



Ohio Department of Transportation - Office of Hydraulic Engineering

Post-Construction BMP Calculation Spreadsheet

Post Construction - Project Summary

Project Data

Project EDA	1.88	acres
Is the Project Routine Maintenance per L&D Vol. 2, Sec. 1112.2	No	
BMPs Required?	BMPs Required	NA
Ain (New Impervious Area in New Permanent R/W	0.013	acres
Does Entire Site Drain to Large River (>100 sq. miles)?	No	
Water Quality Treatment Required	Yes	
Water Quantity Treatment Required	No	

Treatment Percent and Treatment Requirement

Aix (Project EDA that is inside the existing right-of-way)	1.84	acres
Ain (New Impervious Area in New Permanent R/W)	0.013	acres
T% (Treatment Percent)	20.56	%
Treatment Requirement	0.39	acres

BMPs Provided

BMP Name	BMP Type	Contributing Drainage Area (acres)	Contributing Drainage Area in ODOT R/W (acres)
VFS1	Vegetated Filter Strip	0.411	0.411
VFS2			
VFS3			
VBF1			
VBF2			
BMP6			
BMP7			
BMP8			
BMP9			
BMP10			

Treatment Provided

Total Area with ODOT R/W Treated (acres)	0.41
Treatment Requirements (acres)	0.39
Treatment Check	Good

BMP Submittal Requirements (Per L&D, Vol. 2, Sec. 1116.2)

1. Estimated Project Earth Disturbed Area	Yes	Good
2. Treatment Percent Calculation	Yes	Good
3. BMP Selected for use	Yes	Good
4. Drainage area mapping for post-construction BMPs that show the total contributing drainage area and the amount of contributing area within ODOT right-of-way	Yes	Good
5. Plan sheets showing locations of post-construction BMP	Yes	Good
6. Calculations for each BMP	Yes	Good
7. Explanation for any area that is not treated	Yes	Good



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Vegetated Filter Strip

Filter Strip	Route	Begin Station	End Station	Side	Pavement Width (FT)	Filter Strip Width (FT)	Filter Strip Slope (z:1)	Filter Strip Length (FT)	Drainage Area (acres)	Filter Strip Area (SF)	Item 659 Topsoil Volume (CY)	Item 670 Erosion Protection Area (SY)
Filter Strip #1	US 52	1264+50	1266+25	RT	34	68	3	175	0.411	12,081	149.1	1,342.3
Filter Strip #2								0			0.0	0.0
Filter Strip #3								0			0.0	0.0
Filter Strip #4								0			0.0	0.0
Filter Strip #5								0			0.0	0.0
Filter Strip #6								0			0.0	0.0
Filter Strip #7								0			0.0	0.0
Filter Strip #8								0			0.0	0.0
Filter Strip #9								0			0.0	0.0
Filter Strip #10								0			0.0	0.0

Total Treatment Credit Earned from Vegetated Filter Strips **0.411** acres
(Treatment is for quality only, not quantity)

BMP Design Considerations

		Answer	Design Check
1	Is the min. filter strip width 15-25 ft wide depending on L&D Table 1117-3?	Yes	Good
2	Is the slope 3:1 or flatter for 34 ft or narrower pavement drainage width	Yes	Good
3	Is the slope 6:1 or flatter for 35 - 48 ft pavement drainage width	NA	Good
4	Is the only contributing drainage to the filter strip from the road and shoulder?	Yes	Good
5	Does any concentrated flow or any outlets discharge to the filter strip?	No	Good
6	Is 4" of Item 659, Topsoil, included for the filter strip?	Yes	Good
7	Is Item 670, Slope Erosion Protection, included for the filter strip?	Yes	Good