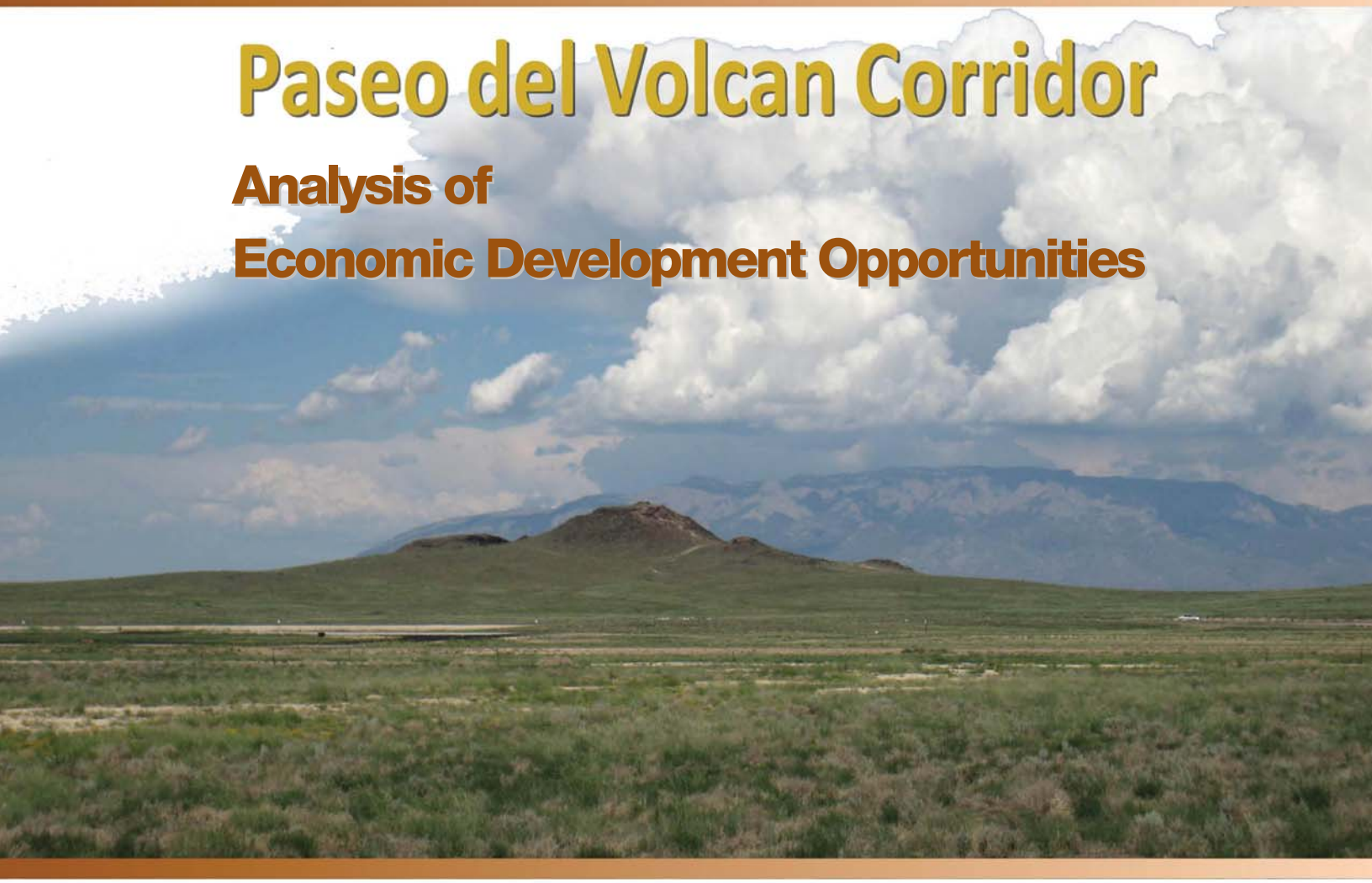
Prepared for:

Mid-Region Council of Governments
and the City of Albuquerque

Paseo del Volcan Corridor

Analysis of
Economic Development Opportunities



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Executive Summary

The accompanying report provides data and analyses to inform the ongoing discussion over the value of developing the Paseo del Volcan (PDV) corridor. Two primary factors are discussed: (1) the suitability of the corridor to accommodate large-scale development; and, (2) the potential economic opportunities that would result from building the roadway.

The suitability for large development was evaluated by assessing the physical characteristics of the corridor as well as zoning, land ownership, and availability of major utilities needed to support development. The physical characteristics considered include terrain conditions (grade and slope), soil conditions, and the presence and number of major floodplains. The assessment focused on the area within one-half mile along each side of the planned roadway. The site analysis determined that 9,800 acres along the corridor could accommodate industrial development, and about 4,500 of these acres would be shovel-ready with utilities within the next few years. The shovel-ready areas are generally at the south end of the corridor between I-40 and the Double Eagle II Airport.

To complement the physical assessment of the land, the report also includes an analysis of economic development opportunities that could accompany large-scale development capacity. The opportunities analysis evaluates the strategic position for Albuquerque and the overall state in attracting business expansion and relocation. The report summarizes a series of analyses and peer city comparisons. The analyses and comparisons indicate Albuquerque area has:

- A growing and skilled labor pool produced from above-average educational resources. Higher education is concentrated in science and engineering degrees, though executive and management position candidates are proportionately fewer than the US average.
- A highly regarded quality of life, resulting from a low cost of living, recreational activities, sunny weather, and clean air and water.
- A strong pipeline of suitable sites for industrial use, which are large, have convenient access to the regional transportation network, have ample water and electricity, and are proximate to workforce and executive housing.
- Access to highly competitive incentive programs (mainly tax abatement and workforce development programs) to entice companies to locate operations in the area.
- Comparison of Albuquerque and New Mexico shows that peer cities and states typically have larger “deal closing funds” that are beyond the resources that Albuquerque and New Mexico can offer.

The economic opportunities analysis provides a full overview of the region’s strategic position and identifies target “best fit” industries for the PDV corridor including manufacturing / production, distribution / logistics, shared services, and warehousing / storage components of businesses. Compared with peer cities and states, Albuquerque / New Mexico boasts many strengths, but has secured fewer business expansions and relocations in target industries than its peer cities in recent years. Some of the weaknesses that prevented economic development success in the past have been remedied, including increasing electric capacity, lowering effective corporate tax rates, and extending utilities to large developable areas along interstate corridors.

While development of the PDV corridor is a long-term opportunity and will be a significant investment that requires coordination between multiple jurisidictions and private parties, the economic development potential is high. **Using the Tempur-Pedic development as an example**, a new manufacturing facility on a 50-acre parcel could create over a thousand temporary construction jobs and 150 permanent jobs. A fully developed site would yield nearly a million dollars in property, sales, and personal income tax revenue from ongoing operations per year plus tax revenues resulting from temporary construction jobs and corporate income taxes.

Introduction

Completion of the Paseo del Volcan (PDV) corridor would open up tens of thousands of acres of land for development in Bernalillo and Sandoval counties. This development could include new industry, manufacturing, and other businesses that would create jobs on the metropolitan area west side and add millions of dollars of new tax revenue to city, county, and state coffers. However, the costs to construct this roadway are significant and any public funds dedicated to this facility will compete with other needs within the region. To assist with the decision process, an assessment of the economic development opportunities for Paseo del Volcan was undertaken. This paper summarizes the findings of that assessment and presents information pertinent to this issue. The study was sponsored by the City of Albuquerque and led by the City and Mid-Region Council of Governments.

Background

The "front" of development on the metro west side continues to advance westward. Because of challenges to utility extensions and the availability of other developable lands, the volcanic escarpment, Petroglyph National Monument, and surrounding open space lands served as the western boundary of the metropolitan area for many years. More recently, land owners and municipal governments have started investing in the water, sewer, roadway, and other infrastructure needed to support development beyond the escarpment and adjacent to the PDV corridor. Several large master-planned communities are now planned for the area.

The attractiveness and suitability of the far west side of the metro area to large scale business interests is demonstrated by several recent private sector investments. Within Bernalillo County these include the Tempur-Pedic mattress manufacturing facility and Shamrock Foods distribution facility located on Atrisco Vista Boulevard just north of I-40. Two large complexes for RV sales and service have recently located in this area as well, one of which moved recently from a location in northeast Albuquerque. Light industrial businesses have also located adjacent to the freeway frontage roads west of the Atrisco Vista Boulevard/I-40 interchange; two are within 1,000 feet of the Paseo del Volcan corridor. These businesses include heavy equipment yards, an asphalt millings reprocessing facility, an auctioneer yard, several mobile home parks and a RV storage facility. In Sandoval County, where the northern-most seven miles of PDV have already been reconstructed (around 2007) is the Central Business District for Rio Rancho, the State's third largest municipality. A diverse collection of large businesses and public institutions have been established including a Hewlett Packard Office

Tempur-Pedic Offices

Shamrock Foods Offices

Complex, branch campuses of the University of New Mexico (UNM) and Central New Mexico Community College (CNM), a UNM regional hospital complex, the Rio Rancho City Center, and the Santa Ana Star Center. Construction of PDV from the intersection with Unser Boulevard to I-40 would connect Rio Rancho's Central Business District to Interstate 40. As the economy continues to recover and the region grows, it is likely that similar types of development can be attracted to the southern portions of the PDV corridor and both the northern and southern parts of the corridor can become major regional job centers attractive to large companies from out-of-state.

Santa Ana Star Events Center

Hewlett-Packard Contact Center

Attracting and locating more jobs on the west side is essential for the long-term welfare of the region. Currently, most of the major employment centers in Albuquerque and Bernalillo County region are located east of the Rio Grande — i.e., the North I-25/Journal Center, Uptown, Downtown, Sandia National Labs, Kirtland Air Force Base, Albuquerque Sunport, UNM, and CNM. With the population base of the metropolitan area shifting to the west side, the commuter routes that connect to these employment centers have become severely congested. Projections by MRCOG show this congestion will become much worse in the coming decades. The development of major employment centers on the west side will help balance traffic flows and obtain more capacity from the existing street system.

Completing the PDV corridor will be a major transportation investment for the Albuquerque metropolitan area, and could shape both the economy and the landscape of the region for years to come. In the long-term, the growth of the metropolitan area is constrained by mountains to the east, and tribal lands to the north and south. Moreover, the capacity of the land between existing development on the metro west side and the PDV corridor is limited by public open space, Petroglyph National Monument, and Double Eagle Airport. Further west of the planned PDV corridor lies additional constraints, including tribal lands and the more complex terrain found within the Rio Puerco basin. Thus, the PDV corridor is one of few areas remaining in Bernalillo County and Sandoval County suitable for large scale business relocations and master-planned communities.

Atrisco Vista Boulevard has often been discussed as a potential alternative for similar, new development. However, there are two key reasons PDV remains the focus of this study.

- First, in it's ultimate configuration, PDV is a planned four-lane freeway with interchanges and frontage roads. Given Atrisco Vista

Boulevard's close proximity to open-space, right-of-way does not exist to develop the ultimate configuration along Atrisco Vista Boulevard.

- Second, the preferred alignment for PDV was selected by extensive studies conducted in the late 1990s that culminated in 2002 with a federal Environmental Impact Statement (EIS). ***Figure 1*** summarizes the previous studies and key milestones undertaken by local governments and the New Mexico Department of Transportation (NMDOT) to select the best route for Paseo del Volcan. The prior engineering and environmental studies included public involvement, tribal coordination, and coordination with all levels of government. The existing alignment of Atrisco Vista was considered in the EIS.

To help frame the ongoing discussion of what value could be created by building PDV, either in whole or in part, this paper quantifies the opportunities and documents the most current thinking on the competitive advantages of New Mexico, Albuquerque, and the PDV corridor from an economic development perspective, focusing not on the timing of the potential investment, but rather assessing the region's strategic position to attract business from out-of-state.

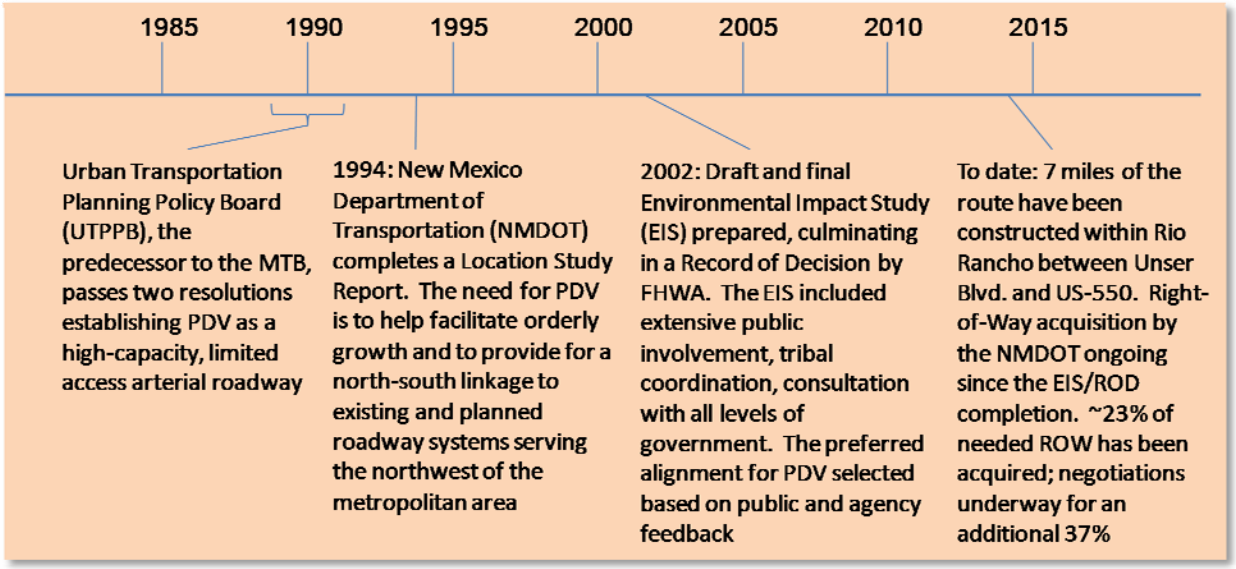
"Threats," in the form of other cities vying for the same economic development prizes — large business relocations or expansions that bring new jobs to the area — are given consideration as well.

Appendix I to this Executive Summary provides additional information about the data and analyses conducted. It includes: physical site data; interviews with city and county planning staff, economic development staff, land owners, commercial real estate brokers, and other stakeholders: workforce and demographic data; site selection factors, and, industry cluster and benchmark analyses.

It is important to reiterate that the PDV corridor is a long-term opportunity and a significant investment that requires coordination between many public and private entities. Successful development of the corridor would benefit a variety of stakeholders, including:

- Developers, who can bring private capital and shoulder the risk required to spur business activity.
- Existing local businesses that benefit from general economic activity and by supporting new business moving to the corridor, creating and growing business-to-business opportunities.

Figure 1: Timeline of PDV Planning



- Surrounding municipalities, which may share infrastructure costs with developers to help guide development, resulting in increased local tax revenue and more balanced traffic patterns which results in a better quality of life for residents.
- New Mexico, which will benefit from improved interstate traffic flow and reduced peak period congestion on I-40.

From an economic development perspective, the corridor could evolve into a major regional industrial center with the capacity to attract large end users of industrial land, building and shipping high-value goods, and creating high-paying jobs and associated income tax revenue.

As ***Figure 2*** illustrates, the planned PDV route runs through the City of Albuquerque, the City of Rio Rancho, and unincorporated parts of Bernalillo and Sandoval counties. Starting from the southern end, 1.7 miles west of the Atrisco Vista Boulevard / I-40 interchange, PDV extends 8 miles north through the City of Albuquerque passing to the west of the Double Eagle Airport. This stretch of the corridor in Bernalillo County (labeled "A" in ***Figure 2***) has soil and topographic characteristics suitable for industrial development, and utilities either existing or under construction. Further north to the Sandoval County border and northeast toward Rio Rancho City Center (labeled "B" in ***Figure 2***), challenges result from soil and topographic conditions, and there are no existing or pending (under construction) utilities. Additionally, most developable land in Section B is divided into small parcels, and significant assemblage would be required to accommodate a large end user.

Additional quality development opportunities exist throughout the area labeled "C" in ***Figure 2***, but many of the parcels in this area are also small and similar assemblage would be required for a large end user. A more detailed map with development opportunities can be found in the "Opportunities" section at the end of this report.

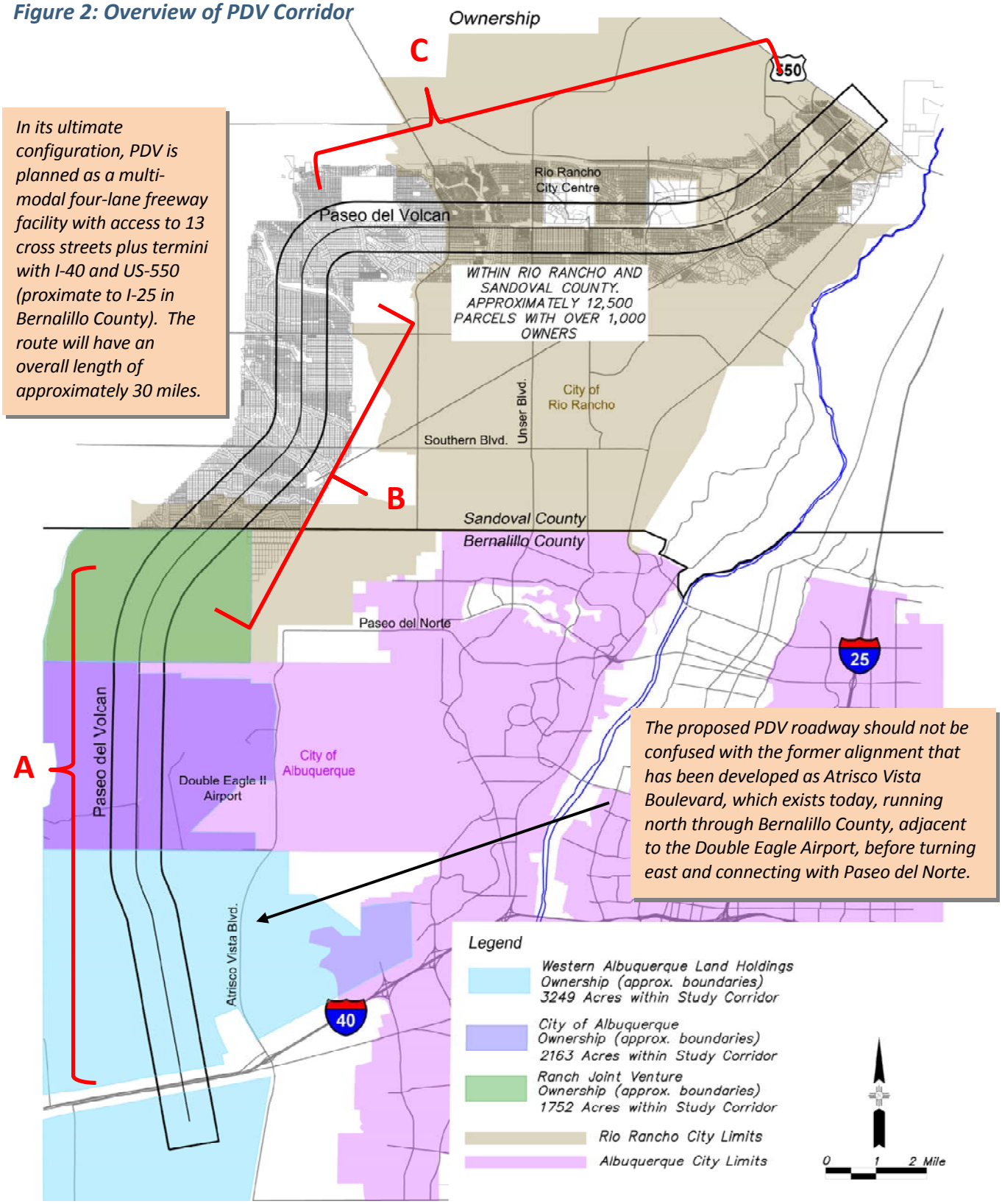
Of the overall 30-mile alignment, the northernmost seven miles between Unser Boulevard and US 550 have already been constructed. This segment provides access to the Rio Rancho City Center, Santa Ana Star Center, UNM Sandoval Regional Medical Center, and branch campuses of the University of New Mexico and Central New Mexico Community College. It also serves several large residential subdivisions. Implementation of the remaining 23 miles could occur as a single project or could be phased, as discussed in the call-out box on page 7.

Economic Development Analysis

Attracting target industries to the PDV corridor can be achieved by leveraging the corridor's competitive advantages with local municipalities' and State's business expansion tools. The PDV corridor boasts several key strengths that would best accommodate large manufacturing, warehousing, distribution, or back-office end users, such as administration and support, call centers, customer service centers, and data centers. These strengths include:

- Access to transportation: All points along the PDV corridor are 15 miles or less from I-25 and I-40 and minutes to the Albuquerque Sunport. The Double Eagle II airport, adjacent to the PDV corridor, offers a perfect alternative for small freight and executive / charter service.
- Availability of shovel-ready sites: Approximately 1,575 total acres of land with utilities are available for construction now (equating to approximately 30 sites comparable to the Tempur-Pedic site). About 2,950 additional acres of land will become shovel ready within the next few years as utility installation is completed.
- Once a problem, power companies in the region are no longer capacity constrained. According to Albuquerque Economic Development, Inc, data centers and other

Figure 2: Overview of PDV Corridor



In its ultimate configuration, PDV is planned as a multi-modal four-lane freeway facility with access to 13 cross streets plus termini with I-40 and US-550 (proximate to I-25 in Bernalillo County). The route will have an overall length of approximately 30 miles.

The proposed PDV roadway should not be confused with the former alignment that has been developed as Atrisco Vista Boulevard, which exists today, running north through Bernalillo County, adjacent to the Double Eagle Airport, before turning east and connecting with Paseo del Norte.

Source: PB Analysis

PDV Project Phasing

Potential phasing options could provide access to development areas and appropriate capacity as needed at a lower up-front cost. The following approach assumes a 2-lane roadway with a typical section like that already constructed in Rio Rancho and stop-controlled intersections at major east-west arterial streets.

- Phase 1 – A simple interchange at I-40, such as a diamond configuration, would serve this corridor well into the foreseeable future at a cost of $18M. Right-of-way costs at the interchange have been estimated at approximately $8M by the NMDOT. Thus, the total cost for this phase is estimated at $26M.
- Phase 2 – Construction of PDV north from I-40 to Southern Boulevard in Rio Rancho, about 13.7 miles, would provide access to all of the "shovel ready" lands within Bernalillo County as well as the land in southern Rio Rancho in Sandoval County. It would also provide a continuous route between I-40 and US 550 via Southern Boulevard and Unser Boulevard, though not suitable as a truck by-pass between I-40 and US 550/I-25, due to residential development. The construction cost of this phase is estimated at $24.7M.

  Because the vast majority of this phase is within Bernalillo County and under the ownership of three entities, it is anticipated that most of the right-of-way could be acquired at a low additional cost of approximately $5.5M, for a total phase cost of $30.2M.
- Phase 3 – Completion of the corridor from Southern Boulevard north to Unser Boulevard, approximately 8.6 miles, is estimated at $19.5M. An additional $20.5 million would be required for right-of-way, for a total phase cost of about $40M.

The total construction cost for the corridor is estimated at $62.2M (including NMGRT) plus an additional $34M for right-of-way for a total implementation cost of approximately $96.2M.

back-office facilities had not previously located in the Albuquerque area because local power companies were at capacity. Excess capacity now exists to support expansion of these facilities.

Additionally, the sports industry is booming and city officials are actively searching for space to build new regional sports facilities. Although PDV can accommodate these types of facilities, they are not the focus of this report.

City and State pro-business policies and programs are competitive advantages that can help attract the industries cited above by creating a low-tax environment and high quality of life for workers. In 2006, a Tempur-Pedic manufacturing plant and Shamrock food distribution facility located near the PDV corridor, and more recently, United Healthcare, Canon ITS, and Admiral Beverage, among others, expanded or relocated to the Albuquerque area due to these incentives.

In 2013, the New Mexico state legislature made dramatic changes to its tax structure, significantly reducing the effective tax rate (ETR) for manufacturers and other service-providers.[1] When combined with other key statutory credits, these changes give New Mexico the lowest effective corporate tax rate in the southwest US for manufacturers and other service-providers[2].

[1] The ETR was reduced by allowing manufacturers to elect a single sales factor, reducing the top corporate income tax rate and eliminating the Throwback Rule, which places sales revenue not taxable in other states where sales occur in the New Mexico portion of the sales factor

[2] Benchmarked states include Arizona, California, Colorado, Nevada, Oklahoma, Texas and Utah

Strengths in Brief

- Interstate access N/S via I-25 and E/W via I-40
- Large shovel ready sites
- Power sufficient for large data centers and industrial users
- Low tax structure for companies
- Top job training programs and additional technical resources
- Bachelor and graduate degree attainment higher than US average
- Quality manufacturing labor pool
- Predictable operating costs
- High quality of life / low cost of living

New Mexico and the City of Albuquerque offer a variety of financial incentives and resources competitive with benchmark cities. These incentives are highlighted by the Job Training Incentive Program, which provides classroom and on-the-job training, and pays 50%-75% of employee training costs and wages. Area Development Online, a national corporate site selection news organization, describes this program as "one of the most effective in the country."[3]

Aside from these specific skills training programs, the city and state support a number of technical training programs. Nearly 40 technical, certificate and training programs exist in the Albuquerque area, from post-secondary technical certificates to apprenticeship programs in carpentry. A Tempur-Pedic manager described the hourly-wage manufacturing workers, which were all recruited locally, as "outstanding" due in part to these training programs.

Further, the University of New Mexico and the Central New Mexico Community College have created the STEM-UP program to facilitate the development of students in Science, Technology Education and Mathematics (STEM). The goal of this program is to train thousands of students in the STEM Fields to prepare the local work force for those positions most needed by local companies and prospective firms seeking to relocate to the area. This program will build upon the technology transfer programs underway through the University of New Mexico Engineering and Medical Schools, Sandia National Laboratories and the Air Force Phillips Laboratory.

Job training, educational and technical resources support a regional population with an already well-balanced mix of educational attainment. In Bernalillo and Sandoval Counties, 32% of residents possess a bachelor degree or higher, compared to just 29% nationally. Additionally, 14% of residents in these areas earned a graduate or professional degree, compared to just 10% nationally. Among those with a graduate or professional degree, 38% of Sandoval / Bernalillo residents earned a Science and Engineering degree, compared to 35% of the US population. Science and engineering degrees provide important skills for economic development in general, as these degrees develop skills critical for business start-ups, particularly in technology.4

The target industries noted above — particularly manufacturers and distribution centers — require predictable operating costs and the ability to keep their operations running. With 310 sunny days per year and low likelihood of natural disasters, operations are rarely interrupted. This operational predictability stands in contrast to cities in the northeast that see snow over the winter or cities in the south and Midwest that are in the paths of hurricanes and tornadoes.

[3] New Mexico Direct Financial Incentives 2014, Area Development Online, www.areadevelopment.com

[4] Data for all residents over the age of 25

The weather in Albuquerque is also a key component to the high quality of life for workers as there are approximately 25% more hours of sunshine in New Mexico than the US average. In addition, New Mexico has garnered several distinctions from various renowned publications, including:

- The 9th most tax-friendly state, according to a 2013 Kiplinger Report
- "Some of the cleanest air in the nation," according to the American Lung Association
- Albuquerque was ranked among America's mid-sized cities of the future by FDI Intelligence in 2013
- New Mexico boasts the lowest property tax in the country, as noted by The Tax Foundation's 2012 State Business Tax Climate Index
- According to the Council for Community and Economic Research (C2ER), Albuquerque housing prices are 28% lower than the national average, making up for slightly above-average prices for general goods and services and utilities

While the physical landscape of the corridor and socioeconomic environment support distribution, manufacturing, and back-office facilities, several factors exist that could undermine the region's ability to attract businesses in these industries.

Over the next five to ten years, the US manufacturing industry is projected to contract by 0.5% annually, and the transportation and warehousing industries are projected to grow at less than 1% per year. Slow growth in these industries nationally means less business activity to compete for, and the level of competition between Albuquerque and its benchmark cities[5] to attract these industry participants is intensifying. In 2013 and 2014, Albuquerque's manufacturing/distribution successes were relatively small: Admiral Beverage and HT Micro expansions created just 20 jobs each when they expanded in Albuquerque. Meanwhile, Oklahoma City, Salt Lake City, El Paso and Tucson are each expected to add over 500 jobs each through manufacturing expansions and relocations since 2013.

The competitive advantages of cities are rooted in the nuances of their portfolio of economic development incentives they offer to potential businesses. In such a competitive environment, states often raise significant deal-closing funds to lure relocating and expanding businesses on top of program credits and incentives. New Mexico maintains a deal-closing fund of just $3m, which is a fraction of Nevada ($10m), Oklahoma ($12m), Arizona ($25m), and Texas ($140m).

The reduction in New Mexico's effective tax rate is not nearly as advantageous for businesses that do not qualify for key statutory credits, such as the State's high-wage job credit. Businesses that do not qualify for these credits would pay a 9.5% effective tax rate, higher than Arizona (5.8%), California (5.8%), Colorado (6.2%), Nevada (6.8%), and Utah (6.8%).

Challenges in Brief

- Weak national manufacturing sector outlook
- Strong competition from neighboring states with bigger economic development budgets
- Reliance on key statutory credits for tax advantage
- Lack of rail access in the PDV corridor
- Competition from other large master-planned communities near the PDV

[5] Peer cities are based on similar population, geographic location, transportation access and are situated near university / educational resources, and include: Austin, TX; Colorado Springs, CO; El Paso, TX; Oklahoma City, OK; Salt Lake City, UT; Tucson, AZ

Local municipal governments may need to help overcome weaknesses in State incentives and PDV corridor shortcomings to attract target industries. For instance, to attract Tempur-Pedic, various units of government contributed between eight and nine million dollars for utilities and other infrastructure. This investment will serve other nearby interests, but at the time, it was a significant investment which is expected to pay dividends over the long-term.

A common point among landowners and business owners is the lack of rail in the area. Tempur-Pedic notes that rail would save shipping costs both for distribution and to acquire production materials. Although access to the interstates provides convenient local and regional distribution, the lack of rail presents significant hurdles to a wider distribution network.

Finally, four master-planned communities in Bernalillo County and more in Sandoval County will likely develop (in part) before the PDV roadway is constructed. While the other area developments may help generate momentum regionally within the target industry clusters, they also represent local competition for business expansion. The size of the industrial parks within each community can be found in ***Table 1***.

Table 1: Industrial Space in Master-Planned Communities

Master-Planned Community	Total Acres	Total Industrial Acres
Santolina	13,850	2,050
Western Albuquerque Land Holdings / Estrella	6,100	520
Aerospace Technology Park at Double Eagle	255	255
Quail Ranch	6,500	540
Rio Rancho Industrial	480	400
Rio Rancho City Center	520	70
Paseo Gateway	735	40
Total	**28,440**	**3,875**
Source: Consensus Planning Inc., PB Analysis		

Opportunities in the PDV Corridor

Despite the potential hurdles to attract new businesses, the PDV corridor still represents a significant opportunity for economic development. The planned corridor contains 17,950 acres of developable land, including 10,600 acres in Sandoval County and 7,350 acres in Bernalillo County.

To identify the land most appropriate for industrial business locations, the analysis divides the acreage along the corridor into four categories as outlined in ***Table 2***. For the purposes of this study, **Grade A is defined as** having no major slope, soil, or floodplain issues, while **Grade B areas** have somewhat limiting soil conditions, but are otherwise developable. Those acres that are Grade A with current access to utilities are considered "shovel-ready" land.

The shovel-ready sites are found in both counties.

In Sandoval County, shovel-ready sites are scattered in Rio Rancho where PDV turns East-West. This area includes 425 shovel-ready acres and 370 Grade A acres with utilities under construction. The parcels in this area are small (about a half-acre to an acre); a developer would need to aggregate land to support industrial development.

- In Bernalillo County, south of the Double Eagle airport, there are 1,150 shovel-ready acres and 2,575 Grade A acres with utilities under construction. This area is approximately 8 miles long and the shovel-ready areas include parcels large enough to accommodate major manufacturing, warehouse, and distribution facilities. Given the parcel sizes, planned or existing utilities, and proximity to I-40, this area likely represents the best opportunity for near-term development.

The locations discussed above are the proper location and lot sizes for a warehouse / distribution center. When making location decisions for the development of distribution centers, firms consider the cost of land and buildings, access to markets, transportation modes and the availability of labor. In general, regional and national distribution centers seek sites with space for future expansions.

Developers are also building larger facilities that can be subdivided to house several tenants. The PDV corridor provides large tracts of land located adjacent to Interstate 40, a major national freight corridor and is just minutes from Interstate 25. The corridor is also located within the range of one tank of fuel for a cargo truck from the port of Los Angeles/Long Beach to the west and the I-35 international freight corridor to the east.

Steep slopes prevent industrial and commercial development on over 8,000 acres in the corridor. However, this land can be held for open space or developed as residential. ***Figure 3*** illustrates the locations of the development categories.

Table 2: Land Available for Industrial Development

Category	Acres	% of Corridor
Total Potential Developable Acreage	17,950	100%
Grade A with utilities (shovel-ready)	1,575	9%
Grade A with utilities in construction	2,950	16%
Grade A with no planned utilities	2,225	12%
Grade B	3,050	17%
Total Developable Land	9,800	55%
Total Undevelopable Land (for industrial uses)	8,150	45%

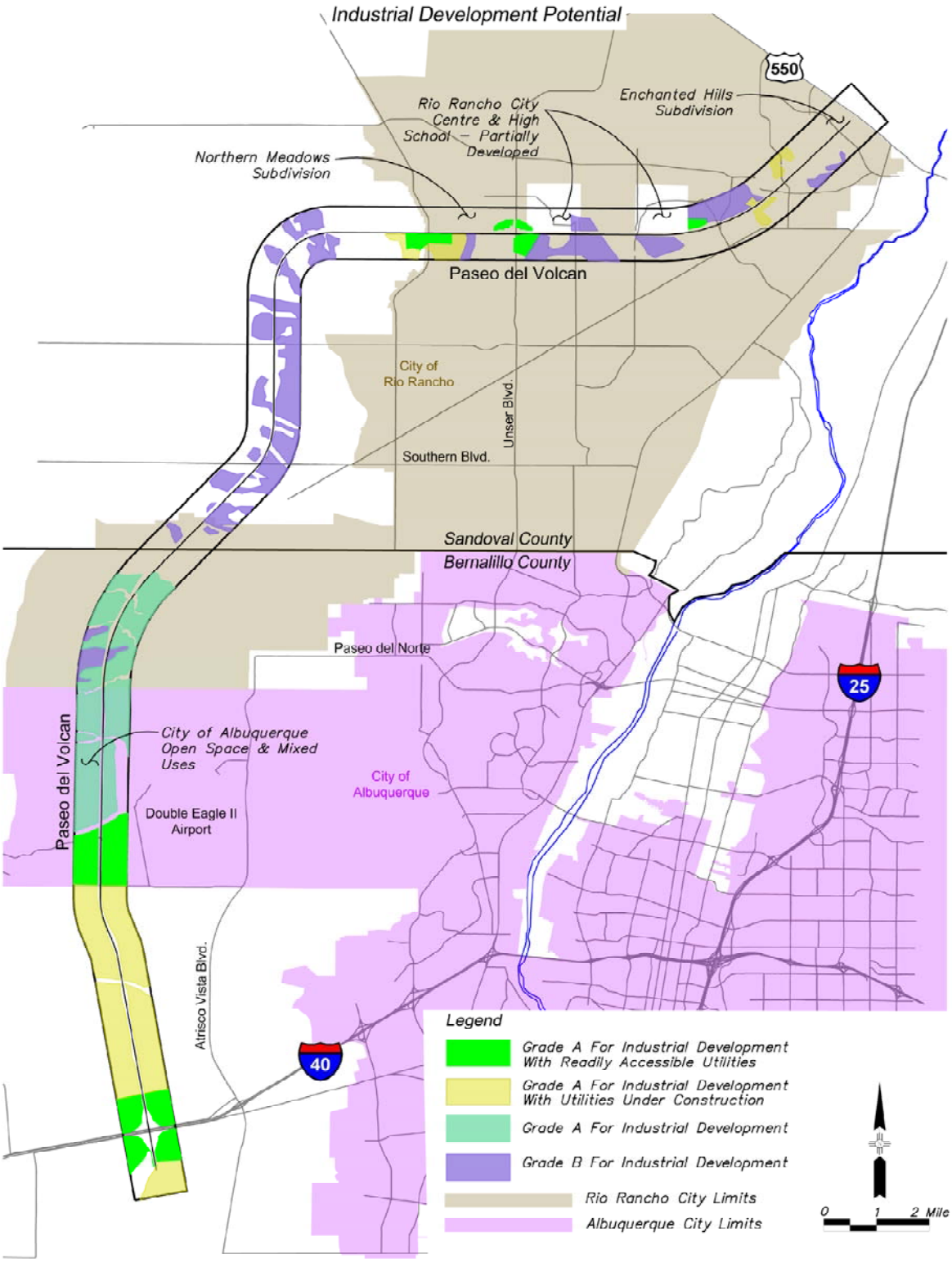
Source: PB Analysis
Notes: Total corridor acreage is 19,650 acres and right-of-way is 1,700 acres; percentages do not add due to rounding

Return on Investment

As noted above, many public infrastructure costs will need to be borne by the State and local governments to help the PDV corridor evolve into a successful regional industrial job center. While all the costs are not known, the return can be estimated using examples from experience in the area, in this case the Tempur-Pedic site.

The subsequent analysis defines "return" as resulting new property taxes, sales, and income taxes. Projections are based on details of theTempur-Pedic project in 2006 and resulting property values and jobs created. This 50-acre parcel had a value of approximately $40,000 in 2005. When the 750,000 square foot facility opened in 2007, the assessed value had increased to $34.8 million, and Tempur-Pedic had 150 employees housed there. Based on this and other data sourced from public records, ***Table 3*** shows the potential property tax revenue from the facility as of last year's assessment.

Figure 3: Locations of Development Opportunities



Source: PB Analysis

Table 4 estimates sales taxes derived from the discretionary income of employees at the facility. ***Tables 3 and 4*** show that this size and type of facility could generate $425,000 per year in property taxes and about $140,000 per year in sales taxes for various units of government. Assuming an average New Mexico personal income tax rate of 4.0%, the State income tax generated by these employees would be approximately $300,000 per year.

Table 3: Potential Tempur-Pedic Property Taxes

	2013
Total Assessed Value	$35.7m
Net Taxable Value (1/3 of assessed)	$11.9m
Tax Rate	.35628
Total Potential Property Tax	**$425k**
Source: Bernalillo County Tax Assessor Website	

Table 4: Breakdown of New Sales Tax Revenue per Site

Breakdown of Each New Site	2013
Average Salary, Hourly Employees	$50k
Total Employees	150
Estimated Total Annual Payroll	$7.5m
Discretionary Spending by HH Income	26%
Estimated Total Annual Discretionary Spending	$1.95m
Sales Tax Rate – New Mexico	5.125%
Total New Sales Tax – State of New Mexico	**$100k**
Sales Tax Rate – Bernalillo County	0.938%
Total New Sales Tax – Bernalillo County	**$20k**
Sales Tax Rate – City of ABQ	0.938%
Total New Sales Tax – City of ABQ	**$20k**
Total New Sales Tax – All Jurisdictions	**$140k**
Source: Albuquerque Business Journal, Experian Research, Tempur-Pedic Interview	

If these revenue assumptions were applied across the 23 conceptual development sites represented by the 1,150 acres of shovel-ready land in Bernalillo County, $9.8 million in property taxes, $3.2 million in sales taxes, and $6.9 million in personal income taxes could be generated.

This i analysis relies on many assumptions but illustrates that the annual return from these three taxes alone could be substantial. Corporate income taxes would further add to these potential public revenues.

In addition to recurring tax revenues per development opportunity, the State and region would also see a financial impact during construction of each facility. Using the Tempur-Pedic facility construction as a model for future construction, one can estimate the revenue impacts based on the following assumptions[6]:

- Costs of building and equipment: $100m
- Construction jobs: 1,243
- Construction payroll: $40m
- Construction schedule: 2 years

Tempur-Pedic Manufacturing Plant

Each year of building construction, therefore, could create over 620 jobs (mostly temporary construction jobs) and $20 million in worker income. This additional income would yield about $5.2 million in discretionary income, resulting in approximately $365,000 in annual sales taxes for New Mexico and local governments. State personal income tax from these workers could be estimated at $800,000 per year, aside from income taxes and NMGRT.

This analysis does not attempt to forecast development in the PDV corridor. However, if one project the size of the Tempur-Pedic site or a

[6] Based on Albuquerque Business Journal estimates

series of projects that equate to one Tempur-Pedic site were completed every two years revenue streams similar to those outlined in ***Table 5*** would accrue to state and local government over a 10-year period.

Table 5 estimates annual tax revenue in the first 10 years of a conceptual development scenario. It is important to note that this analysis relies on many assumptions – specifically that future site development will look like and have similar impacts as the Tempur-Pedic site development. Thousands of companies could be interested in locating in the PDV corridor, some small and others large, such as the recently announced Intel project in Chandler, AZ, where a thousand highly paid semiconductor manufacturing employees will be located on several hundred acres.

Table 5 also suggests timing of development, which is somewhat arbitrary and for conceptual illustration purposes only. However, it begins to frame that the annual return could be substantial.

Finally, the construction of the PDV roadway will generate a significant amount of economic activity and tax revenue on its own. As noted earlier, construction of the roadway is estimated at $62.2 million, not including ROW. Assuming a two-year construction period, this spending would generate temporary (construction) employment of 485 jobs per year, and income of approximately $15.5 million per year. This translates into approximately $280,000 in annual sales taxes and $620,000 in annual State personal income taxes.

Table 5: Projected New Tax Revenue ($1,000s)

Year	Number of Facilities	Property Tax	Sales Tax (permanent employees)	Sales Tax (temporary employees)	New Mexico Income Tax	Total New Tax Revenues
1	0	$0	$0	$365	$800	**$1,165**
2	1	$425	$140	$365	$1,100	**$2,030**
3	1	$425	$140	$365	$1,100	**$2,030**
4	2	$850	$280	$365	$1,400	**$2,895**
5	2	$850	$280	$365	$1,400	**$2,895**
6	3	$1,275	$420	$365	$1,700	**$3,760**
7	3	$1,275	$420	$365	$1,700	**$3,760**
8	4	$1,700	$560	$365	$2,000	**$4,625**
9	4	$1,700	$560	$360	$2,000	**$4,625**
10	5	$2,125	$700	$365	$2,300	**$5,490**

Notes: Analysis does not take into account inflation or salary increases and assumes facility construction is performed one at a time; Source: PB Analysis

Appendix I

Paseo del Volcan Corridor

Analysis of Economic Development Opportunities

Supplemental Information

- Appendix I: Executive Summary Supporting Analyses
- Appendix II: PDV Construction Costs

August, 2014

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Appendix I: Executive Summary Supporting Analyses

Appendix I provides detailed, supporting information to the Executive Summary through a series of analyses, including:

1) A Full Site Analysis – to assess the physical condition of the corridor land and to identify the areas along the corridor that can accommodate development today and in the future.
2) A Workforce and Demographic Analysis – to evaluate the current workforce supply and resources, as well as demographic trends expected in the Albuquerque region over time.
3) A Quality of Life Analysis – to outline quality of life conditions in the region that are helpful to attract economic development.
4) A Site Selection Analysis – to review priorities for targeted industries in their site selection criteria and the city, state and PDV corridor's ability to meet those needs.
5) An Economic Analysis – to identify trends in targeted industries, assess the economic strengths and weaknesses of the PDV corridor, benchmark these strengths and weaknesses against competing MSA's, and measure the tax revenue implications of corridor development.

These analyses are presented in detail below.

1.0 Site Analysis

The site analysis outlines the attributes of the corridor, defined as one-half mile from the centerline of the alignment in each direction (1 mile wide). This analysis establishes a baseline corridor profile and documents the quantity of raw land available for large scale industrial uses. Table 1 summarizes the acres and percentage of land within specific soil types, grades, and within floodplains.

Physical Attributes of Corridor

A. The grade of adjacent lands and acres with a grade of 5% or less

Land with grades of less than 5% can accommodate industrial use. In total, there exist 12,985 acres in the corridor with a grade of 5% or less, or 72% of the corridor after removing the PDV right-of-way acreage. Of the nearly 13,000 acres with slopes of 5% or less, approximately 7,000 acres are in Bernalillo County and 6,000 acres are in Sandoval County. In total, 95% of the land in Bernalillo County has less than a 5% grade and 57% of the Sandoval County land has less than a 5% grade. Land with slopes of less than 5% are scattered in pockets throughout Sandoval County, but are dense across Bernalillo County.

Land has greater than 5% slopes on the immediate north and south sides of the Sandoval County border. Large-scale industrial use is not prohibited by land with greater than 5% slopes, but construction would be very expensive. For the purposes of this study, land with greater than 5% slopes is therefore not considered developable. As the PDV corridor moves north toward Rio Rancho and then east toward US-550, pockets of land with grades above 5% become more common. Although this terrain may prohibit industrial development, it can still accommodate residential development, open space or other uses. Map 1 below illustrates the slopes of the land throughout the PDV corridor; the yellow areas of the map are most suitable for large-scale, industrial use.

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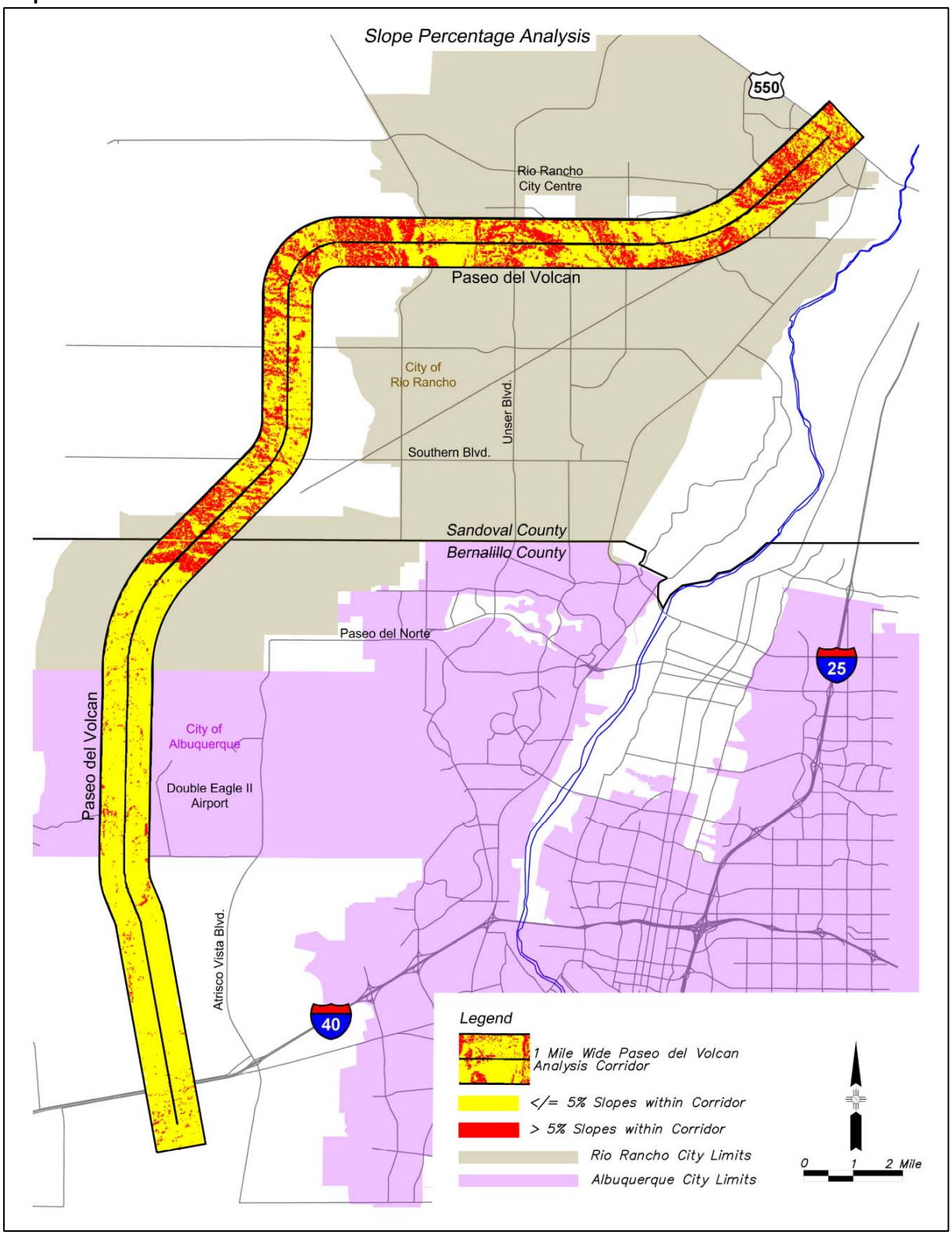
Map 1: Grades of 5% or less



Note: Slope percentages calculated with Autocad Civil3D from contours downloaded from the Bernalillo and Sandoval County GIS websites

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Table 1. Physical Attributes of Corridor Land

Category	Acres	% of Corridor	Description of Location
Total Corridor Acreage	17,950	100%	
Soil			
Total Quality soil	9,100	51%	Bernalillo County
Total Marginal soil	7,400	41%	Dense in Sandoval County border and Northern Meadows subdivision; scattered along constructed portion of PDV
Total Undesirable soil	1,450	8%	Scattered along county borders and small pockets along constructed portion of PDV
Grade			
Less than 5%	13,000	72%	Across nearly all of Bernalillo County; scattered in small pockets throughout Sandoval County
Greater than 5%	4,950	28%	Dense on either side of the county border; scattered throughout Sandoval County
Floodplains			
FEMA Floodplains	1,150	6%	12-15 locations across the entire corridor running east to west off of the west mesa
Non-FEMA Floodplains	16,800	94%	

Notes: Total corridor acreage is 19,650 acres and right-of-way is 1,700 acres; acreages are rounded
Source: PB Analysis

B. Soil Regime and its Ability to Support Large Scale Industrial Development

In addition to the slope of the land, the soil type and quality can also impact the potential for development. The study area consists mostly of sandy loam, which is considered a select fill material and is conducive to most types of construction, including large-scale industrial. To assess the quality of the soil regime in the corridor, this analysis divides the soil into three categories:

- Undesirable: Very limited support capacity
- Marginal: Some limits on support capacity and some added costs to construction
- Quality: Very little or no limits on support capacity and no added costs to construction

Industrial development can occur on Quality and Marginal soil, but the Marginal soil would present some construction challenges. Overall, there are 9,100 acres of Quality soil, 7,400 acres of Marginal soil and 1,450 acres of Undesirable soil in the corridor (see Table 1 and Figure 2). Most of the Quality soil can be found covering nearly the entirety of the corridor in Bernalillo County, but is scattered in pockets throughout the portion of PDV already constructed in Sandoval County. The land in Sandoval County from the Bernalillo-Sandoval border until the corridor turns east-west is generally covered by Marginal soil, which can still accommodate industrial development, but will present some development challenges. There are very few acres of Undesirable soil within the PDV corridor, with the exception of small pockets along the Bernalillo-Sandoval County border and along the constructed portion of PDV. Although this soil quality is not as suitable for industrial development, residential development can occur in these areas.

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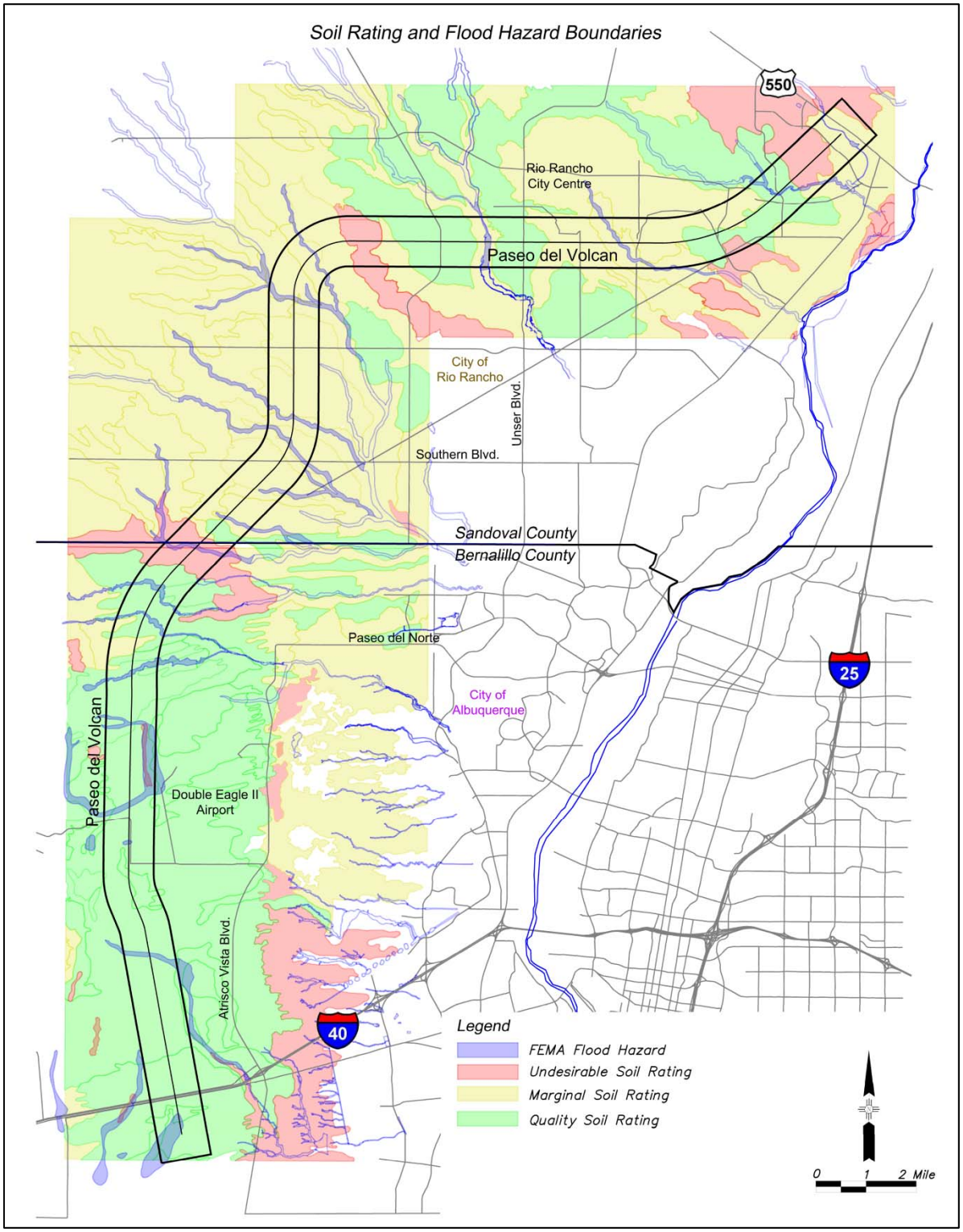
Map 2: Soil Regime and FEMA Floodplains



Note: FEMA flood hazard boundaries downloaded from New Mexico Resource Geographic Information System Program; Soil ratings taken from reports and downloads from National Web Soil Survey Website

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C. Location of FEMA Floodplains in the Study Area

Designated FEMA floodplains can also limit development. These designated areas are identified by FEMA as special hazard areas of high risk that require flood insurance coverage. These zones prohibit development due to flood risks. Limited FEMA floodplains exist throughout the PDV corridor, covering just 1,150 acres, or 6% of the land in the corridor (see Table 1 and Map 2). FEMA floodplains in this area are drainages or arroyos that run west to east off of the west mesa. They are approximately 420 feet wide, on average, and exist in approximately twelve to fifteen locations along the corridor. There are five floodplains in Bernalillo County, four to five in Sandoval County before PDV turns east-west and another three to four along the constructed portion of the road.

After considering slope, soil quality and FEMA floodplain locations, there are 6,750 total acres of Grade A land, defined as having less than 5% grade, Quality Soil and are not restricted by FEMA floodplains. These acres are most common throughout Bernalillo County with pockets in Sandoval County along both sides of Unser Blvd. There are an additional 3,050 acres of Grade B land, defined as having less than 5% slope, Marginal Soil and are not restricted by FEMA floodplains. These acres are most dense throughout Sandoval County between the Sandoval/Bernalillo border and where the roadway turns east-west as it nears Rio Rancho City Center, with pockets east of Unser Blvd. Table 1 provides a summary of the physical attributes of the corridor.

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2.0 Inventory of Economic Assets

A. Number of Acres of Grade A Land for Industrial Development

As noted in the previous section, Grade A land is defined as those acres within the PDV corridor with topography of less than 5% slopes, a soil type suitable for large scale industrial development buildings, and not located within a flood plain hazard. Grade B is defined as acres within the PDV corridor with topography of less than 5% slopes, marginal soil and are not within a flood hazard. To further demonstrate the potential development of acreage within the corridor, this analysis divides Grade A land into 3 groups:

- Grade A land with utilities ("shovel-ready")
- Grade A land with utilities under construction
- Grade A land with no planned utilities

As outlined in Table 2 below, 9% of the corridor (after removing acreage designated for right-of-way) is shovel-ready, 16% of the corridor includes Grade A land with utilities under construction, and 12% of the corridor includes Grade A land, but with no utilities currently planned for construction. An additional 17% of the corridor is considered Grade B. Overall, about 9,800 acres, or 55% of the corridor can accommodate industrial use.

Table 2. Land Available for Industrial Development

Category	Acres	% of Corridor
Total Corridor Acreage	17,950	100%
Grade A with utilities (shovel-ready)	1,575	9%
Grade A with utilities under construction	2,950	16%
Grade A with no planned utilities	2,225	12%
Grade B	3,050	17%
Total Developable Land (for industrial uses)	9,800	55%
Total Land Not Suited for Industrial Uses	8,150	45%

Source: PB Analysis

Notes: Total corridor acreage is 19,650 acres and right-of-way is 1,700 acres; percentages do not add due to rounding

Map 3 illustrates the locations of Grade A and Grade B land along the PDV corridor.

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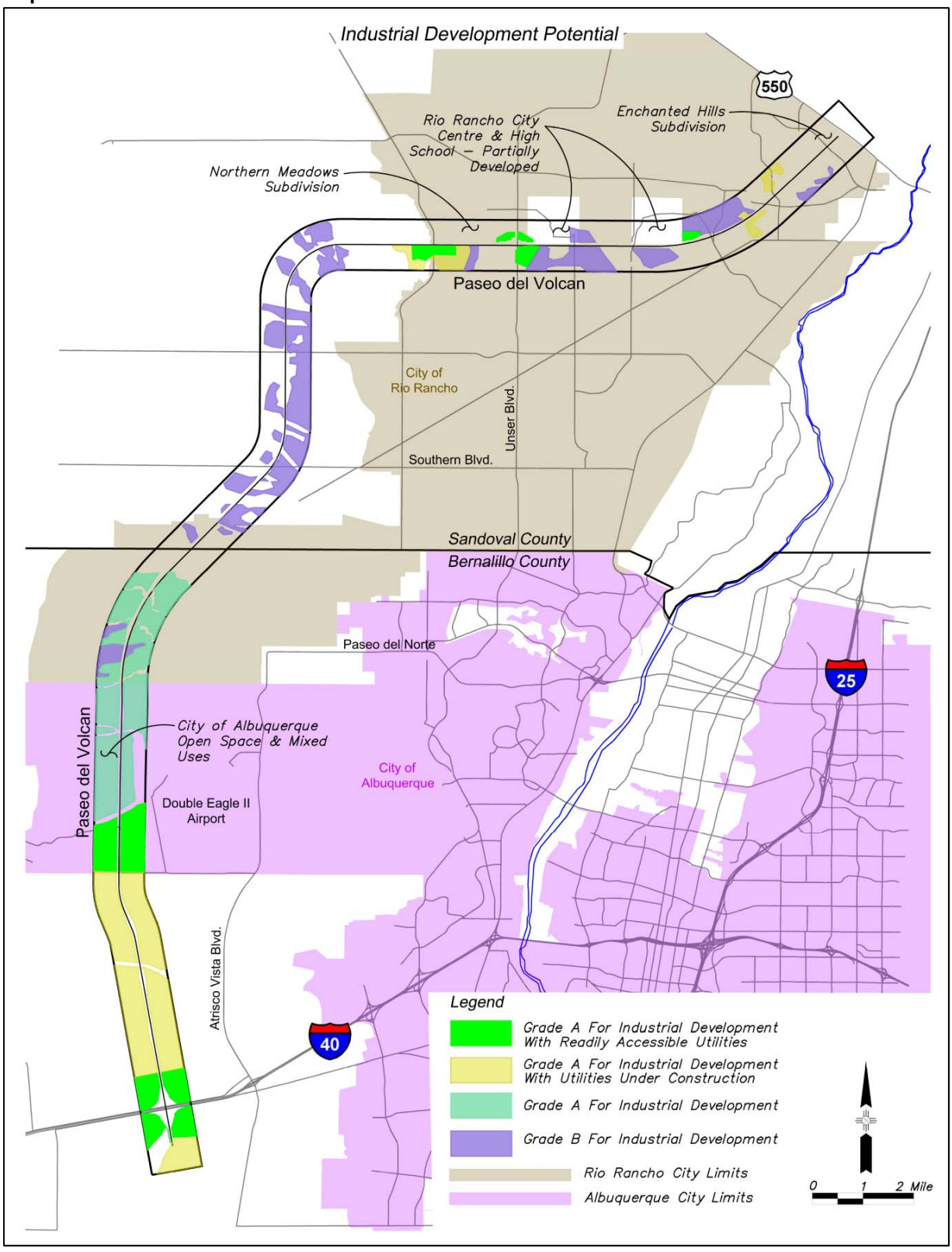
Map 3: Location of Grade A and Grade B Lands



Source: PB Analysis

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B. Land Ownership

Map 4 illustrates the general land ownership and sizes of major landowners throughout the corridor. Bernalillo County is divided among three major landowners: Western Albuquerque Land Holdings (WALH), the City of Albuquerque, and Ranch Joint Venture Ownership. Most of the shovel-ready land falls within the WALH property near the I-40/PDV intersection and the City of Albuquerque property near the Double Eagle airport. Utilities are under construction to serve the remaining acres of the WALH land. Overall, the landowner acreage in Bernalillo County is broken down as follows:

- Western Albuquerque Land Holdings (WALH): 3,250 acres
- City of Albuquerque: 2,150 acres
- Ranch Joint Venture: 1,750 acres

Landownership in Sandoval County is markedly different with over 12,000 small (half-acre to one-acre) parcels owned by over 5,000 different owners. The small, fragmented sites in Sandoval County would not accommodate large-scale industrial development unless they are assembled. About half of the 10,500 acres in Sandoval County are owned by private parties, one-third is owned by AMREP Southwest and the rest owned by a mixture of the City of Rio Rancho, Sandoval County, the Southern Sandoval County Flood Control Authority, and the New Mexico State Land Office.

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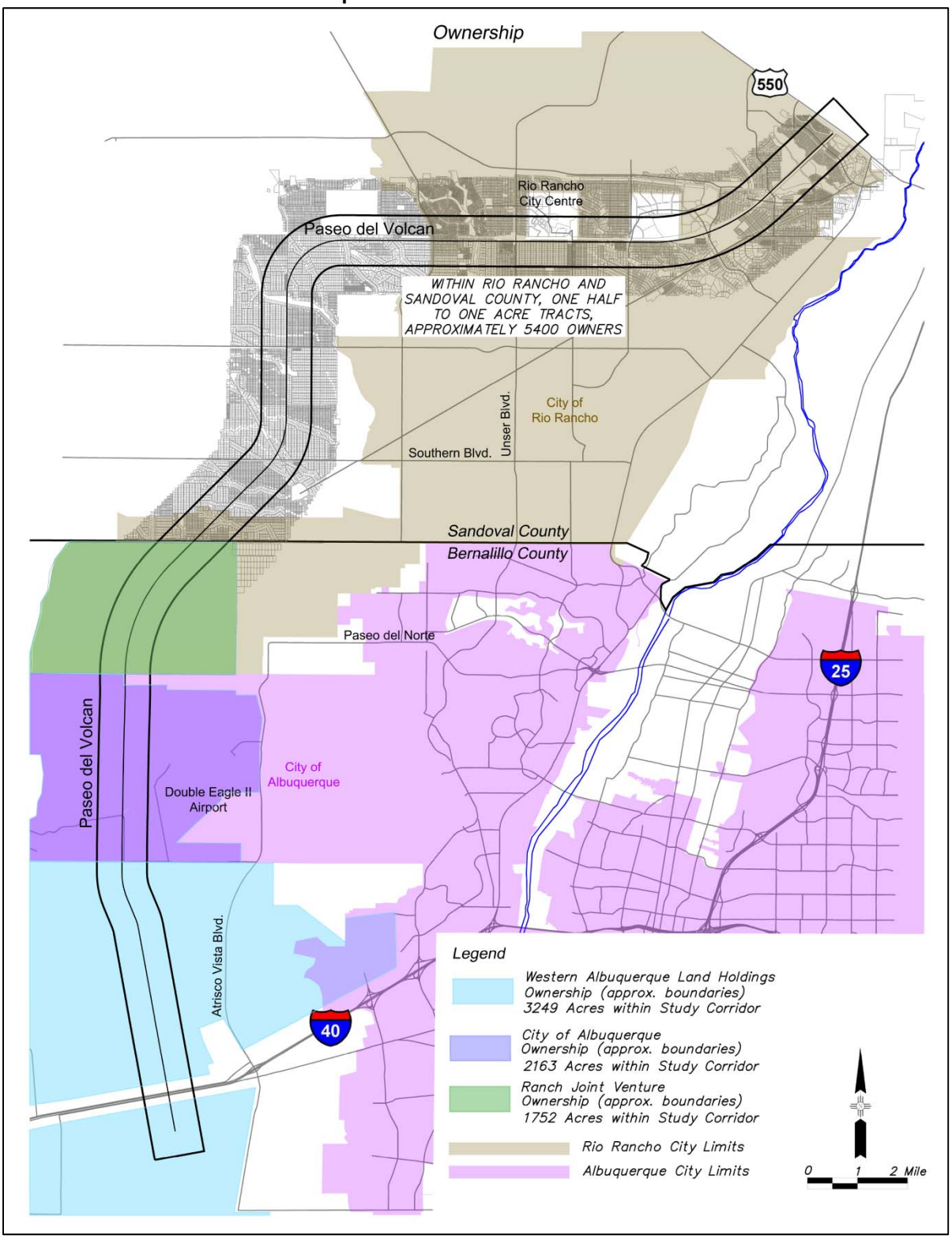
Map 4: Boundaries of Landowners



Source: PB Analysis

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C. Zoning and Adopted Plans

Currently, all of the parcels within the Bernalillo County zoning jurisdiction are either Special Use Zones (SU-1) or Residential and Agricultural Zones (RA-1). Most of the parcels are RA-1 (approximately 75%), and permit low density houses and uses, including agriculture. The RA-1 lands present are currently used exclusively for agriculture; specifically cattle-grazing. The SU-1 parcels will need to eventually be defined by Site Development Plans. An application for a change to SU-1 zoning must state the proposed use and be accompanied by the Site Development Plan. Both SU-1 and RA-1 are informally considered "holding" zones that are expected to change when new master-plans are drafted that cover these lands.

In Sandoval County, the 12,000+ parcels fall within a variety of zones, including:

- Future Planning zones (which are required to be master-planned)
- Low/Medium Density Residential
- Office/Mixed-Use Commercial
- Industrial

Only ~5% of the corridor within Sandoval County is currently zoned as Industrial. The small, fragmented nature of the parcels likely drive the variety of zoning listed above as well as the particularly small percentage of total industrial-zoned acres. As noted in the Executive Summary, these parcels will require assemblage and re-zoning to accommodate large scale industrial development.

Of the approximately 28,500 master-planned acres surrounding the corridor, just ~14% of the land is currently zoned for industrial use. However, a much higher percentage of the land is zoned for commercial use and these plans can evolve and change over time.

Table 3. Industrial-Zoned Acres within Nearby Master-Plans

Master-Planned Community	Total Acres	Total Industrial Acres
Aerospace Technology Park at Double Eagle	255	255
Paseo Gateway	735	40
Quail Ranch	6,500	540
Rio Rancho Industrial	480	400
Rio Rancho City Center	520	70
Santolina	13,850	2,050
Westland / Estrella	6,100	520
Total	**28,440**	**3,875**
Source: Consensus Planning, Inc.		

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Nearly all parcels along the PDV corridor must be re-zoned to accommodate industrial use and this may occur organically as new master-plans are developed and if assemblage occurs in Sandoval County, but it also may need to be driven by the developers.

D. Current and / or Future Access to Utilities

A discussion of access to utilities is provided in Section 2.A on page A-7.

E. Logistics

1. Access to the interstate highway system.
2. Travel time to key points on the interstates as well as other major highways in the metro area.
3. Travel time to the Albuquerque Sunport and the City Air Freight Facility.
4. Summary of available traffic counts and forecasts of the area.
5. Rail access and travel time to the closest major intermodal facilities.
6. Trucking terminals with full truck load service (FTL) and less than truck load service (LTL).
7. Travel time and amount of fuel required to reach the nearest deep water sea port on the pacific (that would be the port of LA/Long Beach), the Gulf (Houston, Port Author), and the Atlantic (Jacksonville Florida).
8. Average charge per mile to ship a ton of freight by air, rail, and truck.

An important strength of the PDV location is its access to key destinations in the region. In measuring distance and travel time to various destinations, three points along PDV were considered: the PDV / I-40 interchange, the PDV / Paseo del Norte intersection, and the PDV / Southern Boulevard intersection. While travel times vary based on the origin, the corridor is conveniently located to destinations and transportation access points no matter the origin, as outlined by Table 4.

Table 4. Access Interstates, Travel Times to Key Destinations

Origin / Destination	PDV / I-40		PDV / PDN		PDV / Southern Blvd.	
Transportation Destinations	Miles	Minutes	Miles	Minutes	Miles	Minutes
I-25	12	0:12	14	0:21	15	0:22
I-40	0	0:0	10	0:14	14	0:17
Albuquerque Sunport / Air Freight	18	0:17	31	0:30	30	0:36
Belen Freight Terminal (rail yard)	47	0:47	57	0:61	61	0:64
UNM Regional Trauma Hospital	14	0:16	23	0:31	26	0:34

Access to both interstates is very convenient from all points along the corridor and was noted by a Tempur-Pedic business manager as a key advantage to the location. In addition to providing key access for shipments and distribution, the interstate access also ensures easy commutes for workers. This was another point highlighted by the Tempur-Pedic manager, who called the commute “a breeze,” as it is a reverse commute, away from the city in the morning and into the city at the end of the work day.

Access to the Albuquerque Sunport is also convenient from the PDV corridor and both full truck load (FTL) service and less than truckload service (LTL) companies / terminals exist near the Sunport.

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In manufacturing and distribution facilities, there will be heavy machinery use, large equipment and chemicals that are managed on a daily basis. These types of operations possess serious risk to employees. However, another advantage of the PDV location is that it offers easy-access to safety and emergency services. A UNM Regional Trauma Hospital is just 14 miles from the PDV/I-40 intersection and 26 miles from the PDV/Southern Blvd section.

As noted in all interviews with city officials, economic development organizations, landowners and current business managers in the region, location is a key asset for the PDV corridor, particularly for potential manufacturing and distributions facilities. In addition to the convenience of local locations, the PDV corridor also sits approximately halfway between the Port of Los Angeles and the Port of Houston. Details on travel times to these ports and fuel required to reach them can be found in Table 5 below.

Table 5. Travel Times and Fuel Used to Access Nearest Seaports

Destination	Miles	Time	Fuel (gallons)
Port of Los Angeles	829	13:10	140.5
Port of Houston	912	14:24	154.6

The assumptions used for the travel time calculations are listed in Table 6 below.

Table 6. Travel Time Assumptions

Assumptions		Travel Times per Mile	
Interstate travel speeds	65 mph	Interstate	0.92 mins
Paseo del Volcan travel speed	50 mph	Limited access arterial	1.20 mins
Urban arterial speed	35 mph	Urban arterial	1.71 mins
Downtown arterial speed	25 mph	Downtown street	2.40 mins
Intersection delay	0.5 mins	Time at intersection	0.50 mins
Fuel used*	5.9 mpg		

** Loaded 18-wheeler, www.truckinginfo.com*

One transportation drawback that afflicts the overall Albuquerque metropolitan area is the lack of rail access. In fact, the Tempur-Pedic business manager noted that the lack of rail access increases the costs of shipping and acquiring of productions materials. The cost of freight transportation varies by mode, and typically, the costs of moving goods by airplane and truck is significantly more expansive than by rail. In 2008, the Center for Climate and Energy Solutions compared the cost of shipping goods by truck and rail, which is outlined in Table 7.

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Table 7. Shipping Costs Breakdown – Truck and Rail

Category	Truck	Rail
Fuel	37%	25%
Labor	35%	30%
Depreciation	0%	11%
Interest	0%	2%
Equipment	0%	6%
Materials and Supplies	0%	5%
Lease/Purchase Payments	12%	0%
Repair and Maintenance	5%	0%
Fuel Taxes	3%	0%
Other	8%	22%

Note: Percentages are illustrative and not a definitive breakdown; categories with 0% may exist in the "Other" category
Source: Center for Climate and Energy Solutions, 2008

Given that fuel and labor costs fluctuate, it is difficult to pinpoint an exact cost per ton, per mile for each. However, based on data collected by the Department of Transportation in the early 2000s, the costs of shipping by air are approximately ten times more expensive than shipping by truck and trucking shipping costs are approximately ten times more expensive than shipping by rail.[1] Although the highway network accesses far more territories, rail can save shipping costs, particularly over great distances.

2.2 Demographics for Workforce Training

In addition to physical attributes, understanding the socioeconomic characteristics of the region is important to understanding the opportunities and challenges inherent in a large-scale economic development endeavor. Major employers who are considering expanding or relocating their business desire an area with a workforce that is both adequate in size and properly qualified. The workforce residing in the Albuquerque metro area is growing and has many of the attributes sought by manufacturing and distribution businesses. This section provides an overview of the population and workforce characteristics.

A. Population by level of education

Table 6 below uses the latest available data to provide a snapshot of the region's educational attainment compared to State and national levels.

[1] Costs were estimated by dividing total shipping costs by mode over total ton miles shipped by mode

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Table 8. Population by Level of Education by Geography (2012)

Category	United States	New Mexico	Bernalillo & Sandoval Counties
Population 25 and over	208,731,000	1,360,000	536,000
No high school degree	28,596,000	212,000	60,000
Percent of total	*13.7%*	*15.6%*	*11.2%*
High school degree or equivalent	58,445,000	360,000	132,000
Percent of total	*28.0%*	*26.5%*	*24.6%*
Some college, no degree	44,460,000	321,000	128,000
Percent of total	*21.3%*	*23.6%*	*23.9%*
Associate's degree	16,699,000	112,000	47,000
Percent of total	*8.0%*	*8.2%*	*8.8%*
Bachelor's degree	37,989,000	203,000	93,000
Percent of total	*18.2%*	*14.9%*	*17.4%*
Graduate or professional degree	22,752,000	152,000	76,000
Percent of total	*10.9%*	*11.2%*	*14.2%*

Source: U.S. Census Bureau, 2012 American Community Survey 1-Year Estimates

There are both strengths and weaknesses inherent in the educational composition of the Albuquerque area.

- In the two-county area, 32% of residents over 25 years of age possess a bachelor degree or higher, compared to 29% nationally
- One third (33%) of residents in Bernalillo and Sandoval Counties attended some college or hold an Associate's degree, compared to 29% nationally;
- Just one-quarter (25%) of area residents have a high school degree or equivalent, compared to 28% nationally

The mix of educational attainment presents certain advantages for manufacturing and distribution relocations to the area. Tempur-Pedic currently employs 120 hourly-wage workers and 30 salaried employees – and those employees' education levels likely reflect these positions. The balance of high-school graduates and the higher-educated population within the region's labor supply, therefore, likely fits the needs of target industrial facilities.

Although there is a balance between the higher educated population and high school graduates in the region, high school graduation rates remain lower than the national average. This education-level may be important for manufacturing and distribution facilities when hiring hourly-wage workers. While the low high school graduation rate may not be a hindrance for one facility expanding to the area, it may become more of an obstacle over time as the PDV corridor develops and the need for a high volume of high school graduates increases.

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B. Success stories of local public and private schools

In order for a region to maintain a sizable pool of qualified workers, it must provide institutions and programs capable of developing skills marketable to potential employers. Fortunately, the region can point to several recent educational success stories that support the improvement of its workforce. The following are examples of specific, local programs that have succeeded in recent years at providing skill-building opportunities to the local workforce.

- **Southwest Aeronautics, Mathematics, and Science (SAMS) Academy**

  The SAMS Academy, prepares students in grades 7 through 12 through an Integrative Science, Technology, Engineering and Math (STEM) educational model with an Aeronautics focus. Part of the school's mission is to equip students with the reading, writing, mathematical, scientific, and problem solving skills necessary for success in post-secondary education and high-tech, aviation related careers. The school's proximity to Double Eagle II Airport in addition to its two flight simulators have made the SAMS Academy a major destination for teenagers and young adults pursuing careers in aeronautics, with admissions waiting lists recently topping over 1,000 students.

- **Innovate ABQ**

  Innovate ABQ is a new high-tech research and business district, catalyzing collaboration between the University of New Mexico, The Science and Technology Corporation (STC.UNM), local government, and the local business community. Effectively a startup incubator, Innovate ABQ leverages the research capabilities of a major university with Albuquerque's entrepreneurial and business community to build new businesses, help existing businesses grow, and attract strong researchers and entrepreneurs to the area. While just getting off the ground, Innovate ABQ has generated significant support from major local stakeholders; for example, in 2013 the Albuquerque City Council approved a $2 million bond issuance to help kick-off construction of Innovate ABQ.

- **Central New Mexico Community College (CNM)**

  Formerly a technical and vocational institute, CNM became an accredited two-year college in 2006 and now serves as the community college for the Albuquerque metropolitan area. CNM is the second largest postsecondary institution in New Mexico with a student body of 35,000 and the majority of students enrolled in college-credit courses. Among CNM's 47 associate's degree and 52 certificate programs is a strong emphasis on STEM fields, including applied technologies, business and information technology.

- **STC.UNM (formerly known as the Science & Technology Corporation at UNM)**

  STC.UNM is a nonprofit corporation formed and owned entirely by UNM and located on UNM's south campus at the Science & Technology Park. As a critical stakeholder in Innovate ABQ, STC has proximity to research and development and laboratory facilities, and STC students and researchers have helped create a number of technology-based companies in the area. STC also collaborates with researchers at New Mexico's two national labs, Sandia National Laboratories and Los Alamos National Laboratory, to produce business-oriented technology solutions. STC's stated mission is to understand the potential market applications of the wide range of technologies developed at UNM and to efficiently get them to companies that can commercialize them.

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C. Population with Degree Critical to Economic Development

The local educational institutions and programs that support and develop the workforce as well as the types of degrees earned will help shape the industries clusters that grow in a region. Table 9 below examines the population 25 years of age and older with at least a bachelor's degree, comparing degrees held in each category in the Albuquerque area with State and national totals.

Science and engineering are important skills for economic development as these degrees provide skills critical for business start-ups, particularly in technology. In Bernalillo/Sandoval County, 9% of the population with post-secondary degrees earned a degree in engineering, outpacing both New Mexico and the US (8%). Overall, 38% of Bernalillo/Sandoval County earned a science and engineering degree – also a higher composition of the total than New Mexico and the US. These technical skills are a key component to the labor force, which the region can leverage to attract small business. In addition to Science and Engineering, 14% of the region earned a post-secondary degree in Education, slightly higher than the US average (13%). Although not as relevant to manufacturing and distribution or technology, this group may prove critical in developing education and technical programs as well as improving high school graduation rates, a benefit to the workforce.

Post-secondary degrees in Business (18%), however, are below the US average (21%). The smaller pool of post-secondary business graduates puts the area at a disadvantage when trying to supply relocating and expanding companies with management talent. The shortage of management talent was displayed when Tempur-Pedic expanded in Albuquerque, as it was forced to recruit all 30 salaried workers from out-of-state.

D. Population with certificate/training critical to economic development

Some employers seek employees who possess specialized training in a particular field or trade, but may not have an advanced degree. Albuquerque's many vocational training programs have produced a sizable pool of candidates for a variety of industries. The following table provides a summary of job seekers in the Albuquerque MSA who have registered with the New Mexico Department of Workforce Solutions as of August 2014 and self-identified as having formal training related to a given industry or occupation.

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Table 9. Population by Post-Secondary Degree (2012)

Category	United States	New Mexico	Bernalillo & Sandoval Counties
Total	60,743,000	355,000	169,000
Science and Engineering	**20,959,000** ***35%***	**127,000** ***36%***	**63,500** ***38%***
Computers, Mathematics and Statistics	2,570,000 *4%*	11,000 *3%*	6,000 *4%*
Biological, Agricultural, Environmental Sciences	3,737,000 *6%*	24,000 *7%*	11,000 *7%*
Physical and Related Sciences	1,985,000 *3%*	16,000 *5%*	8,000 *5%*
Psychology	2,847,000 *5%*	19,000 *5%*	9,000 *5%*
Social Sciences	4,702,000 *8%*	25,000 *7%*	13,000 *8%*
Engineering	4,751,000 *8%*	30,000 *8%*	15,000 *9%*
Multidisciplinary Studies	367,000 *1%*	2,000 *1%*	~1,500 *1%*
Science and Engineering Related Fields	**5,521,000** ***9%***	**30,000** ***8%***	**18,000** ***11%***
Business	**12,465,000** **21%**	**57,000** ***16%***	**30,000** ***18%***
Education	**8,195,000** ***13%***	**60,000** ***17%***	**17,000** ***14%***
Arts, Humanities, and Other	**13,602,000** ***22%***	**80,000** ***23%***	**36,000** ***21%***
Literature and Languages	2,652,000 *4%*	16,000 *5%*	8,000 *5%*
Liberal Arts and History	3,051,000 *5%*	17,000 *5%*	8,000 *5%*
Visual and Performing Arts	2,471,000 *4%*	18,000 *5%*	7,000 *4%*
Communications	2,236,000 *4%*	9,000 *3%*	5,000 *3%*
Other	3,192,000 *5%*	20,000 *6%*	8,000 *5%*

Source: U.S. Census Bureau, 2012 American Community Survey 1-Year Estimates

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Table 10. Candidates Available in Albuquerque MSA with Relevant Training, by Occupation

Occupation	Candidates
Construction & Extraction	1,111
Office & Administrative Support	810
Transportation & Materials Moving	504
Sales & Sales Related	423
Production	378
Installation, Maintenance & Repair	359
Healthcare	358
Architecture & Engineering	240
Business & Financial Operations	210
Computer & Mathematical	156
Life, Physical & Social Sciences	138
Education, Training & Library	126
Building & Grounds Cleaning/Maintenance	106
Legal	30

Source: New Mexico Department of Workforce Solutions, PB Analysis

While a comprehensive analysis of the entire population is not available, these figures provide a high-level overview on the number of individuals trained and residing in the Albuquerque region who are specifically seeking careers in each field. The data suggests that businesses catering to construction, administrative support, and transportation/logistics can expect the largest pool of trained workers, compared to other industries.

E. Resources available to develop critical skills

The technical and vocational programs, such as those completed by job seekers in Table 10 above help the labor force develop critical skills. The Albuquerque metropolitan area is home to over 30 educational and training providers spanning the public, non-profit, and for-profit sectors. These providers offer several hundred unique degree, certificate, and vocational training curricula relevant to a range of industries and employers. Table 11 below summarizes the educational and training providers in the area.

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Table 11. Educational and Training Resources in the Albuquerque Metropolitan Area

Provider	Affiliation	Course Offerings
Two-year, Technical and Community Colleges (4)		
Workforce Training Center, CNM	Public	Associate's, post-secondary certificate
Southwestern Indian Polytechnic	Public	Associate's, post-secondary certificate
Central New Mexico Community College	Public	Associate's, post-secondary certificate
Carrington College	For-profit	Associate's, post-secondary certificate
Four-year or Graduate Universities (3)		
University of New Mexico – Valencia	Public	Certificate, associate's, bachelor's, graduate
University of New Mexico – Main Campus	Public	Certificate, associate's, bachelor's, graduate
Webster University	Private	Graduate
Business and Technical Certificate Programs (10)		
Albuquerque Career Institute	For-profit	Post-secondary certificate
CompUSA Training	For-profit	Certificate
Culinary Business Academy	For-profit	Post-secondary certificate
Global Knowledge Center	For-profit	Post-secondary certificate
International Institute for Counter Terrorism	For-profit	Post-secondary certificate
Workforce Innovative Training	For-profit	Certificate
Dona Ana Community College of NMSU	Public	Certificate
UNM EMS Academy	Public	Certificate
UNM Continuing Education	Public	Certificate
American Century University	For-profit	Post-secondary certificate
Apprenticeship Programs (21)		
Trade	**# Programs**	
Carpentry	4	
Electrical	7	
Masonry	5	
Plumbing/pipefitting	4	
Mechanical	3	
Other	9	

Source: New Mexico Department of Workforce Solutions, PB Analysis

In addition to these academic and vocational institutions and programs, the state of New Mexico provides several training-related incentives for businesses, including the following:

- **Jobs Training Incentive Program (JTIP)**

  JTIP is a highly-flexible state program that provides on-the-job and classroom training. The state may reimburse up to 50% of trainees' wage up to 1,040 hours for companies located in urban areas, and up to 65% in rural areas. JTIP is available to new or expanding companies that manufacture a product or non-retail company that generates more than half of its service revenue from outside the state.

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- **Out of state tuition waiver for relocating employees**
  Both the University of New Mexico (UNM) and Central New Mexico Community College (CNM) will make in-state resident tuition rates available to relocating employees and their families who qualify for admission

The educational make-up of the labor force combined with the types of degrees earned in the region and the additional resources offered to develop workforce skills create an attractive environment for employees in a variety of industries. Although the population with a high-school degree lags behind the US average, technology companies and start-ups can leverage an above-average volume of science and engineering graduates. A key drawback, however, to the composition of the labor force is the abundance of manager and executive-level talent. A smaller percentage of post-secondary degrees are in business – and while the Tempur-Pedic facility recruited their entire hourly-wage staff locally and described this talent pool as "incredible," they had to search out of state for the salaried staff.

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2.3 Quality of Life

Attracting large-scale business investment requires amenities that will keep employees happy, healthy, and engaged to work for a company (in a certain location) long-term. Quality of life is a very important consideration, and Albuquerque shines in this area. As such, below is an overview of the key quality of life attributes of the region. This will become more critical to future efforts to market directly to prospective developers / investors and can be refined for those efforts.

While the topography and quality of labor pool should be attractive to industrial businesses, the quality of life in New Mexico – and particularly the Albuquerque region – should attract workers. From a local perspective, weather, a low cost of living, easy commutes and a plethora of educational, technical and vocational resources shape the high quality of life.

Albuquerque sees ~25% more hours of sunshine per year than the US average, which accommodates a variety of outdoor activities and rarely interrupts plans or travel. The region, which is lined by the Sandia Mountains to the east and desert to the west, was ranked by USA Today as the 3rd best place to watch a sunset. Further, the Albuquerque cost of living index is 8% lower than the US average. Housing prices, which are 28% lower than the US average, drive the low cost of living. Groceries, health care and transportation also measure lower than the US average, while goods and services and utilities measure slightly above.[2]

In addition to weather and cost of living, daily commutes around the Albuquerque area tend to be easy – particularly to and from the PDV area. A Tempur-Pedic manager described the commute as "a breeze," and added that the value of the easy commute is a major advantage to recruiting local talent for employment. The many educational, technical and vocational resources in the Albuquerque region provide residents a variety of outlets to further their careers or transition to new ones. Based on the well-rounded quality of life, FDI Intelligence ranked Albuquerque among America's mid-sized cities of the future in 2013.

More broadly, additional quality of life advantages exist as resident of New Mexico. From a cost of living perspective, New Mexico was ranked the 9th most tax-friendly state, according to a 2013 Kiplinger Report. As a state, it also boasts the lowest property taxes in the country. In terms of recreation, New Mexico is home to 12 world-class ski resorts that each see over 200 inches of snowfall per year. Outdoor activities are popular because of the temperate weather, but also enjoyable because of the clean air – the American Lung Association described New Mexico communities as "having some of the cleanest air in the nation."

From a cultural and diversity standpoint, New Mexico is nearly unmatched. In 2010, New Mexico was found to be the state with the 2nd highest percentage of bilingual speakers in the 2010 US census. Nearly one-third of the state speaks Spanish and an additional 4% speak Navajo. Indian reservations scatter across the state and influence local economies and cultures. Travel & Leisure magazine picked Santa Fe as its top-ranked cultural getaway in 2012, which is home to the Santa Fe Indian Market and Canyon Road Art Market, among other cultural attractions. In Albuquerque, 47% of the population identifies as Hispanic or Latino, and the National Hispanic Culture Center there offers art exhibitions and

[2] Council of Community and Economic Research, 2010 base year data

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programs in a variety of creative fields, including music, dance and film that celebrate New Mexico's diversity.

The combination of weather, cultural and diversity, cost of living advantages and educational resources locally and state-wide provide important competitive advantages for the region to draw business and new workers.

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2.4 Site Selection Criteria/Best Fit

Companies base location decisions on a number of criteria, many of which regard their production model, distribution methods, markets, and technical complexity of their products.

A. Critical elements when searching for a new location

A competitive and scalable new (or expanding) business will value a number of regional attributes when selecting a new location, including:

- Labor supply – to ensure new employees have the necessary skills to succeed in the business
- Site readiness and infrastructure (including access to water and utilities) – to ensure business operations can begin quickly
- The size of the facility/footprint – to ensure the building and area accommodates business operation needs
- Lease and labor costs (including factors such as impact fees) – to minimize the cost of business
- Housing/executive housing supply for new employees – to attract new workers
- Business subsidies or other incentives – to maximize the financial outcome of locating in one region over another

Those elements that can be quantified and benchmarked across peer cities are analyzed in detail below.

Income by industry at MSA level

Average annual wages in the Albuquerque MSA are competitive with its peers across a variety of occupations. Table 12 below compares average incomes across various occupation categories in Albuquerque, compared to benchmark MSAs, State, and national averages.

Table 12. Annual Mean Wages by Occupation Category May 2013

Geography	All Occupations	Business & Finance	Computer & IT	Engineering & Architecture	Healthcare	Production & Manufacturing
United States	$46,440	$71,020	$82,010	$80,100	$74,740	$34,930
New Mexico	$41,470	$60,260	$71,450	$81,010	$71,330	$35,150
Austin MSA	$47,900	$68,920	$81,570	$81,400	$73,050	$33,340
Colorado Springs MSA	$45,410	$68,570	$83,540	$78,370	$73,620	$34,600
El Paso MSA	$36,020	$58,190	$58,430	$70,840	$67,930	$27,030
Oklahoma City MSA	$42,570	$61,050	$65,790	$82,490	$66,490	$32,980
Salt Lake City MSA	$46,040	$64,500	$73,030	$75,560	$70,980	$34,890
Tucson MSA	$42,450	$59,500	$71,800	$77,780	$73,670	$34,550
Average MSA (excl ABQ)	$43,400	$63,460	$72,360	$77,740	$70,960	$32,900
Albuquerque MSA	**$42,840**	**$62,630**	**$73,330**	**$81,130**	**$69,180**	**$33,200**

Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics May 2013

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Cost of living

Cost of living varies greatly by state, region and city. Indices such as regional Consumer Price Index (CPI) attempt to measure the differences in costs of goods and services across different regions, and can influence a company's decision making process. Higher cost of living likely means higher wages and higher costs of goods produced and transported locally.

The table below compares the overall cost of living and sub-categories in Albuquerque and benchmark MSAs to State and national levels. Numbers below 100 represent costs that are below the national average, while numbers above 100 are higher than average. While Albuquerque is competitive overall at eight percent below the national average, all benchmark MSAs are also below the national cost of living average, as outlined in Table 13.

Table 13. Cost of Living Index and Sub-Categories, ABQ vs. Benchmarks

Geography	Cost of Living Index	Goods & Services	Groceries	Health Care	Housing	Transportation	Utilities
United States	100	100	100	100	100	100	100
New Mexico	99	100	100	98	99	99	98
Austin	92	98	89	106	81	101	97
Colorado Springs	90	94	95	102	81	95	91
El Paso	78	88	100	94	49	98	78
Oklahoma City	82	95	91	98	55	102	79
Salt Lake City	93	104	92	93	86	95	81
Tucson	90	102	98	105	67	101	89
Average (excl ABQ)	88	97	94	100	70	99	86
Albuquerque	**92**	**104**	**96**	**99**	**72**	**95**	**102**

Source: Council for Community and Economic Research, 2010 base year data

Albuquerque's overall cost of living is slightly above the benchmark MSA average. While it is very competitive with the benchmark MSAs in most categories, only Salt Lake City has an overall higher cost of living than Albuquerque. Albuquerque utility costs are the only category far above the benchmark MSA average. Low housing costs drive the cost of living in Albuquerque below the national average, and although these costs are also below the benchmark MSA average, only Tucson and El Paso have lower housing costs than Albuquerque (and these cities drive the low overall MSA average). In addition to low relative housing costs, no other benchmark city has lower transportation costs.

Unionization and right to work issues

New Mexico is not a right-to-work state, and over 30 statewide unions in New Mexico represent workers in fields including transportation, construction and trade, aerospace, and education. Despite a union presence, there are no existing manufacturers in the state with unionized workers. As of 2013, there were just 46,000 workers in New Mexico that are members of unions (6.2% of total workforce), ranking 42nd nationally in number of unionized workers. When including workers covered by unions

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(those represented by unions but are not members, such as teachers or trade workers), the state has 55,000 union workers, or 7.3% of the total workforce.[3]

B. General assessment of infrastructure needs and costs

Infrastructure is another important criterion for prospective businesses. The main infrastructure need is to complete the PDV corridor from Unser Blvd to I-40. These additional 22.3 miles will cost ~$92.5 million to construct. As the Executive Summary outlines, implementation can be done in three phases:

- Phase 1: Simple interchange at I-40
  - Construction costs: $15.4 million
  - Right-of-Way costs: $7.0 million
  - Total costs: $22.4 million
- Phase 2: Construction of PDV north from I-40 to Southern Boulevard in Rio Ranch (13.7 miles)
  - Construction costs: $24.7 million
  - Right-of-Way costs: $5.5 million
  - Total costs: $30.2 million
- Phase 3: Completion of the corridor from Southern Boulevard north to Unser Boulevard (8.6 miles)
  - Construction costs: $19.5 million
  - Right-of-Way costs: $20.5 million
  - Total costs: $40.0 million

Phase 1 would serve this corridor well into the foreseeable future by providing direct access to I-40 for transportation and logistics, as well as employee commutes. Phase 2 provides access to all of the shovel-ready land in Bernalillo County as well as the land in southern Rio Rancho in Sandoval County. This land is most accommodating for large-scale industrial development, given its topography and current access to utilities. Phase 2 would also provide a continuous route between I-40 and US-550 via Southern Boulevard and Unser Boulevard, though not suitable as a truck by-pass due to residential development. Phase 3 would complete the corridor from Southern Boulevard north to Unser Boulevard. This final phase would also connect Phase 2 to the already existing portion of the road from US-550 to Unser Boulevard. This connection would allow development on the already existing portion of PDV, including Hewlett-Packard, a UNM Medical Center, and the Santa Ana Star Center, to expand further waste.

In addition to the corridor itself, utility needs also exist throughout the corridor. As shown in Table 2 on Page 7, 1,575 acres exist with utilities and new utilities are under construction that will serve an additional 2,950 acres. In total, therefore, just 45% of the 9,800 acres of developable land will have access to utilities by the time the utilities in construction are completed. While there are too many variables to accurately estimate the cost of utilities for the remaining acres, given the scope of this paper, it is known that the city, county and state invested approximately $8-$9 million for utilities to serve the Tempur-Pedic facility.

[3] Bureau of Labor Statistics, January 2014

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C. Number and importance of shovel-ready/certified projects

While infrastructure needs exist along the corridor, and utility needs are particularly apparent in Sandoval County, shovel-ready sites with utilities exist throughout Bernalillo County. As already noted, 1,575 acres (9% of the PDV corridor) are "shovel-ready," which is defined as Grade A land with access to utilities. In Bernalillo County, 1,150 of these acres exist just west of the Double Eagle airport and just north of the I-40 interchange. In Sandoval County, parcels are small and would need to be aggregated. Although there are 425 shovel-ready acres in the county, they are on one-half acre to one acre plots of land, which are not large enough to accommodate industrial use.

The number of shovel-ready sites depends on how the parcels that are shovel-ready along the corridor are divided and the needs of potential businesses. For example, Tempur-Pedic and Shamrock Foods both reside on 50 acre sites. Currently, over 20 50-acre shovel-ready sites could be plotted along the corridor in the areas described above in Bernalillo County. Approximately 60 additional 50-acre sites where utilities are under construction could be plotted on land between the PDV/I-40 intersection and the Double Eagle Airport.

D. Satisfaction of other businesses in the corridor

Although shovel-ready sites currently exist throughout the corridor, the physical readiness of the corridor does not ensure business satisfaction with the location. Tempur-Pedic and Shamrock Foods operate just two miles east of the planned PDV roadway along Atrisco Vista Boulevard and I-40, and business managers at these facilities are most qualified to speak to the advantages and disadvantages of doing business in the corridor, given the nearby location of their operations. In talking to a business manager at Tempur-Pedic, several areas of satisfaction and some areas of dissatisfaction were identified:

Areas of satisfaction:

- Labor pool for hourly employees (to work on the manufacturing line)
    - Tempur-Pedic currently employees 120 hourly employees that were recruited from the local labor pool, and remains very satisfied with their performance
- Location
    - Albuquerque facility supports all business west of the Mississippi and proximity to interstate highways is advantageous for business operations
- Elevation
    - Albuquerque's elevation is helpful for some of the chemical processes that go into Tempur-Pedic's manufacturing; less water is needed and reaction time is quicker, creating a less expensive process
- Quality of life
    - Weather and activities are an attraction for employees; when necessary, it has not been difficult to recruit salaried employees from out-of-state
    - Reverse commute makes getting to work easy for most employees who live east of the facility

Areas of dissatisfaction

- Difficult to find quality salaried employees

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  - Tempur-Pedic currently employs 30 salaried employees, many of which had to be recruited from out-of-state – possibly a repercussion of the low-levels of graduate business degrees in the region

- Difficult to distribute to greater Northwest
  - Reaching Washington and Oregon present challenges; infrastructure not in place
- No rail car availability
  - All logistics done by trucks; rail would lower cost of transportation
- State and local government not aggressive enough in attracting new business
  - Economy too dependent on government jobs and change has been slow

Overall, the Tempur-Pedic manager praised the hourly workforce, the location and quality of life in Albuquerque. There was genuine enthusiasm around locating the manufacturing facility in Albuquerque, even 7 years after it opened. He seemed surprised, however, that more businesses hadn't developed in the area. While he also listed some areas of dissatisfaction, only the lack of aggression by local government to bring more economic development to the area was mentioned with much zeal.

E. Current site selection needs and trends that may impact site marketability

Other site selection needs and trends impacting site marketability can vary by industry and function. Albuquerque Economic Development, Inc. has identified and performed marketability analysis on ten target industry clusters that should be targeted for future growth and investment, and these industries are analyzed further in Section 2.5.

For a broader view of what various industries prioritize in site selection, the following table weights different site selection categories for different industries on a 100 point scale. Across the board, workforce talent is identified as the leading driver for site selection, above or equal to regulations and business environment. This suggests that businesses are willing to negotiate or sacrifice factors such as living environment and even business environment and regulations in order to be near, or attract, a highly competent workforce.

Table 14. Key Location Drivers for Major Site Selection (Weighted on 100-point Scale)

Location Driver	International Headquarters	Shared Services Center	Software Development	Financial Services	Life Sciences R&D/Production
Business Environment	15	10	10	20	15
Regulations	15	15	10	20	15
Market	-	-	5	10	10
Talent	25	35	30	20	30
Sector Specialization	10	10	20	10	15
Infrastructure/Connectivity	20	20	15	10	10
Living Environment	15	10	10	10	5

Source: Site Selection Magazine, The World's Most Competitive Cities 2013

Life Sciences, R&D and Production expansions and relocations value local talent highest when considering site selection. Albuquerque's pool of post-secondary degrees in science and engineering,

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therefore, might be a strong selling point when attempting to lure businesses from these industries. Meanwhile, the high quality of life in Albuquerque may be a less important factor, except for a company looking to relocate its International Headquarters.

A shared services center manages multiple internal business functions, such as finance, HR, customer support and IT. Companies looking to expand or relocate shared services value the local talent pool, infrastructure and connectivity when assessing a new location. The shovel-ready sites would provide strong appeal to this type of business, as well as the increased power capacity of the region, which now has excess capacity to support large data centers and industrial users. This type of facility is also a likely target for PDV, as detailed in Section 2.5.

Economic incentives also help drive a company's location choice. Major incentives currently in place for manufacturing companies are listed in Table 15.

Table 15. State Business Incentive Programs

Incentive Program	Incentive Program (con't)
Industrial Revenue Bond	Technology Jobs Tax Credit
Job Training Incentive Program	Alternative Energy Product Manufacturers Tax Credit
Manufacturers Investment Tax Credit	Child Care Tax Credit
High Wage Jobs Credit	Lottery Scholarship Program
Rural Jobs Tax Credit	

Source: Albuquerque Economic Development, Inc

These incentives and credit programs are common across benchmark cities; however, when combined with the reduced effective tax rates passed in 2013, these statutory credits can make New Mexico's effective tax rate (ETR) the lowest of 8 surrounding southwest states. The High Wage Jobs Tax Credit and Jobs Training Incentive Program are recognized as some of the most effective in the country, as noted by Area Development Online, a national corporate site selection news organization. The program was further touted by the Tempur-Pedic business manager. Given the limited resources the state has at its disposal for deal-closing and the economic development constraints outlined in the Local Economic Development Act, the region must leverage its differentiating strengths to be successful in business attraction.

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2.5 Economic Analysis

It is often preferable to locate business operations where there are support services and potential business partners that can streamline operations and accelerate growth. Understanding what existing industry clusters or businesses are in this area will help reveal what types of business might find this corridor particularly attractive. This analysis addresses competitive strengths and weaknesses of the site from an economic development lens.

A. Inventory type of supportive industries in the Metropolitan Statistical Area (MSA), such as industrial gas suppliers, analysis labs, parts suppliers, industrial machinery supply and repair companies, and machine shops. This is usually determined by providing a copy of the list of industry clusters and attendant firms for the MSA.

As industry clusters concentrate and grow, a market for attendant firms is created to support those industry clusters through supplies, utilities, repair, human resource training, etc. These markets have evolved over time to support the variety of industry clusters in Albuquerque. As defined by Albuquerque Economic Development, Inc., the local industry clusters include:

- Aerospace and aviation
- Solar technologies
- Microsystems and nanotechnologies
- Semiconductors and electronics
- Directed energy and optics
- Bioscience
- IT and software
- Film and digital media
- Media industries
- Technology programs

Manufacturing and distribution represent much of the business within these industry clusters. As a result, a sub-market of supportive industries already exists for industrial industries. Developing the PDV corridor will create more activity and business within this sub-market. Table 16 outlines current companies in the Albuquerque area that can support potential manufacturing and distribution industries.

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Table 16. List of Local Supportive Industries

Large Manufacturers	Industrial Gas Suppliers	Lab Testing Facilities	Repair Companies	Parts Suppliers	Machinery Supply
• Academy Corp • Air Products • Aspen Avionics • Boeing • Cabot Superior MicroPowders • Clariant • CTS Electronic Components • CVI Laser • Eclipse Aerospace • Emcore • Ethicon-Endo Surgery • Honeywell • Intel • Ktech Corp • Lectrosonics • Mega Corp • OsoBio • Sennheiser • SUMCO USA • Thomas & Betts • Unirac • US Coton • UTC Aerospace Systems ISR	• New Mexico Nitrogen, LLC • Nitrogen 2 Go • Matheson Tri-Gas • Air Products and Chemicals • Linde Gas North America • AAA Gas Company • Los Lunas LP Gas • JW Fields Freon	• Assaigai Analytical Laborites • Vibrant Corporation • Grandin Testing Lab • Native Air Co • Kramer & Associates • Compliance Services & Testing	• Aeroparts Manufacturing & Repair • AERO Mechanical Industries • Allstate Hydraulics • Solutions Today • Elite Power and Recovery • Shiloh Maintenance Center	• SUMMIT Electric Supply • Mesa Equipment & Supply • Albuquerque Pipe & Pump Supply • Betatron Electronics • Concise Motion Systems • Quality Suppliers	• Southwestern Industrial • Speedy • Geo S Thompson Co. • Motion Industries

Source: Albuquerque Economic Development, Inc.

Manufacturing represents 4.2% of current jobs in the Albuquerque MSA and aerospace / aviation manufacturing is the predominant manufacturing industry followed by producers of electronic components, laser optics and semiconductors, and others. The value in the variety of local manufacturing production is that it creates a diverse market of attendant industries that are able to support different types of manufacturing. For instance, Albuquerque is home to several gas and parts suppliers, lab facilities and repair companies able to serve a broad set of manufacturing industries. This base of supportive industries likely will not differentiate Albuquerque from competitors that also boast manufacturing industry clusters, but can still be highlighted as valuable when luring business development.

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B. Review locations and expansions in the Southwest in order to identify the most active industries.

Albuquerque and its peer cities often compete to attract the same industries, as their city strengths and weaknesses are similar, and therefore also accommodate similar industry clusters. Economic development success can be measured on a variety of factors and one way to gain an understanding of a city's appeal is by benchmarking its success in attracting business over time.

Table 17 illustrates the location and expansion information for Albuquerque's southwest benchmark cities: Austin, TX; Colorado Springs, CO; El Paso, TX, Oklahoma City, OK; Salt Lake City, UT; Tucson, AZ. The benchmark cities are chosen based on population and geographic similarities as well as their locations near education institutions. The data in Table 17 is a representative list taken from city and economic development organizations' websites, but it is likely not exhaustive. However, it provides some insight to the active industries in Albuquerque and its peer cities as well as the number of jobs the expansions and relocations are expected to create.

Table 17. Key Relocations and Expansions in Southwest Cities

City	Relocation / Expansion	Year	Industry	Type of Facility	Jobs Created
Albuquerque	Relocation	2014	Technology	Customer Support	150
Albuquerque	Expansion	2014	Financial Services	HR Center	200
Albuquerque	Relocation	2014	Technology	Software Dev	100
Albuquerque	Expansion	2013	Healthcare	Healthcare Svcs	400
Albuquerque	Expansion	2013	Healthcare	Healthcare Svcs	164
Albuquerque	Expansion	2013	Healthcare	Healthcare Svcs	400
Albuquerque	Relocation	2013	Recycling	Service Center	35
Albuquerque	Expansion	2013	Food and Beverage	Distribution Center	20
Albuquerque	Relocation	2013	Technology	Manufacturing	20
Austin	Relocation	2014	Medical Manufacturer	HQ	110
Austin	Expansion	2014	Technology	Software Svcs	170
Austin	Expansion	2014	Technology	Software Dev	300
Austin	Expansion	2014	Technology, IT	Sales	30
Austin	Expansion	2014	Technology	Software Dev	75
Austin	Expansion	2014	Healthcare	Software Dev	600
Austin	Expansion	2013	Technology	Software Dev	200
Austin	Expansion	2013	Media	Unknown	TBD
Austin	New HQ	2013	Solar	Sonar Technology	TBD
Austin	Relocation	2013	Gaming	Game Developer	35-80
Colorado Springs	TBD	2013	Healthcare	Customer Service	230
Colorado Springs	TBD	2013	Communications	Customer Service	300
Colorado Springs	TBD	2013	Oil and Gas	Manufacturing	84
Colorado Springs	New HQ	2013	Sports	HQ	100
Colorado Springs	New HQ	2013	Non-profit	HQ	30
Colorado Springs	New HQ	2013	Bike Manufacturing	HQ	20
Colorado Springs	TBD	2013	Healthcare	Call Center	100
El Paso	Expansion	2014	Energy	Manufacturing	193
El Paso	Expansion	2014	Insurance	Call Center	300
El Paso	Expansion	2014	Retail	Call Center	450

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City	Relocation / Expansion	Year	Industry	Type of Facility	Jobs Created
El Paso	Expansion	2013	Christmas Trees	Manufacturing	500
Oklahoma City	Expansion	2014	Back Office Services	Data Center	500
Oklahoma City	Expansion	2014	Arts and Crafts	Retail Store	TBD
Oklahoma City	New HQ	2014	Oil and Gas Equip	Manufacturing	TBD
Oklahoma City	Relocation	2013	Education Software	HQ	TBD
Oklahoma City	Expansion	2013	Oil and Gas	Technology Center	130
Oklahoma City	Expansion	2013	Building Materials	Manufacturing	TBD
Oklahoma City	Expansion	2013	Biotech Devices	Manufacturing	TBD
Salt Lake City	Expansion	2014	Packaging	Manufacturing	60
Salt Lake City	Expansion	2014	Medical Technology	Manufacturing	1,000
Salt Lake City	Expansion	2013	IT Management	Software Dev	TBD
Salt Lake City	Expansion	2013	Electronics	Manufacturing	
Salt Lake City	Expansion	2013	IT	Operations	540
Salt Lake City	Expansion	2013	Oil and Gas	Natural Gas Ops	73
Salt Lake City	Expansion	2013	Technology	Operations Center	TBD
Salt Lake City	Relocation	2013	Financial	Unknown	108
Salt Lake City	Expansion	2013	IT Security	Operations	250
Tucson	Expansion	2013-14	Alternative Energy	Operations	183
Tucson	Relocation	2013-14	Bioscience	Operations	40
Tucson	Expansion	2013-14	Aerospace/Aviation	Maintenance/Storage	100
Tucson	Expansion	2013-14	Mining	Operations	50
Tucson	Expansion	2013-14	Aerospace/Defense	Software	55
Tucson	Relocation	2013-14	Nanotechnology	HQ	40
Tucson	Relocation	2013-14	Food Distributor	Transport/Logistics	30
Tucson	Relocation	2013-14	Aerospace/Defense	Manufacturing	50
Tucson	Expansion	2013-14	Optical	Manufacuring	30
Tucson	Relocation	2013-14	IT	Call Center	500
Tucson	Expansion	2013-14	Design/Fabrication	Manufacturing	114
Tucson	Relocation	2013-14	Light Bulbs / Energy	Manufacturing	25
Tucson	Expansion	2013-14	Contact Center Mgmt	Call Center	510

Note: All companies "attracted" to city for new facility included in Relocation category; list is representative, does not cover all expansions and relocations

Source: City economic development and chamber of commerce websites

Each line-item in the table represents a company that expanded or relocated in the last two years. The "Industry" column represents the broad industry of the company and the "Type of Facility" column represents the type of facility the company is developing. Of the ~60 data points listed in the table, nearly 30% of the expansions and relocations are Technology or IT – the most of any industry. After technology, industries expansions and relocations are very diverse: 10% are in healthcare, 7% are in energy, 7% in oil and gas, and 5% are in aerospace and aviation. About one-third of the expansions and relocations are made up of unique industries, such as sports, media, and gaming and are identified as "Other," which demonstrates the diversity of industries active in Albuquerque and its peer cities.

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Although the industries expanded and relocating are diverse, the types of facilities being developed are more concentrated. Manufacturing facilities represent nearly one-quarter of the facilities planned for development, while 19% are back office centers, which include call centers, customer service, data and HR centers. 14% of the facilities are planned for software development that will be used to support the high volume of technology industries expanding and relocating, while 12% will be developed for core business operations and 10% are relocating corporate headquarters.

The types of facilities being developed also directly impact the number of jobs created. It is important to note that the number of jobs created is expected, and actual jobs created often fall short of forecasts. Moreover, the job forecasts often occur over long periods of time, rather than by the facility-opening. Even with a small sample size, manufacturing, operations and software development all forecast ~150 jobs per facility. Back office centers forecast ~325 jobs per facility.

In some cases the expansion and relocation activity from Table 17 above appears to conflict with macroeconomic trends reported by the Bureau of Labor Statistics. However, Table 17 does not capture loss of jobs in any industry and an active manufacturing sector that is expanding and relocating in Tucson does not necessarily mean that the overall Tucson manufacturing sector is growing. Table 18 below breaks down macroeconomic trends from June 2010 to June 2014 for total labor force and manufacturing jobs.

Table 18: Trends of Active Industries, June 2010 – June 2014

MSA	Labor Force	Manufacturing
Austin	12%	13%
Colorado Springs	-1%	6%
El Paso	0%	5%
Oklahoma City	5%	16%
Salt Lake City	7%	7%
Tucson	-6%	-4%
Albuquerque	**-2%**	**-7%**

Note: Warehouse/distribution and customer service not shown as BLS data does not break out these sub-industries by MSA

Source: Bureau of Labor Statistics

As the table above indicates, despite some manufacturing activity in the past few years, manufacturing jobs in Albuquerque have declined since June 2010 by 7%. Only Tucson has experienced a decline in manufacturing over the same period. Total workforce has declined in Albuquerque as well over this time period by 2%; only Colorado Springs and Tucson have also experienced a declining workforce over the past 4 years. Growth in this industry among other peer cities may create challenges for Albuquerque to overcome its local decline when pursuing manufacturing businesses to populate the PDV corridor. However, projections do indicate a growing population in the Albuquerque area, demonstrating the ability to support industry growth. The labor force saw an uptick from 2012 to 2013 after years of decline as well. Nonetheless, when compared to its peer cities, the trends do not rate very favorably.

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C. Assess the economic development strengths and weaknesses of the corridor to gain a general understanding of which active industries would fit the best.

As the Executive Summary outlines in detail, the PDV corridor boasts significant strengths that are balanced by some key weaknesses. An overview of these strengths and weaknesses with additional data and details can be found below.

Strengths

- **Transportation access**
  - PDV intersects with Interstate 40 and is conveniently located to I-25, the Albuquerque Sunport and other freight facilities as outlined in Table 4 on Page 12

- **Low labor costs and operating cost predictability**
  - Albuquerque labor costs are cheaper than US average among all occupations, and specifically within industrial industries

Table 19: Wage Data, May 2013

Wages	US				Albuquerque			
	All occup-ations	Industrial Production Mngrs	Distribution / Storage Mngrs	First Line Supervisors of Prod/Ops	All occup-ations	Industrial Production Mngrs	Distribution / Storage Mngrs	First Line Supervisors of Prod/Ops
Mean hourly wage	$22.33	$47.78	$43.86	$27.96	$20.60	$42.78	$40.07	$25.77
Annual mean wage	$46,440	$99,370	$91,220	$58,150	$42,840	$88,990	$83,350	$53,600

Note: State and MSA data does not exist by industry
Source: Bureau of Labor Statistics

  - Temperate climate and lack of natural disasters ensures business can operate 365 days a year without interruption

  - Cost of living 8% below US average, which is driven by housing prices that are 28% below US average

- **Competitive tax structure for companies and successful incentive programs**
  - Changes to the tax structure in 2013 created a more attractive economic environment for prospective industries. These changes significantly lowered New Mexico's effective tax rates (ETR), creating a much more competitive business environment state-wide and locally. Before considering statutory credits available to taxpayers (investment tax credits, wage credits, R&D credits), New Mexico's manufacturing and services ETR's decreased by 47% and 6%, respectively, after the 2013 legislative changes. Despite the significant tax reductions, however, New Mexico's ETR still ranks 6th out of 8 for manufacturing and 8th out of 8 for services compared to surrounding western states.

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Table 20. Effective Tax Rates, Before High-Wage Credits

State	Manufacturers			Services		
	2011	2013	% change	2011	2013	% change
Arizona	6.9%	5.8%	(15.1%)	10.3%	8.3%	(19.3%)
California	6.0%	5.8%	(3.5%)	10.2%	9.7%	(4.2%)
Colorado	5.8%	6.2%	7.1%	7.7%	8.2%	5.9%
Nevada	6.9%	6.8%	(2.0%)	6.9%	6.7%	(2.3%)
New Mexico	**17.9%**	**9.5%**	**(46.9%)**	**13.4%**	**12.6%**	**(6.3%)**
Oklahoma	9.9%	10.0%	1.5%	12.0%	12.4%	3.2%
Texas	10.8%	10.9%	1.4%	7.9%	8.1%	2.7%
Utah	6.6%	6.8%	3.0%	6.9%	7.0%	2.8%
Avg w/o NM	*7.0%*	*7.0%*	*(0.7%)*	*8.0%*	*7.9%*	*(2.0%)*

Source: Ernst & Young New Mexico Business Tax Competitiveness Study, January 2014

- However, after the statutory credits, New Mexico maintained the most competitive ETR's compared to the 8 benchmark states analyzed for both manufacturing and services.

Table 21. Effective Tax Rates, After High-Wage Credits

State	Manufacturers			Services		
	2011	2013	% change	2011	2013	% change
Arizona	4.4%	4.2%	(4.2%)	9.0%	8.0%	(11.8%)
California	5.8%	5.6%	(3.6%)	9.8%	9.4%	(4.3%)
Colorado	5.7%	6.1%	7.2%	7.5%	8.0%	6.0%
Nevada	5.7%	5.6%	(1.8%)	6.3%	6.1%	(2.1%)
New Mexico	**8.1%**	**3.3%**	**(59.5%)**	**3.4%**	**6.1%**	**81.0%**
Oklahoma	9.0%	9.2%	1.7%	12.0%	12.4%	3.2%
Texas	10.8%	10.8%	0.6%	7.9%	7.9%	0.0%
Utah	5.5%	5.7%	3.9%	6.5%	6.7%	2.9%
Avg w/o NM	*6.3%*	*5.3%*	*(0.9%)*	*7.6%*	*7.6%*	*(0.9%)*

Source: Ernst & Young New Mexico Business Tax Competitiveness Study, January 2014

- In addition to a competitive, corporate tax structure, the region offers a Job Training Incentive Program (JTIP) that is considered one of the most effective in the country. The JTIP is a state program that provides on-the-job training for qualified employees. The state reimburses for up to 50% of trainees' wages up to 1,040 hours for companies located in urban areas and 65% for companies in rural areas.

  Area Development Online, a national corporate site selection magazine, described the program as "one of the most effective in the country." A Tempur-Pedic business manager also referenced JTIP as a popular program and one that he has benefitted from greatly.

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- **Population and education trends/resources**
  - Locally, population is projected to grow 1.3% annually in Bernalillo County and 2.3% annually in Sandoval County through 2040; this outpaces New Mexico statewide projections of 1.1% annually through 2040. The population growth in the region will likely lead to a larger labor pool as well. Although the labor force has declined by 4% since June 2010 in Albuquerque, it has increased since the beginning of 2013. A growing population and labor force will help support new business relocating to the Albuquerque area.

  - Currently, 90% of the 25 and over population in Albuquerque have a high school degree or higher, more than in New Mexico or the broader US. One-third of the total 25 and older population in Albuquerque earned a secondary degree, compared to just 26% in New Mexico and 29% of the US, and over 40% of this population received a degree critical to economic development, such as education, business/finance, IT or engineering. Although room for improvement remains in educating Albuquerque's youth, educational attainment outperforms the US average in key categories, and there is a particular focus in degrees that may prove critical to economic development.

  - Additionally, an array of education and training resources exist to provide potential employees necessary technical training, including 22 apprenticeship programs, 4 two-year technical and community colleges, 3 four-year or graduate universities (including both UNM campuses) and ten business and technical certificate programs currently exist in Albuquerque as well as an effective Job Training Tax Credit incentive for employers as noted in Section 2.2.

- **Availability of shovel-ready sites**

  - There currently exists 1,575 acres (9% of the corridor) that are shovel-ready; they are Grade A for development with utilities

  - An additional 2,950 acres (16% of the corridor) are Grade A with utilities under construction

- **Power capability sufficient for large data centers and other industrial users**
  - Power companies in the Albuquerque region are no longer capacity constrained. According to Albuquerque Economic Development, Inc., data centers and other back-office facilities had not previously located in the Albuquerque metro area because local power companies were at capacity. However, excess capacity now exists to support the development of these facilities.

- **High quality of life**
  - As outlined in detail in Section 2.3, the PDV corridor offers a working location in an area with a high quality of life, which includes beautiful weather, low cost of living, diversity and culture, easy daily commutes, a plethora of outdoor, recreational activities, clean air, and a relatively low tax burden.

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Weaknesses

- **Weak national manufacturing sector outlook**
  - Over the next 5 to 10 years, the US manufacturing industry is projected to contract by 0.5% annually, and additionally, the transportation and warehousing industries are projected to grow at less than 1% per year. Slow growth in these industries nationally means less business activity to compete for, and the level of competition between Albuquerque and its benchmark cities to attract these industry participants will increase.

- **Competition from nearby, large master-planned communities**
  - Four master-planned communities are expected to begin development in Bernalillo County (Quail Ranch, Double Eagle, Estrella and Santolina) and more in Sandoval County before the PDV roadway is constructed. While these master-planned communities may generate momentum regionally within the target industry clusters, they also represent local competition for business attraction.

- **Lack of rail access**
  - Rail can help save shipping costs both for distribution and to acquire production materials. Although access to interstates provides convenient local and regional distribution, the lack of rail presents significant hurdles to a wider distribution network.

- **State relies heavily on tax credits and holds a small deal-closing fund**
  - Although the reduction in New Mexico's tax rate improved the tax burden significantly, it is not nearly as advantageous for businesses that do not qualify for statutory credits. Manufacturers that do not qualify for this credit would pay a 9.5% effective tax rate, higher than Arizona (5.8%), California (5.8%), Colorado (6.2%), Nevada (6.8%) and Utah (6.8%). Other service-related companies would also pay lower effective tax rates than New Mexico (12.6%) in each of the above states as well.

  - New Mexico, like other states, maintains a deal-closing fund to lure relocating and expanding businesses on top of program credits and incentives. However, compared to neighboring states, the $3m New Mexico deal-closing fund is very small. Nevada ($10m), Oklahoma ($12m), Arizona ($25m) and Texas ($140m) all maintain much larger deal-closing funds than New Mexico.

- **Gaps in incentive programs**
  - An incentives benchmark later in Appendix I outlines a few gaps in Albuquerque's incentive program when compared to peer cities, particularly around performance-driven incentives and industry-focused incentives.

D. Recommendations of target industries that best match the strengths of the region.

The balance of strengths and weaknesses will be more appealing to certain industries than others. While a food distributor may value the access to transportation, a law firm will not. Key corridor strengths that will drive industry attraction include:

- Access to transportation
- Cost predictability

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- Labor supply of hourly workers
- Above-average concentration of post-secondary degrees critical to economic development
- After-credit effective tax rate for manufacturers and services
- Job training programs
- Topography and size of shovel-ready land

The convenient access to transportation, particularly to the interstate highways and Albuquerque Sunport suggest a warehouse/distribution center to be a fit for the area. Strong supply of quality hourly labor supports a manufacturing facility, or distribution/warehouse facility. The concentration of post-secondary degrees in science and engineering could support professional / business services or a data center. The new state tax structure and land attributes, such as the size, distance from downtown, ideal weather for uninterrupted operations and existing nearby industries are all strengths that support these industries.

Given the high-level of recent relocations and expansions in Albuquerque's benchmark cities, call centers, data centers and back-office/shared services centers also present an industry target opportunity for the PDV corridor. Data centers, in particular, seek access to reliable utilities (and there is currently excess capacity of power in the region), a technically proficient labor pool, weather neutral locations secure from natural disasters and low-cost real estate.

These industries require space, access to transportation and low, predictable costs – all competitive advantages of the PDV corridor. In 2007, Tempur-Pedic developed a manufacturing plant and Shamrock foods developed a distribution center. Both still operate successfully today suggesting the regions' ability to accommodate manufacturing and distribution facilities with labor supply, access to transportation, costs and quality of life to attract and maintain employees.

E. Examine trends in each target industry and their growth factors to market to those industries now and in the future.

The Bureau of Labor Statistics projects manufacturing to decrease by 0.5% annually through 2022 and decline as a portion of the total US employment market. Despite the decline, manufacturing will still comprise a significant portion of the US market. Only retail trade, healthcare and social assistance, accommodation and food services, and government represent larger employment markets in the US.

The transportation / warehousing industry's projected US growth rate is expected to increase from 0.4% annually between 2002 and 2012 to 0.7% annually through 2022. Although positive, this growth rate is still lower than the total US employment market (1%). Within the transportation and warehousing industry exists a specific sub-industry target – warehousing and storage, which is expected to grow at 1.6% between 2012 and 2022.

Administration and support service is a sub-industry of the professional services industry, which is projected to grow at 2.1% - up from 1.7% from 2002 to 2012. While the broader professional services industry annual growth rate increases by ~25% during 2012 to 2022 from the prior decade, the administration and support services sub-industry annual growth rate increases even more significantly, as outlined in Table 22 below.

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Table 22. Target Industry Metrics, Total US

Industry	2004		2012		2022		'02-'12 CAGR	'12-'22 CAGR
	Jobs	% of Mkt	Jobs	% of Mkt	Jobs	% of Mkt		
Manufacturing	14.5m	10.2%	11.9m	8.2%	11.4m	7.1%	-2.4%	-0.5%
Trade/Transportation/Utilities	25.5m	17.9%	25.5m	17.6%	27.3m	17.0%	0.0%	0.7%
Transportation/Warehousing	4.2m	2.9%	4.4m	3.0%	4.7m	3.0%	0.4%	0.7%
Warehousing and Storage	0.5m	0.4%	0.7m	0.5%	0.8m	0.5%	2.8%	1.6%
Professional/Business Svcs	16.4m	11.5%	17.9m	12.3%	21.4m	13.3%	1.2%	1.8%
Admin/Support Svcs	7.4m	5.2%	7.7m	5.3%	9.2m	5.7%	0.5%	1.8%

Source: Bureau of Labor Statistics

F. Assess support required to generate start-up companies in target industries.

The target industries outlined above are typically large – both by geographic network and by footprint. They require large spaces and networks that span regions, states, countries and often the entire globe. These types of industries often also require an enormous access to capital to expand or relocate, and for these reasons, there exist significant barriers to entry in these industries for a start-up. However, attendant firms and technology services that support these industries are more suitable as potential start-ups and should be expected to grow in demand if PDV attracts the target industries outlined above.

Albuquerque offers a wealth of resources for entrepreneurs and start-ups in a variety of industries, including potential start-ups related to the target industries, such as:

1) State Support and Incentives
   - Small Business R&D Tax Credit – businesses in which R&D are at least 20% of expenditures can take an exemption from the state's portion of gross receipts and compensating taxes and a credit to offset withholding taxes for a period of 3 years
   - Angel Investment Tax Credit – the credit is 25% of a qualifying investment, up to $25,000
   - The Loan Fund – provides loans, training and business consulting to entrepreneurs throughout the state and Navajo Nation
   - ACCION New Mexico – non-profit that increases access to business credit, makes loans and provides training to help emerging and existing entrepreneurs
   - WESST – statewide small business development and training organization committed to growing New Mexico's economy by cultivating entrepreneurship; provides training, technical assistance and access to capital
   - Enchantment Land Certified Development Corporation – provides competitive long-term loans with low down payments to finance assets such as buildings, land and machinery
   - Capital Certified Development Corporation – provides business financing solutions throughout New Mexico, specifically for buying, building or remodeling commercial and industrial buildings
   - New Mexico Angels – invests in early-stage companies in New Mexico to help accelerate growth
   - State facilitates free support from Sandia laboratory technicians

2) Local Educational and Technical Resources
   - Central New Mexico Small Business Development Center – grassroots economic development organization providing assistance to owners of small businesses and to individuals considering

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starting a business that offers no-cost, one-on-one business consulting and low-cost entrepreneurial training

- STEPS – provides one-on-one advice, coaching and connections to small business resources that serves all of Bernalillo County
- STC.UNM (formerly the Science and Technology Corporation at UNM) – University of New Mexico's technology transfer arm that works with investors, entrepreneurs, investors and other constituents to assist in the formation of start-up companies based on UNM technologies
- Technology Ventures Corporation – formed by Lockheed Martin to help start-up companies commercialize technology coming out of Sandia National Laboratories and actively recruits venture capital firms to locate in New Mexico and assists entrepreneurs with fundraising efforts
- The Bioscience Center – incubator for entrepreneurs and start-up companies in biotechnology and related fields to use for lab space and to develop their business
- New Mexico Technology Council – member-driven association of businesses, organizations and tech professionals working together to promote the growth and success of New Mexico's technology business sectors
- Sandia National Laboratories – offers access to the Labs' science, people and infrastructure with a focus on emerging technologies that support Sandia's mission for the US Department of Energy and National Nuclear Security Administration to bring new technologies to the market

While Albuquerque is not yet considered a start-up hub similar to a city like Austin, it does offer a wealth of resources to entrepreneurs. Attracting large-scale industrial business can create a business-to-business supportive market locally, and the program and labs should help develop this market, particularly in technology.

G. Identify average employment number per site in target industries.

In addition to growing a local business-to-business market, attracting industrial business to the PDV corridor will create hundreds – or even thousands – of new jobs. The Tempur-Pedic facility on Atrisco Vista Blvd created 150 new jobs, 80% of which were filled with local talent. Industry standards typically indicate about one new job per 500 SF of industrial manufacturing space and one new job per 300 SF of retail and office space. However, these numbers can fluctuate based on the specific business and operations. As the tables below outline, manufacturing and warehouse/distribution are likely to be much larger facilities, but create far fewer jobs per SF.

Table 23. Manufacturing Jobs per Site

Company	Year	City	Space	Jobs	SF per Job
Tempur-Pedic	2007	Albuquerque	750,000 SF	150	5,000
Food byproduct processing*	2013	Albuquerque	170,000 SF	100	1,700
Renewable energy products*	2013	Albuquerque	200,000 SF	400	500
Average					~2,400

**Sample projects that did not develop*

Source: City Economic Development Websites

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Table 24. Warehouse/Distribution Jobs per Site

Company	Year	City	Space	Jobs	SF per Job
Retail warehouse and distribution*	2005	Albuquerque	1,000,000 SF	600	1,666
Shamrock Foods	2007	Albuquerque	180,000 SF	175	1,028
Average					~1,350
**Sample projects that did not develop*					
Source: City Economic Development Websites					

Table 25. Call/Server/Back Office Center Jobs per Site

Company	Year	City	Space	Jobs	SF per Job
Apogee Retail, LLC	2014	El Paso	25,000 SF	100*	250
VXI Global Solutions	2014	Tucson	31,000 SF	200	155
Average					~200
**Sample projects that did not develop*					
Source: City Economic Development Websites					

While the tables above provide estimates of gross square feet per employee, building configurations and operations vary widely. Experience in the area (based on Tempur-Pedic and Shamrock Foods) indicates that 150 to 175 employees per 50-acre site is an appropriate estimate of employment density for manufacturing and distribution facilities.

H. Identify other MSA competing for target industries.

As referenced earlier in the report, the benchmark cities were identified based on their similarities in population and geography, transportation access and university and educational resources. Additionally, these cities are seeking to grow similar local industry clusters as Albuquerque, placing them in direct competition with Albuquerque to attract business.

The table below depicts exactly where Albuquerque and each benchmark city's industry clusters overlap. It is important to note that not identifying an industry cluster does not preclude a city from recruiting businesses in those industries. In fact, given the recent economic downturn and slow industrial national growth, cities will generally seek to attract any company/industry they can as a vehicle to jumpstart their economy, create jobs and add tax revenue. As Table 17 demonstrated on Page 29, nearly one-third of total expansions and relocations came from "Other" industries, outside of local industry clusters. For example, Tucson does not identify manufacturing as an industry cluster, but attracted two companies and over 200 jobs in the industry just last year. The "X" in Table 26 under indicates industries each city has publicly targeted, according to local government websites.

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Table 26. Industry Clusters Among Benchmark Cities

	ABQ	Austin	Colorado Springs	El Paso	Oklahoma City	Salt Lake City	Tucson
Aerospace & Aviation	X		X		X		X
Solar	X						
Energy	X						
Manufacturing		X	X	X		X	
Biosciences/Tech					X	X	X
Technology/IT		X	X	X		X	X
Data Centers				X			
Cust. Support Centers		X	X				
Distr., Transp., Logistics					X	X	X
Optics	X						X

Source: City Economic Development Websites

As Table 26 indicates, Technology and IT, Aerospace and Aviation, and Manufacturing (which can often overlap) are particularly popular industry clusters among benchmark cities. Colorado Springs, Oklahoma City and Tucson all identify Aerospace and Aviation as an industry cluster, while Austin, Colorado Springs, El Paso and Salt Lake City identify Manufacturing. Although this data should not discourage Albuquerque from pursuing the target industries that fit best in the PDV corridor and into the city economy, it should be aware of the demand these industries create among peer cities.

I. Identify economic incentives that other areas have used for target industries

This section will outline the following:

- State and City incentives.
- Gaps in incentive programs.
- Competitive advantages with regard to progressive state or city incentives in NM/ABQ.

One way Albuquerque can differentiate itself in trying to attract development is through attractive state and local economic incentives. A summary of New Mexico / Albuquerque state and local incentives as well as its peer cities and states is outlined below:

1. State and City Incentives

a) New Mexico / Albuquerque

- NM Deal Closing Fund: $3m
- High Wage Jobs Tax Credit
  - Tax credits equal to 10% of the combined salary and benefits package for the year in which the job is created, and for the 3 qualifying periods following to companies that hire employees at $28k+ in rural areas and $40k+ in urban areas (this credit will increase to $60k in urban areas starting in 2015)
- Manufacture's Investment Tax Credit
  - Tax credit of 5.125% of the value of qualified equipment and other property used in operations. The credit can be applied against compensating, gross receipts or withholding tax up to 85% of the total

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- Rural Jobs Tax Credit
  - $1,000 credit for each qualifying job the employer creates, for four consecutive years in communities of <15,000 residents and two consecutive years in non-MSA communities of >15,000 residents
- Technology Jobs Tax Credit
  - A 4% basic (and additional 4% credit also exists) credit of the qualified expenditures on qualified research at a qualified facility (credit amount doubles in rural New Mexico)
- Job Training Incentive Program
  - Provides classroom and on-the-job training paying from 50%-75% (depending on job skill level, pay scale, location) of employee training costs and wages for an expanding or relocating business for up to 6 months
- Single Sales Factor for Manufacturers
  - Five year phased in election for manufacturers to utilize a single sales factor income apportionment methodology
- Corporate Income Tax Reduction
  - Reduces top corporate tax rate from 7.6% to 5.9% over five years
- Industrial Revenue Bonds
  - Communities can issue industrial revenue bonds (IRBs) to exempt a substantial portion of a company's property taxes on land, buildings and equipment – the amount of the exemption varies by community
  - IRBs also provide a complete exemption for compensating taxes on equipment, generating ~6% savings
- Alternative Energy Product Manufacturer's Tax Credit
  - Tax credit of up to 5% of capital expenses for qualifying alternative energy manufacturers
  - Credit can be applied against gross receipts, compensating, withholding tax and may be carried forward for up to 5 years
- Small Business R&D Tax Credit
- Angel Investment Tax Credit
- Aircraft Manufacturing / Maintenance Tax Deduction
- Space Gross Receipts Tax Deduction
- Film Production and Investment Loans

b) Arizona/Tucson

- AZ Deal Closing Fund: $25m
- Qualified Facility Tax Credit
  - Provides a refundable Arizona income tax credit to taxpayers who are expanding or locating a Qualified Facility (corporate headquarters, commercial research and manufacturing) in AZ
- Computer Data Center Program
  - Provides a Transaction Privilege Tax (TPT) and Use Tax exemptions at the state, county and local levels for up to 20 years on qualifying purchases of CDC equipment
- Quality Jobs Tax Credit

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- Provides tax credits to employers creating a minimum number of net new quality jobs and making a capital investment in AZ
- Offers up to $9k of AZ income or premium tax credits spread over a 3-year period for each net new quality job

- Foreign-Trade Zones
  - Federally-approved FTZ companies receive a permanent tax reduction up to 73.7%
- Military Rescue Zones
  - Manufacturers, assemblers, fabricators of aviation or aerospace products / services in these zones qualify for property tax reductions up to 75% for five years, state income tax credits up to $10k for each new qualified employee and certain exemptions from the sales tax
- Renewable Energy Tax Incentive Program
  - Up to 10% refundable income tax credit and reduction on real and personal property taxes up to 73.7% for solar, wind, geothermal, other renewable energy companies that expand or relocate in AZ
- Arizona Job Training Program
  - Provides qualified employers cash assistance of up to $8k per employee in rural areas and up to $5k per in urban areas
- Small Business Capital Investment Tax Credit Program
  - Up to 35% income tax credit on investment over 3-year period for investors who make capital investments in small businesses certified by the AZ Commerce Authority
- Research and Development Income Tax Credit
  - Refundable and non-refundable income tax credits for investments in R&D activities – tax credits range from 24% to 34%
- Arizona Innovation Accelerator Fund
  - $18.2m loan participation program to stimulate financing to small businesses and manufacturers
- Commercial/Industrial Solar Tax Credit
  - Businesses installing a solar energy device at an AZ facility may be eligible for an income tax credit of up to $50k per year
- Government Property Lease Excise Tax (GPLET)
  - Negotiation with government agencies to remove business obligation to pay property taxes and instead negotiates an excise tax and lease rate
- Primary Jobs Incentives
  - Electrical, plumbing, mechanical, grading permit and site review permit fees waived and up to 100% construction sales tax allocated to job training, off site, public infrastructure improvements and/or impact fee offsets for target industries creating 25+ new primary, non-retail jobs at required salary rate, invest $5m in facilities and pay 75% of employee health costs
- Reduction in State Corporate Income Tax Rate
  - Corporate income tax rate decreasing from 6.97% to below 4.9% by 2017
- Impact Fee Deferral

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- Impact fees for roads, parks, and public facilities may be deferred until the certificate of occupancy is received in exchanged for a negotiated contribution to the City Housing Trust Fund
- "Sales Factor" Change
  - Allows companies to calculate corporate-income taxes based solely on in-state sales if they made an investment of $1 billion or more in a new project

c) *Texas/Austin/El Paso*

- TX Deal Closing Fund: $140m
- Industrial Revenue Bonds
  - Gives public entities the authority to form Industrial Development Corporations (IDC) that can issue bonds to finance land, depreciable property, inventory, raw materials, R&D costs and job training
  - Debt service paid by business under the lease terms
- Skills Development Fund
  - Assists community and technical colleges to finance customized job training
- Skills for Small Business Program
  - Funds tuition fees up to certain maximums for new and incumbent employees toward job training for companies with less than 100 employees
- TX Enterprise Zones
  - Zones based on poverty criteria outlined by US Department of Commerce
  - State incentives include a refund of state sales and use taxes paid at the qualified business site during designation period – refunds dependent on size of capital investment
- Defense Economic Readjustment Zone Program
  - Encourages business development in areas impacted by defense base closures
  - Provides refund of state sales and use taxes paid on building materials, machinery and equipment, labor costs
- TX Enterprise Fund
  - Flexible fund allocated by state to provide financial resources to help strengthen the state's economy
  - Capital investment, job creation, wages generated, financial strength of applicant, business history, industry sector all considered as part of application
- Emerging Technology Fund (ETF)
  - Financial support from the state to expedite the development and commercialization of new technologies
- Texas Product / Business Fund
  - Provides financing to existing companies that manufacture products or do business within the state
  - Direct, asset-based loans with a variable interest rate tied to LIBOR
- Texas Capital Fund
  - Financial support to promote growth in rural non-entitlement areas generally defined as cities with <50,000 residents
- Texas Leverage Fund
  - Allows communities to leverage future sales tax revenues to support job creation and retention, by providing financing to local businesses for industry

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expansion or recruitment, industrial parks establishment, community project financing

- Solar Energy Franchise Tax Exemption
  - Corporation in TX engaged solely in manufacturing, selling, or installing solar energy devices exempted from franchise tax
- R&D Tax Credit
  - Companies engaged in qualified research activities in TX may choose between accepting a sales tax exemption or a franchise tax credit for materials, software, and equipment used for R&D
- Relocation Expense Deduction
  - Companies may deduct from apportioned margin relocation costs incurred in relocating their main office or other principal place of business to TX from another state
- Renewable Energy Franchise Tax Deductions
  - Taxable entity may deduct from its apportioned margin 10% of the amortized cost of a solar energy device, wind energy, or for the equipment associated with a clean coal project
- Sales and Use Tax Exemptions may apply to:
  - Manufacturing Machinery and Equipment
  - Natural Gas and Electricity
  - Data Centers
  - Telecom, Internet & Cable TV
  - R&D
  - Companies that owned abated property
  - TX Moving Image Industry

d) Colorado/Colorado Springs

- Job Growth Incentive Tax Program
  - Performance based job creation program which provides a state income tax credit to businesses undertaking job creation project that would not occur in CO without this program and have met certain requirements
- Strategic Fund
  - Provides a cash incentive commitment to businesses that have met certain requirements
  - Businesses may receive funding if it creates net new full-time permanent jobs in CO that are maintained for at least one year
- Business Loan Funds
  - Supports economic expansion to rural areas
- Economic Development Commission Funds
  - Assists with existing business expansions and new company relocations
- Colorado Venture Capital Authority
  - $25m for seed- and early-stage capital investments in CO businesses
- Advanced Industries Accelerator Programs
  - Various financial and grant programs aimed at support statewide advanced industries, including: advanced manufacturing, aerospace, bioscience,

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electronics, energy and natural resources, infrastructure engineering, technology and information
- Bioscience Discovery Evaluation Grant Program
  - Early-stage bioscience grants up to $200k
  - Proof-of-concept grants up to $150k
- Aircraft manufacturer New Employee Credit
  - Qualified companies can earn state income tax credit of $1,200 per new employee
- Biotechnology Sales and Use Tax Refund
  - Taxpayer-friendly means to recover the sales and use taxes paid in preceding year on equipment and supplies purchased to conduct biotech R&D
- On-the-Job and Customized Training
  - Provides training assistance for the expansion of existing companies and the development of new firms, or for companies undergoing major technological change (companies must be non-retail in nature to qualify)
- Vocational Training Funding
  - Tax credit of 10% of employer investment in a qualified school-to-work program
- Local Sales Tax Exemptions for Qualifying Companies
  - Construction materials: 50% rebate on city's 2% general fund portion
  - Business personal property: 50% rebate on city's 2% general fund portion (10 new jobs – 4 year agreement; 100 new jobs – 10 year agreement; 500 new jobs – 15 year agreement)
  - Alternative rates of tax on machinery and equipment based on amount of equipment purchased

e) Oklahoma/Oklahoma City
- OK Deal Closing Fund: $12m
- Quality Jobs Program
  - Quarterly cash payments that does not exceed 5% of newly created gross taxable payroll to qualifying companies
- Small Employer Quality Jobs Program
  - Annual cash payments for up to 5% of new taxable payroll for up to 7 years for qualifying companies
- 21st Century Quality Jobs Program
  - Reduces out-of-state sales requirements from 75% to 50% for industries required to have out-of-state sales
- Customized Industrial Training
  - Reimburses many, if not all, of the costs associated with employee start up training for firms expanding or relocating to OK
- Technological Assistance
  - Technological Extension Program delivers modernization services to small and medium-sized manufacturing firms
- Five Year Ad Valorem Tax Exemption
  - Exemption for new, expanded or acquired manufacturing, R&D or specific computer/data processing service facilities as well as real estate, machinery and equipment used directly in the manufacturing process.

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- Requires minimum capital investment of $250k
- Oklahoma Strategic Investment Program (SIP)
  - Discretionary incentive fund designed to help companies looking to expand or relocate to Oklahoma City – city version of the Quality Jobs Program
- Enterprise and Foreign Trade Zones
- Small Business Assistance Loan Program
  - Loans up to $100k at competitive rates and flexible terms to be used for acquisition, construction and renovation, purchase of machinery and equipment, inventory, and working capital
- Enterprise Community Revolving Loan Fund
  - Provides loans of up to $100k to assist small business within the Oklahoma City Neighborhood Revitalization Strategy Area

f) Utah/Salt Lake City

- Economic Development Tax Increment Financing (EDTIF)
  - Assists relocation and expansion
  - Post-performance tax credits based on new state revenues
- Industrial Assistance Fund (IAF)
  - Cash awards for post-performance per job or capital investment
- Industrial Development Bonds
- Job Training Programs
  - Custom Fit Trainings
  - Incumbent Worker Training
  - Short-Term Intensive Training
- Foreign Trade Zones
- Salt Lake City Economic Development Loan Fund
  - Low-interest loans available to local businesses

2. Gaps in Incentive Programs

While New Mexico / Albuquerque offer many similar incentives as well as their own unique incentives, there also exist some gaps in New Mexico / Albuquerque's incentive programs compared to its benchmarks, including:

a) Various Small Business Programs

- Small Business Assistance Loans (OK)
- Venture Capital Authority (CO)
- Innovation Accelerator Fund (AZ)
- Small Business Capital Investment Tax Credit Program (AZ)
- NM/ABQ small business programs (R&D and Angel Investment Tax Credits) provide some incentives in these areas

b) Programs Targeting Key Industries

- Computer Data Center Program (AZ)
- Sales and Use Tax Exemptions for Targeted Industries (TX)
- Property Tax Reductions for Targeted Industry Products (AZ)
- Advanced Industries Accelerator Programs (CO)

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- New Employee Credits for Targeted Industries (CO)
- NM/ABQ incentives geared to manufacturers

c) NM deal closing fund just $3m
   - Lack financial resources of surrounding states
   - Local Economic Development Act restricts support of business operations
     - Further, LEDA funds very low
   - No local deal-closing funds exist
     - Typically funded through additional sales tax

d) Fewer Post-Performance Incentives
   - EDTIF and IAF link incentives to performance (UT)

If financially feasible, New Mexico / Albuquerque should work to close these gaps so it can market their incentives as the most competitive in the southwest region. Certain disadvantages, such as the small state deal-closing fund are out of local governments' control, but in the increasingly intense economic development race, closing these gaps is an important next step in attracting business and developing the corridor.

3. Competitive advantages with regard to progressive state or city incentives in NM/ABQ

In marketing their own incentive program, New Mexico / Albuquerque can highlight the areas that do differentiate their programs. The Job Training Incentive Program, as previously referenced in this report as well is the improved state tax structure and the highly-regarded film industry in Albuquerque represent three such examples of areas New Mexico / Albuquerque stand out compared to their peers, as outlined in more detail below:

a) The Job Training Incentive Program is widely regarded as one of the most effective in the country

b) In 2013, the state legislature significantly reduced effective tax rates for businesses
   - Single sales factor for manufacturers
   - After statutory credits are applied, NM maintains the lowest effective tax rate compared to surrounding / benchmark states
     - Wage threshold for the high-wage tax credit set to increase in 2015, which may undermine the competitive advantage

c) The film industry has been a recent boom locally and can be leveraged in attracting new business
   - Film Production and Tax Rebates and Investment Loans

J. Assess facilities and educational resources available for employee continual training (e.g., on-site training, vocational schools and universities nearest to the site, or within the MSA)

Another area Albuquerque can continue to differentiate itself as an industrial business destination is through its educational resources and employee training. The JTIP has been covered already as a highly effective job training offering. However, additional educational resources exist that should appeal to

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industrial prospects. As outlined in section 2.2., Albuquerque is home to over 30 educational and training providers, including:

- Two-year technical and community colleges
    - Workforce Training Center, CNM
    - Southwestern Indian Polytechnic
    - Central New Mexico Community College
    - Carrington College
- Four-year or graduate universities
    - University of New Mexico (Main and Valencia Campuses)
    - Webster University
- Business and technical certificate programs
    - Albuquerque Career Institute
    - CompUSA Training
    - Culinary Business Academy
    - Global Knowledge Center
    - International Institute for Counter Terrorism
    - Workforce Innovative Training
    - Dona Ana Community College of NMSU
    - University of New Mexico (EMS Academy and Continuing Education)
    - American Century University
- Apprentice Programs
    - Carpentry (4), Electrical (7), Masonry (5), Plumbing/Pipefitting (4), Mechanical (3), Other (9)

Thousands of people throughout the Albuquerque area have recently utilized available training resources and are now seeking to leverage the training into a new position or career. Among the nearly 5,000 job seekers currently in the Department of Workforce Solutions system, 2,500 have training in construction, administrative support, transportation and production – all areas related to target PDV industries. Although it is not known what type of experience and training the Tempur-Pedic production workers had, they came from a similar pool (job seekers with experience) and have outperformed the Tempur-Pedic manager's expectations.

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K. Using the information collected in the various Economic Development Analysis tasks, develop a conceptual frame work capable of quantifying development value, employment growth, incomes, tax benefits, and other direct economic impacts from the PDV. Quantification of impacts will be based on assumptions of business (re)locations, net absorption, and other factors, but will illustrate the potential economic benefit of roadway

In addition to boosting the local economy, development along the PDV corridor will provide a beneficial financial impact to state and local governments. Developing the road and facilities will create construction jobs, which add net new sales taxes and state income taxes from the new construction salaries and gross receipts taxes from the construction work. Once constructed, new property taxes, sales taxes from discretionary spending by permanent employees and income taxes from new employee salaries and gross receipts taxes from increased local business activity will be captured.

To quantify the impact of development, this analysis looks at the impact of a single, 50-acre parcel, using the Tempur-Pedic site as an example. As occurred on the Tempur-Pedic site, many public infrastructure costs will need to be borne by the State and local governments to help the PDV corridor evolve. While all the costs are not known, the return can be estimated by analyzing the property value increase from the development, jobs created, and average salary. In this analysis, therefore, "return" is defined as resulting property taxes from development, sales taxes created from discretionary spending as a result of new jobs, and state income taxes from estimated new salaries.

In 2007, when Tempur-Pedic opened its 750,000 SF manufacturing facility, the value of the property increased from $40,000 to $34.8 million. In addition, the facility employed 150 people at an estimated total annual salary of $7.5m. Based on this data and other public records, the analysis estimates potential property tax revenue from the facility as of last year's assessment and sales taxes derived from the discretionary income of employees at the facility. The breakdown of these tax revenue sources can be found in Tables 27 and 28 below.

Table 27: Potential Tempur-Pedic Annual Property Taxes[4]

	2013
Total Assessed Value	$35.7m
Net Taxable Value (1/3 of assessed)	$11.9m
Tax Rate	.35628
Total Potential Property Tax	**$425k**
Source: Bernalillo County Tax Assessor Website	

[4] Tempur-Pedic property taxes are currently exempt, but they make PILOT (payment in lieu of taxes) payments to the School District and County Hospitals. For future development, this analysis assumes property taxes are not exempt, and thus include School District and County Hospital payments.

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Table 28: Breakdown of New Sales Tax Revenue per Site

Breakdown of Each New Site	2013
Average Salary, Hourly Employees	$50k
Total Employees	150
Estimated Total Annual Salary	$7.5m
Discretionary Spending by HH Income	26%
Estimated Total Annual Discretionary Spending	$1.95m
Sales Tax Rate – New Mexico	5.125%
Total New Sales Tax – State of New Mexico	**$100k**
Sales Tax Rate – Bernalillo County	0.938%
Total New Sales Tax – Bernalillo County	**$20k**
Sales Tax Rate – City of ABQ	0.938%
Total New Sales Tax – City of ABQ	**$20k**
Total New Sales Taxes	**$140k**

Source: Albuquerque Business Journal, Exparian Research, Tempur-Pedic Interview

The above tables indicate that this size and type of facility could generate $425,000 per year in property and $140,000 per year in sales taxes to various government entities. Assuming an average New Mexico income tax rate of 4.0%, the state income tax generated by these employees would be an additional $300,000 per year, per 50-acre site. As the site analysis detailed, 1,150 acres of shovel-ready land in Bernalillo County currently exists. By applying these revenue assumptions to these acres, which amount to 23 conceptual development sites, $9.8 million in property taxes, $3.2 million in sales taxes and $6.9 million in personal income taxes could be generated annually.

The state and region would also see a financial impact during construction of each facility. By also using the Tempur-Pedic facility construction details as a model for future construction, the analysis estimates the revenue impacts based on the following assumptions[5]:

- Costs for building and equipment: $100m
- Construction jobs: 1,243
- Construction payroll: $40m
- Construction schedule: 2 years

Each year of building construction, therefore, could create over 620 jobs (mostly temporary construction jobs) and $20 million in worker income. This additional income would yield about $5.2 million in discretionary income using the same assumptions as with permanent employees, resulting in approximately $365,000 in annual sales taxes for New Mexico and local governments. State personal income tax would be estimated at $800,000 per year.

[5] Based on Albuquerque Business Journal projections

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This analysis does not attempt to forecast development in the PDV corridor. However, if PDV was constructed by completing one project the size of the Tempur-Pedic site every two years, the following revenue streams would accrue to state and local government over a 10-year period.

Table 29. Projected New Tax Revenue

Year	Number of Facilities	Property Tax	Sales Tax (permanent employees)	Sales Tax (temporary employees)	New Mexico Income Tax	Total New Tax Revenues
1	0	$0	$0	$365,000	$800,000	**$1,165,000**
2	1	$425,000	$140,000	$365,000	$1,100,000	**$2,030,000**
3	1	$425,000	$140,000	$365,000	$1,100,000	**$2,030,000**
4	2	$850,000	$280,000	$365,000	$1,400,000	**$2,895,000**
5	2	$850,000	$280,000	$365,000	$1,400,000	**$2,895,000**
6	3	$1,275,000	$420,000	$365,000	$1,700,000	**$3,760,000**
7	3	$1,275,000	$420,000	$365,000	$1,700,000	**$3,760,000**
8	4	$1,700,000	$560,000	$365,000	$2,000,000	**$4,625,000**
9	4	$1,700,000	$560,000	$365,000	$2,000,000	**$4,625,000**
10	5	$2,125,000	$700,000	$365,000	$2,300,000	**$5,490,000**

Notes: Analysis does not take into account inflation or salary increases and assumes facility construction is performed one at a time
Source: PB Analysis

The above table estimates annual tax revenue in the first 10 years of development. Total tax revenue accumulated across the 23 conceptual, shovel-ready sites will be much larger. Further, the above analysis does not capture the "return" on constructing the roadway itself, which is estimated at $60m. Assuming a two-year construction period, this spending would generate temporary (construction) employment of 485 jobs per year, and income of approximately $15.5m per, which translates to approximately $280,000 in annual sales taxes and $620,000 in annual state personal income taxes during the construction of the road.

It is important to note that this analysis relies on many assumptions – specifically that future site development will look like and have similar impacts as the Tempur-Pedic site development. However, it begins to illustrate that the annual return could be substantial. Corporate income taxes would add to these potential public revenues. A full build-out of the corridor in addition to just the shovel-ready sites, therefore, has very significant revenue potential. Although the revenue potential is significant, it is important to remember that development will most likely occur over the long term. So while the revenue potential is high, particularly when including land without existing utilities, it will likely be decades before this revenue can be captured.

Appendix II

Appendix II: Estimated Construction Costs

Paseo del Volcan Conceptual Cost Estimate Summary

Contingency (see Note 1)	60%			
	Base Cost	**+ Contingency**	**Total**	**Remarks**
Segment 1:	$ 9,000,000	$ 5,400,000	$ 14,400,000	Interchange
Segment 2:	$ 9,500,000	$ 5,700,000	$ 15,200,000	9.5 mile Segment (I-40 Interchange to Paseo del Norte)
Segment 3:	$ 4,900,000	$ 2,940,000	$ 7,840,000	4.2 mile Segment (Paseo del Norte to Southern Blvd.)
Segment 4:	$ 11,400,000	$ 6,840,000	$ 18,240,000	8.6 mile Segment (Southern Blvd. to Unser)
			$ 55,680,000	
		NMGRT @ 7%	$ 3,897,600	
		Project Total	$ 59,577,600	
		USE	$ 60,000,000	*All Costs in 2014 Dollars*
	Base Cost	**+ Contingency**	**Total**	**Remarks**
Paseo del Norte Extension	$ 2,500,000	$ 1,500,000	$ 4,000,000	2.6 mile Segment
		NMGRT @ 7%	$ 280,000	
		Project Total	$ 4,280,000	
		USE	$ 4,300,000	*All Costs in 2014 Dollars*
Notes:				
1	Overall Contingency based on adding 20% to Base Costs for Lump Sum Items + 10% for New Construction + 20% Cont			
2	Estimated Cost per Mile (Segment 2-4), excluding bridges = $1.70 M (Compares to PdV: Unser to Iris constructed @ ~			

Note: Cost updates not reflected in appendix. Cost revised to $62.2 million for construction and $34 million for right-of-way. All costs are based on 2014 data.

Segment 1	I-40 Interchange	
Interchange		
Assume 4 lane bridge over I-40 & Frontage Realignment		
Roadway		
PdV Total Length	1,500	Ft
Frontage Road Reconstruction	4,000	Ft
Ramps	4,000	Ft
Total Roadway Length in Segment	9,500	Ft
Base Paved Area	418,000	SQ. FT.
	46,444	SQ. YD.
Roadway Cost per SY	$ 37.00	SQ. YD.
Estimated Roadway Cost	$ 1,718,444.44	
USE	$ 1,800,000.00	
Bridges		
Bridge Length	225	Ft
Total Bridge Length	225	Ft
Bridge Width	106	Ft
Bridge Area	23,850	SQ. FT.
Bridge Cost per SF	$ 175.00	SQ. FT.
Estimated Bridge Cost	$ 4,173,750.00	
	$ 5,973,750.00	Roadway + Bridge
	$ 1,000,000.00	Earthwork/ other interchange costs
	$ 2,000,000.00	Increase to meet $15M Interchange cost per NMD
Total Segment Cost	$ 8,973,750.00	
USE	$ 9,000,000.00	

Segment 2: I-40 to Paseo del Norte			
Roadway			
PdV Total Length	9.5	Miles	
Total Length	50,160	Ft	
Number of At-Grade Intersections	6		
Sidestreet Length	1,560	Ft	Assumes intersecting roads stub out to R/W (150' LT/RT)
Paseo del Norte Extension	0	Miles	Removed from Segment and shown separate
Additional Length	-	Ft	
Total Roadway Length in Segment	51,720	Ft	Assumes similar roadway typical section for all roads
Base Paved Area	2,275,680	SQ. FT.	
Turn Lanes on PdV	2,400	Ft	Assumes 200' for each approach on PdV
Additional Area	28,800	SQ. FT.	Assume 12' Wide Turn Lanes
Total Paved Area	2,304,480	SQ. FT.	
	256,053	SQ. YD.	
Roadway Cost per SY	$ 37.00	SQ. YD.	
Estimated Roadway Cost	$ 9,473,973.33		
USE	$ 9,500,000.00		

Segment 3: Paseo del Norte to Southern Blvd.			
Roadway			
PdV Total Length	4.2	Miles	
Total Length	22,176	Ft	
Number of At-Grade Intersections	2		
Additional Length	520	Ft	Assumes intersecting roads stub out to R/W (150' LT/RT)
Total Roadway Length in Segment	22,696	Ft	Assumes similar roadway typical section for all roads
Base Paved Area	998,624	SQ. FT.	
Turn Lanes on PdV	800	Ft	Assumes 200' for each approach on PdV
Additional Area	9,600	SQ. FT.	Assume 12' Wide Turn Lanes
Total Paved Area	1,008,224	SQ. FT.	
	112,025	SQ. YD.	
Roadway Cost per SY	$ 37.00	SQ. YD.	
Estimated Roadway Cost	$ 4,144,920.89		
Minor Arroyo Crossings (CBC)			
# of Crossings	4		Assume 2-10'x7' each
Estimated Length per Crossing	100	Ft	
Total CBC Length	400	Ft	
CBC Cost per LF	$ 1,714.23	L.F.	
Minor Arroyo CBC Cost	$ 685,691.52		
Total Segment Cost	$ 4,830,612.41		
USE	$ 4,900,000.00		

Segment 4: Southern Blvd. to Unser			
Roadway			
PdV Total Length	8.6	Miles	
Total Length	45,408	Ft	
Number of At-Grade Intersections	5		
Additional Length	1,300	Ft	Assumes intersecting roads stub out to R/W (150' LT/RT)
Total Roadway Length in Segment	46,708	Ft	Assumes similar roadway typical section for all roads
Base Paved Area	2,055,152	SQ. FT.	
Turn Lanes on PdV	2,000	Ft	Assumes 200' for each approach on PdV
Additional Area	24,000	SQ. FT.	Assume 12' Wide Turn Lanes
Total Paved Area	2,079,152	SQ. FT.	
	231,017	SQ. YD.	
Roadway Cost per SY	$ 37.00	SQ. YD.	
Estimated Roadway Cost	$ 8,547,624.89		
Bridges			
Bridge #1 Length	150	Ft	175' bank to bank
Bridge #2 Length	150	Ft	175' bank to bank
Total Bridge Length	300	Ft	
Bridge Width	48	Ft	Inclues 2' Shy + Deck for Barrier
Bridge Area	14,400	SQ. FT.	
Bridge Cost per SF	$ 150.00	SQ. FT.	
Estimated Bridge Cost	$ 2,160,000.00		$ 3,456,000.00
Minor Arroyo Crossings (CBC)			
# of Crossings	4		Assume 2-10'x7' each
Estimated Length per Crossing	100	Ft	
Total CBC Length	400	Ft	
CBC Cost per LF	$ 1,714.23	L.F.	
Minor Arroyo CBC Cost	$ 685,691.52		
Total Segment Cost	$ 11,393,316.41		
USE	$ 11,400,000.00		

Paseo del Norte Extension

Roadway

Paseo del Norte Extension	2.6	Miles
Additional Length	13,728	Ft

Total Roadway Length in Segment	13,728	Ft
Base Paved Area	604,032	SQ. FT.
Total Paved Area	604,032	SQ. FT.
	67,115	SQ. YD.
Roadway Cost per SY	$ 37.00	SQ. YD.
Estimated Roadway Cost	$ 2,483,242.67	
USE	$ 2,500,000.00	

Pavement Sections & Estimated Costs

Estimated OGFC Cost (per Ton)	$ 110.00		Referenced 2013 AUB	
Estimated PMBP SP III Cost (per Ton)	$ 65.00		Referenced 2013 AUB	
Estimated Base Course Cost (per Ton)	$ 16.00		Referenced 2013 AUB	
Estimated Subgrade Prep Cost (SY)	$ 1.50		Referenced 2013 AUB	
Pavement Section & Costs	***Thickness (in)***	**Tons / SY**	**Unit Cost Per Ton**	**Cost per SY**
OGFC	0.625	0.034	$ 110.00	$ 3.78
PMBP SP III	6	0.330	$ 65.00	$ 21.45
Base Course	6	0.3288	$ 16.00	$ 5.26
Subgrade Prep				$ 1.50
Earthwork				$ 5.00
				$ 36.99
			USE	$ 37.00
Assumed Paseo del Volcan & Paseo del Norted Typical Section:				
Total Top Paved Width	40	feet	(2-12' Lanes, 8' outside shoulders)	
Additional Width to Account for Taper	4	feet	6:1 Taper	
Paved Width (USE)	44	feet		

Roadway Typical Section

Total Roadway Width	40	Ft	2-12' Lanes, 8' Outside Shoulders
Taper	4		Added effective width to account for taper
Paved Width Use	44	ft	

Minor Drainage CBC			
Assume :	2-10'x7'		(Typcial Minor Crossing)
Concrete:			
Quantity	2.34	CY per LF	From NMDOT Serials
Cost / CY	$ 472.32		2013 AUB (Class AA)
Cost	$ 1,105.23		
Steel:			
Quantity	580	LBS. per LF	From NMDOT Serials
Cost / CY	$ 1.05		2013 AUB
Cost	$ 609.00		
Total Cost	$ 1,714.23	per LF	