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2024

TARGETED INDUSTRY ANALYSIS

TexAmericas Center – Texarkana MSA – Texas

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Contents

- 1 TEXAMERICAS CENTER & THE TEXARKANA REGION 4**
 - 1.1 Texarkana's Best Fit Industries 6
 - 1.2 Texarkana's Regional Market Uniqueness..... 7
 - 1.2.1 Lower Cost of Operations 7
 - 1.2.2 Labor Market Surplus = Available Workforce 8
 - 1.2.3 Excess Capacity Utilities with Low Costs and Excellent Reliability 10
 - 1.2.4 Low-Cost Logistics & Excellent Access to Markets..... 10
 - 1.2.5 Speed To Occupancy 11
 - 1.2.6 Real Estate and Environmental Advantages 12
 - 1.2.7 Incentives And Business Services..... 12
 - 1.2.8 Quality Of Life 13
 - 1.2.9 Accolades from Site Selectors regarding the Texarkana Region..... 13
- 2 EXISTING CLUSTERS AND BEST FIT INDUSTRIES..... 16**
 - 2.1 Notable Existing Clusters In The Texarkana Area 16
 - 2.2 Relative Concentrations (LQ) Of Existing Industries 17
 - 2.3 Existing Manufacturing Operations By NAICS 17
- 3 TEXAMERICAS CENTER'S TARGETED INDUSTRIES..... 19**
 - 3.1 Advanced Manufacturing Cluster of Companies 19
 - 3.1.1 Small Arms & Ammunition Manufacturing Sector..... 21
 - 3.1.2 Medical Equipment & Supplies Manufacturing Sector 22
 - 3.1.3 Fabricated Metal Product Manufacturing Sector 23
 - 3.1.4 10 Examples of Advanced Manufacturing Technologies TexAmericas Center and the Texarkana Region want to Attract 27
 - 3.2 Agribusiness, Food, Beverage, & other input Processing Cluster of Businesses .. 30
 - 3.2.1 Market Demand And Industry Presence 31
 - 3.2.2 "Value-Added" Agriculture 31
 - 3.2.3 Growing Conditions For Agriculture Products 31
 - 3.2.4 Commodity Production 32
 - 3.2.5 Value Addition..... 33
 - 3.2.6 Food, Beverage, and Other Processing Sectors 33
 - 3.2.7 Packaging..... 38

3.2.8	Cold Chain Facilities.....	38
3.2.9	TexAmericas Center's Food Hub Concept For Startups And Skunk Works Assistance.....	38
3.2.10	Agricultural Equipment Manufacturing & Wholesale	39
3.3	Base Material, Critical Mineral Resource and Traditional Processing/Manufacturing	40
3.3.1	Resource-Based Production	41
3.3.2	Energy Production	43
3.3.3	Rare Earth Elements Or Critical Mineral Resources.....	44
3.3.4	Recycling And Reuse Of Rare Earth Elements	48
3.3.5	Traditional Manufacturing	49
3.4	Chemical, Petroleum, Plastic, & Rubber Manufacturing Cluster of Businesses ..	52
3.4.1	Petroleum And Coal Products Manufacturing	56
3.4.2	Chemical Manufacturing	56
3.4.3	Rubber Products Manufacturing.....	57
3.5	Data Centers, Data Processing, Hosting, & Related Services	60
3.5.1	Why the Texarkana Region for Data Centers:	62
3.6	Defense Cluster – Small Arms, Tactical Wheeled Vehicles, Weapons Systems, Munitions, Equipment Manufacturing and Cyber Security & Technology Businesses...	64
3.6.1	An Overview Of The Greater Texarkana Defense Cluster	65
3.6.2	The Defense Cluster In The Immediate Texarkana Area	69
3.6.3	The Defense Cluster In The Larger Texarkana Area.....	73
3.6.4	Cybersecurity.....	76
3.6.5	Educational Pipeline	77
3.6.6	Additional Recognized Regional Leaders.....	77
3.7	E-Commerce, Call Center, Fulfillment, Wholesale & Logistics Cluster Of Businesses And Services	80
3.7.1	Wholesale, Warehousing, Trucking and has a Strong Labor Pool and Room to Grow. 81	
3.7.2	Manufacturing & Transportation/ Logistics.....	82
3.7.3	Global Trade	84
3.7.4	Texarkana Logistics Advantages:	84
3.7.5	Supply Chain Management.....	86

3.7.6	Packaging.....	87
3.7.7	E-Commerce	88
3.7.8	Third-Party Logistics:.....	89
3.7.9	Call Center.....	90
3.8	Electronics, Computer, Software, Apps, Security, & Information Technology Industry	92
3.9	Machinery & Equipment Manufacturing Cluster Of Industries	95
3.9.1	Alternative, Traditional Energy Creation / Oil & Gas Equipment Manufacturing	97
3.9.2	Automotive, Rail, And Other Transportation Equipment Manufacturing	101
3.9.3	Defense Equipment Manufacturing	106
3.9.4	Medical Device And Equipment Manufacturing	112
3.9.5	Construction, Mining, And Farming Equipment Manufacturing.....	113
3.9.6	Other Industrial Machinery And Equipment Manufacturing	115
3.10	Forestry, Paper, and Wood Product Manufacturing Cluster of Businesses.....	116
3.10.1	The Piney Woods Eco-Region	117
3.10.2	Specialty products.....	119
3.10.3	Texarkana's Wood Basket, Mill and Supply Report.....	120
3.10.4	Frequently Asked Questions.....	122
3.11	Pharmaceuticals, Supplements, And Biotechnology Cluster Of Businesses.....	124
3.12	Recycling And Waste Management Cluster Of Businesses	126
3.12.1	Municipal Solid Waste	126
3.12.2	Industrial Non-Hazardous Waste.....	128
3.12.3	TexAmericas Center's EnviroTECH Concept	129

1 TEXAMERICAS CENTER & THE TEXARKANA REGION

TexAmericas Center is a state of Texas Local Redevelopment Authority, one of the largest industrial centers in the Americas, and ranked the 3rd best industrial park in the USA by Business Facilities magazine (2023). We focus on attracting industries that can thrive in the greater Texarkana region and therefore bring greatest economic opportunity to our residents. We work to create profitable and sustainable advantages for our Best-Fit Industries whether mature or emerging sectors.

The Texarkana region is situated in the Four State region of Arkansas, Louisiana, Oklahoma, and Texas, approximately halfway, about 160 miles on either side, between Dallas, Texas, and Little Rock, Arkansas, on Interstate 30. On a broader scale, it is located within 500-miles of 23 major MSA's and 10 of the fastest-growing metro areas in the USA. And, has a market reach of over 53.8 million residents, which is 10 million more than other major Texas MSA's like the Dallas – Ft Worth, TX market. The 500-mile reach also allows for access to over 2,200,000 businesses.

TexAmericas Center, as an industrial park located in Bowie County (TX) that consists of 12,000-acres and over 3,500,000msf of commercial and industrial space. The property is comprised of three distinct campuses': a West Campus (2,900-acres) – ideal for Energy Generation, Technology and Light Industry companies; a Central Campus (765-acres) – ideal as a mixed-use development location; and an East Campus (8,900-acres) – ideal for rail served, large tract and energy intensive Heavy and Light Manufacturing with a location for a downtown center type development.

We shaped our “Best-Fit” industries by hiring leading economic development consultants to cross-reference industry site selection criteria against our region's hard and soft assets, cost structure, proximity to raw products, and industry composition. We then conducted a SWOT analysis, working with industry and civic leadership, to improve upon our ability to deliver on industry needs. Mutually beneficial relationships have proven time and again to bring maximum prosperity.

TexAmericas Center, which owns 38-miles of rail, a rail services division, two locomotives, and a 350-car storage yard, is ideal for industries that receive materials or ship product by rail, such as plastics, chemicals, rubber, steel, building products and materials, automotive manufacturing, agricultural processing, food processing, heavy equipment manufacturing, and others.

TexAmericas Center, boasts affordable electricity rates about 20% below the US average, is ideal for high energy consumption industries like: food & drink processing, chemicals, petroleum, paper & paper products, primary metals, base materials, non-metallic metals, large scale recycling, machinery equipment manufacturing, Cold Chain, Data Centers and others.

TexAmericas Center, sets adjacent to Energy Transfer's 10-inch 250psi interstate pipeline, offers attractive natural gas rates as compared to US and Texas norms and is ideal for large users such as paper, glass, bricks, steel and iron, hydrogen for clean energy, cosmetics, medicine, synthetic fibers and plastics, medical products, space and water heating, firing/kiln and dehumidifying equipment, co-generation projects and others. The abundance, affordability, and low emissions of natural gas in the United States gives U.S. energy-intensive manufacturers an advantage over their international competitors. For example, access and proximity to this plentiful energy resource has made the U.S., specifically Texas, the place to be for petrochemical and plastics manufacturers. The U.S. Energy Information Administration has projected natural gas prices to remain low through 2050.

When you think about Texas you may not think about an abundance of water, but that is what the Texarkana region has...over 70 square miles of surface water to pull from to meet the needs of water intensive users like: nuclear power plants, pulp and paper mills, textile and garment manufactures, food and beverage processers, hydroponics (fruit and vegetable), aquaponics, renewable energy, base material processers, multiple types of equipment manufacturers, and more.

The Texarkana region lays astride two long haul fiber routes that connect to a dozen metro fiber networks serving Bowie County (TX) and TexAmericas Center. Having this robust telecommunications infrastructure makes the region ideal for Information Technology (IT) & Software Development, Telecommunications, E-commerce & Online Retail, Healthcare & Biotechnology, Finance & Fintech, Automotive & Transportation, Entertainment & Media, Aerospace & Defense, Smart Infrastructure & Real Estate, and Agriculture & AgTech companies.

The Red River Army Depot (RRAD) has been shedding its workforce for decades. Their regional workforce is well aligned with several of our target industries. The region's occupational structure and the skills of workers likely to be affected by reductions in workload at RRAD point to opportunities in multiple sectors, including Agribusiness & Food Processing, Logistics & Distribution, Energy (Services & Manufacturing), Fabricated Metals, Rubber, Defense, multiple areas of Machinery Equipment Manufacturing (especially Transportation) and others.

The Texarkana region has a wide base of sophisticated industries, including defense, transportation manufacturing, rubber and plastics manufacturing, metals manufacturing and processing, paper and wood Manufacturing, pharmaceuticals and supplement manufacturing, and food processing. In 2021, nominal GDP in the Texarkana Area expanded by 8.2%. Texarkana Areas Manufactures contributed the largest portion of the region's GDP; in 2021 the amount was \$1,285,071,000.

Across the four-state geography of the Texarkana region, our market has come to specialize in its own unique array of advanced industries, where specific assets, infrastructure, and industry knowledge have developed and continues to evolve.

TexAmericas Center's Targeted Business Attraction Solutions Program offers value-added incentives, assistance, and services to businesses that are expanding or relocating. TexAmericas Center's supplements these efforts by engaging regional sources of support we call our Regional Economic Development (RED) Team. TexAmericas Center in conjunction with the RED Team strives to build greater regional understanding, knowledge, and expertise across our Best Fit industry sectors. We work with regional partners, community leaders, and industry managers to cultivate these "best fit" industries.

1.1 TEXARKANA'S BEST FIT INDUSTRIES

The below industries are well suited to prosper in the Texarkana region, on TexAmericas Center property—because of our central location, world renowned Texas business environment, lower costs of labor, utilities, and logistics, globally connected transportation infrastructure, robust industrial utilities, 21st century training resources, lower personal and business tax liabilities, industry specific vendors and supply chains and an excellent quality of life. The Best-Fit Industries for the Texarkana Region include:

- **Advanced Manufacturing Cluster of Businesses** (including Metal Fabricating, Bending, and Coating as well as production activities that depend on information, automation, computation, software, sensing, and networking)
- **Agribusiness, Food, Beverage, and other Input Cluster of Businesses** (including fowl, beef, vegetables, backed goods, confectionary, alcoholic and non-alcoholic drinks, petfood, and additives)
- **Base Material, Critical Mineral Resource and Traditional Processing/Manufacturing**
 - (including metal smelting, foundry, degassing and casting as well as processing of other materials into brick, block, concrete & glass, as well as critical mineral and rare earth element processing)
- **Chemical, Petroleum, Plastic, & Rubber Manufacturing Cluster of Businesses**
- **Data Centers, Data Processing, Hosting, & Related Services**
- **Defense Cluster - Small Arms, Munitions, Weapons Systems, Tactic Wheeled Vehicles, Equipment Manufacturing and Cybersecurity & Technology Businesses**
- **E-Commerce, Call Centers, Fulfillment Operations, and Logistics Cluster of Businesses and Services** (including Air Cargo, Freight, Intermodal, Packaging, Third-Party Logistics Services, Supply Chain Management, Transload, Trucking, Warehouse / Distribution, and Wholesale.)
- **Electronics, Computer, Software, Apps, Security, & Information Technology Industry** (including Consumer/Home Electronics, Semi-Conductors, and Power Electronics)
- **Machinery & Equipment Manufacturing Cluster of Industries**

- **Alternative (Solar), Traditional (Coal) Energy Creation / Oil & Gas** (Pipes, Connectors) **Equipment Manufacturing**
- **Automotive** (Heavy Truck, Emergency Vehicles, On & Off Road), **Rail** (Rail Car), **and Other Transportation Equipment** (Semi & Specialty Trailer) **Manufacturing**
- **Defense Equipment Manufacturing** (including Small Arms, Ammunition, Weapons Systems & Tactic Wheeled Vehicles)
- **Medical Device and Equipment Manufacturing**
- **Construction, Mining, and Farming Equipment Machinery**
- **Other Industrial Machinery and Equipment Manufacturing**
- **Forestry, Paper** (pulp, paper & packaging) , **and Wood Product** (dimensional lumber, specialty products, furniture, construction materials, prefabbed structures) **Manufacturing Cluster of Businesses**
- **Pharmaceuticals, Supplements, and Biotechnology Cluster of Businesses**
- **Recycling and Waste Management Cluster of Businesses**

Each will find a warm welcome in the Texarkana region.

1.2 TEXARKANA'S REGIONAL MARKET UNIQUENESS

1.2.1 Lower Cost of Operations

- Texas is a Right-To-Work state with an overall favorable business climate.
- Chief Executive Magazine has ranked Texas "the #1 state for business" for 18 consecutive years.
- Wage price growth is growing at a slower rate than both the US and Texas (2021)
- Natural gas prices at TexAmericas Center are below the Texas Average
- Electricity rates at TexAmericas Center are about 20% lower than average in the United States
- Texas ranks 10th in the nation for IT connectivity costs.
- Among lowest property taxes of all MSA's in Texas
- Low Cost of Living Index; Texarkana, TX-AR MSA 76.9 (bestplaces.com, 2024)
- TexAmericas Center is not located in a municipality so no municipal property, or sales taxes are levied.
- Tax Foundation's State Business Tax Climate Index ranks Texas #13 overall.

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- Tax Foundation's State Business Tax Climate Index for Unemployment Insurance Tax ranks Texas #8
 - Tax Foundation's State Business Tax Climate Index for Personal Taxes ranks Texas #7

1.2.2 Labor Market Surplus = Available Workforce

- Historically a labor surplus market; in a right-to-work state
- Labor costs about 20% below US and Texas averages; "The vast majority of the study area's largest occupations have relatively low wage rates." (TIPS Strategy)
- Approximately 1,200,000 residents are in our labor shed.
- Between 500,000 and 600,000 in workforce.
- Over 120,000 individuals looking for a quality employer.
- Available unskilled and mid-skilled workforce; average to above average availability of Skilled workforce all with good pipeline for replenishment.
- The three-county metro area alone can offer a labor pool of over 14,000 transportation and material moving, production, and installation, maintenance, and repair workers.
- Manufacturing is the largest industry in the region at about 18.6% participation rate.
- Four industrial job titles—truck drivers, freight handlers, meat cutters, and maintenance workers—are among the region's top 15 largest occupations. (TIPS Strategy)
- Key Occupations Commuting out of the Texarkana Economic Region include:
 - Material Moving Workers with 3,435 total jobs had about 178 people commute outside the region each day for employment; between 2014 and 2019 this job category only grew in employment by 1%.
 - Business Operations Specialists with 1,902 total jobs had about 118 people commute outside the region each day for employment; between 2014 and 2019 this job category only grew in employment by 4%.
- An analysis of commuting patterns reinforces Bowie County's position as the employment center, drawing in more than 25,000 workers from neighboring counties to jobs in multiple industry sectors. (TIPS Strategy)
- Over 3,100 welders are working in the region.

- About 2,400 industrial machinery mechanics are distributed over repair and maintenance, manufacturing, and wholesale sectors, government, and utility sectors.
- Largest Occupational Groups within 75 Mile radius of TexAmericas Center (SOC, Occupation, and Total Employment - c. 2021)

▪ 53-3032	Heavy and Tractor-Trailer Truck Drivers	9,785
▪ 43-9061	Office Clerks, General	9,715
▪ 11-9013	Farmers, Ranchers, & Other Ag Managers	8,742
▪ 53-7062	Labor & Freight, Stock, & Mat Movers, Hand	8,432
▪ 43-4051	Customer Service Representatives	6,690
▪ 11-1021	General and Operations Managers	6,476
▪ 43-5081	Stock Clerks and Order Fillers	6,024
▪ 49-9071	Maintenance and Repair Workers, General	4,969
▪ 43-3031	Bookkeeping, Accounting, & Auditing Clerks	4,749
▪ 41-4012	Sales Rep, Wholesale & Mfg, Except Tech/Sci	4,368
▪ 43-1011	1 st -Line Supers of Off & Admin Support Wrkrs	4,268
▪ 51-2092	Team Assemblers	3,923
▪ 51-1011	1 st -Line Supers of Prod & Operating Workers	3,113
▪ 51-4121	Welders, Cutters, Solders, and Brazers	3,112
▪ 13-1199	Business Operations Specialists, All Other	2,789
▪ 11-9199	Managers, All Other	2,721
▪ 47-1011	1 st -line Supers of Const Trds & Extract Wrkrs	2,691
▪ 53-7051	Industrial Truck and Tractor Operators	2,600
▪ 49-3023	Automotive Service Technicians & Mechanics	2,440
▪ 51-9061	Inspects, Testrs, Sortrs, Samplrs, & Weighers	2,440
▪ 49-9041	Industrial Machinery Mechanics	2,398
▪ 41-3099	Sales Representatives, Services, All Other	2,274
▪ 47-2031	Carpenters	2,261
▪ 47-2073	Operating Engin & Other Const Equipt Oprtrs	2,256
▪ 51-9198	Helpers--Production Workers	2,178
▪ 43-5071	Shipping, Receiving, and Traffic Clerks	2,096
▪ 47-2111	Electricians	2,030

- Texarkana-area employers largely hold positive opinions of the quality of the local workforce. When asked to rate the local workforce on a variety of characteristics at least one-third of respondents answered good or excellent to productivity, teamwork skills, flexibility, and computer skills. (TIPS Strategy)
- An analysis of staffing patterns suggests that, with few exceptions, capacity is available in the leading occupations employed by each sector. The analysis also identified several occupations that cut across multiple sectors, suggesting potential targets for training and talent retention initiatives. (TIPS Strategy)

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- There are over 33 institutions of higher education within 100 miles of Texarkana with over 86,000 students enrolled: over 26,000 graduate each year.

1.2.3 Excess Capacity Utilities with Low Costs and Excellent Reliability

- **Electricity**
 - Excess electricity capacity, in a regulated market
 - NOT a part of ERCOT, located in the SPP (Southwest Power Pool)
 - Cost about 80% of US average.
 - Excellent Reliability
 - Dual feed available/possible
- **Natural Gas**
 - Excess natural gas capacity
 - Cost below US and Texas average
 - Dual feed available
- **Water (Potable and Non-Potable)**
 - Excess water (Potable and Non-Potable) capacity
 - Excess wastewater and pretreatment capacity
- **Excess Wastewater and Pretreatment Capacity**
- **Multiple Long Haul And Metro Fiber Networks**

1.2.4 Low-Cost Logistics & Excellent Access to Markets

- A known transportation hub (Road, Rail, and Air) in a Central Time Zone location
- Lowest aggregate mile site in Texas to serve US and Mexico/Canada markets.
- Located within 500 miles of 23 MSAs with a population of 450,000+ residents.
- Located within 500 miles of 10 of the fastest growing US MSAs
- 500-mile market has 10,000,000 more people than DFW and any other Texas MSA
- 500-mile market has access to over 2,000,000 businesses
- The Texarkana region lies at the crossroads of three major interstates and four major US highways: I-30, I-49, I-369, US 59, US 67, US 71, and US 82.
- TexAmericas Center has direct access to I-30 and is within 15-minues of I-49 and US 59 future I-369(I-69).

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- Excellent access to Mid-South (Four States) Region of Arkansas, Louisiana, Oklahoma, and Texas), Midwestern markets, Southeast Markets, Gulf Coasts Ports and Mexico Border Crossing.
 - Closest city in Texas to both the geographic and population centers of the U.S.
 - Five railroads operate in the Texarkana area: Amtrak's Texas Eagle, Kansas City Southern Railway, Texas Northeastern Railroad, Kiamichi Railway, and Union Pacific Railroad.
 - Seven rail lines meet at Texarkana, 5 owned by the UP and 2 owned by the KCS.
 - TexAmericas Center offers Third-Party Logistics Services (shipping, receiving, value-added logistics and light-manufacturing) through its Logistics Division which also provides Rail Services.
 - Large number of Less-Than-Load, Full Load, and Specialized Trucking/Carrier companies
 - TexAmericas Center Rail service available through Texas Northeastern (TNER) and Union Pacific (UP)
 - TexAmericas Center Rail owns 38-miles of rail, two locomotives and can offer 24/7/365 service.
 - Texarkana has its own regional commercial airport (TXK), served by American Airlines, and is within three hours of one international airport and three national airports with over 300 direct flights.
 - Texarkana's Commercial Airport hub is DFW International Airport; TexAmericas Center is a 20-minute drive from TXK.

1.2.5 Speed To Occupancy

- TexAmericas Center, a State of Texas special purpose district called a Local Redevelopment Authority, is the Authority Having Jurisdiction (AHJ) for our all 12,000 acres of our owned property.
- Self-controlled zoning, construction, and occupancy permits.
- Permit approvals in weeks not months because we are the AHJ!
- Move-in Ready buildings available.
- Qualified Shovel Ready Sites with local Build-To-Suit/Design-Build options
- TexAmericas Center Build-To-Suit offerings (Lease, Purchase, Lease-To-Own, Reverse)

1.2.6 Real Estate and Environmental Advantages

- Bowie County (TX) meets US EPA NAAQS attainment requirements.
- TexAmericas Center sets astride the divide between two watershed regions.
- Sites presented are outside of 100-year FEMA Flood Plain
- Sites slightly rolling; no major elevations across the site.
- Environmental reports available for most properties
- Industrial Park comprised of 12,000 acres, 3.5 million sq. ft. of space.
- Dedicated focus on commercial and industrial activity in non-residential areas
- Over 2000-acres of shovel ready property
- Over 700-acres Certified/Qualified as Development Ready
- Mega sites, rail-served sites, and remote, industrial sites available
- Build-To-Suit Services are available through TexAmericas Center.
- The Texarkana region has an LQ of 2.2 for Facilities Support Service Jobs (2019).

1.2.7 Incentives And Business Services

- Foreign Trade Zone #258, New Market Tax Credit Census Tract, Opportunity Zone, EB-5 Visa designated.
- Access to all State of Texas Incentives.
- Local incentives include Property Tax Abatement, Value Limitation Agreements, Payment-In-Lieu-Of-Tax (PILOT) Agreements, Training Funds, Fast Track Permitting, Economic Development Pricing on Land prices and Lease Rates.
- On-site Third-Party Logistics Services, TAC3PL
- On-site Rail Services of Transload, Spotting and Storage through TACRail
- Proven, successful history in securing grant funding, including OEA, EDA, EPA, and State of Texas
- Soft-landing assistance for International first-time investments.
- Concierge service for domestic first-time expansion or investment into Texas.

1.2.8 Quality Of Life

- Very affordable cost of living
- Access to quality healthcare
- Presence of multiple university & college systems with partnerships with K-12 and employers (specifically STEM, mechanic & welding training)
- Located in the Piney Woods Region
 - Makes TexAmericas Center a unique work environment.
 - Outdoor recreation haven for: hunting, fishing, hiking, boating, etc.
 - Excellent outdoors and recreation region, including 14 federal, 14 state and many additional county and community parks and recreation areas
- Blue Collar Town with an interesting metropolitan flair
 - Texarkana Texas Arts, Cultural, and Historic District designation
 - Perot Theatre and other arts & culture venues
 - Emerging Greater Texarkana Young Professionals organization
- TexAmericas Center offers on-site walking track, park area, golf course, convenience store, emergency services, and more.

1.2.9 Accolades from Site Selectors regarding the Texarkana Region

- The Texarkana Region is ready to attract new companies into the region that will bring new jobs and capital investment. (Foote & Assoc., 2017)
- Chief Executive Magazine has ranked Texas “the #1 state for business” for 18 consecutive years.
- Tax Foundation’s State Business Tax Climate Index ranks Texas #13 overall.
- Target prospects will be very satisfied with labor quality issues in the Texarkana region, particularly the low turnover rates; very low absenteeism; good work attitude; good trainability; good productivity; and very good communications. (Foote & Assoc., 2017)
- Tax Foundation’s State Business Tax Climate Index for Unemployment Insurance Tax ranks Texas #8
- Texarkana region has reasonable labor costs, lower than many competitive and defense community selected occupations and the U.S. averages. The availability of semi-skilled and unskilled workers is rated “good to very good.” Skilled labor availability is similar to other competitive locations. (Foote & Assoc., 2017)
- Overall, Labor Quality is rated good (7.51 on a scale of 1 to 10), with no weak spots for the areas measured including: Turnover, Absenteeism,

Attitude, Trainability, Basic Skills, Communications, Alcohol/Drugs, and Productivity. The range was 6.53 to 8.05. (Foote & Assoc., 2017)

- All sectors of Labor Quality, including basic skills which in many markets is below average, was rated “above average to very good”. People are generally hard working and productive. (Foote & Assoc., 2017)
- The Texarkana Region has good labor/management relations. (Foote & Assoc., 2017)
- Texarkana High Schools have a substantial STEM focus and could be seen as a national model. (Foote & Assoc., 2017)
- Great working relationship between Texas A&M, University of Arkansas, and Texarkana College. (Foote & Assoc., 2017)
- Top 10% of US cities for ethnic diversity
- The Texarkana MSA, ranked 10 out of 10, is strategically positioned as a prime Warehouse-Distribution, Wholesale, Fulfillment, Storage, and Logistics Services location. (Foote & Assoc., 2017)
- Good highway and Interstate access. (Foote & Assoc., 2017)
- Excellent from a transportation/logistics costs standpoint for serving mid-south, mid-western markets, particularly Dallas, Little Rock and Shreveport TexAmericas Center and region also offers good railroad access and services. (Foote & Assoc., 2017)
- TexAmericas Center offers competitive electric power, with excess capacity, good reliability and lower costs. (Foote & Assoc., 2017)
- Good water and sewer capacities. (Foote & Assoc., 2017)
- TexAmericas Center offers fully improved industrial sites with access to rail. (Foote & Assoc., 2017)
- Business Facilities said, “TexAmericas Center has moved from No. 5 last year to No. 3 in recognition of the in-house logistics services available. Speed to market is more important than ever. (No. 3 best industrial park in the U.S. by Business Facilities’ 19th Rankings Report – 2023).
- Good access to suppliers for Machinery & Equipment Manufacturing / Fabricated Metals / Primary Metals /Defense related. (Foote & Assoc., 2017)
- The Texarkana region was designated a Top 20 Fastest Growing Region for Value Goods in the U.S. (Garner Economics 2017)

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- Tax Foundation's State Business Tax Climate Index for Personal Taxes ranks Texas #7
 - Low Cost of Living Index; Texarkana, TX-AR MSA 76.9 (bestplaces.com, 2024)

2 EXISTING CLUSTERS AND BEST FIT INDUSTRIES

The Texarkana region, spanning across Arkansas, Oklahoma, Louisiana and Texas features several known clusters of business activity, each contributing to a degree of diversity, with various industries contributing to its overall economic landscape. While it may not be as diverse as some larger metropolitan areas, Texarkana benefits from a solid mix of sectors that provide employment opportunities and support economic growth.

2.1 NOTABLE EXISTING CLUSTERS IN THE TEXARKANA AREA

- Agribusiness & Food Processing
- Chemicals, Plastics, & Rubber
- Defense presence:
 - Red River Army Depot (RRAD)
 - Defense Logistics Agency (DLA)
 - Energetics, Ammunition & Weapons Systems
 - MRO – Tactical Wheeled Vehicles
 - Many DOD Contractors locally and in the larger area
 - More bases in the larger area
- Education and Research
- Energy (Services & Manufacturing)
- Forestry, Paper, & Wood
- Healthcare, Legal, and Medical Services
- Machinery Equipment Manufacturing
 - Transportation Equipment
- Metal Fabricating, Bending, Coating & Making
- Natural Resources including oil, brines, timber, clays, gravel, and natural gas
- Retail and Commerce
- Tourism and Hospitality
- Trucking, Wholesale, Logistics, & Warehouse/Distribution

2.2 RELATIVE CONCENTRATIONS (LQ) OF EXISTING INDUSTRIES

- Weapons Systems = 37.76
- Call Centers = 4.44
- Wood & Paper = 3.50
- Chemicals = 2.92
- Agriculture = 2.05
- Metal & Products = 1.70
- Utilities = 1.22
- Freight Transportation = 1.15
- Industrial Machinery = 1.51
- Healthcare = 1.09
- Consumer Services = 0.86
- Food Manufacturing = 0.65

2.3 EXISTING MANUFACTURING OPERATIONS BY NAICS

Texarkana is a best fit for any Advanced Manufacturing Operation (Bold Indicates Operations currently in the Texarkana Region) including:

- | <u>NAICS</u> | <u>Sector Name</u> |
|---------------|--|
| ○ 3240 | Petroleum and coal products manufacturing |
| ○ 3251 | Basic chemical manufacturing |
| ○ 3252 | Resin, synthetic rubber, & artificial synthetic fibers & filaments mfg. |
| ○ 3253 | Pesticide, fertilizer, and other agricultural chemical manufacturing |
| ○ 3254 | Pharmaceutical and medicine manufacturing |
| ○ 3259 | Other chemical product and preparation manufacturing |
| ○ 3271 | Clay product and refractory manufacturing |
| ○ 3279 | Other nonmetallic mineral product manufacturing |
| ○ 3311 | Iron and steel mills and ferroalloy manufacturing |
| ○ 3313 | Alumina and aluminum production and processing |
| ○ 3315 | Foundries |
| ○ 3331 | Agriculture, construction, and mining machinery manufacturing |
| ○ 3332 | Industrial machinery manufacturing |
| ○ 3333 | Commercial and service industry machinery manufacturing |
| ○ 3336 | Engine, turbine, and power transmission equipment manufacturing |
| ○ 3339 | Other general purpose machinery manufacturing |
| ○ 3341 | Computer and peripheral equipment manufacturing |

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- 3342 Communications equipment manufacturing
 - 3343 Audio and video equipment manufacturing
 - 3344 Semiconductor and other electronic component manufacturing
 - **3345 Navigational, measuring, electromedical & control instruments mfg.**
 - 3346 Manufacturing and reproducing magnetic and optical media
 - 3351 Electric lighting equipment manufacturing
 - **3352 Household appliance manufacturing**
 - **3353 Electrical equipment manufacturing**
 - **3359 Other electrical equipment and component manufacturing**
 - **3361 Motor vehicle manufacturing**
 - **3362 Motor vehicle body and trailer manufacturing**
 - **3363 Motor vehicle parts manufacturing**
 - **3364 Aerospace product and parts manufacturing**
 - **3365 Railroad rolling stock manufacturing.**
 - 3366 Ship and boat building
 - **3369 Other transportation equipment manufacturing**
 - **3391 Medical equipment and supplies manufacturing**
 - **3399 Other miscellaneous manufacturing**

3 TEXAMERICAS CENTER'S TARGETED INDUSTRIES

3.1 ADVANCED MANUFACTURING CLUSTER OF COMPANIES

The Texarkana area is an excellent location for an Advanced Manufacturing business to operate due to several key factors:

- **Strategic Geographical Position:** Situated on the borders of Arkansas, Louisiana, Oklahoma and Texas, Texarkana offers proximity to major markets in these states as well as access to the broader Midwest and South-Central region of the United States. This strategic location, in a central time zone, facilitates efficient distribution of products to customers and suppliers throughout the United States, North America and Globally.
- **Transportation HUB Infrastructure:** Texarkana boasts a robust transportation network, including access to major highways such as Interstate 30, Interstate 49 and U.S. Route 59 (future Interstates 369 & 69), facilitating the movement of goods and materials. Additionally, the Texarkana Regional Airport provides air cargo services, while both the Union Pacific Railroad and Kansas City Southern serve the area, offering convenient rail freight transportation options. Transload services are available at TexAmericas Center.
- **Skilled Workforce:** Texarkana benefits from an available, skilled, and trainable workforce, with expertise in manufacturing, engineering, and technical fields in a Right-To-Work state. Local educational institutions, such as Texarkana College, Texas A&M University-Texarkana and University of Arkansas-Texarkana, offer specialized training programs tailored to the needs of the manufacturing industry, ensuring a steady supply of qualified workers.
- **Business-Friendly Environment:** Texas maintains a global reputation of having a business-friendly climate, with low taxes, incentives, tax breaks, and regulatory frameworks designed to support manufacturing enterprises. The Texarkana region is also recognized for its favorable business friendly eco-system including low taxes. TexAmericas Center's focus on low-cost delivery of Speed-To-Occupancy and its unique offering of business services enhances the state of Texas efforts by encouraging business growth, innovation, and investment in the region for the long-term.
- **Cost Competitiveness:** Texarkana offers competitive operating costs compared to larger metropolitan areas, including lower real estate prices, logistics, utilities, and labor costs. This cost advantage can contribute to improved profitability for manufacturing businesses.
- **Access to Resources:** The Texarkana area benefits from access to a wide range of resources, including raw materials, suppliers, research institutions, and support services. This facilitates efficient production processes and enables businesses to stay competitive in their respective markets.

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- **Quality of Life:** Texarkana offers a high quality of life for residents, with affordable housing, recreational amenities, cultural attractions, and a strong sense of community. This can help attract and retain skilled workers, enhancing the long-term viability of manufacturing operations in the area.

Overall, the Texarkana area provides a conducive environment for Advanced Manufacturing businesses, offering a strategic location, robust infrastructure, skilled workforce, supportive business environment, cost competitiveness, access to resources, and quality of life advantages.

These factors make Texarkana an attractive destination for companies looking to establish or expand their manufacturing operations.

- A leader in advanced technologies, Texas is a popular destination for the world's most innovative manufacturing companies. In fact, the Lone Star State has been the top high-tech, manufacturing exporting state for over 10 consecutive years, solidifying **“Made in Texas”** as a powerful global brand.
- Over the last decade, Texas and the Texarkana region have targeted diversified development in advanced manufacturing and related sectors. Texas is home to multiple segments of that industry—everything from computer and electronic goods to motor vehicle and parts manufacturing to food and beverage production.
- Increasingly known as the manufacturing capital of the nation, Texas is no stranger to attracting large, high-tech manufacturing operations. Texarkana and TexAmericas Center have an abundance of available resources and affordable real estate that serves as a major draw for companies looking to relocate or expand. The region's robust network of transportation infrastructure allows companies direct access to domestic and international markets and the ability to easily ship products around the globe. Texas is a manufacturing mecca where today's products are made, and tomorrow's technologies are brought to life.
- Texarkana has a long history in metals. Our Metals & Machinery Cluster includes competitive industries in Upstream—or primary—Metals, as well as downstream industries like Advanced Manufacturing, Machinery Manufacturing, and areas of specialization like the Defense Industry.
- The Advanced Manufacturing industry in the Texarkana region is incredibly diverse and includes fabricated metal production like stamping, forging, hardware, machine shops, and metal plating. The region is well known for its precision manufacturing processes for a variety of industries, including automotive, aerospace, construction, defense, energy, medical device, railroad and mining, Oil & Gas.
- The Texarkana region's highly specialized manufacturing firms have experienced significant growth over the past decade, with industrial space expanding by more than 85% over the past decade. (Source: ChatGPT and [Manufacturing.net](https://www.manufacturing.net))

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- The Texarkana region is well known for its Architectural, Structural and Roofing Metal, Fabricated Pipe, Munitions and Ammunition Manufacturing, Aircraft Components, Defense Electronics, Military Equipment, Automotive Parts, Truck Components, Railcar Assemblies, Production Of Lightweight Materials, Carbon Fiber Composites, Specialty Polymers For Aerospace, Automotive, And Industrial Applications, Oilfield Equipment, Drilling Tools, Petrochemical Processing Equipment, Pumps, Compressors, Conveyors, Machine Tools, Plastic Components, Packaging Materials, and Specialty Polymers among other items.

3.1.1 Small Arms & Ammunition Manufacturing Sector

Specifically, for the small arms and ammunition niche sector the Texarkana region can offer a high concentration of key occupations, especially Mechanical Skills, Design, Metal Working, Assembly, Hand-Fitting, Quality Control, Inspection, Safety and Compliance. The region's workforce also excels in problem-solving, communication and Teamwork. Certain activities can be accessed as flex work including Welding, Cutting, Punching, and Press Machine Setters/Operators, and assembly. The concentration of employers and vendors as of 12/2023:

- Existing gun manufacturers and/or large suppliers
 - Two companies within 75-miles
 - 18 within 150-miles
- List of potential vendors that offer any of the following services:
 - Machine, Precision CNC machining, Small machine parts shops
 - 28 companies within 75-miles
 - 160 within 150-miles
- Powder coating, hydrostatic dipping, heat treating, Anodizing and plating services
 - Seven companies within 75-miles
 - 60 within 150-miles
- Machine tool repair
 - 20 companies within 75-miles
 - 100 within 150-miles
- Metal fabrication
 - Five companies within 75-miles
 - 66 within 150-miles
- Plastic injection molding
 - 16 companies within 75-miles
 - 90 within 150-miles
- An Industry Sanp shot of our 75-mile market showed these key findings:
 - We have a LQ of 0.91 small arms manufacturing industry composition – very close to the national average

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- Our average wage per worker is \$43,411 compared to a national average of \$82,282
 - The average annual % change in employment in our market over the last 10 Years has been 51.9% increase, as compared to 3.0% in the US
 - LOCAL SUPPLY CHAIN - As of 2023Q2, the Small Arms, Ordnance, and Ordnance Accessories Manufactures in TexAmericas 75 Mile - Main Region were estimated to make about \$9.1 million in annual purchases from suppliers in the United States with about 18% or \$1.6 million of these purchases being made from businesses located in the TexAmericas 75 Mile - Main Region.
 - There are many schools with the programs this client would be seeking:
 - High Schools
 - Nearly all High Schools in the Texarkana region have dual credit courses with Texarkana College (see original RFP and supplemental information on this subject)
 - So, many vocational classes taken in High School are actually taken in coordination with Texarkana College
 - Several area High Schools also have their own vocational programs e.g. Liberty Eylau has a welding program at the High School
 - Unfortunately, our service does not track high school programs. We can arrange for a conference call with program manager or superintendents to discuss if more information is needed.
 - Colleges with CNC and manufacturing programs
 - 20 Community College within 75-miles
 - 49 Community Colleges within 150-miles
 - Universities with engineering and business, logistics, accounting, and other management programs
 - 7 Universities within 75-miles
 - 12 Universities within 150-miles

3.1.2 Medical Equipment & Supplies Manufacturing Sector

The Texarkana region is also known for its Medical Equipment & Supplies Manufacturing, specifically Surgical Instrument Manufacturing. It also has a moderate concentration of Medical and Diagnostic Laboratories as well as specialized Hospitals and clinics.

The region offers a vendor base and workforce that has regulatory compliance knowledge; proficiency in implementing and maintaining quality management systems; knowledge of manufacturing processes specific to medical devices, such as injection molding, CNC machining, laser cutting, and assembly techniques; understanding of materials used in medical devices, their properties, and compatibility with biological

systems; ability to collaborate with product design teams to optimize medical device designs for manufacturability, scalability, cost-effectiveness, and compliance with regulatory requirements; proficiency in quality control techniques, such as statistical process control, inspection methods, and testing protocols; skills in risk assessment, analysis, and mitigation; ability to maintain accurate and comprehensive documentation throughout the manufacturing process; experience in working within cleanroom environments and adhering to cleanroom protocols; effective communication and collaboration skills; and, a commitment to continuous improvement and a mindset of operational excellence.

3.1.3 Fabricated Metal Product Manufacturing Sector

The Fabricated Metal Product Manufacturing sector employees about 1,741 individuals and employment grew by about 3% between 2014 and 2019. There are 51 companies operating in this sector with an LQ of about 1.8 this means there are about 80% more people employed in this sector than the US average. Fabricated metal will continue to grow its base in the region as Texarkana College launched a new industry specific training center called the Ledwell Advanced Manufacturing Training Center to address needs within the region a major focus is new CNC, PLC and related hands-on training programs. Graduation class sizes each year range from about 60 to 100 individuals graduating into the market with training in Precision Production. The region offers a vendor base and workforce that has metalworking skills, welding and joining expertise, measurement and inspection proficiency, and broad machining capabilities. They also have the ability to read and interpret engineering drawings, blueprints, and technical specifications; understanding of industry safety protocols and procedures; strong problem-solving abilities; depth of understanding of different types of metals, alloys, and their properties; good familiarity with quality control techniques; ability to work effectively as part of a team; and, willingness to adapt to new technologies, processes, and industry trends, as well as a commitment to continuous learning and skill development.

- The Red River Army Depot's vulcanization program could attract companies to the area that need this specific expertise, either outsourced to the Depot or hiring talent in the marketplace. Fabricated items like pipes, pumps, valves or even metal tanks could link this capability to the existing metal & machinery expertise in the area and add rubber linings to products like tanks and vessels, pipes and piping systems, chutes and hoppers, troughs, pumps and pump components, mixing and agitation equipment, conveyor systems, screens and sieves, vibration and noise damping equipment, heat exchangers and condensers. Rubber linings are used in a wide range of products and equipment across various industries to provide protection, durability, and performance in demanding operating conditions. This includes applications in agriculture, chemicals, oil / gas, mining, transloading and bulk material handling waste management, recycling, food processing, machinery manufacturing, electrical equipment, and other sectors.

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- Companies in the Texarkana region have experience working with: Aluminum, Brass, Carbon Steel, Copper, Stainless Steel, Carbon Hot Rolled and Cold Finished Steel, Wear Plate, Sheet Metal, Pipe and Tubular Products, Exotic Metals and other non-Ferrous, specialty Metals and Alloys.
 - Further the presence of Forge Resources Group which can handle Carbon and Alloy Steels (0.5-350 lbs.), Aluminum/Non-Ferrous Forgings (0.5-50 lbs./0.5-125 lbs.) and Stainless Steels and ISO 9001 and AS 9001 certified and ITAR compliant means that there is premier forging solution provider here in our market. Also, Henderson Manufacturing Company, has become a quality supplier of carbon and stainless-steel castings up to 3,500 lbs. and is ISO 9001:2015 certified.
 - Texarkana's Advanced Manufacturing industry includes various cutting-edge companies dedicated to expanding the advanced materials, manufacturing, technology development, and design sectors. The sector offers a full line industrial machine services including: Large and Small CNC Cutting Mills & Lathes, Horizontal & Vertical Boring Mills, High Definition Plasma Cutting, Laser Cutting, Water Jet Cutting, Oxy Fuel Cutting, Large & small Key-Seater, Hydraulic Shear, Drill Presses, Large Surface & OD Grinding, CNC, Mechanical & Hydraulic Press Break, Plasma Cutting, Milling, Machining, Punching, Chambering, Leveling, Shearing, Castings, Heat Treat, Quenching, Slitting, Beveling, Blanking, Tumbling, Castings, Forgings, Rolling Stainless Steel and Aluminum coil to sheet and cut to length plate and more. As well as complimentary related services of: Designing, Erection, Fabrication, Installation, tool and die manufacturing, jig and fixture manufacturing, Sandblasting, Heat Treating, Welding (stick, TIG, MIG and ARC), Bending, Powder Coating, Painting, Rubber, Bituminous & Hot Melt Asphaltic Lining, zinc phosphate immersion, refractory linings and equipment, Pattern Shop; Gray Iron; Ductile Iron, and more.
 - Industry leaders in the Greater Texarkana region include: JCM Industries, Priefert Manufacturing, Metallum, Amerinox Texarkana, Smith-Blair / Xylem, Precision Roll Grinders Inc, Texas Machine Shop, Red River Instruments, M&M Milling, Texarkana Machine Inc., FCM Products, Inc., Baker Valve & Machine Shop, B&Z Manufacturing, Elliot Manufacturing, Ferguson Industrial, A&D Flexographic, Inc., Rever Control Systems, Industrial Mill and Maintenance Supply Inc., WW Metals Products, Texarkana Door & Window, Kelly Instrument Machine Inc., Parks Metal Fabricators, Metal Max, Commercial Manufacturing Company, Inc., Forge Resources Group, Mayhan Fabricators, Incorporated, CB&I EL Dorado, Inc., Henderson Manufacturing Co., Inc., Jackson Manufacturing Operations, LLC, Frymaster, LLC., R & V

Works, L.L.C., Liberty Manufacturing, StanCo Safety Products, and others.

- Connected by skilled workers, traditional and advanced materials, as well as innovation, companies in Texarkana's Metals & Machinery cluster are growing in the greater Texarkana region because of our lower cost, logistics strengths, and workforce competitiveness. With about 400,000 individuals currently employed (in the Texarkana MSA), \$33.8 billion in exports, and 45% growth over the past ten years, Metals & Machinery is a major part of our local economy and growing in importance to our future. The metals & manufacturing sector represents at least 10% of jobs in the Texarkana region.
- With a labor participation rate of 18.6% Manufacturing is one of the Texarkana region's largest sectors, offering a range of competitive advantages for the advanced metals and material manufacturing sector. Manufactured goods were the Texarkana region's largest exports in 2023, with non-primary metal manufacturing exports of approximately \$127 million and chemical manufacturing of approximately \$65 million.
- The Texarkana Region boasts high LQ throughout the metal manufacturing and support sectors including but not limited to:
 - All Other Misc. Fabricated Metal Product Manufacturing (16.1),
 - Fabricated Pipe and Pipe Fitting Manufacturing (13.8),
 - Fabricated Structural Metal Manufacturing (7.0),
 - Metal Service Centers and Other Metal Merchant Wholesalers (3.8),
 - Plate Work Manufacturing (3.4),
 - Metal Coating, Engraving, and Allied Services to Manufacturers (3.1),
- The Texarkana region boasts a strong list of potential vendors that offer any of the following services:
 - Machine, Precision CNC machining, Small machine parts shops
 - 28 companies within 75-miles
 - 160 within 150-miles
 - Powder coating, hydrostatic dipping, heat treating, Anodizing and plating services
 - Seven companies within 75-miles
 - 60 within 150-miles
 - Machine tool repair

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- 20 companies within 75-miles
 - 100 within 150-miles
 - Metal fabrication
 - Five companies within 75-miles
 - 66 within 150-miles
 - Plastic injection molding
 - 16 companies within 75-miles
 - 90 within 150-miles
 - There are a large number of schools within the Texarkana region with the programs that this industry needs, and a client would be seeking:
 - High Schools
 - Nearly all High Schools in the Texarkana region have dual credit courses with Texarkana College (see original RFP and supplemental information on this subject)
 - So, many vocational classes taken in High School are actually taken in coordination with Texarkana College
 - Several area High Schools also have their own vocational programs e.g. Liberty Eylau has a welding program at the High School
 - Unfortunately, our service does not track high school programs. We can arrange for a conference call with program manager or superintendents to discuss if more information is needed.
 - Colleges with CNC and manufacturing programs
 - 20 Community College within 75-miles
 - 49 Community Colleges within 150-miles
 - Universities with engineering and business, logistics, accounting, and other management programs
 - 7 Universities within 75-miles
 - 12 Universities within 150-miles
 - Our Metals & Machinery Cluster benefits from the deep transportation network in the Texarkana area, as well as the available skilled workforce and the affordable industrial power rates. This cluster supports the needs of the construction, transportation, defense, advanced metals/materials, precision, intelligent, electronics, critical minerals, and resource-based metal production industries in the area, as well as production technology that serves many other industries.
 - The future of Texarkana's Advanced Manufacturing Businesses centers on:

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- the use of technology to improve products and/or processes, having Texas A&M University-Texarkana, University of Arkansas-Texarkana and Texarkana College ensures access to innovation, technology and R&D partnerships.
 - local employers having the industry specific qualifications your client or company will need. As well continuous improvement is part of the culture of our manufacturing businesses improving the performance of part or production method through the innovative application of technologies, processes, and methods is baked in.
 - industries such as defense, electric vehicles, automotive, medical device, pharmaceutical, consumer products, rail, heavy equipment, farming, mining & extraction, alternative/renewable energy, aerospace, robotics, and those that require/use line engineering, electronics & high-tech, high-volume goods, rapid prototyping, 3D printing, high customization goods, are all excellent fits for the Texarkana market.
 - Texarkana area advanced manufacturing encompasses the use of innovative technologies to create new products, refine existing products, and perform production activities that will improve the quality and process of manufacturing to give all area manufacturers a competitive edge.
 - To ensure we remain relevant globally, TexAmericas Center and our Regional Economic Development Team are seeking advanced manufacturing companies that will incorporate various techniques into our market such as additive manufacturing, advanced materials, artificial intelligence, augmented reality, automation, big data processing, composite materials, computer modelling, cyber-manufacturing systems, internet of things, laser printing/machining/welding, machine learning, nanomanufacturing, network/IT integration, and robotics.

3.1.4 10 Examples of Advanced Manufacturing Technologies TexAmericas Center and the Texarkana Region want to Attract

Precision engineering, total quality management, and machining experts are leading the way in the field of advanced manufacturing. They specialize in wringing out expenses, customer collaboration, enabling rapid turnaround from concept-to-finished parts, and helping enterprises of all sizes scale up production, efficiency, and output to advance their business.

Advanced manufacturing can easily accommodate customization. This makes it far more suitable for short runs of highly customized production. This dynamic ability is made possible through various technologies, including the use of advanced materials, 3D printing, laser printing, computer modelling,

laser machining, robotics, online capability, nanotechnology and more. It also requires a more highly skilled labor force and an ever-changing landscape required by the dynamics of the industry... to a degree not seen since the inception of the Industrial Revolution. This new era of manufacturing is efficient, cost-effective, dynamic, intelligent, and flexible.

The following are some of the advanced technologies used to develop new markets, new technologies and new methods of manufacturing products. The Texarkana Region wants to be as relevant in tomorrow's manufacturing world as it has been historically; therefore, we are interested in bringing these technologies and projects to our market.

- **Big Data Processing:** Big data processing refers to the analysis of large data sets that are obtained through various business intelligence systems. Big data processing is an advanced manufacturing technology that helps businesses better understand what their customer demand is, track product quality, monitor workflows, and much more.
- **Artificial Intelligence (AI) & Machine Learning:** Artificial intelligence and machine learning are used by manufacturers to automate aspects of quality control, maintenance logistics and inventory control. For example, AI and machine learning can be used to predict when machine failures and breakdowns are expected to occur so that effective maintenance can be performed.
- **Augmented Reality (AR):** Augmented reality has multiple applications in the field of manufacturing such as employee training, product design and quality control and testing. For example, augmented reality helps manufacturers visualize what a product would look like in the real world, helping them correct any issues before creating a prototype.
- **Internet of Things (IoT):** The term Internet of Things refers to the devices, sensors, software, and networks that are used to transfer data throughout a smart manufacturing process. For example, aerospace manufacturers use such devices to test the durability of the components of an aircraft.
- **Additive Manufacturing:** This type of advanced manufacturing includes 3-D printing, powder-bed laser printing systems, fused deposition modeling and other processes that involve complex assemblies from continuous material. Benefits include reducing failure points in the system and reducing weight, complexity, and thermal dissipation problems. This is used in aerospace, medical, prototyping, automotive, consumer goods and other sectors.
- **Advanced/Composite Materials:** Here you create precise blends of metals, plastics, glass, ceramics, etc., for specific applications. They vary in

terms of physical and chemical properties, creating performance breakthroughs and reducing material tradeoff decisions. Some of these composite materials include high-strength alloys, recyclable plastics and more.

- **Robotics/Automation:** Uses automated systems for heavy lifting, precision movement and joining pieces on the factory line. It improves the consistency of the work and is ideal for tasks that are dangerous in that it limits human risk, overhead and waste while producing faster and cheaper. Robotics can be found in the automotive, aerospace, forging and consumer goods markets, and will likely grow with the advance of technology to include further industries.
- **Laser Machining/Welding:** Laser machining and welding allow for greater precision and safety when welding and machining, including rapid and accurate processing of parts using laser technology. It reduces the amount of heat on the material and reduces cracking and poor joining. These processes are used in pressure vessels, proximity sensor welding, battery welding, sensitive electronics and more.
- **Nanotechnology:** Being able to pack more into less space is one driver for nanotechnology. It's used in chemical and biological applications to enhance material properties, control light spectroscopy and chemical reactivity. Using nanotechnology allows for advanced manufacturing systems to reduce their overall footprint and maximize functionality across the production line.
- **Network/IT Integration:** The internet connects people and information. By using network communications on the factory floor, manufacturers can create closed-loop feedback and precision tuning electronically instead of manually. This reduces maintenance costs and improves the overall efficiency of production. The ability to have network access throughout the process allows manufacturers to instantly pinpoint issues and potential repairs to save time and time.

3.2 AGRIBUSINESS, FOOD, BEVERAGE, & OTHER INPUT PROCESSING CLUSTER OF BUSINESSES

The greater Texarkana area is gifted with some of the richest agricultural resources in the world. The fertile soil, favorable climate, availability of excellent transportation via water, highway, rail and air, good marketing opportunities and a productive work force are some of the many resources that allow Texarkana to be recognized as a world supplier of food, feed, and fiber.

TexAmericas Center and the Texarkana area offers several advantages for placing a food and beverage processing plant:

- **Proximity to Agricultural Resources:** Texarkana's location in a region known for agriculture provides access to abundant raw materials such as fruits, vegetables, grains, and livestock. Proximity to these agricultural resources reduces transportation costs and ensures a fresh and consistent supply of ingredients for food and beverage processing.
- **Strategic Location:** Situated near the Texas-Arkansas border, where three interstates converge, Texarkana enjoys a central location within the southern United States. This strategic position provides easy access to 23 major markets within 500-miles and transportation networks, facilitating the distribution of processed food and beverage products.
- **Transportation HUB Infrastructure:** Texarkana benefits from well-developed transportation infrastructure, including interstate highways, railways, airports, and access to waterways, in the central time zone. This infrastructure enables efficient and cost-effective movement of raw materials, finished products, and equipment necessary for food and beverage processing operations.
- **Skilled Workforce:** Texarkana boasts an available, skilled workforce with experience in food processing, quality control, logistics, and related fields in a Right-To-Work state. There is excellent availability of unskilled and semi-skilled workforce at attractive wage rates. Local universities, vocational schools, community colleges, high schools, and training programs offer specialized industry training tailored to the needs of the food and beverage industry, ensuring access to a pipeline of reliable workers.
- **Business-Friendly Environment:** Texarkana provides a supportive business environment with favorable State and Local tax policies, financing programs, incentives, and resources for business development. Local governments often actively support manufacturing initiatives, making it easier for companies to establish and expand food and beverage processing operations.
- **Access to Utilities:** Texarkana offers access to reliable utilities with excess capacities such as water, sewer, electricity, fiber, and natural gas, essential for

food and beverage processing facilities. Access to these utilities ensures consistent production and reduces operational risks.

- **Quality of Life:** Texarkana provides a high quality of life for residents, with access to amenities such as parks, recreational facilities, cultural attractions, excellent educational resources, and affordable housing options. A favorable living environment can attract and retain skilled workers, contributing to the success of food and beverage processing operations.
- **Supporting Industries:** Texarkana may have supporting industries and suppliers in sectors such as packaging, equipment manufacturing, and distribution, providing additional resources and support for food and beverage processing plants in the area.

Overall, the combination of proximity to agricultural resources, strategic location, transportation infrastructure, skilled workforce, business-friendly environment, access to utilities, quality of life, and supporting industries makes Texarkana an attractive location for placing a food and beverage processing plant.

3.2.1 Market Demand And Industry Presence

Population growth is undeniably crucial to the food and beverage industry. Population growth leads to increase in demand, greater diversity in consumer preferences, the need for innovation and product development, and greater stresses on supply chain management. These factors lead to a need for capacity expansion for some and new market expansion for others.

The population of Texas is growing at twice the national rate, while Arkansas, Louisiana, and Oklahoma each are growing at almost 1% per year. Food production in the Texarkana area has expanded in response to this growth. Food and beverage processing contribute significantly to the greater Texarkana economy. Nationally, Texas ranks second, Arkansas is third, Louisiana is sixth, for food and beverage processing companies. Beer, soft drinks, baked goods, preserved fruits and vegetables and meat are important processed products.

3.2.2 “Value-Added” Agriculture

The Texarkana area offers unique advantages to food and beverage processors as the sphere possesses a range of businesses at every level of the value chain, which include farming inputs, specialized farming, food processing, supplement production, drug manufacturing, packaging, trucking operations, beverage manufacturing, wholesale, and more.

3.2.3 Growing Conditions For Agriculture Products

- **Climate:** The Texarkana region typically has a humid subtropical climate, characterized by hot, humid summers and mild winters. This climate is generally favorable for a variety of crops, including those requiring warm temperatures and ample rainfall.

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- **Rainfall:** The area receives a significant amount of rainfall throughout the year, about 51.98 inches, with precipitation relatively evenly distributed across the seasons. This consistent rainfall supports the growth of crops without relying heavily on irrigation.
 - **Temperature:** Summers in the Texarkana region are typically hot and humid, with temperatures frequently exceeding 90°F (32°C) during the peak growing season. Winters are relatively mild, with rare cold spells and potential for frost.
 - **Soil:** The soil composition in the Texarkana area can vary, but it often includes fertile loam and clay soils, which are suitable for a wide range of agricultural crops. These soils typically provide good drainage and nutrient retention, contributing to healthy plant growth.
 - **Growing Season:** The Texarkana region generally has a long growing season, with 213 days of sunshine, allowing for multiple crop rotations each year. Frost-free periods typically extend from March to November fall, providing ample time for warm season crops to mature.
 - **Topography:** The topography of the Texarkana area varies from flat to gently rolling terrain, with some areas featuring river valleys and lowlands. This diverse topography can influence local microclimates and soil conditions, positively affecting agricultural practices and crop selection.
 - **Pest and Disease Pressure:** Like any agricultural region, the Texarkana area may face challenges from pests, diseases, and other environmental factors that can impact crop yields. Integrated pest management practices and disease-resistant crop varieties are often employed to mitigate these risks.

3.2.4 Commodity Production

The four state Texarkana Region of Arkansas, Louisiana, Oklahoma and Texas is part of the Southern United States, where agriculture plays a significant role in the economy.

While the specific agriculture products can vary depending on factors like climate, soil conditions, and local farming practices, the Texarkana area and surrounding regions have excellent access to the following Agriculture inputs: Rye, Cotton and Cottonseed, Cattle, Poultry and Eggs, Hogs, Dairy, Corn, Nursery, Greenhouse, Fruit (Peaches), Vegetables (Tomatoes), Tree Nuts (Pecans), Wheat, Sorghum, Rice, Soybeans, Feed Grains, Aquaculture (Catfish and Crayfish), Sugarcane, Corn, Sweet Potatoes, Hay, Oats, Canola, Hay, Timber, and Peanuts.

Texas ranks first in the number of cattle operations and the value of all cattle and calves. Texas is the top producer of cotton, hay, sheep, goats, mohair, and horses. Some of the state's top crops also include vegetables, citrus, corn, wheat, peanuts, pecans, sorghum, and rice.

3.2.5 Value Addition

Nearly 1,700 businesses in the Texarkana region create some of the highest quality food and beverages in the country. Texarkana is an emerging location for craft beer and wine, with the presence of Redbone Majic Brewing and Pecan Point breweries and O'Farrell Country Vineyards and Wine-A-Rita. Building on the state's diverse range of agricultural products, employment in the industry is growing quickly, increasing 24 percent between 2011 and 2021 (vs. 16th nationally). Currently about 40,000 workers are employed in this industry within the Texarkana region. Food & Beverages is an important growth industry for rural Texarkana and has one of the most diverse workforces of our Target Industry Groups.

3.2.6 Food, Beverage, and Other Processing Sectors

The Texarkana region offers easy access to all the ingredients that make this industry work well: low business costs, skilled workforce, access to raw materials, a central location and a transportation network that lets you get your product to market fast.

- Between 2014 and 2019, Food manufacturing has seen some of the strongest growth in the Texarkana region, supported by a strong agricultural sector. In 2019 there were a total of 5,596 people employed in this sector, representing 10% growth in jobs over that period, which created LQ of 5.4 overall (2019). The total number of companies operating in the area was 27, with six new companies entering the market over that time frame. Jobs in the sector Confectionery Manufacturing from Purchased Chocolate grew by 120.3% (2104-2019) and have a LQ of 6.1, while jobs at the three Commercial bakeries employee 130 individuals for a LQ of 4.6.
- A niche market that Texarkana is strong in is Dog and Cat Food Manufacturing. With 3 companies located here employing 124 individuals' employment has grown by 235.1% between 2014 and 2019. This gives the Texarkana an LQ of 6.9 times the US average.
- The Texarkana region food industry specializes in Farm-To-Table chicken and other fowl products, other meat processing as well as Canned Fruit/Vegetables. Other processing focuses include cold chain logistics, frozen and packaged products, Bread, confectionary, dairy products, snack foods, canning, salt, and much more. The region also has core competency in animal food production. There are thousands of quality products being sold throughout the world coming out of the Texarkana region.
- The greater Texarkana region is home to numerous major food processing facilities, including Tyson Foods, Campbell Soup, Ameripack Foods, Pilgrim's Pride (JBS USA), Americold, MidAmerica Pet Food, Saputo Foods, Advanced Foods, IsoNova Technologies, Bob Evans Farms, Southern

Bakeries, Flowers's Bakery, Advanced Food Technologies. Cargill Inc., Frito-Lay, Inc., John Soules Foods, Newly Weds Foods, Mt Perfect Pet, York Pecan Co., Hostess Brands, Kerry, Keith Smith, Old Hickory, HNO Blending, M&M Milling, Ice House America, Twice The Ice, Fay J's Candy Co., Bolisa Snacks, Red River Beef, Billie Jo's Beef, Lo Ranch, Lagniappe Specialty Meats, Dodd Dear Processing, among others. The region also boasts dozens of boutique operations processing game, organically grown meats, and other niche markets.

3.2.6.1 Meat Processing

Animal Production and Aquaculture jobs grew by 18% between 2014 – 2019. In 2019 there were 383 employed in this sector for a LQ of 2.2 times the US average. In total there are 70 companies operating in this sector (2109); the number of companies grew by 10 between 2014-2019. Poultry Processing's LQI is 28.0 times the US Average. Rendering and Meat Byproduct Processing is 33.9 times the US Average. Food processing, especially for meat processing, stands out as good fit because it can be linked to the high concentration of animal production in the economic region; dog and cat food manufacturing which has a LQI of 6.9 times the US average has seen tremendous job growth.

3.2.6.2 Beverage Processing

- Beverages have become a core piece of the greater Texarkana's image and economy. In the greater Texarkana region, there are currently around 15 beverage operations, which include soft-drink manufacturers, breweries, wineries, and distilleries. Texarkana is recognized for having the highest quality water found in the State of Arkansas (2023).
- The greater Texarkana region is home to major beverage production & distribution facilities, including Coca Cola, Pepsi Cola, Multipack Services, Mountain Valley Spring Water, Native Dog Brewing, Redbone Magic Brewing, Pecan Point Brewing, Origami Sake, Bubba Brews Brewing, Beavers Bend Brewery, Hiland Dairy Foods, Wine-A-Rita, O-Ferrels Winery
- Kerr Center for Sustainable Agriculture in Poteau (OK) manages 4,000 acres in eastern Oklahoma and focuses on finding sustainable solutions to the economic, social, and environmental challenges facing agribusiness operations.
- Employment in Beverages increased 25% over the past 10 years.

3.2.6.3 Grain Processing

Grain growing and production in the Texarkana region contribute to the agricultural sector, although it may not be as dominant as in some other regions known for large-scale grain production. Nonetheless, the region does participate in grain farming,

primarily focusing on traditional crops; however, the region has recently seen good growth in the organics area.

3.2.6.4 *Overview of Traditional Grain Production*

Here's an overview of grain production in the Texarkana area:

- **Crop Variety:** Farmers in the Texarkana region cultivate a variety of grains, with corn, soybeans, and wheat being among the most common. These crops are typically grown for various purposes, including food production, animal feed, and industrial uses like ethanol production.
- **Agricultural Practices:** Grain production in the Texarkana region involves modern agricultural practices, including the use of advanced machinery, irrigation systems, fertilizers, and crop management techniques. Farmers may also employ sustainable farming methods to conserve soil health and reduce environmental impact.
- **Climate and Soil Conditions:** The Texarkana region's climate and soil conditions are generally conducive to grain production. The area experiences a humid subtropical climate with warm summers and mild winters, which is suitable for growing a variety of crops. The soil composition varies but often includes fertile loam and clay soils.
- **Market Dynamics:** Grain producers in the Texarkana region participate in local, regional, and national grain markets. They may sell their crops to grain elevators, agricultural cooperatives, processors, and other buyers. Market prices, weather conditions, transportation costs, and government policies can influence the profitability of grain farming in the region.
- **Challenges and Opportunities:** Like any agricultural activity, grain production in the Texarkana region faces challenges such as weather variability, pest and disease pressures, input costs, and market fluctuations. However, there are also opportunities for innovation, diversification, and value-added production to enhance the resilience and profitability of grain farming operations.
- **Support Services:** Agricultural extension services, research institutions, farm equipment dealers, and agribusinesses provide strong support services to grain producers in the Texarkana region. These entities offer technical assistance, agronomic expertise, market information, and access to inputs and resources.

3.2.6.5 *Overview of Organic Grain Production*

Organic production efforts in the Texarkana region reflect a growing trend towards sustainable agriculture and consumer demand for organic products. While the region may not have as extensive organic farming operations as some other areas, there are

initiatives and efforts to promote organic agriculture. Here are some aspects of organic production efforts in the Texarkana region:

- **Organic Farms:** There are several organic farms in the Texarkana region that produce a variety of crops, including fruits, vegetables, grains, and livestock products. The newest and largest is Bell Farms which operates on 3,700 acres. These farms adhere to organic farming practices, which prohibit the use of synthetic pesticides, fertilizers, and genetically modified organisms (GMOs), while emphasizing soil health, biodiversity, and ecological balance.
- **Certification:** Certain organic farmers in the Texarkana region seek organic certification through the United States Department of Agriculture (USDA) National Organic Program (NOP) or other accredited certifying agencies. Organic certification ensures that farms comply with organic standards and allows farmers to label and market their products as organic, thereby meeting the growing demand for organic foods.
- **Crop Diversity:** Organic farmers in the Texarkana area grow a variety of crops, including fruits, vegetables, grains, legumes, and herbs. They may also engage in organic practices for specialty crops such as organic cotton or medicinal herbs, depending on market demand and environmental suitability.
- **Livestock Production:** In addition to crop farming, some producers in the Texarkana region raise organic livestock, including poultry, beef cattle, dairy cows, and small ruminants. Organic livestock farming involves providing animals with access to pasture and forage, avoiding antibiotics and growth hormones, and adhering to other organic standards.
- **Soil Health:** Organic farming practices in the Texarkana region prioritize soil health and fertility through methods such as crop rotation, cover cropping, composting, and reduced tillage. These practices help improve soil structure, enhance nutrient cycling, and promote biodiversity, contributing to sustainable agriculture.
- **Consumer Demand:** Consumer interest in organic food and products has been growing nationwide, including in the Texarkana region. Organic producers may benefit from increased demand for organic produce, meat, dairy, and other organic goods, both locally and regionally.
- **Community Supported Agriculture (CSA):** Some organic farms in the Texarkana region operate Community Supported Agriculture (CSA) programs, where consumers can purchase shares or subscriptions to receive a regular supply of fresh, locally grown organic produce. CSA

programs foster direct relationships between farmers and consumers, support local agriculture, and promote sustainable food systems.

- **Farmers Markets and Local Food Initiatives:** Farmers markets, farm-to-table restaurants, and local food initiatives provide outlets for organic farmers in the Texarkana region to sell their products directly to consumers. These venues not only support local
- **Challenges and Opportunities:** Organic farming in the Texarkana region faces challenges such as access to organic inputs, pest and disease management, marketing and distribution, and transitioning from conventional to organic production methods. However, there are also opportunities for organic producers to capitalize on premium prices, environmental stewardship, and community support for sustainable agriculture.

3.2.6.6 *Flavoring, Sauces, Spices*

- A niche market that is growing in the Texarkana area is the growing and production of additives, flavoring, sauces, species and more.
- **Supply Chain Integration:** Companies in the Texarkana area involved in the production of additives, flavorings, sauces, and spices are likely part of broader supply chains that serve the food and beverage industry. They may source raw materials from agricultural suppliers, process and manufacture products locally, and distribute them to regional or national markets.
- **Sauces and Condiments:** Some manufacturers in the Texarkana area specialize in the production of sauces, condiments, and dressings, including items such as barbecue sauce, hot sauce, ketchup, mustard, mayonnaise, salsa, marinades, and salad dressings. These products are often made from a combination of ingredients such as tomatoes, vinegar, spices, herbs, and sweeteners.
- **Spices and Seasonings:** While the Texarkana region may not be a major center for spice production, there may be companies involved in blending, packaging, or distributing spices and seasonings. This can include a wide range of products such as salt, pepper, garlic powder, onion powder, chili powder, curry blends, and specialty seasoning mixes for various cuisines. The number of Farms, Ranches, and Local Food Businesses that deliver Spices in Texarkana area are above 100.
- Specialty companies in the market include firms like IsoNova that extract protein from eggs and then sales that item back into the marketplace.

3.2.6.7 *Animal And Pet Food Manufacturing*

The Texarkana region offers several advantages for animal and pet food manufacturing, such as access to multiple input products for all area of the value chain, low logistics costs, access to needed infrastructure, labor availability, manageable regulatory requirements, and good great access to end market.

Companies already operating in the area include: Tyson - Texarkana River Valley Animal Food, Mid America Pet Food, Eagle Mountain Pet Food, IsoNova, and others.

3.2.7 Packaging

Texarkana's strategic location offers proximity to suppliers of packaging materials, reducing transportation costs and lead times. Texarkana area packaging manufacturers are all about creating packaging materials and solutions involving designing, developing, and producing packaging that meets specific needs. You will be able to choose from suitable materials, like cardboard, plastic, steel, wood, and create different types of packaging, such as boxes or containers. The goal is to protect the products and make them easy to handle and transport. Texarkana packaging companies ensure that products are well-packaged and ready to reach customers in the best possible condition. They have experience in all forms including: Paper, Bopp & Woven Poly Bags, Tubes And Cores, Adhesives, Corrugated, And IBC, Recycled Materials, Jerrycans, Pallets, Steel Drums, and more

3.2.8 Cold Chain Facilities

- Given the fact that Cold chain facilities play a critical role in both the food and beverage industry as well as pharmaceutical and supplement production, and the current and growing presence of these industries the Texarkana region is underserved.
- An enhanced presence of these facilities would play a vital role in preserving product quality, ensuring safety and compliance, stabilizing price points, enhancing the ability to bring new industry to the market, and supporting global distribution networks.
- Companies already operating in the area include: Americold and Total Transportation.

3.2.9 TexAmericas Center's Food Hub Concept For Startups And Skunk Works Assistance

TexAmericas Center and our local Council of Governments have authored a Feasibility Study and Business Plan to create a Food Hub at TexAmericas Center. The Food Hub would have integrated into it a Commercial Kitchen, third-party logistics services performed by TAC3PL, market potential, competition, demand and trends, , supply of ingredients, an ecommerce website/platform, a brick & mortar location, incubator/accelerator space, distribution channels, regulatory compliance.

partnerships with Texarkana College, Texas A&M University – Texarkana, and University of Arkansas – Texarkana and more.

3.2.10 Agricultural Equipment Manufacturing & Wholesale

- While Texarkana is not widely known as a major hub for farm equipment manufacturing, there are smaller-scale manufacturers in the area catering to the agricultural community. Among them are Priefert Manufacturing which has grown into one of the largest farm, ranch and rodeo equipment manufacturers in the world. Also, in the region are 17 specialty trailer manufacturers, many focused on the need of farms and ranches.
- The wholesale industries for Farm Supplies, Farm & Garden Equipment, and Construction & Mining Machinery are strong and growing in the Texarkana region. Jobs in the Farm Supplies Merchant Wholesalers sector have an LQ of 3.3 times higher than the US average. Jobs in the Farm and Garden Machinery and Equipment Merchant Wholesalers sector have an LQ of 2.1 time the US average, and Jobs in the Farm and Garden Machinery and Construction and Mining (except Oil Well) Machinery and Equipment Merchant Wholesalers sector have an LQI of 2.0 time the US average.

With our rich agricultural heritage, our region can lead in the creation of products, services, and technology that benefit yield, efficiency, and profitability.

3.3 BASE MATERIAL, CRITICAL MINERAL RESOURCE AND TRADITIONAL PROCESSING/MANUFACTURING

The Texarkana region offers several factors that make it an attractive and favorable location for resource-based, critical mineral, and traditional manufacturing operations:

- **Proximity to Raw Materials and Natural Resources:** Texarkana's location in the Southern United States provides access to abundant natural resources, including timber, minerals, and agricultural products. Its proximity to these resources provides a reliable and cost-effective supply chain for manufacturing operations as access to these raw materials reduces transportation costs and logistical challenges. If your manufacturing operation relies on critical minerals or other raw materials, proximity to these resources can streamline supply chains and reduce transportation costs.
- **Transportation HUB Infrastructure:** Texarkana is well-connected to major transportation routes, including three interstate highways, two railways, airport(s), and waterways. Its location at this intersection facilitates effective supply chain management and low-cost transportation of raw materials to manufacturing facilities. This strategic transportation infrastructure then enables efficient distribution to domestic and international markets for finished products.
- **Supply Chain Integration:** Texarkana's position within the regional supply chain network allows for integration with upstream suppliers and downstream customers. This integration can enhance collaboration, coordination, and efficiency throughout the supply chain, from raw material sourcing to product distribution guaranteeing lower logistics costs.
- **Market Access:** Texarkana provides access to regional, national, and international markets for manufactured products all from a central time zone. Proximity to major population centers and global transportation hubs enables manufacturers to reach customers efficiently and competitively.
- **Skilled Workforce:** Texarkana's available workforce can provide the expertise needed to operate critical mineral extraction and processing sites as well as traditional manufacturing facilities efficiently. The Texarkana region has a skilled labor pool with experience in resource-based industries, such as forestry, mining, agriculture, or manufacturing, and a workforce with experience in resource extraction, processing, and manufacturing in a Right-To-Work state. This access to a skilled labor pool, with low labor costs, will support the start-up, contribute to faster productivity and efficiency improvements, and reach stabilization of these types of manufacturing operations sooner.
- **Energy Resources:** The Texarkana area has access to affordable and reliable energy resources, including electricity, natural gas, and renewable energy sources, in the capacities needed by these industries. These power resources are essential for operating manufacturing operations and will contribute to cost-effectiveness and sustainability. Texarkana's access to energy infrastructure can

provide cost-effective energy solutions to support these manufacturing processes.

- **Business-Friendly Environment:** Texas is recognized globally for being a top location for business because of its regulatory environment, State Tax Policies, as well as access to financing and incentive programs. The Texarkana region, but especially TexAmericas Center, offers a favorable, business-friendly environment for manufacturing operations, with streamlined permitting processes, favorable tax policies, regulatory frameworks, access to business support services, and incentives to attract and support industrial development enhance the attractiveness of the industrial park for resource-based manufacturing. Further TexAmericas Center will work with the company to facilitate State of Texas permit process thus quickening the establishment, growth and stabilization of these types of manufacturing facilities.
- **Community Support:** Texarkana has a supportive business community, economic development organizations, and local government entities that actively promote and facilitate industrial development. Collaboration with these stakeholders can provide resources, incentives, and assistance to support the establishment and growth of resource-based and traditional manufacturing operations.
- **Quality of Life:** Texarkana offers a relatively low cost of living compared to larger metropolitan areas, contributing to a favorable quality of life for employees and business owners. A lower cost of living can attract and retain skilled workers, reducing labor costs for manufacturing operations.

By leveraging these factors, Texarkana's combination of access to raw materials, transportation infrastructure, skilled workforce, business-friendly environment, energy resources, quality of life, supply chain integration, market access, community support and other variables makes it a desirable location for resource-based manufacturing, critical mineral, and traditional manufacturing operations.

3.3.1 Resource-Based Production

- **Access to Raw Materials:** Texarkana's location in the southern United States provides access to abundant natural resources, including aggregate, timber, minerals, rare earth elements, metals, agricultural products and more. This access to raw materials is essential for resource-based production, reducing procurement costs, lowering logistics costs, reducing time waiting on materials and ensuring a stable supply chain.
- **Upstream Metals** includes manufacturers of cast metals such as rolled steel, coiled and bar steel, industrial parts, and structural steel, as well as extruded aluminum, titanium, and other specialty metals used in aerospace, medical devices, and other manufacturing industries. Texarkana's metals manufacturers are very innovative and advanced—they have to be in this globally competitive industry. Jobs in the Iron and

Steel Mills and Ferroalloy Manufacturing Industry are 11.4 times the US average.

- Specifically, the Primary Metal Manufacturing sector has four companies located here employing 623 in 2019 with LQ of 2.5 times the US average. There is a high probability of being able to access skilled employees because the number of employees working in this sector decreased by 51% from 2104 through 2019.
- The region is also highly specialized in metal manufacturing, though the primary metal sector has experienced a substantial decline over the past five years (2014 – 2019) due to job cuts at the Lone Star US Steel plant in Lone Star (TX). These numbers have improved in recent years because of Texarkana Aluminum's (Ta Chen) restarting of the former Alumax facility, its activity, and the significant investments that have been made by the company, suppliers, and customers. Further the presence of Forge Resources Group which can handle Carbon and Alloy Steels (0.5-350 lbs.), Aluminum/Non-Ferrous Forgings (0.5-50 lbs./0.5-125 lbs.) and Stainless Steels and ISO 9001 and AS 9001 certified and ITAR compliant means that there is premier forging solution provider here in our market. Also, Henderson Manufacturing Company, has become a quality supplier of carbon and stainless-steel castings up to 3,500 lbs. and is ISO 9001:2015 certified. Another recent addition to the market is Grand Forge Metals, LLC. Grand Forge Metals is a manufacturer of metal doors.
- Industry leaders in the greater Texarkana region that make product from base materials or support the industry include: Texarkana Aluminum (Ta Chen), Precision Roll Grinders Inc, Industrial Mill & Maintenance Supply, and Tri-State Iron & Metal Company, SIDCO Minerals, M&M Milling, Ashdown Sand & Gravel, TEC Sand & Gravel, TEC Sand & Gravel, Rimcor Inc., JR Building Supplies, Albemarle Corp., Ash Grove Cement, and more
- **Building Materials** are essential to life and living because these materials, products, and services define how our world is built. Our companies are constantly rethinking, reimagining, and reinventing solutions for the built environment, making homes, buildings, and infrastructure that will stand the test of time. Jobs in the Cement Manufacturing Industry are 14.6 times the US average. Companies in our local cluster include: Ash Grove Cement, West Fraser, TEC Sand & Gravel, Ashdown Sand & Gravel, and others.
- Manufactured goods were the Texarkana region's largest exports in 2023, with primary metal manufacturing exports of \$127 million Upstream metals employment grew twice as fast in the Texarkana region as it did in the U.S. between 2009 and 2019.

3.3.2 Energy Production

The Texarkana area, situated at the border of Texas, Arkansas, Louisiana and Oklahoma, is part of a larger multistate region that contributes significantly to energy production through various operations. While the Texarkana area itself may not be a major hub for energy production like some other subregions in Texas, it does play a role in the broader energy landscape of the Southern United States. Here are some key energy production operations that are present in or near the Texarkana area:

- **Oil and Gas Production:** The region surrounding Texarkana has historically been involved in oil and gas production. While the oil and gas industry may not be as prominent in this area as in other parts of Texas, there are oil and gas wells, production facilities, and related infrastructure throughout the region.
- **Refining and Petrochemicals:** Texas is home to numerous refineries and petrochemical plants, particularly in the Gulf Coast region. While Texarkana itself may not have large-scale refining operations, it is situated within the vicinity of refineries and petrochemical complexes that process crude oil into various petroleum products and chemicals.
- **Renewable Energy:** The Texarkana area and surrounding regions have seen increasing interest and investment in renewable energy projects, including wind, solar, and biomass. Wind farms, solar installations, and biomass facilities may be operational in nearby counties, contributing to the region's renewable energy portfolio.
 - TexAmericas Center is pursuing a targeted business attraction program focused on renewable recycling waste streams such as plastics, tires, timber waste, animals waste, and other sources.
 - Multiple solar farms have been erected in the area, some for communal citizen use and others for industrial use. Many local companies and families see solar energy as a means to lessen their costs of living.
 - ENGIE NA has executed an initial lease on 750+ acres on TexAmericas Center's West Campus to construct a 100+MW solar farm. They have been granted the right to connect to the grid by the Southwest Power Pool and are now negotiating that Power Purchase Agreement with AEP/SWEPCO. They have optioned an additional 550+ acres for a Phase II development.
- **Electricity Generation:** The Texarkana area is served by electric utilities that generate electricity from various sources, including natural gas, coal, nuclear, and renewables. Power plants within the region or nearby may

supply electricity to meet the energy needs of residential, commercial, and industrial consumers.

- The John W. Turk Jr. Coal Plant is a base load 600-megawatt coal-fired power station in Fulton, Arkansas, operated by the American Electric Power subsidiary Southwestern Electric Power Company (SWEPCO). It provides power to customers in Arkansas, Louisiana, and Texas. The plant came online in 2012 as the first sustained "ultra"-supercritical coal plant in the United States, reaching boiler temperatures above 1,112 °F (600 °C) and pressures above 4,500 psi (310 bar). The plant relies on low-sulfur coal from the Powder River Basin. At a total cost of \$1.8 billion, it was the most expensive project in Arkansas history.
- The region is well positioned and would be receptive to additional generation coming from natural gas-fired power plants, renewable and recyclables energy facilities, nuclear power plants, hydro power plants, and cogeneration plants.
- **Transmission and Distribution:** Energy transmission and distribution infrastructure, including power lines, substations, and distribution networks, are essential for delivering electricity from generation facilities to end-users. Utilities in the Texarkana area maintain and operate transmission and distribution systems to ensure reliable electricity supply. Jobs in the Electric Bulk Power Transmission and Control Industry are 6.4 times the US average in the Texarkana region.
- **Energy Services:** Additionally, the Texarkana area has expertise in companies providing energy-related services such as drilling, exploration, engineering, construction, and maintenance. These companies support various aspects of energy production, including oil and gas operations, renewable energy projects, and infrastructure development.

Overall, while the Texarkana area may not be synonymous with major energy production operations like some other regions in Texas, it is part of a broader energy landscape that includes diverse sources of energy production and related activities. The region's energy sector contributes to local economies, job creation, and the overall energy supply of the Southern United States.

3.3.3 Rare Earth Elements Or Critical Mineral Resources

Proximity to Resources: Rare earth elements are critical components in various high-tech industries, including electronics, renewable energy, and defense. While the United States has significant rare earth element deposits, including those in Arkansas, Texas and surrounding states, the region surrounding Texarkana is rich in natural resources, including deposits of rare earth elements and critical minerals. Access to these resources can significantly reduce transportation costs and ensure a stable supply chain for processing facilities. The development of Rare Earth Element mining projects

may face less restrictions in this area because of the existence of existing and former bromine mines which may lead to less regulatory, environmental, and economic challenges.

- **Deposits in Arkansas:**

- Arkansas is known to have deposits of rare earth elements (REEs), although they may not be as extensively studied or developed as in some other regions. REEs typically occur in association with various minerals and geological formations found throughout the state.
- The following critical minerals can be found in southern Arkansas area (Union, Columbia, Miller, Lafayette, and Ouachita Counties) of the greater Texarkana region:
 - Aluminum, Antimony, Arsenic, Barite, Beryllium, Bismuth, Cerium, Cesium, Chromium, Cobalt, Dysprosium, Erbium, Europium, Fluorspar, Gadolinium, Gallium, Germanium, Graphite, Hafnium, Holmium, Indium, Iridium, Lanthanum, Lithium, Lutetium, Magnesium, Manganese, Neodymium, Nickel, Niobium, Palladium, Platinum, Praseodymium, Rhodium, Rubidium, Ruthenium, Samarium, Scandium, Tantalum, Tellurium, Terbium, Thulium, Tin, Titanium, Tungsten, Vanadium, Yttrium, Ytterbium, Yttrium, Zinc, And Zirconium.
 - Bromine brine can be found in Union and Columbia counties. The Upper Jurassic Smackover Formation contains the richest of these brines (5,000 to 6,000 ppm) at a depth of 7,500 to 8,500 feet. Since 2007, all US bromine has been produced in southern Arkansas. In 2013, 28% of the global bromine production (225,000 tons) in Arkansas made the United States the second-largest producer of bromine, after Israel. These brines are also rich in Lithium.
 - Lithium is one of the most important metals in the transition to renewable power. Global production of the metal tripled throughout the 2010s, and demand is projected to increase as much as 40-fold by mid-century. Most sources of Lithium are in remote locations, expensive to mine and extraction is bad for the environment. Our Smackover site is uncommonly well-suited for direct lithium extraction (DLE). Finally, the Texarkana region in southwest Arkansas is home to both active and closed mining processes making startup faster and less expensive.
- Some areas in Arkansas where REE deposits have been identified or explored are within 175-miles of TexAmericas Center and include:
 - **Ouachita Mountains:** The Ouachita Mountains in western and central Arkansas have been of interest for REE exploration. These mountains contain geological formations that host minerals such as

monazite, bastnäsite, and xenotime, which can contain REEs as byproducts.

- **Phosphate Deposits:** Certain phosphate deposits in Arkansas may contain significant concentrations of monazite, a mineral that can host REEs. Monazite is often associated with phosphate rock and can be recovered as a byproduct of phosphate mining operations.
- **Granitic Intrusions:** Some granitic intrusions and pegmatite veins in Arkansas may contain minerals enriched in REEs. Pegmatites are known for their mineral diversity and can host minerals such as monazite, bastnäsite, and xenotime, which may contain economically significant concentrations of REEs.

- **Deposits in Oklahoma**

- Oklahoma is known to have deposits of rare earth elements (REEs), although the extent and economic viability of these deposits vary. The state's geological formations contain several minerals that can host REEs, including bastnäsite, monazite, and xenotime. These minerals typically occur in association with other elements and minerals, such as uranium, thorium, and phosphate.
- Some specific areas in Oklahoma where REE deposits have been identified or explored include:
 - **Southeastern Oklahoma: Parts** of southeastern Oklahoma, particularly in the Ouachita Mountains, have been explored for REEs. These efforts have focused on areas with known occurrences of monazite and bastnäsite-bearing rocks.
 - **Bear Lodge Mountains:** While primarily located in Wyoming, the Bear Lodge Mountains extend into northeastern Wyoming and northwestern Oklahoma. This region contains significant REE deposits, including the Bear Lodge Project, which is one of the largest known REE deposits in North America. The primary minerals hosting REEs in this area are bastnäsite and monazite.
 - **Phosphate Deposits:** Some phosphate deposits in Oklahoma, particularly in the southeastern part of the state, contain significant concentrations of monazite, a mineral that can host REEs as a byproduct of phosphate mining operations.

- **Deposits in Louisiana**

- Ucore Rare Metals Inc. announced on January 1, 2024, the acquisition of a brownfield facility for its first commercial rare earth element processing facility in Alexandria, Louisiana. The site is expected to generate 2,000 tons per year of total rare earth oxides and grow to 7,500 tons by 2027. Actual REE's has not been disclosed at this time

but it is expected to be a combination of heavy and light rare earth oxides, excluding cerium and yttrium. The distance from TexAmericas Center to the deposit is about 200 mile, or a 3-hour drive.

- While Louisiana may not be traditionally known for REE deposits, the state's geological diversity and mineral resources suggest that there may be potential for REE occurrences. Some areas and geological formations in Louisiana that could potentially host REEs include:
 - **Coastal Plain Sediments:** Louisiana's coastal plain region contains sedimentary deposits that may host minerals associated with REEs. These sediments could potentially contain trace amounts of REEs, although further exploration and evaluation would be needed to assess their economic viability.
 - **Phosphate Deposits:** Certain phosphate deposits in Louisiana may contain concentrations of monazite, a mineral that can host REEs. Phosphate mining operations in the state may recover monazite as a byproduct, although the extent of REE occurrences in these deposits may vary.
 - **Heavy Mineral Sands:** Some coastal and deltaic environments in Louisiana may contain heavy mineral sands, which can host minerals enriched in REEs. These sands may accumulate along beaches, river deltas, and nearshore areas, potentially containing economically significant concentrations of REEs.
- **Deposits in Texas**
 - Texas is known to have deposits of rare earth elements (REEs), although they may not be as extensively studied or developed as in some other regions. REEs typically occur in association with various minerals and geological formations found throughout the state.
 - The Round Top Mountain near Sierra Blanca, in Hudspeth County, Texas, holds one of the biggest deposits of heavy rare-earth elements (REE) in the US. It also contains a variety of critical industrial minerals and technology metals including lithium, uranium, thorium, beryllium, gallium, hafnium and zirconium. The distance from TexAmericas Center to the deposit is about 725 mile, or a 10.5-hour drive.
 - Siderite or iron carbonate is mined in Linden County, Texas (40 miles south of TexAmericas Center) by Sidco Minerals, from high purity ore. After being dried, crushed and processed from the rich deposits, the ore is shipped to customers who span the globe. Iron Oxide, (Linden) also known as Calcined Iron Oxide is a mineral compound used in a variety of applications such as agriculture, steel making, wastewater treatment, environmental remediation, energy and power production

among others. The company also produces a specific blend of Hematite and Magnetite that is particularly useful for steel feed stock, pigments, remediation, water treatment, welding rods, wastewater treatment among other applications.

- Some areas in Texas where REE deposits have been identified or explored include:
 - **Llano Uplift:** The Llano Uplift in central Texas has been of interest for REE exploration. This region contains geological formations that host minerals such as monazite, bastnäsite, and xenotime, which can contain REEs as byproducts. The distance from Texarkana is about 400 miles.
 - **Granitic Intrusions:** Certain granitic intrusions and pegmatite veins in Texas may contain minerals enriched in REEs. Pegmatites are known for their mineral diversity and can host minerals such as monazite, bastnäsite, and xenotime, which may contain economically significant concentrations of REEs.
 - **Phosphate Deposits:** Some phosphate deposits in Texas may contain significant concentrations of monazite, a mineral that can host REEs. Monazite is often associated with phosphate rock and can be recovered as a byproduct of phosphate mining operations.

3.3.4 Recycling And Reuse Of Rare Earth Elements

The potential to reclaim rare earth elements (REEs) from recycling is significant and increasingly recognized as a critical aspect of sustainable resource management. REEs are essential components in various high-tech products, including electronics, electric vehicles, renewable energy technologies, and defense systems. Given their importance and limited global reserves, recycling offers a valuable opportunity to recover REEs from end-of-life products, industrial waste streams, and manufacturing scrap.

Recycling and Reuse of Rare Earth Elements (REE) is still in its infancy. While REEs could potentially be recovered and reused from LEDs, magnets, fluorescent light bulbs and rechargeable batteries, such recycling is limited and not presently economical. The European Union's REE4EU is one example of an innovative program aiming to retrieve and recycle rare-earth permanent magnets to be used in hybrid vehicles and wind turbine generators. Urban Mining Co., based in San Marcos, Texas, is conducting REE recycling on a pilot, small-scale basis.

The Texarkana region is exceptionally well positioned to be a center of excellence in the development of this industry. Being located within 500-miles of 2,200,000 businesses, 23 of the largest MSA's in the country (10 of which are the fastest growing) and having access to 10 million more residents than any other Texas MSA makes the Texarkana region ripe for this fledgling industry.

Another significant factor is the presence of the DOD's Defense Logistics Agency facility at the Red River Army Depot. This DLA facility is one of the three major facilities which facilitate all inbound and out bound distribution to the DOD facilities and ports in the center of the USA. Because of this, the Red River DLA facility is the primary return point for all electronic waste before being disposed of for all DOD operations in the Central USA. Various resources that could be recovered through a recycling operation in the Texarkana market, likely include neodymium, dysprosium, lanthanum, praseodymium, cerium, europium, terbium, and other REEs.

3.3.5 Traditional Manufacturing

In the greater Texarkana area, you can find a variety of traditional manufacturing operations spanning several industries. Some of these include:

- **Paper and Pulp Manufacturing:** Texarkana is home to several paper mills and pulp manufacturing facilities, benefiting from the region's surplus of timber resources. The significant vertical presence here makes this a cluster.
- **Steel Manufacturing:** Steel fabrication and manufacturing facilities are present in the area, contributing to the construction, advanced manufacturing, and equipment manufacturing sectors. The significant vertical presence here makes this a cluster.
- **Automotive Parts Manufacturing:** There are companies in the Texarkana area involved in the production of automotive parts, supplying the local, national, global, and Defense automotive manufacturing industry. The significant vertical presence here makes this a cluster.
- **Plastics Manufacturing:** Plastic injection molding and extrusion companies operate in the region, producing a wide range of plastic products for various industries. The significant presence here makes this a targeted industry.
- **Food & Beverage Processing:** The food processing industry is significant in the Texarkana area, with facilities involved in meat processing, poultry processing, grain processing, by-product processing, and other food manufacturing activities. The significant vertical presence here makes this a cluster.
- **Wood Products Manufacturing:** Given the abundance and surplus of timber resources in the surrounding area, wood products manufacturing is a prominent industry, encompassing sawmills, lumber processing, furniture manufacturing and specialty product manufacturing. The significant vertical presence here makes this a cluster.
- **Chemical Manufacturing:** Some chemical manufacturing companies operate in the Texarkana area, producing various chemicals for industrial and consumer applications. The significant presence here makes this a targeted industry.
- **Textile Manufacturing:** Though not as prevalent as in previous decades, textile manufacturing operations still exist in the area, producing textiles, garments, and specialty and safety clothing.
 - These are just a few examples of Textile companies and end product manufacturers located in the greater Texarkana region: Stanco Safety

Products, Domtar Industries, International Paper, Majestic Texarkana, and others.

The greater Texarkana area offers several advantages that make it a favorable location for traditional manufacturing operations:

- **Strategic Location:** Texarkana is strategically located at the junction of Texas, Arkansas, Louisiana and Oklahoma, providing easy access to major transportation routes including Interstate highways, railways, and waterways. This central location facilitates efficient distribution of raw materials and finished products to markets across the United States and the globe.
- **Abundant Natural Resources and Raw Materials:** The region is rich in resources, such as grains, meats, dairy, steel, aluminum, chemicals, rubber, paper, pulp, plastics, and particularly timber, which is essential for industries such as paper and wood products manufacturing. The availability of raw materials at competitive prices due to favorable logistics costs reduces production costs for manufacturers in these sectors.
- **Skilled Workforce:** Texarkana benefits from a skilled and experienced workforce with a strong background in traditional manufacturing industries in a Right-To-Work State. The presence of vocational training programs and technical colleges in addition to world class universities in the area helps to ensure a steady supply of qualified workers for manufacturing operations.
- **Supportive Business Environment:** Local and state governments in the Texarkana area often offer incentives such as tax breaks, grants, and infrastructure support to attract and retain manufacturing businesses. Additionally, the region's business-friendly regulatory environment and low cost of living make it an attractive destination for companies looking to establish or expand their manufacturing operations.
- **Access to Utilities:** Texarkana has reliable access to utilities with excess capacity such as electricity, water, sewer, fiber, and natural gas, which are essential for manufacturing processes. The availability of affordable and stable utility services reduces operational costs and enhances the competitiveness of manufacturing businesses in the area.
- **Industrial Infrastructure:** The Texarkana area has well-developed industrial infrastructure, including business services, industrial parks, manufacturing facilities, and warehousing space. This infrastructure supports the efficient operation of manufacturing businesses and facilitates collaboration and synergy among industry players.
- **Quality of Life:** Texarkana offers a high quality of life with affordable housing, good schools, and recreational amenities. This makes it an attractive location for skilled workers seeking employment opportunities in traditional manufacturing industries.
 - Overall, the combination of strategic location, abundant resources, skilled workforce, supportive business environment, access to utilities, industrial

infrastructure, and quality of life makes the greater Texarkana area a desirable location for traditional manufacturing operations.

3.4 CHEMICAL, PETROLEUM, PLASTIC, & RUBBER MANUFACTURING CLUSTER OF BUSINESSES

The greater Texarkana area is a good fit for traditional chemical Petroleum, Plastics and Rubber production operations and the community would welcome new operations such as:

- **Petroleum Refining:** Because of proximity to local Raw Materials, some facilities in the Texarkana area are involved in petroleum refining, processing crude oil into various petroleum products such as gasoline, diesel, jet fuel, and lubricants.
- **Pipeline Operations:** The Texarkana area is often seen as a hub for pipeline operations, similar to its noteworthiness for its interstate and rail system interconnectivity. With existing pipelines transporting crude oil, refined petroleum products, and natural gas to and from refineries, distribution centers, and markets across the region and the country as well as multiple proposed pipelines including CO2 and others, we are an excellent fit for these facilities.
- **Petroleum Storage, Distribution, and Terminals:** Because of our access to Rail, Interstate and Pipelines facilities in the Texarkana area could be involved in the storage and distribution of petroleum products. Sites at TexAmericas Center could support facilities that store large quantities of refined products such as gasoline, diesel, jet fuel and others before they are distributed to retail outlets, airports, industrial consumers, and other end users.
- **Petroleum Industry Support Services:** Various support services related to petroleum production and refining are also present in the greater Texarkana area. These include engineering firms, equipment suppliers, logistics companies, and environmental consulting firms that cater to the needs of the petroleum industry.
- **Chemical Manufacturing:** There are companies in the Texarkana region engaged in the production of various chemicals for industrial and consumer applications. These chemicals include solvents, acids, bases, fertilizers, polymers, and specialty chemicals.
- **Fertilizer Production:** Given the significant agricultural nature of the region, fertilizer production is a significant chemical operation in the Texarkana area. These facilities produce fertilizers containing nitrogen, phosphorus, and potassium essential for crop growth.
- **Industrial Gases Production:** Some companies in the Texarkana area specialize in the production or supply of industrial gases such as oxygen, nitrogen, hydrogen, and argon, which are used in various industrial processes.
- **Plastics and Polymers Manufacturing:** Chemical facilities in the Texarkana region also produce plastics and polymers, which are used in a wide range of applications including packaging, automotive parts, construction materials, and consumer goods.

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- **Adhesives and Sealants Production:** Certain chemical manufacturers in the Texarkana area specialize in the production of adhesives, sealants, and coatings used in construction, automotive, and industrial applications.
 - **Tire Manufacturing:** Texarkana area hosts a large Goodyear tire manufacturing facilities, but could be home to suppliers, distribution centers and additional tire manufacturers. Any facilities that would handle the inbound materials, distribution of tires, or produce rubber components used in tire manufacturing processes.
 - **Rubber Processing and Compounding:** Some companies in the Texarkana area specialize in rubber processing and compounding. These operations involve mixing raw rubber with various additives and chemicals to create custom rubber compounds used in various industries such as defense, automotive, construction, and industrial manufacturing.
 - **Rubber Products Manufacturing:** While not strictly rubber production, there is room for manufacturers in the Texarkana area that produce rubber products such as seals, gaskets, hoses, and conveyor belts. These products are used in a wide range of applications across complimentary and targeted industries to Texarkana like automotive, aerospace, defense, and equipment manufacturing.
 - **Rubber Recycling:** There is a large supply of rubber and tires in the Texarkana that needs to be recycled. Some facilities in the Texarkana region focus on rubber recycling, processing used rubber materials into new products or raw materials for other industries. Adding more offtake users to the market would enhance these companies' operations. Rubber recycling operations contribute to sustainability efforts by reducing waste-conserving resources and adding market value.
 - **Plastic Injection Molding:** Low cost of utilities, supply chain synergies and access to markets makes facilities that specialize in plastic injection molding is a particularly good fit for the Texarkana area.
 - **Plastic Extrusion:** Low cost of utilities, supply chain synergies and access to markets makes facilities that specialize in plastic extrusion a particularly good fit for the Texarkana area. These products are used in various industries such as construction, automotive, defense, and packaging.
 - **Thermoforming:** Low cost of utilities, supply chain synergies and access to markets makes facilities that specialize in thermoforming a particularly good fit for the Texarkana area.
 - **Blow Molding:** Low cost of utilities, supply chain synergies and access to markets makes facilities that specialize in blow molding a particularly good fit for the Texarkana area.
 - **Plastic Packaging Production:** Companies in the Texarkana area produce plastic packaging materials such as bottles, containers, bags, and films used in food and beverage, personal care, consumer goods, and other industries. Adding additional companies would add great value to our supply chains.

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- **Plastic Recycling:** Some facilities in the Texarkana region focus on plastic recycling, processing used plastic materials into new products raw materials or fuel for other industries. Plastic recycling operations contribute to sustainability efforts by reducing plastic waste and conserving resources. TexAmericas Center would welcome any industries generating waste plastics that need to be recycled.

These traditional production operations benefit from the region's access to raw materials, transportation infrastructure, skilled workforce, and supportive business environment. Additionally, the proximity to major markets in Texas, Arkansas, Louisiana, and beyond enhances the competitiveness of these chemical manufacturing operations in the Texarkana area.

The Texarkana area presents several advantages for placing a Petroleum, Chemical, Plastics, & Rubber Manufacturing facility:

- **Proximity to Raw Materials:** Texarkana's location provides access to key raw materials used in petroleum, chemical, plastics, and rubber manufacturing processes. The region's proximity to petrochemical sources and other industrial suppliers will reduce transportation costs and ensure a stable supply chain.
- **Transportation Infrastructure:** Texarkana benefits from well-developed transportation infrastructure, including interstate highways, railways, and access to waterways. This infrastructure facilitates the movement of raw materials, finished products, and equipment necessary for Petroleum, Chemical, Plastics, & Rubber manufacturing operations.
- **Skilled Workforce:** Texarkana boasts a skilled workforce with experience in manufacturing, engineering, chemistry, and related fields in a Right-To-Work state. Local educational institutions, such as universities, vocational schools, and community colleges, offer training programs tailored to the needs of the petroleum, chemical, plastics, and rubber industry, ensuring a reliable workforce.
- **Business-Friendly Environment:** Texarkana provides a supportive business environment with favorable tax policies, incentives, and resources for business development. Local governments often actively support manufacturing initiatives, making it easier for companies to establish and expand petroleum, chemical, plastics, and rubber manufacturing operations.
- **Access to Utilities:** Texarkana offers access to reliable utilities with excess capacities such as water, sewer, fiber, electricity, and natural gas, essential for petroleum, chemical, plastics, and rubber manufacturing facilities. Access to these utilities ensures consistent production and reduces operational risks.
- **Quality of Life:** Texarkana provides a high quality of life for residents, with access to amenities such as parks, recreational facilities, cultural attractions, and affordable housing options. A favorable living environment can attract and retain skilled workers, contributing to the success of manufacturing operations.

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- **Supporting Industries:** Texarkana has supporting industries and suppliers in sectors such as packaging, equipment manufacturing, and distribution, providing additional resources and support for petroleum, chemical, plastics, and rubber manufacturing plants in the area.
 - **Regulatory Environment:** Texarkana's regulatory environment is conducive to petroleum, chemical, plastics, and rubber manufacturing, with regulations in place to ensure safety, environmental protection, and compliance with industry standards.

Overall, the combination of proximity to raw materials, transportation infrastructure, skilled workforce, business-friendly environment, access to utilities, quality of life, supporting industries, and regulatory environment makes Texarkana an attractive location for placing a Petroleum, Chemical, Plastics, & Rubber Manufacturing facility.

- Facilities in Texas and Louisiana produce 80 percent of the nation's primary petrochemical supply, and Texas chemical production tops the nation by far, with chemical shipments valued at \$117.5 billion.
- Texas leads the nation in petroleum refining and is a global leader in petrochemicals. This sector has long played a crucial role in Texas' economy by creating jobs and contributing to our state's status as the #1 exporter in the U.S.
- Texas refineries process almost 5.9 million barrels of crude oil per day, which is 31% of the nation's refining capacity. Because of the significant demand for workers in these areas, the sector employs thousands and creates high-paying jobs. In fact, the state is home to the world's largest petrochemical cluster with nearly 75,000 people employed in the industry.
- The Texarkana region is close to the Haynesville (TX)/Bossier (LA) Shale and the southern ten counties in Arkansas that produce oil. Historically, four of these counties are responsible for over 85% percent of the oil produced in Arkansas.
- More than 50% of the total U.S. chemical production is produced and processed by Texas chemical manufacturers. Chemical companies supply products that are used to make pharmaceuticals, computers, transportation, infrastructure, and other everyday items. The basic ingredients originate in oil and gas fields and travel through an immense worldwide supply chain that eventually yields plastics, packaging, fertilizers, pesticides, synthetic fibers, cleaners, lubricants, paint, and a seemingly endless list of other materials.
- The Texarkana region especially the Texas side is well known for its strengths in Petroleum Product Refining, Plastic Packaging & Film Manufacturing, and Basic Chemicals Production, which produces basic building blocks such as ethane, ethylene, methanol, and benzene.
- Within 25 miles of TexAmericas Center there are 5 chemical manufacturing companies and 3 petroleum/coal processing companies employing a total of 5,873 individuals. At 50 miles there are 6 chemical manufacturing companies and 5 petroleum/coal processing companies employing a total of 8,656 people.

And at 75 miles there 23 chemical manufacturing companies and 30 petroleum/coal processing companies employing a total of 32,995 persons.

3.4.1 Petroleum And Coal Products Manufacturing

- Over the ten years ending in 2023, employment in Petroleum/Coal Products Manufacturing for TexAmericas Center's 75 Mile - Region added 129 jobs. After adjusting for national growth during this period and industry mix share, the part of this employment change due to local competitiveness was a gain of 71 jobs—meaning this industry was more competitive than its national counterpart during this period.
- In 2022, Petroleum/Coal Products Manufacturing produced \$0.9 billion in GDP for TexAmericas Centers 75 Mile - Region. The TexAmericas Center region's share of Industry Total GDP was 1.5 % as compared to 0.6 % in the nation. The TexAmericas Center's average annual percentage change over the last 10 years was 0.1 %, while across the nation the industry experienced a -1.0 % change over the same period.
- Employment in the Petroleum/Coal industry is growing at 0.9% in the TexAmericas Center's 75 Mile - Region while the US average is 0.3%. The average wage in the TexAmericas Center area is \$96,939 while the average wage in the nation is \$135,344. The LQ for the Texarkana area is 4.37.
- As of 2023Q4, Petroleum/Coal Products Manufacturing in TexAmericas Centers 75 Mile - Region are estimated to make \$8.1 billion in annual purchases from suppliers in the United States with about 23% or \$1.8 billion of these purchases being made from businesses located in the same 75 Mile - Main Region. The top six local purchases include: Oil and Gas Extraction, Petroleum and Coal Products Manufacturing, Management of Companies and Enterprises, Basic Chemical Manufacturing, Insurance Carriers, and Other Supplier Industries.
- There are no less than 8 vocational schools, Colleges and Universities with Postsecondary Programs Linked to Petroleum/Coal Products Manufacturing that are providing a pipeline of about 3,800 individuals annually.

3.4.2 Chemical Manufacturing

- Over the ten years ending in 2023, employment in Chemical Manufacturing for TexAmericas Center's 75 Mile - Region added 227 jobs. After adjusting for national growth during this period and industry mix share, the part of this employment change due to local competitiveness was a gain of 38 jobs—meaning this industry was more competitive than its national counterpart during this period.

- In 2022, Chemical Manufacturing produced \$1.0 billion in GDP for TexAmericas Centers 75 Mile - Region. The TexAmericas Center region's share of Industry Total GDP was 1.8% as compared to 0.3 % in the nation. The TexAmericas Center's average annual percentage change over the last 10 years was 9.1 %, while across the nation the industry experienced a 2.8 % change over the same period.
- Employment in the Chemical industry is growing at 1.1% in the TexAmericas Center's 75 Mile - Region while the US average is 0.8%. The average wage in the TexAmericas Center area is \$111,696 while the average wage in the nation is \$120,107. The TexAmericas Center's average annual wage percentage change over the last 10 years was 1.7 %, while across the nation the industry experienced a 2.9 % change over the same period. The LQ for the Texarkana area is 4.88.
- As of 2023Q4, Chemical Manufacturing in TexAmericas Centers 75 Mile - Region are estimated to make \$2.6 billion in annual purchases from suppliers in the United States with about 34% or \$0.9 billion of these purchases being made from businesses located in the same 75 Mile - Region. The top six local purchases include: Basic Chemical Manufacturing, Oil and Gas Extraction, Petroleum and Coal Products Manufacturing, Natural Gas Distribution, Industrial Machinery Manufacturing, and Other Supplier Industries.
- There are no less than 8 vocational schools, Colleges and Universities with Postsecondary Programs Linked to Chemical Manufacturing that are providing a pipeline of about 3,080 individuals annually.
- Top Texarkana region companies in plastics, petroleum, rubber and chemical industries include: Goodyear, Red River Army Depot, Abernathy Company, GREIF, Detroit Forming, JM Eagle, Affinity Chemical, Majic Cast, Albemarle Building Products Co. Celotex Corp., Red River Vine Co., Sterno, A&E Quality Films, East Texas Coatings, and others.

3.4.3 Rubber Products Manufacturing

The rubber products industry in the Texarkana region plays a significant role in the local economy and benefits from its strategic location, abundant natural resources, and skilled labor force. Key aspects of the rubber products industry in the Texarkana region include:

- **Manufacturing Facilities:** The area is home to several manufacturing facilities that produce various rubber products. These products range from industrial components like gaskets, seals, and hoses to consumer goods such as tires, footwear, and rubberized fabrics. Rubber manufacturing is a leading industry in the Texarkana region with companies such as Goodyear (formerly Cooper Tire),

Red River Army Depot employing and SETCO 1,788 individuals, there is LQ of 3.8 which is almost four times the US average of employment.

- **Supply Chain Integration:** Many companies in the rubber products industry in Texarkana are part of broader supply chains that serve diverse sectors, including automotive, construction, aerospace, and healthcare. This integration links the local economy to national and global markets.
- **Technological Advancements:** Like in other regions, technological advancements have influenced the rubber products industry in Texarkana. Automation, advanced materials, and process improvements enhance efficiency, quality, and competitiveness.
- **Environmental Considerations:** Environmental regulations and sustainability concerns influence the operations of rubber product manufacturers. Efforts to reduce waste, recycle materials, and adopt eco-friendly practices are increasingly common in the local industry.
- **Community Engagement:** Many companies in the rubber products industry actively engage with the local community through philanthropic initiatives, educational programs, and environmental stewardship projects. This involvement helps build stronger ties between businesses, educational institutions, civic entities, and residents.

3.4.3.1 Red River Army Depot - RUBBER PRODUCTS DIVISION

Rubber Products Division is the only facility of its kind in the Department of Defense. As the sole source provider of the M1 road wheel, the depot has the most sophisticated, state-of-the-art track shoe and roadwheel re-build / manufacturing facility in the world. The Rubber Products Division can produce multiple types of track shoes and road wheels simultaneously to meet the Army's demand. Equipment modernization projects such as the automated rubber denuding system and robotic road wheel material handlers have ensured that RRAD will continue to be a leading producer of track shoes and road wheels well into the future. Along with the equipment modernization program, RRAD has developed a professionally trained staff of engineers, technicians, equipment specialists, rubber workers, systems operators, and inspectors in its Rubber Products Operations.

3.4.3.2 Goodyear Tire & Rubber Co (formerly Cooper Tire & Rubber Co.)

Opened in 1964, the Arkansas plant manufactures passenger and light truck tires for resale and OEM sales. In August 2017, the city of Texarkana approved the issuance of development bonds worth \$250 million to support an investment by the tire maker. The Texarkana operation was the largest, most productive, and profitable Cooper Tire plant out of 10 factories including four in the U.S. (Findlay; Texarkana, Arkansas; Clarksdale, Missouri; and Tupelo, Mississippi), three in Asia (two in China, one in Vietnam), two in Europe (England and Serbia) and one in Mexico. Goodyear bought Cooper Tire in 2021 and has continued to invest and expand the Texarkana plant.

3.4.3.3 SETCO Solid Tire & Rim Assemblies Co.

Headquartered in Idabel, OK; the plant covers over 100 acres, with 750,000 sq ft under roof and prides itself on making the most durable, best built and long-lasting solid rubber tires for the most intense job applications. The company is a pioneer in the market and is one of the world's largest and most capable solid rubber tire manufacturers, built on decades of top-quality product that increases our customers' up-time, and increases their profits. This international business, because of in-house abilities, can take on any job and service the largest operations in the industry. Established in 1988, the company sells tires in over 20 countries and has distribution centers in the USA and Europe.

3.5 DATA CENTERS, DATA PROCESSING, HOSTING, & RELATED SERVICES

TexAmericas Center and the Texarkana is a favorable location for data centers, data processing, hosting, and related services for several reasons:

- **Proximity to the Texarkana Area Defense Cluster:** Barksdale Air Force Base, home to the United States Air Force Global Strike Command, and other DOD or related installations represents a significant demand and generator of data-related services. Military installations often require secure and reliable data storage, processing, and hosting capabilities, making Texarkana an attractive location to serve the needs of these bases and related government agencies.
- **Security and Reliability:** Given the presence of military installations, security is a top priority in the Texarkana region. Data centers in the area can benefit from the heightened security measures and protocols established to protect sensitive military information. Additionally, Texarkana's relatively low risk of natural disasters, such as hurricanes or earthquakes, can contribute to the reliability of data center operations.
- **Favorable Business Environment:** Texarkana offers a business-friendly environment, in a central time zone, with supportive local governments, favorable tax policies and incentives, financing programs, and access to resources for business development. This supportive ecosystem can encourage the establishment and growth of data-related businesses in the area. The region is also known as a Transportation hub as it sets where three interstates converge, thus providing low logistics costs.
- **Connectivity and Power Infrastructure:** Texarkana benefits from robust electricity and telecommunications infrastructure and connectivity, including access to major fiber optic networks and transportation routes. This connectivity facilitates high-speed data transmission and accessibility, essential for data centers and related services. Sites have access to 138kv and 345kv transmission lines in addition to a 600MW generation plant in the region.
- **Access to Diverse Energy Resources:** The Texarkana region benefits from access to various energy resources, including electricity, natural gas, biomass, and renewable energy sources such as wind and solar. This access to an assorted array of energy resources provides opportunities for different energy production methods, reducing reliance on imported energy and promoting energy independence.
- **Skilled Workforce:** The Texarkana region has access to an available, skilled workforce with expertise in information technology, data management, and related fields all in a Right-To-Work state. Local educational institutions offer programs tailored to these disciplines, providing a pipeline of low-cost talent for data-related businesses.
- **Cost of Living:** Texarkana generally has a lower cost of living compared to larger metropolitan areas, which can result in lower operating expenses for businesses.

This affordability can be attractive for startups and small-to-medium-sized data-related firms looking to establish themselves in the market.

- **Market Demand:** Beyond serving the needs of military installations, there is a growing demand for data-related services from businesses, government agencies, and organizations in Texarkana and surrounding areas. Establishing data centers and related services in the region allows businesses to capitalize on this demand and provide critical infrastructure support.

Overall, the combination of proximity to military installations, security and reliability, favorable business environment, connectivity and infrastructure, skilled workforce, cost of living, and market demand makes Texarkana an advantageous location for data centers, data processing, hosting, and related services.

- The Texarkana region can handle high volumes of data and traffic with minimum latency, as it is uniquely suited for businesses in the technology and data businesses, thanks to its robust telecommunications connectivity, electrical power capacity & reliability, skilled worker availability, educated workforce, and dedicated sites for hyperscale, edge, micro, enterprise, co-location, and cloud data centers.
- The region boasts two long haul fiber lines, each with geographic diversity, and 12 metro fiber networks.
- The region also boasts available, reliable electrical capacity above 100MW to start with access to multiple 345kv lines. The presence of the RRAD in the market makes reliability a matter of National Security.
- The region also has a 600MW Coal Fired Plant that operates at a minimal level and is used as a Peaker Plant.
- Our sites offer multiple paths for power and the ability to have diverse cooling systems in place. We can offer the ability to update and maintain the data center without taking it offline. Our property should allow for an expected uptime of 99.982% (1.6 hours of downtime annually) making it a Tier 3 location.
- There is underemployment in this sector, because of these certain occupations are commuting out of the Texarkana Economic Region which include:
 - Computer Occupations with 763 total jobs had about 143 people commute outside the region each day for employment; between 2014 and 2019 this job category grew in employment by 5% over the same period.

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- Business Operations Specialists with 1,902 total jobs had about 118 people commute outside the region each day for employment; between 2014 and 2019 this job category grew in employment by 4%.

3.5.1 Why the Texarkana Region for Data Centers:

- **Availability, Reliability & Cost of Utilities** — Costs vary globally, and, in some geographies, you may not have the ability to easily understand capacity, reliability and pricing. The Texarkana region is your best option to place your data center because as a regulated market, all three can be known and built into your contract period. We also allow you to consider alternative power sources as is prudent and, in some cases, required.
- **Availability of Telecommunications Infrastructure** — There are multiple long-haul routes with geographic diversity. Local providers can meet your future bandwidth demands. There are not only redundant systems from our incumbent providers, but you have the ability to access multiple providers in close proximity to our sites.
- **Availability, Cost of Real Estate Options and Speed to Occupancy** — In total TexAmericas Center has dedicated over 1,000 acres to technology businesses. Build-to-Suit-to-Lease versus buy land and build requires considering building costs, quality of construction, and competency in construction management as well as skill in negotiating incentives from landlords and local governments. We understand the importance of estimating operating rent and the real estate component should represent no more than 10% of the total project costs. We will work with you to achieve a reasonable acquisition strategy that includes full development assistance. TexAmericas Center as a State of Texas special purpose district makes these decisions easy; we will lease, sell or sell with options to purchase more. Further, TexAmericas Center is the Authority Having Jurisdiction, so all land use, planning, building, and occupancy discussion occur with our organization providing you with a single POC and faster track to operations. An additional benefit of working with TexAmericas Center is the potential to estimate and deliver lower cost leasehold improvements. Similar to converting former retail properties, TexAmericas Center controls over 1,000,000sf of industrial and commercial space that is charged with redeveloping. A preferred path forward is to design and construct completely new facilities inside of these old structures.
- **Amount of Local and State Economic Development Incentives** — Beyond planning and construction considerations, our local jurisdiction provides development incentives because we are a rural, redevelopment area. This doesn't mean we are less inviting than more densely populated,

under-resourced areas. Please understand that we have worked for over 25 years to get our property to the point where we can transact; we are seeking to bring quality jobs and investment to our area through a lower tax environment, fewer regulatory requirements, and increased speed to occupancy. We want to be known as a location that is less costly, less restrictive and offers a faster path to stabilization.

- **Proximity to Major Markets and Customers** — Latency and reliable connections play a major factor in running an efficient facility that meets customer demand. Texarkana is within 500-miles of 23 major MSA's, 10 of the fastest growing and over 2,200,000 businesses. We are also within 200 miles of seven of the major MSA's in the USA.
- **Labor Costs and Availability** — Labor costs are about 20% below the Texas average in the Texarkana region. Texas is a Right-To-Work state. We understand that the difference of a dollar-per-hour labor savings can offset a difference in cost per square-foot. Further there is access to skilled talent, across multiple disciplines, and over 33 institutions of higher learning educating over 86,000 students with 26,000 graduating every year, multiple have industry specific programs in the immediate Texarkana area including Southern Arkansas University, Texas A&M University-Texarkana, Texarkana College and University of Arkansas-Texarkana. We have the talent to run and maintain your data center.
- **Environmental Conditions** — Temperature and humidity variances wreak havoc on environmental systems and forecasting. Earthquakes, hurricanes, blizzards, and tornadoes are unpredictable and can shut down a facility indefinitely. Texarkana ranks favorably in all areas.
- **Airport and Highway Accessibility and Quality** — You need large equipment and service equipment to build and maintain the data center. The Texarkana region is well served by a local commercial airport and six more within a 2.5-hour drive. Texarkana's interstate system includes I-30, I-49 and I-369(I-69) and US 82. Rail service via UP and Amtrack is also an option. Our sites are readily accessible for delivery, services, and employees. Further, our on-site TAC3PL can assist with receiving, marshalling and delivery of equipment from on-site storage buildings.

3.6 DEFENSE CLUSTER – SMALL ARMS, TACTICAL WHEELED VEHICLES, WEAPONS SYSTEMS, MUNITIONS, EQUIPMENT MANUFACTURING AND CYBER SECURITY & TECHNOLOGY BUSINESSES

TexAmericas Center and the Texarkana region is an attractive location for a defense company to locate a facility for several reasons:

- **Proximity to Military Installations:** The Texarkana region is strategically located near several military installations, such as Red River Army Depot in Texas and Camp Minden in Louisiana in a right-to-work state. Proximity to these installations can provide opportunities for collaboration, subcontracting, and support services for defense projects.
- **Proximity to the Texarkana Area Defense Cluster:** A large number of defense contractors are located in the greater Texarkana area, most with ties to the DOD installations found there. Military installations often require security clearances to interact with senior DOD civilians and uniformed personnel. Access to talent with these clearances and connections makes the Texarkana area an attractive location to serve the needs of these bases and related government agencies.
- **Supporting Industries:** Texarkana has an “Instant Supply Chain” of supporting industries and suppliers in sectors such as transportation, logistics, engineering services, metal fabrication, and more providing additional resources and support for manufacturers in this sector.
- **Skilled Workforce:** The region benefits from available, skilled workforce with experience in manufacturing, logistics, and other industries relevant to defense contracting in a Right-To-Work state. This workforce can provide the talent needed for specialized defense projects and manufacturing operations.
- **Community Support:** The Texarkana region has a long-standing and strong sense of community and local support for manufacturing businesses. This support manifests itself through partnerships with local organizations, workforce development initiatives, public entities and networking opportunities within the business and civic community.
- **Multimodal Transportation HUB Infrastructure:** Texarkana is situated, in the central time zone, at the crossroads of major transportation routes, including Interstate 30, Interstate 49 and Interstate 369, as well as railroads, airports, and the Port of Caddo-Bossier. This transportation infrastructure facilitates the efficient movement of goods and materials, making it easier and more cost-effective to access suppliers and distribute products.
- **Cost Competitiveness:** The Texarkana region offers a lower cost of doing business compared to larger metropolitan areas, including lower logistics, labor, and utility costs, affordable real estate, favorable tax policies, and other operating

costs. This cost advantage enhances the profitability and competitiveness of metals, machinery, and equipment manufacturing facilities located in the area offering a comparative advantage.

- **Business-Friendly Environment:** The Texarkana region offers a business-friendly environment with competitive tax incentives, supportive local governments, and access to business development resources. These factors can help defense businesses establish and grow their operations more effectively.
- **Innovation Ecosystem:** Texarkana is increasingly fostering an Innovation Ecosystem conducive to advanced and traditional manufacturing, with initiatives aimed at supporting research, development, and technology commercialization. Collaboration with local universities, research institutions and colleges can further drive innovation within manufacturing processes, existing product lines and for new product development.
- **Research and Education Institutions:** The presence of research institutions, such as universities or technical colleges, in the Texarkana region can provide opportunities for collaboration, workforce development, and technology transfer for defense businesses.
- **Cost of Living:** Texarkana typically has a lower cost of living compared to larger metropolitan areas, making it attractive for businesses seeking to minimize operating expenses while still accessing a skilled workforce and essential amenities.
- **Quality of Life:** The Texarkana region offers a relatively high quality of life, with access to outdoor recreational activities, cultural amenities, excellent educational resources, and a supportive community. This can help attract and retain employees, including those with specialized skills needed for defense-related work.

Overall, the Texarkana region's strategic location, skilled workforce, transportation infrastructure, business environment, cost of living, quality of life, and access to educational institutions make it a potentially favorable location for defense businesses seeking to establish or expand their operations.

3.6.1 An Overview Of The Greater Texarkana Defense Cluster

With two munitions manufacturing depots, a tactical wheeled vehicle reset depot, the Midwest Defense Logistics Agency (DLA) facility, two air force bases, four Army National Guard Training bases (Texas, Louisiana, and two Arkansas), an Arkansas Air National Guard Training Base, two DOD, ATF and EPA approved energetics disposal facilities and three former munitions depots housing scores of defense contractors, multiple commercial airports and a world-class engineering university and junior colleges, Texarkana is at the heart of a robust and thriving defense and security cluster that has an essential, worldwide impact. Anchored by the Red River Army Depot (RRAD) and a

major DLA operation, the Defense & Cybersecurity Cluster within 150-miles of Texarkana has everything from OEM's, supply chain, to end users. Our Defense companies create highly advanced Weapons Systems, Tactical Wheeled Vehicles, Munitions (and their disposal) as well as produce and manage programs and logistics for critical parts and electronics for this industry's large global supply chain.

The 150-miles market around Texarkana is home to MRO, component parts, completion centers, and defense contractors like: Advanced Global Resources (AGR), Aerojet Rocketdyne (GenCorp Inc), Amentum, BAE, Boeing, Cherokee Nation, Day & Zimmermann, Esterline Defense Group, General Dynamics Armament & Technical Products, Lockheed Martin Missile & Fire Control, Metro Aviation, SAIC, Rheinmetall, EnviroSafe Demil, National Technical Systems, Raytheon Missile Systems, Spectra Technologies, Beako Manufacturing, Commercial Manufacturing Company, Inc., and many more. These contractors are further supplied and supported by strong, diverse groups of manufacturers, vendors, and suppliers throughout the region. Finally, the region is home to a large number of Department of Defense organizations housed at the DOD in installations.

3.4.3.4 Opportunities At TexAmericas Center

- A TexAmericas Center facility can uniquely exploit not just the unique workforce skills and defense contracting knowledge related to the RRAD & DLA but also its supply chain both in terms of RRAD supplier recruitment and for similar companies that act as primary contractors as subcontractors as well as in the private market.
- Although the military armored vehicle segment in the US has experienced consolidation and hence a decrease in business locations (it has been increasing employment), the global market, especially Asia Pacific, Middle East, and Eastern Europe has growth potential. However, tactical vehicle assembly, subassembly, and component parts manufacturing has a clear competitive advantage operating here.
- All non-aerospace defense-related activities should be interested in learning more about TexAmericas Center, especially if energetics is involved - including the private sector. This cluster would also include private, defense and non-defense industries in firearms and ammunition that require testing facilities.
- Specifically, for the small arms and ammunition the region can offer a high concentration of key occupations, especially in welding, Cutting, Punching, and Press Machine Setters/Operators, and assembly. Further, there exists the potential to partner with the RRAD on use of shooting ranges, and TexAmericas Center's large sites and existing energetics storage facilities allow for safe storage of ammunition and for companies to expand into ammunition production.

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- Unmanned aerial vehicles (UAVs), vertical take-off equipment and other drones are emerging segments of the Defense and Civilian Industry. With access to large amounts of TexAmericas Center owned timber land, Texarkana Regional Airport facilities and off-property area that is sparsely populated there is ample area for flight testing. As well TexAmericas Center boasts dedicated Heli-pad sites. The Texarkana region is an optimal location for R&D, testing and production.

3.4.3.5 Intangibles

- Political support can play a significant role in pursuing federal Department of Defense (DOD) contracts, especially for large-scale contracts or projects. Here's why:
 - **Influence on Funding Allocation:** Politicians have the power to influence budget allocations within the DOD. By garnering political support, companies can increase the likelihood of funding being allocated to specific projects or contracts they are involved in.
 - **Regulatory and Legislative Influence:** Politicians can shape regulations and legislation that affect defense contracting. Having political allies can help companies navigate complex regulatory environments and advocate for favorable policies that could impact contract opportunities.
 - **Access to Decision-Makers:** Political support can provide access to key decision-makers within the DOD and other government agencies. This access can be crucial in promoting a company's capabilities and securing contracts.
 - **Visibility and Public Relations:** Political endorsements can enhance a company's visibility and credibility, both within the DOD and in the public eye. This can be advantageous when competing for contracts, as it may give the company an edge over competitors.
 - **Mitigating Risks:** Political support can help mitigate certain risks associated with defense contracting, such as regulatory challenges or contract disputes. Politicians may intervene on behalf of a company to resolve issues or advocate for fair treatment.
 - However, it's essential to note that while political support can be beneficial, it should not be the sole factor in pursuing DOD contracts. Companies still need to demonstrate their capabilities, expertise, and value proposition to win contracts competitively. Additionally, over-reliance on political connections can sometimes backfire if perceived as favoritism or cronyism, potentially damaging the company's reputation and relationships within the DOD and industry.

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- The four-state Texarkana region boasts the potential for favorable Political Support from
 - 8 US Senate and 5 US Congressional Districts
 - 1 Texas Senate and 2 Texas Congressional Districts
 - NDIA Shreveport Chapter
 - Texarkana Military Affairs Committee of the Texarkana USA COC
 - Access to High level security clearances possible
 - **Access to high-level security clearances** is crucial for Department of Defense (DOD) contractors, especially those involved in sensitive or classified projects. Here's why:
 - **Access to Classified Information:** Many DOD contracts involve working with classified information, such as defense technologies, sensitive military operations, or classified data. Contractors must have personnel with the appropriate security clearances to access and handle this information securely.
 - **Contract Requirements:** DOD contracts often include specific security clearance requirements as part of the contract terms and conditions. Contractors must meet these requirements to fulfill their obligations and access the necessary resources for project execution.
 - **Collaboration with Government Agencies:** Contractors frequently collaborate with various government agencies, including military branches and intelligence organizations. Access to high-level security clearances facilitates communication, collaboration, and information sharing between contractors and government entities.
 - **Protection of National Security:** Maintaining strict security protocols and ensuring that only cleared personnel have access to sensitive information is essential for protecting national security interests. High-level security clearances help mitigate the risk of unauthorized access or information leaks.
 - **Competitive Advantage:** Having employees with high-level security clearances can provide a competitive advantage when pursuing DOD contracts. It demonstrates a contractor's ability to handle classified information responsibly and may be a requirement for certain projects.
 - **Compliance with Regulations:** DOD contractors are subject to various security regulations and standards, such as the National Industrial

Security Program (NISP) and the Defense Counterintelligence and Security Agency (DCSA) requirements. Maintaining high-level security clearances ensures compliance with these regulations.

Overall, access to high-level security clearances is not only important but often necessary for DOD contractors to participate in classified projects and fulfill their contractual obligations while upholding national security standards.

3.6.2 The Defense Cluster In The Immediate Texarkana Area

- **Red River Army Depot**

- The Red River Army Depot (RRAD), its mission is to sustain the Warfighter's combat power by providing ground combat and tactical systems sustainment maintenance and proving grounds operations, is part of the US DOD's Organic Industrial Base that ensures members of our Joint Forces have what they need, whenever they need it. A unique capability of RRAD is its Rubber Products Division which is the only facility of its kind in the Department of Defense. As the sole source provider of the M1 road wheel, the depot has the most sophisticated, state-of-the-art track shoe and roadwheel re-build / manufacturing facility in the world. RRAD's Rubber Products Division is capable of producing multiple types of track shoes and road wheels simultaneously to meet the Army's demand. Equipment modernization projects such as the automated rubber denuding system and robotic road wheel material handlers have ensured that RRAD will continue to be a leading producer of track shoes and road wheels well into the future. Along with the equipment modernization program, RRAD has developed a professionally trained staff of engineers, technicians, equipment specialists, rubber workers, systems operators, and inspectors in its Rubber Products Operations. RRAD consists of 15,375 acres, more than 1,400 buildings totaling over 8 million sq. ft. of floor space to rebuild a large variety of vehicle systems and components for our Soldiers. RRAD is the Army's Center of Industrial and Technical Excellence (CITE) for Tactical Wheeled Vehicles including but not limited to each variant of the Mine Resistant Ambush Protected (MRAP) Vehicle; the High Mobility Multipurpose Wheeled Vehicle (HMMWV); the Heavy Expanded Mobility Tactical Truck (HEMTT); the Armored Security Vehicle (ASV); the 5-Ton Truck Family of Vehicles; the Family of Medium Tactical Vehicles (FMTV); the Heavy Equipment Transporter (HET); Palletized Load System (PLS) and the Rough Terrain Container Handler (RTCH). The depot is also CITE for the Bradley Fighting Vehicle and also conducts rebuild work on the Multiple Launch Rocket System (MLRS) and the High-Mobility Artillery Rocket System (HIMARS). RRAD is also the maintenance location for a

multitude of secondary items and oversees the remanufacture of road wheels and tracks for various vehicle systems. The depot's multiskilled workforce possesses a wide range of technical resources including the capability to design, fabricate and manufacture a wide range of items, from specialty parts to unique prototype weapon systems and vehicles. RRAD is the first Tank-automotive and Armaments Command (TACOM) facility to achieve Voluntary Protection Program (VPP) Star Status. Achieving VPP shows its continued commitment to outstanding occupational safety and health. In addition, RRAD was the first depot within the Army Material Command to achieve ISO 9001:2000 (now ISO 9001:2015) certification throughout all administrative and production processes. The depot also possesses a long-standing ISO 14001:2015 registration for Environmental Management Systems. Red River Army Depot not only supports the Army but also provides inter-service support to the Marine Corps, Air Force, Navy's and various National Guards repair and overhaul programs. RRAD's commitment to productivity, quality and cost-efficient performance not only ensures its place as vital partners with the Department of Defense, but also at the forefront of partnerships with private industry. Since 2002, RRAD has signed over 40 teaming agreements and negotiated over 200 partnering contracts generating more than \$400 million in revenue.

- **Defense Logistics Agency - Distribution Red River, Texas**
 - Co-located with the RRAD is Defense Logistics Agency (DLA) Distribution Red River, Texas'. Its primary mission is to provide truck, rail, and air distribution services and tailored logistics solutions of the highest quality, on time and at the best value to the warfighter and other customers. The distribution center provides distribution support for Class IX repair parts and secondary items for tracked and wheeled vehicles, aircraft, and major weapon systems. DLA Distribution Red River, Texas, also has a large Class VII major end item distribution mission. The Army has designated DLA Distribution Red River, Texas, as the storage site for its Bradley Fighting Vehicle Systems, Multiple Launch Rocket Systems, High Mobility Artillery Rocket Systems, and the High Mobility Multipurpose Wheeled Vehicles. In support of these systems, the distribution center builds and maintains a supply of basic issue items and components that accompany wheeled and tracked vehicles shipped to units in the field. The distribution center is also the primary distribution point for the Single Channel Ground and Airborne Radio System. This system links communications in a network between wheeled vehicles, tracked vehicles, helicopters, and soldiers on foot. When weapon systems, vehicles, or aircraft are delivered to Service units, those units also get support packages assembled by distribution center employees. Tailored logistics support for these weapon systems

involves spare parts, tools, technical publications/manuals, and diagnostic equipment needed to keep a particular item up and running until full operational support systems are in place. The distribution center tailors this support to specific customer requirements. In addition, the distribution center provides rebuilt roadwheels and track and complete wheel assemblies for many of the vehicles being used by the various Services.

- **Tactical Wheeled Vehicle MRO and contract OEM**

- Advanced Global Resources (AGR), an Argano company, has a long history of supporting the US Government as both a prime and sub-contractor across many departments and a broad spectrum of services including information technology operations support, custom applications development, enterprise systems implementation, cloud architecture and migration, data science and management, cyber security, and program support across most operational areas. AGR is a HUBZone Certified Small Business with an active DoD Facility Clearance at the Secret level. The team has successfully supported the US Government on over 75 prime contracts and 20 subcontracts. The facility at TexAmericas Center focuses on supporting the allies of the USA by performing retrofitting to full reset on Tactical Wheeled Vehicles bought through the Foreign Military Sales program. AGR has performed contracts with Argentina, Israel, Ukraine and more. The capabilities of this facility also allow for AGR to be an OEM contract assembly location.

- **Munitions Manufacturing (Munitions, Security, Logistics, Base Operations, Program Management)**

- Located in the Texarkana MSA, Day & Zimmermann operates their Lone Star production facility (DZMG). They began operations in 1951 when the DOD awarded the company a contract to manage the US Army Lone Star Army Ammunition Plant. When the DOD shut down the main facility in 2010, Day & Zimmermann continued to operate a vast complex on over 6,000 acres, with hundreds of industry specific buildings, miles of roads and notable infrastructure. Products produced in Texarkana for the US DOD and its allies include Percussion Primers, various types of Grenades and Fuses, Mortar Rounds, Cartridge Actuated Cutters, and other forms of ammunition.

- **Demilitarization of Ammunition, Ordinance and Counter Measures**

- Located in the Texarkana MSA at TexAmericas Center are two companies that specialize in the Demilitarization of Ammunition, Ordinance and Counter Measures. They are Rheinmetall's ExpalUSA and EnviroSafe Demil, both of which are Headquartered at

TexAmericas Center. Both facilities have worked through approval processes with DOD, ATF, DOT, and EPA to move, store, safely disassemble, and dispose of munitions in an environmentally friendly process. Products that have been recycled or disposed of include cluster bombs, scatter mines, torpedoes, howitzer shells, propellants, aerial bombs, mortars, counter measures, small arms cartridges, canisters, fuses, detonators, and other items.

- **Weapons Testing and Engineering Center**

- Located in Camden Arkansas is the National Ordnance and Ballistic Test Center operated by National Technical Systems (NTS). NTS Camden is a commercial testing complex and is one of the most complete independent weapons and ordnance testing facilities in the country. It can do arena and range testing, including shoulder fired weapons testing, and has fully instrumented small, medium, and large caliber ranges up to 3000 Meters and can test calibers up to 155mm. It can do a range of firearm safety device testing and performs Comprehensive Firearm Analysis to include:
 - Trigger Job in Progress
 - Cylinder Transport Variation
 - Trigger Energy Distribution
 - Altered Hammer Spring
 - Coil Spring Comparison
 - Forward and Reverse Test
- In addition, NTS can do bullet impact testing using small and medium caliber ammunition. One of NTS's core strengths is to offer full product design engineering, systems engineering, managed engineering services to its clients, design & build services for automated test equipment systems, and/or the design and implementation of automated industrial control systems.
- Among the products produced in Camden are the PAC-3, THADD, HIMARS, MLRS and Guided MLRS, Standard Missile-3, Evolved Sea-Sparrow Missile (ESSM), Hydra-70 rockets, Modular Artillery Charges (MACs), pressed warheads, infra-red flares and other countermeasures, practice round munitions, including "green" training grenades, Hellfire/Javelin Tactical Missiles, and tactical rocket motors and warheads for use in Javelin, PAC-3, Tomahawk, Standard Missile, Army TACMS, and GMLRS.

3.6.3 The Defense Cluster In The Larger Texarkana Area

- **Pine Bluff Arsenal**
 - The Pine Bluff (AR) Arsenal supplies specialized production, storage, maintenance, and distribution of readiness products, and delivers technical services to the Armed Forces and Homeland Security. It also designs, manufactures, and refurbishes smoke, riot control, and incendiary munitions, as well as chemical/biological defense operations items. It serves as a technology center for illuminating and infrared munitions and is also the only place in the Northern Hemisphere where white phosphorus munitions are filled. Its Homeland Security mission includes first-responder equipment training and surveillance of pre-positioned equipment. The capabilities of the Pine Bluff Arsenal include: chemical defense and test equipment; individual and collective chemical protection and decontamination systems; chemical material surveillance program; machining, fabrication and assembly; specialty ammunition production; less than lethal ammunition production; and quality assurance and joint logistics services.
- **McAlester Army Ammunition Plant**
 - McAlester Army Ammunition Plant (MCAAP) is a weapons manufacturing facility for the United States Department of Defense in McAlester, OK. The facility is part of the US Army Joint Munitions Command. Its mission is to produce and renovate conventional ammunition and ammunition related components. The plant stores war reserves and training ammunition. McAlester performs manufacturing, industrial engineering, and production product assurance. The plant also receives, demilitarizes, and disposes of conventional ammunition components. The plant is the largest, in terms of storage, in the Department of Defense's munitions stockpile housing close to one-third of total inventory. MCAAP's capabilities include: manufacturing; logistics support; demilitarization and disposal; training support; safety and environmental protection; research and development; and renovation. The facility produces a range of munitions from 20mm shells to the eleven-ton Massive Ordnance Air Blast (MOAB).
- **Barksdale Air Force Base**
 - Barksdale AFB is home to Air Force Global Strike Command (AFGSC), Eighth Air Force (8th AF), the 2nd Bomb Wing (2nd BW), and the 307th Bomb Wing (307th BW). Barksdale AFB has approximately 11,400 military and civilian personnel, 6,300 family members, and 25,000 military retirees (living in its three-state area).

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- **Little Rock Air Force Base**
 - Little Rock AFB is home to C-130 Center of Excellence and is the primary C-130 Hercules training base for pilots, navigators, flight engineers, and loadmasters from all branches of the US military for tactical airlift and aerial delivery. The host unit at Little Rock AFB is the 19th Airlift Wing (19 AW). Other organizations at Little Rock AFB include the 189th Airlift Wing of the Arkansas Air National Guard, and the C-130 division of the U.S. Air Force Weapons School.
 - **Camp Minden - Louisiana National Guards Training Site**
 - Camp Minden Training Site (CMTS) is the Louisiana National Guard's (LANG) newest military training site. In 1941, the Federal Government acquired 15,868 acres of farms, farmland, and private lands for construction of The Louisiana Army Ammunition Plant (LAAP). In January 2005 the entire area that formally belonged to the U.S. Government as LAAP totaling 14,995 acres was deeded over to the State of Louisiana under the control of the Louisiana Military Department.

3.4.3.6 *Texas Is A Defense Giant - Arkansas, Louisiana And Oklahoma are Key Players*

- **Texas** plays a vital role in our nation's defense industry due to its military installations, aerospace and defense manufacturing capabilities, research and development activities, defense contracts, industry clusters, and cybersecurity expertise. The state's contributions bolster national security and defense capabilities while driving economic growth and innovation within the defense sector.
- **Texas** is home to no less than 15 major military installations across all branches of the armed forces. These include Red River Army Depot, Defense Logistics Agency - Red River, Fort Hood, Fort Bliss, Joint Base San Antonio (comprising Lackland Air Force Base, Randolph Air Force Base, and Fort Sam Houston), Naval Air Station Corpus Christi, Naval Air Station Kingsville, and many others. These installations support a wide range of military operations, training, and research and development activities.
- **Texas** is home to the headquarters for two international airlines, two of the world's busiest airports, and NASA's world-famous Johnson Space Center. It is one of the most important locations for the global aerospace and aviation industry. The broad range of aerospace activities in Texas includes fighter planes and helicopter assembly, navigation instrument development, advanced space-flight research, spacecraft manufacturing, military pilot training and commercial space travel. This industry has a substantial presence in many regions of the state. The Dallas-Fort Worth region, 160-miles from TexAmericas Center, boasts the state's largest concentration of aerospace manufacturing companies

and workers, as well as the headquarters of American Airlines and Southwest Airlines.

- **Texas** has a strong aerospace and defense manufacturing sector, with numerous companies engaged in the production and MRO of our nation's military aircraft, missiles, munitions, and other defense-related equipment. Major defense contractors such as Lockheed Martin, BAE Systems, Raytheon Technologies, Boeing, and Amentum have a significant presence in the state and in the Texarkana region.
- **Texas** boasts several research institutions, universities, and technology hubs that contribute to defense-related research and development efforts. These institutions collaborate with government agencies, defense contractors, and military installations on projects related to advanced technologies, cybersecurity, materials science, and more. Texarkana's proximity to Arkansas, Louisiana and Oklahoma brings with it the potential to partner with the leading institution of higher education found in those states.
- **Texas**-based defense contractors secure substantial defense contracts from the Department of Defense (DoD) and other government agencies. These contracts cover a wide range of products and services, including aircraft, weapons systems, logistics support, cybersecurity solutions, and intelligence services.
- **Texas** has developed defense industry clusters in regions such as the Texarkana TX-AR Area, Dallas-Fort Worth Metroplex, Greater Houston area, San Antonio, and Austin. These clusters foster collaboration, innovation, and workforce development within the defense sector.
- **Texas** and the greater Texarkana area is a hub for cybersecurity activities, with many companies and organizations specializing in cybersecurity solutions and services for government, military, and commercial clients. This rising expertise in cyber-security adds to our national defense efforts and protection against cyber threats.
- **Arkansas** plays a role in the defense industry primarily through its contributions to aerospace and defense manufacturing, research, and development including Aerospace manufacturing, Military Installations, Research & Development partnerships, Supply Chain Support, Defense Contracting, and Cybersecurity. These contributions help bolster our national defense capabilities and provide economic opportunities for the state and can be leveraged by a Texarkana location.
- **Louisiana's** position in the defense industry is characterized by its military installations, aerospace and defense manufacturing capabilities, maritime

operations, cybersecurity expertise, and contributions to homeland security. The state's defense-related activities support national security objectives while driving economic development and innovation.

- **Oklahoma's** position in the defense industry is characterized by its military installations, aerospace manufacturing expertise, research and development activities, defense contracts, cybersecurity initiatives, and contributions to homeland security. The state's defense-related capabilities support national security objectives while driving economic growth and innovation.

3.6.4 Cybersecurity

TexAmericas Center and the Texarkana region is an attractive location for a defense business for several reasons:

- **Proximity to Military Installations:** The Texarkana region is strategically located near several military installations, such as Red River Army Depot in Texas, Barksdale Air Force Base, which is home to the United States Air Force Global Strike Command, Camp Minden, and other installations. The presence of military installations and government agencies often translates to a demand for cybersecurity services, as these entities require robust digital security measures to protect sensitive information and critical infrastructure. Proximity to these installations can also provide opportunities for collaboration, subcontracting, and support services for defense projects.
- **Skilled Workforce:** The region benefits from a skilled workforce with experience in manufacturing, logistics, and other industries relevant to defense contracting in a Right-To-Work state. This workforce can provide the talent needed for specialized defense projects and manufacturing operations.
- **Transportation Infrastructure:** Texarkana is situated at the crossroads of major transportation routes, including Interstate 30 and Interstate 49, as well as railroads and the Port of Caddo-Bossier. This transportation infrastructure facilitates the movement of goods and materials, making it easier to access suppliers and distribute products.
- **Business-Friendly Environment:** The Texarkana region offers a business-friendly environment with competitive tax incentives, supportive local governments, and access to business development resources. These factors can help defense businesses establish and grow their operations more effectively.
- **Cost of Living:** Texarkana typically has a lower cost of living compared to larger metropolitan areas, making it attractive for businesses seeking to

minimize operating expenses while still accessing a skilled workforce and essential amenities.

- **Quality of Life:** The Texarkana region offers a relatively high quality of life, with access to outdoor recreational activities, cultural amenities, excellent educational resources, and a supportive community. This can help attract and retain employees, including those with specialized skills needed for defense-related work.
- **Research and Education Institutions:** The presence of research institutions, such as universities or technical colleges, in the Texarkana region can provide opportunities for collaboration, workforce development, and technology transfer for defense businesses.

Overall, the Texarkana region's strategic location, skilled workforce, transportation infrastructure, business environment, cost of living, quality of life, and access to educational institutions make it a potentially favorable location for defense businesses seeking to establish or expand their operations.

3.6.5 Educational Pipeline

There are over 33 institutions of higher education within 100 miles of Texarkana with over 86,000 students enrolled: over 26,000 graduate each year. Texarkana region's cybersecurity educational programs train workers that enter almost every industry of the economy. But they also contribute greatly to the cybersecurity industry itself — an industry so new it has yet to be defined by NAICS.

3.6.6 Additional Recognized Regional Leaders

- **Shreveport, LA:** Serving as an anchor in our regions Cybersecurity Corridor, Shreveport hosts the Cyber Innovation Center and its National Cyber Research Park (NCRP), providing space for collaborating, conducting leading research and developing state-of-the-art technologies.
- **Little Rock, AR** is home to numerous national and global companies (operators of critical infrastructure), specifically in the Electric Grid, Financial Services and Food/Logistics sectors. Strong leadership within the state has led to Arkansas becoming a focal point for Computer Science, Data Science and Cybersecurity talent. Numerous initiatives exist to push Arkansas forward, making it a state prime to support innovative new concepts and collaborations. Some key initiatives relevant to the ACA, include: (1) AR Governor's Computer Science Initiative requiring every high school to teach computer science, (2) Arkansas Center for Data Science which is advancing the education and resource opportunities for businesses and citizens in Arkansas, (3) the Arkansas Legislature which among several bills passed the Governor's Accelerator Bill providing a financial state-match to private sector innovation initiatives within the state, and (4) strong academic centers, including: University of Arkansas

Little Rock Emerging Analytics Center (NSA/DHS COE), DoE Cybersecurity Center on Secure Evolvable Energy Delivery Systems (SEEDS) (a multi-university center headquartered at the University of Arkansas), and UCA Cyber Range. Finally, Gov. Hutchinson is Co-Chair of the President's Council of Governors and National Governors Association (NGA) Cybersecurity Committee.

- **Hot Springs AR:** Garrisoned at Hot Springs (AR) the 223rd Cyber Space Operations Squadron Air Force Air Combat Command Cyber Mission and the Arkansas Air National Guard "Cyber Arkansas" unit has been stood up to train for Cyber Mission Force (CMF) AFSPC/AF 1B4. The Cyber Education Program operates in a large SCIF and will train hundreds of students for the Department of Defense this year in CMF, Digital Forensics, ICS/SCADA and Vulnerability Assessments.
- **University of Arkansas at Little Rock** launched the Emerging Threat Information Sharing and Analysis Center (ET-ISAC) to combat growing cyber threats in the energy sector. More than 80 percent of the nation's energy infrastructure is privately owned, so enhancing coordination and engagement is vital to our national interests. Too often critical information is not reported and shared widely, which slows down responses to security concerns. By collaborating with electric utilities and partners in the region we can better protect our energy infrastructure. The ET-ISAC will develop training simulations and information sharing practices among the energy sector to identify threats and communicate across the industry about current risks. This initiative will be an instrumental part of our national strategy to prevent breaches and attacks that have the potential to disrupt our lives while positioning the region as a leader in cyber defense. It builds on the existing collaboration in Arkansas to meet our growing need for skilled cybersecurity professionals. In 2021 UA Little Rock joined UA Pine Bluff and the Forge Institute to create the Consortium for Cyber Innovation. This project is developing and aligning cyber instruction and marshaling applied research capabilities throughout the state, creating a cluster of industry and education that will support our cyber readiness. Unique coursework at the University of Central Arkansas is also generating a pipeline of employees to defend against evolving cyber threats. President Biden signed into law the Cybersecurity Opportunity Act; legislation championed by Congressman Boozman (AR) to expand cybersecurity training programs.

There is great potential for the Defense and Cybersecurity & Technologies industry in the Texarkana area, with a focus on traditional segments, as well as developing technologies such as unmanned aerial vehicles, robotics, and biometrics. The defense and security technologies industry can include

search and navigation instruments, aerospace, communications equipment, shipbuilding, cybersecurity, and other related areas. The military presence, large pool of skilled technology workers and pipelines of new talent available to support and aid this growing and expanding industry is very attractive. The region is poised to expand with companies in this fast-growing industry.

3.7 E-COMMERCE, CALL CENTER, FULFILLMENT, WHOLESALE & LOGISTICS CLUSTER OF BUSINESSES AND SERVICES

Conway Data reported a total of 249 Warehouse/ Distribution (DC) projects located or expanded into the Four States Region of Arkansas, Louisiana, Oklahoma, and Texas from March 2016-February 2017. A few of the existing companies operating in the Greater Texarkana area include: Lowe's Home Improvement RDC, Defense Logistics Agency – Red River, United Parcel Service, United States Post Service, Federal Express, Federal Express Freight, Fastenal Fulfillment Center, Frito-Lay, Coors Distributing Co., Anheuser-Busch Distributing, Truman Arnold Corporation, BWI Co., Wholesale Electric, Eagle Distributing, Elliott Electrical Supply, Global Star Medical, IV Tags, Rowe Casa Organics, Abernathy Distribution, 54 Logistics, Contractor's Tools.com, Reliance Refrigeration and Restaurant Supplies, Bolisa Snacks, William George Co., Pop Pop Factory, RE Michael Co., Quality Wholesale, Bill Doran, Borden Dairy Supply, Solar Supply, Texarkana C Store Wholesale, Alon Foods Group, A&E Quality Films, Darragh Contractor Supply, Baker Distributing Company, Coburn's of Texarkana, Red River Wholesale, Gemaire Distributors, Queen City Wholesale, PVF Industrial Supply, Inc., Auto-Chlor System, Larsen Leaves, Three States Floral Wholesale, 3N1 Office Products Inc., Ben E Keith Foods, Billie Jo Beef, Memotronics, Magic Cast Products, King Invo Stone, General Wholesale, Lo Ranch, Imperial/Harrison Trading Co LLC, Dealers Electrical Supply, Govtire LLC, Holcim Us Inc., Twitty Nursery, H & R Distributors, Blair-Hill Nursery, Discount Plants, and more.

TexAmericas Center and the Texarkana area offers several advantages for placing a logistics, warehouse, and other forms of supply chain management facilities:

- **Strategic Location:** Texarkana's location in the Central Time Zone, near where three interstates converge at the Texas-Arkansas border provides a strategic position within the southern United States. It is centrally located, in a right-to-work state, offering easy access to major markets in the region, including Dallas, Houston, Little Rock, Shreveport and more. This central location makes it an ideal hub for distribution and logistics activities. Further, any product leaving other Texas MSA's going to the Midwest, Northeastern and much of the Eastern Seaboard must come through Texarkana, so our transportation costs are much lower than anywhere else in the state.
- **Transportation HUB Infrastructure:** Texarkana benefits from well-developed transportation infrastructure, including three interstate highways (Interstate 30 Interstate 49 and Interstate 369), railways, airports, and access to waterways. This infrastructure facilitates the efficient movement of goods and materials, making it easier to manage supply chains and distribution networks.
- **Multimodal Connectivity:** Texarkana has multimodal transportation facilities, including rail yards and transload facilities, which enable the seamless transfer of

goods between different modes of transportation. This enhances logistics efficiency and reduces transit times for shipments moving through the area.

- **Skilled Workforce:** Texarkana boasts a skilled, low labor cost workforce with experience in logistics, warehousing, inventory management, and supply chain operations in a Right-To-Work state. Local universities, vocational schools, community colleges, and training programs offer specialized training tailored to the needs of the logistics industry, ensuring a reliable and available workforce.
- **Business-Friendly Environment:** Texarkana provides a supportive business environment with favorable tax policies, incentives, and resources for business development. Local governments often actively support logistics initiatives, making it easier for companies to establish and expand logistics and warehouse operations.
- **Access to Suppliers and Customers:** Texarkana's central location and transportation infrastructure provide easy access to suppliers and customers across the region. This proximity streamlines supply chain operations, reduces transportation costs, and improves responsiveness to customer demands.
- **Cost Competitiveness:** Texarkana offers a lower cost of doing business compared to larger metropolitan areas, including lower operating costs, affordable real estate, and competitive wages. This cost advantage enhances the profitability and competitiveness of logistics and warehouse facilities located in the area.
- **Quality of Life:** Texarkana provides a high quality of life for residents, with access to amenities such as parks, recreational facilities, cultural attractions, excellent educational resources, and affordable housing options. A favorable living environment can attract and retain skilled workers, contributing to the success of logistics and warehouse operations.

Overall, the combination of strategic location, transportation infrastructure, skilled workforce, business-friendly environment, access to suppliers and customers, cost competitiveness, and quality of life makes Texarkana an attractive location for placing a logistics, warehouse, and supply chain management facility.

3.7.1 Wholesale, Warehousing, Trucking and has a Strong Labor Pool and Room to Grow.

- In 2017, 22% of the workforce in the Texarkana MSA was employed in the Trade, Transportation and Utilities industry, with an average of 13,400 employees.
- The transportation, wholesale and support industries employ over 7,954 workers in the Texarkana region. Jobs in the Merchant Wholesalers and Durable Goods sector have grown by 3% (2014-2019), the LQ is 1.2 times the US Average, there are 183 companies located in the region in this sector and 10 new companies set up operations between (2014-2019).

Jobs in the General Freight Trucking, Long-Distance, Truckload sector have a LQ of 3.5 times the US average and Specialized Freight Trucking, Long-Distance and Truckload sector has a LQ of 3.8 times the US average. Jobs in the Support Activities for Transportation sector have grown by 5% (2014-2019), the LQ is 1.7 times the US Average, there are 32 companies located in the region in this sector and 4 new companies sat-up operations between (2014-2019).

- Garner Economics, LLC reported the Texarkana, TX-AR MSA to have a 1.61 LQ in Transportation & Warehousing Industry (NAICS 48-49) with 3,136 employees (12-month average ending March 2016) and a 2.82 LQ in Heavy and Tractor-Trailer Truck Drivers (SOC code 533032) with 1,950 employees (2015 employment).

3.7.2 Manufacturing & Transportation/ Logistics

Because the Texarkana region is such a strategic and central location and boasts a well-developed transportation infrastructure, it has a high concentration of manufacturing and support companies. The production of goods and proximity to major transportation routes has created an efficient movement of raw materials, component products, and finished goods. It has pushed the integration of logistics (intermodal, freight services, and global access) into all advanced technologies; the logistics industry helps drive regional development and contributes to the overall competitiveness of our community. Texarkana also offers access to an available, skilled workforce with experience in manufacturing, logistics and related supply-chain industries.

- **Rail Services**

- Texarkana is served by Union Pacific Railroad, which operates a large rail yard in the area. In total over 125 trains pass through the region each day.
- TexAmericas Center is targeting industries that ship much of their product by rail, such as plastics, steel manufacturing, building products and materials, automotive manufacturing and support, agricultural product processing and shipping, heavy equipment manufacturing and food products processing.
- The Greater Texarkana region, especially on the Texas-side, is well known for its Rail Transportation Support Services, specifically Rail Car Maintenance.

- **Air Cargo and Freight:**

The Texarkana Regional Airport serves as a hub for air freight transportation for the Texarkana area. There is currently no regularly scheduled air cargo or freight service; however, in coordination with the Texarkana Regional Airport Authority service can be arranged on an as

needed basis. In 2025 the airport will be breaking ground on a 500' runway extension and a 5" overlay will be put in place to strengthen the runway for widebody operations. This improvement is anticipated to be completed in Spring of 2027. The new strength of 459/F/B/X/T would allow for the air cargo critical aircraft, B747-8F with max weight 775,000 lbs., to safely land and take off from our airport. Aircraft rescue, firefighting equipment, and agents are at the minimum level or greater required for ARFF Index B.

- **Global Supply Chain**

Supply chains are the arteries of the highly connected and interdependent global trade system. The networks between a company and its suppliers that produce and distribute goods to the final consumers — are hugely beneficial, creating value and contributing to lower consumer and production costs and increasing economic efficiencies. Texas has a dominant share in the supply chains of the following industries: Chemical Manufacturing, Food Processing, Rare Earth Minerals, Semiconductors, and international trade especially involving Maquiladoras.

- **Interstate Logistics**

- **Over 40 Trucking Companies:** Companies like Swift Transportation, J.B. Hunt Transport Services, TSD Logistics Inc, Woodfield, Manna Transportation Services, Inc., Excalibur Transportation Group, Inc., TX NewCo LLC, Livingston Trucking, Inc., ABF Freight System, Inc., Cardinal Transport, Wagner Express Trucking Inc., Old Dominion Freight Line, Central Transport, FedEx Freight, XPO, Con-Way Freight, Coleman International Trucking LLC, Clark Transportation Services, and Schneider National have terminals or facilities in the Texarkana area.
- **Parcel Delivery:** Carriers like UPS, FedEx Ground, A & T Delivery inc., Texarkana Hot Shot Services, and the United States Postal Service (USPS) operate in the area, providing parcel delivery services.
- The logistics sector in the Texarkana area provides immense infrastructure and operations support to other key sectors. Strong transport infrastructure provides easy access to both national and international markets, allowing efficient transportation at low costs. Our location in the heart and crossroads of America is a major advantage in warehousing and the distribution of goods and products. We have the transportation infrastructure to seamlessly feed your supply chain and move your products. Just ask FedEx, Lowes Home Improvement, Americold, JB Hunt, Tri-National, TSD Logistics, Woodfield, Estes, and others.

3.7.3 Global Trade

- **Logistics And Global Supply Chain Management**

- Garner Economics, LLC ranked the Texarkana, TX-AR MSA in the “20 Fastest Growing Regions for Value of Goods Exported, 2010-2015” in March of 2017.
- The Texarkana region is in the perfect location to take advantage of the opportunities in Global Logistics and Supply Chain Management. The existing logistics and distribution industry in the region is flourishing for good reasons. The transportation assets of the region are evident – access to the road system, the rail system, multiple airports, and river & seaports within acceptable drayage distances. The TexAmericas Center is centrally located in the Four States Region of Arkansas, Louisiana, Oklahoma, and Texas and is within 500 miles of 23 of the largest MSA's in the USA, including 10 of the fastest growing in America! Texarkana's location is also in the center of the North America, Midwest and Midsouth markets with access to a large population, in fact 10 million more than Dallas' 500-mile market and over 2,200,000 businesses. Additionally, the Texarkana region has a skilled workforce for this cluster, as well as the educational programs feeding the industry. The logistics and supply chain management industry are broad, including transloading, Third-Party Logistics Services, Freight Forwarding, Warehousing, Wholesaling, E-Commerce, and Supply Chain Planning Segments.

3.7.4 Texarkana Logistics Advantages:

- **Strategic Location:** Texarkana is situated at the border of Texas and Arkansas, making it geographically central in the southern United States and North America. This location provides access to major transportation routes, including highways, railroads, airways and riverways. Located as close as possible to the geographic and population center of the USA and still located within Texas. Connected and located halfway between Americas' East Coast and West Coast. Connected to international borders with Mexico and Canada, and within 300 miles to international seaports on the Gulf Coast.
- **Transportation Infrastructure:** Texarkana has well-developed transportation infrastructure, including interstate highways, a major railroad yard, an airport capable of handling cargo flights and the multimodal capabilities at TexAmericas Center.
 - Located where I-30, I-49, I-369(I-69), US 71, US 59, US 67 and US 82 converge.

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- The Texarkana Region is less than four hours by rail from the Port of Houston. Two railroads serve Texarkana, they are the Union Pacific (UP) and the Kansas City Southern (KCS):
 - The UP connects Texarkana to the Ports on the Gulf of Mexico, Red River and Arkansas River, the countries of Mexico and Canada, and transcontinental Manifest and Intermodal unit trains. The UP operates a rail yard in Texarkana and has a non-operating interchange switch with the KCS; however, they do switch in Shreveport.
 - The KCS is destined for Midwest and Canadian railheads and south to Houston, the Gulf and Mexico and Mexico.
 - These facilities facilitate the movement of goods domestically and could be utilized for international trade as well.
 - **Proximity to Ports:** While not directly located on the coast, Texarkana is within a reasonable distance to major seaports such as Houston, Texas, and New Orleans, Louisiana, as well as Inland port in the Dallas-Fort Worth and Memphis Area. This proximity allows for efficient access to global shipping routes. Border crossings support global supply chains by facilitating the movement of people and goods between neighboring countries. Trade between Texas and Mexico represents a significant contribution to the state economy, and the cross-border trade of intermediate goods (components of final products) is an integral part of many industries' supply chains. The five Hidalgo County border crossings are part of the 11 land ports along Texas' 1,254-mile-long border with Mexico. The top 10 commodities traded across Texas' international bridges are electronics, machinery, petroleum, fresh produce, Nuts, optic & medical equipment, vehicles, plastics, furniture & bedding, and iron or steel products.
 - **Foreign Trade Zone #258:** TexAmericas Center is the grantee for Foreign Trade Zone (FTZ), #258. All of TexAmericas Center sits within FTZ #258. All of TexAmericas Center's property has been approved through the Alternative Site Framework and the Central Campus is an approved FTZ location. By reducing costs, FTZs level the playing field and improve U.S. competitiveness. FTZs can help businesses reduce production-, transaction-, and logistics-related costs by lowering or eliminating effective duty rates, allowing special entry procedures, and encouraging production closer to the market.

Specifically:

- No duties on imported goods that are later re-exported.
- Delayed payment of duties on goods that enter the U.S. market.

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- Manufacturing-specific benefits, with case-by-case approval by the FTZ board, that can include reduction of duties if a lower tariff rate applies to the finished product leaving the zone that the tariff rates that would have applied on foreign components (“inverted tariff”).
 - Elimination of duties on waste, scrap, and rejected or defective parts.
 - Reductions in merchandise processing fees: zone users may be able to file a single customs “entry” (and pay a single fee) per week rather than making multiple entries during a week.
 - **United States-Mexico-Canada Agreement (USMCA)**
 - Companies enjoy the benefits of the USMCA.
 - The interstates and US highways running through Texarkana were designated as NAFTA Corridors under the implementation of the North American Free Trade Agreement (NAFTA) in the 1990s.
 - The United States-Mexico-Canada Agreement (USMCA) enacted in 2020 seeks to build on the success of NAFTA by addressing unfair currency practices with high standards to protect against competitive devaluations and increase transparency. It includes for the first time, articles to protect the environment – improve air quality, reduce, and prevent marine litter, and support sustainable forest management. The USMCA protects intellectual property rights with enforcement powers. The agreement also eases restraints on access to capital and minimizes the limits to where data can be stored and processed. This allows for faster and safe cross border transactions while protecting against cybersecurity threats.

3.7.5 Supply Chain Management

- Texarkana's strategic location and well-developed transportation infrastructure is unmatched for distribution, market research and competitive and affordable transportation costs. The area is centrally located, allowing businesses to reach domestic and international locations with ease and affordability. Texarkana generally offers lower operating costs compared to larger cities, including lower real estate costs, including taxes, for all types of facilities, as well as lower labor costs. Texarkana offers access to skilled workers, particularly in areas such as logistics, warehousing, and transportation management. Depending on specific supply chain networks, being located in Texarkana may provide proximity to key customers or suppliers,

reducing transportation costs and lead times for certain products or materials. This can contribute to overall cost savings in Supply Chain Management activities, especially those related to our clusters and Best-Fit Industries. Additionally, lower operating costs compared to larger cities can make it attractive for businesses looking to optimize their SCM operations. The Texarkana area is becoming a “who's who” of top logistics and distribution location often being compared to a fledgling Indianapolis. The growing number of manufacturing and distribution operations located here means there is a large pool of workers who understand the distribution business.

3.7.6 Packaging

- Ollson & Associates ranked the Texarkana Region and specifically TexAmericas Center as an 8 out of 10 for the attraction and long-term success of the Freight Packaging and Logistics sector in their 2017 Market Viability study.
- Texarkana's strategic location offers proximity to suppliers of packaging materials, reducing transportation costs and lead times. Texarkana area packaging manufacturers are all about creating packaging materials and solutions involving designing, developing, and producing packaging that meets specific needs. You will be able to choose from suitable materials, like cardboard, plastic, steel, wood, and create different types of packaging, such as boxes or containers. The goal is to protect the products and make them easy to handle and transport. Texarkana packaging companies ensure that products are well-packaged and ready to reach customers in the best possible condition. They have experience in all forms including: Paper, Bopp & Woven Poly Bags, Tubes And Cores, Adhesives, Corrugated, And IBC, Recycled Materials, Jerrycans, Pallets, Steel Drums, and more
- **Access to Raw Materials and Suppliers & Local Packaging Companies:** The Texarkana area is a good location for packaging operations because of access and availability of raw materials required for packaging, as well as access to suppliers of packaging materials and equipment. Texarkana has a mix of local packaging companies that offer a range of packaging services, including primary, secondary, and tertiary packaging solutions. These companies specialize in various industries such as food and beverage, consumer goods, pharmaceuticals, or industrial products.
- **Contract Packaging Services:** Contract packaging companies in the Texarkana area provide outsourced packaging solutions to businesses that may not have the facilities or expertise to package their products in-house. Texarkana has contract packaging providers offering

services such as assembly, labeling, shrink wrapping, blister packaging, and more.

- **Packaging Suppliers:** Texarkana has suppliers of packaging materials and equipment. These suppliers can provide a variety of packaging materials such as bags, boxes, cartons, containers, tapes, labels, packaging machinery and more.
- **Custom Packaging Solutions:** Depending on your specific packaging needs, you may require custom packaging solutions tailored to your products and branding requirements. Some packaging companies in Texarkana offer custom packaging design and manufacturing services to meet these needs.
- **Availability and Capacity:** The availability and capacity of packaging operations or contractors in Texarkana will vary based on factors such as market demand, seasonal fluctuations, and the size of the local packaging operator; however, there is an assortment of companies that range in size and capabilities. Ask TexAmericas Center to research and reach out to local packaging companies to assess their availability and capacity to accommodate your requirements.

3.7.7 E-Commerce

- TexAmericas Center and the Texarkana can be a viable location to run an e-commerce business, but its suitability depends on various factors specific to your company's business model, target market, and operational needs. Here are some considerations to help you evaluate our location for your e-commerce business:
- **Strategic Location:** Texarkana's central location in the southern United States can offer strategic advantages for an e-commerce business serving customers across multiple states, regions, and time zones. Its proximity to major transportation routes, including interstate highways and airports, can facilitate efficient shipping and delivery to customers.
- **Access to Transportation Infrastructure:** Texarkana boasts well-developed transportation infrastructure, including highways, railroads, and an airport. This infrastructure supports efficient inbound supply chain logistics for sourcing products and outbound distribution logistics for fulfilling customer orders.
- **Cost of Operations:** Texarkana generally offers lower operating costs compared to larger metropolitan areas, including lower real estate, utility, and tax structure costs for warehousing and fulfillment centers,

as well as lower labor, logistics, and sales tax costs. These can contribute to considerable cost savings for e-commerce businesses.

- **Labor Availability:** Texarkana offers access to an available of workforce skilled workers for various roles important to an e-commerce operation, with relevant skills and experience including order fulfillment, customer service, digital marketing, and others. Texas is a Right-To-Work state.
- **Market Access:** Texarkana's strategic location offers access to consumer markets in nearby cities and regions, as well as opportunities for reaching customers through online channels and digital marketing strategies.
- **Technology Infrastructure:** Texarkana provides access to reliable high-speed internet connectivity and technology infrastructure essential for running an e-commerce business such as website hosting, online transactions, and digital marketing efforts.
- **Regulatory Environment:** Texarkana's regulatory environment is conducive to conducting e-commerce business operations including lower taxation, no business licenses, and easy compliance with consumer protection laws.
- The wholesale industries for Farm Supplies, Farm & Garden Equipment, and Construction & Mining Machinery are strong and growing in the Texarkana region. Jobs in the Farm Supplies Merchant Wholesalers sector have an LQ of 3.3 times higher than the US average. Jobs in the Farm and Garden Machinery and Equipment Merchant Wholesalers sector have an LQ of 2.1 time the US average, and Jobs in the Farm and Garden Machinery and Construction and Mining (except Oil Well) Machinery and Equipment Merchant Wholesalers sector have an LQ of 2.0 time the US average.

3.7.8 Third-Party Logistics:

Logistically speaking, TexAmericas Center has it all. Texarkana's central location and strategic interconnection of rail, road, air, river, and IT transportation assets make the community a global transportation and business hub. TexAmericas Center has chosen to leverage its ability to deliver high-quality, value-added logistics services at a low cost against this comprehensive transportation network. TexAmericas Center can support your manufacturing, warehouse/distribution, and rail logistics needs by providing third party logistics (3PL). TexAmericas Center can be your single source, final-mile provider for solutions to the entire spectrum of your supply chain needs. This includes shipping, receiving, warehousing, inventory control, and other value-added logistics and light manufacturing services to save you

time and money while giving you the ability to scale and gain from our experience and expertise. We can help you optimize and control virtually every nuance of your supply chain. TexAmericas Center's 3PL solutions give you greater flexibility, more control, and less headaches, all with a low capital commitment. Our warehousing, distribution, and fulfillment services can be customized to meet your company's needs, which can change from day to day.

Ollson & Associates ranked the Texarkana Region and specifically TexAmericas Center as a 10 out of 10 for the attraction and long-term success of this sector specifically Public Storage and Warehousing in their 2017 Market Viability study.

3.7.9 Call Center

TexAmericas Center and the Texarkana region is an attractive location for call & service centers for several reasons:

- **Central Location:** Texarkana's position on the border of Texas and Arkansas places it in a central location and time zone within the United States. This central positioning allows call centers to efficiently serve customers across multiple time zones, maximizing operational hours and flexibility.
- **Bilingual Population:** Texarkana's proximity to the border with Texas and its diverse population dues to the presence of the Red River Army Depot, Defense Logistics Agency, Texas A&M University – Texarkana, University of Arkansas – Texarkana and other entities provides access to bilingual talent, which can be valuable for call centers serving customers who speak multiple languages.
- **Skilled Workforce:** Texarkana offers access to a diverse and skilled workforce, including individuals with experience in customer service, sales, and communication as well as certain specialized fields in a Right-To Work state. Local educational institutions may also offer training programs tailored to call center operations, providing a pipeline of qualified candidates for employment. The cost of labor is about 80% of typical markets; the difference of a dollar-per-hour labor savings can offset a difference in cost per square-foot for needed rehab of existing buildings.
- **Transportation and Telecommunications Infrastructure:** The region benefits from a well-developed transportation and Telecommunications infrastructure, including major highways, long haul fiber and multiple metro fiber networks. This infrastructure facilitates the movement of goods, data, and people, making it easier for employees to commute to call center facilities, connect to others globally and for companies to distribute products, services, or materials as needed.

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- **Cost of Living:** Texarkana has a lower cost of living compared to larger metropolitan areas, which can translate to lower operating expenses for call center businesses. This affordability can be advantageous for companies seeking to establish or expand their operations while minimizing overhead costs.
 - **Business-Friendly Environment:** Texarkana provides a business-friendly environment with supportive local governments, potentially favorable tax incentives, and access to resources for business development.
 - **Near Plug-N-Play Industry Appropriate Facilities:** TexAmericas Center can provide access to real estate options that will represent no more than 10% of the total project costs. Call centers fit more people, as many as eight (8) agents per 1,000 square feet (sf) as compared to a maximum of four (4) employees per 1,000 sf in conventional offices. Call centers usually need seven (7) parking stalls per 1,000 sf, or, to use real estate terminology, a parking ratio of 7:1. The parking ratio for call centers is generally double that of conventional office buildings. TexAmericas Center will work with the company to estimate leasehold improvements because just as converting former retail properties is a cost-effective solution, TexAmericas Center has about 1,000,000 square feet of space it intends to rehabilitate for occupancy and this space may be a preferred option to redesign and reconstruct completely new facilities within and parking areas outside. This supportive ecosystem can encourage the establishment and growth of call & service centers in the area.
 - **Quality of Life:** Texarkana offers a relatively high quality of life, with access to amenities such as parks, cultural attractions, excellent educational resources, and affordable housing. This can be appealing to employees working in call centers, contributing to employee satisfaction, retention, and productivity.

Overall, the combination of central location, transportation and telecommunications infrastructure, cost of living, skilled workforce, business environment, quality of life, and access to bilingual talent makes Texarkana a favorable location for call centers looking to establish or expand their operations.

The current location quotient for Call Center employment for the greater Texarkana area is .81 and the unemployment rate is 5.1%.

Call Centers currently operating in the area include: Hart Hanks, Red River Credit Union, and others.

3.8 ELECTRONICS, COMPUTER, SOFTWARE, APPS, SECURITY, & INFORMATION TECHNOLOGY INDUSTRY

TexAmericas and the Texarkana area is a favorable location for the electronics, computer, software, and technology industry due to several factors. The definition of technology herein also refers to biotech industries. These industries are umbrella groups for most of today's leading technologies, such as: semiconductor chip manufacturing, computer assembly, software design, Internet services, and pharmaceutical research:

- **Strategic Location:** Texarkana's strategic location, in the central time zone, and transportation infrastructure make it appealing for manufacturing companies looking to establish operations with proximity to mid-south and mid-western markets in a right to work state. Many of the companies that would benefit would have operations engaged in automotive, aerospace, electronics, consumer goods or other sectors.
- **Proximity to Tech Hubs:** While Texarkana itself may not be considered a major tech hub, it is situated within reasonable proximity to larger metropolitan areas known for their technology industries, such as Dallas-Fort Worth, Texas, and Little Rock, Arkansas. This proximity allows businesses in Texarkana to tap into the resources, talent pool, and networking opportunities available in these tech centers. Further, with the growing importance of technology across all industries, Texarkana may see an increase in technology companies setting up operations, including software development firms, IT services providers, and tech startups.
- **Cost of Operations:** Texarkana generally offers lower operating costs compared to larger metropolitan areas, including lower real estate, utilities, and property tax structure, as well as lower labor, logistics, and sales tax costs. These can contribute to considerable cost savings for businesses.
- **Market Demand:** There may be a growing demand for technology products and services in Texarkana and surrounding areas. As businesses across various industries increasingly rely on technology to streamline operations, improve efficiency, and stay competitive, there may be opportunities for technology companies to provide innovative solutions to meet these needs.
- **Access to Skilled Workforce:** Texarkana has access to an available skilled workforce with expertise in electronics, computer science, engineering, and related fields. Local educational institutions, such as colleges and technical schools, offer programs tailored to these disciplines, providing a pipeline of talent for technology companies in the area. Because of the presence of the robust Defense Cluster, high level security clearances are available and should be considered a plus.
- **Access to Unskilled and Semi-Skilled Workforce:** Companies considering TexAmericas Center, and the Texarkana region will be very satisfied with labor

quality issues in the Texarkana region, particularly the low turnover rates; very low absenteeism; good work attitude; good trainability; good productivity; and very good communications. Basic skills of applicants are considered “very good,” which is better than many areas across the country today. This may reflect better high school, Junior College, and related education. People are generally hard working and productive. Access to assemblers; electronic technicians; winders; testers; maintenance mechanics is generally considered good.

- **Supplier Network:** The Lone Star State's strong, well-established information technology (IT) sector has given the state a reputation as a tech titan. Innovation in the state's tech sector has produced everything from the integrated circuit to the handheld calculator. New technologies developed in Texas allow the state to compete in the global IT arena, attracting companies and talent from around the world.
- **Multimodal Transportation HUB Infrastructure:** Texarkana benefits from a well-developed transportation infrastructure, including three major interstate highways, railways and airports. This infrastructure facilitates the efficient movement of goods, equipment, and personnel, making it easier for technology companies to transport products and materials and access regional markets. The region offers access to LTL, LH and overnight carriers including FedEx and UPS.
- **Business-Friendly Environment:** Texarkana offers a business-friendly environment with supportive local governments, financing programs, favorable State and Local tax policies and incentives, low corporate taxes, no personal income tax, and access to resources for business development. This supportive ecosystem can encourage the establishment and growth of technology companies in the area.
- **Cost of Living:** Texarkana generally has a lower cost of living compared to larger metropolitan areas, which can result in lower operating expenses for technology businesses. This affordability can be advantageous for startups and small-to-medium-sized firms looking to establish themselves in the market.
- **Quality of Life:** Texarkana offers a relatively high quality of life, with access to amenities such as parks, recreational facilities, excellent educational resources, and cultural attractions. This can be appealing to employees working in the technology industry, contributing to employee satisfaction, retention, and productivity.

Overall, the combination of proximity to tech hubs, access to skilled workforce, transportation infrastructure, business environment, cost of living, market demand, and quality of life makes Texarkana a potentially favorable location for electronics, computer, and technology industry businesses to establish or expand their operations.

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- The Texarkana region seeks to be home to a robust and fast-growing technology sector encompassing electronics assembly, software, information management, artificial intelligence, technical operations, and beyond. Companies in the area that are engaged in electronics assembly include: Amentum, JA Riggs Tractor Co., Red River Army Depot, Riggs Cat, and more...
 - Information Technology Companies in the greater Texarkana area include: Vertical Alliance Group, Inc., IT Network Specialists LLC, Rental Information Systems, Inc., Heritage Computer Services, Taylor Business Technology Services, Astonished Man Design, Inc., Haney Computer Consulting LLC, Computer Troubleshooters S.Ark., Kadant, Inc., Exactmed, Inc., Lumen Technologies, Net Data Corporation, Four State Fiber, Southwest Arkansas Telephone Company, DataMax, Ekkais Tech., WALKERITC, DataCast, Inc., Pinnacle IT, CONNEX, Primus, MTECH Electronic Services, PLP Ltd., Life safer, IV Tags, and others.
 - As a testament to the state's synergies with leaders in technology and innovation, the U.S. Army selected Texas as home for its new Army Futures Command, which focuses on science and technology development for the U.S. Army. Our expertise in IT has fueled targeted efforts of diversified investment in advanced tech manufacturing and related sectors.
 - Texas' continued strength in IT and tech is due in large part to the growing pipeline of patents and venture capital funding. For 14 years, Texas has ranked among the top two states for number of technology-related patent assignees. Thanks to world-class universities and academic institutions, which invest heavily in R&D, Texas will continue to lead the future of technology and innovation.

3.9 MACHINERY & EQUIPMENT MANUFACTURING CLUSTER OF INDUSTRIES

- **Alternative, Traditional Energy Creation / Oil & Gas Equipment Manufacturing**
- **Automotive, Rail, and Other Transportation Equipment Manufacturing**
- **Defense Equipment Manufacturing**
- **Medical Device and Equipment Manufacturing**
- **Construction, Mining, Farming and Equipment Manufacturing**
- **Other Industrial Machinery and Equipment Manufacturing**

Texarkana was founded as a railroad town in the late 1870's, so has a long history of manufacturing, particularly in industries such as base materials, building materials, wood, paper and steel. Many equipment manufacturers may have been established to support these legacy industries and have since diversified their product offerings to serve other sectors as well.

The Texarkana area now serves as a hub for various industries that require equipment, including forestry, agriculture, construction, petrochemical, transportation, defense, metals, and energy. The presence of a diverse customer base provides equipment manufacturers and their vendors with opportunities to meet the demand for specialized equipment and machinery.

The Texarkana region has well-developed industrial infrastructure, including industrial parks, manufacturing facilities, business services, and warehousing space. This infrastructure supports the efficient operation of equipment manufacturing businesses and facilitates collaboration and synergy among industry players.

TexAmericas Center and the Texarkana area is an advantageous location for a metals, machinery, and equipment manufacturers to set up a business for several reasons:

- **Skilled Workforce:** Texarkana has access to an available skilled workforce with experience in manufacturing, engineering, welding, machining, and other relevant fields. The region boasts excellent access to low cost, low skill and semi-skilled talent. Local educational institutions, such as technical schools, community colleges and universities, offer industry focused training programs tailored to the manufacturing of Machinery & Equipment industries, providing a pipeline of talent for businesses in the area.
- **Cost Competitiveness:** The Texarkana region offers a lower cost of doing business compared to larger metropolitan areas, including lower operating costs, logistics costs, affordable real estate, and competitive wages. Access to local input resources as well as vendors reduces transportation costs for manufacturers. These cost advantage enhances the profitability and competitiveness of metals, machinery, and equipment manufacturing facilities located in the area offering a strong comparative advantage.

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- **Strategic Location:** Texarkana's location at the border of Texas and Arkansas places it within a transportation hub, in the central time zone, with access to three major interstate highways, railways, airports, and waterways. This strategic location facilitates the movement of raw materials, finished products, and equipment, reducing transportation costs and enhancing supply chain efficiency, in a right-to-work state.
 - **Multimodal Transportation HUB Connectivity:** Texarkana has multimodal transportation facilities, including rail yards and transload facilities, which enable the seamless transfer of goods between different modes of transportation. This enhances logistics efficiency and reduces transit times for shipments moving through the area.
 - **Market Access:** Texarkana's central location provides easy access to regional and national markets, allowing manufacturers to reach customers efficiently. Additionally, the region's proximity to major cities such as Dallas, Houston, Little Rock and others provides opportunities for business expansion and growth.
 - **Access to Raw Materials:** The region surrounding Texarkana is rich in natural resources, including timber, minerals, and metals. This access to raw materials can be beneficial for metals and machinery manufacturers, reducing procurement costs, and ensuring a stable supply chain.
 - **Access to Utilities:** Texarkana offers access to reliable utilities with excess capacity such as water, sewer, electricity, fiber and natural gas, essential for metals, machinery, and equipment manufacturing facilities. Access to these utilities ensures consistent production and reduces operational risks.
 - **Supporting Industries:** Texarkana has an "Instant Supply Chain" of supporting industries and suppliers in sectors such as transportation, logistics, engineering services, and metal fabrication, providing additional resources and support for manufacturers in this sector.
 - **Access to Diverse Energy Resources:** The Texarkana region benefits from access to various energy resources, including electricity, natural gas, biomass, and renewable energy sources such as wind and solar. This access to an assorted array of energy resources provides opportunities for different energy production methods, reducing reliance on imported energy and promoting energy independence.
 - **Innovation Ecosystem:** Texarkana is increasingly fostering an Innovation Ecosystem conducive to advanced and traditional manufacturing, with initiatives aimed at supporting research, development, and technology commercialization. Collaboration with local universities, research institutions and colleges can further drive innovation within manufacturing processes, existing product lines and for new product development.
 - **Business-Friendly Environment:** Texarkana offers a business-friendly environment with supportive local and state governments, favorable tax policies and incentives, grants, financing programs, infrastructure support, and access to resources for business development. Additionally, the region's business-friendly

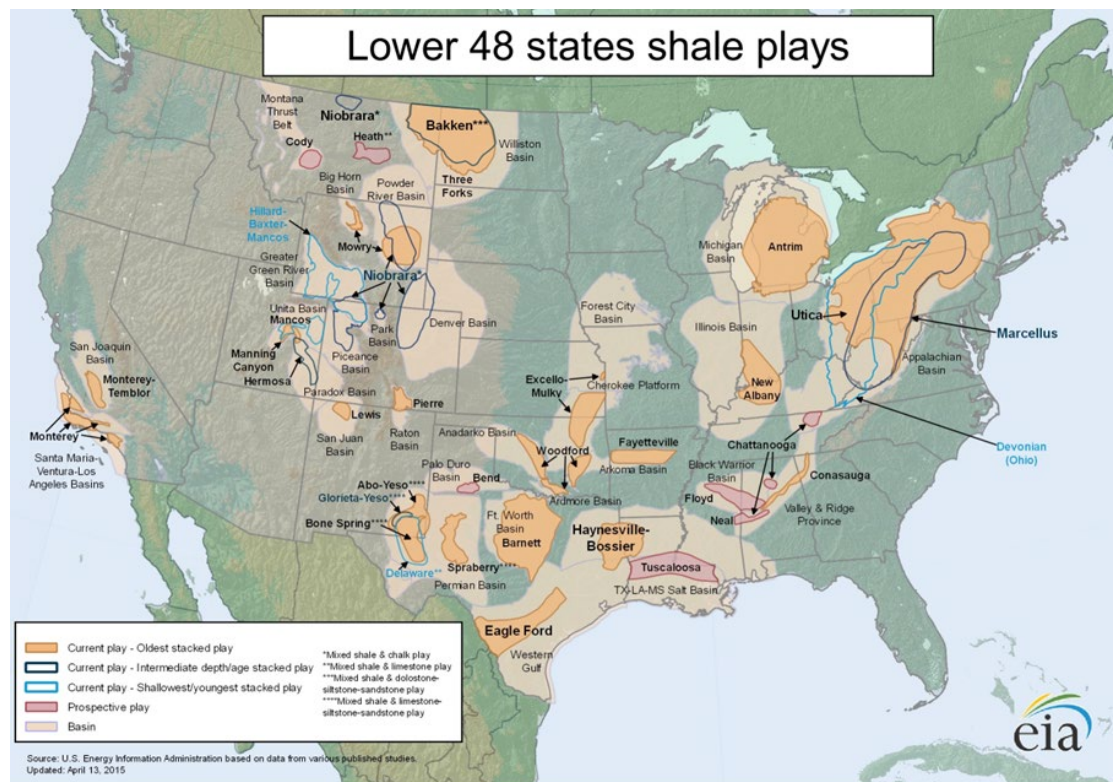
regulatory environment and low cost of living make it an attractive destination for equipment manufacturers. This supportive ecosystem encourages the establishment and growth of Machinery & Equipment manufacturing businesses in the area.

- **Community Support:** The Texarkana region has a long-standing and strong sense of community and local support for manufacturing businesses. This support manifests itself through partnerships with local organizations, workforce development initiatives, public entities and networking opportunities within the business and civic community.
- **Cost of Living:** Texarkana has a lower cost of living compared to larger metropolitan areas, which can result in lower operating expenses for manufacturers. This affordability can be advantageous for startups, privately owned, and small-to-medium-sized firms looking to establish themselves in the market.
- **Quality of Life:** Texarkana offers a relatively high quality of life, with access to amenities such as parks, recreational facilities, excellent educational resources, and cultural attractions. This can be appealing to employees working in the manufacturing industry, contributing to employee satisfaction, retention, and productivity.
- Overall, the combination of strategic location, access to raw materials, skilled workforce, business environment, cost of living, market access, quality of life, and supporting industries makes Texarkana a potentially favorable location for metals, machinery, and equipment manufacturers to set up a business.

3.9.1 Alternative, Traditional Energy Creation / Oil & Gas Equipment Manufacturing

- **Power and Energy equipment** includes equipment and machinery for generating, transmitting, and distributing electric power as well as machinery used for oil and gas exploration and production. Major categories include turbines, power transmission equipment and internal combustion engines (except automotive gasoline and aircraft) for electric utility and industrial applications. This group also includes oil and gas field machinery. The greater Texarkana has a particularly high concentration of Industrial Machinery Manufacturing specifically in the Pumps & Compressors area, refractory linings and equipment, and HVAC and Refrigeration Equipment Manufacturing including Air Conditioning Equipment.
- Ollson & Associates ranked the Texarkana Region and specifically TexAmericas Center as a 7 out of 10 for the attraction and long-term success of this sector specifically in the area of Pump & Compressor Manufacturing in their 2017 Market Viability study.
- **Oil & Gas Equipment Manufacturing**

- Ollson & Associates ranked the Texarkana Region and specifically TexAmericas Center as an 8 out of 10 for the attraction and long-term success of this sector in their 2017 Market Viability study.
- The Texas side of the greater Texarkana has a particularly high concentration of Machinery Manufacturing, specifically in the Oil & Gas Field Equipment Manufacturing sector. The region is also notable in Industrial Machinery Manufacturing, specifically in the Pipes, Pumps & Compressors area and refractory linings and equipment.
- Texarkana is strategically located between about 1/3 of the US oil and gas plays, and centrally located to all the Lower 48 states Oil & Gas Plays. See attached.



- TexAmericas Center and Texarkana's overall proximity to local Oil and Gas operations and the much larger operations surrounding the region makes this industry an obvious target.
- In down times the expanse of TexAmericas Center with its large tracts of cleared land with road and rail access make it an obvious choose for storage and repair of equipment. Our property would be suitable for storing rigs, derricks, etc.... as the rigs do not need buildings or facilities...just land. TexAmericas Center can provided value-added services through its TACRail and TAC3PL operating divisions.

- Given the region's background in MRO, we would be an obvious choice for reconditioning, repair and reset prior to being redeployed. Once engaged here we would be an obvious choice for expansions involving new equipment manufacturing.
- Quail tools already has a drill pipe manufacturing and distribution operation located on our property. As well, Kelly Instrument and Machine is located in the Texarkana area. Other companies operating in the area include: Kelly Instruments and Machine Inc., and others.

- **Alternative/Renewable/Recyclable Energy Creation & Equipment**

The alternative energy equipment manufacturing industry is essentially in its infancy. The winning states will be those that place the greatest emphasis (policy, taxes/incentives, and education/training) on the underlying foundation supporting the industry.

- **Access to Renewable Resources:** The Texarkana region benefits from access to renewable energy resources such as biomass, solar, and wind. This proximity to renewable resources makes it an ideal location for manufacturing equipment related to these energy sources, such as solar panels, biomass processing equipment, and wind turbines.
- **Access to Recyclable Resources:** The Texarkana region benefits from access to recyclable energy resources such as plastics, rubber, animal waste and other substances. This proximity to these recyclable resources and infrastructure in place move it here economically makes TexAmericas Center an ideal location for production of by-products like diesel fuel, naphtha, carbon black, and other by-products. As well, the region is an excellent location for the manufacturing equipment related to these energy sources, such as reactors, tanks, piping, and other required equipment.
- TexAmericas Center has plans to reopen the landfills on its property, establish a rail-served waste transfer station and launch a material recovery facility. This would create an additional supply of low-cost input materials for both types of operations.
- **Solar Equipment Manufacturing Industry:** The solar equipment industry is divided into four primary segments:
 - **Casting**
 - Raw material for cell manufacturing
 - Polycrystalline Silicon to make wafers.
 - **Cell manufacturing (two types)**
 - Crystalline Silicon Wafers (most prevalent today c. 2010)
 - Photovoltaic Thin Film Material (emerging)

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- **Module assembly**
 - Essentially an assembly process
 - PV Cells
 - Glass
 - Frames usually applied for mounting.
 - **System assembly of Cell Modules**
 - Completed on-site at Customers Solar Farm
 - Two main functions
 - Electrical integration
 - Mechanical integration
 - Skillsets for the industry embrace process control operators, assemblers, electronics technicians, electrical engineers, welders, and mechanics.
 - In the modern day, photovoltaic (PV) systems are viewed as a possible replacement for fossil fuels as a clean energy source. The installation of solar PV power plants requires vast land and huge investment. Therefore, it is necessary to select a suitable site to achieve maximum efficiency and low cost. A feasible location of photovoltaic (PV) system must consider certain criteria including land restrictions, access to roads, and transmission lines. Typically, there are about ten factors grouped into four categories: Geographic, Technical, Economic, and Flood susceptibility criterion that are analyzed.
 - The greatest solar energy capability lies in the Southwest, which includes Texas, and portions of the Intermountain West. Secondary potentials exist in the Pacific Time Zone, Midwest and Southeast.
 - Biomass Processing and Equipment Manufacturing
 - Biomass is a renewable energy source derived from living or recently living organisms. It may also include biodegradable waste that can be burned as fuel.
 - Biomass conversion into fuel is similar to chemical manufacturing. The process can involve one of three conversion methods: thermal, chemical, biochemical.
 - An emerging production technology is known as cellulosic. This basically involves drawing inedible material from a plant (e.g., cornhusk) but leaving the edible part of the plant intact.
 - Biomass fuel can be made from multiple sources including: algae, crops (Corn, Sugar Cane, Barley, Switchgrass, Sorghum), grasses, Timber (Bark, Thinning's, Wood Chips, and other unused items), Landfill gas, and waste (animal, food process, municipal, manufacturing and commercial kitchen).

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- Typical Outputs include: Methane Gas, Ethanol, Biodiesel, and Co-generation of electricity, heat, and steam.
 - Regions with the largest biomass resource base include the Southeast, South Central including Texas, and Midwest.
 - Biomass operations tend to be situated near the pertinent raw material base.

3.9.2 Automotive, Rail, And Other Transportation Equipment Manufacturing

- **Transportation Equipment Manufacturing:**
 - Ollson & Associates ranked the Texarkana Region and specifically TexAmericas Center as a 7 out of 10 for the attraction and long-term success of this sector, specifically Motor Vehicle Parts Manufacturing in their 2017 Market Viability study.
 - Manufacturing machinery is used to manufacture a wide range of goods out of metal and plastic and consists of technologies that find application in many other manufacturing industries, such as automotive, aerospace, and medical devices. It includes machine tools for cutting, stamping, and forming metal; plastics and rubber manufacturing machinery; and a wide range of cutting tools, dies and accessories. Automotive machinery and related systems, including machine tools, material handling equipment, welding equipment, and process control technology make up this industry. The automotive manufacturing industry is made up of three subsectors: motor vehicle manufacturing; motor vehicle body and trailer manufacturing; and motor vehicle parts manufacturing.
 - The Transportation Equipment Manufacturing sector shows good labor availability except for industrial engineers, but this would be less relevant for assembly projects which would focus more on machinists and mechanics. Texas A&M-Texarkana has an engineering school with degrees in Electrical and Mechanical Engineering. Texas A&M University will soon announce a dedicated industrial engineering program.
 - The Texarkana region boasts a well-established automotive manufacturing sector; however, the greater Texarkana region is likely the largest Transportation Manufacturing community that you have never heard of. It has the highest concentration of Motor Vehicle Body (3.2%) and Travel Trailer & Camper Manufacturing (35.6%) in the State of Texas. The region also boasts considerable expertise in Semi-Trailers, Utility Trailers, Railcar, Heavy Truck, and Tire Manufacturing.

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- The Transportation Equipment Manufacturing sector in 2019 employed 1,656 individuals which was 9% growth (2014-2019). There are at least 17 private sector companies located here employing these individuals, there is 1.5 (LQ) times the US average of employment in this sector located in the Texarkana area. Also of note, the Texarkana region is home to over 2,500 workers employed through the federal government at the Red River Army Depot and contractors. These employees are classified as National Security therefore their transportation manufacturing skills are omitted from data sources.
 - Transportation equipment manufacturing has been one of the stronger growth sectors. The Texarkana region is home to 7 niche OEM automotive and railcar manufacturers, a major tire producer and an astonishing 17 trailer manufacturers. Companies in this cluster of companies include: Ledwell, Trademark Truck, Texarkana Specialty Vehicles, Emergency Service Vehicles, Advanced Global Resources (AGR), Red River Army Depot, Goodyear, Texana Tank Car, Trinity Industries, Union Tank Car, Mc Kinnen RV & Marine, Big Tex, Warren Truck & Trailer, East Texas Coatings, Innovative Trailers, Renew Truck, DFH Enterprises, LE Trailers, Utility Tri-State Inc., Top Hat Industries Inc., Diamond City Trailer Manufacturing, Rockin' S Trailer, R Mart Trailers LLC, Circle TM Trailers, LLC., Double A Trailers Inc., Texas Bragg Trailers, Traylorco Trailers, Performance Trailers, Davidson Trailers, LLC, 4 Boss Trailer Manufacturing, LLC, Texline Trailers, Lion Trailers, Rockwell American, Custom Built Gooseneck Trailers and others.
 - For automotive manufacturing companies, one of the main attractions of Texarkana is the region's large, skilled, experienced, growing, and cost-effective labor pool, which has a long tradition of excellence in the industry. As well there is a steady pipeline of new talent is being created through education partnerships, with Texas A&M-Texarkana, University of Arkansas-Texarkana, and Texarkana College offering auto industry-certified training, engineering programs, supply-chain degrees and more.
 - The greater Texarkana region offers unique advantages agriculture equipment manufacturing companies as the area possesses a range of businesses at every level of the value chain, which include farming inputs, specialized farming, food processing, supplement production, drug manufacturing and packaging, cold chain storage, beverage manufacturing and more.
 - The Heavy Equipment Manufacturing sector, i.e. construction and mining, has very specific location needs. It is expected to see further

growth driven by demand and TexAmericas Center possesses many of the site selection characteristics desired by this industry.

- The region's strength in military vehicles MRO and existing heavy equipment manufacturing makes focusing on Heavy Equipment an easy target because of workforce skills, supply chain, industry training programs, infrastructure, and more.
- The workforce assets in fabricated metal and the skills from the federal workforce at the Red River Army Depot create excellent synergies for the Heavy Equipment sector. Siting a Heavy Equipment Manufacturing operation at TexAmericas Center is a strong value proposition for anything from oil and gas, mining, farming, emergency, earth moving or other larger specialty vehicles, as well as metal and plastic components. Material handling equipment stands out as well as a growth sector and could be supported with the region's strength in welders, industrial machinery mechanics and inspectors. Due to a limited regional supply of experienced engineers, the focus would be on assembly activities. Growth segments include cranes and lifting equipment, especially for the construction and mining industries. There is also the potential to add supply chain companies to this cluster by targeting metal processing plants, such as electric arc furnace Mini-mills, as well as machinery parts.
- Texarkana has a long history in metals. Metals & Machinery includes competitive industries in Upstream—or primary—Metals, as well as emerging industries in Machinery Manufacturing, Advanced Manufacturing, and Aerospace & Defense. Connected by skilled workers, advanced materials, and innovation, companies in the Metals & Machinery cluster are growing in the greater Texarkana region because of our lower cost, logistics strengths, and workforce competitiveness.
- Instant Supply Chain – Because of Texarkana's position about halfway between several clusters in Northern and Southeastern USA as well as Mexico we are perfectly positioned to draw upon existing supply chains. Goodyear tire has a large production facility in Texarkana. Texarkana Aluminum has produced aluminum for the automotive industry.
- Texarkana is located on the former yet growing North America Free Trade Agreement (NAFTA) 'auto corridor', which runs from Canada to Michigan/Ohio to the Gulf of Mexico and onto Mexico and accounted for nearly 90% of light vehicle production in the US in 2019. Since the establishment of NAFTA in 1992, nearly all new North

American automotive plants have been built in southern states and Mexico. Because of its location, Texas is a primary link between Mexico and the rest of the US automotive market, and billions of dollars of vehicles and parts are now transported between Mexico and Texas annually.

- The new USMCA includes many innovative provisions designed to incentivize new U.S. investments in the automotive sector, to promote additional purchases of U.S.-produced auto parts, to advance U.S. leadership in automotive R&D, to support additional high-paying U.S. jobs in the automotive sector, and to encourage automakers and suppliers to locate future production of electric and autonomous vehicles in the United States.
- As the south continues to develop into a powerful automotive cluster, Texarkana is well positioned between old guard locations in Canada, Michigan and Ohio as well as being in good proximity to up and coming states. Neighboring Mississippi is known as a powerhouse of the automotive industry, with nearly 200 suppliers. In nearby Alabama, new auto industry projects have been announced, and Tennessee is home to massive assembly lines for General Motors, Nissan, and Volkswagen and is a leader in the southeast for electric vehicle manufacturing. Texas has a major passenger vehicle assembly plant operated by global leader General Motors and Tesla opened its second US assembly plant in Austin in 2020.
- SETCO Solid Tire & Rim Assemblies Co.
- Headquartered in Idabel, OK, the plant covers over 100 acres, with 750,000 sq ft under roof and prides itself on making the most durable, best built and long-lasting solid rubber tires for the most intense job applications. The company is a pioneer in the market and is one of the world's largest and most capable solid rubber tire manufacturers, built on decades of top-quality product that increases our customers' up-time, and increases their profits. This international business, because of in-house abilities, can take on any job and service the largest operations in the industry. Established in 1988, the company sells tires in over 20 countries and has distribution centers in the USA and Europe.
- Specialty Services available through RRAD
 - Rubber Products Division is the only facility of its kind in the Department of Defense. As the sole source provider of the M1 road wheel, the depot has the most sophisticated, state-of-the-art track shoe and roadwheel re-build / manufacturing facility in the world.

The Rubber Products Division can produce multiple types of track shoes and road wheels simultaneously to meet the Army's demand. Equipment modernization projects such as the automated rubber denuding system and robotic road wheel material handlers have ensured that RRAD will continue to be a leading producer of track shoes and road wheels well into the future. Along with the equipment modernization program, RRAD has developed a professionally trained staff of engineers, technicians, equipment specialists, rubber workers, systems operators, and inspectors in its Rubber Products Operations.

- The depot's multiskilled workforce possesses a wide range of technical resources including the capability to design, fabricate and manufacture a wide range of items, from specialty parts to unique prototype weapon systems and vehicles.
- The depot has both a concrete and a dirt obstacle proving ground areas. There is also a banked oval track for endurance testing.
- The DLA has multiple car spot vehicle transload facility.
- The dedicated RRAD workforce provides continuous on-site support throughout the world.
 - Depot overhauls and repairs of combat and tactical vehicles and their components
 - 10/20 maintenance
 - Inspect/repair programs.
 - Overhaul of fire suppression bottles
 - Design/fabrication and manufacturing of items.
 - Deployable workforce
- Industry Specific Skill sets found at the Red River Army Depot (RRAD)
 - The Red River Army Depot (RRAD) attracts quality employees, provides excellent training and these employees have good skills. The RRAD plays an important role in the Texarkana Region's economy, but its labor force has diminished significantly. The RRAD employed about 10,000 people during Americas conflicts in the middle east in the early 2000's. RRAD employment dropped to just under 3,200 workers by 2014 and is about 2,500 in 2024.
 - Data on workforce capabilities of the majority of RRAD's civilian workforce are classified:
 - General Schedule (GS) for salaried, white-collar workers
 - Federal Wage System (FWS) for hourly, craft and trade workers.

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- If these federal classifications were translated in to the commonly used Standard Occupational Classification (SOC) system, the breakdown would be about:
 - 45% – Installation, Maintenance & Repair
 - 11% – Production
 - 11% – Business & Financial Operations
 - 10% – Office & Administrative Support
 - Unfortunately, companies and site selection consultants looking for data regarding skills will not find the above numbers listed, and details regarding further occupation skills will not be provided, again this is due to National Security issues and risks.
 - The key is to break down this data further to determine real skills and transferability. In the 2014 TIP Strategies, Inc. study, they provided the below breakdown in their Regional Talent Retention & Economic Growth Strategy report. The following depicts the occupation skills of the listed workers about January 2013:
 - Heavy Mobile Equipment Repairers/Mechanics – 832
 - Painters – 103
 - Production Controllers – 92
 - Administrative Support – 77
 - Rubber Workers – 42
 - IT Specialists – 35
 - Maintenance Manufacturing/Parts/Production Specialists – 31
 - Welder – 23
 - Machinist/Machine Tool Operator – 20
 - Sandblaster – 20
 - Materials Examiner & Identifier – 19
 - Electroplater – 13
 - Forklift/Tractor Operator – 13
 - Pneudraulic Systems Mechanic – 10
 - This information will help companies and site selection consultants understand the types of skills available at RRAD and displaced into the local workforce as the RRAD continues to shed employees.
 - TexAmericas Center can provide updated information around this topic on a per request basis.

For automotive manufacturers looking to take advantage of the thriving industry cluster in southern America, Texarkana is a site of huge opportunity.

3.9.3 Defense Equipment Manufacturing

TexAmericas Center and the Texarkana region is an attractive location for a defense to locate a facility for several reasons:

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- **Proximity to Military Installations:** The Texarkana region is strategically located near several military installations, such as Red River Army Depot in Texas and Camp Minden in Louisiana. Proximity to these installations can provide opportunities for collaboration, subcontracting, and support services for defense projects.
 - **Proximity to the Texarkana Area Defense Cluster:** A large number of defense contractors are located in the greater Texarkana area, most with ties to the DOD installations found there. Military installations often require security clearances to interact with senior DOD civilians and uniformed personnel. Access to talent with these clearances and connections makes the Texarkana area an attractive location to serve the needs of these bases and related government agencies.
 - **Supporting Industries:** Texarkana has an "Instant Supply Chain" of supporting industries and suppliers in sectors such as transportation, logistics, engineering services, metal fabrication, and more providing additional resources and support for manufacturers in this sector.
 - **Skilled Workforce:** The region benefits from a skilled workforce with experience in manufacturing, logistics, and other industries relevant to defense contracting in a Right-To-Work state. This workforce can provide the talent needed for specialized defense projects and manufacturing operations.
 - **Community Support:** The Texarkana region has a long-standing and strong sense of community and local support for manufacturing businesses. This support manifests itself through partnerships with local organizations, workforce development initiatives, public entities and networking opportunities within the business and civic community.
 - **Multimodal Transportation Infrastructure:** Texarkana is situated at the crossroads of major transportation routes, including Interstate 30 and Interstate 49, as well as railroads and the Port of Caddo-Bossier. This transportation infrastructure facilitates the efficient movement of goods and materials, making it easier to access suppliers and distribute products.
 - **Cost Competitiveness:** The Texarkana region offers a lower cost of doing business compared to larger metropolitan areas, including lower operating costs, affordable real estate, and competitive wages. This cost advantage enhances the profitability and competitiveness of metals, machinery, and equipment manufacturing facilities located in the area offering a comparative advantage.
 - **Business-Friendly Environment:** The Texarkana region offers a business-friendly environment with competitive tax incentives, supportive local

governments, and access to business development resources. These factors can help defense businesses establish and grow their operations more effectively.

- **Innovation Ecosystem:** Texarkana is increasingly fostering an Innovation Ecosystem conducive to advanced and traditional manufacturing, with initiatives aimed at supporting research, development, and technology commercialization. Collaboration with local universities, research institutions and colleges can further drive innovation within manufacturing processes, existing product lines and for new product development.
- **Research and Education Institutions:** The presence of research institutions, such as universities or technical colleges, in the Texarkana region can provide opportunities for collaboration, workforce development, and technology transfer for defense businesses.
- **Cost of Living:** Texarkana typically has a lower cost of living compared to larger metropolitan areas, making it attractive for businesses seeking to minimize operating expenses while still accessing a skilled workforce and essential amenities.
- **Quality of Life:** The Texarkana region offers a relatively high quality of life, with access to outdoor recreational activities, cultural amenities, excellent educational resources, and a supportive community. This can help attract and retain employees, including those with specialized skills needed for defense-related work.

Overall, the Texarkana region's strategic location, skilled workforce, transportation infrastructure, business environment, cost of living, quality of life, and access to educational institutions make it a potentially favorable location for defense businesses seeking to establish or expand their operations.

- **An Overview Of The Greater Texarkana Defense Cluster**
 - With two munitions manufacturing depots, a tactical wheeled vehicle reset depot, the Midwest Defense Logistics Agency (DLA) facility, two air force bases, four Army National Guard Training bases (Texas, Louisiana, and two Arkansas), an Arkansas Air National Guard Training Base, two DOD, ATF and EPA approved energetics disposal facilities and three former munitions depots housing scores of defense contractors, multiple commercial airports and a world-class engineering university and junior colleges, Texarkana is at the heart of a robust and thriving defense and security cluster that has an essential, worldwide impact. Anchored by the Red River Army Depot (RRAD) and a major DLA operation, the Defense & Cybersecurity Cluster within 150-miles of Texarkana has everything from OEM's, supply chain, to

end users. Our Defense companies create highly advanced Weapons Systems, Tactical Wheeled Vehicles, Munitions (and their disposal) as well as produce and manage programs and logistics for critical parts and electronics for this industry's large global supply chain.

- The 150-miles market around Texarkana is home to MRO, component parts, completion centers, and defense contractors like: Advanced Global Resources (AGR), Aerojet Rocketdyne (GenCorp Inc), Amentum, BAE, Boeing, Cherokee Nation, Day & Zimmermann, Esterline Defense Group, General Dynamics Armament & Technical Products, Lockheed Martin Missile & Fire Control, Metro Aviation, SAIC, Rheinmetall, EnviroSafe Demil, National Technical Systems, Raytheon Missile Systems, Spectra Technologies, Beako Manufacturing, Commercial Manufacturing Company, Inc., and many more. These contractors are further supplied and supported by strong, diverse groups of manufacturers, vendors, and suppliers throughout the region. Finally, the region is home to a large number of Department of Defense organizations housed at the DOD in installations.
- **Opportunities at TexAmericas Center**
 - A TexAmericas Center facility can uniquely exploit not just the unique workforce skills and defense contracting knowledge related to the RRAD & DLA but also its supply chain both in terms of RRAD supplier recruitment and for similar companies that act as primary contractors as subcontractors as well as in the private market.
 - Although the military armored vehicle segment in the US has experienced consolidation and hence a decrease in business locations (it has been increasing employment), the global market, especially Asia Pacific, Middle East, and Eastern Europe has growth potential. However, tactical vehicle assembly, subassembly, and component parts manufacturing has a clear competitive advantage operating here.
 - All non-aerospace defense-related activities should be interested in learning more about TexAmericas Center, especially if energetics is involved - including the private sector. This cluster would also include private, defense and non-defense industries in firearms and ammunition that require testing facilities.
 - Specifically, for the small arms and ammunition the region can offer a high concentration of key occupations, especially in welding, Cutting, Punching, and Press Machine Setters/Operators, and assembly. Further, there exists the potential to partner with the RRAD on use of shooting ranges, and TexAmericas Center's large sites and existing

energetics storage facilities allow for safe storage of ammunition and for companies to expand into ammunition production.

- Unmanned aerial vehicles (UAVs), vertical take-off equipment and other drones are emerging segments of the Defense and Civilian Industry. With access to large amounts of TexAmericas Center owned timber land, Texarkana Regional Airport facilities and off-property area that is sparsely populated there is ample area for flight testing. As well TexAmericas Center boasts dedicated Heli-pad sites. The Texarkana region is an optimal location for R&D, testing and production.
- Specialty Services available through RRAD
 - Rubber Products Division is the only facility of its kind in the Department of Defense. As the sole source provider of the M1 road wheel, the depot has the most sophisticated, state-of-the-art track shoe and roadwheel re-build / manufacturing facility in the world. The Rubber Products Division can produce multiple types of track shoes and road wheels simultaneously to meet the Army's demand. Equipment modernization projects such as the automated rubber denuding system and robotic road wheel material handlers have ensured that RRAD will continue to be a leading producer of track shoes and road wheels well into the future. Along with the equipment modernization program, RRAD has developed a professionally trained staff of engineers, technicians, equipment specialists, rubber workers, systems operators, and inspectors in its Rubber Products Operations.
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- Industry Specific Skill sets found at the Red River Army Depot (RRAD)
 - The Red River Army Depot (RRAD) attracts quality employees, provides excellent training and these employees have good skills. The RRAD plays an important role in the Texarkana Region's economy, but its labor force has diminished significantly. The RRAD employed about 10,000 people during Americas conflicts in the middle east in the early 2000's. RRAD employment dropped to just under 3,200 workers by 2014 and is about 2,500 in 2024.
 - Data on workforce capabilities of the majority of RRAD's civilian workforce are classified:
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 - The key is to break down this data further to determine real skills and transferability. In the 2014 TIP Strategies, Inc. study, they provided the below breakdown in their Regional Talent Retention & Economic Growth Strategy report. The following depicts the occupation skills of the listed workers about January 2013:
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 - This information will help companies and site selection consultants understand the types of skills available at RRAD and displaced into the local workforce as the RRAD continues to shed employees.
 - TexAmericas Center can provide updated information around this topic on a per request basis.

NOTE: A more comprehensive overview of the larger Defense Cluster is available in the Defense Cluster section of this report.

3.9.4 Medical Device And Equipment Manufacturing

- The Texarkana region is well known for its Architectural, Structural and Roofing Metal, Fabricated Pipe, Munitions and Ammunition Manufacturing, Aircraft Components, Defense Electronics, Military Equipment, Automotive Parts, Truck Components, Railcar Assemblies, Production Of Lightweight Materials, Carbon Fiber Composites, Specialty Polymers For Aerospace, Automotive, And Industrial Applications, Oilfield Equipment, Drilling Tools, Petrochemical Processing Equipment, Pumps, Compressors, Conveyors, Machine Tools, Plastic Components, Packaging Materials, and Specialty Polymers among other items.
- Specifically, for the Medical Device sector the Texarkana region can offer a high concentration of key occupations, especially Mechanical Skills, Design, Metal Working, Assembly, Hand-Fitting, Quality Control, Inspection, Safety and Compliance. The region's workforce also excels in problem-solving, communication and Teamwork. Certain activities can be accessed as flex work including Welding, Cutting, Punching, and Press Machine Setters/Operators, and assembly.
- The Texarkana region is also known for its Medical Equipment & Supplies Manufacturing, specifically Surgical Instrument Manufacturing. It also has a moderate concentration of Medical and Diagnostic Laboratories as well as specialized Hospitals and clinics. The region offers a vendor base and workforce that has regulatory compliance knowledge; proficiency in implementing and maintaining quality management systems; knowledge of manufacturing processes specific to medical devices, such as injection molding, CNC machining, laser cutting, and assembly techniques; understanding of materials used in medical devices, their properties, and compatibility with biological systems; ability to collaborate with product design teams to optimize medical device designs for manufacturability, scalability, cost-effectiveness, and compliance with regulatory requirements; proficiency in quality control techniques, such as statistical process control, inspection methods, and testing protocols; skills in risk

assessment, analysis, and mitigation; ability to maintain accurate and comprehensive documentation throughout the manufacturing process; experience in working within cleanroom environments and adhering to cleanroom protocols; effective communication and collaboration skills; and, a commitment to continuous improvement and a mindset of operational excellence.

- The Fabricated Metal Product Manufacturing sector employees about 1,741 individuals and employment grew by about 3% between 2014 and 2019. There are 51 companies operating in this sector with an LQ of about 1.8 this means there are about 80% more people employed in this sector than the US average. Fabricated metal will continue to grow its base in the region as Texarkana College launched a new industry specific training center called the Ledwell Advanced Manufacturing Training Center to address needs within the region a major focus is new CNC, PLC and related hands-on training programs. Graduation class sizes each year range from about 60 to 100 individuals graduating into the market with training in Precision Production. The region offers a vendor base and workforce that has metalworking skills, welding and joining expertise, measurement and inspection proficiency, and broad machining capabilities. They also have the ability to read and interpret engineering drawings, blueprints, and technical specifications; understanding of industry safety protocols and procedures; strong problem-solving abilities; depth of understanding of different types of metals, alloys, and their properties; good familiarity with quality control techniques; ability to work effectively as part of a team; and, willingness to adapt to new technologies, processes, and industry trends, as well as a commitment to continuous learning and skill development.
- Medical Device Manufacturers in the Texarkana market include: IV Tags, Global Star Medical, Durabuilt Medical Equipment, Respiratory Plus, B&W Dental Lab and others.

3.9.5 Construction, Mining, And Farming Equipment Manufacturing

- Ollson & Associates ranked the Texarkana Region and specifically TexAmericas Center as an 8 out of 10 for the attraction and long-term success of this sector in their 2017 Market Viability study.
- The greater Texarkana area has a particularly high concentration of Agricultural, Mining, and Construction Machinery Manufacturing, specifically in the Oil & Gas Field Equipment Manufacturing sector. The region is also notable in Industrial Machinery Manufacturing specifically in the Pumps & Compressors area, refractory linings and equipment, and HVAC and Refrigeration Equipment Manufacturing including Air Conditioning Equipment.

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- **Construction, Mining equipment and related systems** includes self-propelled equipment, implements, accessories and components for use in construction, forestry, mining, and utilities. Equipment and machinery used to mine and extract natural resources including mining and materials handling equipment and process controls, pumps, electric motors, and fluid power. Off-road diesel engines and fluid-power technology are also important components of off-road equipment.
 - **Proximity to Markets:** Texarkana's central location provides access to major markets in the United States, including regions with significant construction, mining, and oil & gas activities. This proximity reduces transportation costs and allows manufacturers to efficiently reach customers and distribution channels.
 - Texarkana's existing predominance in Tactical Wheeled Vehicle Re-Manufacturing Heavy Truck Manufacturing and Emergency Service Vehicle manufacturing make the region an attractive location for Construction and Mining equipment manufacturing.
 - **Agricultural and Food Processing machinery** includes equipment used to grow, process, package, transport, and distribute food and beverages. Agricultural and Food Machinery and Equipment includes agricultural equipment, food processing and packaging machinery, commercial and industrial refrigeration equipment, and commercial food service equipment.
 - **Value-Added Agriculture:** The Texarkana area offers unique advantages to food and beverage processors as the sphere possesses a range of businesses at every level of the value chain, which include farming inputs, specialized farming, food processing, supplement production, drug manufacturing, packaging, trucking operations, beverage manufacturing, wholesale, and more.
 - **Proximity to Agricultural Resources:** Texarkana's location in a region known for agriculture provides proximity to key agricultural resources, such as farms, ranches, and food processing facilities. This proximity facilitates collaboration, supply chain management, and access to raw materials for manufacturing agricultural and food processing machinery.
 - **Food & Beverage Processing:** The Texarkana region is a known cluster of diverse Food, Beverage and related Processing activity.
 - Agricultural Equipment Manufacturing & Wholesale:
 - While Texarkana is not widely known as a major hub for farm equipment manufacturing, there are smaller-scale manufacturers in

the area catering to the agricultural community. Among them are Priefert Manufacturing which has grown into one of the largest farm, ranch and rodeo equipment manufacturers in the world. Also, in the region are 17 specialty trailer manufacturers, many focused on the need of farms and ranches.

- The wholesale industries for Farm Supplies, Farm & Garden Equipment, and Construction & Mining Machinery are strong and growing in the Texarkana region. Jobs in the Farm Supplies Merchant Wholesalers sector have an LQ of 3.3 times higher than the US average. Jobs in the Farm and Garden Machinery and Equipment Merchant Wholesalers sector have an LQ of 2.1 time the US average, and Jobs in the Farm and Garden Machinery and Construction and Mining (except Oil Well) Machinery and Equipment Merchant Wholesalers sector have an LQI of 2.0 time the US average.

3.9.6 Other Industrial Machinery And Equipment Manufacturing

- **Manufacturing machinery** is used to manufacture a wide range of goods out of metal and plastic and consists of technologies that find application in many other manufacturing industries, such as automotive, aerospace, and medical devices. It includes machine tools for cutting, stamping, and forming metal; plastics and rubber manufacturing machinery; and a wide range of cutting tools, dies and accessories.
- **Industrial process machinery** is used in a wide range of industries to operate and automate industrial processes. It includes basic products such as electric motors, pumps, valves and compressors and industrial controls, as well as material handling equipment. Process control systems are especially important to achieving the greatest productivity from industrial plants and equipment. The greater Texarkana has a particularly high concentration of Industrial Machinery Manufacturing specifically in the Pumps & Compressors area, refractory linings and equipment, and HVAC and Refrigeration Equipment Manufacturing including Air Conditioning Equipment.

3.10 FORESTRY, PAPER, AND WOOD PRODUCT MANUFACTURING CLUSTER OF BUSINESSES

The Texarkana area offers several advantages for placing a Forestry, Paper or Wood Products facility:

- **Abundant Timber Resources:** The Texarkana area is situated in an eco-region with abundant timber resources, including forests that provide a sustainable supply of wood for paper and wood product manufacturing. Access to these resources ensures a reliable and cost-effective supply chain for raw materials.
- **Proximity to Markets:** Texarkana's central time zone location within the southern United States provides access to major markets for forestry products, including nearby metropolitan areas such as Dallas, Houston, and Little Rock. This proximity reduces transportation costs and facilitates distribution to customers.
- **Transportation HUB Infrastructure:** The Texarkana area benefits from well-developed transportation infrastructure, including three interstate highways, railways, and access to waterways. This infrastructure enables the cost-effective and efficient movement of raw materials, finished products, and equipment necessary for paper and wood manufacturing operations all from a right-to-work state.
- **Skilled Workforce:** The Texarkana area boasts a skilled available workforce with experience in forestry, wood processing, engineering, and related fields. There is excellent availability of unskilled and semiskilled talent. Local educational institutions, such as universities, vocational schools and community colleges, offer training programs tailored to the needs of the forestry and wood products industry, ensuring the availability of a low cost, reliable workforce.
- **Business-Friendly Environment:** The Texarkana area provides a supportive business environment with favorable State and Local tax policies, incentives, financing programs and resources for business development. Local governments often actively support manufacturing initiatives, making it easier for companies to establish and expand forestry, paper, and wood products facilities.
- **Access to Utilities:** The Texarkana area offers access to reliable utilities with excess capacities such as water, sewer, fiber, electricity, and natural gas, essential for forestry, paper, and wood products manufacturing facilities. Access to these utilities ensures consistent production and reduces operational risks.
- **Quality of Life:** Texarkana provides a high quality of life for residents, with access to amenities such as parks, recreational facilities, cultural attractions, excellent educational resources, and affordable housing options. A favorable living environment can attract and retain skilled workers, contributing to the success of manufacturing operations.

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- **Sustainable Practices:** The Texarkana area's forestry industry prioritizes sustainable forestry practices, ensuring responsible management of timber resources and environmental conservation. Companies that prioritize sustainability will find support and opportunities for collaboration within the local community. The Wood Basket is presently in a surplus situation.

Overall, the combination of abundant timber resources, proximity to markets, transportation infrastructure, skilled workforce, business-friendly environment, access to utilities, quality of life, and sustainable practices makes Texarkana an attractive location for placing a Forestry Paper & Wood Products facility.

3.10.1 The Piney Woods Eco-Region

- *"The Texarkana area wood basket is growing faster than it can harvested."*
Domtar general manager (c. 2024)
- The Piney Woods region is known worldwide for its high-quality softwood. They are predominantly Loblolly, Shortleaf, and Longleaf Pines, along with Bluejack and Post Oaks, dominate Sandhills. A well-developed understory grows beneath the sparse canopy and includes Yaupon Holly and Flowering Dogwood. Pine Savannas consist of scattered Longleaf and Loblolly Pines alongside Black Tupelos, Sweetgums, and in acid soils along creeks Sweetbay Magnolias. Other common trees in this ecoregion include eastern Redbud, Red Maple, Southern Sugar Maple, and American Elm.
- Texarkana is set at the center of one of the largest temperate coniferous forests in the USA. Covering 54,400 square miles (141,000 km²) of East Texas, southern Arkansas, western Louisiana, and southeastern Oklahoma, the Pinney Woods is dominated by several species of pine as well as hardwoods including hickory and oak. The region receives 40–52 inches (1,000–1,300 mm) of precipitation annually. The Piney Woods climate type is humid subtropical which is characterized by longer, hot and humid summers, and short cool to mild winters. This region features a mean temperature in the coldest month between 0 °C (32 °F) (or –3 °C (27 °F)) and 18 °C (64 °F) and mean temperature in the warmest month 22 °C (72 °F) or higher. However, the region rarely sees snowfall. The Pinney Woods region's climate and soil produce some of the best softwood and hardwood growing areas in the U.S., as well as in the world.
- Arkansas and Texas are top 10 softwood lumber producing states in the U.S. producing over 2.27 billion board feet annually. The majority of the commercial timber growing and wood processing in the state of Texas takes place in the Piney Woods region.
- An internationally recognized leader in forest, paper & wood product manufacturing, the Texarkana region combines accessible, diverse wood basket of raw materials with cutting-edge innovation to produce a diverse range of high quality, value-added forest, wood, and paper products. Forestry, Paper,

and Wood Products employment is more concentrated in the Texarkana region because of its rural nature. It is an important source of quality jobs for many residents; therefore, the region supports the continued development of this industry as vital to the economic prosperity of many of our regions communities.

- Wood and paper industries were noted to be highly concentrated within the region, with statistics showing employment being 11 times higher for forestry and logging workers than the national average (2019). Employment in this sector grew by 3% between 2014 – 2019 and the number of companies grew by 3. The total number of companies operating in this sector was 51 in 2019.
- Woodworkers with 315 total jobs had about 53 people commute outside the region each day for employment; between 2014 and 2019 this job category only grew in employment by 13%.
- Paper Manufacturing in the Texarkana region has 1,755 employees, which is an LQ of 7.5 above the US Average. There are eight companies operating in this sector with two new companies entering the market between 2014 and 2019.
- Wood product and related manufacturing shows a strong suitability and there is slack in the labor market (2021). The Wood Product Manufacturing sector employee about 775 individuals at 34 companies. This is about 3 (LQ) times the US average. Specifically, jobs in the sawmill sector have a LQI that is 5.8 times higher than the US average, Reconstituted Wood Product Manufacturing's LQI is 10.8 times the US average, Wood Container and Pallet Manufacturing' LQI is 4.0 times the US average, Paper (except Newsprint) Mills LOI is 22.00 times the US average, and Paperboard Mills LQI is 44.9 times the US average. Any industry operating in this cluster will benefit from the region's source and supply chain synergies.
- The Texarkana region is home to many leading forest, wood and paper product manufacturers, including Weyerhaeuser, GREIF, Pallet One, Domtar, Graphics Packaging, West Fraser, Mayo Manufacturing, Davis Truss, Lewisville Wood Products, Anthony Timberlands, Gunnels Mill, Little River Hardwoods, TNM Hardwoods, Hatfield Lumber Co., Great Southern Wood, Sutton Lumber, J&J Lumber Company, H & T Truss Mill, Jay Bird Mfg. of AR, CMP Specialties, Shields Wood Products, Amerities South, Funder America, International Paper, Georgia Pacific, Gilchrist Bag Manufacturing, Camden Timbers, Magnolia Forest Products, Hixson Lumber Sales, Teal-Jones, Fowler Post, Oklahoma Pole & Lumber Co., Silver Creek Sawmill, Wood Tie and Lumber, Chips SW Mill, Pan Pacific Products, Huber Company - Engineered Woods, Lynch Truss, Magnolia Brush Mfg., North East Texas Pallet, Collins Dimension Mill, Cypress Lumber Co., Ward Timber, Sonoco Products Co., Lone Star Studs, Inc., Petra Manufacturing, Phillips Forrest Products, M&M Milling, Texarkana Truss, JW Manufacturing, Texarkana Door & Window, JPS Woodworks, Dyke Industries, Fincher Mattress and Upholstery, IV Tags, CL &

Associates, Fay J Packaging, John Webb, Southern Papers' Converting and Distribution Company, and many more. Not included are small mills, logging, and trucking operations.

3.10.2 Specialty products

- Domtar's Ashdown Mill has steadily grown in size to become one of the largest paper and fluff pulp producing facilities in the world, and a global cost leader. The mill's total production is 700,000 air dried metric tons annually. Fluff pulp is the absorbent material found in many brands of *baby diapers, feminine hygiene and adult incontinence products, meat packaging, pet pads, air-laid absorbent towels, and other absorbent products*. Fluff Pulp is a type of chemical pulp made from long fiber softwood.
- Domtar announced that it has idled the Ashdown Mill's A62 paper machine and associated sheeter reducing the facilities annual uncoated freesheet capacity by 216,000 short tons. The machine produced uncoated freesheet paper, also known as wood-free paper, which is a type of paper that is made from chemical pulp and does not contain any added coatings. It is commonly used in a variety of printing applications, including books, magazines, and catalogs.
- The Graphics Packing facility (Queen City/Texarkana) is one of only seven Paperboard Manufacturing Facilities in their global operations. Its applications include use in the following industries: automotive, beverage, food, electronics, pharmaceuticals, health and beauty, toys and many others. There paperboard is also converted into plates, cups, liquid packaging, and liner end-uses. The plant is part of a fully integrated supply chain team that understands and knows how to overcome your packaging challenges.
- There are multiple lumber mills in the Texarkana region, with the closest to TexAmericas Center being West Fraser's New Boston/Texarkana plant. Lumber is wood that has been processed into uniform and useful sizes (aka dimensional lumber), including beams and planks or boards. Lumber is mainly used for construction framing, as well as finishing (floors, wall panels, window frames). Lumber has many uses beyond home building. Lumber from the Texarkana market may be supplied either rough-sawn or surfaced on one or more of its faces. Rough lumber is the raw material for furniture-making, and manufacture of other items requiring cutting and shaping. It is available in many species, including hardwoods and softwoods. Finished lumber is supplied in standard sizes, mostly for the construction industry – primarily softwood, but also some hardwood, for high-grade flooring.

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- The Texarkana Region' Wood Products manufacturers are continually innovating and creating more efficient processes and better products to meet modern needs. We would welcome the addition of new processes tied to Engineered Wood, Plywood, OSB, Composite Materials, Renewable Energy, Laminated Materials, High Value Wood Products, Structural Materials, and other products that could easily be added to our cluster. One example is the development of mass timber products, such as cross-laminated timber, in the state, which provide a more sustainable, lower carbon, aesthetically pleasing alternative to concrete and steel for building construction. The growth of mass timber products and construction has the potential to create thousands of jobs in the Texarkana area.

3.10.3 Texarkana's Wood Basket, Mill and Supply Report

- **Logistics**
 - Typically hauling costs limit the distance any product can be hauled for these types of forest projects.
 - Most mills have a primary haul radius of typically 50-75 miles.
 - Mills will haul from farther away if weather limits access to the local supply.
 - The typically drayage distance does not exceed 100 miles,
 - In rare instances mills have had to go to but seldom beyond 125 miles.
 - 250 miles is too far to haul economically.
- **Primary Market Timber Usage, Lumber Supply, And Waste Generated:**
 - The primary pine sawtimber mills, distance from TexAmericas Center's East Campus, and approximate number of loads per day each takes (A load of wood is approximately 28 tons of wood.)
 - West Fraser at New Boston, Texas:
 - 7 road miles
 - 200 loads wood/day
 - Tons purchased are about 1,650,000 annually.
 - Waste
 - Chips, sawdust, shavings
 - Disposal is confidential.
 - Domtar at Ashdown, Arkansas:
 - 34 road miles
 - 360 loads Truckloads/day ~360
 - Total tons purchased/year.
 - Wood 3,900,000 total annual purchase

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- Chips 350,000
 - Pulpwood 3,550,000
 - Graphic Packaging (Atlanta)
 - 35 road miles
 - 250 Truckloads/day
 - Total tons purchase/year
 - Wood 2,700,000 total annual purchase
 - Chips 648,000
 - Pulpwood 2,052,000
 - Weyerhaeuser at Idabel, Oklahoma:
 - 54 miles
 - 180 loads/day
 - Tons purchased are about 1,650,000 annually.
 - Waste
 - Chips, sawdust, shavings
 - Disposal is confidential.
 - Deltic at Waldo, Arkansas:
 - 65 miles
 - 130 loads/day
 - Weyerhaeuser at Dierks, Oklahoma:
 - 70 miles
 - 235 loads/day
 - Georgia Pacific at Gurdon, Arkansas:
 - 77 miles
 - 220 loads/day
 - Weyerhaeuser at Emmerson, Arkansas:
 - 85 miles
 - 130 load/day
 - There is also a fair number of small pallet/tie/pole/other mills in the Texarkana region that use between 6 and 15 loads per day of pine. A mid-sized mill, Ward Timber Company in Linden uses about 30 loads per day of pine logs in addition to their hardwood usage.
 - **Supply of Timber Waste from smaller producers**
 - Each of these facilities could supply pine sawtimber waste. Additional research would be needed to determine the number of tons available and at what intervals.
 - **The Texarkana Area Wood Basket / Lumber Supply:**

Forest / Wood	Within 50 miles (TX, AR, LA, OK)	Woodland 2,801,400 Acres / 1,133,686 Ha
	Within 50 miles (TX)	Woodland 1,216,700 Acres / 492,381 Ha
County Bowie	Forest Owners in the	
	Counties Bowie & Cass	Company Acres %
	1	No company land.
	2	About 75,000 acres of TIMO land.
	3	Several private owners with 1,000 to 15,000 acres of land.
Wood Cost	delivered fr. 50 miles	Summer/Fall 2021 Pricing
	to Hooks	Pulpwood \$ 29.00 / short Ton delivered
		Chips & Sawdust \$0.00 /short Ton delivered - No outlet for product.
		Sawlogs \$ 52.00 / short Ton delivered

- **Summer/Fall 2021 Pricing**
 - Pine Pulpwood - 1,500,000 Tons Cost - \$45,000,000 or \$30/ton
 - Wood Chips
 - Pinewood - 200,000 Tons Cost \$7,200,000 or \$36/ton (clean chips)
 - Hardwood chips average \$40/ton
 - Sawdust - 100,000 Tons Cost - \$1,400,000 or \$14/ton
 - Shavings - 120,000 Tons Cost - \$2,160,000 or \$18/ton

3.10.4 Frequently Asked Questions

1. **Are all wood deliveries priced into factory?** Yes, these are average “gate” wood prices for pulpwood and pine chips paid by other mills in the area. (c.2021)
2. **Sawdust, you gave a price of \$14 per ton, this seems very low, please re-check.** Lots of mills have excess sawdust, and some will give it away so the only cost would be trucking to get it from one mill to another. Other mills charge up to \$30/ton for it depending on the time of year and other market factors. Sawdust is a volatile market. The average for the area from people I interviewed works out to \$14/ton to purchase. (c.2021)

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3. **For shavings, you have a price of \$18 per ton, please re-check, the price is normally much higher.** I need clarification on the type of shavings they intend. Shavings have many different meanings around here. None are big markets, and they are volatile markets as well depending on type and time of year. If clean shavings to be used in bedding is the product, then yes, the price would be much higher. That price would be more on the order of \$45/ton. However, my \$18/ton price was dirty shavings, that includes bark. For some of these “Dirty Shavings” products, mills in the area will give this away during the right time of the year, but this product is typically a purchased product from the mills as residuals. What each mill has to sell varies considerably based on what they manufacture, so my \$18/ton is more middle of the road price. (c.2021)
 4. **How does Texarkana rank with regard to other well-known Timber Towns?** Texarkana has more mills within its 75-mile target radius than Crossett, AR does, plus there are no competing pellet mills in our area like there are in SE Arkansas. The Texarkana region is currently producing more trees than are being harvested.

The Wood Basket, mill and supply report was compiled by a TexAmericas Center RED Team member helping TexAmericas Center assemble more information on this Targeted Industry & existing cluster. All questions were answered by our contracted forest manager and Owner of Kingwood Forestry... <http://www.kingwoodforestry.com/>

3.11 PHARMACEUTICALS, SUPPLEMENTS, AND BIOTECHNOLOGY CLUSTER OF BUSINESSES

TexAmericas Center and the Texarkana area presents several advantages for placing a pharmaceutical manufacturing facility:

- **Strategic Location:** Texarkana's location near the Texas-Arkansas border, in the central time zone, provides a strategic position within the southern United States. This central location, in a right-to-work state, offers access to major transportation networks, including three interstates, US highways, railways, and airports, facilitating the low-cost distribution of pharmaceutical products across the country and globally.
- **Transportation HUB Infrastructure:** Texarkana benefits from a well-developed transportation infrastructure, which enables efficient movement of raw materials, finished products, and equipment necessary for pharmaceutical manufacturing operations. This infrastructure includes access to interstates, highways, railways, a commercial airport, and the Port of Caddo-Bossier and Port of Houston.
- **Skilled Workforce:** Texarkana boasts an available skilled, technical workforce with experience in manufacturing, engineering, quality control, and regulatory compliance. Local educational institutions, such as universities, vocational schools, and community colleges, offer training programs tailored to the needs of the pharmaceutical industry, ensuring a reliable workforce.
- **Lower Costs of Labor:** The Texarkana region typically offers a workforce about 20% below the average Texas wage for unskilled and semi-skilled positions. For certain skilled positions this cost advantage also applies.
- **Business-Friendly Environment:** Texarkana provides a supportive business environment with favorable tax policies, incentives, financing programs, and resources for business development. Local governments often actively support manufacturing initiatives, making it easier for companies to establish and expand pharmaceutical manufacturing operations.
- **Access to Utilities:** Texarkana offers access to reliable, cost-effective utilities with excess capacity such as electricity, natural gas, fiber, water, and sewer ... all are essential for pharmaceutical manufacturing facilities. Access to these utilities ensures consistent production and reduces operational risks.
- **Class A Business Park:** TexAmericas Center is a premier industrial park and ranked #3 in the USA. It is not typically classified as a Class A business park. It is a mixed-use industrial park and offers a range of industrial facilities and services, including rail, 3PL, office spaces, warehouses, and manufacturing facilities. While it may not fit the strict criteria of a Class A business park, the property is planning a 30-acre downtown center, a 520-acre green data center park area and a 400-acre business park area devoted to technology industries. All of which will have

the highest quality and amenities in terms of infrastructure, location, and services. TexAmericas Center presently provide a valuable business environment for companies looking for commercial and industrial spaces in the region.

- **Quality of Life:** Texarkana provides a high quality of life for residents, with access to amenities such as parks, recreational facilities, cultural attractions, excellent educational resources, and affordable housing options. As well as day trips and weekend getaways to Tier 1, Tier 2 and historic communities. A favorable living environment can attract and retain skilled workers, contributing to the success of pharmaceutical manufacturing operations.
- **Regulatory Compliance:** Texarkana's proximity to major cities with regulatory agencies, such as Dallas, Little Rock, and others, facilitates compliance with pharmaceutical regulations and standards. This proximity streamlines the regulatory approval process for pharmaceutical products manufactured in the area.
- **Supporting Industries:** Texarkana has supporting industries and suppliers in sectors such as packaging, laboratory services, and logistics, providing additional resources and support for pharmaceutical manufacturing plants in the area.
- **Quality of Life:** The Quality of Life in the Texarkana region is generally good due to lower housing costs; lower cost of living; good medical care; and excellent schools. Relocation, particularly for families moving from a larger metro area, should not be a big problem. The RED Team will assist in placing the trailing spouse or significant other with employment. Air service and day care issues are addressed.
- **Incentives:** The Incentives available at TexAmericas Center should be attractive to employers in this industry. Incentives include but are not limited to: Texas Enterprise Fund, R&D Tax Credits, Texas A&M Partnerships, Equipment Tax Exemptions, Property Tax Abatement and Value Limitation Agreements, Training and others

Overall, the combination of strategic location, transportation infrastructure, skilled workforce, business-friendly environment, access to utilities, quality of life, regulatory compliance, and supporting industries makes Texarkana an attractive location for placing a pharmaceutical manufacturing facility.

Pharmaceutical & Supplement Companies operating the Texarkana area include: Pharma Nobis, Rowe Casa Organics, Lavender Thorne, Rose of Sharon Acres, PLP Ltd., Humco, and others.

3.12 RECYCLING AND WASTE MANAGEMENT CLUSTER OF BUSINESSES

In the Texarkana area, waste management activities typically involve several key components to ensure the proper handling and disposal of waste materials while minimizing environmental impact. Here's an overview of what you might find:

- **Residential Waste Collection:** Multiple waste management companies provide regular curbside collection of household waste. This includes garbage, recyclables, and yard waste. Residents are often provided with separate bins or bags for different types of waste.
- **Recycling Programs:** Many communities in the greater Texarkana area have recycling programs in place to encourage residents to recycle materials such as paper, cardboard, plastics, glass, and metals. These materials are often collected separately from general waste and processed at local recycling facilities.
- **Landfills:** Texarkana has three landfills where non-recyclable waste is disposed of. These landfills must adhere to strict regulations to prevent pollution and environmental harm.
- **Hazardous Waste Disposal:** Hazardous waste, such as chemicals, paints, batteries, and electronics, requires special handling and disposal due to its potential to harm human health and the environment. Texarkana likely has designated facilities or collection events where residents can safely dispose of hazardous waste.
- **Composting Programs:** Some communities may offer composting programs for organic waste such as food scraps and yard waste. Composting reduces the amount of waste sent to landfills and produces nutrient-rich compost that can be used to improve soil health.
- **Public Education and Outreach:** Waste management authorities in the Texarkana area likely engage in public education and outreach efforts to promote recycling, waste reduction, and proper waste disposal practices. This may include distributing educational materials, hosting workshops and events, and providing information on recycling and disposal guidelines.

Overall, waste management in the Texarkana area aims to balance the need for effective waste disposal with environmental stewardship and sustainability. Collaboration between local government, waste management companies, businesses, and residents are crucial for the success of these efforts.

3.12.1 Municipal Solid Waste

TexAmericas Center would advocate for adherence to best practices for recycling municipal solid waste which would involve a combination of strategies aimed at maximizing the quantity and quality of materials recycled while minimizing

contamination and environmental impact. Here are some key practices for which we would advocate:

- **Source Separation:** Encourage residents and businesses to separate recyclable materials from non-recyclables at the source. Providing clearly labeled recycling bins or containers for different types of materials can help facilitate this process.
- **Education and Outreach:** Implement comprehensive education and outreach programs to inform residents and businesses about the importance of recycling, what materials can be recycled, and how to properly prepare recyclables for collection. This may include distributing educational materials, hosting workshops, and utilizing social media and other communication channels.
- **Single-Stream Recycling:** Consider implementing single-stream recycling programs where residents can place all recyclable materials into a single bin for collection. This can increase participation rates and simplify the recycling process for residents, but it requires advanced sorting technology at recycling facilities to separate the materials effectively.
- **Recycling Infrastructure:** Invest in recycling infrastructure, including materials recovery facilities (MRFs) equipped with state-of-the-art sorting and processing technology. Upgrading and maintaining this infrastructure can improve the efficiency and effectiveness of recycling operations.
- **Quality Control:** Implement quality control measures to reduce contamination in the recycling stream. This may include manual or automated sorting processes at MRFs to remove non-recyclable materials, as well as monitoring and enforcement of recycling guidelines.
- **Partnerships and Collaboration:** Collaborate with other municipalities, businesses, waste management companies, and community organizations to develop regional recycling initiatives and share best practices. Partnerships can help leverage resources and expertise to improve recycling outcomes.
- **Product Design and Packaging:** Advocate for product design and packaging solutions that prioritize recyclability and use environmentally friendly materials. Engage with manufacturers and industry stakeholders to promote the use of recyclable materials and reduce the prevalence of single-use plastics and other non-recyclable items.
- **Waste Reduction and Reuse:** Promote waste reduction and reuse practices to minimize the amount of waste generated in the first place. Encourage residents and businesses to purchase durable, reusable

products, and support initiatives such as composting and donation programs for items that can be reused or repurposed.

By implementing these best practices, municipalities can enhance their recycling programs and contribute to a more sustainable approach to managing municipal solid waste.

3.12.2 Industrial Non-Hazardous Waste

Recycling industrial non-hazardous waste requires specialized approaches tailored to the types of waste generated by industrial processes. Here are some best practices for recycling industrial non-hazardous waste that TexAmericas Center would advocate be adopted throughout the region:

- **Waste Audits:** Conduct regular waste audits to identify the types and quantities of non-hazardous waste generated by industrial processes. Understanding the composition of the waste stream is essential for developing effective recycling strategies. TexAmericas Center would want this information shared with the organization and built into an annual report. The information would be shared with on campus recyclers, site search consultants and prospective Corporate Citizens.
- **Segregation and Separation:** TexAmericas Center would advocate that companies separate the different types of waste streams at the source to facilitate recycling. Provide clearly labeled bins or containers for different materials such as paper, plastics, metals, and organic waste.
- **On-Site Recycling Collection Facilities:** TexAmericas Center would advocate that companies establish on-site recycling collection facilities or partnerships with recycling companies to collect recyclable materials directly at the industrial facility. This can help reduce transportation costs and ensure that materials are recycled efficiently.
- **Employee Training and Awareness:** TexAmericas Center would advocate that companies provide training and education to employees to raise awareness about the importance of recycling and proper waste management practices as well as how their efforts help create jobs and investment in the Texarkana area all while improving the environment. Encourage employee participation in at home recycling programs and provide incentives for their waste recycling efforts.
- **Collaboration with Suppliers and Customers:** TexAmericas Center would work closely with companies, suppliers, and customers to identify opportunities for recycling throughout the supply chain. Collaborate on collection of packaging and materials to maximize recycling.
- **Continuous Improvement:** Regularly review and evaluate recycling programs to identify areas for improvement. Monitor recycling rates,

contamination levels, and cost-effectiveness, and make adjustments as needed to optimize recycling efforts.

- **Compliance with Regulations:** Ensure compliance with local, state, and federal regulations governing the recycling and disposal of industrial non-hazardous waste. TexAmericas Center would help create mechanisms to stay informed about regulatory requirements and industry best practices to maintain compliance and minimize environmental impact.
- **Certifications and Standards:** Consider pursuing certifications such as ISO 14001 for environmental management systems or industry-specific standards for waste management and recycling. Certification can demonstrate a commitment to sustainability and environmental responsibility.

By implementing these best practices, industrial facilities can improve the efficiency and effectiveness of their recycling efforts while reducing their environmental footprint and contributing to a more sustainable economy.

3.12.3 TexAmericas Center's EnviroTECH Concept

TexAmericas Center owns three rail served landfills, consisting of about 350-acres, that were initially developed by the US DOD. Two of these landfills are closed and one is in the process of having leachate issues corrected. TexAmericas Center intends to re-open the third landfill, about 65-acres, upon final transfer. It will be a modern landfill with sufficient liners to prevent the leaching of contaminants into the soil and groundwater, as well as systems for collecting and treating any harmful gases produced by decomposing waste. Over time and as the landfill needs to expand, TexAmericas Center will reopen the adjacent landfills and place their contents into the existing landfill so to allow for expansion.

In addition to reopening the landfills on its property, TexAmericas Center has plans to establish a rail-served waste transfer station and launch a material recovery facility. This would create an additional supply of low-cost input materials for multiple types of recycling operations.

Recycling and Waste companies in the Texarkana area include: Waste Management - New Boston Landfill, WM - Texarkana Hauling, Tri State Iron & Metal, Bar Recycling Enterprises, White's Wood Group, Texarkana Arkansas Recycling, Greif Recycling Texarkana, East Texas Recycling, TAS Environmental Services, LP, RBT Disposal, Richardson Waste Inc., Edmondson Trash Services, Tumbleweed Dumpster Co., Deuces Wild Waste Management, Hometown Junk Removal, Republic Services, Texas Water Utility - Waste Water Treatment Plant, Riverbend Water Resource District - Waste Water Treatment Plant, D&D Disposal, Live Oak, and others.

Recycling industrial & municipal solid waste involves unique challenges due to the diversity and volume of materials generated by industrial & municipal processes.

Although not a definitive plan, here are what TexAmericas Center currently considers best practices for effectively recycling industrial & municipal solid waste in a rail-served, near closed loop system on its East Campus:

1. **Site Selection:** TexAmericas Center, located in the central time zone in a right-to-work state, has identified a suitable location for the waste transfer station that is accessible by both road and rail. We have considered factors such as proximity to the existing US DOD landfill(s), rail infrastructure availability, waste generation sources, potential end users of recyclable waste streams, zoning regulations, environmental impact, and community considerations. We have also considered the traditional site selection factors that make Texarkana and TexAmericas Center an attractive location for investment including: our available skilled workforce, the low labor costs, the low logistics costs due to the region being a transportation hub where 3 interstates converge with rail, water, other road & air transportation, our favorable business climate including our low state and local taxes, and access to financing & incentive programs.
2. **Market Access:** Coordinate with the UP and TNER railroad companies to identify potentials targets for providing a location or destination for trash to be sent. This may involve including specialized contractors like MTG Engineers who know landfills and specialized industry structures.
3. **Business Plan:** Creating a business plan for a rail-served waste transfer station, a material recovery facility and a the reopened landfill operations involves outlining the key components and strategies for establishing and operating these facilities which includes: Market Analysis (Revenue Potential), Operational Plan (Expense Profile), Marketing and Sales Strategy, Financial Plan and Projections, Risk Management Plan, Regulatory Compliance, Environmental and Sustainability Considerations, and Exit Strategy. By addressing these components in a comprehensive business plan, Partners in Development, Operators, Community Officials, TexAmericas Center Board of Directors, Potential Investors and other can effectively evaluate the feasibility and potential financial and economic development success of these operation and develop a roadmap for their implementation, growth, and TexAmericas Center's exit.
4. **Permitting and Regulatory Compliance:** Obtain necessary permits and approvals from regulatory agencies at the local, state, and federal levels to create a rail-served waste transfer station, establish a material recovery facility and reopen the former US DOD landfill. This may include environmental permits, zoning permits, land use approvals, and compliance with waste management regulations.
5. **Design and Engineering:** Develop detailed plans and engineering designs for the waste transfer station, material recovery facility and access to the former US DOD landfill, including layout, infrastructure, and operational requirements.

Consider factors such as site layout, traffic flow, rail siding design, waste handling equipment, drainage systems, utility infrastructure extensions, and environmental impacts and controls.

6. **Environmental Considerations:** Implement environmental controls and mitigation measures to minimize potential impacts on air quality, water quality, noise, and wildlife. This may include dust suppression systems, stormwater management measures, odor control systems, and wildlife habitat protection.
7. **LOCAL - Waste Characterization and Segregation:** Conduct a thorough characterization of the solid waste generated by industrial processes and collected by waste management to identify quantities and types of recyclable materials. The overall goal will be to segregate different types of waste streams at the generation source to facilitate recycling clean recycling.
8. **Industrial Facility Employee Training and Engagement:** Provide training and education to employees to raise awareness about the importance of recycling and proper waste management practices. Encourage employee participation in recycling programs at work and at home; consider providing incentives for waste recycling efforts.
9. **On-Site Recycling Infrastructure at the Industrial Facility:** Work with companies to establish on-site recycling infrastructure, such as balers, shredders, and compactors, to process recyclable materials directly at the industrial facility. On-site recycling can reduce transportation costs and increase efficiency.
10. **Collaboration with Industrial Facility Suppliers and Customers:** Collaborate with suppliers and customers to identify opportunities for waste recycling throughout the supply chain. Work together on packaging and materials capture to maximize waste recycling.
11. **Operational Planning:** Develop operational procedures and protocols for the efficient and effective handling of waste materials at the transfer station to the material recovery facility to the recycler or to the landfill. This may include scheduling truck and railcar arrivals and departures, managing waste sorting and processing, and coordinating with waste disposal facilities.
12. **Safety and Security:** Develop and implement safety protocols and security measures to ensure the safe and secure operation of the waste transfer station, material recovery facility and the landfill. This may include employee training, traffic management plans, fire protection systems, surveillance cameras, and perimeter fencing monitoring.
13. **Material Recovery Facilities (MRFs):** TexAmericas Center will work to secure investment in a MRFs, preferably a clean MRF, equipped with advanced sorting and processing technology to separate recyclable materials from mixed solid

waste streams. MRFs can efficiently recover valuable materials such as metals, plastics, paper, glass, and cardboard.

14. **Waste Handling Equipment:** TexAmericas Center will work with partners to procure and install appropriate waste handling equipment for transferring waste between railcars and trucks. This may include conveyor systems, loading docks, compactors, shredders, and other material handling machinery.
15. **Closed-Loop Systems:** Implement process optimization strategies for post MRF to minimize waste transfer to the landfill. The ultimate goal of the EnviroTECH Park is to implement 100% closed-loop systems where viable, in which waste materials are recycled back into the production process as raw materials or inputs. Closed-loop systems will help reduce the demand for virgin materials and minimize waste sent to landfills.
16. **Process Optimization and Waste Reduction:** This would include the attraction of companies that generate products from the waste stream in their industrial operations. This may include mid-process activities such as a culletizer for glass items, a shredder for plastics, balers for cardboard or compactor for biowaste. These companies would improve efficiency, reduce material losses, and implement their own waste reduction initiatives.
17. **Monitoring and Maintenance:** Establish monitoring programs to track operational performance, environmental compliance, and safety standards. Conduct regular inspections, maintenance, and repairs to ensure the ongoing reliability and integrity of the waste transfer station, material recovery facility and landfill.
18. **Compliance with Regulations:** Ensure compliance with applicable regulations governing the recycling and disposal of industrial solid waste. Stay informed about regulatory requirements and industry best practices to maintain compliance and minimize environmental impact.
19. **Continuous Improvement:** Regularly review and evaluate recycling programs to identify opportunities for improvement. Monitor recycling rates, waste diversion metrics, and cost-effectiveness, and make adjustments as needed to optimize recycling efforts.
20. **Community Engagement:** Engage with local communities and stakeholders to address concerns, gather input, and foster positive relationships. Communicate transparently about the project's benefits, impacts, and mitigation measures to build trust and support.
21. **Public Reporting and Transparency:** Maintain transparency in waste management practices by publicly reporting on recycling performance, waste diversion achievements, and sustainability initiatives. Public reporting can demonstrate commitment to environmental responsibility and accountability.

By adopting these best practices, industrial facilities can improve the efficiency and effectiveness of their recycling efforts and reduce their environmental footprint and contribute to a more sustainable future. TexAmericas Center will be able to create quality jobs, diversify the local employer and tax base, and fulfill its mission of redeveloping the property.

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