



# The real cost of inaccuracy in waste & recycling

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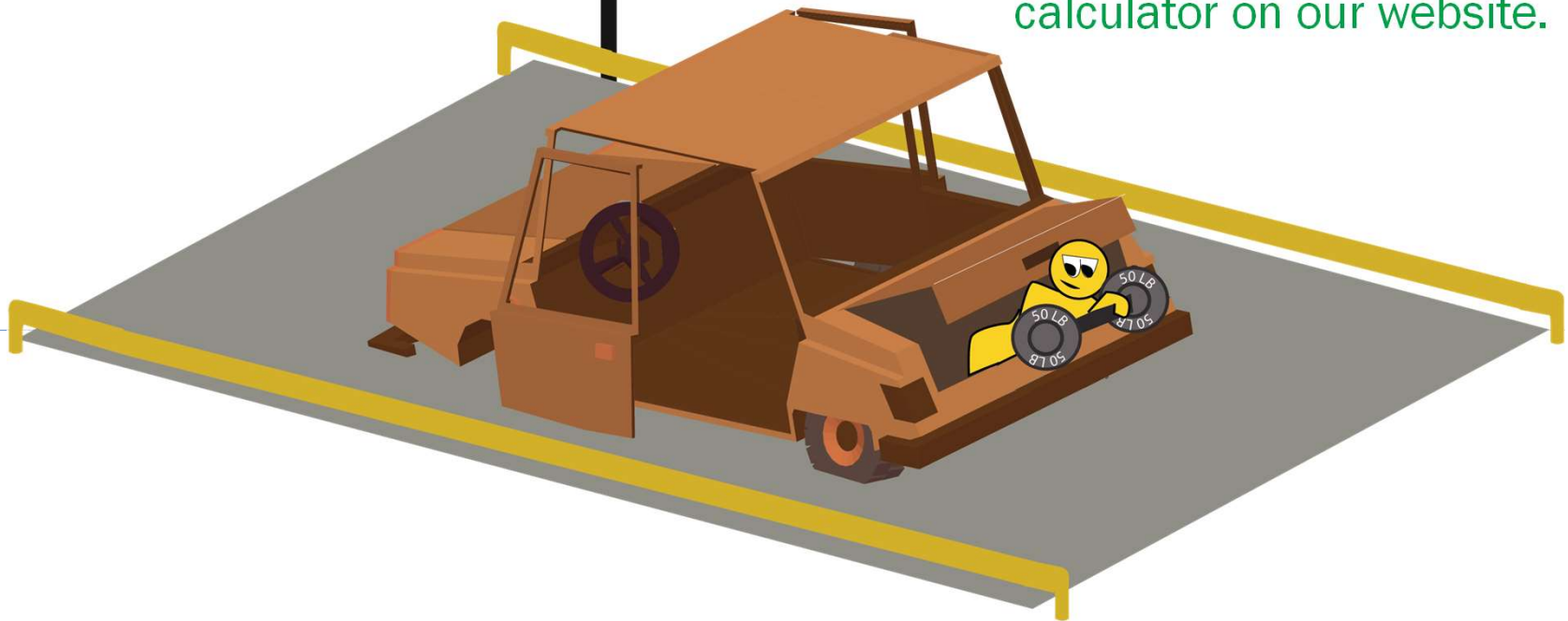
Michelli Weighing & Measurement

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# The real cost of inaccuracy in waste & recycling

SCALE

Scan this QR code with your smart phone camera to use the free inaccuracy cost calculator on our website.



# Calculator

Imagine the rate for this landfill is \$40.80 per ton, or \$0.02 per lb.

Material cost per lb: \$0.02

Scale error in lbs: 40 lbs

Loads per day crossing scale: 100 loads

Days per week scale is in operation: 5 days p/week

Weekly Loss: \$400.00

Monthly Loss: \$1,600.00

Annual Loss: \$20,800.00



# Calculator

Imagine the rate for copper is \$4.63 per lb.

Material cost per lb: \$4.63

Scale error in lbs: 5 lbs

Loads per day crossing scale: 7 loads

Days per week scale is in operation: 5 days p/week

Weekly Loss: **\$810.25**

Monthly Loss: **\$3,241.00**

Annual Loss: **\$42,133.00**



# Issue: Improper Maintenance Causes Scale Errors

## Problem:

### Improper Maintenance



## Solution:

### Proper Preventative Maintenance

- Establish preventative maintenance schedule
- Track asset status to plan for equipment replacement
- Utilize a quality service provider
  - Ensure they use a standard inspection method
  - Ask about steps to take to prevent inaccuracy



## Standard Inspection Method

- **Task List**
  - Repeatable operation
- **Specifications**
  - Based on Handbook 44
- **Test Standards**
  - Standard NIST Traceable Weights





## Keep TRAC of Equipment Status

- Identify Faulty Equipment

Replace scales that fail repeatedly

- Monitor Maintenance Schedule

Increase or decrease scale service as you notice inaccuracies

[Edit](#) SERIAL #: 3437736 ASSET TAG: 125/245 FILL RACK - SPOT #4 ASSET USER: [✎](#)

**Scales & Balances**  
 Weighing Indicators and Displays  
**Truck Scale**  
 120000 x 20 lbs.  
 Rinstrum P/N R423 [INFO >](#)

[Info](#) **[Maintenance](#)** [Lifecycle](#) [History](#) [Attributes](#) [Performance](#)

Maintenance Plan: [All Maintenance Plans](#)

**Service history for All Maintenance Plans**

Time since last failed As Found: 2 month(s) [Add service record](#)  
 Times serviced since last failed: 2  
 Service interval before failed: Less than a month

Service	Order	Date	As Found	As Left
Inspection	45435-013147	4/29/2021	N/A	N/A
Inspection	45435-011506	4/2/2021	PASS	PASS
Inspection	45435-009594	3/5/2021	FAIL	PASS
Inspection	45435-008327	2/5/2021	PASS	PASS
Calibration	45435-006775	1/8/2021	PASS	PASS
Standard Inspection	45435-006234	12/19/2020	FAIL	PASS
Calibration	45435-005443	12/4/2020	PASS	PASS
Calibration	45435-004967	11/6/2020	PASS	PASS
Calibration	45435-004272	10/2/2020	FAIL	PASS
Calibration	45435-003689	9/4/2020	PASS	PASS
Calibration	45435-002987	9/2/2020	PASS	PASS
Calibration	45435-001312	9/2/2020	FAIL	FAIL
Calibration	45435-003351	9/2/2020	PASS	PASS
Calibration	45435-002383	9/2/2020	PASS	PASS
Calibration	45435-002000	5/1/2020	FAIL	PASS
Calibration	45435-001605	4/3/2020	FAIL	PASS
Truck Scale	45435-001438	3/6/2020	FAIL	FAIL
Calibration	45435-001021	2/7/2020	FAIL	PASS
Calibration	45435-000475	1/3/2020	FAIL	PASS
Calibration	45435-000213	12/6/2019	PASS	PASS
Calibration	45435-000049	11/1/2019	FAIL	PASS
Calibration	45435-000005	10/4/2019	FAIL	PASS



# Issue: Rushing the Weighment Causes Inaccuracy

## Problem:

Inefficiency



## Solution:

Unmanned Kiosk

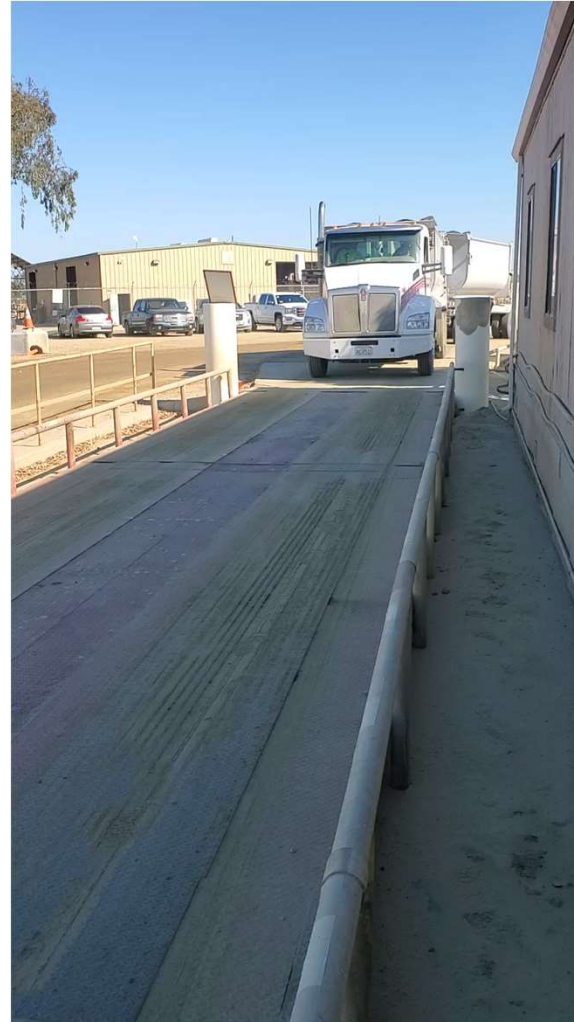
- Ensure accuracy while maximizing efficiency
- Minimize risk to drivers & employees
- Reduce labor costs





## Unmanned Kiosk Weighing System

- **Photo Eyes**  
Ensure only 1 truck is on scale at a time
- **Traffic Light**  
Tells drivers to pull forward or stop
- **Scoreboard**  
Displays weight
- **Unmanned Kiosk**  
Prints ticket & records data



# Issue: Data Recorded Inaccurately Can Be Costly

## Problem:

### Data Entry Errors



## Solution:

### Automated Data Collection

- Reduce paperwork
- Minimize labor required for data entry
- Eliminate possibility of human error
- Ensure accurate weights are recorded



## Automatic Data Collection

- **Reduce Paperwork**

Decrease supply expense & chance of ticket loss or damage

- **Remove Risk of Human Error**

No data entry issues such as typos or skipped tickets

- **Minimize Labor Required**

Transaction is digitally recorded as it happens

01:48:29 pm 01/05/2012  
Inbound 69880 LB



01:51:12 pm 01/05/2012  
Inbound 68140 LB



01:53:12 pm 01/05/2012  
Inbound 84280 LB



Speak with one of our experts for more solutions



- Visit our table to pick up a truck scale checklist
- Scan the QR code with your smart phone to access the inaccuracy cost calculator on our website

