

STORIES OF STRENGTH

Drainage Tray

Denver, CO



Bringing greater abrasive resistance to parking lot drainage runoffs

Because of the heavy runoff and seasonal flooding Denver is famous for, drainage trays carry a lot more than water. They also ferry rocks, pebbles, deicing chemicals, and other abrasive materials that slowly abrade away the surface of concrete channels. These small impact craters become cracks and holes, allowing water to seep into the structure.

That's what Metro Mix told the Contractor [CASI Concrete] of Castle Rock about **EdenCrete™**. The company was contracted to pour several new concrete drainage systems throughout Castle Rock and the greater Denver area, so they were open to exploring new ways to improve the longevity of their concrete.

The Results In this field trial, **EdenCrete™** increased **abrasion resistance of the new concrete by 60%** over the original mix design. Furthermore, **EdenCrete™** increased the **tensile strength of the new concrete by 25%**. CASI Concrete also reported no negative impact on the fresh concrete properties.

*“The contractor had no idea that **EdenCrete™** was in the concrete mix design because it did not influence the fresh properties or the finishability of the concrete. Test results showing enhanced abrasion and tensile strength certainly indicate that **EdenCrete™** should have no problem extending the life of the concrete’s [application] in-service conditions typical in a drainage basin.”*

Stuart Ponting,
Vice President of CASI Concrete



After 18-months in service the trays containing **EdenCrete™** are in great shape with no cracks or chemical pitting. The reference trays are cracked and severely damaged.

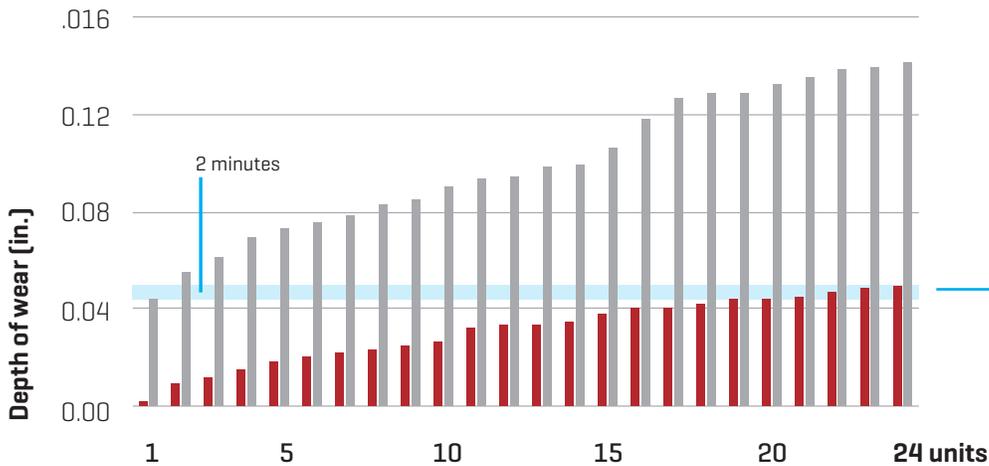
Areas of significant improvement for this application



EdenCrete™ enhances concrete in all seven areas, but was specifically selected for abrasion, permeability and tensile strength for this project.

59% Increase in Abrasion Resistance

ASTM C779, Proc. C



■ EdenCrete™
■ Control

In a lab test, at 56-days, EdenCrete™ had reduced the depth of abrasion of the concrete mix by approximately 59%. Upon completion of the 20-minute test, the total magnitude of abrasion measured for the EdenCrete™ sample was lower than the level of abrasion sustained by the control in the first 2 minutes.



The EdenCrete™ surface is still intact with no visible degradation after 18-months in service. Reference tray showing significant wear.

Harness the strength of carbon nanotubes for your next pour.

Developed by EdenCrete Industries Inc., EdenCrete™ is a carbon nanotube-enriched liquid additive that elevates concrete structures to new levels of strength and toughness. When added to concrete mixtures, it performs like multiple additives rolled into one. It boosts surface abrasion resistance and produces extremely low permeability while improving strength properties [i.e., compressive, flexural, and tensile] like no other product on the market today.



EdenCrete Industries, Inc. 12420 N Dumont Way, Littleton, CO 80125
EdenCrete Industries, Inc. is a subsidiary of Eden Innovations LTD, Perth Australia
info@edencrete.com / 303.468.1705 x2080 / edencrete.com

