

HR&A

+



Association of  
Bay Area Governments



METROPOLITAN  
TRANSPORTATION  
COMMISSION

Transforming Aging Malls & Office Parks  
**Economic Modeling for Redevelopment Feasibility**

November 2022

# Agenda

---

Introduction & Objectives	10-min
Project Feasibility & Public Benefits Tradeoffs	30-min
Economic Modeling Workshop	20-min
Feedback & Discussion	25-min
Next Steps	5-min

## REDEVELOPMENT OF COMMERCIAL SITES WITH MORE HOUSING IS A 'NO BRAINER'

The combination of housing demand and vacant malls provides tremendous opportunities.

### Land Constraints for Housing

The cities with the largest need for housing also are most land constrained, leaving only infill opportunities for development.

### Underperforming Commercial

Changes in consumer preference, e-commerce, and the pandemic have resulted in under-utilized commercial space, both in malls and office parks.



### Increased Housing with Right Sized Retail

If feasible, developers will pursue redevelopment of mall and office properties, providing needed housing solutions.

## LEARNING OBJECTIVES

This workshop is designed to prepare attendees with the foundational knowledge and skills to:



**Learn to use an evaluation matrix to determine project feasibility and understand public benefits tradeoffs**



**Understand key assumptions and learn to use an economic modeling template to assess funding and financing capacity**

*Take-Home:*



- **Workshop presentation**
- **Feasibility modeling template**

## HR&A ADVISORS

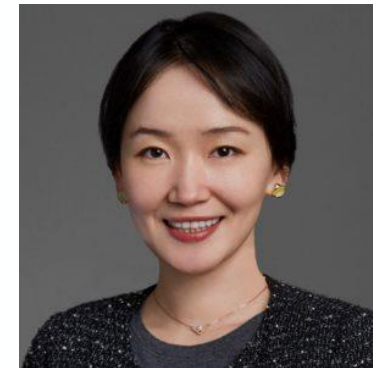
HR&A is an economic development and real estate consulting firm working at the intersection of the public and private sector. Our work transforms communities and revitalizes urban environments in the United States and abroad.



**Kate Collignon**  
*Partner*



**Amitabh Barthakur**  
*Partner*



**Ada Peng**  
*Director*



**Jamison Dague**  
*Senior Analyst*

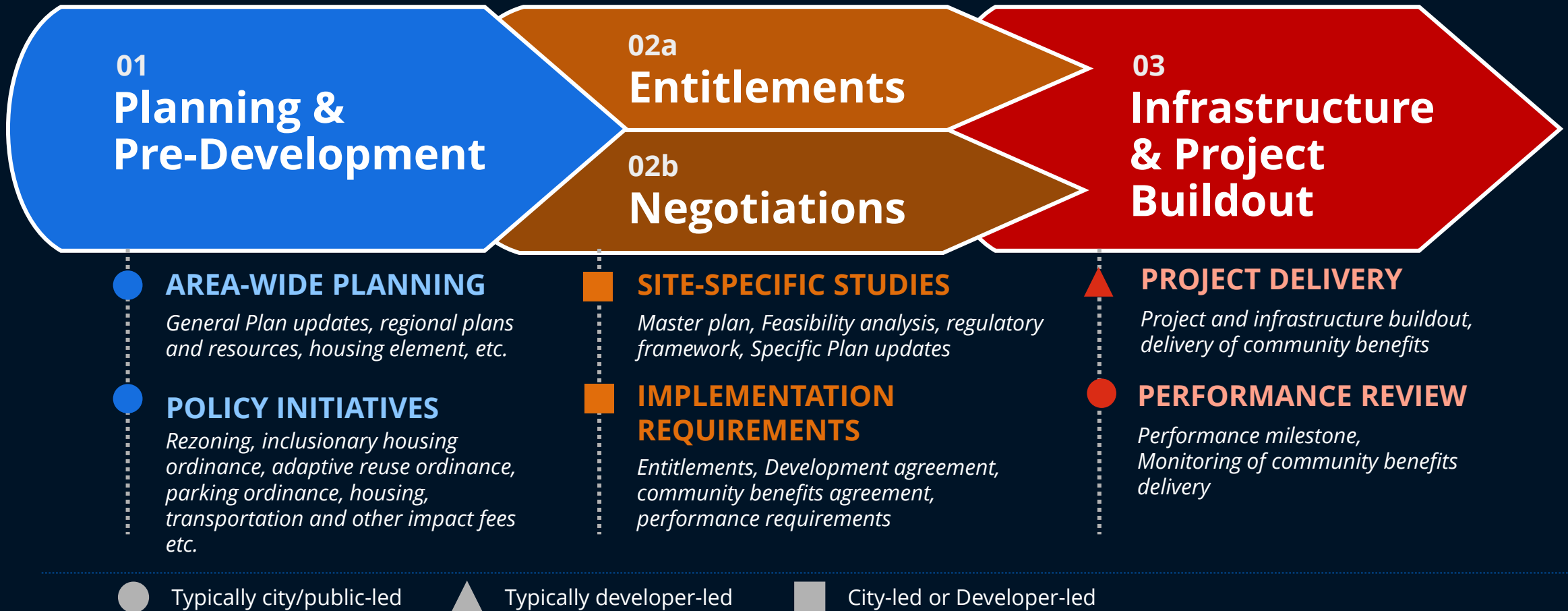
# Agenda

---

Introduction & Objectives	10-min
<u>Project Feasibility &amp; Public Benefits Tradeoffs</u>	30-min
Economic Modeling Workshop	20-min
Feedback & Discussion	25-min
Next Steps	5-min

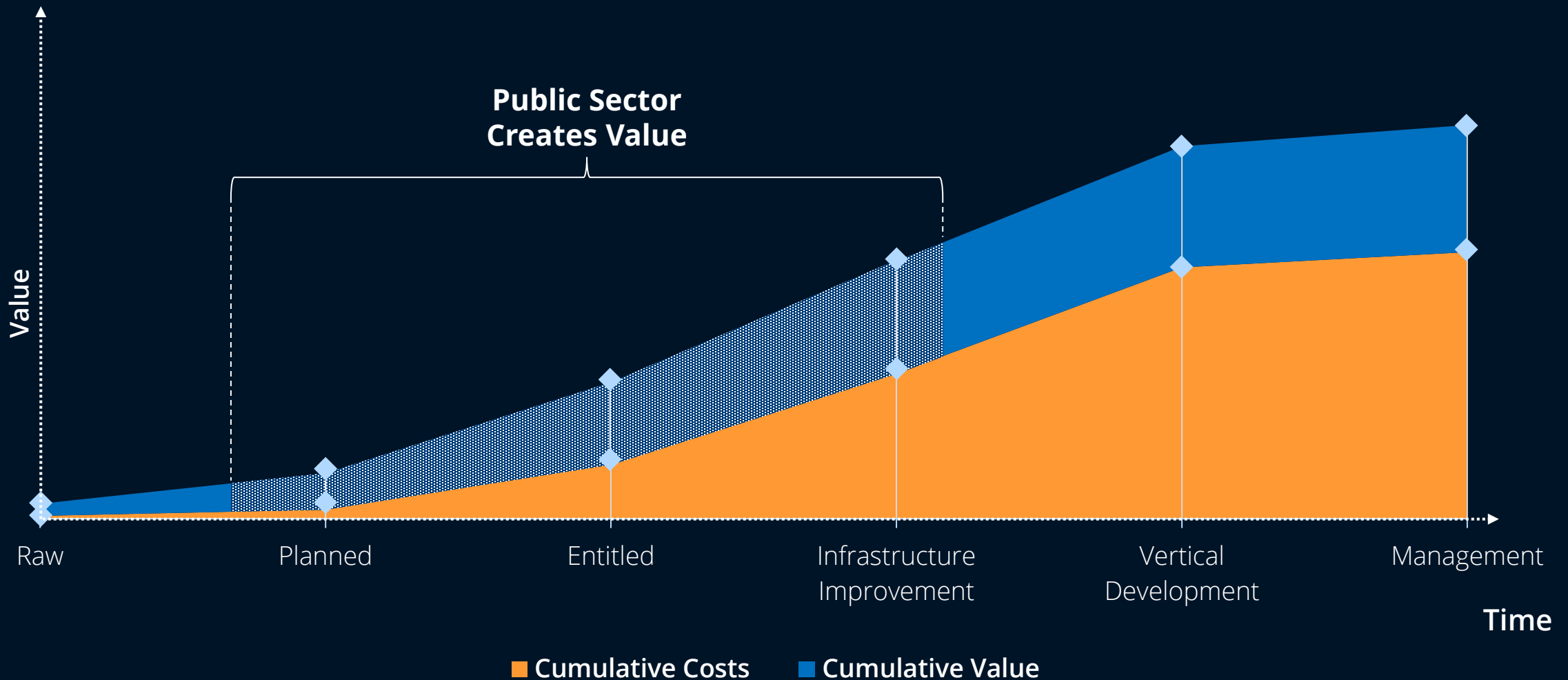
## DEVELOPMENT LIFECYCLE AND LEVERAGE POINTS FOR PUBLIC BENEFITS

In Workshop#3, we looked at the key stages of real estate development process and the tools and tactics that local jurisdictions can leverage to maximize community benefits.



## DEVELOPMENT LIFECYCLE & LEVERAGE POINTS FOR PUBLIC BENEFITS 2

Public sector leverage to achieve public benefits decreases as the process advances, so tools and tactics must be timed appropriately to be effective.





# EVALUATING REDEVELOPMENT PROJECT FEASIBILITY

Land use policies, zoning, and incentives must align with project economics for public benefits to be extracted.

Factors:

- Revenue
- Operating Expenses
- Net Operating Income
- Cap Rate

SOURCES

Capitalized Value

MARKET SUPPORTABLE PROJECT VALUE

USES

PUBLIC BENEFITS  
(Affordable housing, etc.)

DEVELOPER PROFIT

DEVELOPMENT COSTS  
(HARD COSTS, SOFT COSTS)

Land

TOTAL DEVELOPMENT COSTS

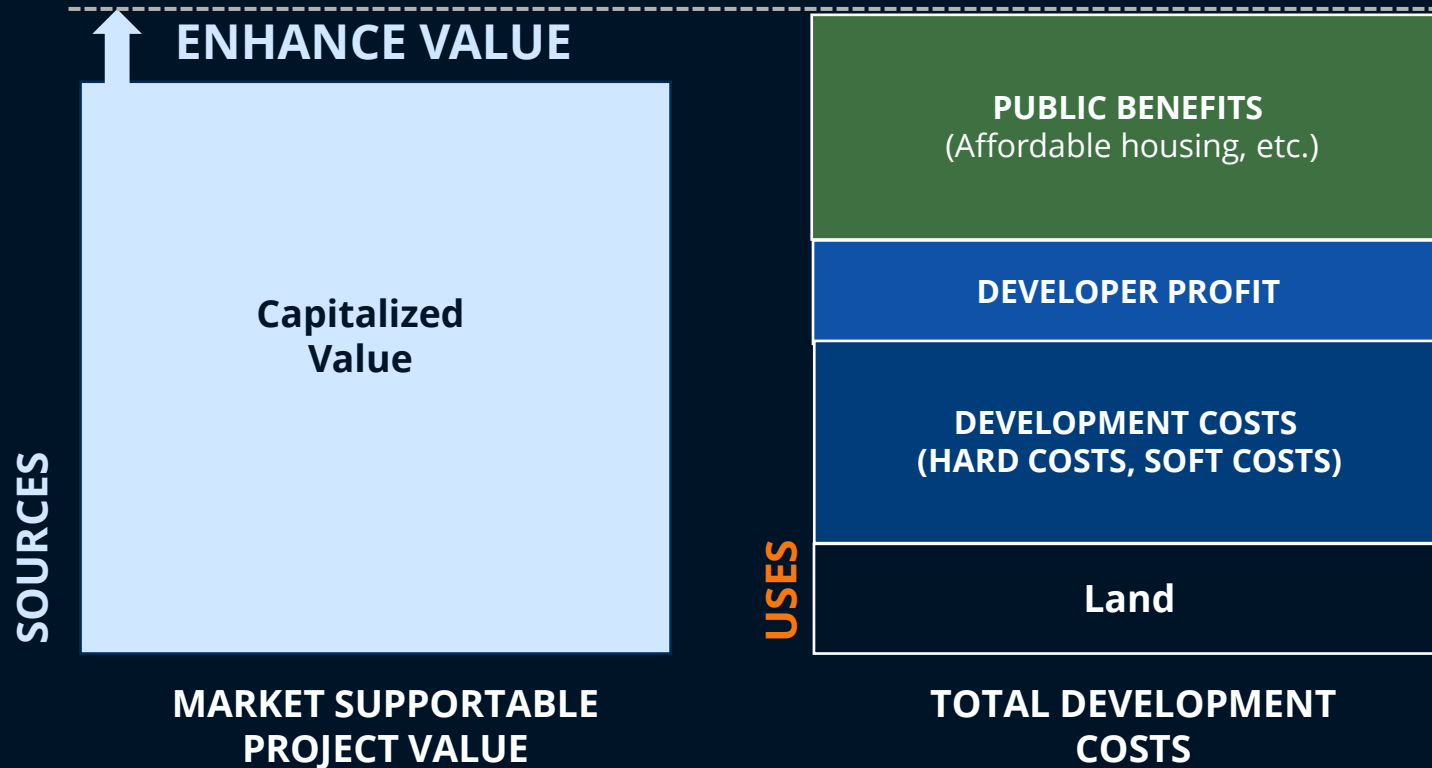
- Affordable housing
- Open space (and other amenities)
- Employment opportunities
- Environmental sustainability
- Infrastructure (and other public improvements)
- Community programs

- Hard Costs
- Soft Costs
- Financing Costs
- Pre-development Costs
- Infrastructure Costs
- Remediation Costs

\* Capitalized project value is driven by the stabilized project revenue, operating costs and market cap rate.

## LEVERAGE REDEVELOPMENT PROJECT FOR PUBLIC BENEFITS

Planners can leverage site-specific discretionary approvals and public capital investments to enhance project value.



## VALUE ENHANCEMENT TOOLS

### Land Use / Zoning

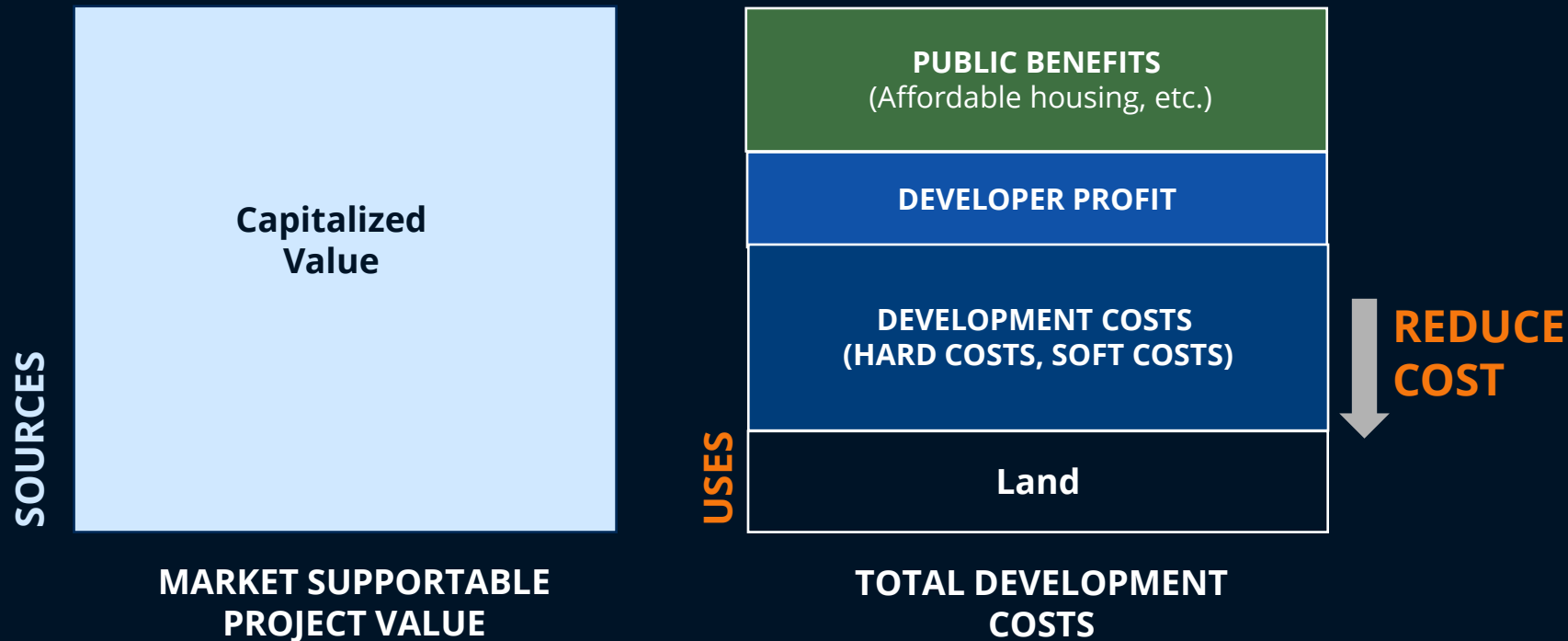
- Parking reductions
- Design variances
- Density bonuses
- Height increases

### Public Investment

- Public realm investment
- Transit investment

## LEVERAGE REDEVELOPMENT PROJECT FOR PUBLIC BENEFITS

Similarly, there are a variety of tools that planners can use to help reduce development cost and close feasibility gap.



### COST REDUCTION TOOLS

#### Funding / Financing Subsidy

- Tax subventions
- Assessment districts
- Public financing mechanisms / tools

#### Public Financing

- Infrastructure delivery
- Public realm improvements
- Parks and open space development / operation support

#### Administrative

- Streamlined approval process
- Entitlement certainty

# Redevelopment Feasibility Economic Modeling Walkthrough

Redevelopment Feasibility Economic Modeling Walkthrough			
INPUTS			
<b>Development Assumptions</b>			
Where is the site located?	Santa Clara County		
What is the proposed development typology?	Mid-Rise I (5 to 8 Stories)		
What is the proposed parking typology?	Structured (Podium or Wrap)		
<b>Program Assumptions</b>			
What is the land parcel size available for housing development?	2.00 acres		
What is the proposed average parking ratio?	1.00 spaces/DU		
<b>Cost Assumptions</b>			
How much will it cost to prepare the site for housing development?	\$3.00 M/acre	0%	
How much will it cost to construct the housing development building(s)?	\$290 per GSF	0%	
How much will it cost to build associated parking?	\$35,000 per space	0%	
<b>Rent Assumption</b>			
What is the top of market multifamily rents in the local market?	\$3.68 per NSF	0%	
<b>Land Value Assumption</b>			
What is the average prevailing land value in the local market?	\$3.11 M/acre	0%	
<b>Public Benefits Assumptions</b>			
What is the proposed percentage of on-site affordable housing?		0%	
What is the average income level for the required affordable units?	Very Low Income		
If your local government provides additional density bonus on top of State Density Bonus, please advise the additional density bonus premium.		0%	
Apart from on-site affordable housing, what is the estimated cost to deliver other public benefits required?			-

Illustrative Residual Land Value Calculation					
KEY RESULTS					
<b>Residual Land Value Analysis</b>					
Capitalized Project Value	\$132,254,000				
Less: Development Costs	(\$93,734,000)				
Less: Developer Profit	(\$16,532,000)				
Less: Public Benefits - Affordable Housing	-				
Less: Public Benefits - Other	-				
<b>Residual Land Value</b>	<b>\$21,988,000</b>				
Land Size	2.00 acres				
<b>Residual Land Value per Acre</b>	<b>\$10,994,000 per acre</b>				
<b>Prevailing Market Land Value per Acre</b>	<b>\$3,108,000 per acre</b>				
<b>When Project RLV is significantly higher than prevailing market land value, the redevelopment project enhances land value and therefore the site is LIKELY TO REDEVELOP.</b>					
<p><b>Comparison of Project RLV and Prevailing Comparative Land Value per Acre</b></p> <table border="1"> <tr> <td>Project RLV per Acre</td> <td>\$11.0 M/acre</td> </tr> <tr> <td>Prevailing LV per Acre</td> <td>\$3.1 M/acre</td> </tr> </table>		Project RLV per Acre	\$11.0 M/acre	Prevailing LV per Acre	\$3.1 M/acre
Project RLV per Acre	\$11.0 M/acre				
Prevailing LV per Acre	\$3.1 M/acre				

# Scenario Walkthrough

*Assuming a 10-acre dying mall in Santa Clara County with 2-acre spare parking lot available for housing development, with some site preparation and horizontal infrastructure costs*

- *Public sector goal: provide incentives to maximize the number of on-site affordable units and other public benefits*
- *Private sector goal: calibrate development program to maximize project return*

# Modeling Example: Santa Clara County, 100% Market Rate

- Mid-Rise I (5-8 stories) maximizes Residual Land Value per acre.

Redevelopment Feasibility Economic Modeling Walkthrough			
INPUTS			
<b>Development Assumptions</b>			
Where is the site located?	Santa Clara County		
What is the proposed development typology?	Mid-Rise I (5 to 8 Stories)		
What is the proposed parking typology?	Structured (Podium or Wrap)		
<b>Program Assumptions</b>			
What is the land parcel size available for housing development?	2.00 acres		
What is the proposed average parking ratio?	1.00 spaces/DU		
<b>Cost Assumptions</b>			
How much will it cost to prepare the site for housing development?	\$3.00 M/acre		0%
How much will it cost to construct the housing development building(s)?	\$290 per GSF		0%
How much will it cost to build associated parking?	\$35,000 per space		0%
<b>Rent Assumption</b>			
What is the top of market multifamily rents in the local market?	\$3.68 per NSF		0%
<b>Land Value Assumption</b>			
What is the average prevailing land value in the local market?	\$3.11 M/acre		0%
<b>Public Benefits Assumptions</b>			
What is the proposed percentage of on-site affordable housing?		Very Low Income	0%
What is the average income level for the required affordable units?			
If your local government provides additional density bonus on top of State Density Bonus, please advise the additional density bonus premium.			0%
Apart from on-site affordable housing, what is the estimated cost to deliver other public benefits required?			-

Illustrative Residual Land Value Calculation							
KEY RESULTS							
<b>Residual Land Value Analysis</b>							
Capitalized Project Value	\$132,254,000						
Less: Development Costs	(\$93,734,000)						
Less: Developer Profit	(\$16,532,000)						
Less: Public Benefits - Affordable Housing	-						
Less: Public Benefits - Other	-						
<b>Residual Land Value</b>	<b>\$21,988,000</b>						
Land Size	2.00 acres						
<b>Residual Land Value per Acre</b>	<b>\$10,994,000 per acre</b>						
<b>Prevailing Market Land Value per Acre</b>	<b>\$3,108,000 per acre</b>						
<p><b>When Project RLV is significantly higher than prevailing market land value, the redevelopment project enhances land value and therefore the site is LIKELY TO REDEVELOP.</b></p>							
<div style="text-align: center;"> <h3>Comparison of Project RLV and Prevailing Comparative Land Value per Acre</h3> <table border="1"> <caption>Comparison of Project RLV and Prevailing Comparative Land Value per Acre</caption> <thead> <tr> <th>Category</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>Project RLV per Acre</td> <td>\$11.0 M/acre</td> </tr> <tr> <td>Prevailing LV per Acre</td> <td>\$3.1 M/acre</td> </tr> </tbody> </table> </div>		Category	Value	Project RLV per Acre	\$11.0 M/acre	Prevailing LV per Acre	\$3.1 M/acre
Category	Value						
Project RLV per Acre	\$11.0 M/acre						
Prevailing LV per Acre	\$3.1 M/acre						

# Modeling Example: Santa Clara County, 10% Very Low Income

- Mid-Rise I (5-8 stories) still maximizes Residual Land Value per acre, but significantly lower.

Redevelopment Feasibility Economic Modeling Walkthrough			
INPUTS			
<b>Development Assumptions</b>			
Where is the site located?	Santa Clara County		
What is the proposed development typology?	Mid-Rise I (5 to 8 Stories)		
What is the proposed parking typology?	Structured (Podium or Wrap)		
<b>Program Assumptions</b>			
What is the land parcel size available for housing development?	2.00 acres		
What is the proposed average parking ratio?	1.00 spaces/DU		
<b>Cost Assumptions</b>			
How much will it cost to prepare the site for housing development?	\$3.00 M/acre	0%	
How much will it cost to construct the housing development building(s)?	\$290 per GSF	0%	
How much will it cost to build associated parking?	\$35,000 per space	0%	
<b>Rent Assumption</b>			
What is the top of market multifamily rents in the local market?	\$3.68 per NSF	0%	
<b>Land Value Assumption</b>			
What is the average prevailing land value in the local market?	\$3.11 M/acre	0%	
<b>Public Benefits Assumptions</b>			
What is the proposed percentage of on-site affordable housing?	10%		
What is the average income level for the required affordable units?	Very Low Income		
If your local government provides additional density bonus on top of State Density Bonus, please advise the additional density bonus premium.	0%		
Apart from on-site affordable housing, what is the estimated cost to deliver other public benefits required?	-		

Illustrative Residual Land Value Calculation							
KEY RESULTS							
<b>Residual Land Value Analysis</b>							
Capitalized Project Value	\$164,390,000						
Less: Development Costs	(\$121,954,000)						
Less: Developer Profit	(\$20,549,000)						
Less: Public Benefits - Affordable Housing	(\$10,846,000)						
Less: Public Benefits - Other	-						
<b>Residual Land Value</b>	<b>\$11,041,000</b>						
Land Size	2.00 acres						
<b>Residual Land Value per Acre</b>	<b>\$5,520,500 per acre</b>						
<b>Prevailing Market Land Value per Acre</b>	<b>\$3,108,000 per acre</b>						
<p>When Project RLV is significantly higher than prevailing market land value, the redevelopment project enhances land value and therefore the site is <b>LIKELY TO REDEVELOP</b>.</p>							
<p align="center"><b>Comparison of Project RLV and Prevailing Comparative Land Value per Acre</b></p> <table border="1"> <thead> <tr> <th>Category</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>Project RLV per Acre</td> <td>\$5.5 M/acre</td> </tr> <tr> <td>Prevailing LV per Acre</td> <td>\$3.1 M/acre</td> </tr> </tbody> </table>		Category	Value	Project RLV per Acre	\$5.5 M/acre	Prevailing LV per Acre	\$3.1 M/acre
Category	Value						
Project RLV per Acre	\$5.5 M/acre						
Prevailing LV per Acre	\$3.1 M/acre						

# Modeling Example: Santa Clara County, 10% Very Low Income

- High-rise (8-12 stories) with subterranean parking is NOT feasible even with 15% rent premium.

Redevelopment Feasibility Economic Modeling Walkthrough		
INPUTS		
<b>Development Assumptions</b>		
Where is the site located?	Santa Clara County	
What is the proposed development typology?	High-Rise (8 to 12 Stories)	
What is the proposed parking typology?	Subterranean	
<b>Program Assumptions</b>		
What is the land parcel size available for housing development?	2.00 acres	
What is the proposed average parking ratio?	1.00 spaces/DU	
<b>Cost Assumptions</b>		
How much will it cost to prepare the site for housing development?	\$3.00 M/acre	0%
How much will it cost to construct the housing development building(s)?	\$347 per GSF	0%
How much will it cost to build associated parking?	\$60,000 per space	0%
<b>Rent Assumption</b>		
What is the top of market multifamily rents in the local market?	\$4.23 per NSF	15%
<b>Land Value Assumption</b>		
What is the average prevailing land value in the local market?	\$3.11 M/acre	0%
<b>Public Benefits Assumptions</b>		
What is the proposed percentage of on-site affordable housing?	10%	
What is the average income level for the required affordable units?	Very Low Income	
If your local government provides additional density bonus on top of State Density Bonus, please advise the additional density bonus premium.	0%	
Apart from on-site affordable housing, what is the estimated cost to deliver other public benefits required?	-	

Illustrative Residual Land Value Calculation							
KEY RESULTS							
<b>Residual Land Value Analysis</b>							
Capitalized Project Value	\$244,826,000						
Less: Development Costs	(\$195,866,000)						
Less: Developer Profit	(\$30,603,000)						
Less: Public Benefits - Affordable Housing	(\$17,152,000)						
Less: Public Benefits - Other	-						
<b>Residual Land Value</b>	<b>\$1,205,000</b>						
Land Size	2.00 acres						
<b>Residual Land Value per Acre</b>	<b>\$602,500 per acre</b>						
<b>Prevailing Market Land Value per Acre</b>	<b>\$3,108,000 per acre</b>						
When Project RLV is significantly lower than prevailing market land value, developers are likely to take a loss on redevelopment and therefore the project is <b>NOT LIKELY TO REDEVELOP.</b>							
<div style="text-align: center;"> <h3>Comparison of Project RLV and Prevailing Comparative Land Value per Acre</h3> <table border="1"> <thead> <tr> <th>Category</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>Project RLV per Acre</td> <td>\$0.6 M/acre</td> </tr> <tr> <td>Prevailing LV per Acre</td> <td>\$3.1 M/acre</td> </tr> </tbody> </table> </div>		Category	Value	Project RLV per Acre	\$0.6 M/acre	Prevailing LV per Acre	\$3.1 M/acre
Category	Value						
Project RLV per Acre	\$0.6 M/acre						
Prevailing LV per Acre	\$3.1 M/acre						



# Modeling Example: Santa Clara County, 15% Very Low Income

- Mid-Rise I (5-8 stories) with structured parking is INFEASIBLE.

Redevelopment Feasibility Economic Modeling Walkthrough			
INPUTS			
<b>Development Assumptions</b>			
Where is the site located?	Santa Clara County		
What is the proposed development typology?	Mid-Rise I (5 to 8 Stories)		
What is the proposed parking typology?	Structured (Podium or Wrap)		
<b>Program Assumptions</b>			
What is the land parcel size available for housing development?	2.00 acres		
What is the proposed average parking ratio?	1.00 spaces/DU		
<b>Cost Assumptions</b>			
How much will it cost to prepare the site for housing development?	\$3.00 M/acre		0%
How much will it cost to construct the housing development building(s)?	\$290 per GSF		0%
How much will it cost to build associated parking?	\$35,000 per space		0%
<b>Rent Assumption</b>			
What is the top of market multifamily rents in the local market?	\$3.68 per NSF		0%
<b>Land Value Assumption</b>			
What is the average prevailing land value in the local market?	\$3.11 M/acre		0%
<b>Public Benefits Assumptions</b>			
What is the proposed percentage of on-site affordable housing?	15%		
What is the average income level for the required affordable units?	Very Low Income		
If your local government provides additional density bonus on top of State Density Bonus, please advise the additional density bonus premium.			0%
Apart from on-site affordable housing, what is the estimated cost to deliver other public benefits required?	-		

Illustrative Residual Land Value Calculation							
KEY RESULTS							
<b>Residual Land Value Analysis</b>							
Capitalized Project Value	\$180,303,000						
Less: Development Costs	(\$137,127,000)						
Less: Developer Profit	(\$22,538,000)						
Less: Public Benefits - Affordable Housing	(\$18,077,000)						
Less: Public Benefits - Other	-						
<b>Residual Land Value</b>	<b>\$2,561,000</b>						
Land Size	2.00 acres						
<b>Residual Land Value per Acre</b>	<b>\$1,280,500 per acre</b>						
<b>Prevailing Market Land Value per Acre</b>	<b>\$3,108,000 per acre</b>						
When Project RLV is significantly lower than prevailing market land value, developers are likely to take a loss on redevelopment and therefore the project is NOT LIKELY TO REDEVELOP.							
<div style="text-align: center;"> <h3>Comparison of Project RLV and Prevailing Comparative Land Value per Acre</h3> <table border="1"> <thead> <tr> <th>Category</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>Project RLV per Acre</td> <td>\$1.3 M/acre</td> </tr> <tr> <td>Prevailing LV per Acre</td> <td>\$3.1 M/acre</td> </tr> </tbody> </table> </div>		Category	Value	Project RLV per Acre	\$1.3 M/acre	Prevailing LV per Acre	\$3.1 M/acre
Category	Value						
Project RLV per Acre	\$1.3 M/acre						
Prevailing LV per Acre	\$3.1 M/acre						

# Agenda

---

Introduction & Objectives	10-min
Project Feasibility & Public Benefits Tradeoffs	30-min
<u>Economic Modeling Workshop</u>	20-min
Feedback & Discussion	25-min
Next Steps	5-min

## Workshop Prompt #1

*Assuming a 10-acre dying mall in **Santa Clara County** with **2-acre** spare parking lot available for housing development with **15% Very Low-Income** units*

***What would you change to make the project feasible?***

# Modeling Example: Santa Clara County, 15% Very Low Income, Mid-Rise I (5-8 stories)

- If the *parking ratio* is reduced at 0.5 spaces/DU, project becomes FEASIBLE.

Redevelopment Feasibility Economic Modeling Walkthrough			
INPUTS			
<b>Development Assumptions</b>			
Where is the site located?	Santa Clara County		
What is the proposed development typology?	Mid-Rise I (5 to 8 Stories)		
What is the proposed parking typology?	Structured (Podium or Wrap)		
<b>Program Assumptions</b>			
What is the land parcel size available for housing development?	2.00 acres		
What is the proposed average parking ratio?	0.50 spaces/DU		
<b>Cost Assumptions</b>			
How much will it cost to prepare the site for housing development?	\$3.00 M/acre		0%
How much will it cost to construct the housing development building(s)?	\$290 per GSF		0%
How much will it cost to build associated parking?	\$35,000 per space		0%
<b>Rent Assumption</b>			
What is the top of market multifamily rents in the local market?	\$3.68 per NSF		0%
<b>Land Value Assumption</b>			
What is the average prevailing land value in the local market?	\$3.11 M/acre		0%
<b>Public Benefits Assumptions</b>			
What is the proposed percentage of on-site affordable housing?	15%		
What is the average income level for the required affordable units?	Very Low Income		
If your local government provides additional density bonus on top of State Density Bonus, please advise the additional density bonus premium.			0%
Apart from on-site affordable housing, what is the estimated cost to deliver other public benefits required?			-

Illustrative Residual Land Value Calculation	
KEY RESULTS	
<b>Residual Land Value Analysis</b>	
Capitalized Project Value	\$180,303,000
Less: Development Costs	(\$130,734,000)
Less: Developer Profit	(\$22,538,000)
Less: Public Benefits - Affordable Housing	(\$18,077,000)
Less: Public Benefits - Other	-
<b>Residual Land Value</b>	<b>\$8,954,000</b>
Land Size	2.00 acres
<b>Residual Land Value per Acre</b>	<b>\$4,477,000 per acre</b>
<b>Prevailing Market Land Value per Acre</b>	<b>\$3,108,000 per acre</b>
<p style="color: green;">When Project RLV is significantly higher than prevailing market land value, the redevelopment project enhances land value and therefore the site is <b>LIKELY TO REDEVELOP</b>.</p>	
<h3>Comparison of Project RLV and Prevailing Comparative Land Value per Acre</h3>	
<div style="background-color: #1a3d4d; color: white; padding: 10px; margin: 0 auto; width: 60%;"> <p style="font-size: 1.2em; margin: 0;">\$4.5 M/acre</p> </div>	<div style="background-color: #a6a6a6; padding: 10px; margin: 0 auto; width: 60%;"> <p style="font-size: 1.2em; margin: 0;">\$3.1 M/acre</p> </div>
Project RLV per Acre	Prevailing LV per Acre

# Modeling Example: Santa Clara County, 15% Very Low Income, Mid-Rise I (5-8 stories)

- With 5% rent premium, project becomes FEASIBLE.

Redevelopment Feasibility Economic Modeling Walkthrough			
INPUTS			
<b>Development Assumptions</b>			
Where is the site located?	Santa Clara County		
What is the proposed development typology?	Mid-Rise I (5 to 8 Stories)		
What is the proposed parking typology?	Structured (Podium or Wrap)		
<b>Program Assumptions</b>			
What is the land parcel size available for housing development?	2.00 acres		
What is the proposed average parking ratio?	1.00 spaces/DU		
<b>Cost Assumptions</b>			
How much will it cost to prepare the site for housing development?	\$3.00 M/acre		0%
How much will it cost to construct the housing development building(s)?	\$290 per GSF		0%
How much will it cost to build associated parking?	\$35,000 per space		0%
<b>Rent Assumption</b>			
What is the top of market multifamily rents in the local market?	\$3.86 per NSF		5%
<b>Land Value Assumption</b>			
What is the average prevailing land value in the local market?	\$3.11 M/acre		0%
<b>Public Benefits Assumptions</b>			
What is the proposed percentage of on-site affordable housing?	15%		
What is the average income level for the required affordable units?	Very Low Income		
If your local government provides additional density bonus on top of State Density Bonus, please advise the additional density bonus premium.	0%		
Apart from on-site affordable housing, what is the estimated cost to deliver other public benefits required?	-		

Illustrative Residual Land Value Calculation	
KEY RESULTS	
<b>Residual Land Value Analysis</b>	
Capitalized Project Value	\$188,734,000
Less: Development Costs	(\$137,266,000)
Less: Developer Profit	(\$23,592,000)
Less: Public Benefits - Affordable Housing	(\$19,565,000)
Less: Public Benefits - Other	-
<b>Residual Land Value</b>	<b>\$8,311,000</b>
Land Size	2.00 acres
<b>Residual Land Value per Acre</b>	<b>\$4,155,500 per acre</b>
<b>Prevailing Market Land Value per Acre</b>	<b>\$3,108,000 per acre</b>
<p>When Project RLV is significantly higher than prevailing market land value, the redevelopment project enhances land value and therefore the site is <b>LIKELY TO REDEVELOP</b>.</p>	
<p align="center"><b>Comparison of Project RLV and Prevailing Comparative Land Value per Acre</b></p>	
<p><b>\$4.2 M/acre</b></p>	<p><b>\$3.1 M/acre</b></p>
Project RLV per Acre	Prevailing LV per Acre

# Modeling Example: Santa Clara County, 15% Very Low Income, Mid-Rise I (5-8 stories)

- If local jurisdiction provides *5% density premium* on top of State Density Bonus, project is **FEASIBLE**.

## Redevelopment Feasibility Economic Modeling Walkthrough

### INPUTS

#### Development Assumptions

Where is the site located?	Santa Clara County
What is the proposed development typology?	Mid-Rise I (5 to 8 Stories)
What is the proposed parking typology?	Structured (Podium or Wrap)

#### Program Assumptions

What is the land parcel size available for housing development?	2.00 acres
What is the proposed average parking ratio?	1.00 spaces/DU

#### Cost Assumptions

How much will it cost to prepare the site for housing development?	\$3.00 M/acre	0%
How much will it cost to construct the housing development building(s)?	\$290 per GSF	0%
How much will it cost to build associated parking?	\$35,000 per space	0%

#### Rent Assumption

What is the top of market multifamily rents in the local market?	\$3.68 per NSF	0%
--	----------------	----

#### Land Value Assumption

What is the average prevailing land value in the local market?	\$3.11 M/acre	0%
--	---------------	----

#### Public Benefits Assumptions

What is the proposed percentage of on-site affordable housing?	15%
What is the average income level for the required affordable units?	Very Low Income
If your local government provides additional density bonus on top of State Density Bonus, please advise the additional density bonus premium.	5%
Apart from on-site affordable housing, what is the estimated cost to deliver other public benefits required?	-

## Illustrative Residual Land Value Calculation

### KEY RESULTS

#### Residual Land Value Analysis

Capitalized Project Value	\$189,017,000
Less: Development Costs	(\$143,661,000)
Less: Developer Profit	(\$23,627,000)
Less: Public Benefits - Affordable Housing	(\$9,364,000)
Less: Public Benefits - Other	-

#### Residual Land Value

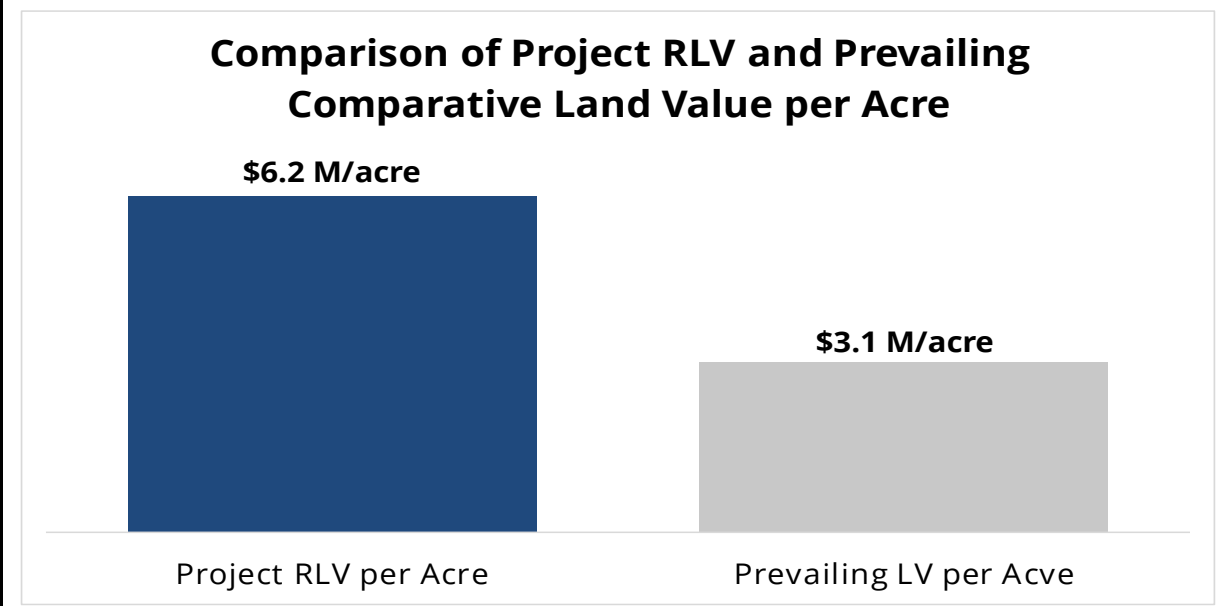
Residual Land Value	\$12,365,000
---------------------	--------------

Land Size	2.00 acres
-----------	------------

Residual Land Value per Acre	\$6,182,500 per acre
------------------------------	----------------------

Prevailing Market Land Value per Acre	\$3,108,000 per acre
---------------------------------------	----------------------

When Project RLV is significantly higher than prevailing market land value, the redevelopment project enhances land value and therefore the site is **LIKELY TO REDEVELOP**.



## Workshop Prompt #2

*Assuming a 10-acre dying mall in the **urban** area of **Santa Clara County** with **2-acre** spare parking lot available for housing development with a **mid-rise (5-8 stories)** building with **structured parking**,*

***What is the affordable housing scenario that could deliver the maximum number of on-site affordable units and other public benefits?***

# Modeling Example: Santa Clara County, Urban Location, Mid-rise I (8-12 stories) with structured parking

- Feasible with 44% Moderate Income (132 Units), \$11M Additional Public Benefits

Redevelopment Feasibility Economic Modeling Walkthrough			
INPUTS			
<b>Development Assumptions</b>			
Where is the site located?	Santa Clara County		
What is the proposed development typology?	Mid-Rise I (5 to 8 Stories)		
What is the proposed parking typology?	Structured (Podium or Wrap)		
<b>Program Assumptions</b>			
What is the land parcel size available for housing development?	2.00 acres		
What is the proposed average parking ratio?	1.00 spaces/DU		
<b>Cost Assumptions</b>			
How much will it cost to prepare the site for housing development?	\$3.00 M/acre	0%	
How much will it cost to construct the housing development building(s)?	\$290 per GSF	0%	
How much will it cost to build associated parking?	\$35,000 per space	0%	
<b>Rent Assumption</b>			
What is the top of market multifamily rents in the local market?	\$3.68 per NSF	0%	
<b>Land Value Assumption</b>			
What is the average prevailing land value in the local market?	\$7.77 M/acre	150%	
<b>Public Benefits Assumptions</b>			
What is the proposed percentage of on-site affordable housing?	44%		
What is the average income level for the required affordable units?	Moderate Income		
If your local government provides additional density bonus on top of State Density Bonus, please advise the additional density bonus premium.	0%		
Apart from on-site affordable housing, what is the estimated cost to deliver other public benefits required?	\$11,000,000		

Illustrative 2.0-acre, 300-unit Project in the Santa Clara County M	
PROGRAM SUMMARY	
<b>Development Program Assumptions</b>	
Land Size	2.00 acres
Base Density	100 DU/acre
Density Bonus Utilized (State and Local, if applicable)	150%
Density after Density Bonus	150 DU/acre
<b>Total Residential Units (with bonus density)</b>	<b>300 Units</b>
Market Rate Units	168 Units
<b>Affordable Units</b>	<b>132 Units</b>
Average Unit Size	1,000 NSF
Total Development Program	375,000 GSF
Total Rentable Area	300,000 NSF
Floor Area Ratio	4.30
Total Parking - Structured (Podium or Wrap)	300 spaces
<b>Development Cost and Revenue Assumptions</b>	
Total Development Costs excl. Land	\$457,805 per unit
Average Monthly Rent - Market Rate	\$3,680 per unit
Average Monthly Rent - Affordable Units	\$3,467 per unit



# Modeling Example: Santa Clara County, Urban Location, Mid-rise I (8-12 stories) with structured parking

- Feasible with 44% Moderate Income (132 Units), \$11M Additional Public Benefits

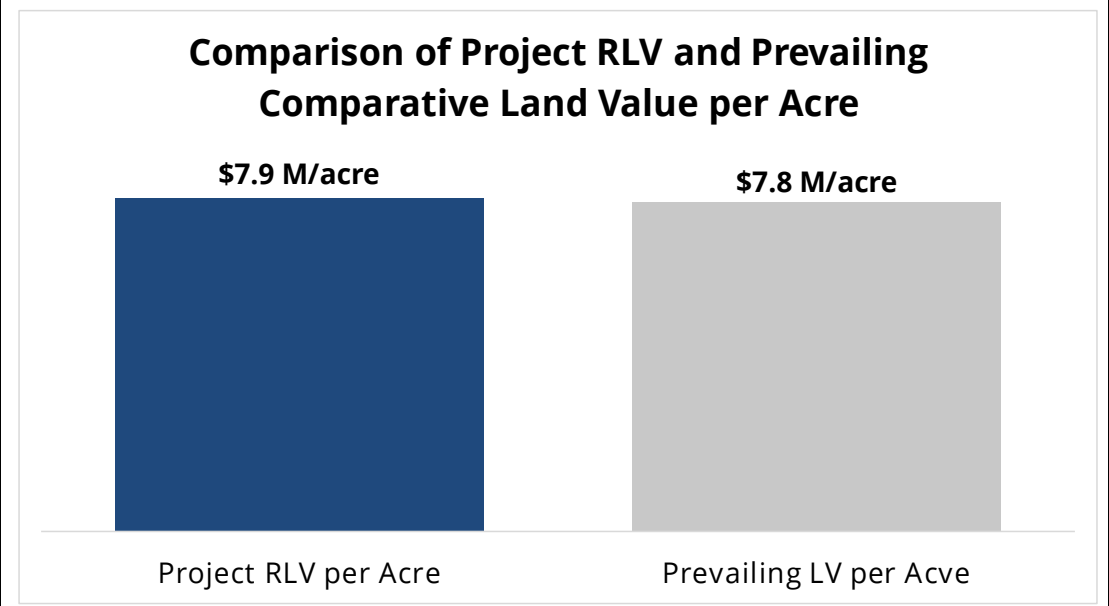
## Illustrative Residual Land Value Calculation

### KEY RESULTS

#### Residual Land Value Analysis

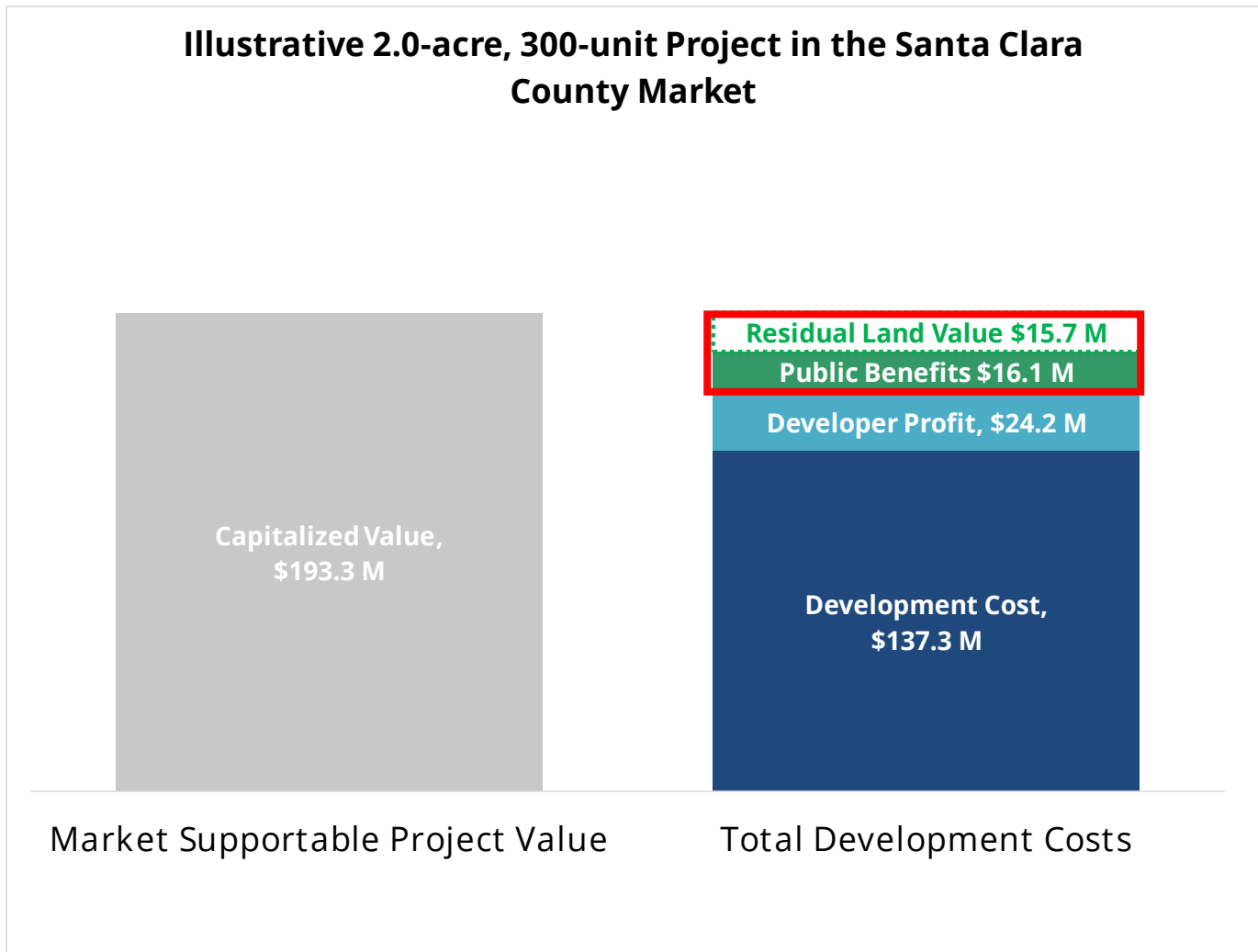
Capitalized Project Value	\$193,318,000
Less: Development Costs	(\$137,342,000)
Less: Developer Profit	(\$24,165,000)
Less: Public Benefits - Affordable Housing	(\$5,063,000)
Less: Public Benefits - Other	(\$11,000,000)
<b>Residual Land Value</b>	<b>\$15,748,000</b>
Land Size	2.00 acres
<b>Residual Land Value per Acre</b>	<b>\$7,874,000 per acre</b>
<b>Prevailing Market Land Value per Acre</b>	<b>\$7,771,000 per acre</b>

When Project RLV is significantly higher than prevailing market land value, the redevelopment project enhances land value and therefore the site is **LIKELY TO REDEVELOP**.



## Preliminary Project Feasibility Finding

### KEY RESULTS



## Workshop Prompt #3

*Input your own assumptions and see if the results trend in the same direction as you expected*

# Agenda

---

Introduction & Objectives	10-min
Project Feasibility & Public Benefits Tradeoffs	30-min
Economic Modeling Workshop	20-min
<u>Feedback &amp; Discussion</u>	25-min
Next Steps	5-min

## WORK GROUP SCHEDULE



September 14, 2022  
12-1:30pm

Defining the Purpose of Mall & Office Park Transformation



September 29, 2022  
12-1:30pm

Incorporating Housing



October 14, 2022  
1-2:30pm

Implementation Roadmap



November 2, 2022  
12-1:30pm

Design Framework & Planning Process



November 9, 2022  
2-3:30pm

Economic Modeling for Development Feasibility



November 30, 2022  
12-1:30pm

Affordable Housing: Tradeoffs & Financing

HR&A

+



Association of  
Bay Area Governments



METROPOLITAN  
TRANSPORTATION  
COMMISSION

Thank you!

Transforming Aging Malls & Office Parks

**Economic Modeling for Redevelopment Feasibility**

November 2022