Project	25 Townsend Street				
Description	Rip Rap Outlet Sediment Trap				
By/Date	JDB	3/26/2018	Reviewed/Date	MAB	3/27/2018

Hudson Land Design, P.C.
174 Main Street
Beacon, NY 12508

1) Standard Specifications for Sizing of Rip Rap Outlet Sediment Trap per NYS Standards and Specifications For Erosion and Sediment Control, July

- Sediment shall be removed and trap restored to the original dimensions when the sediment has accumulated to 0.5 of the design depth.
- The volume of sediment trap as measured at the elevation of the crest of the outlet shall be at least 3,600 cubic feet per acre of drainage area
- All embankments for sediment traps shall not exceed 5 feet in height as measured from low point of the orignal ground along the centerline of the embankn
- Embankments shall have a minimum 4 foot wide top and side slopes of 2:1 or flatter
- Storage area provided shall be figured by computing the volume available behind the outlet channel up to an elevation of one foot below the weir crest
- Filter cloth shall be placed over the bottom and sides of the outlet channel prior to placement of the stone. Sections of fabric shall overlap at least one (1) fo with section nearest the entrance placed on top. Fabric shall be embedded at least six (6) inches into existing ground at entrance of outlet channel.
- Stone used in the outlet channel shall be 4" to 8" rip rap.
- Rip rap outlet sediment traps shall be limited to a 5 acre maximum drainage area.

2) Determine Required Storage

Sediment Trap ID	Area (ac)	Volume Required (cf)
Sediment Trap 1	1.48	5,328

3) Determine Weir Outlet Specifications per pgs. 5.48 and 5.51 of NYS Standards and Specifications For Erosion and Sediment Control, July 2016

- Contributing drainage area of 1.48 acres
- Weir invert = 207
- Bottom elevation of sediment trap = 202
- Maximum storage limit = Weir invert - 1.0' = 206
- Minimum weir width = 4 X D.A. (ft) = 6 (Rounded Up)

4) Determine Storage Volume Provided & Cleanout Volume

Contour	Area (sf)	Volume Provided (cf)	Cum. Volume Provided (cf)	
202	219	0	0	
203	493	356	356	
204	848	671	1,027	
205	1,284	1,066	2,093	
206	1,802	1,543	3,636	
207	2,388	2,095	5,731	(Weir)
208	3,031	2,710	8,440	(Top of Embankment)

- Storage up to weir invert = 5,731 cf.
- Sediment Trap Depth = 6.0 ft
- Cleanout volume elevation = 204.5 ft

Required Overall Storage = 5,328 cf

Is volume requirement met? Yes - Trap sufficient

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