BUSINESS PARK FEASIBILITY STUDY

PREPARED FOR NEW BRAUNFELS UTILITIES

PREPARED BY

T·I·P STRATEGIES

TAG

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contents

executive summary

TIP Strategies, Inc. (TIP) and TAG International (TAG) were engaged by New Braunfels Utilities (NBU) to explore the feasibility of developing an industrial park at the New Braunfels Municipal Airport.

The need for prepared industrial sites in New Braunfels was identified as part of a comprehensive automotive supplier attraction strategy completed in 2003. This strategy specifically identified the property adjacent to the New Braunfels airport as being suitable for Toyota suppliers and other industrial and commercial users. Support for development of the airport site was based on several factors, including: (1) city control of the property, (2) access to both IH 35 and the proposed SH 130 relief route, (3) access to air transportation, (4) new training facilities on site, and (5) planned infrastructure to support additional development at the site.

This study will be carried out in two phases. Phase I (this report) is intended to identify any major constraints and to estimate the impact of a potential development scenario for the park. Phase 2, if it is undertaken, will refine the estimates contained in this report, and provide the leadership with strategies for the development and marketing of the park.

To accomplish this task, we reviewed available data on the site, conducted an industrial market analysis, benchmarked other successful business parks (three industrial parks in Indiana and Kentucky), and met with key officials at NBU and the City of New Braunfels to discuss how the proposed business park fits within current and future plans. Based on the findings of the automotive industry attraction strategy, automotive suppliers were assumed to be key tenants. However, based on market conditions and the risks involved in limiting the site to one industry, it was also assumed that other non-automotive businesses would locate at the park.

KEY FINDINGS

Based on this work, **we believe that the development of a business park at the proposed site is feasible**, for a number of reasons:

- **The New Braunfels Municipal Airport is currently undertaking a master planning effort that includes an analysis of the business park.**

  The findings from this study will be integrated into the airport's upcoming master plan. Based on information provided by the director, the airport's vision for development is not only consistent with the recommendations outlined in this study, but stands to greatly enhance its success.

- **Our discussions with NBU and city officials indicate that, with few exceptions, the existing and planned infrastructure will support the development of the park as proposed.**

  To better serve traffic that would be generated by the park, we recommend that Saur Lane be widened to a minimum of three lanes (preferably five) and that two existing 90-degree turns be eliminated and the road realigned at its intersection with FM 758. The costs for these improvements is estimated to be $2.63 million (excluding right-of-way costs assuming the additional land is taken from the airport property).

  Site preparation, including the construction of a regional detention pond that would accommodate all future development, was estimated at $3.90 million. This figure includes site utilities to service the properties within the park only (a 12" water main loop and 8" wastewater main loop), but *does not* include NBU system improvements that are already proposed for the area, (the 500,000 gallon tank or the proposed NBU 18" wastewater main crossing the airport property).

- **The ability to serve the park via Saur Lane, rather than the original plan to construct a new road for that purpose, makes the project more feasible from a financial standpoint.**

  Serving the park via improvements to Saur Lane will solve two challenges: (1) reducing direct costs by eliminating a dedicated park road and potentially sharing costs for road improvement, and (2) improving safety by straightening out 90-degree turns in Saur Lane.

- **Current market conditions are not ideal, but are certainly not prohibitive.**

  The industrial market in the San Antonio region has been generally soft in the past year. Still, the surplus of large industrial properties (i.e., greater than 100,000 SF) on the market remained limited to just five properties at the end of 2003. A survey of available building sites for sale revealed several properties in the region being marketed to Toyota suppliers. While conditions are not ideal, none of the factors observed in this study would preclude the successful development of an industrial park in New Braunfels. However, our findings do indicate that market conditions (particularly the number of large industrial buildings on the market and the number of infrastructure-ready industrial lots on the market) should continue to be monitored closely as this project progresses.

- **The build-out scenario suggests that development of the park will have a positive economic impact for the city.**

  Based on the information gathered from interviews, site visits, existing plans, and the experience of the consulting team, we developed a buildout scenario for the park. This buildout scenario was then used to estimate the economic impact of the proposed scenario in terms of real property tax increases, sales tax revenue potential, and wages and salaries. These figures are presented below.

Figure 1: Overview of Buildout Scenario

Property Use	Acres	Square Feet	Construction Cost
Aviation-related	81.0	640,000	$18,000,000
Office/Flex	22.0	280,000	$10,000,000
Auto-related	58.0	710,000	$33,500,000
Warehouse/Distribution	25.0	250,000	$6,000,000
Commercial/Retail	11.7	95,000	$5,500,000
Total Improvements	**197.7**	**1,975,000**	**$73,000,000**

Source: TIP Strategies, TAG estimates

Our analysis during this phase of the project was confined to calculation of the park's direct economic impact in terms of property taxes, retail sales taxes, and wages and salaries. This analysis was performed by extrapolating from the proposed buildout scenario as outlined in **Figure 1**, above. Our analysis does not consider secondary impacts (i.e., indirect and induced employment associated with the park). As a result, the actual impact may eventually be higher.

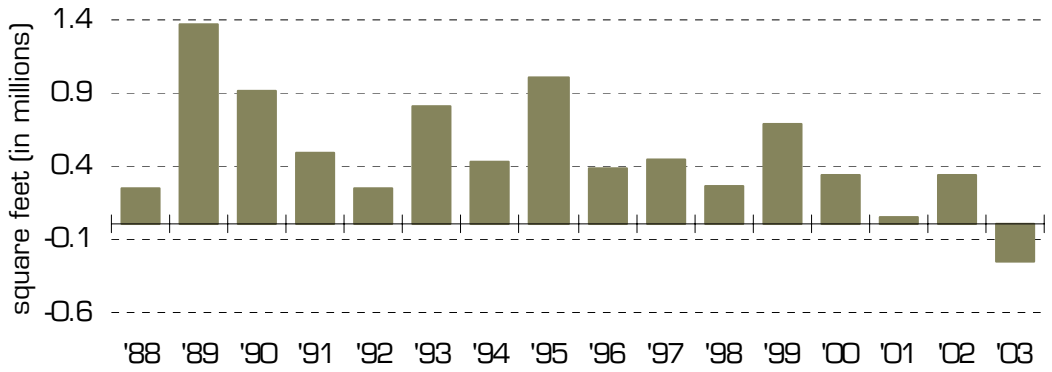
Figure 2: Estimated Impact of the Proposed Buildout Scenario	
Estimated direct employment	3,079
Estimated annual real property tax revenue	$1,760,039
Estimated annual taxable retail sales potential	$43,413,031
Estimated annual payroll	$130,017,824

Source: TIP estimates based on TAG figures and published data sources.
Note: Taxable retail sales potential can not be used to estimate retail sales tax collections as there is no way to determine how much of the money is likely to be spent in New Braunfels.

market overview

An industrial market's general health will typically be assessed at the broad metropolitan level. Indicators at this level are useful for gauging the timing of real estate decisions. A quick glance at net absorption (i.e., demand) in the San Antonio industrial market over the past fifteen years shows that, on average, the market was able to absorb about a half-million square feet per year (**Figure 3**). Although net absorption in 2003 was particularly weak (paralleling the slow economy), demand is expected to snap back to previous levels.

Figure 3: Total Net Absorption—San Antonio Industrial Market



Source: Cavender & Hill

Commercial real estate brokers measure the industrial vacancy rate in inconsistent ways as illustrated in **Figure 4.** As a result, their quarterly and annual reports on the health of the market may differ depending on how they measure and define the inventory of buildings. These statistics can be confusing if not viewed in a larger context.

Figure 4: 2003 Industrial Vacancy Rate Estimates by Local Brokers

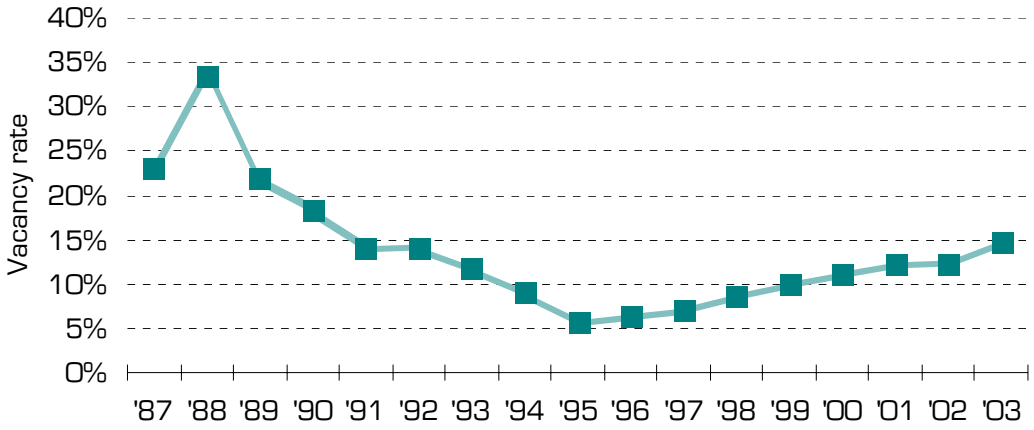
Broker	Industrial Property Type	Rate
Trammell Crow	All Industrial	19.5%
Cavender & Hill	All Industrial	14.7%
Grubb & Ellis	All Industrial	13.2%
NAI Colglazier Properties	Manufacturing	11.0%
NAI Colglazier Properties	Bulk Warehouse	7.0%

Sources: 2003 brokers' reports

At 14.7 percent at year-end 2003, Cavender & Hill is among the more conservative brokerage firms in its assessment of the San Antonio market. In fact, according to their records, the industrial vacancy rate is at its highest point since 1995. How could this be possible since the recession didn't begin until 2001? The answer is that demand is only one-half of the economic equation when assessing the market. Speculative new construction can sometimes outpace demand and drive the vacancy rate up (and rents and prices down) even when demand is steady or rising.

In the case of San Antonio, construction activity dried up in the late 1980s after the economy crashed. As demand recovered, the vacancy rate began to fall through the early 1990s as construction remained marginal. It was only after the introduction of NAFTA in 1994 that speculative development began to reappear in the San Antonio market. From the passage of NAFTA through the late 1990s, net completions of industrial properties rose steadily. At the same time,

Figure 5: Vacancy Rate—San Antonio Industrial Market



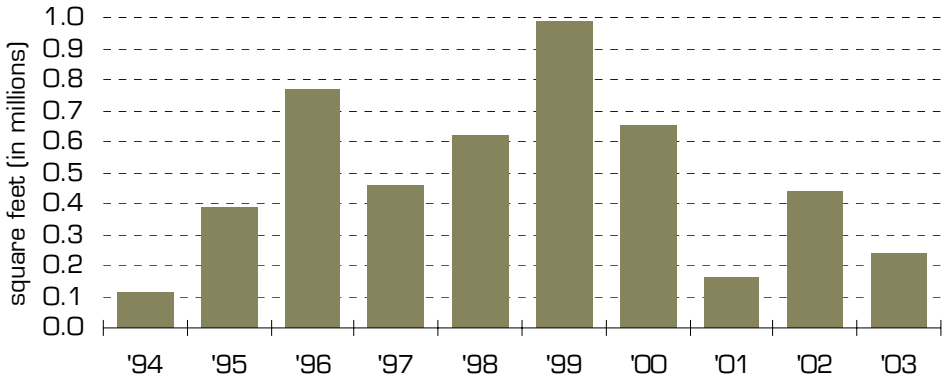
Source: Cavender & Hill

the post-NAFTA industrial boom that was expected in San Antonio never materialized to the extent that everyone had thought. (Dallas and Laredo turned out to be the biggest beneficiaries, picking up a great deal of industrial – especially warehouse – demand.)

So how does this affect New Braunfel's plans for a business park? A general understanding of the San Antonio industrial market's past performance is a good starting point for understanding risks. But for New Braunfels, it is particularly important to understand the submarket (i.e., a broker's term for a specific section of the metropolitan area) where the city is located. In this case, New Braunfels falls into the Northeast San Antonio submarket.

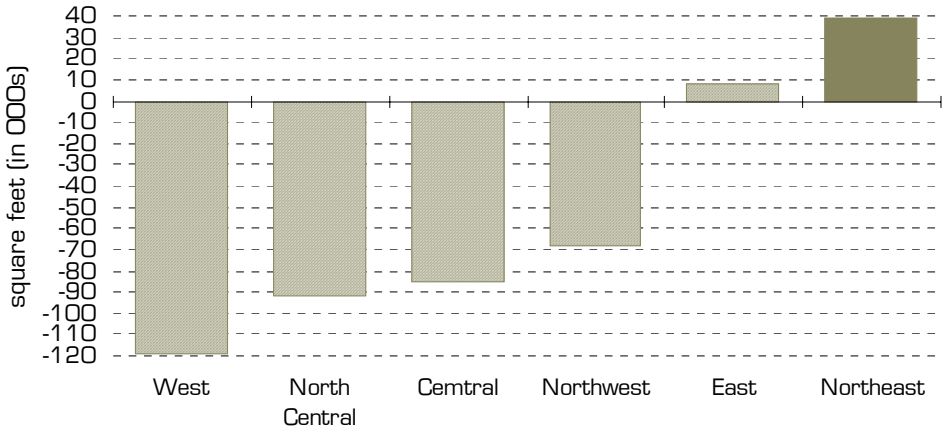
As shown in Figure 3, Cavender & Hill's accounting for net demand in 2003 shows that San Antonio as a whole suffered from negative demand. A breakdown, however, of the city's submarkets shows that demand remained positive in Northeast and East San Antonio (barely) even as the rest of the city was experiencing a wave of industrial space being turned back onto the market. In 2003, the Northeast submarket absorbed about 40,000 SF of industrial space. While the Northeast outperformed the other submarkets, this is still far less than the half-million square feet of positive net absorption that the San Antonio metropolitan area has averaged over the past 15 years.

Figure 6: Net Completions of New Industrial Space
San Antonio MSA



Source: Cavender & Hill

Figure 7: San Antonio Industrial Market: Net Absorption by Submarket, 2003

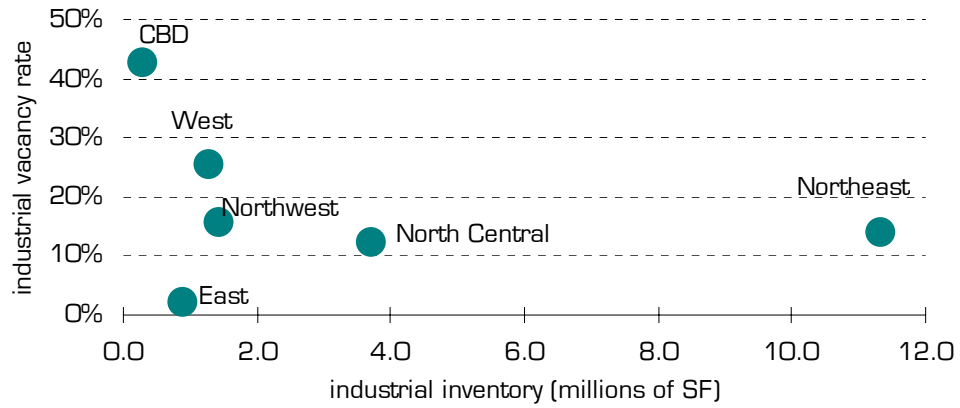


Source: Cavender & Hill

Within the San Antonio metropolitan area, the Northeast submarket (which extends along I-35 north into New Braunfels) is by far the largest submarket, with nearly 12 million SF of industrial space. Yet it ranks near-average in terms of its year-end 2003 vacancy rate.

Of immediate concern is the availability of buildings and sites that could compete with the proposed New Braunfels business park. New Braunfels will need to monitor the amount of industrial-zoned land and the number of large industrial properties on the market (i.e., for sale or lease). Since 1993, the only submarket that has had large industrial spaces of 100,000 SF or more sitting vacant at year-end has been the Northeast, according to an analysis of raw data from Cavender & Hill (see **Figure 9**). The Rittiman development in particular seems to have had recurring vacancy problems over the years. As of year-end 2003, there were five industrial spaces of 100,000 SF or more for lease in the Northeast submarket (and two of these were in the Rittiman development).

Figure 8: San Antonio Industrial Market: Inventories & Vacancy Rates by Submarket, 2003 Year-End



Sources: Trammell Crow, Cavender & Hill

Figure 9: Year-End Vacancies for Industrial Blocks of 100,000+ SF in the Northeast Submarket, 1993-2003

Year of Data	Park/Facility	Vacant Block (in SF)
1993	Coliseum Distribution I	200,000
1993	Rittiman East – USRF	193,000
1993	San Antonio Distribution II	260,010
1994	Coliseum Distribution I	200,000
1994	Rittiman East – USRF	178,000
1995-1997	No vacant industrial blocks of 1000,000 SF or more during this period	
1998	San Antonio Distribution III, Bldg 2	128,000
1999	Binz-Enleman Center	115,713
1999	Rittiman Distribution Center	153,155
2000	Rittiman East – USRF	126,600
2000	Rittiman West – USRF	110,250
2001	Pan Am Distribution I-III	118,870
2001	Rittiman East – USRF	137,000
2001	Rittiman West – USRF	178,500
2001	Tricounty 35 Business Park	224,527
2002	Rittiman East – USRF	128,150
2002	Rittiman West – USRF	182,125
2002	San Antonio Distribution III, Bldg 9	128,000
2003	5100-5400 Kaepa	174,762
2003	610 Lanark	175,998
2003	Macro Industrial Park II, III, & IV	103,350
2003	Rittiman East – USRF	126,842
2003	Rittiman West – USRF	175,643

Source: Cavender & Hill

An analysis of Loopnet's databases, (**Figure 10**), shows at least five large industrial-zoned properties recently listed for sale in the San Antonio area that could be used for the development of supplier facilities for Toyota. (In fact, some of these properties are being marketed with Toyota's suppliers in mind.) Monitoring this aspect of the market will be an important part of marketing a business park in San Antonio to Toyota suppliers.

Figure 10: Sample of Industrial-Zoned Land for Sale as of April 2004

Location	Acres	Asking Price/ Acre
Southwest Business & Technology Park @ SH 151 & Callahan Road (San Antonio)	440.0	$25,000
1555-1699 Mauermann (San Antonio)	270.0	$12,000
IH-35 South (Von Ormy)	160.0	$31,250
1936 SW Loop 410 (San Antonio)	128.0	$101,000
Tri County Business and Industrial Park (Schertz):		
Lot 55 @ 9950 Doerr Lane	13.8	$65,349
Lot 53 @ 7100 FM 3009	6.7	$141,633
Lot 54 @ 7300 FM 3009	5.6	$78,408
Lot 25 @ 1000 Assembly Circle	4.1	$130,680
Lot 47 @ 6665 FM 3009	3.2	$218,072
Lot 4 @ 17412 Triton Drive	3.0	$174,355
Lot 31 @ 6531 Tri County Parkway	2.5	$130,837
Lot 49 @ 6650 Guada Coma Drive	1.2	$141,686

Source: Loopnet

TOYOTA-SPECIFIC ISSUES

Based on our review of current data and the interviews we conducted with officials in Indiana and Kentucky (see *Benchmarking* section), there are several aspects of the local industrial market that will need to be watched closely as NBU continues to monitor the feasibility of marketing a business park in San Antonio to Toyota suppliers:

- **Are there available industrial buildings of 100,000+ SF in the San Antonio area that sit on and/or are adjacent to large parcels of vacant land?** In our interviews, we found that Japanese (as opposed to American) suppliers to Toyota tend to look for large parcels of land – far bigger than what they need – to build a new plant. They plan for the long-term, with multiple expansions in mind for the future. Based on our observations, these companies may be less likely to buy or lease a vacant, existing building in a park, because it is less likely to come attached to large parcels of vacant land. However, with several 100,000+ SF industrial buildings available in the San Antonio area right now (see Figure 10), officials should monitor and inspect all such available sites to assess if or how they might provide potential competition. While available existing buildings may not be the prime target of some Toyota suppliers, they can add a new dimension to the competition. A large metropolitan area like San Antonio may have more large, vacant industrial buildings available than semi-rural parts of Kentucky or Indiana, where such existing facilities were not really a factor.

- **Are large industrial-zoned lots or tracts available in business parks that have adequate infrastructure in place?** If so, what is the price of the land and what sort of electric rates would these parcels be able to get? In our interviews, we found that most business parks selected by Toyota suppliers in Kentucky and Indiana had adequate infrastructure capacity in place at the time of the sale. Competitive land prices and electricity were good selling points.

- **How far are competing sites or buildings (in miles or in minutes) from the new Toyota plant?** Although never explicitly stated by a supplier, we found in our interviews that many Toyota suppliers had chosen to locate a "safe" distance from the Toyota plant, often 25-40 miles away (35-45 minute drive). One economic development official we spoke with suspected that the suppliers like to be close enough to the Toyota plant for JIT delivery to work efficiently, but far enough away so that they are "just beyond" commuting distance for employees. Suppliers that are too close to the assembly plant may risk losing their workers to Toyota because it pays better. The economic development official TIP interviewed stressed that this was an unconfirmed observation, but he suspected that the suppliers liked to be in a safe zone beyond the plant, where they are less likely to lose employees. New Braunfels' distance from the Toyota plant roughly fits this criterion, which could be used as a selling point when competing with sites closer to the plant.

conditions survey

The New Braunfels Municipal Airport is a city-owned general utility airport located southeast of the City, east of SH 46 and bordered by Saur Lane and FM 758. The airport is located within the City limits. The surrounding environs, located in unincorporated Guadalupe County, are in the process of being annexed by the City. The airport is classified as a general aviation General Utility airport by the Texas Department of Transportation (TxDOT) Aviation Division and the Federal Aviation Agency (FAA). The airport currently serves corporate and private aviation. The airport service area includes Guadalupe and Comal Counties, as well as portions of adjacent counties. Existing airport facilities include two runways, several hangars, fueling facilities, a general aviation terminal, and Fixed Base Operator (FBO). The National Oceanic and Atmospheric Agency (NOAA) Weather Bureau operates a regional weather observation station located at the New Braunfels Airport. Recently, the first phase of construction was completed on the Central Texas Technology Center, which occupies property along FM 758 and will ultimately provide training programs and facilities. Initial training programs include building construction, welding, automotive technology systems, robotics, CNC and repair, allied health services (EMT training) and core academics. Future programs will include aviation-related industries such as airframe and powerplant mechanics, avionics technology, professional pilot program, and air traffic control operations certification. *(**Map 1** in the appendix illustrates existing conditions at the site.)*

The New Braunfels Municipal Airport Master Plan was prepared for the City in 1990 by Archie Walker Engineering. The plan identifies existing and future airport conditions and facilities, including fixed base operators, aircraft parking, maintenance, navigational aids, airport layout plan, terminal area plan, airspace and imaginary surfaces, airport land use plan, environmental review and a survey of aircraft owners. According to Andy Spinks, Airport Manager, a process of updating the Airport Master Plan is scheduled to begin in September 2004. Future plans for the airport will include expansion of one runway to 7,000 feet and development of a business park on airport property to accommodate both aviation and non-aviation related uses, including provision of a parallel taxi lane to allow air park accessibility. Mr. Spinks also anticipates that continued increases in annual airport operations will require a control tower and an airport rescue/fire station. Long term, Mr. Spinks indicated that the New Braunfels Airport could eventually move up to FAA Part 139 Classification which would allow passenger traffic.

LAND USE CONSIDERATIONS

Airport-related development is a significant opportunity for future growth on and around the airport. Future land uses and development in the airport environs must be managed in order to maintain airport compatible land uses and avoid height hazard obstructions, in order to maintain and protect the airport's operations and safety. For example, land uses that generate excessive heat production, such as a smelting operation, are considered incompatible. FAA regulations also require height restrictions relative to the runways, which must be taken into consideration. Currently, most of the land surrounding the airport is low-density residential and agricultural uses.

DRAINAGE CONSIDERATIONS

The airport property is relatively level. However, a low ridge runs from northwest to southeast across the midpoint of the airport property and acts as a drainage breakpoint, where one side drains to the northeast toward Alligator Creek, while the other side drains to the southwest across Saur Lane to a tributary that eventually leads to the Guadalupe River.

A portion of the existing airport property at its north-eastern edge, near Alligator Creek, is in the FEMA 100-Year Flood Zone A3 and a narrow adjacent strip of property is in the FEMA Zone B, which is an area between the limits of the 100-year flood and 500-year flood. The balance of the

airport property, including the entire proposed business park site, appears to be within FEMA Zone C, which indicates "areas of minimal flooding."

The proposed business park site appears to be almost entirely to the southwest side of the above-described ridge, with the business park site draining towards the southwest. New Braunfels ordinances require run-off to be retained in storm water detention ponds.

TRAFFIC AND ROAD CONSIDERATIONS

Access to the airport terminal and the Central Texas Technology Center is from FM 758. Bordering the airport property to the southwest, where the business park site is proposed, is Saur Lane, a substandard two-lane road featuring two sharp 90 degree turns prior to its intersection with FM 758. The City has adopted a Thoroughfare Master Plan indicating upgrades and expansions to both Saur Lane and FM 758, with a portion of Saur Lane shown as being re-routed to an alignment southwest of its current location. However, according to Planning Director Frank Robbins, the Thoroughfare Plan is not tied to a Capital Improvements Plan and there is no City-wide Capital Improvements Plan for roads. The City is in the process of beginning a road impact study, but there are no defined time frames. *(Traffic considerations are illustrated in **Map 2** in the appendix.)*

WATER SERVICE

According to Wesley Hamff of New Braunfels Utilities, a 12" water main comes from the I-35 area, runs along Saur Lane and then turns northeast and follows FM 758 until it dead-ends near the existing airport hangers. Because of the length of the main from its source, water pressure could be an issue for some business park users, particularly users requiring fire flows above 2000 gpm. New Braunfels Utiliities' long-range plan is to provide an approximately 500,000 gallon water tank near the northwest corner of the airport to serve future development in the area and to provide for a loop in the system.

WASTEWATER

According to Mr. Hamff, there is a new main wastewater trunk line that serves the Central Texas Technology Center. However, the airport terminal building and other facilities at the airport site are currently on septic. According to Mr. Hamff, NBU intends to extend a new 18" main from Saengerhalle Road across Saur Lane through the airport property and over to I-35. Time frame for this project is anticipated within the next two to three years, prior to the airport runway extension.

ELECTRICAL SERVICE

According to Mr. Greg Baumbach of New Braunfels Utilities, the airport site is currently served from a nearby substation, approximately 2 miles away, with multiple routes for distribution and capacity available up to approximately 25 MVA. Redundancy is currently provided through the use of multiple transformers at the substation. According to Mr. Baumbach, NBU intends to build a second substation with a 25 MVA transformer, anticipated to come online in 2005, which would offer airport park users the ability to obtain dual service if desired.

NATURAL GAS

There does not currently appear to be any natural gas service available to the airport property. This could be an issue for the proposed business park since many industrial users require gas service.

benchmarking

TIP staff conducted interviews with three industrial parks—one in Indiana and two in Kentucky—that have recently attracted Toyota suppliers. The purpose of the interviews was to obtain information about how each of the location decisions of these Toyota suppliers unfolded (i.e., unique requirements, use of incentives, infrastructure needs, land/building preferences, investment timelines, etc.), the impact on the local community, and any lessons learned.

KEY FINDINGS

The interviews were ultimately conducted with local economic development organizations that own and manage the industrial parks rather than private-sector developers. Interviews revealed that in most cases outside developers were not directly involved in these projects. The economic development organizations we spoke with in Indiana and Kentucky that had experience recruiting Toyota suppliers cited *large industrial lots, adequate park infrastructure, and low electricity rates* as crucial factors for getting the initial attention of Toyota suppliers.

Additional considerations are listed below:

- Of the three industrial parks interviewed, most Toyota suppliers opted to buy land, *not* existing buildings. In fact, all but one of the Toyota suppliers we inquired about had chosen to purchase vacant industrial land in an existing business park with full infrastructure in place. In only one instance did we find a Toyota supplier that had purchased and modified an existing building.

- Unlike American-owned suppliers, Japanese suppliers tended to "overbuy" land at the outset. From the data gathered in the interviews, TIP Strategies calculates that Dana (the only American supplier to Toyota in the sample), initially built just under 500 SF per planned employee. The Japanese suppliers built anywhere from 800 to 1800 SF per planned employee, and within a short time after ramping up began buying more equipment and adding more employees than originally anticipated. Several of the parks TIP interviewed said that the Japanese suppliers had bought enough land to have at least two more large building expansions on the same site.

- One consistent theme was that infrastructure capacity (water, wastewater, etc.) in the park had to be at adequate levels for the business park to attract a Toyota supplier. Very competitive electric rates were also important according to two of the three interviewees.

- Some suppliers may create a "point surge" demand condition. One specific example given was robotic welding operations, which draw huge amounts of electricity as the welders strike. While this is not typically an issue for the manufacturer, it can create "dirty feedback" in the form of temporary flickers in service for the provider and other customers. However, this situation is unlikely to be the norm.

- The executive director of Vincennes Commons felt certain that Futaba[1], the Toyota supplier that his park attracted, would have to locate a new facility in the San Antonio area. He said they could not supply San Antonio remotely from Indiana. Futaba built its plant in Vincennes with two phases of major expansions planned, of which the first planned expansion was to be a production facility for in-house stampings. This has not yet happened; Futaba is currently bringing in stampings from an external supplier just across the border in Illinois. This expansion would be a big step for Futaba. Vincennes Commons' executive director is moderately concerned that if/when Futaba picks a site in San Antonio, they may have to invest quickly in a

[1] Futaba does business as "FIA" in Vincennes and is a supplier to Toyota's truck plant in Princeton, IN.

stamping facility there (because outsource options in Texas may be more limited than in the Midwest), further delaying Futaba's stamping investment in Indiana.

More detailed information regarding each interview is provided in the following pages. In addition, we have prepared an overview of several significant industrial parks in the area: Tri-County (Shertz); I-10/123 Industrial Park (Seguin), and Freeport and Kelly USA parks in San Antonio.

VINCENNES COMMONS/U.S. 41 INDUSTRIAL PARK (indiana)

Location	U.S. 41 south in Vincennes (near Hwy 50, about 1.5 miles away)
Size	250 acres; 200 still available
Ownership	Knox County Development Corp. (KCDC)
Current Use/ Zoning	Heavy Industrial
Access (Highway)	Fronts U.S. 41
Access (Rail)	None; however, a CSX line runs about 1/4 mile away
Access (Air)	Mid-America Air Center (Illinois) is about 12 miles away; it is an old WWII airfield that is still used.
Image/ Visibility	Good visibility on U.S. 41
Topography	The property is so flat that it actually causes some drainage problems.
Toyota Suppliers	Futaba Indiana America (FIA) is the main tenant.
Unique Requirements of Toyota Suppliers	"None that were ever shared." According to the park owners, they still are not sure why FIA selected them. Vincennes was competing with sites that were closer to the Toyota plant. Though it has never been confirmed, Vincennes suspects that despite their smaller labor market and lower unemployment rate, FIA wanted to be just *beyond* the Toyota plant's labor market so as not to lose employees to Toyota itself. Vincennes is about 25 miles from the plant. (Vincennes also suspects that the ultra-flat site must have looked very appealing to the Japanese investors who are accustomed to little or no flat industrial land in Japan. Most of the competing sites were on rolling terrain unlike the Vincennes site.)
Incentives	▪ $700,000 infrastructure investment at business park ($145K of which was from a state infrastructure grant; the balance was paid for with local funds). ▪ Sold 30 acres at below market cost ($10,000/acre sale price; market price was $20,000) ▪ 10-year abatement (phase in with 100% first year phasing to 0 after tenth year – average of 50%) ▪ State training grant of $40,000

Infrastructure Needs	No unusual requests for capacity or services were made. However, KCDC offered one warning about electricity. FIA uses robotic welding. This creates a "point surge" demand condition, as huge amounts of electricity are drawn when the robotic welders strike. The manufacturer is largely unaffected by this, but it can create "dirty feedback" for the electricity provider and other customers in the form of temporary flickers in service. If the manufacturer has a dedicated source (substation), this can be an advantage. KCDC was unsure if or how many other Toyota suppliers use robotic welding other than FIA, but it is a potential area of concern
Approx Acres Required	30 acres purchased, but only 10 are currently used; FIA bought enough land to add two more phases in the future.
Approx SF	125,000 SF built by FIA
Approx $ Invest: bldg	The total initial investment was $10 million total (building + equipment), and KCDC was unsure how this was initially split. However, they did say that another $4 to $5 million was later spent to "double" the amount of equipment for the existing space. Therefore, it can be estimated that if $4 to $5 million was spent initially on equipment, this would put the building cost at roughly $5 to $6 million, or $40-$48/SF.
Approx $ Invest: equip	See note above
Total Employees	140
Approximate SF per Employee	893 SF (calculated)
Traffic/Trip-Generation Impact (& Parking)	Not a significant issue. Minimal number of trucks coming in. FIA averages one truck out every half-hour.
Expansions?	FIA bought enough land to add two more phases of a similar size to the original building.
What Went Right?	Nothing in particular. One thing KCDC is happy about is that there was a consistent effort and consistent message from all of the local players (public and private sectors) to welcome FIA.
What Would They Do Differently?	Again, nothing in particular. To get very specific (i.e., this was not a big issue), the initial decision from FIA required everyone to meet a lot of tight deadlines. This was challenging, and perhaps relations with the company could have been smoother. (According to KCDC, FIA has never complained in any way, this was just a casual observation of something that the locals felt could have flowed more smoothly.)

MID-AMERICA AIRPARK (kentucky)

Location	Fronts the U.S. 60 bypass/loop (Wendell H. Ford Expressway) with access off of Carter Road
Size	450 acres; 8 companies currently, about 200 acres remaining undeveloped and available in sites ranging from 5 to 200 acres
Ownership	Economic Development Properties, Inc. (jointly owned by the city, the county, and the local industrial foundation)
Current Use/ Zoning	Light Industrial
Access (Highway)	1.8 miles to an interstate highway
Access (Rail)	None; no rail line anywhere close
Access (Air)	adjacent to Owensboro-Daviess County Regional Airport
Image/ Visibility	Good visibility from U.S. 60
Topography	flat; farmland
Toyota Suppliers	Dana opened in 1999; Toyotetsu opened in January 2002
Unique Requirements of Toyota Suppliers	Nothing unusual was noted. The industrial park had excellent water and sewer capacity in place in advance, so this was never an issue with any prospects. The park has two local electricity providers. Kentucky has some of the lowest industrial electric rates in the nation, and Owensboro's rates are below the state average, making electricity very attractive.
Incentives	Both companies received training grants on a per-job basis from the city and county; Dana got $500/job for up to 360 jobs, with the a guarantee from the company that the jobs would remain for at least 2 years or the money would be refunded. Both companies received 5-year 100% abatements on city and county real property taxes (school property taxes are exempt from abatements in Kentucky and cannot be abated). In addition, Toyotetsu had "fill material" provided/donated for its building site.
Infrastructure Needs	Nothing unusual was noted. Excellent infrastructure capacity was in place in advance, so it was never an issue with prospects.
Approx Acres Required	20.25 acres purchased by Dana; 43.02 acres purchased by Toyotetsu
Approx SF	150,000 SF built by Dana; 174,000 SF initially built by Toyotetsu, but the facility has since been expanded

Approx $ Invest: bldg	The total initial investment by Dana was $25 million, although this was not broken out between building & equipment; The total initial investment by Toyotetsu was $12 million, although this was not broken out between building and equipment.
Approx $ Invest: equip	See note above
Total Employees	330 at Dana; 120 initially at Toyotetsu, although recent expansions since the January 2002 opening have brought their total employment above 400.
Approximate SF per Employee	About 454 SF for Dana and about 1450 SF initially for Toyotetsu (calculated)
Traffic/Trip-Generation Impact (& Parking)	Traffic and parking generally have not been significant issues. However, the tenants at the park did request that a signal light be installed to ease ingress and egress problems
Expansions?	Dana, no. Toyotetsu, yes. Toyotetsu opened in January 2002 and has announced 3 to 4 expansions in less than 2-1/2 years.
What Went Right?	Having adequate infrastructure in place was very important. Having large parcels of industrial land available was also an advantage. Another selling point for Owensboro has been the way it promotes its workforce. A local organization (Skills Inc.) teams with the community college to identify unemployed, underemployed, and ambitious workers wanting more challenges. These workers are profiled and tested on a variety of skills at the college. Skills, Inc., maintains the database which can be accessed by prospective employers. New employers are able not only to assess the "scores" of potential workers, but also their job interests, willingness to work various shifts, etc. This has been very popular with prospective employers.
What Would They Do Differently?	No particular mistakes were noted. However, there was some regret expressed that the industrial park does not have rail access (it's too expensive to bring a spur to the park). The chamber feels that the triple combination of highway, rail, and airport access would be a bonus for recruiting companies.

MARION COUNTY INDUSTRIAL PARK (kentucky)

Location	local access to SH 55 and SH 68 but not frontage (Lebanon is a rural town of about 18,000)
Size	200 acres, fully built out (they operate 2 other parks nearby of 75 and 300 acres each; a 4th park is planned)
Ownership	Marion County Industrial Foundation
Current Use/ Zoning	Heavy Industrial
Access (Highway)	60 miles SE of major highways
Access (Rail)	None
Access (Air)	Lebanon has a very small airport with a 5,000 foot runway. It is sometimes used to bring in corporate planes when executives visit the local Japanese plants, but other than that, air access has not been a major issue.
Image/ Visibility	Not good. Not on a major highway; doesn't even front a state highway
Topography	Rolling hills
Toyota Suppliers	Toyodabo Manufacturing Kentucky (TBMK) and US Chita Co. Ltd. are in the Marion County Industrial Park. There are three other Japanese companies in the foundation's other parks in Lebanon, including Toyota Goesi, NSU, and TG Kentucky.
Unique Requirements of Toyota Suppliers	Japanese suppliers like "lots of land". They like to be fully prepared for future expansions. They heavily landscape it and keep it very neat and attractive. They like to locate in neat, clean communities that are attractive and well maintained.
Incentives	Both TBMK and US Chita received the standard incentive package which includes (1) from the state: funding from the Kentucky Rural Economic Development Act, or KREDA, which is essentially a rebate on state taxes to cover their equipment investment; and (2) from the city: a 5-year 100% moratorium on the city property tax (they still have to pay county and school property taxes). Infrastructure is typically paid for by the company and is not part of the incentive package; however, in some cases the city will occasionally work out a deal with them on extending some utility lines, but nothing major.

Infrastructure Needs	Having a good infrastructure in place is crucial. Communities without a solid infrastructure will not even be considered. Lebanon did the infrastructure upgrades before attempting to attract companies. The city has a water capacity of 3 million gallons per day. They claim to also have an excellent wastewater capacity. Their electricity supplier is Kentucky Utilities (owned by LGE) and they offer very low, very competitive industrial rates. Low electricity rates were a huge benefit to attracting these companies.
Approx Acres Required	TBMK bought about 20 acres, and US Chita took about 8 acres.
Approx SF	TBMK built a 90,000 SF facility; US Chita bought a 40,000 SF building.
Approx $ Invest: bldg	TBMK brought in its own builder from Chicago to put up its building (local subcontractors were used). US Chita bought an existing building that was under 5 years old and being used as a warehouse; they modified it to fit their manufacturing needs. No estimates for building or equipment investment were available.
Approx $ Invest: equip	No estimates for building or equipment investment were available.
Total Employees	TBMK and US Chita each plan to ramp up to 50 employees; (NOTE: two of the three other Japanese companies that have been in Lebanon for a while now employ more than 500)
Approximate SF per Employee	About 1800 SF for TBMK and about 800 SF for US Chita (calculated)
Traffic/Trip-Generation Impact (& Parking)	Truck traffic is significant. A bypass for the city was a long-range plan, but attempts have been made to rush state funding to get it built sooner.
Expansions?	Most of the 5 Japanese companies that located in Lebanon bought enough land for future expansion. NSU has expanded twice. TG Kentucky has expanded once and is contemplating a third expansion.
What Went Right?	Getting the infrastructure capacity in place in advance was the key to getting considered. Cheap electricity is very important. So are other factors like having an attractive community (Lebanon has an active Main Street program which has really cleaned up the downtown) and having a good local school system. Lebanon also has ESL classes available. Students are bused to Japanese Saturday Schools about 60 miles away.
What Would They Do Differently?	Lebanon lost one Japanese company to another competing county. It came down to an incentive issue. In this case, the other county was able to offer a better deal on the sale price of the industrial land. (Note: industrial land in Lebanon goes for $6,000 to $15,000 per acre. They're expecting land prices to go up when the bypass is completed.)

OVERVIEW OF SAN ANTONIO AREA PARKS

	Tri-County, Shertz	Freeport, San Antonio	KellyUSA, San Antonio	I-10/123 Industrial Park, Seguin
Location	IH-35 at FM 3009	Loop 410 South at Freeport Blvd.	Highway 90 @ 36th St./ General McMullen	I-10/123
Size	originally 272 acres; only 50 remaining	440 acres	2,000 acres	70 acres
Ownership	Zemex International	Harvard Investments	Greater Kelly Development Authority/City of San Antonio	Stravinski Development Group
Current Use/ Zoning	Light Industrial	Light Industrial	Light to Heavy Industrial	Light Industrial
Access (Highway)	Excellent; on frontage road of IH-35 South	Excellent; on frontage road of Loop 410; direct access to IH35, 37,10	Highway 90 with direct access to IH10,35,37	At the intersection of IH-10 and State Highway 123
Access (Rail)	Limited	UP and BNSF	Union Pacific's South San Antonio Inter-modal rail yard	UP
Access (Air)	15 minutes to SAT	20 minutes to SAT	30 minutes to SAT	45 minutes to SAT
Image/ Visibility	Excellent; visible from the highway in both directions	Fair from Highway	Good	Good
Topography	Rolling hills/ developed park	Farmland	Developed park	Farmland

infrastructure requirements & considerations

DRAINAGE

The proposed business park site drains primarily towards the southwest. City of New Braunfels ordinances require run-off to be retained in storm water detention ponds. However, in lieu of having each future property owner within the proposed business park build their own detention pond, we suggest building a "regional" detention pond to accommodate all future development within the park. Regional ponds such as this are typically used in large industrial parks because economies of scale allow for better utilization of land area. In other words, a regional pond to accommodate storm water from all sites will be smaller than the sum of all of the individual ponds that would be otherwise required. Also, having a regional pond under the control of the business park management ensures proper pond maintenance. Finally, since areas of surface water near the runways present a possible danger due to the possible presence of water fowl, a regional pond allows the properties closest to the runways to not have any pond areas on those properties.

Based on our understanding of New Braunfels ordinances and the assumption of the eventual build-out scenario proposed, based on a maximum of 80 percent impervious cover and an assumed pond depth of 4 feet, we anticipate a pond surface area of 14 acres. The pond should be located at a naturally low area as far away from the runways as is practical.

ROADS

Since adequate access to the business park site, especially for truck traffic, is critical, Saur Lane should be improved. Currently a substandard two-lane road with two sharp 90 degree turns prior to its intersection with FM 758, Saur Lane should be widened to a minimum of three lanes and preferably five lanes (one or two lanes in each direction plus a center turn lane). We propose expanding Saur Lane to 120' Right-of-Way with the southwestern ROW line to stay as is, and the additional ROW to come from the airport property. We further suggest taking additional airport property to allow for elimination of the two 90 degree turns by providing a new alignment of the road as shown in the proposed master plan. This way, Saur Lane could be substantially upgraded to accommodate the needs of the business park without taking any private property in the area. Appropriate access to the business park could be provided from the improved Saur Lane instead of building a long private road into the airport property from 758. Improving Saur Lane will also be beneficial to the residents of the community, not just business park users.

Within the park, a new collector street is proposed to loop through the park with access to Saur Lane. Several short streets ending in cul-de-sacs will extend off of the loop street. Internal streets are proposed as 52' pavement width streets within 80' ROW, as is typical for industrial collector streets to accommodate anticipated heavy truck traffic.

WATER SERVICE

Our proposed plan indicates provision of an approximately 150' x 150' site for New Braunfels Utiliities' proposed water tank near the northwest corner of the airport, per our conversations with Mr. Wes Hamff of NBU. We would anticipate developing a 12" water main loop through the business park under the proposed new collector street. Based on typical water service requirements for a variety of types of industrial manufacturers, estimated average of 500 gpm, a 12" main should be adequate for both domestic water service and fire flows. Water pressure, however, could be a significant issue until NBU puts the proposed 500,000 gallon tank in place.

WASTEWATER

According to Mr. Hamff, NBU intends to extend a new 18" main from Saengerhalle Road across Saur Lane through the airport property and over to I-35. Time frame for this project is anticipated within the next two to three years, prior to the airport runway extension. Once this new main is in place, there should be absolutely no concern about wastewater capacity. Until then, however, there could be limitations for some large industrial manufacturers.

Our proposed plan anticipates provision of an 8" wastewater line looping through the business park under the proposed new collector street and tied into the proposed new 18" main that will cross the property. Based on typical wastewater requirements for a variety of industrial users as indicated in the proposed build-out scenario, the 8" main should be sufficient. Certain types of industrial users may be required to provide on-site wastewater pre-treatment facilities prior to discharging into the City's system.

ELECTRICAL SERVICE

Typical electrical power requirements for industrial manufacturers of the type envisioned for the airport business park are in the range of 15 to 20 watts per sf. Requirements for warehouse/distribution, flex space, aviation-related uses, and other business park tenants would be less. Based on an ultimate build-out scenario of approximately 1,800,000 sf, NBU's current capacity of 25 MVA should be adequate. Once the new substation is brought online, the enhanced capacity will certainly be sufficient.

Because of safety concerns due to proximity to the airport runways, as well as for aesthetic reasons, it is strongly recommended that all electric service provided within the business park be underground.

NATURAL GAS

There does not currently appear to be any natural gas service available to the airport property. This could be an issue for the proposed business park since many industrial users require gas service. Natural gas is provided in the New Braunfels area by Entex/Center Point Energy and gas could be brought to the airport business park site at an estimated cost of $85,000 to $100,000.

TELECOMMUNICATIONS/INTERNET SERVICE

High-speed communications lines—such as fiber optics, cable, and/or DSL—will be important for the types of users envisioned for this business park. Our study has not specifically evaluated needs or availability of telecommunications and/or Internet services for the airport site. However, it is our understanding that the City has plans to provide fiber optic service to the CTTC and the airport terminal during fiscal year 2005. This service could easily be extended to serve other users within the business park area.

build-out scenario

Based on the information garnered from site visits and interviews, as well as the experience with similar projects, the consulting team developed a build-out scenario for the airport business park. This scenario is not intended to predict the future, but to allow city leaders to better understand the types of potential tenants and their economic impact. *(An illustration of the buildout scenario is provided as **Map 3** in the appendix.)*

We began by identifying land that was constrained or required for other uses, such as the proposed regional detention pond and road improvements. The remaining land (nearly 200 acres), was then laid out to reflect one possible scenario for development. The needs of the airport (a portion of the property must be retained for "airport-related uses" in order to meet federal requirements) were also incorporated into the scenario.

TENANT MIX

The proposed build-out scenario assumes a mixture of various types and sizes of industrial manufacturing and distribution space as well as office/flex space and aviation-related uses. Given the city's interest in attracting Toyota suppliers, the aggressive approach being taken by the airport in connection with the business park, and our understanding of the needs of Toyota suppliers, we emphasized the automotive industry as a key target for the park.

Typical "Tier One" automotive suppliers range in size from 70,000 sf up to 250,000 sf, while "Tier Two" and "Tier Three" suppliers may be as small as 30,000 sf or as large as 250,000 sf. Our proposed plan assumes one large "Tier One" supplier at 250,000 sf and two "Tier Two/Tier Three" suppliers of up to 150,000 sf. A large Warehouse/Distribution Center of up to 250,000 sf is also envisioned. In addition, some speculative "Flex" type buildings could accommodate several smaller lower tier suppliers or other light industrial users, while additional speculative Office/Flex buildings can accommodate a variety of office and/or light industrial users. A variety of lots available for aviation-related uses, with airside access to a proposed new parallel taxi lane, rounds out the plan. Aviation-related uses could include several freight forwarders and airside cargo facilities up to 50,000 sf each.

Figure 11: Buildout Scenario

Property Use	Acres	Buildout Scenario SF
Aviation-related	81.0	640,000
Office/Flex	22.0	280,000
Auto-related	16.0	180,000
Auto-related	9.0	150,000
Auto-related	8.0	130,000
Auto-related	25.0	250,000
Warehouse/Distribution	25.0	250,000
Commercial/Retail	11.7	95,000
Total Improvements	**197.7**	**1,975,000**

Source: TAG, TIP Strategies

INFRASTRUCTURE COSTS

Based on our conversations with the city and NBU, it appears that existing and planned improvements for the area will accommodate the tenants that would be expected at the park. One exception is the recommended improvements to Saur Lane. We estimate that the modifications proposed to facilitate traffic—widening the road and eliminating 90 degree turns at the intersection

with FM 758—would cost approximately $2.63 million (or $373 per lineal foot). This figure includes a small allowance for landscaping. It does not account for the cost of right-of-way, as it is our understanding that this land could potentially be donated by the airport.

Site preparation costs were estimated at $3,900,000 (or approximately $20,000 per acre). This figure includes infrastructure improvements for the park itself, including internal streets, detention pond, signage, and landscaping. The estimate also includes the site utilities to service the properties within the park only (a 12" water main loop and 8" wastewater main loop). It does not include costs associated with the proposed NBU 500,000 gallon tank or the proposed NBU 18" wastewater main crossing the airport property.

economic impact

The consulting team evaluated the build-out scenario to obtain a broad picture of the potential economic impact in terms of property taxes, wages, and retail sales taxes. The methodology and results for each category are described below.

PROPERTY TAXES

To assess the potential impact on real property taxes we began by reviewing Comal and Guadalupe County tax appraisal data for 2003 (**Figure 12**). Using the construction costs in **Figure 13** as a proxy for assessed value, we then estimated the amount of real property tax revenue that could be generated under the proposed buildout scenario.[2] Using this approach we calculated that an additional $1.76 million in additional real property tax revenue could be raised by the park's development as described.

Figure 12: Property Tax Information for Airport (Land Currently Exempt), 2003

Taxing Authority	Tax Rate	Acres	Assessed Land Value	Assessed Value per Acre	Property ID
City of New Braunfels	0.3711	920.18	$920,180	$1,000	CCAD: 43628 (Real)
Guadalupe County	0.3654	816.82	$0	$0	GCAD: 56493 (Real)
Navarro ISD	1.6203	816.82	$0	$0	GCAD: 56493 (Real)
Lateral Road District	0.0477	816.82	$0	$0	GCAD: 56493 (Real)

Sources: Comal County Appraisal District; Guadalupe County Appraisal District

Figure 13: Estimated Construction Costs by Use

Property Use	Acres	Buildout Scenario SF	Construction Cost
Aviation-related	81.0	640,000	$18,000,000
Office/Flex	22.0	280,000	$10,000,000
Auto-related	16.0	180,000	$6,500,000
Auto-related	9.0	150,000	$7,500,000
Auto-related	8.0	130,000	$6,500,000
Auto-related	25.0	250,000	$13,000,000
Warehouse/Distribution	25.0	250,000	$6,000,000
Commercial/Retail	11.7	95,000	$5,500,000
Total Improvements	**197.7**	**1,975,000**	**$73,000,000**

Source: TAG estimates

[2] Personal property tax calculations could not be performed within the scope of this project.

Figure 14: Estimated Property Tax Enhancements

	2003 Tax Rate	Land Converted to Non-Exempt Status			Non-Exempt Improvements Added			Total Additions to Tax Rolls
		Acres	Land Value	Taxes Generated	Square Feet	Construction Value	Taxes Generated	
City of New Braunfels	0.3711	197.7	$197,700	$734	1,975,000	$73,000,000	$270,903	$271,637
Guadalupe County	0.3654	197.7	$197,700	$722	1,975,000	$73,000,000	$266,742	$267,464
Navarro ISD	1.6203	197.7	$197,700	$3,203	1,975,000	$73,000,000	$1,182,819	$1,186,022
Lateral Road District	0.0477	197.7	$197,700	$94	1,975,000	$73,000,000	$34,821	$34,915
Total Collections	—	—	—	**$4,754**	—	—	**$1,755,285**	**$1,760,039**

Sources: Comal County Appraisal District (CCAD); Guadalupe County Appraisal District (GCAD); TAG estimates; TIP Strategies estimates.
Note: GCAD does not have a current appraisal for tax-exempt land in the airport, so CCAD's per acre appraisal of $1000 is substituted for all taxing entities in Guadalupe County

RETAIL SALES

To calculate an estimate of retail sales that could be generated by employment at the park, we began by estimating the total number of direct jobs that would likely result from the uses proposed under the buildout scenario. To accomplish this step, we obtained estimates of employment for appropriate industrial sectors in the region (**Figure 15**).

Figure 15: Industrial-Related Employment in the San Antonio MSA, 2003

Sector	2003 Annual Average Employment	Intensity of Industrial Property Usage	No. of Jobs in Industrial Buildings
Manufacturing	45,400	100%	45,400
Wholesale Trade	26,300	100%	26,300
Total	**71,700**	—	**71,700**

Sources: U.S. Bureau of Labor Statistics; TIP Strategies

These figures were applied to the total rentable industrial inventory in the San Antonio MSA during roughly the same period to arrive at an estimate of the number of square feet used locally per industrial job. The resulting average square footage per worker was applied to the square footage outlined in **Figure 15** to estimate the maximum number of jobs—slightly more than 3,000—that could be supported under the full buildout scenario. These calculations are outlined in **Figure 16**.

Figure 16: Calculation of Potential New Jobs Generated	
28,571,360	Total Rentable Industrial Inventory in the San Antonio MSA (SF), 2003 YE
19.5%	Vacancy Rate, 2003 YE
80.5%	Occupancy Rate, 2003 YE
22,994,231	Total Occupied Industrial Inventory of Rentable Space (SF), 2003 YE
x 2	Adjustment factor to include Owner-Occupied Space (common for manufacturing)
45,988,461	Total Occupied Industrial Inventory (SF, renter- and owner-occupied)
71,700	Total Number of Industrial-Related Jobs in the San Antonio MSA, 2003 YE
641	SF of Occupied Space Per Industrial Job
1,975,000	Amount of Additional Space Expected Under Full-Buildout Scenario (SF)
3,079	**Estimated Number of Jobs Added in Industrial Park**

Sources: Trammell Crow; U.S. Bureau of Labor Statistics; TIP Strategies; TAG

Using an estimate of the number of households in Comal County and retail sales data for the county in the same year, we calculated an estimate of $21,148 in taxable retail sales per household annually (**Figure 17**).

Figure 17: Calculation of Average Retail Sales Per Household	
$691,610,514	Taxable Retail Sales in Comal County, 2003
32,703	Number of Households in Comal County, 2003
$21,148	**Estimated Taxable Retail Sales Per Household**

Sources: Texas Comptroller of Public Accounts; U.S. Bureau of the Census; Economy.com; TIP Strategies

To calculate retail sales potential, we assumed a reasonable mix of 1-wage earner and 2-wage earner households and arrived at an estimate of $43.4 million in potential direct increase in total taxable retail sales resulting from the new jobs. Without detailed point-of-sale information or surveys of local purchasing habits, there is no way to predict how much of the money will be spent within the City of New Braunfels, therefore contributing to the city's sales tax collections. However, if even a small percentage of these sales are captured locally, the increase in sales tax revenues could be significant.

Figure 18: Calculation of Retail Sales Potential	
$21,148	Estimated Taxable Retail Sales Per Household
3,079	Estimated Number of Jobs Added in Industrial Park
$65,119,547	Estimated Direct Retail Sales Potential for 100% Single-Paycheck HHs
÷ 1.5	Assumption that half of HHs are Single-Paycheck and half are Two-Paycheck
$43,413,031	**Estimated Direct Taxable Retail Sales Potential**

Sources: Texas Comptroller of Public Accounts; U.S. Bureau of the Census; Economy.com; TIP Strategies.
Note: Since household earnings may be spent anywhere, the total retail sales potential may not be limited to spending in the City of New Braunfels or in Comal County.

WAGES AND SALARIES

To determine the wages and salaries that could be associated with the park, we began by estimating the general mix of occupations anticipated for each building type (**Figure 19**).

We then obtained Texas-specific occupational wage data for the industries that would be occupying the park under the full-buildout scenario (**Figure 20**). Using the occupational mix in Figure 21, we disaggregated the number of jobs expected by building type and by occupation (**Figure 21**). These figures were then used to estimate the direct payroll additions by building type and by occupation (**Figure 22**). Using this approach, we estimated that direct employment from the proposed buildout scenario would generate $130 million in wages and salaries annually. We did not attempt to model indirect or induced employment associated with these jobs, so the actual figure is likely to be substantially higher.

Figure 19: Typical Distribution of Occupations for Uses Under Full-Buildout Scenario

Building Type	SF	Industrial SF per Worker	Estimated Jobs	Occupations Represented
Auto Supplier	710,000	641	1,108	Management (10%); Production (90%)
Aviation Related	640,000	641	998	Management (10%); Transportation/Material Moving (90%)
Warehouse/Distribution	250,000	641	390	Management (10%); Transportation/Material Moving (90%)
Office/Flex	280,000	641	437	Management (20%); Business/Finance (20%); Office/Admin (60%)
Retail/Commercial	95,000	641	148	Sales (50%); Personal Services (50%)
Total	**1,975,000**	**641**	**3,081**	

Sources: TAG estimates; TIP Strategies estimates.
Note: The industrial average of 641 SF per worker is applied to all building types to get a rough estimate of potential employment. In reality, however, this could vary widely. Office and retail employment are likely to be denser (e.g., office employment can sometimes average as much as 200-300 SF per worker) and aviation-related employment is likely to be less dense (i.e., more SF per worker than 641). Nevertheless, the benchmark of 641 SF per worker, provides a reasonable, overall average for this scenario.

Figure 20: Average Annual Salary/Wages by Occupational Group in Texas, 2003

Occupational Group	Annual Average
Management	$78,130
Business/Finance	$54,190
Sales	$29,410
Transportation/Material Moving	$27,270
Production	$27,060
Office/Administration	$26,930
Personal Services	$19,540

Sources: U.S. Bureau of Labor Statistics

Figure 21: Estimated Number of Jobs by Occupation Under the Full-Buildout Scenario

	Auto	Aviation	Whs/ Dist	Office/ Flex	Retail	Total by Occupation
Management	111	100	39	87	0	**337**
Production	997	0	0	0	0	**997**
Transportation/Material Moving	0	899	351	0	0	**1,250**
Business/Finance	0	0	0	87	0	**87**
Office/Administration	0	0	0	262	0	**262**
Sales	0	0	0	0	74	**74**
Personal Services	0	0	0	0	74	**74**
Total by Building Type	**1,108**	**998**	**390**	**437**	**148**	**3,081**

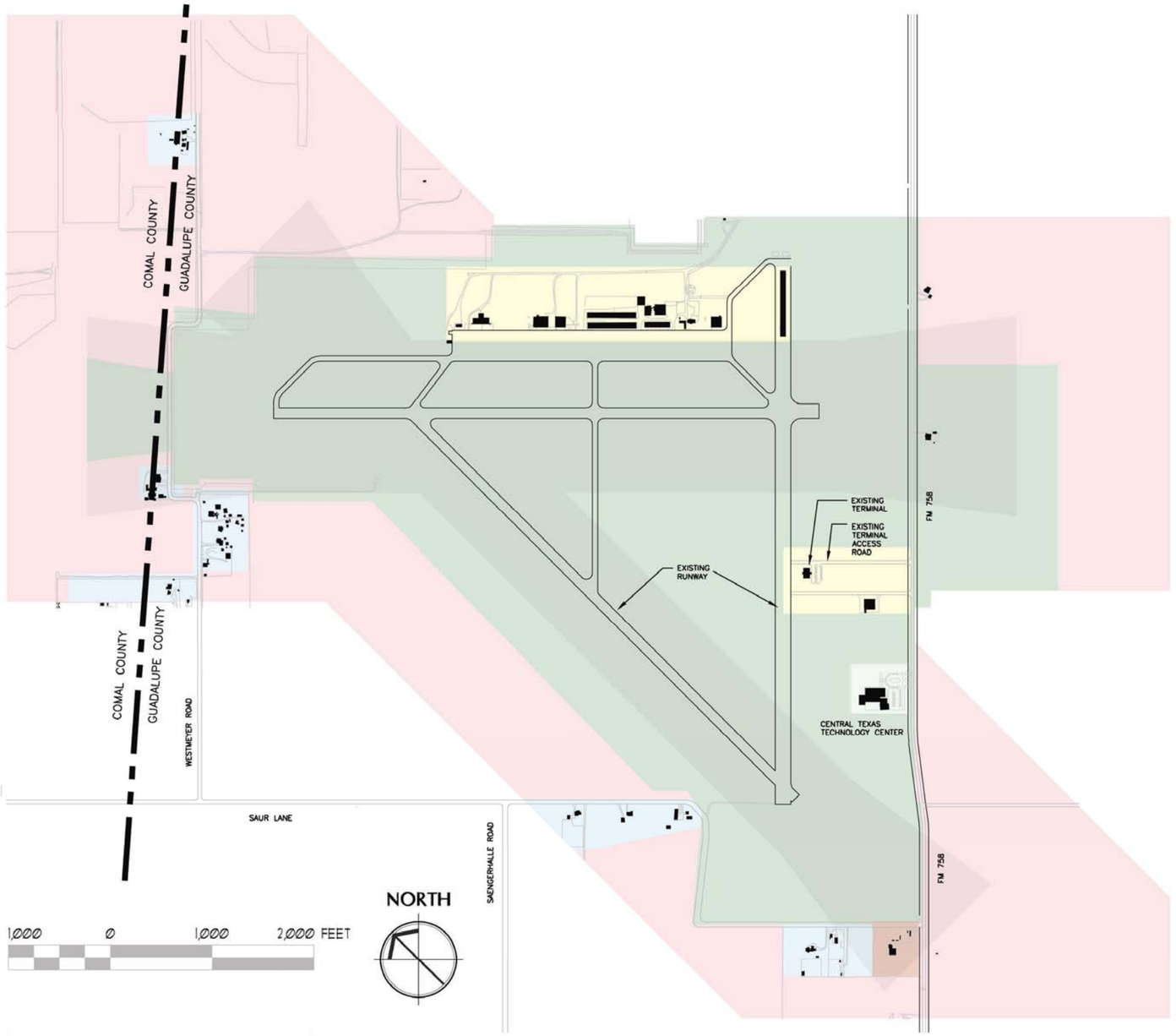
Sources: TAG; TIP Strategies; U.S. Bureau of Labor Statistics

Figure 22: Estimated Annual Payrolls by Occupation Under the Full-Buildout Scenario

	Auto	Aviation	Whs/ Dist	Office/ Flex	Retail	Total by Occupation
Management	$8,654,025	$7,800,811	$3,047,192	$6,825,710	$0	**$26,327,738**
Production	$54,020,920	$0	$0	$0	$0	**$54,020,920**
Transportation/ Material Moving	$0	$26,427,707	$10,323,323	$0	$0	**$36,751,030**
Business/ Finance	$0	$0	$0	$2,382,402	$0	**$2,382,402**
Office/ Administration	$0	$0	$0	$7,092,168	$0	**$7,092,168**
Sales	$0	$0	$0	$0	$1,995,593	**$1,995,593**
Personal Services	$0	$0	$0	$0	$1,447,972	**$1,447,972**
Total by Building Type	**$62,674,945**	**$34,228,518**	**$13,370,515**	**$16,300,281**	**$3,443,565**	**$130,017,824**

Sources: TAG; TIP Strategies; U.S. Bureau of Labor Statistics

Appendix: Map 1 — Existing Conditions



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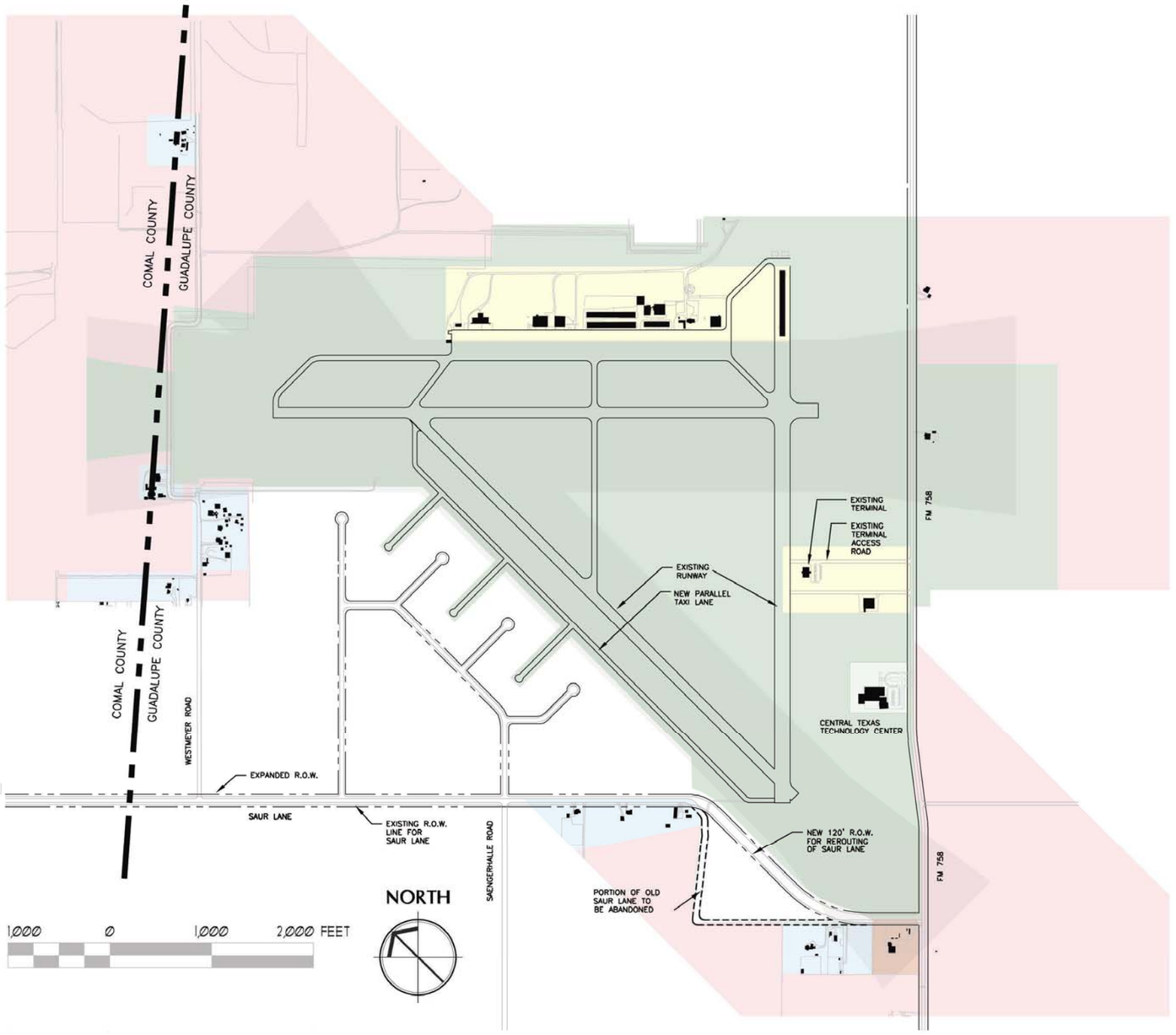
NOT FOR CONSTRUCTION

EXISTING CONDITIONS
Airport Business Park
New Braunfels, Texas

DATE 06.21.06
ISSUED FOR:
DRAWN BY
CHECKED BY
PROJECT NUMBER 4043
Site Plan
SK-1

Appendix: Map 2 — Road Improvements



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PRELIMINARY
NOT FOR CONSTRUCTION

ROAD IMPROVEMENTS
Airport Business Park
New Braunfels, Texas

PROJECT NUMBER: 4043

Site Plan

SK-2

Appendix: Map 3 — Comprehensive Land Use