

August 19, 2016

Nancy Greifenhagen
Village of Menomonee Falls
W156 N8480 Pilgrim Road
Menomonee Falls, Wisconsin 53051

Willow Springs Storm Water Management Facilities Inspection
W220 N6660 Town Line Road
Menomonee Falls, Wisconsin 53051

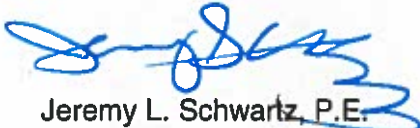
Dear Ms. Greifenhagen:

Kapur & Associates (Kapur) has completed the inspection and certification of the onsite detention facility and associated piping/structures. No sediment or debris was noted in the bottom of the detention basin during inspection. Survey data confirms that no significant sedimentation has occurred and that the critical elevations of the basin are nearly identical to those from the 2010 certification. Therefore, the capacity also is the same from the previous certification. The detention basin, including all piping and structures, is in excellent condition and is functioning properly.

Please feel free to contact me if you have any comments or questions regarding this certification.

Thank You,

KAPUR & ASSOCIATES, INC.


Jeremy L. Schwartz, P.E.
Project Engineer

Enclosure



Village of Menomonee Falls
 W156 N8480 Pilgrim Road
 Menomonee Falls, WI 53051-3140
 Telephone: (262) 532-4200

STORMWATER MANAGEMENT FACILITIES OPERATION AND INSPECTION REPORT

Quarter Section SW ¼ Sec 19 Name of Business/Subdivision Willow Springs School
 Property Tax ID Number _____ Address of Property W220N6660 Town Line Road
 Date _____ Menomonee Falls, WI 53051

Dry Pond	X
Wet Pond	
Other	

Location of Pond SE Corner of Property

Pond ID: SWP

Year Pond Constructed 2005 Year of Last Certification 2010

Compliance Verification	Design	Actual	Compliant		Comments (Condition of Structure)
			Yes	No	
Primary Outlet Pipe					Outlet Pipe Material
Opening Diameter (inches)	8"	8"	X		PVC
Upstream Invert	860	859.26	X		
Downstream Invert	Unknown	857.85	X		
Length (feet)	Unknown	31	X		
Slope (%)	Unknown	4.55	X		
Secondary Outlet Pipe (If Applicable)					Outlet Pipe Material
Opening Diameter (inches)					
Upstream Invert					
Downstream Invert					
Length (feet)					
Slope (%)					
Riser (If Applicable)					Riser Material
Opening Diameter (inches)	4"	4"	X		PVC Cap with 4" orifice over 8" PVC pipe
Elevation	860	859.26	X		
Upper Discharge Control (If Applicable)					
Opening Diameter (inches)					
Elevation					

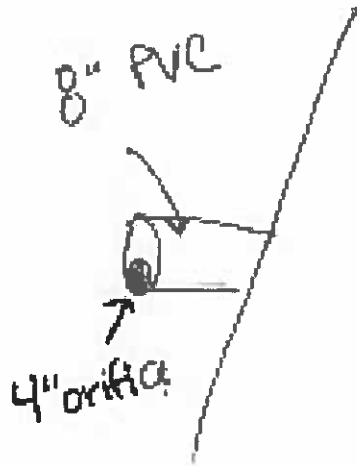
Compliance Verification	Design	Actual	Compliant		Comments	
			Yes	No		
Lower Discharge Control	(If Applicable)					
Opening Diameter (inches)						
Elevation						
Other (Description)						
Opening Type and Size (inches)						
Elevation						
Emergency Spillway						
Elevation	862	862.07				
Length of spillway (feet)	NA	45'				
Embankment	Present Yes no		Comments/Maintenance Requirements			
Unauthorized Plantings, trees, or woody vegetation						
Animal burrows or slope erosion						
Storm Sewer Outfalls	Type & Size		Location		Comments	
Outfall 1						
Outfall 2						
Outfall 3						
Storage Properties	Design	Actual	Compliant Yes No		Not Applicable	Equipment Used
Normal Water Elevation (Wet Ponds)	NA					From Stantec Analysis
Design High Water Elevation	861.23	861.63				
Area at Normal Water Elevation (Ac) (Wet Ponds)	NA	NA				From Stantec Analysis, capacity same/similar
Area at Design High Water Elevation (Ac)	NA	0.503				
Active Storage Available (Ac-Ft)*	0.78	0.66				From Stantec Analysis, capacity same/similar
Lowest Elevation at Top of Embankment (If Applicable)	863.00	862.98				Survey level
Average Elevation at Top of Embankment (If Applicable)	863	863.69				Survey level
Maximum Bottom Elevation	860.00	859.23				Survey level
Average Pond Bottom Elevation	860.00	859.94				Survey level
Pond Bottom Area (Ac)	NA	0.20				From Stantec Analysis, capacity same/similar
Maximum Pond Depth	3'	4.4'				Survey level
Average Pond Depth	3'	3.75'				Survey level
Average Permanent Pool Depth (Wet Ponds)		NA				

*To Determine Active Storage $V=H/3(A1+A2+(A1 \times A2)^{1/2})$

Wet Ponds Use H = Height of Section, $A1$ = area at normal water elevation, $A2$ = area at top section

Dry Ponds Use H = Height of Section, $A1$ = pond bottom area, $A2$ = area at top section

Sketch Outlet or Attach to Document



Place Photograph of Pond or Attach to Document



Place Photograph of Pond or Attach to Document

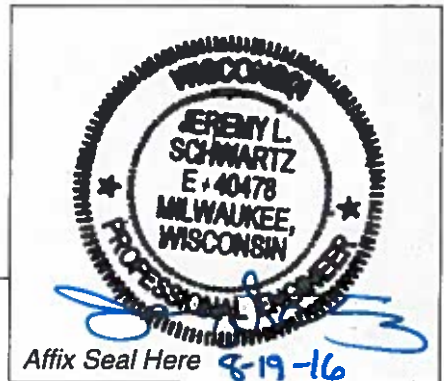


Attach As-built Survey to the Document for the first report submission

Inspection Firm: Kapur & Associates
 Phone Number: 414-751-7212
 Address: 7711 N Port Washington Road
Milwaukee, WI 53217

Inspector Name : Jeremy Schwartz, P.E.
 Inspection Date: August 19, 2016

Certifying Professional Jeremy Schwartz, P.E.
 Name:
 Phone Number: 414-751-7212



Affix Seal Here 8-19-16
 10-3-2012

Date: <u>8-19-16</u>	Signature:
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Willow Springs School 8-18-16

Desc + HT - Elev Elev
9" FEIN 6.29 865.55 957.26

8" IG out 7.70 857.85 857.82

Pond Bottom 4.70 860.65

5.16 860.39

5.30 860.25 Avg: 859.77

5.88 859.67

6.11 859.44

6.32 859.23

Top of bank 2.57 862.98 Avg: 863.69

2.18 863.37

1.98 863.57

1.63 863.92

1.36 864.19

1.43 864.12

Spillway 3.49 862.06

