Parking

Myths, Realities and Opportunities

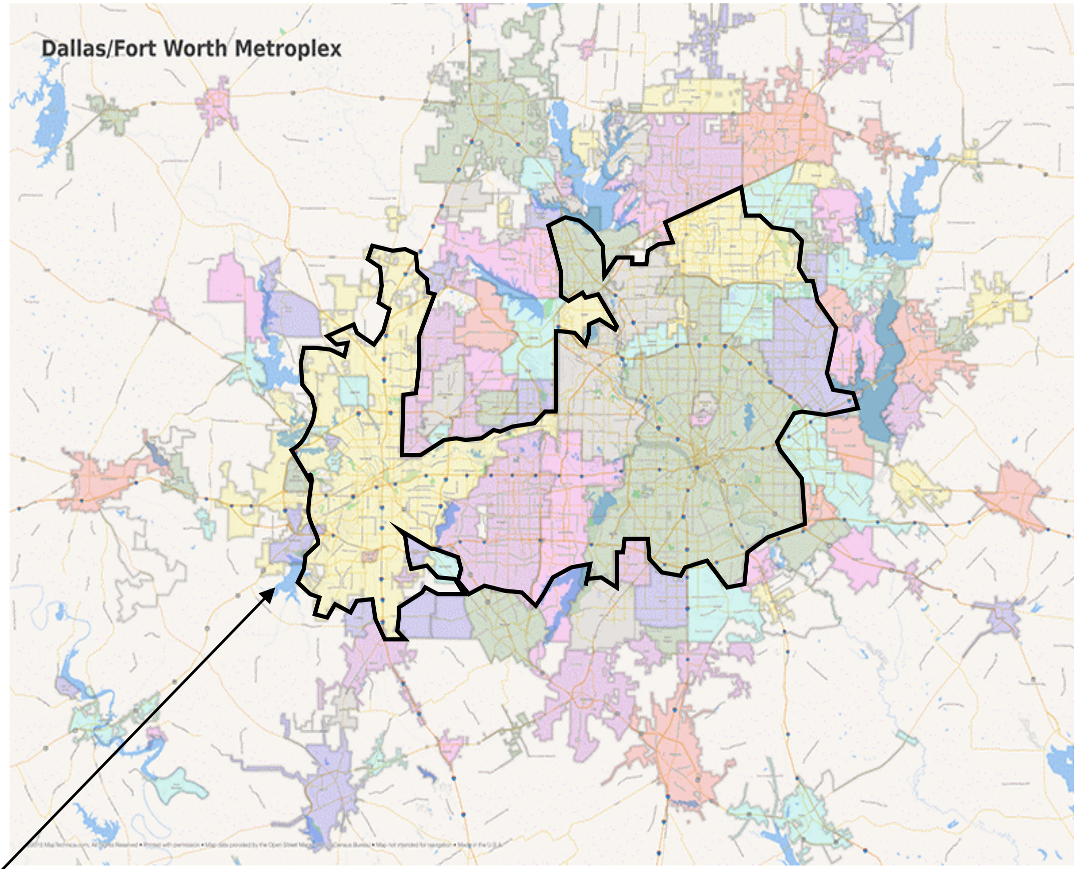
Paris Rutherford
Catalyst Urban Development

DFW Growth

3,434,661 people added through 2040
-- 1,296,098 households (2.65 people / hh)
-- 2,332,976 cars (1.8 cars / hh)

Top 9 Urbanized Cities in DFW:

• Dallas	1,241,162
• Fort Worth	792,727
• Arlington	375,600
• Plano	269,776
• Garland	233,564
• Irving	225,427
• Carrollton	125,409
• Richardson	103,297
• Lewisville	101,074
	3,468,036



DFW Urbanized Footprint Compared to 2040 Population Forecast
(at pattern of past density)
-- Catalyst

10.6M people in 2040

-- US Census, ACS, NCTCOG, Catalyst

If development patterns follows the densities of the past, the resulting horizontal footprint of urbanization will be massive.

If current car/household rates continue, the number of DFW cars will increase by 45%. At surface parking density, this would be equivalent to a parking lot the size of Plano.

General Topics:

1. Significance and Common Notions
2. Density, Format and Requirements

Common Notions

- "Municipalities can lower parking requirements to incentivize the market"

  But, the market will provide the amount of parking it feels is necessary to lease/sell the development.

- "Multimodal TOD provides the opportunity to reduce parking provisions"

  But, if the developer / lender believe the resulting amount is not enough to service demand, the development will not proceed.

- "Shared parking leads to lower costs and increased return on investment"

  But, if conflicts occur between uses this can effect market perception and lower the development's value.

USE TYPE	MINIMUM PARKING REQUIREMENT
RESIDENTIAL USES	
all residential use types	One Stall per Unit
OFFICE USES	
all office use types	One Stall per 500 sq. ft.
CIVIC	One Stall per 750 sq. ft.
COMMERCIAL USES	
retail	One Stall per 500 sq. ft.
service	One Stall per 500 sq. ft.
restaurant	One Stall per 250 sq. ft.
entertainment	One Stall per 750 sq. ft.
INDUSTRIAL	
light industrial	One Stall per 1000 sq. ft.
manufacturing	One Stall per 1000 sq. ft.
warehousing/wholesale	One Stall per 1000 sq. ft.
LODGING	One Stall per Unit
COMMUNICATION	One Stall per 1000 sq. ft.

USE COMBINATION	REQUIRED PARKING
Residential and Office	75 % combined total
Residential and Retail	90 % combined total
Office and Retail	75 % combined total
Lodging and Residential	90 % combined total
Lodging and Office	80 % combined total
Lodging and Retail	90 % combined total

The Importance of Parking

- ❑ Parking is often one of the first underwriting decisions made for a development

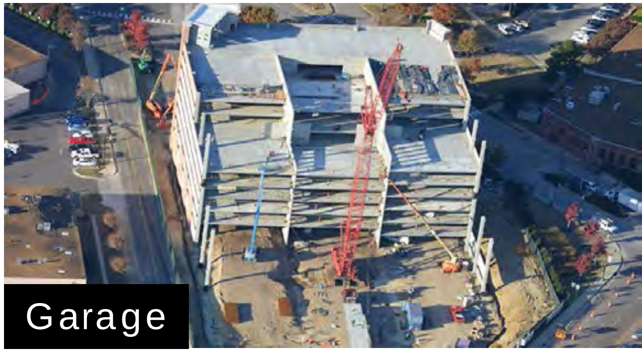
  This is because it lies at the nexus of multiple competing issues:

  - Site Location and Size
  - Density Thresholds
  - Market Rents
  - Tenant Requirements
  - Construction Costs

- ❑ Parking can drive site / building planning and directly effect the success of a development (+ or -)

- ❑ Poor parking concepts can impact the go-no-go decision on a development due to cost

- ❑ By contrast, creative parking concepts can solve problems and lead to new economic development



The Importance of Parking

- ❑ It is a major factor in a project's density, cost and efficiency of land utilization
- ❑ It has critical impact on how mixed-use or urban place is perceived

Office Development

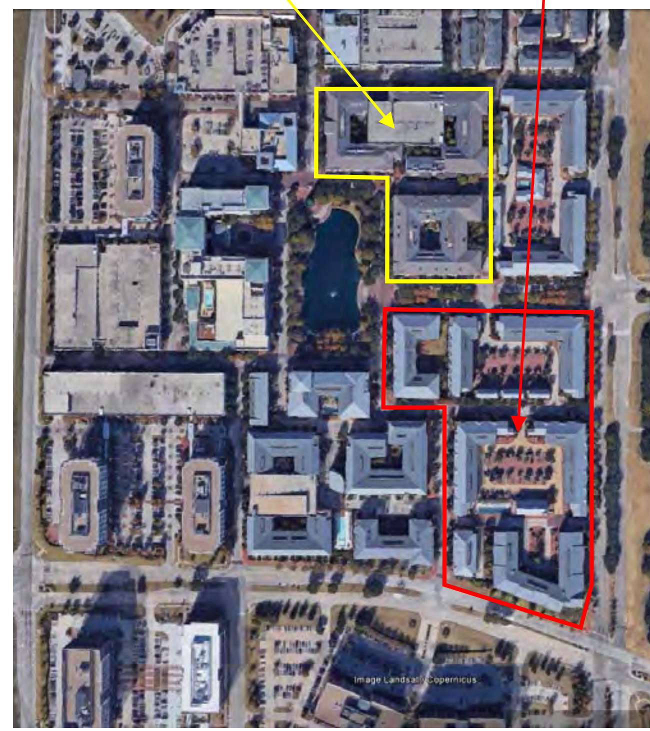
A. 240,000 sf

B. 240,000 sf
4 x's Acreage

Apartment Development

C. 450 units

D. 450 units
2 x's Acreage



Developments within/Adjacent to Legacy Town Center – Plano, TX

Density, Format and Market Requirements

Development and Parking Configuration Comparisons

2017 Market Info	Base Program:	252	dwelling units	Parking Requirement:	290	sp	1 space / bedroom
		850	sf average unit size		11	sp	2 spaces / 1000 sf assembly
		5,500	sf office/amenity		50	sp	5 spaces / 1000 sf retail
		10,000	sf retail		351	sp	total parking required
		229,700	total net building area				

Project Description:	3-4 Story Wood Frame Buildings Surface and In-Line Garage Parking (visitor parking on street)		5-6 Story Wood Frame Building Concrete "Wrap" Parking Garage (visitor parking on street)		8-10 Story Concrete Building Concrete "Podium" Garage (visitor parking on street)		18+ Story Concrete Tower Concrete Underground Garage (visitor parking on street)	
Project Density:	30	du/ac	75	du/ac	112	du/ac	307	du/ac
Project FAR:	0.63		1.92		2.34		6.43	
Project Acreage:	8.4	ac	2.8	ac	2.3	ac	0.82	ac
Development Cost: (including land)	$ 39,828,710	$158k / door	$ 44,201,200	$175k / door	$ 63,152,350	$250k / door	$ 75,531,230	$299k / door
Parking Cost:	$ 1,948,125	$5.5k / space total	$ 3,619,200	$10.3k / space total	$ 5,515,500	$15.7k / space total	$ 9,880,000	$28.1k / space total
(and % of Total Cost)	4.9%		8.2%		8.7%		13.1%	
Required Rents:	$1.45	/ sf	$1.75	/ sf	$2.75	/ sf	$3.10	/ sf
Qualifying Incomes:	$ 44,414	Base qualifier	$ 53,604	121% higher than base	$ 84,234	190% higher than base	$ 94,955	214% higher

Subsidized Housing
Affordable Developers
Regional Need

Village of Rowlett
Catalyst Urban Development
Rowlett, TX

101 Center
Catalyst Urban Development
Arlington, TX

Gables McKinney Ave
Gables Residential
Dallas, TX

The Jordan
StreetLights Residential
Dallas, TX

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-- Catalyst

30%
Less than
$35,000

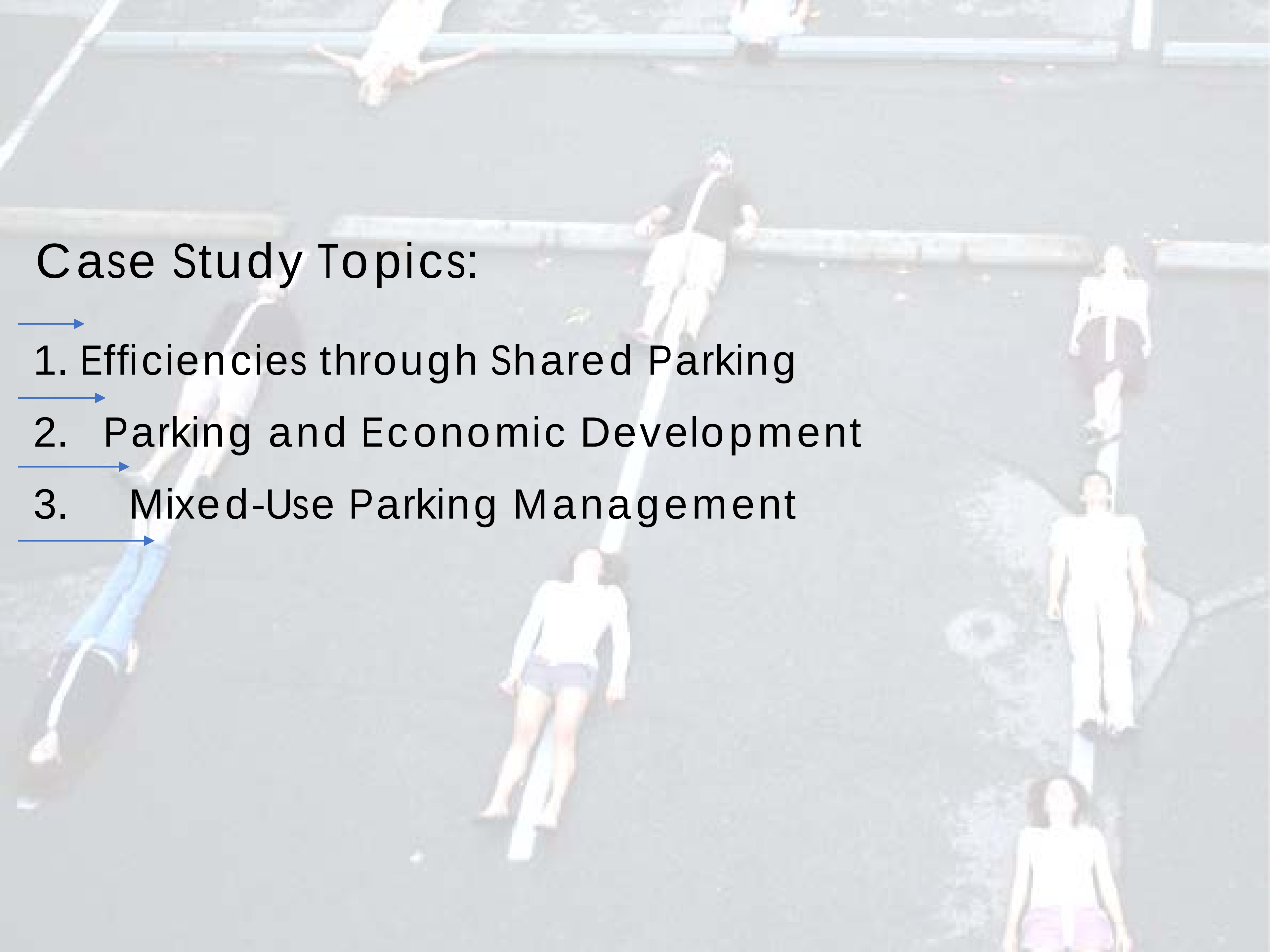
32%
Less than
$75,000

$68,000
Median HH Income
NCTCOG Region

38%
More than
$75,000

Market Rate Zone – 36% of ($40k to $100k) incomes
866,000 people through 2040 (35k to 40k units annually)
Demand weighted towards lower 2/3 income groups

-- US Census Bureau
NCTCOG



Case Study Topics:

1. Efficiencies through Shared Parking
2. Parking and Economic Development
3. Mixed-Use Parking Management

1. Efficiencies through Shared Parking

ADDISON CIRCLE

Addison, TX

+/- 3000 apartments
250 townhomes
650,000 sf office
65,000 sf retail/restaurants
Special events park

<u>(phase two:)</u>

- 300,000 sf Traditional Office
- 30,000 sf Loft Office
- 62,000 sf Retail, Restaurants, Storage
- 610 du Apartments and Live/Work units
- 110 du Condominium units

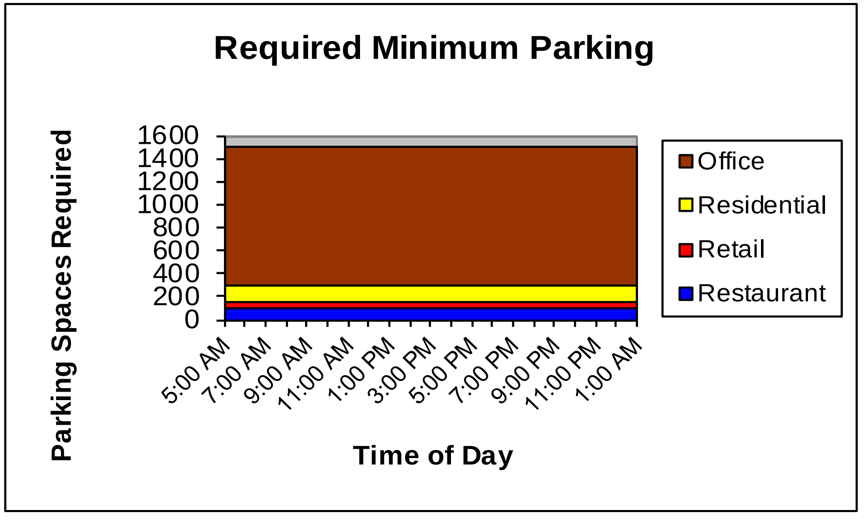
Efficiencies through Shared Parking

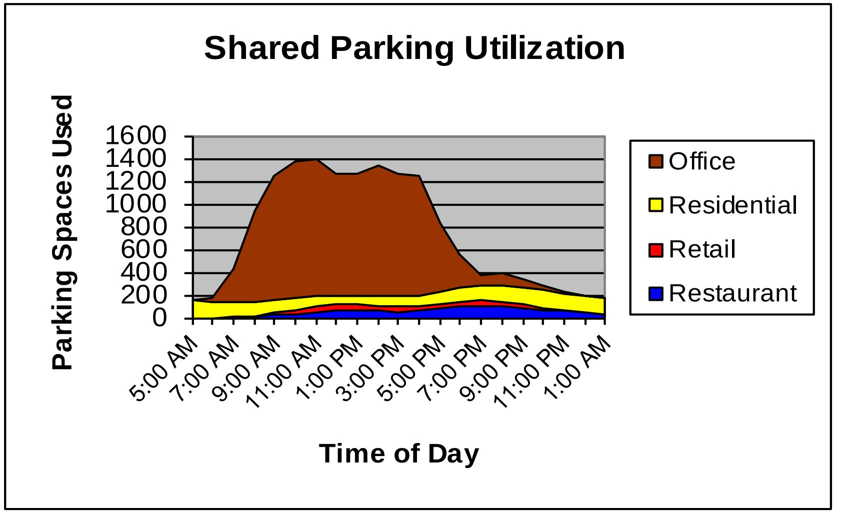
- Shared Parking Analysis:
  - ULI / Barton Aschman, *Shared Parking* (classic)
  - Institute of Transportation Engineers, *Shared Parking Guidelines*
  - Institute for Transportation and Development Policy, *Shared Parking*

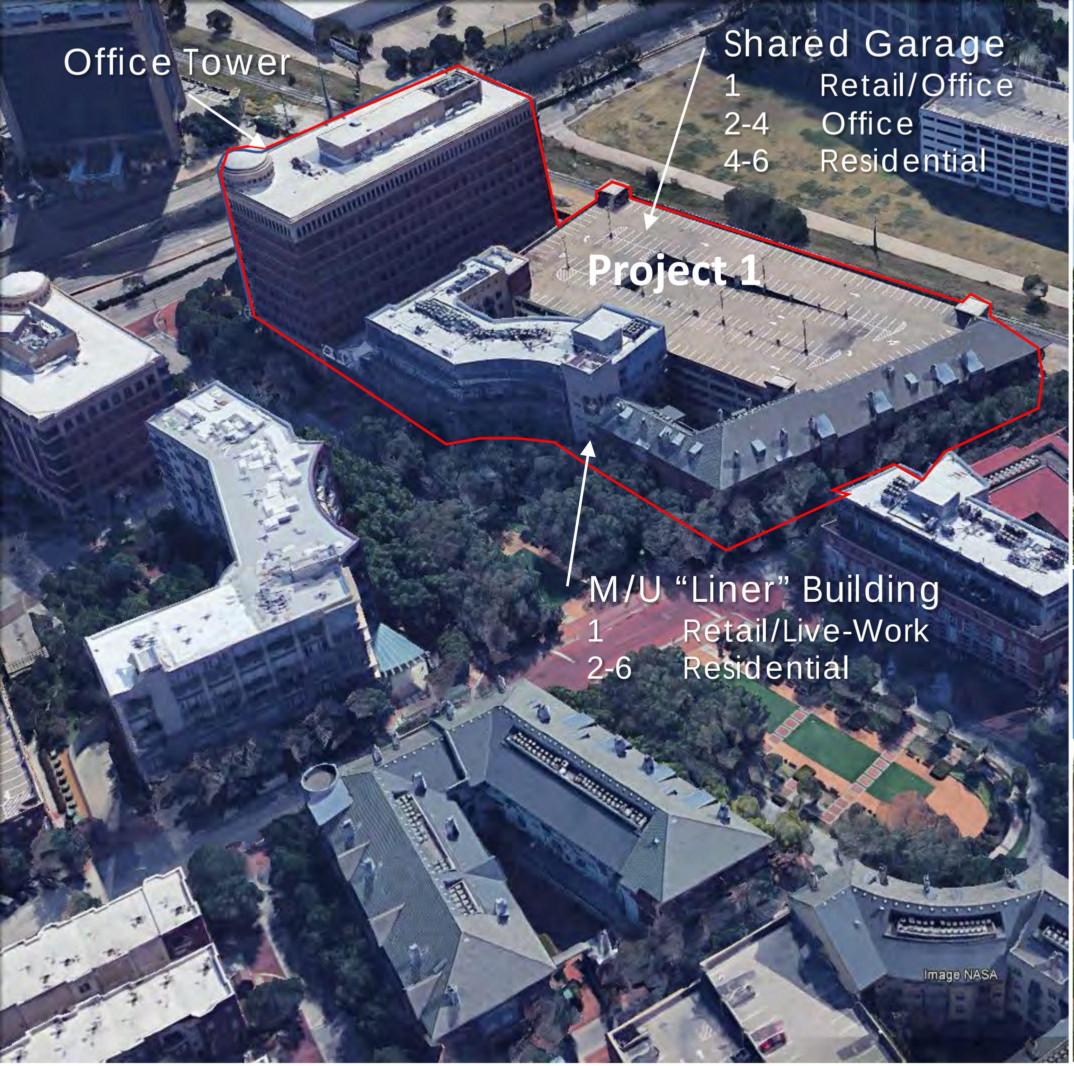
Retail		**10,000**	(sq. ft. GFA)	**5.00**	(per 1000 sq. ft. GFA)	**50**	spaces
Restaurant		**10,000**	(sq. ft. GFA)	**10.00**	(per 1000 sq. ft. GFA)	**100**	spaces
Office		**300,000**	(sq. ft. GFA)	**4.00**	(per 1000 sq. ft. GFA)	**1200**	spaces
Residential		**150**	(# bedrooms)	**1.00**	(per bedroom)	**150**	spaces

Results:

Total Spaces following Minimum Requirements:	**1,500**
Total Spaces if Shared Parking is Permitted:	**1,383**
Total Reduction in Spaces using Shared Parking:	**117**
(Estimated Reduction in Impervious Cover:	*37,333 Sq. Feet)*





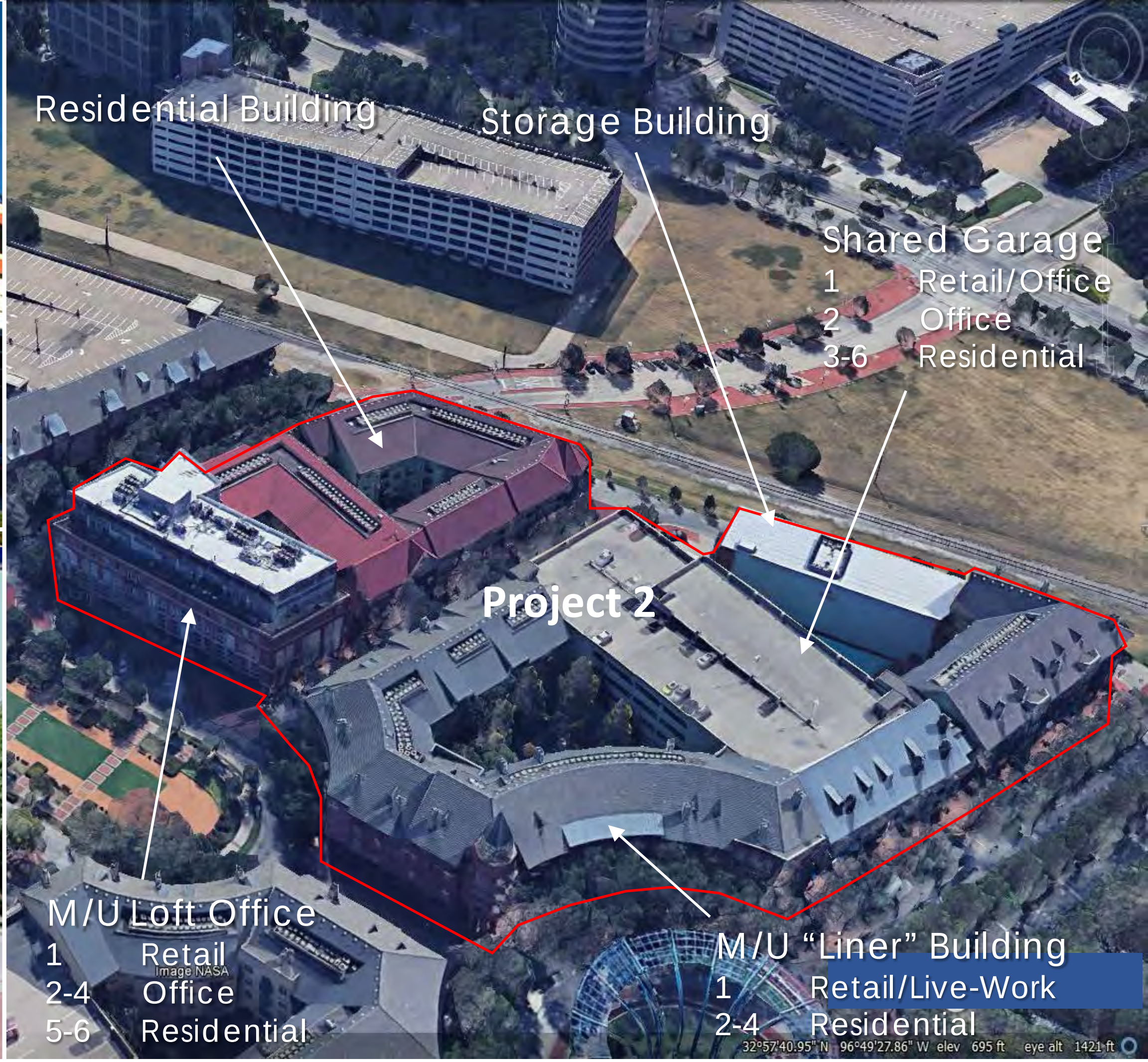


Project 1:

300,000 sf Office Building
20,000 sf Retail
150 Apartments
1540 parking spaces

<u>Sharing Potential:</u>
117 spaces
10% Sharing
$1.2M Savings

<u>Actual:</u>
(Lender Requirement)
Land & Foundations
+/-$650k + $7M (added bldg.)



Project 2:

30,000 sf Loft Office Building	<u>Sharing Potential:</u>	<u>Actual</u>:
42,000 sf Retail & Storage	129 spaces	(Lender Requirement)
225 Apartments	28% Sharing	Land & Foundations
440 parking spaces	$1.4M Savings	$+/-630k + $17M (added bldg.)

2. Parking as a Tool for Economic Development

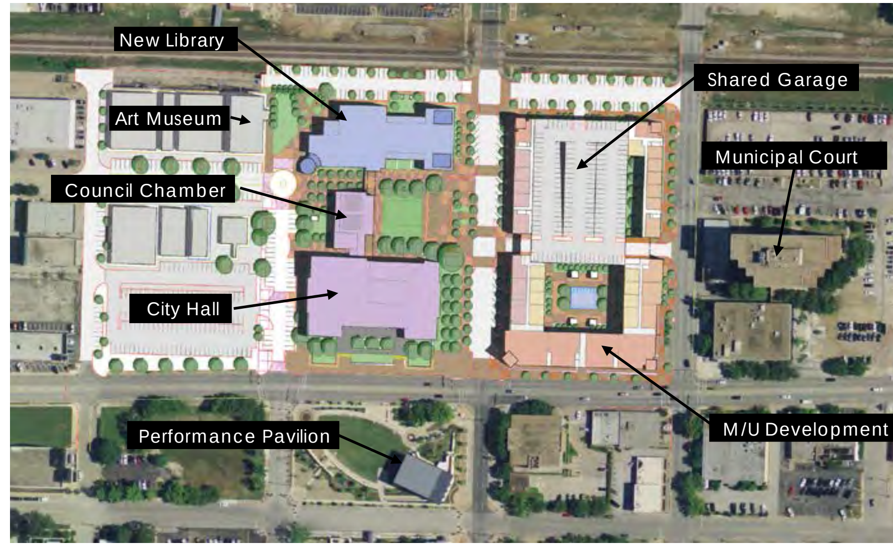
101 CENTER / ARLINGTON CITY CENTER:

Downtown Arlington, TX

- 23,000 sf Restaurants and Retail
- 95,000 sf Library and Council Chamber
- 268 du Apartments and Live/Work Units
- 702 sp Shared Garage and Street Spaces

Shared Parking as Strategy Behind P/PP – Suburban Reinvention

Existing surface parking precluded new M/U urban infill



Redevelopment strategy consolidated public parking; Shared garage, private parking and ground leases

101 Center Comparative Parking Analysis

Building Program		Pkg Ratio	Spaces Required			Spaces Provided				Comparisons	
			Non-Resid	Residential	Net Code		Public	Private	Total Parking	Actual Parking Spaces	Agreed
	# Units		3, 10, 2/1000	S:1, 1:1.5, 2:2, 3:2.5, 4:3	Required	On Street	Garage	Garage	Spaces Provided	Compared to Code	Reduction
Retail	9,912	3sp/1000	30		30	14		16	30	**0**	
Restaur	8,500	10sp/1000	85		85	73		12	85	**0**	
Library	89,000	130	130		130		130		130	**0**	
Chamber	6,000	26	26		26		26		26	**0**	
Club	5,968	2sp/1000	12		12	4		8	12	**0**	
Studio	69	1sp/unit		69	69			69	69	**0**	
Live/Work	26	1.5sp/unit		39	39			39	39	**0**	
1 bed	65	1.5sp/unit		98	98			65	65	**-33**	1/unit
2 bed	57	2sp/unit		114	114			114	114	**0**	
3 bed	41	2.5sp/unit		103	103			103	103	**0**	
4 bed	10	3sp/unit		30	30			30	30	**0**	
Totals	268		283	452	735	91	156	455	702	**-33**	

Results of this Planning-Induced Partnership

- $100M under construction
- The sense of a "downtown" is now evident
- New retail and restaurant comps for downtown
- New residential comps for downtown
- New utilities and streets in downtown
- New central library and council chamber
- Additional projects have announced

Shared Parking as Strategy Behind PPP -- TOD

LANCASTER URBAN VILLAGE

LANCASTER URBAN VILLAGE

South Dallas, TX

NCTCOG – CLIDE Award
ULI – Impact Award Finalist

- 50,000 sf Job Training
- 193 du Apartments
- 15,000 sf Retail/Office
- 355 sp Parking Garage

Unexpected Circumstance:
* 30+% residents take DART and leave cars in garage

3. Parking Management

VILLAGE OF ROWLETT:

Downtown Rowlett, TX
NCTCOG – CLIDE Award

- 60,000 sf Restaurants and Retail
- 40,000 sf City Hall, Library, Municipal Offices
- Special Events & Veterans Park
- 249 Apartments within Multiple Building Types

Form Based Code vs. Market Parking Requirements

Village of Rowlett Comparative Parking Analysis											
Village of Rowlett											
Building Program		Spaces Required			Spaces Provided				Comparisons		
		Code Req	Allowable TOD	Net Code				Total Parking	Actual Parking Spaces	Market	Delta Between
	# Units	1.5, 1.75, .333	Reduction (20%)	Required	On Street	Parking Lot	Garages	Spaces Provided	Compared to Code	Required	Market and Actual
Retail	16,752	56	-11	45	77			77	**32**	87	-10
Club	5,500	15	-3	12	11	1		12	0	10	2
1 bed	172	258	-52	206	38	93	47	178	**-28**	172	6
2 beds	77	135	-27	108	82	50	24	156	**48**	154	2
Totals	249	464	-93	371	208	144	71	423	**52**	423	**0**
					49%	34%	17%		12%		

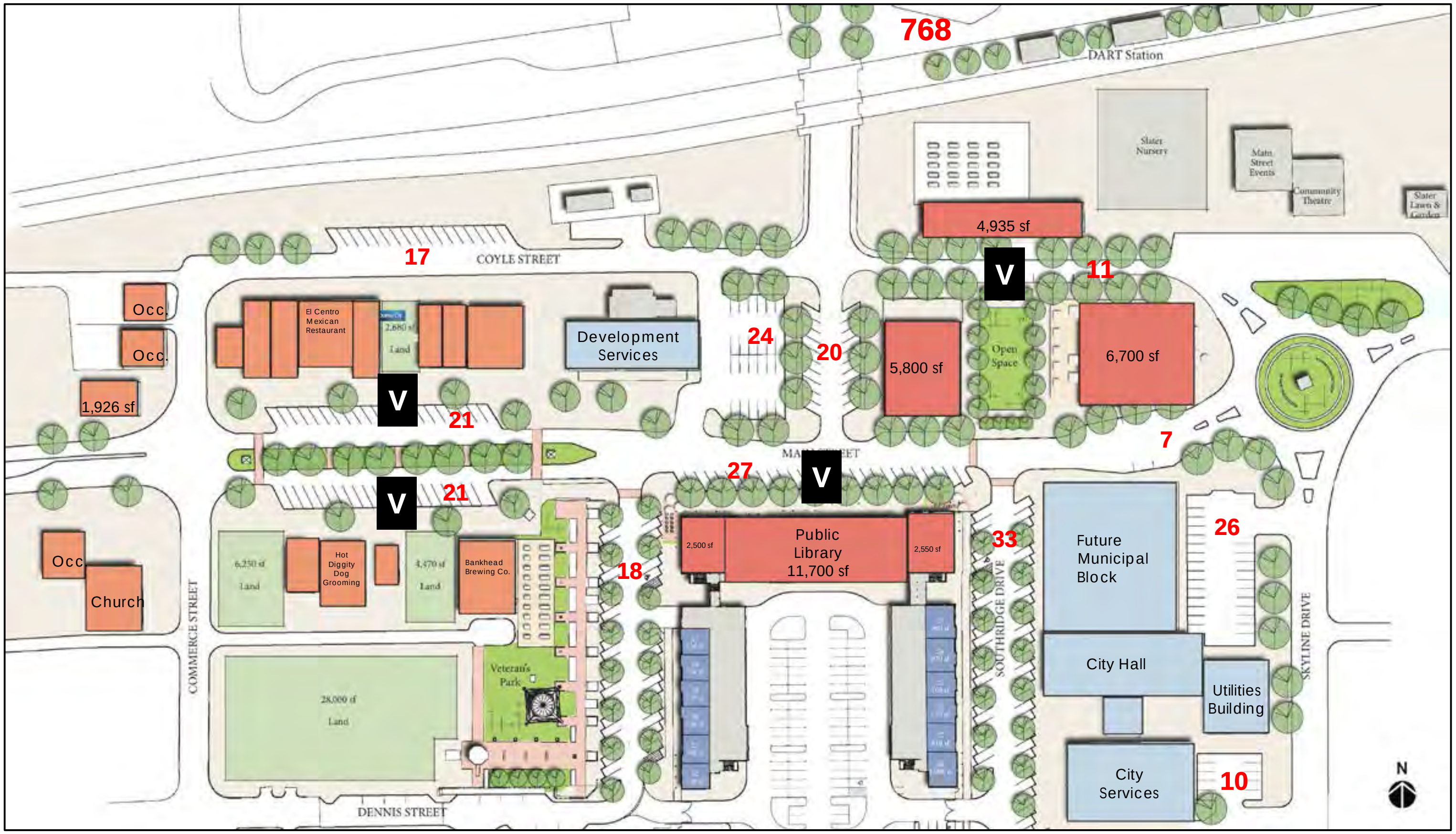
52 more spaces than required by code; 0 extra spaces when parked to market requirements

Base Code:
1.5 sp / 1 bedroom unit
1.75 sp / 2 bedroom unit
3 sp / 1000 sf non-residential

TOD Code Reduction (20%):
1.2 / 1 bedroom unit
1.4 sp / 2 bedroom unit
2.4 sp / 1000 sf non-res.

Market: (14% more than Code)
1 sp / bedroom
8 sp / 1000 sf restaurant
4 sp / 1000 sf retail (3/1000 sf office)

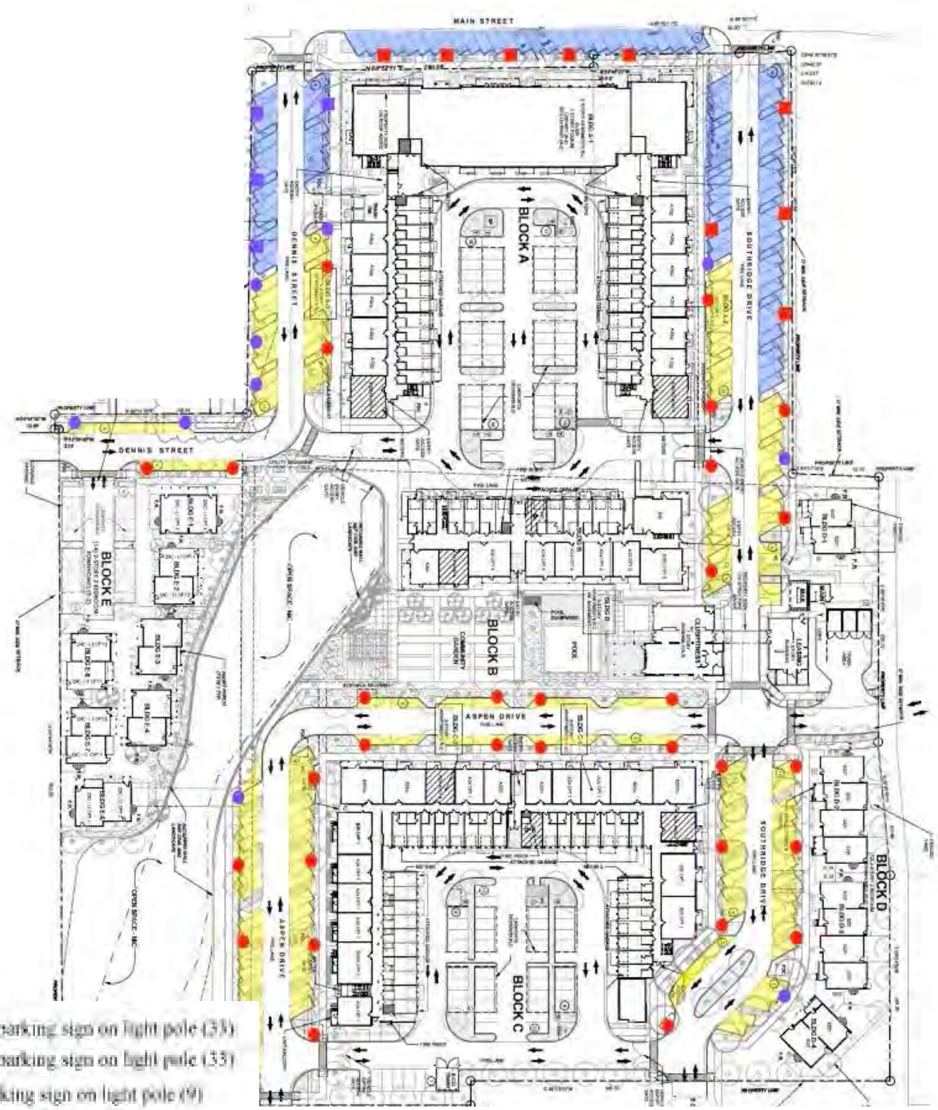
Parking Management: *Providing for Retail Patrons*



- **180** spaces required by code at full build out
- **300** spaces required by market at full build out
- **235** street spaces provided presently
- **900+** additional spaces nearby (DART, schools, churches, etc), but seen as inconvenient
- **District valet system** utilized to:
  - Access additional spaces required
  - Enhance downtown experience
  - Overcome inconveniences
  - Allow downtown's success

Parking Management: *Providing for Downtown Residents*

- To protect residents from retail patrons avoiding valet, **a resident-only permit** is required for spaces shown in yellow
- Tenants have permit stickers on vehicles, guests given hanging tag for 24 hr period
- Violators subject to towing
- Extension of the City's current parking enforcement program for downtown retail parking



Reserved parking sign on light pole (33)
Reserved parking sign on light pole (33)
Timed parking sign on light pole (9)
Timed parking sign on post (4)

Suggestions

- Understand that parking is critically important to the real estate investment community
- Until parking demand is measurably diminished through location or technology, be careful not to under-park a development
- Focus on opportunities for shared parking rather than straight reductions through policy actions
- Look for ways to repair the urban fabric by creating more dense shared parking partnerships and parking management programs
- All the while, promote creativity and don’t rely on the traditional suburban solution to lower density single-use parking