



NAPA PIPE:

FORM-BASED CODE and DESIGN GUIDELINES

AGENDA:

Bus Tour—Lessons Learned

Additional Projects

Form-Based Code

Design Guidelines

Next Steps

LESSONS LEARNED:

Hercules (Promenade, Refugio, Bayside)

Emeryville (Glashaus, Liquid Sugar, City Limits)

San Mateo (Bay Meadows)

RESIDENTIAL
TYPOLOGIES

Lot Area, Setbacks,
Height (stories), Parking
Type & Access, Uses,
Accessory Buildings

THINGS TO
THINK ABOUT...

FORM + ORIENTATION

Proportion
Scale
Orientation
Corners
Main façade
Building walls

FRONTAGE + SETBACKS

Entries
Stoops
Porches
Projections

ARCH. DETAILS

Windows
Doors
Roofs (eaves, dormers)
Balconies

FAÇADE COMPOSITION

MATERIALS

Local precedents
Material detailing

PARKING + SERVICE

Access / Orientation
Garage doors
Alleys / Service

PRIVATE LANDSCAPE

Common open spaces
Landscape elements
Fences, walls, trellis
Lighting

SMALL-LOT SINGLE FAMILY

MULTI-FAMILY TOWNHOUSES

MULTI-FAMILY APARTMENTS (PODIUM)

SINGLE-FAMILY TOWNHOUSES

MULTI-FAMILY APARTMENTS

LOCAL-SERVING (GROUND FLOOR) RETAIL

Façade Depth and Articulation



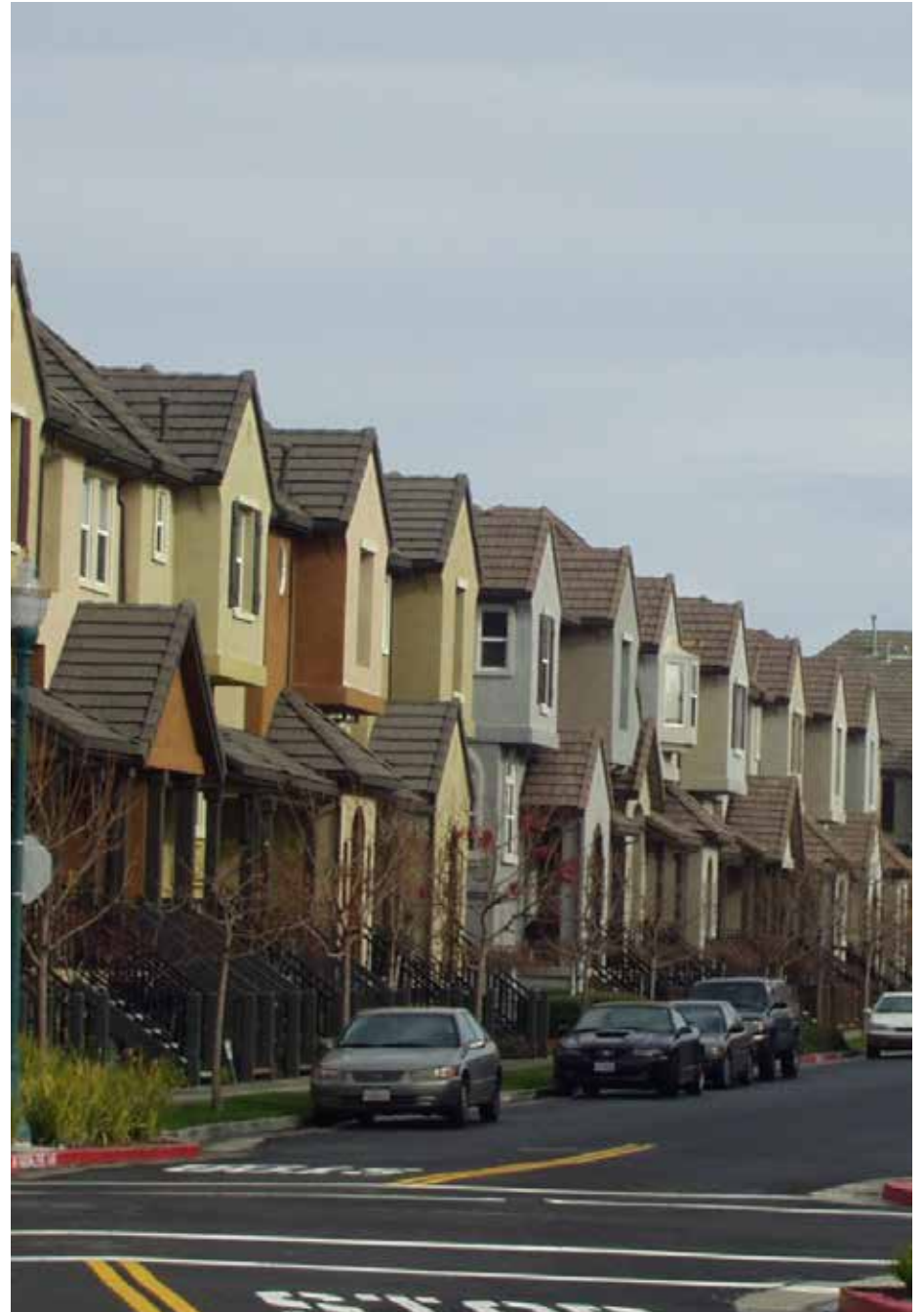
Window Proportion and Detailing



Unit Variation



Mix of Typologies



Alley Design



Open Space Scale and Edges



ADDITIONAL PROJECTS:

Oakland (Zephyr Gate, Pacific Cannery Lofts)

Petaluma (Theatre District, Celsius 44)

Palo Alto (University Park)

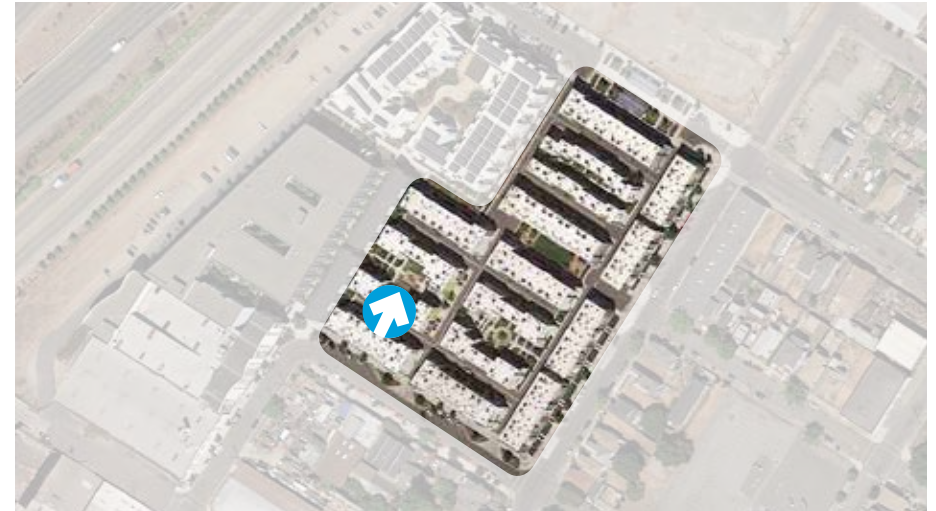
ZEPHYR GATE

14th and Wood Streets
OAKLAND, CA

This market-rate townhouse development is next to the historic Southern Pacific Depot in Oakland, near the developing Central Station neighborhood. The units face perimeter public streets or linear courtyards and open spaces.

- Single-family and multi-family townhouses with no rear yards
- Multiple residential types on one block creates variety
- Narrow internal mews provide rear access to embedded garages
- Ample internal linear courtyards for common open space
- Large windows with significant reveal depth
- Significant modulation, variation, and shaping of the facade plane
- Limited roof modulation, variation, and shaping

DEVELOPER	Pulte Homes
COMPLETED	2007
BUILDER	Pulte Homes
ACRES	4
UNITS	130
DU/ACRE	32.5 average gross
PRODUCT	single-family townhouses (2BR, 3BR)
AFFORDABLE	-
OPEN SPACE	linear courtyards, mews, pocket park
RETAIL	-
OFFICE	-
OTHER	-
PARKING SPACES	~260 (2-car and 2-car tandem garage)
PARKING RATIO	2:1
TRANSIT	AC transit
GREEN	GreenPoint rating (79 points)



200'



Townhouse entries facing interior courtyard

PACIFIC CANNERY LOFTS

1199 Pine Street
WEST OAKLAND, CA

The Central Station neighborhood is new in Oakland — the Pacific Cannery one of the first to be established. The project has a range of studios, apartments, and townhouses framing courtyard open spaces. The 1919 historic fruit cannery is repurposed as one portion of the project. The range of product types includes one-bedrooms, 2-bedrooms, live/work spaces, dog-washing station and bicycle repair.

- Single-family and multi-family townhouses with no rear yards
- Multiple residential types on one block creates variety
- Narrow internal mews provide rear access to embedded garages
- Ample internal linear courtyards for common open space
- Large windows with significant reveal depth
- Significant modulation, variation, and shaping of the facade plane

DEVELOPER	Holliday Development
COMPLETED	2009
BUILDER	Cannon Constructors
ACRES	2.7
UNITS	163
DU/ACRE	60 average gross
PRODUCT	multi-family flats, single-family townhouses (1 BR, 2BR)
AFFORDABLE	-
OPEN SPACE	courtyards
RETAIL	-
OFFICE	-
OTHER	live/work, bicycle repair
PARKING SPACES	186
PARKING RATIO	1.14:1
TRANSIT	BART shuttle
GREEN	GreenPoint Rated



200'



Townhouses facing Pine Street and interior courtyard

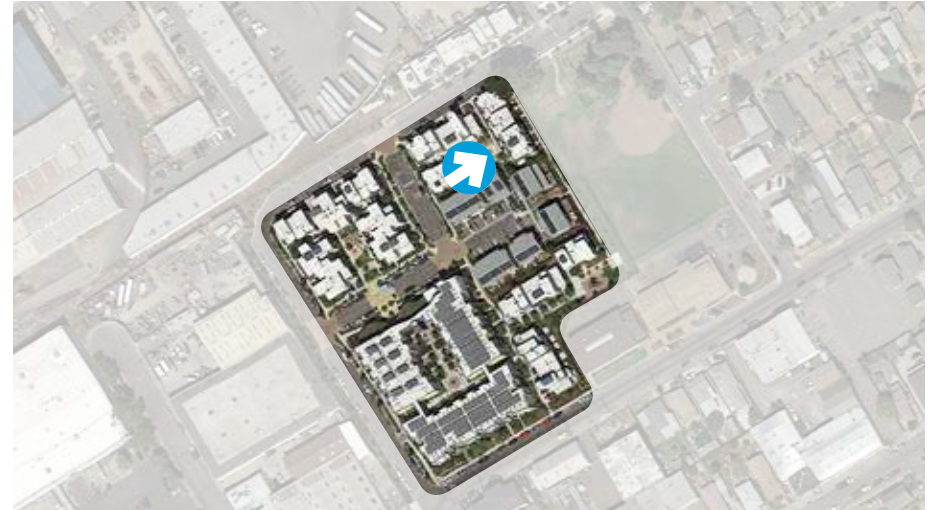
TASSAFARONGA VILLAGE

85th and G Streets
OAKLAND, CA

This new neighborhood has a range of affordable housing types, green pathways, pocket parks, and open spaces. There are multiple variations in the townhouse typologies, including side-by-side and ‘pinwheel’ four-plexes. Apartments flank a hidden parking structure and also enclose a second-level open-air courtyard. The front of the building is topped with a rolling green roof.

- Single-family and multi-family townhouses with no rear yards
- Multiple residential types on one block creates variety
- Narrow internal alleys provide rear access to embedded garages
- Ample internal open spaces, courtyards, and open space mews
- Significant modulation, variation, and shaping of the facade plane
- Significant roof modulation, variation, and shaping

DEVELOPER	Oakland Housing Authority, Habitat for Humanity
COMPLETED	2010
BUILDER	Cahill
ACRES	7.5
UNITS	157
DU/ACRE	25 gross average
PRODUCT	multi-family townhouses
AFFORDABLE	157 (100%)
OPEN SPACE	linear courtyards
RETAIL	-
OFFICE	-
OTHER	medical clinic
PARKING SPACES	230 (garage + surface)
PARKING RATIO	1.2:1
TRANSIT	Coliseum/Oakland Airport BART
GREEN	LEED ND Gold Certified; LEED for Homes Platinum Certified



200'



Townhouses facing interior courtyard

CELSIUS 44

125 F Street
PETALUMA, CA

Within walking distance of Petaluma’s Theater District, Celsius 44 consists of 44 loft-style townhomes in 4 buildings. The first 3 buildings were completed in 2008 by St. James Properties. The final building is now under construction by Advanced Building Solutions. The homes range from 1,500– 2,000 sq. ft. Barn-style garage doors, bright colors, and live-work style designs combine the farming history with a contemporary, industrial feel.

- Industrial aesthetic made residential
- Details such as barn-style doors integrate parking into modern country aesthetic.
- Designed for walkability through sidewalks and old trolley-line

DEVELOPER	St. James Properties, Advanced Building Solutions
COMPLETED	phase 1 2008; phase 2 (under construction)
BUILDER	-
ACRES	1.43 acres
UNITS	44 units in 4 buildings
DU/ACRE	30 average du/acres gross
PRODUCT	Townhomes (2BR @ 1500 sf; 3BR @ 2000 sf)
AFFORDABLE	
OPEN SPACE	private alley & courtyard
RETAIL	adjacent to retail amenities
OFFICE	
OTHER	
PARKING SPACES	Attached garages
PARKING RATIO	1 / unit
TRANSIT	
GREEN	Build It Green



200'



Apartments facing 1st Street

WATERFRONT APARTMENTS

301 1st Street
PETALUMA, CA

The Theater District, developed by BasinStreet Properties, comprises 3 communities: Theater Square Apartments, the Waterfront Apartments, and the Lofts at Basin Street Landing. Developed within Petaluma’s form-based code, the \$100 million dollar revitalization project added retail, office, a cinema, a free-standing parking garage, and 226 apartments to 6 blocks in downtown Petaluma. The Waterfront Apartments consist of 4 3-story buildings along the Petaluma River, reflect the old warehouse district with corrugated siding and steel trusses.



200'

DEVELOPER	Basin Street Properties
COMPLETED	2008
BUILDER	North Bay Construction
ACRES	2.82 acres
UNITS	90
DU/ACRE	32 average du/acre gross
PRODUCT	Studio (560 sf), 1BR (790 sf), 2BR (1130 sf)
AFFORDABLE	
OPEN SPACE	
RETAIL	
OFFICE	3,900 sf on site
OTHER	
PARKING SPACES	111 spaces on site (17 detached garages, 22 attached)
PARKING RATIO	1.2 / unit
TRANSIT	NA
GREEN	

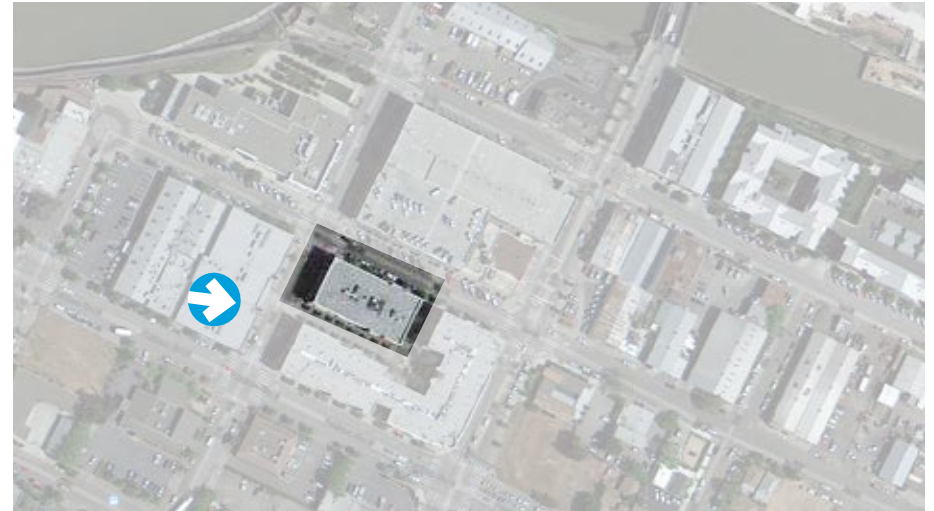


View from 1st Street

BASIN STREET LOFTS

101 Second Street
PETALUMA, CA

The Theater District, developed by BasinStreet Properties, comprises 3 communities: Theater Square Apartments, the Waterfront Apartments, and the Lofts at Basin Street Landing. Developed within Petaluma’s form-based code, the \$100 million dollar revitalization project added retail, office, a cinema, a free-standing parking garage, and 226 apartments to 6 blocks in downtown Petaluma. The Theater Square and Lofts are 2 stories of residential above retail with parking in an adjacent garage.



200'

DEVELOPER	Basin Street Properties
COMPLETED	
BUILDER	North Bay Construction
ACRES	
UNITS	43
DU/ACRE	
PRODUCT	JR 1BR, 1BR, 2BR, 3 BR
AFFORDABLE	
OPEN SPACE	
RETAIL	86,000 gsf as part of Theatre District development
OFFICE	70,000 gsf as part of Theatre District development
OTHER	
PARKING SPACES	530 space garage serving Theatre District development
PARKING RATIO	
TRANSIT	NA
GREEN	

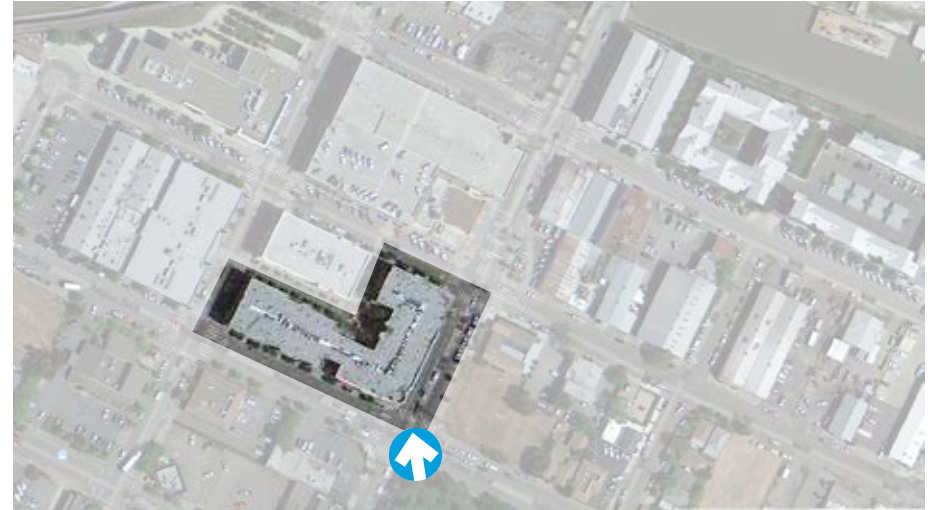


Lofts facing interior retail alley

THEATRE SQUARE APARTMENTS

151 Petaluma Boulevard
PETALUMA, CA

The Theater District, developed by BasinStreet Properties, comprises 3 communities: Theater Square Apartments, the Waterfront Apartments, and the Lofts at Basin Street Landing. Developed within Petaluma’s form-based code, the \$100 million dollar revitalization project added retail, office, a cinema, a free-standing parking garage, and 226 apartments to 6 blocks in downtown Petaluma. The Theater Square and Lofts are 2 stories of residential above retail with parking in an adjacent garage.



200'

DEVELOPER	Basin Street Properties
COMPLETED	2005
BUILDER	North Bay Construction
ACRES	
UNITS	56
DU/ACRE	
PRODUCT	1BR (800 sf), 2BR (1230 sf), 3 BR (1330 sf)
AFFORDABLE	
OPEN SPACE	
RETAIL	86,000 gsf as part of Theatre District development
OFFICE	27,000 gsf on site
OTHER	
PARKING SPACES	Adjacent private garage with reserved spaces
PARKING RATIO	1 / unit
TRANSIT	NA
GREEN	



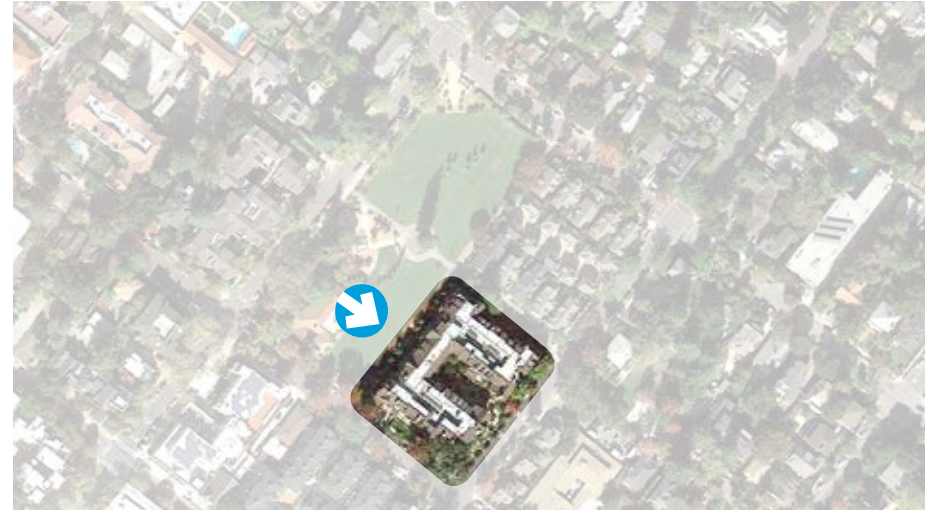
Corner entry with retail ground floor

THE WOODMARK, UNIVERSITY PARK

Bryant Street and Channing Avenue
PALO ALTO, CA

This project is one portion of the redevelopment of the former Palo Alto Medical Foundation site near University Avenue. The block combines residential, office, and open space uses. The Woodmark project has 36 for-sale, multi-family luxury condominiums. Covered porches and stoops face adjacent streets and the interior courtyard.

- Substantial setbacks with front gardens, stoops and covered porches
- Window openings and massing modulation on all sides
- Significant roof modulation, variation, and shaping
- Deep eaves, porches, roof projections, balconies and window reveals
- All underground parking



200'

DEVELOPER	SummerHill Homes
COMPLETED	2005
BUILDER	Vance Brown, Inc.
ACRES	~1.12
UNITS	46
DU/ACRE	41 average gross (average combined with The Channing)
PRODUCT	multi-family apartments (avg. 1,300-2,300 sf)
AFFORDABLE	-
OPEN SPACE	park, courtyard (2 acres, part of Heritage Park)
RETAIL	-
OFFICE	48,000 sf
OTHER	Part of University Park development with the Channing and Weatherly
PARKING SPACES	77 (below-grade garage)
PARKING RATIO	2.14:1
TRANSIT	-
GREEN	-



Apartments facing Heritage Park

THE CHANNING, UNIVERSITY PARK

Waverly Street and Channing Avenue
PALO ALTO, CA

This project is a second portion of the redevelopment of the former Palo Alto Medical Foundation site near University Avenue. The block combines residential, office, and open space. The Channing project has 10 for-sale, single-family luxury homes. Residences face the main street or the linear park adjacent to the Woodmark. An internal mews provides access to detached garages with additional units for studio apartments or guests. Covered porches and stoops face adjacent streets and the interior courtyard.

- Substantial setbacks with front gardens, side and rear gardens
- Window openings and massing modulation on all sides
- Significant roof modulation, variation, and shaping
- Deep eaves, porches, roof projections, balconies and window reveals

DEVELOPER	SummerHill Homes
COMPLETED	2005
BUILDER	Vance Brown, Inc.
ACRES	~4.1
UNITS	10
DU/ACRE	41 average gross (average combined with The Woodmark)
PRODUCT	single-family detached, studios over garage (2,700-3,400 SF)
AFFORDABLE	-
OPEN SPACE	park (2 acres, part of Heritage Park)
RETAIL	-
OFFICE	48,000 sf
OTHER	Part of University Park development with the Woodmark and Weatherly
PARKING SPACES	~30 (private garage)
PARKING RATIO	3:1
TRANSIT	-
GREEN	-



200'



Single-family facing Weverley Street

FORM-BASED CODE:

Typologies

Criteria

Samples

TYOLOGIES—RESIDENTIAL



1. SMALL-LOT SINGLE FAMILY



2. SINGLE-FAMILY TOWNHOUSE



3. MULTI-FAMILY TOWNHOUSE



4. MULTI-FAMILY APARTMENT



5. MULTI-FAMILY APARTMENT (PODIUM)



6. MULTI-FAMILY APARTMENT (w/ RETAIL)

TYOLOGIES—RETAIL and LIGHT INDUSTRIAL



7. LOCAL RETAIL



8. LIGHT INDUSTRIAL/PRODUCTION

1. SINGLE-FAMILY



MICRO LOT

DU/ACRE
LOT SIZE
PARKING

10-15 (NET)
1,400 - 3,500 SF
2:1

LOT COVERAGE
FRONT SETBACK
SIDE SETBACK
REAR SETBACK
MAX. HEIGHT

70% +
5' - 15'
1' - 5'
0' - 10'
35'



STANDARD SMALL LOT

DU/ACRE
LOT SIZE
PARKING

8-12 (NET)
3,500 - 5,000 SF
2:1

LOT COVERAGE
FRONT SETBACK
SIDE SETBACK
REAR SETBACK
MAX. HEIGHT

~60%
10' - 20'
5' - 10'
0' - 20'
35'

2. TOWNHOUSE



DU/ACRE
LOT SIZE
PARKING

12-35 (NET)

1,500+ SF

2:1

LOT COVERAGE
FRONT SETBACK
SIDE SETBACK
REAR SETBACK
MAX. HEIGHT

70-90%

5' - 10'

0'

0'

35'

3. MULTI-FAMILY TOWNHOUSE



DU/ACRE
LOT SIZE
PARKING

17-35 (NET)

N/A

2:1

LOT COVERAGE
FRONT SETBACK
SIDE SETBACK
REAR SETBACK
MAX. HEIGHT

70-90%

5' - 10'

0'

N/A

35'

4. MULTI-FAMILY APARTMENT



DU/ACRE
LOT SIZE
PARKING

25-75 (NET)

N/A

1:1 - 2:1

LOT COVERAGE
FRONT SETBACK
SIDE SETBACK
REAR SETBACK
MAX. HEIGHT

80-95%

5' - 10'

0' - 5'

N/A

55'

5. MULTI-FAMILY APARTMENT (PODIUM)



DU/ACRE
LOT SIZE
PARKING

25-75 (NET)

N/A

1:1 - 2:1

LOT COVERAGE
FRONT SETBACK
SIDE SETBACK
REAR SETBACK
MAX. HEIGHT

90-100%

0' - 5'

0' - 5'

N/A

55'

6. MULTI-FAMILY APARTMENT (W/ RETAIL)



DU/ACRE
LOT SIZE
PARKING

25-75 (NET)

N/A

1:1 - 2:1

LOT COVERAGE
FRONT SETBACK
SIDE SETBACK
REAR SETBACK
MAX. HEIGHT

95-100%

0'

0'

N/A

55'

7. LOCAL RETAIL



AREA
LOT SIZE
PARKING

1-3,000 SF

N/A

3:1000 SF

LOT COVERAGE
FRONT SETBACK
SIDE SETBACK
REAR SETBACK
MAX. HEIGHT

N/A

0' - 5'

N/A

N/A

ground floor — 1 tall level

8. LIGHT INDUSTRIAL/PRODUCTION



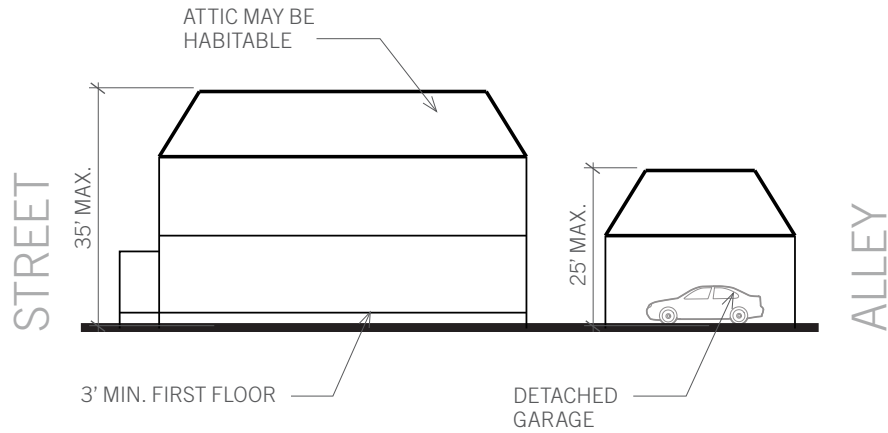
AREA
LOT SIZE
PARKING

15-60K SF
1-2 ACRES
1:1,000 SF
(1 : 2,000 SF after 20,000 SF)

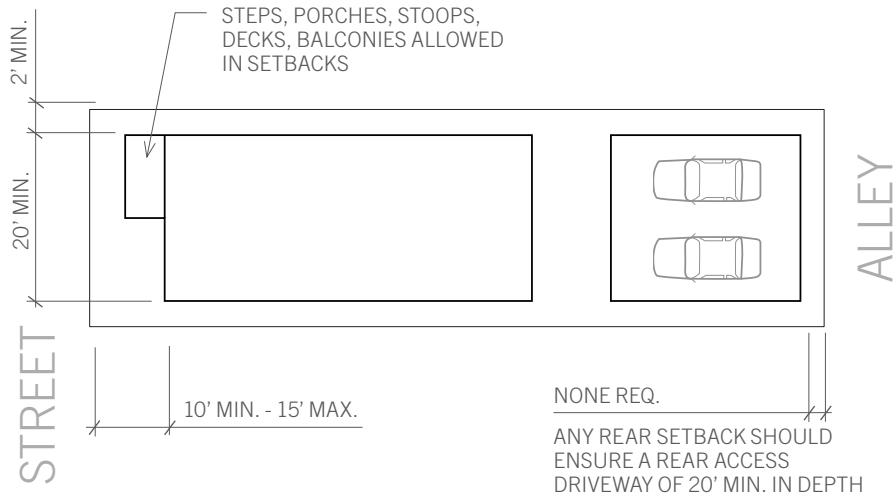
LOT COVERAGE
FRONT SETBACK
SIDE SETBACK
REAR SETBACK
MAX. HEIGHT

25-80%
N/A
N/A
N/A
40' (1 tall warehouse level)

SINGLE FAMILY HOUSE (MICRO)



Section Diagram



Plan Diagram

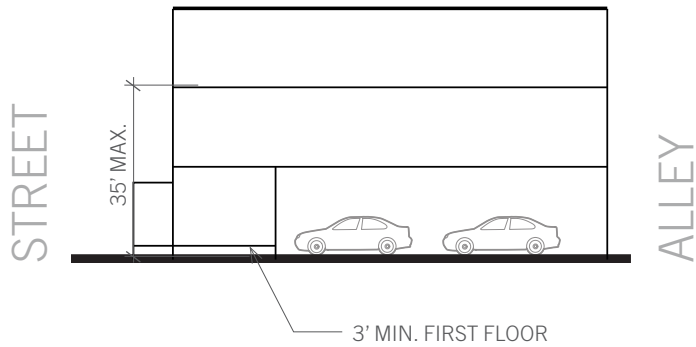
LOT OCCUPATION	Lot Area:	1,400 sf minimum - 3,500 sf maximum
	Lot Coverage:	65% maximum
SETBACKS	Front:	10 feet minimum - 15 maximum
	Side:	2 feet minimum
	Rear:	no required setback
FRONTAGE		20' minimum
HEIGHT	Principal Building:	35 feet maximum
	Out Building:	25 feet maximum in case of detached garage
PARKING	Spaces:	minimum 1/unit - maximum 2/ unit
	Area:	22' x 24' maximum
	Type/Access:	Rear access only. Side yard access permitted on corner
USES		Residential
BLOCKS		Any but 14, 18, 22, 24, 42, 43, 44, 48



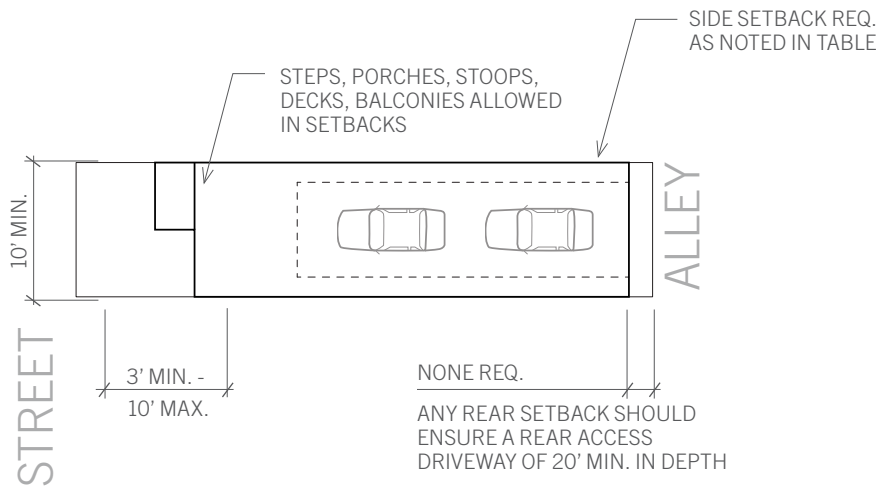
Railroad Avenue, Promenade District, Hercules

TOWNHOUSE

draft sample



Section Diagram



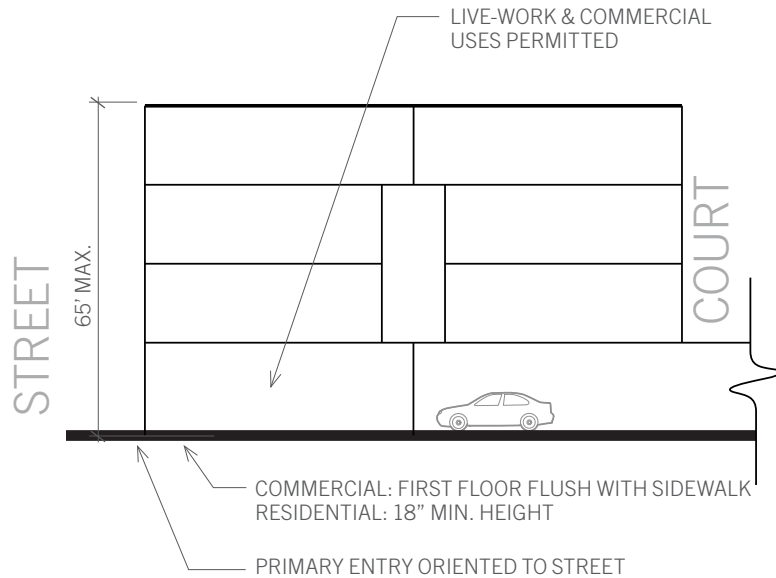
Plan Diagram

LOT OCCUPATION	Lot Area:	680 sf minimum - 1,400 sf maximum
	Lot Coverage:	95% maximum
SETBACKS	Front:	3 feet minimum - 10 feet maximum
	Side:	None required except 3 feet minimum for corner lot.
	Rear:	None required
FRONTAGE		10 feet minimum
HEIGHT	Principal Building:	35 feet maximum
	Out Building:	n/a
PARKING	Spaces:	minimum 1/unit - maximum 2/unit
	Area:	22'x24' maximum (parallel). 12'x40' (maximum tandem)
	Type/Access:	Rear access only. Side yard access permitted on corner
USES		Residential. First floor units may have Retail or Live-Work.
BLOCKS		Any but 14, 18, 22, 24, 42, 43, 44, 48

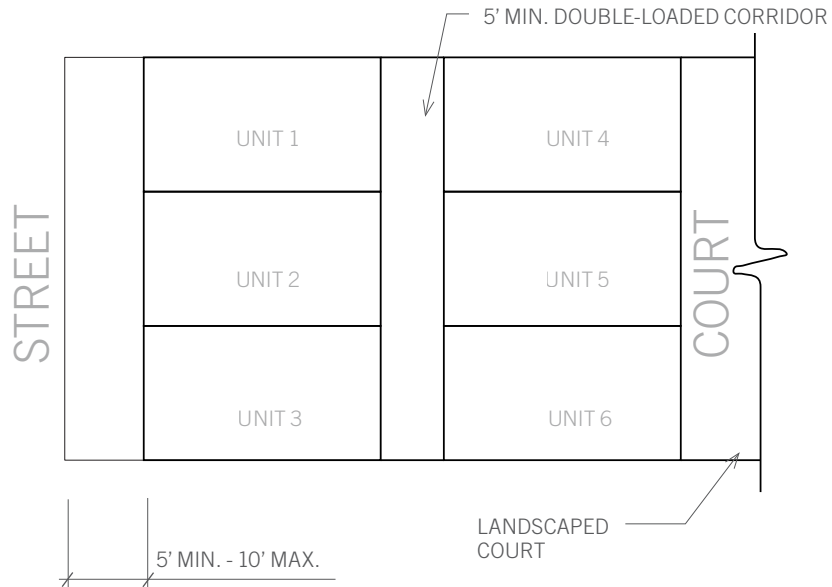


Zephyr Gate, Oakland

MULTI-FAMILY



Section Diagram



Plan Diagram

LOT OCCUPATION	Lot Area:	1.75 acres maximum
	Lot Coverage:	
SETBACKS	Front:	5 feet minimum - 10 feet maximum
	Side:	5 feet minimum - 10 feet maximum
	Rear:	5 feet minimum - 10 feet maximum
FRONTAGE		n/a
HEIGHT	Principal Building:	55 feet maximum
	Out Building:	n/a
PARKING	Spaces:	minimum 1/unit - maximum 2/unit
	Area:	n/a
	Type/Access:	Front, side, or rear access not to exceed 20 feet width.
USES		Residential. First floor units may have Retail or Live-Work.
BLOCKS		Any but 14, 18, 22, 24, 42, 43, 44, 48

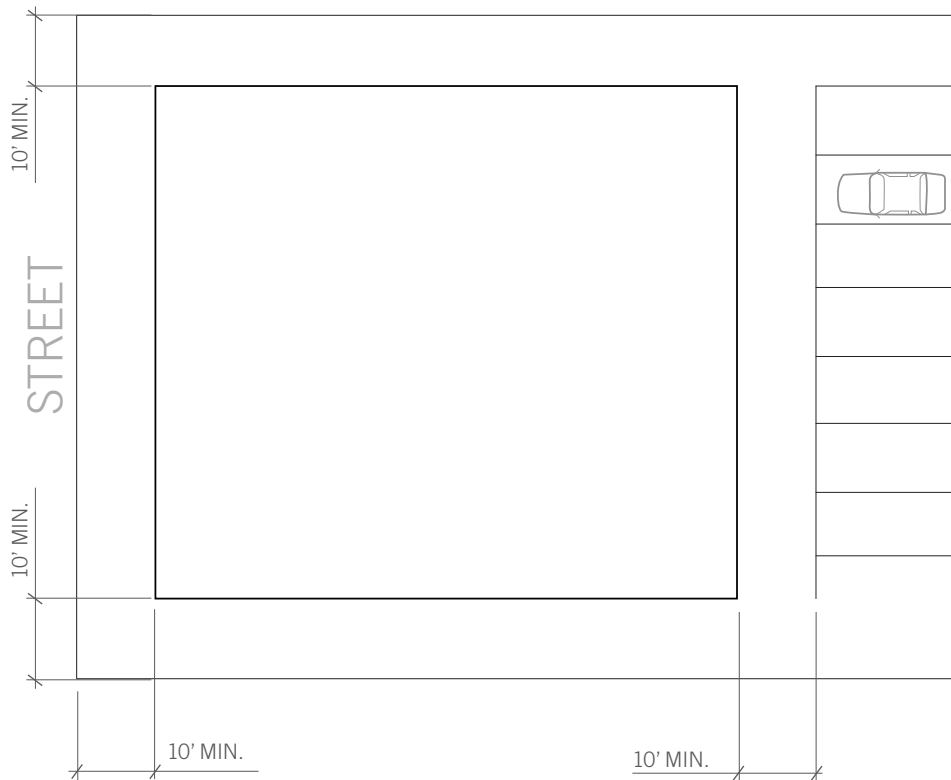


Vue 46, Emeryville

LIGHT INDUSTRIAL/PRODUCTION



Section Diagram



Plan Diagram

LOT OCCUPATION	Lot Area:	1 acre minimum - 3 acre maximum
	Lot Coverage:	85% maximum
SETBACKS	Front:	10 feet minimum
	Side:	10 feet minimum
	Rear:	10 feet minimum
FRONTAGE		N/A
HEIGHT	Principal Building:	40 feet maximum (incl. any equipment on roof)
	Out Building:	N/A
PARKING	Spaces:	1/1000 for first 20,000 GSF. 1/2000 above 20,000 GSF.
	Area:	N/A
	Type/Access:	Front, side, or rear access not to exceed 20 feet width
USES		Light Industrial. Permitted: Accessory Commercial, Retail
BLOCKS		43, 44



Tomales Bay Foods, Point Reyes Station

DESIGN GUIDELINES:

DESIGN GUIDELINES

01. Introduction

- 1.1 Intent
- 1.2 Project Overview
- 1.3 Regulatory Framework
- 1.4 Approvals Process
- 1.5 Site Setting
- 1.6 Development Plan
- 1.7 Design Objectives
- 1.8 User Guide

02. Design Frameworks

- 2.1 Role of design frameworks
- 2.2 Urban design concept & objectives
- 2.3 Public realm plan
- 2.4 Development Zones
- 2.5 Streets and build-to lines

03. Form-Based Code

- 3.1 Small-lot Single Family
- 3.2 Courtyard Single Family
- 3.3 Townhouses
- 3.4 Multi-family Townhouses

- 3.5 Multi-family Apartments (surface)
- 3.6 Multi-family Apartments (tuck-under)
- 3.7 Multi-family Apartments (podium)
- 3.8 Multi-family Apartments with Retail
- 3.9 Local Retail
- 3.10 Hotel
- 3.11 Office
- 3.12 Light Industrial
- 3.13 Pavilions

04. Design Standards and Guidelines

- 4.1 Residential Guidelines
- 4.2 Retail Guidelines
- 4.3 Signage Guidelines

05. Public Realm

- 5.1 Streets
- 5.2 Open Spaces

06. Sustainability Guidelines

- 6.1 Goals
- 6.2 Guidelines

04. Design Standards and Guidelines

RESIDENTIAL

ARCHITECTURAL CHARACTER

Architectural Stylebook

FORM + ORIENTATION

Proportion

Siting

Scale

Orientation

Corners

Main façade

Building walls

FRONTAGE + SETBACKS

Street Variety

Entries

Stoops

Porches

Projections

ARCHITECTURAL DETAILS

Windows

Doors

Roofs (eaves, dormers)

Balconies

Columns and railings

FAÇADE COMPOSITION

MATERIALS

Local precedents

Material detailing

PARKING + SERVICE

Access / Orientation

Garage doors

Alleys / Service

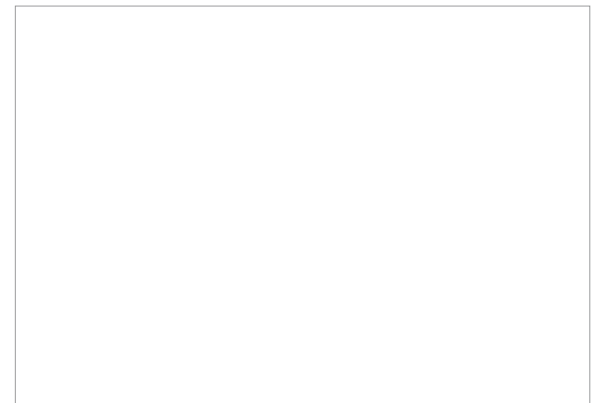
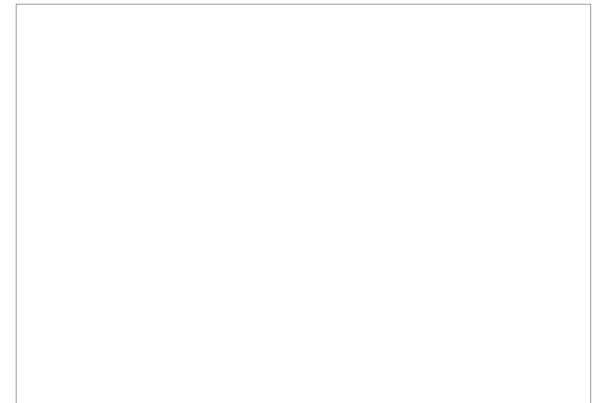
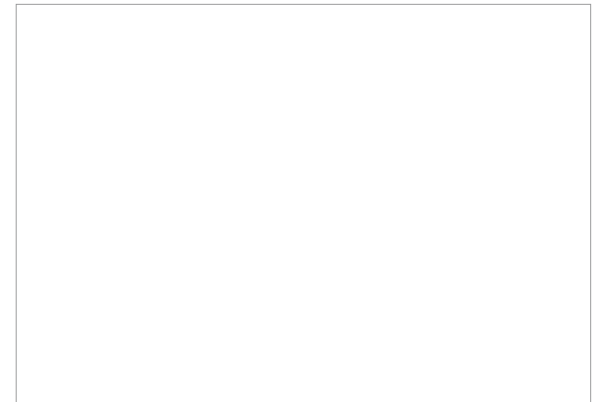
PRIVATE LANDSCAPE

Common open spaces

Landscape elements

Fences, walls, trellis

Lighting



04. Design Standards and Guidelines

RETAIL

STREET FRONTAGE

ENTRIES

WINDOWS AND TRANSPARENCY

AWNINGS AND MARQUEES

PROJECTIONS

MATERIALS

LIGHTING

SERVICE AND ACCESS

PARKING

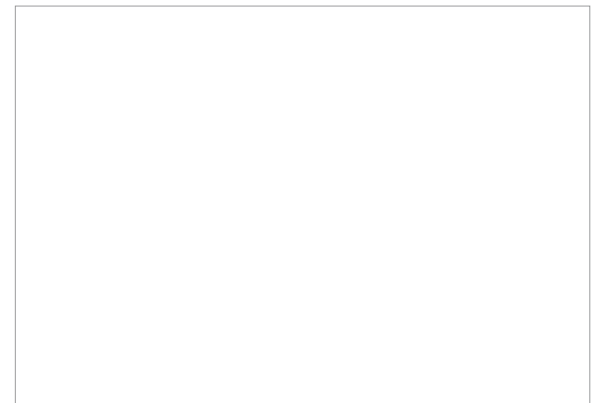
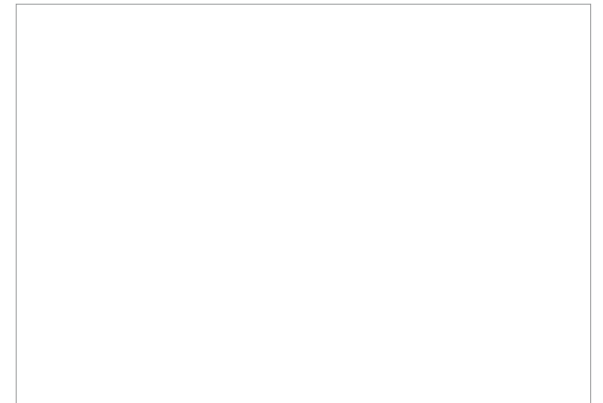
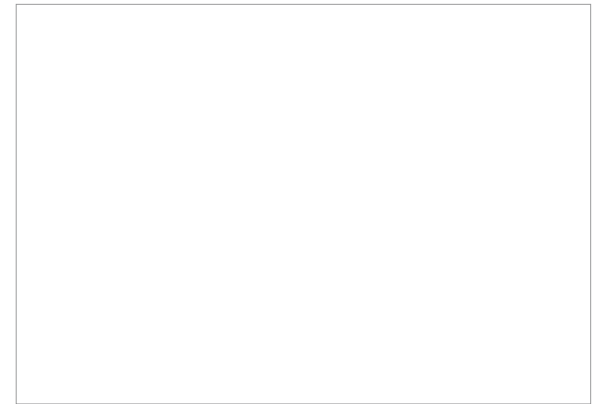
SIGNAGE

TYPES

PLACEMENT

SIZE

MATERIALS



NEXT STEPS...