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Mr. Michael Livingston, P.E., Town Planner/Engineer
Ms. Shannon L.M. Belanger, Assistant Planner
Town of Wells
208 Sanford Road
Wells, Maine 04090

March 19th, 2026
Project No.: C031

RE: Major Site & Subdivision Approval – Subdivision Amendment #5
Fairway View Village Development (Tax Map 32, Lot 13)
Fieldside Lane, Wells, Maine

Dear Mr. Livingston & Ms. Belanger:

On behalf of York Building & Design Center, I have enclosed for your review and consideration an updated Plan Set and associated attachments for the above-referenced project. Revisions have been made to both address and modify several of the as-built conditions outlined in the General Note updates approved with Subdivision Amendment #4, which was approved by the Wells Planning Board in February of 2026.

Much of the content of this Subdivision Amendment #5 was previously submitted to the Planning Department in early February, but at the time Town Staff instructed the Applicant to withhold the submission of these materials until Subdivision Amendment #4 was approved so a new application for review of Subdivision Amendment #5 could be filed, which is what is taking place now. As such, the elements of the previous Cover Letter will be reiterated here and expanded upon to include items from Subdivision Amendment #4 that have been addressed or are being requested to be modified.

Parking Striping has been completed in the community lot abutting the Clubhouse at the beginning of Joseph Way as required from the original approvals. The Applicant is requesting that all subsequent striping outlined in the original approvals be removed. As a result of this request, several General Notes on Sheet #1 are required to be updated as outlined below:

- General Note #27 – Phasing and Performance Guarantees:
  - Subsection C: from "…well, *parking areas striped*, knox box installed…"
    to "…well, **"No Parking" Signage**, knox box installed…"
  - Subsection D: from "paved fire lane, *no parking striping*, bollards…"
    to "…paved fire lane, **"No Parking" Signage**, bollards…"
- General Note #61 – Completed Items by 05/15/2026:
  - Subsection D: from "*All pavement striping and markings* as depicted on…"
    to "**All "No Parking" markings** as depicted on…"
- General Note #63 – Completion Items prior to COO for Units #43, #44, & #45:
  - Subsection B: from "*Parking Striping.*"
    to "**"No Parking" Signage.**"
- Lastly, this request has been added as Subsection D to the separate "Purpose of this Plan" notes package included on Sheet #1.

Carrying these requested changes through the Plan Set, the only resulting change is to Sheet #4 where "No Parking" Signage has been added along the perimeter of the Fire Cistern turnout to satisfy the markings that were depicted with the original approvals.

Additional Plan Set Changes:

- Sheet #4 (As-Built Infrastructure Plan Pt.2) has been revised to include the areas of protective boulders that have been installed along both shoulders of Izzys Lane in the vicinity of the Unit #12 and Unit #15 Patios. Site Photos of these installed boulders are attached to the end of this cover letter.

- Sheet #4 has been revised to update the as-built conditions of the Fieldside Lane side slopes west of its intersection with Izzys Lane in the vicinity of the 36" CPP Wetland Crossing. These updates are with respect to the original approvals which called for steeper side slopes and timber guardrail to be installed for the wetland crossing span. Shallower (5:1) side slopes allow the majority of this guardrail to need not be installed, with the remaining required guardrail be up-slope of the riprap outlet protection for the 36" CPP Wetland Crossing. A 30 linear foot span of timber guardrail has been added to be installed on the downstream side of this crossing. Callouts have also been added to reference amended Road Cross Section Details, which shall be discussed below. Site Photos of these side slope spans are also attached to the end of this cover letter.

- Sheet #7 has been revised to include a portion of the Road Cross Section Details from the original approvals. No changes have been made to any of the dimensional standards of any of these details; they have only been added to demonstrate the change in Fieldside Lane travelway stationing over which each of these Cross Section Details apply. The Retaining Wall Section Detail has had its stationing ranges removed entirely, and the Guardrail Section Detail has had its stationing ranges reduced to reflect the as-built conditions in the vicinity of Izzys Lane described above.

- General Note #41 on Sheet #1 has been revised to request that the restoration of the former storage and maintenance area be completed prior to the issuance of the final (46th) certificate of occupancy, where the previous request was prior to the 45th or prior to September 15th, 2026 – whichever occurs first.

- The proposed location of Underdrained Soil Filter #8 (USF #8) in the vicinity of Units 43 and 44/45 has been slightly relocated to be further away from both of these structures. This larger offset envelope allows more flexibility in utility and patio placement, as well as providing the prospective residents with more of a sideyard. There is adequate upland space for the relocation of USF #8, so no additional wetland impacts will be incurred as a result of this change. Additionally, the surface area and volume storage values for this BMP have been retained through this relocation; an excerpt of the published HydroCAD model is attached with all affected nodes displayed. A comparison spreadsheet is also included to show the changes at each analysis point through both the revisions processed as part of Subdivision Amendment #5 as well as those proposed here with Subdivision Amendment #5.

- General Note #55 on Sheet #1 has been expanded to include the stormwater adjustments described above in the vicinity of Units 43 and 44/45.

- General Notes #61 thru #63 have been modified with the following requests:
    - Both stormwater improvements – the changes to Ponds 17P and 18P mentioned in SDV Amend #4 and the relocation of USF #8 mentioned above – are proposed to have their completion dates changed from May 15th, 2026 to August 15th, 2026. All other items have an unchanged completion date of May 15th, 2026.
    - The Applicant has added language to require the provision of a $25,000 deposit to the Town of Wells prior to each occupancy permit being issued – funds that the Town can retain for payments in-lieu for the Maine DEP.

- The "Purpose of this Plan" notes package on Sheet #1 has been expanded to include the Applicant's request that Subdivision Amendment #5 include the issuance of four (4) additional occupancy permits to bring the total amount to 44 for the development. This request is accompanied by the satisfaction of all of the other modifications described above.

We look forward to discussing this project at the next available Planning Board meeting. If any additional information is required, please contact me. Thank you for your assistance.

Sincerely;

Michael J. Sudak, E.I.
Staff Engineer

cc: Walter Woods, York Building and Design Center, Inc.
C031 Cover SDV Amend #5 REV 19Mar2026.doc

taken from: Izzys Lane, looking South down Izzys Lane

view of Protective Boulders installed for Units #12 & #15

taken from: Izzys Lane, looking East

Protective Boulders installed along Unit #15 Patio

taken from: Fieldside Lane northern shoulder, looking East

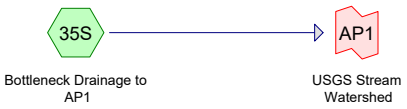
view of Side Slopes in vicinity of 36” CPP Wetland Crossing invert out, West of Izzys Lane intersection

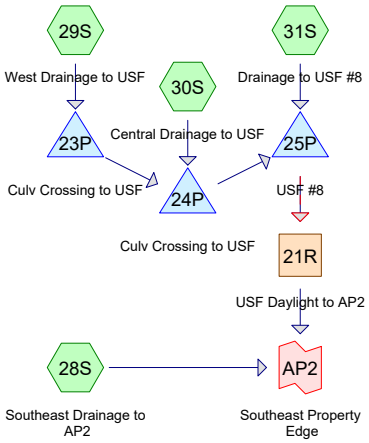
in background of Photo: Fire Cistern turnout, Stream Crossing guardrail

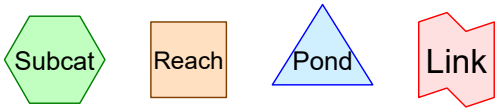
taken from: Fieldside Lane southern shoulder, looking West

view of Side Slopes in vicinity of 36” CPP Wetland Crossing invert in, West of Izzys Lane intersection

in background of Photo: Joseph Way, Clubhouse and community parking lot







Routing Diagram for FAIRWAY VILLAGE SWA DEV SDV AMEND #5
Prepared by {enter your company name here}, Printed 3/18/2026
HydroCAD® 10.00-26 s/n 01988 © 2020 HydroCAD Software Solutions LLC

Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.714	74	>75% Grass cover, Good, HSG C (28S, 29S, 30S, 31S, 35S)
1.082	80	>75% Grass cover, Good, HSG D (28S, 29S, 30S, 31S, 35S)
0.417	98	Paved parking, HSG C (28S, 29S, 30S, 31S, 35S)
0.268	98	Paved parking, HSG D (28S, 29S, 30S, 31S, 35S)
2.072	70	Woods, Good, HSG C (28S, 35S)
28.435	77	Woods, Good, HSG D (28S, 35S)
32.988	**77**	**TOTAL AREA**

Time span=0.00-65.00 hrs, dt=0.05 hrs, 1301 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 28S: Southeast Drainage to Runoff Area=494,689 sf 0.81% Impervious Runoff Depth=1.22"
Flow Length=1,162' Tc=78.9 min CN=76 Runoff=5.17 cfs 1.157 af

Subcatchment 29S: West Drainage to USF Runoff Area=22,607 sf 57.20% Impervious Runoff Depth=2.09"
Flow Length=101' Slope=0.0150 '/' Tc=10.9 min CN=88 Runoff=1.07 cfs 0.090 af

Subcatchment 30S: Central Drainage to USF Runoff Area=4,717 sf 68.16% Impervious Runoff Depth=2.45"
Flow Length=21' Slope=0.0150 '/' Tc=3.1 min CN=92 Runoff=0.33 cfs 0.022 af

Subcatchment 31S: Drainage to USF #8 Runoff Area=19,136 sf 33.21% Impervious Runoff Depth=1.92"
Flow Length=115' Tc=8.2 min CN=86 Runoff=0.91 cfs 0.070 af

Subcatchment 35S: Bottleneck Drainage to Runoff Area=895,828 sf 0.38% Impervious Runoff Depth=1.28"
Flow Length=1,378' Tc=45.4 min CN=77 Runoff=13.87 cfs 2.200 af

Reach 21R: USF Daylight to AP2 Avg. Flow Depth=0.01' Max Vel=0.07 fps Inflow=0.05 cfs 0.180 af
n=0.070 L=305.0' S=0.0033 '/' Capacity=273.47 cfs Outflow=0.05 cfs 0.180 af

Pond 23P: Culv Crossing to USF Peak Elev=152.55' Storage=136 cf Inflow=1.07 cfs 0.090 af
15.0" Round Culvert n=0.013 L=40.0' S=0.0063 '/' Outflow=1.03 cfs 0.090 af

Pond 24P: Culv Crossing to USF Peak Elev=152.23' Storage=377 cf Inflow=1.18 cfs 0.112 af
12.0" Round Culvert n=0.013 L=107.0' S=0.0056 '/' Outflow=1.14 cfs 0.109 af

Pond 25P: USF #8 Peak Elev=152.31' Storage=5,575 cf Inflow=1.93 cfs 0.180 af
Primary=0.05 cfs 0.180 af Secondary=0.00 cfs 0.000 af Outflow=0.05 cfs 0.180 af

Link AP1: USGS Stream Watershed Inflow=19.39 cfs 15.976 af
Primary=19.39 cfs 15.976 af

Link AP2: Southeast Property Edge Inflow=5.27 cfs 1.792 af
Primary=5.27 cfs 1.792 af

Total Runoff Area = 32.988 ac Runoff Volume = 3.539 af Average Runoff Depth = 1.29"
97.92% Pervious = 32.303 ac 2.08% Impervious = 0.686 ac

Time span=0.00-65.00 hrs, dt=0.05 hrs, 1301 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 28S: Southeast Drainage to Runoff Area=494,689 sf 0.81% Impervious Runoff Depth=2.45"
Flow Length=1,162' Tc=78.9 min CN=76 Runoff=10.80 cfs 2.322 af

Subcatchment 29S: West Drainage to USF Runoff Area=22,607 sf 57.20% Impervious Runoff Depth=3.57"
Flow Length=101' Slope=0.0150 '/' Tc=10.9 min CN=88 Runoff=1.80 cfs 0.155 af

Subcatchment 30S: Central Drainage to USF Runoff Area=4,717 sf 68.16% Impervious Runoff Depth=3.99"
Flow Length=21' Slope=0.0150 '/' Tc=3.1 min CN=92 Runoff=0.52 cfs 0.036 af

Subcatchment 31S: Drainage to USF #8 Runoff Area=19,136 sf 33.21% Impervious Runoff Depth=3.37"
Flow Length=115' Tc=8.2 min CN=86 Runoff=1.57 cfs 0.124 af

Subcatchment 35S: Bottleneck Drainage to Runoff Area=895,828 sf 0.38% Impervious Runoff Depth=2.54"
Flow Length=1,378' Tc=45.4 min CN=77 Runoff=28.14 cfs 4.352 af

Reach 21R: USF Daylight to AP2 Avg. Flow Depth=0.03' Max Vel=0.11 fps Inflow=0.27 cfs 0.301 af
n=0.070 L=305.0' S=0.0033 '/' Capacity=273.47 cfs Outflow=0.25 cfs 0.295 af

Pond 23P: Culv Crossing to USF Peak Elev=152.74' Storage=205 cf Inflow=1.80 cfs 0.155 af
15.0" Round Culvert n=0.013 L=40.0' S=0.0063 '/' Outflow=1.74 cfs 0.155 af

Pond 24P: Culv Crossing to USF Peak Elev=152.47' Storage=502 cf Inflow=1.98 cfs 0.191 af
12.0" Round Culvert n=0.013 L=107.0' S=0.0056 '/' Outflow=1.90 cfs 0.187 af

Pond 25P: USF #8 Peak Elev=152.80' Storage=8,252 cf Inflow=3.28 cfs 0.311 af
Primary=0.27 cfs 0.301 af Secondary=0.00 cfs 0.000 af Outflow=0.27 cfs 0.301 af

Link AP1: USGS Stream Watershed Inflow=44.02 cfs 32.500 af
Primary=44.02 cfs 32.500 af

Link AP2: Southeast Property Edge Inflow=12.60 cfs 3.417 af
Primary=12.60 cfs 3.417 af

Total Runoff Area = 32.988 ac Runoff Volume = 6.988 af Average Runoff Depth = 2.54"
97.92% Pervious = 32.303 ac 2.08% Impervious = 0.686 ac

Time span=0.00-65.00 hrs, dt=0.05 hrs, 1301 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 28S: Southeast Drainage to Runoff Area=494,689 sf 0.81% Impervious Runoff Depth=3.55"
Flow Length=1,162' Tc=78.9 min CN=76 Runoff=15.74 cfs 3.363 af

Subcatchment 29S: West Drainage to USF Runoff Area=22,607 sf 57.20% Impervious Runoff Depth=4.82"
Flow Length=101' Slope=0.0150 '/' Tc=10.9 min CN=88 Runoff=2.39 cfs 0.208 af

Subcatchment 30S: Central Drainage to USF Runoff Area=4,717 sf 68.16% Impervious Runoff Depth=5.27"
Flow Length=21' Slope=0.0150 '/' Tc=3.1 min CN=92 Runoff=0.68 cfs 0.048 af

Subcatchment 31S: Drainage to USF #8 Runoff Area=19,136 sf 33.21% Impervious Runoff Depth=4.60"
Flow Length=115' Tc=8.2 min CN=86 Runoff=2.12 cfs 0.168 af

Subcatchment 35S: Bottleneck Drainage to Runoff Area=895,828 sf 0.38% Impervious Runoff Depth=3.65"
Flow Length=1,378' Tc=45.4 min CN=77 Runoff=40.57 cfs 6.263 af

Reach 21R: USF Daylight to AP2 Avg. Flow Depth=0.05' Max Vel=0.17 fps Inflow=0.89 cfs 0.410 af
n=0.070 L=305.0' S=0.0033 '/' Capacity=273.47 cfs Outflow=0.72 cfs 0.404 af

Pond 23P: Culv Crossing to USF Peak Elev=152.87' Storage=262 cf Inflow=2.39 cfs 0.208 af
15.0" Round Culvert n=0.013 L=40.0' S=0.0063 '/' Outflow=2.31 cfs 0.208 af

Pond 24P: Culv Crossing to USF Peak Elev=152.67' Storage=619 cf Inflow=2.62 cfs 0.256 af
12.0" Round Culvert n=0.013 L=107.0' S=0.0056 '/' Outflow=2.49 cfs 0.253 af

Pond 25P: USF #8 Peak Elev=153.04' Storage=9,712 cf Inflow=4.34 cfs 0.421 af
Primary=0.89 cfs 0.410 af Secondary=0.00 cfs 0.000 af Outflow=0.89 cfs 0.410 af

Link AP1: USGS Stream Watershed Inflow=65.57 cfs 47.261 af
Primary=65.57 cfs 47.261 af

Link AP2: Southeast Property Edge Inflow=21.78 cfs 4.921 af
Primary=21.78 cfs 4.921 af

Total Runoff Area = 32.988 ac Runoff Volume = 10.050 af Average Runoff Depth = 3.66"
97.92% Pervious = 32.303 ac 2.08% Impervious = 0.686 ac

Time span=0.00-65.00 hrs, dt=0.05 hrs, 1301 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 28S: Southeast Drainage to Runoff Area=494,689 sf 0.81% Impervious Runoff Depth=5.80"
Flow Length=1,162' Tc=78.9 min CN=76 Runoff=25.63 cfs 5.488 af

Subcatchment 29S: West Drainage to USF Runoff Area=22,607 sf 57.20% Impervious Runoff Depth=7.25"
Flow Length=101' Slope=0.0150 '/' Tc=10.9 min CN=88 Runoff=3.52 cfs 0.314 af

Subcatchment 30S: Central Drainage to USF Runoff Area=4,717 sf 68.16% Impervious Runoff Depth=7.74"
Flow Length=21' Slope=0.0150 '/' Tc=3.1 min CN=92 Runoff=0.97 cfs 0.070 af

Subcatchment 31S: Drainage to USF #8 Runoff Area=19,136 sf 33.21% Impervious Runoff Depth=7.01"
Flow Length=115' Tc=8.2 min CN=86 Runoff=3.16 cfs 0.257 af

Subcatchment 35S: Bottleneck Drainage to Runoff Area=895,828 sf 0.38% Impervious Runoff Depth=5.92"
Flow Length=1,378' Tc=45.4 min CN=77 Runoff=65.24 cfs 10.146 af

Reach 21R: USF Daylight to AP2 Avg. Flow Depth=0.11' Max Vel=0.26 fps Inflow=3.49 cfs 0.624 af
n=0.070 L=305.0' S=0.0033 '/' Capacity=273.47 cfs Outflow=2.22 cfs 0.619 af

Pond 23P: Culv Crossing to USF Peak Elev=153.11' Storage=378 cf Inflow=3.52 cfs 0.314 af
15.0" Round Culvert n=0.013 L=40.0' S=0.0063 '/' Outflow=3.38 cfs 0.314 af

Pond 24P: Culv Crossing to USF Peak Elev=153.26' Storage=1,085 cf Inflow=3.82 cfs 0.384 af
12.0" Round Culvert n=0.013 L=107.0' S=0.0056 '/' Outflow=3.20 cfs 0.380 af

Pond 25P: USF #8 Peak Elev=153.52' Storage=12,755 cf Inflow=6.05 cfs 0.637 af
Primary=1.60 cfs 0.584 af Secondary=1.89 cfs 0.040 af Outflow=3.49 cfs 0.624 af

Link AP1: USGS Stream Watershed Inflow=107.14 cfs 77.448 af
Primary=107.14 cfs 77.448 af

Link AP2: Southeast Property Edge Inflow=39.05 cfs 8.004 af
Primary=39.05 cfs 8.004 af

Total Runoff Area = 32.988 ac Runoff Volume = 16.274 af Average Runoff Depth = 5.92"
97.92% Pervious = 32.303 ac 2.08% Impervious = 0.686 ac

Summary for Subcatchment 28S: Southeast Drainage to AP2

Runoff = 25.63 cfs @ 13.05 hrs, Volume= 5.488 af, Depth= 5.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-65.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YEAR STORM Rainfall=8.70"

Area (sf)	CN	Description
2,843	98	Paved parking, HSG C
19,368	74	>75% Grass cover, Good, HSG C
89,963	70	Woods, Good, HSG C
1,151	98	Paved parking, HSG D
13,270	80	>75% Grass cover, Good, HSG D
368,094	77	Woods, Good, HSG D
494,689	76	Weighted Average
490,695		99.19% Pervious Area
3,994		0.81% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.4	50	0.0500	0.10		**Sheet Flow, SF1** Woods: Light underbrush n= 0.400 P2= 3.30"
7.6	375	0.0267	0.82		**Shallow Concentrated Flow, SCF1** Woodland Kv= 5.0 fps
62.9	737	0.0061	0.20		**Shallow Concentrated Flow, SCF2** Forest w/Heavy Litter Kv= 2.5 fps
78.9	1,162	Total			

Summary for Subcatchment 29S: West Drainage to USF

Runoff = 3.52 cfs @ 12.15 hrs, Volume= 0.314 af, Depth= 7.25"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-65.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YEAR STORM Rainfall=8.70"

Area (sf)	CN	Description
11,554	98	Paved parking, HSG C
9,596	74	>75% Grass cover, Good, HSG C
1,378	98	Paved parking, HSG D
79	80	>75% Grass cover, Good, HSG D
22,607	88	Weighted Average
9,675		42.80% Pervious Area
12,932		57.20% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	101	0.0150	0.15		**Sheet Flow, SF1** Grass: Short n= 0.150 P2= 3.30"

Summary for Subcatchment 30S: Central Drainage to USF

Runoff = 0.97 cfs @ 12.05 hrs, Volume= 0.070 af, Depth= 7.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-65.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YEAR STORM Rainfall=8.70"

Area (sf)	CN	Description
1,423	98	Paved parking, HSG C
429	74	>75% Grass cover, Good, HSG C
1,792	98	Paved parking, HSG D
1,073	80	>75% Grass cover, Good, HSG D
4,717	92	Weighted Average
1,502		31.84% Pervious Area
3,215		68.16% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.1	21	0.0150	0.11		**Sheet Flow, SF1** Grass: Short n= 0.150 P2= 3.30"

Summary for Subcatchment 31S: Drainage to USF #8

Runoff = 3.16 cfs @ 12.11 hrs, Volume= 0.257 af, Depth= 7.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-65.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YEAR STORM Rainfall=8.70"

Area (sf)	CN	Description
1,934	98	Paved parking, HSG C
162	74	>75% Grass cover, Good, HSG C
4,421	98	Paved parking, HSG D
12,619	80	>75% Grass cover, Good, HSG D
19,136	86	Weighted Average
12,781		66.79% Pervious Area
6,355		33.21% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.3	50	0.0100	0.11		**Sheet Flow, SF1** Grass: Short n= 0.150 P2= 3.30"
0.9	65	0.0300	1.21		**Shallow Concentrated Flow, SCF1** Short Grass Pasture Kv= 7.0 fps
8.2	115	Total			

Summary for Subcatchment 35S: Bottleneck Drainage to AP1

Runoff = 65.24 cfs @ 12.61 hrs, Volume= 10.146 af, Depth= 5.92"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-65.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YEAR STORM Rainfall=8.70"

Area (sf)	CN	Description
424	98	Paved parking, HSG C
2,946	98	Paved parking, HSG D
1,549	74	>75% Grass cover, Good, HSG C
20,070	80	>75% Grass cover, Good, HSG D
312	70	Woods, Good, HSG C
870,527	77	Woods, Good, HSG D
895,828	77	Weighted Average
892,458		99.62% Pervious Area
3,370		0.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.5	295	0.0051	0.18		**Shallow Concentrated Flow, SCF 1** Forest w/Heavy Litter Kv= 2.5 fps
17.9	1,083	0.0026	1.01	454.06	**Channel Flow, CF 1** Area= 450.0 sf Perim= 500.0' r= 0.90' n= 0.070 Sluggish weedy reaches w/pools
45.4	1,378	Total			

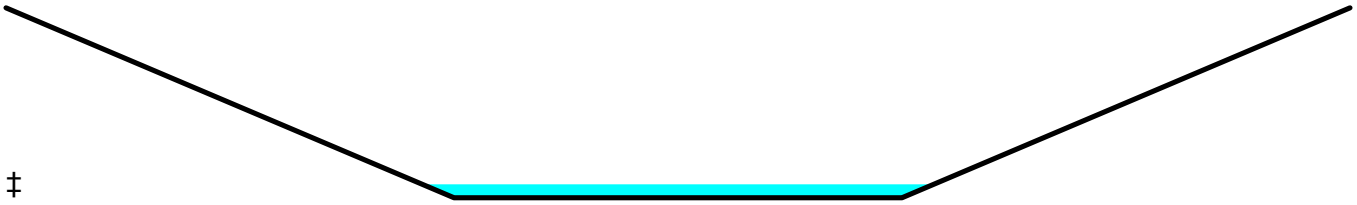
Summary for Reach 21R: USF Daylight to AP2

Inflow Area = 1.067 ac, 48.43% Impervious, Inflow Depth > 7.02" for 100 YEAR STORM event
Inflow = 3.49 cfs @ 12.46 hrs, Volume= 0.624 af
Outflow = 2.22 cfs @ 12.97 hrs, Volume= 0.619 af, Atten= 36%, Lag= 30.6 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-65.00 hrs, dt= 0.05 hrs
Max. Velocity= 0.26 fps, Min. Travel Time= 19.5 min
Avg. Velocity = 0.08 fps, Avg. Travel Time= 60.4 min

Peak Storage= 2,599 cf @ 12.65 hrs
Average Depth at Peak Storage= 0.11'
Bank-Full Depth= 1.50' Flow Area= 225.0 sf, Capacity= 273.47 cfs

75.00' x 1.50' deep channel, n= 0.070 Sluggish weedy reaches w/pools
Side Slope Z-value= 50.0 '/' Top Width= 225.00'
Length= 305.0' Slope= 0.0033 '/'
Inlet Invert= 148.50', Outlet Invert= 147.50'



‡

Summary for Pond 23P: Culv Crossing to USF

Inflow Area = 0.519 ac, 57.20% Impervious, Inflow Depth = 7.25" for 100 YEAR STORM event
Inflow = 3.52 cfs @ 12.15 hrs, Volume= 0.314 af
Outflow = 3.38 cfs @ 12.18 hrs, Volume= 0.314 af, Atten= 4%, Lag= 1.8 min
Primary = 3.38 cfs @ 12.18 hrs, Volume= 0.314 af

Routing by Stor-Ind method, Time Span= 0.00-65.00 hrs, dt= 0.05 hrs
Peak Elev= 153.11' @ 12.18 hrs Surf.Area= 532 sf Storage= 378 cf

Plug-Flow detention time= 3.4 min calculated for 0.313 af (100% of inflow)
Center-of-Mass det. time= 3.5 min (787.5 - 784.0)

Volume	Invert	Avail.Storage	Storage Description
#1	152.00'	1,030 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
152.00	160	0	0
153.00	480	320	320
154.00	940	710	1,030

Device	Routing	Invert	Outlet Devices
#1	Primary	152.00'	**15.0" Round CMP_Round 15"** L= 40.0' CMP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 152.00' / 151.75' S= 0.0063 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=3.33 cfs @ 12.18 hrs HW=153.10' (Free Discharge)
1=CMP_Round 15" (Barrel Controls 3.33 cfs @ 3.87 fps)

Summary for Pond 24P: Culv Crossing to USF

Inflow Area = 0.627 ac, 59.09% Impervious, Inflow Depth = 7.34" for 100 YEAR STORM event
Inflow = 3.82 cfs @ 12.17 hrs, Volume= 0.384 af
Outflow = 3.20 cfs @ 12.26 hrs, Volume= 0.380 af, Atten= 16%, Lag= 5.7 min
Primary = 3.20 cfs @ 12.26 hrs, Volume= 0.380 af

Routing by Stor-Ind method, Time Span= 0.00-65.00 hrs, dt= 0.05 hrs
Peak Elev= 153.26' @ 12.26 hrs Surf.Area= 1,083 sf Storage= 1,085 cf

Plug-Flow detention time= 15.9 min calculated for 0.380 af (99% of inflow)
Center-of-Mass det. time= 10.0 min (793.3 - 783.3)

Volume	Invert	Avail.Storage	Storage Description
#1	151.00'	1,388 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
151.00	150	0	0
152.00	400	275	275
153.00	750	575	850
153.50	1,400	538	1,388

Device	Routing	Invert	Outlet Devices
#1	Primary	151.60'	**12.0" Round CMP_Round 12"** L= 107.0' CMP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 151.60' / 151.00' S= 0.0056 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=3.19 cfs @ 12.26 hrs HW=153.25' (Free Discharge)
↑**1=CMP_Round 12"** (Barrel Controls 3.19 cfs @ 4.07 fps)

Summary for Pond 25P: USF #8

Inflow Area = 1.067 ac, 48.43% Impervious, Inflow Depth = 7.17" for 100 YEAR STORM event
Inflow = 6.05 cfs @ 12.12 hrs, Volume= 0.637 af
Outflow = 3.49 cfs @ 12.46 hrs, Volume= 0.624 af, Atten= 42%, Lag= 20.6 min
Primary = 1.60 cfs @ 12.46 hrs, Volume= 0.584 af
Secondary = 1.89 cfs @ 12.46 hrs, Volume= 0.040 af

Routing by Stor-Ind method, Time Span= 0.00-65.00 hrs, dt= 0.05 hrs
Peak Elev= 153.52' @ 12.46 hrs Surf.Area= 6,823 sf Storage= 12,755 cf

Plug-Flow detention time= 549.6 min calculated for 0.624 af (98% of inflow)
Center-of-Mass det. time= 536.5 min (1,327.3 - 790.8)

Volume	Invert	Avail.Storage	Storage Description
#1	151.00'	16,240 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
151.00	3,227	0	0
152.00	4,822	4,025	4,025
152.50	5,418	2,560	6,585
153.00	6,013	2,858	9,442
153.50	6,798	3,203	12,645
154.00	7,580	3,595	16,240

Device	Routing	Invert	Outlet Devices
#1	Primary	148.65'	**12.0" Round CMP_Round 12"** L= 25.0' CMP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 148.65' / 148.50' S= 0.0060 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	148.65'	**1.0" Vert. Orifice/Grate** C= 0.600
#3	Device 2	148.90'	**6.0" Round Culvert** L= 40.0' CMP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 148.90' / 148.65' S= 0.0063 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf
#4	Device 3	151.00'	**2.400 in/hr Exfiltration over Horizontal area**
#5	Device 1	152.60'	**6.0" Vert. Orifice/Grate X 2.00** C= 0.600
#6	Secondary	153.40'	**20.0' long x 4.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Primary OutFlow Max=1.60 cfs @ 12.46 hrs HW=153.51' (Free Discharge)
- **1=CMP_Round 12"** (Passes 1.60 cfs of 7.90 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.06 cfs @ 10.57 fps)
    - **3=Culvert** (Passes 0.06 cfs of 1.52 cfs potential flow)
      - **4=Exfiltration** (Passes 0.06 cfs of 0.38 cfs potential flow)
  - **5=Orifice/Grate** (Orifice Controls 1.54 cfs @ 3.92 fps)

Secondary OutFlow Max=1.84 cfs @ 12.46 hrs HW=153.51' (Free Discharge)
- **6=Broad-Crested Rectangular Weir** (Weir Controls 1.84 cfs @ 0.81 fps)

Summary for Link AP1: USGS Stream Watershed

Inflow Area = 163.629 ac, 3.81% Impervious, Inflow Depth > 5.68" for 100 YEAR STORM event
Inflow = 107.14 cfs @ 15.49 hrs, Volume= 77.448 af
Primary = 107.14 cfs @ 15.49 hrs, Volume= 77.448 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-65.00 hrs, dt= 0.05 hrs

Summary for Link AP2: Southeast Property Edge

Inflow Area = 15.219 ac, 13.76% Impervious, Inflow Depth > 6.31" for 100 YEAR STORM event
Inflow = 39.05 cfs @ 12.91 hrs, Volume= 8.004 af
Primary = 39.05 cfs @ 12.91 hrs, Volume= 8.004 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-65.00 hrs, dt= 0.05 hrs

As Approved

USF#7A	2-Year Rain Event		10-Year Rain Event		25-Year Rain Event		100-Year Rain Event	
	Peak Flow (cfs)	Peak Elev. (feet)	Peak Flow (cfs)	Peak Elev. (feet)	Peak Flow (cfs)	Peak Elev. (feet)	Peak Flow (cfs)	Peak Elev. (feet)
Pond Node 21P (USF - Forebay Removed)	1.62	155.18	2.89	155.49	3.92	155.61	5.83	155.70
Pond Node 20P (Upland Detention - Retained)	1.00	155.82	1.76	156.02	2.37	156.16	3.55	156.40
Pond 19P (Upland Detention - Depression Largely Removed)	0.89	155.94	1.47	156.10	1.95	156.21	2.85	156.39

USF#7B	2-Year Rain Event		10-Year Rain Event		25-Year Rain Event		100-Year Rain Event	
	Peak Flow (cfs)	Peak Elev. (feet)	Peak Flow (cfs)	Peak Elev. (feet)	Peak Flow (cfs)	Peak Elev. (feet)	Peak Flow (cfs)	Peak Elev. (feet)
Pond Node 22P (USF - Retained)	2.22	155.21	4.18	155.50	5.71	155.63	10.19	155.77
Pond Node 18P (Upland Detention - Replaced with CB)	1.54	155.87	2.80	156.14	3.78	156.33	8.00	157.85
Pond Node 17P (Upland Detention - Replaced with CB)	0.70	156.03	1.17	156.18	3.29	156.58	8.15	157.38

	2-Year (cfs)	10-Year (cfs)	25-Year (cfs)	100-Year (cfs)
AP2 (Contributions from both USFs)	5.29	11.4	20.73	37.62

As-Built Construction (SDV Amend #4)

USF#7A	2-Year Rain Event		10-Year Rain Event		25-Year Rain Event		100-Year Rain Event	
	Peak Flow (cfs)	Peak Elev. (feet)	Peak Flow (cfs)	Peak Elev. (feet)	Peak Flow (cfs)	Peak Elev. (feet)	Peak Flow (cfs)	Peak Elev. (feet)
Pond Node 21P (USF - Forebay Removed)	1.94	155.19	3.30	155.53	4.36	155.63	6.31	155.72
Pond Node 20P (Upland Detention - Retained)	1.33	155.83	2.16	156.01	2.81	156.14	4.01	156.35
Pond 19P (Upland Detention - Depression Largely Removed)	0.89	156.02	1.47	156.17	1.95	156.28	2.85	156.46

USF#7B	2-Year Rain Event		10-Year Rain Event		25-Year Rain Event		100-Year Rain Event	
	Peak Flow (cfs)	Peak Elev. (feet)	Peak Flow (cfs)	Peak Elev. (feet)	Peak Flow (cfs)	Peak Elev. (feet)	Peak Flow (cfs)	Peak Elev. (feet)
Pond Node 22P (USF - Retained)	3.34	155.23	5.68	155.56	7.59	155.68	12.15	155.82
Pond Node 18P (Upland Detention - Replaced with CB)	1.89	156.02	3.17	156.32	4.80	156.71	10.12	158.80**
Pond Node 17P (Upland Detention - Replaced with CB)	0.70	156.16	1.17	156.31	3.29	156.83	8.15	158.17**

	2-Year (cfs)	10-Year (cfs)	25-Year (cfs)	100-Year (cfs)
AP2 (Contributions from both USFs)	5.3	12.66	21.84	38.58

** - Peak Elevation overtops provided storage

AP2 Peak Flow Δ:	**+0.01 cfs**	**+1.26 cfs**	**+1.11 cfs**	**+ 0.96 cfs**

As Approved (USF#7A & #7B Amendments from SDV Amend #4)

	2-Year Rain Event		10-Year Rain Event		25-Year Rain Event		100-Year Rain Event	
USF#8	Peak Flow (cfs)	Peak Elev. (feet)	Peak Flow (cfs)	Peak Elev. (feet)	Peak Flow (cfs)	Peak Elev. (feet)	Peak Flow (cfs)	Peak Elev. (feet)
Pond Node 25P (USF - Relocated, Size Retained)	1.85	152.38	3.12	152.82	4.10	153.07	5.58	153.50**
Pond Node 24P (Upland Detention - No Changes)	1.19	152.15	1.98	152.40	2.63	152.61	3.83	153.20
Pond 23P (Dimensions Adjusted, Volume Retained)	1.07	152.55	1.80	152.74	2.39	152.87	3.52	153.12

AP1 Overall	2-Year (cfs)	10-Year (cfs)	25-Year (cfs)	100-Year (cfs)
(Subcatchment 35S Area Reduced)	19.39	44.02	65.57	107.14

AP2 Overall	2-Year (cfs)	10-Year (cfs)	25-Year (cfs)	100-Year (cfs)
(Contributions from USF#8, Subcatchment 28S Area Reduced)	5.3	12.66	21.84	38.58

** - Peak Elevation overtops provided storage

Proposed As-Built Amendment (SDV Amend #5)

	2-Year Rain Event		10-Year Rain Event		25-Year Rain Event		100-Year Rain Event	
USF#8	Peak Flow (cfs)	Peak Elev. (feet)	Peak Flow (cfs)	Peak Elev. (feet)	Peak Flow (cfs)	Peak Elev. (feet)	Peak Flow (cfs)	Peak Elev. (feet)
Pond Node 25P (USF - Relocated, Size Retained)	1.93	152.31	3.28	152.80	4.34	153.04	6.05	153.52**
Pond Node 24P (Upland Detention - No Changes)	1.18	152.23	1.98	152.47	2.62	152.67	3.82	153.26
Pond 23P (Dimensions Adjusted, Volume Retained)	1.07	152.55	1.80	152.74	2.39	152.87	3.52	153.11

AP1 Overall	2-Year (cfs)	10-Year (cfs)	25-Year (cfs)	100-Year (cfs)
(Subcatchment 35S Area Reduced)	19.39	44.02	65.57	107.14

AP2 Overall	2-Year (cfs)	10-Year (cfs)	25-Year (cfs)	100-Year (cfs)
(Contributions from USF#8, Subcatchment 28S Area Reduced)	5.27	12.6	21.78	39.05

** - Peak Elevation overtops provided storage

AP2 Peak Flow Δ:	**-0.03 cfs**	**-0.06 cfs**	**-0.06 cfs**	**+ 0.47 cfs**