United States | Q4 2022

Research

Industrial Outlook

Overall, 2022 finished as a successful year for industrial assets

Contents

Executive summary

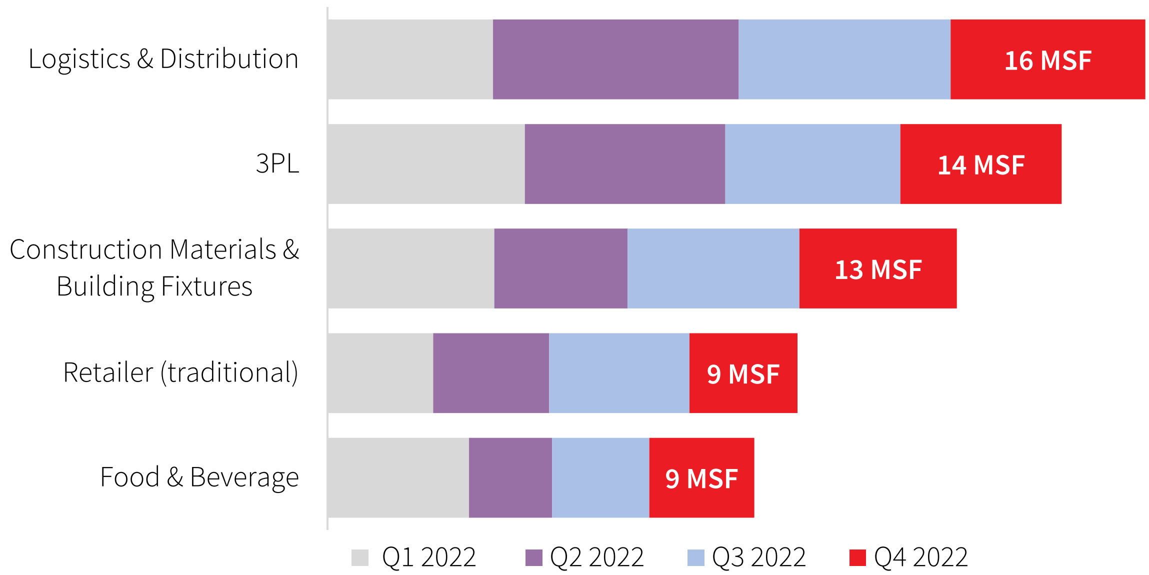
The U.S. industrial market closed 2022 with 467.9 million s.f. of net absorption across the country. While the nearly 100 million s.f. of net absorption in Q4 appears healthy, it is important to note that part of this figure can be attributed to the delivery of new projects which were pre-leased at the time of delivery. The Dallas/Fort Worth, Atlanta and Chicago markets were responsible for nearly a quarter of the absorption occurring in Q4. Pre-leasing rates declined As expected, the nearly record-breaking sum of new deliveries attributed to the vacancy rate increasing by 10 basis points quarter-over-quarter to 3.4%. However, many markets are still holding vacancies below 3% which also contributed to the lofty 19.1% year-over-year growth of asking rates which closed the year at $8.80 p. s.f. Just over 9 million s.f. of vacant sublease space has come online throughout 2022 bringing the year end total to 33.2 million s.f. However, this amount is negligible in the grand scheme of things as it only accounts for 0.2% of all vacant space.

Total United States

Type	Total stock (s.f.)	Total vacancy	Total availability	YTD net absorption	YTD completions	Under construction	Avg. total asking rent ($ p.s.f.)
Warehouse & distribution	11,120,347,354	3.9%	8.4%	436,188,126	460,007,065	609,557,715	$8.84
Manufacturing	3,599,224,427	1.9%	3.0%	31,586,722	18,747,217	23,264,228	$8.38
Special purpose	37,236,503	2.3%	3.1%	152,521	250,000	0	$11.48
Totals	14,756,808,284	3.4%	7.1%	467,927,369	479,004,282	632,821,943	$8.80

Demand for new industrial space returns to pre-pandemic levels

Retailers looking to optimize their network have turned to Logistics & Distribution users to outsource operations, increasing demand for the industry

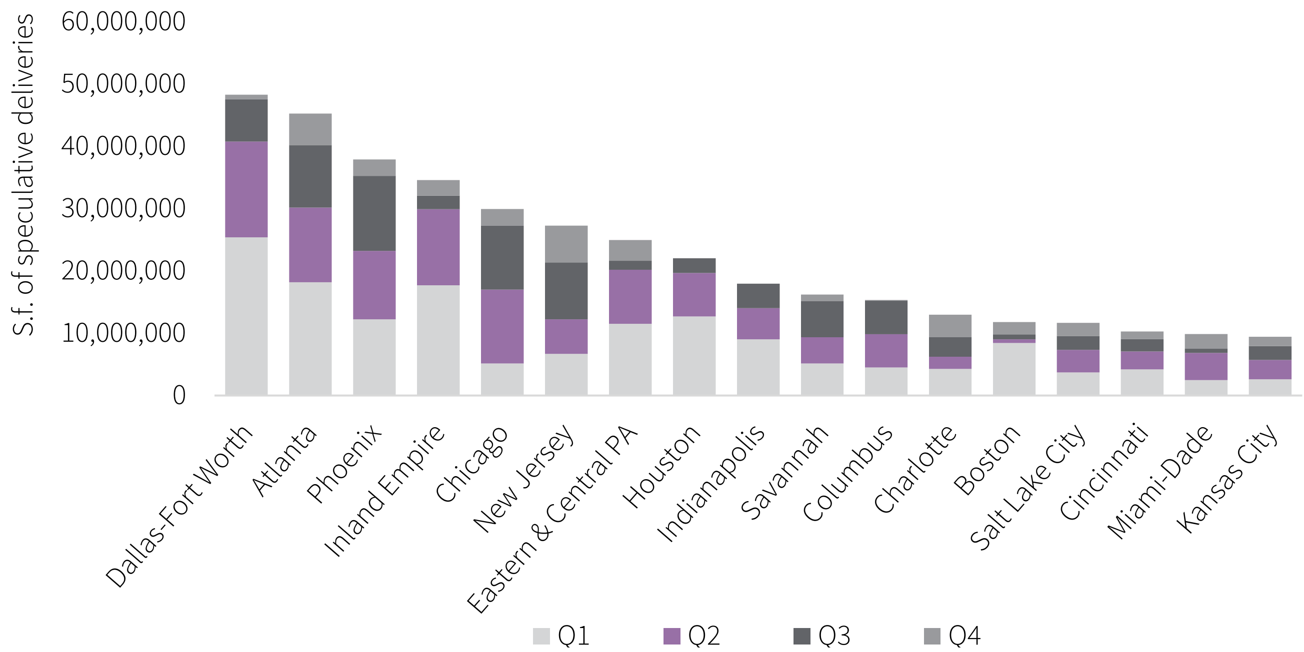


Note: Quarterly leasing figures are preliminary and subject to change. The distribution of leased s.f. by industry does not include leases for which a tenant or industry is unknown or undisclosed.
Source: JLL Research

Demand was very active with over 115.7 million s.f. leased this quarter in a variety of different industry sectors. While e-commerce has accounted for a high percentage of industrial leasing over the last two years, we are starting to see demand diversify amongst other industries such as Logistics & Distribution, 3PL, Construction Materials & Building Fixtures, Traditional Retailers, and Food & Beverage. Over the last 24 months the Logistics & Distribution and 3PL industries have ramped up leasing efforts, increasing demand by 47.2% since 2020. In Q4 these two industries accounted for 25.8% of total leasing volume. E-commerce players continue to be an active part of industrial leasing; however, smaller e-commerce companies are engaging with 3PL and Logistics and Distribution users to take up space, which is driving demand for the two industries. Markets such as Chicago, Indianapolis, Inland Empire, New Jersey, and Los Angeles account for almost half of the demand from Logistics & Distribution and 3PL users. The Construction Materials & Building Fixtures industry has also experienced an increase in demand, coming in third at the close of the quarter with over 13.1 million s.f. leased. This increase has been a result of the increased construction activity seen around the country. Lastly, while Traditional Retailers took a slight dip during the pandemic we are starting to see them bounce back as they explore different ways to increase online sales while also fulfilling in-store operations.

Construction pipeline stalls in new starts

Markets with highest amounts of speculative product delivering in 2023

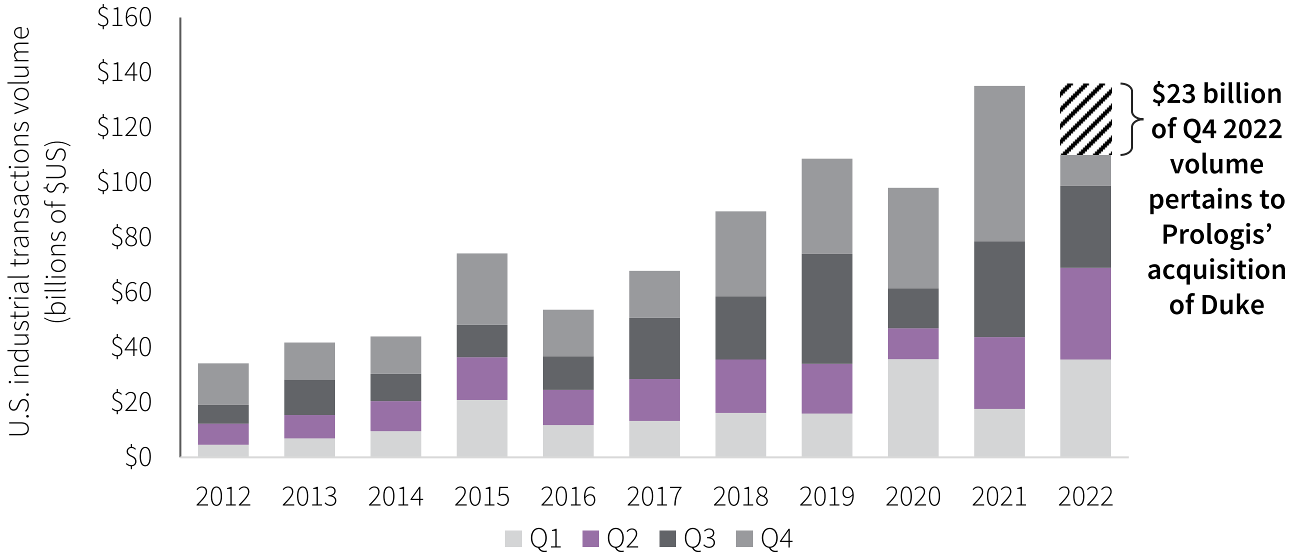


Source: JLL Research, Q4 2022

The 632.3 million s.f. currently under construction is still a record-breaking but is largely unchanged from the previous quarter indicating a slowdown in new ground breakings. Furthermore, speculative developments account for 84.4% of assets currently under construction. An interesting trend that has emerged from development statistics is that 49% of 1 million s.f. and larger buildings currently under construction are pre-leased. Furthermore, buildings in that size segment were 53.7% pre-leased upon indicating that occupier demand for mega-box space remains healthy. Q4 2022 finished with 149.3 million s.f. delivering to the market at 49.1% pre-leased. The 479.7 million s.f. delivered in 2022 marked a 35% increase from the previous year. The Dallas/Fort Worth, New Jersey, Phoneix, Chicago and Indianapolis markets accounted for just over a third of the new deliveries in Q4.

Capital markets activity impacted by rising cost of borrowing

Industrial transactions velocity slows notably in second half of 2022

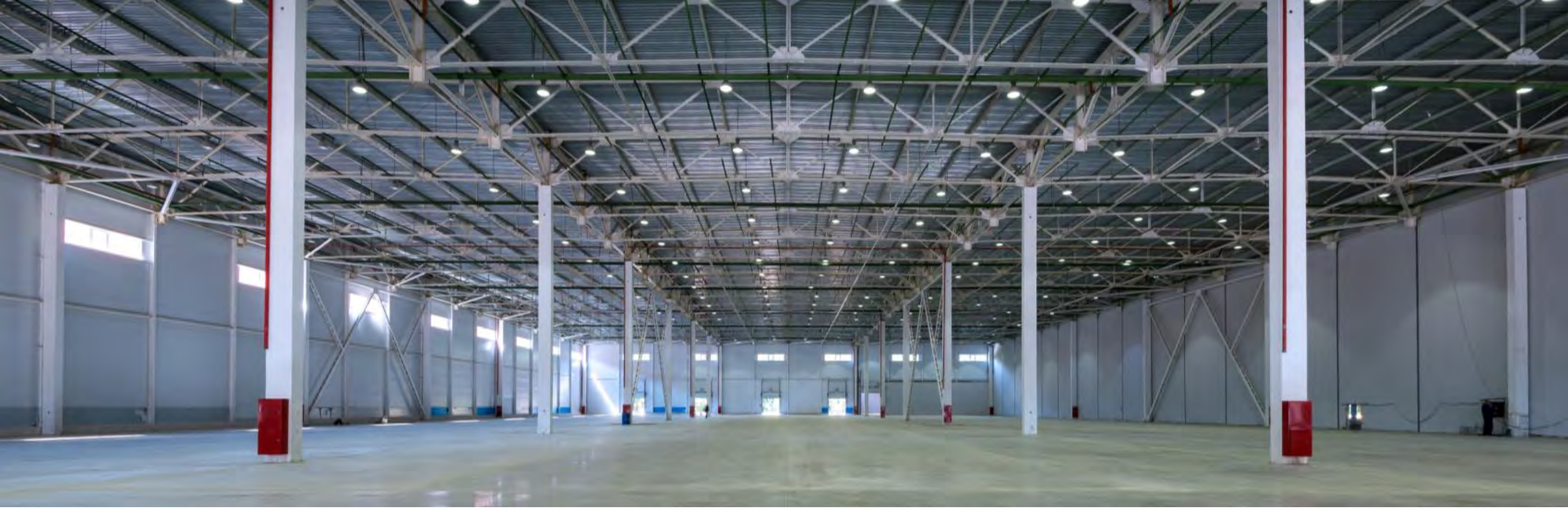


Sources: JLL Research, Real Capital Analytics (transactions $5 million and above)

Industrial transactions volume in the U.S. totaled approximately $136 billion in 2022. Transaction velocity slowed notably in the second half of 2022, but the year as a whole saw activity in line with 2021 levels owed to the strong start to the year, and also the closing of Prologis' purchase of Duke Realty. Activity in the fourth quarter of 2022 taken by itself was down 35% on Q4 2021.

The steep interest rate increases continued to lead to re-pricing of transactions during the fourth quarter. Investors continue to grapple with an abnormally high-risk premium attributable to uncertainty around the Fed's next moves and the economic outlook overall. With that said, the start to 2023 has seen some compression in debt spreads as inflation risk gradually lessens.

For core industrial transactions liquidity is deepest for transactions below $50 million; however, liquidity has gradually been broadening for larger transactions priced at up to $150 million. Early 2023 has seen more investors re-engaging; and the market is again witnessing best and final processes with multiple buyers/lender.



Outlook

Absorption figures are expected to remain similar in the coming quarters due to pre-leased buildings delivering and then are expected to level off by mid-year. Pre-leasing rates will likely remain tepid as users navigate a turbulent macroeconomic environment and take their time when making decisions. Markets in Southern California (Inland Empire, Los Angeles and Orange County), Savannah, Hampton Roads, and New Jersey all have vacancy rates below 2% and will likely continue to see robust rental rate growth. It is also worth noting that the manufacturing sector is experiencing explosive growth as companies roll out plans for electric vehicle plants and battery plants across the country. As major manufacturers get projects underway, there will also be a wave of necessary distributors and suppliers that follow suit. While construction timelines are beginning to return to their normal 9-12 month timeframe, construction starts are likely to dip as developers take stock of the current market trends. Additionally, there is currently an additional 613.9 million s.f. slated to deliver in 2023. The 5 markets that account for nearly a quarter of that figure are Dallas/Fort Worth, Atlanta, Phoenix, Inland Empire, and Chicago. With the continued record amount of product delivering in 2023, it is anticipated that vacancy rates will continue to climb.

United States Industrial quick stats

▼ Lowest vacancy	
Savannah	0.9%
Orange County	1.0%
Inland Empire	1.0%
Los Angeles	1.4%
Hampton Roads	1.9%
New Jersey	1.9%

▲ Highest YTD net absorption	
Dallas/Fort Worth	36,923,160
Chicago	36,690,745
Eastern & Central Pennsylvania	35,369,625
Phoenix	29,482,985
Houston	27,404,055
Atlanta	25,772,250

▲ Highest under construction (s.f.)	
Dallas/Fort Worth	61,616,920
Atlanta	45,501,457
Inland Empire	40,486,677
Chicago	40,149,825
Phoenix	39,166,518
Eastern & Central Pennsylvania	30,750,111

▲ Highest YTD completions (s.f.)	
Dallas/Fort Worth	45,894,850
Eastern & Central Pennsylvania	34,827,796
Chicago	31,556,740
Atlanta	29,279,717
Phoenix	25,266,176
Indianapolis	24,476,316

Local markets

Atlanta

Development drives activity while commodity space remains tight

- Annual absorption continued to outpace pre-pandemic levels, seeing over 6.9 million s.f. more move-ins than 2016-2020 average of 18.8 million s.f.
- The largest volume of annual deliveries on record was in 2022, totaling 29.1 million s.f., 73% of which was speculative development.
- Availability and vacancy rates are staggeringly low marketwide and is especially pronounced in commodity inventory (built before 2020) with a 3.4% availability rate and 2.2% vacancy rate.

Atlanta's development pipeline drove activity in an otherwise constricted market, with vacancy and availability trending at record lows. The market achieved the largest volume of annual deliveries on record and has a historic volume of supply under construction. Despite this, overall vacancy is up only 10 basis points from last quarter and up 20 basis points from Q4 2021.

Availability was slightly boosted in Q4 by this year's volume of groundbreakings – 37.6 million s.f. of spec groundbreakings, 18.6% of which broke ground in the fourth quarter alone – but that is a story for new construction only. Availability in commodity buildings (built pre-2020) is remarkably low. Because of this, users continued to have a hard time finding immediate occupancy and were left with limited options in an extremely competitive market.

The increase in groundbreakings did help alleviate some market tension, as Q4 saw a boost in deals sized 200,000 s.f. to 400,000 s.f. Availability in this size segment peaked in Q3 2022, making room for deals to be done in Q4. Additionally, and possibly due to new supply, deals had a higher lease size this year, averaging 135,829 s.f., compared to the last few years average of 120,000 s.f. Nearly 50.0 million s.f. of deals were signed this year, 39.2 million s.f. of which were new deals and 27.4 million s.f. of which were large-block deals. Even in such a constricted market, large-block moves continued to dominate. Q4 alone saw 12 large-block move-ins, totaling 7.4 million s.f., marking the biggest large-block deal volume of the year.

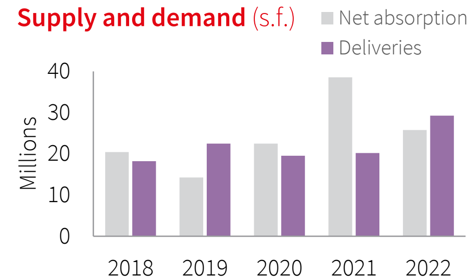
Outlook

Though Atlanta achieved its largest volume of annual deliveries in 2022, several new buildings expected for Q4 2022 were pushed to early 2023. While the healthy development pipeline will help mitigate market constraint, pain pressures of finding immediate occupancy or having multiple options are likely to continue. Tenant demand is not slowing, and if anything, the market is getting more competitive with 8.0 million s.f. of new deals set to commence in 2023 – over 70% of these deals are in buildings just or yet to be delivered.

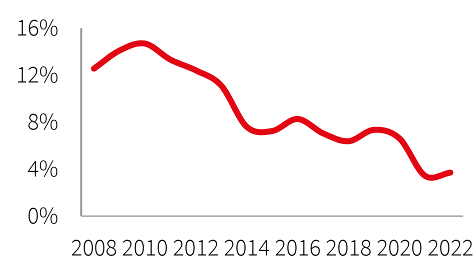
For more information, contact: Harriet Westlake | harriet.westlake@am.jll.com

Fundamentals	Forecast
2022 net absorption	25,772,250 s.f. ▶
Under construction	45,501,457 s.f. ▼
Total vacancy	3.7% ▲
Sublease vacancy	1,549,980 s.f. ▲
Direct asking rent	$5.60 p.s.f. ▲
Sublease asking rent	$5.70 p.s.f. ▲
Concessions	Rising ▲

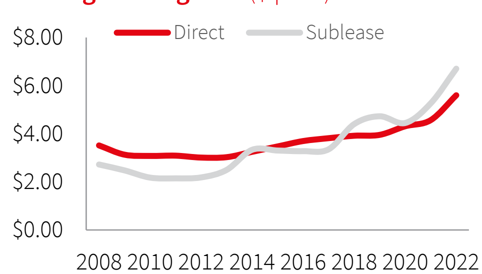
Supply and demand (s.f.)



Total vacancy (%)



Average asking rent ($ p.s.f.)



Austin

Extraordinary year with new milestone in development activity

- Average asking rates more than doubled in the last decade from $5.21 in 2012 to $10.59 in 2022.
- 11.8 million s.f. of new space entered the market in the past two years, which is greater than the total between 2010 and 2020.
- 2.1 million s.f. broke ground in Q4, pushing the total under construction activity to 15 million s.f. – a new record.

Austin's industrial market surpassed historical trends, despite a drop from 2021, which was an exceptional year due to an e-commerce giant entering the market. Total net absorption and deliveries in 2022 were nearly three times the five-year annual averages, excluding 2021, with 4.2 million s.f. of positive net absorption and 5.2 million s.f. of new construction delivered. The majority of the newly delivered buildings landed between 100k – 200k s.f. in size.

In Q4 2022, over 1 million s.f. of new space was delivered for the third consecutive quarter, of which 66% was preleased. The new deliveries pushed vacancy to 4.7%, the highest since Q2 2021. However, the newly delivered space will be quickly absorbed in the start of 2023 given preleasing volumes.

Despite the influx of new construction space added to the market, Austin still faces supply constraints as a result of the strong, ongoing demand that has been driven largely by suppliers for Tesla and Samsung. Applied Materials who supplies equipment to Samsung, for example, singed two leases at 130 Crossing buildings 3 and 4 for a total of 350,100 s.f. in the Northeast submarket. Developers remain active as projects under construction increased by nearly 60% from 2021, reaching 15 million s.f. – a new record. Most of the new development is in the Far North and Far South submarkets, where land is more available and affordable than central Austin. Timing of the new deliveries will continue to be a challenge as suppliers with time-sensitive contracts cannot wait and developers face delays caused by barriers to build, such as increased construction costs, high financing costs and long permit approvals.

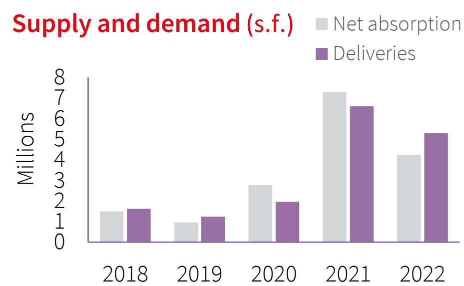
Average direct asking rents increased 16.2% year-over-year due to the scarce supply of second-generation space, new-to-market tenants accustomed to paying higher rents and newly constructed buildings leasing at premium rates.

Outlook

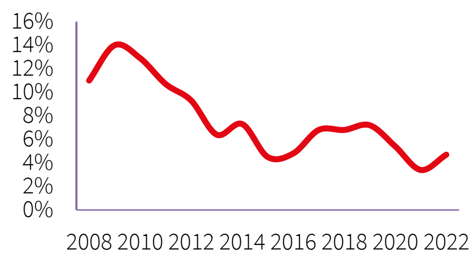
Austin's industrial supply is expected to remain tight as the effects of Tesla's and Samsung's expansion have yet to be fully realized in addition to the area's growing population. As such, the market is well-positioned to endure the challenges in the potential scenario of an economic downturn. Pricing is expected to remain competitive and likely will continue to be in favor of the landlord in the first part of 2023.

Fundamentals		Forecast
YTD net absorption	4,231,775 s.f.	▲
Under construction	15,047,442 s.f.	▶
Total vacancy	4.7%	▼
Sublease vacancy	60,115 s.f.	▶
Direct asking rent	$10.59 p.s.f.	▲
Sublease asking rent	$10.45 p.s.f.	▲
Concessions	Stable	▶

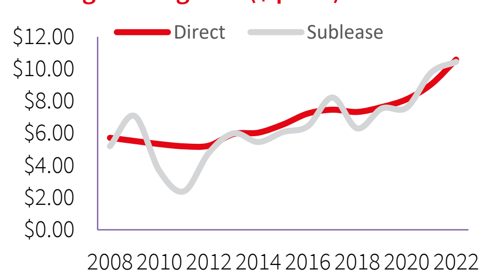
Supply and demand (s.f.)



Total vacancy (%)



Average asking rent ($ p.s.f.)



For more information, contact: Mosettee Lorenz | mosettee.lorenz@jll.com

Baltimore

Quarterly rent growth breaks 5% as market absorbed 4 m.s.f. in 2022

- Three deals over 100,000 s.f. were signed over the quarter with all of them representing new deals
- Q4 absorption topped 1.7 million s.f. driven by occupancy gains within the Baltimore County East submarket.
- Quarter-over-quarter, direct Class A vacancy increased 40 basis points to 5.4% driven by new speculative deliveries. As leases commence on these properties, Class A vacancy is expected to fall.
- 13 existing or under construction Class A blocks over 200,000 s.f. are available in the region, nine of which are along the I-95 corridor and north of Baltimore City.

Fundamentals		Forecast
YTD net absorption	4,020,532 s.f.	▶
Under construction	3,391,866 s.f.	▼
Total vacancy	4.1%	▶
Sublease vacancy	379,661 s.f.	▶
Direct asking rent	$8.30 p.s.f.	▲
Sublease asking rent	$11.22 p.s.f.	▲
Concessions	Falling	▼

Baltimore achieved 1,700,000 s.f. of occupancy gains over Q4 and absorbed over 4 million s.f. throughout the year. Since the onset of the pandemic (Q2 2020), the market has absorbed 16.8 million s.f. of industrial space. This quarter, occupancy gains were driven by lease commencements within newly built construction. The largest move-in of the quarter belongs to McCormick & Company whose 1.8 million s.f facility delivered 100% occupied located at 7021 Tradepoint Ave within the Baltimore County East submarket. Sitting 220 basis points under the trailing three-year average, direct vacancy rates remain historically compressed within existing product.

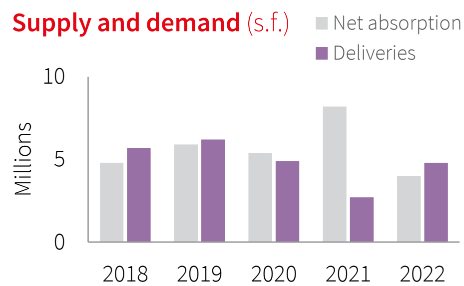
Over 4.7 million s.f. of industrial product is currently under construction/renovation, a 19% decrease year-over-year. Throughout 2022, tenant demand coupled with historical lows in vacancy and availabilities has spurred new ground breakings. One new development broke ground over the quarter in McConnell Johnson Real Estate's 263,000 s.f. project located at 1003 Konica Dr in the I-95 North submarket. The speculative property is currently 100% available for lease and slated for delivery mid-2023. Over the past three years, Baltimore is averaging 4.1 million s.f. of completions while annual absorption averages reach over 5.8 million s.f., representing a 40% increase.

Average asking rents were on the rise this quarter. Direct asking rents saw 5.1% growth quarter-over-quarter and 26.9% growth year-over-year. Most notably in the Baltimore Washington Corridor, which boasts a sub-2% Class A vacancy rate, land constraints stifle new construction opportunities. This has caused Class A rents to increase 36.5% from this time last year to $13.61 p.s.f., climbing into the double digits for the fourth consecutive quarter.

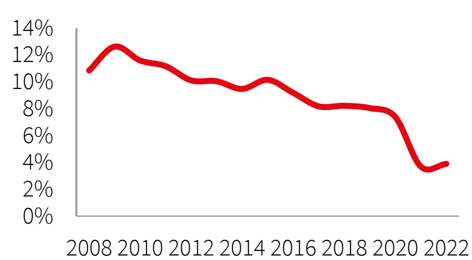
Outlook

In Q1 of next year, 1.7 million s.f. of speculative construction is slated for completion; preleased at a rate of 42%. As product delivers, new availability, average direct asking rents and vacancy will rise in the near-term. While net absorption is expected to be tempered compared to recent years record breaking numbers, new speculative construction underway will continue to attract a more regional distribution-focused tenant base.

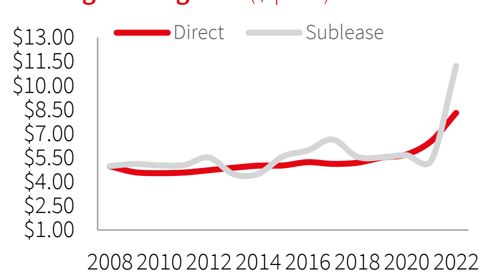
Supply and demand (s.f.)



Total vacancy (%)



Average asking rent ($ p.s.f.)



For more information, contact: Ben Caffey| Benjamin.Caffey@am.jll.com

Boston

A surge of new development is set to hit Boston's industrial market as 2023 begins

- Market-wide rents leveled off this quarter at $14.51, showing minimal different from last quarter's average rent of $14.68.
- Vacancy increased 40 bps to 3.6%, with many new spaces hitting the market as they near their delivery date.
- Demand remains relatively stable; however, more tenants are now targeting the West, which saw a 2 million s.f. rise in demand since Q3.
- New development surged this quarter, with 500,000 s.f. being delivered and eight new constructions breaking ground.

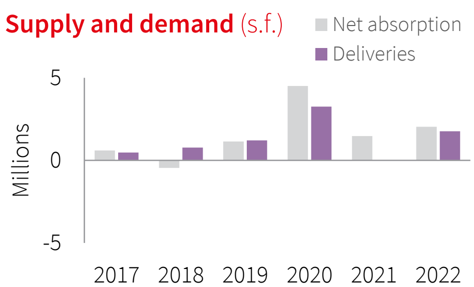
Fundamentals	Forecast	
YTD net absorption	2,029,445 s.f.	▼
Under construction	10,464,507 s.f.	▲
Total vacancy	3.6%	▲
Sublease vacancy	1,345,865 s.f.	▲
Direct asking rent	$14.50 p.s.f.	▲
Sublease asking rent	$10.92 p.s.f.	▶
Concessions	Stable	▶

After hitting a record high asking rent of $14.68 p.s.f. last quarter, Boston's industrial market leveled off this quarter at $14.50 p.s.f. The market also experienced over 300,000 s.f. of positive absorption in Q4. Most of this can be attributed to many warehousing tenants, such as Peak at 36 Cabot in Woburn, Lasership at 200 Fallon in Stoneham, and the MBTA at 35 United Dr in West Bridgewater. The South and West make up all the negative absorption this quarter, as logistics and last-mile delivery companies, such as Milestone Delivery and IGPS, have vacated their space or subleased it.

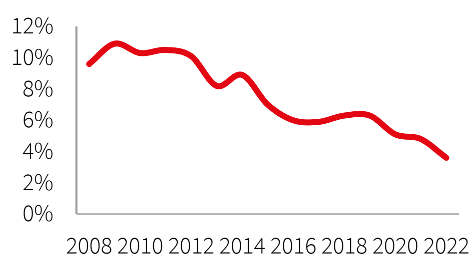
Boston's demand levels remain relatively stable from the previous quarter and is projected to stay that way going into the next year. Due to the spike in demand for warehousing & distribution facilities over the last two years, new construction has rocketed with 1.7 million s.f. of completions YTD. Three major deliveries occurred this quarter: 139 Campanelli, a 450,000 s.f. distribution facility in Uxbridge, 384-386 South, a distribution facility as a part of Centech Park Shrewsbury, and 146 Pond in Billerica that was built and fully leased to Independent Electrical Supply. Despite the land constraints, new industrial development does not show signs of slowing down as eight new constructions broke ground within Q4 2022.

Over 70% of ground-up development in Boston has been speculative development as more and more owners remain bullish on the level of demand sustaining. There are numerous case studies proving the market's appetite for new construction. For example, 300 Charles F. Colton in Taunton was delivered to the market and leased, in part, by Ferguson Plumbing, leaving only half the building . Similarly, on the capital markets front, JLL has recently sold land to Greystar for a 425,000 s.f. facility likely going spec.

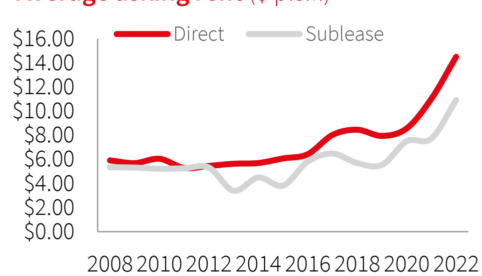
Supply and demand (s.f.)



Total vacancy (%)



Average asking rent ($ p.s.f.)



Outlook

Rapid rent growth in Boston has slightly subsided as availabilities were added to the market and new development attempts to meet the current market demand. The beginning of 2023 will be a crucial time to watch. How will the recessionary environment impact end-user consumption? Will demand maintain its stability as new supply hits the market?

For more information, contact: Ananya Jain | Ananya.Jain@am.jll.com

Broward

Broward County yearly close sets strong premise for 2023

- Average asking rental rate growth stagnates in Broward county, remaining north of $13.00 p.s.f. NNN.
- Vacancy rates rose from 3.3% to 4.0% and remain lowest in Central and West Broward.
- 381,00 s.f. of new Class A product was delivered this quarter, with a remaining 580,612 s.f. under construction.

Fundamentals	Forecast
YTD net absorption	1,595,121s.f. ▲
Under construction	580,612 s.f. ▶
Total vacancy	4.0% ▼
Direct asking rent	$12.98 p.s.f. ▲
Concessions	Stable ▶

The industrial market in Broward County continues to boom. A slight rise in vacancy rates is expected as new product deliveries continue and markets balance.

Quarter over quarter rent growth has slowed, with average asking rates remaining close to $13.00 p.s.f. NNN. Newer class A product naturally commands a premium, with average asks above $15.00 p.s.f. NNN.

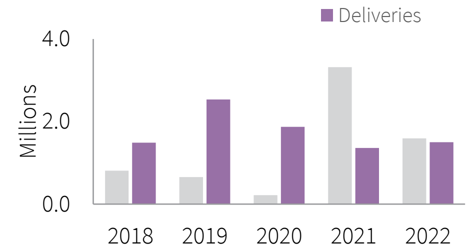
Absorption is negative for the quarter, in part due to large sublease space availabilities aligned with new product delivery. Absorption remains overwhelmingly positive for the year; however, quarterly negative absorption may hint at the market beginning to slow.

Leasing and sale activity continues to boom in Broward County. A notable larger lease signed by William Sonoma, was the largest recorded lease for the quarter, totaling 209,280 s.f. Notable sales include the Duke Realty acquisition through Prologis, and Pompano Business Center 2, a 133,000 s.f industrial building selling for $25.5 million, purchased by Morgan Stanley.

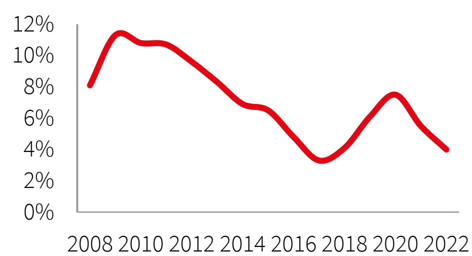
Outlook

Broward's robust local economy continues to flourish. South Florida's population and business friendly environment continues to incentivize capital migration. Broward County is South Florida's next big bet for industrial development. Land plays are primed with opportunity as demand for space continues. Class A product remains the most desirable product for institutional users, while Broward remains land constrained, further validating the need for continued development.

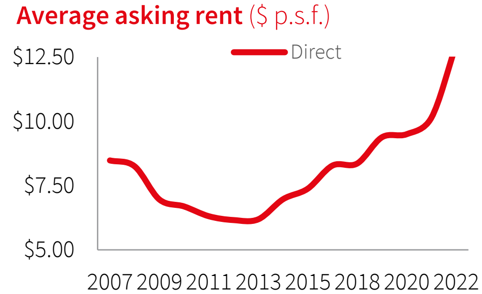
Supply and demand (s.f.)



Total vacancy (%)



Average asking rent ($ p.s.f.)



For more information, contact: John Guzzo| John.Guzzo@am.jll.com

Central Valley

The leasing market remains active through year-end despite interest rate volatility

- The steady increase of interest rates is prompting developers to adjust their proposed projects and construction dates.
- Leasing activity remains strong for tenants with requirements from 50,000 to 200,000 s.f. as the market sees 994,708 s.f. of positive absorption in Q4 2022.

Fundamentals	Forecast
YTD net absorption	8,722,896 s.f. ▲
Under construction	7,534,201 s.f. ▶
Total vacancy	5.9% ▶
Sublease vacancy	203,327 s.f. ▶
Direct asking rent	$0.69 p.s.f. ▲
Concessions	Stable ▶

The year ended with robust touring and negotiations on deals in the steadily flourishing market. Healthy leasing activity seen in Q4 was led by Victory Packaging, who expanded its footprint by approximately 175,000 s.f., moving from 2000 Chabot to 3160 N Chrisman in Tracy, McCollister's Transportation leasing 195,599 s.f. at IPC 2 in Tracy, and Park My Fleet leasing 103,968 s.f. at 18551 Christopher Way in Lathrop. DCG occupied 306,000 s.f. at 3462 Yosemite Ave, escaping the high rents seen in the Inland Empire for the more cost-effective Central Valley.

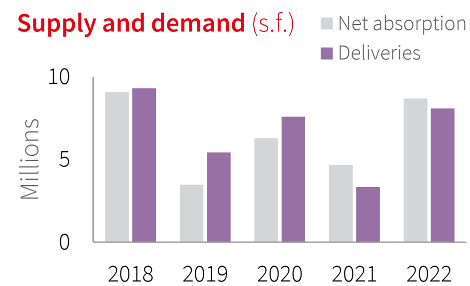
The vacancy rate is up 110 basis points quarter-over-quarter due to vacant new construction deliveries, yet it remains 20 bps below 2021 and 140 bps below 2020 levels. The Fed's benchmark borrowing rate is estimated to reach a 17-year high of 5-5.25 percent in 2023. Inflation fell 200 bps in the past five months, but escalating interest rates coupled with climbing construction costs are muting new development and investment sales in the market. There is an anticipated reduction in land value as impending economic headwinds begin to surface.

The Central Valley saw 8 million s.f. of supply come to market this year and is the leading market in Northern California for the development of modern industrial facilities, owing largely to land availability and lower development costs. 4.3 million s.f. is slated for delivery in Q1 2023, fueled primarily by Target's 1.4 million-s.f. build-to-suit at Airpark 599 in Stockton. 54% of the inventory to be delivered next quarter is still available for lease.

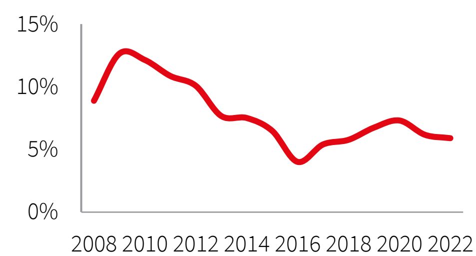
Outlook

With new construction slowing due to interest rate volatility and leasing continuing to be active, we anticipate lower vacancy rates and increasing rents. Land prices will soften until interest rates settle and new developments start again. As we enter 2023, trucking and trailer space will continue to be in high demand as tenants look for space to park their fleets and serve the robust market. The market is expected to continue its accelerated growth pattern as the Central Valley remains an attractive region for logistics & distribution companies.

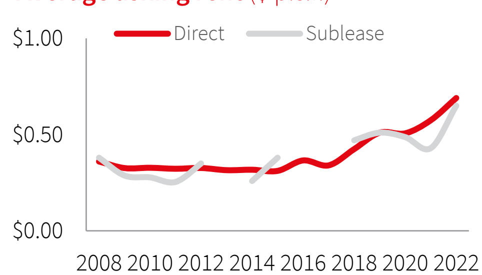
Supply and demand (s.f.)



Total vacancy (%)



Average asking rent ($ p.s.f.)



For more information, contact: Brianna Robles | Brianna.Robles@jll.com

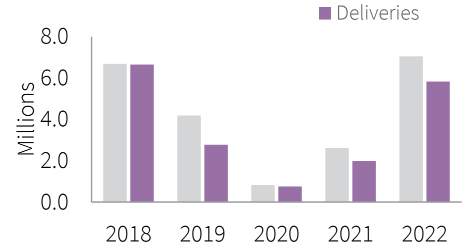
Charleston

High-performing deliveries in 2022 embolden developers entering a new year

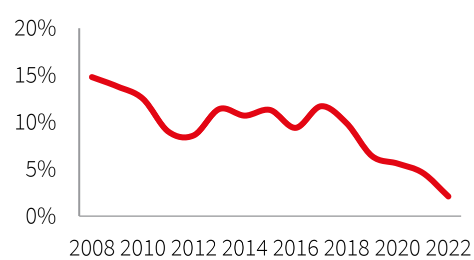
- Delivered space drives record absorption in 2022, and almost all of it was signed for before completion
- The Port of Charleston completed a major harbor deepening project, creating the deepest harbor on the east coast
- Even more speculative development is scheduled to deliver in 2023, 47% of which is already signed for
- Asking rents likely to slow growth in new year as development pipeline grows

Fundamentals	Forecast
YTD net absorption	7,043,766 s.f. ▲
Under construction	8,150,546 s.f. ▶
Total vacancy	2.1 % ▼
Sublease vacancy	70,411 s.f. ▼
Direct asking rent	$6.98 p.s.f. ▶
Sublease asking rent	$6.64 p.s.f. ▲
Concessions	Stable ▶

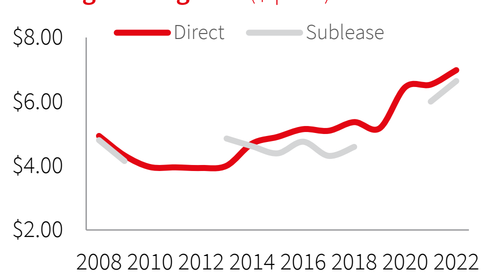
Supply and demand (s.f.)



Total vacancy (%)



Average asking rent ($ p.s.f.)



The Charleston industrial market continued to tighten this past quarter with vacancy lowering by 70 bps, bringing the number to the lowest on record. Absorption continued to climb as expected with new deliveries contributing to almost all move-ins. In 2022, 94% of square footage was leased at delivery with about 40% of that space being initially built speculatively. A high-performing year will embolden developers to continue to build out the market.

South Carolina Ports has continued to invest in capital improvements at the Port of Charleston in the second half of 2022. The port system is on pace to close 2022 with its highest TEU volume on record. With the completion of the harbor deepening project in December, the port now has the deepest harbor on the east coast and the ability to service the largest ships regardless of season or tide. This, along with other major improvements in the whole ports system, has South Carolina Ports in a position to exceed 3M TEUs in 2023 given continued demand and expanded abilities.

Outlook

8.2 m.s.f. of industrial space is under development currently and expected to deliver in 2023. 47% of that space is already leased, and that number is expected to increase as projects near their respective completion dates. High performance in 2021 and 2022 will continue to drive speculative development even in challenging economic conditions. With the large amount of space set to deliver in 2023, the growth rate of asking rents may slow heading into a new year after climbing to $7.73 p.s.f. for new product in 2022. Elevated construction costs may continue to push rates higher, but likely at a slower rate.

For more information, contact: Brett Cox | Brett.Cox@am.jll.com

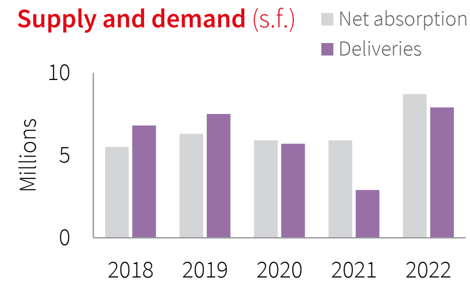
Charlotte

Market fundamentals point to sustainable growth for Charlotte's industrial sector

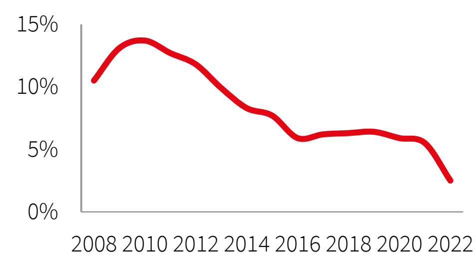
- 2022 displayed record high net absorption despite record low vacancy.
- Development activity reached a record high as unprecedented tenant demand across the market persist.
- Despite a slowing sales market, Class A shallow bay assets remain highly sought after.
- Charlotte's diverse economy and industry make-up provide a hedge against global headwinds.

Fundamentals	Forecast
YTD net absorption	8,673,611 s.f. ▶
Under construction	17,574,756 s.f. ▶
Total vacancy	2.5% ▶
Sublease vacancy	194,339 s.f. ▶
Direct asking rent	$6.32 p.s.f. ▲
Sublease asking rent	$5.26 p.s.f. ▲
Concessions	Stable ▶

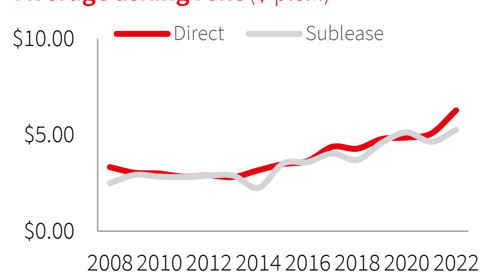
Supply and demand (s.f.)



Total vacancy (%)



Average asking rent ($ p.s.f.)



Leasing activity in various submarkets remain consistent despite a slowing economy. Q4 2022 absorption was propelled by the occupancy of Newell Brands in their 1.5 million-s.f. build-to-suit at Gateway85. The park has an additional 940,000 s.f. currently underway across two buildings that are expected to reach completion in Q2 2023. Kiser Harriss and AS Colour occupied a combined 469,000 s.f. of speculative product that delivered in 2022. Future occupancy will be concentrated in buildings constructed after 2022 due to limited availabilities and supply constraints.

Charlotte's Western Counties submarket added several new developments to the supply pipeline. Westend Logistics, a 189,000-s.f. rear-load, broke ground in Q4 2022, accompanied by two more projects along I-85 in Gaston County. Class A buildings under 300,000 s.f. have performed exceptionally well in recent quarters given most tenant requirements fall within this range. The market's outlying counties continue to experience an influx of development that is bolstered by in-migration and interstate connectivity.

Investment sale activity has pulled back in recent months due to interest rate increases and economic uncertainty, but Charlotte has remained an active market for investors. Significant trades in Q4 2022 include AirPark West, Airport85 Business Center, and a 159,000-s.f. build to suit at The Park at Huntersville. Out-of-market capital continues to invest in Charlotte's industrial market to capitalize on high demand and rent growth.

Outlook

Charlotte's industrial sector performed well in 2022, a byproduct of regional population growth and steady demand for access to southeastern markets. Looking forward, Charlotte is well-positioned to withstand a slowing global economy and interest rate hikes. Due to the influx of diverse industries, Charlotte will remain competitive for investors needing to place capital. The region's employment market and robust talent supply will provide the edge many occupiers need when expanding into a new market.

For more information, contact: Khaliid Scott | Khaliid.Scott@am.jll.com

Chicago

Absorption below 2021 but still second strongest year on record

- Absorption down from 2021, but 11 million s.f. stronger than 2020
- Construction completions reach all time high at 31.6 million s.f.
- Vacancy is leveling out in the high two percent range
- Rental rate growth puts leverage in landlord's favor

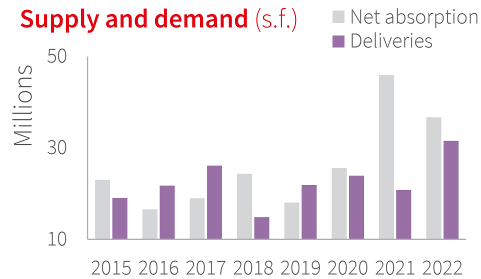
Absorption for 2022 was an impressive 36 million s.f. although this was 14 million less than 2021's all-time high figure. The fourth quarter contributed 7 million feet, which is down quarter-over-quarter. The most notable new lease was Prime Source Building Products taking a 1 million s.f. speculative building in Wilmington. In addition, a 1.2 million-s.f. build to suit for Kraft Foods with Trammel Crow Company was inked in DeKalb and stands out due to its sheer size. On a local level, the I-80, I-55 and North DuPage submarkets' year-end leasing volume exceeded 5.0 million s.f. While Chicago North, I-57, McHenry Co, North Cook Co & Northwest Indiana were below 1.0 million s.f. I-80 & I-57 were the only markets to capture Q4 net absorption volume in excess of 1.0 million s.f. I-80 saw due to strong leasing demand while I-57 was impacted by the former 1.3 million s.f. Kmart facility taken off the market – since they elected to continue using the facility. The Q4 vacancy rate was unchanged from Q3 at 2.8 % and is down 63 basis points from 2021.

Outlook

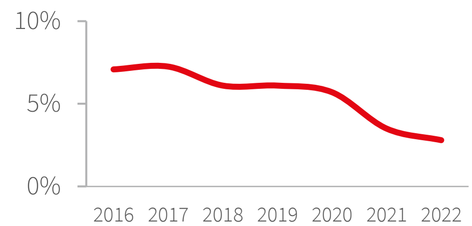
Asking net rents reached $6.75 p.s.f. which is more than a dollar higher than year- end 2021. We expect leverage to remain in the landlord's court in the near future due to continued low vacancy rates and the fact that sublease space is not an issue. The Fox Valley, I-39, I-55 Corridor, I-57 Corridor, North Cook Co, North DuPage Co, McHenry Co, O'Hare & West Cook markets all had vacancies under 2.0%. The I-55 Corridor is extremely tight at 0.5%. Tenants have more options in Chicago North, Lake Co & Southeast Wisconsin where vacancies are above 5%. With over 40 million s.f. currently under construction, we forecast tenants to have greater options in late 2023. 8.6 million s.f. was delivered in Q4 bringing 2022's volume to 31.6 million s.f. a new all-time high. The Duke Realty entity sale to Prologis included 37 assets across seven submarkets around Chicago and captured the headlines due to its scale. While the broader investment sales market is challenged, we still saw several entrepreneurial or value-add players closing in Q4including Tradelane Properties, Clear Height Properties, Sarofim Realty Advisors, High Street Logistics Properties, and Faropoint Investments.

Fundamentals		Forecast
YTD net absorption	36,690,745 s.f.	▼
Under construction	40,448,660 s.f.	▶
Total vacancy	2.8%	▶
Sublease vacancy	0.01%	▶
Direct asking rent	$6.75 p.s.f.	▲
Concessions	Declining	▼

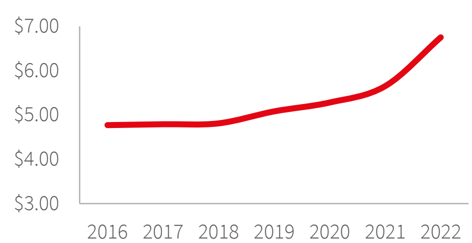
Supply and demand (s.f.)



Total Vacancy



Average asking rent ($ p.s.f.)



For more information, contact: **George Cutro**| George.Cutro@am.jll.com

Cincinnati

Despite a slowdown in leasing velocity, Cincinnati Industrial market ends the year on a positive note

- Occupancy gains ended the year on another positive note with 1.2 m.s.f. of positive absorption in Q4
- Vacancy increased slightly to 3.4% as 1.9 m.s.f. of new speculative product was completed
- As supply continues to dwindle, rental rates are rising with a year-over-year rent growing of 21.4%.

Fundamentals	Forecast	
YTD net absorption	9,890,592 s.f.	▲
Under construction	8,821,462 s.f.	▶
Total vacancy	3.4%	▲
Sublease vacancy	600,747 s.f.	▼
Direct asking rent	$5.77 p.s.f.	▲
Sublease asking rent	$5.03 p.s.f.	▼
Concessions	Rising	▲

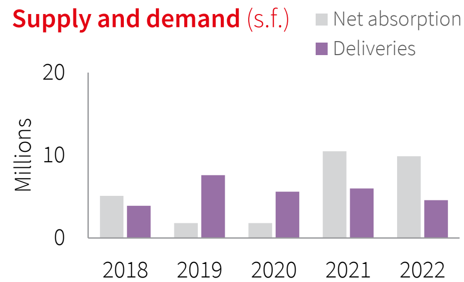
The Cincinnati industrial market ended the year with 9.8 m.s.f of absorption, falling just short of historic year of 2021. With that said, deal velocity has slowed in the second half of 2022 due to inflation and economic uncertainty. The market posted 1.2 m.s.f of positive absorption in the fourth quarter, driven by a large leases done in the Tri County and Florence Richwood submarkets. Occupancy gains were anchored by move-ins at World Park Bldg 17 and 2939 E Crescentville Rd in the Tri County submarket, where DWR is taking 304,000 s.f. and Sanmar is taking 234,888 s.f. In the Florence/Richwood submarket Saddle Creek Logistics is occupying Logistics Park 75 Bldg 3A, a 232,500 s.f. building. Vacancy Increased 30 basis points quarter-over-quarter to 3.4% with several large speculative coming online as a slowing demand for space starts to appear.

As tenants continue to enter the market looking for space, construction continues its surge. Currently, around 8.8 m.s.f. is under construction, highlighted by Nestle Purina's 1.2 m.s.f manufacturing facility being built in the East submarket and Core5's 1.1 m.s.f building being built in Monroe/Middletown. 2.2 m.s.f. of new construction delivered in Q4 and an additional 1.5 m.s.f of construction broke ground in Q4 as developers continue to expand their operations in the Cincinnati market.

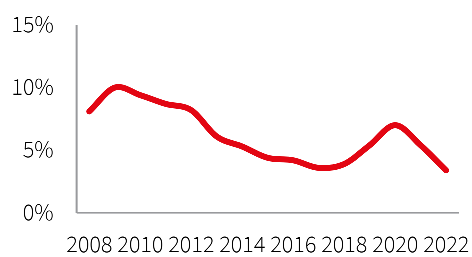
Outlook

The long-term outlook for the Cincinnati industrial market remains positive for 2023. Deal velocity has started to slow, and the rising cost of capital mixed with economic uncertainty has started to challenge investors and developers in the market. As vacancy remains at historic lows, construction costs continue to rise as more logistics companies continue to expand. Asking rents continue to surge above $5.70 p.s.f. Looking to 2023, tenants continue to commit to spaces on buildings yet to be built as demand continues to slow. Although several developers have announced plans for future developments in the first half of 2023 others are putting a hold on breaking ground to wait and see where rates and the economy goes.

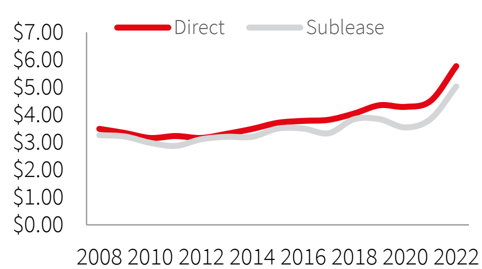
Supply and demand (s.f.)



Total vacancy (%)



Average asking rent ($ p.s.f.)



For more information, contact: Collin Fitzgerald| Collin.fitzgerald@am.jll.com

Cleveland

Construction, absorption and asking rents all hit historic highs in 2022, vacancy near historic low

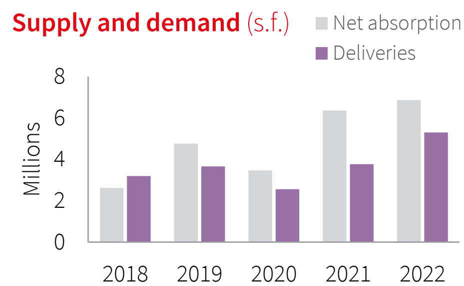
- Construction deliveries totaled just over 5.3 million s.f., eclipsing the previous high-water mark set in 2021 of close to 3.8 million s.f.
- Net absorption, totaled close to 6.9 million s.f. in 2022. That is 52% above the 10-year annual average of 4.5 million s.f.
- Vacancy ended 2022 at 3.5%, which is slightly above the historical low of 3.3% but remains extremely low by all standards.
- In total, 1.4 million s.f. of speculative space delivered in 2022 and 2.8 million s.f. of speculative space is under construction.

Fundamentals		Forecast
YTD net absorption	6,869,616 s.f.	▼
Under construction	4,854,348 s.f.	▼
Total vacancy	3.5%	▶
Sublease vacancy	900,404 s.f.	▼
Direct asking rent	$5.60 p.s.f.	▲
Sublease asking rent	$5.49 p.s.f.	▲
Concessions	Decreasing	▼

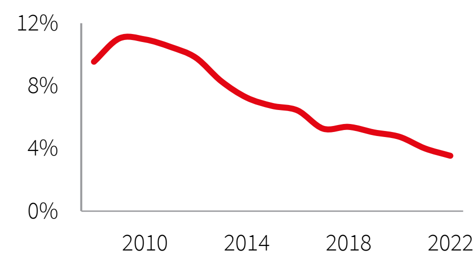
The Cleveland industrial market reached several milestones in 2022. Construction deliveries totaled just over 5.3 million s.f., eclipsing the previous high-water mark set in 2021 of close to 3.8 million s.f. For context, the 10-year average of annual construction deliveries in Cleveland has been around 2.4 million s.f. Demand has continued to outpace supply over the last four years. Net absorption, totaled close to 6.9 million s.f. in 2022. That is 52% above the 10-year annual average of 4.5 million s.f. Meanwhile, asking rents reached a new peak at $5.60 p.s.f., representing an increase of 13.8% year-over-year.

Industrial vacancy ended 2022 at 3.5%, which is slightly above the historical low of 3.3% achieved in Q3 2022 but remains extremely low by all standards. For some perspective, the average industrial vacancy rate in Cleveland over the last 10 years was 5.9%. The slight increase in vacancy during Q4 was due to the delivery of additional speculative space. While resulting in a modest increase in vacancy, the additional speculative space arriving on the market in 2022 was welcomed by industrial companies looking to expand local operations. Several speculative warehouses remain in the pipeline that are set to deliver in 2023 including the 1-million-s.f. Turnpike Commerce Center and the 450,000-s.f. Westfield Commerce Center. In total, 1.4 million s.f. of speculative space delivered in 2022 and 2.8 million s.f. of speculative space is under construction. Since 2014, speculative warehouses have typically reached 75% occupancy by year one and full occupancy by year two.

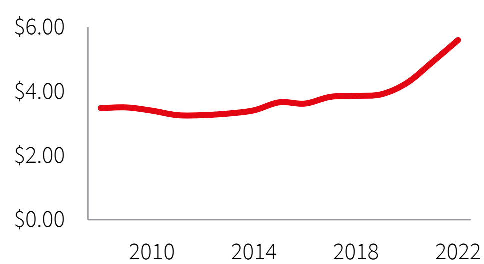
Supply and demand (s.f.)



Total vacancy (%)



Average asking rent ($ p.s.f.)



Outlook

Industrial vacancy in Cleveland is near historic lows, and although a significant amount of speculative space is set to deliver over the coming year, market conditions are projected to remain very tight due to rising e-commerce sales, increasing inventory levels given supply chain issues and the reshoring of manufacturing operations. Asking rents will likely continue to rise as a result of market conditions while new groundbreakings may see a decline in 2023 due to increasing interest rates and escalating construction costs. Similarly, investment sales might experience a decline year-over-year due to the pressures affecting capital markets.

For more information, contact: Andrew Batson | andrew.batson@am.jll.com

Columbus

Eventful quarter primes Columbus market for biggest year yet

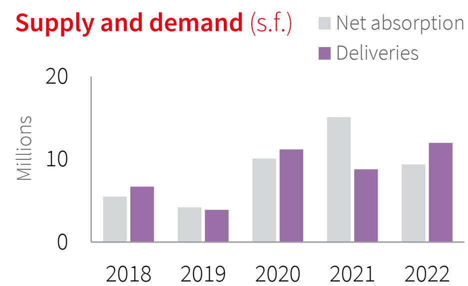
- Of the 12 million s.f. completed in 2022, 8.9 million s.f. is modern bulk product including two 1 million-s.f. completions in Q4
- Total vacancy increased marginally from 2.1% to 3.2% year-over-year despite a record level of new construction
- With a healthy amount of first-generation existing space available, and 17 million s.f. under construction, another record-setting year appears to be on the horizon

Fundamentals	Forecast	
YTD net absorption	9,378,346 s.f.	▲
Under construction	17,109,958 s.f.	▶
Total vacancy	3.2%	▲
Sublease vacancy	431,553 s.f.	▶
Direct asking rent	$4.93 p.s.f.	▲
Sublease asking rent	$5.17 p.s.f.	▲
Concessions	Decreasing	▼

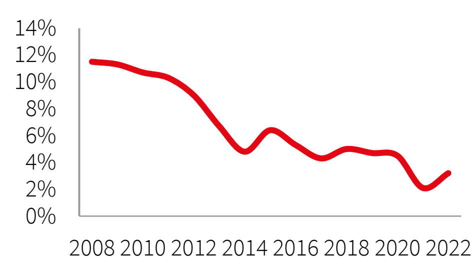
Following a record year of absorption in 2021 at over 15 million s.f., developers responded with 12 million s.f. of new construction in 2022. Just over 5 million s.f. was completed in Q4, including two 1 million-s.f. speculative warehouses. Given the level of demand among large users entering the year, the market was in dire need of new modern bulk product with vacancy at just 2.0% in Q1 2022. Developers are attempting to meet such demand as nearly 75% of warehouse deliveries in 2022 fall within the modern bulk category, which comprises speculative warehouses above 250,000 s.f.

Overall, new construction was 56% leased at delivery. Several major projects in the Southeast submarket delivered 100% pre-leased by occupiers in varying industries, including HanesBrands (1.2 million s.f.), ODW Logistics (582,000 s.f.), and Cardinal Health (575,000 s.f.). Bulk demand has driven developers to concentrate on large, cross-dock warehouses. With 8.9 million s.f. of modern bulk completions in 2022, total inventory is now 57.3 million s.f. and total vacancy is 8.1%. New, vacant inventory provides much needed options for the many bulk users scouring the market for warehouse space.

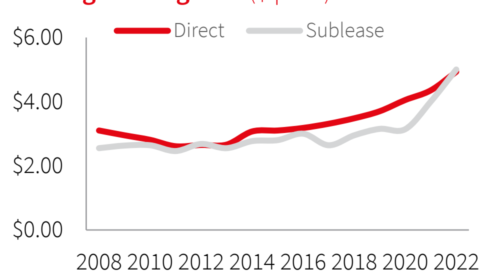
Supply and demand (s.f.)



Total vacancy (%)



Average asking rent ($ p.s.f.)



Outlook

At the start of 2021, modern bulk vacancy was just below 8% following a record year of new completions, only to fall to 2.5% by the end of the year. The same level of demand is expected in 2023, except construction is finally keeping pace. The modern bulk construction pipeline is 12.9 million s.f., all of which is scheduled to deliver in 2023. While the market is finally in a comfortable position with respect to modern bulk supply and demand, small to midsize demand continues to outweigh new supply. However, developers have taken note with nine speculative projects between 100,000 s.f. and 250,000 s.f. breaking ground in Q4. With 17 million s.f. expected to deliver in 2023, and a healthy amount of new product available to start the year, another record-setting year for supply and demand appears to be on the horizon.

For more information, contact: Sam Stouffer | sam.stouffer@am.jll.com

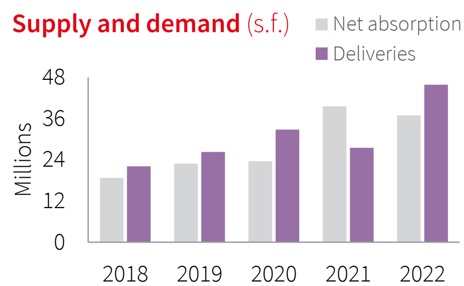
Dallas-Fort Worth

Record-setting year for construction activity and deliveries continued through the end of 2022

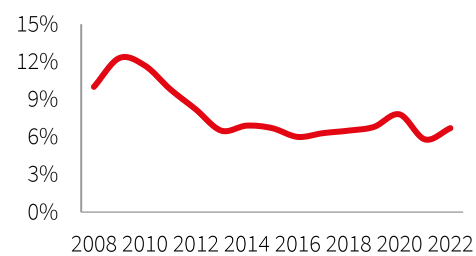
- The increased development pipeline is being realized with 45.8 million s.f. delivered in 2022. The emerging East Dallas submarket have seen the largest inventory growth increasing 10.3% this year.
- The development pipeline topped over 60 million s.f. for a third consecutive quarter, leading the nation again for development activity with 22.6% preleased.
- Demand continues to be strong, as leasing activity has totaled over 12.1 million s.f. for a third consecutive quarter. The final three quarters of 2022 rank among the market's top four highest all-time.

Fundamentals		Forecast
YTD net absorption	36,923,160 s.f.	▲
Under construction	61,616,920 s.f.	▶
Total vacancy	6.7%	▲
Sublease vacancy	3,869,358 s.f.	▶
Direct asking rent	$6.13 p.s.f.	▲
Sublease asking rent	$6.02 p.s.f.	▲
Concessions	Stable	▶

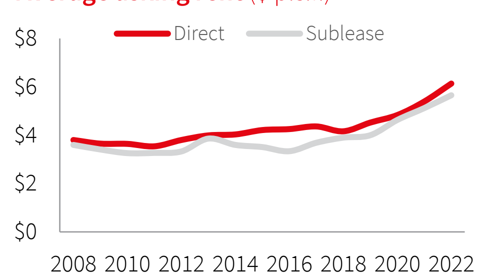
Supply and demand (s.f.)



Total vacancy (%)



Average asking rent ($ p.s.f.)



The Dallas-Fort Worth industrial market led the nation in development activity for all four quarters of 2022, finishing the year with 61.6 million s.f. under construction. The depth of the current development pipeline is expected to keep the market in the top spot through the first half of 2023. Following four consecutive years of record-setting demand, 45.8 million s.f. delivered this year. In East Dallas, deliveries in 2022 added 10.3% to the emerging submarket's inventory. Developers are capitalizing on the submarket's population growth, immediate access to labor, and proximity to the neighboring South Dallas submarket. Speculative construction for "mega-box" properties over 1 million s.f. have continued to be focused, in South Dallas, where nearly 31% of deliveries were located.

Strong demand by both tenants and investors continued through the fourth quarter. Leasing activity totaling over 12.1 million s.f. for the third consecutive quarter. The largest leases of the quarter included the prelease of a 1 million s.f. speculative building in South Dallas by Careismatic Brands and a 626,718 s.f. lease in the East Dallas submarket by Masonite. Overall, 46.4 million s.f. was leased in 2022, only 5.2% below the record-setting activity of 2021. Prologis closed on a $23 billion acquisition of Duke Realty at the beginning of the quarter, adding 17.5 million s.f. to the company's portfolio in the Dallas-Fort Worth market. This was the largest transaction by size within the market since Blackstone Group purchased the industrial platform of Colony Capital in Q4 2019.

Outlook

Construction kick-offs are expected to slow in the last half of 2023 relative to the new starts seen during the three consecutive highest quarters of construction activity than began in Q2 2022. However, sustained demand and specific occupier requirements will continue to keep the market as one of the highest nationally. Leasing activity is expected to remain strong into 2023 as preleasing of speculative product continues, and requirements for big-box properties of nearly every size range remain active in the market for new space.

For more information, contact: Nick Thomas | nick.thomas@am.jll.com

Denver

Absorption finishes the year strong, as the market transitions back to pre-covid conditions

- Leasing volume remained strong during Q4, despite the limited number of 200,000+ s.f. deals.
- The market shows signs of returning to 2019 levels. Asking rent growth has stabilized, while absorption remained above Denver's historic average.
- Under construction product in the pipeline began to decline as new space continues to deliver vacant.

Fundamentals		Forecast
YTD net absorption	4,172,050 s.f.	▶
Under construction	8,905,851 s.f.	▼
Total vacancy	7.4%	▲
Sublease vacancy	769,815 s.f.	▲
Direct asking rent	$8.66 p.s.f.	▶
Sublease asking rent	$8.14 p.s.f.	▶
Concessions	Stable	▶

Leasing volume increased this quarter accounting for a total of 2.5 million s.f. of space leased – marking a 19.4% quarter-over-quarter increase. Excluding the 700,000-s.f. renewal signed by Amazon, the average lease size was 47,000 s.f., growing by 60.6% since the beginning of October. Tenants continued to sign leases in the 30,000 s.f. to 80,000 s.f. range and are beginning to see larger TI packages and longer terms.

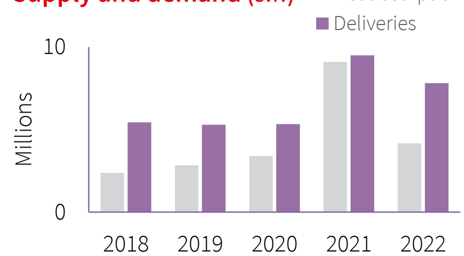
During Q4, the market began to reflect that of 2019. Prior to the construction and leasing boom during the pandemic, average annual absorption was around 3 million s.f. During 2022, total annual absorption totaled 4.1 million s.f., a 55.7% decrease compared to 2021, but far above the pre-covid average. Asking rent growth has begun to stabilize after a rapid period of growth. Total rent growth quarter-over-quarter was less than 1%. Despite the drop in absorption and muted rent growth, the market remains healthy with numerous tenants still looking for space.

New ground breakings continued to decrease during Q4. Developers have shown some hesitancy on moving forward with new projects around Denver with interest rates on the rise and unknown exit cap rates. Projects already scheduled to break ground will most likely go on as scheduled, but some have been delayed into 2023 or put on hold. The majority of space delivered during Q4 was vacant upon delivery. This caused total vacancy to increase 20 basis points after a large increase during Q3, yet total availability has peaked and fallen 20 basis points during Q4.

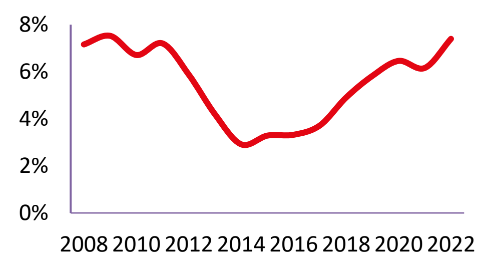
Outlook

Absorption and construction has begun to slow after the abrupt influx of demand during 2020 and 2021. It is apparent that the industrial market is starting to return to pre-covid conditions. Q4 showed signs of tenants focusing on finding slightly longer-term solutions to fulfill their needs. Total leasing volume remained strong, while tenants see favorable lease terms when it comes to rates and TI. Looking forward to 2023, we can expect Denver to remain a healthy competitive market for leasing and tenant demand. Large construction projects will continue, but at a reduced volume, allowing demand to catch up with supply. Expect landlords and tenants to consider more options as the Denver market goes through a period of transition.

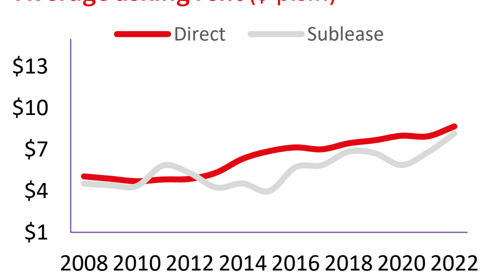
Supply and demand (s.f.)



Total vacancy (%)



Average asking rent ($ p.s.f.)



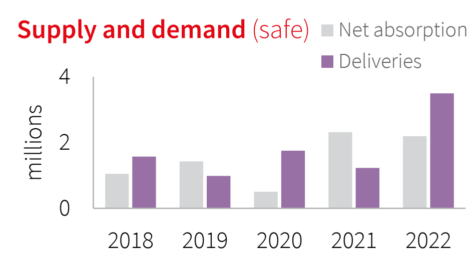
For more information, contact: Brandon Rosely | Brandon.Rosely@jll.com

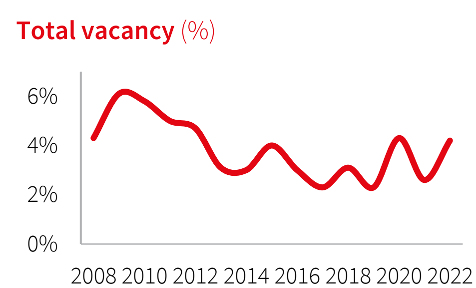
Des Moines

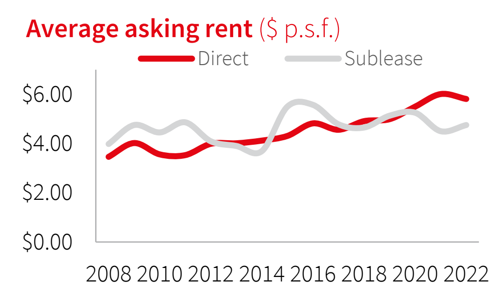
Over 1.4 million s.f. of speculative warehouse space delivered in Q4

- The East and North submarkets contributed to the majority of the positive absorption for the Des Moines market in 2022 (89%). These two submarkets had all the speculative warehouse completions during the fourth quarter and have 860,000 s.f. of speculative space under construction going into 2023.
- Echo Electric completed their new 101,000 s.f.-warehouse at 6610 SE Delaware Avenue in Ankeny. They moved from their previous location at 2nd Avenue and I-80/35 in north Des Moines.

Fundamentals	Forecast
YTD net absorption	2,243,032 s.f. ▲
Under construction	1,670,457 s.f. ▶
Total vacancy	4.2% ▲
Sublease vacancy	52,000 ▶
Direct asking rent	$5.81 p.s.f. ▶
Sublease asking rent	$4.83 p.s.f. ▶
Concessions	Stable ▶







Six speculative warehouses completed construction in Q4 2022. VanTrust finished Altus Commerce Center Building C (496,800 s.f.). Opus/Ilex completed two warehouse buildings at Northridge 80|35 (164,000 s.f. & 186,000 s.f.). Chapman Distribution Center was completed by Ryan Companies (200,494 s.f.). Signature Real Estate finished their second building at Commerce Crossing in Altoona (195,500 s.f.). Endeavor Development entered the Des Moines market with their first constructed warehouse (180,000 s.f.).

The largest sale of the quarter was 7400 SE Convenience Drive in Ankeny (Swanwood Logistics Center II). Opus sold the 296,000 s.f.-warehouse to Brown NationaLease for $27.4 million. Brown will utilize a portion of the building and lease the remainder. Brown also owns Swanwood Logistics Center I directly north of Swanwood II. Opus completed that 274,000 s.f. build-to-suit for Brown in 2021.

In Q4, the largest lease signed was JT Logistics at Altus Commerce Center Building A (265,000 s.f.) in Altoona. Other large leases included John Deere at 7305 SE Crosswinds (155,000 s.f.), Vermeer at 1835 NE Broadway (108,000 s.f.) and Benson Hill at 1000 Commerce Parkway (108,000 s.f.).

Outlook

The industrial market will have new availabilities to absorb in 2023. Look for supply to increase with more projects being completed in the West submarket. There are four projects totaling 757,000 s.f. that will be completed in Q1 2023. Expect these buildings and the new warehouses in the East and West submarkets to lease up in the next 18 months. We anticipate industrial demand in Des Moines to remain strong throughout 2023 as the global economy works to alleviate supply chain constraints.

For more information, contact: Eric Land| eric.land@jll.com

Detroit

Automotive and EV activity highlight end of year in Detroit industrial market

- New leases in the 500,000-s.f. and up segment that have been prevalent throughout the latest construction cycle were notably absent in Q4.
- Many of the requirements in the market were met in 2022, and should new construction not see healthy leasing activity, there could be a level of stagnation later in 2023.
- Automotive activity across the region has been increasing significantly over the past 18 months and is expected to continue to ramp up moving forward as automakers continue their EV push.

Despite shifting economic sentiment, Q4 was once again a strong quarter, closing the book on yet another excellent year for the Detroit industrial market. Just under 8.0 million s.f. of space was absorbed across the market throughout 2022, along with the delivery of 5.9 million s.f. of new construction. Total vacancy across the market has fallen to 4.4%, while average asking rents sit at $6.62 p.s.f., up 4.9% year-over-year.

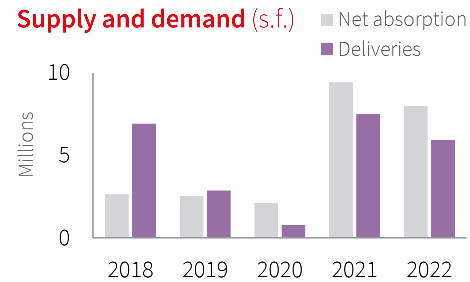
While leasing activity was healthy in Q4, notably absent were new leases in the 500,000-s.f. and up range that have been prevalent throughout the latest construction cycle. DHL signed a lease for 102,000 s.f. at Livonia West Commerce Center, while in Brownstown, GM and Venture Logistics took 153,000 s.f. and 93,000 s.f. respectively at Brownstown Business Center. Automotive users continue to make headlines and announcements related to EV assembly and EV batteries. Magna, Lear and Tesla all announced new investment in the region in Q4 and Stellantis is weighing a new plant in Michigan as well, but the state will have regional competition for the site. Automotive activity across the metro Detroit region has been increasing significantly over the past 18 months and is expected to continue to ramp up moving forward as automakers continue their EV push.

Outlook

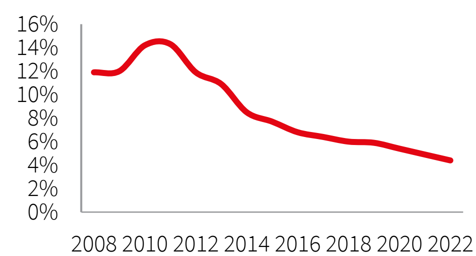
Looking ahead, we're keeping an eye on the development pipeline. With over 5.7 million s.f. under construction, much of which is speculative, it will be interesting to see how much of the space is pre-leased at delivery. Many of the requirements in the market were met in 2022, and should the new construction not see heavy pre-leasing activity, there is the possibility that the market could be overbuilt. At the same time, there is a possibility that increasing EV requirements will provide not just users for these new spaces, but potentially insulate the Detroit market from the nationwide slowdown in industrial activity. Either way, 2023 is set to be a big year for the market.

Fundamentals	Forecast
YTD net absorption	7,975,270 s.f. ▲
Under construction	5,660,144 s.f. ▲
Total vacancy	4.4% ▼
Sublease vacancy	1,701,005 s.f. ▶
Direct asking rent	$6.62 p.s.f. ▲
Sublease asking rent	$6.12 p.s.f. ▲
Concessions	Stable ▶

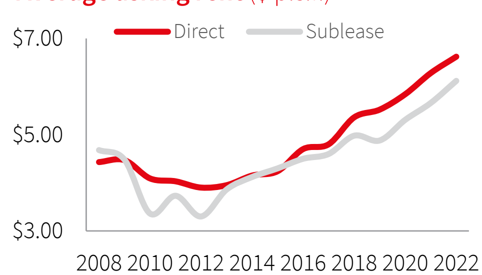
Supply and demand (s.f.)



Total vacancy (%)



Average asking rent ($ p.s.f.)



For more information, contact: Harrison West | harrison.west@am.jll.com

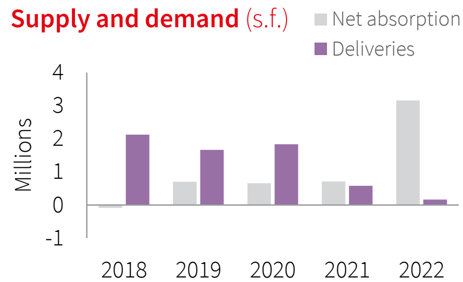
East Bay

East Bay's industrial market comes out of pandemic-era boom tighter as demand normalizes

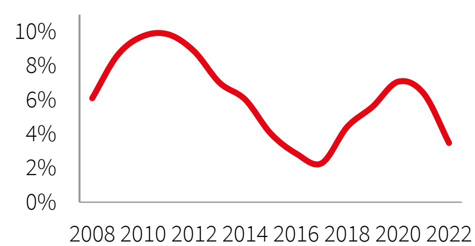
- Touring activity normalizes after Q1 2022 peak, albeit at a higher level than pre-pandemic counts.
- The vacancy rate continues to decline, falling to its lowest level since 2018.
- With capital markets frozen, investors are on the side-lines for land acquisitions and ground-breakings for new construction projects.

Fundamentals		Forecast
YTD net absorption	2,817,366 s.f.	▼
Under construction	2,053,919 s.f.	▼
Total vacancy	3.5 %	▼
Sublease vacancy	523,406 s.f.	▼
Direct asking rent	$1.32 p.s.f.	▲
Sublease asking rent	$1.10 p.s.f.	▶
Concessions	Stable	▶

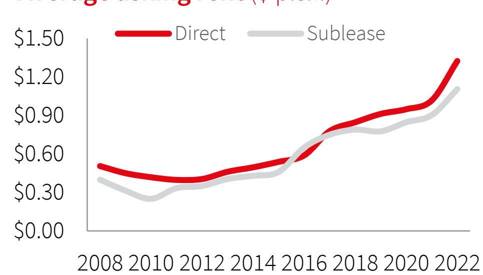
Supply and demand (s.f.)



Total vacancy (%)



Average asking rent ($ p.s.f.)



As rising interest rates crippled capital markets activity, leasing and touring activity are critical data points to understand the current health of the market. Touring activity in the East Bay peaked at 21.5 million s.f. in the first quarter of 2022, translating to 2.8 million square feet of positive net absorption for the year, the highest since 2016. Total tenant requirements have normalized between 7 to 8 million s.f. of active requirements. To put that into perspective, there are still more active tenants in the market than pre-pandemic levels of 5 to 6 million s.f., indicating there remains robust demand.

Although demand is normalizing, the East Bay remains tighter than 2019. With vacancy at 5.6% in 2019, the East Bay now sits at 3.5%. As long-time large-block availabilities have been absorbed throughout the year, only a handful of options remain. There are only five availabilities greater than 250,000 s.f. in a market that has eight requirements targeting that size. Similarly, there are 22 tenants in the 100,000 – 250,000 s.f. range, with only 11 current availabilities to match. Thus, similar volumes of pre-pandemic tenant requirements must compete now for even less space.

To exacerbate the supply-side constraints, the development pipeline is not being replenished at the same rate. In 2019, the East Bay saw 1.6 million s.f. deliver and another 1.8 million s.f the following year. This year, however, only 166,000 of new product has come online. Although there is 2.0 million s.f under development, 771,500 s.f. of which has already been pre-leased, this pipeline is set deliver of an extended period due to rising interest rates and construction costs. The result is new supply commands considerably higher leases rates to justify construction, triggering a pause in new speculative industrial development. Thus, as investors hold off on buying land and postpone ground-breaking on fully-entitled proposed buildings, few speculative buildings are likely to break ground in 2023.

Outlook

With the development pipeline continuing to dwindle, investor demand for land acquisitions at a cycle low, speculative projects being put on hold in conjunction with low vacancy and healthy demand, all signs point to continued rent growth. Although the double-digit rent growth that characterized much of 2022 is likely to taper, competition for limited spaces will continue to put upward pressure on rents.

For more information, contact: Joel Woodmass | Joel.Woodmass@am.jll.com

Eastern & Central PA

2022 finishes with record fundamentals despite economic headwinds

- Net absorption gains surpassed 35.0 million s.f., just below 2021's peak of 36.3 million s.f.
- Leasing velocity in H2 normalized back to pre-pandemic levels, as occupiers have become more judicious given the greater economic uncertainty.
- Construction volumes have dropped nearly 33.0% over the past 12 months due to a tougher entitlement and financing environment.
- Despite the uncertain economic environment, constrained vacancy and longer-term occupier demands are expected to keep the market favorable for landlords.

Fundamentals		Forecast
YTD net absorption	35,369,625 s.f.	▲
Under construction	30,750,111 s.f.	▶
Total vacancy	2.4%	▶
Sublease vacancy	669,582 s.f.	▲
Direct asking rent	$8.04 p.s.f.	▲
Sublease asking rent	$7.20 p.s.f.	▲
Concessions	Stable	▶

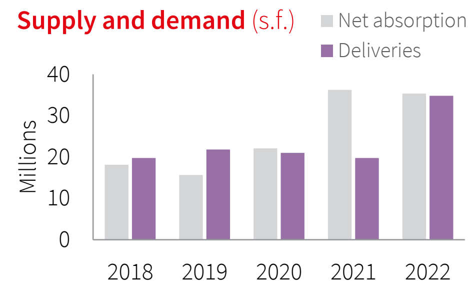
The Eastern & Central Pennsylvania market reached record heights in 2022, despite economic headwinds normalizing activity in the second half of the year. As the global economy emerged from the pandemic, the market recorded 36.2 million s.f. of leasing activity in H1, the highest level in the history. However, interest rate hikes, a financial market selloff and recessionary fears began to regulate tenant activity in the second half of the year, which resulted in 19.1 million s.f. of leasing in H2 (which is in line with pre-pandemic leasing volumes). The slowdown in leasing was largely due to a normalization in the 600,000+ size segment. From H1 2020-H1 2022, the market averaged 11.4 leases over 600,000 s.f. In H2 2022 there were just 3 leases signed over 600,000 s.f.

Although leasing volumes came off their breakneck pace, net absorption nearly matched 2021's all-time high and outpaced new supply for the third consecutive year, which drove vacancy to hyper-low levels of 2.4%. The tightness across the market has combined with inflationary pressures to cause asking rents to rise 22.6% year-over-year market-wide. The rise in rents has been broad-based, as all submarkets have seen 20.0%+ rent growth. Similarly, the rent growth has been consistent Class-wide, with the Class A segment growing 22.9% year-over-year.

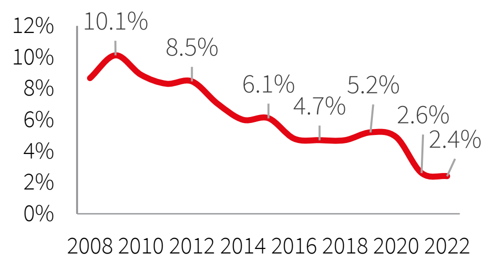
Outlook

JLL continues to track 43.9 million s.f. of active tenant requirements, which remains above pre-pandemic levels. The trends toward supply chain resiliency, port and population accessibility, on-shoring, and quicker delivery timelines all bode well for demand over the long-term. With that said, the economic situation's impact on near-term demand isn't entirely clear and will continue to play-out in 2023. Nonetheless, the market is expected to remain landlord favorable for years to come. The entitlement environment, combined with a challenged capital environment has already slowed construction activity to nearly 33.0% lower than year-end 2021. This, combined with the market's record low vacancy, will keep availability constrained. As a result, we expect continued rent growth, granted at a more regulated pace.

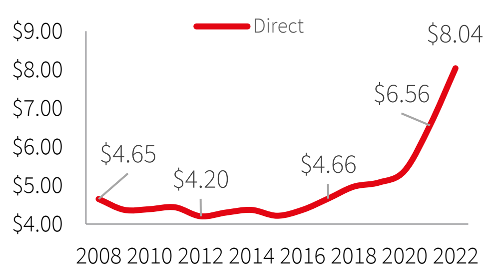
Supply and demand (s.f.)



Total vacancy (%)



Average asking rent ($ p.s.f.)



For more information, contact: Alex Kachris | alex.kachris@jll.com

Greensboro

Market expansion rate slows as capital market speculation persist

- Toyota plans to add $2.5 billion and 350 jobs to the $1.29 billion and 1,750 job previously announced
- East Greensboro saw the largest net absorption in Q4 2022 as built to suits and new to market tenants occupy new construction facilities

The Greensboro industrial market continues to expand as demand for warehouse and distribution space remains strong. The limited supply and low vacancy rate has led to a 37.4% Y-o-Y increase in rental rates. Although rates have increase significantly, Greensboro's industrial product offers tenants a discounted rate when compared to other Carolina markets. Due to its centralized location and proximity between Charlotte and Raleigh, the Greensboro market has garnered attention from out of market investors.

Development activity across the market remains robust despite delivering 3.6 million square feet in Q4 2022. The most notable delivery for Q4 2022 is the completion of 940,000 s.f. which is to be occupied by a grocery retailer aimed at expanding the facility by 1.2-million s.f. and adding more than 1,000 jobs by 2025. UPS announced a $54.2 million equipment expansion at its existing distribution hub, while investing $262 million into future 510,000 square foot facility.

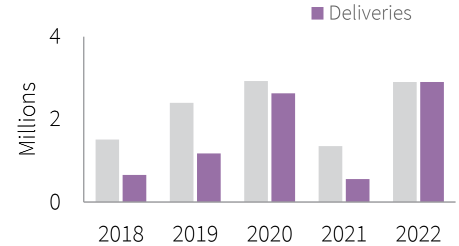
Interest rate increases have led a shorter list of active buyers of industrial space across the Carolinas, but Greensboro is able to provide highly functional facilities, providing mark-to-market opportunities. Brennan Investment Group sold a 324,650 s.f. facility in High Point for $24.4 million. Buildings with mid to long term WALT will continue to trade despite economic uncertainty. These asset provide investors with the opportunity to expand footprints in the market while remaining risk adverse.

Outlook

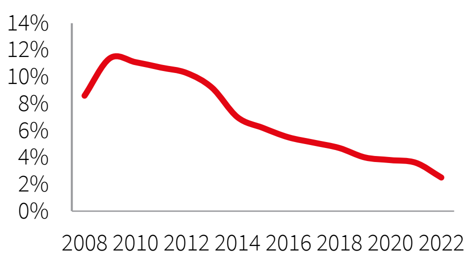
The Triad region's industrial economy will grow at a steady pace as much of the demand is over spill from both Charlotte and Raleigh markets. Piedmont Triad International Airport, rail access, and interstate connections prove to be key assets for users and investors. Five major interstates connect the Greensboro market to 60% of the U.S. population in a day's drive while GSO houses four air cargo facilities providing access to both gateway and international markets.

Fundamentals	Forecast	
YTD net absorption	3,556,683 s.f.	▲
Under construction	4,282,738 s.f.	▶
Total vacancy	2.5 %	▶
Sublease vacancy	36,000 s.f.	▶
Direct asking rent	$5.73 p.s.f.	▶
Sublease asking rent	$6.42 p.s.f.	▲
Concessions	Stable	▶

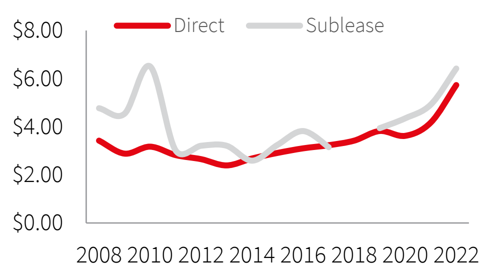
Supply and demand (s.f.)



Total vacancy (%)



Average asking rent ($ p.s.f.)



For more information, contact: Khaliid Scott | khaliid.scott@am.jll.com

Hampton Roads

BTS and pre-leased spec deliveries boost 2022 inventory, but available space remains scarce

- Vacancy remains low and absorption was limited to new deliveries that had been preleased.
- Asking rents have shot up in the past year, with Class A space reaching $7.50 p.s.f., with rents for existing space even higher if available.
- If Coastal Logsitics Center delivers without any preleasing, it will provide options to users who need 200,000 or more s.f., but the mid-sized users squeezed out won't find suitable space there.
- Developers are pausing to look at projects planned when capital costs were lower, but supply chain shifts to the East Coast and the Port of Virginia will drive demand for several years to come.

With the overall vacancy rate up only 10 basis points and no deliveries with available space, Q4 brought no relief for the significant supply constraints Hampton Roads has experienced since the second half of 2020. Delivery of Hampton's Harbor Commerce Center – a two-building project with one build-to-suit for Huntington Ingalls and the other leased by them during construction – more than offset the quarter's 48,000 s.f. of negative absorption in existing supply. Most of the vacancy increase that occurred was in Class C buildings, but Class A vacancy did climb to just under 16,000 s.f. from 0 s.f. at the end of Q3.

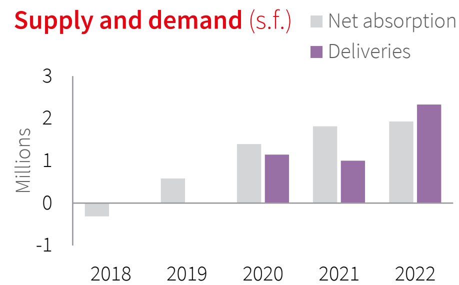
At $7.50 p.s.f. triple net, Class A asking rents increased by 29% year-over-year, while Class B rents rose 9% and Class C rents rose 21% over the same period. The Class A rate reflects the fact that most available space is either under construction or short-term proposed. Existing space within the Hampton Roads Beltway can run $1.00 to $1.50 more when available, will receive multiple proposals, and will be leased well in advance of the previous occupier's move-out date. Competition between prospective tenants remains very high, and landlords weighing several offers can reject a prospect as simple as requesting too many changes to a standard lease.

Outlook

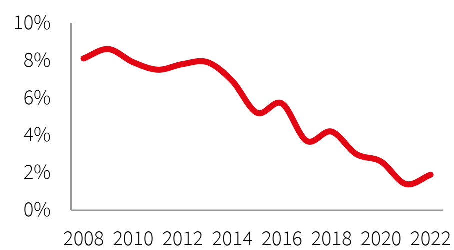
Most of the space expected to deliver within the next six months has already been spoken for, but no commitments have been announced for Flint's 814,000-s.f. Coastal Logistics Center, expected to deliver in Q1, although the minimum divisible size of 200,000 s.f. is unsuitable for the 50,000 to 100,000 mid-sized users unable to secure expansion space. While there are projects proposed for that size range, developers are pausing groundbreakings to reevaluate expected returns in the face of higher interest rates. Construction will likely slow in the short term, but the shift in supply chains and import facilities to the East Coast is just beginning, with demand and construction to meet it expected to remain strong through the next several years.

Fundamentals	Forecast
YTD net absorption	1,929,092 s.f. ▲
Under construction	3,047,275 s.f. ▶
Total vacancy	1.9% ▶
Sublease vacancy	89,182 s.f. ▶
Direct asking rent	$6.68 p.s.f. ▲
Sublease asking rent	$7.73 p.s.f. ▲
Concessions	Stable ▶

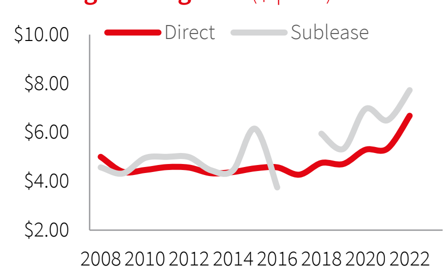
Supply and demand (s.f.)



Total vacancy (%)



Average asking rent ($ p.s.f.)



For more information, contact: Michael Metzger| michael.metzger@jll.com

Houston

Strong occupier demand continues to outpace new supply additions

- Net absorption far exceeded deliveries (27.5 m.s.f. vs. 20.8 m.s.f.), pushing vacancy down to 2019 levels at 5.9%
- Rent growth significantly accelerated over the year, driving an 18.3% increase in achieved starting rents between 2H 2021 and 2H 2022
- Leasing activity topped 10 million s.f. in the final quarter for an annual total of nearly 50 million s.f. of deal volume
- The year's chart-topping 36 million s.f. of ground-breakings led to a new construction high of 29 million s.f. underway in Q4

Houston's prominence in regional, national and global supply chain networks was undeniable in 2022. Q4's nearly six million s.f. of net absorption pushed the 2022 total to a record 27.5 million s.f. of occupancy gains. The five largest Q4 move-ins occurred in the Southeast and West submarkets, the most notable being a one-million-s.f. new-to-market tenant at Empire West. The market's 20.8 million s.f. of annual completions failed to keep pace with demand, driving vacancy down 50 basis points quarter-over-quarter and 160 basis points year-over-year to 5.9%. Of the major submarkets, vacancy remained the tightest by far in the Southeast, where it fell to 3.7%.

Another 10.2 million s.f. of leases were signed in the final quarter, led by four big-box deals, for a grand total of 49.2 million s.f. of leasing activity. Many of these deals have yet to commence, taking occupancy as new projects deliver, and setting up 2023 for continued strong net absorption. Starting rents grew markedly, especially in the second half of the year, climbing 18.3% from the same period in 2021. While rate increases have given some tenants pause, it has not stopped them from transacting, and competition for space remained fierce.

More than 36 million s.f. of new supply kicked off this year to meet the demands of the region's diverse and expanding tenant base. Q4 ended with 29 million s.f. under construction, still led by activity in the Southeast and West, and the total pipeline was 34.8% preleased. A large retailer's new 1.4-million-s.f. build to suit kicked off in the Northeast submarket and now marks the largest project underway in Houston.

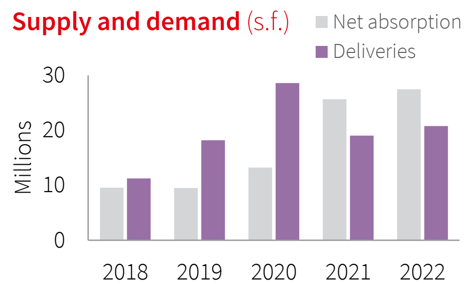
Outlook

A growing population, successful port, and proximity to other major Texas markets are expected to keep Houston at the forefront of leasing and investment decisions. Additionally, rent growth and annual escalations will likely carry significant momentum into 2023, while construction activity should sharply decelerate in response to financing challenges. All of this leaves Houston well-positioned to navigate potential headwinds and maintain strong performance in the year ahead.

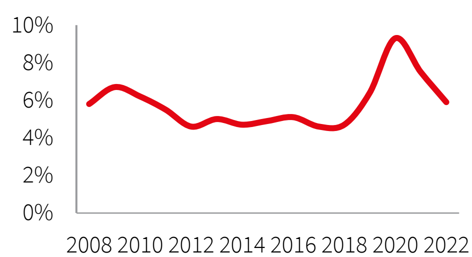
For more information, contact: Rachel Alexander | rachel.alexander@am.jll.com

Fundamentals	Forecast
YTD net absorption	27,464,367 s.f. ▲
Under construction	29,035,468 s.f. ▼
Total vacancy	5.9% ▼
Sublease vacancy	1,435,279 s.f. ▶
Direct asking rent	$0.55 p.s.f. ▲
Sublease asking rent	$0.49 p.s.f. ▲
Concessions	Stable ▶

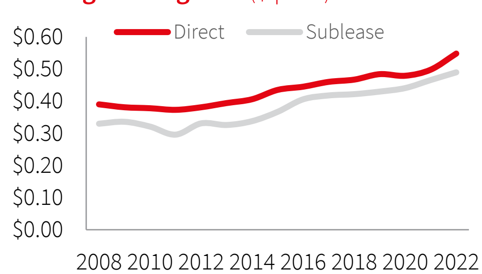
Supply and demand (s.f.)



Total vacancy (%)



Average asking rent ($ p.s.f.)



Indianapolis

Unprecedented growth the hallmark of 2022

- Quarterly net absorption topped 4 million s.f. for the 7th consecutive quarter and annual absorption fell just shy of 20 million s.f.
- Overall asking rents continue to climb, up $0.50 quarter-over-quarter and $1.00 year-over-year.
- 24.5 million s.f. delivered in 2022. This nearly matches the previous two years combined and beats the previous mark by 10 million s.f.
- Despite record-shattering deliveries, vacancy remains well below historical averages, but availability exceeds 11% for the first time.

Fundamentals	Forecast	
YTD net absorption	19,632,438 s.f.	▶
Under construction	22,115,092 s.f.	▶
Total vacancy	5.4%	▲
Sublease vacancy	821,982 s.f.	▶
Direct asking rent	$5.51 p.s.f.	▲
Sublease asking rent	$6.27 p.s.f.	▶
Concessions	Stable	▶

2022 was a year like no other for the Indianapolis industrial market. 24.5 million s.f. of new product delivered this year. This new inventory helped the market achieve almost 20 million s.f. of positive net absorption. In addition, average asking rents now exceed $5.50 per square foot and availability tops 11%. The yearly deliveries, occupancy growth, rental and availably rates posted to close out 2022 all established new records for Indianapolis.

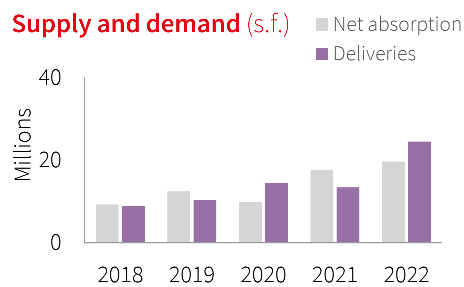
Supply exceeded demand for only the second time in the last five years in 2022. With most of this construction being speculative in nature, overall vacancy rose by 1.2 percentage points since Q3. However, vacancy remains well below the 20-year historical average of 7.1%. More than 22 million s.f. remains under construction and has availability above 11% for the first time. Further, overall industrial availability exceeds 10% at year-end for the second year in a row. This has only happened two other times since 2000.

Demand remains high for these new modern distribution centers. Over 40% of construction projects delivered this year did so preleased. Additionally, nearly 30% of the product still under construction already has preleasing in place. Further, asking rents among the current pipeline are coming in at a 5% premium.

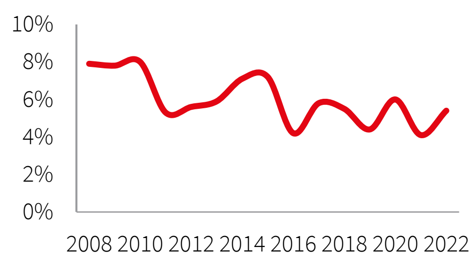
Outlook

By this time next year, Indianapolis will have industrial inventory greater than 310 million s.f. Almost 25% of this inventory will have delivered since 2020. This helps establish Indianapolis as one of the preeminent locations for companies seeking warehouse space, not only today but for years to come.

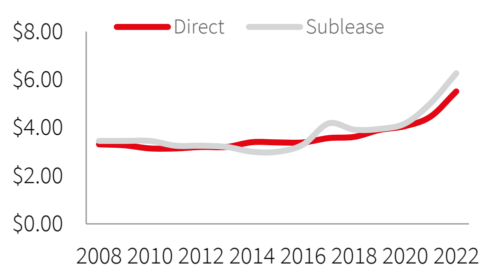
Supply and demand (s.f.)



Total vacancy (%)



Average asking rent ($ p.s.f.)



For more information, contact: Mike Cagna | mike.cagna@am.jll.com

Inland Empire

Year of changes highlighted by new development, new locations and size segment divergence

- Large block leasing activity continues with two leases over 1 million s.f. in Q4, bringing 2022 year-to-date tally to 11
- 100,000 to 200,000 s.f. size segment is over-supplied, but demand for larger space remains robust with zero vacancy above 225,000 s.f.
- IE East doubled IE West in YTD net absorption, showing a shift towards 'outer markets' like Banning, High Desert, and CV South
- 40 million s.f. of new development is slated to deliver within the next two years and developers are reevaluating future planned projects

Demand for mega blocks in the IE continued through Q4 as Under Armour and Sketchers both inked 1 million s.f. leases in the IE East submarket. There were 12 additional leases larger than 200,000 s.f. market-wide with logistics companies accounting for nearly one-third of the volume. Looking back on 2022, the largest single-story industrial lease nationwide was signed by United Legwear in IE East for 1.8 million s.f., where the building is currently under construction and set to deliver in 2023. 2022 saw the race to build industrial in the IE leading to the overdevelopment of 100,000 to 200,000 s.f. 'smaller' buildings, owing primarily to the ease of entitlement of spaces below the 200,000 s.f. threshold. As users shift away from fast and easy entry into IE and focus on long-term investment in their supply chain, demand for quality 'larger' spaces over 200,000 s.f. is replacing demand for 'smaller' ones. Since last quarter, vacancy in the 'smaller' size rose to 2.9%, nearly triple the market average, causing average market-wide asking rents to fall by 7% in that segment. There are also zero vacancies market-wide in buildings larger than 225,000 s.f., causing rents in that segment to rise 7% since Q3. Ultimately, rental rates in the big box segment will remain elevated as big block options are tied up in new development.

Like size, the story of location is also nuanced. As labor has migrated east and north in search of lower cost of living, real estate has followed. Although drayage to the 'outer markets' can be significantly higher than LA and the IE, the benefit of proximity to partners for B2B transactions can outweigh the costs. Additionally, net absorption in the IE East doubled IE West by the end of the year. While market-wide quarterly net absorption was essentially flat for the first time in 23 quarters, the year ended with positive total net absorption of nearly 11 million s.f. During Q4, just over 2 million s.f. of new supply was delivered to the market, 70% of which was in the IE East with 50% pre-leased.

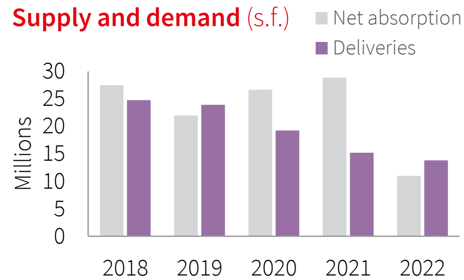
Outlook

The current development pipeline closes out 2022 with the largest year-end value on record, exceeding the five-year annual average by 52%. Given economic headwinds and the 40 million s.f. under construction, developers may reevaluate proposed projects and how they fit in this changing market.

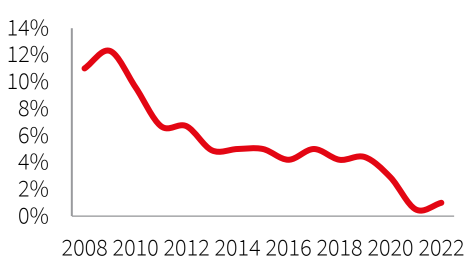
For more information, contact: Logan Hood logan.hood@jll.com

Fundamentals	Forecast
YTD net absorption	10,987,255 s.f. ▲
Under construction	40,649,018 s.f. ▶
Total vacancy	1.0% ▶
Sublease vacancy	488,640 s.f. ▲
Direct asking rent	$1.62 p.s.f. ▶
Sublease asking rent	$1.35 p.s.f. ▶
Concessions	Stable ▶

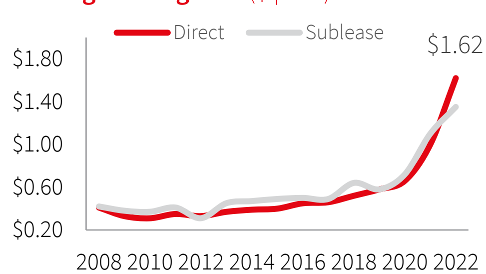
Supply and demand (s.f.)



Total vacancy (%)



Average asking rent ($ p.s.f.)



Jacksonville

Strong close to 2022 with historically low vacancy, record development and positive absorption

- Total vacancy dropped 130 bps to a record low of 2.7% this quarter
- Almost 7 million s.f. across 24 buildings remains under construction at the close of the year
- Less than 10% of the new space delivered this year remains available to lease
- Over 4 million s.f. of space was absorbed this year, a near record volume

Fundamentals		Forecast
YTD net absorption	4,025,008 s.f.	▲
Under construction	6,894,231 s.f.	▼
Total vacancy	2.7 %	▶
Sublease vacancy	117,328 s.f.	▼
Direct asking rent	$6.41 p.s.f.	▲
Sublease asking rent	$8.95 p.s.f.	▲
Concessions	Stable	▶

This quarter closed out a record-breaking year for the Jacksonville industrial market. Almost 7 million s.f. of new space is under construction, including two buildings over one million s.f. 95% of the new development is in the Northside and Westside submarkets, with Imeson Park South and Florida Gateway Logistics accounting for about 50% of the total square footage.

Despite delays, over 1.1 million s.f. delivered this quarter, pushing year-to-date completions to just shy of 3 million s.f. Limited availabilities in existing buildings has resulted in strong leasing activity in new product. Of the new space delivered this year, less than 10% remains available to lease.

Consistent demand is also reflected in the record low vacancy rate, and near historic absorption recorded this year. This quarter's historic 2.7% total vacancy rate marked the second consecutive quarter of sub-3% vacancy. Further, over 1 million s.f. was absorbed this quarter, pushing year-to-date absorption to 4 million s.f. Unsurprisingly, the Northside submarket accounted for a vast majority of the activity, both this quarter, and this year.

Following a dip in asking rents recorded last quarter due to ground-breakings on major construction projects, rents rebounded quickly. This year closed out with average asking rents at a record $6.42 p.s.f. NNN, marking a staggering 18.2% increase year-over-year.

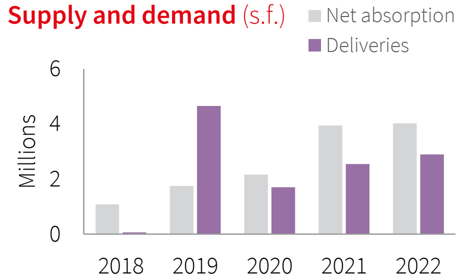
Though decision makers are now facing economic headwinds, and larger tenants are assessing their space needs, historically low vacancy, infrastructural improvements, especially at JAXPORT, and consistent in-migration of new residents, should help off-set some economic challenges heading into next year.

Outlook

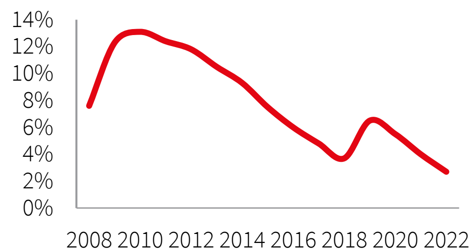
Jacksonville's abundance of high-quality space under construction, relative affordability, and continuing infrastructural improvements positions the market well heading into 2023.

For more information, contact: Rachel Dickinson | rachel.dickinson@am.jll.com

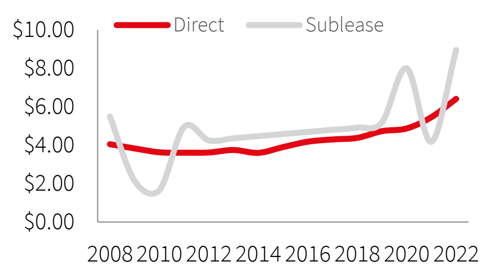
Supply and demand (s.f.)



Total vacancy (%)



Average asking rent ($ p.s.f.)



Kansas City

Record absorption, peaking new construction and steady rent growth are defining traits in 2022

- Absorption exceeded 12 million s.f. on the year, setting a new market record. Move-ins this quarter were concentrated in Johnson County and the Northland submarket.
- The construction pipeline decreased for the first time this year as completions outpaced new starts.
- Rents continue to grow steadily and modestly. Demand for spaces between 50,000 and 200,000 s.f. continue to drive drive rent growth.

Fundamentals	Forecast	
YTD net absorption	12,516,614 s.f.	▼
Under construction	10,457,302 s.f.	▶
Total vacancy	3.9%	▼
Sublease vacancy	20,938 s.f.	▶
Direct asking rent	$5.03 p.s.f.	▲
Sublease asking rent	$6.00 p.s.f.	▶
Concessions	Stable	▶

The final quarter of 2022 saw a tremendous amount of occupancy in buildings completed this year, contributing to a new record in single year absorption. Johnson County and the Northland submarket were the clear leaders; 11 spaces over 100,000 s.f. each were occupied this quarter in these submarkets. Modern bulk product in both submarkets is in high demand and spaces typically are leased during construction or quickly after completion. Companies in a variety of industries are responsible for this activity; this quarter saw automotive manufacturers and suppliers, food manufacturers and apparel firms as some of the biggest occupiers.

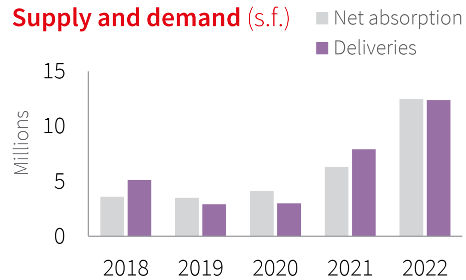
Industrial product under construction decreased for the first time in 2022, from over 13 million s.f. to just under 10.5 million s.f. as completions outpaced groundbreakings. Some of the decrease in new construction starts can be attributed to planned projects delaying groundbreakings or pushing back construction timelines in the face of a higher interest rate environment. Not to mention, nearly 40% of the construction pipeline delivered in Q4.

Rent growth continued this quarter, and throughout 2022 that growth path was unprecedented. Lease agreements saw increases in final agreed upon terms not seen in decades, especially in new construction. Average asking rents exceed $5.00 per s.f. and the source of that growth continues to be spaces over 100,000 s.f.

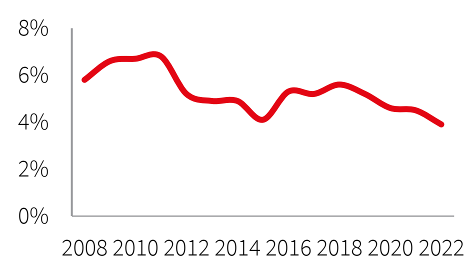
Outlook

Macroeconomic headwinds are anticipated in 2023 as the Federal Reserve continues to raise interest rates to tame inflation. There is some evidence that the current lending environment is causing pauses in planned new construction projects. Yet demand in many segments of the market shows few signs of a similar pullback. Vacancy and rents still have room to fall and grow respectively before they reach levels the market's projected peak. The pace of new construction going into 2023 remains strong, outpacing the levels seen at any point before 2022 and is anticipated to meet market demand.

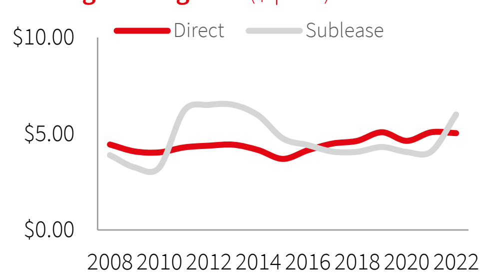
Supply and demand (s.f.)



Total vacancy (%)



Average asking rent ($ p.s.f.)



For more information, contact: Chris Jackson | chris.jackson1@jll.com

Las Vegas

Unprecedented growth leads to a record-setting year

- More than eight million s.f. delivered in 2022, a new Vegas record. This nearly matches the total from the previous two years combined.
- Occupancy growth also reached a new highwater mark, exceeding eight million s.f. for the first time.
- Strong demand for this new product continues to push total asking rents higher, up 10% quarter-over-quarter and 30% year-over-year.
- Pricing has begun to flatten for both existing inventory and land sites providing an opportunity for entry into the market.

Fundamentals	Forecast
YTD net absorption	8,474,656 s.f. ▶
Under construction	7,411,715 s.f. ▶
Total vacancy	2.6% ▶
Sublease vacancy	366,201 s.f. ▶
Direct asking rent	$11.22 p.s.f. ▶
Sublease asking rent	$10.03 p.s.f. ▶
Concessions	Stable ▶

Demand for industrial space in Las Vegas continues to outpace supply for the second year in a row. For the first time, eight million s.f. of new product delivered, but was surpassed by 8.5 million s.f. of positive net absorption. This exceeds the previous record established just last year. As a result, the market remains highly constricted with current availability rates below 6% and vacancy rates even lower at sub 3%. A tight market continues to place upward pressure on total asking rents which now approach $11.25 p.s.f., a 30% increase from last year.

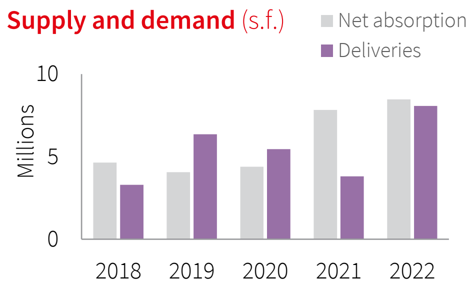
Continued demand in the big box arena, primarily from large 3PLs and distribution type users remains at the forefront of industrial activity. Where the market experienced its first seasonal slowdown in recent years towards the end of Q4, large big box leasing continued. Crane Worldwide Logistics, Spector & Co. and L.A. Specialty Produce are just some of the end users that signed deals in the 100,000-s.f. range this quarter, all at record rents. Look for this trend to continue into 2023 as multiple requirements remain in the market seeking space in this size range.

Outlook

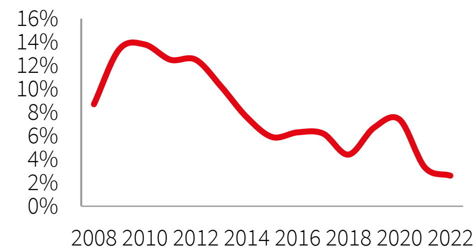
Uncertainty regarding interest rates, construction costs and the ability to secure capital offers challenges but also opportunities heading into 2023. As interest rates rose, pricing on both land and building acquisitions were impacted. Some pricing lowered by as much as 20-25% and cap rates have moved almost 200 basis points from the lows seen earlier in the year.

While this has some groups tapping the breaks in the short term, it provides opportunities for those with capital or able to secure financing as land pricing lowers and projects adjust. Leasing fundamentals remain strong in Las Vegas with demand for space still at record highs and asking rents reflective of that demand. Look for this to continue into the new year and render any pause in further construction to be brief.

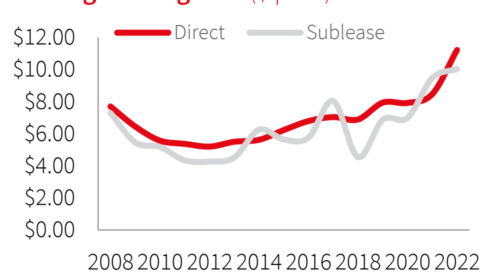
Supply and demand (s.f.)



Total vacancy (%)



Average asking rent ($ p.s.f.)



For more information, contact: Mike Cagna| mike.cagna@jll.com

Los Angeles

Amid economic headwinds and softening in the second half of 2022, large leasing remains active

- Q4 saw large block move-outs overpowering move-ins, leading to negative 2.1 million s.f. of negative absorption.
- Cooling of demand caused asking rent growth to decline for the first time in over 16 quarters but still up 42% year-over-year.
- Although fundamentals softened, large block leasing and new construction remained active during Q4.
- Despite macro-economic factors and a decrease in cargo traffic through the SoCal ports, rents and vacancy remain stable

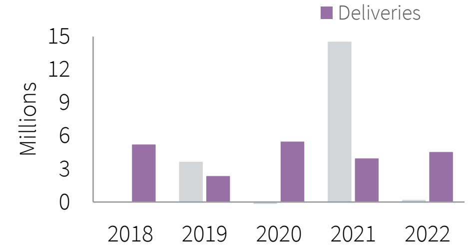
Fundamentals	Forecast
YTD net absorption	189,931 s.f. ▲
Under construction	6,834,284 s.f. ▶
Total vacancy	1.4% ▲
Sublease vacancy	907,924 s.f. ▲
Direct asking rent	$1.74 p.s.f. ▶
Sublease asking rent	$1.49 p.s.f. ▼
Concessions	Stable ▶

During Q4, the Los Angeles industrial market saw the cumulative effects of macro-economic challenges that had built throughout 2022. Large block tenant move-outs 100,000 s.f. and greater saw tenants vacating a total of 1.4 million s.f., led by two consumer product manufacturers. As a result, the market posted 2.1 million s.f. of negative net absorption for all size segments over the quarter, causing vacancy to rise 30 bps since Q3. Due to three consecutive quarters of flat-to-negative absorption and a rise in 2nd generation space on the market, average rents fell by 3% from Q3, the first decrease since Q2 2018. Following 2021's record year of net absorption, 2022 ended relatively flat but asking rates still rose 42% year-over-year.

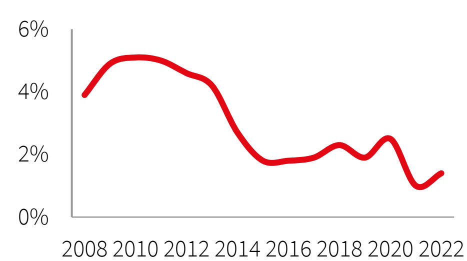
Despite move-outs, ten leases over 100,000 s.f. were signed during Q4, the bulk of which were represented by high-profile tenants. Ryder Logistics signed a new lease for 1 million s.f. at Grand Crossing South in the City of Industry, a new development currently under construction and slated for completion in mid-2023. GXO Logistics renewed 411,000 s.f. at the SFS Logistics Center in Santa Fe Springs and SEKO Logistics inked a new lease for 198,000 s.f. in Carson.

The current construction pipeline grew by 1.6 million s.f. in Q4, a welcome sign for large users seeking accommodations for modern logistics needs. The San Gabriel Valley and South Bay submarkets are now home to 80% of the active development, where there are more options to build at scale. Demand for space in these submarkets remains high because of proximity to ports and entry into the Inland Empire, with pre-leasing rates at 53%. The Mid-Counties submarket has the tightest vacancy and minimal construction pipeline, causing rental rates to hold steady, seeing a 56% year-over-year increase.

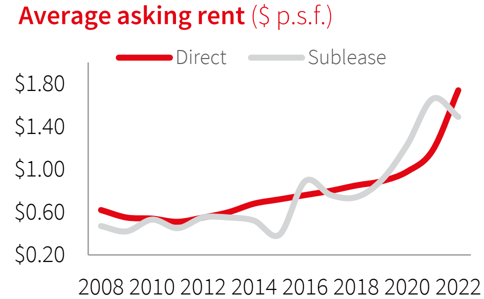
Supply and demand (s.f.)



Total vacancy (%)



Average asking rent ($ p.s.f.)



Outlook

Although sentiment fell in the second half of 2022, owing to economic headwinds and a decrease in port activity, industrial forecasts remain optimistic. Industrial sector jobs lost due to the pandemic have recovered to nearly 99% as of Q4 2022, growing 3% year-over-year and providing continued confidence in the strength of Los Angeles' market.

For more information, contact: Logan Hood logan.hood@am.jll.com

Long Island

Market records best year ever despite greater economic uncertainty

- Leasing volume reached a record 3.5 million s.f. this year, as tenants continued to expand their last mile operations to fulfill consumer and business demand on the island
- The spike in leasing volume helped drive absorption to 1.0 million s.f. for the first time in history
- 653,330 s.f. of what is currently under construction remains available for lease, giving new market entrants the ability to transact on new logistics space

Despite a greater economic uncertainty, Long Island closed 2022 recording its best year on record. 3.5 million s.f. was leased over the past 12 months, as tenants continued to expand their last mile operations to fulfill consumer and business demand on the island. The record year of leasing was broad based across asset Classes, as the Class A segment saw 831,849 s.f. of leasing, the Class B segment recorded 1.6 million s.f. and the Class C segment recorded 1.1 million s.f. This diversified activity demonstrates the widespread need by both local and national users to service the market reliably. Specifically in Q4, transaction volume was 43.4% higher than the previous quarter. Of note, Time-Cap Labs Inc leased 95,150 s.f. at Hartz's 235 Pinelawn Rd in Melville, the first lease at the 599,983 s.f. new construction building. The spike in leasing helped drive absorption to 1.0 million s.f. for the first time in history. Such strength across market fundamentals has fueled sales activity to its biggest year in history, reaching $564.3 million in 2022.

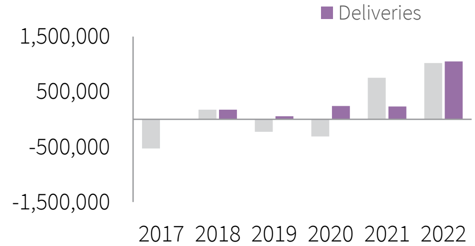
653,330 s.f. of what is currently under construction remains available for lease, giving new market entrants the ability to transact on new logistics space. As a result of this new construction activity, overall average asking rents are now approaching $18.00 p.s.f. with the Class A segment asking as high as $24.00 p.s.f. It is also worth noting that the current projects under construction have been more tailored to fit the typical tenant of Long Island, as the six projects being built have average floor plates of 121,483 s.f.

Outlook

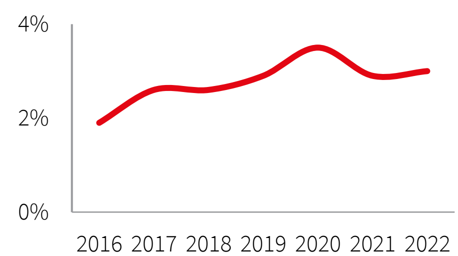
JLL is currently tracking 18 requirements in the 100,000 s.f. to 200,000 s.f. size range, which suggests there are ample prospective tenants for the current under construction stock. However, given the evolving macroeconomic environment we will continue to monitor tenants' willingness and ability to transact. With that said, constrained vacancy is expected to keep the market in favor of landlords, which should cause rents to hold strong and grow modestly in 2023.

Fundamentals	Forecast
YTD net absorption	1,019,789 s.f. ▲
Under construction	728,895 s.f. ▲
Total vacancy	3.0% ▶
Sublease vacancy	165,579 s.f. ▶
Direct asking rent	$17.90 p.s.f. ▲
Concessions	Stable ▶

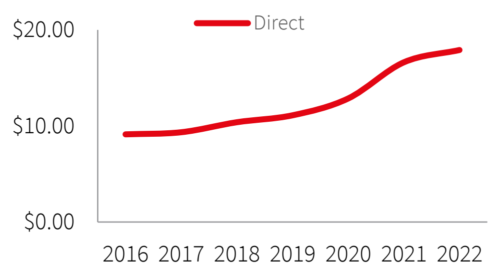
Supply and demand (s.f.)



Total vacancy (%)



Average asking rent ($ p.s.f.)



For more information, contact: Federico Marin | federico.marin@am.jll.com

Louisville

Leasing and sales activity remains strong

- Over 9.0 m.s.f. of product delivered in 2022, almost double 2020's previous record high
- TradeLane Properties purchased the vacant 572,000 s.f. building at 458 Pope Farm Road
- 67% of product delivered year to date has been leased

The Louisville industrial market experienced a strong year-end push, driving net absorption above 5.8 m.s.f. Despite the impressive leasing velocity, vacancy continued to increase as several speculative projects delivered in the 4th quarter. In total, 26 projects totaling over 9.0 m.s.f. were completed in 2022, setting a market record. The construction completions provide opportunities for tenants looking to expand into and within the market, which was not possible during the first half of 2022 due to record low vacancy.

While the rise in availabilities provides additional options for tenants, the options are unlikely to remain available long-term. JLL is tracking 2.9 m.s.f. of leasing prospects / occupiers that could finalize deals during the first two quarters of 2023. The current scenario is reminiscent of year-end 2020, which was the last time deliveries outpaced absorption and vacancy rose to 8.4%. By mid-year 2020 the rate had dropped 3 points, and by year-end the vacancy rate compressed to 2.4%. We expect that the vacancy rate will fall 1.5 points by mid-year and is likely to continuing falling through year-end 2023.

Unlike 2020, uncertain economic conditions have throttled down new construction. 5.5 m.s.f. of product is currently in production; however, only 559,000 s.f. of new starts broke ground in the 4th quarter, with several developers electing to drop significant developments. The Louisville industrial market has delivered over 20 m.s.f. since 2018 and will need to sustain this pace over the next several years to keep pace with projected leasing activity.

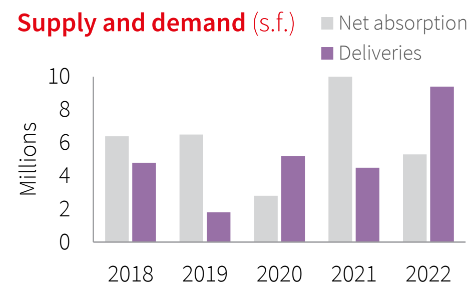
Outlook

2022 was another good year for the Louisville industrial market with strong leasing activity and record development. We expect leasing velocity to continue into 2023; however, development is predicted to slow. The impact of this pullback in development will likely be felt in 12-18 months, but a lack of available product is something we will continue to monitor.

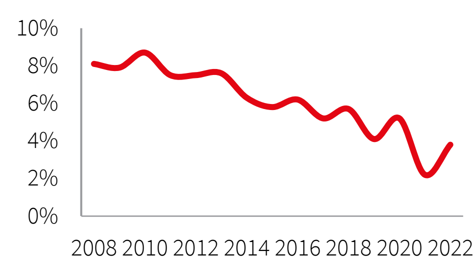
For more information, contact: Alex Westcott| alex.westcott@am.jll.com

Fundamentals	Forecast
YTD net absorption	5,356,367 ▲
Under construction	5,599,090 ▶
Total vacancy	3.8% ▶
Sublease vacancy	851,305 ▶
Direct asking rent	$5.17 p.s.f. ▶
Sublease asking rent	$5.09 p.s.f. ▼
Concessions	Stable ▲

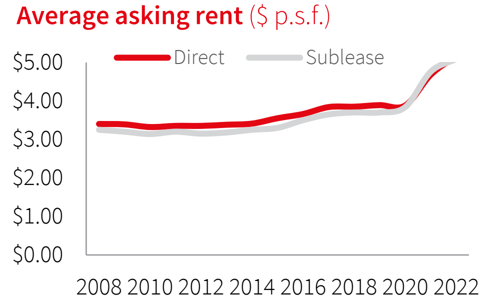
Supply and demand (s.f.)



Total vacancy (%)



Average asking rent ($ p.s.f.)



Memphis

Total vacancy remains at record low as demand outpaces supply for second consecutive year

- Despite 8.8 million s.f. of completions, total vacancy dropped 100 basis points year-over-year to a year-end record low of 5.7%
- Three first-generation warehouses totaling 2.3 million s.f. were occupied in Q4, increasing annual net absorption to 10.1 million s.f.
- Although groundbreakings slowed in Q4, forecasted demand and multi-sector momentum suggest another strong year is ahead

Fundamentals		Forecast
YTD net absorption	10,130,394 s.f.	▲
Under construction	7,797,719 s.f.	▶
Total vacancy	5.7%	▼
Sublease vacancy	812,204 s.f.	▶
Direct asking rent	$4.72 p.s.f.	▲
Sublease asking rent	$4.36 p.s.f.	▶
Concessions	Stable	▶

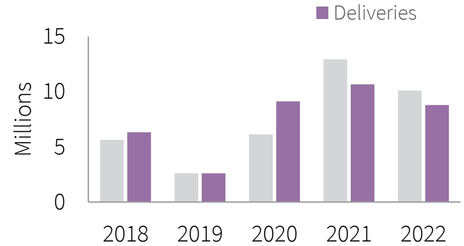
For a second consecutive year, warehouse demand outpaced new supply across the Memphis industrial market. In 2021, it was a record-setting year with both completions and absorption topping 14 million s.f. A similar story played out in 2022 with leasing activity in Q4 aiding the bump in annual net absorption. Three significant new warehouses were occupied in the Desoto County submarket of northern Mississippi. Associated Wholesale Grocers (1 million s.f.), Saks Fifth Ave (863,000 s.f.), and Wheeler Fleet Solutions (449,000 s.f.) are among the bulk users that moved into new product within the submarket. This activity played a major role in boosting net absorption to over 10 million s.f. for the year, a 1.3-million-s.f. advantage compared to annual completions.

The 8.8 million s.f. of completions in 2022 marks the third highest annual total in market history. Although 75% of completions were speculative construction, robust leasing activity slashed total vacancy to a year-end record low of 5.7%. Falling vacancy and the level of new construction are directly impacting asking rates. Direct average asking rents increased to $4.72 p.s.f., a 20% increase year-over-year and a 34% increase since 2020. Yet, despite the significant increase, the Memphis industrial market remains one of the more affordable markets in the country.

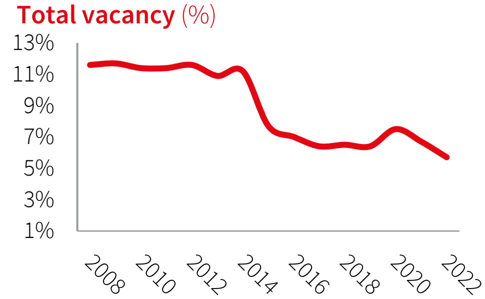
Outlook

Nearly 8 million s.f. is currently under construction, most of which is scheduled to deliver in 2023. However, groundbreakings slowed in Q4 and this is expected to continue through the first half of the year. Forecasted demand may lead to another drop in total vacancy by the end of 2023, resulting in an environment where demand continues to outpace supply. If this trend carries on through the next 12 months, and more groundbreakings are stalled, the market is likely to experience a more significant shortage of warehouse supply in 2024. Demand drivers are spread across numerous industries including logistics, energy, and manufacturing, which indicates the leasing environment may become even more competitive in the months ahead.

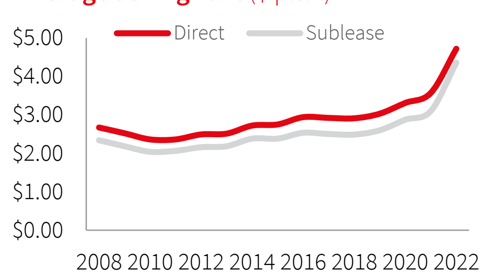
Supply and demand (s.f.)



Total vacancy (%)



Average asking rent ($ p.s.f.)



For more information, contact: Jane-Coleman Cottone | jane-coleman.cottone@am.jll.com

Metro DC

Rent growth continues as market absorbed 2.1 m.s.f. in 2022

- Over Q4, Suburban Maryland occupancy gains totaled over 713,000 s.f.; Northern Virginia experienced gains over 26,000 s.f.
- Industrial construction activity continued over Q4 with five new groundbreakings totaling 709,000 s.f.
- Year-over-year rent growth for industrial product in Metro DC tops 24.8% with quarter-over-quarter growth registering 9.8%
- 17 Class A blocks over 100,000 s.f. are available in the region, ten of which are currently under construction

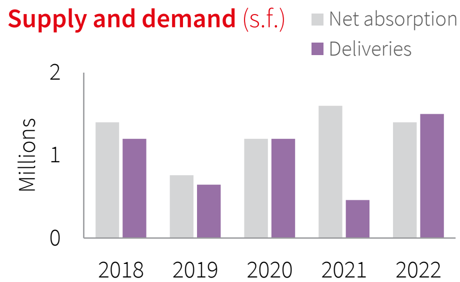
Fundamentals	Forecast	
YTD net absorption	2,143,388 s.f.	▶
Under construction	2,723,235 s.f.	▼
Total vacancy	3.5%	▼
Sublease vacancy	151,298 s.f.	▼
Direct asking rent	$13.15 p.s.f.	▲
Sublease asking rent	$11.99 p.s.f.	▲
Concessions	Falling	▼

Metro DC's industrial market continues its historic pace, as Q4 absorption totals over 739,000 s.f. with year-to-date totals topping 2.1 million s.f. Since 2020, the market has absorbed over 6.4 million s.f. Both submarket clusters in Suburban Maryland and Northern Virginia experienced positive net absorption in the fourth quarter. Suburban MD led the way with 713,153 s.f. of absorption followed by Northern VA with 26,257 s.f. The year was marked by absorption totals in new construction contributing 1.5 million s.f. of net occupancy gains. Throughout Q4, Trammell Crow Company delivered 8711 Westphalia Rd totaling 362,000 s.f. in a build-to-suit for Capital Electric Inc in the Southern Price George's County submarket. Strong lease-up fundamentals in new construction and expansions in second-generation supply throughout the year brought Class A direct vacancy to 4.3%, 240 basis points under the trailing Q4 average for the past four years.

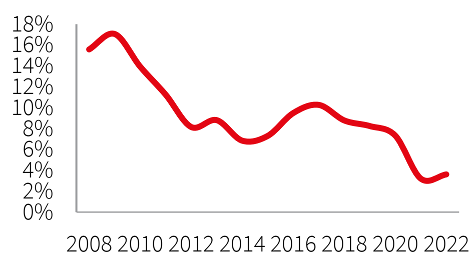
Over 2.7 million s.f. of speculative development remains under construction, with 80.2% of that product available for lease. The largest groundbreaking of the quarter located at 10245 & 10225 Golf Academy Dr was developed by Trammell Crow Company & Clarion Partners and totals 337,046 s.f. between two buildings. The project is currently 85% leased and slated for delivery mid-2023. Of the 709,000 s.f. of speculative product that broke ground this quarter, 59% was leased at time of groundbreaking. Speculative product built since 2020 has absorbed 2.5 million s.f. which represents 35% of all net occupancy gains during that same time frame.

Positive rent growth remained evident throughout the year. Direct asking rates were the highest on record for Metro DC at $13.15 p.s.f. In a time of expansion, direct rents grew on average, experiencing 5.7% rent growth over the past four quarters and are up 24.8% since this time last year.

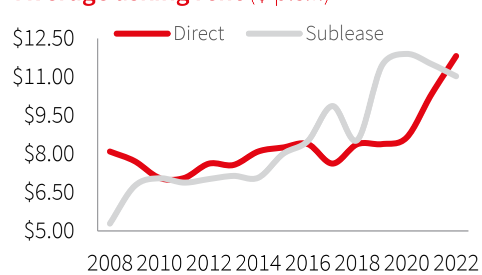
Supply and demand (s.f.)



Total vacancy (%)



Average asking rent ($ p.s.f.)



Outlook

The past three years have been record-breaking as the market has absorbed 6.4 million s.f. since 2020, representing almost double the amount of space absorbed over the three years prior. While absorption totals may temper in the wake of this historic output, occupancy gains into 2023 will continue to be sourced from new construction with over 690,000 s.f. of pending commencements in properties slated for delivery next year.

For more information, contact: Ben Caffey| Benjamin.Caffey@am.jll.com

Miami

Record breaking numbers mark a strong yearly close for the Miami industrial market

- Average asking rates for the quarter push near $15.00 p.s.f NNN, a new record for industrial product in Miami.
- Absorption was positive for the quarter, totaling over 230k s.f. and 3.7 million s.f. for the year.
- Vacancy remains near all time lows at 2.0%, and is expected to remain low for the foreseeable future.

Fundamentals	Forecast
YTD net absorption	3,716,143 s.f. ▲
Under construction	9,794,924 s.f. ▲
Total vacancy	2.0 % ▶
Direct asking rent	$14.96 ▲
Concessions	Stable ▶

The Miami-Dade industrial market remains desirable for both landlords and investors alike. As a gateway to America, it's no surprise demand continues to outpace supply and new deliveries.

Sustained demand, limited supply, and record low vacancies have enabled landlords to push rental rates. Quarterly rent growth has softened, with quarter-over-quarter rent growth at 4%. Year-over-year rent growth sits at 45%, double from what asking rates were a year ago today.

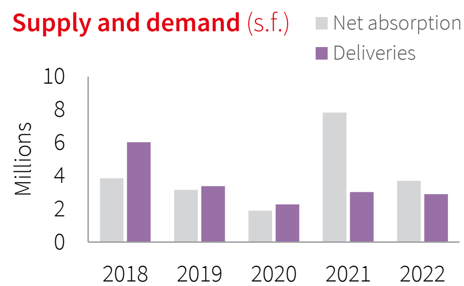
Flight to quality for Class A product has become a standard for institutional clients, with tenants awaiting new development completions suitable for their business practices. Ample planning is needed, as over 40% of all Class A under construction space scheduled for delivery in 2023 is preleased. Notable tenants include Carbell, World Electric, and Rolling Tissue.

Average asking rates for Class A product averaged north of $16.00 p.s.f. NNN. Approximately 2.9 million s.f. of Class-A product has been delivered this year, with an additional 9.7 million s.f. currently under construction. Over 70% of all new construction is concentrated in Northwest Dade, Central Dade, and Medley.

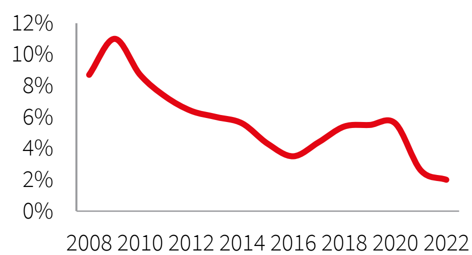
Outlook

The Miami-Dade industrial market has shown resilience and strength through times of uncertainty. Demand has showed little signs of slowing down, while vacancy is expected to remain low. Asking rates are anticipated to increase, although more slowly. Over 9 million s.f. of new construction is expected to deliver over the next 18 months, giving prospective tenants more opportunities to enter the market over the next year. Miami International Airport and Port Miami remain a critical component to market development. Those looking to tap into a diverse, robust, growing market, are hard pressed to find places better suited for business than Miami.

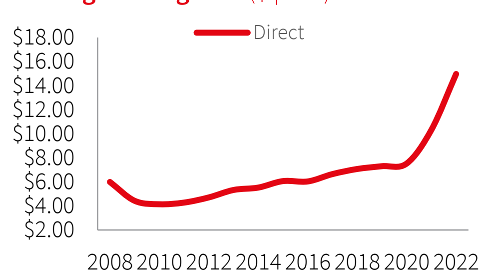
Supply and demand (s.f.)



Total vacancy (%)



Average asking rent ($ p.s.f.)



For more information, contact: John Guzzo | John.Guzzo@am.jll.com

Mid Peninsula

After an active year, the market sees year-ending positive absorption for the first time since 2017

- Transaction volume in the Mid-Peninsula remains healthy regardless of industrial space being lost to redevelopment for Life Science and Office purposes
- Scarcity of high quality and modern space along the Peninsula allows rent to continue to increase despite the aging inventory available
- Tenant demand shows no signs of slowing as the Mid-Peninsula remains the tightest market in Northern California with a steadily declining vacancy rate

Fundamentals		Forecast
YTD net absorption	476,108 s.f.	▲
Under construction	0 s.f.	▲
Total vacancy	2.7%	▶
Sublease vacancy	97,824 s.f.	▶
Direct asking rent	$2.05 p.s.f.	▲
Sublease asking rent	$2.36 p.s.f.	▼
Concessions	Stable	▶

South San Francisco had an active fourth quarter with Hauslane Inc occupying 30,000 s.f., Gym town occupying 26,000 s.f., and Kintetsu World Express renewing a 68,000-s.f. lease. SF Chronicle and Soonest Express moved out of the 42,000 s.f. at 228-230 E Harris Ave leaving the building vacant. Beginning February 1, 2023, Alaska Airlines' lease as the sole occupant of the vacant warehouse at E Harris Ave will commence. DHL extended its lease in Brisbane for 69,000 s.f. of industrial space and 10,000 s.f. of office space which will also commence Q1 2023. Since 2021, the vacancy rate has dropped by 190 basis points, and available inventory is down 120 basis points year-over-year.

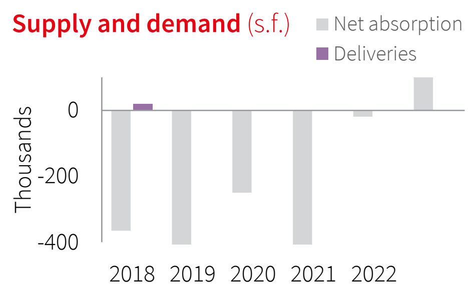
Modern features are critical to site selection, with tenants valuing clear heights above 32' when assessing the functionality of a facility for inventory stacking and mezzanine structures. Less than one-third of the buildings in the Mid-Peninsula have clear heights above 20', and over 50% of buildings in the East Bay and Silicon Valley have clear heights above 20'. Though surrounding markets offer features desirable to tenants with advanced manufacturing requirements, the Mid-Peninsula remains relevant; on account of its location and access to skilled labor and consumers.

Sublease asking rents proceed to escalate while direct asking rents maintain a steady climb, propped up by the record low vacancy rate. The average asking rent has risen by 26% year-over-year. The supply-demand imbalance stabilizes concessions contributing to the decreasing vacancy and minimal availability. Typical operational expense averages are approximately $0.35 - $0.40, and in some cases, they are closer to $0.50. In contrast, private, long-time ownerships sustain an average of $0.20 in operational expenses.

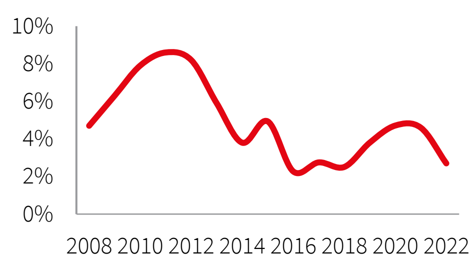
Outlook

Life Science conversions are reducing the available inventory in the Mid-Peninsula as the market remains tight. 2022 ended with a vacancy rate in the range of pre-pandemic levels. The market stays landlord favorable, with tenants willing to pay premium rental prices for outdated industrial facilities prioritizing location over functionality.

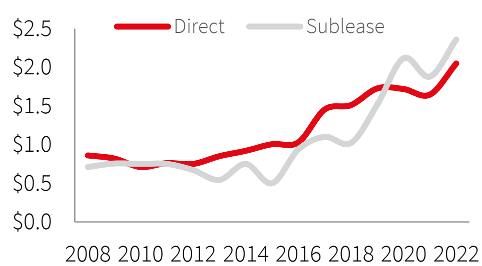
Supply and demand (s.f.)



Total vacancy (%)



Average asking rent ($ p.s.f.)



For more information, contact: Brianna Robles | Brianna.Robles@jll.com

Milwaukee

While construction remains steady, leasing activity is declining

- Q4 was met with declining leasing activity and with major groundbreakings, the combination of the two leading to an oversupply in the market.
- Rental rates experienced record highs in warehouse and distribution spaces due to e-commerce superseding most of the leasing demand.
- Higher vacancy at 5.2%, near pre-pandemic levels, signals slowdown in demand, leading to projected construction delays in the months ahead.

Fundamentals	Forecast	
YTD net absorption	1,299,650 s.f.	▲
Under construction	2,058,296 s.f.	▶
Total vacancy	5.2%	▶
Sublease vacancy	1,067,906 s.f.	▼
Direct asking rent	$4.41 p.s.f.	▲
Sublease asking rent	$4.88 p.s.f.	▲
Concessions	Steady	▶

Milwaukee industrial leasing activity saw a significant decrease this quarter with only 533,521 s.f., a 71% decrease in leasing activity compared to Q3 2022 (1.9 million s.f.). The average lease size signed in Q3 was nearly double what was seen in Q4. Major leases signed this quarter included The Brewer Company (67,000 s.f.) and ID Technology (51,777 s.f) in Waukesha. This further bolsters the Waukesha submarket which saw the most leasing activity this quarter due to its accessibility to highways and abundance of modern bulk buildings.

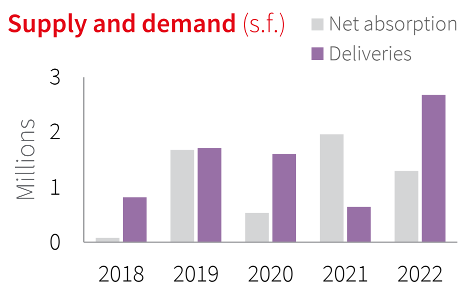
Contributing to this quarter's leasing activity decline, was the inundation of newly completed construction in the area. Construction was completed at 150 W Oakview Pkwy (131,224 s.f.), 3617 W Oakwood (236,180 s.f.) and Zilber Industrial V (233,282 s.f.). This added a combined total of 600,686 s.f. to the supply. Currently, there is less demand in the market than what was seen a year ago as new inventory delivers on a speculative basis.

Warehouse and distribution average rental rates reached an all-time high in 2022 of $5.03 p.s.f. while manufacturing rents hit a 5-year low at $3.88 p.s.f.. This is most likely due to the increase in warehouse needs as e-commerce expanded in 2022 while manufacturing needs were not in as high of demand.

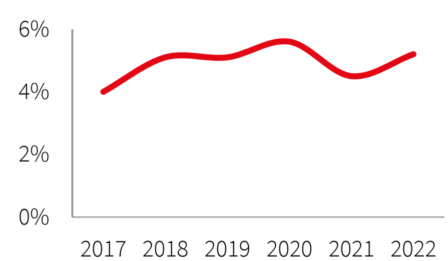
Outlook

There were quite a few groundbreakings this quarter, 18200 W Lincoln Ave (117,000 s.f.), 9371 S 76th St (350,000 s.f.) and Capstone 41 Phase 2 (292,796 s.f.) to name a few. However, the development pipeline seems to have peaked last quarter at 2.3 million s.f. with this quarter falling slightly to 2 million s.f. under development. Coupled with the vacancy rate rising from 4.6% (2021) to 5.2% (2022), the Milwaukee market expects to see groundbreaking delays due to decreased tenant demand and elevated costs to build and finance projects.

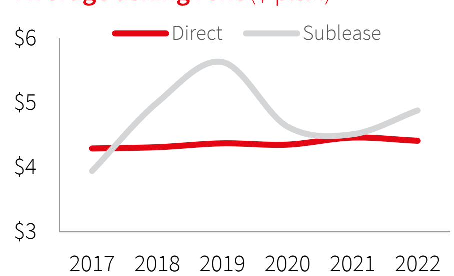
Supply and demand (s.f.)



Total vacancy (%)



Average asking rent ($ p.s.f.)



As part of a continuous process of data quality improvement, JLL Research has expanded its tracked inventory to include corporate owner-occupied properties. Buildings owned by government, educational and medical entities remain outside of statistical inventory.

For more information, contact: Laura Russell | laura.russell@am.jll.com

Minneapolis-St. Paul

Robust demand drives continued industrial leasing, sales and construction

- Q4 2022 leasing of more than 2.6 million s.f. helped push total absorption for the year to more than 6.4 million s.f. Nearly 30% of leasing occurred in new spec projects.
- Total 2022 spec completions topped 4.5 million s.f., in addition to more than 1.5 million build-to-suit completions.
- Investment sales experienced a stronger than expected quarter in spite of increasing interest rates, with sales topping $775 million, for a total of nearly $1.7 billion for 2022.
- More than 7.5 million s.f. is under construction, and more than 5.8 million s.f. of spec construction could complete in 2023.

Fundamentals		Forecast
YTD net absorption	6,447,395 s.f.	▶
Under construction	7,563,501 s.f.	▼
Total vacancy	3.8 %	▼
Average asking rent	$6.14 p.s.f.	▲
YTD completions	6,188,122 s.f.	▲
Spec completions 2022	4,521,012 s.f.	▲
Concessions	Stable	▶

Q4 2022 leasing exceeded 2.6 million, and absorption for the quarter was 917,824 s.f. Nearly 30% of leasing occurred in new spec buildings.

Notable leases included Superior Third Party Logistics (199,919 s.f.) taking the entire 4Front Industrial Park in Oakdale and Minneapolis Glass (115,500 s.f.) signing for all of the 610 Junction West Building II in Brooklyn Park. Lube Tech (114,461 s.f.) and Daikin (100,193 s.f.) signed leases to occupy the entire Xenium Business Center in Plymouth.

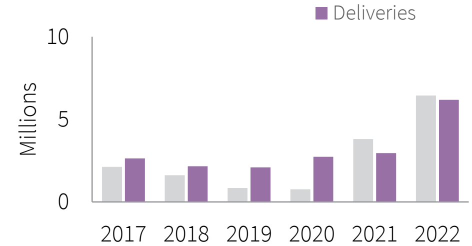
Although Q4 leasing was down slightly, average quarterly leasing for 2022 was more than 3.7 million s.f., well ahead of the 2021 average of 3.2 million s.f. Total absorption for 2022 was nearly 6.5 million s.f., which reduced vacancy to 3.8%. Vacancy will decline further to 3.5% once the nearly 1 million s.f. of tenants that have signed leases occupy space in new spec buildings.

In the face of rising interest rates and the repricing of some assets, Q4 investment sales were more than $775 million, the strongest quarter of 2022. Total sales for the year was nearly $1.7 billion. Notable recent sales include the $38.3 million portfolio acquisition by Biynah Industrial Partners from Link Logistics and the $249 million Artis REIT portfolio sale to Capital Partners/Investcorp.

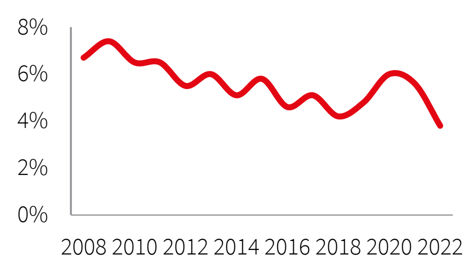
Outlook

With 14.4 million s.f. of tenant requirements, the industrial market is poised for a strong 2023. Although the Fed has indicated it will continue to increase interest rates, Minneapolis-St. Paul should remain an attractive market for existing and new investors. Spec development will more than likely peak in 2023 and additional projects may get pushed to 2024.

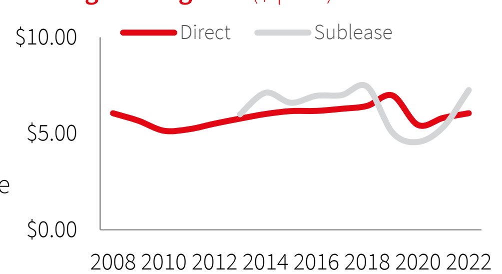
Supply and demand (s.f.)



Total vacancy (%)



Average asking rent ($ p.s.f.)



**Minneapolis-St. Paul's industrial rental rate calculation changed in 2020*

As part of a continuous process of data quality improvement, JLL Research in Minneapolis-St. Paul has expanded its tracked inventory to include all owner-occupied buildings as well as industrial buildings between 10,000 and 30,000 s.f. in size. We continue to track R&D/Flex separately.

For more information, contact: Sam Newberg | sam.newberg@jll.com

Nashville

Strong quarter propels annual net absorption to record high

- Two modern bulk projects delivered 100% leased and propelled 2022 absorption to an annual market record at 10 million s.f.
- Nearly 4 million s.f. delivered in Q4, marking the highest total in a single quarter in market history and increasing annual completions to highest mark since 2017
- Although new groundbreakings may be delayed until the second half of 2023, another record-setting year is on the horizon with over 9 million s.f. under construction

A record-setting year for absorption activity is largely the result of new construction that delivered in the last 18 months. Annual absorption topped 10 million s.f. in 2022, 30% of which was accounted for in Q4. Two significant modern bulk projects delivered 100% leased: Walmart at 1015 Hixson Blvd in Wilson County (925,680 s.f.) and McNeilus Truck & Manufacturing at 2120 Logistics Way in the Southeast submarket (844,480 s.f.). The Wilson County and Southeast submarkets combined to account for 91% of the 8.5 million s.f. that delivered in 2022. Nearly half of total completions occurred in Q4, marking the highest total in a single quarter in market history.

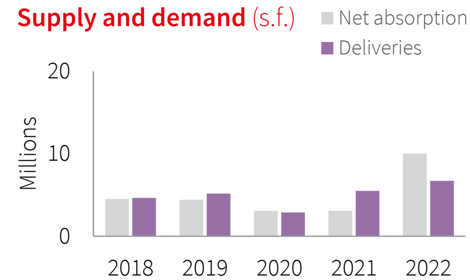
Despite a strong year of construction activity, total vacancy fell to 3.4%, a 1.1% reduction year-over-year. Robust leasing in new product continues to ensure vacancy remains at historical lows. Tenant demand and falling vacancy are also contributing to rising asking rates as the market average increased 8% year-over-year to $6.27 per s.f. Since 2017, rates have risen by at least 8% each year, a trend that coincides with a significant increase in new construction activity. Over 37 million s.f. of new product has been added to the market since 2017. Rates have risen 47% in the same time span.

Outlook

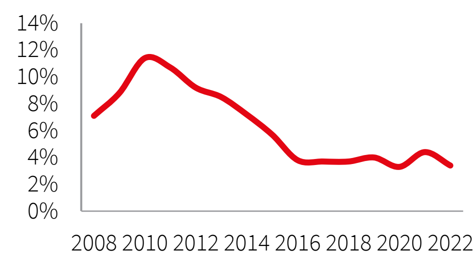
New supply is expected to continue a strong pace in 2023 with over 9 million s.f. scheduled to deliver. Many projects have been delayed due to economic uncertainty and rising costs, and this may continue through the first half of 2023. Despite challenging economic conditions like rising interest rates, four projects totaling 1.5 million s.f. broke ground in Q4, three of which are being developed by Prologis in the Southeast submarket. Similar to 2022, activity will be concentrated in the Southeast and Wilson County submarkets in 2023.

Fundamentals		Forecast
YTD net absorption	10,043,754 s.f.	▲
Under construction	9,139,902 s.f.	▶
Total vacancy	3.4%	▼
Sublease vacancy	647,911 s.f.	▶
Direct asking rent	$6.27 p.s.f.	▶
Sublease asking rent	$5.27 p.s.f.	▲
Concessions	Decreasing	▼

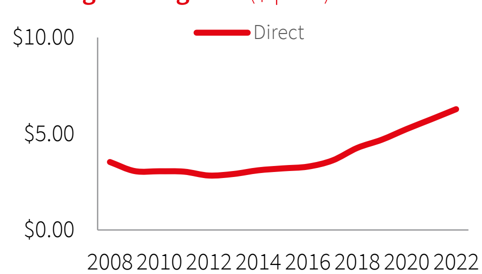
Supply and demand (s.f.)



Total vacancy (%)



Average asking rent ($ p.s.f.)



For more information, contact: Jane-Coleman Cottone | jane-coleman.cottone@am.jll.com

New Jersey

Market fundamentals remain strong amid economic headwinds and a normalization in demand

- In the third largest lease in New Jersey history, Home Depot took 1.3 million s.f. at Brookfield's 904 Cranbury S River Rd in South Brunswick
- Leasing volume comes down from its pandemic heights, normalizing under 8.0 million s.f. for the third consecutive quarter
- Construction activity reached the highest level in history, more than double the quarterly average seen throughout the trailing four years
- Preleasing rates on new product dropped 22.6% in 2022 from the levels seen in the previous year

Quality credit tenants continued to lease space in the fourth quarter, evidenced in Home Depot's 1.3 million-s.f. lease at Brookfield's 904 Cranbury S River Rd in South Brunswick, marking the third largest Industrial lease in New Jersey history. With that said, the market has normalized back to pre-pandemic leasing volumes as 7.5 million s.f. was leased in the fourth quarter, the third consecutive quarter below 8.0 million s.f. An average of 12.0 million s.f. was leased from Q1 2020 through Q1 2022, whereas 8.1 million s.f. was leased on average between Q1 2018 through Q4 2019. This signifies the market has come off its pandemic highs and it has reset closer to pre-pandemic demand levels.

With vacancy constrained across the State, construction activity has reached the highest level in the market's history. 28.7 million s.f. is actively under construction, nearly 2.5x the 2017-2021 average of 12.0 million s.f. This record construction volume resulted in 10.3 million s.f. of deliveries in the fourth quarter of 2022, which brought year-to-date completions to the highest level in market history. Given these record volumes combined with a normalization in demand, preleasing rates have dropped from 89.9% to 67.3% from 2021 to 2022. This caused vacancy to tick 90 BPs higher from the beginning of the year. Nonetheless, vacancy remains below 2.0% which has given landlords pricing power over the past several years. This drove overall asking rents 20.6% higher year-over-year.

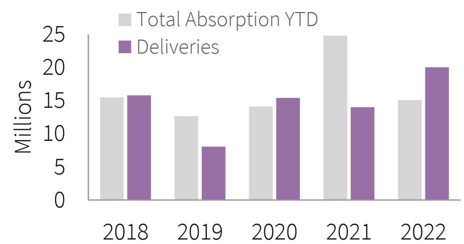
Outlook

The macroeconomic headwinds looking into 2023 are expected to keep leasing velocity constrained to this "new normal" over the near-term. This, combined with the State's record construction pipeline is expected to cause vacancy to tick higher over the next twelve months. However, given the existing space constraints across the State, vacancy is not expected to retreat towards an equilibrium, which will continue to give landlords the upper hand. As a result, we forecast continued rent growth, albeit at a more regulated pace than what we've seen over the past several years. Looking into the longer-term, trends towards faster delivery timelines, Port and population accessibility, and supply chain resiliency all bode well for the market in the years to come.

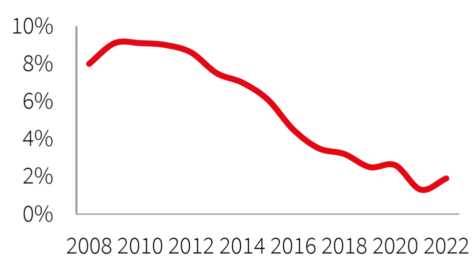
For more information, contact: Vince Melchiorre | Vincent.Melchiorre@am.jll.com

Fundamentals	Forecast
YTD net absorption	15,103,062 s.f. ▶
Under construction	28,685,590 s.f. ▲
Total vacancy	1.9% ▲
Sublease vacancy	927,707 s.f. ▶
Direct asking rent	$15.54 p.s.f. ▲
Sublease asking rent	$12.22 p.s.f. ▲
Concessions	Stable ▶

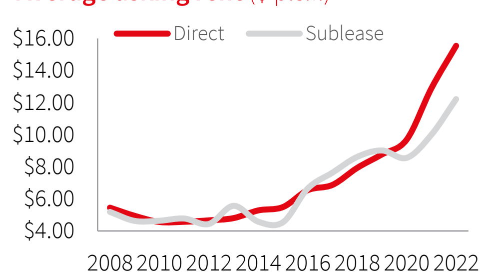
Supply and demand (s.f.)



Total vacancy (%)



Average asking rent ($ p.s.f.)



North Bay

Fueled by high tenant demand and inventory scarcity, the market remains tight

- Despite limited supply, there was 1.9 million s.f. of net absorption this year, putting the market on par with 2021 and 2020 levels.
- The North Bay market is anticipated to remain compressed going into 2023 as the supply-demand imbalance endures.
- While 2022 fundamentals were strong, there is over 3.3M s.f. expected to deliver before year-end, many of which have not been preleased.

The market sustained positive absorption, with copious leasing activity seen from the logistics & distribution industries persisting throughout the end of the year. Solano County is nearly fully occupied with 1.2% vacancy, witnessing positive absorption surpassing 500,000 s.f.. Notably, Kane Logistics leased 304,655 s.f. at newly constructed 1051 Aviator Drive and Landsberg Orora occupied recently delivered 4555 Business Center Drive. North Bay Distribution joined Global Import Solutions in bringing the 2041 Cessna Drive facility to full occupancy. The 1.9 million s.f. of absorption seen in 2022 is only 20,000 s.f. shy of exceeding 2021 levels.

Vacancy is down 60 bps quarter over quarter and dropped 110 bps year-over-year as industrial space becomes increasingly scarce. In Q4, the market experienced sub-3% vacancy for the first time since 2018. Napa and Marin County are the tightest markets with less than 2% of inventory available. Sonoma's vacancy is at 7% since the 249,904 s.f. Victory Station building is still on the market with no occupants. Stiff competition for leases persists as the North Bay remains a landlord favorable market, with asking rent continuing to climb as the development pipeline provides modern, functional facilities in the otherwise aging Northern California region.

The market did not see any completed projects this quarter, yet there is over 70,000 s.f. slated to deliver next quarter with 3.4 million s.f. under construction in the development pipeline. USAA has 1.53 million s.f. under construction in Vacaville on Eubanks Drive. Building C is approximately 1.3 million s.f. and is expected to deliver in Q3 2023, making it the largest industrial facility constructed in Vacaville.

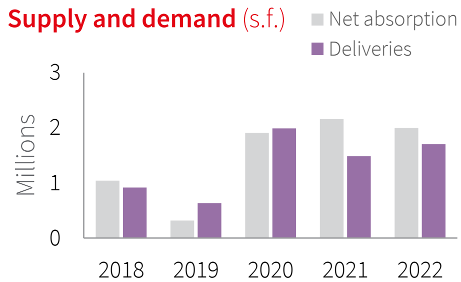
Outlook

Emerging submarkets are seeing an influx of leasing activity as demand continues to spill over from neighboring markets. Tesla began transforming a showroom where the company signed a 10-year lease for 32,000 s.f. at 3286 Airway Drive in Santa Rosa. As advanced manufacturing companies continue to grow in the Bay Area, traditional land uses in the North Bay have reason to adjust to demand, promoting diversification of tenants in the market. Solano County alone will see over 3.3 million s.f. come to market in 2023 and it remains to be seen whether tenant demand will keep up with the amount of new product. The North Bay region has 2.9 million s.f. of active tenant requirements yielding potential oversupply of inventory.

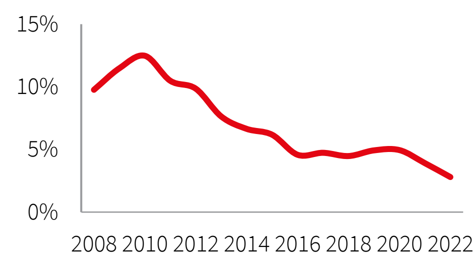
For more information, contact: Brianna Robles | Brianna.Robles@jll.com

Fundamentals	Forecast
YTD net absorption	1,981,413 s.f. ▲
Under construction	3,423,631 s.f. ▲
Total vacancy	2.8% ▼
Sublease vacancy	125,139 s.f. ▶
Direct asking rent	$1.21 p.s.f. ▲
Concessions	Stable ▶

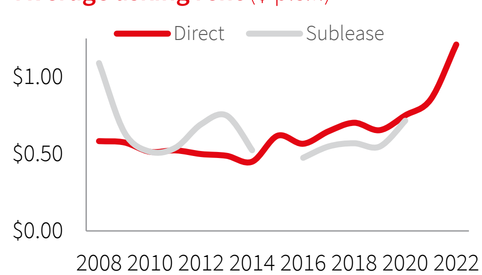
Supply and demand (s.f.)



Total vacancy (%)



Average asking rent ($ p.s.f.)



NYC Outer Boroughs

New construction deliveries drive NYC market fundamentals to record heights in 2022

- The delivery of pre-leased new construction product helped drive 2022 absorption gains to 2.4 million s.f., their highest level in history
- The Industrial outdoor storage and parking market saw a record 1.3 million s.f. of leasing in 2022, as this asset class continues to be a crucial component of the Industrial landscape in the boroughs
- The sales market was also bolstered by the sale of stabilized new construction assets particularly in H1 2022. $2.1 billion of industrial product sold this year, 58.9% higher than the previous peak in 2018

The delivery of pre-leased new construction product helped drive 2022 absorption gains to their highest level in history. The market saw 2.4 million s.f. of net absorption, 53.9% higher than the previous peak of 1.6 million s.f. in 2020. 84.1% of 2022 completions were pre-leased, which has left just one existing Class A availability in the market. Despite this lack of availability, the outer boroughs recorded its second strongest year of leasing in history. 2.6 million s.f. was leased in 2022, a 66.4% increase from 2021, and was only outperformed by 2020, when 5.2 million s.f. were leased. The industrial outdoor storage and parking market also saw a record 1.3 million s.f. of leasing in 2022. Such high leasing activity is notable as growing demand for fleet storage in the NYC outer boroughs continues to position this asset class as a crucial component of the Industrial landscape in this market.

Activity across the boroughs has been on the back of the new construction market. 3.1 million s.f. delivered this year, a 37.7% increase from the previous peak in 2018. While this helped leasing levels reach record highs, the sales market was also bolstered by the sale of stabilized new construction assets particularly in H1 2022. $2.1 billion of industrial product sold this year, 58.9% higher than the previous peak in 2018.

2.7 million s.f. of the product currently under construction is still available for lease. However, unlike the previous construction cycle, this product is being built to fit different tenant profiles. The largest project, Turnbridge Equities' 1.3 million s.f. at Bronx Logistics Center, is meant for larger scale users. However, the 680,000 s.f. under construction at IPG's 23-30 Borden Ave and the 392,000 s.f. being built at LBA/RXR's Red Hook Logistics Center are designed for middle and smaller sized tenants. This will allow varying tenant groups to transact on new Class A construction product.

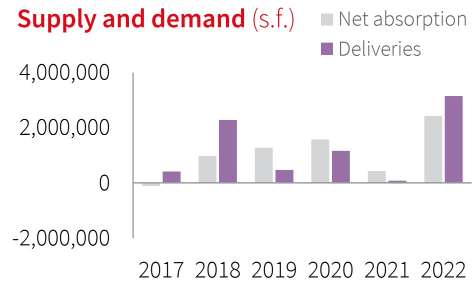
Outlook

The macroeconomic picture entering 2023 may subdue demand over the short term. However, the push for quicker delivery windows and need for reliable last mile logistics all bode well for the market over the longer term. This will continue to drive tenants to new construction projects across the boroughs. Given the lack of supply, rents for this product will exceed $40.00 p.s.f. for the warehouse components.

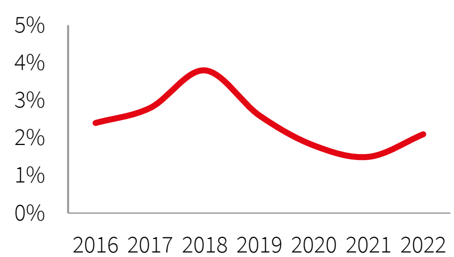
For more information, contact: Federico Marin| Federico.Marin@am.jll.com

Fundamentals	Forecast
YTD net absorption	2,430,965 s.f. ▶
Under construction	3,595,697 s.f. ▶
Total vacancy	2.1% ▶
Sublease vacancy	87,500 s.f. ▶
Direct asking rent	$36.13 p.s.f. ▲
Sublease asking rent	$28.50 p.s.f. ▲
Concessions	Stable ▶

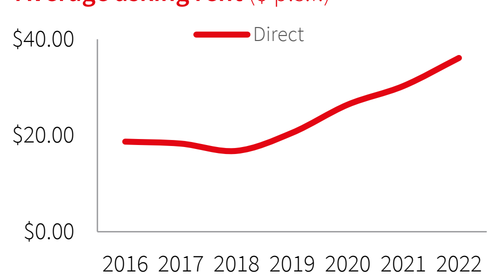
Supply and demand (s.f.)



Total vacancy (%)



Average asking rent ($ p.s.f.)



Orange County

Historic low vacancy causes rents to soar, while North County sees the majority of leasing activity

- The North County submarket has been the darling of new distribution demand and construction in 2022
- Large block users stay active throughout the market, limiting large options
- Record low vacancy causes landlords to remain bullish on asking rents
- Push back from municipalities may hinder new development, but the sector is poised to remain strong

Fundamentals	Forecast
YTD net absorption	1,617,344 s.f. ▲
Under construction	4,287,958 s.f. ▼
Total vacancy	1.0% ▶
Sublease vacancy	136,532 s.f. ▼
Direct asking rent	$1.58 p.s.f. ▲
Sublease asking rent	$1.63 p.s.f. ▲
Concessions	Falling ▼

Despite economic uncertainty, the Orange County industrial market continues to show its strength through the end of 2022. Tenants' appetite for quality and sizable space has mostly been focused on the North County submarket, where 50% of the market's annual leasing took place. This has caused North County to lead the market in net absorption during Q4. This trend is expected to continue in this submarket into Q1 2023, where nearly 1.4 million s.f. of construction is pre-leased and slated for occupancy at the Goodman Logistics Center Fullerton.

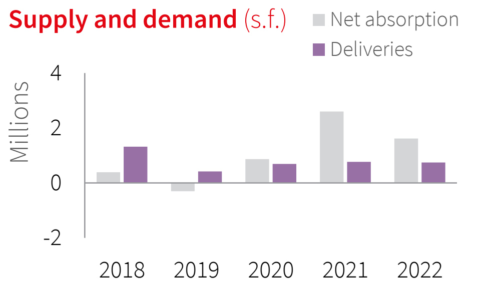
Large block leasing was active throughout 2022, totaling 30 deals of 100,000 s.f. and greater throughout the county. Demand from large users has mostly originated from the consumer durable and service sectors, which was responsible for 48% of the total leasing volume that occurred during the year. Ending Q4, there are only 18 options available over 100,000 s.f., and nearly half of them are currently under construction. Of the near record high 4.3 million s.f. of current construction, nearly 50% is pre-leased. This will make options for large users even more competitive for the foreseeable future.

Due to persistently strong demand, the vacancy dropped for the second consecutive year by 60 basis points to a historic low of 1.0% and has spurred record annual asking rent growth by an astonishing 39%. This notable rent growth has eclipsed the 5-year annual average by 14%. As vacancy and large options remain scarce, we expect rents to stay elevated.

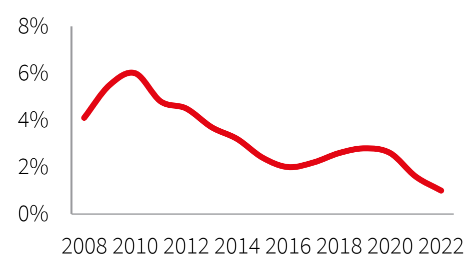
Outlook

As developers experienced pushback from cities and surrounding communities, the trend of office-to-industrial conversions was put on hold in the second half of 2022. Moreover, high inflation, rising construction costs and interest rates are challenging the feasibility of new development. Even with all the new product anticipated to deliver, we can expect vacancy to hold firm as larger tenant demand is positioned well to consume new inventory, which has historically leased up quickly upon delivery.

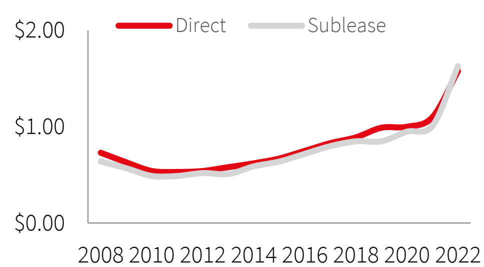
Supply and demand (s.f.)



Total vacancy (%)



Average asking rent ($ p.s.f.)



For more information, contact: Patrick Ashton patrick.ashton@jll.com

Orlando

Strong market fundamentals and record development position market well

- Nearly 7.5 million s.f. of space remains under construction
- Following over 1.7 million s.f. of absorption Q4 2022, year-to-date absorption was pushed to a near historic total of almost 4.8 million s.f.
- For the first time in Orlando's history, total vacancy remained below 4.5% every quarter this year

Fundamentals	Forecast	
YTD net absorption	4,788,628 s.f.	▲
Under construction	7,464,932 s.f.	▼
Total vacancy	4.1 %	▶
Sublease vacancy	319,645 s.f.	▶
Direct asking rent	$7.55 p.s.f.	▲
Sublease asking rent	$8.18 p.s.f.	▲
Concessions	Stable	▶

2022 was another strong year for the Orlando industrial market. Despite recent economic headwinds, elevated prices for construction materials and two hurricanes that impacted projects under construction, demand for space has more than off set these challenges. This year, Orlando recorded near historic absorption, saw a record amount of space break ground, and maintained a consistent sub 4.5% total vacancy rate every quarter.

At the close of the year, a staggering 7.5 million s.f. of space remains under construction, even after nearly 4 million s.f. delivered. Most deliveries this year were in SE Orange, however, as land becomes increasingly scarce and expensive in this submarket, 84% of the space currently under construction is outside of the industrial core. As decision makers navigate the economic environment, pre-leasing activity has been somewhat slower than last year, resulting in 8.8% total availability, up 220 bps year-over-year.

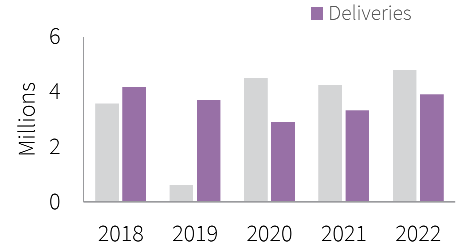
That said, demand for space remains strong. Over 1.7 million s.f. of move-ins this quarter pushed year-to-date absorption to a near record high of almost 4.8 million s.f. Numerous full-building tenants occupied their spaces this quarter, with many others following suit through the first half of next year. This sustained demand paired with new construction highlights continued interest in the market.

Following a dip in asking rents last quarter due to numerous ground-breakings on large buildings, asking rents increased this quarter to $7.58 p.s.f. NNN. While this rent is slighted muted due to large construction projects, it still marks a 3.8% increase year-over-year. Further, as options become increasingly limited in the industrial core, SE Orange and SW Orange recorded staggering 28.4% and 25.2% asking rent increases year-over-year, respectively.

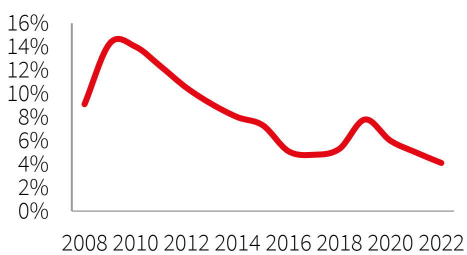
Outlook

Orlando 's steady population growth, central location, relative affordability, and abundance of land outside the industrial core positions the market well heading into 2023.

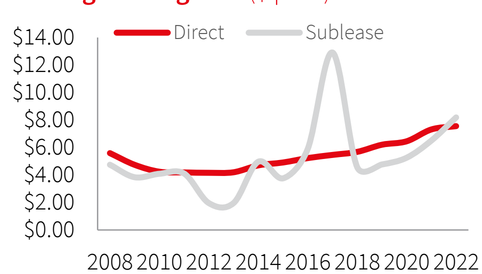
Supply and demand (s.f.)



Total vacancy (%)



Average asking rent ($ p.s.f.)



For more information, contact: Rachel Dickinson | rachel.dickinson@am.jll.com

Palm Beach

Year end development pushes west amidst a strong yearly close

- Rent growth slows for Palm Beach, with average asking rents sitting north of $11.50 p.s.f..
- A slight increase in vacancy, decrease in absorption, and steadying rents hint at slowing market.
- 1.7 million s.f. of Class A product under development presents options and opportunities for businesses looking to scale in South Florida.

Fundamentals		Forecast
YTD net absorption	546,212 s.f.	▼
Under construction	1,695,625 s.f.	▲
Total vacancy	3.2%	▲
Direct asking rent	$11.68 p.s.f.	▲
Concessions	Stable	▶

Palm Beach's industrial market remains healthy. The sleepy city had a slight rise in vacancy. Rents are expected to continue to grow, albeit slowly. Average asking rents range north of $11.50 p.s.f., while average asking rents remain above $14.00 p.s.f. in select areas like Boca and North Palm Beach.

With a total inventory of 47.7 million s.f. , the Palm Beach market is relatively small. New development has nearly doubled, with 1.7 million s.f. now under construction. Vacancy is expected to remain low as new product is delivered, trailing behind other South Florida markets. Tenants looking to enter the South Florida market welcome new Palm Beach development. The highest concentration of new development is located in West Palm Beach, totaling over 1 million s.f.

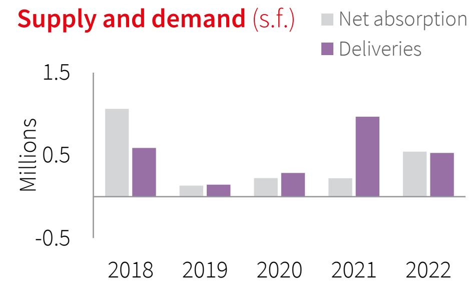
Yearly net absorption closes on a positive note with over half a million s.f. absorbed. Quarterly totals are barely positive, hinting at a possible slowdown in the near future.

Vacancy rates remain below 3% in certain submarkets. North Palm beach retains the lowest vacancy rate (1.3%), further emphasizing the need for development with strategic access to highways and logistically sound locations. Boca and Boynton are next on the list, with vacancy rates sitting at 2.6% and 2.4% respectively. Most availabilities are concentrated in west Palm Beach where new development is underway.

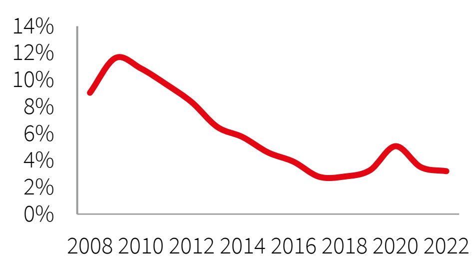
Outlook

The market outlook for Palm Beach County is bright. Palm Beach continues to experience a robust increase in population and business growth, while the region's need for warehouse space and last-mile facilities continues to increase. Businesses in South Florida are likely to scale further north as inventory dwindles, further strengthening an outlook for stable rent growth, lowered vacancy, and an increased development pipeline for Palm Beach County.

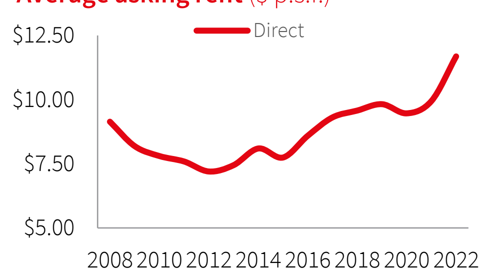
Supply and demand (s.f.)



Total vacancy (%)



Average asking rent ($ p.s.f.)



For more information, contact: John Guzzo at John.Guzzo@am.jll.com

Phoenix

Vacancy continues to plummet as user demand outpaces new supply

- Occupier demand outpaced new supply by 4.6 million s.f., plunging total vacancy down to an unprecedented 3.2%.
- Highly skilled labor dynamics drove an influx of manufacturing commitments to the Southeast Valley, pushing vacancy in the region down to 2.2%.
- The West Valley's convenient infrastructure continues to entice large W&D users and logistics companies to the region. Two thirds of total absorption transpired in the West Valley this year.
- An uptick in tenant demand is expected as the federal government announced the CHIPS and Science Act, a plan to invest $280 billion to bolster one of Arizona's key sectors: the semiconductor industry.

Despite a record year of new supply being introduced to the Phoenix industrial market, user demand outpaced new deliveries by 4.6 million s.f. and shrunk vacancy rates to an all-time low. As a result, average asking rents surged by 25% year-over-year. Phoenix attained nearly 30 million s.f. of occupancy growth in 2022 as users from across the world continue to gravitate towards the valley's business friendly environment, skilled labor force, and reliable infrastructure. The robust development pipeline features a wide array of buildings with a variety of specs and sizes to accommodate user requirements across the valley, positioning Phoenix for another year of significant occupancy gains.

An abundance of highly-skilled engineering talent continues to be a strong catalyst for various initiatives within the EV, advanced manufacturing, and high-tech sectors. Arizona's top universities collectively churn out an estimated 15,000 STEM graduates each year. Moreover, Maricopa Community Colleges offer incentives to students enrolled in manufacturing-related courses, fueling the industry with qualified labor.

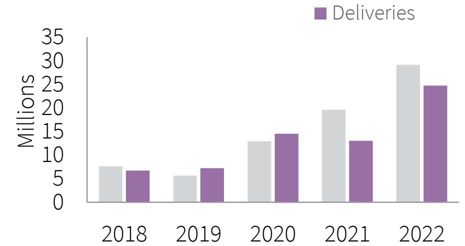
The metro's well-planned highway system paired with its central location in the southwest region allows companies to access more than 33 million people and reach the major ports in Los Angeles and Long Beach within a one-day truck haul. This has positioned Phoenix as a hub for distribution and has generated significant logistics and e-commerce growth, which made up a combined 32% of total leasing activity this year. Logistics Plus, Unis, Outerspace, and Morrison Express are a few prime examples of large occupiers that expanded their footprints into the Phoenix market in 2022.

Outlook

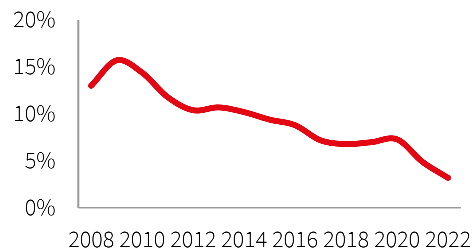
Phoenix's elevated population growth, well-planned energy and infrastructure, and business friendly legislation will continue to attract new users to the valley to absorb much of 2023's deliveries. With debt and equity markets reluctant to finance new developments, a foreseeable pinch in supply and corresponding spike in rents are in the horizon.

Fundamentals	Forecast
YTD net absorption	29,369,144 s.f. ▲
Under construction	39,166,518 s.f. ▼
Total vacancy	3.2% ▼
Sublease vacancy	385,678 s.f. ▼
Direct asking rent	$0.75 p.s.f. ▲
Sublease asking rent	$0.76 p.s.f. ▲
Concessions	Stable ▶

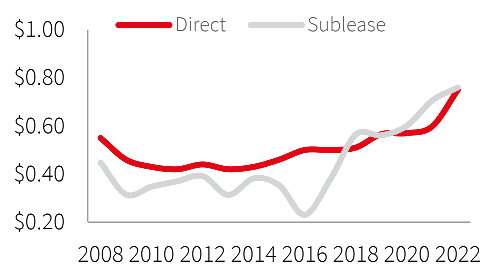
Supply and demand (s.f.)



Total vacancy (%)



Average asking rent ($ p.s.f.)



For more information, contact: Oneel Kuryakoos | Oneel.Kuryakoos@jll.com

Pittsburgh

2022 metrics fall short of record highs seen in 2021 signaling a market slowdown

- Leasing in 2022 was 1.5 million s.f., 52% lower than 2021.
- The market experienced a slowdown in 2022 with absorption falling 96% compared to 2021.
- Over 1 million s.f. of new construction was added to the industrial inventory in 2022, 30% less than 2021.
- With nearly 2 million s.f. of construction in the pipeline, expect vacancies to remain stable with a gradual rise in rents throughout 2023.

Leasing activity in Q4 demonstrated over a 300% increase in volume over Q3 totals; however, leasing for the year was only 1.5 million s.f., 52% lower than last year. While absorption in 2022 remained positive at 115,380 s.f., the market experienced a noticeable slowdown relative to the record-high growth seen in 2021. Absorption in 2022 was 96% lower compared to 2021, which ended the year with over 2.7 million s.f. of positive absorption.

The Pittsburgh market added over 1 million s.f. of new construction in 2022, a notable increase; however, this level of supply was 30% less than 2021 totals. The largest projects that delivered in Q4 were Commerce Crossing Business Center in Westmoreland County, a 250,000-s.f. distribution facility developed by Al. Neyer and 301 Deer Run Road (100,000 s.f.) located at the I-79 North Industrial Park; the warehouse delivered 70% pre-leased and is owned and occupied by Mygrant Glass.

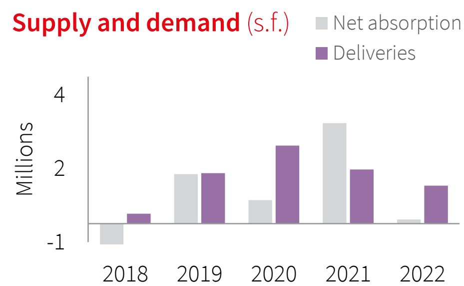
Outlook

With nearly 2 million s.f. of active construction in the pipeline anticipated to deliver in 2023, expect vacancies to remain stable with a gradual rise in asking rents. The current construction pipeline makes up only 1% of the total existing inventory, signaling that upcoming supply will not oversaturate the market in the near-term.

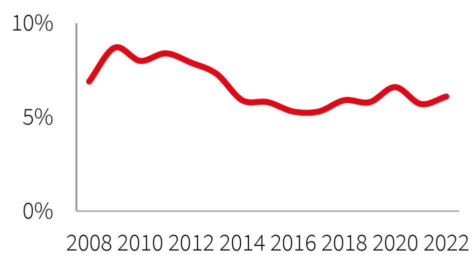
Although leasing metrics have slowed, the next 12-18 months show promise of attracting new businesses as evidenced by waning supply chain issues and a transition to a more build-to-suit rather than speculative development approach from owners. Given the region's rolling hills, topography will always pose a challenge to develop in Western PA, demonstrating why efforts by local development corporations such as WCIDC are critical to the future prosperity of the region. With state funding support from a $2 million RACP grant and a $2.3 million PIDA loan, WCIDC broke ground on a $6.3 million initiative to add three new pad-ready sites as part of Phase Two of Westmoreland Distribution Park North, allowing for more accessible options for occupiers in the coming quarters.

Fundamentals		Forecast
YTD net absorption	115,380 s.f.	▲
Under construction	1,752,667 s.f.	▲
Total vacancy	6.1%	▶
Sublease vacancy	54,477 s.f.	▶
Direct asking rent	$5.88 p.s.f.	▲
Sublease asking rent	$5.57 p.s.f.	▶
Concessions	Stable	▶

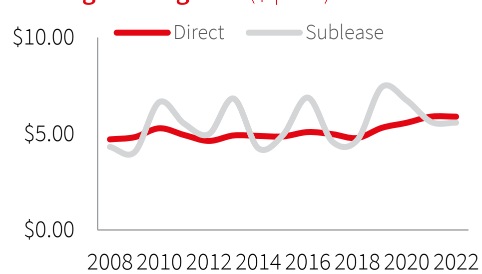
Supply and demand (s.f.)



Total vacancy (%)



Average asking rent ($ p.s.f.)



For more information, contact: Caitlin Fadgen | Caitlin.Fadgen@jll.com

Polk County (FL)

Record development and steady rent growth highlight continued demand

- A record 5.9 million s.f. of space is under construction, all of which is expected to deliver throughout 2023.
- The largest tenant move-out to occur this year, at only -115,000 s.f, was reabsorbed as that tenant moved into the recently completed Peak Logistics Center
- Even as Polk County's raise continue to rise, it still offers a 28% and 15% discount relative to Tampa Bay and Orlando, respectively.

2022 ended on a positive note for Polk County. Throughout the year, a historic 4.5 million s.f. broke ground, almost two times the previous record set in 2015. Out of that, two 1.2 million s.f. projects, the Lowes build-to-suit and Tratt Properties project in Winter Haven, make up over 50% of the under-construction supply. Stonemont's 4-building project, Lakeland Commerce Center, also broke ground this year and will be delivering 900,000 s.f. in Q4 2023. The other largest project under construction, Lakeland Central Park, is set to deliver 700,000 s.f. in February.

Leasing activity experienced a lull as the demand remains strongest for new construction and deliveries were at a 5-year low. The largest movers Premier Distribution, Ta Chen, List Logistics, and an unknown tenant account for 1 million s.f. of positive absorption. The largest move-out, Premier Packaging, stayed in the market and moved into Peak Logistics Center, negating the absorption from the move-out. Although move-ins slowed compared to last quarter, year-to-date absorption is about 1.9 million s.f, with nearly all the move-ins taking place in West Polk. Though this years' absorption is lower than the past few years, it is not for a lack of demand. Tenant requirements are near 20 million s.f., nearly triple the square footage under development, indicating demand has not let up.

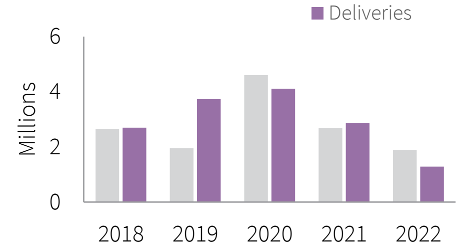
Though demand remains strong, pre-leasing activity has not been quite enough to offset the increase in availabilities and vacancies from new construction. This quarter, just shy of 500,000 s.f. delivered vacant, increasing the market's overall rate by 60 bps quarter-over-quarter to 5.7%. Despite these buildings delivering vacant, the rate is still 100 bps lower year-over-year and has not been observed below 6% since 2018.

Outlook

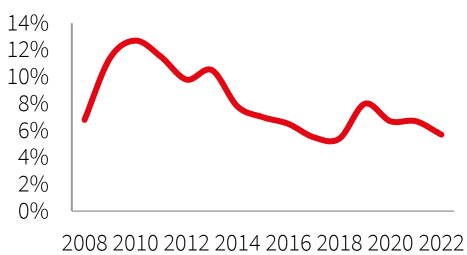
Polk County will see a dramatic increase in absorption during 2023 as build to suits are occupied and other move-in occurring. Year-over-year asking rates increased by 17% and are expected to continue to increase as new construction asking rates are currently $6.50-$8.50 NNN. A short-term increase in vacancy is possible if the under-construction projects deliver vacant.

Fundamentals	Forecast
YTD net absorption	1,896,697 s.f. ▲
Under construction	5,953,430 s.f. ▼
Total vacancy	5.7 % ▶
Sublease vacancy	56,050 s.f. ▶
Direct asking rent	$6.48 p.s.f. ▲
Sublease asking rent	$5.50 p.s.f. ▲
Concessions	Stable ▶

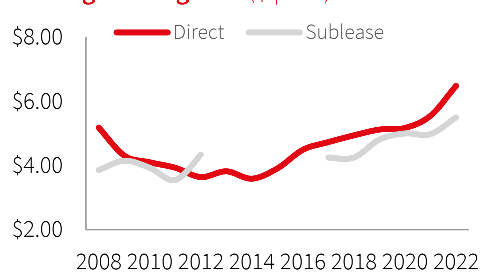
Supply and demand (s.f.)



Total vacancy (%)



Average asking rent ($ p.s.f.)



For more information, contact: Emily Clesen| emily.clesen@am.jll.com

Portland

2022 strongest year on record for Portland industrial market

- Yearly net absorption surpassed 5 million s.f. for the first time in market history
- Vacancy has reached an all time low of 3.4%, last seen in 2016
- Average direct asking rents increased at the fast clip since 2015, increasing 11.0% to $0.81 p.s.f.
- Headwinds appearing, with available sublease space increasing by 13.8% year-over-year

2022 has proven to be a record-breaking year for the Portland Industrial market, largely due to the unprecedented level of leasing that has taken place over the last two years. The year ended with just under 5.2 million s.f. of positive absorption, making it the first year in Portland's history to cross the 5 million s.f. threshold. One of the largest drivers of the historic levels of absorption were pre-leased speculative developments, primarily within the I-5 South Corridor, NE Columbia Corridor, and Clark County. Though the Sunset Corridor experienced the largest move-in this year as Intel completed their D1X Mod3 expansion, adding 1.5 million s.f. to their Ronler Acres campus.

Current development levels have reached an all-time high with over 4.7 million s.f. delivering to the market this year, with an additional 4.2 million s.f. in the pipeline. New developments are mostly in their early stage, with the majority of product delivering late 2023 into early 2024. Prologis remains the largest speculative developer in the region with 23% of 2022 deliveries and 36% of the active construction pipeline.

While demand remains robust, there are signs that the market is moderating as seen by a notable decrease in year-over-year leasing volume. In 2021 there were 31 deals signed above 100,000 s.f., while just 11 deals were signed in 2022. Additionally, available sublease s.f. has increased by 13.8% year-over-year though, although this was mostly due to tenants outgrowing their existing space.

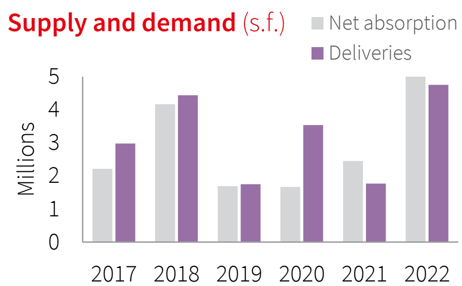
Outlook

Throughout 2022, the Portland Industrial market knocked over many records. However, looming economic uncertainty coupled with an increasing Federal Funds Rate, it is expected that the market will moderate with investment sales and new development being the most effected. At the same time, sublease space is being closely monitored as more big box users announce a "right sizing" of their real estate portfolio. While we acknowledge the current economic headwinds, Portland's relatively conservative pipeline coupled with robust demand will likely result in another strong year, although not quite what the market experienced over the past year.

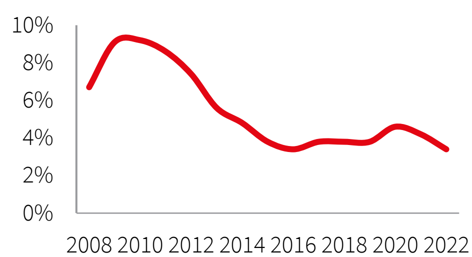
For more information, contact: Patricia Garcia | patricia.garcia@jll.com

Fundamentals	Forecast
YTD net absorption	5,170,307 s.f. ▲
Under construction	4,755,077 s.f. ▲
Total vacancy	3.4% ▼
Sublease vacancy	897,570 s.f. ▲
Direct asking rent	$0.81 p.s.f. ▲
Sublease asking rent	$0.67 p.s.f. ▲
Concessions	Stable ▶

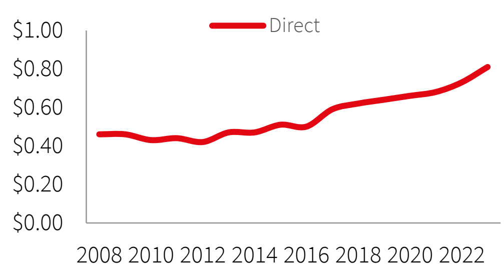
Supply and demand (s.f.)



Total vacancy (%)



Average asking rent ($ p.s.f.)



Richmond

Near-term fundamentals remain landlord favorable after record levels of net absorption

- Speculative developers begin focusing on multi-tenant, small bay product as seven of the nine planned projects anticipated to break ground in 2023 were under 400,000 s.f.
- Residual spaces remaining in 1st-generation supply after stabilization (>75% preleased) carried significant rent premiums and pushed Class A direct asking rents up 22.6% year-over-year.
- IFIT placed its 405,000-s.f. space on market for sublease, vacating the facility next quarter. This is the first major sublease availability (>100K s.f.) placed on market in over a decade.

Bulk move-ins from Amazon, Mondelez and Lowe's fueled record levels of net absorption this year with near 4.8 million s.f. of occupancy gains. Additionally, Trader Joes contracted to purchase Caroline-95 development in the I-95N/Hanover submarket which will absorb one of two recent bulk developments over 1.2 million s.f. upon completion early 2023. The other in the same submarket, East Coast Commerce Center, delivered this quarter and increased overall vacancy despite record-breaking annual net absorption.

Overall direct asking rents climbed by 19.2% over the trailing 12 months, but more significantly for Class A availabilities under 100,000 s.f. Strike rents in these class and size tranches averaged $8.33 p.s.f., NNN, in 1st-generation product and $7.09 p.s.f., NNN in 2nd-generation this year-up 35.2% from 2nd-generation deals signed between 2020 and 2021. Landlords were also aggressively pushing annual rent escalators for all deal sizes which surpassed 4.0% for several leases singed over the past two quarters.

Two speculative developments broke ground in the quarter, each were 200,250 s.f. and increased the total number speculative projects under construction to 13 buildings for a total of 3.4 million s.f. Most of this pipeline (2.1 million s.f.) will deliver next quarter and was collectively 73.8% preleased at the end of Q4. Nine speculative projects are slated to break ground in 2023, down from 11 projects in 2022. This future wave of groundbreakings totals 2.6 million s.f. with the largest building footprint planned for 584,000 s.f.; all of the projects were 100% available at the end of Q4.

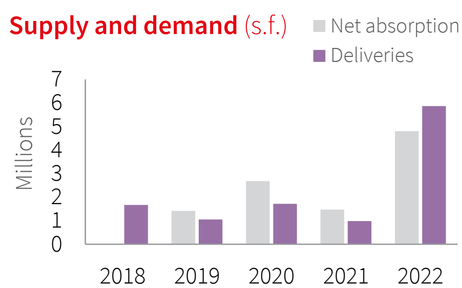
Outlook

Ample preleasing of near-term deliveries and a reduction of planned speculative developments may counter any pullback in demand due to economic uncertainty, maintaining landlord-favorable conditions. Sublease vacancy is expected to increase next year with two Class A blocks over 100,000 s.f. to be vacated next quarter. These sublease blocks are not expected to remain on market long due to sublessor lease rates well below current market rents and a 2.3% vacancy rate for Class A buildings under 500,000 s.f.

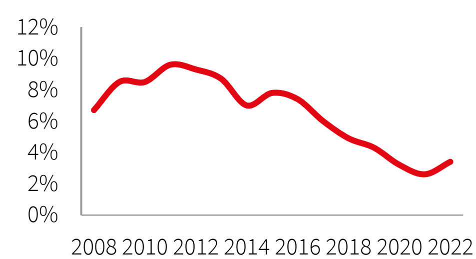
For more information, contact: Geoff Thomas | geoff.thomas@am.jll.com

Fundamentals	Forecast
YTD net absorption	4,799,781 s.f. ▶
Under construction	5,929,718 s.f. ▲
Total vacancy	3.5% ▶
Sublease vacancy	83,530 s.f. ▲
Direct asking rent	$6.20 p.s.f. ▲
Sublease asking rent	$5.24 p.s.f. ▶
Concessions	Stable ▶

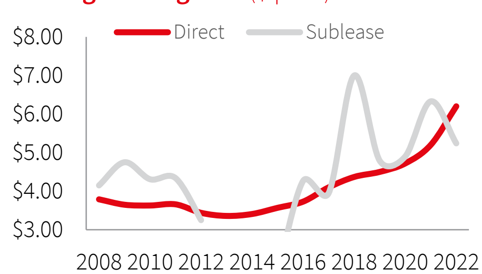
Supply and demand (s.f.)



Total vacancy (%)



Average asking rent ($ p.s.f.)



Sacramento

Absorption and the development pipeline in lockstep as touring activity normalizes

- Despite the influx of new construction, a need for sub-50,000 s.f. Class A product exists to satisfy demand
- Touring activity comes down from post-pandemic peaks, but remains elevated compared to pre-COVID
- Capital markets activity is locked, although demand for industrial service facility is active

Although Sacramento did not surpass the peak values from 2021, strong demand especially among corporate occupiers drove 3.4 million s.f. of positive net absorption, putting the market on par with 2018 totals. With a strong appetite for Class A construction, developers across the market have brought over 11.4 million square feet of new inventory to the market within a 5-year period. Metro Air Park alone accounts for 6.0 million s.f. of new construction. Despite Metro Air Park's success as Sacramento's premier large-block submarket, a void for sub-50,000 s.f. new construction product remains. Although Schnitzer Properties (formerly Harsch Investment) acquired 56 acres within Metro Air Park in 2021 and has a track record of success in developing small-block, light industrial parks throughout Northgate and the Sacramento area, their development may be too late to capitalize the volume of activity in that size range. With no room to go, most tenants are opting for renewals.

For tenants targeting large-blocks, touring activity is healthy. Pre-pandemic Sacramento fluctuated between 3 – 4 million s.f. of active requirements at a given time. The market experienced two peaks in recent years, once at 9.3 million s.f. in January 2022 and again at 10 million s.f. in August 2022. Since then, demand has normalized for large-block occupiers around 6 million s.f.. Even though a handful of buildings delivered vacant, given the demand, these spaces are likely to be absorbed in the next few quarters.

As interest rates continue to increase, capital markets activity remains in flux. While institutional investors sit on the sidelines until market conditions normalize, the impact of the slowdown on owner-user sales is yet to be seen. Despite the headwinds for industrial buildings, demand for industrial service facilities, such as truck terminals and staging and storage yards, remains active.

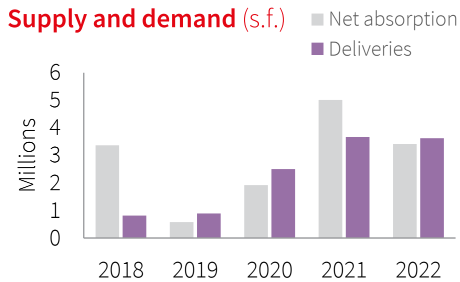
Outlook

The development pipeline is at the lowest it has been since 2019, a sign that deliveries are in lockstep with demand to mitigate any risk of oversupply. However, with the buildings under construction and many of the ones proposed being targeted toward large-block occupiers, a misalignment in the size of spaces being delivered against the size tenants are demanding could hinder new transaction activity as demand comes down from its post-pandemic peak.

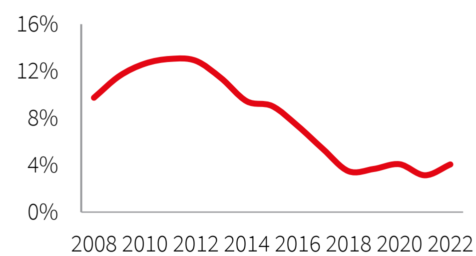
For more information, contact: Joel Woodmass | Joel.Woodmass@am.jll.com

Fundamentals		Forecast
YTD net absorption	3,407,855 s.f.	▶
Under construction	2,163,463 s.f.	▶
Total vacancy	4.1%	▶
Sublease vacancy	561,688 s.f.	▶
Direct asking rent	$0.74 p.s.f.	▲
Sublease asking rent	$0.59 p.s.f.	▶
Concessions	Falling	▶

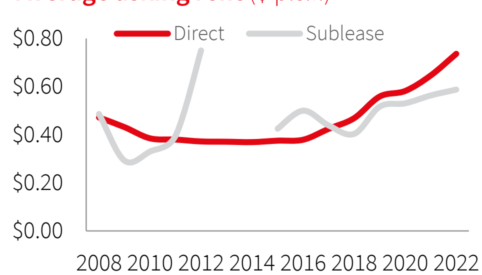
Supply and demand (s.f.)



Total vacancy (%)



Average asking rent ($ p.s.f.)



Salt Lake City

Deliveries outpace near-term demand; record-low vacancy returns to pre-pandemic level

- Average total asking rent increased 4.4% quarter-over-quarter from $0.69 p.s.f. in Q2 and $0.72 p.s.f. in Q3 and was up 16.1% year-over-year.
- StitchFix announced it will close its Salt Lake City warehouse. The company leased one million s.f. in the Airport submarket in 2020.
- Four percent annual escalation is becoming more common as landlords seek to capture inflationary cost increases. This is occurring with leases 30,000 s.f. and larger.
- Pepsi inked a 200,000-s.f. build-to-suit in West Jordan.

Fundamentals	Forecast	
YTD net absorption	8,789,375 s.f.	▲
Under construction	10,829,595 s.f.	▲
Total vacancy	4.2%	▲
Sublease vacancy	518,367 s.f.	▲
Direct asking rent	$0.71 p.s.f.	▶
Sublease asking rent	$0.88 p.s.f.	▲
Concessions	Stable	▶

The Salt Lake City industrial market continued its exceptional performance in 2022 with the third consecutive year of above-average leasing and the second-highest volume of annual absorption on record. However, leasing and absorption volumes were both below 2021 levels – something to watch in 2023 to see if the market is slowing amid economic headwinds.

Leasing volume declined 9.3% year-over-year, which contributed to lower annual absorption for 2022 compared to 2021. The largest volume of completions was recorded this year with 13.0 million s.f. delivered. At year-end, nine buildings that delivered in 2022 and totaled 2.8 million s.f. remained 100% vacant. Absorption was down 28.8% year-over-year after reaching a 12.3 million s.f. highpoint in 2021.

The Northwest Quadrant continues to outperform the rest of the market in terms of leasing, absorption and deliveries.

During the fourth quarter numerous leases in excess of 200,000 s.f. were signed including a 207,000 s.f. local expansion and an 805,000-s.f. new-to-market deal.

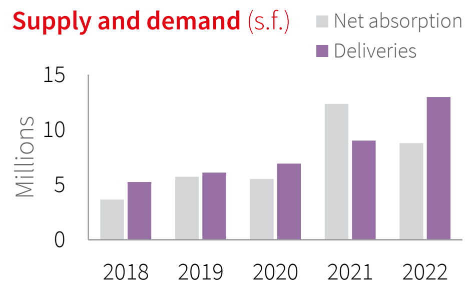
There is now a fourth co-warehousing operator in the market. Cubework leased 89,296 s.f. at RWK Doolittle in the Airport submarket. They join similar operators Chunker, Portal and Gyvr.

Outlook

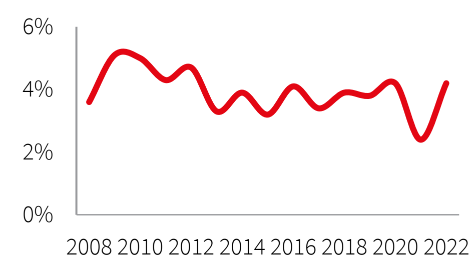
Sublease availability is expected to increase in 2023 as some industries like consumer goods lay off workers and re-evaluate supply chain needs. This may result in slowing rent growth.

Salt Lake City's growing population, diverse economy, which is reflected in its industrial tenant base, combined with its skilled labor will help the market remain resilient.

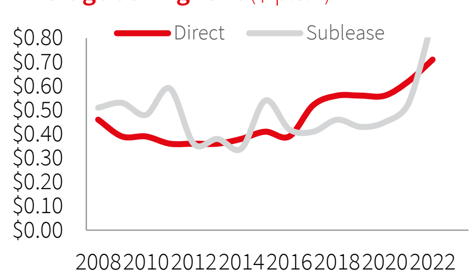
Supply and demand (s.f.)



Total vacancy (%)



Average asking rent ($ p.s.f.)



For more information, contact: Amy Mills | amy.mills@am.jll.com

San Antonio

Industrial continues to record occupancy gains as year ends

- Industrial momentum continued in Q4, adding over a million square feet of absorption
- Amazon headlined major moves as they occupied their newly constructed facility
- Pipeline expanded with multiple projects underway

After a year of strong occupancy gains, the San Antonio industrial market continued its considerable momentum into Q4, with 1.3 m.s.f. of positive absorption. Industrial's remarkable hot streak, combined with an expanding construction pipeline, inspires great optimism among the landlord and brokerage communities for continued success into 2023.

Total net absorption for the quarter was 1.3 million s.f., bringing the 2022 year-to-date total to 4.5 million s.f. Leading the charge in Q4 was Amazon, who occupied 1.0 m.s.f. at their newly delivered fulfillment center at 10360 US-90. Other moves included Icon OEM taking 54,000 s.f. at Centerpoint Logistics Park, CED taking 39,000 s.f. at Ridgeview 35, and Freedom Solar taking 34,000 s.f. at Tri-County Crossing. Direct asking rates increased by 3.5% quarter-over-quarter to $6.46 p.s.f, in conjunction with the decrease in available space.

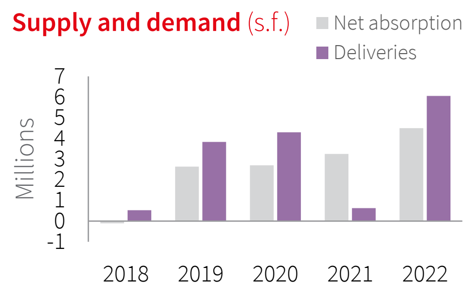
Q4 saw a handful of projects deliver, including the 243,000-s.f. Rise at Connection Industrial Park at 6674 Cal Turner Drive in the northeast submarket, adding a significant chunk of vacant space to the market. Moreover, multiple new buildings were announced as under construction. These new facilities included Selma Industrial Building III, a 429,000-s.f. project at 17654 Ben E. Keith Way, four buildings totaling over 450,000 s.f. at Leon Creek Logistics Park, and two 120,000-s.f. buildings at Mid-City Industrial Park on Highway 90.

Outlook

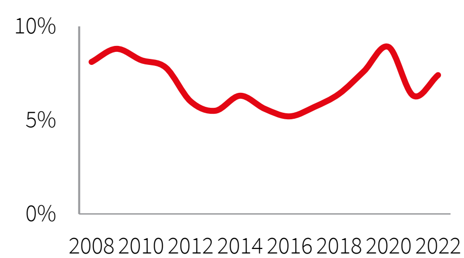
San Antonio's industrial sector achieved great success in 2022, boasting over 4 million s.f. of occupancy gains. As tenant demand remains steadily high, and the construction pipeline continues to add new product, look for the industrial sector to maintain its momentum into 2023.

Fundamentals		Forecast
YTD net absorption	4,556,070 s.f.	▲
Under construction	2,417,875 s.f.	▼
Total vacancy	7.4%	▼
Sublease vacancy	550,801 s.f.	▲
Direct asking rent	$6.46 p.s.f.	▲
Sublease asking rent	$4.66 p.s.f.	▲
Concessions	Stable	▶

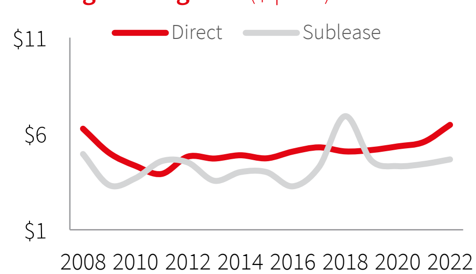
Supply and demand (s.f.)



Total vacancy (%)



Average asking rent ($ p.s.f.)



As part of a continuous process of data quality improvement, JLL Research has expanded its tracked inventory to include corporate owner-occupied properties. Buildings owned by government, educational and medical entities remain outside of statistical inventory.

For more information, contact: Harrison West | Harrison.west@jll.com

San Diego

Direct vacancy hits record low, spurring new development in North and South County

- Total leasing activity decelerates but several sizeable leases were signed during Q4, 70% of which were new leases
- Year-to-date total net absorption was strong despite large sublease space added to the market in the second half of the year
- 2022 ends with vacancy at a record low, causing rents to increase 23% year-over-year
- Several new projects broke ground in North and South County as demand for new large block space remains active in these regions

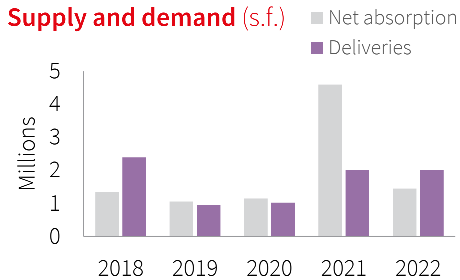
Fundamentals	Forecast
YTD net absorption	1,447,396 s.f. ▶
Under construction	2,902,410 s.f. ▼
Total vacancy	2.3% ▶
Sublease vacancy	762,668 s.f. ▶
Direct asking rent	$1.29 p.s.f. ▶
Sublease asking rent	$1.23 p.s.f. ▶
Concessions	Stable ▶

The San Diego industrial market closed out 2022 confidently despite the challenging economic landscape. Leasing activity stayed relatively subdued during Q4, but several notable leases were signed. New leases included PCI Pharma signing a long-term contract for 105,000 s.f. in Otay Mesa, Pirch leasing 94,000 s.f. in Vista and CAPS leasing 92,000 s.f. in Santee. All new large leases in Q4 were located outside of the Central County and the I-15 Corridor clusters where pricing is at a discount.

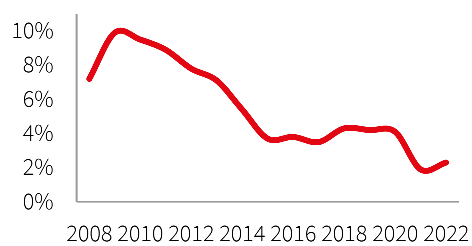
The year ended with 1.5 million s.f. of year-to-date total net absorption, less than 9% below the 10-year annual average. The first two quarters of 2022 showed strong positive net absorption, but the second half was offset by the addition of several large sublease spaces to the market, led by an e-commerce giant. As a result of the rise in sublease vacancy, Q4 net absorption was essentially flat. Despite a rise in sublease vacancy, direct vacancy now sits at a record low of 1.7%, pushing average asking rents up by 23% year-over-year.

In Q4, Hamann Companies completed PROTO Logistics Center, two buildings totaling 128,000 s.f. that delivered 100% pre-leased in Otay Mesa. The largest projects to break ground in Otay Mesa during Q4 were two buildings at the Sanyo Logistics Center totaling 243,000 s.f. and two buildings totaling 203,000 s.f. at phase two of Brown Field Tech Park. Up in Carlsbad, Hines broke ground on a long-awaited 253,000 s.f. BTS project for a large logistics user. Some developers are now measuring projected rents against current construction costs and weighing the decision of whether to break ground. As a result, we may begin to see proposed projects halt and push out expected completion dates.

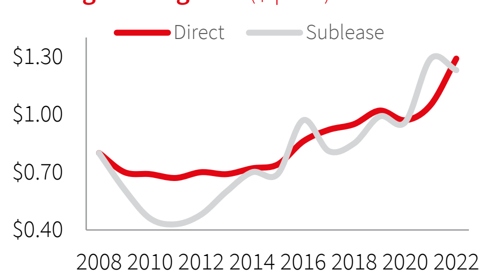
Supply and demand (s.f.)



Total vacancy (%)



Average asking rent ($ p.s.f.)



Outlook

Market fundamentals showed resiliency despite cooling in capital markets and leasing. Demand for large block space remains elevated, but economic conditions could influence activity in the coming quarters. However, the San Diego industrial sector is well-positioned due in part to a lack of options larger than 100,000 s.f. available for direct lease, which continues to put upward pressure on asking rents.

For more information, contact: Logan Hood logan.hood@jll.com

Savannah

Tenants secure space as quickly as the port grows

- Savannah continued to break records with rapid deliveries and strong leasing activity and YTD absorption surpassed 2021's .
- Demand continued to be fueled in large part by the port and tenants raced to snap up product in a very tight market with only 1.3% vacant Class A space and zero vacant Class B and C space this quarter.
- Developers are delivering larger product sizes to keep up with warehousing demand in the market now making the new standard 500,000 s.f.

Savannah continued to experience rapid deliveries and strong absorption through the end of the year. YTD absorption was at 15.3 million s.f., surpassing 2021's total. By year end, vacancy remained below 1.0%, which pushed rents up by 27.7% year-over-year; continuously increasing rental rates was a trend seen throughout all of 2022. In terms of availability, only 12.5% of the market is up for grabs with little to none of that being existing Class A space. Only 1.3% of Class A space remains vacant, while no Class B or C space was vacant by the end of the fourth quarter.

With tenants racing to snatch up space at an extraordinary pace, developers showed no sign of stopping as the construction activity represented 21.8% of the total inventory. There were 7 buildings that delivered in Q4 totaling to 4.3 million s.f., all of which were preleased or build-to-suit. Another wave of under development product commenced totaling to 8.5 million s.f., 55.3% of which is preleased and all delivering within the first quarter of 2023.

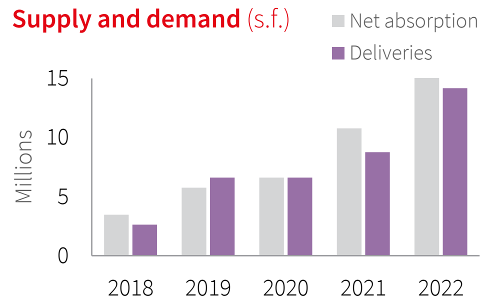
As developers attempt to keep up with tenant demand, development sizes have significantly increased throughout recent years. The average building size from 2020-2022 was 1.5 times larger than they were pre-2020. The increase in demand made the average property go from 350,000 s.f. to the new standard being 500,000 s.f. Even with the rise in construction activity, tenants have still taken space before it has delivered or broken ground.

Outlook

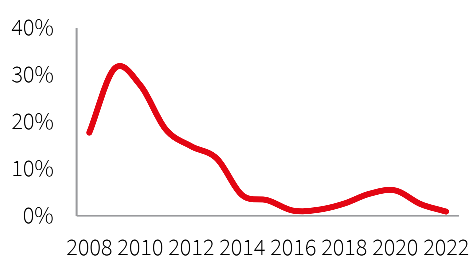
The port saw increased TEU volumes due to more tenants flowing towards the Southeast for faster off load timing. More and more tenants are interested in Savannah, which will further increase demand for warehousing product. With continued low vacancy and rent growth, demand will exceed supply, which is exacerbated by the lack of available developable land in the market. With the port taking in more TEU volume than ever seen before, tenants will continue to put pressure on the market to keep up with demand.

Fundamentals		Forecast
YTD net absorption	15,339,626 s.f.	▲
Under construction	21,489,763 s.f.	▼
Total vacancy	0.9%	▶
Sublease vacancy	0 s.f.	▲
Direct asking rent	$6.29 p.s.f.	▲
Sublease asking rent	$0.00 p.s.f.	▲
Concessions	Rising	▲

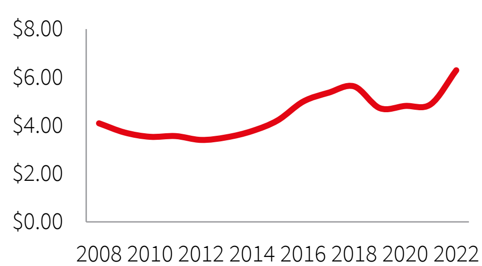
Supply and demand (s.f.)



Total vacancy (%)



Average asking rent ($ p.s.f.)



For more information, contact: Alexis Forrest | Alexis.Forrest@am.jll.com

Seattle-Puget Sound

Near record demand drives strong rent growth and declining vacancy

- Development remains at its highest level on record. However, roughly half of all properties currently under construction are set to deliver in the first quarter of 2023.
- Vacancy dropped below 3% for the first time in 5 years as demand continues to outpace new supply.
- Average asking rents increased 9.7% year-over-year to $1.02 NNN blended, crossing the $1.00 mark for the first time.

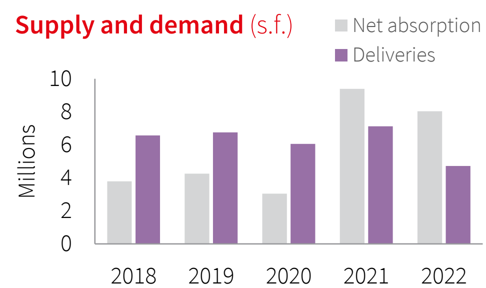
Fundamentals		Forecast
YTD absorption	8,033,288 s.f.	▼
Under construction	13,537,747 s.f.	▼
Total vacancy (%)	2.9%	▶
Sublease vacancy	846,475 s.f.	▲
Direct asking rent	$1.01 p.s.f.	▲
Sublease asking rent	$1.03 p.s.f.	▲

Momentum from a record 2021 year rolled into 2022 and set up the two strongest years of demand on record. Over 16 million s.f. of leases were signed throughout the year as the region experienced another 8 million s.f. of absorption. The demand was largely driven by logistics and distribution companies, who accounted for 40% of all leasing. Many of these companies were big-box users, with 10 of the 15 largest leases signed throughout the year in the logistics and distribution industry. Notable leases include UPS's 670,000 s.f. renewal at Auburn Logistics Center and UNIS's new 416,000 s.f. lease at Prologis Park Tacoma.

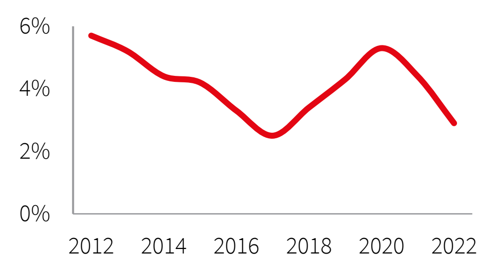
Additionally, as the final 747 rolled out of Boeing's assembly plant in Everett, we are seeing the burgeoning aerospace industry take-off with Amazon's project Kuiper, Blue Origin and Stoke Space Technologies all signing new leases over 150,000 s.f. over the past 12 months. As the modern space race heats up, the Puget Sound with its highly educated engineering employee base is a top location for this high growth industry.

On the investment sales side, 2022 marked the 5th straight year with industrial sale volumes above $1 billion. The fourth quarter ended the year with a flurry of sales activity as Prologis closed on their Duke Realty acquisition, who had a significant portfolio in the Puget Sound, and Link Logistics and Panattoni Development selling the newly developed Pacific Gateway Industrial Park for $260 million / $316 p.s.f. to the LDS church - the largest single market portfolio sale of the year.

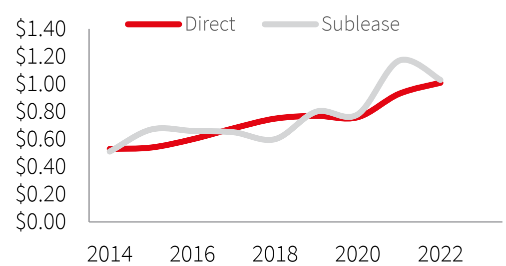
Supply and demand (s.f.)



Total vacancy (%)



Average asking rent ($ p.s.f.)



Outlook

The substantial increase in the Fed Funds Rate has had a significant effect on borrowing costs that are adversely impacting commercial real estate. A slowdown in new construction starts has started, with some speculative projects being mothballed by major developers. As demand remains robust, the pipeline decline points to a continued tight market in the short to medium term. Even though forecasts suggest moderating rent increases towards historic averages, industrial will likely outperform other real estate sectors as e-commerce and onshoring trends continue to bolster the market.

For more information, contact: Tim Harrison | tim.harrison@jll.com

Silicon Valley

Developers break ground on longstanding redevelopment plays across the market

- Tenant demand remains stable despite the market ending the year with negative absorption.
- While other markets peaked in early 2022, the Silicon Valley continues to see momentum with requirements exceeding 9 million s.f.
- Over 1.5 million square feet of new industrial projects broke ground this quarter, a stark contrast from the beginning of the year.

With persistent supply constraints continuing to hamper new leasing activity, the Silicon Valley closed out 2022 with negative absorption due to move-outs within sublease spaces. Despite the negative absorption, there was still 78,500 s.f. of positive direct absorption, a sign that tenant interest remains despite limited availability. Spaces that are slow to lease likely have some dysfunction to the existing space, often physical limitations or private ownership that is unwilling to make improvements to the space. With no room to go, renewals have driven transaction activity throughout the market.

Over the course of the pandemic, touring activity has steadily increased. With boundaries between the Silicon Valley and the East Bay blurring as a result of the limited availability, it is important to consider the combined requirements, which total 17.6 million s.f.. To put that into perspective, requirements for two markets peaked at 28.9 million s.f. in Q1 2022, but there is still twice as much touring activity than there was in Q1 2020.

While developers in the East Bay are postponing ground breakings on new construction, developers in the Silicon Valley are forging onward with long-standing redevelopment plays. This quarter alone, Ares broke ground on two separate projects, one in San Jose and the other in Fremont, for a total of 608,000 s.f. of space. Similarly, Prologis and Overton Moore Properties broke ground on their Flex redevelopment projects in San Jose at Rue Ferrari and Concourse Dr, respectively. Finally, Trammell Crow broke ground on another 5-building project in Morgan Hill. This is a stark contrast from 2021, where there was only 400,000 s.f under construction at year-end, none of which was in the core submarkets. With a five-fold increase in the amount of Class A construction now in play, East Bay tenant demand, especially for large-blocks of space, may spillover into the Silicon Valley, depending if the tenants are willing to pay for Silicon Valley access.

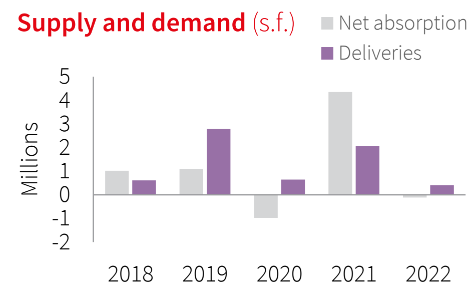
Outlook

With many of existing options available for lease having some dysfunction to them, the average asking rent across the market is lower compared to competitive spaces. Expect a divergence in rents to continue as tenants value quality spaces and as new construction comes to market. As landlords push rents on their Class A space, expect these large-blocks to drive rent asking rent growth throughout the Silicon Valley.

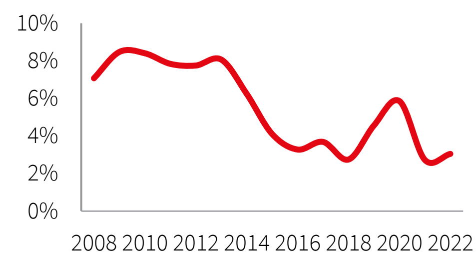
For more information, contact: Joel Woodmass | Joel.Woodmass@am.jll.com

Fundamentals	Forecast
YTD net absorption	-116,173 s.f. ▲
Under construction	2,030,429 s.f. ▶
Total vacancy	3.0 % ▶
Sublease vacancy	268,053 s.f. ▼
Direct asking rent	$1.54 p.s.f. ▲
Sublease asking rent	$1.46 p.s.f. ▶
Concessions	Stable ▶

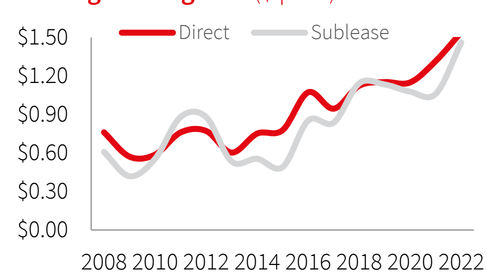
Supply and demand (s.f.)



Total vacancy (%)



Average asking rent ($ p.s.f.)



St. Louis

St. Louis ends 2022 on a high note amid record levels of deliveries in Q4

- St. Louis saw a record year in construction completions in 2022. Nearly 8 million s.f. came online almost half of which delivered in Q4.
- Tenant demand remains high for this new space. Half the inventory delivered in 2022 was preleased and over 40% of the product under construction is already preleased.
- Sublease vacancy rose in Q4 and throughout 2022, but the overall market saw major occupancy gains due to direct leasing.

The St. Louis industrial market saw 1.5 million s.f. in absorption in Q4, capping off one of the highest years to date. This is now back-to-back years of historic levels of absorption, with 2022 exceeding 2021 levels. Two large leases commenced in Q4, both taking place in the St. Charles County submarket. Trane occupied 423,000 s.f. at Premier 370 building I and Reaction Auto Parts occupied almost 266,000 s.f. at Premier 370 building II. These 2 leases combined for almost half of the positive absorption in Q4 alone.

The major highlight of 2022 was the record level of construction completions in the market. St. Louis for the first time exceeded 7 million s.f. in completions in a single year, more than the last 2 years combined. The majority of this construction took place in the North County, St. Charles County and Metro East North submarkets totaling 6.1 million sf between the three.

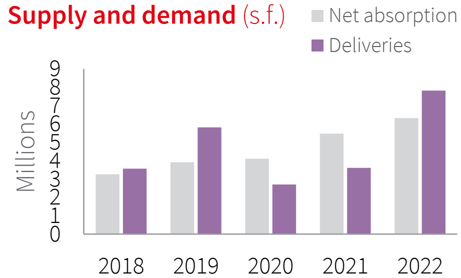
The draw of new construction to these areas can be attributed to factors including logistical access and continued expansion of existing facilities. The majority of the inventory delivered were also larger facilities of 200,000 s.f. or greater. The availability of land parcels big enough to form industrial parks able to hold buildings of this size is perhaps the biggest factor why these submarkets were chosen.

Outlook

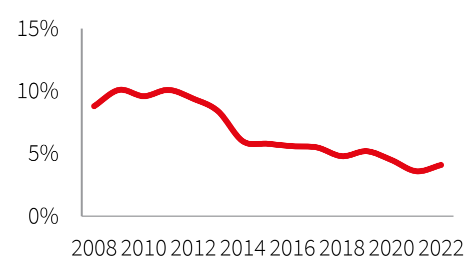
Due to record levels of construction being completed in 2022 along with unclear construction costs moving forward, we expect new construction to be put on pause at least to start the new year. Developers will want to see how the market reacts over the first half of the year first before moving forward with any additional plans. Leasing activity has been the highest it's ever been over the past few years. Some regression to the norm is reasonable to expect, but we look for demand to remain strong and pick up as 2023 progresses.

Fundamentals		Forecast
YTD net absorption	6,324,704 s.f.	▼
Under construction	1,670,750 s.f.	▶
Total vacancy	4.1 %	▶
Sublease vacancy	660,088 s.f.	▶
Direct asking rent	$5.43 p.s.f.	▶
Sublease asking rent	$4.64 p.s.f.	▶
Concessions	Stable	▶

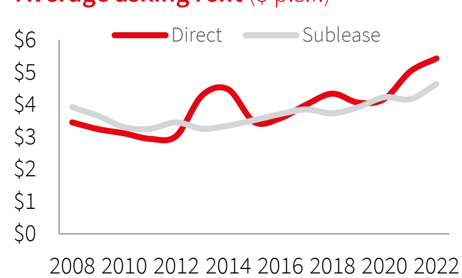
Supply and demand (s.f.)



Total vacancy (%)



Average asking rent ($ p.s.f.)



For more information, contact: Corey Nieman | corey.nieman@jll.com

Tampa Bay

Record breaking absorption, deliveries, and asking rates sets the stage for 2023

- Except for City Furniture's build-to-suit and Southern Oaks 1, every building delivered this year was under 500,000 s.f..
- Despite numerous buildings delivering vacant, leases have been signed and move-ins are scheduled to occur in the next 3-6 months.

2022 marks the second year in a row that Tampa Bay experienced record-breaking levels of deliveries. Approximately 5 million s.f. was delivered this year, a 70% increase from the 2021 record of 3.2 million s.f.. Notably, Benderson delivered 512,000 s.f. in four buildings at Florida International Tradeport in the Manatee/Sarasota submarket this quarter. This project along with 301 Corporate Center and North Port Business Park added 1.3 million s.f. to Manatee/Sarasota with only 300,000 s.f. of that remaining available. In addition, Foundry delivered 414,000 s.f. in two buildings in Lakeside Logistics II and Pattillo completed the 278,000 s.f. Central 75 Building 1 in East Side.

Absorption also broke records in 2022, surpassing 5.0 million s.f., shattering the high watermark made in 2021 nearly by 500,000 s.f.. This year's largest movers were City Furniture, Fed-ex, Home Depot, Star Distribution, and an e-commerce company who collectively absorbed 2.3 million s.f.. Record-breaking deliveries caused overall vacancy to creep above 3.0% this quarter, still, 2022 remained a historical year with only 3.5% vacant, the lowest in Tampa Bay history. Vacancy in the East Side increased 80 bps quarter-over-quarter to 4.5% as buildings were delivered vacant. However, this rate is still the lowest it's been in the past 5 years.

Overall asking rent is nearing the $9.00 p.s.f. NNN threshold, with asking rates increasing 30% year-over-year. Much of that increase can be directly attributed to new construction which boasts asking rents ranging from $7.95-$12.50 p.s.f. NNN. The highly sought-after Westshore/Airport submarket boasts the highest asking rates in all of Tampa, at $12.50 p.s.f. It's lack of development opportunities and centralized location draw lots of tenant demand, driving rates high.

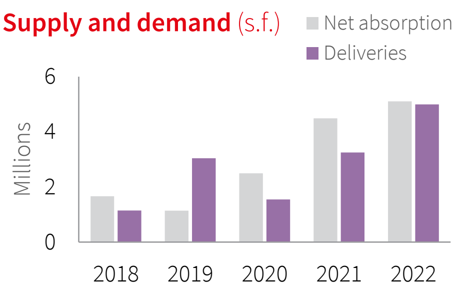
Outlook

As absorption and deliveries have shattered record highs, vacancy continues its downward trend to hit record lows across all submarkets. The increase in absorption and deliveries coupled with decreasing vacancy rates supports that tenant demand is outpacing the development pipeline. On top of that, current tenant requirements near 30 million s.f., with only 3 million s.f. set to deliver in 2023. This imbalance is going to further drive asking rates northward as demand is showing no signs of slowing down.

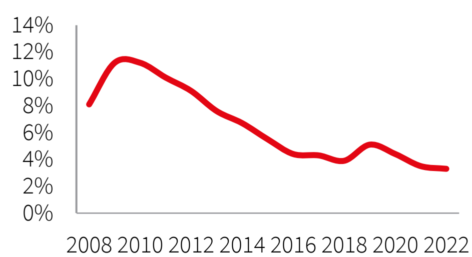
For more information, contact: Emily Clesen | emily.clesen@am.jll.com

Fundamentals	Forecast	
YTD net absorption	5,103,983 s.f.	▲
Under construction	3,084,957s.f.	▶
Total vacancy	3.3 %	▶
Sublease vacancy	465,563 s.f.	▶
Direct asking rent	$8.96 p.s.f.	▲
Sublease asking rent	$7.50 p.s.f.	▲
Concessions	Stable	▶

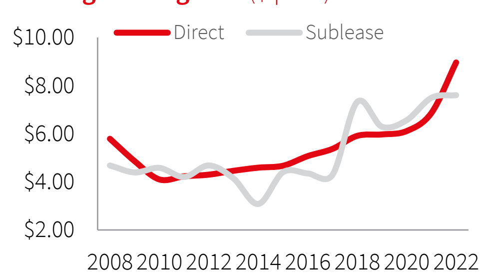
Supply and demand (s.f.)



Total vacancy (%)



Average asking rent ($ p.s.f.)



West Michigan

Strong finish caps of historic year for region's industrial market

- Expansion activity remains robust throughout the West Michigan region, highlighted by Pfizer's $750 million investment to expand manufacturing capacity in Kalamazoo.
- Over 3.4 million s.f. of new product delivered in 2022, somewhat emptying the construction pipeline from the levels we've seen the past two years.
- The region's extremely low vacancy points to continued strong demand, especially for high-quality space, and rent growth continues apace on a double-digit trajectory.

The West Michigan industrial market closed out 2022 strong, capping off yet another successful year for the region. 4.1 million s.f. of space was absorbed throughout the year, driving total vacancy downward to 3.0%. The market's robust rent growth continues, with average asking rents up 11.5% year-over-year to $4.57 p.s.f. Activity across the market was healthy in Q4, as absorption was up quarter-over-quarter, driven primarily by new leasing activity and expansions. In Southeast Grand Rapids, Cascade Engineering took 138,000 s.f. at 4300 36th St SE and Tecnoform leased 98,000 s.f. at 4999 36th St SE, while out in Walker, NBHX Trim took 46,000 s.f. at 3056 Walker Ridge Dr NW.

Expansion activity remains robust throughout the West Michigan region, highlighted by Pfizer's $750 million project in Kalamazoo. The pharmaceutical giant will add 300 jobs to their Kalamazoo plant once the expansion is complete. In Walker, Medical equipment manufacturer Tech Group Grand Rapids is spending $38.7 million to expand capacity and Axis Automation is underway on a $5.7 million campus expansion, while Eagle Technologies is also expanding in Bridgman.

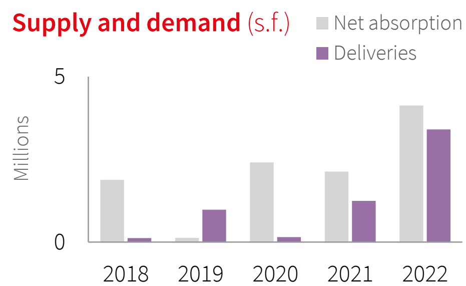
Over 3.4 million s.f. of new product delivered in 2022, somewhat emptying the construction pipeline from the levels we've seen the past two years. While rising construction costs coupled with rising interest rates have dampened development activity, new projects are still set to break ground in 2023, including a new facility for Bay Logistics in Coopersville and a 132,000-s.f. distribution center in Walker.

Outlook

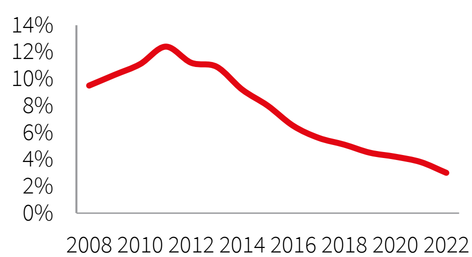
While economic uncertainty and rising rates have put a bit of damper on the national industrial market, there is still reason for optimism in the West Michigan industrial market in 2023. The region's extremely low vacancy points to continued strong demand, especially for high-quality space, and rent growth continues apace on a double-digit trajectory.

Fundamentals	Forecast
YTD net absorption	4,129,175 s.f. ▲
Under construction	941,002 s.f. ▲
Total vacancy	3.0% ▼
Sublease vacancy	666,218 s.f. ▶
Direct asking rent	$4.57 p.s.f. ▲
Sublease asking rent	$4.64 p.s.f. ▲
Concessions	Stable ▶

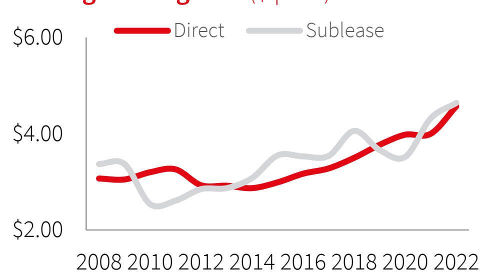
Supply and demand (s.f.)



Total vacancy (%)



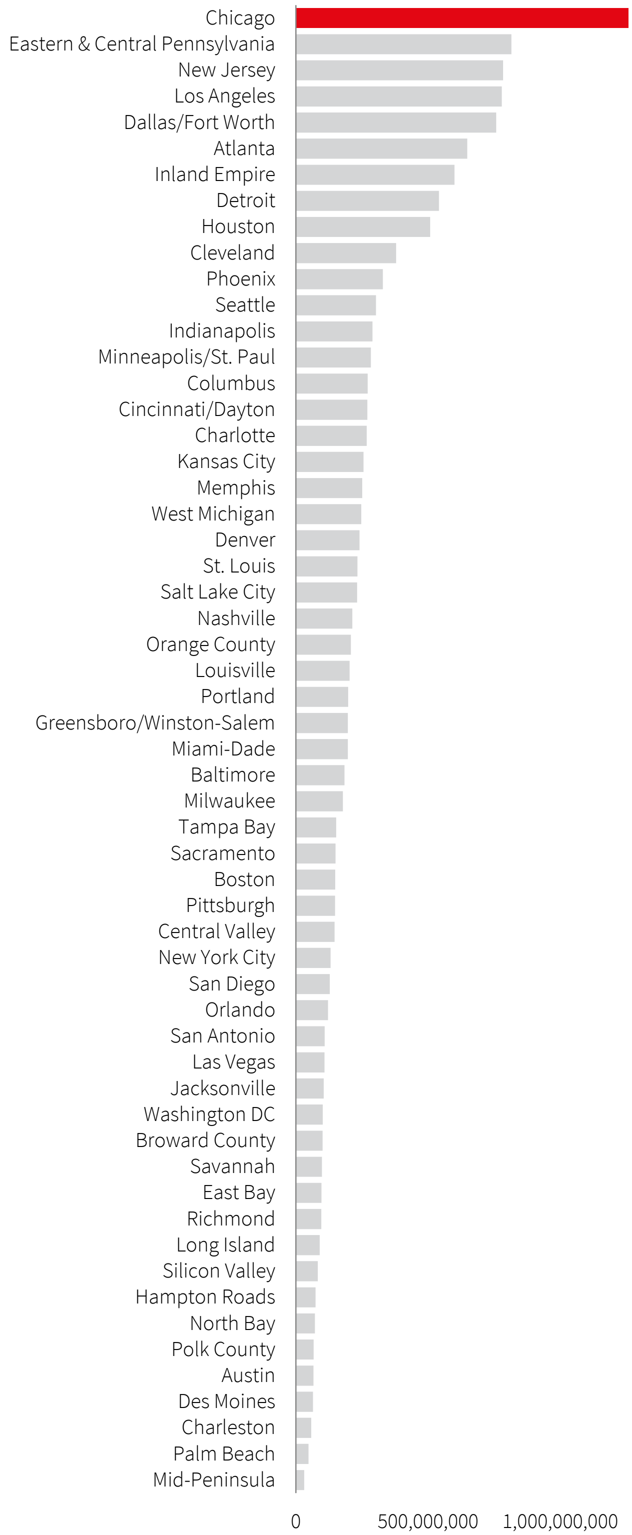
Average asking rent ($ p.s.f.)



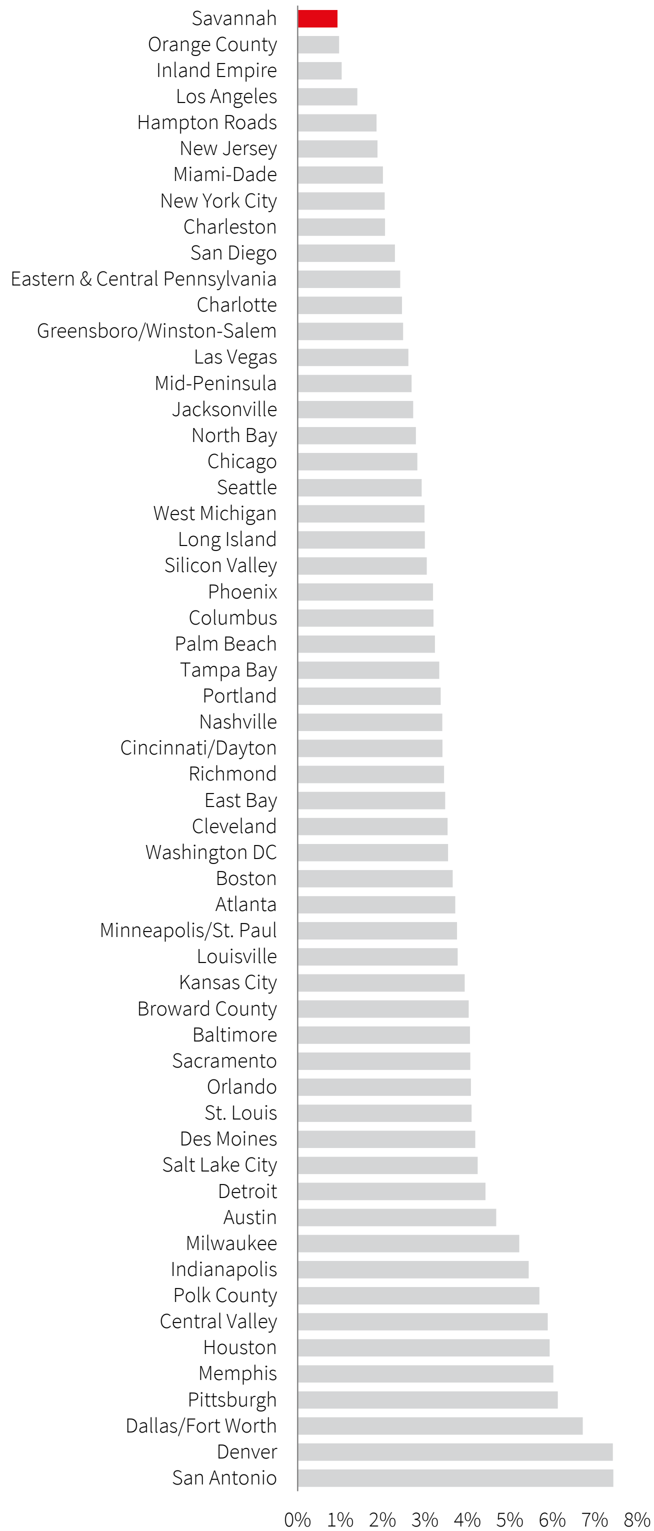
For more information, contact: Harrison West | harrison.west@am.jll.com

Appendix

Inventory
Square feet (millions)

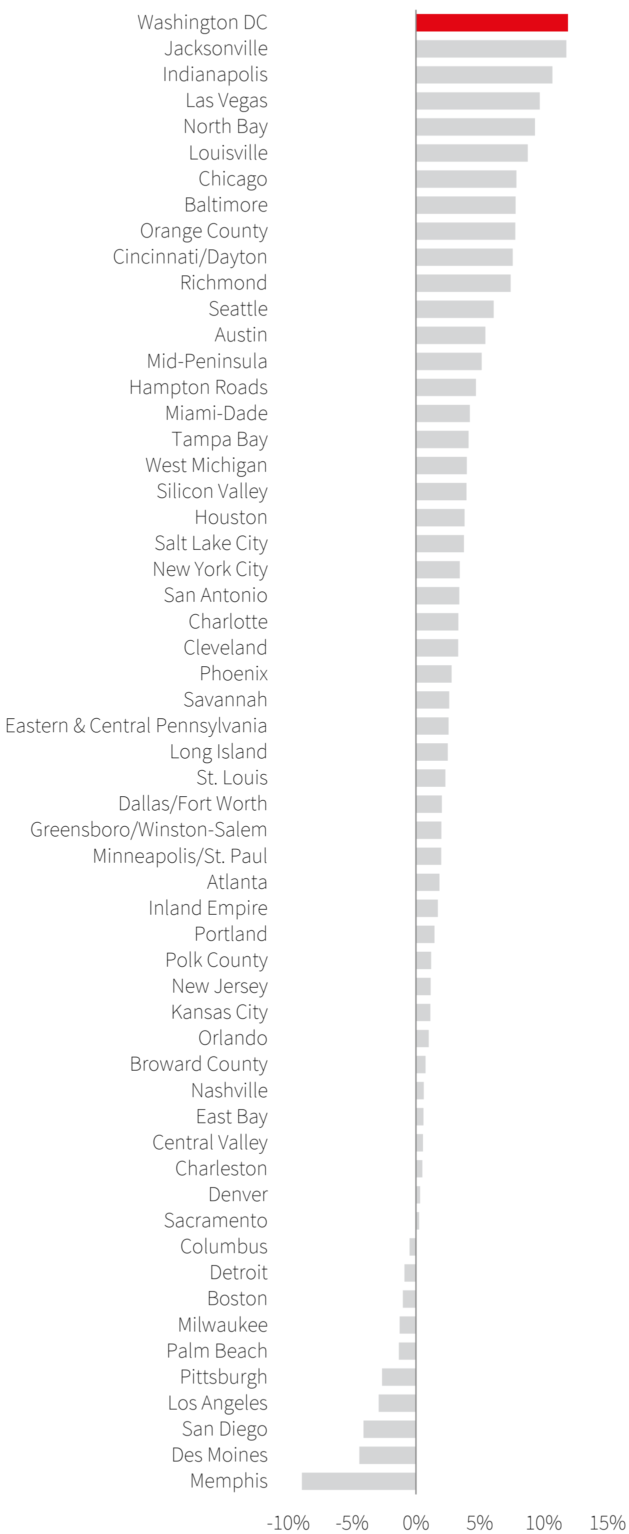


Total vacancy rates
Vacancy rate (%)

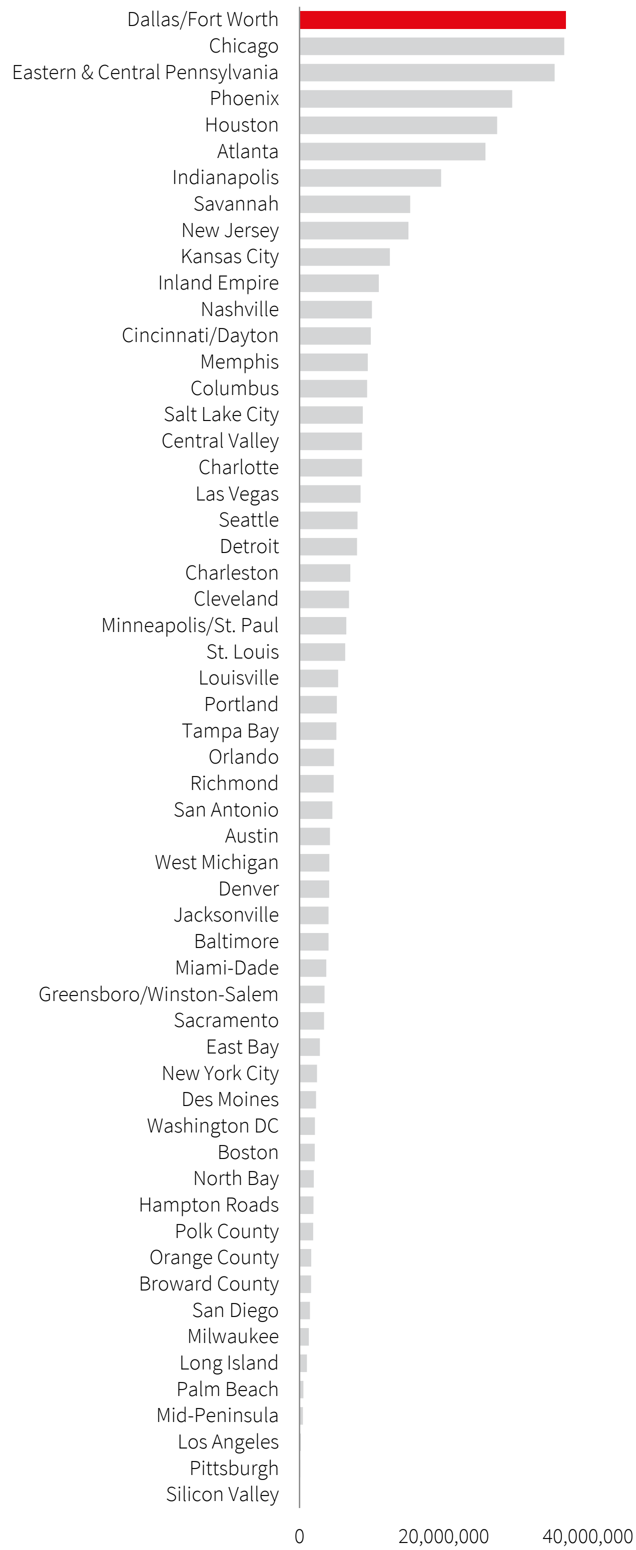


Source: JLL Research

Total asking rent changes
% quarter over quarter



YTD total net absorption
Square feet (millions)



Source: JLL Research

Reach out with questions:

Mehtab Randhawa
Global Head of Industrial Research
+1 919 424 8459
Mehtab.Randhawa@jll.com

Kelsey Rogers
Research Manager
+1 919 424 8479
Kelsey.Rogers@jll.com

Elizabeth Keiger
Senior Research Analyst
+1 864 419 9521
Elizabeth.Keiger@jll.com

About JLL

JLL (NYSE: JLL) is a leading professional services firm that specializes in real estate and investment management. JLL shapes the future of real estate for a better world by using the most advanced technology to create rewarding opportunities, amazing spaces and sustainable real estate solutions for our clients, our people and our communities. JLL is a Fortune 500 company with annual revenue of $19.4 billion, operations in over 80 countries and a global workforce of more than 102,000 as of September 30, 2022. JLL is the brand name, and a registered trademark, of Jones Lang LaSalle Incorporated. For further information, visit jll.com.

About JLL Research

JLL's research team delivers intelligence, analysis and insight through market-leading reports and services that illuminate today's commercial real estate dynamics and identify tomorrow's challenges and opportunities. Our more than 400 global research professionals track and analyze economic and property trends and forecast future conditions in over 60 countries, producing unrivalled local and global perspectives. Our research and expertise, fueled by real-time information and innovative thinking around the world, creates a competitive advantage for our clients and drives successful strategies and optimal real estate decisions.