Economic Development Forum:
Industry Site Selection Decision Making

October 11, 2017
FIRSTENERGY ECONOMIC DEVELOPMENT PARTNER FORUM
Juniper Solutions, a Signet LLC Company, serves both businesses and communities with a successful history of providing comprehensive real estate advisory & location strategies, as well as economic development consulting services to clients throughout North America.

www.JuniperCRE.com
WHAT WE DO

• Real Estate Strategy & Planning
• Site Selection
• Strategy & Lead Generation Services
• GIS Mapping and Spatial Analytics
• Market Research
• Location Assessment & Benchmarking

• Economic Development Service

Delivery Assessment

• Workforce Analysis
• Targeted Industry Assessment for Business Attraction
• Economic and Fiscal Impact Studies
• Incentives Analysis, Benchmarking and Recommendations
• Marketing and Business Development
• Cluster and Supply-Chain Studies
• Transaction Management/Tenant Rep
REPRESENTATIVE CLIENTS
Regional Industrial (Advanced Manufacturing & Logistics) Real Estate Market
SNAPSHOT – REGION VS. NATION

$6.81 Rent Per SF
5.3% Vacancy Rate

$4.87 Rent Per SF
5.7% Vacancy Rate

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5.3% Vacancy Rate

$4.87 Rent Per SF
5.7% Vacancy Rate
## SNAPSHOT – REGION VS. PEER CITIES

<table>
<thead>
<tr>
<th>City</th>
<th>Weighted Average Rate $/SF NNN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pittsburgh, PA</td>
<td>$6.05</td>
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<tr>
<td>Fredericksburg, VA</td>
<td>$5.89</td>
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<td>Hagerstown, MD</td>
<td>$4.76</td>
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<td>Baltimore, MD</td>
<td>$4.56</td>
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<td>Richmond, VA</td>
<td>$4.00</td>
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<td>Louisville, KY</td>
<td>$3.76</td>
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<td>Youngstown, OH</td>
<td>$3.29</td>
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</tbody>
</table>
LARGE BLOCKS OF AVAILABLE SPACE

50,000+ SF - Industrial

78 Properties, 119 Spaces Total

19 Properties Built After 1970 (as pictured)

8 Properties Built After 2000

Source: CoStar
• Real estate is a major factor in speed-to-market; most oil and gas companies want to lease space, rather than purchase.

• Companies integrating office needs into build-to-suit industrial facilities, but would rather not tie up capital to support real estate.

• Industrial facilities must store vehicles and drilling equipment indoors; can require 60’ ceiling heights; 3x traditional warehouse.

• Real estate does not exist where activity is, now sophisticated industrial inventory is required.
With cracker coming, Pittsburgh poised to become major player in plastics

“The cracker plant has taken a very large piece of land off of the market, and it is likely to drive the sale of other industrial locations up and down the Mon Valley.”

- Bob Hurley, Director of Economic Development, Allegheny County
KEY U.S. MACRO & MARKET HIGHLIGHTS

• E-commerce sales grew 15% from 2016 to 2017; now represent 8.5% of all retail sales. E-commerce will continue to drive industrial real estate in 2017.

• Reshoring of manufacturing due to governmental policies could drive increased demand for foreseeable future.

• Third-party logistics and distribution occupiers fueled rent growth; rose 4.2% in Q1 2017.

• New construction being fueled by demand for modern industrial; accounted for half of absorption in Q1 2017.

• Class A industrial rents reached record levels in 2017 at $6.10 per square foot. Lowest vacancy levels on record at 5.4%.
### Key Macro & Market Highlights

#### Select Top Industrial Leases

Based on Leased Square Footage For Deals Signed in 2017

<table>
<thead>
<tr>
<th>Building</th>
<th>Market</th>
<th>SF</th>
<th>Qtr</th>
<th>Tenant Name</th>
<th>Tenant Rep Company</th>
<th>Landlord Rep Company</th>
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<tr>
<td>7030 Tradepoint Ave</td>
<td>Baltimore</td>
<td>1,348,024</td>
<td>1st</td>
<td>Under Armor</td>
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<td>JLL</td>
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<td>9295 Prototype Dr*</td>
<td>Reno/Sparks</td>
<td>1,251,179</td>
<td>1st</td>
<td>IST</td>
<td>Direct Deal</td>
<td>Direct Deal</td>
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<tr>
<td>600 Principio Pky</td>
<td>Baltimore</td>
<td>1,149,800</td>
<td>3rd</td>
<td>Amazon</td>
<td>N/A</td>
<td>JLL; Colliers Intern</td>
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<td>Goodman Commerce Center Eastvale</td>
<td>Inland Empire (California)</td>
<td>1,007,705</td>
<td>1st</td>
<td>Amazon</td>
<td>Cushman &amp; Wakefield</td>
<td>JLL</td>
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<tr>
<td>Arlington Commerce Center - Building E</td>
<td>Dallas/Ft Worth</td>
<td>1,004,400</td>
<td>1st</td>
<td>UPS</td>
<td>N/A</td>
<td>Exeter Property Group</td>
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<tr>
<td>Lambert Farms Logistics Park - Building B</td>
<td>Atlanta</td>
<td>1,004,400</td>
<td>2nd</td>
<td>Lindt</td>
<td>N/A</td>
<td>JLL</td>
</tr>
<tr>
<td>699 Gateway Blvd - Bldg B - Bldg A</td>
<td>Cincinnati</td>
<td>994,013</td>
<td>1st</td>
<td>Hayneedle</td>
<td>N/A</td>
<td>IDI Gazeley; CBRE</td>
</tr>
<tr>
<td>Inland Port XXXII</td>
<td>Kansas City</td>
<td>927,112</td>
<td>1st</td>
<td>Spectrum Brands/HHL</td>
<td>JLL</td>
<td>Northpoint Development</td>
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<td>Lebanon Valley Distribution Center</td>
<td>Philadelphia</td>
<td>894,126</td>
<td>2nd</td>
<td>Ace Hardware</td>
<td>N/A</td>
<td>JLL</td>
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<td>Amazon-Trousdale Logistics Center</td>
<td>Portland</td>
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<td>Amazon</td>
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<td>Direct Deal</td>
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<tr>
<td>Northwest Gateway Industrial Park - Building D</td>
<td>Westchester/ScConnecticut</td>
<td>855,000</td>
<td>2nd</td>
<td>Amazon</td>
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<td>CBRE - New England</td>
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<tr>
<td>Prologis Park Tacoma Bldg B</td>
<td>Seattle/Puget Sound</td>
<td>770,195</td>
<td>1st</td>
<td>UPS</td>
<td>JLL</td>
<td>Washington Real Estate Advisors LLC</td>
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<td>980 High St - Bldg C</td>
<td>Northern New Jersey</td>
<td>718,219</td>
<td>1st</td>
<td>Target</td>
<td>N/A</td>
<td>CBRE; Bridge Dev Plr</td>
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<td>3375 Plainfield Rd</td>
<td>Indianapolis</td>
<td>702,000</td>
<td>2nd</td>
<td>SWS</td>
<td>N/A</td>
<td>JLL</td>
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<td>5715 S East Ave</td>
<td>Fresno</td>
<td>670,500</td>
<td>1st</td>
<td>Ultra Beauty</td>
<td>N/A</td>
<td>Prologis</td>
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<tr>
<td>21651 Mississippi St*</td>
<td>Chicago</td>
<td>624,370</td>
<td>2nd</td>
<td>Clearwater Paper</td>
<td>Arvion Young</td>
<td>NAI Hffman</td>
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<tr>
<td>Gateway East 624</td>
<td>St. Louis</td>
<td>624,150</td>
<td>2nd</td>
<td>GEODIS</td>
<td>ProVenture</td>
<td>Cushman &amp; Wakefield</td>
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<tr>
<td>16,601 W Sells St</td>
<td>Phoenix</td>
<td>618,350</td>
<td>1st</td>
<td>UPS</td>
<td>Cushman &amp; Wakefield</td>
<td>CBRE</td>
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<tr>
<td>1242 Cranbury South River Rd</td>
<td>Northern New Jersey</td>
<td>607,739</td>
<td>1st</td>
<td>Fisher International</td>
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<td>Skyliner/20 West</td>
<td>Atlanta</td>
<td>604,852</td>
<td>1st</td>
<td>Mars</td>
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<tr>
<td>Ontario Airport Mission Center 3</td>
<td>Inland Empire (California)</td>
<td>604,178</td>
<td>1st</td>
<td>The Braun</td>
<td>JLL</td>
<td>JLL</td>
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<tr>
<td>Memphis Depot Industrial Park</td>
<td>Inland Empire (California)</td>
<td>600,000</td>
<td>2nd</td>
<td>Nickel &amp; Warehouses, Inc.</td>
<td>CBRE</td>
<td>Colliers Management Services</td>
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<td>4555 Redlands Ave</td>
<td>Inland Empire (California)</td>
<td>599,113</td>
<td>2nd</td>
<td>Essendant</td>
<td>JLL</td>
<td>Lee &amp; Associates</td>
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<tr>
<td>First Florence Logistics Center</td>
<td>Philadelphia</td>
<td>577,200</td>
<td>2nd</td>
<td>B&amp;H Photo</td>
<td>N/A</td>
<td>NAI Mertz</td>
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<tr>
<td>6750 Legacy Blvd</td>
<td>Memphis</td>
<td>543,671</td>
<td>1st</td>
<td>GENCO</td>
<td>N/A</td>
<td>Colliers International</td>
</tr>
</tbody>
</table>

Source: CoStar
SHALE INDUSTRY SUPPLY-CHAIN

TRANSPORTATION EQUIPMENT

2017–2021 Projection

- Employment Change (%)
  - Nonmetallic Mineral Products
  - Primary Metals
  - Fabricated Metal Products
  - Machinery
  - Computer and Electronic Products
  - Electrical Equipment Components
  - Transportation Equipment
  - Furniture and Related Products
  - Miscellaneous

- Gross Product Change (%)
  - -15
  - -10
  - -5
  - 0
  - 5
  - 10
SHALE INDUSTRY SUPPLY-CHAIN

CHEMICAL + PLASTICS AND RUBBER PRODUCTS

2017–2022 Projection

Employment Change (%) vs. Gross Product Change (%)

- Chemical
- Plastics and Rubber Products

Juniper Solutions
SHALE INDUSTRY SUPPLY-CHAIN

FOCUS ON...TRANSPORTATION EQUIPMENT, CHEMICALS, & PLASTIC/RUBBER PRODUCTS IN SHALE SUPPLY CHAIN
CRAFT A PLAN FOR ATTRACTION

• Foster high-demand skills with local educational institutions

• Focus on how technology and workforce are driving site selection for advanced facilities

• Explore collaborations on getting your local workforce and future graduates professional certifications:

• Identify large sites and existing companies to leverage for attraction purposes
CASE STUDY: SUPPLY-CHAIN & ATTRACTION

- Supply-Chain Conference Hosted by Westinghouse Nuclear
- 234 Companies Participated
- Co-Hosted by FirstEnergy (FE) & Pittsburgh Regional Alliance (PRA)
- Juniper Solutions attended
- Networking opportunity at cocktail hour
- Westinghouse shared attendee list
- Juniper developed dossiers on majority of companies who attended, which was then provided to FE & PRA.
- Established calling program and relationship building opportunities
Site Selection Decision Making: Being Ready When Opportunity Knocks
A systematic, time-tested approach to helping companies resolve business location challenges.
THE DECISION PROCESS IS…

**Profit-Driven**
Investment for the purpose of return. Business is in business to make a profit. The process must ensure that the broad perspective of the enterprise is addressed.

**Deadline-Driven**
Both the site selection process and the project must meet deadlines.

**Competitive**
Companies have multiple location options. The process is one of elimination until the optimal site is found.

**Comprehensive**
A complex decision involving analytical and subjective analyses, it must take into account critical aspects that are important to the entire organization.
EMERGING TRENDS...

- Communities are being evaluated before they even know they are being considered.

- Use of GIS and the Internet mean the initial site search process is significantly shorter. Speed and accuracy!

- Increased importance of project-ready sites (shovel-ready) and buildings.
  - 80% of searches are looking for an existing building.
  - 1/4 cannot find a building — so you need prepared sites too.

- Data-driven site selection approach through advanced analytics tools including drive-time coverages, psychographics, and mobile and automotive geofencing.
EMERGING TRENDS...

- Reduced off-shoring and increased on-shoring.
- Increased automation and productivity reducing employee counts; artificial intelligence.
- Migration of companies from struggling regions may continue to increase (e.g. California/Illinois/Connecticut).
SITE SELECTION FACTORS

- Connectivity
- Availability of Skilled Labor
- Highway Accessibility
- Quality of Life
- State & Local Incentives
- Proximity to Major Markets
- Corporate Tax Rate
- Occupancy / Construction Costs
- Supply-Chain
- Available Buildings

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- Connectivity
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- Available Buildings
QUALITY OF PLACE FACTORS

- Low Crime Rate
- Accessibility/Traffic
- Climate
- Cultural Assets
- Recreational Activities
- Colleges/Universities
- Cost of Living
- Housing Availability
- Healthcare Facilities
- Public School Ratings
- Colleges/Universities
THE SITE SELECTOR’S SHOES

• Access to accurate data
• Clarity
• Efficiency and timeliness
• Updated website that is ED leaning
• Single point of contact, who has the answers or can get them quickly
• Facts vs. sales pitch
TEAM SPORT

- Schools
- Fire and safety
- Parks and recreation
- Finance (banks, lenders, port authorities)
- Leadership from other companies
- Labor (if on board)
- Elected officials
- Real estate developers and owners
- Share Data
- Rehearse the Story

Source: Palo Alto Networks
PLACE AUTHENTICITY

  - Important concept by virtue, but the slogan is overdone.

  - “A great slogan can help people to remember your company, but it needs to be connected to your brand message.” – The Placemaking Group

- EXAMPLES:
  - Keep Austin Weird is the slogan adopted by the Austin Independent Business Alliance to promote small businesses in Austin, Texas.
IDENTIFYING OPPORTUNITIES

PREDICTIVE ANALYTICS

- M&A Event
- Leadership Change
- Regulatory Impacts (e.g. New State or Local Laws)
- New Product Releases
- R&D Spends
- Revenue Spikes
OPPORTUNITY RESEARCH: TOOLS OF THE TRADE

AVENTION
ONESOURCE SOLUTIONS
TURNING DATA INTO OPPORTUNITY

QUALIFIED LEADS
LIMITED OPPORTUNITIES/SPEC DEVELOPMENT

• Inventory lackluster in both functionality/availability in:
  ▪ Class A Office – Headquarters
  ▪ Warehousing/Distribution - 20,000 – 50,000 SF

• Regional focus on incentivizing speculative development so inventory can be quickly occupied instead of 18-month build-to-suit lead times

• There are a number of available sites in terms of land that are shovel-ready, but occupancy-ready buildings should be a focus moving forward

• Collaborate with major institutions like power suppliers or Port Authority who have the potential to finance, but don’t want to hold assets long-term; tee up investment sales or lease-to-own spec buildings
VACATED RETAIL AND MALL REDEVELOPMENT

• There is 25 square feet of retail per person in the U.S.A. The country is over-retailed and closings fall-out has accelerated rapidly.

• Beyond the mall, many traditional big-box retailers of the last decade are shuttering; brands include Sears, JCPenney, and Kmart.

• Is your community vulnerable? What is the land-use strategy?

These Cities Have Too Many Stores, and They’re Still Building

Cleveland, Memphis, and Chicago lead the way among metro areas where retail development has outpaced growth in demand.

by Patrick Clark and Dorothy Gambrell
June 12, 2017, 4:00 AM EDT
PREPARE VS. REACT

FORTUNE
Wanted: 1.4 million new supply chain workers by 2018

Anne Fisher
May 01, 2014

2014

2017

Logistically Minded: A talent shortage pervades the supply chain
• The changing face of economic development, trading jobs for capital investment

• Middle-skilled jobs

• Artificial intelligence

• Universal Basic Income (UBI) & paying for public goods
THE SHIFT FROM JOBS TO CAPEX?

• Grand Rapids

• Kalamazoo

• Alpha

• Cleveland Cliffs
JUST RECENTLY MY THOUGHTS CHANGED...INDUSTRY 4.0
WHAT ARE MIDDLE-SKILLED JOBS?

• Jobs that require more than a high school diploma and at least 6 months of formal on-the-job training, but less than a Bachelor’s degree.

• The majority of individuals employed in these professions are considered middle skilled:
  • 94.6%  Installation, Maintenance, & Repair Occupations
  • 84.4%  Production Occupations
  • 77.5%  Construction and Extraction Occupations
  • 69.7%  Health Care Support Occupations
  • 55.4%  Protective Services Occupations
MIDDLE SKILL EMPLOYMENT SHARES

Employment by Skill Level (2015)

- High: 25.5%
- Middle: 34.7%
- Low: 39.9%
MIDDLE SKILL EMPLOYMENT TREND

Employment Change 2000 to 2015
(By Skill Level)

- Low Routine: 3.9%
- Low Non-Routine: 0.7%
- Middle Routine: -0.1%
- Middle Non-Routine: 1.9%
- High Routine: 0.9%
- High Non-Routine: 6.8%
Buffett said that AI could be "enormously disruptive," yet beneficial in making the economy more efficient.

"I would certainly think [AI] would result in significantly less employment in certain areas," he said. "It would be a good thing that would require enormous transformation in how people relate to each other, what they expect of government, all kinds of things."

Buffett laid out a theoretical scenario at one of Berkshire's best-known companies, Geico. The insurer employs about 36,000 people, yet the financial services industry is seen as vulnerable to automation. Buffett asked: What if all of Geico's current functions, aided by AI, could be done by 10,000 people, or a third of the staff?
• If you assume worker displacement due to AI

• State and local governments across the U.S. are funded by:
  • Income taxes
  • Sales taxes
  • Property taxes
    • Real
    • Personal
  • User fees, excise taxes, permit fees, and others

• How do we support population and services?
THANK YOU.

QUESTIONS?

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