



2007 Feb

7-5-2012

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 12 8N 20E Name of Business/Subdivision Fairway Village  
Property Tax ID Number 0047080 Address of Property River Park Dr  
Menomonee Falls, WI

Dry Pond		Location Of Pond	<u>North of River Park Dr</u>
Wet Pond	x		
Other			

Description: Pond 1 SWP 12 S 009

Year Pond Constructed 2007 Year of Last Certification 2007

Compliance Verification	Design	Actual	Compliant Yes	Comments (Condition of Structure)
<b>Primary Outlet Pipe</b>				
Opening Diameter	12"	12"	x	Good Condition
Upstream Invert	765.0	784.90	x	
Downstream Invert	784.29	784.30	x	
Length	715'	714'	x	
Slope	0.93%	0.92%	x	
<b>Secondary Outlet Pipe</b> (If Applicable)				
Opening Diameter				
Upstream Invert				
Downstream Invert				
Length				
Slope				
<b>Riser</b> (If Applicable)				
Opening Diameter				
Elevation				
<b>Upper Discharge Control</b> (If Applicable)				
Opening Diameter	6"	6"	x	Good Condition
Elevation	787.25	787.52	x	

Compliance Verification	Design	Actual	Compliant Yes	No	Comments
<b>Lower Discharge Control</b>	(If Applicable)				
Opening Diameter	4"	4"	X		
Elevation	785.0	785.29	X		
<b>Other (Description)</b>					
Opening Type					
Elevation					
<b>Emergency Spillway</b>					
Elevation	790.5	790.5	X		
Length of spillway	10'	10'	X		
<b>Embankment</b>			Present Yes	No	
Unauthorized plantings, trees, or woody vegetation			X		
Animal burrows or slope erosion			X		
Storage Properties	Design	Actual	Compliant Yes	Points Surveyed	Equipment Used
Normal Water Elevation (Wet Ponds)	785.0	785.29	X		Professional survey equipment used - 9/9/12
Design High Water Elevation	789.9	789.9	X		
Area at Normal Water Elevation (Ac) (Wet Ponds)	0.078	0.08	X		
Area at Design High Water Elevation (Ac)	0.20	0.22	X		
Active Storage Available (Ac-Ft)*	0.47	0.46	X		
Lowest Elevation at Top of Embankment (If Applicable)					
Average Elevation at Top of Embankment (If Applicable)					
Maximum Bottom Elevation	784	784	X		
Average Pond Bottom Elevation	782	782	X		
Pond Bottom Area (Ac)	0.01	0.01	X		
Maximum Pond Depth	5'	5'	X		
Average Pond Depth	5'	5'	X		

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

$H_{avg} = 4.3$

$V_{max} = 4.66$

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

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

Sketch Outlet

Place Photograph of Pond

SEE ATTACHED

SEE ATTACHED

Place Photograph of Pond

SEE ATTACHED

Inspection Firm: Dank Engineering  
Phone Number: 414 935-4437  
Address: 325 E Chicago St. Ste 500  
Milwaukee, WI 53202

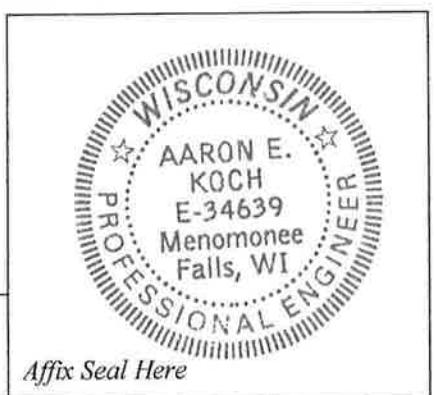
Inspector Name : Aaron E. Koch, P.E.  
Inspection Date: Sept 5, 2012

Certifying  
Professional Name: Aaron E. Koch  
Phone Number: 414-397-5065

Date:  
9/12/12

Signature:

Aaron E. Koch







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STORMWATER MANAGEMENT FACILITIES  
OPERATION AND INSPECTION REPORT

Quarter Section 12 8N 20E Name of Business/Subdivision Fairway Village  
Property Tax ID Number 0047081 Address of Property RIVER PARK DR  
Menomonee Falls, WI

Dry Pond	
Wet Pond	*
Other	

Location Of  
Pond

South of River Park Dr

Description: Pond 2 SWP 12 5008

Year Pond Constructed \_\_\_\_\_ Year of Last Certification \_\_\_\_\_

Compliance Verification	Design	Actual	Compliant		Comments (Condition of Structure)
			Yes	No	
<b>Primary Outlet Pipe</b>					
Opening Diameter	12"	12"	*		Good Condition
Upstream Invert	781.50	781.75	*		
Downstream Invert	781.46	781.44	*		
Length	23'	19.35'	*		
Slope	0.160%	1.60%	*		
<b>Secondary Outlet Pipe</b> (If Applicable)					
Opening Diameter					
Upstream Invert					
Downstream Invert					
Length					
Slope					
<b>Riser</b> (If Applicable)					
Opening Diameter					
Elevation					
<b>Upper Discharge Control</b> (If Applicable)					
Opening Diameter	4"	4"	*		Good Condition
Elevation	783.0	783.43	*		

Compliance Verification	Design	Actual	Compliant		Comments
	Yes	No			
<b>Lower Discharge Control</b>	(If Applicable)				
Opening Diameter	5.5"	6"	*		
Elevation	781.5	781.75	*		
<b>Other (Description)</b>					
Opening Type					
Elevation					
<b>Emergency Spillway</b>					
Elevation	781.5	786.5	*		
Length of spillway	10'	10'	*		
<b>Embankment</b>			Present		
			Yes	No	
Unauthorized plantings, trees, or woody vegetation			*		
Animal burrows or slope erosion			*		
<b>Storage Properties</b>	Design	Actual	Compliant	Points Surveyed	Equipment Used
Normal Water Elevation (Wet Ponds)	782.0	781.75	*		Professional Survey equipment used - 9/5/12
Design High Water Elevation	785.9	785.9	*		
Area at Normal Water Elevation (Ac) (Wet Ponds)	0.094	0.09	*		
Area at Design High Water Elevation (Ac)	0.21	0.21	*		
Active Storage Available (Ac-Ft)*	0.41	0.43	*		
Lowest Elevation at Top of Embankment (If Applicable)					
Average Elevation at Top of Embankment (If Applicable)					
Maximum Bottom Elevation	781.0	781.0	*		
Average Pond Bottom Elevation	778.5	778.5	*		
Pond Bottom Area (Ac)	0.01	0.01	*		
Maximum Pond Depth	6'	5.75'	*		
Average Pond Depth	6'	5.75'	*		

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

$$H_{act} = 3.9 \quad H_{avg} = 4.15$$

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

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

Sketch Outlet

Place Photograph of Pond

SEE ATTACHED

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Place Photograph of Pond

SEE ATTACHED

Inspection Firm: DAAR Engineering, Inc Inspector Name: Aaron E. Koch, PE  
Phone Number: 414-933-4437 Inspection Date: 9/12/12  
Address: 325 E Chicago St, Ste 500  
Milwaukee, WI 53202

Certifying  
Professional Name: Aaron E. Koch  
Phone Number: 414-397-5065

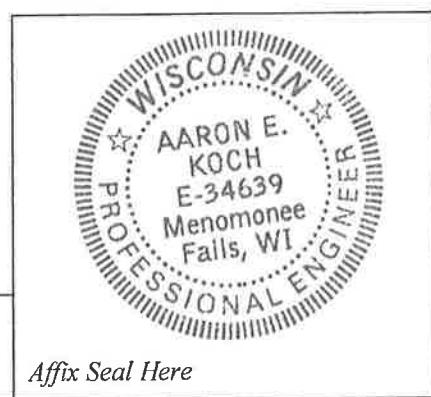
Date:

9/12/12

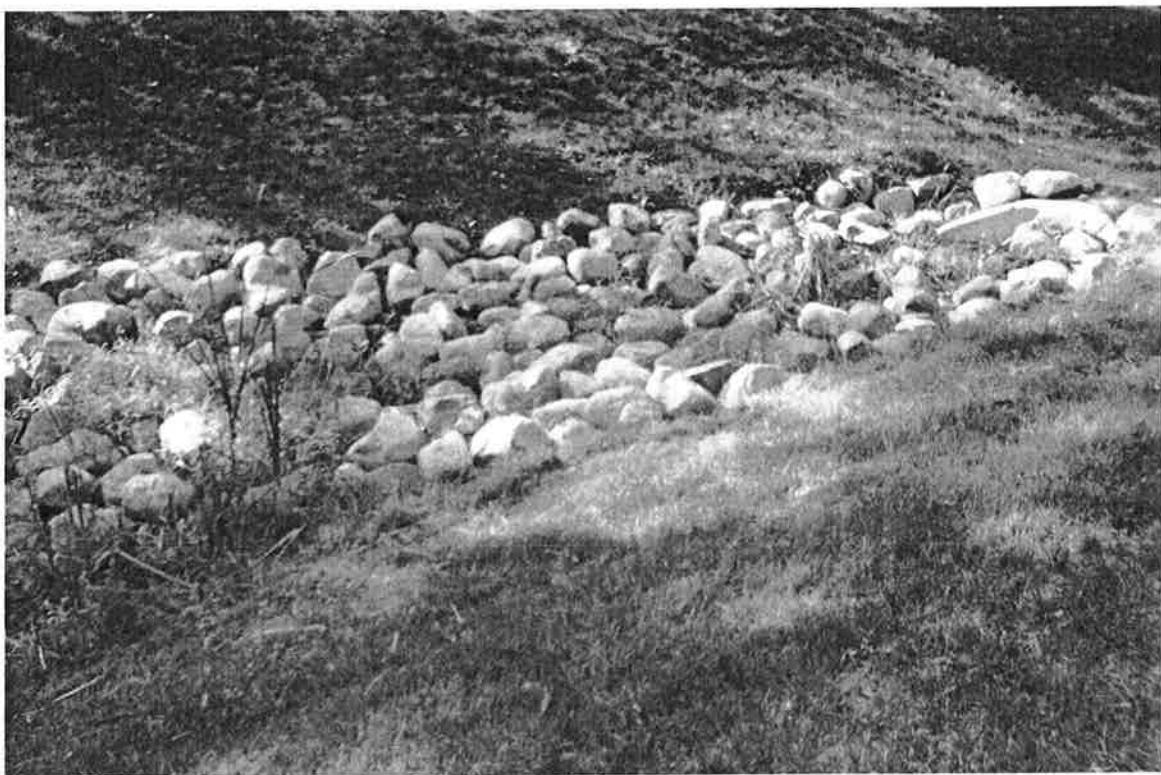
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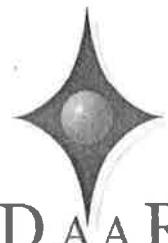
CEK

Affix Seal Here









DAAR

## LETTER OF TRANSMITTAL

To: Village of Menomonee Falls

Date: 9-12-12  
Project Name: Fairway Village

Project Number: 050120

RE: Pond As Built Inspection

### We are

Enclosing  Sending Under Separate Cover  As Requested

# of Copies	Dated	Description
1	September 12, 2012	North & South Pond Inspection & As Built Survey

### Transmitted For Your

Information/Records  Review  Approval  
 Action  Revision & Resubmittal  Distribution

### Remarks:

*Called + confirmed OK*

By: Aaron E. Koch, P.E.

CC: