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: N½ , SE¼, S9, T8N, R20E
Property Tax ID Number: MNFV36993004
Date: 8/9/2016

Name of Business/Subdivision: Menomonee Falls Elderly LLC
Address of Property: W180 N8220 Town Hall Road
Menomonee Falls, WI 53051

Dry Pond	X
Wet Pond	
Other	

Pond ID: Underground Detention Pond

Location of Pond: Under western parking lot

Year Pond Constructed: 2012

Year of Last Certification: 2014

Compliance Verification	Design	Actual	Compliant Yes	Compliant No	Comments (Condition of Structure)
Primary Outlet Pipe					Outlet Pipe Material
Opening Diameter (inches)	18" PVC	18" PVC	X		SDR 35 PVC pipe. The discharge pipe is temporary until the eastern (downhill) phase is Constructed. At that time, this pipe will be reconstructed to connect to the future storm Sewer system.
Upstream Invert	874.54	874.5	X		
Downstream Invert	869	870.10	X		
Length (feet)	30	120	X		
Slope (%)	18.3%	3.7%	X		
Secondary Outlet Pipe	(If Applicable)				Outlet Pipe Material
Opening Diameter (inches)					N/A
Upstream Invert					N/A
Downstream Invert					N/A
Length (feet)					N/A
Slope (%)					N/A
Riser	(If Applicable)				Riser Material
Opening Diameter (inches)					N/A
Elevation					N/A
Upper Discharge Control	(If Applicable)				
Opening Diameter (inches)					N/A
Elevation					N/A

Compliance Verification	Design	Actual	Compliant Yes	Compliant No	Comments
Lower Discharge Control	(If Applicable)				
Opening Diameter (inches)					N/A
Elevation					N/A
Other (Description)					
Opening Type and Size (inches)	4”	4”	X		**Recommend removing weeds surrounding 4’ diameter outlet structure manhole for easier access. Also, install tall marker to make it easier to locate.**
Elevation	874.54	874.5	X		
Emergency Spillway					
Elevation					N/A
Length of spillway (feet)					N/A

Embankment	Present Yes	Present no	Comments/Maintenance Requirements
Unauthorized Plantings, trees, or woody vegetation	X		**Recommend removing weeds surrounding 4’ diameter outlet structure manhole for easier access. Also, install tall marker to make it easier to locate.**
Animal burrows or slope erosion		X	

Storm Sewer Outfalls	Type & Size	Location	Comments
Outfall 1	18” PVC,	East of development, down hill.	
Outfall 2			
Outfall 3			

Storage Properties	Design	Actual	Compliant Yes	Compliant No	Not Applicable	Equipment Used
Normal Water Elevation *(Wet Ponds)*					X	
Design High Water Elevation	887.4	886.86	X			rim of outlet structure manhole. from rec. dwg. Notes.
Area at Normal Water Elevation (Ac) (Wet Ponds)					X	
Area at Design High Water Elevation (Ac)					X	
Active Storage Available (Ac-Ft)*	1.38	1.38	X			
Lowest Elevation at Top of Embankment (If Applicable)					X	
Average Elevation at Top of Embankment (If Applicable)					X	
Maximum Bottom Elevation					X	
Average Pond Bottom Elevation	874.92	874.9	X			
Pond Bottom Area (Ac)	0.32	0.32	X		X	
Maximum Pond Depth	11.5’	11.5’	X			Measured from observation manhole-tape measure
Average Pond Depth					X	
Average Permanent Pool Depth *(Wet Ponds)*					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*

Sketch Outlet or Attach to Document (see attached)	Place Photograph of Pond or Attach to Document (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:	McMAHON	Inspector Name :	Ben Hamblin
Phone Number:	920-751-4200	Inspection Date:	8/9/16
Address:	1445 McMahon Drive Neenah, WI 54956		

Certifying Professional Name: *Ben Hamblin, PE E-35741*

Phone Number: *920-751-4200*

Date:	Signature:	
8/12/16	Ben Hamblin	*Affix Seal Here*

WISCONSIN
BENJAMIN T. HAMBLIN
E-35741
NEENAH
WI
PROFESSIONAL ENGINEER


NYLOPLAST

Menomonee Falls Assisted Living –Manhole at discharge of underground storage.

Menomonee Falls Assisted Living –Manhole at discharge of underground storage, orifice restricting flow.

PARTIAL RECORD DRAWING –PHASE 1 BUILDING A IS CONSTRUCTED & PHASE 1 BUILDING B IS UNDER CONSTRUCTION. PHASE 1 BUILDING C HAS NOT BEEN CONSTRUCTED.

E.A.
GAR.

FRANK FILO
W180N8260 TOWN HALL ROAD
MNFV0036995

CLEANOUT
RIM= 882.0
INV.= 877.5

N BIOFILTER
PLANTING SURFACE
ELEV.= 881.00
900 S.F. (SEE DETAIL)

18" DIA. STANDPIPE
RIM= 881.88 R
INV= ~~877.0~~ 877.28 R
DR. TILE INV= ~~877.5~~ 877.28 R
D= ~~4.5~~ 4.6 R

CLEANOUT
RIM= 882.0
INV.= 877.5

STRUCTURAL RETAINING WALL

SILT FENCE

INLET PROTECTION (TYP.)

INV.= 883.00

GRAVEL TRACKING PAD

SAMPLING SAN. MH #2

SAN. MH #1

10" SAN

INV.= 883.00

30' – 12" STO @ 0.56%

INV.= 876.83

105' – 8" (ROOF DRAIN) @ 0.5%

INV.= 883.0

C.O. INV.= 883.53

110' – 8" (ROOF DRAIN) @ 0.50%

PROPOSED 8" W.M.

PROPOSED 8" SAN.

SAN. MH #3

RIDGE

APPROXIMATE FOOTPRINT OF UNDERGROUND STORM WATER STORAGE (SEE DETAIL SHEET 11)

WOODED AREA

REMOVE & REPLACE SIDEWALK WITH 6" SIDEWALK

THICKENED EDGE SIDEWALK

LANDSCAPE AREA (TYP.) SEE DETAIL

4' DIA. STO MH
RIM= ~~887.4~~ 886.86 R
INV.= ~~874.54~~ 874.62 R
D.= ~~12.86~~ 12.24 R
4" ORIFICE CAP OVER EXIT PIPE. SEE DETAIL.

ASPHALT PARKING LOT

CURB & GUTTER (TYP.)

108'–8" (ROOF DRAIN) @ 0.5%

97'–18" STO. @ 1.72%

PROP. 8" W.M.

C.O. INV.= 883.55

6" WATER SERVICE

118'–8" (ROOF DRAIN) @ 0.50%

INV.= 875.86

TRANSITION TO 6" CURB HEAD OVER 10–FEET

DS TO CONNECT TO UNDERGROUND STORM (TYP.)

PROP. 8" W.M.

PROP. 6" SAN. LAT.

6" WATER SERVICE

SAN. MH #4

C.O. INV.= 883.60

CLEANOUT
6" WATER SERVICE

C.O. INV.= 884.07

W BIOFILTER
PLANTING SURFACE
ELEV.= 887.00
500 S.F
(SEE DETAIL)

CLEANOUT
RIM= 887.6
INV.= 883.0

TOWN HALL ROAD

10" W.M.

16" W.M.

BENCHMARK:
TAG BOLT ON HYDRANT
ELEV.= 891.04

18" DIA. STANDPIPE
RIM= ~~887.70~~ 887.64 R
INV= ~~882.90~~ 881.56 R
DR. TILE INV= ~~883.0~~ 883.24 R
D= ~~5.70~~ 5.98 R

FFE= 889.35

FFE= 889.2

FFE= 888.25

WOODED AREA

PATIO AREA

PATIO AREA

PATIO AREA

CLEANOUT
RIM= 887.0
INV.= 881.0

DS TO DRAIN OVERLAND

DS TO DRAIN OVERLAND

DS TO DRAIN OVERLAND

DS TO DRAIN OVERLAND

127'–~~130'~~ – 12" STO @ 2.7%

INV.=886.5

178'–~~185'~~ – 12" STO @ 0.5%

146'–18" STO @ 0.78%

CONCRETE SIDEWALK (TYP.)

REMOVE & REPLACE SIDEWALK WITH 6" SIDEWALK

SW BIOFILTER
PLANTING SURFACE
ELEV.= 885.00
300 S.F.
(SEE DETAIL)

(R= RECORD)
STO. MH
(4' I.D.)
RIM= ~~889.00~~ 888.95 R
INV= ~~881.50~~ 881.16 R
D= ~~7.50~~ 7.79 R

(R= RECORD)
18" DIA. STANDPIPE
RIM= ~~886.50~~ 886.31 R
INV= ~~880.50~~ 880.41 R
DR. TILE INV.= ~~881.0~~ 881.21 R
D= ~~6.0~~ 5.9 R

MAINTAIN DRAINAGE FROM SCHOOL TO BIOFILTER

CLEANOUT
RIM= 888.0
INV.= 881.5

SE BIOFILTER
PLANTING SURFACE
ELEV.= 886.50
300 S.F. (SEE DETAIL)

(R= RECORD)
18" DIA. STANDPIPE
RIM= ~~887.5~~ 887.22 (R)
INV= ~~877.0~~ 877.89 (R)
DR. TILE INV– ~~881.5~~ 882.6 (R)
D= ~~10.5~~ 9.4 (R)

NONSTRUCTURAL LANDSCAPE BLOCK RETAINING WALL

VALLEY VIEW ELEMENTRY SCHOOL
JOINT SCHOOL DISTRICT # 1
W180N8130 TOWN HALL ROAD
MNFV0036991001

VALLEY VIEW ELEMENTRY SCHOOL
JOINT SCHOOL DISTRICT # 1
W180N8130 TOWN HALL ROAD
MNFV0036991001

NORTH

20 10 0 20
SCALE – FEET

McMAHON
ENGINEERS ARCHITECTS
1445 McMAHON DRIVE NEENAH, WI 54956
Mailing: P.O.BOX 1025 NEENAH, WI 54957-1025
Tel: (920) 751-4200 Fax: (920) 751-4284
www.mcmgrp.com

NO.	DATE	REVISION
1	8/12/11	ADDED VALVE
2	8/24/11	FOOTPRINT WESTERN UNDERGROUND STORAGE
3	8/30/11	STORM SEWER REVISIONS
4	9/2/11	STORM SEWER REVISIONS
5	9/16/11	CONTOURS & BLDG LOCATIONS
6	9/28/11	CONTOURS & UTILITY CHANGES

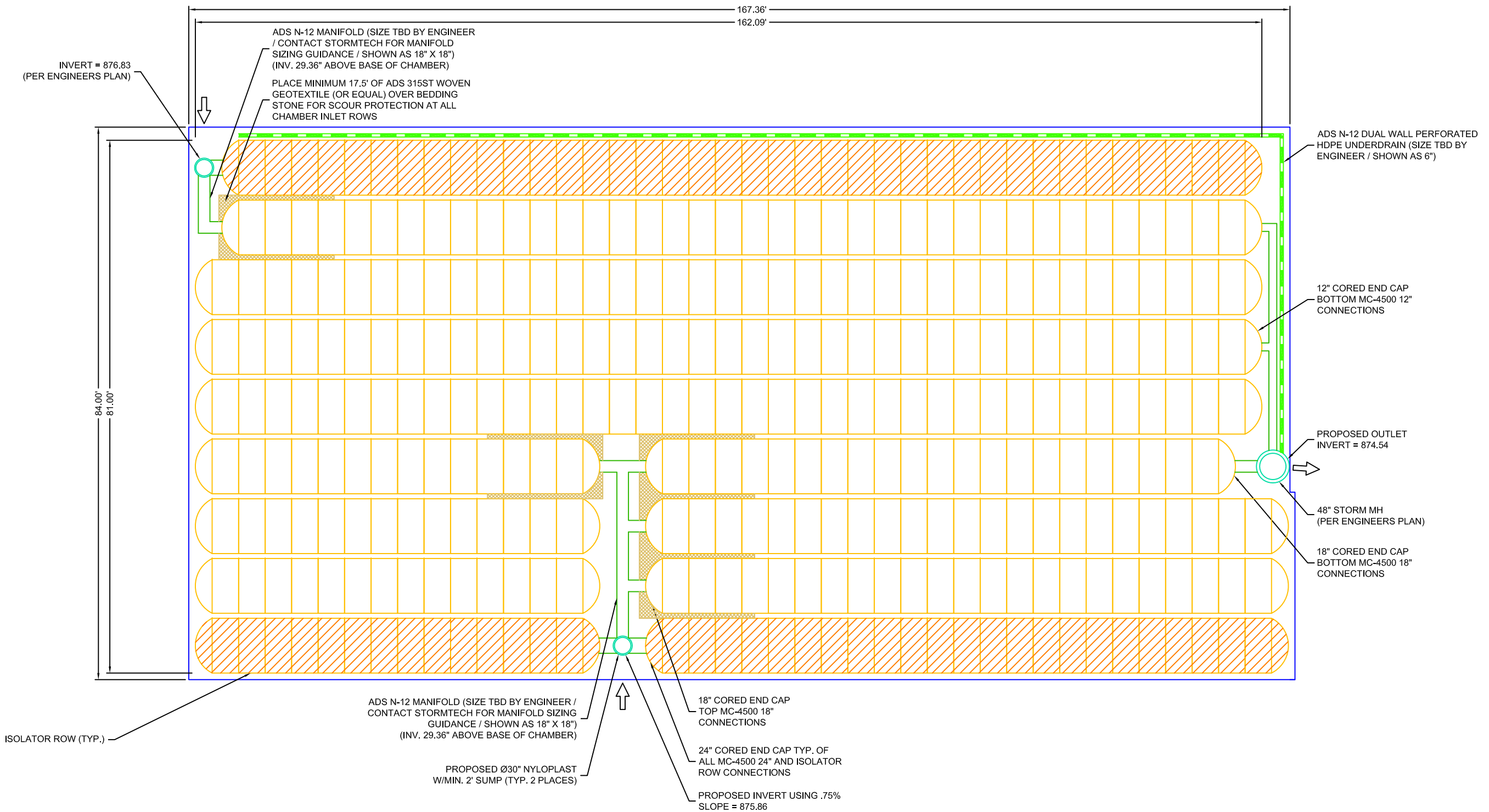
MENOMONEE FALLS ASSISSTED LIVING
VILLAGE OF MENOMONEE FALLS
DRAINAGE & EROSION CONTROL PLAN

DESIGNED	DRAWN
JLS	

PROJECT NO.
B1011–910209

DATE
APRIL, 2011

SHEET NO.
3



CONCEPTUAL LAYOUT:UPPER BED

(339) STORMTECH MC-4500 CHAMBERS
(26) STORMTECH MC-4500 END CAPS
INSTALLED WITH 12" COVER STONE, 9" BASE STONE, 40% STONE VOID
INSTALLED SYSTEM VOLUME (PERIMETER STONE INCLUDED): 60,233 CF

PROPOSED ELEVATIONS

MAX. GRADE (TOP OF PAVEMENT/UNPAVED):	887.67
MIN. GRADE (UNPAVED):	883.17
MIN. GRADE (BASE OF FLEXIBLE PAVEMENT):	882.67
MIN. GRADE (TOP OF REINFORCED CONCRETE PAVEMENT):	882.67
TOP OF STONE:	881.67
TOP OF CHAMBER:	880.67
18" MANIFOLD INVERT (TOP STUB):	878.12
18" MANIFOLD INVERT:	875.83
12" MANIFOLD INVERT:	875.80
24" INVERT TO ISOLATOR ROW(S):	875.86
BOTTOM OF CHAMBER:	875.67
BOTTOM OF STONE:	874.92
UNDERDRAIN:	874.92

NOTE:

1.) THE DESIGN ENGINEER MUST REVIEW ELEVATIONS AND IF NECESSARY ADJUST GRADING TO ENSURE THE CHAMBER'S COVER REQUIREMENTS ARE MET.
2.) THE DESIGN ENGINEER MUST REVIEW THE PROXIMITY OF THE CHAMBERS TO THE SLOPE AND CONSIDER EFFECTS OF POSSIBLE SATURATED SOILS ON THE SLOPE'S INTEGRITY.

StormTech®
Detention•Retention•Recharge
Subsurface Stormwater Management™
70 INWOOD ROAD, SUITE 3 | ROCKY HILL | CT | 06067
860-529-8188 | 888-892-2694 | WWW.STORMTECH.COM

MENOMENEE ASSISTED LIVING WI

DATE: 07-11-11 | PROJECT #: 16251
DRAWN BY: S.K.R. | SCALE: NTS
CHECKED BY: K.S. | PAGE: 2 OF 2

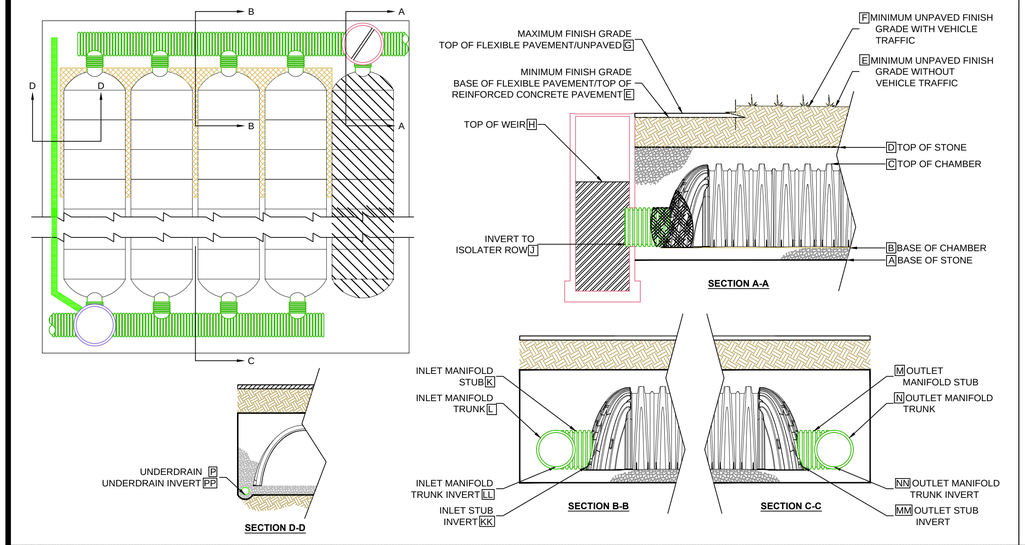
DATE	DRN	CHK	DESCRIPTION
07-12-11	S.K.R.	K.A.M.	VOLUME REDUCED
08-26-11	AJD	KS	SYSTEM HALFED FOR INSTALLATION
09-01-11	S.K.R.	K.A.M.	BED ADJUSTED TO MEET GRADE REQUIREMENTS

ADVANCED DRAINAGE SYSTEMS, INC.

1 PLAN VIEW LAYOUT

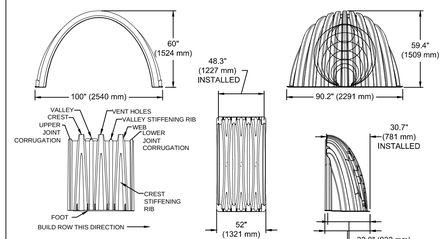
	A	B	C	D	E	F	G	H	J	K	KK	L	LL	M	MM	N	NN	P	PP
BED 1/ONLY								TBD											
BED 2																			
BED 3																			
BED 4																			
BED 5																			

2 MC-4500 ELEVATIONS



1. ALL DESIGN SPECIFICATIONS FOR STORMTECH MC-4500 CHAMBERS SHALL BE IN ACCORDANCE WITH THE STORMTECH MC-4500 DESIGN MANUAL
2. THE INSTALLATION OF STORMTECH MC-4500 CHAMBERS SHALL BE IN ACCORDANCE WITH THE LATEST STORMTECH MC-4500 INSTALLATION INSTRUCTIONS
3. THE CONTRACTOR IS ADVISED TO REVIEW AND UNDERSTAND THE INSTALLATION INSTRUCTIONS PRIOR TO BEGINNING SYSTEM INSTALLATION. CALL **1-888-892-2694** OR VISIT **WWW.STORMTECH.COM** TO RECIEVE A COPY OF THE LATEST STORMTECH MC-4500 INSTALLATION INSTRUCTIONS
4. CHAMBERS SHALL MEET THE DESIGN REQUIREMENTS AND LOAD FACTORS SPECIFIED IN SECTION 12.12 OF THE LATEST EDITION OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

3 MC-4500 NOTES



NOMINAL CHAMBER SPECIFICATIONS

SIZE (W x H x INSTALLED LENGTH)	100.0" x 60.0" x 48.3" [2540 mm x 1524 mm x 1227 mm]
CHAMBER STORAGE	106.5 ft³ [3.01 m³]
MINIMUM INSTALLED STORAGE*	162.6 ft³ [4.60 m³]
NOMINAL WEIGHT	120 lbs [54.4 kg]

NOMINAL END CAP SPECIFICATIONS

SIZE (W x H x INSTALLED LENGTH)	90.2" x 59.4" x 30.7" [2291 mm x 1509 mm x 781 mm]
END CAP STORAGE	35.7 ft³ [1.01 m³]
MINIMUM INSTALLED STORAGE*	108.7 ft³ [3.08 m³]
NOMINAL WEIGHT	120 lbs [54.4 kg]

*ASSUMES 9" (229 mm) STONE FOUNDATION, 9" (229 mm) ROW SPACING, 12" (305 mm) STONE ABOVE, 12" (305 mm) STONE PERIMETER IN FRONT OF END CAPS AND 40% STONE POROSITY.

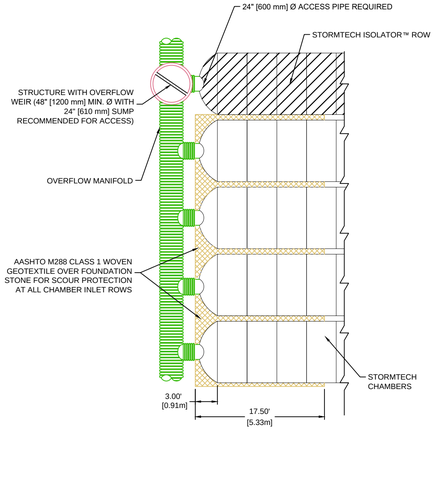
PART NUMBERS ENDING WITH "B" ARE FOR STUBS AT BOTTOM OF END CAP.
PART NUMBERS ENDING WITH "T" ARE FOR STUBS AT TOP OF END CAP.

PART #	STUB	B	C
MC4500REPE06T	6" [150 mm]	42.54" [1081 mm]	N/A
MC4500REPE06B	6" [150 mm]	N/A	0.86" [22 mm]
MC4500REPE08T	8" [200 mm]	40.50" [1029 mm]	N/A
MC4500REPE08B	8" [200 mm]	N/A	1.01" [26 mm]
MC4500REPE10T	10" [250 mm]	38.37" [975 mm]	N/A
MC4500REPE10B	10" [250 mm]	N/A	1.13" [29 mm]
MC4500REPE12T	12" [300 mm]	35.69" [907 mm]	N/A
MC4500REPE12B	12" [300 mm]	N/A	1.55" [39 mm]
MC4500REPE15T	15" [375 mm]	32.72" [831]	N/A
MC4500REPE15B	15" [375 mm]	N/A	1.70" [43 mm]
MC4500REPE18T	18" [450 mm]	29.36" [746 mm]	N/A
MC4500REPE18B	18" [450 mm]	N/A	1.97" [50 mm]
MC4500REPE24T	24" [600 mm]	23.05" [59 mm]	N/A
MC4500REPE24B	24" [600 mm]	N/A	2.26" [57 mm]
MC4500REPE30B	30" [750 mm]	N/A	2.95" [75 mm]
MC4500REPE36B	36" [900 mm]	N/A	3.25" [83 mm]
MC4500REPE42B	42" [1050 mm]	N/A	3.55" [90 mm]

1. CUSTOM INVERT LOCATIONS ON THE MC-4500 END CAP CUT IN THE FIELD ARE NOT RECOMMENDED FOR PIPE SIZES GREATER THAN 10" (250 mm).
2. THE INVERT LOCATIONS IN COLUMN 'B' ARE THE HIGHEST POSSIBLE FOR THE PIPE SIZE.

NOTE: ALL DIMENSIONS ARE NOMINAL

4 MC-4500 TECHNICAL SPEC.



NOTE: ALL DIMENSIONS ARE NOMINAL

5 MC-4500 MANIFOLD DETAIL

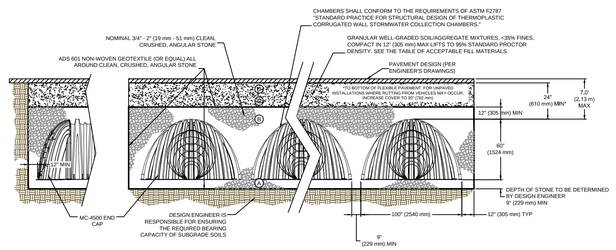
ACCEPTABLE FILL MATERIALS: STORMTECH MC-4500 CHAMBER SYSTEMS

MATERIAL LOCATION	DESCRIPTION	AASHTO M43. DESIGNATION[1]	COMPACTION/DENSITY REQUIREMENT
D FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER.	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 24" [610 mm] ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THIS LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, < 35% FINES. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTION AFTER 24" [610 mm] OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" [152 mm] LIFTS TO A MIN. 95% STANDARD PROCTOR DENSITY.
B EMBEDMENT STONE SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE, NOMINAL SIZE DISTRIBUTION BETWEEN 3/4 - 2 INCH [19 - 51 mm]	3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
A FOUNDATION STONE BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE, NOMINAL SIZE DISTRIBUTION BETWEEN 3/4 - 2 INCH [19 - 51 mm]	3, 35, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A 95% STANDARD PROCTOR DENSITY [1].

PLEASE NOTE:
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".

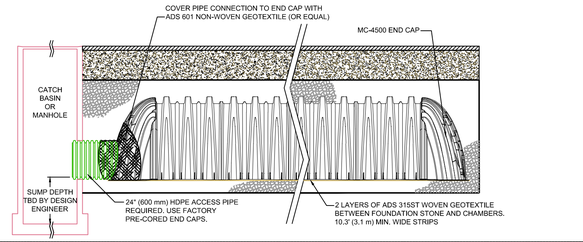
2. AS AN ALTERNATE TO PROCTOR TESTING AND FIELD DENSITY MEASUREMENTS ON OPEN GRADED STONE, STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9" [229 mm] (MAX) LIFTS USING TWO FULL COVERAGES WITH AN APPROPRIATE COMPACTOR.

6 STORMTECH ACCEPTABLE FILL MATERIALS

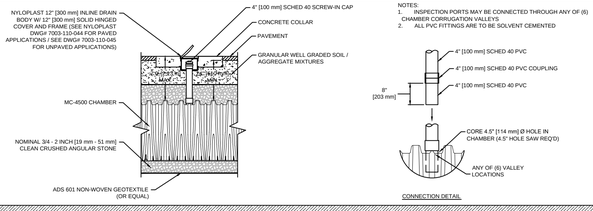


THE INSTALLED CHAMBER SYSTEM SHALL PROVIDE THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SECTION 12.12 FOR EARTH AND LIVE LOADS, WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCES.

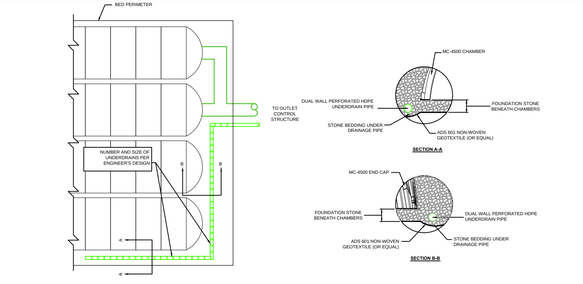
7 MC-4500 STANDARD CROSS SECTION



8 MC-4500 ISOLATOR ROW™ DETAIL



9 MC-4500 INSPECTION PORT DETAIL



10 MC-4500 UNDERDRAIN DETAIL

THIS DRAWING WAS PREPARED TO SUPPORT THE DESIGN ENGINEER FOR THE PROPOSED PROJECT. IT IS THE ULTIMATE RESPONSIBILITY OF THE DESIGN ENGINEER TO ENSURE THAT THE STORMWATER SYSTEM DESIGN IS IN FULL COMPLIANCE WITH ALL APPLICABLE LAWS AND REGULATIONS. IT IS THE DESIGN ENGINEER'S RESPONSIBILITY TO ENSURE THAT ALL STORMTECH PRODUCTS ARE SPECIFIED IN ACCORDANCE WITH STORMTECH MINIMUM REQUIREMENTS. STORMTECH LLC DOES NOT APPROVE PLANS, SIZING, OR SYSTEM DESIGNS. THE DESIGN ENGINEER IS RESPONSIBLE FOR ALL DESIGN DECISIONS.

DESIGNED	DRAWN
ADS	ADS

PROJECT NO.
B1011-900290.00

DATE
JULY, 2011

SHEET NO.
13

MENOMONEE FALLS ASSISTED LIVING
VILLAGE OF MENOMONEE FALLS
UNDERGROUND DETENTION DETAILS

NO.	DATE	REVISION

DATE:
DRAWN BY:
CHECKED BY:
PROJECT #:
SCALE: NTS
PAGE: OF

StormTech® Detention•Retention•Recharge
Subsurface Stormwater Management℠
70 INWOOD ROAD
ROCKY HILL, CT 06067
PHONE: 888-892-2694
FAX: 860-529-8040
WWW.STORMTECH.COM

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1445 McMAHON DRIVE NEENAH, WI 54956
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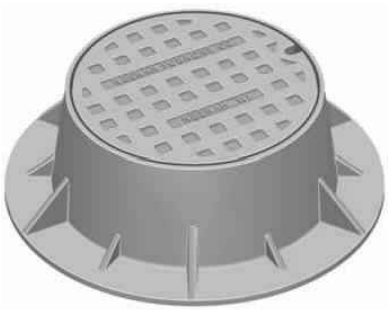
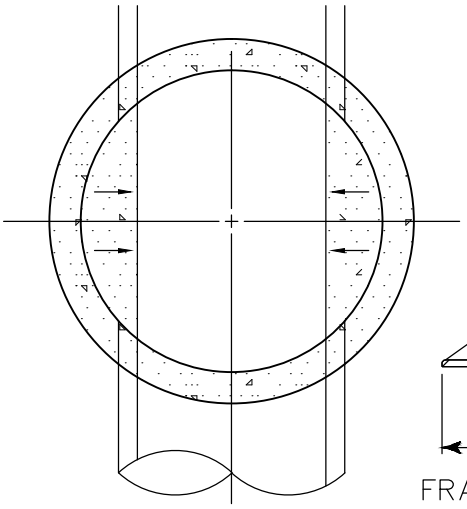
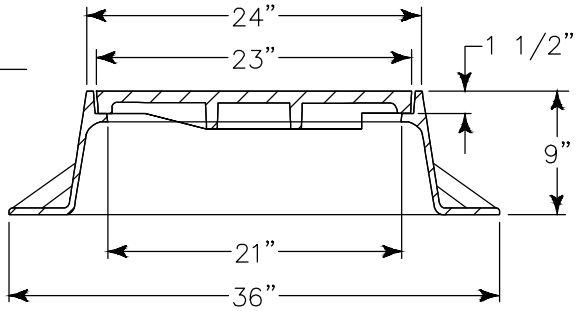
Tel: (920) 751-4200 Fax: (920) 751-4284
www.mcmgrp.com







FRAME & GRATE NEENAH FNDY. NO. R-1550-B OR EQUAL

3" MIN., 12" MAX. ADJUSTING RINGS

M.H. STEPS 16" O/C M.A. INDUSTRIES PSI-PF

VARIES SEE PLANS

DEPTH

4'-0" MIN.

CONSTRUCT ORIFICE CAP OVER OUTFLOW PIPE WITH 4" ORIFICE AT INVERT 871.55

18"

18"

8"

D + 1'- 0"

3" SAND CUSHION

WEST UNDERGROUND STORAGE RECEIVING MANHOLE