

Appendix C-1
Stormwater Modeling Results
Pre-Development

Subcatchment pre: predevelopment watershed

Runoff = 9.90 cfs @ 12.77 hrs, Volume= 1.566 af, Depth= 0.82"

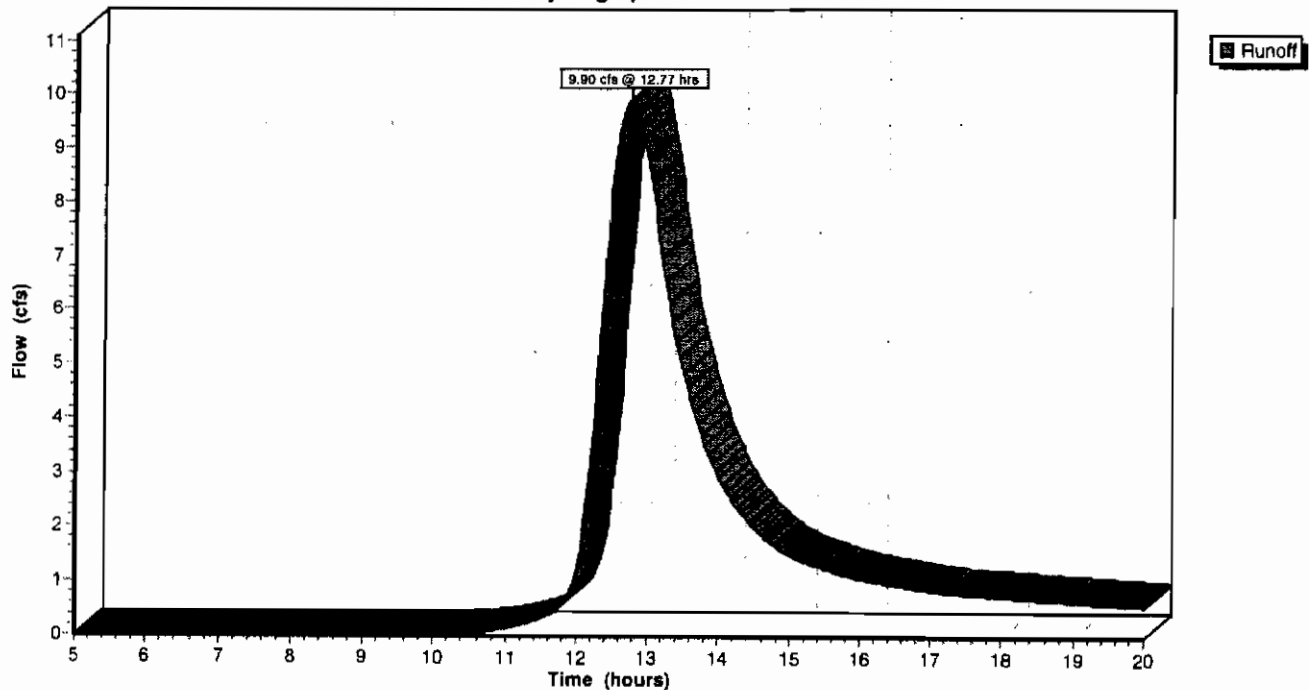
Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Type II 24-hr Rainfall=2.10"

Area (ac)	CN	Description
1.862	98	Paved parking & roofs
20.937	85	Row crops, straight row, Good, HSG C
22.799	86	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.3	15	0.0208	0.8		Sheet Flow, crown of road to EOP Smooth surfaces n= 0.011 P2= 2.30"
12.8	85	0.0285	0.1		Sheet Flow, EOP to 100' Grass: Dense n= 0.240 P2= 2.30"
7.2	450	0.0133	1.0		Shallow Concentrated Flow, 100' to 575' Cultivated Straight Rows Kv= 9.0 fps
48.6	600	0.0017	0.2	0.51	Channel Flow, swale Area= 2.5 sf Perim= 7.0' r= 0.36' n= 0.150
68.9	1,150	Total			

Subcatchment pre: predevelopment watershed

Hydrograph



Subcatchment pre: predevelopment watershed

Runoff = 20.14 cfs @ 12.74 hrs, Volume= 3.155 af, Depth= 1.66"

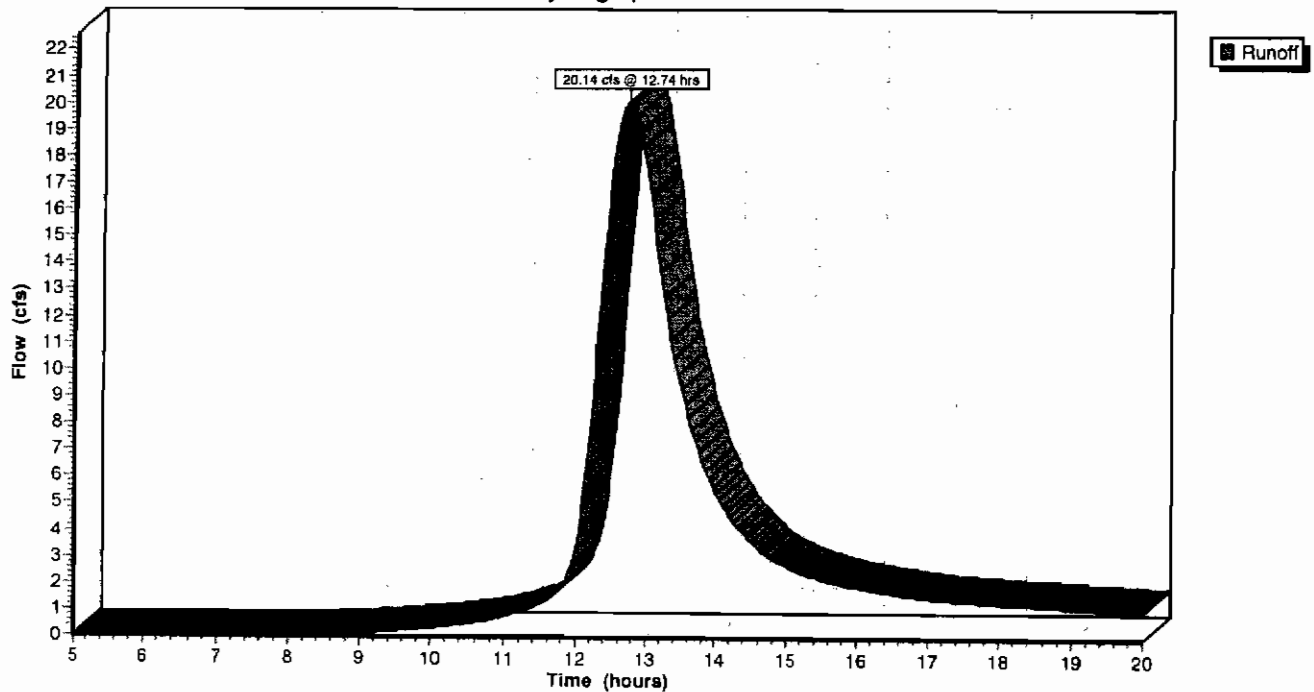
Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr Rainfall=3.20"

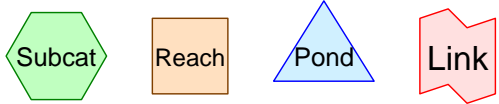
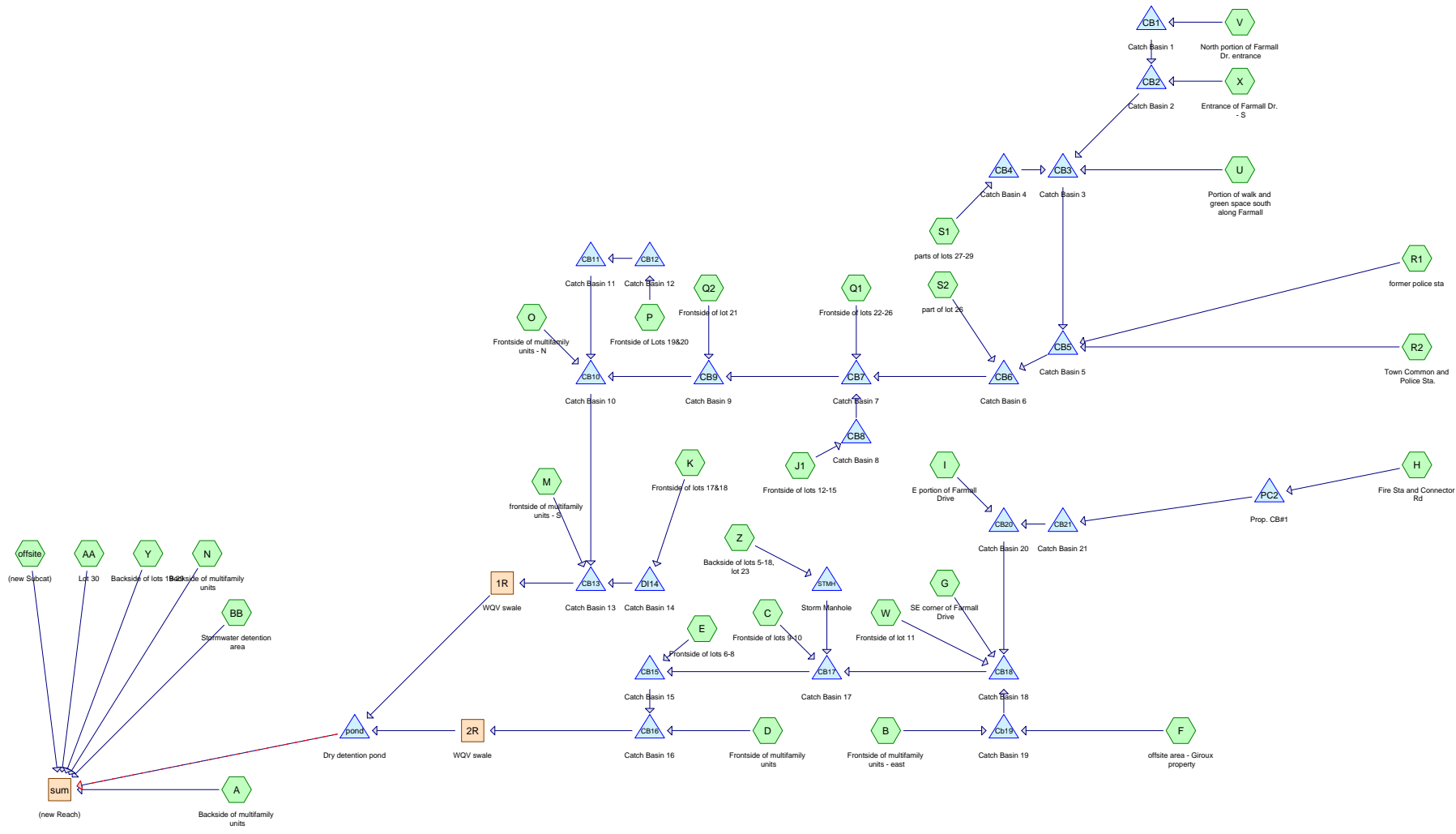
Area (ac)	CN	Description
1.862	98	Paved parking & roofs
20.937	85	Row crops, straight row, Good, HSG C
22.799	86	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.3	15	0.0208	0.8		Sheet Flow, crown of road to EOP Smooth surfaces n= 0.011 P2= 2.30"
12.8	85	0.0285	0.1		Sheet Flow, EOP to 100' Grass: Dense n= 0.240 P2= 2.30"
7.2	450	0.0133	1.0		Shallow Concentrated Flow, 100' to 575' Cultivated Straight Rows Kv= 9.0 fps
48.6	600	0.0017	0.2	0.51	Channel Flow, swale Area= 2.5 sf Perim= 7.0' r= 0.36' n= 0.150
68.9	1,150	Total			

Subcatchment pre: predevelopment watershed

Hydrograph





Routing Diagram for 005-003 Farmall WQV
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005-003 Farmall WQv

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Type II 24-hr WQv Rainfall=0.90"

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Time span=0.00-72.00 hrs, dt=0.05 hrs, 1441 points
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
 Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment A: Backside of multifamily units	Runoff Area=1.940 ac 8.25% Impervious Runoff Depth=0.00" Flow Length=310' Tc=41.8 min CN=70 Runoff=0.00 cfs 0.000 af
Subcatchment AA: Lot 30	Runoff Area=1.180 ac 0.00% Impervious Runoff Depth=0.00" Flow Length=400' Slope=0.0050 '/' Tc=39.4 min CN=64 Runoff=0.00 cfs 0.000 af
Subcatchment B: Frontside of multifamily units - east	Runoff Area=3,624 sf 0.00% Impervious Runoff Depth=0.37" Flow Length=290' Tc=11.7 min CN=93 Runoff=0.04 cfs 0.003 af
Subcatchment BB: Stormwater detention area	Runoff Area=1.520 ac 0.00% Impervious Runoff Depth=0.00" Flow Length=370' Slope=0.0135 '/' Tc=25.2 min CN=61 Runoff=0.00 cfs 0.000 af
Subcatchment C: Frontside of lots 9-10	Runoff Area=9,319 sf 0.00% Impervious Runoff Depth=0.37" Flow Length=125' Tc=12.1 min CN=93 Runoff=0.11 cfs 0.007 af
Subcatchment D: Frontside of multifamily units	Runoff Area=21,011 sf 0.00% Impervious Runoff Depth=0.37" Flow Length=376' Tc=12.7 min CN=93 Runoff=0.25 cfs 0.015 af
Subcatchment E: Frontside of lots 6-8	Runoff Area=15,751 sf 0.00% Impervious Runoff Depth=0.37" Flow Length=266' Tc=12.6 min CN=93 Runoff=0.19 cfs 0.011 af
Subcatchment F: offsite area - Giroux property	Runoff Area=0.430 ac 0.00% Impervious Runoff Depth=0.37" Flow Length=305' Slope=0.0100 '/' Tc=32.0 min CN=93 Runoff=0.13 cfs 0.013 af
Subcatchment G: SE corner of Farmall Drive	Runoff Area=0.090 ac 0.00% Impervious Runoff Depth=0.37" Flow Length=102' Tc=6.2 min CN=93 Runoff=0.06 cfs 0.003 af
Subcatchment H: Fire Sta and Connector Rd	Runoff Area=1.790 ac 0.00% Impervious Runoff Depth=0.37" Flow Length=276' Tc=29.2 min CN=93 Runoff=0.57 cfs 0.056 af
Subcatchment I: E portion of Farmall Drive	Runoff Area=0.120 ac 0.00% Impervious Runoff Depth=0.37" Flow Length=170' Slope=0.0050 '/' Tc=3.3 min CN=93 Runoff=0.09 cfs 0.004 af
Subcatchment J1: Frontside of lots 12-15	Runoff Area=21,278 sf 0.00% Impervious Runoff Depth=0.33" Flow Length=246' Tc=17.2 min CN=92 Runoff=0.19 cfs 0.013 af
Subcatchment K: Frontside of lots 17&18	Runoff Area=30,122 sf 0.00% Impervious Runoff Depth=0.33" Flow Length=184' Tc=10.9 min CN=92 Runoff=0.33 cfs 0.019 af
Subcatchment M: frontside of multifamily units - S	Runoff Area=12,129 sf 0.00% Impervious Runoff Depth=0.33" Flow Length=100' Tc=8.1 min CN=92 Runoff=0.15 cfs 0.008 af
Subcatchment N: Backside of multifamily units	Runoff Area=0.530 ac 22.64% Impervious Runoff Depth=0.00" Flow Length=67' Slope=0.0520 '/' Tc=5.7 min CN=69 Runoff=0.00 cfs 0.000 af
Subcatchment O: Frontside of multifamily units - N	Runoff Area=8,111 sf 0.00% Impervious Runoff Depth=0.33" Flow Length=208' Tc=15.1 min CN=92 Runoff=0.08 cfs 0.005 af
Subcatchment offsite: (new Subcat)	Runoff Area=5.842 ac 0.00% Impervious Runoff Depth=0.13" Flow Length=1,500' Slope=0.0033 '/' Tc=56.5 min CN=85 Runoff=0.28 cfs 0.063 af
Subcatchment P: Frontside of Lots 19&20	Runoff Area=0.270 ac 0.00% Impervious Runoff Depth=0.33" Flow Length=285' Slope=0.0050 '/' Tc=4.6 min CN=92 Runoff=0.16 cfs 0.007 af

005-003 Farmall WQv

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Type II 24-hr WQv Rainfall=0.90"

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Subcatchment Q1: Frontside of lots 22-26Runoff Area=23,373 sf 0.00% Impervious Runoff Depth=0.33"
Flow Length=251' Tc=20.7 min CN=92 Runoff=0.19 cfs 0.015 af**Subcatchment Q2: Frontside of lot 21**Runoff Area=3,635 sf 0.00% Impervious Runoff Depth=0.33"
Flow Length=100' Tc=18.9 min CN=92 Runoff=0.03 cfs 0.002 af**Subcatchment R1: former police sta**Runoff Area=1.240 ac 0.00% Impervious Runoff Depth=0.33"
Flow Length=251' Slope=0.0100 '/' Tc=26.8 min CN=92 Runoff=0.37 cfs 0.034 af**Subcatchment R2: Town Common and Police Sta.**Runoff Area=0.870 ac 0.00% Impervious Runoff Depth=0.33"
Flow Length=312' Tc=10.5 min CN=92 Runoff=0.42 cfs 0.024 af**Subcatchment S1: parts of lots 27-29**Runoff Area=13,085 sf 26.15% Impervious Runoff Depth=0.33"
Flow Length=236' Slope=0.0050 '/' Tc=21.4 min CN=92 Runoff=0.10 cfs 0.008 af**Subcatchment S2: part of lot 26**Runoff Area=6,298 sf 0.00% Impervious Runoff Depth=0.33"
Flow Length=213' Tc=10.5 min CN=92 Runoff=0.07 cfs 0.004 af**Subcatchment U: Portion of walk and green space south along Farmall**Runoff Area=0.330 ac 0.00% Impervious Runoff Depth=0.33"
Flow Length=454' Tc=27.1 min CN=92 Runoff=0.10 cfs 0.009 af**Subcatchment V: North portion of Farmall Dr. entrance**Runoff Area=13,954 sf 0.00% Impervious Runoff Depth=0.33"
Flow Length=257' Tc=11.5 min CN=92 Runoff=0.15 cfs 0.009 af**Subcatchment W: Frontside of lot 11**Runoff Area=4,605 sf 0.00% Impervious Runoff Depth=0.37"
Flow Length=100' Tc=11.8 min CN=93 Runoff=0.06 cfs 0.003 af**Subcatchment X: Entrance of Farmall Dr. - S**Runoff Area=0.120 ac 0.00% Impervious Runoff Depth=0.33"
Flow Length=284' Slope=0.0150 '/' Tc=22.0 min CN=92 Runoff=0.04 cfs 0.003 af**Subcatchment Y: Backside of lots 19-29**Runoff Area=0.710 ac 26.76% Impervious Runoff Depth=0.02"
Flow Length=80' Slope=0.0090 '/' Tc=19.4 min CN=76 Runoff=0.00 cfs 0.001 af**Subcatchment Z: Backside of lots 5-18, lot 23**Runoff Area=1.130 ac 0.00% Impervious Runoff Depth=0.37"
Flow Length=230' Slope=0.0117 '/' Tc=23.8 min CN=93 Runoff=0.41 cfs 0.035 af**Reach 1R: WQV swale**Avg. Flow Depth=0.38' Max Vel=0.54 fps Inflow=1.95 cfs 0.161 af
n=0.140 L=110.0' S=0.0114 '/' Capacity=38.81 cfs Outflow=1.86 cfs 0.161 af**Reach 2R: WQV swale**Avg. Flow Depth=0.33' Max Vel=0.48 fps Inflow=1.46 cfs 0.150 af
n=0.150 L=102.0' S=0.0123 '/' Capacity=37.62 cfs Outflow=1.43 cfs 0.150 af**Reach sum: (new Reach)**Avg. Flow Depth=0.05' Max Vel=0.89 fps Inflow=0.43 cfs 0.368 af
n=0.022 L=1.0' S=0.0100 '/' Capacity=3,943.60 cfs Outflow=0.43 cfs 0.368 af**Pond CB1: Catch Basin 1**Peak Elev=325.42' Storage=3 cf Inflow=0.15 cfs 0.009 af
12.0" Round Culvert n=0.013 L=16.0' S=0.0062 '/' Outflow=0.15 cfs 0.009 af**Pond CB10: Catch Basin 10**Peak Elev=325.19' Storage=12 cf Inflow=1.53 cfs 0.135 af
18.0" Round Culvert n=0.013 L=257.0' S=0.0008 '/' Outflow=1.52 cfs 0.135 af**Pond CB11: Catch Basin 11**Peak Elev=324.79' Storage=4 cf Inflow=0.16 cfs 0.007 af
12.0" Round Culvert n=0.013 L=122.0' S=0.0016 '/' Outflow=0.16 cfs 0.007 af**Pond CB12: Catch Basin 12**Peak Elev=324.83' Storage=3 cf Inflow=0.16 cfs 0.007 af
12.0" Round Culvert n=0.013 L=15.0' S=0.0067 '/' Outflow=0.16 cfs 0.007 af

005-003 Farmall WQv

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Pond CB13: Catch Basin 13Peak Elev=324.92' Storage=11 cf Inflow=1.96 cfs 0.161 af
18.0" Round Culvert n=0.013 L=39.0' S=0.0026 '/ Outflow=1.95 cfs 0.161 af**Pond CB15: Catch Basin 15**Peak Elev=324.85' Storage=8 cf Inflow=1.29 cfs 0.135 af
15.0" Round Culvert n=0.013 L=16.0' S=0.0062 '/ Outflow=1.29 cfs 0.135 af**Pond CB16: Catch Basin 16**Peak Elev=324.88' Storage=10 cf Inflow=1.47 cfs 0.150 af
15.0" Round Culvert n=0.013 L=55.0' S=0.0018 '/ Outflow=1.46 cfs 0.150 af**Pond CB17: Catch Basin 17**Peak Elev=325.20' Storage=10 cf Inflow=1.20 cfs 0.123 af
15.0" Round Culvert n=0.013 L=197.0' S=0.0010 '/ Outflow=1.19 cfs 0.124 af**Pond CB18: Catch Basin 18**Peak Elev=325.29' Storage=9 cf Inflow=0.75 cfs 0.082 af
12.0" Round Culvert n=0.013 L=180.0' S=0.0011 '/ Outflow=0.75 cfs 0.082 af**Pond Cb19: Catch Basin 19**Peak Elev=324.74' Storage=1 cf Inflow=0.14 cfs 0.016 af
12.0" Round Culvert n=0.013 L=18.0' S=0.0056 '/ Outflow=0.14 cfs 0.016 af**Pond CB2: Catch Basin 2**Peak Elev=325.39' Storage=4 cf Inflow=0.18 cfs 0.012 af
12.0" Round Culvert n=0.013 L=52.0' S=0.0019 '/ Outflow=0.18 cfs 0.012 af**Pond CB20: Catch Basin 20**Peak Elev=325.34' Storage=7 cf Inflow=0.58 cfs 0.060 af
12.0" Round Culvert n=0.013 L=110.0' S=0.0018 '/ Outflow=0.58 cfs 0.060 af**Pond CB21: Catch Basin 21**Peak Elev=325.35' Storage=6 cf Inflow=0.57 cfs 0.056 af
12.0" Round Culvert n=0.013 L=18.0' S=0.0056 '/ Outflow=0.57 cfs 0.056 af**Pond CB3: Catch Basin 3**Peak Elev=325.46' Storage=6 cf Inflow=0.34 cfs 0.029 af
15.0" Round Culvert n=0.013 L=282.0' S=0.0007 '/ Outflow=0.33 cfs 0.029 af**Pond CB4: Catch Basin 4**Peak Elev=325.28' Storage=2 cf Inflow=0.10 cfs 0.008 af
12.0" Round Culvert n=0.013 L=18.0' S=0.0056 '/ Outflow=0.10 cfs 0.008 af**Pond CB5: Catch Basin 5**Peak Elev=325.46' Storage=9 cf Inflow=0.96 cfs 0.088 af
12.0" Round Culvert n=0.013 L=40.0' S=0.0025 '/ Outflow=0.96 cfs 0.088 af**Pond CB6: Catch Basin 6**Peak Elev=325.39' Storage=9 cf Inflow=1.03 cfs 0.092 af
15.0" Round Culvert n=0.013 L=86.0' S=0.0012 '/ Outflow=1.03 cfs 0.092 af**Pond CB7: Catch Basin 7**Peak Elev=325.49' Storage=12 cf Inflow=1.37 cfs 0.120 af
18.0" Round Culvert n=0.013 L=240.0' S=0.0004 '/ Outflow=1.36 cfs 0.120 af**Pond CB8: Catch Basin 8**Peak Elev=324.94' Storage=3 cf Inflow=0.19 cfs 0.013 af
12.0" Round Culvert n=0.013 L=15.0' S=0.0067 '/ Outflow=0.19 cfs 0.013 af**Pond CB9: Catch Basin 9**Peak Elev=325.30' Storage=12 cf Inflow=1.39 cfs 0.122 af
15.0" Round Culvert n=0.013 L=160.0' S=0.0006 '/ Outflow=1.39 cfs 0.122 af**Pond DI14: Catch Basin 14**Peak Elev=324.53' Storage=4 cf Inflow=0.33 cfs 0.019 af
12.0" Round Culvert n=0.013 L=15.0' S=0.0067 '/ Outflow=0.33 cfs 0.019 af**Pond PC2: Prop. CB#1**Peak Elev=325.43' Storage=4 cf Inflow=0.57 cfs 0.056 af
12.0" Round Culvert n=0.013 L=10.0' S=0.0100 '/ Outflow=0.57 cfs 0.056 af**Pond pond: Dry detention pond**Peak Elev=323.11' Storage=8,086 cf Inflow=3.22 cfs 0.311 af
Outflow=0.17 cfs 0.303 af

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Pond STMH: Storm Manhole

Peak Elev=325.06' Storage=6 cf Inflow=0.41 cfs 0.035 af
12.0" Round Culvert n=0.013 L=121.0' S=0.0017 '/' Outflow=0.41 cfs 0.035 af

005-003 P9 Farmall 10 YR event

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Type II 24-hr 1-year Rainfall=2.10"

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Time span=0.00-72.00 hrs, dt=0.05 hrs, 1441 points
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
 Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment A: Backside of multifamily units	Runoff Area=1.940 ac 8.25% Impervious Runoff Depth=0.28" Flow Length=310' Tc=41.8 min CN=70 Runoff=0.23 cfs 0.045 af
Subcatchment AA: Lot 30	Runoff Area=1.180 ac 0.00% Impervious Runoff Depth=0.14" Flow Length=400' Slope=0.0050 '/' Tc=39.4 min CN=64 Runoff=0.04 cfs 0.014 af
Subcatchment B: Frontside of multifamily units - east	Runoff Area=3,624 sf 70.42% Impervious Runoff Depth=1.25" Flow Length=290' Tc=11.7 min CN=91 Runoff=0.15 cfs 0.009 af
Subcatchment BB: Stormwater detention area	Runoff Area=1.520 ac 0.00% Impervious Runoff Depth=0.09" Flow Length=370' Slope=0.0135 '/' Tc=25.2 min CN=61 Runoff=0.03 cfs 0.012 af
Subcatchment C: Frontside of lots 9-10	Runoff Area=9,319 sf 40.38% Impervious Runoff Depth=0.62" Flow Length=125' Tc=12.1 min CN=80 Runoff=0.18 cfs 0.011 af
Subcatchment D: Frontside of multifamily units	Runoff Area=21,011 sf 69.73% Impervious Runoff Depth=0.98" Flow Length=376' Tc=12.7 min CN=87 Runoff=0.66 cfs 0.040 af
Subcatchment E: Frontside of lots 6-8	Runoff Area=15,751 sf 38.04% Impervious Runoff Depth=0.43" Flow Length=266' Tc=12.6 min CN=75 Runoff=0.19 cfs 0.013 af
Subcatchment F: offsite area - Giroux property	Runoff Area=0.430 ac 23.26% Impervious Runoff Depth=0.62" Flow Length=305' Slope=0.0100 '/' Tc=32.0 min CN=80 Runoff=0.20 cfs 0.022 af
Subcatchment G: SE corner of Farmall Drive	Runoff Area=0.090 ac 44.44% Impervious Runoff Depth=0.87" Flow Length=102' Tc=6.2 min CN=85 Runoff=0.14 cfs 0.007 af
Subcatchment H: Fire Sta and Connector road	Runoff Area=1.790 ac 41.90% Impervious Runoff Depth=0.82" Flow Length=276' Tc=29.2 min CN=84 Runoff=1.24 cfs 0.122 af
Subcatchment I: E portion of Farmall Drive	Runoff Area=0.120 ac 58.33% Impervious Runoff Depth=1.05" Flow Length=170' Slope=0.0050 '/' Tc=3.3 min CN=88 Runoff=0.24 cfs 0.010 af
Subcatchment J1: Frontside of lots 12-15	Runoff Area=21,278 sf 12.06% Impervious Runoff Depth=0.34" Flow Length=246' Tc=17.2 min CN=72 Runoff=0.14 cfs 0.014 af
Subcatchment K: Frontside of lots 17&18	Runoff Area=30,122 sf 20.40% Impervious Runoff Depth=0.25" Flow Length=184' Tc=10.9 min CN=69 Runoff=0.17 cfs 0.015 af
Subcatchment M: frontside of multifamily units - S	Runoff Area=12,129 sf 59.73% Impervious Runoff Depth=0.76" Flow Length=100' Tc=8.1 min CN=83 Runoff=0.34 cfs 0.018 af
Subcatchment N: Backside of multifamily units	Runoff Area=0.530 ac 22.64% Impervious Runoff Depth=0.25" Flow Length=67' Slope=0.0520 '/' Tc=5.7 min CN=69 Runoff=0.17 cfs 0.011 af
Subcatchment O: Frontside of multifamily units - N	Runoff Area=8,111 sf 60.40% Impervious Runoff Depth=0.76" Flow Length=208' Tc=15.1 min CN=83 Runoff=0.18 cfs 0.012 af
Subcatchment offsite: (new Subcat)	Runoff Area=5.842 ac 0.00% Impervious Runoff Depth=0.87" Flow Length=1,500' Slope=0.0033 '/' Tc=56.5 min CN=85 Runoff=2.73 cfs 0.423 af
Subcatchment P: Frontside of Lots 19&20	Runoff Area=0.270 ac 14.81% Impervious Runoff Depth=0.18" Flow Length=285' Slope=0.0050 '/' Tc=4.6 min CN=66 Runoff=0.05 cfs 0.004 af

005-003 P9 Farmall 10 YR event

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Type II 24-hr 1-year Rainfall=2.10"

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Subcatchment Q1: Frontside of lots 22-26Runoff Area=23,373 sf 11.50% Impervious Runoff Depth=0.34"
Flow Length=251' Tc=20.7 min CN=72 Runoff=0.14 cfs 0.015 af**Subcatchment Q2: Frontside of lot 21**Runoff Area=3,635 sf 45.91% Impervious Runoff Depth=0.54"
Flow Length=100' Tc=18.9 min CN=78 Runoff=0.05 cfs 0.004 af**Subcatchment R1: Former police station**Runoff Area=1.240 ac 20.97% Impervious Runoff Depth=0.58"
Flow Length=251' Slope=0.0100 '/' Tc=26.8 min CN=79 Runoff=0.60 cfs 0.060 af**Subcatchment R2: Town Common and Police Sta.**Runoff Area=0.870 ac 50.57% Impervious Runoff Depth=0.93"
Flow Length=312' Tc=10.5 min CN=86 Runoff=1.20 cfs 0.067 af**Subcatchment S1: parts of lots 27-29**Runoff Area=13,085 sf 48.64% Impervious Runoff Depth=0.93"
Flow Length=236' Slope=0.0050 '/' Tc=21.4 min CN=86 Runoff=0.29 cfs 0.023 af**Subcatchment S2: part of lot 26**Runoff Area=6,298 sf 48.83% Impervious Runoff Depth=0.93"
Flow Length=213' Tc=10.5 min CN=86 Runoff=0.20 cfs 0.011 af**Subcatchment U: Portion of walk and green space south along Farmall**Runoff Area=0.330 ac 15.15% Impervious Runoff Depth=0.54"
Flow Length=454' Tc=27.1 min CN=78 Runoff=0.14 cfs 0.015 af**Subcatchment V: North portion of Farmall Dr. entrance**Runoff Area=13,954 sf 63.04% Impervious Runoff Depth=1.11"
Flow Length=257' Tc=11.5 min CN=89 Runoff=0.51 cfs 0.030 af**Subcatchment W: Frontside of lot 11**Runoff Area=4,605 sf 40.72% Impervious Runoff Depth=0.82"
Flow Length=100' Tc=11.8 min CN=84 Runoff=0.12 cfs 0.007 af**Subcatchment X: Entrance of Farmall Dr. - S**Runoff Area=0.120 ac 100.00% Impervious Runoff Depth=1.87"
Flow Length=284' Slope=0.0150 '/' Tc=22.0 min CN=98 Runoff=0.22 cfs 0.019 af**Subcatchment Y: Backside of lots 19-29**Runoff Area=0.710 ac 26.76% Impervious Runoff Depth=0.47"
Flow Length=80' Slope=0.0090 '/' Tc=19.4 min CN=76 Runoff=0.32 cfs 0.028 af**Subcatchment Z: Backside of lots 5-18, lot 23**Runoff Area=1.130 ac 20.35% Impervious Runoff Depth=0.37"
Flow Length=230' Slope=0.0117 '/' Tc=23.8 min CN=73 Runoff=0.31 cfs 0.034 af**Reach 1R: WQV swale**Avg. Flow Depth=0.42' Max Vel=0.89 fps Inflow=3.55 cfs 0.306 af
n=0.090 L=110.0' S=0.0114 '/' Capacity=60.38 cfs Outflow=3.44 cfs 0.306 af**Reach 2R: WQV swale**Avg. Flow Depth=0.35' Max Vel=0.76 fps Inflow=2.44 cfs 0.275 af
n=0.100 L=102.0' S=0.0123 '/' Capacity=56.43 cfs Outflow=2.41 cfs 0.275 af**Reach sum: (new Reach)**Avg. Flow Depth=0.16' Max Vel=1.82 fps Inflow=3.32 cfs 1.102 af
n=0.022 L=1.0' S=0.0100 '/' Capacity=3,943.60 cfs Outflow=3.32 cfs 1.102 af**Pond CB1: Catch Basin 1**Peak Elev=325.62' Storage=5 cf Inflow=0.51 cfs 0.030 af
12.0" Round Culvert n=0.013 L=16.0' S=0.0062 '/' Outflow=0.51 cfs 0.030 af**Pond CB10: Catch Basin 10**Peak Elev=325.62' Storage=17 cf Inflow=3.12 cfs 0.273 af
18.0" Round Culvert n=0.013 L=257.0' S=0.0008 '/' Outflow=3.12 cfs 0.273 af**Pond CB11: Catch Basin 11**Peak Elev=324.67' Storage=2 cf Inflow=0.05 cfs 0.004 af
12.0" Round Culvert n=0.013 L=122.0' S=0.0016 '/' Outflow=0.06 cfs 0.004 af**Pond CB12: Catch Basin 12**Peak Elev=324.73' Storage=2 cf Inflow=0.05 cfs 0.004 af
12.0" Round Culvert n=0.013 L=15.0' S=0.0067 '/' Outflow=0.05 cfs 0.004 af

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Pond CB13: Catch Basin 13

Peak Elev=325.24' Storage=15 cf Inflow=3.56 cfs 0.306 af
18.0" Round Culvert n=0.013 L=39.0' S=0.0026 '/ Outflow=3.55 cfs 0.306 af

Pond CB15: Catch Basin 15

Peak Elev=325.04' Storage=11 cf Inflow=2.02 cfs 0.235 af
15.0" Round Culvert n=0.013 L=16.0' S=0.0062 '/ Outflow=2.02 cfs 0.235 af

Pond CB16: Catch Basin 16

Peak Elev=325.15' Storage=14 cf Inflow=2.45 cfs 0.275 af
15.0" Round Culvert n=0.013 L=55.0' S=0.0018 '/ Outflow=2.44 cfs 0.275 af

Pond CB17: Catch Basin 17

Peak Elev=325.46' Storage=14 cf Inflow=1.94 cfs 0.222 af
15.0" Round Culvert n=0.013 L=197.0' S=0.0010 '/ Outflow=1.93 cfs 0.222 af

Pond CB18: Catch Basin 18

Peak Elev=325.69' Storage=14 cf Inflow=1.56 cfs 0.177 af
12.0" Round Culvert n=0.013 L=180.0' S=0.0011 '/ Outflow=1.56 cfs 0.177 af

Pond Cb19: Catch Basin 19

Peak Elev=324.78' Storage=1 cf Inflow=0.24 cfs 0.031 af
12.0" Round Culvert n=0.013 L=18.0' S=0.0056 '/ Outflow=0.24 cfs 0.031 af

Pond CB2: Catch Basin 2

Peak Elev=325.67' Storage=7 cf Inflow=0.70 cfs 0.048 af
12.0" Round Culvert n=0.013 L=52.0' S=0.0019 '/ Outflow=0.70 cfs 0.048 af

Pond CB20: Catch Basin 20

Peak Elev=325.64' Storage=11 cf Inflow=1.27 cfs 0.132 af
12.0" Round Culvert n=0.013 L=110.0' S=0.0018 '/ Outflow=1.27 cfs 0.132 af

Pond CB21: Catch Basin 21

Peak Elev=325.60' Storage=9 cf Inflow=1.24 cfs 0.122 af
12.0" Round Culvert n=0.013 L=18.0' S=0.0056 '/ Outflow=1.24 cfs 0.122 af

Pond CB3: Catch Basin 3

Peak Elev=325.80' Storage=10 cf Inflow=1.02 cfs 0.086 af
15.0" Round Culvert n=0.013 L=282.0' S=0.0007 '/ Outflow=1.02 cfs 0.086 af

Pond CB4: Catch Basin 4

Peak Elev=325.42' Storage=4 cf Inflow=0.29 cfs 0.023 af
12.0" Round Culvert n=0.013 L=18.0' S=0.0056 '/ Outflow=0.29 cfs 0.023 af

Pond CB5: Catch Basin 5

Peak Elev=326.06' Storage=16 cf Inflow=2.49 cfs 0.214 af
12.0" Round Culvert n=0.013 L=40.0' S=0.0025 '/ Outflow=2.49 cfs 0.214 af

Pond CB6: Catch Basin 6

Peak Elev=325.88' Storage=15 cf Inflow=2.68 cfs 0.225 af
15.0" Round Culvert n=0.013 L=86.0' S=0.0012 '/ Outflow=2.68 cfs 0.225 af

Pond CB7: Catch Basin 7

Peak Elev=325.92' Storage=17 cf Inflow=2.89 cfs 0.253 af
18.0" Round Culvert n=0.013 L=240.0' S=0.0004 '/ Outflow=2.88 cfs 0.254 af

Pond CB8: Catch Basin 8

Peak Elev=324.91' Storage=3 cf Inflow=0.14 cfs 0.014 af
12.0" Round Culvert n=0.013 L=15.0' S=0.0067 '/ Outflow=0.14 cfs 0.014 af

Pond CB9: Catch Basin 9

Peak Elev=325.83' Storage=19 cf Inflow=2.92 cfs 0.257 af
15.0" Round Culvert n=0.013 L=160.0' S=0.0006 '/ Outflow=2.91 cfs 0.257 af

Pond DI14: Catch Basin 14

Peak Elev=324.43' Storage=3 cf Inflow=0.17 cfs 0.015 af
12.0" Round Culvert n=0.013 L=15.0' S=0.0067 '/ Outflow=0.17 cfs 0.015 af

Pond PC2: Prop. CB#1

Peak Elev=325.68' Storage=7 cf Inflow=1.24 cfs 0.122 af
12.0" Round Culvert n=0.013 L=10.0' S=0.0100 '/ Outflow=1.24 cfs 0.122 af

Pond pond: Dry detention pond

Peak Elev=323.48' Storage=16,605 cf Inflow=5.75 cfs 0.581 af
Outflow=0.22 cfs 0.569 af

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Pond STMH: Storm Manhole

Peak Elev=325.00' Storage=5 cf Inflow=0.31 cfs 0.034 af
12.0" Round Culvert n=0.013 L=121.0' S=0.0017 '/' Outflow=0.31 cfs 0.034 af

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Time span=0.00-72.00 hrs, dt=0.05 hrs, 1441 points
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
 Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment A: Backside of multifamily units	Runoff Area=1.940 ac 8.25% Impervious Runoff Depth=0.83" Flow Length=310' Tc=41.8 min CN=70 Runoff=0.96 cfs 0.134 af
Subcatchment AA: Lot 30	Runoff Area=1.180 ac 0.00% Impervious Runoff Depth=0.56" Flow Length=400' Slope=0.0050 '/' Tc=39.4 min CN=64 Runoff=0.34 cfs 0.055 af
Subcatchment B: Frontside of multifamily units - east	Runoff Area=3,624 sf 70.42% Impervious Runoff Depth=2.26" Flow Length=290' Tc=11.7 min CN=91 Runoff=0.26 cfs 0.016 af
Subcatchment BB: Stormwater detention area	Runoff Area=1.520 ac 0.00% Impervious Runoff Depth=0.44" Flow Length=370' Slope=0.0135 '/' Tc=25.2 min CN=61 Runoff=0.42 cfs 0.056 af
Subcatchment C: Frontside of lots 9-10	Runoff Area=9,319 sf 40.38% Impervious Runoff Depth=1.40" Flow Length=125' Tc=12.1 min CN=80 Runoff=0.42 cfs 0.025 af
Subcatchment D: Frontside of multifamily units	Runoff Area=21,011 sf 69.73% Impervious Runoff Depth=1.91" Flow Length=376' Tc=12.7 min CN=87 Runoff=1.28 cfs 0.077 af
Subcatchment E: Frontside of lots 6-8	Runoff Area=15,751 sf 38.04% Impervious Runoff Depth=1.09" Flow Length=266' Tc=12.6 min CN=75 Runoff=0.54 cfs 0.033 af
Subcatchment F: offsite area - Giroux property	Runoff Area=0.430 ac 23.26% Impervious Runoff Depth=1.40" Flow Length=305' Slope=0.0100 '/' Tc=32.0 min CN=80 Runoff=0.49 cfs 0.050 af
Subcatchment G: SE corner of Farmall Drive	Runoff Area=0.090 ac 44.44% Impervious Runoff Depth=1.76" Flow Length=102' Tc=6.2 min CN=85 Runoff=0.27 cfs 0.013 af
Subcatchment H: Fire Sta and Connector road	Runoff Area=1.790 ac 41.90% Impervious Runoff Depth=1.68" Flow Length=276' Tc=29.2 min CN=84 Runoff=2.64 cfs 0.251 af
Subcatchment I: E portion of Farmall Drive	Runoff Area=0.120 ac 58.33% Impervious Runoff Depth=2.00" Flow Length=170' Slope=0.0050 '/' Tc=3.3 min CN=88 Runoff=0.45 cfs 0.020 af
Subcatchment J1: Frontside of lots 12-15	Runoff Area=21,278 sf 12.06% Impervious Runoff Depth=0.93" Flow Length=246' Tc=17.2 min CN=72 Runoff=0.51 cfs 0.038 af
Subcatchment K: Frontside of lots 17&18	Runoff Area=30,122 sf 20.40% Impervious Runoff Depth=0.78" Flow Length=184' Tc=10.9 min CN=69 Runoff=0.73 cfs 0.045 af
Subcatchment M: frontside of multifamily units - S	Runoff Area=12,129 sf 59.73% Impervious Runoff Depth=1.61" Flow Length=100' Tc=8.1 min CN=83 Runoff=0.73 cfs 0.037 af
Subcatchment N: Backside of multifamily units	Runoff Area=0.530 ac 22.64% Impervious Runoff Depth=0.78" Flow Length=67' Slope=0.0520 '/' Tc=5.7 min CN=69 Runoff=0.69 cfs 0.034 af
Subcatchment O: Frontside of multifamily units - N	Runoff Area=8,111 sf 60.40% Impervious Runoff Depth=1.61" Flow Length=208' Tc=15.1 min CN=83 Runoff=0.38 cfs 0.025 af
Subcatchment offsite: (new Subcat)	Runoff Area=5.842 ac 0.00% Impervious Runoff Depth=1.76" Flow Length=1,500' Slope=0.0033 '/' Tc=56.5 min CN=85 Runoff=5.71 cfs 0.856 af
Subcatchment P: Frontside of Lots 19&20	Runoff Area=0.270 ac 14.81% Impervious Runoff Depth=0.64" Flow Length=285' Slope=0.0050 '/' Tc=4.6 min CN=66 Runoff=0.29 cfs 0.014 af

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Subcatchment Q1: Frontside of lots 22-26Runoff Area=23,373 sf 11.50% Impervious Runoff Depth=0.93"
Flow Length=251' Tc=20.7 min CN=72 Runoff=0.50 cfs 0.042 af**Subcatchment Q2: Frontside of lot 21**Runoff Area=3,635 sf 45.91% Impervious Runoff Depth=1.27"
Flow Length=100' Tc=18.9 min CN=78 Runoff=0.12 cfs 0.009 af**Subcatchment R1: Former police station**Runoff Area=1.240 ac 20.97% Impervious Runoff Depth=1.34"
Flow Length=251' Slope=0.0100 '/' Tc=26.8 min CN=79 Runoff=1.51 cfs 0.138 af**Subcatchment R2: Town Common and Police Sta.**Runoff Area=0.870 ac 50.57% Impervious Runoff Depth=1.84"
Flow Length=312' Tc=10.5 min CN=86 Runoff=2.36 cfs 0.133 af**Subcatchment S1: parts of lots 27-29**Runoff Area=13,085 sf 48.64% Impervious Runoff Depth=1.84"
Flow Length=236' Slope=0.0050 '/' Tc=21.4 min CN=86 Runoff=0.59 cfs 0.046 af**Subcatchment S2: part of lot 26**Runoff Area=6,298 sf 48.83% Impervious Runoff Depth=1.84"
Flow Length=213' Tc=10.5 min CN=86 Runoff=0.39 cfs 0.022 af**Subcatchment U: Portion of walk and green space south along Farmall**Runoff Area=0.330 ac 15.15% Impervious Runoff Depth=1.27"
Flow Length=454' Tc=27.1 min CN=78 Runoff=0.38 cfs 0.035 af**Subcatchment V: North portion of Farmall Dr. entrance**Runoff Area=13,954 sf 63.04% Impervious Runoff Depth=2.08"
Flow Length=257' Tc=11.5 min CN=89 Runoff=0.95 cfs 0.056 af**Subcatchment W: Frontside of lot 11**Runoff Area=4,605 sf 40.72% Impervious Runoff Depth=1.68"
Flow Length=100' Tc=11.8 min CN=84 Runoff=0.25 cfs 0.015 af**Subcatchment X: Entrance of Farmall Dr. - S**Runoff Area=0.120 ac 100.00% Impervious Runoff Depth=2.97"
Flow Length=284' Slope=0.0150 '/' Tc=22.0 min CN=98 Runoff=0.34 cfs 0.030 af**Subcatchment Y: Backside of lots 19-29**Runoff Area=0.710 ac 26.76% Impervious Runoff Depth=1.15"
Flow Length=80' Slope=0.0090 '/' Tc=19.4 min CN=76 Runoff=0.89 cfs 0.068 af**Subcatchment Z: Backside of lots 5-18, lot 23**Runoff Area=1.130 ac 20.35% Impervious Runoff Depth=0.98"
Flow Length=230' Slope=0.0117 '/' Tc=23.8 min CN=73 Runoff=1.03 cfs 0.093 af**Reach 1R: WQV swale**Avg. Flow Depth=0.68' Max Vel=1.19 fps Inflow=8.26 cfs 0.669 af
n=0.090 L=110.0' S=0.0114 '/' Capacity=60.38 cfs Outflow=8.02 cfs 0.669 af**Reach 2R: WQV swale**Avg. Flow Depth=0.58' Max Vel=1.01 fps Inflow=5.70 cfs 0.593 af
n=0.100 L=102.0' S=0.0123 '/' Capacity=56.43 cfs Outflow=5.65 cfs 0.593 af**Reach sum: (new Reach)**Avg. Flow Depth=0.26' Max Vel=2.41 fps Inflow=7.78 cfs 2.429 af
n=0.022 L=1.0' S=0.0100 '/' Capacity=3,943.60 cfs Outflow=7.78 cfs 2.429 af**Pond CB1: Catch Basin 1**Peak Elev=325.80' Storage=8 cf Inflow=0.95 cfs 0.056 af
12.0" Round Culvert n=0.013 L=16.0' S=0.0062 '/' Outflow=0.95 cfs 0.056 af**Pond CB10: Catch Basin 10**Peak Elev=327.11' Storage=37 cf Inflow=6.99 cfs 0.588 af
18.0" Round Culvert n=0.013 L=257.0' S=0.0008 '/' Outflow=7.01 cfs 0.588 af**Pond CB11: Catch Basin 11**Peak Elev=324.89' Storage=5 cf Inflow=0.29 cfs 0.014 af
12.0" Round Culvert n=0.013 L=122.0' S=0.0016 '/' Outflow=0.29 cfs 0.014 af**Pond CB12: Catch Basin 12**Peak Elev=324.91' Storage=4 cf Inflow=0.29 cfs 0.014 af
12.0" Round Culvert n=0.013 L=15.0' S=0.0067 '/' Outflow=0.29 cfs 0.014 af

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Pond CB13: Catch Basin 13

Peak Elev=326.25' Storage=28 cf Inflow=8.30 cfs 0.670 af
18.0" Round Culvert n=0.013 L=39.0' S=0.0026 '/ Outflow=8.26 cfs 0.669 af

Pond CB15: Catch Basin 15

Peak Elev=325.70' Storage=19 cf Inflow=4.81 cfs 0.515 af
15.0" Round Culvert n=0.013 L=16.0' S=0.0062 '/ Outflow=4.80 cfs 0.515 af

Pond CB16: Catch Basin 16

Peak Elev=326.18' Storage=27 cf Inflow=5.71 cfs 0.592 af
15.0" Round Culvert n=0.013 L=55.0' S=0.0018 '/ Outflow=5.70 cfs 0.593 af

Pond CB17: Catch Basin 17

Peak Elev=326.74' Storage=30 cf Inflow=4.54 cfs 0.483 af
15.0" Round Culvert n=0.013 L=197.0' S=0.0010 '/ Outflow=4.54 cfs 0.482 af

Pond CB18: Catch Basin 18

Peak Elev=327.43' Storage=37 cf Inflow=3.36 cfs 0.365 af
12.0" Round Culvert n=0.013 L=180.0' S=0.0011 '/ Outflow=3.36 cfs 0.365 af

Pond Cb19: Catch Basin 19

Peak Elev=324.95' Storage=3 cf Inflow=0.56 cfs 0.066 af
12.0" Round Culvert n=0.013 L=18.0' S=0.0056 '/ Outflow=0.56 cfs 0.066 af

Pond CB2: Catch Basin 2

Peak Elev=325.89' Storage=10 cf Inflow=1.23 cfs 0.085 af
12.0" Round Culvert n=0.013 L=52.0' S=0.0019 '/ Outflow=1.23 cfs 0.085 af

Pond CB20: Catch Basin 20

Peak Elev=326.50' Storage=22 cf Inflow=2.69 cfs 0.271 af
12.0" Round Culvert n=0.013 L=110.0' S=0.0018 '/ Outflow=2.68 cfs 0.271 af

Pond CB21: Catch Basin 21

Peak Elev=326.07' Storage=15 cf Inflow=2.64 cfs 0.251 af
12.0" Round Culvert n=0.013 L=18.0' S=0.0056 '/ Outflow=2.64 cfs 0.251 af

Pond CB3: Catch Basin 3

Peak Elev=326.16' Storage=15 cf Inflow=1.97 cfs 0.166 af
15.0" Round Culvert n=0.013 L=282.0' S=0.0007 '/ Outflow=1.96 cfs 0.166 af

Pond CB4: Catch Basin 4

Peak Elev=325.56' Storage=6 cf Inflow=0.59 cfs 0.046 af
12.0" Round Culvert n=0.013 L=18.0' S=0.0056 '/ Outflow=0.59 cfs 0.046 af

Pond CB5: Catch Basin 5

Peak Elev=327.56' Storage=36 cf Inflow=5.17 cfs 0.437 af
12.0" Round Culvert n=0.013 L=40.0' S=0.0025 '/ Outflow=5.18 cfs 0.437 af

Pond CB6: Catch Basin 6

Peak Elev=326.96' Storage=29 cf Inflow=5.55 cfs 0.459 af
15.0" Round Culvert n=0.013 L=86.0' S=0.0012 '/ Outflow=5.53 cfs 0.459 af

Pond CB7: Catch Basin 7

Peak Elev=327.20' Storage=34 cf Inflow=6.40 cfs 0.539 af
18.0" Round Culvert n=0.013 L=240.0' S=0.0004 '/ Outflow=6.40 cfs 0.539 af

Pond CB8: Catch Basin 8

Peak Elev=325.12' Storage=5 cf Inflow=0.51 cfs 0.038 af
12.0" Round Culvert n=0.013 L=15.0' S=0.0067 '/ Outflow=0.51 cfs 0.038 af

Pond CB9: Catch Basin 9

Peak Elev=327.81' Storage=44 cf Inflow=6.51 cfs 0.548 af
15.0" Round Culvert n=0.013 L=160.0' S=0.0006 '/ Outflow=6.48 cfs 0.548 af

Pond DI14: Catch Basin 14

Peak Elev=324.71' Storage=7 cf Inflow=0.73 cfs 0.045 af
12.0" Round Culvert n=0.013 L=15.0' S=0.0067 '/ Outflow=0.73 cfs 0.045 af

Pond PC2: Prop. CB#1

Peak Elev=326.12' Storage=11 cf Inflow=2.64 cfs 0.251 af
12.0" Round Culvert n=0.013 L=10.0' S=0.0100 '/ Outflow=2.64 cfs 0.251 af

Pond pond: Dry detention pond

Peak Elev=324.36' Storage=38,731 cf Inflow=13.52 cfs 1.262 af
Outflow=0.40 cfs 1.225 af

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Pond STMH: Storm Manhole

Peak Elev=325.35' Storage=10 cf Inflow=1.03 cfs 0.093 af
12.0" Round Culvert n=0.013 L=121.0' S=0.0017 '/' Outflow=1.03 cfs 0.093 af