

December 8, 2020

MRB Group

The Culver Road Armory 145 Culver Road, Suite 160 Rochester, NY 14620

Attn: Lance Brabant

RE: Delaware River Solar, LLC Solar Energy Facility 466 Yellow Mills Road Response to Town Engineer Comments

Attached, please find a copy of the following:

- Drainage Calculations for the Proposed culvert crossing.
- An excerpt from the SWPPP with the revisions described in comment #3.
- An excerpt from the Site Plan, Sheet S-1, with the revision described in comment #3.

This comment response letter was drafted in coordination with Delaware River Solar, in response to comments received from MRB Group and dated December 2, 2020 and the December 4, 2020 PRC meeting. The plans have been revised as follows:

- 1. The amount of landscaping proposed has been checked and the amount called out on the plans match the amount located in the Plant Schedule on the plan set submitted for Final Approval.
- 2. The drainage calculations indicate that the proposed culvert will safely pass all storm events. The 10-year design storm will have a peak elevation of 561.36' (bottom of culvert slab is 563.10') and a peak velocity of velocity of 2.14 fps. The 100-year storm event will have a peak elevation of 561.54' and a peak velocity of 2.88 fps. The area around the culvert will be seeded with the same sun seed mixture as the rest of the project which has a permissible velocity of 5 fps at 0%-5% channel slope. The existing channel has a slope of less than 0.5%.
- 3. The increase in impervious surfaces due to the proposed culvert will be addressed in the same manner as the concrete equipment pads and the limited use pervious access road. A 12'x25' filter strip is provided downslope of the crossing to account for the impervious concrete slab. Utilizing the limited use pervious access for the culvert approach allows the roadway to be considered as pervious in the calculations. The SWPPP has been revised to add the 0.005 acres to the Impervious Areas of the Post Development Conditions (Section 4.1.D_Subcatchment 2S Post-Development Summary). There was no impact to the results of the calculations. There will be no permitting required for the installation of the culvert as the wetland plus 25% of its width will not be impacted by its installation.

- 4. The Operations and Maintenance plan has been updated by Delaware River Solar to include a line item regarding periodic visual inspection of the culvert and maintenance of the surrounding vegetation.
- 5. The landscaping removal quantity within the Decommissioning Plan has been revised to reflect the total as checked in comment #1.

Thank you and please feel free to contact me should you have any questions regarding this project.

Sincerely,

Mutt

David Matt Project Engineer



DRAINAGE CALCULATIONS CULVERT CROSSING

for

DELAWARE RIVER SOLAR, LLC SOLAR ENERGY FACILITY YELLOW MILLS ROAD

#466 Yellow Mills Road Town of Farmington, County of Ontario, New York

Prepared by Schultz Associates, Engineers & Land Surveyors, P.C.

Completed: December 8, 2020

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Summary for Subcatchment C1: Southern Portion of Drainage Area to Concrete Slab Culvert

Runoff = 0.77 cfs @ 16.73 hrs, Volume= 0.337 af, Depth> 0.05"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type II 24-hr 1-YEAR Rainfall=2.10"

Area	(ac) C	N Dese	cription						
4.	219 3	0 Woo	Noods, Good, HSG A						
5.	343 6	7 Row	crops, str	aight row, (Good, HSG A				
9.	750 5	5 Woo	Voods, Good, HSG B						
4.	781 7	'8 Row	crops, str	aight row, (Good, HSG B				
3.	710 6	5 2 ac	re lots, 129	% imp, HSC	G B				
28.	292 5	8 Woo	ods/grass o	comb., Goo	d, HSG B				
7.	857 4	8 Brus	h, Good, H	ISG B					
6.	301 7	7 Woo	ds, Good,	HSG D					
1.	157 8	89 Row	crops, str	aight row, (Good, HSG D				
0.	270 8	32 2 ac	re lots, 129	% imp, HSC	G D				
3.	133 7	'9 Woo	ds/grass o	comb., Goo	d, HSG D				
6.	525 7	'3 Brus	h, Good, F	ISG D					
81.	338 6	51 Weig	ghted Aver	age					
80.	860	Perv	ious Area						
0.	478	Impe	ervious Are	ea					
-		~		a					
	Length	Slope	Velocity	Capacity	Description				
(min)	(feet)	(ft/ft)	(ft/sec)	(CfS)					
22.6	150	0.0633	0.11		Sheet Flow, Sheet Flow - Woods				
					Woods: Light underbrush n= 0.400 P2= 2.20"				
18.8	815	0.0209	0.72		Shallow Concentrated Flow, OVF - Woods				
05.0	075	0 0000	0.45		Woodland KV= 5.0 fps				
35.9	975	0.0082	0.45		Shallow Concentrated Flow, OVF - Woods				
6.0	170	0.0252	0.47		Woodland KV= 5.0 Ips				
6.0	170	0.0353	0.47		Sindhow Concentrated Flow, OVF - Forest				
26.7	400	0.0100	0.25		Shallow Concentrated Flow OVE - Forest				
20.7	400	0.0100	0.25		Forest $w/Heavy litter Ky = 2.5$ for				
115.0	1 600	0 0024	0.24		Shallow Concentrated Flow OVF - Woods				
115.0	1,090	0.0024	0.24		Woodland $K_{V} = 5.0$ fps				
225.0	1 200	Total							

225.0 4,200 l otal

Summary for Subcatchment C2: Northern Portion of Drainage Area to Concrete Slab Culvert

Runoff = 0.45 cfs @ 12.56 hrs, Volume= 0.096 af, Depth> 0.15"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type II 24-hr 1-YEAR Rainfall=2.10"

Culvert Drainage Calculations Type II 24-hr 1-YEAR Rainfall=2.10" Printed 12/9/2020 Page 2

PR_DRS Solar_Culvert_12-08-20

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Area (ac) C	N Desc	cription					
5.5	510 6	1 Past	ure/grassla	and/range,	Good, HSG B			
2.2	2.238 80 Pasture/grassland/range, Good, HSG D							
7.7	7.748 66 Weighted Average							
7.748 Pervious Area								
Тс	Lenath	Slope	Velocitv	Capacity	Description			
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)				
10.4	150	0.0467	0.24		Sheet Flow, Sheet Flow - Pasture			
					Range n= 0.130 P2= 2.20"			
1.5	190	0.0947	2.15		Shallow Concentrated Flow, OVF - Pasture - Steep			
					Short Grass Pasture Kv= 7.0 fps			
5.6	280	0.0143	0.84		Shallow Concentrated Flow, OVF - Pasture			
					Short Grass Pasture Kv= 7.0 fps			
22.6	710	0.0056	0.52		Shallow Concentrated Flow, OVF - Pasture			
					Short Grass Pasture Kv= 7.0 fps			
40.1	1,330	Total						

Summary for Reach 1R: Proposed Conrete Slab Culvert

Inflow /	Area =	=	89.086 ac,	0.54% Impervio	ous, Inflow	Depth > 0.	06" for 1-ነ	'EAR event
Inflow	=		0.87 cfs @	16.31 hrs, Vol	ume=	0.433 af		
Outflov	v =		0.87 cfs @	16.31 hrs, Vol	ume=	0.432 af,	Atten= 0%,	Lag= 0.2 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Max. Velocity= 1.04 fps, Min. Travel Time= 0.2 min Avg. Velocity = 0.95 fps, Avg. Travel Time= 0.2 min

Peak Storage= 10 cf @ 16.31 hrs, Average Depth at Peak Storage= 0.20' Bank-Full Depth= 2.21', Capacity at Bank-Full= 176.25 cfs

Custom cross-section, Length= 12.0' Slope= 0.0050 '/' (102 Elevation Intervals) Constant n= 0.022 Earth, clean & straight Inlet Invert= 560.89', Outlet Invert= 560.83'

PR_DRS Solar_Culvert_12-08-20

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Offset	Elevation	Chan.Depth
(feet)	(feet)	(feet)
0.00	563.10	0.00
0.01	561.20	1.90
2.20	561.10	2.00
2.95	561.00	2.10
4.29	560.94	2.16
5.33	560.89	2.21
6.37	560.94	2.16
7.54	561.00	2.10
10.82	561.10	2.00
13.19	561.20	1.90
13.20	563.10	0.00

Depth (feet)	End Area (sq-ft)	Perim. (feet)	Storage (cubic-feet)	Discharge (cfs)
0.00	0.0	0.0	0	0.00
0.05	0.1	2.1	1	0.02
0.11	0.3	4.6	3	0.17
0.21	0.9	8.6	11	0.97
0.31	2.0	13.2	24	2.73
2.21	27.1	17.0	325	176.25

Summary for Subcatchment C1: Southern Portion of Drainage Area to Concrete Slab Culvert

Runoff = 8.22 cfs @ 15.24 hrs, Volume= 3.219 af, Depth> 0.47"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type II 24-hr 10-YEAR Rainfall=3.70"

Area	(ac) C	N Desc	cription						
4.	219 3	80 Woo	Woods, Good, HSG A						
5.	343 6	7 Row	crops, str	aight row, (Good, HSG A				
9.	750 5	5 Woo	Voods, Good, HSG B						
4.	781 7	'8 Row	crops, str	aight row, (Good, HSG B				
3.	710 6	5 2 ac	re lots, 12	% imp, HSC	G B				
28.	292 5	58 Woo	ds/grass o	comb., Goo	d, HSG B				
7.	857 4	8 Brus	h, Good, H	ISG B					
6.	301 7	7 Woo	ds, Good,	HSG D					
1.	157 8	89 Row	crops, str	aight row, 0	Good, HSG D				
0.	270 8	32 2 ac	re lots, 12	% imp, HSC	G D				
3.	133 7	'9 Woo	ds/grass o	comb., Goo	d, HSG D				
6.	<u>525 7</u>	'3 Brus	h, Good, H	ISG D					
81.	338 6	61 Weig	ghted Avei	age					
80.	860	Perv	ious Area						
0.	478	Impe	ervious Are	ea					
Tc	Length	Slope	Velocity	Capacity	Description				
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)					
22.6	150	0.0633	0.11		Sheet Flow, Sheet Flow - Woods				
					Woods: Light underbrush n= 0.400 P2= 2.20"				
18.8	815	0.0209	0.72		Shallow Concentrated Flow, OVF - Woods				
					Woodland Kv= 5.0 fps				
35.9	975	0.0082	0.45		Shallow Concentrated Flow, OVF - Woods				
					Woodland Kv= 5.0 fps				
6.0	170	0.0353	0.47		Shallow Concentrated Flow, OVF - Forest				
					Forest w/Heavy Litter Kv= 2.5 fps				
26.7	400	0.0100	0.25		Shallow Concentrated Flow, OVF - Forest				
					Forest w/Heavy Litter Kv= 2.5 fps				
115.0	1,690	0.0024	0.24		Shallow Concentrated Flow, OVF - Woods				
					Woodland Kv= 5.0 tps				
225.0	4.200	Total							

223.0 4,200 10181

Summary for Subcatchment C2: Northern Portion of Drainage Area to Concrete Slab Culvert

Runoff = 4.25 cfs @ 12.42 hrs, Volume= 0.514 af, Depth> 0.80"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type II 24-hr 10-YEAR Rainfall=3.70"

Culvert Drainage Calculations Type II 24-hr 10-YEAR Rainfall=3.70" Printed 12/9/2020 Page 5

PR_DRS Solar_Culvert_12-08-20

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Area (ac) Cl	N Desc	cription					
5.5	510 6	1 Past	ure/grassla	and/range,	Good, HSG B			
2.2	238 8	0 Past	ure/grassla	and/range,	Good, HSG D			
7.7	7.748 66 Weighted Average							
7.748 Pervious Area								
_				•	- · · · ·			
IC	Length	Slope	Velocity	Capacity	Description			
<u>(min)</u>	(feet)	(ft/ft)	(ft/sec)	(cfs)				
10.4	150	0.0467	0.24		Sheet Flow, Sheet Flow - Pasture			
					Range n= 0.130 P2= 2.20"			
1.5	190	0.0947	2.15		Shallow Concentrated Flow, OVF - Pasture - Steep			
					Short Grass Pasture Kv= 7.0 fps			
5.6	280	0.0143	0.84		Shallow Concentrated Flow, OVF - Pasture			
					Short Grass Pasture Kv= 7.0 fps			
22.6	710	0.0056	0.52		Shallow Concentrated Flow, OVF - Pasture			
					Short Grass Pasture Kv= 7.0 fps			
40.1	1,330	Total						

Summary for Reach 1R: Proposed Conrete Slab Culvert

Inflow /	Area =	=	89.086 ac,	0.54% Imperv	vious, Inflow	Depth > 0.	50" for 10-	YEAR event
Inflow	=		8.69 cfs @	15.23 hrs, V	olume=	3.733 af		
Outflow	v =		8.69 cfs @	15.23 hrs, V	olume=	3.732 af,	Atten= 0%,	Lag= 0.1 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Max. Velocity= 2.14 fps, Min. Travel Time= 0.1 min Avg. Velocity = 1.72 fps, Avg. Travel Time= 0.1 min

Peak Storage= 49 cf @ 15.23 hrs, Average Depth at Peak Storage= 0.47' Bank-Full Depth= 2.21', Capacity at Bank-Full= 176.25 cfs

Custom cross-section, Length= 12.0' Slope= 0.0050 '/' (102 Elevation Intervals) Constant n= 0.022 Earth, clean & straight Inlet Invert= 560.89', Outlet Invert= 560.83'

PR_DRS Solar_Culvert_12-08-20

Culvert Drainage Calculations Type II 24-hr 10-YEAR Rainfall=3.70" Prepared by {enter your company name here} HydroCAD® 8.50 s/n 001110 © 2007 HydroCAD Software Solutions LLC

Offset (feet)	Elevation (feet)	Chan.Depth (feet)
0.00	563.10	0.00
0.01	561.20	1.90
2.20	561.10	2.00
2.95	561.00	2.10
4.29	560.94	2.16
5.33	560.89	2.21
6.37	560.94	2.16
7.54	561.00	2.10
10.82	561.10	2.00
13.19	561.20	1.90
13.20	563.10	0.00

Depth (feet)	End Area (sq-ft)	Perim. (feet)	Storage (cubic-feet)	Discharge (cfs)
0.00	0.0	0.0	0	0.00
0.05	0.1	2.1	1	0.02
0.11	0.3	4.6	3	0.17
0.21	0.9	8.6	11	0.97
0.31	2.0	13.2	24	2.73
2.21	27.1	17.0	325	176.25

Runoff = 17.92 cfs @ 15.00 hrs, Volume= 6.681 af, Depth> 0.99"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type II 24-hr 100-YEAR Rainfall=4.90"

Area	(ac) C	N Dese	cription						
4.	219 3	30 Woo	ds, Good,	HSG A					
5.	343 6	67 Row	crops, str	aight row, (Good, HSG A				
9.	750 5	55 Woo	Voods, Good, HSG B						
4.	781 7	78 Row	crops, str	aight row, (Good, HSG B				
3.	710 6	65 2 ac	re lots, 12	% imp, HSC	G B				
28.	292 5	58 Woo	ods/grass o	comb., Goo	d, HSG B				
7.	857 4	18 Brus	sh, Good, H	ISG B					
6.	301 7	77 Woo	ods, Good,	HSG D					
1.	157 8	39 Row	crops, str	aight row, (Good, HSG D				
0.	270 8	32 2 ac	re lots, 129	% imp, HSC	G D				
3.	133 7	9 Woo	ods/grass o	comb., Goo	d, HSG D				
6.	525 /	3 Brus	sh, Good, F	ISG D					
81.	338 6	61 Weig	ghted Ave	age					
80.	860	Perv	vious Area						
0.	478	Impe	ervious Are	ea					
Та	ما فری مرد ا	Clana	Valasitu	Canaaitu	Description				
IC (min)	Length	Siope		Capacity	Description				
				(05)	Chart Flow, Chart Flow, Woods				
22.6	150	0.0633	0.11		Sneet Flow, Sneet Flow - woods				
10.0	015	0 0000	0 70		Shallow Concentrated Flow OVE Woods				
10.0	619	0.0209	0.72		Moodland Ky = 5.0 fpc				
25.0	075	0 0000	0.45		Shallow Concentrated Flow, OVE - Woods				
30.9	975	0.0002	0.45		Woodland Ky= 5.0 fps				
6.0	170	0 0353	0 47		Shallow Concentrated Flow OVE - Forest				
0.0	170	0.0000	0.77		Forest w/Heavy Litter Ky-25 fps				
26.7	400	0.0100	0 25		Shallow Concentrated Flow, OVF - Forest				
20.1	-100	0.0100	0.20		Forest w/Heavy Litter Ky= 2.5 fps				
115.0	1.690	0.0024	0.24		Shallow Concentrated Flow, OVF - Woods				
	.,000	5.0021	0.21		Woodland Ky= 5.0 fps				
225.0	4 200	Total			·····				

225.0 4,200 Iotal

Summary for Subcatchment C2: Northern Portion of Drainage Area to Concrete Slab Culvert

Runoff = 8.53 cfs @ 12.40 hrs, Volume= 0.954 af, Depth> 1.48"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type II 24-hr 100-YEAR Rainfall=4.90"

Culvert Drainage Calculations Type II 24-hr 100-YEAR Rainfall=4.90" Printed 12/9/2020 C Page 8

PR_DRS Solar_Culvert_12-08-20

Prepared by {enter your company name here} HydroCAD® 8.50 s/n 001110 © 2007 HydroCAD Software Solutions LLC

Area (ac) C	N Desc	cription						
5.5	510 6	1 Past	ure/grassla	and/range,	Good, HSG B				
2.2	2.238 80 Pasture/grassland/range, Good, HSG D								
7.7	7.748 66 Weighted Average								
7.748 Pervious Area									
Тс	Length	Slope	Velocity	Capacity	Description				
<u>(min)</u>	(feet)	(ft/ft)	(ft/sec)	(cfs)					
10.4	150	0.0467	0.24		Sheet Flow, Sheet Flow - Pasture				
					Range n= 0.130 P2= 2.20"				
1.5	190	0.0947	2.15		Shallow Concentrated Flow, OVF - Pasture - Steep				
					Short Grass Pasture Kv= 7.0 fps				
5.6	280	0.0143	0.84		Shallow Concentrated Flow, OVF - Pasture				
					Short Grass Pasture Kv= 7.0 fps				
22.6	710	0.0056	0.52		Shallow Concentrated Flow, OVF - Pasture				
					Short Grass Pasture Kv= 7.0 fps				
40.1	1,330	Total							

Summary for Reach 1R: Proposed Conrete Slab Culvert

Inflow .	Area =	:	89.086 ac,	0.54% Impervious,	Inflow Depth >	1.03	3" for 10	D-YEAR event
Inflow	=		18.73 cfs @	14.99 hrs, Volume	= 7.635 a	af		
Outflow	v =		18.73 cfs @	14.99 hrs, Volume	= 7.634 a	af, A	Atten= 0%,	Lag= 0.1 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Max. Velocity= 2.88 fps, Min. Travel Time= 0.1 min Avg. Velocity = 2.10 fps, Avg. Travel Time= 0.1 min

Peak Storage= 78 cf @ 14.99 hrs, Average Depth at Peak Storage= 0.65' Bank-Full Depth= 2.21', Capacity at Bank-Full= 176.25 cfs

Custom cross-section, Length= 12.0' Slope= 0.0050 '/' (102 Elevation Intervals) Constant n= 0.022 Earth, clean & straight Inlet Invert= 560.89', Outlet Invert= 560.83'

PR_DRS Solar_Culvert_12-08-20

Culvert Drainage Calculations *Type II 24-hr 100-YEAR Rainfall=4.90"* Printed 12/9/2020 s LLC Page 9

Prepared by {enter your company name here} HydroCAD® 8.50 s/n 001110 © 2007 HydroCAD Software Solutions LLC

Offset	Elevation	Chan.Depth
(feet)	(feet)	(feet)
0.00	563.10	0.00
0.01	561.20	1.90
2.20	561.10	2.00
2.95	561.00	2.10
4.29	560.94	2.16
5.33	560.89	2.21
6.37	560.94	2.16
7.54	561.00	2.10
10.82	561.10	2.00
13.19	561.20	1.90
13.20	563.10	0.00

Depth (feet)	End Area (sq-ft)	Perim. (feet)	Storage (cubic-feet)	Discharge (cfs)
0.00	0.0	0.0	0	0.00
0.05	0.1	2.1	1	0.02
0.11	0.3	4.6	3	0.17
0.21	0.9	8.6	11	0.97
0.31	2.0	13.2	24	2.73
2.21	27.1	17.0	325	176.25



PRELIMINARY STORMWATER POLLUTION PREVENTION PLAN

for

DELAWARE RIVER SOLAR, LLC SOLAR ENERGY FACILITY YELLOW MILLS ROAD

#466 Yellow Mills Road Town of Farmington, County of Ontario, New York

Prepared by Schultz Associates, Engineers & Land Surveyors, P.C. Completed: October 21, 2019 Revision Date: November 1, 2019 Revision Date: July 30, 2020 Revision Date: September 8, 2020 Revision Date: October 15, 2020 Revision Date: December 8, 2020 – (Sec. 4.1.D)

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EX_Yellow Mills Road Solar_10-21-19

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Summary for Subcatchment 2S: Post-Development Conditions

Runoff = 0.76 cfs @ 12.79 hrs, Volume= 0.262 af, Depth> 0.08"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type II 24-hr 1-YEAR Rainfall=2.10"

	Area	(ac) C	N Des	cription		
	30.	838	58 Mea	dow, non-	grazed, HS	GB
	6.	422	78 Mea	dow, non-	grazed, HS	G D
*	0.	446	90 Gra	vel roads,	HSG B	
*	0.	203	90 Gra	vel roads,	HSG D	
	0.	029	98 Pav	ed parking	& roofs	
_	37.	938	62 Wei	ahted Ave	rage	
	37.	909	Perv	/ious Area		
	0.	029	Imp	ervious Are	ea	
	•					
	Тс	Length	Slope	Velocity	Capacity	Description
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	·
_	8.0	100	0.0400	0.21		Sheet Flow, Sheet Flow - Pasture
						Range n= 0.130 P2= 2.20"
	5.1	470	0.0475	1.53		Shallow Concentrated Flow, Overland Flow - Hill Pasture
						Short Grass Pasture Kv= 7.0 fps
	3.2	530	0.0057	2.75	34.43	Channel Flow, Channel Flow
						Area= 12.5 sf Perim= 26.0' r= 0.48'
						n= 0.025 Earth, clean & winding
	22.7	565	0.0035	0.41		Shallow Concentrated Flow, Overland - Flat Pasture
						Short Grass Pasture Kv= 7.0 fps
	3.0	200	0.0250	1.11		Shallow Concentrated Flow, Overland Flow - Pasture
						Short Grass Pasture Kv= 7.0 fps
	42.0	1,865	Total			

EX_Yellow Mills Road Solar_10-21-19

Prepared by {enter your company name here} HydroCAD® 8.50 s/n 001110 © 2007 HydroCAD Software Solutions LLC

Summary for Subcatchment 2S: Post-Development Conditions

Runoff = 14.13 cfs @ 12.47 hrs, Volume= 1.931 af, Depth> 0.61"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type II 24-hr 10-YEAR Rainfall=3.70"

	Area	(ac) C	N Des	cription		
	30.	838	58 Mea	dow, non-	grazed, HS	GB
	6.	422	78 Mea	dow, non-	grazed, HS	G D
*	0.	446	90 Gra	vel roads,	HSG B	
*	0.	203	90 Gra	vel roads,	HSG D	
	0.	029	98 Pav	ed parking	& roofs	
_	37.	938	62 Wei	ahted Ave	rage	
	37.	909	Perv	/ious Area		
	0.	029	Imp	ervious Are	ea	
	•					
	Тс	Length	Slope	Velocity	Capacity	Description
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	·
_	8.0	100	0.0400	0.21		Sheet Flow, Sheet Flow - Pasture
						Range n= 0.130 P2= 2.20"
	5.1	470	0.0475	1.53		Shallow Concentrated Flow, Overland Flow - Hill Pasture
						Short Grass Pasture Kv= 7.0 fps
	3.2	530	0.0057	2.75	34.43	Channel Flow, Channel Flow
						Area= 12.5 sf Perim= 26.0' r= 0.48'
						n= 0.025 Earth, clean & winding
	22.7	565	0.0035	0.41		Shallow Concentrated Flow, Overland - Flat Pasture
						Short Grass Pasture Kv= 7.0 fps
	3.0	200	0.0250	1.11		Shallow Concentrated Flow, Overland Flow - Pasture
						Short Grass Pasture Kv= 7.0 fps
	42.0	1,865	Total			

EX_Yellow Mills Road Solar_10-21-19

Prepared by {enter your company name here} HydroCAD® 8.50 s/n 001110 © 2007 HydroCAD Software Solutions LLC

Summary for Subcatchment 2S: Post-Development Conditions

Runoff = 31.87 cfs @ 12.44 hrs, Volume= 3.828 af, Depth> 1.21"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type II 24-hr 100-YEAR Rainfall=4.90"

_	Area	(ac) C	N Des	cription		
	30.	838	58 Mea	dow, non-	grazed, HS	G B
	6.	422	78 Mea	dow, non-	grazed, HS	G D
*	0.	446	90 Gra	vel roads, l	HSG B	
*	0.	203	90 Gra	vel roads, l	HSG D	
	0.	029	98 Pav	ed parking	& roofs	
	37.	938	62 Wei	ghted Avei	rage	
	37.	909	Perv	ious Area	-	
	0.	029	Imp	ervious Are	ea	
	Tc	Length	Slope	Velocity	Capacity	Description
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	8.0	100	0.0400	0.21		Sheet Flow, Sheet Flow - Pasture
						Range n= 0.130 P2= 2.20"
	5.1	470	0.0475	1.53		Shallow Concentrated Flow, Overland Flow - Hill Pasture
						Short Grass Pasture Kv= 7.0 fps
	3.2	530	0.0057	2.75	34.43	Channel Flow, Channel Flow
						Area= 12.5 sf Perim= 26.0' r= 0.48'
						n= 0.025 Earth, clean & winding
	22.7	565	0.0035	0.41		Shallow Concentrated Flow, Overland - Flat Pasture
						Short Grass Pasture Kv= 7.0 fps
	3.0	200	0.0250	1.11		Shallow Concentrated Flow, Overland Flow - Pasture
_						Short Grass Pasture Kv= 7.0 fps
	42.0	1,865	Total			



TCH LINE: SHEET S-2

NS		REVISIONS				
DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY	
ADDED FARMINGTON FARMLAND PROTECTION PLAN SOIL DESIGNATIONS	DSM	8	09-08-20	REVISED PER 09-04-20 TOWN ENGINEER COMMENTS	DSM	
REVISED PER TOWN OF FARMINGTON COMMENTS	DSM	9	09-29-20	REVISED PER 09-16-20 TOWN ENGINEER COMMENTS	DSM	
ADDED REQUIRED PROPOSED LOCATIONS FOR NEW UTILITY POLES	DSM	10	10-14-20	REVISED PER 10-07-20 TOWN STAFF COMMENTS	DSM	
REVISED LAYOUT WITH 40' INTERNAL SETBACKS	DSM	11	10-20-20	REVISED PER 10-15-20 TOWN STAFF COMMENTS	DSM	
REVISED ACCESS PER RGE POINT OF INTERCONNECTION REQUIREMENTS	DSM	12	11-06-20	REVISED PER 11-04-20 PRELIMINARY SITE PLAN APPROVAL CONDITIONS	DSM	
REVISED PER 01-15-20 PLANNING BOARD COMMENTS	DSM	13	12-08-20	REVISED PER 12-02-20 TOWN ENGINEER COMMENTS	DSM	
REVISED PER 07-14-20 TOWN ENGINEER COMMENTS	DSM					
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