

Project :	IMTR QC , Production/Stockpile/Loadout	Client :	Iron Mountain Trap Rock
Contract / Lot :	91000 , Iron Mountain Trap Rock /		
Supplier / Site :	Iron Mountain Trap Rock - Iron Mountain,		
Formation :	Rhyolite (Porphyry)	Quantity (ton):	0
Testing Lab :	PQ - IMTR Field Lab	Ledge :	IM 1

Sampling

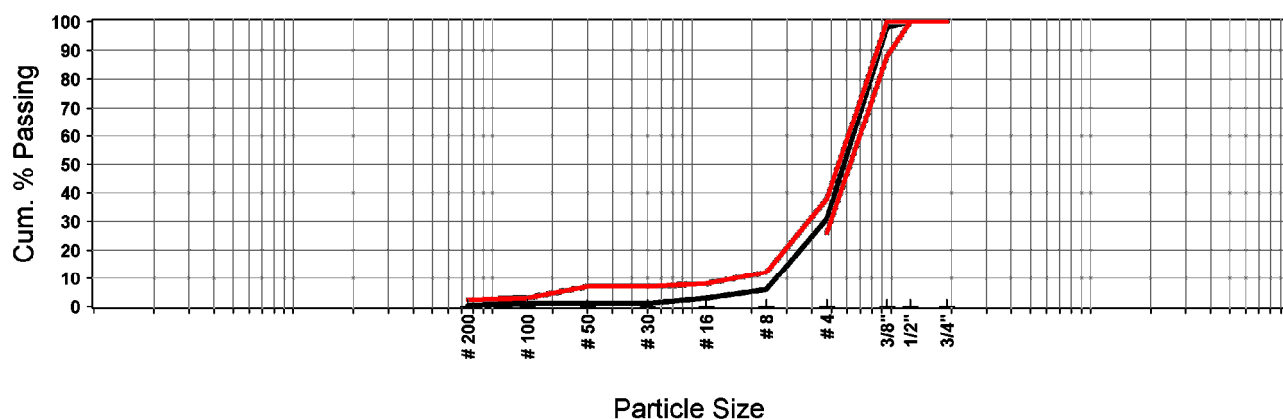
Sampled by:	Fred T. Miller	Sample No.:	16AGG2876
Usage:	Seal Coat	Reference No.:	
Grading :	3/8" x #4 (IMTR) 1/10-SEC. 1002-#41, 3/8"	Sampling date:	9/22/2016 09:00
Sampling location:	Belt Stream (IMTR Wash Plant #1)	Receiving date:	9/22/2016

Testing date:	9/22/2016	Shaker No. :	
Standard :	ASTM C 136	d:	Loss % (fine) : 0.0
Initial wt :	2251.0	D:	Loss % (coarse) : 0.0

Sieves	Cumulative Retained weight	Individual % Retained	Cumulative % Retained	Cumulative % Passing	Standard specifications	
					Min	Max
3/4"				100	100	100
1/2"				100	100	100
3/8"	36.0	2	2	98	88	100
# 4	1549.0	67	69	31	26	38
# 8	2116.0	25	94	6		12
# 16	2191.0	3	97	3		8
# 30	2221.0	2	99	1		7
# 50	2221.0		99	1		7
# 100	2236.0		99	1		3
# 200	2241.0	0.6	99.6	0.4		2.2
Total :		100.0	Passing by washing :			2.2
			Standard :			

Pan > 3/4" :	Pan < 3/4" :	2251.0	Fineness Modulus:
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GRADING CHART



Date :	10/5/2016	Remarks :	
Test done by :	Fred T. Miller		
Prepared by :			
Verified by :			



PERMALOC CORPORATION, 13505 BARRY STREET HOLLAND, MI, 49424
(800) 356-9660 PHONE: (616) 399-9600 fax: (616) 399-9770 WWW.PERMALOC.COM

ARCHITECT NOTE: CHECK OFF APPLICABLE SIZE & FINISH DESIRED:

SIZE: ALL 8' (2.44 M) LENGTHS w/ 0.210" (5.33 MM) THICK EXPOSED TOP LIP

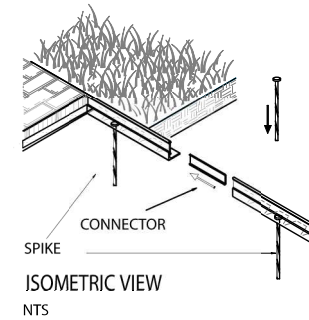
☐ 1" X 2.25"	(25 MM X 57 MM)	☐ MF	☐ BL
☐ 1.5" X 2.25"	(38 MM X 57 MM)	☐ MF	☐ BL
☐ 2" X 2.25"	(51 MM X 57 MM)	☐ MF	☐ BL
☐ 2.5" X 2.25"	(64 MM X 57 MM)	☐ MF	☐ BL
☐ 3" X 3"	(76 MM X 76 MM)	☐ MF	☐ BL
☐ 4" X 3"	(102 MM X 76 MM)	☐ MF	☐ BL

FINISH LEGEND:

(MF) MILL FINISH-NATURAL ALUMINUM MEETS
(BL) BLACK DURAFLEX-ELECTROSTATICALLY APPLIED
BAKED ON PAINT, MEETS AAMA 2603

NOTES:

1. INSTALL PER MANUFACTURER'S "INSTALLATION GUIDELINES"
2. CONNECTION BETWEEN SECTIONS TO UTILIZE MANUFACTURERS' SLIDING CONNECTOR SYSTEM.
3. CORNERS: NOTCH BASE ONLY AND FORM A CONTINUOUS CORNER.
4. PERMALOC ASPHALTEdge AS MANUFACTURED BY PERMALOC CORPORATION, HOLLAND MI. (800) 356-9660, (616) 399-9600
5. CONTRACTOR'S NOTE: FOR PRODUCT AND PURCHASING INFORMATION VISIT:WWW.PERMALOC.COM



PERMALOC ASPHALTEdge
ALUMINUM PAVER RESTRAINT

PAVER

SETTING COURSE

COMPACT BASECOURSE
EXTENDING 6" (152MM)
BEYOND RESTRAINT.

SUBGRADE

3/8" X 10" (9.5MM X 254MM)
SPIRAL STEEL SPIKE AT 12"
(305MM) O.C. (TYP) OR 4"
(102MM) O.C. MIN.



PAVER EDGE DETAIL-TYPICAL INSTALLATION

SCALE: 3"=1'-0"

Mirafi® 140N

Mirafi® 140N is a needlepunched nonwoven geotextile composed of polypropylene fibers, which are formed into a stable network such that the fibers retain their relative position. Mirafi® 140N is inert to biological degradation and resists naturally encountered chemicals, alkalis, and acids. Mirafi® 140N meets Aashto M288-06 Class 3 for elongation > 50%.

Mechanical Properties	Test Method	Unit	Minimum Average Roll Value	
			MD	CD
Grab Tensile Strength	ASTM D4632	N (lbs)	534 (120)	534 (120)
Grab Tensile Elongation	ASTM D4632	%	50	50
Trapezoid Tear Strength	ASTM D4533	N (lbs)	223 (50)	223 (50)
CBR Puncture Strength	ASTM D6241	N (lbs)	1380 (310)	
Apparent Opening Size (AOS) ¹	ASTM D4751	mm (U.S. Sieve)	0.212 (70)	
Permittivity	ASTM D4491	sec ⁻¹	1.7	
Flow Rate	ASTM D4491	l/min/m ² (gal/min/ft ²)	5500 (135)	
UV Resistance (at 500 hours)	ASTM D4355	% strength retained	70	

¹ ASTM D 4751: AOS is a Maximum Opening Diameter Value

Physical Properties	Test Method	Unit	Typical Value	
Weight	ASTM D5261	g/m ² (oz/yd ²)	163 (4.8)	
Thickness	ASTM D5199	mm (mils)	1.0 (40)	
Roll Dimensions (width x length)	--	m (ft)	3.8 x 110 (12.5 x 360)	4.5 x 110 (15 x 360)
Roll Area	--	m ² (yd ²)	418 (500)	502 (600)
Estimated Roll Weight	--	kg (lb)	74 (164)	89 (197)

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SUBMITTAL IDENTIFICATION SHEET

To be completed by Contractor/CM

WEBSTER UNIVERSITY ISB

PROJECT NAME

8274 BIG BEND BLVD

ADDRESS

NUMBER

WEBSTER UNIVERSITY

OWNER

CANNON DESIGN

ARCHITECT / ENGINEER

Joe Voypick

SUBMITTED BY

321400-006

CONTRACTOR / CM SUBMITTAL NO.

CANNON DESIGN SUBMITTAL NO.

DRAWING / DETAIL REFERENCE

321400

SPECIFICATION SECTION / PARAGRAPH

MANUFACTURER / SUPPLIER

ITEM / PRODUCT ID

REQUIRED DATE

PRIORITY

☐ CRITICAL

ITEM BEING SUBMITTED (check only one)

- ☐ Shop Drawings
☐ Samples
 (_____ copies)
☐ LEED Submittal
☐ Other _____
- ☐ Certification / Qualifications
☐ Record Documents
☒ Product Data
- ☐ Coordination Drawing
☐ Calculations
☐ Schedules
☐ O&M Manuals

ITEM BEING SUBMITTED FOR (check only one)

- ☒ Action
☐ Information Only
☐ Record

REMARKS OR DEVIATIONS

Test Reports Forthcoming

CONTRACTOR / CM CERTIFICATION
(SUBMITTALS NOT CERTIFIED WILL BE RETURNED WITHOUT REVIEW)



PARIC CORPORATION
SUBMITTAL STAMP

THIS SHOP DRAWING HAS BEEN REVIEWED BY PARIC CORPORATION

Subcontractor remains responsible for dimension, quantities, coordination with other trades and compliance with contract documents.

By:

Devin D. Gates

To be completed by Reviewer

32 1400-006

CANNON DESIGN SUBMITTAL NUMBER

2/17/17

RECEIVED DATE

- ☐ A. No Exceptions Taken
 No further review of submittal is required.
- ☒ B. Make Corrections Noted
 Incorporate corrections in work; resubmission is not required.
- ☐ C. Revise and Resubmit
 Revise as noted, and resubmit for review.
- ☐ D. Rejected
 Submittal is not in compliance with Contract Documents; provide new submittal.
- ☐ E. For Record / Information Only
 Submittal was reviewed for Record / Information purposes only.
- ☐ F. Not Required for Review
 Submittal is not required by Contract Documents and has not been reviewed.

Review is for conformance with the design concept of this project and for general compliance with contract documents. Contractor is responsible for quantities, dimensions and compliance with contract documents and for information that pertains to fabrication processes, construction techniques and coordination of this work with all trades which will be affected thereby. This review is null and void if submittal deviates from contract documents and does not indicate or note deviations.

A/E COMMENTS

☐ See attached sheet(s) for additional comments

SWT takes no exception to the submittal related to landscape scope.

DMA takes no exception, since this is a BMP component it also needs to be reviewed by MSD.

Joe Voypick

REVIEWED BY

2/17/17

DATE

Mark Davis

REVIEWED BY

2/22/2016

DATE



77 Westport Plaza
Suite 250
St. Louis, MO 63146

TRANSMITTAL

No. 15051-0496

Paric Corporation

PROJECT: 15051-Webster University Interdisciplinary Science Building

DATE: 02/17/2017

TO: Cannon Design
1100 Clark Ave
St Louis MO 63102

Fax;
314-241-2203

RE: Permeable Paver Product Data

ATTN: Kelvin Patel

JOB: 15051

WE ARE SENDING:	SUBMITTED FOR:	ACTION TAKEN:
☐ Shop Drawings	☒ Approval	☐ Approved as Submitted
☐ Letter	☐ Your Use	☐ Approved as Noted
☐ Prints	☐ As Requested	☐ Returned After Loan
☐ Change Order	☐ Review and Comment	☐ Resubmit
☐ Plans		☐ Submit
☐ Samples	SENT VIA:	☐ Returned
☐ Specifications	☐ Attached	☐ Returned for Corrections
☒ Other: Product Data	☐ Separate Cover Via:	☐ Due Date:

<i>Item</i>	<i>Package</i>	<i>Code</i>	<i>Rev.</i>	<i>Copies</i>	<i>Date</i>	<i>Description</i>	<i>Status</i>
Submittal		321400-006	1		02/17/2017	Permeable Paver Product Data	Submitted

NOTES:

CC:

Signed: _____
Devin Gates