

MEMORANDUM

To: [REDACTED]
From: Michael Mehaffy, Ph.D. and Laurence Qamar, A.I.A.
Structura Naturalis Inc. and Qamar and Associates Inc.
CC: [REDACTED]
Date: January 24, 2023
Subject: Cost of alley-loaded versus front-loaded residences
For [REDACTED]

The purpose of this memo is to share available information about the typical cost of infrastructure per lot for the two different configurations of homes shown in our Subarea Plan proposal, front-loaded and alley-loaded. As you know, on the basis of the public involvement and community survey, we are recommending that developers and builders have a choice of either configuration, except in the cases where homes are required to face the arterial or collector streets (a requirement that was the result of a clear preference in the community survey.) In those cases, the homes must be served by alleys, since it is not possible to have residential driveway access on arterials or collectors.

This analysis is separate from the consideration of the other documented benefits from alley-loaded homes, including more pedestrian-friendly streetscapes, greater walkability, a more attractive public realm, support for more social interaction and sense of community, and other public goods. This analysis is focused only on the differential of infrastructure cost per lot in various “apples to apples” scenarios with and without alleys.

This analysis is also separate from questions of buyer preference and market acceptance, since we know this is highly variable. We only note in passing that alley-loaded homes have been used in highly successful masterplanned communities around the USA, including Daybreak, Utah, whose website reports that “in 2020, Daybreak was the 5th Best Selling Master Planned Community in the US, selling 1,055 new homes, and shattering previous statewide sales records.” Daybreak is an award-winning 4,000 acre development with an ultimate buildout of 20,000 homes, and its successful use of alleys is only one example of a larger trend across the USA.

Our team also has direct experience working with private developer clients who have successfully used alleys in a number of projects, and we have conducted research on many other case studies. Based on this expertise, following is a summary of our conclusions:

1. Alley-loaded home developments need not cost more per lot than front-loaded ones, and in fact can cost considerably less, depending on the choice of lot dimensions and other factors.
2. It is notable that the additional cost of alley paving per lot is largely offset by the area and cost of driveways on front-loaded homes, as shown in Scenario 1.
3. In addition, front-loaded homes on streets with on-street parking have a higher cost of street construction, owing to the wasted pavement area in front of the driveways (it cannot be used for parking or for travel, though it must be constructed to the same standard as the rest of the street). This has the effect of essentially doubling the cost per stall for on-street parking with front-loaded lots.
4. In addition, in the case of small lots (under 4,000 SF), the infrastructure cost per lot for the narrower lots on alleys is likely to be significantly less than that for front-loaded lots with wide frontages – a lot shape that is generally required for homes with garages – since the infrastructure cost is directly related to lot frontage length (e.g. see Scenario 4).

As with any analysis, baseline assumptions must be made about costs and other factors. These may vary significantly by locale and other conditions, but the values below are typical for recent projects with which we have direct knowledge:

- The cost of utilities is \$450 per lineal foot.
- The cost of street construction is \$750 per lineal foot.
- The cost of alleys is \$200 per lineal foot (\$10 per square foot at 20 feet width).
- The cost of driveways is \$7 per square foot.
- The impact of reduced yield is \$5 per square foot (raw land plus margin loss).
- The width of alleys is 20 feet, which is adequate to provide access for fire protection vehicles.
- The alleys are provided on easements within the lots.
- The width of street rights-of-way in an alley-loaded development is 50 feet, and the width of pavement is 32 feet (2 x 10 foot travel lanes, 6 foot parking on both sides). Fire protection vehicles do not need to access these streets, since they are using the alleys, and a “skinny street” section is allowable.
- The width of street rights-of-way in a front-loaded development is 60 feet, and the width of pavement is 40 feet (2 x 12 foot travel lanes, 8 foot parking stalls both sides). This width is typically required in order to provide access for fire protection vehicles.

In summary, our findings are:

Scenario One. This scenario analyzes the amount of pavement in rear-loaded alleys versus front-loaded driveways for typical 50' x 100' lots. Our analysis shows 620 square feet of paved area required for the alley scenario (in alley area), versus 740 square feet of pavement (driveway and apron but excluding the sidewalk) for the front-loaded scenario. The alley construction may be more expensive per square foot than the driveway construction, but the net cost is similar. This is particularly true when factoring in the unusable parking lane in front of the driveways (in effect doubling the cost per stall of on-street parking).

Scenario Two. Infrastructure cost per lot for front-loaded 50' x 100' lots, versus alley-loaded 50' x 100' lots (both lots 5,000 SF). Our analysis shows that the per-lot cost for infrastructure is \$33,780 for front-loaded versus \$35,000 for alley-loaded. However, the yield is slightly lower in the front-loaded scenario, because wider streets are required for fire protection, whereas the alley-loaded scenario can use the alleys for fire protection, assuming they feature an unobstructed 20' drive lane. At an assumed \$5 per foot land plus lost margin income, the loss of developable land equals \$1,250 per lot, bringing the apples-to-apples cost of development to \$35,000 for front-loaded lots, and \$35,030 for alley-loaded lots, a negligible difference. Note that this analysis does not factor in the unusable paving space in front of the driveways, in comparison to the same space which is usable for on-street parking in the alley-loaded scenario. (As noted earlier, this means the on-street parking is roughly twice as expensive to build per stall in the front-loaded scenario.)

Scenario Three. Significantly greater savings occurs in the alley lots with narrower lot widths in comparison to front-loaded lots. Garages facing the street typically require wider lots, whereas alley-loaded lots can use narrower widths. We examined a scenario of front-loaded 50' x 100' lots, versus alley-loaded 40' x 125' lots (both lots 5,000 SF). Our analysis shows that the alley-loaded scenario would cost \$28,000 per lot, whereas the front-loaded scenario would cost \$30,000 per lot, plus an adjustment for lower yield of \$555 per lot, or \$30,555 per lot total. This is an increase in infrastructure cost per lot of 9 percent for the front-loaded scenario.

Scenario Four. Even more dramatic savings are possible when comparing equal-sized lots that are long and thin with garages on alleys, and wide and shallow with garages facing the street. The latter is an increasingly common type in smaller-lot subdivisions. We therefore examined a scenario of front-loaded 60' x 60' lots, versus alley-loaded 36' x 100' lots (both lots 3,600 SF). Our analysis shows that the alley-loaded scenario would cost \$25,200 per lot, versus \$39,780 for the front-loaded lot, plus an adjustment for lower yield of \$2,833 per lot, for a total of \$42,613 per lot – an eye-popping 69% cost increase per lot over the alley-loaded scenario.

The appendix section includes an article on the growing builder popularity of alleys (in this case in Denver, CO), some remaining builder objections in some growing rural areas (in this case Redmond, Oregon), recommendations on successful alley configurations by Pro Builder, and a report by the National Association of Homebuilders recommending more diversity of housing by using smaller lots, and in some cases employing alleys.

It should be stressed that there are many factors in development, lot and home planning and construction, and the assumptions made in these scenarios can vary significantly. As with any other aspect of development, there is always a need to optimize the design to promote both the cost-effectiveness and quality of the development for a given market price point or range. This is what the best builders and developers know how to do well, whether in alley-loaded developments or elsewhere. In this context, the City's regulations simply need to provide clear "rules of the road," and not be overly prescriptive about the specific lot configurations. The best builders can work successfully from there.

That said, this analysis shows that it is certainly not true that infrastructure in alley-loaded development must cost more. On the contrary, the scenarios analyzed here range from essentially a "push" (same cost) to as much as a 69% *increase* in the front-loaded lot cost. Whatever other factors a builder or developer might consider, this potential cost differential should certainly be borne in mind.

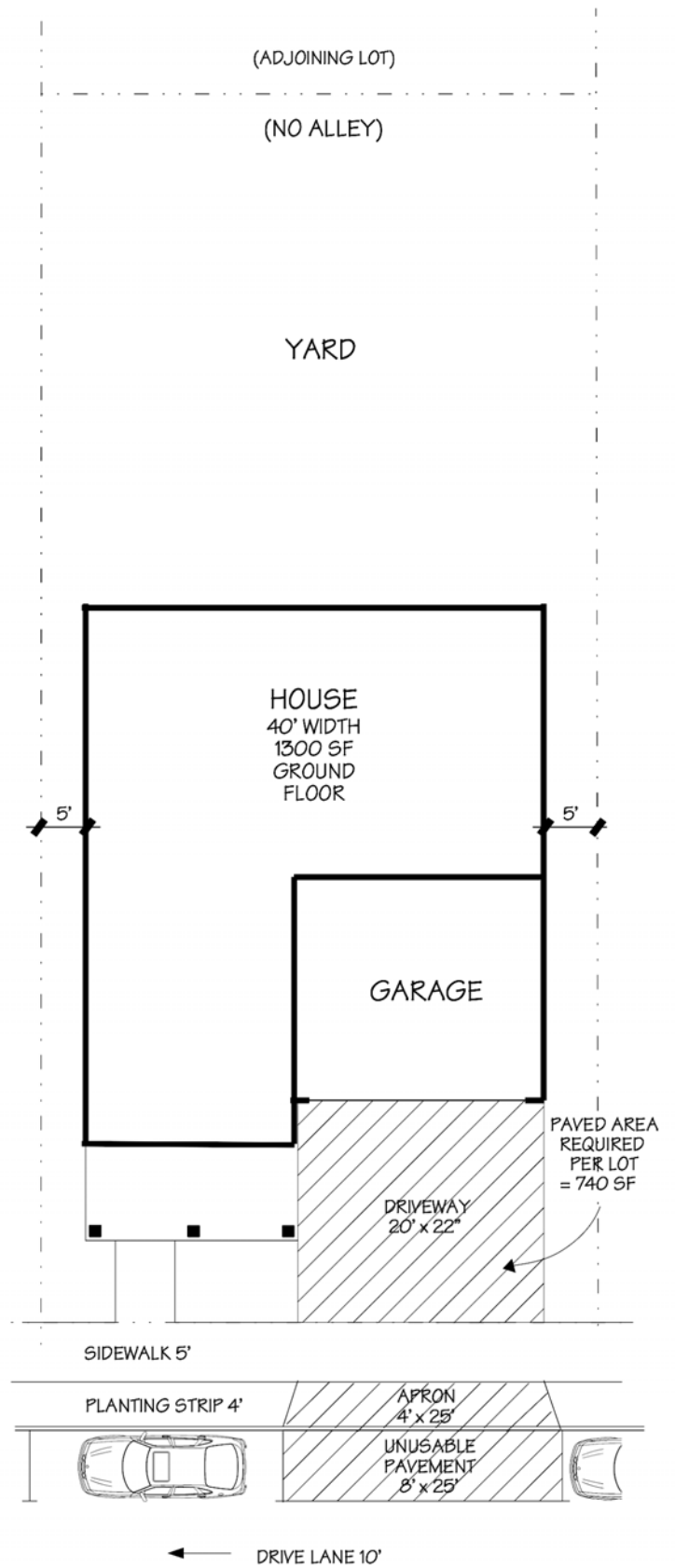
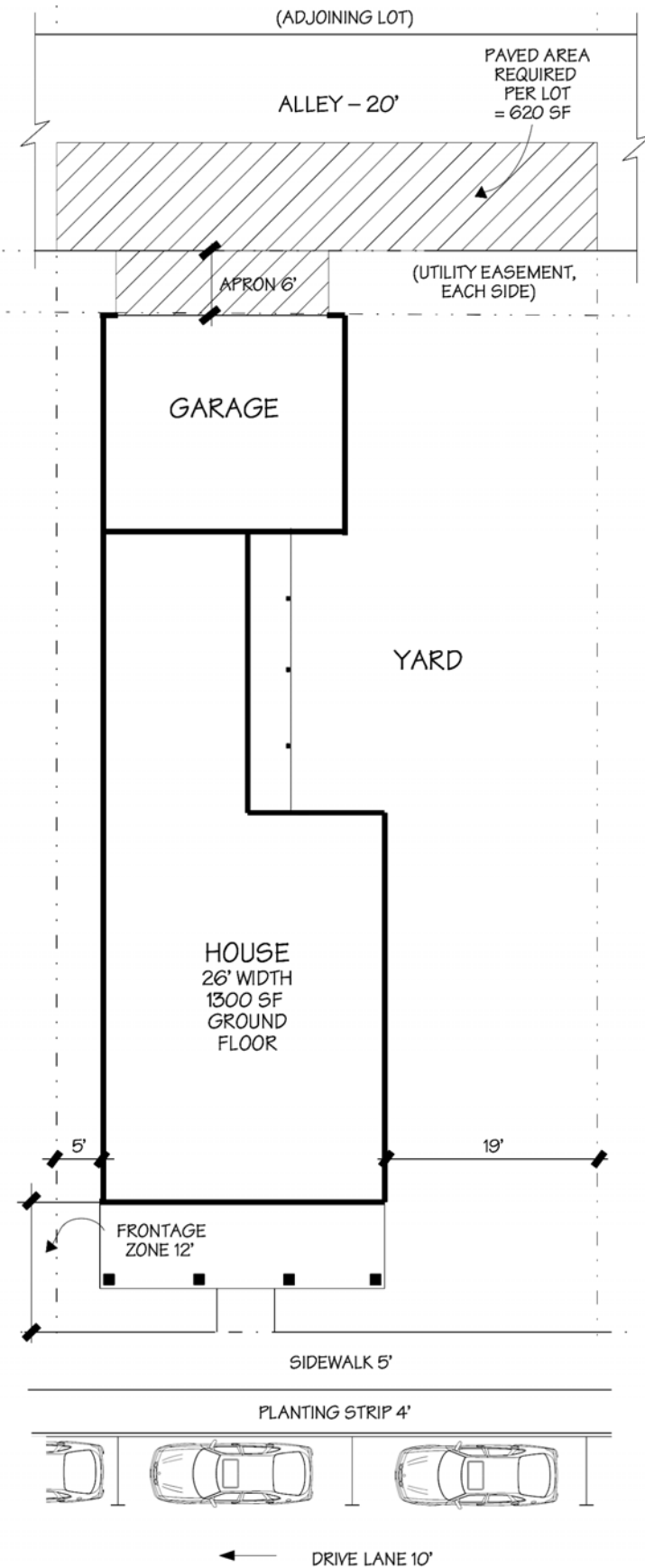
Cost of alley-loaded versus front-loaded residences

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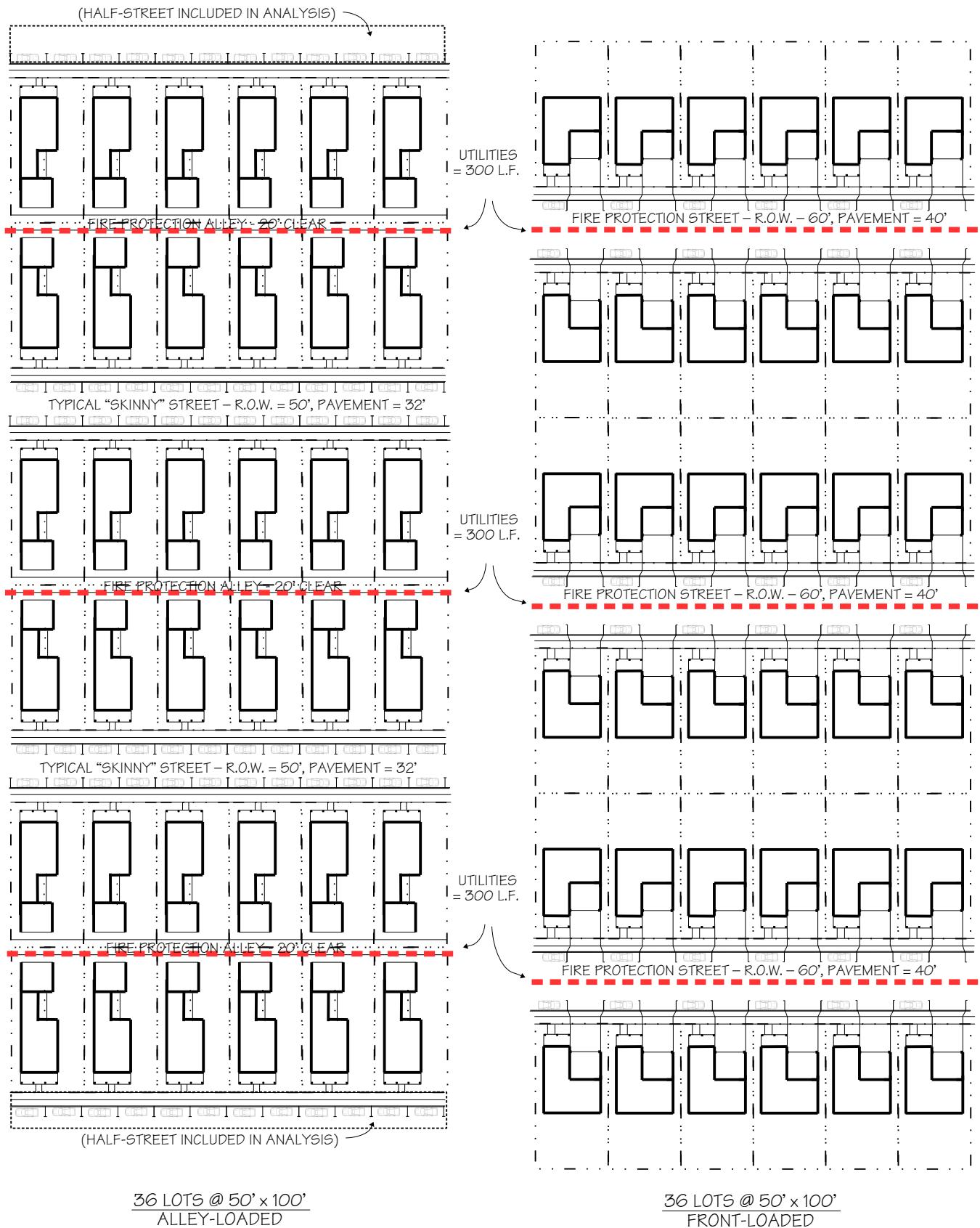
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1 LOT PAVEMENT COMPARISONS ("STANDARD LOT")

FRONT-LOADED VS ALLEY-LOADED, 50' x 100' LOT

SCALE: 1/16" = 1 FOOT



2

COMPARISON OF INFRASTRUCTURE – STANDARD LOT

50' x 100' FRONT-LOADED LOTS VERSUS 50' x 100' ALLEY-LOADED LOTS (BOTH 5,000 SF)

NTS

SUMMARY OF SCENARIO 2 COSTS

36 @ 50' x100' (5,000 SF) Lots - Alley-Loaded vs. Non-Alley Loaded

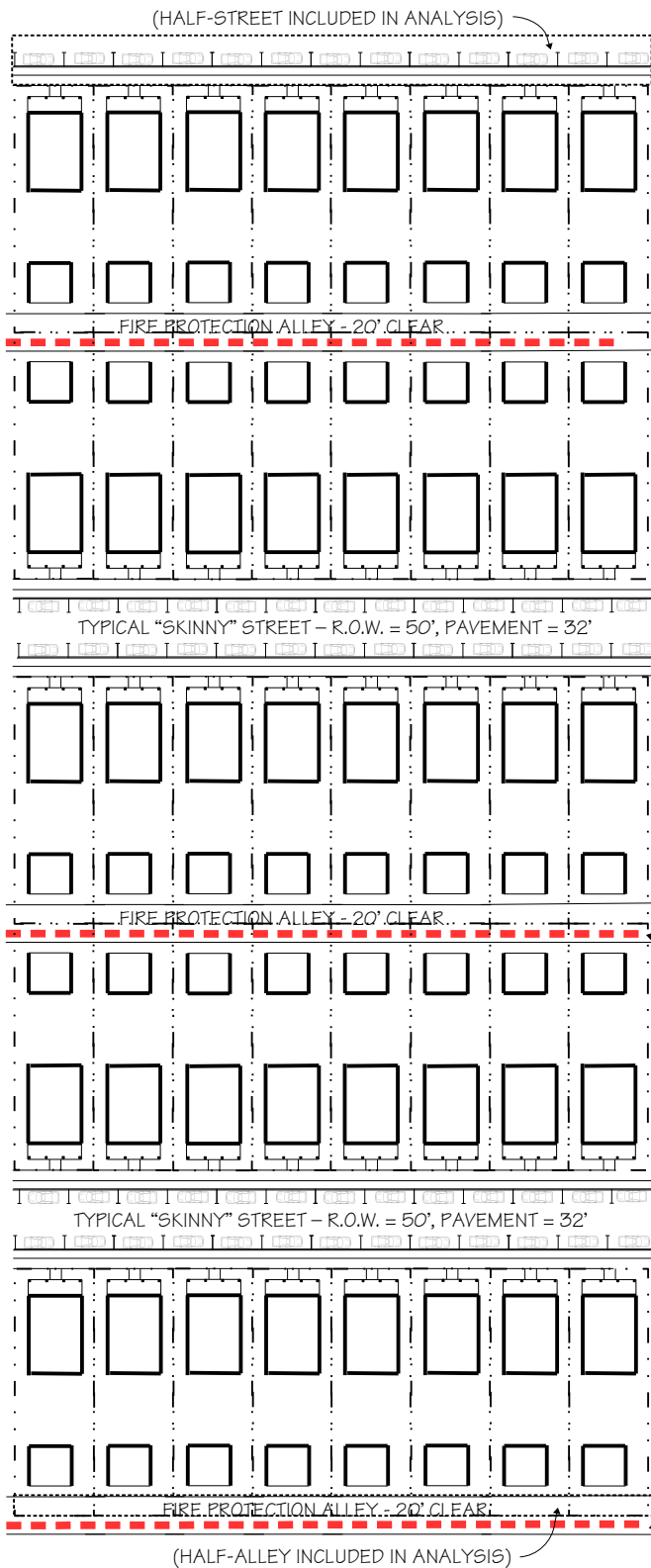
	<u>Alternate 1</u> <u>36 x 100 - Alley</u>	<u>Alternate 2</u> <u>36 x 100 - No Alley</u>	<u>Units/Notes</u>
Lot and Street Areas			
Lot Areas	180,000	180,000	SF (Includes alley easements)
Street Areas	45,000	54,000	SF
TOTAL SF	243,000	234,000	SF (9,000 SF difference)
TOTAL ACRES	5.58	5.37	Acres
DENSITY	10.76	11.17	DU/AC
		-3.85%	Reduction of yield per acre (Results from wider streets required for fire protection)
Other Takeoffs			
Alleys LF	900	-	LF
Alley Areas	18,000	-	SF
Streets LF	900	900	LF
Street Areas SF	45,000	54,000	SF (Wider in front-loaded for fire protection)
Driveway Areas SF		19,440	SF (Not including sidewalk portions)
Lineal Infrastructure			
Alleys	900		LF
Streets		900	LF
TOTAL	900	900	LF
		0.00%	No change in infrastructure lengths
Area of Paving			
Streets (32' vs 40')	28,800	36,000	SF (Note: wider streets required for fire protection when no alleys)
Alleys (20')	18,000	-	SF
Driveways (540 SF EA)		19,440	
TOTAL	46,800	55,440	SF
		18.5%	Increase in paving area (8,640 SF)

NOTE: Does not account for cost of unusable paving space in front of driveways

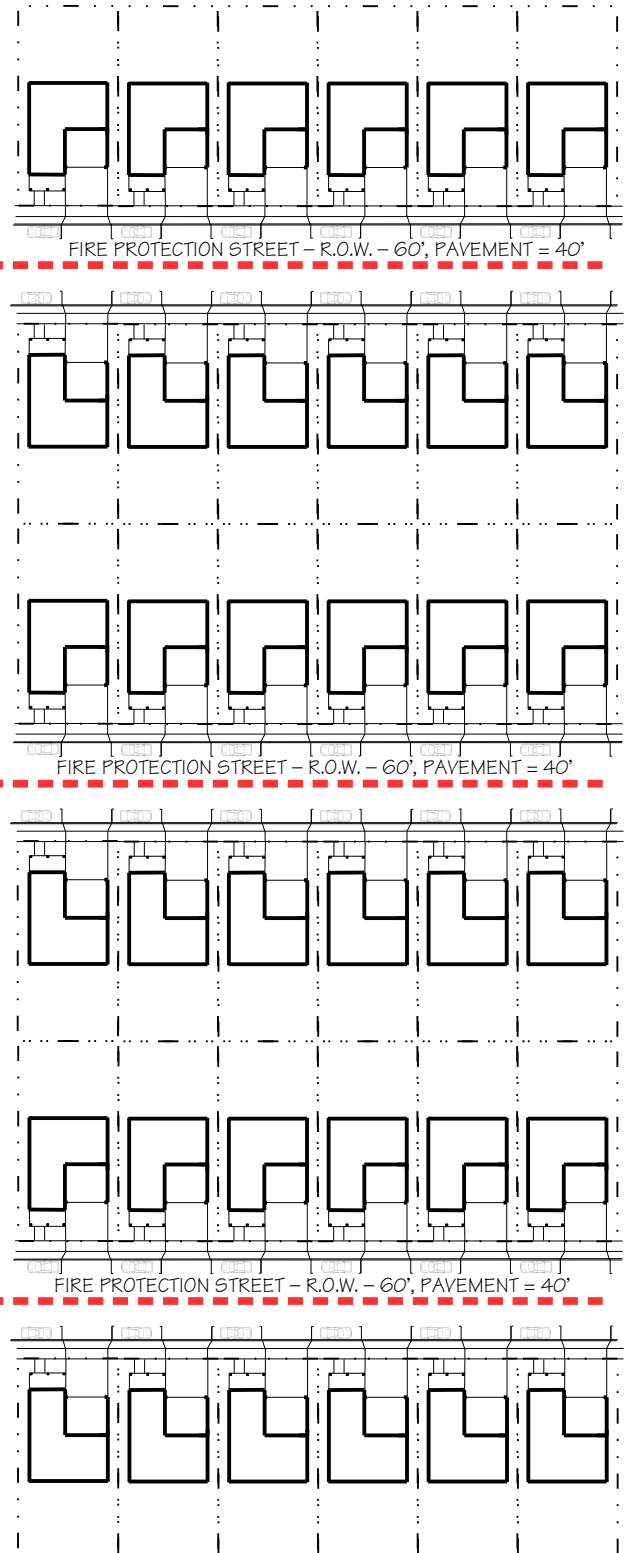
COSTS:

	<u>Unit Costs/LF</u>	<u>Alternate 1 -</u> <u>Alley - LF</u>	<u>Scenario 1 Cost</u>	<u>Alternate 2 - No</u> <u>Alley - LF</u>	<u>Scenario 2 Cost</u>
Utilities	\$ 450.00	900	\$ 405,000.00	900	\$ 405,000.00
Streets	\$ 750.00	900	\$ 675,000.00	900	\$ 675,000.00
Alleys	\$ 200.00	900	\$ 180,000.00	-	\$ -
Pavement increased cost (driveways, 19,440 SF * \$7)					\$136,080
TOTALS			\$ 1,260,000.00		\$ 1,216,080.00
Cost per lot @ 36 lots			\$ 35,000.00		\$ 33,780.00
Adjustment for lower yield: (9,000 SF * \$5/SF = \$45,000 / 36)					\$ 1,250.00
"Apples to apples" cost per lot =			\$ 35,000.00		\$ 35,030.00

Difference = 0.09%



40 LOTS @ 40' x 125'
ALLEY-LOADED



36 LOTS @ 50' x 100'
FRONT-LOADED

3 COMPARISON OF INFRASTRUCTURE - SKINNY LOT

40' x 125' ALLEY-LOADED LOTS VERSUS 50' x 100' FRONT-LOADED LOTS (BOTH 5,000 SF)

NTS

SUMMARY OF SCENARIO 3 COSTS

36 @ 40' x 120' Alley-Loaded Lots vs. 36 @ 50' x 100' Front-Loaded Lots (Both 5,000 SF)

	<u>Alternate 1</u> <u>40 x 125 - Alley</u> <u>(40 Lots)</u>	<u>Alternate 2</u> <u>50 x 100 - No Alley</u> <u>(36 Lots)</u>	<u>Units/Notes</u>
Lot and Street Areas			
Lot Areas	200,000	180,000	SF (Includes alley easements)
Street Areas	40,000	54,000	SF (includes one half-street)
TOTAL SF	256,000	234,000	SF
	5.88	5.37	Acres
	6.81	6.70	DU/AC
		-1.56%	Difference of yield per acre (Equivalent to 4,000 SF of extra land)

Other Takeoffs

Alleys LF	800	-	LF (including one half-alley)
Alley Areas	16,000	-	SF
Streets LF	800	900	LF
Street Areas SF	40,000	54,000	SF
Driveway Areas SF		19,440	SF (Not including sidewalk portions)

Lineal Infrastructure

Alleys	800		LF
Streets		900	LF
TOTAL	800	900	LF

-12.50% Savings for alley scenario

Area of Paving

Streets (32' vs 40')	25,600	36,000	SF (Note: wider streets required for fire protection when no alleys)
Alleys (20')	16,000	-	SF
Driveways (540 SF EA)		19,440	
TOTAL	41,600	55,440	SF

33.3% Increase in paving area (13,840 SF)

NOTE: Does not account for cost of unusable paving space in front of driveways

COSTS:

	<u>Unit Costs/LF or /SF</u>	<u>Alternate 1 -</u> <u>Alley - LF</u>	<u>Scenario 1 Cost</u>	<u>Alternate 2 - No</u> <u>Alley - LF or SF</u>	<u>Scenario 2 Cost</u>
Utilities	\$ 450.00	800	\$ 360,000.00	900	\$ 405,000.00
Streets	\$ 750.00	800	\$ 600,000.00	900	\$ 675,000.00
Alleys	\$ 200.00	800	\$ 160,000.00	-	\$ -
Driveways - 540 SF x 36 lots x \$7/SF				19,440 SF	\$ 136,080.00
			\$ 1,120,000.00		\$ 1,080,000.00
Cost per lot @ 36 or 40 lots			\$ 28,000.00		\$ 30,000.00
Adjustment for lower yield: (4,000 SF * \$5/SF = \$20,000 / 36)					\$ 555.56
"Apples to apples" cost per lot =			\$ 28,000.00		\$ 30,555.56

Difference =

9.13%
Increase in cost

SUMMARY OF SCENARIO 4 COSTS

48 @ 36' x 100' Alley-Loaded Lots vs. 48 @ 60' x 60' Front-Loaded Lots (Both 3,600 SF)

	<u>Alternate 1</u> <u>40 x 125 - Alley</u> <u>(48 Lots)</u>	<u>Alternate 2</u> <u>50 x 100 - No Alley</u> <u>(48 Lots)</u>	<u>Units/Notes</u>
Lot and Street Areas			
Lot Areas	240,000	240,000	SF (Includes alley easements)
Street Areas	43,200	86,400	SF (includes one half-street)
TOTAL SF	300,480	326,400	SF
TOTAL ACRES	6.90	7.49	Acres
DENSITY	6.96	6.41	DU/AC
		-8.63%	Difference of yield per acre (Equivalent to 27.200 SF of extra land)
Other Takeoffs			
Alleys LF	864	-	LF (including one half-alley)
Alley Areas	17,280	-	SF
Streets LF	864	1,440	LF
Street Areas SF	43,200	86,400	SF (@ 50' and 60')
Driveway Areas SF		25,920	SF (Not including sidewalk portions)
Lineal Infrastructure			
Alleys	864	-	LF
Streets	-	1,440	LF
TOTAL	864	1,440	LF
		-66.67%	Net reduction for alley scenario
Area of Paving			
Streets (32' vs 40')	27,648	57,600	SF (Note: wider streets required for fire protection when no alleys)
Alleys (20')	16,000	-	SF
Driveways (540 SF EA)		25,920	SF
TOTAL	43,648	83,520	SF
		91.3%	Increase in paving area (13,840 SF)

NOTE: Does not account for cost of unusable paving space in front of driveways

COSTS:

	<u>Unit Costs/LF or /SF</u>	<u>Alternate 1 -</u> <u>Alley - LF</u>	<u>Scenario 1 Cost</u>	<u>Alternate 2 - No</u> <u>Alley - LF or SF</u>	<u>Scenario 2 Cost</u>
Utilities	\$ 450.00	864	\$ 388,800.00	1,440	\$ 648,000.00
Streets	\$ 750.00	864	\$ 648,000.00	1,440	\$ 1,080,000.00
Alleys	\$ 200.00	864	\$ 172,800.00	-	\$ -
Driveways - 25,920 SF * \$7/SF				25,920 SF	\$ 181,440.00
			\$ 1,209,600.00		\$ 1,909,440.00
Cost per lot @ 48 lots			\$ 25,200.00		\$ 39,780.00
Adjustment for lower yield: (27,200 SF * \$5/SF = \$136,000 / 48)					\$ 2,833.33
"Apples to apples" cost per lot =			\$ 25,200.00		\$ 42,613.33

Difference = 69.10%
Increase in cost

APPENDIX I: Article on popularity of alleys with builders in Denver CO



KB Home, one of several builders rallying around alleys in suburbs, is behind the Idyllwilde development in Parker.

By **MARGARET JACKSON** | The Denver Post

PUBLISHED: December 23, 2010 at 1:58 p.m. | UPDATED: May 5, 2016 at 12:15 p.m.

The suburbs are getting a taste of the city as several Denver-area builders develop single-family homes on alley-loaded lots. Such lots allow builders to tuck garages behind houses, leaving the front free for porches and other design features.

A few years ago, the most successful new housing developments in metro Denver offering homes on alley lots were at infill locations such as Stapleton and Lowry.

Builders rarely constructed single-family homes on alley lots in the suburbs, preferring front-loaded lots where they could offer traditional floor plans, said Mike Rinner, executive vice president of The Genesis Group, an Englewood-based market research and analysis firm.

At least four companies are building alley-loaded projects in the suburbs, including Upland Park in The Meadows by Richmond American Homes, Spaces at the Ranch by Shea Homes, Idyllwilde by KB Home, and Tuscany Trails by Standard Pacific.

"It allows us to build a little bit smaller homes in higher-density areas," said Rusty Crandall, president of KB Home Colorado. "People seem to be intrigued by the design. The porches are across the whole front of the house instead of the garages lining the streets."

The Idyllwilde neighborhood in Parker lends itself to alley lots because the community has an amenity package that includes parks, a pool and clubhouse, Crandall said.

"Alley lots work great in communities that are master-planned," he said.

Alley lots also allow builders to put more homes in a smaller area, said Mike Davidson, marketing manager for Standard Pacific. And front porches have become increasingly popular.

"It lets people get out in the neighborhood and be friends with the neighbors," Davidson said. "They can sit and watch the kids play in the street. Stapleton and Lowry are great examples of where it's worked. That trend is just spreading out into the suburban areas."

Since the market collapsed in late 2008, builders have focused on boosting sales with affordable homes.

It's a trend that has continued with building on alley lots, with companies decreasing the amount of square footage they're offering to accommodate small yards on the sides of the houses.

"If you look at today's homebuyer, it's different than that prior to 2005," said Zane DeHerrera, spokesman for Richmond American Homes. "The McMansions are gone for now. They're looking for homes that are smaller and more affordable."

Buyers also are looking for more livable homes. Gone are the formal living and dining rooms, replaced by more open floor plans that allow for flexibility in the use of space.

"The streetscapes really provide a unique and distinct community in a charming neighborhood," DeHerrera said. "It doesn't become a cookie-cutter community."

Margaret Jackson: 303-954-1473 or mjackson@denverpost.com



Redmond

Homebuilders say 'no' to Redmond code changes

City wants to put driveways and garages behind new homes to cut down on concrete-filled neighborhoods

As residential development continues to boom in Redmond, the city wants to amend its code so it can have more control over what future neighborhoods will look like.

Homebuilders, however, say the proposed changes are too restrictive and would raise construction costs. They are coming out against one amendment in particular: a code change that would require new homes be constructed “alley-loaded,” or built alongside an alley so the garage and driveway aren’t in the front of the house.

The requirement may seem like a technical detail to some, but it has sparked pushback from members of the Central Oregon Builders Association, which represents developers. The group sent Redmond City Council a letter last week requesting the requirement’s removal.

“COBA, which represents 630 member companies, doesn’t support the requirement of alley-loaded lots — period,” Katelyn Pay, COBA’s director of government affairs, said.

Developers said that alley-loaded houses cost more per square foot to produce because they have to be built on a more narrow foundation. And because these homes are typically designed for high-density areas, they usually have to be higher than one story, further raising construction costs. Meanwhile, alley-loaded homes don’t sell as well as traditional homes with a garage and driveway in front, creating a situation in which a house that costs more to build sells for less, said Geoff Harris, regional director for Hayden Homes in Bend.

“It’s always more expensive per square foot to build alley product,” Harris said, adding that beyond raising construction costs and the price of homes in a city that’s in the middle of a housing crunch, the requirement for alley-loaded homes would also contradict the city’s goal of having a variety of housing. “The stated goal from council members has been to create more of a mix of housing types in Redmond. Including a line item that prefers a single type of housing unless you get a variance seems counterintuitive,” he said.

The city, however, is looking for a way to address a common problem it says it faces in many of its recently approved housing developments: concrete-heavy neighborhoods that aren’t pedestrian-friendly. And with residential construction in Redmond continuing to grow, Planning Director Deborah McMahon said it’s important to tighten outdated development code language that’s too permissive.

“You can go to different subdivisions and see they get crammed in like this pretty quick — driveway after driveway,” she said. “It’s not what we want, and on the smaller lots it really detracts what we’re trying to accomplish with our neighborhoods. If the code language is permissive — meaning it uses ‘should’ or ‘encourage’ — then people won’t always do what’s encouraged. Most of the master plans we’ve approved this year have been for non-alley loaded homes.”

McMahon said that eight subdivision master plans have been approved in 2016, and just last week city councilors voted to annex a 16-acre property into Redmond’s city limits that is on track to become a housing development next year. According to Community Development Department records, 197 residential building permits were issued for new single-family homes last year — the most since 2007. Planning permit activity last year — which speaks to future growth — saw a 500 percent increase from 2014.

“We are having to approve designs where driveways are very close together and the lots are very small,” McMahon said. “There’s very little space that’s not concrete and the walking surface is interrupted by numerous driveways. The short answer is yes, we’ve had significant problems, and by having alleys as a required feature we would be producing better neighborhood designs.”

The alley issue inspired a lengthy discussion during last week’s city council meeting. Instead of approving the amendments, councilors voted to leave open a public hearing until late January so discussion of the pros and cons could continue.

“There’s a lot here,” said Councilor Jay Patrick. “I’m not ready to vote on it.”

Now the development code amendments will receive another look from the city’s planning commission, which already voted to nix the alley-loaded requirement from the proposed changes at a meeting last month. Bill Hilton, a commissioner, said that developers and city staff will all get another chance to weigh in on the changes at the commission’s January meeting.

Harris, who noted that Hayden Homes has had a productive relationship with the city of Redmond, said he looks forward to the discussion. The city has a tendency to implement code requirements that aren’t necessary to home construction in order to control neighborhood aesthetics, he said, and such issues have come up before.

In 2013, homebuilders pushed back when Redmond changed its development code to add design standards for new homes. The goal of those code changes was to target features that might add to the positive perception of Redmond neighborhoods, things like street trees, screening mechanical equipment from view, and variety in home styles and architectural details.

“That was the first time when we began to really engage with (the city),” Harris said. “We spent quite (a) bit (of) time on that, and I understand what they’re trying to do. But Redmond has a more complicated architectural review than any city I’ve worked with in the Northwest.”

— Reporter: 541-617-7829,
awest@bendbulletin.com



DESIGN

Key Design Tips for Alley-Loaded Homes

JUNE 22, 2021



Photo: PT Hamilton | stock.adobe.com

No, you cannot simply flip an existing front-loaded plan for an alley-loaded home, says design firm Housing Design Matters. The resulting streetscape from alley-loaded homes creates a more community-centric, pleasing appearance because facades are not interrupted by garages. Housing

Design Matters says it's important to remember seven key points when designing an alley-loaded community, three-car garages, rooms over the garage, the water heater, primary bedroom, private outdoor space, build to line, and egress from the garage. Private outdoor spaces are big hits with buyers, so it's important to ensure the backyard has covered and uncovered areas.

BUILD TO LINE

Many alley loaded communities require a front "build to line" or zone. This is to ensure the houses hug the sidewalk for a friendly streetscape. With a build to zone from 18' to 24', you get "bounce" and animation in your streetscape.

Sounds easy enough, until you think about the length of the lot. Say you have a 130' long lot and 60' long two-story home including front porch and garage. The build to line is 20' on the front. The quick math ($130' - 20' - 60'$) tells us the back of the garage, if attached, is 50' from the alley. That's a long driveway and not a great use of the backyard. In that case, you would detach the garage. On the plus side, the detached garage provides backyard privacy from the road. On the negative side, it can be a long hike in the rain with groceries.

EGRESS FROM THE GARAGE

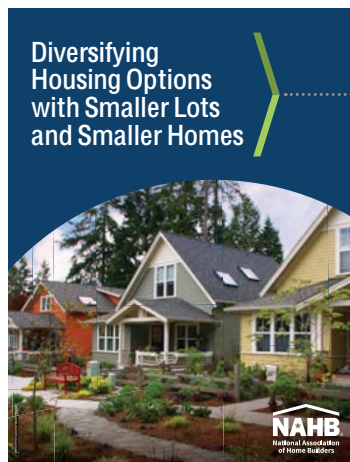
As just described, access from the garage may be difficult in an alley loaded house. Ideally, you want to arrive inside the home for convenience, inclement weather, and security. When the garage is detached, you could add a breezeway to add shade and protection from rain – unless it's one of those sideways rain showers. And breezeways are cheap both because of lumber cost but also because of uplift. For security, you could fence the yard. Then hopefully locate the kitchen closest to the garage.

Ranch plans can still offer the opportunity to enter the home directly from the garage. If the owner's bedroom is forward, you might be entering at the kitchen – perfect for the grocery getter. It is still important to try to create a welcome home valet for alley plans too.

[Read More](#)

APPENDIX 4: Excerpt from National Association of Homebuilders on “Diversifying housing options with smaller lots and smaller homes” (2019)

The report gives guidance on small-lot designs for greater affordability, including alley-loaded homes.



Chapter 2: Code Analysis and Best Practices

Small House on a Small Lot

- **Building type:** A detached building with one dwelling on a lot that is smaller than the typical single-family lot. The house is also smaller than the typical single-family houses and has a dooryard or small front yard, often with a stoop or porch providing entry to the unit from the street or a shared garden. The building has a small rear yard with uncovered parking, or an attached or detached garage accessed by a side drive or an alley.
- **Lot size range (feet):** About 35 wide x 80 deep up to about 50 wide x 90 deep.
- **Height:** 1.5 to 2.5 stories.
- **Resultant density range:** About 10 to 15 dwelling units per acre (variations are higher).



Variations

- **Very Small Lot:** The lot can be about 60-feet deep with alley access. Without an alley, the lot should be 45-feet wide to accommodate a garage accessed via a side drive from the street. This yields a detached house of at least 750 square feet (front access, single-story), or about 1,000 square feet (alley access, single-story) with a resultant density of about 16 dwelling units per acre.
- **Tiny Lot:** The lot can be as small as 25 feet by 35 feet if parking is not required. This yields a detached or attached house of at least 400 square feet (single-story, no parking), with a resultant density of 50 dwelling units per acre. This is recommended only for highly walkable contexts where a personal vehicle is not needed.

Design Considerations and Best Practices

- Building setbacks and parking requirements should decrease as the lot size decreases, especially when in a walkable context.
- If attaching these houses, the resulting building should not be larger than large single-family houses in the area.

Implementation Options

Adopt ADU Code	Modify Current Zoning to Allow ADU's	Adopt Small Lot Code	Modify Current Maximum Zoning Density	Adopt Cottage Court Code	Modify Current Zone District Standard(s)	Adopt Overlay Zone(s) or Standard(s)	Replace Zone(s) with Form-Based Code
N/A	N/A	✓	✓	N/A	✓	✓	✓