

NVH and BSR Testing Tiles

February 2026



NVH testing varies by site, leading to inconsistent results and late-stage quality issues.

MOTILE gives your team a consistent, repeatable way to evaluate NVH performance, regardless of where testing takes place.

By standardizing the test surface across all plants, suppliers, and development centers, MOTILE eliminates the variability that hides issues, slows problem-solving, and introduces risk into launch quality.

Why Motile should be part of your quality process:


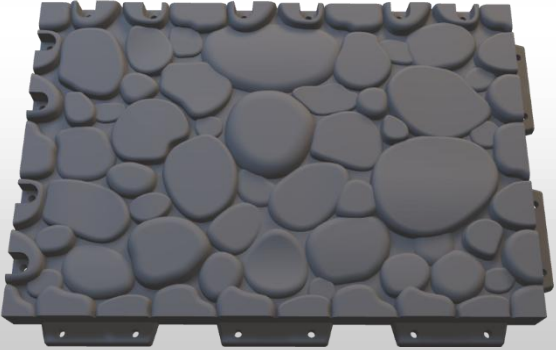


- **Predictable NVH results** so decisions are based on data, not guesswork.
- **Earlier and faster root-cause detection** by removing surface variability from the equation.
- **Fewer late-stage BSR issues**, helping launches stay on schedule and reducing costly rework.

The MOTILE system recreates the same controlled disturbance profile at every location, giving engineering, quality, and supplier teams a single standard to measure against. Whether you're validating a new interior design, assessing supplier variation, or confirming build quality, MOTILE ensures your teams are all seeing and solving the same problem.

Traditional brick, cobblestone, and washboard tracks are costly, inconsistent, and labor-intensive to maintain.

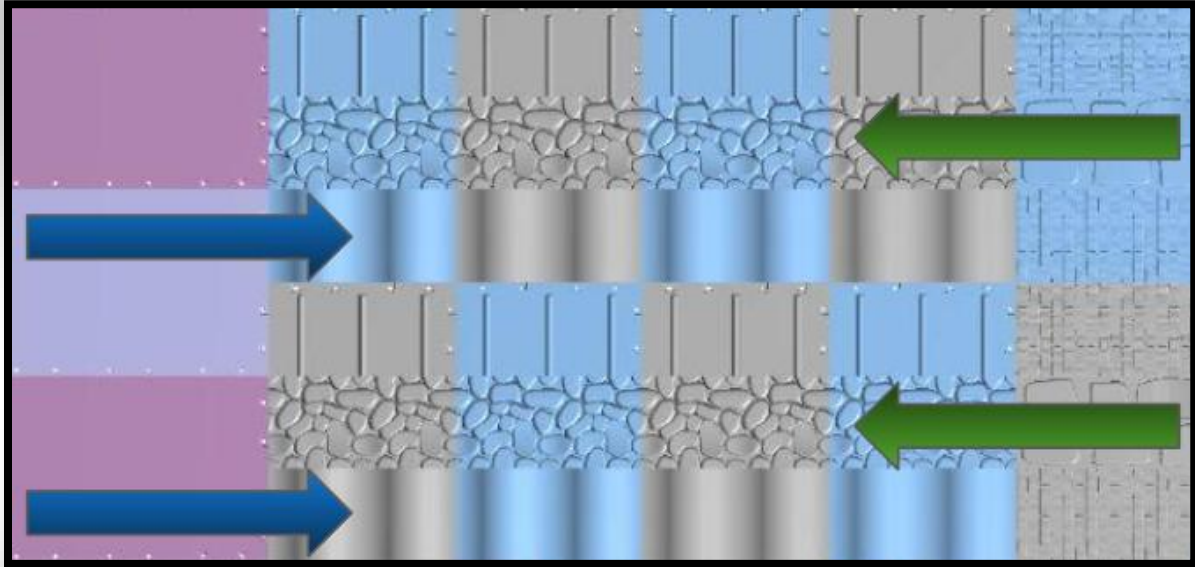
MOTILE replaces them with a predictable, engineered test environment that improves accuracy, reduces operational burden, and strengthens quality performance across your entire value chain.



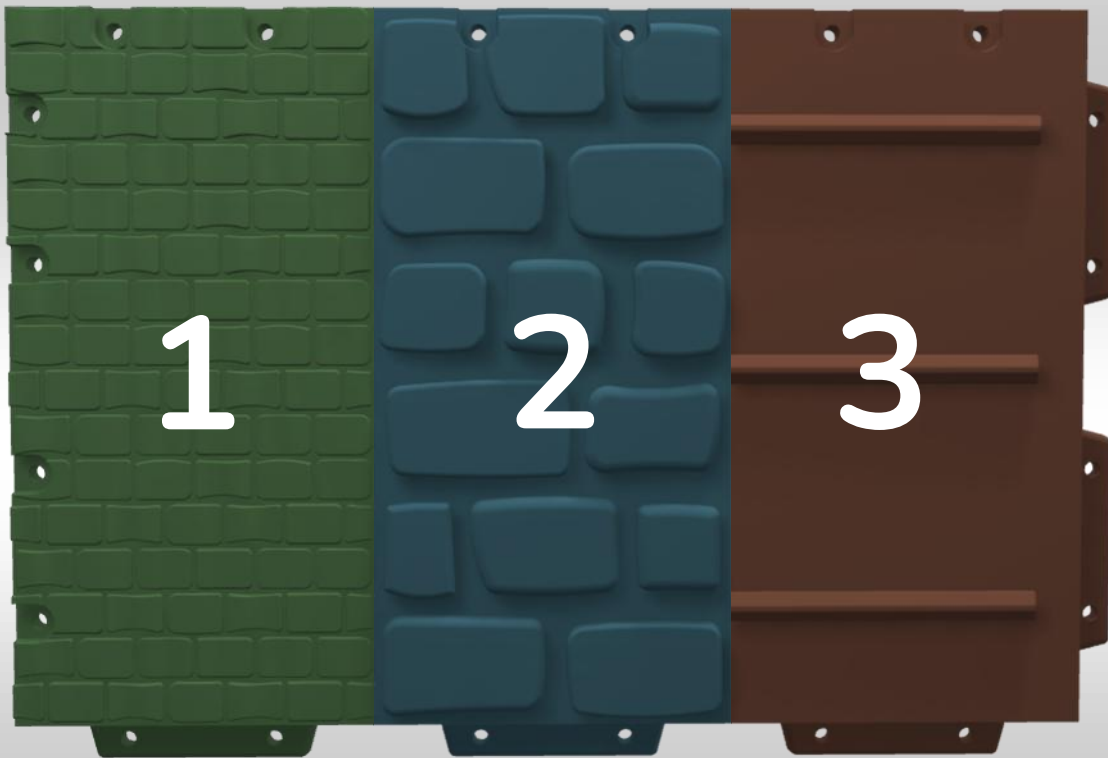
BSR & NVH	Name	Part Number	Weight (lbs)
	Short Brick	MT BR01S F206	193
	Medium Cobblestone	MT CB02S F201	231
	Full Angle Iron	MT IB01S J201	186
	Large Cobblestone	MT CB03S J205	270

MOTILE Essentials	Name	Part Number	Weight (lbs)
	On Ramp	MT RA01R J201	128
	Off Ramp	MT RA01S J201	123
	Flat Tile	MT FL04S J201	180
	Rumble On-Ramp	MT RA11R J201	170
	Rumble Off-Ramp	MT RA11S J201	170
	Rumble Platform	MT FL14S J201	200

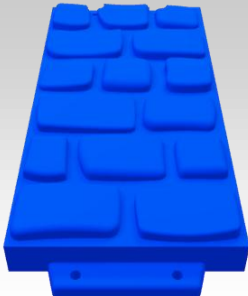
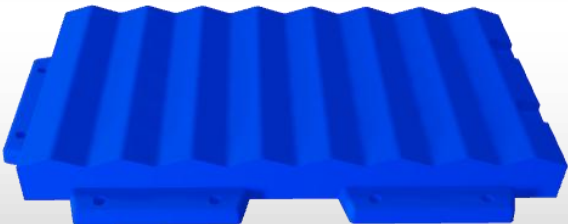
Combination tiles provide maximum value for Buzz-Squeak-Rattle and other tests. A MOTILE may be configured with up to 6 different surfaces picked from existing or new designs. Combinations for 3 surfaces in 1 tile are popular for BSR and Quality uses, allowing vehicles to test over unique terrains each track-width.





Choose Any Combination



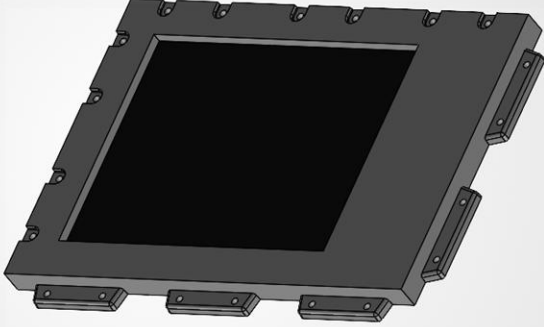
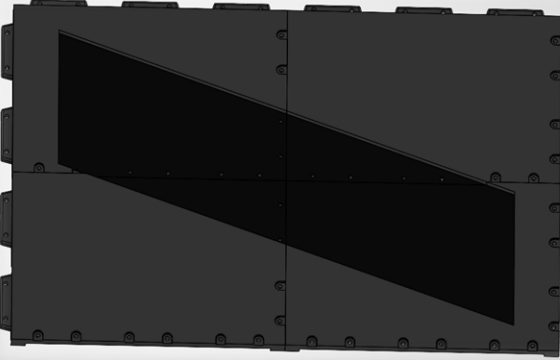


Combination Tiles	Name	Part Number	Weight (lbs)
	BSR Combo I	MT C301S F203	198
	BSR Combo II	MT C302S F203	208
	<p>Select surfaces from any other MOTILE design to configure your own combination tile.</p> <p>Surfaces can be combined from up to 6 different patterns.</p>		

Partial Tooling	Name	Part Number	Weight (lbs)
	Belgian Block	MT BR03S F200	215
	Washboard Wave	MT WA21S F200	200

Comercial Vehicle	Name	Part Number	Weight (lbs)
	Durability Bump	MT IB11S J201	364
	Random Chuckholes	MT CH01S J205	180*

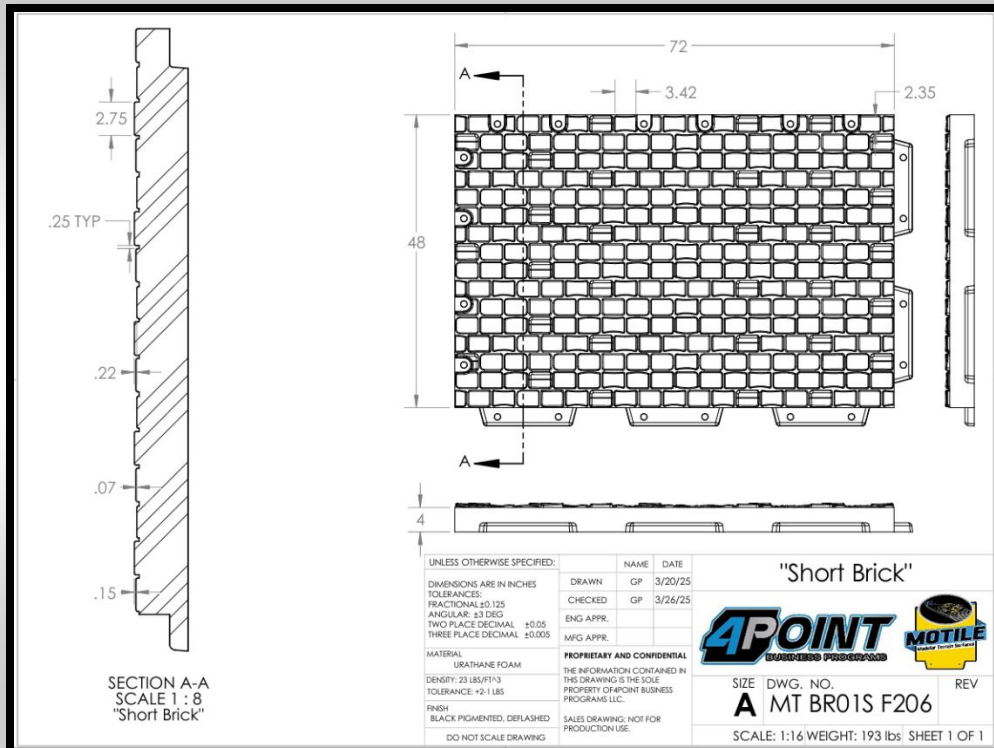
Need something else? Custom tooling is available for any track design necessary. Inquire with your MOTILE representative about new designs and new molds made to order.

Custom Designs	Name	Part Number	Weight (lbs)
	Paved Rough Roads	MT RR01S R200	250*
	Half Rounds Impact Bumps	MT IB21S R200	190*
	Random Potholes	MT PH14S R200	180*

	<p>Geometric Chuckholes</p>	<p>MT CH12S R200</p>	<p>180*</p>
	<p>Diagonal Trenches</p>	<p>MT CH31S R200</p>	<p>180*</p>
	<p>Frame Twisting</p>	<p>MT WA31S R200</p>	<p>210*</p>
	<p>Sine Waves</p>	<p>MT WA01S R200</p>	<p>180*</p>

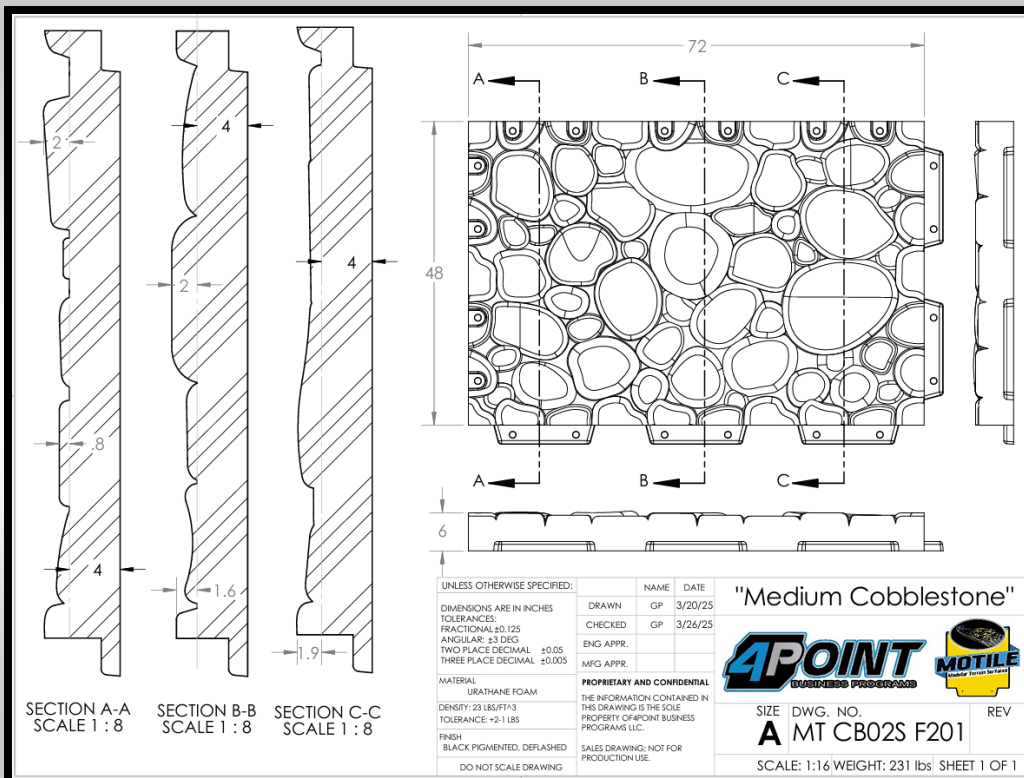
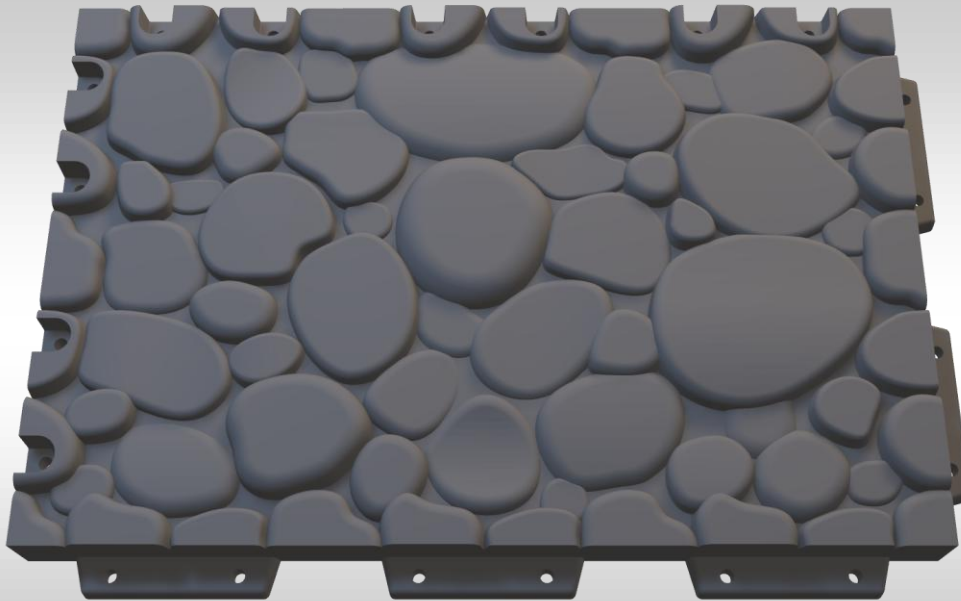
MT BR01S F206 – Short Brick

(Click to Spin)



MT CB02S F201 – Medium Cobblestone

(Click to Spin)



MT IB01S J201 - Full Angle Iron

(Click to Spin)



Technical drawing showing dimensions for the MT IB01S J201 Full Angle Iron component. Dimensions are in inches.

Dimensions shown in the drawing:

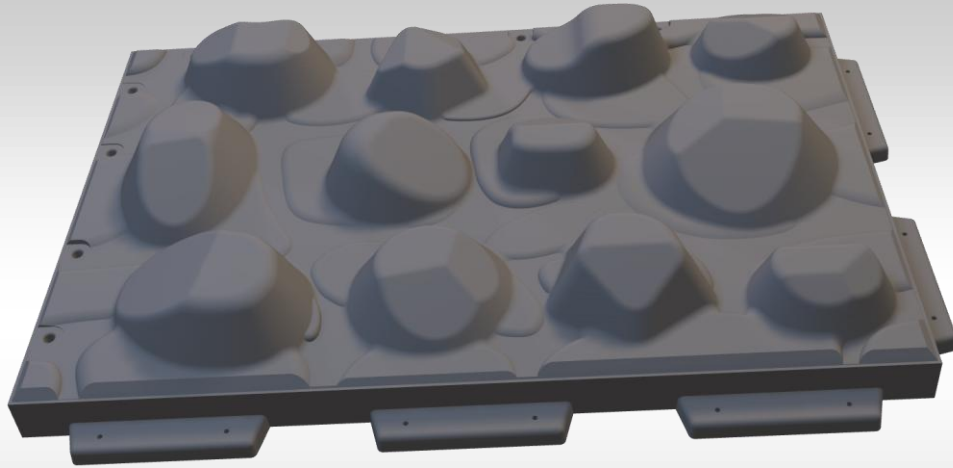
- Overall width: 72
- Overall height: 48
- Internal width between ridges: 65
- Height of each ridge: 14
- Distance from top edge to first ridge: 1.25
- Distance between ridges: 16
- Distance from bottom edge to first ridge: 4
- Corner radius: 2

MOTILE
Modular Terrain Surfaces

UNLESS OTHERWISE SPECIFIED:		NAME	DATE
DIMENSIONS ARE IN INCHES		DRAWN	GP 3/20/25
TOLERANCES		CHECKED	
FRACTIONAL ±0.125		ENG APPR.	
ANGULAR: ±3 DEG		MFG APPR.	
TWO PLACE DECIMAL ±0.05			
THREE PLACE DECIMAL ±0.005			
MATERIAL	PROPRIETARY AND CONFIDENTIAL		
URATHANE FOAM	THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF 4POINT BUSINESS PROGRAMS LLC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF 4POINT BUSINESS PROGRAMS LLC IS PROHIBITED.		
DENSITY: 23 LBS/FT ³	SIZE	DWG. NO.	REV
TOLERANCE: ±2-1 LBS	A	MT IB01S F201	
FINISH	SCALE: 1:16 WEIGHT: 186 lbs SHEET 1 OF 1		
BLACK PIGMENTED, DEFLASHED			
DO NOT SCALE DRAWING			

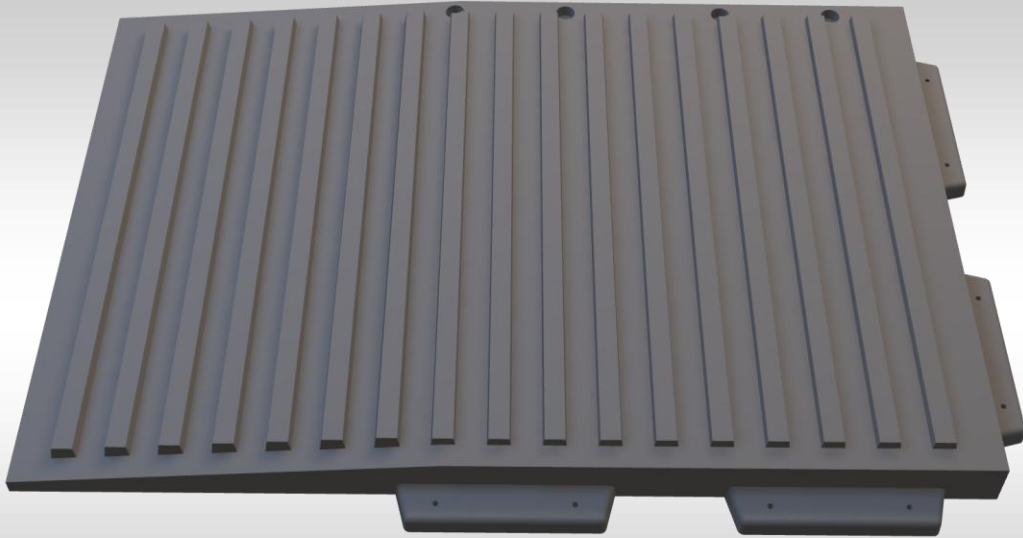
MT CB03S J205 - Large Cobblestone

(Click to Spin)



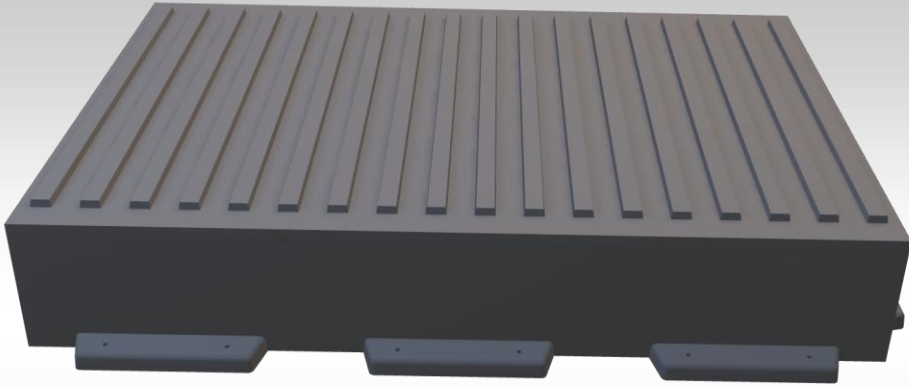
MT RA11R J201 - Rumble On-Ramp
MT RA11S J201 - Rumble Off-Ramp

(Click to Spin)



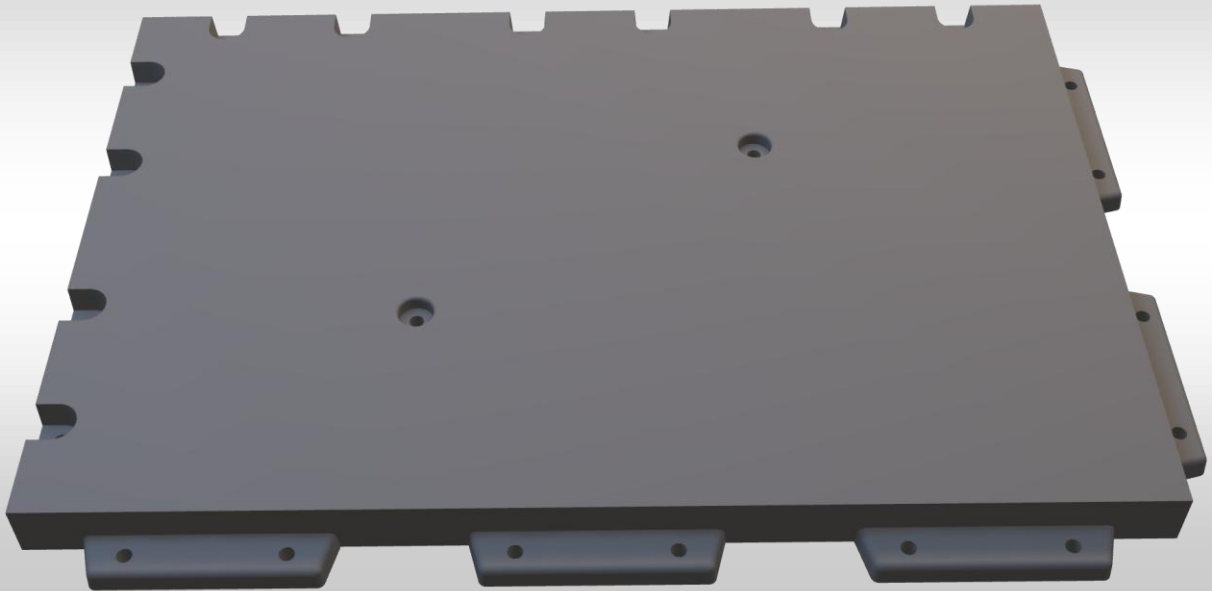
MT FL14S J201 - Rumble Platform

(Click to Spin)

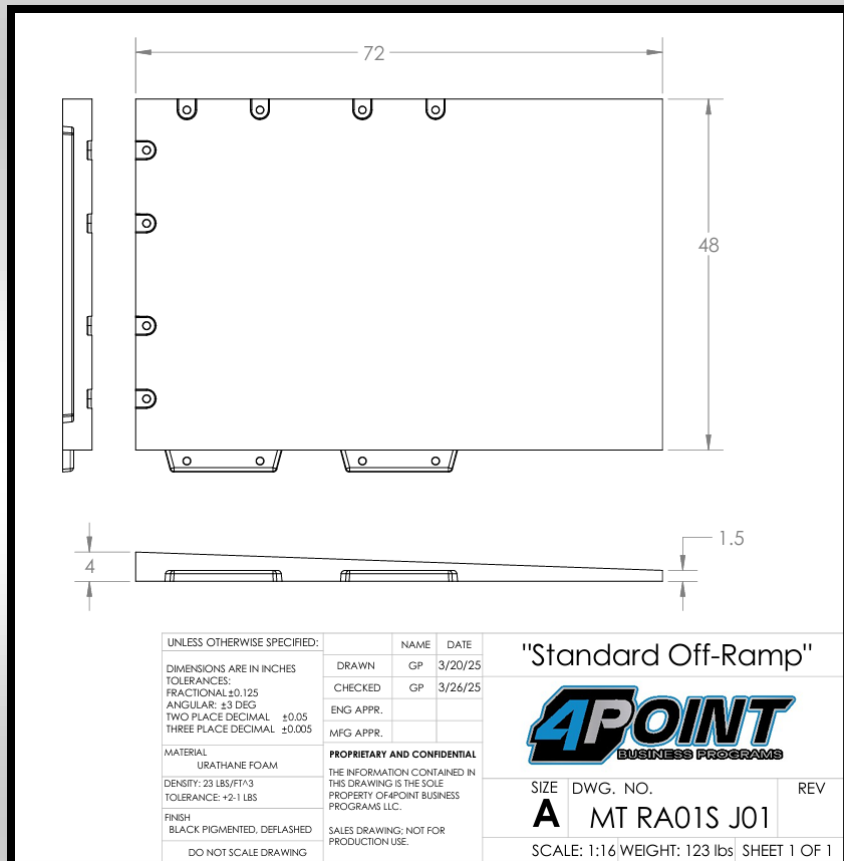
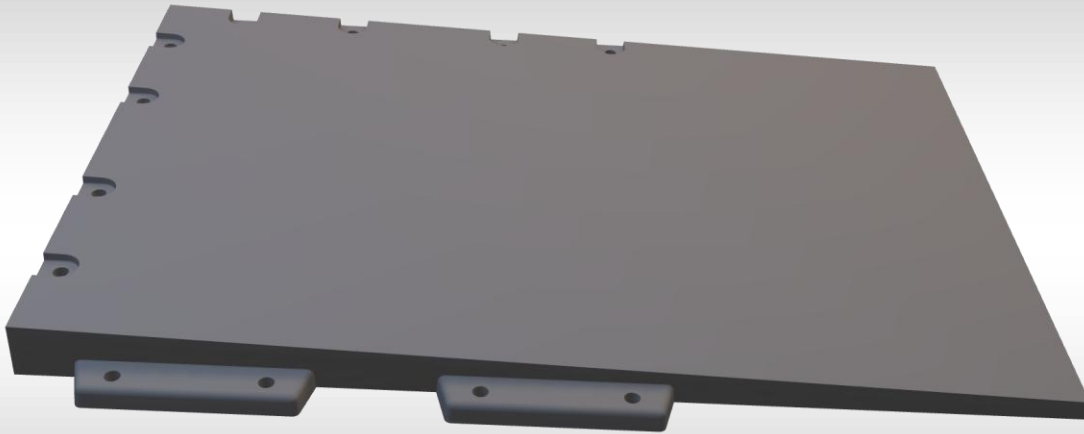


MT FL04S J201 – Standard MOTILE

(Click to Spin)



MT RA01R J201 – On Ramp
MT RA01S J201 – Off-Ramp
(Click to Spin)



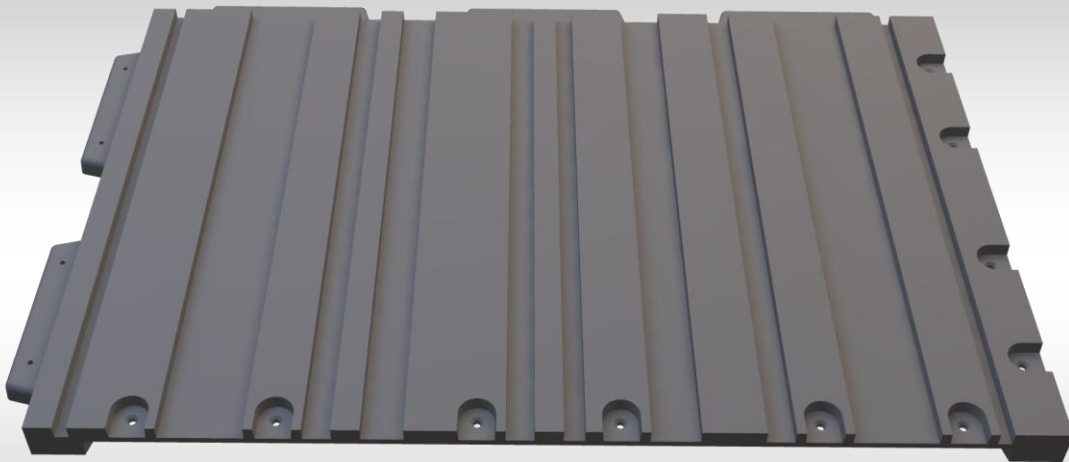
MT IB11S J201 – Durability Bump

(Click to Spin)



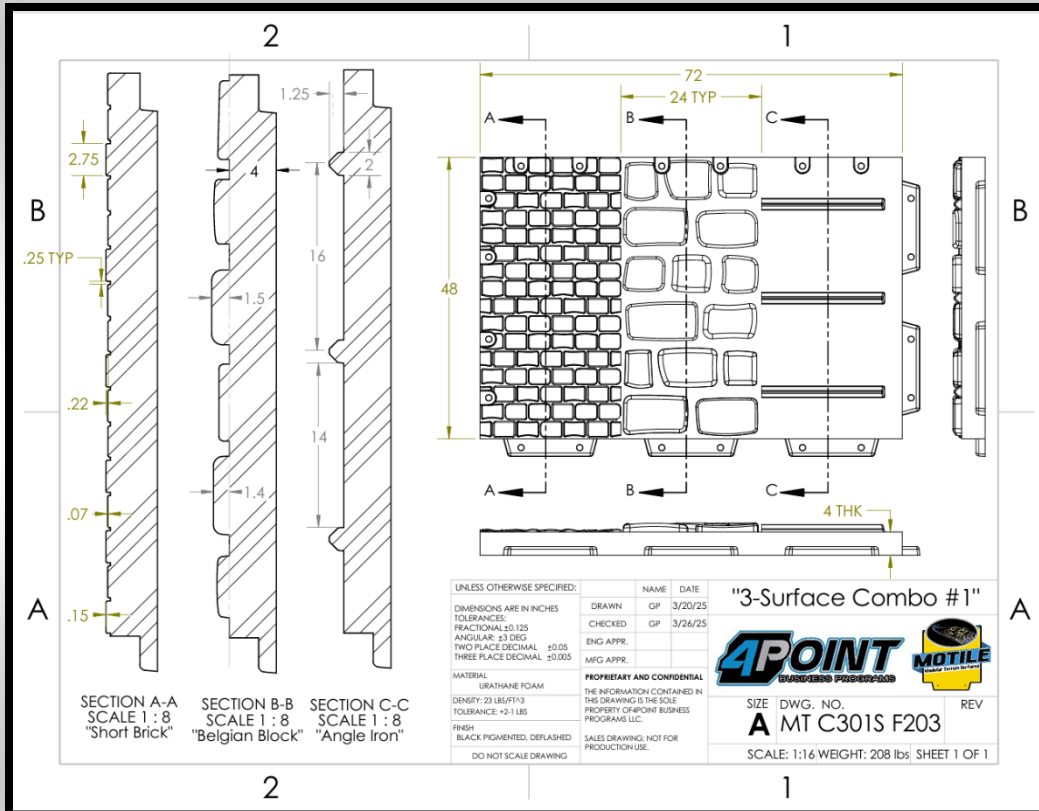
MT CH01S J205 – Random Chuckholes

(Click to Spin)



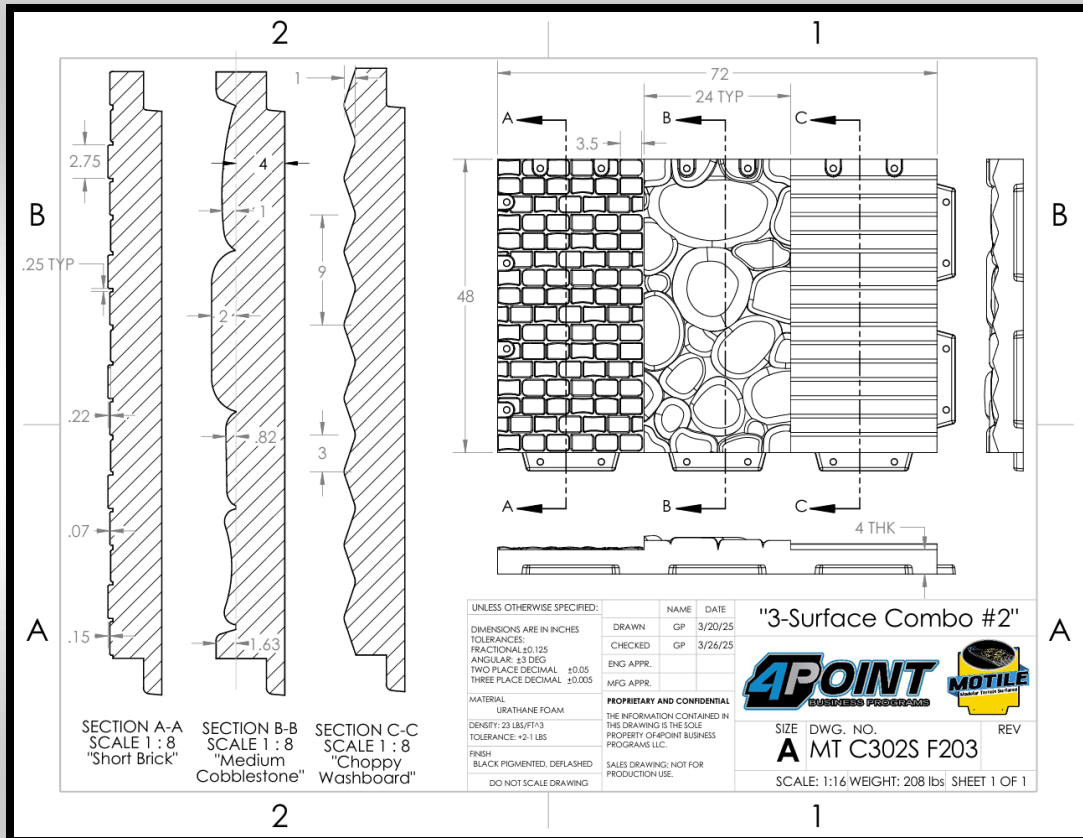
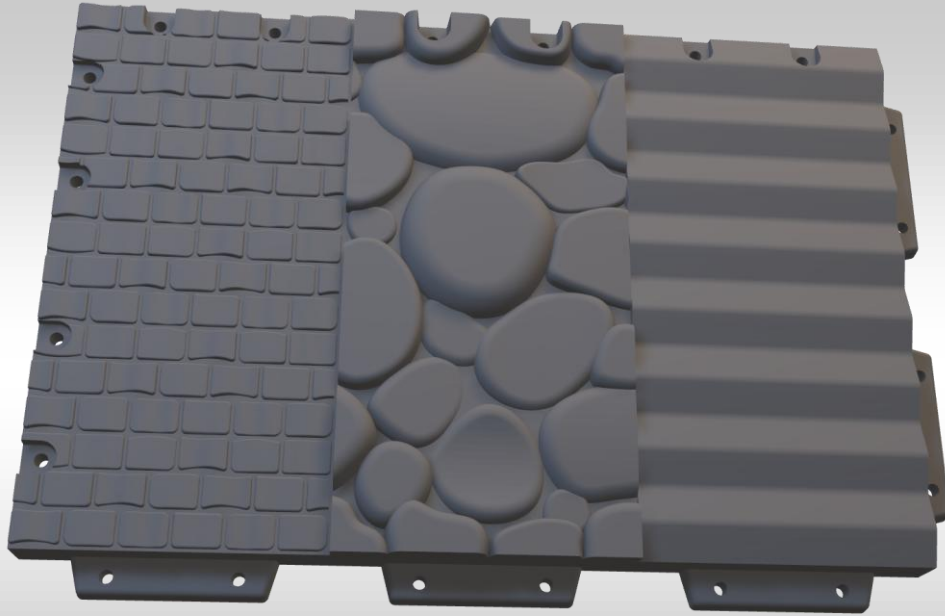
MT C301S F203 – BSR Combo I

(Click to Spin)



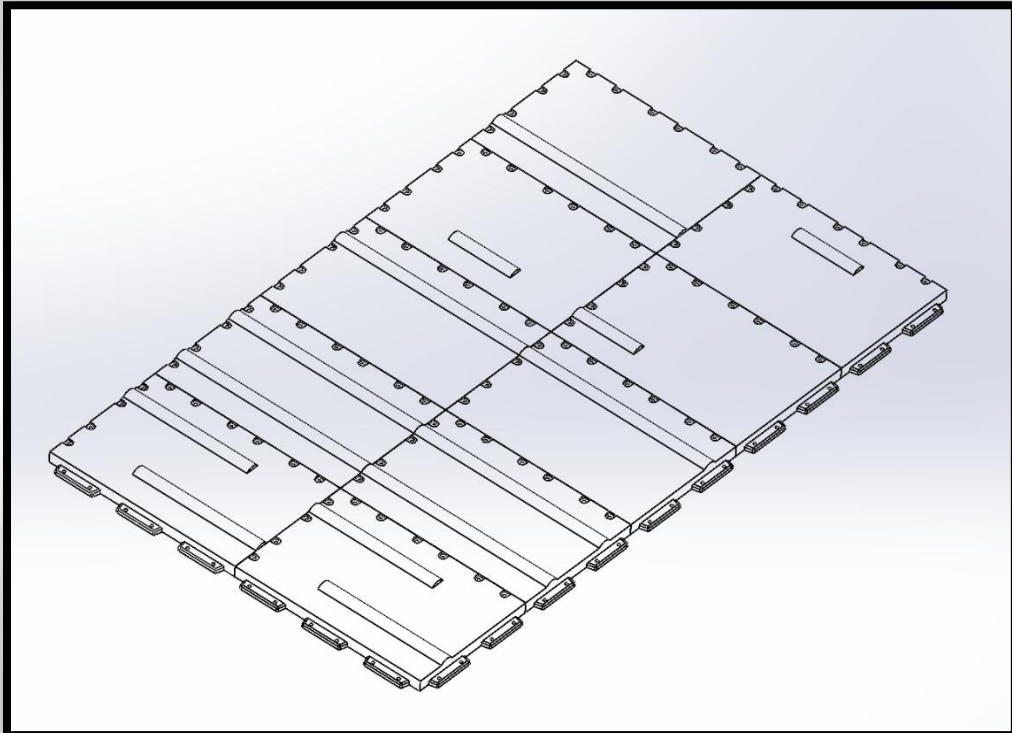
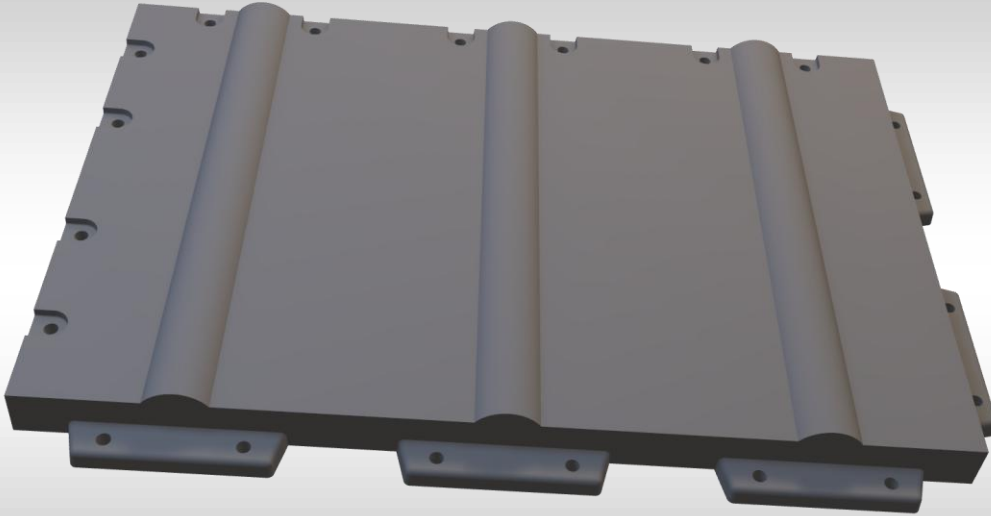
MT C302S F203 – BSR Combo II

(Click to Spin)



MT IB21S R200 – Half Round Bumps

(Click to Spin)



MT RR01S R200 - Paved Rough Road

(Click to Spin)

