



Mont Belvieu

Comprehensive Plan 2035

Where Energy Fuels Families



TABLE OF CONTENTS

Chapter 1, Planning Context	1.1
Community Profile	1.4
Map 1.1, Mont Belvieu Context	1.5
Table 1.1, Historic Population Trends.....	1.6
Figure 1.1 Growth Rate	1.6
Table 1.2, Age and Household.....	1.7
Table 1.3, Race	1.7
Figure 1.2 Ethnicity	1.7
Figure 1.3, Educational Attainment	1.8
Housing.....	1.8
Figure 1.4, Home Ownership vs. Rental Rate	1.8
Figure 1.5, Median Household Income vs. Median Home Value	1.9
Table 1.4, Median Home Value and Rent.....	1.9
Figure 1.6, Cost Burden	1.9
Employment.....	1.10
Figure 1.7, Employment by Industry	1.10
Figure 1.8, Job Locations	1.10
Figure 1.9, Mont Belvieu Population Projection (2015-2035)	1.12
Planning Process.....	1.14
Plan Organization	1.16
Chapter 2, Growth Capacity	2.1
Introduction	2.1
Growth Context.....	2.2
Guiding Principles	2.2
Figure 2.1, Grand Parkway (S.H. 99) Alignment, Segments H and I-1	2.3
Consequences of Poor “Potential” Growth Management.....	2.5

Tools for Influencing Growth..... 2.6

Map 2.1, Mont Belvieu Planning Area..... 2.7

Annexation and Growth Patterns 2.7

Context 2.7

Annexation Authority and Policy 2.7

 Map 2.2, Mont Belvieu Annexation History 2.8

 Figure 2.2, Annexation Priority Areas 2.9

 Table 2.1, Annexation Priority Areas, Size..... 2.10

Annexation Requirements 2.10

Utilities Infrastructure 2.11

Water Supply 2.11

 Table 2.2, City Well Capacity..... 2.11

 Table 2.3 Water Storage Capacity 2.12

 Map 2.3, Water Service Area 2.13

Wastewater..... 2.14

 Map 2.4, Wastewater Service Area 2.14

Storm Water and Drainage 2.15

 Map 2.5, Drainage Areas 2.16

Public Safety Services..... 2.17

Police Department 2.17

 Figure 2.3, Arrests by Classification 2005-2015 2.17

 Figure 2.4, Police Level of Services and Personnel Needs 2.19

Fire Department and Emergency Services..... 2.20

 Figure 2.5, Fire Incidence per Thousand Population 2.20

 Figure 2.6, Number of Fires by Community Population 2.21

 Table 2.4, Fire Personnel Needs 2.23

Transportation 2.24

Issues and Opportunities 2.24

Thoroughfare Planning 2.25



Table 2.5, Major Thoroughfare Plan Classification Characteristics	2.26
Map 2.6, Major Thoroughfare Plan.....	2.27
Traffic Volumes	2.29
Figure 2.7, Major Arterial.....	2.30
Figure 2.8, Minor Arterial	2.30
Figure 2.9, Collector (with Planted Median).....	2.30
Figure 2.10, Collector	2.30
Interpretation of Recommended Policies	2.31
Table 2.6, Street Network Level of Service.....	2.32
Map 2.7, Street Network Level of Service	2.33
Access Management	2.34
Transportation Strategies	2.34
Chapter 3, Live and Work	3.1
Live.....	3.1
Guiding Principles	3.1
Current Housing Market Trends and Conditions.....	3.2
Figure 3.1, Households by Type in Mont Belvieu	3.3
Figure 3.2, Average Household Size in Mont Belvieu	3.3
Housing Characteristics.....	3.4
Table 3.1, Value of Existing Homes in Mont Belvieu	3.4
Figure 3.3, Value of Existing Homes in Mont Belvieu	3.5
Figure 3.4, Age of Housing Stock	3.5
Figure 3.5, Housing as a Percentage of Income.....	3.6
Table 3.2, Affordable Monthly Housing Cost (at \$7,835.17/Month)	3.7
Table 3.3, Renter Occupancy	3.7
Figure 3.6, Housing Types in Mont Belvieu - 2014.....	3.8
Figure 3.7, Housing Typologies.....	3.8
Figure 3.8, Life-Cycle Housing	3.9

Table 3.4, Housing Measurements and Standards	3.11
Table 3.5, Typology of Jobs-Housing Imbalances	3.11
Table 3.6, Mont Belvieu Existing and Proposed Housing Inventory	3.12
Work.....	3.17
Overview	3.17
Demographic Trends.....	3.17
Table 3.7, Industries in Mont Belvieu.....	3.17
Table 3.8, Industry and Wage Comparison	3.18
Employment Opportunities.....	3.19
Table 3.9, Major Employers in Chambers County	3.19
Table 3.10, Employment Growth in Chambers County.....	3.20
Market Area	3.20
Figure 3.9, Chambers County Location Quotient.....	3.21
Table 3.11, Location Quotients Explained.....	3.21
Figure 3.10, Drive Times.....	3.22
Place and Asset-Based Economic Development	3.22
Table 3.12, Economic Tools	3.26
Figure 3.11, TIRZ	3.27
Brand Recognition	3.27
Figure 3.12, Sugar Land.....	3.28
Figure 3.13, Conroe	3.28
Figure 3.14, League City	3.28
Table 3.13, Summary of Special District Enabling Statutes, Powers and Governance	3.30
Figure 3.15, Vacant Land in Mont Belvieu.....	3.33
Chapter 4, Amenities.....	4.1
Live.....	4.1
Guiding Principles	4.1
Introduction	4.2



Existing Indicators	4.2
Educational Facilities and Services.....	4.2
Figure 4.1, Barbers Hill ISD Campus Map	4.3
Health Facilities and Services	4.6
Figure 4.2, Chambers County Public Hospital District No. 1 Service Area (2015)	4.7
Arts and Culture Facilities and Services	4.9
Other Public and Private Investments	4.12
Community Design	4.15
Figure 4.3, Monument Concept	4.17
Educational Amenities.....	4.18
Health/Well-Being Amenities.....	4.19
Arts and Cultural Amenities	4.21
Map 4.1, Mont Belvieu Amenities.....	4.22
Introduction to Parks and Trails Master Plans	4.23
Chapter 5, Land Use and Character	5.1
Guiding Principles	5.1
Land Use and Character Context	5.2
How Do Land Use and Character Compare?	5.2
Existing Land Use and Character	5.3
Table 5.1, Zoning Designations.....	5.3
Table 5.2, Subdivisions	5.3
Figure 5.1, Local Examples of Suburban Residential Land Use.....	5.4
Figure 5.2, Local Examples of Commercial Land Use.....	5.6
Figure 5.3, Local Examples of Public and Institutional Land Use.....	5.7
Table 5.3, Existing Land Use and Character Inventory.....	5.8
Map 5.1, Existing Land Use and Character	5.9
Future Land Use and Character	5.11
More Definitive Land Use and Character Designations	5.11

Future Land Use Planning Versus Zoning	5.12
Map 5.2, Future Land Use and Character	5.13
Parks and Open Space	5.15
Residential.....	5.16
Neighborhood Conservation.....	5.17
Town Center	5.18
Public and Institutional	5.19
Neighborhood Commercial	5.20
General Commercial	5.21
Industrial	5.22
Business Park.....	5.23
Future Land Use Planning Considerations	5.24
Policies.....	5.25
Goals and Action Strategies	5.27
Future Land Use Plan	5.33
Table 5.4, Future Land Use and Character.....	5.33
Chapter 6, Implementation	6.1
Introduction	6.1
Methods and Responsibilities for Implementation	6.2
Plan Administration	6.3
Education and Training.....	6.3
Role Definition	6.3
Plan Amendment Process	6.5
Annual Progress Report	6.6
Five-Year Update/ Evaluation and Appraisal Report	6.6
Ongoing Community Outreach and Engagement	6.7
Action Agenda	6.8
Table 6.1, Action Agenda.....	6.9



ACKNOWLEDGEMENTS



MAYOR AND CITY COUNCIL

Nick Dixon, Mayor
 Mike Pomykal, Council Position 1
 Ricky Shelton, Council Position 2
 Arnold Peters, Council Position 3
 Tim Duree, Council Position 4
 Joey McWilliams, Mayor Pro Tem (Council Position 5)
 Charlotte Carley, Council Position 6

PLANNING AND ZONING COMMITTEE MEMBERS

Mark Ables
 William (Bill) Bowes
 Elton Forbus
 Sherrie Rogers
 Andy Terrasso

COMPREHENSIVE PLAN ADVISORY COMMITTEE

Mark Ables
 Tim Duree
 Caddy and Gayle
 Darby Guillory
 David Nanita
 Buddy Shipp

CITY STAFF

Nathan Watkins, City Manager
 Scott Swigert, Assistant City Manager
 Kori Schweinle, City Secretary
 Kenneth Barnadyn, City Planner
 Ricardo Villagrand, PE, City Engineer
 Jef Farrell, Parks and Recreation Director
 Larry Jordan, Public Works Director

OTHER CITY CONSULTANTS

Design Workshop
 R.G. Miller Engineers

KENDIG KEAST COLLABORATIVE (PLAN CONSULTANT)

Bret Keast, AICP, Owner / CEO
 Gary Mitchell, AICP, President
 Aaron Tuley, AICP, Vice President
 Luis Núñez, Senior Associate
 Randy Anderson, AICP, Senior Associate
 David Baird, AICP, Senior Associate
 Janis Burall, AICP, Senior Associate
 Sharon Cadena, Communication Design Associate
 Walt Stuart, Designer / Marketing Specialist

JONES AND CARTER (PLAN SUBCONSULTANT)

Erin Williford, PE, Subconsultant Team Project Manager

Thanks also to...

Individual residents, business owners, property owners, community organizations, and others who participated in and contributed their insights and ideas to Mont Belvieu's long-range planning process.

A special thanks to former (now retired) City Manager Bryan Easum for his indispensable insight and contributions to Mont Belvieu's Comprehensive Plan.

THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK.



CHAPTER 1: PLANNING CONTEXT

PURPOSE

GUIDING CHANGE

Planning is a process composed of a series of phases related to one another in an orderly fashion. It usually begins with establishing a series of actionable, programmatic objectives – what is it we are trying to accomplish?

Objectives are then framed by a series of underlying premises, assumptions or conditions, based on an understanding of key issues pertaining to the community within which the plan is being developed – what factors must we consider that will prevent or enable reaching our objectives, and within what timeframe?

Having defined objectives and outlined planning premises, policies and strategies are formulated for the implementation of desired results. Alternative plans of action may be developed and carefully evaluated to determine the best course of action. Operational plans reflecting commitments to process, time and resource expenditures are developed to then carry out the implementation of actions and initiatives.

Engaging in a local comprehensive planning process will enable the City of Mont Belvieu to have a greater measure of control over its future. Throughout this Comprehensive Plan, Mont Belvieu residents and leaders engaged in placemaking; thereby enabling the City to proactively manage future growth and development / redevelopment as opposed to reacting to development proposals on a case-by-case basis without adequate and necessary consideration of community-wide issues.

Placemaking is the process of creating quality places where people want to live, work, and play. This comprehensive plan helps to not just guide change, but affect change. Great places are those places where change happens deliberately and where a community remains actively engaged in the long-range planning process.



VISION STATEMENT –

MONT BELVIEU 2035:

*“Where Energy
Fuels Families”*



WHAT IS A COMPREHENSIVE PLAN?

Comprehensive planning refers to an “all-inclusive” approach and process to addressing the complexities of future growth and change within a community. The final product of this process is an official planning document that must be adopted by City Ordinance. The document is then used as a policy guide regarding decisions about the development and enhancement of the community. Comprehensive plans are sometimes referred to as land-use plans, because in many cases they are dealing with spatial issues related to the appropriate land uses. Comprehensive plans are prepared to address a range of compatibility issues between various uses of land, such as the management of parks and the preservation of natural resources, identification and preservation of historically significant lands and structures, and adequate planning for infrastructure needs. In other instances, comprehensive plans are utilized to address issues related to schools, transportation, housing, and public facilities.

PLANNING AUTHORITY

Comprehensive plans adopted by numerous communities have changed little since the United States Department of Commerce published A Standard City Planning Enabling Act (SCPEA) in 1928. Although not a binding document, the SCPEA provided guidance for local governments on how to establish a planning commission and develop a “master plan” for the community - such a plan to include:

“...the commission’s recommendations for the development of said territory, including among other things, the general location, character and extent of streets, viaducts, subways, bridges, waterways, waterfronts, boulevards, parkways, playgrounds, squares, parks, aviation fields, and other public ways, grounds and open spaces, the general location of public buildings and other public property, and the general location and extent of public utilities and terminals whether publicly or privately owned or operated for water, light, sanitation, transportation, communication power and other public services;...”

SCPEA further established the master plan’s authority over land use and zoning. Much adaptation has occurred since the 1928 publication of SCPEA, but the contents of Mont Belvieu’s Comprehensive Plan document illustrate a consistency with the historic general intent of a community comprehensive plan.

Unlike some other states, municipalities in Texas are not mandated to prepare and maintain a local comprehensive or master plan. Still, Section 213 of the Texas Local Government Code states that, “The governing body of a municipality may adopt a comprehensive plan for the long-range development of the municipality.” The Code also cites basic reasons for long-range, community planning by stating that, “The powers granted under this chapter are for the purposes of promoting sound development of municipalities and promoting public health, safety and welfare.”

The Code also gives Texas municipalities the freedom to “define the content and design” of their plans, although Section 213 suggests that a master plan may:

- Include, but is not limited to, provisions on land use, transportation, and public facilities;
- Consist of a single plan or a coordinated set of plans organized by subject and geographic area; and
- Be used to coordinate and guide the establishment of development regulations.

Even given these parameters, it is not unusual for communities that are engaged in a comprehensive planning process to incorporate a “comprehensive” list of defined topics for which the results of individual review and analysis are consolidated into an integrated action agenda. Examples of stand-alone comprehensive plan topics have included, but not been limited to, the following: population, housing, economic development, hazard mitigation, natural resources, environmental management, cultural resources, community facilities, transportation, and land use.

USE OF THIS PLAN

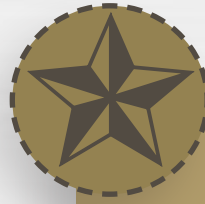
The recent adoption of Mont Belvieu’s Home Rule Charter, in November of 2013, has enhanced the



City's ability to actively implement the community's will. Prior to the adoption of home rule Mont Belvieu was limited to state-enabled allowances, whereas now the City has full authority to govern in a manner that ensures "public purpose" and is in accordance with the constitution and state laws of Texas. The comprehensive plan is a mechanism for outlining community vision and goals, which provide the foundation for the newly acquired governing powers to promote and protect the "public purpose."

It is important to distinguish between the function of a comprehensive plan relative to Mount Belvieu's development regulations, such as its zoning ordinance and subdivision regulations. The comprehensive plan establishes overall policy for future land use, roads, utilities infrastructure, and other aspects of enhancement and growth of the community. It will be up to City officials to use the regulatory authority outlined within the City's zoning ordinance, official zoning district map, and subdivision regulations to regulate specific land uses, the layout of new streets and utilities infrastructure, and building and site development standards. The comprehensive plan's policy decisions will also be carried out through:

- Targeted programs and expenditures prioritized through the City's annual budget process, including routine, but essential functions such as code enforcement;
- Major public improvements and land acquisitions financed through the City's capital improvements program and related bond initiatives;
- New and amended City ordinances and regulations closely linked to master plan objectives (and associated review and approval procedures in the case of land development, subdivisions, and zoning matters);
- Departmental work plans and staffing in key areas;
- Support for ongoing planning and studies that will further clarify needs and strategies,



HOME RULE

HAVING SURPASSED 5,000 POPULATION, MONT BELVIEU CAN NOW TRULY DETERMINE ITS OWN DESTINY.

HOME RULE ADVANTAGE

BOTH CITIES AND THEIR RESIDENTS GAIN VARIOUS INHERENT POWERS UPON THE TRANSITION TO HOME RULE. AN INHERENT POWER IS ONE THAT IS POSSESSED AUTOMATICALLY WITHOUT IT BEING SPECIFICALLY GRANTED BY THE STATE. SOME OF THE MOST IMPORTANT INHERENT POWERS ARE:

MUNICIPAL ORGANIZATION: FREEDOM TO STRUCTURE CITY ADMINISTRATION TO BEST MEET CITIZEN NEEDS.

ANNEXATION: INCREASED ANNEXATION POWERS TO HELP WITH MORE STRATEGIC GROWTH OF CITY.

INITIATIVE, REFERENDUM, AND RECALL: VOTERS INCREASED ROLE IN DETERMINING LOCAL LEGISLATION DIRECTLY THROUGH THE BALLOT BOX, AS OPPOSED TO THROUGH THE LOCAL REPRESENTATIVES.

CHARTER AMENDMENTS: VOTERS INCREASED ROLE IN ACTION ON AMENDMENTS TO THE CITY CHARTER BY THE PETITION PROCESS.

- The pursuit of external grant funding to leverage local budgets and/or expedite certain projects;
- Actions and initiatives pursued in conjunction with other public and private partners to leverage resources and achieve successes neither could accomplish alone.

Despite these many avenues for action, a comprehensive plan should not be considered a "cure all" for every long-range problem a community faces.

On the one hand, such plans tend to focus on the responsibilities of City government in the physical planning arena, where cities normally have a more direct and extensive role than in other areas that residents value, such as education, social services, arts and culture. Of necessity, comprehensive plans, as vision and policy documents, remain relatively general. The resulting plan may not touch on every long-range challenge before the community, but it is meant to set a tone and motivate concerted efforts to move the community towards action in the next 20 years.

COMMUNITY PROFILE

LOCAL SETTING

Mont Belvieu is bordered to the east by the Trinity River's estuary system and the Trinity Bay. The City itself does not have direct access to the adjacent bay system that feeds into the Galveston Bay and further into the Gulf of Mexico. The area is significantly influenced and exhibits the characteristics associated with the Texas coastal plains as it is a relatively flat landscape that contributes to slow drainage of the commonly occurring torrential downpours inherent to much of the Gulf Region. The area's native features of tall grass prairies and bottom lands made for a landscape that at one time was a fixture of rice fields and cattle ranches.

Mont Belvieu is a community that has very strong ties to the petrochemical industry. This linkage can be traced to oil and gas exploration in the 1930's and subsequent discovery of a geological feature called a salt dome. This salt dome had a number of caverns of crystallized salt that provide an ideal storage facility for petrochemicals. Since this discovery, the petrochemical industry has been instrumental in driving Mont Belvieu's growth and development.

REGIONAL SETTING

Mont Belvieu is located along the periphery of the far eastern portion of the Houston metropolitan statistical area (MSA). Interstate 10, which forms the southern city limits, places Mont Belvieu 38 miles east of downtown Houston and 57 miles west of Beaumont. Additionally, Mont Belvieu is

located approximately 25 miles from the epicenter of the Houston Ship Channel. The Mont Belvieu community will soon be divided when construction and completion of the Grand Parkway occurs in the near future. This important addition will add a much needed transportation route to accessing the rapidly developing industry and commerce in northeast Houston.

An additional regional connection can be found in the miles of oil and gas pipelines that cross the City. These pipelines transport huge amounts of petroleum resources that eventually make their way to the refineries and storage facilities in the vicinity of Mont Belvieu and along the Houston Ship Channel.

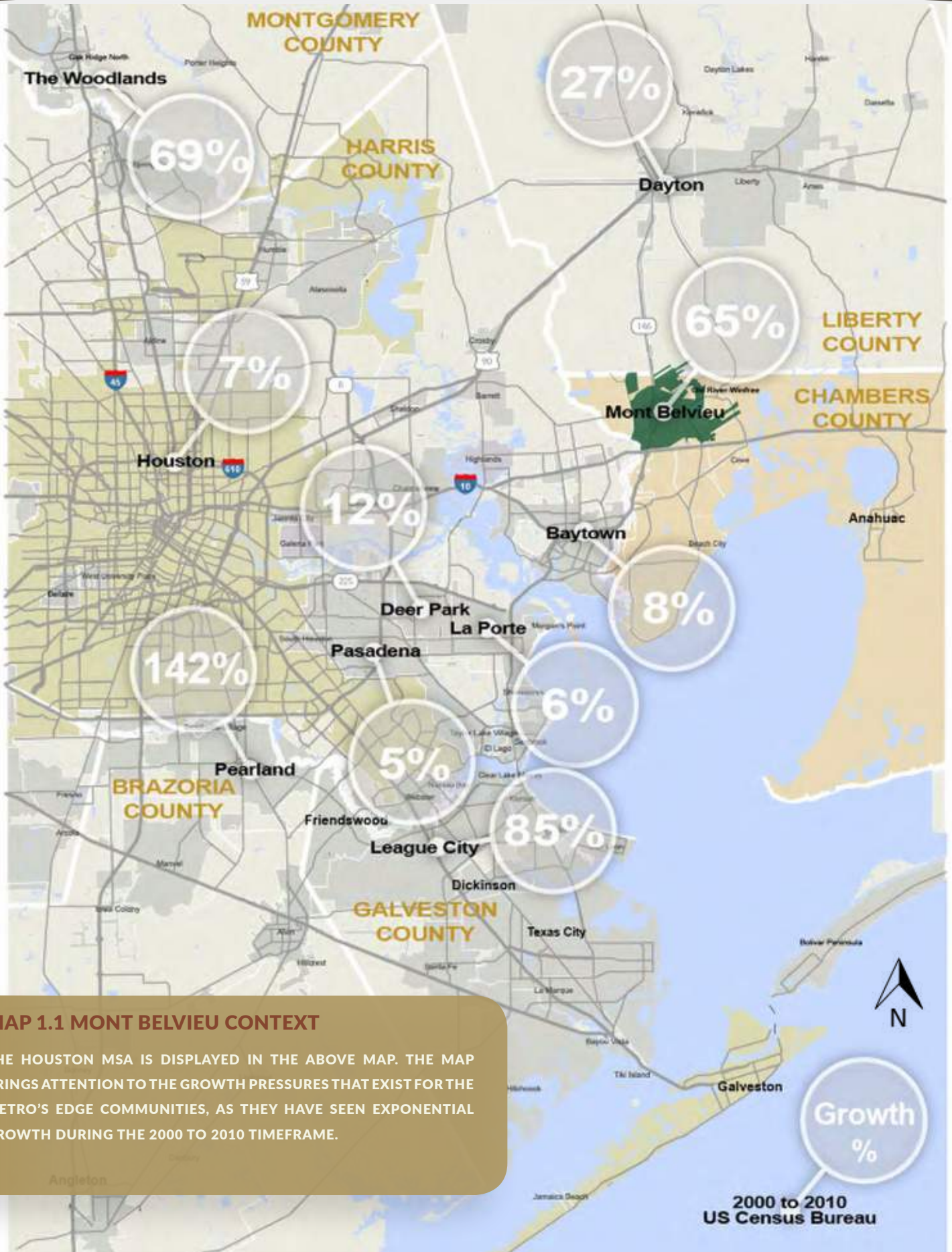
DEMOGRAPHIC PROFILE

An initial step in Mont Belvieu's comprehensive planning process is properly identifying the characteristics of the existing population. The most widely used practice in capturing the current context of a community is to compile a series of basic demographic indicators. The plan draws upon this information that is initially collected by the U.S. Census Bureau in the form of the decennial census and the Bureau's supplemental American Community Survey (ACS) files and is augmented by the local facts and data from the City. This information examines issues related to the size and composition of the population, household facts, housing profiles, and the characteristics of the workforce.

Planners study demographic trends, especially historical changes in population, as a means to help identify and fulfill the needs of the population. In rapidly growing communities with a relatively small population, such as Mont Belvieu, the use of historical demographic trends may be lacking in accuracy. The incoming population can contribute to significant data shifts. As a means to account for that new influx of population the demographic data was vetted through a number of local groups to ensure it is accurately depicting community trends. This was accomplished by presenting the information to City leaders, citizen stakeholders, and the general public in initial meetings and workshops. This information has also been used throughout the planning process to assist in the formulation and development of plan policies.

Mont Belvieu's demographic profile is presented within the figures and tables on pages 1.6 - 1.10. The growth trends in Mont Belvieu are similar to the state of Texas and the Houston MSA as a whole.

[continued on page 1.11]



MAP 1.1 MONT BELVIEU CONTEXT

THE HOUSTON MSA IS DISPLAYED IN THE ABOVE MAP. THE MAP BRINGS ATTENTION TO THE GROWTH PRESSURES THAT EXIST FOR THE METRO'S EDGE COMMUNITIES, AS THEY HAVE SEEN EXPONENTIAL GROWTH DURING THE 2000 TO 2010 TIMEFRAME.

2000 to 2010
US Census Bureau

POPULATION

TABLE 1.1 HISTORIC POPULATION TRENDS

Table 1.1 (below) indicates that - except for a population decline between 1980 to 1990 - Mont Belvieu has experienced significant population growth since 1970. More recently, the City has added more than 1,500 people from 2000 to 2010. As

a whole the context to Mont Belvieu's growth can be found in population growth trends in Chambers County, the Houston MSA, and the state of Texas. As a community that is on the fringe of the Houston MSA, Mont Belvieu is significantly more exponential than the growth of the MSA.

TABLE 1.1

Year	Mont Belvieu		Chambers County		Houston MSA		Texas	
	Population	Percent Change	Population	Percent Change	Population	Percent Change	Population	Percent Change
1970	1,144	--	12,187	--	2,195,147	--	11,196,730	--
1980	1,730	51.2%	18,538	52.1%	3,136,206	42.9%	14,229,191	27.1%
1990	1,323	-23.5%	20,088	8.4%	3,750,846	19.6%	16,986,510	19.4%
2000	2,324	75.7%	26,031	29.6%	4,693,161	25.1%	20,851,820	22.8%
2010	3,835	65.0%	35,096	34.8%	5,920,416	26.1%	25,145,561	20.6%

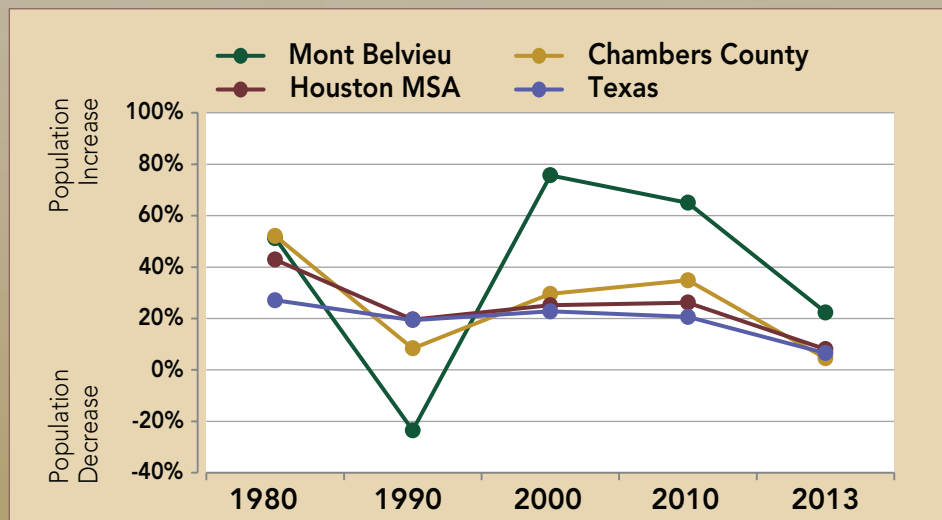
Source: US Census Bureau, 2009-2013 ACS

FIGURE 1.1 GROWTH RATE

Mont Belvieu's rate of population growth, compared to the county, metropolitan, and state jurisdictions is illustrated in **Figure 1.1** (below). All positive values indicate an increase in population, while negative values indicate population decreases. Mont Belvieu has seen its growth rate exceed twice that of the Houston MSA over the last two decades, which is illustrated by the gap

between the respective trend lines within the figure. As Mont Belvieu continues to grow, one would expect the City's rate of growth to decrease over time while the City's population increases. When the comprehensive plan nears the end of its 20-year horizon - in conjunction with Mont Belvieu reaching its approximate build out - expect to see the City's growth rate slow significantly.

FIGURE 1.1



Source: US Census, 2009-2013 ACS



TABLE 1.2 AGE AND HOUSEHOLD

Table 1.2 (right) indicates that the median age of a Mont Belvieu resident is more than six years greater than that of a typical person in the Houston MSA and state of Texas. This person is also likely to reside in a household that is slightly smaller than the region and quite significantly smaller than that of Texas as a whole. The results of this characteristic help account for the City's high proportion of detached single-family units (which account for 82.3 percent of Mont Belvieu's overall housing units).

	Median Age	Household Size
Mont Belvieu	39.4	2.85
Chambers County	36.1	2.91
Houston MSA	33.3	2.93
Texas	33.8	3.34

Source: US Census Bureau, 2009-2013 ACS

TABLE 1.2

TABLE 1.3

	Mont Belvieu	Chambers County	Houston MSA	Texas
White	88.7%	82.8%	65.7%	74.4%
African American	7.9%	8.0%	17.2%	11.8%
Asian	0.0%	1.1%	6.8%	4.0%
American Indian & Alaska Native	0.8%	0.4%	0.4%	0.5%
Native Hawaiian & Pacific Islander	0.0%	0.1%	0.1%	0.1%
Other	0.5%	5.0%	7.7%	6.9%
Identified by two or more	2.1%	2.6%	2.1%	2.3%

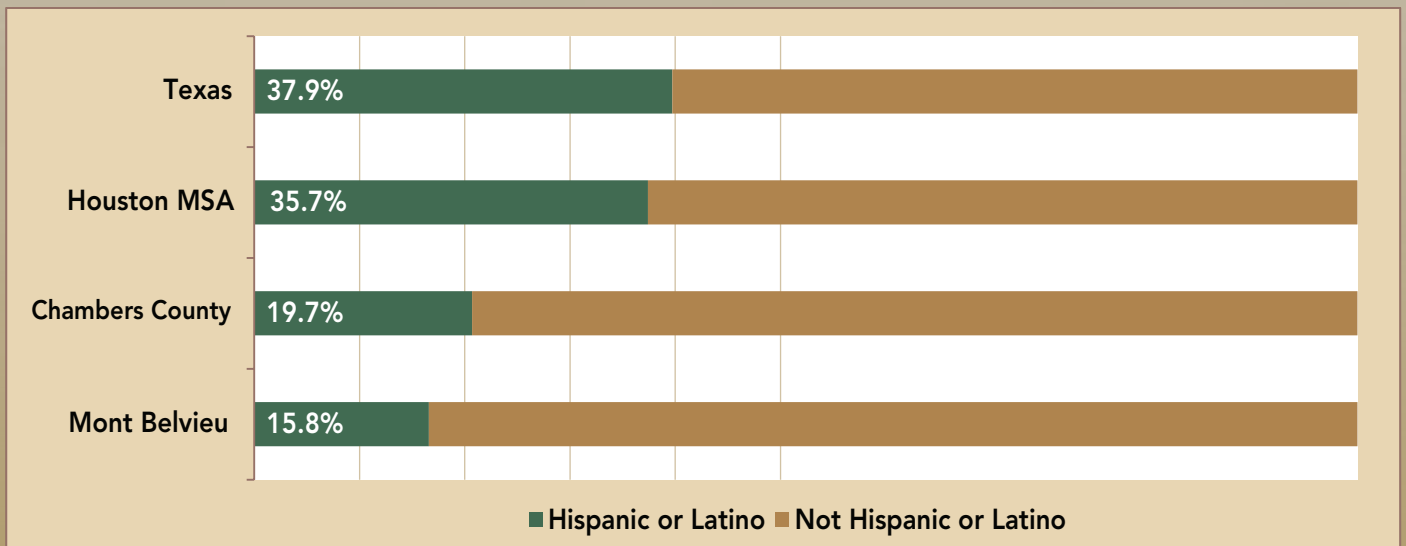
Source: US Census Bureau, 2009-2013 ACS

TABLE 1.3 RACE

As a community, Mont Belvieu remains homogeneous in its demographic makeup, and similar in racial composition to that of Chambers County. **Table 1.3** (left) indicates that the African American community of Mont Belvieu is less than half that of the Houston MSA.

FIGURE 1.2 ETHNICITY

Figure 1.2 (below) reveals that Mont Belvieu's ethnic composition is more reflective of Chambers County than larger relative jurisdictions such as the Houston MSA or the state of Texas. Mont Belvieu's Hispanic or Latino population is half that of metropolitan Houston or the state of Texas. Still, Mont Belvieu's population characteristics illustrate a greater degree of ethnic diversity than racial distribution.



Source: US Census Bureau, 2009-2013 ACS

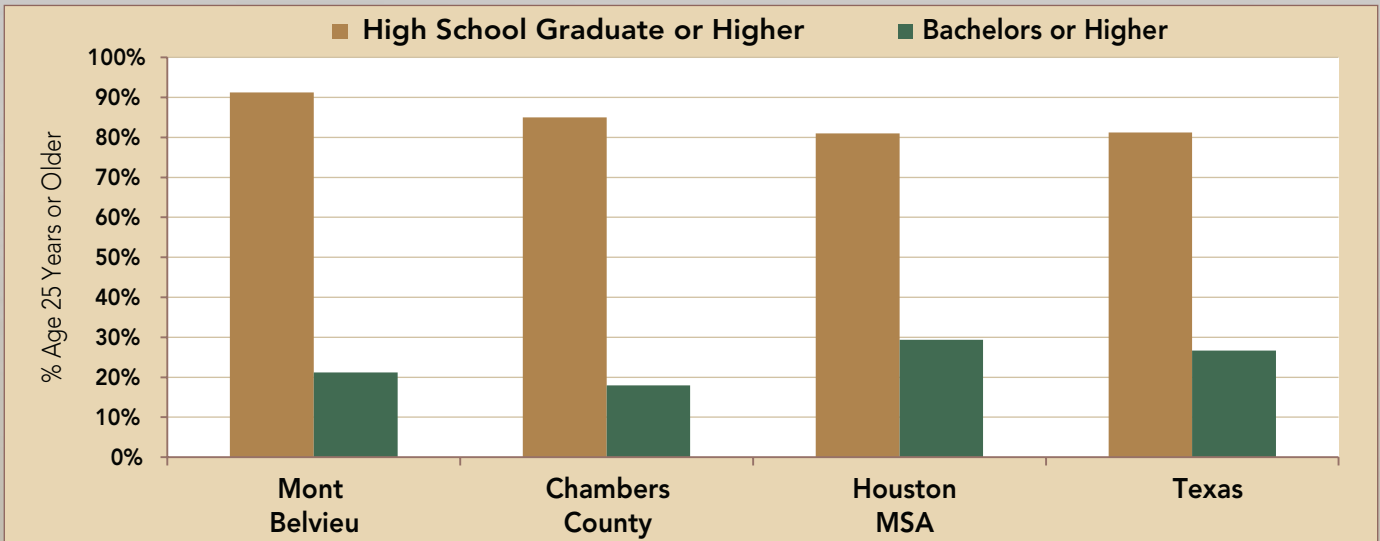
FIGURE 1.2

FIGURE 1.3 EDUCATIONAL ATTAINMENT

According to **Figure 1.3** (below), the percentage of Mont Belvieu’s population with at least a high school education exceeds that of Chambers County, the Houston MSA, and the state of Texas. Twenty percent of Mont Belvieu citizens aged 25 or older

older hold a bachelor’s degree compared to 30% for the Houston MSA as a whole. Typically higher education levels equal higher median income, but Mont Belvieu does not follow this trend as indicated in **Figure 1.6**.

FIGURE 1.3



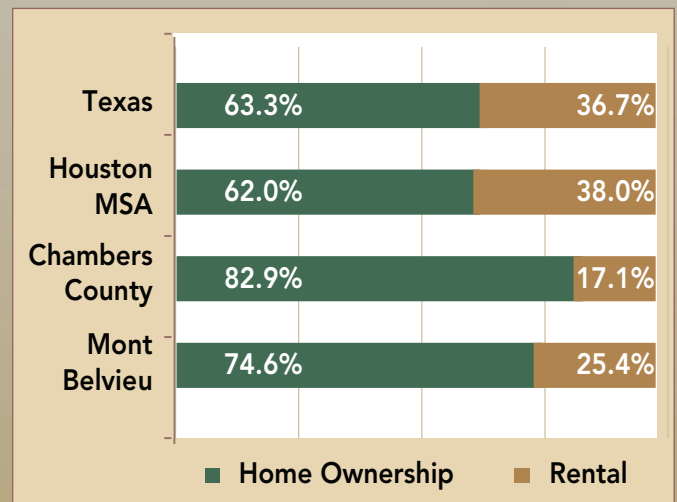
Source: US Census Bureau, 2009-2013 ACS

HOUSING

FIGURE 1.4 HOME OWNERSHIP VS RENTAL RATE

Figure 1.4 (right) suggests that the homeownership rate in Mont Belvieu exceeds that of the Houston MSA and the state of Texas by a similar margin. With Chambers County being a predominately rural county, higher rates of homeownership than for developing areas such as Mont Belvieu are common. The typical age of housing stock in communities with predominantly single-family detached housing types also affects homeownership rates. With 74.5 percent of Mont Belvieu’s housing stock estimated to have been constructed after 1990, the relatively young age of housing stock - and associated condition - likely means that the cost of upkeep remains low (relative to other communities) and the local housing market remains strong.

FIGURE 1.4

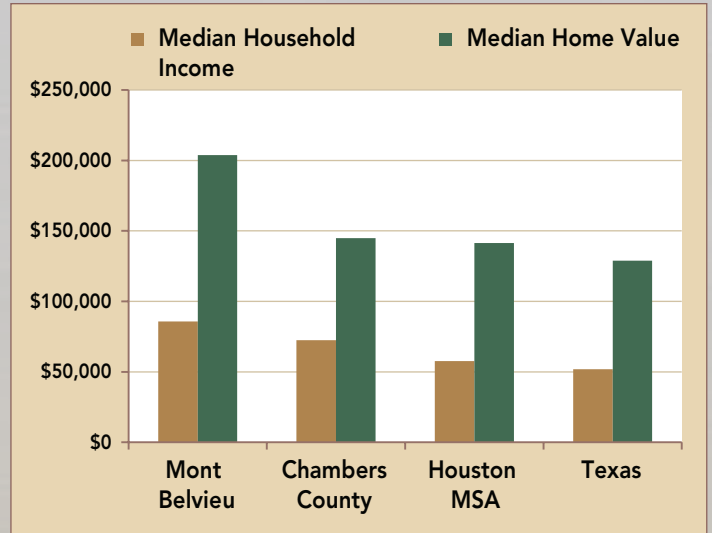


Source: US Census Bureau, 2009-2013 ACS



FIGURE 1.5 MEDIAN HOUSEHOLD INCOME VS MEDIAN HOME VALUE

Data illustrated within **Figure 1.5** (right) suggests that there is either a greater degree of affluence within Mont Belvieu than in larger relative jurisdictions, or greater parity in the income characteristics of the City’s residents. The median household income (MHI) of Mont Belvieu is \$18,000 more than that of the Houston MSA. As illustrated in **Figure 1.8**, the gap between MHI and Median Home Value (MHV) appears to be greater for Mont Belvieu households compared to other jurisdictions. In reality, Mont Belvieu’s ratio of household income compared to home value (42 percent of MHI to MHV) is slightly higher than both the Houston MSA (40.8 percent of MHI to MHV) and the State of Texas (40.2 percent of MHI to MHV), but lower than Chambers County (50 percent of MHI to MHV).



Source: US Census Bureau, 2009-2013 ACS

FIGURE 1.5

TABLE 1.4

	2000		2010		2013	
	Median Rent	Median Home Value	Median Rent	Median Home Value	Median Rent	Median Home Value
Mont Belvieu	\$485	\$130,600	\$841	\$170,900	\$1,015	\$203,800
Chambers County	\$487	\$85,000	\$715	\$136,600	\$862	\$144,900
Houston MSA	--	--	\$830	\$138,000	\$894	\$141,404
Texas	\$574	\$82,500	\$786	\$123,500	\$851	\$128,900

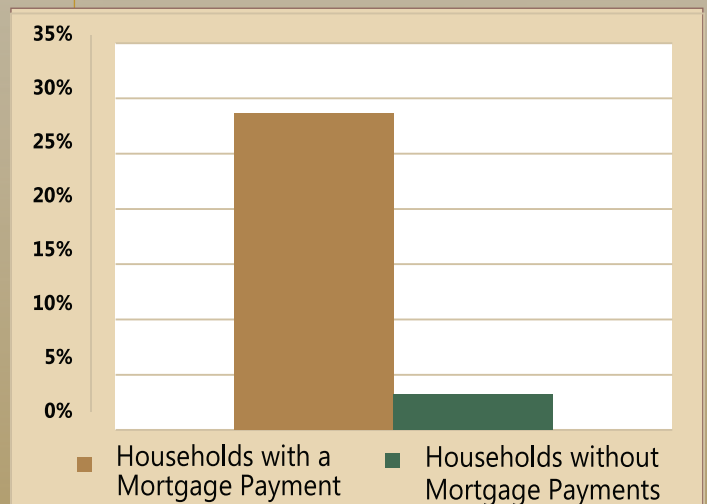
Source: US Census Bureau, 2009-2013 ACS

TABLE 1.4 MEDIAN HOME VALUE AND RENT

Table 1.4 (left) indicates that communities in the state of Texas as a whole, have seen significant increase in housing costs. Mont Belvieu’s housing costs exceed that of the Houston MSA, and have seen a dramatic increase since 2000. Corresponding data suggests that at any one time at least 91 percent of all housing units in Mont Belvieu are occupied. The information suggests that area demand specific to Mont Belvieu corresponds to higher rental rates and home values.

FIGURE 1.6 COST BURDEN

According to the U.S. Department of Housing and Urban Development (HUD), a household is cost-burdened when the monthly cost of housing exceeds 30 percent of the monthly household income. **Figure 1.6** (right) illustrates that in Mont Belvieu less than 30 percent of households with a mortgage, and 9.8 percent of households without a mortgage, may be classified as cost-burdened.



Source: US Census Bureau, 2009-2013 ACS

FIGURE 1.6

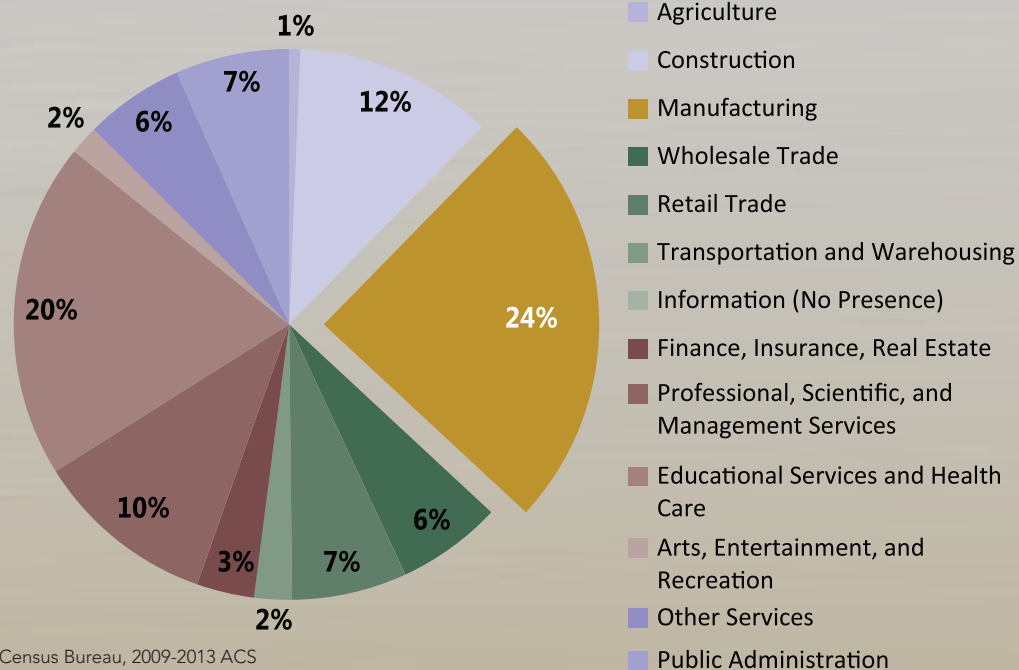
EMPLOYMENT

FIGURE 1.7 EMPLOYMENT BY INDUSTRY

Figure 1.7 (below-right) indicates that the manufacturing industry sector is the largest employer for residents who reside in Mont Belvieu. The manufacturing sector includes many of the jobs that belong to the metropolitan area's petrochemical industry. A large manufacturing employment base also provides an explanation

for the City's relatively high median income levels without the relative presence of residents with bachelor's degrees or other higher levels of education. The area's manufacturing sector is likely to boost other industry employment sector numbers, such as construction, professional, scientific, and management services.

FIGURE 1.7



Source: US Census Bureau, 2009-2013 ACS

FIGURE 1.8 JOB LOCATIONS

Figure 1.8 (right) illustrates that Mont Belvieu is a net jobs producer, importing more than half of its labor force (3,180 persons) into the City on a daily basis. In contrast, a much smaller number of Mont Belvieu residents commute outside of the city to another place of work, but that number (1,472) is over 12.5 times the number of Mont Belvieu residents who work within the municipal limits.

Mont Belvieu residents' average commute time of 27.9 minutes suggests that many workers are employed in areas located along the Houston Ship Channel, but not necessarily within the downtown Houston employment center.

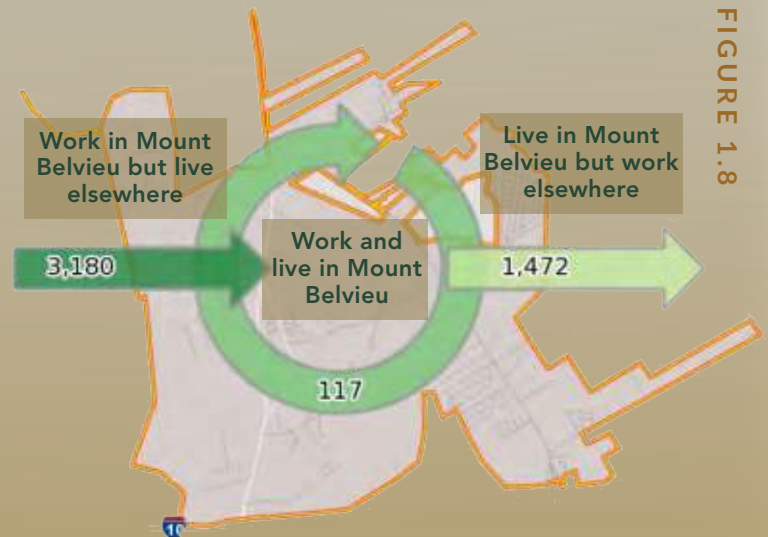


FIGURE 1.8

Source: U.S. Census 2010



The demographic data compiled for Mont Belvieu is in many instances shown alongside the corresponding data for Chambers County, the Houston MSA, and the state of Texas, which provides much needed context when examining the data.

GROWTH SETTING

Population projections are an essential component of a long-range planning process. They help determine and quantify the demands and capacities that are expected of public facilities and services based on the potential pace and scale of a community's growth. Projections offer a basis to prepare for the future. However, forecasting population change can be challenging, particularly for the long-term, since it is often difficult to account for all circumstances that may arise.

While great care has been taken to apply population forecasting methodology that provides Mont Belvieu with a reasonable expectation of future populations, there will always be unforeseen variables that will require the revision of prior methodologies and the subsequent recalculation of population projections. Correspondingly, demographers caution that population projections become trickier as the geographic area measured becomes smaller, making city-level population the most difficult to forecast. Population change within a city is strongly influenced by less predictable factors such as housing prices, availability of vacant land to develop, and annexation of additional territory. All of these factors have been considered in generating a population projection for Mont Belvieu.

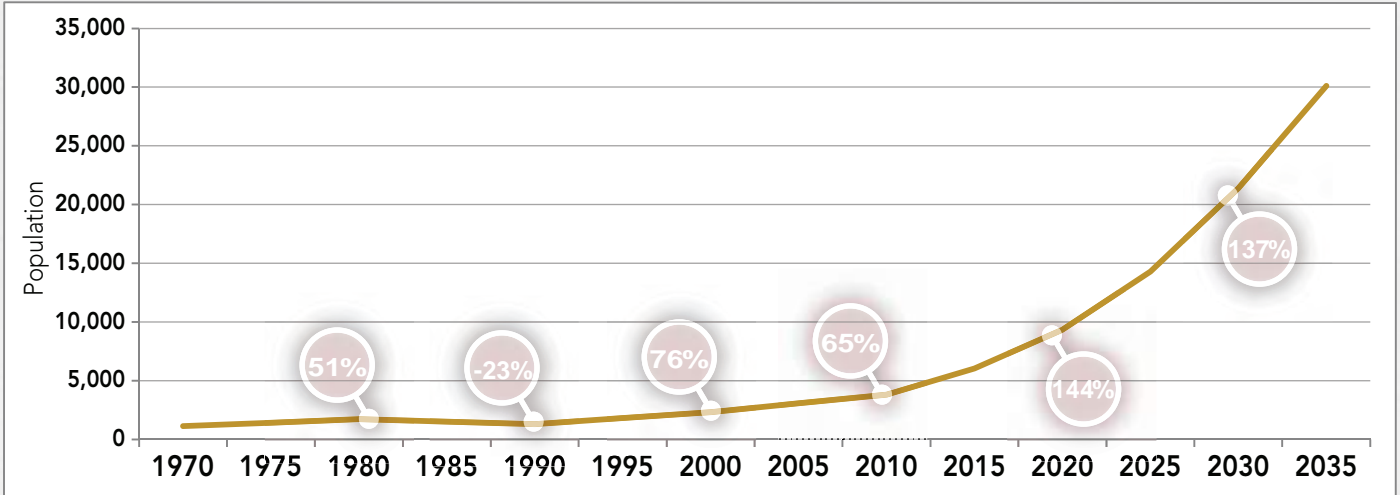
STANDARD POPULATION PROJECTION MODELS

The first step taken to prepare population projections for the Mont Belvieu Comprehensive Plan was to review standard data sets. Traditional population models that were evaluated include:

- *Texas State Data Center Step-Down Model.* The step-down model extrapolates Mont Belvieu's growth rate from the Texas State Data Center's population projections for Chambers County. The model was developed under the assumption of net migration rates to Mont Belvieu being equal to, or half of, those for Chambers County during the period from 2000 to 2010.
- *Texas State Data Center Exponential Growth Model.* Like the stepdown model, this model also extrapolates Mont Belvieu's growth rate from the Texas State Data Center's population projections for Chambers County. Exponential growth models assume a constant rate of growth over a period of time. Therefore, each period of growth, building on the number of residents at the end of the prior growth period, results in an absolute number that is greater in each subsequent period.
- *Texas State Data Center Linear Regression Model.* This model forecasts straight-line projections of historical population. In a linear growth scenario, the same absolute number of additional persons is added to the population in each period. This results in a declining rate of growth over time since the same amount is being added to an ever-expanding base.
- *Texas Water Development Board Model.* This projection is derived from the Texas Water Development Board estimates – adjusted to account for the 2010 Census updates. No additional calculations were performed.

Using the above traditional population projection data sources and models, the City of Mont Belvieu's population is anticipated to grow between 1,611 and 8,489 people between 2015 and the year 2035. This represents the low end of the anticipated growth rates between 42 percent (0.5 County Step Down) and 172 percent (Exponential Growth) during the 20 year period. Although these absolute numbers and rates of growth may be considered substantial by most communities, the data does not consider sufficient variables to ensure accuracy such as the availability of developable land, subdivision plat and building permit history, and other similar factors. Furthermore, some models (such as the exponential growth model) assume a constant rate of growth and infinite acres of land available for conversion to residential use. As previously indicated in **Figure 1.1, Growth Rate**, the maximum potential land area of Mont Belvieu is significantly constrained, and as build-out occurs, rates of growth naturally decrease. Finally, it is

FIGURE 1.9 MONT BELVIEU POPULATION PROJECTION (2015 - 2035)



Source: Kendig Keast Collaborative

important to note that the base 2015 population assumption – upon which traditional data sets are based - is between 18.5 and 36.5 percent lower than the City’s base population estimate.

MONT BELVIEU POPULATION PROJECTION

Texas municipalities must reach a population of at least 5,000 persons to become a “Home Rule” city, and to subsequently exercise powers not otherwise requiring a specific grant authorized by the state of Texas. When Mont Belvieu became a home rule city in 2013, its official population was submitted to the State as 5,580 persons – over 36 percent higher than population estimates compiled by the U.S. Census Bureau. This suggests that the traditional measure for determining population growth may not be suitable. The basis for the City’s 2013 population of 5,580 was due to the availability of locally compiled data that included concrete figures on actual dwelling units within Mont Belvieu. This means of population assessment is a more accurate measure for the type of growth that the City is experiencing. The City has since augmented this 2013 figure with up-to-date data on platted or proposed residential building lots, as well as residential construction permits. According to the City’s housing inventory as of June 2015, the overall population stood at 6,041 persons – an increase of 8.3 percent since 2013.

The Mont Belvieu Comprehensive Plan population projection is illustrated in **Figure 1.9 Mont Belvieu Population Projection (2015–2035)**. Due to the ready availability of accurate development and building permit information, the population projection builds on the City’s 2013 and 2015 population estimates – not on state or federally compiled estimates. The methodology used to generate the City’s population projection contained in **Figure 1.13** considers the following:

RESIDENTIAL BUILD-OUT POTENTIAL.

First, the cumulative residential build-out potential for the City of Mont Belvieu, and the City’s extraterritorial jurisdiction was identified using the following variables:

- *Gross Developable Residential Acreage.* Net developable acreage remaining in Mont Belvieu was calculated by identifying all acreage where single-family residential development is a permitted use, and by subsequently removing: developed acres, areas where subdivisions have been approved but not yet platted, properties reserved for future public facilities as identified in the City’s Capital Improvements Program (CIP) (such regional detention), floodplains and wetlands, and presumed areas of non-residential development (along select highway corridors).



- *Net Developable Acreage Per Subdivision.* A handful of the most recent City subdivisions were evaluated to determine the percentage of each phase that was not utilized for residential building lots. Streets, detention areas and other common areas were deducted from the gross subdivision acreage to produce a net developable acreage per subdivision. This ratio of non-residential acreage was deducted from the City's remaining gross residential acreage.
- *Development Density.* The City's developable residential acreage was divided by the City's minimum allowable lot size for single-family residential development to generate a total number of anticipated residential dwelling units. Because multi-family dwellings are currently permitted in the City only as a ratio of the number of single-family dwelling units, no adjustment was made to total City development density based on the smaller land area dedicated to a multi-family dwelling unit (which must still be supported by substantial yard area, landscaping, parking, etc.)
- *Persons Per Household.* It is anticipated that as the City grows, Mont Belvieu's median age will decrease, while the City's number of persons per household will increase. Accordingly, an assumed persons per household of 2.93 has been applied to each of Mont Belvieu's anticipated residential dwelling units. The 2.93 figure represents the U.S. Census Bureau's estimate for the Houston MSA (2009-2013 ACS), as opposed to the lower figure of 2.85 applied to Mont Belvieu.
- *Occupancy Rate.* The U.S. Census Bureau's 2010 occupancy rate (91.7 percent) was applied to the total number of potential residential dwelling units.
- *Current Subdivisions.* The total population figure at residential build-out was increased

by 5,826 persons - accounting for persons that would occupy dwelling units on lots already platted or proposed as of the date this projection was prepared (City of Mont Belvieu Housing Inventory (6/9/15)).

GROWTH RATE

A linear regression model has been utilized to determine the total number of years it would take Mont Belvieu to reach total residential build-out based on the first set of factors above. A linear regression model has been used because as build-out is achieved, the City's growth rate will decrease. It will be impossible to sustain a constant rate of population growth due to the steadily increasing size of the City's base population and the constraints to the City of further geographic expansion. The linear regression model is further based on the following variables:

- *Issued Permits.* The rate of growth in Mont Belvieu is most accurately reflected by the recent development trends. The City has seen an annual increase in the issuance of building permits in recent years. The projection uses a best fit equation that combines building permits, household size, and occupancy rate to project a total population.
- *Annexation.* The City has not previously identified a predictable annexation policy. As a result, annexation is not currently viewed as an inhibiting factor toward the expansion of City boundaries and population. As a result, the population projection model generated for Mont Belvieu does not distinguish between current City and ETJ area. Rather, it is assumed that all ETJ areas targeted for residential development will require City water and sewer, and therefore be subject to future annexation.

Figure 1.13, Mont Belvieu Population Projection (2015 – 2035), predicts that the City's total population will grow to 30,115 persons by 2035. This represents almost a "six fold" increase to the City's 2015 population, equating almost 25,000 new residents over the course of 20 years.

ADDITIONAL POPULATION PROJECTION INPUTS

The population projection depicted in **Figure 1.13 Mont Belvieu Population Projection (2015 – 2035)**, carries historic development trends forward, and presumes that current development policies promoted by the City will continue. It does not anticipate the application of different policies that may be enacted by the City as it implements the Mont Belvieu Comprehensive Plan.

It will be imperative for Mont Belvieu to continually monitor and refine the City's population projections. Although such adjustments can be made at any time that new data becomes available, modifications to population projections should at least occur in conjunction with the periodic Comprehensive Plan review and amendment processes that are recommended in Chapter 6, Implementation. Additional data inputs which may enhance the accuracy of long-term population projections include:

- *Annexation Patterns.* The population projection herein assumes a uniform and sustained annexation of property contained within the City's ETJ. Should City annexation activities cease for any sustained period during the Mont Belvieu Comprehensive Plan planning horizon, the City may consider decreasing the projection rate of population growth.
- *Development Code Amendments.* Amendments to the City's various land development codes may result in modified assumptions regarding residential development densities. Increases or decreases in anticipated residential density will directly influence the City's anticipated population projections.
- *Residential Building Permits/Subdivision Plats.* Annual monitoring of residential building permits and subdivision plat approval (both preliminary and final) may reveal that the absorption rates of platted lots is increasing or decreasing. Either condition will require adjustment to the projection methodology presented within the Comprehensive Plan.

- *School Enrollments.* Annual enrollments within the Barber's Hill Independent School District may be utilized to adjust projection trends if the growth of enrollment substantially exceed the City's growth rate as anticipated herein.
- *Public Facilities.* As more residential development occurs in Mont Belvieu, there will be the need to set aside greater amounts of acreage for supporting public facilities. Population projections should be modified slightly when significant acres of land suitable for residential development are instead converted to uses such as parks, schools, regional detention, etc.

PLANNING PROCESS

CITIZEN INVOLVEMENT

City leadership, stakeholder groups, and the general public have played an important role throughout the Mont Belvieu comprehensive planning process. Their involvement was instrumental in providing the appropriate context and knowledge to properly reflect community values and hopes for the future development of Mont Belvieu.

The initial public engagement component began in late June 2015. Meetings with local elected officials, City management, and City department heads provided an opportunity for early discussion on comprehensive planning principles and a medium for vital initial input from leaders in plan implementation.

Concurrently, a series of one-hour "listening sessions" were convened, to provide a forum for community leaders, including residents, business and property owners, public officials, representatives from the development community, neighborhood and community organizations, and others. This was an opportunity for community stakeholders to come together and discuss their hopes, concerns, and priorities for the City's future.

This initial public engagement component culminated in a community workshop on June 30,



RECENT PLANNING EFFORTS

The City of Mont Belvieu has recently undertaken a number of community planning efforts.

2014 MONT BELVIEU ANNEXATION POLICY STUDY

(Draft January 2014)

2009 MAJOR THOROUGHFARE PLAN

(August 2009)

2009 MASTER DRAINAGE PLAN

(March 2009)

1999 COMPREHENSIVE PLAN

(April 1999)

The Mont Belvieu Comprehensive Plan was prepared in conjunction with three supplemental planning documents that address S.H. 146, parks and recreation, and a trails network.

ACCOMPLISHMENTS

Past comprehensive planning efforts in Mont Belvieu were productive - with numerous City-led implementation activities. The City's 1999 Comprehensive Plan reached its planning horizon in 2010; the following are highlights of objectives accomplished by the City:

Land Use: Encourage new residential subdivisions within the city limits.

Land Use: Create buffer zones to feather the transition between land uses through the City's 2014 buffering and landscaping ordinance.

Transportation: Provide pedestrian access and mobility along Eagle Drive.

Development Standards: Encourage quality housing and subdivision design - including masonry and landscaping standards.

Community and Cultural Resource: Establish and build on Eagle Point Recreation Center.

Urban Design and Beautification: Create a "Main Street," Eagle Drive street project.

Urban Design and Beautification: Establish Eagle Point Recreation Center and Golf Course as a regional destination.

2015, geared towards orienting the general public on what a comprehensive plan is and the roles of the local citizens in that process. The participants provided feedback on a collection of information about the City makeup and insight on the success and relevance of previous planning efforts. A second public workshop occurred on July 30, 2015 which provided citizens the opportunity to comment and influence the plan vision and corresponding goals and objectives. There were numerous opportunities for members of the general public to participate in comprehensive planning activities (including public workshops, Planning Commission meetings, and/or City Council meetings.)

COMPREHENSIVE PLAN ADVISORY COMMITTEE (CPAC)

The City's principal comprehensive plan review body was the Comprehensive Plan Advisory Committee (CPAC). The CPAC was established by the City in July, 2015, and included up to 10 stakeholders who had been invited to, and participated in, the City's initial community outreach activities in June, 2015. Including liaisons from the Mont Belvieu City Council and Planning Commission, the CPAC was responsible for reviewing and providing feedback on all draft comprehensive plan elements as they became available. The CPAC reviewed individual plan elements and facilitated discussion and debate on all plan concepts, eventual policy recommendations and proposed action items over the course of 5 meetings held during the comprehensive planning process.

The CPAC's efforts were not limited solely to the Mont Belvieu Comprehensive Plan. CPAC review authority extended to the S.H. 146 Corridor Revitalization Plan, Parks and Recreation Master Plan, and Trails Master Plan. The CPAC was aided in their consideration of these topics by "technical advisory committees" comprised of applicable City staff, as well as the staff of other relevant public entities such as the Houston-Galveston Area Council (H-GAC) and the Texas Department of Transportation (TxDOT).



COMPREHENSIVE PLAN ONLINE ACCESS

Public access to the Mont Belvieu Comprehensive Plan was enhanced through the presence of a project website, and an online public discussion forum hosted by mySidewalk. All project materials – including plan chapters, presentations, maps, and more – were hosted by the City on its project specific website which was accessible via the City's home page.

The Mont Belvieu Comprehensive Plan public discussion forum was created using a platform hosted by mySidewalk, and provided City residents with ongoing opportunities to respond to online surveys, and to comment on topics relevant to the planning process. The public discussion forum was available from July 03, 2015 until August 30, 2016, during which time over 12 surveys totaling 36 questions were uploaded for public consideration.

PLAN ORGANIZATION

PLAN ELEMENTS

The Mont Belvieu Comprehensive Plan is organized into six chapters that frame long-term growth around key themes. Each contains information that will inherently overlap and cross-reference. In addition, each chapter outlines specific goals and objectives to be addressed. These are intended to be implemented to accomplish the community's vision for Mont Belvieu.

CHAPTER 1, PLANNING CONTEXT

Chapter 1, Planning Context, sets the context for Mont Belvieu's long-range and strategic planning by presenting the purpose and function of the comprehensive plan; documenting community participation; and identifying key issues of opportunity or concern. This chapter includes a community snapshot, which illustrates pertinent demographic and

ONLINE FEEDBACK

OVER A PERIOD OF 14 MONTHS, OVER 125 MONT BELVIEU RESIDENTS, PROPERTY OWNERS, AND BUSINESS OWNERS PARTICIPATED IN THE CITY'S ONLINE PUBLIC DISCUSSION FORUM. RESPONSES TO SURVEYS, AND SUBSEQUENT FOLLOW-UP CONVERSATIONS, REVEALED COMMUNITY PREFERENCES.

socioeconomic trends that will guide future decision-making, and guiding principles that were formulated at the beginning of the planning process to provide implementation with direction.

CHAPTER 2, GROWTH CAPACITY

Chapter 2, Growth Capacity, evaluates Mont Belvieu's ability to address the impacts of new development and redevelopment on City infrastructure and service capacities. This chapter analyzes projected City growth in relation to constraints and opportunities that are present in the community. Maps and graphics illustrate surface hydrology, sensitive environmental lands, and the geographic extent of the City's water distribution, wastewater collection, and other infrastructure systems.

The chapter also provides a framework for the orderly development and improvement of the City's transportation system, principally evaluating facilities for motorized transportation; but, also considering non-motorized active transportation (e.g., pedestrian and bicycle circulation), public transportation challenges, freight movement in or through the community (i.e., truck traffic, railroad and air corridors), and other associated needs.

Chapter 2 includes a *Major Thoroughfare Plan*, which maps the City's existing and future street network; it is augmented by the companion *S.H. 146 Corridor Revitalization Plan*.

Principle: Improve connectivity and provide alternatives to existing major thoroughfares.

Principle: Continue to improve pedestrian connections throughout the community including along state transportation routes.



Principle: Maintain capacity and quality of water and sanitary sewer.

Principle: Provide opportunities to take advantage of scales of efficiency and best use when developing storm water detention/retention.

CHAPTER 3, LIVE AND WORK

Chapter 3, Live and Work, evaluates the economic health of the City, through a lens that examines labor force, employment opportunities, and commercial services. The evaluation is furthered through an analysis in the patterns of household composition and by capturing a picture of the existing housing stock make up. This chapter then identifies the actionable steps necessary to encourage the appropriate makeup of employment, businesses, and housing needs to accommodate the future needs of the population of Mont Belvieu.

Principle: Support initiatives to develop fair and equitable housing within neighborhoods throughout the City.

Principle: Foster the development of housing typologies and neighborhoods that support every stage of life.

Principle: Promote neighborhood design that allows for multi-modal connectivity between residential and commercial areas, parks, and open space.

Principle: Promote a neighborhood environment that fosters safety and social well-being of its residents, and preserves sensitive natural areas.

Principle: Diversify the local economic base.

Principle: Create quality environments that support live and work.

Principle: Stimulate retail opportunities.

Principle: Develop an enhanced marketing program.

Principle: Encourage local entrepreneurship.

CHAPTER 4, AMENITIES

Chapter 4, Amenities, this chapter highlights the public assets and features that make up the “quality of life” components in Mont Belvieu. A specific focus will be on education, health, cultural, and recreational facilities. These are the common measures for “quality of life” assessments. This chapter also identifies the opportunities for improvement in these areas in order to enhance the long-term appeal and increase attractiveness of the Mont Belvieu community for new businesses and new residents.

Chapter 4 is further enhanced by the Mont Belvieu Parks and Recreation Master Plan and the Mont Belvieu Trails Master Plan.

Principle: Continued investments in high quality community design.

Principle: Promote the preservation of open space when possible.

Principle: Support superior educational amenities.

Principle: Promote the advancement of arts and cultural amenities.

CHAPTER 5, LAND USE AND CHARACTER

Chapter 5, Land Use and Character, assesses the community’s long-range development outlook and establishes guidance for making policy decisions about the compatibility and appropriateness of individual developments within the context of the larger community. Other considerations include City capabilities for preserving valued areas and lands, protecting the integrity of neighborhoods, and safeguarding and enhancing community image.

A key component of this chapter is the inclusion of the City’s *Future Land Use Plan*, which not only projects future development patterns by simple land use, but also by “character area” - measuring the form and function that varying land uses should take depending on their geographic location and linkages to Mont Belvieu’s variable districts, corridors and neighborhoods. The *Future Land Use Plan* also identifies other “areas of special concern” which are in need of major investment or redevelopment, or otherwise require special

considerations in order to maintain or support unique characteristics.

Principle: Enhance small town community character.

Principle: Focus on high quality large lot residential subdivisions.

Principle: Coordinate future land use planning with transportation planning.

Principle: Improve compatibility and transitions between land uses.

CHAPTER 6, IMPLEMENTATION

Chapter 6, Implementation, identifies how the policies and principles of the Comprehensive Plan will be implemented - particularly for the highest-priority strategies that will be first on the community's action agenda. This plan element further outlines the organizational structure necessary to implement the plan, including methods of implementation, roles and responsibilities, and specific implementation strategies.

Additionally, this plan element establishes a process for periodic evaluation and appraisal of the plan to ensure it is kept relevant through needed updates. This plan element also outlines crucial procedures for monitoring and revisiting plan policies and action priorities every year. Necessary adjustments can then be made based on implementation successes and challenges and ongoing changes in physical, economic and social conditions in the community and the region.

Principle: Assume accountability for implementation of comprehensive plan strategies.

Principle: Monitor implementation results and measure citizen satisfaction.

Principle: Promote citizen participation in the land use and development process.

Principle: Promote equity and consistency throughout the implementation of goals and objectives.

Principle: Assign public and private responsibility to facilitate plan implementation.



CHAPTER 2:

GROWTH CAPACITY

INTRODUCTION

Mont Belvieu is largely a production and services-oriented community with strong ties to the petrochemical industries that reside in the Houston metropolitan region. As discussed in **Chapter 1, Planning Context**, Mont Belvieu's projected population growth is anticipated to rise to more than 30,000 by 2035. Mont Belvieu's rapid increase in population and subsequent development pressures reflect current regional patterns of growth.

The Comprehensive Plan will help in proactively setting policy for what is likely to be a rapid phase of growth for the City. The City's strong industrial tax base provides a unique opportunity to manage population growth from a position of strength and foresight.

The purpose of this chapter is to assess the City's ability to accommodate new residents and businesses. Additionally, the chapter will help support patterns of land development and redevelopment to meet Mont Belvieu community needs. This chapter addresses growth in terms of establishing management tools, sequencing, and the provision of infrastructure and social services.



BIG IDEA FOR THE FUTURE

“Eventually, the community will outgrow the capabilities of City services. (The City) needs to start expanding water, sewer, police, fire, EMS, etc.”

**-Citizen Response to the question,
“What’s your big idea for the future of
Mont Belvieu?”**





Workshop participants evaluated plan goals as part of a public engagement exercise.



GUIDING PRINCIPLES

The following principles will inform the development of recommended strategies, Actions and Initiatives for accomplishing the above-mentioned goals.

Principle: Improve connectivity and provide alternatives to existing major thoroughfares.

Principle: Continue to improve pedestrian connections throughout the community including along state transportation routes.

Principle: Maintain capacity and quality of water and sanitary sewer.

Principle: Provide opportunities to take advantage of scales of efficiency and best use when developing storm water detention/retention.

GROWTH CONTEXT

As **Map 1.1, Mont Belvieu Context** (page 1.5), identifies not only a geographical context but also a context for population growth in the region. Most of the region’s communities have experienced moderate to significant growth during the major census years of 2000 to 2010; many forecasts project these rates of growth likely to continue. Beyond infill and redevelopment, population growth will be absorbed within the areas on the edges of the Houston metropolitan region. During this time, places such as the Woodlands, Pearland, and League City experienced extremely very high growth rates. Mont Belvieu is logically one of the next places to receive increased development pressure and corresponding population boom. Mont Belvieu has an abundant amount of greenfield



sites located within the current City boundaries that are readily available to handle anticipated development. Additionally the City has several opportunities and constraints that will influence the direction, pattern, and pace of growth. These include the following:

REGIONAL INFLUENCE

Mont Belvieu is approximately 30 miles from downtown Houston, 25 miles from the central portion of the Houston Ship Channel and its related industrial areas, and 55 miles to the employment centers within northern suburban areas. Recent investment into construction and expansion of petrochemical plants in and around Mont Belvieu will help continue the area's economic opportunities.

GRAND PARKWAY (S.H. 99)

The completion of the Grand Parkway (S.H. 99) tollway will establish a more direct connection from Mont Belvieu to the Houston metropolitan area's growing northern suburbs (e.g., The Woodlands, Spring, and Conroe) and their corresponding employment centers. The Grand Parkway Association estimates having begun right-of-way acquisition and construction of 37.4 mile Segments H & I-1 (refer to **Figure 2.1, Grand Parkway Alignment, Segments H & I-1**). These segments, stretching from I-10 in Mont Belvieu to I-69 in New Carney, are expected to be completed by the fall/winter of 2020. The remaining 14.8 miles of the Grand Parkway, which completes the connection to I-45, began service in early 2016. While strengthening and improving Mont Belvieu's regional connection, the Grand Parkway will physically divide the community. Existing industrial development will be located west of the new tollway and future residential districts as well as Mont Belvieu's new town center will be located to the east.

INTERSTATE 10

Interstate 10 is a major east-west freeway running from Los Angeles, California to Jacksonville, Florida. Mont Belvieu is the first community westbound travelers will approach when entering the Houston metropolitan area. There are currently large tracts of available land along the I-10 northern

FIGURE 2.1, GRAND PARKWAY (S.H. 99) ALIGNMENT, SEGMENTS H AND I-1



frontage road that are within the City limits. The convenient access to a major transportation route such as I-10 provides a valuable opportunity for future commercial land uses. This is the ideal place for the types of commercial uses that rely on a regional draw and may not be compatible within the framework of a developing residential district.

NEW TOWN CENTER/EXISTING CIVIC DISTRICT

With the lack of a historic downtown, Mont Belvieu has the opportunity to shape the development of a new town center. The general area currently slated for such type of development is in close proximity to Mont Belvieu's City Hall and a number of other civic buildings. The pairing of a concentrated commercial center with a collection of the community's civic functions provides the potential for a heightened sense of place. Many of Mont Belvieu's residents have stated that one of the community's strongest assets is its "small town atmosphere." The blending of civic square and a "Main Street" environment would enhance that atmosphere that is found in small towns and communities throughout Texas.



SUBDIVISION REGULATIONS

SUBDIVISION REGULATIONS ARE THE MOST READILY AVAILABLE MEANS FOR MINIMIZING THE IMPACTS OF PERIPHERAL GROWTH IN THE ETJ (AS AUTHORIZED BY §212.003 OF THE LOCAL GOVERNMENT CODE). SUBDIVISION REVIEW AND APPROVAL IS AN ADMINISTRATIVE FUNCTION BY STATUTE, MEANING THAT A PLAT MUST BE APPROVED IF ALL CITY REQUIREMENTS ARE MET. THEREFORE, THE KEY TO LINKING THESE REGULATIONS TO GROWTH MANAGEMENT EFFORTS IS TO ESTABLISH CLEAR, DEFINITIVE DEVELOPMENT STANDARDS (E.G., WATER, SEWER, AND STREET INFRASTRUCTURE) THAT MUST BE MET BY CITY AND ETJ PROPERTIES TO RECEIVE SUBDIVISION APPROVAL.

AS STATED IN §212.003, THIS ADMINISTRATIVE AUTHORITY IS RESTRICTED FROM REGULATING ETJ PROPERTIES ON THE BASIS OF:

- THE USE OF ANY BUILDING OR PROPERTY;
- BULK, HEIGHT, OR NUMBER OF BUILDINGS;
- SIZE OF A BUILDING; AND
- THE NUMBER OF RESIDENTIAL UNITS PER ACRE OF LAND.

WHILE THESE RESTRICTIONS PREVENT THE CITY FROM DIRECTLY REGULATING RESIDENTIAL DENSITY ON A UNIT-PER-ACRE BASIS, DENSITY MAY BE INFLUENCED, AS A PRACTICAL MATTER, BY AUTHORIZED RULES LIKE MINIMUM LOT SIZE, MINIMUM LOT WIDTH, AND RIGHT-OF-WAY DIMENSIONS. FOR EXAMPLE, A LARGER MINIMUM LOT SIZE COULD BE REQUIRED BASED ON INADEQUATE CAPACITY OF AREA ROADWAYS AND/OR WHERE THERE ARE NOT PUBLIC WATER AND SEWER SYSTEMS AVAILABLE. THIS WOULD EFFECTIVELY ESTABLISH A RELATIONSHIP BETWEEN LOT SIZE, INFRASTRUCTURE DEMANDS, AND THE AVAILABILITY OF ADEQUATE PUBLIC FACILITIES, WHICH IS A LEGITIMATE “HEALTH AND SAFETY” CONCERN FOR THE MUNICIPALITY.

LAND AVAILABILITY

The City currently has several large tracts of vacant land that is in close proximity to existing utilities infrastructure (potable water and sanitary sewer). As a result, several residential subdivisions are being built along these utility corridors. Currently many of the existing and future subdivisions are accessible from Eagle Drive/F.M. 3360, a major arterial thoroughfare. Eagle Drive is the result of recent reconstruction of a four-lane, divided route. It currently has the capacity to handle increased traffic from additional population, though public perceptions combined with peak time traffic flows can lead to a negative assessment about the thoroughfare’s performance. Alternative transportation routes will be an important condition when developing available land.

HOUSING STOCK

As discussed at greater length in **Chapter 3, Live and Work**, the housing choices Mont Belvieu will be making as the City grows, with respect to housing typology, parcel sizes, and density, will greatly affect how fast the build-out occurs. Citizen input has identified the role “green space” and the importance of maintaining it as an exemplary reason for Mont Belvieu’s attractive qualities. The recent implementation of large residential lot standards is an influential effort to sustain housing stock consistent with citizen and market demand.

REGIONAL INDUSTRIAL WASTEWATER TREATMENT AND WATER REUSE FACILITY

The Gulf Coast Waste Disposal Authority (GCWDA), in partnership with the City of Mont Belvieu, Exxon Mobil, Targa Downstream, Enterprise Products, and Oneok Hydrocarbons, were recently the recipient of a planning grant from the Texas Water Development Board (TWDB) to fund a feasibility study for the siting of a regional industrial wastewater treatment and water reuse facility. Currently, Mont Belvieu provides for some of the wastewater treatment needs of the area’s petrochemical companies. The development of a regional facility to meet the needs of the local industry would free-up the existing City wastewater treatment capacity for future growth. While the project is currently in the planning stage, the development of a regional facility could likely occur



within the 20 year timeframe of the Comprehensive Plan and would no doubt have a positive impact on the City's ability to handle the future growth expected during this planning horizon.

CONSEQUENCES OF POOR “POTENTIAL” GROWTH MANAGEMENT

While Mont Belvieu's recent growth is a great opportunity, it can also have several potentially negative consequences, including:

- Erosion of a defined community edge, thereby blurring its boundaries and contributing to a general loss of community character, identity and sense of place;
- Degradation of environmental resources, such as floodplains, wetlands, and forested areas;
- Overloaded utilities and transportation infrastructure (e.g., roads, water and wastewater systems);
- A lack of coordinated planning between individual developments, which can lead to unexpected shifts in traffic patterns, which causes congestion and environmental impacts as development in an uncoordinated fashion before adequate road infrastructure is in place; and
- Inefficient provision of public services, such as police and fire protection, the dedication and maintenance of parks and open space, and the delivery of health care and education.

These consequences, if left unchecked, can overwhelm a municipality's ability to provide the basic services a community requires to remain viable.

CREATING CHOICES: PRINCIPLES OF SMART GROWTH

Smart growth planning advocates land use that is compact, transit-oriented, walkable, and bicycle-friendly. Neighborhood schools, complete streets, and mixed-use development with a range of housing choices are examples of smart growth.

When communities choose smart growth strategies, they can create new neighborhoods and maintain existing ones that are attractive, convenient, safe, and healthy. They can protect the environment while stimulating economic growth. Most of all, they can create more choices

for residents, workers, and visitors on how to get around and interact with the people around them. When communities follow this type of planning, they preserve the best of their past while creating a bright future for generations to come.¹

Growth is smart when it gives communities with more choices and personal freedom, good return on public investment, greater opportunity across the community, a thriving natural environment, and a proud legacy.

The Smart Growth Network (SGN) is a network of private, public, and non-governmental partner organizations seeking to improve development practices in communities across the United States. SGN has developed 10 smart growth principles, which, when applied, can help to create compact, sustainable, livable communities.

The principles include:

- Encourage community and stakeholder collaboration in development decisions;
- Preserve open space, farmland, natural beauty, and critical environmental areas;
- Mix land uses;
- Take advantage of compact building design;
- Create a range of housing opportunities and choices;
- Create walkable neighborhoods;
- Foster distinctive, attractive communities with a strong sense of place;
- Strengthen and direct development towards existing communities;
- Provide a variety of transportation choices; and
- Make development decisions predictable, fair, and cost effective.

Communities that are successful in translating these principles into planning policies are well on their way to achieving socially, environmentally and economically sustainable places for citizens to live and work.

¹ Smart Growth Network. This is Smart Growth. www.smartgrowth.org





TOOLS FOR INFLUENCING GROWTH

The City is equipped with several strategies for influencing the pattern and timing of development. While there is no unilateral approach, a combination of planning, regulatory, and financing mechanisms are available to influence what is built on the ground. Given the limitations of Texas law governing City and County governments (e.g., Texas Local Government Code), there are few, if any, mechanisms currently available to entirely prevent haphazard growth patterns, particularly within the City's extraterritorial jurisdiction (ETJ). Instead, Mont Belvieu is faced with a complex set of rules regarding its ability to manage development. While there are some mechanisms available to better manage peripheral development, there are also factors that the City does not control (e.g., no building permit requirements or building code enforcement in the ETJ, as identified in §212.003 of the Local Government Code). Within this context, it is wise for Mont Belvieu to consider ways in which it can exert more influence over the direction, timing, pattern, and quality of fringe development that it ultimately may serve. The intent is not to stop or slow growth in the area, but to guide growth toward areas that can best be served with public utilities and services in a cost-efficient manner. The following tools are available:

- *Long-range planning* identifies locations in the City that are targeted for the gradual expansion of its urbanized area—versus areas that are less conducive for intensive development because of terrain, existing patterns of use and ownership, environmental, or service provision constraints.
- *Annexation* brings key growth areas and areas intended for limited development into the City limits well before any significant development activity begins. Therefore, appropriate land use and development standards should be established early. In this instance, municipal infrastructure and services would be able to facilitate growth that wouldn't happen otherwise. The added revenue from taxes would be able to pay for the long-term maintenance and provision of services.
- *Non-Annexation Agreements*
- *Subdivision regulations* can be used to carry out growth strategies, particularly in terms of the quality of new development. Clear infrastructure standards in the subdivision regulations and associated City specifications and criteria, establish minimum improvements required of private development. As this is often the first phase of development, the importance of a quality to regulatory environment will have a significant contribution to the long-term function of the area being subdivided.
- *Development agreements*, where appropriate, require that ETJ projects comply with certain aspects of in-City development regulations and standards prior to their annexation into the City (§212.172). Development agreements can be negotiated with private interests that request extension of the City's utility infrastructure to fringe and/or ETJ locations, especially to clarify the timing of future planned improvements and any conditions in exchange for the City's infrastructure and service commitments. They can also be used to establish levels of participation in public/private cost-sharing arrangements for infrastructure improvements, as well as reimbursement provisions for infrastructure oversizing or other special circumstances.
- *Impact fees assessed* on new residential and non-residential development provide earmarked funding for particular capital improvements that are specifically needed to serve the new development (as authorized in Texas for water, sanitary sewer, and drainage).
- *Multi-year capital improvements programming* clearly establishes the City's intentions for extending its primary arterial streets, trunk water mains, and wastewater collection lines to targeted growth areas.
- *Joint Powers Agreements (JPA)* are a means for the City and other units of government to coordinate on the provision of infrastructure (as well as public services and administrative functions), as regulated in Chapter 163 of the Texas Utilities Code.
- *Public Improvement Districts take advantage of state-authorized mechanisms for infrastructure financing and private participation.*
- *City-County coordination* facilitates synchronization of development policies and procedures in rural parts of Liberty County and Chambers County and helps to improve regulatory enforcement in Mont Belvieu's ETJ.



MAP 2.1 MONT BELVIEU PLANNING AREA

-  MONT BELVIEU CITY LIMITS
-  MONT BELVIEU ETJ
-  NEIGHBORING JURISDICTION
-  NEIGHBORING JURISDICTION ETJ

This Comprehensive Plan defines the City's planning area as a one-mile radius plus the voluntary extraterritorial (ETJ) boundary, as outlined in the lighter green color. The City's current number of inhabitants defines the ETJ as a one mile radius from City limits boundary by default.

ANNEXATION AND GROWTH PATTERNS

CONTEXT

The ability of Mont Belvieu to expand its current planning area, which includes the City limits and ETJ, is limited. As illustrated in **Map 2.1, Mont Belvieu Planning Area**, outside of its ETJ, in every direction, the City of Mont Belvieu is bounded by either the planning areas of other jurisdictions or natural barriers (e.g., the marshes and lakes associated with the Old River watershed). As illustrated in **Map 2.2, Mont Belvieu Annexation History** (following page), the City started its development with annexation of large, contiguous land. However, there was a change in annexation policy in the 1980's that has caused the City limits to change from a more central and compact shape to the unique and jagged shape the City boundaries are today.

With land that is available for development directly adjacent to existing City boundaries and the

current limit of municipal utilities, new annexation is feasible in many places inside the current planning area. Future growth is partly contingent on strategic annexation decisions which have the potential to strain existing services and response times. Careful thought must be given to the appropriate locations and timing of these policy decisions given their short and long-term financial implications.

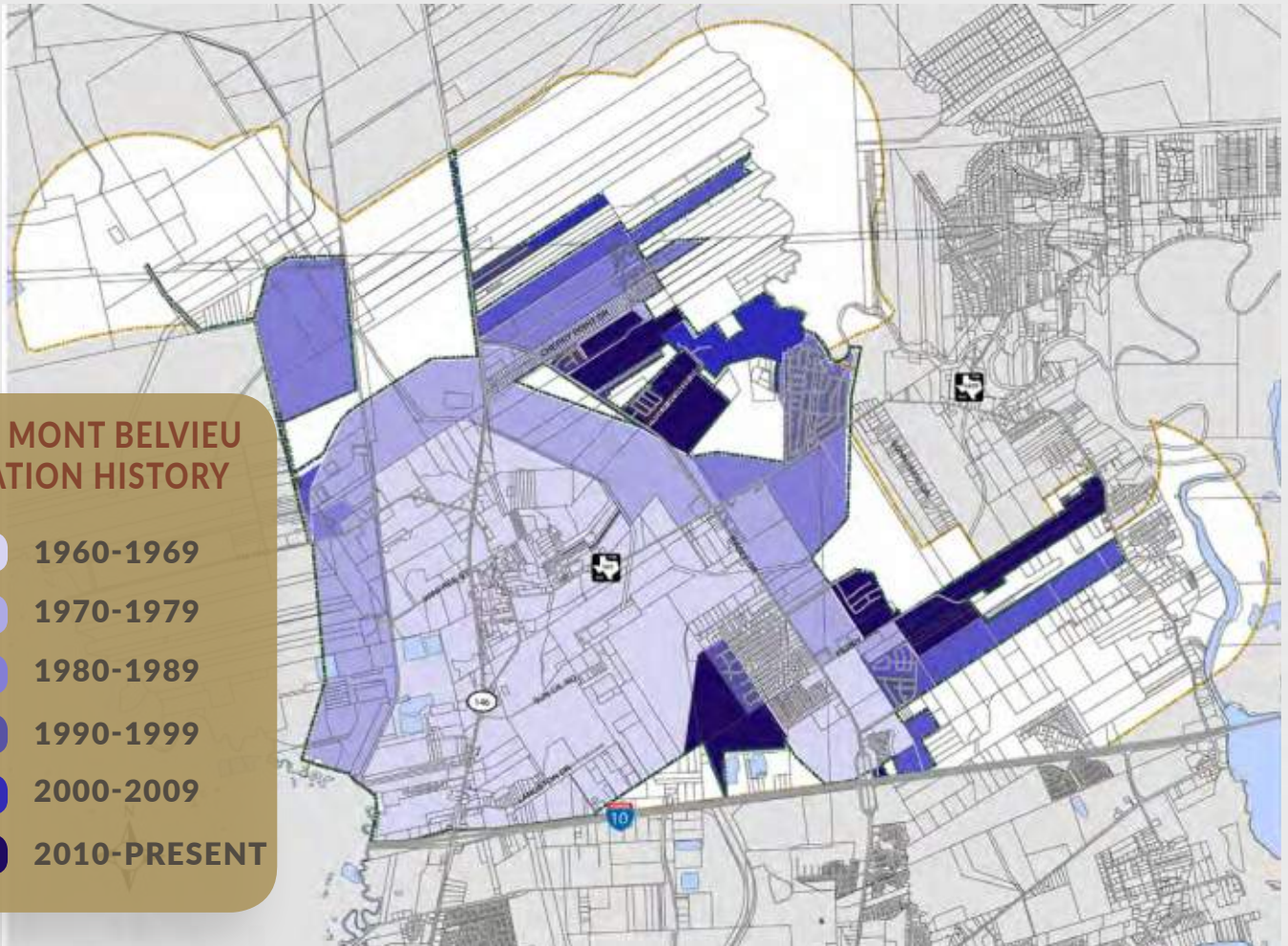
ANNEXATION AUTHORITY AND POLICY

The legal authority and procedures for annexation are dependent on the size and classification of the City. Since Mont Belvieu is Home Rule, it follows procedural rules found in Sec. 43.021 of the Texas Local Government Code.

Mont Belvieu gained new annexation authority with its transition from a general law to Home Rule Charter in 2013. One additional provision for annexation by a Home Rule city is that it can annex up to ten percent of its land in a calendar year. It may also rollover any unused acreage of its annual ten percent allotment. The specifics of the provision for determining the amount of land that can be considered for annexation each year can be found in Section 43.055 of the Texas Local

MAP 2.2 MONT BELVIEU ANNEXATION HISTORY

- 1960-1969
- 1970-1979
- 1980-1989
- 1990-1999
- 2000-2009
- 2010-PRESENT



Government code. The following principles for annexation were taken from a draft copy of the 2014 Mont Belvieu Annexation Policy Study:

- *Promote orderly, planned development* - Annexation brings areas under the City's zoning ordinance.
- *Protect and Expand the Fiscal Base* - While new residential units do little to expand the tax base without offsetting increases in public service costs, several areas in the Mont Belvieu ETJ have the potential to be sites for commercial and industrial development, which could have a positive fiscal impact.
- *Create Efficiencies in Service Delivery* - In many cases, annexation allows the City to provide one or more services to areas already receiving City services.
- *Preserve Community Unity* - Annexations will frequently bring in areas where businesses and residents already identify with the City, thus formalizing a mutually beneficial bond that already exists.

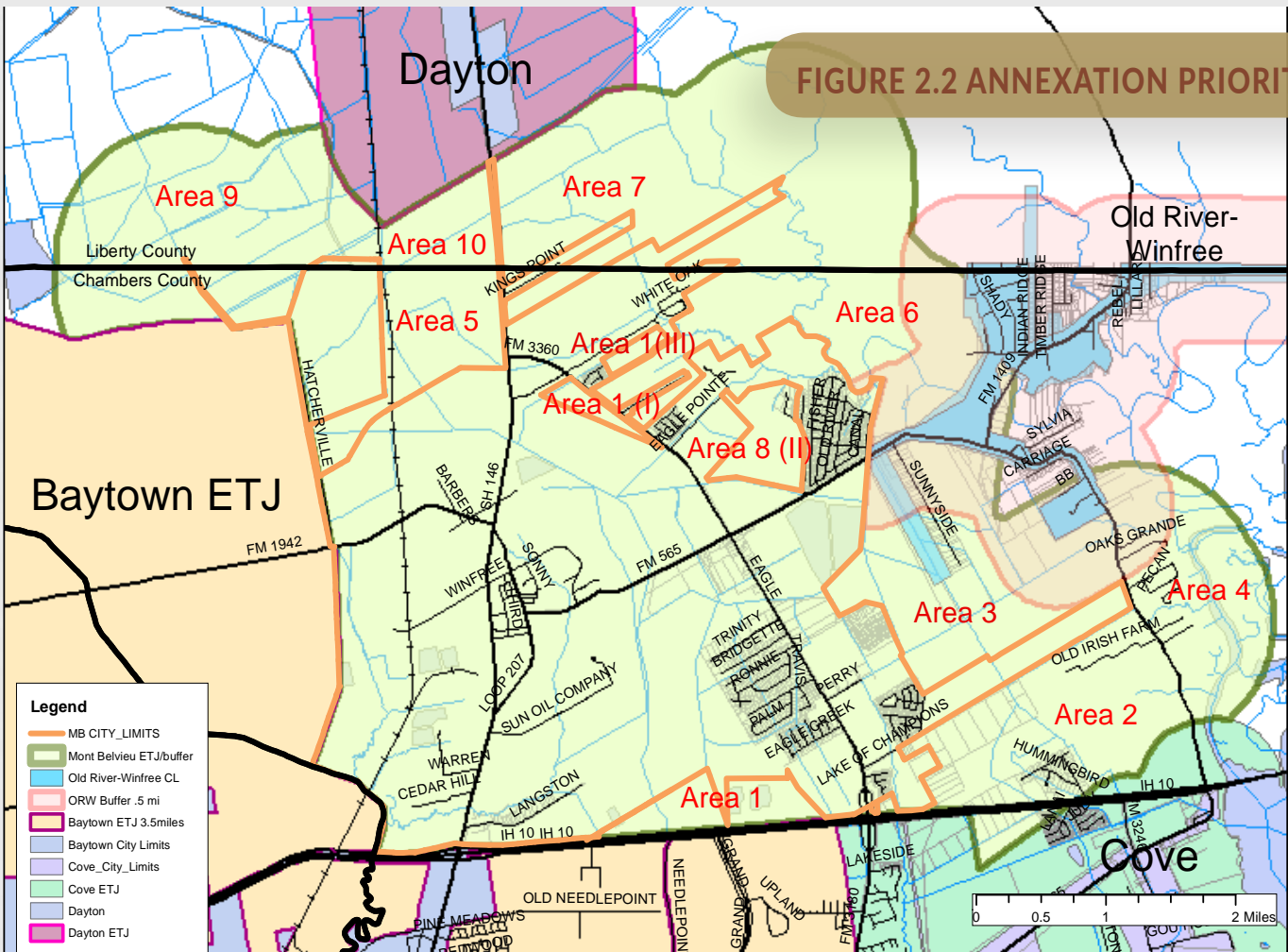
The prioritization of annexation areas can be found in **Figure 2.2, Annexation Priority Areas**. This figure only identifies areas that are currently within the ETJ of the City of Mont Belvieu and is intended to guide annexation sequencing. Annexation of these areas is appropriate when each area under consideration adheres to the previously highlighted principles. The approximate area of each annexation area is identified within **Table 2.1, Annexation Priority Areas - Size** (page 2.10),

EXTRATERRITORIAL JURISDICTION

As a Home Rule municipality, Mont Belvieu has some, albeit limited, authority over a larger unincorporated planning area immediately beyond its current City limits, which is referred to as the City's extraterritorial jurisdiction or "ETJ." The designation enables municipal governments to "promote and protect the general health, safety, and welfare of persons residing in and adjacent to" the City limits. Land within Mont Belvieu's ETJ



FIGURE 2.2 ANNEXATION PRIORITY AREAS



cannot be annexed by another City (see **Figure 2.1, Mont Belvieu Planning Area**). Many smaller cities have used their ETJ authority as a strategic planning tool to expand their area of influence, while protecting the rural landowners from being annexed from much larger cities. While the ETJ's default boundary is contingent on the number of inhabitants in the City limits (§42.021), there is no statutory limit to its size.

In addition to annexation protection, the ETJ authority allows the City to approve subdivision plats and enter into development agreements. Subdivision authority is a significant influence in terms of the function and quality of the community. These standards, which have been vetted and enforced for municipal development, help to prevent the City from inheriting substandard infrastructure and development.

Development agreements can also influence the character of ETJ development. According to §212.172, these agreements can:

- *Guarantee* the land's immunity from annexation for a period of up to 45 years;
- *Extend* certain aspects of the City's land use and environmental authority over the land;
- Enforcement of land use regulations other than those that apply within the City;
- *Provide* infrastructure for the land; and
- *Provide* for the annexation of land as a whole or in parts and to provide for the terms of annexation, if annexation is agreed to by the parties.

These types of development agreements are commonly used in lieu of annexing land where new residential development is planned. They allow the City to control the character of development, such as lot size, density, and infrastructure quality, while not directly assuming all the cost.

TABLE 2.1 ANNEXATION PRIORITY AREAS, SIZE

Refer to Figure 2.2

Annexation Priority Area	Area (Acres)
Area 1 (I)	68
Area 1(II)	243
Area 1(III)	45
Area 2	297
Area 3	1,198
Area 4	1,447
Area 5	842 - 1,048
Area 6*	579
Area 7	1,224
Area 8	1,927
Area 9	1,343
Area 10	320
Total	9,533 - 9,739

*Varies Based of ETJ Agreement

ANNEXATION REQUIREMENTS

Once the City annexes a new subdivision or tract of land into the City, it will be required to provide municipal services in a timely manner, as regulated by §43.056 of the Local Government Code:

- Immediately, the City must provide any of the following services to the newly annexed area if it already provides these services within its corporate boundaries:
 - » police protection;
 - » fire protection;
 - » emergency medical services;
 - » solid waste collection;²
 - » operation and maintenance of water and wastewater facilities in the annexed area that are not within the service area of another water or wastewater utility;
 - » operation and maintenance of roads and streets, including road and street lighting;
 - » operation and maintenance of parks, playgrounds, and swimming pools; and
 - » operation and maintenance of any other publicly-owned facility, building, or service.
- Within a two and one-half year period, the City must provide full municipal services (e.g., water, wastewater) unless there are similar areas within the City that are not provided services.

² See Tex. Local Gov.t. Code §43.056(o) for exceptions.





UTILITIES INFRASTRUCTURE

In order to provide adequate infrastructure and effectively maintain expanded and more modern technical utility systems, planning must ensure adequate funds. Funds will cover the costs of routine record-keeping and compliance with federal and state rules for infrastructure operation and maintenance, as well as periodic and more substantial capital expenditures for upgrades. Such major investments can be made in phases rather than placing unnecessary financial burdens on the City all at once. These phased improvements can also be prioritized based on needs and available funding. Some of these improvements will have to be financed by the City, but some costs can be transferred to property owners through assessments and utility fees.

The methodology determines what necessary actions the City of Mount Belvieu would need to make to their water supply system to meet the increasing demands caused by an anticipated population growth of 30,115 by the year 2035. Existing facilities were first evaluated for Mount Belvieu using the current population of 6,041.

Data for the current connection count of the City was estimated by dividing the population of the City by an assumed population of three for each connection, an approved method of assumption by the Texas Commission on Environmental Quality (TCEQ§290.38(16)). This assumption was used for both the existing and future analysis of the existing water supply system. It should be noted this approach does not account for demands by industrial or commercial users.

The water supply system was broken into five key capacity areas as defined by TCEQ§290.45(b)(1)(D): water supply, storage, elevated storage, booster pump, and generator capacity. Hydropneumatic tank storage was not considered in this analysis because the City does not have any hydropneumatic tanks, using only elevated storage tanks.

WATER SUPPLY

The City obtains water from both the Chicot and Evangeline aquifers through a variety of water wells throughout the City. The City currently meets TCEQ minimum water supply requirements (0.6 gpm/connection) and has enough capacity to supply an additional 820 connections (a 2,458 population increase). The additional connections the existing water wells could supply based off of TCEQ minimums were calculated by dividing the total existing water well capacity by 0.6 gpm/connection. Locations of the existing wells are shown on **Map 2.3, Water Distribution. Table 2.2, City Well Capacity**, details the City's water wells in operation today. In order to meet the ultimate water supply demand, the City will need to obtain an additional 3,573 gpm in water supply capacity to meet minimum requirements from either a groundwater source or surface water source.

The current water supply provided by the Chicot and Evangeline aquifers is capable of supplying all of the City's maximum daily demands. The aquifers meet the TCEQ water quality criteria. Future viability of the water supply should be revisited as the population of Mont Belvieu is expected to grow five-fold over the life of this plan. The neighboring City of Houston and its major population centers to the north and west have been steadily converting their water supply from groundwater to surface

TABLE 2.2 CITY WELL CAPACITY

Water Well	Depth (ft)	Rate of Production (gpm)	Water Enters Distribution System
Well #7	400	400	PUMPED TO GROUND STORAGE TANK AT WELL #7
Well #8	950	800	PUMPED TO GROUND STORAGE TANK AT WELL #7
Well #9	550	500	PUMPED TO ELEVATED STORAGE TANK AT CHERRY POINT RD.
Well # 11	600	750	PUMPED TO ELEVATED STORAGE TANK AT PERRY RD.
Total Production		2,450	

water as groundwater supplies have been depleted and measurable subsidence has occurred. With the nearest major metropolitan area seeking other sources of water supply, the City of Mont Belvieu may consider this in future analyses.

WATER TREATMENT AND STORAGE, BOOSTER PUMP, AND GENERATOR CAPACITY

Once pumped from the aquifers, the water is treated with chlorine gas as a disinfectant. After treatment, the water is suitable for storage and distribution and is used primarily as drinking water and fire protection. The City water storage capacity is supplied by two ground storage tanks and three elevated storage tanks. The City currently meets all TCEQ minimum requirements for storage capacity (200 gallons/connection) and would not need to construct any additional water storage facilities for another 8,291 connections (24,873 population increase) in order to maintain meeting TCEQ minimum requirements. If the City elects to construct an additional elevated storage in the future, the City would not need to construct any additional ground storage tanks because the elevated storage capacity would satisfy the overall storage capacity requirements.



THE “75 / 90” RULE

The Texas Commission on Environmental Quality (TCEQ) regulations require that a waste water permittee commence engineering design and financial planning for expansion when a plant reaches 75 percent of permitted average daily flow for a consecutive three-month period. This rule further requires that the permittee gain regulatory approval and begin construction of expanded facilities when a plant reaches 90 percent of the permitted average daily flow for a consecutive three-month period.

Source: Texas Commission on Environmental Quality (TCEQ)

The City's elevated storage capacity is supplied by three elevated storage tanks around the City. The City currently meets the minimum requirement (100 gallons/connection) for elevated storage tanks and also meets a secondary requirement (200 gallons/connection) that reduces the required capacity for booster pumps (from 2.0 gpm/connection to 0.6 gpm/connection). Table 2.3, *Water Storage Capacity*, details the size and location of the existing water storage facilities.

With existing facilities, the City is supplying the secondary elevated storage capacity needed for an additional 5,736 connections (a 17,208 population increase). The City is also currently providing the primary elevated storage tank capacity needed to allow for an additional 13,486 connections (a 40,458 population increase). Additional booster pump capacity would be required for any additional connection increase. In order to meet the expected demands of future population of the City in 2035, the City will not need additional elevated storage tank capacity to meet the minimum requirement for elevated storage tanks.

If the City ultimately elects to just meet the primary requirement, the booster pump capacity requirement for the City would increase from 0.6 gpm/connection to 2.0 gpm/connection. In order to meet the secondary requirement, the City would need an additional 457,800 gallons of elevated storage tank capacity to meet the projected population of the City in 2035. The booster pump capacity requirement would remain at 0.6 gpm/connection.

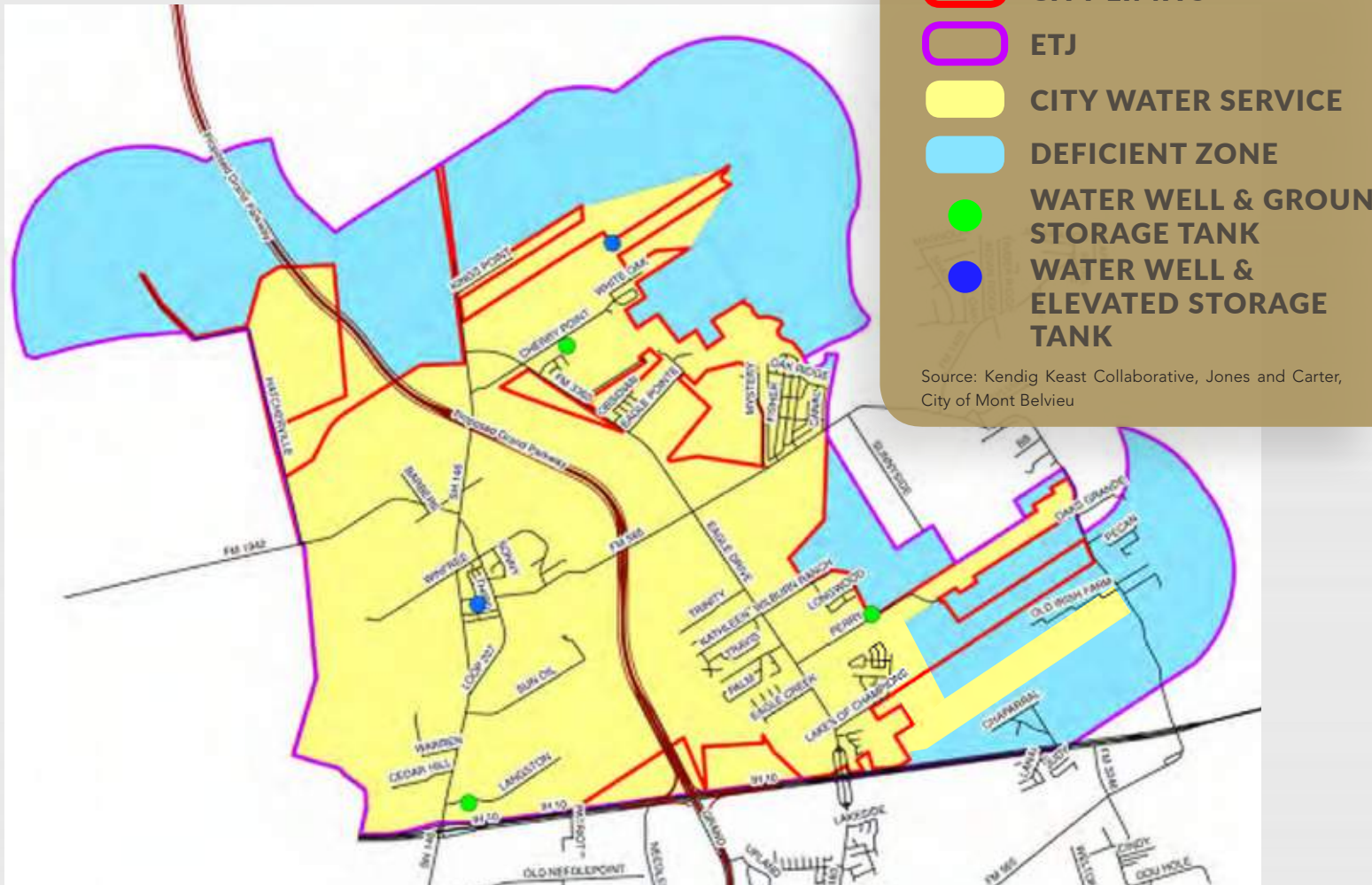
The City currently has one booster pump

TABLE 2.3 WATER STORAGE CAPACITY

Water Storage Tank	Rate of Production (gpm)	Location of Storage Tank
North Tower	300,000	Cherry Point Drive
West Tower	500,000	Loop 207
South Tower	750,000	Perry Avenue
Ground Storage Tank at Well #7 Site	211,000	Cherry Point Drive
Ground Storage Tank at Water Booster Station	300,000	Langston Drive
Total Storage	2,061,000	



MAP 2.3 WATER SERVICE AREA



Source: Kendig Keast Collaborative, Jones and Carter, City of Mont Belvieu

maintaining pressure on the southern pressure plane. The individual pump capacity was not determined at the time of the analysis. See elevated storage tank paragraph for discussion on booster pump requirements dependent on elevated storage tank capacity.

Emergency power is required by the TCEQ for systems that have more than 250 connections and do not meet elevated storage requirements. Although the City meets all elevated storage tank requirements and thus is not required to provide emergency power to their water plant facilities, the City has an emergency power source at each of its facilities, which allows to be better prepared for emergency situations and provide water during loss of power. If the system does not meet elevated storage tank requirements in the future, the system must be able to provide emergency power to supply a minimum of 0.35 gpm/connection.

WATER DISTRIBUTION

The City owns many miles of distribution infrastructure that supplies water throughout the City. Ranging in size from 6 inches to 16 inches, the water distribution system is currently meeting the supply needs. As infrastructure ages, the existing PVC, cast iron, and asbestos cement pipes will need to be replaced. Under ideal conditions, cast iron and asbestos cement pipes can provide approximately 70 to 100 years of service or more. The standard design life of PVC pipe is 50 years, however many experts boast that when properly installed it can conservatively provide service for 100 years.

Map 2.3, *Water Distribution*, also shows the locations where water service is either deficient or non-existent to meet the future growth projections.

WASTEWATER

The City of Mont Belvieu currently has 11 lift stations and 1 wastewater treatment plant (WWTP) which must be evaluated to determine what necessary measures the City will need to implement that meet the demand of a growing population. It is expected that the current population of 6,041 will grow to 30,115 by the year 2035 based on the projections provided by the City.

LIFT STATIONS

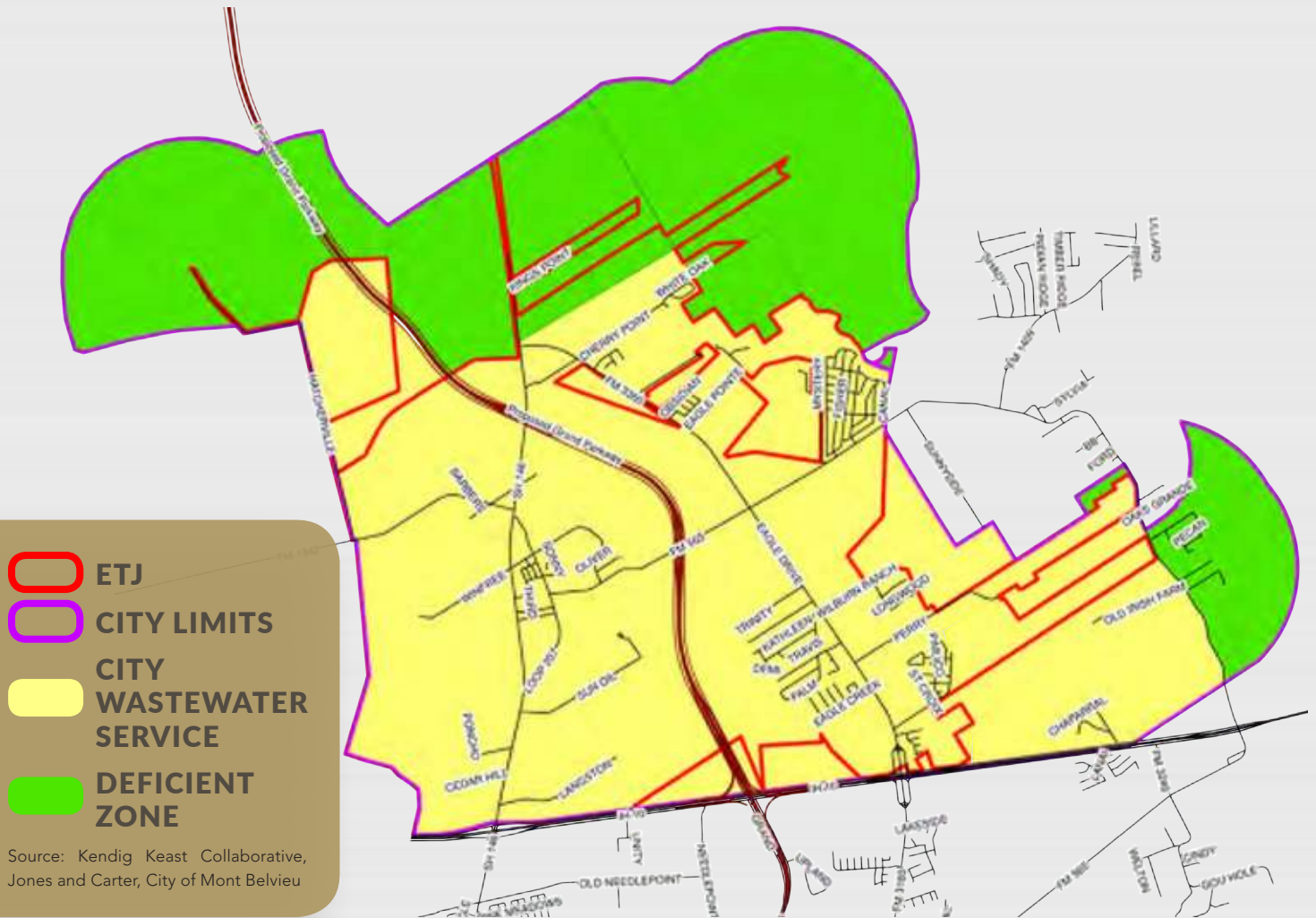
The 11 lift stations located throughout the City pump through a network of sanitary sewers terminating at the WWTP. The condition of the lift station at the treatment plant is new. The condition of other lift stations in the system is unknown at this time. An inspection should be conducted to determine the

current condition of each station. The capacity of the lift stations could not be determined due to insufficient data on the lift stations. The City should conduct an in-depth investigation of the gravity sewers and force mains to determine the capacity of the sanitary sewer network to convey flows from growth areas.

WASTEWATER TREATMENT PLANT

The Cotton Bayou Wastewater Treatment Plant (WWTP), which opened in 1980, is composed of an onsite lift station, a headworks with a mechanical screen, 2 oxidation ditches, 3 clarifiers, and a disinfection basin. The WWTP was designed and permitted to treat an average daily flow (ADF)

MAP 2.4 WASTEWATER SERVICE AREA



Source: Kendig Keast Collaborative, Jones and Carter, City of Mont Belvieu



of 1.5 MGD and a 2-hour peak flow of 4.5 MGD. The WWTP receives both municipal and industrial sewage. A preliminary engineering report that was prepared in 2013 stated that the WWTP treated an ADF of 0.60 MGD during 2011-2012. Using 2010 census data it was estimated that approximately 4,057 people lived in the City during 2011-2012. Using the information from the report and census projections a sanitary sewer contribution of 150 gallons per day per person was estimated. With the projected population of 30,115 the City would need to expand the existing WWTP to treat an ADF of 4.50 MGD, or construct a second plant with an ADF capacity of 3.00 MGD.

The existing plant site was designed to accommodate an expansion of 1.5 MGD, providing a 3.0 MGD total capacity. In order to make additional room, the City may consider removing the existing sludge drying beds, which have a large footprint, and replacing them with a more efficient dewatering facility. The City has set aside land specifically for plant expansion or a new plant in the future.

Since this time, a grant application to the Gulf Coast Wastewater Authority has received the highest rank to construct a new wastewater treatment plant to service industrial waste generated in the Mont Belvieu area in addition to municipal wastewater. If the project for the new wastewater treatment plant moves forward as planned, the proposed improvements to the existing Cotton Bayou Wastewater Treatment Plant will be delayed as future demand within the Mont Belvieu City limits shall be serviced by the proposed plant.

WASTEWATER COLLECTION SYSTEM

The City has many miles of sanitary sewer infrastructure – both gravity sewer and force main. These pipes range in different sizes starting from 4 inches in diameter and are typically located within City roadway right-of-way. The City also operates 11 sanitary sewer lift stations that are strategically located throughout the City to best serve the wastewater needs.

Map 2.4, Wastewater Service Area, shows the locations with deficient wastewater service based on the future growth projections and the current service provided by the system.

STORM WATER AND DRAINAGE

The City's drainage system was most recently studied as part of the City of Mont Belvieu Master Drainage Plan (MDP) dated March 2009. The plan details the five major drainage areas within the City limits. These include Cotton Bayou and Hackberry Gully which both flow directly south and outfall to Dutton Lake at the north end of Trinity Bay. Smith Gully outfalls into Cedar Bayou to the west of town. Two other systems, Cherry Point Gully and Old Ditch, outfall to Old River (northeast of the City). Additionally, Buck Gully and "Other" are partially within the City limits and ETJ.

Map 2.5, Drainage Areas, shows the limit of most recent detailed study. The areas on the map in white are the areas of the City limits and ETJ that are not currently included in the MDP. Based on the proposed land use map, the MDP should be updated to consider the drainage under existing and developed conditions in these areas.

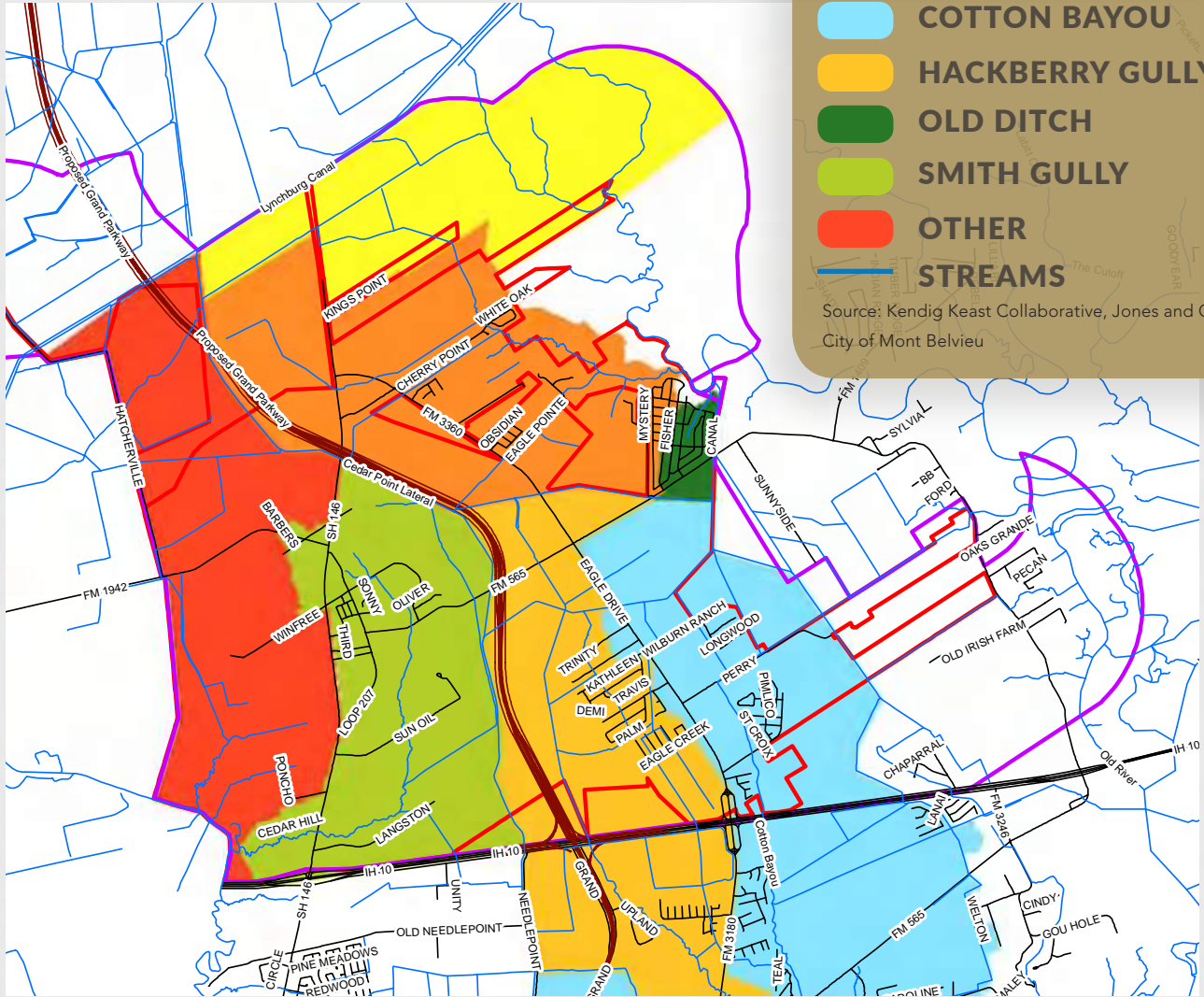
Stormwater is primarily conveyed through the City via roadside ditches and swales. The network of ditches collects runoff from adjacent properties and conveys the stormwater to the nearby bayous or gullies. The local drainage along Eagle Drive is the only location in the City where stormwater is collected via area inlets and conveyed via storm sewer to the outfall.



Vegetated swales clean storm water runoff from parking lots and allow it to infiltrate the earth.

Source: New Seasons Market Parking Lot, Portland, OR

MAP 2.5 DRAINAGE AREAS



- BUCK GULLY
- CHERRY POINT GULLY
- COTTON BAYOU
- HACKBERRY GULLY
- OLD DITCH
- SMITH GULLY
- OTHER
- STREAMS

Source: Kendig Keast Collaborative, Jones and Carter, City of Mont Belvieu



A rain garden is a shallow, constructed depression designed to receive runoff from hard surfaces and planted with deep-rooted native plants.



Building roofs are designed to capture and direct rainwater to collection systems on the ground.
Source: Lady Bird Johnson Wildflower Center. Austin, TX



PUBLIC SAFETY SERVICES

POLICE DEPARTMENT

As the population in Mont Belvieu continues to grow, so too will the need to expand the existing police department. During the first CPAC meeting, committee members and residents agreed that one of Mont Belvieu’s strengths is the sense of safety provided by the police department. As the City’s population is expected to increase five-fold, additional officers, telecommunications and administrative personnel will be needed as well as facility space to accommodate the additional staff. Currently, the Police Department shares a space with the Municipal Court and maintains a four bed holding facility to temporarily house inmates who have committed a Class C misdemeanor and are awaiting arraignment.

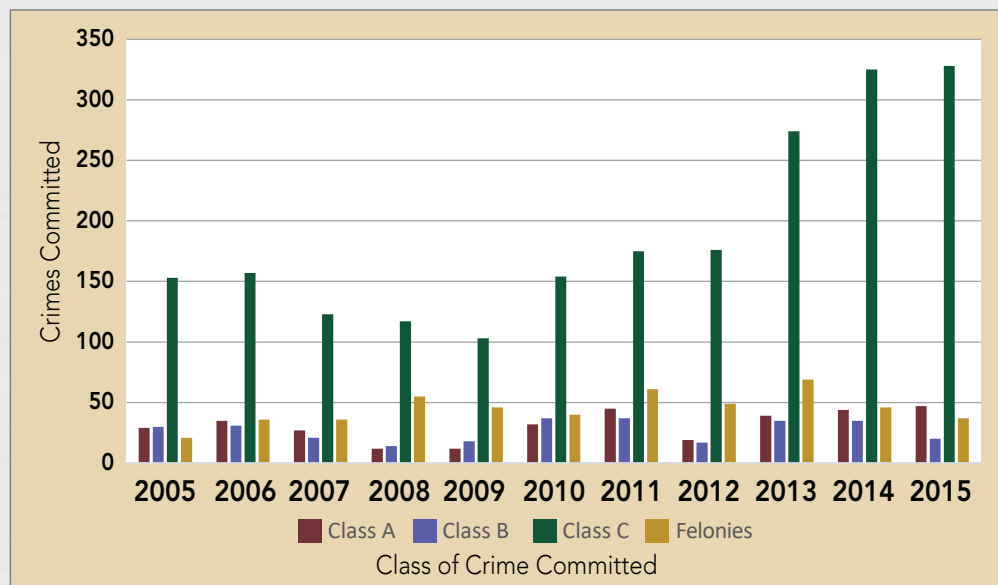
As illustrated in **Figure 2.3, Arrests by Classification 2005 - 2015**, the number of Class C arrests has more than doubled during the 10 year period. (Class A-C are all misdemeanor criminal offenses decreasing in severity with a Class C being the lowest. The only other class quantified were criminal offenses are considered to be felony offense. A lack of facility space for additional officers and holding cells is an area that the City will need to address during the 20-year planning period. While the City will need to establish an

acceptable level of service for identifying when additional personnel is needed, the additional police department personnel provides for an opportunity to continue reaching out to the community to become more involved in the community building process. Implementing Crime Prevention through Environmental Design (CPTED) strategies during the development review process and police department review and approval process during the pre-development can help to ensure that new neighborhoods and commercial areas include appropriate design strategies to minimize crime.

The Mont Belvieu Police Department is the lead dispatch agency and is responsible for coordinating emergency dispatches with the Mont Belvieu Volunteer Fire Department. The Department has interlocal / joint agreements with the following agencies to provide protection services:

- Baytown Police Department;
- Chambers County Sheriff’s Department;
- Barbers Hill Independent School District; and
- Texas Rangers (for major criminal investigations such as homicide, aggravated cases, etc.).

FIGURE 2.3 ARRESTS BY CLASSIFICATION 2005-2015



Source: City of Mont Belvieu Police Department



The Police Department also provides secondary functions including assisting, as needed, the following agencies:

- Animal Control;
- EMS;
- Fire Department
- Code Enforcement; and
- Public Works.

The Department also provides free additional patrols upon requests by homeowners to monitor homes when the owner is absent from the residence.

STAFFING

The Department has 13 sworn officers, including one Chief, one Sergeant, and eleven Patrol Officers. Thirteen Peace Officers are licensed through the Texas Commission on Law Enforcement. As the lead dispatch agency, the Department maintains a Communications Office with a support staff of four telecommunications personnel, including one Supervisor. The Police Chief employs one administrative assistant who serves as the Records Clerk, Sex Offender Registrar and also works a regular duty in the Communications office. Licenses / Certifications held by Peace Officers include:

- Basic Peace Officer - 5;
- Intermediate Peace Officer - 0;
- Advanced Peace Officer - 2; and
- Master Peace Officer - 6.

SERVICE AREA

The Police Department's service area includes the City's Corporate Limits.

FACILITIES

The Police Department building is located at 11607 Eagle Drive and houses the following offices:

- Administration;
- Holding facility;
- Evidence rooms;
- Off-site animal control center;
- Patrol office;
- Interview rooms;
- Training room; and
- Municipal court offices and courtroom, and a storage area

The Police Department maintains one fully operational dispatch station and a second dispatch station which has the RMS and CAD, but is utilizing a temporary radio station. The Mont Belvieu Police Department has a municipal holding facility containing six beds with a maximum holding period of four days.

EQUIPMENT

The Department maintains 11 marked cruisers and two unmarked vehicles (for the Criminal Investigation Division and staff). The fleet consists of Crown Victorias and Ford Explorers. Regarding vehicle replacement, patrol units are kept for five years or 100,000 miles. Unmarked vehicles (staff and CID units) are kept for 10 years or 100,000 miles. These vehicles may be sold or replaced if they become unsafe, damaged or maintenance becomes too expensive or unreasonable for the safe, effective and efficient operation of police vehicles.

PROGRAMS / ACTIVITIES

The Mont Belvieu Police Department works hand-in-hand with the Barbers Hill Independent School District to provide several engagement activities with students, including safety talks. In addition, the Department is often asked to speak to industrial plant personnel on crime trends, home safety, traffic safety and other safety related issues. The Department sponsors and actively participates in several community programs, including:

- Neighborhood Night Out;
- Neighborhood Watch;
- IdentiKid / fingerprinting;
- Police Explorers;
- Fairs;
- Tours;
- Speaking Engagements; and
- Crime Stoppers.

Financial support for the Police Department is primarily from the City of Mont Belvieu, although nominal funding is derived from local, state and federal grants.

STAFF NEEDS

The most significant problem facing the Mont Belvieu Police Department is staffing. Due to the expected population growth, **Figure 2.4, Police**



Level of Services and Personnel Needs, identifies the total number of Peace Officers required based on the projected population. Figure 2.10 assumes a level of service of 2.7 police department personnel per 1,000 resident population based on recommendations provided by the City of Mont Belvieu Police Chief. Level of service standards can vary from community to community and region to region as population expands and contracts and due to a variety of factors including crime rates and investigations. For example, the International Association of Chiefs of Police (IACP) table of officers per 1,000 resident population illustrates a historic perspective on staffing trends across all U.S. law enforcement agencies identifying the current staffing trend at 2.2 officers per 1,000 resident population for communities between 2,500 and 9,999 population (Bureau of Justice Statistics, 2003). However, as the population increases, the ratio of officers per 1,000 resident population decreases to 2.0 up to 24,999 population and then to 1.8 for a population range between 25,000 to 49,999 residents. Moreover, there are several allocation approaches to utilize when determining staffing needs as identified by the International Association of Chiefs of Police (IACP):

- Per Capita - as shown above;
- Minimum Staffing - identifies a sufficient number of officers to be deployed to maintain officer

safety and public protection (often used when citizen demand is limited);

- Authorized Level - a budget based approach dependent upon allocated resources;
- Workload Based - allocation based on demand for service; and
- Coverage Based - establishes a service area by precinct and allocates staff based on workload and incident response times.

Regardless of the total number of officers per 1,000 resident population standard, a five-fold increase in population will undoubtedly increase the need for more skilled officers, such as CID, and administrative telecommunications personnel. While Figure 2.4 identifies an existing standard, a generalized standard, and a proposed standard, Mont Belvieu should formally adopt, as a matter of public policy, a realistic standard it will achieve by the end of this planning horizon. Establishing that standard will require consideration of not only the allocation approach used, but also of the number of officers, the certifications of various personnel and the associated administrative and support staff required to operate a growing department. Of course, the additional staff, will require a conscious decision by the community regarding the quality of life it desires as measured by the provision of what the City of Mont Belvieu determines as sufficient.

FIGURE 2.4 POLICE LEVEL OF SERVICES AND PERSONNEL NEEDS

Year	2015	2020	2025	2030	2035
Population	6,041	9,356	14,306	21,393	30,115
Proposed Standard of Personnel Per 1,000 People	2.7	2.7	2.7	2.7	2.7
Personnel Needed	16	25	38	58	81
ACP Generalized Standard of Personnel Per 1,000 People	2.2	2.35	2.0	2.0	1.8
Personnel Needed	13	21	29	43	54
Existing Standard of Personnel Per 1,000 People	2.1	2.1	2.1	2.1	2.1
Personnel Needed	13	19	30	45	63

FACILITIES

With the increase in population and subsequent staff needs, there is a study underway to examine additional police department space. Currently, the Department shares a space with the Municipal Court and a four bed holding facility for Class C misdemeanor violators. In addition to adopting a level of service standard for staffing needs, the community should also identify an acceptable standard for office space requirements per peace officer and administrative staff and begin programming the size of the facility required based upon the determined number of square feet per peace officer.

As shown in **Figure 2.3, Arrests by Classification 2005 - 2015**, the number of Class C misdemeanor violators has more than doubled over the course of the last 10 years. The sheer volume of misdemeanor violators awaiting adjudication has placed a burden on the existing four bed holding facility. As local jail inmates volume continues to increase in both Mont Belvieu and across the nation as shown in Figure 2.8, the City will need to begin programming additional holding facility space. The Texas Commission on Jail Standards, while not having the authority to oversee municipal holding facilities, recommends the following:

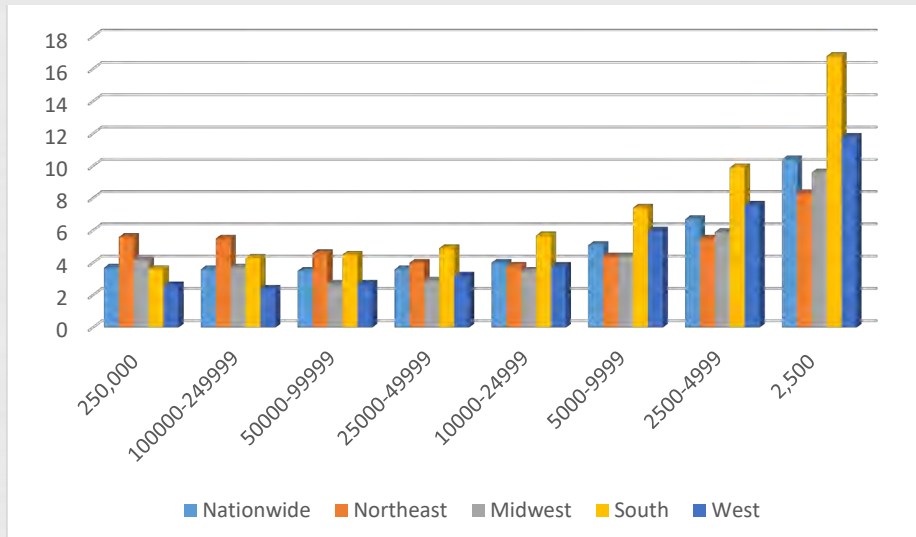
- inmates should not be held more than 72 hours;
- jailers should have sufficient training;
- officials should adopt Texas Minimum Jail Standards as specified in Texas Administrative Code, Sec. 351.007 which specifies among other items, that each cell must have a clear floor area of 40 square feet; and
- officials should allow for independent audit of the facility.

FIRE DEPARTMENT AND EMERGENCY SERVICES

Mont Belvieu Fire Department will need to transition from a volunteer department to a paid department during the 20-year planning period. While the department currently maintains a Level 3 ISO rating (top 20% in the nation), as the community grows, so too will the need to add additional firefighting staff and new stations in order to maintain an adequate level of service standard. During the first CPAC meeting, committee members discussed that while the relatively low ISO rating is a strength, the growing population poses a threat to the sense of security Mont Belvieu residents enjoy and without planning for additional facilities and firefighters, the current ISO rating could worsen; more importantly, property damage and losses could escalate.

FIGURE 2.5 FIRE INCIDENCE PER THOUSAND POPULATION*

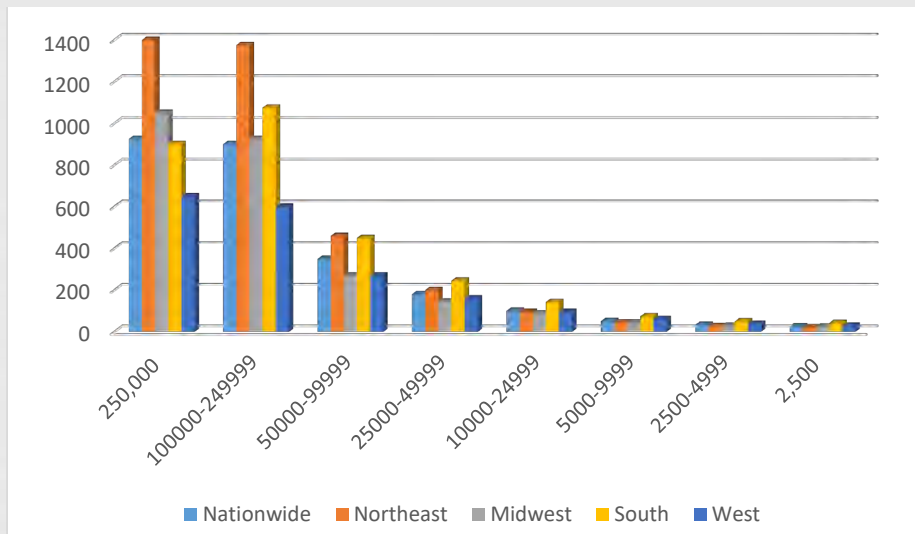
* These numbers reflect the changing role of fire departments nationwide, where ~ 90% of calls are medical. These numbers also reflect the low number of fires per year (~1.5).



Source: National Fire Protection Association (NFPA) 2011



FIGURE 2.6 NUMBER OF FIRES BY COMMUNITY POPULATION



Source: National Fire Protection Association (NFPA) 2011

As shown in **Figure 2.5, Fire Incidence per Thousand Population**, the South as a region has the highest rate of fire incidence and as the population in Mont Belvieu increases so too will the number of fires (see **Figure 2.6, Number of Fires by Community Population**). Additional firefighters will be needed to maintain acceptable response times to increased call volumes in order to maintain and improve the current ISO rating. CPAC committee members discussed that the transformation of the fire department from a volunteer based organization to a paid staff was an opportunity to increase community awareness and better hazard mitigation preparedness. The Mont Belvieu Fire Department, as it grows, can undertake a variety of community engagement activities to mitigate the causes of home fire incidences shown in Figure 2.5. Underscoring the growth of the fire department will be the construction of a new fire station and the merging of the emergency services department. As discussed later in this chapter, careful consideration should be given to the design of the new facility.

MONT BELVIEU VOLUNTEER FIRE DEPARTMENT

The Fire Department provides fire suppression, fire prevention, and emergency medical services (EMS) for the City of Mont Belvieu and surrounding area, including:

- annual flow testing and maintenance of fire hydrants;
- arson investigations;
- business inspections, pre-fire plans, and safety surveys;
- fire and EMS coverage;
- fire prevention and education programs; and
- tours and public appearances.

STAFFING

The Department employs one full-time employee, the Fire Chief, and thirty volunteers. The organizational structure of the department includes a Fire Chief, two Captains and three Lieutenant firefighters. The department is capable of providing hazmat services to petrochemical plants within the service area, as well as heavy rescue operations along I-10.

SERVICE AREA

The Mont Belvieu Fire Department jurisdiction covers 20 square miles and includes the City of Mont Belvieu and the surrounding area. The Department maintains mutual aid agreements with surrounding departments, including the Baytown Fire Department, and the Volunteer Fire Departments of Cove, Beach, Crosby and Highlands. As the department moves to a combination paid/volunteer department, the station service area should be approximately 1 ½ miles.



FACILITIES

The Department maintains one station located at 11607 Eagle Drive. A plan for a new station is programmed for the 2019-2020 budget year.

EQUIPMENT / VEHICLES

The Fire Department has a total of two Pumpers / Engines, one ladder truck, one booster and two support vehicles, one allocated to the Fire Chief and one duty vehicle.

PROGRAMS AND ACTIVITIES

Throughout the year, the Fire/EMS Department hosts multiple fire and injury prevention programs. Over 8,000 community residents per year participate in these programs and events. Activities include CPR training, fire extinguisher training, and first aid training programs at schools, churches, community organizations, health fairs, and other businesses. Additionally, the Department coordinates its "Shattered Dreams" program every other year through the Fire Marshal's office. The Department also provides fire and life safety surveys to Mont Belvieu businesses; the intent is to make businesses safer for themselves and their customers. The Department also accommodates any special requests they may receive from businesses and groups by customizing programs to fit their needs.

SERVICE INDICATORS

As of 2015, the Fire Department has helped the City achieve an Level 3 ISO rating. The Level 3 ISO rating currently remains limited to three due to number of personnel, no training facility, and need for an additional fire station.

In 2014, the Department had 294 fire unit responses. These numbers are typical for preceding years.

RESPONSE TIME

Response times within the service area vary between 12-14 minutes, but as the department moves to a paid department, response time would need to be within 5-6 minutes and full-time staff located within the station. Response times are right at four minutes, which is in compliance with National Fire Protection Association (NFPA) Standard 1710. NFPA 1710 (Career) recommends 80 seconds for turnout time for fire and special operations response. For the initial arriving company, the fire department's suppression resources should be deployed to

provide for the arrival of an engine company within a 240-second travel time to 90% of the incidents. NFPA 1720 (Volunteer) makes recommendations for meeting objectives based on the population per square mile of the community.

According to NFPA 1720, a volunteer fire department is a fire department having volunteer emergency service personnel comprising 85% majority of either volunteer or career membership. A "combination fire department" is a fire department having emergency service personnel comprising less than 85% majority of either volunteer or career membership. It is up to the authority having jurisdiction to determine if either, standard (NFPA 1710 or NFPA 1720) is applicable to them.

STAFF NEEDS

The most significant problem facing the Mont Belvieu Fire Department is staffing. Due to the expected population growth, the City currently needs one full-time employee to provide 24/7 staffing and increase the number of full-time employees by one additional firefighter over the next five years. While Mont Belvieu's Level 3 ISO rating is excellent for a city of its size, as population grows, without additional staffing, the rating is likely to fall. A lower ISO rating translates into lower insurance rates, and lower rates are achieved, in part, with adequate personnel. Table 2.4 *Fire Personnel Needs*, identifies the total number of firefighters per 1,000 resident population. It does not address functional population nor differentiate between volunteer / full-time employee. Table 2.4 assumes a level of service of 1.48 firefighters per 1,000 resident population for all cities based on recommendations provided by the International City/County Management Association (ICMA) in 2003. Level of service standards can vary from community to community and region to region. For example, the ICMA recommends a level of service of 1.60 fire personnel per 1,000 resident population in the south central region of the United States.

While **Table 2.4, Fire Personnel Needs**, represents a generalized standard, Mont Belvieu should formally adopt, as a matter of public policy, the level of service it will achieve by the end of this planning horizon. This will involve a conscious decision by the community regarding the quality of life it desires as measured by the provision of what the City of Mont Belvieu determines as


TABLE 2.4 FIRE PERSONNEL NEEDS

Year	2015	2020	2025	2030	2035
Population	6,041	9,356	14,306	21,393	30,115
Personnel Needed	9	14	21	32	45

sufficient. As a proactive step toward achieving the identified level of service, a staffing plan could be based on the expected population growth based on the currently identified potential residential development as the proposed developments then are constructed. The level of service decided upon to identify staffing needs, in any case, should comply with NFPA 1720, which states, that within a suburban area, a minimum of 10 staff should respond to an incident within 10 minutes at least 80% of the time.

FACILITY NEEDS

The Fire Department will require a new station during the 20-year planning horizon.

In addition, one of the existing engines needs to be replaced and is currently budgeted for 2016. However, as the community continues to grow, a third engine and booster will need to be considered.

According to ISO standards, "all sections of the City should be within one and one half miles of a fully-equipped station. To increase the City's ISO rating to a Level 2, the most recent ISO report noted that staffing levels need to increase to one apparatus (fire truck) with four personnel per day covering a 24 hour period.

The existing fire department shares a building with the EMS Department, but the future FD/EMS will be in one department. The existing facility is approximately 10,000 square feet holding 9 apparatus. Approximately ½ of the building is used for housing the apparatus with the remaining allocated to living quarters, training room and offices. The existing space has been outgrown and a larger training room and living quarters are needed, particularly as the department migrates to a mixed Paid/Volunteer Fire Department.

A new station is planned for the 2019-2020 budget year. The new station will contain 3-4 bays for apparatus, dining area for about eight people and 10 beds, 4 baths as well as a gear room for fire, supply for EMS, four offices and a day room for eight people. This station would be a standalone facility and serve as Fire Station No.2.

There are no set standards dictating the space requirement for various uses, nor square footage requirements per firefighter. However, during the 20-year planning horizon, the City will need to adopt a minimum level of service standard for square footage space requirements per firefighter. By establishing this standard, the Fire Department will be better able to project future space needs and associated budgeting requirements for prioritizing future facilities.





Traffic on S.H. 146 due to an accident at the intersection of S.H. 146 and F.M. 1942.

TRANSPORTATION

Mont Belvieu's ability to provide an efficient transportation system is essential to the high quality of life and economic growth. Many people think of transportation solely in terms of roads and streets that allow them to commute between home, work, recreation, and shopping. The increase in population that is expected to come to Mont Belvieu has the potential to overwhelm the existing roadways and intersections. It is anticipated that Mont Belvieu will need to implement a network of collector and arterial streets in conjunction with this surge in population.

The predominant mode of transportation in Mont Belvieu is the personal automobile, with the understanding it will continue to do so throughout the timeframe of the planning horizon. This is reinforced by the information presented in **Figure 1.7, Job Locations**, 4,652 people commute to or from Mont Belvieu on a daily basis. Public transportation is not currently available in Mont Belvieu and only 117 people who live in Mont Belvieu work in Mont Belvieu, making alternative modes of transportation, including walking, a nominal choice for a vast majority of the working population. The number of people who rely on personal (vehicles) as their sole transportation should increase with the expected completion of

the Grand Parkway (S.H. 99) and the corresponding commuting opportunities it will provide.

When the City of Mont Belvieu decided to reconstruct Eagle Drive it chose to include a widened sidewalk and intermittently placed benches/seating areas. This path is complemented by attractive planting beds, and is located far enough from the street that the pedestrian environment is safe and inviting. If the approach that was used on Eagle Drive is implemented City-wide, residents will have a choice between a walking, biking, or a pleasant drive for many other in-town excursions.

ISSUES AND OPPORTUNITIES

Much of the emphasis of this chapter is placed on addressing the roadway system in concert with recent and forthcoming development. New roadways can open land that was otherwise inaccessible for residential or commercial uses. It can also promote new development patterns that facilitate shorter trips - such as mixed-use developments and well-designed neighborhood commercial centers. Efforts must be made to ensure that new roads are properly planned and executed in coordination with future development and the



principles and policies of this plan. Transportation system recommendations consider not only existing population and near term development, but anticipated population growth and functional connections to future development areas. Key issues that have been considered in formulating future transportation strategies include:

THOROUGHFARE DEVELOPMENT

Preservation of rights-of-way both within the City, and areas identified for future expansion of urban services, will be critical to maintaining street network interconnectivity and effective traffic dispersal. Thoroughfare development must also consider the existing and intended character of surrounding areas, as well as suitability for all modes of transportation.

TRAFFIC MANAGEMENT

Traffic carrying capacities of area roadways must be preserved in order to provide for the efficient movement of vehicles. This relates to roadway design, with particular emphasis on access management and intersection improvements.

PEDESTRIAN AND BICYCLE MOBILITY

There must be an emphasis on incorporating pedestrian and bicycle improvements into codes and street projects to improve local access and quality of life. This is particularly important to segments of the population that do not have reliable access to motor vehicles.

CORRIDOR APPEARANCE

Mont Belvieu's corridors offer an opportunity to establish a positive first impression of the City. The design and appearance of roadways, as well as the properties that abut them, are of essential importance to enhance community aesthetics and for a positive visual contribution to a quality built environment.

THOROUGHFARE PLANNING

The City's Thoroughfare Plan, as illustrated in **Map 2.6, Major Thoroughfare Plan**, is designed to anticipate future travel needs. The Thoroughfare Plan represents a long-term vision for the surface transportation system of the community. Some of the proposed arterial and collector streets identified on the plan, particularly in the outlying portions of the planning area, will likely not be

needed or constructed during the 20-year vision of this plan. Nonetheless, the purpose of this plan is to preserve the rights-of-way needed for future transportation corridors so that, as development occurs in the future, the City will have the ability to develop appropriately sized transportation facilities, as detailed in **Table 2.5, Major Thoroughfare Plan Classification Characteristics**.

Future thoroughfare development must achieve continuity and connectivity to be functionally efficient. To do so, the City's plan, development ordinances, and approval procedures must avoid discontinuous and irregular street patterns. This is particularly significant in the fringe and outlying areas, where the City is likely to annex land to accommodate its future growth. In these areas, development has and continues to occur in a manner inconsistent with City transportation standards. It is, therefore, vital for the City, Chambers County, Liberty County, and TxDOT to coordinate their transportation planning functions. Aside from the planning process, there must be a commitment and diligence in the coordinated review and approval of subdivision developments to ensure they occur in an orderly manner.

The following planning principles and design guidelines are to aid in transportation planning decisions during the horizon of this plan.

MAJOR AND MINOR ARTERIAL STREETS

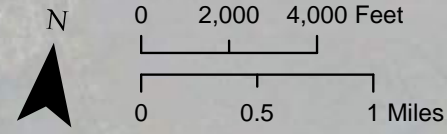
Arterial streets form an interconnecting network for broad movement of traffic. Although they usually represent only 5 to 10 percent of the total roadway network, arterials typically accommodate between 30 and 40 percent of an area's travel volume. Since traffic movement, not land access, is the primary function of arterials, access management is essential to avoid traffic congestion and delays caused by turning movements for vehicles entering and exiting driveways. Likewise, intersections of arterials with other public streets and private access drives should be designed to limit speed differentials between turning vehicles and other traffic to no more than 10 to 15 miles per hour. Signalized intersection spacing should be long enough to allow a variety of signal cycle lengths and timing plans that can be adjusted to meet changes in traffic volumes and maintain traffic progression.

- Access to high-intensity land uses should be limited by way of cross- and joint-access agreements and use of marginal access or reverse frontage roads.
- Local streets should not access major arterial roadways. Rather, they should access a collector roadway to preserve the design capacity of the arterial street.
- Residential driveway access should not be allowed onto an arterial street.
- Acceleration and deceleration lanes should be provided at all intersections to facilitate safe turning movements, as warranted by a traffic impact study.
- Pedestrian crossing improvements should be limited to signalized intersection locations. Such improvements may include crosswalk delineation via reflective paint, pavement texturing, or in-pavement LED lighting, as well as Americans with Disabilities Act (ADA) improvements, pedestrian and bicycle-actuated traffic signals, pavement markings, and signage.
- See **Figure 2.12, Major Arterial, and Figure 2.13, Minor Arterial**, for illustrative examples.

TABLE 2.5 MAJOR THOROUGHFARE PLAN CLASSIFICATION CHARACTERISTICS












FUNCTIONAL CRITERIA	Major Arterial	Minor Arterial	Collector Street	Local Street
Function				
Functional Role	Mobility is principal role	Mobility is principal role	Mobility between arterials and local streets	Access to property is principal role
Roadway Continuity	Connects major activity centers	Connects principal arterials to lower classification roadways	Continuous between arterials. May extend across arterials	Discontinuous. Connects to collectors
Desirable Spacing	2 miles or more	1/2 to 2 miles	1/4 mile	Variable
Community Relationship	Defines neighborhood and district boundaries	Defines and traverses neighborhood and district boundaries	Internal and traverses neighborhood boundaries	Internal to a neighborhood
Posted Speed	40 to 55 mph	30 to 45 mph	25 to 35 mph	20 to 25 mph
Right-Of-Way	120 feet	100 feet	80 feet	60 feet
Traveled Way				
Number of Travel Lanes	4 to 6 lanes	3 to 4 lanes	2 lanes	2 lanes
Parking Lanes	No	No	Optional	Permitted
Curb & Gutter	Required (Optional in rural areas)	Require (Optional in rural areas)	Required (Optional in rural areas)	Required (Optional in rural areas)
Medians	Required	Require	Optional	No
Bikeways ¹	No	No	Optional	No
Roadside				
Planting Strips	Yes (Variable width)			
Sidewalks	Yes (Both sides, with one side multi-use path)		Yes (Both sides)	Yes (Both Sides)

¹ *Bikeways: "Defined" refers to physical improvements within the roadway such as extra pavement width for bicycle lanes, or side trails. "Inferred" refers to low cost improvements such as lane markings and signage.*



MAP 2.6 MAJOR THOROUGHFARE PLAN

Roadway Classification

-  Controlled Access Highway, Proposed
-  County Road, Proposed
-  Major Arterial, Existing
-  Major Arterial, Proposed
-  Minor Arterial, Existing
-  Minor Arterial, Proposed
-  Collector, Existing
-  Collector, Proposed
-  Parcel Boundary
-  City Limits
-  ETJ

SOURCES: City of Mont Belvieu, 2017; KKC, 2017; ESRI Aerial Imagery, 2017.





THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK.





COLLECTOR STREETS

Subdivision street layouts and commercial and industrial districts must include collector streets in order to provide efficient traffic ingress/egress and circulation. Since collectors generally carry higher traffic volumes than local streets, they require a wider roadway cross-section and added lanes at intersections with arterial streets to provide adequate capacity for both through-traffic and turning movements. However, since speeds are slower and more turn movements are expected on collectors versus arterials, a higher speed differential and much closer intersection/access spacing can be used than on arterials.

- The maximum distance between streets intersecting with collector streets should be 1,600 feet; the minimum distance should be 800 feet.
- Collector streets, as applicable, should be determined by a development plan or a local circulation plan prepared by the subdivider and approved by the City.
- Collector roadways should not be designated as truck routes unless special precautions are taken with respect to design (e.g., curb return radii, minimum tangent lengths between reverse curves, construction specifications, etc.) and the abutting land uses.
- Collectors should extend continuously between arterial streets, crossing creeks, drainage channels, and other barriers to provide adequate system continuity.
- Traffic calming techniques should be used to slow traffic along continuous sections of collector roadways to avoid collectors being used as cut-through routes in neighborhoods.
- Sidewalks should be located on both sides of all collector streets (e.g., horizontal curves, street jogs or offsets, pavement narrowing, on-street parking, etc.).
- See **Figure 2.9, Collector (With Planted Median)**, for an illustrative example.
- Performance standards should apply to local streets, where the type of access, number of dwelling units served, and the units' average frontages determine the right-of-way, pavement width, parking lanes, curb width, parkways, and sidewalks. This way the right-of-way and street design are directly tied to development density and traffic volumes.
- Traffic calming techniques should be used to slow traffic, particularly adjacent to schools, parks, compact neighborhoods, and public buildings.
- See **Figure 2.10, Collector**, for an illustrative example.

LOCAL STREETS

Local streets allow direct property access within residential and non-residential areas. Through-traffic and excessive speeds should be discouraged by using appropriate geometric designs, traffic control devices, and traffic calming techniques. Local streets typically comprise about 65 to 80 percent of the total street system.

TRAFFIC VOLUMES

Mont Belvieu is in a position where examining the existing conditions and capacity of its street system will provide a much need foundation in decision making for future thoroughfare improvements.

Table 2.6, Street Network Level of Service and **Map 2.7, Street Network Level of Service** provide the information on existing road capacity and future road capacity demand. The road capacity is measured in terms of annual average daily traffic (AADT), and the information was provided by the Texas Department of Transportation (TxDOT). The four points for assessment look at the existing roadway capacity, 2013 AADT, 2033 estimated AADT, and future land use AADT. The 2013 assessment and 2033 estimate were determined by information collected and provided by TxDOT. The future land use AADT was developed by using the designations from **Map 5.2, Future Land Use Plan** and a corresponding trip generator coefficient for types of land uses.

The information displayed in **Table 2.6, Street Network Level of Service** and **on Map 2.7, Street Network Level of Service** shows that there are five different roadway segments where future land use AADT will exceed the existing roadway capacity.

- **F.M. 3360:** This roadway segment is currently a two lane road and will exceed its existing roadway capacity based on the future land use AADT projection. The right-of-way (ROW) necessary for roadway expansion is in place for much of F.M. 3360. This section of roadway will ultimately be an extension of Eagle Drive and the designated ROW of 120 feet will allow for much of the same planting and streetscape improvements.

FIGURE 2.7 MAJOR ARTERIAL

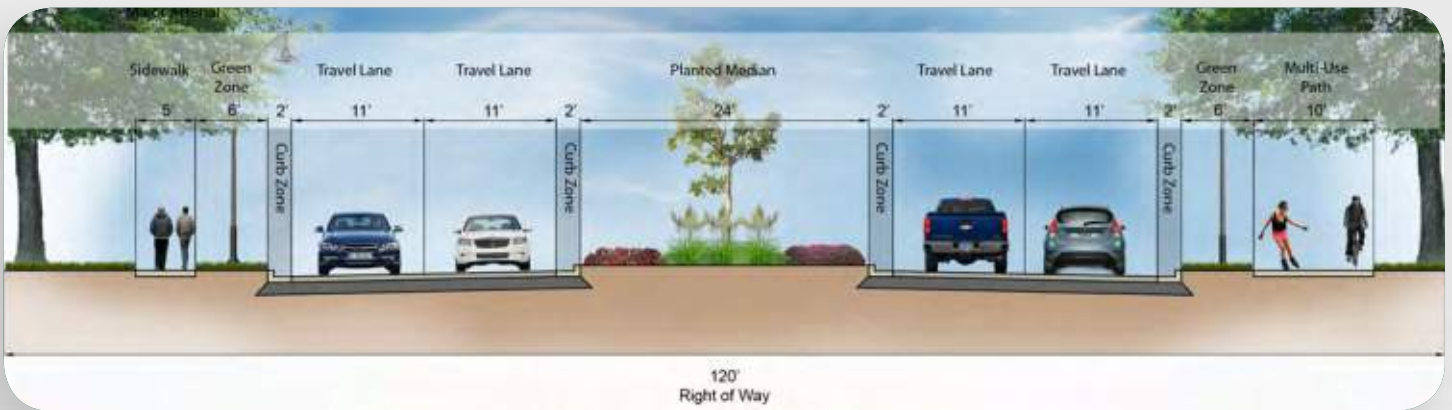


FIGURE 2.83 MINOR ARTERIAL

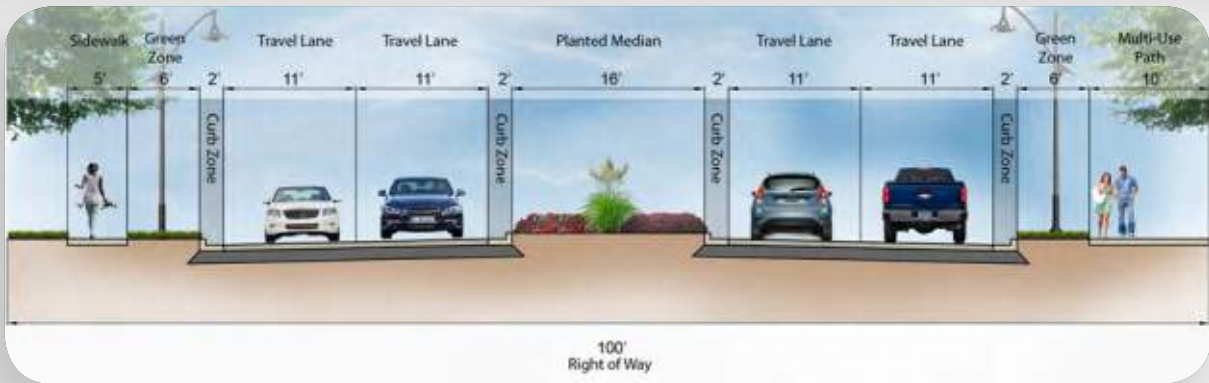


FIGURE 2.9 COLLECTOR (WITH PLANTED MEDIAN)

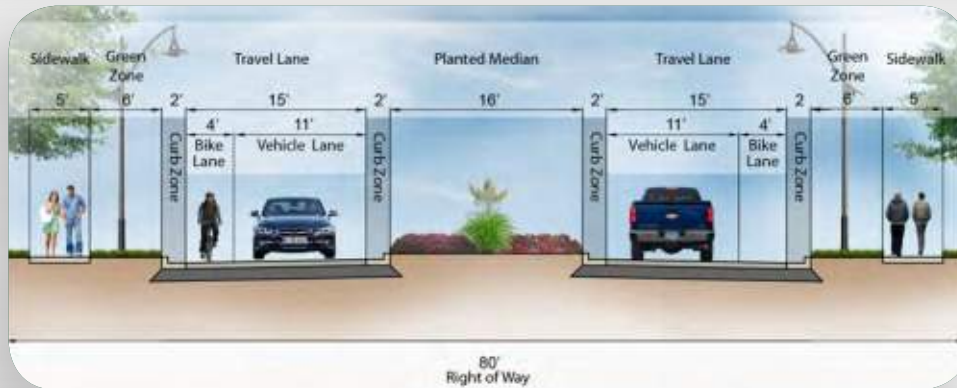
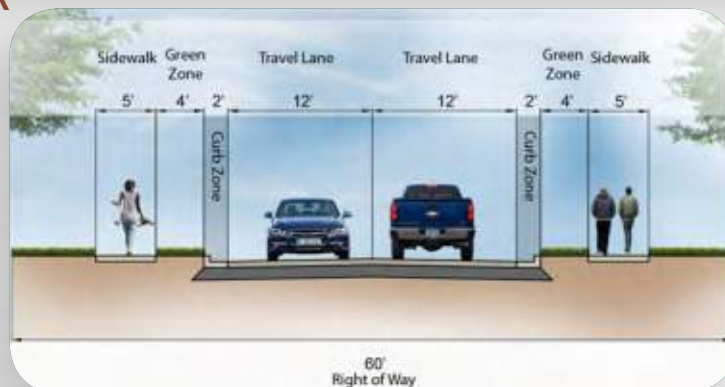


FIGURE 2.10 COLLECTOR





- *F.M. 565*: This road segment has ROW that is currently 70 feet. This distance is not enough for roadway expansion, as Major Arterial specifications call for 120 feet of ROW. Additionally, this road is to be extended 1/4 of a mile to directly intersect with S.H. 146. Construction on this improvement is to be completed in 2016.
- *F.M. 1942*: This is a two lane road that serves as points of access for the industrial properties and a western connection into the City. The road segment ROW ranges between 70 feet and 80 feet. This limited space, as well as the areas existing pipelines and industry infrastructure, provide challenges to adding capacity to meet future land use AADT demands.
- *S.H. 146*: This is the only road segment that exceeds its 2033 AADT estimate in addition to the future land use AADT. This segment of road will be dealt with in more detail as part of the SH 146 Corridor Revitalization Plan.
- *Rights-of-Way*. The major thoroughfare rights-of-way that are suggested in **Table 2.5, Major Thoroughfare Plan Classification Characteristics** are minimums. The inclusion of right-of-way widths within the table should not be interpreted as absolute –and are only intended to provide the City with a minimum dimension for purposes of future right-of-way reservation or dedication. Depending on the street cross-section desired by the City, wider rights-of-way may be necessary.
- *Continuation and Projection of Streets*. In accordance with the policies and recommendations of this Plan, existing streets should be continued in adjacent areas. When an adjacent area is undeveloped, the street layout must provide for future projection and continuation of streets into the undeveloped area. In particular, the arrangement of streets in a new subdivision must make provision for continuation of right-of-way for the principal existing streets in adjoining areas – or where new streets will be necessary for future public requirements on adjacent properties that have not yet been subdivided.

INTERPRETATION OF RECOMMENDED POLICIES

The thoroughfare descriptions presented in **Table 2.5, Major Thoroughfare Plan Classification Characteristics**, are guides. Mont Belvieu may exercise discretion on a case-by-case basis in the manner that recommended major thoroughfare components are applied to new development – provided such decisions do not conflict with adopted local ordinances. The City may also use Major Thoroughfare plan strategies to promote its position regarding thoroughfare projects on highways and streets that may be owned and maintained by a different government jurisdiction or authority, but are within or in close proximity to the City.

At minimum, Mont Belvieu should consider the following when applying major thoroughfare strategies:

- *Major Thoroughfare Map Alignments*. The street rights-of-way depicted on the Major Thoroughfare Map illustrate general alignments necessary to adhere to the spacing recommendations listed in **Table 2.5, Major Thoroughfare Plan Classification Characteristics**. The City may adjust alignments where necessary to account for topographic constraints, timing of development, or other factors that may only become apparent as development occurs.
- *Retro-Fitting Existing Thoroughfares*. The dimensional constraints of existing thoroughfare rights-of-way may make future adherence to the standards on **Table 2.5 Major Thoroughfare Plan Classification Characteristics**, impractical. The City may opt to alter recommended dimensions, or eliminate recommended facilities in limited instances, where additional right-of-way cannot be acquired to accommodate all recommended thoroughfare elements. Exceptions for retro-fitting of existing thoroughfares must be clearly stated in the City's development regulations.
- *Frontage Roads*. The Major Thoroughfare Plan presumes that the entire length of the Interstate will include 10 frontage roads collectively designed to serve as arterial thoroughfares. The Grand Parkway, however, will be without frontage roads for all of segments H and I-1.
- *Collector Streets*. Collector streets must be shown on all proposed subdivisions of land consistent with the Major Thoroughfare Plan. In cases where a collector is not shown on the Major Thoroughfare Plan, but is warranted due to development density and projected traffic volumes, it must also be shown. Mont Belvieu should also consider the development of a "neighborhood collector" street type in both urban and suburban character class areas which

allows a greater degree of direct residential access while still serving their role of distributing traffic to arterial thoroughfares.

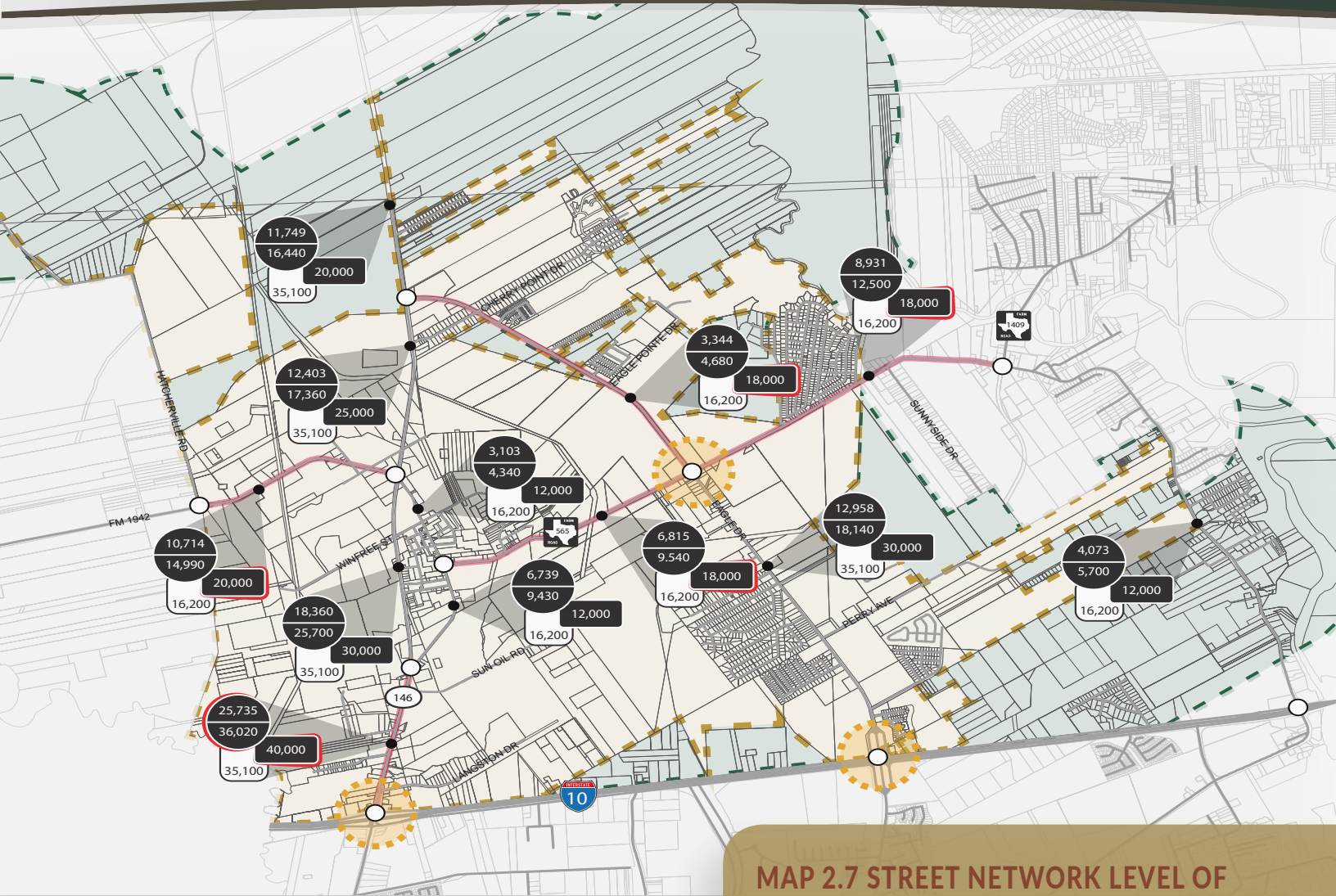
- **Rural Street Segments.** The Major Thoroughfare Plan however does not propose arterial or collector thoroughfares with open ditch cross-sections. The development of open ditch streets should not be precluded in rural areas of the City, so long as the necessary ROW to contain the entirety of the needed road improvements.
- **Intersections.** New intersections within or bordering a subdivision should align with existing intersections to avoid creation of jogs or offsets, and to provide for continuity of existing streets - especially collector and arterial streets. The angle of intersecting streets should be as nearly at a right angle as possible. Corner cutbacks or radii should be required at the acute corner of the right-of-way line to provide adequate sight distance at intersections.
- **Cul-de-Sacs.** Through-streets and T-intersections are preferable to cul-de-sacs. Care should

be taken so as not to over utilize cul-de-sacs, which limits through-access, restricts pedestrian circulation, increases emergency response times, and confuses motorists. When cul-de-sacs must be used, they should have a maximum length of not more than 600 feet measured from the connecting street centerline to the end of radius point. Pavement diameter in all residential areas should be 50 feet with a right-of-way diameter of 60 feet, and should include a landscaped island. Pavement and right-of-way diameters in nonresidential areas could be larger, but should not exceed 80 feet of pavement and 100 feet of right-of-way.

- **Industrial Streets.** Some thoroughfare segments may convey, or be intended to convey, a high percentage of trucks and heavy vehicles to support industrial, resource extraction, or warehousing uses. Any of the major thoroughfare types listed in **Figure 2.7** through **Figure 2.10** may be modified to enable the street segment to serve heavy vehicle traffic.

TABLE 2.6 STREET NETWORK LEVEL OF SERVICE

Roadway	Segment	# of Existing Lanes	Roadway Capacity	2013 AADT (TxDOT)	2013 % of Capacity	2033 Estimated AADT (TxDOT)	2033% of Capacity	Future Land Use AADT	Future Land Use % of Capacity
S.H. 146	I-10 to Hwy 207	4	35,100	25,735	73%	36,020	103%	40,000	114%
S.H. 146	Hwy 207 to F.M. 142	4	35,100	18,360	52%	25,700	73%	30,000	85%
S.H. 146	F.M. 1942 to F.M. 3360	4	35,100	12,403	35%	17,360	49%	25,000	71%
S.H. 146	North of F.M. 3360	4	35,100	11,749	33%	16,440	47%	20,000	57%
F.M. 1942	West of Hwy 146	2	16,200	10,714	66%	14,990	93%	20,000	123%
S.H. 207	Hwy 146 to F.M. 565	2	16,200	6,739	42%	9,430	58%	12,000	74%
S.H. 207	F.M. 565 to Hwy 146	2	16,200	3,103	19%	4,340	27%	6,000	37%
F.M. 565	Hwy 207 to Eagle Dr	2	16,200	6,815	42%	9,540	59%	18,000	111%
F.M. 565	Eagle Dr to F.M. 1409	2	16,200	8,931	55%	12,500	77%	18,000	111%
F.M. 565	F.M. 1409 to I-10	2	16,200	4,703	25%	5,700	35%	12,000	74%
F.M. 3360	Hwy 146 to F.M. 565	2	16,200	3,344	21%	4,680	29%	18,000	111%
Eagle Dr	F.M. 565 to I-10	4	35,100	12,958	37%	18,140	52%	30,000	85%



MAP 2.7 STREET NETWORK LEVEL OF SERVICE

- Geometric Design Standards and Guidelines.** Other requirements and guidelines for the geometric design of thoroughfares and public streets should be provided in either the subdivision regulations or design requirements. Duplicative standards referenced in more than one document may conflict over time. Subdivision regulation standards should focus on general dimensional standards related to laying out the street network (rights-of-way, pavement widths, location of sidewalks, etc.), while the design standards should focus on construction standards such as cross sections, sub-grades, pavement thickness, cross slopes, etc.
- Major Thoroughfare Plan Amendments.** All amendments to the Major Thoroughfare Plan resulting in the mapped realignment of an arterial or collector street shall be approved by resolution of the Mayor and City Council only following a public hearing and a review and recommendation of the Planning Commission. Minor realignments that, in the opinion of the City, do not require an amendment to the Major Thoroughfare Plan shall not require a public hearing or resolution of the Mayor and City Council.

2013 AADT

2033 ADT Estimate

Current Capacity

Future Land Use AADT

Intersection Improvement Needed

Exceeds Capacity

Road Segment Delineation

City Boundary

ETJ Boundary



ACCESS MANAGEMENT

Access Management is the coordination between land access and traffic flow. Its basic premise is to preserve and enhance the performance and safety of the major street system. It manages congestion on existing transportation facilities and protects the capacity of future transportation systems by controlling access from adjacent development. If properly utilized, access management improvements can eliminate or minimize the need for street widening or right-of-way acquisition.

Techniques to accomplish access management include limiting and separating vehicle (and pedestrian) conflict points, reducing locations that require vehicle deceleration, removing vehicle turning movements, creating intersection spacing that facilitates signal progression, and providing on-site ingress and egress capacity. In addition, regulation focuses on the spacing and design of driveways, street connections, medians and median openings, auxiliary lanes and transit facilities, on-street parking and parking facilities, on-site storage aisles, traffic signals, turn lanes, freeway interchanges, pedestrian and bicycle facilities, bus stops, and loading zones.

The following access management strategies may be used to coordinate the access needs of adjacent land uses with the function of the transportation system.

- *Intergovernmental coordination.* Access management is most effective as a regional strategy that would involve Chambers and Liberty Counties and TxDOT in the design and construction of area roadways. Through coordinated efforts, access management can even further add to the efficiency of local thoroughfares (refer to the TxDOT Access Management Manual for more information).
- *Separate conflict points.* Two common conflict points are driveways and adjacent intersections. Spacing driveways so they are not located within the area of influence of intersections or other driveways is a method to achieve access management objectives.
- *Restrict turning movements at non-signalized driveways and intersections.* Full movement intersections can serve multiple developments through the use of joint driveways or cross access easements. Turning movements can be restricted by designing accesses to limit

movements or by the construction of raised medians that can be used to provide turn lanes.

- *Review design standards.* Design standards within the Subdivision Ordinance addressing the spacing of access points, driveway dimensions and radii, sight distance, and the length of turn lanes and tapers are effective mechanisms for managing the balance between the movement of traffic and site access.
- *Locate and design traffic signals to enhance traffic movement.* Interconnecting and spacing traffic signals to enhance the progressive movement of traffic is another strategy for managing mobility needs. Keeping the number of signal phases to a minimum can improve the capacity of a corridor by increasing green bandwidth by 20 seconds.
- *Remove turning vehicles from through travel lanes.* Left- and right-turn speed change lanes provide for the deceleration of vehicles turning into driveways or other major streets and for the acceleration of vehicles exiting driveways and entering major highways.
- *Encourage shared driveways, unified site plans, and cross access easements.* Joint use of driveways reduces the proliferation of driveways and preserves the capacity of major transportation corridors. Such driveway arrangements also encourage sharing of parking and internal circulation among businesses that are in close proximity.

TRANSPORTATION STRATEGIES

A well-managed and maintained transportation system is important for ensuring a safe system that is enjoyable by all users. With the City's limited resources, roadways and other transportation improvements should be carefully balanced with basic maintenance of the existing systems of travel.

Mobility issues will continue to be a challenge for Mont Belvieu, especially as the City expands development into areas that are undeveloped. Based on the concerns and hopes expressed by residents, public and private leaders, and key community stakeholders and investors — Mont Belvieu should consider adhering to basic principles set forth in this chapter.



STRATEGY 2.1: *Develop the tools to identify and monitor land use demands based on projected population growth.*

Actions and Initiatives

- 1) **Coordinated Planning.** Ensure that the strategies and actions of this Comprehensive Plan carry through to the City's development and redevelopment plans. The City's Comprehensive Plan updates should include provisions that relate directly to the City's *Future Land Use Map*, Capital Improvements Program (CIP); and the programs and projects of municipal departments, including Public Works, Public Safety, Parks and Recreation, and Community Development.
- 2) **Promote Zoning Integrity.** Guard against Zoning Map amendments that, cumulatively, can lead to extensive residential development in growth areas without adequate land reserves for a balance of commercial, public, educational and recreational uses.
- 3) **Monitor Trends.** In conjunction with periodic reviews of the Comprehensive Plan, identify market shifts that could have implications for desired housing types, retail or other commercial offerings, and particular public service and recreational needs. Also monitor actual population and development trends and various community indicators (e.g., traffic counts and collision frequency, roadway and intersection capacities, police and fire call volumes and response times, storm drainage volumes and rates in key locations, floodplain changes, water quality parameters, etc.) to detect any growth-related impacts of concern.
- 4) **Evaluate likely population-dependent thresholds for public facilities and services.** At some point in the future, population demands may approach the desired capacity of important public facilities and services, whether it is water and wastewater systems, roadways, parks, or schools. Generally, the difference between the established threshold and the existing level of service is the amount available for development. These thresholds will need to be determined as part of a feasibility determination when considering annexation.

- 5) **Traffic Impact Analyses.** Protect road capacity and safety by strengthening requirements for traffic impact analyses when proposed developments exceed a designated size or projected trip generation. Provisions for analysis and potential mitigation should be extended to significant single-family residential developments.
- 6) **Specific Approval for Development.** Approve only those development proposals that are consistent with the growth management principles brought forward in this plan.
- 7) **County Coordination.** Coordinate with Chambers County and Liberty County to achieve uniform development standards for future growth in the City of Mont Belvieu's extraterritorial jurisdiction (ETJ).

STRATEGY 2.2: *Build community consensus around a preferred character for future growth and development by establishing a series of growth covenants that will promote a responsible urban form of varying densities, including, but not limited to the following provisions:*

Actions and Initiatives

- 8) **Encourage more compact development that maximizes investment in active transportation infrastructure** (e.g., sidewalks and recreational trails) and minimizes the need to drive.
- 9) **Integrate local neighborhood uses** — housing, shops, workplaces, schools, parks, civic facilities — within walking or bicycling distance.
- 10) **Create human-scaled development that is pedestrian-friendly.**
- 11) **Encourage development patterns that respect natural systems, such as watersheds and wildlife corridors.**
- 12) **Use local materials and native plants in facility design to reduce transport distances and maintenance.**
- 13) **Guide development to areas with existing or readily available infrastructure and minimize development in outlying, undeveloped areas.**



Strategy 2.3: *Plan upgrades to water transmission infrastructure to ensure adequate delivery of potable water to residents and commercial/ industrial water users.*

Actions and Initiatives

- 14) To meet the demands of the expected population growth of the City by 2035, the City of Mount Belvieu will need to add an additional 3,573 gpm in water supply capacity. At the time of this report, the additional capacity required for booster pumps could not be determined.
- 15) The existing waterlines shall be assessed to determine condition. As a result of the assessment, a plan shall be implemented to address any portions of the systems that are near the end or have reached the end of their lifecycle.
- 16) If any waterlines exist within the limits of a roadway right-of-way planned for reconstruction, the waterline and its appurtenances shall be assessed for rehabilitation or replacement at the time the roadway is designed. This presents an opportunity to upsize the line to provide a higher level of service that might be necessary to support growth.
- 17) Determine where overlap may exist between the City's current CIP and the water deficient service areas. Combine proposed projects to make the best use of funding for each project.
- 18) Prioritize the areas that have deficient water supply based on the location of developments that are already permitted for construction.
- 19) Conduct a study to understand the condition of the water supply to meet future needs of population growth as well as the long-term viability of the water supply. Look at alternative supply options as well. Understand the existing water rights and availability of future water rights to facilitate growth for surface water opportunities. Understand the water rights available to the City for future use of surface water as a water source. Understand the long-term implications of using groundwater as water supply.

Strategy 2.4: *Ensure adequate transmission and treatment of the City's wastewater infrastructure.*

Actions and Initiatives

- 20) The existing sanitary sewer system should be assessed to determine their condition. As a result of the assessment, a plan shall be implemented to address any portions of the systems that are near the end or have reached the end of their lifecycles.
- 21) Perform an inflow and infiltration (I&I) study of the sanitary sewer collection system identifying existing sanitary sewer pipe and concrete man-holes throughout the system. This study would identify areas of the system that need to be replaced and would help in overall operation of the sewage collection system. Consideration for replacement will allow the infiltration and inflow to be minimized although not fully eliminated.
- 22) Determine where overlap may exist between the City's current Capital Improvements Plan and the wastewater deficient service areas. Combine proposed projects to make the best use of funding for each project.
- 23) Evaluate the possibility of installing a reclaimed water system. The reclaimed water system can be used to irrigate public parks and open spaces throughout the City, or process water to industries. This would reduce the City's potable water usage and reduce the flow of contaminants (amount) discharged into Cotton Bayou.
- 24) Monitor the concentrations of phosphorus, as some local utilities have had this constituent added to their permits. Although the City's discharge permit does not expire until 2018 the City should be begin to prepare for more stringent discharge limits.



Strategy 2.5: *Plan water and sewer improvements for areas likely to grow over the next 20 years.*

Actions and Initiatives

- 25) Evaluate sanitary sewer system or force mains within the limits of a roadway right-of-way planned for reconstruction, the line and its appurtenances shall be assessed for rehabilitation or replacement at the time the roadway is designed. This presents an opportunity to upsize the line to provide a higher level of service that might be necessary to support growth.
- 26) Prioritize the areas that have deficient sanitary service based on the location of developments that are already permitted for construction.

Strategy 2.6: *Adopt low-impact development (LID) strategies, tools and techniques to reduce throughput and consumption of freshwater resources and address drainage issues.*

The City will partner with H-GAC to review City ordinances that encourage use of LID.

Strategy 2.7: *Ensure effective collection and discharge of storm water.*

Actions and Initiatives

- 27) Evaluate existing MDP and amend as needed to include sections of the City and ETJ that are not studied as part of the MDP. Discussion should include the costs and benefits of open ditch systems versus closed conduit system, detention needs and extreme event analysis.
- 28) Use a context sensitive analysis to evaluate the feasibility of developing a constructed wetland to treat storm water. A linear wetland may be possible along some portions of the proposed multi-use trail with deep ponds established at appropriate sites at each drainage basin.
- 29) Implement a maintenance plan of the existing open-ditch storm water conveyance system to regularly maintain the ditches and clear debris from the culverts to ensure maximum conveyance.
- 30) Consider a more stringent ordinance requiring higher "lowest floor elevations" relative to determined flood water surface elevations connection.

Strategy 2.8: *Provide for the ongoing needs of the Police Department to ensure adequate protection of the population.*

Actions and Initiatives

- 31) Establish a staffing level of service standard and periodically review the Police Department's personnel needs and hire additional officer and support staff to accommodate increased calls for service concurrent with population growth.
- 32) Establish a facility square foot per officer standard and prepare a program, schedule and budget for the design, construction and land acquisition for the eventual space needs of the Department.
- 33) Prepare a program, schedule and budget for the design, construction and land acquisition for the eventual expansion of the municipal holding facility.

Strategy 2.9: *Continue to maintain interlocal / joint agreements with other departments, agencies and institutions to provide effective policing services and crime prevention programs.*

Actions and Initiatives

- 34) Continue to maintain Memoranda of Understanding (MOUs) with the Baytown Police Department and the Chambers County Sheriff's office.
- 35) Continue to maintain agreements with area police departments to ensure adequate training facilities are available.





Strategy 2.10: *Continue to provide effective community-based, crime prevention programs, at little to no cost to area residents.*

Actions and Initiatives

- 36) Continue to pursue grant opportunities (e.g., the Texas Department of Transportation's Selective Traffic Enforcement Program (S.T.E.P.), among others, so that additional public safety programs can be provided at minimal cost to taxpayers).
- 37) Continue to actively participate in community engagement and provide community-based crime prevention programs currently in place.
- 38) Coordinate with the Community Development Department to implement CPTED strategies.
- 39) Coordinate with the Community Development Department to participate in the development review process for subdivision and commercial developments.

Strategy 2.11: *Provide for the ongoing needs of the Fire Department to ensure adequate protection of the population.*

Actions and Initiatives

- 40) Continue to pursue improvement regarding the City's Insurance Services Office (ISO) rating within the City limits and ETJ. While the City's current rating is very good, lowering it would result in reduced insurance rates in addition to the benefits of improved response and, thus, the increased protection of life and property.
- 41) Establish a staffing level of service standard and periodically review the Fire Department's personnel needs and hire additional firefighters and support staff to accommodate increased calls for service concurrent with population growth.
- 42) Establish a facility square foot per personnel standard and prepare a program, schedule and budget for the design, construction and land acquisition for the related skills and departmental capabilities.
- 43) Periodically review the Fire Department's personnel needs and ability to accommodate increased calls for service concurrent with population growth.

44) Evaluate site location for the proposed Fire Station No. 2 in accordance with acceptable response times and coverage areas.

45) Continue Fire Department participation in the City's plan review process so that water supply and other emergency response considerations are incorporated into plans and plats for new development/ redevelopment.

46) To keep pace with state-of-the-art fire rescue technology and capabilities, continue the formalized replacement and procurement program for vehicles and equipment that is informed by the current 2012-2017 five-year plan. At a minimum, this should include a replacement schedule as follows:

- » Engines - 18 years;
- » Ladder Trucks - 18 years; and
- » Command Vehicles - 8 years.

47) Participate in the City's plan review process so that water supply and other emergency response considerations are incorporated into plans and plats for new development/redevelopment.

STRATEGY 2.12: *Commission and prepare sub-area traffic models for developing areas.*

Actions and Initiatives

48) Utilize traffic analysis zone information, assumed land uses, estimated population, basic/non-basic/service employment projections, and other similar data sets to model estimated sub-area traffic volumes and highway levels of service.

49) Utilize modeling data to determine build-out potential of sub-areas within the municipal boundaries and ETJ.

50) Adopt an "adequate public facilities" ordinance for modeled sub-areas that caps development until necessary capacity improvements are made by the City or private parties.



STRATEGY 2.13: *Base the preparation of traffic impact analyses on proposed land uses, density, and intensities rather than site acreage.*

Actions and Initiatives

- 51) Modify Chapter 32, *Subdivisions*, of Mont Belvieu's City Code (and other associated development regulations) to establish thresholds, based on potential vehicle trips generated, under which the preparation of a traffic impact analysis will be required by the City.
- 52) Utilize traffic impact analysis results to determine not only the type and location of streets that must be constructed to accommodate the proposed development, but also other site improvements, such as number and location of driveways, turn lanes, etc.
- 53) Extend traffic impact analysis requirements from subdivisions to individual development plats. Include development provisions that allow the City to deny or delay building permits or certificates of occupancy, if an individual development plat or site plan does not conform to land use, intensity, or density declarations incorporated into previously approved traffic impact analyses.

STRATEGY 2.14: *Adopt comprehensive access management provisions.*

Actions and Initiatives

- 54) Adopt an access management ordinance that provides requirements for driveway spacing, driveway design, and common access to development parcels.
- 55) Calibrate access management requirements to ensure that spacing requirements do not prohibit the redevelopment of individual lots or other tracts on collector and major thoroughfare (arterial) streets that bisect older residential areas. Modify minimum lot frontage requirements on collector and major thoroughfare (arterial) streets accordingly.
- 56) Modify major thoroughfare (arterial) street requirements to require divided medians in all instances.

STRATEGY 2.15: *Promote connectivity within Mont Belvieu through enhancing the active transportation network.*

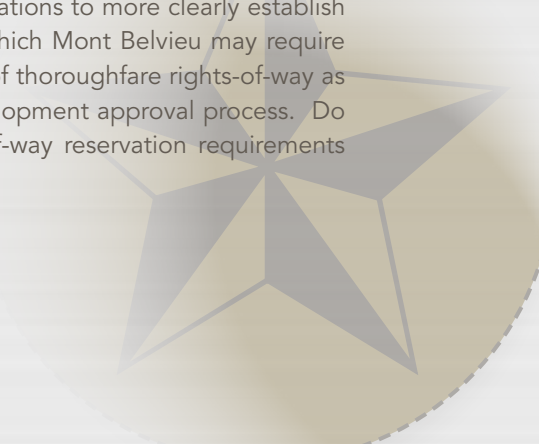
Actions and Initiatives

- 57) Implement the recommendations from the Mont Belvieu Trails Master Plan. Create a specific fund for on-street facilities and off-street facilities - including a trails, streetscape furnishings and greenways network. Coordinate with adjacent and regional jurisdictions to promote regional connectivity.
- 58) Modify the purpose of the Mont Belvieu Sidewalk Plan. Rather than illustrating only those arterial and collector street segments where streets should be constructed, allow the plan map to represent street segments where sidewalk construction should be prioritized.

STRATEGY 2.16: *Amend City land development regulations to incorporate street standards consistent with the recommendations of the Major Thoroughfare Plan.*

Actions and Initiatives

- 59) Incorporate suggested Major Thoroughfare Plan street type modifications into City land development regulations and design standards. Amend City subdivision regulations to provide for corresponding minimum right-of-way widths and corresponding travel lane widths, planting strips, pedestrian facilities and miscellaneous improvements. Vary the standards according to the context of the area and provide a method to incorporate other street elements including, but not limited to: bicycle facilities, curb extensions, traffic calming features, medians, crosswalks, etc.
- 60) Amend the standards within the City's land development regulations to more clearly establish the criteria by which Mont Belvieu may require the reservation of thoroughfare rights-of-way as part of the development approval process. Do not limit right-of-way reservation requirements to subdivisions.





Sidewalks are ineffective if they do not create a continuous path to nearby destinations.

Source: Kendig Keast Collaborative



The community trail system should connect neighborhoods to nearby destinations.

Source: Kendig Keast Collaborative

- 61) Amend Chapter 32, Subdivisions, of Mont Belvieu’s City Code, to address street network location, expansion and alignment. Include amended or new standards on intervals between thoroughfare type, standards for street extension, and minimum interconnectivity requirements.
- 62) Incorporate a provision into Chapter 32, Subdivisions, of Mont Belvieu City Code allowing the City to require/permit the conversion of street segments in downtown and center City neighborhoods to an urban character class type.

STRATEGY 2.17: *Coordinate with adjacent local government jurisdictions and state agencies to amend route designations to be consistent with the recommendations of the Major Thoroughfare Plan.*

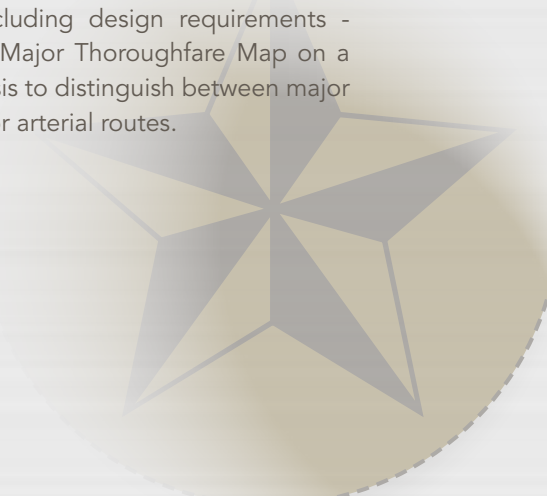
Actions and Initiatives

- 63) Where necessary, work with Liberty County, Chambers County, and TxDOT to adjust route alignments and designations to conform with the Mont Belvieu Major Thoroughfare Plan.
- 64) Convene discussions with adjacent municipal jurisdictions to ensure consistency of local major thoroughfare plans.

STRATEGY 2.18: *Calibrate major thoroughfare recommendations through sub-area traffic modeling.*

Actions and Initiatives.

- 65) Utilize traffic analysis zone information, assumed land uses, estimated population, basic/no-basic/service employment projections, and other similar data sets to model estimated sub-area traffic volumes and highway levels of service.
- 66) Compare modeling data to major thoroughfare classification and spacing recommendations contained in the Major Thoroughfare Map to determine final dimensions and essential components of the traveled way such as right-of-way widths, number of travel lanes, and median separations.
- 67) Develop a minor arterial street classification for Chapter 32, Subdivision, of Mont Belvieu City Code - including design requirements - and amend the Major Thoroughfare Map on a case-by-case basis to distinguish between major arterial and minor arterial routes.



CHAPTER 3 :

LIVE AND WORK

Chapter 3, *Live and Work*, evaluates the economic health of the City, through a lens that examines labor force, employment opportunities, and commercial services. The evaluation looks at patterns of household composition and captures a picture of the existing housing stock. This chapter then identifies the actionable steps necessary to encourage the appropriate makeup of the employment, businesses, and housing needs to accommodate the future needs of Mont Belvieu's population. Some initial conclusions discussed in this chapter help to establish a framework for future land use considerations discussed at great length in Chapter 5.

LIVE

GUIDING PRINCIPLES

The following principles will inform the development of recommended strategies, actions, and initiatives for accomplishing the mentioned goals.

Principle: Support initiatives to develop fair and equitable housing within neighborhoods throughout the City.

Principle: Foster the development of housing typologies and neighborhoods that support every stage of life.

Principle: Promote neighborhood design that allows for multi-modal connectivity between residential and commercial areas, parks, and open space.

Principle: Promote a neighborhood environment that fosters safety and social well-being of its residents, and preserves sensitive natural areas.

Principle: Diversify the local economic base.

Principle: Create quality environments that support live and work.

Principle: Stimulate retail opportunities.



BIG IDEAS FOR THE FUTURE

"Restaurants, antique stores, art gallery..."

"Designated area for merchants..."

"Trade days for the park...where small businesses could set up booths and sell their goods and services."

"Assisted living and a 55 plus community..."

"Custom home lots and major builders to offer homes at various price points within the subdivision..."

"As the area grows, this [multi-family developments] will become a necessity."

**-Citizen responses to questions on
mySidewalk**



Principle: Develop an enhanced marketing program.

Principle: Encourage local entrepreneurship.



CURRENT HOUSING MARKET TRENDS AND CONDITIONS

NATIONAL HOUSING TRENDS

In planning for the City of Mont Belvieu’s future, current housing-related issues and demand must be understood through the lens of national housing patterns and trends, beginning with how the concept of ‘family’ has changed. Recent data released by the U.S. Census Bureau suggests that over the next few decades households will be evolving to accommodate more individuals, empty-nesters, and city-lovers; none of whom particularly want the big yards and long commutes. While there will still be a significant market for those things, it will equate to a smaller portion of the overall housing demand. According to Daniel Pimlott, in a 2008 Financial Times article, “demand for new homes on the outskirts of U.S. towns has fallen spectacularly...while foreclosures and speculative building have created a far greater supply of homes than there are buyers. At the same time, soaring fuel costs have made the long commute to work that much less attractive. The result is that farmland close to cities that has often been the seedbed for new housing developments is becoming less valuable to builders, at the same time as farmers want more of it.”¹

According to the National Association of Realtors’ 2011 Community Preference Survey, 58 percent of respondents indicated a preference for “a (blended) neighborhood with a mix of houses and stores and other businesses within an easy walk.”² As with many U.S. town and cities, the current mixture of housing on the ground – especially those built within the pre-recession time frame from 1975 to 2005 or so – doesn’t come close to matching the stated preference for walkable, mixed-use neighborhoods. The communities and businesses that take account of these emerging preferences for smaller homes and more pedestrian-focused neighborhoods will be the ones that are the most livable, and ultimately the most successful.

What appears to be surfacing is a diverse and changing array of household types and circumstances that smart planners, developers, and cities will seek



Source: Kendig Keast Collaborative

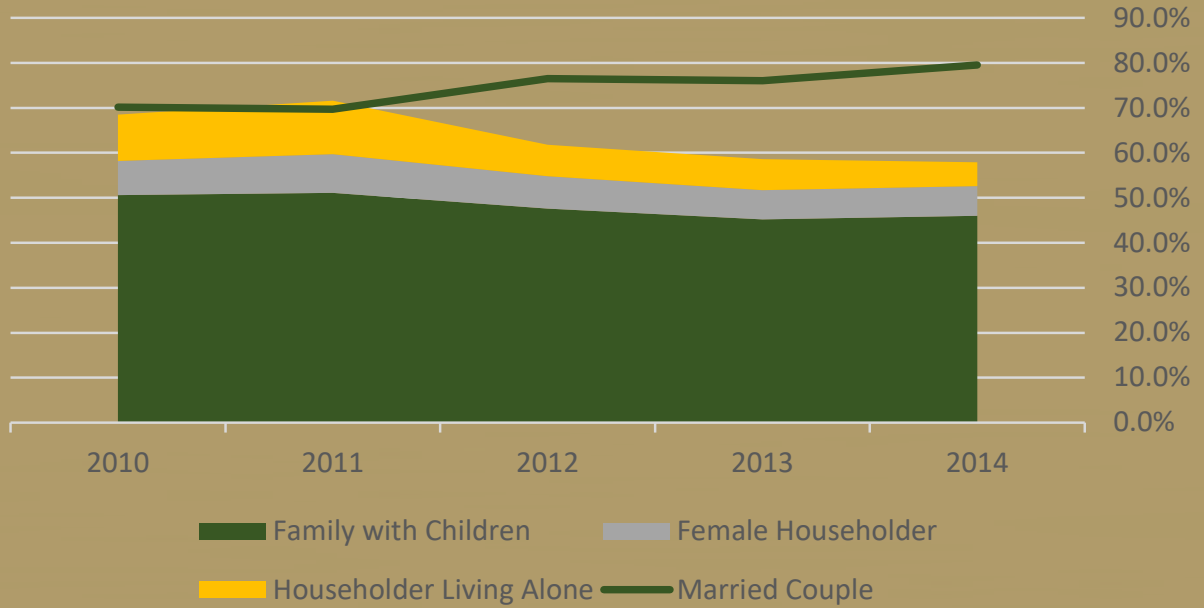
to accommodate. As the U.S. Census data reveals, the growing parts of the housing market are non-family households, smaller households including people living alone, unmarried couples, single-parent households with kids, and older households. The declining parts of the market are larger families, married couples, two-parent households, and couples with only one breadwinner, though each of these categories clings to a significant share of the total.³

As indicated in **Figure 3.1, Households by Type in Mont Belvieu**, in general, married-couple households have increased since 2010, rising from 69.7 percent to as high as 79.5 percent. Average owner-occupied household size has increased, from about 3.0 persons in 2010 to about 3.3 persons now. Renter-occupied households have also increased from about 3.1 persons to about 3.5 persons (refer to **Figure 3.2, Average Household Size in Mont Belvieu**).

1. Daniel Pimlott. “U.S. Builders forces to sell off holdings. Financial Times. July 18, 2008.
2. Kaid Benfield. “How the evolving housing market will help sustainable communities.” Switchboard Newsletter, Natural Resources Defense Council.
3. Kaid Benfield. “Meet the Modern American Family: What does it mean for Sustainability?” Switchboard Newsletter, Natural Resources Defense Council.

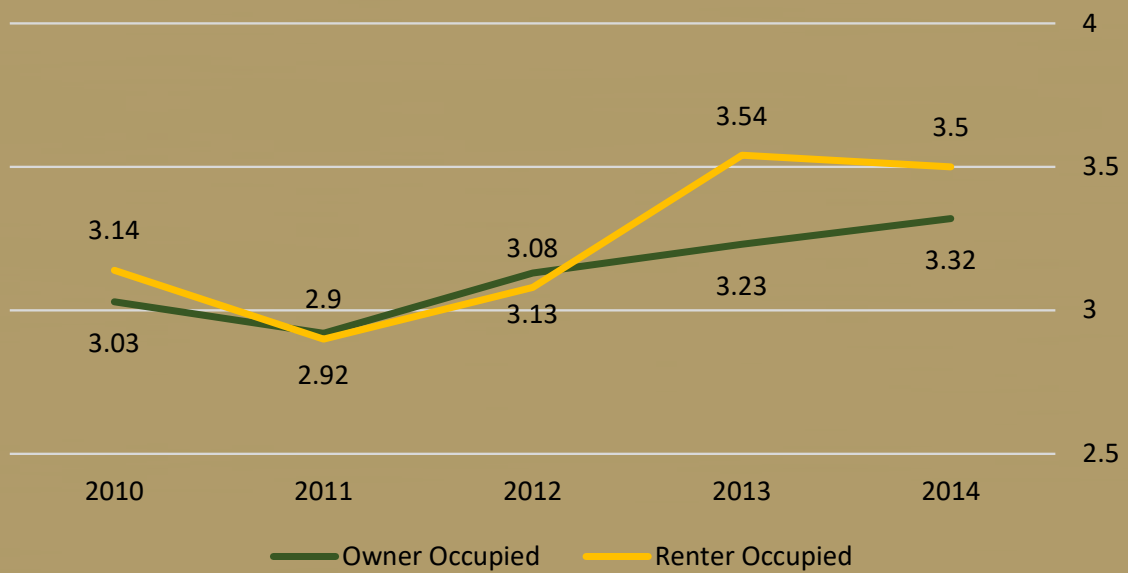


FIGURE 3.1, HOUSEHOLDS BY TYPE IN MONT BELVIEU



Source: US Census Bureau, ACS 2014

FIGURE 3.2, AVERAGE HOUSEHOLD SIZE IN MONT BELVIEU



Source: US Census Bureau, ACS 2014



DEMOGRAPHICS

The following indicators provide an overview of housing within Mont Belvieu. All data, unless otherwise noted, is referenced from the 2000 and 2010 U.S. Census Bureau and/or 2010-2014 American Community Survey, Three-year Estimates, which the U.S. Census Bureau conducts periodically between decennial census years, as noted.

Of Mont Belvieu's resident population, 97.9 percent were born in the United States, compared to the Texas state average of 82.2 percent. The estimated median age in Mont Belvieu in 2014 was 39.1 years, which is somewhat older compared to the statewide median (33.9 years). Also, less than the State of Texas as a whole was the percentage of households having one or more persons age 65 or older – 10.8 percent in Mont Belvieu and 19 percent statewide. Significantly, 46 percent of Mont Belvieu households had one or more persons under age 18, compared to the state average of 37.7 percent. Across the board, a higher portion of Mont Belvieu households are occupied by families with children.

HOUSING CHARACTERISTICS

The U.S. Census Bureau estimated that in 2010, Mont Belvieu had 1,426 total housing units, 91.7 percent of which were occupied (1,307 units) and 8.3 percent (119 units) were vacant. With respect to housing tenure, 80.9 percent (1,057 units) of the occupied housing units were owner-occupied and 19.1 percent (250) were renter-occupied. Based on the 2010-2014 American Community Survey (ACS), 2014 estimates, among homeowner-occupied units, the vacancy rate was estimated to be 6.5 percent, compared to 0 percent for rental units. According to the 2010 U.S. Census, the vacancy rate for homeowner-occupied units was 8.4 percent; and the rental vacancy rate was 54.6 percent. The data between the 2010 U.S. Census and 2010-2014 ACS reflects the presumption that housing vacancy will become increasingly scarce.

Table 3.1 and **Figure 3.3**, *Value of Existing Homes in Mont Belvieu*, show 2014 estimated values of owner-occupied units in Mont Belvieu. Approximately 85 percent of owner-occupied units are valued at \$300,000 and below. An increasing percentage (15.8 percent) of units are valued at over \$300,000. The median value of ownership-occupied units in 2014 was \$218,800.

TABLE 3.1, VALUE OF EXISTING HOMES IN MONT BELVIEU

Value	No. of Owner-Occupied Units (out of 983)	Percent
300,000 and above	156	15.8%
300,000 and below	827	84.1%
200,000 and below	403	40.9%
150,000 and below	134	13.6%
100,000 and below	67	0.7%

AGE OF HOUSING

The rapid growth in Mont Belvieu in recent years can be noted in the amount of housing and the year houses were constructed. **Figure 3.4, Age of Housing Stock**, illustrates the rapid growth of the past two decades in Mont Belvieu. Before 1970, only 106 housing units had been built in the City. In the following decade, that number of housing units more than doubled, adding an additional 224 units. The largest growth period was between 2000 to 2009, adding a total of 616 housing units (34.9 percent of the existing housing stock). Current development trends will put the 2010 to 2020 numbers well above the previous decade's building numbers.

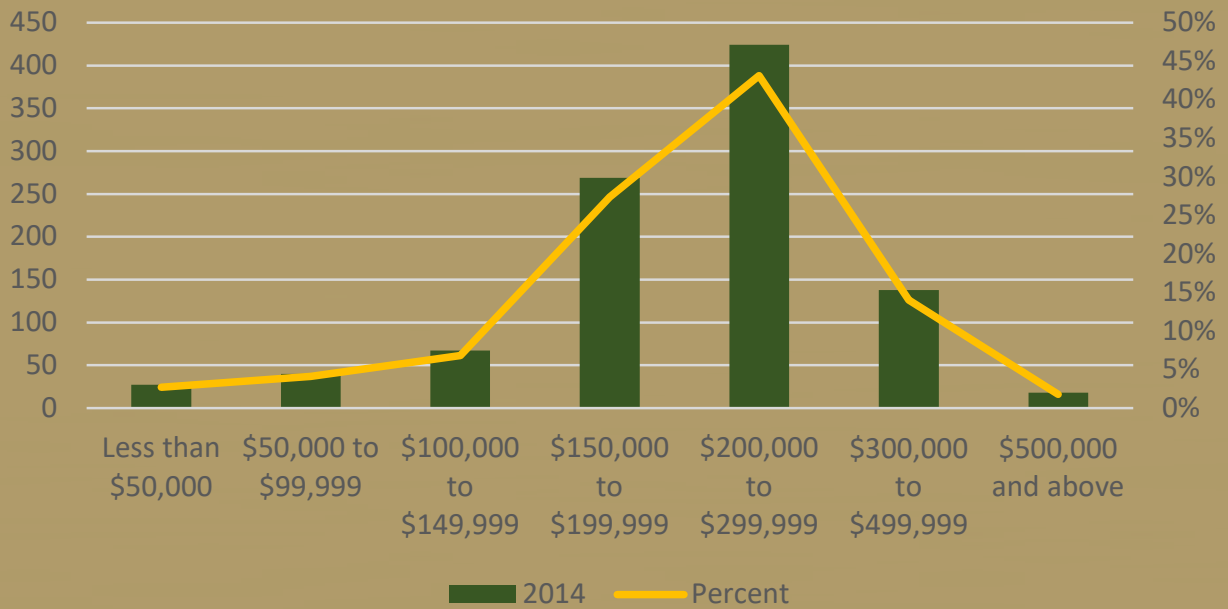
HOUSING AFFORDABILITY

The two essential factors in housing affordability are incomes and home prices in a market area. The following indicators capture various aspects of the income picture in Mont Belvieu:

- Income Comparison. The generally low cost-of-living environment in Mont Belvieu is reflected in area income levels. The estimated median household income is \$94,022, compared to \$52,576 statewide. Additionally, only 27.2 percent of local households and 23.6 percent of

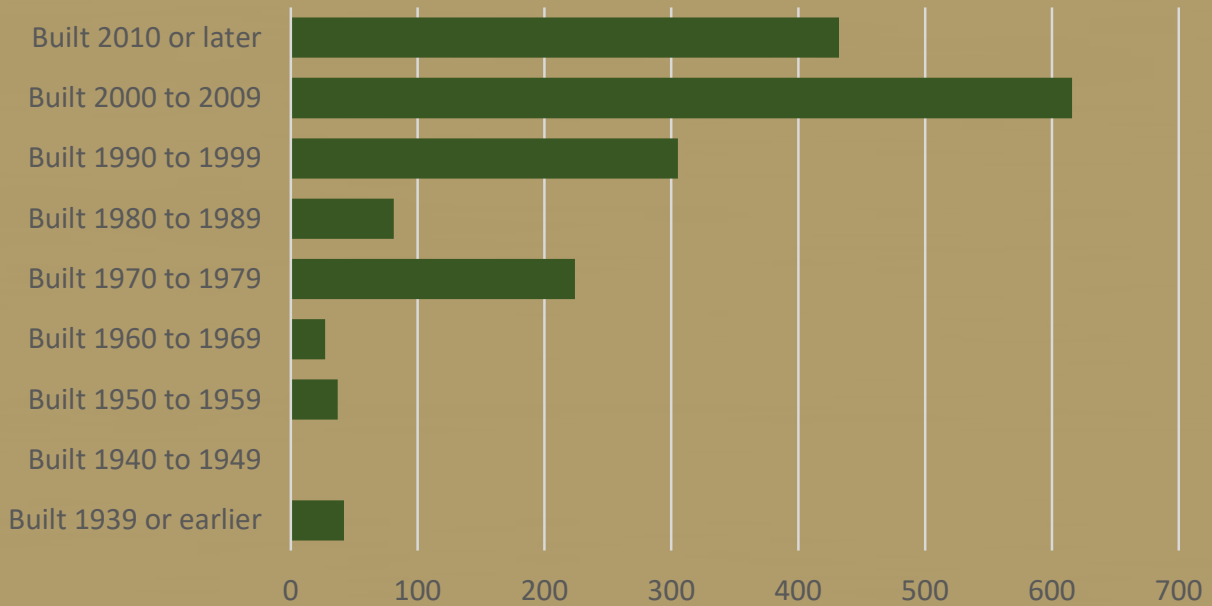


FIGURE 3.3, VALUE OF EXISTING HOMES IN MONT BELVIEU



Source: US Census Bureau, ACS 2014

FIGURE 3.4, AGE OF HOUSING STOCK



Source: US Census Bureau, ACS 2014



WHAT IS LIVABILITY?

LIVABILITY CAN BE DEFINED AS “THE SUM OF THE FACTORS THAT ADD UP TO A COMMUNITY’S QUALITY OF LIFE - INCLUDING THE BUILT AND NATURAL ENVIRONMENTS, ECONOMIC PROSPERITY, SOCIAL STABILITY AND EQUITY, EDUCATIONAL OPPORTUNITY, AND CULTURAL, ENTERTAINMENT AND RECREATION POSSIBILITIES.”

- PARTNERS FOR LIVABLE COMMUNITIES

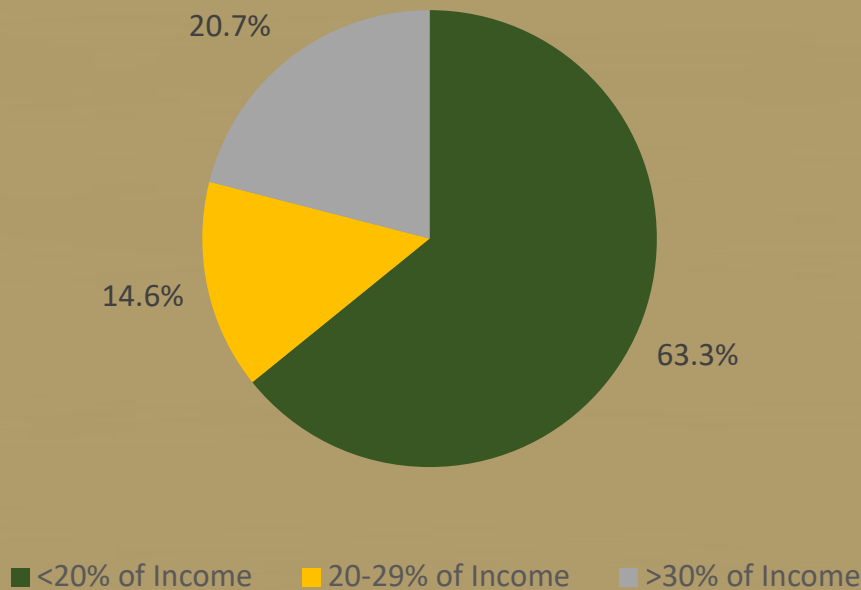
families had incomes below \$50,000 compared to 47.6 percent and 40.6 percent, respectively, for all of Texas. At the \$100,000 level, 44.5 percent of Mont Belvieu households and 48.1 percent of families were above this point versus 22.9 percent and 28 percent, respectively, for the State. Finally, 29.2 percent of households

and 31.5 percent of families in Mont Belvieu exceeded \$150,000 median income relative to 10 percent and 12.5 percent, respectively, statewide.

- Incidence of Poverty. According to the 2010-2014 American Community Survey, in Mont Belvieu, 7.4 percent of families and 8.8 percent of individuals are listed below the federally-defined poverty level; compared to 13.7 percent of families and 17.7 percent of individuals statewide.

A common way of gauging housing affordability is to consider monthly owner costs relative to household income. Shelter costs are typically considered excessive when they surpass 30-35 percent of household income. **Figure 3.5, Housing as a Percentage of Income**, reflects that 29.4 percent of housing units with a mortgage in Mont Belvieu were estimated to be spending 30 percent or more on housing in 2010, compared to 32.2 percent statewide. Just over 105 units (19.1 percent) locally were at the 35 percent or higher threshold.

FIGURE 3.5, HOUSING AS A PERCENTAGE OF INCOME



Source: US Census Bureau, ACS 2014



On the other hand, a solid majority (60.2 percent) of Mont Belvieu home owners who were carrying mortgages in 2010 were devoting less than 25 percent of their incomes to housing costs. This is where the benefit of a lower-cost environment is evident, especially since the majority (46.6 percent) of owners were paying less than 20 percent toward housing. For those owners without a mortgage, only 7.2 percent were putting more than 30 percent of their income toward housing costs, compared to 14.4 percent for all of Texas, which illustrates the long-term benefits of home ownership for most people after a mortgage is fully paid.

At the median household income of \$94,022, which equates to \$7,835.17 per month, a household's affordable monthly housing cost (30 percent of income) would be \$2,351 per month, including utilities. **Table 3.2, Affordable Monthly Housing Cost**, shows the monthly "affordability" amount for households at various points above or below the area's estimated median household income. The median value of owner-occupied units in Mont Belvieu, has increased from \$170,900 in 2010 to \$218,800 in 2014 compared

to \$123,500 and \$131,400 statewide, respectively. Factoring-in costs associated with a variety of fixed-rate, 30-year home loan structures. The median household income in 2014 could afford to purchase a home valued above the median value of a typical home within the City of Mont Belvieu.

THE HOUSING RENTAL MARKET

As indicated in **Table 3.3, Renter Occupancy**, according to the 2010-2014 American Community Survey Five-year Estimates, the percent of housing units in Mont Belvieu that are renter-occupied (23.8 percent) is trending downward while Chambers County (17.6 percent) and the state (37.3 percent) are trending upward when compared to the 2010 U.S. Census data.

With respect to gross rent, according to the ACS 2010-2014 Five-Year Estimates, 42 percent of the 307 occupied units paying rent, pay \$1,500 and more per month. Regarding gross rent as a percentage of household income, persons paying in excess of 30 percent of their household income has decreased from 27.7 percent in 2010 to 22.2 percent in 2014.

TABLE 3.2, AFFORDABLE MONTHLY HOUSING COST (AT \$7,835.17/MONTH)

Percent of Median Household Income	Required Income to Qualify	Affordable Monthly Housing Cost (30% of Income)
170%	\$159,837	\$3,996
150%	\$141,033	\$3,526
125%	\$117,528	\$2,938
100%	\$94,022	\$2,351
75%	\$70,517	\$1,763
50%	\$47,011	\$1,175
30%	\$28,207	\$705

Source: US Census Bureau, ACS 2014

TABLE 3.3, RENTER OCCUPANCY

	2010 Census	2014 Estimate
Texas		
Percent of Housing	35.2%	37.3%
Population	7,685,166	8,973,119
Units	3,002,018	3,361,030
Chambers County		
Percent of Housing	13.8%	17.6%
Population	4,380	6,080
Units	1,526	2,203
Mont Belvieu		
Percent of Housing	26.4%	23.8%
Population	933	1,075
Units	297	307

Source: US Census Bureau, ACS 2014

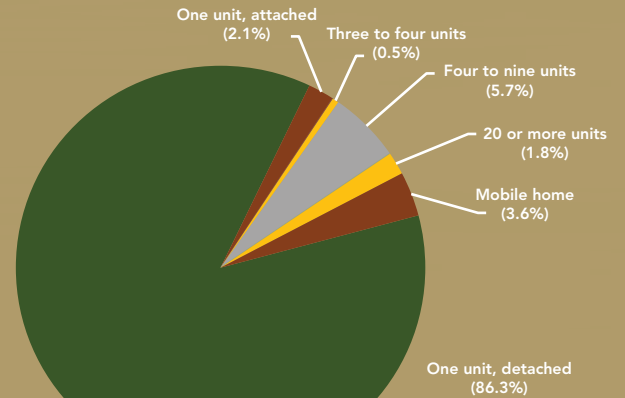


HOUSING TYPOLOGIES

Mont Belvieu’s composition of housing types need to accommodate the spectrum of life-cycle changes: young professionals, families, empty-nesters, and seniors. Statistics indicate that around 86 percent (1,191 housing units) of the housing stock in 2014 is comprised of single-family detached units, as seen in **Figure 3.6, Housing Types in Mont Belvieu - 2014**, and **Figure 3.7, Housing Typology**. Single-family attached housing comprised around two percent and the various types of multi-family units, duplexes to 20+ unit buildings, made up 12 percent.

The Mont Belvieu zoning ordinance allows for a modest range of housing types in specific zoning districts. Multi-family units are allowed as a Special Use in most of the residential districts, but there are no regulations regarding buffering between single-family residential and multi-family residential. Townhome developments involve the use of a site for three or more attached dwelling units, each occupied by one household and separated by vertical sidewalls. Unlike apartments, townhomes typically offer a front yard, backyard, and personal parking space. However, these amenities are much smaller in scale compared to single-family detached homes and require far less maintenance and less up-front cost for the lot.

FIGURE 3.7, HOUSING TYPOLOGIES

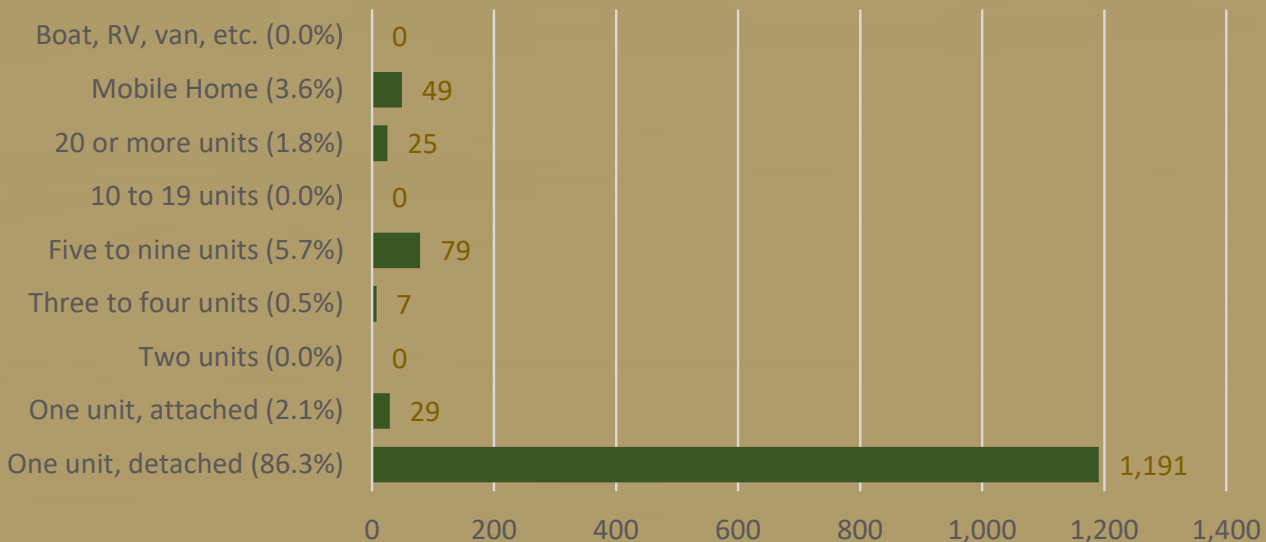


Source: US Census Bureau, ACS 2014

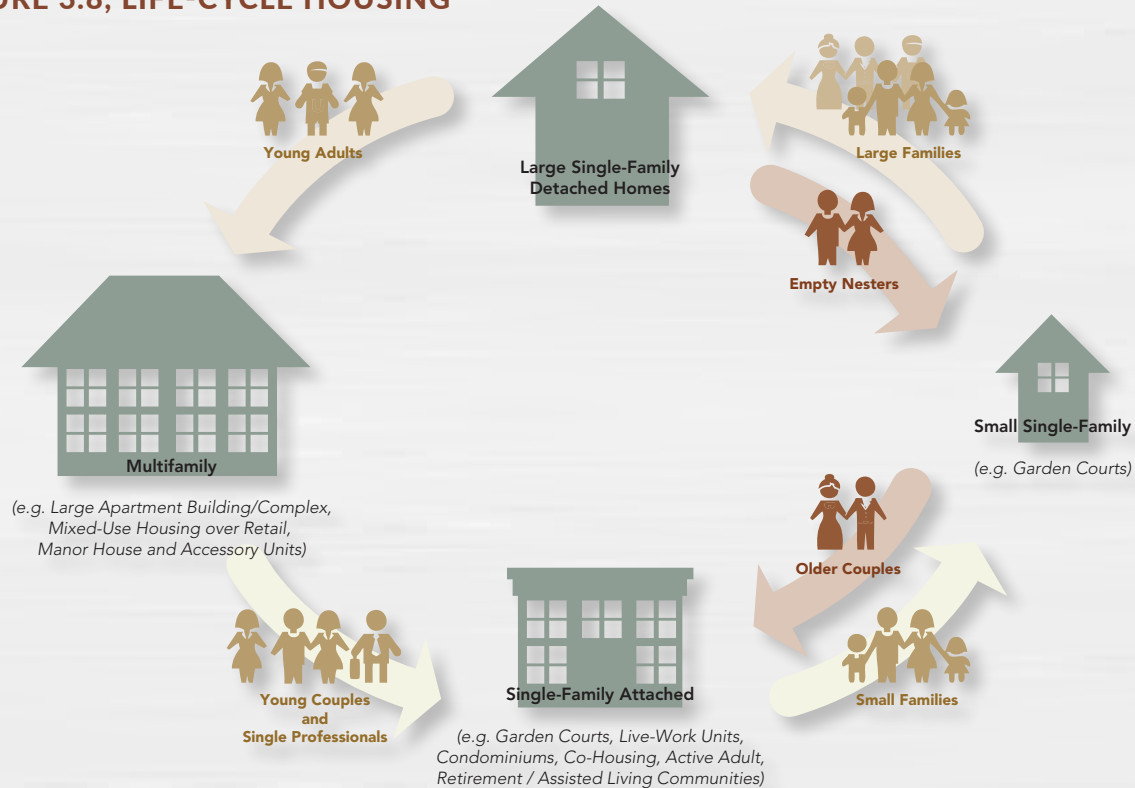
LIFE-CYCLE HOUSING

It is essential to have a balanced housing stock that supports a “life-cycle housing” philosophy; see **Figure 3.8, Life-Cycle Housing**. This involves the notion that a wide range of housing types, styles, and price ranges should be available so that residents

FIGURE 3.6, HOUSING TYPES IN MONT BELVIEU - 2014



Source: US Census Bureau, ACS 2014


FIGURE 3.8, LIFE-CYCLE HOUSING


can readily make lifestyle transitions within their own community as they age, from “starter” housing, to a larger family home, then to an empty-nester type of housing, and lastly to down-sized space and/or assisted living or full-time care facility as health conditions dictate. Furthermore, senior housing options are especially important in almost all U.S. communities today as the nation is still at the front end of the Baby Boomer retirement wave of the next several decades. Units marketable to households that are “downsizing” should both be permitted and encouraged in appropriate locations. Options may include appropriately-scaled, duplex homes, patio homes, townhomes, and multi-family structures. Otherwise individuals young and old may be forced to move elsewhere to find the type of housing they need or can afford at a particular stage of life. By working toward a housing market and development pattern and mix that is attuned to life-cycle needs, a community can also be better positioned to respond to the special needs of various niche groups within the marketplace, including their own workforce.

NEIGHBORHOOD DESIGN

Providing quality housing and neighborhoods is fundamental to creating a desirable place to

live. Neighborhoods are the foundation of any community as they are places where residents live, recreate, interact, and call home. Well-designed and protected neighborhoods are a source of community pride. The condition, availability, and choice of housing are important to the integrity of neighborhoods and to the quality of life of its residents. Sustainable, diverse, attractive, and vibrant neighborhoods enhance economic development, improve livability, and maintain property values.

Through innovative neighborhood design and planning, new development should offer ease of access and connectivity, accessibility to local services, transportation options, resource preservation, and provide a sense of place and societal well-being.

So what composes a good neighborhood? According to the Charter of the New Urbanism, the composition of a well-designed neighborhood includes the following:

- **The neighborhood has a center and an edge.**
The combination of a focus and a limit contribute to the social identity of a community with



the neighborhood center being necessary. The center can be a public space - a square, a green, or an important street intersection.

- **The neighborhood has a balanced mix of activities, shopping, work, schooling, recreation, and all types of housing.** This arrangement is useful for those young, old, handicapped, poor, who can't depend on the automobile for mobility.
- **The ideal size of a neighborhood is one-quarter mile from the center to the edge.** Within this approximate five minute radius, residents can walk to the center from anywhere in the neighborhood to take care of many daily needs or use public transit.
- **Neighborhood streets are designed to provide equality for the pedestrian, the bicycle, and the automobile.** An interconnected network of streets and small blocks with wide sidewalks, street trees, and on-street parking increases pedestrian activity and also provides multiple driving routes to keep local traffic away from major transportation corridors.
- **The neighborhood gives priority to the creation of public space and to the appropriate location of civic buildings.** Public spaces provide places for gathering neighborhood groups, personal functions such as parties, and provides a destination for community members to congregate.

LOCATION OF LIVE AND WORK

Housing options are part of the economic development equation. In the future, as the community markets itself, prospective employers will zero-in on the quality of life of its employees. Where do the single professionals live and play? Can a young family afford a home? How is the school system? Attracting and retaining businesses is directly tied to the supply and price range of housing types. Maintaining this balance between jobs and housing is important so residents can live and work in their community. With the close proximity of Houston, Mont Belvieu will directly compete with upscale apartments, townhouses, and retail options only 30 minutes away.

Evaluating the balance of jobs to housing is a planning technique rather than a regulatory tool local governments can use to achieve a roughly equal number of jobs and housing units in a jurisdiction. Ideally, the jobs available in a community should match the labor force skills, and housing should be available at prices, sizes, and locations suited to workers who wish to live in the area. **Table 3.4, Housing Measurements and Standards**, are recommended target standards Mont Belvieu can use when evaluating the community balance in the future. **Table 3.5, Typology of Job-Housing Imbalances**, outlines the types of imbalances and provides the example city status to better understand the imbalance.

HOUSING UNITS TO ACCOMMODATE GROWTH

As mentioned earlier in this chapter, Mont Belvieu has seen significant growth in population since the 1970s, with the most recent increase in population occurring over the past 20 years. The construction of single-family homes has also increased dramatically over the past two decades. In 2015, there were approximately 3,500 single-family residences planned within Mont Belvieu, of which 1,711 had been constructed by mid-2015.

NEIGHBORHOODS VS. SUBDIVISIONS

A NEIGHBORHOOD IS MORE THAN JUST A BUNCH OF HOUSES. A NEIGHBORHOOD HAS ITS OWN IDENTITY AND HAS MORE THAN JUST RESIDENCES. A NEIGHBORHOOD CAN HAVE BUSINESS, RESTAURANTS, GROCERY STORES, PARKS, AND SCHOOLS ALL INTERCONNECTED AND EASILY ACCESSIBLE ON FOOT. THESE NON-RESIDENTIAL COMPONENTS COVER THE BASIC DAY-TO-DAY NEEDS OF ITS RESIDENTS AND IS WHAT DISTINGUISHES A NEIGHBORHOOD FROM A SUBDIVISION. A SUBDIVISION IS JUST A GROUP OF HOUSES IN A PLANNED DEVELOPMENT THAT IS OFTEN ISOLATED FROM THE SURROUNDING AREA.





TABLE 3.4, HOUSING MEASUREMENTS AND STANDARDS

Job-Housing Measurement	Recommended Target Standard (Implies Balance)	Recommended Target Range	Source
Jobs to Housing units ratio	1.5 : 1	1.3: 1 to 1.7 : 1 or 1.4 to 1.6 : 1	Ewing 1996; Cevero 1991
Jobs to Employed residents ratio	1 : 1	0.8 : 1 to 1.25 : 1	Cevero 1991

TABLE 3.5, TYPOLOGY OF JOBS-HOUSING IMBALANCES

Type of Imbalance	Jobs	Housing Units	Example
Type 1	Too many low-wage	Too few low-end	Suburban employment center (edge cities)
Type 2	Too many high-wage	Too few high-end	Downtown employment areas in central cities
Type 3	Too few low-wage	Too much low-end	Older suburban and central-city neighborhoods
Type 4	Too few high-wage	Too much high-end	High-income bedroom communities

TYPE 1: THIS AREA IS JOB-RICH AND NEEDS MORE HOUSING FOR LOW-WAGE WORKERS.

A city or county with lots of entry-level retail and service jobs but little or no low- to moderate-income housing might find it needs to correct its job-housing imbalance with a policy that ensures housing meets the price ranges of moderately skilled, low-wage workers. These imbalances are probably most likely to occur in suburban job centers.

TYPE 2: THE AREA IS JOB-RICH AND NEEDS MORE HOUSING FOR EXECUTIVES, MANAGERS, AND PROFESSIONALS

A community might find that it needs more high-end residences to house corporate executives and similar high-income professionals. Shortages of high-end housing are rare, however, because there is a high market demand and developers achieve high profits from new subdivisions targeted at these professionals. In other words, market response is generally adequate to prevent frequent Type 2 job-housing imbalances.

TYPE 3: THIS AREA IS JOB-POOR AND NEEDS MORE EMPLOYMENT OPPORTUNITIES FOR THE RESIDENTS, LOWER-WAGE, LABOR FORCE.

This type of job-housing imbalance begs for an “economic development” situation that brings lower-skilled jobs into or near the neighborhoods of lower-income resident workers.

TYPE 4: THE AREA IS JOB-POOR BUT HAS A HIGHLY SKILLED RESIDENT LABOR FORCE.

This type of situation would appear to be rare but is in fact common in many middle- and higher-income suburban parts of a region. This type of mismatch between residences and jobs is likely to result primarily from public policy decisions to maintain an areas predominantly residential character. A change in local land-use policies is the best policy response to this type of imbalance.



TABLE 3.6, MONT BELVIEU EXISTING AND PROPOSED HOUSING INVENTORY

	Single-Family	Multi-Family	Manufactured Home
Existing	1,711	357	182
Proposed	1,800	-	-
Total	3,511	357	182
Population Served (2.93 per unit)	10,287	1,046	533
Total Housing Available	11,866 residents served		
Housing for 30,115 Population	18,249 residents not served 6,228 more housing units needed		

Source: Kendig Keast Collaborative and the City of Mont Belvieu

On the other side of the spectrum, there were 357 multi-family apartment units available within the City and 182 manufactured homes. Neither of these housing types had any planned or projected growth as of mid-2015.

The total number of planned housing units for Mont Belvieu is 4,050, with 2,250 currently constructed and an additional 1,800 (all single-family) planned for construction over the next several years. These numbers are further outlined in **Table 3.6, Mont Belvieu Existing and Proposed Housing Inventory.**

At a housing occupancy rate of 2.93 persons per household, the proposed 1,800 single-family residences can accommodate an additional 5,274 residents. Based on growth trends and population projections for the City, Mont Belvieu is expecting to grow to a population of 30,115 people, equating to almost 25,000 residents over the course of 20 years.

Mont Belvieu has the unique opportunity to manage development as it occurs. The undeveloped land around Mont Belvieu allows for endless possibilities of housing types and densities to give the City a unique character and to cater to people at different stages of their lives.



INCREASING HOUSING CHOICE

The housing stock in Mont Belvieu is almost exclusively comprised of single-family housing. For the most part, housing throughout the City follows a traditional model - a single home located in the center of a site with ample space for side yards, a front yard, and a rear yard.

The lack of diversity in housing contributes to issues regarding affordability. Diversity improves variety and allows for transition in housing to occur. Leading experts indicate that American housing can be divided into a variety of different categories beyond the traditional single-family home, multi-family apartment, and manufactured home. While some types (such as high rise apartments) may not be appropriate to Mont Belvieu, the list of types exhibits the variety of housing options that are available.

Single-family House - includes the traditional home associated with the "American Dream" and the housing type most common in Mont Belvieu. The structure is detached from other dwellings and represents the only dwelling unit on a parcel. Single-family homes can be designed affordably by adjusting location on the site to allow innovative techniques such as zero lot line development, through alternative construction practices, home design, and financial incentives.

Multi-Family Homes (Duplexes, Triplexes, and More) - duplexes and triplexes are fairly rare in today's housing market. Multi-family homes provide a viable alternative to the single-family home. Both can be designed to appear as large scale single-family structures with multiple stories and provide opportunities for both renters and owners. Smaller multi-family structures can be designed to fit into a wide variety of environments, ranging from rural to urban. However, large multi-family homes are commonly considered suburban or urban due to increased density and are likely best located within the growth boundaries of communities that can provide ample utilities.

Row Houses - similar to duplexes, triplexes and multi-family homes, row houses offer the reduced construction cost that come with attached structures while also permitting a sense of independence. For a time, row houses fell out of favor as designers sought to move away from the gritty design of the urban environment. However, like other forms of housing, row houses have once again gained popularity as an option to single-family homes and apartments. Like multi-family structures, row houses have a reputation as an urban (or possibly suburban) solution, rather than a pattern found in a rural setting.

SINGLE-FAMILY HOUSE



Source: Kendig Keast Collaborative

MULTI-FAMILY HOMES



Source: Kendig Keast Collaborative

ROW HOUSES



Source: Kendig Keast Collaborative



MIXED-USE HOUSING



Source: Google

Mixed-Use Housing - mix of uses was once commonplace and today, mixed-use housing is making a tremendous comeback, particularly in proximity to existing urban areas or new “mega sites” with the opportunity to create new communities. Mixed-use housing can offer a variety of commercial retail and entertainment activities and proximity to a variety of resources such as parks, schools, and work. The financial viability to developers and lenders are making the delivery of this type of product mainstream in most setting, even rural and suburban.

PROS AND CONS OF DIFFERENT HOUSING TYPES FOR MONT BELVIEU

Types	Pros	Cons
Single-Family	<ul style="list-style-type: none"> Desired by most Mont Belvieu residents Strong market demand If clustered together, can contribute to more community amenities, lower cost of basic infrastructure and public services 	<ul style="list-style-type: none"> Can contribute to sprawl or “shot gun” approaches to development Too much supply at one price point can limit future City revenue streams
Multi-Family	<ul style="list-style-type: none"> Creates opportunities for the local workforce that may not be able to afford to buy a home in Mont Belvieu 	<ul style="list-style-type: none"> Can detract from the “small town” character of Mont Belvieu May contribute to negative perception of community
Row	<ul style="list-style-type: none"> Provides alternative to Single-Family Residential housing types for those residents seeking lower maintenance costs 	<ul style="list-style-type: none"> Residents expressed an interest in larger lot subdivisions, not smaller lots Home Owners Association (HOA) fees Shared wall or two
Mixed-Use	<ul style="list-style-type: none"> Market-friendly product Balances the provision of other land uses, too, especially commercial 	<ul style="list-style-type: none"> Can detract from the “small-town” character of Mont Belvieu, especially if too dense



SINGLE-FAMILY RESIDENTIAL ABSORPTION RATE

AN ABSORPTION RATE IS THE RATE AT WHICH HOMES ARE SELLING IN A SPECIFIC AREA. A BALANCED MARKET'S ABSORPTION RATE IS TYPICALLY BETWEEN 5 AND 7 MONTHS.

MARCH 2015 - MARCH 2016



RATE OF HOME SALES: 2.53
1 HOME IS SOLD EVERY 2.53 DAYS

IT WILL TAKE 3.29 MONTHS* FOR THE CURRENT INVENTORY TO SELL AT THE CURRENT PACE OF THE MARKET.

SINCE THE ABSORPTION RATE FOR MONT BELVIEU IS BELOW THAT THRESHOLD, IT IS INDICATIVE OF A MARKET WITH HIGH DEMAND. UNDER THESE CONDITIONS, A DEVELOPER LOOKING TO GET A LOAN FROM A BANK FOR THE PURPOSES OF UNDERTAKING A SINGLE-FAMILY RESIDENTIAL SUBDIVISION IN MONT BELVIEU HAS A HIGHER LIKELIHOOD OF BEING APPROVED, MEANING MORE SUPPLY IS LIKELY ON THE WAY.

*ASSUMING MARKET CONDITIONS DO NOT CHANGE AND NO NEW LISTINGS COME ON THE MARKET

Source: Kendig Keast Collaborative and Houston Area Association of realtors (HAR), March 2016.



Source: Kendig Keast Collaborative



Source: Kendig Keast Collaborative



ECONOMIC DEVELOPMENT IS THE PROCESS OF BUILDING STRONG, ADAPTIVE ECONOMIES. STRATEGIES DRIVEN BY LOCAL ASSETS AND REALITIES, A DIVERSE INDUSTRY BASE AND A COMMITMENT TO EQUALITY OF OPPORTUNITY AND SUSTAINABLE PRACTICES HAVE EMERGED AS THOSE THAT WILL ENSURE A STRONG FOUNDATION FOR LONG-TERM STABILITY AND GROWTH. EVEN WITHIN THE PARAMETERS OF THESE PRINCIPLES, WHAT CONSTITUTES SUCCESS IN ECONOMIC DEVELOPMENT AND THE SPECIFIC STRATEGIES TO ACCOMPLISH IT WILL LOOK DIFFERENT FROM PLACE TO PLACE. DESPITE THESE DIFFERENCES, LEADERSHIP IS CONSISTENTLY IDENTIFIED AS A CRITICAL FACTOR IN EFFECTIVE ECONOMIC DEVELOPMENT.

- NATIONAL LEAGUE OF CITIES,
CENTER FOR RESEARCH AND INNOVATION



WORK

OVERVIEW

The “work” section of **Chapter 3, Live and Work**, identifies and describes economic development opportunities available to the City and its current and future residents. Throughout the public involvement and stakeholder input process, it was stated repeatedly that Mont Belvieu needed to diversify its economic base by attracting more retail and office activity within its limits. However, like many other economies, Mont Belvieu’s is driven by internal and external forces. The ability of the City to meet its economic development objectives and expand growth opportunities depends on many variables, including regional market forces beyond the City’s control. However, the City does have control over how to position itself as a place to do business. This includes targeting the types of businesses that the community wants to attract and retain, ensuring that resources are available for the labor force to improve its occupational skills, and creating a business climate that make the community attractive for businesses looking to locate or expand in the City.

DEMOGRAPHIC TRENDS

LABOR FORCE

The labor force of Mont Belvieu is defined as those residents of the City of Mont Belvieu 16 years of age and older who are employed, are actively seeking employment, or are in the armed forces. Labor force data are often referred to as employment data or “place of residence” data, as opposed to “place of work” data. The labor force is not equated with

the number of employment opportunities, or jobs, in Mont Belvieu because some of the resident labor force are employed outside the City, some have more than one job, some are unemployed, and some jobs in Mont Belvieu are held by non-residents.

POPULATION, AGE DISTRIBUTION, AND EDUCATION

The American Community Survey 2014 estimates show Mont Belvieu has a working age population (16 years and over) of 3,033 people. Of these 3,033 residents, 1,643 are in the labor force and only 85 are unemployed.

Approximately 38 percent of the residents in Mont Belvieu are between the ages of 20 and 59, prime working years for the majority of the population. Fourteen percent of the population in Mont Belvieu is age 60 and over, with just over four percent being 85 years and over.

Of the Mont Belvieu population that is 25 years and older, 22.6 percent have a bachelor’s degree or higher.

EMPLOYMENT INDUSTRIES BY SECTOR

Since 2000, Mont Belvieu has seen dramatic changes in the employment industries, as outlined in **Table 3.7, Industries in Mont Belvieu**. The industries with the largest amount of growth include Management, Business, Science, and Arts. The industry has seen a relatively large 32 percent increase since 2000. The Production, Transportation, and Mineral Moving and the Natural Resources, Construction, and Maintenance industries had marginal increases over the past 14 years. On the

TABLE 3.7, INDUSTRIES IN MONT BELVIEU

Industry	2000	2010	2014	% Change
Management, Business, Science, and Arts	28.5%	33.4%	37.7%	32.3%
Service	11.7%	10.7%	4.7%	-59.8%
Sales and Office	28.4%	21%	23.7%	-16.5%
Natural Resources, Construction, and Maintenance	10.4%	12.7%	10.5%	0.9%
Production, Transportation, and Mineral Moving	21%	22.1%	23.4%	11.4%

Source: US Census Bureau, ACS 2014



TABLE 3.8, INDUSTRY AND WAGE COMPARISON

Industry	Occupation	Mont Belvieu		Texas	
		2010	2014	2010	2014
Management, Business, Science, and Arts	Median	\$46,111	\$67,388	\$50,021	\$53,080
	Management, Business, and Financial	\$44,821	\$125,455	\$56,548	\$61,385
	Computer, Engineering, and Science	\$80,368	\$44,023	\$66,590	\$72,700
	Education, Legal, Community Service, Arts, and Media	\$40,573	\$66,064	\$40,099	\$42,676
	Healthcare Practitioner and Technical	\$61,071	\$110,000	\$50,696	\$53,916
Service	Median	\$11,399	\$22,303	\$15,395	\$16,436
	Healthcare Support	\$21,146	-	\$18,453	\$20,415
	Protective Service	\$21,000	-	\$35,403	\$38,558
	Food Preparation and Serving	\$10,799	-	\$12,072	\$13,317
	Building and Grounds Cleaning and Maintenance	\$4,539	-	\$15,224	\$16,001
	Personal Care and Service	\$28,000	-	\$12,351	\$13,613
Sales and Office	Median	\$29,159	\$39,041	\$26,322	\$27,169
	Sales and Related	\$51,625	\$43,162	\$26,078	\$25,909
	Office and Administrative Support	\$29,327	\$37,442	\$26,428	\$27,913
Natural Resources, Construction, and Maintenance	Median	\$49,000	\$38,026	\$27,588	\$30,664
	Farming, Fishing, and Forestry	-	-	\$17,283	\$20,159
	Construction and Extraction	\$36,563	\$34,682	\$25,728	\$27,969
	Installation, Maintenance, and Repair	\$84,125	-	\$35,315	\$37,071
Production, Transportation, and Mineral Moving	Median	\$54,128	\$89,185	\$27,357	\$29,796
	Production	\$73,542	\$101,000	\$28,676	\$30,883
	Transportation	\$22,212	-	\$32,400	\$34,801
	Material Moving	-	-	\$19,649	\$21,347



opposite end of the spectrum, the Service industry, which includes public sector service positions, has seen a 60 percent decrease. This decrease is due in part to the significant increase in population over the past twenty years, along with a slight decrease in the amount of individuals in this specific industry. The only other industry to see a decrease was the sales industry, which can be justified by the relatively few commercial opportunities in Mont Belvieu.

WAGES BY INDUSTRY SECTORS AND OCCUPATION

Wages in Mont Belvieu are higher than the State average. **Table 3.8, Industry and Wage Comparison**, breaks down the industry and occupation wages in 2010 and 2014 for both Mont Belvieu and the State of Texas. As shown in the table, Mont Belvieu averages higher wages in all industries and most occupations. Occupations that show dashes indicate there is not enough data to support an estimate or there are not enough people employed in the occupation to get an accurate estimate.

CITY / REGION / STATE COMPARISONS AND PROJECTIONS

Mont Belvieu and Chambers County are oil rich locations with above average median incomes compared to the state and other regions of Texas. As shown in **Table 3.8, Industry and Wage Comparison**, Mont Belvieu has the highest wage in four of the five categories when compared to Chambers County and Texas. The one industry - Natural Resources, Construction, and Maintenance - is scarcely behind the county and thousands of dollars ahead of the state average.

EMPLOYMENT OPPORTUNITIES

MAJOR EMPLOYERS AND INDUSTRIES

Mont Belvieu and Chambers County have a variety of employers from different industries, each catering to the needs of the community and utilizing the available natural resources. **Table 3.9, Major Employers in Chambers County**, lists public and private sector employers with 100 or more employees.

As in most communities, school districts employed the largest number of individuals. Following closely behind was Bayer Corporation in Baytown. Rounding out almost the entirety of the remainder of the list were production firms.

LOCATION OF LIVE AND WORK

In 2014, there were 2,183 workers employed within the City limits of Mont Belvieu. Of those employees, only 107 were residents. Residents of Mont Belvieu commuted to their jobs in the following cities:

- Baytown (15.7 percent);
- Houston (8.7 percent);
- Pasadena (3.8 percent);
- Dayton (2.1 percent);
- Old River-Winfree (2 percent); and
- Other (67.7 percent).

TABLE 3.9, MAJOR EMPLOYERS IN CHAMBERS COUNTY

Name	Product	Number of Employees
Anahuac ISD	Education	215
Barbers Hill ISD	Education	675
Covestro LLC	Production	1,100
Chambers County	Government	-
Cryogenic Vessel Alternatives	Production	200
Exxon Mobile Corporation	Production	3,785
JSW Steel	Production	800

Source: Workforce Solutions 2012, Kendig Keast Collaborative

TABLE 3.10, EMPLOYMENT GROWTH IN CHAMBERS COUNTY

Year	Number of Jobs	Change from Preceding Year	
		Number	Percent
1970	4,425	0	-
1980	8,691	4,266	96%
1990	7,512	-1,179	-13%
2000	9,727	2,215	29%
2010	14,842	5,115	32%
2014	15,336	494	3%

Source: Bureau of Economic Analysis

Approximately 95 percent of working residents in Mont Belvieu commute outside the City to their place of employment. The large out-migration of residents could classify Mont Belvieu as a bedroom community to neighboring Baytown and Houston. (Source: OnTheMap 2014).

NUMBER OF JOBS BY INDUSTRY

There were about 1,550 jobs located in the City of Mont Belvieu in 2014, which represents about 10.2 percent of the total jobs in Chambers County. **Table 3.10, Employment Growth in Chambers County**, shows historic employment growth in Chambers County between 1970 and 2014. In 1970, there were about 4,425 jobs in the County. Between 1970 and 2000, the number of jobs located in the County had grown by 119 percent. The decade with the largest percentage of change in the County, about 96 percent or 4,266 new jobs, was between 1970 and 1980. The decade with the greatest number of new jobs added in the County, about a 32 percent change, or 5,115 new jobs was the decade between 2000 and 2010.

LOCATION QUOTIENT ANALYSIS

Location Quotients (LQs) measure the regional concentration of industries relative to comparison areas such as counties, regions, states, and the nation. They are used to identify potential sources of competitive advantage or areas of regional specialization. LQs of 1.2 or higher indicate some degree of specialization in the industry. LQs between 0.8 and 1.2 indicate a normal distribution of the industry within the region. LQs less than 0.8 may indicate that the region is deficient in the industry. It

is important to note that LQs are dependent upon the size of the region and the nature of the industry, as not all industries are appropriate for all places. With Chambers County and Mont Belvieu located near the Gulf of Mexico where oil and gas are major employers, it is safe to assume that the LQ for the Natural Resources and Mining subsector will be considered a specialization for the region.

With the United States industries serving as a base of 1.00 for LQs, Chambers County has multiple industries that can be considered specialized including Natural Resources and Mining (LQ 3.14) and Manufacturing (LQ 2.65), as shown in **Figure 3.9, Chambers County Location Quotient**. The Education and Professional industries have potential for growth in the coming years, and their LQs indicate a deficiency and could be emerging industries at this point in time.

High LQs are not always a good indicator as a low LQ is not always bad. It is best not to interpret LQs in a vacuum and to view the industry as a whole instead of relying solely on the LQ. **Table 3.11, Location Quotients Explained**, helps define LQs based on regional employment growth.

MARKET AREA

5, 10, AND 15 MINUTE DRIVE TIMES

Mont Belvieu is located on the cusp of Houston's development, roughly a 20-mile drive from Beltway 8 to downtown Mont Belvieu. A comfortable market area for the City would be within a 15-minute drive, as shown



FIGURE 3.9, CHAMBERS COUNTY LOCATION QUOTIENT

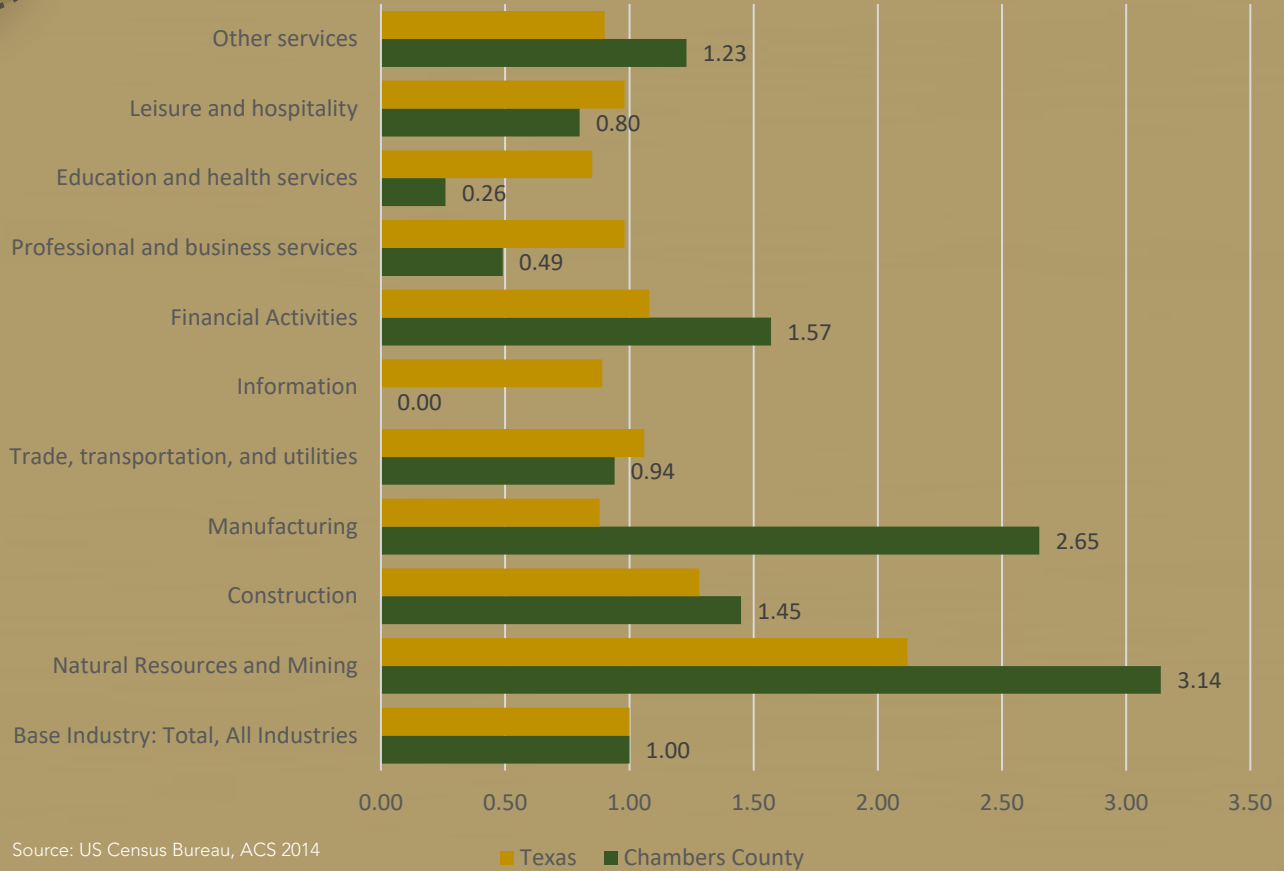


TABLE 3.11, LOCATION QUOTIENTS EXPLAINED

LOCATION QUOTIENT	High	Important industries that may require attention	Important growth industries
	Low	Industries with little promise to the local economy	Potential emerging industries in the region
	Low	EMPLOYMENT GROWTH	High

Source: Kendig Keast Collaborative

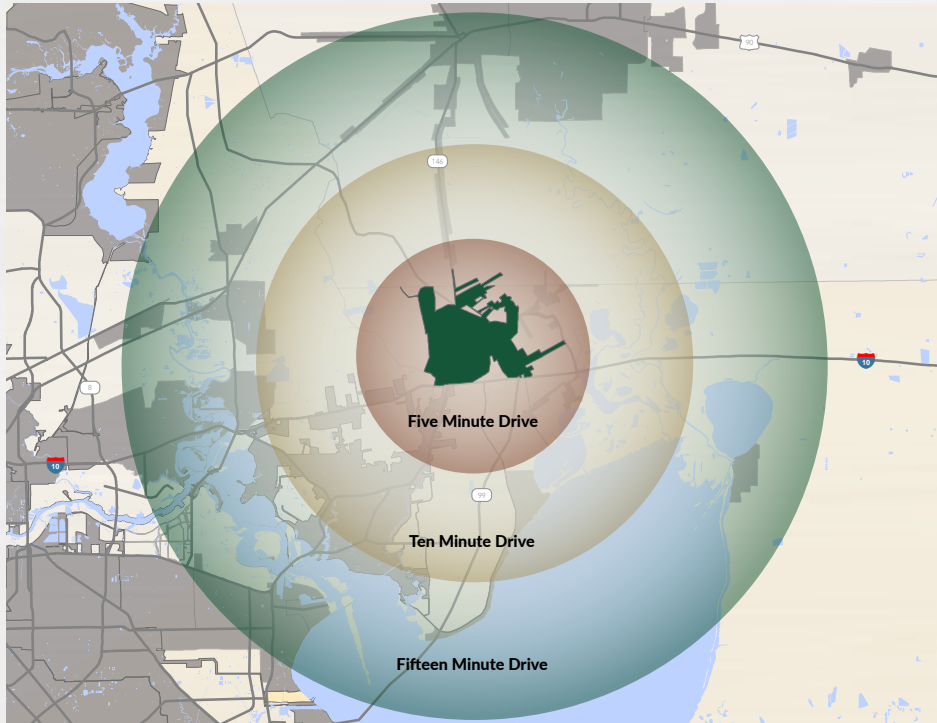
in **Figure 3.10, Drive Times**. Driving assumptions were made as if a vehicle were driving 60 mph in a straight line from the center of Mont Belvieu, as FM 565 and SH 207. This 15-minute drive encompasses several small and large towns, including Anahuac, Baytown, Dayton, Beach City, Sheldon, and a small portion of La Porte. If Mont Belvieu were to expand their current retail opportunities, the City may become a business hub for many of the neighboring small towns. Mont Belvieu could provide the amenities desired by many towns without having to travel into Houston.

LAND USE WITHIN MONT BELVIEU

The City limits of Mont Belvieu encompass over 20,200 acres. The largest portion of land is either undeveloped or used for agricultural purposes and consumes 12,115 acres. Additional acreage that cannot be used due to it floodplain or a designated wetland accounted for just over 1,000 acres.



FIGURE 3.10, DRIVE TIMES



Source: Kendig Keast Collaborative

The greatest developed land use is Industrial, which utilizes 3,200 acres, and includes the land utilized for industrial and petrochemical purposes, as well as contaminated industrial sites. Roughly 2,450 acres has been developed for residential purposes, including estate, single-family, multi-family and manufactured home developments. Commercial land, which includes office, restaurants, places of worship, and general retail account for a mere 470 acres. Public, institutional, and parkland equate to 950 acres.

Development opportunities are limitless as there is an abundance of available land for development within the City limits.

PLACE AND ASSET-BASED ECONOMIC DEVELOPMENT

Although various economic doctrines abound, there is no set prescription, formula, or set of rules to do economic development at the local level. Each community faces a different set of challenges, opportunities, assets and aspirations that call for unique combinations, applications and the mixing and matching of various tools and actions. One thing is for sure; however, the best economic development programs involve one or more highly inventive responses to a local condition or opportunity (i.e.,

a place/asset-based strategy), while mediocre outcomes usually fall to less successful communities that are followers/hopeful and rely too heavily on formulaic "best practices." This more place/asset-responsive approach can be thought of more simply as "opportunity development." The City does not have any dedicated staff/resource capacity to carry out many of the potential strategies outlined below.

Despite its many opportunities, Mont Belvieu is also presented with several potential concerns and challenges. These include: increased traffic congestion both locally and regionally, especially with the proposed alignment of the Grand Parkway; an increased reliance on the petrochemical industry (which is land and infrastructure intensive); and a lack of a strong retail presence. While the City enjoys a relatively prestigious image within the region, particularly with its inventory of higher valued homes, retail desired by residents has not followed the single-family residential construction boom. Also, during the public input phase many residents voiced an interest in sustaining lower density subdivision development, which will have a direct impact on the City's ability to compete for retail projects driven by higher population density.

Notwithstanding the above, perhaps the City's biggest challenge is in the area of offering diverse



FIVE COMPONENTS OF ECONOMIC DEVELOPMENT

Economic development is a part of community development. A good economic development program begins with an analysis of local resources, both human and material.

No two communities start development programs from the same place, simply because every community's resources are different. One might have higher job skill levels. Another might be a regional trade center. A third might be located near an interstate. All of them require different strategies.

Economic development is not a precise science in the traditional sense — its focus must involve the whole community. Good economic development programs are built around five basic components. Specific strategies vary from town to town, but a good program will address all five.

1) ORGANIZATIONAL DEVELOPMENT

To start the process, a community or region needs to have an economic development organization, which is in place, involved and inclusive. Communities lay the groundwork for economic development activities by undertaking a process to determine a common future vision. By conducting an analysis of current economic conditions and completing a strategic planning process, a community can determine goals and objectives that will address local needs while working to achieve its vision.

During this process, a community must also evaluate and identify the most effective organizational structure and potential resources available for carrying out its economic development activities.

2) INFRASTRUCTURE DEVELOPMENT

Infrastructure, provided by both government and private business, is the support system needed for producing and delivering goods and services. Traditionally, infrastructure has included all forms of utilities (e.g. water, sewer, gas, electric, telephone), transportation services (e.g. roads, parking, airports, ports, rail), schools, hospitals and other public services sometimes referred to as "social infrastructure." Communications infrastructure is becoming increasingly important as businesses and residents rely on advanced data, voice and video transmissions. In addition, communities need to consider infrastructure investments in business and industrial parks and to develop an inventory of sites and buildings, including brownfields, suitable for development. Communities must identify both current and future needs and work with both public and private sector providers to ensure the provision of adequate infrastructure.

3) BUSINESS DEVELOPMENT

Business development is the cornerstone of a community's economic development program. Typically, a community's business development program includes a mix of three primary strategies: retention and expansion of existing businesses, entrepreneurial development, and business attraction. Within these strategies, a community may seek to target certain types of businesses after conducting an evaluation of the current economic base. Business cluster strategies, working with companies based on various inter-relationships, has become a standard practice in recent years. A community may also focus its efforts on the development or redevelopment of its downtown and/or neighborhood business districts. Increasingly communities are also directing efforts toward the development of capital resources to support local businesses including revolving loan funds, angel networks and venture capital opportunities.

4) WORKFORCE DEVELOPMENT

Communities need a quality workforce development program in place to stay competitive, to keep existing businesses strong, to keep young people in the community, and to raise residents' standard of living. Workforce development strategies include developing approaches to enhance the skills of workers so that all residents can become contributing members of the local economy. These strategies involve partnerships with educational institutions, employers, unions and state and local workforce development agencies and organizations. It is helpful to begin looking at this component by completing an analysis of the local labor market. Such an analysis will help to identify significant workforce issues that need to be considered.

5) COMMUNITY CASH-FLOW ANALYSIS

Communities looking to bring new dollars into a community to ensure a balance of economic activity (or "community cash flow") can look at two sources of new dollars: those brought in by individuals, and those brought in by entities (organizations, businesses, government). There are two types of new individual dollars that come into a community: earned income (wage and salary income) and transfer income (nonwage income or generated wealth). New dollars brought into a community by entities or institutions cover a wide range of sources, including tourism, expanding markets, pursuing outside investments, government contracts or grants, and developing support sectors. Many successful economic development strategies, which bring new dollars into a community, are the result of public-private partnerships that focus on serving growing sectors in the economy, and which bring in both individual and institutional dollars.



**GAME-CHANGER!
COMING IN 2018...**

IN 2015, MONT BELVIEU'S CITY COUNCIL APPROVED AN ECONOMIC DEVELOPMENT AGREEMENT WITH MB RETAIL ASSOCIATES, LLC AND H-E-B GROCERY COMPANY LP TO BRING A 285,000 SQUARE FOOT RETAIL SPACE TO THE NORTHWEST CORNER OF INTERSTATE 10 AND EAGLE DRIVE.

"FOR YEARS, WE HAVE SEEN OUR RETAIL TRADE DOLLARS LEAK OUTSIDE MONT BELVIEU AND CHAMBERS COUNTY. CITY COUNCIL DECIDED TO HELP SHAPE OUR FUTURE WHEN THEY ACQUIRED THE 76-ACRE COMMERCIAL CORNER IN DECEMBER 2013," SAID MAYOR NICK DIXON. "WE THOUGHT IT WOULD BE A 5 TO 10 YEAR TIME FRAME BEFORE WE GOT A DEVELOPMENT AT THAT CORNER, SO WE ARE HAPPY TO SEE RESULTS SO SOON."

Source: The Baytown Sun, Wednesday, September 20, 2015.

housing options that appeal to a broad cross-section of the professional workforce. These include urban-format townhouses and apartments in active, diverse, mixed-use neighborhoods. Such housing options are increasingly important in attracting lifestyle-driven talent workers to the City.

A place-based economy is an economic development strategy that utilizes a community's natural, cultural, scenic and heritage-related amenities to foster economic development activity. The strategy focuses on features unique to the place, builds on existing assets, and uses the assets as a means of attracting new investments and strengthening existing businesses. Cities throughout the country have capitalized on their unique attractions and features by promoting themselves in a vibrant and appealing manner for residents and visitors alike.

Many amenities and places can be the focus and attraction of a place-based economy. Some examples include, but are not limited to:

- Natural: attractions located near mountain ranges, forests, rivers and waterfalls, beaches, or other vibrant and aesthetically pleasing features.
- Cultural: focus is on the ideas, customs, and social behavior of the cultures to originally live in the area, including unique ethnic groups and Native American tribes.
- Scenic: secluded from urban areas, are located where natural features can be viewed and en-

joyed, can range from private cabin getaways to scenic road tours.

- Heritage: communities with strong European or African roots and western towns which have maintained a sense of their former residents.
- Retail Districts: shopping areas with multiple tenants, unique amenities and building design, and pedestrian circulation.
- Open Space Districts: permanently protected park areas, civic spaces, habitat conservation districts, and recreational areas.
- Corridors: linear systems connecting multiple areas of the City, typically following highways, railroads, waterways, parkways, and greenways.

**SELECT COMPARISON CITIES
UTILIZING PLACE-BASED
ECONOMICS (REFER TO FIGURE
3.12)**

Sugar Land, Texas is an example city that has incorporated heritage, place-based economics to attract visitors. Founded as a sugar plantation in the mid-20th century, the City has since branded itself with the Imperial Sugar crown logo, which can be seen on gateway monuments and signage throughout the City. Today, Sugar Land has one of the highest family median incomes and median home prices in the Houston metro area, as well as



a strong concentration of retail activity along its major corridors. The City's economy has diversified and expanded from its humble beginnings and now boasts a large corporate headquarter presence, including the likes of Imperial Sugar, Schlumberger, Minute Maid, and CVR Energy.

Conroe, Texas is another comparison city which is benefiting from a natural, place-based economic development strategy. The city has capitalized on its strategic location in the Piney Woods and along Lake Conroe, a new technology park, a redeveloped downtown area, and a strong marketing campaign touting itself as a place for outdoor enthusiasts. In recent years, Conroe has seen a steady increase in property and sales tax revenues. The recent purchase of Camp Strake by the Johnson Development Corporation for a future mixed-use, master-planned community of approximately 2,046 acres is just another indicator of a "win" for the City as it strives to market itself as having the perfect blend of natural canopy and urban amenities.

League City, Texas is a comparison community with a strong background in the petrochemical industry that has benefited from a natural, place-based approach to economic development. Its marketing centers around its recreational opportunities on Clear Lake and proximity to Galveston Bay. One of the ways to quantify perceived benefits of place-based economic development is to highlight recent attraction "wins." Indeed, League City recently scored the highly coveted Cabela's, a Nebraska-based retailer of hunting, fishing and outdoor gear. The attraction of such a retail giant continues to cement League City as a place for outdoor recreation.

TAX INCREMENT REINVESTMENT ZONES

Chapter 311 of the Texas Tax Code allows municipalities or counties to form a Tax Increment Reinvestment Zone (TIRZ) (refer to **Table 3.12** and **Table 3.13**), which is a form of tax-increment financing. The municipality proposing the TIRZ must notify each taxing unit that levies real property taxes in the proposed TIRZ and determine that tax increment that each taxing unit will contribute to the tax increment fund. Money deposited in the tax increment fund may be disbursed only to satisfy claims to holders of tax increment bonds or notes issued for the zone, to pay project costs for the zone or payments pursuant to an agreement made by an established oversight board. Project costs include, but are not limited to, the following costs associated with public works or public improvements, including:

- 1) Capital costs, including acquisition, construction, reconstruction, installation, demolition, clearing and grading;
- 2) Financing costs, including interest before and during construction and for one year after completion of construction, whether or not capitalized.
- 3) Real property assembly costs;
- 4) Professional services costs, including architectural, planning, engineering, and legal advice services;
- 5) Administrative costs for employees of the municipality or county in connection with the implementation of a project plan;



ECONOMIC DEVELOPMENT AS A PUBLIC PURPOSE

ARTICLE III SECTION 52-A OF THE TEXAS CONSTITUTION, ADOPTED NOVEMBER 3, 1987, ENTITLED, "ASSISTANCE TO ENCOURAGE STATE ECONOMIC DEVELOPMENT," DECLARES THAT THE FOLLOWING TYPICAL ECONOMIC DEVELOPMENT GOALS ARE PUBLIC PURPOSES:

- DEVELOPMENT AND DIVERSIFICATION OF THE ECONOMY;
- ELIMINATION OF UNEMPLOYMENT AND UNDEREMPLOYMENT;
- STIMULATION OF AGRICULTURAL INNOVATION, THE FOSTERING OF THE GROWTH OF ENTERPRISES BASED ON AGRICULTURE, OR DEVELOPMENT OR EXPANSION OF TRANSPORTATION OR COMMERCE.

VARIOUS ECONOMIC DEVELOPMENT STATUTES STATE ADDITIONAL OBJECTIVES SUCH AS RETENTION OR EXPANSION OF PRIMARY EMPLOYMENT AND ATTRACTING MAJOR INVESTMENT TO A PARTICULAR AREA. ECONOMIC DEVELOPMENT INCENTIVES SHOULD BE STRUCTURED IN A WAY TO SUCCESSFULLY ACHIEVE ONE OR MORE OF THE GOALS STATED IN THE AUTHORIZING STATUTES.



TABLE 3.12, ECONOMIC TOOLS

ECONOMIC	PROJECT TYPE
Chapter 380 Agreements	City may loan, grant or rebate money and other municipal resources to promote economic development it deems worthwhile
Tax Abatements	Foregoing of tax usually for creation or retention of jobs and/or new business entity relocating
Tax Increment Reinvestment Zone (TIRZ)	Public improvements to promote new or re-development of a specifically designated area
Type 4B Economic Development Sales Tax	Projects as voted by referendum usually related to industrial expansion, job creation and/or public quality of life improvements
Public Improvement Districts (PID)	Public improvements for a specific geographic area where costs are shared pro-rata by those who benefit from the improvements through an assessment
Neighborhood Empowerment Zone (NEZ)	City may contract with private sector for tax rebates, tax abatement, or loans, for both private and public sector improvements if related to enhancement of economic development
Municipal Utility Districts (MUD)	Provides for construction of and repayment of the costs of water, sewer, drainage and road facilities to serve development through a tax approved by voters in the MUD
Municipal Management Districts (MMD)	Public improvements for a specific geographic area where costs are shared through assessments or additional tax levy

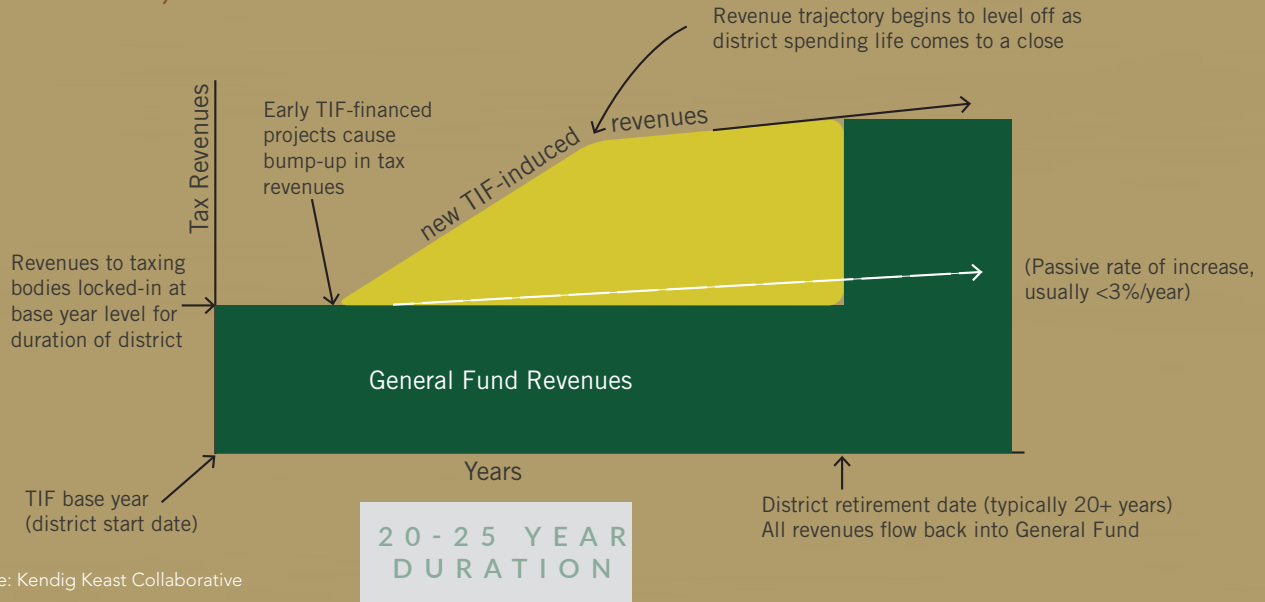
- 6) Organizational costs, including the costs of conducting environment impact studies or other studies, the cost of publicizing the creation of the zone, and the cost of implementing the project plan for the zone; and
- 7) Costs of operating the TIRZ and project facilities, public facilities, or to pay debt service on bonds.

In addition to property tax contributions into the tax increment fund, a municipality collecting municipal sales and use taxes may contribute all or a portion of the sales tax increments to the tax increment fund or enter into a tax abatement agreement with an owner of the property within the TIRZ.

To be designated a reinvestment zone, an area must:

- Substantially arrest or impair the sound growth of the municipality or county creating the zone, retard the provision of housing accommodations, or constitute an economic or social liability and be a menace to the public health, safety, morals, or welfare in its present condition and use because of the presence of:
 - » slum, deteriorated or deteriorating structures;
 - » defective or inadequate sidewalk or street layout;
 - » faulty lot layout in relation to size, adequacy, accessibility, or usefulness;
 - » unsanitary or unsafe conditions;
 - » tax or special assessment delinquency exceeding the fair value of the land;
 - » defective or unusual conditions of title;
 - » structures other than single-family residential structures, where less than 10 percent of the square footage has been used for commercial, industrial, or residential purposes during the preceding 12 years, if the municipality has a population of 100,000 or more; or
 - » conditions that endanger life or property by fire or other cause.
- Be predominately open and, because of obsolete platting, deterioration of structures or site

FIGURE 3.11, TIRZ



Source: Kendig Keast Collaborative

improvements, or other factors, substantially impair or arrest the sound growth of the municipality or county;

- Be in a federally assisted new community, located in the municipality or county, or in an area immediately adjacent to a federally assisted new community; and
- Be in an area described in a petition requesting that the area be designated as a reinvestment zone, if the petition is submitted to the government body of the municipality or county by the owners of the property constituting at least 50 percent of the appraised value of the property.

CONCLUSION

Place-based economics can be employed by any city with a unique identifier or niche which differentiates it from other communities. The City of Mont Belvieu has to decide on their unique features and appropriately market those features to attract visitors, historians, outdoor enthusiasts, and/or art and music lovers. These visitors bring additional income that strengthens the local economy, thereby allowing the City to make improvements to further attract visitors and to further beautify its amenities.

What other noteworthy attributes does Mont Belvieu possess that could be used to brand the City as a unique place, worthy of visiting and spending time?

BRAND RECOGNITION

By themselves, and without solid programmatic substance behind them, city marketing and branding campaigns are often hollow exercises in civic boosterism. They can also be a tremendous waste of money. Their ability to deliver on real economic development goals absent a marketable “product” (i.e., true assets, place-quality, funded programs and realistic strategy) is grossly oversold. That said, they can be an effective way to overcome a poor or undefined community image and get the message out about a city’s successes and positioning, if other, more fundamental programs have already been put in place. More to the point, marketing should cap-off (not comprise) a city’s economic development program. It should also be targeted to a well-defined audience.

The West Chambers County Chamber of Commerce has a membership of over 300 plus businesses. With the ultimate goal of enhancing economic growth and stability in the West Chambers area, its primary focus is on marketing member businesses. The Greater Houston Partnership markets the entire Houston region with specific emphasis on portraying Houston as a better place to live, work, and build a business. However, the marketing focus is broad and target industries are numerous, which may not ultimately benefit Mont Belvieu.

The logical audiences for a Mont Belvieu-specific marketing campaign, should mostly focus on differentiation. Hence, what makes Mont Belvieu a unique place to live, work and build a business. The City needs to identify its niche target industries and target those



specifically via a more programmatic and objective marketing campaign.

The City's marketing or branding message should be memorable, authentic and visionary. A possible focus for Mont Belvieu is the emphasis on its public amenities, high-performing schools, quality housing and proximity to major employers.

ECONOMIC DEVELOPMENT THROUGH PUBLIC-PRIVATE PARTNERSHIPS

One way to sustain economic growth is through a proactive economic development program, which sometimes include capital investments in the community. However, developing large projects within the public realm can be costly and complex and oftentimes requires collaboration between the public and private sectors. This is because many of these projects require the assembly of parcels, provision and/or expansion of utilities, transportation and energy transmission infrastructure; provision of additional public services; and the construction, operation and maintenance of structures and public open space. Expertise from both the public and private sectors must be combined to determine infrastructure capacities, navigate the regulatory environment and solve other issues related to developing a project according to specific criteria and requirements. While this is standard operating procedure for most development projects, it can lead to a "siloeing" of responsibilities. More ambitious municipal development projects, particularly in difficult economic times, often require the traditional players to move beyond their "comfort zones," adopt new ways of thinking and assume new roles.

During community input meetings held at the beginning of the comprehensive planning process, citizens repeatedly underscored the need for "more office space with commercial development and subsequent services." In order to accomplish this, the City will have to work with private developers to initiate, promote and incent land development as a means of fostering growth. Repeatedly, participants pointed to the town center as a priority area for creating desirable economic growth. As a means of capitalizing on a "low-hanging" market-driven opportunity, the town center area provides an excellent way to showcase a public-private partnership in Mont Belvieu.

FIGURE 3.12, SUGAR LAND



Source: Sugarland.com

FIGURE 3.13, CONROE



Source: Lake Conroe Cabins

FIGURE 3.14, LEAGUE CITY



Source: Houston Chronicle



GAME CHANGER! GRAND PARKWAY

GRAND PARKWAY (TEXAS 99) WILL OFFER AN ALTERNATIVE ROUTE AROUND THE METRO HOUSTON AREA, AS WELL AS MOBILITY SOLUTIONS AND ECONOMIC OPPORTUNITIES.

“IT WILL PROVIDE BETTER ACCESS TO OUR RAPIDLY GROWING SUBURBAN COMMUNITIES AND PROVIDE MULTIPLE BENEFITS. THESE INCLUDE REDUCED CONGESTION, ENHANCED SAFETY, EXPANDED ECONOMIC OPPORTUNITY, IMPROVED AIR QUALITY AND INCREASED VALUE OF TRANSPORTATION ASSETS.” - DAVID GORNET, PE, EXECUTIVE DIRECTOR, GRAND PARKWAY ASSOCIATION.

ALL NEW ELEMENTS OF GRAND PARKWAY WILL BE TOLL ROADS. THESE TOLL ROADS WILL BE ALL-ELECTRONIC TOLL COLLECTION THAT REQUIRES DRIVERS TO HAVE A TOLL TAG.

TxDOT HAS COMPLETED CONSTRUCTION OF SEGMENTS F1, F2, AND G WITH ITS DESIGN-BUILD PARTNERS, ZACHRY-ODEBRECHT PARKWAY BUILDERS. IT WILL BE A TOLL ROAD FROM U.S. 290 TO TEXAS 249 TO I-45 NORTH TO U.S. 59 NORTH. SEGMENTS H AND H-1 RECENTLY WERE APPROVED BY FEDERAL HIGHWAYS AND THE TRANSPORTATION COMMISSION HAS AUTHORIZED TxDOT TO ADVANCE THOSE SEGMENTS FROM U.S. 59 NORTH TO U.S. 90 TO I-10 EAST AS A POTENTIAL DESIGN-BUILD PROJECT.

SEGMENTS I-2, FROM I-10 EAST TO FM 1405 NEAR BAYTOWN WAS OPENED IN 2008. AT FM 1405, GRAND PARKWAY CONNECTS TO THE FORMER SPUR 55 HEADING WEST OVER CEDAR BAYOU AND CONNECTING TO BUSINESS TEXAS 146 ON THE SOUTH SIDE OF BAYTOWN.

THIS TWO-LANE ROAD AND ITS INTERSECTION AT TEXAS 146 ARE A BOTTLENECK FOR TRAFFIC USING GRAND PARKWAY GOING TO OR FROM THE PORT AREA, CEDAR BAYOU INDUSTRIAL PARK, AND I-10 EAST.

TxDOT RECENTLY AWARDED A CONTRACT TO ADD A SECOND BRIDGE OVER CEDAR BAYOU AND REALIGN THE CONNECTION AT TEXAS 146 TO MAKE TEXAS 99 (GRAND PARKWAY) A FOUR-LANE ROUTE FROM TEXAS 146 AT THE FRED HARTMANN BRIDGE EAST AND THEN NORTH TO I-10 EAST.



TABLE 3.13, SUMMARY OF SPECIAL DISTRICT ENABLING STATUTES, POWERS, AND GOVERNANCE

SUMMARY OF SPECIAL DISTRICT ENABLING STATUTES, POWERS AND GOVERNANCE	MUD	TIRZ	
Enabling Statute	Chapter 54 Water Code	Chapter 311 Tax Code	
Regulatory Oversight	TCEQ	City	
Method of Request to Create	Petition (majority of value)	City Initiated or Petition (Majority of value)	
Notice to Create	Public Hearing 14-day Published Notice and City Consent	Public Hearing 7-day Published Notice, 60-day Notice of hearing	
Statutory Purpose	Provide w/s/d, irrigation, navigation, parks, solid waste management, deed restriction enforcement	Implement adopted plan of public improvements including w/s/d paving, sidewalks, landscape, streetscape, parks	
Board	Mandatory 5 director board elected by residents of MUD	Mandatory 7-9 director board appointed by City	
Board Term	4 years	2 years	
Levy Authority	Unlimited Ad Valorem Tax for cost of improvements operations and	None	



	MMD	NEZ	PID
	Chapter 375 Local Govt. Code	Chapter 378 Local Govt. Code	Chapter 372 Local Govt. Code
	City	City	City
	Special Legislation or TCEQ process by petition	City initiated	Petition (Majority of value)
	Legislative hearings or TCEQ hearings	None	Public Hearing 15-day published notice
	Implement adopted Service and Assessment Plan for public improvements including w/s/d paving, landscape, streetscape, parks, sidewalks, maintenance, security, marketing	Create and/or rehabilitate affordable housing; increase economic development; increase quality of social services, education, or public safety to residents in the zone	Implement adopted Service and Assessment Plan for public improvements including w/s/d paving, landscape, streetscape, parks, sidewalks, maintenance, security, marketing
	Board appointed in legislation establishing district	None	Discretionary Advisory Board appointed by City, must be landowners
	4 years	n/a	No term
	Assessment for cost of public improvements and	May abate municipal sales taxes and property taxes	Assessment for cost of public improvements



STRATEGY 3.1: *Analyze the City's zoning ordinance to ensure that adequate avenues exist for the development of affordable housing and revise as appropriate.*

The current zoning ordinance is built around large lot single-family residential development and does not allow many other housing types by right.

Actions and Initiatives

- 1) Consider amending the zoning ordinance to encourage alternate housing types to single-family detached.

STRATEGY 3.2: *Encourage a variety of housing types that fit into the character of Mont Belvieu while providing housing options for all residents.*

People at different stages of their lives will desire different styles of housing. Development is currently single-family residential with little variety to allow for residents to choose their preferred housing type.

Actions and Initiatives

- 2) Incent the construction of a variety of housing types, such as row houses, mixed-use buildings, duplexes, and single-family detached with accessory dwelling units.
- 3) Ensure an adequate supply of housing at a variety of prices and rents by promoting new home ownership opportunities, improvement of the existing housing stock, and responsible rental property ownership.

STRATEGY 3.3: *Provide housing choices, encourage good neighborhood design, and promote the City as an excellent place to live and work.*

Mont Belvieu is dominated by single-family residential and lacks housing variety. While still growing, Mont Belvieu provides many amenities that couples and families are looking for: good schools, a safe community, and new housing.

Actions and Initiatives

- 4) Establish a streamlined permitting process for desirable residential developments.

- 5) Enhance the relationship with area real estate agents.
- 6) Promote the Barbers Hill ISD throughout the region.
- 7) Coordinate vocational, technical, and other professional training programs with the City's target industries.

STRATEGY 3.4: *Develop multi-family and attached housing design standards that ensure complimentary multi-family development throughout Mont Belvieu.*

The current zoning ordinance is catered to large lot single-family residential development and does not allow many other housing types by right.

Actions and Initiatives

- 8) Provide form-based standards that distinguish between different building typologies (multi-family, townhouse, duplexes) and regulate compatibility with adjacent structures. Incorporate illustrations to support staff and boards in code administration.

STRATEGY 3.5: *Ensure energy and water efficiency in affordable housing.*

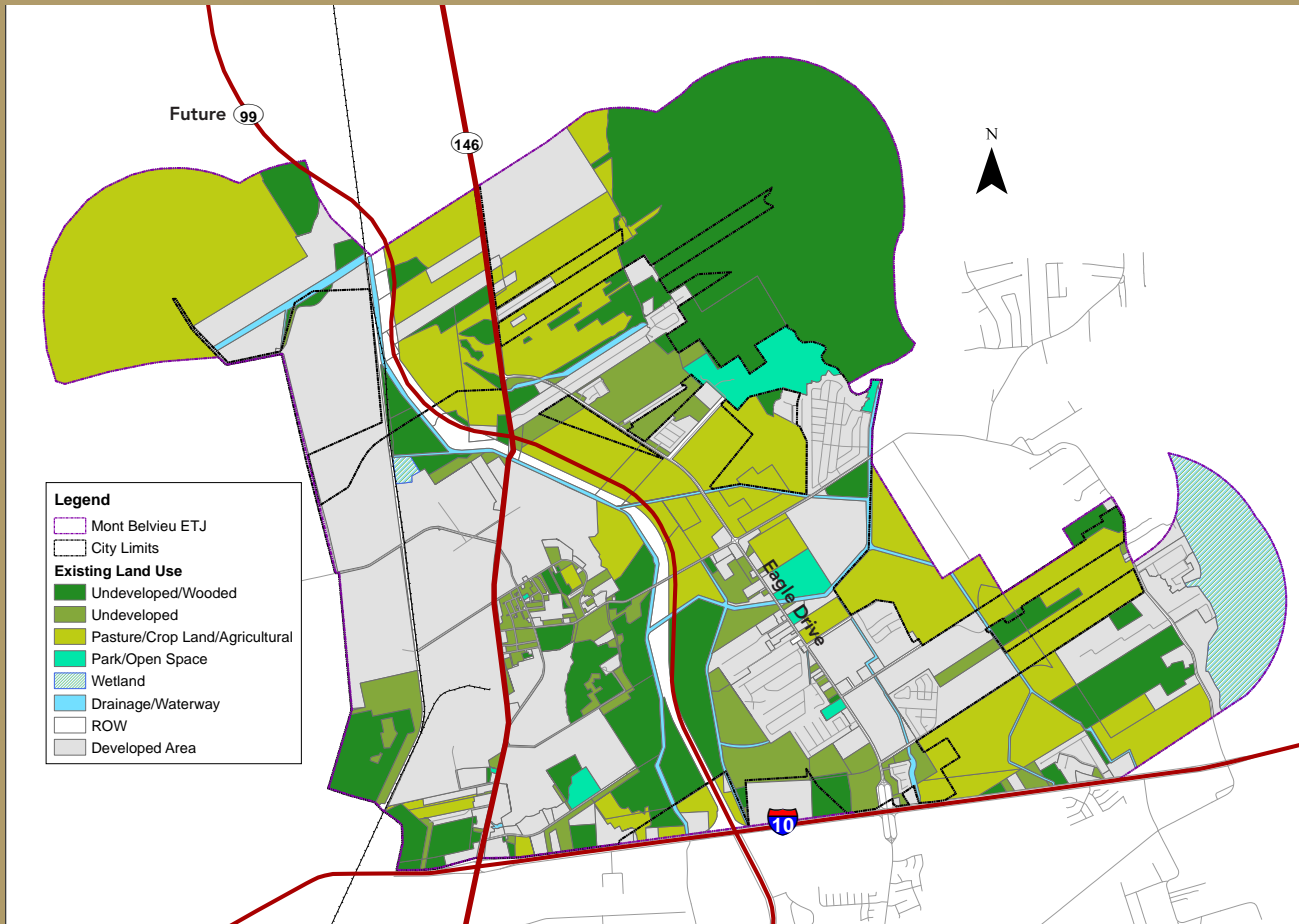
In an attempt to conserve natural resources and to be more environmentally friendly, new developments may be required to include more energy efficient appliances and be constructed with environmentally conscious products and practices.

Actions and Initiatives

- 9) Encourage energy efficiency in new and renovated affordable housing.
- 10) Encourage water conservation in affordable housing.
- 11) Encourage the conservation of natural resources by reducing or eliminating waste throughout a building's entire life-cycle, including the development phase, the usage phase, and the building's end of life stage.



FIGURE 3.15, VACANT LAND IN MONT BELVIEU



Source: Kendig Keast Collaborative

- 12) Provide education to landlords, tenants, and homeowners on energy efficiency, water conservation, recycling, and waste reduction activities.

STRATEGY 3.6: *Enhance existing neighborhoods and design new neighborhood developments to create a sense of community and neighborhood integrity.*

Neighborhoods can be so much more than simply places where people live. Good neighborhood design can encourage and develop a sense of community amongst those that live there. Good neighborhood design also includes many elements such as schools, small-scale commercial, and civic uses that are not always included in subdivision design.

Actions and Initiatives

- 13) Require open space ratios for residential districts to allow sufficient common areas to effectively separate and buffer incompatible adjacent uses. Provide density bonuses to offset the transition area.
- 14) At the time of platting, require public access easements that provide for direct linkages and connectivity between developments and to recreational trails, parks, schools, commercial, and civic institutions.



- 15) Provide regular maintenance of pedestrian amenities including crosswalks and signals, replacing obsolete traffic signs. and synchronizing traffic signals.
- 16) Incorporate street layout and design standards into the subdivision regulations to accomplish traffic calming objectives without creating discontinuous streets. Standards may include collector street offsets or jogs, curves, and narrowed street sections.

STRATEGY 3.7: *Enhance neighborhood identity through edge and perimeter treatments.*

Promote neighborhood identity and pride through special street signage and/or potential installation of small monument signs and landscaping at entries to new and existing neighborhoods.

Actions and Initiatives

- 17) Implement attractive gateway signage and landscape compositions at principal neighborhood entrances.

- 18) As street signage is replaced, install decorative signage to distinguish streets within particular neighborhoods from streets outside of neighborhoods.

STRATEGY 3.8: *Create and begin to implement an economic development strategic plan.*

Mont Belvieu should expand its tax base by marketing the area as an ideal destination for new or relocating businesses. However, a more detailed analysis is necessary in order to determine target industries. Typically, short-term results will fall in-line with regional target industries, and then evolve into a “niche” target strategy. In the interim, Mont Belvieu can focus its economic development efforts on attracting more retail projects, which is a known deficiency given its growing population, and on partnering with neighboring communities to maximize limited resources. Likewise, the City will need to continue paying close attention to potential expansion projects within its strong petrochemical industrial cluster along SH 146.

Actions and Initiatives

- 19) Consider soliciting proposals from qualified firms that can develop an economic development strategic plan and initiate implementation.

PUBLIC IMPROVEMENT DISTRICT (PID) PROS AND CONS

Pros	Cons
<ul style="list-style-type: none"> • Developers – Increase profitability and internal rate of return (IRR), provide funding and transfer repayment to future property owners. • City – Useful tool to encourage in-City development as an alternative to ETJ special district development (i.e., MUDs). • General – Enables the tax exempt monetization of assessments and other contracted revenue streams, such as TIRZ, impact fees, etc. (i.e., increases revenues). • “Pay-as-you-go” capital costs. 	<ul style="list-style-type: none"> • Projects that do not work without a PID will not “magically” work with one. • Transfer infrastructure repayment costs to homeowner by levying assessments. • Ongoing management, administration and if required, foreclosure to satisfy delinquent assessments. • Negotiations with developer. • Administration – Will likely require the administration of a development agreement and memorandum of understanding (MOU). • Typically combined with TIRZ to make more significant impact.



- 20) Identify target industries and develop accompanying incentives policy.
- 21) Ensure that all economic development attraction prospects are efficiently and effectively supported and managed.
- 22) Build and maintain a competitive portfolio of “turn-key” Mont Belvieu development sites.
- 23) Enhance efforts to attract segments of health care and other services to Mont Belvieu.
- 24) Leverage a partnership with the Chambers County Chamber of Commerce and surrounding communities to formalize a more systematic program of retaining and expanding existing businesses and also attracting new business to the area.
- 25) Consider utilization of a sales tax to provide resources for economic development incentives.
- 26) Consider the development feasibility of a City-initiated Business/Office Park, through a public-private partnership, north of FM 3360 along SH 146.

STRATEGY 3.9: *Build in-house economic development capacity.*

Mont Belvieu should expand its tax base by marketing the area as an ideal destination for new or relocating businesses. Ideally, the best way to do this is to develop internal capacity. Since the Houston area is a very competitive, yet positive place to do business, having the capacity in-house to visit with site selectors, brokers and prospective developers is a proven formula for implementing a more strategic approach to economic development. With confidential information regarding ongoing financial applications, area lenders can actually help develop a more targeted incentive program. However, without the in-house capacity to visit routinely with lenders in a more discreet setting, as they typically prefer, Mont Belvieu may be losing out on critical real estate knowledge that often times gets lost with a prospect’s inability to secure financing. Hence, this “on-the-ground” knowledge can be a difference maker in the highly competitive economic development realm.

Actions and Initiatives

- 27) Consider visiting other communities nearby to find out more about their current economic development programs and staffing.
- 28) Play a more proactive role in organizations like the Greater Houston Partnership and the Port of Houston to quickly gauge in-house capacity benefits.
- 29) Consider establishing an initial economic development budget.
- 30) Develop an economic development coordinator job description and employment solicitation. Position will focus on diversifying the tax base through the implementation of an economic development strategic plan and on assuring information about development incentives is readily available by preparing a resource guide and adopting policies regarding the use of local economic development incentives.
- 31) Build recruitment networks through attendance at high value industry meetings and conferences.

STRATEGY 3.10: *Continue to invest in amenities throughout Mont Belvieu.*

Creating interesting and appealing live and work environments will promote a strong connection between residents and employees, for example, high school graduates who might leave the community to seek employment elsewhere or retirees embarking on encore careers. These are the types of environments required to attract highly-skilled, high-income workers and jobs. Recent investments to turn Hackberry Gully into a regional destination is just one example of a drainage amenity that will augment the City’s portfolio of quality, high-impact opportunities.

The rapid growth in Mont Belvieu has reiterated the importance of investment in community infrastructure. However, as the City has grown, residents are increasingly interested in the development of Mont Belvieu as a unique location characterized by its own “sense of place.” Deliberate attention to how roadways, public spaces, and gateways look and



feel is not only appealing to residents and visitors, but it also signals to prospective businesses that the community has the foresight to invest in public aesthetics. Previous efforts, such as the landscaped medians on Eagle Drive support the notion that looks do matter. Leveraging such successes and community resources into a more robust and “next level” strategy can elevate the City’s attractiveness for a wide range of audiences. While the City is the logical entity to oversee beautification efforts, it will require participation community-wide to make the impact needed to implement this strategy. Input from the SH 146 Steering Committee, CPAC, and public input from participants validated this desire for enhanced aesthetics in the community during the comprehensive planing process.

Actions and Initiatives

- 32) Establish a City-led task force to coordinate elements of a beautification strategy.
- 33) Develop a funding and maintenance protocol for Mont Belvieu’s landscaped roads and corridors.
- 34) Develop iconic and visually appealing gateways to Mont Belvieu.
- 35) Expand participation in City-wide clean-up efforts and events.
- 36) Optimize the siting and replacement of power poles/lines in Mont Belvieu.
- 37) Expand efforts to beautify major corridors.
- 38) Ensure the provision of trails, open space and public gathering spaces.
- 39) Encourage the use of innovative architecture and site design.
- 40) Plan for the availability of alternative transportation modes.
- 41) Develop a comprehensive landscape and maintenance policy to ensure a more “manicured” look on all public property.
- 42) Work with TxDOT to leverage softscape and hardscape investments along the Grand Parkway to create signature intersections and connectivity to ongoing amenity investments, such as City sidewalks and trails.

STRATEGY 3.11: *Ensure economic development objectives are considered in the evaluation of all future City infrastructure and amenity investments.*

By focusing on a broad range of key aspects that contribute to the enhancement of Mont Belvieu’s finished “product,” particularly the qualities and assets that companies and residents look for when relocating or remaining in an area, Mont Belvieu can sustain its quality growth in a fiscally responsible manner.

Actions and Initiatives

- 43) Utilize the principles and strategies in this chapter as evaluative tools.
- 44) Ensure planning and investment decisions for the City are grounded in market and economic reality.
- 45) Promote mixed-use development opportunities in order to create vibrant live and work centers, especially in the town center area.
- 46) Support the development of the town center as an economic development priority and develop a specific set of policies that reflect a desirable vision.

STRATEGY 3.12: *Optimize the development potential of Mont Belvieu’s principal commercial corridors.*

Mont Belvieu has a unique opportunity to decide how future growth will occur and how best to best manage development, unlike many other Texas cities. With the construction of the Grand Parkway to the west of Mont Belvieu, this corridor can serve as a principal corridor for commercial and other strategic development in the immediate future. While quality development is more prevalent in Mont Belvieu, there are still areas in the City, particularly at the I-10 and SH 146 interchange that do not reflect current community standards.

Actions and Initiatives

- 47) Leverage recent road improvements to create a master plan for the development of land abutting the future Grand Parkway.



- 48) Implement development strategies along SH 146, Eagle Drive, FM 565, and FM 3360 to encourage quality retail development.
- 49) Evaluate the feasibility of establishing a Tax Increment Reinvestment Zone (TIRZ) for the development of a town center at the intersection of Eagle Drive and FM 565; consider the feasibility of other financing mechanisms along other corridors and major nodes.

STRATEGY 3.13: *Update the 2011 Retail Study.*

The study has not created more retail opportunities in Mont Belvieu. A new or more current study will need to be developed that focuses less on leakage, a known problem in the community, and more on hiring a consultant that may be able to do some of the legwork in meeting with prospective retailers and zero-in on tangible leads. The new retail study will need to ensure that economic development efforts are tailored to meet the needs of retailers looking to complement, rather than compete with, existing businesses in the retail trade area (refer to Figure 3.10, *Market Area*). During the public input process, participants expressed time and time again the need for more retail within the corporate limits of Mont Belvieu. While the challenge is clear – leakage into the Baytown area – solutions are certainly within reach, especially as the population continues to boom.

Actions and Initiatives

- 50) Consider putting together a request for proposals to update the 2011 Retail Study.
- 51) Hire a retail consultant to conduct a study with the purpose of clearly identifying tangible retail demand opportunities and potential tenants for Mont Belvieu.
- 52) Ensure that the primary retail area is clearly delineated in new study and identify specific trade areas of existing retail businesses in the City.
- 53) Identify physical and other obstacles to retail recruitment.
- 54) Identify under-supply and market potential by retail types.
- 55) Develop conceptual pro-forma analysis to

understand possible cost structure at certain strategic locations.

- 56) Develop and implement a clearly defined set of retail recruitment strategies that address Mont Belvieu's specific retail needs.

STRATEGY 3.14: *Encourage retail development at strategic locations.*

The City can be divided into two predominant categories: industrial and residential. There is a small concentration of commercial development along Interstate 10 and Eagle Drive, but the City could benefit from an increase in the number and types of businesses. Since retail typically follows a high rooftop count, Mont Belvieu must be careful to avoid the retail strip pattern that plagues corridors nationwide, and is particularly prevalent in the Houston region.

Actions and Initiatives

- 57) Consider proper locations for retail activity in the future land use plan.(i.e., SH 146, I-10, SH99, Eagle Drive, etc).
- 58) Tie strategic locations to market realities and physical constraints.
- 59) Engage local brokers, lenders and the larger real estate community in a roundtable discussion to assess and formulate a list of strategic locations.
- 60) Inventory and market strategic locations.

STRATEGY 3.15: *Develop internal marketing campaign to increase awareness of Mont Belvieu and its assets.*

Although it would not be fiscally prudent for Mont Belvieu to develop a holistic marketing approach at this time, it is important for the City to ensure that its perception in the highly competitive Houston area remains a positive one. In addition to elements of this comprehensive plan that seek to establish more of a "sense of place" in Mont Belvieu, this strategy strives to develop a stronger identity and sense of pride among Mont Belvieu residents for their City, its assets, and its future. With so many new homes and residents, it is not surprising that many in Mont Belvieu affiliate more with their neighborhoods than the City at large. Distinctions between west and east Mont Belvieu are likely to develop with the



construction of the Grand Parkway, which may make it difficult to cultivate support for City-wide efforts or initiatives. In order for Mont Belvieu to successfully transition from residential boomtown to established City, it will be important for Mont Belvieu residents and businesses to commit more time and resources for local projects. This will be easier to accomplish if the majority of people that associate themselves with Mont Belvieu live and work in the City.

Actions and Initiatives

- 61) Establish consensus on the parameters of an internal marketing campaign.
- 62) Develop and launch the internal marketing campaign.
- 63) Establish an ongoing communications program to ensure campaign's sustainability.
- 64) Hold an annual public event celebrating Mont Belvieu and its progress.
- 65) Initiate a slow transition of campaign from internal to external, whenever appropriate.

STRATEGY 3.16: *Maintain a competitive labor force.*

Mont Belvieu needs to maintain its competitive labor advantage and ensure that future generations of local students are prepared for jobs that are available locally. Education and workforce providers must continually reassess systematic skills-development issues, improve partnerships with companies and each other, and develop programs to respond to labor force skills deficits and employer needs. A well-trained workforce is essential in attracting and retaining businesses. Education begins before formal entry into the K-12 system and continues throughout the worker's career. The community must focus on early childhood education to build a basis for life-long learning. The quality of public K-12 education is important not only in terms of education and training, but also in terms of making the community a desirable location for families and businesses. Equally important, is to support higher education learning opportunities and workforce training.

Actions and Initiatives

- 66) Advance local education and workforce training in Mont Belvieu.

- 67) Foster and manage partnerships to formalize career pathways in Barbers Hill ISD.
- 68) Ensure that the area's K-12 school systems successfully prepare students for the existing and future local workforce opportunities.
- 69) Partner with regional educational institutions; align two- and four-year college programs with existing and future target industry sectors.
- 70) Leverage regional colleges and universities in talent retention and attraction efforts.

STRATEGY 3.17: *Support education pipeline.*

As the City of Mont Belvieu continues to grow and diversify, its priority focus must remain on optimizing education systems, aligning training programs with the realities of today's workplace, and best positioning students for college and careers. True integration of local pre-K to high school systems into a seamless education and training pipeline should be the ultimate goal for Barbers Hill ISD, institutions, and partners.

Actions and Initiatives

- 71) Support the development of new and expanded schools in Mont Belvieu.
- 72) Expand the availability and capacity of pre-K and early childhood programs.
- 73) Fully leverage opportunities to expose Mont Belvieu area students to, and prepare them for, locally-available jobs.
- 74) Improve talent attraction and retention of workers to the area, particularly young professionals and recent graduates.
- 75) Ensure Mont Belvieu's young professionals are more involved in the local decision-making processes, on civic committees, boards, and commissions.

**STRATEGY 3.18:** *Foster local entrepreneurship.*

Research has shown that most job growth in the U.S. is derived from small business development and expansion; therefore, creating the support structure necessary to convert a business plan into a successful venture is a critical component of a comprehensive economic development strategy. Small business ownership can help strengthen the local economy by providing stronger earnings potential for the workforce.

While Mont Belvieu has limited research and development activities, there are opportunities to capture and leverage these activities in Mont Belvieu. The result could be a stronger office presence, which was also mentioned during the community input process. Community input also suggested that the Mont Belvieu community can be risk averse, an attitude that must be overcome to support the changes necessary to expand local entrepreneurship levels.

Actions and Initiatives

- 76) Establish a stronger partnership with Chambers County Chamber of Commerce to ensure initiative alignment.
- 77) Consider options to provide seed and bridge capital to facilitate effective small business and entrepreneurial development through area venture capitalists and philanthropists.
- 78) Consider feasibility and provision of public incubator and coworking space to facilitate startups and existing business growth.
- 79) Facilitate the development of a business plan competition event in partnership with the Chambers County Chamber of Commerce and the Greater Houston Partnership.
- 80) Develop a public-private partnership to further nurture an entrepreneurial spirit and spur office development.
- 81) Consider opportunities and specific locations for business incubators and co-working spaces.



THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK.



CHAPTER 4 :

AMENITIES

This chapter evaluates Mont Belvieu's available educational, health, cultural, and recreational facilities and services that serve as "quality of life" measures for residents of the City. Accessibility to these various facilities and by current citizens will be assessed to determine where the City should engage in activities to encourage the provision of public and private service sector investments in the community. This element of the Plan is intended to identify potential deficiencies in community amenities that, if left unaddressed, might inhibit business development and quality of life.

LIVE

GUIDING PRINCIPLES

Principle: Continued investments in high quality community design.

Principle: Promote the preservation of open space when possible.

Principle: Support superior educational amenities.

Principle: Promote the advancement of arts and cultural amenities.



BIG IDEAS FOR THE FUTURE

What amenities are important to you (i.e., educational, health, cultural, recreational, etc.)?

"A children's museum..."

"Area designated for merchants, art gallery, stores for local craftsmen..."

"...dog park..."

"...City pool..."

**-Citizen responses to questions on
mySidewalk**



INTRODUCTION

“Quality of life” means many things to many people. For the purpose of Mont Belvieu’s Comprehensive Plan, quality of life is defined as both citizen perception of the built environment—the appeal and livability of Mont Belvieu and as the adequacy and quality of amenities and services provided to residents. These amenities and services include education, parks and recreation, libraries, police and fire protection (covered exclusively in **Chapter 2, Growth Capacity**), mental health services, and cultural facilities. Quality of life indicators define Mont Belvieu as a city and evoke a sense of community and belonging.

Overall, public amenities play a critical role by contributing to the fiscal health of a community’s government, and the viability of its businesses. Public facilities, such as city hall, police and fire stations, service buildings, and parks are critical elements in a community, needed to sustain neighborhoods, businesses, and governmental functions. Other quasi-public community facilities such as schools, hospitals, libraries, and places of worship are also important to residents and their quality of life.

In addition to strategies in **Chapter 5, Land Use and Character**, as well as strategies in earlier chapters, strategies in this chapter will focus on amenity improvements intended to enhance Mont Belvieu’s long-term competitiveness in attracting future employers and residents.

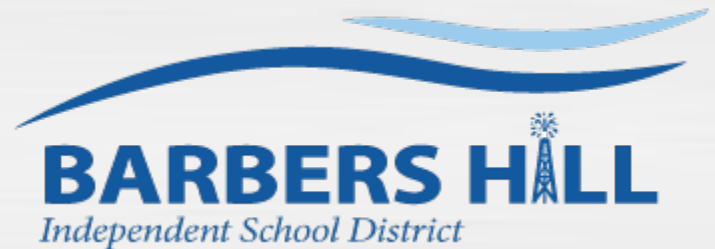
EXISTING INDICATORS

EDUCATIONAL FACILITIES AND SERVICES

EARLY - SECONDARY EDUCATION

Mont Belvieu is served exclusively by the Barbers Hill Independent School District (BHISD), which encompasses four communities: Mont Belvieu, Old River-Winfree, Cove, and Beach City, and covers 192.3 square miles. Its borders consist of the Trinity River on the east to the Harris County line on the west, and Trinity Bay on the south to the Liberty

County line on the North. Established in 1929, the District has a rich tradition of community involvement. The fabric of the District’s history and growth is interwoven with that of the petrochemical industry, beginning with the discovery of oil in the early 1900’s, through the development in the 1950’s of the Mont Belvieu salt dome, and continuing today as the petrochemical industry continues to expand to meet global demand.

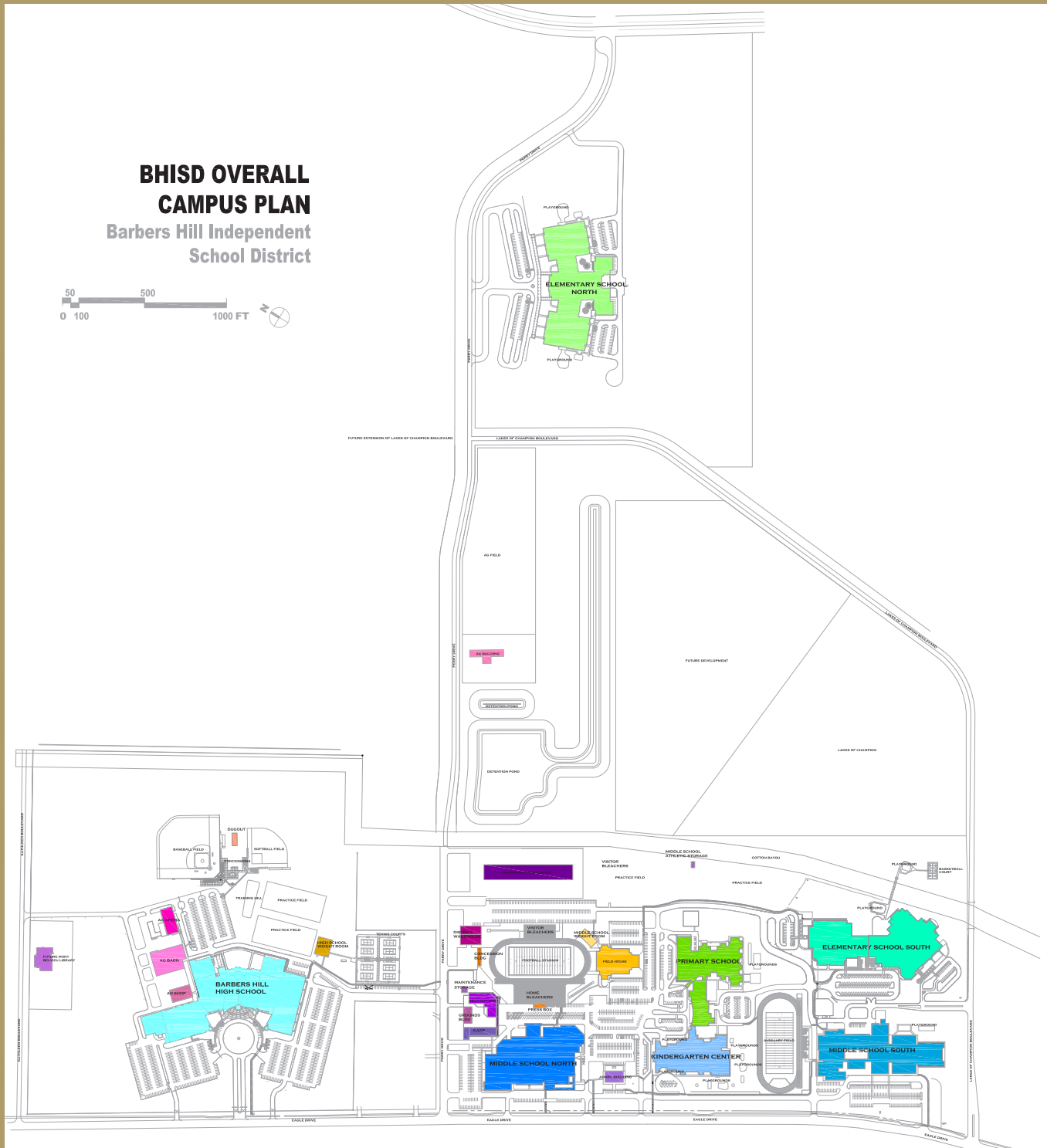


Barbers Hill ISD includes 8 campuses (see **Figure 4.1, Barbers Hill ISD Campus Map**) consisting of one high school, two middle schools, two elementary campuses, one primary (first grade) campus, a kindergarten campus, an alternative (disciplinary) campus athletic complex and Other important numbers that will continue to influence the provision of facilities and services to support the future population of Mont Belvieu include:

- Total Enrollment (all 8 campuses) – 4,909; and
- Student to Teacher Ratio – 14:8; Average Class Size – Elementary 19.9; Secondary 19.4.
- BHISD data indicates a quality public education system in Mont Belvieu. While the aesthetic value of educational facilities in the City certainly contributes to quality of place, the performance of its facilities go beyond merely aesthetics. BHISD campuses perform at a very high academic standard. As noted earlier in **Chapter 1, Planning Context**, Mont Belvieu’s population with at least a high school education exceeds that of the Chambers County, the Houston MSA, and the State of Texas. Though the percentage of citizens aged 25 or older in Mont Belvieu with a bachelor’s degree is less than that of the Houston MSA, 74 percent of BHISD graduates enroll in institutions of higher education.



FIGURE 4.1, BARBERS HILL ISD CAMPUS MAP





BARBERS HILL ISD SCHOOLS AND AMENITIES IN MONT BELVIEU



BARBERS HILL HIGH SCHOOL (9-12)
9696 EAGLE DRIVE



BARBERS HILL MIDDLE SCHOOL SOUTH (6-8)
9696 EAGLE DRIVE



BARBERS HILL MIDDLE SCHOOL NORTH (6-8)
9696 EAGLE DRIVE



BARBERS HILL ELEMENTARY SCHOOL NORTH (2-5)
4400 PERRY AVENUE



BARBERS HILL ELEMENTARY SCHOOL SOUTH (2-5)
9696 EAGLE DRIVE



BARBERS HILL PRIMARY SCHOOL (1)
9696 EAGLE DRIVE



BARBERS HILL ISD SCHOOLS AND AMENITIES IN MONT BELVIEU



BARBERS HILL KINDERGARTEN CENTER (PRE-K/K)
9696 EAGLE DRIVE



BARBERS HILL EAGLE POSITIVE EDUCATION CENTER (DAEP)
4400 PERRY AVENUE



BARBERS HILL ATHLETIC COMPLEX, INCLUDING EAGLE STADIUM (9, 036 CAPACITY)
9696 EAGLE DRIVE

Below is a list of additional performance highlights from BHISD. In a regional context where school district performance heavily influences where people live and work, Mont Belvieu’s quality public education supports this type of environment.

Facility Performance Metrics

- Barbers Hill received the 2014 Clean Air Award from the Houston-Galveston Area Council for the use of alternative fuels in transportation.
- Barbers Hill was awarded the Neutex “Thinking Outside the Bulb” Award for environmentally-friendly initiatives implemented in 2014.

Service Performance Metrics

- Fourteen middle school students received State recognition from the Duke Talent Identification Program.
- Graduation Rate – 99.3%.
- Collegiate Entry Exam Scores – Average SAT Score – 1451; and Average SAT Score – 21.3.
- STAAR Performance – All BHISD campuses “Met Standard” in 2014, which is the highest rating by the Texas Education Agency (TEA).
- BHISD has the largest percentage of National Board Certified Teachers in the State.

HIGHER EDUCATION

Although there are no community colleges, technical schools, or universities in Mont Belvieu, Lee Community College is within a short driving distance from Mont Belvieu. Access to a number of other institutions of higher education are also available within close proximity throughout the Houston MSA.

DEFICIENCIES/FUTURE AMENITIES

While there are no significant deficiencies in education facilities and services in Mont Belvieu, sustained population growth will continue to drive facility planning and coordination. The recent construction of the Kelley Building proves BHISD’s continued commitment to quality investments in service provision to its students. The multipurpose practice facility is located behind Barbers Hill High School and opened in early 2016.

From a distribution standpoint, all campuses located in one consolidated location do place a mobility strain on drivers along Eagle Drive during the start and end of the school day. While BHISD does not currently have any plans in place to design or build any new campuses in the City, the dialogue will need to center around distribution, access, and continued population growth.

HEALTH FACILITIES AND SERVICES

CHAMBERS COUNTY PUBLIC HOSPITAL DISTRICT NO. 1

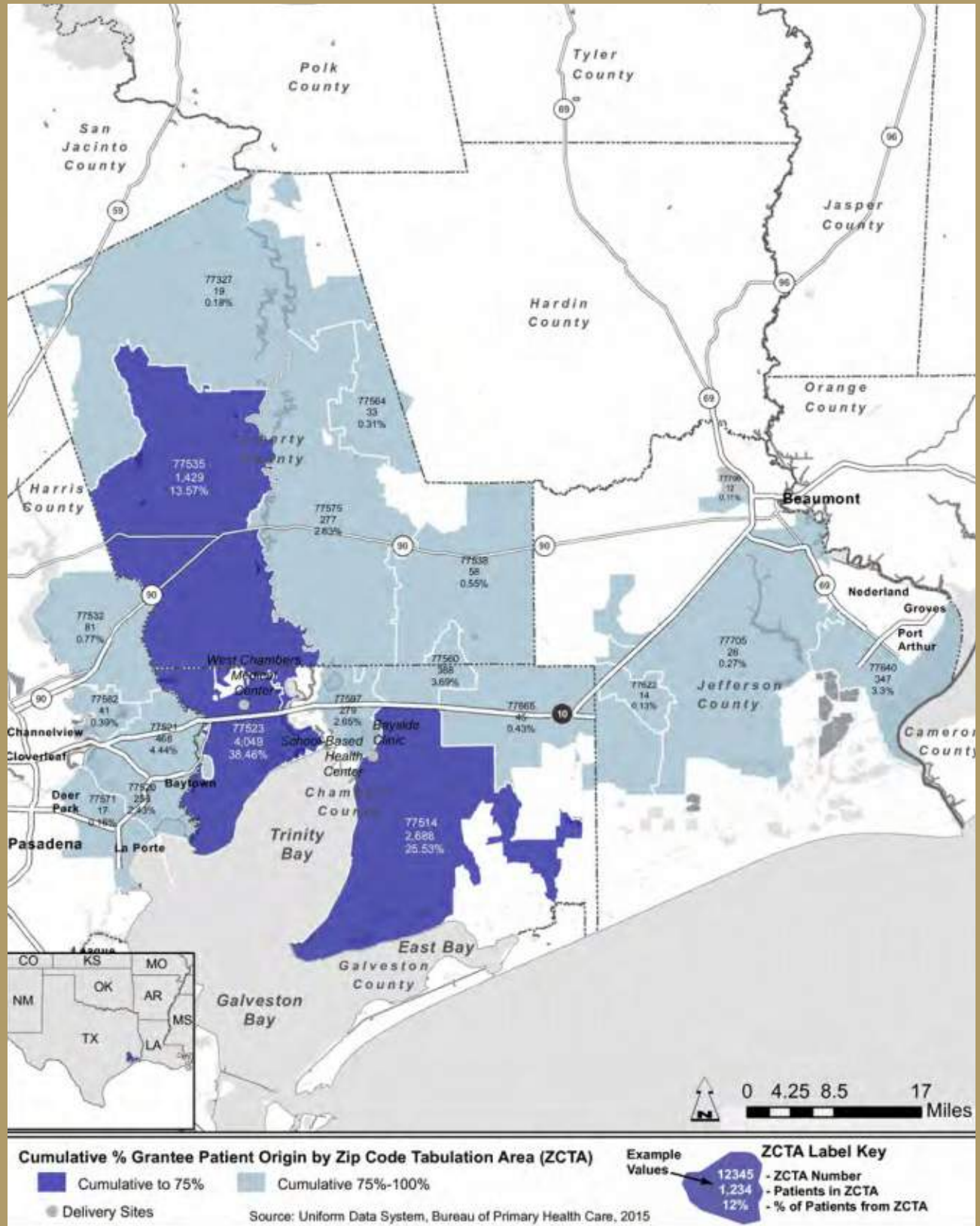
There are no privately-run hospitals or major medical facilities in Mont Belvieu. However, as shown on **Figure 4.2, Chambers County Public Hospital District No. 1 Service Area (2015)**, the City is within the service area of Chambers County Public Hospital District No. 1 (CCPHD). CCPHD’s premiere facility has been in operation of 60 years and provides emergency and general acute care to Chambers County communities, including Mont Belvieu. According to the U.S. Department of Health and Human Services, in 2014, CCHPD provided service to approximately 10, 207 patients. In 2005, Bayside was recognized by the Texas Medical Foundation with the “Award of Excellence in Healthcare Quality Improvement.” The hospital offers the only State-designated trauma center (emergency room) in Chambers County. The hospital offers a wide range of inpatient and outpatient programs and ancillary services, including diagnostic imaging, respiratory therapy, and laboratory services.



The new West Chambers Medical Center building is at 9825 Eagle Dr. Source: Star Courier News Online



FIGURE 4.2: CHAMBERS COUNTY PUBLIC HOSPITAL DISTRICT NO. 1 SERVICE AREA (2015)



Source: Chambers County Public Hospital District



Source: Chambers County Public Hospital District

WEST CHAMBERS MEDICAL CENTER

The most recent addition to the Hospital District's portfolio is the West Chambers Medical Center, which marks the first major facility and service investment in Mont Belvieu. The Center, located at 9825 Eagle Drive, is a Federally Qualified Health Center (FQHC). FQHCs are community-based organizations that provide comprehensive primary care and preventive care, including medical, oral, and mental health/substance abuse programs and services. The existing layout at the West Chambers Medical Center was designed with a quick expansion in mind based on future utilization and demand. Staffed by licensed and certified personnel, including board certified family physicians, the Center provides comprehensive primary care services while also serving as the entry point for a wide array of programs and services provided by CCPHD, including:

- Pediatric Programs;
- Women's Health;
- Geriatric (Senior) Care;
- Adult Medicine;
- Minor Procedures;
- Wellness Programs and Services;

- Occupational Health;
- Immunizations Programs;
- Behavioral Health;
- Licensed Professional Counseling;
- Bayside Dental and Oral Health; and
- Outreach and Education.

Though neither is located in Mont Belvieu, other facilities provided by CCPHD include the Bayside Clinic/Dental and Bayside Wellness Center.

DEFICIENCIES / FUTURE AMENITIES

While Houston is home to the largest medical complex in the world, the Texas Medical Center and provides clinical health care, research and education at its 54 institutions at TMC, privately-led regional efforts have led to the decentralization of facilities and services. This helps to take advantage of market opportunities in the suburbs and beyond. Mont Belvieu has not been a beneficiary of this decentralization effort, but could stand to benefit as the population in Chambers and Liberty Counties continues to grow. Access to top medical facilities and services will pose an even greater challenge to Mont Belvieu based on current population projections. If the population growth that is expected in the Mont Belvieu becomes a reality, efforts will need to focus on creative partnerships with strong private and public entities to bring services to the area based on expected demand trends.

The most recent Strategic Plan completed by the CCPHD identified the following areas of concern within its primary and secondary service areas:

- Physician demand models suggest that there is a need for every specialty with the exception of family practice. The number of family practice physicians exceeds the need identified in the model because family practice physicians in smaller urban and rural areas manage all primary care needs, (OB, Internal Medicine, and Pediatrics) as well as family practice. When all primary care services are taken into consideration, there is a need for approximately 15 additional primary care providers in the primary service area and 54 in the secondary service area.



- Physician demand models also suggest that there is a need for virtually every sub-specialist and the need increases when the primary and secondary service area are combined. A coordinated effort between the hospital and primary medical community would provide the best opportunity to recruit sub-specialist care to the community.

ARTS AND CULTURE FACILITIES AND SERVICES

SAM AND CARMENA GOSS MEMORIAL BRANCH LIBRARY – CHAMBERS COUNTY LIBRARY SYSTEM

A total of three libraries make up the Chambers County Library System: Juanita Hargraves Memorial Branch Library in Winnie; the Chambers County Library in Anahuac; and the new Sam and Carmena Goss Memorial Branch Library in Mont Belvieu. Located at 1 John Hall Drive, the new library marks the first County branch in Mont Belvieu. The site, located at the north side of the Barbers Hill ISD complex, was completed in early 2016, and provides area residents and school children with easy access to over 13,000 square feet of meeting space, computer access, and books.

The facility marks a unique public-private partnership between the City, BHISD, and Chambers County.



Source: Kendig Keast Collaborative

HISTORY MUSEUM

The Barbers Hill/Mont Belvieu Museum is composed of exhibits, artifacts, and photos that represent the history of Mont Belvieu, and is housed on the City Hall grounds. The museum is open every Tuesday and Thursday of the month, as well as every second Saturday. There is no admission and attendants are present to supply information for visitors.



Source: Kendig Keast Collaborative

The museum is built around a topographical presentation depicting Barbers Hill as it might have been in the 1920's and 1930's. Mont Belvieu's early days are represented by a pictorial exhibit of cattle ranching and farming. The oil boom brought the next phase of oil and industry in the area. There is an illustration of the underground salt dome storage, which is the largest in the world and has contributed greatly to the economic development of the area.

One of the main focal points in the museum is a quilt that was done for the Sesquicentennial Celebration by the senior citizens and has names of all the pioneer families embroidered on it.

DEFICIENCIES / FUTURE AMENITIES

The new County library branch in Mont Belvieu adds to quality of place, particularly adding a key amenity essential to live and work environments. In addition, much needed provision of meeting space is also provided at the Mont Belvieu branch. The City's partnership in the library show a strong commitment to education, and numerous studies indicate these types of amenities are the cornerstone of strong local economies.

As Mont Belvieu’s population continues to grow, the provision of additional libraries within close proximity to neighborhoods may be necessary. Alternative solutions that consider smaller size and decentralization could be considered, particularly in neighborhoods far from the new branch. The key is the City’s commitment to the provision of quality facilities and services that enhance Mont Belvieu’s quality of place.

PARKS RECREATIONAL FACILITIES AND SERVICES

Covered more extensively in the City’s new **Parks and Recreation Master Plan** and the new **Trails Master Plan**, The City Parks and Recreation Department is primarily responsible for the provision, direction, supervision, operation, and maintenance of four parks totaling 86 acres. Of special note is the number of unique features and amenities available at the City Park. As the largest of Mont Belvieu’s parks, City Park offers an impressive array of features, including: ADA accessibility, an amphitheater, recently expanded splash pad, boardwalk, pavilions, baseball and soccer fields, children’s playground, tables, benches, restrooms, picnic areas, parking, and walking trails.



Source: City of Mont Belvieu

- Joe Matthews Park (Old River County Subdivision)
- McLeod Park
- Arthur B. Davis Park (Highway 146)



Source: ourbaytown.com

- Hackberry Gully Regional Park (Off I-10 near City Hall)



Source: Hackberry Gully Regional Park Webinar 1

- Cherry Point Park (Cherry Point Subdivision)



Source: Kendig Keast Collaborative

In addition to daily and seasonal maintenance operations, the Parks and Recreation Department sponsors, with volunteer support, many special events, including the July 4th celebration, Christmas in July, Christmas in the City, and the Annual Easter Egg Hunt. The Parks Department also oversees the maintenance and operations of the Senior Center and the History Museum.

EAGLE POINTE RECREATION COMPLEX

One of Mont Belvieu’s most significant regional amenities is the Eagle Pointe Recreation Complex. Also discussed more thoroughly in the **Parks and Recreation Master Plan**, this section briefly highlights the following key facilities and services of this regional amenity:



- Recreation Center (12450 Eagle Pointe Drive)– The state-of-the-art facility includes the following features: 1,850 square feet of banquet and conference facilities, basketball courts, racquetball courts, outdoor lighted tennis courts, heated indoor lap pool, dedicated group exercise room, a group cycling room, Pointe Grill Restaurant, tanning salon, massage therapy room, locker rooms, child watch and outdoor play area, and a half-mile nature and jogging trail. The 4,300 square foot strength and conditioning center features an extensive list of fitness equipment and cardiovascular machines. Services at the facility include personal training, a number of youth programs, group and individual swim lessons, massage therapy, and group exercise classes. The Pointe Grill Restaurant also offers catering.
- Wave Pool – The wave pool is also located at the Eagle Point Recreation Complex and offers unique entertainment for patrons. The waves at the pool are created by high-tech equipment. Wave pool area features and services include children’s playground, sand volleyball courts, shaded areas, seating, locker rentals, restrooms, private parties and cabana rentals, and a concession stand.



Source: City of Mont Belvieu

for play in 1999. It has become one of the best known and most respected golf courses in the southeast Texas area. The unique 40-foot elevation changes make the course enjoyable and challenging for players of all skill levels. Other Golf Club features and services include 5,000 square feet of event pavilion space, Eagle’s Nest Restaurant, tree-lined fairways, unique water hazards, very fast greens, golf instruction, and practice facilities.

Since 2014, Eagle Pointe has been a host of the Texas Senior Open and the Southern Texas Professional Golfers Association Foundation fundraiser benefiting local PGA Tour player Shawn Stefani’s Scholarship Fund.

SENIOR CENTER AT CITY HALL

Located at 11607 Eagle Drive, the Senior Center is a unique amenity available to residents of the City. Features and services at the facility include ADA accessibility, kitchen, meeting room space with a maximum occupancy of 71, and exercise classes.



Source: City of Mont Belvieu



Source: City of Mont Belvieu

- Golf Club (12440 Eagle Pointe Drive) – Eagle Pointe Golf Club’s 18-hole championship golf course, designed by Rick Forester, first opened



DEFICIENCIES/FUTURE AMENITIES

A more thorough inventory, including deficiencies and future recommendations for Parks and Recreation in Mont Belvieu are discussed at greater length in the new **Parks and Recreation Master Plan**. Also relevant and discussed separately at greater length is a new **Trails Master Plan**.

According to the City's 2014-2025 CIP, major future investments in recreational facilities and services include a new Senior Center location. The new Senior Center is expected to meet increases in demand at the old facility. The old senior center could be converted to additional office space at City Hall as part of an overall expansion there. The location of the new facility, adjacent to the existing Recreation Complex, will allow for an increase in Senior service provision. The estimated size of the new Senior Center will be approximately 12,000 square feet; construction on the new facility is set to begin in 2017.

OTHER PUBLIC AND PRIVATE INVESTMENTS

One of the best measures of progress in the provision of amenities is the extent of budgeted improvements on the City's CIP. During public meetings, attendees pointed to the need to utilize detention ponds as an amenity for the provision of recreational opportunities in the City and a need for trails to connect neighborhoods, parks, and other community amenities.

The following is a list of significant future projects that will ensure the provision of additional amenities in Mont Belvieu and address two specific needs discussed during the public input process:

- **Hackberry Regional Detention and Park** – The construction of a 200-acre wet detention pond near the intersection of I-10 and Hackberry Gully, is currently under construction and will be phased over time according to the development that occurs nearby. As new development occurs within the Hackberry Watershed, the City will construct the amenity detention pond and charge developers impact fees to mitigate subsequent increases in runoff.

HACKBERRY GULLY REGIONAL DETENTION AND PARK

THE PROJECT'S FOUR PRIMARY PRINCIPLES:

1. REIMAGINE STORMWATER AS A MULTI-FUNCTIONAL AMENITY.
2. CREATE AND ECOLOGICALLY RESTORATIVE RESOURCE.
3. PROVIDE COMMUNITY PROGRAMMING FOR A GROWING POPULATION.
4. ESTABLISH THE PARK AS A UNIQUE DESTINATION.

A series of goals, metrics and strategies supported the four principles and helped to drive design and programming of the site.

The master plan provides for 518 acre-feet of stormwater detention, which will be passively treated through the implementation of wetlands along the periphery of the ponds and in gardens throughout the park.

147 acres of diverse habitats are provisioned including woodland, meadow/prairie, wetland and aquatic ecologies.

The master plan adds over 7.5 miles of trails to Mont Belvieu, increasing access and transportation options that will elevate the physical health and emotional well-being of the residents and visitors.

Art elements, gateways and landform composition were critical to infusing the site with a strong identity and sense of place. Over 40 acres of the Park are dedicated to arts and landmarks which will foster a unique character to the site and make the Park a genuine regional destination.



Source: Design Workshop



Source: Design Workshop

- **Sidewalks** – Public and private investments in the construction of a sidewalk network in Mont Belvieu is perhaps one of the most significant amenities. Sidewalks provide critical links between different land uses, especially public uses
- **Trails** – Also on the City’s 2014-2025 CIP is a budget item for 10 miles of trails. The purpose is to create connectivity between neighborhoods, parks, and other community amenities. The new **Trails Master Plan** will lay out specific capital projects towards implementing this important City amenity.

TELECOMMUNICATIONS / BROADBAND ACCESS

In July 2015, the City retained Magellan Advisors to conduct a Broadband Options Study, which concluded in March 2016. The study received nearly 200 comments from residents. Nearly all comments received during the study expressed concern that broadband service was nonexistent in the City. As a result, the City decided to take action to level the playing field for its residents, especially its businesses. Coincidentally, during the public input process, this future amenity was mentioned by residents as a very important economic development

priority. As a result of overwhelming resident and business support, the Broadband Options Study recommended the implementation of a fiber-optic network for Mont Belvieu. The network provides a critical amenity for long-term economic development in the City.

The study also evaluated the City’s position to become a provider of retail and wholesale Internet to the residential, commercial, and community anchor markets in and around the City, particularly knowing the lack of local, private investment in broadband infrastructure. The study concluded that offering Fiber-To-The-Premise (FTTP) broadband services provides the most significant business opportunity and community benefit for the City. This finding supports planning strategies outlined in Chapter 3, Live and Work. In general, the study outlined several positive benefits for the City related to economic development in the following areas:

- Job creation;
- New business attraction;
- Job retention and expansion;
- Home-based business and telecommuting productivity;
- Advance healthcare, education, and research;
- Initiate tech booms and incubate start-ups;
- Money savings that can be used to optimize existing income levels;
- Home value increases; and
- “Smart” transportation, water and sewer service.

Of several different business model options for Mont Belvieu, the study concluded that the retail service provider model, which provides end user services to businesses and residential customers, is the best strategy for the City. Figure 4.X, Proposed Backbone Ring, illustrates the proposed backbone fiber route that would be built in a ring typology within the City of Mont Belvieu. The route would travel along Interstate 10 to Eagle Drive to SH 146, and then finally back down to Interstate 10. Currently, all proposed fiber would be placed underground. A distribution (feeder) fiber network, as shown on Figure 4.X, Proposed Distribution/Feeder All Zones, will interconnect the backbone fiber network with outdoor cabinet broadband enclosures placed throughout the service area, ulti-



Example of Trails in Mont Belvieu, Source: Google Maps



mately providing distribution fiber throughout four main zones. This approach allows phased service and immediate revenue generation while the remaining phases are being installed. Once installed, the fiber optic network will become a strategic community amenity that will be a critical planning tool to help attract and keep residents in the City.

COMMUNITY DESIGN

As Mont Belvieu continues to grow and change rapidly, a focus on design can help conserve and enhance aspects of the physical environment that

make Mont Belvieu attractive to residents and visitors. These aspects include a close relationship with its natural systems, parks, streets, and open spaces. Design can also help direct growth to produce desirable community outcomes while reducing the negative impacts of change, and can help guide the character of older parts of Mont Belvieu with newer areas.

A focus on design can also raise the standards for how private and public developments contribute to the overall appearance and quality of the built environment in the City. Through unified development regulations and design review, addressed more extensively in Chapter 5, *Land Use and Character*, the City can help shape the appearance of individual projects to ensure compatibility with surrounding developments. The way the City builds and enhances its major amenities will continue to define key public spaces and the connections among all development.

Design strategies described here provide the foundation and citywide context that will give a coherent approach to the City's future actions in regulating, building, and maintaining the City. The strategies are part of future character and quality of life considerations across the City.

Strategy 4.1: Improve Mont Belvieu's appearance through the implementation of a community-wide beautification and gateway strategy.

The physical character of a place creates first impressions for visitors and contributes to the quality of life of those that live and work in Mont Belvieu. The appearance of the physical environment is an asset. One of the main attributes of Mont Belvieu is its small town character. Aside from the actual size of the town, community design can play an important role in creating this atmosphere. While the City has a large number of existing amenities, future amenities will need to focus on strategically improving the appearance of rights-of-way and principal commercial corridors that do not reflect current community standards. The implementation of a community-wide strategy is necessary to help achieve optimum results. The following strategies and accompanying initiatives and actions are meant to continue the improvement and enhancement of Mont Belvieu's amenities.

FIBER OPTIC FACTS AND FIGURES

FACTS AND FIGURES

SPRING 2011

Google first announced Google Fiber service in Kansas City

Google Fiber uses fiber optic cable, instead of copper cable, to deliver up to

1 GB/PS

(gigabits per second) or 1,000 megabits-per-second speed

91%

of residential survey responses want broadband and basic utility

DECEMBER 2016

Mont Belvieu completes field verification of plans

1 GB

Mont Belvieu's network will be capable of providing one Gigabit speeds

The US is **14TH**

in the world in average connection speeds



COMPLETE STREETS

The streets of our cities and towns are an important part of our communities. They allow children to get to school and parents to get to work. They help to organize and orient our built environment – our neighborhoods, centers of commerce, and public institutions. As such, these streets ought to be designed for everyone – whether young or old, on foot or on bicycle, in a car or in a bus – but too often they are designed only for speeding cars or creeping traffic jams.

Now, in communities across the country, a movement is growing to “complete” the streets. States, cities, and towns are requesting their planners and engineers to build roads that are safer, more accessible, and easier for everyone. In the process, they are creating better communities for people to live, play, work, and shop. Complete Streets are streets for everyone. Pedestrians, bicyclists, motorists, and public transportation users of all ages and abilities are able to safely move along and across a complete street.

According to the National Complete Streets Coalition, instituting a complete streets policy ensures that transportation planners and engineers consistently design and operate the entire roadway with all users in mind – including bicyclists, public transportation vehicles and riders, and pedestrians of all ages and abilities.

An ideal complete streets policy includes:

- A vision for how and why the community wants to complete its streets;
- Specifies that ‘all users’ includes pedestrians, bicyclists, and transit passengers of all ages and abilities, as well as trucks, buses, and automobiles;
- Applies to both new and retrofit projects, including design, planning, maintenance, and operations, for the entire right-of-way;
- Makes any exceptions specific and sets a clear procedure that requires high-level approval of exceptions;
- Encourages street connectivity and aims to create a comprehensive, integrated, connected network for all modes;
- Is adoptable by all agencies to cover all roads;
- Directs the use of the latest and best design criteria and guidelines while recognizing the need for flexibility in balancing user needs;
- Directs that complete streets solutions will complement the context of the community;
- Establishes performance standards with measurable outcomes; and
- Includes specific next steps for implementation of the policy.¹

¹ Smart Growth America, National Complete Streets Coalition. <http://www.smartgrowthamerica.org/>



Actions and Initiatives

- 1) Support a comprehensive beautification strategy to create a consistent community aesthetic, including the construction of gateways and entry features at various points in Mont Belvieu, as seen on **Figure 4.3, Monument Concept**.
- 2) Consider a Master Improvements Plan for the Grand Parkway and other principal corridors throughout the City; obtain approval of an Advanced Funding Agreement (AFA) from TxDOT for the implementation of the Plan.
- 3) Support the effective implementation of the **SH 146 Revitalization Plan**.
- 4) Continue to support and implement “Complete Streets,” particularly on Mont Belvieu’s principal commercial corridors.
- 5) Continue to set the standard for community aesthetics through the provision of quality public facilities and services.

Strategy 4.2: Support the adoption of a “Complete Streets” policy, particularly on Mont Belvieu’s principal commercial corridors.

Actions and Initiatives

- 6) Adopt “complete streets” on roads with sufficient right-of-way, particularly City-owned streets.

Strategy 4.3: Support pedestrian-friendly amenities in Mont Belvieu.

Actions and Initiatives

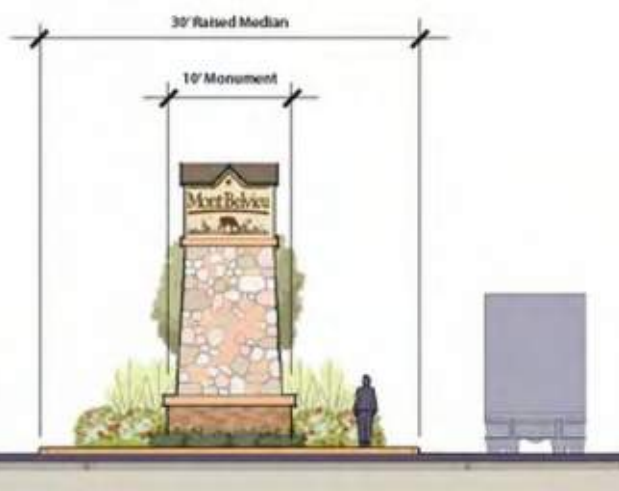
- 7) Require appropriate design standards, as well as other techniques and methods in the development of pedestrian-oriented areas, particularly to enhance and encourage pedestrian activity and safety.
- 8) Plan for safe and convenient pedestrian traffic in the design of streets and building facades.
- 9) Promote and plan for pedestrian and bicycle connections to and through residential neighborhoods.
- 10) Where appropriate, encourage bufferyards rather than fences, walls, or other structures that impede pedestrian travel along the perimeter of residential, commercial, and industrial land uses. If fences or walls are planned, convenient breaks for pedestrians should be included.

Strategy 4.4: Consider siting of underground utilities along Mont Belvieu’s principal commercial corridors.

Actions and Initiatives

- 11) Examine the feasibility of siting possibilities throughout the City; coordinate closely with Centerpoint Energy.
- 12) Prioritize the following principal corridors: Eagle Drive, SH 146, and FM 565.
- 13) Develop a phased list of priority projects to include in the City’s future CIP plan.

FIGURE 4.3: MONUMENT CONCEPT



Source: Kendig Keast Collaborative



BHISD STRATEGIC GOALS

ACADEMICS

1. 100% seniors graduate via State Accountability Program.
2. Evaluate and implement stated dress code and cell phone policies.
3. Show an increase in the state accountability system in regard to the percent of students who “met the standard” and the percent of students who achieve the “advanced academic level.
4. All eighth grade students will pass the STAAR Reading and Math tests to advance to ninth grade.

FINANCE

1. Diversify revenue.
2. Create a strategic plan involving all stakeholders regarding district growth and to prepare BHISD to maintain our standards of excellence through the year 2029 (centennial).
3. Explore and develop plan for naming rights of commercial and non-commercial opportunities.

COMMUNITY

1. Strengthen and keep relationships with the City of Mont Belvieu and other municipalities, Lee College, Chambers County and legislature.
2. Create a strategic plan involving all stakeholders regarding district growth and to prepare BHISD to maintain our standards of excellence through the year 2029 (centennial).

Strategy 4.5: Consider the development of design guidelines to ensure that private development standards accurately reflect community character.

Actions and Initiatives

- 14) Consider development guidelines for the following: Eagle Drive, Grand Parkway, and SH 146 as priorities.
- 15) Revise site planning and design requirements in the regulatory codes to be consistent with the Community Design Strategies, as well as future Design Guidelines.

- 16) Revise sidewalk, street tree, and street furnishing standards where consistent with future City Design Guidelines.
- 17) Support the creation of a town center master plan for the strategic development of the area surrounding the intersection of Eagle Drive and FM 565.

Strategy 4.6: Encourage community design that recognizes natural systems and integrates ecological functions, such as stormwater filtration or retention with other infrastructure and development projects.

Actions and Initiatives

- 18) Continue to implement regional detention in Mont Belvieu as an integral opportunity to expand the provision of parks and open space.
- 19) Continue to enhance natural systems to serve as genuine destinations.

EDUCATIONAL AMENITIES

The strong overall performance of BHISD lays the foundation for Mont Belvieu to become an educational destination. The City has the potential to leverage education as an amenity and, subsequently, an economic development competitive advantage. BHISD is in the process of developing its first strategic plan. Support of this plan will ensure positioning the district for future academic achievement and provision of other amenities and services that solidify the City’s own portfolio. The following strategies and actions relate very closely to those in Chapter 3, Live and Work.

Strategy 4.7: Continue to work with BHISD for the efficient provision of educational amenities and services.

Actions and Initiatives

- 20) Align City educational goals with BHISD goals, particularly those that help strengthen the City’s overall educational pipelines and workforce.



INNOVATION DISTRICTS HEALTH/WEELL-BEING AMENITIES

Since 2008, the Gallup polling organization and Healthways, a business that focuses on defining, assessing and improving health and wellbeing, have collaborated to create the Gallup-Healthways Well-Being 5 and the Well-being Index, measuring factors that contribute to how an individual perceives their daily life. In the Well-Being 5, well-being is defined to include¹:

SENSE OF PURPOSE

Liking what you do each day and being motivated to achieve your goals

SOCIAL CONNECTION

Having supportive relationships and love in your life

FINANCIAL SECURITY

Managing your economic life to reduce stress and increase security

PHYSICAL HEALTH

Having good health and enough energy to get things done daily

COMMUNITY

Liking where you live, feeling safe and having pride in your community

The Well-being Index for the United States in 2013 is based on 178,000 surveys conducted on landline and cellular telephones, with interviews in both Spanish and English. According to the 2013 State of Texas Well-being report, also an initiative of Gallup-Healthways, Texas ranks 21 out of the 50 states in a composite scoring of factors related to well-being, including the following:

LIFE EVALUATION

Current life situation compared to the life situation anticipated 5 years in the future

WORK ENVIRONMENT

Factors related to a worker's feelings and perceptions of their work environment

PHYSICAL HEALTH

Related to Body Mass Index, disease burden, sick days, physical pain, daily energy, history of disease, and daily health experiences

HEALTHY BEHAVIORS

Lifestyle habits with established relations to health outcomes

BASIC ACCESS

Access to food, shelter, health care and a safe and satisfying place to live

In 2013, the Urban Land Institute (ULI) published a report called Ten Principles for Building Healthy Places.² This report includes a set of strategies easily transferable to Mont Belvieu for development aimed at improving the health of communities, their economies and the people who live and work within them. The 10 principles referenced in the title, and a brief explanation of each follow:

1. PUT PEOPLE FIRST

Individuals are more likely to be active in a community designed around their needs.

2. RECOGNIZE THE ECONOMIC VALUE

Healthy places can create enhanced economic value for both the private and public sectors.

3. EMPOWER CHAMPIONS FOR HEALTH

Every movement needs its champions.

4. ENERGIZE SHARED SPACES

Public gathering spaces have a direct, positive impact on human health.

5. MAKE HEALTHY CHOICES EASY

Communities should make the healthy choice the one that is SAFE—safe, accessible, fun and easy.

6. ENSURE EQUITABLE ACCESS

Many segments of the population would benefit from better access to services, amenities and opportunities.

7. MIX IT UP

A variety of land uses, building types and public spaces can be used to improve physical and social activity.

8. EMBRACE UNIQUE CHARACTER

Places that are different, unusual or unique can be helpful in promoting physical activity.

9. PROMOTE ACCESS TO HEALTHY FOOD

Because diet affects human health, access to healthy food should be considered as part of a development proposal.

10. MAKE IT ACTIVE

Good urban design can help create an active community.

¹ Source: <http://www.well-beingindex.com>

² <http://uli.org/wp-content/uploads/ULI-Documents/10-Principles-for-Building-Healthy-Places.pdf>

INNOVATION DISTRICTS (CONTINUED)

As a policy framework, the comprehensive plan can help facilitate decisions about health and the built environment. While many plans refer to the importance of public healthcare, public safety or public physical activity, these general concepts are often used to justify public purposes as opposed to providing a substantive starting point for discussions about community health and well-being. The following strategies and corresponding actions are intended to frame the discussion in Mont Belvieu. While being open to new business and job creation, the City should be ready to deal with controversial land use industries that may affect resident health and outside perception that may undermine a live and work environment and the City's future amenity investments that help sustain it.

- 21) Consider supporting the decentralization or siting alternatives of BHISD facilities to ensure access for new developments and subsequent population growth.
- 22) Consider working with BHISD to develop school site locational criteria.
- 23) Work with BHISD to develop functional capacities that make sense in light of Mont Belvieu's expected population projections.
- 24) Consider the creation of a mentorship program between workers in Mont Belvieu and BHISD.
- 25) Work to form a workforce development partnership and potential program between the City, Chambers County, BHISD, and Lee College.

Strategy 4.8: Cultivate and ensure high quality education at every level to support a live and work environment.

Actions and Initiatives

- 26) Develop Mont Belvieu as an educational destination that supports a live and work environment.
- 27) Champion, support and partner with K-12 public schools, colleges and universities for excellence in academic achievement.
- 28) Encourage an environment of education and life-long learning in families.
- 29) Collaborate with business entities to enhance K-16 educational efforts.

Strategy 4.9: Consider the feasibility of working with BHISD to implement an innovation district.

Actions and Initiatives

- 30) Engage in active communication with BHISD to examine feasible options.
- 31) Partner with BHISD to incorporate this as a goal in its first strategic plan.

Strategy 4.10: Continue to ensure the provision of programs and services that contribute to community health and well-being.

Actions and Initiatives

- 32) Continue to support the provision of a year-round Farmer's Market.
- 33) Ensure sustained growth of parks and recreation programming.
- 34) Consider community gardens throughout Mont Belvieu, particularly at city-owned property and parks.
- 35) Use trails and other amenities as an opportunity to educate residents on the benefits of exercise.



Strategy 4.11: Support and enforce compatible land uses and regulations that enhance community health and well-being.

Actions and Initiatives

- 36) Revise zoning regulations that enhance land use compatibility (see Chapter 5, *Land Use and Character*).
- 37) Support proactive code enforcement programming.
- 38) Work to eliminate or minimize any human health threats related to contaminated places.

Strategy 4.12: Improve accessibility and overall provision to new or expanded healthcare facilities.

Actions and Initiatives

- 39) Work closely with the CCPHD and other prospective health partners to expand level of services, particularly at facilities located in City.
- 40) Support the implementation of CCPHD's strategic plan.
- 41) Support programs and services that provide preventive care.
- 42) Implement strategic programs that help attract and retain talented medical providers.

ARTS AND CULTURAL AMENITIES

Strategy 4.13: Preserve and promote cultural and arts-related events. Support the development of facilities and programs for public art and cultural opportunities that create and enrich a strong sense of community identity and promote a high quality of life.

Actions and Initiatives

- 43) Consider advocating for the City's first visual and performing arts facility to serve the needs of its growing community. Consider inclusion into CIP and possible partnerships with other local and/or regional agencies.
- 44) Support the inclusion of this strategy into local and regional economic development strategic planning.
- 45) Incorporate monuments, markers and interpretive stations at City parks to highlight historical figures and events for tourists and visitors.

Strategy 4.14: Broaden development of the community's cultural infrastructure and its integration into park sites and recreational programs.

Actions and Initiatives

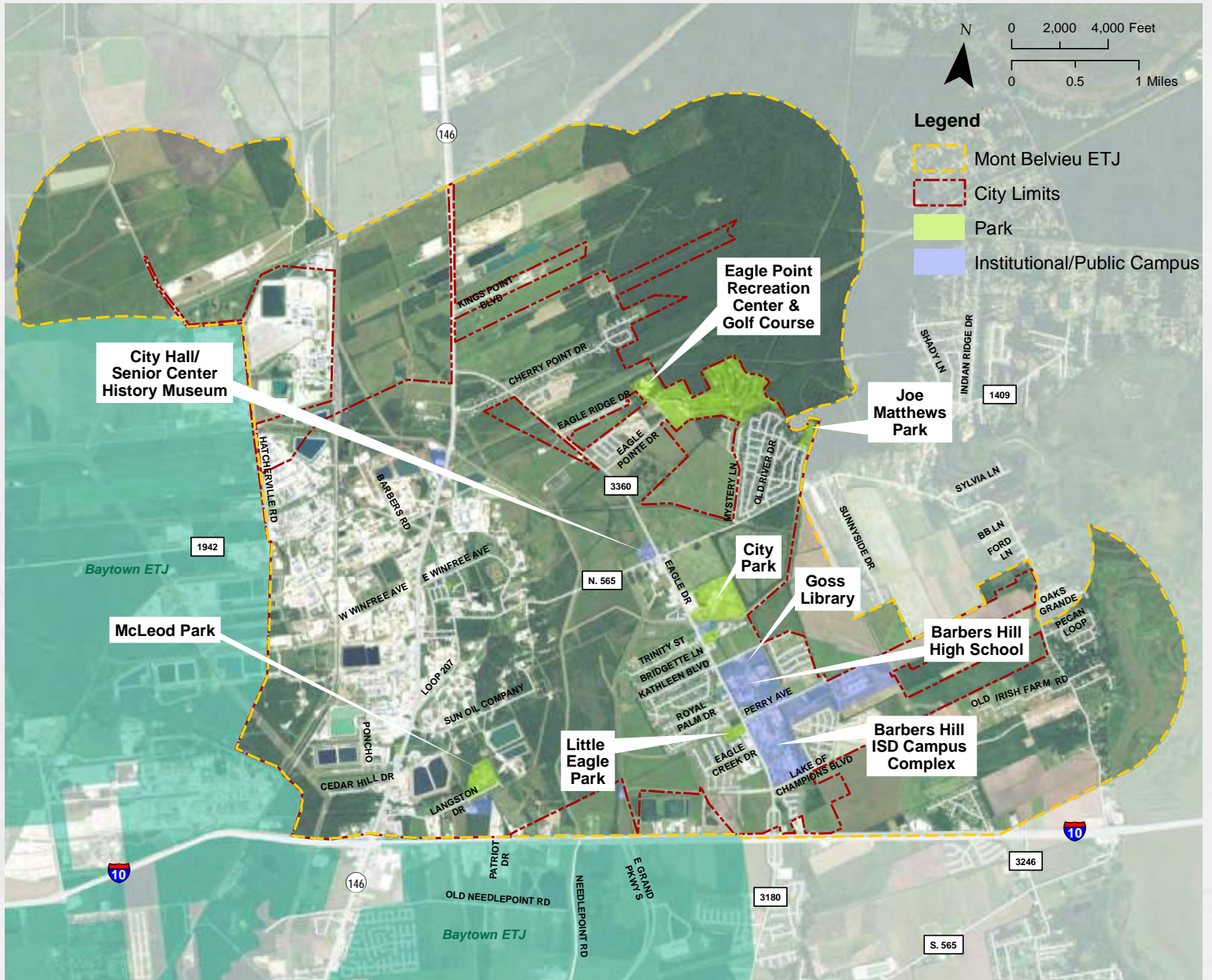
- 46) Adapt unused or underutilized spaces to create neighborhood gardens, plazas, landscape malls, and common open spaces for the beautification and enjoyment of residents and visitors.
- 47) Consider the incorporation of other art-based monuments throughout the community's public spaces.
- 48) Consider ways to integrate arts and cultural amenities in the future town center area.

Strategy 4.15: Continue to partner for the provision of libraries in Mont Belvieu.

Actions and Initiatives

- 49) Begin considering location of future library sites.
- 50) Consider alternatives to brick and mortar libraries, such as the "Little Free Library" program.

MAP 4.1: MONT BELVIEU AMENITIES



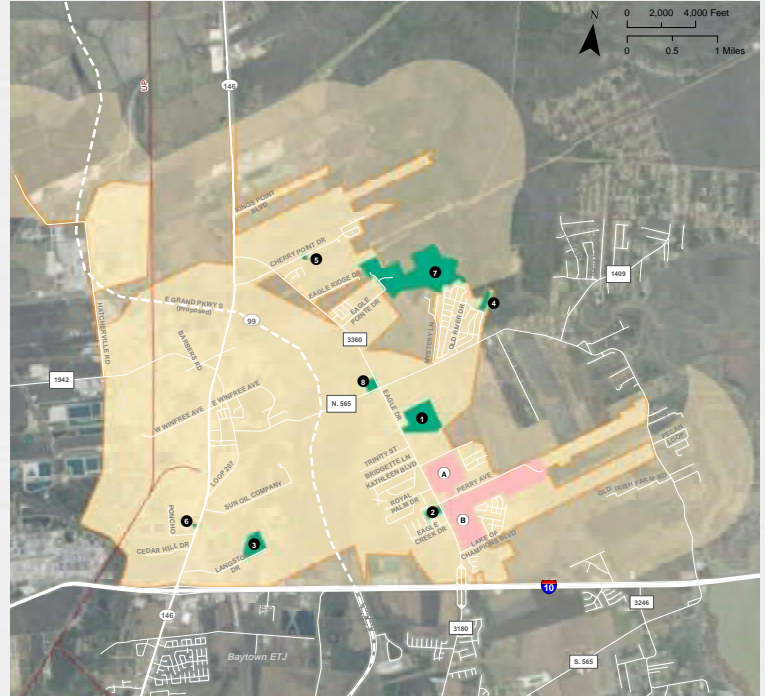
Source: Kendig Keast Collaborative



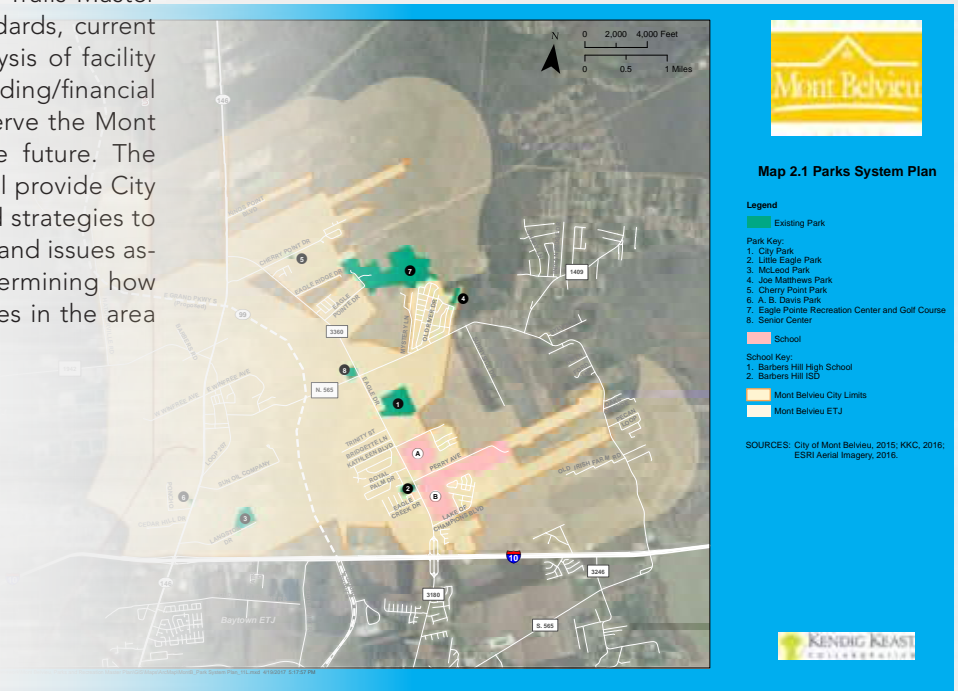
INTRODUCTION TO PARKS AND TRAILS MASTER PLANS

As public sector investment continues to set the standard for private investment, parks and trails will continue to play a pivotal role in providing residents and visitors with amenities characteristics. The City's proven record of investment in amenities set a high standard for its future public and private infrastructure investments. The City Park, Eagle Pointe Recreation Center, and Hackberry Gully are just a few tangible examples of quality of life in Mont Belvieu. Parks and trails improve the local tax base and increase property values.

The City's commitment to a **Parks Master Plan** and a **Trails Master Plan** further recognizes and reiterates the needs of a growing population in two deliberate ways. First, it provides the City with an opportunity to assess its past growth and where it is in terms of providing the needed facilities and programs to serve that growth. Secondly, it provides the City with a new Parks and Trails Master Plans containing policies, park standards, current and future needs assessments, analysis of facility conditions, fee adjustments, and funding/financial recommendations. The result will serve the Mont Belvieu community now and in the future. The new Parks and Trails Master Plans will provide City Council and staff with guidelines and strategies to use when dealing with the problems and issues associated with the difficult job of determining how to allocate the City's limited resources in the area of Parks and Recreation.



Source: Kendig Keast Collaborative



Source: Kendig Keast Collaborative



THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK.



CHAPTER 5: LAND USE AND CHARACTER

This Chapter provides a 20-year policy framework for the future physical development of the City of Mont Belvieu. The analysis of the community's existing and desired character provided in this Chapter is based upon the community principles (discussed in Chapter 1, *Planning Context*) which were articulated by the citizens and stakeholders during public outreach efforts. This Chapter provides a policy framework for governing landscaping, building design, tree planting, signs, and housing, as well as suggested patterns and standards for community design, development, and beautification (also discussed at great length in Chapter 4, *Amenities*).

Land use planning is a recognition that Mont Belvieu does not have to wait and react to growth and development. Rather, it can determine where growth will occur and what character this new development will reflect. Through active community support, this Plan will ensure that development meets certain standards and, thus, contributes to achieving the desired community character. Future land use classifications will account closely for a desire by many in the community to facilitate the provision of more estate residential subdivisions and custom homes.

GUIDING PRINCIPLES

Principle: Enhance small town community character.

Principle: Focus on high quality large lot residential subdivisions.

Principle: Coordinate future land use planning with transportation planning.

Principle: Improve compatibility and transitions between land uses.



BIG IDEAS FOR THE FUTURE

What future land uses are important to Mont Belvieu?

"...more retail and health facilities in Mont Belvieu."

"...provide a variety of parks at different scales."

"...more large lot residential opportunities and custom homes."

-Citizen responses to questions on mySidewalk





LAND USE AND CHARACTER CONTEXT

The preceding topical chapters provide critical context for this chapter.

CHAPTER 2, GROWTH CAPACITY

The outlook and key considerations for how remaining developable land in the incorporated City and ETJ should be used, especially with regard to the long-term fiscal implications for City government. Also related to growth capacity is the concern about the traffic implications of potential types or densities of residential use that are still to be built.

- Provision of adequate public facilities and services;
- Timing and sequencing of future growth;
- Optimization of existing infrastructure;
- Utility extension policy;
- Thoroughfare Plan;
- Access management; and
- Land use intensity and trip generation.

CHAPTER 3, LIVE AND WORK

The enhancement of work areas to create a quality live and work environment. The potential for more mixed uses at strategic locations, such as a Town Center. Greater attention to encouraging more estate residential subdivisions and custom home development.

- Conservation of existing neighborhoods;
- Housing and employment interplay;
- Neighborhood protection from encroaching development; and
- Demand for housing and types.

CHAPTER 4, AMENITIES

A greater focus on the type of civic, educational, cultural, health, and arts amenities that will further support a high quality of life in Mont Belvieu. A Parks Master Plan that emphasizes acquiring park land in conjunction with development and mostly through optimization of the parkland dedication mechanism.

- Locations and accessibility;
- Educational, cultural and arts amenities;
- Quality schools throughout the community;
- Health amenities in closer proximity to Mont Belvieu; and
- Open space preservation and environmental conservation.



Source: Kendig Keast Collaborative

HOW DO LAND USE AND CHARACTER COMPARE?

This Plan elaborates on the previous plan and common definition of land use to address the “look and feel” of development, instead of only identifying how land is used, such as single or multifamily residential, commercial, or industrial designations, a Land use and character also define the intensity of development and the design features that contribute to its specific nature and appeal. It is this combination of land use and the site and building design attributes that determine the character of development.



This approach offers many benefits, including:

- assurance as to the compatibility of adjacent development;
- design flexibility to protect natural resources and valued open space;
- predictable results in the development process;
- ability to better plan for infrastructure needs;
- planned development by right;
- streamlined development process; and
- buffering that is commensurate with the level of impact on adjacent and abutting properties.

EXISTING LAND USE AND CHARACTER

The following is a brief overview of the various land uses, their character, and locations throughout the community to provide a further context for the planning of future land uses. The designations depict not simply land uses, but also the character of the development as reflected in the physical built environment (street network configuration, structure type and placement and neighborhood age). As is the case in a community with zoning, the existing land use inventory is a reflection of existing zoning designations and their permitted uses, particularly as shown on **Table 5.1, Zoning Designations**.

TABLE 5.1

ZONING DESIGNATIONS		
Zoning Designation	Acres	Percent
Hill Mixed Use	4,276	40.2
Rural Use	1,096	10.3
Suburban Residential	2,694	25.3
Village Mixed Use	1,952	18.4
PUD	268	2.5
Freeway Mixed Use	343	3.2
Total	11,629	100

SUBURBAN RESIDENTIAL

As expressed repeatedly during public input meetings and among community leaders, there is a strong desire to preserve the single-family residential quality and character of Mont Belvieu, particularly residential uses with lower density levels. Residential use is among the more predominant land uses currently within the community.

The majority of these residential uses are in areas zoned as Suburban Residential. As shown on **Table 5.2, Subdivisions**, and **Figure 5.1, Local Examples of Suburban Residential Land Use**, density levels range from as low as 1.01 dwelling units per acre to approximately 3.45 dwelling units per acre. Clearly, the existing intensity and character of residential areas vary dramatically from neighborhood to neighborhood due to variations in the time of development, housing types, street layout, building design and many other elements, including recent changes to minimum lot size standards. The existing minimum lot size standard for subdivisions is 10,400 square feet.

TABLE 5.2

Subdivision Name	Area (Acres)	No. of Housing Units	Dwelling Units/Acre
Brookstone I	24.213	51	2.11
Brookstone II	18.397	51	2.77
Champions Gate, I	20.558	51	2.48
Colony I & II	88.81	90	1.01
Cotton Wood Estates	23.44	67	2.86
Crown Colony	83.88	203	2.42
Eagle Creek	62.305	148	2.38
Eagle Point Estates	20.6	71	3.45
Lakes of Champions I	38.3	86	2.25
Lakes of Champions IIA	44.165	105	2.38
Lakes of Champions, IIB	91.07	176	1.93
Wilburn Ranch	65.57	119	1.81

FIGURE 5.1, LOCAL EXAMPLES OF SUBURBAN RESIDENTIAL LAND USE



BROOKSTONE I (11814 PEARL LANE)



CHAMPIONS GATE (11707 CHAMPIONS GATE)



BROOKSTONE II (11911 OBSIDIAN LANE)



COLONY I AND II (9910 PALM DRIVE)



COTTONWOOD (13611 COTTON WAY)



EAGLE POINT ESTATES (11727 EAGLE RIDGE DRIVE)



CROWN COLONY (10306 TRAVIS LANE)



LAKES OF CHAMPIONS (9727 SUFFOLK DOWNS DRIVE)



EAGLE CREEK (9730 WINCREST DRIVE)



WILBURN RANCH (3806 CYPRESS POINT DRIVE)



EAGLEBROOK APARTMENT HOMES

MULTIFAMILY RESIDENTIAL

Although few existing examples of multifamily residential development exist in Mont Belvieu, a more recent example is the Eaglebrook Apartment Homes on Eagle Drive. The few existing multifamily developments in the City are either in the Hill Mixed Use zoning district or the Village Mixed Use zoning district.

FIGURE 5.2, LOCAL EXAMPLES OF COMMERCIAL LAND USE



SHOPS AT MONT BELVIEU (9675 EAGLE DRIVE)



CONOCO TRAVEL PLAZA (10403 INTERSTATE 10 EAST)

Source: Google Earth



COMMERCIAL CENTER NEAR CROWN COLONY (10425 EAGLE DRIVE)



THRIF-TEE FOOD CENTER (10955 EAGLE PARK DRIVE)

Source: Google Earth



COMMERCIAL CENTER (9855 EAGLE DRIVE)



COMMERCIAL

Mont Belvieu’s more intensive commercial activity is generally located on Eagle Drive and at SH 146 and Interstate 10. The SH 146 and Interstate 10 intersection features several hotels (Super 8, Motel 6), restaurants (McDonald’s, Subway, El Hacendero, Cash America Pawn) and gas stations (Conoco Travel Plaza and Shell Gas Station) in a format that reflects more auto-oriented development and generally fall under the Freeway Mixed Use zoning district. Eagle Drive features different types of commercial activity, including strip center developments in a format that reflects more suburban characteristics with an increased amount of landscape surface area and a residential-like building design; these commercial uses generally fall under the Village Mixed Use zoning district. Local examples of these types of uses are shown in **Figure 5.2, Local Examples of Commercial Land Use.**

INDUSTRIAL

Since the discovery of oil at great depths in the late 1920’s, Mont Belvieu has a long and proud history of intensive industrial development on the “Hill.” This area is a formation caused by an underground salt dome, and is one of the world’s largest storage sites for hydrocarbons. A majority of facilities on the “Hill” use underground caverns to store materials that are delivered by pipeline to other facilities and customers. Local examples include but are not limited to: Oneok Partners, Enterprise Products, Exxon Mobil, Targa Resources, Lone Star NGL/ Energy Transfer, and Equistar/Lyondell Basell. All heavy industrial activity on “the Hill” falls under the Hill Mixed Use Zoning district.



Enterprise Products Partners (1519 N. Main Street, 819 Main Street, 10207 FM 1942, Crosby Road, 2707 Winfree Street)

PUBLIC AND INSTITUTIONAL

Intensive public and institutional land uses are primarily located along Eagle Drive. The City Hall complex is probably the most visible. Barbers Hill Independent School District campus clusters can also be found all along Eagle Drive. Several churches and the only post office in Mont Belvieu can also be found on Eagle Drive. The majority of these public and institutional uses fall under the Village Mixed Use zoning designation.

A summary quantification of existing land use and character is listed on **Table 5.3, Existing Land Use and Character Inventory.** Reflected in **Map 5.4, Existing Land Use and Character,** is the current land use and character pattern in the Planning Area, which is defined by the City limits and future extraterritorial jurisdiction.

FIGURE 5.3, LOCAL EXAMPLES OF PUBLIC AND INSTITUTIONAL LAND USE



CITY HALL COMPLEX (11607 EAGLE DRIVE)



WEST CHAMBERS COUNTY (10616 EAGLE DRIVE)

Continued on next page

FIGURE 5.3, LOCAL EXAMPLES OF PUBLIC AND INSTITUTIONAL LAND USE (CONTINUED)



BARBERS HILL HIGH SCHOOL (9696 EAGLE DRIVE)



MERCY GATE CHURCH (9627 EAGLE DRIVE)

TABLE 5.3

Existing Land Use and Character Inventory					
Types	City Limits		ETJ		Planning Area
	Acres	Percent	Acres	Percent	Percent
Apartment	20.0	0.1	0.0	0.0	0.1
Drainage/Waterway	247.3	1.2	131.0	0.7	1.9
General Commercial	209.2	1.0	165.8	0.8	1.9
General Residential	1,136.5	5.6	117.2	0.6	6.2
Industrial	47.3	0.2	20.4	0.1	0.3
Institutional/Public	383.0	1.9	3.5	0.0	1.9
Mobile Home Park	15.6	0.1	0.0	0.0	0.1
Office	9.0	0.0	0.0	0.0	0.0
Park/Open Space	338.2	1.7	3.1	0.0	1.7
Pasture/Crop Land/Agricultural	1,736.0	8.6	3,797.4	18.9	27.5
Petrochemical	2,799.2	13.9	343.0	1.7	15.6
Place of Worship	76.4	0.4	9.6	0.0	0.4
Row	365.7	1.8	91.0	0.5	2.3
Single Family Estate	289.4	1.4	886.2	4.4	5.8
Undeveloped	1,176.0	5.8	108.3	0.5	6.4
Undeveloped/Wooded	1,694.5	8.4	3,287.8	16.3	24.7
Wetland	19.5	0.1	611.4	3.0	3.1
20,138.4	10,562.8		9,575.6		100.0



**MAP 5.1,
EXISTING LAND USE
AND CHARACTER**

Sources: City of Mont Belvieu and Kendig Keast Collaborative



THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK.





FUTURE LAND USE AND CHARACTER

A future land use map is intended to show the general pattern of uses anticipated and/or desired in and around the community in the years ahead. The map indicates the type of use that is expected to predominate in an area based on what is already on the ground and will likely remain or possibly evolve over time, as well as projected new development. Additionally, it is recognized that some land use designations and other complementary uses may also remain or emerge in an area of the City. Specific locations are not always known for certain use types, such as some future public facilities (e.g., schools, fire stations, parks, etc.), as well as places of worship, which often locate in or near primarily residential areas. Some uses are highly market-driven, with their timing and location dictated by the extent and pace of other types of development. This includes the typical trend of retail uses following residential “rooftops” – and typically locating at key roadway intersections. The location and extent of multi-family development can also be difficult to predict ahead of housing market trends and cycles, as well as developer interest and available financing that determines whether, where, and when to bring a product to market.



Source: Kendig Keast Collaborative

MORE DEFINITIVE LAND USE AND CHARACTER DESIGNATIONS

Land use planning equips community leaders with proactive tools for influencing growth. Common pitfalls, which often lead to costly infrastructure upgrades or permanent impediments to development, can be avoided with the coordinated application of Map 5.2, *Future Land Use (and Character) Plan*. This general reference map shall function as a “living document” that gives physical form to the City’s vision, values, and development course over the next two decades. If continually reviewed and updated, the Future Land Use Plan will adapt to market demands while maintaining a high-quality development standard and unified growth pattern.

It must be noted that this Comprehensive Plan and the Future Land Use (and Character) Plan are policy documents, unlike zoning regulations, that do not carry the legal authority to regulate the use of land. However, the findings and recommendations contained in these documents provide the rationale and justification for:

- Land development ordinances;
- Annexation and ETJ expansion;
- Development agreements;
- Street and utility planning;
- Parks and recreation planning; and
- Economic development.

As such, development decisions must be coordinated across all City departments to ensure capital investments are in sync. The map generalizes the use of land at a citywide “planning” level, meaning property owners should contact City officials for site-specific applications of the plan. The following future land use and character profiles, detail the location, development types, and characteristics of each designation of the Future Land Use (and Character) Plan. The descriptions are followed by a discussion of the guiding principles, policies, and recommendations for implementing future land use and character.



FUTURE LAND USE PLANNING VERSUS ZONING

The City's development regulations are among the primary tools for implementing this policy document. The zoning regulations, in particular, play a significant role in establishing and protecting the physical character of the community. These regulations delineate land use districts and the types of uses permitted within them, together with minimum site area and maximum building height requirements and standards for parking, landscaping and signage. As a result, the zoning regulations, together with the City's subdivision regulations where applicable, largely direct development outcomes. This is important since it provides a regulatory context in which local land use decisions may be made to foster a prosperous economy, a sustainable environment, and a high quality of life for residents.

Although this Future Land Use and Character section and associated Future Land Use Plan map provide

only general planning guidance, their role is especially relevant since it can lead to updates and rewrites of the zoning regulations and district map. It is only through the official zoning map and the ongoing zoning administration process that binding, legally enforceable decisions are made about property uses and compatibility on a case-by-case basis. Adoption of this Comprehensive Plan, including the Land Use Plan map, does not mean that the City's zoning approach or mapping will automatically change. This is partly because there is a timing aspect to zoning, meaning that a future land use plan generally indicates ultimate desired outcomes while a zoning map may reflect interim situations or existing, stable land uses that are not expected to change in the near future.

The side-by-side comparison below highlights the distinct purposes and uses of a future land use map relative to a zoning map.

FUTURE LAND USE MAP

PURPOSE

- Outlook for the future use of land in the community
- Macro level – generalized development patterns

USE

- Guidance for the City's zoning map and related decisions (zone change requests, variance applications, etc.)
- Baseline for monitoring consistency of actions and decisions with this Comprehensive Plan

INPUTS AND CONSIDERATIONS

- Existing land use in the City
- The locational aspects of community planning priorities involving economic development, housing, infrastructure, parks and recreation, public facilities, etc.

ZONING MAP

PURPOSE

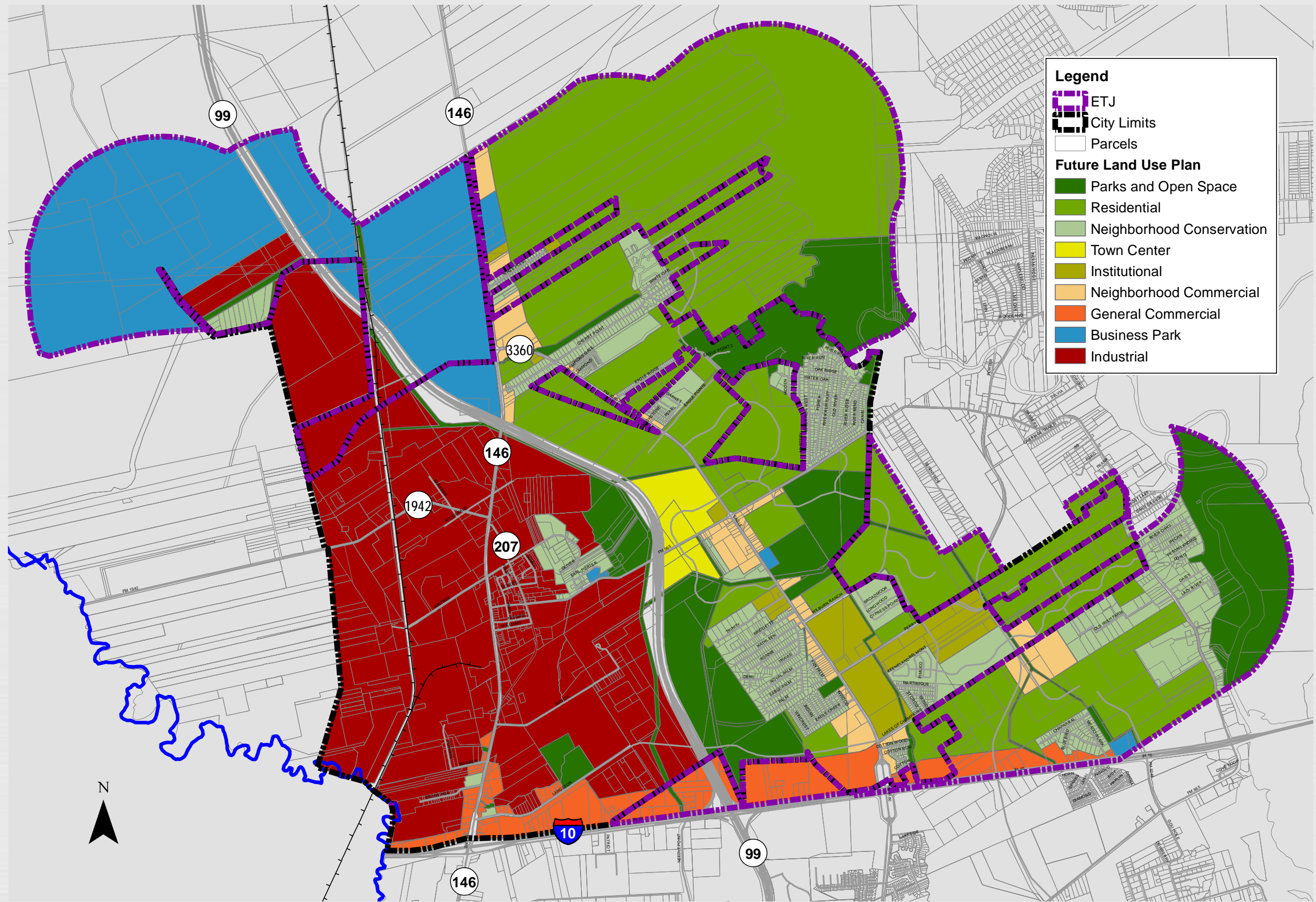
- Basis for applying different land use regulations and development standards in different areas of the community ("zones")
- Micro level – site-specific focus

USE

- Regulating development as it is proposed – or as sites are positioned for the future with appropriate zoning (by the owner or the City)

INPUTS AND CONSIDERATIONS

- Comprehensive Plan and future land use map for general guidance
- Protecting existing neighborhoods from incompatible redevelopment or infill, and fringe areas from premature urban development
- Zoning decisions that differ substantially from the general development pattern depicted on the future land use map should indicate the need for some map adjustments the next time this plan is revised



Legend

- ETJ
- City Limits
- Parcels

Future Land Use Plan

- Parks and Open Space
- Residential
- Neighborhood Conservation
- Town Center
- Institutional
- Neighborhood Commercial
- General Commercial
- Business Park
- Industrial

**MAP 5.2,
FUTURE
LAND USE
AND CHARACTER**

Sources: City of Mont Belvieu and Kendig
Keast Collaborative



THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK.





PARKS AND OPEN SPACE

As discussed in **Chapter 4, Amenities**, and also in the new **Parks Master Plan**, the Future Land Use Plan designates adequate acres of land for parks and open space to meet future demand. These areas enhance surrounding land uses, capitalize on natural assets, and provide common gathering spaces. Parks are formally developed recreation areas, sometimes containing manicured lawns, sidewalks, playgrounds, and active space for courts and fields. Open spaces are undeveloped natural areas characterized by sensitive or unique environmental features.

TYPICAL LOCATIONS

- Community-wide

DEVELOPMENT TYPES

- Public parks and open spaces
- Existing and planned, single- and multi-use trails (e.g., bikeways)
- Joint park areas
- Public and private recreation areas
- Cemeteries
- Undeveloped Natural Areas
- Multi-use facilities, such as Hackberry Gully

CHARACTERISTICS

- Public parkland will remain in perpetuity with future parkland acquired to fill gaps and support new development (see new Parks and Trails Master Plans)
- Park design, intensity of development, and planned uses / activities should match area character

MONT BELVIEU EXAMPLE

- City Park (approximately 70 acres)



City Park (approximately 70 acres)
Source: Kendig Keast Collaborative



City Park Aerial
Source: Google Earth



12014 Cherry Point Drive in Cherry Point Ranchettes Subdivision (about 1 acre lot)

12014 Cherry Point Drive Aerial
Source: Google Earth

3931 River Run Drive in Fishers Landing Subdivision (though approximately only ¾ of an acre lot)



3931 River Run Drive Aerial

RESIDENTIAL

Although the minimum lot size residential standard in Mont Belvieu is 10,400 square feet, many in the community have expressed a desire to include this new designation in the Future Land Use Plan map. In particular, many expressed the desire for one acre plus estate subdivisions (~43,560 square feet). The Residential development type would facilitate the provision of more large acre development activity in the City.

TYPICAL LOCATIONS

- Mont Belvieu exhibits a few individual sites; this character type would facilitate more estate subdivision or master-planned community

DEVELOPMENT TYPES

- Individual residences on small acreages or large lots
- Subdivided farmsteads

CHARACTERISTICS

- High degree of open space maintained on the site (compared to predominance of building and parking lot coverage in semi-urban areas)
- Larger lot sizes

LOCAL EXAMPLES

- 3931 River Run Drive in Fishers Landing Subdivision (though approximately only ¾ of an acre lot)
- 12014 Cherry Point Drive in Cherry Point Ranchettes Subdivision (approximately 1 acre lot)



NEIGHBORHOOD CONSERVATION

This new designation covers all existing residential development within the City. Its purpose is to respect the character of existing subdivisions built up to the time of the adoption of this new Comprehensive Plan. These properties are characterized by a mix of lot sizes and building setbacks, an inconsistent pattern of driveways, and a variety of design and scale.

TYPICAL LOCATIONS

- Community-wide

DEVELOPMENT TYPES

- Detached residential dwellings
- Attached housing types
- Planned developments
- Manufactured and mobile homes
- Multifamily complexes

CHARACTERISTICS

- Residential areas with variety of lot sizes
- Auto-oriented character, especially where driveways and front-loading garages dominate the front yard and facades of homes, which may or may not be offset by landscaping standards and subdivision layout
- Uniform front setbacks and, in some cases, minimal variation in individual house design

LOCAL EXAMPLES

- 11826 Eagle Ridge Drive in Eagle Point Estate Subdivision (approximately 9,000 square foot lot)
- 13246 Victory Way in Village of Champions Gate (approximately 3,615 square foot lot)



13246 Victory Way



13246 Victory Way Aerial
Source: Google Earth



11826 Eagle Ridge Drive in Eagle Point Estate Subdivision



11826 Eagle Ridge Drive in Eagle Point Estate Subdivision Aerial
Source: Google Earth



Pearland Town Center



Pearland Town Center Aerial
Source: Google Earth

TOWN CENTER

This new designation allows the City to plan for the appropriate development outcomes it seeks to facilitate at the intersection of Eagle Drive and FM 565. Pathways and sidewalks should be scaled for pedestrian rather than automobile use. Development would occur around the City Hall Complex.

TYPICAL LOCATIONS

- New/Proposed

DEVELOPMENT TYPES

- Mixed commercial, civic and residential uses
- Attached residential
- Live-work units
- Commercial retail and office
- Public/institutional
- Entertainment
- Civic and public spaces
- Facilities that support the arts and culture

CHARACTERISTICS

- Most intensive development in City
- Streets framed by buildings with minimal front setbacks
- Greater site coverage
- Maximum of two-story structures
- Reliance on either on-street parking or centralized public parking

REGIONAL PRECEDENTS

- Pearland Town Center and other less dense town centers in the Houston MSA



PUBLIC AND INSTITUTIONAL

The City has a diversity of high-quality Public and Institutional structures that vary in character, function, and scale. Due to the unique nature of their design, layout, and use, these facilities tend to be site-specific.

TYPICAL LOCATIONS

- Community-wide

DEVELOPMENT TYPES

- City-owned buildings and facilities, such as the City Hall Complex
- The U.S. Postal Service location on Eagle Drive
- Buildings and facilities of Barbers Hill Independent School District (BHISD)
- Sam and Carmena Goss Library
- Places of worship
- Proposed new Animal Shelter
- Proposed new Senior Center

CHARACTERISTICS

- Customer service functions within easy access to residential areas and visibility
- Extensive landscaping of site perimeter; and special streetscaping and design treatments at entries, key intersections, and internal focal points
- Outdoor activity and storage should be screened when visible from public roadways and buffered from residential areas
- Certain publicly owned uses (e.g. public works facilities, fleet maintenance, treatment plants) are best sited within industrial areas



Post Office



Post Office Aerial
Source: Google Earth



West Chambers Medical Center



West Chambers Medical Center Aerial
Source: Google Earth



Barbers Hill Bank 11402 Eagle Dr
Source: Google Earth



Barbers Hill Bank 11402 Eagle Dr Aerial
Source: Google Earth

NEIGHBORHOOD COMMERCIAL

The Neighborhood Commercial designation is intended to sustain and facilitate the small town character that many residents attributed to Mont Belvieu.

TYPICAL LOCATIONS

- Community-wide, especially along Eagle Drive

DEVELOPMENT TYPES

- Small-scale commercial uses that provide services to nearby neighborhoods

CHARACTERISTICS

- Suburban in nature
- Characterized by a balance between the landscape and the building, with on-site landscaping and tree-lined streets that shelter the buildings
- Open space and low proportions of impervious surfaces characterize the built environment



GENERAL COMMERCIAL

This broad commercial category is meant to characterize commercial development in Mont Belvieu that is designed for automobile use, rather than pedestrians. Buildings are generally set back from the streets and surface parking lots are located along the frontage and often to the side and rear.

TYPICAL LOCATIONS

- Community-wide, particularly along principal commercial corridors

DEVELOPMENT TYPES

- Wide range of commercial retail and service uses, at varying scales and intensities depending on the site
- Office (both large and/or multistory buildings and small-scale office uses depending on the site)
- Public/institutional
- Civic and public spaces

CHARACTERISTICS

- A very open environment, but mainly to accommodate extensive surface parking versus the more prominent green spaces found in suburban areas
- Largely horizontal development pattern
- Significant portions of development sites are devoted to vehicular access drives, circulation routes, surface parking, and loading/delivery areas, making paving the most prominent visual feature versus green or open areas
- May be enhanced with better building and site design



Angel's Gas and Grocery 2928 North FM 565 Road
Source: Google Earth



Angel's Gas and Grocery 2928 North FM 565 Road Aerial
Source: Google Earth



Oneok Partners 12606 TX-146
Source: Google Earth



Oneok Partners 12606 TX-146 Aerial
Source: Google Earth

INDUSTRIAL

TYPICAL LOCATIONS

- On the "Hill"
- Along SH 146

DEVELOPMENT TYPES

- Heavy and light industrial
- Heavy commercial (building materials, auto repair, outdoor storage, etc.)
- Office uses (as an accessory to an industrial use)
- Public/institutional

CHARACTERISTICS

- Typically auto-oriented character; although industrial park developments may feature more open space and landscaping, regulated signage, screening, etc.
- Outdoor activity and storage, which should be screened where visible from public ways and extensively buffered from residential areas
- Larger tracts of land suitable to accommodate a range of business and industrial needs
- Must be equipped with modern infrastructure (e.g., fiber networks)



BUSINESS PARK

TYPICAL LOCATIONS

- Potential areas include undeveloped properties on the northern edge of SH 146 and other areas on the "Hill," including areas in close proximity to the Grand Parkway

DEVELOPMENT TYPES

- Primarily office, medical, and technology/research uses
- Possibly of light industrial uses (including warehousing/distribution), but well screened and in buildings with upgraded façade treatments (i.e., tilt wall construction, etc.)
- Commercial retail uses (secondary to primary office focus, to serve local workers and visitors)
- Public/institutional
- Common green spaces

CHARACTERISTICS

- Typically a minimum open space ratio of 20 to 30 percent, which allows for suitable sizing of building footprints
- Extensive landscaping of business park perimeter, and special streetscaping and design treatments at entries, key intersections, and internal focal points
- Development outcomes often controlled by private covenants and restrictions that exceed City ordinances and development standards
- Intended to create a highly attractive business investment environment
- Site operations are conducted indoors, with no (or very limited) outdoor storage or display



Enterprise Products Office 10910 Eagle Dr
Source: Google Earth



Enterprise Products Office 10910 Eagle Dr Aerial
Source: Google Earth



FUTURE LAND USE PLANNING CONSIDERATIONS

The character types outlined previously involve some critical considerations based on discussions with the Comprehensive Plan Advisory Committee and other stakeholders, and work sessions between City staff and the plan consultant. The major highlights include:

EMPHASIS ON RESIDENTIAL AND CUSTOM HOMES

Council and CPAC felt strongly that Mont Belvieu must focus on creating estate residential housing (1-acre lots and greater) in the community in order to accommodate the needs of the senior executives of the corporations that the community desires to sustain. A large number of stakeholders and residents throughout the process also expressed a need for larger lot sizes as a means to preserve the small town character of the City. The lot sizes discussed are closer to an acre and well-exceed the existing minimum lot size of 10,400 square feet. As way of framing their discussion on this point, many residents pointed to a concerted effort to avoid the residential character and overall standards of nearby communities, such as Baytown.

FOCUS ON COMPATIBILITY, TRANSITIONS AND SAFETY BETWEEN DISTRICTS

One of the primary issues discussed during several public input meetings was the need for the land use plan to stress compatibility between districts, particularly residential areas in close proximity to the City's core industrial area. Concerns over Mont Belvieu's history, particularly a more recent oil well incident at the Lyondell Basell plant in June 2016, were discussed. Another emphasis on the part of residents was the need to improve screening and buffering from existing and future single family residential uses.

CONCERNS OVER STRIP COMMERCIAL DEVELOPMENT

The quality of development along Eagle Drive, one of Mont Belvieu's principal commercial corridors was discussed at great length by members of the Comprehensive Plan Advisory Committee. The primary concern is that the corridor already has the look of a strip commercial corridor, which is

not compatible with community standards that emphasize quality. The discussion led to the consensus that the Neighborhood Commercial designation creates a more desirable commercial scale and character for Mont Belvieu. Residents frequently mentioned they wanted to prevent Eagle Drive from becoming the next "Garth Road," a principal commercial corridor in Baytown with a distinct strip commercial pattern.



Eagle Dr Aerial
Source: Google Earth

NEW AND ONGOING DESIGNATIONS

A new Neighborhood Conservation designation is recommended that would preserve the character of most of the City's existing (built) residential neighborhoods. This is necessary in order to clearly outline procedures to allow for reasonable improvements and expansions without unnecessary variance procedures to address what would otherwise be nonconformities.

NO FURTHER MULTI-FAMILY RESIDENTIAL DESIGNATIONS BEYOND EXISTING

Deliberations for this plan update led to the consensus that no additional areas for High Density Residential (i.e., multi-family) be delineated on the Future Land Use Plan map beyond multi-family development that has already been built or is already in the development pipeline. To avoid creating a nonconforming use, existing multi-family uses would fall into the new Neighborhood Conservation designation.



INTEGRATE LAND USE AND CHARACTER WITH THE THOROUGHFARE PLAN

Transportation is inherently linked to land use. The type of roadway dictates the most appropriate use of adjacent land, and conversely, the type of land use dictates the size, capacity and flow of the roadway. Nonetheless, roadways are often developed and improved only on the basis of the amount of traffic they are carrying or are expected to carry, without much consideration for the existing or expected land use. It is recommended that the City adopt policies that relate the type and intensity of land uses with the transportation system that serves them, (see also Chapter 2, *Growth Capacity*).

GENERAL MAP CLEANUP

Through the development of a new land use strategy for Mont Belvieu, various “cleanup” revisions to the Future Land Use Plan map were made to reflect actual development that has occurred in particular locations relative to the map designations for such areas. These revisions also better align the Future Land Use Plan map with evolution in the City’s official Zoning District map.

POLICIES

LAND USE POLICIES

The written policy statements below are intended as a supplement to the Future Land Use Plan map, which provides only a visual depiction of desired land use patterns and sound development practices. City officials and staff should use these statements as a guide and reference, particularly when making decisions regarding proposed development activity in the City limits and ETJ and/or changes in zoning classifications within the city.

GENERAL

- 1) Land uses should not detract from the enjoyment or value of neighboring properties.
- 2) Potential negative land use effects (noise, odor, dust, excessive light, traffic, etc.) should be considered in development review/ approval and mitigated.
- 3) Adequate transportation access and circulation should be provided for uses that generate large

numbers of trips. Pedestrian and bicycle access should be addressed where appropriate.

- 4) Floodplain areas should not be encroached upon by future development unless there is compliance with stringent floodplain management practices. These areas should be used for parks or recreational or related purposes, or for agricultural uses.
- 5) Environmentally sensitive areas should be protected, including wildlife habitat areas.

RESIDENTIAL

- 1) Residential areas should not be located next to industrial areas or directly on “the Hill.”
- 2) Residential and commercial areas may be adjacent if separated by a buffer.
- 3) Schools, parks and community facilities should be located close to or within residential neighborhoods.
- 4) Houses should have direct access to local residential streets but not to collector streets or thoroughfares.
- 5) Houses should not be adjacent to freeways.
- 6) New residential development should be buffered from thoroughfares and collector streets.
- 7) Residential developments should include adequate area for parks and recreation facilities, schools and places of worship.
- 8) Estate residential developments and custom houses should be encouraged as a means to help preserve the small town character of Mont Belvieu.

COMMERCIAL/OFFICE

- 1) Neighborhood retail and service uses should be located at intersections of thoroughfares or collector streets or at the edge of logical neighborhood areas unless appropriately placed within a planned development.



- 2) Retail development should be clustered throughout the city and convenient to residential areas.
 - 3) Buffers should separate retail/office uses and residential areas.
 - 4) The Town Center area should be a focus for office, retail and service activities in appropriate locations relative to existing residential uses, particularly through the desired development of vacant or underutilized parcels.
 - 5) Office and professional uses should be compatible with nearby residential areas and other uses through appropriate building height limitations and adequate buffering and landscaping.
 - 6) Low-intensity office and professional uses should provide a transition between more intense uses and residential areas.
- 3) Industrial development should be separated from other uses by buffers.
 - 4) Industrial development should have good access to thoroughfares and freeways.
 - 5) Industrial development involving trucking operations should have good access to truck routes, designated hazardous material routes, and railroads.

HEAVY COMMERCIAL

- 1) Commercial uses with more intensive operational or traffic characteristics should be located away from most residential areas.
- 2) Heavy commercial development should be concentrated in nodes at intersections and along major thoroughfares (i.e., along Interstate 10 and future Grand Parkway) that are designed and constructed to accommodate higher traffic volumes.
- 3) Buffers should separate heavy commercial uses from any adjacent residential areas, especially where the commercial use involves visible display or outdoor storage of merchandise or materials.

INDUSTRIAL

- 1) Industrial development should not be directly adjacent to residential areas.
- 2) Industrial uses should be located in dedicated industrial development areas.

PARKS, OPEN SPACE AND TOURISM

- 1) Parks should be evenly distributed throughout the city and include larger community parks and smaller neighborhood parks.
- 2) Pedestrian connections should be provided between parks, schools, residential areas, and employment centers.
- 3) Parks are a desirable use for floodplain areas.
- 4) Parks and open space should be used to buffer incompatible land uses.
- 5) Natural features should be used as buffers or preserved open space between or around developed areas.
- 6) Community attractions that draw many external visitors should be in locations with good regional transportation access and visibility.

COMMUNITY FACILITIES

- 1) Community facilities should be located in easily accessible areas within the community.
- 2) Community facilities, depending on their scale and level of activity, should be located adjacent to thoroughfares or collector streets to accommodate traffic.
- 3) Community facilities should be well buffered from nearby residential areas.



GOALS AND ACTION STRATEGIES

GOALS

A “goal” is a statement of a desired outcome (“end”) toward which efforts are directed, as expressed by more specific strategies and action priorities (“means”). Below are six goals intended to focus plan implementation efforts related to Future Land Use and Character that follow the adoption of this new Comprehensive Plan:

- Direct land uses to meet current and future community desires and needs while conserving natural resources and protecting open space from scattered development through efficient and orderly development.
- Optimize market share of estate residential and custom home development in Mont Belvieu.
- Designate best land use strategy for future development around the future Grand Parkway.
- Create compatible uses that are not in conflict with the local oil and gas industry.
- Preserve and enhance special areas of the community to celebrate the community’s identity, small town character, and heritage.
- Enrich the community’s social, cultural, physical and economic environments through amenities and aesthetic infrastructure standards.

STRATEGY 5.1 Preserve and enhance existing residential areas.

Actions and Initiatives

- 1) Identify established neighborhoods with cohesive character and community identity and utilize the neighborhood conservation designation to protect and promote existing neighborhood.

- 2) Prevent unintended impacts to established residential areas when new areas are developed or zoning designations are modified.
- 3) Protect existing neighborhood streets from concentrated traffic by maintaining a well-connected and distributed street system, including the installation of traffic calming measures to discourage through traffic when appropriate.
- 4) Develop and adopt neighborhood design standards to protect neighborhoods and overall community character, including controls for street trees, fencing, and open space.

STRATEGY 5.2 Refocus the zoning districts and regulations to emphasize character of development.

There are many opportunities to repurpose and recalibrate the zoning districts, in addition to adding a district or two, so that the City will be able to achieve the intended character of development without placing as much emphasis on land use. While the use should remain a consideration, the design of development is more important if the City is to achieve an enhanced character.

Currently, the City’s zoning regulations are based on the use of land, meaning that the delineation of zoning districts is driven by lists of permitted and conditional uses, as well as building size standards. In the case of residential districts, use and minimum differences in building size are the only things that differentiate different areas of residential development. For the provisions that do exist, they are minimums, meaning that the dimensions may be exceeded. There are also no differentiating provisions for estate or larger lots, amount of open space, placement of garages and lot access, on-site parking, etc. As a result, the character of neighborhoods in the same zoning district may be much different. Alternately, the character of neighborhoods in different zoning districts may result in the same or similar development. The outcome is commonly either uniformity (or monotony by reason of equal lot sizes and identical setbacks) or, in many cases, undesirable variability.



Actions and Initiatives

- 5) Restructure the zoning districts to base them on the intended character of development rather than only their permitted uses. Recalibrate and consolidate, where possible, each of the existing districts.
- 6) Expand the purpose statements for each zoning district to clarify what policy ends and particular development outcomes the City aims to accomplish through its regulation.
- 7) Review and revise the lists of permitted and conditional uses in each district. Include development and performance standards that relate to district character. For those uses with performance standards, make them a limited use whereby they are permitted administratively, subject to standards.
- 8) Restructure the Planned Unit Development District (PUD) to incorporate planned developments as an option within one overarching residential district. The allowable densities, lot sizes, percentages of open space, and other dimensional standards would be included in the district – rather than submitted by the applicant. In this way, the district standards would yield the intended character. The PUD option would continue to allow mixed housing types and uses, subject to standards.
- 9) Use the existing zoning districts to determine what permitted and prohibited land uses can be integrated with new zoning designations.
- 10) Determine if there are any other existing zoning categories that could be transferred into a new and / or enhanced zoning ordinance.
- 11) Use the newly developed Future Land Use map to create a new Institutional designation.
- 12) Review the characteristics of the neighborhoods which have been identified as Neighborhood Conservation to determine

common characteristics in order to develop sub-districts that create regulations used for the standards of what is currently built. Properties that are in disrepair would not be given a waiver for their maintenance requirements under the municipal code.

- 13) Create a Limited Use Permit system or numeric limitations to ensure that certain land uses in certain zoning districts are only permitted if a specific set of standards are met.
- 14) Create shared parking regulations by revising Sec. 42-164, *Off-Street Parking*, of the municipal code when the potential exists to do so. Reduced parking standards can and should be used when there are land uses in close proximity that do not have the same peak hours of operation.

STRATEGY 5.3 Enhance the appearance of development and the compatibility between districts.

The appearance of the City is a direct reflection of its past and present development standards. The initial impression of Mont Belvieu is formed by the quality and appearance of its physical development, including the nature of community aesthetics, conditions and maintenance of public facilities, and overall attractiveness of the community.

Actions and Initiatives

- 15) Enhance the appearance of nonresidential properties adjacent to principal corridors throughout Mont Belvieu by evaluating and improving codes and standards for better building placement (build-to, maximum vs. minimum setbacks), design (building shape, wall articulation, entry identification, transparency, 360 degree architecture), and materials; improved parking lot, streetscape and foundation landscaping; higher quality screening of outdoor storage; management of outdoor display; improved lighting and sign controls; and improved buffering of adjacent properties adjacent to residential areas.



- 16) Consider a variety of gateway treatments with more improved landscaping on major corridors (see Chapter 4, *Amenities and SH 146 Revitalization Plan*).
- 17) Expand the new City street sign program to create a family of signs for City improvements, facilities and other public property.
- 18) Add provisions to the sign regulations to identify prohibited signs (e.g., off-premise, inflatable, parasitic, feather, wind sock, pennant strings, and streamers), design elements (e.g., back-lit or plastic awnings, bare bulbs, flashing lights, mirrored surfaces, and motor vehicles), and sign locations (e.g., trees, utility or light poles, in or over public rights-of-way, intersections) as a means to improve the overall appearance of corridors. In addition, the allowable signs (e.g., wall, fascia or parapet, window, awning, nameplate, marquee, blade sign or shingle) could also be improved to detail the number of signs allowed, the maximum

sign area and height, minimum clearance, and other limitations. In addition, provisions for an alternate sign program could be developed for large-scale, multi-tenant centers.

- 19) Incorporate bufferyard standards into the zoning regulations where the required opacity varies according to the intensities of adjacent uses. Allow for the use of different combinations of bufferyard widths, vegetation types and densities, berms, and walls or fences to allow flexibility. The current eight foot (minimum/maximum) fence requirement is neither flexible nor a sufficient buffer between adjacent, incompatible uses.
- 20) Consider creating an entity such as “Keep Mont Belvieu Beautiful” or a group of interested stakeholders to implement a program that publicly recognizes residential and business property owners for their role toward enhancing the visual appearance of the City. This may include monthly recognition on the City’s website or other public communication media.

FLEXIBLE BUFFERYARD PROVISIONS



Flexible bufferyards ensure that the scale of the bufferyard is commensurate with the intensity and/or proximity (i.e., the character) of adjacent uses. In addition, a flexible bufferyard approach would provide multiple options (i.e., landscaping only, landscaping and berm, or landscaping and fence structure) to achieve the same level of compliance, while providing the developer with flexibility to implement the one that is most appropriate for their site and project.

Source: Kendig Keast Collaborative



Varying levels of opacity



Improved levels of screening

- 21) Evaluate program criteria and make necessary improvements to achieve certification through the Scenic City Certification Program. Sponsored by Scenic Texas, this certification recognizes Texas municipalities that implement high-quality scenic standards for public roadways and public spaces.
- 22) Encourage the development and/or redevelopment of underutilized/underdeveloped parcels on “the Hill” district by using a



Accessory Uses
Source: Kendig Keast Collaborative



Accessory Uses
Source: Kendig Keast Collaborative

market-based approach. The likely outcome of a market-based approach is industrial and/or business park use. Couple program with possible incentives and/or rebates.

- 23) Revise Sec. 42-165, *Landscaping*, of the municipal code to:
 - » Specify required landscaping percentages for both residential and commercial properties;
 - » Create an incentive based system for developers who preserve existing trees during the development process; and
 - » Develop regulations that identify the appropriate circumstances for using xeriscape alternatives and landscape planters.
- 24) Revise Sec. 42-166, *Fencing*, of the municipal code to:
 - » Address the following fencing types: electric, and razor wire. Since annexing areas that are currently rural this will be an issue that the City will ultimately have to encounter.
 - » Prohibit wood fencing along the corridors that are designated as scenic byways in Sec. 28-132.
- 25) Revise Sec. 42-167, *Buffering*, of the municipal code to:
 - » Integrate screening standards into this section in order to address issues such as dumpsters, loading docks, roof equipment, and storage areas.
 - » Create specific distance requirements for land uses where a distance separation is recommended.

STRATEGY 5.4 Promote quality development and connectivity in new neighborhoods.

While the City needs to focus efforts on stabilizing existing neighborhoods and facilitating proper connectivity between these neighborhoods, there is also a concern that there is not enough supply of estate residential subdivisions. There is high demand in Mont Belvieu for larger lot, higher-priced residential estate housing. Despite the desire for quality new development in the City and ETJ, the



City's current development regulations do not have adequate provision to ensure the outcome of quality neighborhoods (i.e., beyond the minimum lot size standard and several other standards).

Actions and Initiatives

- 26) Designate areas for the provision of estate residential subdivisions in the Future Land Use Plan. Use the estate residential designation as a default residential category with other by-right uses, including the more flexible PUD.
- 27) Incorporate street layout and design standards into the subdivision regulations to accomplish traffic calming objectives without creating discontinuous streets. Standards may include collector street offsets, jogs, curves, and narrowed street sections.
- 28) Require interconnection of local and collector streets to adjacent developments to ensure continuity of the street system.
- 29) Require sidewalks and street trees (coordinated with utility placement) in all new neighborhoods in conformance with Complete Street principles.
- 30) Under the estate residential designation, consider establishing a "flex" residential option with an average, rather than minimum lot size, whereby lot sizes are required to vary in width with a certain percentage being narrower and the remaining being wider than average.
- 31) Allow flexible site design options that permit alternative treatment of utilities and infrastructure.

Strategy 5.5 Optimize the development potential of the Town Center area.

Actions and Initiatives

- 32) Utilize public and private partnerships (e.g., private property owners, developers, builders, TxDOT, Chambers County, etc.) to help optimize the development potential of the new Town Center area.

- 33) Expand streetscape improvements to the northern side of FM 565 along Eagle Drive.



FM 565 and Eagle Dr
Source: Kendig Keast Collaborative

- 34) Make the Town Center area a walkable and genuine live and work environment with a variety of different uses, but similar character (see also **Chapter 3, Live and Work**).



Source: Kendig Keast Collaborative



Strategy 5.6 Revise the Sign Ordinance to improve the visual appearance of future land uses, particularly prioritizing those regulations that negatively impact community character.

Actions and Initiatives

- 35)** Revise Sec. 28-35, *Nonconforming Signs*, in order to remove more non-compliant signs by lowering the percentage requirement from 60% to at least 50%. At minimum, if half of the value of the sign has been lost and would have to be replaced, then the non-conforming sign should be removed with the option to install a compliant sign.
- 36)** Adopt a Sign Amortization program in order to give warning that all non-compliant sign owners' structures will be phased out and required to be removed in a defined number of years. Five years would be an appropriate time period.
- 37)** Refine Sec. 28-132, *Designation of Scenic Byways*, to make it clear what parcels of property are affected by this designation. Should the City determine to adopt a new zoning scheme, this section of the sign ordinance will need to be changed because the current regulations are tied to the existing zoning districts.





FUTURE LAND USE PLAN

Provided in **Table 5.4, Future Land Use and Character**, provides a summary of proposed land allocation for the plan depicted in **Map 5.2, Future Land Use and Character**, captures and develops into the City’s policies and the community’s values regarding how, when, and where Mont Belvieu will grow over the course of the next two decades. This is significant since the recommendations and proposed future land use designations contained in this plan provide the basis for the City’s development regulations as the primary tools to implement the plan.

Transitioning to a character-based system will provide benefits not only in improving the quality and character of development, but also in increasing parks and open space, resource conservation and protection, stormwater management and drainage, and providing for the right housing types to meet the needs of the community – all of which are important in enhancing the quality of life to Mont Belvieu.

TABLE 5.4

Future Land Use and Character					
Types	City Limits		ETJ		Planning Area
	Acres	Percent	Acres	Percent	Percent
Business Park	147.6	0.7	2,370.5	11.8	12.5
Residential	1,652.58	8.2	4,469.64	22.2	30.4
General Commercial	373.83	1.9	335.28	1.7	3.5
Industrial	4,138.4	20.5	286.7	1.4	22.0
Institutional	419.2	2.1	8.9	0.0	2.1
Neighborhood Commercial	299.20	1.5	144.32	0.7	2.2
Neighborhood Conservation	1,388.32	6.9	651.76	3.2	10.1
Parks and Open Space	1,356.31	6.7	1,097.91	5.5	12.2
Row	578.40	2.9	220.50	1.1	4.0
Town Center	204.24	1.0	0.0	0.0	1.0
20,143.6	10,558.0		9,585.6		100.0



THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK.

Mont Belvieu

