

## Vehicular Rolling Load Testing

Model Tested: Pedigrid G1 with Carpet Insert

Test Date: January 21, 2026

Type of Test: Rolling Load

Project#: CSCT-25-003

Test Location: Milton, PA

Test Standard: None

Test Report#: 25-003-06

This testing was conducted to evaluate the effects of a vehicle driving across **Model Pedigrid G1** with Carpet Insert at low speed. As there is no known or established national test standard for this application, this testing was conducted under the procedures described within. For this evaluation, a 1,750 lb. wheel load was applied. (The 1,750 lb. tire load represents the weight of a 7,000 lb. vehicle with the load divided over (4) wheels.) Under these procedures, **Pedigrid G1** demonstrated the ability to withstand the vehicular rolling load stresses without sustaining any significant damage or deformation that results in failure of the product.

It is noted that placing plywood over the unit, in the path of the vehicle tires, will reduce the potential for localized compression of the carpet.

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### Test Procedure

A 24"(61cm) wide x 30"(76.2cm) long/traffic direction sample of **Pedigrid G1** was provided by CS EFS. The sample was of standard design and contained no modifications.

A wood platform was constructed for installation of the sample and included a 1 3/4" recess to receive the sample. (See drawings.) The sample was placed onto the recess of the wood platform.

The wood platform/sample assembly was placed into position adjacent to the CS Cycling Machine with wood blocking installed to prevent the platform from moving during testing.

The C/S Rolling Load Cart was attached to the Cycling Machine and positioned over the test sample. A concrete filled barrel was placed onto the cart to apply a 1,750 lb. load at the tire. The cart is fitted with a light-duty truck wheel/tire. (Prior to the positioning of the wood platform/assembly in position, the Cart was attached to the Cycling Machine. The tire of the cart was positioned on a shipping scale to confirm load weight. The weight barrel was placed on the cart, and the position of the barrel was adjusted until a tire load of 1,750 lbs. was achieved.)

The Cycling Machine was programmed to drive the Load Cart back-and-forth over the **Pedigrid G1** sample along the traffic direction centerline. A total of 1,000 passes were conducted. Testing was stopped periodically to observe and/or inspect the sample for performance. These observations are noted and included in this report.

At the conclusion of the 1,000 passes the sample was removed and inspected for any damage and/or permanent deformation that would negatively affect its performance. All details pertaining to the test and the results are included in the following photos and attachments. The testing was also recorded with video which is available upon request.

## Vehicular Rolling Load Testing

Testing was conducted and witnessed by CS EJC Engineering, Roger Barr and Daniel Wright. Report prepared by Roger Barr, 1/26/26.

A copy of this report will be retained by Construction Specialties, Inc. Results obtained are tested values and were secured by using the designated test methods. This report is exclusive property of Construction Specialties, Inc. and relates only to the specimens tested and listed in this report. This report may not be reproduced, except in full, without the written approval of Construction Specialties, Inc.

For CONSTRUCTION SPECIALTIES, INC.

Roger W. Barr  
EJC Testing Manager

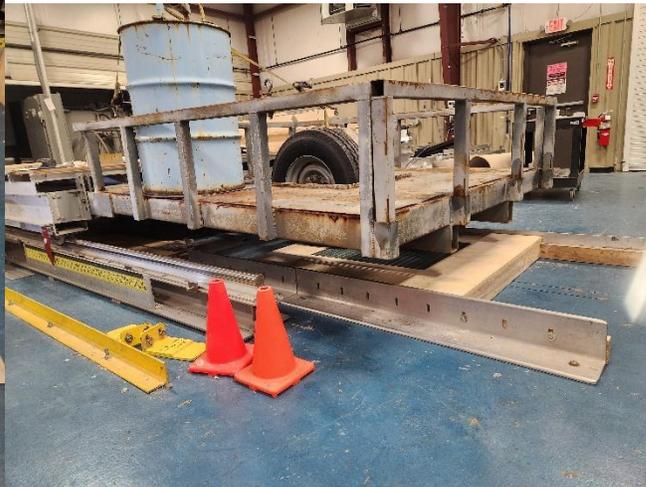
Tim Fisher  
EJC Engineering Manager

# Vehicular Rolling Load Testing

Photos:



Load Verification

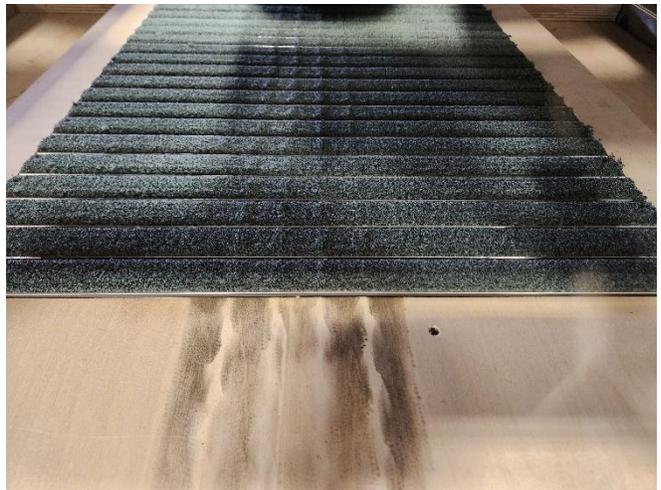


General Test Setup (3/4" Peditred G4 shown for reference)

## Vehicular Rolling Load Testing

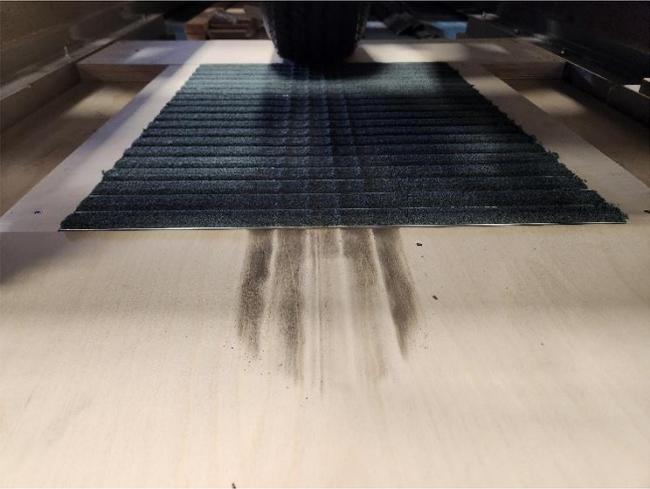


General Test Setup (3/4" Peditred G4 shown for reference)

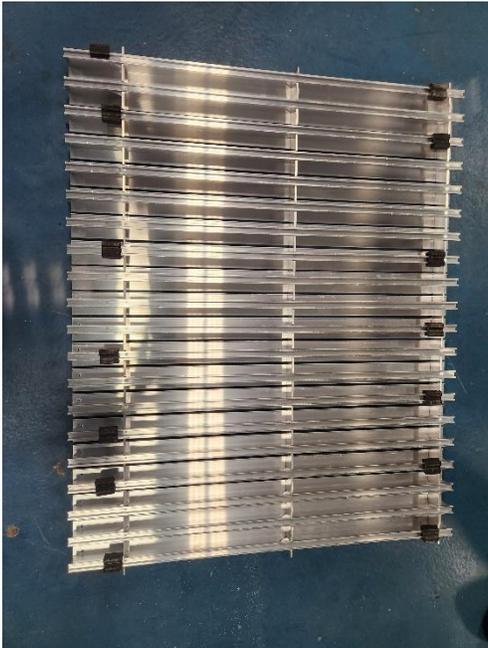


After (20) Passes

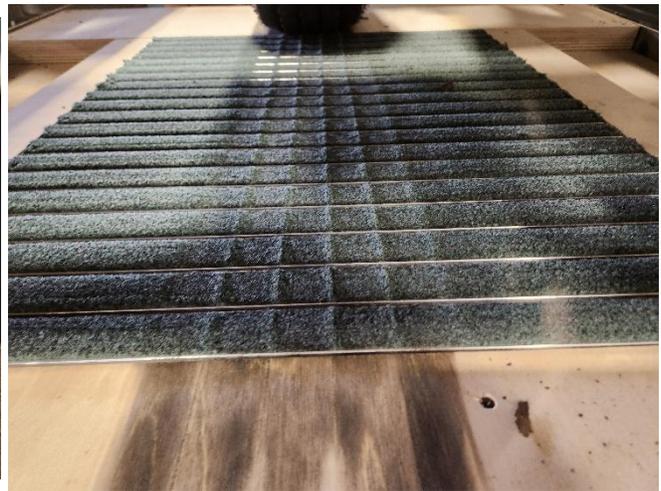
# Vehicular Rolling Load Testing



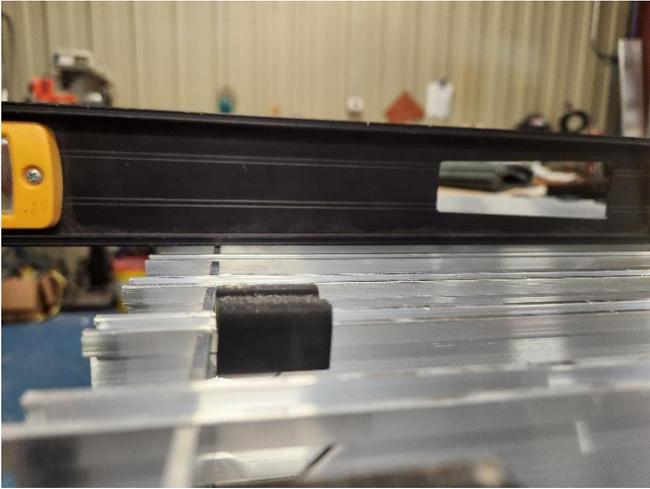
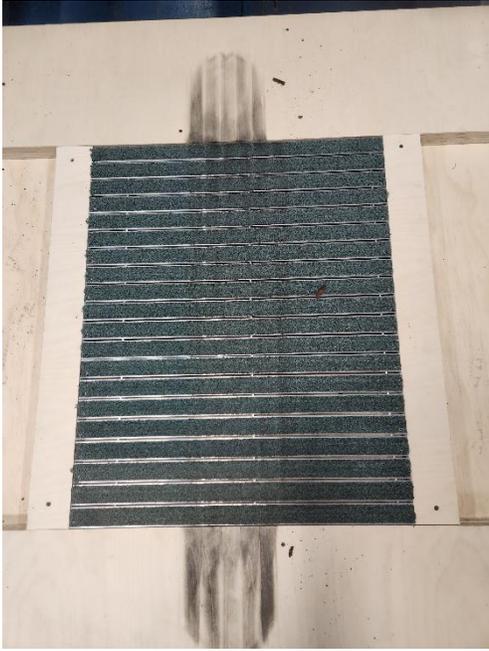
## Vehicular Rolling Load Testing



After (500) Passes



# Vehicular Rolling Load Testing



After (1000) Passes

# Vehicular Rolling Load Testing



After (1000) Passes



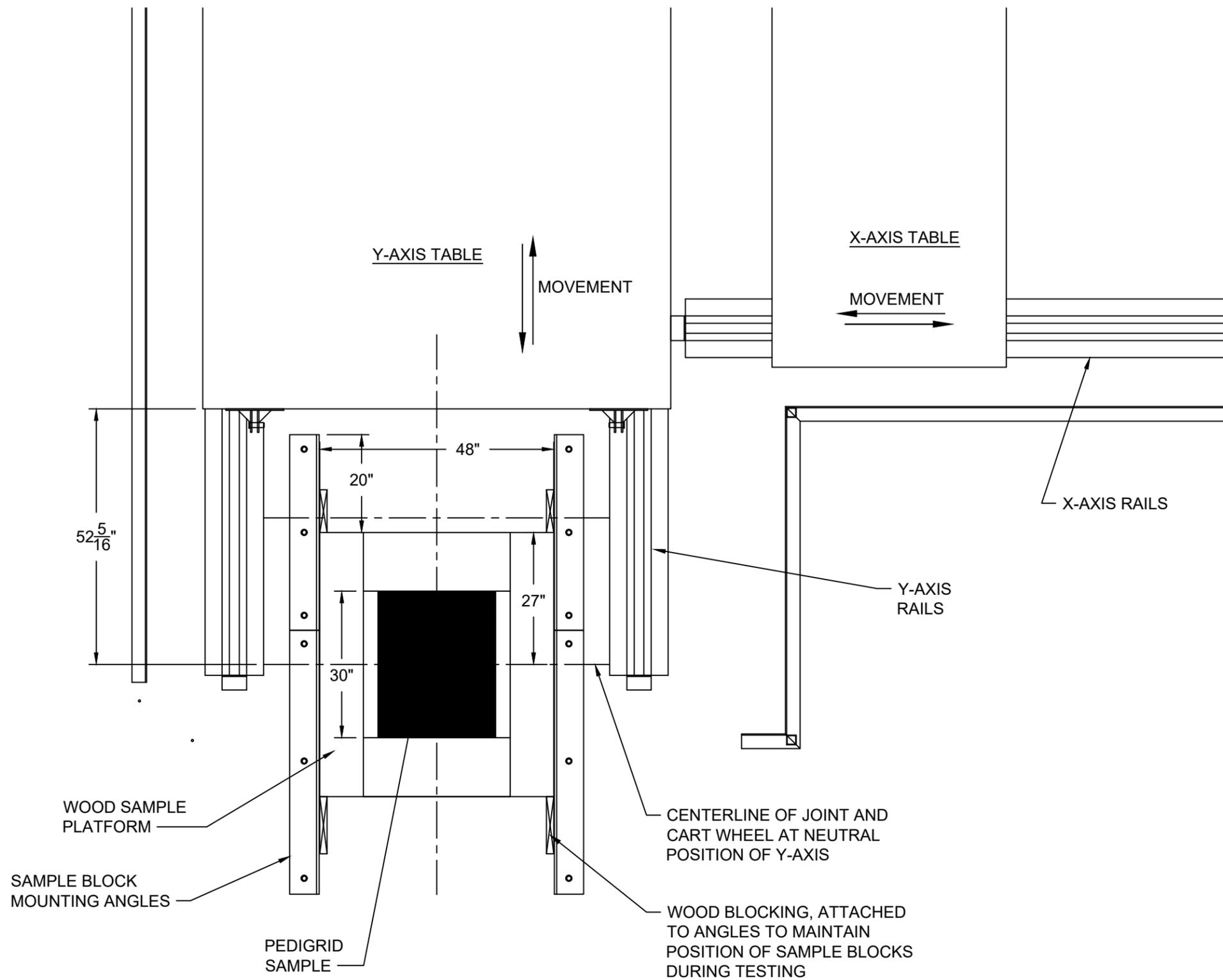
## C/S EJC ROLLING LOAD TEST

### Rolling Load Test Observation Sheet

<b>Project #:</b>	CSCT-25-003	<b>Test ID/#:</b>	25-003-06
<b>Test Start Date:</b>	1/21/2026	<b>Test End Date:</b>	1/21/2026
<b>EFS Model:</b>	Pedigrid with Carpet Insert		
<b>Note Modifications from Standard Model:</b>	None		
<b>Wheel Load Applied:</b>	1,750 Lbs.	<b>Verified Weight:</b>	1,750 Lbs.
<b>Travel Distance (+/-in.):</b>	40"	<b>Travel Speed (in./sec.):</b>	12
<b>Program Dim. (Black Scale):</b>	Retract: 22.000	Extend: 62.000	
<b>Installation Notes:</b> (Cure Time, Mounting Block Type, Deflection Pad...)	A 30" L (traffic dir.) x 24" W sample of EFS model Pedigrid with Carpet Insert is installed into a 1 3/4" deep recess in a wood construction platform. Top surface of wood platform is flush with sample surface.		
<b>Number of Passes Completed (Cycles)</b>	<b>Observations</b>		
20(10)	Marking and slight compression of the carpet in the tire path.		
100(40)	During movement, you can see some deflection at the mid-width of the rails. At the completion of the (100) passes, the sample was removed for inspection. When a straight edge was placed along the the bottom of a rail, there appears that may be a slight deformation of the rail, bowing downward at the center. Note: 10 cycles = 1min 12.63sec. (7.263 sec/cyc.)		
500(200)	At the direction of EFS personnel, movement continued to (500) Passes. At the completion of the 500 passes was complete, the sample was removed for inspection. There is notable compression of the carpet in the tire path. A straight edge was again placed along the the bottom of a rail, with a closer inspection, no deflection was noted. The samples was returned and testing continued to 1,000 passes.		
1,000(250)	1,000 - There is notable compression of the carpet in the tire path. There is no notable damage, deformation or issues.		
<b>Additional Notes:</b>			
<b>Post Test Notes:</b>	At the completion of the 1,000 passes, the sample was removed for inspection. The carpet was brushed with a broom and there was some rebound noted. A straight edge was again placed along the the bottom of a rail, with a closer inspection, no deflection was noted. There is no notable damage or issues. The product remains serviceable.		
<b>Technician Initials:</b>	RB		
<b>Date:</b>	1/21/2026		

TEST 25-003-06 PLAN  
 - ROLLING LOAD TEST WITH  
 PASSINGER LIGHT TRUCK  
 WHEEL/TIRE MOUNTED ON ROLLING  
 LOAD CART.  
 - THE WHEEL LOAD ON THE  
 SURFACE OF THE SAMPLE TO BE  
 APPROX. 1750 LBS.  
 - CART TO BE MOVE BACK AND  
 FORTH OVER THE TEST SAMPLE  
 500 TIME EQUALING 1,000 TOTAL  
 PASSES.  
 - PASSES TO BE CONDUCTED IN 250  
 PASS INCREMENTS. AT THE  
 COMPLETION OF EACH INCREMENT  
 OBSERVATIONS WILL BE  
 RECORDED AND PHOTOGRAPHS  
 TAKEN.  
 - AT THE CONCLUSION OF THE 1,000  
 PASSES THE COVER WILL BE  
 DISASSEMBLED AND OBSERVATION  
 RECORDED.  
 - A FINAL REPORT WILL THEN BE  
 COMPILED.  
 - PORTIONS OF THE TESTING WILL  
 ALSO BE VIDEO RECORDED.

CART NOT SHOWN FOR CLARITY.  
 SEE PAGE 2.



**MODEL PEDIGRID  
 ROLLING LOAD TESTING  
 SAMPLE INSTALLATION LAYOUT  
 SCALE: 1/2" = 1'**

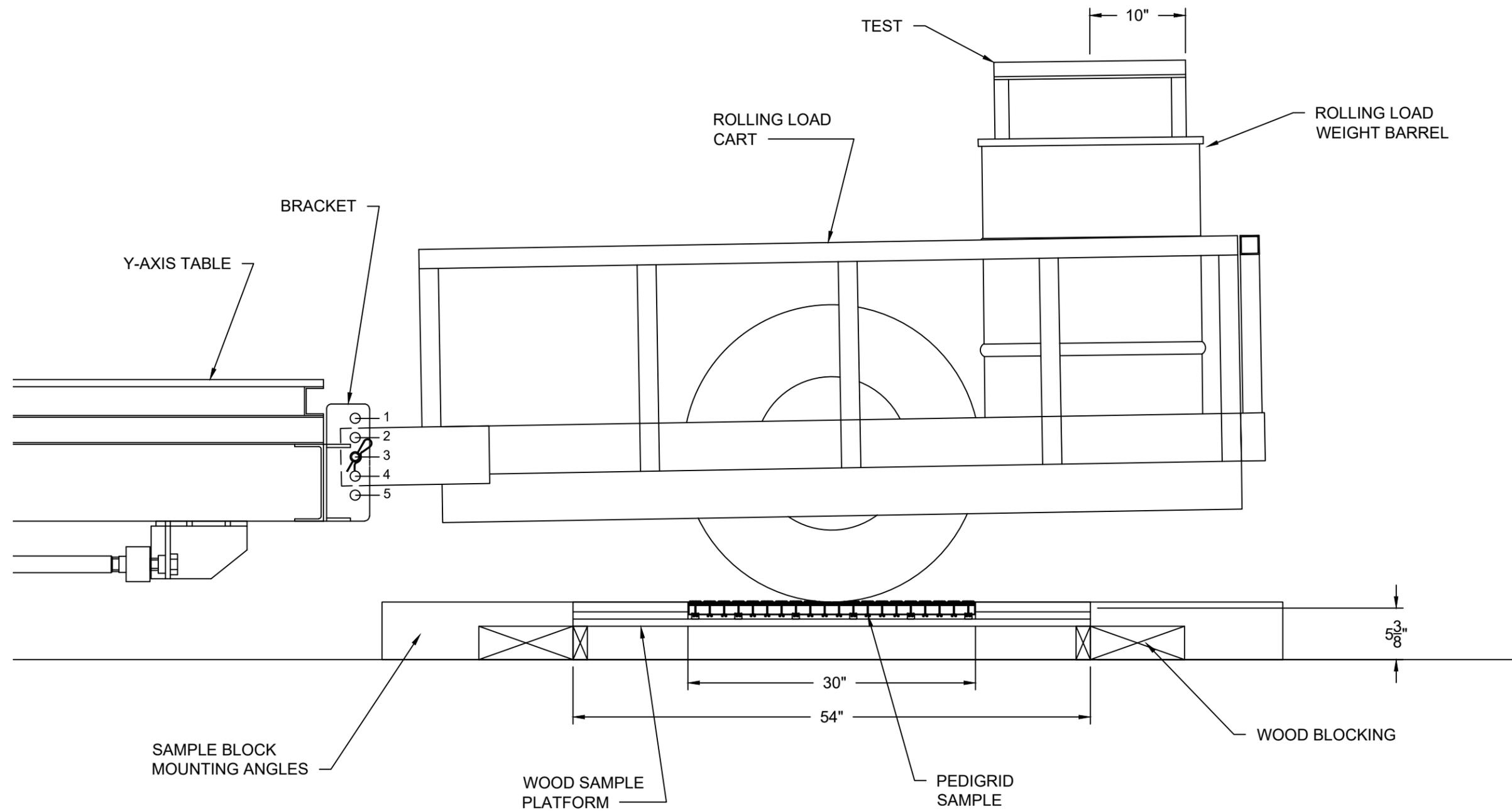
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**Construction Specialties**  
 6686 Route 405 Highway  
 Muncy, PA 17756  
 (607) 324-8776  
 Fax: 607-324-8022  
 www.c-sgroup.com

DESCRIPTION:  
 ROLLING LOAD TESTING LAYOUT  
 MODEL: PEDIGRID  
 PASSINGER LIGHT TRUCK TIRE  
 PROJECT NO.: CSCT-25-003

A	REVISED		RB	10/1/25	APPD BY:
					DWG BY: RB
					DATE: 10/2/25
REV	DESCRIPTION	SHT	BY	DATE	DRAWING NO.:
REVISION HISTORY					25-003-06
PART NUMBER:					SHT. 1 OF 5



**MODEL PEDIGRID  
ROLLING LOAD TESTING  
SAMPLE INSTALLATION LAYOUT  
SCALE: 1:16**

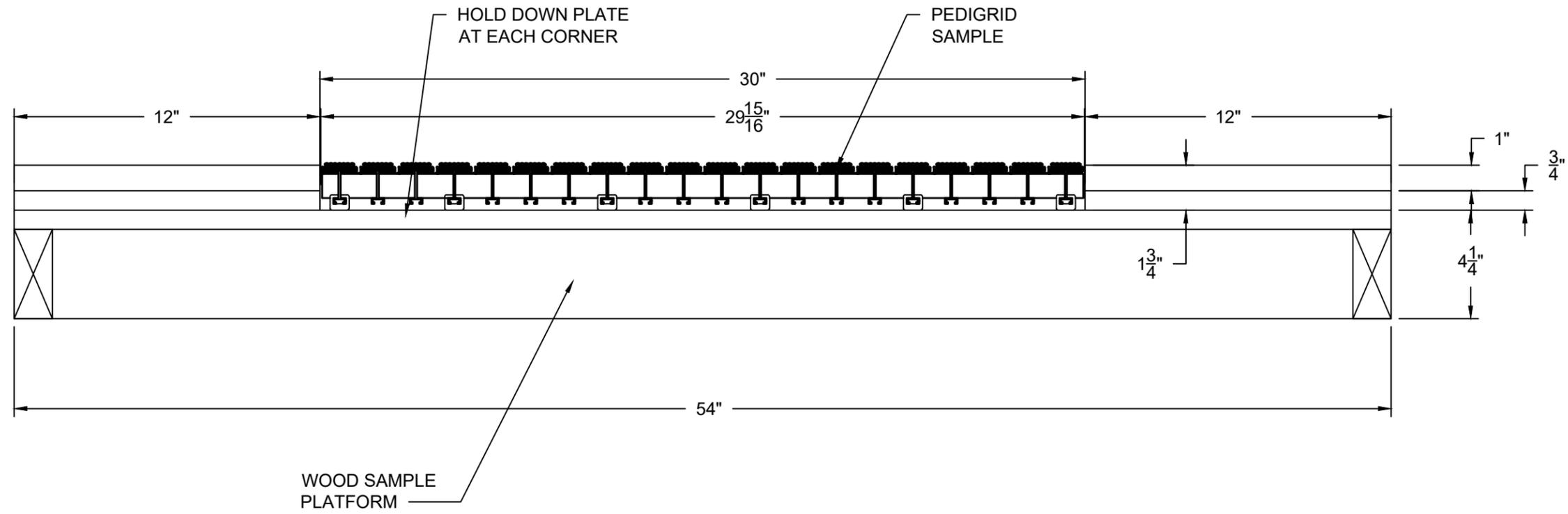
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DESCRIPTION:  
ROLLING LOAD TESTING LAYOUT  
MODEL: PEDIGRID  
PASSINGER LIGHT TRUCK TIRE  
PROJECT NO.: CSCT-25-003

**CS** Construction Specialties  
6696 Route 405 Highway  
Muncy, PA 17766  
(607) 235-6463  
Fax: 570-546-8022  
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					DWG BY: RB
					DATE: 10/2/25
REV	DESCRIPTION	SHT	BY	DATE	DRAWING NO.:
REVISION HISTORY					25-003-06
PART NUMBER:					SHT. 2 OF 5



MODEL PEDIGRID  
 ROLLING LOAD TESTING  
 MOUNTING DETAIL  
 SCALE: 1:5

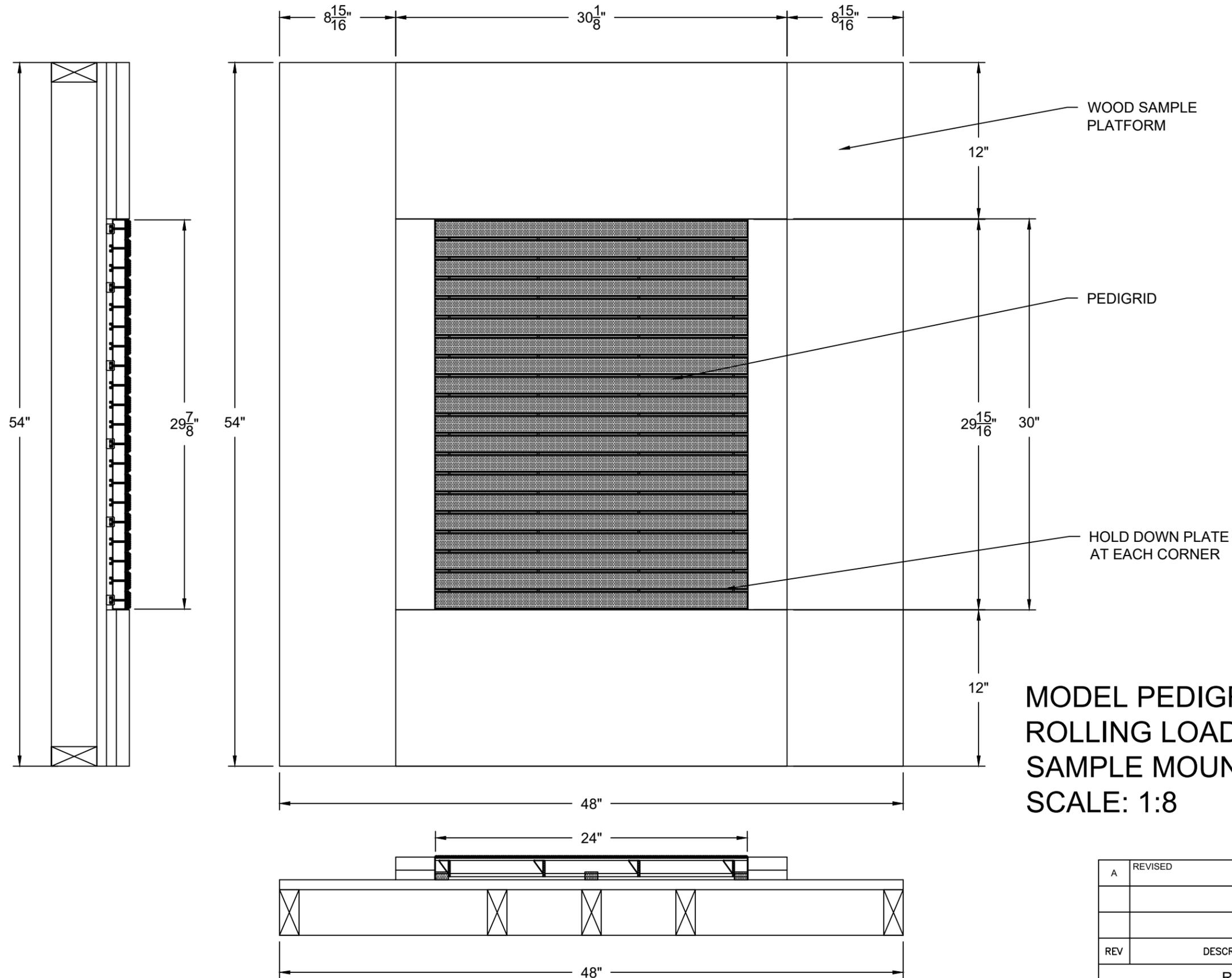
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 6696 Route 405 Highway  
 Muncy, PA 17766  
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DESCRIPTION:  
 ROLLING LOAD TESTING LAYOUT  
 MODEL: PEDIGRID  
 PASSINGER LIGHT TRUCK TIRE  
 PROJECT NO.: CSCT-25-003

A	REVISED		RB	10/1/25	APPD BY:
					DWG BY: RB
					DATE: 10/2/25
REV	DESCRIPTION	SHT	BY	DATE	DRAWING NO.:
REVISION HISTORY					25-003-06
PART NUMBER:					SHT. 3 OF 5



**MODEL PEDIGRID  
ROLLING LOAD TESTING  
SAMPLE MOUNTING PLAN  
SCALE: 1:8**

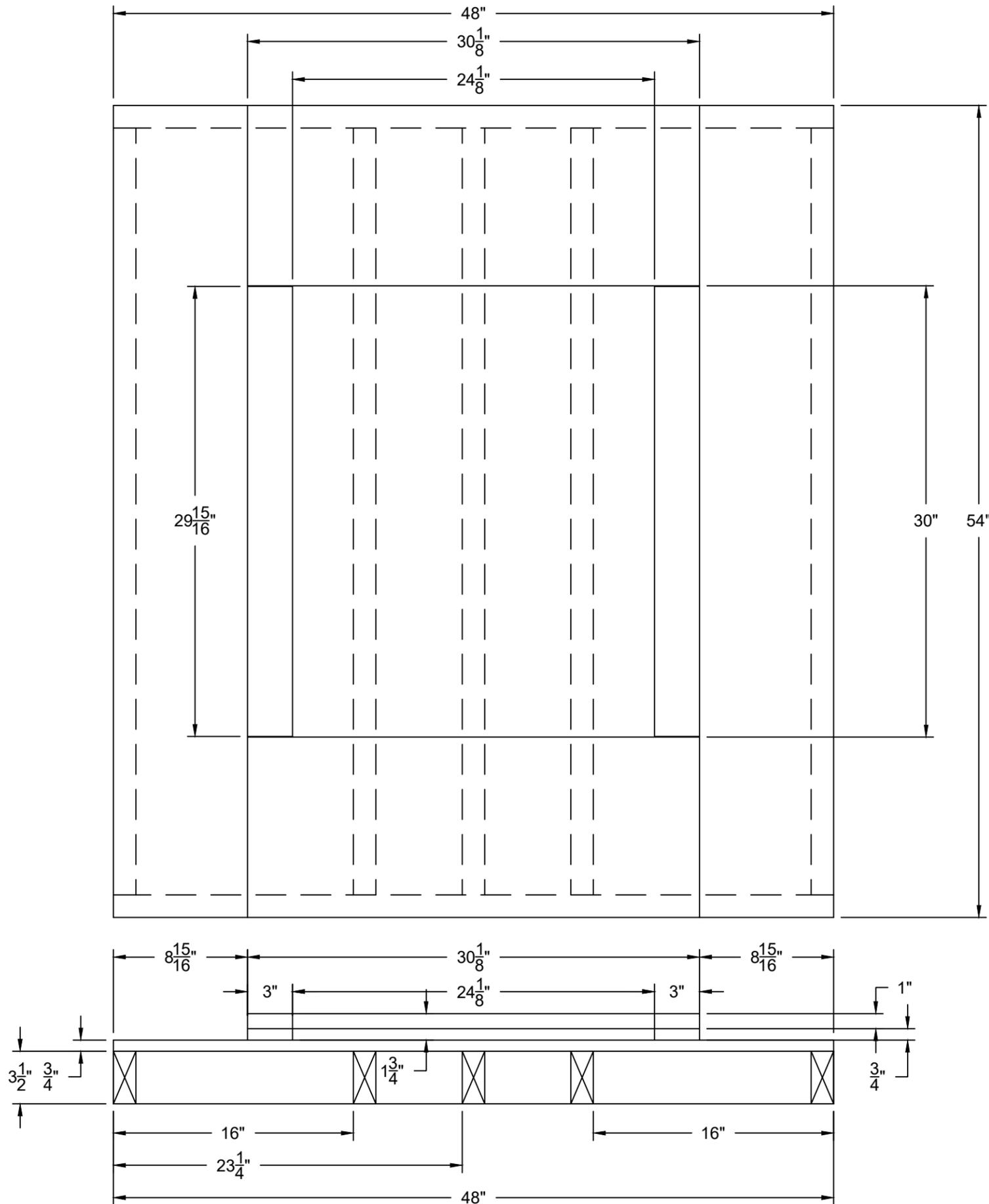
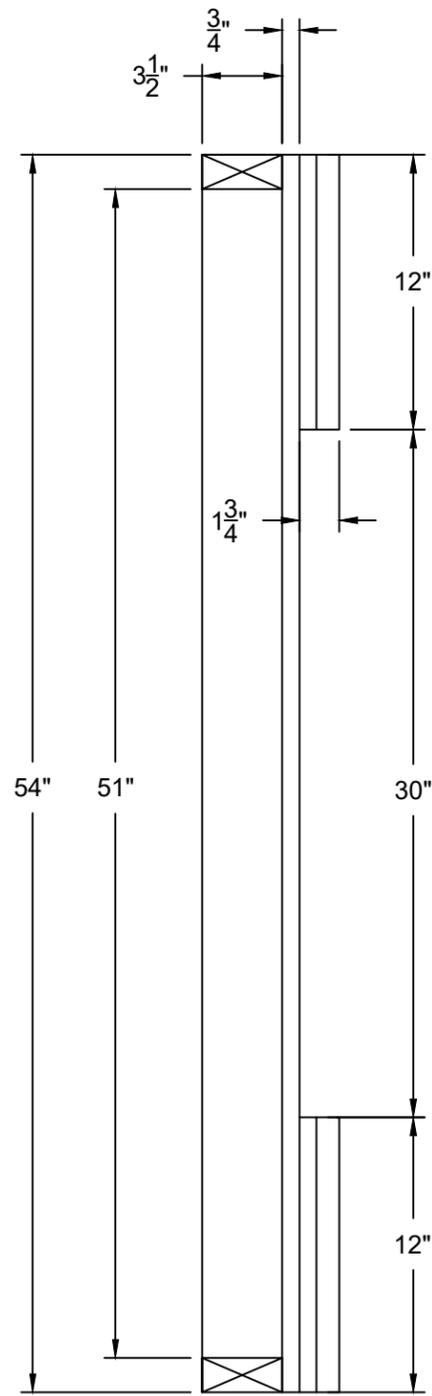
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DESCRIPTION:  
ROLLING LOAD TESTING LAYOUT  
MODEL: PEDIGRID  
PASSINGER LIGHT TRUCK TIRE  
PROJECT NO.: CSCT-25-003

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Muncy, PA 17766  
(607) 235-6463  
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					DATE: 10/2/25
REV	DESCRIPTION	SHT	BY	DATE	DRAWING NO.:
REVISION HISTORY					25-003-06
PART NUMBER:					SHT. 4 OF 5



**MODEL PEDIGRID  
ROLLING LOAD TESTING  
WOOD PLATFORM LAYOUT  
SCALE: 1:8**

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DESCRIPTION:  
ROLLING LOAD TESTING LAYOUT  
MODEL: PEDIGRID  
PASSANGER LIGHT TRUCK TIRE  
PROJECT NO.: CSCT-25-003

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666 Route 405 Highway  
Muncy, PA 17756  
(610) 233-8463  
Fax: 570-346-6022  
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					DWG BY: RB
					DATE: 10/2/25
REV	DESCRIPTION	SHT	BY	DATE	DRAWING NO.:
REVISION HISTORY					25-003-06
PART NUMBER:					SHT. 5 OF 5