



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

MNFV00939  
 75002

Name of Business/Subdivision  
 Address of Property

Jade at North Hills  
 N72W12727 Good Hope Road

Date 3/12/2020

Dry Pond		Pond ID: Underground Stormwater Vault System (StormTrap) SWP24N012	Location of Pond	Below parking lot
Wet Pond				
Other	X			

Year Pond  
 Constructed

2018

Year of Last  
 Certification

2020

Compliance Verification	Design	Actual	Compliant Yes	Compliant No	Comments ( Condition of Structure)
<b>Primary Outlet Pipe</b>					
Opening Diameter (inches)	12	12	X		Outlet Pipe Material
Upstream Invert	802.50	802.58	X		HDPE connecting vault to outlet control structure
Downstream Invert	802.40	802.24	X		
Length (feet)	29	29	X		
Slope (%)	0.35	1.17	X		
<b>Secondary Outlet Pipe</b>					
Opening Diameter (inches)	na	na			Outlet Pipe Material
Upstream Invert	na	na			
Downstream Invert	na	na			
Length (feet)	na	na			
Slope (%)	na	na			
<b>Riser</b>					
Opening Diameter (inches)	60	60	X		Riser Material
Elevation	811.60	811.68	X		Concrete Outlet Control Structure
<b>Upper Discharge Control</b>					
Opening Diameter (inches)	4.65	4.65	X		
Elevation	805.00	805.04	X		

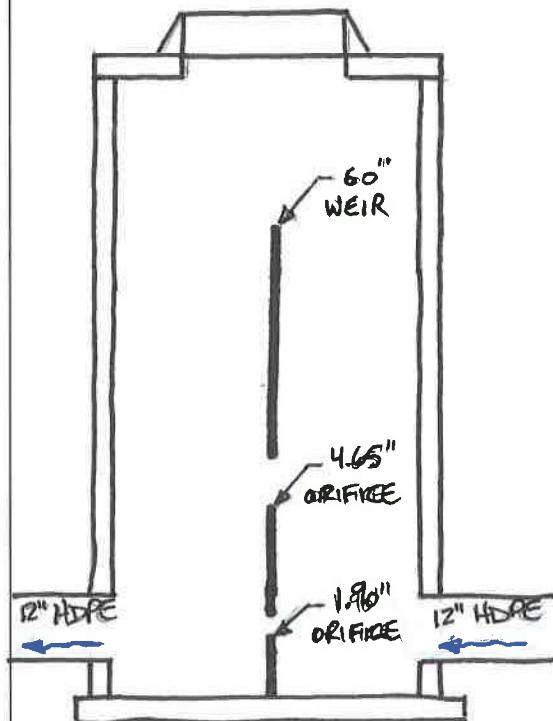
Compliance Verification	Design	Actual	Compliant Yes      No	Comments				
<b>Lower Discharge Control</b>	(If Applicable)							
Opening Diameter (inches)	1.90	1.90	X					
Elevation	802.50	802.58	X					
<b>Other (Description)</b>								
Opening Type and Size (inches)	na	na						
Elevation								
<b>Emergency Spillway</b>								
Elevation	809.50	809.54	X		Steel Weir Plate			
Length of spillway (feet)	5	5	X					
<b>Embankment</b>	Present Yes      no		Comments/Maintenance Requirements					
Unauthorized Plantings, trees, or woody vegetation		na						
Animal burrows or slope erosion		na						
<b>Storm Sewer Outfalls</b>	Type & Size		Location		Comments			
Outfall 1	na							
Outfall 2	na							
Outfall 3	na							
<b>Storage Properties</b>	Design	Actual	Compliant Yes      No	Not Applicable	Equipment Used			
Normal Water Elevation (Wet Ponds)	802.50	802.58	X					
Design High Water Elevation	809.49	809.54	X					
Area at Normal Water Elevation (Ac) (Wet Ponds)	0.0113	0.0113	X					
Area at Design High Water Elevation (Ac)	0.150	0.150	X					
Active Storage Available (Ac-Ft)*	1.056	1.050	X					
Lowest Elevation at Top of Embankment (If Applicable)	na	na						
Average Elevation at Top of Embankment (If Applicable)	na	na						
Maximum Bottom Elevation	799.00	799.08	X					
Average Pond Bottom Elevation	799.00	799.08	X					
Pond Bottom Area (Ac)	0.0113	0.0113	X					
Maximum Pond Depth	10.50'	10.46'	X					
Average Pond Depth	10.50'	10.46'	X					
Average Permanent Pool Depth (Wet Ponds)	3.50'	3.50'	X					

\*To Determine Active Storage  $V=(H/3)(A1+A2+(\sqrt{(A1+A2)}))$

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,  $A_1$ = pond bottom area,  $A_2$ =area at top section

Sketch Outlet or Attach to Document



Please see attached photos

Please see attached photos

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

Inspection Firm: The Expeditors, Inc.  
Phone Number: 139 N. Main Street  
Address: Dousman, WI 53118

Inspector Name: Jeff Leamy / Patrick Hartung  
Inspection Date: 03/12/2020

Certifying Professional

Name: Christopher D. Hitch, P.E.  
Phone Number: 262-781-1000

Date: 2.10.2021

Signature: Christopher D. Hitch



Affix Seal Here

**Jade at North Hills – Village of Menomonee Falls**  
Photos taken during installation: March 13-15, 2018



**Jade at North Hills – Village of Menomonee Falls**  
Photos taken during installation: March 13-15, 2018



### STRUCTURAL DESIGN LOADING CRITERIA

LIVE LOADING: AASHTO HS-20 HIGHWAY LOADING  
 GROUND WATER TABLE: BELOW INVERT OF SYSTEM  
 SOIL BEARING PRESSURE: 3000 PSF  
 SOIL DENSITY: 120 PCF  
 EQUIVALENT UNSATURATED LATERAL ACTIVE EARTH PRESSURE: 35 PSF / FT.  
 EQUIVALENT SATURATED LATERAL ACTIVE EARTH PRESSURE: 80 PSF/FT. (IF WATER TABLE PRESENT)  
 APPLICABLE CODES: AASHTO ACI-318  
 BACKFILL TYPE: 3" STONE AGGREGATE

### STORMTRAP SYSTEM INFORMATION

LIVE STORAGE REQ'D: 45,869.00 CUBIC FEET  
 LIVE STORAGE PROV: 46,003.91 CUBIC FEET  
 UNIT HEADROOM: 7'-0" DOUBLETRAP  
 UNIT QUANTITY: 124 TOTAL UNITS

### SITE SPECIFIC DESIGN CRITERIA

1. STORMTRAP UNITS SHALL BE MANUFACTURED AND INSTALLED ACCORDING TO SHOP DRAWINGS APPROVED BY THE INSTALLING CONTRACTOR AND ENGINEER OF RECORD. THE SHOP DRAWINGS SHALL INDICATE SIZE AND LOCATION OF ROOF OPENINGS AND INLET/ OUTLET PIPE TYPES, SIZES, INVERT ELEVATIONS AND SIZE OF OPENINGS.
2. COVER RANGE: MIN. 1.00' MAX. 2.90' CONSULT STORMTRAP FOR ADDITIONAL COVER OPTIONS.
3. ALL DIMENSIONS AND SOIL CONDITIONS, INCLUDING BUT NOT LIMITED TO GROUNDWATER AND SOIL BEARING CAPACITY ARE REQUIRED TO BE VERIFIED IN THE FIELD BY OTHERS PRIOR TO STORMTRAP INSTALLATION.
4. FOR STRUCTURAL CALCULATIONS THE GROUND WATER TABLE IS ASSUMED TO BE BELOW INVERT OF SYSTEM . IF WATER TABLE IS DIFFERENT THAN ASSUMED, CONTACT STORMTRAP.

AS-BUILT INFORMATION SHOWN ON THIS PLAN WAS OBTAINED FROM FIELD SURVEY DATA COLLECTED BY TRIO ENGINEERING IN MARCH 2018.

**StormTrap®**

PATENTS LISTED AT: [HTTP://STORMTRAP.COM/PATENT]

1287 WINDHAM PARKWAY  
 ROMEOVILLE, IL 60446  
 P:815-941-4549 / F:331-318-5347

### ENGINEER INFORMATION:

TRIO ENGINEERING  
 12660 W. NORTH AVE.  
 BUILDING D  
 BROOKFIELD, WI 53005

### PROJECT INFORMATION:

JADE AT NORTH HILLS WETVAULT  
 MENOMONEE FALLS, WI

### CURRENT ISSUE DATE:

11/1/2017

### ISSUED FOR:

APPROVAL

REV.	DATE:	ISSUED FOR:	DWN BY:

5	11/1/2017	APPROVAL	KW
4	10/11/2017	APPROVAL	KW
3	10/04/2017	PRELIMINARY	DS
2	8/19/2017	PRELIMINARY	DS
1	7/14/2017	PRELIMINARY	DS

### SCALE:

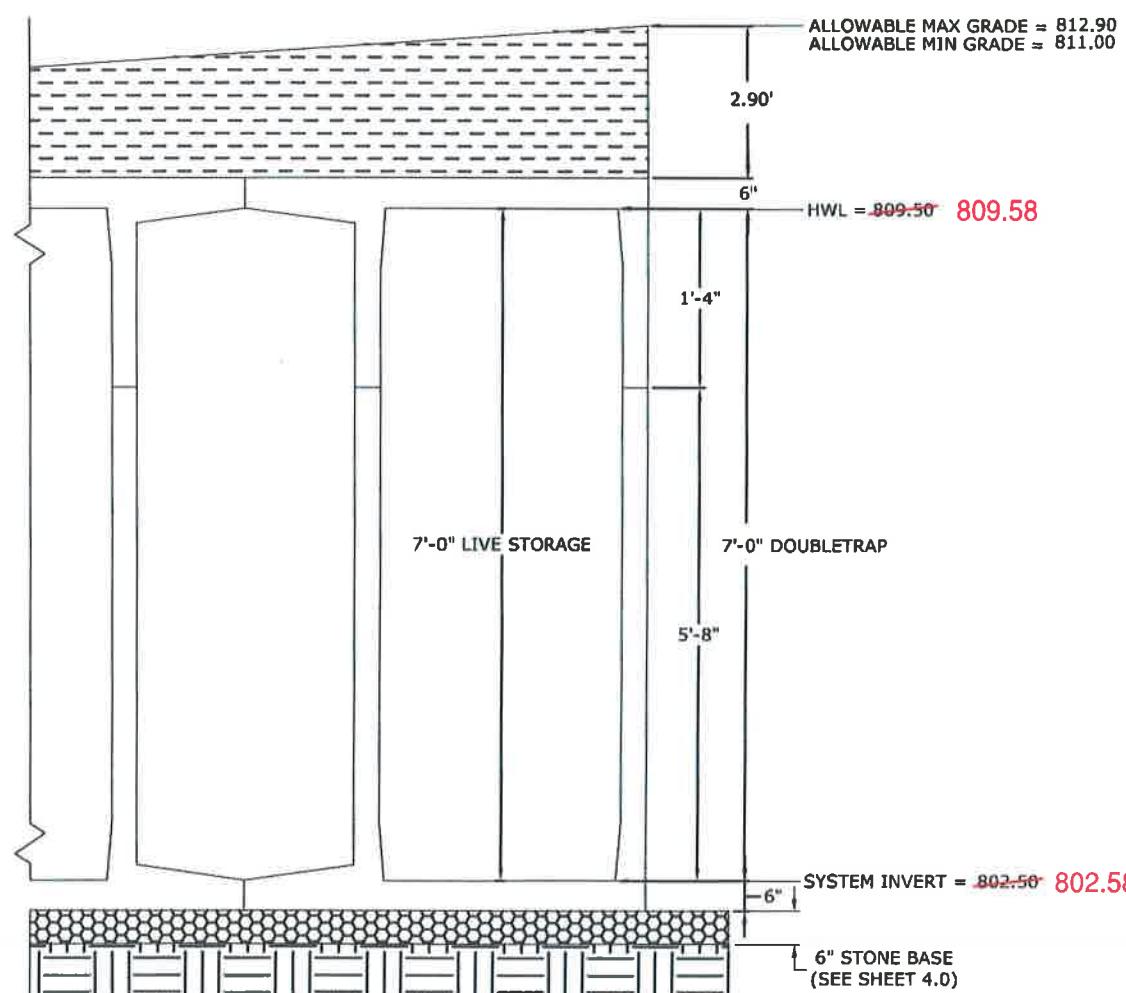
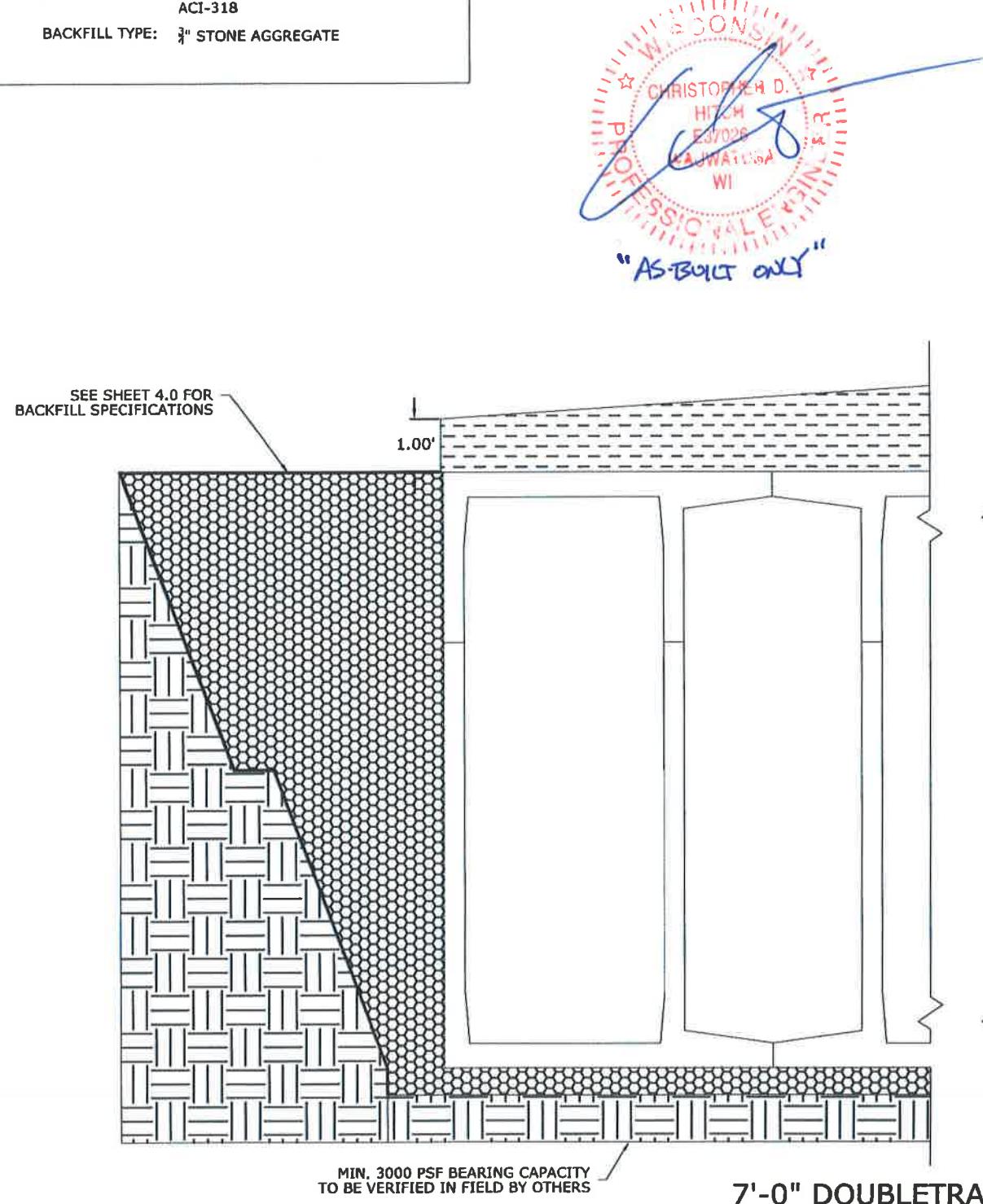
NTS

### SHEET TITLE:

DOUBLETRAP DESIGN CRITERIA

### SHEET NUMBER:

**1.0**



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NTS

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DOUBLETRAP DESIGN CRITERIA

### SHEET NUMBER:

**1.1**

