

Introduction and Overview

Workdek has engaged DSC Consulting to independently assess the financial benefits of the Workdek system.

Services Provided

DSC Consulting specialises in a range of services, including independent project management, programme management, engineer to contract, cost management, and commercial and financial reporting.

Experience and Client Representation

The director of DSC Consulting brings over 20 years of experience in the construction industry across the UK, Australia, and New Zealand, having overseen all phases of project life cycles. Notable clients in New Zealand include Maersk, Kmart, Suntory, NZ Post, GPC, Martin Brower, and NPD.



INDEPENDENT QUANTITATIVE ASSESSMENT



Quantitative Assessment Report: Safety Nets vs. Workdek Solution in Residential Construction

1. Executive Summary

This report presents a quantitative comparison between Workdek and alternative fall from heights safety systems. A foundation of effective risk management of working at height is implementing controls to eliminate, isolate or minimise hazards.

The most common method of managing falls from heights in the construction industry is the use of safety nets which minimises the hazard. Workdek is being used in the UK and NZ and creates a safe working platform and significantly reduces the risk of falling from height. The analysis includes key performance indicators such as cost, installation time, programme savings. Data is based on industry averages from projects in NZ.



INDEPENDENT QUANTITATIVE ASSESSMENT



2. Methodology

The objective of this report was to determine the productivity gains of using Workdek. A combination of surveys and interviews were carried out with construction companies who have experience with using both Workdek and alternative fall from height safety systems.

The data was collected from the following sources.

- Projects in the North and South Islands of New Zealand
- Projects of different size
- Construction company owners and operators
- Actual live and completed projects.

The outputs we were determining were as follows.

- Project size GFA and value
- Project duration
- Cost Comparison to install the safety systems.
- Time to install the safety systems.
- Duration to carry out the tasks once the fall from height safety was installed.
- Programme difference
- Overall cost difference



Below is a high-level table comparing the average cost and time frames of using both Safety Nets and Workdek for a 180m2 Single storey dwelling.

Metric	Safety Nets	Workdek System
Install cost (NZD)	\$5/m2	\$11/m2
Average Install Time (hrs)	3–5 hrs	6–8 hrs
Average Duration of tasks	5 Days	3 Days
Average Man Hours for tasks	218hrs	144hrs



3. Data Collection

The table below highlights the cost to carry out the activities which are reliant on the use of working at height protection system. This is purely looking at the labour contingent as the material cost will be identical with both options.

Project Size	Contractor 1		Contractor 2		Contractor 3		Contractor 4		Contractor 5	
	185m2 Single storey		2No 160m2 duplex		175m2 Single storey		385m Single storey		2272m2 Multi units	
	Safety Nets	Workdek	Safety Nets	Workdek	Safety Nets	Workdek	Safety Nets	Workdek	Safety Nets	Workdek
Install cost (a)	\$1,017.50	\$1,942.50	\$1,760.00	\$3,510.00	\$787.50	\$2,100.00	\$1,732.50	\$4,620.00	\$12,500.40	\$25,000.80
Install time (days)	0.5	1	1	1.5	0.5	1	1	2	n/a	n/a
Task duration (days)	5	3	8	5	11	6	16	12	n/a	n/a
Task manhours (hours)	120	72	192	120	176	96	384	288	3000	2000
Task manhours (\$)(b) ¹	\$7,800.00	\$4,680.00	\$12,480.00	\$7,800.00	\$13,200.00	\$7,200.00	\$28,800.00	\$21,600.00	\$195,000.00	\$130,000.00
Total Cost (a+b)	\$8,817.50	\$6,622.50	\$14,240.00	\$11,310.00	\$13,987.50	\$9,300.00	\$30,532.50	\$26,220.00	\$207,500.40	\$155,000.80
Overall Project saving		\$2,195.00		\$2,930.00		\$4,687.50		\$4,312.50		\$52,499.60
% Saving ²		24.89%		20.58%		33.51%		14.12%		25.30%

¹ The cost savings highlighted are due to the reduction in the manhours required to carry out the tasks that are reliant on the use of WorkDek

² The difference between the total WorkDek cost and the safety nets cost and then divided by the total alternative cost



4. Key Findings

Cost and Efficiency

- **Safety nets** offer a cost-effective and expedient installation process. However, the tasks involving safety nets tend to have longer durations and require increased manpower.
- **Workdek** costs more and takes longer to install, but it speeds up tasks and reduces man hours, saving both time and money.

Installation and Flexibility

- **Safety Nets** are faster to install but less flexible with structural changes or complex frames.
- **Workdek** takes longer but offers a safe walkable platform for other trades, reducing scaffold dependency.

Safety and Compliance

- **Workdek** provides a higher safety margin with rigid fall prevention and full-surface support, it also creates a happier environment for the workforce.
 - **Nets** only provide fall arrest (not prevention), with higher risks during installation and dismantling.
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5. Conclusion

While **Safety Nets** are a cheaper and quicker method of protection from falls from heights, the **Workdek System** not only offers a safer and more productive environment for the workforce. It also offers savings on the tasks that are reliant on the fall from height protection. On average the construction companies surveyed experienced savings on the cost of install and the time taken to complete the subsequent tasks of 23.7%.

From the sample data it shows that considerable savings are achieved no matter the size and scale of the project.

The savings which are identified above highlight the cost benefit to the individual project however the cost benefit for the construction company across multiple projects throughout the year are not quantified. i.e. the cost savings from finishing more projects in the year along with the reduced P&G cost on the projects.

