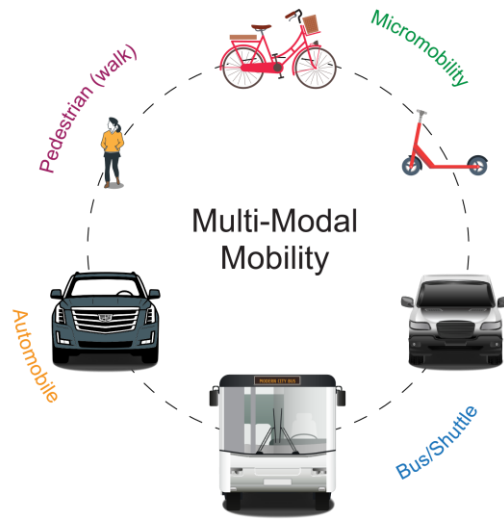




TOMBALL

ECONOMIC DEVELOPMENT CORP.

Parking & Multimodal Mobility Study

Phase 1: Comprehensive Parking Study

Phase 2: Multimodal Mobility Study

Phase 3: Downtown Bollard Plan

AIG Tech
Advanced Infrastructure Group

Purpose

Purpose

- Identify parking shortages and needs.
- Develop solutions to improve parking availability.

PROJECT STUDY GOALS:

1. **Comprehensive Parking Study**
 - a) Evaluate existing conditions (2025)
 - b) Evaluate proposed conditions (2030)
2. Multimodal mobility study
3. Bollard plan

PARKING STUDY LIMITS

Hufsmith Rd, James St, Baker Dr and Chestnut St



Legend

-  Old Town Boundary
-  Parking Exempt Area Per Ordinance Sec. 50-79
-  Study Area Limits



Existing Conditions – Supply

Parking Supply Summary: Overall Study Area

Parking Supply category	Parking Stalls
Existing Private Parking	1,037
Existing Public Parking	1,022
On-street Parking	633
Off-street Parking	389
Total Existing Parking Supply	2,059

Legend

-  Roads

 Existing On-street Parkings

 Angled

 Parallel

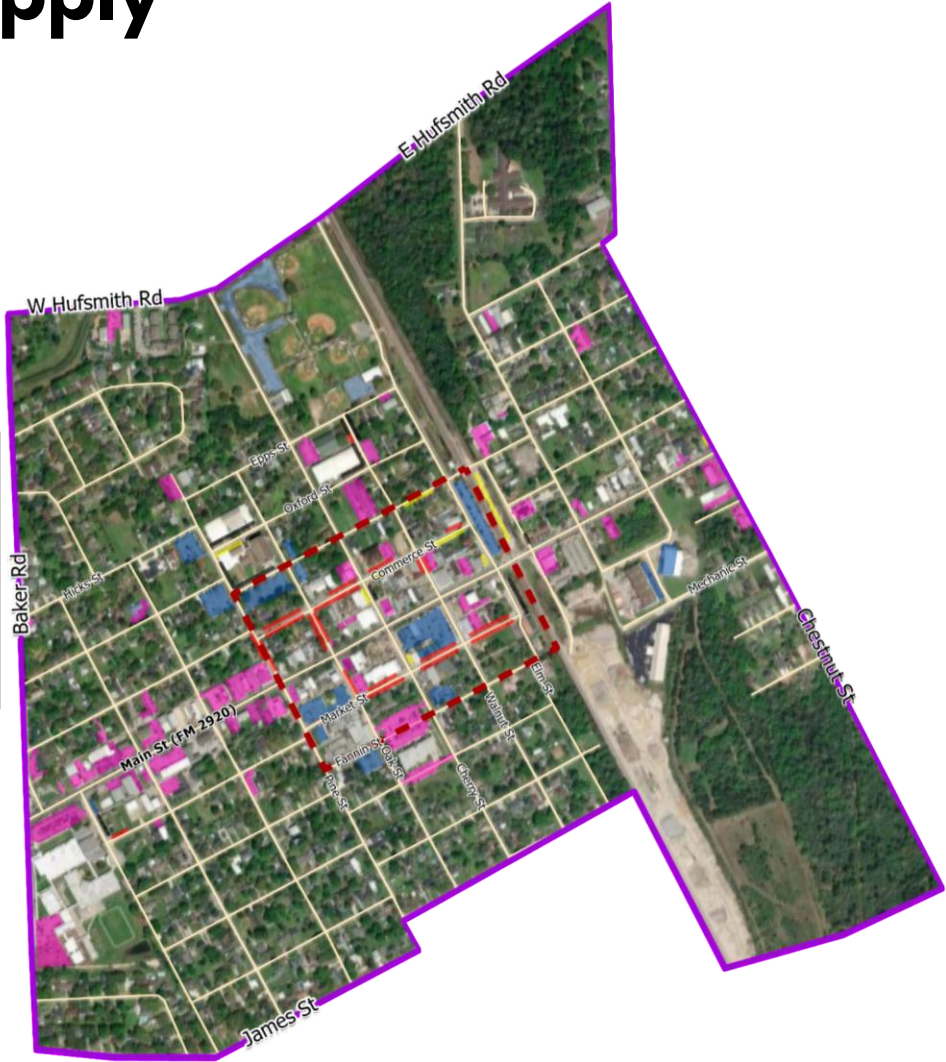
 Perpendicular
-  Existing Off-Street Parkings

 Private

 Public

 Public, Park

 Exempt Parking Per Ordinance Sec. 50-79



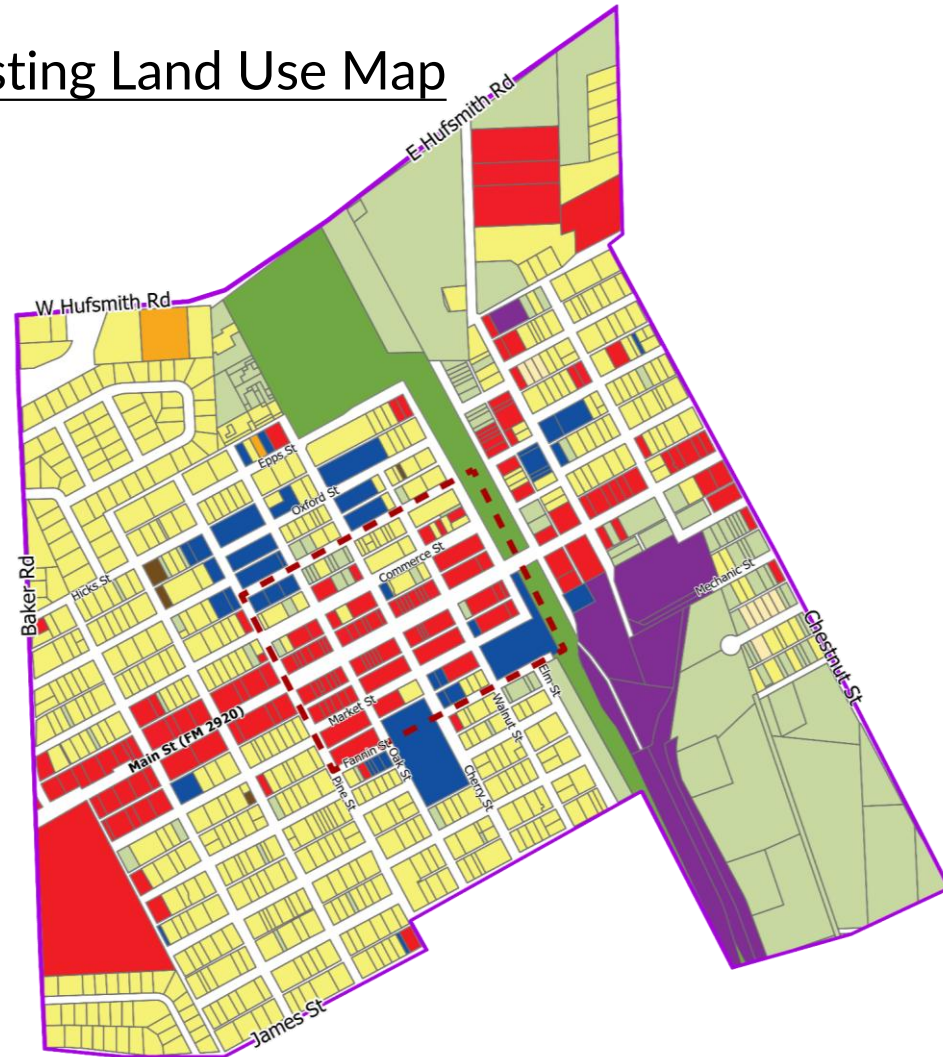
Existing Conditions – Demand Approach

Parking Demand Estimation

- Existing land use types
- Adopted parking ratios
- Gross Parking Demand Estimate = Self-Park Demand

Existing Land Use Map

Existing Land Use



Existing Conditions – Demand Approach

Parking Demand Estimation

- Time of Day
- Day of Week
- Business Types

City of Houston Shared Parking Matrix

City of Houston - Shared Parking Table									
Class	Type of Use	Typical Weekday				Typical Weekend			
		Mid-night to 7 AM	7 AM to 5 PM	5 PM to 9 PM	9 PM to Mid-night	Mid-night to 7 AM	7 AM to 5 PM	5 PM to 9 PM	9 PM to Mid-night
Class 1. Office	Office	5%	100%	30%	5%	0%	10%	0%	0%
	Financial facility	0%	100%	10%	0%	0%	25%	0%	0%
Class 2. Residential	Apartment	100%	25%	50%	95%	100%	65%	50%	85%
	Hotel or motel	100%	10%	50%	85%	100%	10%	50%	75%
Class 3. Health Care Facilities	Clinic (medical complex)	5%	100%	50%	5%	0%	10%	0%	0%
	Clinic (medical or dental)	0%	100%	25%	0%	0%	25%	0%	0%
	Veterinary clinic	0%	100%	5%	0%	0%	25%	0%	0%
Class 4. Industrial, Commercial Manufacturing	All	10%	100%	50%	10%	10%	25%	10%	0%
Class 5. Religious and Educational	Church	0%	5%	25%	0%	10%	100%	40%	0%
	Nursery/day care	0%	100%	5%	0%	0%	5%	0%	0%
	School	0%	100%	5%	0%	0%	10%	0%	0%
	Library	0%	100%	10%	0%	0%	25%	0%	0%
	Art gallery/ museum	0%	75%	50%	0%	0%	100%	60%	0%
Class 6. Recreation and Entertainment	Movie theater	0%	10%	50%	75%	0%	50%	80%	100%
	Bowling alley	0%	10%	50%	85%	0%	40%	75%	100%
	Theater, auditorium or arena	—	—	—	—	—	—	—	—
	Sports club or health spa	50%	25%	100%	10%	10%	50%	10%	5%
Class 7. Food and Beverage	Dessert shop	0%	25%	100%	75%	0%	25%	100%	85%
	Small restaurant	10%	50%	75%	40%	15%	75%	100%	50%
	Neighborhood restaurant	10%	50%	75%	40%	15%	75%	100%	50%
	Restaurant	10%	50%	75%	40%	15%	75%	100%	50%
	Tavern or pub	0%	0%	25%	75%	0%	10%	80%	100%
	Small bar	0%	0%	25%	75%	0%	10%	80%	100%
	Bar, club or lounge	0%	25%	75%	75%	0%	40%	80%	100%
Class 8. Retail Services	All (excluding shopping center)	5%	50%	75%	10%	5%	100%	75%	10%
Class 9. Automobiles	Auto parts and supply store	0%	50%	75%	0%	0%	100%	50%	0%
All others		100%	100%	100%	100%	100%	100%	100%	100%



Existing Conditions – Demand Approach

EMPTY

BALANCED

FULL



Self-Parking



Shared Parking



~~Shared Global Parking~~

Existing Conditions – Results

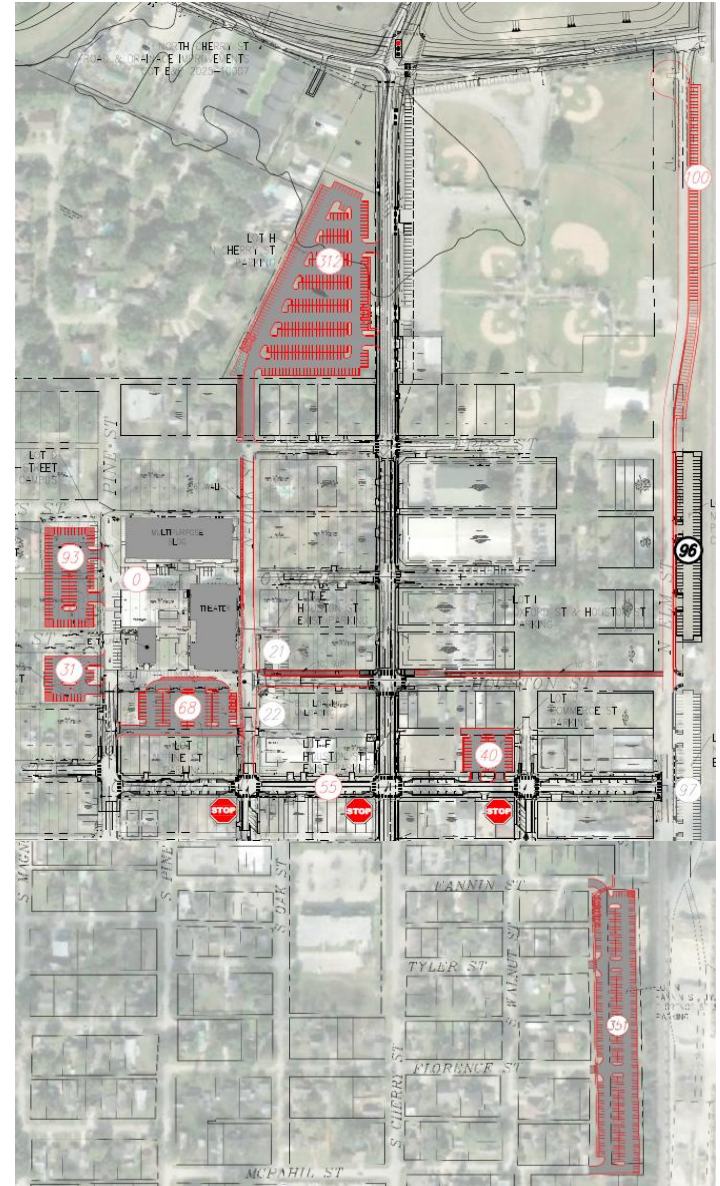
Existing Net Demand - Overall Study Area

Existing Conditions	Overall Study Area	
	Non-Shared Parking	Public Parking Shared
Net Parking Demand	1,856	1,578
Public Parking Supply	1,022	1,022
Net Parking Capacity (Deficit/Surplus)	-834	-556



Proposed Conditions (2030) - Supply

- New Parking Facility Strategy & Approach
 - on-street vs off-street
 - Surface lot vs garage
 - Public Property vs Acquisition of Private Property
 - Lease options (shared maintenance cost on private parking lots)



Proposed Conditions (2030) – Demand

Additional Methods of Evaluation

- Used 2% growth rate
- Known development
 - Legacy Square – (Programed Demand)
 - Theater Capacity: 1,000 Seats
 - 1949 Chapel: 4,333 GSF Restaurant
 - Fellowship Hall: 30,081 GSF Multipurpose Use

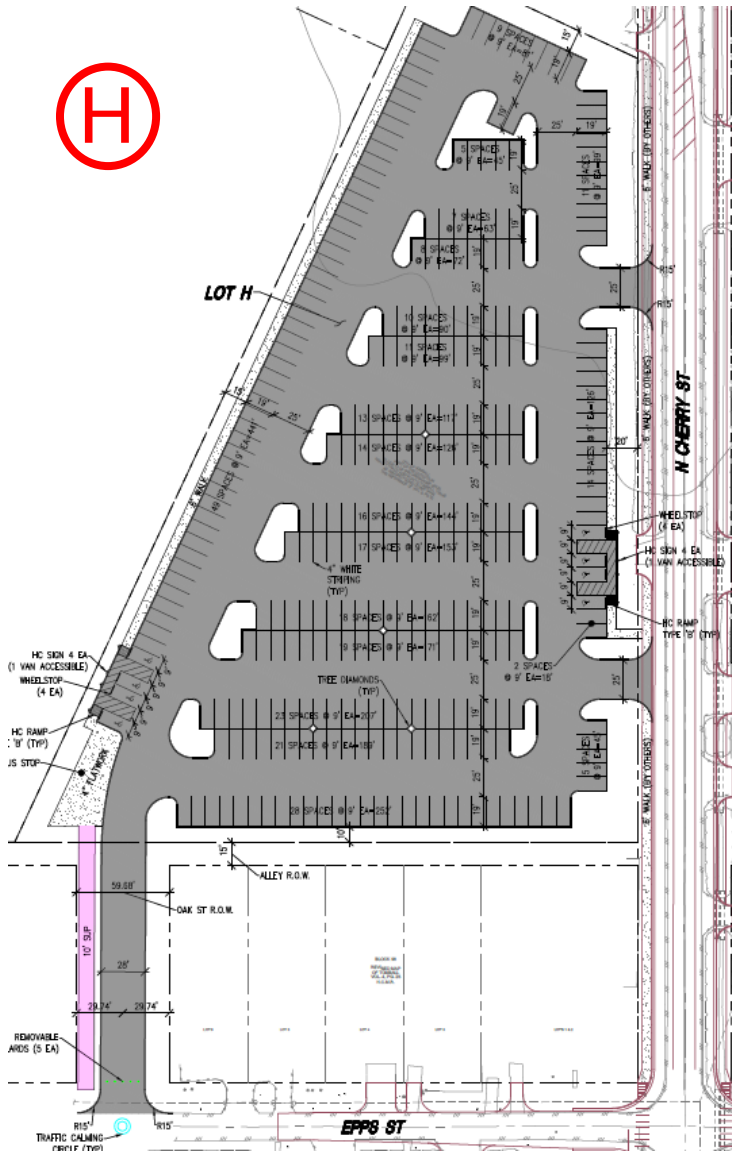
Future Net Demand - Overall Study Area

Existing Conditions	Overall Study Area	
	Non-Shared Parking	Public Parking Shared
Net Parking Demand	2,132	1,854
Public Parking Supply	1,870	1,870
Net Parking Capacity (Deficit/Surplus)	-262	16



Offsite Lot

H



N

PARKING SUMMARY

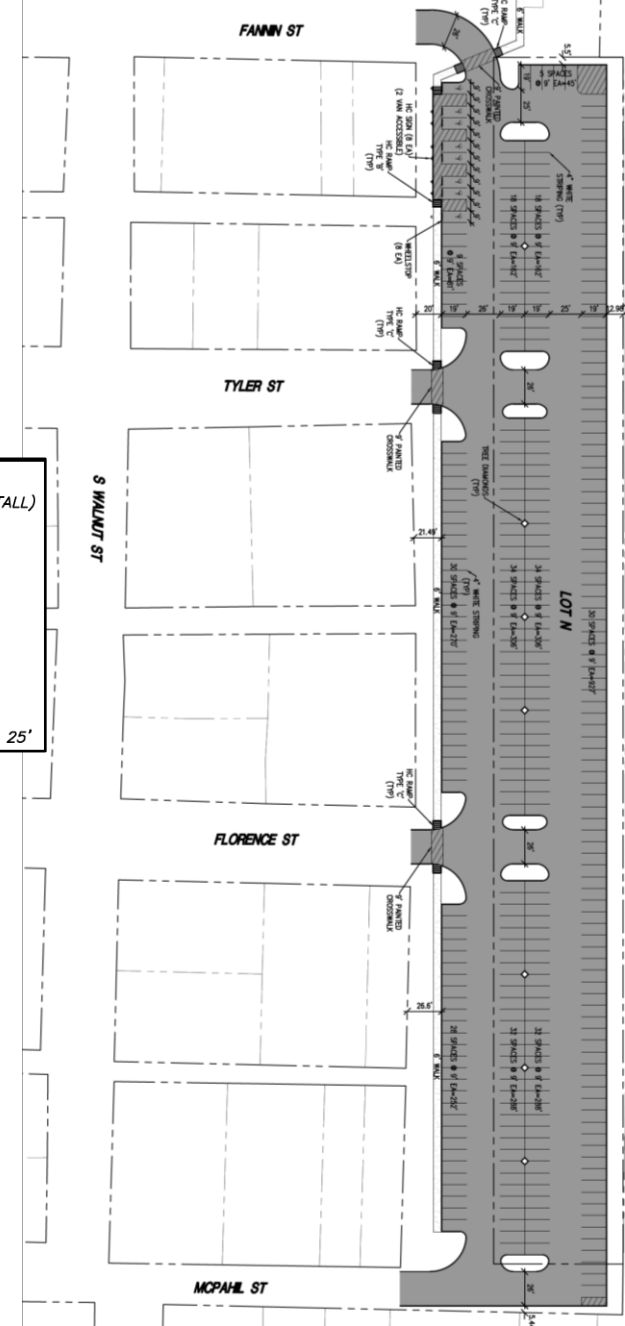
LOT ID = STANDARD PARKING STALL (ACCESSIBLE PARKING STALL)

LOT A = 93 (0) **LOT H = 304 (8)**
 LOT B = 31 (0) LOT I = REMAIN PRIVATE
 LOT C = 64 (4) LOT J = 40 (0)
 LOT D = 0 (0) LOT K = 93 (4)
 LOT E = 21 (0) LOT L = 92 (4)
 LOT F = 22 (0) **LOT M = 100 (0)**
 LOT G = 55 (0) **LOT N = 351 (8)**

TOTAL = 1,020 (23)

STANDARD PARKING STALL= 9'x19' ; STANDARD DRIVE AISLE= 25'

S WALNUT ST



TEDC OLD TOWN PARKING & MOBILITY STUDY

PHASE 1: COMPREHENSIVE PARKING STUDY

Downtown Tomball is currently experiencing a substantial shortfall in available parking supply. These shortcomings exist during typical weekdays, weekends, and most significantly, during larger planned events. The first phase of this analysis involves a comprehensive parking study, with a focus on understanding existing parking supply and demand, estimating future parking demands, and locating potential parking improvements.

Our approach to this comprehensive parking study begins with the evaluation of existing conditions, which includes a parking inventory (or the number of public parking stalls available for everyday use) and existing parking demand (or how many parking stalls are needed). A desktop review using aerial imagery has been conducted to show the existing parking supply. This inventory provides a delineation between public and private parking facilities (on-street versus off-street locations) as well as parallel, angled or perpendicular geometry. To determine the existing parking demand, our approach is to understand the existing parking requirement should all businesses be required to self-park using both public and private parking facilities. Data used for this analysis includes land use from the latest Comprehensive Plan Update, identification of business types, building area per Harris County Appraisal District records, and effective City of Tomball Ordinances for parking rates. Using a net parking demand (number of additional parking spaces needed to self-park) compared with the net public parking supply (which excludes parking in public parks), the current summary analyses show a parking deficit.

Preliminary mapping and existing demand calculations are currently being reviewed and calibrated prior to finalization of existing conditions, the evaluation of future demand estimations and potential parking locations.

Parking Demand

Supply	Demand	Excess/Deficit	Net
On-Street Parallel	15		
On-Street Angled	15		
On-Street Perpendicular	12	1518	1518
Off-Street Lots	342		
School	342		
Public	127	1300	900
Industrial	399		
On-Street Lots	399		
On-Street Lots	399		
Demand excess (Self-parking demand)	2405	-	1290
On-Street Parallel Supply (Net Demand)			-320

* Assumes no shared parking and excludes planned events

Parking Supply

Supply	Demand	Excess/Deficit	Net
On-Street Parallel	15		
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On-Street Parallel Supply (Net Demand)			-320

* Assumes no shared parking and excludes planned events

Legend

- Commercial
- Industrial
- Residential
- Public
- School
- On-Street Parallel
- On-Street Angled
- On-Street Perpendicular
- Off-Street Lots
- School
- Public
- Industrial
- On-Street Lots
- On-Street Lots

See 66-PA (B), a Off-street parking. For that portion of 66-PA (B), the off-street parking is located between Avenue Street, the railroad tracks, and Pine Street, and including the lots that front on Avenue Street and the corner of Avenue Street and Pine Street. These lots are not a commercial off-street parking lot and are not a commercial development.

Legend

- Commercial
- Industrial
- Residential
- Public
- School
- On-Street Parallel
- On-Street Angled
- On-Street Perpendicular
- Off-Street Lots
- School
- Public
- Industrial
- On-Street Lots
- On-Street Lots

PHASE 2: MULTIMODAL MOBILITY STUDY

The completion of the comprehensive parking study will identify and select the approved parking facility to serve the Future Legacy Square development. The focus of the multi-modal mobility study is to evaluate the connectivity between the selected parking facility and the Legacy Square development.

This multi-modal mobility study will evaluate traffic circulation alternatives to limit impact and identify potential roadway improvements to specifically serve the TEDC redevelopment Legacy Square. Three scenarios have been selected for analysis: Existing Year (2025), TEDC build-out of Legacy Square (2030), and FM 2920 reconstruction (2034, which is based on anticipated selling date of 2033). The study roadways within the study limits include: FM 2920, Humble Rd, Pine St, Oak St, Cherry St, Walnut St, Elm St, Chestnut St, Market St, Commerce St, Oxford St, Epps St, Hicks St and Mechanic St. The purpose of the study is to develop a feasible solution that aims to provide acceptable circulation, accessibility, and safety for pedestrians, bicyclists, and motorists alike.

Conceptual Rendering for Traffic Circulation

Multi-Modal Mobility: Multi-modal mobility is to use multiple modes of transportation to reach a destination.

Multi-Modal Mobility

PHASE 3: DOWNTOWN BOLLARD PLAN

Planned events within Old Town often require street closures within specific blocks to restrict vehicular access. The implementation of removable bollards in lieu of temporary barriers will help safeguard these events and provide the city staff and covers the ability to consistently manage multiple traffic control conditions. The limits of the downtown bollard plan are bounded to the north by FM 2020, to the west by Pine Street, to the south by Fannin Street, and to the east by Elm Street.

Bollard Plan

- Reviewed demand & supply maps and methodology
- *“Unsafe parking along Commerce St. and at Elm St/Market St.”*
- *“No issues with parking afterhours for shows”*
- Parking capacity scenarios were discussed
 - Turnover study or business survey’s would not provide realistic/usable feedback
- Voted to use Parking Ratios. Requested additional research on current parking ratios and application of shared parking approach
- Parking Maps and Summary of Data collected were provided as part of meeting minutes. Comments from these maps were incorporated.
- **Public meeting no. 1**
 - A mixed bag of positive and negative responses in relation to the parking study
 - *“Build BIG! For the next 25 years so we don’t see similar issues in 10 years”*
 - *“Please include the public in the steering committee as participating members”*
 - *“Thank you for planning for parking here & all over Old Town”*
 - *“No more parking lots”*
 - *“Please no multi-story parking facility when next to residential house”*
 - *“no 2+ story structures or facilities with LOTS of lights right next to residential houses”*
 - *“Build upward to accommodate the extra needed, utilize a small bus/trolley to accommodate remote parking (shuttle)”*
- **Stakeholder meeting No. 2**
 - Review shared parking approach and agreed on demand approach using shared parking for public spaces
 - Proposed parking locations have been identified, further refinement on strategy to serve Legacy Square
- **Stakeholder meeting No. 3**
 - Finalize Report
 - Begin the Multi-Modal Mobility Study
- **Legacy Square Advisory Committee Presentation**
 - Positive feedback from the Advisory Committee



Next Steps

Stakeholder Decision

Finalize proposed parking strategies

Select proposed parking location for Legacy Square

Overlay of event schedule and determine if add't capacity is req'd

Vet Legacy Square Parking Requirement

Update and finalize the future parking demand

Multimodal Mobility Study

Traffic modelling

Traffic analysis

Downtown Bollard Plan

Event plan

Comprehensive Parking Study

