

Residential Code Initiatives: Increasing Flexibility for Residential Development

Plan Commission



MAKERS architecture & urban design, LLP

January 26, 2021



Residential Development Code Initiatives

Phase 1 – Spring 2022

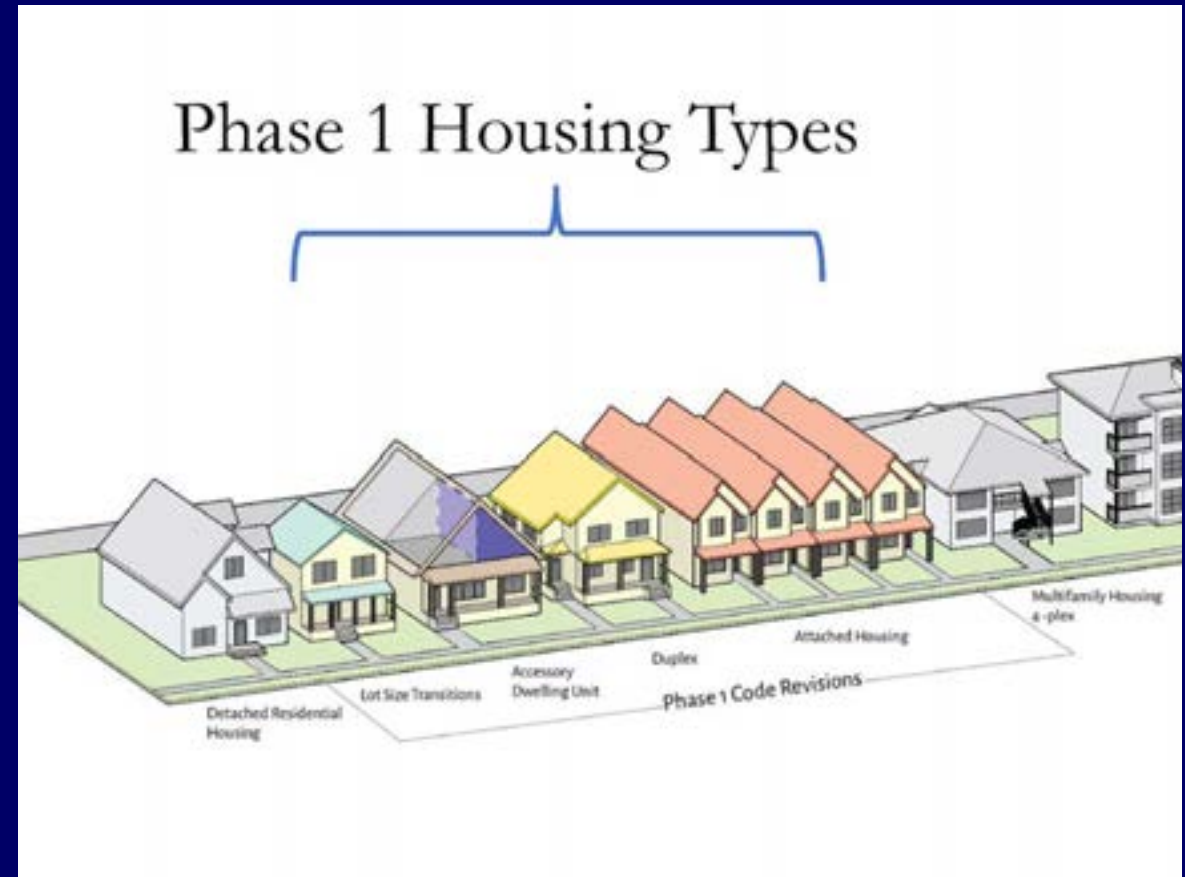
Phase 2 – 2022-2023

- Additional changes that may require comprehensive plan amendments

December 8 Workshop:

Housing type/code element review

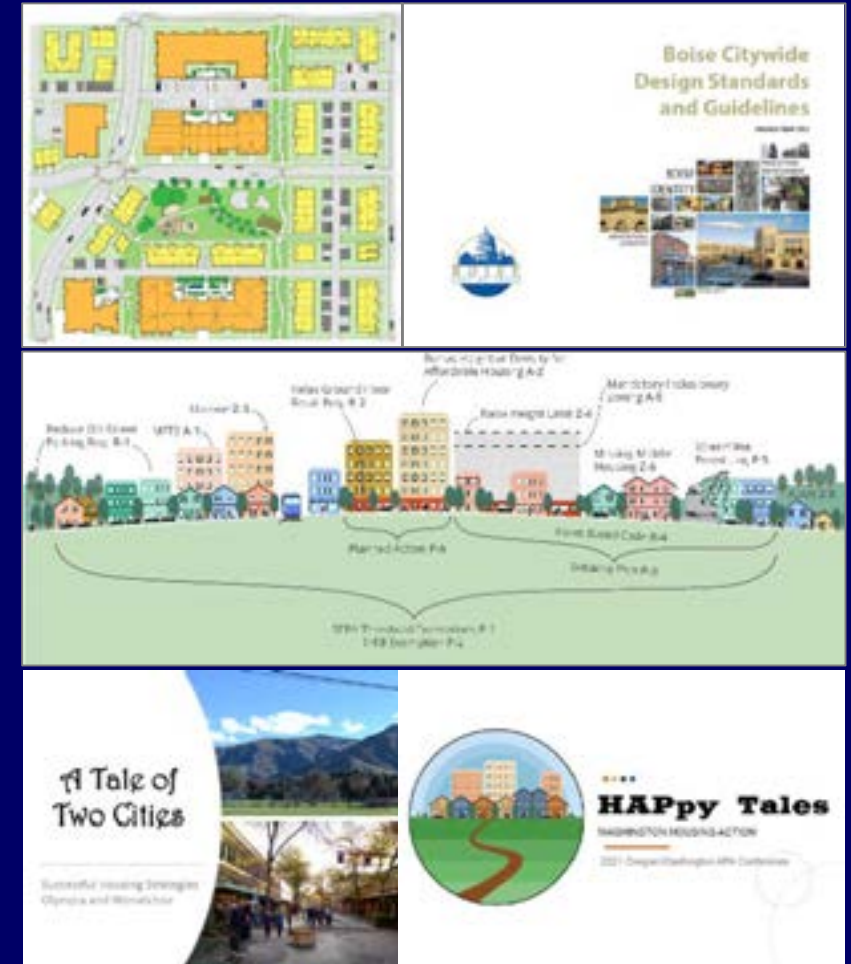
- ADUs
- Duplexes
- Pocket residential development
- Attached housing (townhouses)
- Lot transition standards





About MAKERS

- Crafted over 65-sets of adopted zoning codes/design standards
- Heavy emphasis on integrating compatible density, including missing middle housing types
- Crafted action strategies for recent Washington Housing Action Plan Guidebook
- Led & supported 12 HB-1923 projects
- Led two conference session on housing project experience 2021 WA APA conf





Testing & Refining Alternatives

Since Dec 8 meeting, the project team has been actively testing and refining the code alternatives – which we will share our findings today



Code Alternative	Scenario	Scenario Description	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6	Scenario 7	Scenario 8	Scenario 9	Scenario 10	Scenario 11	Scenario 12	Scenario 13	Scenario 14	Scenario 15	Scenario 16	Scenario 17	Scenario 18	Scenario 19	Scenario 20	Scenario 21	Scenario 22	Scenario 23	Scenario 24	Scenario 25	Scenario 26	Scenario 27	Scenario 28	Scenario 29	Scenario 30	Scenario 31	Scenario 32	Scenario 33	Scenario 34	Scenario 35	Scenario 36	Scenario 37	Scenario 38	Scenario 39	Scenario 40	Scenario 41	Scenario 42	Scenario 43	Scenario 44	Scenario 45	Scenario 46	Scenario 47	Scenario 48	Scenario 49	Scenario 50	Scenario 51	Scenario 52	Scenario 53	Scenario 54	Scenario 55	Scenario 56	Scenario 57	Scenario 58	Scenario 59	Scenario 60	Scenario 61	Scenario 62	Scenario 63	Scenario 64	Scenario 65	Scenario 66	Scenario 67	Scenario 68	Scenario 69	Scenario 70	Scenario 71	Scenario 72	Scenario 73	Scenario 74	Scenario 75	Scenario 76	Scenario 77	Scenario 78	Scenario 79	Scenario 80	Scenario 81	Scenario 82	Scenario 83	Scenario 84	Scenario 85	Scenario 86	Scenario 87	Scenario 88	Scenario 89	Scenario 90	Scenario 91	Scenario 92	Scenario 93	Scenario 94	Scenario 95	Scenario 96	Scenario 97	Scenario 98	Scenario 99	Scenario 100
Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6	Scenario 7	Scenario 8	Scenario 9	Scenario 10	Scenario 11	Scenario 12	Scenario 13	Scenario 14	Scenario 15	Scenario 16	Scenario 17	Scenario 18	Scenario 19	Scenario 20	Scenario 21	Scenario 22	Scenario 23	Scenario 24	Scenario 25	Scenario 26	Scenario 27	Scenario 28	Scenario 29	Scenario 30	Scenario 31	Scenario 32	Scenario 33	Scenario 34	Scenario 35	Scenario 36	Scenario 37	Scenario 38	Scenario 39	Scenario 40	Scenario 41	Scenario 42	Scenario 43	Scenario 44	Scenario 45	Scenario 46	Scenario 47	Scenario 48	Scenario 49	Scenario 50	Scenario 51	Scenario 52	Scenario 53	Scenario 54	Scenario 55	Scenario 56	Scenario 57	Scenario 58	Scenario 59	Scenario 60	Scenario 61	Scenario 62	Scenario 63	Scenario 64	Scenario 65	Scenario 66	Scenario 67	Scenario 68	Scenario 69	Scenario 70	Scenario 71	Scenario 72	Scenario 73	Scenario 74	Scenario 75	Scenario 76	Scenario 77	Scenario 78	Scenario 79	Scenario 80	Scenario 81	Scenario 82	Scenario 83	Scenario 84	Scenario 85	Scenario 86	Scenario 87	Scenario 88	Scenario 89	Scenario 90	Scenario 91	Scenario 92	Scenario 93	Scenario 94	Scenario 95	Scenario 96	Scenario 97	Scenario 98	Scenario 99	Scenario 100			



Project Goals

- Help address housing affordability issues by:
 - Increasing capacity for housing construction to help address housing demand
 - Allowing and encouraging construction of smaller, more affordable units
 - Optimizing regulatory controls for desired outcomes and reduce unintended consequences
- Avoid unreasonable impacts to neighbors, while allowing better use of existing residential lots
 - Align dimensional standards to keep homes within reasonable scale
 - Minimize views into neighboring backyards
- New homes contribute to neighborhood character
 - Minimum design standards for attractive and pedestrian-friendly street environments



Neighborhood Compatibility Concerns

- Aggressive development practices
 - Buildings that occupy the maximum building envelope and are rented out by room
 - Parking pressures on nearby streets
- Unreasonable impacts to neighbors
 - Out of scale homes
 - Views into neighboring backyards
- Problematic building design
 - Blank walls facing the street
 - Garages that dominate frontage



Set of Proposals Working Together

Strategic adjustments to allow more housing capacity while mitigating neighborhood character concerns:

- RSF zone - all housing types (6)
- ADU changes (7)
- Duplex changes (3)
- Attached housing changes (3)
- Lot transition options (2)





RSF Zones – All Housing Types

- R-1.** Minimum usable open space standards
- R-2.** Add impervious area standards
- R-3.** Adjust the maximum building coverage standard
- R-4.** Create/update minimum design standards
- R-5.** Require alley access where available



R-1. Minimum usable open space standards



Issue typically only comes into play on alley loaded lots – notably when the garage is attached to the house – and the yard space is sacrificed for a driveway (Lacey, WA)



R-1. Minimum usable open space standards



Similar examples in Spokane



R-1. Minimum usable open space standards

- Single family detached & duplexes:
 - At least 10% of lot with no dimension less than 15'
 - For duplexes, each unit must have an open space meeting the min. 15' dimension
 - Usable open spaces located in the front yard are acceptable provided they are delineated from the street/sidewalk by a low fence (16" min)
- Attached housing:
 - Continue to use existing standards **except** (250sf + 12' x 12' for the RA, RSF, RTF zones; 200sf/ 10' x 10' in RMF zone; 48sf/ 7' x 7' in RHD zone)

Suggest increasing to 100sf but retain 7' min dimension





R-2. Add impervious area standards

Existing: No impervious surface review for projects in RSF and RTF zones

Proposal: Create new impervious surface standard

Impervious surfaces prevent rainwater from infiltrating into the ground, creating stormwater flow which impacts infrastructure capacity and stream water quality.





R-3. Adjust max. building coverage standard

Existing: building may not cover more than 40-60% of the lot in R-zones
(exact % is dependent on formula and zone)

Proposal: adjust standard for greater flexibility

Existing floor area ratio (FAR) rule de facto limits coverage to 50% in RSF and RTF. Coverage is an imperfect proxy for impervious surfaces and useable open space.





R-4. Create minimum design standards

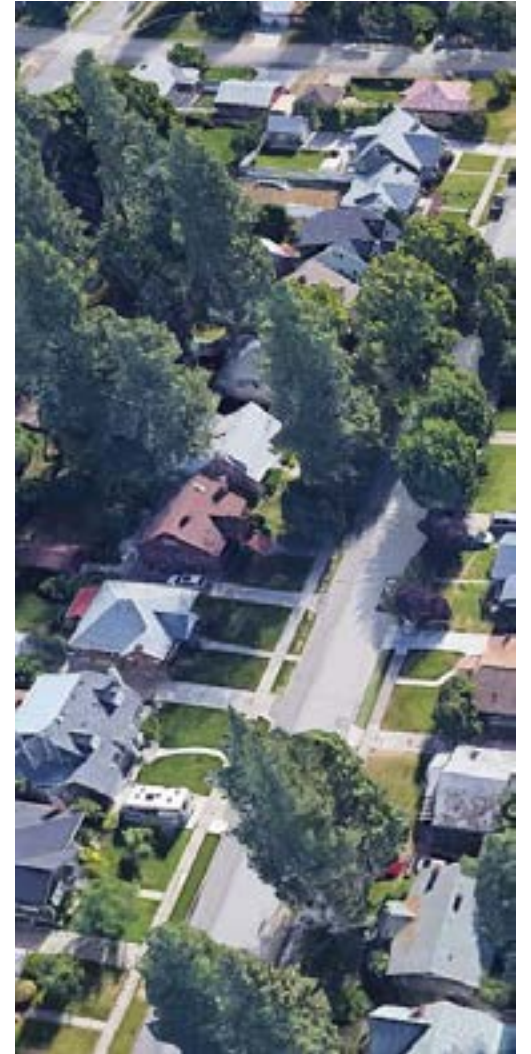
Standards would apply equally to detached single family, attached single family, ADU's, and duplexes





R-5. Create minimum design standards

- Purpose: Better ensure neighborhood compatibility
 - Safe, attractive streetscapes & pedestrian environment
 - Compatible building scale & character
 - Minimizing privacy impacts along side/rear yards
 - Flexibility in architectural styles (including rooflines)
- Elements:
 - Façade articulation
 - Covered entry facing the street (those dwellings facing the street)
 - Minimum façade transparency/window coverage
 - Integration of design details (menu of options)
 - Front yard landscaping





R-5. Create minimum design standards

Façade Articulation

- Facades >20-25' wide must integrate articulated projections to reduce the perceived scale, add visual interest, and create compatible neighborhood scale



Spokane examples

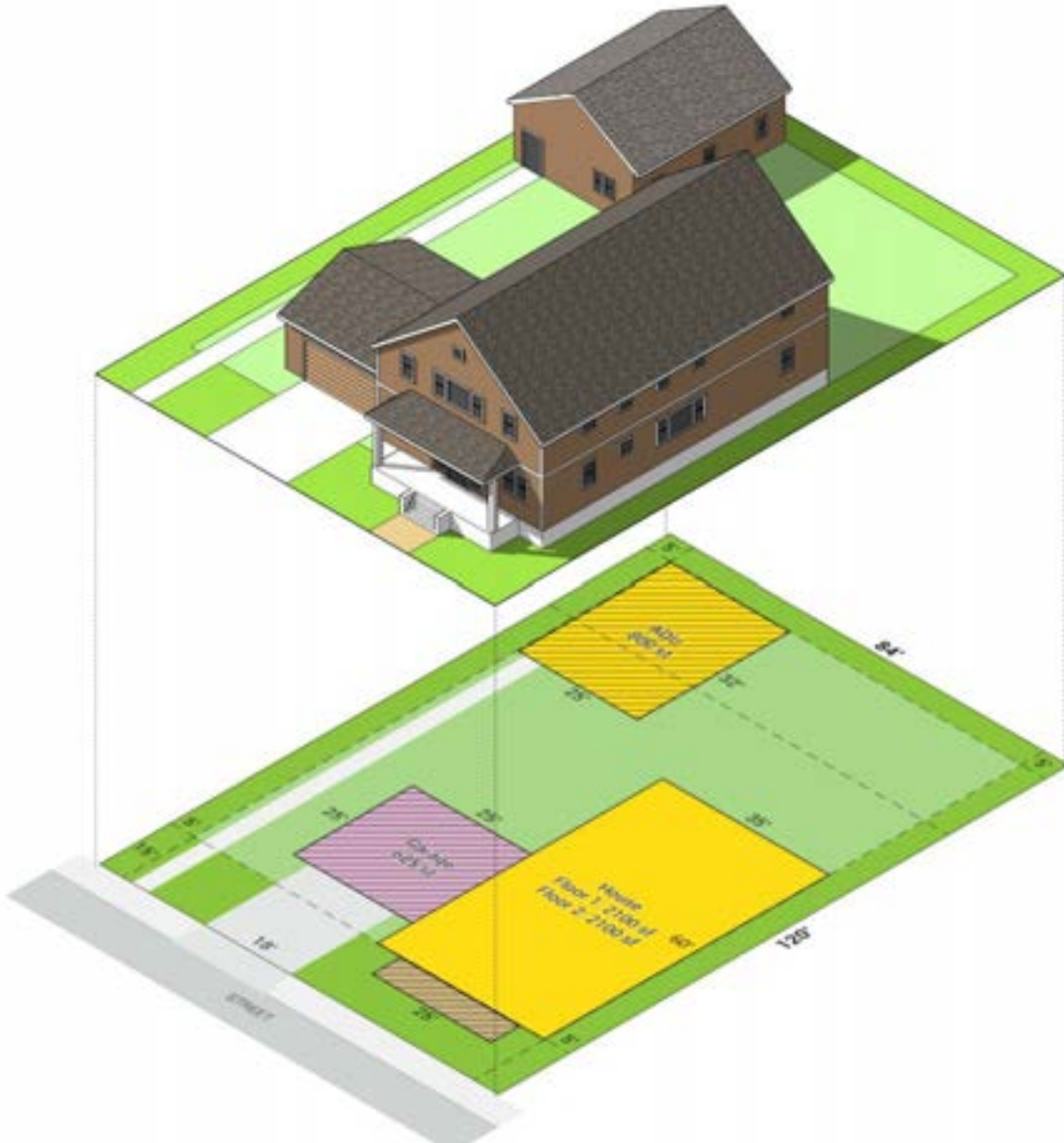


R-5. Create minimum design standards

Façade Articulation in Spokane's older neighborhoods



R-5. Create minimum design standards



Façade Articulation

- Large gable elevation is 35' wide but large projecting porch adds sense of human scale and helps meet the standard.

R-5. Create minimum design standards

Covered entry facing the street (those dwellings facing the street)

- Applies to those units facing the street (public or private internal street)
- For units not fronting on the street, such units must include a covered entry facing private drive or an internal walkway or courtyard
- Minimum dimensions: 3' deep for the width of the entry



R-5. Create minimum design standards

Minimum façade transparency/window coverage





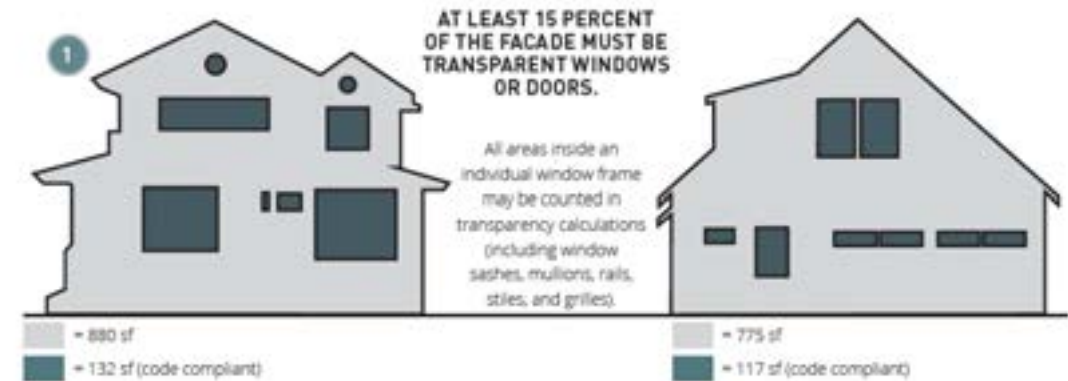
R-5. Create minimum design standards

Minimum façade transparency/window coverage

- Applies to vertical surfaces facing the street
- Explore appropriate minimum percentage
- Allow windows on garages to account for a percentage of the min. requirement

Cities we've worked with have adopted standards between 6-15% (min transparency %)

At least 10 percent of the façade (all vertical surfaces of a residence facing the street) must be transparent windows or doors. All areas inside an individual window frame may be counted in transparency calculations (including window sashes, mullions, rails, stiles, and grilles).





R-5. Create minimum design standards

Integration of design details (menu of options)

- Applies to facades of all dwelling units (discussion on how it might apply to ADUs – perhaps the most visible elevation)
- From a menu of options, integrate a minimum number of design details (two or three, example list of options below).
 - Window trim or recess (consider this as a required feature)/Decorative molding/framing details around all ground floor windows and doors.
 - Decorative materials (integration of stone or brick or mix of siding materials coordinated with façade modulation)
 - Decorative entry or porch design, including decorative columns or railings.
 - Decorative door design including transom and/or side lights or other distinctive feature.
 - Bay windows or balconies



R-5. Create minimum design standards

Integration of design details (examples)





R-5. Create minimum design standards

Integration of design details (examples)





R-5. Create minimum design standards

Front Yard Landscaping & Design (integrate at least two items from list)

- Integrate at least one 3-gallon shrub every 3 lineal feet of foundation
- Integrate landscaping on at least 60% of front yard (the area between the front lot line and front building line must be landscaped)
- Integrate a patio (10' min dimension) with perimeter landscaping and a low wall separating patio from sidewalk.
- Integrate a terraced landscaped front yard – with at least one concrete, masonry, or rock retaining wall at least 16” tall
- Integrate a low fence with space for shrubs in front along the sidewalk
- Integrate a trellis for vine plants





Accessory Dwelling Units (ADUs)

ADU-1. Increase allowed size for detached ADUs to 800 sf

ADU-2. Remove minimum lot size for new ADUs

ADU-3. Provide a FAR bonus for ADUs

ADU-4. Integrate strategic adjustments to setbacks & wall/roof height

ADU-5 Remove ADU owner occupancy requirement in RTF, RMH, and RHD

ADU-6 Modify owner-occupancy requirement in RSF zones

ADU-7 Relax parking requirement for ADUs



ADU-1. Increase allowed size for detached ADUs

Detached accessory dwelling unit (DADU) floor area maximum size

- Existing standard: 600 sf
- **Proposal: increase to 800 sf**

Existing 15% building coverage maximum for accessory structures prevents large footprint ADUs on smaller lots.

City	Max size	Add'l standard
Wenatchee	800 sf	<50% of house size
Bellevue	800 sf	<40% of house size
Vancouver	800 sf	<15% of lot area
Anacortes	900 sf	
Everett	1000 sf	<10% of lot area
Seattle	1000 sf	
Bozeman, MT	600 sf	
Boise, ID	700 sf	<10% of lot area
Bend, OR	800 sf	<10% of lot area
Portland, OR	800 sf	<75% of house size



ADU-2. Remove minimum lot size for new ADUs

Accessory Dwelling Unit (ADU)
minimum lot size

- Existing standard: 5,000 sf
- **Proposal: eliminate**

About 5% of R-zone lots are between
3,000 and 5,000 sf.

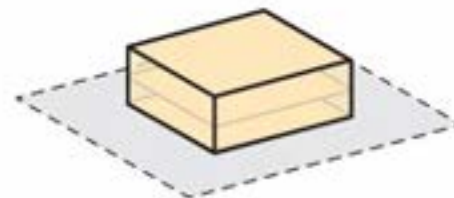
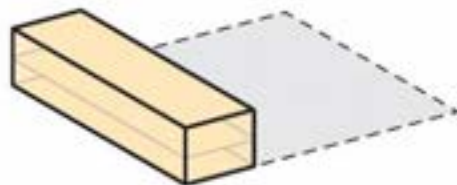
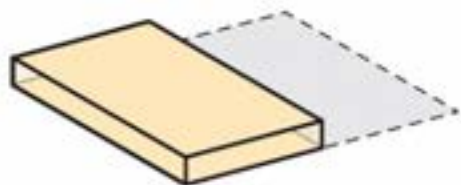
15% accessory unit coverage and FAR
limits would make it difficult to add an
ADU on lots under 3,000 sf

City	Minimum lot size to add ADU
Wenatchee	None
Bellevue	None
Vancouver	4,500 sf
Anacortes	None
Everett	None
Seattle	3,200 sf (DADU)/none (AADU)
Bozeman, MT	5,000 sf
Boise, ID	None
Bend, OR	None
Portland, OR	3,200-5,000 sf (depends on zone)

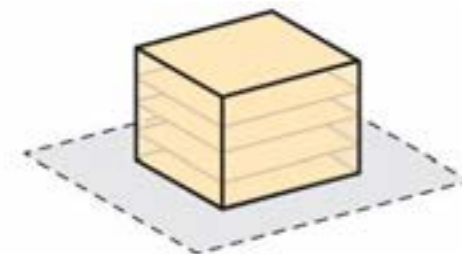
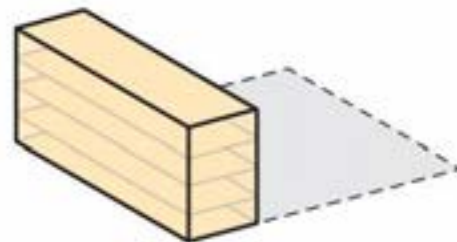
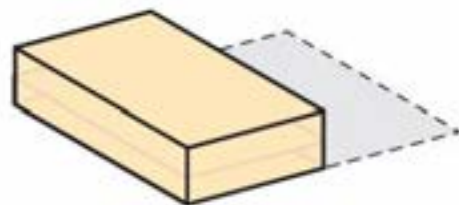
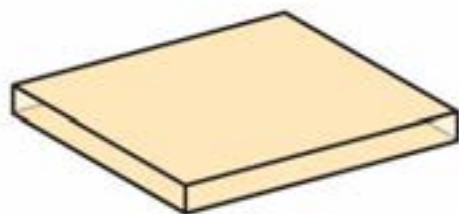


Floor Area Ratio (FAR)

FAR 0.5



FAR 1.0



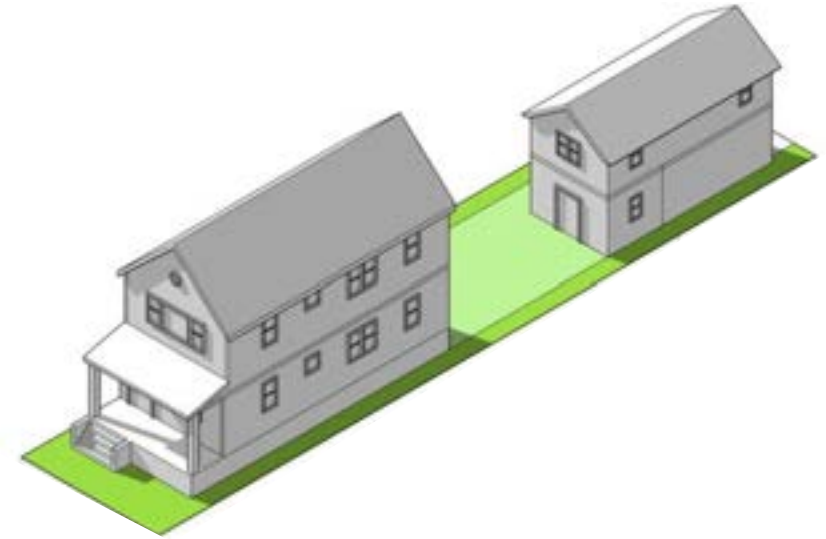


ADU-3. Provide a FAR bonus for ADUs

Existing standard: Floor area ratio (FAR) 0.5 for RSF and RTF zones

Proposal: FAR 0.6 for lots under 7,200 sf with an ADU

- Existing FAR makes it difficult to fit both a house and an ADU on a smaller lot.
- Average floor area for new detached houses in USA is 2,400 sf.



Lot size	FAR 0.5	FAR 0.6
3,000 sf	1,500 sf	1,800 sf
4,350 sf	2,175 sf	2,610 sf
5,000 sf	2,500 sf	3,000 sf
7,200 sf	3,600 sf	4,320 sf
10,000 sf	5,000 sf	No change



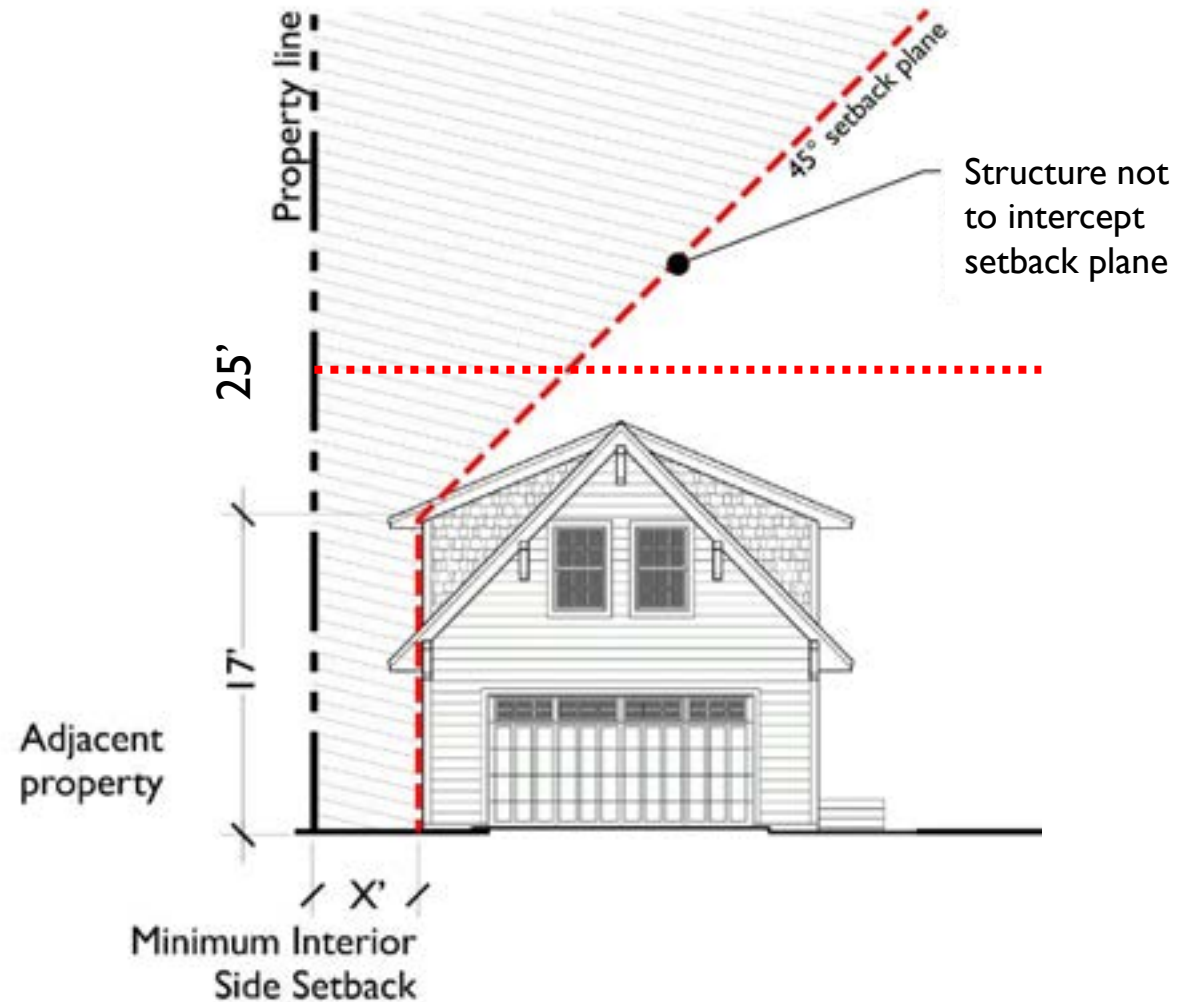
ADU-4. Setbacks & wall/roof height

Detached ADU over garage

Existing standard: maximum wall height 16'; max roof peak 23'

Proposal:

- Maximum wall height 17' | 25' max roof peak
- 45° setback plane at 17' above side or rear setback
- Require roofline oriented to street if within 10' of lot side
- Increase flexibility for ADU roof design





ADU-5 & ADU-6: Owner-Occupancy Requirements

Existing standard: ADU or house must be occupied by owner

- **Proposal ADU-5: remove owner occupancy requirement in RTF, RMH, and RHD zones**
- **Proposal ADU-6: require owner occupancy for three years after construction in RSF zones**





ADU-7 Relax parking requirement for ADUs

Existing: one space per ADU

Proposal: no required parking for studio and 1-bedroom ADUs

- Parking requirements can make it physically impossible to site an ADU on a residential lot.
- Existing rules allow on-street parking to count towards parking minimums.
- State law exempts minimum parking requirements for ADUs within $\frac{1}{4}$ mile of frequent transit, which includes much of the city.





Duplexes

DUP-1. Allow & incentivize small duplexes in RSF & RSF-C zones (<1,200sf)

DUP-2. Allow one ADU on lots that have a duplex

DUP-3. Deemphasize garages in the design of duplexes

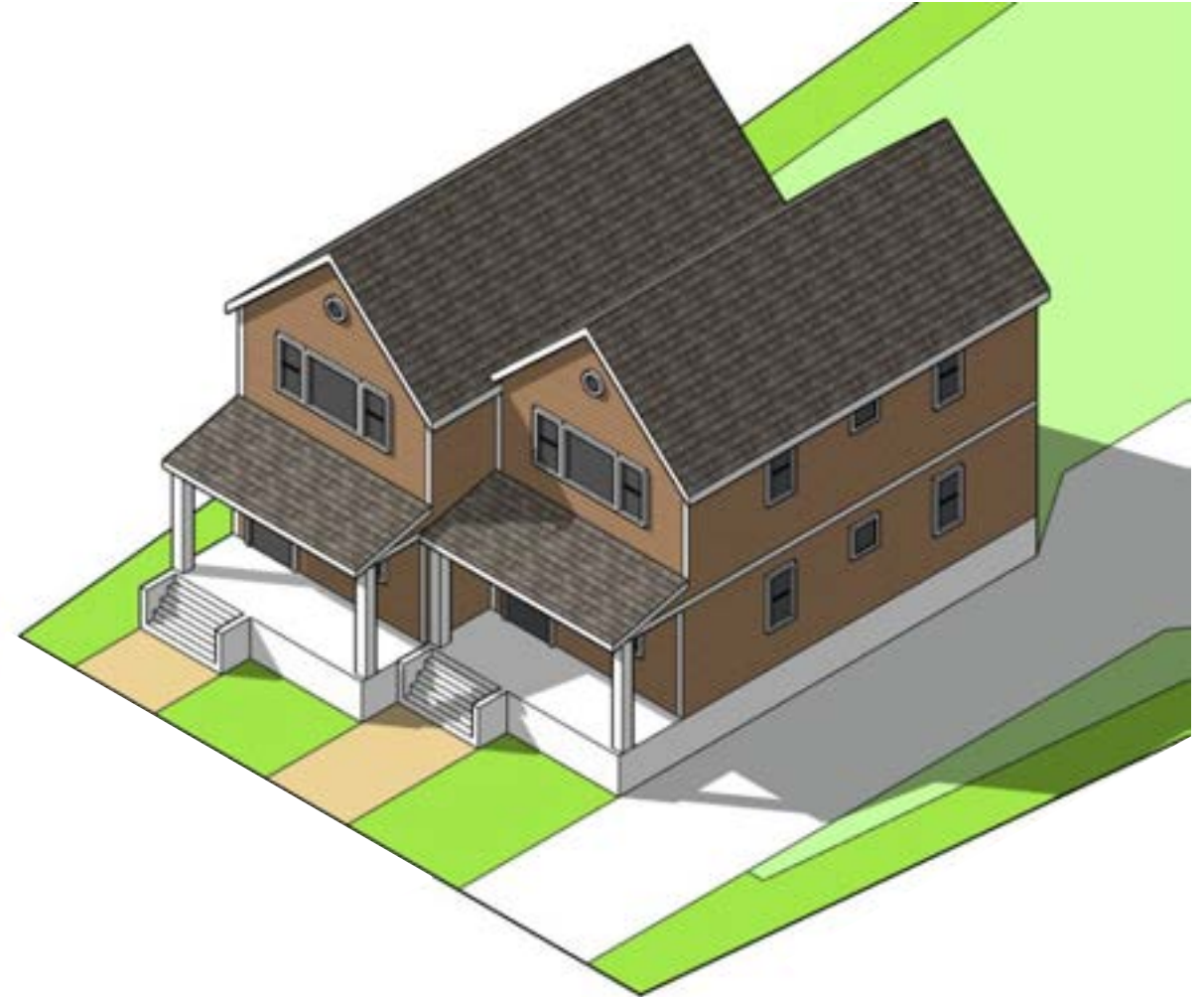
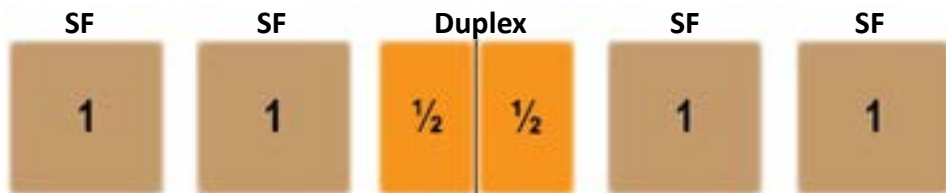




DUP-1. Allow & incentivize small duplexes

Allow duplexes in RSF and RSF-C zones provided each unit is no more than 1,200sf.

Such units will be counted as $\frac{1}{2}$ dwelling unit for the purpose of density calculations



Note that except on small lots, the 0.5 FAR standard can allow for much larger detached single family home than the combined 2,400sf allowed under this for a duplex.



DUP-2. Allow one ADU with a duplex on one lot



Statistics

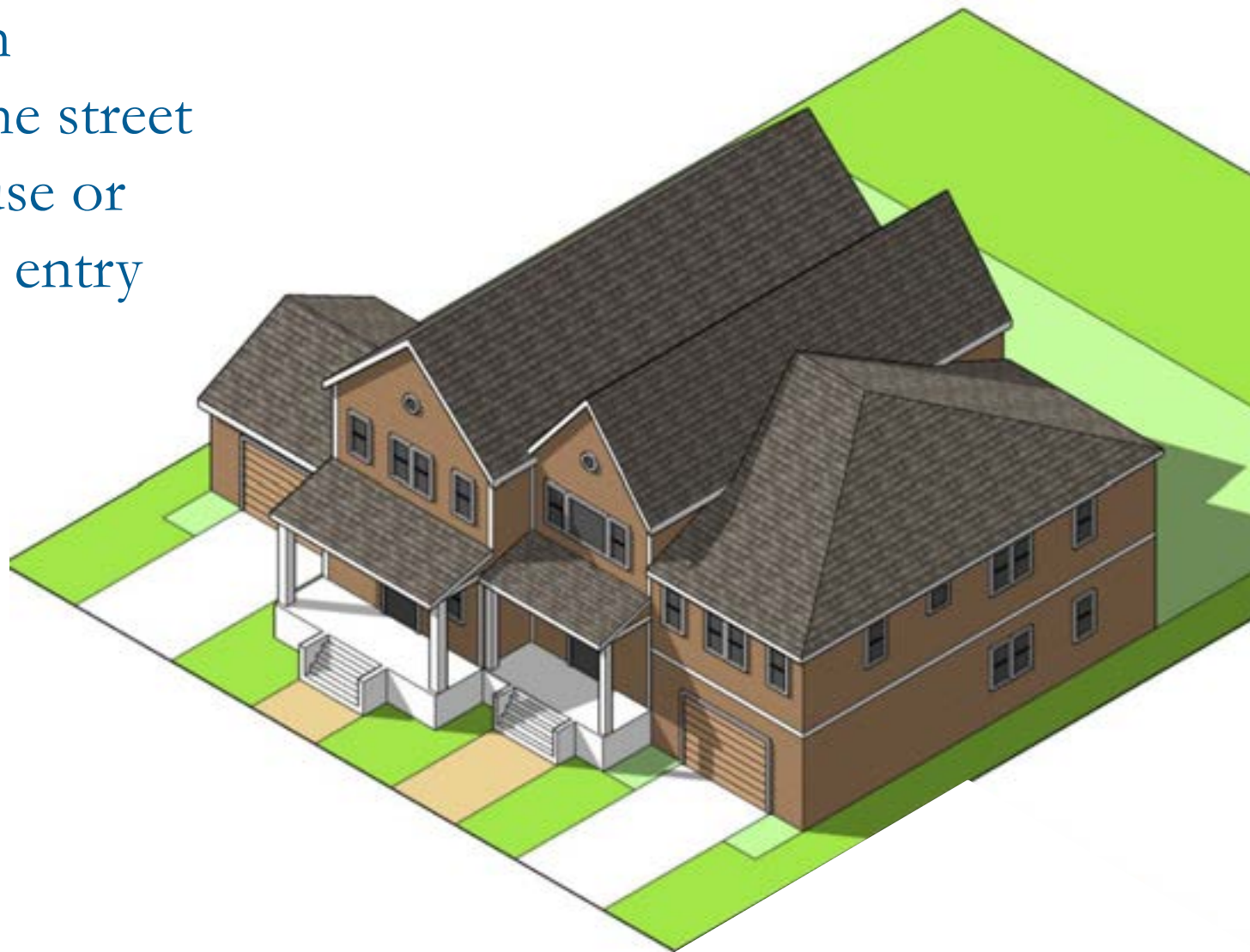
- Lot = 71' x 120' = 8520 sf
- Duplex (2 units): total 2,400 sf
- ADU: 492 sf
- One single car garage for each duplex unit, ADU uses on street parking space
- FAR (duplex + ADU): 0.5

May require action during Phase 2 due to potential conflict with Comprehensive Plan policy H 1.20



DUP-3. Deemphasize garages in duplexes

Prohibit garages from projecting closer to the street than the front of house or front porch/ covered entry projection.





Attached Housing (Townhouses)

- TH-1.** Allow more than two attached units in RSF & RSF-C zones
- TH-2.** Incentivize small attached units in the RSF & RSF-C zones
- TH-3.** Prohibit front-loaded units where at least three units are attached
- TH-4.** Create other site & building design standards specific to attached units



TH-1. Allow >2 attached units in RSF & RSF-C

Flexibility in new subdivisions

- Allow more than two attached units in the RSF zone, provided subdivision meets density limits



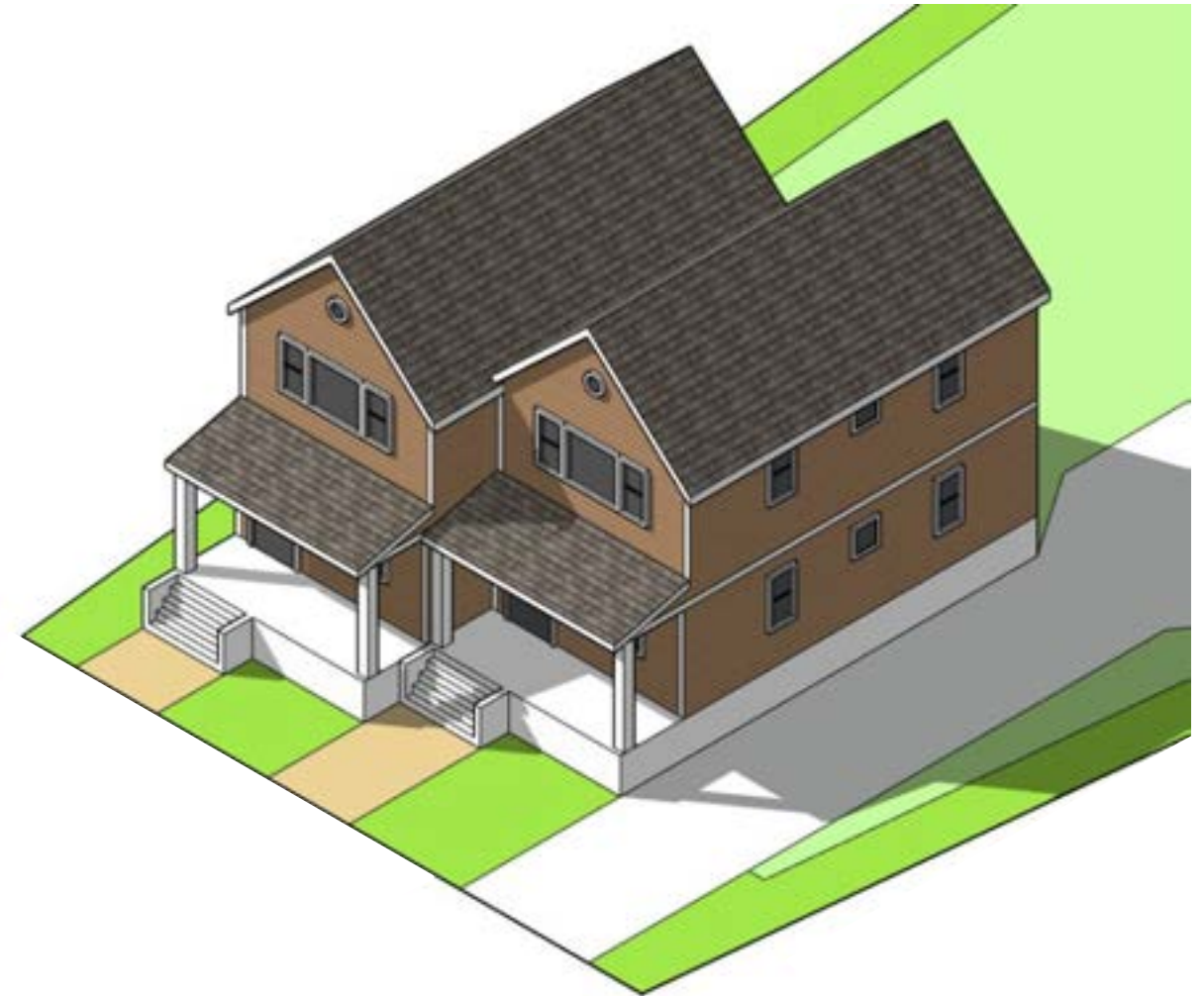
*Example subdivisions
integrating attached housing*



TH-2. Incentivize small attached units in RSF & RSF-C

Provide density bonus for two attached homes in RSF and RSF-C zones provided each unit is no more than 1,200sf.

Such units will be counted as $\frac{1}{2}$ dwelling unit for the purpose of density calculations

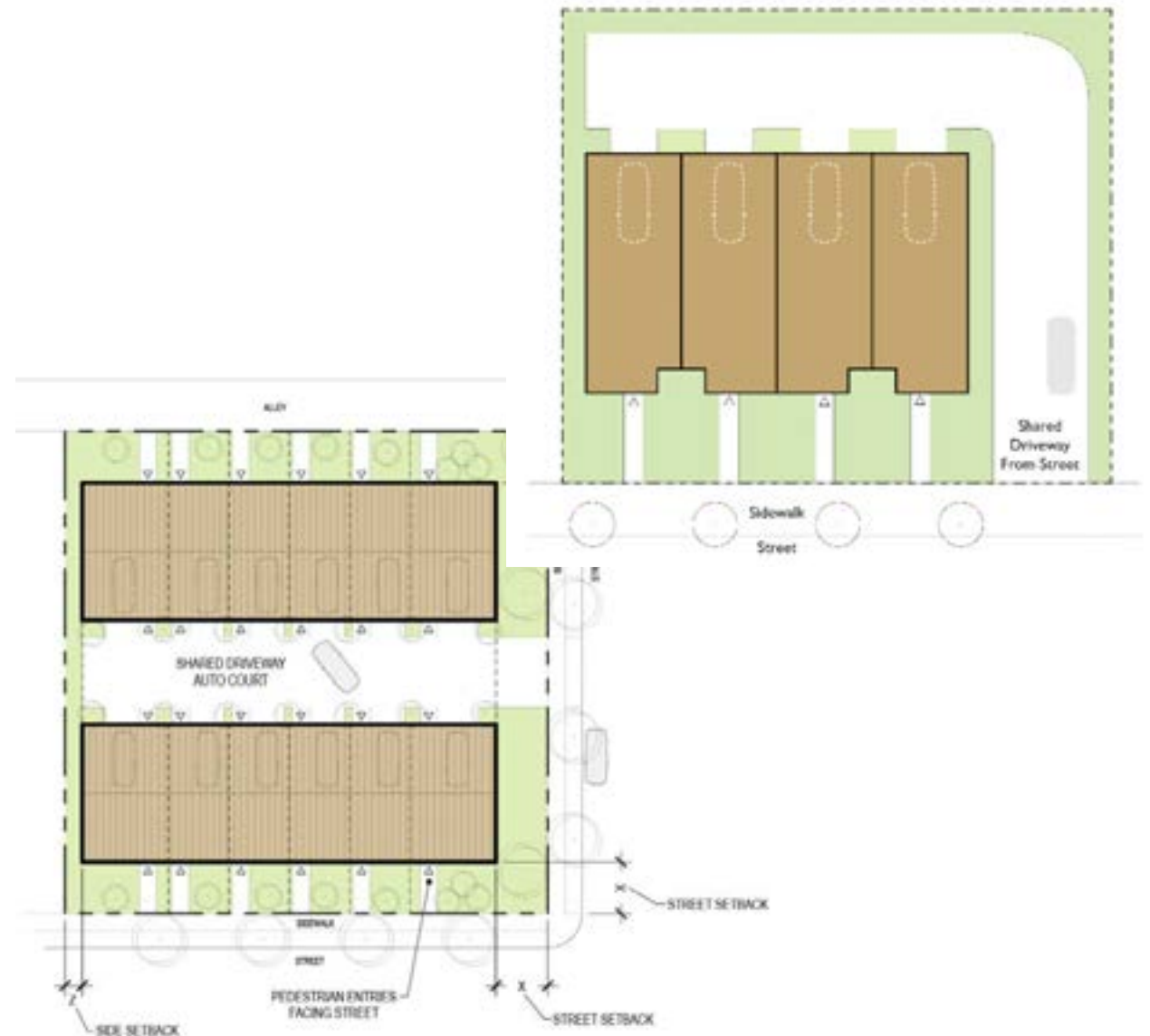


Note that except on small lots, the 0.5 FAR standard can allow for much larger detached single family home than the combined 2,400sf allowed under this for a duplex.



TH-3. Prohibit front-loaded units for 3+ units attached

Use alleys or auto courts for access





TH-4. Create other site & building design standards

Additional design standards are recommended to address site & building design issues specific to attached housing:

- Auto court/internal driveway design
- Facade articulation
- Usable open space design (support to dimensional standards)





Lot Transition Standard Options

LT-1. Eliminate lot transition standard

LT-2. Adjust standard to allow greater flexibility



LT-1. Eliminate lot transition standard

Transitional lot size between new and existing subdivisions of different sized lots

- Existing: lots within 80' of existing subdivision must be the same size or larger (up to 7200 feet)

4350	7200
4350	7200
4350	7200
4350	7200
4350	7200
4350	7200

9600	9600
9600	9600
9600	9600
9600	9600
9600	9600

4350	6000
4350	6000
4350	6000
4350	6000
4350	6000

6000	6000
6000	6000
6000	6000
6000	6000
6000	6000



LT-1. Eliminate lot transition standard

Transitional lot size between new and existing subdivisions of different sized lots

- Existing: lots within 80' of existing subdivision must be the same size or larger (up to 7200 feet)
- **Proposal: Eliminate rule**
 - OR eliminate requirement for new subdivisions separated by ROW or significant topography from existing

4350	4350
4350	4350
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4350	4350

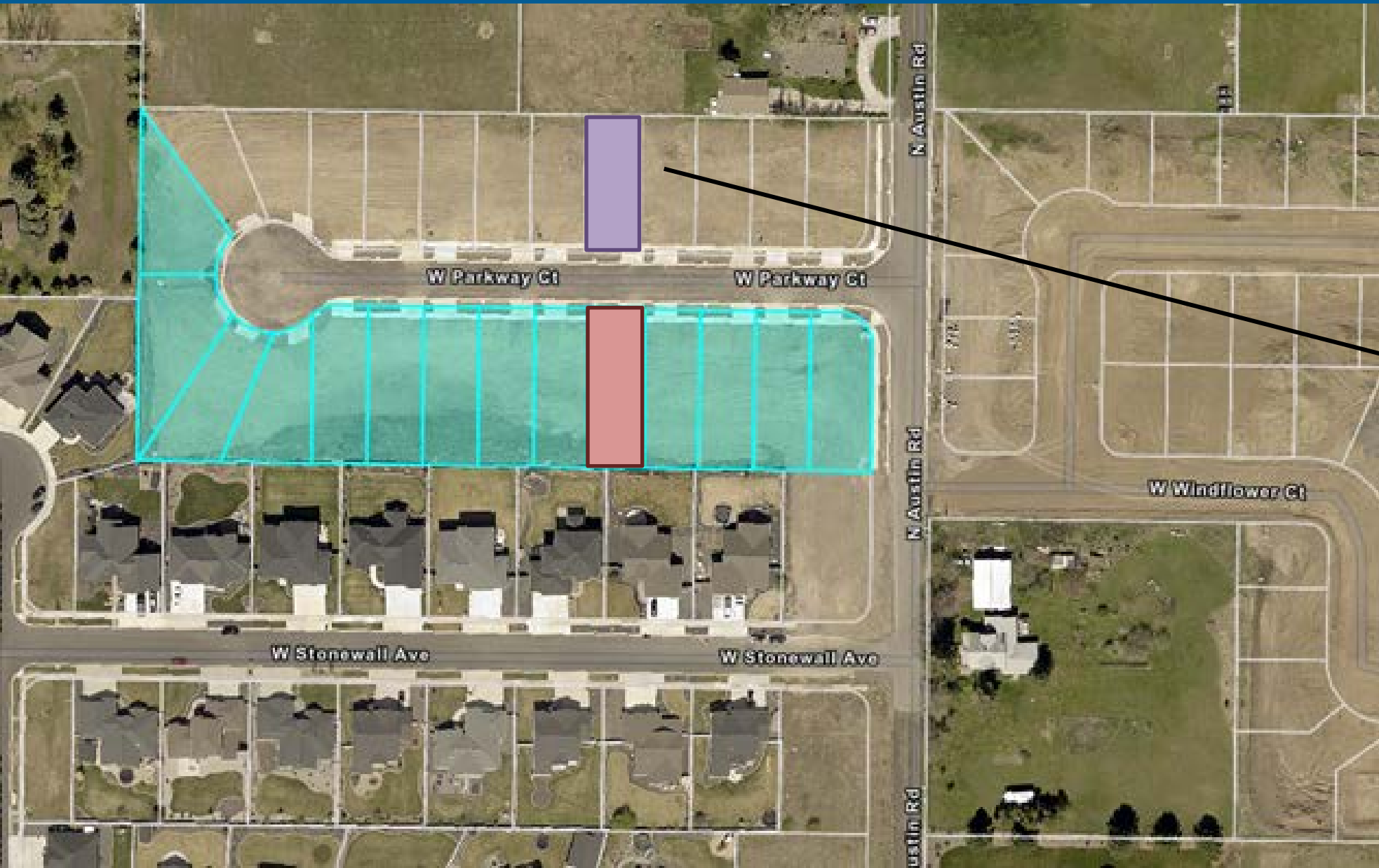
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4350	4350
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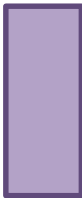
6000	6000
6000	6000
6000	6000
6000	6000



LT-1. Eliminate lot transition standard



North side



South side





LT-2. Adjust standard to allow greater flexibility

Transitional lot size between new and existing subdivisions of different sized lots

- Existing: lots within 80' of existing subdivision must be the same size or larger (up to 7200 feet)
- Proposal: Lots in transition area must be no less than 75% of existing adjacent lots outside of the subdivision (up to 7,200sf)**

4350	7200
4350	7200
4350	7200
4350	7200
4350	7200
4350	7200

9600	9600
9600	9600
9600	9600
9600	9600
9600	9600

4350	4500
4350	4500
4350	4500
4350	4500
4350	4500
4350	4500

6000	6000
6000	6000
6000	6000
6000	6000
6000	6000

Testing the Proposals

A close examination of the proposals on four city lots of varying sizes

- MAKERS analyzed proposed changes to dimensional standards on four representative lots suggested by staff





Test Lots

Proposals modeled:

- **ADUs**
 - Increase allowed size for ADUs
 - Allow ADUs on smaller lots
 - Increase flexibility for building design
 - Create FAR allowance for small lots to with ADUs
- Density bonus for **small duplex units**
- Add minimum outdoor space standard
- Allow porches up to 6 feet wide in front setback

Lot 1 1520 W Cleveland Ave



Residential Single Family (RSF)
25' x 120' = 3000 sf
Alley access

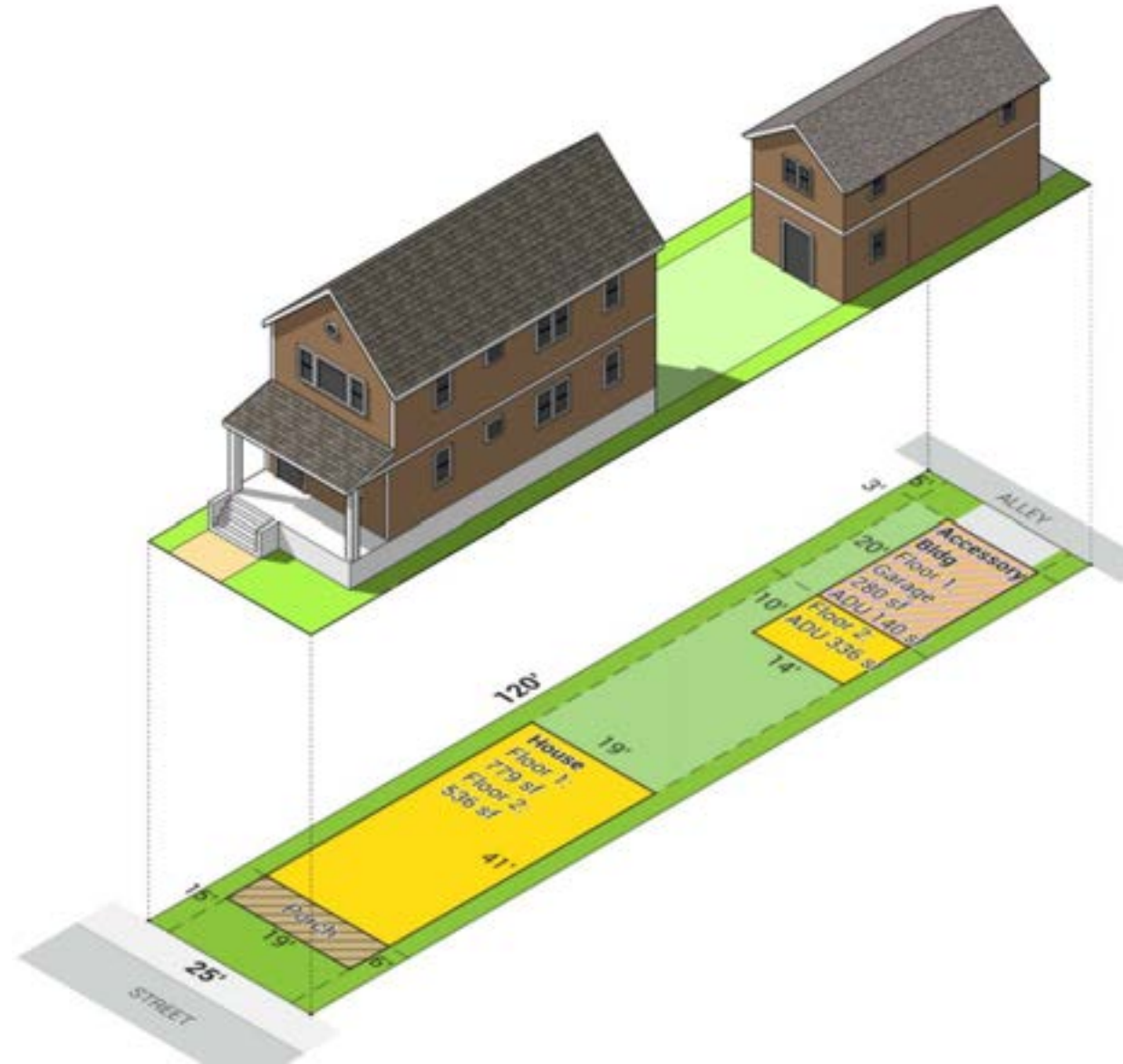


Lot 1: Detached House + ADU





Lot 1: Detached House + ADU



- Applicable Dimensional Changes:
 - Allow ADUs on lots under 5,000 sf
 - FAR bonus 0.5 to 0.6 for lots with ADU (*lots under 7,200 sf*)
 - Increase ADU height (*17' wall/25' peak*)
 - Porch projection in front setback
 - No parking requirement for small ADUs (*studios and 1-BRs*)
- What fits:
 - House: 1,330 sf
 - ADU: 475 sf
 - FAR (house + ADU): 0.6



20 W Cleveland Ave

Lot 2 1744 W 11th Ave



© 2022 Google

Residential Single Family (RSF)
40' x 120' = 4800 sf
Alley access



Lot 2: Detached House + ADU

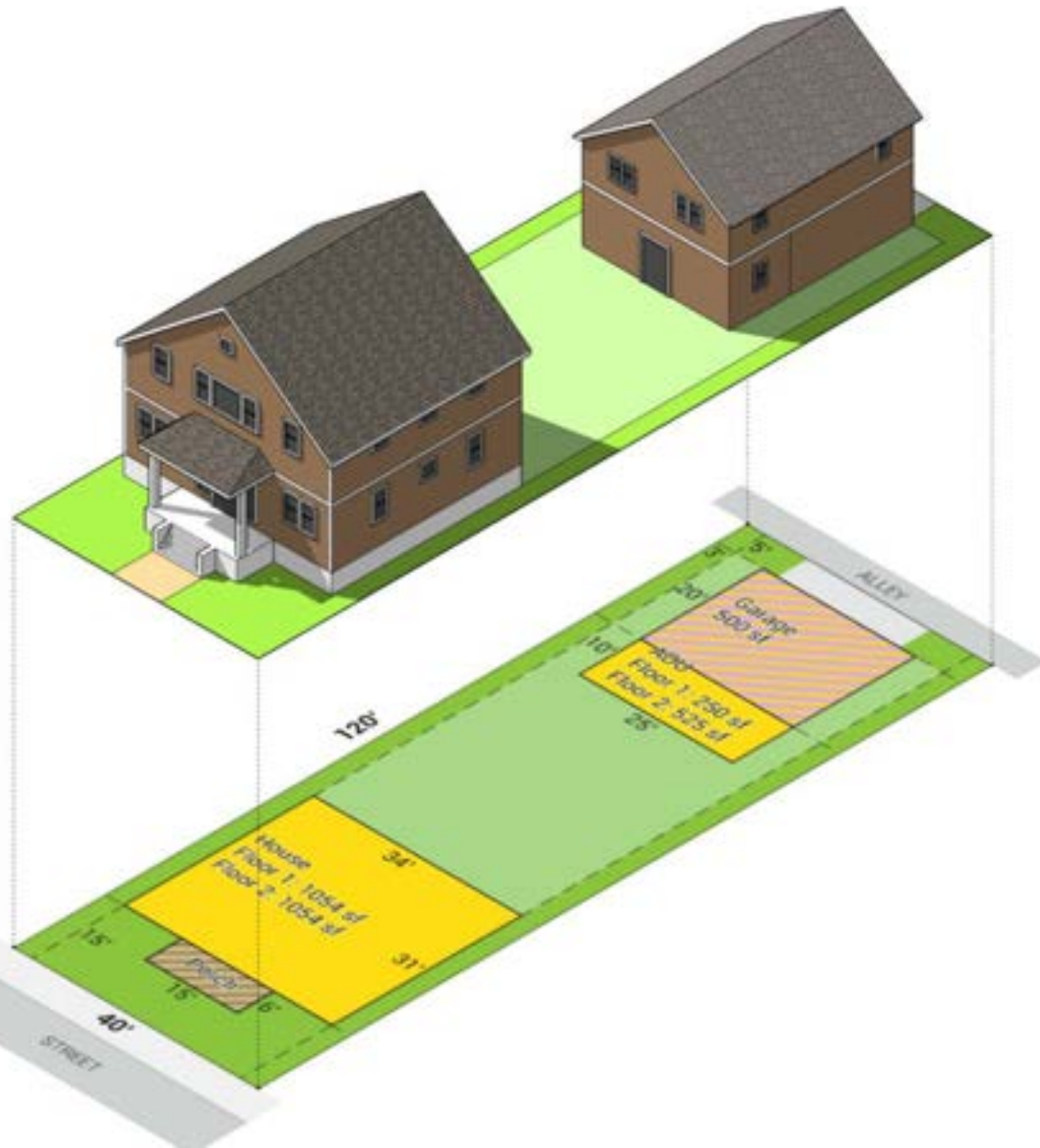


1744 W 11th Ave
Spokane, Washington
Google
Street View - Oct 2013





Lot 2: Detached House + ADU



- Applicable Dimensional Changes:
 - Allow ADUs on lots under 5,000 sf
 - FAR bonus 0.5 to 0.6 for lots with ADU (*lots under 7,200 sf*)
 - Increase max detached ADUs size (*from 600 to 800 sf*)
 - Increase ADU height (*17' wall/ 25' peak*)
 - Porch projection in front setback
- What fits:
 - House: 2,108 sf
 - ADU: 775 sf
 - FAR (house + ADU): 0.6



Lot 2: Detached House + ADU



Lot 3 7414 N Pittsburgh St



Residential Single Family (RSF)
~71' x 120' = 8520 sf
No alley access



Lot 3: Detached House + ADU

Spokane, Washington
Google
Street View - Oct 2013





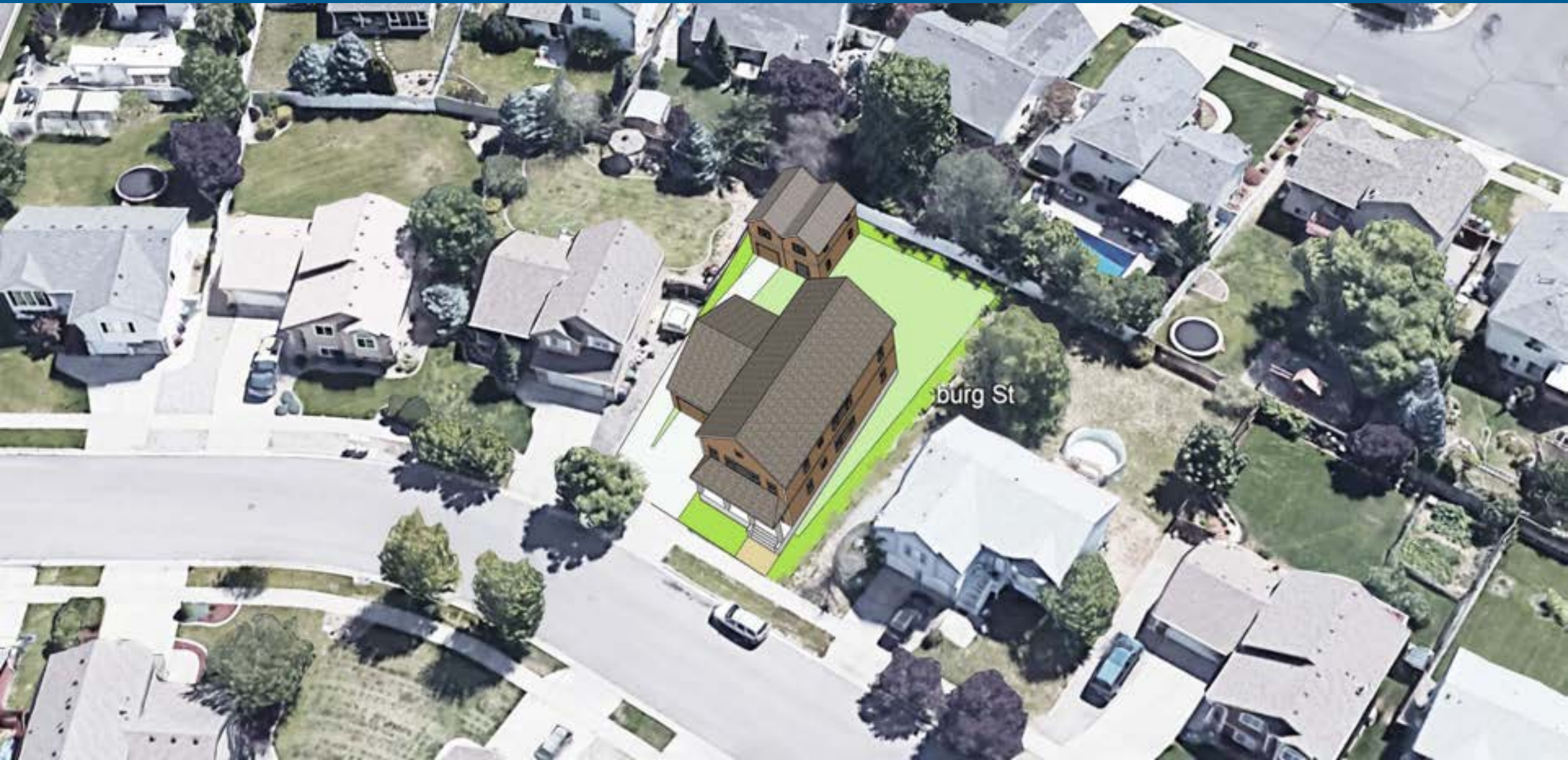
Lot 3: Detached House + ADU



- Applicable Dimensional Changes:
 - Increase max detached ADUs size (*from 600 to 800 sf*)
 - Increase ADU height (*17' wall/25' peak*)
 - Porch projection in front setback
- What fits:
 - House: 3,450 sf
 - ADU: 691 sf
 - FAR (house + ADU): 0.49

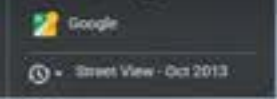


Lot 3: Detached House + ADU





Lot 3: Small Unit Duplex + ADU





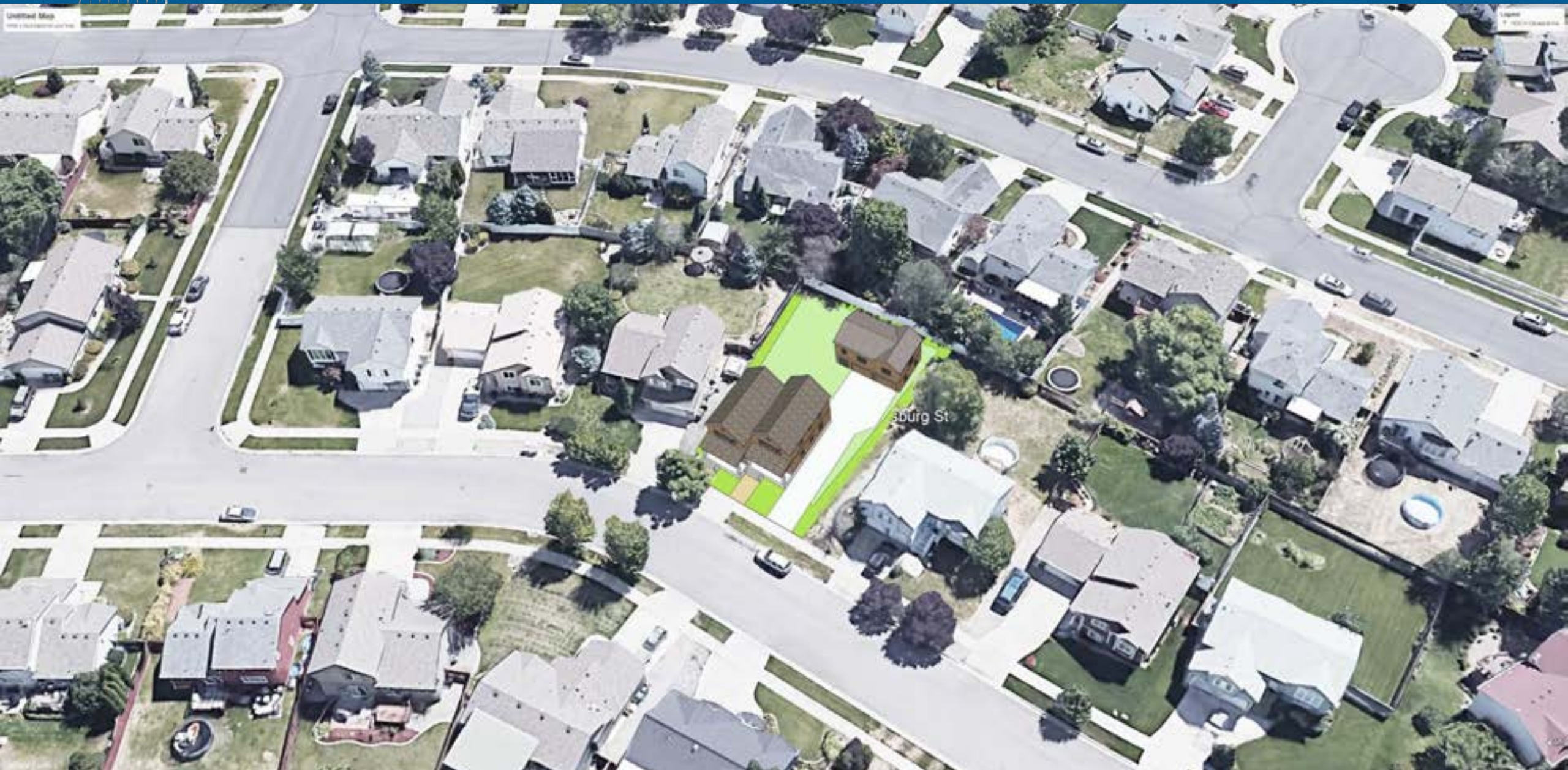
Lot 3: Small Unit Duplex + ADU



- Applicable Dimensional Changes:
 - Allow duplexes in RSF
 - Density bonus for small duplex units
 - Allow duplex ADU
 - Increase max detached ADUs size (*from 600 to 800 sf*)
 - Increase ADU height (*17' wall/25' peak*)
 - Porch projection in front setback
- What fits:
 - Duplex (2 units): total 2,400 sf
 - ADU: 492 sf
 - FAR (duplex + ADU): : 0.5



Lot 3: Small Unit Duplex + ADU



Lot 4 9402 N Farmdale St



Residential Single Family (RSF)
84' x 120' = 10,080 sf
No alley access

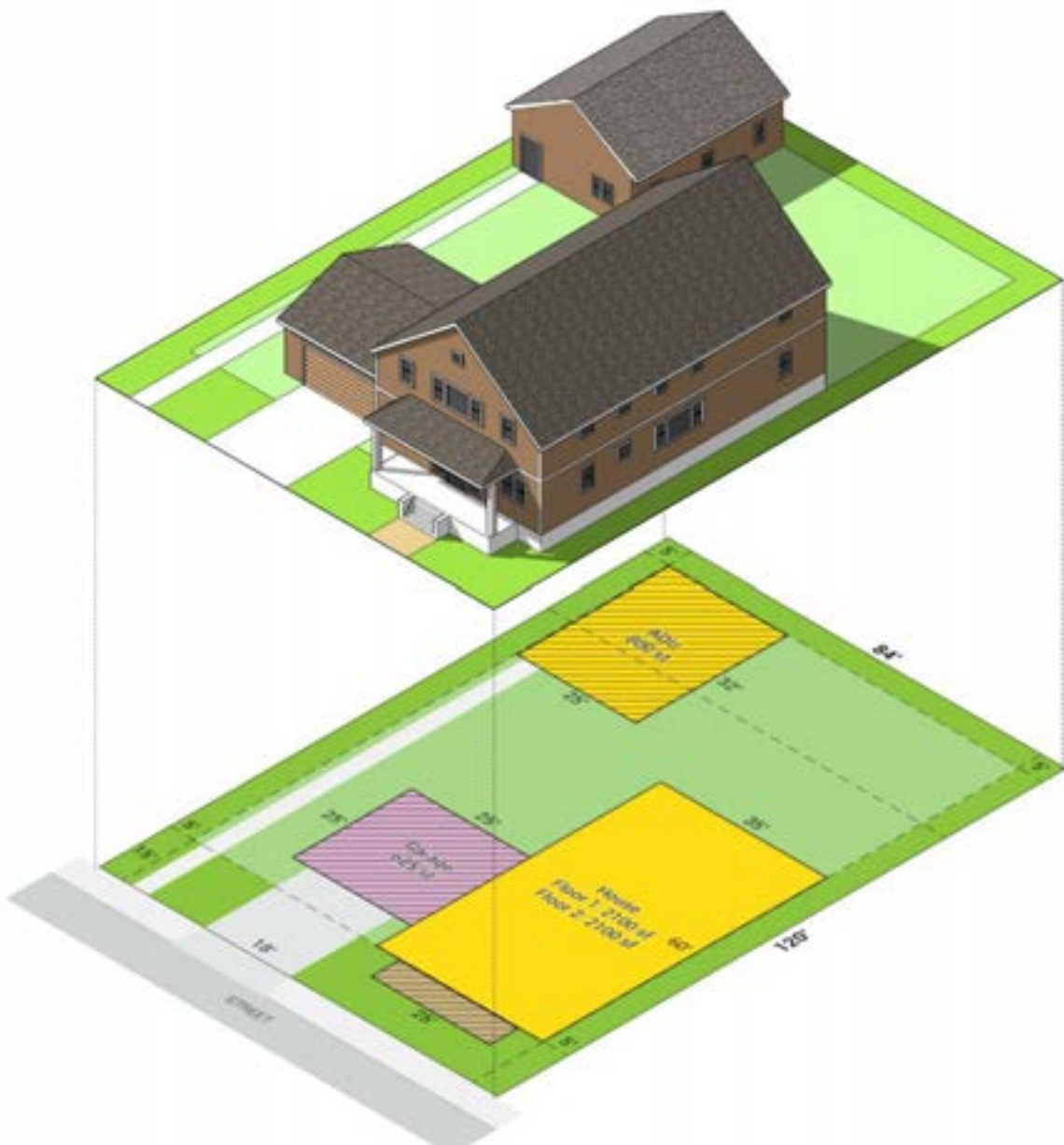


Lot 4: Detached House + ADU





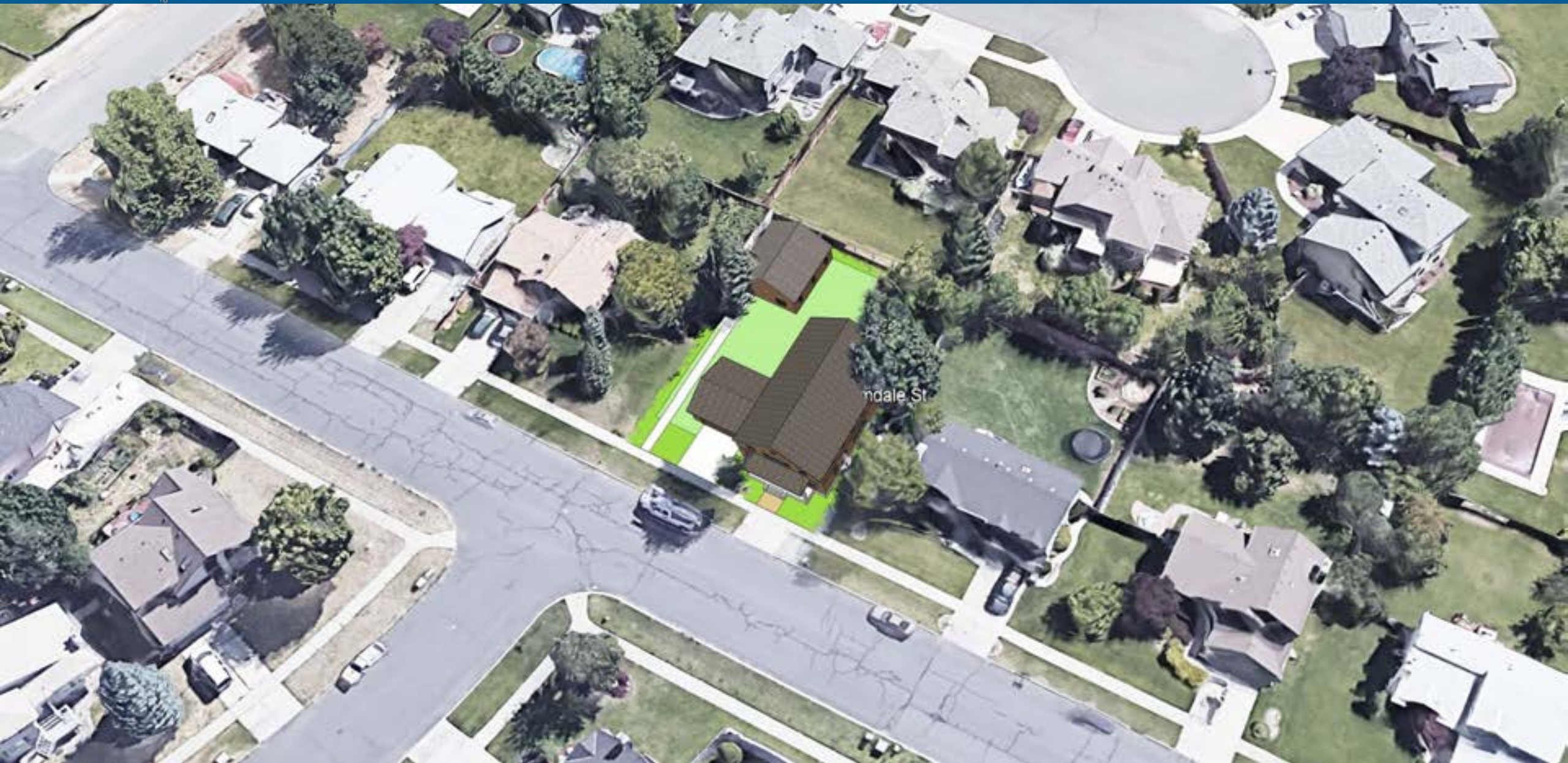
Lot 4: Detached House + ADU



- Applicable Dimensional Changes:
 - Allow ADUs up to 800 sf
 - Max ADU wall height +1 ft
- What fits:
 - House: 4,028 sf
 - ADU: 800 sf
 - FAR: 0.5



Lot 4: Detached House + ADU





Lot 4: Duplex

12 N Farmdale St
Spokane, Washington
Google
Street View - Jul 2018



9402 N
Spokane



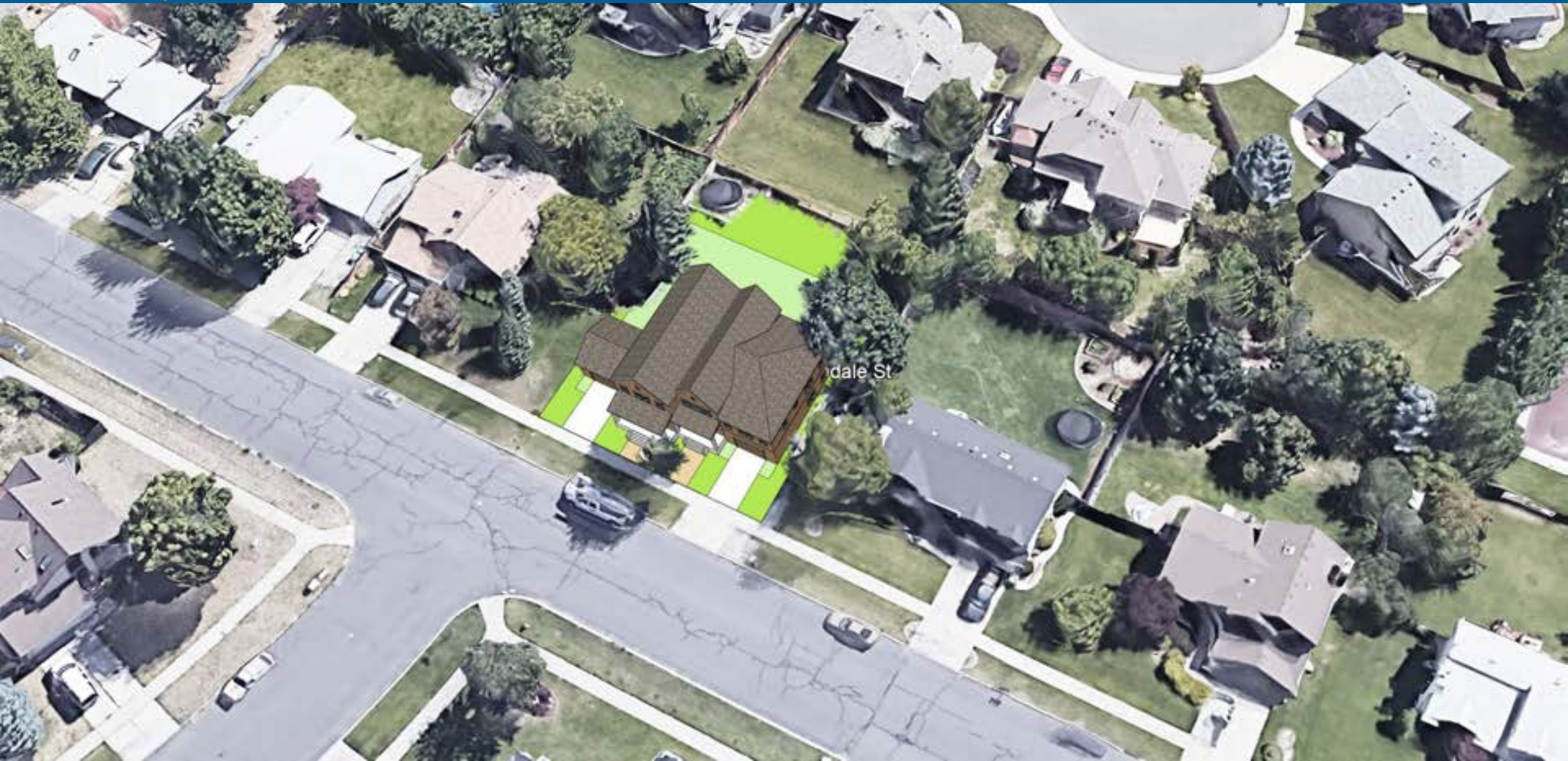
Lot 4: Duplex



- Applicable Dimensional Changes:
 - Allow duplexes in RSF (within existing density limits)
 - Porch projection in front setback
- What fits:
 - Duplex unit A: 2,592 sf
 - Duplex unit B: 2,000 sf
 - FAR: 0.46

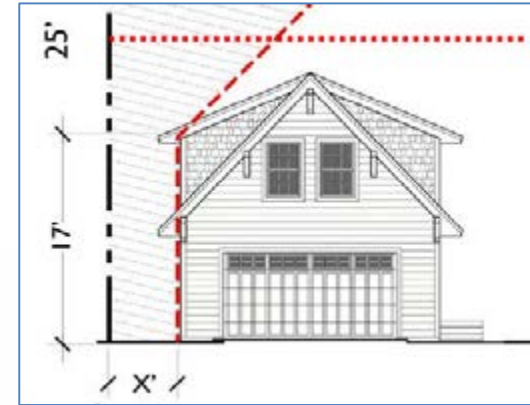


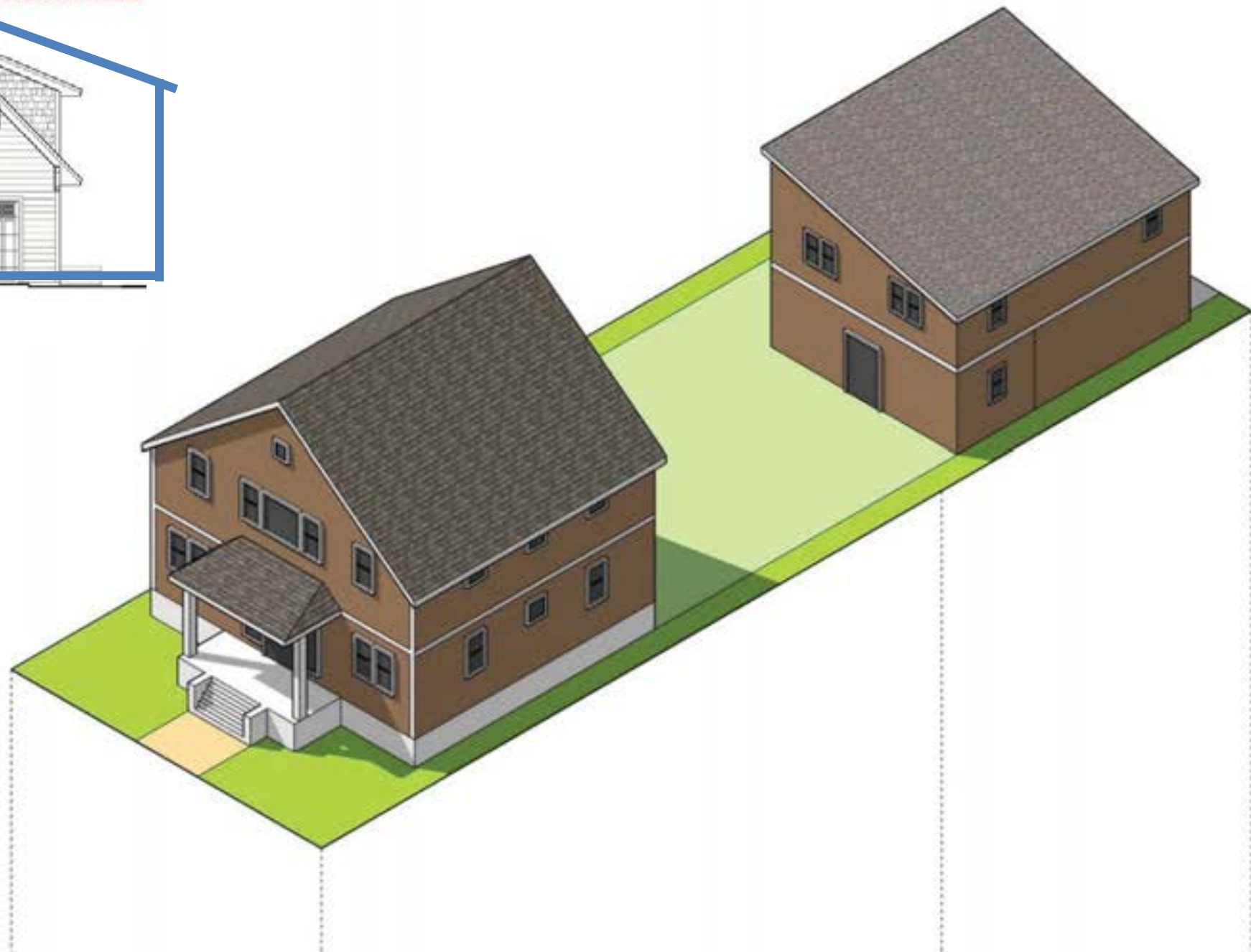
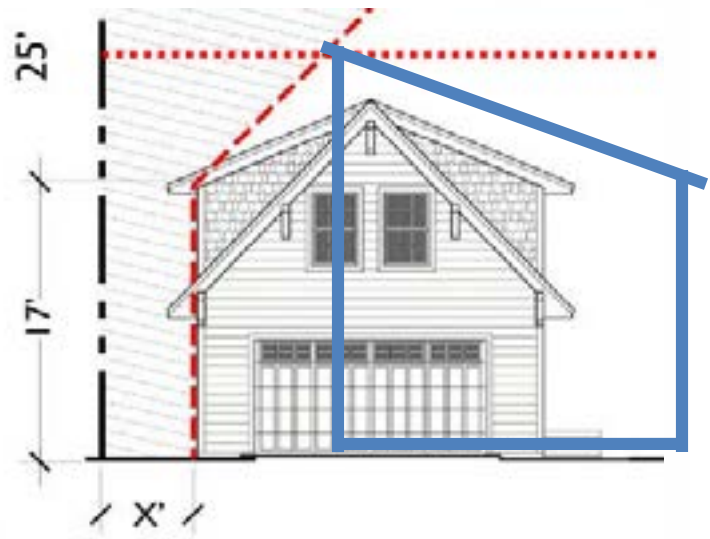
Lot 4: Duplex

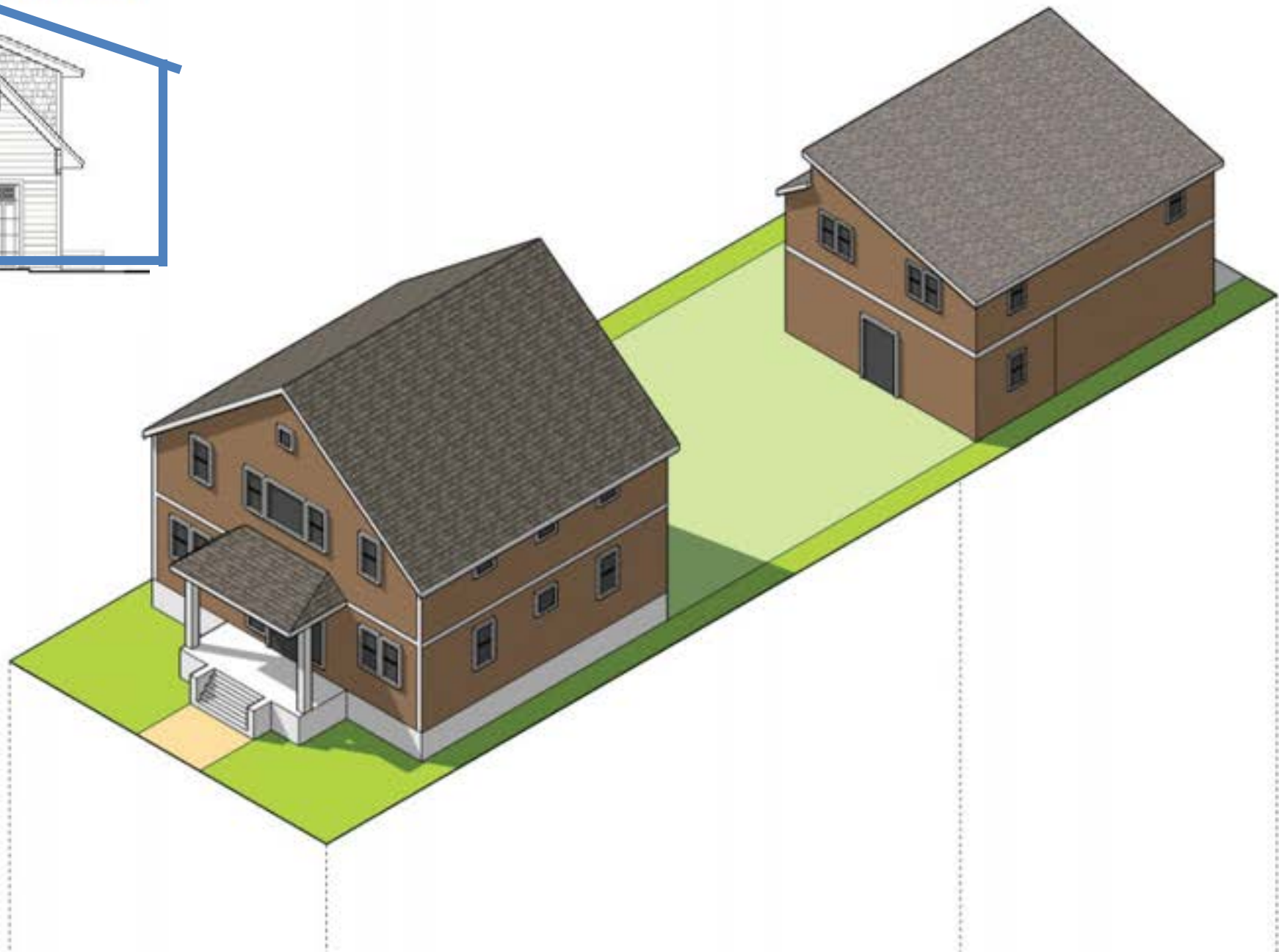
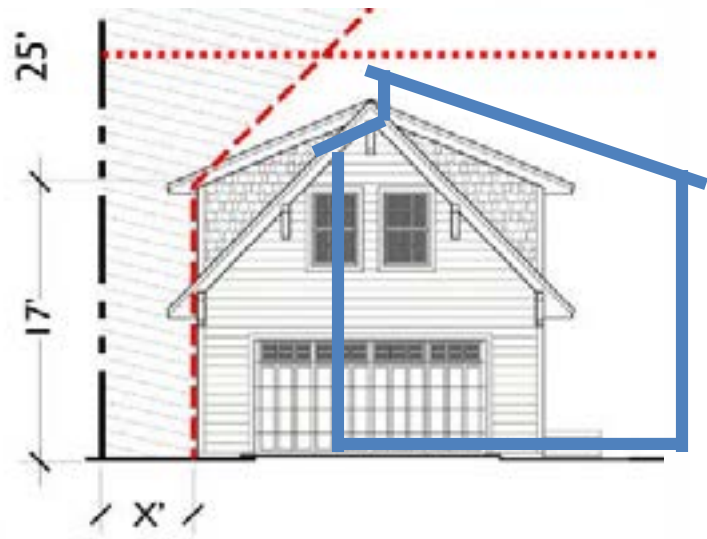


Roof forms

- Demonstration of shed roof and how the setback plane would work with different roof types







Thank you