



NE Martin Luther King Jr. Boulevard
RH Zoning Study
Portland, Oregon
March 12, 2008 Final Draft

ACKNOWLEDGEMENTS

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The Soul of Portland



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This report was commissioned by the Portland Development Commission, with review by City of Portland Bureau of Planning. The report is by Emmons Architects, Portland, Oregon

See glossary of zoning terms on page 47



Introduction

Many sites along Martin Luther King Jr. Boulevard remain vacant or underutilized. Many of them are zoned High Density Residential (RH). This report seeks to determine constraints and challenges for these RH sites and to provide potential solutions that will help expedite redevelopment.

It is a goal of this report to also determine further actions that the City can take (if any) to help stimulate development on RH sites on MLK and to serve as a guide for land owners and developers when considering redevelopment.

Three sites on MLK of sizes and locations that typify properties in the RH zone are studied in detail to ascertain potential recommended development options. Site 1 is a 4,500 sf site that is mid-block, Site 2 is an 8,000 sf block on a corner and Site 3 is a 21,205 sf through block site.

SUMMARY

Many RH sites on MLK can be developed in the near future if owners are willing, and there is some public assistance for some projects in the next few years to fill gaps. The goal would be to gain momentum with good housing projects that will build more attractive market conditions on MLK. At a certain point in the future, it would be the goal to have projects developed with private funding only and with more density on sites.

SITE AREA. 10,000 + square foot (sf) lots are easier to develop due to better options for access, parking and unit layouts, but 5000 sf sites are still possible to develop. Blocks in the 5,000 sf range (1/8 block) present unique challenges for development. Ideally, the preference for small sites would be to combine them to achieve at least a 10,000 sf site. Larger sites provide more flexibility for development

DENSITY. Less is more. From these specific site studies, less density improves economic viability at this time, given land values and market conditions on MLK. See additional explanation on page 7.

PROJECT COST. Less project cost stemming from smaller projects improves chances for financing for many types of development teams.

PROFITABILITY. The bank consultant for this project has recommended that a 15% profit margin be achieved to make projects potentially financeable.

The table below contains primary data for two options for each site. Scheme ('Sch') 1 represents the minimum density for RH sites within the Albina Community Plan District. Scheme 2 represents minimum density for RH sites that are not in the Albina Community Plan District.

	Site 1 - 4500 sf		Site 2 - 8000 sf		Site 3 - 21,200 sf	
	Sch 1 - 2units	Sch 2 - 5units	Sch 1 - 4units	Sch 2 - 8units	Sch 1 - 11units	Sch 2 - 21units
Construction cost	559,453	946,696	1,319,551	1,422,331	3,064,156	4,075,214
Soft cost	219,287	323,939	579,030	623,671	1,237,803	1,758,185
Land	135,000	135,000	240,000	240,000	636,150	636,150
Land value/sf	30	30	30	30	30	30
Project cost	913,740	1,405,635	2,138,581	2,286,002	4,938,108	6,469,549
Projected sales price	947,000	1,129,000	2,272,000	2,172,000	4,906,000	6,082,000
Profit	33,260	-276,635	133,419	-114,002	-32,108	-387,549
Profit	4%	-20%	6%	-5%	-1%	-6%
Required owner's equity	83,918	142,004	197,933	213,350	459,623	611,282
Gap to achieve desired profit %	90,000		160,000		670,000	
Desired profit %	15%		15%		15%	

All numbers are dollars unless noted otherwise

RECOMMENDATIONS TO EXPEDITE DEVELOPMENT ON RH ZONED SITES ON MARTIN LUTHER KING, JR. BOULEVARD.

**Summary,
Recommendations**

1. MAINTAIN ALBINA COMMUNITY PLAN DISTRICT DENSITY REQUIREMENTS.

The Albina Community Plan minimum density requirements for the High Density Residential (RH) zone should be maintained for the foreseeable future to increase the potential for development on the sites zoned RH along the MLK corridor. The Albina Community Plan results in a minimum residential density reduction of 50% less than the typical minimum residential density in the RH zone and significantly reduces project cost. In these cases, at this time, reduced project cost yields higher potential for development. Reduced project cost is because the reduced density allows for a lower construction (hard) cost, [higher efficiency townhouses, rather than multi-story projects that will have higher construction cost (due to more concrete, etc.) and lower efficiencies (due to the need for common stairs, corridors, lobbies, and elevators)]. Reduced density also allows for a lower soft cost by reduced System Development Charges (SDC's), architectural/engineering fees, and other soft costs.

2. HELP RH PROPERTY OWNERS TEAM WITH OTHERS IF NECESSARY TO FORM DEVELOPMENT TEAMS THAT COMMERCIAL BANKS WILL APPROVE FOR FINANCING.

Banks will look for the following characteristics:

- Good net worth
- Liquidity
- Outside sources of revenue

15% of the construction cost would be required by a bank for Owner's Equity. Ownership of Land could meet some, or all, of this requirement.

It would be best for property owners lacking development experience, and/or not having sufficient capital to invest in projects, to work with banks and public agencies to look at options for partnering. Developers can be brought on for larger projects, smaller projects could be handled with a knowledgeable and experienced owner/architect team.

3. FILL GAPS TO ACHIEVE DESIRED PROFIT % UNTIL SUFFICIENT MOMENTUM IS BUILT ON RH SITES TO .

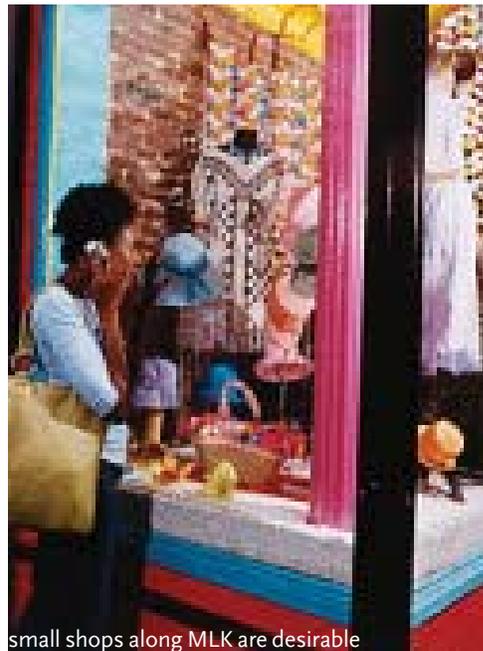
Gaps are estimated and will need to be confirmed for specific projects. Gaps will also need to be amended if project costs are impacted by public agency requirements.



outdoor spaces at grade are optimal



carports are a possibility



small shops along MLK are desirable

Site Design Criteria Primary

PLANNING CRITERIA

1. Maintain housing in the RH zone with the minimum densities mandated by the Zoning Code (required)
2. Incorporate space for retail or work on MLK to help activate MLK (desirable, not required). Up to 35 percent of the total building's floor area may be developed for commercial uses on RH sites in the Albina Community Plan District (Portland Zoning Code 33.505.100)

CONSTRUCTION COST EFFICIENCY

1. Surface or garage parking in lieu of underground parking
2. Wood frame construction over concrete slab on grade foundation. Avoid podium parking if possible
3. Maximize efficiency by avoiding elevators, common stairs, lobbies, common corridors, etc.
4. Minimize fire sprinklers by having live/work units only on MLK

MAXIMIZING MARKETABILITY OF UNITS

1. Outdoor space with living area adjacent
2. Parking at 1:1 ratio with garages or carports
3. Impact of MLK traffic noise minimized in units. Living rooms and master bedrooms do not face MLK if possible

DENSITY is minimum number of residential units allowable by code (Portland Zoning Code Title 33.120.205) to reduce overall project cost and to minimize on-site parking. As all sites are in the Albina Community Plan District, a density of 1 unit per 2000 SF of site area is assumed (33.505.200).

SETBACKS required by the Portland Zoning Code are not believed by our firm to be a primary determinant in project feasibility.

Front yard: 0'

Side and rear yard: 5 - 14'

5 feet for up to 1,000 sf building plane, 6 feet for 1,000 - 1,300 sf.

See page 49 for further information.

DRIVEWAYS need to be 18' wide off MLK and may be 12 feet off low volume side streets if there are 4 units or less on the property. (this will need to be confirmed with PDOT for specific projects.)

CONSTRUCTION TYPE is wood frame, preferably designed under the residential code, for affordability. (continued on page to the right)

OWNERSHIP. For sale townhouses are assumed with fee simple lot ownership and with common driveway areas minimized because:

1. **NO DEVELOPER ROLE AFTER CONSTRUCTION.** Once the project is complete and sold, the developer/owner will not have on-going management of the property.
2. **PROFIT AT COMPLETION.** The developer/owner will be able to capture all of the profits from a project at the earliest time.
3. **CONDOMINIUMS PREFERABLE IN THIS CASE.** Despite the current market conditions that are trending to more rental apartments and less condominium projects, it is believed that, given the specific conditions of these sites and their moderate sizes, it is still preferable to assume for sale units.

LIVE/WORK Structures with Live/Work units or Commercial retail spaces, are required to be built to International Building Code - Commercial Code (IBC) rather than Residential Code. The IBC requires fire sprinkler systems and other features that increase cost. Therefore, units that do front MLK are favored to be regular residential units - not Live/Work, in separate structures that can be built to Residential Code. This siting strategy is designed to reduce construction cost by maximizing units that can be built under the International Residential Code.

Site Design Criteria Secondary

GARAGES VS. CARPORT VS. SURFACE PARKING Garages (especially with direct access to units) are preferable for market conditions. Carports can allow in some cases for less area for vehicles and may be more economical than garages. Surface parking is the most economical

MARTIN LUTHER KING, JR BOULEVARD is a high volume traffic feeder street and has much traffic noise. Where possible, living rooms, outdoor spaces and master bedrooms should face away from the street.

OUTDOOR SPACE on grade, with a living space adjacent to it, is optimal.

PARKING ratios are assumed to be 1 vehicle per residential unit (1:1), for solely residential and live work units.

TOWNHOUSES are preferred because:

1. **EFFICIENCY.** They avoid 'load factors' for common corridors, stairs, etc.. All interior space is saleable and attributable to an individual unit.
2. **ECONOMICAL CONSTRUCTION.** Townhouses allow for wood frame construction (the most economical) for 'for sale' units. Most developers would agree that it is not advisable to have wood frame condominium ('for sale') multi-story flats in the current market, in this location.
3. **LAND OWNERSHIP.** They result in 'fee simple' ownership of land, minimizing legal costs for condominium preparation, government fees, and improving marketability of properties - people prefer to own the land if they buy a unit.
4. **UNIT PRIVACY.** Buyers would prefer to live in units without having people living above or below them if possible.
5. **PRIVATE PARKING.** Townhouses allows for owner's vehicles to be directly next to the unit in a private space.

UNIT MIX of studio, one, two, and three bedroom units is desirable, but not practical for small to moderately sized townhouse developments.

UNITS SIZE for townhouses is two - three bedrooms, approximately 1500 SF.



Philadelphia Community Baptist Church



Typical Site 3 - 21,205 SF - through block



Typical Site 2 - 8000 SF - corner site



Typical Site 1 - 4500 SF - mid block



Irvington Village Senior Housing



Terroir Restaurant

Site Summary

Three sites, with sizes and locations that typify RH zoned properties on MLK, are studied in detail to help determine potential recommended development options. These sites were chosen for their varying relationship to MLK and side streets, due to the large impact of vehicle access on site developability.

Site 1 is a 4,500 sf mid-block site, Site 2 is an 8,000 sf corner site and Site 3 is a 21,205 sf through block site.

Two schemes are prepared for each site to demonstrate scenarios that are, or are close to, being economically feasible projects in today's market.





View of site from MLK looking East

Site 1 - 4,500 SF location, characteristics

Site 1 is a mid block 4,500 SF site located at 4222 NE Martin Luther King, Jr. Boulevard, just south of NE Skidmore Street. It is currently an auto repair shop.

ZONING/DISTRICT/URA The site is zoned RHd and required to go through either Design Review (Type II review), or comply with Community Design Standards (33.505.240; table 505-1: less than 20,000 sf new floor area in RH zone can use Community Design Standards). It is in the Albina Community Plan District and the Interstate Urban Renewal Area.

DENSITY

Two units are the minimum required per the Albina Community Plan (1 unit for every 2,000 sf) $4,500 \text{ sf} / 2,000 \text{ sf} = 2.25$ (rounded down until .50 to 2 units).

Five units would be required outside of the Albina Community Plan District (1 unit for every 1,000 sf): $4,500 \text{ sf} / 1,000 \text{ sf} = 4.5$ (rounded up at .50 to 5 units).

VEHICLE ACCESS An 18 foot driveway on MLK is required per PDOT due to traffic volume. Side street access is not possible.

SITE 1 PROJECT COST SUMMARY

SCHEME 1 - 2 UNITS		Unit A -live/work (per unit)			Unit B - townhouse (per unit)			Total	
Quantity		1			1			2	
		Area	cost/sf	\$	Area	cost/sf	\$	Area	\$
Unit GSF		2,008 sf	\$125	\$251,000	1,706 sf	\$125	\$213,250	3714 sf	\$464,250
Circulation		0	n/a	-	0	n/a	-	0	-
Podium Parking		0	n/a	-	0	n/a	-	0	-
Site		1,431	12	17,172	1,431	12	17,172	2862	34,344
Off site		500	10	5,000	500	10	5,000	1000	10,000
Construction Contingency	10%			27,317			23,542		50,859
Total Construction Cost				300,489			258,964		559,453
Soft Costs	39%			117,782			101,505		219,287
Total Project Cost				418,271			360,469		778,740
Land *		\$30 /sf		67,500			67,500		135,000
Project Cost with Land				\$485,771			\$427,969		\$913,740

SCHEME 2 - 5 UNITS		Unit A -live/work (per unit)			Unit B - flat (per unit)			Total	
Quantity		1			4			5	
		Area	cost/sf	\$	Area	cost/sf	\$	Area	sf
Unit GSF		1,369 sf	\$125	\$171,125	831 sf	\$125	\$103,875	4,693	\$586,625
Circulation		0	n/a	-	224	90	20,160	896	80,640
Podium Parking		0	n/a	-	532	80	42,560	2,128	170,240
Site		369	12	4,426	369	12	4,426	1,844	22,128
Off site		20	10	200	20	10	200	100	1,000
Construction Contingency	10%			17,575			17,122		86,063
Total Construction Cost				193,326			188,343		946,696
Soft Costs	34%			66,152			64,447		323,939
Total Project Cost				259,477			252,789		1,270,635
Land *		\$30 /sf		27,000			27,000		135,000
Project Cost with Land				\$286,477			\$279,789		\$1,405,635

*based on PDC recommendation of \$30/sf

PROJECT SIZE	Scheme 1 - 2 units		Scheme 2 - 5 units	
Total building	3714 sf		4693 sf	
Project cost with land	\$913,740		\$1,405,635	
UNITS				
Number of units	2		5	
Average unit size	1857 sf		939 sf	
Type of unit	Townhouse		Flat	
Price of unit A-live/work	\$255 /sf	\$512,000	\$255 /sf	\$349,000
Price of unit B-live	\$255 /sf	\$435,000	\$235 /sf	\$195,000
FINANCIAL RESULTS				
Project value	\$947,000		\$1,129,000	
Profit	\$33,260		-\$276,635	
Profit %	4%		-20%	
OWNER'S EQUITY				
Total required	15%	\$83,918	\$142,004	
GAP TO REACH 15% PROFIT PERCENTAGE				
Total gap	\$ 90,000	11% ¹		
Adjusted profit %	15%			

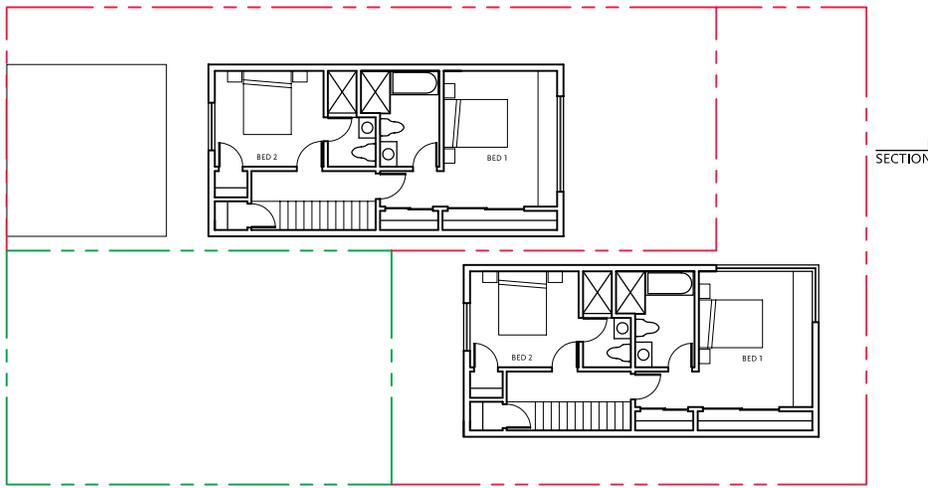
Site 1 - 4,500 SF
pro forma,
selection criteria

SCHEME 1 was selected because it represents the minimum density allowable in the RH zone in the Albina Community Plan District, and represents a lower project cost and higher potential profit. Units are live/work and townhouse, resulting in a 100% efficiency factor, and are the least costly to build per square foot. Parking is in a carport or garage. All units have back yards. Profit without public subsidy is 4%.

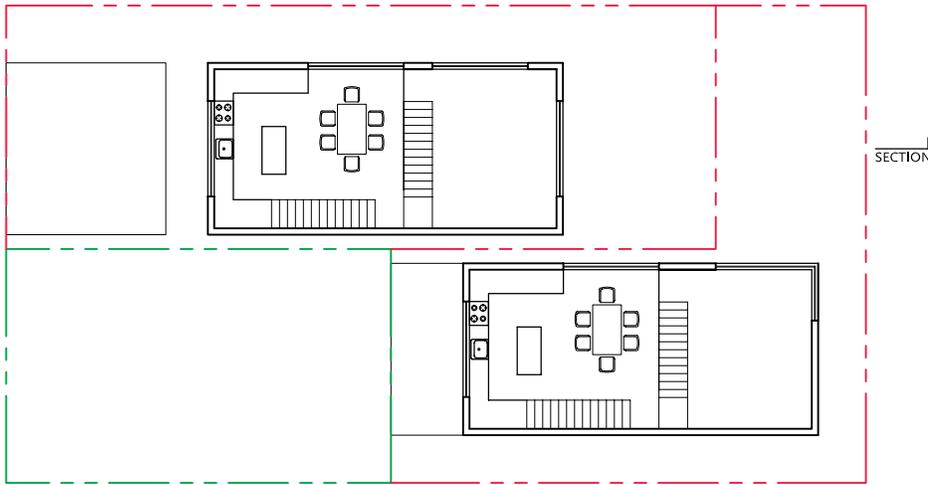
SCHEME 2 was selected because it represents the minimum density allowable in the RH zone if the Albina Community Plan District is not in effect. It still has a high efficiency factor due to avoiding the need for an elevator and common corridors. Units are flats above podium parking and a single live/work unit on MLK and made out of wood frame for this analysis. Profit without public subsidy is -20% primarily due to more expensive construction and parking challenges.

OTHER SCHEMES with more density would require increased podium parking (assuming a 1:1 parking ratio). In addition, more density would result in less efficiency. For these reasons, profit margins will further decrease with denser schemes, and therefore are not included in this study.

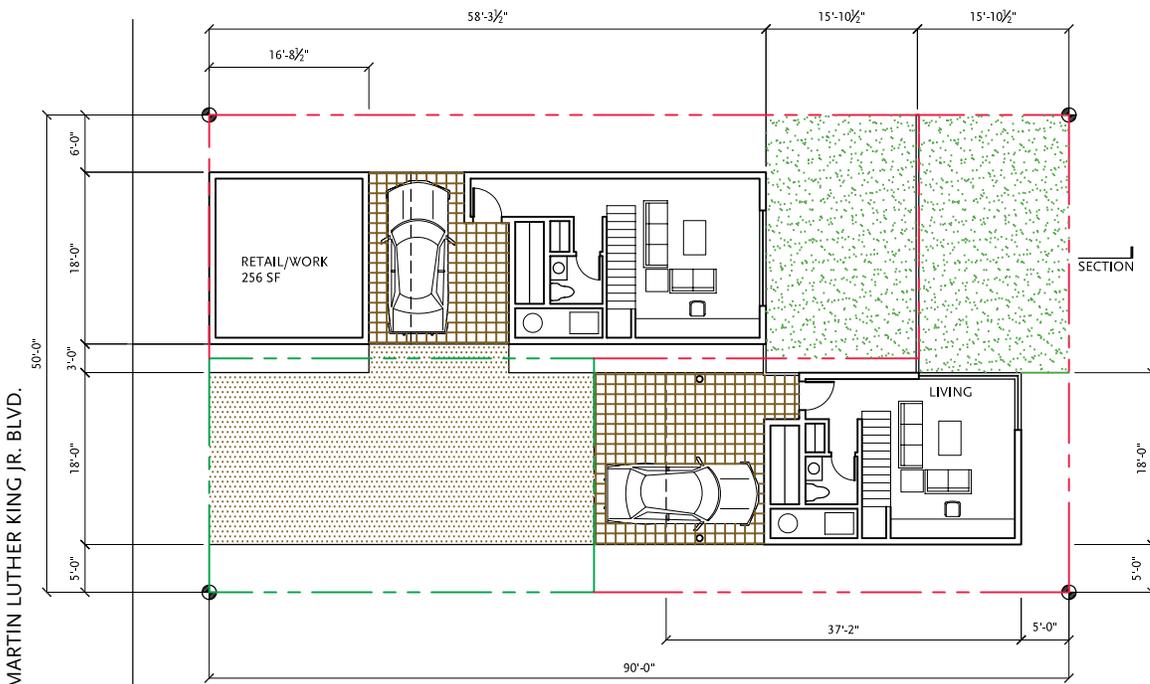
1. Additional profit percentage achieved by investing gap amount into project.



FLOOR 3

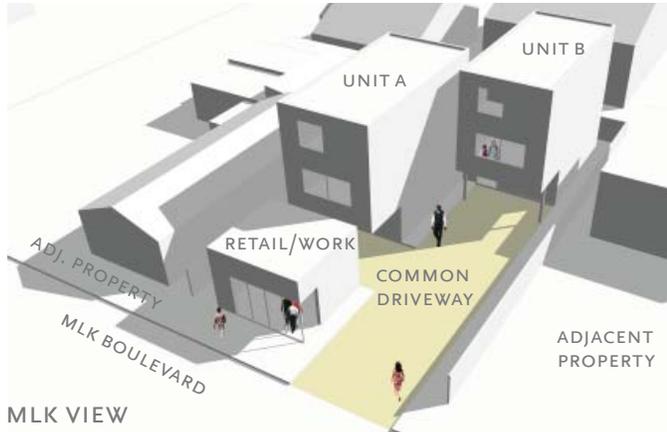


FLOOR 2



FLOOR 1

MARTIN LUTHER KING JR. BLVD.



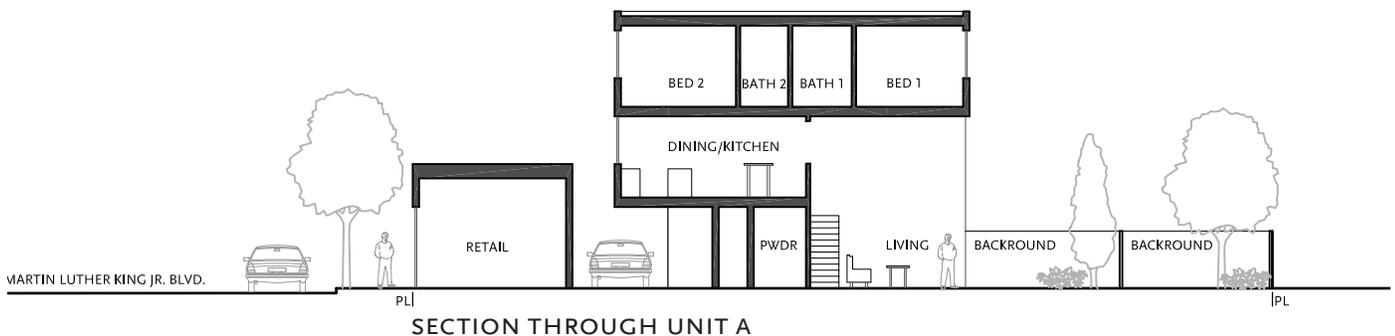
Site 1 - 4,500 SF
Scheme 1

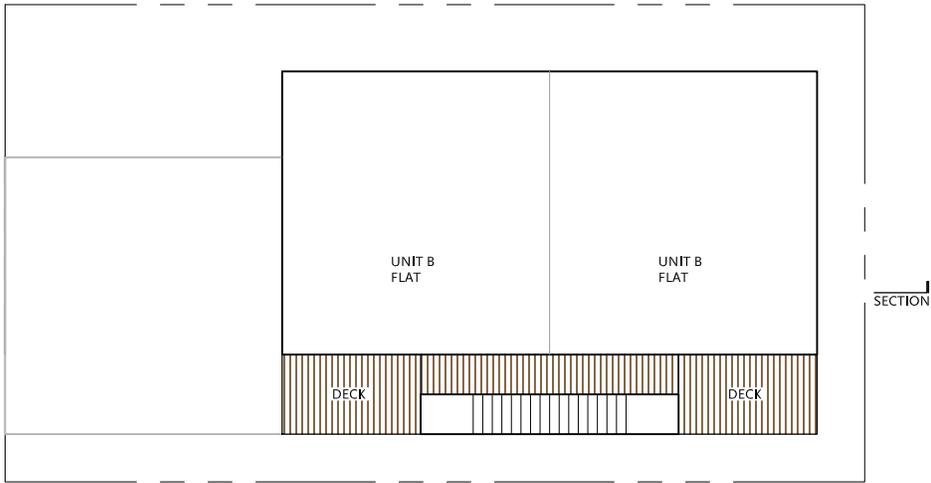
Scheme 1 has 2 units (per Albina Community Plan minimum density). Townhouses are featured to minimize common stairs and elevators, minimize parking, and allow wood frame construction in ‘for sale’ units. Parking (1 car per unit) is in carports (or could be garages) and the driveway area is minimized to maximize back yards for the units.

VEHICLE access is off MLK.

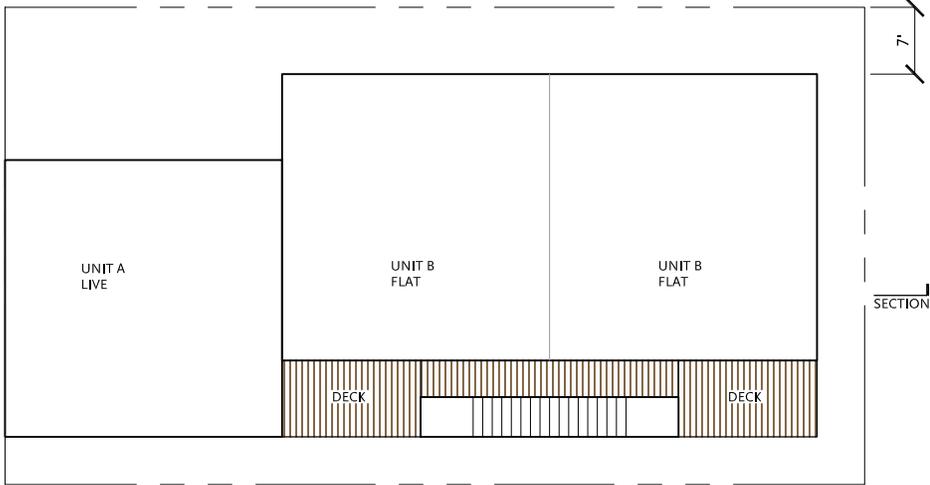
RETAIL on MLK is achieved by having one live/work unit.

OWNERSHIP This could be a for sale or rental project. For this study, townhouse units would be for sale and the land would be ‘fee simple’ - as much of the property split into two lots and owned by the individual house purchasers. The common driveway would be owned by a 2 party condominium association.

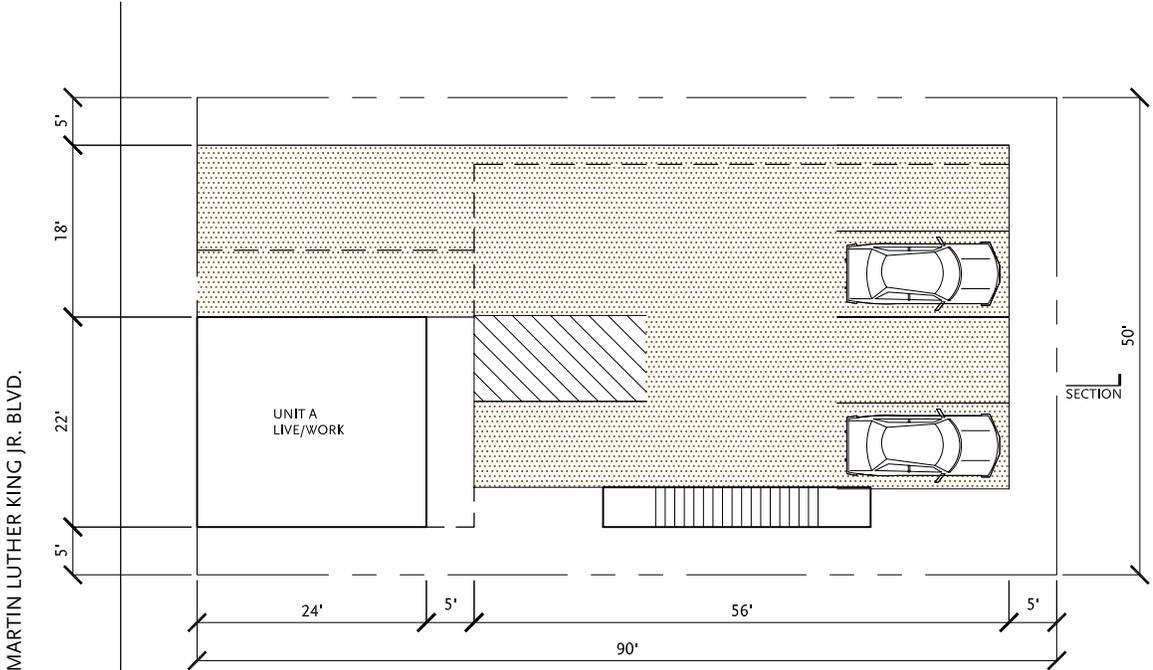




FLOOR 3



FLOOR 2



FLOOR 1

MARTIN LUTHER KING JR. BLVD.

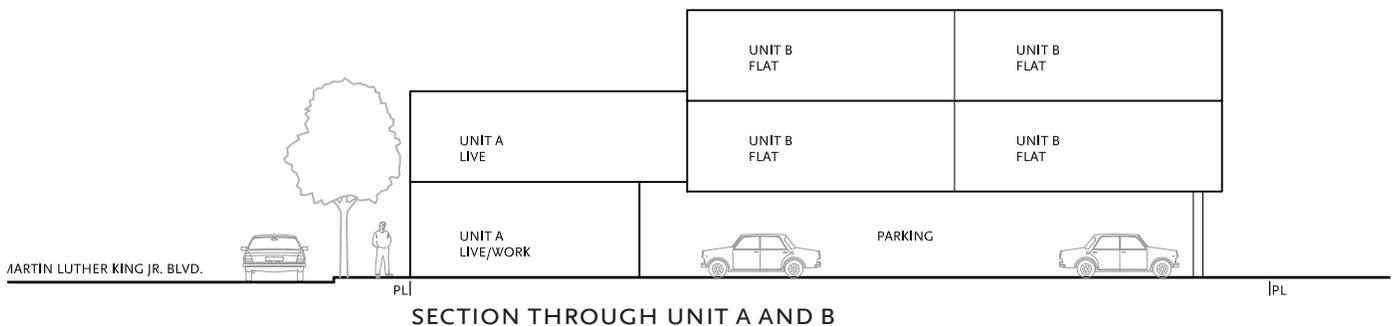
Site 1 - 4,500 SF Scheme 2

Scheme 2 has 5 units (per RH zone minimum density if not within the Albina Community Plan District). Units are flats above podium parking and a single live/work unit on MLK.

VEHICLE access is off MLK.

RETAIL on MLK is accommodated by one live/work unit.

OWNERSHIP This could be a rental or a 'for sale' project. For this study, units would be for sale condominiums.







Site 2 - 8,000 SF
location,
characteristics

Site 2 is an 8,000 SF corner site located at 3225 NE Martin Luther King, Jr. Boulevard, just south of NE Cook Street. It is currently vacant.

ZONING/DISTRICT/URA The site is zoned RHd and required to go through either Design Review (Type II review), or comply with Community Design Standards (33.505.240; table 505-1: less than 20,000 sf new floor area in RH zone can use Community Design Standards). It is in the Albina Community Plan District and the Interstate Urban Renewal Area.

DENSITY

Four units are the minimum required per the Albina Community Plan (1 unit for every 2,000 sf) $8,000\text{ sf}/2,000\text{ sf} = 4$.

Eight units would be required outside of the Albina Community Plan District (1 unit for every 1,000 sf): $8,000\text{ sf}/1,000\text{ sf} = 8$.

VEHICLE ACCESS A 12 foot driveway on Cook for 4 units (Scheme 1) required per PDOT due to driveway being on side street and lower side street traffic volume. An 18 foot driveway for 8 units (Scheme 2). Access off MLK not advisable and probably not permissible.

SITE 2 PROJECT COST SUMMARY

SCHEME 1 - 4 UNITS

Quantity	Unit A -live/work (per unit)			Unit B (per unit)			Total	
	4			0			4	
	Area	cost/sf	\$	Area	cost/sf	\$	Area	\$
Unit GSF	2,226 sf	\$125	\$278,250				8,904 sf	\$1,113,000
Circulation	0	n/a	-				0	-
Podium Parking	0	n/a	-				0	-
Site	1,054	12	12,648				4,216	50,592
Off site	900	10	9,000				360	36,000
Construction Contingency 10%			29,990					119,959
Total Construction Cost			329,888					1,319,551
Soft Costs 44%			144,758					579,030
Total Project Cost			474,645					1,898,581
Land *	\$30 /sf		60,000					240,000
Project Cost with Land			\$534,645					\$2,138,581

SCHEME 2 - 8 UNITS

Quantity	Unit A -live/work (per unit)			Unit B - flat (per unit)			Total	
	4			4			8	
	Area	cost/sf	\$	Area	cost/sf	\$	Area	\$
Unit GSF	1,408 sf	\$125	\$176,000	781 sf	\$125	\$97,625	8,756 sf	\$1,094,500
Circulation	0	n/a	0	382	90	34,380	1,528	137,520
Podium Parking	0	n/a	0	0	80	-	0	0
Site	598	12	7,176	598	12	7,176	4,784	57,408
Off site	45	10	450	45	10	450	360	3,600
Construction Contingency 10%			18,363			13,963		129,303
Total Construction Cost			201,989			153,594		1,422,331
Soft Costs 44%			88,569			67,349		623,671
Total Project Cost			290,558			220,943		2,046,002
Land *	\$30 /sf		30,000			30,000		240,000
Project Cost with Land			\$320,558			\$250,943		\$2,286,002

*based on PDC recommendation of \$30/sf

PROJECT SIZE	Scheme 1 - 4 units	Scheme 2 - 8 units
Total building	8904 sf	8756 sf
Project cost with land	\$2,138,581	\$2,286,002
UNITS		
Number of units	4	8
Average unit size	2226 sf	1095 sf
Type of unit	Townhouse	Flat
Price of unit A-live/work	\$255 /sf \$568,000	\$255 /sf \$359,000
Price of unit B-live		\$235 /sf \$184,000
FINANCIAL RESULTS		
Project value	\$2,272,000	\$2,172,000
Profit	\$133,419	-\$114,002
Profit %	6%	-5%
OWNER'S EQUITY		
Total required	15% \$197,933	\$213,350
GAP TO REACH 15% PROFIT PERCENTAGE		
Total gap	\$160,000	9% ¹
Adjusted profit %		15%

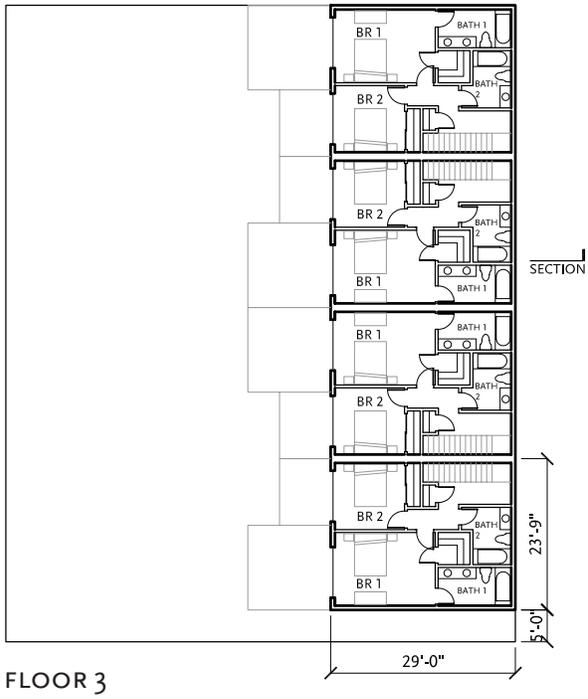
Site 2 - 8,000 SF
pro forma,
selection criteria

SCHEME 1 was selected because it represents the minimum density allowable in the RH zone in the Albina Community Plan District, and represents a lower project cost and higher profit. Units are live/work, resulting in a 100% efficiency factor, and are the least costly to build per square foot. Parking is in individual garages. All units have back yards. Profit without public subsidy is 6%.

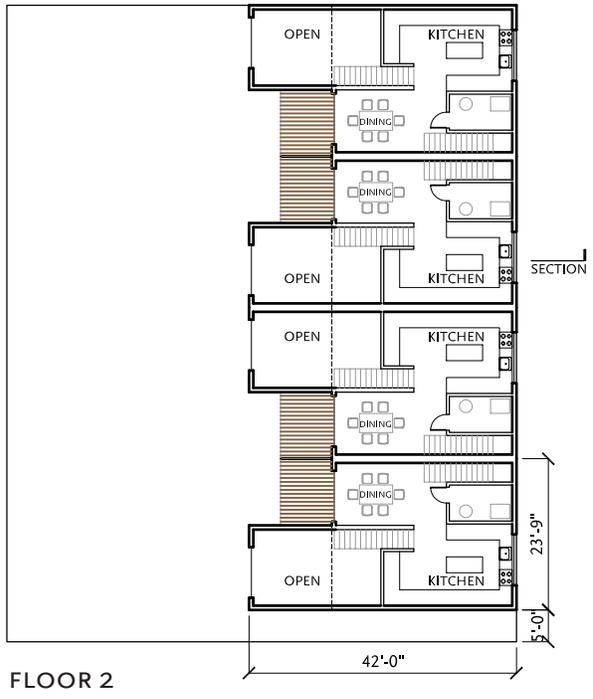
SCHEME 2 was selected because it represents the minimum density allowable in the RH zone if the Albina Community Plan District is not in effect. It still has a high efficiency factor due to avoiding the need for an elevator and common corridors. Units are live/work with flats above and made out of wood frame for this analysis. Profit without public subsidy is -5% primarily due to more expensive construction and parking challenges.

OTHER SCHEMES with more density would require double sided parking (assuming a 1:1 parking ratio), podium parking, and would result in ground floor spaces (retail or work) on MLK approximately 14 feet deep. In addition, more density would result in less efficiency. For these reasons, profit margins will further decrease with denser schemes, and therefore are not included in this study.

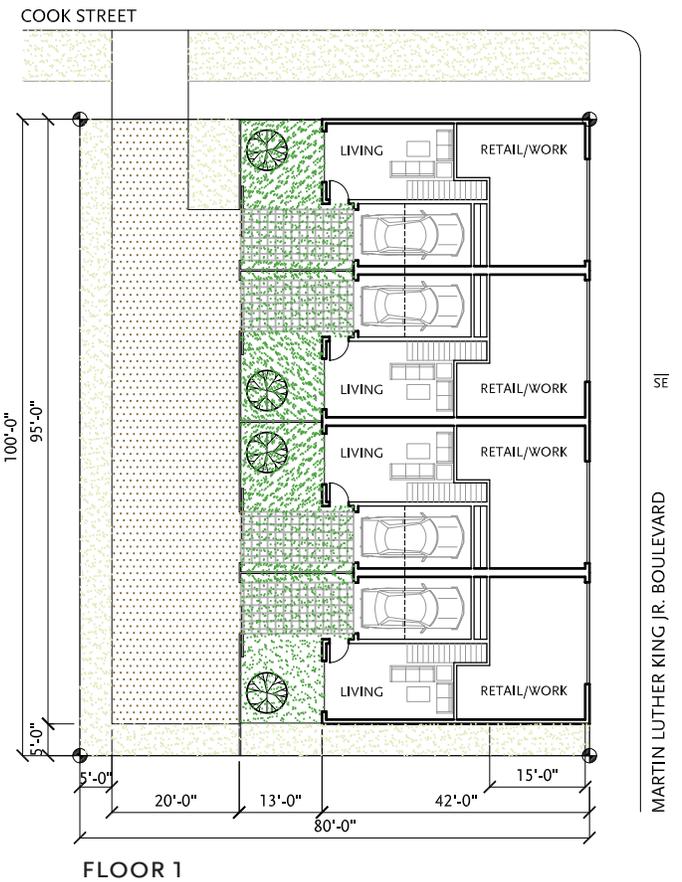
1. Additional profit percentage achieved by investing gap amount into project.



FLOOR 3



FLOOR 2



FLOOR 1

Site 2 - 8,000 SF
Scheme 1

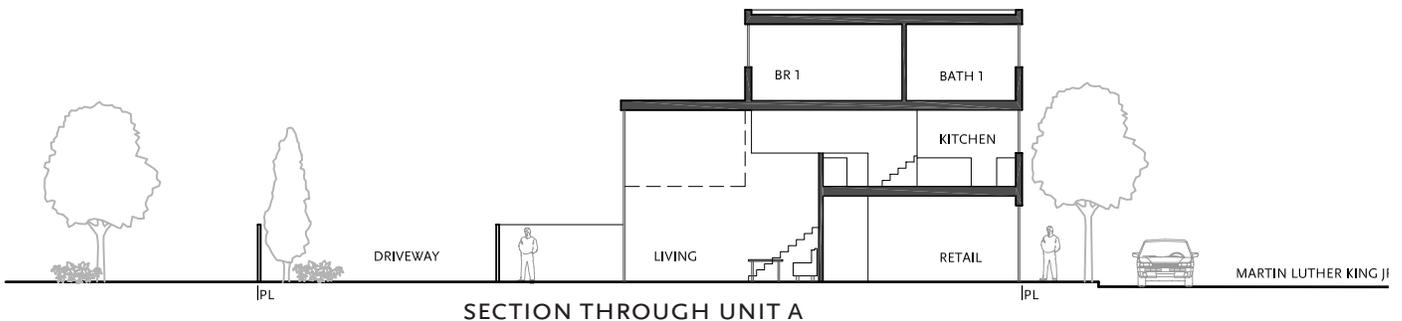


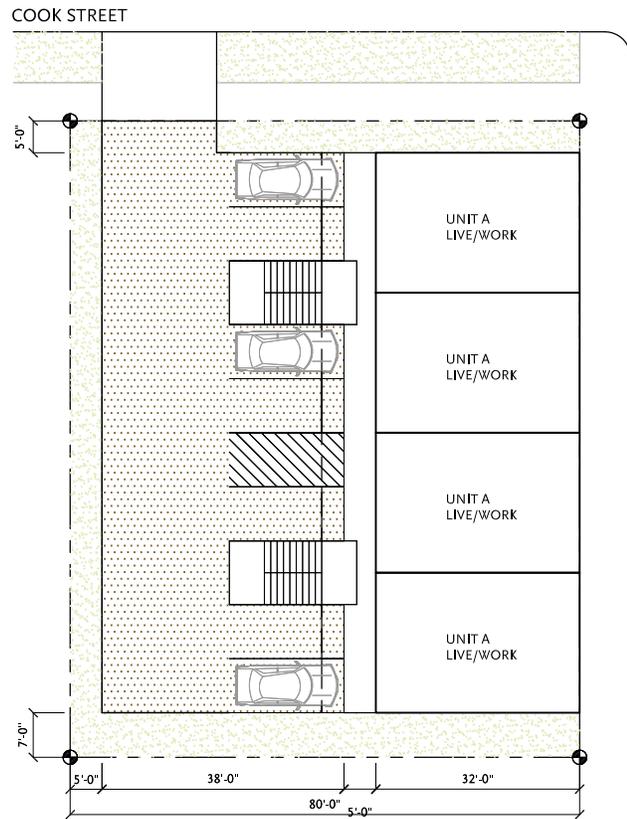
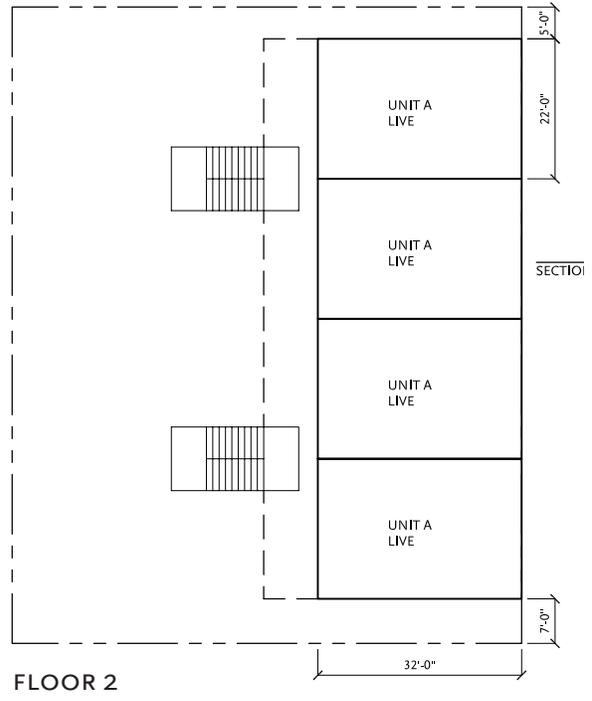
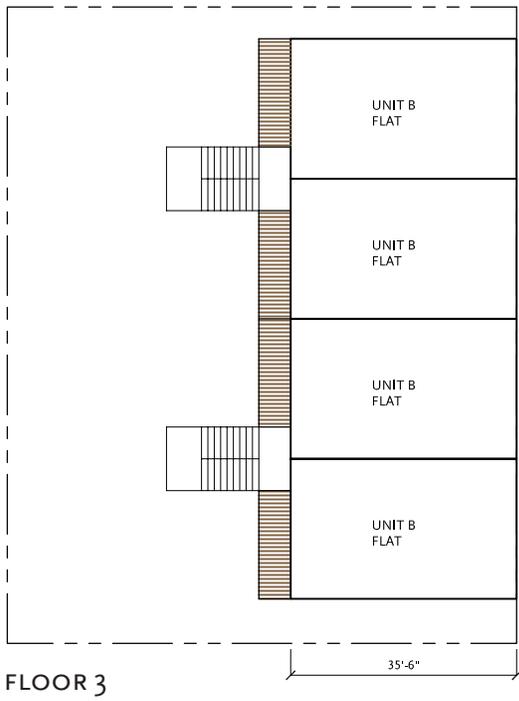
Scheme 1 has 4 units (per Albina Community Plan minimum density) with parking and minimal vehicle area to maximize outdoor area for the units. Townhouses are featured to maximize efficiency and minimize parking.

VEHICLE access is off the side street, through a common driveway, through a gate, and across a grasscrete driveway to a garage. Grasscrete is used so the driveway has minimal disruption to the backyard.

RETAIL on MLK is accommodated by all units being live/work

OWNERSHIP For this study, townhouse units would be for sale and the land would be 'fee simple' - as much of the property split into four lots and owned by the individual house purchasers. The common driveway would be owned by a 4 party condominium association. This scheme could also be a rental project.





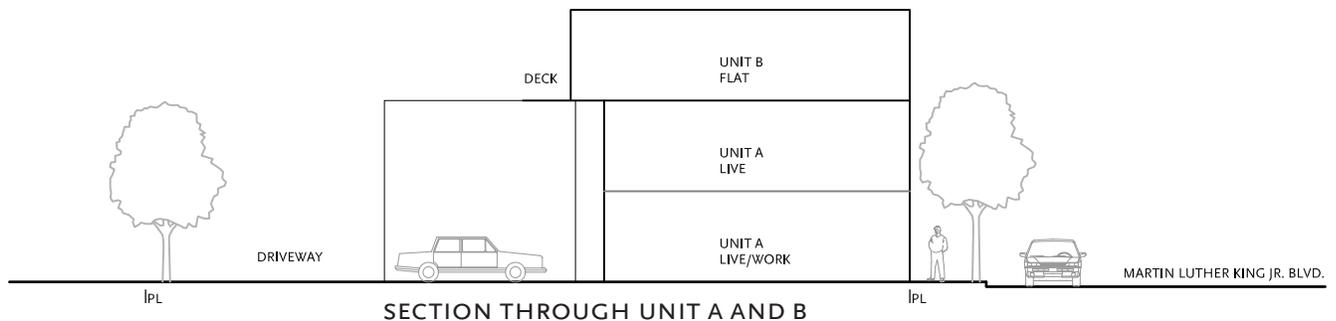
Site 2 - 8,000 SF Scheme 2

Scheme 2 has **8 units** (per RH zone minimum density if not within the Albina Community Plan District). Units are live/work with flats above.

VEHICLE access is off the side street.

RETAIL on MLK is accommodated by 4 live/work units.

OWNERSHIP This could be a rental or a 'for sale' project. For this study, units would be for sale condominiums.





MASON STREET

SITE

SHAVER STREET

MALLORY AVENUE

GARFIELD AVENUE

MARTIN LUTHER KING, JR. BOULEVARD



View of site from MLK looking West

Site 3 - 21,205 SF location, characteristics

Site 3 is a mid block 21,205 SF site located at 4041 NE Martin Luther King, Jr. Boulevard, just south of NE Mason Street. It is currently vacant. It is a through block.

ZONING/DISTRICT/URA The site is zoned RHd. Scheme 1 is required to go through either Design Review (Type II review), or comply with Community Design Standards (33.505.240; table 505-1: less than 20,000 sf new floor area in RH zone can use Community Design Standards). Scheme 2 is not eligible for Community Design Standards because it is over 20,000 sf. It is in the Albina Community Plan District and the Interstate Urban Renewal Area.

DENSITY

11 units are the minimum required per the Albina Community Plan (1 unit for every 2,000 sf) $21,205 \text{ sf} / 2,000 \text{ sf} = 10.60$ (rounded up after .50 to 11 units).

21 units would be required outside of the Albina Community Plan District (1 unit for every 1,000 sf): $21,205 \text{ sf} / 1,000 \text{ sf} = 21.20$ (rounded down until .50 to 21 units).

VEHICLE ACCESS A driveway on MLK would need to be 18 feet per PDOT due to MLK traffic volume. An 18 foot driveway on Garfield is required per PDOT. A driveway on MLK is advisable to attract retail.

SITE 3 PROJECT COST SUMMARY

SCHEME 1 - 11 UNITS		Unit A - live/work (per unit)			Unit B - townhouse (per unit)			Total	
Quantity		1			10			11	
		Area	cost/sf	\$	Area	cost/sf	\$	Area	\$
Unit GSF		2,180 sf	\$125	\$272,500	1,706 sf	\$125	\$213,250	19,240 sf	\$2,405,000
Circulation		0	n/a	-	0	n/a	-	0	-
Podium Parking		0	n/a	-	0	n/a	-	0	-
Site		1,217	12	14,600	1,217	12	14,600	13,383	160,596
Off site		2,000	10	20,000	2,000	10	20,000	400	220,000
Const. Contingency	10%			30,710			24,785		278,560
Total Construction Cost				337,810			272,635		3,064,156
Soft Costs	40%			136,462			110,134		1,237,803
Total Project Cost				474,272			382,769		4,301,958
Land *		\$30 /sf		57,832			57,832		636,150
Project Cost with Land				\$532,104			\$440,600		\$4,938,108

SCHEME 2 - 21 UNITS		Unit A - townhouse (per unit)			Unit B - flat (per unit)			Total	
Quantity		11			10			21	
		Area	cost/sf	\$	Area	cost/sf	\$	Area	\$
Unit GSF		792 sf	\$125	\$99,000	1,512 sf	\$125	\$189,000	23,832 sf	\$2,979,000
Circulation		332	90	29,880	0	n/a	-	3,652	328,680
Podium Parking		252	80	20,160	0	n/a	-	2,772	221,760
Site		680	12	8,157	680	12	8,157	14,275	171,300
Off site		19	10	190	19	10	190	400	4,000
Const. Contingency	10%			15,739			19,735		370,474
Total Construction Cost				173,126			217,082		4,075,214
Soft Costs	43%			74,693			93,657		1,758,185
Total Project Cost				247,819			310,739		5,833,399
Land *		\$30 /sf		30,293			30,293		636,150
Project Cost with Land				\$278,112			\$341,032		\$6,469,549

*based on PDC recommendation of \$30/sf

Site 3 - 21,205 SF
pro forma,
selection criteria

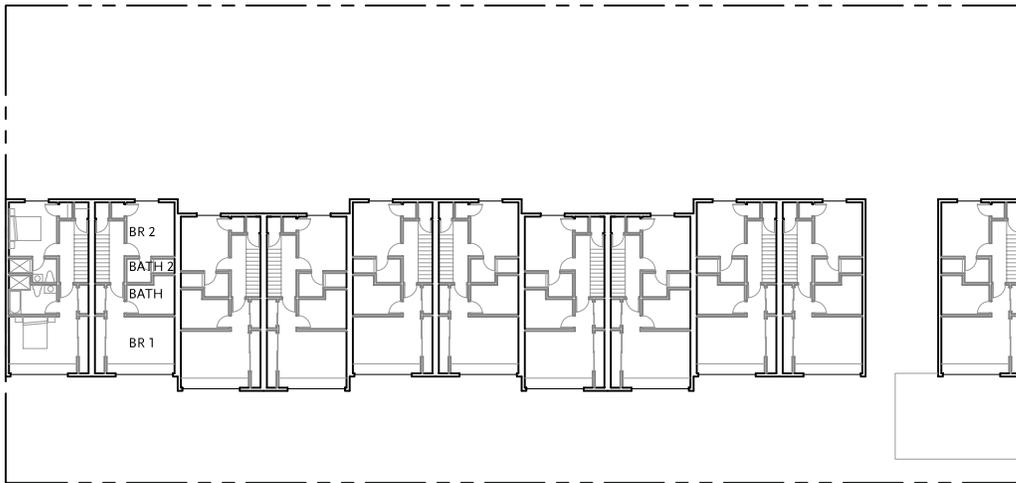
PROJECT SIZE	Scheme 1 - 11 units		Scheme 2 - 21 units	
Total building	19,240 sf		23,832 sf	
Project cost with land	\$4,938,108		\$6,469,549	
UNITS				
Number of units	11		21	
Average unit size	1749 sf		1135 sf	
Type of unit	Townhouse		Flat	
Price of unit A-live/work	\$255 /sf	\$556,000	\$255 /sf	\$202,000
Price of unit B-live	\$255 /sf	\$435,000	\$255 /sf	\$386,000
FINANCIAL RESULTS				
Project value	\$4,906,000		\$6,082,000	
Profit	-\$32,108		-\$387,549	
Profit %	-1%		-6%	
OWNER'S EQUITY				
Total required	15%	\$459,623		\$611,282
GAP TO REACH 15% PROFIT PERCENTAGE				
Total gap	\$670,000	16% ¹		
Adjusted profit %		15%		

SCHEME 1 was selected because it represents the minimum density allowable in the RH zone in the Albina Community Plan District, and represents a lower project cost and higher profit. Units are townhouses, resulting in a 100% efficiency factor, and are the least costly to build per square foot. Parking is in carports or possible individual garages. All units have back yards. Profit without public subsidy is -1%.

SCHEME 2 was selected because it represents the minimum density allowable in the RH zone if the Albina Community Plan District is not in effect. It still has a high efficiency factor due to avoiding the need for an elevator and common corridors. Units are townhouses with flats above and made out of wood frame for this analysis. Profit without public subsidy is -6% primarily due to more expensive construction and parking challenges.

OTHER SCHEMES with more density would require double sided parking (assuming a 1:1 parking ratio), increased podium parking, and would result in ground floor spaces (retail or work) on MLK approximately 12 feet deep. This is usually too shallow to be a viable retail space. In addition, more density would result in less efficiency. For these reasons, profit margins will further decrease with denser schemes, and therefore are not included in this study.

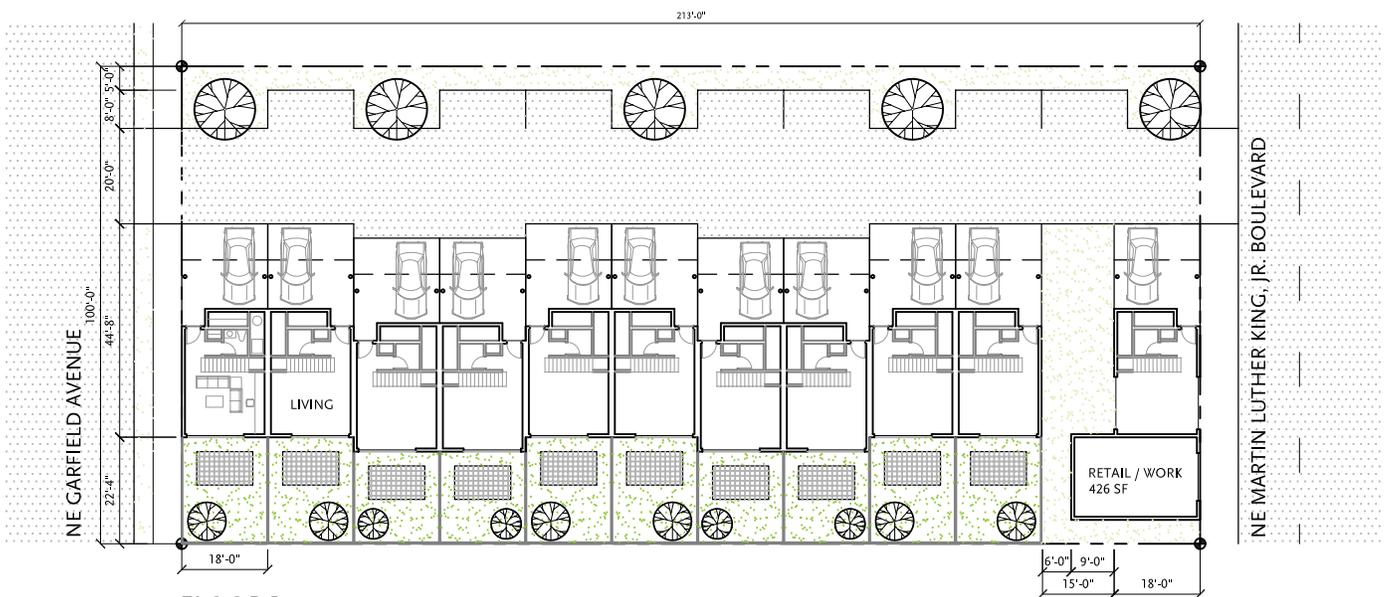
1. Additional profit percentage achieved by investing gap amount into project.



FLOOR 3



FLOOR 2



FLOOR 1



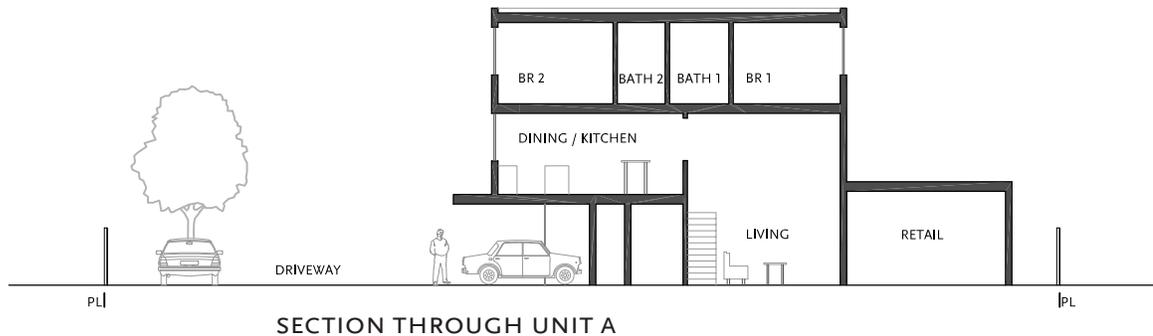
Site 3 - 21,205 SF
Scheme 1

Scheme 1 has 11 units (per Albina Community Plan minimum density) with parking and minimal vehicle area to maximize outdoor area for the units. Townhouses are featured to maximize efficiency and minimize parking.

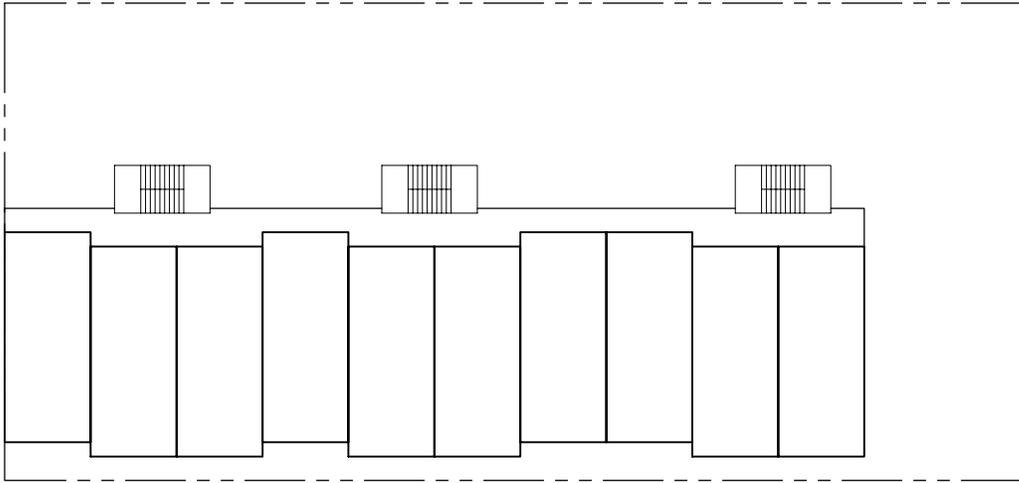
VEHICLE access is off MLK to help make retail more marketable. Garfield is the primary vehicle access.

RETAIL on MLK is accommodated by one live/work unit, separated from other units to limit sprinklers to one building.

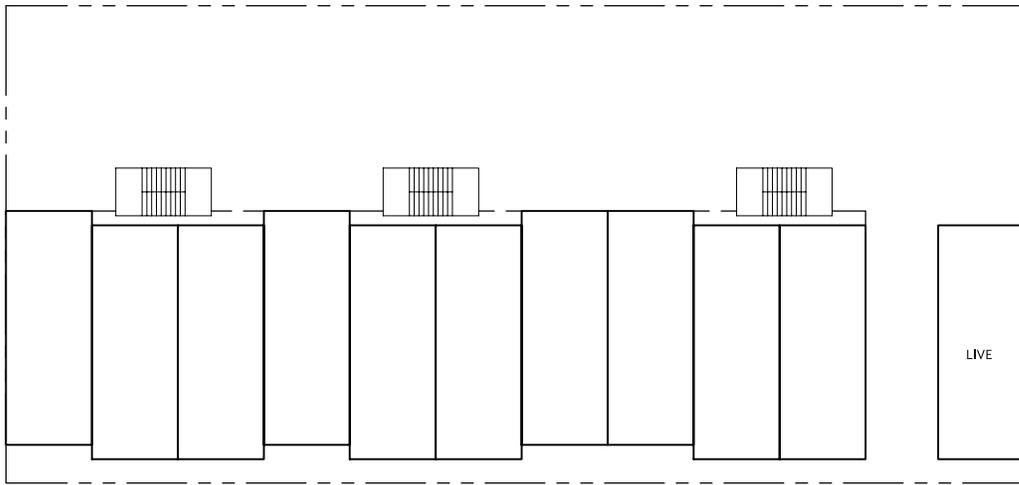
OWNERSHIP For this study, townhouse units would be for sale and the land would be 'fee simple' - as much of the property split into four lots and owned by the individual house purchasers. The common driveway would be owned by a condominium association. This scheme could also be a rental project.



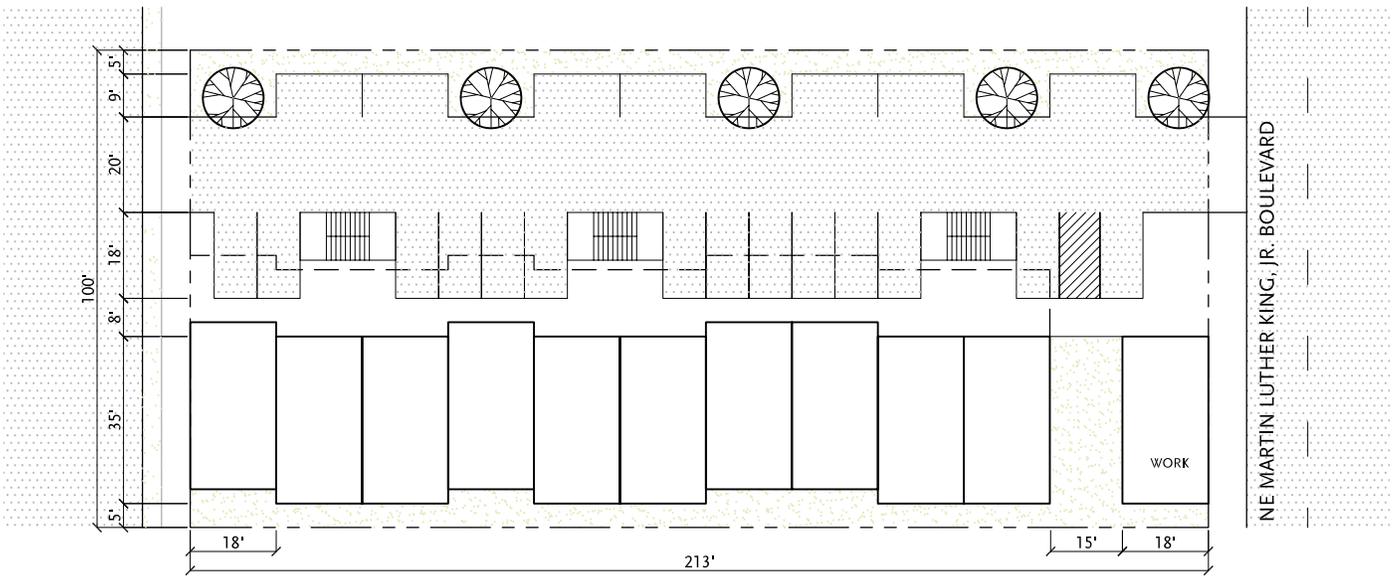
SECTION THROUGH UNIT A



FLOOR 3



FLOOR 2



FLOOR 1

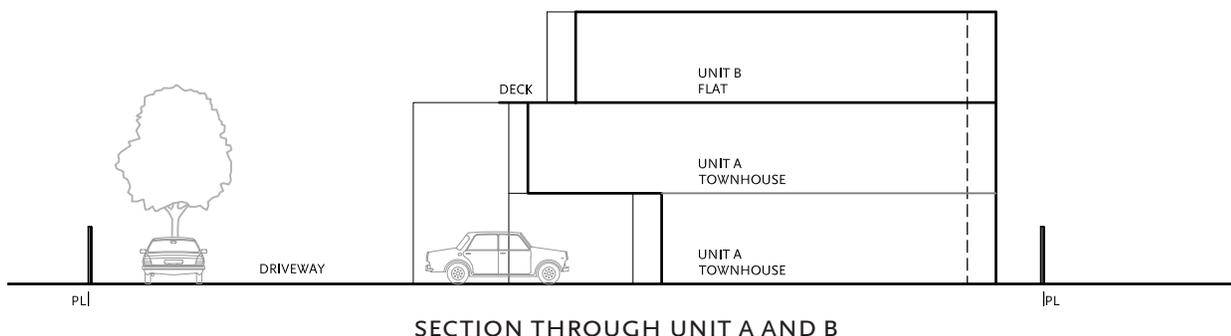
Site 3 - 21,205 SF Scheme 2

Scheme 2 has 21 units (per RH zone minimum density if not within the Albina Community Plan District). Units are townhouses with flats above.

VEHICLE access is off MLK to help make retail more marketable. Garfield is the primary vehicle access.

RETAIL on MLK is accommodated by one live/work unit, separated from other units to limit sprinklers to one building.

OWNERSHIP This could be a rental or a 'for sale' project. For this study, units would be for sale condominiums.





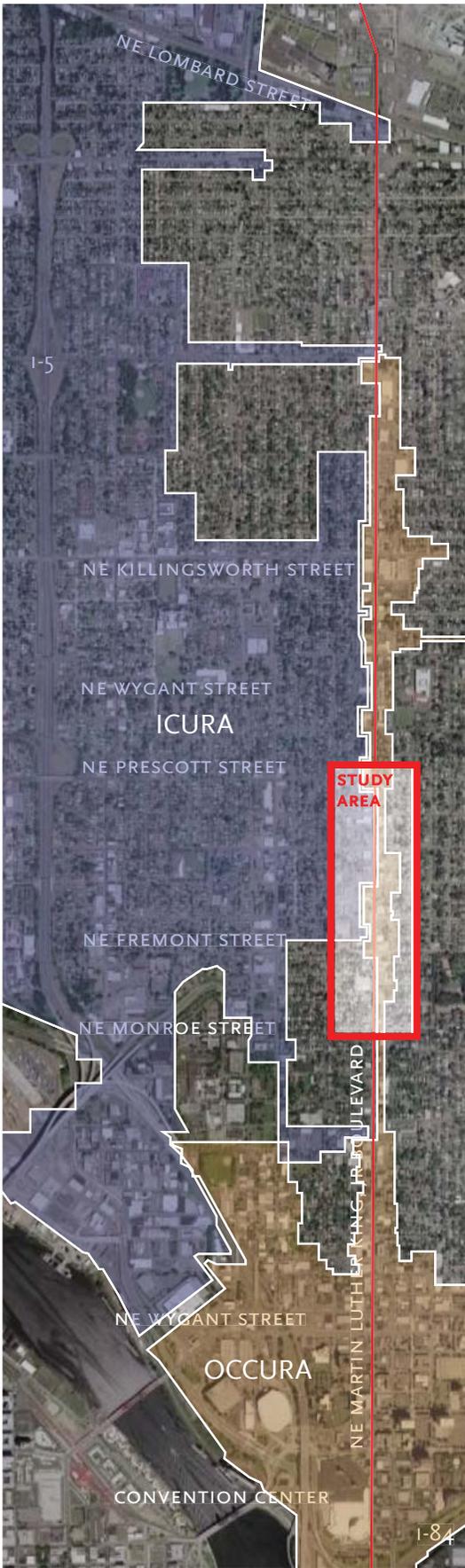
LEFT Albina Community Plan District boundaries on Martin Luther King, Jr. Boulevard.



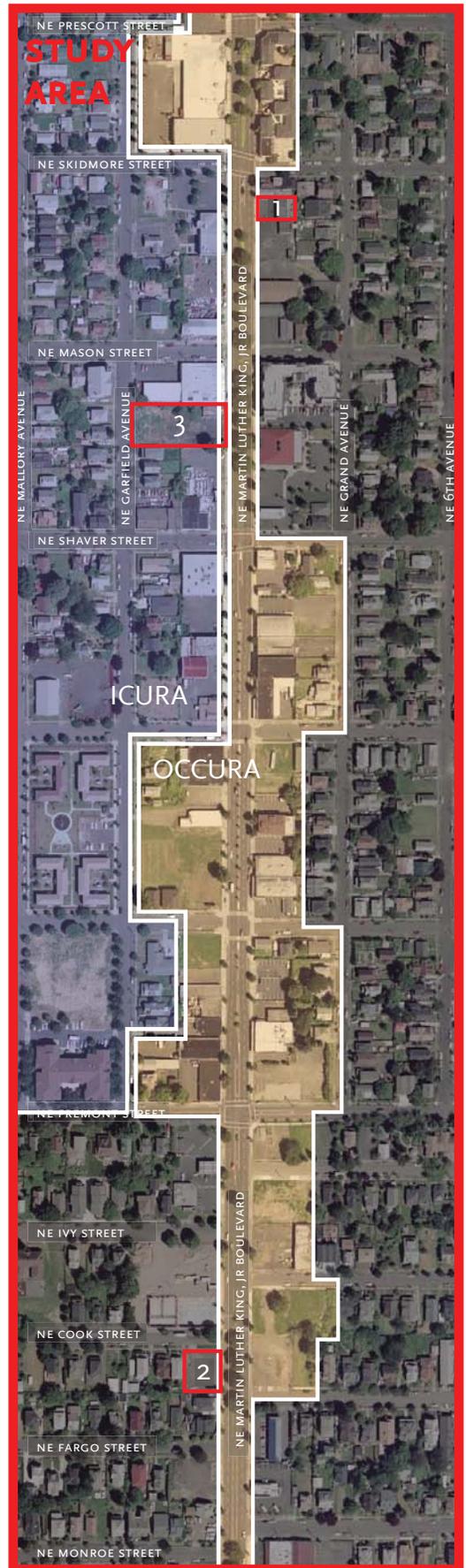
RIGHT Albina Community Plan District boundaries in project area. Typical Sites are shown in red with numbers.

Challenges Potential Solutions

- 1. PARKING CONFIGURATIONS ARE CHALLENGING** Parking is one of the primary challenges on MLK sites due to very limited parking on the Boulevard. In addition, parking underground on sites on MLK is not viable economically at this time. MLK is a transit street, so there is no required parking. Yet the economic feasibility of housing improves when dedicated parking spaces are provided. Corner sites can take advantage of side street parking for many retail customers, but parking needs to take place on site for residential. Retail viability is dependent on convenient, visible parking. Reduced minimum densities in the Albina Community Plan district will greatly improve parking configuration challenges.
- 2. DENSITY REQUIREMENTS (I.E. MINIMUM) ARE PROBABLY TOO HIGH FOR MARKET AT THIS TIME** Minimum Density for RH zones is 1 unit per 1,000 SF [table 120-3]. This brings on challenges to develop projects that are viable with current general market conditions, market parking requirements, and construction costs. Minimum Density for RH zones in the Albina Community Plan District that abut Martin Luther King, Jr. Boulevard is 1 unit per 2,000 SF [33.505.200]. Reduced density significantly improves the developability of RH sites today.
- 3. TRAFFIC IS A CHALLENGE** MLK is a major feeder street and has significant traffic. This creates site access and noise challenges. Much of these issues can be mitigated with good project site planning.
- 4. MANY PROPERTY OWNERS LACK DEVELOPMENT EXPERIENCE** If an owner is willing to redevelop, PDC and a Bank could provide owner capacity, risk assessment and project development consulting. Smaller projects (+/- 5,000 SF, under \$1M) may only need an architect, banker, and some on-going, on-call financial/development consulting if the owner can provide a bank acceptable credit rating and financial resources to secure a loan. Most projects will need a person/entity with more development experience. Banks will look to the experience and skills of the project team to determine risk and financing approval.
- 5. RH ZONING IS PERCEIVED TO BE INFLEXIBLE** It is a primary goal of the MLK district to have housing, but as noted above, the Albina plan greatly improves flexibility and many property owners are probably unaware of Albina Community Plan density requirements.
- 6. GROUND FLOOR RESIDENTIAL THAT FRONTS NE MLK IS PERCEIVED TO BE NOT MARKETABLE.** This comment is well founded, and residential directly on the MLK ground floor is not advisable. Raising housing up on a plinth, or having housing on upper floors or facing the rear is preferable. This report's site schemes demonstrate several options to address this.



LEFT Urban Renewal Districts on northern portion of Martin Luther King, Jr. Boulevard.



RIGHT Urban Renewal Districts in project area. Typical Sites are shown in red with numbers.

Urban Renewal Districts

To the right are the boundaries of the Oregon Convention Center Urban Renewal Area (OCCURA) and the Interstate Corridor Urban Renewal Area. Many RH zoned sites along Martin Luther King, Jr. Boulevard are in these Urban Renewal Districts.

Site 3 (the 21,205 SF site) is within the Interstate Corridor Urban Renewal Area.

PUBLIC FINANCING

The viability of using public financing capital or loans needs to be balanced with added administrative costs and additional requirements (such as LEED, labor wages, etc.).

The Portland Development Commission has created funding programs to encourage development in certain parts of Portland. All three sites are in these development areas:

ENTERPRISE AND E-COMMERCE ZONE provides a 5 year property tax abatement on new investment, and for eligible E-Commerce businesses, a 25% state income/excise tax credit.

HOME BUYER OPPORTUNITY AREA Non-Profit Owners of Low-Income Housing Tax Exemption: Non-Profit owners of residential property can apply for a property tax exemption based upon the number of affordable housing units.

TRANSIT ORIENTED DEVELOPMENT (TOD) EXEMPTION PROGRAM Property Tax Exemption for New Transit Supportive Residential or Mixed Use Development. It support high density housing and Mixed-Use developments whose design and features encourage building occupants to use public transit. The exemptions support TOD projects by reducing operating costs through a ten-year maximum property tax exemption.

In addition, sites in the Oregon Convention Center Urban Renewal Area (OCCURA) or the Interstate Corridor Urban Renewal Area (the 21,205 SF site is) are eligible for

DEVELOPMENT OPPORTUNITY SERVICES (DOS) PROGRAM assists property owners with seed money and in evaluating development project feasibility by providing real estate development expertise and technical assistance. Funding is available on a first-come-first-serve basis for specific pre-development activities prior to construction.

Financing Options

PRIVATE FINANCING

All projects are designed to use as high a percentage of private financing as possible. Most financing will come from Commercial Banks. A bank will look for the following in a development team and project to determine whether the project will be approved for financing.

1. Ownership of Land
2. Cost of Project
3. Financial Capacity of development team: Development team would need to invest up 20% of Project Cost (Financial Report will be required of all members of development team)
5. Credit history of development team: Credit rating of all members of development team.
6. Experience of development team: similar project experience
7. Banks will look for the following characteristics within a development team:
 - Good net worth
 - Liquidity
 - Outside sources of revenue

GAINING FINANCING APPROVAL FROM BANKS/PARTNERING. The project team needs to have sufficient expertise, credit rating, experience and capital to allow a bank to approve a loan to the project. They will be assessing the teams' individuals/company's credit rating, net worth and experience, Sometimes a landowner can be teamed with an architect and contractor and have financing approved if the owner's credit rating and net worth are sufficient. Many times, this will not be the case. Either the owner can sell the land outright, sell the land for a reduced value and take a percentage of the development profits, or the owner can be teamed with others to develop the property.



Address	325 Graham @ MLK	2861 MLK @ Stanton	3500 MLK @ Fremont	2627 7th @ Knott
Type	Live Work Units	Apartments	Townhouses	Condominiums
Sale/Rent	For Sale	Rent	For Sale	For Sale

PROJECT SIZE	AVG UNIT	PROJECT						
Avg Unit/Total (NSF/GSF)	1,363	22,080			1,312	9,800	1,183	23,000
Res. Unit Quantity		12		4		7		13

COMMERCIAL

Retail				
Office				

UNIT MIX	AVG UNIT	PROJECT	AVG UNIT	PROJECT	AVG UNIT	PROJECT	AVG UNIT	PROJECT
Area (NSF)	Floor 1	1162			Townhouses	1312	Townhouses	1210
	Floor 2	1096	Floor 2				3 Story Unit	860
	Floors 3/4	1832						

COST	AVG UNIT	PROJECT	AVG UNIT	PROJECT	AVG UNIT	PROJECT	AVG UNIT	PROJECT
Approx. Construction Cost	\$ 140.00				\$ 135.00		\$ 130.00	
Approx. Land Cost		\$ 269,390		\$ 605,020		\$ 483,000		\$1,241,320
Approx. Total Project Cost		\$3,100,000				\$1,323,000		\$3,000,000

VALUE	AVG UNIT	PROJECT	AVG UNIT	PROJECT	AVG UNIT	PROJECT	AVG UNIT	PROJECT
Approx. Average Unit Price	\$435,000				\$292,576		\$353,369	
Approx. Average Sale Price/SF	\$319				\$223		\$299	

	RATIO	TYPE	RATIO	TYPE	RATIO	TYPE	RATIO	TYPE
PARKING	0.8:1	Surface			1:1	Garage	0.9:1	Garage

AMENITIES

Outdoor Space - Yard		No		No		No		No
Outdoor Space - Deck		Yes		Yes		No		Yes

Developer	Hilary McKenzie			P3 Partnership		Generation
Financing	ShoreBank Pacific					
Contractor						Barrs & Genauer
Status	Under Construction		Full	Partially Unsold		Partially Unsold

This data is for preliminary determination of potential unit costs and per sf sales taken in February, 2008. For actual projects, a complete comparable study is recommended.

Comparables



Address	3150 7th @ Monroe	2808 MLK @ Graham	715 Tillamook @ 7th	5504 Mallory @ Killingsworth
Type	Townhouses	Live Work Units	Townhouses	Townhouses
Sale/Rent	For Sale	Rent	For Sale	For Sale

PROJECT SIZE	AVG UNIT	PROJECT						
Avg Unit/Total (NSF/GSF)	1,602	19,224			1,498	5,992	2,231	11,155
Res. Unit Quantity		12		36		4		5

COMMERCIAL

Retail		No	12 Spaces		No		No
Office		No	No		No		No

UNIT MIX	AVG UNIT	PROJECT	AVG UNIT	PROJECT	AVG UNIT	PROJECT	AVG UNIT	PROJECT
Area (NSF)	2-Story				Townhouses	1498	Townhouses	2231
	3-Story							

COST	AVG UNIT	PROJECT	AVG UNIT	PROJECT	AVG UNIT	PROJECT	AVG UNIT	PROJECT
Approx. Construction Cost								
Approx. Land Cost		\$3,088,420		\$3,809,520		\$400,460		\$557,100

Approx. Total Project Cost

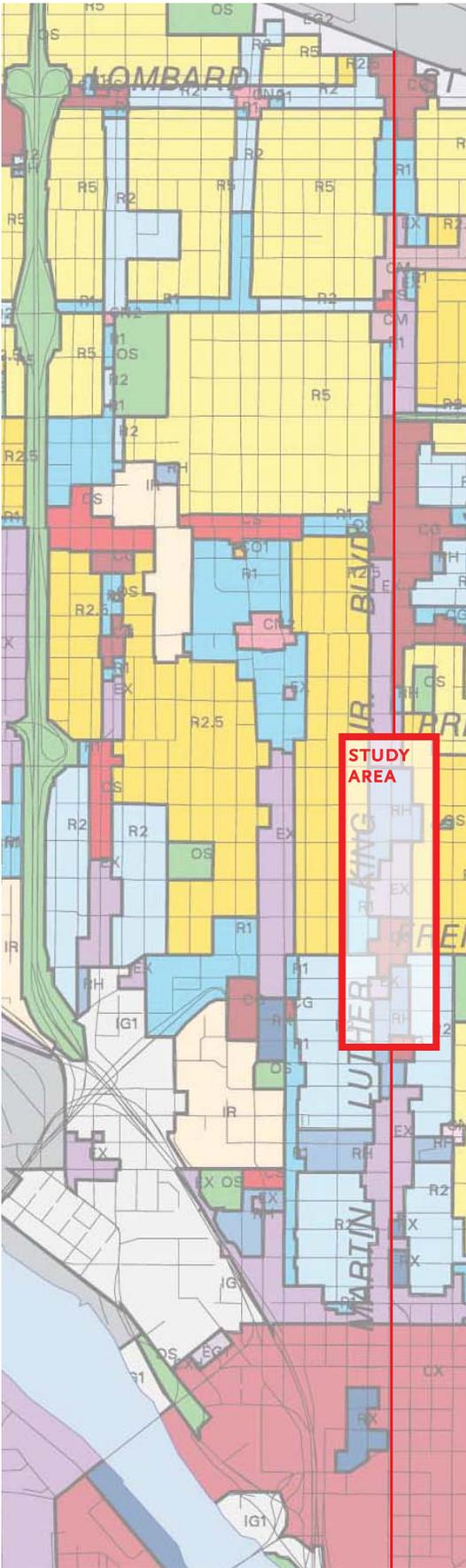
VALUE	AVG UNIT	PROJECT	AVG UNIT	PROJECT	AVG UNIT	PROJECT	AVG UNIT	PROJECT
Approx. Average Unit Price	\$379,000				\$300,000		\$399,950	
Approx. Average Sale Price/SF	\$237				\$200		\$179	

	RATIO	TYPE	RATIO	TYPE	RATIO	TYPE	RATIO	TYPE
PARKING	1:1	Garage	"tucked behind or below"		1:1	Garage	1:1	Garage

AMENITIES

Outdoor Space - Yard		Yes	Common Patio		No		Yes
Outdoor Space - Deck		Yes	Yes				Yes

Developer		WCR Company		
Financing				
Contractor		R&R Energy Resources		
Status	Partially Unsold	Full	Partially Unsold	Partially Unsold



LEFT Zoning on northern portion of Martin Luther King, Jr. Boulevard.



RIGHT Zoning in project area. Typical Sites are shown in red with numbers.

Regulatory Zoning Code Summary

The Portland Zoning Code Title 33 determines a project’s allowable density, setbacks from property lines, and other criteria. Below is a summary of selected codes applicable to RH (Multi Dwelling, High Density Residential) zoned properties. Please refer to the City of Portland Zoning Code Title 33 for exact requirements.

HEIGHT MAXIMUMS	
Maximum Height	75 ft ¹
Stories	7
DENSITY MAXIMUMS	
FAR	4 : 1 ³
Building Coverage	85%
DENSITY MINIMUMS	
Minimum Density	1 unit/ 2,000 sf ⁴
SETBACKS⁶	
Min. Front Setback	0 ft
Min. Side/Rear Setback	5 - 14 ft ²
ALLOWABLE USES	
selected	Residential Retail ⁵ , Office ⁵

1 In the areas where the FAR is 4 to 1, the maximum height is 75 feet, except on sites within 1000 feet of a transit station, where the maximum height is 100 ft.

2 See Table 120-4.

3 The maximum FAR is 4 to 1 in the areas shown on Maps 120-2 through 120-26.

4 See 33.505.200, The Albina Community Plan

5 35% of building’s floor area as commercial is prohibited. See 33.505.B.C.3

6 Measurement of the area of the plane of the building wall is described in Chapter 33.930.

d Design Overlay Zone

* In this corridor all of the RH designations are in a special area that increases the maximum FAR from 2:1 to 4:1 and the height to 75’.

GLOSSARY OF TERMS

FAR	Floor Area Ratio
SF	Square feet
GSF	Gross square feet
NSF	Net square feet (Leasable or Saleable SF)
Parking Ratio	Ratio of parking spaces to housing units
Building Coverage:	Percentage of structures and decks (30” over grade) on a site

	BUILDING SIZE	
33.120.205	Maximum FAR:	4 to 1
33.505.200	Minimum Density [3]:	1 unit per 2000 SF of site area [4]
33.120.225	Maximum Building Coverage:	85 % of site area
	Minimum Building Coverage:	None
33.120.215	Maximum Height:	75 ft
33.120.230	Maximum building length:	None
33.120.220	MINIMUM SETBACKS	
	Front building:	0 ft
	Street building:	0 ft
	Side building:	5 - 14 ft [5]
	Rear building:	5 - 14 ft [5]
	Garage entrance:	5/18 ft
33.120.220	MAXIMUM SETBACKS	
	Street lot line:	None
	Transit street/ped. district:	20 ft
	REQUIRED OUTDOOR AREA	
33.120.240	Minimum Area:	None
33.120.240	Minimum dimension:	None
33.120.235	Minimum Landscaped Area:	15 % of site area
	Landscaping abutting R lot:	None
	OTHER ZONING ISSUES	
33.266.110	Parking Minimum	None
33.266.115	Parking Maximum	None
	Transit Street Requirements:	None
33.120.231	Ground flr window standards:	15% glazing or doors on street
	Pedestrian Requirements:	None
	Required Parking:	None
33.120.100	Selected Use Categories Allow'd:	Household Living Group Living (L/CU) [1] Retail Sales and Service [2] Office [2]
33.120.100	[1]	See 33.120.100.B.1
33.505.100	[2]	The project must include the development of new housing. Commercial uses are allowed only on the ground floor. Up to 35% of the total building's floor area may be commercial. Access to parking for mixed commercial/residential is limited. Access must be from an arterial or access must be within 150 feet of an arterial intersection.
33.930.020	[3]	Minimum density calculations are rounded based on a fraction that is truncated to two numbers past the decimal point. For example, 3.4289 is truncated to 3.42. Where a minimum density calculation results in a fraction that is .50 or above, the fraction is rounded up to the next whole number. Where a minimum density calculation results in a fraction that is less than .50, the fraction is rounded down to the preceding whole number.
33.505.200	[4]	The minimum density for RH and RX zoned sites on blocks that abut Martin Luther King Jr. Boulevard is one dwelling unit for each 2,000 square feet of site area (Albina Community Plan District).
	[5]	Varies based on adjacent zones

Regulatory Zoning Code Title 33 Details

33.203.010 Purpose

Accessory home occupations are activities accessory to uses in the Household Living category. They have special regulations that apply to ensure that home occupations will not be a detriment to the character and livability of the surrounding neighborhood. The regulations ensure that the accessory home occupation remains subordinate to the residential use, and that the residential viability of the dwelling is maintained. The regulations recognize that many types of jobs can be done in a home with little or no effects on the surrounding neighborhood.

33.203.020 Description of Type A and B Home occupations

A. Type A home occupation is one where the residents use their home as a place of work; however, no employees or customers come to the site. Examples include artists, crafts people, writers, and consultants. Type A home occupations also provide an opportunity for a home to be used as a business address but not as a place of work.

B. A Type B home occupation is one where the residents use their home as a place of work, and either on employee or customers come to the site. Examples are counseling, tutoring, and hair cutting and styling.

The following additional regulations apply to Type B home occupations

1. Hours. Customers may visit the site only during the hours of 7 am to 9 pm.
2. Nonresident employees. One nonresident employee is allowed with a Type B home occupation provided no customers come to the site at any time. Home occupations that have customers coming to the site at any time are not allowed to have nonresident employees.
3. Customers. Only eight customers or clients may visit the site in a day.
4. Retail sales. Retail sales of goods must be entirely accessory to any services provided on the site.
5. Number of Type B home occupations. More than one Type B home occupation per dwelling unit is prohibited.

The Building Code excerpts above are for this study only, and will need to be confirmed for actual development projects.

Regulatory Building Codes Summary

In addition to the Portland Zoning Code, the International Building Code (IBC) and/or the Oregon Residential Building Specialty Code (ORSC) need to be referenced to determine maximum size of project, setbacks from property line, construction type, exiting, accessibility (ADA), other life safety issues, structural issues and other determinants.

Structures that include commercial space or live/work are required to be built to IBC (International Building Code) regulations. Live/work units must be owner occupied, have no more than a single employee, and have 8 or less customers per day (33.203.030). These structures need to have fire sprinkler systems, as well as other commercial criteria, and will be more expensive to construct. Structures that are for residential occupancies only can be built to the Oregon Residential Building Specialty Code.

CODE **OCCUPANCY CLASSIFICATION**
SECTION R1: residential - transient (motels)
310.1 R2: residential - multi-dwelling (more than 2)
 R3: residential - single/multi-dwelling (1 or 2 dwellings)

704.8 (table) **EXTERIOR WALL OPENINGS (WINDOWS) - MAXIMUM AREA**

Opening	distance from property line			
	0 - 3 ft	3 - 5 ft.	5 - 10 ft.	10 - 15 ft.
Unprotected	Not Permitted	Not Permitted	10%	15%
Protected	Not Permitted	15%	25%	45%

EGRESS

1024.3 Exit discharge location. Exterior balconies, stairways and ramps shall be located at least 10 feet from adjacent lot lines.

1019.2 Only one exit shall be required in buildings as described below:
Maximum height of building above grade plane: 2 stories^c
Maximum dwelling units per floor: 4 units
Maximum travel distance: 50 feet

Exception: (c) Buildings classified as Group R-2 equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.2 and provided with emergency escape and rescue openings in accordance with Section 1026 shall have a maximum height of three stories above grade plane.

Regulatory
International Building
Code (IBC)
Selected Excerpts

	CODE	ACCESSIBILITY- PARKING	
	1104.1	Accessible Spaces required where parking is provided.	
	ORS 447.233	One in every 25 spaces (but not less than one) to be accessible One in every 8 accessible spaces (but not less than one) to be van	
		ACCESSIBILITY - ADAPTABLE UNITS	
	1106.1.10.2	All Group R Occupancies shall have adaptable units except:	
	Exception 1	Group R Occupancies containing three or fewer dwelling units	
		General	All affected buildings and covered multifamily dwellings in Group R occupancies shall be accessible as provided in this chapter. Public – and common- use areas and facilities..... shall be accessible Exception: 1. Group R-3 Occupancies. 2. Where building or buildings are exempted by Section 1106.1.10.2.....
		Adaptable dwelling units	All Group R occupancies shall have adaptable dwelling units. Adaptable dwelling units shall be designed and constructed in accordance with Section 1110. Exception: 1. Group R occupancies containing three or fewer dwelling units. 2. Dwelling units in Group R-2 occupancies which are located on floors other than the ground floor where no elevators provided within the building (unless it is a mixed occupancy described in Section 1106.1.10.3). 3. Dwelling units with two or more stories (townhouses) in a non-elevator building. 4. n/a 5. n/a
	1106.1.10.3	Mixed occupancies	Where the ground floor of a building is not a Group R-2, apartment occupancy, the first level of the Group R occupancy, which includes dwelling units, shall be considered the ground floor and shall be served by a building entrance on an accessible route. Dwelling units located on this level shall be adaptable dwelling units.
		Exception	Group R Occupancies exempted by section 106.1.10.2
	1106.1.10	Group R Occupancies	Where the ground floor of a building is not a Group R-2, apartment occupancy, the first level of the Group R occupancy, which includes dwelling units, shall be considered the ground floor and shall be served by a building entrance on an accessible route. Dwelling units

The Building Code excerpts above are for this study only, and will need to be confirmed for actual development projects.

CODE SECTION	CHAPTER 3 - BUILDING PLANNING	
R302	LOCATION ON A LOT	
R302.1	Exterior walls	Exterior walls with a fire separation less than three feet shall have not less than 1-hour fire resistive rating with exposure from both sides.
R302.2	Openings	Openings shall not be permitted in the exterior wall of a dwelling or accessory building with a fire separation distance less than 3-feet. This distance shall be measured perpendicular to the line used to determine the fire separation distance. See exceptions for wall that are perpendicular.
R311.5	STAIRWAYS	
R311.5.1	Width	Stairways shall not be less than 36 inches in clear width. Handrails shall not project 4.5 inches on either side of the stairway and the minimum clear width of the stairway at and below the handrail height, including treads and landings, shall not be less than 31.5 inches where a handrail is installed on one side and 27 inches where handrails are provided on both sides.
R311.5.3	Treads and Risers	The maximum riser height shall be 8 inches The maximum tread depth shall be 9 inches
	TOWNHOUSE (2 CONNECTED UNITS OR LESS)	
	Height	3-stories allowed without sprinklers 4-stories allowed with approved sprinklers
	Separation	1-hour separation required at demising walls
AN101.1	TOWNHOUSE (3 OR MORE CONNECTED UNITS) Use Appendix N, below	
	Height	3-stories allowed without sprinklers 4-stories allowed with approved sprinklers
	Separation	2-hour separation required at demising walls

Regulatory Residential Code Selected Excerpts

2005 Oregon Residential
Building Specialty Code
based on 2003 International
Residential Code

CODE SECTION	APPENDIX N - LOW-RISE MULTIPLE FAMILY DWELLING CONSTRUCTION
AN101.1	<p>Scope 1.1 Structures containing more than two dwelling units and classified as group R-2 nontransient apartment house occupancies as defined in the ORSC.</p> <ol style="list-style-type: none">1. Structures that are three stories or less above grade plan; and2. Structures that have an exterior door for each dwelling unit; and3. Structures that contain at least three, but no more than 24 dwelling units; and4. Structures that are 36,000 square feet or less in area; and5. Covered multiple family dwellings as defined in ORS 447.210(5) in which there is no elevator; and6. Structures or portions of structures that are used exclusively as dwellings and are not mixed occupancies as defined in section 303.3 of the OSSC

The Building Code excerpts above are for this study only, and will need to be confirmed for actual development projects.

Regulatory Transportation

Transportation issues are important to projects to determine driveway locations (typically at least 25 feet from an intersection), driveway width, and how the traffic generated by a project interfaces with various types of streets. When considering a project, codes should be researched and City officials should be consulted for interpretation of regulations.

MLK DRIVEWAYS are to be avoided where possible (if side streets are available) but all sites will need vehicular access. Driveway widths are to be 18' wide on MLK (due to speed of traffic). Vehicles need to drive front in and front out.

SIDE STREET DRIVEWAYS (low traffic counts). Projects with 4 units: Driveways may be 12'.*

DRIVEWAY WIDTH (AT STREET)

3 units or less one way - 12 feet
more than 3 units two way - 20 feet (18 feet allowable)

One way ramps for projects with over 3 units may be considered by PDOT on a case by case basis according to street traffic volume.

* per PDOT meeting 10/18/07
The Building Code excerpts above are for this report only, and will need to be confirmed for actual development projects.

STREET VISION 1998

- Transportation improvements result in commercial areas with good, safe access and sufficient/required parking.
Overall plan includes side streets no more than one block deep
Distinct character and identity of areas is enhanced and preserved
Corridor is aesthetically pleasing and inviting to people.
- Corridor is accessible by all modes (pedestrians, bicycles, cars, transit, and local service vehicles)
- Through truck traffic is eliminated.
- NE Martin Luther King Jr. Boulevard serves local neighborhoods.
- Before the median is strategically removed, traffic flow, safety, and aesthetic impacts are considered.
- Street design standards help create a pedestrian-friendly and accessible environment.
- Well-designed sidewalks along the length of the corridor link neighborhoods respond to neighborhood and commercial areas and encourage pedestrian gatherings.
- School children and pedestrians of all ages children have safe and convenient crossings.
- Commercial nodes and gateways promote security and area supported by amenities such as lighting, signing and awnings.
- Traffic through neighborhoods is controlled and limited; the neighborhoods are not adversely impacted by the NE Martin Luther King Jr. Boulevard transportation improvements.
- Rundown buildings are remodeled, restored, or replaced.
- Street improvements encourage and support transit use and efficient operation.

Relevant Previous Studies

Oregon Convention Center Urban Renewal Area (OCCURA) formed	City	1989
OCCURA Extension up MLK and Alberta	City	1993
Albina Community Plan	City	1993
N.E. Martin Luther King, Jr. Blvd Transportation Project	PDC	1998
Martin Luther King Jr. Blvd Strategy Update and Action Plan	PDC	2006

SOFT COST ESTIMATES

	Site 1 - 4500 sf		Site 2 - 8000 sf		Site 3 - 21,200 sf	
	Sch 1 - 2units	Sch 2 - 5units	Sch 1 - 4units	Sch 2 - 8units	Sch 1 - 11units	Sch 2 - 21units
Construction Cost (Hard)	\$ 549,553	\$ 946,696	\$ 1,283,911	\$ 1,422,331	\$ 2,826,556	\$ 4,075,214
Project Cost (Hard and Soft)	\$ 768,840	\$ 1,270,635	\$ 1,862,941	\$ 2,046,002	\$ 4,064,358	\$ 5,833,399
Project Cost with Land	\$ 913,740	\$ 1,405,635	\$ 2,138,581	\$ 2,286,002	\$ 4,938,108	\$ 6,469,549
Projected Sales Price	\$ 947,000	\$ 1,129,000	\$ 2,272,000	\$ 2,172,000	\$ 4,906,000	\$ 6,082,000
Loan Amount ⁴ 80.0%	\$ 757,600	\$ 903,200	\$ 1,817,600	\$ 1,737,600	\$ 3,924,800	\$ 4,865,600
Architect-small proj 7.5%	41,217					
Architect-larger proj 5.0%		47,335	64,196	71,117	141,328	203,761
Engineer-small proj 2.5%	13,739					
Engineer-larger proj 1.5%		14,200	19,259	21,335	42,398	61,128
Envelope Consult 0.5%	2,748	2,748	5,000	5,000	10,000	10,000
Regulatory ⁸						
SDC's	27,583 ¹	92,749 ²	69,472 ³	114,550 ³	150,229 ³	262,699 ³
Other Regulatory	8,897	13,101	17,182	19,010	34,847	50,685
Legal	5,000	5,000	5,000	5,000	5,000	5,000
Insurance						
Builder's Risk 0.35%	1,923	3,313	4,494	4,978	9,893	14,263
Liability 1%	9,470	11,290	22,720	21,720	49,060	
Liability + wrap 2.5%						152,050
Accounting			1,000	1,000	1,000	1,000
Taxes	not included	not included	not included	not included	not included	not included
Title,Record'g Fees	500	500	500	500	500	500
Marketing Costs	500	500	1,000	1,000	2,000	2,000
Appraisals	500	500	500	500	500	500
Traffic Impact Study	not included	not included	not included	not included	not included	not included
Environmental	not included	not included	not included	not included	not included	not included
Survey	2,500	2,500	3,500	3,500	5,000	5,000
Soils	2,000	2,000	3,000	3,000	4,000	4,000
Developer/PM 5.0%			113,600	108,600	245,300	304,100
Realtor Comm. 5.0%	47,350	56,450	113,600	108,600	245,300	304,100
Subtotal	163,927	252,186	444,022	489,409	946,355	1,380,786
Contingency 5.0%	8,196	12,609	22,201	24,470	47,318	69,039
Soft Cost Subtotal	\$172,123	\$264,796	\$466,223	\$513,880	\$993,673	\$1,449,825
Financial						
Loan Fees ⁵ 1.0%	7,576	9,032	18,176	17,376	39,248	48,656
Closing Costs ⁶ 1.0%	5,496	9,467	12,839	14,223	28,266	40,752
Interest Reserves ⁷	34,092	40,644	81,792	78,192	176,616	218,952
Total Soft Costs	\$219,287	\$323,939	\$579,030	\$623,671	\$1,237,803	\$1,758,185

1. SDC's Site 1, Scheme 1: Use existing 3/4" water meter - water from MLK is more costly due to right of way issues and construction issues.
2. SDC's Site 1, Scheme 2: New 1 1/2" water meter required due to 5 units - water from MLK is more costly due to right of way issues and construction issues.
3. SDC's Site 2 and 3: Water service from side or parallel streets to MLK
4. Loan amount is 80% of the projected sales price
5. Loan fees are 1% of the loan amount
6. Closing costs are 1% of the construction cost
7. Interest reserve is the loan amount times 7.5% (Interest rate plus 1%) times 60%
8. SDC's and other regulatory values are based on City of Portland Bureau of Development Services estimates

The Soft Cost estimates above are estimates for this study only, and will need to be confirmed and amended for actual development projects.

Assumptions, Soft Costs

ASSUMPTIONS

CONSTRUCTION COST

	\$/sf
Townhouse (includes garage)	125
Flats (wood frame)	125
Flats (concrete)	160
Circulation	90
Podium Parking	80
Site	12
Off site	10

SALES PRICES

Live/Work (with garage, yard)	\$	255	/sf
Townhouse (with garage, yard)	\$	255	/sf
Flat	\$	235	/sf

Construction Cost Contingency	10%
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