

March 28, 2017

Karen Olson
Deputy Director – Port and Marine Services
City of Key West
201 Williams Street
Key West, Florida 33040

Subject: Half Shell Raw Bar / Proposed Seawall Repairs

Kearns Construction Company's Experience / Five Similar Projects

Ms. Olson:

As previously discussed, Kearns Construction Company has completed the largest underwater concrete placement projects in North America. This work included two large tremie pours for the Port of Miami Tunnel Project. Both tremie pours (Dodge Island 11,000 CY & Watson Island 11,000 CY) are the largest ever done in North America. In addition, Kearns Construction Company helped construct the largest underwater access shaft (42' diameter x 100' deep from grade / 85' deep underwater) in the State of Florida. For your review and consideration, Kearns Construction Company offers the following projects:

Description & Location: Norris Cut Launch Shaft (see attached / Exhibit A) – Virginia Key, Miami, Florida / With the use of its commercial divers, Kearns Construction Company placed 800 CY of underwater concrete, installed underwater rebar and repaired existing concrete CSM concrete walls. One of the unique features of this project was that the concrete walls were poured in 100' vertical drops. The extreme pressures forced the cement out and away from grout and the wet aggregate. The as-built condition was that the bottom of the CSM was constructed from poor quality concrete / grout (constructed by others). Kearns Construction Company underwater (-85 NGVD feet with mix gasses for commercial diving respiration) repaired these concrete walls. Kearns Construction Company also formed, poured and placed the reinforced underwater concrete tremie. The rebar was placed with underwater drill, dowel and underwater epoxy.

Contract Amount: \$900,000

Dates of Work Performed: Winter 2015 (December 17, 2014 – March 18, 2015)

Owner: Miami Dade Sewer Department (Owner) / Nicholson Construction Company (Prime

Contractor)

Name of Owner's Contact Person and Phone Number: Robert Stebbins (MDWS): 305 960 5423 or 305 794 2673 (Note: Mr. Stebbins has been recently promoted and is now "Chief of Construction" at Port Miami) / Elroy Ramos (Nicholson Construction Company / Prime

Contractor): 412 715 3265 Engineer: Bob Samara, P.E.

Engineer's Contact Information: Bob Samara P.E. Cell: 305 934 2220, Office: 305 662 1916

II. Description and Location: Saxony / Atlantic Hotel (Exhibit B, attached) – 34<sup>th</sup> Street and Collins on Miami Beach, Florida. With the use of its commercial divers, Kearns Construction Company built the tremie slab and vertical concrete walls for seven elevator shafts all under the water. Kearns Construction Company placed the formwork, placed reinforcement steel and poured the underwater concrete all underwater. In the second phase of this project, Kearns Construction Company poured 8,000 CY of underwater concrete tremie seal concrete. After the underwater tremie seal was poured (-20 NGVD), the cofferdam was pumped out. The prime contractor, Layton Construction, later built a two story below water table parking garage inside the cofferdam built by the Kearns Construction Company. This construction project became part of the most expensive real estate in the State of Florida.

Contract Amount: \$1,600,000

Dates work was performed: Summer, 2015

Owner: John Faena

Owner's Representative: Dean Loisel / Finance Director, 3201 Collins Ave, Miami Beach,

Florida 33140, Phone: 305 535 3009, Cell: 305 322 6686

General Contractor: Layton Construction / Tyler Dillon (Project Manager), Cell: 239 340

8526

Engineer: Bob Samara, P.E.

Engineer's Contact Information: Bob Samara P.E. Cell: 305 934 2220, Office: 305 662 1916

III. Description and Location: **Port of Miami Tunnel** (Exhibit C, Attached) – Dodge Island, Miami, Florida. With the use of its commercial divers, Kearns Construction placed the underwater formwork and poured all of the underwater concrete (underwater walls and underwater slabs) for the Port of Miami Tunnel. This work became the start (Watson Island) and end (Dodge Island) of the Port of Miami Tunnel. In addition, Kearns Construction Company was hired to perform underwater repairs to the CSM concrete walls (constructed by others). At the Port of Miami Tunnel are four (4) large concrete CSM walls (400' long x 100' deep / similar to giant seawalls). These concrete CSM walls were poured in place. After the poured in place concrete panels had cured, Kearns Construction excavated down to -50 NGVD behind these walls. In several locations, the concrete quality was poor (constructed by others) and did not meet the project specifications. Kearns Construction Company was hired to repair these areas with underwater grout and concrete. Kearns Construction Company also drove the piles needed for the hurricane flood gates.

Owner: FDOT / Maurice Ferre

Contractor: BCWF / Peir Pascual, Joe Folco Telephone: 305 894 1800 / Cell: 305 632 2243

Contract Amount: \$3,000,000

Dates Work Performed: Spring 2012

Engineer of Record: Jacobs Engineering / Phone: 305 471 4753

Engineer for Underwater Formwork: Bob Samara, P.E. Cell: 305 934 2220

IV. Description and Location of work: Marina Palms Marina (Exhibit D, attached) – 17201 North Biscayne Boulevard, North Miami Beach, Florida 33133. With its commercial divers, Kearns Construction Company completed the underwater removal of an existing marina and construction debris. Kearns Construction Company performed above water and below water repairs to the existing seawall. Repairs were made with concrete and grout. The existing seawall was 2,000 feet long. In addition, Kearns Construction Company added 200' of new seawall, furnished and installed wooden piles and built a new 116 slip concrete marina.

Contract Amount: \$7,000,000

Dates work performed: August 2014 - August 2015

Owner: The Plaza Group

Name of Owner's Contact Person: Larry Jankins, Project Executive: 954 520 9229 Name of Owner's Contact Person: Ed Beck, Project Manager: 305 454 3214

**Engineer: Coastal Systems International** 

Name of Engineer's contact person and phone number: Tim Blankenship, P.E. Cell: 305 873

3326

V. Description and Location of work: **Elliot Key Park Pier** (Exhibit E, attached) – West side of Elliot Key in the Florida Keys (only accessible by boat). Kearns Construction Company removed and replaced a 240' long x 16" wide concrete pier. With its commercial divers, Kearns Construction Company built an underwater landing ramp at the end of the deep end of the pier. The Kearns Construction Company divers formed and poured the underwater concrete ramp. In addition, the Kearns' divers placed the underwater epoxy grout and rebar. Kearns Construction Company furnished and installed all the wooden piles and concrete piles for this project. Kearns Construction Company also built the wooden side docks for this project.

Contract Amount: \$1,070,000

Dates work was performed: May 2015 – January 2016

Owner: U.S. National Park Service / Tim Bemisdefer Office: 404 507-5705 Cell: 404 316 0603

Name of Owner's Contact Person: Time Gabriel (Project Manager): 9191 625 0106

Engineer: Olin Hydrographic Solutions

Name of Engineer's contact person and phone number: David Olin, P.E. 305 619 2800

The above listed information is a supplement to the projects listed with our bid dated April 19, 2017 (ITB#17-019). Should you require any additional information, please contact this office.

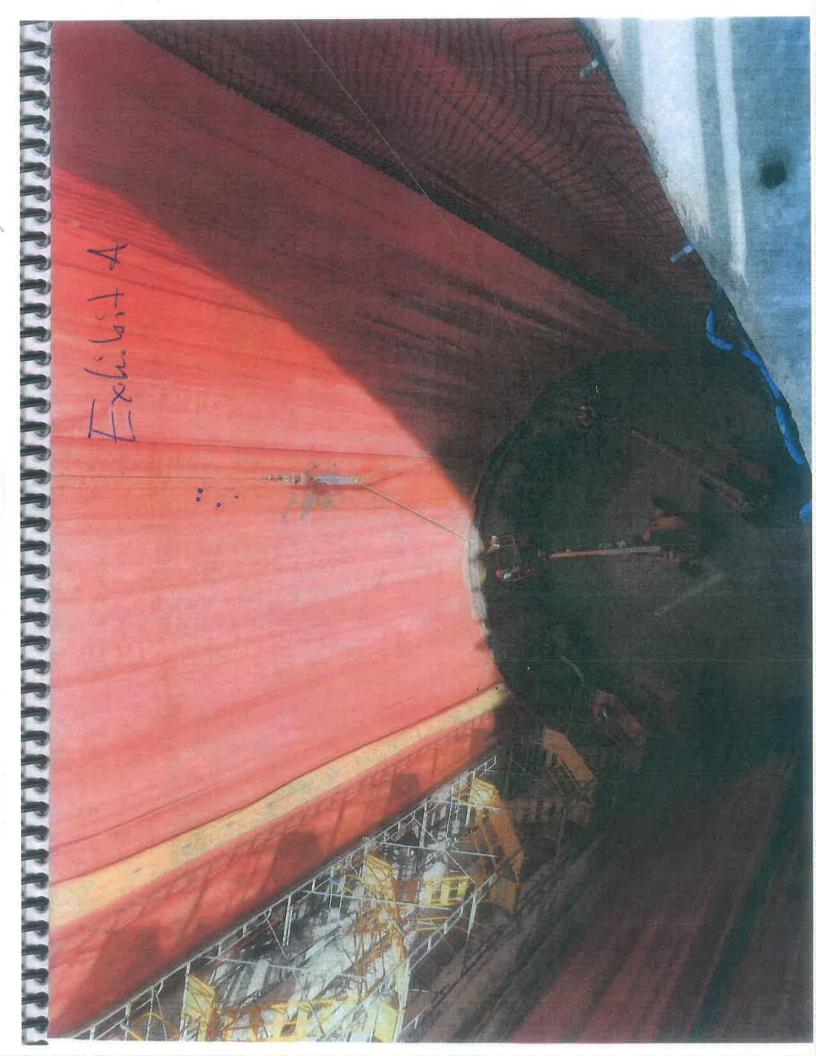
Very truly yours,

John Kearns

**Kearns Construction Company** 

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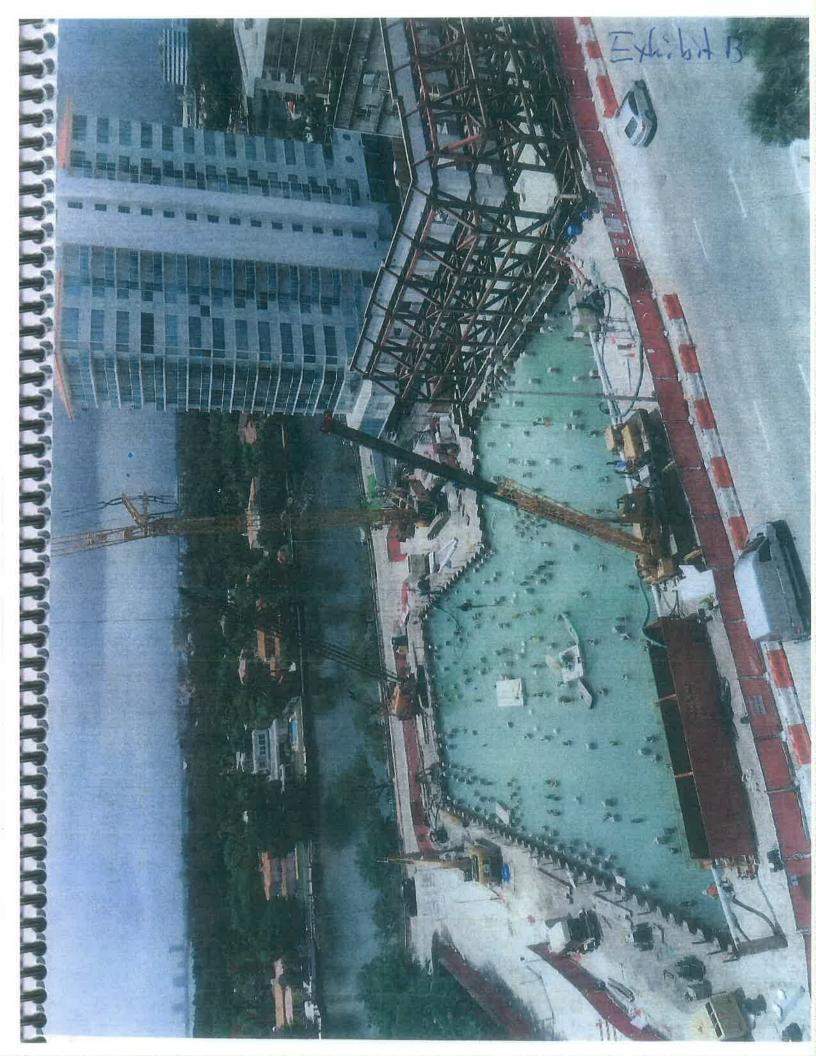




Exhibit B

12 ! The Last Word

Diversify and Prosper David S. Layton

# Foundation

A Quarterly Publication from Layton Construction Company www.laytonconstruction.com

# GOING TO EXTREMES

Faena District Arts Center &
Snowbird Ski & Summer Resort | Page 4

2 | Nuts & Bolts Layton in the News



## Commerce center coming to Phoenix area

Layton has been awarded a design-build pre-construction contract to begin work on the 1.6 million-square-foot Phoenix-Mart in Casa Grande, Ariz.

When completed, the facility will be one of the largest singlelevel wholesale commerce centers in the Western Hemisphere.

The PhoenixMart facility is part of a 585-acre masterplanned development. Construction will begin in November. The immense size of this project will only be topped by Layton's herculean effort to fast-track the schedule to complete it by the end of 2015. Space will be available for more than 1.700 businesses to be housed there.

## Pair of Hawaii projects earn awards from GCA



Koloa Landing Phase II received the General Contractors Association (GCA) of Hawaii Award of Excellence

for projects in the \$15-25 million category.

Layton's BYU Hawaii Student Housing project also received a GCA Merit Award for the fourbuilding housing complex built on the island of Oahu.



## Studio Professionals

## Layton kept the music going throughout radio station buildout

Specialists kept the noise down floor build-out for Broadway the Salt Lake City market.

The media group also includes

broadcasts Pac-12 University of Urah sports and MLS Real Salt Lake soccer.

personalities in their sound lenge and sound walls and doors cepted the challenge and found

the great personal relationships on other work completed in



Allen Howells takes pride in knowing that his efforts benefit the communities he works in. As a superintendent in the healthcare division of Layton, the hospitals and clinics he works in make a difference in the quality of life of generations of visitors.

"I like working in construction because it's nice to say that I've done my part to help society as a whole,"

he says. "The benefit we help bring is permanent. It's nice to know I've done my part to make the world a little better."

24 years

Allen came to Layton as a journeyman carpenter and worked his way to foreman, then to assistant superintendent and, since 2003, as a project superintendent.

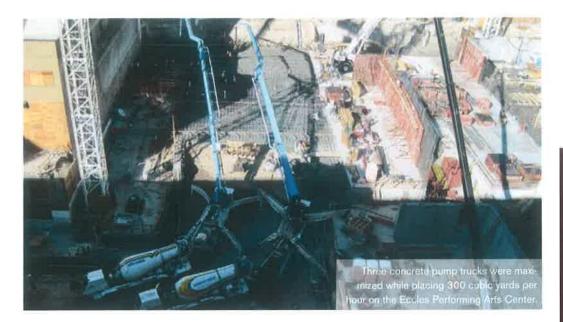
Being part of a team that works together well and rises above

## **Employee Focus**



the challenges that come with construction is what has kept Allen excited about coming to work everyday.

"I work with great people," he says. "I'm not the type that has a best friend, but I have an excellent set of friends and community at Layton. Even though we've grown over the years, there's still a family tone overall."



## **Premier Project**

## **Eccles Performing Arts Center construction moves on**

Layton's work continues on the Eccles Performing Arts Center in the heart of downtown Salt Lake City.

Months of demolition and site preparation have led to the

recent concrete placement of two sections of mat footing, one a 2,300-cubic-yard pour, followed by another 1,700 cubic yards. The project site is tight, bound by Salt Lake City's Main Street and TRAX Light Rail System, another construction project contiguous to the Layton project site and existing office buildings and roadways.

## Hospital site used for workplace safety ad



Safety is paramount to Layton Construction, so it was easy to say "yes" to support the production of a Workers Compensation Fund (WCF) safety television commercial at Layton's construction site of the Mountain Point Medical Center (lasis

Healthcare) in Lehi, Utah.

Layton's safety initiatives of Layton Injury Free Environment (L.I.F.E.), and Layton Personal Safety Zone (LaPSZ) can't be overemphasized.

As WCF admonishes, "Be Safe Out There!"

## North Dakota hospital set for spring start

McKenzie County Hospital in Watford City, N.D. will be a \$30 million replacement acute care hospital with a long-term acute care component.

Watford City

The population of Watford City and McKenzie

County has skyrocketed with the state's energy boom and health care services are in demand. The project is in design phase and construction will begin when the ground thaws in the spring.

Layton's previous multifamily construction work in Watford City helped open the doors to this project.

## Simplot center uses Layton to build parking



The late Boise icon J.R. (Jack)

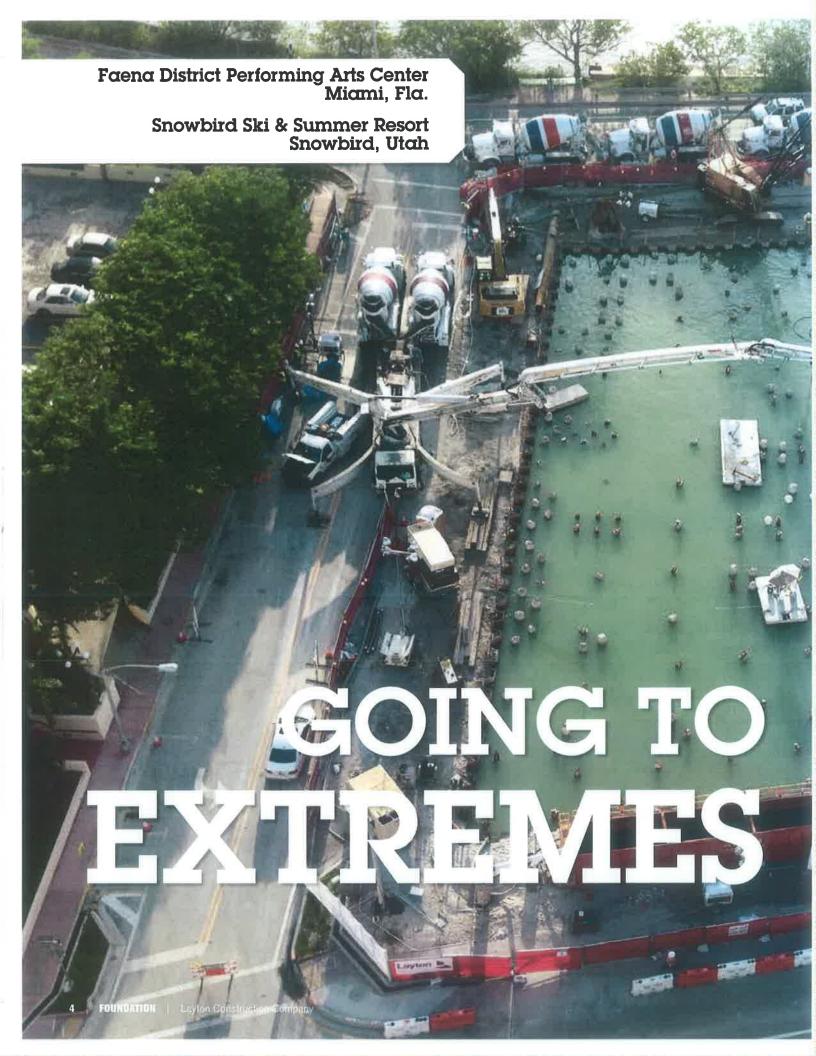
Jack's Urban Meeting Place (JUMP) in Boise.

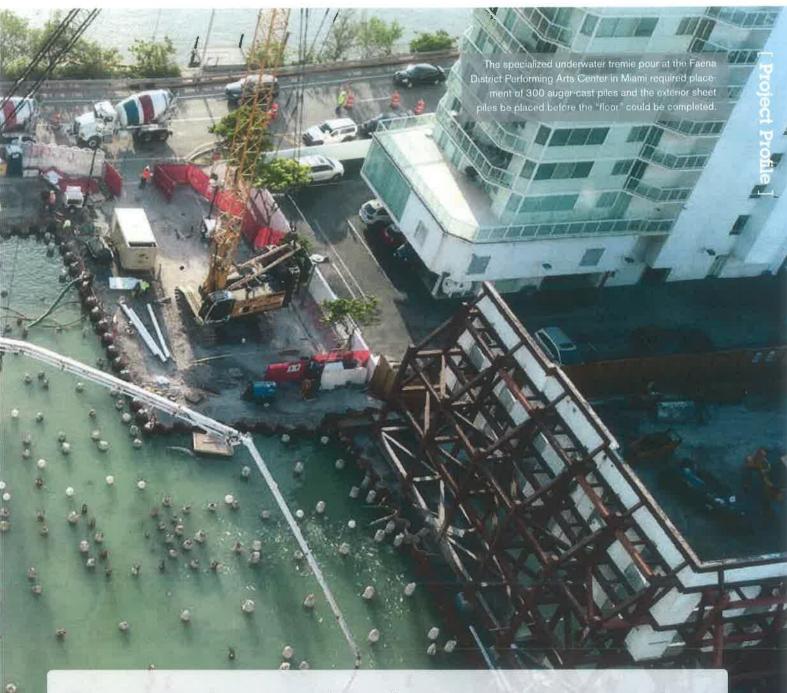
Funded by the Simplot will be an interactive and

an \$8 million, 300-stall JUMP as well as tenants

1,600 tons of reinforcing

Because of the depth of





## From under-sea-level pours to mountain top majesties, Layton's versatility shines

STORY BY GREG BENNETT
MIAMI PHOTOS BY KYLE NITCHEN & SMITH AERIAL
SNOWBIRD PHOTOS BY LAYTON CONSTRUCTION

ny construction company can find a niche and stick to it.

The true mettle of a company is measured at the top of an 11,000-foot mountain peak, where workers overlook rocky cliffs below as they build at the same level of quality expected by Layton and its clients at more friendly elevations.



## **The Details:** Miami

Start Date April 2014

Construction Completion Date January 2016

Total Square Footage 62,260

Architect OMA\*AMO Architecture New York City

## **The Details: Snowbird**

Start Date May 2014

Construction Completion Date November 2015

Total Square Footage 23,000

> Architect **GSBS** Architects Salt Lake City

#### >>>

It is measured under sea level, when the elements conspire against traditional construction methods and require trust in a specialized subcontractor — with a one-of-a-kind proprietary concrete placement process - to get the job done.

Layton has two current jobs that couldn't be more different in location, but each require skillful project management to complete.

The Faena District performing arts center is located in the heart of South Beach in Miami, Fla. The other is a guest services building (i.e. ski patrol headquarters and restaurant) at the Snowbird Ski & Summer Resort located 11,000 feet above sea level, just east of Salt Lake City, Utah.

While both projects are unique, Layton's systems and general approach to partnerships has made each project a success.

#### **PURPLE MOUNTAIN MAJESTY**

More than 25 years ago, owners of Snowbird envisioned a beautiful facility at the top of the



On the Faena project, workers added 130 yards of concrete per hour during the 23-hour, non-stop tremie pour.



## "The weather was another factor. There has been snow, rain and high winds. We've had to work to make sure everyone stays safe."

**Jerry Giles** Director of village operations, Snowbird

tram line that would not only feed and warm skiers, but offer unparalleled mountaintop views. After working with the U.S. Forest Service and numerous other interested parties, work on the building began when the mountain thawed last spring.

"Everyone is really happy to see a restaurant up there," says Jerry Giles, director of village operations at Snowbird. "It's been 25 years in the making. Between getting the financing together, permits, planning - this has been a long time coming."

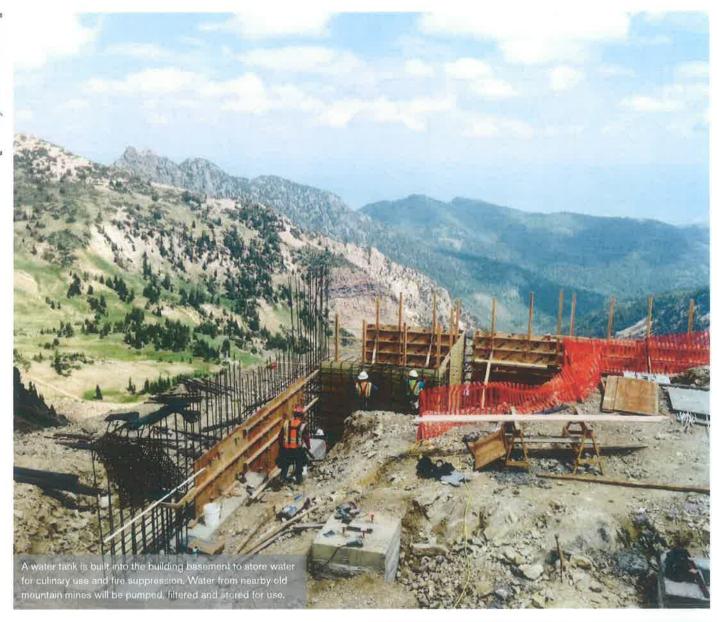
#### **TALENTS TO SOUTH BEACH**

While Layton has been a nationally recognized commercial contractor for more than 60 years, the company is still growing roots in the deep south and Florida. That's why getting the chance to build the Faena District project in the

heart of South Beach is a feather in Layton's cap.

The performing arts center construction is part of a larger six-block billion-dollar mixed-use development at the heart of one of the most luxurious — and busy locales in the country.

"There were no off hours," says Tyler Dillon, construction manager for Layton Construction. "3 a.m. in South Beach has as many pedestrians and vehicle traffic as just about any other time. Just like the city, our focus on logistics and public safety could never sleep."



#### **ELEVATED LOGISTICS**

Logistics are a challenge on the most routine of construction projects, but put that project on the top of Hidden Peak up Little Cottonwood Canyon and the challenge is, well, elevated - literally and figuratively.

Layton found a creative way to overcome the transportation challenges. The company hired the owner - Snowbird - as a subcontractor to deliver the steel beams and other construction materials needed at the top of the mountain. The maintenance crew at Snowbird was experienced in traversing the adverse conditions and had the articulated trucking equipment needed to do the job.

"Without the expertise and skill of their drivers, we couldn't have done this job," says Dan Mickelson, project manager for Layton. "Snowbird drove up every piece of needed equipment except the concrete pumps and concrete trucks. They were a principal and key subcontractor."

Driving the concrete mixers thousands of feet up narrow roads fell to concrete subcontractor Alta View Concrete.

"The road is a pretty good road, but it has a lot of switch backs and you need experienced drivers," Jerry says.

Crews also had to be patient. If rain or snow hit the road, they had to wait for them to dry or melt before continuing up the mountain.

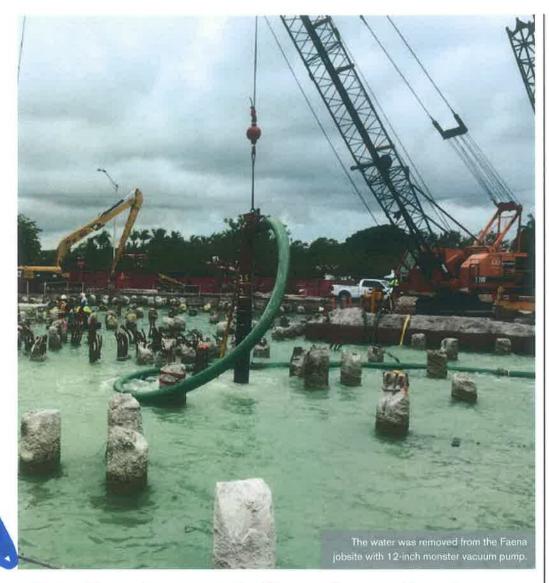
## **Key Subcontractors Snowbird**

Concrete	Altaview Concrete
Concrete placement	Layton Construction
Reinforcing steel	
Structural steel	Wasatch Omamental Iron

## **Key Subcontractors** Miami

Concrete	Cemex USA
Concrete pumping	Brothers Concrete Pumping
Excavation	Eastern Coastal Development
Tremie slab	Kearns/Pellegrims Partnership





"This (tremie pour) is the only one I've known in this market to be done on schedule and at the end of the day everyone is happy. I look at our market and don't see that level of satisfaction with other projects."

John Kearns

Partner and administrator, Kearns Construction

#### **UNDERWATER OPERATIONS**

The Miami job was no less challenging. The job required pouring a tremie slab — by key subcontractor Kearns Construction and Pellegrims (an underwater subcontractor from Antwerp, Belgium) — which is an underwater concrete pour intended to seal off the bottom of an excavation to be

successfully de-watered. Following de-watering, the foundation work for the building can begin. It's a complicated process that requires proprietary equipment, specialized divers and much of the job be done with low visibility.

"Most of the work is done in visibility of one foot or less," says John Kearns, partner and administrator

of Kearns Construction. "You're working by feel, not by sight."

The Faena pour took 23 hours to place 3,000 cubic yards and required constant pouring, which meant trucks had to flawlessly stage at the pumps to discharge and then be filled with more concrete and return quickly - all in the heart of South Beach.

## Snowbird vs. Faena

**Oulck Notes** 

- Snowbird: 1,500 cubic yards of concrete will be placed over two construction seasons. Small loads of six cubic yards per truck - 250 loads total navigate the steep terrain.
- Faena: 3,000 cubic yards of concrete was placed at one tremie pour over a 23-hour period. Large loads of 10 cubic yards per truck - 14 loads per hour - kept up with the necessary non-stop placement.
- Snowbird: One small 6-inch concrete slab-on-deck placement was less than 10 yards, off-loaded and placed with a concrete bucket and hydraulic forklift, taking approximately an hour to place.
- Faena: The tremie slab is four feet thick. Ten cubic yards of concrete was placed in approximately four minutes.
- Snowbird: To start a typical day at 11,000 feet, 20 tradesmen - carpenters, concrete finishers, steel erectors, equipment operators and supervisors boarded the Snowbird tram for a 10-minute, 1.6-mile ascent (2.900 vertical feet) to reach the jobsite. There was no other vehicular traffic.
- Faena: The 23-hour tremie slab project team included 187 tradesmen, including divers, operators, drivers, supervisors, 75 flagmen and 18 police officers to direct traffic the constant traffic of South Beach.





"It was a major feat to put this together," says Marty Moore, senior superintendent for Layton. "We met with condo associations, city officials, police and others to make sure we were ready. It's even a challenge just to make sure you have the labor force there. Everything has to come together."

#### **GOOD FORM MEETS PROPER FUNCTION**

The designs of each project were specified to meet the environmental and construction needs. Architects were quick to answer questions, make adjustments and be a vital part of the team.

For example, the Snowbird building was designed to require fewer welds than alternative design options, making construction easier on the top of a mountain.

Also, the mountain building has non-reflective glass (a U.S. Forest Service requirement for permitting) and is rated to withstand frequent winds of 140 miles per hour.

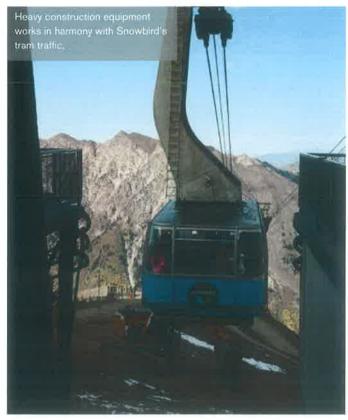
"There's also a unique snow melt system that will be a great benefit to the building when it's completed," says Tang Yang, architect with GSBS Architects in Salt Lake City.

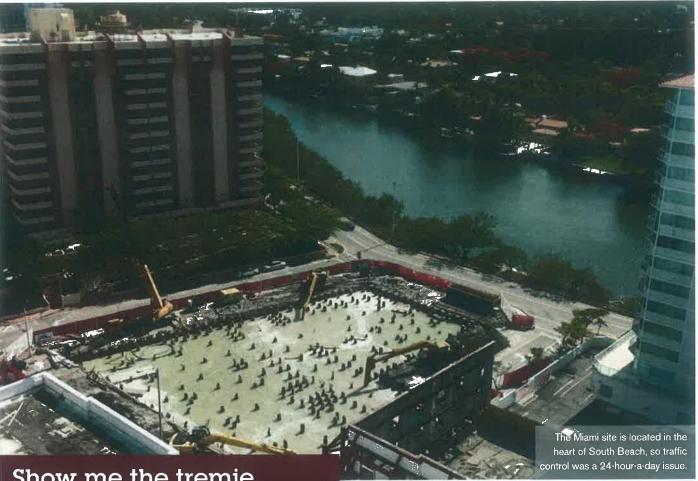
#### **RUNNING THE TEAM**

For both jobs to be successful, communication was key.

"Tremie slab installation is a very specialized process that is not commonplace," Tyler says of the Miami pour. "There are very few subcontactors that have experience in tremie slabs. The whole process was uncharted territory, so we had to be confident in our partners. The cost of failure was so great that is required a lot of trust, constant monitoring and diligent planning. In the end, the plan came together seamlessly. It was a huge success."

The trust comes from both sides contractor and subcontractor —





## Show me the tremie

but effective way of placing concrete underwater. The concrete: coming through the pipe is kept concrete so water is displaced as new concrete is distributed.

subcontractor Kearns Construc-

communicating clearly, understanding expectations and then fulfilling their respective obligations.

"One of the most impressive things (with this project) is that Layton comes in as a new contractor in town and takes on one of the most challenging projects in town and does it on time and successfully," John says. "That's impressive."

Layton's communication model played out on top of the mountain as well.

"The team works really well to-

Proper technique is important so you don't see separation of when placed in the water. A conto ensure structural integrity.

gether," Tang says. "This is a challenging job in a tight time frame. We tried to be responsive to each other's needs and questions."

Snowbird's involvement as a key subcontractor brought an unusual and beneficial - feel to the team.

"I've never worked on a project where the owner has been such a part of things," Dan says.

Regardless of the challenges a particular project brings, Layton's dedication to quality can be found from the mountains to the sea.







## Diversify and Prosper

## 'Great Recession' afforded great expansion for Layton services



David S. Layton

"Great Recession" in 2007 and the commercial construction industry dramati-

cally felt its effects a couple of years later. Projects lagged and revenues dipped. Over the course of four years, the nation's commercial constructors saw aggregate revenues fall nearly 25 percent from the height of the market in 2008.

Having ridden a steady climb of revenues since the turn of the century, then to see such a sudden downturn, the uneasiness was clear on the faces and in the minds of our construction professionals. We simply determined that we would weather the storm. We determined that we would be disciplined to the principles and sound business practices that put us here after more than 50 years of business.

Even though all sectors of the economy were hit by the recession, some were less affected than others.

We diversified to find these bright spots in the economy and pursue opportunities. Diversity meant stretching ourselves in terms of product, service and geography. We opened offices in Idaho, Tennessee and California. The offices opened us to new regional relationships. Healthcare was doing better than other industry sectors, so we pursued opportunities there.

We vowed to be disciplined to continue to provide only first-rate construction services, even though markets became more challenging. Clients and lenders expected us to find ways to cut costs of construction. We vowed not to compromise quality. We would stick to the core values of quality, communication, innovation and integrity.

Well, six years later, the commercial construction industry is rebounding. There is more optimism than has been felt for a long time. The goals we set to get us through the recession have been realized.

The two projects featured in this issue of Foundation are prime examples of the diversity we've

sought to attain, both in terms of geography and project type.

In Miami Beach, Fla., we are placing concrete literally 25 feet below sea level in sea water. We are building at a congested site where seasoned construction workers toil in contrast to the glitz and glamour of South Beach.

At Snowbird Ski and Summer Resort in Utah, concrete is moved one arduous truckload at a time. 6,500 feet in vertical elevation from the concrete batch plant in the Salt Lake Valley, to the top of an 11,000 foot peak in the Wasatch Mountains. We applaud the Utah Ski industry's slogan of "The Greatest Snow on Earth," as long as the snow stays away long enough for us to meet our construction schedule goals before winter sets in.

From Hanford (Calif.), Hartford (Conn.), Harker Heights (Texas) or Honolulu (Hawaii), Layton has worked diligently to position itself as a construction leader, matching the diverse needs of our clients with the discipline that it takes to create predictable outcomes for those with whom we partner.



## Layton Construction Company Area Offices

#### **Salt Lake City**

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#### **Irvine**

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#### Orlando

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#### Hawaii

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#### **Boise**

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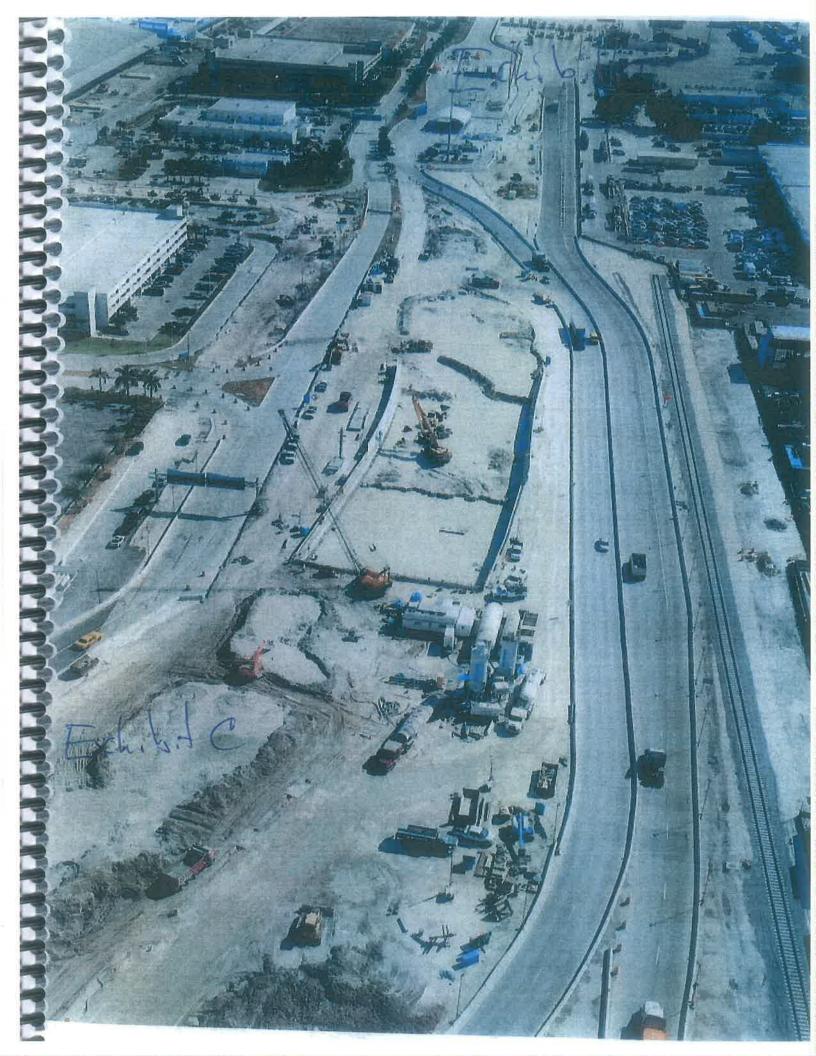
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#### A publication of the **Layton Construction Company** marketing department:

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# GONCRETE PUNPING

AMERICAN CONCRETE PUMPING ASSOCIATION

FALL 2011

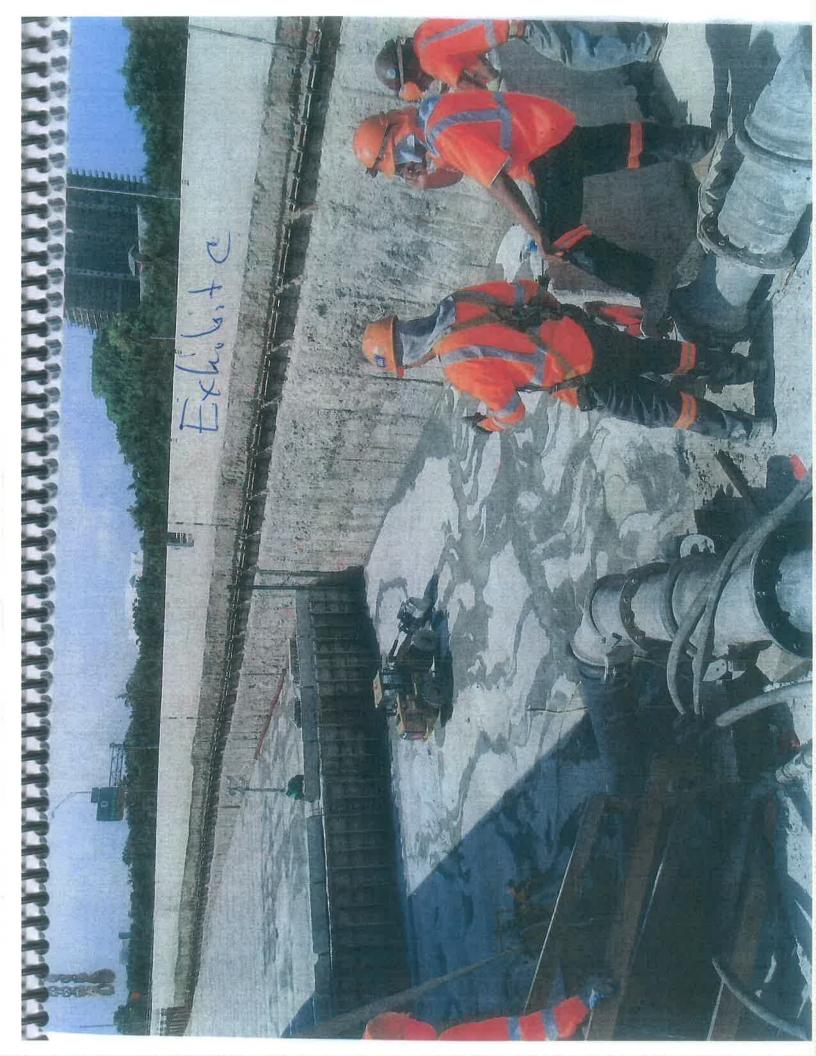


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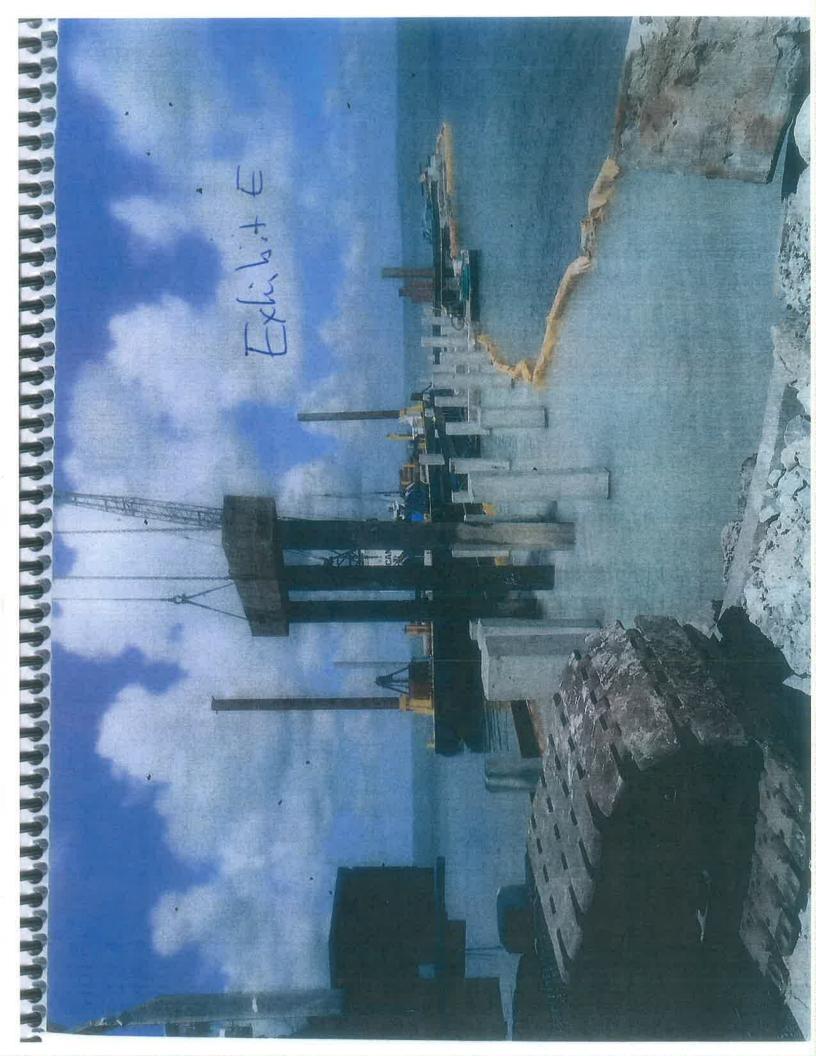
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