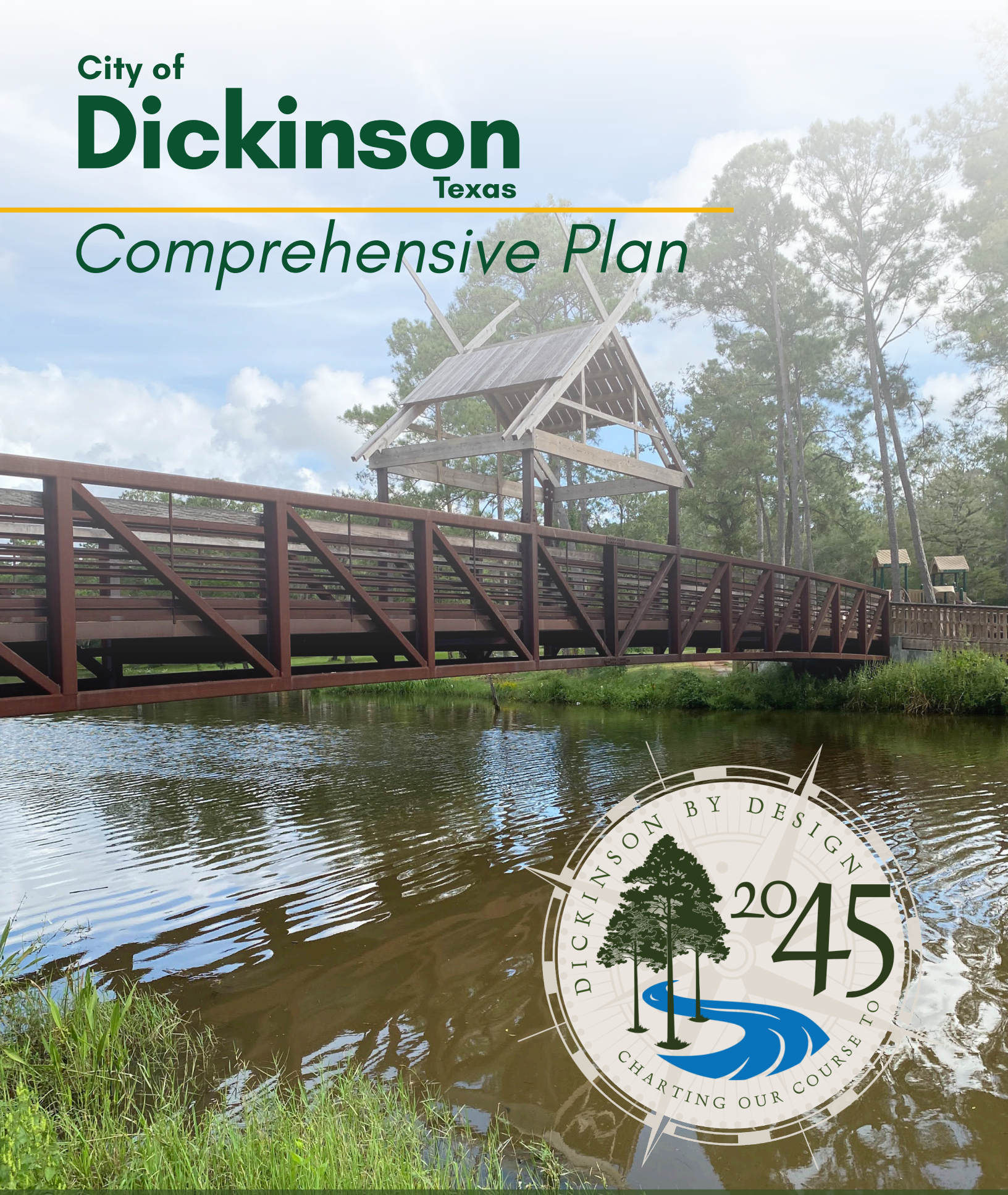
City of

Dickinson

Texas

Comprehensive Plan



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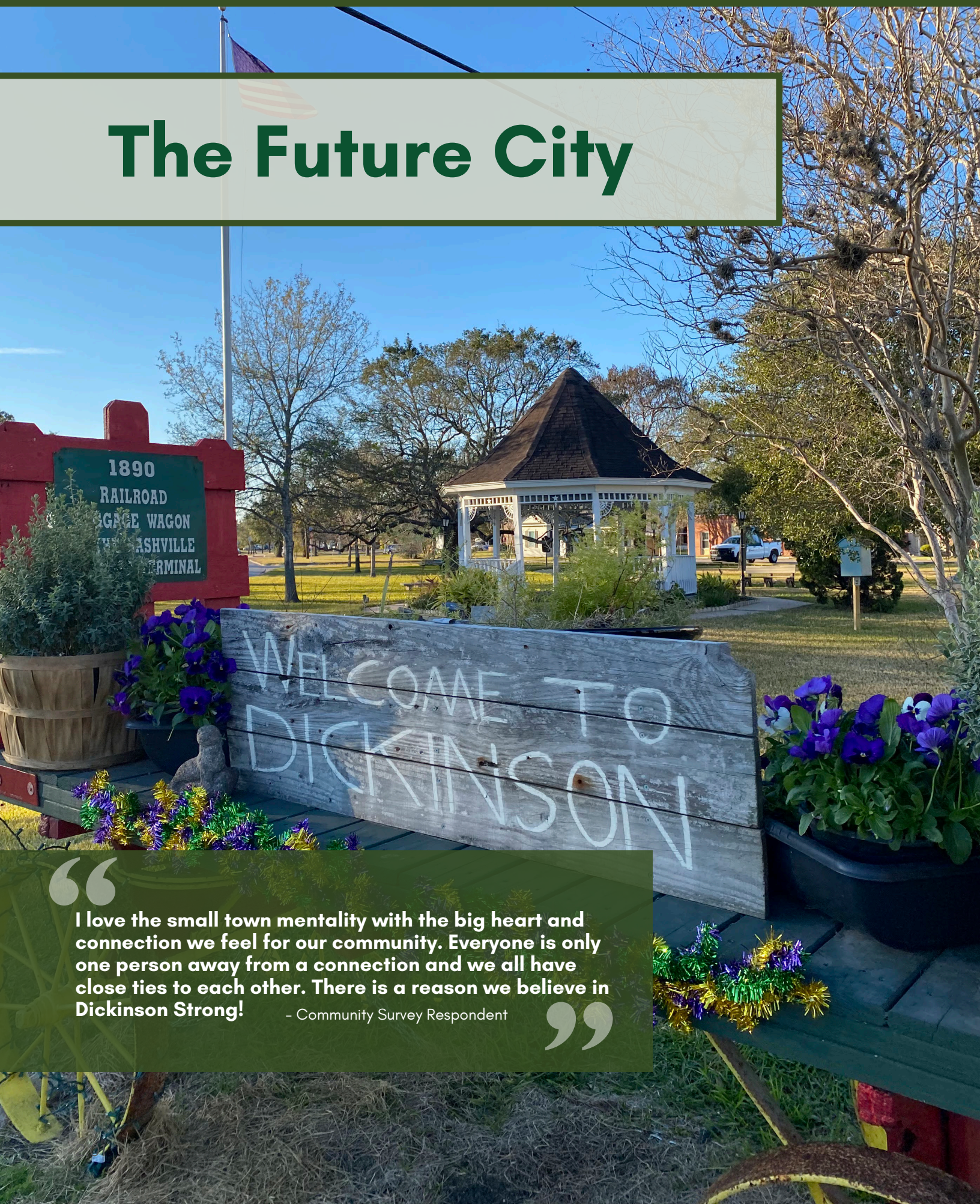
ADOPTED
May 9th 2023

The Future City



I love the small town mentality with the big heart and connection we feel for our community. Everyone is only one person away from a connection and we all have close ties to each other. There is a reason we believe in Dickinson Strong!

– Community Survey Respondent

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INTRODUCTION

Dickinson has many positive attributes and qualities that position the City well for future community growth and prosperity. In a fast-growing environment, such as what is happening in the Houston-Galveston metropolitan region, the question of how to move forward - capturing regional energy and directing growth opportunities to Dickinson while maintaining the community's small-town character - is a key topic of conversation and the focus of City leadership-. At the same time, living in the floodplain of the Dickinson Bayou and its tributaries bring concerns about flooding and cause development and redevelopment challenges. Ensuring a resilient future that balances quality of life with economic well-being is critical.

The community's vision for the future calls for realistic and realizable actions that will produce economic strength, community vitality, and quality development. The outcomes described in Chapter 2 have shaped the basis of the strategies and recommendations in this chapter. The framework for this community agenda is organized around nine targeted goals and outcome statements which are focused on land use and placemaking, economic prosperity, community character and liability, equitable growth, and efficient mobility. From these areas of focus a resulting plan of action is derived. To accomplish these goals a series of strategies and actions have been implemented to guide growth over the next 20 years and beyond. It is understood that not every outcome or strategy will be completed in the near-term, or in some cases, during the time horizon of this plan. As such, Chapter 3, Implementation, sets out a prioritized implementation action plan which provides more guidance as to the community's near-, mid-, and longer-term plan of action moving forward.

Plan Goals

The nine community goals in the Comprehensive Plan are intended to organize and frame corresponding strategies and actions. These goals, depicted on the following page, represent broad, inter-related topics of equal importance that will guide the Dickinson action plan over the next 20 years and beyond. Each goal contains a statement of desired outcomes, which can be viewed as a commitment for the community to achieve as the plan is implemented. This is not a linear planning program. Conversely, strategies should be viewed as iterative, building-off of accomplishments as they occur. It is important to note that the Plan's goals are not ranked in order of importance or priority. The priorities and timing of associated actions necessary to achieve the goals are detailed in the Implementation Action Program tables contained in Chapter 3, Implementation. It is intended that the City of Dickinson will take action and respond to community needs on each of these goals during implementation. While there will be changing priorities over time, with shifting orders of magnitude, these goals will be enduring and constant throughout the timeframe of the planning program.

The community goals build upon the community vision statement in Chapter 1 and provide the framework for a community agenda. As the caretakers of the community's vision, this agenda should start with municipal leadership, yet should include Dickinson's citizens, local businesses, civic organizations, and partnering entities working together towards achieving these outcomes. This chapter and the subsequent implementation chapter are presented as a roadmap to guide the community with action-oriented steps towards the future.

Strategies and Actions

It should be recognized that several of the recommended strategies and actions, while nestled under the umbrella of a particular goal, bear a relationship to, and will simultaneously advance, the provisions of multiple goals.

Strategic Perspectives

The Comprehensive Plan is based on the premise that the adopted plan accurately reflects what the City wants to become in the future. They also provide a logical framework for land-use decision-making at a conceptual level as well as on an area-wide and site-specific basis. Uniform application of these goals, objectives and subsequent strategies and actions should result in a balanced and harmonious community where a high quality of life and economic wellbeing can be achieved and maintained. The following terms are defined as they relate to the general organization of The Future City report and Implementation section, which, along with Appendix A, The Existing City report, compose the Destination Dickinson 2045 Comprehensive Plan:

Goals

Goals are the observable and measurable end result having one or more objectives to be achieved within a more or less fixed timeframe. For the purposes of this Comprehensive Plan, goals are phrased in a future tense, and characterize what the City will be like having achieved the goal.

Objectives

Objectives represent the specific result to be achieved within a given time frame and with available resources, having followed a specific course of action. In general, objectives are more specific and easier to measure than goals. Objectives are basic tools that underlie all planning and strategic activities. They serve as the basis for creating policy and evaluating performance.[1]

Strategies

A strategy is method or plan chosen to bring about a desired future, such as achievement of a goal or solution to a problem. A strategy connotes a long-range planning program, as compared to a series of short-range, tactics.

Courses of Action

A course of action is a possible sequence of operations, that are open to an individual or organization intent on accomplishing a particular strategy and objective.

Policies

A policy is a statement of intent, and is implemented as a procedure or protocol. A policy can be a law, regulation, procedure, administrative action, incentive, or voluntary practice of governments and other institutions. Policy decisions are frequently reflected in resource allocations.

1: Business Dictionary (Available at: http://www.businessdictionary.com/definition/objective.html)

Guiding Principle: Destinations

What Makes a Great City?

The public realm makes a Great City. According to renowned urban planner, Alexander Garvin, amazing public spaces are characterized by:

1) Being open to anyone.

2) Having something for everyone.

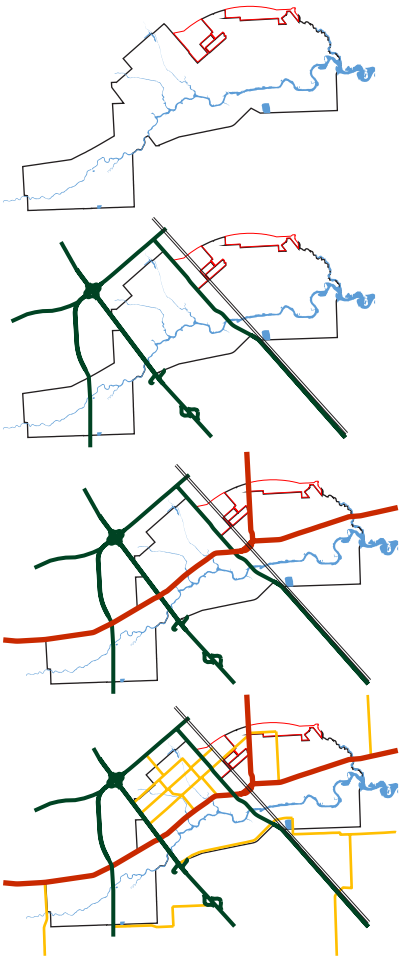
3) Being able to attract and maintain demand.

4) Allowing for surrounding development and urbanization.

5) Being sustainable, livable environment.

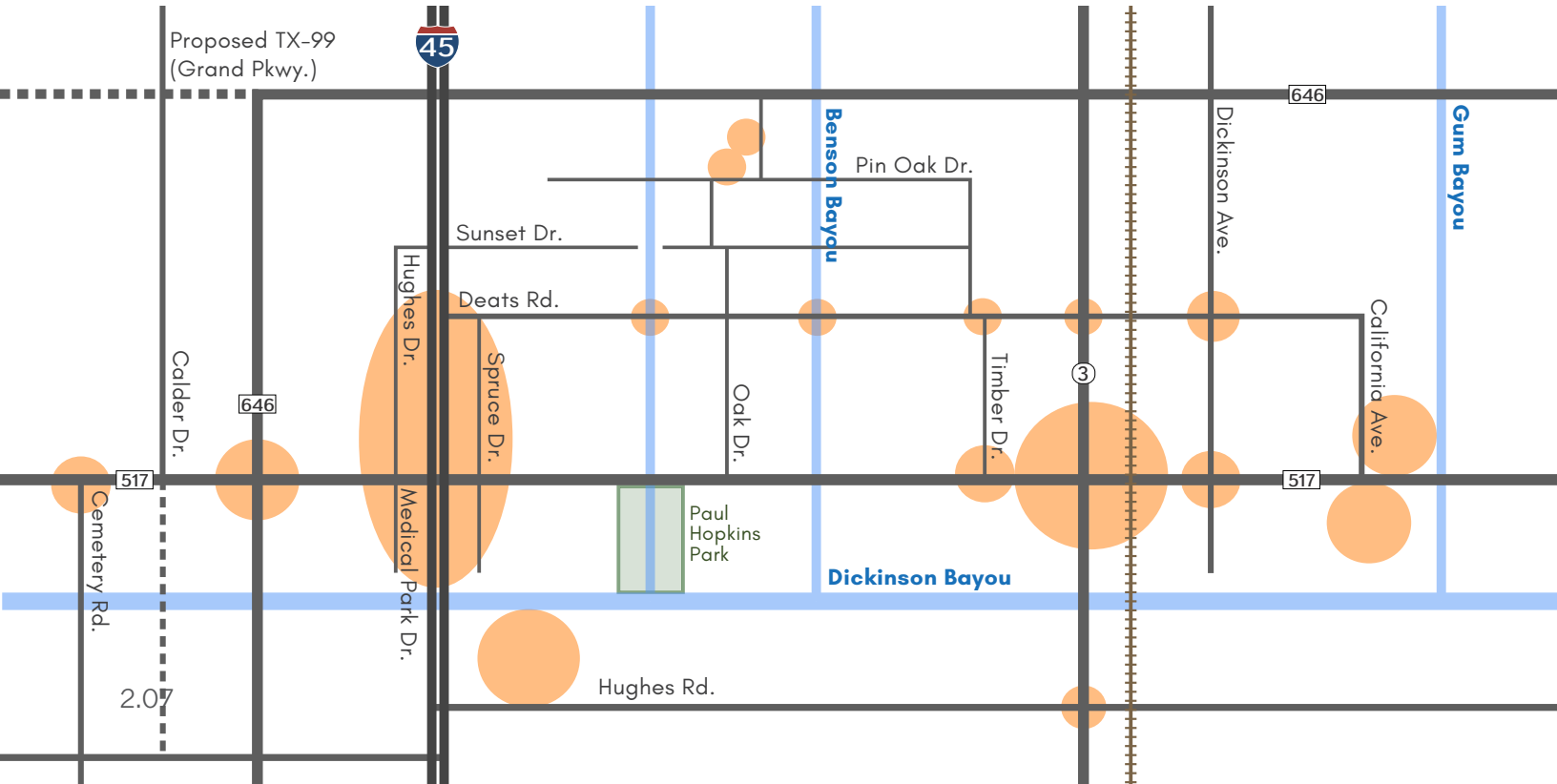
6) Nurturing a civil society.

A City should ensure that residents have easy access to public spaces such as parks, plazas, retail streets, community nodes, and other spaces which facilitate social, economic, and cultural opportunities. Residents must have options of housing types and mobility options to ensure a diverse community. The travel distance between the public space (retail, parks, gathering nodes) and private space (residential) should be limited. This encourages the integration of facilities into everyday life, facilitates social opportunities, and develops a localized economy, while in-turn discouraging traffic congestion, pollution, and higher costs of infrastructure.



Organizing Elements

Dickinson is organized in a loose grid pattern, based on the Dickinson Bayou and major State and National thruoughtfare connecting Galveston and Houston. FM517 runs parallel to Dickinson Bayou providing secondary east west connections. Points where major thruoguhfares and bayous intersect, can be catalyzed for stategic growth in commercial / retail, alternative housing typologies, and community gathering points.



Anatomy of Place

The key physical elements which contribute to the City of Dickinson's legibility and sense of place include paths, nodes, edges, districts, and landmarks.



Path: Paths are the channels for traveling from one destination to another. These include roads, sidewalks, waterways, transit corridors, canals, or railroads. Paths create the framework of the community on which all other components fit. Paths in Dickinson include 517 (Main Street), 646, SH3, Dickinson Avenue, the Railroad, and Dickinson Bayou



Node: Nodes are significant destinations where concentrations of land uses, major features, or convergence of paths occur. Nodes in Dickinson include: Intersections of I-45 and 517, SH3 and 517, 517 at Cemetery Road / Calder Drive / 646, I-45 and Hughes Road



Edge: Edges are linear elements which compose the boundaries between two places and represent a physical change in the environment. Edges are the distinct ending of one area and the beginning of another. In Dickinson, the edges are Gum Bayou to the east, Hughes Road to the south, Cemetery Road to the west, and various streets on the north.



District: Districts are identifiable areas within a community or city. Each has a distinct character that differentiates from other areas or districts. In Dickinson, the downtown area would qualify as a Central Business District.



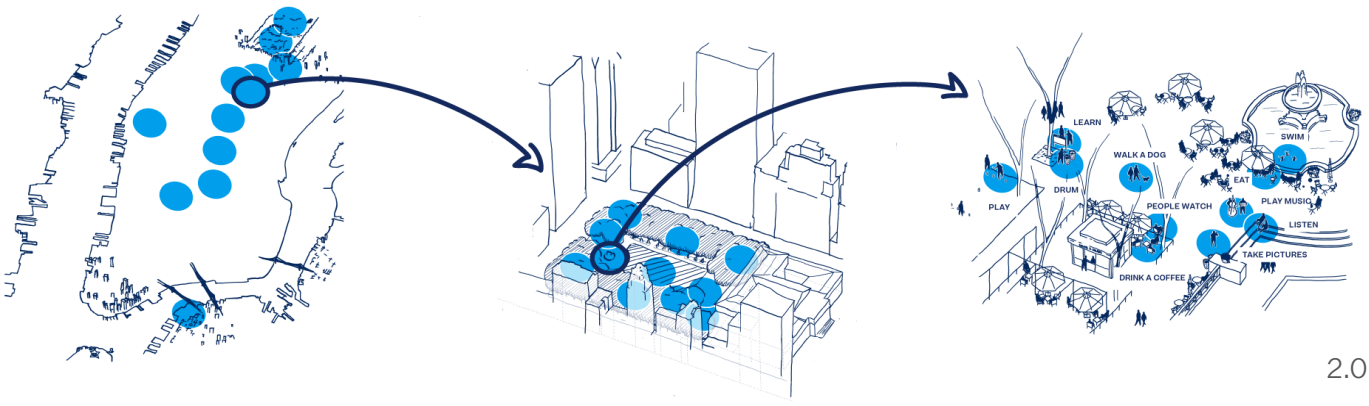
Landmark: Landmarks are focal points that act as points of reference and are frequently used clues of identity. They are usually a defined physical object, such as a building, sign, store, or mountain. They may be within the city or at such a distance that for all practical purposes they symbolize a constant direction. Landmarks in Dickinson include the 1902 Dickinson Railroad Depot and the Harbour Playhouse.

Powers of Ten+

The Power of 10+ is a concept developed by the Project for Public Spaces to evaluate place-making at a range of spatial scales; the focus of which is to underscore the value of considering a city's destinations and districts from a human, experiential scale and the reasons people may want to be there. This concept recommends vibrant places have at least 10 destinations; and within each destination there must be 10 specific places; and within each place there must be at least 10 things to do, which are layered to create and build-upon accrued synergies - making a place more than the sum of its parts.

Places thrive when users have a range of reasons (10+) to be there. These might include a place to sit, playgrounds to enjoy, art to touch, music to hear, food to eat, history to experience, and people to meet. Ideally, some of these activities will be unique to that particular place, reflecting the culture and history of the surrounding community. Local residents who use this space most regularly will be the best source of ideas for which uses will work best.

Further, when cities contain at least 10 of these destinations or districts, their public perception begins to shift amongs both locals and tourists, and urban centers can become better equipped for generating resilience and innovation.



Guiding Principle: Building Resilience

Planning for Resilience

Resiliency planning means finding an approach that is best matched to a community's unique needs and resources. This comprehensive plan incorporates resilience against natural and human-caused hazards (the "shocks" to a community) throughout all its elements and also addresses the social, environmental, and economic "stressors" into the goals and strategies.

From a land-use perspective, resiliency planning means considering shocks and stresses throughout your community's plans, land-use codes, zoning, development standards, incentive programs, and other plans or policies that guide and shape development. This plan incorporates sustainability goals, strategies, and recommendations to adopt sustainability standards, incorporate best-practice approaches to the management of systems needed to support the community, and prepare land use plans and regulations to maintain the health of natural systems as a primary priority.

From a social perspective, resiliency planning is applicable at the neighborhood unit level. In that, the initial response to the aftermath of any major event, such as a hurricane, should originate from within the neighborhoods as neighbors help each other to get through the difficulty at hand. Neighborhood resilience requires a strong social infrastructure, or network, to identify members who may suffer the most, or be the least resilient, to a sudden turn of events. Neighborhood resilience practice may range in application from knowing which neighbors have generators, to who will be supplying coffee in the morning, to knowing who is bed-ridden and in need of immediate medical assistance. Activities undertaken as part of resilience practice can be grouped into three broad steps: describing the system, assessing its resilience, and managing its resilience.

City Resilience Framework

From the Resilient Cities Network

Leadership & Strategy		
Promotes Leadership and Effective Management	Empowers a Broad Range of Stakeholders	Fosters Long-Term & Integrated Planning
Infrastructure & Environment		
Provides and Enhances Natural and Manmade Assets	Ensures Continuity of Critical Services and Emergency Planning	Provides Reliable Communication and Mobility
Economy & Society		
Promotes Cohesive and Engaged Communities	Ensures Social Stability, Security, and Justice	Fosters Economic Prosperity and Opportunity
Health & Wellbeing		
Ensures Public Health and Educational Services	Supports Livelihoods and Employment	Meets Basic Needs or Residents

Visit: https://resilientcitiesnetwork.org/

All communities experience chronic stress and acute shocks, each requiring different planning and mitigation tactics to grow community resilience again such threats.

Stress VS. Shock

Stresses	Shocks
Stresses weaken a community on a daily or cyclical basis.	Shocks are sudden events that threaten a community.
Inequality Cost of living Climate change Transportation stress Utility infrastructure Crime and violence Food and water shortages Unemployment / Homelessness	Flash Floods Hurricanes Disease outbreaks Terrorist-cyber attacks Heatwaves / drought Fires and utility emergencies Hazardous materials Riot /civil unrest
Preventing stresses requires long-range planning, strategy, funding, programs, and policy.	Shocks are less preventable, but can be mitigated through action plans, education, programs, and emergency policy.

Resilience from Flooding

The City of Dickinson is vulnerable to natural flooding events due to its low-lying location near the Galveston Bay and Gulf Coast. Flood zones (100-year, and 500-year floodplains) within Dickinson primarily follow along the boundaries of Dickinson Bayou, and its various tributaries (Borden's Gully, Benson Bayou, Gum Bayou, and several other smaller tributaries). The City also has numerous secondary watersheds and other drainage features that transmit water across the city. Approximately 74 percent of the city is in the 100-year floodplain and approximately 90 percent of the city is within the 500-year floodplain. Planning for resilience in the face of flooding due to severe storm events can incorporate:

- Elevating structures and other housing adaptation strategies (see page X.X, Resilient Housing).
- Low impact development (LID) strategies such as micro-detention, vegetated swales, rain gardens, pervious paving, urban forest canopy, cisterns, etc.
- Regional detention.
- Stormwater diversion through channels and ditches.
- Environmental protection of wetlands and sponge zones.
- Preservation of forest canopy.
- Underground stormwater release tanks.
- Dredging of bayous to address waterflow capacities.

Resilient Economies

Economic resilience relates to a community's ability to foresee, adapt to, and leverage changing conditions to their advantage.

Resiliency has three primary attributes:
1. The ability to recover quickly from a shock;
2. The ability to withstand a shock; and
3. The ability to avoid the shock altogether.

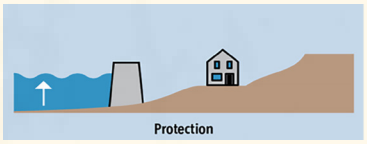
Shocks may include:

- Downturns in the national or regional economy impacting demand for local goods and spending;
- Downturns of industries critical to local economic activities; and
- External impacts such as natural or man-made disasters, a major employer closures, changing climate, etc.

According to the Federal Emergency Management Agency (FEMA), 40% of small and mid-sized businesses (SMBs) never reopen after a natural disaster, and an additional 25% reopen but fail within a year . Nearly two-thirds of SMBs impacted by a fire, flood, hurricane, tornado, or earthquake no longer exist 12 months later. This highlights the need for SMBs to develop an emergency disaster plan and continuity of operations plan to reduce that risk and help the business recover faster.

Four Adapation Actions: Living With Climate Change

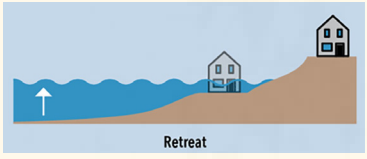
PROTECT: Hard and soft structurally defensive measures to mitigate the impacts of a changing climate.



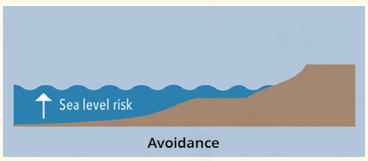
ACCOMMODATE: Altering physical design to allow a structure or land to stay in place despite changing conditions.



RETREAT: Removal of infrastructure or uses that cannot be easily protected or accommodated from a high-hazard area.



AVOID: Guiding new development away from areas that are at high risk from a changing climate.



Source: WeADAPT.org



Source: WeADAPT.org

Community Strategies and Recommendations

Goal 1.0 Vibrant Community:

A balanced mix of land uses, and development patterns support a healthy community comprised of livable neighborhoods, vibrant business districts, and appealing open spaces.

Objective 1.1: Formulate a Future Development Program that accommodates projected population growth over the time horizon of the planning program.

Looking Forward

As summarized in Chapter 1, Introduction, over the next 20 years or so Dickinson's population is projected to grow from 20,847 persons to 28,747 persons, an increase of roughly 7,900 additional persons. The challenge is to evaluate the most efficient means through which to accommodate this residential growth trajectory while providing the necessary supporting commercial and other land uses and infrastructure to sustain a viable community. As Dickinson is largely built-out, there is only so much undeveloped land to provide for new growth and development, before resorting to redevelopment, which will need to be part of the equation, though for reasons beyond accommodating growth. As summarized in Appendix A, The Existing City, based on the Galveston County Appraisal District data, there is much land within the city limits where the taxable value of the land exceeds the taxable value of the improvement, which gives rise to redevelopment considerations.

New Developments in Dickinson

Over the last few years several new, primarily single-family residential subdivisions have been developed in Dickinson, including Bayou Maison, Bayou Bend Estates, and new sections of Bayou Lakes. While these subdivisions fulfill the desires of many residents it is a pattern of development that is very land consumptive. Further, as summarized in this plan's associated public engagement program, many people desire a more walkable community, with a mix of readily-accessible uses, composed in part by additional housing typologies which will accommodate residents' full lifecycle.

In addition to the new single-family residential subdivisions, there are two areas within the City of Dickinson which have been recently designated as tax increment reinvestment zones (TIRZs). The first area focuses on intersection of Interstate 45 (IH-45) and Farm to Market 517 (FM 517); and the second area is in the original Downtown area, at the intersection of State Highway 3 (SH 3) and FM 517. According to Map 2.6, on page 2.40, Future Land Use, the developments within the TIRZs will consist of higher intensity, mixed-use development. A third area of development, consisting of approximately 60 acres east of Dickinson, is also under consideration to create another town center-type development which will respond to anticipated growth within and outside of the city limits. Projected population growth, composed of changing demographics and corresponding lifestyles, and current patterns of development, combined with new development within the region require evaluating a series of scenarios to establish an appropriate and preferred growth trajectory.

Strategy 1.1.1: Prepare a series of growth scenarios to evaluate the most efficient land development program with which to fulfill the land use requirements of Dickinson's projected population.

Ensure a balanced mix of land uses that maintains and enhances Dickinson's identity as a diversified community, offering a variety of housing typologies and employment options, commercial services, and civic facilities to meet the needs of existing and future residents, and business and property owners.

Growth Scenarios

As depicted in Table 2.1, Growth Scenarios, four growth scenarios were evaluated, each of which builds upon and informs the next, leading to the development of the preferred land development program and associated future land use plan. Each growth scenario is based on a series of realistic assumptions regarding the use of undeveloped land as well as redevelopment, and will be summarized in the following sections to quantify how to best accommodate Dickinson's projected population. Growth scenarios are based in part on the existing land uses and percentages that currently compose the City

Existing Land Use Map

Map 2.1, Existing Land Use, identifies the land uses that currently exist within the City. Table 2.1, Growth Scenarios the first column in each senario quantifies the total acreage, the second provides a 25% contingency, and the thirds provides the deficit of surplus of each land use (based on the 2045 Trend Projection); which are described in greater detail within the Existing Land Use section of The Existing City report (Appendix A, page 1.07). The total acreage of each land use was then divided by the 2020 population (20,847) to calculate the existing land use acreage per capita multiplier.

Table 2.1, Growth Scenarios

Zoning, Future Land Use, or Existing Land Use	Land Uses	Existing Land Use (ELU)			2045 Trend Projection			Zoning Build Out		Baseline Residential Development			Growth Sequencing Projection			Walkable City (FLU)	
		Area (Acres)	Area (%)	Acre per cap.	Area (Acres)	25%+ (Acres)	Deficit/ Surplus	Area (Acres)	Area (%)	Area (Acres)	25%+ (Acres)	Deficit/ Surplus	Area (Acres)	25%+ (Acres)	Deficit/ Surplus	Area (Acres)	25%+ (Acres)
	RESIDENTIAL LAND	0.00	0.0%	0.000	0.00	0.00	0.0000	3835.64	70.0%	4477.67	5597.09	239.06	3662.34	65.4%	3662.34	3289.80	58.5%
Z	Conventional Residential (CR) / General Residential	0.00	0.0%	0.000	0.00	0.00	0.00	3835.64	70.0%	0.00	0.00	0.00	0.00	0.0%	0.00	934.42	16.6%
ELU	Suburban Residential	2225.12	39.7%	0.107	3068.33	3835.42	-843.2164	0.00	0.0%	3629.00	4536.25	560.67	2688.69	48.0%	-379.64	0.00	0.0%
FLU	Neighborhood Conservation	0.00	0.0%	0.00	0.00	0.00	0.00	0.00	0.0%	0.00	0.00	0.00	0.00	0.0%	0.00	1236.12	22.0%
FLU	Neighborhood Restoration	0.00	0.0%	0.00	0.00	0.00	0.00	0.00	0.0%	0.00	0.00	0.00	0.00	0.0%	0.00	437.36	7.8%
Z	Rural Estate / Rural Residential (RR)	644.52	11.5%	0.031	888.76	1110.95	-244.2431	870.26	15.9%	644.52	805.65	-244.24	592.12	10.6%	-296.65	681.89	12.1%
Z, LU	High Dencity Residential (HR) / Urban Residential	72.66	1.3%	0.003	100.19	125.24	-27.5348	58.92	1.1%	72.66	90.83	-27.53	58.81	1.1%	-41.39	0.00	0.0%
Z	Small Lot Residential (SR)	0.00	0.0%	0.00	0.00	0.00	0.00	52.40	1.0%	0.00	0.00	0.00	0.00	0.0%	0.00	0.00	0.0%
Z, ELU	Manufactured Housing (MH)	131.49	2.3%	0.006	181.32	226.64	-49.8278	81.82	1.5%	131.49	164.36	-49.83	131.49	2.3%	-49.83	0.00	0.0%
ELU	Farm and Ranchland	729.45	13.0%	0.035	0.00	0.00	0.00	0.00	0.0%	0.00	0.00	0.00	191.24	3.4%	191.24	0.00	0.0%
	COMMERCIAL LAND	483.09	8.6%	0.023	666.16	832.70	-183.0687	532.04	9.7%	0.00	0.00	-666.16	523.11	9.3%	-143.05	487.97	8.7%
Z, ELU, FLU	General Commercial (GC)	483.09	8.6%	0.023	666.16	832.70	-183.0687	441.26	8.0%	483.09	603.86	-183.07	523.11	9.3%	-143.05	468.20	8.3%
Z, FLU	Neighborhood Commercial (NC)	0.00	0.0%	0.00	0.00	0.00	0.00	90.78	1.7%	0.00	0.00	0.00	0.00	0.0%	0.00	19.78	0.4%
	MIXED USE LAND	0.00	0.0%	0.00	0.00	0.00	0.00	0.00	0.0%	0.00	0.00	0.00	470.50	8.4%	470.50	1024.09	18.2%
FLU	Old Town / City Center	0.00	0.0%	0.00	0.00	0.00	0.00	0.00	0.0%	0.00	0.00	0.00	0.00	0.0%	0.00	109.99	2.0%
FLU	Urban Transition	0.00	0.0%	0.00	0.00	0.00	0.00	0.00	0.0%	0.00	0.00	0.00	0.00	0.0%	0.00	356.34	6.3%
FLU	Employment Center	0.00	0.0%	0.00	0.00	0.00	0.00	0.00	0.0%	0.00	0.00	0.00	225.40	4.0%	225.40	232.66	4.1%
FLU	Activity Center	0.00	0.0%	0.00	0.00	0.00	0.00	0.00	0.0%	0.00	0.00	0.00	245.10	4.4%	245.10	325.10	5.8%
ELU, FLU	Park Land / Open Space	114.07	2.0%	0.005	157.30	196.62	-43.2272	0.00	0.0%	114.07	142.59	-43.23	114.07	2.0%	-43.23	533.92	9.5%
Z, ELU	Riparian Corridors / Reservoirs	220.66	3.9%	0.011	304.28	380.35	-83.6191	0.00	0.0%	220.66	275.82	-83.62	209.15	3.7%	-95.13	0.00	0.0%
ELU, FLU	Public / Institutional	238.80	4.3%	0.011	329.29	411.62	-90.4941	0.00	0.0%	238.80	298.50	-90.49	238.80	4.3%	-90.49	222.34	4.0%
Z	Heavy / Light Industrial (LI)	20.64	0.4%	0.001	20.64	20.64	0.00	5.30	0.1%	20.64	25.80	0.00	20.64	0.4%	0.00	20.64	0.4%
Z	General Industrial (GI)	0.00	0.0%	0.00	0.00	0.00	0.00	46.59	0.8%	0.00	0.00	0.00	0.00	0.0%	0.00		0.0%
ELU, FLU	Utilities	43.28	0.8%	0.002	59.68	74.60	-16.4011	0.00	0.0%	43.28	54.10	-16.40	43.28	0.8%	-16.40	41.41	0.7%
ELU	Undeveloped Land	674.80	12.1%	0.032	930.52	1163.15	-255.7179	0.00	0.0%	0.00	0.00	0.00	320.49	5.7%	-610.03	0.00	0.0%
	TOTALS	5598.57	100.0%		6706.47	-1107.90		5482.96	100.0%	5598.21	6997.76		5602.37	100.0%		5620.17	100.0%

*Difference in acreage totals between Existing Land Use and Existing Zoning is attributed to Extra Territorial Jurisdiction lands being counted in the Land Use but not Zoning

*Variations in land use totals may be attributed to rounding

*The '25%+' column depicts a 25 percent contingency of growth beyond the projected number in 'Area (acres)'

2045 Trend Projection

The 2045 Trend Projection calculates the amount of area per land use required to accommodate Dickinson's projected 2045 population. The existing land use acreage per capita multiplier is multiplied by the projected population (28,747 – refer to Population Projections, in Chapter 1, Introduction, page 1.29) to calculate the projected future area per land use required to accommodate the projected population. A 25 percent contingency is then added to account for market variability.

The Trend Scenario considers how the City of Dickinson might develop if a dispersed pattern of growth – consistent with recent development patterns – were to take place throughout the planning area (e.g., lands within the city limits) over the 20-year planning horizon. This scenario assumes the continuation of the low-density, single-use development pattern and growth that is prevalent in Dickinson today.

The scenario applies future land use categories introduced on page 2.26 to undeveloped or underdeveloped property. Most land would develop as large-lot, single-family detached neighborhoods at the edges of town. Very little residential development occurs within the City's urban context. Most non-residential development occurs along suburbanizing freeways and major thoroughfares.

Key features of the trend growth scenario include:

- Low-density, single-use development patterns spread throughout the planning area.
- Outward expansion of infrastructure to serve newly developed areas.
- Lack of walkability and connectivity between points of origin and key destinations.
- Reliance on cars for most trips in the planning area (very little transit service).
- Loss of rural landscape character.

Key Land Use Considerations

Residential Land Uses – most new residential dwelling units would develop as large-lot, single-family detached neighborhoods, on the eastern and western fringes of the City, and south of Dickinson Bayou where farm and ranch land is still available.

Non-Residential Land Uses – strip commercial development would remain concentrated along FM 517, near major intersections. Warehousing and light industrial would continue to develop along SH 3.

Open Space

The Trend Scenario does not emphasize the preservation of open space beyond sensitive environmental areas such as bayous, tributaries, and floodplains.

Transportation Impact

Changes to the transportation network such as new transit services, roads, or interchanges are not incorporated into the Trend Scenario. Continuing patterns of low-density development and little expansion to the City's transit network favors more commuting by automobile.

Supporting Infrastructure

Additional water, stormwater, and wastewater system extensions would be required to support the additional single-family units.

Housing Choice

In the Trend Scenario, suburban neighborhoods continue to be developed with few geographic or fiscal constraints. Additionally, very little residential development occurs in the city center and a very modest amount of infill occurs within vacant areas in the city center area. An additional 843 acres would be developed into single-family residential and 27.5 acres would be developed into high-density residential. This will accommodate an additional 6,097 and 297 people can be accommodated.

MAP 2.1, EXISTING LAND USE

Legend

Land Use

- Commercial
- Public/Institutional
- High-Density Residential
- Suburban Residential
- Rural Residential
- Farm and Ranchland
- Heavy Industry
- Developed Park Land
- Riprarian Corridors/Reservoirs
- Utility
- Manufactured Home
- Undeveloped

Boundaries

- City Limits
- Extraterritorial Jurisdiction (ETJ)
- Dickinson Bayou

Roads

- Rail Lines
- Interstates and Highway
- Roads and Thoroughfares

City of Dickinson Comprehensive Plan

True North

1/4 mile 1/2 mile 1 mile

Data Sources: City of Dickinson, ESRI ArcGIS, NearMapAerial Imagery: www.nearmap.com

Consultant: Halff Associates, Inc.

Development Scenario 1: Zoning Build-Out

The Zoning Build-Out Scenario evaluates growth implications of the City's current Official Zoning Map to determine the degree to which this development pattern will accommodate projected growth and land use area requirements identified in the 2045 Trend Projection, and importantly, provide for Dickinson residents' quality of life.
Based on the existing Zoning Map for the City of Dickinson, 4,028 acres of land is zoned as residential land uses (excluding Rural Estate [RR]), of which only about 2,429 is currently developed as residential. If all land currently zoned as Residential develops at a 55% land utilization, at 2.63 peoples per household, this means that the existing City Zoning Map can accommodate an additional 11,564 people. This exceeds the anticipated growth of 7,900 people by 2045. Based on the current zoning map Dickinson can accommodate this growth and more, but additional parkland, City services, and commercial land will need to be developed to accommodate the populations needs.

Key Land Use Considerations

Residential Land Uses - most new residential development would continue in the same pattern of low-density, large-lot, single-family detached neighborhoods, principally around the eastern and western fringes of the City, and south of Dickinson Bayou where farm and ranch land is still available.

Non-Residential Land Uses - strip commercial development would remain concentrated along FM 517, and near major intersections. Warehousing and light industrial would continue to develop along SH 3.

Open Space

The Zoning Build-Out Scenario does not emphasize the preservation of open space beyond sensitive environmental areas such as bayous, tributaries, and floodplains.

Transportation Impact

Changes to the transportation network such as new transit services, roads, or interchanges are not incorporated into the Zoning Build-Out Scenario. Continuing patterns of low-density development and little expansion to the City's transit network continues to require commuting primarily by automobile.

Supporting Infrastructure

Additional water, stormwater, and wastewater system extensions would likely be required to support the additional single-family residential development to the west of IH-45.

Housing Choice

Although multi-family attached development is allowed within the City's current land development regulations, this scenario does not consider redevelopment options nor an increase in densification.

Official Zoning District Map

City of Dickinson, Texas

Adopted: May 13, 2014

Scale: 1 inch = 800 feet

LEAGUE CITY CITY LIMITS

LEAGUE CITY ETJ

TEXAS CITY ETJ

TEXAS CITY CITY LIMITS

N

Legend

Zoning District Classifications

- RR - Rural Residential District
- CR - Conventional Residential District
- SR - Small Lot Residential District
- HR - High Density Residential District
- MH - Manufactured Home District
- NC - Neighborhood Commercial District
- GC - General Commerical District
- GI - General Industrial District
- (3) Specific Use Permit

Highway 3 Overlay District

- Sub-District 1
- Sub-District 2
- Sub-District 3
- City Limits - Dickinson
- City Limits -Texas City
- ETJ - Texas City
- City Limits - League City
- ETJ - League City

SPECIFIC USE PERMITS LEGEND

Label Nu	Address	Specific Use Description	Ordinance Nu	Effective Dat
1	323 HUGHES RD	CHURCH, SCHOOL & RECREATIONAL	457-2002	8/13/2002
2	2920 AVENUE F	CHURCH & SCHOOL	462-2002	9/10/2002
3	4105 GULF FREEWAY	CHURCH	472-2003	1/28/2003
4	2910 AVENUE F	GROUP DAY CARE CENTER	483-2003	5/27/2003
5	4601 FM 517 EAST	CHURCH	503-2003	11/11/2003
6	4100 HIGHWAY 3	CHURCH & SCHOOL	523-2004	5/25/2004
7	2601 DEATS ROAD SUITE C	CHURCH (SEGUNDA IGLESIA EVANGELICA MINISTERIO DIOS ALTISIMO)	553-2005	6/28/2005
8	1817 FM 517 EAST	CHURCH	558-2005	10/11/2005
9	3002 FM 517 EAST	AUTOMOTIVE REPAIR-BODYWORK SHOP	568-2005	1/3/2006
10	3800 BAKER DRIVE	SCHOOL	574-2006	2/28/2006
11	3424 HIGHWAY 3	CHURCH	581-2006	3/28/2006
12	800 FM 517 EAST	CHURCH	580-2006	3/28/2006
13	12425 PINE OAK DRIVE	GROUP HOME	590-2006	9/12/2006
14	5651 FM 517 EAST	SCHOOL	604-2007	1/23/2007
15	660 FM 517 WEST	SALE AND CONSUMPTION OF ALCOHOL - BEER AND WINE (LOS RAMIREZ MEXICAN RESTAURANT)	607-2007	3/13/2007
16	660 FM 517 WEST	SALE AND CONSUMPTION OF ALCOHOL - MIXED BEVERAGES (LOS RAMIREZ MEXICAN RESTAURANT)	630-2008	1/25/2008
17	FM 517 WEST	CHILD DAY CARE CENTER	632-2008	5/11/2008
18	650 FM 517 WEST	SALE OF ALCOHOLIC BEVERAGES - BEER AND WINE	633-2008	5/13/2008
19	351 FM 646 NORTH	CHILD DAYCARE FACILITY	652-2008	11/11/2008
20	2902 FM 517 EAST	USED AUTOMOTIVE SALES (EXCEL AUTOMOTIVE)	685-2009	9/22/2009
21	223 FM 517 EAST	USED AUTOMOTIVE SALES (CARS BY CRUZ)	687-2009	10/13/2009
22	2218 FM 517 EAST	DISD PUBLIC EDUCATION SUPPORT CENTER	688-2009	10/13/2009
23	1837 FM 517 EAST	CHURCH AND RELIGIOUS SERVICES	692-2010	1/12/2010
24	200 FM 517 WEST	CHURCH AND RELIGIOUS SERVICES (FIRST UNITED METHODIST CHURCH)	699-2010	7/13/2010
25	1621 FM 517 EAST	CHURCH AND RELIGIOUS SERVICES (MAINLAND COMMUNITY CHURCH)	700-2010	7/13/2010
26	3210 STATE HIGHWAY 3	CHURCH AND RELIGIOUS SERVICES (BETHEL EVANGELISTIC CHURCH)	702-2010	8/10/2010
27	3210 STATE HIGHWAY 3	CHILD DAY CARE CENTER (EXCELLENCE ACADEMY)	703-2010	8/10/2010
28	5828 FM 517 EAST	SALE OF ALCOHOLIC BEVERAGES - BEER AND WINE (VIVA MEXICO RESTAURANT)	711-2010	11/9/2010
29	408 FM 517 WEST	GENERAL MERCHANDIZE STORE NO > 10,000 SQ FT - (DOLLAR GENERAL)	731-2011	10/11/2011
30	5202 FM 517 EAST	SALE OF ALCOHOLIC BEVERAGES - BEER AND WINE (CHAPALA RESTAURANT)	732-2011	11/8/2011
31	2512 TERMINI STREET	CHURCH AND RELIGIOUS SERVICES (GOSPEL INTERNATIONAL MINISTRIES)	757-2013	4/9/2013
32	3208 STATE HIGHWAY 3	CHILDREN'S DAYCARE & LEARNING CENTER	766-2013	8/13/2013
33	3527 OAK DRIVE	ASSISTED LIVING CENTER	767-2013	8/13/2013

Disclaimer: This product is for informational purposes and may not have been prepared for or be suitable for legal, engineering, or surveying purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property boundaries. Gov. C. §2501.102. The user is encouraged to independently verify all information contained in this product. The City of Dickinson, Texas makes no representation or warranty as to the accuracy of this product or to its fitness for a particular purpose. The user: (1) accepts the product AS IS, WITH ALL FAULTS; (2) assumes all responsibility for the use thereof, and (3) releases the City of Dickinson, Texas from any damage, loss, or liability arising from such use.

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Development Scenario 2: Baseline Residential Development

The second growth scenario utilizes undeveloped land and areas zoned Farm and Ranchland for new suburban residential development, based on the predominant net densities of recent residential subdivisions, which is approximately five households per acre, using 2.63 persons per household. If all Undeveloped and Farm and Ranch land is developed into single-family suburban residential development, this means that an additional 1,404.25 acres of land will become suburban residential.

Of that 1,404.25 acres, only 55% of the land will be utilized as parceled residential lots (based on existing residential development in Dickinson). The remaining 45% is utilized for roadways, green space, buffers, drainage, and utilities.
This means that 722.33 acres of the total 1404.25 acres can become suburban residential, accommodating 3,611.5 households, and 9,498.25 residents.

The anticipated growth of Dickinson is 28,747 residents by 2045; an increase of 7,900 additional residents from 2020's population.

Under the Baseline Residential Development scenario Dickinson can technically accommodate the projected future increase in population, but will not be able to accommodate other land uses to support the increased population. It is important to remember that currently Dickinson has about 0.21 acres of commercial land use for every acre of suburban residential land use. If the population of Dickinson increases the need for more commercial space, parkland, school facilities, and emergency service locations will be needed. This scenario would lower the suburban residential to commercial land use ratio to 0.13 acres of commercial land use for every acre of suburban residential land use.

Even if the additional 1,598.25 acres of land remaining (if only the 7,900 residents are accommodated for) turns into commercial land use, this still means that all of Dickinson's land will be fully developed and future changes to densities or land uses is made extremely difficult.

Key Land Use Considerations

Residential Land Uses - new residential development would continue in the same pattern of low-density, large-lot, single-family detached neighborhoods on undeveloped or redevelopable land, primarily south of Dickinson Bayou where farm and ranch land is still available.

Non-Residential Land Uses - existing strip commercial development would remain concentrated along FM 517, and near major intersections, while no additional commercial, park, or institutional land uses will be added, placing additional strain on existing commercial facilities and services.

Open Space

The Baseline Residential Development scenario does not add any new open space or parkland. The additional capacity needs for facilities due to an increase in population will not be met.

Transportation Impact

Continuing patterns of low-density development and little expansion to the City's transit network continues to require commuting primarily by automobile with increased traffic on existing rural roads. Major thoroughfare expansion and reclassifications will be required to accommodate new residential growth.

Supporting Infrastructure

A large number of additional water, stormwater, and wastewater system extensions would be required to support the additional single-family residential development. Additional EMS and police services will be needed. Additional land for new schools to accommodate the increased population will not be met under this scenario.

Housing Choice

This scenario places additional strain on the existing multi-unit housing due to limiting the market growth of this option. The existing ratio of suburban to multi-unit residential is 0.032 acres of multi-unit housing per one acre of suburban residential. Under this model the ratio would decrease to 0.02, which can potentially make multi-unit housing more expensive for those who desire this housing type due to limited availability. This scenario reducing overall housing availability and housing types within Dickinson, potentially pushing out lower income residents and retirees.

Hobbs Rd
Ervin Ave
Calder Dr
Tallow Forest St
Cross Colony Dr
Gulf Fwy
Walker St
Gill Rd
Rodeo Bend Rd
Sunset Dr
Deats Rd
Maple Dr
Oak Dr
Timber Dr
Benson Bayou
20th St
H Ave
Ohio Ave
25th St E
Dickinson Ave
Colorado Ave
California Ave
Baker Dr
Winding Brook Dr
Scenic Dr
Country Club Dr
41st St E
E Ave
Hill Ave
Main St
Dickinson Bayou
Hughes Rd
Oleander Dr
N Humble Camp Rd
Galveston Rd
Hughes Ln
Pabst Rd
Cemetery Rd
Shoreview Dr
Lovers Ln
Avenue L
Holland Rd
Dickinson Bayou
City of League City
City of Dickinson
City of Santa Fe
City of Dickinson
City of Texas City
45
99
3
646
517
3436

Development Scenario 3: Growth Sequencing Projection

With the assistance and input from the City Manager's Office, the City's Planning Department and Economic Development Corporation (EDC), Map 2.4, Growth Sequencing Program (facing page) was produced to depict areas projected to be developed within the planning area over the 20-year time horizon of this Comprehensive Plan. The timeframe was then broken into four, five-year periods. The first period (2022-2030) includes all the areas where Planned Unit Developments (PUDs), Planned Residential Districts (PRDs), and construction projects are currently permitted. The second period, termed "Primary Growth Areas," includes those lands projected to be developed between 2030 and 2035. The third period, termed "Secondary Growth Areas," includes those lands projected to be developed between 2035 and 2040. The last period, termed "Tertiary Growth Areas," includes those lands projected to be developed between 2040 and 2045. The proposed development of areas informed Map 2.6, Future Land Use. Table 2.1compares Base Year (BY) 2020 land use percentages with subsequent five-year growth periods.

The principal focus of the Growth Sequencing Project scenario is to identify larger undeveloped or redevelopable parcels within the city limits that can be strategically planned for to meet the future needs of the City. The Growth Sequencing Project scenario aids in ensuring that large tracts of land within a city are built-out with the optimal land uses for the city, since large lots of land have a larger overall effect on the city physically and fiscally.

Key Land Use Considerations

The Growth Sequencing Projection scenario focuses on the continued development of existing or proposed urban Activity Centers and associated corridors of activity, as well as the creation or investment in new activity centers. Key land use considerations include:

Residential Land Uses – in this scenario, about 45 percent of new residential dwelling units would occur as multi-family of varying densities. This would result in a blending of attached single-family, duplexes, townhomes, or apartments across development tracts.

Non-Residential Land Uses – new commercial development would mostly occur near the defined mixed-use Activity Centers and proposed Downtown City Center, neighborhood commercial, and urban corridors. Light Industrial or Employment Center (business park) would develop southwest of Dickinson with access via FM 646 and Cemetery Road.

Place Types – this scenario relies on the inclusion of mixed-use and conservation place types and would require more significant changes to the City's future development regulations.

Open Space

This scenario promotes open space preservation, but in a manner where it is integrated into new development areas. The preservation of bayou greenways remains essential, but integration into active spaces is more typical and may be developed as part of neighborhood open space.

Transportation Impact

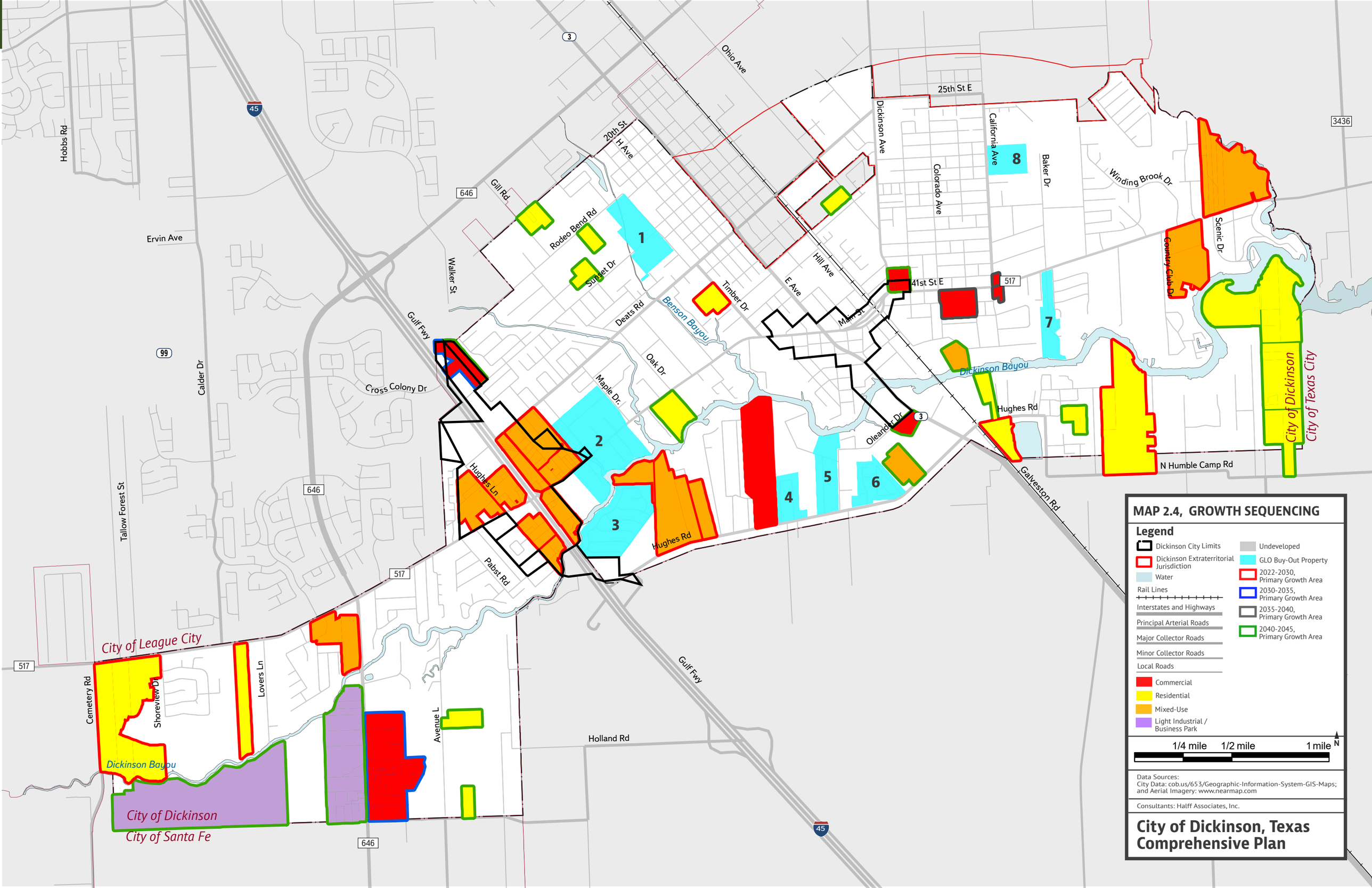
This scenario has the greatest potential to reduce commute times through increased housing choice and access to employment centers within Dickinson. Bicycle and pedestrian infrastructure investments would be required under this scenario, to strengthen access to transit and provide better connectivity from neighborhoods to major destinations and commercial development in the City. Consistent with the Map 2.6, Future Land Use, and with the Galveston County Major Thoroughfare Map, due to the expected growth, this scenario may require the reclassification of several local streets and other thoroughfares as recommended in Map 2.8, Future Thoroughfare Map, on page 2.142.

Supporting Infrastructure

This scenario presents targeted and predictable infrastructure investment around the proposed Activity Centers, Downtown City Center, and various corridors of activity.

Housing Choice

This scenario encourages a variety of housing types throughout the overall community. The mix predicts a moderate increase in attached multi-family housing types while continuing to provide areas for detached single-family residential.



MAP 2.4, GROWTH SEQUENCING

Legend

- Dickinson City Limits
- Dickinson Extraterritorial Jurisdiction
- Water
- Rail Lines
- Interstates and Highways
- Principal Arterial Roads
- Major Collector Roads
- Minor Collector Roads
- Local Roads
- Commercial
- Residential
- Mixed-Use
- Light Industrial / Business Park
- Undeveloped
- GLO Buy-Out Property
- 2022-2030, Primary Growth Area
- 2030-2035, Primary Growth Area
- 2035-2040, Primary Growth Area
- 2040-2045, Primary Growth Area

1/4 mile 1/2 mile 1 mile N

Data Sources:
City Data: cob.us/653/Geographic-Information-System-GIS-Maps;
and Aerial Imagery: www.nearmap.com

Consultants: Halff Associates, Inc.

City of Dickinson, Texas Comprehensive Plan

Development Scenario 4: Walkable City

The preferred scenario, Walkable City, focuses on promoting development within activity centers along major corridors in strategic areas of the City, identified in Map 2.6, Future Land Use; specifically, at IH-45 and FM 517 (IH-45 TIRZ), SH 3 and FM 517, and FM 517 and Gum Bayou; as well as the Downtown City Center land use designations. This scenario assumes that strategic investments within high density/intensity defined centers and corridors will guide future growth. As identified in Table 2.1, Growth Scenarios, it features more infill development/redevelopment of a higher residential density and commercial intensity than the 2045 Trend Projection.

Key features of the alternative growth scenario include:

- Compact mixed-use centers that provide both high-density housing and job opportunities.
- Land adjacent to these centers would transition between higher development intensities and surrounding to single-family residential areas.
- Increased building height dispersed within activity centers and City Center.

Key Land Use Considerations

The Walkable City scenario focuses on the continued development of existing or proposed urban Activity Centers and associated corridors of activity, as well as the creation or investment in new activity centers. Key land use considerations include:

Residential Land Uses – in this scenario, about 395 acres of new residential dwelling units would occur as multi-family of varying densities. This would result in a blending of attached single-family, duplexes, townhomes, or apartments across development tracts.

Non-Residential Land Uses – new commercial development would mostly occur near the defined mixed-use Activity Centers and proposed Downtown City Center, neighborhood commercial, and urban corridors. Light Industrial or Employment Center (business park) would develop southwest of Dickinson with access via FM 646 and Cemetery Road.

Place Types – this scenario relies on the inclusion of mixed-use and conservation place types and would require more significant changes to the City's future development regulations.

Open Space

This scenario promotes open space preservation, but in a manner where it is integrated into new development areas. The preservation of bayou greenways remains essential, but integration into active spaces is more typical and may be developed as part of neighborhood open space.

Transportation Impact

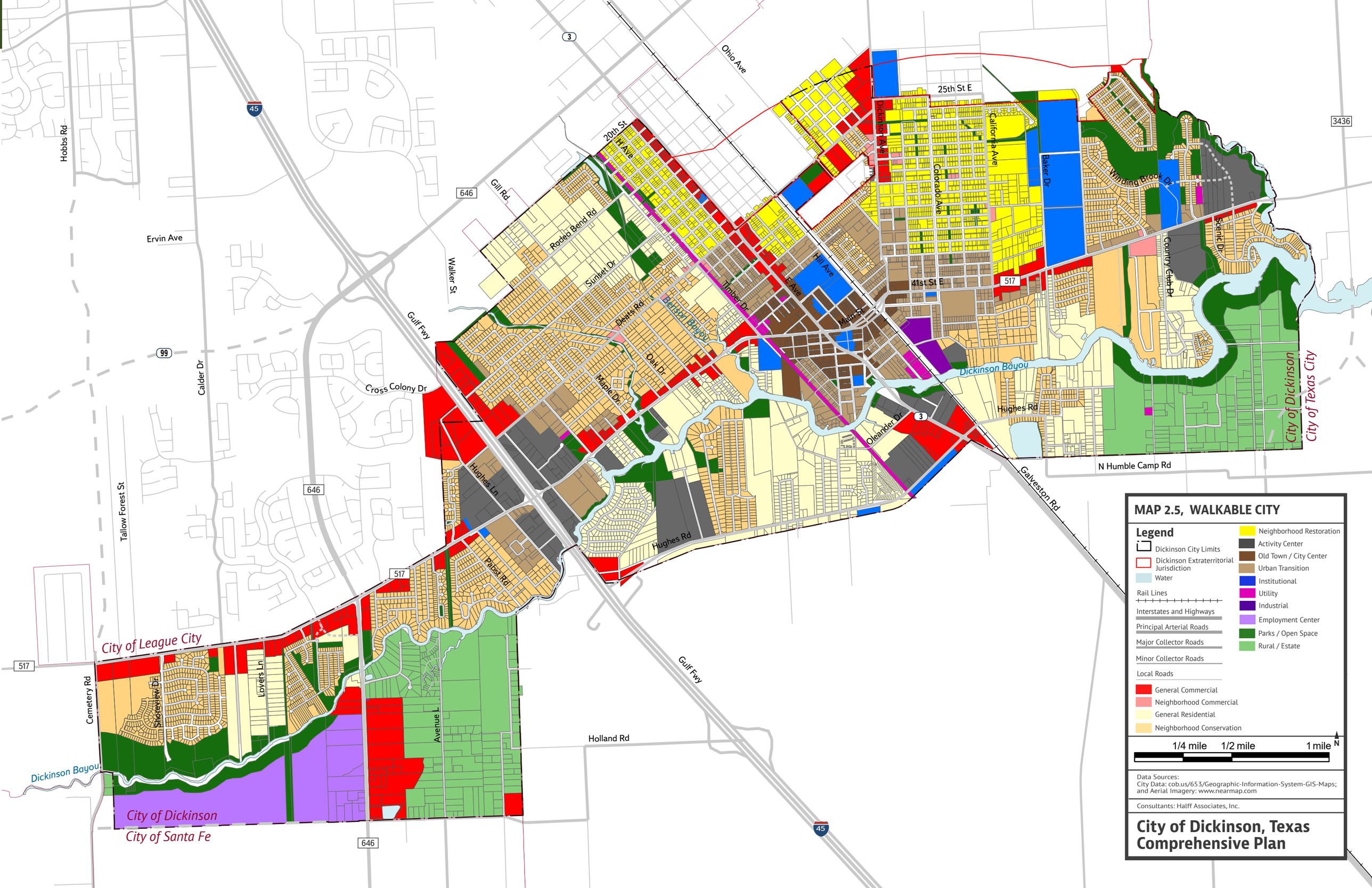
This scenario has the greatest potential to reduce commute times through increased housing choice and access to employment centers within Dickinson. Bicycle and pedestrian infrastructure investments would be required under this scenario, to strengthen access to transit and provide better connectivity from neighborhoods to major destinations and commercial development in the City. Consistent with the Map 2.6, Future Land Use, and with the Galveston County Major Thoroughfare Map, due to the expected growth, this scenario may require the reclassification of several local streets and other thoroughfares as recommended in Map 2.8, Future Thoroughfare Map, on page 2.142.

Supporting Infrastructure

This scenario presents targeted and predictable infrastructure investment around the proposed Activity Centers, Downtown City Center, and various corridors of activity.

Housing Choice

This scenario encourages a variety of housing types throughout the overall community. The mix predicts a moderate increase in attached multi-family housing types while continuing to provide areas for detached single-family residential.



MAP 2.5, WALKABLE CITY

Legend

- Dickinson City Limits
- Dickinson Extraterritorial Jurisdiction
- Water
- Rail Lines
- Interstates and Highways
- Principal Arterial Roads
- Major Collector Roads
- Minor Collector Roads
- Local Roads
- General Commercial
- Neighborhood Commercial
- General Residential
- Neighborhood Conservation
- Neighborhood Restoration
- Activity Center
- Old Town / City Center
- Urban Transition
- Institutional
- Utility
- Industrial
- Employment Center
- Parks / Open Space
- Rural / Estate

1/4 mile 1/2 mile 1 mile N

Data Sources:
City Data: cob.us/653/Geographic-Information-System-GIS-Maps;
and Aerial Imagery: www.nearmap.com

Consultants: Halff Associates, Inc.

City of Dickinson, Texas Comprehensive Plan

Land Use and Community Character

A community that has a well-planned pattern of complementary land uses, combined with a distinct sense of place and a quality built environment provides an effective foundation for a sustainable and prosperous future. In this regard, a community needs to be comprised of unique and differing areas of character so that there is flexibility and choice for those citizens and businesses who wish to call Dickinson home.

The concept of protecting and enhancing community character is not new in Dickinson. Community character goes beyond the typical classification of land uses to also account for the physical traits visible in different areas of the community. Typical land use designations such as residential, commercial, office, and industrial indicate the general functional use of land. But a community character-based classification approach also encompasses such factors as development density (generally determined by the number of people living in a defined area), intensity (floor area or building coverage), ratios of open space and impervious cover, and the amount of vegetation or volume of landscaping, and degree of opacity (for buffering). It is this combination of basic land use and physical design standards (i.e., the proportional balance of green, brown, and gray spaces, refer to Figure 2.2, *Material Composition by Character Area*) which creates different and identifiable areas of town. Consequently, the interrelationship between land use, character, and design cannot be overstated.

This is particularly important for Dickinson, where there is an inherent need to protect what makes Dickinson "unique" and capture the identity which sets Dickinson apart from neighboring communities.

Community Character Context

Across Dickinson, the City exhibits a variety of land use and development characteristics that range from *rural* (which includes much of the "countryside" south of Dickinson Bayou); to *sub-urban* (in much of the newer growth areas built since the 1950s); to *auto-urban* (in much of the older developments of the City, away from Downtown, along the gridded street patterns of Dickinson); to *urban* (which includes the preferred character of the Downtown/City Center area). Each of these areas embodies, to varying degrees, what makes Dickinson, "Dickinson." The transects depicted in Figure 2.1 demonstate different levels of use, intensity, and character in areas of a community.

A full range of character areas are needed to serve Dickinson's existing population today and for the City to remain a destination location for the diversity of future residents and business owners who may be interested in relocating to Dickinson in the years to come. As defined below, the predominant future character of these areas are intended to fall within the following rural, sub-urban, auto-urban, and urban contextual development patterns and associated character areas:

Rural Designation

This character classification includes the sparsely developed countryside comprising large parts of the City south of Dickinson Bayou. During this planning period (2023-2045), the southeast will likely remain undeveloped or is intended to further develop with rural character land uses and patterns (e.g., large lot residential estates). The remainder of rural areas are expected to develop into residential, business park or regional commercial areas.

Sub-urban Designation

This character classification includes much of Dickinson's more recently developed areas since the 1950s and targeted directions for new growth and development. Sub-urban character is dominated by auto-oriented residential and nonresidential development while attempting to provide a balance of green space. During this planning period, it is intended that these areas will continue to develop or redevelop with higher quality sub-urban uses and patterns.

Auto-Urban Designation

This character classification includes commercial strip center zones and other development that is primarily focused on accommodating theautomobile. Auto-urban has a focus on automotive travel connecting sub-urban single family homes to retail shopping centers, parking lots, and places of work.

Urban Designation

This character classification includes the original, gridded lots and blocks of the core of the City. It includes the downtown core (buildings with little to no setbacks, on-street parking, etc.) and part of the surrounding residential neighborhoods, the size of the parcels predominantly exhibit an urban character, some of the parcels possess buildings which are located closer to the street. Many parcels are still flanked with alleys and rear-access parking. During this planning period, these areas will undergo further redevelopment and revitalization with an emphasis on creating a mix of higher density uses which encourage walkability within an urban character context. Currently Dickinson does not have an area that can be

Utilizing a community character approach provides Dickinson with a predictable and flexible system for guiding future development. Predictability is required to ensure that Dickinson develops with quality, unique and differing areas of character—a city to serve all people. Flexibility is needed to allow the development community to best respond to market forces and conditions with the appropriate design and development products.

Rural



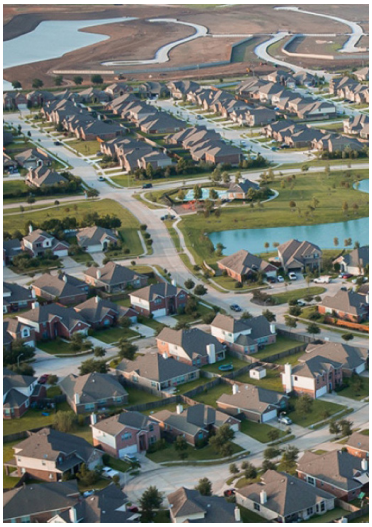
Source: Land Watch

Rural



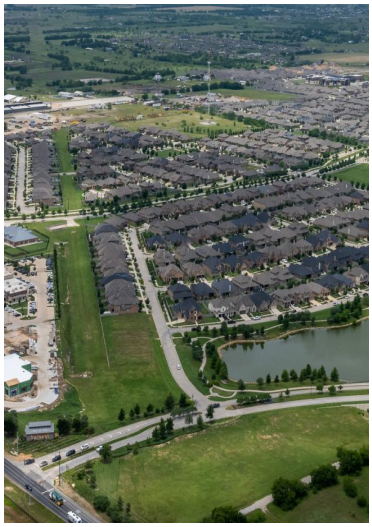
Source: CoStar

Sub-Urban



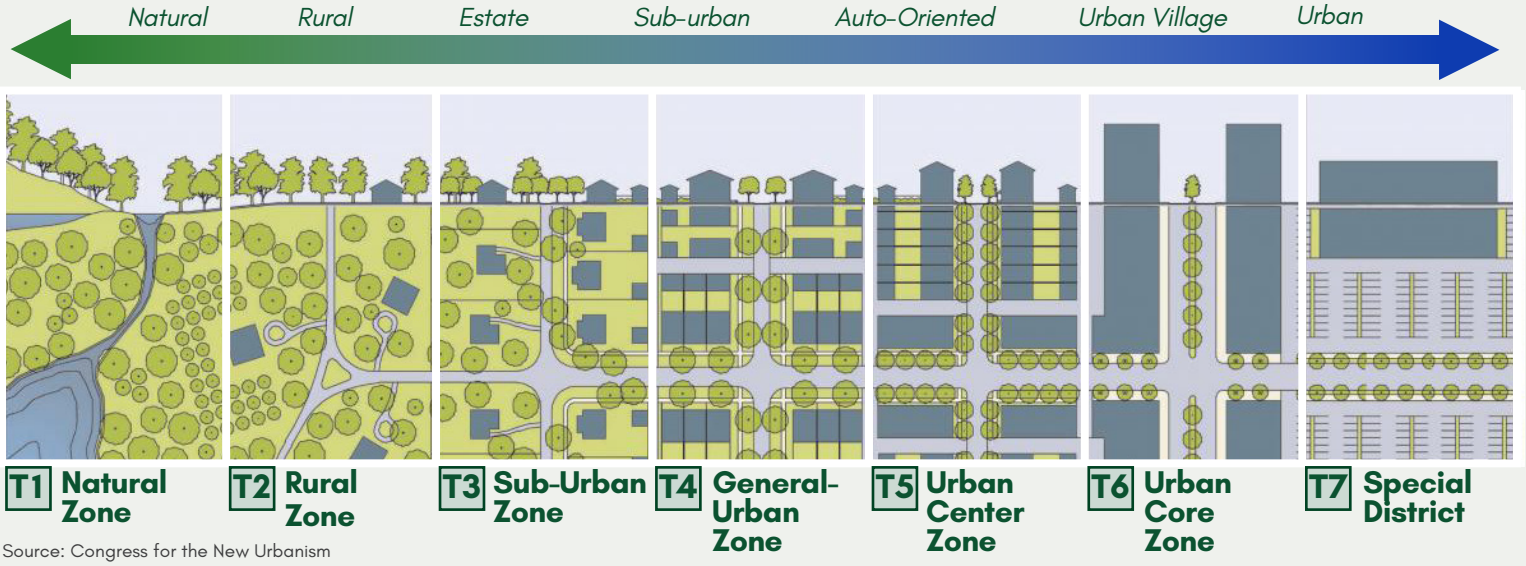
Source: ArchDaily

Sub-Urban



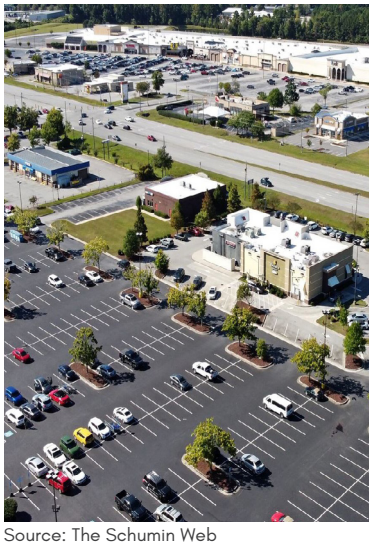
Source: Harvest Hillwood

Figure 2.1, Community Character Spectrum



Source: Congress for the New Urbanism

Auto-Urban



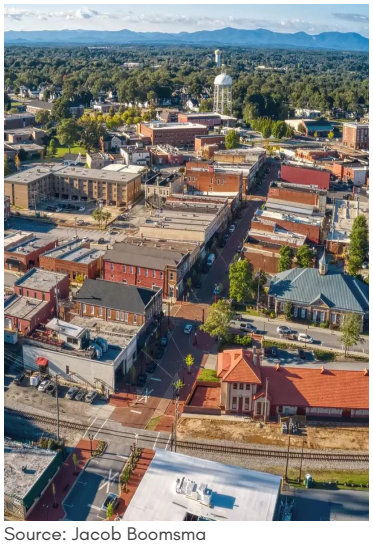
Source: The Schumin Web

Auto-Urban



Source: Huntsville Business Jounral

Urban



Source: Jacob Boomsma

Urban



Source: City of Suwanee

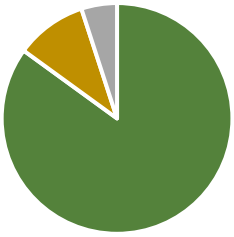
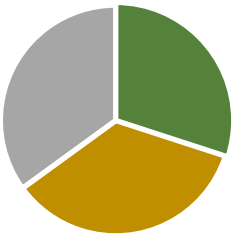
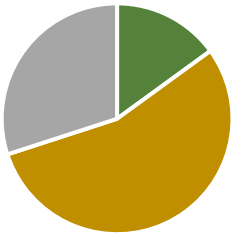
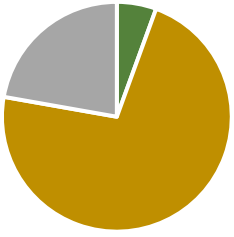
Future Development and Character

The rural, sub-urban, auto-urban, and urban character areas provide the over-arching context for all future development. In this regard, based on the character area, the same exact use should be developed with entirely different design characteristics. In rural areas, a commercial retail use may be an individual, free-standing building, accessible only by driving, and oriented along a rural road. It may be located on a large lot size (to accommodate an on-site well and septic), and large setbacks (to ensure the appearance of large areas of open space). Parking is present and fully accessible from the road, though it may be less organized.

The same commercial use in a sub-urban area would be accessed from a sub-urban street (with sidewalks, controlled driveway access, and potential on-street bike lanes). Buildings are generally set back behind a well-organized parking lot interspersed with manicured landscaping which is relegated to defined perimeter strips and parking islands. In an urban setting, the same use is subject to a build-to line (setback behind a wide, multi-purpose sidewalk) with on-street parking. In some cases, these uses may be served by an adjacent off-street parking lot or garage which may serve many commerical properties. The predominant view from the street is one of enclosure created by the buildings and the focus is on accommodating the pedestrian and other non-vehicular users.

Moving forward, the City will need to better align the intended differing contextual character areas to future land uses (see Figure 2.2, *Material Composition By Character*) with zoning districts, development codes, and design standards. Since much of the future built environment will be developed by the private sector on private land, it is critical that the envisioned future identified in this plan is followed up with revisions to the City's zoning, subdivision, and development regulations.

Figure 2.2, Material Composition by Character Area

		Green Space	Brown Space	Gray Space
Rural *Rural areas can be characterized by scattered buildings surrounded by large amounts of natural open space.*		The predominant visual distinction of rural character is embodied within the large areas of natural landscape (e.g., agriculture lands and undisturbed natural areas).	The built environment is characterized by scattered farmsteads, individual large-lot residential homesteads, and large-lot residential estate lots. Supporting commercial uses may be present if developed with a rural character. Rural areas are intended to be served by on-site septic and wells.	The mobility network is generally served by rural streetways (e.g., farm-to-market, country lanes, etc.) with a rural cross-section (i.e., with swales or bar ditches and no sidewalks).
Sub-Urban *Sub-urban areas can be characterized by a general balance between greenspace (lawns and landscaping), the built environment (buildings), and areas used for mobility (streets, sidewalks, and parking).*		Sub-urban greenspaces are embodied within larger setbacks, lawns and landscaping, developed parks and open spaces, and bufferyards between less compatible uses.	The built environment is predominantly characterized by suburban and auto-oriented traditional neighborhoods and auto-oriented nonresidential uses. Sub-urban areas are intended to be served by public utilities including water, wastewater, and on-site drainage (e.g., detention ponds).	The mobility network is generally served by streets with an sub-urban cross-section (i.e., with sidewalks or side-paths and storm sewer), front-loaded driveways, extensive commercail access drives, and expansive off-street parking lots.
Auto-Urban *Auto-urban areas can be characterized by large amounts of buildings accompanied with supporting areas for auto-centric mobility. The amount of greenspace is limited.*		Auto-urban greenspaces are limited, but embodied by moderate setbacks, lawns, and landscaping, developed parks and buffer yards between less compatible uses.	The built environment is characterized by auto-oriented neighborhoods, that are more dense and auto-oriented nonresidential uses, including active transportation options. Auto-urban areas are intended to be served by public utilities including water, wastewater, storm and sewer.	The mobility network is generally served by streets with an urban cross-section (i.e., with sidewalks or side-paths and storm sewer), on-street bike lanes, front- and side-loaded driveways, and a mix of on street and off-street parking.
Urban *Urban areas can be characterized by large amounts of buildings and smaller-scale supporting areas used for mobility (streets, sidewalks, and parking). The amount of greenspace is minimal.*		Urban greenspaces are minimal, but embodied within smaller lawns and set backs (for urban residential), street trees and planter boxes, green roofs and plazas.	The built environment is characterized by buildings built close to the street (to create enclosure), vertical mixed uses, and a primary focus of serving the pedestrian first. Urban areas are intended to be served by public utilities including water, wastewater, storm sewer.	The mobility network is generally served by gridded streets with an urban cross-section (i.e., with sidewalks and storm sewer), on-street parking, rear alley driveway access, and public parking lots).

Dickinson Future Land Use Development Plan

The Future Land Use Map is an important component of the desired development framework, and provides the preferred land use distribution across the planning area. The map of future land uses is depicted in Map X, *Future Land Use Map*.

The Future Land Use Map anticipates growth in all land use categories, the design and development pattern of which will respond to the intended contextual character of the area. A mix of uses is encouraged along existing major corridors and in enhanced neighborhood centers, which serve residential neighborhoods. Activity and employment centers of greater development intensity are intended to provide areas for concentrated commercial/ retail, office and residential uses. A detailed breakdown of the allowances within the future land use categories are found on the following pages and in Table 2.2, *Land Use Category Matrix*.

Future Land Use Categories

Rural
- Rural / Estate

Sub-Urban
- Employment Mixed-Use
- Regional Commercial
- Neighborhood Commercial
- General Residential
- Neighborhood Restoration
- Neighborhood Conservation

Auto-Urban
- Urban Transition

Urban
- Old Town / City Center
- Activity Center
- Industrial

General / Overlay
- Parks and Open Space
- Institutional

Land Use Vs. Zoning

Land use designations and zoning districts both dictate what type of development can and cannot exist in certain areas.

- *Land Use:* "Land use" is the term used to describe the human use of land. It represents the economic and cultural activities (e.g., agricultural, residential, industrial, mining, and recreational uses) that are practiced at a given place.
- *Zoning:* "Zoning" refers to municipal or local laws or regulations that govern how property can and cannot be used in certain geographic areas; and what land uses may or may not be allowed. Zoning outlines what types of developmental and operational use of land is allowed on a given tract. Zoning laws can also regulate the dimensional requirements for lots and for buildings on property; as well as aspects of construction in specific neighborhoods. For example, zoning can limit the maximum height of buildings in a given area regardless of the type of construction allowed.

Table 2.2, Land Use Category Matrix

Land Use Categories	Single-Family	Attached Single-Family	Multi-Family	Office	Retail / Commercial	Mixed-Use	Business Park	General Industrial	Parks / Greenways	School Facilities	Agriculture
Rural / Estate	●								○	○	●
Employment Mixed-Use	○	○	●	●	●	●	●		○	○	
Regional Commercial				○	●		○		○		
Industrial				○	○		●	●			
General Residential	●	●	○		○				●	○	
Neighborhood Restoration	●	●	○	○	○	○			●	○	
Neighborhood Conservation	●	●		○	○				●	○	
Neighborhood Commercial	○	○	○	○	●	○			○		
Urban Transition		●	●	○	●	○			●	○	
Old Town / City Center		○	●	○	●	●			●	○	
Activity Center		○	●	●	●	●			●	○	
Parks and Open Space									●	○	
Institutional				○					●	●	

● Primary Land Use ○ Secondary Land Use

Land Use Category:
RURAL / ESTATE

The Rural / Estate land use category is intended for parcels and development that are and will continue to remain rural in character during this planning period. These areas are categorized by an abundance of open space and low density / intensity uses including agriculture, ranching, large-lot rural residential, and semi-natural landscapes. To maintain this rural character, areas should be developed utilizing large lot-size minimums and setbacks, and served by thoroughfares with rural cross-sections (e.g., bar ditches, no sidewalks, no curb and gutter edge treatments, etc.). This land use character is primarily found on the outskirts of the City limits and within the City's ETJ, including to the far west and southwest; on the southern edge of the Dickinson Bayou; and to the far east. Where appropriate, these areas may be designated for future non-rural development during the next plan horizon and beyond.



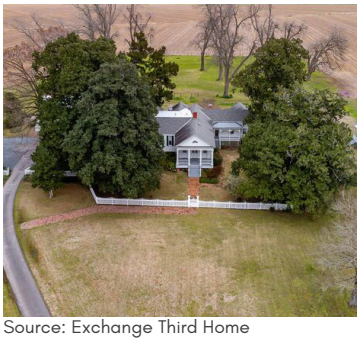
Source: Old House Life



Source: Halff Associates



Source: Eventective



Source: Exchange Third Home

Appropriate Land Use Types:

Use	Appropriate Uses
Agricultural	Predominant uses include traditional agricultural uses (e.g., farming, ranching, orchards or gardening; greenhouses and nurseries; etc.)
Residential	Appropriate residential uses include house types such as farmhouses, large estates, and single-family detached dwellings on large lots (e.g., estate lots) or in conservation subdivisions (clustered housing)
Commercial	Appropriate commercial uses include supporting agricultural uses, limited General Commercial focused on agriculture; and Neighborhood Commercial (country stores)
Industrial	Appropriate though it should be heavily screened
Institutional	Appropriate uses include education (e.g., elementary, and secondary schools); places of public assembly); public recreational uses (e.g., parks and open space areas); and utility and service uses (e.g., electrical substations, fire stations, etc.), building materials storage
Other	Other uses may be allowed as limited or conditional (e.g., recreational vehicle campgrounds) provided that they are adequately screened

Design Characteristics:

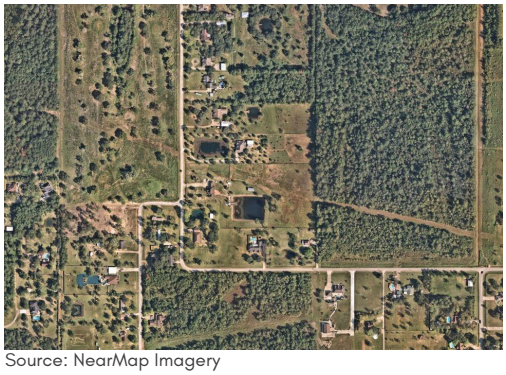
Characteristics	General Design Intent
Character	Rural
Structures and Architecture	Low density development on large parcels. Single family detached residential on scattered large acreage lots with generous setbacks on all sides; outbuildings are for leisure activities, operations and maintenance. Fences and/or hedgerows are used to divide properties.
Access and Circulation	Rural street cross sections without sidewalks; driveways are a dominant element in the composition or character; garages are free-standing and situated to the side or rear of the main dwelling, generally not visible from the road. Proximity to major thoroughfare (generally within one mile).
Vegetation	Open space defined by vegetation are the dominant views. Native vegetation along property boundaries. Forested areas are common.

Current Zoning Districts:

The current zoning districts that may be appropriate to implement the Rural/Estate land use category include Rural Residential District (RR). Note that zoning district modifications may be required to achieve the envisioned rural character.



Source: Halff Associates



Source: NearMap Imagery

Land Use Category:
GENERAL RESIDENTIAL

The General Residential land use category is intended for areas to be developed primarily as new single-family detached residential subdivisions with associated amenities, including parks, trails, open space areas. Some complementary institutional (e.g., schools, libraries, and places of public assembly) and commercial (refer to Neighborhood Commercial land use designation) land uses may be included within General Residential areas as long as they adhere of the appropriate bulk, scale, and intensity. General Residential areas are intended to have a mix of suburban and auto-oriented development character in which a central driveway and garage may be the dominant features for residential lots. Some larger lots with side driveways and rear detached garages are also appropriate in these developments.

Building setbacks, architectural styles, and general landscape enhancements (e.g., street trees, low impact development (e.g., vegetated swales, rain gardens, cisterns, pervious paving) should be uniform in these areas with emphasis is placed on pedestrian and bicycle facilities with connectivity throughout the subdivision and beyond.



Source: Halff Associates



Source: AspenHome



Source: City of Gainesville



Source: Reconomy

Appropriate Land Use Types:

Use	Appropriate Uses
Agricultural	Not appropriate.
Residential	Appropriate residential uses include single-family detached residential. Additional single-family attached uses (i.e., duplexes, twins, triplexes, quadraplexes, and townhouses may be considered depending on appropriate design, bulk, and setback standards.
Commercial	Appropriate secondary uses include Neighborhood Commercial, personal service (e.g., hair salons, spa, event planners, boutique exercise center, transportation assistance), and restaurant (without drive-throughs) uses provided they meet appropriate design standards and locational and decision-making criteria.
Industrial	Not appropriate.
Institutional	Appropriate uses include civic uses (e.g., police stations, fire stations, library, Emergency Medical Services (EMS), etc.); educational uses (e.g., elementary and secondary schools); institutional uses (e.g., places of public assembly); and public recreational uses (e.g., neighborhood and pocket parks.
Other	Appropriate other uses may be allowed on a limited or conditional basis provided that they adhere to a sub-urban character.

Design Characteristics:

Characteristics	General Design Intent
Character	Sub-Urban
Structures and Architecture	Residential uses include single-family detached residential and single-family attached uses.
Access and Circulation	Enhanced pedestrian and bicycle access and safety should be considered as part of all new development. As existing local streets surpass their life cycle, consider reconstruction of streets with curb and gutter, sidewalks, ADA-compliant ramps, transit-related amenities (if on transit route), and accessible driveways.
Vegetation	Varies depending on the neighborhood. Strategically located parks are essential. Tree canopy cover and street trees should be required or updated to increase vegetation coverage.

Current Zoning Districts:

The current zoning districts that may be appropriate to implement the Neighborhood Restoration future development category include Conventional Residential (CR), Small Lot Residential (SR), and High-Density Residential (HR). Note that zoning district modifications may be needed to achieve the envisioned sub-urban character.



Source: City of Raleigh



Source: NearMap Imagery

Land Use Category:
NEIGHBORHOOD CONSERVATION

The Neighborhood Conservation land use category is intended to conserve the character of existing residential areas, with respect to the lot and block pattern of existing development. Along collector and arterial streetways, new neighborhood serving retail, personal service, and restaurant uses may be appropriate, provided that they adhere to the predominant character of the area.

These areas are intended to be developed with a sub-urban character, meaning redevelopment will require maintaining traditional setbacks, incorporating a generous amount of landscaping, with a focus on pedestrian walkability.



Source: Halff Associates



Source: SLC Green



Source: CT Insider



Source: Grist Magazine

Appropriate Land Use Types:

Use	Appropriate Uses
Agricultural	Not appropriate.
Residential	Appropriate residential uses include single-family detached residential.
Commercial	Appropriate secondary uses include neighborhood-serving retail, personal service, office, and restaurant uses provided they meet appropriate design standards and locational and decision-making criteria, including off-site parking (refer to Neighborhood Commercial land use designation). Uses that are not sub-urban in character, may be considered if appropriate in context and site design.
Industrial	Not appropriate.
Institutional	Appropriate uses include places of public assembly; and neighborhood and/or pocket parks.
Other	Additional uses may be allowed on a limited or conditional basis if they adhere to the existing neighborhood character.

Design Characteristics:

Characteristics	General Design Intent
Character	Sub-Urban
Structures and Architecture	Varies depending on the neighborhood. However, NC areas primarily consist of single-family detached residential and single-family attached housing typologies.
Access and Circulation	Enhanced pedestrian and bicycle access and safety should be considered as part of all new development. As local streets require reconstruction implement curb and gutter, sidewalks, other transit-related amenities (if on transit route), and highly accessible driveways.
Vegetation	Varies depending on the neighborhood. Strategically located parks are essential. Incorporate street trees on local streets as appropriate, to extend the City's forest canopy.

Current Zoning Districts:

The current zoning districts that may be appropriate to implement the Neighborhood Conservation future development category include Conventional Residential District (CR), Small Lot Residential District (SR), and High-Density Residential District (HR). Note that zoning district modifications may be needed to achieve the envisioned sub-urban character.



Source: Greenwood King (Dickinson)



Source: NearMap Imagery

Land Use Category:
NEIGHBORHOOD RESTORATION

The Neighborhood Restoration land use category is intended for current residential areas with the potential to be redeveloped into neighborhoods that offer a variety of higher-quality small- to mid-sized housing options and other amenities, including enhanced amenities, pedestrian facilities (sidewalks and on-street bike lanes), and street trees. The existing lot and block pattern and building setbacks should be preserved, while allowing for a variety of more resilient housing typologies. Along collector and arterial streetways, new neighborhood-serving retail, personal service, and restaurant uses may be appropriate, if they adhere to the predominant character of the area (refer to Neighborhood Commercial).



Source: Home And Money



Source: Tiny House Talk



Source: The Land Cleveland



Source: The Denver Post

Appropriate Land Use Types:

Use	Appropriate Uses
Agricultural	Not appropriate.
Residential	Appropriate residential uses include single-family detached residential and single-family attached housing typologies (i.e., townhomes and duplexes), designed to accommodate the parcel size.
Commercial	Appropriate secondary uses include neighborhood-serving retail, personal service, office, and restaurant uses provided they meet appropriate design standards and locational criteria, including off-site parking (refer to Neighborhood Commercial land use designation). Uses that are not sub-urban in character, may be considered if appropriate in context and site design.
Industrial	Not appropriate
Institutional	Appropriate uses include places of public assembly); civic uses (e.g., police stations, fire stations, library, Emergency Medical Services (EMS), etc.); and neighborhood and/or pocket parks.
Other	Appropriate other uses may be allowed on a limited or conditional basis provided that they adhere to a urban character.

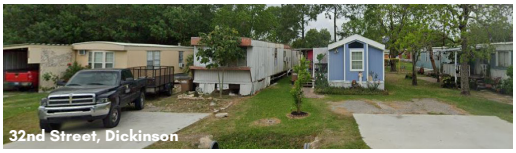
Design Characteristics:

Characteristics	General Design Intent
Character	Sub-Urban
Structures and Architecture	Varies depending on the neighborhood. NR communities have the potential for redevelopment; with differing housing typologies, setbacks, and home sizes to best fit market demand.
Access and Circulation	Enhanced pedestrian and bicycle access and safety should be considered as part of all new development. As local streets require reconstruction implement curb and gutter, sidewalks, ADA-compliant ramps, other transit-related amenities (if on a transit route), and highly accessible driveways.
Vegetation	Varies depending on the neighborhood. Strategically located parks are essential. Incorporate street trees on local streets as appropriate, to extend the City's forest canopy.

Current Zoning Districts:

The current zoning districts that may be appropriate to implement the Neighborhood Restoration future development category include Small Lot Residential District (SR), High Density Residential District (HR), Conventional Residential District (CR), and Neighborhood Commercial District (NC). Note that zoning district modifications may be needed to achieve the envisioned sub-urban character.

Existing Conditions of Neighborhood Restoration Areas





Source: StreetView 2022



Source: NearMap Imagery

Land Use Category:
NEIGHBORHOOD COMMERCIAL

The Neighborhood Commercial land use category consists of commercial and office nodes that are designed at a neighborhood scale, cater to both vehicular and pedestrian access, and respond to neighborhood (lot and block) configurations. The uses permitted within this land use designation are meant to be compatible with existing and proposed residential areas and are meant to serve the retail and personal service needs of nearby residents.

Neighborhood Commercial centers occupy much smaller building footprints than typical commercial businesses found along major arterial corridors; are intended to provide neighborhood conveniences such as small food markets and drug stores, banks, dry cleaning/shoe repair services, restaurants and drinking establishments, day care centers, and boutique retail-type uses which do not require large pick-up and delivery vehicles (e.g., maximum outside turning radius of 30 ft); are designed to be stand-alone businesses, with a floor to area (FAR) of 1.0-1.25, potentially with residential uses on the second floor, or combined with additional businesses to create a small strip center.

Parking options should include on-street, off-street, though minimized to two stalls per establishment in a multi-tenant strip center; or can be relegated to an off-premises parking lot within a certain distance (e.g., within 300 lin. ft) of the establishment. Neighborhood Commercial uses should be located at a principal intersection of two collector streets, at the entrance or edge of a neighborhood, or along a



Source: Washington Post



Source: Spacing Toronto



Source: Seattle Times



Source: Only In Your State

Appropriate Land Use Types:

Use	Appropriate Uses
Agricultural	Not appropriate.
Residential	Appropriate residential uses include second story residential with exterior access / egress and mixed-use urban lofts.
Commercial	Appropriate commercial uses of a secondary nature include neighborhood-serving retail, personal service, office, and restaurant uses provided they meet appropriate design standards and locational and decision-making criteria, including roadway adequacy and adjacency compatibility. Uses that rely upon drive-throughs should not be permitted.
Industrial	Not appropriate
Institutional	Appropriate secondary uses could include a small public park with a recreational facility (e.g., playground) and pavilion with WiFi access.
Other	Appropriate other uses may be allowed on a limited or conditional basis provided that they adhere to the prescribed Neighborhood Commercial character, with respect to scale and circulation.

Design Characteristics:

Characteristics	General Design Intent
Character	Auto-Urban / Urban
Structures and Architecture	Development should be compatible from a use and design standpoint with adjacent residential uses. Upper-story vertical mixed-use is appropriate to create density to support retail, yet height limited for compatibility and scale. Non-residential employment and service uses required on ground/street floor.
Access and Circulation	Access and circulation should accommodate pedestrian and bicycle access and safety. parking should be limited to on-street; and two stalls per business for small strip centers
Vegetation	Functional landscape enhancements (street trees) are recommended to provide shade and enhance pedestrian safety.

Current Zoning Districts:

The current zoning districts that may be appropriate to implement the Neighborhood Commercial future development category include, General Commercial District (GC), and Neighborhood Commercial District (NC). Note that zoning district modifications may be required to achieve the envisioned auto-urban/urban character.



Source: Franklin Aerial



Source: NearMap Imagery

Land Use Category:
GENERAL COMMERCIAL

The General Commercial land use category is intended for business areas which will serve the local and regional community; and rely on higher traffic volumes and the visibility that is associated with being located along a major highway (i.e., I-45 frontages, SH 517, and SH 646 corridors). In these areas, the predominant character of development is auto-urban.

While accommodating the automobile is, and will continue to be the predominant focus, improved streetscape and parking lot landscaping standards, buffers, appropriately designed and scaled signage, higher quality development standards, and access management techniques (e.g., limited access points and inter-parcel access easements) will enhance the overall quality and appearance of the City's commercial corridors and reduce traffic congestion.



Source: Babakmehrabi



Source: RealLA



Source: Lane4Group



Source: Crexi

Appropriate Land Use Types:

Use	Appropriate Uses
Agricultural	Not appropriate.
Residential	Multi-family residential uses may be allowed on a limited or conditional basis with location criteria paired with supporting commercial uses. Not appropriate on frontage streets.
Commercial	Appropriate commercial uses include a mix of commercial retail, office, personal service, and restaurant uses, including larger professional offices, heavy commercial (including big box stores), commercial amusement (e.g., escape rooms, indoor amusement parks, miniature golf, pickleball court, arcades, etc.), restaurants, alcohol sales, and vehicle service/fuel stations.
Industrial	Not appropriate.
Institutional	Appropriate uses include civic uses (e.g., police stations, fire stations, Emergency Medical Services (EMS), etc.)
Other	Appropriate other uses may be allowed on a limited or conditional basis provided that they adhere to an auto-urban character.

Design Characteristics:

Characteristics	General Design Intent
Character	Auto-urban
Structures and Architecture	Buildings typically set back toward rear of site to accommodate expansive parking areas in front, closest to passing traffic. Typically located at the intersection of arterials and highways, more substantial retail centers are appropriate.
Access and Circulation	Significant portions of site development devoted to vehicular access drives, circulation routes, surface parking, and loading/delivery areas. This character type is associated with a highway-oriented commercial or business strip. Pedestrian access or on-site circulation by pedestrians and cyclists is a secondary priority.
Vegetation	Required landscape surface ratio of 10 to 15 percent. Manicured landscape. Low impact development applications (pervious paving, vegetated swales, cisterns, green roofs, etc.) is recommended.

Current Zoning Districts:

The current zoning districts that may be appropriate to implement the General Commercial land use designation include General Commercial District (GC). Note that zoning district modifications will be required to ensure compliance with low impact development requirements.



Source: Houston Premium Outlets



Source: NearMap Imagery

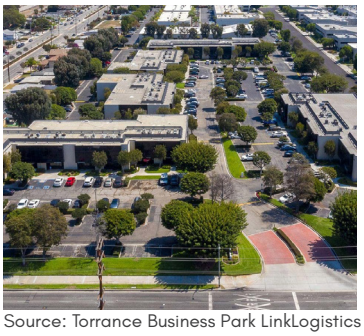
Land Use Category:
EMPLOYMENT CENTER

The Employment Center land use category is intended for more regionally serving mixed-use employment areas, including office, retail, residential and service-oriented land uses. It complements other mixed-use areas, but provides opportunities for larger-footprint, single tenant buildings which accommodate a large number of employees; the ground floor of which is typically utilized for commercial/ retail.

These areas are intended to include a mix of uses, and developed with an suburban character, meaning there is an intentional balance between the automobile and its associated use areas (e.g., streets, driveways, parking, etc.) and open green space. Appropriate screening of vehicular areas and buffer yards should be required to reduce visual impact and ensure compatibility with adjacent development areas of lesser density/intensity.



Source: Monterey Park LinkLogistics



Source: Torrance Business Park LinkLogistics



Source: Discovery Park



Source: Golden Ears Business Park

Appropriate Land Use Types:

Use	Appropriate Uses
Agricultural	Not appropriate
Residential	Apartments and condominiums may be allowed on a limited or conditional basis with location criteria paired with supporting commercial uses. Major arterial, high-visibility frontage roads should prioritize general commercial uses and office uses. A variety of residential building typologies may be considered, including (townhomes, triplexes, quadraplexes) in a planned development setting with appropriate site development criteria.
Commercial	Appropriate commercial uses include a mix of commercial retail, office, personal service, and restaurant uses. Retail uses would be restricted to those types of uses which would be complimentary in supporting the functions of the employment center.
Industrial	Appropriate light industrial uses include office/warehouse flex space, logistics and distribution centers, data centers, corporate offices and/or campuses, and light manufacturing (with minimal to no environmental impact (e.g., light trespass, noise, particulate emissions, etc.)
Institutional	Appropriate uses include civic uses (e.g., police stations, fire stations, library, City Hall, Emergency Medical Services (EMS), etc.)
Other	Other appropriate uses may be allowed as limited or conditional basis if they adhere to a suburban character.

Design Characteristics:

Characteristics	General Design Intent
Character	Sub-Urban
Structures and Architecture	Typically developed in a campus-style setting that features reduced site coverage and increased open space.
Access and Circulation	Streets with a sub-urban cross-section, with sidewalks or side-paths; front driveway access and inter-parcel connectivity is required. Parking lots are set-back and relegated to the side of buildings.
Vegetation	Extensive landscaping within and around business park setting; with special streetscape and design treatments at entries, key intersections, and internal focal points.

Current Zoning Districts:

The current zoning districts that may be appropriate to implement the Employment Mixed-Use future development category include Conventional Residential District (CR). Note that zoning district modifications may be needed to achieve the envisioned sub-urban character.



Source: The Northside Sun



Source: NearMap Imagery

Land Use Category:
INDUSTRIAL

The Industrial land use category is intended for land areas that are currently used for heavy industrial and/or manufacturing uses that generate environmental nuisances (e.g., noise, odor, particulate emissions, light trespass, etc.). These areas, while limited, do provide the City with opportunities for employment and economic growth, particularly when involving the processing of materials produced locally. Note that this designation is intended for the current industry in the City of Dickinson (Calumet Penreco, LLC); and should be generally discouraged within the City limits.

Improved bicycle, pedestrian, and public transit connectivity is important to provide greater connectivity to internal and external destinations. In that accommodating heavy trucking is paramount, identification of designated truck routes may be warranted.


Source: Halff Associates


Source: Aquila Commercial


Source: Loop Net


Source: Allied Steel

Appropriate Land Use Types:

Use	Appropriate Uses
Agricultural	Not appropriate.
Residential	Not appropriate.
Commercial	Not appropriate.
Industrial	Industrial uses are appropriate, with zoning allowances by-right, or on a limited or conditional basis, depending upon the protections required to decrease the amount of environmental nuisances impacting adjacent parcels/uses.
Institutional	Utility uses (e.g., electrical substations, etc.). While public recreational uses (e.g., parks and playgrounds) are not appropriate, bicycle and pedestrian connectivity to the industrial facility are appropriate with public protections.
Other	Appropriate other uses may be allowed on a limited or conditional basis based on compatibility.

Design Characteristics:

Characteristics	General Design Intent
Character	Industry can be rural (agricultural industry), and sub-urban (warehousing / transportation) in form.
Structures and Architecture	Heavy industrial sites typically involve large and heavy equipment and facilities, large areas of land and large buildings due to the numerous processes that take place.
Access and Circulation	Industrial uses typically have an auto-oriented character. May involve significant truck traffic or direct rail service. Therefore, these uses should have access to major roadways and rail spurs. Improved bicycle, pedestrian, and transit connectivity is important to provide greater connectivity to industrial uses.
Vegetation	Required 20 percent landscape surface ratio; heavy buffering, mainly around the perimeter to limit site lines and impact on adjacent properties.

Current Zoning Districts:

The current zoning district that may be appropriate to implement the Industrial future development category includes General Industrial District (GI).


Source: Colliers Knowledge Leader


Source: NearMap Imagery

Land Use Category:
INSTITUTIONAL

The Institutional land use category corresponds with public civic uses. This can include municipal/county owned facilities such as a city hall, libraries, community centers, recreation centers, fire and police stations. Institutional land uses can also include educational-related uses, including colleges, universities, seminaries, schools, maintenance and administrative facilities, as well as school-owned sports fields, indoor/outdoor uses, stadiums, playgrounds.


Source: UW-Stout Sports


Source: Halff Associates


Source: Hamilton City School District


Source: WBAP-AM

Appropriate Land Use Types:

Use	Appropriate Uses
Agricultural	Not appropriate.
Residential	Not appropriate.
Commercial	Not appropriate.
Industrial	Not appropriate.
Institutional	Appropriate uses include education (e.g., college, university, or seminary); public recreational uses (e.g., places of public assembly such as stadiums, sports fields, indoor/outdoor recreation facilities, parks, and playgrounds); City maintenance and administration facilities, City offices, Community centers, and public libraries.
Other	Not appropriate.

Design Characteristics:

	General Design Intent
Character	Sub-Urban
Structures and Architecture	Development should be compatible from a use and design standpoint with existing residential directly adjacent to the property. Upper-story vertical mixed-use is appropriate to create density to support retail, yet height limited for compatibility and scale. Non-residential employment and service uses required on ground/street floor.
Access and Circulation	Access and circulation are critical. Pedestrian and bicycle access and safety are required. The highest priority for street improvements is on the pedestrian and maintaining the quality of the existing street character. All new development and redevelopment require the establishment of on-street parking (if needed), sidewalks, and the planting of street trees or landscaping between the edge of pavement and the sidewalk.
Vegetation	Functional landscaping recommended to enhance safety of pedestrians.

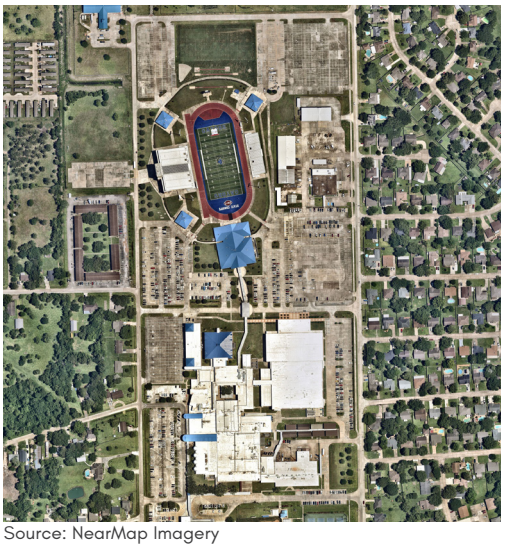
Current Zoning Districts:

The Institutional land use designation is not intended to be implemented using specific zoning districts. Rather, the zoning regulations should specify minimum amounts of common areas and/or protected open space that should be required for new residential neighborhoods. The current zoning districts that may be appropriate to implement the Istitutional future development category include Conventional Residential District (CR) with Specific Use Permits, and Institutional (I). Note that zoning district modifications may be needed to achieve the envisioned sub-urban character.


Source: Rockwall ISD



Source: Houston Chronicle


Source: NearMap Imagery

Land Use Category:
PARKS AND OPEN SPACE

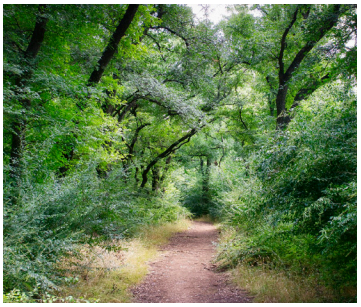
Parks and Open Spaces are an essential part of a community since they primarily provide spaces for the outdoor enjoyment of residents and workers while connecting public (and private) parks and amenities. These areas include public parkland, trails, greenways or linear parks, and open space that have been committed to the long-term public use and enjoyment by Dickinson citizens and visitors. These areas are often comprised of active and passive recreational areas and natural or open spaces.

Secondary uses, except special events (e.g., festivals, races, etc.), should generally not be allowed in areas designated as parks and open space. In some instances, new public parkland may be acquired and designed to serve multiple public uses (e.g., recreation and a fire station).

From a community perspective, greenways and other open spaces are opportunities for placemaking, including art,



Source: Rundell Ernstberger



Source: Urban Outdoors



Source: City of Park City



Source: City of Forth Worth

Appropriate Land Use Types:

Use	Appropriate Uses
Agricultural	Not appropriate.
Residential	Not appropriate.
Commercial	Not appropriate, except for government sanctioned concessions and temporary food truck sales.
Industrial	Not appropriate.
Institutional	Appropriate uses include public recreational uses (e.g., all park and trail types); and adjacent civic uses (e.g., police stations, fire stations, library, City Hall, Emergency Medical Services (EMS), etc.)
Other	Appropriate other uses may be allowed on a limited or conditional basis provided that the development adheres to the character indicative of the overall area. For example, greenways may serve multiple purposes, including connecting the community and managing stormwater impacts.

Design Characteristics:

Characteristics	General Design Intent
Character	Parks should be designed to match the character and scale of the area it serves.
Structures and Architecture	Development adjacent to greenway systems should primarily be oriented towards the green space, with buildings fronting public paths, parkway streets providing access, and a public relationship between the greenway corridor and adjacent private development. Buildings and structures in parks and open spaces may include pavilions, playgrounds, stage, community centers, bathrooms, picnic tables, special athletic fields, other administrative buildings built to support activities or events within the park.
Access and Circulation	Streets with cross-sections which match character of the area it serves; enhanced pedestrian and bicycle access and safety should be considered as part of all new development. Drive-throughs may be considered if appropriate in context and site design. Trail connections should be made frequently to adjacent developments to provide access. Greenways may include stormwater facilities from adjacent development. These facilities need to be designed thoughtfully, to create an enhanced amenity within the greenway and not disrupt the stormwater purposes of managing flooding.
Vegetation	Preservation of the natural environment and native trees and flora is critical. Stormwater facilities should be designed with a natural appearance and preferably, publicly accessible.

Current Zoning Districts:

The parks and open space future development category is not intended to be implemented using specific zoning districts. Rather, the zoning regulations should specify minimum amounts of common areas and/or protected open space that should be required for new residential neighborhoods.



Source: City of Schertz



Source: Halff Associates, City of Lubbock

Land Use Category:
URBAN TRANSITION

The Urban Transition land use category consists of the areas immediately surrounding the Old Town / City Center and is intended to provide an area that transitions from the higher density/intensity uses found in the Old Town/ City Center to the abutting Neighborhood Conservation and neighborhood Restoration areas. The uses permitted within the Urban Transition area are intended to conform to the existing gridded lot and block pattern of development. These areas are intended to be developed with an urban character, meaning redevelopment requires a minimal setback, build-to line, on-street parking, and a focus on pedestrian walkability and connectivity to adjacent character areas.



Source: Houston Chronicle



Source: Inhabitat



Source: Carmen and Anderson



Source: New Braunfels

Appropriate Land Use Types:

Use	Appropriate Uses
Agricultural	Not appropriate.
Residential	Appropriate residential uses include single-family attached uses (i.e., duplexes, triplexes, townhomes), mixed-use urban lofts or live work units, and higher density multi-family residential.
Commercial	Appropriate commercial uses include a mix of neighborhood-serving retail, personal service, office, and restaurant (without drive-throughs) uses and those uses allowed in the Central area, provided they meet appropriate design standards and locational and decision-making criteria.
Industrial	Not appropriate
Institutional	Appropriate uses include institutional uses (e.g., places of public assembly); civic uses (e.g., police stations, fire stations, library, City Hall, Emergency Medical Services (EMS), etc.); and exterior public gathering spaces (e.g., squares and pocket parks).
Other	Appropriate other uses may be allowed on a limited or conditional basis provided that they adhere to an urban character.

Design Characteristics:

Characteristics	General Design Intent
Character	Urban
Structures and Architecture	Residential areas can be 1) complexes of several multi-story (two-three), multi-family buildings, interspersed with parking lots and oriented inward with recreational / social amenities, such as swimming pools, cabanas, etc; and 2) higher density residential uses such as attached and multiple-family housing (up to three stories in height), townhouses, duplexes, triplexes, and/or prefabricated homes.
Access and Circulation	The first residential type is characterized by surface parking with an interior amenitized core; the second residential type is characterized by a more urban setting with minimal setback from road frontages, with parking relegated to the rear of the parcel, accessed via alleys / mews.
Vegetation	Where available, landscape enhancements remain subordinate to the structure and relegated to streetscape enhancements (e.g., street trees, planters, window boxes, etc.)

Current Zoning Districts:

The current zoning districts that may be appropriate to implement the Urban Transition future development category include Conventional Residential District (CR), General Commercial District (GC), and Neighborhood Commercial District (NC), Small Lot Residential (SR), and High-Density Residential (HR). Note that zoning district modifications may be required to achieve the envisioned urban character.



Source: Strong Towns



Source: NearMap Imagery

Land Use Category:
ACTIVITY CENTER

The Activity Center land use category includes the major strategic commercial centers within the community. They are intended to provide opportunities for diverse mix of retail, employment, and residential destinations at critical intersections to create dense, value-intense development. These centers are regional in nature that serve a population beyond Dickinson and are found located at the intersection of major highways and arterials.

This future development program has been designed to ensure both predictability and flexibility. The areas identified on the Future Development Map as Activity Center, are intended to allow for more intense, integrated mixed-use development, with a primary focus on enhanced walkability. In other words, an Activity Center goes beyond just a conglomeration of disparate uses following traditional forms of development (this even applies to mixed-uses if the development is designed and configured in an dis-integrated and disparate manner). Ideally, these areas would be developed under a single planned development program.


Source: Congress for the New Urbanism


Source: Meridian Cool Springs


Source: Midway Team


Source: Biltmore Fashion Park

Appropriate Land Use Types:

Use	Appropriate Uses
Agricultural	Not appropriate.
Residential	Appropriate residential uses include vertically integrated mixed-use buildings, with residential being secondary to the primary use. Lofts should be integrated into broader development plans, with amenities and walkable connections. Design of high-density should be urban in form. Townhouse-style mid-density is also allowed.
Commercial	Appropriate commercial uses include regional-serving retail, personal service, professional office, and restaurant, urban grocery stores, big box retail, entertainment uses, provided they meet appropriate design standards and locational and decision-making criteria, including roadway adequacy and adjacency compatibility.
Industrial	Not appropriate.
Institutional	Appropriate uses include places of public assembly such as theaters and conference centers; and civic uses (e.g., police stations, fire stations, library, City Hall, Emergency Medical Services (EMS), etc.).
Other	Appropriate other uses may be allowed as limited or conditional basis, assuming an integration with the design character proposed for the Activity Center.

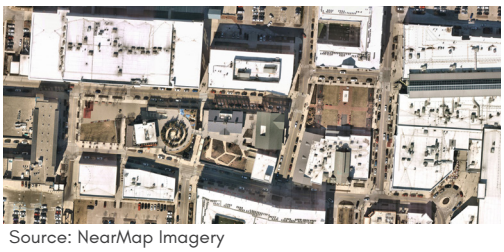
Design Characteristics:

Characteristics	General Design Intent
Character	Auto Urban/Urban
Structures and Architecture	Building height and mass should be designed to maximize compatibility with adjacent uses, where the highest intensity is placed at the center of the activity center. Ranges from 2.0 - 4.0 FAR / from 3 to 5 stories.
Access and Circulation	On-site parking should be first accommodated through decreased minimum parking requirements, followed by structured parking placed away from main pedestrian pathways. Internal vehicular and pedestrian interconnectivity among uses and parcels is required along with connection to adjacent development.
Vegetation	Where available, landscape enhancements remain subordinate to the structure and relegated to streetscape enhancements (e.g., street trees, planters, etc.)

Current Zoning Districts:

The current zoning districts that may be appropriate to implement the Activity Center future development category include General Commercial District (GC), Conventional Residential (CR), Small Lot Residential (SR), and High-Density Residential (HR). Note that zoning district modifications may be required to achieve the envisioned auto-urban/urban character.


Source: Congress for the New Urbanism


Source: NearMap Imagery

Land Use Category:
CITY CENTER

The City Center future land use category consists of the city center area of Dickinson. This area is intended to be a highly walkable area which promotes a "sense of place" and should represent the "heart of the city." This area is the traditional city center and contains various institutional, commercial, and residential uses.

This area is intended to be developed with an urban character, meaning redevelopment requires a build-to line, on-street parking, and a focus on pedestrian walkability.

Features that would contribute to the area's character include larger buildings set at sidewalk edge that occupies a majority of the lot creating a sense of enclosure. Parking is typically located on-street or on off-site public parking lots or structured parking facilities (garages).

On-street vehicular parking is provided along gridded streets with wider sidewalks scaled for higher volumes of pedestrians.



Source: Solstice Citrus Square



Source: ForRentUniversity



Source: Newton Commons



Source: Philadelphia Inquirer

Appropriate Land Use Types:

Use	Appropriate Uses
Agricultural	Not appropriate.
Residential	Appropriate residential uses include multi-family (i.e., apartments), regardless of ownership, and mixed-use urban lofts
Commercial	Appropriate commercial uses include those uses generally allowed in the central area, provided they meet appropriate design standards and locational and decision-making criteria.
Industrial	Not appropriate.
Institutional	Appropriate uses include institutional uses (e.g., places of public assembly); public recreational uses (e.g., parks and playgrounds); and civic uses (e.g., police stations, fire stations, library, City Hall, Emergency Medical Services (EMS), etc.).
Other	Appropriate other uses may be allowed as limited or conditional basis provided that they adhere to an urban character.

Design Characteristics:

Characteristics	General Design Intent
Character	Urban
Structures and Architecture	Greatest site coverage. Multi-story structures encouraged. Low-density residential uses, and industrial uses should not be permitted within the UC land use classification. These permitted development densities and intensities are recommended so that innovative and flexible site design can provide density to encourage neotraditional planning concepts. Ranges from 1.0 - 1.5 FAR (approx. 20 DU/acre or 40 - 60 residents/acre), of which up to 0. 5 FAR can be office or commercial / up to three (3) stories.
Access and Circulation	Streets with an urban cross-section; sidewalks (potential oversized for areas designated as side-paths); both front and rear driveway access for individual lots (with improved alleys). Streets and other public spaces framed by buildings with zero/minimal front setbacks, creating "architectural enclosure." Structured and on-street parking.
Vegetation	Functional landscaping should be provided as buffer between pedestrians and vehicles. Most conducive for pedestrian activity and interaction, with public plazas and pocket parks providing green space amid an urban environment, and a place to gather and host community events.

Current Zoning Districts:

The current zoning districts that may be appropriate to implement the Old Town / City Center future development category include General Commercial District (GC), Neighborhood Commercial District (NC), Conventional Residential (CR), Small Lot Residential (SR), and High-Density Residential (HR). Note that zoning district modifications may be needed to achieve the envisioned sub-urban character.



Source: The Business Journal



Source: NearMap Imagery

MAP 2.6, FUTURE LAND USE

Legend

- Dickinson City Limits
- Dickinson Extraterritorial Jurisdiction
- Water
- Rail Lines
- Interstates and Highways
- Principal Arterial Roads
- Major Collector Roads
- Minor Collector Roads
- Local Roads
- General Commercial
- Neighborhood Commercial
- General Residential
- Neighborhood Conservation
- Neighborhood Restoration
- Activity Center
- Old Town / City Center
- Urban Transition
- Institutional
- Utility
- Industrial
- Employment Center
- Parks / Open Space
- Rural / Estate

1/4 mile 1/2 mile 1 mile N

Data Sources:
City Data: cob.us/653/Geographic-Information-System-GIS-Maps;
and Aerial Imagery: www.nearmap.com

Consultants: Halff Associates, Inc.

City of Dickinson, Texas Comprehensive Plan

Hobbs Rd
Ervin Ave
Calder Dr
Cross Colony Dr
Gulf Fwy
Walker St
Gill Rd
Rodeo Bend Rd
Sunset Dr
Deats Rd
Benson Bayou
Timber Dr
Oak Dr
Maple Dr.
Ohio Ave
20th St
H Ave
E Ave
H1 Ave
Main St
25th St E
Dickinson Ave
Colorado Ave
California Ave
Baker Dr
Winding Brook Dr
Scenic Dr
Country Club Dr
41st St E
Dickinson Bayou
Hughes Rd
Oleander Dr
N Humble Camp Rd
Galveston Rd
City of Dickinson
City of Texas City
Hughes Ln
Pabst Rd
Tallow Forest St
Cemetery Rd
Shoreview Dr
Lovers Ln
Avenue L
Holland Rd
City of League City
City of Dickinson
City of Santa Fe
Dickinson Bayou
3
45
99
517
646
3436

Objective 1.2: Adopt and ensure the consistent application of the Future Land Use Map to guide the growth and development of Dickinson.

Strategy 1.2.1: Utilize the Future Land Use Map to evaluate development proposals and rezoning applications.

The Future Land Use (FLU) Map is an important component of the desired development framework, focusing on the distribution and character of land uses within the City. The relationship of future land uses in Dickinson is depicted in Map 2.6, Future Land Use. The FLU Map has been developed utilizing a character-based approach, whereby the form and intensity of land uses contributes to the intended character of particular areas of the community. Compared to a parcel-based land use plan, a character-based plan focuses on the formative elements and characteristics which contribute to and make the community unique. Instead of focusing on the traditional separation of land uses and growth outward the City of Dickinson should focus on enhancing areas that require improvement, enact policies to preserve the areas that are functioning well, and put strategies in place to transform those areas that are not functioning. Character-driven policies allow communities to create centers, neighborhoods, and corridors based on the distinctive elements that reinforce the sense of place and the feeling of being within the City of Dickinson. Examples of character-based land use policies include, building height, setback and street frontage requirements, varying densities, street character, mix-use buildings in strategic locations, and green spaces between varying land use intensities.

Generally, the FLU Map anticipates residential and commercial growth of varying densities and levels of intensity, with a shift toward a mix of uses. Mixed uses along existing transportation corridors and nodes as well as a finer grain of commercial in neighborhood centers will serve the immediate needs of residential areas; while higher density activity and employment centers will provide opportunities for Dickinson to serve as a regional destination, whereby the flows of commerce are captured and redirected into the city.

The Future Land Use Map of Dickinson proposes new land use types, which are detailed from pages 2.27-2.39, and highlight the character-based approach to future land use.

Suburban Residential has now become Neighborhood *Conservation*, *Neighborhood Restoration*, *or General Residential*, allows for further distinctions between residential zones allowing for greater diversity of housing types in specific areas and allows for minor changes in housing construction to adapt to changes in the housing market. A majority of Dickinson remains under residential types of land use categories.



Tyrical subruban residential development in southeastern Houston metro-area
Source: Realtor

A series of *Activity Center* land uses are planned throughout Dickinson, mainly where existing building intensities are higher, where commercial zones already exist, and where development is likely to occur. These activity zones are placed in the center of the community (City Center), in west Dickinson (IH-45), and in east Dickinson (Gum Bayou), providing relative access to all residents. Activity Centers, as characterized on page 2.38, are spaces which feature multi-family housing, townhomes, new commercial and retail opportunities, office space, and other special-use and mixed-use amenities in the City. The Activity Centers are generally of a higher density allowing for walkability for the residents of the Activity Centers, potentially reducing vehicle miles traveled in Dickinson as the population continues to increase. The City Center is similar to the Activity Centers, featuring mixed-use land uses, but is different in the way of allowing for additional residential options and more walkable street designs and store frontage typologies, making a more 'quaint' or 'less-car-dependent' area for Dickinson.



Houston CityCenter
Source: HGAC

High Density Residential and most Manufactured Housing land uses are replaced with an Urban Transition land use, which provides a buffer between strictly commercial land uses, mixed-use zones, and strictly residential land uses. Urban Transition zones feature mainly housing typologies of condominiums, triplexes, small-lot / cottage homes.



Houston housing depicting varying housing typologies
Source: Greater Greater Washington

Neighborhood Commercial land uses are proposed within existing areas of residential land uses, reducing the travel distance and time to access retail/commercial uses such as day cares and cafes. Providing small corner stores and retail within residential areas helps provide residents with a walkable location to meet with other community members and helps provide a distinct character to each neighborhood.



Suburban cornerstore and office space
Source: Streets Minneapolis

Category	Acres	% of Total
Rural / Estate	681.89	12.1%
General Residential	934.42	16.6%
Neighborhood Conservation	1236.12	22.0%
Neighborhood Restoration	437.36	7.8%
Neighborhood Commercial	19.78	0.4%
General Commercial	468.20	8.3%
Employment Center	232.66	4.1%
Industrial	20.64	0.4%
Institutional	222.34	4.0%
Parks and Open Space	533.92	9.5%
Urban Transition	356.34	6.3%
Activity Center	325.10	5.8%
Urban Center / City Center	109.99	2.0%
Utilities	41.41	0.7%
	5,620.17	100%

Lastly a number of *parkland and open spaces* are proposed throughout Dickinson where a high intensity tree canopy exists, where waterfront property will be developed, or where pocket park opportunities exist on City-owned property.



Central Heights Park
Source: City of Baytown, Texas

The end goal of the Future Land Use Plan is to start developing Dickinson into a City of Villages, distinct from the existing character of surrounding communities. Each neighborhood will have access to small-box retail stores which are more likely to be owned by local residents and withstand long-term economic changes (when compared to big-box retail store locations such as Target, Walmart, Macy's, or Home Depot). Dickinson will have a walkable City Center with retail and public spaces. Dickinson will enhance streetscapes with additional trees and mobility options, retaining its existing character of forested land. Lastly, Dickinson will be a city of diverse suburban-scale and small-scale housing options, allowing for greater resilience to economic changes and housing trends. Dickinson will be a place young families, college-age students, retirees, and 'blue-collar workers' can afford and want to live in. A high quality of life is based on access to resources and access to social opportunities.

Initiatives and Actions:

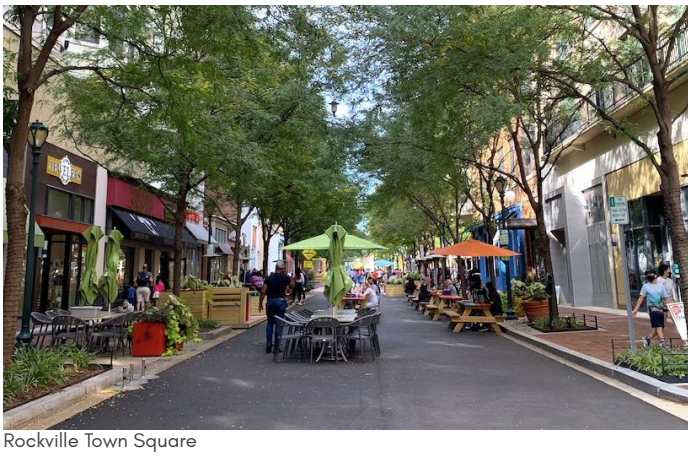
1. Use the FLU Map to assist landowners, prospective builders, and entities such as the City's Economic Development Corporation (EDC) to plan for new development.
2. Implement the Comprehensive Plan's development character framework to ensure appropriate residential densities, commercial intensities, and design characteristics. This development program will maintain the predominantly suburban character throughout most of the community, with quality transitions to higher-density urban development focused around the key activity centers, and rural development maintained primarily to the south of Dickinson Bayou. Ensure that the City's Official Zoning Map and subsequent subdivision regulations contained within its Code of Ordinances are adjusted appropriately with the character-based approach integrated into districts and areas delineated on the FLU Map.

Strategy 1.2.2: Revise the City's Code of Ordinances to facilitate realization of the community's desired character and development quality.

Development codes regulate the physical form of development. This is the primary way to implement a community's desired character and quality. People quickly form an opinion of a community based on quality of development and aesthetics. It is important that development codes are updated to align with the goals of this Comprehensive Plan.

Initiatives and Actions:

1. Encourage and promote quality development through predictable and flexible development codes. Future amendments to the City's development codes must ensure minimum quality first and foremost. This provides market confidence of desired quality investment that meets the goals of this Comprehensive Plan, with regard to form, use, and character in Dickinson.
2. Modify the City's development codes. Follow-up the Code Critique with priority code amendments and undertake a formal annual amendment list for consistency and predictability.



Rockville Town Square
Source: Store Reporter



Town Creek new village development near downtown New Braunfels, Texas
Source: Google Street Imagery

Objective 1.3: Create new destinations in Dickinson.

Strategy 1.3.1: Invest in the phased implementation of the City's new Downtown City Center Master Plan which reimagines and provides recommendations to revitalize Downtown Dickinson as an activity center that brings people together, creates a sense of community identity and place, and becomes a true economic driver for the City.

Downtown is often considered the heart of the community and is an important social space where people of all ages and backgrounds can meet to participate in a variety of public events such as parades, speeches, fairs, concerts, etc. A downtown can be a tourist attraction as well, as the location where unique local businesses flourish within an interesting and vibrant urban fabric composed of interesting buildings and civic spaces. Despite their small citywide footprint, downtowns can also function as leading economic drivers for their cities. A successful downtown relies on the comfort of its streets, sidewalks, parks, and plazas. Without high quality places that are comfortable, engaging, entertaining, and animated, cities will lose customers, visitors, investors, and businesses. With high quality places that people like to be in, cities can offer sociability, spontaneity, and authenticity – the elements of society and life that are not delivered through technology.

Create a Downtown City Center or Central Business District which concentrates commercial development in a dense area. Traveling through Dickinson, there is no defined downtown area; the lack of which, and the benefits associated with a walkable, tax-efficient space, hinders Dickinson's identity as a community. As referenced on page 1.53 of Appendix A, The Existing City, Downtown Dickinson represents a lucrative opportunity for a more fiscally-efficient development pattern on a value per acre basis. The plan should consider the expansion of the Downtown boundaries to take advantage of the Downtown Dickinson TIRZ #1, thereby increasing future revenue provided by taxable land. Currently, approximately 45 percent of Downtown is non-taxable due to the presence of municipal government and independent school district-related properties and buildings. During the summer of 2022, the City of Dickinson began working on a Downtown City Center Master Plan that provides a framework for infill development and revitalization strategies for the Downtown area.

Strategy 1.3.2: Redevelop the area surrounding IH-45 into a regional mixed-use development activity center that provides retail, office space, housing, recreational opportunities, and access to Dickinson Bayou.

Dickinson is positioned within a highly competitive retail market and is afforded frontage along IH-45. The IH-45 Activity Center is intended to promote desired development along the corridor. Taking advantage of significant redevelopment of outdated auto-urban commercial, highway strip commercial land uses and an abundance of surface parking lot acreage, the IH-45 Activity Center is envisioned to be a mixed-use, high-density, vertically integrated development program catering to commuters traveling on IH-45 and passing Dickinson as well as those seeking to locate a business presence midway between Houston and Galveston. The activity center largely follows the boundary of the IH-45 TIRZ #2 which flanks the western and eastern sides of the interstate and crosses to the south shore of the Dickinson Bayou (refer to Figure 2.3, Dickinson TIRZ Boundaries, on page 2.45).

Development and Design Opportunities include the following:

- Iconic sculptures announcing the entrance into Dickinson of FM 517
- Mid-rise (four to six story) mixed-use office towers with high-density residential and ground-floor commercial/ retail
- Amenitized multi-family residential complexes
- Redeveloped general commercial land uses
- Hotel and conference center with structured parking
- Enhanced walkability with boutique shopping and dining opportunities
- Pedestrian access to Dickinson Bayou at Water Street, including shoreline promenade
- Water taxi service to Downtown
- Greenway connection from Dickinson Bayou along Bordens Gully into TIRZ area
- Public plazas, water fountains, and pedestrian amenities

The Future City land use designations narrative regarding the function and character of Activity Centers (page 2.38) provides additional information on allowed land uses.

Initiatives and Actions:

1. With all Activity Center land use categories, encourage and promote the use of the Planned Development Zoning District to encourage mixed-use development and a development program that encourages walkability and civic amenities and spaces.



New retail mixed-use suburban development in the Village of West Clay
Source: City of Carmel



Sugar Land Town Square
Source: City of Sugar Land, Texas

Tax Increment Financing Zones (TIRZ) in Dickinson

In 2022 the City of Dickinson established two Tax Increment Financing Zones (TIRZ) within the predominantly commercial areas of the City. A TIRZ is a special financing district within which a portion of tax revenues (the "increment") is dedicated for structural improvements within the Zone. The establishment of the two TIRZs will help Dickinson focus additional investments in targeted growth areas to foster and ensure economic viability and job creation. [2]

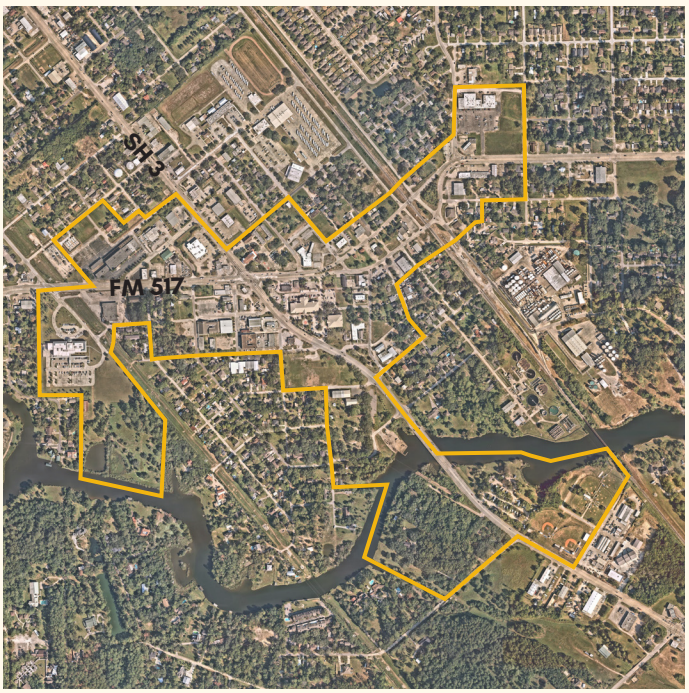
The first TIRZ is located at FM 517 and Interstate 45 (I-45), extending beyond all four corners of the intersection, comprising 355.5 acres (0.55 square miles) of land. (refer to Figure X.X, I-45 TIRZ). The TIRZ district is currently comprised of commercial and retail uses along Hughes Road and Gulf Freeway (I-45) Frontage Roads, with minor residential uses along Lobit Drive, and two community churches. The proposed Water Street mixed-use development is located in the southwest quadrant of the TIRZ district and will benefit from the investment. The TIRZ redevelopment program also includes a number of capital improvements including, gateway signage, streetscape improvements (lighting, street trees), and pedestrian improvements including crosswalks, sidewalks, and public plazas. The 2022 baseline property value for the TIRZ is $137.6 million with an anticipated growth to $393.9 Million over a 25-year timespan. It is expected that over the 25-year lifetime of the TIRZ that $15.0 Million in nominal TIRZ tax revenues will be generated.

The second TIRZ district is located at FM 517 and SH 3, extending south of Dickinson Bayou and east of the Galveston, Houston and Henderson Rail Line, comprising 177 acres (0.27 square miles) of land. (refer to Figure X.X, Downtown TIRZ). The TIRZ is currently comprised of commercial uses in Dickinson's historic downtown site, Dickinson ISD offices, minor residential sites, Dickinson City Hall and Library, and existing recreational uses along Dickinson Bayou. The TIRZ district includes areas currently being planned for mixed-use development including residential and retail four to five story construction and townhomes (see sidebar, Dickinson Downtown Master Plan, on page 2.50). The TIRZ boundary proposal also includes several capital improvements including, water-wastewater utility improvements, gateway signage, streetscape improvements (corridor landscaping and linear parks), and pedestrian improvements by way of public transportation, sidewalks, and public plazas. The 2022 baseline property value for the Downtown TIRZ district is $35.7 million with an anticipated growth to $254.6 million over a 25-year timespan (an overall growth of $218.9 Million, averaged to 8.75 Million annually. It is expected that over the 25-year lifetime of the TIRZ that $24.1 Million in nominal TIRZ tax revenues will be generated.[2]

2: IH-45 Tax Increment Reinvestment Zone Preliminary Project & Financing Plan, City of Dickinson, TXP, Inc.

Figure 2.3, Dickinson TIRZ Boundaries





Strategy 1.3.3: Develop the Gum Bayou Activity Center into a mixed-use development center that offers retail, office space, multi-family housing, recreational opportunities, and access to Gum Bayou.

The Gum Bayou Activity Center is intended to promote desired mixed-use commercial development along the FM 517 corridor for those residents living on the east side of Dickinson as well as the anticipated residential development that will likely occur along FM 3436 in Texas City. Refer to Map 2.6, Future Land Use (page 2.40) and the Activity Center land use designation on page 2.38 for additional information on permitted land uses.

Initiatives and Actions:

1. Consider the implications of extending adjacent local streets, Winding Brook Drive and Nicholi Lane into the Gum Bayou Activity Center to promote additional residential development of the same character.
2. As discussed within Objective 7.2, ensure that the form and orientation of new commercial development acknowledges and is informed by the riparian greenway along the western edge of Gum Bayou, as depicted on the FLU Map. Restaurants should incorporate outdoor dining opportunities along the bayou and other commercial development should provide connections to the bayou promenade from parking areas.

Strategy 1.3.4: Develop a mixed-use Employment Center in Southwest Dickinson.

As depicted on Map 2.6, Future Land Use, an Employment Center land use category is proposed for the lands south of Dickinson Bayou; the designation of which is intended for more regionally-serving mixed-use employment areas, including office, retail, residential and service-oriented land uses in a business park-type setting.

Initiatives and Actions:

1. Work with the Galveston County Water Control and Improvement District #1 (GCWCID#1) and the City of Santa Fe to ensure the provision of adequate potable water, sanitary water and contracted solid waste collection services.
2. Provide transportation access to the Employment Center by way of Cemetery Road and FM 646.



Museum Reach River Walk in San Antonio
Source: Rosie the Bicycle



Charletown, Massachusetts, new activity retail center
Source: CityFeet



Downtown Frisco, Texas, with wide boulevards similar to FM 517 in Dickinson
Source: LoopNet

Objective 1.4: Balance greenfield development with infill development and redevelopment.

Dickinson is largely a built-out community, and is surrounded by municipalities and their corresponding extraterritorial jurisdictions on all sides. In addition to developing the remaining farm and ranch lands within its municipal boundaries, growth in Dickinson will need to be directed toward undeveloped, under-utilized land, and other infill locations with minimal barriers to redevelopment; while intentionally providing open space for parkland and open space. Low-density corridors, districts, and neighborhoods should be transformed into pedestrian-friendly and transit-supportive areas by concentrating new residential development in strategic locations. New housing should be compatible with existing or desired future character of its surroundings.

Strategy 1.4.1: Develop policies and incentives that encourage and promote infill development and redevelopment.

Analyze areas within the City of Dickinson that may be worthy of redevelopment.



Infill development on a formerly abandoned lot
Source: Everyday Tourist



Infill development with a historic housing typology
Source: CBC News



Infill accessory dweling unit /granny-flat development
Source: San Diego's Companion Unit Handbook

Initiatives and Actions:

1. Work with the Galveston County Appraisal District to identify and confirm parcels in the City Limits where the assessed value of the land is higher than the appraised value of improvements to the parcel; as indicated on Map 3, Improvement Value to Total Assessed Value and Vacant Parcels, within Appendix A, The Existing City (page 1.11). Either pre-zone these parcels through amendments to the City's Official Zoning Map, or develop interim zoning regulations to ensure that development conforms to the future intent of Map X, Future Land Use, and is compatible with the scale and character of adjacent and/or desired development.
2. As identified on Map 2.6, Future Land Use, confirm the intended character of the redevelopment areas. Establish the zoning provisions necessary to achieve the intended development outcomes.
3. Prepare special area plans for areas designated as Neighborhood Restoration to ensure the provision of adequate utilities and transportation infrastructure, including parking; the inclusion of amenities such pocket parks and pedestrian facilities such as sidewalks and off-street recreational trails; and the inclusion of areas designated Neighborhood Commercial land uses.
4. Encourage residential, commercial and mixed-use development proposed in the City's targeted redevelopment areas, particularly in Activity Centers, Urban Transition, and Neighborhood Restoration designated land use categories, to focus on the integration of structured parking to enable more productive use of the overall site in place of extensive surface parking.
5. Meet with property owners within the potential infill areas, as well as with developers, to identify the constraints to infill development. Consequently, amend the City's zoning and subdivision regulations and other standards and requirements to reduce the impact of obstacles to infill and redevelopment.

6. Provide incentives for infill development, such as density bonuses, adequate street and utility infrastructure, and other measures to accommodate new development requirements, if certain performance standards are met. In areas designated as Neighborhood Restoration, requirements pertaining to aggregating parcels, lot and block standards, lot coverage and setbacks, and building height and massing guidelines will need to be modified to allow feasible development of constrained infill sites. Increased density may be allowed for accomplishing community objectives such as a minimum open space ratio; preservation of urban forest canopy and riparian shoreline; sensitivity to historically significant adjacent uses; heightened development standards; inclusion of amenities such as civic spaces, parks, trails, and other placemaking amenities that enhance the sense of community.
7. Together with other incentive measures, apply targeted zoning strategies and performance standards to designated redevelopment areas. Options may include items such as reduced setbacks, waivers to height limitations, increased density, and reduced parking standards. Continue to emphasize redevelopment and revitalization opportunities for large, underutilized retail sites, such as the former Ziegler's Foods parcel, and other similar vacant and under-developed parcels around the FM 517 / SH 3 intersection and the FM 517/IH-45 intersection.
8. Study the infrastructure needs of identified infill and redevelopment sites and prepare a schedule of capital improvements, including the timing and methods of funding the improvements. Work with the GCWCID#1 to prioritize capital projects that will benefit undeveloped sites, potentially increase density, and improve the efficiency of the utilities infrastructure system. Maintain an annual rehabilitation and replacement program for potable water and reclaimed water distribution and sanitary sewer collection systems within well-established areas.
9. Create and adopt infill development standards concerning density, intensity, and other dimensional requirements to maintain a consistent character with existing adjacent development. Of particular importance within many of the older, historic areas is to ensure that the architecture, including façade treatments, massing and materials, density and intensity, etc., are consistent with those in the immediate neighborhood. For instance, a brick building may not be appropriate or desirable in an area where existing housing primarily has clapboard siding.
10. Establish "green-light" procedures to streamline approval of applications that comply with the City's established infill development standards, including expedited review and permitting, waiving permit fees, etc.



Du-plex housing infill development
Source: Historic Jefferson Park



Infill development matching the existing neighborhood character
Source: MLive

(Below) San Antonio half-lot small housing restoration and preservation program
Source: My San Antonio



Objective 1.5: Activate the Downtown City Center.

A successful Downtown relies heavily on the quality of its public spaces – its streets, parks, and plazas and sidewalks. Encourage a live-work-play environment through thoughtful downtown policies, development regulations, projects, and programming that promotes urban housing, employment, and entertainment options in a mixed-use urban environment.

Strategy 1.5.1: Implement the Dickinson Downtown City Center Master Plan.

A master plan for Dickinson's Downtown City Center is currently under development. The Master Plan promotes the development of a walkable environment composed of two- to four-story mixed-use buildings and civic open spaces, enhanced signage and streetscape treatments (refer to the facing page, Downtown City Center sidebar)

Initiatives and Actions:

1. Utilize the Master Plan's executive summary and graphics to cultivate partnerships with area developers interested in investment opportunities within Dickinson and its Downtown area.
2. Utilize historical imagery, (Sanborn) maps, and records regarding the physical fabric and character of Downtown and information about the facades of historical buildings formerly in Downtown to inform the facades and massing of new structures planned to be constructed Downtown.



Bountiful, Utah
Source: The Western Planner



Rendering of a new development to revitalize Downtown Conroe, Texas
Source: I Love Conroe

Downtown Roanoke, Virginia, provides many public transit, retail, and gathering space opportunities
Source: Miller Group



Dickinson Downtown Master Plan

The City of Dickinson has recently completed their 2023 Master Plan for the Downtown. Downtown consists of land surrounding City Hall, and the intersection of SH 3 and FM 517. The Master Plan is a document which highlights key catalyst sites and development models for the Downtown.

The Goal

The goal of the Master Plan is to reestablish the walkable urban core that once sat at the Dickinson founding site. The downtown will be a space for public gathering featuring public plazas, a space for retail and dining options, and a space for non-single family residential housing.

Building typologies, as depicted below, are generally 3-5 stories tall and have retail on the first floor, with commercial/office space on the second story. The upper stories will have apartment units. The density and convenience of living close to where you shop or work will help to create an activated space with pedestrians.

The Downtown Master Plan also hopes to reconnect Downtown Dickinson with the Dickinson Bayou by way of new sidewalks and a redesign of the Dickinson Bayou Boat ramp.

Phase 1 Plan Renderings

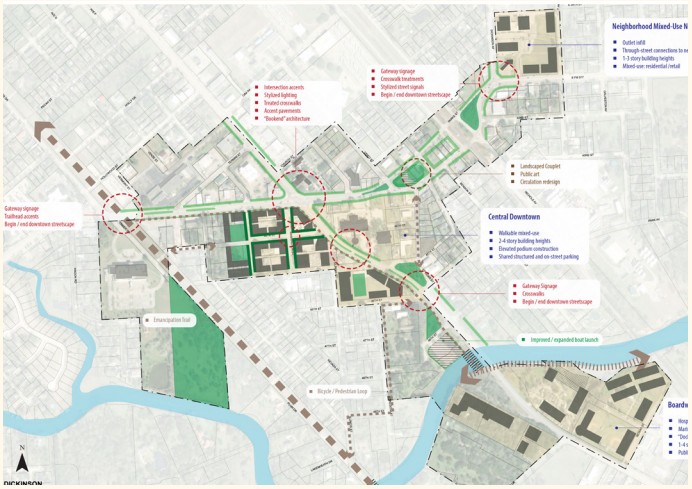


The Future

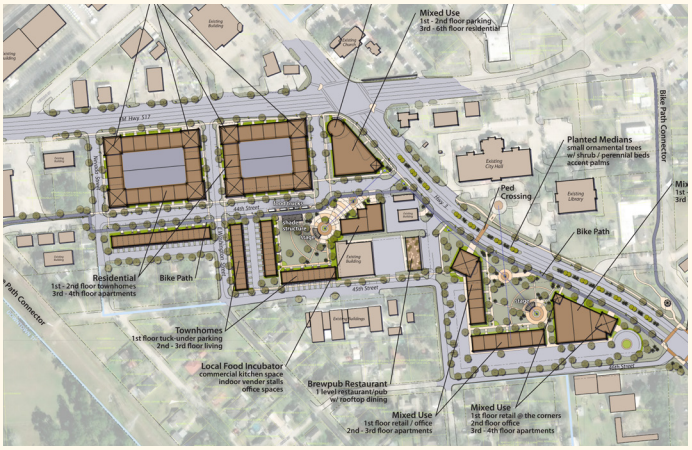
In the future Downtown Dickinson will have a walkable footprint, built around local shops and retail. Residences will be able to walk or bike to mostly all everyday needs. The community will build an identity around the landscape and programming in the Downtown growing Dickinson's identity as a unique place. The economy of the Downtown will be more self driven, by local shoppers and local business owners, diminishing the impacts of global economic changes.

Downtown Dickinson will be the beating heart of Dickinson granting new opportunities for existing and future residents.

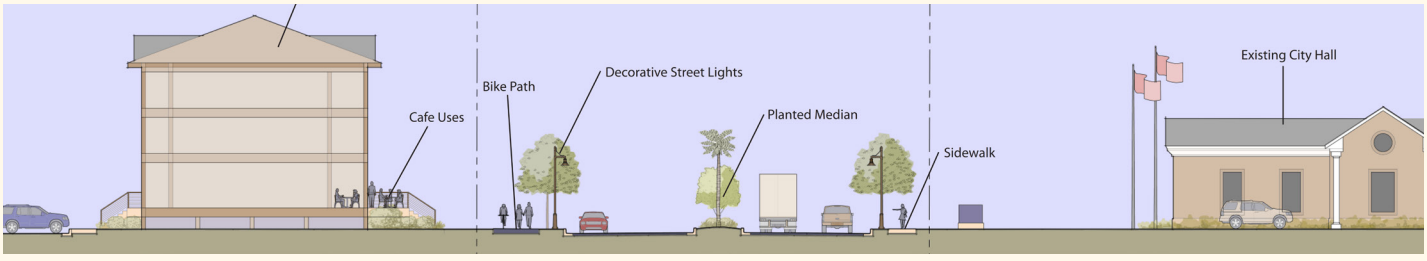
The Complete Master Plan



Phase 1 Plan



Street Cross Section



All graphics and renderings provided by Kendig Keast Collaborative

Strategy 1.5.2: Create a multi-use civic space Downtown.

Redesign the City Hall-Public Library parking lot to function as an active civic plaza in the Downtown City Center area, to be programmed for parking, but with options to close portions, or all of the space to host periodic opportunities for fun, music, food, and spontaneity.

Initiatives and Actions:

1. The parking area/plaza suffers from a lack of definition and purpose. Further define the spaces within and perimeter edges of the plaza with landscape, streetscape and public art.
2. Invite residents to spend time in the civic plaza. People will not spend time in a space unless they are invited or prompted to do so with amenities, features, and events that welcome them.
3. Work with the Dickinson Economic Development Corporation (DEDC) to purchase and make available in the plaza moveable chairs and tables, and sidewalk games during weekdays.
4. Install festive string lights in the trees to keep the space illuminated in the evenings.
5. Program activities in the plaza, including weekly farmers markets and monthly festivals. Host sidewalk chalk exhibits and other programmed activities on weekends.

- Update City regulations regarding event vendors and markets, including the permitting process, to make it easier for smaller local entities to get involved and approved.
- Create guidelines and regulations for residents or entities looking to establish a temporary popup market, which should include all necessary insurance, permits, laws, and business regulations.



Downtown Brownsville, Texas, Market Square civic space
Source: Texas Highways

Strategy 1.5.3: Ensure access from the Downtown City Center to Dickinson Bayou.

During the design consideration phase of new or redeveloping properties, incorporate access to the Dickinson Bayou waterfront and associated park and public amenities, such as docks, boardwalks, paddle trail put-in and take-out locations, fishing piers, birding stations, or other water-based recreation features.

Initiatives and Actions:

1. Create a pedestrian promenade to provide walkable access from Downtown to the existing boat ramp area.



Saengerfest Park civic space hosting a movie watching event
Source: City of Galveston

The Importance of the Public Marketplace

The term "public marketplace" covers a range of market settings, including open-air markets, covered markets, permanent market halls, market districts, unused retail spaces, and even informal markets of street vendors. Public markets can be temporary and seasonal, or permanent and in operation seven days per week. Depending on the type of public market, vendors may sell fresh and prepared food or non-food items, such as art, crafts, and antiques. However, public markets are not just places of commerce. What sets public markets aside from other retail locations is that they operate within the public realm, serve locally owned and operated businesses, and have public goals. This focus on the public good is what makes successful markets grow and connect urban and rural economies. They encourage community and economic development by keeping money in the local neighborhood. Public markets also offer low-risk business opportunities for vendors and artists, often from vulnerable populations, and depending on the type of public market, they feed money back into the local rural economy where farmers grow, raise, and produce what they bring to market.

The spin-off benefits of public marketplaces are numerous. From increasing access to fresh, healthy food, to exposure for aspiring artists, to providing important revenue streams, marketplaces positively impact local businesses, governments, and residents. But perhaps most importantly, public marketplaces serve as public gathering places for people from different ethnic, cultural, and socioeconomic communities – and can function as a community's open air civic center.3

Pop-up markets and shops have become increasingly popular throughout the United States as an affordable way for artists to sell and display art; especially when renting an entire space is infeasible. Pop-up markets can take the form of "parklets" with temporary seating, shade, games, and music, to food trucks in outdoor settings such as a plaza, park, or street.

Pop-up markets can help a group of artists gain visibility as they may otherwise lack the finances or ability to leverage resources/opportunities on their own. Pop-up markets or galleries can also be set up by existing galleries who would like to market and showcase specific artists or creators when space is unavailable. The temporary nature of pop-ups can create an ever-rotating arts scene and encourages repeat visitation to the area as their experience will change each time. Pop-up places and events also allow for cost-effective experimentation in tactical urbanism to test and evaluate whether a concept or location might succeed – enabling property owners to see the value in specific improvements.

3: Project for Public Places, February 28, 2010. Endless Bounty: The Transformative Benefits of Public Markets. Available at: https://www.pps.org/article/thebenefits-of-public-markets



Houston Farmer's Market
Source: Houston Chronicle



Pop-up makers' market
Source: PODS



East End Farmer's Market
Source: East End Management District

Community Strategies and Recommendations

Goal 2.0 Placemaking:

The physical fabric and social character of Dickinson's public spaces, commercial districts, residential neighborhoods, and transportation corridors contribute to the sense of being within a unique and vibrant community.

As defined by the American Planning Association, creative placemaking is a process where community members, artists, arts and culture organizations, community developers, and other stakeholders use arts and cultural strategies to implement community-led change. This approach aims to increase vibrancy, improve economic conditions, and build capacity among residents to take ownership of their communities.

In creative placemaking, partners from public, private, non-profit, and community sectors strategically shape the physical and social character of a neighborhood, town, city, or region around arts and cultural activities. Creative placemaking animates public and private spaces, rejuvenates structures and streetscapes, improves local business viability and public safety, and brings diverse people together to celebrate, inspire, and be inspired.[4]

4: Markusen, A. and A. Gadwa, 2010. Creative Placemaking. National Endowment for the Arts. Available at: https://www.arts.gov/sites/default/files/

The Holy Trinity of Successful Places

Successful places that attract people and offer positive experiences require equal parts design, programming, and management. It is not enough to simply design a great space, nor is it effective to program activities in spaces that physically do not accommodate the planned or intended activities. **Design** consists of the physical dimensions and elements of any given place. The size, proportion, and arrangement of elements within any space impact the individual and collective use of the space. The edges of spaces and the ways in which spaces are accessed also have an impact on how the space is used. The best spaces are comfortable to be in throughout the day and week, when both empty and filled. Programming consists of the ephemeral events and activities that are either planned or spontaneously occur in any given space. **Programming** has a direct impact on who uses spaces and how that space is perceived. The best public spaces have a wide array of inclusive (planned and unplanned) programming and events. **Management** and stewardship consist of the organization and structure that oversees the programming and design of the space. Management is crucial because successful spaces need to be cared for and continuously improved. When a space is well cared for, people feel more comfortable in it.[5]



5: Cunningham Group Architecture, 2019. Downtown Fond du Lac Public Space Stewardship Guide. Available at: https://www.arts.gov/sites/default/files/CreativePlacemaking-Paper.pdf

Objective 2.1: Further define Dickinson as a community composed of Quality Places.

The term, quality places, refers to places where people and businesses want to be. They are active, unique locations, interesting, visually attractive, often with public art and creative activities. They are people-friendly, safe, and walkable with mixed uses. The fabric of quality places includes buildings possessing strong form and definition, relative to the street and open spaces, with notable and articulated facades. Quality places are composed of both key elements and are endowed with key characteristics that result in compelling form.

Key elements of quality places include [6]:

- Mixed-uses
- Quality public spaces
- Broadband enabled
- Multiple transportation options
- Multiple housing options
- Preservation of historic structures
- Community heritage
- Arts, culture, and creativity
- Recreation, and
- Green spaces

Quality Places have characteristics that are the result of good form which includes mass, density, and scale appropriate to place on transect; human scale, as they are designed for people; and walkability, as they are pedestrian-oriented, and bikeable.

When these elements and form characteristics are in place then the result is quality places which are (Wycliff, 2014):

- Safe
- Connected and accessible - ability to easily circulate within, along and between public places
- Welcoming and comfortable - address perceptions about cleanliness, character and charm
- Enable authentic experiences
- Sociable - have a physical fabric where people can connect with one another and promote and facilitate civic engagement.

6: Wycliff, Mark A. FAICP. 2014. Definition of Placemaking. Michigan State Univ. Available at: https://www.canr.msu.edu/uploads/375/65814/4typesplacemaking_pzn_wyckoff_january2014.pdf

What is Placemaking?

"Placemaking inspires people to collectively reimagine and reinvent public spaces as the heart of every community. Strengthening the connection between people and the places they share, placemaking refers to a collaborative process by which we can shape our public realm in order to maximize shared value. More than just promoting better urban design, placemaking facilitates creative patterns of use, paying particular attention to the physical, cultural, and social identities that define a place and support its ongoing evolution".

- Project for Public Spaces



Outdoor public seating for social gatherings
Source: Congress for the New Urbanism



Visually appealing locations encourage people to spend time in the space rather than pass by.
Source: ArchDaily

On Placemaking

Elements of Great Places

Great places are recognizable, desirable, active, safe, and valued by the community. Factors which contribute to a place being great include the design and activation of streets, public gathering spaces, small scale features and elements, gateways, urban landscape enhancements, and public art. These features and elements provide visitors with locational legibility and a sense of being within a place. Special places also contribute to creating comfortable, desirable, and financially sustainable areas in a city which the community can be proud to call their own.

Great Streets

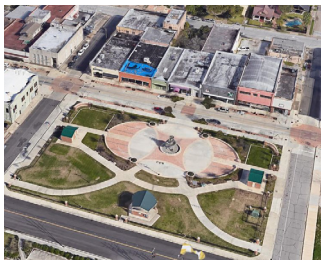
Streets typically comprise more than 80 percent of public space in cities, but they seldom provide their surrounding communities with a safe space where people can safely walk, cycle, drive, take transit, and socialize. Great streets provide multi-modal (vehicular, pedestrian, and bicycle) connections between places, and can be designed to be important public spaces within the built environment. Through improved street planning and design, the City can increase mobility and access to goods and services as well as improve public health and property values.

Great Public Places

An active and vibrant city is composed of great public places, such as plazas and town squares, that allow people to visit and come together, offer shaded places to sit outside, and provide places to watch and participate in events and celebrations. Great public places are the living room of the community; and form the stage and backdrop to the drama of social life.



Galveston Island State Park
Source: Galveston Island Guide



Public Plaza Park, Baytown, Texas
Source: City of Baytown



Walkable residential single-family neighborhood
Source: King County Housing Authority

Great Streets...

- **Are representative of their places.** A Great Street reflects the neighborhood through which it passes and has a scale and design appropriate to the character of the abutting properties and land uses.
- **Allow people to walk comfortably and safely.** The pedestrian environment along the street is well-designed and well-furnished. The relationship between the street and its adjacent buildings is inviting to people and conducive to walking.
- **Contribute to the economic vitality of the community.** Great Streets facilitate the interaction of people and the promotion of commerce. They serve as destinations, not just transportation channels. They are good commercial addresses and provide location value to businesses that power the local economy.
- **Are functionally complete.** Great Streets support balanced mobility with appropriate provision for safe and convenient travel by all modes of active and vehicular transportation, including walking, cycling, driving, and public transit.
- **Provide mobility.** Great Streets strike a balance among the three elements of modern mobility: through travel, local circulation, and access. The right balance varies with the function of the street and the character of its neighborhoods and abutting properties.
- **Facilitate placemaking.** Great Streets incorporate adjacent places that are memorable and interesting. These may include plazas, pocket parks, attractive intersections and corners, or simply wide sidewalks which foster an active street life and outdoor dining.
- **Are green.** Great Streets provide an attractive and refreshing environment by working with natural systems. They incorporate environmentally sensitive design standards and green development techniques which can help add vegetation to heavily paved areas, reduce street flooding, slow down adjacent traffic, and help to provide natural elements adjacent to businesses and residents.



Suburban street with sidewalks, bicycle lanes, and plantings
Source: Completestreets.org



Suburban retail street with sidewalk amenities
Source: Rice Design Alliance



Bicycle lane and sidewalk connects residents to a local park
Source: City of Austin, Texas

Interwoven Landscape

Beyond important environmental benefits, trees provide an urban context with placemaking benefits as well. Vegetation helps to soften the hard edges of an urban environment and provide a sense of human scale. Uniform trees lining a significant street can evoke a sense of grandeur, while trees in an urban pocket park provide respite from the harsh summer sun. Tree lined streets and landscaping on street corners can help increase the desirability for businesses and residents to locate within a





Postoffice District, Galveston, Texas
Source: Halff Associates

Gateways/Entrances

Gateways provide entrances into towns and areas within towns. Gateways can help define a place and provide a distinct identity. Gateway features, portals, and other forms of monumentation add to the character and "brand" of a special district or neighborhood and let the visitor know where they are. A gateway can have many forms: a literal gate, a bridge, a portal or passage between narrowly separated buildings, a monument, an avenue of trees, or a gateway through a building.





Banners, paving, and streetscape elements on Main Street, Ennis, Texas
Source: Gresham Smith, City Green

Public Art

Public art adds value to the cultural, aesthetic, and economic vitality of a community. It contributes to a community's identity, fosters community pride and a sense of belonging, and enhances the quality of life for its residents and visitors. Public art can consist of everything from murals to statuary, to dynamic compositions of water and sound, and everything in between. Public art is one of the most affordable and community driven ways a City increase community participation and community identity.

The City of Dickinson Art Guild is a local organization that provides funding and design assistance to artists to help improve the character of the City. Notable murals include the "Hi, How Are You?" mural in Austin by Daniel Johnston; and the restroom facility mural at Children's Park depicting native wildlife and heritage.



Artistic gateway at Marsha P. Johnson Park
Source: The Architect's Newspaper



Storeside mural, Houston, Texas
Source: The Thrifty Travel Life



Walkable suburban strip retail frontage, Acton, Massachusetts
Source: Jorje Salcedo

Guiding Principles

Placemaking Principle 1: Community Identity.
Enhance community identity through adherence to and enforcement of specific design standards, which revitalizes municipal districts, neighborhoods, and corridors; and establishes City gateways and entryways to special districts.

Placemaking Principle 2: Engender a Sense of Place.
Enhance Dickinson's natural, cultural, scenic and heritage assets in accordance with preservation guidelines and development standards.

Placemaking Principle 3: Cultural Expression.
Cultivate the growth of cultural and artistic expression and appreciation in Dickinson.

Strategy 2.1.1: Design, program, and manage civic spaces (e.g., public plazas, squares, neighborhood parks, village greens, or similar zones) within Activity Centers, including the Downtown City Center, employment hubs, and multi-family developments within Urban Transition designated areas.

High quality public spaces are a critical component to overall livability of a community because they provide opportunities for socializing, gathering, leisure, and play in ways that private space cannot. Successful public spaces create value, trust, emotional attachment and positive memories. They contribute to the overall livability of a community while at the same time they create public value that is shared by individuals and property owners alike.

Initiatives and Actions:

1. Plan for formal civic spaces that can be routinely programmed for social activities; and informal public spaces that may be embellished with public art and provide connections between neighborhoods and districts.

Strategy 2.1.2: Provide further definition for Dickinson's commercial districts and established neighborhoods.

Develop entrance and edge treatments for districts designated as Activity Centers and neighborhoods within areas designated as Neighborhood Conservation, General Residential, Urban Transition, and Neighborhood Restoration.

Initiatives and Actions:

1. As depicted in the corresponding photographs, utilize distinctive street name signs that also identify the name of the neighborhood or district the street is within. The signs may also include a decorative bracket and sign standard as well.
2. Provide perimeter landscape enhancements along district and neighborhood edges to reinforce community legibility and orientation. In particular, focus on the local streets leading-in to districts and neighborhoods.

8: American Heritage® Dictionary of the English Language, Fifth Edition. Copyright © 2016 by Houghton Mifflin Harcourt Publishing Company. Published by Houghton Mifflin Harcourt Publishing Company. All rights reserved.

9: Leadership Columbus. How to Create a Gateway in Your Community: A Complete Step-by-Step Guide. Keep Columbus Beautiful. Available at: file:///C:/Users/ah3419/Downloads/A1%20Gateway%20Guide.pdf

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City Monumentation



New Pearland Interstate gateway signage
Source: Halff



Cedar Park Town Gateway
Source: SEC



Liberty Station gateway district signage
Source: RSM Design



New Braunfels interstate signage
Source: New Braunfels Herald-Zeitung

Strategy 2.1.3: Define Dickinson's Entrances: Create prominent gateways.

A gateway can be defined as, "an opening or a structure such as an arch, framing, entrance or passage that may be closed by a gate. Something that serves as an entrance or a means of access."[8] A gateway can also be defined as a point of visual interest that joins two separate locations (communities, neighborhoods, etc.). It is a welcoming point that draws viewers into a particular location.[9] Dickinson shares a border with many communities and it is important for people to be able to identify the place they are within. Gateway elements can provide such announcements as entry points to the community, while providing a design theme specific to Dickinson. Enhance the sense of arrival in Dickinson by establishing well-defined entrances on key corridors leading into the City (refer to Figure 2.4, Gateway Monumentation Locations). As discussed in Strategy 8.4.1, and depicted in Figure 2.4, one of the challenges facing the community in the implementation of this strategy is that in some areas the municipal boundaries of the City are defined by a thoroughfare; whereby the City of Dickinson will only be on one side of the road; such as along the western side of SH 3, north of FM 517, and along the south side of FM 517, west of IH-45. These conditions amplify a general lack of legibility and understanding of when one is actually in the City of Dickinson.

Initiatives and Actions:

1. Develop a corridor plan for gateway monumentation, streetscape, and other improvements along SH 3, the boundaries of which would include the western side of the road from 20th Street to Salvato Street. From Salvato Street the municipal boundary runs eastbound.
2. Develop a corridor plan for gateway monumentation, streetscape, and other improvements along FM 517, the boundaries of which would include the south side of the road from Cemetery Road eastbound to the drainage ditch (just east of the Dollar General store. From the drainage ditch, the corridor plan would include both sides of the road eastbound through the City to Gum Bayou.

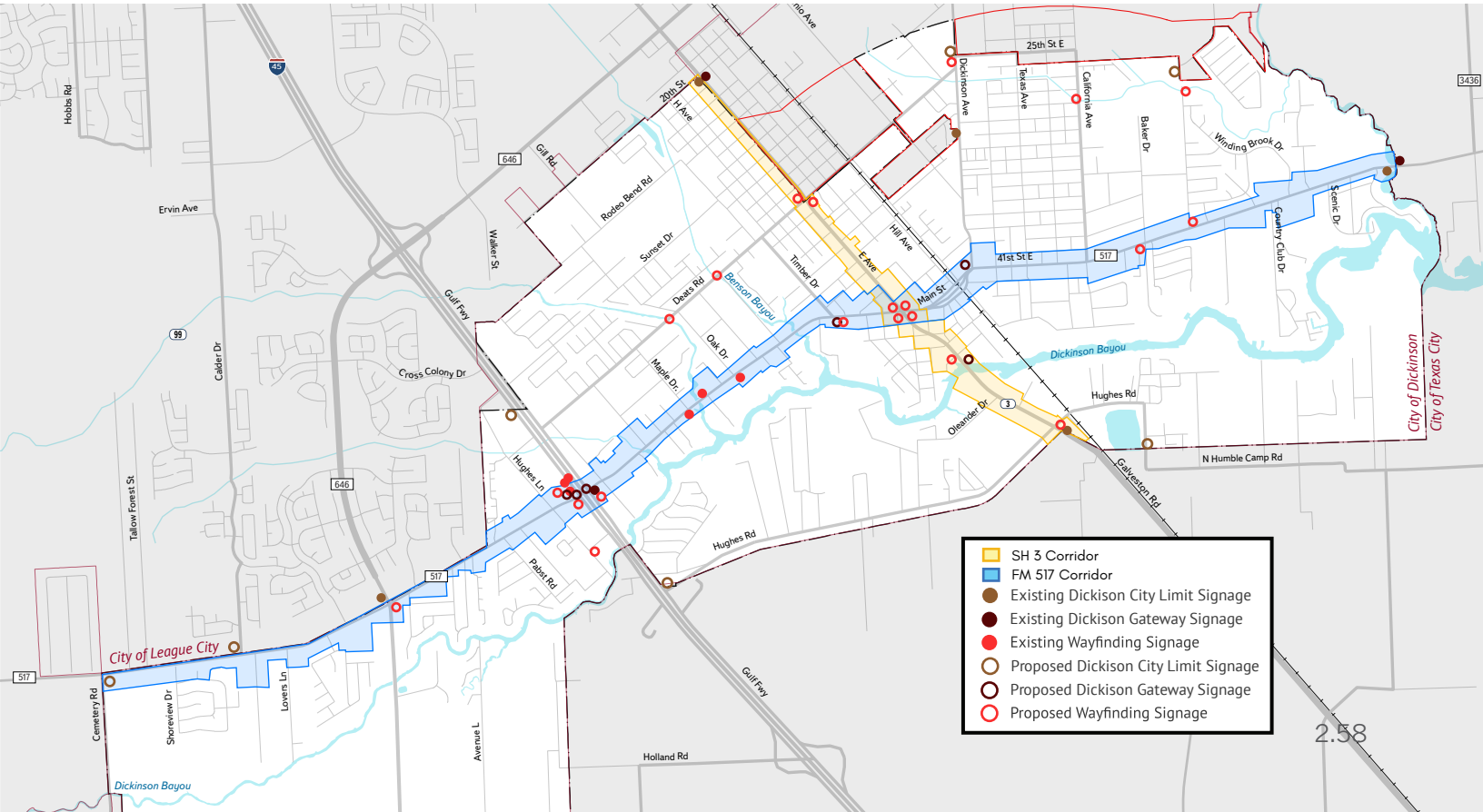
Strategy 2.1.4: Develop distinctive and formative municipal monumentation that can be seen by those traveling on Interstate 45.

Consider developing three-dimensional monuments/forms that are readily visible, at eye-level, from elevated portions of IH-45; announcing that one is driving through the City of Dickinson (as depicted in City Monumentation, on the facing page).

Initiatives and Actions:

1. Work with TxDOT to determine potential locational criteria, acceptable methods of lighting, and other issues that should be factored-in to the monument design program.
2. Consider sponsoring a design competition for the development of the monuments.
3. Seek permission from TxDOT to embellish the underside of the IH-45 bridge over FM 517. This may include painting the bridge columns and artistic lighting installations.

Figure 2.4, Gateway Monumentation Locations



Objective 2.2: Develop community branding to help further define the City.

Strategy 2.2.1: Continue to develop a uniform brand and color scheme for the City of Dickinson which can be applied to physical elements such as (but not limited to) municipal signage and monumentation, and streetscape elements.

Initiatives and Actions:

1. Beyond a two-dimensional representation, which is useful for signage, City letterhead, email signature blocks, baseball caps, work shirts, etc., ensure that the City's brand / logo can be applied as a three-dimensional form.
2. As with the City's current logo, extrapolate imagery and elements that are unique to Dickinson, such as the Dickinson Bayou and the abundance of trees in parts of the community.

Strategy 2.2.2: Develop a comprehensive wayfinding signage program to improve accessibility to the City's key destinations.

Strategic urban wayfinding signage is an absolute requirement for facilitating growth around new developments and restored neighborhoods. Wayfinding signage elements also serve as valuable brand touchpoints that consistently communicate the City's preferred identity.

Initiatives and Actions:

1. Utilizing the Project for Public Spaces' Powers of 10+ principal, identify a series of 10 destinations within Dickinson. These may be historically significant structures, shopping and dining establishments, popular parks, notable bayou access points, etc. Include these destinations on a map, which can be located as a sign and the City's entrances; can be included on the City's, Chamber of Commerce' and EDC's website, and elsewhere.
2. Develop directions to the destinations; identifying important landmarks and corridors, and places where one needs to change direction or take a different route.
3. Identify unique wayfinding signage and locate at those junctures where a sign would be useful in maintaining one's confidence that they are heading in the right direction.

Strategy 2.2.3: Develop directional signage along Interstate 45 encouraging people to come and visit the City of Dickinson.

The IH-45 northbound and southbound off-ramps that lead to Dickinson are located quite a distance away from the actual City entrances; and unless a driver has been notified, it is very easy to pass by the off-ramp and miss the opportunity to drive-in to the City. The IH-45 northbound off-ramp is Exit 17, which is two miles south of FM 517. The next northbound off-ramp that will enable drivers to access Dickinson is three miles north at Exit 20; which will enable drivers to access Sunset Drive and travel eastbound to SH 3. The southbound off-ramp is Exit 19, which is one mile north of FM 517 and provides drivers access to FM 517. Beyond Exit 19, the next southbound off-ramp that will enable drivers to access Dickinson is four miles further south at Exit 15; which will enable drivers to make a u-turn and travel north along the northbound frontage road to Hughes Road, or further north to FM 517.

Initiatives and Actions:

1. Work with TxDOT to determine where Dickinson wayfinding/directional signage can be located within the I-45 right-of-way, at least one-half mile before the northbound and southbound exits.
2. Consider the potential of locating an attractive "Welcome to Dickinson" billboard on private property adjacent to the I-45 frontage roads prior to the off-ramp exits.



San Ysidro pedestrian wayfindings signage
Source: RSM Design

Objective 2.3: Promote Public Art.

For many people, our common cultural understanding of the term "art" calls to mind famous works in museums or expensive galleries. But art isn't exclusive to select spaces or produced by only a few artists. It isn't just something beautiful or interesting to view. Art can be a powerful community-building tool. Public art, which artists create and locate based on community input, is one way community leaders can enhance the character of commercial districts and neighborhoods. It's a type of placemaking, or a strategy for equitable community development that centers the needs of people and communities in designing shared public spaces. Public art allows historically marginalized and disinvested communities the chance to develop and express local culture and artistic voice. Additionally, placement of the art within, or in proximity to, residential areas enables residents to easily access and enjoy these artworks daily. [10]

Implementing public art across Dickinson will strengthen the town's identity while also creating more vibrant and attractive spaces for residents to gather and connect.

Strategy 2.3.1: Develop a public art program in Dickinson.

Enhance the character and place qualities of Dickinson's commercial nodes and neighborhoods. Elevate creative capital through supporting Dickinson's creative sector, including local artists and creative businesses. Stronger creative capital will not only help promote arts and culture within Dickinson, but will also support the city's economic growth.

Initiatives and Actions:

1. In partnership with the Dickinson Art Guild, establish policies, procedures, potential projects, partnerships, and on-going funding to administer a municipal public art program.
2. As outlined in Strategy 9.1.3 (page 2.160), establish a Public Art Commission.



Galveston large chess art installation
Source: Go Pet Friendly



Interactive artistic sculture at a playground
Source: Friends of International Children Park



Rosenburg, Texas, Christmas tree and public art mural
Source: City of Rosenburg



Public art installation helps cool off park goers with water in Houston
Source: Buffalo Bayou Partnership

10:Young, C., 2022. How Public Art can improve Quality of Life and Advance Equity. Housing Matters: An Urban Institute Initiative.

Strategy 2.3.2: Consider adopting a Percent for the Arts Ordinance.

Percent-for-art programs allocate a small portion of capital construction or renovation budgets (usually one percent) for the purchase, commissioning, and installation of artwork. Percent for art programs are one effective way for municipalities to foster access to the arts and increase the aesthetic value of municipal buildings and public places. In the U.S. there are more than 350 percent for art programs. A public development percent-for-art policy and program dedicates funds from a jurisdiction's capital budget towards the development of public art projects as part of publicly funded capital improvements (also referred to as civic art). There are several ways in which this funding can be generated:

- levying a percentage against hard and soft capital project construction budgets;
- allocating a fixed amount of the municipality's capital budget for public art (typically one percent or more);
- partnering with other government departments, such as planning, public works, and parks and recreation to maximize funding by integrating public art into public infrastructure such as streetscape improvements, public seating, and public transit improvements; and
- partnering with regional partners, such as a business improvement district, main street association, regional transit authority, or academic institution to secure matching funds and to integrate the public art into projects in public spaces.

While a majority of civic art programs operate within government agencies at the municipal, regional, county, or state levels, some are operated by external nonprofit organizations. This model may be advantageous as it may strengthen fundraising from non-government sources and may minimize political interference in the creative decision-making process.[11]

Establish an ordinance whereby a percentage (typically one to three percent) of the cost of public construction projects is devoted to the development of public art associated with the project.

Initiatives and Actions:

1. Identify communities that have a percent of the arts program and review the ordinances that establish the program. Have the City's Legal Department draft a sample ordinance for Council consideration.



Painted pillars at a University of Houston major gateway
Source: University of Houston

Strategy 2.3.3: Continue to incorporate public art and distinctive design into civic spaces and public rights-of-way.

Promote the development of public art, murals, fountains, and distinctive landscaping into public spaces as a means to promote community identity, provide economic opportunities for community creatives, and enhance the sense of place.

Initiatives and Actions:

1. Inventory the public surfaces and elements in Dickinson that might be embellished with, or replaced with public art. Surfaces may include the columns of bridges; walls; streetscape furnishings, including benches, lighting, bike racks, and waste receptacles; and crosswalks (refer to Strategy 8.4.4, page 2.156)

Strategy 2.3.4: Consider developing a mural assistance program, prioritizing businesses within Dickinson's Downtown City Center.

Murals create vibrant districts that people want to visit, live in, and maintain. Murals add color to building walls and streets that would otherwise go unnoticed, which is a treat for locals and tourists alike. Murals attract new local businesses, help bring customers to pre-existing locations, and boost the economy of an area. Some cities even offer walking/biking public art tours as a great way to interact with a city and its art. Murals also act as collective thought spaces. Murals encourage you to slow down and admire your surroundings. They can create dialogue around a subject or community issue through what they depict.[12]

Initiatives and Actions:

1. Identify blank building walls and other vertical and horizontal surfaces which may be adorned with murals and graffiti to further enhance the artistic character of Dickinson's Downtown City Center.

11:Arts and Planning Toolkit. What is Percent for Art? Available at: https://artsandplanning.mapc.org/percent-for-art/.

12: ProductCare Recycling, June 06, 2022. The Importance of Community Murals



Lighting installed under a Bridge in San Jose, California
Source: Dan Corson Studios

Strategy 2.3.5: Develop a Mini Murals Program utilizing traffic signal control cabinets.

Several cities around the region have created Mini Murals programs to paint the traffic signal control cabinets (TSCC) in their downtown and special districts. This is a relatively low-cost, simple way to add color to and improve the aesthetic of traditional infrastructure that is everywhere but typically goes unnoticed.

Initiatives and Actions:

1. For more information on how the City of Dickinson can establish a TSCC Program contact the Houston Mayor's Office of Cultural Affairs (Cultural.Affairs@houstontx.gov).
2. Develop a Mini Murals Program Artist Registry website where local and regional artists can apply to participate in the program.
3. Develop a map of all the traffic signal control cabinets in the City. As TSCCs are painted, develop a web-based TSCC tour map and guide that identifies the location of the TSCC Mini Murals, describes the art, and provides some background about the artist.



League City painted traffic control boxes
Source: City of League city

Yorkshire Sculture Park
Source: Yorkshire Sculture Park

Strategy 2.3.6: Consider developing a mobile cultural arts program.

As many schools do not have the facilities or physical resources (i.e., studio space, stages) through which to showcase the process of making art and sculpture, and the power of performance art and theater, consider developing a mobile art program, or art bus, which would be similar to a book mobile, and would travel from one school to the next, with a short-term arts / performance program that could easily be retrofited into a school's academic curriculum.

Initiatives and Actions:

1. Partner with Dickinson ISD to research educational programs around the country to identify similar mobile arts and theater programs to use as case studies for building a similar program for schools within the Dickinson ISD.



Artist paints alley wall during the 28th annual ArtWalk in Alpine, Texas
Source: Big Bend Sentinel



Community Strategies and Recommendations

Goal 3.0 Economic Performance :

A diversified economy assures desirable local employment opportunities, strengthens the city's tax base, and sustains quality of life.



On Economic Performance

The Dickinson Comprehensive Plan establishes the community's policies and priorities regarding future development while aiming to preserve the environmental features which enhance the community's character. The City's Economic Development Strategic Plan provides an in depth review of the local and regional economy; identifies strategies, programs, and projects to improve the economy; and establishes policy direction for resilient economic growth. In turn, the various elements of this Comprehensive Plan support and complement the economic development objectives of the City. Dickinson's businesses and residents rely on supporting land uses, transportation, and utilities infrastructure to sustain existing businesses and service providers and to advance economic development programs and initiatives. Together the Comprehensive Plan and Economic Development Strategic Plan should serve as the "Economic Strategy and Roadmap for Tomorrow," and reflect a community's desired physical, economic, and social growth.

Community Economic Drivers

Many groups and organizations can exist in a community to benefit and help grow local economic performance. Below is a list of common stakeholders that cities and businesses should engage with to optimize possible economic outcomes:

- Chambers of Commerce
- Non-profit organizations
- Visitors and tourism bureaus
- Local small business organizations
- Major employers
- County, Regional, and State officials
- Colleges, Universities, and Academies
- Civil society / Community members
- Transit and port authorities
- Property developers
- Local media and news institutions
- Land and development policy makers
- Housing associations
- Utility service providers
- Sustainability and environmental departments
- Major landowners
- Competitors / Equivalent regional communities
- Financial institutions / Banks
- Disability and social service organizations
- Small business development and start-up organizations
- Local policy and taxation authorities
- Sports leagues, religious organizations, and other regional groups

Economic Development Ecosystem

An economic development ecosystem consists of a well-thought-out network of interconnected organizations and institutions, within a defined area (city), that collaborate to enhance the economic well-being of a community. An economic ecosystem thrives when participants collaborate by communicating, coordinating, and sharing. Thus, streamlining the flow of ideas, talent, and capital throughout the system.

In a community, economic outcomes greatly improve when developing collaborative systems. Therefore, economic developers should:

- Identify organizations and relevant stakeholders that provide direct and/or foundational support for economic development-related initiatives and programs.
- Identify opportunities or constraints that need to be addressed to increase economic growth.
- Invite a coalition of supporters to a project or initiative in order to realize opportunities or remove constraints, allowing for public-private partnerships and other partnership opportunities.
- Foster entrepreneurship. Dickinson should be positioned as a place that is friendly and supportive of new enterprises by offering a full array of financial and programmatic resources to new businesses.
- Focus on place-based strategies. Nuanced, place-based strategies are typically more effective than off-the-shelf, "best practices." While there are indeed some universal programs and activities that most cities should adopt simply to stay apace of the competition, these alone will not yield remarkable results unless paired with a more unique, place-based strategy.

Each ecosystem is unique and the result of the hundreds of elements interacting in complex ways. However, there are some basic elements that tend to appear in most ecosystems, including: (1) physical space; (2) business incubation services; (3) partnerships with governments, universities, and business organizations; and (4) some form of government fiscal support.

> "Transformative infrastructure is infrastructure that provides lasting social and economic value for all, produces long-term prosperity for generations to come and creates the conditions to transition towards a resource-efficient, sustainable economy. It's designed with the flexibility to respond to future trends and challenges, able to adapt to technological improvements, and incorporate better solutions as they become available. Transformative infrastructure is socially inclusive, beneficial to the greatest number of people. Infrastructure designed and implemented in this way will provide maximal utility to the largest number of people, increasing its stimulus effect and facilitating the goal of a more equitable world."
>
> – Global Infrastructure Hub

Stakeholders

Identifying and engaging relevant stakeholders within a particular economic development ecosystem enables employers, workers, and communities to grow and thrive. To discern which individuals and organizations should be invited to contribute within the economic development ecosystem, begin with those able to drive change through resources such as Financial Capital, Human Assets, and Staffing Resources.

Stakeholders to consider include:

- Organizations that drive efficiency
- Niche organizations that are critical to your efforts
- Investors that will provide visibility and leverage
- Stakeholders who contribute products, services, and other value



Major existing Dickinson economic region at Interstate 45 and FM 517
Source: NearMap Imagery

Sites and Buildings

Coworking and live-work spaces are new forms of building entrepenuership and the economy. Coworking spaces are membership-based officing where small businesses, startups, and telecommuters conduct their individual work in a shared or partially private office environment. The first coworking space was founded in 2005 in San Francisco, now with over 12,000 coworking spaces throughout the world. A city should ensure that retail, commercial, and coworking spaces are available. The size and scale of work spaces and buildings should provide affordability and utility for local residents to start businesses and grow the economy locally. This will help a City diversify their tax-base, become less reliant on non-local national retailers and large office complexes, grow local entrepenuership, and increase quality of life.



Located at Main Street and Video Street along FM 517, these three buildings picuted above are some of the only Downtown structures still standing built prior to 1940. The yellow building at 2822 Main Street was once the old Dickinson Bank building in the early 1900's. The shops are walkable and provide small spaces for local businesses in a highly visible location with parallel front parking.
Source: Galveston County, Google Street View

Incentives and Business Support

Business accelerators and incubators provide innovative, early-stage entrepreneurs with resources, facilities, and expertise to help them develop their business plans and seek financing. They play an important role in the venture capital system, helping innovators gain strategic advantage in a competitive international marketplace. Incubation and innovation centers have shown a positive return on investment in dollars, new jobs, company retention, and increased attractiveness. The Economic Development Administration of the U.S. Department of Commerce has shown that business incubation has a much larger economic impact and return on investment than other forms of public infrastructure expenditure. They report that incubators can provide up to 20 times more jobs than infrastructure projects such as water and sewer improvements.

Infrastructure

Investment into utilities and communications infrastructure can have a strong impact on economic growth and can play a key role in supporting economic recovery and stability. Investing in the right kind of infrastructure can have transformative outcomes for people and the environment.

To have the greatest impact on stimulating economic recovery in the short-term and lasting stability in the long-term, infrastructure should be sustainable, resilient, and inclusive. This type of transformative infrastructure can help produce prosperity for all.

Guiding Principles

Economic Development Principle 1: Support good planning practices that lead to Economic Development.
Attract companies by attracting talent. Attract talent by managing land development, maintaining great schools, and making strategic investments in quality public services, amenities, and things to do.

Economic Development Principle 2: Nuanced, Place-based Strategies are More Effective than Off-the-shelf "Best Practices."
Leverage and maximize assets to create programs relevant and of interest to the community.

Economic Development Principle 3: Maximize Indigenous Growth.
Support the expansion of existing local companies and new start-up activity.

Economic Development Principle 4: Foster Entrepreneurship. Promote continued and successful entrepreneurship and funded programs and facilities.

Objective 3.1: Provide a sound basis for economic growth and stability by attracting a variety of new employment opportunities and providing smaller commercial spaces, to provide local residents with greater job options, grow Dickinson's tax base, and to reduce commuting.

The Economic Performance Vision

- Provide the training and knowledge-based resources necessary to retain a highly skilled workforce.
- Reduce barriers to economic growth, while recognizing regulatory function.
- Expand economic opportunity and improve economic equity for Dickinson's growing population through sustained business growth
- Provide a number of small-scale leasable spaces for business start ups
- Utilize City plans and TIRZ districts as a means to grow and stabilize the local economy
- Provide technical and financial assistance to promote sustainable operating practices
- Provide diverse modes of transportation to employment areas and commercial zones by way of public transportation, trails, sidewalks, personal vehicles, and bicycle lanes



Walkable commercial zones can reduce commute times and distances.
Source: GD&B Magazine

Strategy 3.1.1: Utilize the Comprehensive Plan to guide future growth and development and ensure a balanced and diverse local economy.

Initiatives and Actions:

1. Follow the Future Land Use Map guidance for zoning and development decisions. The new plan was designed to ensure that the strategic direction for the community is rooted in the preferences of the public's vision for the future. Land uses and recommendations for decision-making, appropriate land use, character and code direction can be found in Chapter 4 of this plan. The plan, taken as a whole, provides certainty for investors and decision-makers seeking to enhance the city. Staff, the Planning & Zoning Commission, City Council, along with property owners and developers should use the Future Land Use Map as context for future planning and development decisions.
2. Implement the comprehensive plan's design character framework to ensure appropriate design characteristics. This guiding principle will maintain the predominantly suburban character throughout most of the community, with quality transitions to higher-density urban development focused around Downtown and key activity centers and rural development focused south of Dickinson Bayou. Ensure that the zoning and development codes are adjusted appropriately with the character-based approach integrated into districts and areas on the zoning map.

Strategy 3.1.2: Prioritize value-intense development within the boundaries of the Tax Increment Reinvestment Zone (TIRZ) financing districts.

In order to maximize revenue for public improvements and enhancements in the vicinity of IH-45 and FM 517 and the new City Center Downtown District, the City should insist on land uses and development types that provide high value per acre. This means high-density mixed uses in line with the urban character of the area which will to ensure value to fund on-going public improvements.



High-density mixed use development.
Source: Multi-family Executive Magazine

Strategy 3.1.3: Expand commercial tax base through strategic investment, support for local businesses, and partnerships with regional economic entities.

A diversified commercial tax base is important for a community to balance the tax burden, keep local spending in Dickinson, and to provide the opportunity for good jobs. Actions taken to support local business through zoning and marketing encourage investment and larger efforts (e.g., strategic recruitment of businesses) and also support the tax base because secondary businesses generally follow. Support the success of existing businesses and cultivate a robust entrepreneurship and innovation eco-system. Encourage the construction of a range of commercial and retail spaces that are use-flexible with access to amenities. These can include small business parks, incubation space, limited manufacturing, in addition to supporting small retail businesses. Facilitate education about small-business loans, grants, and other financial tools. Work with the Chamber to ensure communication and partnerships. The City should develop and track performance of all of its major employers and small businesses. Incubators should focus on targeted industries and businesses that can be seeded and grow over time. This could include a nursing program to support medical, culinary incubator to help create unique destination restaurants to anchor downtown, or technical programs that can help improve local talent for major industries. A separate feasibility study, in partnership with the EDC, could help narrow down the focus and needs for Dickinson.

Devise a unique Dickinson "shop local" strategy. An effort to encourage Dickinson residents to spend locally and support small businesses will instill community pride and, more importantly, keep doors open and further strengthen the tax base. As more and more commerce occurs online, and increased remote work environment changes business patterns, it is more important than ever that the City and Chamber work to help existing and prospective businesses grow and expand. Shop-local strategies may also include Small-business Saturday promotions and additional community events that offer sponsorship and participation opportunities for local businesses.



Small business corridors can help keep local spending in Dickinson.
Source: Architectural Digest

Strategy 3.1.4: Aggressively market and cultivate both large, high-wage employers and smaller, locally-owned entrepreneurial businesses and startup firms.

The City's recruiting efforts should target a variety of large and small companies who desire to establish roots in the community, provide primary jobs in Class A office space, and keep daytime spending in Dickinson. This ensures that all residents have opportunities to participate in the City's economic success.

Strategy 3.1.5: Maintain and implement fiscal, administrative and regulatory policies and processes designed to stimulate increased economic activity and investment in the City.

Policies and procedures that are clear as to the desires of the community will encourage investors to pursue a diverse mix of uses and high-quality amenities for regional draw potential. Dickinson should strive to maintain a regulatory environment that has clarity and flexibility paired with a willingness to guide developers towards achieving success.



High-quality places and amenities can attract investors and visitors.
Source: Urban Land Institute



Encouraging residents to shop at small businesses instills community pride.
Source: Reader's Digest

Strategy 3.1.6: Utilize partnerships to assist in the effort to prepare economic development sites for employment.

The City can do its part to create a plan and environment so that the private market can capitalize on the opportunities. However, the City alone cannot bring projects to fruition. Partnerships are critical to ensuring conditions for success.

Initiatives and Actions:

1. Engage with landowners to encourage quality desired development in Employment Center and Activity Center areas. Landowners within these areas hold strong influence as to the ability to retain available land within the community targeted for employment-focused development. This relationship should be one of partnership and not adversarial, with zoning and infrastructure alignment being first and foremost.
2. Develop marketing and branding material that responds to key information needs of site selectors, brokers, developers, and targeted prospects. Maintain good relationships with landowners and make investments in capital infrastructure necessary to reduce costs to make these sites shovel-ready. Major economic development opportunities are rare, they are time-sensitive, and are highly competitive. If Dickinson is not prepared, other cities will benefit.
3. Consider methods of public-private partnerships and cost-sharing. Every available tool should be considered to facilitate desired land uses and anchors. Ensure that staff is trained on the latest programs, trends, and legislation.



Employment and activity centers encourage economic growth.
Source: Paper City Magazine



Vanguard Entertainment Group performs live jazz during brunch at Lucille's
Source: Chron

Strategy 3.1.7: Create an arts and performances program to link artists with local businesses to host small events such as live music, poetry readings, gallery showings, and other arts-based community activities.

Develop a program within the Dickinson Chamber of Commerce to work with local businesses and restaurants to provide rotating art exhibits and showcasing small performances. It should be noted that in 2019, the Texas Music Office published an economic impact report of music in Texas, and found that music-related business accounted for 184,260 jobs, over $300 million in tax revenue, and over $5.9 billion in earnings in 2018 alone.

Initiatives and Actions:

1. Identify private businesses that may be receptive to allocating wall space for an art exhibit; or restaurants, such as Marais, that may be willing to provide stage space for a small jazz trio to play during a weekend happy hour.
2. Work with Dickinson Chamber of Commerce and the Dickinson Economic Development Corporation (EDC) to link the artist with the business, and promote these events.



Jazz in the Park program hosted by Preservation Utah.
Source: Preservation Utah

Community Strategies and Recommendations

Goal 4.0 Growth Capacity :

Fiscally responsible and carefully managed development is aligned with growth expectations and sequencing and is in concert with the City's ability to deliver infrastructure and services in a safe, timely, and efficient manner.

Objective 4.1: Ensure adequate infrastructure capacities to support new development and redevelopment.

Potable Water, Sanitary Sewer, and Stormwater Utilities Infrastructure

As discussed in Appendix A, The Existing City, the average daily potable water use in Dickinson is approximately 54 percent of daily contracted capacity, which means surplus daily potable water consumption capacity can support up to 40 percent additional growth. There are, however, a series of systemic issues that need to rectified. A vast number of dead-end water lines require continuous flushing to maintain water quality. Water tanks require frequent agitation to prevent water stagnation. Inflow and infiltration-related ("I & I") issues require stormwater to be treated, which adds unnecessary burdens to wastewater treatment facilities. Utilities infrastructure capacities are undersized from IH-45 extending westward.

The water main along FM 517 West of IH-45 is undersized resulting in decreased service reliability to the western half of Dickinson. Dickinson's wastewater treatment plant (WWTP) currently operates at approximately 37 percent of total treatment capacity, which means surplus daily wastewater treatment capacity can support up to 53 percent additional growth.

Additionally, a significant amount of sanitary sewer pipe replacement is required throughout Dickinson due to "I & I" issues which forces collection systems to carry and eventually treat more water flow than they are designed to handle. Approximately eight miles of cast iron and six miles of asbestos concrete piping need immediate replacement due to damage resulting from excessive storm events.

The preferred condition would be for transmission lines in Dickinson to be part of a continuous, contained and looped system that reaches all residents. The City needs to work with Galveston County Water Control & Improvement District No. 1 (GCWCID#1) to develop a phased utility line replacement program as a component of its capital improvement plan, whereby aged infrastructure can be replaced with pipes of a consistent material. Main trunk lines need to be adequately sized to support anticipated new development and redevelopment. Residents should not have to rely on septic tanks or well water.

During the planning process of Activity Centers and the Downtown City Center, the level of service and impact of increased development will have on existing electrical, potable water, and sanitary sewer utilities needs to be reviewed. Utilities along FM 517, particularly west of IH-45 are currently undersized and will require upgrading. Utilities along other major thoroughfares such as FM 646 and Dickinson Avenue may also require upgrades.

On Growth Capacity

Growth capacity considers the conditions upon which the City can ensure the provision of adequate utilities infrastructure and public services will accommodate new development. High-quality and dependable public services, including clean water, reliable sanitary sewer, and stormwater management are essential to the City's future growth. Cost-effective and reliable services improve quality of life, affordability, and make Dickinson a more attractive place within which to do business and live. Well-built and well-maintained facilities will help the city recover from damaging natural events and emergencies.

Beyond communications, trasnportation, and utilities infrastructure, a city's public facilities include parks, civic buildings, and municipal services. Infrastructure and facilities include extensive networks of streets and pipes, parks, and natural areas, which jointly manage stormwater and flooding as well as help provide places for recreation. Public services include public transit, police, fire, and emergency response. Other services, typically provided by third-party entities, include communications infrastructure, electricity, natural gas, public schools, libraries, and municipal solid waste pickup and recycling services, all of which are essential for households and businesses.

Public agencies aim to provide basic services to all. However, not all services are distributed equitably across the city. The agencies charged with managing public facility systems must balance the need to maintain existing services and infrastructure with the need to bring new or improved services to newly developed areas of the city, to underserved and under-represented communities, and to new residents and businesses. In addition, these improvements must be made in ways that meet federal, state, and regional regulations.



Example of open drainage swales, sidewalks, and shoulder facilities along a narrow right of way.
Source: City of Lincoln

Typical Drainage Method



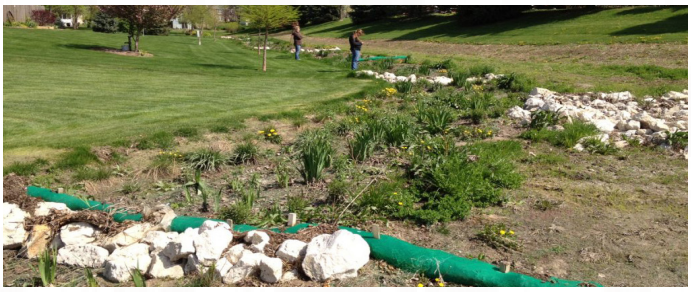
Source: SEA Street



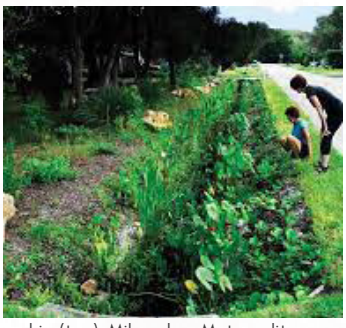
Source: SEA Street

Typical drainage methods include dirt or concrete lined channels with reinforced sides found along roadways or low elvation points. The idea is to move water as quickly as possible to drains or larger channels without inundating the neighboring parcels and thoroughfares. Drawbacks may include increased erotion causing blockages, unattractive ditches, unsafe shoulder drop-offs for vehicles, increased need for water filtration due to street run-off, and limited water absorption capacity.

Alternative Drainage Method







Source: Iowa Stormwater Education Partnership (top), Milwaukee Metropolitan Sewerage District (left), Three Rivers Green Solution (right)

As will be discussed, alternative drainage methods include adapting existing drain channels to include water absorbing and filtering vegetation. This includes low-impact development (LID) micro-detention strategies, tools, and techniques, including bioswales and rain gardens, detailed in the Green Infrastructure section of this chapter, on page 2.111. Utilizing natural depressions and vegetation to emulate pre-hydrological conditions is an attractive way to increase biodiversity, guide water, and integrate natural flood preventative processes into already engineered facilities.

Utilities Infrastructure

Potable Water

The availability of potable water will influence the timing, location, density, and intensity of new development. Planning for the extension of these services is key to accommodating population growth in a city and for the realization of the Future Land Use Plan. Infrastructure expansion, often used as a growth-management tool, can be a limiting factor if not taken into account during the early planning and design phases of future developments.

The geographic extent of Dickinson's potable water system is displayed in Map 7 of the Existing City Report. An additional one-quarter mile buffer on either side of the system's principal trunk lines indicates the system's primary expansion area to support projected growth in the event of future economic development opportunities. In terms of sanitary sewer capacity improvements, a significant amount of pipe replacement and rehabilitation is needed throughout the GCWCID service area to support future wastewater treatment needs of a growing service area without compromising existing level of service standards.

Wastewater and Sanitary Sewers

Adequate wastewater treatment capacity and disposal is essential for all new development. In most urban areas, a system of sanitary sewers conveys wastewater to a treatment facility. After treatment, the effluent is either recycled as biosolids (where permitted) or is discharged into surface water or a pervious recharge area for an underground aquifer. Less developed areas use on-site septic systems or package treatment plants. Refer to the Utilities Infrastructure section above for additional information.

Flood Mitigation

Flooding can cause significant damage to property and personal belongings. For communities to protect themselves from flooding, it is essential to be aware of the different types of flooding and know how to mitigate their effects. Flood mitigation is a process that helps reduce the potential for flooding by identifying and addressing risks. It can take many forms, including coastal protection, land-use planning, engineering and construction, and public education.

It is important to understand the effectiveness of individual measures in terms of flood mitigation impact when considering structural and non-structural solutions for flood mitigation. Depending on locality and the nature of the flooding, structural and non-structural mitigation measures may be available. However, flood mitigation measures may only lessen the impact of flooding. No amount of intervention can stop heavy rain or high tides.



Source: NearMap Imagery

Structural Mitigation Techniques

- Levees are embankments made of earth and stone to prevent the flooding from a free-flowing body of water.
- Flood Walls are constructed concrete, wood, or steel structures to protect land from eroding shorelines.
- Dams are primarily meant to retain water, not to manage flood water. A dam can also produce hydroelectricity and regulate water levels.
- Reservoirs are man-made lakes which can slow the flow of water into the system. Reservoir can be used for fresh water and preserves for fish and wildlife.
- Fills are areas of land dug out usually behind a levee to capture excess flood waters and prevent flood damage to human structures.
- Altering stream channels can help increase carying capacity and speeds of water flow.
- Reducing bed roughness of channels and ditches reduces chances of blockages reducing the likelihood of a flood



Dickinson street drainage clearing and piping improvements in 2022
Source: Halff Associates

Non-Structural Mitigation Techniques

- Floodplain mapping and planning by local municipalities to create a comprehensive and hazard mitigation plan.
- Land use planning and zoning tools such as restrictive zones, required mitigation, updating design standards, and environmentally based development approval.
- Educating residents and businesses of their locational risks and how to decrease the risk of being a flood victim.
- Environmentally sensitive area protection of natural resources such as wetlands by preventing the development of certain areas.
- Flood forecasting and warnings methods such as a stream gauge, water level monitoring, and impact assessments.

Map 2.7, Bayou Character and Choke-Points, on page 2.78, depicts the flood plains of Dickinson and its hydrological systems. As depicted, existing wetlands, retention ponds, and canals / ditches are the first line of defense against storm waters before reaching larger Bayous. Approximately half of Dickinson Bayou's shoreline comprises of man-made or man-altered sides, including walls and dredged berms. Half of Dickinson Bayou's shoreline has remained natural and allows for slight inundation of waters into wetlands and water absorbing vegetation. The largest concentration of choke-points (confluence zones and bridge crossings) exists along the Dickinson Bayou between Interstate 45 and Highway 3. Water levels and impacts in this area of the City should constantly be monitored, as the area also has a majority of Downtown Dickinson and critical City facilities.

Stormwater Drainage and Conveyance

The City collects and transmits stormwater primarily through roadside ditches (some streets have curbs and gutters), catchment basins, and storm sewers throughout the City. The storm sewer system collects and conveys stormwater by way of drainage channels into local waterways, including Dickinson Bayou and its tributaries. Newer development is served by streets with curb and gutter, and subsurface storm sewer systems; but also includes on-site surface detention facilities that reduce the rate (volume and velocity) of stormwater runoff and enables suspended particulate matter to settle out before it is discharged into local waterways.

Conveyance Improvements

As summarized in The Existing City report, a drainage diversion channel is being planned east of IH-45 to divert floodwater from Dickinson Bayou, along Hughes Road, and reconnect to the Bayou further downstream. As will be discussed, there is warrant for evaluating dredging the Dickinson Bayou and its tributaries to improve conveyance capacity; and addressing bridge crossings and other constrictions which impede floodwater flow.

Detention/Retention

Stormwater detention and retention can reduce stormwater volume and the likelihood of flooding along waterways by temporarily detaining stormwater until water levels resume to normal. According to The City of Dickinson's Drainage Criteria Manual regulations, on-site stormwater detention is required for all new development. Regional detention ponds are being planned along Benson, West Gum and Magnolia Bayous.

Dickinson Bayou Development

Natural Flood Buffers

Housing located closer to bodies of water are at increased chances of flooding. Many residential properties have retaining walls, clear cut landscapes, and/or elevated land to prevent flooding, although this creates the issue of the *down-river effect*. The *down-river effect* occurs when a section of a rivers frontage is artificially raised or retaining walls are built, which pushes flood waters to other shorelines along a river which remains at natural elevation. This can overall make flooding worse for land adjacent to the river and can also create a repeat cycle of building retaining walls, until the rivers natural edge has eventually disappeared.

Bayou Bend Estates and Bayou Maison subdivisions are built with houses directed abutting the Dickinson Bayou which can reduce the City's capacity for flood water retention. These subdivision also had a large number of trees clear-cut for development reducing the amount of tree canopy, shade, and water storage capacity. The Bayou Lakes subdivision is built to reduce flooding for residents. Houses are placed at minimum 750-feet from the bayou. Retention ponds were created to store water during highwater events reducing the chances of flooding in the neighborhood. A 300 to 400-foot tree canopy buffer was also preserved. This development style not only helps prevent erosion and maintain the existing character of the area, but also provides opportunities for trails and parkland along Dickinson Bayou.



Base Map Source: NearMap Imagery



The Watonga Prairie along the Bayou Greenway in Houston, Texas, replaces a previously created meadow with more natural prairies to provide habitat for pollinators, butterflies, and bees.
Source: Texan By Nature



Solid waste facility outside Houston, Texas.
Source: Houston Chronicle



Access to health-related services is essential for communities to thrive.
Source: The Rural Health Information Hub

Green Infrastructure.

As discussed in the Green Infrastructure section, low impact development (LID) strategies, tools, and techniques can be utilized to reduce the impact of localized flooding. Additionally, parks and open space areas devoted to recreation can also serve to temporarily retain stormwater, preventing flooding elsewhere. LID techniques and "sponge parks" utilize vegetation to absorb excess stormwater (and other pollutants). Trees that comprise the City's urban forest canopy are also effective in absorbing stormwater and reducing the the impact of flooding. The City should encourage the planting of large trees as part of stormwater mitigation efforts. Refer to the *Green Infrastructure* section for additional stormwater planning and Low Impact Development Strategies on page 2.118.

In Dickinson, various projects are underway or have been recently completed to improve floodwater conveyance capacity. As part of ongoing roadway improvements, roadside surface drainage capacity is also being improved through replacing undersized culverts and damaged infrastructure.

Community Facilities and Services

Community facilities and services are essential in supporting a community. These are often linked to initiatives and programs formulated to engage citizens. Community services are diverse and often embody the following areas:

Solid Waste Disposal and Recycling

Solid waste disposal is regarded as an essential service. Its availability for supporting a newly proposed project is an essential determinant of whether a project should proceed. Generally, trucks transport solid waste materials to a common, usually remote, site for either recycling, compost, burial/disposal in a sanitary landfill, or incineration (where allowed). The following factors should be considered when assessing the service:

- The proximity of the service to appropriate disposal sites.
- The disposal site capacity to accommodate the types and quantities of wastes that the project may generate both during construction and upon completion.

The likely disposal site's climate resilience, including its susceptibility to erosion and flooding from sea level rise.

Health and Wellness

Health care services are those regular and emergency dental, medical care, mental health, and substance abuse services which private doctors, dentists, and other trained medical staff at a hospital; outpatient clinic; public, private or community health facility; home-care medical programs; or an emergency treatment facility (e.g., trauma unit, special cardiac pulmonary resuscitation (CPR) unit) provide.

Public Safety: Police, Fire, and Emergency Medical

Adequacy of existing fire, police, and ambulance services should be considered for the project site. Although many communities have sophisticated protective services, the consistency of adequate service differs from place to place. Within communities, one site may be better served than another.

Factors in the variability of protective services include the availability of funds for additional coverage and the degree to which building, and growth are coordinated with the provision of new municipal services. Key variables within each city are emergency equipment, emergency service personnel, response time, and access. These factors influence the availability and adequacy of required emergency services.

Parks and Recreation Facilities

The development of community services such as open space, recreation, and cultural resources is a key component of community development. Whether these facilities are government-owned, such as public parks and libraries, or private entities, such as YMCAs and private gymnasiums, they contribute to the quality of life and quality environment of a community and are essential to the continuity of a viable neighborhood.

Demand and supply for specific recreation and cultural facilities is a function of factors that include the size of the community, density of development, income, and demography. Communities, like Dickinson, with a large percentage of children (31% under 18 years of age as of 2020) have greater needs for active recreational facilities than communities with many elderly or persons with disabilities, who may prefer passive recreation.



Access to youth sports and community recreation opportunities are key components to healthy community development.
Source: The Woodlands Online

Transportation and Accessibility

Transportation systems include various components that collectively facilitate the movement of goods and people to and throughout the community. These systems should consider four elements:

- Access: users must be able to reach a destination within reasonable limits of time, cost, and convenience.
- Safety: system design plays a strong role in safety, particularly elements such as traffic signals, turning lanes, and railroad grade crossings.
- Balance: a balanced transportation system offers and encourages the choice of travel mode, namely, by automobile, bicycle, walking, public transit, or a combination of modes.
- Level of Service (LOS): this addresses several operational factors including speed, travel delay, freedom to maneuver, safety, and frequency/hours of operation.

More information on mobility, accessibility, and transportation can be found under the *Mobility* section on page 2.113. Refer to Goal 9, on page 2.159, for community facilities and services strategies.

Guiding Principles

Growth Principle 1: Support good planning practices that lead to Economic Development.
Attract companies by attracting talent. Attract talent by managing land development, maintaining great schools, and making strategic investments in quality public services, amenities, and things to do.

Growth Principle 2: Nuanced, Place-based Strategies are More Effective than Off-the-shelf "Best Practices."
Leverage and maximize assets to create programs relevant and of interest to the community.

Growth Principle 3: Maximize Indigenous Growth.
Support the expansion of existing local companies and new start-up activity.

Growth Principle 4: Foster Entrepreneurship.
Promote continued and successful entrepreneurship and funded programs and facilities.

Strategy 4.1.1: Continue to plan ahead of growth through integrated utility infrastructure planning.

Dickinson does not provide potable water or sanitary sewer utility service within the community, but has a responsibility to assist partners and provide leadership through coordinated planning. The directives of this plan should form the basis for identifying priority infrastructure investments and facilitating integration with other providers, such as the GCWCID#1.

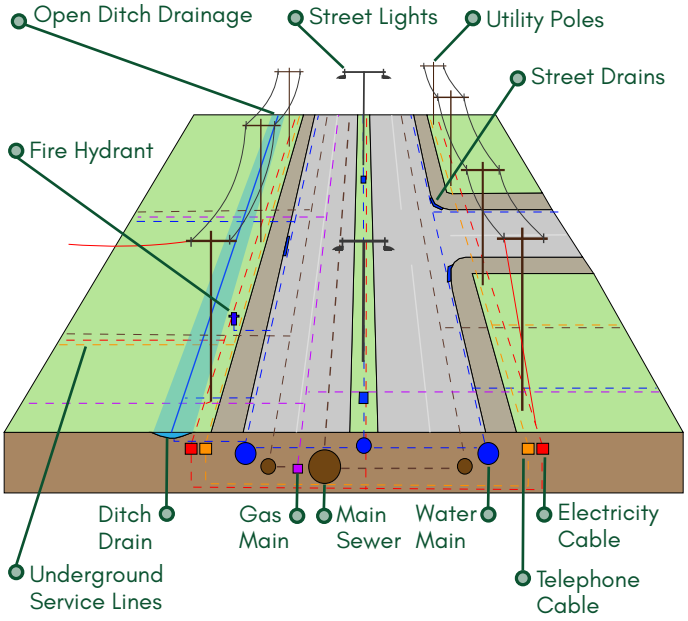
Initiatives and Actions:

1. Expand pipe sizing and conveyance capacity to support consistent service delivery.
2. Coordinate roadway repair and improvements with the installation of underground stormwater drainage infrastructure and sidewalks.
3. Avoid dead-ends in the water system design. Create continuous loops.
4. Develop a phased utility line replacement program.
   - Notate installation date, material, and location in a geolocated database to easily identify repairs or upgrades as needed.
   - Coordinate Dickinson's stormwater infrastructure updates with GCWCID#1's potable water/sanitary sewer infrastructure updates.
5. As potable water and sanitary sewer systems are improved enter utility infrastructure data into a GIS-based asset management program to facilitate system monitoring and routine replacement of transmission lines.
6. In conjunction with thoroughfare reconstruction projects replace utilities infrastructure as necessary to increase transmission capacity.



As new underground utility projects were undertaken, residents of the Sunnyside Neighborhood, in Houston, have newly constructed sidewalks.
Source: Texas Housers

Typical Street Utility Infrastructure



Strategy 4.1.2: Collaborate with GCWCID#1 to expand its service area to the remaining portions of southwest Dickinson.

To promote economic development initiatives in Dickinson's southwest quadrant will require accessible utilities infrastructure of sufficient capacity to support new development.

Initiatives and Actions:

1. Partner with the GCWCID#1 and the City of Texas City to provide potable water and sanitary sewer to portions of southwest Dickinson, south of Dickinson Bayou.

Strategy 4.1.3: Increase potable water and sanitary sewer infrastructure capacities westward from Interstate 45.

Initiatives and Actions:

1. Work with the GCWCID#1 to prepare a redevelopment program, schedule, and budget for the phased replacement of potable water and sanitary sewer infrastructure to increase capacity and support future development.

Objective 4.2: Continue to invest on structural and non-structural strategies to mitigate flooding.

As discussed in Appendix A, The Existing City, approximately 74 percent of the City is in the 100-year floodplain. Approximately 90 percent of the City is within the 500-year floodplain, meaning that almost every part of Dickinson is subject to some degree of flooding.

While Dickinson will remain predominantly in a floodplain and should always expect flooding to occur, the City has taken steps to mitigate flood damage and bolster development in the floodplain. Going forward, development typologies must be designed to be resilient to natural disasters and constructed to withstand flooding. Dickinson has safe, clearly marked evacuation routes for residents with vehicles, and an evacuation system for residents with mobility issues, including those without vehicles.



With the University of Houston, ongoing efforts to replant and replace marshland habitats along Galveston Bay to decrease flooding have continued
Source: Galveston Bay Report Card

Types of Flooding Events

Over the last several years the City has been routinely impacted by a variety of flooding events. As summarized within the City of Dickinson's Hazard Mitigation Plan (2017), flooding events are usually broken down into three categories: including flash floods, riverine floods, and tidal floods.

Flash Flooding

Flash floods are the result of heavy localized precipitation falling in a short time period over a given location. Flash flooding is common in urbanized areas where there is an abundance of impervious surfaces, such as roads, parking lots, and buildings. Drainage channels in urban areas may be unable to contain the runoff that is generated by relatively small, but intense, rainfall events.

General Flooding

General flooding is typically the result of long-term events that may last for several days. The primary types of general flooding include riverine, coastal, and urban flooding.

Riverine Flooding

Riverine flooding refers to inland flooding that is not associated with coastal flooding and is a function of precipitation levels and water runoff volumes within the watershed of the stream or river. The recurrence interval of a flood is defined as the average time interval, in years expected to take place between the occurrence of a flood of a particular magnitude and an equal or larger flood. Flood magnitude increases with increasing interval.

Coastal Flooding

Coastal flooding is typically a result of storm surge, wind-driven waves, and heavy rainfall. These conditions are produced by hurricanes during the summer and fall, and nor'easters and other large coastal storms during the winter and spring.

For detailed information regarding storm surge and the effect on Dickinson, reference storm surge scales and storm surge forecasting under the Hurricanes/Tropical Storms section of the Hazard Mitigation Plan.

Combined Riverine and Coastal Flooding

Certain areas are affected by both riverine and coastal flooding. For floodplain management and flood insurance purposes, criteria used in coastal areas should be applied in areas of combined riverine and coastal flooding.

Dickinson Bayou divides Dickinson. It is subject to combined probability flooding from riverine and coastal/tidal flooding. No home construction is allowed within Flood Zone A areas until a determination of the BFE (base flood elevation) for the parcel. Based upon the results of the BFE, the parcel is then zoned appropriately and construction elevation is based upon that determination.

Urban Flooding

The flooding of streets, underpasses, low lying areas, or storm drains. This type of flooding is mainly an inconvenience and is generally not life threatening.

Strategy 4.2.1: Continue to construct regional detention basins within the Dickinson Bayou watershed to temporarily detain stormwater and reduce the impact of flooding in developed areas downstream.

Several regional detention basins have been designed within the Dickinson Bayou watershed. Slowing and temporarily detaining stormwater will delay transmission systems from reaching capacity and over-flowing into developed areas.

Initiatives and Actions:

1. Continue to increase floodwater detention within existing basins along Gum Bayou.
2. Consider constructing stormwater detention facilities within the Gum Bayou tributary that subdivides Roy Holbrook Park. These facilities can be attractively designed to serve a recreational function, including hiking along recreational trails and fishing. Refer to Strategy 7.1.7, page 2.129.
3. Continue to work with the City of League City to increase the conveyance capacity of Benson Bayou.

Strategy 4.2.2: Improve the floodwater conveyance capacity of Dickinson Bayou and its associated tributaries.

As discussed in The Existing City report (Appendix A), as a result of jurisdictional overlap, there has never been a consolidated effort between jurisdictional entities to realign, dredge, widen, or otherwise modify the natural channel. The main channel of Dickinson Bayou remains generally unimproved.



Marsh grass planting shoreline stabilization efforts along Lynnhaven River
Source: University of Massachusetts Amherst

Initiatives and Actions:

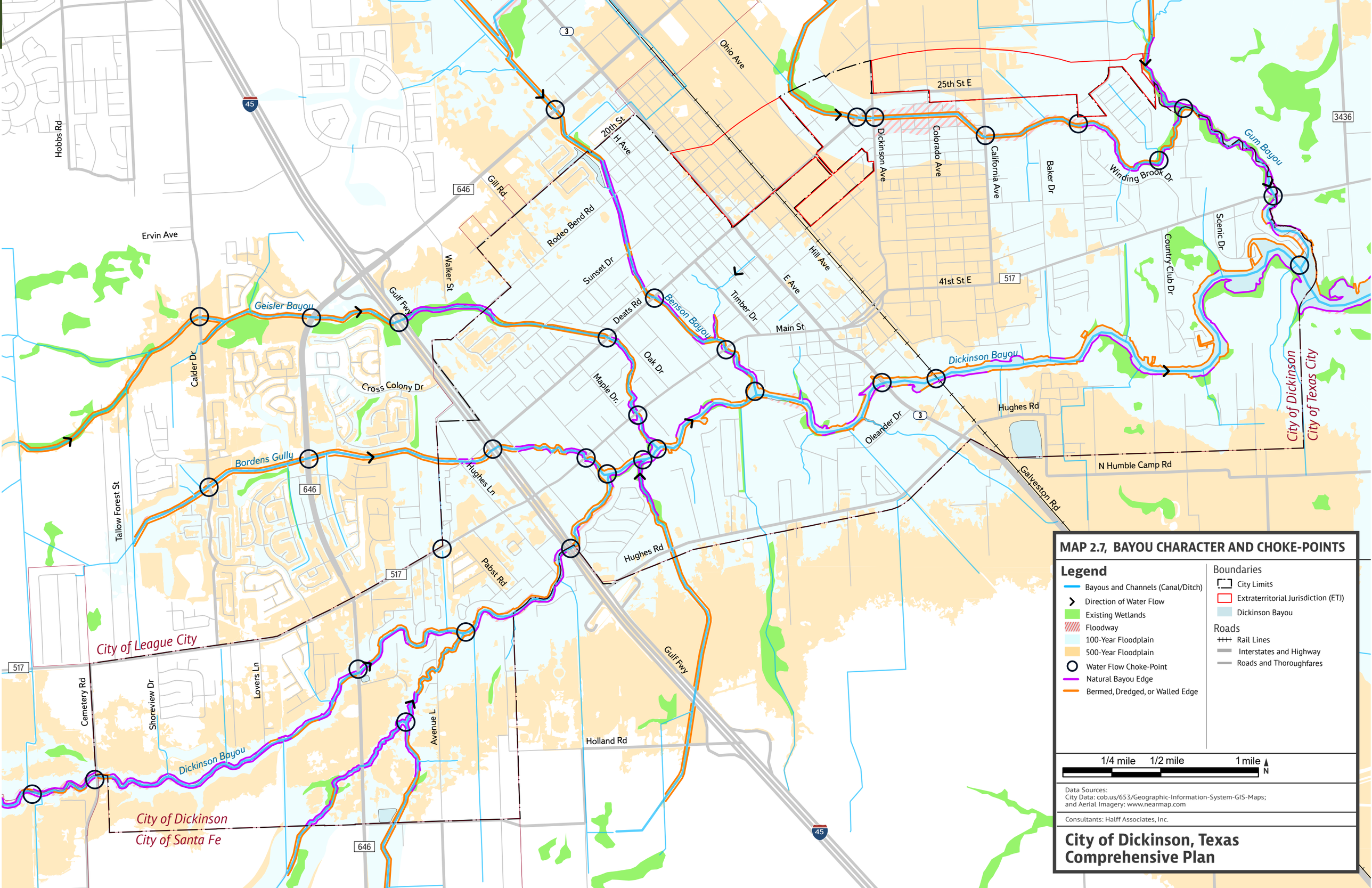
1. Work with the Galveston County Floodplain Administrator and County Engineer on all proposed floodwater conveyance capacity improvements to Dickinson Bayou and its tributaries.
2. Collaborate with local governments, the General Land Office, U.S. Army Corps of Engineers, and other agencies to determine ways to improve the conveyance capacity of Dickinson Bayou. Explore the feasibility and benefit of dredging Dickinson Bayou and its tributaries to improve volume and conveyance. Work with the U.S. Army Corps of Engineers (USACE) to determine permitting requirements for dredging operations.
3. Work with Union Pacific Railroad (UPRR) to determine the degree to which the railroad bridge across Dickinson Bayou can be reconstructed so as not to impede floodwater flow.
4. Continue to evaluate the drainage bypasses along Hughes Road to improve floodwater conveyance capacity in southern Dickinson.
5. Establish a routine bayou and drainage ditch maintenance program. Regularly clear debris and snags from ditches. Ensure that maintenance agreements providing City access onto private property are in place and up to date.

Strategy 4.2.3: Consider a city-wide shoreline stabilization and maintenance program for Dickinson Bayou.

As discussed in The Existing City report (Appendix A), a variety of shoreline stabilization methods have been implemented along the bayou to attenuate wave action and reduce shoreline erosion along waterfront properties, to varying degrees of success, including concrete riprap, armored embankments, and bulkheads. Eroded shorelines impair an owner's use of their land and shoreline erosion affects water quality as vegetated embankments that normally filter harmful chemicals in stormwater runoff are absent. The Dickinson Code of Ordinances lacks guidance on shoreline management and stabilization.

Initiatives and Actions:

1. Consider the use of bio-engineering techniques to improve riparian habitat and stabilize shoreline erosion.
2. Promote living shorelines. Living shorelines stabilize a shore by combining living components, such as plants, with structural elements, such as rock or sand. Living shorelines can slow waves, reduce erosion, and protect coastal property. Living shorelines are both beautiful and practical. They add attractive, low-maintenance green space and focal points for people to gather. Their services to the environment—which also benefit people—include purifying water, buffering floods, reducing erosion, storing carbon, and attracting wildlife to habitat.
3. Utilize the Texas General Land Office (GLO) publication, A Guide to Living Shorelines in Texas, to identify shoreline stabilization best practices that can be implemented along Dickinson Bayou (Source: General Land Office, National Oceanic and Atmospheric Administration (NOAA) and Texas Coastal Management Program, September 2020).



MAP 2.7, BAYOU CHARACTER AND CHOKE-POINTS

Legend

- Bayous and Channels (Canal/Ditch)
- Direction of Water Flow
- Existing Wetlands
- Floodway
- 100-Year Floodplain
- 500-Year Floodplain
- Water Flow Choke-Point
- Natural Bayou Edge
- Bermed, Dredged, or Walled Edge

Boundaries

- City Limits
- Extraterritorial Jurisdiction (ETJ)
- Dickinson Bayou

Roads

- Rail Lines
- Interstates and Highway
- Roads and Thoroughfares

1/4 mile 1/2 mile 1 mile N

Data Sources:
City Data: cob.us/653/Geographic-Information-System-GIS-Maps;
and Aerial Imagery: www.nearmap.com

Consultants: Halff Associates, Inc.

City of Dickinson, Texas
Comprehensive Plan

Strategy 4.2.4: Ensure effective stormwater drainage within Dickinson's residential and commercial areas.

As summarized within Appendix A, The Existing City, much of the City's older residential areas are only partially connected to the City's stormwater drainage system. Many residential areas have open ditches. Portions of the City's southern city limits, such as along Hughes Road, lack sufficient outfall, which results in significant ponding.

Initiatives and Actions:

1. Develop a phased program of drainage improvements, beginning within the City's residential areas, including efficient stormwater collection and subsurface transmission.

Strategy 4.2.5: Develop a local catastrophic debris management plan.

From downed tree limbs to appliances, major storm events leave a lot of debris in their wake. This refuse, if not removed, can clog vital transportation arteries and impede rescue operations; and promote unsanitary conditions, which can lead to disease and dangerous vectors.

Initiatives and Actions:

1. Work with county and state officials in developing a local catastrophic debris management plan that nests seamlessly within the State of Texas Emergency Management Plan's Catastrophic Debris Management Annex (2019).

Strategy 4.2.6: Utilize the Safeguarding Tomorrow Revolving Loan Funding (RLF) program to implement flooding mitigation projects to enhance resilience.

The Safeguarding Tomorrow through Ongoing Risk Mitigation (STORM) Act became law on Jan. 1, 2021 and authorizes the Federal Emergency Management Agency (FEMA) to provide capitalization grants to states to establish revolving loan funds that provide hazard mitigation assistance for local governments to reduce risks from natural hazards and disasters. These low interest loans will allow jurisdictions to reduce vulnerability to natural disasters, foster greater community resilience and reduce disaster suffering. On Dec. 20, 2022, FEMA released the Notice of Funding Opportunity (NOFO) making available $50 million for the new Safeguarding Tomorrow through Ongoing Risk Mitigation Revolving Loan Fund (Safeguarding Tomorrow RLF) program. The application period will be open from Feb. 1 – April 28, 2023. According to FEMA, the priorities of the Safeguarding Tomorrow RLF program include:

- Empowering Entities. FEMA will collaborate with eligible entities to help them increase their capacity and capability, through focused engagement activities leading up to the application period and providing increased technical assistance during the Year 1 application period.
- Creating innovative funding solutions. Applicants can leverage loans for non-federal cost share with other FEMA Hazard Mitigation Assistance programs, helping underserved communities access additional funding resources.
- Delivering equitable investments and increased access. A goal of the Safeguarding Tomorrow RLF program is that 40 percent of the overall benefits generated by the entity loan funds flow to underserved communities.
- Reducing grant application complexity. The goal of launching this effort is to reduce program complexity by breaking down barriers and increasing access to mitigation funding.
- Maximizing administrative flexibility. Throughout the process, identify administrative burdens and reduce them to the greatest extent possible.

Initiatives and Actions:

1. Contact FEMA and apply for funding to implement capital projects which will make the City more resilient to catastrophic storm events.

Strategy 4.2.7: Protect wetlands, shoreline riparian areas, and natural depressions to reduce the impact of flooding.

Work to protect existing wetlands and low-lying areas for flood buffers and shoreline protection as part of the City's stormwater management activities. In cases where wetlands cannot be preserved or protected, the impact to water management should be mitigated.

Initiatives and Actions:

1. Create tree canopy preservation zones in low lying areas, adjacent to wetlands, and at the confluence of waterways to both preserve vegetation and address flood mitigation.



Wetland protection and documentation is essential for flood mitigation.
Source: Natural Resources Foundation of Wisconsin

Types of Bio-engineering Techniques for Flood Mitigation



Floodplain wetlands have the capacity to temporarily store flood waters during high water events. Wetlands function like natural tubs, storing either flood waters that overflow riverbanks or surface water that collects in isolated depressions.
Source: Texan by Nature



A drainage outfall at the Upper Watts Branch Forest Preserve has been redesigned from a straight continuous sloped channel, which caused erosion and flooding issues, to a 'pool, riffle, run' system where water can be slowed, filtered, and more easily absorbed as ground water.
Source: Hazen and Sawyer



A segment of the Medina River, near Southwest Elementary School in San Antonio, Texas, is restored to mimic natural hydrological functions that once existed along this stretch of the river.
Source: San Antonio River Authority



A church along the Whitehall creek in the Chesapeake Bay area created a series of step pools to reduce flood damage and stream bank erosion.
Source: Chesapeake Bay Program

Shoreline Control

Employ the following bio-engineering and other non-structural controls over structural controls to restore damaged habitat and protect shoreline and stream bank erosion:



Brush Layering consists of placing live branch cuttings in small benches excavated into the slope. The portions of the brush that protrude from the slope face assist in retarding runoff and reducing surface erosion.
Source: California Department of Transportation



Brush Mattressing involves digging a slight depression on the bank and creating a mat or mattress from woven wire or single strands of wire and live, freshly cut branches from sprouting trees.
Source: Virginia Department of Transportation



Live Cribwalls consist of a hollow, box-like interlocking arrangement of untreated log or timber members filled with suitable backfill material and layers of live branch cuttings, which root inside the crib structure and into the slope.
Source: SGI-MI

Strategy 4.2.8: Relocate critical infrastructure to prevent systemic damage resulting from flood events.

Elevate electrical utilities infrastructure above base flood elevation (BFE) to reduce power outages resulting from storm events and associated flooding

Initiatives and Actions:

1. Review developer and construction requirements for on-site electrical boxes and utilities to incorporate flood resilient strategies. Reviewing and updating requirements for the placement, location, and treatment of utilities and water drains will ensure that utility services are more reliable in extreme weather conditions.
2. Work with homeowners, business owners, and developers to develop educational and funding methods for utility infrastructure resilience from flooding. This can include requirements and assistance to elevate exterior air units, interior sump pumps, furnaces, and water meters above flood levels.

Strategy 4.2.9: Continue to work with the Texas General Land Office (GLO) to implement the agency's buy-out program for homes and properties within the City that continue to flood.

One of the four fundamental approaches to promoting resilience is to relocate critical infrastructure and development to safer places. While this is the most impactful and disruptive strategy, it is effective in getting people out of harm's way.

Initiatives and Actions:

1. Continue to promote the GLO's Buyout Program.
2. Consider additional incentives the City may be able to provide to further "sweeten" the deal.



Structures that continue to flood may be eligible for the GLO buy-out program.
Source: Texas Standard

Retrofitting Buildings

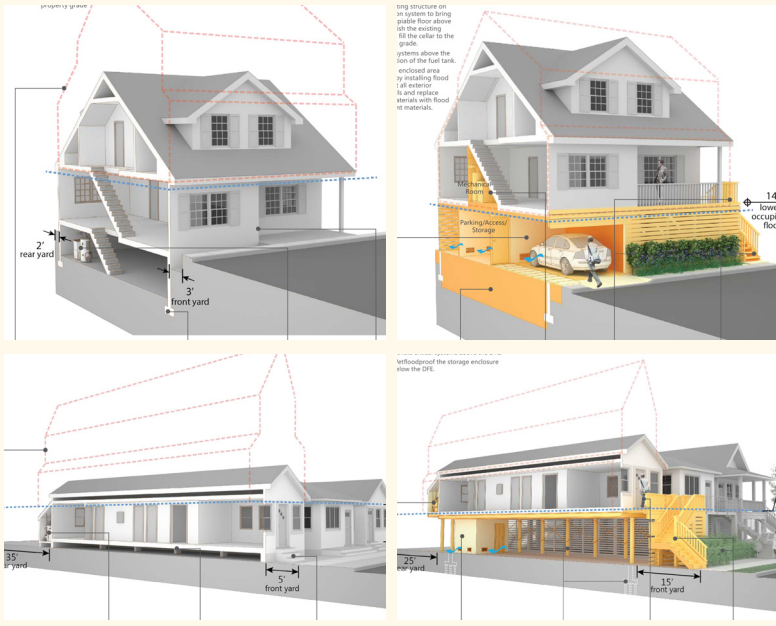
Costal Climate Resiliency - NYC Department of City Planning

After Hurricane Sandy, New York City along with other East Coast communities developed strategic plans and guides for retrofitting existing structures to increase resilience and reduce potential flood damage. The housing retrofitting methods, shown on the right, depict utilizing basements as flood storage tanks, filling in basements to increase ground water retention, and elevating utilities. The top housing retrofitting diagram shows the infilling of basements, and minimizing first floor residential uses. The diagram also shows that if structural additions are made they should be considered as redesigning existing structures or as additions ontop of the building which maintains the existing amount of permeable surface. The middle and bottom housing retrofitting diagrams show how a house can be elevated allowing for the first-floor garage and storage space to be inundated with flood waters.

Flood Risk Visualization



Housing Adaptation Techniques



Source: Costal Climate Resiliency - Retrofitting Buildings for Flood Risk, Department of City Planning City of New York 2014

Strategy 4.2.10: Utilize the Texas GLO's Homeowner Assistance Program and other applicable standards (listed below) as baseline minimum requirements to obtain a building permit for new construction, or rehabilitation of existing housing, within flood-prone areas (e.g., within the 100-year floodplain); irrespective of whether the homeowner is applying for assistance.

According to the Texas General Land Office' (GLO) Homeowner Assistance Program: Regional Housing Guidelines, assistance may be provided to survivors of significant storm events who must undertake a variety of housing activities, including rehabilitation, reconstruction, demolition, elevation, hazard mitigation, and storm hardening. Housing activities which receive assistance through the Community Development Block Grant Disaster Recovery (CDBG-DR) Housing Program must meet specific Housing Quality Standards (HQS) (24 CFR 982.401) and all applicable local codes and ordinances at completion, including:

- **1**. International Residential Code (IRC) 2012 or higher (with windstorm provisions) and International Building Code (IBC) must be met where they apply. All rehabilitation and reconstruction should be designed to incorporate principles of sustainability, including water and energy efficiency, resilience, and mitigating the impact of future disasters.
- **2**. Compliance with one of the following Green Building Standards (GBS):
  - ENERGY STAR (certified homes or multi-family high-rise);
  - EPA Indoor Air Plus (ENERGY STAR a prerequisite);
  - USGBC LEED™; or
  - ICC-700 National Green Building Standard

The Builders will identify which GBS will be used for rehabilitation and reconstruction of residential housing.

- **3**. All structures, as defined under 44 CFR 59.1, designed principally for residential use and located in the 100-year floodplain that receive assistance for reconstruction, repair of substantial damage, or substantial improvement, as defined under 24 CFR 55.2(b)(10), must be elevated with the lowest floor, including the basement, at least two feet above the annual floodplain elevation or as modified by local code.



New home built using Homeowner's Assistance Program in Port Arthur, Texas.
Source: Texas General Land Office



Homeowners in Beaumont, Texas, qualified for the GLO Homeowner Assistance Program after being affected by Hurricane Harvey.
Source: Texas General Land Office

Additional standards include:

- **4**. Standards for Rehabilitation of Non-Substantial Damaged Residential; whereby the State must follow the HUD CPD Green Building Retrofit Checklist (available at https://www.hudexchange.info/resource/3684/guidance-on-the-cpd-green-building-checklist/). The Vendor must apply these guidelines to the extent applicable to the rehabilitation work undertaken, including the use of mold-resistant products when replacing surfaces such as drywall. When older or obsolete products are replaced as part of rehabilitation work, rehabilitation is required to use ENERGY STAR-labeled, WaterSense-labeled, or FEMP-designated products and appliances.
- **5**. Resilient Home Construction Standards, for substantially damaged residential buildings or reconstruction that incorporate a recognized Resilient Home Construction Standard—such as those set by the FORTIFIED Home™ Gold Level for reconstruction or single-family detached homes and FORTIFIED Home™ Bronze level for repair or reconstruction of the roof—or any other equivalent comprehensive resilient or disaster-resistant building program will be used when appropriate. Resilient standards when incorporated will increase a home's resilience to natural hazards, including high wind, hail, and tropical storms.

Use these standards to define minimum improvements to homes constructed within flood prone areas.



Homeowner celebrating newly built home in Houston's Fifth Ward following Hurricane Harvey.
Source: Texas General Land Office

Strategy 4.2.11: Reduce the amount of impervious surface in Dickinson.

Impervious surface is defined as the area of a property that does not allow rainwater to percolate naturally into the ground. Impervious surfaces include building roofs, paved areas such as driveways, parking lots, or walkways; and other areas of property that are covered by non-porous pavement. The more impervious surface area there is, the greater the quantity of stormwater runoff. As with most cities, Dickinson is composed of acres and acres of impervious surface area; much of which is on land that is currently developed though vacant, and in need of redevelopment.

Initiatives and Actions:

1. Quantify the amount of impervious surface within public rights-of-way that may be removed.
2. Develop a plan to remove impervious surface and replace with vegetation and groundcover material to enable stormwater to percolate into the ground, thus reducing to some degree, the amount urban surface flooding.
3. Provide incentives that may be provided to private property owners to remove impervious surfaces on their property. Consider modelling a program after Washington, D.C.'s RiverSmart Permeable Surface Rebate program (refer to sidebar).



Permeable pavement allows rainfall to infiltrate down rather than running off into storm sewers.
Source: U.S. Army Corps of Engineers



Bioswales can be added to parking lots to reduce stormwater runoff.
Source: Michigan State College of Architecture and Natural Resources

Strategy 4.2.12: Factor climate change into future planning.

Climate change is happening now; and will continue to exacerbate flooding issues in Dickinson, due to an increase in extreme weather-related events. The City must recognize this fact and prepare accordingly, by implementing both climate change mitigation and adaptation best practices geared toward reducing the impact of flooding.

Initiatives and Actions:

1. Implement all applicable best practices outlined within the American Planning Association's 2022 Planning Advisory Service (PAS) report, Planning for Climate Mitigation and Adaptation, which can be referenced below:

- Bucchin, M. and A. Tuley, 2022. Planning for Climate Mitigation and Adaptation. PAS Report 601. American Planning Association, 205 N. Michigan Ave., Suite 1200, Chicago, IL 60601-5927; planning.org. All rights reserved.

2. Develop a community resilience planning program focused on reducing the impact of flooding. Develop an implementable, action-oriented plan focused on improving Dickinson's ability to prepare for, withstand, and recover from major flooding events; including advancing the successful implementation of the strategies and actions outlined within this Objective 4.2.



Community resilience planning helps create an action-oriented plan to prepare for and recover from major weather events.
Source: National Institute of Environmental Health Sciences

RiverSmart Permeable Surface Rebates

The 2022 Permeable Surface Rebate Program is administered by the Alliance for the Chesapeake Bay (the Alliance) on behalf of the Washington D.C., Department of Energy and Environment whereby District homeowners who remove impervious surfaces and replace them with permeable pavement or re-vegetate them to reduce and/or treat stormwater runoff from impervious surfaces on their property are eligible for a rebate.

There are two types of projects, each designed to capture and filter stormwater. Rebate amounts are determined by project type and are issued as a direct reimbursement to homeowners once the project is completed, inspected, and approved.

Eligible projects include:

1. Replacement of impervious surface with vegetation: the impervious surface is removed and ground is tilled and planted with vegetation. Native plants are strongly recommended. Garden, sod, grass seed/straw are also allowed. Impervious surfaces removed and replaced with vegetation are eligible for a $5 per sq. ft. rebate. To qualify, a minimum of 200 square feet of impervious surface must be removed and replaced with vegetation (garden, sod, seed/straw).
2. Replacement of impervious surface with permeable pavers: the impervious surface is removed and replaced with permeable pavers, often a patio or parking area, designed to capture and filter stormwater on property. Impervious surfaces removed and replaced with permeable pavers are eligible for a $10/sq. ft. rebate.

To qualify:

- A minimum of 100 square feet of impervious surface must be removed and replaced with permeable pavers;
- Permeable paver area must receive stormwater from a downspout or rain barrel/cistern overflow; and
- Installation must be completed by a contractor with the PICP Record of Completion from the Interlocking Concrete Pavement Institute.



RiverSmart provides rebates to homeowners who install qualifying rain gardens.
Source: RiverSmart Homes

How the Rebate Process Works

Before Construction Begins:

1. Determine project type (permeable pavers, and/or impervious surface removal) and location.
2. Review the Permeable Surface Rebate Program Applicant Guide and Application.
3. Perform a percolation test. The Perc Test Worksheet is part of the Rebate Application.
4. Select a contractor or determine the equipment you will need if you will be performing the work yourself.
5. Submit the Application, including a site design, estimated invoice, Perc Test Worksheet, Maintenance Agreement, and pre-construction photos to the Alliance via mail: 729 8th Street SE, Suite 200, Washington, DC 20003Suite 200, Washington, DC 20003.
6. Schedule a pre-construction inspection with the Alliance. Construction may begin after approval is granted after the pre-construction inspection. The project must be completed within one year of the notification that pre-construction approval has been granted.

After Construction is Complete:

1. Notify the Alliance that construction is complete.
2. Submit post-construction photos of project site, final invoice, and a Project Completion Form.
3. Schedule a post-construction inspection with the Alliance.
4. Expect to receive a rebate reimbursement check in the mail four to six weeks after post-construction approval.



Replacement of impervious driveway to permeable pavers as part of the Permeable Surface Rebate Program
Source: Department of Energy and Enviornment

Objective 4.3: Promote a Healthy, Thriving, and Vibrant Bayou System.

As mentioned during stakeholder meetings and in responses to the community survey, Dickinson Bayou is integral to residents' perception of the place they call home. However, according to TCEQ, Dickinson Bayou and its contributing tributaries (Bordens Gully, Geisler Bayou, Bensons Bayou, and Gum Bayou) are all impaired waterbodies due to elevated bacteria and toxic pollutants, and depressed dissolved oxygen levels. This impairment adversely affects the safety of contact water recreation activity like swimming, kayaking and fishing, and the consumption of fish caught in the Dickinson Bayou. [13]

The City of Dickinson needs to understand and become aware of the Bayou's health and how water quality is evaluated so they can continue to engage with the City's biggest amenity. The Dickinson community must understand how stormwater runoff affects water quality and take steps to limit the harmful impacts of human activity on the Bayou. The City must actively engage with local task forces devoted to bayou management initiatives.

Strategy 4.3.1: Improve the water quality of Dickinson Bayou and its Tributaries.

Initiatives and Actions:

1. Re-establish the Dickinson Bayou Watershed Partnership conservation program to advance the policies outlined in the Dickinson Bayou Watershed Bacteria Implementation Plan (I-Plan).
2. Increase understanding of area bayous and creeks and their watersheds. Provide educational programs and opportunities, activities and events that improve riparian habitats and watershed ecosystems. Develop initiatives, projects and advocacy to improve ecosystems, water quality and flood management.



Routine water quality testing helps monitor potential pollutants that may affect Dickinson Bayou and its tributaries.
Source: Bay Keeper

13:2020 TCEQ Integrated Report Index of Water Quality Impairments

Objective 4.4: Implement strategies to improve Dickinson's public facilities.

As communities grow and change over time, planning for public facilities becomes an ever-challenging issue for community leaders and residents. Determining what influences are at work provides the necessary data to make determinations on the type, size, location, and design aesthetics that match the community's established standards as well as its desires for these public facilities. Developing a strategy and adequately planning to finance these needs is critical to the effectiveness of the local government to meet the needs of its citizens. After all, the community's quality of life is affected by these public facilities.

Strategy 4.4.1: Prepare a Public Facilities Master Plan.

The first phase of a public facilities master plan is to analyze the existing public facilities to determine if the current needs are being met. This evaluation looks at not only the physical size of space needed for the functions and services being provided, but also at the condition of the existing facilities, the life expectancy of the facility and equipment, and the location of the facility relative the current growth patterns of the City.

The second phase focuses on the future needs of the community. Where is the future growth of the City headed? How does the age of the population affect what services will be needed? Do new facilities need to be provided or existing ones renovated/relocated to better serve the community? Are more/expanded services going to be necessary in the future? Are current building and life safety codes being met in these existing facilities? These questions are just a sample of the forward looking analysis this second phase addresses. Community facilities should have physical access provided to all citizens. In accordance with the Americans with Disabilities Act of 1990, communities are required to have a transition plan in place that outlines each non-accessible feature of the public facilities and a timeline which describes when these specific features will be corrected. Along with the anticipated life cycles and accessibility to and within these public facilities, life safety must also be considered. Protecting the health, safety, and welfare of the community is an essential function of the local government. Building and life safety codes are updated on a regular basis and as the changes are implemented in new construction, there is often little enforcement on existing building to be brought up to current standards. Public facilities become "grandfathered" by code, which leaves the facility as originally designed meeting the codes at the time of design and construction. As Dickinson

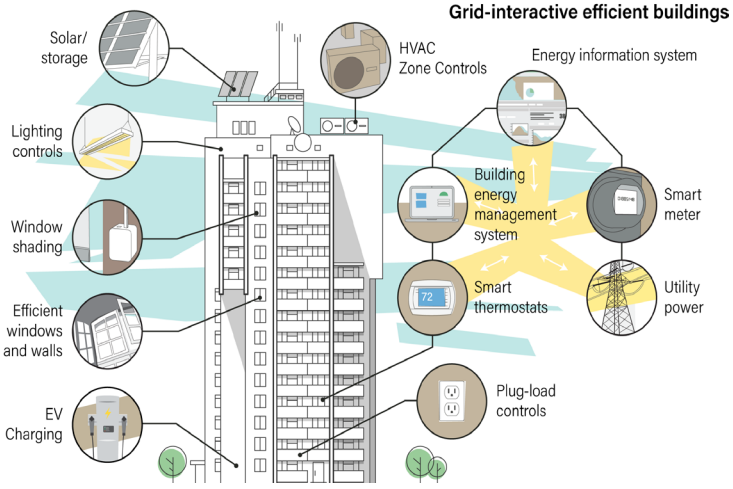
plans for its future, and renovation/expansion of facilities are considered, improvements to these public facilities should include upgrades to meet accessibility as well as life safety code requirements.

Initiatives and Actions:

1. Inventory public facilities and prepare a master plan for improvements based on the future programmatic and space requirements of City government. Public facilities and buildings should be built to a high standard that reflects permanence in design and community character, while allowing for sufficient flexibility to adapt to changing technology and needs.
2. Incorporate Crime Prevention Through Environmental Design (CPTED) practices at public facilities and spaces. Utilize design to reduce opportunities for criminal activity and vandalism, as well as address overall safety concerns.



The addition of pedestrian-scale lighting is a primary principle of CPTED practices, as it provides natural surveillance.
Source: Washington University in St. Louis



Energy efficient buildings offer an appropriate environment for habitation with minimal energy consumption and wasteage of energy.
Source: American Council for an Energy-Efficient Economy

Strategy 4.4.2: Adopt policies to promote the construction of high-performance, green buildings within the City.

Constructing buildings that are resource and energy efficient should be a prerequisite for any facility that serves the public good. Developing high-performance green public buildings and operating and maintaining them utilizing sustainability best practices sends a powerful and compelling message to citizens regarding the stewardship philosophy of municipal leadership.

Initiatives and Actions:

1. Continue to monitor evolving trends and practices in building codes, land development, and public facilities arenas related to high-performance, "green" building and operational standards (including for energy efficiency; water conservation, capture, and re-use; waste reduction and recycling, renewable energy generation, etc.) to ensure that the City's codes and policies promote such activities in Dickinson. The U.S. Green Building Council (USGBC) Texas Gulf Coast Chapter is an important resource for the City.
2. Consider adopting a policy whereby all public buildings and facilities will be designed and constructed to meet the USGBC's Leadership in Energy and Environmental Design (LEED) certification requirements. For the programming and design of public buildings, encourage solar-oriented (passive and active) design; evaluate the potential for geothermal technologies application; utilize chemical-free and toxic-free building materials as readily available; and remove any regulatory obstacles to using recycled materials for building.
3. Consider the provision of incentives for private sector buildings to be USGBC LEED-certified. Most incentives are based on a "bonus" system where there are relaxed standards or expedited administrative procedures as a reward for providing a public amenity. In such a project, the green design features would be considered a public amenity even though they are not public in the same sense as a plaza, fountain, or pedestrian walkway. The "bonus" can focus on the height of buildings, floor area ratio (FAR) requirements, parking ratios, or setbacks. Develop and adopt a long-term municipal energy strategy to include an energy plan that enumerates reduction goals based on current energy usage.



LEED-certified buildings save money, improve efficiency, lower carbon emissions, and create healthier places for people.
Source: U.S. Green Building Council

Strategy 4.4.3: Work with the Dickinson Community Center to add educational opportunities and programming beyond senior based services.

Currently the Dickinson Community Center (DCC) has limited programming catering only to seniors. Since Dickinson has limited park facilities, no public recreation center, and limited private access pools, the DCC is one of the only public gathering facilities hosting community programs. Due to the Center's current focus on seniors, there is limited to no programming available for the youth or adult-aged population. The City should work with DCC to expand community programming for adults and youth.

Initiatives and Actions:

1. Work with DCC to identify and establish future facility needs related to aging infrastructure, gaps in programming, community need for youth services, transport services, and overall space limitations.
2. Work with DCC to coordinate methods to market and advertise the Center's services and recreational programming.
3. Consider commissioning painted murals on blank walls within and on the exteriors of the Center.
4. Consider additional ways to fund long-term budget increases for the Center through fundraisers/events such as tile painting commemorations, brick dedications, a sidewalk chalk festival, music events, or participatory live performance.
5. Consider establishing a community garden on site in coordination with Keep Dickinson Beautiful and Weed 'N' Wish Garden Club.

Strategy 4.4.4: Work with the Dickinson Public Library (DPL) to expand programming, resources, and community engagement.

In an increasingly digital age, libraries have seen a surprising increase in relevance for communities nationally. Libraries increasingly serve as a common community space where people can gather, study for school, or learn about community events. Libraries also serve as community programming centers offering seminars, meeting space for organizations, youth programs, and educational resources. Based on feedback from the community survey, the community identifies the Dickinson Public Library as an important piece of further 'community building', support services, and social interaction. The DPL should continue to grow the programming and services offered to the community to further education and recreational opportunities.

Story Book Trails

Story Book Trails are a way or activitaing public spaces with interactive edcuational oportunities. A Story Book Trail has interpretive stands within parks and along trails showcasing pages from children's books, with each stand presenting up to two enlarged pages of a book. In some parks, every week the pages of the story book are "turned" to encourage children to return to the park to read the remaining story. Story Book Trails provide children and families the opportunity to read and learn while participating in active recreation in a park setting.

The Ohio Department of Natural Resources has funded the creation of over thirty-five Story Book Trails for the Exploring Nature and Imagination Program. Other sources of funding include educational youth organizations and publishing companies. Park elements such as innovative swing designs, life-size building blocks, interpretive art installations, and musical elements are also ways to engage parks users and enhance the interpretive value of the park system.



Montgomery County, Ohio storybook trails
Source: Montgomery County, Ohio



Columbus Metropolitan Library Story Trail
Source: Columbus Metropolitan Library



Storybook trail in Island Cottage Woods Preserve
Source: Genesee Land Trust

Initiatives and Actions:

1. Work with DPL and other community organizations (Scouts of America, Keep Dickinson Beautiful) to identify locations for and construct 'Little Libraries' at City-owned facilities, school properties, and other community spaces.
2. Identify the need and community interest for additional educational services, such as study rooms, public access computers, adult financial literacy classes, public 'read-alouds', online catalogs, community bulletins, and youth camps / scheduled activities.
3. Work with DPL to establish a 'Story Book Trail' initiative at Paul Hopkins Park or City Hall.

Strategy 4.4.5: Develop a comprehensive street lighting program for the City of Dickinson.

Develop a lighting program for the City's public facilities (buildings and street) that not only meets functional requirements but enhances the scenic qualities and night-time experience of the City. Strive for uniformity in light color rendition and temperature.

Initiatives and Actions:

1. Replace incandescent, mercury vapor, high-pressure sodium, and metal halide street, parking lot, park, holiday and decorative lighting, and other outdoor lights with more uniform light-emitting diode (LED) lighting.
2. Work with energy provider to promote use of utility financial incentives to assist residential and commercial customers improve energy efficiency, such as by using on-bill financing, loans and rebates and demand management programs.

Strategy 4.4.6: Reduce nighttime glare and light trespass.

Amend the City's Code of Ordinances to require that all new development provide shielding for all exterior light fixtures that meets IESNA Full Cutoff Classification or an uplight rating of O, to prevent glare and/or light trespass onto any neighboring properties. All exterior light fixtures should be efficient while providing minimum illumination levels sufficient for personal safety and security. Efficient exterior lighting is defined as 60 lumens/watt minimum system efficiency. Safety and security lighting should minimize glare and/or light trespass.



Adequate street lighting improves pedestrian visibility and overall security.
Source: AGC Lighting

Initiatives and Actions:

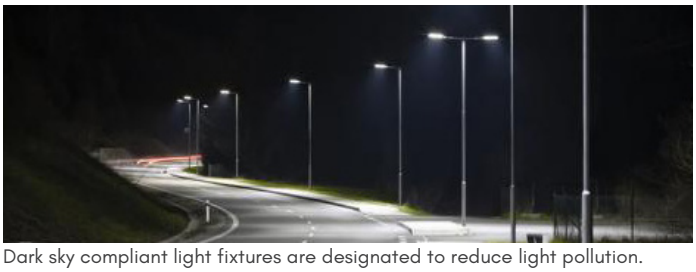
1. Require that fixtures are installed to effectively project light downwards. Eliminate direct upward lighting.
2. Require that occupancy sensors are employed in future structured parking facilities.
3. Require motion sensors for interior lighting.
4. Employ occupancy sensors/ timers for exterior lighting.
5. For all new commercial and institutional development, install an automatic device that reduces outward spillage of internal light by:
   - reducing the input power to lighting fixtures by at least 50 percent between the hours of 11 p.m. and 6 a.m. year-round; or
   - shielding all openings in the building envelope with a direct line of sight to any non-emergency light fixtures between the hours of 11 p.m. and 6 a.m. year-round.
6. Use appropriate color temperature. Use the lowest color temperature that is acceptable in the context of its application, preferably equal to or less than 3,000k.
7. For pathways and sports areas in parks that are illuminated, use fixtures that are full cutoff so that they light a pathway or sitting area without causing glare. Use only full cutoff wall pack fixtures on park buildings, that are mounted at an appropriate height.
8. Manage sports lighting installations for minimum impact on the lighting of surrounding park areas and residential areas. Use "de-lamping" techniques to reduce lighting levels at parks, sports fields and parking lots, where appropriate for the location and use, considering security and decorative lighting issues.
9. Encourage the Dickinson ISD to adopt uniform lighting standards for buildings and sports and athletic facilities.

Strategy 4.4.7: Require all exterior fixtures to be Dark Sky compliant.

Dark Sky Compliant fixtures must have the Dark Sky Fixture Seal of Approval which provides objective, third-party certification for lighting that minimizes glare, reduces light trespass and doesn't pollute the night sky. If a Dark Sky Fixture Seal of Approval is not available fixtures must be full-cutoff with a color temperature rating of 3,000k or less.

Initiatives and Actions:

1. All exterior light fixtures should be efficient while providing minimum illumination levels sufficient for personal safety and security. Efficient exterior lighting is defined as 60 Lumens/Watt minimum system efficiency.
2. Safety and security lighting should minimize glare and/or light trespass.



Dark sky compliant light fixtures are designated to reduce light pollution.
Source: GE Current

Strategy 4.4.8: Develop EV Charging Stations in Downtown City Center and IH-45 Activity Center.

In the race to net zero emissions worldwide, the auto industry is undergoing a dramatic shift to electric vehicles (EVs). Smart cities — and the automakers that meet their needs — are committed to converting to electric-powered vehicles over the next two decades. General Motors, for example, plans to be all-electric by 2035. Canada, China and many countries in Europe have already mandated phasing out gas-powered vehicles between 2030 and 2040.

As millions of internal-combustion-powered vehicles are replaced with EVs, a corresponding growth will be needed in EV charging stations in both urban and rural areas. Any location with an available power source — including solar panels that need not be part of an electrical grid — will be able to offer EV charging. This means it is becoming increasingly practical and necessary to offer EV charging as either a service or an amenity for shoppers, employees, and building residents. It is also an incredible opportunity for developers who are building the products and infrastructure to support the electric vehicle market

In anticipation of the transition to electric-powered vehicles, install electric vehicle charging stations in readily accessible locations in Downtown and directly off-of the IH-45 Exit 19.

Initiatives and Actions:

1. Partner with companies that design, manufacture, own, and operate EV charging stations, including Fort Worth-based ImPower Connection, Inc. (info@impower-connection.com), Blink (https://blinkcharging.com/) and other companies to determine the market criteria, feasibility, and site selection criteria for establishing EV charging stations in Dickinson.
2. Pursue federal funding for EV charging stations through the National Electric Vehicle Infrastructure (NEVI) program. The NEVI program has $5 billion available over the next five years for all 50 states and territories for EV charging infrastructure. The objective of the NEVI program is to ensure that EV charging infrastructure is installed every 50 miles along the Interstate Highway System (must be within one mile of designated federal or state highways - e.g., IH-45, SH 3). EV charging stations should have at least four 150kW DC fast chargers with CCS ports capable of simultaneous charge. Renewable energy generation (solar), storage (batteries), and upgrades of existing infrastructure qualify for funding.

EV Charging Station Markets[14]

Three distinct markets exist for deploying EV charging station technology:

1. Residential buildings: We will charge our EVs when we are home. For homeowners, this means chargers in the garage that can bring our EV to a full charge overnight. In apartment and condominium complexes, owners will need to provide networked charging systems in parking lots and garages.

2. Commercial and industrial businesses: Many companies and organizations want to provide charging stations at their facilities as a service or an amenity. This includes retail business, as well as corporations, hotel and event venues to support charging for visitors and employees. In fact, many cities now require all new buildings to include EV charging stations.

3. Smart cities: Today, urban centers are actively building out the infrastructure for a greener future. This effort supports net zero goals as well as better environmental stewardship and cleaner air.

14: https://www.digi.com/resources/library/solution-briefs/oem-solutions-ev-charging-station?regid=1&confirm=confirm&submissionGuid=57ca8eac-57fc-4e8d-8ef7-d80d8e095183)



EV Charging Station
Source: Smart Cities World



Commercial EV Charging Station
Source: Autoweek

Objective 4.5: Improve the City's Police, Fire and Emergency Services facilities and equipment.

The undersized Police, Fire and Emergency Services Department's buildings presents an urgent need for new operational headquarters. Due to funding constraints, the Dickinson Volunteer Fire Department (DVFD) does not have an official vehicle or vehicle equipment replacement policy or schedule. All branches of Dickinson's emergency services departments should be sufficiently stationed in buildings that adequately meet their equipment and workflow needs. Capital improvement funding should be allocated towards building repairs, expansions or department relocations and additional equipment purchases.

Strategy 4.5.1: Maintain the public's expectations and confidence in the effective delivery of its public safety system.

Initiatives and Actions:

1. Regularly evaluate Police and Fire Department resource needs. Continue to pursue strategic planning to ensure adequate staffing levels, resources, training, equipment, and facility capacity to effectively respond to growth and increased call volume demand. Identify and evaluate opportunities to maintain national fire service response and staffing standards.
2. Regularly evaluate response time for Police, Fire, and EMS to determine station needs. In the fastest-growing cities in the country, new fire stations are regularly needed to reduce response times and provide life-and-death emergency service. Study new station locations based on the Plan, geographic and population changes, and five-year updates to the Fire Department's Master Plan. Undertake a study of EMS response times to determine the need for additional resources.

Strategy 4.5.2: Construct a new Police Station.

With over 56 Police and Jail-related personnel, the Dickinson Police Department has outgrown its 11,000 sq. ft. facility. As summarized within the Police Facility Needs Assessment (2015) departmental personnel will likely grow to 89 by the year 2034. Based on best practices and guidelines promoted by the Texas Police Chiefs Association and other police department accreditation programs in the U.S., to accommodate the future space needs, the Police Department will likely require a minimum of 41,000 sq. ft. by 2034; increasing to approximately 50,000 sq. ft. by 2045.[15]

Instead of a major building renovation, the City Manager is advocating constructing a new facility in a new location within the Downtown area.

Initiatives and Actions:

1. Consider constructing a high-performance, USGBC LEED certified facility.

Strategy 4.5.3: Plan for the phased addition of 10 new patrol cars for the Police Department's fleet.

Based on the Department's fleet replacement schedule, which is reviewed each year by the Patrol Captain and adjusted accordingly, within the 20-year time horizon of this Plan the Police Department estimates it will require an additional 10 new patrol cars.

Initiatives and Actions:

1. Work with the Police Chief to develop a capital improvement program for the phased replacement of the Police fleet of patrol cars.

15: Brinkley, Sargent, Wiginton Architects, 2015. Police Facility Needs Assessment and Planning Study. City of Dickinson.



City of Liberty, Texas, police vehicle fleet
Source: City of Liberty, TX

Strategy 4.5.4: Work to improve the City's Public Protection Classification (ISO rating).

As of 2017, the City's ISO classification, as determined by the Insurance Services Office (ISO) and approved by the Texas State Fire Marshall, is a Class 03.[16]

A city's ISO rating is very important as it corresponds to a variety of public protection criteria, ranging from the condition of vehicles and equipment to response time. The ISO rating affects insurance rates, which can have a direct impact on its citizens. The lower the ISO rating, the better.

Initiatives and Actions: Work with the Texas State Fire Marshall and Insurance Services Office to determine the conditions upon which the City's ISO rating can be reduced.

2. Work with the City's Director of Finance to develop a cost to benefit analysis comparing the cost of emergency services enhancements to the reduction in ISO rating and subsequent cost savings to the City and its residents.

16: Texas State Fire Marshall, 2017. Public Protection Classification Summary Report (ISO Rating). City of Dickinson.



Emergency response time affects city ISO ratings.
Source: City of Grand Prairie, TX



Cities with low ISO ratings can receive special recognition by the Insurance Services Office.
Source: City of Round Rock, TX

Strategy 4.5.5: Plan and budget for Dickinson Volunteer Fire Department (DVFD) future facility and equipment needs.

Based on information provided by the City of Dickinson's Administrator of Records, the DVFD occupies two facilities: the Central Fire Station and the DVFD Station 2. Together, these two facilities enable the DVFD to operate within a two-mile response time buffer, with generous overlap. Station 2 is located at 4210 Dockrell Street (west of IH-45) and is primarily used for storage and training. The Central Fire Station is located at 4500 FM 517 Rd E in Dickinson and is shared with Dickinson Emergency Medical Services (EMS). Currently, there is not enough room at the Central Fire Station for both departments' equipment and personnel.

Initiatives and Actions:

1. Plan and budget for a new fire station to serve the current and future space needs of the DVFD. The DVFD and EMS need to each have their own facility or build an addition to the Central Fire Station. Otherwise, the DVFD will need to consider adding on to an existing property or purchasing new property to provide adequate space for vehicles, equipment, and future day or full-time personnel and decontamination areas for personnel and equipment. Consider constructing a high-performance, USGBC LEED certified facility.
2. As summarized in The Existing City report, new National Fire Protection Association (NFPA) requirements on vehicles and personal protection in the fire stations and for deployed crews are projected to be prohibitively expensive and the DVFD is not in a position to upgrade vehicles and equipment without additional financial support.
3. Budget for a larger rescue boat to assist with water-related emergencies.
4. Assist the DVFD with drafting an official vehicle/vehicle equipment replacement schedule.



As Dickinson continues to grow, new fire protection equipment will be required.
Source: Daco Fire Equipment Texas



Community Strategies and Recommendations

Goal 5.0 Neighborhood Character:

Complete neighborhoods with safe and convenient access to a diversity of housing types, amenities, and services needed to accommodate a range of family sizes and income levels.

Housing Typology

As Dickinson continues to grow it is expected to experience an increase in housing demand. Along with this growth, overall size and limited remaining land plays a vital role for future development. Dickinson will benefit from developing a broad housing portfolio to provide the kind of housing options that current and future residents both require and desire. Through innovative design strategies and mixed-uses, future developments should investigate ways to cater to diverse uses. The objective should be to capitalize on future market demand while safeguarding and improving existing areas.

As characterized in Appendix A, The Existing City, residential development in Dickinson predominantly consists of conventional linear subdivision layouts on undeveloped parcels around the fringes of the community; a pattern which promotes vehicular dependency and multiple, recurring vehicle trips driven along linear, closed-loop designs featuring one way in and one way out. Between 2016 to 2021, all of the new construction building permits issued have been for single-family detached homes in subdivisions. Approximately 70 percent of residential buildings in Dickinson are single-family detached, making single-family homes the dominant housing type in the City. A significant number of homes (24 percent) were built before 1970 making them over 50 years old. The median value of owner-occupied homes in Dickinson is $288,400,1 which is less than that of owner-occupied homes in Galveston County and Harris County. The above factors drive home rental costs down; the median gross rent for renter-occupied housing in Dickinson is $938, which is less than median gross rent in Galveston County ($1,148) and Harris County ($1,114), indicating that renter housing in Dickinson is more affordable than renter housing in the surrounding areas. Multi-family buildings with 20 or more units constitute only 7.6 percent of the City's housing. An ongoing challenge will be to actively reduce the number of manufactured housing within the city limits. While manufactured homes may enable home ownership for low to moderate income families, it is difficult to guarantee quality construction; manufactured home tend to rapidly depreciate in value, are difficult to finances, and are difficult to resell.[17] While the City's Existing Land Use Map identifies 131.9 acres of manufactured housing, and the Official Zoning Map identifies 81.82 acres designated for the Manufactured Housing (MF) District, are is at least 50 acres of existing manufactured housing within the city limits, much of which is nonconforming and not in manufactured housing subdivisions, as required by Chapter 9, Manufactured Homes (Section 9.7, Manufactured Home Communities) within the City's Code of Ordinances.

17: Diehl, E. February 21, 2022. 10 Disadvantages of Modular Homes: What to Consider Before Purchasing. SoFi. Available at: https://www.sofi.com/learn/content/disadvantages-of-modular-homes/

Dickinson should encourage a variety of housing typologies at multiple densities. An ample supply of housing enables an economically diverse population and accommodates families at different life stages with options for suitable and attractive avenues to homeownership. As will be discussed, the City should promote expanded opportunities for high-quality yet affordable ownership/renting beyond single-family detached homes or two-story, drive-up apartments, thereby accommodating a variety of socioeconomic groups and lifestyles to create a vibrant and diverse community. Residential subdivisions should be adequately amenitized with playgrounds, parks, open spaces, internal and perimeter sidewalks, and other valuable incentives that support community interaction.

While housing typologies and price points are largely market-driven, the City can provide incentives to attract developers that specialize in constructing high-quality, workforce housing alternatives to the conventional singe-family detached housing prototypes. The City can promote homeownership through providing access to available resources and tools its citizens can utilize when considering whether they are looking to buy a home. By promoting mixed-use development, the City can ensure a higher-density housing prototype that may be an attractive alternative to living in a single-family detached home.

Optional Ways Forward

- **Revise zoning ordinances** and other land use regulations and policies to reduce or eliminate arbitrary controls and barriers on home size. For example, Chapter 18 of Dickinson's Code of Ordinances explicitly requires that residential dwelling units in the Small Lot Residential and Conventional Residential zoning districts have garages with a 250 square foot minimum floor space.
- **Promote dense mixed-use development** that brings together housing, retail shopping, restaurant dining, education and employment opportunities
- Increased residential densities and increased commercial intensities
- Variety of commercial development within zoning districts (provisions to enable development)

On Housing and Neighborhoods

Diverse Housing Typologies

The diversification of housing typologies will enable people to live in Dickinson for their entire life. Housing needs are not static. Needs change over time as people move through different stages of their lives. Young adults seeking to locate to (or remain in) Dickinson often face challenges in purchasing a home, let alone finding a home that suits their lifestyle. At this stage in their life, the amount of income and assets required may pose barriers to home ownership. As a result, this age group depends upon apartments and other forms of rental housing. As age, economic status and family size increase, people often seek a shift to owned housing. To a large degree, the smaller and older homes in Dickinson can fill the role of starter homes. Townhomes can also provide a more affordable form of entry-level owned housing. Families may "move up" to larger homes over a lifetime. This transition reflects the need for more space and the capacity to support additional housing expense. As people age and children leave home, housing needs change. "Empty nesters" may seek to downsize with smaller homes and less maintenance. Other older residents may need housing that includes varying levels of support services.

The availability of life-cycle housing sustains the community by preventing polarization of residents in one age or income group. As one generation of residents moves through its life cycle, it can move into the housing provided by the previous generation, just as the next generation will move into the housing being vacated.

This evolution is facilitated by the provision of diverse housing by type, value, and stage of life-cycle including:

- Affordable rental units for young people just beginning to enter the workforce;
- Affordable single-family units for first-time home buyers and young families;
- Move-up housing for people with growing families and/or incomes;
- Empty-nester housing characterized by small size but high-quality, and lower-maintenance;
- Housing for seniors and the disabled that accommodates physical limitations;
- Assisted living environments to provide health and medical care to the elderly.

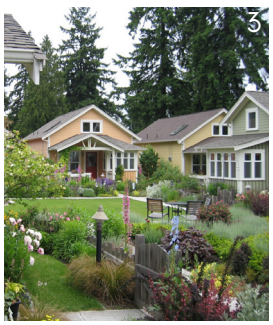
Based on changing demographics and affordability needs, a diversity of housing types is needed in Dickinson and the Planning Area. User groups with diverse housing needs include seniors, low income, homeless, and college students.

Figure X. Missing Middle Housing



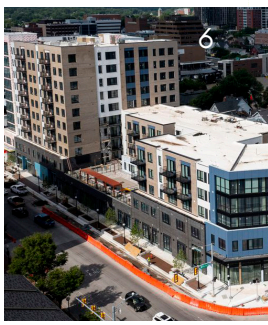












Source: 1, Rocket Homes; 2, Sunlight Institute; 3, ULI Kansas City; 4, The Balance; 5, Multifamily Executive; 6, MLive Advance

Multi-Family Housing

What is Missing Middle Housing?

Missing Middle housing refers to housing typologies and housing prices not commonly built in many modern American cities. Missing middle are homes sized and priced between the range of the typical single-family suburban home and a appartment/condominium unit. Due to development trends over the last half century, housing typologies in this range, once common throughout urban and rural communities, have begun to decrease in availability. Limiting housing options can prevent a community from having a diverse work force, many age ranges, economic diversification, and life-long residents.

As illustrated in Figure X.X, on the facing page, missing middle housing can include duplex-housing, townhomes, cottage courtyard homes, live-work mixed-use buildings, and stacked housing.

Impact of Missing Middle Housing

American families who are car-dependent typically spend 25 percent of their household income on their fleet of cars, compared with just nine percent for transportation for those who live in walkable urban places. The potential 16 percent savings could be reallocated to improved housing (building household wealth), educating children, or family savings [U.S. Bureau of Labor Statistics, Customer Expenditure Report 2021]. To give the market what it wants, several steps need to occur:

- More transit and bike and walking infrastructure; Legal permission to build higher-density, multi-use projects (generally, walkable urban development is illegal in the U.S.);
- Management of these places to ensure cleanliness and safety and promote festivals and infrastructure.
- Affordable housing programs to ensure inclusiveness and affordability.

In his article, "Focus on Small Design Changes," Marc Schlossberg, suggests that to reduce car use in the suburbs, the focus should be on land use, connectivity, and parking. The first prerequisite for walking is to have somewhere to walk to. Once there is something within walking distance, it is important to have a way to walk there. By design, the street network in many suburbs is isolated and designed to drain neighborhood roads on to major automobile arteries. For a pedestrian or cyclist, this means a quarter-mile trip often becomes a mile-long one along roads congested with cars. Having enabled mixed land uses and increased multi-modal connectivity, disincentives for car use need to be addressed starting with the excessive availability of parking. Driving makes sense if there is an easy place to park at one's destination. Reducing the available parking is key. Minimum parking requirements should replace with maximum parking requirements.[2] To be less reliant on cars new suburban neighborhoods would need to include varied types of residences, good schools, parks, playgrounds, convenient shopping, a variety of jobs and public transportation.

In his article, "The Missing Middle Response to Urban Housing Demand," Dan Parolek suggests that "missing middle" housing, which includes duplexes, four-plexes, and bungalow courts housing types, achieve medium-density yields and provide high-quality, marketable options between the scales of single-family homes and mid-rise flats for walkable urban living. They are designed to meet the specific needs of shifting demographics and the new market demand and are a key component to a diverse neighborhood. Missing scale of a house (2 story height, width along a street, and depth of building) and accommodate multiple units within the building. These housing types exist in every neighborhood across the country that was built prior to the 1940s which provide diverse housing choices and affordability.[4]

They are classified as "missing" because very few of these housing types have been built since the early 1940s due to regulatory constraints, the shift to auto-dependent patterns of development, financing challenges, and the incenting of single-family home ownership. The missing middle housing concept can also be used as an affordable housing tool, in that diversifying the housing stock to accommodate different income levels, lifestyles, and demographics can lead to positive affordable outcomes.[5]



Source: Missing Middle Arlington



Source: The Housing Innovation



Source: RDG Planning

Characteristics of Missing Middle housing include:

- **A walkable context:** Missing middle housing types should be built within an existing or newly created walkable urban context. These housing types are appealing due to the lack of or reduced size yard to maintain, and their proximity to services and amenities such as restaurants, bars, markets, and work.

- **Medium density but lower perceived densities:** These building types typically range in density from 16 dwelling units per acre (du/acre) to up to 35 du/acre, depending on the building type and lot size. Due to the small footprint of the buildings and the fact that they are usually mixed with a variety of housing types, even on an individual block, the perceived density is usually lower. A combination of these types densifies a neighborhood to a minimum average of 16 du/acre, which allows the area to become transit-supportive and main streets with neighborhood-serving where walkable retail and services become viable.
  Small footprint and blended densities: These housing types are small- to medium-sized building footprints. This makes them ideal for compatible infill, even in older neighborhoods that were originally developed as single-family but have been designated to evolve with slightly higher intensities.

- **Smaller, well-designed units:** The starting point for missing middle housing should be smaller-unit sizes. Often, existing planning and regulatory systems that include parking requirements by unit, density calculated in dwelling units per acre, and impact fees per unit regardless of size, discourage small units.

- **Off-street parking does not drive the site plan:** Additional challenges in implementing missing middle housing include trying to provide too much parking on site; and not adhering to the policy of constructing a walkable urban context. Requiring too much off-street parking shifts neighborhoods below the 16 du/acre density threshold, thus making buildings economically inviable. Parking regulations should require no more than one off-street parking space per unit to make these economically viable. In addition, on-street parking must be available adjacent to the units to make this viable.[1]

- **Creating community:** Missing middle housing creates community through the integration of shared community spaces within the types, as is the case for courtyard housing or bungalow courts, or simply from the proximity they provide to the community within a building and/or the neighborhood.

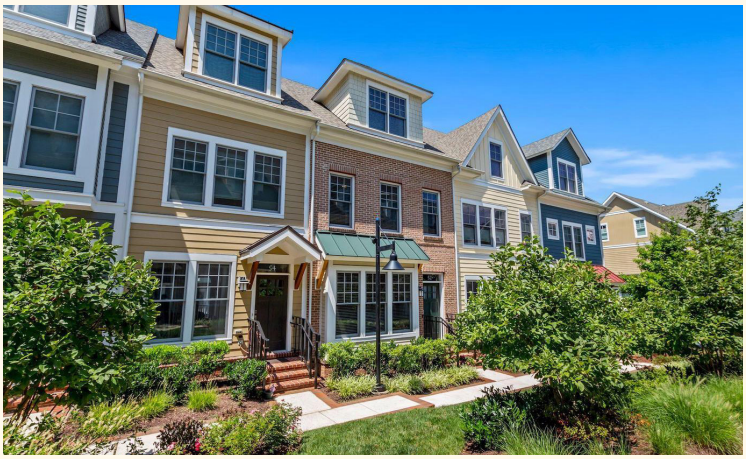


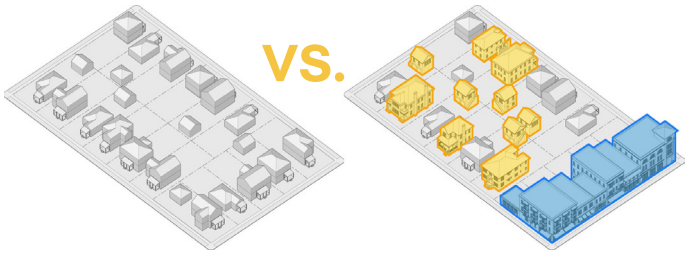
Source: Missing Middle Housing, Opticos



Two or more doors on a facade doesn't dramatically change existing character
Source: Planetizen (left), QHI Media (right)


Accessry dwelling unit / mother-in-law dwelling unit
Source: HOA Management


Source: Movoto

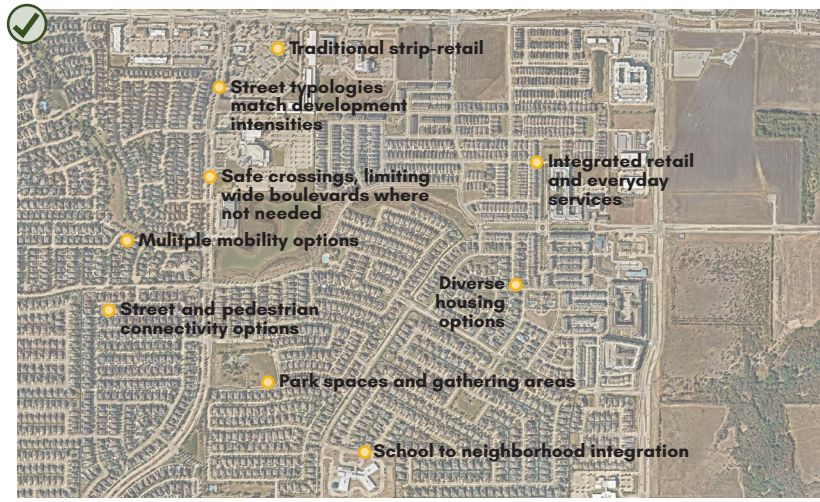


Neighborhoods and Access

A subdivision or neighborhood is a sub area of the city in which the residents share a common identity often focused on a school, park, community business center, or other features. Many residential subdivisions are built to only allow for single-family residential land uses, with other every-day services concentrated in areas away from residences. Subdivisions and neighborhoods often only accommodate one type of housing, price, and size, limiting the diversity of a neighborhood. This should be discouraged as a development model. Residential areas should be designed with access to every-day services in mind, providing connections to day-cares, medical facilities, parks, grocery stores, cafes, and other services. In the examples to the right, League City's residences are located far away from retail and educational uses, separated by large boulevards. The example below depicts multiple neighborhoods in Frisco, Texas, which are interconnected with varying housing typologies, densities, parks, neighborhood nodes, retail, and walkable corridors. Refer to Goal X, on page X, for neighborhood access strategies.



Traditional Texas Development (League City - Eastern Subdivisions)
Source: Nearmap Imagery 2022



New Suburban Texas Development (Frisco - Western Neighborhoods)
Source: Nearmap Imagery 2022

Case Study

Norton Commons

Norton Commons is a planned-unit mixed-use residential development in the suburbs of Louisville, Kentucky. Unlike many typical suburban communities, Norton Commons is designed as a neighborhood. This includes offering a variety of housing typologies, lot sizes, retail and commercial space, public squares, parkland, medical facilities, schools, and churches. Norton Commons creates a small town feel through the establishment of a central community node including a public plaza and 3-6 story mixed-use development. The road network is designed in a radial grid-format providing direct access to retail uses along the central spine road. As one continues outwards from the central plaza, housing densities and building heights decrease. The housing and street-level retail is based off historic development styles, which allows for direct and convenient access to store frontages, front porches, and parkland. It is also important to note that parking lots and garages are located in back alleys or off the street frontage creating a more attractive, safe, less car dependent, and community driven type of environment to live in throughout different stages of life.



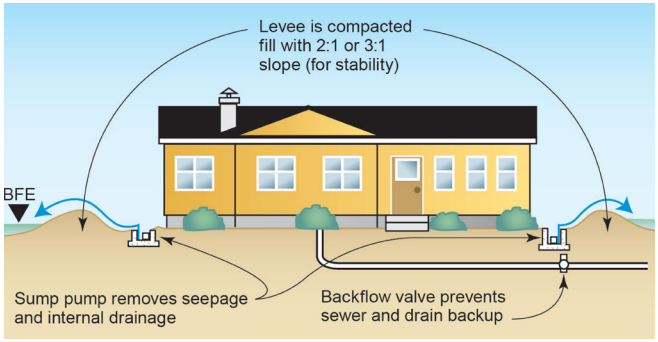


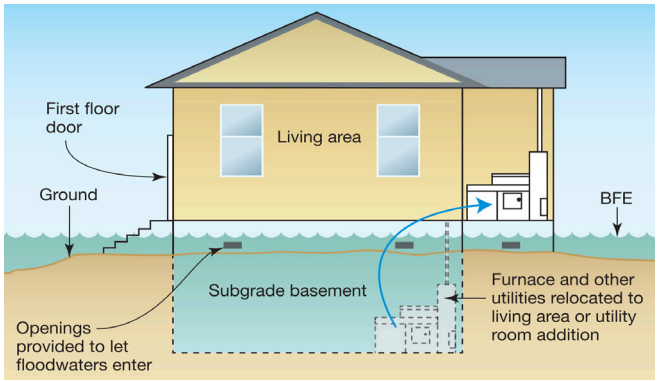
Resilient Housing

Resilient buildings are designed and constructed in a way that avoids, prevents, or reduces the damage caused when flooding takes place. Resilient construction can play an important role in flood risk management strategies by reducing damage and speeding up the recovery process.

Building Techniques for a Flood-Resilient House:

- The Dry Water or Flood-Proofing Method ensures that water will be kept outside of your home and away from your possessions.
- Wet Flood-Proofing Method allows water to enter while minimizing potential damage by opting for solid waterproofed concrete slabs rather than wooden floors, increasing distance between power outlets and the finished floor line, and ensuring that fixed furniture is constructed of waterproof materials.
- Elevation Method, the most traditional method of flood-proofing, consists of the elevation of a home by building on stilts, using concrete pylons, constructing a bank of earth, or incorporating the parking garage or area beneath the house.
- Flood-Resilient Floating Homes are built atop a boat.
- Flood Walls Method consists of building a waterproof wall. To maximize the use of floodwater, these walls can be surrounded with landscaping and vegetation or other Low Impact Development techniques, further developed on page X, that can help mitigate some of the water.





Flood mitigation through levees and elevated first flood foundations
Source: FEMA Reducing Flood Risk 2015

Elevated Flood Resistant Housing in Dickinson



Source: Google Imagery Streetview



Affordable floating home community
Source: Schoonschip, Isabel Nabuurs



Flood mitigation on non-elevated homes
Source: FEMA Reducing Flood Risk 2015



Elevated utilities for flood protection
Source: FEMA Region 2 Costal Analysis



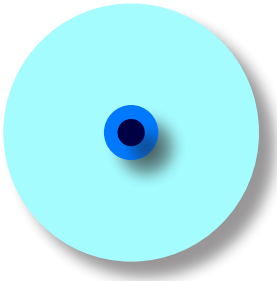
Ensure houses are elevated above street drainage and yard drains exist near homes
Source: Riverstone, Cragar Gonzales

Density and Character

The success of great places is often attributed to density. Density is generally defined as the amount of residential development permitted on a given parcel of land. It can be measured in the number of dwelling units per acre—the larger the number of units permitted, the higher the

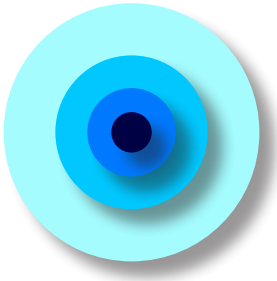


3 Towns - 3 Stories - 3 Futures



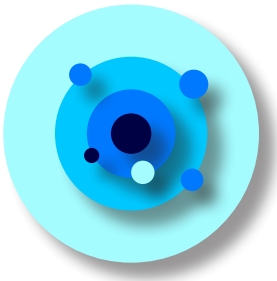
Town 1: Town One represents the development pattern of a common suburban community. The historic town core is small and semi-dense surrounded by similarly sized and priced single-family suburban development and strip-retail. Mobility is primarily driven by personal vehicles.

VS.



Town 2: Town Two represents the development pattern of a common suburban community, but with a greater diversity of single-family and multi-family housing opportunities surrounding a larger downtown urban core. Mobility is primarily driven by personal vehicles, sidewalks, and bicycle lanes.

VS.



Town 3: Town Three represents the development pattern of a diversified suburban community. The Downtown core is larger and offers a diversity of housing typologies. Densities generally decrease outside of the Downtown core, but smaller urban zones with diverse housing typologies and retail options exist throughout the community. Town Three has accessible neighborhood pocket nodes that promote community participation, safety, and economic growth. Mobility is primarily driven by personal vehicles, sidewalks, bicycle lanes, trails, and public transportation.

There are many benefits to building denser neighborhoods, including the following:

- **It helps create walkable neighborhoods.** A Great Street reflects the neighborhood through which it passes and has a scale and design appropriate to the character of the abutting properties and land uses.
- **It supports housing choice and affordability.** The pedestrian environment along the street is well-designed and well-furnished. The relationship between the street and its adjacent buildings is conducive to walking and inviting to people.
- **It helps expand transportation choices.** Density creates transportation choice through population numbers that support trails, sidewalks, bicycle lanes, and the public transportation ridership necessary to support and make transit a more viable and competitive transportation option.
- **It helps improve security.** Having neighbors nearby, active lively streets, and land uses that support activity at different times of day, can help create places where crime is less likely to occur.
- **It helps protect the environment.** Dencity can help to grow a community without sprawling into evnvironmetally beneficial areas, reducing the need for vehicle travel miles, roadway infastructure, and helps preserves land for green space and parks which can reduce flood risks.

Guiding Principles

Housing & Neighborhoods Principle 1: Housing Equity.
Support initiatives and policy to develop fair and equitable, affordable housing within neighborhoods throughout the City.

Housing & Neighborhoods Principle 2: Infill Development.
Encourage residential infill development and redevelopment that is compatible with the scale and character of existing neighborhoods.

Housing & Neighborhoods Principle 3: Housing Choice.
Include a variety of housing types and sizes to support the needs of existing and future residents, during every stage of life.

Housing & Neighborhoods Principle 4: Affordable Housing.
Affordable Housing. Support incentives to develop new affordable housing within neighborhoods throughout the city.

Housing & Neighborhoods Principle 5: Connectivity.
Promote neighborhood design that allows for multi-modal connectivity between residential areas, commercial areas, parks and open space.

Housing & Neighborhoods Principle 6: Amenities as Focal Point.
Provide appropriate park space and recreation areas and amenities as a focal point in all newly developing neighborhoods.

Objective 5.1: Neighborhood Growth and Diversity: Ensure a variety of housing types to suit the lifecycle needs of Dickinson's population.

Generally, the cost of housing is determined by the marketplace's tolerance. However, cities do have a role in affecting prices by regulating density, product types, and community desirability. Housing stock is a core element of any community and influences factors like quality of life, the ability to age in place, alternative and equitable transportation options, the availability of adequate utilities infrastructure, and local employment opportunities. Dickinson can position itself to adapt to changing market conditions and promote mixed-use growth by encouraging diversity in housing products and defining density in appropriate locations.

Strategy 5.1.1: Promote Local Homeownership in Dickinson.

As of December 2022, the median listing home price in Dickinson, TX was $288,400. This is not affordable for many of Dickinson's residents and those who would like to live in Dickinson. Promote partnerships with local organizations who may be able to help bridge funding gaps for many of Dickinson's residents.

Initiatives and Actions:

1. Partner with local banks and home financing institutions to establish incentives for young professionals to encourage local homeownership in Dickinson.
2. Promote partnerships between prospective home buyers and the Southeast Texas Housing Finance Corporation (SETH). SETH is a public non-profit housing finance corporation under the Local Government Code of the State of Texas Statutes and is an instrumentality of the 20-member city and county governments, of which Dickinson is one. SETH's primary business for the past 31 years is the issuance of tax-exempt and taxable bonds for both single-family homeownership opportunities and the financing of multi-family housing, down payment assistance for low-to-moderate income (LMI) families, inspections, ownership of affordable multi-family and homebuyer's education. Partner with SETH to provide counseling and conduct workshops for Dickinson residents and first-time homebuyers on the range of programs SETH is responsible for administering, including:

- Homebuyer education seminars including SETH's homebuyer education course, and their post-purchase homeowner education course.
- GoldStar program, which provides assistance in the form of a forgivable Community Second Loan. Forgiveness structures offered include three, seven, and 10-year terms. The assistance provided can be used for the down payment and closing costs when purchasing a home (the maximum amount of assistance is seven percent and is based on the final loan amount).
- 5 Star Texas Advantage program which provides eligible homebuyers with several loan program options to meet their needs, including down payment and closing cost assistance when purchasing a home.
- Extra Credit Mortgage Credit Certificate program, which provides special tax credits annually for qualifying first time homeowners and grants of up to $2,500 for down payments and closing costs when purchasing a home. Note that the Extra Credit MCC program can be combined with the GoldStar and 5 Star programs.

3. Consider re-establishing the Dickinson Fair Housing Work Group. Originally established in 2011, the Dickinson Fair Housing Work Group's mission was to develop and help implement the City's a long-term plan for affirmatively furthering fair housing and various projects related to fair housing issues, including overcoming the impediments outlined within of the State of Texas' Fair Housing Activity Statement – Texas (FHAST) Form Guide.
4. Consider reconvening the annual Housing Family Fair. The Housing Family Fair was a half-day event held annually in Dickinson and was designed for first time homebuyers, and included a one-stop shop for those interested in learning about the resources available to potential homebuyers. Local organizations and real estate experts would attend the Fair to discuss credit counseling programs, home maintenance and home safety tips, home lending, and first-time homebuyer assistance programs.



Partnerships with local organizations help create opportunities for individuals and families have access to safe, affordable homes.
Source: Bob Vila Home Improvement

Strategy 5.1.2: Amend Dickinson's Code of Ordinances to include new regulatory provisions and incentives to encourage a diversity of "missing middle" housing typologies (e.g., duplexes, triplexes, townhouses, accessory dwelling units, etc.) to increase density and walkability, and develop true lifecycle and workforce housing opportunities.

Missing middle housing has a range of benefits for municipalities. Investing in missing middle housing can help increase the housing supply, create more affordable housing options, promote density and walkability, and create more diverse housing options for residents. One of the primary benefits of constructing missing middle housing units is their affordability. Missing middle housing types are generally more affordable than single-family homes, largely because of their smaller size and shared walls and property means lower per-unit construction and land costs. Beyond the price points of the homes themselves, developing missing middle housing in place of single-family detached homes can help localities expand their overall housing supply – a critical strategy for alleviating price pressures across the housing market more broadly.
Missing middle housing can help to gently increase residential density in existing single-family residential neighborhoods while maintaining community character. Despite having multiple dwelling units, middle housing can be designed to be similar in scale and appearance to single-family homes, which may allay the concerns of neighbors worried about the impact of multi-family housing on neighborhood character. [18]

Initiatives and Actions:

1. Encourage a variety of market-driven housing types. The City should support and encourage housing product choices for individuals and families of all ages and income thresholds in Dickinson. Adapting to market preferences and having a diversified housing stock will enable residents at all stages of life to live in Dickinson. Housing variety is also a key recruitment metric to assure employers that their workforce has accessible living options. Provide incentives to encourage missing middle housing typologies including expediting the permitting process.
2. Support emerging, flexible residential types in appropriate areas. These may include housing options such as accessory dwelling units, detached rentals, condominiums, and other lifecycle and ownership options. Each may be appropriate only in certain defined areas and planned developments, but the City should be open to new and unique forms of housing to maintain affordable options in the community.

18: Abt Associates and NYU Furman Center, 2023. Missing Middle Housing. Local Housing Solutions. Available at: https://localhousingsolutions.org/housing-policy-library/missing-middle-housing/



Source: Greater Houston Home Builder's Association



Source: National Association of Home Builders



Source: University of North Carolina Chapel Hill

Strategy 5.1.3: Support housing that has well-defined design character, compatibility with adjacent uses, and balanced density.

Broader housing types should be developed in a manner that is least impactful to existing single-family residential areas. Depending on the location of the broader housing type, the character, compatibility, and density should be regulated based on the surrounding area.

Initiatives and Actions:

1. Review and assess compatibility standards between residential and non-residential uses. Ensure appropriate scale for setbacks, height, transitions, and buffering. The standards should be proportional with the intensity of the non-residential uses.
2. Prepare amendments to the City's Code of Ordinances to improve the design quality and compatibility of attached residential products. This is an important step as the housing market calls for more attached residential products. Quality and compatibility can be addressed through code sections related to site design, landscaping, and building design. Standards like building height, roof pitch and type, building articulation and features, landscaping, and site layout can help to make attached products compatible with single-family products.
3. Prepare amendments to the development codes to preserve the aesthetic in the Rural land use area depicted in the Future Land Use Map. These amendments would only apply to the zoning districts within this character area and would involve a combination of standards including lot design and building to garage orientation, streets, land use, dark sky, lot coverage, and more elements that result in a built environment which exhibits rural character.

Strategy 5.1.4: Undertake a housing study to evaluate near- and long-term need and capacity for multi-family units in Dickinson.

The Future Land Use program promotes a balance of residential land use types, density and character elements. In this plan, new high-density residential is not desired in the vast majority of Dickinson's planning area but is appropriate with limitations in key activity areas where the density is supportive to employment and commercial development, with amenities and activities within walking distance. High-density Residential (multi-family) should be limited and located only in Activity Center, Downtown City Center, Urban Transition, Employment Center designated land use categories, and other areas recommended for mixed-use development. Each of these categories support some high residential density, commercial retail, employment and leisure space. Residential should be supportive and secondary to the other uses in well-planned development proposals. Urban high-density residential development should have urban design standards and vertical integration with activated street floors. Work with market analysts and real estate developers to determine price points and value per acre thresholds based on the number of units per acre and minimum degree of amenitization of multi-family complexes.

Initiatives and Actions:

1. Consider amending the City's Code of Ordinances, specifically Section 18-52, High Density Residential District, to increase the number of units per acre based on the findings of the recommended housing study.
2. Incorporate housing needs and preferences considerations into the study.



Source: Hamilton County, Tennessee Regional Planning Agency



Medium density multi-family housing
Source: Source Design Everest


Multifamily and single family housing typologies on the same street
Source: Norton Commons



As population increases, Dickinson ISD will need to determine the number of new school openings to accommodate new students.
Source: Beverly Press

Strategy 5.1.5: Utilize the Future Land Use (FLU) Map to construct high-quality, market-rate multi-family housing of various densities within Dickinson.

The current stock of multi-family housing is old and sub-quality. The City has an unwritten requirement that existing multi-family housing must be torn-down and replaced with new multi-family housing (no net gain). As summarized at the Joint Workshop retreat (March 2022), a highly amenitized multi-family apartment complex can yield a greater value per acre than "big box" commercial development and its associated acres of surface parking.

Initiatives and Actions:

1. Prepare amendments to the City's Code of Ordinances that limit high-density multi-family to Urban Transition, Activity Center, Downtown City Center, and Employment Center designated land use categories. High-density multi-family remains a needed housing option for affordable, workforce housing and to generate the scale needed for mixed-use environments. The design and integration of high-density residential should be urban in form and secondary in nature in a planned development with non-residential land uses.
2. Establish supplemental regulations and/or design standards for multi-family residential and mixed-use development projects to ensure vehicular, pedestrian, and bicycle access and connectivity; adequate landscape enhancements; buffering from incompatible land uses; and abundant greenspace.

Strategy 5.1.6: Regularly coordinate with the Dickinson ISD to discuss anticipated residential growth and associated needs, in addition to school site locations and facility partnerships.

Initiatives and Actions:

1. Independent School Districts (ISDs) are well-informed regarding the likely locations and trajectories of future residential development, so they can plan for where and when new schools will need to be constructed, both within and outside of a community. Maintain periodic and ongoing communication with the Dickinson ISD regarding future school development plans.

Trends in Housing Typologies

Housing types can be thought of not only in the terms of density, but also in design and neighborhood arrangement. While single family residential housing has remained a very popular housing type in Dickinson, the following examples identify housing typologies that are becoming increasingly popular in the market, either as stand-alone products or incorporated into developments with a range of products.

Single-Family Condominium

This refers to a development that looks and feels like a single-family subdivision, except all of the single-family structures are on one lot, under a condominium ownership. The streets, parks, and amenities are all private. Typically, this type of development can have more units per acre than a traditional lot-and-block subdivision; however, it still functions as a single-family neighborhood. Single-family, or detached condos provide several benefits. They are typically more affordable; require less maintenance; provide greater, shared community amenities; and provide added security. Perceived disadvantages may include that there is less privacy; and that everyone must follow the same set of rules which are typically enforced by a home-owners association (HOA).



Multi-Family Apartment Complex

A multi-family apartment complex is a single structure with at least five or more separate housing units. Residents will often share common resources like a swimming pool, parking garage or playground. The definition of multi-family may not always mean "high-density," and affordability is often tied to broader, cyclical economic factors. Further, while there may be some areas where high-density development is desirable, there may be other areas where it is undesirable—and the differences and relationship between the two may not always be quantifiable on an aggregate level. Dickinson's Code of Ordinances refers to multi-family as High Density Residential (HR) district.



Cottage/Patio/Zero-lot line Homes

A detached single-family dwelling unit located on its own lot and intended to be smaller in area or flexible with setbacks. Other names include garden homes, patio homes, or courtyard homes.



Townhomes

Townhomes are a form of "attached" dwelling unit whereby individual dwelling units are attached on one or more sides. Townhomes offer a higher density form of residential that fits in the character and scale of single-family housing.



Single-Family Attached

A form of an "attached" dwelling unit, similar to a townhouse, these consist of two, three, or four individual dwelling units in one structure. These structures provide a higher density form of residential that fits in the character and scale of single family housing, and often take on the appearance of a large single-family dwelling.



Accessory Dwelling Units

An accessory dwelling unit is a secondary unit on a single-family residential lot that is independent of the primary dwelling unit. Other names include garage apartment, granny flat, or alley flat.





Cluster Development

This refers to a form of conservation development where units in the developed area are grouped closer together in order to preserve natural features and open space. This is often achieved by offering a density bonus to preserve open space.



Tiny Houses

A tiny house, it is generally thought of as a small house, typically sized under 600 square feet. The Tiny House is representative of an architectural and social movement that encourages living a simpler life in a smaller space. People from all walks of life have determined that a large home, and more specifically, the large cost of living that comes with it, is both unnecessary and a detriment to their happiness. These people have turned to tiny house living to reduce the financial and emotional burden of possessing a lot of material items.



Objective 5.2: Ensure that Senior Citizens remain integrated within the Community.

Strategy 5.2.1: Ensure affordable housing options in Dickinson for seniors.

As the Baby Boomer generation enters retirement and as older seniors continue to live longer it will become increasing important to expand the supply of housing for seniors. The current supply of housing for senior citizens is limited and provides few options for low-income older adults without affordable options. Enable Dickinson residents to age in the community by providing affordable housing options and social support for senior citizens.

Initiatives and Actions:

1. Provide housing support in the form of subsidization and other non-monetary incentives to enable older adults to age in place or age in the community through a combination of affordable and accessible housing with linkages to services.
2. Partner with Galveston County Senior Services and the Houston-Galveston Area Council (H-GAC) to continue to fund, staff, and expand upon programs for senior citizens, including congregate meal, transportation programs, and other programs offered at the Dickinson Community Center; to ensure seniors have adequate outlets for learning, promoting health and well-being, socialization and volunteer opportunities.
3. Partner with local banks and financial institutions to offer low-cost loans to help owners modify their homes to provide enhanced accessibility features to accommodate household members with disabilities.
4. Support senior living communities near neighborhoods and within infill locations. Senior living communities near or within neighborhoods provide options for aging populations to live close to family. These communities should be designed in a way that is compatible with the nearby neighborhood and should also consider the impact of increased traffic of emergency vehicles.
5. Propose amendments to the City's Code of Ordinances to reduce requirements for parking (which often goes unused by senior housing residents).



Retirement communities provide space for older adults to age in accessible housing.
Source: Rockwood Retirement Communities

Austin Affordable Housing Bond Program 2019

1. The City of Austin, Texas has passed a $350 million affordable housing bond to build and preserve housing that individuals and households earning less than $61,800 a year can afford through Proposition A. This bond was passed in response to the city's housing costs rising at historic rates, with some rents increasing by nearly 20 percent. This bond will provide funding for the creation, rehabilitation, and retention of affordable rental and ownership housing. The types of projects and programs to be undertaken as part of this bond proposition may include land acquisition for the construction of affordable housing, rental housing development assistance projects, home repair programs, or ownership housing development assistance projects. Proposition A will be funded by general obligation bonds, which are repaid by property taxes. The City anticipates raising the property tax rate by 1.32 centers per $100 of valuation during the lifecycle of the bond. The city estimates this money could build or preserve nearly 3,500 homes, assuming the cost of construction and rent subsidies equates to about $100,000 per home. In 2018, the city passed a $250 million affordable housing bond to purchase approximately two dozen homes and several hotels, as well as more than 60 acres of vacant land on which to build affordable housing. Homes that were bought with this money are being sold by the city as community land trusts – a model where the homeowner owns the house but not the land it sits on. The city plans to prioritize selling some of these homes to people affected by historic displacement. [19]

19: https://communityimpact.com/austin/central-austin/election/2022/11/08/austins-350-million-housing-bond-passes-nov-8/

Strategy 5.2.2: Ensure that senior citizens have access to housing and financial assistance resources.

Compile information of local and regional agencies and organizations that provide resources to senior citizens, including informational and financial assistance.

Initiatives and Actions:

1. Make information available at the Dickinson Community Center and through the City of Dickinson's website. Provide information on relevant housing programs, social services, and points of contact for agencies in Galveston County, including the following:
   - Texas Dept. of Housing and Community Affairs (https://www.tdhca.state.tx.us/texans.htm)
   - Galveston County Social Services (T# 409 770-5585)
   - M.I. Lewis Social Service Center (T# 281 534-2043; https://www.milewisctr.org/)
   - Salvation Army of Galveston County (T# 409 935-1190; https://southernusa.salvationarmy.org/galveston/)
   - Interfaith Caring Ministries (T# 281 332-3881; https://icmtx.org/)
2. Partner with Galveston County to evaluate establishing the equivalent of a senior citizen rent increase exemption (SCRIE) program, which would protect eligible seniors from rent increases. The program would be administered by the City's Community Development Department, which would establish income eligibility criteria.



Senior housing
Source: King County Housing Authority

Strategy 5.2.3: Explore the opportunity to develop a cooperative housing community in Dickinson.

Partner with developers and financial institutions to evaluate the feasibility of developing a cooperative housing community. Often referred to as a "co-op," cooperative housing combines the financial advantages of home ownership with the convenience of community living. Designed to fit an evolving lifestyle, one of the key features of a cooperative is joint ownership of the property. To that end, a cooperative is a community of active adults who own an equity share—not just a unit—in the entire community through a not-for-profit cooperative corporation. Each equity share is held through an official membership certificate upon purchase. The cooperative corporation holds title to the entire property that includes dwelling units, land and common areas, and assumes the mortgage, tax and other obligations necessary to finance and operate the facility. A cooperative is operated on a democratic basis and the governing body is its Board of Directors, which consists of elected members from the co-op community. Each equity share enables members to occupy one home and receive one vote when electing the Board. The Board oversees and directs the policies, expenditures, and operations of the cooperative (https://www.villagecooperative.com/).

Initiatives and Actions:

1. Contact a residential development company that has experience assisting with the formation of cooperative corporations in Texas to learn more about developing a cooperative housing community in Dickinson.



Housing Co-ops are joi
Source: The Guardian

Objective 5.3: Neighborhood Stabilization and Revitalization: Promote reinvestment in aging neighborhoods to ensure neighborhood stability, longevity, and protection of Dickinson's historic fabric.

Strategy 5.3.1: Require new residential subdivisions to establish property owner associations.

Subdivisions developed with private streets, and alleys should be required to have a homeowner's association which will be responsible for the maintenance of access and shared amenities (e.g., parks and playgrounds, swimming pools, landscape enhancements, etc.). All owners of property that have private access to amenities must be members of the homeowner's association.

Initiatives and Actions:

1. Update Dickinson's subdivision regulations to require homeowner/property owner associations for residential developments that include common areas and shared amenities to ensure long-term property maintenance.

Strategy 5.3.2: Reevaluate substandard housing and signage abatement process to facilitate a streamlined process which results in demolition of substandard structures and quicker redevelopment.

Strategy 5.3.3: Provide incentives for the development of Neighborhood Commercial land uses within existing neighborhood areas designated as Neighborhood Restoration land use category.

To stimulate redevelopment of neighborhoods with higher quality workforce housing, consider providing various incentives for developing pockets of Neighborhood Commercial within the existing residential neighborhoods east of Dickinson Avenue.

Initiatives and Actions:

1. Revise Sec. 18-54 - Neighborhood Commercial "NC" District to enable off-site parking within 250 linear feet of the NC lot.



New small-lot residential housing in Downtown Resenburg, Texas
Source: Google Street Imagery

Strategy 5.3.4: Reduce the number of individual manufactured homes in Dickinson.

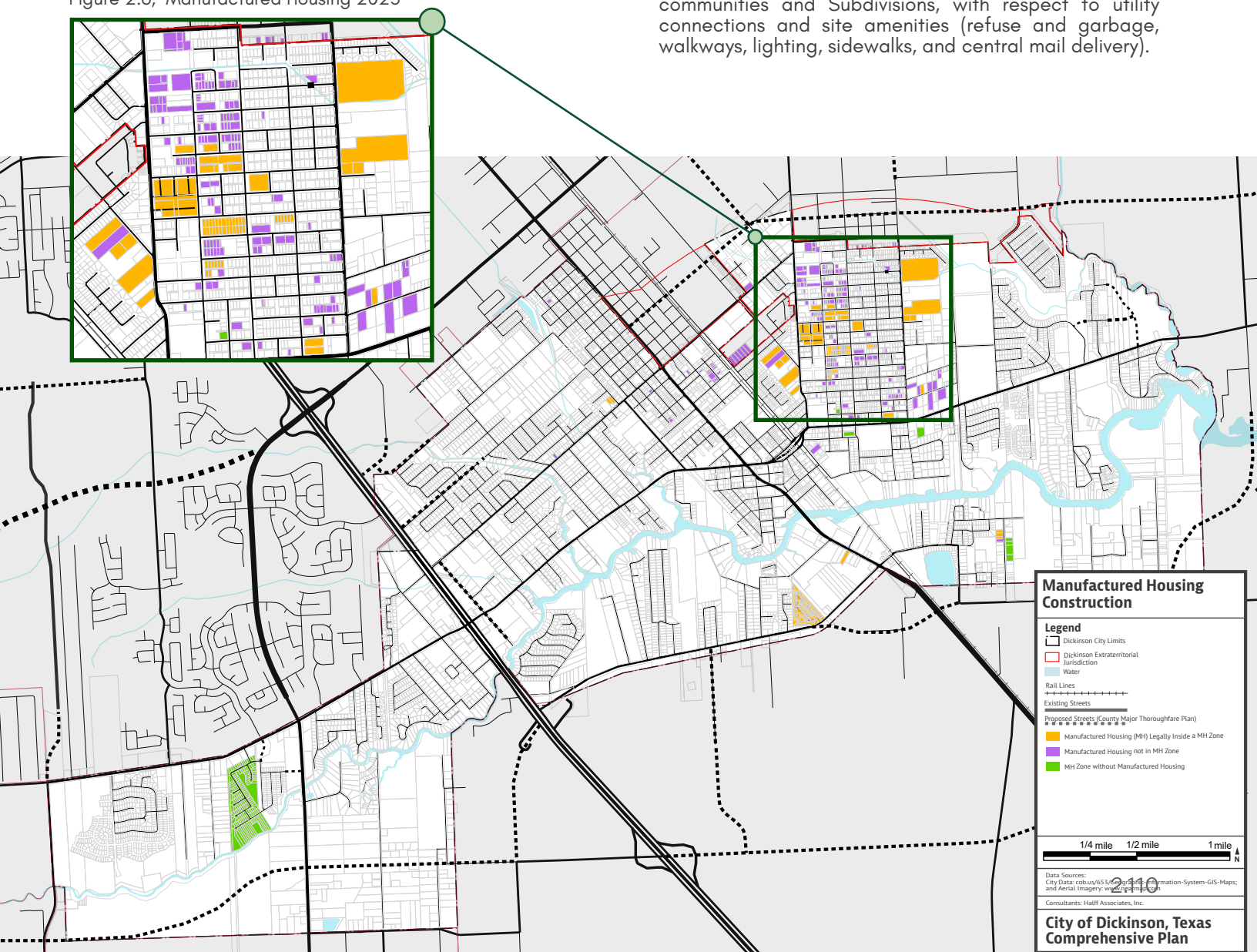
As previously discussed, there are approximately 50 additional acres of manufactured homes in Dickinson, well beyond what is identified on the city's Official Zoning Map (See Figure 2.6 Manufactured Housing 2023) . Chapter 9, Manufactured Homes, within the City's Code of Ordinances, outlines the conditions upon which manufactured homes can be located within the City.

Sec. 9-2, Location of HUD-Code Manufactured Homes, states that it is, "unlawful for any person to locate, maintain, use, or occupy a HUD-Code manufactured home in any place within the City other than an approved manufactured home community or subdivision." The City's Official Zoning District Map (2014) identifies the locations of the approved Manufactured Home (MF) Districts within the City.

Initiatives and Actions:

1. Ensure that all manufactured homes within the City are located within manufactured home communities and subdivisions, as identified on the City's Official Zoning Map.
2. Routinely inspect Manufactured Home (MH) Districts within the City to ensure code compliance with the provisions of Sec. 9.6, General requirements for manufactured home communities and subdivisions; and Sec. 9.7, Manufactured home communities, which outline the general requirements for manufactured home communities, including internal vehicular and pedestrian circulation, utilities infrastructure, refuse and garbage, walkways, lighting, and central mail delivery.
3. Consider revising Sec. 18-112, Nonconforming Mobile Homes and Manufactured Homes, to reflect a 30-day replacement period, as opposed to a 90-day period.
4. Ensure that manufactured homes conform to Sec 9-5, General requirements for HUD-Code manufactured homes, with respect to (a) Tie-downs; (b) Skirting; (c) Location, including accessory structures; (d) Age.
5. Ensure that manufactured home communities conform to Sec. 9-6, General requirements for manufactured home communities and Subdivisions, with respect to utility connections and site amenities (refuse and garbage, walkways, lighting, sidewalks, and central mail delivery).

Figure 2.6, Manufactured Housing 2023



Community Strategies and Recommendations

Goal 6.0 Environmental Stewardship :

Dickinson's built environment functions in harmony with the systems which compose its natural environment.

On Green Infrastructure

Green infrastructure offers a way to tackle specific challenges head on and realizes multiple secondary benefits at the same time. It can function to provide an array of interrelated benefits and ecosystem services. Green infrastructure has conservation value that supports native species, maintains natural ecological processes, sustains air and water resources, and contributes to the health and quality of life for communities and people. It is our natural life support system.

Ecosystem Services

Trees and forests are valued for basic goods such as food and wood fiber. They also deliver important services to our ecosystem, including air and water purification, flood and climate regulation, biodiversity, and scenic landscapes.

Ecosystem services make up our natural life support system and are a form of natural capital.

Like financial capital, manufactured capital, and human capital, natural capital is a requisite for economic progress and human welfare (Hawken, et al., 1999). Accounting for natural assets requires measuring the stocks and flows of ecosystem services and making sure the people who rely on these assets know their value and the cost of losing them. Understanding the extent to which a forested landscape purifies the air or moderates coastal flooding, for example, can lend priority to regional investments in land management and conservation.

Valuing ecosystem services presents

- **Promote public awareness** of the importance of forests, wetlands, grasslands, gardens, community health, recreation;
- **Provide an economic and social incentives** for private landowners and businesses to own and sustainability manage forests, rangelands, and outdoor green spaces;
- **Encourage ecological restoration** and support the partnerships and innovative solutions needed to finance restoration activities.

Resting on the concept of sustainability, ecosystem management is described as the optimum integration of human needs and requirements, the ecological potential of a landscape, and economic and technical considerations (Jensen and Everett 1994, Zonneveld 1988). The main principle, then, is to sustain the integrity of ecosystems (i.e., ecosystem functions, composition, and structure) for future generations while providing immediate goods and services to an increasingly diverse public (Jensen and Everett, 1994; Overbay, 1992).



Trees surrounding stormwater detention pond
Source: Laramie County, Wyoming



Playgrounds and sports fields on parkland are ways of activating green space with minimal long-term developmental and flooding impacts
Source: Sugar Land, Texas



Permiable pavements can help mitigate flooding and pressure on utility systems
Source: 1, BIM Smith; 2, PavementInteractive; 3, U.S. Army Corp of Engineers; 4, Australian Paving

Urban Trees and Forests

Local Climate and Energy Use: trees influence thermal comfort, energy use, and air quality by providing shade, transpiring moisture, and reducing wind speeds.

- **Air Quality:** Trees improve air quality by lowering air temperatures, altering emissions from building energy use and other sources, and removing air pollutants through their transpiration.
- **Water Flow and Quality:** Trees and soils improve water quality and reduce the need for costly stormwater infrastructure and treatment by intercepting and retaining or slowing the flow of precipitation reaching the ground.
- **Noise Abatement:** Properly designed plantings of trees and shrubs can significantly reduce noise.
- **Wildlife and Biodiversity:** Urban forests help create and enhance animal and plant habitats and can act as "reservoirs" for endangered species.
- **Soil Quality:** Trees and other plants help remediate soils at landfills and other contaminated sites by adsorbing, transforming, and containing various contaminants.
- **Real Estate and Business:** Landscaping with trees in yards, in parks and greenways, along streets, and in shopping centers—can increase property values and commercial benefits.
- **Individual Well-being and Public Health:** The presence of urban trees and forests can make the urban environment a more aesthetic, pleasant, and emotionally satisfying place in which to live, work and spend leisure time.



Tree lined streets help keep houses and streets cool, can help reduce vehicle speeds, provides vegetation to combat flooding, and increases quality of life for residents
Source: Strong Towns, Town of Cheektowaga

Low-Impact Development (LID) Strategies, Tools, and Techniques

Low Impact Development (LID) is an innovative stormwater management approach with a basic principle that is modeled after nature: manage rainfall at the source using uniformly distributed, decentralized, micro-scale controls. The goal of LID is to mimic a site's predevelopment hydrology by using design techniques that infiltrate, filter, store, evaporate, and detain runoff close to its source. Techniques are based on the premise that stormwater management should not be seen as stormwater disposal. Landscape features, known as Integrated Management Practices (IMPs) are the building blocks of LID. Almost all components of the urban environment have the potential to serve as an IMP; this includes not only open space, but also roof tops, streetscapes, parking lots, sidewalks, and medians. LID is a versatile approach that can be applied equally well to new development, urban retrofits, and redevelopment / revitalization projects. Refer to Goal X, on page X, for LID specific design strategies.



Street runoff raingarden
Source: DryStoneGarden



Street runoff grass swale
Source: Aaron Volkening

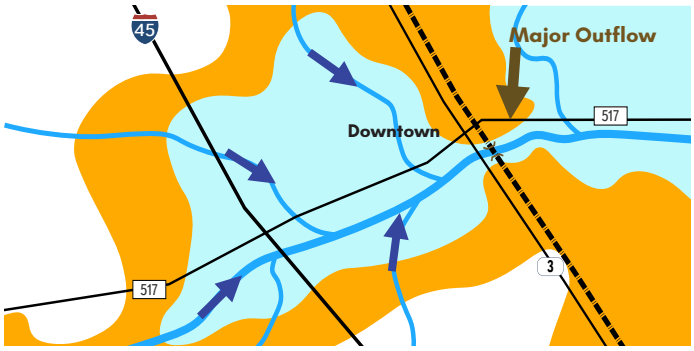
Parks, Recreation, and Natural Areas (Sponge Parks)

Parkland and natural areas are spaces where water is absorbed into the ground and landscape. Strategically preserving or creating wetlands and open spaces in flood prone areas can help mitigate flooding in surrounding areas. Wetlands and grasses help store, water, increase ground absorption levels, and slows down run-off sheet flow, acting as a sponge in the environment. Through utilizing natural existing systems in conjunction with man-made systems, a more efficient, cost effective, and attractive drainage system can be developed.

Topographic Impact on Flooding

The topography and elevation of Dickinson poses challanges to flooding with the highest above see level point in Dickinson at only 10 feet. As descibed in the Existing City Report, a majoirty of Dickinson is within the 100-year and 500-year flod plains. The historic Downtown, City facilities, major thruroughfares, and major subdivisions are constantly threatened by strom surges and heavy water events. Below Figure 2.7, Topographic Impacts at the Rail Bridge, is a diagram of Dickinson depicting the flooding effect of the railroad lines, the most inpactful choke-point of Dickinson's hydrologocal systems. The railroad, along with the natural elevation of the 500-year flood plain, creates a basin where water has only one outlet to excape from, under the railroad bridge. If water flow into the canals and bayous that drain into Dickinon Bayou excedes the outflow capacity at the railroad bridge a majority of Dickinson will begin to flood. If storm surges push water into the Dickinson Bayou the railroad bridge partially acts as a stop-water, but creates conditions more likely flood areas east of the railroad bridge, and retain water west of the bridge durring flood events.

Figure 2.7, Topographic Impacts at the Rail Bridge





Waterfront trail, look-out, and seating
Source: USDA Forest Service



Clear Creek Paddle Trail
Source: City of League City

Accessing the Bayou

Waterways are valuable multi-functional assets that provide economic, social, and environmental benefits. These benefits include:

- Sustaining biodiversity;
- Providing opportunities for commerce;
- Preserving the community's historical and cultural values;
- Providing opportunities for green and blue infrastructure;
- Providing opportunities for leisure, recreation and tourism;
- Offering local and strategic sustainable transport routes.

Waterways play a big role on enhancing quality of life. Historically, waterways were a focal point for explorers and settlers, and many towns and cities were established near rivers and estuaries based on reliable sources of freshwater, safe anchorages and an abundance of food including fish. Waterways provide opportunities for recreational activities such as swimming, boating, and fishing and foreshore areas provide space for walking, bicycling, and gathering for social occasions. Waterways provide a sense of place and identity for many people and are appreciated for their aesthetic beauty within the landscape. In Dickinson, the Bayous, its tributaries, and the natural resources they provide are distinguishing features of the City of Dickinson and offer a great potential for open space and recreational opportunities.

Refer to Goal 6, on page 2.115, for bayou access strategies.

Guiding Principles

Green Infrastructure Principle 1: Ecological Integrity. Ecological integrity refers to the ability of an ecosystem to support and maintain ecological processes and a diverse community of organisms.

Green Infrastructure Principle 2: No Non-natives. Minimize the introduction and spread of non-native species.

Green Infrastructure Principle 3: Green Infrastructure. Encourage the use of green infrastructure techniques such as natural areas, the urban forest, and landscaped stormwater facilities, to manage stormwater.

Green Infrastructure Principle 4: Recreational Opportunities.
Provide, maintain, and enhance recreational opportunities through high-quality parks, facilities, and open spaces.

Green Infrastructure Principle5: Economic Development Opportunity.
Create greater opportunities for the City of Dickinson to capitalize on the environmental and recreational resources of the City and County through tourism- and recreational-based businesses.

Objective 6.1: Reimagine Dickinson's Bayous

Strategy 6.1.1: Develop a Master Plan for the Dickinson Bayou corridor and its tributaries.

Consider developing a master plan that would develop strategies and actions for activating the Bayou as a significant recreational amenity and resource for creating a more livable community that celebrates the City's characteristic waterfront. The master plan would consider improvements to public access, more effective drainage to reduce the impact of flooding, water-based recreation and eco-tourism, and enhanced ecological function.

Initiatives and Actions:

1. In partnership with the Texas A&M AgriLife Extension Service, Texas Sea Grant, and the Galveston Bay Estuary Program (GBEP) work to advance the provisional goals outlined within the Habitats of the Dickinson Bayou Watershed, a report prepared by the Dickinson Bayou Watershed Partnership, Habitat Workgroup; including, but not limited to:
   - a. Identifying areas where invasive plants grow and develop an invasive vegetation management plan
   - b. Identifying invasive/exotic animals and develop an invasive/exotic animal management plan
   - c. Identifying wetland areas for restoration and develop a restoration plan
   - d. Identifying valuable natural habitats and develop a plan to preserve and/or restore these areas
   - e. Completing wetland restoration project at Paul Hopkins Park
   - f. Completing wetland restoration project in proximity to the Highway 3 Boat Ramp
   - g. Estimating the amount of remaining forested riparian habitat within the watershed
2. Apply for funding through the Galveston Bay Estuary Program's 2023 Federal Bipartisan Infrastructure Law (BIL) Project proposal; RFPs will likely be advertised in the Summer 2023 and will be due in September.

Benefits to building development along the Bayou

- Single property owners have direct access to the waterfront

Disadvantages to building development along the Bayou

- Increased erosion
- Increased flooding / Decreased soil-water retention
- Higher insurance costs for property owners
- Increased chances for property, tax, and investment damage
- Decreased green space, trees, and native vegetation
- Decreased public access to the Bayou
- Increased chemical and street water run off
- Damaged soils and vegetation during construction
- Increased chances of emergencies / natural disasters
- Increases flood risks along adjacent / nearby Bayou properties

Strategy 6.1.2: Enhance access to the Dickinson Bayou and its associated Tributaries.

Identify and map all of the publicly-owned access points along the Bayou and consider how these places might be programmatically and functionally improved for the recreational enjoyment of the City's residents and tourists alike. Consider bayou access improvements to the full length of the bayou, as well as along the Dickinson Bayou's associated tributaries, within the city limits.

Initiatives and Actions:

1. Consider recreational improvements such as canoe, kayak, and paddle board launches, and fishing piers.
2. Consider educational enhancements such as interpretive signage describing the bayou's geomorphology and how it has impacted settlement patterns through history. Describe the riparian flora and fauna that live along the Bayou's shorelines, and aquatic life within the Bayou.
3. Consider relocating the public boat launch (refer to Strategy 1.5.3) and converting the area into a significant public gathering space with overlook, pavilions, and decked pier.



Multi-use pavilion, trailhead, event space, fishing and boat dock park space
Source: City of New Orleans



Trail along riparian vegetation in College Station (John Crompton Loop)
Source: All Trails, Colette Langley

Natural Informative Signage

Informative signage in parks can help educate the public abouth their local parks landscapes, raising public awareness and appreciation for parkland, and helping to prevent pedestrians from walking in sensitive planting zones. Signage often depicts information about the specific spieces, planting types, and the benefits of the planting. Signage also lets communities know about restoration projects within their area inwhich they may want to join.



Source: City of Kyle, Texas



Source: The Trail Foundation

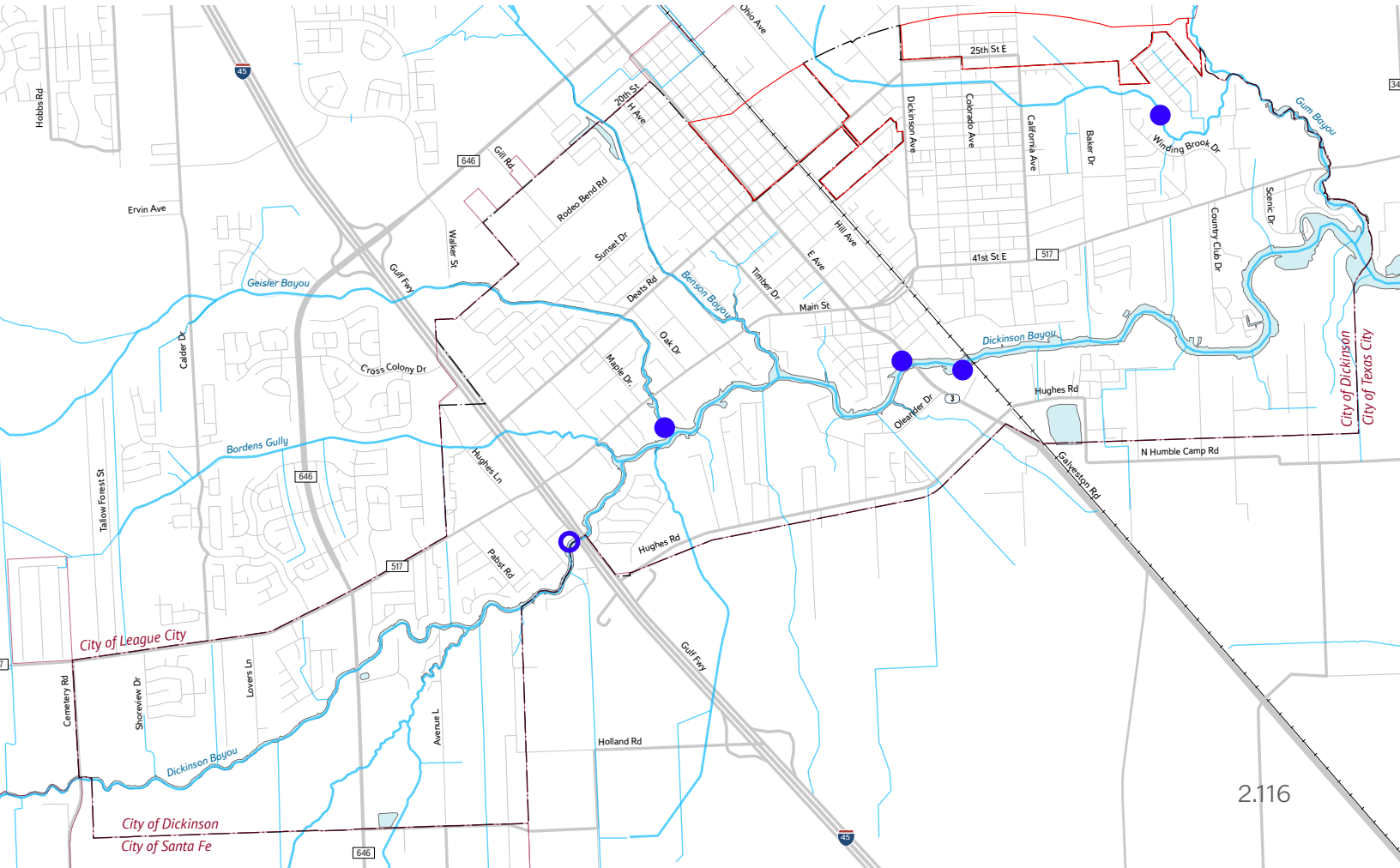


Source: Golden Gate National Parks Conservancy



Source: Friends of Government Canyon

Figure 2.8, Bayou Public Access Points



Strategy 6.1.3: Establish a system of blueways (paddle trails) along Dickinson Bayou and its tributaries, including Gum Bayou.

Establish a blueway or paddle trail program along Dickinson Bayou. Put-in and take-out locations for canoes and kayaks should be developed at public access points to Dickinson Bayou (refer to Strategy 6.1.2).

Initiatives and Actions:

1. Program and develop a paddling route along the Dickinson Bayou that canoeists, kayakers, and paddle boarders can follow, with readily identifiable put-ins and take-outs at public access points.

Strategy 6.1.4: Develop a Bayou Shuttle.

As the Downtown City Center and IH-45 Activity Center (in particular, as part of development along Water Street) continue to develop and become local and regional draws for business and entertainment, consider establishing a Dickinson Bayou-based shuttle service that would periodically run from the SH 3 boat launch to Water Street and back, with interim stops at Paul Hopkins Park. Some entities establish shuttle operations at key points of the year (e.g., summer) or for special events.

Initiatives and Actions:

1. Visit similar shuttle concessions to determine the conditions upon which a bayou shuttle would be financially feasible.

Strategy 6.1.5: Become active with the Bayou City Waterkeeper program for Dickinson Bayou and its tributaries.

As outlined on the organization's website (https://bayoucitywaterkeeper.org/) the Bayou City Waterkeeper (BCWK) is a Houston-based organization focusing on water quality, wetlands protection, and flood mitigation across the 10-county region of the lower Galveston Bay watershed, with an emphasis on climate resilience and environmental justice. The BCWK views water as a catalyst for change, and brings together science, law, and advocacy to build power, fill gaps in regulatory enforcement, and push back against irresponsible development. BCWK functions as a strategic liaison between community partners on the ground and local/regional level decision-makers and policymakers.

Initiatives and Actions:

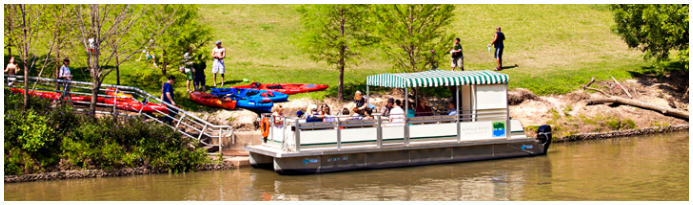
1. To learn more about the BCWK, contact T# 713 714-8442, or email to: inquiries@bayoucitywaterkeeper.org



Armond Bayou parking and boat paunch site
Source: Kayaking Texas







Buffalo Bayou Boat Ride
Source: Buffalo Bayou Partnership, Houston Cronicle



Clear Creek Paddle Trail launch site and signage
Source: Lone Star Cistak

Objective 6.2: Employ Green Infrastructure Solutions

Nature-based Solutions

For the purposes of this Comprehensive Plan, nature-based solutions are defined as, "sustainable planning, design, environmental management, and engineering practices that weave natural features or processes into the built environment to create and achieve more resilient communities" [20] Categories of nature-based solutions practices are based on scale and location and include:

Watershed or Landscape Scale: Interconnected systems of natural areas and open space. These are large-scale practices that require long-term planning and coordination.

Neighborhood or Site Scale: Distributed stormwater management practices and low impact development strategies, tools, and techniques that manage rainwater where it falls. These practices can often be built into a site, corridor, or neighborhood without requiring additional space.

Coastal Areas: Nature-based solutions that stabilize the shoreline, reducing erosion and buffer coastal areas from storm surge impacts. While many watershed and neighborhood-scale solutions work in coastal areas, these systems are designed to support coastal resilience.

The biggest selling points for nature-based solutions are the many benefits that can accrue beyond mitigating the effects of natural hazards. Nature-based solutions can provide short- and long-term environmental, economic, and social advantages that improve a community's quality of life and make it more attractive to new residents and businesses. Unlike gray (e.g., concrete) infrastructure, a single nature-based project can yield a variety of community co-benefits that can fulfill many municipal departmental goals. Local leaders can highlight these co-benefits to encourage collaboration and make nature-based solutions standard practice. The bottom line is that collaboration on nature-based solutions can help communities survive in the long-term and thrive day-to-day.[20]



Planting wetlands at Houston Botanical Garden
Source: AgriLife Today

Incentivizing Private Investment into Nature-based Solutions

Innovative incentive-based programs can create unique ways to fund and build nature-based projects. Some examples are public-private partnerships, rebates and financing programs, grants, and cost-share arrangements. Banking or credit trading programs, development or redevelopment incentives, local fee or tax discounts, and community awards and recognition programs have also been useful. Such voluntary programs can increase the use of nature-based solutions on private land, where most traditional development takes place. They can balance regulations and may relieve some of the administrative burden that communities carry when adopting and managing their own nature-based policies or projects.[20]

Rebates, tax credits, or low-interest loans can encourage nature-based solutions and practices. Another finance option for promoting nature-based solutions is the U.S. Department of Energy's Property Assessed Clean Energy (PACE) program. PACE is a proven financial tool that incentivizes Texas' property owners to upgrade facility infrastructure with little or no capital outlay. Approved by State legislation and established by local governments, TX-PACE programs enable owners to lower their operating costs and use the savings to pay for eligible water conservation, energy efficiency, resiliency, and distributed generation projects. Owners gain access to private, affordable, long-term (typically 10-20 years) financing that is not available through traditional funding avenues.[20]

Certification programs such as the U.S. Green Building Council's (USGBC) Leadership in Energy and Environmental Design (LEED) and the Green Building Certification, Inc.'s (GBCI) Sustainable Site Initiative (SITES) offer guidance for developers to incorporate sustainability when designing buildings and landscapes. Communities can provide incentives to developers to incorporate these certifications into new development and redevelopment projects.
Recently, Environmental Impact Bonds, or EIBs, have been used by cities across the country to fund a range of nature-based solutions projects to reduce stormwater runoff and address critical flooding issues. EIBs link project performance incentives to desired environmental outcomes. Like traditional bonds, most EIBs function with a fixed interest rate and term. Unlike normal bonds, however, they offer investors a "performance payment" if projects perform better than expected. The primary benefit of this model is that it shifts the project performance risk to a private party and ties borrowing costs to the effectiveness of a project. If a project underperforms, investors must reimburse the borrowing entity; if it overperforms, the entity pays the investors. [21]

20: FEMA, 2021. Building Community Resilience with Nature-based Solutions.
21: Texas Pace Authority. Available at: https://www.texaspaceauthority.org
22: Texas Outcomes-based Finance Challenge announces first round winners, Philanthropy News Digest. December 31, 2020. Available at: https://philanthropynewsdigest.org/news/texas-outcomes-based-finance-challenge-announces-first-round-winners

Incentivizing Private Investment into Nature-based Solutions (Continued)

In late 2020, Quantified Ventures, an outcomes-based capital firm focused on driving transformative health, social, and environmental impacts, announced the three projects selected to participate in the first round of the Texas Outcomes-Based Finance Challenge, an EIB initiative. Projects included a $5 million plan developed by the Katy Prairie Conservancy to develop the first "green" cemetery in the Houston metro area and, at the same time, generate revenue for conservation projects, the safeguarding of healthy ecosystems, and the protection of large swathes of coastal prairie; and a $70 million project to address power-grid resilience, provide distributed generation in the urban load center, and enhance community access to clean energy through the development of a 50 MW utility-scale and 2 MW community-owned solar array on a landfill in the Sunnyside neighborhood of Houston. [22]

Communities can update their land use, zoning, or other local regulations to provide incentives for using nature-based solutions. Zoning incentives can allow a greater height, density, or intensity of development if a developer uses nature-based approaches. One common zoning incentive is an increased floor-to-area ratio (FAR), which regulates the density of development on a site. Communities can also exempt green roofs or pervious pavements from any regulations that apply to impervious cover.

Reducing the permit application review period and associated fees is another way to incentivize nature-based solutions. For redevelopment, communities can also give a one-time tax credit for using nature-based approaches that benefit the public.



Riparian vegetation wetlands and park trail bridge
Source: Skyland Visitors

Nature-based solutions that are applicable to Dickinson include watershed scale and neighborhood or site scale nature-based solutions:

Watershed Scale Nature-based Solutions

Strategy 6.2.1: Establish greenways and riparian corridors along the Dickinson Bayou and its tributaries.

As described in Strategy 7.1.4 (page 2.128) there may be opportunities to activate some reaches along the Dickinson Bayou's tributaries, notably along Gum Bayou and Bordens Gully (refer to Strategy 1.3.1, page 2.43) for public access and recreation. Beyond public access these tributaries into Dickinson Bayou can be enhanced, and their banks stabilized, through planting riparian vegetation; which, in turn, can help reduce flooding through stormwater uptake; improve habitat and biodiversity; and improve water quality.

Initiatives and Actions:

1. Work with the Texas A&M AgriLife Extension Service to identify native riparian vegetation suitable for planting along bayou banks.
2. Provide incentives to private property owners for planting riparian vegetation along bayou banks within the city limits.

Strategy 6.2.2: Protect wetlands and riparian areas along the Dickinson Bayou and associated tributaries.

As depicted on Figure 2.9, Existing Wetlands 2023, there are many low-lying wetland areas along Dickinson's bayous. It is important to restore and protect these areas to absorb excess stormwater which can improve water quality and reduce the impact of flooding.

Initiatives and Actions:

1. Work with private property owners to conserve wetland and riparian areas along the Dickinson Bayou and its tributaries.



Grassess planted along an existing retention pond
Source: Murray Wilson, Stuff Limited

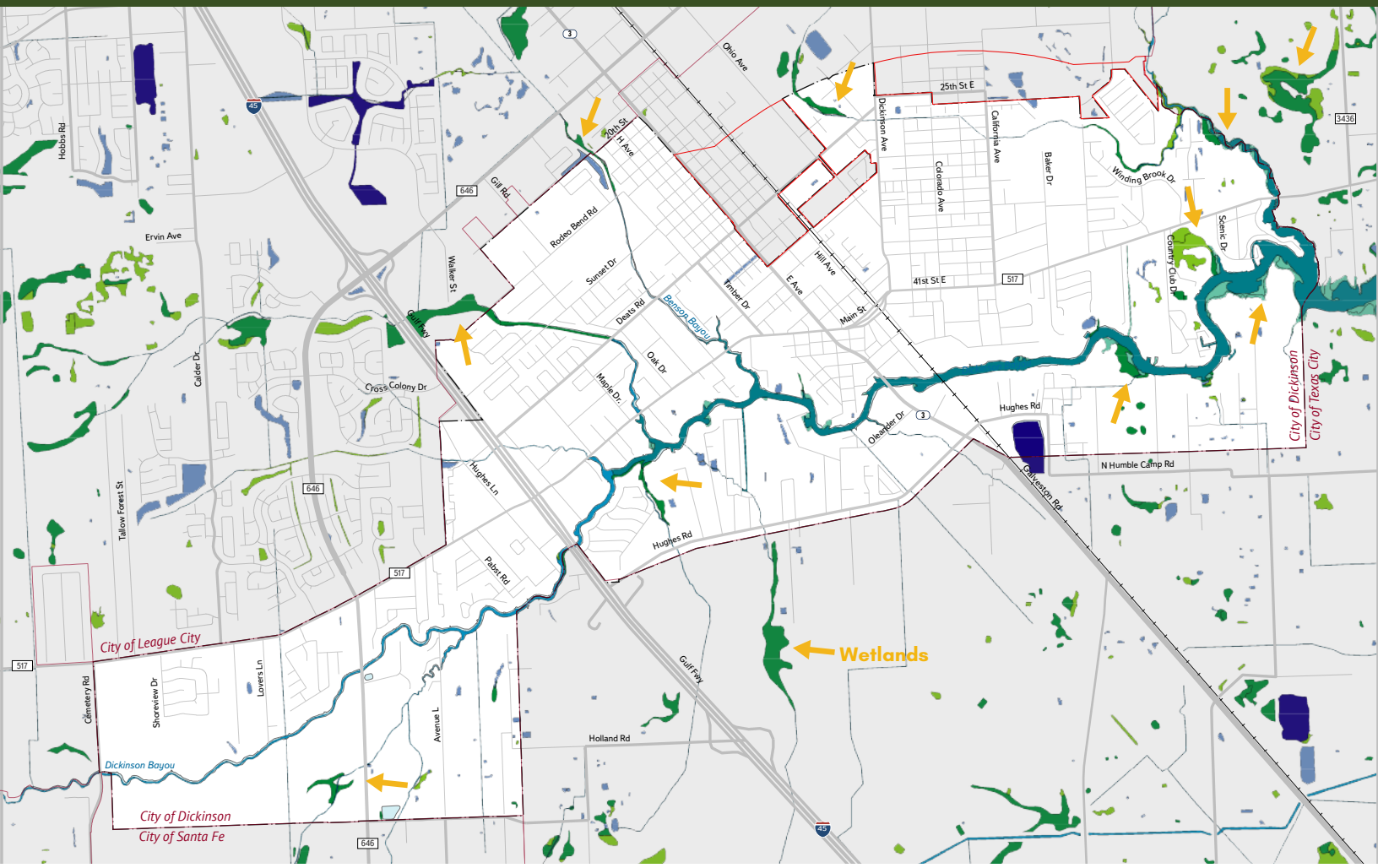


Figure 2.9, Existing Wetlands 2023

Neighborhood or Site Scale Nature-based Solutions

Strategy 6.2.3: Promote planting trees in Dickinson.

Dickinson is known for its forest canopy. Trees are part of Dickinson's current logo. During small group listening sessions several participants commented that the abundance of trees is what differentiated the City of Dickinson from other cities. Indeed, trees help make Dickinson unique and reinforces its sense of place. While there are many well-established neighborhoods that are enshrouded in lush vegetation, there are many neighborhoods, particularly east of Nichols Avenue, that are not so fortunate. There exists a great disparity of trees, for example, in the low to moderate income (LMI) neighborhoods between Dickinson Avenue and California Avenue. With the advent of climate change, communities throughout Texas will experience warmer temperatures and increased drought conditions.

Initiatives and Actions:

1. Develop guidelines for planting trees on public (City-owned land and rights-of-way) and private property. Recommend tree species that are included in the Approved Tree and Shrub List (Sec. 18-136 of the City's Code of Ordinances).
2. Provide incentives to private homeowners for planting additional trees in their yards; including the provision of trees, topsoil, and shredded hardwood mulch.
3. Sponsor workshops on how to maintain and care for newly planted trees.
4. Plant trees in the neighborhoods where there is a disparity of trees.
5. Bolster the City's existing tree preservation ordinance (Chapter 16.10, Tree preservation and landscaping) to further protect tree canopy during land development.
6. Plant more trees along Dickinson's corridors and within its districts and neighborhoods. Enforce Article III, Landscaping requirements within the City's Code of Ordinances. Sec. 16.10-16, General landscaping requirements, specifically lays-out tree planting requirements for residential and non-residential developments, with respect to the quantity and size of trees.



Girl scout troop help plant riparian vegetation and a living shoreline along dickinson Bayou, near Humble Road, during 2017 Marsh Mania
Source: Texas Saltwater Fishing Magazine

Strategy 6.2.4: Pursue Tree City USA designation through the Arbor Day Foundation.

A thriving urban forest offers many advantages to communities, including:

- Trees help absorb the sounds of traffic in urban areas by 40 percent.
- Neighborhoods with trees are seven to nine degrees cooler than those without.
- Trees reduce energy costs up to 25 percent by shading buildings and protecting them from winter winds.
- Homes with trees command higher property values.
- Green space plays a major role in improving mental and physical health.
- Planting and maintaining trees absorbs carbon dioxide in the atmosphere, mitigating the effects of climate change.

Publicly demonstrating the City's commitment to the environment is a great way to build pride among its residents, as well as position the community as an attractive place to live. The Arbor Day Foundation will send signs, flags, press releases, and other materials to promote this important designation.

Initiatives and Actions:

As summarized on the arbor Day Foundation's website (https://www.arborday.org/) the following standards must be fulfilled to achieve designation:

1. Establish a Tree Board or Urban Forestry Commission to be legally responsible for the care of all trees on city- or town-owned property. By delegating tree care decisions to a professional forester, arborist, city department, citizen-led tree board or some combination, city leaders determine who will perform necessary tree work. The public will also know who is accountable for decisions that impact community trees. Often, both professional staff and an advisory tree board are established, which is a good goal for most communities.
2. Establish a Public Tree Care Ordinance. Trees on public property are a public good and caring for these trees is a vital element of the Tree City USA program. A public tree care ordinance or law forms the foundation of a city's tree care program; it provides an opportunity to set good policy and back it with the force of law when necessary. A key section of a qualifying ordinance is one that assigns authority over public trees. This could be through the establishment of a tree board or forestry department—or both—and gives one of them the responsibility for public tree care (as reflected in Action 1). Qualifying ordinances will also provide clear guidance for planting, maintaining, and/or removing trees from streets, parks, and other public spaces.
3. Establish a Community Forestry Program with an annual budget of at least $2 per capita. Each year, the City must document at least $2.00 per capita toward the planting, care and removal of city trees—and the planning efforts to make those things happen. At first this may seem like an impossible barrier to some communities. However, a little investigation usually reveals that more than this amount is already being spent on tree care. If not, this may signal serious neglect that will cost far more in the long run. In such a case, working toward Tree City USA recognition can be used to reexamine the community's budget priorities and redirect funds to properly care for its tree resources before it is too late.
4. Arbor Day Observance and Proclamation. By passing and reciting an official Arbor Day proclamation, public officials demonstrate their support for the community tree program and complete the requirements for becoming a Tree City USA.



Unpaved natural walking trails can provide access to environmentally sensitive areas with minimal disturbance to vegetation and lower construction costs
Source: Visit Woodlands

Strategy 6.2.5: Install Stormwater Tree Trenches along streets and in new parking lots.

A stormwater tree trench is a row of trees that are connected by an underground trench engineered with layers of gravel and soil that store and filter stormwater runoff. They work well in streets and parking lots that have limited space to manage stormwater. Benefits of tree trenches include maintaining water balance and providing groundwater recharge; reducing runoff; promoting pollutant uptake through vegetation; improving air quality; and providing aesthetic appeal.[22]

Initiatives and Actions:

1. Application of this technique requires specific conditions. These include a careful selection of tree species and appropriate root zone areas and an absence of conflicts with utility structures (such as electric wires and signs) or other structures (such as basements or foundations).

Strategy 6.2.6: Provide incentives for the installation of low impact development (LID) techniques on private property.

Bioswales convey stormwater at a slow, controlled rate, and the flood-tolerant vegetation and soil act as a filter medium, cleaning runoff and allowing infiltration. Bioswales generally are installed within or near paved areas such as parking lots or alongside roads and sidewalks. In locations with low infiltration rates, underdrains can be used to collect excess water and discharge the treated runoff to another green infrastructure practice or storm sewer system. Rain gardens are composed of drought-tolerant shrubs, flowers, and grasses, and they lack a complex soil matrix and underdrain. They are well-suited for installation in residential lots. Bioswales and rain gardens reduce stormwater runoff volumes and increase groundwater recharge; promote pollutant uptake through vegetation and soil; reduce peak discharges; improve air quality; and provide aesthetic appeal (NOAA Office of Coastal Management).

Initiatives and Actions:

1. Steps must be taken to ensure plant survival (watering) and density; control invasive species; rake mulch annually; remove litter; and clean filter. Maintenance costs and time are higher initially and then taper off once established.

23: Green Infrastructure Options to Reduce Flooding. NOAA Office of Coastal Management. Available at: https://coast.noaa.gov/data/digitalcoast/pdf/gi-reduce-flooding.pdf



he lack of curbs on this parking lot allows of runoff to filter through plants eventually reaching a detention basin below.
Source: McCrone



Permiable surface installed in parkling locations
Source: Warrenville, Illinois



Parking lot curb cuts allow for stormwater to enter planted beds with drains
Source: Skagit Conservation District

Low Impact Development Strategies

The term low impact development (LID) refers to systems and practices that use or mimic natural processes that result in the infiltration, evapotranspiration, or uses of stormwater to protect water quality and replenish groundwater tables. LID principles complement, and sometimes replace, traditional stormwater management systems, which typically emphasize the transmission of stormwater off-site with grey infrastructure (curbs, pipes, or ditches). LID combines conservation practices with distributed stormwater source controls and pollution prevention to maintain or restore watershed functions. By allowing rain to soak into the ground where it falls, there are fewer opportunities for water to collect pollutants and reach nearby bodies of water. Examples of LID include vegetated swales, permeable pavement applications, rain gardens, and other micro-detention techniques.

LID can be incorporated into any development scenario, whether urban, suburban, or rural, and has proven to be attractive amenities to neighborhoods and communities and may reduce overall costs for stormwater management. LID is particularly effective for targeting non-point source pollution in dense, urban areas, because the LID controls can be used below paved surfaces, in easements or rights-of-way, and in open space to increase the site's storage and infiltration capacity.



Source: Laramie County, WI



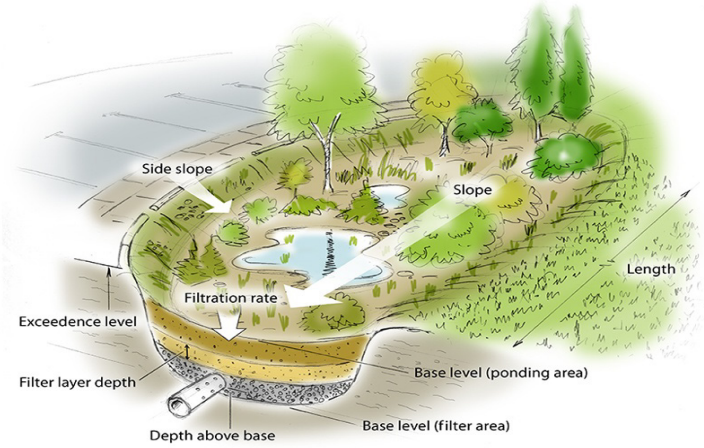
Source: Houston Builders Association

Strategy 6.2.7: Promote the use of cisterns and subsurface storage for stormwater detention.

Rainwater harvesting systems collect and store rainfall for later use. They slow runoff and can reduce the demand for potable water. Rainwater systems include rain barrels that store tens of gallons and rainwater cisterns that store hundreds or thousands of gallons. As the City of Dickinson becomes increasingly built-out on-site stormwater detention will need to be relegated to subsurface storage techniques.

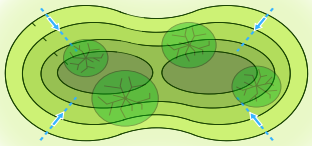
Initiatives and Actions:

1. Provide incentives to private property owners and developers to install rainwater harvesting techniques.



Graphic depicting a micro-detention pond
Source: Innovyze Resource Center

Incremental depressions surrounding vegetation draws water towards plantings, reducing the need for irrigation



Strategy 6.2.8: Promote the installation of green roofs on new construction.

A green roof is a roofing system that is composed of a shallow planting medium and covered with vegetation. Green roofs reduce stormwater runoff by absorbing rainfall. Green roofs can also reduce energy costs for cooling the building. Extensive green roofs, which have deeper soil, are more common on commercial buildings. Intensive green roofs, which have shallower soil, are more common on residential buildings.

Initiatives and Actions:

1. Partner with the USGBC's Texas Gulf Coast Chapter to sponsor workshops for developers and builders on the benefits of on green roofs.
2. Provide incentives for the installation of green roofs on new construction.



Source: Soil Science Society of America

Source: The Nature Conservancy



Community Strategies and Recommendations

Goal 7.0 A City of Parks:

A comprehensive network of well-planned, attractive parks, open spaces, trails, facilities, and recreational opportunities to serve a range of needs and lifestyles for residents and visitors alike.

A comprehensive network of well-planned, attractive parks, open spaces, trails, facilities, and recreational opportunities to serve a range of needs and lifestyles for residents and visitors alike.

Dickinson's network of parks and open space areas is significantly deficient in acreage to sufficiently serve its resident population; and this deficiency is expected to widen in the future as the population continues to grow. The park network serves less than 10 percent of all residences within a one-quarter mile walkshed of a park, or 21 percent of all residences at the one-half mile walkshed distance. Between 80 to 90 percent of Dickinson is not within walking distance of a park.

On the Benefits of Parks and Natural Areas

Improves Quality of Life

People enjoy looking at nature and having access to natural areas. Typically people will spend more on a house nearby to parkland.

Increases Community Identity

Parks can serve as the pride for a City; an iconic location that helps build their perception of thier community, such as Central Park and Memorial Park.

Decreases Community Crime

Parks provide activities and spaces for youth to partake in other activites besides illegal activites.

Physical and Mental Health Improvements Result in a Reduction in Healthcare Costs

Parks reduce overall medical costs by providing ways to be active and calm the mind.

Community Space for Gatherings

Parks provide locations for community events and social gathering.

Reduces Infrastructure Costs

Parks can be sponges for excess water and can be the first line of defence against heat and flood extremes.

Economic and Tourism Benefits

Nature-based tourism is a multi-billion dollar industry including state parks, swimming, boating, hunting, fishing, and sports tourism.

Increases Property Values

Properties adjacent to parkland have a higher selling rate on average than similar homes farther away from parkland.

Youth and Senior Activities

Parks provide critical activites for youth and seniors who may want or need a more relaxed passive space to recreate.

Improved Environmental Quality

Parks help increase air and water quality, as well as increasing overall biodiversity of an area, which can be critical to its residents livelihoods.

Education and Learning

Parks can provide social learning skills along with programming and camps which help grow children to appriciate the environment and people around them.

Objective 7.1: Develop a network of parks and recreation facilities to meet the needs of a growing population.

Strategy 7.1.1: Implement the recommendations from the 2023 Parks and Trails Master Plan and update as needed to ensure the City can manage the growing demand for parks, trails, and recreational facilities.

Enhancing and expanding the parks and trails system is a top priority for a community poised for growth. The 2023 Master Plan identifies improvements and expansion of the parks and trails system to meet citizen expectations for open space and recreation opportunities in the coming decade. Moving quickly on high-priority improvements and enhancements and securing necessary financing for trails and capital projects is key to achieving the goals set by the community in this plan.

Strategy 7.1.2: Acquire land for future parkland in growth areas.

ccording to the National Recreation and Park Association (NRPA), City of Dickinson currently has a deficit (98 acres) of parklands. Per the NRPA park metrics of 9.9 acres per 1000 residents, in 2045 the City of Dickinson will need a total of 286 acres of parkland to serve the entire population, that is 178 acres more than they currently have.

Initiatives and Actions:

1. Utilize the 2023 Parks and Recreation Master Plan's standards-based assessment to identify critical gaps in the equitable provision of parkland in Dickinson.
2. Develop a parkland acquisition program, including site selection criteria, for purchasing land for parks in underserved areas of the city.
3. Utilize the City's proposed parkland dedication ordinance' fee-in-lieu provision to purchase available land.

Strategy 7.1.3: Establish a parkland dedication ordinance to ensure adequate provision of parkland in new development.

With the rapid pace of residential development in Dickinson, a parkland dedication ordinance could provide the City with the regulatory tools to ensure that all new neighborhoods are served by parkland. Parkland dedication is a local government requirement imposed on subdivision and site plan applications mandating the dedication of land for a park and / or the payment of a fee to be used by the governmental entity to acquire land and/or develop park facilities. Through a parkland dedication ordinance, the City of Dickinson can work with development interests to determine the location, distribution, and amenity requirements of parkland in upcoming residential developments. Parkland dedication is a means through which to provide park facilities in newly developed areas of the jurisdiction without financially burdening existing city residents. The intent is that the landowner, developer, or new homeowners – those who are responsible for creating the demand for the new park facilities – should help fund the new parks. A parkland dedication ordinance, at minimum, should include the following provisions:

- Minimum parkland acreage per dwelling unit
- Siting criteria, such as land suitability, street layout, proximity to residential units, and compatibility of adjacent land uses
- Improvement requirements, such as minimum level of recreational facilities, level of service targets identified in the Parks Master Plan, and schedule of current and future improvements
- Fees that may be charged to developers in lieu of parkland dedication and improvements where the cumulative parkland acreage within an individual development is below minimum parkland acreage per dwelling unit requirement or the schedule of improvements is delayed
- Maintenance bonds for developer-constructed neighborhood parkland

Amenitized parkland with waterfront access
Source: Windermerenorth



Parkland dedication fees ensure that new development pays for new park demands, thereby maintaining Dickinson's quality of life in the years to come. An appealing feature of parkland dedication is that it is responsive to market conditions. If fewer new people move to the City than predicted, then less money is forthcoming, so fewer parks are built. Similarly, as costs for acquisition and development of parks increase (or decrease), then parkland dedication requirements can be increased (or decreased) accordingly. Additionally, the City may opt to provide incentives, such as density bonuses, whereby a developer can increase residential densities in certain areas in order to leave other areas open, thus fulfilling open space requirements, so there is no net loss of developable land.

Initiatives and Actions:

1. Within the parkland dedication ordinance, stipulate that parkland dedication and subsequent improvements occur during the first phase of subdivision development.
2. Consistent with the parkland dedication ordinance, establish parkland dedication, fees-in-lieu, and development fees, the amount of which should keep pace with the costs of parkland acquisition.
3. Incorporate flexibility to allow dedication funds to be used to acquire larger areas of parkland if that is beneficial to a region rather than solely requiring dedication within the area associated with the specific residential development.
4. Include provisions and some degree of surety that will require developers to follow through in their dedication of parkland and construction of facility improvements in a timely matter (i.e., within the first phase of development, not at build-out).
5. At the appropriate time, convene a series of developers' forums, to present the parkland dedication, fees-in-lieu, and development fee ordinances, to receive input.

Strategy 7.1.4: Develop a system of trails and greenways to link parks and open space areas with neighborhoods.

As identified within this Plan's Map 2.6, Future Land Use, on page 2.40, there are several opportunities to develop greenways and recreational trails along some of the Dickinson Bayou's tributaries, including Bordens Gully, Geisler Bayou, and Gum Bayou. These greenways can connect residential areas to Dickinson Bayou and beyond.

Initiatives and Actions:

1. Amend the City's subdivision regulations to require linkages from new residential subdivisions to existing and proposed recreational trails and greenways.

Strategy 7.1.5: Link the City's health agenda to its public open space agenda.

A healthy city is one in which citizens have access to basic infrastructure such as clean water, sanitation, and sewage treatment. It is also a place where healthy food is available to everyone; where women and children can walk without fear, and where people can enjoy parks, squares, and other public spaces in safety and comfort.

Initiatives and Actions:

1. Create multi-purpose, open spaces within which Dickinson's residents can engage in a variety of unprogrammed activities.



Westside Creek Trail in San Antonio
Source: Parks And Rec Business



Many subdivisions in New Braunfels connect directly to trails
Source: City of New Braunfels

Strategy 7.1.6: Program and design future parks in Dickinson to function as stormwater, or "sponge" parks.

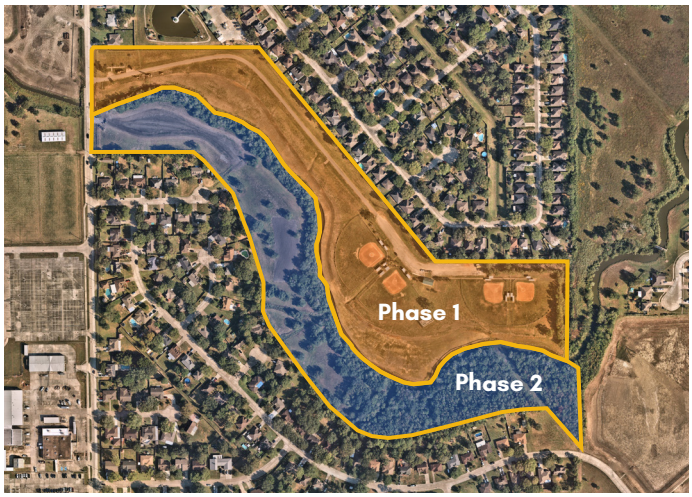
Stormwater parks, often referred to as "sponge parks," are recreational spaces that are designed to flood during extreme events and to withstand flooding. By storing and treating floodwaters, stormwater parks can reduce flooding elsewhere and improve water quality. In coastal communities such as Dickinson, parks face unique management challenges while also offering cities ecological value that extends far beyond the recreational opportunities they provide. If Dickinson's parks system is carefully managed and strategically expanded, these open spaces can better serve the recreational needs of all of the City's neighborhoods throughout the year, while also serving a protective function that would enable residents to be more resilient to the growing risks of extreme rainfall, tropical storms, high winds and rising waters.

Initiatives and Actions:

1. Pursue funding from federal and state disaster recovery programs through the Texas General Land Office (GLO) and Texas Water Development Board (TWDB) for improved flood management. In the years since Hurricane Harvey, the GLO has received federal funding through the U.S. Department of Housing and Urban Development (HUD) to assist local communities in disaster recovery and mitigation. Similarly, the TWDB has developed a new flood financial assistance program for local communities to assist in the implementation of drainage and flood projects. The City's future Parks and Recreation Department should consider partnering with the City's Public Works and Engineering Department to apply for federal and state funding to finance land acquisition around City parks to aid flood management and habitat restoration.
2. Utilize the NRPA's Resource Guide for Planning, Designing and Implementing Green Infrastructure, which provides guidance on methods used by parks around the country to manage stormwater and enhance the natural habitats in and around parks.



Sponge park
Source: DLAND Studio



Ray Holbrook Park
Source: NearMap Imagery 2023

Strategy 7.1.7: Build-out the remaining portions of Ray Holbrook Park.

Ray Holbrook Park is 33 acres in size and contains four softball fields, a series of small picnic pavilions, and a restroom facility. There is ample room along the entrance drive to construct additional recreational facilities. Additionally, as illustrated in the 2012 Galveston County Parks, Recreation, Open Space, and Natural Resources Master Plan, there is ample space on the south side of the Gum Bayou tributary to develop a series of nature trails and unprogrammed open spaces.

Initiatives and Actions:

1. Develop a master plan for Ray Holbrook Park and development program for Phase 2 landscape and recreational improvements.
2. Dredge portions of the Gum Bayou tributary to function as a sponge park, whereby excess stormwater can be temporarily detained to prevent flooding of adjacent residences.

Strategy 7.1.8: Explore the opportunity to establish interlocal agreements with the Dickinson ISD to utilize school playgrounds and athletic facilities during non-school hours to improve access to open space for Dickinson residents.

The City of Dickinson does not have an interlocal agreement with the Dickinson ISD for the use of school grounds after school hours. An opportunity exists to augment Dickinson's parks and recreational facilities with after-hours grounds access to Dickinson ISD property, thus expanding residents' access to sports fields, running tracks and playground equipment. Partner with the Dickinson ISD to determine how facilities may be equitably shared to advance indoor and outdoor recreational programming and stretch public resources, for the benefit of Dickinson's residents.

Initiatives and Actions:

1. Request the City's Legal Dept. to prepare a draft interlocal agreement for Dickinson ISD to review and approve. There are a variety of types of interlocal agreements to consider, including the following:

- Model 1: Opening Outdoor School Facilities for Use During Non-School Hours is the simplest of the model joint facility use agreements. It is an agreement in which the community can use designated school district outdoor recreation facilities.
- Model 2: Opening Indoor and Outdoor School Facilities for Use During Non-School Hours is a model agreement in which the community can use designated school indoor and outdoor recreation facilities.
- Model 3: Opening School Facilities for Use During Non-School Hours and Authorizing Third Parties to Operate Programs is a model agreement in which the community can use designated school district indoor and outdoor recreation facilities. It also allows for third parties, such as youth organizations or youth sports leagues, to operate recreation programs using school facilities.
- Model 4: Joint Facility Use of District and City Recreation Facilities is a model agreement in which the school district and local government agree to open all or designated recreational facilities to each other for community and school use. It also allows for third parties, such as youth organizations or youth sports leagues, to operate recreation programs using school facilities.

Strategy 7.1.9: Consider partnership opportunities with the Dickinson ISD to develop SPARK parks on school campuses.

As discussed in the associated sidebar, SPARK parks has proven to be hugely successful program in Houston. SPARK parks are an excellent way to create parks in developed areas that need additional park space for local residents.

Initiatives and Actions:

1. Partner with Dickinson ISD to develop parks on DISD property which the future Dickinson Parks and Recreation Dept. (refer to Strategy 8.4.7, page 2.157) will operate and maintain.

SPARK School Park Program, Houston, TX

Houston's SPARK School Park Program works with schools and neighborhoods to develop community parks on public school grounds. Since 1983, SPARK has built over 200 community parks throughout the Houston / Harris County area. Each park is unique, with its design based on ideas and needs of the school and surrounding neighborhoods. Using available public land is a fast and cost-effective way to increase park acreage in communities. While all the parks are different, a typical SPARK park includes modular playground equipment, a walking trail, seating, picnic tables, an outdoor classroom, and a component of public art. SPARK Parks are available for public use after the school day has ended, including after-school programs, as well as on weekends and holidays. Since 2016, the initiative has focused on eliminating "park deserts" that exist in areas where residents are more than a half-mile or a 10-minute walk away from a public park.



SPARK Park
Source: Houston ISD



Travis SPARK Park
Source: Western University Moms

Strategy 7.1.10: Utilize Dickinson's existing and future parks to showcase and exhibit public art.

As significant community gathering spaces Dickinson's current and future parks are wonderful backdrops for public art and can serve to grow cultural and community identity. City-owned land such as parks, public rights-of-way, and City property are spaces often dedicated for public art and community recognition. The City should utilize park land to showcase community artistic expression in the form of murals, sculptures, arts events, and amenity infrastructure.

Initiatives and Actions:

Utilize Dickinson's parks to exhibit installation art. Develop permanent plinths and pedestals in parks upon which temporary sculpture and statuary installations can be exhibited (refer to Strategy 2.1.6, Action 2).

1. Work with the Galveston County's Parks and Recreation Department (current) and future Dickinson Parks and Recreation Department to sponsor arts exhibits and festivals in Dickinson's parks.
2. Consider expanding youth programming at Dickinson's community center focused on arts and culture.
3. Consider additional ways that the City's budget for park improvements can be increased for specific initiatives through arts and culture fundraisers/events such as tile painting commemorations, brick dedications, a sidewalk chalk festival, music events, or participatory live performance.



Oklahoma City Botanical Garden
Source: Halff Associates



Public sculpture lawn
Source: Pratt Institute



Donnie Chin International Children's Park
Source: Friends of the International Children's Park

Strategy 7.1.11: Conduct a feasibility analysis for the development of a recreation center and public swimming pool.

The City of Dickinson does not have a recreation center for local youth to participate in indoor sports and athletics. Nor does the community have an aquatics facility/natatorium for local youth and their families to use. The Dickinson Civic Association operates and maintains a small swimming pool, but it could not support tournament-quality aquatics. Local residents can purchase memberships to swim at the facility.

Initiatives and Actions:

1. Consider the full range through which indoor recreation and aquatics program facilities, services, and program offerings can be financially supported by user fees and/or other funding mechanisms such as grants, partnerships, donations, and sponsorships.
2. Conduct an indoor recreation and aquatics facility-specific operational study that would analyze: [24]

- operational data for the proposed indoor aquatic center including attendance projections and trends
- admission and pricing structure, aquatic program offerings, projected number of hosted competitive events, projected revenue, operating expenses, net operating income and net income after capital costs
- proposed marketing strategies, pricing policies and sponsorship efforts
- analysis of market demographics including population levels and trends, incomes, and age distribution
- a review of Dickinson ISD school year schedules
- a review of competing indoor aquatic facilities in Harris and Galveston Counties
- projections of design level attendance figures and required capacity requirements
- projections of facility operational expenses including, personnel, chemical demand, operating supplies, maintenance and repair, utility demand, marketing, food and beverage and retail
- projections of overall financial performance of a proposed recreation center / natatorium



Cool School Park in Dallas, open to the public
Source: Dallas Morning News

24: Counsilman-Hunsaker, 2020. Eanes Independent School District Westlake High School Aquatic Center Study (https://resources.finalsite.net/images/v1580333770/ eanesisdnet/cth0gb8mlig1pe1yarst/ProposedAquaticsFacilityOperationalCostsAnal ysis.pdf)

Natural Playgrounds and Facilities

A natural playground is a play environment that consists of elements and textures from the earth such as tree logs and stumps, boulders, plants, drainage paths, among others instead of a traditional steel and plastic playground structure with slides and climbing equipment. Unlike traditional playgrounds with concrete surfaces and materials that trap heat and release toxins into the soil, natural playgrounds complement the existing landscape.

These natural landscapes lend themselves to providing opportunities for children to play, explore, imagine, and be challenged by the natural elements. Playgrounds made from natural elements have significant benefits for children – in addition to encouraging children to spend more time outside, they increase health, socialization, motor skill development, and are in many cases, all-inclusive. Natural playgrounds enable children to move freely around the space allowing them to run, jump, crawl, smell, and more. Natural playgrounds have similar initial investments as a traditional playground but lower maintenance costs and a much longer lifespan than traditional plastic or steel play equipment.



Slide and tunnel at Glen Falls Elementary School in Glen Falls, New York
Source: Naturalplaygrounds.com



Walking logs at Barbara Fish Daniel Nature Play Area in Houston, Texas
Source: Halff Associates

Community Strategies and Recommendations

Goal 8.0 Mobility: Complete Corridors

A network of safe, connected, high quality, attractive, and complete transportation corridors connect people to destinations.

Street Connectivity Impact

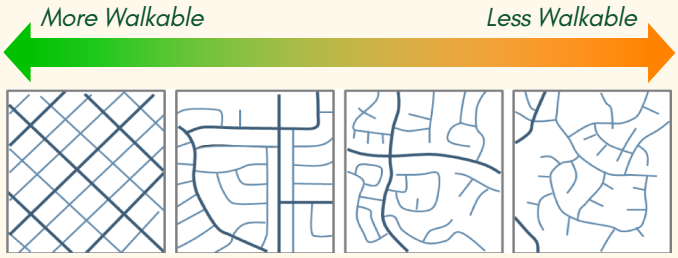
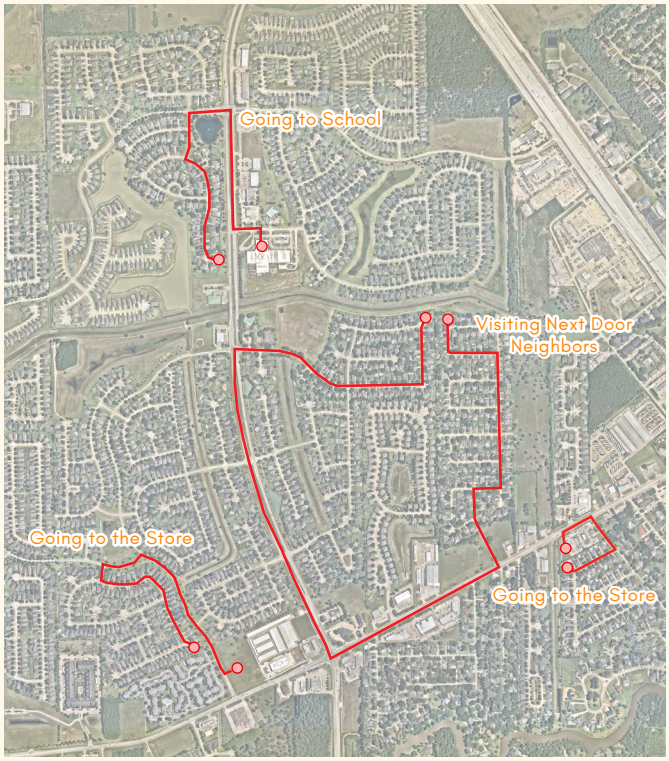


Figure 2.10, Connectivity Impact



League City and Dickinson between 646, FM 517, and I-45
Base Map Source: NearMap Imagery

Street connectivity is one of the main factors in measuring the walkability of a neighborhood or city. A street grid offers the greatest connectivity granting multiple opportunities to change course, thereby creating a more direct route. Subdivisions often feature cul-de-sacs which only allow one entry and exit point for vehicle and pedestrians. Subdivisions also often provide only one or two exit points to reach the greater City sidewalk and bicycle network. For example, in traditional residential subdivision design, two neighbors/houses in different subdivisions can be placed next to each other, but have no convenient or direct connections between them due to a low connectivity street layout as depicted in Figure 2.10, *Connectivity Impact*. The same situational relationship is often found between residential homes and everyday commercial/retail uses. The provision of trails, multi-use paths, bicycle lanes, and sidewalk easements at the end of cul-de-sacs can also help build greater connectivity and can supplement street-side facilities.

Benefits of increasing street connectivity design include:

- **Increased community mobility, togetherness, community identity, and street activity**
- **A stronger local economy, building easier connections to businesses and consumers**
- **Reduced vehicle traffic, noise, pollution, and increased pedestrian safety**

On Mobility

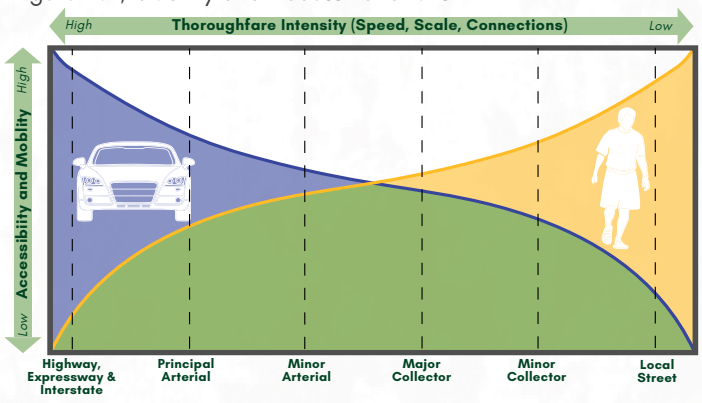
Streets and Thoroughfares

Most transportation systems have been built with vehicular transportation in mind nd, as a result, are generally auto-centric in character. Evidenced by the lack of pedestrian and bicycle facilities, Dickinson's streets and roads were primarily built for vehicular transportation. Most streets in Dickinson have ditches instead of curb and gutter and lack proper pedestrian and bicycle facilities. Streets should not only serve vehicular transportation, but also allow for easy use of pedestrian and cyclist transportation. An equitable transportation system is one that provides people with mobility options, including, affordable public transportation, vehiclar access, pedestrian walkability, and bikeability. A strong diverse transportation network strengthens the economy by ensuring that all people—regardless of race, income, or ability—can connect to educational and employment opportunities, and services they need to participate in and contribute to society and the economy. Figure 2.10 *Connectivity Impact*, illustates the importance a streets design has on everyday life.

The future of Dickinson's street network requires a thoughtful approach to balancing mobility needs, with the location of major thoroughfares and street design. The Thoroughfare Plan aims to provide an effective balance of mobility and accessibility with variable design features depending on context and available right-of-way. The Plan also accounts for improvements or expansions to existing streets and the location of future streets based on projected growth patterns.

The Thoroughfare Plan should be used by City staff and elected and appointed officials to guide the design and reconfiguration of existing streets and adequately plan for future streets to accommodate new development. The following pages describe the functional hierarchy of proposed street types, street design based on functional classification and available right-of-way, and a map of the Dickinson planning area depicting existing and proposed future thoroughfares.

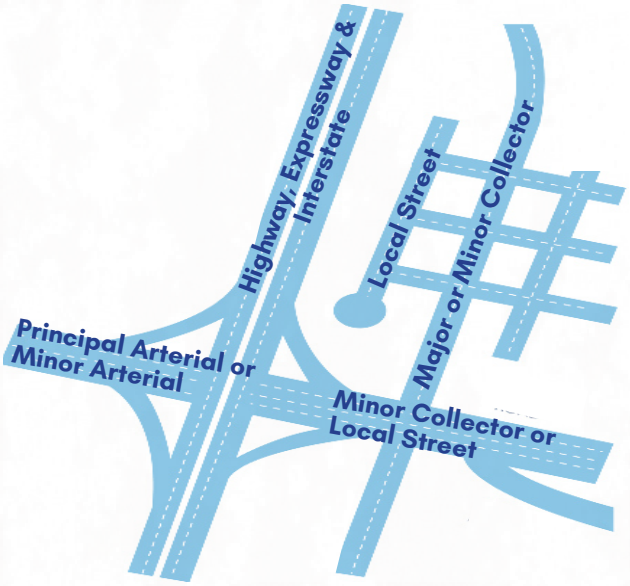
Figure 2.11, Mobility and Access Functions



Functional Classification

Streets are classified based on their function. The Federal Highway Administration (FHWA) has established a hierarchy of seven functional classifications for thoroughfares, but the application of each of these varies by jurisdiction. For the Dickinson approach, the seven FHWA classifications have been consolidated into six, with "Interstate" and "Freeway and Expressway" combined into the "Highway" category due to similar functional use.

The functional classification of streets presents varying levels of access and mobility as represented by Figure X, *Mobility and Access Functions*. The streets with the highest levels of mobility (i.e., highways) have the least access. Conversely, the streets with the most access to surrounding properties (i.e., local streets) have the least mobility. Table 2.3, *Thoroughfare Functional Classifications*, defines the primary purpose of each street type. The street types described in these figures may take on differing design based on character areasthrough which the streets pass, yet the purpose and functionality of each type remain.



Map Source: Congress for New Urbanism

The figure to the right illustrates that as classifications change, oftentimes, mobility and access increases or decreases for specific user types unless specific design considerations are made to ensure safe and comfortable mobility.

Table 2.3, Thoroughfare Functional Classifications

Street Type	Primary Purpose
Highway, Expressway & Interstate	Mobility between cities
Principal Arterial	Mobility within city
Minor Arterial	Moderate length trips
Major Collector	Connect to arterials
Minor Collector	Connect to arterials and collectors
Local Streets	Property access

Dickinson's Future Thoroughfare Plan

Dickinson's Thoroughfare Plan depicts where street extensions, new streets, and potentially expansion, reconfigurations are required to accommodate the City's anticipated growth. Map X, Dickinson Thoroughfare Plan, represents the recommended future thoroughfare network throughout Dickinson's planning area. The below graphics depict proposed ideal cross sections per each roadway classification.

Highways, Freeways & Expressways

Function: High speed, limited access thoroughfares with grade separated intersections. Bi-directional travel lanes usually separated by a physical barrier with limited ingress/egress points to on- and off-ramps.

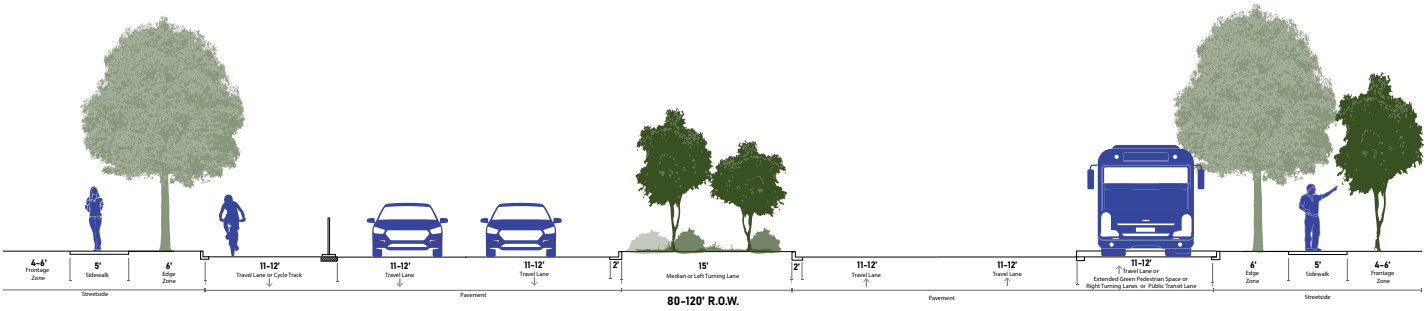
Below presents a typical cross section for a Highway, Freeway & Expressway. Individual street design will vary based on context and available right-of-way.



Principal Arterial

Function: Highest traffic volume corridors serving the longest trip distance demands. Provides connectivity between surrounding cities and major activity centers.

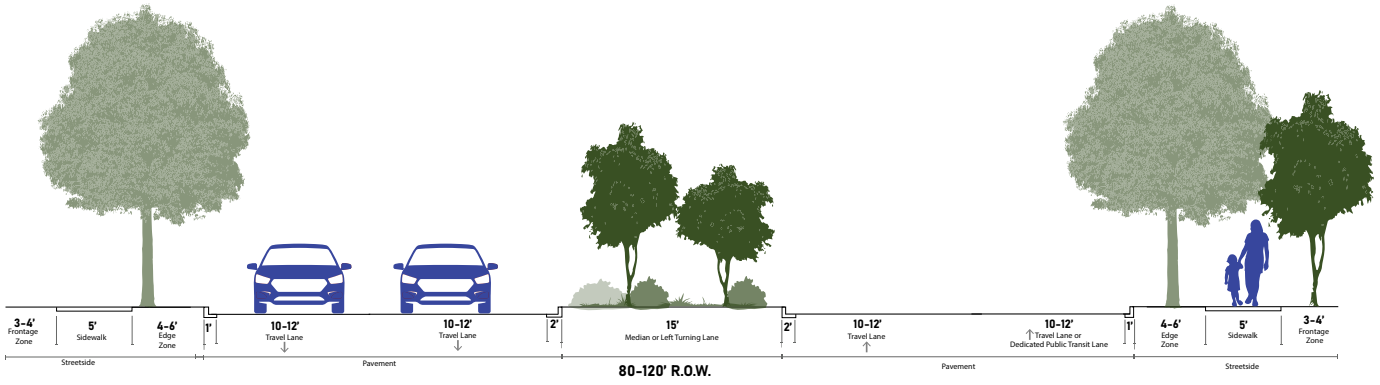
Below presents a typical cross section for a Principal Arterial. Individual street design will vary based on context and available right-of-way.



Minor Arterial

Function: Moderate traffic volume corridors serving trips of moderate length at a somewhat lower level of travel mobility than Principal Arterials. In an urban context, they interconnect and augment the higher Arterial system, provide intra-community continuity and may carry local bus routes.

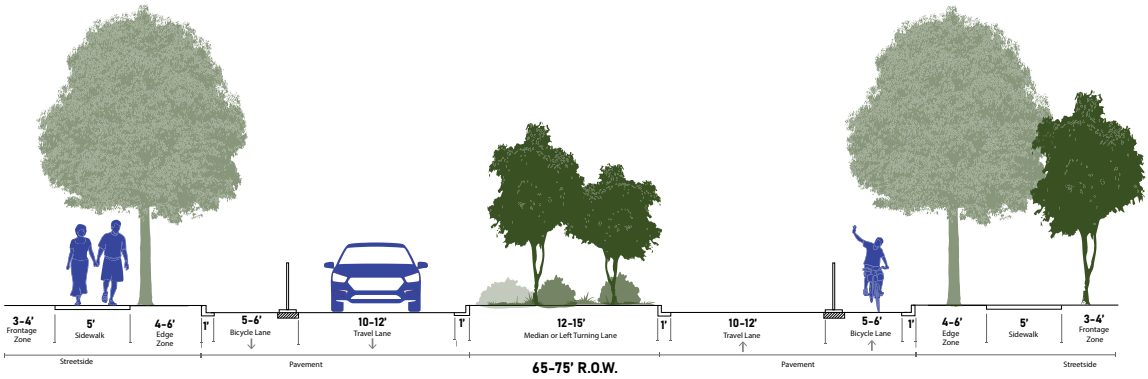
Below presents a typical cross section for a Minorl Arterial. Individual street design will vary based on context and available right-of-way.



Major Collector

Function: Serves both land access and traffic circulation in higher density residential and commercial/industrial areas; operating characteristics include higher speeds and more signalized intersections distributing traffic between local roads and arterials.

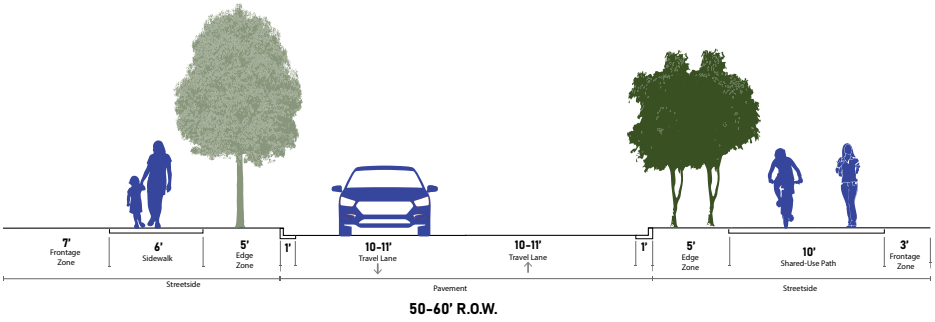
Below presents a typical cross section for a Major Collector. Individual street design will vary based on context and available right-of-way.



Minor Collector

Function: Serves both land access and traffic circulation in lower density residential and commercial/industrial areas; operating characteristics include lower speeds and fewer signalized intersections distributing trips between local roads and arterials.

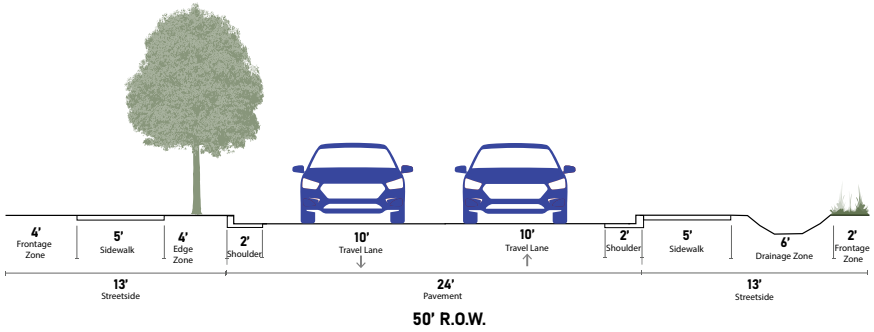
Below presents a typical cross section for a Minor Collector. Individual street design will vary based on context and available right-of-way.



Local Street

Function: Provides direct access to adjacent land and provides service connections to travel over short distances.

Below presents a typical cross section for a Local Street. Individual street design will vary based on context and available right-of-way.



Using The Future Thoroughfare Plan

The placement of proposed thoroughfares on the map is conceptual, representing "approximate" location. Actual locations and design will be determined by development, physical design considerations, funding, and further alignment and feasibility studies. Thoroughfare recommendations are meant to accommodate future projected growth and are based on the Future Land Use Plan, the Regional Thoroughfare Plan for Galveston County, and the existing and proposed Roadway Classifications by TxDOT Statewide Planning Map. The necessity for accommodating appropriate rights-of-way for these thoroughfares should be provided for in the Unified Development Code (UDC), represented by minimum standards. This provides certainty and clarity for landowners and the development community to ensure that thoroughfares are accounted for as properties develop. Responsibility of costs and timing of construction for these thoroughfares shall be determined in these UDC adjustments and should consider the impacts of new development to the overall network.

As Dickinson continues to grow, new development may warrant the identification and development of thoroughfares that are not depicted on Map X, which will then require approval of a thoroughfare plan amendment. Significant changes such as re-alignments or re-classifications should be discussed and approved to ensure clarity. Minor adjustments to alignments of thoroughfares may not require a formal plan amendment, but should be graphically changed on the map to represent the new alignments. The City Planner and City Manager shall determine whether a change is minor - impacts to adjacent landowners and construct-ability of street projection are important considerations of such a determination.

As more refined alignments of thoroughfares are determined (by concept plan, planned development, plat or site plan), it will be necessary to adjust the Dickinson Thoroughfare Plan to clearly represent the street network. This helps landowners, developers, utility providers, and governmental entities plan for public infrastructure, access, and development. Approvals of such alignments should be accompanied by formal language directing staff to make necessary adjustments to publicly-depicted thoroughfare maps.

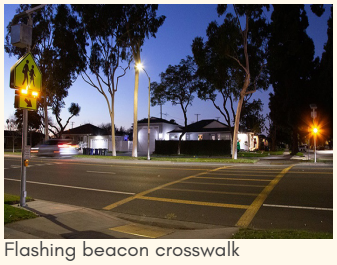
Note that a separate Mobility Plan and a Downtown Master Plan for the City of Dickinson are currently underway. These studies focus on specific roadway improvements that will need to be incorporated into the Thoroughfare Plan.

Navigation and Usability Enhancements



Wayfinding and navigational signage
Source: Knoxville (left), Peninsula Bikeway, SI Live (right)

The goal of all transportation is to move people in the most efficient and desired manner enable people to move from one place to another. Not only does the infrastructure have to be in place to do so, such as street pavement, intersection signalization, sidewalks, but the infrastructure also must be easily comprehended and legible by all users. For example, users always know that a striped bar on the road indicates a crosswalk; street signage is typically green with white text; and that a bus stop is typicallu accompanied by signage. Design, scale, and post fixture types should be of a similar character throughout a community. Consistency, legibility, and user-friendly design are important contributing factors to the character and legibility of a place.



Flashing beacon crosswalk
Source: City of Lakewood



Sheltered bus stop
Source: MetroRapid

In addition, to ensure efficiency and useability of infrastructure, additional streetscape features and elements should be present. These include streetlights to illuminate crosswalks and roadways (designed to limit light trespass), wayfinding signage for destinations and city facilities, safety / informative signage where transit-mode types cross, and benches, shelters, and stop frequency signage at bus stops.



Consistent street signage, lighting, banners, and vegetation design
Source: Interstate Guide



Source: SpicerGroup

When the design and presence of the aforementioned elements are included as appropriate within the right-of-way of on all roadway types it ensures that users can safely, confidently, and efficiently navigate the roadway, intersection, bus route, sidewalk, bicycle lane, or trail.

Public Transit

Public transit (also known as public transportation, mass transit, or simply transit) is a system of transport for passengers by group travel systems available for use by the public, typically managed on a schedule, operated on established fixed routes, and at a posted fee for each trip. Public transportation systems include a variety of transit options such as buses, light rail, and subways.

A successful and efficient transit system consists of:

- Dedicated transit corridors or portions of roadways that are blocked off to cars and converted to transit-only corridors.
- Frequent scheduling and quick routes.
- Visible, well-placed, and well-designed bus stops to ensure that those waiting on the bus are safe and comfortable.
- Advocacy and communication with residents to create allies for the city transit system.

As described in the Existing City Report on page 1.37, public transportation in Dickinson consists of two fixed-route services, operated by the Gulf Coast Center (GCTD). Currently, most bus stops are missing basic infrastructure such as signage or flags, pads, and shelters. Map 2.10. *Proposed Public Transportation Projects*, on page 2.154, depicts the bus shelter recommended throughout Dickinson's planning area. These include bus stops identified by GCTD as priorities to receive upgrades as well as bus stops in proximity to major trip generators such as the City Center, schools, retail, apartments, grocery stores, and parks.

The Recommendations section on page X, provides a list of additional transit-related recommendations on initiatives, projects, programs, and policies to enhance this public service.



Bus stop shelter and signage connected by sidewalks
Source: Houston Chronicle



Bike racks on the front of buses promotes ridership and cross-utilization of mades of travel best fit for the user
Source: Georgetown University

Shared Micromobility

Shared micromobility has been growing rapidly, both in the United States and internationally. Micromobility refers to a wide range of low-speed vehicles that travel more slowly than 20-30 mph, are designed almost exclusively for a single adult, and may include bicycles, electric bikes, push scooters, motorized scooters, power skateboards, and other personal transportation technologies. These vehicles are often electric powered and may be either personally owned or shared by users to provide various mobility needs; including shorter circulation trips, first-mile/last-mile trips in higher-density urban environments; regular commuter trips (including, in some cases, long-distance trips); or recreational trips. SAE International defines powered micromobility vehicles as motorized personal mobility devices that have a curb weight of less than or equal to 500 pounds and a top speed of 30 mph or less (SAE International 2019).

Micromobility has the potential to increase the number of transit trips by expanding the reach of multimodal transportation. Multimodal integration improves reliability, affordability, and flexibility of multimodal trips; increases ridership across modes; expands the population within an accessible distance to transit stations; and can lead to improved air quality, fewer greenhouse emissions, and more livable cities.



Major transit centers and recreational spots often feature bike-share stations
Source: City of San Antonio



Bus stop is not connected with sidewalks, lacks clear signage, and does not feature a shelter
Source: TheTransitCamera



Bus stop is connected with sidewalks, signage, a shelter, cycle lane, bike parking, and is located near an intersection to provide cross acces
Source: MBike College Park

Active Transportation

Active Transportation refers to getting around by way of human-powered mobility. This includes bicycling and walking. Expanding Active Transportation options in Dickinson is vital to increasing transportation choices and supporting healthy, active living. The provision of alternative modes of transportation can decrease the load on vehicular infrastructure, reduce emissions, and increase livability. Infrastructure for alternative modes include pedestrian facilities and cycling facilities. To optimize ease of utilization, alternative transportation networks should be interconnected and integrated with vehicular thoroughfares and public transit routes.

Types of Active Transportation:

The facilities designed and built to accommodate pedestrian and bicyclists include the following:

Pedestrian Only Facilities

- **Sidewalk** – A sidewalk provides dedicated space intended for use by pedestrians that is safe, comfortable, and accessible to all. As conduits for pedestrian movement and access, they enhance connectivity and promote walking. As public spaces, sidewalks serve as the front steps to the city, activating streets socially and economically, through providing direct access and visiblity to storefronts. Sidewalks are physically separated from the roadway by a curb or unpaved buffer space. TxDOT recommends pedestrian facilities must be considered for all types of transportation projects within urbanized areas.

On-street Bicycle Facilities

- **Conventional Bicycle Lanes** – Bike lanes designate an exclusive space for bicyclists using pavement markings and signage. The bike lane is located adjacent to motor vehicle travel lanes and flows in the same direction as motor vehicle traffic. According to TxDOT's *Bicycle Accommodation Design Guidance*, bike lanes should be implemented on roadways with traffic volumes less than 6,000 per day and speeds lower than 30 MPH. In locations with speeds of 45 MPH or less, TxDOT recommends protected bike lanes separated by raised medians, curbs, other low-profile, or hard separators. Separations such as flexible posts or crashworthy barriers are allowable for high-speed roadways only.

- **Bicycle Boulevard/Bike Routes** – Bike routes are streets with low motorized traffic volumes and speeds, designated and designed to give bicycle travel priority. These facilities use signs, pavement markings, and speed and volume management measures to discourage high-speed trips by motor vehicles and create safe, convenient bicycle crossings of busy arterial streets. TxDOT recommends bike routes along roadways with traffic volumes less than 3,000 per day and speeds lower than 25 MPH.

Off-street Bicycle Facilities

- **Sidepath** – A sidepath is a physically separated, bi-directional shared use path located immediately adjacent and parallel to a roadway. To accommodate



Sidewalk and pedestrian relm diagram
Source: NACTO



A two-way bicycle lane on Austin Street, in Houston, Texas
Source: Houston Chronicle



Typical one-way bicycle lane
Source: City of Corvallis



Bike route / bicycle boulevard with wayfinding signage
Source: Bike Michiana

bi-directional travel of both pedestrians and cyclists, sidepaths are recommended to be a minimum of 10 feet wide. Sidepaths can offer a high-quality experience for users of all ages and abilities as compared to on-street facilities in heavy traffic environments, allow for reduced roadway crossing distances, and maintain community character. TxDOT recommends sidepaths on roadways with volumes exceeding 7,000 per day and speeds greater than 30 MPH.

- **Multi-Use Trail** – Multi-use trails are separated corridors used for walking, running, cycling or other forms of non-motorized active transportation. Multi-use trails may be placed adjacent to roadways like sidepaths, but are typically found within public right of way, drainage easements, defunct rail corridors, other utility corridors, or areas within parks. Multi-use trails are attractive options for those walking or biking for leisure or for longer trips. Multi-use trails can provide a bypass around major barriers such as freeways or railroads

Map 2.9., *Proposed Sidewalk,Trail, and Pedestrian Projects*, represents the recommended future active transportation network throughout Dickinson's planning area. Page 2.135, depicting ideal cross sections for each roadway classification of the Proposed Thoroughfare Plan illustrate various pedestrian and bicycle facilities.

There are many benefits to providing a system of safe and comfortable sidewalks and bicycle facilities, including the following:

Health Benefits

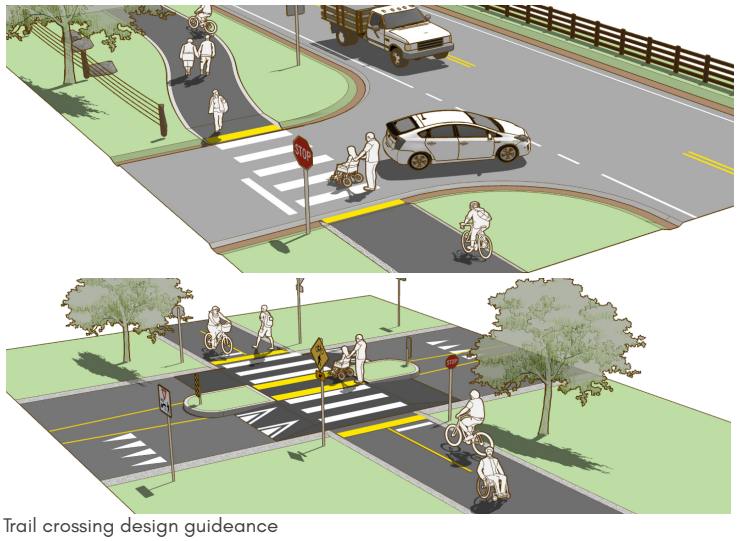
- It improves physical function.
- It improves bone health and weight for children ages 3-5 years.
- It improves cognitive function for youth ages 6 to 13 years.
- It has mental health benefits.
- For pregnant women, reduced risk of excessive weight gain, gestational diabetes, and postpartum depression.
- For older adults, it reduces the risk of fall-related injuries.

Safety benefits

- It creates safer environments for motorized and non-motorized travel.
- It creates a perceived sense of safety by increasing pedestrian activity and putting more "eyes on the street."
- It closes gaps in the network to ensure pedestrians and cyclists are separated from vehicular traffic.
- It reduces the amount of pedestrian- or cyclist-involved crashes and fatalities.

Economic benefits

- It bolsters retail sales, attracts new businesses, and creates healthy, livable communities with vibrant walking- and biking-centric destinations.
- It promotes recreational and outdoor tourism.
- It increases health cost savings from increased physical activity.
- It promotes small business development and start-ups.



Trail crossing design guideance
Source: Rural Design Guide

Guiding Principles

Transportation Principle 1: Promote Connectivity Promote greater connectivity between different neighborhoods and new and/or planned commercial activity centers by providing appropriate access for automobiles, bicyclists, and pedestrians.

Transportation Principle 2: Encourage Multi-Modal Transportation Investments. Continue to maintain existing transportation facilities, while encouraging expansion of bicycle and pedestrian facilities and improving transit services.

Transportation Principle 3: Provide Transportation Options.
Promote safe and reliable transportation options that are integrated with surrounding land-use activities.

Transportation Principle 4: Balance Transportation Investments.
Encourage an integrated approach to land use decisions, economic development, environmental conservation, and transportation investments to achieve a balanced multi-modal transportation system. Transportation choices should be integrated into all new development and redevelopment projects.

Transportation Principle 5: Strengthen Public Transit. Encourage appropriate levels of development near existing and planned high-capacity transit corridors in order to facilitate access to transit services, jobs, and other major destinations.

Transportation Principle 6: Reduce Vehicle Miles Traveled (VMT).
Reduce the rate of increase, rather than attempt to accommodate the predicted doubling of vehicle miles traveled (VMT) in the Planning Area over the next twenty years.

Objective 8.1: Develop a phased Transportation Infrastructure Improvement Program to meet the traffic demand of the Future City.

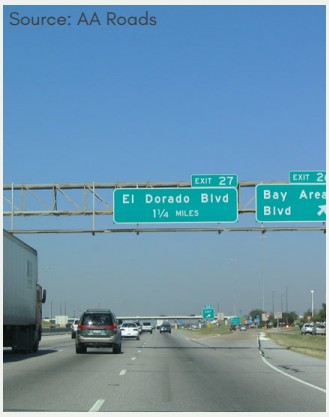
Strategies 8.1.1: Implement improvements identified in the proposed Thoroughfare Plan.

Map 2.8, Proposed Thoroughfare Plan, on the facing page, depicts several planned transportation-related improvements to be implemented over the next 20 years and beyond. As funding becomes available, plan to implement the recommended changes in thoroughfare classification and new street alignments. The design of future streets should continue to be well-designed and maintained to ensure safety and durability.

Initiatives and Actions:

1. Update the City's street cross-sections to ensure a balance of safety and people-centered streetscape elements. New streets in Dickinson should be context-sensitive and include in the design framework Complete Street elements. These elements should not be one-size-fits-all; rather, they should be designed in harmony with the character context recommended in this plan. Certain street elements, while important, may be installed in a second phase of construction in consideration of design costs and development activity. Street elements that should be visibly present in the new cross-sections include:
   - efficient vehicle lanes
   - inside and outside turning lanes
   - active transportation facilities
   - street trees
   - transit stops in urban areas and near community facilities
   - safe intersections and crossings
   - street lighting and street furniture
2. Create design guidelines for context-sensitive rights-of-way design based on the intended character of development and the intended users of the thoroughfare.

Typical Classification Characters



Highway, Expressway & Interstate



Principal Arterial



Minor Arterial



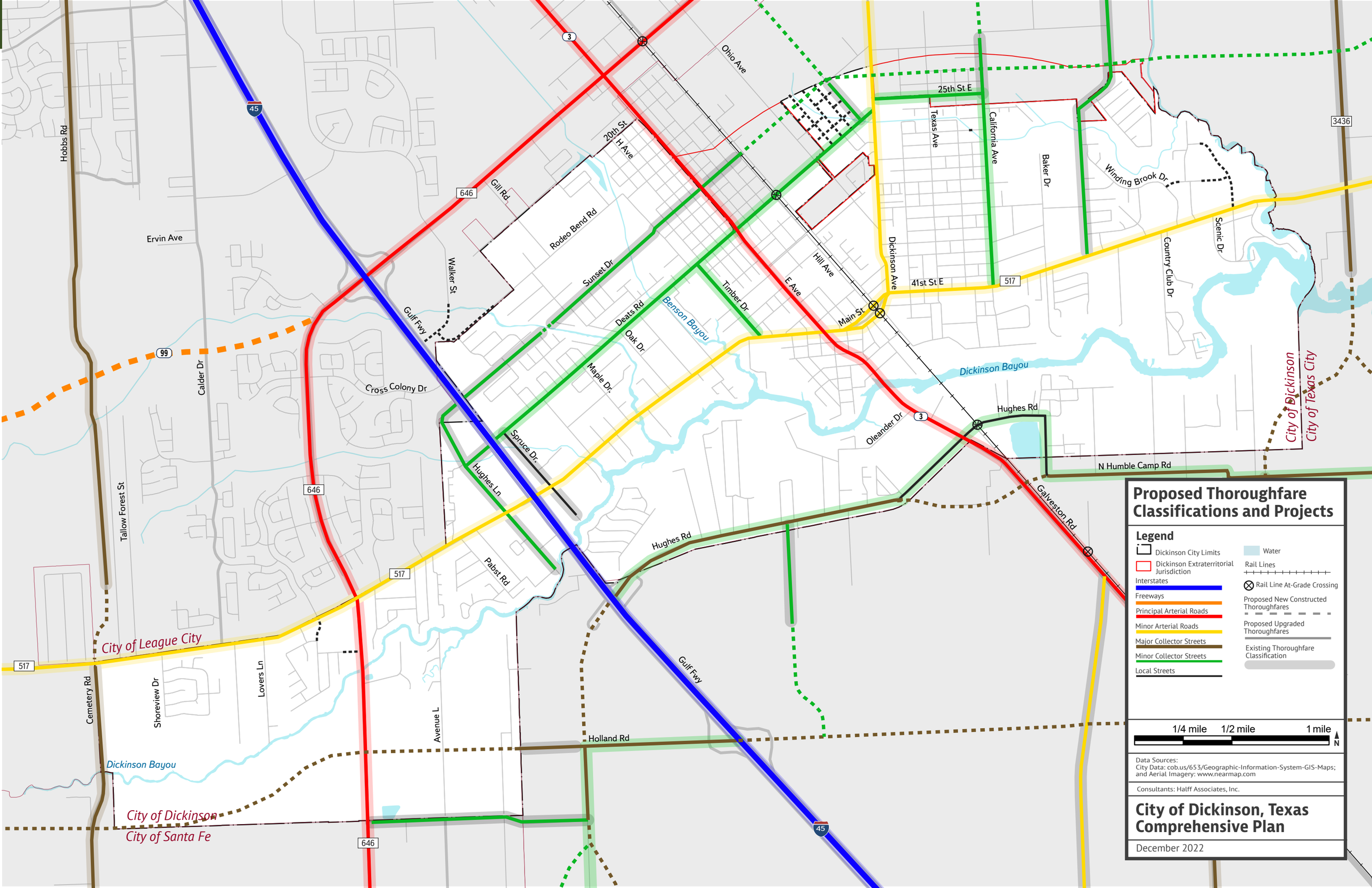
Major Collector



Minor Collector



Local Street



Proposed Thoroughfare Classifications and Projects

Legend

- Dickinson City Limits
- Dickinson Extraterritorial Jurisdiction
- Interstates
- Freeways
- Principal Arterial Roads
- Minor Arterial Roads
- Major Collector Streets
- Minor Collector Streets
- Local Streets
- Water
- Rail Lines
- Rail Line At-Grade Crossing
- Proposed New Constructed Thoroughfares
- Proposed Upgraded Thoroughfares
- Existing Thoroughfare Classification

1/4 mile 1/2 mile 1 mile

N

Data Sources:
City Data: cob.us/653/Geographic-Information-System-GIS-Maps; and Aerial Imagery: www.nearmap.com

Consultants: Halff Associates, Inc.

City of Dickinson, Texas Comprehensive Plan

December 2022

Strategy 8.1.2: Work with TxDOT to redesign FM 517 in the Downtown area from volume-oriented to place-oriented to support the desired downtown character.

As Downtown Dickinson grows and evolves into a mix-use area hosting new residential and commercial opportunities within a walkable distance, FM 517 will see an increase in pedestrian- and cyclist-oriented travel. The City should work with TxDOT to ensure that pedestrians and cyclists have safe and efficient travel options within Downtown. For example, the existing intersection design of FM 517 and SH 3 required pedestrians to cross eight lanes of travel, with a slip lane to cross the intersection. The wide road width and large number of travel lanes can create conditions undesirable to pedestrians, limiting the potential for developing a safe walkable district.

Initiatives and Actions:

1. Consider improved safety measures including road dieting, bump outs, painted crosswalks, flashing beacon signals, street trees, removal of slip lanes, reflector strips, bicycle lanes, and other means of more urbanized street design.
2. Develop a system for benchmarking and assessing safety concerns within Downtown along FM 517 on a regular basis to decide the effectiveness of design changes and needed improvements.
3. Ensure that sidewalk width can accommodate the anticipated future needs based on proposed build-outs of development and population/employment expectations.
4. Conduct a study to identify issues or problems with signalized crossing timing at critical intersections along FM 517 in Downtown including SH 3, Timber Drive, and Dickinson Avenue.

Strategy 8.1.3: Grow and enhance Dickinson's thoroughfare system to ensure near- and long-term community connectivity, safety, and increased functional capacity. .

A city's Thoroughfare Plan and associated street development standards are critical to guide the development of a complete, connected, context-sensitive transportation system. The transportation system is the framework upon which the city is built. It comprises a network of streets, where each link in the system functions according to its design capacity; thus, distributing traffic from the lowest (e.g., local streets) to the highest (e.g., arterial streets and highways) functional classification, each having a different functional role and traffic carrying capacity. Each street segment contributes to the interconnectivity of the network.

Currently, the City of Dickinson does not have a Thoroughfare Plan or street development standards. A Future Thoroughfare Plan, depicted on Map 2.8, Proposed Thoroughfare Plan, has been proposed, utilizing daily traffic counts, future development patterns, and traffic analysis to identity thoroughfares which need an increase in thoroughfare classification and an increase in capacity. Dickinson should develop a phased approach framework to implement the recommended changes in the Thoroughfare Plan along with other unforeseen thoroughfare developments in the future.

Strategy 8.1.4: Implement Intelligent Transportation Systems (ITS) infrastructure into the mobility network.

ITS refers to digital technology implemented at intersections which enhances vehicle timing, signaling, censoring, and improves overall mobility by sensing periodical changes in traffic. ITS infrastructure can include sensors on stop lights indicating the build-up of vehicles in certain travel lanes, automatic electric warning signage of traffic changes ahead, vehicle cameras / speed sensors, and automatic pedestrian advanced signalization.

Initiatives and Actions:

1. Work with TxDOT, H-GAC, and other funding agencies to develop a detailed needs assessment and conduct solutions testing at intersections which see the highest level of congestion and vehicle miles traveled in Dickinson.
2. Assess the community interest and perception to implementing a variety of Intelligent Transportation Systems.



As the Downtown is developed, special attention should be given to the major crossing of SH 3 and FM 517. Painted pedestrian refuge curbs and shared-use crosswalk markings for cyclists at Memorial Drive and North Kirkwood Road in Houston, Texas, exemplify how to safely accomodate slip lanes and fast moving traffic with active transportation infastructure.
Source: Halff

Strategy 8.1.5: Develop a Thoroughfare Reconstruction Program.

Throughout the public engagement and feedback process for this Comprehensive Plan, residents were unsatisfied or concerned with the condition of many streets and streetside facilities in Dickinson. The City of Dickinson should develop a phased approach through a Thoroughfare Reconstruction Program which describes reconstruction projects over the next five years. The City should develop, in alignment with H-GAC and other thoroughfare funding agencies, a priority list of thoroughfare projects, associated costs, timelines, reconstruction alternatives, safety improvements, covered drainage plans, and thoroughfare classification changes.

Initiatives and Actions:

1. Develop a phased Thoroughfare Reconstruction Program including a timeline of construction, specific costs, funding, and temporary traffic impacts.
2. Continue to assess pavement condition on City streets. Regular formal and informal assessments of existing pavement condition helps determine priority maintenance investments and regular attention to heavily-used streets. Consider increasing the frequency of these assessments to illustrate direct responsiveness to citizens and ensure durable pavement on Dickinson's streets.



An ADA compliant pedestrian intersection corner
Source: Real Estate Weekly



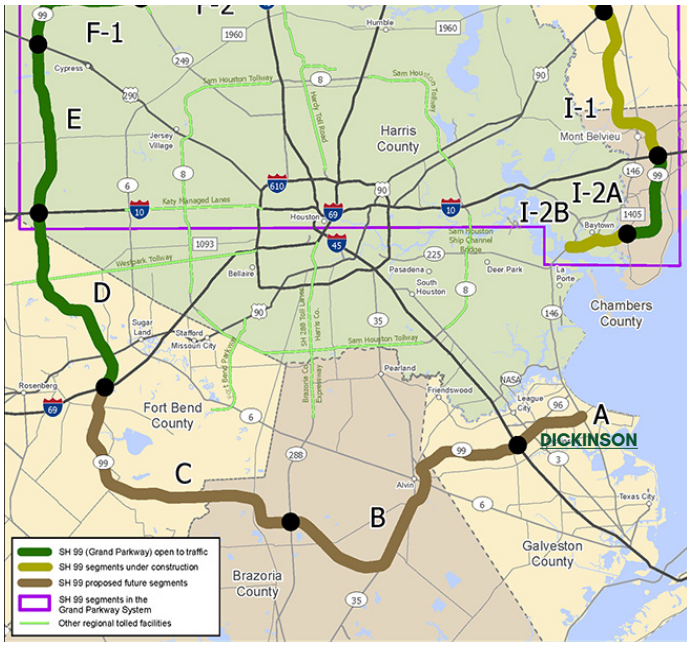
Thoroughfare reconstruction
Source: Pavement Engineering Inc.

Strategy 8.1.6: Monitor the development and alignment of the Grand Parkway.

The Grand Parkway (State Highway 99) is a proposed expressway looping around the Houston Metropolitan Area. While already partially constructed, the segment of Grand Parkway to interface with Dickinson is not constructed yet nor has a finalized design/alignment. The Grand Parkway is proposed to connect from Alvin, through League City (between FM 517 and League City Parkway) and terminate at the intersection of FM 646 and Gulf Freeway. The existing conditions of FM 646 (a primary arterial roadway with curb-cuts and lighted intersections) may induce increased traffic volumes along roads leading into Dickinson. The location where Grand Parkway meets FM 646 near Brookport Drive should be addressed with safety, connectivity, and efficiency in mind. Future design and conditions of FM 646 between IH-45 and Caroline Street are still undetermined as of early 2023.

Initiatives and Actions:

1. Continue to partner with TxDOT and the Grand Parkway Transportation Corporation and neighboring municipalities to address future planning efforts and mitigate traffic concerns.
2. Work with TxDOT and League City to address potential traffic changes along FM 646 between IH-45 and Caroline Street which may impact additional streets such as SH 3, Gill Road, and Walker Street.



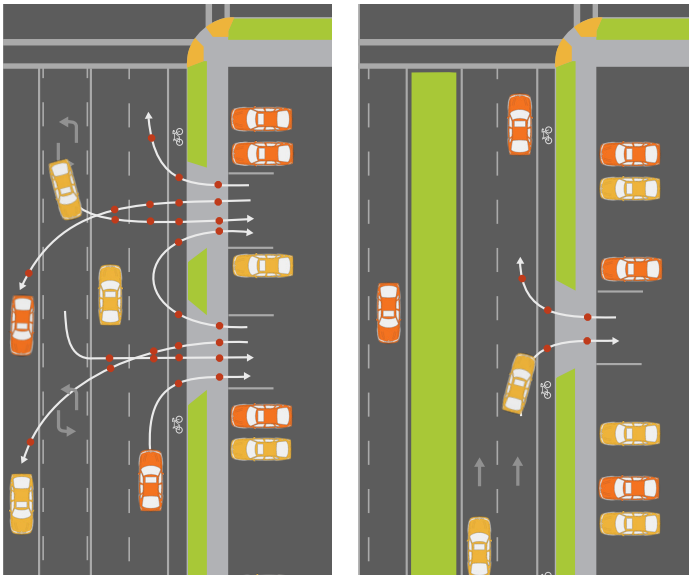
Grand Parkway proposed allignment
Source: TxDOT

Objective 8.2: Promote Intra-city Transportation Efficiency.

According to TxDOT Crash Records Information System (CRIS) between 2016 and 2021, 1,949 vehicle crashes occurred in Dickinson, of which more than 60 percent occurred on three roadways: FM 517, Dickinson Avenue and SH 3. These roads serve as Dickinson's primary north-south and east-west corridors. According to TxDOT, between 2015 and 2019, annual traffic counts increased by approximately 14 percent, indicating higher traffic volume along primary roads in Dickinson, and characterizing traffic congestion at critical intersections. Upcoming TxDOT improvements to remediate traffic conditions include widening IH-45, safety improvements on SH 3 and expansions to FM 517.

Strategy 8.2.1: Improve Access Management on major commercial thoroughfares in Dickinson.

Access Management is a term referring the allocation of entry drives off of a thoroughfare; in other words it's the amount of curb-curbs along a public thoroughfare utilized to access adjacent private property. In commercial areas this may include access drives to enter drive-through's, curb-cuts to enter parking lots, and curb-cuts to access adjacent roadways. As depicted in the graphic below, the higher the concentration of access points off a single thoroughfare, the higher potential for accidents. Restricting left turning traffic through utilizing medians can help reduce the potential of vehicle 't-bone' collisions. Reducing the number of right turning access points, especially along fast moving thoroughfares can help reduce 'fender bender' accidents and pedestrian collisions.



As depicted in the graphic above, an increased number of curb cuts and access points leading onto a public street leads to increased chances of collisions with other vehicles and cyclists.
Source: Halff

Initiatives and Actions:

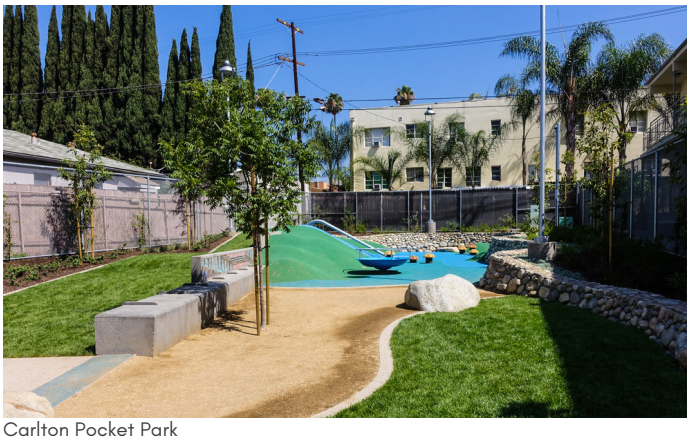
1. Conduct a formal or informal access management study along major commercial corridors in Dickinson such as Frontage Roads (Gulf Freeway) North and South, FM 517, and SH 3, to identify the concentration of existing access points and number of potential conflict points.
2. Work with the City Engineering Department, state agencies, and landowners to consolidate access points to the same or adjoining properties.
3. Utilize the access management framework set forth in the Dickinson Downtown Master Plan along FM 517 and SH 3.
4. Update thoroughfare design regulations to require cross-access easements between two adjoining commercial properties along the same thoroughfare.

Strategy 8.2.2: Procedurally "abandon" all of the rights-of-way for local and collector thoroughfares that were never constructed.

Throughout Dickinson there are established rights-of-way for local and collector roads that were never constructed. In many cases, these rights-of-way have been fenced-in and made part of adjacent properties; or structures have been constructed within the right-of-way; or the right-of-way has been converted into the driveway of an adjacent residence. The City should conduct a comprehensive right-of-way audit whereby all unused rights-of-way are identified and mapped. From this audit, the City should decide the best approach for addressing the unused rights-of-way.

Initiatives and Actions:

1. Work with the City's Legal Department and the Galveston County Appraisal District to identify and assign value to the City's unused rights-of-way.
2. Assess the future transportation, flooding, and tree canopy impact of the unused rights-of-way.
3. Decide the best approach for each section of unused rights-of-way for the potential construction of a new vehicular connections, trail/sidewalk connections, sponge or pocket parks, and other flood mitigating infrastructure.



Carlton Pocket Park
Source: Breen Design

Strategy 8.2.3: Include woonerfs as a pedestrian-friendly street type used in new development.

Develop woonerfs in new high-density residential areas, including the Urban Transition, Downtown City Center, and Activity Center land use categories. Woonerfs are a method of road design which slows vehicle speeds and increases awareness of the driver. Woonerfs blur the distinction between vehicular and pedestrian space with pavement and bollard adaptations. The concept is to create a space which vehicles, cyclists, and pedestrians share the street equally not prioritizing one form of transit over the other. Woonerfs work best in and around locations that people are trying to go to as destinations and not just locations people are trying to just go through.

Initiatives and Actions:

1. Conduct further research with the City Engineering Department about successful regional woonerf and pedestrian safety projects that could be implemented in Dickinson.
2. Identify one to three trial thoroughfares utilized to demonstrate how a woonerf can work in Dickinson and showcase to the community the effects on adjacent land uses and mobility. If woonerfs are deemed successful in application in Dickinson, the City should plan to implement additional woonerf designs in pedestrian friendly areas and destinations.

Ever since the Covid-19 pandemic of 2020, towns have experimented with intermittent closures or reducing vehicle traffic on streets. The result, in most cases, has been a reduction in overall traffic and increased social interaction and community engagement.
Source: Transportation Alternatives

Woonerf Street Design

A Woonerf is a street that is designed for both vehicular and non-vehicular traffic, such as for pedestrians and cyclists, and can be used as a social gathering or recreation space. Pedestrians and cyclists take precedence in the use of the street. The access for all modes is accommodated on the same surface, and not differentiated by grade separation or other barriers. Woonerfs include traffic calming devices to ensure safe co-existence of motorized and non-motorized users. Streetscape features, including ornamental street lighting, patterned paving, planters, trees, benches, and bollards may enhance pedestrian safety and use.

Woonerfs provide an alternative cross-section for circulation of multiple user groups. This complete street design accommodates vehicular traffic, but prioritizes pedestrian and bike movement, as well as recreation. A Woonerf street accommodates multi-modal uses within the same street cross section.



Source: Congress for the New Urbanism



Objective 8.3: Improve the design and appearance of Dickinson's Transportation Corridors

Strategy 8.3.1: Improve streets as places.

If streets are planned for cars and traffic, the likely result will be cars and traffic. However, more traffic and greater road capacity do not have to be the inevitable results of growth. They are the products of very deliberate choices made to shape communities to accommodate the private automobile. There are options. Streets can be designed to be comfortable and safe places for everyone, including pedestrians and bicyclists as well as drivers.

Initiatives and Actions:

1. Use streets and sidewalks for community programming. Design streets and sidewalks to encourage walkability, increase accessibility, and foster meeting space for diverse community members.
2. Implement street trees on both sides of streets when trees are planted.
3. Develop criteria and standards for outdoor sidewalk seating, tables, and planter boxes in front of businesses.

Strategy 8.3.2: Address nonconforming signage along the FM 517 and SH 3 corridors.

The FM 517 and SH 3 corridors are the principal entrances into Dickinson from the west, north and east respectively. Much of the signage along these entrance corridors is nonconforming, visually unattractive and in varying states of disrepair.

Initiatives and Actions:

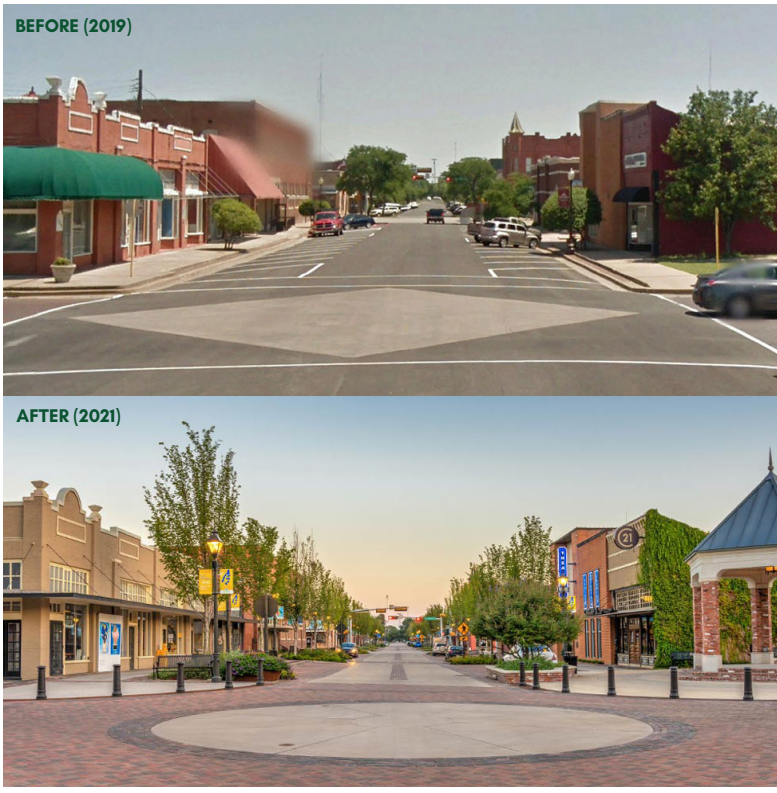
1. Develop a fair replacement timeframe for all existing businesses that display nonconforming signage; after which there may be penalties for noncompliance.
2. Work with businesses to ensure they understand the provisions of the City's signage ordinance (Sec. 18-179., Building Signage; Sec. 18-189., Site signage/wayfinding; Sec. 18-203., Building Signage).
3. Encourage neighboring municipal jurisdictions (e.g., League City, Texas City) to enforce signage ordinances along the FM 517 and SH 3 corridors to ensure a visually attractive entrance experience into Dickinson.
4. Work with neighboring municipal jurisdictions (e.g., League City, Texas City) to amend municipal ordinances as appropriate to ensure graphic and proportional continuity of signage along the FM 517 and SH 3 corridors.

Strategy 8.3.3: Develop and implement a comprehensive streetscape improvement plan for Dickinson's commercial and Institutional corridors.

Existing commercial streets in Dickinson are characterized by wide rights-of-way with multiple travel lanes in each direction, adjacent parking lots and pavement, limited pedestrian facilities, limited to no street trees, commercial signage, and fast moving traffic. The City of Dickinson should identify and work towards implementing streetscape improvements along these corridors, such as adding street trees, street lighting, reflector strips, signage improvements, landscaping at street corners, banner signage, bicycle lanes, new sidewalks, and crosswalk improvements.

Initiatives and Actions:

1. Develop a checklist of streetscape elements to assess the non-existence or condition of such streetscape elements. Utilizing the findings to identify priority thoroughfare segments along commercial streets to improve and how to improve them.
2. In conjunction with Strategy 2.1.3, utilize creative means of improving pedestrian facilities such as 'tactical-urbanism' techniques. These may include embellishing crosswalks at commercial zones, districts, and school entrances with paintings, establishing streetside seating and adaptable spaces, adding temporarily outdoor seating spaces.



Ennis, Texas, Downtown streetscape redesign to accommodate plantings, wider sidewalks, outdoor seating, and placemaking enhancements
Source: Mesa Design Group

Objective 8.4: Develop a well-connected network of active transportation facilities

Pedestrian Infrastructure, Connectivity, and Accessibility

Dickinson's existing pedestrian infrastructure network including sidewalks and bicycle infrastructure is largely incomplete and discontinuous. Sidewalks are uncomfortable due to narrow sidewalk width and proximity to the roadway shoulder. Many of the new subdivisions include interior sidewalks only, but not along the perimeter and often immediately terminate at the subdivision entrance. As burrow ditches are common throughout many of the streets in Dickinson, construction of sidewalk infrastructure is prohibitively expensive or not feasible. Additionally, there are no bicycle facilities or trails in Dickinson.

Supplement automobile trips with alternative modes of transportation, including a bicycle trail network, sidewalks and transit mobility with GCTD.

Optional Ways Forward:

- Revise development policies to enforce the provision of comprehensive pedestrian infrastructure, including sidewalks around the perimeter of subdivision parcels.
- Identify critical pedestrian corridors in need of infrastructure support to direct capital projects.
- Create a sidewalk repair program to help residents and business owners maintain sidewalks in front of their properties. Clarify the repair responsibility and liability.



Two-way bicycle lane with bollards on Denson Drive in Austin, Texas
Source: City of Austin

The Current State of Active Transportation

The City of Dickinson's existing pedestrian and active transportation facilities are limited, only providing sidewalks for internal access to residents in newer subdivision communities, and residents directly along FM 517, SH 3, and Deats Road. Historically Dickinson has not been a pedestrian-oriented community, with infrastructure catering to vehicles receiving a majority of infrastructural attention. In addition, there are currently no recreational trails, bicycle lanes, or shared-sue facilities within Dickinson, although a small number of park trails can be found at Paul Hopkins Park and Ray Holbrook Park.

Providing pedestrian and active transportation facilities for residents has many benefits to a community. The purpose of constructing such facilities is to connect destinations throughout the City, such as schools, daycares, parks, retail zones, and places of employment. Providing sidewalks can mean that residents who are taking short trips may choose to walk instead of driving, which can reduce traffic and infrastructure costs. Providing recreational trails and shared-use facilities can mean that cyclists and pedestrians have access to parkland and destinations away from busy thoroughfares, which can improve community health. The proposed system of active transportation facilities is designed to connect as many residents as possible to parkland, schools, and proposed activity centers. The system should also provide safe and convenient connections between different modes of travel. For example, a bicycle lane should end or connect to shared-use facilities and recreational trails, and sidewalks should provide access to bus stops. The idea is that a variety of mobility options should be available and work interconnectedly to get residents from their origin to their destination.

Challenges to Active Transportation

There are many challenges to constructing active transportation facilities in Dickinson, mainly due to existing infrastructure. In a majority of residential zones the streets have open gutter systems extending from the street edge to the edge of the City-owned right-of-way, which does not allow for the construction of sidewalks. If sidewalks are to be constructed along streets with open ditch networks, the system will need to be moved underground to provide space for sidewalk construction. In addition, many local residential streets are narrow and have a lot of parallel parked cars on the shoulder. This limits the ease of mobility for pedestrians and cyclists along such streets and can create dangerous blind spots which can lead to vehicle-pedestrian collisions.

Proposed Pedestrian and Active Transportation Improvements

The proposed facilities for pedestrians and cyclists are decribed on the following pages and depicted on Map 2.9 Proposed Sidewalk, Trail, and Pedestrian Projects, on the facing page.

Proposed Sidewalks

A sidewalk is typically a four- to six-foot-wide concrete paved facility parallel to thoroughfares, which caters to mainly pedestrians, and designed with a lower capacity.
A majority of sidewalks in Dickinson are found in residential subdivisions and along corridors such as FM 517, Deats Road, SH 3, most built only over the past 20 years. While the existing system of sidewalks does provide long corridors of connectivity, they only provide connections from commercial uses to other commercial uses. As the system of sidewalks continues to be constructed additional connections should be built off of the existing network to connect residential areas to commercial and parkland uses.

Subdivisions such as Bayou Maison, Bentwood, Green Isles, and Bayou Lakes have an extensive system of sidewalks, but do not connect to a wider system of sidewalks outside of the subdivisions. Sidewalks along FM 517 should connect to adjacent subdivisions (including the aforementioned subdivisions).

The existing sidewalks on both sides of FM 517 are four- to six-feet-wide facilities. The existing brick buffer between the sidewalk and curb may need to be removed as sidewalks are reconstructed, due to segments of the brick buffer being damaged or unstable. Due to FM 517's role as the major east-west connector of Dickinson a wider shared-use facility should be constructed on the north side of FM 517 to facilitate a greater capacity of mobility (see the Shared-use Facility section).

Sidewalks should be constructed along local roads, prioritizing local thru streets first which connect to arterial thoroughfares or public institutional land uses. For example, in the gridded section of Dickinson (between Dickinson Avenue and California Avenue), sidewalks are only proposed along thru streets which directly connect to existing facilities or institutional land uses. As these sidewalks are constructed, additional sidewalks should be considered along the more minor local residential streets.
Currently, with the exception of Frontage Road north, there are no sidewalks or pedestrian facilities connecting Dickinson north and south of Dickinson Bayou. As development continues south of Dickinson Bayou, sidewalks should be constructed along SH 3 to connect to Downtown and City Hall. Under the proposed program of sidewalks, all existing schools, parks, institutional land uses, and proposed activity centers are connected with sidewalks.

Proposed Shared-use Facilities (Sidepaths)

A shared-use facility or sidepath is typically an eight- to twelve-foot-wide concrete paved facility parallel to thoroughfares, which caters to pedestrians and cyclists, and designed with a higher capacity.

Currently in Dickinson there are no facilities considered shared-use / side paths. Since shared-use paths are primarily used by pedestrians and cyclists and have a greater capacity than a traditional five-foot-wide sidewalk, shared-use paths should be constructed along corridors with a greater need for pedestrian connectivity. In Dickinson, the thoroughfare connecting the most parks, residents, and points of interest is FM 517. A 10-foot-wide shared-use path on the north side of FM 517 is proposed to replace the existing five-foot wide facility. At locations near Downtown (SH 3), only an eight-foot-wide facility is feasible due to right-of-way restrictions.

Additional shared-use facilities are proposed crossing IH-45 along Medical Park Drive and Spruce Drive to accommodate the residential density of the future Activity Center construction. This will create a higher capacity, direct pedestrian and cyclist connection between the IH-45 Activity Center, the Downtown



Library Avenue sidepath in Newark
Source: 1st Bikes



Harns Road sidepath, Glenview, Illniois
Source: Steven Vance

Proposed Sidewalk, Trail, and Pedestrian Projects

Legend

- Dickinson City Limits
- Dickinson Extraterritorial Jurisdiction
- Water
- Rail Lines
- Existing Streets
- Proposed Streets (County Major Thoroughfare Plan)
- Existing Sidewalks
- Proposed Sidewalks
- Proposed Trails
- Proposed Shared-Use Paths
- Proposed Intersection Imporvements
- Proposed Pedestrian Bridge
- HGAC Proposed Bus Shelters
- City Proposed Bus Shelters

1/4 mile 1/2 mile 1 mile

N

Data Sources:
City Data: cob.us/653/Geographic-Information-System-GIS-Maps;
and Aerial Imagery: www.nearmap.com

Consultants: Halff Associates, Inc.

City of Dickinson, Texas Comprehensive Plan

February 2022

Proposed Off-street Recreational Trails

An off-street recreational trail is a paved or unpaved facility typically constructed along utility easements and in open space/parkland. Off-street recreational trails can be anywhere from two-feet wide to fifteen-feet wide depending on the location and need for capacity. Off-street recreational trail users typically include pedestrians, cyclists, and hikers. Paved trails are common in locations along easements or canals, while natural off-street recreational trails are unpaved and have a width of two to eight feet. Typically paved off-street recreational trails are grade separated from vehicle traffic (6 inches, height of curb) and at least eight-feet-wide to meet American Association of State Transportation Officials (AASHTO) recommendations or 10-feet-wide to meet Texas Department of Transportation (TxDOT) standards.

Currently, there are no existing off-street recreational trails within the City. There are internal park trails at Paul Hopkins Park and Ray Holbrook Park, consisting of approximately 690 feet (0.15 miles) of boardwalks and 2,390 linear feet (0.45 miles) of trails, but they do not connect to residential or commercial areas. As Dickinson's system of off-street recreation trails is developed, connections to and from the existing parkland should be prioritized. In addition, as parkland is developed along water bodies, recreational trails should be developed providing public access to the waterfront.

For example as the Activity Center as Desel Drive is developed, a pedestrian bridge and recreational trail connection should be considered connecting Meadow Lane to Paul Hopkins Park. This will work to establish continuous segments of recreational trails. Additional recreational trails at proposed Activity Centers should be constructed including along Gum Bayou and Whispering Drive.

An off-street recreational trail is proposed along the Dickinson Bayou at the proposed Employment Center between Cemetery Road and Lovers Lane. With the addition of a pedestrian bridge connection to Lovers Lane, this trail can connect to existing HOA trails at the Bayou Lakes subdivision.

Next, off-street recreational trails are proposed along tributaries of Dickinson Bayou such as Bordens Gully to connect to the Activity Center and the Gum Bayou Tributary connecting Ray Holbrook Park to Deats Road. The Ray Holbrook Park to Deats Road recreational trail runs along an existing drainage corridor between 27th and 29th Streets and can utilize an existing bridge concrete base at Dani Lane.

Next, small recreational trail segments are proposed in the gridded sections of Dickinson Between Timber Drive and California Avenue (north of Downtown). These trails utilize unused City-owned right-of-way where streets were not constructed. Currently the lands are unutilized but can become minor trail segments completing the street grid, while offering pocket park amenities and flood-reducing green infrastructure (see the Green Infrastructure section of page 2.118).

Lastly, there is a regionally-planned recreational trail to connect Houston with Galveston called the Emancipation National Historic Trail. The trail is being planned for by the National Parks Service and the Houston Galveston Area Council (H-GAC) to run along SH 3 and the Galveston, Houston, and Henderson Rail Line. A specific alignment has not been approved and construction has not begun as of 2022. In the future, Dickinson should work with H-GAC to implement the planned alignment. The trail will run through Downtown Dickinson and directly connect to Downtown League City, NASA, and Downtown La Marque.



Sims Bayou trails in southwest Houston
Source: White Oak Studio



Palmetto Islands County Park in Mount Pleasant, South Carolina
Source: Mouth Pleasant

Proposed Pedestrian Bridges

Pedestrian bridges are bridges constructed for only cyclist and pedestrian use (no motorized vehicles are allowed) to cross bodies of water and major thoroughfares. Pedestrian bridges can range from five to 12 feet wide depending on what facility type the bridge is connected to. For example, a 10-foot wide pedestrian bridge may be connected across a body of water to connect two sections of a 10-foot side off-street recreational trail.

As parkland and trails are being developed, a number of locations have been identified as potential sites for pedestrian bridges, particularly where proposed open space, parkland, and trails are proposed on both sides of a water body. The aforementioned bridges crossing the Dickinson Bayou can connect existing and proposed facilities at Paul Hopkins Park and Lovers Lane to increase north-south connectivity without having to interact with the three existing major thoroughfare crossings (IH-45 frontage roads, SH 3, and FM 646). Pedestrian bridges are also proposed along Gum Bayou connecting residents of Gum Bayou to Ray Holbrook Park, Sam Vitanza Stadium, and Deats Road. In total there five potential pedestrian bridge location identified in Dickinson.

Lastly, while not strictly used by pedestrian or cyclists, existing bridges, such as ones crossing Dickinson Bayou, Benson Bayou, and Gum Bayou, should be considered in planning for safe bridge infrastructure. For example, the existing bridge crossing at Bensons Bayou, near Peacock Isle, has sidewalk facilities on both sides of the bridge. When a pedestrian is crossing the bridge on one side there is fast moving traffic and on the other side there is a concrete walled edge. If two pedestrians are crossing in different directions the restricted sidewalk width and large amount of concrete infrastructure can diminish a pedestrian feeling of safety. Infrastructural improvements such as painting the bridges, creating a parallel pedestrian-cyclist only bridge, painting curb edges, and reflector strips can help mitigate any feelings of uncertainly or safety for users.



Large trail bridge on the Washington Boulevard Trail in Arlington, Texas
Source: City of Arlington, Texas

Proposed Pedestrian Intersection Improvements

Special attention should be given to Intersections where sidewalks, bicycle lanes, shared-use paths, and off-street recreational trails cross vehicle travel lanes. The goal is to eliminate vehicle collisions with active transportation users with safety measures such as reflective trips, push-button signalization, crosswalks, signage, pedestrian refuges, and speed-tables.

As indicated on Map 2.9, Proposed Sidewalk, Trail, and Pedestrian Projects, a series of intersections have been identified that require additional surveying to ensure safety as sidewalks, trails, mixed-use development, and activity centers are constructed. The intersections were identified through analysis of existing traffic levels, crash rates, the location of destinations, location of public institutional land uses, and proposed mixed-use developments.
Street intersections are locations where pedestrians, cyclists, and vehicles cross paths and are some of the most dangerous locations for pedestrians in Dickinson. Improvements should be considered at the identified intersections including:

- Pedestrian refuges and painted curbs along major thoroughfares wider than four travel lanes
- Mid-block pedestrian refuges where intersection crosswalks are considered too far away from each other, causing people to choose the more convenient but unsafe option of crossing at an undesignated spot (i.e., jay-walking)
- Reflector strips and striped painted crosswalks at intersections
- Push-button crossing signalization and extending walk interval times with delayed vehicle signalization
- Signage for both pedestrians, cyclists, and vehicles

Special attention should be given to major intersections adjacent or along proposed recreational trail alignments, schools, proposed activity centers, and near parkland. Particularly, pedestrian enhancements crossing IH-45 and Frontage Roads should be taken to mitigate potential collisions, with enhanced street lighting, painted curbs, reflector strips, and signage. Also, particular attention should be given to intersections which feature right turning slip lanes, such as at FM 517 and SH 3, due to vehicles only being required to yield or not slow down at all to make the turn. Additional methods to increase pedestrian visibility utilizing such slip lanes and crossing should be made such as painted curbs, signage, and reflector strips.

Each intersection identified on Map 2.9, Proposed Sidewalk, Trail, and Pedestrian Projects, requires further research and study to identify potential safety concerns and to adapt to a potential future increase in pedestrians and pedestrian infrastructure.

Proposed Public Transportation Improvements

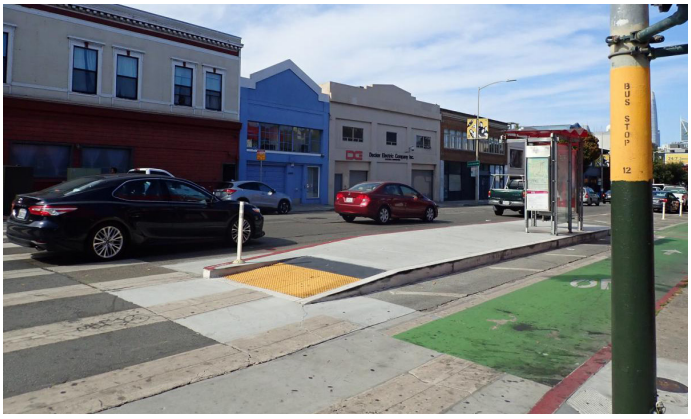
As indicated on Map 2.10, Public Transportation Projects, a series of public transportation improvements are proposed. Summarized in the Existing City Report, Dickinson is served by two bus routes operated by the Gulf Coast Transit District (GCTD). The system features little to no associated transit infrastructure such as bus stop signage, covered shelters, benches, or concrete bus stop paving.

The GCTD has proposed 17 bus shelter structures within Dickinson city limits or ETJ. An additional 15 bus shelter structures are proposed within the Master Plan at additional destinations such as at proposed Activity Centers, Downtown, Paul Hopkins Park, and Dickinson High School.

The typical fully amenitized bus stop includes a shade structure /shelter, a bicycle rack, bus stop route and identification signage, a bench, a trashcan, lighting, a concrete paved base, and sidewalk connections. The existing bus structure at City Hall (which includes most of these amenities) should be used as a model stop for potentially high ridership stops at proposed Activity Centers and institutional land uses. Additional signage, benches, and lighting should be considered for other bus stop locations in Dickinson, where ridership may be lower and not warrant the infrastructure costs.



Public bus in Austin, Texas, with front bicycle racks
Source: Sustainability at the University of Texas at Austin



Bus boarding island is integrated into the vehicle, sidewalk, and bike network
Source: SFMTA

Increasing Connectivity

Typical street connectivity standards or goals include the features listed below. Of course, such standards must be flexible to accommodate specific conditions, such as geographic barriers.

- Encourage average intersection spacing for local streets to be 300 to 400 feet.
- Limit maximum intersection spacing for local streets to about 600 feet.
- Limit maximum intersection spacing for arterial streets to about 1,000 feet.
- Limit maximum spacing between pedestrian/bicycle connections to about 350 feet (that is, it creates mid-block paths and pedestrian shortcuts).
- Reduce street pavement widths to 24 to 36 feet.
- Limit maximum block size to five to 12 acres.
- Limit or discourages cul-de-sacs (for example, to 20 percent of streets).
- Limit the maximum length of cul-de-sacs to 200 to 400 feet.
- Limit or discourages gated communities and other restricted access roads.
- Require multiple access connections between a development and arterial streets.
- Require a minimum connectivity index, or reward developments that have a high connectivity index with various incentives.
- Specifically favor pedestrian and cycling connections, and sometime connections for transit and emergency vehicles, where through traffic is closed to general automobile traffic.
- Creates a planning process to connect street "stubs," that is, streets that are initially cul-de-sacs but can be connected when adjacent parcels are developed in the future.
- Creates pedways, which are walking networks within major commercial centers that connect buildings and transportation terminals.

Proposed Public Transportation Projects

Legend

- Dickinson City Limits
- Dickinson Extraterritorial Jurisdiction
- Water
- Rail Lines
- Existing Streets
- Proposed Streets (County Major Thoroughfare Plan)
- Existing Sidewalks
- Existing Gulf Coast Transit District Public Transit Bus Routes
- Existing Gulf Coast Transit District Bus Stop Location
- Gulf Coast Transit District Proposed Bus Shelters
- City Proposed Bus Shelters
- Proposed Sidewalks
- Proposed Trails
- Private and Non-City Proposed Trails
- Proposed Shared-Use Paths (8 ft.)
- Proposed Shared-Use Paths (10 ft.)

1/4 mile 1/2 mile 1 mile

N

Data Sources:
City Data: cob.us/653/Geographic-Information-System-GIS-Maps; and Aerial Imagery: www.nearmap.com

Consultants: Halff Associates, Inc.

City of Dickinson, Texas Comprehensive Plan

February 2023

Strategy 8.4.1: Continue to invest in public projects that increase the walkability of Dickinson, from Dickinson neighborhoods to parks, schools, grocery stores, neighborhood retail, and other community destinations.

There are changing preferences regarding accessibility, mobility, and quality of alternate forms of transportation. These include increased demand for more pedestrian and bicycling infrastructure, access to public transit or ride-sharing programs, among other associated improvements. Previously, these "other" forms of mobility were included as "after thoughts" after vehicular mobility was maximized. Today, these alternate mobility options are increasingly becoming required quality of life improvements, and in some cases, being prioritized over vehicular improvements. Moving forward, the City should continue to identify and invest in additional public projects which promote/enhance the walkability of Dickinson, including Safe Routes to School projects.

Strategy 8.4.2: Develop an active transportation plan to determine appropriate alignments for the provision of sidewalks, on-street bike lanes, shared-use paths, and other pedestrian facilities in Dickinson.

As the City continues to advance the active transportation network in Dickinson, it will need to identify and prioritize the most beneficial connections between key destinations (e.g., parks, schools, retail, employment, and downtown). Public input showed strong support for improving or adding sidewalks and places to walk (i.e., identified that it was either Very Important or Important) and for providing additional trails. Map X, Active Transportation Improvements (page X.X), identifies a series of improvements to expand Dickinson's network of sidewalks and trails. An Active Transportation Plan that focuses on on-street and off-street bike lanes should be developed to compliment and augment the proposed active transportation system.

Initiatives and Actions:

1. Develop a phased implementation program for proposed active transportation improvements in the City.
2. Require trails and share-used paths to connect neighborhoods with adjacent parks, recreation facilities, schools, and commercial development.

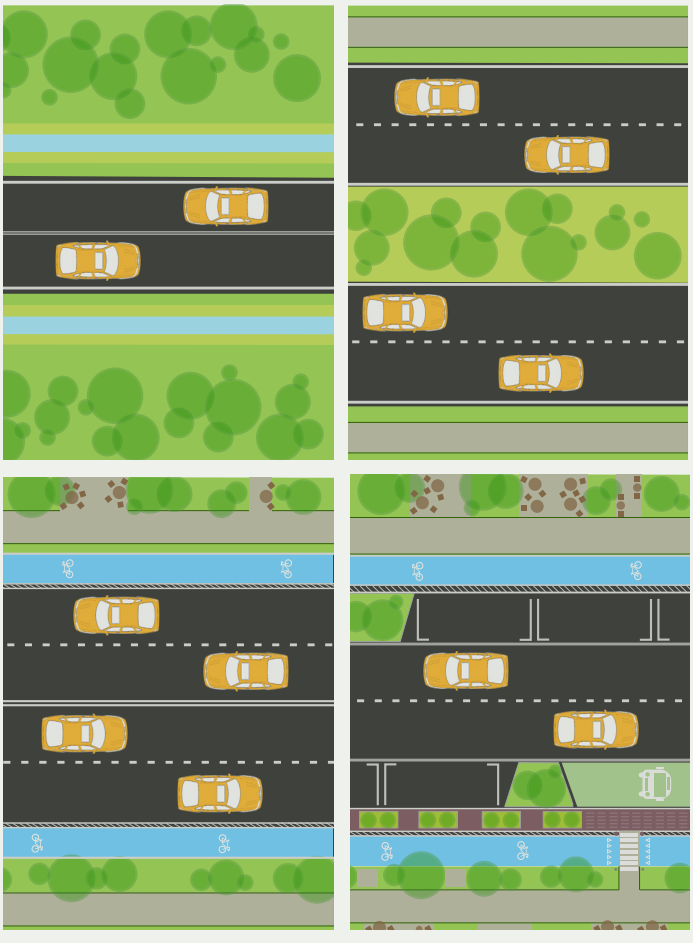
Strategy 8.4.3: Promote alternative modes of transportation by adopting a Complete Streets policy and approach to redesigning streets.

Complete Streets are streets designed and operated to enable safe use and support mobility for all users, including people of all ages and abilities, regardless of whether they are travelling as drivers, pedestrians, bicyclists, or public transportation riders. The concept of Complete Streets encompasses many approaches to planning, designing, and operating roadways and rights of way with all users in mind to make the transportation network safer and more efficient. Complete Street policies are set at the state, regional, and local levels and are frequently supported by roadway design guidelines.

Dickinson should consider the adoption of a Complete Streets policy to guide the development of design standards for future streets. This may include targeted areas of the city, major thoroughfares, and/or local streets that are desired for multi-modal design components.

R.O.W. Use Adaptation

The four streets depicted below each have a 120-foot right-of-way. With the same R.O.W. wdith, many different street typologies and accomodations can be made depending on desired character and user types.





Mid-block crossing and a crossing guard help students cross safely
Source: Mesa Design Group

Strategy 8.4.4: Continue to coordinate with the Harris County Toll Road Authority (HCTRA) to align the Emancipation Trail along the SH 3 corridor through Dickinson.

As the alignment of the Emancipation Trail is being decided, Dickinson should work with HCTRA to address any challenges or infrastructural needs for the trail.

Initiatives and Actions:

1. Continue to coordinate with HCTRA to ensure that the Trail alignment complements and works in conjunction with the existing and proposed active transportation system in Dickinson.
2. Dickinson should identify additional opportunities for economic development along the decided Emancipation Trail alignment.

Strategy 8.4.5: Where possible, integrate a system of trails along the City's bayous and waterways.

Where land is being developed along bayous and waterways, special attention should be given to the lands directly along the shoreline. Where possible, the shoreline should be open to the public and feature water-side amenities such as trails, signage, kayak launches, fishing piers, and other amenities.

Initiatives and Actions:

1. During the proposal process of development, City leaders should require public access or semi-private access facilities within the recommended flood mitigation buffer between development and the shoreline.

Strategy 8.4.6: Conduct an intersections and safe crossings analysis at critical crossings to ensure Americans with Disability Act (ADA) compliance and identify additional safety opportunities.

Many existing pedestrian facilities were constructed prior to 1990 (the passing of the Americans with Disability Act). Dickinson should assess all intersections to identify where additional safety improvements may be needed and which intersection do not comply with ADA design standards.

Initiatives and Actions:

1. Develop a phased-reconstruction schedule for intersection identified as needing improvement or reconstruction based on costs and risk assessment.
2. Encourage intersection redesigns consistent with the Safe Routes to School program.
3. Encourage semi-permanent installations of safety improvements to test the reception and efficiency of those further safety improvements. Once the intersection improvements have been deemed successful and effective, move towards the permanent funding and installation of infrastructure.



Flashing beacons and a safety-refuge indivate to drivers of pedestrians
Source: Texas A&M Transportation Institutue



Trail crossing infastrucure should include signage for both trail users and drivers, with reflective strips and crosswalks
Source: City of Noblesville

Strategy 8.4.7: Partner with Dickinson ISD to help improve safe pedestrian and bicycle connectivity to existing and new schools.

K-12 Education: Dickinson Independent School District (DISD) officials project a 15-20 percent increase in enrollment by 2031, with all new school buildings being constructed outside of Dickinson's corporate limits. However, Dickinson lacks the requisite pedestrian infrastructure to support students, forcing students to depend on district-provided school buses for transportation.

Dickinson youth have a variety of safe transportation options to reach their schools, including walking and bicycling.

Initiatives and Actions:

1. Develop a comprehensive sidewalk and street lighting improvement program for the residential areas around Dickinson High School.
2. City of Dickinson staff and administrators should meet with DISD representatives on an ongoing basis to exchange updates.
3. Based on community feedback, consider bolstering sidewalk accessibility in neighborhoods or along roadways adjacent to schools and other nearby recreational facilities.



Fully amenitized bus stop with benches, lighting, signage, and shelter.
Source: NACTO

Objective 8.5: Continue to provide a reliable Public Transit program that meets the needs of its users.

The existing Gulf Coast Transit District (GCTD) network is available to approximately 60 percent of all residences within a one-quarter mile walkshed of a bus stop, and 84 percent of residences at the one-half mile walkshed distance. This means that between 60 and 84 percent of Dickinson's residential areas are within walking distance of a bus stop. However, according to the community survey, more than 95 percent of survey respondents do not use the service, citing the need for better service promotion, visible bus stops, schedule awareness, and the need for a park-and-ride location as opportunities for improvement.

Preferred Condition: A preferred condition would be that the Dickinson community actively uses Gulf Coast Transit District transit services to reach local and regional destinations as the preferred alternative to driving. GCTD service is reliable, comfortable, affordable, and connects residents with critical services such as medical centers, schools and colleges, post offices, etc.

Strategy 8.5.1: Coordinate with Gulf Coast Transit District to evaluate Dickinson routes and fares to maximize service to existing and future destinations.

Although transit in Dickinson is operated by the Gulf Coast Transit District (GCTD), the City should be proactive regarding its success and expansion, including improved transportation choice (particularly as a growing part of a multi-modal initiative), greater personal savings (for those that cannot or do not want a car), improved air quality, and economic development. A quality transit network should be designed to connect people more directly to important destinations in a more frequent manner. Moving forward, the City should initiate discussions with GCTD to determine opportunities to improve the system by examining routes and destinations, timings, frequencies, and bus stop infrastructure. This includes discussion related universal accessibility improvements or upgrades to some of the more frequented bus stops to facilitate access to transit.

Initiatives and Actions:

1. Prioritize the creation of a service improvement plan that outlines how the City of Dickinson can better support

GCTD. Schedule monthly or quarterly meetings between City of Dickinson staff and GCTD officials to align capital improvements and deploy infrastructure assets in a manner that will complement the GCTD service area, including road repairs, bus stop signage and shelters. Continue leveraging GCTD for transportation services during high-volume events and celebrations, such as during the wintertime Festival of Lights at Paul Hopkins Park.

2. Work with GCTD to provide app-based (or mobile web-based) options to get route information, time schedules, fares, and other details of service, to enable quicker and easier access for potential riders to get their questions answered. By widely promoting the use of the app or web portal, it can improve the effectiveness of communication with customers. Offering the purchase of fares or ride passes through this app or portal may also help smooth the journey for both new and current riders.
3. Create audience-specific materials, such as brochures, info sheets, signs, route maps and schedules, and other assets which can be more effective than a single one-size-fits-all. Catering some of the marketing and communications materials to shift workers at a factory, for example, or to seniors or students, can allow for a more targeted, and potentially more effective, use of advertising and marketing budgets to reach specific groups of riders. Churches, schools, manufacturing hubs, office parks, and other concentrations of people with similar needs are some examples of demographics to focus on.
4. Work with GCTD to increase the frequency of service on a route so there are more options during peak hours and on high demand routes. To increase ridership, encourage GCTD to lengthen the operating hours to service more off-peak riders.
5. Encourage the GCTD to consider adjusting some popular routes so that fewer transfers are necessary and using that optimized route as a selling point to specific groups or riders. Examine which times of day, week, and year would most benefit from those changes, and the associated costs, may uncover some low hanging fruit for increasing ridership.
6. Encourage the GCTD to survey current riders to find out what is working the best for them, as well as what could be improved, and then survey potential riders to find out what aspects of public transit may be preventing them from riding regularly. Conducting market and consumer research can help the GCTD better understand what drives their customers, and how to attract new ones.

Strategy 8.5.2: Work with H-GAC and the Gulf Coast Transit Center (GCTD) to improve key transit stops in Dickinson.

Initiatives and Actions:

1. Based on bus stop locations identified in Map X, Public Transportation Improvements, Dickinson should assess future funding methods and collaborative opportunities in conjunction with GCTD to increase signage and safety features at designated stops.

This Houston METRO bus stop is well connected to pedestrian facilities and has clear signage and scheduling positions.
Source: Houston METRO



Community Strategies and Recommendations

Goal 9.0 Intergovernmental Coordination Strategies:

Eight Principles of the Main Street Approach

While the Main Street Four-Point Approach provides the format for successful revitalization, implementing it is based on eight principles that pertain to all areas of the revitalization effort.

1. Comprehensive.
Downtown revitalization is a complex process that cannot be accomplished through a single project. For successful, long-term revitalization, a comprehensive approach must be used.

2. Incremental.
Small projects and simple activities lead to a more sophisticated understanding of the revitalization process and help to develop skills so that more complex problems can be addressed and more ambitious projects undertaken.

3. Self-Help.
Local leaders must have the desire and will to make the project successful. The NMSC provides direction, ideas and training, but continued and long-term success depends upon the involvement and commitment of the community.

4. Public-Private Partnership.
Both the public and private sectors have a vital interest in the economic health and physical viability of downtown. Each sector has a role to play, and each must understand the other's strengths and limitations so that an effective partnership can be forged.

5. Identifying and Capitalizing on Existing Assets.
Business districts must capitalize on the assets that make them unique. Every district has unique qualities, like distinctive buildings and scale, that give people a sense of place. These local assets must serve as the foundation for all aspects of the revitalization program.

6. Quality.
Quality must be emphasized in every aspect of the revitalization program. This applies equally to each element of the program, from storefront design to promotional campaigns to educational programs.

7. Change.
Changes in attitude and practice are necessary to improve current economic conditions. Public support for change will build as the program grows.

8. Implementation Oriented.
Activity creates confidence in the program and even greater levels of participation. Frequent, visible changes are a reminder that the revitalization effort is underway. Small projects at the beginning pave the way for larger activities as the program matures.

Objective 9.1: Create additional administrative entities to administer and oversee programs and initiatives recommended within this Comprehensive Plan.

Strategy 9.1.1: Develop a management entity to administer growth and development Downtown.

As Dickinson's Downtown is redeveloped and becomes a place that is a draw for local residents and visitors, there will need to be an entity that programs activities and events while overseeing ongoing development and redevelopment. The National Main Street Center (https://www.mainstreet.org/) is a great model of employing a multi-pronged approach to organizing and promoting downtowns to ensure economic vitality. The Main Street Center also advocates ready to use "Catalyst Strategies," which fall into two broad categories: those that are focused on a specific customer segment and those that are focused on an industry, product, or service segment.

Initiatives and Actions:

1. Consider forming an arm of the Downtown TIRZ Board of Directors, or a division of the City's Economic Development Corporation, the responsibilities of which would be to administer a program that would be based on the National Main Street Center's Four-Point Approach (refer to main Street sidebar).
2. Contact the Texas Historical Commission's Texas Main Street program to determine eligibility criteria and timeframe for becoming designated as a Texas Main Street community. For further information, refer to: https://www.thc.texas.gov/becoming-main-street-community. Download the 2022 application package.

Strategy 9.1.2: Consider additional means of funding public art initiatives such as Hotel Occupancy Tax (HOT) and Percent for the Arts Program.

As the public art program matures, establish a Public Art Commission; the responsibilities of which would include promoting Dickinson's public art; fund raising through applying for grants and endowments; administering Hotel Occupancy Tax (HOT) funding dedicated to advancing public art projects; administering the City's Percent for the Arts Program; and developing a public art curatorial program, which would ensure that public art would remain well-maintained and taken care of.

Initiatives and Actions:

1. Consider the adoption and feasibility of a Hotel Occupancy Tax (HOT) starting at one percent (1%). An HOT is a one percent added tax on hotel rooms, paid for by the hotel consumer, which gets added to a group-fund (Dickinson public art fund) for public art commissions, improvements, and maintenance within Dickinson.
2. Consider a Percent for the Arts Program (PFTAP). As described by the Texas Commission on the Arts, a PFTAP will require a percentage of construction costs for capital projects above $250,000 to be dedicated for public art associated with the project. For example, a project of $250,000 dollars would be required to add $2,500 worth of public art to the project cost. For roadway projects, this one percent for art may be accommodated through painted crosswalks, banner signage, or sculpture. For building projects this may include, sculptures, murals, window art, or public decorative tiling / pavements.

Strategy 9.1.3: Establish a Public Art Commission.

As the public art program matures, establish a Public Art Commission; the responsibilities of which would include promoting Dickinson's public art; fund raising through applying for grants and endowments; administering Hotel Occupancy Tax (HOT) funding dedicated to advancing public art projects; administering the City's Percent for the Arts Program; and developing a public art curatorial program, which would ensure that public art would remain well-maintained and taken care of.

Initiatives and Actions:

1. Develop a coordination method, administrative controls, and legal rights between the Public Art Commission and Dickinson City Council. The Commission should advise City Council and have approval-denial rights, commissioned rights, grant funding rights, and other needed measures to establish and oversee proposed public art and commissioned projects.



Umbrella Alley in Baytown's Arts, Culture, and Entertainment (ACE) District is a wonderful example of a vacant alley that was restored into a fanciful venue and location for evening happy hours and photo shoots.
Source: Halff

Strategy 9.1.4: Establish a Parks and Recreation Department to manage City parks operations, recreational programming, facilities, memberships, and activities.

Public Park and Recreation agencies create healthy communities and play a fundamental role in enhancing the physical environments in which we live. Through facilities, outdoor spaces, and services and programming provided, they support good health for people of all abilities, ages, socio economic backgrounds, and ethnicities. Establishing a Parks and Recreation Department in Dickinson will enable the City to better preserve, protect, maintain, improve, and enhance natural resources, parkland, and recreational opportunities. A Parks and Recreation Department will be responsible for the implementation and update of the Parks and Trails Master Plan for the City.

Initiatives and Actions:

1. Clearly delineate and establish the roles and duties of a Parks and Recreation Department in Dickinson.
2. Conduct a funding study to decide the initial annual cost of operations for a Parks and Recreation Department.
3. Work with Galveston County to decide future authorities, funding, and operations of County-owned parks in Dickinson such as Ray Holbrook Park, Paul Hopkins Park, and Bayou Campground.



Volunteers help repair and replace park signage
Source: City of Houston

Strategy 9.1.5: Establish a Parks Foundation.

A Park Foundation, or "Friends Group," is a non-profit organization that supports a specific local park or park project with time, expertise, and privately raised funds. A foundation frequently engages local citizens and businesses and provides financial support and volunteer time in support of park priorities and initiatives. It also assists park and recreation departments seek and receive monies outside their capital budgets, which aid in acquiring and developing parkland – thus speeding up the process of developing parks. A Park Foundation in Dickinson will help generate private support and build strategic partnerships to protect and enhance the City's parks for present and future generation.

Initiatives and Actions:

1. Establish and determine community interest in a Parks Foundation to assist a Parks and Recreation Department, utilizing existing parks and recreational advocates and leaders in the community, which may include ISD staff, City staff, County staff, health officials, sports leagues, Keep Dickinson Beautiful, and other community groups.



A park foundation and volunteers help to pick up trash and debrit
Source: New York City Parks Foundation

Objective 9.2: Streamline administrative and procedural processes.

Strategy 9.2.1: Develop a Handbook for developers detailing steps in the permitting and approval process.

Dickinson should develop a clear, comprehensive, and easy to understand permitting process and handbook for developers and proposed construction improvements. A streamlined process for submitting proposals, plats, construction documents, funding, and other required processes, should be administered by as few entities as possible. Creating an easy yet thorough and check-and-balanced permitting process can make establishing a business or constructing new housing projects in Dickinson more attractive for the developer. A streamlined process, which clearly delineates steps and requirements, can reduce costs for developers and make Dickinson a more attractive place for economic development.

Initiatives and Actions:

1. Dickinson should work with its City and County departments, including Economic Development, Engineering, and Wastewater-Sanitary, to identify the steps, requirements, and process a developer goes through from start to finish.
2. Aggregate all required documents, permits, checklists, meeting/Council requirements, and other documents into one location, either through an online portal or a physical handbook, which can be accessed by developers and businesses.

Objective 9.3: Regional Coordination and Partnerships: Continue collaboration between Dickinson and federal, state, regional, and local partners to improve inter-city mobility of people and goods to, from, and through the community in an efficient and effective manner.

Continue to cultivate strong relationships with regional and neighboring governing partners to ensure regional initiatives and programs benefit all users.
One of Dickinson's strengths is being part of a growing region with a diversified economy. Continuing to work with regional partners such as the Texas Department of Transportation (TxDOT), Houston-Galveston Metropolitan Planning Organization (H-GAC), the Dickinson Management District, Galveston County, Gulf Coast Transit District, the Dickinson Independent School District, and other neighboring cities will position Dickinson for state and federal funds with a regional perspective on managing and planning for growth for transportation. Like Dickinson, these entities are facing the challenge of regional growth and change in the future. Therefore, the City must continue to leverage influence and funding to achieve common mobility goals.

Strategy 9.3.1: Actively pursue leadership roles in regional and statewide transportation planning organizations and activities to promote funding and improvements that benefit Dickinson.

Dickinson is in prime position along IH-45, between the Cities of Houston and Galveston. Dickinson and its citizen leaders must work with federal and state elected officials to steer funding of infrastructure to frontage roads, arterial connectors, and ensure adequate access for local businesses along these routes. Maintaining leadership roles on local and regional mobility-focused boards puts Dickinson in a position of influence to guide policy and lead innovation in the region.

Initiatives and Actions:

1. Coordinate with TxDOT and other state organizations to implement proposed vehicular and active transportation improvements along state-owned roadways such as IH-45, FM 517, and SH 3.

Strategy 9.3.2: Coordinate with H-GAC in planning efforts.

Provide demographic, mobility, and land use-related information to H-GAC so they can update their 2045 Population and Employment Traffic Analysis Zone (TAZ) data, to better analyze trip generation and estimate model capacities and level of service for principal thoroughfares.

Initiatives and Actions:

1. Ensure that H-GAC has the most up to date data and information including appropriate shapefiles, construction documents, alignment studies, and other planning efforts within the City of Dickinson.
2. Coordinate with H-GAC on proposed projects to establish shared-cooperative opportunities and funding methods.

Strategy 9.3.3: Establish regular conversations with neighboring municipalities to align projects and services related to transportation, services, and long-range planning.

Partner and coordinate with neighboring municipalities and Galveston County when projects, development, or initiatives are being proposed that are adjacent to, or have a direct impact to, neighboring communities. Doing so can help grow inter-local planning efforts, establish greater continuity between areas, establish opportunities for shared resources, and/or establish regional mobility opportunities (i.e., trails, blueways, corridors).

Initiatives and Actions:

1. Coordinate with League City, Santa Fe, and Texas City to implement recreational trail alignments which connect between the communities.
2. On a regular basis, in conjunction with neighboring municipalities and the Dickinson Bayou Watershed Partnership, assess the ever-changing impacts of development on waterflow and flood conditions within the Dickinson Bayou watershed.
3. Coordinate with League City and Texas City to establish a Blueways program.

Objective 9.4: Develop an enhanced public engagement program for Dickinson's citizenry.

Strategy 9.4.1: Maintain an ongoing public engagement program, including institutionalizing the Comprehensive Plan Advisory Committee (CPAC) through the duration of ongoing plan implementation and amendment activities.

Strategy 9.4.2: Continue to support community service groups, non-profits, and volunteers.

Dickinson has benefitted from the services provided by an array of local community organizations, faith-based groups, neighborhood associations and social groups that care about Dickinson's people and heritage. A city government is only one organization and a role that is limited in its abilities to provide certain elements of service. Working with volunteer groups and local partners can help achieve community objectives.

Initiatives and Actions:

1. Encourage volunteer assistance to generate civic pride and enthusiasm. Helping out in the community is a source of pride for many, both as individuals and organizations. There are many ways people can get involved using their time, money, or hands (e.g., assisting with funding for certain public improvements, community clean-ups, park volunteering, art, and serving on boards and commissions). People want to serve their community!

Strategy 9.4.3: Increase digital media communications to residents of Dickinson.

The City of Dickinson should utilize all available means as efficiently as possible to provide information to its residents. Additional City online communications should be considered including social media, online video portals, emails, and webpage documents.

Initiatives and Actions:

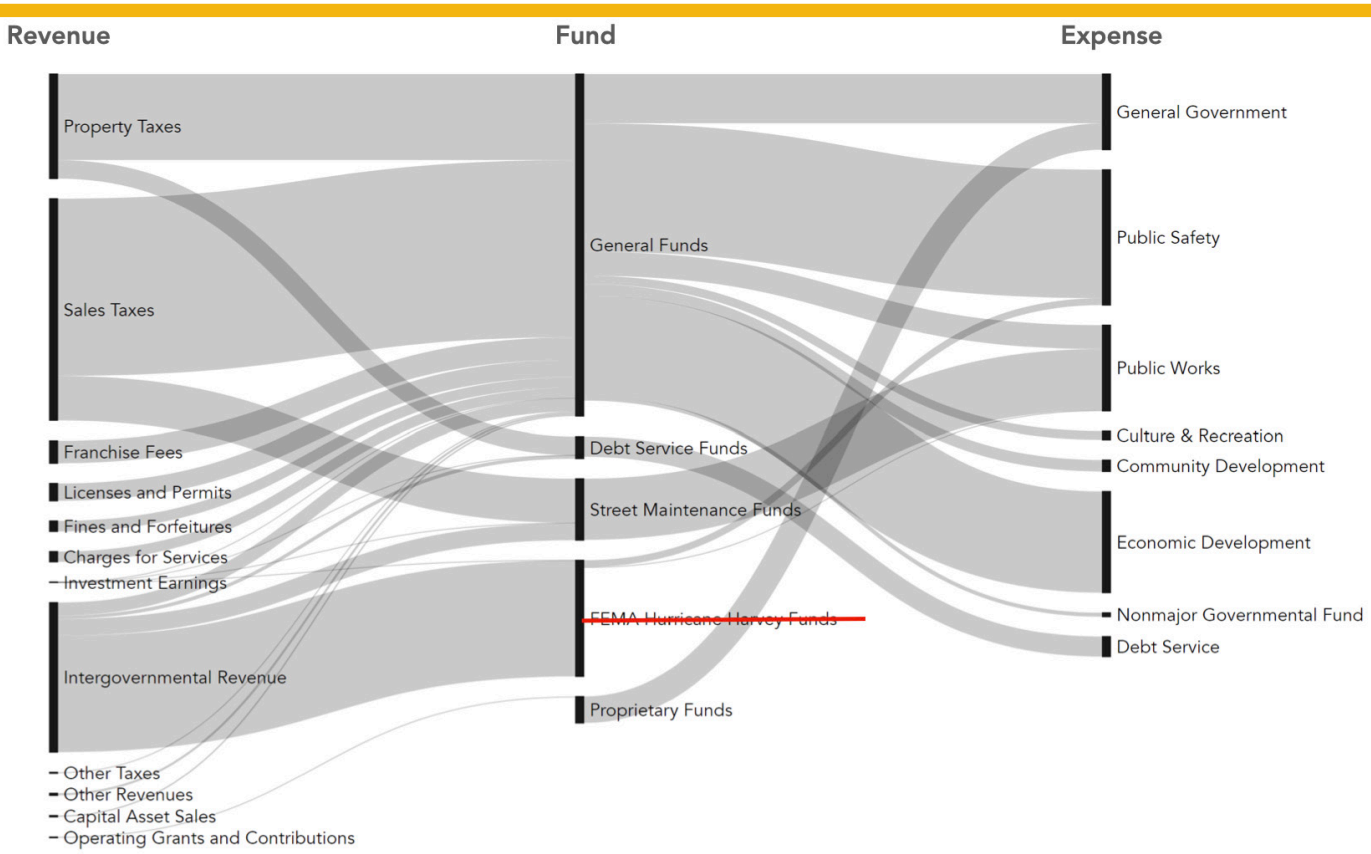
1. Coordinate with the City's public communications administrator to regularly scheduled a release of information to the public ("What's Going on in Dickinson"), which may contain new developments, proposed regulations, Council information, local events, library and ISD events, and other important local information.

Conclusion and Value Proposition

The strategies and recommendations from the Dickinson Comprehensive Plan are designed to accomplish the City's future vision and capital projects as set out through the public engagement and existing conditions analysis presented in the Existing City Report and Chapter 1, Introduction. As southeast Houston and Galveston County continue to develop and grow, Dickinson will need to further establish its future and identity.

Utilizing the four growth scenarios, presented on pages 2.15 through 2.25, the preferred scenario, Scenario 4, The Walkable City, is fiscally and environmentally the best step forward for Dickinson. The following pages present a cost and revenue analysis of roadways and property tax compiled by Urban3. The analysis shows a current annual revenue-expense deficit of $10.2 Million and demonstrates how sprawling residential uses bring-in less revenue when compared to commercial, mixes-use, and multi-family housing. If Dickinson seeks to reduce budgetary shortfalls, an adjustment of the revenue to expense ratio must be changed. By establishing the development patterns laid out in Scenario 4 and the Future Land Use Plan, presented on page 2.40, Dickinson will strategically begin to incorporate more profitable land uses. This in turn will provide existing and future Dickinson residents with less of a City deficit and preferably a budgetary surplus to be spent on infrastructure, flood mitigation, and quality of life improvements.

URBAN3 Analysis

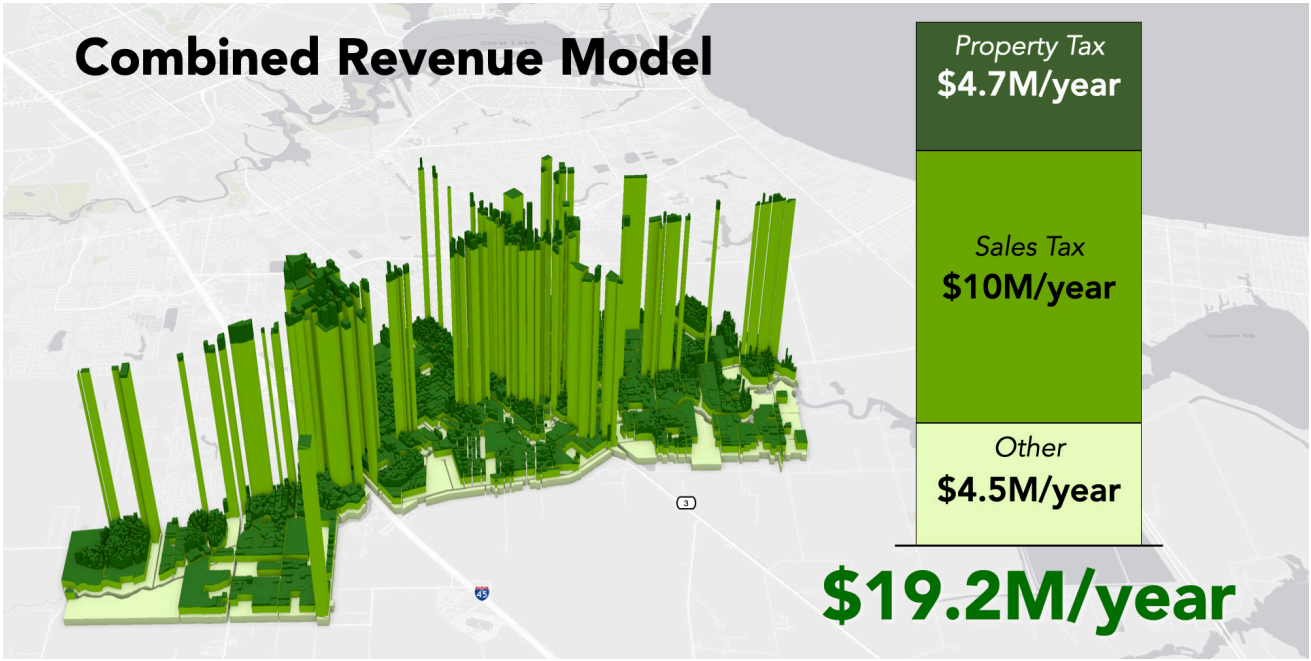


Urban3's analysis of the city's 2020 budget shows that Dickinson's ability to fund infrastructure maintenance and economic development projects relies heavily on sales tax revenue. A substantial portion of sales tax revenue is allotted to the city's general fund and street maintenance fund. These funds are then used to finance general government spending, road and stormwater maintenance, public safety, public works, and economic development projects (Figure 1).

In 2020, the city received a large amount from the federal government for Hurricane Harvey relief funds. Urban3's analysis of Dickinson's budget does not consider FEMA funds as a future source of revenue to be used in infrastructure maintenance or land use development.

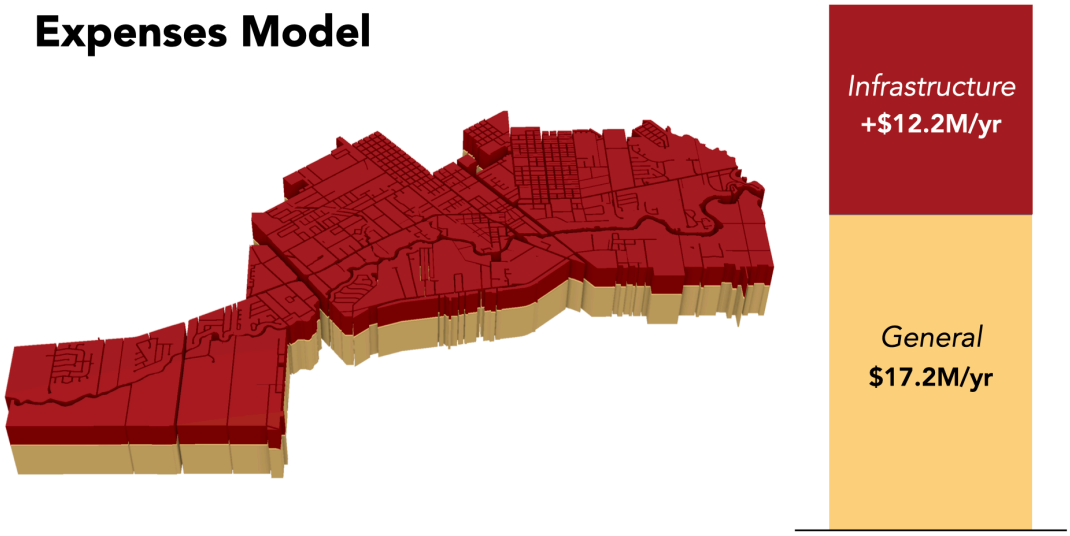
Mapping Revenues

Figure 2 shows a 3D model developed by Urban3 to show Dickinson's revenue by source: property tax, sales tax, and other revenue sources. In the model, each of these revenue categories are distributed on a per acre basis for parcels within Dickinson. Property tax revenue is shown as a portion of all real, taxable property. Sales tax revenue is shown as a distribution of total sales tax primarily to commercial parcels, but also developed parcels that do online sales. Other revenue was distributed evenly across all city parcels. The model shows the degree to which sales tax revenue is Dickinson's main source of revenue in comparison to other sources. Ultimately, retail and commercial are key land uses for delivering sales tax revenue to the city's budget.



Mapping Expenses

Figure 3 shows a visual representation of how the City of Dickinson's general expenses and infrastructure expenses are distributed on a per acre basis. These two categories of government expenditures are distributed evenly across the city and include general government operations (delivering public goods and services, internal processes, public safety, economic development, etc.) and infrastructure costs (street and stormwater maintenance and reconstruction). The amount of general government expense is estimated from the recent city budget, while the estimated infrastructure cost includes annual maintenance and capital costs (resurfacing and reconstruction) spread out over the lifetime of a road.



Infrastructure Cost Variation by Lifespan

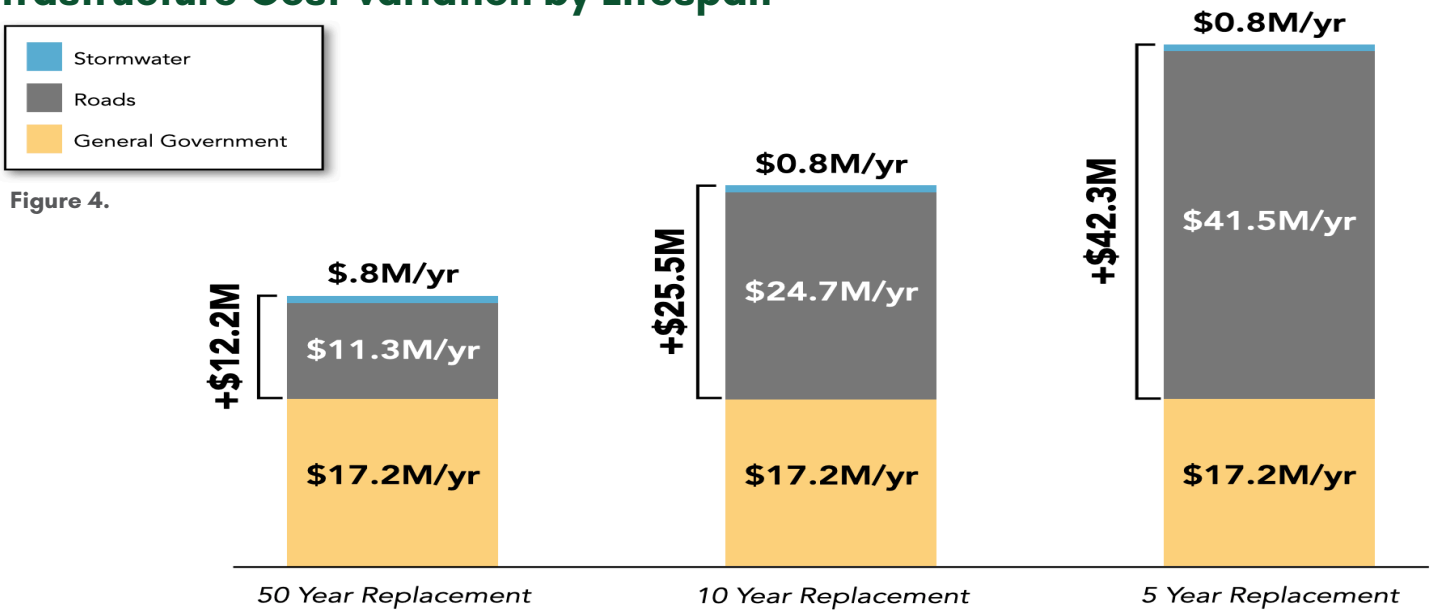


Figure 4.

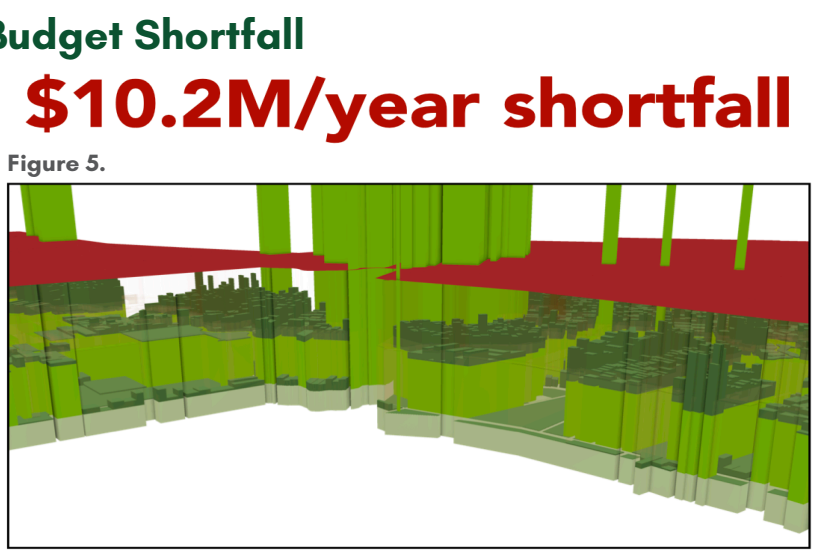
As part of its cost and revenue analysis, Urban3 investigated how the cost to maintain the city's road infrastructure system would be impacted by the need to provide maintenance and reconstruction to the system across different time periods. Figure 4 provides a visualization for the increasing cost to maintain and reconstruct Dickinson's roads if the lifecycle was shortened from 50 years to 10 and 5 years respectively.

Starting with a 50-year lifecycle, Urban3's analysis estimated that it costs the City of Dickinson approximately $11.3 million annually to maintain 106 miles of city maintained roads, and approximately $800,000 annually to maintain its stormwater infrastructure (pipes and ditches). In an event that results with these roads needing to be reconstructed after just ten years, it would cost the city a total of approximately $24.7 million annually. If the city needed to replace its road system after just five years, it would cost approximately $41.5 million annually.

Budget Shortfall

$10.2M/year shortfall

Figure 5.



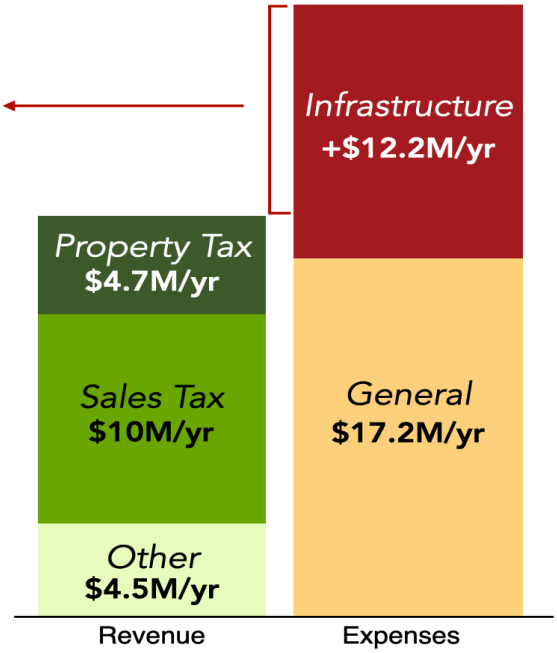
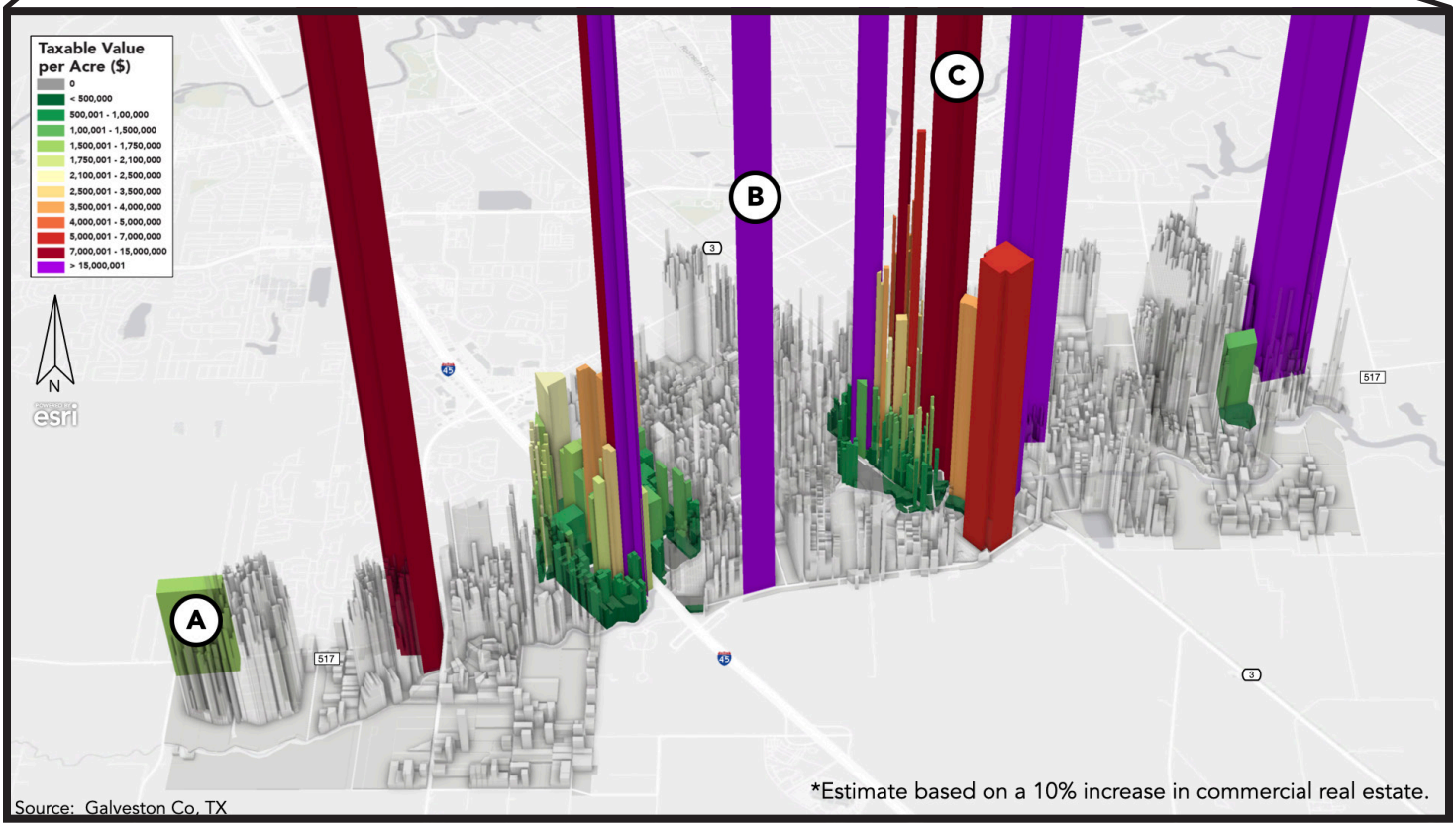


Figure 5 shows the magnitude of Dickinson's cost to maintain and operate its road and stormwater systems in relation to the sources of revenue used to fund these services. This image shows that the City of Dickinson currently operates at a 10.2 million dollar deficit based on Urban3's analysis of the actual cost to maintain road and stormwater systems. Therefore, in order to sustain government funds and subsequent projects and services to its residents, the Dickinson community is tasked with finding ways to close the gap by increasing revenue or decreasing costs.

Value per Acre





Future Land Use Potential

Urban3 delivered projections for development scenarios that would allow the City of Dickinson to understand how land use types could perform in Dickinson in terms of property and sales tax revenue. These projections use the initial value per acre analysis of the city's existing conditions that show the development productivity of areas such as downtown Dickinson. Using the property value, parcel acreage, and tax revenue information of Dickinson's current conditions alongside comparable development patterns of the region (i.e., League City and Galveston), Urban3 was able to show the city how various types of proposed developments - most notably moderately dense, mixed use and multi-family residential developments - would generate property tax revenue.

Figures A-C are examples of properties from the region that were used as building blocks for the mix of land use types within the projections model. The value per acre shown with each projection is an indication of the amount of revenue that could be generated from property taxes alone for the the given land use type.

Land Use	Property Revenue	Sales Tax Revenue
General Commercial	$0.105M	
$376M		
Luxury Residential Townhomes	$3.7M	n/a
Mixed-Use	$0.490M	
$2.1M		

The projection scenarios shown in Figure 6 align with the city's FLU plan by showing an increase in the amount of infill development in downtown Dickinson, at the intersection of I-45 and Hwy-517, and developing on large plots of land at the east and west ends of the city. Additionally, other proposed developments in the model emphasize moderate-density commercial and residential development of Dickinson's underutilized land.







Conclusion

The budget analysis, mapping of revenue and expenses, and value per acre scenario projections enabled Urban3 to better understand the land use productivity of Dickinson and to then provide the city with the information and tools needed to make informed decisions for future land use development.