



Asbuilt (2014)

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
Property Tax ID Number
Date August 29, 2016

SE 1/4 Section 34
MNFV0136997001 Name of Business/Subdivision
Address of Property
Dickson Hollow Senior Housing
W156N4881 Pilgrim Road
Menomonee Falls, WI 53051

Dry Pond		Location of Pond	Adjacent to Pilgrim Road, north of Gas Station and south of entrance (see plan)
Wet Pond	X		
Other		Pond ID: SWP P1 345007	

Year Pond Constructed 2015 Year of Last Certification 2016

Compliance Verification	Design	Actual	Compliant Yes	No	Comments (Condition of Structure)
Primary Outlet Pipe					Outlet Pipe Material
Opening Diameter (inches)	12"	15"	X		<ul style="list-style-type: none"> - RCP - 10.5" ORIFICE PLATE (8" DESIGN) ON OUTLET PIPE, IE 797.18 - SEE RECORD DRAWINGS
Upstream Invert	798.00	797.18	X		
Downstream Invert	796.61	796.40	X		
Length (feet)	150.5	151.05	X		
Slope (%)	0.92	0.52	X		
Secondary Outlet Pipe (If Applicable) N/A					Outlet Pipe Material
Opening Diameter (inches)					
Upstream Invert					
Downstream Invert					
Length (feet)					
Slope (%)					
Riser (If Applicable) 					Riser Material
Opening Diameter (inches)	48	48	X		<ul style="list-style-type: none"> - RCP - SEE RECORD DRAWINGS
Elevation	799.45	799.08	X		
Upper Discharge Control (If Applicable) N/A					
Opening Diameter (inches)					
Elevation					

Compliance Verification	Design	Actual	Compliant Yes	No	Comments
Lower Discharge Control	(If Applicable)				
Opening Diameter (inches)	3"	4"	X		- SEE RECORD DRAWINGS
Elevation	798.00	797.10	X		
Other (Description)	N/A				
Opening Type and Size (inches)					
Elevation					
Emergency Spillway					
Elevation	803.80	803.50	X		
Length of spillway (feet)	20	20'	X		- RECORD DRAWINGS
Embankment	Present Yes		Comments/Maintenance Requirements		
Unauthorized Plantings, trees, or woody vegetation		X			
Animal burrows or slope erosion		X			
Storm Sewer Outfalls	Type & Size		Location		Comments
Outfall 1 R-100	FES - 36		SW CORNER		RCP
Outfall 2 R-300	FES - 36		WEST CENTRAL		RCP
Outfall 3 R-400	FES - 36		WEST CENTRAL NORTH OF R-300		RCP
Outfall 4 R-610	FES - 36		NORTH/NE CORNER		RCP
Storage Properties	Design	Actual	Compliant Yes	No	Equipment Used
Normal Water Elevation (Wet Ponds)	798.00	797.18	X		- SEE SUMMARY TABLES
Design High Water Elevation	803.74	803.44	X		
Area at Normal Water Elevation (Ac) (Wet Ponds)	0.58	0.50	X		
Area at Design High Water Elevation (Ac)	0.95	0.95	X		
Active Storage Available (Ac-Ft)*	3.45	3.53	X		
Lowest Elevation at Top of Embankment (If Applicable)	804.50	804.20	X		
Average Elevation at Top of Embankment (If Applicable)				X	
Maximum Bottom Elevation	793.00	792.10	X		AT HWE
Average Pond Bottom Elevation		792.40			
Pond Bottom Area (Ac)	0.22	0.16	X		
Maximum Pond Depth	10.74	11.04	X		
Average Pond Depth				X	AT HWE
Average Permanent Pool Depth (Wet Ponds)	5	4.8	X		

*To Determine Active Storage $V=H/3(A1+A2+(A1xA2)1/2)$

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

See attached

See attached

Place Photograph of Pond or Attach to Document

See attached

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

Inspection Firm: R.A. Smith National, Inc.

Inspector Name : Survey Division / Bob Harley & Jason Heinonen – LDS Division

Phone Number: (262) 781-1000

Inspection Date: Spring / Summer 2016

Address: 16745 W. Bluemound Road
Brookfield, WI 53005

Certifying Professional

Name: Jason Heinonen
Phone Number: (262) 317-3378

Date:

10/3/16

Signature:



10-3-2012

Dickson Hollow Storm Water Management Facilities

SWP P1



View looking south.



View looking north.



Village of Menomonee Falls
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STORMWATER MANAGEMENT FACILITIES OPERATION AND INSPECTION REPORT

Quarter Section
Property Tax ID Number
Date August 29, 2016

SE 1/4 Section 34
MNFV0136997001

Name of Business/Subdivision
Address of Property

Dickson Hollow Senior Housing
W156N4881 Pilgrim Road
Menomonee Falls, WI 53051

Dry Pond	
Wet Pond	X
Other	

Pond ID: SWP P2 345010

Location of
Pond

Adjacent to wetland, north of
existing wetland ditch and the
northeast corner of the building
(see plan)

Year Pond
Constructed
2015

Year of Last
Certification
2016

Compliance Verification	Design	Actual	Compliant Yes	No	Comments (Condition of Structure)
Primary Outlet Pipe					Outlet Pipe Material
Opening Diameter (inches)	12	12	X		<ul style="list-style-type: none"> - RCP - 4" ORIFICE PLATE ON OUTLET PIPE, IE 801.02 - SEE RECORD DRAWINGS
Upstream Invert	801.00	801.02	X		
Downstream Invert	800.89	800.52	X		
Length (feet)	31.9	30.94	X		
Slope (%)	0.35	2.20	X		
Secondary Outlet Pipe	(If Applicable) <u>N/A</u>		Outlet Pipe Material		
Opening Diameter (inches)					
Upstream Invert					
Downstream Invert					
Length (feet)					
Slope (%)					
Riser	(If Applicable)		Riser Material		
Opening Diameter (inches)	24	24	X		<ul style="list-style-type: none"> - RCP - SEE RECORD DRAWINGS
Elevation	804.00	802.87	X		
Upper Discharge Control	(If Applicable)				
Opening Diameter (inches)	4	4	X		
Elevation	802.15	801.90	X		<ul style="list-style-type: none"> - SEE RECORD DRAWINGS

Compliance Verification	Design	Actual	Compliant Yes	No	Comments	
Lower Discharge Control	(If Applicable)					
Opening Diameter (inches)	1	1.5	X		- SEE RECORD DRAWINGS	
	801.00	800.97	X			
Other (Description)	N/A					
Opening Type and Size (inches)						
Elevation						
Emergency Spillway						
Elevation	803.50	803.47	X		- SEE RECORD DRAWINGS	
Length of spillway (feet)	5	7	X			
Embankment	Present Yes		Comments/Maintenance Requirements			
Unauthorized Plantings, trees, or woody vegetation		X				
Animal burrows or slope erosion		X				
Storm Sewer Outfalls N/A	Type & Size		Location		Comments	
Outfall 1					- VIA SWALE	
Outfall 2						
Outfall 3						
Storage Properties	Design	Actual	Compliant Yes	No	Equipment Used	
Normal Water Elevation (Wet Ponds)	801.00	801.02	X		- SEE SUMMARY TABLES	
Design High Water Elevation	803.90	803.43	X			
Area at Normal Water Elevation (Ac) (Wet Ponds)	0.07	0.10	X			
Area at Design High Water Elevation (Ac)	0.21	0.18	X			
Active Storage Available (Ac-Ft)*	0.28	0.25	X			
Lowest Elevation at Top of Embankment (If Applicable)	804.50	804.20	X		AT HWE	
Average Elevation at Top of Embankment (If Applicable)				X		
Maximum Bottom Elevation	797.00	796.8	X			
Average Pond Bottom Elevation		797.6	X		AT HWE	
Pond Bottom Area (Ac)	0.004	0.015	X			
Maximum Pond Depth	6.90	6.7	X			
Average Pond Depth				X		
Average Permanent Pool Depth (Wet Ponds)	4	3.4	X			

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

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 or Attach to Document

Place Photograph of Pond or Attach to Document

See attached

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Phone Number: (262) 781-1000

Inspection Date: Spring / Summer 2016

Address: 16745 W. Bluemound Road
Brookfield, WI 53005

Certifying Professional

Name: Jason Heinonen

Phone Number: (262) 317-3378

Date:

11/3/16

Signature:



Affix Seal Here

10-3-2012

Dickson Hollow Storm Water Management Facilities

SWP P2



View looking southwest.



View looking north.



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 Address of Property

Dickson Hollow Senior Housing
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 Menomonee Falls, WI 53051

Dry Pond	X
Wet Pond	
Other	

Pond ID: SWP P3 345009

Location of
 Pond

Adjacent to Pilgrim Road, north of
 existing wetland ditch and east of
 the future east Brownstone
 Building (see plan)

Year Pond
 Constructed 2015

Year of Last
 Certification 2016

Compliance Verification	Design	Actual	Compliant Yes	Comments (Condition of Structure)
Primary Outlet Pipe				
Opening Diameter (inches)	12	12	X	
Upstream Invert	797.00	796.99	X	<ul style="list-style-type: none"> - RCP - 4" ORIFICE PLATE ON OUTLET PIPE, IE 796.99 - SEE RECORD DRAWINGS
Downstream Invert	796.83	796.51	X	
Length (feet)	34.0	31.6	X	
Slope (%)	0.50	1.52	X	
Secondary Outlet Pipe				
Opening Diameter (inches)				
Upstream Invert				
Downstream Invert				
Length (feet)				
Slope (%)				
Riser				
Opening Diameter (inches)	24	24	X	<ul style="list-style-type: none"> - RCP - SEE RECORD DRAWINGS
Elevation	800.00	799.86	X	
Upper Discharge Control				
Opening Diameter (inches)				
Elevation				

Compliance Verification	Design	Actual	Compliant Yes No		Comments
Lower Discharge Control	(If Applicable)				
Opening Diameter (inches)	2.5	2.5	X		- SEE RECORD DRAWINGS
Elevation	797.00	796.89	X		
Other (Description)	N/A				
Opening Type and Size (inches)					
Elevation					
Emergency Spillway					
Elevation	800.80	800.10	X		- SEE RECORD DRAWINGS
Length of spillway (feet)	3	5	X		
Embankment	Present Yes no		Comments/Maintenance Requirements		
Unauthorized Plantings, trees, or woody vegetation		X			
Animal burrows or slope erosion		X			
Storm Sewer Outfalls N/A	Type & Size		Location		Comments
Outfall 1					- VIA SHEET FLOW
Outfall 2					
Outfall 3					
Storage Properties	Design	Actual	Compliant Yes No	Not Applicable	Equipment Used
Normal Water Elevation (Wet Ponds)				X	- SEE SUMMARY TABLES
Design High Water Elevation	799.61	798.24	X		
Area at Normal Water Elevation (Ac) (Wet Ponds)				X	
Area at Design High Water Elevation (Ac)	0.18	0.38	X		
Active Storage Available (Ac-Ft)*	0.23	0.20	X		
Lowest Elevation at Top of Embankment (If Applicable)	801.00	800.7	X		
Average Elevation at Top of Embankment (If Applicable)				X	
Maximum Bottom Elevation	797.00	796.89			
Average Pond Bottom Elevation				X	
Pond Bottom Area (Ac)	0.08	0.05	X		
Maximum Pond Depth				X	
Average Pond Depth				X	
Average Permanent Pool Depth (Wet Ponds)				X	

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

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

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

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Certifying Professional

Name: Jason Heinonen

Phone Number: (262) 317-3378

Date:

11/3/16

Signature:

Jason Heinonen



Affix Seal Here

10-3-2012

Dickson Hollow Storm Water Management Facilities

SWP P3



View looking east.



View looking south.



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Menomonee Falls, WI 53051

Dry Pond	X
Wet Pond	
Other	

Pond ID: SWP P4-34S008

Location of
Pond

Adjacent to Pilgrim Road, south of
existing wetland ditch and north of
the entrance (see plan)

Year Pond
Constructed
2015

Year of Last
Certification
2016

Compliance Verification	Design	Actual	Compliant Yes	Comments (Condition of Structure)
Primary Outlet Pipe				
Opening Diameter (inches)	12	12	X	
Upstream Invert	797.00	796.63	X	
Downstream Invert	796.78	796.48	X	
Length (feet)	43.5	45.34	X	
Slope (%)	0.50	0.33	X	
Secondary Outlet Pipe				
Opening Diameter (inches)	(If Applicable) N/A		Outlet Pipe Material	
Upstream Invert				
Downstream Invert				
Length (feet)				
Slope (%)				
Riser				
Opening Diameter (inches)	24	24	X	Riser Material
Elevation	798.50	798.42	X	- RCP - SEE RECORD DRAWINGS
Upper Discharge Control				
Opening Diameter (inches)				
Elevation				

Compliance Verification	Design	Actual	Compliant Yes	No	Comments
Lower Discharge Control	(If Applicable)				
Opening Diameter (inches)	1.5	1.5	X		- SEE RECORD DRAWINGS
Elevation	797.00	796.52	X		
Other (Description)	N/A				
Opening Type and Size (inches)					
Elevation					
Emergency Spillway					
Elevation	800.00	800.32	X		
Length of spillway (feet)	3	6	X		- SEE RECORD DRAWINGS
Embankment	Present Yes		Comments/Maintenance Requirements		
Unauthorized Plantings, trees, or woody vegetation		X			
Animal burrows or slope erosion		X			
Storm Sewer Outfalls	N/A		Type & Size	Location	Comments
Outfall 1					- VIA SHEET FLOW
Outfall 2					
Outfall 3					
Storage Properties	Design	Actual	Compliant Yes	Not Applicable No	Equipment Used
Normal Water Elevation (Wet Ponds)					X
Design High Water Elevation	798.38	798.40	X		- SEE SUMMARY TABLES
Area at Normal Water Elevation (Ac) (Wet Ponds)					
Area at Design High Water Elevation (Ac)	.06	.06	X		
Active Storage Available (Ac-Ft)*	.03	.04	X		
Lowest Elevation at Top of Embankment (If Applicable)	801.00	800.5	X		
Average Elevation at Top of Embankment (If Applicable)					
Maximum Bottom Elevation	797.00	796.5	X		
Average Pond Bottom Elevation					
Pond Bottom Area (Ac)	.03	.03	X		
Maximum Pond Depth					
Average Pond Depth					
Average Permanent Pool Depth (Wet Ponds)					

*To Determine Active Storage $V=H/3(A1+A2+(A1xA2)/2)$

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10-3-2012

Dickson Hollow Storm Water Management Facilities

SWP P4



View looking east.



View looking west.