charge (13.6 kW @ \$1.25 = \$17.00), Current Charges (\$193.55)

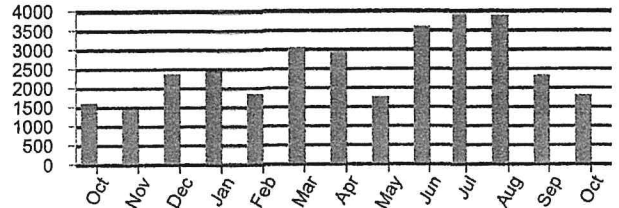


Table comparing metrics for OCT 2022 and OCT 2023. Metrics: Avg Daily Temp (49 vs 45), Avg Daily kWh (52 vs 58)

RETURN BOTTOM PORTION WITH YOUR PAYMENT. PLEASE DO NOT FOLD, STAPLE, TAPE, OR PAPERCLIP.

Capital Electric Cooperative is an equal opportunity provider and employer.

BIS CITY PARK DISTRICT
PARK & REC
400 E FRONT AVE
BISMARCK ND 58504-5641
PRIMARY: (701) 222-6455

SECONDARY:

Account Number 868002
Due Date 11/24/2023
Amount Due \$193.55

See reverse side for payment options

Please notify us of any changes to your account information below:

CAPITAL ELECTRIC COOPERATIVE, INC.
PO BOX 730
BISMARCK ND 58502-0730





A Touchstone Energy® Cooperative

7401 Yukon Drive
Bismarck, ND 58503
Office: (701) 223-1513
Payments: (877) 853-5928
www.capitalelec.com

Statement Date 11/06/2023
Account Number 868029
Due Date 11/24/2023

Billing Summary

Previous Balance \$45.49
Payment(s) Received Thank You! \$-45.49
Balance Forward \$0.00
Charges \$44.84
Amount Due \$44.84

BIS CITY PARK DISTRICT
PARK & REC
400 E FRONT AVE
BISMARCK ND 58504-5641

Message(s) Grid Capacity Occurred: 08/18/2023 3:45 PM - 4:45 PM

Service Address: 1951 NE 93RD ST

Table with columns: Meter #, Rate Description, From, To, Days, Previous, Present, Mult., kWh. Row 1: 93622953, RURAL SMALL COMM UNDER 10KW, 10/01/2023, 11/01/2023, 31, 2461, 2571, 1, 110

Detail of Charges

Table with columns: Charge Description, Amount. Rows: Monthly Base Charge \$31.00, Usage Charge 110 kWh @ \$0.08161 \$8.98, Grid Capacity Charge 3.884 kW @ \$1.25 \$4.86, Current Charges \$44.84

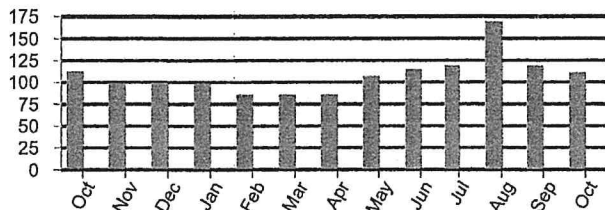


Table comparing metrics for OCT 2022 and OCT 2023. Metrics: Avg Daily Temp (49 vs 45), Avg Daily kWh (4 vs 4).

RETURN BOTTOM PORTION WITH YOUR PAYMENT. PLEASE DO NOT FOLD, STAPLE, TAPE, OR PAPERCLIP.

Capital Electric Cooperative is an equal opportunity provider and employer.

BIS CITY PARK DISTRICT
PARK & REC
400 E FRONT AVE
BISMARCK ND 58504-5641
PRIMARY: (701) 222-6455

SECONDARY:

Account Number 868029
Due Date 11/24/2023
Amount Due \$44.84

See reverse side for payment options

Please notify us of any changes to your account information below:

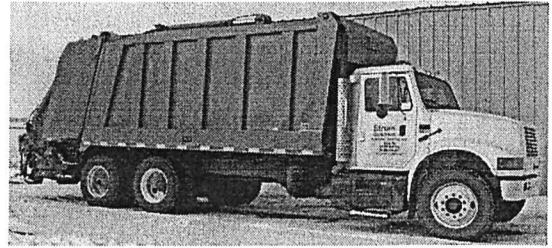
Three horizontal lines for account information changes.

CAPITAL ELECTRIC COOPERATIVE, INC.
PO BOX 730
BISMARCK ND 58502-0730



Strom Sanitation

Box 68
 Steele, ND 58482
 Shop Phone 701-475-4440
 Cell Phone 701-320-4140



Date:

October 30, 2023

Invoice No.

235232

Customer **Bismarck Parks and Recreational District (Attn McDowell Dam)**

Address **400 East Front Ave Bismarck ND 58504**

Due upon receipt of invoice unless other terms or arrangements are made

Rate Class

Town

weekly

McDowell Dam

START 8-5-2020 160.00 with 8 yd 56.00 with 2yd

Jan 2023 \$ 60.00 Feb 2023 \$ 60.00 Mar 2023 \$ 60.00

Apr 2023 \$ 160.00 May 2023 \$ 160.00 Jun 2023 \$ 160.00

Jul 2023 \$ 160.00 Aug 2023 \$ 160.00 Sep 2023 \$ 160.00

Oct 2023 \$ 160.00 Nov 2023 \$ 60.00 Dec 2023 \$ 60.00

Switched to 2yd price Nov 1 2022 until spring

Contact Bonnie Lahr 701-222-6464 David Robinson 701-226-4955

Special Intructions Customer May Change Dumpster size anytime

Total | \$1,455.00

ANY CONCERNS CALL MYRON ANY TIME 701-320-4140

-120



"Our business is picking up

Talked to Bonnie and she spoke with Strom Sanitation about us short paying for Nov a Dec until they have been serviced for those months. -NM

Thank You for choosing Strom Sanitation

We Appreciate Your Business

For Assistance or issues/concerns, please call Myron at cell number anytime



200 EAST BROADWAY
 PO BOX 230
 STEELE, ND 58482
 1.888.475.2361

Telephone No.: (701)223-7016

ACCOUNT NO: 1205800

BILL AT A GLANCE 10/01/2023
BISMARCK PARKS & REC

BALANCE FROM LAST BILLING		304.02
Payments Received	09-05	304.02CR
Previous Balance Due		.00

SUMMARY BY SERVICE TYPE

BUSINESS LINE METERED	64.00
TELEPHONE SERVICES	2.06
MISCELLANEOUS SERVICES	30.90
MANDATED FEES	4.06
INTERNET SERVICES	101.50
INTERNET SERVICES	.00

CURRENT BILLING AMOUNT 202.52

Credit Card Payment -- Do Not Pay 202.52

Previous Bill	Payment/Adj	Current Billing	Total Due
\$304.02	\$304.02CR	\$202.52	\$202.52

MESSAGE CENTER

Billing Inquiries Call: 1(888)475-2361

Payments received after 09-30 have not been applied to this statement.

To pay by credit card using BEK's Pay-by-Phone System, please call 1-844-252-5273 toll-free. Have your credit card and BEK account number ready.

The CURRENT AMOUNT of your BEK payment is due by the 20th day of each month. If you have an unpaid balance, it will be applied to your next statement plus a \$30 late fee. PAST DUE accounts are subject to disconnection on OCTOBER 19, 2023 unless payment or arrangements have been made prior. If your services are disconnected for nonpayment, you will be required to pay all past due balances including reconnect charges.

Payment of this invoice constitutes acceptance of the Terms and Conditions of BEK Communications services. These Terms and Conditions should be reviewed periodically as they will change from time to time and can be found at www.bek.coop or by request at 1-888-475-2361.

Federal Universal Service Charge (FUSC): In a recent order, the Federal Communications Commission (FCC) changed the FUSC factor from 29.2% to 34.5% effective October 3, 2023. The purpose of this charge is to help keep rates affordable for all customers, regardless of where they live in the U.S. as well as to assist schools, libraries and rural healthcare providers obtain leading edge telecommunications services. This current rate of 34.5% of specific regulatory and tariff fees is set by the FCC and is subject to change upon their discretion.

BEK Communications is a participating provider for the FCC Affordable Connectivity Program, helping households afford essential broadband needed for work, school, healthcare and more. Visit getinternet.gov or call (Continued on subsequent pages)

Please return lower portion with your payment...retain upper portion for your records.
 Please do not attach payment to the stub.



200 EAST BROADWAY
 PO BOX 230
 STEELE, ND 58482
 1.888.475.2361

Check for Address Change

10/01/2023 000100

BISMARCK PARKS & REC
 ACCOUNT NO: 1205800
 Telephone No.: (701)223-7016

Payment Due	Total Due
Invoiced	\$202.52
Enter Amount Paid	
Credit Card	

9047 1 SP 0.660
 BISMARCK PARKS & REC
 MCDOWELL DAM
 400 EAST FRONT
 BISMARCK ND 58504

5 9047
 C-38

BEK COMMUNICATIONS COOPERATIVE
 200 EAST BROADWAY
 PO BOX 230
 STEELE ND 58482-0230





200 EAST BROADWAY
PO BOX 230
STEELE, ND 58482
1.888.475.2361

BISMARCK PARKS & REC
ACCOUNT NO: 1205800
Telephone No.: (701)223-7016
BILL DATE: 10/01/2023
Page: 3 of 8

MONTHLY USAGE FOR Telephone No.: (701)223-7016

Service Address: 1951 93 ST NE BISMARCK, ND

Description	Date	Quantity	Amount
SUMMARY FOR: McDowell Dam			
Previous Balance Due			.00
BUSINESS LINE METERED	10/01-10/31		32.00
BUSINESS LINE			
CALLER ID			
BUSINESS LINE METERED SUBTOTAL			32.00
MANDATED FEES			
	10/01-10/31		
E911 FEE-BURLEIGH CO		1 @ 2.00	2.00
TELECOMMUNICATIONS RELAY SERVICE FUND		1 @ 0.03	.03
MANDATED FEES SUBTOTAL			2.03
SUB-TOTAL			34.03
CURRENT BILLING AMOUNT			34.03

Credit Card Payment – Do Not Pay

The carrier you have chosen for your long distance (InterLATA) calls is BEK LD.
The carrier you have chosen for your long distance (IntraLATA) calls is BEK LD.



200 EAST BROADWAY
PO BOX 230
STEELE, ND 58482
1.888.475.2361

BISMARCK PARKS & REC
ACCOUNT NO: 1205800
Telephone No.: (701)223-7016
BILL DATE: 10/01/2023
Page: 4 of 8

MONTHLY USAGE FOR Telephone No.: (701)255-7385

Service Address: 1951 93 ST NE STR 1 BISMARCK, ND

Description	Date	Quantity	Amount
SUMMARY FOR: McDowell Dam-Concession/Shop			
Previous Balance Due			.00
BUSINESS LINE METERED	10/01-10/31		32.00
BUSINESS LINE			
CALLER ID			
BUSINESS LINE METERED SUBTOTAL			32.00
TELEPHONE SERVICES			
	10/01-10/31		
ON PREMISE EXTENSION - PHONE ONLY		1 @ 2.00	2.00
FEDERAL TAX			.06
TELEPHONE SERVICES SUBTOTAL			2.06
MANDATED FEES			
	10/01-10/31		
E911 FEE-BURLEIGH CO		1 @ 2.00	2.00
TELECOMMUNICATIONS RELAY SERVICE FUND		1 @ 0.03	.03
MANDATED FEES SUBTOTAL			2.03
SUB-TOTAL			36.09
CURRENT BILLING AMOUNT			36.09

Credit Card Payment – Do Not Pay

The carrier you have chosen for your long distance (InterLATA) calls is BEK LD.
The carrier you have chosen for your long distance (IntraLATA) calls is BEK LD.





200 EAST BROADWAY
PO BOX 230
STEELE, ND 58482
1.888.475.2361

BISMARCK PARKS & REC
ACCOUNT NO: 1205800
Telephone No.: (701)223-7016
BILL DATE: 10/01/2023
Page: 7 of 8

MONTHLY USAGE FOR INTERNET: 701-161-2230

Service Address: 1951 93 ST NE STR 2 BISMARCK, ND

Description	Date	Quantity	Amount
SUMMARY FOR: McDowell Dam			
Previous Balance Due			.00
MISCELLANEOUS SERVICES	10/01-10/31		
36 MONTH AGREEMENT			
YOUR 36 MONTH AGREEMENT EXPIRES ON 04/05/24			
MULTI-LOCATION SERVICES		1 @	15.00
MULTI-LOCATION SERVICES - 1/2G LIGHTBAND			
FEDERAL TAX			.45
MISCELLANEOUS SERVICES SUBTOTAL			15.45
SUB-TOTAL			15.45
CURRENT BILLING AMOUNT			15.45
		Credit Card Payment -- Do Not Pay	15.45



200 EAST BROADWAY
PO BOX 230
STEELE, ND 58482
1.888.475.2361

BISMARCK PARKS & REC
ACCOUNT NO: 1205800
Telephone No.: (701)223-7016
BILL DATE: 10/01/2023
Page: 8 of 8

MONTHLY USAGE FOR INTERNET: 701-161-2431

Service Address: 1951 93 ST NE STR 1 BISMARCK, ND

Description	Date	Quantity	Amount
SUMMARY FOR: McDowell Dam			
Previous Balance Due			.00
MISCELLANEOUS SERVICES	10/01-10/31		
36 MONTH AGREEMENT			
YOUR 36 MONTH AGREEMENT EXPIRES ON 04/05/24			
MULTI-LOCATION SERVICES		1 @	15.00
MULTI-LOCATION SERVICES - 1/2G LIGHTBAND			
MULTI-LOCATION SERVICES - PHONE			
FEDERAL TAX			.45
MISCELLANEOUS SERVICES SUBTOTAL			15.45
SUB-TOTAL			15.45
CURRENT BILLING AMOUNT			15.45
		Credit Card Payment -- Do Not Pay	15.45



PURCHASE ORDER
BISMARCK PARKS AND RECREATION DISTRICT
 400 East Front Avenue • Bismarck, ND 58504
 Phone: (701) 222-6455 • Fax (701) 221-6838

No. 97668

ND Tax Exempt Number: E-4674
 Federal ID Number: 45-0409352

Name Dakota Surplus

Vendor 6068

Address _____

Date 11/14/23

Notes Shop tools

Acct #	Description	Project Number	Cost
01.12.000.563200	fire machine		\$500.00
01.12.000.531700	air compressor & material handler		500.00
	(200) (300)		

Employee's Signature [Signature]

Total 1,000.00

Manager's Signature [Signature] DM

Approved By [Signature]

Printed On: 10/11/2023

Page 1 of 1

Document Number: 158102 / 30331
 BISMARCK PARKS AND RECREATION
 DAVID ROBINSON
 400 EAST FRONT AVENUE

Number: BIS0012

10/11/2023

BISMARCK, NORTH DAKOTA 58504
 Phone: (701) 222-6455
 Remarks:

Inventory Number	Description of Property	Qty Unit	Cost	Handling Charge
38-023-0423-42-023	MOUNTER AND DEMOUNTER,PNEUMATIC TIRE W90NHW30890005	1	\$500.00	\$500.00

NDSASP REP: RANDY

Total: \$500.00
 Amount Applied: \$0.00
 Total Due: \$500.00

By signing and submitting this lower tier proposal, the prospective lower tier participant, as defined in 41 CFR 105-68, certifies to the best of its knowledge and belief that it and its principals are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency and where the prospective lower tier participant is unable to certify to any of the above, such prospective participant shall attach an explanation to this proposal.

THIS IS YOUR INVOICE

Remit To

North Dakota Surplus Property
 600 East Boulevard Ave., Dept. 15
 Bismarck, ND 58505-0608

As the authorized agent of the above donee, I accept the property listed above and commit the donee to comply with the terms and conditions printed on the other side of this document.



(701) 258-8710 • Fax (701) 223-6041
Office Hours M-Th 8-4:30 and F 8-4
www.southcentralwaternd.com

P.O. Box 4182
Bismarck, ND 58502-4182

Account Number: 05790400-00
Service Address: MCDOWELL DAM HOUSE
Billing Date: 11/22/2023
Current Charges: 55.00
Past Due Charges: 0.00
Amount Due by 12/10/2023: 55.00
Amount Due After 12/10/2023: 59.00

Check here if you have had a mailing address change and indicate this change on the back of the stub.



BISMARCK PARK DISTRICT
400 E FRONT AVE
BISMARCK ND 58504-5641

776 Web ID

Amount Enclosed: _____

PLEASE DETACH AND RETURN THIS PORTION WITH YOUR PAYMENT

Please Make Checks Payable to: SOUTH CENTRAL REGIONAL WATER or SCWD

Account Number: 05790400-00
Service Address: MCDOWELL DAM HOUSE
Last Payment: 222.25 - 10/30/2023
Billing Date: 11/22/2023

BISMARCK PARK - MCDOWELL DAM
400 E FRONT AVE
BISMARCK ND 585045641

Current Reading: 11/01/2023 2124700
Previous Reading: 10/01/2023 2121400
Usage: 3300

Important Messages

REMINDER: YOU MAY NOW PAY YOUR BILL VIA DEBIT OR CREDIT CARD. YOU CAN CALL 844-793-7222 OR VISIT [HTTPS://SOUTHCENTRAL.BILLINGDOC.NET](https://southcentral.billingdoc.net) IN ORDER TO DO SO YOU WILL NEED YOUR WEB ID FROM YOUR BILL

IF YOU PAY BY CREDIT OR DEBIT CARD THE VENDOR THAT PROCESSES THE PAYMENTS DOES CHARGE A SERVICE FEE

IF YOU WOULD LIKE YOUR BILL E-MAILED TO YOU SEND REQUEST TO JSCHMIDT@SOUTHCENTRALWATERND.COM

IF YOU ARE INTERESTED IN AUTO PAY PLEASE CALL US AT 258-8710

USAGE ON THIS BILL IS FROM OCTOBER

OUR OFFICE WILL BE CLOSED ON DECEMBER 25TH HAVE A SAFE AND HAPPY HOLIDAY!

Service	Current	Past-Due	Balance
MONTHLY MINIMUM	34.00	0.00	34.00
WATER COST	21.00	0.00	21.00
Totals:	55.00	0.00	55.00
DUE DATE	12/10/2023		

THANK YOU FOR YOUR PREVIOUS PAYMENT

USAGE HISTORY IN GALLONS

NOV 2022	DEC 2022	JAN 2023	FEB 2023	MAR 2023	APR 2023	MAY 2023	JUN 2023	JUL 2023	AUG 2023	SEP 2023	OCT 2023	NOV 2023
6100	3600	4400	4000	3500	3700	3600	16600	34000	34000	34700	28000	3300
H-HELD	H-HELD	H-HELD	H-HELD	H-HELD	H-HELD	H-HELD	H-HELD	H-HELD	H-HELD	H-HELD	H-HELD	H-HELD

PLEASE KEEP THIS PORTION FOR YOUR RECORDS
SOUTH CENTRAL REGIONAL WATER DISTRICT
(701) 258-8710





P.O. Box 4182
Bismarck, ND 58502-4182

(701) 258-8710 • Fax (701) 223-6041
Office Hours M-Th 8-4:30 and F 8-4
www.southcentralwaternd.com

Account Number: 05791540-00
Service Address: MCDOWELL DAM PARK
Billing Date: 11/22/2023
Current Charges: 70.75
Past Due Charges: 0.00
Amount Due by 12/10/2023: 70.75
Amount Due After 12/10/2023: 74.75

Check here if you have had a mailing address change and indicate this change on the back of the stub.



BISMARCK PARK DISTRICT
400 E FRONT AVE
BISMARCK ND 58504-5641

883 Web ID

Amount Enclosed: _____

PLEASE DETACH AND RETURN THIS PORTION WITH YOUR PAYMENT

Please Make Checks Payable to: SOUTH CENTRAL REGIONAL WATER or SCWD

Account Number: 05791540-00
Service Address: MCDOWELL DAM PARK
Last Payment: 103.00 - 10/30/2023
Billing Date: 11/22/2023

BISMARCK PARK - MCDOWELL DAM
400 E FRONT AVE
BISMARCK ND 585045641

Current Reading: 11/01/2023 482000
Previous Reading: 10/01/2023 476600
Usage: 5400

Important Messages
REMINDER: YOU MAY NOW PAY YOUR BILL VIA DEBIT OR CREDIT CARD. YOU CAN CALL 844-793-7222 OR VISIT [HTTPS://SOUTHCENTRAL.BILLINGDOC.NET](https://southcentral.billingdoc.net) IN ORDER TO DO SO YOU WILL NEED YOUR WEB ID FROM YOUR BILL
IF YOU PAY BY CREDIT OR DEBIT CARD THE VENDOR THAT PROCESSES THE PAYMENTS DOES CHARGE A SERVICE FEE
IF YOU WOULD LIKE YOUR BILL E-MAILED TO YOU SEND REQUEST TO JSCHMIDT@SOUTHCENTRALWATERND.COM
IF YOU ARE INTERESTED IN AUTO PAY PLEASE CALL US AT 258-8710
USAGE ON THIS BILL IS FROM OCTOBER
OUR OFFICE WILL BE CLOSED ON DECEMBER 25TH HAVE A SAFE AND HAPPY HOLIDAY!

Service	Current	Past-Due	Balance
MONTHLY MINIMUM	34.00	0.00	34.00
WATER COST	36.75	0.00	36.75
Totals:	70.75	0.00	70.75
DUE DATE			12/10/2023

THANK YOU FOR YOUR PREVIOUS PAYMENT

USAGE HISTORY IN GALLONS

NOV 2022	DEC 2022	JAN 2023	FEB 2023	MAR 2023	APR 2023	MAY 2023	JUN 2023	JUL 2023	AUG 2023	SEP 2023	OCT 2023	NOV 2023
1100	200	200	100	100	200	900	6900	14900	18300	15400	9700	5400
H-HELD	H-HELD	H-HELD	H-HELD	H-HELD	H-HELD	H-HELD	H-HELD	H-HELD	H-HELD	H-HELD	H-HELD	H-HELD

PLEASE KEEP THIS PORTION FOR YOUR RECORDS
SOUTH CENTRAL REGIONAL WATER DISTRICT
(701) 258-8710





13 VERTICALS
1500 MEDICAL CENTER MURFREESBORO, TN 37129

YOUR CARD PROCESSING STATEMENT



010175/000001/1363091/A3STMT1MDG001/10175/0000/065057 000 01 000000
KATHY FEIST
BISMARCK P&R MCDOWELL DAM 561732
400 E FRONT AVE Q308
BISMARCK ND 58504-5641

Page 1 of 7	THIS IS NOT A BILL
Statement Period	09/01/23 - 09/30/23
Merchant Number	5166 1880 0107880
Customer Service	1-855-786-5871



SUMMARY		An overview of account activity for the statement period.	
Page 5	Amount Submitted		\$489.00
Page 5	Third Party Transactions		0.00
Page 5	Adjustments/Chargebacks		0.00
Page 5	Fees Charged		-\$27.24
Total Amount Funded to Your Bank			\$461.76

See page 2 for KeyDefinition of Terms

(Amount Submitted - Third Party) + Adjustments + Chargebacks + Fees Charged = Amount Funded

IMPORTANT INFORMATION ABOUT YOUR ACCOUNT

!ATTENTION!

EFFECTIVE NOVEMBER 1, 2023, YOU WILL BE ASSESSED A DISCOVER INQUIRY REQUEST NON-RESPONSE FEE OF \$0.65. THIS FEE IS ASSESSED PER DISPUTE INQUIRY REQUEST WITH NO RESPONSE RECEIVED. EFFECTIVE NOVEMBER 1, 2023, YOU WILL BE ASSESSED A DISCOVER REPRESENTMENT FEE OF \$1.00. THIS FEE IS ASSESSED PER DISPUTE REPRESENTMENT REQUEST RECEIVED BY DISCOVER. EFFECTIVE NOVEMBER 1, 2023, YOU WILL BE ASSESSED A NW INTERLINK PREARB CNP REMEDY FEE OF \$5.00. THIS FEE IS ASSESSED ANYTIME AN INCOMING CHARGEBACK FOR REASON CODE 1040 CNP WHICH MEETS THE INTERLINK PRE-ARBITRATION REMEDY CONDITION IS REPRESENTED EITHER BY THE FISERV BACK OFFICE OR THE MERCHANT. IN ORDER TO HELP YOU

SPIFFY BIFFS

Vendor # 846

Billing Date: 11/4/2023
 Billing Period: 10/08/2023 - 11/04/2023

received invoice on 11/27/23

Location	Amount
23rd Street Park	56.00
Anti-Freeze Park Operations	1,762.50
Bark Park	56.00
Capital Outfall Trailhead	56.00
Clem Kelley Path	154.00
Community Gardens (Municipal Ballpark area)	28.00
Cottonwood Park	700.00
Elk Ridge Park	42.00
Gisi Memorial Park	56.00
Heritage Park	56.00
Hillside Park (Lions)	140.00
Horizon Tennis	42.00
Horizon Garden	14.00
Igoe Park	70.00
Jaycee Park	168.00
McQuade Diamond Enclosures	308.00
Nishu Bowmen Archery	42.00
Normandy Park	56.00
Optimist Park	112.00
Pioneer Trailhead	42.00
Pioneer Park Overlook	56.00
Scheels Complex	210.00
Septic Service Vaults (Shelter #10/Keel Boat	550.00
Sertoma #5	56.00
Sertoma -300 Riverside Park Rd	112.00
Sertoma Walking Path	56.00
Silbernagel Park	56.00
Sons of Norway Park	56.00
South Meadow Park	56.00
Steamboat Park	84.00
Sunrise Park	56.00
Tatley Eagles Community Gardens	28.00
Tom O'Leary Tennis	112.00
Tom O'Leary Golf Maintenance Road	112.00
Tom O'Leary Golf Antifreeze	120.00
Tom O'Leary Golf -	112.00
Pebble Creek Golf	112.00
Pebble Creek Golf Antifreeze	60.00
Riverwood Golf Course	56.00
Riverwood Antifreeze	30.00
Sibley Park	56.00
Sibley Boat Ramp	42.00
Sibley Park Antifreeze	52.50
McDowell Dam	14.00
McDowell Dam Antifreeze	7.50
Missouri Valley Complex	28.00
Missouri Valley Complex Antifreeze	15.00
Elks Pool (Temp)	
Total	<u><u>6,265.50</u></u>
01.04.000.520400	5,448.50
01.05.110.520400	344.00
01.05.120.520400	172.00
01.05.100.520400	86.00
01.06.200.520300	-
01.15.000.520400	150.50
01.12.000.520400	21.50
01.19.000.520400	43.00
TOTAL	<u><u>6,265.50</u></u>

Spiffy Biffs

1414 Continental Ave
 Bismarck, ND 58504
 accounts@spiffybiffs.com



INVOICE

BILL TO

Bismarck Parks & Recreation
 District
 400 E Front Ave
 Bismarck, ND 58504

SHIP TO

Bismarck Parks & Recreation
 District
 400 E Front Ave
 Bismarck, ND 58504

INVOICE # 33237

DATE 11/04/2023

DUE DATE 12/02/2023

PURCHASE ORDER

BISMARCK PARKS / ALL UNITS

ACTIVITY	QTY	RATE	AMOUNT
Portable Toilet Basic Service Sertoma Walking Path	1 $4 \times 7.50 = 30^{DP}$	56.00	56.00
Portable Toilet Basic Service Century Bark Park	1 $4 \times 7.50 = 30^{OP}$	56.00	56.00
Portable Toilet Basic Service Jaycee Park	3 $12 \times 7.50 = 90^{OP}$	56.00	168.00
Portable Toilet Basic Service Pebble Creek Golf	2 $8 \times 7.50 = 60^{PC}$	56.00	112.00
Portable Toilet Basic Service Sibley Park	1 $4 \times 7.50 = 30^{Sib}$	56.00	56.00
Portable Toilet Basic Service Scheels Complex	3.75 $15 \times 7.50 = 112.50^{OP}$	56.00	210.00
Portable Toilet Basic Service Tom O'leary Tennis	2 $8 \times 7.50 = 60^{OP}$	56.00	112.00
Portable Toilet Basic Service Gisi Park	1 $4 \times 7.50 = 30^{OP}$	56.00	56.00
Portable Toilet Basic Service Igoe Park	1.25 $5 \times 7.50 = 37.50^{OP}$	56.00	70.00
Portable Toilet Basic Service Sunrise Park	1 $4 \times 7.50 = 30^{OP}$	56.00	56.00
Portable Toilet Basic Service Normandy Park	1 $4 \times 7.50 = 30^{OP}$	56.00	56.00
Portable Toilet Basic Service Heritage Park	1 $4 \times 7.50 = 30^{OP}$	56.00	56.00
Portable Toilet Basic Service Steamboat Park	1.50 $6 \times 7.50 = 45^{OP}$	56.00	84.00
Portable Toilet Basic Service Lions Park	2.50 $10 \times 7.50 = 75^{OP}$	56.00	140.00
Portable Toilet Basic Service Optimist Park	2 $8 \times 7.50 = 60^{OP}$	56.00	112.00
Portable Toilet Basic Service Tom O'leary Golf (#14 and Main.)	2 $8 \times 7.50 = 60^{TO}$	56.00	112.00
Portable Toilet Basic Service	2 $8 \times 7.50 = 60^{TO}$	56.00	112.00

BILLING PERIOD 10/08/23 thru 11/04/23

ACTIVITY	QTY	RATE	AMOUNT
Portable Toilet Basic Service ELK RIDGE PARK BATHROOMS	0.75 <i>3x 7.50 = 22.50 DP</i>	56.00	42.00T
Portable Toilet Basic Service MCDOWELL DAM	0.25 <i>1x 7.50 = 7.50 MCD</i>	56.00	14.00T
Winter Surcharge	<u>273</u>	7.50	2,047.50T

PLEASE NOTE THE INVOICES PAID WITH EACH CHECK YOU SEND. THANK YOU!

SUBTOTAL	6,265.50
TAX	0.00
TOTAL	6,265.50
BALANCE DUE	\$6,265.50

BISMARCK PARKS / ALL UNITS
MULTIPLE LOCATIONS
PER: BONNIE [222-6464]

Winter Surcharge

TO Antifreeze -	120 -	} 2,047.50
PC "	60 -	
RW "	30 -	
Sbley "	52.50	
MCD "	7.50	
MVC "	15 -	
OP ."	1,762.50	

Bliss Law Firm, LLC
 400 East Broadway, Suite 308
 Bismarck, ND 58501

Burleigh County Water Resource District
 PO Box 1255
 Bismarck, ND 58502-1255

November 14, 2023

Invoice #467

Professional Services

	<u>Hrs/Rate</u>	<u>Amount</u>
10/3/2023 (910 J) Telephone call from Mike Gunsch with regard to Sibley Island Zeller property easement.	0.30 293.00/hr	87.90
(910 J) Telephone call from Mike Gunsch with regard to Sibley Island easement status.	0.40 293.00/hr	117.20
10/4/2023 (904) Telephone call from Mike Gunsch, discuss easement from Apple Creek landowners issues.	0.30 293.00/hr	87.90
(904) Telephone call from Mike Gunsch with regard to Kolbo easement matters, discuss easement protocols.	0.40 293.00/hr	117.20
(904) Legal research of eminent domain "quick take" statutes and case law.	1.00 293.00/hr	293.00
(904) Follow-up telephone calls to Manager Binager and Chairman Landenberger with regard to eminent domain quick take matters.	0.70 293.00/hr	205.10
10/6/2023 (910 J) Review Travis Johnson/Board email thread on landowner property easement matters.	0.50 293.00/hr	146.50
(904) Review preliminary plans for Kolbo easement; follow-up telephone call to Mike Gunsch with regard to the same.	0.30 293.00/hr	87.90
(960-2) Receipt and review of drain complaint from Dan Schaff with regard to Southridge drainage issue; receipt and review of Houston Engineering report regarding the same; draft letter to Board with regard to notice of the District's order to remove the constituent's trees.	1.00 293.00/hr	293.00

	<u>Hrs/Rate</u>	<u>Amount</u>
10/6/2023 Follow-up telephone call to Mike Gunsch with regard to to McDowell Dam status, pipeline protocol; follow-up telephone call to Chairman Landenberger with regard to the same.	0.80 293.00/hr	234.40
10/9/2023 (910 B) Review Board email trail with regard to status of assessment district matters; follow-up telephone call to Mike Gunsch, Travis Johnson in preparation for conference call with Randy and James.	0.80 293.00/hr	234.40
(910 B) Conference call to Chairman Landenberger, Mike Gunsch, Travis Johnson with regard to McDowell Dam pipeline easement matters; discuss protocols, legal requirements regarding pipeline access, status of case.	1.00 293.00/hr	293.00
10/11/2023 (312) Prepare for Board meeting; attend Board meeting.		1,000.00
(312) Follow-up email to Assistant City Administrator Jason Tomanack with regard to Tom Baker Room microphone situation; follow-up telephone call with regard to the same, forward email to the Board.	0.50 293.00/hr	146.50
10/12/2023 (910 J) Telephone call from Houston Engineering Travis Johnson with regard to Zeller property and related matters; receipt and review of related documents from Travis Johnson, reply to the same.	0.40 293.00/hr	117.20
10/16/2023 (904) Telephone call from Chairman Landenberger with regard to McDowell pipeline matters.	0.50 293.00/hr	146.50
10/19/2023 (312) Review supporting documents and agenda prior to Board meeting.	0.50 293.00/hr	146.50
10/24/2023 (910 B) Receipt and review of email from Travis Johnson with regard to Hogue Island bid awards to Bohlman Construction.	0.40 293.00/hr	117.20
(312) Receipt and review of email from Dennis with regard to Board investments and disclosure of the same; legal research with regard to the same, designating financial institutions by the Board; follow-up email to Dennis with regard to the same.	0.70 293.00/hr	205.10
(910 B) Review email trail with regard to Hogue Island assessment district correspondence; telephone call from Mike Gunsch with regard to the same.	0.40 293.00/hr	117.20
(910 B) Email from Mike Gunsch with regard to status of COE 408 permit process and its applicability to Hogue Island project.	0.30 293.00/hr	87.90
10/25/2023 (904) Telephone call from Mike Gunsch with regard to McDowell Dam proposed pipeline matters.	0.30 293.00/hr	87.90
(910 B) Telephone call from Mike Gunsch with regard to Hogue Island permitting status; discuss both state and federal permits, landowner issues.	0.40 293.00/hr	117.20
11/1/2023 (904) Review, edit proposed Southern Cross proposed easement documents; edit, reply to Travis Johnson.	0.50 293.00/hr	146.50

	<u>Hrs/Rate</u>	<u>Amount</u>
11/2/2023 (904) Review email trail of McDowell Dam correspondence between Houston Engineering and Board members; review easement discussions; follow-up telephone call to Travis Johnson with regard to the same.	0.40 293.00/hr	117.20
For professional services rendered	<u>12.80</u>	<u>\$4,750.40</u>
Additional Charges :		
11/14/2023 Postage.		15.39
Copying costs.		21.50
Total additional charges		<u>\$36.89</u>
Total amount of this bill		<u>\$4,787.29</u>
Previous balance		\$9,076.48
Accounts receivable transactions		
10/12/2023 Payment - Thank You. Check No. 2160.		(\$7,567.73)
11/9/2023 Payment - Thank You.. Check No. 2168		(\$1,508.75)
Total payments and adjustments		<u>(\$9,076.48)</u>
Balance due		<u><u>\$4,787.29</u></u>

Payment in full must be made within 30 days of the date of this bill. Past due amounts will incur an additional 1.5% monthly fee.

Bliss Law Firm, LLC
 400 East Broadway, Suite 308
 Bismarck, ND 58501

Burleigh County Water Resource District
 PO Box 1255
 Bismarck, ND 58502-1255

November 28, 2023

Invoice #477

Professional Services

	<u>Hrs/Rate</u>	<u>Amount</u>
11/2/2023 (904) Review of McDowell email correspondence and status of landowner negotiation; follow-up telephone call to Chairman Landenberger with regard to the same.	0.50 293.00/hr	146.50
11/6/2023 (904) Review email trail among Board members, Houston Engineering; follow-up telephone call to Manager Binegar, Mike Gunsch with regard to landowner concerns regarding pipeline placement.	0.90 293.00/hr	263.70
11/8/2023 (312) Prepare for Board meeting; attend Board meeting.		1,000.00
(904) Follow-up telephone call to Manager Binegar with regard to open records inquiry/attorney general opinions; follow-up email to Manager Binegar with regard to the same; discussion with Manager Binegar of the status of the McDowell Dam pipeline issues.	0.40 293.00/hr	117.20
(910B) Receipt and review of proposed temporary access agreement from Houston Engineering Travis Johnson; review previous documents with regard to prior Fox inlet, Hogue Island easements and related agreements; create second draft of proposed easement agreement, forward the same to Travis Johnson, Chairman Landenberger, Manager Binegar; follow-up telephone call to Mike Gunsch, Travis Johnson in regard to the status of this matter.	2.00 293.00/hr	586.00
(904) Receipt and review of email correspondence to/from Travis Johnson with regard to Steinke permission to conduct survey, reply to Travis Johnson.	0.30 293.00/hr	87.90
11/16/2023 (904) Prepare for conference call with Travis Johnson, Mike Gunsch to review McDowell Dam pipeline route and landowner identification; attend conference, discuss related issues.	0.80 293.00/hr	234.40

	<u>Hours</u>	<u>Amount</u>
For professional services rendered	4.90	\$2,435.70
Previous balance		\$4,787.29
Balance due		<u>\$7,222.99</u>

Payment in full must be made within 30 days of the date of this bill. Past due amounts will incur an additional 1.5% monthly fee.

Contractor's Application for Payment No. 1

Application Period: 11/20/23 to 12/8/23	Application Date: 12/8/2023
To (Owner): Burleigh County Water Resource District	From (Contractor): Bohlman Trenching, Inc.
Project: Hogue Island Bank Stabilization	Via (Engineer): Houston Engineering
Owner's Contract No.:	Contractor's Project No.:
	Engineer's Project No.: 6025-0021/6025-0032

Application For Payment Change Order Summary

Approved Change Orders		
Number	Additions	Deductions
TOTALS		
NET CHANGE BY CHANGE ORDERS		

1. ORIGINAL CONTRACT PRICE.....	\$ 479,499.50
2. Net change by Change Orders.....	\$
3. Current Contract Price (Line 1 ± 2).....	\$ 479,499.50
4. TOTAL COMPLETED AND STORED TO DATE (Column F on Progress Estimate).....	\$ 414,606.70
5. RETAINAGE:	
a. 10% X \$239,749.75 Work Completed.....	\$ 23,974.98
b. X Stored Material.....	\$
c. Total Retainage (Line 5a + Line 5b).....	\$ 23,974.98
6. AMOUNT ELIGIBLE TO DATE (Line 4 - Line 5c).....	\$ 390,631.73
7. LESS PREVIOUS PAYMENTS (Line 6 from prior Application).....	\$
8. AMOUNT DUE THIS APPLICATION.....	\$ 390,631.73
9. BALANCE TO FINISH, PLUS RETAINAGE (Column G on Progress Estimate + Line 5 above).....	\$ 88,867.78

Contractor's Certification

The undersigned Contractor certifies that to the best of its knowledge: (1) all previous progress payments received from Owner on account of Work done under the Contract have been applied on account to discharge Contractor's legitimate obligations incurred in connection with Work covered by prior Applications for Payment; (2) title of all Work, materials and equipment incorporated in said Work or otherwise listed in or covered by this Application for Payment will pass to Owner at time of payment free and clear of all Liens, security interests and encumbrances (except such as are covered by a Bond acceptable to Owner indemnifying Owner against any such Liens, security interest or encumbrances); and (3) all Work covered by this Application for Payment is in accordance with the Contract Documents and is not defective.

By: Date: 12-8-23

Payment of: \$ 390,631.73
(Line 8 or other - attach explanation of the other amount)

is recommended by: 12/8/2023
(Engineer) (Date)

Payment of: \$ _____
(Line 8 or other - attach explanation of the other amount)

is approved by: _____ (Owner) _____ (Date)

Approved by: _____
Funding Agency (if applicable) (Date)



Fronteer Professional Services Inc
 1838 E Interstate Ave Ste B
 Bismarck, ND 58503

Date: November 30, 2023
 Invoice #: 0000003561
 Terms: Net

Burleigh Co. Water Resource District
 Bismarck, ND

Total Due: \$2,165.00

Detach And Return With Payment

Fronteer Professional Services Inc 1838 E Interstate Ave Ste B, Bismarck, ND 58503

Description	Amount	Total
November Monthly Administrative Fee-per agreement	\$2,110.00	\$2,110.00
Terminal Server Fees	\$55.00	\$55.00
Total:		\$2,165.00

Thank you for your business!



Fronteer Professional Services Inc
 1838 E Interstate Ave Ste B
 Bismarck, ND 58503

Date: October 31, 2023
 Invoice #: 0000003550
 Terms: Net

Burleigh Co. Water Resource District
 Bismarck, ND

Total Due: \$4.77

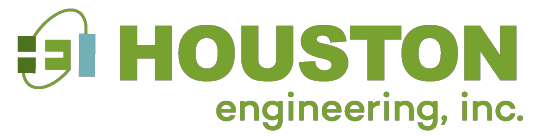
Detach And Return With Payment

Fronteer Professional Services Inc 1838 E Interstate Ave Ste B, Bismarck, ND 58503

Description	Amount	Total
October 2023 Presort Charges	\$4.77	\$4.77
Total:		\$4.77

Thank you for your business!

INVOICE

**Remit to:**

1401 21st Ave N, Fargo, ND 58102

Phone: 701.237.5065

Fed Tax ID: 45-0314557

Interest of 1%/month applied to past due invoices

Burleigh County Water Resource District

PO Box 1255

Bismarck, ND 58502-1255

Invoice Number: 68395

Date: December 05, 2023

Project Number: R126025-0014

Sibley Island Flood Control Project FHMP**For Professional Services Rendered Through: November 25, 2023**

Work Order #18

See attached Project Status Report and Invoice Description.

101 - Preliminary Design**Professional Services**

	Hours	Rate	Amount
Engineer 10	3.00	215.00	\$645.00
	3.00		\$645.00

101 - Preliminary Design Total:**\$645.00****102 - Site Survey and Landowner Contacts****Professional Services**

	Hours	Rate	Amount
Engineer 10	3.50	215.00	\$752.50
Land Surveyor 4	8.00	191.00	\$1,528.00
Three Person Crew	2.00	259.00	\$518.00
Two Person Crew	4.00	209.00	\$836.00
	17.50		\$3,634.50

Reimbursable Expenses

	Units	Rate	Amount
General Expense	1.0000	5.000	\$5.00
General Expense	2.0000	4.000	\$8.00
General Expense	1.0000	2.000	\$2.00
Unit - Company Survey/Inspection Mileage (BSK)	32.0000	.855	\$27.37
Unit - GPS (BSK)	3.0000	25.000	\$75.00
Unit - Pipes (BSK)	2.0000	3.000	\$6.00
			\$123.37

102 - Site Survey and Landowner Contacts Total:**\$3,757.87**

103 - Special Assessment District

Professional Services

	Hours	Rate	Amount
Engineer 12	7.50	235.00	\$1,762.50
	7.50		\$1,762.50

103 - Special Assessment District Total: \$1,762.50

106 - Easement Considerations

Professional Services

	Hours	Rate	Amount
Engineer 10	6.50	215.00	\$1,397.50
Engineer 12	3.00	235.00	\$705.00
Engineer 5	3.25	166.00	\$539.50
	12.75		\$2,642.00

106 - Easement Considerations Total: \$2,642.00

108 - Public Hearing and Voting Process

Professional Services

	Hours	Rate	Amount
Project Assistant 2	2.25	91.00	\$204.75
	2.25		\$204.75

108 - Public Hearing and Voting Process Total: \$204.75

110 - Alternative 5 Evaluation

Professional Services

	Hours	Rate	Amount
Engineer 10	21.00	215.00	\$4,515.00
Engineer 12	25.50	235.00	\$5,992.50
Engineer 4	20.00	155.00	\$3,100.00
Technician 7	1.25	156.00	\$195.00
	67.75		\$13,802.50

110 - Alternative 5 Evaluation Total: \$13,802.50

Invoice Total \$22,814.62

Outstanding Invoices

Invoice Number	Invoice Date	0 - 30	31 - 60	61-90	Over 90	Balance
Total Prior Billing						

HEI Project No.:	6025-0014
BCWRD Account No.	937 – Special Assessment Projects
Project Name:	Sibley Island Flood Control

Billing Period: *April 30, 2023 through November 25, 2023*

Professional engineering and surveying services related to the activities associated with the Sibley Island Flood Control Project and Specific Authorization #28.

Tasks Completed:

Phase 101 – Preliminary Design

- Limited services on design updates not related to Alternative #5

Phase 102 – Site Survey and Landowner Contacts

- Additional survey along Alternative #5 route to facilitate the designation of impacts and to create a formal easement document and offer letter. The easement is remains unsigned.

Phase 103 – Special Assessment District

- Limited work on the assessment district to notify the residents of updates and changes. A letter was mailed to provide an update on the project development status.
- Landowners were notified of Alternative #5 being approved as the preferred alternative.

Phase 106 – Easements

- Services related to securing easements or negotiations with landowners regarding the location of the project levee, and removal of properties from within the project boundary.
- Early discussions with the new landowner along Alternative #5, the result was a need to provide additional information related to this option and what the impacts were. There were multiple meetings as this new owner was looking at selling the property recently purchased, which resulted in considerable time to review options with a potential new buyer as well.

Phase 108 – Public Hearing and Voting Process

- Limited services related to informing the landowners of project status and changes

Phase 110 – Alternative #5 Evaluation

- Landowners along the southern corridor provided emails that they were not interested in being included in the assessment district or being protected by the project.
- After evaluating an alternative alignment, it was determined there was another location for the levee, if the landowner was accepting.
- Research to determine the Alternative #5 alignment owner, who after personal visits and an onsite review, expressed an interest in providing the necessary easement.
- Evaluated the alignment and considered levee location/design, and the associated quantities and costs, which could yield construction cost savings. A new alignment and profile were created and provided to the owner of the Alternative #5 properties. Evaluation of the project costs for use in the voting process remains to be determined.
- Contacted the property owners involved in the earthen levee segment, who via email concurred that their easements could be relocated on their parcel, with some parcels being completely removed from within the protection area and special assessment district.
- Notified the DWR regarding the anticipate change in the preferred alternative
- Section 408 regulatory budget was revised given the smaller project footprint.
- A new preferred alternative memorandum was completed based on Alternative #5

Comments and Issues:

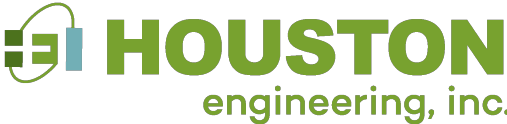
- The services related to the Alternative #5 are outside the scope of services after the selection of the preferred alternative.
- BPRD Data required to complete the special assessment district and EA process has been submitted to the DWR. However, with the selection of Alternative #5 all prior computations and OPC related to the economic analysis and special assessments are being revisited and revised, therefore an updated determination on the BC remains undetermined at the time of this invoice. A full review of the project quantities is underway and may influence the final OPC.
- The SWC subcommittee submittal deadline for their February meeting is December 24th. The objective is to submit for final design funding at this time. Request for construction funding would occur after the vote, final design is completed and all permits have been secured.
- After the OPC is fully updated and vetted the Preliminary Engineering Report can proceed. These expenses are not included in the current budget, with time continuing to be documented under **Phase 110**.

Invoice Summary

Phase 101 – Preliminary Design	\$ 645.00
Phase 102 – Site Survey and Landowner Contacts	\$ 3,757.87
Phase 103 – Special Assessment District	\$ 1,762.50
Phase 106 – Easements	\$ 2,642.00
Phase 108 – Public Hearing	\$ 204.75
<u>Phase 110 – Alternative #5 Evaluation</u>	<u>\$ 13,802.50</u>
Total Invoice	\$ 22,814.62

See accompanying invoice for personnel cost breakdown.

INVOICE



Remit to:

1401 21st Ave N, Fargo, ND 58102
 Phone: 701.237.5065
 Fed Tax ID: 45-0314557

Interest of 1%/month applied to past due invoices

Burleigh County Water Resource District

PO Box 1255
 Bismarck, ND 58502-1255

Invoice Number: 68398
 Date: December 05, 2023
 Project Number: R084241-0300

Burnt Creek Floodway Rehabilitation and O&M

For Professional Services Rendered Through: November 25, 2023

BCWRD Account No. 940 - Shared Projects

See Attached Project Status Report and Invoice Description.

000 - Burnt Creek Floodway Rehabilitation and O&M

Professional Services

	Hours	Rate	Amount
Engineer 10	2.00	215.00	\$430.00
Engineer 12	7.75	235.00	\$1,821.25
	9.75		\$2,251.25
000 - Burnt Creek Floodway Rehabilitation and O&M Total:			\$2,251.25

800 - Annual O&M and Assessment District

Professional Services

	Hours	Rate	Amount
Engineer 12	2.25	235.00	\$528.75
Engineer 4	4.00	155.00	\$620.00
Engineer 8	11.50	196.00	\$2,254.00
	17.75		\$3,402.75
800 - Annual O&M and Assessment District Total:			\$3,402.75

Invoice Total \$5,654.00

Outstanding Invoices

Invoice Number	Invoice Date	0 - 30	31 - 60	61-90	Over 90	Balance
Total Prior Billing						

Project Status and Invoice Description

 3712 Lockport Street
 Bismarck, ND 58503
 Phone: 701-323-0200
 Fax: 701-323-0300

HEI Project No.:	4241-0300
BCWRD Account No.	940 – Burnt Creek Rehabilitation O&M Assessment
Project Name:	Burnt Creek Flood Control Project

Billing Period: *June 4, 2023 through November 25, 2023*

The following professional engineering and surveying services were provided on the Burnt Creek Flood Control Project.

Phase (000) Floodway Rehabilitation and O&M

- Additional contacts with MDU regarding the installation of utilities under the Burnt Creek Floodway. Responses back to MDU regarding the installation and avoidance issues. Based on schedule this will not occur until 2024.
- Evaluated all prior financial transactions on the project to create a summary of costs such that the amount of funds raised can be balanced against expenses to determine the status of funds in the O&M Account. The administrative costs for this effort are charged to the project and funds from the special assessment district are to be used to reimburse the Board.

Phase (800) Annual O&M and Assessment District

- Complete the annual review and update of the properties within the special assessment district and how each is charged. Again, as in past years there were minor changes in the Burleigh County GIS parcels, that affected the boundary, that required reconciliation of various parcels in the district and amounts to be assessed.
- Created the certified list for the special assessments and letter to the Burleigh County Auditor. The Board certified these values for placement on 2023 tax statements.

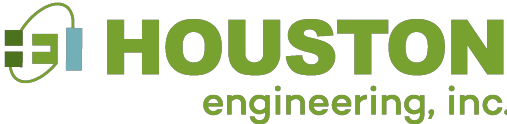
Comments/Issues/Problems:

- Discussions with MDU regarding their utility installation and crossing will continue into next year. We recommend monitoring the installation.
- Work on the accounting for the O&M fund balance remains a work in progress. It will take additional time to step through the issues with the secretary and treasurer to ensure the numbers are accurately accounted. Then a memorandum will be drafted to account for this status and recommendations related to the O&M account, and future expenditures and assessments.

Phase (000) Floodway Rehabilitation and O&M	\$ 2,251.25
Phase (800) Annual O&M and Assessment District	\$ 3,402.75
Total Invoice	\$ 5,654.00

See accompanying invoice for personnel cost breakdown.

INVOICE



Remit to:

1401 21st Ave N, Fargo, ND 58102

Phone: 701.237.5065

Fed Tax ID: 45-0314557

Interest of 1%/month applied to past due invoices

Burleigh County Water Resource District

PO Box 1255
Bismarck, ND 58502-1255

Invoice Number: 68400
Date: December 05, 2023
Project Number: R084241-0000

BCWRD - General Engineering Services

For Professional Services Rendered Through: November 25, 2023

Email Invoices: BCWRD@midco.net & dwrburleighwrd@gmail.com

BCWRD Project No.: 315 - Engineering Administration

See attached Project Status Report and Invoice Description.

Fee Services

000 - Burleigh Co. WRD - General

Burleigh Co. WRD - General Lump Sum Total: \$1,000.00

Invoice Total \$1,000.00

Outstanding Invoices

Invoice Number	Invoice Date	0 - 30	31 - 60	61-90	Over 90	Balance
Total Prior Billing						



Project Status and Invoice Description

3712 Lockport Street
Bismarck, ND 58503
Phone: 701-323-0200
Fax: 701-323-0300

HEI Project No.: 4241-0000: BCWRD General Services
BCWRD Account No. 315 – Engineering Administration
Project Name: General Engineering Services

Billing Period: *October 29, 2023 through November 25, 2023*

Professional engineering administrative services related to routine monthly activities and issues addressed at the request and direction of the BCWRD during this billing period, including time associated with, but not limited to the following:

- **November Board Meeting**
- Meeting preparation and discussion, rescheduling
- Review minutes and provide agenda updates
- Various BCWRD issues, contacts, and calls
- Hourly time as noted below.

Comments:

- This invoice is for Board meeting related time along with limited small contact and coordination items that are not project related. In accordance with Board direction, all costs associated with drainage complaints, stormwater plan review, and other project related activities are invoiced to assigned project numbers.
- There were no hourly services for this month. Time for the Summit Hills Subdivision SWMP are now tracked under the drainage complaints account.

<u>General Services</u>		\$ 1,000.00
	Total	\$ 1,000.00

INVOICE



Remit to:

1401 21st Ave N, Fargo, ND 58102
 Phone: 701.237.5065
 Fed Tax ID: 45-0314557
 Interest of 1%/month applied to past due invoices

Burleigh County Water Resource District

PO Box 1255
 Bismarck, ND 58502-1255

Invoice Number: 68402
 Date: December 05, 2023
 Project Number: R146025-0018

Burleigh County WRD Drainage Complaints

For Professional Services Rendered Through: November 25, 2023

BCWRD Account No.: 960

See attached Project Status Report and Invoice Description.

**000 - General Inquires
 Professional Services**

	Hours	Rate	Amount
Engineer 12	1.75	235.00	\$411.25
	1.75		\$411.25

000 - General Inquires Total: \$411.25

**036 - SouthRidge Stormwater Easement
 Professional Services**

	Hours	Rate	Amount
Engineer 10	1.00	215.00	\$215.00
Engineer 12	4.00	235.00	\$940.00
	5.00		\$1,155.00

036 - SouthRidge Stormwater Easement Total: \$1,155.00

Invoice Total \$1,566.25

Outstanding Invoices

Invoice Number	Invoice Date	0 - 30	31 - 60	61-90	Over 90	Balance
Total Prior Billing						

HEI Project No.: 6025-0018
BCWRD Account No. 960 Shared Projects
Project Name: Drainage Complaints

Billing Period: *September 3, 2023 through November 25, 2023*

Professional engineering and surveying services related to evaluating drainage complaints.

Phase (000) – General Services

These services were related to an open discussion regarding the options to create a Joint Powers agreement with Burleigh County (a.k.a., Highway Department) related to stormwater management and easement issues within the existing and future subdivision plats. There are examples from counties in eastern North Dakota that could be reviewed for potential implementation in Burleigh County. Consideration of this is a planning issue for 2024.

Phase (036) – Southridge Stormwater Easement (Schaff-Boehm)

This drainage complaint was closed with the completion of the notice and order, that was provided to and approved by the Board. It was then reviewed by legal and sent to the landowner. It is anticipated that the tree removal would not occur until spring, after which removal should be verified.

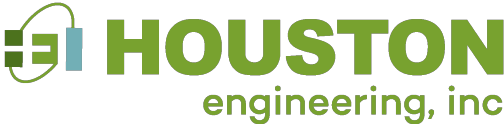
Comments:

- The Joint Powers discussion will require a separate task force to discuss what this might look like and the governing factors to be considered.
- Southridge will be evaluated in the spring for tree removal

Phase (000) – General Inquires	\$ 411.25
<u>Phase (036) – Southridge Stormwater Easement</u>	<u>\$ 1,155.00</u>
Total Invoice	\$ 1,566.25

See accompanying invoice for personnel cost breakdown.

INVOICE



Remit to:

1401 21st Ave N, Fargo, ND 58102
Phone: 701.237.5065
Fed Tax ID: 45-0314557

Interest of 1%/month applied to past due invoices

Burleigh County Water Resource District

PO Box 1255
Bismarck, ND 58502-1255

Invoice Number: 68404
Date: December 05, 2023
Project Number: R096025-0001

149th Avenue NW Drainage Improvements

For Professional Services Rendered Through: November 25, 2023

BCWRD Account No. 937 - Design and Special Assessment Projects

Services related to finalizing the memorandum to the BCWRD and their determination to fund the improvements. Also follow up with the Burleigh County Highway Department related to their scheduling the work to be completed.

It is anticipated that an on site inspection will be completed once the outfall has been restored.

008 - 2023 Maintenance

Professional Services

	Hours	Rate	Amount
Engineer 12	2.00	235.00	\$470.00
	2.00		\$470.00
008 - 2023 Maintenance Total:			\$470.00

Invoice Total \$470.00

Outstanding Invoices

Invoice Number	Invoice Date	0 - 30	31 - 60	61-90	Over 90	Balance
Total Prior Billing						

INVOICE



Remit to:

1401 21st Ave N, Fargo, ND 58102

Phone: 701.237.5065

Fed Tax ID: 45-0314557

Interest of 1%/month applied to past due invoices

Burleigh County Water Resource District

PO Box 1255
Bismarck, ND 58502-1255

Invoice Number: 68405
Date: December 05, 2023
Project Number: R146025-0021

Missouri River Bank Stabilization Issues

For Professional Services Rendered Through: November 25, 2023

BCWRD Account No.: 937I-1

See attached Project Status Report and Invoice Description.

006 - Hogue Island Stabilization

Professional Services

	Hours	Rate	Amount
Engineer 10	4.00	215.00	\$860.00
Engineer 12	5.00	235.00	\$1,175.00
Land Surveyor 2	.50	162.00	\$81.00
	9.50		\$2,116.00

006 - Hogue Island Stabilization Total: \$2,116.00

Invoice Total \$2,116.00

Outstanding Invoices

Invoice Number	Invoice Date	0 - 30	31 - 60	61-90	Over 90	Balance
Total Prior Billing						



Project Status and Invoice Description

3712 Lockport Street
Bismarck, ND 58503
Phone: 701-323-0200
Fax: 701-323-0300

HEI Project No.: 6025-0021-006: Missouri River Bank Stabilization
BCWRD Account No. 937I-1
Project Name: Phase 006 – Hogue Island Stabilization

Billing Period: *October 29, 2023 through November 25, 2023*

Professional engineering and surveying services related to Missouri River Bank Stabilization O&M Agreement between the BCWRD and the SWC, associated with the Section 32 revetments. *This invoice is specific to the 2023 bank line erosion on the south end of Hogue Island and design of the Section 32 revetment restoration/rehabilitation project.*

Tasks Completed:

Bank Stabilization Design and Regulatory

- Continued coordination with the BCWRD, NDDWR and USACE related to the restoration and rehabilitation project.
- Bids were received and the project was awarded to Bohlman Trenching, Inc, Thompson, ND. Notice to proceed was issued, construction has commenced and is ongoing, along with construction observation services.
- Negotiated easement for construction access on an undeveloped parcel.
- Installation is anticipated to be completed by mid-December.

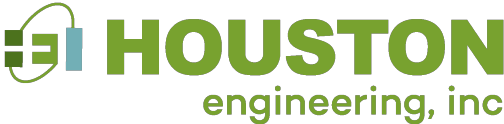
Comments and Issues

- The BCWRD created a special assessment district for the landowner portion of the project. The special assessment district was approved. Assessment will be based on the amount of material placed on each parcel.
- An evaluation of engineering costs pre project will be completed prior to submitting a cost share request to the SWC.

See accompanying invoice for personnel cost breakdown.

<u>Phase (006) Hogue Island Stabilization 32</u>	\$ 2,116.00
Total Invoice	\$ 2,116.00

INVOICE



Remit to:

1401 21st Ave N, Fargo, ND 58102
Phone: 701.237.5065
Fed Tax ID: 45-0314557

Interest of 1%/month applied to past due invoices

Burleigh County Water Resource District

PO Box 1255
Bismarck, ND 58502-1255

Invoice Number: 68414
Date: December 05, 2023
Project Number: R001032-0200

Apple-McDowell Water Supply Diversion

For Professional Services Rendered Through: December 02, 2023

BCWRD Account No.: 905 - Capital Improvements

See attached Project Status Report and Invoice Description.

003 - Preliminary Design

Professional Services

	Hours	Rate	Amount
Engineer 10	1.50	215.00	\$322.50
Engineer 12	2.00	235.00	\$470.00
	3.50		\$792.50
003 - Preliminary Design Total:			\$792.50

004 - Easement Acquisition

Professional Services

	Hours	Rate	Amount
Engineer 10	9.00	215.00	\$1,935.00
Engineer 12	7.25	235.00	\$1,703.75
Engineer 5	.25	166.00	\$41.50
	16.50		\$3,680.25

Reimbursable Expenses

	Units	Rate	Amount
General Expense	1.0000	75.000	\$75.00
			\$75.00

004 - Easement Acquisition Total: \$3,755.25

Invoice Total \$4,547.75

Outstanding Invoices

Invoice Number	Invoice Date	0 - 30	31 - 60	61-90	Over 90	Balance
Total Prior Billing						

HEI Project No.: 1032-0200
BCWRD Account No. 905
Project Name: Apple-McDowell Water Supply Diversion

Billing Period: *October 29, 2023 through December 2, 2023*

Professional engineering and surveying services related to Preliminary Design and Easement Acquisition for the Apple-McDowell Water Supply Diversion Project including, but not limited to the following:

- Updating the plan sheets with a shift in alignment on the Knutson property and new routing through Kolbo property and updating plans with new property ownership info.
- Project discussions with Hansons (Southern Cross Ranch LLP) to discuss easement location and future county right of way, pipe alignment and attempt to secure easement.
- Meeting onsite with Southern Cross Ranch LLP personnel to review pipe routing and easement dimensions and discuss easement and impacts on potential future development.
- Updated the Board on pipe alignment and status and progress with landowner contacts and easement acquisition.
- Creation of PowerPoint presentation regarding Water Supply Diversion project for background information, project need and other considerations to present at BCWRD meeting. Also intended for public information use.

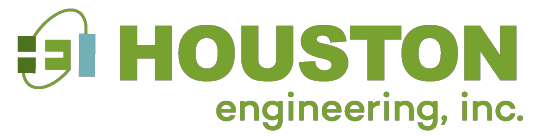
Comments:

- BCWRD has elected to hold off on submitting a OHF grant application until easements are secured, or agreements are in hand for easements.
- Zeller easement has been signed – payment has been made and document recorded, other easements pending and/or still in negotiation.
- Kolbo’s refusal to sign easement has raised the question regarding action to acquire.
- The new landowner who purchased Bernice Steinke property required additional investigation to determine ownership and track down contact information. Easement negotiations have started over with new landowner.

See accompanying invoice and cost summary for personnel cost breakdown.

Phase (003) Preliminary Design	\$ 792.50
Phase (004) Easement Acquisition	\$ 3,755.25
Total Invoice:	\$ 4,547.75

INVOICE

**Remit to:**

1401 21st Ave N, Fargo, ND 58102

Phone: 701.237.5065

Fed Tax ID: 45-0314557

Interest of 1%/month applied to past due invoices

Burleigh County Water Resource District

PO Box 1255

Bismarck, ND 58502-1255

Invoice Number: 68449

Date: December 05, 2023

Project Number: R006025-0032

HOGUE ISLAND BANK STABILIZATION – MR 1321.89 TO MR 1322.22**For Professional Services Rendered Through: November 25, 2023**

Invoice per the PSR Provided

001 - Surveying and Site Evaluation**Professional Services**

	Hours	Rate	Amount
Land Surveyor 4	2.00	191.00	\$382.00
One Person Crew	4.00	172.00	\$688.00
	6.00		\$1,070.00

Reimbursable Expenses

	Units	Rate	Amount
Unit - Company Survey/Inspection Mileage (BSK)	21.0000	.855	\$17.96
Unit - GPS (BSK)	3.0000	25.000	\$75.00
Unit - Hubs (BSK)	0.2000	15.000	\$3.00
Unit - Lath (BSK)	0.5000	30.000	\$15.00
Unit - Pipes (BSK)	3.0000	3.000	\$9.00
			\$119.96

001 - Surveying and Site Evaluation Total: \$1,189.96**002 - Preliminary Design and Engineering Report****Professional Services**

	Hours	Rate	Amount
Engineer 12	10.00	235.00	\$2,350.00
	10.00		\$2,350.00

002 - Preliminary Design and Engineering Report Total: \$2,350.00**003 - Regulatory Permitting and Coordination****Professional Services**

	Hours	Rate	Amount
Engineer 8	.25	196.00	\$49.00

.25 **\$49.00**

003 - Regulatory Permitting and Coordination Total: \$49.00

004 - Bidding Services

Professional Services

	Hours	Rate	Amount
Engineer 10	4.00	215.00	\$860.00
Project Assistant 2	.75	91.00	\$68.25
	4.75		\$928.25

Reimbursable Expenses

	Units	Rate	Amount
General Expense	1.0000	850.930	\$850.93
			\$850.93

004 - Bidding Services Total: \$1,779.18

005 - Construction Management Services

Professional Services

	Hours	Rate	Amount
Engineer 10	30.00	215.00	\$6,450.00
	30.00		\$6,450.00

005 - Construction Management Services Total: \$6,450.00

Invoice Total \$11,818.14

Outstanding Invoices

Invoice Number	Invoice Date	0 - 30	31 - 60	61-90	Over 90	Balance
Total Prior Billing						



Project Status and Invoice Description

3712 Lockport Street
 Bismarck, ND 58503
 Phone: 701-323-0200
 Fax: 701-323-0300

HEI Project No.: 6025-0032: Missouri River Mile 1321.89 through 1322.22
BCWRD Account No. 937H
Project Name: Hogue Island Stabilization Special Assessment District

Billing Period: October 29, 2023 through November 25, 2023.

Professional engineering and surveying services related to Missouri River Bank Stabilization associated with the creation of the Special Assessment District by the BCWRD to protect those residential properties identified in the Preliminary Engineering Report. *This invoice is specific to the 2023 bank line erosion on the south end of Hogue Island associated only with the Residentials Stabilization Measures.*

Tasks Completed:

- Coordination with Landowners, BCWRD/NDDWR, and interested parties to conduct bidding for bank stabilization project.
- Completing and secured the floodplain development permit.
- Conducted bid services for project advertisement and bidding.
- Conducted bid opening and review where irregularities were discovered in the bid. Held meetings to discuss results and elected to rebid the project.
- Redrafted the advertisement, made edits to project manual, resealed project documents and re-advertised project for bid.
- Conducted second bidding process and responded to planholder questions.
- Conducted second bid opening process, drafted recommendation letter and issued Notice of Award.
- Project received USACE, Section 408 was avoided, and NDWRD approvals.
- Sent Notice of Award and contract documents to Contractor and discussed completion of contract documents and project startup.

Comments and Issues

- The cost to install these features will be charged to the landowners based on actual work completed on their properties.
- The BCWRD has received the final permits and a favorable ballot approval. The Special Assessment District is approved so all project features will be constructed.
- Bid opening and award occurred in October with construction to be substantially completed in November with final cleanup in the spring of 2024.
- First bid opening received one bid which was unacceptable due to being in excess of the amount which can be awarded by special assessment district (too high above estimate) as well as irregularities in the bid documents which invalidated the bid. A second advertisement and opening were completed, and an acceptable bid was received.

See accompanying invoice for personnel cost breakdown.

Phase (001) Surveying and Site Evaluation	\$ 1,189.96
Phase (002) Preliminary Design and Engineering Report	\$ 2,350.00
Phase (003) Regulatory Permitting and Coordination	\$ 49.00
Phase (004) Bidding Services	\$ 928.25
Bismarck Tribune Advertisement	\$ 850.93
Phase (005) Construction Management Services	\$ 6,450.00
Total Invoice	\$ 11,818.14



JACK P. DWYER, EXECUTIVE SECRETARY
 701-730-5469 (c) • jack@ndwaterlaw.com
 P.O. Box 2254 • Bismarck, North Dakota 58502
 701-223-4615 (o) • staff@ndwater.net

November 9, 2023

TO: North Dakota Water Resource Districts
 FROM: Dennis Reep, President
 RE: 2024 Annual Membership Dues

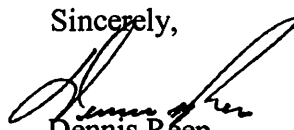
This is your statement for 2024 membership in the ND Water Resource Districts Association. Your continued support is greatly appreciated. The ND Water Resource Districts Association works hard to support water resource districts and promote effective water management. In addition to your continued membership in the Water Resource Districts Association, I would encourage you to also maintain membership in the ND Water Users Association. We have an excellent partnership with the Water Users, and both organizations are vital to accomplishing our mutual goals.

There are ongoing efforts to change state laws regarding water management and the role and responsibilities of water resource districts. With your membership, we can provide the advocacy with the legislature and state agencies we need to protect our interests, increase our effectiveness, maintain our ability to manage water at the local level, and protect our reputation. Water managers are dedicated local public servants; often times the work is difficult, and the appreciation is limited. We need to make sure our voice is heard during legislative sessions and interims. Thank you for continuing your participation in the ND Water Resource Districts Association.

North Dakota Water Resource Districts Association Dues: For Calendar Year 2024

1. Amount \$675.00
2. Payable to: ND Water Resource Districts Association
 PO Box 2254
 Bismarck, ND 58502-2254

Included with this memo is a contact form I'd ask you to fill out with information about your district. Please fill this out and send it back with your membership renewal.

Sincerely,

 Dennis Reep
 President

Membership Form

WRD _____ Address _____ Phone _____

Manager _____

Address _____ Email _____ Phone _____

Chair _____

Address _____ Email _____ Phone _____

Vice Chair _____

Address _____ Email _____ Phone _____

Secretary _____

Address _____ Email _____ Phone _____

Treasurer _____

Address _____ Email _____ Phone _____

Board Member _____

Address _____ Email _____ Phone _____

Board Member _____

Address _____ Email _____ Phone _____

Board Member _____

Address _____ Email _____ Phone _____

Board Member _____

Address _____ Email _____ Phone _____

Board Member _____

Address _____ Email _____ Phone _____