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UNIQUENESS.
As one of DPR’s Core Values, we have always prided ourselves on not only being unique as a company, but also pushing to find unique solutions to challenges. This year has challenged the world and forced us all to look for unique answers to difficult issues. A pandemic, racial tensions, political and social unrest, and the United States elections all pose different challenges and have companies around the world asking, “How do we protect our people and our business?”

Typically an optimist, I struggle to find positivity when I see the news. The data in this report indicates pessimistic projections from economic experts about what is to come. Investors across the board are playing the wait-and-see game right now. The United States economy doesn’t know which way is up, and it is difficult to figure out what’s to come as we push toward 2021.

What we do know from the first half of 2020 is that the built environment is important—even deemed “essential.” Some markets are strong. Millions of people logging in to virtual meetings each day has only increased the need for data centers to be built even more quickly. With virtual schooling about to launch this fall, capacity in the cloud is a huge need. As companies strive to find cures and treatments to diseases and viruses, manufacturing facilities and laboratories are on the rise. Hospitals that are being built to treat the sick and develop new procedures must stay on track so that we can be prepared for what the future may hold.

Other markets have struggled to maintain the constant growth we were experiencing going into 2020. New commercial offices have largely halted development due to questions around “what will the workplace of the future look like?” Hotels have been equally affected due to the reduced demand, as most people are not traveling with regularity. Colleges and universities are working through how to handle remote learning and nontraditional schedules, while also navigating enrollment and endowment pressures.

This storm will pass; the tough question is “when?” Assessing the damage in real time is a challenge, but we’ve seen an amazing community of builders come together, sharing experiences and mapping out solutions to difficulties that we are all facing. The more we share, the more we learn. The more conversations we have, the clearer the picture gets at a project level. We have assembled this report to help facilitate these conversations. We cannot use broad brushstrokes and prescribe what the impacts will be on each project. Each unique team, working on a unique project will need a unique approach to ensure a successful building project.

We Exist to Build Great Things. That will never change.

EVER FORWARD!

Phil Bartkowski
Preconstruction Leader
HEALTHCARE

The healthcare core market is experiencing extreme uncertainty due to the COVID-19 pandemic. The majority of active projects are still moving forward, but we have seen some projects put on hold or canceled altogether. Future projects are experiencing a pause to see what happens in the upcoming Presidential election, to understand what government funding comes through or mandates are handed down. Despite all this, there remains a shortage of acute care beds, not necessarily due to the pandemic. Additionally, the short-term healthcare needs for emergency preparedness, ways of dealing with COVID-19, and infrastructure retrofits, remains strong.

Sean Ashcroft
Core Market Leader

Hamilton Espinosa
Core Market Leader

CURRENT TRENDS

• Due to aging population, additional insured and current pandemic; there continues to be a shortage of beds
• Existing campus retrofits to deal with COVID-19 surge, emergency preparedness and living in a post-COVID-19 world
• Doing more with less; prefabrication and other innovation technologies to improve project efficiencies to help deal with less available capital.
LIFE SCIENCES

The Life Science construction market continues to be strong nationwide as R&D and cGMP manufacturing is still in high demand and requires specialized facilities that cannot be supplemented by working from home. Minimal cost escalation or possibly even downward trending costs should increase Life Science investment. Cell and gene therapy research and clinical stage manufacturing shows no signs of slowing down. The market seems to be less impacted by COVID-19 as more developers want to enter the Life Science market to not only plan new greenfield sites but also reposition other office assets to be lab ready.

Investment ventures are in emerging technologies and science, with an increase in vaccine development, cancer research and cell/gene therapy. Lots of talk about mega vaccine facilities but these could turn out to be “shiny objects”. The Contract Manufacturing Option market is STRONG and there is momentum to move manufacturing back to the United States.

Scott Strom
Core Market Leader

CURRENT TRENDS

- Demand for Cell and Gene Therapy cGMP facilities for early stage clinical trials
- Interest in building flexible ground-up and repositioned existing shells to be lab ready
- Increased capacity required for medical device, diagnostics, and testing labs responding to COVID-19 demand
ADVANCED TECHNOLOGY

The Advanced Technology Mission Critical segment of the market continues to be strong. We’re seeing very few canceled or delayed projects as the demand continues to show signs of increase in the US, Europe and Asia markets. Businesses and government agencies had plans pandemic that were to shift more and more workflows online and/or to a cloud base platform. Furthermore, the demand for several businesses whether it’s institutional online learning, remote business, e-commerce, entertainment streaming such as social media or tv/movie, has, in most cases, accelerated those plans for capacity planning, hence many of the tech companies are seeing positive results through Q2 this year.

In conjunction with the data center demands, the infrastructure to support them such as microgrid, renewables, energy storage and 5G tower projects will shift from opportunistic to necessity.

In the Advanced manufacturing market sector, the market seems poised to expand by both consumer demand and the current state of need for independence from the global supply chain. Specifically, electric vehicles and battery assembly and manufacturing plants are sectors on the rise that will most likely assume other downturned market sectors.

CURRENT TRENDS

- Data center infrastructure support: microgrid, renewables, energy storage and 5G tower
- Advanced manufacturing - Electric vehicles and battery assembly
- Expedited construction methods to increase speed to market
- Real-time analysis for customers to increase speed to market

John Arcello
Core Market Leader

Andy Andres
Core Market Leader
The Commercial market has been significantly impacted by COVID-19 and repercussions will be seen through mid 2021 for office and 2023 for hospitality. The second wave of COVID-19 continues to impact re-opening of the economy which delays any possibility of recovery in office and hospitality markets. While there is some positive activity in industrial, multi family, and life sciences office conversions, hospitality (travel and leisure) is down as a result of a decrease in business travel and personal travelers opting for VRBOs and Airbnbs, remaining away from urban areas.

Hotels do look to add more renovation work in 2021 and 2022 as the market slowly recovers, but most new development will most likely be as far out as 2023. As positive news on vaccines continue, the office market is looking more optimistic for mid 2021. As we come out of the pandemic and get a better feel for future office design, work from home capabilities and overall employee sentiment, the office market will look to rebound slowly and then ramp up in 2022. Currently there are still development opportunities in office with build to suit projects.

Matt Murphy
Core Market Leader

- Insights on the Future of the Workplace
- Office to Lab Conversions
- Hotel renovations
COVID-19 has opened the door for campuses to make big changes for themselves and their students. Severe disruption to enrollment has necessitated a combination of distance learning and hybrid models that will define the future of higher education. Project types will continue to include STEM, Health Science and Interdisciplinary models for new lab buildings that foster a start-up mentality, optimizing the capacity for discovery and increasing innovation. This means creating more open, team-based learning environments, with shared equipment and collaboration areas that increase interaction between students from different majors while optimizing space and sharing resources.

Design firms are being asked to be more conscious of flexibility with changing technology and jobs of the future. Facility design will focus on safety and well-being. While online learning isn’t expected to replace classroom learning in the long run, schools see a forward trend that favors a hybrid model, offering students both options. Infrastructure upgrades and building renovation/adaptive reuse will support the path forward as colleges and universities take immediate steps to de-densify classrooms, residence halls and the whole campus environment. De-densification will require rapid, data-driven strategic planning. Federal and State budget cuts have placed a higher demand on Donors, Endowment Funds and Foundations.

Tracy De Leuw
Core Market Leader
Economic & Labor
FORECASTING
Although the Equity Markets (DJIA, S&P, NASDAQ) have recovered to near record levels, most other macroeconomic indicators point to a continuing cooling of our economy. The resurgence of COVID-19 cases have caused most areas to reimpose restrictions and prolong the delay of re-opening businesses and services.

The July 30th National GDP Report reported a drastic 9.5% decrease in the 2nd Quarter, the largest quarterly contraction in modern record keeping. The U.S. Dollar value has slipped to a two-year low, indicating our domestic economy is weakening relative to the global economy. Combine that with the pandemic legislation and projected deep recession, this year has resulted in a stunning erosion to federal finances. The sharp increase in deficits ($3.7 trillion in 2020) and debt (almost $26.7 trillion) will undoubtedly add to the complicated economic situation in the United States.

Since March, where we saw a significant rise in unemployment, those trends are starting to come down. Initial claims continue to edge higher suggesting that the resurgence of COVID-19 may be taking a toll on the recovery of the labor market. Slight decreases in July’s U.S. Consumer Price Index (CPI) and Producer Price Index (PPI) are glimmers of hope for consumers, but economists worry that consumer spending will continue to fall.

These economic factors, combined with unemployment spikes, and the poor earnings reported in the last quarter have reinforced, our dependence on consumer spending. Most economists seem to have abandoned the hope for drastic recovery and are rather warning of a prolonged contraction that could be on the horizon. This could leave lasting damage to the economy if the United States is unable to get businesses back to work at a normal scale and bring financial security back to the people who will then reinvest into our economy.

KEY TAKEAWAYS

#1
The economy is recovering, but with each shutdown and delay to re-opening due to COVID-19, a clearer insight can be difficult to gain.

#2
After a MASSIVE spike in unemployment in April 2020, we’ve seen a consistent trend of adding jobs up through June. Not back to “normal”, but making a dent in job losses caused by COVID-19.

#3
A host of factors are pointing to the United States economy being in a bit of tail-spin, but as businesses come into a more “normal” state and people return to work, hopes of a recovery will follow behind.
Material & Supply Chain

INFORMATION
For the first time in the history of the West Texas Intermediate Oil (WTI) the price of oil went negative in April of 2020. The mid-term outlook is demand for oil continues to be low (major airlines, lack of travel, etc), oil reserves are high.

The U.S. Energy Information Administration (EIA) says that forty (40) U.S. oil producers wrote down $48 billion worth of assets in the first quarter of 2020 representing the largest decline in value recognized by the oil producers since at least 2015. These first-quarter adjustments, combined with crude oil prices that have remained much lower than 2019 levels during the second quarter of 2020, indicate that the net present value of proved reserves could continue to decline.

Numerous oil producers are shutting in and curtailing several oil wells during the 2nd Quarter 2020 according to EIA. Two (2) producers are seeking protections and restructuring within the Chapter 11 Bankruptcy Codes.

Lower oil prices effect many facets of construction, including petroleum-based materials, freight costs and construction equipment operation. This could lead to a reduction in overall construction costs if trends continue to stay low.

KEY TAKEAWAYS

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#3
Numerous oil producers are shutting in and curtailing several oil wells during the 2nd Quarter 2020 according to EIA. Two (2) producers are seeking protections and restructuring within the Chapter 11 Bankruptcy Codes.

#4
Lower oil prices effect many facets of construction, including petroleum-based materials, freight costs and construction equipment operation. This could lead to a reduction in overall construction costs if trends continue to stay low.
**KEY TAKEAWAYS**

**#1**

ENR is forecasting a -8.5% drop in steel pricing at the end of 2020 with a gradual climb to 2.8% in 2021, and tapering down from there.

**#2**

Idle structural steel mills are creating supply issues, and although mill producers are seeking price increases, they should be short-lived once these mills begin production again.

**#3**

Steel is one of the most readily used structural materials on the planet. Demand is typically high and pricing follows that trend.
Projects utilizing concrete superstructures were sitting dormant. In order to retain cash flow, contractors ceased to procure reinforcing steel during the project shutdown durations.

If there are additional future outbreaks, it is possible that construction companies will have to adapt and revisit their operational protocols and make additional changes to project site requirements. There is potential for the demand to stabilize, enabling a recovery in pricing.
**KEY TAKEAWAYS**

**#1**
The ENR 20-City Concrete Averages remained steady for 3,000 PSI ready-mix concrete.

**#2**
4,000 and 5,000 PSI concrete took several positive and negative dips since August 2019. The latest report has 3,000 PSI at a 0.07% drop while 4,000 PSI went up 1.04% and 5,000 PSI remained steady from the previous report.

**#3**
Because of the effects of COVID-19, project shutdowns occurred in all sectors of the industry. Projects utilizing concrete superstructures were sitting idle and concrete trucks remained motionless.

**#4**
Cement is one of the most common structural components on a commercial building project. Changes in pricing can dramatically affect a project’s cost.
ENR is forecasting a -0.70% drop at the end of 2020 with a gradual climb to 3.3% in 2022 and a drop to 0.80% at the end of 2023.

According to the AIA Billings Index, the residential and multifamily sectors are the highest performers and are a major end user of lumber.

Wood is one of the most prevalent building materials on a job-site. Whether used as concrete formwork, temporary protection measures or rough carpentry, walk a job-site and you’ll see plenty of wood.
Copper has a variety of uses in the building construction industry and is very often seen as an indicator for the construction economic engine.

Copper took a -21.4% dive based on the COVID-19 pandemic from March 2020 to April 2020. Prices have rebounded from April 2020 until the end of July 2020.

Bank of America’s end of 2020 forecast has copper at $5,621 per ton while the end of 2021 at $6,250 per ton. Based on December 2019 prices, this is a -8.7% drop while 2021 shows a 1.5% increase.
Aluminum has a variety of uses in the building construction industry and is very often seen as an indicator in conjunction with copper for the construction economic engine.

Aluminum took a negative 17.76% dip based on the COVID-19 pandemic from March 2020 to April 2020. Prices have rebounded from April 2020 until the end of July 2020, but they have not reached levels seen at the beginning of 2020.

Knoema’s end of 2020 forecast has aluminum at $1,760 per ton while the end of 2021 at $1,800 per ton. Based on December 2019 prices, this is a -2.8% drop while 2021 shows a -0.55% decrease.

A commercial building project is heavily reliant on aluminum. Exterior paneling, flashing, roofing, glass systems, wiring, ...the list goes on.
AIA Architectural Billings Index

The Architecture Billings Index is an economic indicator for nonresidential construction activity, with a lead time of approximately 9–12 months. The index is derived from AIA’s Work-on-the-Boards survey, which has gathered data on shifts in billings from architectural firm leaders for over 20 years. This data is a trusted tool used by the design and construction industry and other firms to predict and track movements in the market.

#1
AIA notes that 38% of Architectural Firms expect a decrease in staff while 17% expect an increase.

#2
The demand for design services began to stabilize in June following the drastic decline in March 2020. From March 2020 there has been a steady increase in the Architectural Billings Index, including Billings, Design Contracts and Inquiries.

#3
Commercial and Industrial specialized firm markets remain weak, according to the AIA.

#4
The Northeast saw the steepest decline in billings as they were the hardest hit in the shutdown.
The Index plunged 20 points to a 36 rating in the second quarter of 2020 from the first quarter survey in March. This is the lowest CICI rating since the third quarter of 2010, when the industry was still recovering from the financial meltdown of 2008.

Of the firms surveyed…
- Only 6.2% had not seen any of their projects delayed or suspended
- 71.4% said they had seen projects canceled
- 32.6% saying at least 5% of their projects had been canceled
- 15.6% saying more than 10% of their projects had been canceled

Market Specifics:
- The distribution and warehouse sector was down only 2 points in the CICI survey, to a 63 rating
- Warehouses and fulfillment centers, data centers and public health facilities continue to press forward
- Manufacturing may grow as the trend toward locally sourced materials is encouraging companies to move their plants back to the U.S.
Construction Financial Management Association

A SIMPLE EXPLANATION OF CONFINDEX™
• The Overall CONFINDEX™ Number
• Composite Index Comprised of 4 Sub Indices
  1. Business Conditions
  2. Financial Conditions
  3. Current Conditions
  4. Year Ahead Outlook – look ahead to June 2021

MEASUREMENTS TAKEN USING 8 QUESTIONS
• Current Business Conditions
• Future (1 year) Business Conditions
• Current Bank Credit Availability
• Future (1 year) Bank Credit Availability
• Future (1 year) Bonding Credit Availability
• Line of Credit Status
• Current Backlog
• Future (1 year) Backlog

Data sourced from CONFDEX™

KEY TAKEAWAYS

#1
CFMA’s most recent survey indicates that approximately 77% of contractors experienced some form of project interruption recently, whether due to state/local social distancing directives, lack of key inputs as global supply chains buckled, or because an illness forced a job site to be at least temporarily shuttered.

#2
Many contractors also express concern regarding deteriorated financial conditions. While many respondents indicate that financing for operations remained intact, financing for projects has become problematic.

#3
With financial conditions tightening and many project owners reconsidering their decision to move forward, many construction executives are concerned that backlog will quickly erode. This is consistent with the sharp decline in the Current Confidence Index, which fell an astonishing 35% during the second quarter from a reading of 128 to 83.
Dodge Momentum Index

The Momentum Index, issued by Dodge Data & Analytics, is a monthly measure of the first (or initial) report for nonresidential building projects in planning, which have been shown to lead construction spending for nonresidential buildings by a full year.

New project starts are beginning to wane in the wake of the disease outbreak after finishing 2019 strong. This has largely been felt in specific pockets of the country where COVID-19 cases have spiked and caused district-wide shutdowns. With the risk of shutdowns in all major metropolitan areas, this could loom for some time until the pandemic is curbed or until proper protocol ensures worker safety industry-wide.

Compared to the first 6 months of 2019, non-residential construction starts are down over 20%. Data involving project starts should indicate work put in place a year or so out, so the overall outlook based on this information is indicating there will be a significant gap from what the industry was expecting going into 2020. Building owners and program managers are slowing down and are cautious to begin large-scale developments at this juncture.

Projects that never made it to the “permit stage” in the first half of 2020 will pop back up onto the scene eventually. These delayed projects will likely cause a spike in 2021 and we will see a busy market with some large-scale projects overlapping with these postponed starts.

Data sourced from DODGE

**KEY TAKEAWAYS**

1. The Dodge Momentum Index dropped over 6% in June from the revised May reading.
2. The institutional component of the Momentum Index fell over 11% while the commercial component declined by 3.5%.
3. The overall Momentum Index fell 13% in the second quarter from the first three months of the year, with the commercial component 14% lower and the institutional component down 11%.
4. Dodge Data and Analytics says projects are continuing to enter the planning and design phases at a much slower pace so any recovery in the construction sector will be modest in the coming months.
5. Fallout from the recession continues to hamper the construction industry.
With general trends escalating over the last year, the industry is going through a dip in both material cost and overall building cost, largely due to the pandemic. How long that will last will be driven by regional and client specific factors, along with the overall building activity across the nation. Seeing trends like this would indicate that it’s a good time to be aggressive and take advantage of an eager group of builders hoping to maintain their current workload and future backlog. The construction industry has been heavily impacted by the pandemic and we are seeing trends across the nation that indicate an opportune time to initiate new projects and take advantage of the time when other projects have been placed on hold or canceled.

Being clear throughout the building planning, estimating and procurement stages is essential to ensure that the project team can relay specifically how this project will handle the disease outbreak protocols, when this project hit from a schedule perspective and what materials are required for the work or if alternative materials are acceptable. If a project team can key in on these elements, then the subcontractor community can know exactly what they need to price. Without that clarity, it wouldn’t be surprising to see escalated pricing at this stage.

The overall pricing of a “typical project” is around 80%-90% trade related work with subcontractors or self-performed work crews setting the escalation pace. The trade partners and subcontractors are the ones that have the biggest impact on total building cost escalation, and often they are subject to carrying the burden of any escalation of material directly. Aligning with the right partners that have the right relationships and a deep clarity around their own supply chain is the key to locking in “what to expect in terms of escalation”.

Building costs will return to what we would expect them to be in 2021 as projects come back online and contractors are back to a more normal workload. The trades have seen a lot of uncertainty around new working environments and different general contractors are handling their on-site activities differently. Some have more stringent requirements to curb the transmission of infectious diseases and this has been a challenge on the subcontractor community at large, causing some head-scratching as to how to appropriately price this job.

### KEY TAKEAWAYS

**#1**

The construction industry is hungry right now and indicators are showing some projected reductions in pricing overall. In certain sectors this could lead to an opportune time to initiate a new project.

**#2**

This aggressiveness is likely short-term and will not last deep into 2021.

**#3**

Align with the right team that understands their supply chain.

**#4**

Be extremely clear around job-site expectations and the schedule as you are bidding the work.
The economy was soaring until we hit the quagmire of a disease outbreak globally. Throw in an election year and the National Gross Domestic Product dips, and it’s a recipe for recession.

A continued need for essential buildings to be constructed will stay steady through the downturn. Specifically, the need to accommodate working remotely distance learning in the school systems and telemedicine are only going to increase the need for further capacity in the Advanced Technology sector.

Signs of a recession are in front of the U.S. economy and the building industry will be impacted. Over the next few years, the work put in place will be down overall, but indications of a recovery are not far off.
Information in this report is compiled from third-party reporting that is available to the public. It is not owned by DPR.