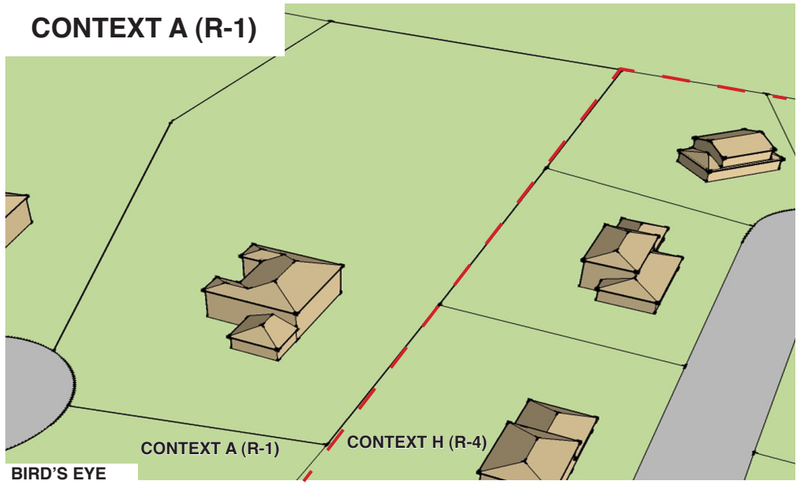
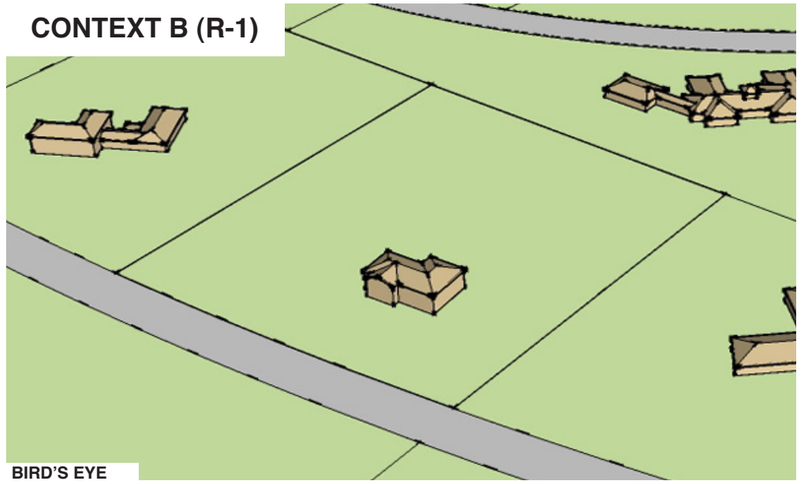
Attachment A: Existing Conditions Illustrated by Context

CONTEXT A (R-1)



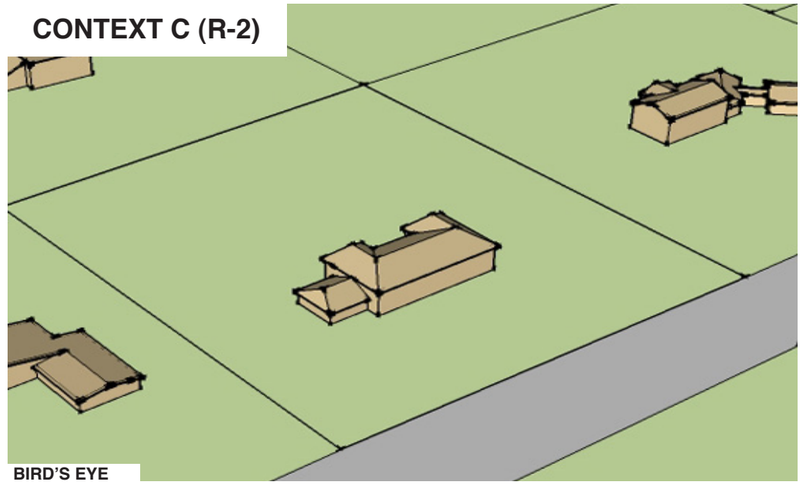
BIRD'S EYE

CONTEXT B (R-1)



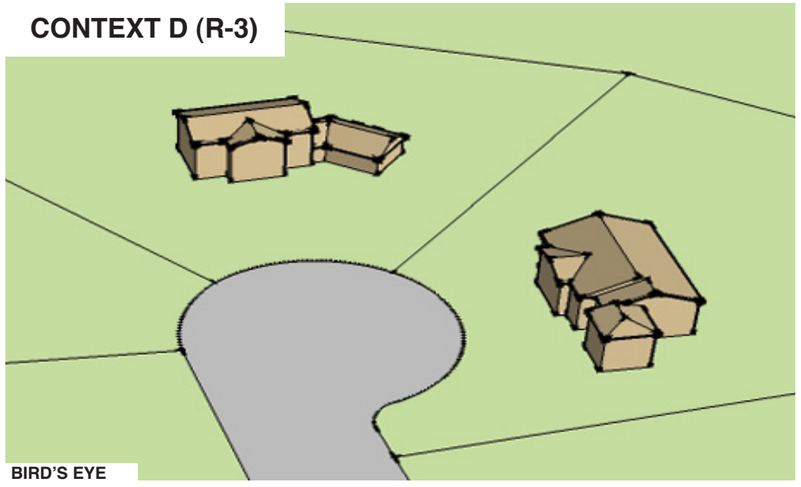
BIRD'S EYE

CONTEXT C (R-2)



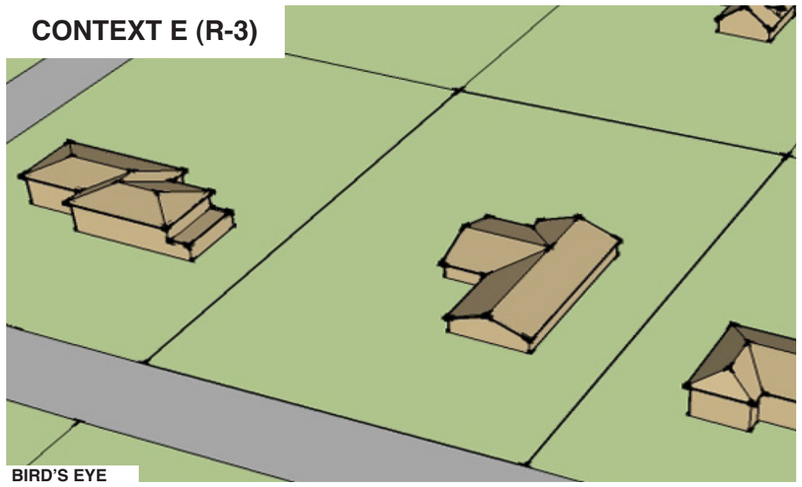
BIRD'S EYE

CONTEXT D (R-3)



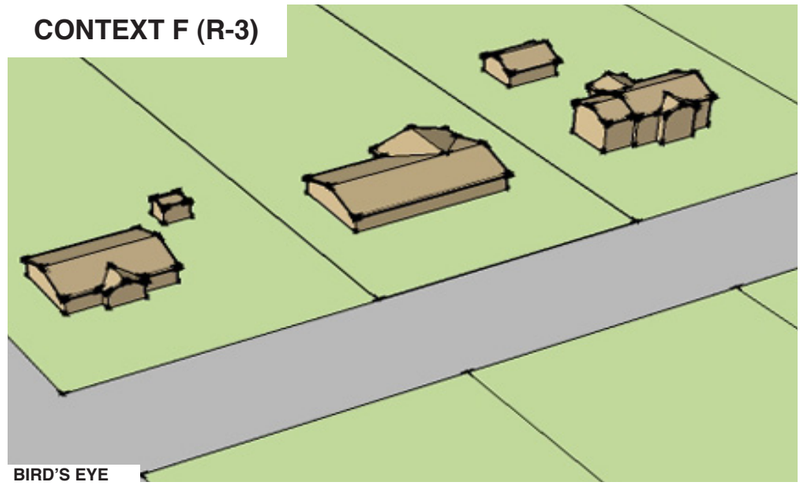
BIRD'S EYE

CONTEXT E (R-3)



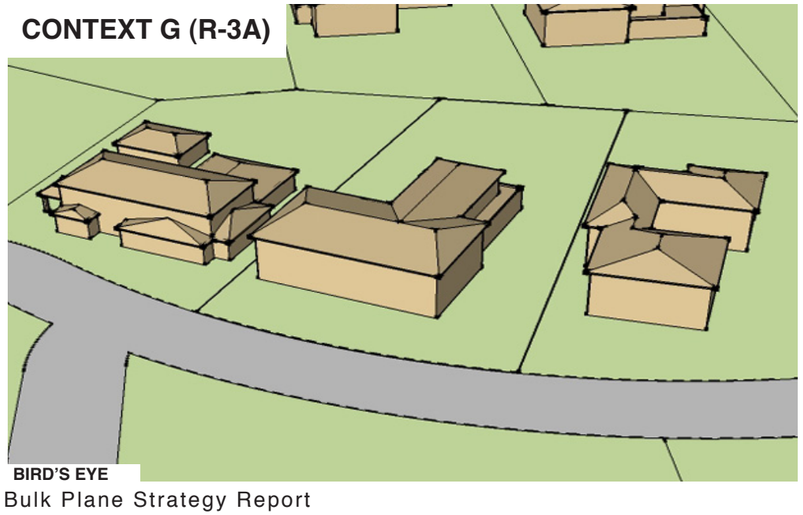
BIRD'S EYE

CONTEXT F (R-3)



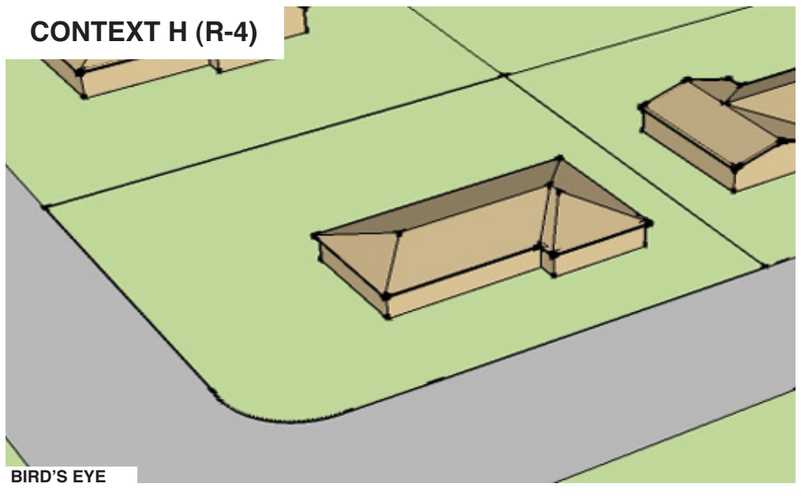
BIRD'S EYE

CONTEXT G (R-3A)



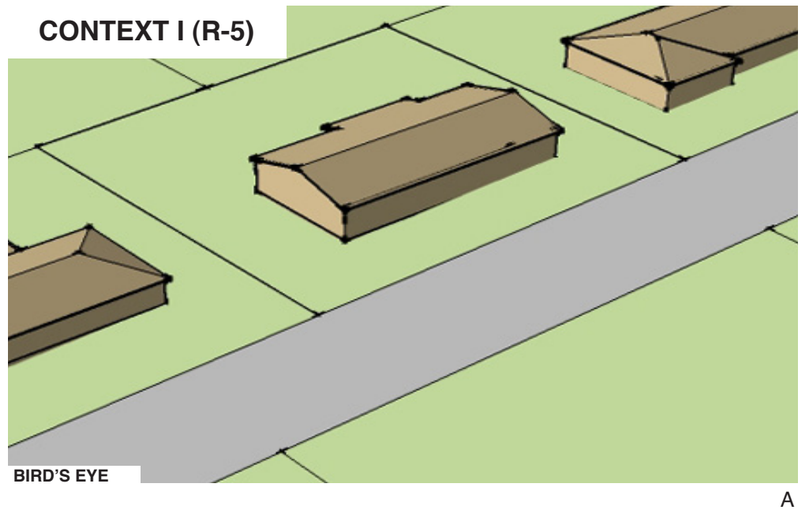
BIRD'S EYE

CONTEXT H (R-4)



BIRD'S EYE

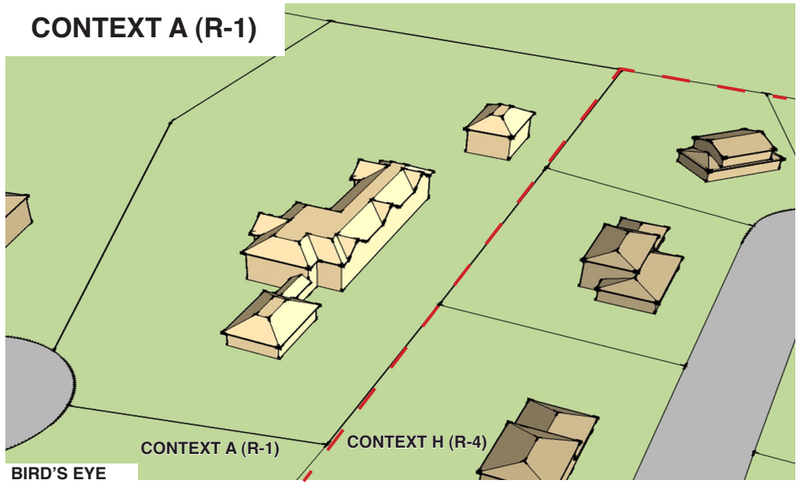
CONTEXT I (R-5)



BIRD'S EYE

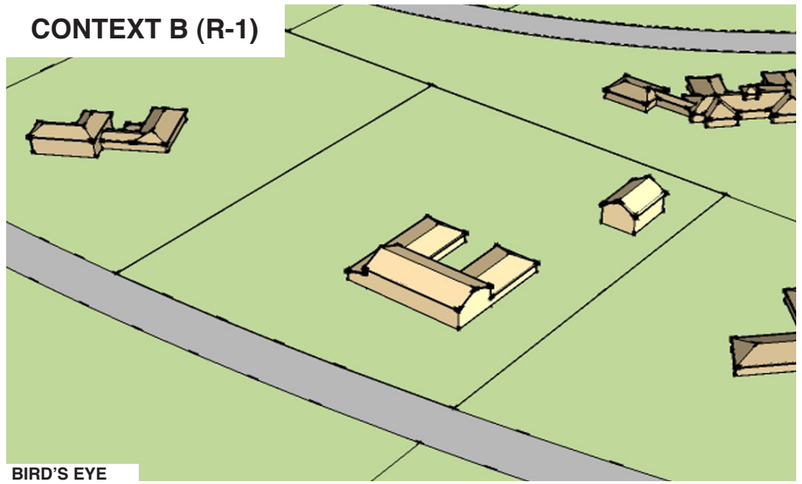
Attachment B: Current Trends Structures Illustrated by Context

CONTEXT A (R-1)



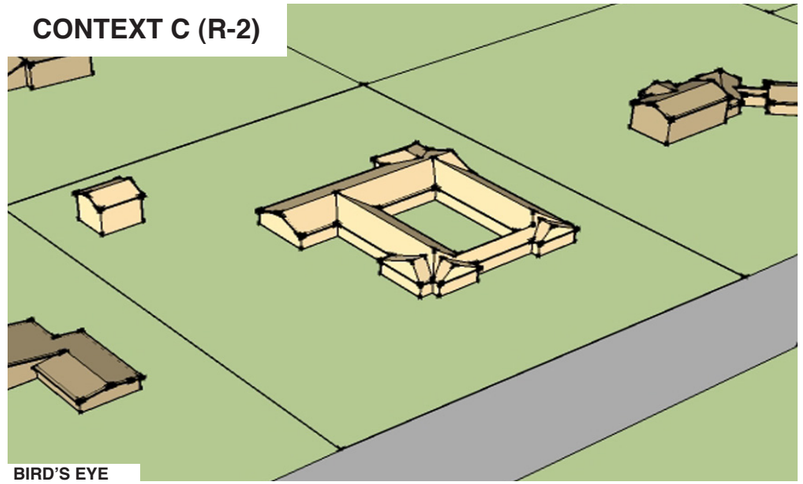
BIRD'S EYE

CONTEXT B (R-1)



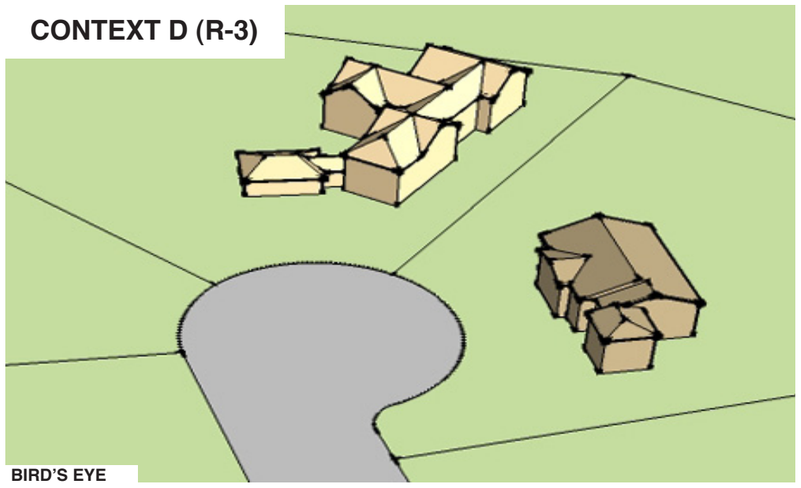
BIRD'S EYE

CONTEXT C (R-2)



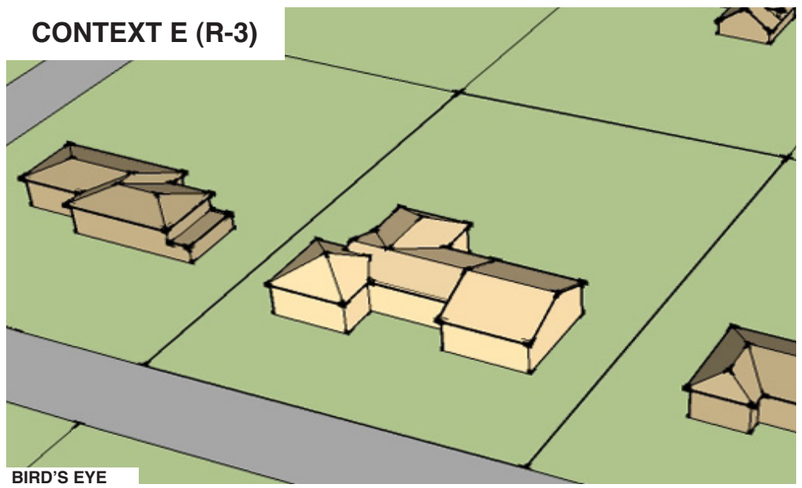
BIRD'S EYE

CONTEXT D (R-3)



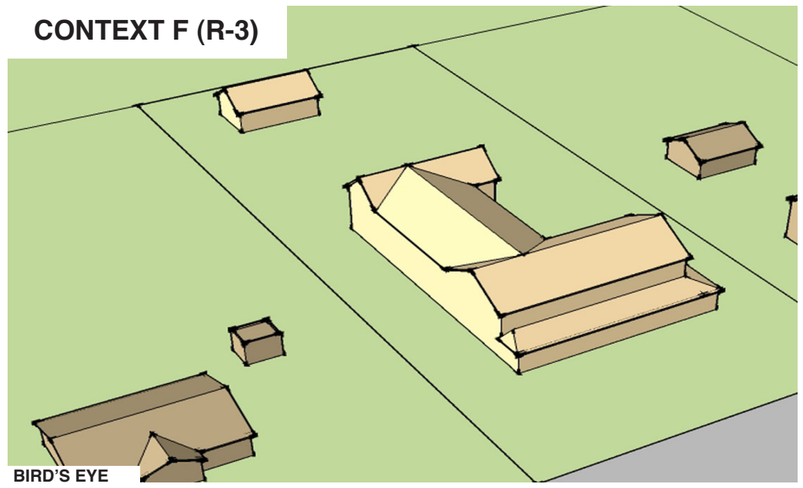
BIRD'S EYE

CONTEXT E (R-3)



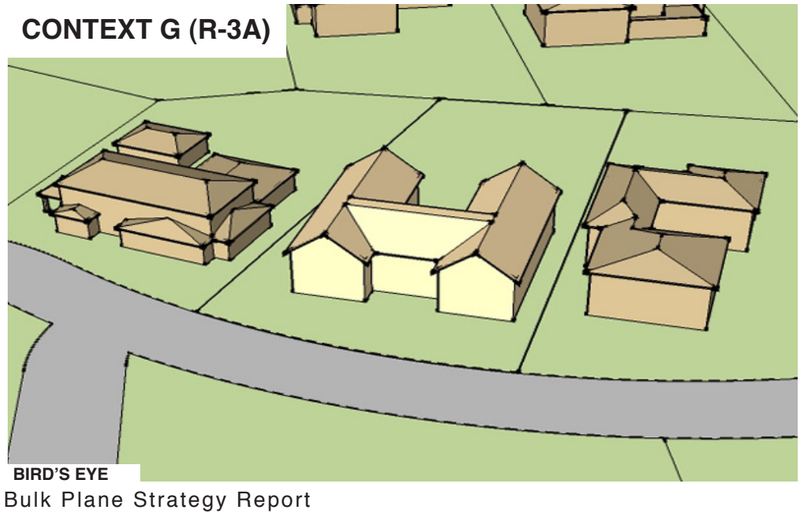
BIRD'S EYE

CONTEXT F (R-3)



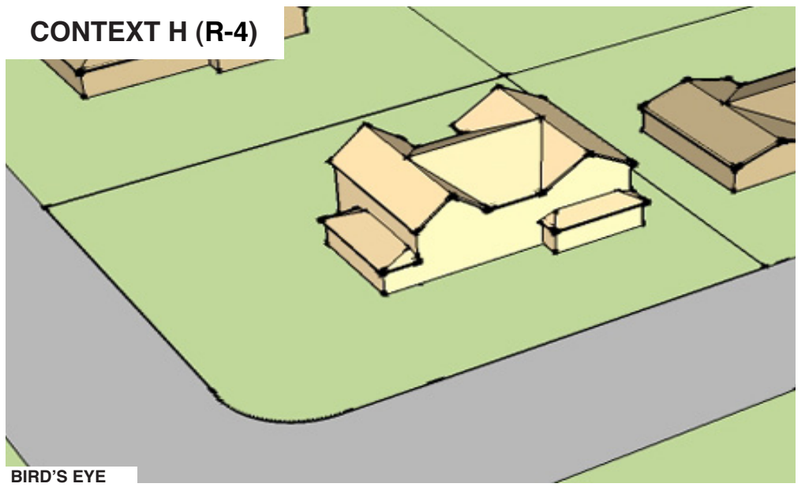
BIRD'S EYE

CONTEXT G (R-3A)



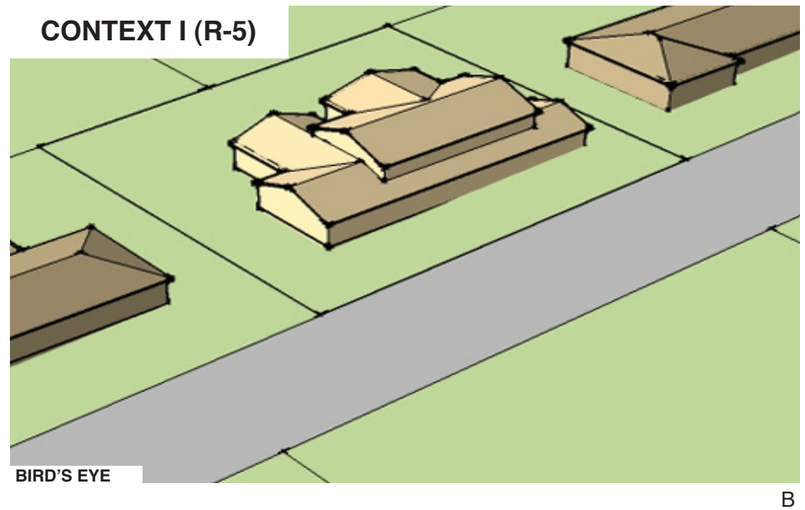
BIRD'S EYE

CONTEXT H (R-4)



BIRD'S EYE

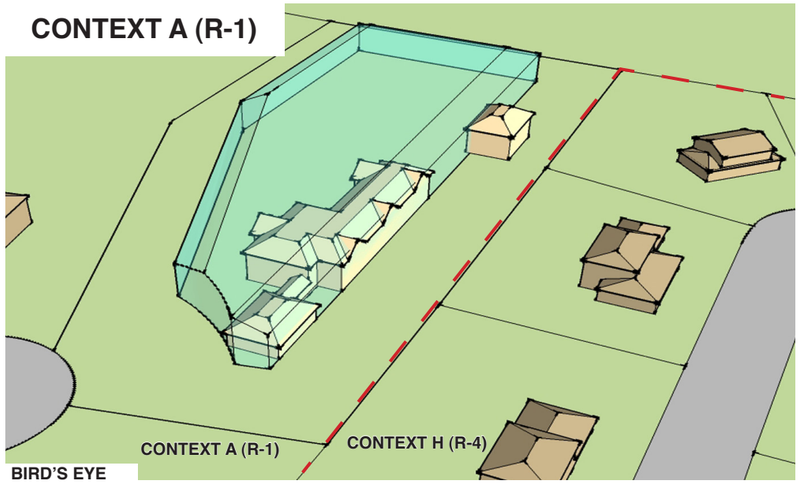
CONTEXT I (R-5)



BIRD'S EYE

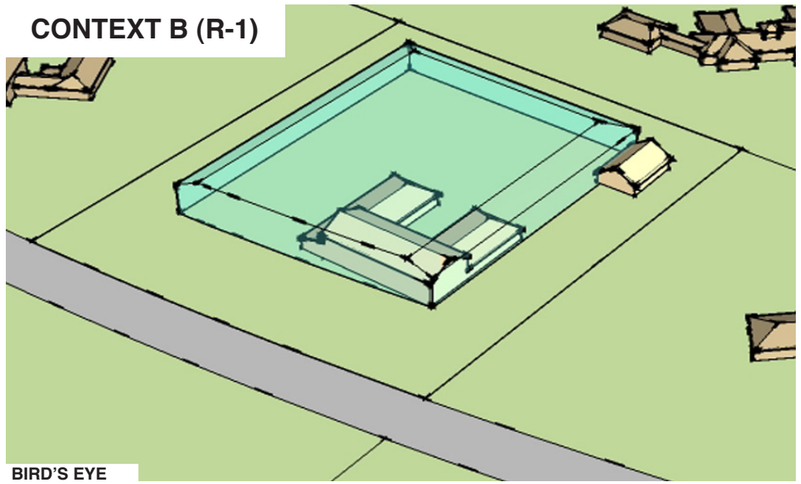
Attachment C: Current Trends Structures Illustrated Within Alternative 1 (RDSC Recommended) Bulk Plane by Context

CONTEXT A (R-1)



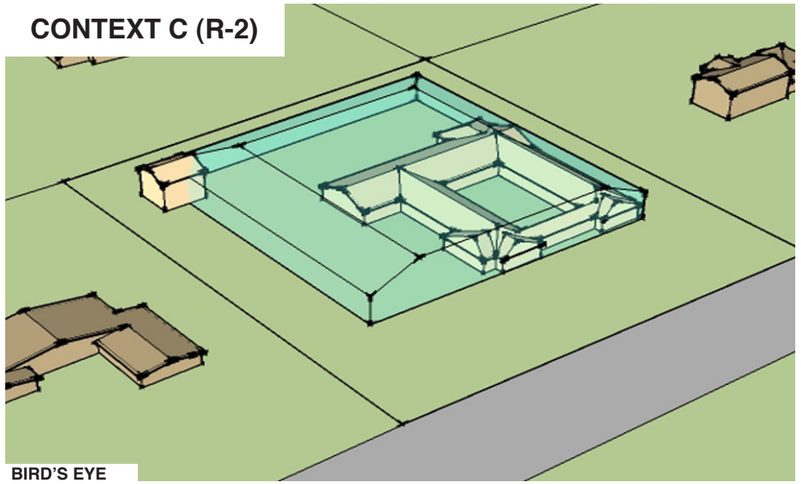
BIRD'S EYE

CONTEXT B (R-1)



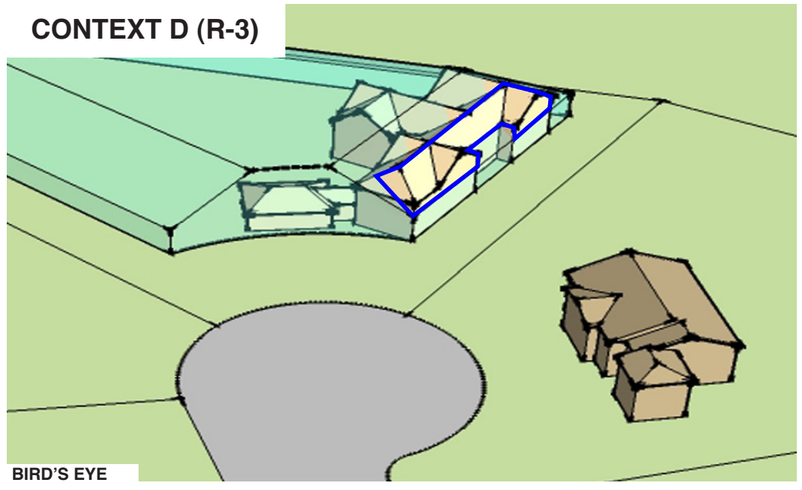
BIRD'S EYE

CONTEXT C (R-2)



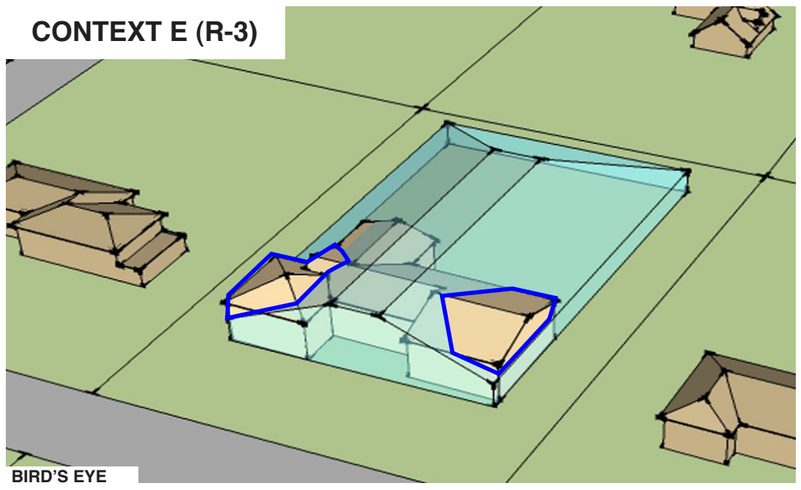
BIRD'S EYE

CONTEXT D (R-3)



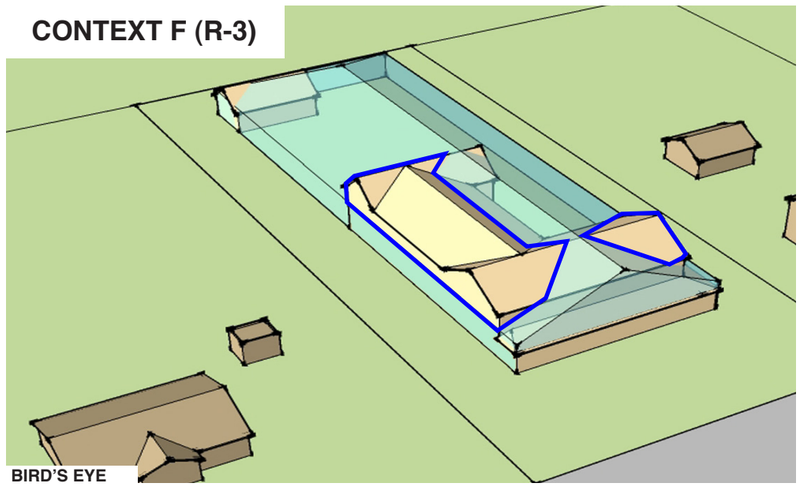
BIRD'S EYE

CONTEXT E (R-3)



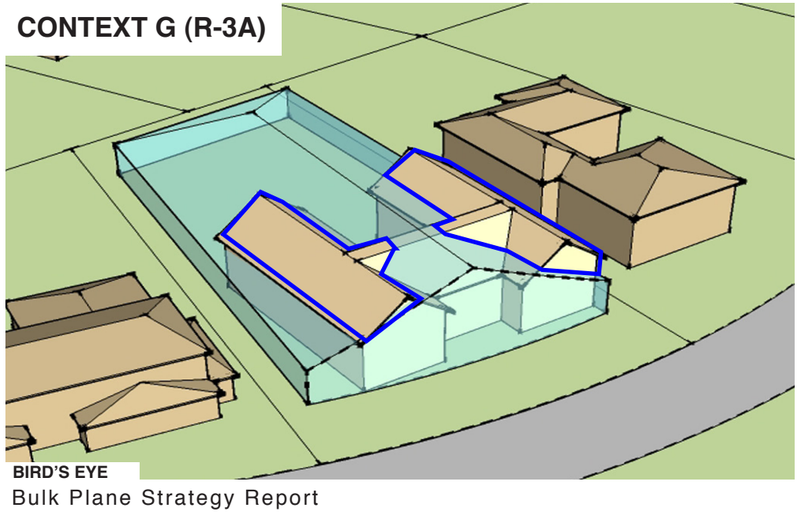
BIRD'S EYE

CONTEXT F (R-3)



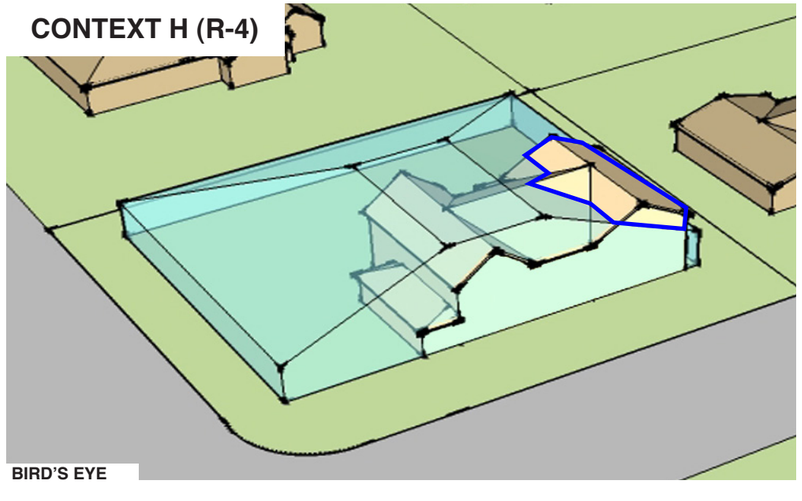
BIRD'S EYE

CONTEXT G (R-3A)



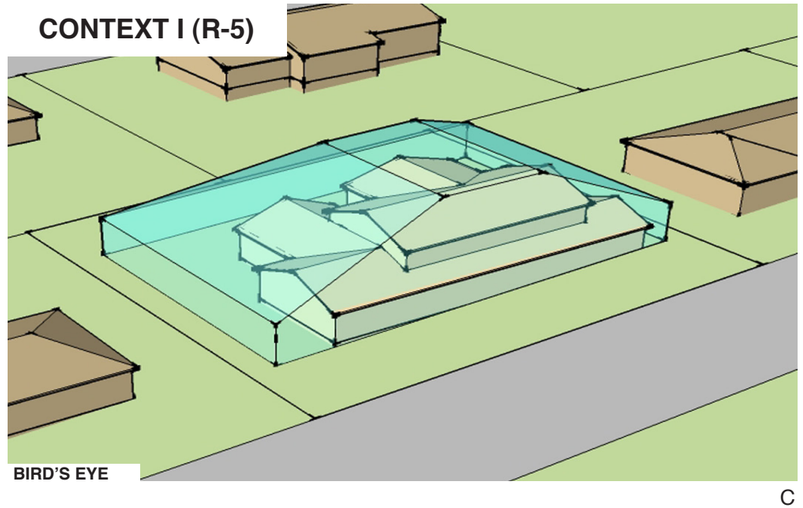
BIRD'S EYE

CONTEXT H (R-4)



BIRD'S EYE

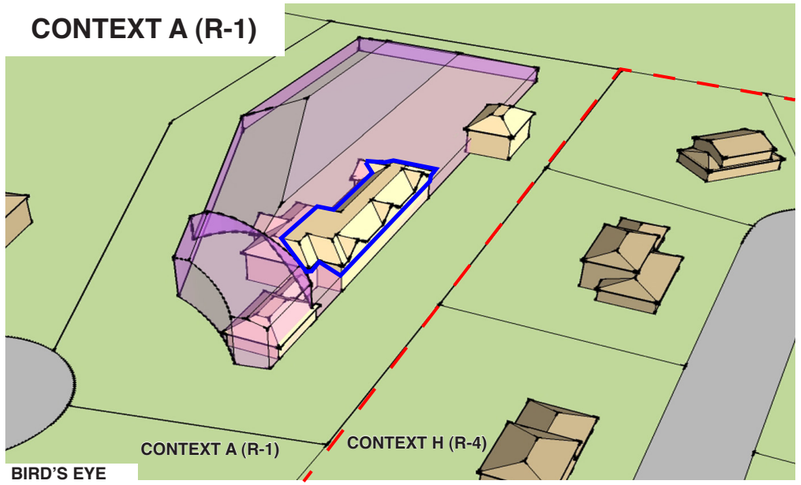
CONTEXT I (R-5)

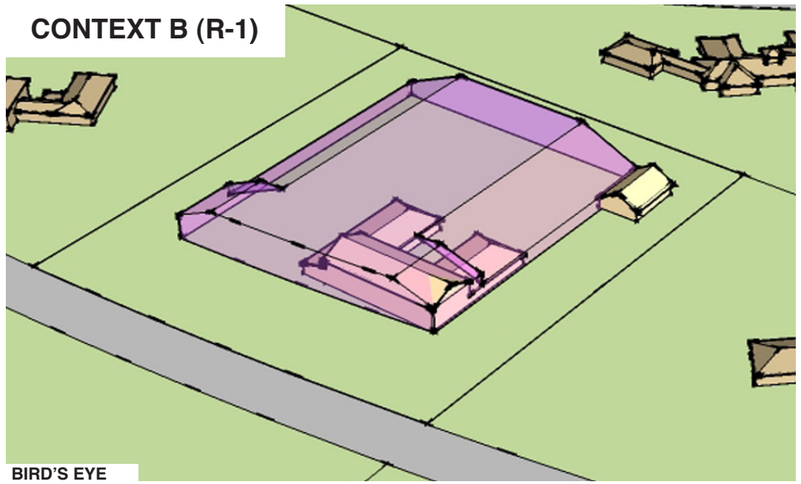


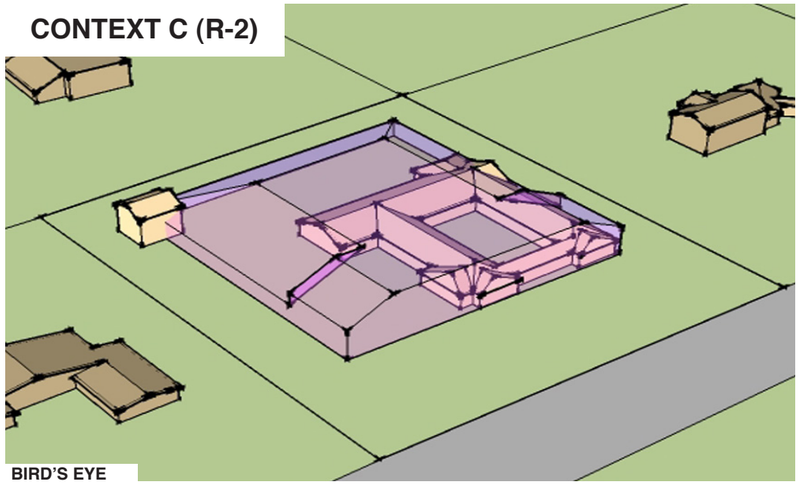
BIRD'S EYE

⟩ = Portions of structure that do not fit within the bulk plane

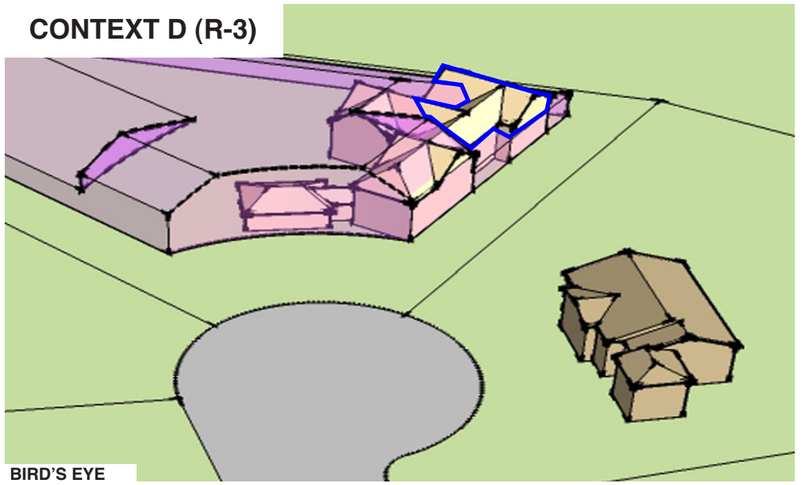
Attachment D: Current Trends Structures Illustrated Within Alternative 2 Bulk Plane by Context

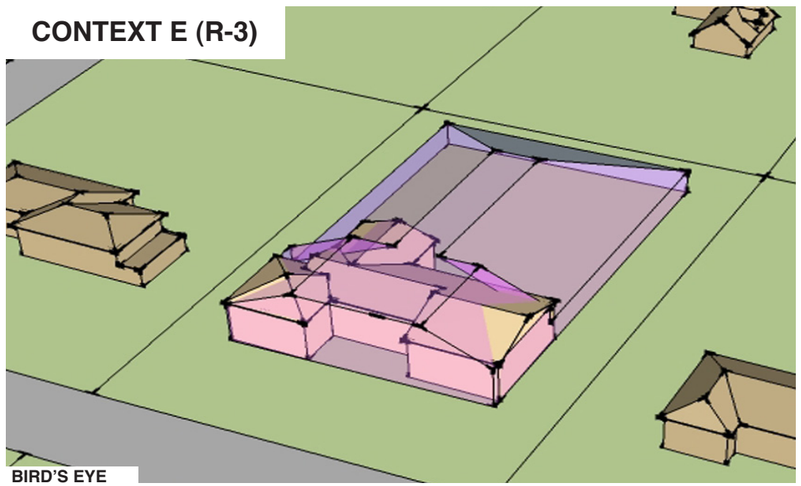


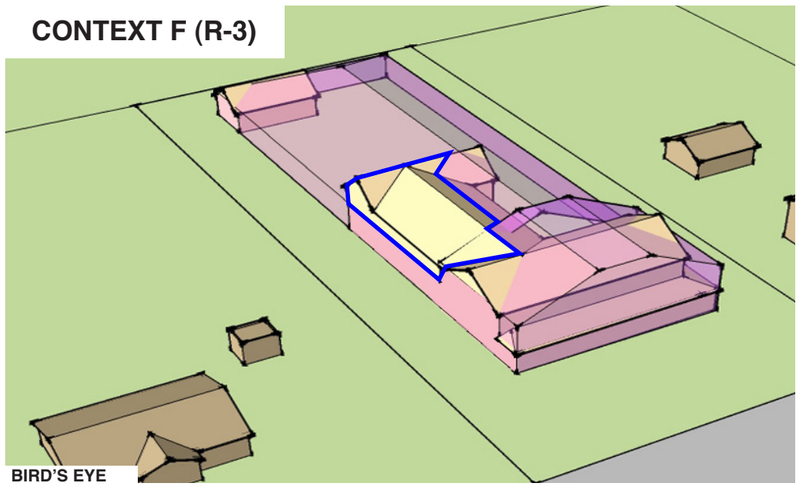


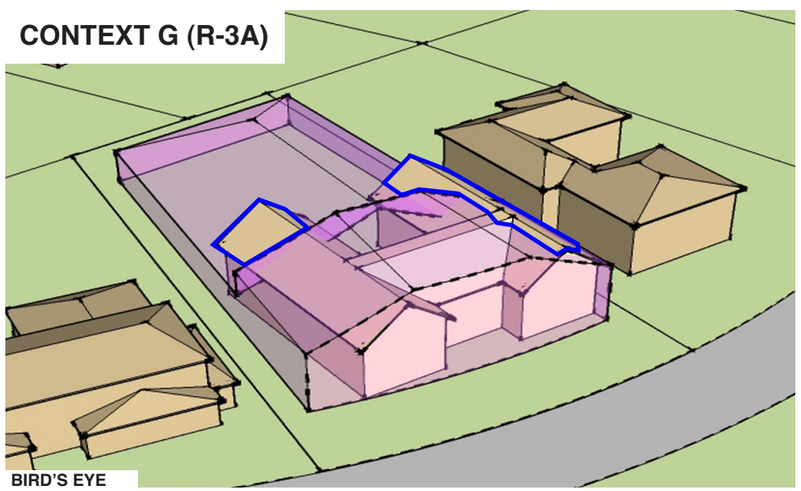


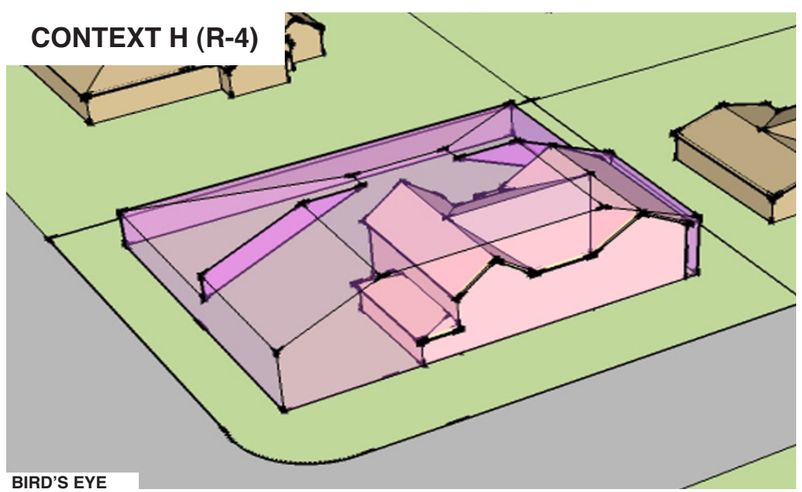
⟩ = Portions of structure that do not fit within the bulk plane

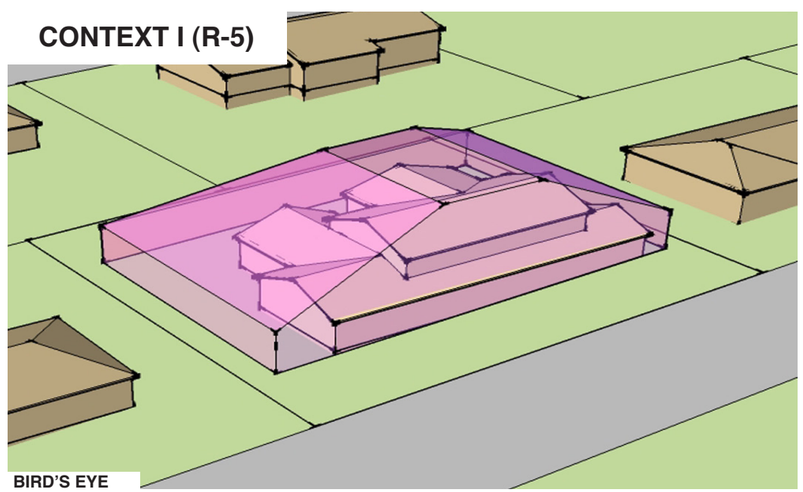








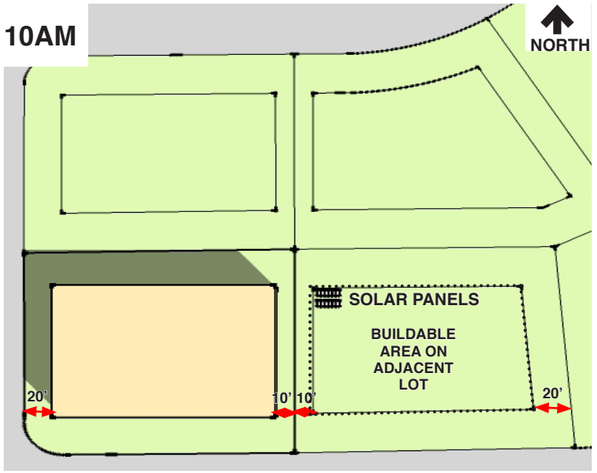


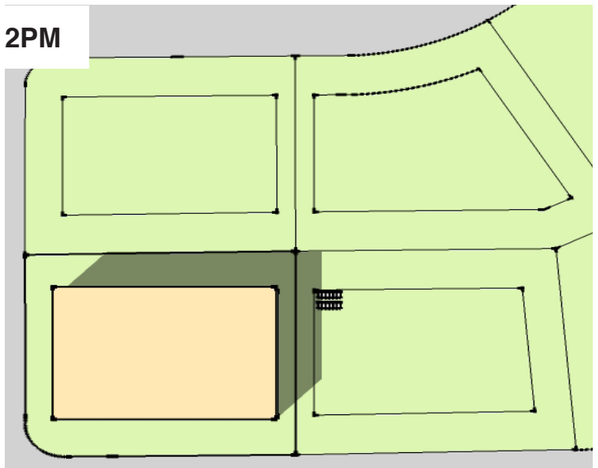


Attachment E: Shading Impacts of Alternative Bulk Plane Angles on the Spring/Fall Equinox in Context H (R-4)

The illustrations below compare shading impacts possible under current regulations and with alternative bulk plane angles. Comparisons are provided at 10:00 am. and 2:00 p.m. on the spring and fall equinox (gardening dates and prime solar access hours) on a 9,000 square foot lot in the R-4 Zone District. The structure illustrated fills the entire permitted building envelope for each bulk plane angle and casts the maximum possible shadow.

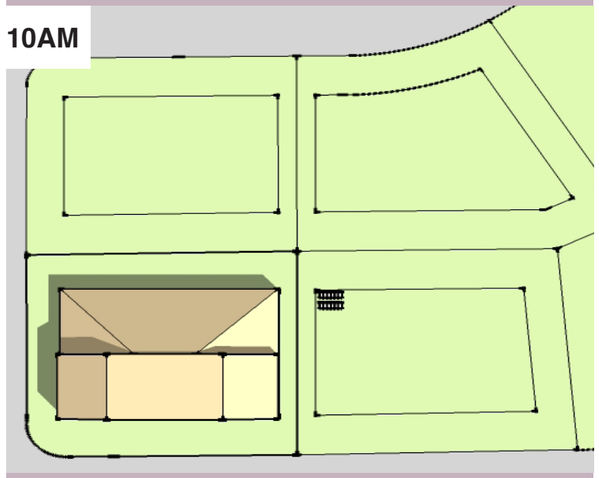
Existing Regulations

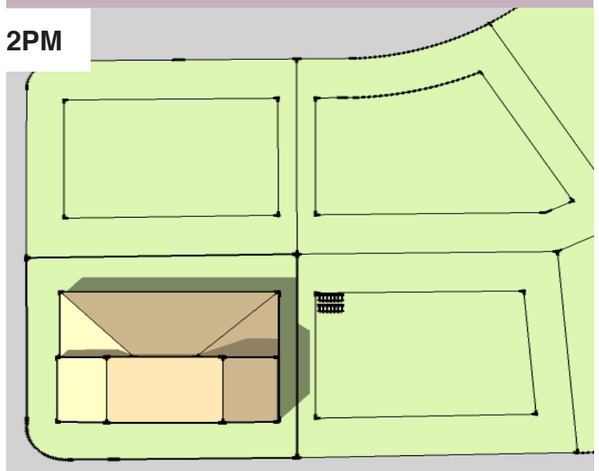




At 2pm under existing regulations, the shadow cast onto the adjacent lot (side) would have a maximum depth of 14.5 feet, and a coverage of 890 sq. feet (A 6 foot fence at the property line would create 620 sq. feet of shadow with a maximum depth onto the lot of 5 feet).

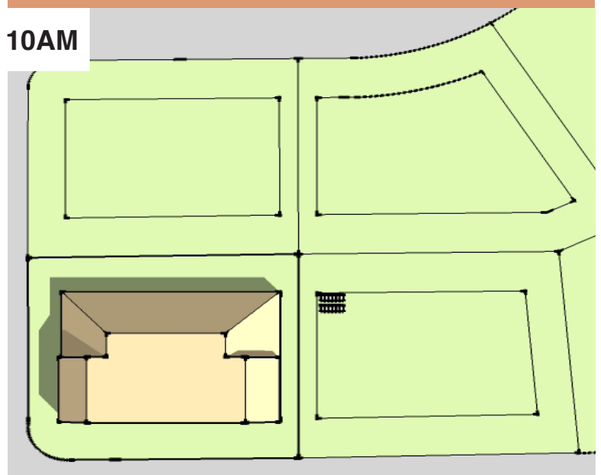
27° Angle (Alternative 1&2 Bulk Plane)

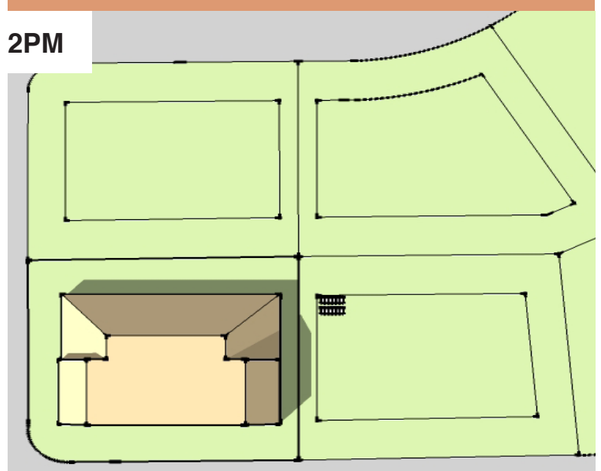




At 2pm, a two part bulk plane with a 27° angle would cast a shadow onto the adjacent lot with a maximum depth of 7 foot, and a coverage of 350 sq. feet (A 6 foot fence at the property line would create 620 sq. feet of shadow with a maximum depth onto the lot of 5 feet).

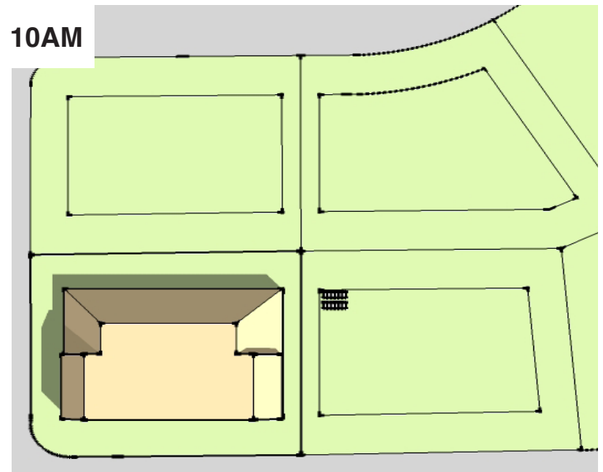
40° Angle (Recommended Bulk Plane)

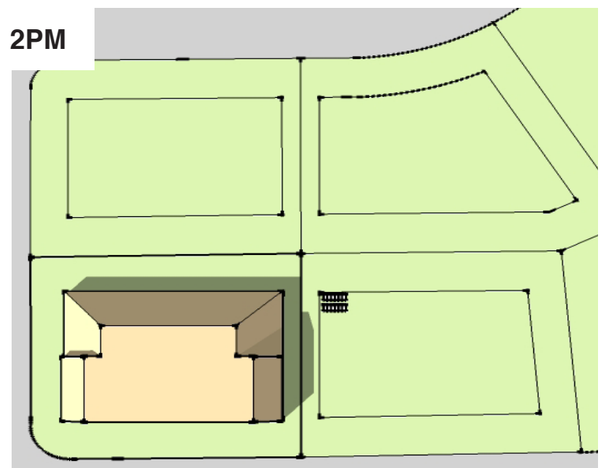




At 2pm, a two part bulk plane with a 40° angle would cast a shadow onto the adjacent lot with a maximum depth of 7 feet, and a coverage of 380 sq. feet (A 6 foot fence at the property line would create 620 sq. feet of shadow with a maximum depth onto the lot of 5 feet).

45° Angle



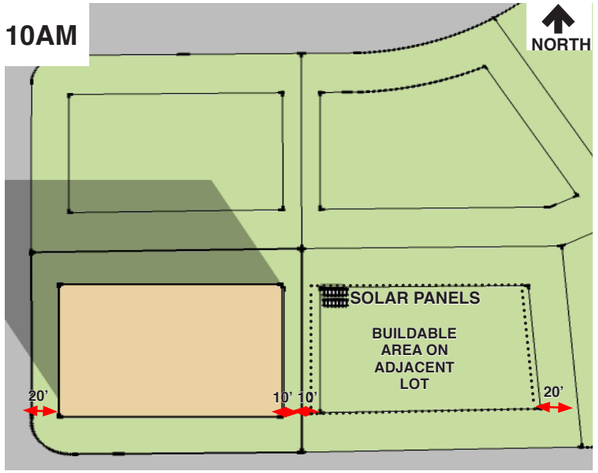


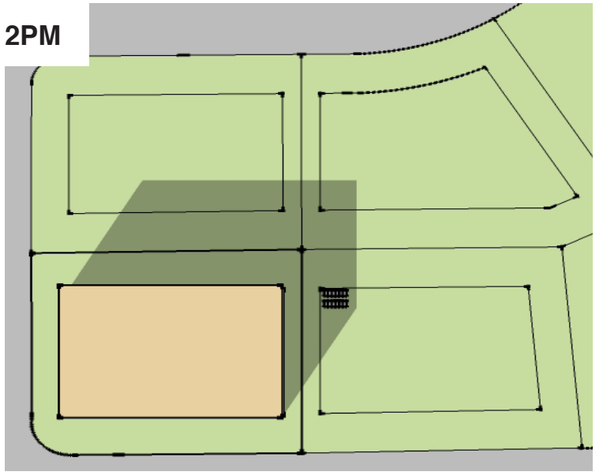
At 2pm, a two part bulk plane with a 45° angle would cast a shadow onto the adjacent lot with a maximum depth of 7 feet, and a coverage of 400 sq. feet (A 6 foot fence at the property line would create 620 sq. feet of shadow with a maximum depth onto the lot of 5 feet).

Attachment F: Shading Impacts of Alternative Bulk Plane Angles on the Winter Solstice in Context H (R-4)

The illustrations below compare shading impacts possible under current regulations and with alternative bulk plane angles. Comparisons are provided at 10:00 am. and 2:00 p.m. on the winter solstice (the lowest sun angles creating the maximum shading possible) on a 9,000 square foot lot in the R-4 Zone District. The structure illustrated fills the entire permitted building envelope for each bulk plane angle and casts the maximum possible shadow.

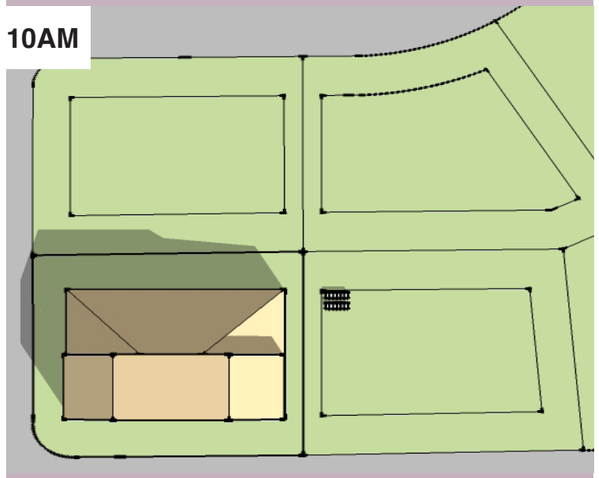
Existing Regulations

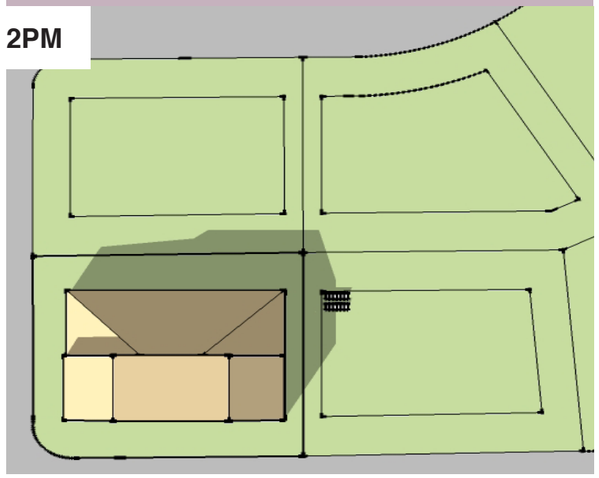




At 2pm under existing regulations, the shadow cast onto the adjacent lot (side) would have a maximum depth of 22 feet, and a coverage of 1,870 sq. feet (A 6 foot fence at the property line would create 1,000 sq. feet of shadow with a maximum depth onto the lot of 8 feet). The total area of shadow cast on all adjacent properties would be 7,595 sq. feet.

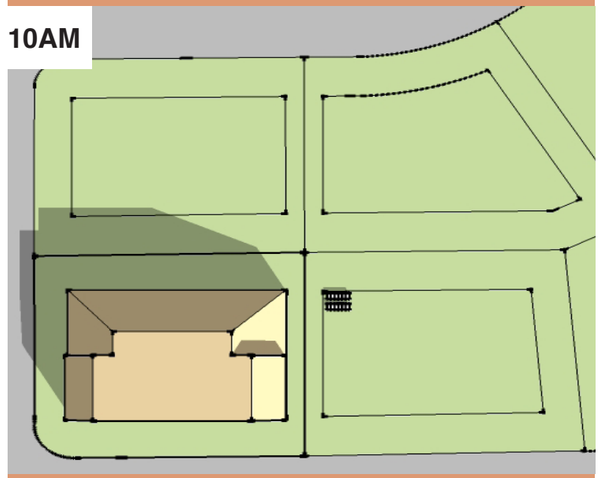
27° Angle (Alternative 1&2 Bulk Plane)

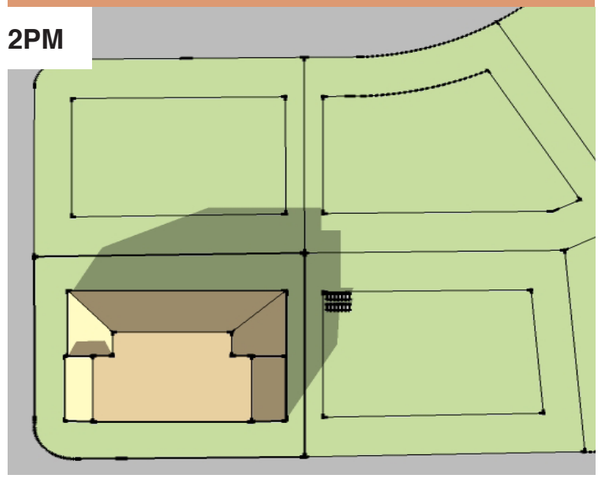




At 2pm, a two part bulk plane with a 27° angle would cast a shadow onto the adjacent lot with a maximum depth of 18 feet, and a coverage of 1,265 sq. feet (A 6 foot fence at the property line would create 1,000 sq. feet of shadow with a maximum depth onto the lot of 8 feet). The total area of shadow cast on all adjacent properties would be 2,687 sq. feet.

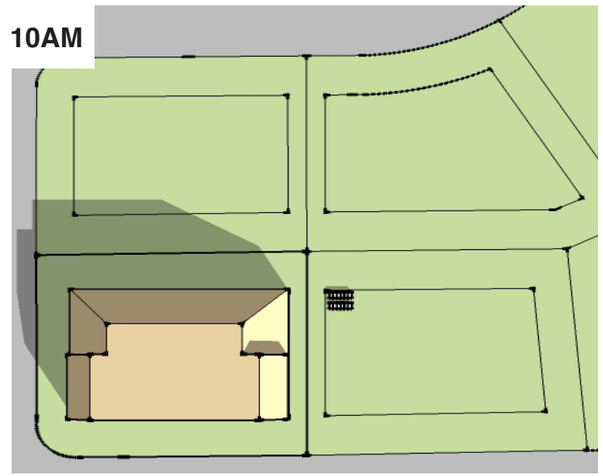
40° Angle (Recommended Bulk Plane)

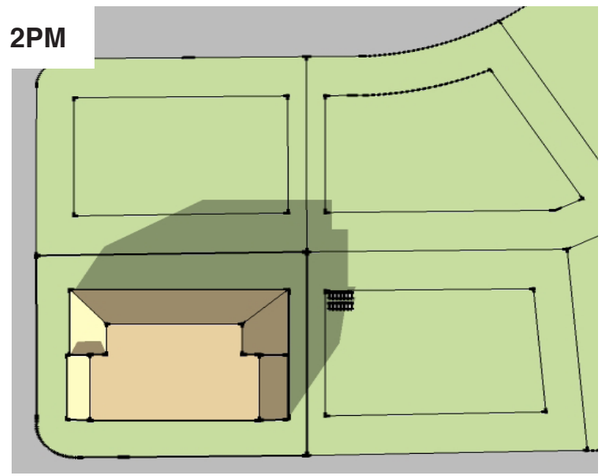




At 2pm, a two part bulk plane with a 40° angle would cast a shadow onto the adjacent lot with a maximum depth of 19 feet, and a coverage of 1,377 sq. feet (A 6 foot fence at the property line would create 1,000 sq. feet of shadow with a maximum depth onto the lot of 8 feet). The total area of shadow cast on all adjacent properties would be 4,324 sq. feet.

45° Angle

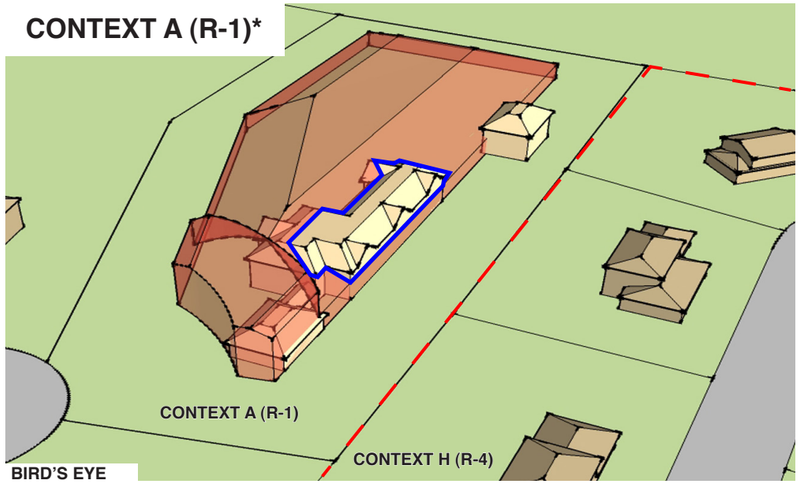




At 2pm, a two part bulk plane with a 45° angle would cast a shadow onto the adjacent lot with a maximum depth of 18 feet, and a coverage of 1,490 sq. feet (A 6 foot fence at the property line would create 1,000 sq. feet of shadow with a maximum depth onto the lot of 8 feet). The total area of shadow cast on all adjacent properties would be 5,005 sq. feet.

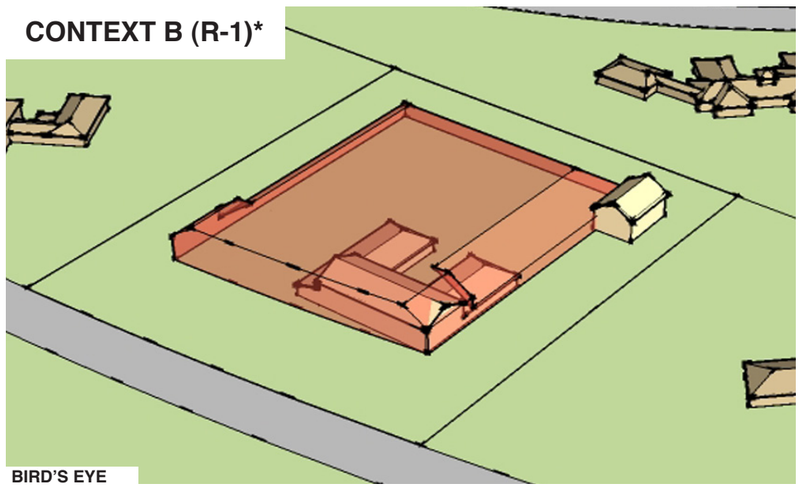
Attachment G: Current Trends Structures Illustrated Within Recommended Bulk Plane by Context

CONTEXT A (R-1)*



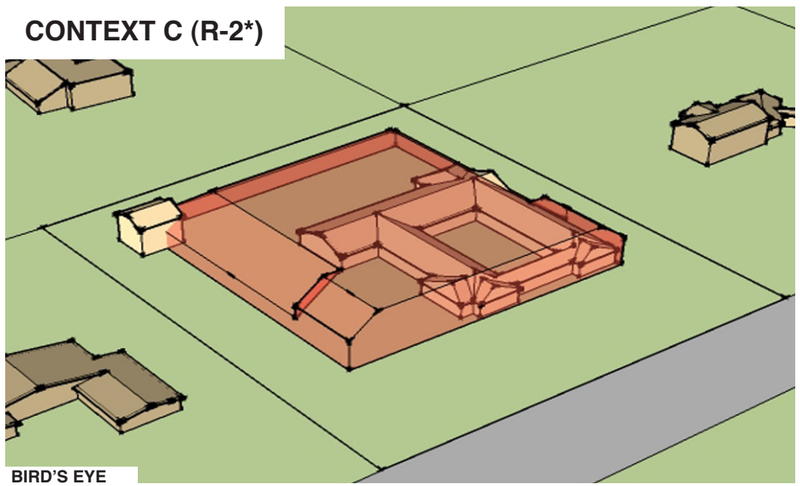
BIRD'S EYE

CONTEXT B (R-1)*



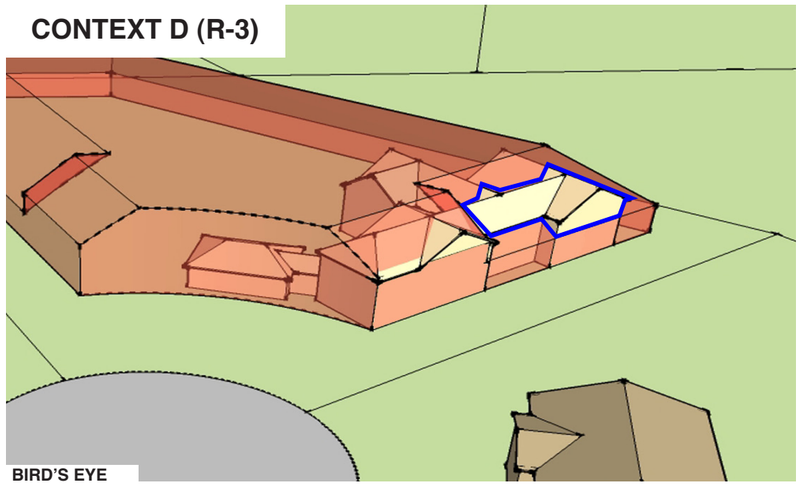
BIRD'S EYE

CONTEXT C (R-2*)



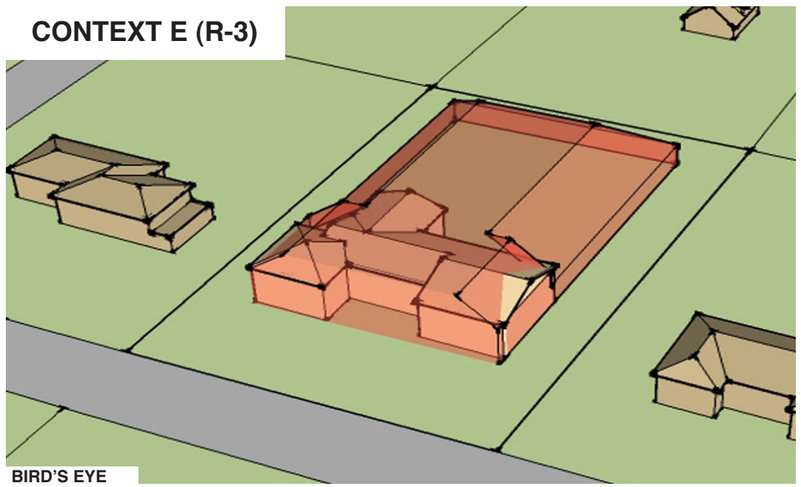
BIRD'S EYE

CONTEXT D (R-3)



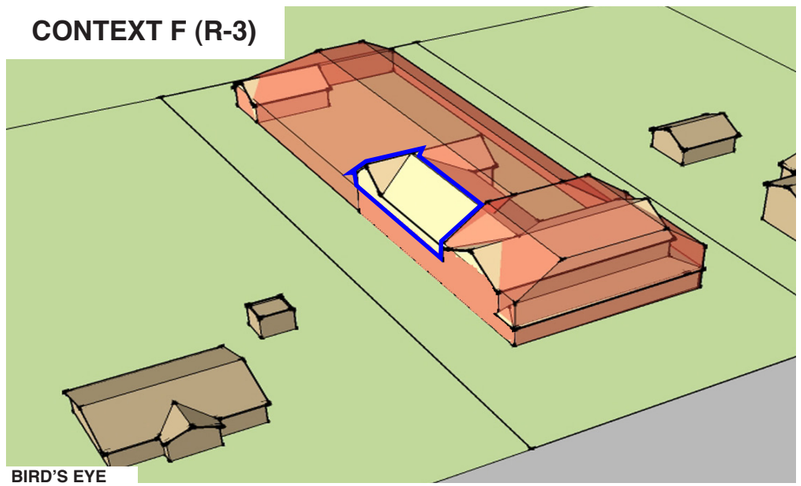
BIRD'S EYE

CONTEXT E (R-3)



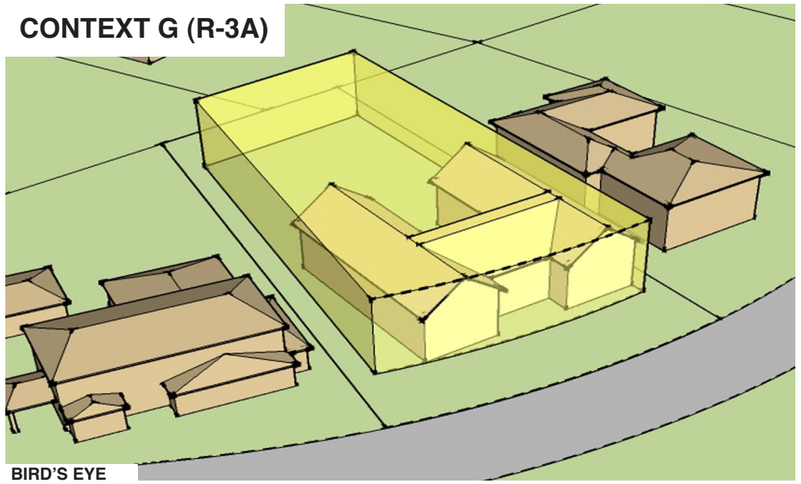
BIRD'S EYE

CONTEXT F (R-3)



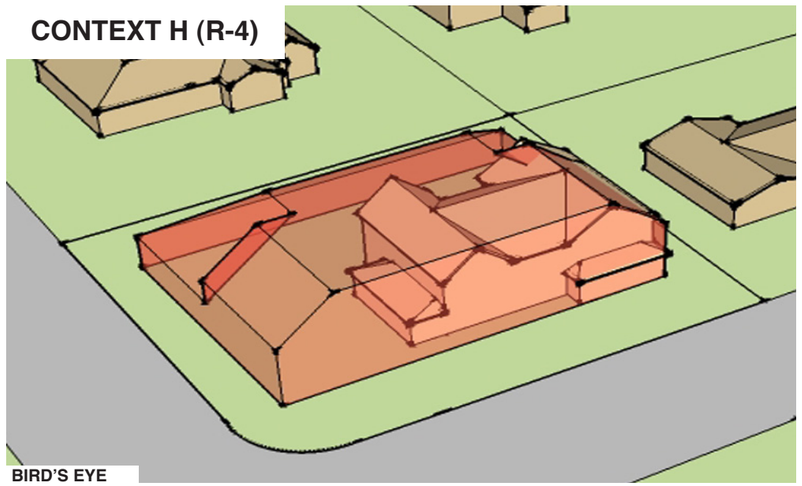
BIRD'S EYE

CONTEXT G (R-3A)



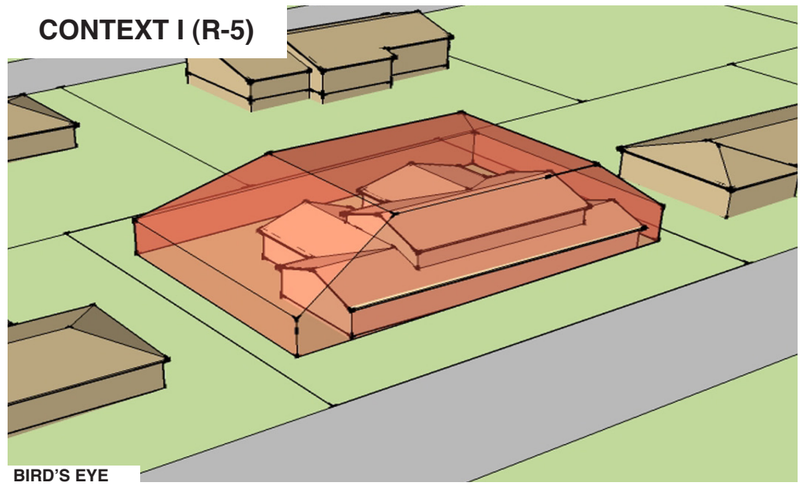
BIRD'S EYE

CONTEXT H (R-4)



BIRD'S EYE

CONTEXT I (R-5)

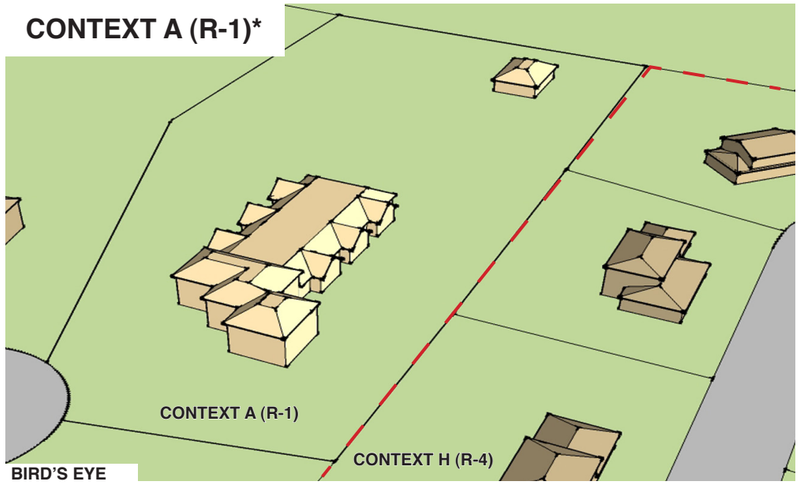


BIRD'S EYE

⟩ = Portions of structure that do not fit within the bulk plane. *The illustrated accessory structure does not fit within the special R-1/R-2 acc. structure bulk plane.

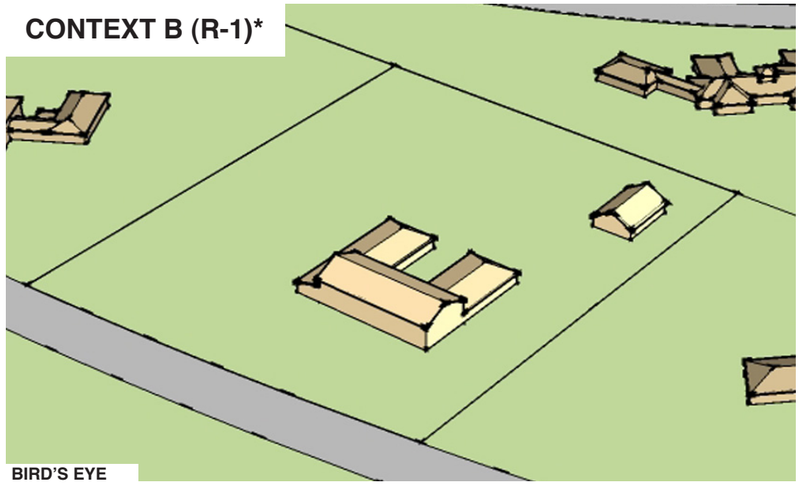
Attachment H: Current Trends Structures Illustrated with Re-Design to Fit Within Recommended Bulk Plane by Context

CONTEXT A (R-1)*



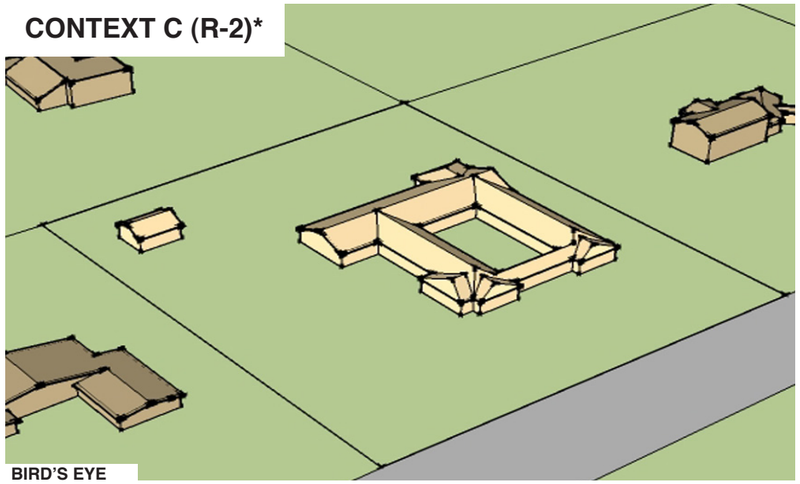
BIRD'S EYE

CONTEXT B (R-1)*



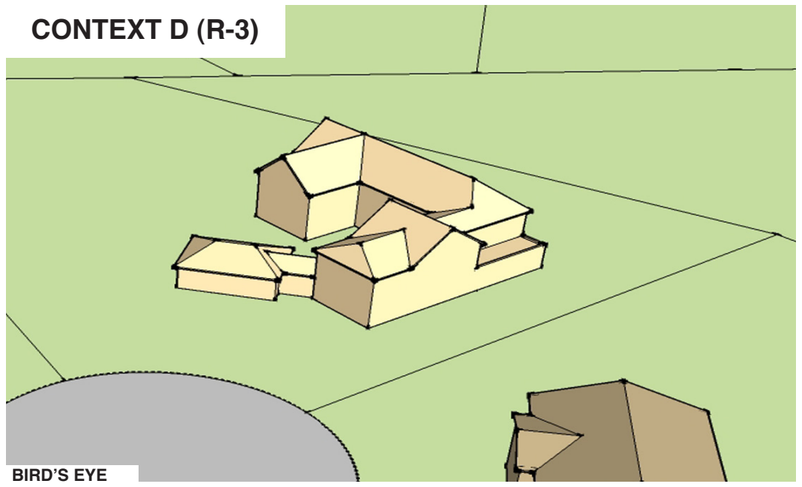
BIRD'S EYE

CONTEXT C (R-2)*



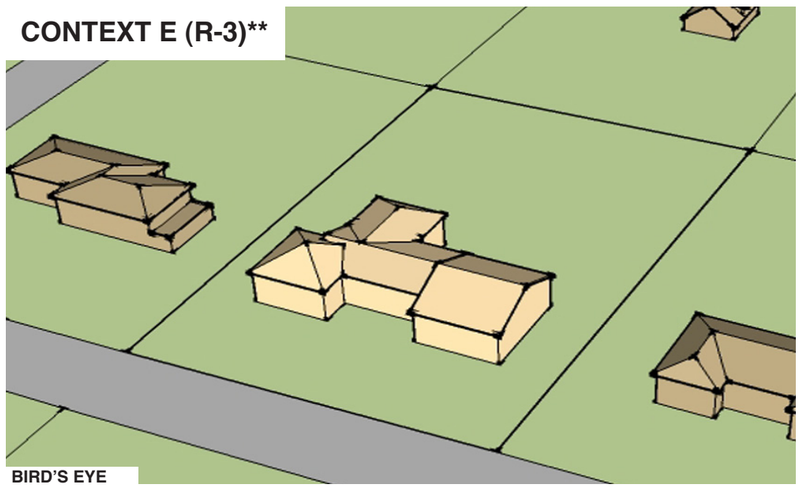
BIRD'S EYE

CONTEXT D (R-3)



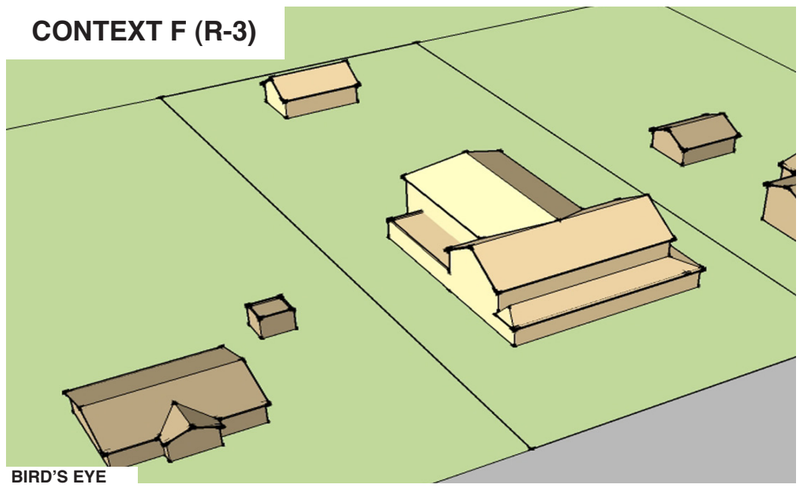
BIRD'S EYE

CONTEXT E (R-3)**



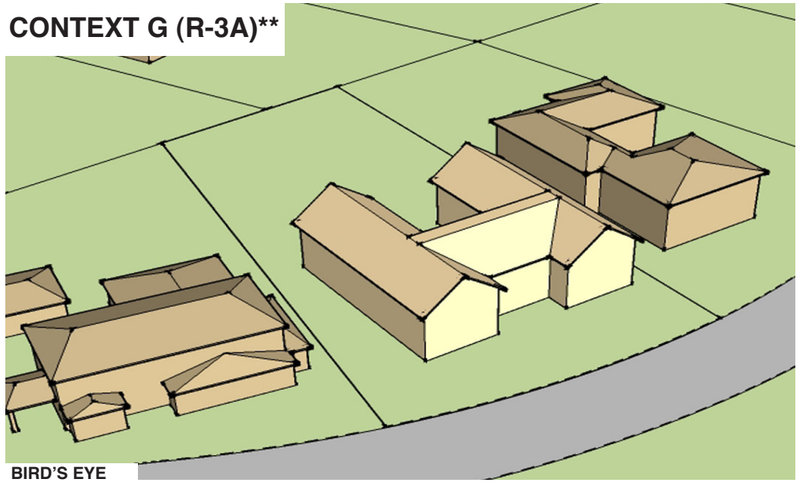
BIRD'S EYE

CONTEXT F (R-3)



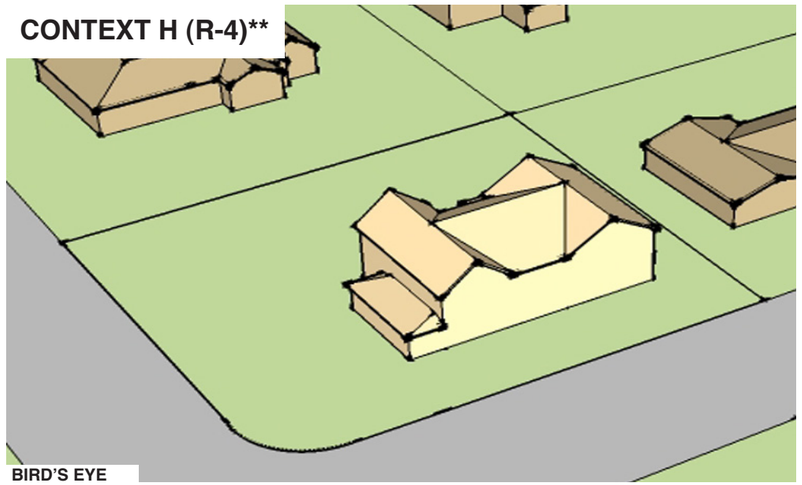
BIRD'S EYE

CONTEXT G (R-3A)**



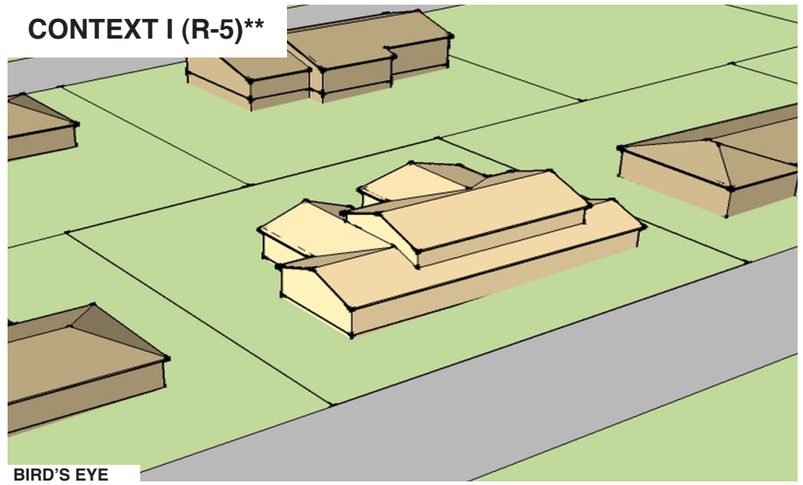
BIRD'S EYE

CONTEXT H (R-4)**



BIRD'S EYE

CONTEXT I (R-5)**



BIRD'S EYE

*Accessory structure re-designed to fit special R-1/R-2 acc. struct. bulk plane. **Current trends structures did not have to be re-designed to fit within the bulk plane.