Breaking Ground

THE MAGAZINE OF THE MASTER BUILDERS' ASSOCIATION OF WESTERN PENNSYLVANIA

JULY/AUGUST 2018

HOUSING MARKET UPDATE

The Inventory Problem

MBA

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- One Oxford Centre – Shorenstein

Registration and networking will start at 11:00 AM at One Oxford Center

Happy hour to follow at the EVEN Hotel Atrium

Please contact Alicia Smith for more details at admin@crewpittsburgh.org

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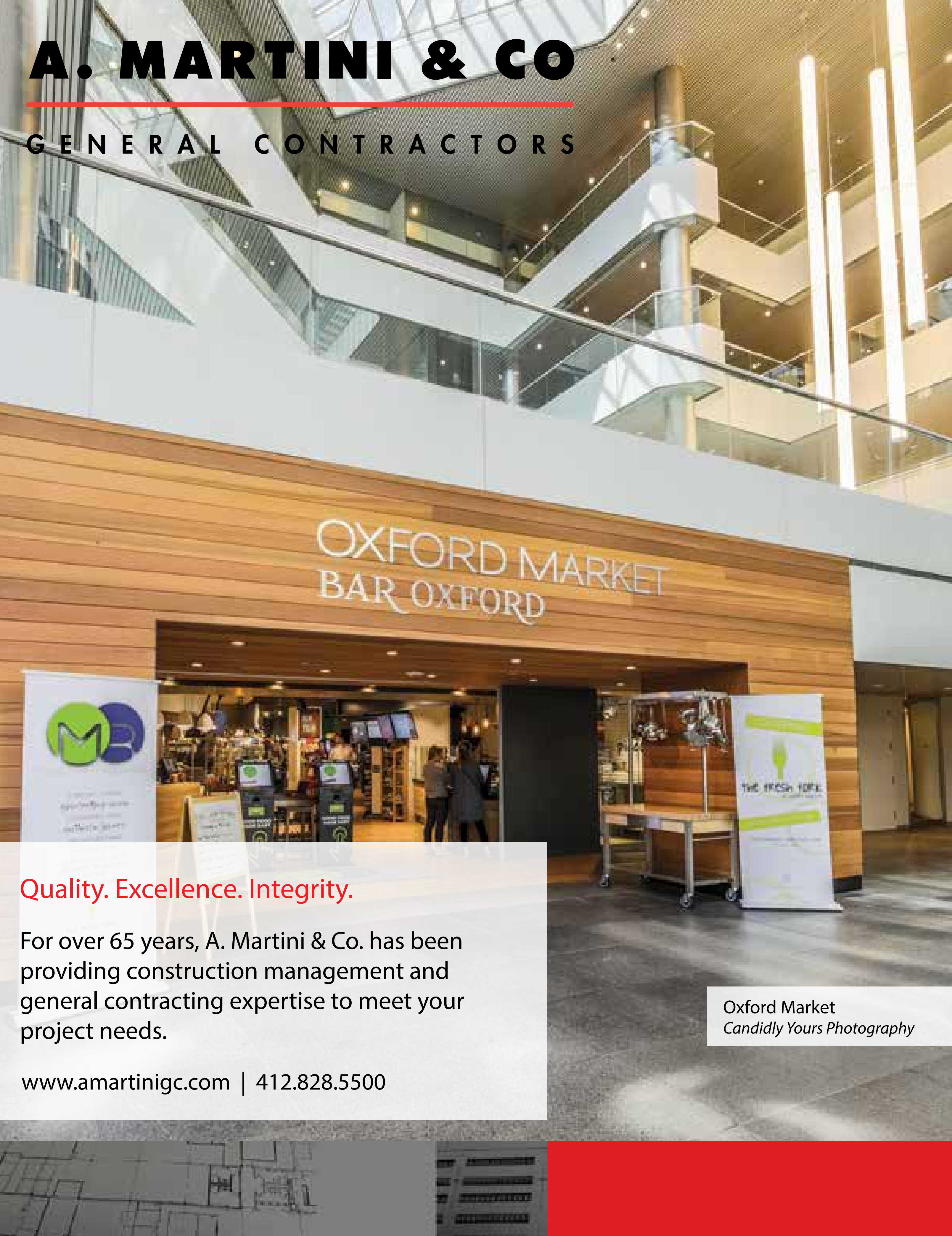
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Cover image: The Cosmopolitan Apartments in Ross Township

PUBLISHER'S NOTE

In the mid-2000s, the problem of insufficient commercial sites moved to the front burner of regional leaders' efforts. Spurred by commercial brokers and site selectors, leaders from the Pittsburgh Regional Alliance, NAIOP Pittsburgh, IDC/EDC entities, state and local government worked to identify viable properties that could be made "shovel ready" to attract development. The belief was that the lack of viable sites was holding back businesses that needed to react to growth but could not wait to build.

Over the next decade, shovel-ready sites were prepared and projects were built because attractive locations were prepared with options for business owners ready to make decisions.

The inventory of available sites still wasn't as deep as desired. To help with that nagging problem, a super regional public/private consortium, known as the Power of 32, created a patient loan fund that was used to help owners of large sites – particularly former brownfields – prepare for future development. The key to the Power of 32 Site Development Fund was the patient nature of the fund. The Power of 32 investors are large institutions – foundations, banks and non-profits – that have long-term community investment as part of their mission. That community-oriented investing allows property owners and developers to undertake large infrastructure projects without the pressure of bringing immediate, market-rate returns. The Power of 32 Site Development Fund has helped several large riverfront sites move ahead to marketability that would not have otherwise done so.

It's clear to me that we need a similar fund to remedy a growing problem in the residential development market.

Looking out ten years, it's not hard to imagine that Pittsburgh's economy will be stunted by a housing crisis, although not the kind you might think. Our part of the world suffers from a population problem (although those who aren't in favor of growth would disagree) and a shortage of skilled workers. A lot is being done to remedy those issues so that there will be people in Pittsburgh to replace the retiring Baby Boomers and meet the needs of the growing new industries. There seems to be a lot of traction behind Pittsburgh's appeal in other parts of the country. We may be able to attract more people to move to Western PA because of the healthy economy and the lifestyle we all love. There might literally be tens of thousands in-migrating each year as we Boomers ride off into the sunset (and beyond) over the next decade or so. Imagine what will happen if, when they get here, they can't find a place to live.

How could that happen? Three major interrelated trends are occurring that could create this perfect storm.

First, despite that fact that the economic diaspora of the 1980s pushed Pittsburghers to disperse throughout the U.S., we have proven to be pretty stubborn about leaving the area when we retire. Old Pittsburgh residents stay in their houses longer than those in other regions. Because of that, the inventory of homes for younger people moving up isn't sufficient to meet the demand, which means the stock of starter homes is equally smaller. Finally, the time-honored remedy for these supply and demand conditions – new construction – isn't acting as the relief valve for the market because new residential development isn't occurring.

As a result, the prices of homes are appreciating unusually fast for Pittsburgh. Buying a home in Pittsburgh is still more affordable than many major cities but that won't last forever if demand increases while supply stagnates. And if more young people keep coming to Pittsburgh without an increase in the type of housing options they need, prices will soar.

A patient residential loan fund could provide the impetus to push new construction volume back to where it was in the early 2000s. That would boost supply and make more housing options available to buyers.

There are a number of reasons why development is stagnant but one that can be addressed is the acquisition and financing of land development. Nothing can, or should, be done to deal with the high cost of land to develop. Likewise, the difficult topography of Western PA will just have to be dealt with by developers. These cost-adding factors elevate the risk of investing in residential development and create lower returns. Those aren't conditions that are incentives for going ahead with a residential development deal. If the investors were institutions willing to wait longer for more modest returns, the deal gets a lot better.

A patient Power of 32 type of development fund for new housing could unlock new construction. It could also be a reasonable solution to making affordable housing economically feasible to develop.

The $64,000 question is who, how and when will this fund be accomplished? The logical entity to assemble the pieces would be the Allegheny Conference, but its focus seems to have narrowed somewhat to dealing with building a workforce that creates an economy for everyone in the region. The good news is that the problem I'm worried about is still in the potential stage. There is time and it's possible – maybe probable – that the market will work itself out so that more homes are available for sale across a broad spectrum of price ranges. My concern is that a housing shortage seems less urgent today but if it comes, we won't be prepared for it.

Pittsburgh has changed dramatically since its steel-making days. To the rest of the country, and to many Pittsburghers, the changes may seem like they happened overnight. The reality is that most of the big changes have happened as a result of patient, persistent measures that took decades to bear fruit. What we learned about the transformation of Pittsburgh is that if the solution to a problem is a long-term fix, it's best to get started on it today.

Jeff Burd


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REGIONAL MARKET UPDATE

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The construction market potential that has been forecast for the past couple of years has come to fruition. Market conditions have begun to be more consistent with expectations of full construction employment, bloated backlogs and strong balance sheets. This isn't a description for every business in the construction industry but contractors and the supply chain have become more selective about the projects being bid and pricing for the risks of the project. That marks a departure from the prevailing conditions since the Great Recession.

The value of commercial and non-residential construction started or contracted during the first six months of 2018 is $2.11 billion (January through May actual plus June forecast). That's a 9.3 percent increase over the construction volume during the first six months of 2017. With the volume of projects in the pipeline for the balance of 2018, especially with the volume of large projects, activity in 2018 is expected to top $5 billion.

Residential construction starts slowed during the first six months of the year. Research from the Pittsburgh Homebuilding Report showed 1,774 total units of new construction from January through June, a 15.4 percent decline compared to the same period in 2017. New construction of single-family homes was off slightly, but a steep decline in apartment starts accounted for most of the slowdown in residential construction. There were 453 multi-family units permitted during the first six months of 2018 compared to 717 during the same months last year. It's worth noting that the Pittsburgh market has very little multi-family new construction, so that the volume is influenced significantly by the number of large complexes being developed. During the first six months of 2018, only two projects over 100 units were begun. There are three projects with at least 250 units in the pipeline for the second half of 2018, so the year-end total should be close to the 2,000-unit mark.

BENCHMARK	Jan-June 2017	Jan-June 2018f
Total SFD units	990	973
Total SFA/Multi-unit	1,108	801
Total residential $$	$501.2 million	$488.6 million
Total non-residential $$	$1.93 billion	$2.11 billion
K-12 Additions/renovations	$144.8 million	$164.7 million
Healthcare construction	$58.4 million	$563.5 million
Hotel construction	$57.7 million	$17.5 million
Industrial construction	$546.7 million	$513.3 million
Office construction	$295.1 million	$273 million
Higher education	$89.7 million	$48.7 million

Likewise, the amount of single-family projects in development should result in slightly more starts in that market in 2018 compared to 2017. Demand for new homes is higher in 2018 and new subdivision approvals should create additional supply. The severe shortage of residential skilled workers may be the factor that limits new construction for the balance of the year.

Skilled labor supply remained tight on the non-residential side of the market as well, but numerous recruiting and training efforts continue to bring new workers into the workforce. Staffing the wave of construction that is building will remain a challenge into the next decade, but the swift negotiation of multi-year agreements with several trades – including the carpenters and plumbers unions – was a development that will bring welcome certainty to the market.

Another very impactful development for construction in Western PA is the relatively easy passage of a state budget for 2018-2019. The legislative achievement marks the first budget passed on time in the Wolf Administration, which is up for re-election. The agreement was aided by election politics (both parties want happier voters during a governor's race) and better-than-expected tax revenues. The 2017-2018 budget was technically passed by the June 20 fiscal year end, but was not effective until an agreement on revenue was reached months later.

The budget passage means certainty for publicly-funded projects to proceed over the next 12 months, although the budget did not include a meaningful expansion of funding for construction. Capital spending remains depressed compared to the budgets of the Rendell or Ridge administrations. One development that was anticipated but did not materialize was the negotiation of an end to the moratorium on the PlanCon process for K-12 schools. The 2018-2019 budget provides funding to reimburse capital projects that were in process prior to the 2015 moratorium, but there is no help for projects that have advanced since then. Hannah Barrick, director of advocacy for the Pennsylvania Association of School Business Officials, was pessimistic that the recommendations for a reformed PlanCon process, although put into the legislation, would make it into the final budget.

Non-residential construction continues on a steep growth trend, while residential starts remain stagnant in Pittsburgh. Source: Tall Timber Group, Pittsburgh Homebuilding Report.

Two of Pennsylvania's largest state-related universities are making noise with updated master plans. Neither Pitt nor Penn State has complete plans that have been approved by their boards of trustees but word has crept out about some of the details. Penn State's plans have reached a staggering $5 billion, to be invested over a five-year period. With roughly $1 billion under construction at its various campuses across the Commonwealth, Penn State's next master plan will include continued investment in replacing or updating its aging stock of University Park buildings, as well as expansion of its Commonwealth Campus facilities and Hershey Medical Center.

Pitt has released the Analysis Summary Presentation of its Ayers Saint Gross Master Plan 2018. Project details have not been presented but some of the projects have been moving ahead. Two of its major DGS-assigned projects, the $42 million Salk Hall and Hillman Library, are being prepared for the bidding of phases. Pitt selected PJ Dick as construction manager for its $80 million expansion of Scaife Hall. Design has been underway for a 350,000 square foot academic building at the site of the former Syria Mosque. There have been reports of $400 million invested in new facilities for women's and non-revenue sports, and of a substantial student residence hall in South Oakland.

No look at the regional construction market would be complete without an update on the region's hospital projects.

Allegheny Health Network (AHN) received an important approval from the PA Department of Health for its $32 million neighborhood hospital in Hempfield Township, outside Greensburg. The approval clears the way for Rycon Construction to start work and creates a regulatory blueprint for the additional neighborhood hospitals AHN plans to build in conjunction with healthcare developer Emerus. AHN announced that it had selected Brentwood as another site for the neighborhood hospital on June 18, joining previously-announced sites in Harmar Township and McCandless.

Work is also underway in the AHN system on the $85 million Cancer Institute expansion at Allegheny General Hospital, as well as regional cancer centers in Butler, Center Township in Beaver County and the Forbes Regional Hospital campus in Monroeville. Construction has started on the $21 million expansion of the Jefferson Hospital emergency department and preconstruction is wrapping up on AHN's new $220 million hospital in Pine Township, next to the Wexford Health Pavilion.

UPMC continues to put the pieces of its $2 billion capital investment in place. Preconstruction work is being done on the $350 million Vision and Rehabilitation Hospital at Mercy, which should get underway late this year, and the $700 million Heart and Transplant Hospital at UPMC Presbyterian, on which construction should start in 2019. The construction manager selection is in process on the third of its major projects in the city, the $280 million Hillman Cancer Center and Shadyside Hospital.

A smaller UPMC hospital, the $80-to-$125 million South Hills facility, was moved to the front burner. Rycon/Skanska is doing budgeting and preconstruction on that project for start of work by early 2019.

The other major South Hills hospital program, the $85 million expansion and renovation of St. Clair Memorial Hospital is in the final stages of design and approval. Demolition and construction of infrastructure should begin in the third quarter. A separate $17 million new central plant project should also be under construction during the third quarter.

The underlying economy of Southwestern PA remained growing, according to data on April's and May's employment situation. Nearly as many jobs remained open as there were unemployed persons in metropolitan Pittsburgh. Job creation was continuing at a pace that is consistent with the year-over-year growth for the past 12 months.

Compared to the same month in 2017, Pittsburgh employers added 14,300 jobs in March, 12,700 jobs in April and 12,800 jobs

Vertical construction is accelerating at the Shell Franklin cracker site. Photo courtesy Pittsburgh Regional Alliance.

in May. The pace of employment growth has remained at around 1.2-to-1.4 percent year-over-year since May 2017. The new hiring has helped bring the unemployment rate down to 3.9 percent, although the consistent decline in workers in the labor force – a function of Pittsburgh's aging demographics rather than migration – is as big a factor as employment growth.

May's report by the Bureau of Labor Statistics broke down the employment gains and losses by segment. Declining segments included retail, wholesale trade, government, financial activities and trade, transportation and utilities. On the upside, manufacturing jobs grew by two percent. Mining, logging and construction were up 5.1 percent – driven primarily by construction; business and professional services employment grew 1.4 percent; leisure and hospitality by 2.3 percent; and education and health services by 1.7 percent.

The Pittsburgh Regional Alliance (PRA) released its annual Business Investment Scorecard on business attraction and retention in 2017. The PRA tracked $5.5 billion in business investments during 2017. That is a decline from the record $10.2 billion in 2016, but the 2016 number included the $5.9 billion Shell cracker plant final investment decision, overstating the overall level of investment in the region. The 2017 scorecard showed the emergence of IT and robotics as job and deal generators. The region saw a 5.3 percent increase in business investment projects in 2017, 551 new businesses attracted, and over $1 billion invested in new facilities or expansions.

News about the potential second headquarters for one of the nation's largest IT companies, Amazon, has been sparse, although not for a lack of trying. PRA President David Ruppersberger jokingly refers to the business press surrounding the Amazon HQ2 project as a "cottage industry" and a Google search of the phrase generates 1.15 million stories. Recent articles claiming that Pittsburgh is in Amazon's top three or top five have no basis in fact; and regional leaders involved with the proposal say only that they expect (or hope) to hear the next news from Amazon before 2018 ends.

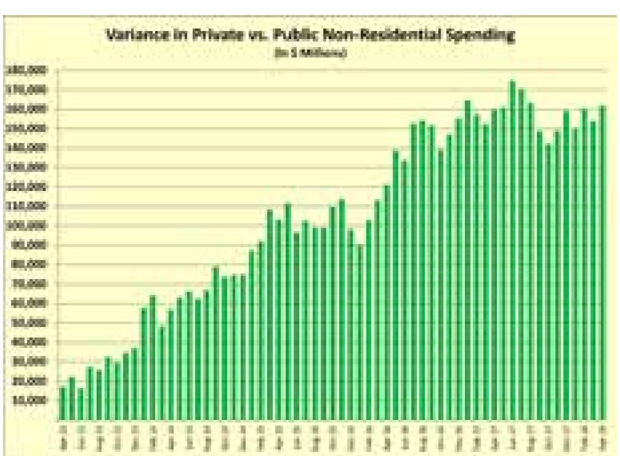
One of Western PA's other emerging employment sector, plastics, is beginning to establish more of a foothold in the region. As the Shell Franklin plant construction heats up – now employing 1,700 workers at the site – industry experts are looking for final investment decisions to come on at least two more crackers in 2018. PTT/Daelim have announced that plans for its proposed cracker in Dilles Bottom, OH have grown and chemical industry observers are predicting that Shell will announce plans to add another cracker unit in the Appalachian Basin, perhaps at the Franklin plant site.

Activity has increased in the supply chain and downstream, although no big deals have been announced. At the Findlay Industrial Park, Niagara Bottling purchased land from Imperial Land Corp. to build a 454,000 square foot bottling plant. Although the company did not specify that the proximity to Shell's and PTT's plants had any impact on their decision to locate in Findlay Township – the company is a third-party water bottler for Giant Eagle, Shop 'n Save and others – firms like Niagara Bottling will find the proximity to customers and polyethylene attractive. Car maker Kia is rumored to be looking for a spot to locate a dashboard plant in the region. That kind of manufacturer – one whose product is made from or shipped in plastic – represents the best prospect for Pittsburgh's combination of market proximity and raw materials. BG

NATIONAL MARKET UPDATE

Filtering out the volatility of monthly reporting and the static of the Trump Administration's news cycle, the U.S. economy continues to hold steady through the first half of 2018. Confidence in the economy, even at this late stage in the cycle, remains elevated for both consumers and business owners, although there are a few signs that choppier waters may lie ahead in 2019.

The most positive sign for the economy is the strength of the job market. Employment news was almost universally positive through May. Employers added 1,037,000 jobs for the first five months of 2018, lowering unemployment to 3.8 percent. Open positions virtually matched the number of unemployed again in May, creating a market where even the marginally-employed are being lured back into the marketplace. The slight increases in weekly unemployment claims suggest that more workers are entering the marketplace. Total workforce participation has not increased, ending May at 62.8 percent, but that indicates that there are sufficient new workers thus far to offset the rising tide of Baby Boomer retirements. A flat participation rate also points to worries that there are insufficient new workers to support business growth. The bright spot in the workforce participation rate was the increase in participation of 20- to 54-year olds, which climbed to 82 percent in May.



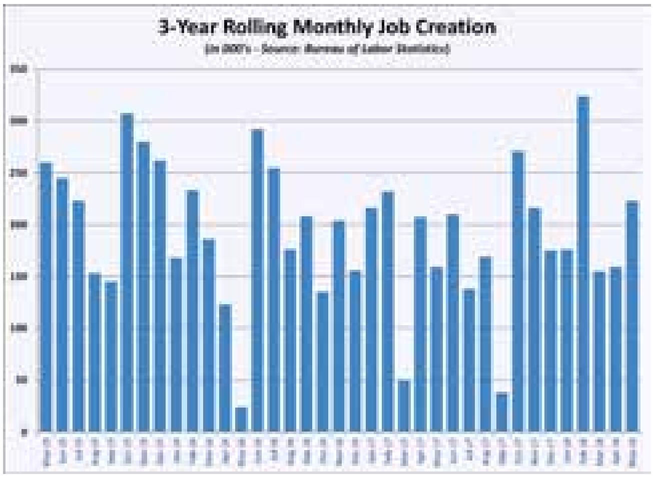
Increases in private non-residential investment pushed the variance between public and private spending higher thus far in 2018. Source: Census Bureau.

The continued expansion of the job market brings concerns about the negative impacts of a tight workforce. Economists who previously warned of potential problems caused by too few workers are now seeing companies holding back growth because of inadequate workforce. It's an outcome that is unfamiliar to U.S. businesses, which naturally see improving economic conditions as a fertile environment for expansion. Lacking the confidence that they can hire sufficient workers, employers are not increasing capacity or adding space to the extent that they would like. This is keeping commercial real estate from reaching its full potential for the business cycle.

JLL's Chief Economist Ryan Severino highlighted what he sees are a few of the main causes of the shortage in a special report called "Where Are All the Workers?"

- As of January 2018, roughly 6.3 million positions remained open but unfilled in the United States—a record high.
- Over the past 70 years, men's participation rate in the workforce has fallen more than 18 percent. Men with a high school education or less are a big part of that, as many jobs they once held have been eliminated due to technology/mechanization and off-shoring.
- Right now, there are 18 million U.S. women of prime age (25-54) who are not working. At least a quarter of those have at least a bachelor's degree or higher. That's a lot of women who could be filling open positions, but for various reasons are choosing to stay out of the market.

Severino predicts that were the U.S. to reach "perfect employment" levels – meaning all open positions had a qualified worker – there would be an increase in occupancy demand that would push rents five percent higher. That would be a compelling justification for more office construction.

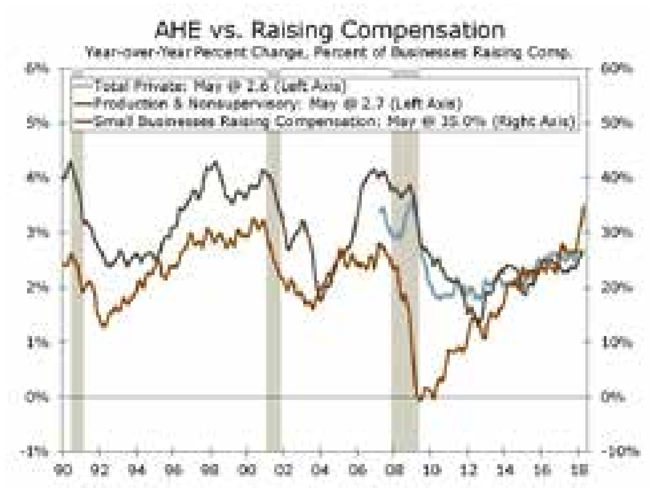


May's surprising expansion of 223,000 jobs pushed the unemployment rate down to 3.8 percent.

The June 1 jobs report also included better news about compensation for workers. In terms of both wages and hours worked, compensation continued on an upward trend in May. Average hourly wages increased by 0.3 percent from April to May and grew by 2.7 percent year-over-year. The combination of more workers employed, and higher wages means that there is an additional 5.4 percent in total compensatory income available for consumers this year compared to last. That's double the growth rate of a year ago. Small businesses seem to be feeling the pressure to a higher degree, with 35 percent of owners saying that they were raising compensation compared to just 28 percent at the end of 2017.

The growth in compensation overall is evidence that the tight labor market is finally impacting wages. May's jobs report was additional support for the Federal Reserve Bank's decision to raise interest rates by .25 percent at its June meeting. The Fed also signaled that two more increases will occur in 2018, likely in September and December.

The normalization of interest rates is a positive sign that the economy has outgrown the need for fiscal stimulus, but the Fed's actions also highlight growing concerns about inflation. The latest data from the Bureau of Labor Statistics shows the pace of inflation beginning to pass through the Fed's target of two percent. It's been decades since the U.S. economy faced concerns about higher inflation, meaning fewer consumers and business owners have experienced the impact of rapidly rising prices on the economy.



The share of small businesses raising compensation for employees is rising at a faster pace than average hourly earnings (AHE). Source: Wells Fargo Securities.

Inflation erodes purchasing power. In an inflationary cycle wages tend to rise ahead of prices, meaning that consumers can keep pace for a while. To the extent that interest rates are hiked to combat inflation, however, consumers end up being pinched by the growing cost of goods and services, and capital. At some point, the pressure from inflation dampens demand for goods and services.

For businesses, inflation adds pressure to raise prices in order to maintain the pace of growing costs. To the extent that higher costs can be passed along to customers, inflation isn't necessarily damaging for businesses. If demand for products and services decline, however, price increases will not hold up and margins will suffer.

Construction tends to be disproportionally damaged by inflation. The most obvious issue is that projects will cost more than planned or budgeted, especially early in an inflationary period. Rising prices have a bigger impact on larger projects, because their durations are longer and more vulnerable to inflation over the lifetime of the project. Inflation may delay or mothball projects being planned and bid, but the greater danger is for projects underway when an inflationary cycle begins. Contractors and suppliers that didn't anticipate higher prices can find themselves under water as the project develops.

At the moment, inflation for construction is running well ahead of overall inflation, topping five percent in May. Assuming the tariffs imposed by the Trump Administration are imposed, prices for construction materials and products will rise further. Any negative impact of the higher prices should be visible in the second half of 2018.

On the upside, confidence is showing up in the data for durable goods and capital expenditures. The Institute for Supply Management reported on June 1 that its Manufacturing Index jumped to 58.7 in May, up from 57.3 in April. The government's May 25 report on April durable goods orders was off more than economists expected, but was actually an upbeat report on balance. A huge decline in the volatile transportation segment – driven by a 29 percent decline in orders for Boeing jets – pushed durable goods orders down 1.7 percent. Orders for all other durable goods rose 0.9 percent, an indication that manufacturers are still seeing solid demand for household appliances, automobiles (up 1.8 percent) and business equipment. Capital goods investment rose seven percent for the first four months of 2018.

Analysts attribute some of the increase in business capital goods expenditures to the Tax Cuts and Jobs Act but point mainly to pent-up demand from the extended expansion. Political uncertainty since the beginning of the 2016 election cycle held back investment prior to 2018.

Business and capital investment in construction also remained strong through the first quarter. The Census Bureau's June 1 report on April construction spending showed total spending at $1.31 trillion. Spending from previous months was also revised upward. April's activity was 1.8 percent higher than March's and slightly higher than February's; however, the year-over-year difference was 7.6 percent. That's an increase that is historically high for such an extended business expansion cycle.

Within the Census Bureau report for April, the investment in private construction stood out as a trend that may be breaking higher. Private non-residential spending in April was just under $458 billion, the highest total since before the Great Recession. April marked the sixth consecutive month that private non-residential spending was at or above $450 billion, which is a 4.5 percent jump from the previous spending plateau in mid-2017. The gap between private and public construction spending continued to widen again, as public investment in construction remained stuck below $300 billion.

The housing construction activity in April, as reported by the Census Bureau on May 16, was consistent with the long-term trend. In part, that consistency was in the volatility of the month-to-month permits/starts; but the year-over-year and year-to-date trends of steady expansion also persisted.

Housing starts (seasonally adjusted) increased to 1,350,000 units in May, up 5.0 percent from April. Single-family starts rose to 936,000 units in May. Multi-family starts jumped 390,000 units. Starts for both single-family and multi-family housing were up solidly year-to-date, rising 8.3 percent and 10.0 percent respectively. Building permits for each category were also higher, up 8.6 percent for single-family and 8.1 percent for multi-family, although permit activity in April and May suggest a slowing of construction starts during the coming months.

There is a 30- to 60-day lag between building permit issuance and construction start as the Census Bureau defines it, so the continued strength of the permit data suggests that housing construction will remain at the current high levels into the summer months. Building permits overall were at 1,310,000 units, seasonally adjusted, portending that future decreases are likely.

Spring of 2019 will mark a decade of expansion following the Great Recession. Assuming growth continues past June of 2019, this cycle of expansion will be the longest in U.S. history. A majority of the National Association of Business Economists (NABE) now see the economy losing momentum during the coming two years. Citing structural issues like Baby Boomer retirement and low productivity growth – along with concerns about U.S. trade policy – some two-thirds of the NABE members expect a recession in 2020. Another 18 percent believe there will be a downturn by the end of 2019. These concerns are worth noting, especially if the reasons behind the recession concerns come to pass.

Economists predicting an end to an expansion have rarely been accurate. Growing economies reach points of exhaustion for new demand or additional capacity; however, business cycles have been tipped by unforeseen incidents or overlooked trends for the past 30 years. Absent such an event or trend, the data points to continued strength in the U.S. economy during the next 12-to-18 months.

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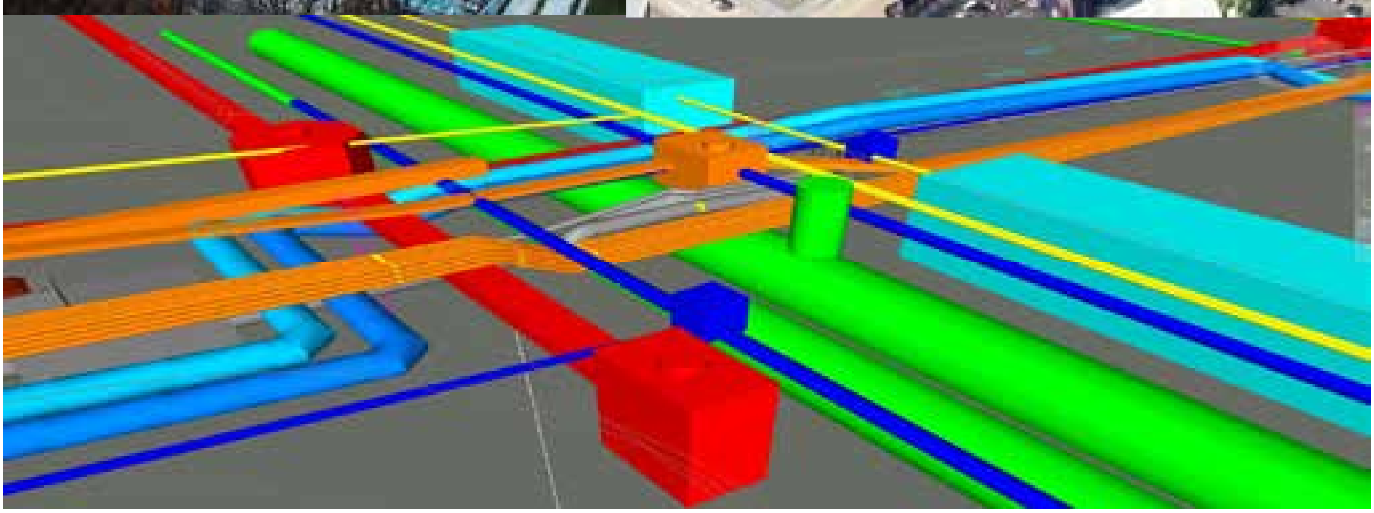

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WHAT'S IT **COST?**

Increases in the price of construction continued to outpace the rate of producer and consumer inflation by a wide margin, according to the Bureau of Labor Statistics' (BLS) report of June 13.

The BLS report on inflation brought the increase in construction worker wages into clearer focus. Construction worker wage growth reached 3.8 percent in April, a full point higher than the average worker's weekly wage growth. Within the construction category, wage growth for workers in the residential sector of the industry was even higher, growing by five percent year-over-year. Coupled with tight lot supply and high demand for residential building products, the higher cost of workers has pushed the cost of new residential construction up dramatically.

Higher costs for labor inputs were reflected in continued increases in both project types and specialty contractor prices, although the change in costs from April to May was lower than the trend. The producer price index (PPI) for nonresidential construction was up 4.2 percent compared to May 2017. Within the nonresidential category, all major building types saw PPI growth above 4.1 percent, except for warehouses, which saw a 3.6 percent increase. A survey of plumbing, electrical, and concrete specialty contractors revealed increases in prices being charged of between 4.3 and 4.5 percent. Roofing contractors have increased prices 1.1 percent year-over-year.

The employment cost index for construction wages and benefits rose less than the PPI for labor inputs, suggesting that costs are going higher based on hours worked more than total compensation.

Architectural services were the only wage category that experienced declines during the past 90 days, with the PPI for architects virtually even compared to May 2017. Engineering services, on the other hand, have experienced increases more in line with construction labor, rising 3.6 percent year-over-year.

Increases in the total PPI for construction – the combination of prices for goods and services – continued to grow at an accelerated pace, jumping 1.4 percent from April and 7.4 percent from May 2017. Even after stripping away the unusual growth in energy prices, total PPI for construction goods and services were each up 5.7 percent year-over-year.

Within the category of processed building products and materials relevant to construction, all items were higher year-over-year, with the majority of goods rising more than the rate of overall inflation. Products or materials with significant increases included #2 diesel, up 8.8 percent in May and 45 percent year-over-year; aluminum mill shapes, 5.0 percent and 17 percent; lumber and plywood, 3.6 percent and 14 percent; copper and brass mill shapes, 0.2 percent and 14 percent; and steel mill products, 4.3 percent and 11 percent.

May's cost data does not include any additions for tariffs, but it's clear that the prospect of coming tariffs sparked price increases, even among product categories that will be untouched by any tariff. The Trump Administration's decision to remove exemptions and step up trade protections will tighten supply for U.S. buyers as the year unfolds. Thompson Research Group's May survey of building product manufacturers and distributors found price increases "largely flowing through the market for a wide range of products." Those surveyed expressed the expectation that additional rounds of price increases after July 1 will be accepted by the marketplace because of the supply constraints.

Market actions thus far do not account for any natural disasters, which represent a final risk to price stability. In particular, hurricanes have proven to be disruptive to key construction-related materials, like diesel and natural gas, and accelerators of demand when storms strike major population areas, as they did in 2017. BG

PERCENTAGE CHANGES IN COSTS	May 2018 compared to		
	1 mo.	3 mo.	1 yr.
Consumer, Producer & Construction Prices			
Consumer price index (CPI-U)	0.4	1.5	2.8
Producer price index (PPI) for final demand	0.5	1.5	3.1
PPI for final demand construction	0.0	1.2	4.0
Costs by Construction Types/Subcontractors			
New warehouse construction	0.2	0.7	3.6
New school construction	(0.3)	1.3	4.6
New office construction	0.4	1.6	4.1
New industrial building construction	0.0	1.0	4.8
New health care building construction	0.2	1.5	4.5
Concrete contractors, nonresidential	0.3	1.1	4.3
Roofing contractors, nonresidential	0.1	0.7	1.1
Electrical contractors, nonresidential	0.0	0.7	4.5
Plumbing contractors, nonresidential	0.2	1.2	4.3
Construction wages and benefits	N/A	0.7	2.4
Architectural services	(1.6)	(1.2)	0.1
Costs for Specific Construction Inputs			
#2 diesel fuel	8.8	9.4	44.5
Asphalt paving mixtures and blocks	2.1	(1.9)	5.2
Cement	0.9	1.2	2.1
Concrete products	(0.1)	3.1	5.1
Brick and structural clay tile	0.1	0.5	2.1
Plastic construction products	0.2	2.3	4.8
Flat glass	(0.4)	0.7	2.6
Gypsum products	(3.0)	2.9	4.9
Lumber and plywood	3.6	9.3	13.6
Architectural coatings	1.4	2.6	5.7
Steel mill products	4.2	12.4	10.5
Copper and brass mill shapes	0.2	(3.9)	13.8
Aluminum mill shapes	5.0	11.8	17.3
Fabricated structural metal	4.8	11.5	13.4
Iron and steel scrap	(0.4)	12.0	28.2

Source Bureau of Labor Statistics, Updated June 13, 2018
Compiled by Ken Simonson, AGC Chief Economist

HOUSING MARKET UPDATE

The housing market is imbalanced. With each passing month over the last few years, fewer houses are available for sale. Homes are on the market for shorter periods of time. Sellers are getting multiple offers. If this sounds like your neighborhood, be advised that these conditions exist in neighborhoods in virtually every U.S. city. Supply and demand are out of whack.

For the residential construction industry, there is a solution for this imbalance. Build more new homes. The U.S. housing market finds itself in a slow, steady, multi-year cycle of more new construction that is not coming close to satisfying buying demand. Even the so-called apartment boom has actually been pretty tepid by historical standards. These conditions have created a market where prices are rising briskly in most cities, finally pushing above the long-term trend line that was obliterated by the mortgage crisis.

The 2007 mortgage crisis is the principal reason for these unusual conditions. The massive rise in foreclosures and decline in home values in most cities resulted in half-dozen years of lower home sales and new construction. Congress reacted to the crisis by swinging the regulatory pendulum aggressively to the other extreme from the easy credit era. Huge inventories and a poor job market cratered the housing market. As conditions have improved over the past five years, the pendulum hasn't yet returned to center.

Pittsburgh is seeing the same kinds of conditions in its housing market. After decades of being a steady counterpoint to the U.S. market swings, Pittsburgh is experiencing conditions that are even more extreme than the overall market.

It's obviously a good thing for Pittsburgh homeowners that home prices have been rising steadily since the region emerged from the Great Recession in 2011, well ahead of most U.S. cities. A couple of major trends, however, have kept Pittsburgh's housing market stable, even though Pittsburgh's economy may have been suited for a housing boom of sorts. Both home sales and new construction have been limited by low inventory. Development has been constrained by topography, cost, regulation and demographics. Sluggish job growth has kept demand from pushing through the first two factors.

There are some early indications that at least some of the prevailing trends are beginning to reverse in 2018. What remains to be seen is how much these growth catalysts can re-establish a balance between supply and demand.

Too Much Demand or Too Little Supply?

The problem with the housing market may, in fact, start with the squeeze at the low end of the market. With the leading edge of the Baby Boomer generation now age 70, there should be a full-scale shift in housing. Boomers, who built and bought more and larger homes than any previous generation, are creating a huge spike in demand for senior living options. That should be driving the sales of smaller homes, as well as construction of more "right-sized" houses. Because there hasn't been enough new construction of these smaller homes to meet the demand, prices are rising faster for the homes that Boomers would want to buy. That, in turn, means fewer Boomers are able to move than want to. This is helping hold down the number of existing homes on the market.

This right-size end of the market is also the product that suits most first-time buyers. Current first-time homeowners have faced more difficult conditions than previous generations. The so-called Millennial generation carries more student debt and has less faith in the investment value of home

Home ownership remained at 64.2% rate through the first quarter of 2018. Source: Federal Reserve Bank of St. Louis.

ownership than its parents did. Moreover, Millennials are a larger cohort than the Boomers who raised them, and the Baby Boom produced the largest generation born to date when it arrived. Thus, the two largest demographic groups ever born in the U.S. are competing for the same housing product at the same time. A shortage is inevitable.

How tight has the inventory become? On May 24, the National Association of Realtors (NAR) report on existing home sales found that the inventory of existing homes for sale fell to 1.8 million homes, down 6.3 percent from April 2017. That represents a 4.0 month's supply, down from 4.2 months in April 2017. That's two months less than a market with balanced supply and demand.

The number of new single-family units started remained fairly constant from 2013-2017, while more than 2,000 additional units of multi-family were added to the mix each year. Source: Pittsburgh Homebuilding Report.

The result is that NAR's May 31 report on the sales of homes in April saw a 1.3 percent decline in its index of pending home sales. As in previous months, real estate agents blamed the decline on tight inventory of existing homes for sale, a problem which has become exaggerated as interest rates have risen. Rising rates almost always drive potential buyers off the sidelines and into the market. Because the increases in long-term rates have been incrementally small during this cycle, home-buying traffic has increased significantly as inventories have declined.

NAR's report showed sales of existing homes increased by three percent in April to an annual rate of 5.46 million, down 2.5 percent from March and 1.4 percent year-over-year. The report also found that the inventory of homes for sale was 1.59 million units, an increase of 4.6 percent from January but a decline of 8.1 percent from February of 2017. That marks 35 consecutive months of year-over-year declines. In its report on April's regional housing market, RE/MAX reported that existing home supply in Pittsburgh had fallen to 2.5 months.

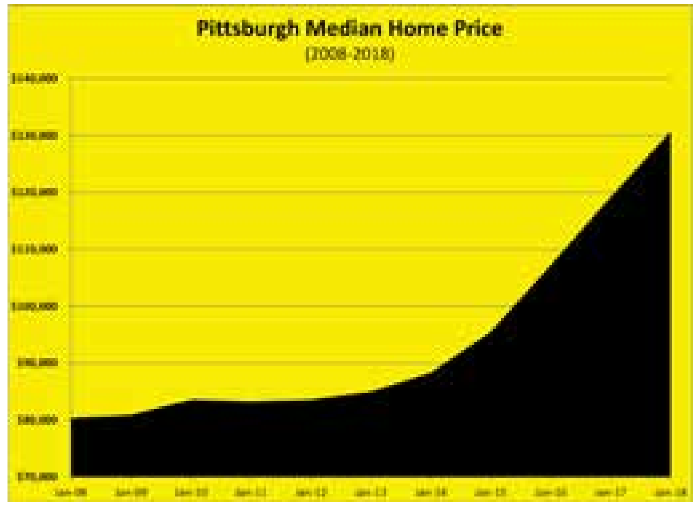
Not surprisingly, the NAR report found that the median home price jumped 5.4 percent year-over-year, the 74th straight month of increases. The median price of a home in the U.S. stands at $257,900. Here in Pittsburgh, RE/MAX reported that the median price of a home increased 10.1 percent year-over-year in April to $159,000. West Penn Multi-List reported that the average home price spiked almost nine percent during the first four months of 2018.

Its May 17 report compared January-to-April 2018 with the same time period in 2017 and highlighted these market changes:

- Closed sales were up 0.71 percent (7,757 units in 2018 versus 7,702 in 2017).
- Closed sales volume was up 9.55 percent at $1,425,434,077.
- Average sale price was up 8.77 percent to $183,761.
- Home listings are down 7.74 percent (12,354 units in 2018 versus 13,390 in 2017).

The market reports also found that the impact of these market conditions is being felt most acutely at the two extremes of the market. As the median price of a home rises, prices of smaller homes have spiked and sales of homes at the lower end of the market have plummeted. In April, sales of homes under $200,000 fell by 13 percent. This adds another challenge to first-time buyers.

For most people, a market in which home prices are rising nicely and homes are getting multiple offers is a happy place to be. Those conditions reflect a healthy economy and a strong housing market but they are also less favorable for buyers. The relief valve for buyers in markets like the current conditions has historically been new construction. History has, thus far, not repeated itself. That's a U.S. housing problem but the tepid new construction market is especially a Pittsburgh problem.

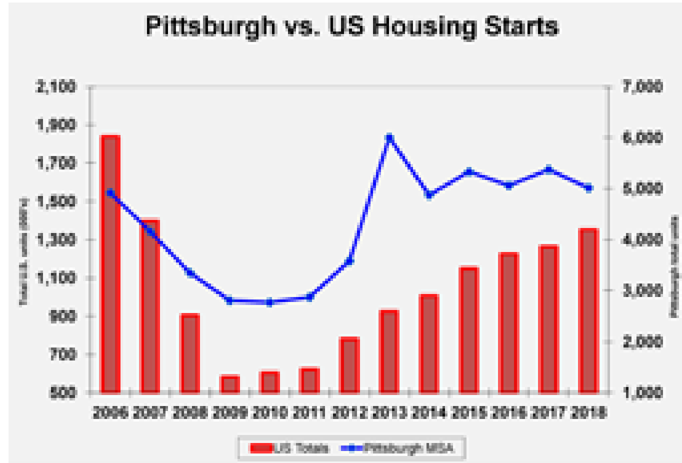


Median home prices in the seven-county MSA have increased significantly since 2014.

Between 2009 and 2016 there were 6.9 million units of new housing started in the U.S., a number that is well below the average for the previous three decades. During the same period population grew in the U.S. by 19.7 million people. Using the historical average of 2.5 persons per household, roughly 7.9 million households should have been formed in those years. Allowing for 1.9 million units of housing that were removed from the dwelling stock, the net number of homes available in the inventory for occupancy is nearly three million units less than the number of buyers. To a lesser extent, Pittsburgh experienced the same dynamics.

The housing crisis of 2007-2008 largely bypassed Pittsburgh. While there was a slight increase in foreclosures – and a shakeup among the lenders that dabbled in subprime loans – there were none of the major problems that other cities faced. Few people lost their homes. Home values stumbled slightly for a year or so. But by 2010 home values were increasing again and, thanks to the Marcellus Shale boom, Pittsburgh's housing market became healthier than it was before the Great Recession. Home prices in Pittsburgh continued growing even as prices remained negative in Pennsylvania and the U.S. until 2013. In spite of the market's health, however, new construction has not yet returned.

An examination of the housing data for metropolitan Pittsburgh reveals a tale of two markets: one before 2008 and one after. From the early 1990s, when the housing market began to expand in response to Pittsburgh's economic rebirth and the completion of several important infrastructure projects, builders were consistently starting between 2,500 and 3,500 single-family detached homes. In fact, the average number of new homes started during the

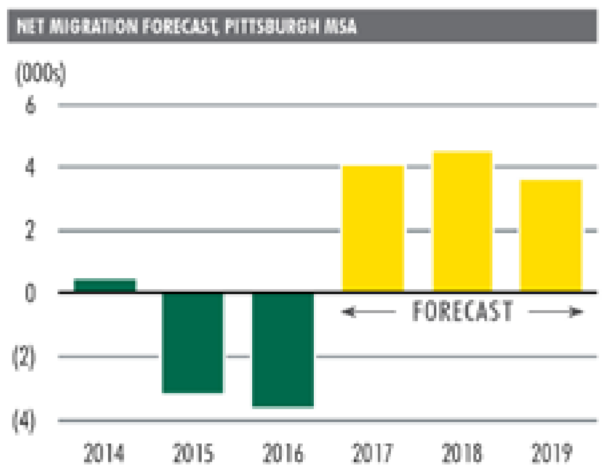


Housing starts in Pittsburgh have remained largely unchanged since the recovery in 2013, while U.S. starts have steadily increased. Source: U.S. Census Bureau, Pittsburgh Homebuilding Report.

1995-2007 period was just over 3,000 units. The same was true of single-family attached homes – mostly townhouses – which saw an average of 928 units built during that timeframe. For nearly 15 years there were about 4,000 new units of single-family new construction available for sale in the Pittsburgh market. That changed in 2008. New home construction in Pittsburgh fell by almost 1,800 units per

year from 2008 until 2013. During the nine years since the recession started, there has been an average of 1,920 new single-family detached homes started. The average for the last five years – which covers the period in which Pittsburgh saw job growth – has been 1,962. Apartment construction tripled during this latter period, with an average of more than 2,600 units built each year; however, even as that market softened, new home construction for sale has remained unchanged.

Another recent report of economic data suggests that, regardless of the inventory issues, demand for homes in Pittsburgh will only increase. After three years of flat employment growth, Pittsburgh experienced 1.4 percent employment growth in 2017. That's 12,600 new workers in the region who need homes. And the year-over-year job growth for 2018 is slightly higher than last year's pace.



Over 8,000 new people projected to move to Pittsburgh over next two years.

Source: U.S. Census Bureau 2018

Even in low-growth, conservative markets like Pittsburgh, this kind of job growth would be a spark for development of new communities. The same thing could have been said, of course, in 2009 and 2010, when the influx of Marcellus shale jobs created demand. The problem is the same now as was then: residential development is hard.

The Problem with New Development

It's not wrong to look at the Great Recession and the resulting banking regulations as the culprits behind the lack of new residential development; however, in Pittsburgh, those factors played only a small role in the declining lot availability. In fact, there was a looming lot shortage in Pittsburgh in 2005-2006. The problems affecting residential development are more structural than anything else. In truth, Pittsburgh's residential development landscape looks about the same now as it did before the housing crisis.

There are a couple of consistent factors about land development in Pittsburgh that haven't changed since before the 2007-2008 crisis. The first is the location. Appraiser Dave King, partner at Nicklas King McConaghy, sees new projects stretching further north into Lancaster Township and Buffalo Township in Butler County, but says most of the development has been limited to the traditional popular neighborhoods along I-79/279 in the North Hills and a few communities in the South Hills.

The second characteristic of the land development business that hasn't changed is the roster of developers. For a variety of reasons, Pittsburgh has not attracted or spawned many new developers for residential projects. Top builder NVR Inc. estimates that the average age of the developer principal it works with is nearly 65. That's an age at which business owners look to pare back their risk taking, and residential development is a risky venture, particularly in the post-recession Dodd-Frank era of banking regulations. This phenomenon has a material impact on the development of custom homes, which had been the bread-and-butter of the Pittsburgh market up until the Great Recession. Custom residential developments typically have multiple builders and the number of lots taken down – meaning homes that are built – each year tends to be fewer. Developers of custom neighborhoods need to have more patience, as do their lenders.

Asked about this trend, King could only recall one new developer among all the deals his firm reviewed over the last year or so.

"There isn't fresh blood coming into land development," King concludes.

The maturity of the Pittsburgh market means that the supply of land in desirable locations is smaller. With the steeper topography of the remaining land, developers must consider the higher cost of preparing the lots and extending utilities as part of that cost equation.

As developers might have been looking to acquire land to boost the lot inventory in 2009 or 2010, their biggest competition for properties was gas companies rather than other developers. This heightened competition pushed prices beyond what could be economically feasible for new home construction, even though the gas industry was only leasing a limited number of acres. The psychological impact on the sellers was almost universal. New opportunities for land acquisition in Pittsburgh carry a higher price tag. That adds to the difficulty of developing new homes in a market that needs more product at the lower end of the price spectrum.

Higher costs are also why it's difficult to develop new construction for first-time buyers, who generally haven't accumulated the equity to afford more expensive homes. With what land and development cost, most new construction starts at $400,000.

The solution to this development conundrum is likely to be a shift in housing product to a higher-density model. This trend is the dominant one in markets where land availability and costs are precious, like in Washington DC or Boston. Suburban and exurban development in major cities like these is dominated by high-density development, either multi-family close to the city or townhomes further out. Thus far, suburban development in Pittsburgh continues to be primarily detached single-family homes, but that trend is changing.

New construction fell slightly for single-family detached homes but rose by a greater number for single-family attached housing in 2017. According to the Pittsburgh Homebuilding Report, there were permits for 1,971 new single-family detached homes in 2017, a 6.3 percent decline, and 1,035 single-family attached units, an increase of 25.6 percent. This trend was exaggerated within the city limits, where there were permits for 249 units of new construction for single-family homes in 2017, almost all of which were attached units. It's worth noting that the single-family construction volume in the City of Pittsburgh was 61.6 percent higher than those permitted in Cranberry Township, which had the second-most starts.

There were also 1,465 units of new multi-family construction in the City of Pittsburgh in 2017, almost 62 percent of the total 2,368 apartment units started in the entire metro Pittsburgh market.

Development of apartments now faces challenges too. That combination of economic and credit conditions that cratered the housing market ten years ago also acted as an incubator for the apartment market. Fewer people could own homes but the need for shelter didn't decline. Apartment demand spiked and by 2010, lenders were willing and able to finance multi-family development. As apartments were the only property type in favor, developers focused on multi-family deals.

Construction of new apartments more than tripled in Pittsburgh in 2013, to 3,227 units. Although volume dropped off in 2014, the pipeline of new construction has comfortably exceeded 2,000 units each year since. Such unusual volume gives market observers concerns about absorption. In turn, that has made financing new construction more difficult.

"For stabilized cash-flowing deals, we have no problem getting financed. If you come to me with a new construction project I'd have a hard time getting that done with local banks," predicts Nick Matt, senior managing director and co-head of the Pittsburgh office of HFF. "To get new construction deals done you need the right combination of location, property, sponsorship and guarantee. I think everyone is of the opinion that there are more units being dumped on the Pittsburgh market than are needed right now."

"We are still originating new multi-family but are being more particular about the loans," says Kris Volpatti, senior vice president and relationship manager at Key Bank. "The deals are based on relationships with the borrower. We try to pick the right sponsor and the right leverage point."

One of the challenges for apartment developers is the slowing rent growth. While rents have climbed steeply in Pittsburgh since the Great Recession, rental growth has flattened out in recent years. Increasing supply pushed rents down 1.4 percent in 2016, according to ApartmentList.com, after a flat year in 2015. Rents rose 2.5 percent in 2017 but year-over-year growth thus far in 2018 is only 1.1 percent. That puts Pittsburgh 24th in rent growth out of the top 25 metropolitan markets in the U.S.

Investor interest in Pittsburgh has not been dampened by the slower rent growth and the market support for apartment acquisition and development is still solid, although that support is stronger in the city than in the suburbs.

According to the Census Bureau, some 4,000 more people moved into Pittsburgh than out of the city in 2017. That number is expected to grow in 2018 before falling slightly in 2019 (although forecasts of net migration without jobs data are less accurate). The change in population hasn't been vetted for demographics but related anecdotal research suggests that the lion's share of the new residents is younger.

With high tech and energy growing at rapid rates in Pittsburgh's economy, the region should get even younger. Pittsburgh was ranked seventh by ULI with an increase of 4,177 (6.6 percent) people between the ages of 25 and 34 from 2010 to 2015. Evidence suggests this trend is accelerating. Over the past year, magazines as varied as Apartment List, Growella, Curbed and Atlantic have all listed Pittsburgh as the best or second-best city for Millennials to live and work.

Given that more than 50 percent of the renters in metropolitan Pittsburgh are Millennials currently, an influx of 8,000 more people in the coming two years should yield more than enough prospects for 2,000 or so new apartment units, regardless of the demographic trends of Pittsburgh's existing population.

The strength of Pittsburgh's apartment market has fooled many veteran observers. Even with all of the data available, there is still an unknown element to predicting the absorption rate for another 2,000 units following five years when 11,000 were added to the inventory. So far, the market has proven to be deeper than expected. That's been true for suburban and urban properties.

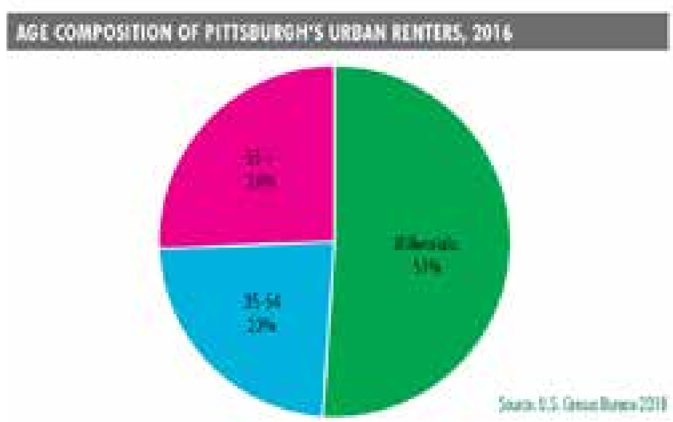
"We're the lead bank on the Ashby at South Hills Village

Station, and it's a big project," says Volpatti. "I drive by it a lot and shake my head, but it's like an oasis inside and the project was executed very, very well. The units are very nice and it's exceeding projection right now."

Helping the Market For (and From) the Next Generation

It's become clear that the demographic shift in Pittsburgh is the biggest factor behind the resurgence in city living. Studies of new urbanism have found that the biggest demand driver for urban living is empty-nester relocation, rather than young adults. That hasn't been the case in Pittsburgh over the past six years.

When residential development in Downtown picked up in the early 2000s, the principal buyers and tenants were 55-and-over. These were mostly suburbanites trading their comfortable home for a no-maintenance lifestyle near the region's lifestyle amenity hub; however, the tide has changed.



Since the rise of the emerging technology companies in the 2010s has become the dominant economic driver, Pittsburgh has become dramatically younger. Even as the median Allegheny County age drifts above 45 years old, the median Pittsburgh city resident is less than 32 years old. Younger, and better paid than previous generations, this group of new workers has come largely from outside the region. This wave of Millennials tech workers has supported an extended boom in apartment construction and is now lining up to buy townhomes in the neighborhoods where the action is. This dynamic is why it costs $250,000 to buy in Bloomfield today what cost $70,000 in 2011. It's why a row home in Lawrenceville may fetch $400,000 this year.

While the popular perception of the younger generation is that it's very different from its parents, the reality is that Millennials' behavior isn't all that different after all. The Millennials may have put off buying for a few years more than the Baby Boomers but as the leading edge of the younger generation hits 35, a shift is showing up at real estate offices around the region. Howard Hanna Financial Group reported that 43 percent of its mortgage originations were for buyers under 35 in 2017. LendingTree reported on March 20 that Pittsburgh had the second-highest number of applicants under 35 from February 2017 to February 2018.

"In 2017, close to 40 percent of our buyers were first-time buyers, Millennial buyers. That's the highest number of first-time buyers since the recession," says Hanna Holdings CEO, Howard "Hoddy" Hanna III, who expects that trend to continue. "Millennial buyers are hitting 30 to 35 years old and life changes a bit at that point. The interesting thing is that they may be first-time buyers but Millennials are buying much bigger homes than the generation of 20 or 30 years ago bought. They are not going from an apartment to a townhouse or starter home; they are buying a bigger home, like you would expect in a second or move-up home."

Hanna sees the Millennial generation buyer with having more purchasing power, a function of their saving longer for a larger down payment, having higher income because of the stage of their careers and paying higher rent prior to buying. He notes that the sticker shock that a first-time buyer usually experiences isn't there for a renter accustomed to paying $1,800 per month or more.

Because of the size of the younger generation, its buying patterns – whether a revision to or departure from the mean – will have a dramatic effect on the housing market. In Pittsburgh, with a burgeoning Millennial cohort, a prosperous home-buying Millennial generation could have a positive impact on the market.

Millennials come with a couple of concerns too. Because of higher attendance rates and soaring costs, student loan debt among Millennials is significantly higher than preceding generations'. The annual student loan volume (adjusted for inflation) grew from less than $40 billion in 1996 to almost $120 billion in 2011. Loan volume has declined to below $100 billion in the years since the 2011 peak, but the total federal student loan portfolio has grown to almost $1.4 trillion.

In the cases of many Millennials, student debt is equivalent to a mortgage. Young people in that situation will find buying a home more challenging. There is no data yet on the impact of higher student debt on home ownership, but the logical conclusion is that the total potential pool of buyers will become diminished compared to previous generations. It's hoped that income-based repayment programs will help ameliorate the problem, allowing debt-heavy Millennials to have more of their income available for a mortgage payment.

Another concern that has emerged about this growing trend of younger buyers is the impact of the Tax Cuts and Jobs Act of 2017, passed hurriedly by Congress at the end of December. Two key provisions of the bill could have chilling

impact on the first-time buyer. The limits placed on state and local taxes, combined with the $10,000 cap on home mortgage interest, could eliminate – or limit – one of the key incentives for home ownership. The tax advantage of ownership can also get diluted by the increase in the standard deduction, which jumps to $24,000 for a married couple filing jointly. Even though the higher standard deduction may reduce the overall tax burden more than itemized deductions would, the loss of the mortgage interest deduction could act as a disincentive to buy.

The kind of young buyer Hanna described, with higher income and savings, is likely to be impacted by those two provisions. The unanswerable question is: will the impact blunt demand?

A recent survey by the National Association of Homebuilders found that 13 percent of potential buyers said the tax cuts would have a positive effect on a decision to buy, 66 percent said there was no change and 21 percent said the changes would delay or negatively impact a decision to buy.

Custom homebuilders in Pittsburgh report that there has been a slight but negative effect on sales of mid-size to larger homes. The cap on state and local taxes was being felt the most, especially in the highest-rated school districts in the region, where property taxes are higher. A few months is not enough time to get a legitimate sample size for the impact of the tax cuts on the housing market, especially at the microeconomic level of a city like Pittsburgh. Based upon the busy spring home-buying season, it appears that the changes in the tax laws may have affected individual buyers but haven't slowed down the overall market.

No Easy Solution

The housing market in Pittsburgh will be affected more by the trends in employment, relocation and wages to drive higher or lower demand. For 2018 and beyond, the arrow is definitely pointing upward where these factors are concerned. The fly in the ointment remains the supply of homes to buy, whether those are existing homes or new construction.

The answer to the supply problem is likely going to come from a shift in expectation from the buyers. More densely-developed products, like townhomes or even condos, will make better economic sense to develop and will be more affordable to buy. Because Pittsburgh's better school districts are suburban, that may mean an increase in zoning density in municipalities that have heretofore seen only sprawling subdivision. The recent upswing in construction of senior lifestyle communities, many of which won't come online until later 2018 and beyond, should offer more alternatives to empty-nesters. That would free up the logjam of existing homes.

This is something of a critical point. Part of the supply problem is the lack of velocity for existing home sales. In a typical market, first-time buyers drive the velocity but there must be homes to buy for this to happen. The empty-nester also must leave the single-family market. As Pittsburgh's large aging population cohort gets beyond the ability to maintain its homes, there will be more inventory available. Having attractive housing alternatives sooner would accelerate that process.

Another potential solution is the revitalization of older communities that have not been vibrant since the steel-making economy declined. Many of these communities are not served by school districts with great reputations but are also not in decline. That's a description that fits dozens of communities up and down the riverfronts of Western PA. The dynamics of these micro-markets would fit the needs of Millennial buyers.

"We're seeing people buying in neighborhoods that haven't been as desirable in recent years," says Hanna. "They don't have kids and aren't as worried about the school district, and they can get much more home for the same money."

Hanna reports that there have been multiple offers each weekend for homes in communities like Springdale or Verona. Those towns are part of solid school districts and offer housing choices that are similar to neighboring communities at a discount. Homes in Verona have sold for $100,000 less than comparable homes and comparable neighborhoods in Oakmont.

The problem for metropolitan Pittsburgh is that virtually all of its economic and social news is positive, meaning that the pace of demand for housing is likely growing faster than any solution to the supply shortage. This dynamic doesn't even address the problem of affordable housing for those who aren't able to afford to participate in what the market is providing. It's clear, however, that Pittsburgh's housing supply solution won't come from the development of new construction. The costs and market dynamics simply won't permit the kind of construction boom that would be needed to meet demand. For Pittsburgh to have sufficient housing options, multiple solutions will need to emerge in the market.

Absent a solution to the inventory problem, the laws of supply and demand will react to the conditions by pushing prices higher. That could have unfortunate side effects for the region. For a city that is attracting younger skilled workers, an extended period of tight supply could impact one of Pittsburgh's biggest advantages: its affordability. BG

2018

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Builders Guild of Western PA

THE CONSTRUCTION LEADER

LABOR & MANAGEMENT BUILDING OUR REGION'S SUCCESS

NEW DIRECTORS AND EXPANSION OF BUILDERS GUILD BOARD

The Board of Directors of the Builders Guild of Western Pennsylvania has expanded to 22 members with the additions of Board seats for the Mason Contractors Association of Western Pennsylvania, the Insulation Contractors Association of Pittsburgh, the Constructors Association of Western Pennsylvania, Insulators Local Union No. 2, Bricklayers Local Union No. 9 and Plumbers Local Union No. 27.

Additionally, Greg Bernarding, President and Business Manager of Iron Workers Local Union No. 3 has joined the Board replacing Greg Christy who has become President of the Great Lakes District Council of the Iron Workers International.

"Greg will be greatly missed as a valued Board member, but we are all pleased that the Iron Workers International saw the same leadership, skill, ethics and drive that Greg brought to the Builders Guild in appointing him to this position," said Jeff Nobers, Executive Director of the Builders Guild.

Greg Christy

FROM THE EXECUTIVE DIRECTOR:

Many of you likely recall seeing Construction Leader as a stand-alone newsletter published by the Builders Guild of Western Pennsylvania. As an organization we are pleased to now be a special section of Breaking Ground, the excellent publication produced by Tall Timber Group for the Master Builders Association of Western Pennsylvania.

In the future our information will appear twice a year, possibly more often, providing updates and information regarding news, initiatives and programs that the Builders Guild and its labor and management members are involved in.

I'd like to especially thank Jeff Burd, publisher of Breaking Ground and Jack Ramage, executive director of the MBA for our inclusion and ability to reach a far greater audience in the construction industry.

Sincerely,
Jeff Nobers

Executive Director

Builders Guild of Western Pennsylvania

Jeff Nobers

jnobers@buildersguild.com

EXECUTIVE BOARD:

- Philip Ameris, Sr., President/Business Manager, Laborers' District Council of Western Pennsylvania
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- Kurt Keller, JATC Apprentice and Safety Coordinator, Bricklayers and Allied Crafts Local #9 (BAC Local #9)
- James Kunz, Business Manager, International Union of Operating Engineers Local Union #66
- Kenneth Marino, CEO, 3G's Consulting LLC
- John C. Mascaro, PE, Chairman, Mascaro Construction Company, L.P.
- Steven M. Massaro, President, Master Builders' Association of Western Pennsylvania, Inc.
- Marty O'Toole, Business Manager/Financial Secretary-Treasurer, Pittsburgh Plumbers Local Union #27
- Jack W. Ramage, Executive Director, Master Builders' Association of Western Pennsylvania, Inc.
- Richard A. Stanizzo, Business Manager, Pittsburgh Regional Building and Construction Trades Council
- James T. Strother, Jr., CAE, Executive Director, Sheet Metal and Air Conditioning Contractors National Association, Western Pennsylvania Chapter
- William R. Waterkotte, Executive Secretary/ Treasurer, Keystone+Mountain+Lakes Regional Council of Carpenters

WESTERN PENNSYLVANIA UNION CONSTRUCTION WORKFORCE UPDATE

By Builders Guild of Western Pennsylvania

"We will always find a way to ensure that there is a well-educated, professional, skilled and ready workforce to meet the needs of our contractors and construction demand in our region," said Kurt Keller, JATC Apprentice and Safety Coordinator, Bricklayers and Allied Crafts (BAC) Local #9 and Board Member of the Builders Guild of Western Pennsylvania. "Over the past two years BAC Local 9 has recruited far more apprentices than we typically have in the past and will continue to do so along with adding classes and trainers as demand dictates."

Several other JATC's have taken similar steps as most are bringing in record numbers of apprentices to grow the current and future ranks of skilled tradespeople.

Another area where the trades have become more active than in the past are organizing efforts and being more aggressive from a marketing standpoint in media relations and traditional advertising.

"There's no question our branding and advertising campaign has been a significant factor in attracting more people to inquire, and eventually enter our training programs," said Danielle Harshman, Marketing Director, Ironworkers Local Union No. 3. "We certainly still get referrals from current members, but we absolutely needed to expand the scope of how we communicate with potential apprentices in order to meet the demand for iron workers."

Clearly this is a balancing of demand and supply. While each trade has different manpower needs it's anticipated that growing the workforce by 7 to 10% per year with a mix of apprentices and organized experienced tradespeople, the demand will be managed.

At present there are approximately 44,000 members of our regional union locals along with some 9,000 apprentices - 3,000 of those being classified as first year. Additionally, the JATC's estimate they will recruit between 1,700 and 2,000 new apprentices through 2018.

This is not to say there may not be spot shortages of skilled tradespeople, but by working in concert with contractors the JATC's are confident they can manage all projects.

A recent study supports this viewpoint and indicates the "shortage" may not be as severe as some have positioned it to be.

The study conducted by The Association of Union Constructors (TAUC)* regarding the availability of union craft workers found that in the Middle Atlantic Region (which encompasses all of Pennsylvania) there is less concern about a "large" shortage than in most areas of the country.

Respondents in this region broke down as follows:

- 18% said there is a large shortage of union craft workers
- 49% said there is a small shortage of union craft workers
- 33% said there is the right number of union craft workers

Though this indicates a union craft labor shortage is prevalent the clear majority seem to view it presently as reasonably manageable. Respondents to the study were a nearly equal mix of union and management representatives.

As for direct skills or trades on a national basis, far and away the most difficult to find in-demand skill was for welders as 32 percent of all respondents reported this. The next highest occupation at seven percent was electrician. All other trades ranged from two to six percent with respect to being difficult to find in demand skills.

High Demand Skills 2018

Welder	32%
Electrician	7%
Equipment Operator	6%
Ironworker	5%
Pipefitter	5%
Plumber	5%
Carpenter	5%
Roofer	3%
Millwright	3%
Sheet Metal Worker	2%
Other	12%

The takeaway is that we absolutely need to sustain, and even ramp up, aggressive recruitment of apprentices and organizing non-union tradespeople. We all need to take a role in this – labor and management – as we all have a stake in selling the construction industry to the next generation.

MAYOR ISSUES WORKFORCE DEVELOPMENT AND PROJECT LABOR AGREEMENT ORDERS

Cooperative Effort of Diverse Organizations

Mayor Bill Peduto announces his executive orders on workforce development and project labor agreements.

Mayor William Peduto, in conjunction with the city's Construction Industry Task Force, signed two Executive Orders on May 29, 2018 supporting growth of the construction industry and access to family-supporting union jobs for city residents.

The Orders relate to project labor agreements (PLAs) and workforce partnerships.

Within the city they apply to city-managed projects of $500,000 or more and are subject to oversight by a Project Labor Agreement Review Committee. Minority workers would comprise at least 12% of the workforce on such projects, and the projects would continue to be held to the city's minority and women-owned contracting goals of 18% and 7% respectively.

The workforce partnership order recognizes that minorities and women are underrepresented in the construction industry, and more efforts are needed to boost construction career opportunities in a time when the industry needs thousands of well-trained workers.

"The workforce and diversity initiatives of this executive order are the result of a very open and cooperative effort among a diverse group of organizations and stakeholders," said Ken Broadbent, Business Manager, Steamfitters Local Union No. 449, and member of the Board of Directors of the Builders Guild of Western Pennsylvania. "The same is true of the PLA order which tightens and clarifies the licensing, registration and certification of contractors so that we can best assure safe and timely projects being performed by local, well-trained tradespeople and contractors."

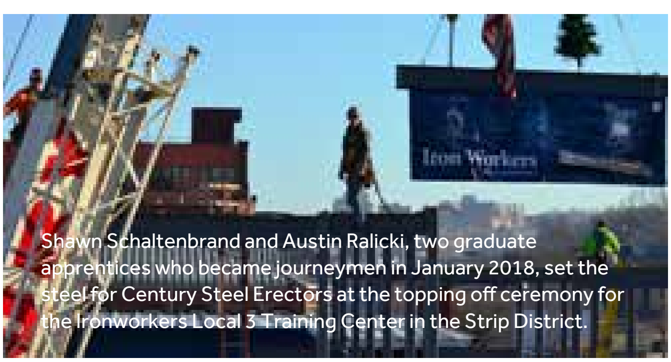
The Construction Industry Task Force is already working on initiatives to bring more minorities and women into the apprenticeship and work site pipeline, and the Workforce Partnership Order commits $350,000 for a Workforce Development Fund to support outreach and recruitment efforts including a pre-apprenticeship bridge program, online applications, website portals, and data sharing to track the initiative. The Pittsburgh Regional Building Trades Council has committed $100,000 and the City of Pittsburgh $250,000.

"We believe these two steps are raising the bar for city construction projects and building a pipeline to the worksite for people who have traditionally been excluded," Mayor Peduto said.

The Orders are the result of a year of work by Construction Industry Task Force partners including: City Councilmen R. Daniel Lavelle and Corey O'Connor; Pittsburgh Trades Institute; Community Empowerment Association; A. Philip Randolph Association; Intro to the Trades at the Energy Innovation Center; Oxford Development; Pittsburgh Regional Building Trades Council; Builders Guild of Western PA; Partner4Work; and City of Pittsburgh departments.

IRONWORKERS TRAINING CENTER

Graduate Apprentices Top Out Iron Workers Local Union No. 3's $3.8 Million Training Center Expansion



Shawn Schaltenbrand and Austin Ralicki, two graduate apprentices who became journeymen in January 2018, set the steel for Century Steel Erectors at the topping off ceremony for the Ironworkers Local 3 Training Center in the Strip District.

On Tuesday, February 27, 2018, Century Steel Erectors, a signatory employer with Iron Workers Local Union No. 3 for nearly 30 years, set the final beam for Local 3's $3.8 million expansion of the Apprenticeship Training Center. It's no coincidence that the iron workers that "topped out" the expansion are Local 3 graduate apprentices. Putting both their training and experience to the test, the two journeyman iron workers easily guided and set the 14 foot beam into place.

Prompted by the increased demand in the region, due in part to the Shell Pennsylvania Petrochemicals Project in Beaver County, the expansion will add more than 6,000 square feet to the existing 8,000 square foot facility and be able to accommodate between 350-400 trainees which more than doubles the current capacity. It includes a new second floor, a two-story addition and renovation to the exterior of the building. The expansion is scheduled for completion by year-end 2018.

BUILDING TRADES INVESTMENT THROUGH THE ERECT FUND HAS PLAYED A MAJOR ROLE IN OUR REGION'S DEVELOPMENT

Tyler Noland, Chief Operating Officer, PenTrust Real Estate Advisory Services

Bakery Square, Mixed-Use Development, East Liberty section of Pittsburgh

As the Employee Real Estate Construction Trust Fund (ERECT Fund) enters its 31st year, times have certainly changed. A local economy once buoyed by heavy industry has redefined itself through technology and services. The Pittsburgh and Cleveland waterfronts once occupied by mills are being revitalized with office buildings, apartments, and retail. Driverless cars from companies like Uber and Argo AI are now a mainstay on Pittsburgh streets. But despite the changing times, the ERECT Fund has retained its heritage as a catalyst for the local economy as well as local building trade employment in western Pennsylvania and eastern Ohio.

The ERECT Fund is composed of approximately $210 million of building trade pension funds from numerous trade organizations throughout Pennsylvania, Ohio, and West Virginia. The mission is simple; to provide a competitive return through debt and equity investments, while also creating jobs for the building trades through a 100% union work requirement on any project in which the fund invests. To date, the impact is substantial. $482 million of total investment, consisting of 98 projects constructed at a total cost of $1.8 billion, which has resulted in an estimated $653 million in wages and benefits for the building trades in the tri-state area.

However, a more recent snapshot of the last two years paints even a clearer picture of the true impact the building trade unions can have on the regional economy. Since the beginning of 2016, the ERECT Fund has invested $61.7 million into eight different projects with total costs exceeding $314 million, resulting in estimated wages and benefits of approximately $105 million.

While the numbers speak for themselves, the forward-thinking labor leaders of 31 years ago and their successors involved throughout the history of the ERECT Fund should also be commended for the intangible impact that has helped spur a renaissance in the City of Pittsburgh. Direct and indirect lines can be drawn to many of the major economic successes in recent years.

Google, the tech monster which is now a mainstay in Pittsburgh's East End, decided to locate their regional headquarters in a hip, retro conversion of a former bakery funded speculatively (without leasing) in part by the ERECT Fund, giving birth to a new East Liberty. Uber's selection of the Strip District for its automated vehicles division is another success story of how union investment has impacted both a neighborhood and an entire city.

Today, many site selectors for major employers will tell you that the "live, work, and play" environment desired by so much of the workforce in today's economy is the key to attracting the best talent, which is the single most important factor for most companies in picking a location or city. In other words, if employees can't find nice housing within walking or biking distance to the office, or don't have food and nightlife and amenities nearby, a company will likely never locate there because it can't recruit.

Twenty years ago, where Uber now sits was almost exclusively run down industrial buildings. Since that time, the ERECT Fund's fingerprints are everywhere. Union funded apartments like the Cork Factory, Lot 24, and the Yards at 3 Crossings provide Uber with 700 plus units of Class-A living within a half mile. Office buildings funded by ERECT investments such as 2555 Smallman Street, Riverfront East, and Riverfront West are now home to Argo AI, Robert Bosch, Petuum, Burns White, and others, providing Uber with well-respected neighbors. Apple also selected the neighborhood for a small office space for the same reasons Uber did… the neighborhood is an extremely attractive place for young talent to live, work, and play. Similar stories exist in the Airport Corridor, Beaver County, and Cranberry resulting in companies like Dick's Sporting Goods, Westinghouse, and Shell choosing local sites for new development.

Today, Pittsburgh is viewed nationally as a tech and innovation city, a hub for robotics and automated vehicles, an emerging player in the energy sector, and an attractive city for young talent. While much of the credit goes to institutions like Carnegie Mellon and Pitt, and rightfully so, Pittsburgh would have never been positioned to succeed without the initiative taken by the local building trade unions over 30 years ago…to put back into the community, to invest in themselves, their professionalism, skill, passion and pride in their product, and to believe in the future of Pittsburgh at a time when things were bleak. Without it, the Pittsburgh we see today would never exist.

To learn more about the ERECT Fund please visit www.pentrustonline.com or call 412-279-4100..

Collaborative spaces, called kivas, were created to encrouage teamwork among the students. Photos by Linda Jeub Photography

PROJECT PROFILE

SOUTH FAYETTE HIGH SCHOOL

Building public projects, particularly K-12 schools, can be challenging. Because of the public bid delivery method – made even more difficult by the Separations Act – there is almost no way to control the contractor selection. Public construction can be rough and tumble, especially in slow markets. The prime contractors on the project are expected to coordinate their efforts but there is almost no leverage that compels cooperation if one of the primes is lagging or failing. In light of this reality, veteran construction executive Lee Totty, president of Yarborough Development & Construction was pleasantly surprised when the bids were opened on the additions and alterations to South Fayette High School in December 2015.

"We had a good team. That is what you try to put together and when it works, it works. On that project it worked," he says.

Yarborough was the successful bidder on the general trades contract, and the prime contractors included mechanical and electrical contractors that Totty knew had been part of successful projects with Yarborough in the past. Yarborough was also able to put together a team of subcontractors with which it had years of success working on projects. South Fayette High School had bid in a tight K-12 market, at roughly the same time as the Thomas Jefferson High School project. The total of the bids came in under construction manager PJ Dick Inc.'s $27 million estimate, allowing South Fayette School District to accept alternates that added about $2 million to the final tally.

The project was a major reconfiguration of a high school that opened in 2002. Already rapidly growing by the time the high school opened, South Fayette Township saw no easing of its growth in the decade that followed. The municipality is home to the second-most number of new single-family housing construction starts since 2010. The growth of the district's reputation has mirrored the community's. In fact, South Fayette School District was rated the top school district in Western PA for the past


Photo by Linda Jeub Photography

two years, based on academic achievement at all levels. It was a school district that was drawing more students each year.

"When the school was originally built there were 662 students," notes Totty. "Since then the district added another 100 lockers and with their projections it was clear that they would not have enough room for all their students by the time the incoming class started in the fall of 2017."

"There were two main reasons for the project," explains Dave Esposito, president and principal at the architect Eckles Group. "That school district's enrollment is growing almost to the point of not being able to anticipate growth. They have experienced growth that is unusual compared to their peer school districts in Western PA. The second driver was South Fayette's curriculum is heavy on STEM and STEAM subjects. The addition included a 10,000 square foot Innovation Hub."

That Innovation Hub included space for new technology for the study of science and engineering, along with space for the application of innovation to the arts. In addition to new science classrooms, the Hub added a large black box theater, audio/video recording studios, maker space that included computer-aided design and advanced material modeling studios, with connections to fabrication shops for the items designed. The addition has digital art space that augments the fine arts education but is geared towards digital arts and design. Esposito says that this part of the project reflects a mindset among parents, administration and the school board that is exemplary.

"Parents show up at school board meetings and encourage the board to do what is necessary to produce excellence for the students, even though the district has one of the highest millage in Allegheny County," he notes. "The curriculum really tries to get kids to work in teams to solve problems."

Totty says this commitment to the students extends to the district's attitude about their facilities. As the general contractor for the original high school's construction, Yarborough had a unique perspective to judge how the building had held up to a more than a decade's usage.

"What amazed me was when we went back in there for the pre-bid meeting, the building looked like the day we left it for the most part," Totty notes. "South Fayette maintains it. The original finishes were done right. It was just the way I remembered leaving it 15 years before."

Gene Manzini, retired director of facilities for South Fayette School District, oversaw the expansion project and the construction of the new building 15 years earlier. He credits the district's administration for setting the tone on how its facilities are maintained, noting that the attitude goes back to previous administrations.

"Dr. Linda Hippert had the vision and got the ball rolling for the way all the schools look today," Manzini says.

The program that was developed was for the addition of 45 classrooms and approximately 86,000 square feet of space. The building's original design and site required a more creative and complicated solution for the additional space than an architect would normally choose.

"The building was designed as a crescent shape with two linear wings coming off the crescent. We could extend those wings, but not very much," explains Esposito. "We filled in an empty space that was a plaza, but we weren't able to get all of the classrooms in that. The back of the school falls off steeply beyond the vehicle circulation driveway, so we couldn't really go out much on that side. We added four classrooms on each floor of those wings. There was some lawn area that was free next to the auditorium so that's where we connected the Innovation Hub."

The infill approach to expanding the building demanded the creation of new circulation patterns within the high school. Adding onto the ends of two wings necessitated the construction of two new stair towers. Out of necessity, the project violated an architect's unwritten rule of disturbing the existing structure as little as possible. The phasing and coordination of the project became critical to the project's success or failure. Totty zeroed in on the interfaces between the old and new as the biggest challenges, and notes that the district's academic schedule did the construction team no favors.

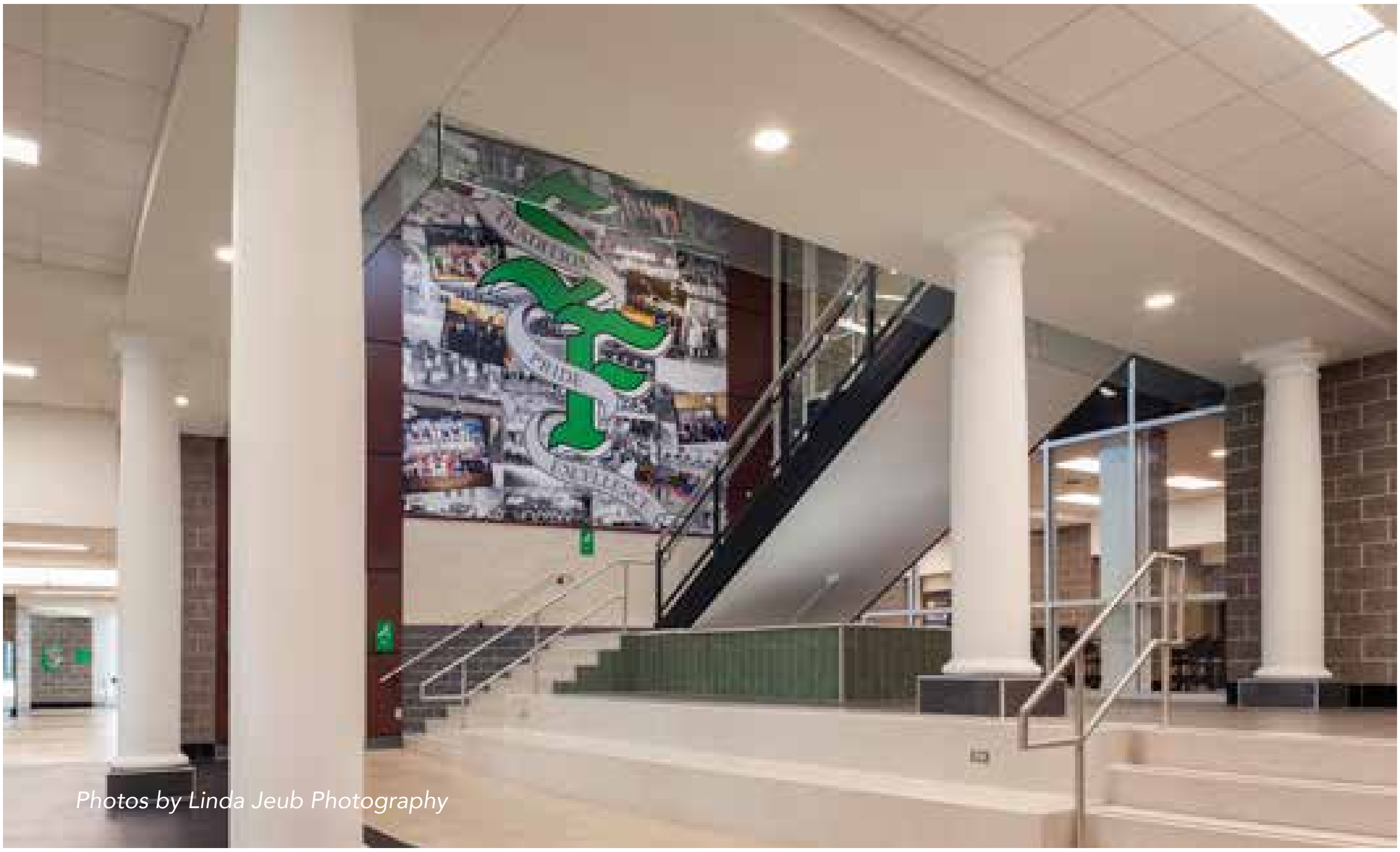
"The problem is summer's keep getting shorter," Totty explains. "The kids get out mid-June and come back to school around August 20th, so you basically have eight weeks of summer."

Totty notes that this reality was particularly challenging for the paving scope that was added to the project.

"You're not going to pave in the summer [when the site is full of activity], so you there have to do the paving in the spring, or the fall just before the project was completed," he says.

"We were working in and around an active school and attaching for additions at multiple points on the building. There were several places in the existing building where two or more classrooms were lost in order to create a corridor between the new and old construction," Totty continues. "There was a phenomenal amount of coordination necessary to make sure that the students had as little interruption as possible."

There were two major milestones in the phasing. The addition of the two stair towers had to be completed by the end of summer 2016. And the two major additions had to be completed by the end of August 2017. The paving, which included work at the middle school near the site, was to be accomplished between the completion of the



Photos by Linda Jeub Photography


Photos by Linda Jeub Photography

additions and substantial completion at the beginning of the 2017 school year. Yarborough hit those milestones. Like with all successful projects, South Fayette High School had a strong superintendent on site.

"We had a good superintendent, Mark St. Cyr, who managed the subs really well and developed a comfort factor with the construction manager right away," Totty notes. He knew how to build the buildings and, in this business, if you can get it out of the ground it will flow from there. That's what Mark was able to do. When you're talking about four separate additions tying into the building and not a lot of room to work with, you have to do a lot of planning to make sure that you're not stepping on somebody or creating a situation that you're going to regret later because you got the cart before the horse."

As the project hit the stretch run, a monumental dome remained to be installed above a portion of the expansion that interfaced with the existing building where the cafeteria had been. The dome required the work of almost all trades and couldn't be installed until after all the adjacent construction was completed. Working 30 feet above the floor, the reinforced fiberglass dome had to tie into the existing building. Once it was installed, workers had to finish the drywall, painting, trim and terrazzo flooring beneath it.

That was a lot of workers in a small space.

Having a significant piece of the scope left to accomplish at the end added anxiety to the process, especially since the paving also remained. Gene Manzini recalls this dynamic was among the biggest challenges for him.

"Because we were adding on and renovating while school was going, keeping the dirt out and the building clean was a big challenge," Manzini says. "It was also a challenge making everyone understand that when the first day of school was and what had to be accomplished by that date. There weren't going to be any delays. We had to start on time."

The finished project checked all the boxes for South Fayette School District. Harris Masonry, which has worked on all the projects at South Fayette, was able to match the brick precisely so that Totty says it's impossible to tell where the original building ends and the additions begin. David Esposito compliments the owner for holding to traditional architectural standards, even though the school is a very modern building. He also pointed out that the district's standards were an important factor in the project's success.

"South Fayette School District isn't always the easiest to work for, and I don't mean that in a bad way," chuckles Esposito. "They have the word 'excellence' in their district motto and they mean it. The district sets a high bar and if you don't meet it, you hear about it. We certainly had

times when they let us know they weren't happy, and I know PJ Dick and Yarborough did too."

For Manzini, the project was his swan song prior to retirement. He feels he went out on a high note. "The building is beautiful," he says. "Lee Totty is very conscientious. He wants to do what the owner wants done."

Totty recalls that the way the project was managed showed an understanding that South Fayette School District expected the construction to go as it was planned.

"I think PJ Dick had a rule that we wouldn't talk about problems at meetings with the owner," Totty laughs. "That's not literally the case but Joe Brennan made sure that the problems were worked out at our Wednesday meetings when everyone was sitting at the table. You never went to a meeting with the owner afraid that someone was going to throw you under the bus."

"We never had any issues with the prime contractors. That's usually where things start to fall apart at some point in the job; but it didn't really happen on the South Fayette project," continues Totty. "In order for that to happen everybody had to work together. The school district cooperated; the architect cooperated, and the construction manager didn't get in the way. People did their jobs and there wasn't a lot of complaining. The job finished with no issues on anybody's part. That's a credit to the whole team. There were no egos getting in the way. Everyone was interested in getting the job done." BG

PROJECT TEAM

Yarborough Development & Construction........General Contractor

South Fayette School District........Owner

Eckles Architecture & Engineering........Architect

PJ Dick Inc. ....Construction Manager

Harris Masonry ....Masonry Contractor

McCrossin Foundations ....Foundations

Multi Metals Inc. ....Steel Fabrication

Century Steel Erectors ....Steel Erection

A-1 Electric ....Electrical Contractor

Haranec Sheet Metal ....HVAC Contractor

Shipley Plumbing ....Plumbing Contractor

Intertech Ci ....Security Systems

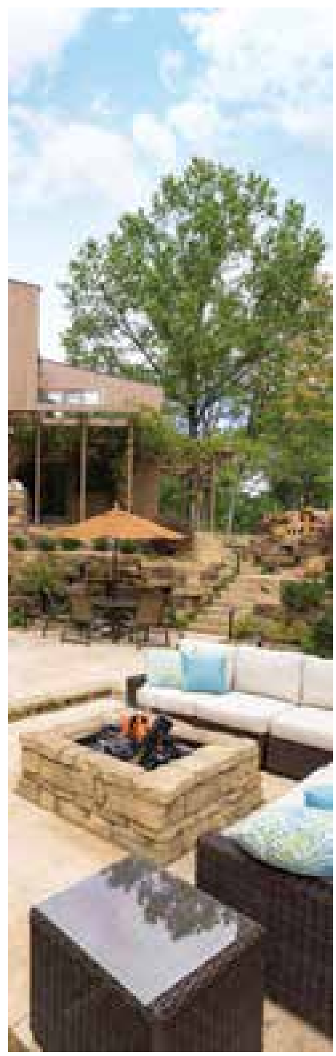
J. J. Morris & Sons ....Interiors

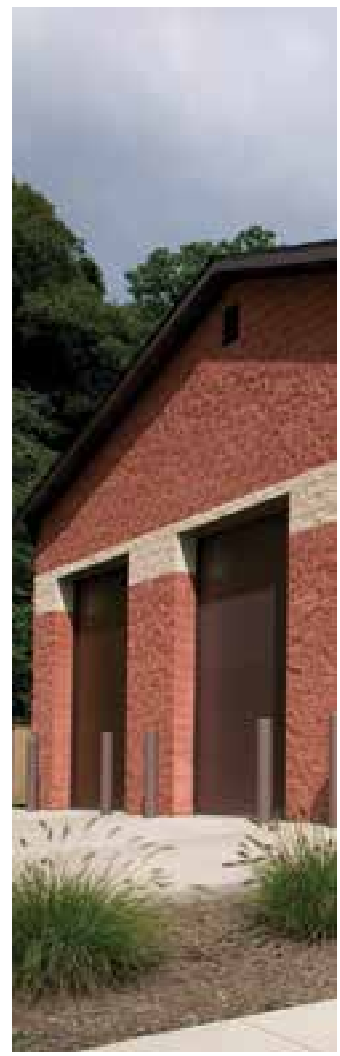
Specified Systems Inc. ....Windows

Paramount Floors ....Flooring

Patrinos Painting & Contracting........Painting

Murrin and Murn Inc. ....Paving





New principals at DRS Architects are (from left) Tobie Nepo, Jon Funari, Gretchen Zetler, Scott Hazlett and Paul Cali.

FIRM PROFILE

DRS ARCHITECTS

One of Pittsburgh's venerable architectural firms is changing leadership. DRS Architects promoted five new principals – Paul Cali, Jon Funari, Scott Hazlett, Tobie Nepo and Gretchen Zetler - in November 2017. The firm's most senior principal, Phil Hundley, says the new ownership has changed the firm that he and his partners created over more than 40 years. And he wants you to know he's proud of the direction the firm is heading.

"I think the culture has changed. When Greg and I ran the firm, and when Kathryn was here, we were pretty closed about the operation," Hundley says. "We didn't talk much to staff. We just did our business efficiently. Now, we are very open. We have meetings a couple times a week. We have staff meetings every Friday. The principals are much more open with what they talk about. Things have changed, as I can see, for the better."

Hundley and senior principal Greg Madej are in the process of transitioning their ownership stakes and gearing down from full-time work at the firm. This will be the seventh ownership transition at DRS and Hundley has been involved in six of them.

The firm was formed in 1959 when Dahlen Ritchey merged his firm, Mitchell and Ritchey, with Russell Deeter's firm. At the time, Dahl Ritchey was in the midst of designing the Civic Arena project. A few years later, one of the firm's leading architects, William Sippel, became a principal. Deeter Ritchey Sippel became one of Pittsburgh's, and the nation's, most influential architects during the 1960s and 1970s.

DRS was the architect for Three Rivers Stadium, a building which set a standard for modern, efficient sports venues in the 1970s. The firm designed other iconic corporate and educational facilities during this era, including research centers for ALCOA, Westinghouse's Monroeville campus, Pitt's Benedum Hall, Wean Hall at Carnegie Mellon University and the University of South Florida's science complex.

In the 1980s, Bill Sippel and Phil Hundley led the firm as it grew to 60 employees. In 1988, Hundley, James Kling and Don Gmitter became the firm's principals and the company was renamed DRS Hundley Kling Gmitter. A year later, Greg Madej was named principal and a sister firm, DRS Interiors, was founded with Kathryn Jolley as manager. The firm was re-christened DRS Architects when Gmitter left the firm and Jim Kling retired in 2002. Jolley was named a principal in 2007, and the team of Hundley, Madej and Jolley managed the firm through the last business cycle up to the recent transition in ownership. With the three principals eyeing retirement at roughly the same time well in advance, the plan for ownership didn't need to be expedited.

"The transition didn't happen overnight. We've been working on it for a number of years," notes Kathryn Jolley, former senior principal, who retired on May 18, 2018. "We hired a business development manager, Rachel Rzymek, to take on some of the tasks that I and other senior principals handle. It turned out to be a great fit."

Rzymek's hiring is typical of the changes underway at DRS. The firm's six most recent hires include architects from India, Cleveland, Connecticut and Atlanta. The ages of those new employees range from 22 to 28. The recruiting reflects that gap in talent in Pittsburgh and an intentional attempt to change culture.

"Because it's been challenging to recuit local people we've really diversified our team here," says Hazlett. "DRS was becoming an older firm and we've filled out our roster with younger people. I think we have to make a commitment to growing our own architects instead of hiring them."

The demographic changes at DRS were less gradual than the ownership transition. Funari joined the firm in 2013 and tells an anecdote that illustrates how much the face of DRS has changed.

"We were preparing for an interview when I first started and I tried to figure out the average age of experience so we could tell these prospective clients," he recalls. "The average age in the firm was 45 years, which is very high. That has significantly dropped over the four-and-a-half years I have been with the firm. There are more people getting closer to retirement, so the makeup of the firm is going to change whether we want it to or not. We're going to get even younger."

"One thing that has happened that is a big change is that younger people are more involved in projects and meet with clients," admits Hundley. "I would not have taken someone right out of school to a meeting but [the new principals] do. It's really a good education. The young architects learn more quickly. That's a really good thing."

Getting younger has been, at least in part, a function of the shortage of architects with ten or so years of experience. Funari feels that recruiting is one of the areas that would benefit from an increased awareness about DRS Architects.

"We want to raise the image of DRS in Pittsburgh," he says. "Before I came here, I knew DRS existed but I didn't see a lot of news about projects that the firm had done. That's something I'd like to change."

Funari asserts that architects tend to be driven by the desire to have a fulfilling career more than by money. To some degree, that means having the opportunity to work on projects with a certain degree of status. As a principal, Funari is aware that DRS has a portfolio full of high-profile projects but he doesn't believe that architects with 10 or 15 years experience are aware of that.

Scott Hazlett shares Funari's concerns about the industry's awareness of the DRS name, and is focused on the market understanding how DRS has changed.

"People don't know as much about DRS because it's an older firm. They may think of us as a more conservative firm but we want them to know we're also young and futuristic," he says. "We're carrying on that history but we want to be part of the future, not the past. We have a commitment to diversity, not just in our people but in our thinking and community involvement."

Hazlett was the last of the five new principals to join DRS. His recruitment was a strategic hire that was intended to rejuvenate the firm's healthcare practice. DRS had a long history with most of the hospitals in Pittsburgh and a healthcare studio that had about a dozen people, but the healthcare practice declined after Kling's retirement. The plan to refocus on healthcare matched well with Hazlett's career plans in 2014.

"I always felt I could be a principal in a healthcare firm or lead a healthcare practice," Hazlett says. "I talked to other firms that were interested in my doing the same things I had always done. DRS wanted me to lead, to restart our healthcare group. Before I was even hired, I developed a marketing plan to see if DRS really wanted to do what was needed to restart the healthcare practice. We have followed that plan since and it has worked so far."

Hazlett had worked with the two major healthcare systems in Western PA for decades, working on his first project for UPMC in 1988. He was pleasantly surprised that the hospital systems were willing to work with him, even if the current project managers had not worked with DRS. Hazlett says the first year was a re-acquaintance period, followed by some small project commissions to test the working relationship. He reports that DRS currently has more than 40 healthcare projects throughout the region.

Healthcare helped fill out what was already a diverse practice at DRS. The firm's 30 employees include 12 registered architects and 5 NCIDQ-certified interior designers, which is a higher ratio of interior designers to architects than at many firms. DRS has a solid track record with the federal open-end contracts, working now with the Department of Energy and the National Energy Technology

Laboratory facilities around the country. Its portfolio of higher education, government, hospitality, sports/recreation, laboratories, corporate and healthcare projects helps build depth of experience and buffers against downturns, notes Nepo.

"We have always had a wide variety of markets that we're involved in," she says. "We say that's both positive and negative but when one market becomes stronger than another, we are there; and when one drops off, we're OK because we have depth in other markets. It gives us a certain depth and knowledge."

"Another advantage I think we have is that we tend not to specialize," says Cali. "We have some areas of expertise in markets we go to regularly, but as a young professional in our office you have the opportunity to gravitate towards a market sector that interests you. You don't have to work in just one sector for half a decade."

The change in ownership will provide a test of that knowledge, since new relationships will have to be formed as old ones fade away. The new principals don't shy away from the question of how to differentiate DRS from its peers.

"That's a question that is frequently asked and not so easily answered," Funari says. "If you're an architectural firm you can always say you're cleverer than the next firm, but you're not. Everybody's mostly doing the same thing. I think it's more about how we constantly make ourselves better as a firm. That's probably more important than how are we different from other firms."

"It's also about the relationships, not only internally but with your clients," Nepo says. "I have probably been here the longest and - I hate to say it but - we really are like a family here. Who comes here and is a part of the team here at DRS helps the way we communicate the design process, and I think that goes out to the clients also."

"I think clients respond to the chemistry we have at interviews together," Cali continues. "I think we exude a certain camaraderie and ease of communication with each other. We have a comfort with each other and the client can picture being comfortable with us too."

Funari differs with Nepo slightly on her description of the firm's relationship dynamics.

"I prefer to think of it as a group of friends who all work together. With a family there's a certain amount of dysfunction that's inherent in that model," he laughs. "If you were a group of friends, you get everyone together and tell them all the things that are happening. It seems to me it's a stronger connection if people choose to work together and choose to do great things together, rather than being stuck because that's where you were born."

DRS Architects will celebrate its 60th anniversary in 2019. By that time, the transition to the new leadership will be complete. The five new principals are now putting their imprint on the firm.

"Some of us work in more of an atelier sort of setup, where you're gathered around people's desks discussing various aspects of a project," explains Cali. "It's a little bit more of an interactive practice. The senior principals' generation tended to think a little more hierarchically; ours is a little more horizontal."

"In some ways things are naturally going to change after Phil and Greg retire because they're not going to be there anymore and we will have to make decisions without their input," notes Funari.

"Our goal as the new leadership is to continue the history of the firm, but also pull it forward and be more forward thinking as we move on," says Zetler. "Architecture firms tend to be more traditional in how they operate. We definitely see change with our younger staff and the changes in technology. The types of designs we're being asked to produce for our clients are changing. One of our goals is to keep up with what's going on in the world around us and make sure that we provide the support internally to incorporate those new things in a positive way that results in great projects for clients." BG

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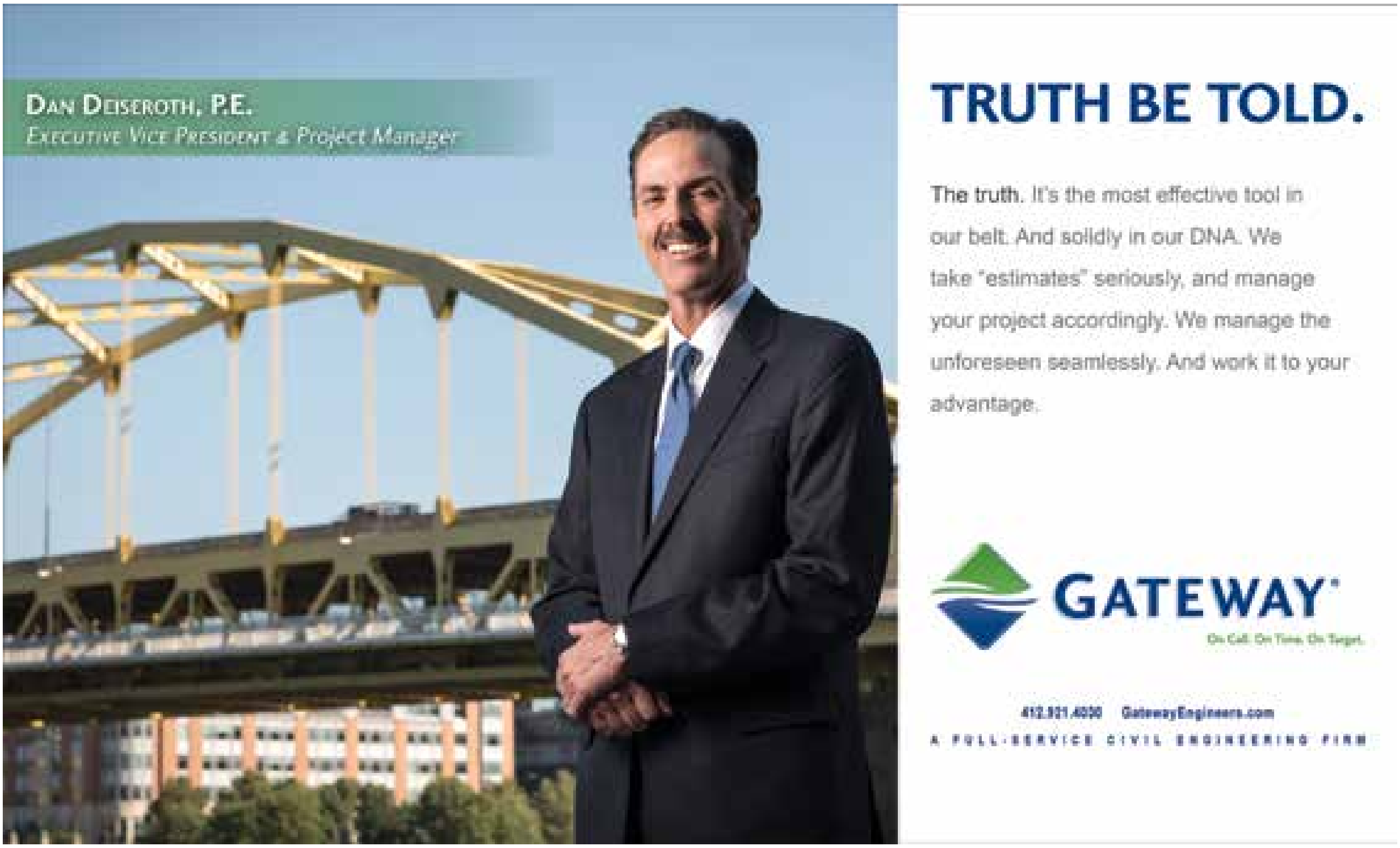
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OSHA's Local Enforcement Update: Where Does the Recently Enforceable Crystalline Silica Standard Appear on an Inspector's Radar?

BY JESSICA M. JURASKO, ESQUIRE

The Occupational Safety and Health Administration (OSHA) announced its Region 3 campaign for the first quarter of 2018, including Pennsylvania and West Virginia, to raise awareness about the four leading safety hazards in the construction industry. In March 2018, OSHA implemented the Focus Four Hazards campaign to educate employers regarding electrical, struck-by, fall, and caught-in/between hazards, which were identified as the four most frequently cited safety violations against construction employers. OSHA conducted monthly "toolbox talks," each focused on a different hazard.

For the first half of 2018, it was not surprising that falls top the list as the most cited safety hazard in construction in Western Pennsylvania. As compared to national statistics, the data is consistent with incidents related to "slips, trips and falls" comprising more than 50% of the overall citations from October 2016 through September 2017. However, in addition to the obvious attention toward the common and recurrent standards, the agency has also begun enforcement of the recently implemented crystalline silica rule.

Industry and government representatives alike have been unsure of exactly how this new standard will actually be enforced. The pre-2016 Rule was in effect without any changes or updates almost as long as OSHA has been in existence. Replacing the prior exposure limits that were more than 40 years old, the new crystalline silica Rule has two separate standards with one applicable to the construction industry and the other directed to general industry/maritime (encompassing all other enforcement). After years of rulemaking, extensive comment periods, and challenges from both labor and industry, the final Rule took effect in June 2016. Construction industry enforcement was scheduled to begin a year later, in June 2017, but due to a three-month delay, the Rule became officially enforceable on September 23, 2017. The agency determined that additional guidance was necessary due to the "unique nature" of the requirements of the construction industry. OSHA granted employers acting in good faith, an additional 30 days from that time, for implementation efforts.

OSHA published a memorandum for "guidance," for interim enforcement in construction, on October 19, 2017. According to many employers, the memo created more questions than it answered. Citations started being issued in October 2017, usually in conjunction with other safety standard violations. Experience so far shows that OSHA rarely cites a silica standard as a stand-alone violation.

To date, approximately 117 alleged violations have occurred according to OSHA statistics. Eighty percent of those citations were written as "serious." In particular, the top three standards at play thus far are:

- 29 C.F.R. § 1926.1153(d)(2)(i) for failure to conduct an exposure assessment of worker exposure to respirable crystalline silica (approximately 35 citations)
- 29 C.F.R. § 1926.1153(c)(1) for failing to adhere to the Table 1 list of equipment/tasks and OSHA's required engineering and work control methods and respiratory protection (approximately 30 cited violations)
- 29 C.F.R. § 1926.1153(g)(1) for lack of a written exposure control plan (approximately 20 citations)

The enforcement of §1926.1153(d)(2)(i), addressing the proper exposure limit assessments, qualifying as the most cited of the silica standards comes as no shock. Coming in second, Table 1's adherence can also be described as a predictable violation category (§ 1926.1153(c)(1)) given some of the confusion expressed by industry about what the guidelines mean for workers with minor silica exposure. The third most cited silica standard (§ 1926.1153(g)(1)), however, is somewhat of an unexpected subpart that OSHA inspectors happened to target and cite.

§ 1926.1153(g)(1) can arguably be considered a recordkeeping or "paperwork" type of violation. OSHA's data is unclear as to whether the violations dealt with employers failing to have a plan in place at all, or if the alleged violations had to do with specific elements of a plan that were non-compliant.

Other parts of the Rule have been cited, obviously, but there does not appear to be a systematic approach in terms of what inspectors are seeking or a certain methodology in their inspections. Some employers who have been cited for silica Rule violations indicate that an alleged "Table 1" violation led to requests for documents showing exposure assessments, written control plans, and medical testing data. It stands to reason that, if those records are not compliant, more citations result.

So what does this mean for day-to-day operations for an employer responsible for a construction site under OSHA's jurisdiction? As a whole, the industry has been looking at practical ways to meet the standards and advise its workforce—particularly supervisors and on-site management—about the requirements. Because the new enforcement measures have been gaining momentum in 2018, awareness among all workers is key, especially for larger employers and their subcontractors.

Many employers across industry have expressed frustration with the challenge of how to cost effectively comply with the Rule. This is especially true for multi-employer worksites where the general contractor's silica control plan may not be followed as closely by subcontractors. There could be situations where members of a trade are exposed in excess of the personal exposure limit, even though another subcontractor created the exposure. Both the GCs and the subcontractors face the responsibility of making sure all workers comply with the new exposure limits under the standard. This requires a lot more coordination and communication on the work site, which must be done well in advance of the actual work being performed.

Based on the above, certain requirements outlined in the final Rule should be prioritized. First, it is critical that an employer develop its own written silica exposure control plan. The written exposure control plans must include:

(a) a description of the tasks in the workplace that involve exposure to respirable crystalline silica;

(b) a description of the engineering controls, work practices, and respiratory protection used to limit employee exposure to silica for each task (basically, the employer's customized "Table 1" for the specific tasks);

(c) a description of housekeeping measures used to limit employee exposure to respirable crystalline silica; and

(d) a description of the procedures used to restrict access to work areas, when necessary, to minimize the number of employees exposed to silica.

Further, there should be a designated representative or "competent person" assigned to implement the workings of that plan. In addition, employers should adjust their practices, especially related to housekeeping (cleaning clothing, dry sweeping, dry brushing, using compressed air, etc.) to maintain control of areas most affected with silica dust and exposure.

Employers must also keep detailed records of their employees' silica exposure and related medical treatment. In furtherance of that, medical exams should be provided every three years, including lung-function tests and chest x-rays. Finally, it is critical that employers train, educate, and train some more. The silica safety control plans in place, and the effectiveness of an employer's message on its culture in reaching compliance, is one of the most significant mitigating factors OSHA inspectors consider. If an employer has a training program in place and follows through with implementation efforts, that company's good faith effort to comply will likely never be called into question.

OSHA's enforcement is still in the early stages, so there is not much to report as far as actual legal interpretations of challenges to any specific citations just yet. That will undoubtedly be on the horizon very soon. With respect to the actual legal sufficiency of the Rule, in North America's Building Trades Unions v. Occupational Safety & Health Administration, et al., 878 F.3d 271, (D.C. Cir. 2017), on December 22, 2017, the D.C. Circuit Court of Appeals held that OSHA failed to adequately explain its decision to omit medical removal protections ("MRP") from the Rule and remanded the issue for further consideration.

There were numerous challenges to the Rule in this case, but the Court rejected most of them, applying the high bar set where the Department of Labor and OSHA have a deferential standard afforded them in the rulemaking process. Industry raised five issues, all of which were denied. The Unions' challenge to the construction standard's 30-day trigger for medical surveillance was also found to be without merit. The Court did recognize the North America's Building Trades Unions labor federation's argument, noting that the agency did not offer good reasons for leaving out a "medical removal protection" provision allowing doctors to flag workers at risk for exposure-related injury. The Court noted, "[w]e hold that OSHA was arbitrary and capricious in declining to require MRP for some period when a medical professional recommends permanent removal, when a medical professional recommends temporary removal to alleviate COPD symptoms, and when a medical professional recommends temporary removal pending a specialist's determination."

Labor sees the decision as a positive step in ensuring the health and safety of America's workforce. Industry, conversely, finds the Court's analysis represents another stamp of approval for OSHA's rulemaking and enforcement powers. The new Rule is not going away any time soon, and the time for compliance is yesterday.

On June 8, 2018, OSHA announced its crystalline silica standard enforcement launch for general industry and maritime, which can start to occur on June 23, 2018. Given that OSHA will have the capacity to enforce the silica standards across the board, safety experts are anticipating even more citations overall. The agency has warmed up in enforcing the Rule while citing the construction industry over the past 9 months. Perhaps the silver lining in what the construction world has faced in this early enforcement effort, is that it will hopefully allow OSHA to fill in the gaps in making actual compliance more realistic. BG

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FINANCIAL PERSPECTIVE

ESOP's Align Company Culture and Owner's Exit

On March 29, the two owners of Rycon Construction Inc., Todd Dominick and John Sabatos, announced to their employees that they were selling their stakes in the general contracting firm by creating an employee stock ownership program (ESOP). The move made all the salaried employees of Rycon Construction the new owners of the 29-year-old company that Dominick and Bill Taylor founded in the basement of Dominick's Bethel Park home.

"The idea of an ESOP came along about two-and-a-half years ago," says Sabatos. "We started getting serious about it maybe a year ago and finalized it at the beginning of this year."

Sabatos came on as the partner to buy Taylor's share of the company in 2011. Vice president of operations at Rycon earlier in his career, Sabatos was working with developer DDR Corporation when he was approached to re-join Rycon as an executive and owner. Focused on growing Rycon's business as the economy began to recover in 2011, Sabatos says that transitioning the ownership of the company became a conversation about five years later.

"As the years went on there were several options that we had," he explains. "One was that I buy Todd out. Another was to bring in another partner or partners in and the third was an ESOP. One of the things that made an ESOP attractive is that Rycon really isn't a family-owned company. Todd's kids aren't interested in the business and mine are not either. The other thing is we think it's a good thing for the company. The employees are incentivized to maintain the progress and integrity of the company after we're gone. And it's an exit strategy for us."

When a company wants to set up an ESOP, it establishes a trust fund. The company then contributes new shares of stock or cash to buy existing shares. The shares are divided among employee accounts within the trust. ESOP shares are viewed as qualified retirement plans by the Internal Revenue Service (IRS). Vesting schedules vary between individual plans, but employees must receive vested benefits on either a cliff vesting schedule, which is 100 percent vested after three years or less, or on a graded vesting schedule, which provides 20 percent vesting every year after the second year of employment.

Employees receive the vested portion of their accounts at either termination, disability, death, or retirement. These distributions may be made in a lump sum or in installments over a period of years. If employees become disabled or die, they or their beneficiaries receive the vested portion of their ESOP accounts right away.

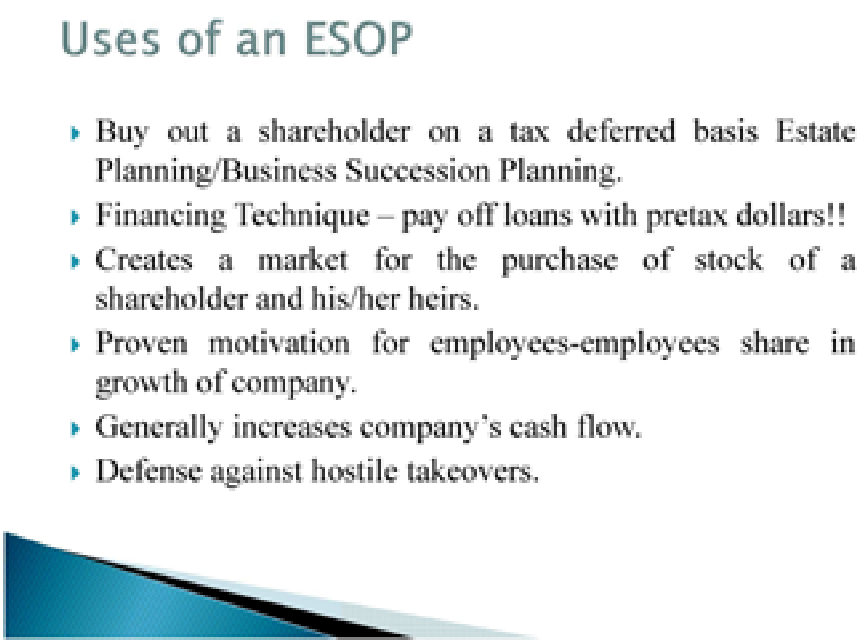
Steve Goodman, partner at Lynch, Cox, Gilman and Goodman, is an accountant and consultant specializing in ESOPs. Goodman guided Rycon through the process. He says that ESOPs are gaining in popularity.

"Eight years ago, four percent of American workers had their retirement plans under ESOP. Today that number is 11 percent," Goodman states. "ESOPs have been around since the 1950s, but in 2002 the rules for 'S' corporations were amended to allow ESOPs as owners."

ESOPs are beneficial to business owners in several ways. The owner can sell part or all their shares to their employees, while still retaining control of the business operations. Establishing the ESOP trust also ensures there is a market for the owner's shares. Transfers to an ESOP allow the business owner to defer or bypass capital gains taxes. ESOPs come with even more tax benefits: contributions of stock and cash are both tax-deductible. In addition, when the ESOP is used to borrow money, both the loan repayments and interest are also tax-deductible. That tax advantage can translate into huge annual savings.

"If I borrow a $100 from you and, at the end of the year, have paid you back $110, I can take a deduction for the interest I paid you but not the principal," Goodman explains. "But if an ESOP borrows a $100, the company will pay that off by making a $110 contribution to a retirement plan because that's what an ESOP is. Both the principal and the interest payments are deductible."

A sale such as the one that Rycon's owners did has an enormous tax advantage over other sales options. Dominick and Sabatos financed the purchase of the company by the employees but the ESOP method means that no cash was needed to transfer the ownership. The note to the former owners is paid by the ESOP with funds from the company's profits. Those profits aren't taxable because the ESOP is a qualified retirement entity. In this case, Rycon's future



profits will be used to fund a retirement asset, from which the notes due Sabatos and Dominick will be paid. Funding in excess of the amount needed to pay the note increases the employees' ownership accounts.

"Todd and John decided to be the bank. They sold their stock in exchange for a note. They will end up paying capital gains on the sale but look at the benefit to the company," Goodman says.

"The term for the transaction is 'seller-financed'," says Ron DeMay, controller for Rycon Construction. "A portion of the future earnings of the company goes to pay the note and the remaining earnings go to the current owners in the form of shares in the company."

Pittsburgh business owners have earned a reputation for caution and skepticism. When asked if Dominick and Sabatos exhibited that skepticism in evaluating the ESOP as too good to be true, Goodman laughs. "Of course they did," he says. "Everyone does when they first hear about an ESOP."

There's an element of "too good to be true" to the tax-free way an ESOP operates, but there are aspects of how an ESOP works that make it suitable for some situations, not all. Dick Spence, partner at Hill Barth & King, sees ESOP as an alternative that should be explored by owners who are looking at their transition options.

"The downsides are that you have to have a valuation every year and when people retire or leave you have to pay them out. You also have to have a steady business because you need to have cash every year," he explains. "Not enough owners look at ESOPs. What scares people away is the cost of setting an ESOP up. It can run $150,000 to set up and the cost of compliance is higher than normal because you have to value the company each year. But the tax savings are enormous."

Goodman notes that the costs associated with creating an ESOP have come down. Legal fees once topped $250,000 and the business valuations tended to be all over the map. That made arriving at a sales price difficult and could leave the resultant employee-owned entity unfairly strapped, or the sellers unfairly compensated for what they built. Today, firms specialize in ESOPs and have standardized fees. Business valuation specialists have more experience with companies in a broader variety of industries and better understand the added value that the ESOP brings to the company's income through the tax savings.

Banks have become more comfortable with ESOPs too. Many have created ESOP departments and are willing to be financiers of the ESOP transaction. As business lenders, banks have come to understand that an ESOP as a borrower poses much less of a risk of non-payment, since the underlying company can use more of its earnings to repay a loan than a company that will have to pay corporate income taxes on profits first.

An ESOP transition also helps owners deal with one of the bigger stumbling blocks to transition: the question of who is going to run the company. Once established, the ESOP is managed by a board of trustees, which usually include the company's leadership at the time of the sale. Other trustees will be those with an interest in the firm, like lenders, surety partners and the employees. In most cases, those interested parties want to see the business's success continue. That's been the case with Rycon's sale, where a trustee representing the employees' interest in the ESOP serves on the board and supports keeping the leadership team intact.

"Todd and I aren't going anywhere right now," says Sabatos. "I'm 52 and I actually signed a ten-year contract with Rycon. Todd will be here four to six more years. That's our plan. Nothing is changed operationally with the company. We still run the

"There's an element of "too good to be true" to the tax-free way an ESOP operates, but there are aspects of how an ESOP works that make it suitable for some situations, not all."

company and the ESOP and the trustees want us to continue to run the company the way we have."

Sabatos says that he expects that it will be a while before the new owners of Rycon Construction begin to see how the appreciation of the business's value affects them. The first statements of share value won't even be issued until later this year. But he believes that the ESOP participation will be valuable to Rycon's employee retention and recruitment efforts, a benefit that is doubly important at this point in the construction cycle. He says he has already seen shifts in the way people are thinking and acting in just a few months.

"It's been nice. People seem to be genuinely excited about being an owner of the company," he says. "Somebody will ask me a question about whether we should sponsor this golf outing or buy this piece of equipment and I say, 'What do you think? You're an owner of this company' so that's been kind of fun to watch.

"I want people to like working here. That's very important to me and Todd. If they like it here, they do well and the company's more profitable. We wanted to have a transition so that the next group of young people run Rycon and have nice careers, have a nice life. The ESOP helps with that. We intend to move the company forward with the people that are here. We tell the people that come to work here that whoever's going to run the company is already here." BG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MANAGEMENT PERSPECTIVE

Bridging the Talent Gap

BY ZACH HUTH

There aren't enough people to meet the hiring needs of the construction employer. National professional associations have been warning of this shortage for most of the decade. The Allegheny Conference on Economic Development has produced an entire study on the subject for Southwestern Pennsylvania, called The Inflection Point. The problem is demographic and educational and societal. The causes don't really matter. In 2018, we're in the middle of the problem, especially in the Pittsburgh market.

Whatever the long-term solution is, the current problem for employers is that the construction job market is an employee's market. Employers trying to recruit today should accept those market conditions and begin looking for different solutions.

Let's start with some of the facts.

- It was reported by the federal government that America has the fewest people filing for unemployment in more than 49 years and the number of advertised jobs available is the highest ever recorded.
- The U.S. is currently at a 3.9 percent unemployment rate.
- Retirements are happening more and more every day. There are not enough available mid-career professionals with the skills and experiences necessary to fill the gap that is left by those retiring from the workforce.

Whether you are a general contractor, an owner, a specialty contractor, or supplier of services or products, your company is facing the challenge of finding qualified talent. So this has everybody asking same question: how do we fill these positions? It may be easier to start at the end and work our way backwards, which is accepting the fact that there are not as many individuals in the workforce possessing the desired skills that employers need to fill the jobs left by those retiring. Let's not forget the current state of business in 2018. Nearly every company is very, very busy right now. So the real question is: how do we do more with less at all levels within an organization? Our expertise is in recruiting and training office and field management. We have seen the industry change over the last year or two, mainly a shift in the direction of preferring degreed engineers to handle anything relating to construction management or process management.

In regards to making a workforce more efficient, advancements in internet/on-line based programs, tools, and communications, we are seeing the industry adopting different practices at a rapid pace. By utilizing technology tools, a lot of out-of-town employers are maintaining office employees in Pittsburgh and other regions in which they do not normally operate. One example of this trend is that we recently encountered was an electrical estimator who wanted to move to the Pittsburgh region, and his current employer granted him the opportunity to work from home/remotely for their operation in Colorado. This individual only has a few years of experience and his employer chose to take this approach rather than losing him and trying to backfill his position. I'm not too sure on the details of the arrangement or how often he has to fly back to the home office, but for the majority of his work week, he will be operating from the Pittsburgh region. We often see this more in the fields of IT, but, based on the number of employers exercising the "work from home" model, we feel it's going to become a lot more common in the construction world, as well as other industries.

Returning to the lack of talent in the workforce, the basic solution for any company facing the challenge of not finding qualified talent is to hire better people, as opposed to hiring more people. That's easier said than done. For senior level positions, we are seeing an average of at least a 15 percent rate of pay increase needed to even begin to attract new hires. We are seeing companies making offers to candidates that far exceed their current pay rate in order to fill positions fast. The flip side of this market condition is that these individuals may find themselves back on the market when work is not so abundant; or they may be at a higher risk of being downsized or replaced. This kind of premium pay bump can also create unrealistic expectations for their next position, which could very well disrupt continuity in their career employment.

Outside the box thinking when it comes to the hiring process is a must. Most employers can expect a six-to-nine-week time frame to source, interview, and onboard new employees. As far as recruiting individuals go, it will be tough no matter what your approach is. As stated above, job advertisements are at an all-time high. That means your ad will more than likely be overlooked within a few days of posting unless actions are taken to secure its place on the first one or two pages of search results.

Search firms like Huth Technologies are best utilized when a company has exhausted their own resources and networks. Performing a search for a company while they are advertising may result in duplicate candidates and waste the time of both the company and the candidate. In my experience, relocating candidates is also at an all-time high. That's a good thing for local firms since Pittsburgh is becoming a destination for a lot of young professionals who specialize in a number of different fields. To improve hiring success, I've seen companies continually refining their interviewing processes and also implementing the use of cognitive and aptitude tests. Companies like Predictive Synergistic Systems, the company we use for testing and surveys during the interview process, have become a standard recruiting tool for us. We can take the hard data that results from the tests and analyze it to get a better understanding of how to maximize the employee's strengths, and be aware of weaknesses that may exist. This data also helps provide insight into how to motivate employees based on their personalities.

When all is said and done, effective recruiting comes down to performance and how well the employee can perform their job in order to make the company successful. Whether we're talking about a thousand-person company or a company with five employees, it all comes down to performance. For that reason we are seeing more employers executing compensation plans based on performance, which usually consist of some kind of bonus or incentive paid throughout the year as goals or milestones are reached or when a project is completed.

However you decide to manage and build your future workforce and project teams, the question that needs to be asked is, how do we do more with less?

Zach Huth is president of Huth Technologies, LLC, a technical recruiting solutions consultant. He can be reached at zach@huthtechnologies.com. BG

Construction Associations Shine a Light on the Opioid Crisis

BY BOB MCCALL

Drug addiction is attacking the very fabric of America. Hundreds of thousands of Americans have lost their lives to drug abuse. In fact, the National Safety Council (NSC) tells us that 63,612 of our neighbors died from a drug overdose in 2016 alone. Of those deaths, more than 42,000 were attributed to opioids. In total, 351,602 Americans have died from an opioid related overdose between 1999 and 2016. In comparison, 291,000 of our soldiers died in battle during World War II. Faced with these staggering statistics, the construction industry in Pennsylvania has said enough is enough.

The Master Builders' Association of W.PA, the Keystone Contractors Association, NUCA PA, the Pennsylvania Building & Construction Trades Council, Keystone Mountain Lakes Regional Council of Carpenters, Sheet Metal Contractors & Air Conditioning Contractors National Association - PA Chapter, Pennsylvania Builders Exchange, Architectural Glass & Metal Association, Ironworker Employers Association of Western Pennsylvania, the General Building Contractors Association and others have joined together to support Construction Opioids Awareness Week in Pennsylvania July 22nd through July 28th.

A 2017 study showed that construction industry workers are second only to the food service industry in being most susceptible for opioid abuse. It really isn't hard to figure out why either. We all know that the work we do in the construction industry is physical demanding. CPWR – The Center for Construction Research and Training estimates a bricklayer lifts 3.8 tons in a typical day. That's the equivalent of two small SUV's a day, seven Ford F-150s a week, and two Airbus A380s a year! That's demanding work for anyone, but it is a real recipe for disaster for the steadily aging workforce in our industry. The average age of a construction worker in Pennsylvania is between 43 and 44. Our bodies simply don't recover in our 40s and 50s like they did in our younger days. To avoid taking time off to recuperate, many workers turn to highly addictive prescription painkillers such as Percocet, Vicodin, or OxyContin to mask the symptoms. All too often, that is the trigger for an opioid addiction. When access to those prescription medications ends, the addiction does not. That is when the much cheaper and readily available opioids such as heroin and fentanyl can take over a person's life.

Start the Conversation

Our industry does not like to talk about our problem with opioids. If we are going to win this war, we need to talk openly about the opioid problems we face.

"Businesses that do not address the prescription drug crisis are like ostriches sticking their head in the sand," said Deborah A.P. Hersman, president and CEO of the National Safety Council. "The problem exists and doing nothing will harm your employees and your business."

The National Safety Council, alongside the National Opinion Research Center (NORC) at the University of Chicago and addiction advocate Shatterproof, created a tool to show how the substance use disorder crisis can affect your workplace. The Substance Use Cost Calculator is a quick and easy way to track the potential cost of substance use disorders. Employers input basic statistics about their workforce, such as industry, location, and number of employees. The tool then calculates the estimated prevalence of substance use disorders among employees and dependents. Once you have all that information on hand, you can figure out a way to prioritize helping those who are struggling with a substance use disorder. It is estimated that 1 in 10 of us know someone who has died of an overdose. Your employees will appreciate a conversation on opioid abuse.

Participate in Your Substance Abuse Testing Program

The Western Pennsylvania Construction Industry Drug Free Partnership was launched by the Master Builders' Association and their union partners in 2000. Building on programs created by the National Electrical Contractors Association (NECA), the Ironworkers Employers Association (IWEA) and their unions, the program has now been providing certified drug free workers for close to 20 years. But it wasn't until 2013 that the program began testing participants for illegal use of opioids. By 2015, opioids had risen to the second most frequently detected drug, behind marijuana. But since then, thanks in large part to the educational efforts of the local construction industry and others, the rate of opioid detection has been cut nearly in half.

"When our people go to work, they know they need to show up drug free. It has become a way of life, part of their tools if you will," said David Daquelente, executive director of the Ironworkers Employer Association.

Drug testing works. Nationally, it is estimated over 15 percent of workers in the construction industry have a substance abuse problem. But here in our region, we have a positive testing rate of just two percent. That is thanks to an aggressive and compassionate approach to substance abuse. Since its inception, the program has always taken the approach that instead of firing workers testing positive we will lead them through counseling and rehabilitation. The program isn't designed to punish those with problems. Instead it tries to lend a hand to those in need.

Get the Resources

The National Safety Council has made available to everyone, members and non-members, educational materials and highly effective products. Their report, Prescription Nation 2018 – Facing America's Opioid Crisis, contains a wealth of information on the crisis. Additionally, they have created opioid warning labels to place on health insurance cards, prescription disposal bags, toolbox talks, fact sheets, posters, and much more. These are available free of charge at http://safety.nsc.org/rxemployerkit

You can do your part by being a participant in Construction Opioids Awareness Week. It is a unique opportunity for the entire industry to join the fight against this killer. The participating associations listed above will be providing more information in the days leading up to the event. They are committed to fighting the battle against opioids in construction. But it is going to take the entire industry to win the war.

"Stopping the opioid epidemic in construction is going to take a multi-faceted, cooperative approach from stakeholders in both labor and management," says Lisa M. Sabitoni, executive director of the Laborers' Health & Safety Fund of North America. "There are numerous barriers to overcome, from stopping workers' pain from occurring in the first place to reducing the stigma of getting help and increasing affordable access to treatment. The solutions to help construction workers struggling with opioid dependence and addiction may be complex, but we must continue to work towards them for the benefit of workers and the industry as a whole."

Bob McCall is the director of safety for the Master Builders' Association of Western PA. He can be reached at bob.mccall@mbawpa.org. BG

INDUSTRY & COMMUNITY NEWS

McKamish Inc. was the host for the annual St. Anthony's Golf Outing at Oakmont Country Club. Picture from left are McKamish's John Jordan, Brian Mathie from AHN, Dennis McKamish and Massaro's John Leuch.

A. Martini & Co. is a corporate sponsor for the American Diabetes Association 2018 Tour de Cure. Members of the A. Martini CARES team will be raising funds until the September 15th event.

(From left) Mark Minosky from Duquesne University, Rycon's Lou Ferarro, McKamish's Niel Menzies and Duquesne's Rob Dobish.

(From left) The winning team at the Young Constructors' Golf Outing was A. Martini & Co.'s Mike Yohe, Josh Douglass, Jake Roberts, and Zak Roberts.

Ryan DeMotte from Leech Tishman, Centimark's Chris Riskus, The Rhodes Group's Jeff Hogan and Joe Seasoltz.

(From left) Mark Ritchie from Providence Engineering,Loren Wright from Pieper O'Brien Herr, Providence's Zack Wolpert, and CBRE's R. T. Walker.

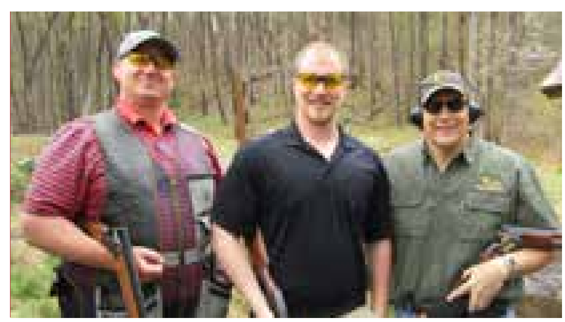
(From left) Brad Brock from Rycon Construction, Brad Bridges from RJ Bridges, Rycon's Dan Stephens, and Jason Mead from RJ Bridges.

Ruthann L. Omer, P.E. was the first female municipal engineering in Allegheny County and recently retired as president of Gateway Engineers. She and Gateway Engineers established two funds at Pitt's Swanson School of Engineering. The Omer Family Scholarship Fund will support undergraduate tuition and other educational expenses and to support furthering the diversity of the undergraduate student body in the Swanson School's Department of Civil and Environmental Engineering. The Omer Family Engineering Legacy Fund established by Gateway Engineers will enhance student success by supporting the School's award-winning chapter of the Society of Women Engineers. Pictured are Gateway Engineers' CEO Jason Jesso and Ruth Ann Omer.

(From left) Justin Shaffer and Shane Fishel from Easley & Rivers, Jimmy Heaton from Massaro Corp. and E & R's Kevin Shinton at the Pennsylvania Builders Exchange Clay Shoot.

(From left) Jeffrey Landau, Eric Thompson and Wes Hardin from Aurora Flight Science, and Landau's Tim Snyder.

(From left) Babst Calland's Jim Miller, Kate Schuster from V.O. George, Lauren Pataky from Mannington Flooring and Esther Mignanelli from Babst Calland.



(From left) Jim Hyland and Dave Atkinson from Specified Systems with Steven Engel from Blumling & Gusky.

From left) GBA's Leslie Montgomery, Langan's Nicole Rice, Maureen Hart from ISSP and Patagonia's Jamie Phillips at the May 18 Women in Green Breakfast.

(From left) GBA's Dr. Aurora Sharrard, Christy Uffelman from Align Leadership, Nicole Muise-Kielkucki from Idea Foundry, Karen Abrams from The Heinz Endowments, Olivia Benson, Women & Girls Foundation, Caren Glotfelty from Allegheny County Parks Foundation and Dr. Joylette Portlock from Communitopia and Carnegie Museum of Natural History.

On May 3, 2018 Mosites Construction Company hosted an open house to showcase its new office location at 400 Mosites Way. Mosites warmly welcomed employees, family members, clients and contractors.

Seubert's Jay Black (left) and wife Elizabeth, with Jeffrey Landau at the ACE Mentor Program gala at the Carnegie Science Center.

Representing Turner Construction at the ACE Mentor gala were (from left) Ryan Krumenacker, Amy Konieczka, Will Masters and Tara Connor.

AWARDS & CONTRACTS

Uhl Construction Co. was the successful general contractor for Mount Lebanon's $1.46 million Department of Public Works Complex Phase 1. The project involves new facilities for equipment and salt storage totaling 12,294 square feet. RSSC Architecture is the architect.

Duquesne University awarded **Volpatt Construction** a contract for renovations of Fisher Hall Annex Room E-103 Forensics Lab. The architect is DLA+ Architecture & Interior Design.

Volpatt Construction was the successful bidder on the Cathedral of Learning Pittsburgh Campus Computing Labs at the University of Pittsburgh. IKM Inc. is the architect on the project.

Rycon's Building Group is constructing a new 24,600 square foot medical office building for WVU Medicine in Waynesburg, PA. Construction of the $5.5 million facility is expected to wrap up February 2019.

In Washington, PA, work is underway by **Rycon's** Building Group on a $4.3 million renovation to Washington & Jefferson College's U. Grant Miller Library. The 30,900 square foot project is on track for a September 2018 completion.

Rycon's Special Projects Group was awarded a CM at-risk contract to renovate office space and medical labs for Dermpath/Quest Diagnostics. The 10,900 square foot project is valued at approximately $1.7 million and is slated to last 12 weeks.

Rycon's Special Projects group is responsible for two office renovations within Liberty Center. On the 11th floor is a $768,000 project for Stifel Financial Services. Meanwhile on the 14th floor, **Rycon** is the construction manager completing a 10,000 square foot project for owner Jones Lang LaSalle and tenant Microsoft.

St. Clair Hospital awarded **Rycon's** Special Projects Group a CM at-risk contract to perform improvements to a third-floor radiology department. IKM Architects is the designer.

Renovations by **Rycon's** Special Projects are in progress to the third-floor patient wing at McKeesport Hospital and will continue until early September 2018. DRS Architects is the designer.

Rycon's Special Projects Group was selected to complete minor renovations to two Starbucks locations in Mt. Lebanon and Irwin. Project features included new paint and furniture upgrades.

A $3.4 million renovation to the University of Pittsburgh's Thaw Hall is underway by **Rycon's** Special Projects Group. The scope includes two new lecture halls and an upgraded lobby, classrooms, and restrooms. LGA Partners is the architect.

Liberty Property Limited Partnership selected **Rycon** as the CM at-risk for a new 77,760 square foot industrial warehouse in West Palm Beach. Work is scheduled to begin early August 2018.

This summer, **Rycon** will begin a $860,000 renovation to medical office Humana in Delray Beach, FL. Cushman & Wakefield is the Owner.

Additions to three Aldi locations throughout Florida are in progress by **Rycon** and will wrap up by late September 2018.

East of Atlanta, GA, **Rycon** will soon begin constructing a new $1.6 million carwash. Project completion is set for December 2018.

Tenant improvements are underway by **Rycon** for retailer For Eyes by Grand Vision within the White Marsh Plaza in Nottingham, MD. The anticipated completion is set for mid-July 2018.

Rycon will soon begin work on a new pedestrian bridge at The Creswell Building in Cleveland, OH. The bridge will connect an apartment building and a parking garage.

In Toledo, OH, **Rycon** is completing $570,000 of improvements to H&M at Franklin Mall. Work will wrap up July 2018.

An 11-week renovation project by **Rycon** will start soon at a summer camp located twenty minutes northwest of Akron, OH.

Rycon jumped 51 spots to #226 on this year's ENR's Top 400 Contractors List.

A. Martini & Co. started construction on Bay Village Assisted Living & Memory Care, an 88-unit, $32 million community in Annapolis, MD. The project is being developed by IntegraCare. The architects are GSX Ventures and KSBA Architects.

A. Martini & Co. was selected as the general contractor for Bank of America's first branch location in the Pittsburgh market. This 4,000 square foot new building is being constructed on Washington Road, near South Hills Village. The $2.5 million project is set to finish in August 2018. Gensler is the architect.

PCGRE selected **A. Martini & Co.** as the construction manager for the addition, construction and renovation of the Wildwood Highlands Family Fun Center, located in Hampton Township. In addition to the upgrades to the existing Entertainment Center, a new 85,000 square foot indoor sports facility will be constructed to serve the Pittsburgh area.

A. Martini & Co. was selected by PNC Bank for the renovations to 17,700 square feet of cafeteria space at their Firstside Center location. This $2.7 million project is set to begin July 2018. The architect is R3A.

Pittsburgh-based geotechnical general contractor **Nicholson Construction** was recently awarded a $20 million contract as part of the Pennsylvania Department of Transportation Interstate 95 improvement project. Nicholson will be installing 1,759 micropiles as part of the replacement of a three-mile elevated section of I-95.

Nicholson Construction was recently awarded a support of excavation contract by the Northeast Ohio Regional Sewer District for two diaphragm walls as part of the $135 million Westerly Storage Tunnel project in Cleveland, Ohio. Nicholson's scope of the work includes the construction of a 42-inch thick, 152-foot deep unreinforced diaphragm wall shaft for support of excavation at the drop shaft, as well as a two-foot thick, 71-foot deep steel reinforced diaphragm wall for support of excavation of the connecting gate structure and a three-foot thick, 175-foot deep unreinforced diaphragm wall for support of excavation for the 20-foot diameter drop structure vent shaft.

Mascaro received an initial award notice from the General Services Administration for the construction of a 96,000-square-foot annex and 92,000-square-foot renovation of the Ashley U.S. Courthouse in Toledo, Ohio.

Duquense University awarded a contract to **Mascaro** for the renovation of the fifth-floor administration space.

Carlow University awarded a contract to **Facility Support Services (FSS)** for the million-dollar-plus Curran Hall Simulation Lab renovation. The architect is IKM Inc.

FSS was low bidder on UPMC Presbyterian Hospital renovation projects including Office Suite C900; 11th Floor Dialysis Unit; and 6A/7A Grossing and Hill Room. Additional UPMC awards include the $1.2 million Hampton Fields Village Roof and Rooftop HVAC Replacement.

Turner Construction is the construction manager for the University of Pittsburgh and UPMC Immune Transplant and Therapy Center. The $125 million renovation of the former Ford Building at Baum and Morewood Avenue is being developed by Wexford Healthcare. The architect is ZGF Architects.

Penn State University selected **Turner Construction** as construction manager for the $72 million Henning Building replacement. The new building for the College of Agricultural Sciences will be approximately 100,000 square feet, built on the site of the current Henning Building. The architect is HOK.

Turner Construction was awarded a $2 million contract for the Waste Management Inc. office fit-out. Perkins & Will is the architect.

Allegheny Health Network selected **Turner Construction** as construction manager for the $7 million Allegheny General Hospital Emergency Department expansion. The architect is Stantec.

Turner Construction is the successful contractor for the office fit-out for McKesson Pharmacy Systems in Moon Township. The architect for the $8 million project is RSH Architects.

Turner Construction was awarded a contract for the fit-out of the offices for Porter Wright at PPG Place. Bostwick Design Group is the architect for the $2 million renovation.

RB VetCo LLC is the general contractor for the $8 million Ambulatory Care & Physical Security Improvements at the Louis A. Johnson VAMC, Clarksburg, WV. The architect is Veterans Technical Services of McMurray, PA.

PJ Dick won the Pittsburgh Area Chapter of the American Concrete Institute's Excellence in Concrete award for the third year in a row. This year's award recognized the Carnegie Mellon University Tepper Quad. The CMU Tepper Quad is a massive building with structural, cast-in-place construction – including the use of innovative bubble deck technology. The structural design of the building is complex and features concrete structures for a modern, open aesthetic appeal.

Mosites Construction has started site work on the new 342,000 plant and office for Ensinger Plastics in North Strabane Township. The architect is Desmone Architects.

Rivers Casino awarded **Massaro Corporation** Event and Flipt Space project through an RFP process. The scope of work will consist of Renovations to the existing restaurant space and renovations/fitout of the event space. The architect is DMAC & Fitzgerlad.

Massaro Corporation and Gilbane were selected for the AHN Wexford Hospital project. The hospital will be approximately 359,000 square feet and a parking facility will also be included in the scope of work. The Architect is HKS, Ink.

The First Tee of Pittsburgh selected **Massaro Corporation** for the Bob O'Conner Learning Center project. The new construction facility will serve as a training center and practice facility. The architect for this project is R3A Architects.

Allegheny Health Network selected **Massaro Corporation** for the Inpatient Modernization project at Saint Vincent Hospital. The project will include renovations of patient rooms and nursing stations.

The Pennsylvania State University selected **Massaro Corporation** for the asbestos abatement and restoration project for Penn State's New Kensington's campus. This project is currently in construction and the architect is Canzian Johnson.

Highmark awarded **Massaro Corporation** as the general contractor for The Fifth Avenue Place Café, project. The project consists of renovations to the Blue café on the third floor of the Highmark building on Fifth Avenue Place. The architect is Design Stream, LLC

Highmark awarded **Massaro Corporation** as the general contractor Fifth Avenue Place, 29th floor demolition. The project consists of demolition of office space and conference rooms. The architect is AE7.

Atlantic Aviation awarded **Massaro Corporation** as the general contractor Fifth Avenue Place, 29th floor demolition. The project consists of demolition of office space and conference rooms. The architect is AE7.

The Pennsylvania State University selected **Massaro Corporation** for the University Steam Upgrades project for Penn State's main campus. This project is currently in construction and the architect is Affiliated Engineers.

Massaro Properties awarded **Massaro Corporation** the Childrens Community Pediatrics project. Currently in construction, the project includes renovations and a fit-out to 5,500 square feet of office space. The architect is Architectural Innovations.

PNC Realty Services awarded **Massaro Corporation** the Remote ATM Kiosk project. Massaro will serve as the general contractor for this project. The architect is CJL Engineering.

FACES & NEW PLACES

Kevin Cellone joined **Mosites Construction Company's** estimating team on May 7, 2018. Kevin holds an Industrial Engineering degree from California University of Pennsylvania.

Mosites Construction Company welcomed **Mike Innocenzi** as project engineer on April 9, 2018. Mike is from Erie, PA and worked in Philadelphia for the last 3 years. He has a structural engineering degree from Penn State University. Mike is currently working on the Ensinger project in Washington, PA.

Connor Maciejewski recently started his internship with **Mosites Construction Company**. Connor is a junior at Indiana University of Pennsylvania studying Safety Science with a minor in Statistics. He will be working for both heavy and building divisions with his overall focus on our Lumiere Condominiums at 350 Oliver project.

On April 23, **Codi Jackson** joined **Mascaro** as a HSE manager. Codi is a 2013 graduate of Slippery Rock University with a degree in safety management.

On May 9, **Jim Gruntz** joined **Mascaro** as a project manager. Jim has over 20 years of construction experience and is a registered professional engineer in the state of Ohio.

Wayne Schrader joined **Mascaro** on May 15 as a senior project manager. A 40-year veteran of the construction industry, Wayne will manage the Harrisburg Federal Courthouse project.

A 35-year veteran of the construction industry, **Bruce Santina** joined **Mascaro** on May 21 as a superintendent. Bruce has a strong background in heavy and industrial projects.

Eddie Hasis is a graduate of the University of Pittsburgh and recipient of the 2017 Peter J. Mascaro Fellow in Construction Management scholarship. He is a project engineer for **Mascaro**.

Nathan Irwin received his Bachelor of Science degree in civil engineering from the University of Pittsburgh and is a project engineer for **Mascaro**.

Jocelyn Gentile recently graduated with a Bachelor of Science degree in business administration and marketing, and is a marketing coordinator for **Mascaro**.

David Soles, hired as a project engineer, is a recent graduate of the University of Pittsburgh with a Bachelor of Science degree in mechanical engineering.

With more than 20 years of experience in the construction industry, **Timothy Clark** joined the **Mascaro** team as a project manager on June 4. Tim has managed industrial and commercial projects throughout the United States and abroad.

On June 12, **Joseph Paone** joined the **Mascaro** team. As an MEP coordinator for the Buildings Group, Joe brings over 20 years of specialized experience in design, construction, and commissioning of mechanical systems.

Rycon's Atlanta office added **Brianne Coleman** as a project coordinator. She has over six years' industry experience.

Project Manager **Josh Hamilton** joined **Rycon's** Atlanta team. He is a graduate of Georgia Southern University with a degree in Construction, is LEED AP certified, and has over 14 years' relevant experience.

Bringing 35 years' industry experience to the **Rycon** Ft. Lauderdale office is project manager **Mark Loyacono**. Mark is a veteran who served six years in the U.S. Marine Corps.

New to **Rycon's** Casework & Millwork Division is programming assistant **Brian McKissick**. Brian holds a mechanical engineering degree from Pittsburgh Technical College and has over eight years' design and programming experience.

Joy McKnight joined **Rycon's** Special Projects Group as an experienced estimating assistant.

Rycon's accounting department recently hired two junior staff accountants to the team: **Leslie Pekular** and **Derek Vaugh.** Leslie recently graduated from Robert Morris University with a degree in accounting while Derek has been working in the accounting field for over five years.

Rycon's Building Group added administrative assistant **Becca Sadler** to the team. She has over 14 years' experience in the construction industry.

Tyler Symanski was hired in **Rycon's** Building group as a project engineer. He has over four years' experience and is a graduate of Duquesne University.

Senior project manager **Kayla Timulak** was added to **Rycon's** Special Projects Group. She has over 12 years' industry experience and a Master's degree in Architecture from Savannah College of Art and Design.

Mariela Viloria joined **Rycon's** Building Group as preconstruction manager.

Rycon hired three interns for the summer. **Brandon DiBello** and **Maura McCaffrey** joined the Special Projects Group while **Adam Hutchinson** joined the Building Group and is working on-site for the new Forbes Hospital Community Cancer & Imaging Center in Monroeville.

Kevin C. Swain, Jr. joined **A. Martini & Co.** as a project engineer. He is a graduate of the University of Mississippi, with two years of construction experience

Frank Krouse joined **PJ Dick** as a QA/QC manager for the construction and renovation of Canandaigua VAMC in Canandaigua, New York.

Michael Prioletto joined **PJ Dick** as a project manager. He is currently assigned to Providence Point Phase II, which includes a new, 70-unit apartment building and existing building renovations at Providence Point.

John Hurlock III joined **PJ Dick** as a project superintendent.

Lyle Stamper joined **PJ Dick** as a project superintendent. He is currently assigned to the Marshall University School of Medicine Graduate Student Housing and Pharmacy School project in Huntington, WV.

Jacob Day joined **PJ Dick** as a project engineer. He is currently assigned to the Marshall University School of Medicine Graduate Student Housing and Pharmacy School project in Huntington, WV.

Dominic Matarazzo joined **PJ Dick** as an estimator.

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CLOSING OUT

BY HOWARD "HODDY" HANNA III

The spring 2018 real estate market in Pittsburgh and southwestern Pennsylvania has been the most unique and incredible period in my 48 year experience as a real estate broker. This includes multiple offers, five and six qualified bidders, homes selling every day over the initial asking price, open house attendance with 25-plus guests, and international buyers and investors from throughout North America.

Many of these factors have been a national trend, such as continued historically low interest rates, a rising and strong stock market, and unemployment below 5%.

The difference in our region is other dynamics which are unique in our western PA communities. For generations we have been losing our educated college graduates as well as post graduates in engineering and the sciences to other parts of the country: graduates from CMU, the University of Pittsburgh, Duquesne University, Point Park, Robert Morris, and our other great colleges and universities. In the last 10 years that has changed with the advent of Millennials who are staying in or returning to Pittsburgh. They are starting or joining financial, health care, and high tech entrepreneurial opportunities. We as a region have become a high tech center with Google, Uber, Duolingo, Apple, Argo AI, Wombat and others. The resurgence of jobs in finance as a major region with leaders, PNC, and Federated Investors, as well as the international community finding that American residential is the world's safest investment, and the entry of other national banks entering our market. The health care industry of UPMC has seen a dramatic growth in clinical and research expansion.

This has created unprecedented growth in new construction, primarily rental apartments in the City of Pittsburgh (most notably, the Strip District, Downtown, Lawrenceville, Shadyside, East Liberty and Oakland). There has been a growth of approximately 4500 units over a 3-year period. The demand for these units has been from the Millennials. The Millennial era has the largest birth rate nationally (1982-2001) 94,000,000 compared to Baby Boomers (1946-1964) 77,000,000.

As these Millennials reach their late 20s and 30s, they are entering the homeownership market, creating a huge frenzy of buyers purchasing their first home. In 2017, 38 percent of our new home owners were first-time purchasers.

We have an incredible shortage of homes for sale in virtually every city, municipality, and neighborhood. By comparison in the Greater Pittsburgh (10 counties in SW Pennsylvania), the active homes and condominiums for sale in June 2017 were 11,212. For sale today we have 9400 residential units.

Nationally, during the real estate recession, approximately 6,000,000 single family homes were purchased by investors or owners who rented their homes. If you back track those numbers into our region, approximately 15,000 homes were taken out of the inventory. Typically, every eight years people trade homes, which means approximately 2,000 fewer homes are on the market. Today is an opportunity for those investment owners to sell for maximum return.

This has created lack of supply coupled with incredible demand. In fact, we are seeing multiple offers and bidding battles on homes that I've never seen previously. These dynamics have created a price increase of 8.2 percent this spring over last year. In many communities our company is experiencing price appreciation in the double digits in neighborhoods (such as Springdale, Verona, Sharpsburg, Greenfield, Bellevue, Ben Avon, Verona, Bloomfield, Shaler, and Bethel Park) as well the number of sales are increasing. In the area, total sales volume is up 9.3 percent over last year, almost $2 billion through May.

These and other neighborhoods are seeing an influx of "flippers" who have built a new industry of re-doing houses and have become the 21st Century spec home builder. In our established neighborhoods our research and real time results have shown that the Millennials are looking for homes that are perfect in condition and amenities and this new industry is providing that product.

The Millennial home buyer is buying his/her first property at an older age than the generations prior, but is usually upgrading from a traditional first time buyer spending more money buying slightly larger and are more urban.

The Baby Boomer generation in western Pennsylvania is in transition, moving from single family suburban homes to right sizing, not especially smaller homes or less square footage, but homes that are style-wise more appropriate to their needs. As we enter the third decade of the 21st Century, smaller lot size (many attached or condominium) open floor plans, and one story living have created this product. This demand would normally be met by new construction filling this demand. However, according to the Tall Timber Group research, new housing starts are down a whopping 28.3 percent in the first quarter of 2018 compared with 2017 (six counties, Allegheny, Beaver, Butler, Fayette, Washington, and Westmoreland).

The University of Pittsburgh and CMU aren't only for Baby Boomers. The universities attract empty nesters for their specialty programs. Boomers and Millennials are crossing the same streets and many are looking for the same homes with easy living being essential. Locations on the Waterfront, such as Chapel Harbor in O'Hara Township and Rivers Edge in Oakmont and other communities such as the Village of Totteridge located on a golf course in Westmoreland County, are examples of new neighborhoods in the right location and the right product.

Many Baby Boomers would like to sell their existing homes and right size, but cannot find the appropriate housing transformation. We anticipate that this right size housing need might be supplemented by condo conversions similar to the 1980s appealing to buyer needs of both the Millennial and Baby Boomer markets.

Hoddy Hanna is chairman of Hanna Holdings, Inc., the third largest real estate company in the U. S.

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