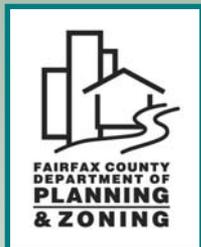


Setback Ratio Approach

As Adapted from the City of Alexandria



Setback Ratio Defined*

The ratio of the horizontal distance between any part of a building or structure and the nearest side or rear property line or the nearest building or the center line of a street or alley to the height of that part of the building above the average finished grade of such line.

* from City of Alexandria Zoning Ordinance (emphasis added)

The Setback Ratio Alternative

The purpose and intent of a Setback Ratio, as proposed, is to limit the massing and looming effects of single family residential structures that are built in close proximity to neighboring residential property.

It represents a potentially less complicated and more cost efficient alternative to an Angle of Bulk Plane.

The two methods share some characteristics in terms of design and outcome. It is possible to designate a setback ratio that yields comparable results to what can be achieved by using an Angle of Bulk Plane.

ALEXANDRIA SETBACK RATIOS

Used in Single-Family Residential Districts

Zoning District	R-20	R-12	R-8	R-5	R-2-5
Minimum Lot Size	20,000 ft ²	12,000 ft ²	8,000 ft ²	5,000 ft ²	5,000 ft ²
Min. Req. Side Yd.	12'	10'	8'	7'	10'
Setback Ratio	1:2	1:2	1:2	1:3	1:3

Fairfax County Zoning Districts that Allow Single Family Detached Dwellings

Zoning District	Min. Lot Area	Min. Req. Side Yd.
R-C	5 acres	20 feet
R-E	2 acres	20 feet
R-1	36,000 sq. ft.	20 feet
R-2	15,000 sq. ft.	15 feet
R-3	10,500 sq. ft.	12 feet
R-4	8,400 sq. ft.	10 feet
R-5	5,000 sq. ft.	8 feet
R-8	5,000 sq. ft.	8 feet
R-MHP	5,000 sq. ft.	8 feet

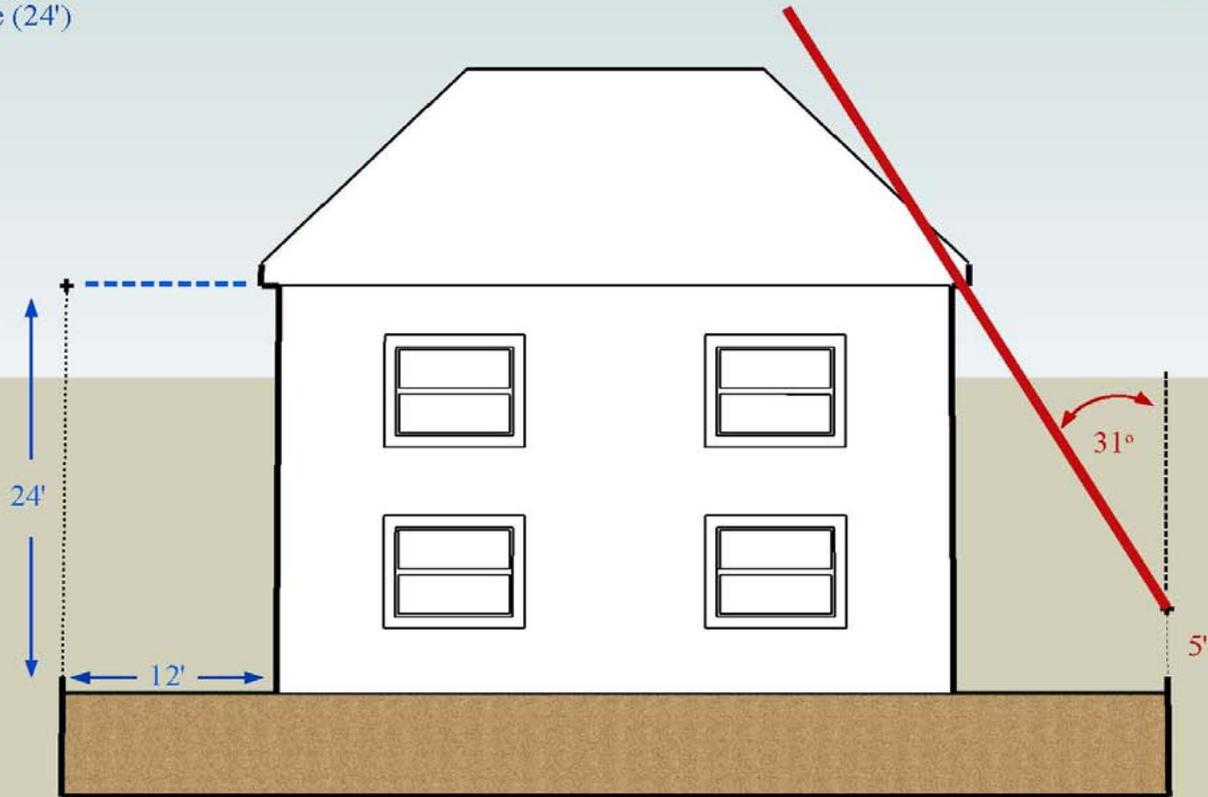
Adaptive Use of Alexandria's Setback Ratio

- Fairfax County has many more Zoning Districts that allow single family detached dwellings compared to the City of Alexandria, 9 vs. 5.
- Fairfax also has a greater range of corresponding minimum required side yards (setbacks), 20' – 8' vs. 12' – 7'
- Additional Setback Ratios would be needed to address the greater range of setback distances, the 1:2 & 1:3 ratios used in Alexandria would not be sufficient.

R-3 District
Angle of Bulk Plane / Setback Ratio Comparison
(Hip Roof Example)

(Current Proposal)
1:2 Setback Ratio;
Run Distance (12') to
Rise Distance (24')

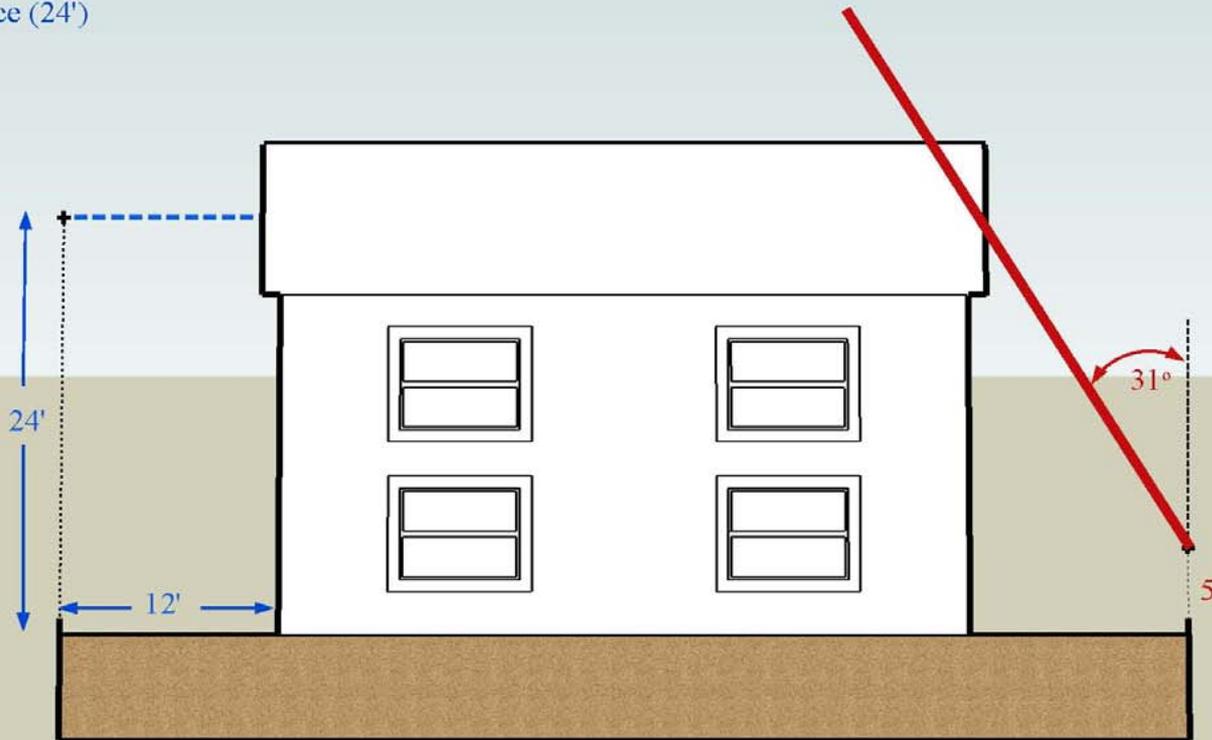
(Previous Proposal)
31° Angle of Bulk Plane
taken at 5 feet above grade



R-3 District
Angle of Bulk Plane / Setback Ratio Comparison
(Gable Roof Example)

(Current Proposal)
1:2 Setback Ratio;
Run Distance (12') to
Rise Distance (24')

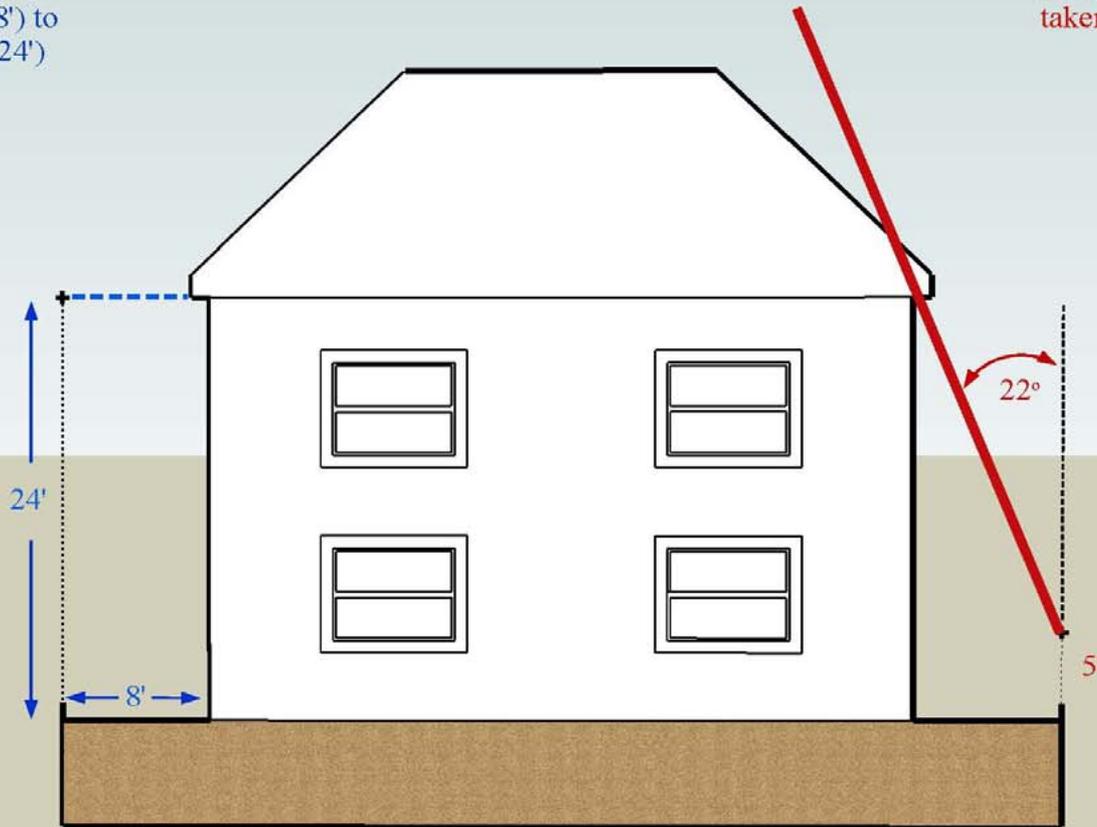
(Previous Proposal)
31° Angle of Bulk Plane
taken at 5 feet above grade



R-5 & R-8 Districts
Angle of Bulk Plane / Setback Ratio Comparison
(Hip Roof Example)

(Current Proposal)
1:3 Setback Ratio;
Run Distance (8') to
Rise Distance (24')

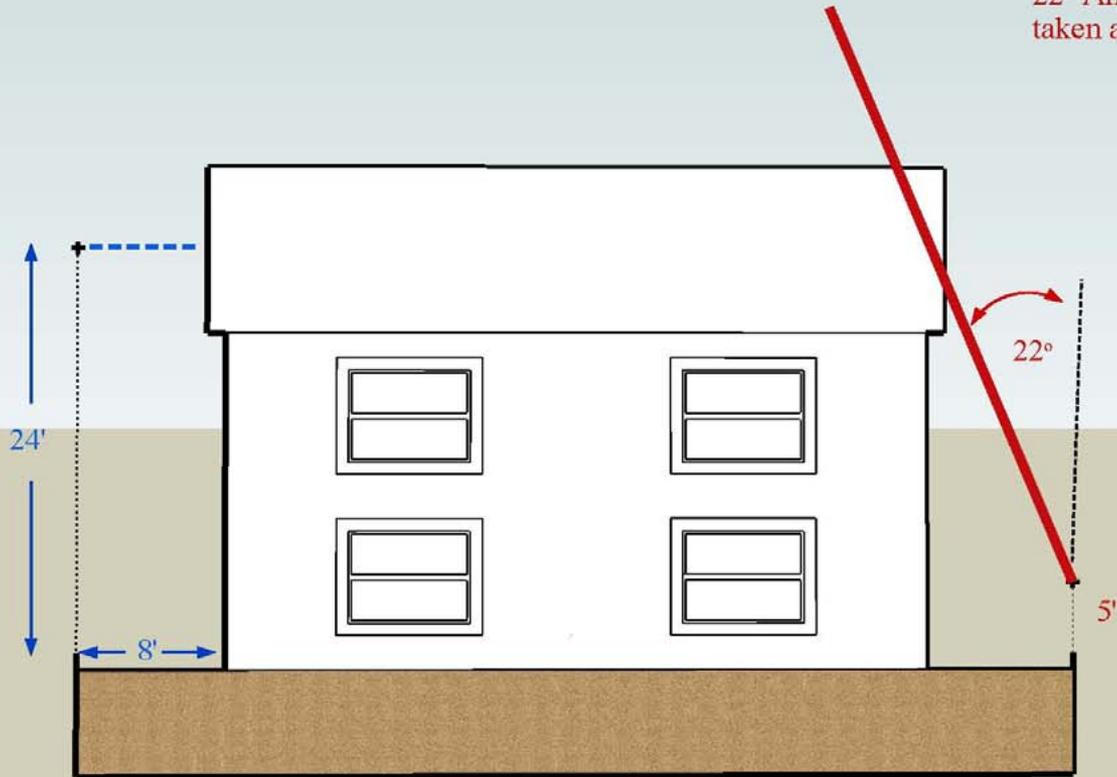
(Previous Proposal)
22° Angle of Bulk Plane
taken at 5 feet above grade



R-5 & R-8 Districts
Angle of Bulk Plane / Setback Ratio Comparison
(Gable Roof Example)

(Current Proposal)
1:3 Setback Ratio;
Run Distance (8') to
Rise Distance (24')

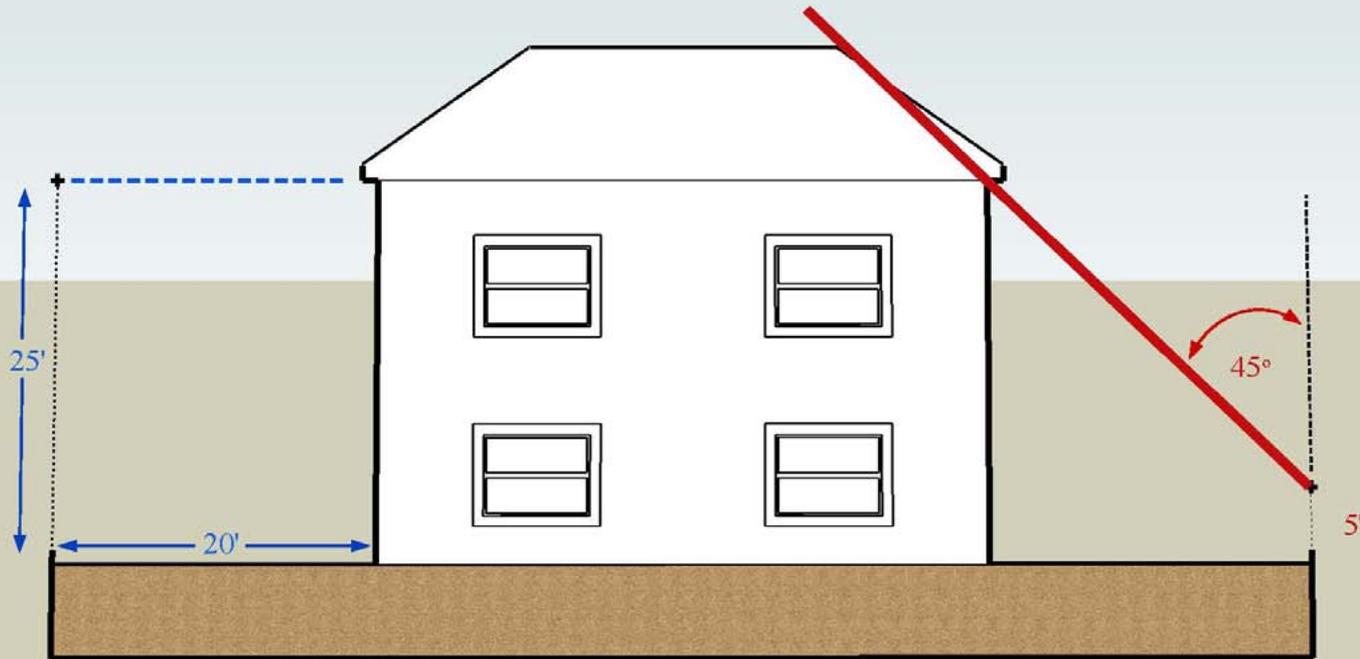
(Previous Proposal)
22° Angle of Bulk Plane
taken at 5 feet above grade



R-1 District
Angle of Bulk Plane / Setback Ratio Comparison
(Hip Roof Example)

(Current Proposal)
4:5 Setback Ratio;
Run Distance (20') to
Rise Distance (25')

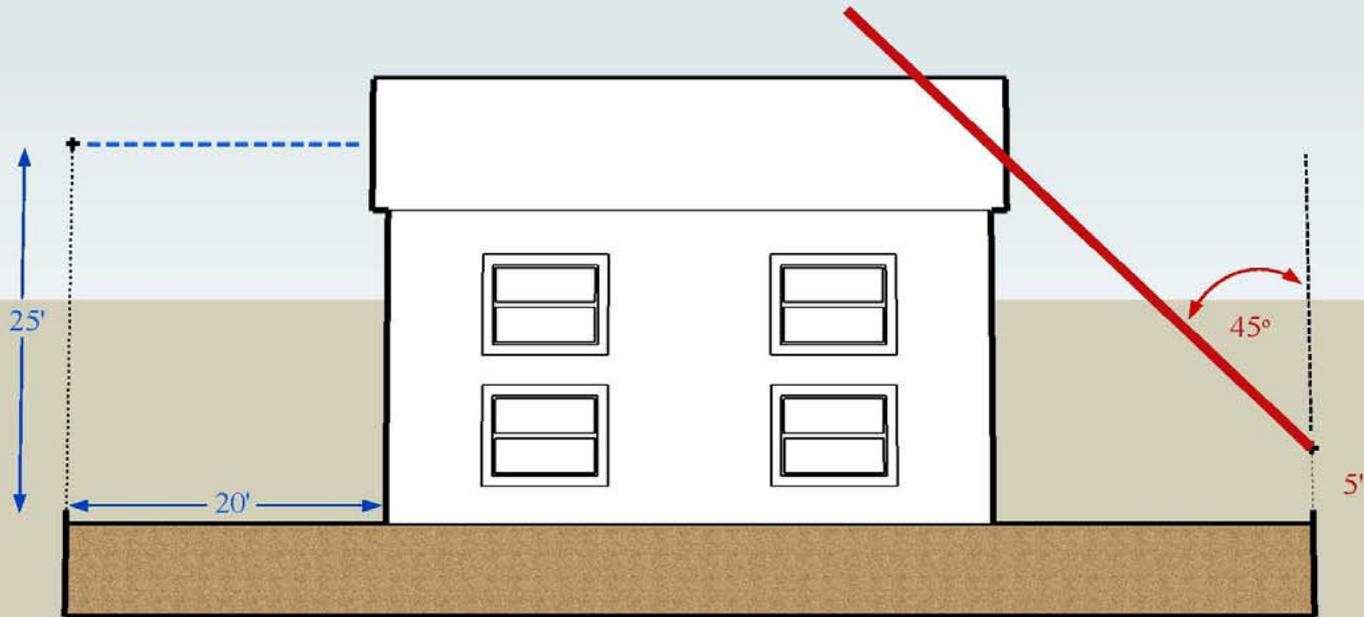
(Previous Proposal)
45° Angle of Bulk Plane
taken at 5 feet above grade



R-1 District
Angle of Bulk Plane / Setback Ratio Comparison
(Gable Roof Example)

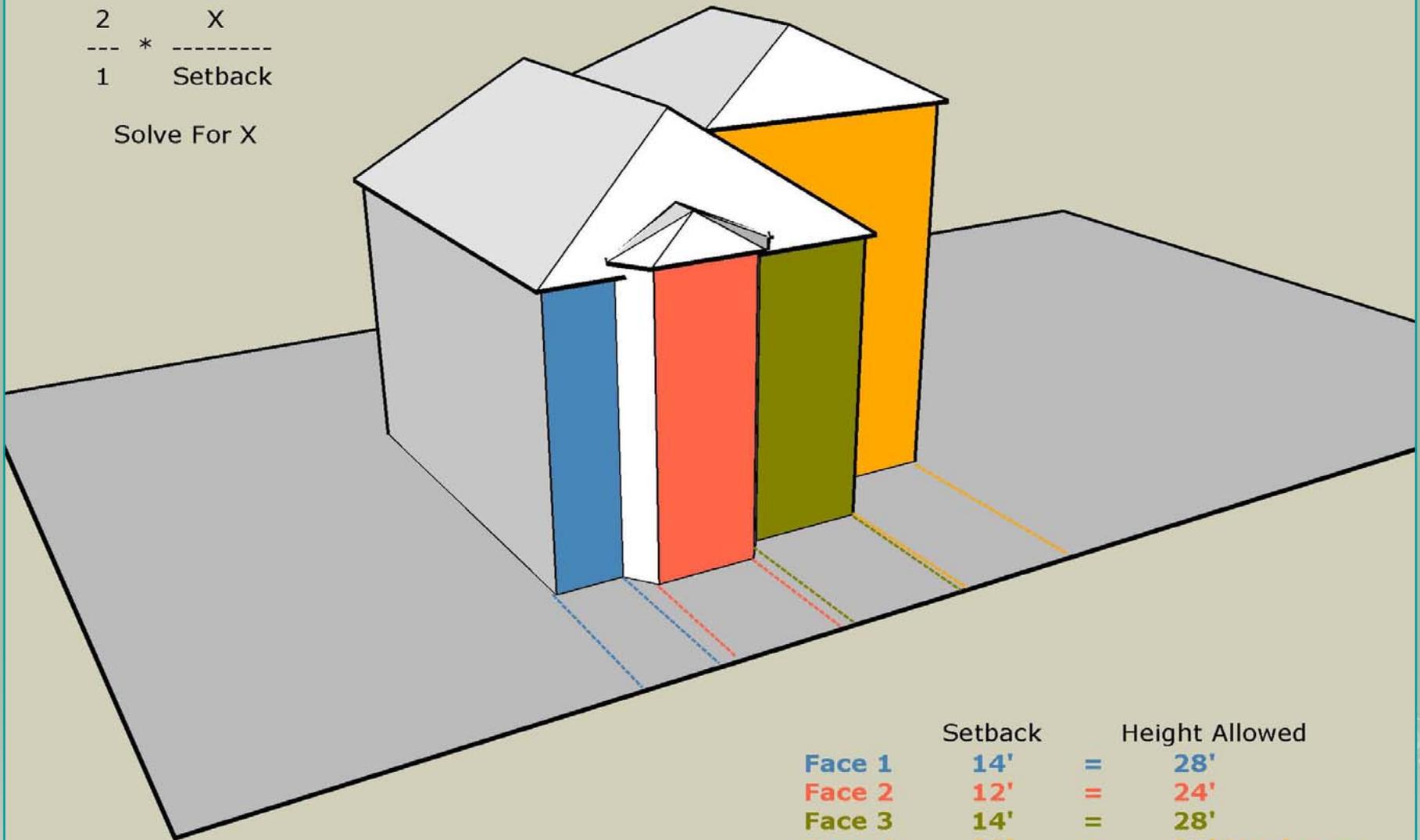
(Current Proposal)
4:5 Setback Ratio;
Run Distance (20') to
Rise Distance (25')

(Previous Proposal)
45° Angle of Bulk Plane
taken at 5 feet above grade



$$\frac{2}{1} * \frac{X}{\text{Setback}}$$

Solve For X



	Setback	=	Height Allowed
Face 1	14'	=	28'
Face 2	12'	=	24'
Face 3	14'	=	28'
Face 4	20'	=	35' Maximum

Possible Exceptions

(to setback ratio and/or grade adjustment provisions)

- Large lots (>36K sq. ft.) in the R-C, R-E and R-1 Districts
- Interior (non-peripherally located) lots in any subdivision

Possible Modifications

It may be appropriate to allow a modification to the setback ratio or grade requirements under a public hearing process in relation to the following circumstances:

- Lots that are impacted by floodplain restrictions
- Lots that need to be graded to allow a utility (sanitary sewer) connection
- Lots that are in a low topographic position relative to abutting properties.

Possible Modifications Cont.

A modification to a setback ratio requirement may be appropriate under a public hearing process for the following circumstances:

- On lots that met lot size requirement in effect when created, but do not meet current lot size requirements. Such lots are deemed “buildable” and are subject to the current minimum yard requirements.
- On lots containing some unique characteristic, such as topography, shape, and/or environmental features that make it difficult to meet the setback ratio requirement.