

CITY OF SANDSTONE CLUSTER AND RAIL STUDY

PREPARED FOR THE CITY OF SANDSTONE

by

The Northspan Group, Inc.

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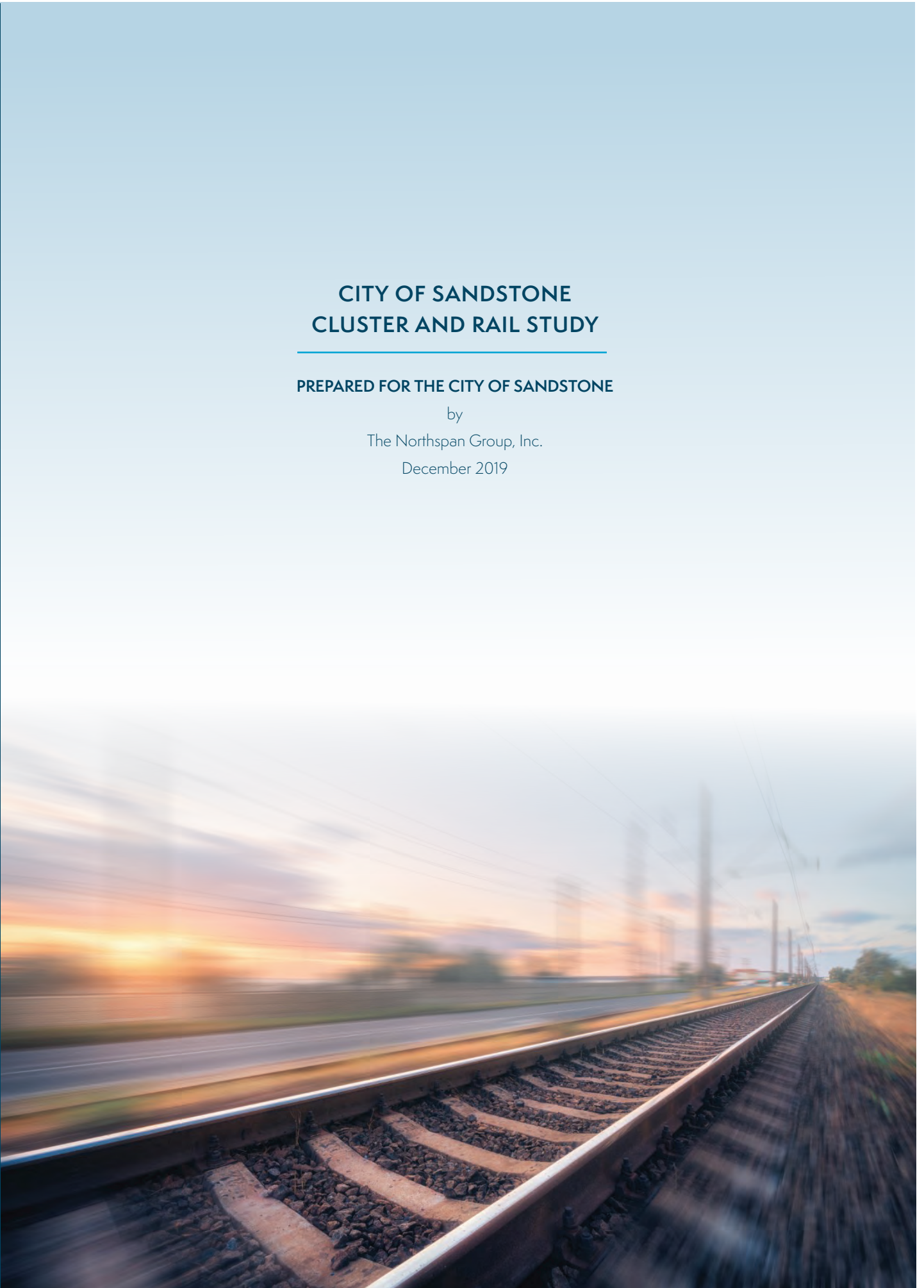


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EXECUTIVE SUMMARY

This report aims to assess Sandstone, Minnesota's economic base and explore the potential of a rail spur in its business park to support this base. It uses extensive data available from public and proprietary sources, direct survey work, and background knowledge on Sandstone and its regional economy to establish an understanding of the regional economy and the potential role of rail transportation within it. The report uses three steps to complete this analysis:

1. First, it conducts a target industry analysis to identify current clusters in Sandstone. It employs a shift-share analysis to assess growth opportunities in these industries and highlights these industries, complete with local examples to provide context.
2. Second, it explores rail-served industries in Sandstone and its surrounding area to assess possible industries and businesses that could benefit from local rail access in the business park.
3. Finally, it surveys businesses identified in the second phase and explores their interest in rail service through the Sandstone business park.

This three-step analysis led to a series of findings on Sandstone's economic strengths and the regional market for rail access. The report:

- Identifies potential growth areas for Sandstone in the development of its manufacturing and information clusters and encourages a regional effort to support its leisure and hospitality sector through an economic base study and shift-share analysis.
- Identifies several potential niches for new or expanding retailers based on consumer spending data. Finds no viable near-term local candidates for a rail spur in the business park, though it does not completely preclude future development of a spur.
- Recommends more direct focus on the industries that represent genuine growth opportunities instead of targeting a rail spur user, along with other areas for potential growth.

This report was completed in conjunction with a report on a series of business visits completed by Northspan staff that provided valuable context on local industry. Together, these reports aim to create a foundational understanding of the Sandstone economy and its growth potential.

BACKGROUND

In 2016, Sandstone, Minnesota inaugurated a new business park just southeast of the city's interchange between Interstate 35 and Minnesota State Highway 23. The 181-acre park was integral to retaining an Essentia Health hospital that had resided in an aging building in the city center, spurred a spinoff assisted living facility, and attracted two other community institutions, a clinic and a credit union, to relocate to the park. These business park developments represent some of the largest investments in Sandstone in decades.

After these developments, 118 acres remain available in the business park. A Burlington Northern Santa Fe (BNSF) rail line runs across the southeastern corner of the park, and city stakeholders, even before the development of the park, recognized that this rail artery between the Twin Cities and Duluth metropolitan areas could potentially drive investment in the park. Over the course of late 2018 and early 2019, Sandstone city staff and its contracted economic development consultant, The Northspan Group, Inc., worked with the engineering firm SEH and met with a BNSF representative through a series of discussions that led to the development of a basic concept for a rail spur in the business park. At a meeting in March 2019, Sandstone staff directed Northspan to further explore the viability of building a rail spur.

This report contains the conclusions of Northspan's research on the rail spur and situates the prospects for a spur within an economic base analysis of the Sandstone area that identifies industry clusters and trends within those industries. As we completed the research, Northspan simultaneously completed 15 business retention and expansion visits in Sandstone. The results of those visits are in a separate report but provide valuable context for this one, and the narrative will occasionally refer to conclusions from those visits. Together, the base analysis, rail study, and business visits provide a comprehensive overview of the Sandstone economy.

ECONOMIC BASE ANALYSIS

An economic base analysis provides an overview of the major industries in a given area based on relative concentrations of jobs and the recent historical trends. This study begins with an analysis of Sandstone's existing economic clusters to better determine its current economic strengths and growth potential. It uses data from the Minnesota Department of Employment and Economic Development (DEED)'s Quarterly Census of Employment and Wages (QCEW) to determine the share of the workforce in a location and compares that share to larger areas in order to determine a location quotient for each industry. The location quotient shows the area's strength in certain industries relative to a larger geography.

- A number higher than 1 represents a relative concentration
- Numbers over 3 represent major concentrations

We conduct this analysis both with a limited available data set for Sandstone and with a full data set for Pine County and use the state of Minnesota as a reference point to determine relative concentration.

SANDSTONE CLUSTER ANALYSIS

A basic cluster analysis of Sandstone produces a limited list of potential target industries. As expected, the city's employment is dominated by public administration, which reflects the presence of the Federal Corrections Institute. Sandstone has smaller concentrations in trade and transportation (namely gas stations) and health services, which could conceivably see some growth through the creation of more assisted living facilities or the construction of a new office for a local construction company. Those sectors, however, have limited growth potential due to demographics and the nature of the industries. The remaining subsectors on the list have little to no growth potential in Sandstone. None of these industries appear on the list of potential rail users identified later in this report.

Table 1: Sandstone Industry Sector Location Quotients, 2019

Industry Sector	Location Quotient
Public Administration	9.31
Trade, Transportation & Utilities	1.67
Education & Health Services	1.35

Source: MN Department of Employment and Economic Development (DEED) Quarterly Census of Employment and Wages (QCEW), 2019

Table 2: Sandstone Industry Subsector Location Quotients, 2019

Industry Subsector	Location Quotient
Justice, Public Order, & Safety Activities	35.91
Admin. of Human Resource Programs	11.14
Heavy & Civil Engineering Construction	3.32
Gasoline Stations	2.60
Nursing & Residential Care Facilities	1.74
Postal Service	1.17

Source: MN DEED QCEW, 2019

PINE COUNTY CLUSTER ANALYSIS

An expanded analysis of Pine County reveals several categories that could represent regional clusters. The forestry and logging sector is a clear opportunity to benefit from an abundant natural resource, particularly in the more wooded northern portions of the county. The presence of Grand Casino Hinckley and its hotel also drives employment concentrations in unique categories such as amusement, gambling, recreation, and accommodation. The appearance of gas stations on both the Pine County and Sandstone lists of highly concentrated businesses reflects the area's status as a midway point between the Twin Cities and Duluth, and Hinckley has successfully cultivated this cluster and marketed itself as a spot for travelers to stop for fuel and food on their way along I-35. Another subsector, animal production and aquaculture, trades off Pine County's rural nature and agricultural potential. The remaining subsectors are largely driven by government activity or otherwise do not represent notable growth opportunities.

While the economies of Pine County and Sandstone bear many similarities, the countywide location quotient results point to several industries that are potential growth opportunities for Sandstone, including leisure and hospitality, natural resources, and information. The next section of this report will explore these industry sectors in greater detail.

Table 3: Pine County Industry Sector Location Quotients, 2019

Industry Subsector	Location Quotient
Leisure & Hospitality	3.39
Natural Resources & Mining	3.12
Public Administration	2.39
Construction	1.61
Other Services	1.12
Information	1.08
Education & Health Services	1.02

Source: MN DEED QCEW, 2019

Table 4: Pine County Industry Subsector Location Quotients, 2019

Industry Subsector	Location Quotient
Forestry & Logging	21.59
Accommodation	11.69
Justice, Public Order, & Safety Activities	5.02
Gasoline Stations	3.08
Animal Production & Aquaculture	2.62
Admin. of Human Resource Programs	1.96
Heavy & Civil Engineering Construction	1.82
Private Households	1.65
General Merchandise Stores	1.41
Admin. of Environmental Quality Programs	1.26

Source: MN DEED QCEW, 2019

SHIFT SHARE ANALYSIS

In addition to the economic base analysis, this report performs a shift-share analysis on Pine County to analyze industry growth over time.¹ This method divides all industries into four quadrants on a chart:

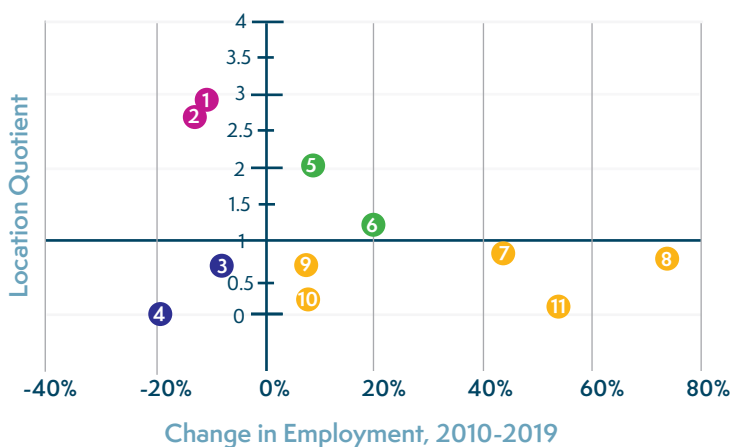
- Growing base industries (those with positive job growth and location quotients higher than 1)
- Emerging industries (positive job growth and location quotients lower than 1)
- Transforming industries (negative job growth and location quotients higher than 1)
- Declining industries (negative job growth and location quotients below 1)

We compare DEED average employment data from 2010 and 2018-2019 (through the first quarter of 2019, the most recent data available as of this report) across industries to determine changes in location quotients. Table 5 shows the results of this analysis.

Transforming	LQ	Change	Growing Base	LQ	Change
1 Leisure & Hospitality	2.94	-10.3%	5 Public Administration	2.07	9.1%
2 Natural Resources & Mining	2.70	-12.5%	6 Construction	1.39	20.0%
Declining	LQ	Change	Emerging	LQ	Change
3 Education & Health Services	0.88	-7.5%	7 Other Services	0.98	44.3%
4 Professional & Business Services	0.23	-19.7%	8 Information	0.94	74.1%
			9 Trade, Transportation & Utilities	0.86	8.0%
			10 Financial Activities	0.42	8.1%
			11 Manufacturing	0.30	53.4%

Source: Calculations derived from MN DEED QCEW, 2010, 2018, 2019

Figure 1: Pine County Shift-Share Analysis



In analyzing these industries, a valuable distinction emerges between those that export goods or services outside the immediate Sandstone area or attract outside spending to the city. Some industries, while perhaps offering growth opportunities in niche fields, are largely tied to demographics, which limits their long-term growth potential, particularly in Sandstone and Pine County, which have experienced little to no population growth over the past decade. The sectors that tend to create or attract more of this outside spending are in bold in Table 5.

¹While some data is available on Sandstone itself, it appears skewed due to categorization issues with the federal prison.

Best industry practices generally do not use shift-share analysis for smaller communities due to data suppression issues, so we limit our treatment of Sandstone data to the overview of strong location quotients provided here and add context within the county data narrative.

GROWING BASE INDUSTRIES

1. Construction

Local Example: Mike Johnson Construction

2. Public Administration

Local Examples: Federal Corrections Institute, City of Sandstone, Pine County

Pine County has two industries, public administration and construction, that serve as its economic base. These industries have relatively limited growth potential, as they tend to be tied to government funding or broader economic forces and serve as lagging indicators of growth. Nevertheless, Sandstone reflects the strength of both industries, most notably in public administration, where the city serves as a social services hub for northern Pine County and is home to a Federal Corrections Institute. Sandstone also has significant employment in the construction sector, with a reported employee count of 81 according to the latest QCEW data. Neither of these industries bring realistic opportunities for rail spur use.

TRANSFORMING INDUSTRIES

Several industries, while prominent within Pine County's economic base, are currently contracting, though their long-term outlooks will not necessarily move in tandem. The first, natural resources and mining, has long been central to the county's export economy but faces murky future prospects, while the second, leisure and hospitality, is somewhat tied to overall demographics but also has demonstrated a capacity to attract visitors for tourism and could continue to do so in greater numbers in the future.

1. Natural Resources and Mining

Local Example: Carlson Timber Products (Rural Sandstone)

The Pine County natural resource-based economy has been in decline, which maps on to national trends. Sandstone has relatively little employment in this sector within the city proper, though forestry and agricultural activity that employs some Sandstone residents takes place in outlying areas. Barring the emergence of new demand for a local commodity or an innovative manufacturing opportunity that makes use of one, we do not see this as a growth area for Sandstone.

Nonetheless, forest products remain a significant part of the local economy, and some regional entities are exploring the potential of innovative wood products such as mass timber manufacturing.² Sandstone is at a mild disadvantage compared to some other northern Minnesota locations; as the city sits on the southern end of Minnesota's most densely forested regions, the available stock surrounding the city is somewhat lower than it is further north. However, if producers find benefits from completed product being closer to major markets, the Sandstone business park could be a sensible location for a facility given its ease of access to the interstate. While not a foremost priority area, Sandstone should stay abreast of trends in the forest products industry and explore opportunities when they may arise.

² "Economic feasibility of mass timber manufacturing in Minnesota. University of Minnesota Labovitz School of Business and Economics; Bureau of Business and Economic Research, January 2019.

2. Leisure and Hospitality

Local Examples: Hard Water Sports, Midwest Country Music Theater, Banning State Park (Rural Sandstone)

Pine County's leisure and hospitality industry is dominated by Grand Casino Hinckley and its offshoots, and its trends may overpower other activity in the region. Despite its seeming decline within the county's economic base, several new businesses in and around Sandstone have emerged to take advantage of the natural beauty in the area. Many locals recognize the strong natural assets of northern Pine County, but at present the industry lacks the scale necessary to create a tourism destination comparable to other northern Minnesota towns whose economies revolve around outdoor recreation.

To be successful as an overall cluster, these businesses must become attractions or work in concert with other destination businesses or attractions, as local demographics will struggle to sustain anything more than a modest increase in Sandstone. Efforts to market Sandstone as a gateway to the Kettle River corridor could support a campaign to capitalize on additional adjacent features, including Banning State Park, the Audubon Center of the North Woods, and several state forests in northern Pine County under a unified identity could help support additional tourism-focused businesses.

DECLINING INDUSTRIES

Two Pine County industries fall into the "declining" category: (1) education and health services, and (2) professional and business services. Both fields are often lagging indicators that follow broader economic and demographic trends, and their struggles are unsurprising given Pine County's demographics.

1. Education and Health Services

Local Examples: Essentia Health, Sandstone Health Care Center, East Central Schools (Rural Sandstone)

Despite the development of a new hospital facility in Sandstone, the healthcare sector has not grown in the community, and education has declined somewhat given the shrinking enrollment in local schools. An aging population may increase employment opportunities in facilities such as nursing homes, and while these services are necessary and provide employment, they are not particularly high-paying and will encounter growth limits driven by local demand. Large employment facilities such as hospitals and schools, even when built new, may not lead to rising employment when overall demand for their services is not growing. Sandstone could potentially host another assisted or independent living facility, but this sector has limited potential beyond what its demographics will allow.

2. Professional and Business Services

Local Examples: Kettle River Grafix, H&R Block, Anderson Recycling (waste remediation)

Stagnant or declining populations limit the need for professional services, and economies of scale have led to centralization of some of these services in larger metropolitan areas. Professional services are a relatively small amount of employment in Sandstone, and as opportunities for growth are primarily tied to related industries or population increases, we do not see it as a future area of growth. Existing businesses that may be able to offer innovative new products, such as Kettle River Grafix, may have growth capacity that distinguishes itself from the personal relationships or commodity pricing that otherwise drive business success in this sector.

EMERGING INDUSTRIES

The largest group of industries in Pine County consists of emerging industries, or those that are not currently major clusters, but have nonetheless seen steady growth over the past decade. The large number of industry sectors in this area is encouraging, as it suggests capacity for greater growth in the area and involves several sectors that could plausibly work well in Sandstone.

1. Trade, Transportation, and Utilities

Local Examples: Chris' Foods, Ace Hardware, Ben Franklin, Brown's Beans & Greens, Lampert Lumber, Minnesota Power, Arrowhead Transit, Quality Home & Sports, Cheri's Flower Basket, Arlen Krantz Ford, Anderson Recycling (wholesale)

Trade, transportation, and utilities, a sector that is on the border of moving from "emerging" to "growing base," is a broad sector that comprises a significant portion of the Pine County economy. It includes both retail and wholesale trade, plus transportation, warehousing, and utilities. Local level data also suggest steady growth in this sector in Sandstone. This trend reflects growth in industries such as transportation, where new options such as Arrowhead Transit and several other potential providers dabbling in non-emergency medical transport have emerged to serve Sandstone and surrounding areas. Sandstone's location and highway connectivity makes it a strong base for transportation-related operations, and an aging regional population will continue to require expansions in support services.

The trend in trade, transportation, and utilities also demonstrates some resilience in Sandstone's retail base, which appears to be holding steady and counters broader narratives of a "retail apocalypse." Sandstone has always lacked the big box stores whose demise has fueled many of the more recent concerns about retail decline, and creative new uses within retail have kept the sector afloat.³ Smaller businesses can continue to thrive but will require concentrations of businesses to maintain foot traffic and adaptations to an era of online retail through digital marketing and online sales. While retail is typically a lagging indicator that follows regional demographics and demand, there are some opportunities for growth, any recruitment efforts should target specific unmet demand (see the Consumer Spending Index section for more details).

2. Manufacturing

Local Example: PHASE

Manufacturing has showed some of the strongest growth of Pine County's emerging industries over the past decade with a 53% increase in its location quotient. This growth, however, has not emerged evenly across the county, and as a result manufacturing remains a relatively small piece of the economy. Of the ten largest manufacturers in the county, eight are based in Pine City, and only one (PHASE, a unique organization with a broader social mission) is in Sandstone. This lopsided growth in a sector that has long been among East Central Minnesota's more prominent industries suggests a growth opportunity for Sandstone.

Pine City's successful cultivation of a manufacturing cluster shows how other communities could follow a similar path. Pine City's ties to its community college and an intentional effort to incubate businesses have paid off in the immediate community. Several subsectors of manufacturing, such as small-scale nonmetallic mineral manufacturing, such as glass and cement manufacturing, and fabricated metal product manufacturing, such as structural metals and machine shops and stamping and coating, have strong location quotients within the county. These and other industries have thrived in Pine City, though several of these businesses enjoy legacy ties to larger companies that formerly operated in the region. The differences in the local economies are evident in median family incomes in the

³ Woods, Sharon. "The 'retail apocalypse' is a myth, and that's good news for the shopping industry and downtowns." Public Square: A Journal of the Congress for the New Urbanism, September 23, 2019. www.cnu.org/publicsquare/2019/09/23/%E2%80%98retail-apocalypse%E2%80%99-myth-and-thats-good-news-shopping-industry-and-downtowns

Pine City area; the three census tracts in and around Pine City have a median family income of \$60,051, while the three tracts that include Sandstone, Hinckley, Askov, and Finlayson total \$55,353, a difference of nearly \$5,000.

Despite its small industrial base, Sandstone's business park is one of the most attractive parcels of land for industry between North Branch and Cloquet, particularly given some space constraints in the Pine City industrial park. The city can also explore expansion or supply chain opportunities within the Sandstone business park for PHASE, its one somewhat large quasi-manufacturer, and any other regional businesses whose current locations may not suit their needs. Manufacturers are among the most likely businesses to use rail, but are most realistic candidates at later, mature stages in their growth that needs to move large volumes of inputs or product.

3. Information

Local Example: Nemadji Research (Bruno)

Like manufacturing, the information industry is a potential growth area for Pine County. While not a large industry—at 140 workers, it is the smallest of the 11 clusters analyzed here—it has grown more rapidly than any other industry. The success of companies such as Nemadji Research in Bruno, which comprises roughly one-third of the county's information workforce, shows that the industry can succeed even in deeply rural areas, and it comes with strong wages and opportunities for expansion or spin-offs. Relatively low-cost labor combined with technical training opportunities at Pine Technical College combine to create an ecosystem that could support some expansion in the area. Quality buildings and broadband internet connectivity are therefore vital to growing the industry, and Sandstone could explore opportunities to add or market incubator space for new tech-oriented businesses that could someday become business park occupants. It does, however, require some sort of visionary or entrepreneur to put down roots in the area, as Nemadji Research did in Bruno decades ago.

4. Other Services

Local Example: Methven Funeral Home

The Bureau of Labor Statistics subdivides the "other services" category into four subsectors: (1) repair and maintenance; (2) personal and laundry services; (3) religious, grantmaking, civic, professional, and similar organizations; and (4) private households.⁴ Several businesses in Sandstone fall into the "repair and maintenance" category and may have some growth potential based on regional demand, and personal caretakers in the "personal services" category also likely has witnessed growth over the past decade. The increase in other services may also reflect a rise in freelance and contract work that is otherwise difficult to categorize. While the sector will likely continue to grow at a steady rate, it is not a major employer and offers few opportunities for new facilities or job growth at any scale.

5. Financial Activities

Local Examples: Members Cooperative Credit Union, Northview Bank, North Pine Insurance

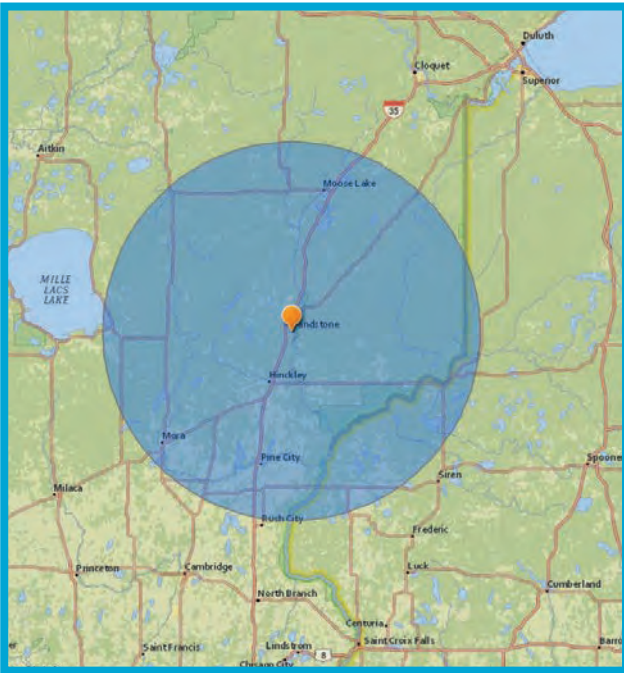
The final emerging industry sector in Pine County is financial activities, which includes finance, insurance, and real estate (FIRE). Local FIRE businesses have shown resilience in Pine County, and most of these businesses remain local or regional, which helps prevent any draining of jobs to corporate offices in larger metropolitan areas. According to the QCEW, Sandstone registers just six jobs in this area in the data from the first quarter of 2019, and while this figure appears unrealistically low, quality office space could potentially attract or retain businesses operating in this industry and sustain some modest growth.

⁴Bureau of Labor Statistics, 2019. www.bls.gov/iag/tgs/iag81.htm.

CONSUMER SPENDING

Northspan explored consumer spending pattern data available through our Northland Connection program. This data develops a spending potential index (SPI) that analyzes products and services by their relative demand within a region, with a score of 100 indicating average demand. To determine demand within a broader Sandstone commute shed, we drew a trade area with a 30-mile radius around Sandstone.

Figure 2: Map of Sandstone Area



A total 61 products or services scored a 90 or higher SPI. Of these 61 products or services, we exclude 17 that are related to general financial, insurance, or real estate-related products (such as loan interest or principal) or government-provided healthcare services. The remaining 44 products and services feature four major general themes: gas and fuels, home improvement, outdoor recreation, and healthcare. Table 6 shows the categories that appear most frequently; a complete list of the categories ranked by spending potential index is available in Appendix A.

Table 6: Frequency of appearance for goods and services with Spending Potential Indices over 90 in the Sandstone trade area, 2019

Category	Appearances
Home Improvement	12
Gas/Fuel	8
Health care	7
Outdoor recreation equipment	6
Controlled substances	3
Other	8

Source: ESRI data provided by Northland Connection, 2019.

The consumer spending data reinforces several conclusions from the base analysis. Gas and fuels and healthcare, which also have high location quotients, appear here as products in demand. The consumer spending data allows for more precise detail on retail activity in the Sandstone market. The outdoor recreation category includes products such as campers, boats, and trailers, many of which are not currently sold by Sandstone-based businesses and have the potential to be lucrative. Playground equipment also rates highly, along with lawn and garden equipment, an area in which several current retailers currently operate but could expand.

THE POTENTIAL OF RAIL SERVICE

Rail remains one of the most significant modes of commercial transportation in the United States. According to a study commissioned by the Association of American Railroads, Class I railroads supported over 1.1 million jobs and \$219.5 billion in economic output in 2017.⁵ Rail also remains one of the safest and cost-effective ways to move product, particularly in large quantities and over long distances. The creation of new transloading and intermodal terminals has been hailed as a “game-changing” economic driver that can unlock new markets and give communities a focal role in a rapidly expanding economic network of global logistics.⁶ A rail-served facility in the Sandstone area would be the first of its kind in the region and could potentially support broader economic growth.

BNSF SITE CERTIFICATION

In response to this surge in demand, some organizations have made some effort to officially certify sites as rail-served business parks. Much like state-level shovel ready programs, these efforts aim to show that all due diligence has been completed on a site, and an incoming business could begin operations with minimal start-up costs, therefore making the site particularly attractive. For example, BNSF has a certified sites program that has designated 24 shovel ready sites across the country as ready for development along a rail spur from a BNSF line.⁷ See Appendix B for a complete list of these sites and their characteristics.

An analysis of these sites shows they tend to operate on a different scale from the Sandstone business park. Only three of the 24 sites are under 100 acres, with the smallest (in Becker, MN) consisting of 67 acres; the others all exceed 197 acres, and many have over 1,000 acres of certified or contiguous developable land. Sandstone’s business park, by contrast, has 118 total available acres, of which of 53.4 acres across two parcels at the far south end of the park have easy access to rail. A developer could theoretically piece together a series of smaller lots along the west side of Lundorff Drive and perhaps even two additional lots across Airport Road from the rail-adjacent lots, for a total acreage of 81.8 or 99.3 acres, respectively, though existing roadways and proximity to sensitive uses such as the assisted living facility could significantly inhibit the potential for intensive large-scale development. The construction of the rail spur would also prohibit development on the land devoted to the spur, further squeezing development potential on the long, narrow site.

Even with a rail spur in place, the Sandstone business park would struggle to rise to the top on a national search for rail-served properties. Certifying the site with BNSF could prove costly and, given Sandstone’s economic and demographic context, is likely not an ideal allocation of resources. Still, there are several ways in which a rail spur could serve Sandstone. One is through a transloading facility, which would become economically viable by pooling the needs of several users to transfer products from rail to truck. Another would involve the recruitment or expansion of local user or potential rail user to build a dedicated facility in Sandstone. This report will now explore these options.

TRANSLOADING FACILITY DEMAND AND OPPORTUNITIES

Transloading, or the practice of transferring products from one mode of transportation (such as rail) to another (such as trucking), is an increasingly common method of moving goods. As global logistics operations and supply chain management come to define large segments of the global economy, companies require facilities that can efficiently move goods from producers to consumers, often on tight timelines. A community with a critical mass of clients seeking more efficient methods to move their goods could be a strong candidate for a transloading facility.

⁵ “Economic and fiscal impact analysis of Class I railroads in 2017.” Regional Economic Studies Institute, Towson University, October 2018. www.aar.org/wp-content/uploads/2018/11/AAR-Class-I-Railroad-Towson-Economic-Impact-October-2018.pdf

⁶ Johnson, Brooks. “CN, Duluth Cargo Connect announce container terminal; intermodal capabilities a ‘game changer.’” Duluth News Tribune, March 27, 2018. www.duluthnewstribune.com/business/4241372-cn-duluth-cargo-connect-announce-container-terminal-intermodal

⁷ Burlington Northern Santa Fe, 2019. www.bnsf.com/ship-with-bnsf/rail-development/certified-sites.html

THE POTENTIAL OF RAIL SERVICE, CONT.

The increase in demand has largely powered by global shipping related to e-commerce. E-commerce companies seek to locate major investments in locations that give them simultaneous access to transportation networks that reach major ports, where goods manufactured abroad are transferred from ships to rail or trucks, and metropolitan areas, where they can deliver these goods from warehouses to a large number of customers as quickly as possible. At this point, Sandstone's location leaves it far enough from the periphery of the Minneapolis-St. Paul metropolitan area (and the smaller Duluth metropolitan area) that its business park is not among the most attractive for a large-scale warehousing expansion. While a major logistical hub is unlikely, Sandstone could still benefit from rail access that serves particular existing industries or growth industries in its general area.

According to the Transload Distribution Association of North America, BNSF has three official facilities in Minnesota, all located in the major metropolitan areas of Minneapolis, St. Cloud, and Duluth.⁸ Other first-class railroads operate facilities in several other locations in the state, including a major Union Pacific facility that spans both Minneapolis and St. Paul, and Canadian Pacific facility in Bloomington;⁹ an intermodal facility at the Duluth port emerged from an agreement between Duluth Cargo Connect and Canadian National. Numerous additional transloaders operate in the state, but do so along short line railroads, which may lack BNSF's resources but are typically more flexible in their ability to support smaller clients.

One Greater Minnesota transloading facility, the Seven Rivers Intermodal Terminal in Winona, invites further investigation. This facility connects to both Canadian Pacific and Union Pacific networks. Its business stems primarily from silica sand, which is quarried in nearby areas in Wisconsin and Minnesota and placed on rail for shipment to oil fracking fields. This successful facility provides a model for other potential Greater Minnesota transloaders, but it owes its success to a high-demand commodity quarried locally at a significant scale.¹⁰ Other rural examples of transloading facilities, including one in Arcadia, Wisconsin (population 1,773¹¹) are similarly dominated by the frac sand industry or other natural resource-based commodities.¹²

As early stakeholder discussions revealed, speculative rail spur construction is practically nonexistent. The costs involved require support from a well-established commercial client whose existing footprint or growth potential justifies fronting several million dollars to improve its logistics network. Any move forward to develop a rail spur in Sandstone would require a client ready and willing to support at least some of the costs of the spur.

POTENTIAL RAIL-USING INDUSTRIES

Given the dynamics of the rail-served economy, Sandstone's likelihood of landing a rail-based business would likely stem from an existing or expanding company. There are no current commercial rail-connected customers to the BNSF line in Pine County, but there are a number in industries that could plausibly use rail, based on compiled lists of rail-served industries and acknowledgment of other bulk commodities that would appear to be good candidates.

⁸ Transload Distribution Association of North America. www.tdana.com/location/mn/

⁹ Minnesota bulk transload facilities directory, 2019. www.bulktransporter.com/transload-directory/minnesota

¹⁰ Seven Rivers Intermodal, 2019. www.sevenriversintermodal.com/

¹¹ American Community Survey, 2017.

¹² Given Sandstone's history as a quarrying location and the heavy use of sandstone in the fracking industry, the research team conducted some basic exploration of the viability of silica sand mining in the Sandstone area. The geological composition of the sandstone near the city differs from that in areas with large mining concentrations and does not register in government reports noting potential future sources. See Benson, Mary Ellen and Anna B Wilson, "Frac Sand in the United States—a Geological and Industry Overview." US Geological Survey, Reston, VA, 2015. <https://pubs.usgs.gov/of/2015/1107/pdf/ofr20151107.pdf>; Jirsa, Mark A., et al., "Geologic Map of Minnesota Bedrock Geology," The Minnesota Legislature as Administered by the Minerals Coordinating Committee, 2011. https://upload.wikimedia.org/wikipedia/commons/2/22/Geologic_Map_of_Minnesota_-_Bedrock_Geology_-_%282011%29.pdf

POTENTIAL RAIL-USING INDUSTRIES, CONT.

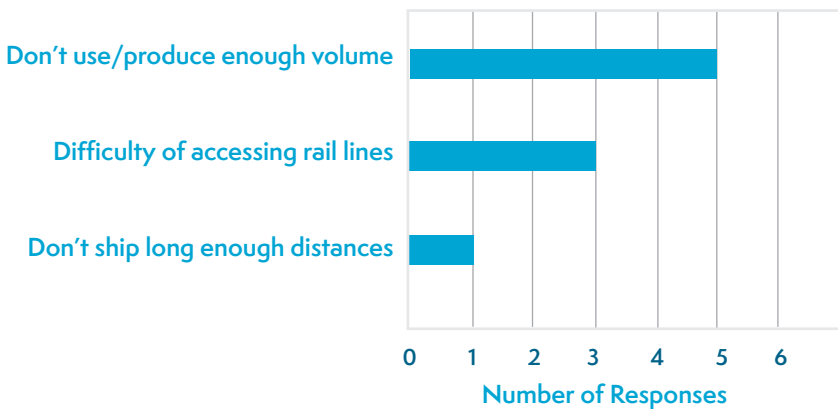
Northspan’s research explored 68 four-digit NAICS codes for manufacturing-based businesses; four four-digit NAICS codes for agriculture, forestry fishing, and hunting; four four-digit NAICS codes for mining, quarrying, and oil and gas extraction; plus the four-digit NAICS code for warehousing and the six-digit NAICS code for processing and packaging. These NAICS codes, which are available in Appendix C, represent a comprehensive list of industries that could theoretically make use of a rail spur.

With these industries in mind, we searched for all existing businesses associated with each NAICS code within a 30-mile radius of Sandstone using AtoZ Databases’ business database. This produced a list of 93 eligible businesses. Of these, we removed 47 from the list because they were single proprietorships, lacked any web presence or identifiable contact information, or because they otherwise appeared mis-categorized. The remaining 46 businesses received an invitation to complete an anonymous survey via email. In order to maximize responses, the survey included just four questions and a space for respondents to submit contact information if they had any interest in follow-up activity.

SURVEY RESULTS

A survey sent to 46 regional businesses produced tepid results. Despite numerous attempts to contact potential rail users, the survey had a very low response rate, with only nine completed surveys recorded. None of the respondents currently use rail, and reasons for not using rail were mixed, as is detailed in Figure 3.

Figure 3: Reasons for Not Using Rail



For six of nine respondents, rail use simply is not an economical option. Most do not use or produce enough materials to justify rail service, and another does not ship its products beyond the immediate area. As rail use is most cost-effective for large-scale producers shipping or receiving products across state lines, none of these are likely to become rail users unless their business conditions change drastically.

Three of the nine businesses expressed some interest in using rail if it were accessible, and one provided contact information to demonstrate serious interest. This response rate did not suggest that Sandstone could host a transloading facility for numerous businesses. Follow-up activity with the one business that provided contact information led to serious discussions between this business and its clients over rail costs and the relative benefits of shipping its product via truck to the Twin Cities (as it currently does) before loading it on a train versus loading it in nearby Sandstone. The business owner reported that the client would not find transloading in Sandstone cost-effective. As a result, there are no immediate leads for a rail facility in the Sandstone business park.

As part of this report, Northspan also engaged regional stakeholders for their insights on rail networks and demand for services. In general, those interviewed expressed a mixed opinion on the viability of a rail spur in Sandstone. While the size and location of the business park were positives, stakeholders agreed that Sandstone’s distance from both the Twin Cities and Duluth markets and workforces make it unlikely to emerge in a regional or national site selection process for a major industrial client, particularly given the proximity of other sites closer to the Twin Cities metro that also have potential for rail access. All agreed that businesses likely to pursue rail spur opportunities in the business park are likely to be homegrown or have regional ties.

CONCLUSIONS

This report brings together insights from Northspan's industry research, rail study, business retention and expansion visits, and background knowledge of Sandstone's economy based on over 15 years of work with the community. An analysis of Sandstone's economic base identified growth opportunities in the manufacturing and information sectors and envisioned a potential regional cluster driven by tourism. Consumer spending data points to several areas where Sandstone retailers could grow their offerings and may offer possibilities for new entrants to the market. Research of rail-using industries and survey work with potential rail-using businesses in the area did not produce any leads for the Sandstone business park.

RECOMMENDATIONS

1. Do not prioritize rail, but leave the option open, if possible.

While the NAICS code analysis and survey results do little to suggest any existing demand for a rail spur in the business park, there is enough potential in the location that it is at least worth leaving the door open to future rail development if the right opportunity should arise. We do not recommend withholding the parcels at the south end of the business park from non-rail uses; Sandstone should aim to fill the park with any viable tenants that come along. However, if a non-rail user could plausibly use another lot within the park and thereby preserve access to the rail line for some future occupant, we do recommend steering that user toward another parcel.

2. Cultivate a regional tourism attraction effort.

To the extent that places like Pine County have succeeded in cultivating tourism, they have done so using a regional anchor institution or attraction such as Grand Casino Hinckley. Sandstone lacks a single attraction of that magnitude, but it can market itself by building a brand around the recreation economy of northern Pine County that emphasizes the Kettle River and surrounding natural attractions. While there have been several efforts along these lines to date, Northspan recommends a fresh brand and effort led by a new, formal entity to avoid past turf wars. Given the size of the communities and businesses and their staff capacities, it will likely require an outside facilitator.

3. Target new investment instead of internal relocation.

In a series of business retention and expansion visits over the course of 2019, Northspan heard repeated concerns that new development in the business park would come at the cost of development in the city center. Several acknowledged that their businesses could theoretically move to the business park but feared the effects of such a move on other downtown businesses, and none expressed any serious interest in moving. Another business cited the relocation of a nearby business as a contributing factor to its decision to close. Given the sensitivity of this debate, Northspan recommends that the city pursue new prospects for the business park instead of seeking to relocate existing businesses, particularly those that drive foot traffic into the downtown area.

4. Emphasize Sandstone's innovative potential.

Sandstone's rich natural environment and strong arts community can help build a reputation as a city capable of innovation. While successful growth in the information economy tends to require the cultivation or attraction of a particularly driven individual or small group with a successful idea, it would at least for an environment in which that person or individual could thrive. This effort would move in tandem with the regional tourism attraction strategy and help to create a pitch that distinguishes Sandstone from comparable neighboring communities. It would also involve potential collaboration with a regional success story (Nemadji Research), continued advocacy work to strengthen broadband internet access, and creation of spaces where start-ups could scale up. Vacant downtown buildings or space within the old school redevelopment could provide this necessary space.

5. Continue to expand transportation options.

As a community with an aging population, Sandstone would benefit from expanded transportations for those who are no longer able to drive or easily walk themselves. While Arrowhead Transit serves Sandstone and there are cabs available, other niche areas such as non-emergency medical transportation and transportation of visitors to the Federal Corrections Institute could benefit from additional options. Coordination among these businesses could help distinct community needs and avoid duplication of services, in addition to supporting local businesses.



APPENDIX A: Consumer Spending Potential Index (SPI) Data for Sandstone Trade Area

Consumer Spending Potential Index (SPI) Data for Sandstone Trade Area

Good/Service	Spending Potential Index	Average Amount Spent	Total
Coal/Wood/Other Fuel	167	\$18.14	\$217,645
Gas - Bottled/Tank (Renter)	158	\$8.37	\$100,473
Gas - Bottled/Tank (Owner)	139	\$80.37	\$962,159
Campers/Boats/Trailers Not Financed	138	\$102.39	\$1,228,795
Bottled Gas	138	\$93.99	\$1,127,928
Lawn & Garden Equipment	136	\$93.15	\$1,117,869
Interest Paid on Loans for Other Vehicles	128	\$0.88	\$10,566
Owned Dwellings - Materials for Roofing/Gutters	122	\$10.55	\$126,615
Cigars/Pipe Tobacco/Other Tobacco Products	122	\$41.09	\$493,128
Fuel Oil (Owner & Owned Vacation Homes)	117	\$116.79	\$1,401,598
Medicare Suppl excl BC/BS	116	\$143.50	\$1,722,152
Fuel Oil	114	\$123.55	\$1,482,717
Principal Paid on Loans for Campers with No Motor	112	\$10.76	\$129,173
Principal Paid on Loans for Other Vehicles	112	\$7.48	\$89,760
Electricity (Rented Vacation Homes)	111	\$11.14	\$133,661
BC/BS-Commrc Medicare Suppl	109	\$60.54	\$726,484
Convalescent/Nursing Home Care	109	\$33.43	\$401,212
Funeral Expenses	109	\$93.55	\$1,122,694
Diesel Fuel	108	\$60.41	\$724,949
Septic Tank Cleaning	106	\$7.34	\$88,081
Boats Financed	100	\$14.69	\$176,266
BC/BS-Oth Health Insurance	100	\$20.73	\$248,725
Medicare Payments	100	\$537.85	\$6,454,678
Medicare Rx Drug Premium	100	\$94.69	\$1,136,398
Major Appliances - Sewing Machines/ Misc. Appliances	100	\$17.90	\$214,858
Other Household Items - Grills & Outdoor Equipment	99	\$34.45	\$413,448
Motor Oil	99	\$15.60	\$187,211
Owned Dwellings - Tools/Equipment for Paint & Paper	98	\$2.26	\$27,144

Appendix A: Consumer Spending Potential Index (SPI) Data for Sandstone Trade Area

Good/Service	Spending Potential Index	Average Amount Spent	Total
Interest Paid on Loans for Campers with No Motor	97	\$3.13	\$37,591
Med Serv - Hosp Room & Service	97	\$170.20	\$2,042,565
Owned Dwellings - Paint/Wallpaper/Supplies	97	\$20.94	\$251,270
Major Appliances - Microwave Ovens	97	\$16.58	\$198,950
Smoking Products	97	\$396.31	\$4,756,099
Pet Food	96	\$227.52	\$2,730,430
Principal Paid-Line of Credit Home Equity Loan (Owned Home)	96	\$253.18	\$3,038,367
Playground Equipment	95	\$3.95	\$47,357
New Cars/Trucks/Vans Not Financed	95	\$404.88	\$4,859,003
Owned Dwellings - Landscaping Materials	95	\$22.65	\$271,792
Lawn & Garden Supplies	95	\$101.02	\$1,212,391
Repair/Rental of Lawn & Garden Equipment	95	\$9.18	\$110,186
Cigarettes	95	\$346.77	\$4,161,618
Safe Deposit Box Rentals	95	\$3.73	\$44,735
Serv by Med Prof ex Physicians	94	\$77.35	\$928,247
Prescription Drugs	94	\$393.74	\$4,725,314
Lawn & Garden	94	\$382.96	\$4,595,924
Tire Purchase/Replacement	94	\$151.76	\$1,821,300
Principal Paid on Loans for Motorcycles/Motor Scooters	93	\$19.99	\$239,862
Drugs and Vitamins	93	\$656.80	\$7,882,201
Owned Dwellings - Ground Rent	93	\$79.86	\$958,411
Owned Dwellings - Maintenance & Remodeling Materials	93	\$337.17	\$4,046,362
Phone Cards	93	\$13.44	\$161,283
Hunting & Fishing Equipment	92	\$43.72	\$524,728
Owned Dwellings - Homeowners Insurance	92	\$407.36	\$4,888,766
Owned Dwellings - Materials for Plaster/Panel/Siding	92	\$18.26	\$219,184
Home Improvement Materials - Owners & Renters	92	\$348.17	\$4,178,407

Source: ESRI data from Northland Connection, 2019

APPENDIX B: BNSF Certified Rail Sites

BNSF Certified Rail Sites			
City	State/Province	Acres	Notes
Surprise	AZ	292	Phoenix metro (pop.4,800,000)
Shafter	CA	1625	Bakersfield metro (pop. 875,000); logistics hub
Galesburg	IL	350	Local pop. 71,000
Greenville	IL	440	St. Louis metro (2,800,000)
Wilmington	IL	2500	Chicago metro (pop.9,000,000)
Yorkville	IL	228	Local pop. 977,000 (near Chicago metro)
Middletown	IA	153	Local pop. 62,000
Newton	KS	84	Wichita metro (pop. 641,000)
Becker	MN	67	Local pop. 274,000 (St. Cloud and Twin Cities metro)
Holly Springs	MS	1220	Local pop. 79,000
Hayti	MO	250	Local pop. 49,000
Great Falls	MT	197	Metro pop. 82,000
Libby	MT	400	Local pop. 20,000 - comparable
Shelby	MT	93	Local pop. 12,000; connections to Alberta oil
Clovis	NM	240	Metro pop. 67,000
Gallup	NM	365	Local pop. 76,000
Los Lunas	NM	1420	Albuquerque metro (pop. 887,000)
Minot	ND	386	Local pop. 60,000; oil-producing area
Ardmore	OK	1200	Local pop. 50,000; refinery and some distribution centers
Avard	OK	390	Smaller than Sandstone; has existing rail loop used for cattle in past
Enid	OK	320	Pop. 50,000
Sioux Falls	SD	820	Metro area pop. 264,000
Temple	TX	306	Metro area pop. 430,000; center point between major Texas cities
Northgate	SK	1300	Access to Saskatchewan oil fields

Sources: BNSF, 2019; U.S. Census American Community Survey, 2017.

APPENDIX C: List of NAICS Codes for Businesses Using Rail

List of NAICS Codes for Businesses Using Rail

1111	Oilseed and grain farming	3311	Iron and Steel Mills and Ferroalloy Manufacturing
1119	Other Crop Farming	3312	Steel Product Manufacturing from Purchased Steel
1121	Cattle Ranching and Farming	3313	Alumina and Aluminum Production and Processin
1131	Timber Tract Operation	3314	Nonferrous Metal (except Aluminum) Production and Processing
1133	Logging	3315	Foundries
1151	Support Activities for Crop Production	3321	Forging and Stamping
2111	Oil and Gas Extraction	3322	Cutlery and Handtool Manufacturing
2123	Nonmetallic Mineral Mining and Quarrying	3323	Architectural and Structural Metals Manufacturing
2131	Support Activities for Mining	3324	Boiler, Tank, and Shipping Container Manufacturing
2211	Electric Power Generation, Transmission and Distribution	3326	Spring and Wire Product Manufacturing
2212	Natural Gas Distribution	3327	Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing
3115	Dairy Product Manufacturing	3328	Coating, Engraving, Heat Treating, and Allied Activities
3116	Animal Slaughtering and Processing	3329	Other Fabricated Metal Product Manufacturing
3119	Other Food Manufacturing	3331	Agriculture, Construction, and Mining Machinery Manufacturing
3211	Sawmills and Wood Preservation	3332	Industrial Machinery Manufacturing
3212	Veneer, Plywood, and Engineered Wood Product Manufacturing	3333	Commercial and Service Industry Machinery Manufacturing
3219	Other Wood Product Manufacturing	3334	Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing
3221	Pulp, Paper, and Paperboard Mills	3339	Other General Purpose Machinery Manufacturing
3222	Converted Paper Product Manufacturing	3344	Semiconductor and Other Electronic Component Manufacturing
3231	Printing	3351	Electric Lighting Equipment Manufacturing
3241	Petroleum and Coal Products Manufacturing	3352	Household Appliance Manufacturing
3251	Basic Chemical Manufacturing	3359	Other Electrical Equipment and Component Manufacturing
3252	Resin, Synthetic Rubber, and Artificial and Synthetic Fibers and Filaments Manufacturing	3361	Motor Vehicle Manufacturing
3253	Agricultural Chemical Manufacturing	3362	Motor Vehicle Body and Trailer Manufacturing
3254	Pharmaceutical and Medicine Manufacturing	3363	Motor Vehicle Parts Manufacturing

Appendix C: List of NAICS Codes for Businesses Using Rail

3255	Paint, Coating, and Adhesive Manufacturing	3364	Aerospace Product and Parts Manufacturing
3256	Soap, Cleaning Compound, and Toilet Preparation Manufacturing	3365	Railroad Rolling Stock Manufacturing
3259	Other Chemical Product and Preparation Manufacturing	3369	Other Transportation Equipment Manufacturing
3261	Plastics Product Manufacturing	3371	Household and Institutional Furniture and Kitchen Cabinet Manufacturing
3262	Rubber Product Manufacturing	3372	Office Furniture (including Fixtures) Manufacturing
3271	Clay Product and Refractory Manufacturing	3379	Other Furniture Related Product Manufacturing
3272	Glass and Glass Product Manufacturing	3399	Other Miscellaneous Manufacturing
3273	Cement and Concrete Product Manufacturing	4931	Warehousing and Storage
3274	Lime and Gypsum Product Manufacturing	561910	Packaging and Labeling Services

APPENDIX D: SURVEY QUESTIONS SENT TO POTENTIAL RAIL USERS

The Northspan survey of potential rail users consisted of the following questions:

1. Do you currently use rail to transport your product? (Y/N)
2. If yes, where is your product loaded on to rail?
3. If no, what prohibits you from using rail? (cost, difficulty of access, not relevant for current customers)
4. Would you consider using a transloader (a facility that transfers products from trucks to rail) if it were available in the immediate vicinity? (Y/N)
5. Enter your contact information if you are interested in further discussions on rail service for your business.

