

**CHERRY HILLS VILLAGE
COLORADO**

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ITEM:

MEMORANDUM

TO: HONORABLE MAYOR CHRISTMAN AND MEMBERS OF THE CITY COUNCIL

FROM: EMILY KROPF, SPECIAL PROJECTS COORDINATOR

SUBJECT: STUDY SESSION FOR BULK PLANE AND FLOOR AREA RATIO STUDY
COMMITTEE'S FINAL REPORT

DATE: AUGUST 4, 2015

INTRODUCTION:

In October 2014, the City Council established the Bulk Plane and Floor Area Ratio Study Committee to evaluate the residential development standards that were adopted in 2011 (Exhibit A). The Committee was asked to determine whether the standards have met the original intent of the Residential Development Standards Committee (RDSC) to address the development trend of looming, massive new homes in traditional neighborhoods that negatively impact character and privacy. The scope of work for the study established the following tasks for the Committee:

- Discuss the project scope, community/stakeholders participation plans and review of initial project data and photographs;
- Conduct a visual evaluation of computer model images of pre- and post-ordinance construction and consider improvements to ordinance standards; and
- Consider a range of potential updates or improvements to the residential development standards.

The Committee was to consist of two City Council advisors, two members of the Planning and Zoning Commission and all available members of the RDSC. The Committee was comprised of the following members:

CHERRY HILLS VILLAGE COLORADO

- Mark Griffin, City Council Advisor
- Klasina VanderWerf, City Council Advisor
- Al Blum, Planning and Zoning Commission Member
- Peter Savoie, Planning and Zoning Commission Member/RDSC Member
- Steve Szymanski, Planning and Zoning Commission Member/RDSC Member
- David Wyman, Planning and Zoning Commission Member
- Linda Behr, RDSC Member
- Tracy James, RDSC Member
- Andrew Nielsen, RDSC Member

STUDY:

City Council approved a contract with urban design firm Winter and Company for the evaluation. This was the same company that the City hired to complete a study and make recommendations on implementing the RDSC proposal for the bulk plane and floor area ratio regulations. The Committee held a kickoff meeting in November 2014 and met several times throughout the past six months to review recent construction trends and conduct a visual evaluation of computer model images of pre-and post-ordinance construction.

Staff held a stakeholders meeting with architects and builders in February and posted an online visual survey on the City's website in March. 32 residents responded to the survey. A community open house was also held in March in which there were two residents in attendance. The Committee's report includes final recommendations for building height, floor area ratio and bulk plane (Exhibit B). The Committee's findings are to be presented by Winter and Company Consultant Cheney Bostic.

ATTACHMENTS:

Exhibit A: August 19, 2014 and September 2, 2014 City Council Minutes

Exhibit B: Residential Development Standards Evaluation

Councilor VanderWerf reported that the Public Art Commission would meet on August 25th and review the three finalist artists for a loaned sculpture to place in front of the Joint Public Safety Facility. She noted that they were Colorado artists and that two were well known – Emmett Culligan and Yoshi Saito.

Councilor A. Brown had no report.

City Manager & Staff

City Manager Patterson reported that staff was working on the 2015 budget; the new fuel tank had been installed; construction was underway at the Cherry Hills Country Club for the BMW Golf Tournament; the Police Department had participated in a "table top" exercise for the BMW Tournament; the open space meeting on August 12th had been productive and he thanked Council for their leadership with this meeting; the City had received \$84,000 in use tax revenue and Director Proctor was estimating that revenues would exceed expenditures by \$400,000 for 2014; Commander Weathers was doing well post-surgery; the lot drawing for placing candidate names on the November 4, 2014 ballot would be held at the September 2nd Council meeting; bank stabilization was underway at Woodie Hollow Park; crime was down by 23% in 2014 from 2013; Community Development revenue was exceeding the 2014 budget by \$140,000.

Councilor Roswell commended the Police Department for their participation in the ice bucket challenge and noted the camaraderie between the Police Department and South Metro Fire Rescue.

Bulk Plane and Floor Area Ratio Evaluation Study

Director Zuccaro indicated that staff recommended a study be done to evaluate the effectiveness of the bulk plane and floor area ratio ordinance which had been in effect since September 2011. He reminded Council that adoption of these regulations had been a recommendation of the Residential Development Standards Committee (RDSC) and were intended to address larger new homes and their negative impact on community character and privacy. He noted that since the ordinance became effective 36 new homes had been built in the City. He indicated that this was a sufficient sample size on which to evaluate the ordinance. He noted that \$20,000 was included in the 2014 budget for a study and that staff recommended contracting with the urban design firm Winter and Company for the study. This was the same company that the City had hired to complete a study and make recommendations on implementing the RDSC proposal for a bulk plane standard, and was then hired again to draft the ordinance that was ultimately adopted by Council. He noted the evaluation study would include a review of the construction projects since adoption of the ordinance, involvement of stakeholders, public input, and both data and visual analysis. He estimated that the study would take three to five months to complete, and recommended a committee be formed including City Council members, Planning and Zoning Commissioners, and RDSC members.

Councilor A. Brown asked how the 36 homes were spread over the various zone districts in the City.

Director Zuccaro replied that staff had not broken out the 36 homes by zone district but could do so and return with that information to Council.

Mayor Pro Tem Stewart agreed that the metrics should be estimated prior to beginning the study.

RECORD OF PROCEEDINGS

Councilor Griffin noted that the bulk plane and FAR regulations came up frequently before the Board of Adjustment and Appeals and indicated his support of an evaluation study.

Mayor Tisdale asked Director Zuccaro to return at the September 2nd meeting with information on how the 36 homes were spread among the zone districts before proceeding with the study.

City Attorney

City Attorney Michow had no report.

ADJOURNMENT

Mayor Pro Tem Stewart moved, seconded by Councilor K. Brown to proceed into Executive Session pursuant to C.R.S. Section 24-6-402(4)(b) and Section 24-6-402(4)(e) for purposes of receiving legal advice and determining positions relative to matters subject to negotiations regarding *City of Cherry Hills Village v. Cooper* pending currently in Municipal Court and further upon completion of the Executive Session to stand adjourned.

The following votes were recorded:

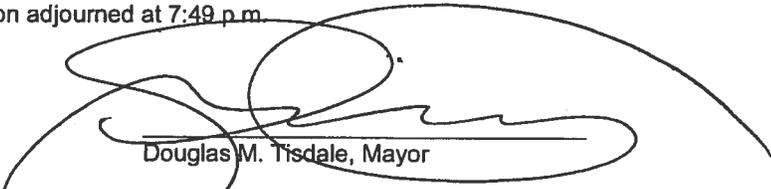
Russell Stewart	yes
Scott Roswell	yes
Klasina VanderWerf	yes
Alex Brown	yes
Katy Brown	yes
Mark Griffin	yes

Vote on Executive Session: 6 ayes. 0 nays. The motion carried.

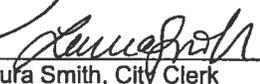
The regular meeting adjourned at 7:26 p.m.

The executive session adjourned at 7:49 p.m.





 Douglas M. Tisdale, Mayor



 Laura Smith, City Clerk

past 2 years on the BMW Championship. He reported that the Public Works Department would have their on-site accreditation visit next week; Commander Weathers was making a slow recovery; Urban Drainage was doing an impressive job on the bank stabilization project of Little Dry Creek at Woodie Hollow Park; schools are back in session; a noise monitor from the Centennial Airport Noise Roundtable would be installed in the City later this month.

Bulk Plane and Floor Area Ratio Evaluation Study

Director Zuccaro explained that staff had presented a proposal at the August 19, 2014 meeting for a formal evaluation of the City's Bulk Plane and FAR ordinances. Council had asked staff to provide a breakdown of permits issued by zone district since adoption of the ordinance in September of 2011 in order to determine if there was an adequate sample size for the study. Director Zuccaro presented the breakdown and a proposed scope of service provided by Winter and Company.

Councilor A. Brown noted that Councilor Griffin had remarked that the issue of bulk plane regulations was involved in many of the recent variance applications that had come before the Board of Adjustment and Appeals. He asked if the proposed study would examine those variance requests.

Director Zuccaro replied that the scope of work did not envision an examination of variance requests. He clarified that many of the requests involved setbacks more specifically than bulk plane regulations.

Mayor Pro Tem Stewart indicated that he believed there was a good sample size and distribution. He stated that it made sense to move forward with the study.

Councilor K. Brown asked about a home currently under construction that was not included in the map of homes.

Director Zuccaro suggested that construction at that property may have begun prior to the bulk plane and FAR standards and therefore would not be included in this study. He noted that the breakdown included permits for any construction involving new square footage issued since adoption of the bulk plane and FAR ordinance.

Mayor Pro Tem Stewart asked about the timeline of the study.

Director Zuccaro replied that staff would present the contract for Council's consideration at the September 16th meeting; begin the study within a month; the study would take 3-5 months; staff would present reports to Council throughout the process and present a final report with findings after completion of the study.

Councilor Roswell noted that the bulk plane and FAR standards arose in part from issues in the R3 zone district of Old Cherry Hills. He indicated that it was a good time to evaluate the regulations and he was in favor of the study.

Mayor Tisdale directed staff to move forward with the contract with Winter and Company.

Outdoor Emergency Warning System Report

Special Projects Coordinator Kropf presented information on an outdoor emergency warning system for the City. She explained that the City does not currently have emergency sirens located within its boundaries to notify residents of severe weather conditions. She noted that the City had been partially covered by two warning sirens

RESIDENTIAL DEVELOPMENT STANDARDS EVALUATION

INTRODUCTION

In September 2011, Cherry Hills Village adopted new residential bulk plane and floor area ratio (FAR) standards to address new residential construction and additions that may have a negative impact on the neighboring properties and community. The goal of the new standards is to protect the semi-rural character of the community, views, solar access, privacy and open space. The new standards apply in the R-1, R-2, R-3, R-4 and R-5 zone districts.

In 2014, Cherry Hills Village embarked on a project to evaluate the impact of the bulk plane, FAR standards, and associated increase in the permitted maximum overall height. This evaluation will help determine whether the new standards have properly address identified issues with new construction while allowing sufficient flexibility for property owners, architects and builders.

This evaluation report includes:

- A comparison of new construction trends before and after adoption of the bulk plane and FAR standards.
- A visual evaluation of new construction and additions, using examples of homes constructed under new ordinance standards.
- Feedback from architects and builders regarding their experience with using the standards (online survey and focus group meeting).
- Feedback from the community regarding the impacts of new construction trends in comparison to pre-ordinance issues expressed prior to bulk plane and FAR standards (online survey and public open house).
- Recommendations for improvements to the existing design standards and/or administrative process as found by the evaluation process.

The following pages of the Introduction include:

- **Existing Zoning Standards by Zone District** - a summary of existing zone standards, including 2011 ordinance amendments.
- **Illustrated Summary of Bulk Plane & FAR Standards** - a graphic explanation of what a bulk plane and FAR is.
- **Bulk Plane & Floor Area Trends by Zone District** - a comparison of pre- and post-ordinance building heights, bulk planes, and floor area ratios.

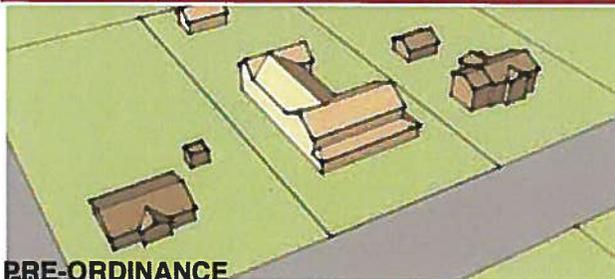


INTENT OF BULK PLANE & FAR STANDARDS

By pushing taller building elements towards the center of a lot and ensuring buildings are proportional to the size of the lot, the bulk plane and FAR standards are intended to reduce massing impacts on neighboring properties and promote privacy and solar access.

See page 3 for more information on bulk plane and FAR standards.

EXAMPLE SCENARIO:



PRE-ORDINANCE

This structure on a small, narrow lot in the R-3 district is much larger than surrounding structures and has long, tall walls located near the minimum side setbacks. The illustrated structure is 10,650 square feet on a 36,545 square foot lot and has an FAR of 0.29.



POST-ORDINANCE

To conform with the bulk plane and FAR standards, structures would have to be sized proportionally to their lots and could not have long tall walls near the minimum side setbacks. The illustrated structure is 8,405 square feet on a 36,545 square foot lot and has a FAR of 0.23.

EXISTING ZONING STANDARDS BY ZONE DISTRICT

Chapter 16 of the Cherry Hills Municipal Code provides zoning standards that apply to building projects throughout Cherry Hills Village. The table below summarizes the key zoning standards that shape the design of new homes and additions in residential zone districts. New or adjusted zoning standards adopted in September 2011 are highlighted (note that no new or adjusted zoning standards were adopted in the R-3A zone district).

SITE STANDARDS	ZONE DISTRICT									
	R-1	R-2	R-3	R-3A				R-4	R-5	
LOT SIZE AND COVERAGE										
Lot Size (min sq. feet) ¹	108,900	54,450	43,560	16,000	21,780	43,560	54,450	108,900	21,780	16,000
Lot Coverage (max lot % covered by primary structure)	-	-	-	30%	30%	20%	20%	20%	-	-
Footprint (min lot sq. feet covered by primary structure) ²	1,800	1,800	1,600	-	-	-	-	-	1,400	1,400
DENSITY										
Density (max units per acre)	-	-	-	1.5	1.5	1.5	1.5	1.5	-	-
PRIMARY STRUCTURE SETBACKS										
Front Yard Setback (min)	75'	75'	50'	25'	25'	50'	75'	75'	25'	25'
Side Yard Setback (min either side)	50'	40'	25'	0'	15'	25'	40'	50'	10'	7.5'
Cumulative Side Yard Setback (min total of both sides)	100'	80'	50'	15'	30'	50'	80'	100'	30'	15'
Rear Yard Setback (min)	50'	40'	25'	25'	25'	25'	40'	50'	25'	25'
ACCESSORY STRUCTURE SETBACKS										
Front Yard Setback (min)	75'	75'	50'	25'	25'	50'	75'	75'	25'	25'
Side Yard Setback (min)	25'	25'	25'	0/7.5'	15'	25'	25'	25'	15'	7.5'
Rear Yard Setback (min)	25'	25'	25'	7.5'	15'	25'	25'	25'	15'	7.5'
BUILDING STANDARDS										
HEIGHT										
Primary Structure Height (max) ³	35'	35'	35'	30'	30'	30'	30'	30'	30'	30'
Accessory Structure Height (max) ³	35'	35'	35'	30'	30'	30'	30'	30'	30'	30'
BULK PLANE										
Front Area Depth	50'	50'	42'	-	-	-	-	-	42'	42'
Starting Height (front area)	21'	21'	21'	-	-	-	-	-	21'	12.5'
Starting Height (rear area)	12.5'	12.5'	12.5'	-	-	-	-	-	12.5'	12.5'
Angle (front and rear areas)	40°	40°	40°	-	-	-	-	-	40°	40°
FLOOR AREA RATIO (FAR)										
FAR (max)	.23	.23	.25	-	-	-	-	-	.30	.30
ACCESSORY STRUCTURES BY LOT SIZE										
Accessory Structures Permitted (max total per lot)	3 ⁴	3	3	2	3	3	3	3	2	2
Accessory Struct. Floor Area (max total sq. feet per lot)	1,100 ⁴	750	650	500	500	650	750	1,100	500	500

¹May include up to 30' of adjacent public right-of-way

²May include up to 200 sq. feet of an attached garage or accessory structure

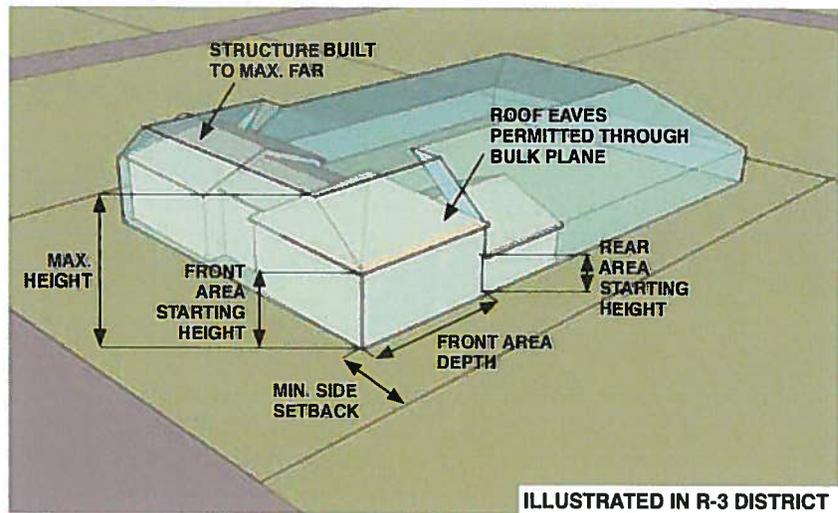
³As measured from the natural grade at the midpoint of the structure to the highest point of the roof surface

⁴Additional accessory structures and increased accessory structure floor area are permitted on lots larger than 217,800 square feet in the R-1 Zone District.

ILLUSTRATED SUMMARY OF BULK PLANE & FAR STANDARDS

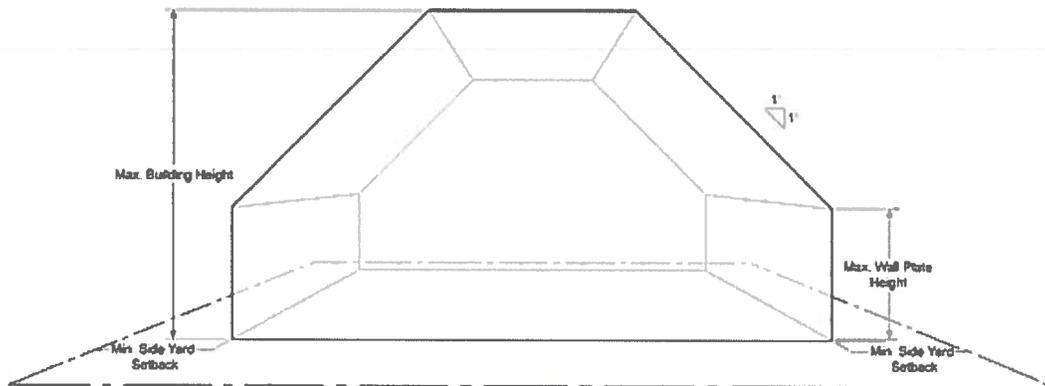
Bulk plane and floor area ratio (FAR) standards apply to all residential zone districts in Cherry Hills Village with the exception of the R-3A district, as illustrated below.

	ZONE DISTRICT		
	R-1 R-2	R-3 R-4	R-5
BULK PLANE FRONT AREA			
Front Area Depth	50'	42'	42'
Starting Height	21'	21'	12.5'
Angle	40°	40°	40°
BULK PLANE REAR AREA			
Starting Height	12.5'	12.5'	12.5'
Angle	40°	40°	40°
FAR			
FAR (max)	.23	.25	0.30



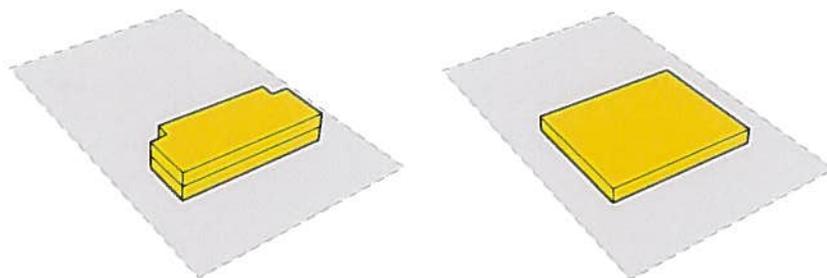
WHAT IS A BULK PLANE?

A bulk plane standard lowers height limits near the edges of a lot by establishing an inclined plane over which buildings may not protrude, as illustrated below.



WHAT IS FLOOR AREA RATIO (FAR)?

An FAR requirement limits the size of a home relative to the size of the lot. An FAR of 0.25 (home square footage is 25% of lot square footage) as illustrated below in one and two-story configurations



BULK PLANE & FLOOR AREA TRENDS BY ZONE DISTRICT

The table below provides a preliminary summary of residential development trends prior-to and after adoption of the 2011 bulk plane, FAR and revised overall height standards.

HEIGHT TRENDS	ZONE DISTRICT				
	R-1	R-2	R-3	R-4	R-5
POST-ORDINANCE					
Post ordinance construction overall height (approx. average)	30.1'	31.2'	31.7'	25'	21'
Post-ordinance construction > 30' in overall height (approx. % of projects)	37.5%	75%	86%	NA	NA
BULK PLANE TRENDS					
PRE-ORDINANCE (2005-2011) CONSTRUCTION					
Would not have conformed with bulk plane (approx. % of projects)	12%	10%	59%	0%	0%
POST-ORDINANCE CONSTRUCTION					
Built to bulk plane front area max. (approx. % of projects) ¹	12.5%	50%	29%	0% ²	0% ²
Built to bulk plane rear area max. (approx. % of projects) ¹	25%	75%	71%	50% ²	0% ²
Built with max. 2-story wall length in bulk plane front area (approx. % of projects)	12.5%	0%	29%	0% ²	0% ²
FLOOR AREA RATIO (FAR) TREND					
Average existing FAR (including all existing homes as of 8/2014)	.07	.09	.13	.19	.20
PRE-ORDINANCE					
Average FAR of pre-ordinance construction (homes permitted 2005 to 9/2011)	.09	.11	.21	.24	.27
Percentage of pre-ordinance construction (homes permitted 2005 to 9/2011) that would not have conformed with FAR requirements	0%	0%	17%	40%	0%
IMMEDIATE PRE-ADOPTION					
Average FAR of pre-ordinance construction (homes permitted 10/2010 to 9/2011)	.06	.09	.17	.21	.29
POST-ORDINANCE					
Average FAR of post-ordinance construction	.08	.12	.15	.21	.24
Average change in FAR from pre-ordinance construction	<.01>	+ .01	<.06>	<.03>	<.03>

¹Any portion of the structure built to the max. limit.

²Sampling of projects insufficient - R-4 included 1 new construction + 1 addition; R-5 included 2 additions

A review of the preliminary data indicates that:

- A high percentage of new construction in the R-1, R-2, and R-3 zone districts takes advantage of the increase in overall permitted height from 30' to 35'. Note that height data is based on a sample of new construction projects.
- The average FAR of new construction in all zone districts is greater than the overall average of existing homes (meaning that new construction is usually larger than older homes), but the amount of increase varies greatly by zone district, with minimal change in the R-1 zone district and greater change in the R-5 district.
- There was not a spike in applications for new homes or additions with high FARs prior to adoption of the FAR standard. The average FAR for permit applications in the nine months leading up to adoption of the FAR standard was lower than the post-2005 average in all zone districts except R-2. This may indicate a modest trend towards smaller new construction projects.
- Average FAR for new construction in the R-1, R-3, R-4 and R-5 zone districts has declined since adoption of the 2011 FAR standard. Average FAR for new construction and additions has increased slightly in the R-2 zone district.
- The average FAR for new construction and additions since adoption of the FAR standard remains well below the maximum allowed in all zone districts. The average FAR for new construction in the R-3, R-4 and R-5 zone districts comes closest to the maximum FAR adopted in 2011.

RESIDENTIAL DEVELOPMENT STANDARDS EVALUATION

VISUAL EVALUATION OF NEW CONSTRUCTION

An assortment of new construction and addition examples were studied in order to understand on-the-ground impacts of the ordinance. New homes and additions constructed after the ordinance (post-September, 2011) in all zone districts were analyzed as part of this project. Information was obtained from the city, GIS, Google Earth, and site visit photographs. Each example includes an aerial view of the property, actual photographs, architectural drawings, and four categories of information:

- General Information (Zone District, Permit Year, Lot Size),
- Height & Bulk Plane (overall height, bulk plane dimensions),
- Square Footage & FAR (total square footage of home and actual versus maximum allowable FAR), and
- Notes

The following examples are highlighted in this chapter:

- 4 Vista Lane (R-1 new construction)
- 1750 E. Stanford Ave. (R-1 new construction)
- 7 Parkway Drive (R-2 new construction)
- 4501 E. Mansfield (R-2 new construction)
- 21 Cherrymoor Drive (R-3 new construction)
- 1199 E. Layton (R-3 new construction)
- 1328 E. Layton (R-3 addition)
- 5367 E. Oxford Ave. (R-4 new construction)
- 4061 S. Cherry Street (R-5 addition)

NEW CONSTRUCTION EXAMPLE: 4 VISTA ROAD

GENERAL INFORMATION

Zone District	R-1
Permit Year	2012
Lot Size	101,495

HEIGHT & BULK PLANE

Overall Height (max.)	33'
Bulk Plane Front Area	No portion of structure in front area
Bulk Plane Rear Area	Near max. on both sides
Two-story Walls Near Setback	None

SQUARE FOOTAGE & FAR

Total Sq. Ft. (house + attached garage)	7,762
FAR	.08
Permitted FAR (max.)	.23

NOTES

- Front setback for primary structure is greater than 125' (75' is the minimum in R-1)
- Entire primary structure is built within the rear bulk plane area
- First story side walls are lower than the permitted 12' 6"



Viewed from the west (front), the primary structure appears to have been designed to fit within the rear bulk plane area.

NEW CONSTRUCTION EXAMPLE: 1750 E STANFORD AVENUE

GENERAL INFORMATION

Zone District	R-1
Permit Year	2013
Lot Size	50,965

HEIGHT & BULK PLANE

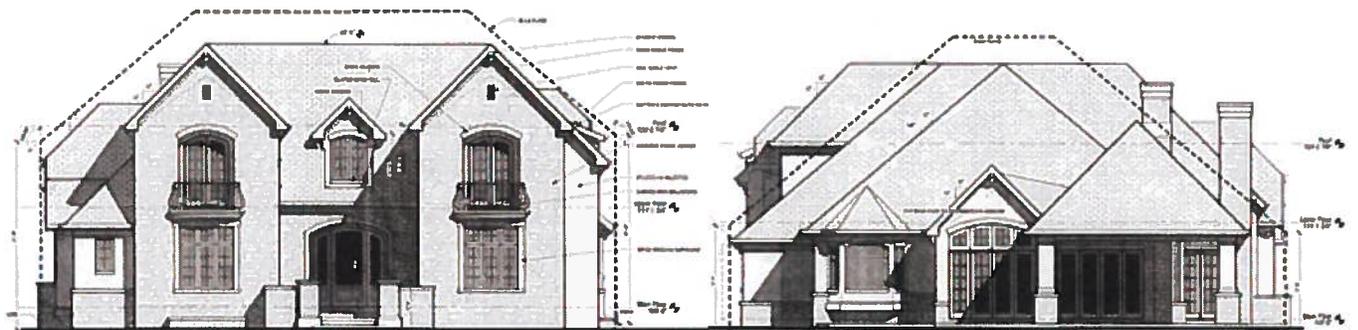
Overall Height (max.)	31.4'
Bulk Plane Front Area	Near max. on both sides
Bulk Plane Rear Area	Near max. on both sides
Two-story Walls Near Setback	Max. two-story wall

SQUARE FOOTAGE & FAR

Total Sq. Ft. (house + attached garage)	6,595
FAR	.13
Permitted FAR (max.)	.23

NOTES

- Built to fit within front and rear bulk plane area
- Longest possible two-story wall along side setback in bulk plane front area



Plan drawings indicate that the structure appears to have been built to fit within both the front and rear bulk plane areas. The front (south) elevation is illustrated at left and the rear (north) elevation is illustrated at right

NEW CONSTRUCTION EXAMPLE: 7 PARKWAY DRIVE

GENERAL INFORMATION

Zone District	R-2
Permit Year	2012
Lot Size	41,818

HEIGHT & BULK PLANE

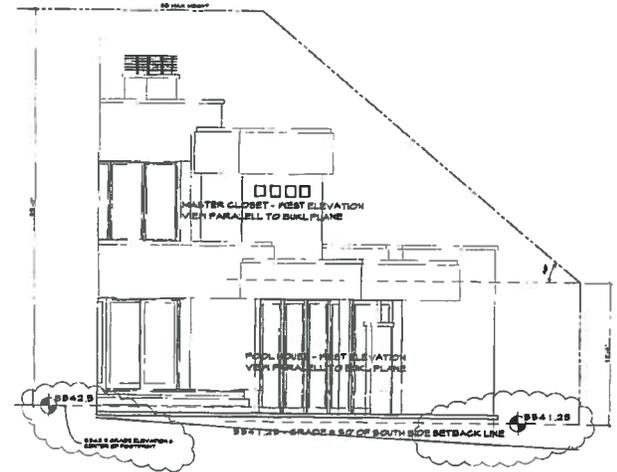
Overall Height (max.)	25'
Bulk Plane Front Area	Near max. on south side
Bulk Plane Rear Area	Near max. on south side
Two-story Walls Near Setback	About 25' of wall in front area

SQUARE FOOTAGE & FAR

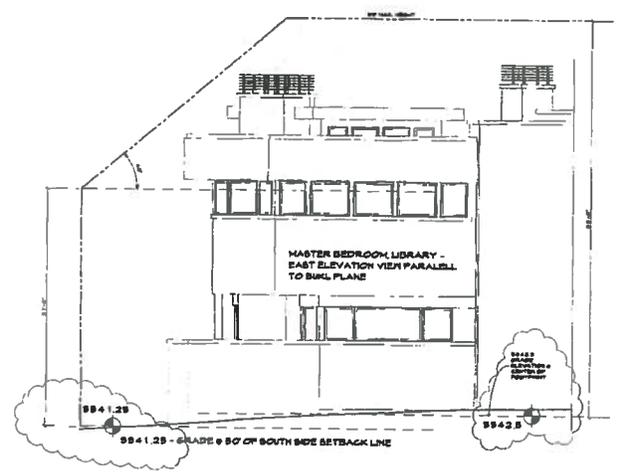
Total Sq. Ft. (house + attached garage)	8,264
FAR	.20
Permitted FAR (max.)	.23

NOTES

- Existing lot smaller than minimum lot size in R-2
- Irregular lot creates a more complex bulk plane
- Southeast corner of primary structure is near bulk plane max
- Flat roof



3 - SOUTH SIDE - REAR AREA BULK PLANE



7 - SOUTH SIDE - FRONT AREA BULK PLANE

Plan drawings indicate that the southern portion of the structure appears to have been built to fit within the bulk plane.

NEW CONSTRUCTION EXAMPLE: 4501 E MANSFIELD AVENUE

GENERAL INFORMATION

Zone District	R-2
Permit Year	2013
Lot Size	48,806

HEIGHT & BULK PLANE

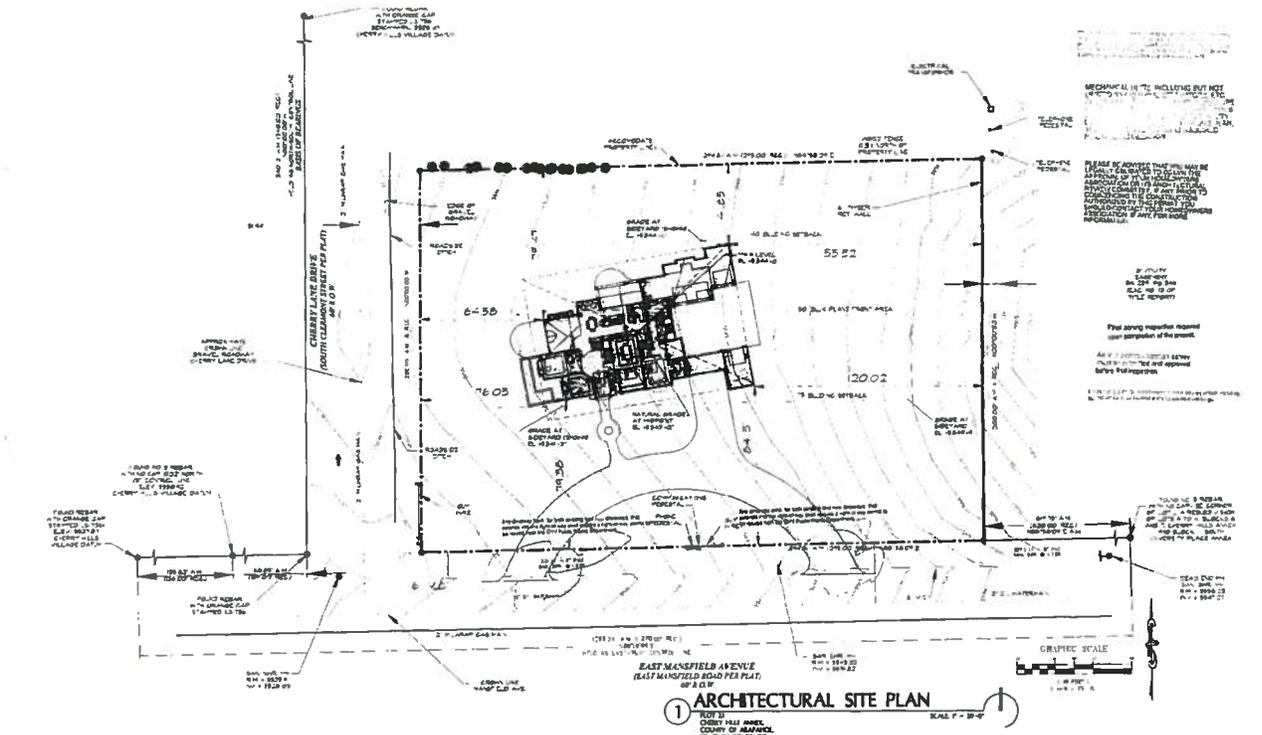
Overall Height (max.)	35'
Bulk Plane Front Area	Does not maximize front area
Bulk Plane Rear Area	Does not maximize rear area
Two-story Walls Near Setback	None

SQUARE FOOTAGE & FAR

Total Sq. Ft. (house + attached garage)	6,583
FAR	.11
Permitted FAR (max.)	.23

NOTES

- Across the street from R-5 zone district with one-story homes on much smaller lots
- Adjacent to one-story home to the rear (north)



A plan drawing identifies the building fitting within the bulk plane with an off axis orientation.

NEW CONSTRUCTION EXAMPLE: 21 CHERRYMOOR DRIVE

GENERAL INFORMATION

Zone District	R-3
Permit Year	2012
Lot Size	41,077

HEIGHT & BULK PLANE

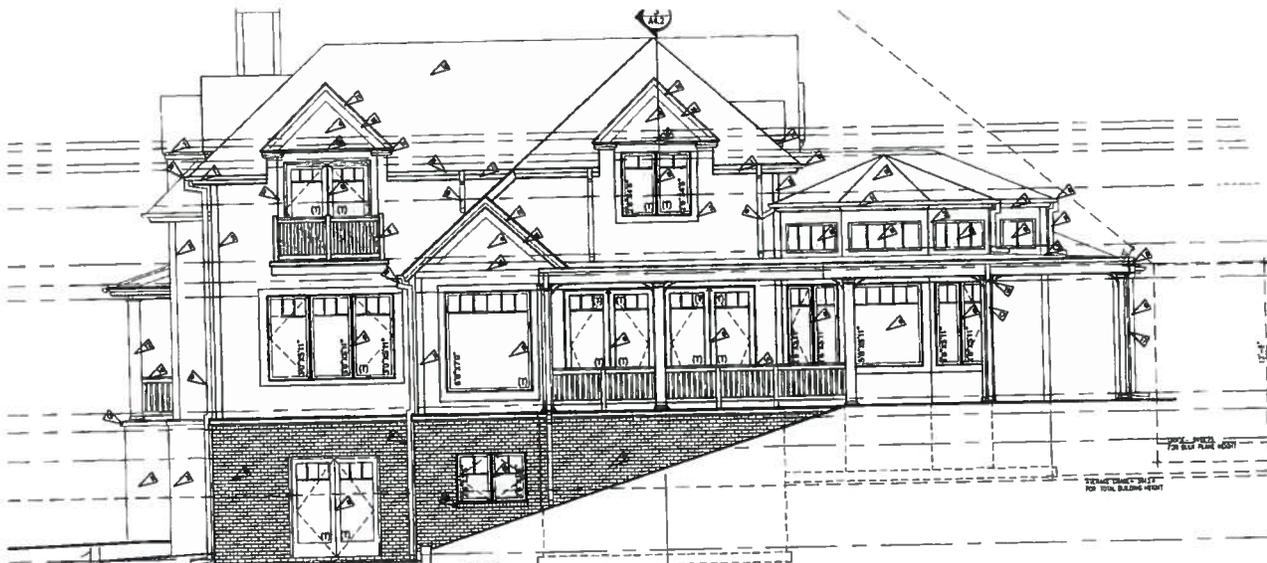
Overall Height (max.)	Approx. 31'
Bulk Plane Front Area	Does not maximize front area
Bulk Plane Rear Area	Near max. on east side
Two-story Walls Near Setback	None

SQUARE FOOTAGE & FAR

Total Sq. Ft. (house + attached garage)	5,819
FAR	.14
Permitted FAR (max.)	.25

NOTES

- Existing lot smaller than minimum lot size in R-3
- Lot slopes downward to the west and south
- Slope makes bulk plane more restrictive on the south (rear) of the lot



Viewed from the south (rear), the rear bulk plane area limits wall height on the east (right) side of the lot. A greater than 75' setback on the west (left) side of the lot allows for the approx. 26' tall wall to fit within the bulk plane.

NEW CONSTRUCTION EXAMPLE: 1199 EAST LAYTON LANE

GENERAL INFORMATION

Zone District	R-3
Permit Year	2013
Lot Size	40,206

HEIGHT & BULK PLANE

Overall Height (max.)	32'
Bulk Plane Front Area	Does not maximize front area
Bulk Plane Rear Area	Near max. on north side (rear setback)
Two-story Walls Near Setback	None

SQUARE FOOTAGE & FAR

Total Sq. Ft. (house + attached garage)	6,916
FAR	.17
Permitted FAR (max.)	.23

NOTES

- Small, shallow corner lot
- Designed to fit within the bulk plane at the rear setback
- Uses bulk plane exception for dormers facing rear setback



Viewed from the side, the primary structure slopes down towards the rear setback to fit within the bulk plane. An existing one-story house is located on the lot to the north (right).

ADDITION EXAMPLE: 1328 EAST LAYTON AVENUE

GENERAL INFORMATION

Zone District	R-3
Permit Year	2014
Lot Size	40,903

HEIGHT & BULK PLANE

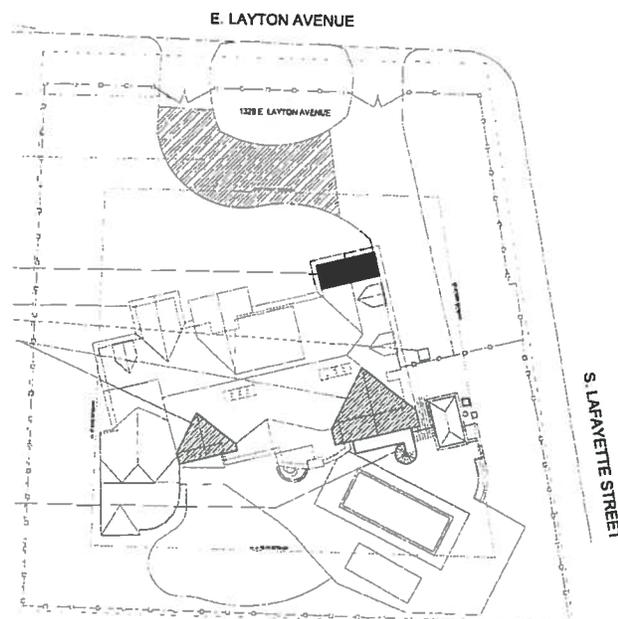
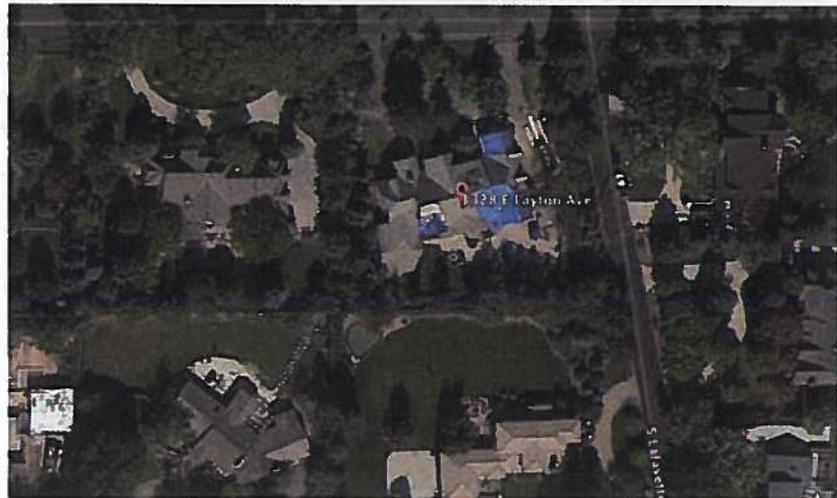
Overall Height (max.)	28.5'
Bulk Plane Front Area	Does not maximize bulk plane
Bulk Plane Rear Area	Does not maximize bulk plane
Two-story Walls Near Setback	None

SQUARE FOOTAGE & FAR

Total Sq. Ft. (house + attached garage)	10,347
FAR	.25
Permitted FAR (max.)	.25

NOTES

- Small, shallow corner lot
- One story at side setback on west side
- Maximum FAR



Addition(s) since 2010 have added almost 4,000 square feet of living space and attached garage. Because 1328 Layton is a small/shallow lot that is smaller than the current minimum lot size in the R-3 district, options for future construction are limited (FAR is currently at the maximum).

NEW CONSTRUCTION EXAMPLE: 5367 EAST OXFORD AVENUE

GENERAL INFORMATION

Zone District	R-4
Permit Year	2013
Lot Size	24,089

HEIGHT & BULK PLANE

Overall Height (max.)	30'
Bulk Plane Front Area	Does not maximize front area
Bulk Plane Rear Area	Near max. on both sides
Two-story Walls Near Setback	None (increased setback)

SQUARE FOOTAGE & FAR

Total Sq. Ft. (house + attached garage)	6,207
FAR	.26
Permitted FAR (max.)	.30

NOTES

- Approx. 33' front setback (25' is the minimum in R-4)
- Approx. 20' side setback on west side (10' is the minimum)
- Structure built in both front and rear bulk plane area but appears to have been designed to fit entirely within rear area
- Roof slope is about 40°



Viewed from the front, the primary structure appears to have been designed to fit within the rear bulk plane area.

ADDITION EXAMPLE: 4061 S CHERRY STREET

GENERAL INFORMATION

Zone District	R-5
Permit Year	2013
Lot Size	15,812

HEIGHT & BULK PLANE

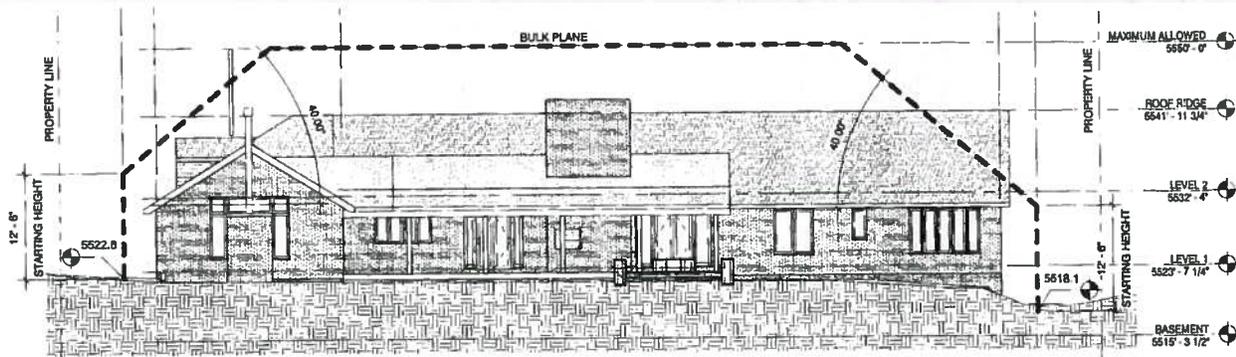
Overall Height (max.)	21'
Bulk Plane Front Area	Not applicable in R-5
Bulk Plane Rear Area	Addition does not maximize bulk plane
Two-story Walls Near Setback	None

SQUARE FOOTAGE & FAR

Total Sq. Ft. (house + attached garage)	4,070
FAR	.26
Permitted FAR (max.)	.30

NOTES

- Lot slopes downward to the south which lowers the bulk plane starting height on the south side.



Viewed from the rear, the 1,073 square foot addition is located on the north (left) side and does not maximize the bulk plane area. The existing roof gable on the south (right side) fits within the permitted bulk plane exception.

RESIDENTIAL DEVELOPMENT STANDARDS EVALUATION

ONLINE SURVEY RESULTS:

COMMUNITY SURVEY RESULTS

An online community survey was developed to allow community members to provide input on their own time. The survey included broad introductory questions, while the basis of the survey included an interactive visual exercise asking people to respond to hypothetical development scenarios. Each development scenario was developed with varying lot and building configurations based on pre- and post-ordinance development trends. A synopsis of the survey results are listed below and the detailed survey results can be found in Appendix A. There were a total of 32 respondents for this survey.

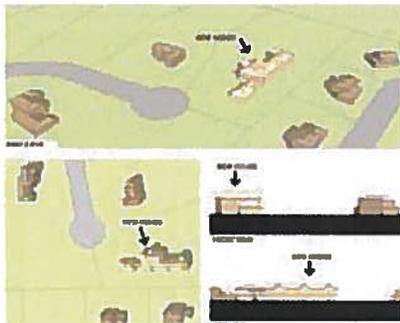
INTRODUCTORY QUESTION RESPONSES:

- The majority (96%) of respondents were residents of Cherry Hills Village.
- The majority (67%) of respondents owned property in R1 and R3 zone districts.
- The majority (58%) of respondents felt that some recent construction is too large.
- The majority (43%) of respondents have not applied for a construction permit in the last ten years.
- The majority (50%) of respondents who have applied for a permit, received their permit in a timely manner.
- The majority (67%) of respondents felt the FAR standard allowed sufficient design flexibility.
- The majority (88%) of respondents felt the bulk plane standard was easy to understand and provided sufficient design flexibility.

INTERACTIVE EXERCISE RESPONSES:

DEVELOPMENT SCENARIO A

- The majority agreed that Scenario A is compatible with its neighbors.



Scenario A
(modeled after a pre-ordinance R-1 home)

DEVELOPMENT SCENARIO B

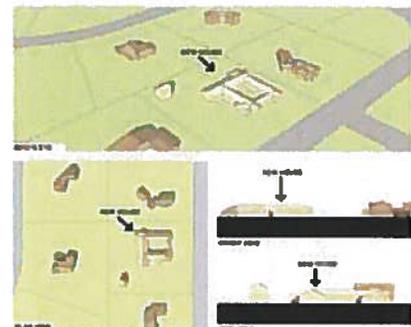
- The majority agreed that Scenario B is compatible with its neighbors.



Scenario B
(modeled after a post-ordinance R-1 home)

DEVELOPMENT SCENARIO C

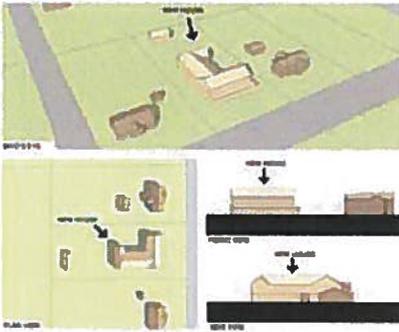
- The majority agreed that the *building height* of Scenario C is compatible with its neighbors, and it *does not loom* over neighboring residences.
- However, the majority disagreed with the *overall mass (size)* of the new home, and they are neutral to the *building form (shape)* being compatible with the neighboring houses.



Scenario C
(modeled after a pre-ordinance R-2 home)

SCENARIO D

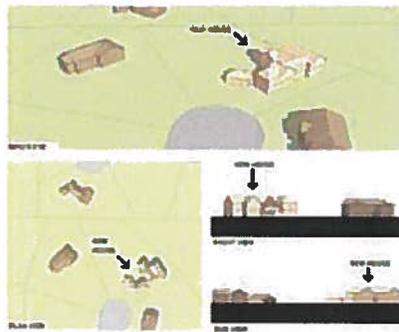
- The majority agreed that the *building height* and *building form* is compatible to its surrounding neighbors.
- The majority disagreed that the *overall mass (size)* is compatible to existing homes, and that the new house *does not loom* over its neighbors.



Scenario D
(modeled after a pre-ordinance R-3 home)

SCENARIO E

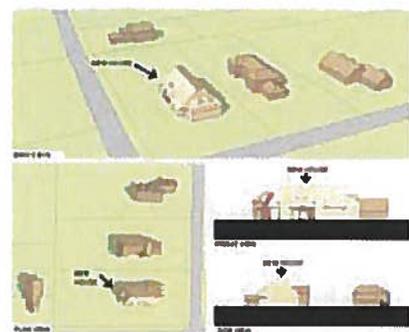
- The majority disagreed that the new home *does not loom* over its neighbors and that the overall mass (size) of the new home was compatible to neighbors.
- The majority agreed that the *building height* is compatible with its surrounding neighbors.
- The majority is neutral to the *building form (shape)* of the new residence.



Scenario E
(modeled after a pre-ordinance R-3 home)

SCENARIO F

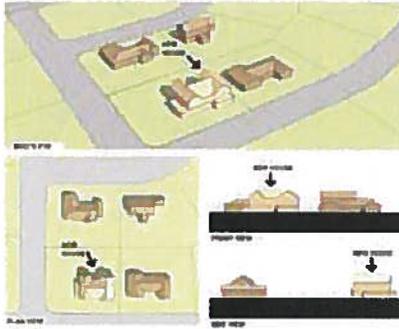
- The majority largely agreed that the *overall mass (size)* of the new home is compatible to existing homes.
- The majority disagreed that the *building height* of the new home is compatible to existing homes.
- It is also agreed that the new home *does not loom* over its neighbors, and the *building form (shape)* is compatible.



Scenario F
(modeled after a post-ordinance R-3 home)

SCENARIO G

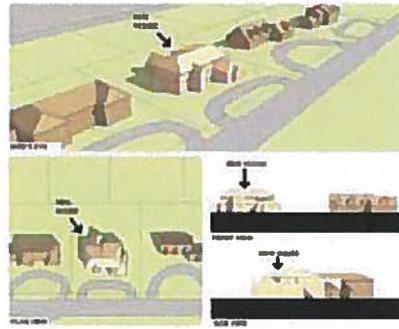
- The majority agreed that Scenario G is all around compatible with its neighbors



Scenario G
(modeled after a pre-ordinance R-4 home)

SCENARIO H

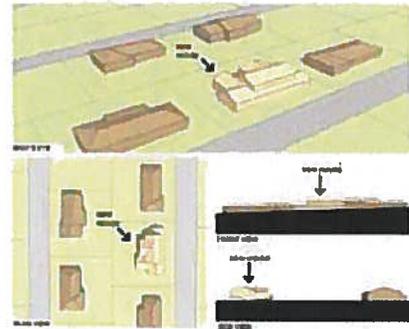
- The majority largely agreed that Scenario H is compatible with its surrounding neighbors



Scenario H
(modeled after a post-ordinance R-4 home)

SCENARIO I

- The majority largely agreed that Scenario I is compatible with its surrounding neighbors

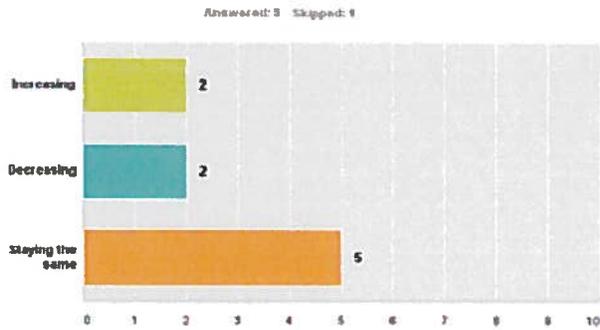


Scenario I
(modeled after a pre-ordinance R-5 home)

ARCHITECTS AND BUILDERS SURVEY RESULTS

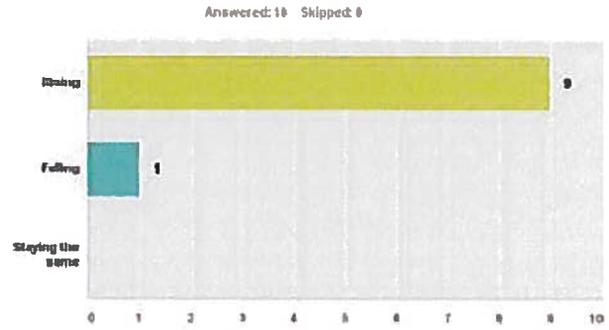
An online survey was also developed to engage the architects and builders who have more interaction with the code and standards. This survey included more targeted questions regarding construction trends and their understanding and applicability of the standards from a user's perspective. Below is a synopsis of the survey results. There were a total of 10 respondents to this survey.

Q1 In your experience, home sizes in Cherry Hills Village, compared to pre-2011, are generally:



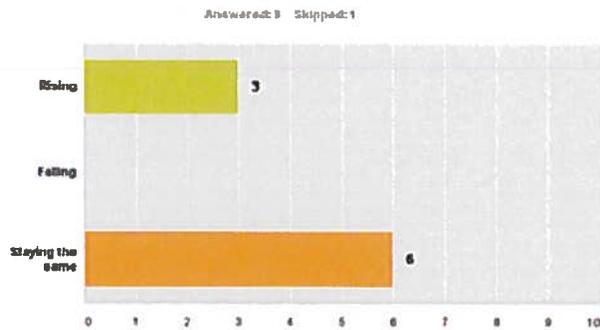
The majority believed that home sizes in CHV have stayed the same in the past 4 years.

Q2 The costs for designing and constructing new homes in Cherry Hills Village, compared to pre-2011, are:



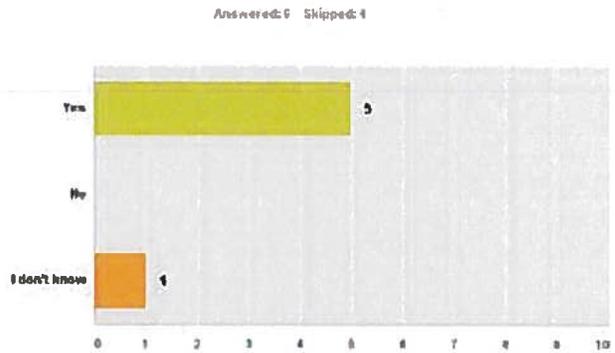
The majority believed that costs for designing and constructing homes in CHV are rising.

Q3 The demands for speculative home building in Cherry Hills Village, compared to pre-2011, are:



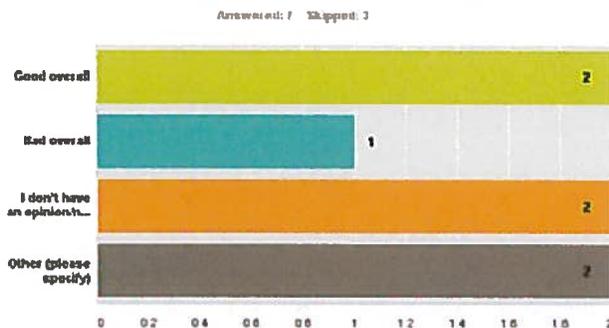
The majority believed that demands for speculative home building have generally stayed the same.

Q4 Did you notice a difference when the new standards were adopted?



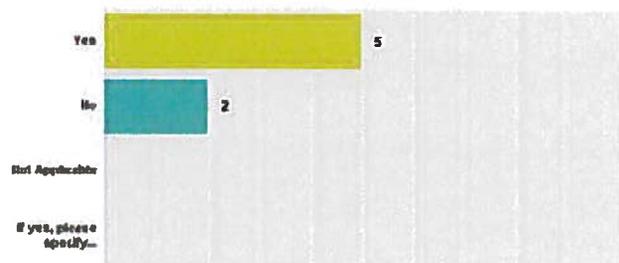
The majority did not notice a difference when the new standards were adopted.

Q5 What has been your experience using the new bulk plane and FAR standards?



Only 1 out of 7 respondents had a bad overall experience using the new standards.

Q6 Have you had to modify building plans/elevations to comply with the new bulk plane and FAR standards?



The majority have had to modify plans/elevations to comply with new standards.

ARCHITECTS AND BUILDERS SURVEY RESULTS, CONTINUED

Q7 Are there any improvements or changes to the standards you would recommend?

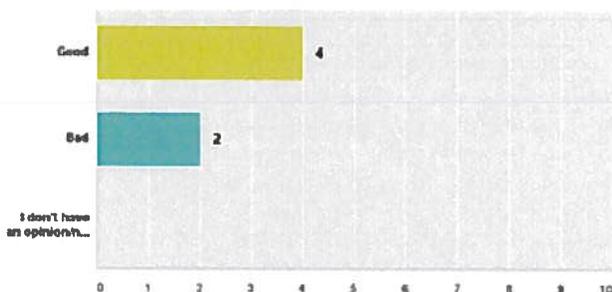
Answered: 4 Skipped: 6

#	Responses	Date
1	The height limit is too low. Contemporary homes can generally meet this requirement if designed with flat roofs. Traditional homes with pitched roofs are generally compromised and the styles look unauthentic and cheapened as a result.	3/3/2015 10:22 AM
2	Generally speaking these standards are fine as long as anomalous situations have broad administrative purview. The R5 zoning district is the most detrimentally impacted from these standards rendering (I believe) most of these residences out of compliance.	3/2/2015 9:25 AM
3	Make changes in bulk plane and FAR relative to lot size. Give a greater front area for 2 story full lot width and increase percentage of FAR.	3/2/2015 9:00 AM
4	Leave it as is!	3/2/2015 8:54 AM

Recommendations for improvement included amending the overall height limit and making the bulk plane and FAR requirements be relative to lot size.

Q8 What has been your overall experience with the permitting process for new residential construction in Cherry Hills Village?

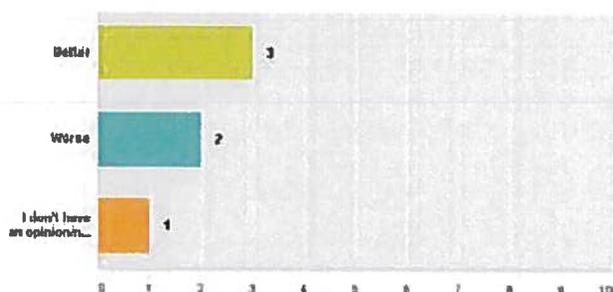
Answered: 6 Skipped: 4



The majority have had an overall good experience with the permitting process for new construction in CHV.

Q9 Compared to other communities you've worked in, the permitting process of Cherry Hills Village is:

Answered: 6 Skipped: 4



Half of the respondents thought the permitting process in CHV is better when compared to other communities.

Q10 Would you change anything about the permitting process?

Answered: 3 Skipped: 7

#	Responses	Date
1	Much of this falls on the shoulders of the builders rather than the architects, but the amount of information required from them keeps increasing and seems burdensome compared to other municipalities we've worked in.	3/3/2015 10:24 AM
2	Permitting process is fine. You should consider annual bonding for trade-contractors working within the public right of way.	3/2/2015 9:28 AM
3	Make additional permits such as storm water, right of way, etc more clear at the onset.	3/2/2015 8:55 AM

Respondents expressed interest in clearer communication of additional permits at the onset of a project and reduced information required. One respondent expressed exploring consideration of annual bonding for trade-contractors working within the public right-of-way.

RESIDENTIAL DEVELOPMENT STANDARDS EVALUATION

FINAL RECOMMENDATIONS

SUMMARY OF EVALUATION

This evaluation report analyzes residential construction trends in Cherry Hills Village since the adoption of the amendment to Chapter 16 of the Cherry Hills Village Municipal Code, which included floor area ratio modifications, the addition of a bulk plane, and additional overall height allowances. The standards were adopted in September 2011 with the goal of reducing negative impacts that new construction might have on neighboring properties such as “looming” over neighbors, protection of views, privacy, open space, and to maintain the semi-rural character of the community. This report seeks to determine what kind of impact the revised ordinance and standards have had on new construction and offer any recommendations for modification.

In the 3.5-year period between adoption and evaluation, there have been numerous construction permits. Overall, a total of 86 new homes and additions were analyzed. The break-down per zone category and evaluation criteria are as follows:

TOTAL PERMITS ANALYZED	ZONE DISTRICT				
	R-1	R-2	R-3	R-4	R-5
Number of new homes and additions (2011-2014) analyzed per zone district	17	14	36	14	5
HEIGHT & BULK PLANE EVALUATION					
Number of new homes and additions (2011-2014) analyzed for height and bulk plane trends	8	4	7	2	2
FLOOR AREA RATIO EVALUATION					
Number of new homes and additions (2011-2014) analyzed for floor area ratio trends	17	14	36	14	5

Note that a smaller number of homes were analyzed for height and bulk plane trends, because they depended on access to architectural drawings and photographs. The square footage and lot sizes of all homes were readily available and therefore, the FAR evaluation included every home evaluated.

FINAL RECOMMENDATIONS

Based on the analysis of new construction trends, conversations and surveys from the community and architects/builders, and ongoing meetings with the Advisory Committee, it seems that by-and-large, the new standards have had an overall positive impact on new construction in Cherry Hills Village. The following pages include a synopsis of new construction trends, comments from outreach and meetings, and final recommendations in regards to revising the standards for building height, bulk plane, and floor area ratios.

BUILDING HEIGHT

CONSTRUCTION TRENDS

From the sampling of projects analyzed for height, the trend seems to be that a **high percentage** of new construction in the R-1, R-2, and R-3 zone districts **have taken advantage of the increase** in overall permitted height from 30' to 35'.

CONSIDERATIONS

The City has received complaints regarding building height of new construction. The concern is that the increase in overall permitted height could negatively impact views and create a looming effect for neighboring properties. While the majority of new homes in R-1, R-2, and R-3 have taken advantage of the height increase, only a couple have actually maximized the height allowance of 35'.

One architect mentioned that the height limit is too low for traditional homes with pitched roofs and that the **styles are compromised** as a result. The respondent did not specify if this was a concern in all districts, or perhaps just in R-4 and R-5 where the height limit of 30' was kept in place.

Another consideration discussed was whether or not there is an issue with the **height difference** when R-1, R-2 or R-3 properties are directly adjacent to R-4 or R-5 properties. After closer examination, it was found that there are only a few properties that share a lot line between differing height zone districts. In the majority of cases, a road bisects the two zones, leaving ample room for transition.

ADVISORY COMMITTEE DISCUSSION

A couple options were considered amongst the Advisory Committee, including: reinstating the 30' height limit in R-1, R-2, and R-3 districts, but allowing an increase up to 35' with special review or based on lot size; or adjusting the way height is measured on sloping sites.

FINAL RECOMMENDATION

LEAVE AS IS: There does not seem to be a consistent issue or trend to justify amending the allowable building height at this time. Therefore, the final recommendation after consideration of the above comments and options, is to keep the height limits in place as they exist but monitor the height trends in R-4 and R-5.

FLOOR AREA RATIO

CONSTRUCTION TRENDS	<p>Overall, new construction is larger than existing, older homes in regards to floor area. The average existing FAR of existing homes (as of 08/2014) ranged from .07 FAR (R-1 district) to .20 (R-5 district) whereas post-2011 homes range from .08 (R-1) to .24 (R-5).</p> <p>When analyzing post-ordinance (2011-current) homes compared to pre-ordinance (2005-2011) there seems to be a trend toward home sizes slightly decreasing. There was only one district, R-2, that had an increase in FAR between these two periods.</p> <p>The FAR maximums established in 2011 were set at .23 for R-1 and R-2; .25 for R-3; and .30 for R-4 and R-5. In all 86 post-ordinance homes analyzed as part of this evaluation, there was only one home (R-3) that built to the maximum FAR.</p>
CONSIDERATIONS	<p>One concern regarding established FAR maximums is that additions, especially on homes in smaller lot districts (R-4 and R-5), could push a home over the maximum FAR.</p> <p>Another concern, addressed by an architect, was that counting "high volume spaces" (interior spaces over 16' high) and stairways with footprints over 100 square feet, is onerous.</p>
ADVISORY COMMITTEE DISCUSSION	<p>The Advisory Committee discussion regarding additions was that it has not occurred enough to substantiate changing it. The FAR limits were established to protect the semi-rural character of the community and to promote retention of open space and reduce the impact of larger homes and additions on existing residents and that purpose remains. Furthermore, in the R-4 and R-5 districts since the adoption of the ordinance, new homes and additions have not maximized the .30 FAR yet anyway.</p> <p>In regards to the measurement of FAR, and counting high volume spaces and stairways with footprints over 100 square feet, the discussion again was that it has not been deemed a substantial problem to-date. The high volume spaces do contribute to the mass and bulk of a building, and therefore should remain to be counted. The 100 square feet footprint for stairways is quite generous and most stairways are less than 100 square feet to begin with unless the "rise" is substantially high or the width of the stairs is substantially oversized.</p>
FINAL RECOMMENDATION	<p>LEAVE AS IS: The committee recommends leaving the FAR maximums in place as they are. The above considerations were discussed, but overall, there have not been enough problems associated with the FAR calculations to justify changing it. Furthermore, the detailed analysis of new construction shows that the FAR maximums are very rarely being met to begin with.</p>

BULK PLANE

CONSTRUCTION TRENDS

From the sampling of projects analyzed for bulk plane, it does appear that a few building **elevations and floor plans may have been modified** to follow the bulk plane slope or to comply with the front and rear bulk plane area depths. However, very few properties maximized building area or wall plate heights within the front and rear bulk plane areas.

CONSIDERATIONS

A few residents have questioned the **two-part bulk plane areas**, stating that not everyone wants to site their house at the front of a lot, but that this standard incentivizes it. While this observation is valid, the objective of the two-part bulk plane is to try to maintain consistency and fairness in building scale amongst the community. This objective is most important in smaller lot zone districts (R-3, R-4 and R-5) in order to protect the sense of community and scale along established neighborhood streets. In larger lot zone districts (R-1 and R-2), the street presence and character is more "rural", and there is more room to modify building plans and elevations in these districts. Construction trends have shown that in some cases, the building does not occupy the front bulk plane area at all in these districts.

Another concern regarding bulk plane is **how measurements are taken**. Currently, the "starting height", or wall plate height, is measured as follows:

- For a **relatively flat lot** (natural grade is less than 7 percent within minimum setback areas), the starting height is measured from the points at each minimum side yard line where the front and rear bulk plane areas intersect. In other words, there are only 2 points of measurement for the starting height for these cases.
- For a **sloping lot** (natural grade is more than 7 percent within minimum setback areas), the starting height is measured at the same intersection as a relatively flat lot, as well as at the minimum front yard and rear yard lines. In other words, there are 6 points of measurement for the starting height for these cases.

The concern is that topography can vary quite drastically, even on "relatively flat lots", and especially in larger lot zone districts where there is more land within the setback areas.

ADVISORY COMMITTEE DISCUSSION

Regarding the two-part bulk plane and the concern that not everyone wants to site their home to the front of a lot, there was discussion about **modifying the front bulk plane in R-1 and R-2 to be a "floating" bulk plane**. This would allow for greater flexibility on the siting of a home in more rural locations by allowing the front bulk plane to be placed within a set dimension, rather than starting at the front setback line.

There was discussion amongst the Advisory Committee regarding the **measurement of the bulk planes** including only changing it for larger lot zone districts or by meeting a certain lot depth threshold.

FINAL RECOMMENDATIONS

INSTITUTE FLOATING FRONT BULK PLANE: To allow for more flexible home design and siting on larger lots with a more rural context, we recommend instituting a "floating" front bulk plane for zones R-1 and R-2. The minimum setbacks would remain in place, and the front bulk plane would remain to be 50' deep, however the location of the front bulk plane could slide further into the lot, if desired. We recommend the floating front bulk plane area begin within an area starting at the front setback line (or 50' from the front lot line) and end at 100 feet from the rear setback line (or 150' from the rear lot line in R-1 and 140' from the rear lot line in R-2).

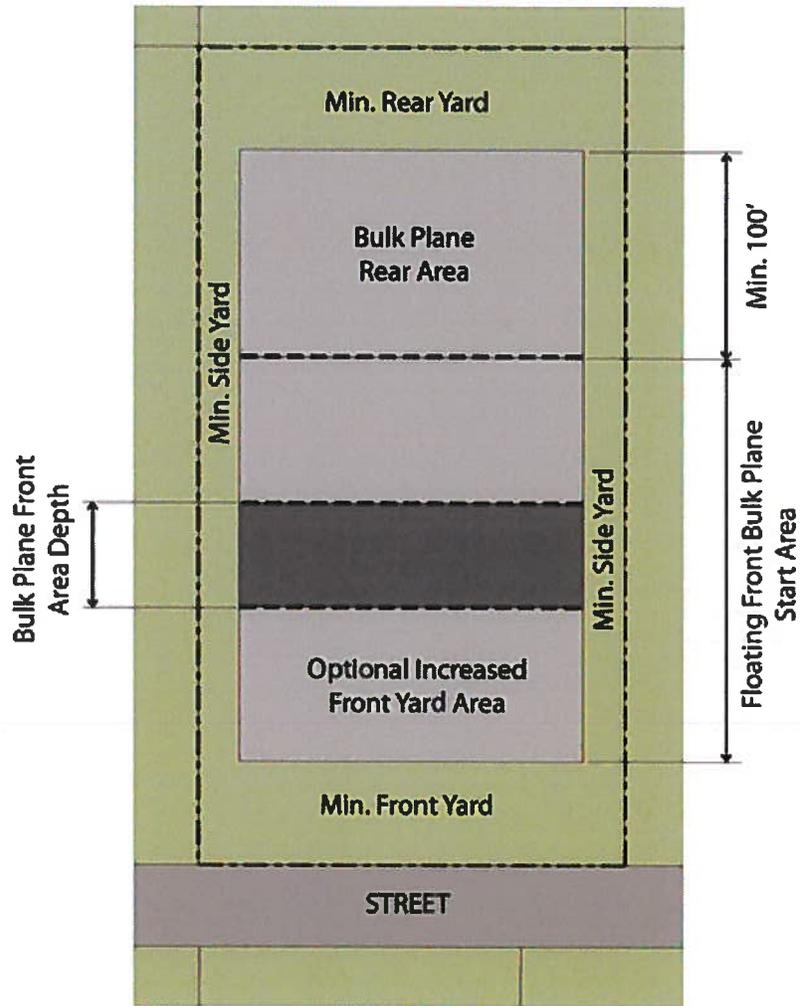
INSTITUTE 8-POINT MEASUREMENT OF BULK PLANE: For the purposes of remaining consistent, the recommendation is to change the measurement of the bulk plane for every condition to be measured at 8 points as is currently done for sloping lot sites:

- At each point where the front area bulk plane begins.
- At each point where the front area bulk plane ends.
- At each point where the rear area bulk plane begins.
- At each point where the rear area bulk plane ends.

This provides fairness and consistency, and is more accurate than only measuring at 2 points.

FLOATING FRONT AREA BULK PLANE

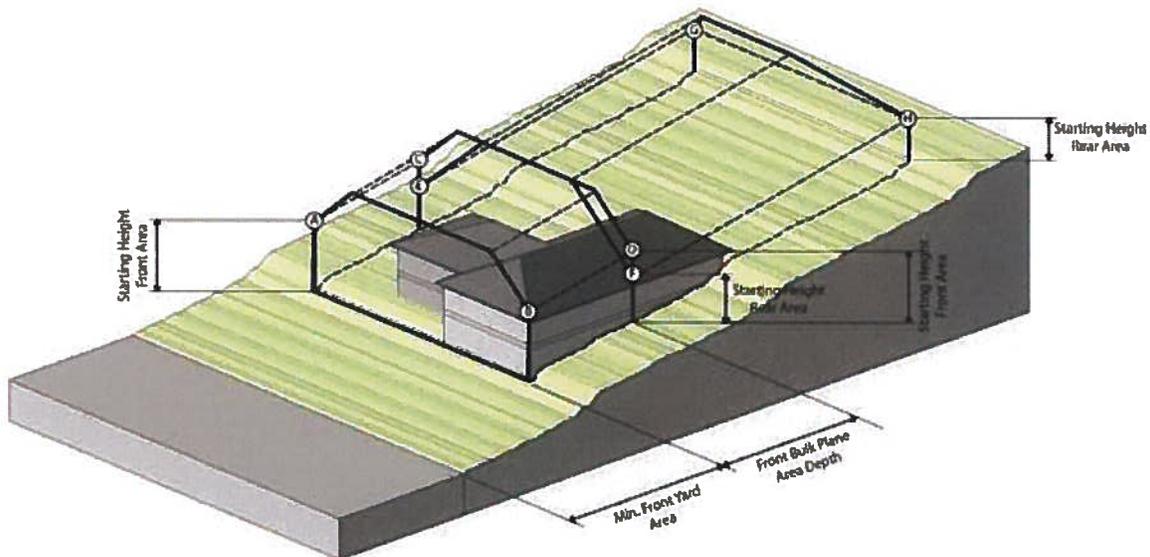
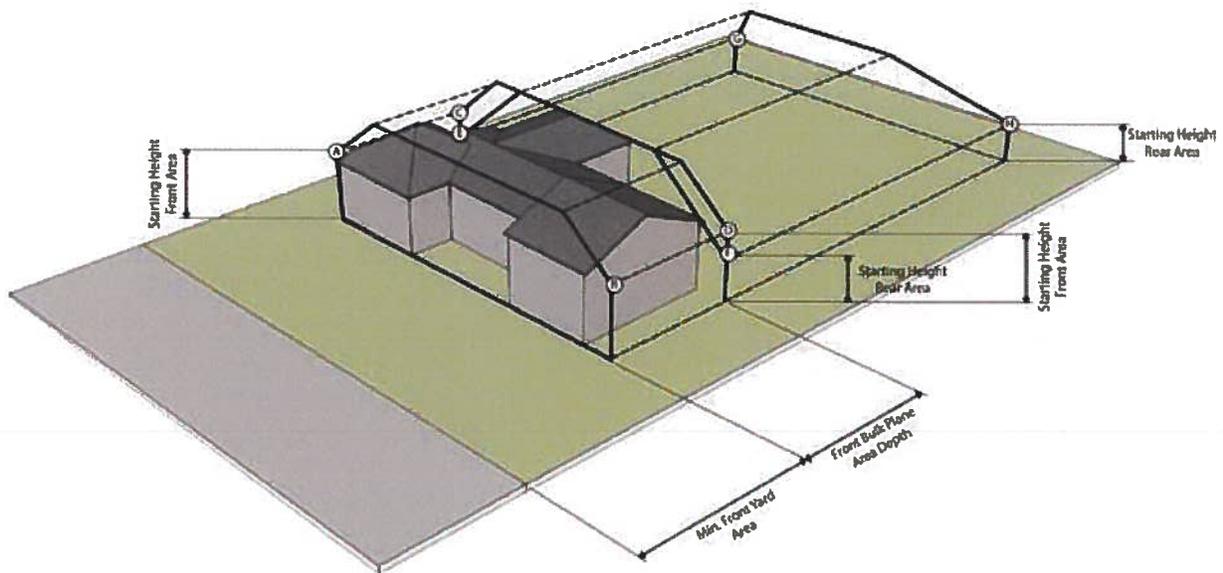
For zones R-1 and R-2, the following diagram shall be used to explain how the floating front area bulk plane may be applied:



8-POINT MEASUREMENT OF BULK PLANE

For all zones and lot conditions, the measurement of the bulk plane shall be taken at the following points:

- At each point where the front area bulk plane begins (A & B)
- At each point where the front area bulk plane ends (C & D)
- At each point where the rear area bulk plane begins (E & F)
- At each point where the rear area bulk plane ends (G & H)



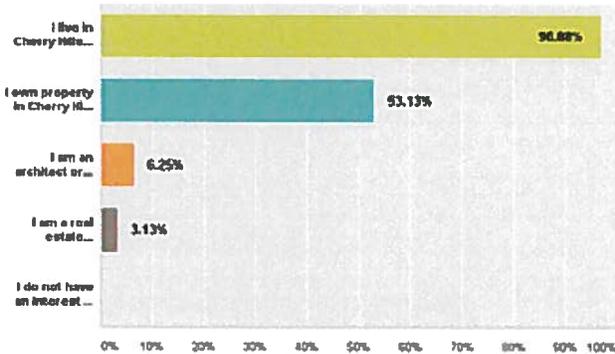
RESIDENTIAL DEVELOPMENT STANDARDS EVALUATION

APPENDIX A: COMMUNITY SURVEY RESULTS

INTRODUCTORY QUESTIONS

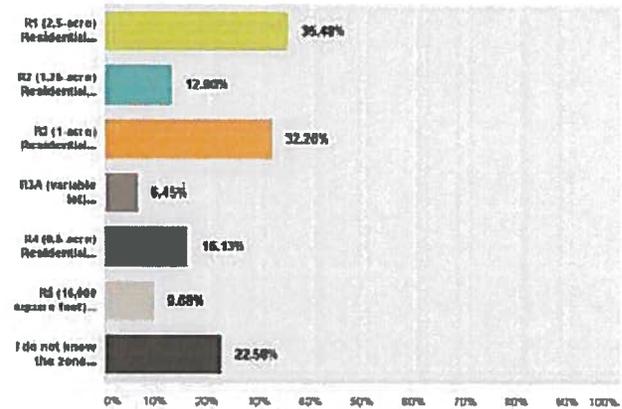
Q1 What is your interest in the residential development standards? (check all that apply)

Answered: 37 Skipped: 0



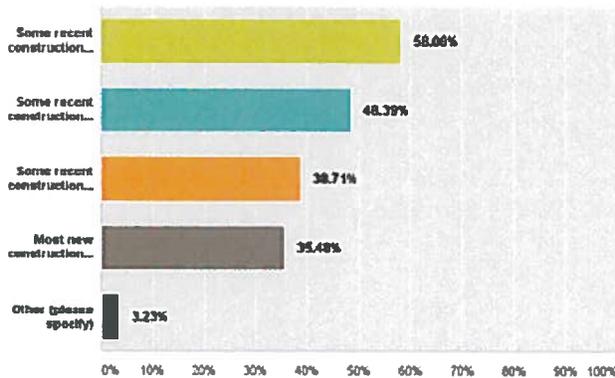
Q2 If you own, or have worked on residential property, what is the zone district? (check all that apply)

Answered: 31 Skipped: 1



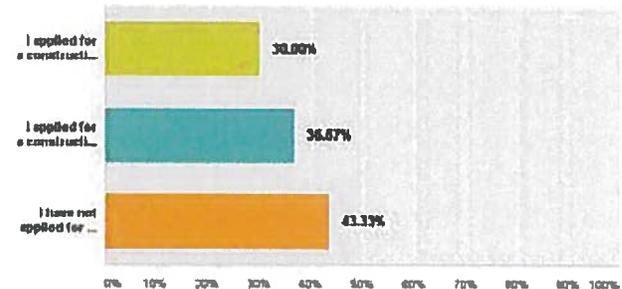
Q3 Please check any of the following statements with which you agree, regarding recent construction (within the last four years).

Answered: 21 Skipped: 1



Q4 Have you undertaken a construction project in the last ten years? (check all that apply)

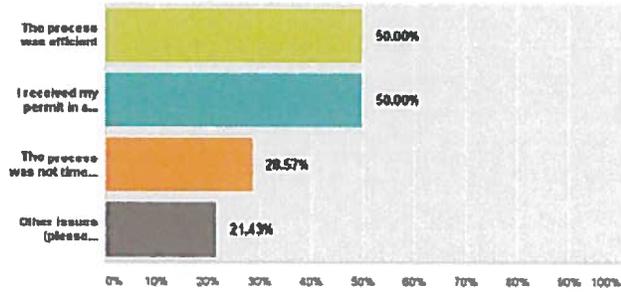
Answered: 30 Skipped: 2



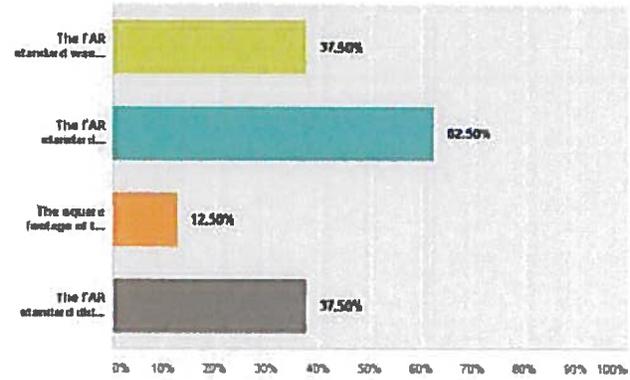
INTRODUCTORY QUESTIONS

Q5 If you applied for a construction permit after October 1, 2011, what was your experience with the process? (check all that apply)

Answered: 18 Skipped: 18

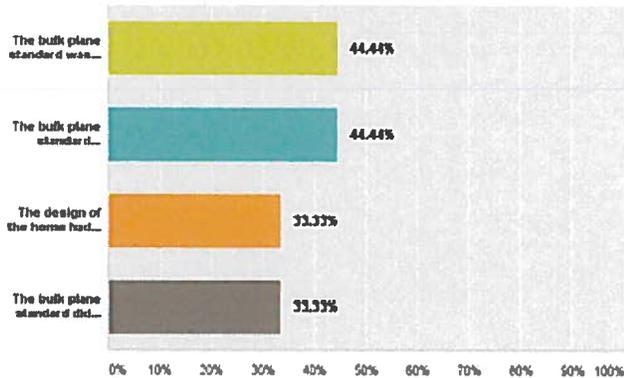


Q6 If you applied for a construction permit after October 1, 2011, what was your experience with the floor area ratio (FAR) standard? (check all that apply)

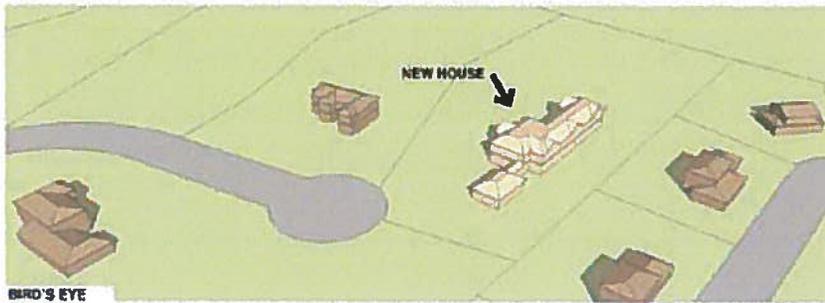


Q7 If you applied for a construction permit after October 1, 2011, what was your experience with the bulk plane standard? (check all that apply)

Answered: 9 Skipped: 23

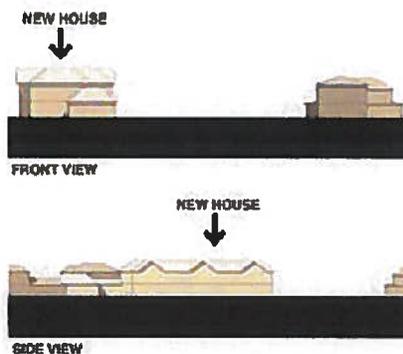


SCENARIO A



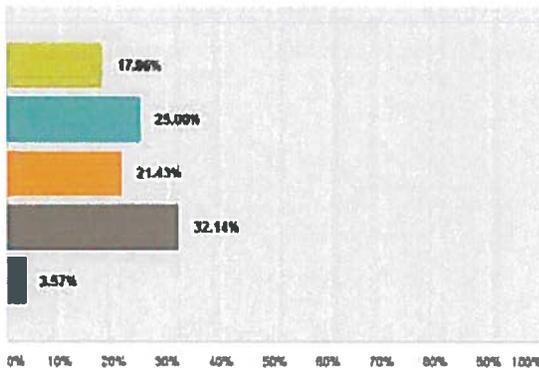
Legend:

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree



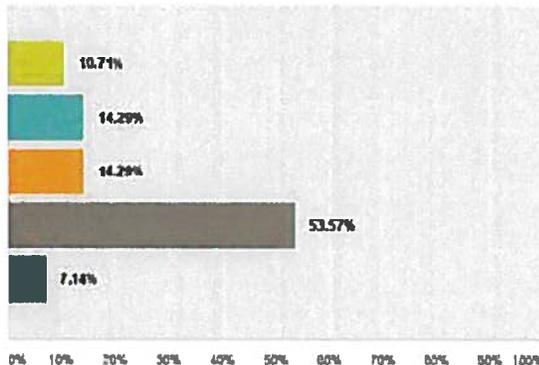
Q8 Overall mass (size) of the new home is compatible to existing homes.

Answered: 28 Skipped: 4



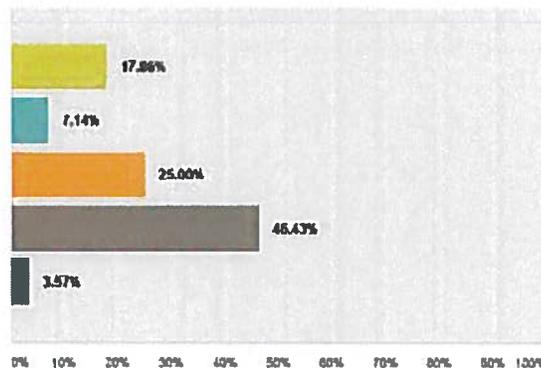
Q10 The new house does not loom over its neighbors.

Answered: 28 Skipped: 4



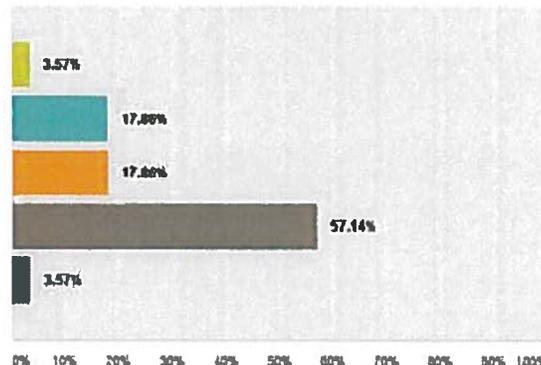
Q9 Building height of the new home is compatible to existing homes.

Answered: 28 Skipped: 4

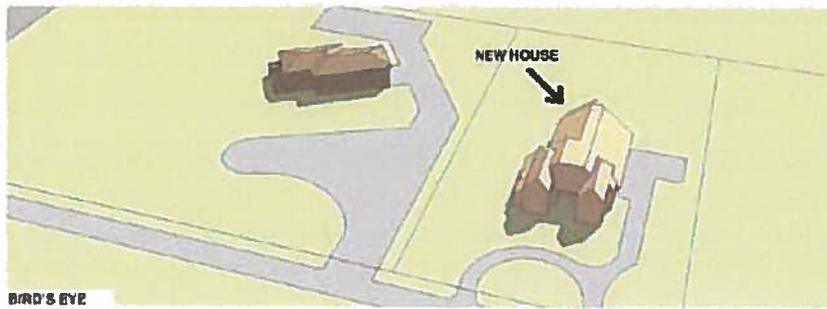


Q11 The building form (shape) of the new home is compatible to existing homes.

Answered: 28 Skipped: 4

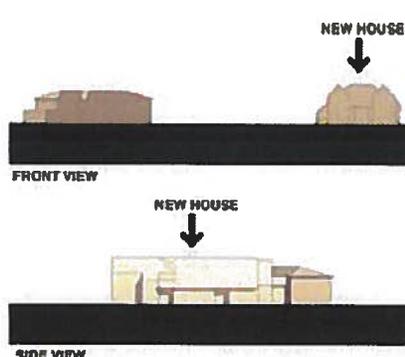
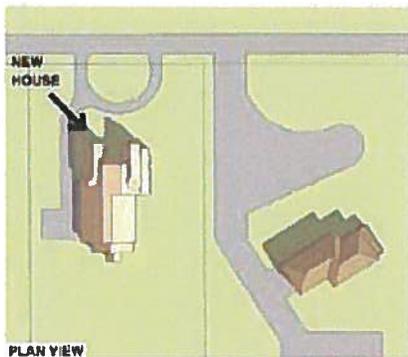


SCENARIO B



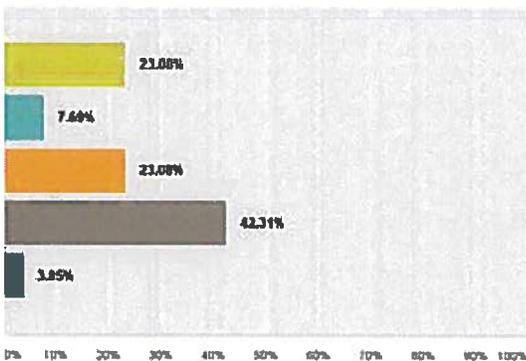
Legend:

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree



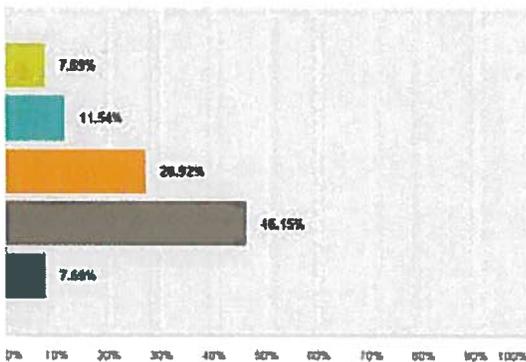
Q12 Overall mass (size) of the new home is compatible to existing homes.

Answered: 78 Skipped: 6



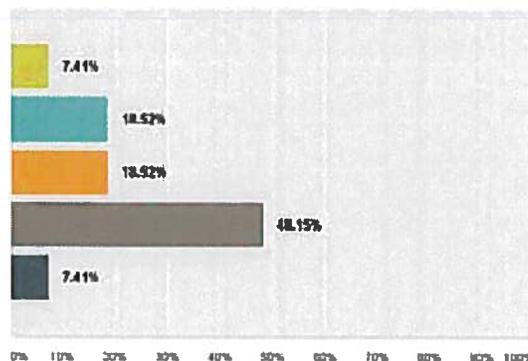
Q14 The new house does NOT loom over its neighbors

Answered: 78 Skipped: 6



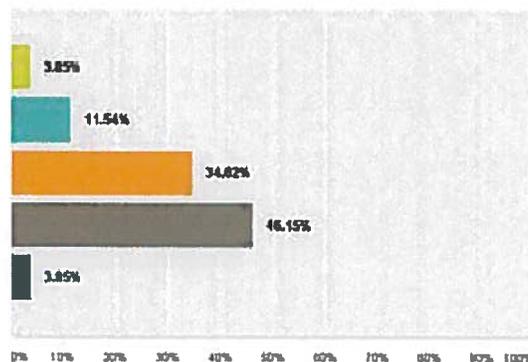
Q13 Building height of the new home is compatible to existing homes.

Answered: 71 Skipped: 5

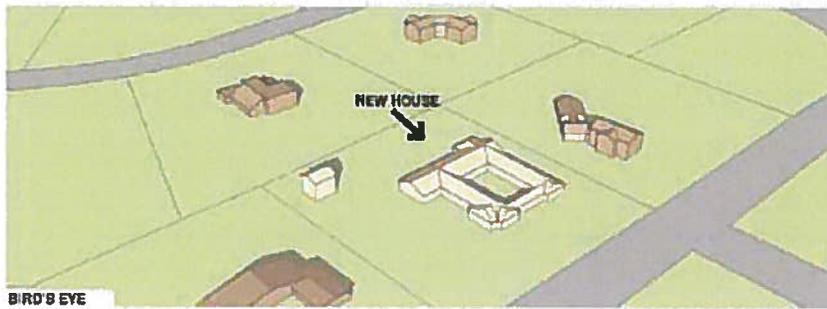


Q15 The building form (shape) of the new home is compatible to existing homes.

Answered: 76 Skipped: 6

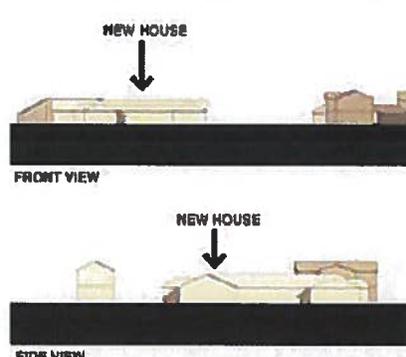


SCENARIO C



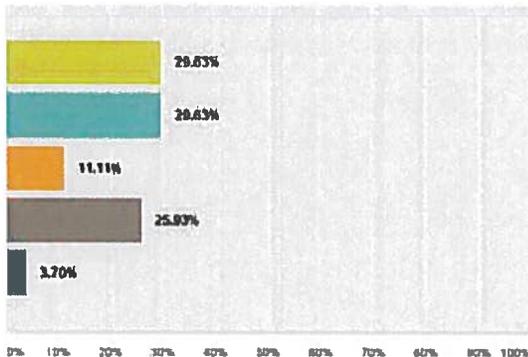
Legend:

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree



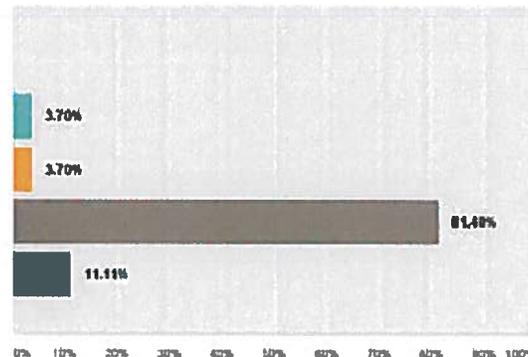
Q16 Overall mass (size) of the new home is compatible to existing homes.

Answers: 27 Skipped: 5



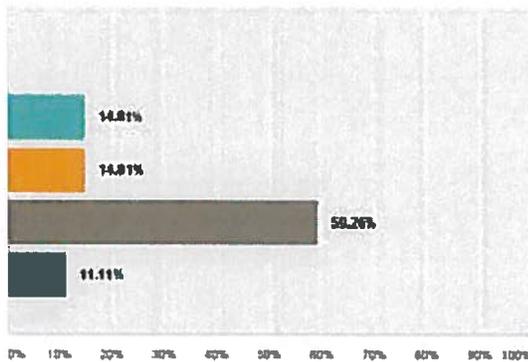
Q17 Building height of the new home is compatible to existing homes.

Answers: 27 Skipped: 5



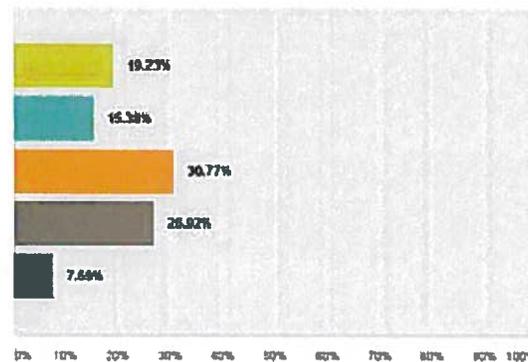
Q18 The new house does NOT loom over its neighbors

Answers: 27 Skipped: 5

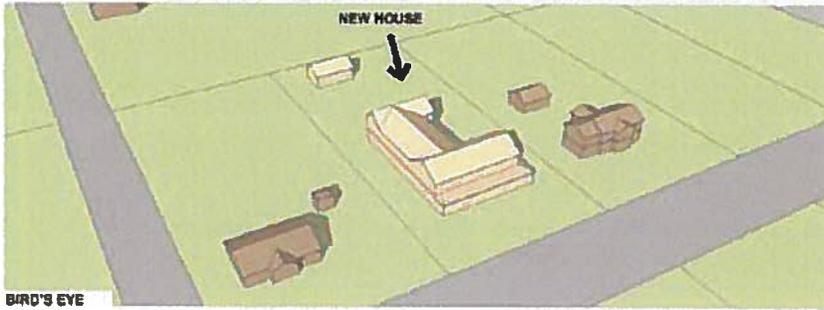


Q19 The building form (shape) of the new home is compatible to existing homes.

Answers: 28 Skipped: 5

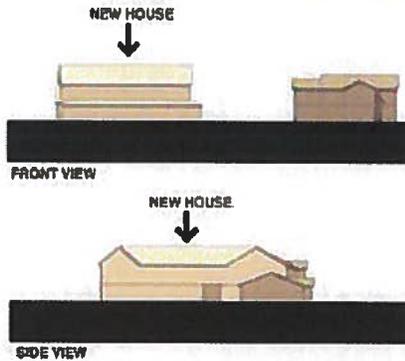
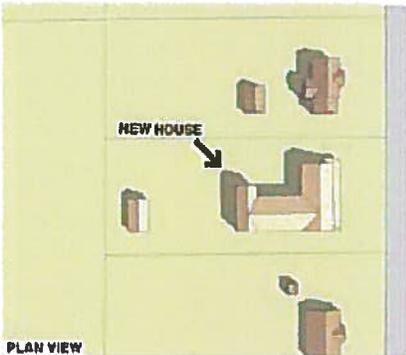


SCENARIO D



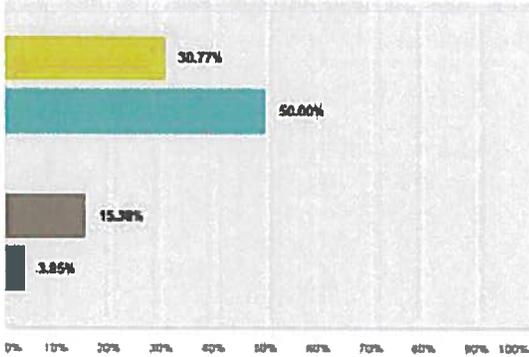
Legend:

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree



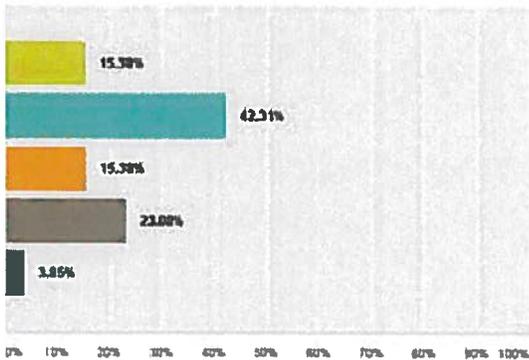
Q20 Overall mass (size) of the new home is compatible to existing homes.

Answered: 26 Skipped: 8



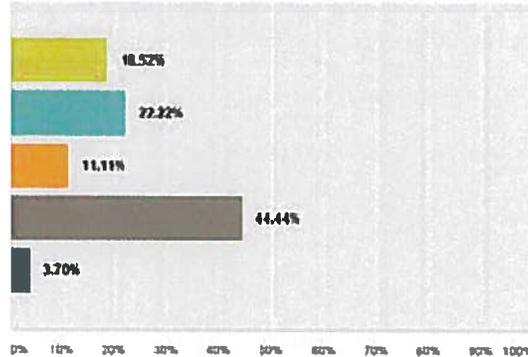
Q22 The new house does NOT loom over its neighbors

Answered: 26 Skipped: 8



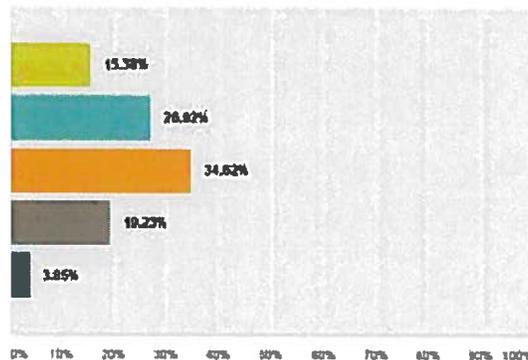
Q21 Building height of the new home is compatible to existing homes.

Answered: 27 Skipped: 4

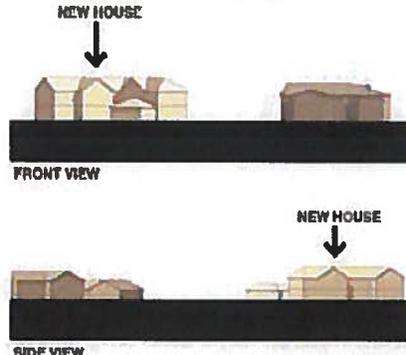
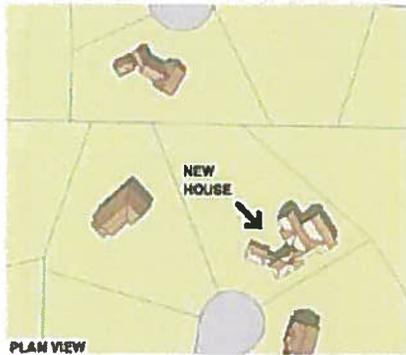
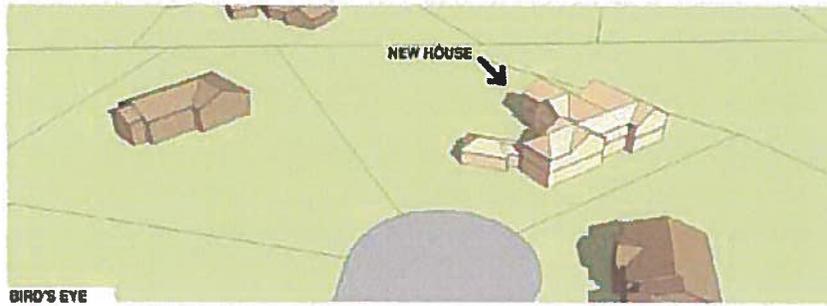


Q23 The building form (shape) of the new home is compatible to existing homes.

Answered: 26 Skipped: 8



SCENARIO E

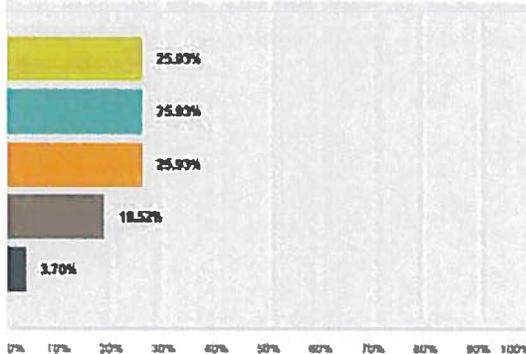


Legend:

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

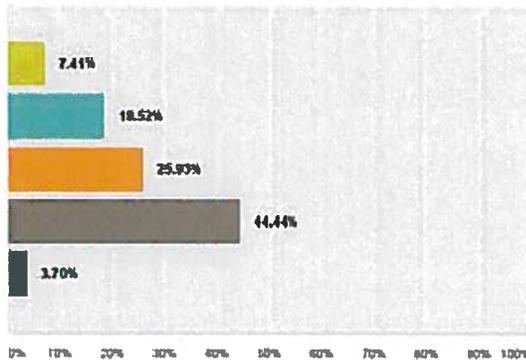
Q24 Overall mass (size) of the new home is compatible to existing homes.

Answers: 37 Skipped: 5



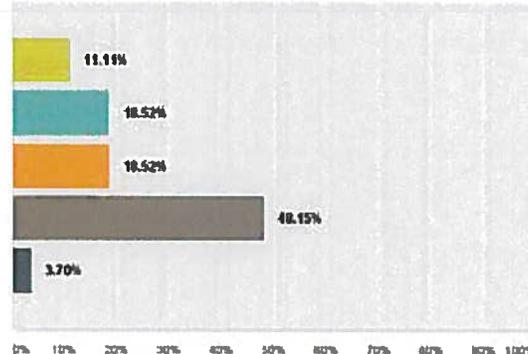
Q26 The new house does NOT loom over its neighbors

Answers: 37 Skipped: 5



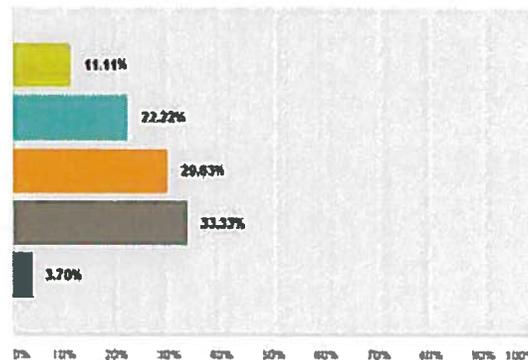
Q25 Building height of the new home is compatible to existing homes.

Answers: 77 Skipped: 5

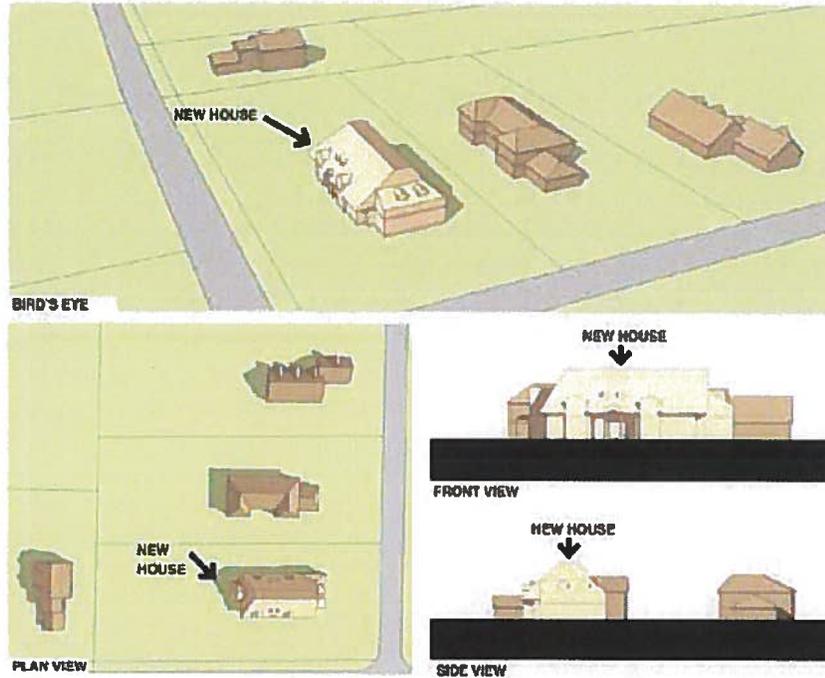


Q27 The building form (shape) of the new home is compatible to existing homes.

Answers: 77 Skipped: 5



SCENARIO F

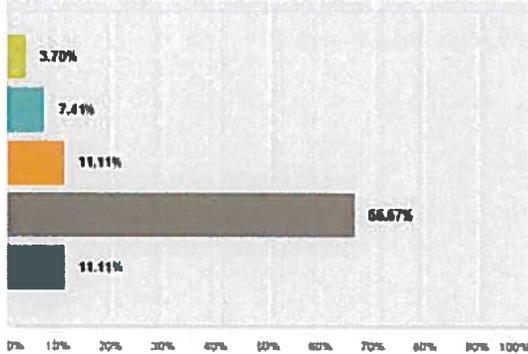


Legend:

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

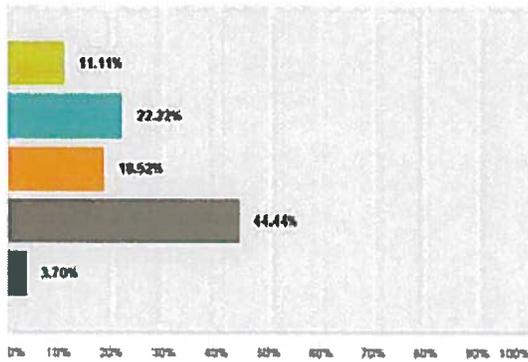
Q28 Overall mass (size) of the new home is compatible to existing homes.

Answers: 27 Skipped: 5



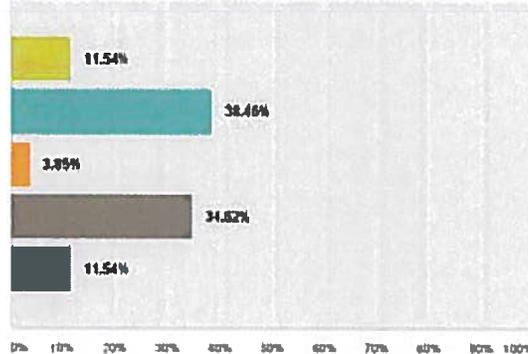
Q30 The new house does NOT loom over its neighbors

Answers: 27 Skipped: 5



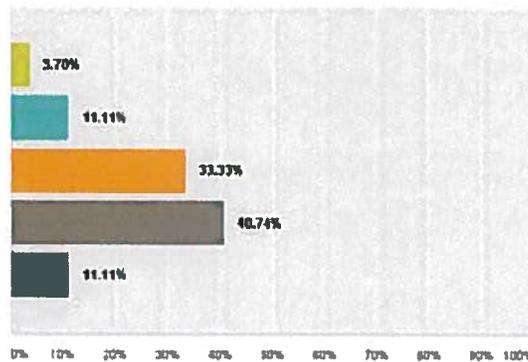
Q29 Building height of the new home is compatible to existing homes.

Answers: 26 Skipped: 6

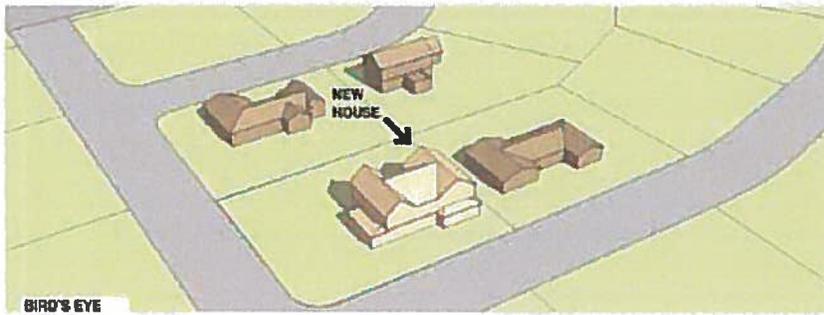


Q31 The building form (shape) of the new home is compatible to existing homes.

Answers: 27 Skipped: 5

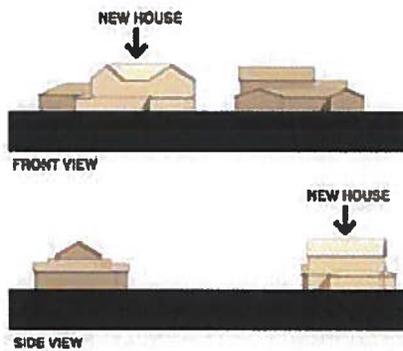
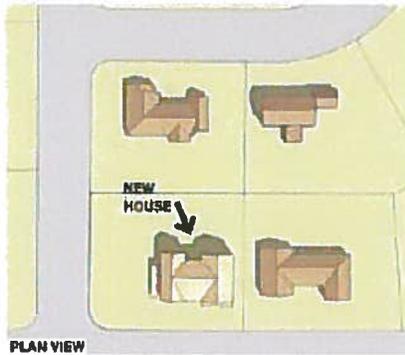


SCENARIO G



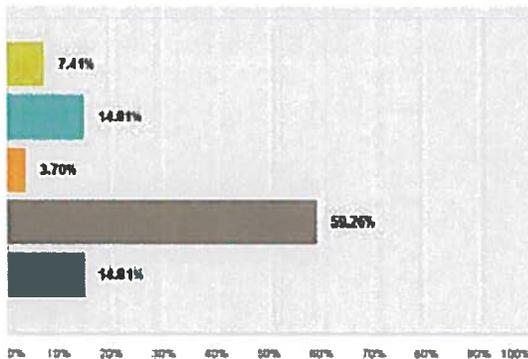
Legend:

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree



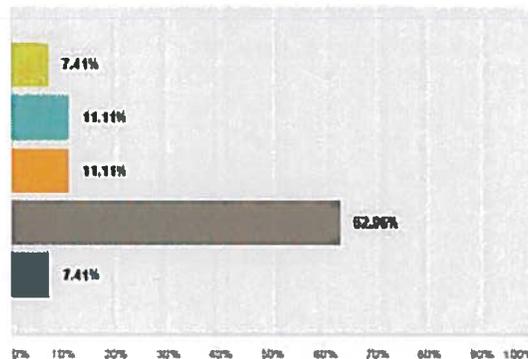
Q32 Overall mass (size) of the new home is compatible to existing homes.

Answers: 27 / Skipped: 5



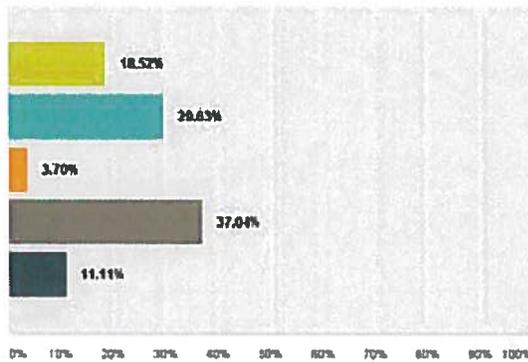
Q33 Building height of the new home is compatible to existing homes.

Answers: 27 / Skipped: 5



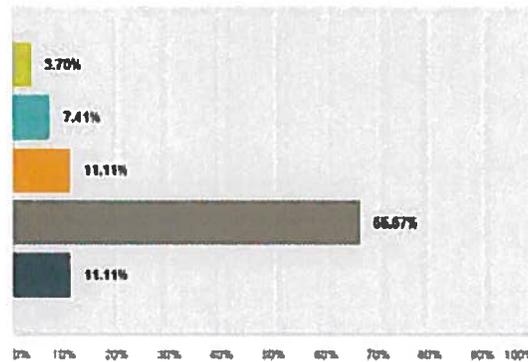
Q34 The new house does NOT loom over its neighbors

Answers: 27 / Skipped: 5

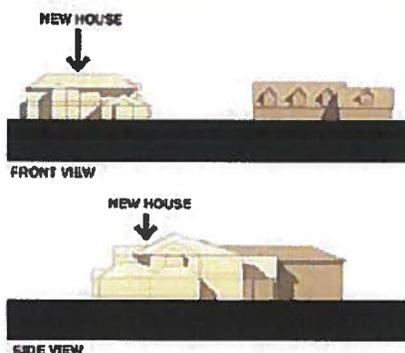
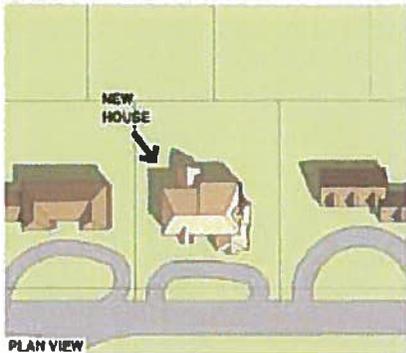
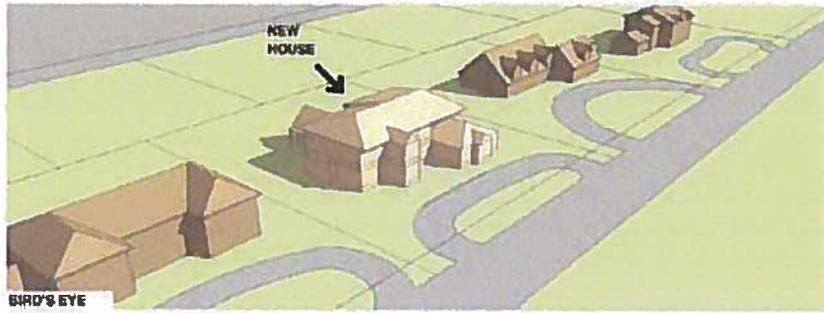


Q35 The building form (shape) of the new home is compatible to existing homes.

Answers: 27 / Skipped: 5



SCENARIO H

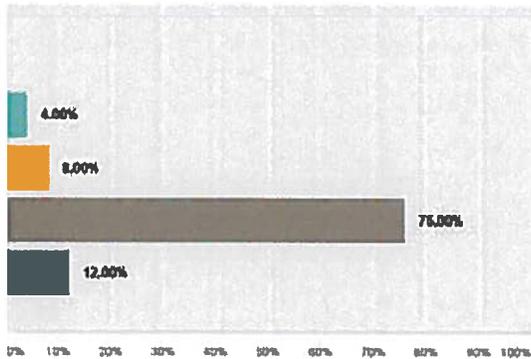


Legend:

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

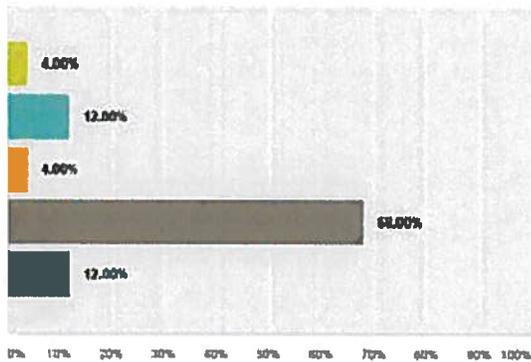
Q36 Overall mass (size) of the new home is compatible to existing homes.

Answered: 29 Skipped: 2



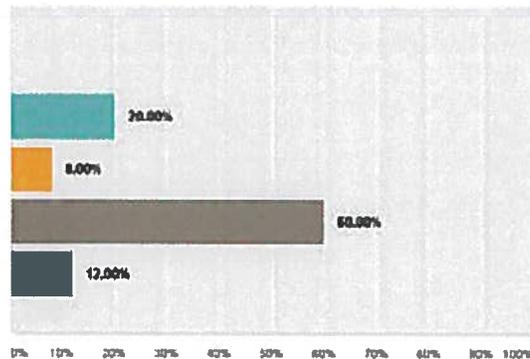
Q38 The new house does NOT loom over its neighbors

Answered: 29 Skipped: 2



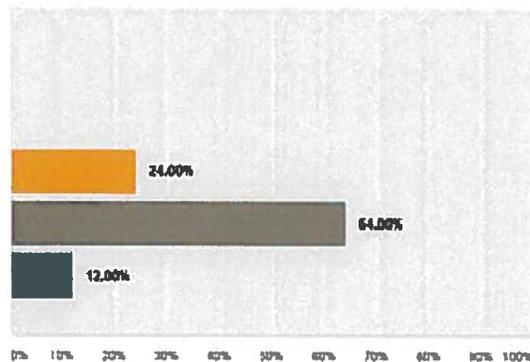
Q37 Building height of the new home is compatible to existing homes.

Answered: 29 Skipped: 2

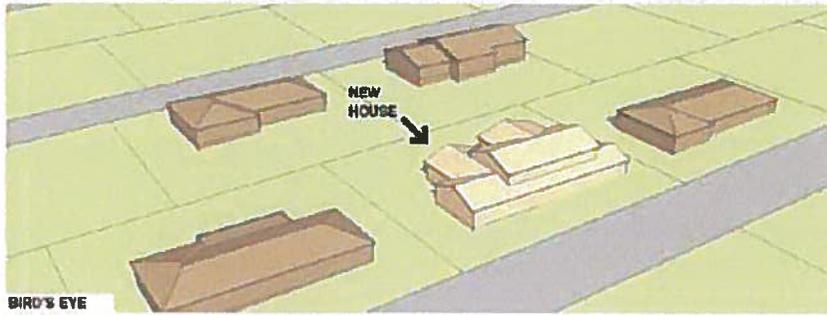


Q39 The building form (shape) of the new home is compatible to existing homes.

Answered: 29 Skipped: 2

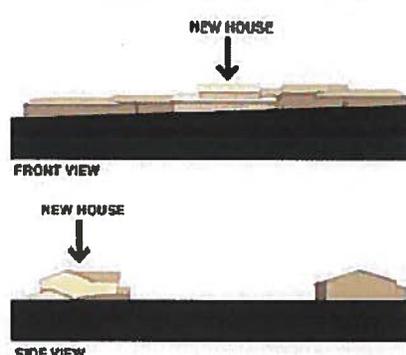


SCENARIO I



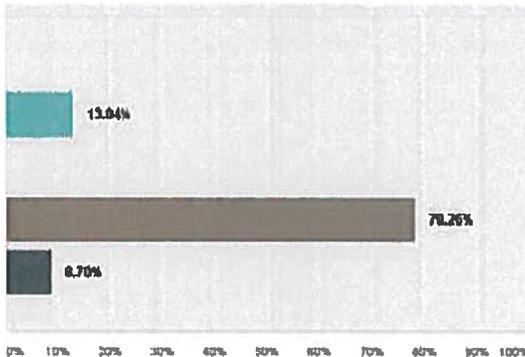
Legend:

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree



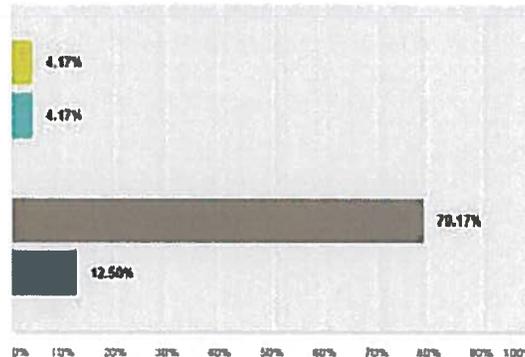
Q40 Overall mass (size) of the new home is compatible to existing homes.

Answered: 73 Skipped: 0



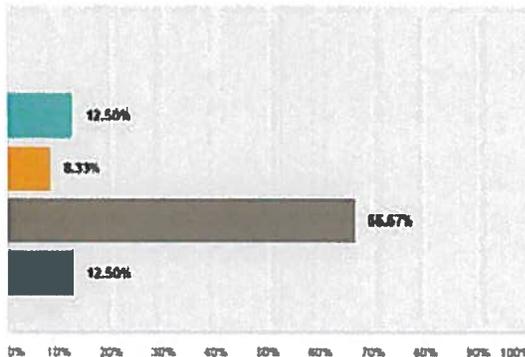
Q41 Building height of the new home is compatible to existing homes.

Answered: 74 Skipped: 0



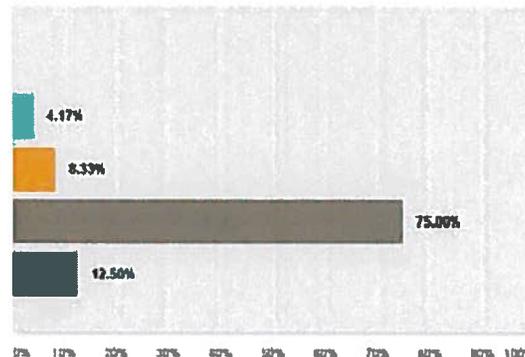
Q42 The new house does NOT loom over its neighbors

Answered: 74 Skipped: 0



Q43 The building form (shape) of the new home is compatible to existing homes.

Answered: 74 Skipped: 0



RESIDENTIAL DEVELOPMENT STANDARDS EVALUATION

APPENDIX B: ANALYSIS OF NEW CONSTRUCTION TRENDS

ZONE DISTRICT R-1

Full Address	Construction Status		Evaluation Status			Height/Bulk Plane Evaluation					FAR Evaluation								
	Year Built	Zone District	Eval Done	Photos Taken	Have Building Plan	Max. Height	Height Note	Taller Than 30'	Built to Front Area Max Anywhere	Built to Rear Max Area Anywhere	2-story wall max in front area at side setback	2014 FAR - Living Area + Attached Garage	2014 Total Sq Ft	Total Lot Sq Ft	2010 Total Living Area (sq. ft.)	2010 Attached Garage (sq. ft.)	2010 FAR - Living Area	2010 FAR - Living Area + Attached Garage	
3800 S GILPIN ST	2012	R-1										0.03	3,474	102,802	3,832	900	0.04	0.05	
4850 S FOREST ST	2011	R-1										0.04	7,707	200,378	5,012	1,593	0.02	0.03	
4789 S DAHLIA ST	2012	R-1										0.04	4,679	108,900	3,055	572	0.03	0.03	
4801 S DAHLIA ST	2012	R-1										0.05	5,818	114,898	4,498	788	0.04	0.05	
5097 S HOLLY ST	2012	R-1										0.05	4,930	92,783			0.00	0.00	
1817 E QUINCY AVE	2012	R-1	1	-	X	31	From 1st Fl Elev. 0'	1	0	0	0	0.05	6,241	99,752			0.00	0.00	
4101 S COLORADO BLVD	2013	R-1	1	-	X	28	From 1st Fl Elev. 0'	0	0	0	0	0.06	6,584	103,237	3,059		0.03	0.03	
3900 S GILPIN ST	2012	R-1	1	-	X	28	From 1st Fl Elev. 0'	0	0	0	0	0.07	7,626	102,802	3,864	1,178	0.04	0.05	
8 LYNN RD	2013	R-1	1	-	X	30	From 1st Fl Elev. 0'	0	0	0	0	0.08	6,180	108,494	3,347	2,382	0.03	0.05	
4 VISTA RD	2012	R-1	1	X	X	33	From Bulk Plane base	1	0	1	0	0.08	7,762	101,495	3,137	676	0.03	0.04	
5650 E STANFORD DR	2011	R-1										0.08	7,570	90,189	2,897	715	0.03	0.04	
2 POND RD	2011	R-1										0.09	10,278	108,900	2,488	583	0.02	0.03	
4800 WHITEHALL DR	2012	R-1	1	-	X	20	From 1st Fl Elev. 0'	0	0	0	0	0.10	10,951	109,771	3,288	874	0.03	0.04	
4601 S DASA DR	2013	R-1										0.12	5,843	48,609	2,898	819	0.08	0.08	
1750 E STANFORD AVE	2013	R-1	1	X	X	31.4		1	1	1	1	0.13	6,595	50,985	2,808	579	0.05	0.06	
20 CHERRY HILLS PARK DR	2012	R-1										0.16	16,788	105,415	9,924	2,299	0.09	0.12	
3 RANDOM RD	2013	R-1	1	X	X	30	From 1st Fl Elev. 0'	0	0	0	0	0.18	15,385	84,942	8,733	1,470	0.11	0.13	
		R-1	8			Avg	28.9 Pct	37.5%	12.5%	25.0%	12.5%	Avg	0.08	6,012	101,905	4,237	1,101	0.04	0.05

ZONE DISTRICT R-2

Full Address	Construction Status		Evaluation Status			Height/Bulk Plane Evaluation					FAR Evaluation								
	Year Built	Zone District	Eval Done	Photos Taken	Have Building Plan	Max. Height	Height Note	Taller Than 30'	Built to Front Area Max Anywhere	Built to Rear Max Area Anywhere	2-story wall max in front area at side setback	2014 FAR - Living Area + Attached Garage	2014 Total Sq Ft	Total Lot Sq Ft	2010 Total Living Area (sq. ft.)	2010 Attached Garage (sq. ft.)	2010 FAR - Living Area	2010 FAR - Living Area + Attached Garage	
4949 S BIRCH ST	2013	R-2										0.05	4,438	93,218	4,030	624	0.04	0.05	
21 CHERRY LANE DR	2013	R-2										0.06	4,504	70,587	3,724	0	0.05	0.05	
9 CARRIAGE LN	2013	R-2										0.06	6,249	83,200	7,910	974	0.10	0.11	
3850 S ALBION ST	2013	R-2										0.09	7,525	88,427	5,293	1,011	0.06	0.07	
8 PARKWAY DR	2012	R-2	1	X	X	31.66	from MP	1	1	1	0	0.10	6,498	65,340	2,178		0.03	0.03	
4501 E MANSFIELD AVE	2013	R-2	1	X	X	35	from MP	1	0	0	0	0.11	6,583	58,808			0.00	0.00	
5 SEDGWICK DR	2011	R-2										0.11	5,125	44,649	3,825	890	0.09	0.11	
34 SEDGWICK DR	2013	R-2										0.12	5,877	48,813	4,499	702	0.09	0.11	
30 SEDGWICK DR	2014	R-2										0.13	6,225	49,387	4,045	676	0.08	0.10	
3777 S DAHLIA ST	2012	R-2										0.13	5,945	48,871	3,882	747	0.09	0.10	
24 CHERRY LANE DR	2013	R-2	1	X	X	33	from MP	1	0	1	0	0.13	6,300	48,858	2,747	504	0.05	0.06	
4825 E MANSFIELD AVE	2013	R-2										0.17	8,100	48,352	3,546	1,242	0.07	0.10	
79 SEDGWICK PL	2014	R-2										0.17	8,883	51,575	6,748	500	0.13	0.14	
7 PARKWAY DR	2012	R-2	1	X	X	25		1	1	0	0	0.20	8,284	41,818	2,537	506	0.05	0.05	
		R-2	4			Avg	29.9 Pct	75.0%	50.0%	75.0%	0.0%	Avg	0.12	6,480	60,035	4,234	891	0.07	0.08

 indicates properties in which there was access to building plans to evaluate height and bulk plane

ZONE DISTRICT R-3

Full Address	Construction Status		Evaluation Status			Height/Bulk Plane Evaluation					FAR Evaluation							
	Year Built	Zone District	Eval Done	Photos Taken	Have Building Plan	Max. Height	Height Note	Taller Than 30'	Built to Front Area Max Anywhere	Built to Rear Max Area Anywhere	2-story wall max in front area at side setback	2014 FAR - Living Area + Attached Garage	2014 Total Sq Ft	Total Lot Sq Ft	2010 Total Living Area (sq. ft.)	2010 Attached Garage (sq. ft.)	2010 FAR - Living Area	2010 FAR - Living Area + Attached Garage
4785 S OGDEN ST	2012	R-3										0.07	2,470	37,838	1,650	440	0.05	0.06
105 GLENMOOR LN	2012	R-3										0.09	5,302	81,812	3,462	0	0.06	0.06
2280 CHERRY HILLS FARM DR	2012	R-3										0.09	6,270	70,567	2,972	0	0.04	0.04
2850 CHERRY RIDGE RD	2013	R-3										0.09	4,328	47,916	2,976	840	0.06	0.06
3238 CHERRY RIDGE RD	2013	R-3										0.09	3,959	42,210	2,505	579	0.06	0.06
22 SOUTH LN	2014	R-3										0.10	3,882	35,893	2,956	525	0.06	0.10
8 SOUTH LN	2014	R-3										0.10	3,984	38,333	3,183	483	0.06	0.09
2751 E STANFORD DR	2012	R-3										0.11	4,802	42,819	2,753	620	0.07	0.08
2900 E STANFORD DR	2012	R-3										0.12	4,998	42,253	2,491	0	0.06	0.06
4545 S LAFAYETTE ST	2012	R-3	1	X	X	31	From front grade point	1	0	1	0	0.13	8,348	65,340				
77 CHARLOU CIR	2012	R-3										0.13	5,110	39,945	4,161	951	0.10	0.13
31 CHARLOU CIR	2013	R-3										0.13	4,585	35,806	3,196	780	0.09	0.11
3121 CHERRY RIDGE RD	2013	R-3										0.13	5,432	42,168	3,541	865	0.08	0.11
2681 E STANFORD DR	2012	R-3										0.14	6,223	45,564	2,733	616	0.06	0.07
18 VIKING DR	2012	R-3										0.14	4,712	34,412	2,441	496	0.07	0.09
4850 S LAFAYETTE LN	2012	R-3										0.14	5,096	36,808	2,840	572	0.08	0.09
11 LAYTON LN	2013	R-3	1	X	X	35	From ctr pt elev	1	1	1	1	0.14	6,389	45,738			0.00	0.00
1148 E TUFTS AVE	2013	R-3										0.14	6,152	43,560	4,864	484	0.06	0.09
21 CHERRYMOOR DR	2012	R-3	1	X	X	31	Total Approx	1	0	1	0	0.14	5,819	41,077	3,287	621	0.08	0.09
4740 S LAFAYETTE ST	2012	R-3										0.14	5,277	36,878	4,570	0	0.12	0.12
4720 S OGDEN ST	2013	R-3	1	-	X	33.58	From Ex Grade	1	1	0	1	0.15	5,480	35,893	2,388	0	0.07	0.07
15 LAYTON LN	2012	R-3	1	X	X	34.33	From MP	1	0	1	0	0.15	6,683	43,560			0.00	0.00
4575 S LAFAYETTE ST	2013	R-3										0.16	6,109	39,073	4,026	1,000	0.10	0.13
2275 E GRAND AVE	2014	R-3										0.16	6,406	39,814	5,005	1,056	0.12	0.15
15 MOCKINGBIRD LN	2014	R-3										0.16	6,490	39,683	5,462	858	0.14	0.16
26 MARTIN LN	2011	R-3										0.16	7,276	44,431	2,488	504	0.06	0.07
4695 S FRANKLIN ST	2013	R-3										0.17	9,017	53,143	3,143	0	0.08	0.06
4900 S LAFAYETTE LN	2012	R-3										0.17	8,909	52,272	2,927	572	0.08	0.07
3 CHERRYMOOR DR	2014	R-3										0.17	7,097	41,382	5,806	950	0.14	0.16
1199 E LAYTON AVE	2013	R-3	1	X	X	32		1	0	1	0	0.17	6,916	40,206	1,480	550	0.04	0.05
3 VIKING DR	2013	R-3										0.17	5,881	32,831	1,551	440	0.05	0.06
5 SOUTH LN	2014	R-3										0.18	6,494	36,155	3,824	1,054	0.10	0.13
4550 S UNIVERSITY BLVD	2014	R-3										0.20	7,942	39,291	5,801	1,250	0.18	0.22
11 SOUTH LN	2013	R-3										0.22	7,483	33,367	2,573	450	0.08	0.09
1010 E STANFORD AVE	2012	R-3		X					0	0	0	0.24	9,720	40,990	7,075	1,571	0.17	0.21
1328 E LAYTON AVE	2014	R-3	1	X	X	28.5		0	0	0	0	0.25	10,347	40,803	5,364	1,017	0.13	0.15
			7			Avg	31.73 Pct	85.7%	28.8%	71.4%	28.6%	Avg	6,130	42,767	3,483	692	0.08	0.10

ZONE DISTRICT R-4

Full Address	Construction Status		Evaluation Status			Height/Bulk Plane Evaluation					FAR Evaluation								
	Year Built	Zone District	Eval Done	Photos Taken	Have Building Plan	Max. Height	Height Note	Taller Than 30'	Built to Front Area Max Anywhere	Built to Rear Max Area Anywhere	2-story wall max in front area at side setback	2014 FAR - Living Area + Attached Garage	2014 Total Sq Ft	Total Lot Sq Ft	2010 Total Living Area (sq. ft.)	2010 Attached Garage (sq. ft.)	2010 FAR - Living Area	2010 FAR - Living Area + Attached Garage	
4284 S HUDSON PKY	2012	R-4										0.13	3,991	29,664	3,083	588	0.10	0.12	
4218 S HUDSON PKY	2012	R-4										0.14	4,725	33,803	3,679	710	0.11	0.13	
1945 E CHENANGO CT	2013	R-4										0.17	3,758	22,738	3,086	478	0.14	0.16	
6 CHERRY VALE DR	2012	R-4										0.17	4,559	26,223	3,223	500	0.12	0.14	
4201 S DAHLIA ST	2011	R-4										0.19	5,193	27,399	2,698	0	0.10	0.10	
4225 S BELLAIRE CIR	2012	R-4										0.19	5,905	30,753	4,973	696	0.16	0.18	
4040 S HUDSON WAY	2014	R-4	1	-	X	20		0	0	0	0	0.20	3,994	19,428	3,246	528	0.16	0.18	
201 SUMMIT BLVD	2012	R-4										0.21	4,718	22,348	3,088	0	0.14	0.14	
4151 S IVY LN	2013	R-4										0.22	2,986	13,809	2,096	506	0.15	0.18	
4900 S FRANKLIN ST	2011	R-4										0.24	3,798	15,899	2,821	420	0.16	0.21	
5325 SANFORD CIR	2013	R-4										0.25	4,806	19,556	3,488	888	0.18	0.22	
151 SUMMIT BLVD	2012	R-4		X								0.26	3,456	13,418	2,304	576	0.17	0.21	
5387 E OXFORD AVE	2013	R-4	1	X	X	30		0	0	1	0	0.26	6,207	24,089	3,282	624	0.14	0.16	
6455 E TUFTS AVE	2013	R-4		X								0.28	5,513	18,820	4,348	850	0.22	0.25	
			2			Avg	25.00 Pct	0.0%	0.0%	50.0%	0.0%	Avg	6,211	4,541	22,762	3,238	651	0.13	0.17

ZONE DISTRICT R-5

Full Address	Construction Status		Evaluation Status			Height/Bulk Plane Evaluation					FAR Evaluation							
	Year Built	Zone District	Eval Done	Photos Taken	Have Building Plan	Max. Height	Height Note	Taller Than 30'	Built to Front Area Max Anywhere	Built to Rear Max Area Anywhere	2-story wall max in front area at side setback	2014 FAR - Living Area + Attached Garage	2014 Total Sq Ft	Total Lot Sq Ft	2010 Total Living Area (sq. ft.)	2010 Attached Garage (sq. ft.)	2010 FAR - Living Area	2010 FAR - Living Area + Attached Garage
4100 S BIRCH ST	2012	R-5										0.18	3,150	17,337	2,246	504	0.13	0.16
3925 S CHERRY ST	2013	R-5										0.24	3,729	15,858	2,472	441	0.15	0.19
4060 S BELLAIRE ST	2013	R-5										0.24	4,246	17,511	2,992	490	0.17	0.20
4061 S CHERRY ST	2013	R-5	1	X	X	21		0	0	0	0	0.26	4,070	15,812	2,627	510	0.17	0.20
3980 S DEXTER ST	2013	R-5	1	X	X	21		0	0	0	0	0.28	4,571	16,596	2,635	692	0.16	0.20
			2			Avg	21.00 Pct	NA	NA	0.0%	NA	Avg	3,953	16,622	2,594	521	0.16	0.19

