

Commercial Fiber Case Studies



UltraFiber
500 

Cabela's Project – Reno, Nevada



The concrete contractor wanted a mix design that would reduce cracking in this 120,000 square foot project. The ready mix producer proposed **UltraFiber500®** at 1.5 lbs per cubic yard. This was important since the project originally had no fiber specified in the slab on grade design. After the sales representative consulted with the structural engineer regarding potential benefits to the floor polishing and staining process, **UltraFiber500®** was approved. Approximately 6,000 cubic yards of concrete was used for the interior floor and site work around the perimeter of the store. The end result was a happy owner with a gorgeous concrete slab.



*General Contractor: Layton Construction
Concrete Contractor: Tedesco
Construction Ready Mix Supplier: Great Basin Ready Mix*

Gateway Building II – Albuquerque, NM



The project in Albuquerque used 2,000 cubic yards of concrete reinforced with **UltraFiber500®** at 1.5 lb per cubic yard. “The workability of this product was spectacular, not to mention, we didn’t have our guys tripping over the rebar and mesh. After several months of being in place, I have yet to see a single crack” commented the project manager, Scott King, from Klinger Constructors. It is a “smooth, crisp, seamless product that allowed for better productivity with our flatwork concrete crews.” The structural engineer will add **UltraFiber500®** to future projects.



*Ready Mix Producer – Vulcan Materials Company
Contractor – Klinger Constructors, LLC*

84 Lumber Project – Rialto, California



The construction of the 84 Lumber facility in Rialto, California used 2,000 cubic yards of concrete reinforced with **UltraFiber 500®** at 1.0 lb/yd³ dosage for the slab on grade and footing concrete applications. Fibrous reinforcement was specified for this pour, and Chaparral Concrete chose **UltraFiber 500®** for the project because of the ease of batching using the automated **UltraFiber 500®** bulk dispenser. This job required 140 yards of concrete per hour of fiber reinforced concrete and never once had to wait on the system in the batching process.



Chaparral Concrete – Robert Cleeland: *“The newly installed system worked flawlessly and allowed us to far exceed our customer’s expectations and save him more than 25% in crew time for the pour. We never could have accomplished this if we had to rely on manually loading fibers the old fashioned way. Our customer is extremely pleased with the finished look and performance of the fiber reinforced concrete and has talked about specifying it in all of their future projects.”*

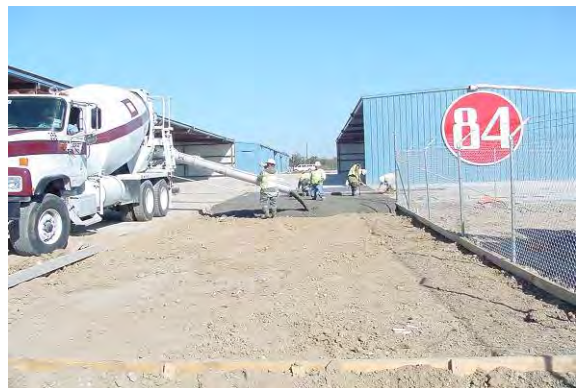
Ready Mix Plant – Chaparral Concrete

84 Lumber Project – Houston, Texas



The 84 Lumber Project in Houston, Texas is a 6,000 cubic yard slab on grade pour. **UltraFiber 500®** is used in this pour at a 1.5 lb/yd³ dosage supplied by Dorsett Brothers. The contractor for this project likes the finishability and the invisibility of **UltraFiber 500®** in the concrete. This project is estimated to be completed in January 2007.

*Concrete Contractor – Geoffrey
Builders Ready Mix Plant – Dorsett
Brothers General Contractor –
Pierce Hardy*



AutoZone – Lake Stevens, Washington



UltraFiber 500® was used in the AutoZone store in Covington, Washington. A 450 cubic yard slab on grade was poured with **UltraFiber 500®** at 1.5 lb/yd³ dosage. Fibrillated polypropylene fiber was originally specified, but was changed to **UltraFiber 500®**.



*Contractor – Finishing Edge Concrete Construction
Ready Mix Plant – Stanwood Ready Mix
Engineer – AutoZone*

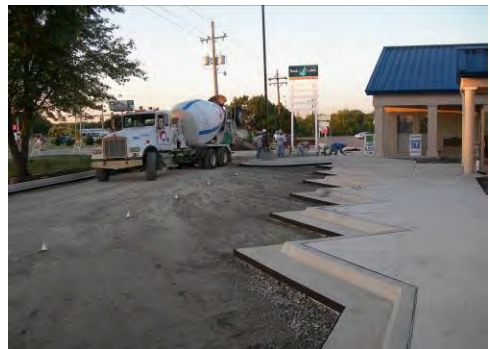
Bank of the Lakes – Catoosa, Oklahoma



UltraFiber 500® was used at a 3.0 lb/yd³ dosage in a 2,000 cubic yard pour for the Bank of the Lakes in Catoosa, Oklahoma.

UltraFiber 500® was used to replace #4 rebar placed at 2 foot on center in the project because of the very stable sub base and impact ability of **UltraFiber 500®** in the turning areas. The excellent fiber to paste bonding combined with the internal curing benefits of **UltraFiber**

500® resulted in a 13% compressive strength gain over the original design mix of 3,500 psi concrete.



*Contractor – Fleming Building Company
Ready Mix Plant – Mid-Continent Concrete
Engineer – Snowden Engineering*

Waste Water Treatment Vessels – China



A Chinese design firm specified **UltraFiber 500®** in the construction of three waste water treatment vessels due to numerous benefits including crack reduction, lower concrete permeability, and higher durability.



Approximately 13,000 cubic yards of concrete were poured with **UltraFiber 500®** at 1.5 lb/yd³ dosage.



Waste Water Treatment Vessels – China



Round Tanks - 164 ft diameter, 20 ft tall

Rectangular Tank - 361 ft long by 108 ft wide by 3 ft tall



B&F Electric Warehouse – Catoosa, Oklahoma



UltraFiber 500® was used at a 1.5 lb/yd³ dosage with rebar in a 1,500 cubic yard slab on grade pour for B&F Electric Warehouse in Catoosa,

Oklahoma. **UltraFiber 500®** was added in this project to substantially reduce plastic shrinkage cracking and improve impact resistance. The contractor, Fleming Building Co., was pleased with the performance and finishability of **UltraFiber 500®** and will use it in future projects.



*Contractor – Fleming Building Company
Concrete Contractor – Razorback Concrete
Ready Mix Plant – Mid-Continent Concrete
Engineer – Snowden Engineer*

The Village Point Project – Breckenridge, Colorado



UltraFiber 500® was chosen by Colorado Hardscapes in this decorative concrete application for the Village Point Project in Breckenridge, Colorado.

UltraFiber 500® was used at a dosage rate of 1.5 lb/yd³ for this 125 cubic yard project. In decorative concrete applications

UltraFiber 500® is an exceptional choice enhancing the color and texture while providing the added benefit of fiber reinforced concrete.



*Contractor – Colorado Hardscapes
Ready Mix Plant – Everist Materials*

California Business Condos of Temecula – Murrieta, California



UltraFiber 500® at 1.5 lb/yd³ dosage was used in the 3,500 cubic yards of paving that was laid for the California Business Condos of Temecula. The concrete contractor, D & D, completed a 5-inch paving with **UltraFiber 500®** between the five buildings that were constructed.



*Contractor – Kaylind Commercial Contracting
Concrete Contractor – D & D
Ready Mix Plant – Robertson's*

Cooper Tire Warehouse - Ft. Pierce, Florida



The Cooper Tire Warehouse Project was a 3,000 cubic yard pour.

UltraFiber 500® at a 1.0 lb/yd³ dosage was used in all of the concrete placement. This project included three different applications with **UltraFiber 500®** - the interior slab on grade, elevated metal decks, and 6-inch paving in the parking lot.

UltraFiber 500® performed excellently reducing the amount of plastic shrinkage cracks and not hindering the finishing process.



Ready Mix Plant – Prestige A/B

Evergreen Ridge Retail Center – Graham, Washington



The Evergreen Ridge Retail Center in Graham, Washington was a 1,500 cubic yard slab on grade project. Originally this job was specified for wire mesh, but was changed to **UltraFiber 500®** at 1.5 lb/yd³ dosage for reinforcement. The concrete contractor, Concrete Construction Norwest Inc., noted that with **UltraFiber 500®** they were “especially pleased with how the Soff-Cut joints were clean cuts versus the standard mesh that tears the joint.”



*Concrete Contractor – CCNW Concrete
Ready Mix Plant – Corliss Resources*

GE Building – Stamford, Connecticut



UltraFiber 500® was used in the shuttle bus ramp entrance for the GE Building in Stamford, Connecticut. 81 cubic yards of concrete was reinforced with **UltraFiber 500®** at 1.5 lb/yd³ dosage. This area was completed using a grey cobblestone decorative finish.



This slab on grade project has radiant heat in the concrete. **UltraFiber 500®** was chosen to reinforce the concrete and protect it from cracking.



*Contractor – Rich Vona Owner Ready
Mix Plant – Paramount Concrete*

Harley Davidson Dealership – Arlington, Washington



UltraFiber 500® at 1.5 lb/yd³ dosage was used in the 300 cubic yard casting slab for a tilt up at the Harley Davidson Dealership in Arlington, Washington. The contractor, SAK, was amazed at how well the 2 ¾" slab held up with **UltraFiber 500®** as the only reinforcement. They were lifting 100,000 lb panels with a 72 ton crane. They did not use anything under the riggers and never cracked the slab. The contractor noted that the 2 ¾" casting slab with **UltraFiber 500®** held up better than some of their previous 4-inch casting slabs with wire mesh.



Harley Davidson Dealership – Arlington, Washington



UltraFiber 500® at 1.5 lb/yd³ dosage was also used in the 450 cubic yard slab on grade for the Harley Davidson Dealership. Polypropylene was originally specified, but the contractor, SAK, switched to **UltraFiber 500®**. SAK was so impressed with the way the casting slab held together and its finishability that **UltraFiber 500®** was used in the mezzanine level as well. SAK stated they will highly recommend **UltraFiber 500®** in future slabs, especially the ones that are going to be laser screeded.



*Ready Mix Plant – Glacier Northwest
Concrete Contractor – SAK Construction*

Hyatt Regency Hotel & Condominiums – Orlando, Florida

Artist's Rendering



The Hyatt Regency Hotel and Condominiums project is expected to be a gated Four-Star resort consisting of 18 five-story buildings. **UltraFiber 500®** at 1.5 lb/yd³ dosage was used for all of the slab on grade applications for the hotel and condominiums including all interconnecting slab on grades. A total of 1,500 cubic yards was poured with **UltraFiber 500®**. The ready mix producer, Bedrock Ready Mix, promoted **UltraFiber 500®** in lieu of other fibrous reinforcement because of the ease of finishability and invisibility of **UltraFiber 500®**.



*Ready Mix Plant – Bedrock Ready Mix
Concrete Contractor – Baker Concrete
General Contractor/Engineers – Douglas Construction Company*

Irving Materials, Inc. – Manchester, Tennessee



In August 2003, **UltraFiber 500®** was used in a 68 cubic meter concrete parking slab for Irving Materials, Inc., a Ready Mix Plant in Manchester, Tennessee. **UltraFiber 500®** was used at a 0.6 kg/m³ dosage rate. The picture below, taken 3 ½ years later, shows a concrete parking area with no visible cracks. This concrete slab containing **UltraFiber 500®** has been able to withstand continual 40 ton concrete truck loading and parking at this high volume Ready Mix Plant.



Irving Materials, Inc., Manchester, TN – Buddy Williams, Plant Manager
12/1/03: "After pouring it (**UltraFiber 500®**) in my concrete parking area, I have noticed that there are no cracks even though the slab I poured is 15 m x 30 m x .15 m deep and contains no rebar, wire or expansion. I have poured a lot of concrete at this plant (approximately 183 meters) and the slab that looks the best is the one that my 40 ton trucks are parking and driving on every day!"

Commercial Offices – La Vergne, Tennessee



The Commercial Office Project in La Vergne, Tennessee was an outside paving project.

UltraFiber 500® at 1.0 lb/yd³ dosage was used in this 300 cubic yard pour. A 6-inch depth concrete slab on grade was placed for vehicular traffic. This project was completed in 2005.

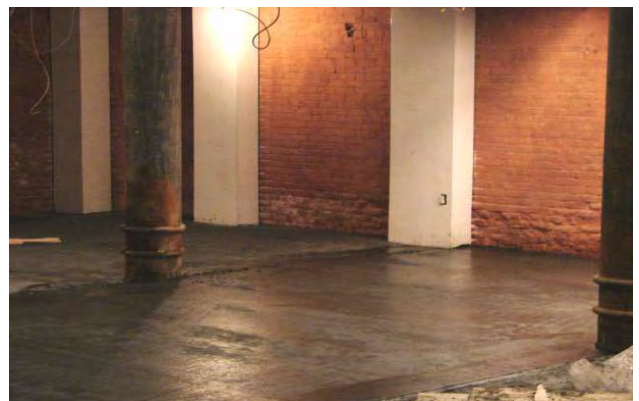


*Ready Mix Plant – Hoover Concrete
General Contractor – John Intorcia General Contractor*

New York Public Library – New York, New York



The building at 295 Lafayette Street in New York, New York is an old historical building that is undergoing complete renovation to house a branch of the New York Public Library. **UltraFiber 500®** was added in the 100 cubic yard interior decorative black floor with a flat finish that was poured for this project at a dosage rate of 1.0 lb/yd³. **UltraFiber 500®** did not hinder the finishing process and enhanced the pigmentation in the concrete.



*Concrete Contractor – PMS Construction
General Contractor – Omni Construction
Engineer – Mike Parsky & Associates
Ready Mix Plant – Quadrozzi Ready Mix*

Oklahoma Overlay Project – Muskogee, Oklahoma



The Oklahoma Overlay Project consisted of the placement of 13 miles of bonded overlay on the Muskogee Turnpike in Oklahoma. 50,000 cubic yards of concrete was placed reinforced with

UltraFiber 500® at 3.0 lb/yd³ dosage. Each load was mixed at the central mixer for 45 seconds and resulted in excellent

dispersion of **UltraFiber 500®** and consolidation leading to a homogeneous concrete mix.



A rotomill process was used to expose the damage to the turnpike. Concrete dowels were placed at the joints.



Oklahoma Overlay Project – Muskogee, Oklahoma



The concrete overlay was placed using a slip form paver. The surface of the concrete was then dragged and floated to finish. The concrete also underwent a longitudinal tining process. The presence of **UltraFiber 500®** in the concrete did not hinder this process. The construction crew noted that “no clumps or fur balls” were found. Two types of joints were sawed for this project. The first consisted of conventional jointing techniques and the second consisted of an experimental joint “layout” in which the joints are cut at right angles. The Oklahoma Turnpike Authority has stated that they believe this work has resulted in a 30 year repair. **UltraFiber 500®** has been approved for future use in their projects.



*Oklahoma Turnpike Authority Ready
Mix Plant – Duit Construction*

Olive Garden – Pueblo, Colorado



The Olive Garden in Pueblo, Colorado used **UltraFiber 500®** in the slab on grade concrete

placement at a 1.5 lb/yd³ dosage. The 100 cubic yard concrete pour was originally specified for polypropylene fiber. The contractor, Masset Enterprises, changed the specification to **UltraFiber 500®** because this was the only fiber they would use based on past experiences.



*Ready Mix Plant – Lafarge North America
Contractor – Masset Enterprises*

Public Storage Units – Colorado Springs, Colorado



The Public Storage Units project in Colorado Springs used 4,000 cubic yards of concrete in this slab on grade application. Polypropylene fiber was originally specified for this project, but was switched to **UltraFiber 500®** to eliminate finishing problems with hairy concrete. **UltraFiber 500®** was used at a 1.5 lb/yd³ dosage. **UltraFiber 500®** provided an excellent, blemish free finish in this project, which was finished using a laser screed and a power trowel. The contractor, NCB Construction has switched to **UltraFiber 500®** for all future FRC jobs.



*Contractor – NCB Construction Design Build
Ready Mix Plant – Rocky Mountain Premix*

Skagen Plaza – Covington, Washington



The Skagen Plaza in Covington, Washington was originally specified for wire mesh. This specification was changed to **UltraFiber 500®** at a 1.5 lb/yd³ dosage. The contractor, CCNW Concrete was “especially pleased with how the Soff-Cut joints were clean cuts versus the standard mesh that tears the joint.” There was 1,500 cubic yards of concrete poured with **UltraFiber 500®** in all of the slabs, sidewalks, and decorative crosswalks.



Concrete Construction Northwest Inc. – Randy Mollenberg: “It was a great experience trying this new product. As you know I was a bit skeptical at first, mainly because in the past the use of fibers in Washington State was a limited practice. I say this because with other fibers we were restricted in when we could use them. The sub-grade had to be dry and there could not be a chance of rain. With the other fibers, any wetness in the sub-grade or rain would cause the cement to wash away from the fiber and we were left with clumps that would result in imperfections in the floor. Yesterday, we were shown that **UF-500** does not do this, the temperature at pour time was 36 degrees and foggy. We could not remove all the excess water off of the Stego wrap. In the areas that we could not chase the water off we had excessive bleed water that came to the surface. This was the real test, and **UF 500** passed with an **A+**. That section of the floor doesn't look any different than the rest.”

Concrete Contractor – CCNW Concrete
Ready Mix Plant – Laphdany Construction
General Contractor – Corliss Resources

SkyWest Airlines Hanger - Colorado Springs, Colorado



The SkyWest Airlines Hangar was a 10-inch overlay on top of an existing slab on grade. For this project there was concern about water migration through the top, shrinkage cracking, and delamination issues. **UltraFiber 500®** was selected for use in this 5,000 cubic yard concrete placement at 1.5 lb/yd³ dosage as value added and to help diminish these concerns. There was placement by laser screed and a power trowel finish. The contractor, Hensel Phelps, was pleased with the finish, speed of the finish, invisibility of the fiber, and witnessed no cracking or delamination issues. **UltraFiber 500®** finishes like plain concrete and works excellently with power troweling without fibers collecting on the blades or balling on the surface.



*Contractor – Hensel Phelps
Ready Mix Plant – Rocky Mountain Premix
Engineer – URS Corporation
Architect – BCBO Architecture*

Sonic Drive-In – Harrah, Oklahoma



The construction of the Sonic Drive-In in Harrah, Oklahoma used 600 cubic yards of concrete reinforced with **UltraFiber 500®** at 1.5 lb/yd³ dosage for the slab on grade, paving and sidewalk concrete applications. **UltraFiber 500®** was used for fibrous reinforcement for this project because of its superior finishing. This was the first time Parkway Construction used **UltraFiber 500®** and they were so impressed they plan to use it in all future fiber reinforced operations.



*Owner – Sonic Drive-In Headquarters
Contractor – Parkway Construction
Ready Mix Plant – Block Sand & Gravel*

Spanish Peaks Golf Course – Big Sky, Montana



A golf cart path was poured for the Spanish Peaks Golf Course in Big Sky, Montana near the Big Sky Mountain Ski Area. The 3,000 cubic yard pour contained **UltraFiber 500®** at a 1.5 lb/yd³ dosage. The golf course is on the mountain side of the ski area so the cart path will be exposed to very snowy winters. The contractor, Wadsworth Golf Construction Company, was pleased with the finish of **UltraFiber 500®**, and the success of this project has led to another golf cart path project in the area.



*Contractor – Wadsworth Golf Construction Company
Ready Mix Plant – JTL Group*

Starbucks – Covington, Washington



The Starbucks Project in Covington, Washington was a 50 cubic yard slab on grade pour with a ground and polished finish. Polypropylene was originally specified for this project, but was changed to **UltraFiber 500[®]** at 1.5 lb/yd³ dosage to help eliminate finishing issues that arise when using a synthetic fiber. The presence of **UltraFiber 500[®]** did not hinder the finishability.



Ground & Polished Floor

Belshire Concrete Restoration, LLC – Steve Shirey: “Our crew did not report any anomalies during the grinding and polishing process, a process consisting of four grinding steps and three polishing steps. The result is a high gloss, low maintenance floor finish that requires no waxing or stripping to maintain its great appearance. Compare Covington to Starbucks Dupont, Washington. At Dupont the polishing process produced another great looking floor, but severe cracking appeared shortly after installation. ...UltraFiber appears to solve a major drawback to concrete as a finished floor. We will be recommending ... UltraFiber whenever we can.”

Concrete Contractor – Concrete Construction Northwest Inc.
Ready Mix Plant – Corliss Resources
Grinding Contractor – Belshire Concrete Restoration

Trump Tower – White Plains, New York



UltraFiber 500® at 1.5 lb/yd³ dosage replaced polypropylene in the spec for the Trump Tower project in White Plains, New York. This 35-story tower used over 100,000 cubic yards of concrete.

UltraFiber 500® was used in all cast in place concrete including the foundations, columns and decks.

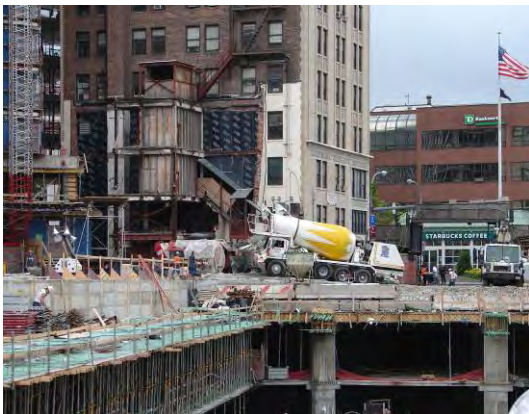


Trump Tower – White Plains, New York



UltraFiber 500® was used in this project to provide extra strength benefits. In addition **UltraFiber 500®** increased hydration in the concrete and provided a better fiber to paste bond helping the concrete maintain its integrity for the early form stripping that was done in this project.

UltraFiber 500® provided excellent pump-ability which was key in the Trump Tower construction as well.



*Contractor – Capelli Group
Ready Mix Plant – Byram Concrete Architect
– Costas Kondylis & Partners LLP*

Overton Park Conservancy Bike Gate Plaza



This highly publicized civic project for the City of Memphis' historic Overton Park involved installing a large terrace that would serve as a public convergence of city sidewalks, the "Greenline" rails-to-trails biking path, and the gateway to Overton Park Trailheads. Architects Askew, Nixon & Ferguson developed a design that would tap local artist to construct a massive archway of interwoven bicycles, tricycles, scooters—anything with wheels—that would serve as the focal point for this new terrace. They also consulted with Kevin Baltz, of Baltz & Sons Concrete, to develop a suitable plan for the hardscape design. Baltz steered the design towards pervious concrete, given the sensitive nature of the wooded venue, and the desire to minimize the impact on the historic, protected adjacent forest. As a cost-savings measure, Baltz also recommended using a variety of different aggregate mixes to achieve the contrasting finishes the design called for rather than the pigmentation methods of the original plan.



The terrace itself is largely pervious concrete with a charcoal gray integral pigment. This large area is shouldered by three variously sized “sprockets”, all of which are encompassed by a perimeter “chain” calling to mind the gears and workings of a bike.



Five different aggregate mixes were employed by Baltz to execute the design, as well as pervious concrete, elements in broom-finish, footers, bollard supports, and notch-bands for donation bricks.

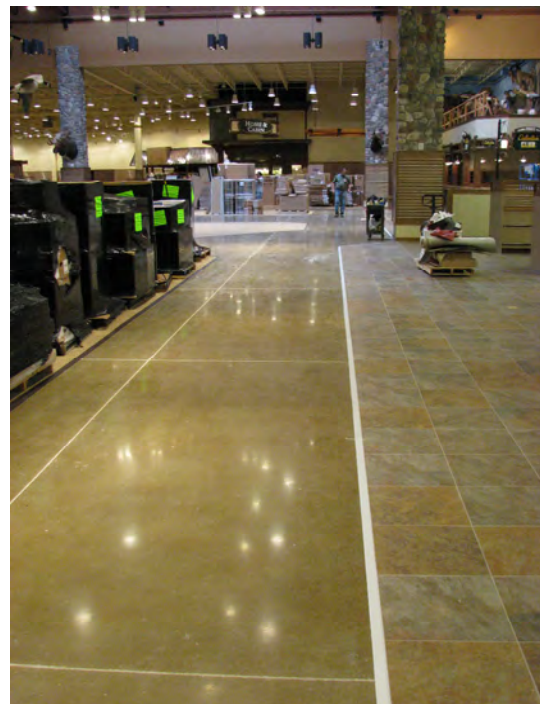
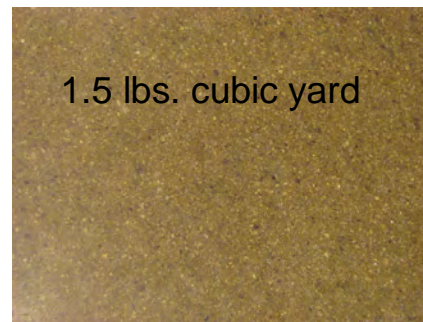
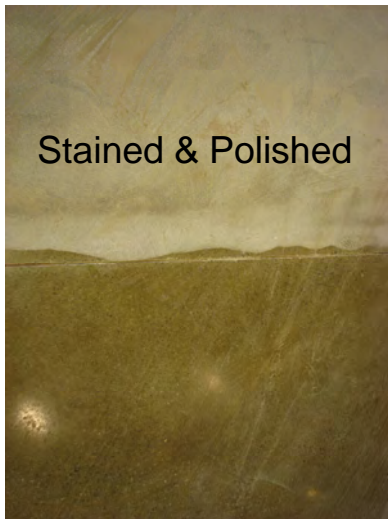


Extending from the rear of the terrace, a winding double-wide broomed concrete with exposed aggregate bands connects to the paths and trails of the

park.



Cabelas Reno
Opened Fall 2007
No Drying Shrinkage Cracks as of March 2014



Federal Court House Madera, California



Hotel M Parking Structure Las Vegas, Nevada



King Soopers
Colorado Springs, CO
Polished Floor



Kohl's Department Store Coeur d'Alene, Idaho



Lowes Department Store Washington Pervious Concrete



Oregon Trail Park
Kansas
Pervious Concrete



Plaza at Moanalua
Honolulu, HI
Deck Design D973 Two Hour Fire Rating



Pukalani Water Treatment Plant Lahaina, Maui



San Luis Obispo Skate Park

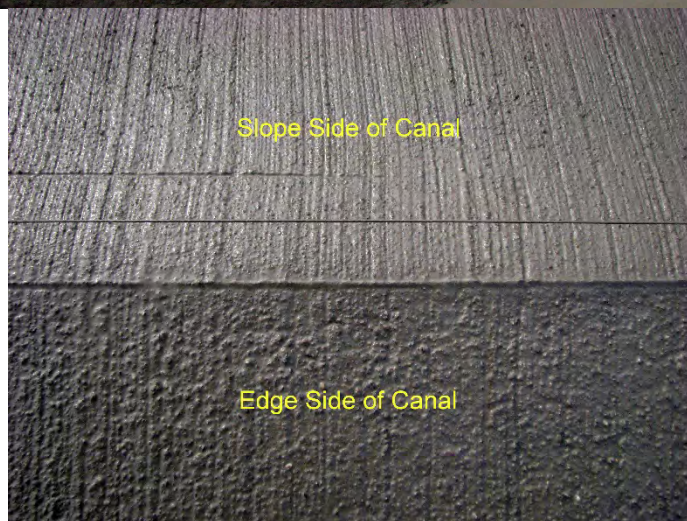
Shotcrete Application



United Healthcare Campus Minneapolis, MN 3 lbs/Cyd Steel Deck



Vaughan Canal Solano County Water District Dixon, California



Slope Side of Canal

Edge Side of Canal