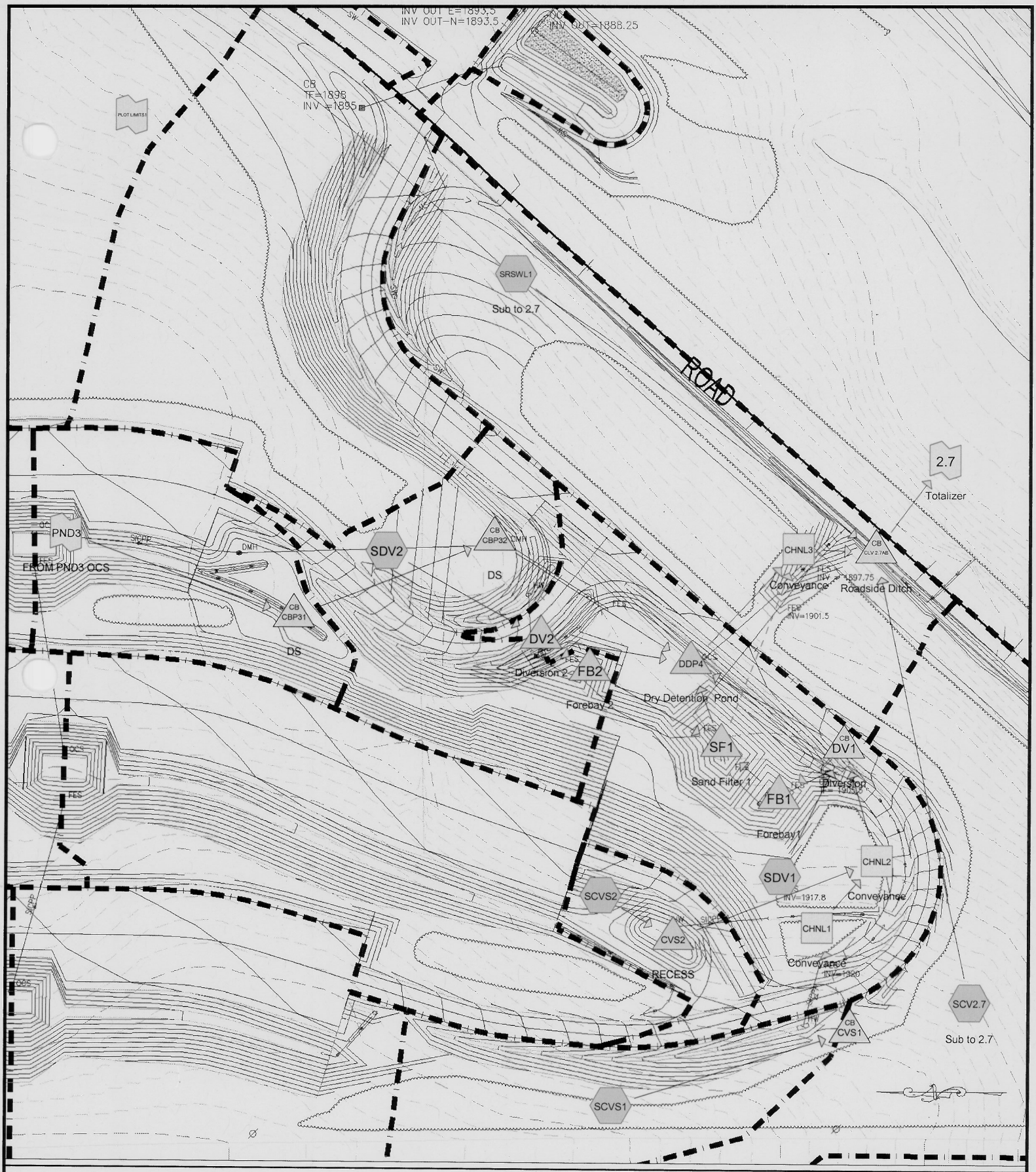

a ent of Environmental Conservation
u of Design & Construction

Belleayre Mtn.Ski Center UMP
Proposed East Parking Lot - SSF Area
Stormwater Model Mapping

Subcat | Reach | Pond | Link

Drainage Diagram for PR East Parking 110509 Sandfilter Area 2of3
Prepared by NYSDEC DOP BD&C, Printed 11/5/2009
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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
1.367	70	Woods, Good, HSG C (SCV2.7,SCVS1,SDV1,SRSWL1)
0.089	74	Pasture/grassland/range, Good, HSG C (SCVS2)
2.142	74	grassland, good (SCV2.7,SCVS1,SDV1,SDV2,SRSWL1)
0.637	98	Paved parking & roofs (SCV2.7,SCVS1,SCVS2,SDV1,SDV2,SRSWL1)
4.235		**TOTAL AREA**

Soil Listing (all nodes)

Area (acres)	Soil Goup	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
1.456	HSG C	SCV2.7, SCVS1, SCVS2, SDV1, SRSWL1
0.000	HSG D	
2.779	Other	SCV2.7, SCVS1, SCVS2, SDV1, SDV2, SRSWL1
4.235		**TOTAL AREA**

Time span=0.00-24.00 hrs, dt=0.01 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Dyn-Muskingum-Cunge method - Pond routing by Dyn-Stor-Ind method

Subcatchment SCV2.7: Sub to 2.7
Runoff Area=66,502 sf 12.80% Impervious Runoff Depth>3.26"
Flow Length=271' Tc=21.1 min CN=75 Runoff=5.40 cfs 0.415 af

Subcatchment SCVS1:
Runoff Area=24,269 sf 10.78% Impervious Runoff Depth>3.28"
Flow Length=250' Tc=6.0 min CN=75 Runoff=3.25 cfs 0.152 af

Subcatchment SCVS2:
Runoff Area=6,515 sf 40.48% Impervious Runoff Depth>4.19"
Tc=6.0 min CN=84 Runoff=1.08 cfs 0.052 af

Subcatchment SDV1:
Runoff Area=31,277 sf 23.76% Impervious Runoff Depth>3.67"
Tc=6.0 min CN=79 Runoff=4.63 cfs 0.220 af

Subcatchment SDV2:
Runoff Area=19,957 sf 17.59% Impervious Runoff Depth>3.57"
Tc=6.0 min CN=78 Runoff=2.89 cfs 0.136 af

Subcatchment SRSWL1: Sub to 2.7
Runoff Area=35,958 sf 8.52% Impervious Runoff Depth>3.27"
Flow Length=307' Tc=11.2 min CN=75 Runoff=4.00 cfs 0.225 af

Reach CHNL1: Conveyance
Avg. Depth=0.29' Max Vel=4.09 fps Inflow=3.18 cfs 0.152 af
n=0.060 L=50.0' S=0.0600 '/' Capacity=4.86 cfs Outflow=3.19 cfs 0.152 af

Reach CHNL2: Conveyance
Avg. Depth=0.30' Max Vel=5.36 fps Inflow=4.25 cfs 0.204 af
n=0.060 L=100.0' S=0.1000 '/' Capacity=6.28 cfs Outflow=4.25 cfs 0.204 af

Reach CHNL3: Conveyance
Avg. Depth=0.09' Max Vel=7.01 fps Inflow=2.56 cfs 0.405 af
n=0.070 L=48.0' S=0.1719 '/' Capacity=11.03 cfs Outflow=2.56 cfs 0.405 af

Pond CBP31: DS
Peak Elev=1,908.00' Inflow=0.00 cfs 0.000 af
15.0" x 147.0' Culvert Outflow=0.00 cfs 0.000 af

Pond CBP32: DS
Peak Elev=1,905.26' Inflow=0.00 cfs 0.000 af
15.0" x 64.0' Culvert Outflow=0.00 cfs 0.000 af

Pond CLV 2.7AB: Roadside Ditch
Peak Elev=1,893.09' Inflow=11.02 cfs 1.045 af
Primary=3.68 cfs 0.845 af Secondary=7.33 cfs 0.200 af Outflow=11.02 cfs 1.045 af

Pond CVS1:
Peak Elev=1,923.00' Inflow=3.25 cfs 0.152 af
Primary=0.06 cfs 0.000 af Secondary=3.18 cfs 0.152 af Outflow=3.25 cfs 0.152 af

Pond CVS2: RECESS
Peak Elev=1,919.53' Storage=27 cf Inflow=1.08 cfs 0.052 af
15.0" x 60.0' Culvert Outflow=1.07 cfs 0.052 af

Pond DDP4: Dry Detention Pond
Peak Elev=1,905.29' Storage=8,062 cf Inflow=10.99 cfs 0.355 af
Primary=2.50 cfs 0.317 af Secondary=0.00 cfs 0.000 af Outflow=2.50 cfs 0.317 af

Pond DV1: Diversion
Peak Elev=1,907.21' Inflow=8.88 cfs 0.424 af
Primary=8.29 cfs 0.235 af Secondary=0.59 cfs 0.189 af Outflow=8.88 cfs 0.424 af

Pond DV2: Diversion 2
Peak Elev=1,906.81' Storage=146 cf Inflow=2.89 cfs 0.136 af
Primary=2.71 cfs 0.120 af Secondary=0.18 cfs 0.016 af Outflow=2.88 cfs 0.136 af

Pond FB1: Forebay1
Peak Elev=1,906.53' Storage=648 cf Inflow=0.59 cfs 0.189 af
Outflow=0.46 cfs 0.175 af

Po B2: Forebay 2
Peak Elev=1,906.49' Storage=384 cf Inflow=0.18 cfs 0.016 af
Outflow=0.04 cfs 0.010 af

Pond SF1: Sand Filter 1
Peak Elev=1,906.50' Storage=4,321 cf Inflow=0.49 cfs 0.185 af
Primary=0.00 cfs 0.000 af Secondary=0.08 cfs 0.087 af Outflow=0.08 cfs 0.087 af

Link 2.7: Totalizer Inflow=11.02 cfs 1.045 af
Primary=11.02 cfs 1.045 af

Lin... PLOT LIMITS1:
Primary=0.00 cfs 0.000 af

Link PND3: FROM Q10 Primary Outflow Imported from PR East Parking 110509 Tiered Area 1of3~Pond PND3.hce Inflow=0.00 cfs 0.000 af
Area= 5.464 ac 34.10% Imperv. Primary=0.00 cfs 0.000 af

Total Runoff Area = 4.235 ac Runoff Volume = 1.201 af Average Runoff Depth = 3.40"
84.95% Pervious = 3.598 ac 15.05% Impervious = 0.637 ac

Summary for Subcatchment SCV2.7: Sub to 2.7

Ru = 5.40 cfs @ 12.14 hrs, Volume= 0.415 af, Depth> 3.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type II 24-hr Q10 Rainfall=6.00"

	Area (sf)	CN	Description
	36,706	70	Woods, Good, HSG C
	8,511	98	Paved parking & roofs
*	21,285	74	grassland, good
	66,502	75	Weighted Average
	57,991		Pervious Area
	8,511		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.7	100	0.0850	0.09		**Sheet Flow, SHT** Woods: Dense underbrush n= 0.800 P2= 4.00"
2.4	145	0.1600	1.00		**Shallow Concentrated Flow, SCF** Forest w/Heavy Litter Kv= 2.5 fps
0.0	26	0.0900	15.82	94.91	**Channel Flow, OCF** Area= 6.0 sf Perim= 8.7' r= 0.69' n= 0.022 Earth, clean & straight
21.1	271	Total			

Summary for Subcatchment SCVS1:

Runoff = 3.25 cfs @ 11.97 hrs, Volume= 0.152 af, Depth> 3.28"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type II 24-hr Q10 Rainfall=6.00"

	Area (sf)	CN	Description
	8,852	70	Woods, Good, HSG C
	2,617	98	Paved parking & roofs
*	12,800	74	grassland, good
	24,269	75	Weighted Average
	21,652		Pervious Area
	2,617		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.1	27	0.1296	0.21		**Sheet Flow, SHT** Grass: Dense n= 0.240 P2= 4.00"
0.3	70	0.0071	3.90	3.12	**Channel Flow, OCF CLVRT under svc drive** Area= 0.8 sf Perim= 3.1' r= 0.26' n= 0.013 Corrugated PE, smooth interior
0.2	153	0.0686	13.79	55.15	**Channel Flow, OCF** Area= 4.0 sf Perim= 4.8' r= 0.83' n= 0.025 Earth, clean & winding
3.4					**Direct Entry, Direct Entry for 6.0 minute Minimum**
6.0	250	Total			

Summary for Subcatchment SCVS2:

Ru = 1.08 cfs @ 11.97 hrs, Volume= 0.052 af, Depth> 4.19"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type II 24-hr Q10 Rainfall=6.00"

Area (sf)	CN	Description
3,878	74	Pasture/grassland/range, Good, HSG C
2,637	98	Paved parking & roofs
6,515	84	Weighted Average
3,878		Pervious Area
2,637		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, DIRECT ENTRY OF 6 MINUTES**

Summary for Subcatchment SDV1:

Runoff = 4.63 cfs @ 11.97 hrs, Volume= 0.220 af, Depth> 3.67"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type II 24-hr Q10 Rainfall=6.00"

	Area (sf)	CN	Description
	3,196	70	Woods, Good, HSG C
	7,430	98	Paved parking & roofs
*	20,651	74	grassland, good
	31,277	79	Weighted Average
	23,847		Pervious Area
	7,430		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Direct Entry of minimum 6 mniutes**

Summary for Subcatchment SDV2:

Runoff = 2.89 cfs @ 11.97 hrs, Volume= 0.136 af, Depth> 3.57"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type II 24-hr Q10 Rainfall=6.00"

	Area (sf)	CN	Description
	0	70	Woods, Good, HSG C
	3,510	98	Paved parking & roofs
*	16,447	74	grassland, good
	19,957	78	Weighted Average
	16,447		Pervious Area
	3,510		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Direct entry for 6.0 minute min**

Summary for Subcatchment SRSWL1: Sub to 2.7

Runoff = 4.00 cfs @ 12.03 hrs, Volume= 0.225 af, Depth> 3.27"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type II 24-hr Q10 Rainfall=6.00"