

**COST BENEFIT ANALYSIS: PROJECT DESCRIPTION**

- Commercial Construction Project
- In a top ten demographic metro area
- 24 story residential tower
- Structure: Concrete
- Each floor requires 955 linear feet of edge hazard protection
- Guardrail will be built for 6 floors (system to be jumped up as floors progress)
- Labor rates based on \$35.00 per hour, per employee.

	TRADITIONAL 2X4 WOODEN RAIL OPTION	COST	SAFETYRESPECT EDGE PROTECTION
Personnel Hours To Build and Set Up	(3 workers to install 50' linear feet per hour.) Average 50 linear feet of guardrail built in place per hour. Calculation: \$35.00 (hourly rate) X 3 (no. of employees) X (955/50) X 6 (floors).	\$12,033	✓ \$1,260.00
Fasteners and Tools	Combination of nails and screws to be used.	\$13,236	✓ \$573.00 (3/8" concrete screw)
Materials	955' (required linear feet per floor) X 3.5 (top rail, midrail, toeboards, posts) X 1.1 (contingency) X 6 (floors)	\$22,060.50	✓ 6,941 linear feet of edge protection barrier system.
Waste	7% (This occurred from knotting, splitting or unusable old wood.)	\$4,633	✓ None
Total cost of materials		\$66,180	✓ \$218,870.75
Additional Hazards Created	Sawing, Silica, Struck By and Electrical Hazards associated with the build out of the wooden rail.		✓ 0%
Removal of Guard Rail		\$9,016	✓ None
Extra Bins Required for Waste		\$16,824	✓ None
Labor on the Safety Check	(2 employees, 3 hours once per week.)	\$8,460	✓ None
Replacements	Replace broken 2X4's during the project.	\$6,865	✓ None
<b>TOTAL COST:</b>		<b>\$159,307.50</b>	<b>\$220,703.75</b>

**CONCLUSION**

Significant time and materials are wasted in the process and the end result is non-engineered fall protection that requires constant maintenance, and a substantial amount of the wood materials gets thrown away at the end of a job.

- Easy access to elevator shafts
- Maintenance FREE
- Over 90% reduction in installation and tear down hours
- Easy stack and storage – ready for the next project after use, and the next, and the next
- Easy and simple inspection

\*The storage required was comparable and moving the material around the job site was about the same.

