Attachment 3: New Community Forecasted Demand and Current Capacity

The City of Calgary monitors both capacity and demand for housing in the Calgary market. This monitoring supports The City in its efforts to ensure that capacity does not fall too low (and risk pushing housing prices up while reducing affordability), or become too high (and risk inefficiency in delivering City services and/or overinvestment in City infrastructure). Furthermore, a balanced capacity scenario can increase competition and innovation, while encouraging communities to build out in order to support public and private amenities.

As part of this work on strategic growth in new communities, this attachment explores three things: (1) expected demand for growth in new communities in the short term, as based on The City's forecasts from Corporate Economics and Geodemographics, (2) expected demand in the short term based on work completed by Altus Group, and (3) a summary of capacity currently available in new communities.

Taken together, this attachment presents the forecasted demand picture (using City and third party references) and the available capacity picture to draw the conclusion that current conditions are balanced, but The City should maintain or increase investment through the 2019-2022 budget cycle, as communities continue to finish building out their single residential components. If growth begins to trend higher than The City's current forecasting, and greater dispersion and competition is desired, there will be pressure to accelerate capacity increases.

1. Expected Short Term Demand Analysis from City of Calgary Forecasting

The demand for housing in Calgary's new communities has historically been related to citywide population growth, though there are exceptions in some years. From 2010-2017, 62% of new housing citywide was absorbed in new communities. In years of low population growth, as much as 80% of housing demand has been absorbed in new communities. See Figure 1 for how citywide population growth is related to housing demand citywide and in new communities.

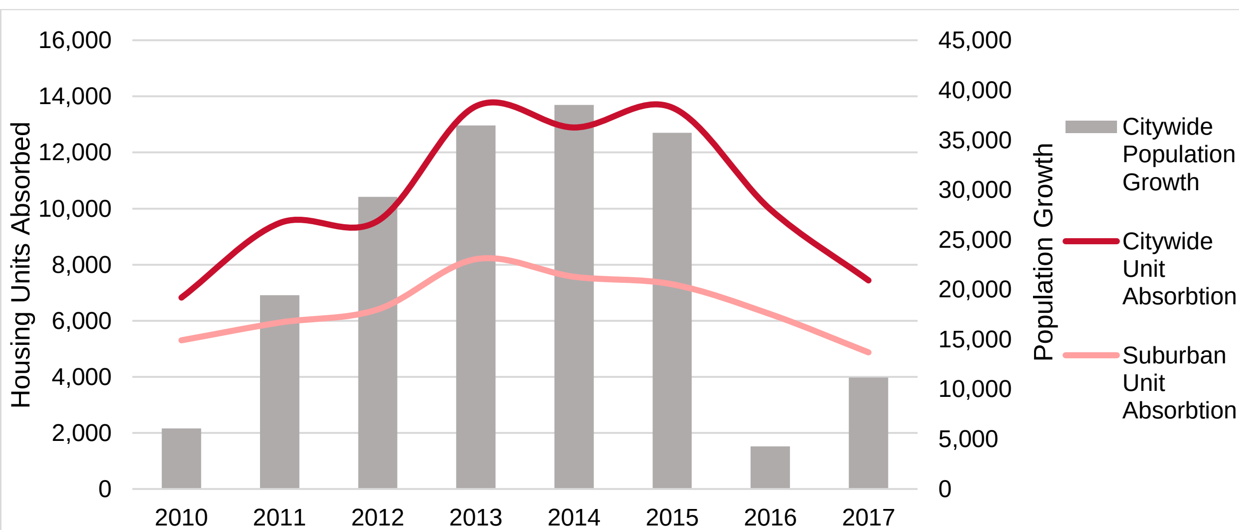

Figure 1: Population Growth and New Community Housing Demand

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From 2010 to 2017, 51,801 total units were built in new communities. The demand for new units, defined through Building Permit data, ranged from 8,190 in 2013 to 4,875 in 2017 and averaged 6,475 over the time period. Based on the current Fall 2017 forecast from The City's Corporate Economics division, a relatively muted level of population growth is expected over the next five years. This population growth forecast is expected to result in lower housing demand in the short term, as a larger share of this demand may be absorbed in new communities.

The City forecast estimates a demand for 32,000 housing starts citywide from 2018-2022. Based on the historical trends, The City's Geodemographics division estimates that the demand for total housing units in new communities over this time period will be 24,750. See Figure 2 for how this forecasted housing demand compares to historical demand.

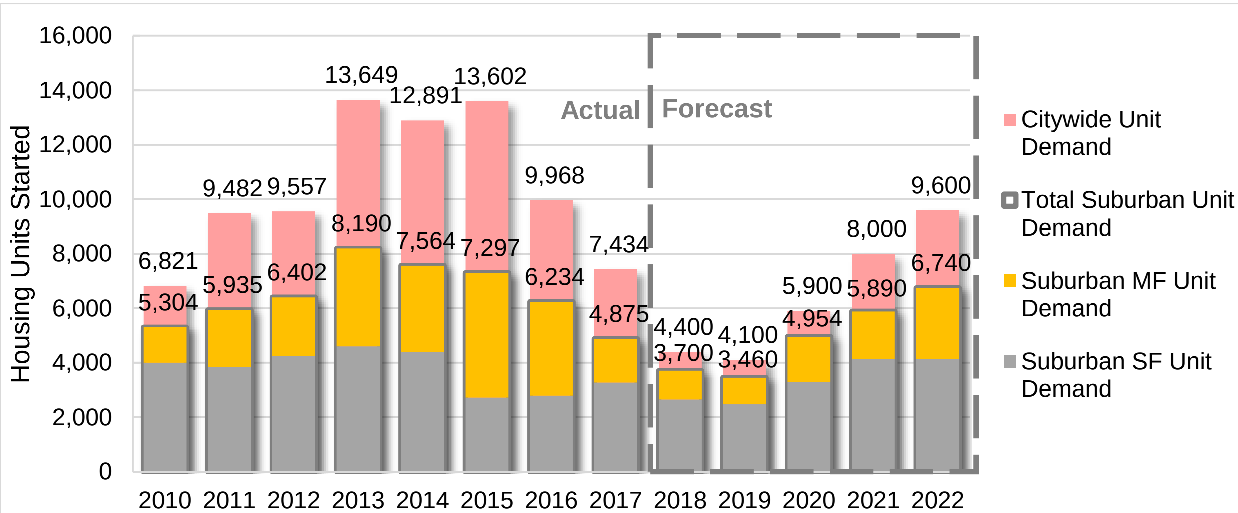

Figure 2: Citywide and New Community Housing Demand

Conclusion: *The City of Calgary expects 32,000 housing starts during 2018-2022. Of these, 24,750 (76%) are expected to occur in new communities. Of the 24,750, 16,700 (67%) are anticipated to be single/semi residential and 8,050 (33%) are anticipated to be multi-residential.*

2. Expected Short Term Demand Analysis from Altus Group

Forecasted demand does have a meaningful impact on The City's growth strategy. Stronger (or weaker) than anticipated demand sends a signal to The City that more (or less) land should be opened for development. The City relies on forecasts as infrastructure and servicing investments take time to deliver. In addition to the forecast provided by Corporate Economics, Altus Group Ltd. were retained by The City to prepare a forecast for new occupied dwellings over the short to medium term. This was done to incorporate a third party perspective into the new community growth strategy work by adding another forecasting opinion to inform the demand conversation as The City grapples with supply questions.

Altus prepared four forecast scenarios for The City; in this attachment discussion is limited to two of them – the "Altus Best", which is Altus' preferred scenario for occupied housing demand over the short term, and the "Affordable Product Mix" scenario, prepared for a specific purpose which will be discussed later in the document.

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In this attachment, it should be noted that The City estimate in the comparison is the number of new housing units expected (completion of foundation), the Altus estimate is the net change in occupied housing units. Therefore, the output of the Altus forecast will differ from that of The City forecast in that it views demand as the number of units available for occupancy needed at a point in time rather than the number of units that need to be started at a point in time to accommodate future demand.

In terms of comparison to The City forecast, the “Altus Best” scenario is used. The demand anticipated in this forecast is higher than the City forecast over the 2016-2020 period, and lower over the 2021-2025 period (Figure 3):

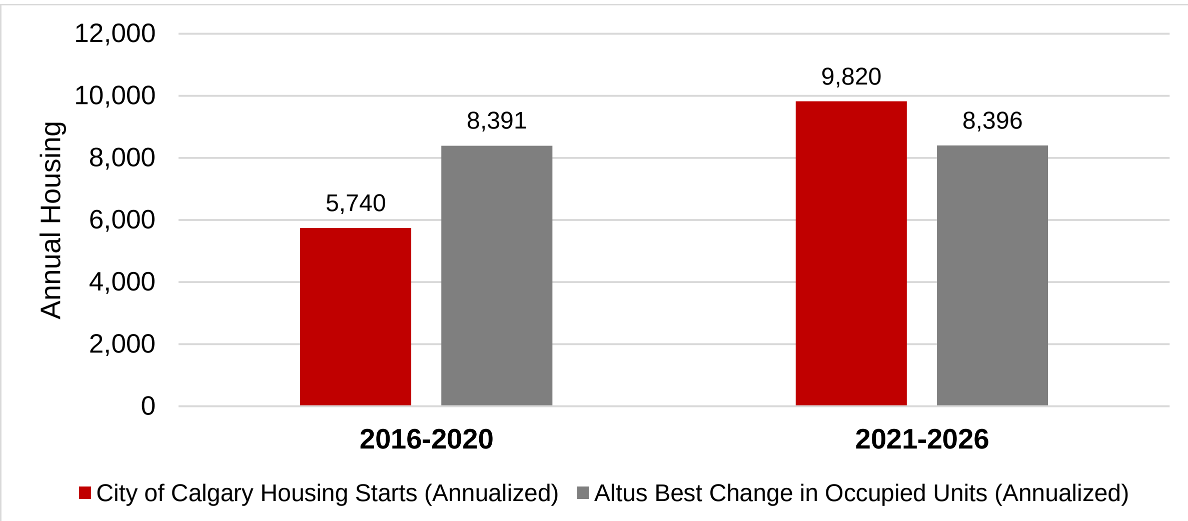

Figure 3: Comparison of Altus Best and City of Calgary Housing Forecasts

The Altus Best forecast is based on a strengthening employment growth outlook, which then leads to a stronger in-migration expectation, which leads to higher housing growth. Specifically, the Altus Best forecast expects growth in the ages 20-34 cohorts over the next 10 years, while Corporate Economics expects modest losses.

From the perspective of Corporate Economics, a similar level of employment growth is forecasted, however their forecast places greater weight on an assumption that there is still slack in the Calgary employment market (with a current unemployment rate of 8%) that will affect population and housing forecasts.

Both forecasts use a cohort component model for forecasting changes in the population. Changes in the population profile are then used to estimate the total number of housing units, and what type of units, will be demanded in the future. While Altus employs a five-year model to forecast future population, Corporate Economics employs a one-year model. With access to detailed population, migration, fertility, and survival rates from The City of Calgary and the Province of Alberta, Corporate Economics is able to employ this one-year cohort component model.

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Conclusion: *The City and the Altus Group housing forecasts differ in the short term (2016-2020), with the Altus Group forecast expecting higher housing growth. The two models are based on different assumptions and different methodologies.*

Furthermore, Altus group was also asked to prepare a scenario that was based on a question that has frequently arisen during meetings with the development industry – whether or not, if The City were to allow initiation of new communities beyond its current pace, increased absorption and growth would be the result. Altus modeled this question as if The City were successful in "bringing a certain quantity of affordable ownership single family units to markets … defined as price points that are 13% or $65,000 below prevailing market price".

Altus Group's analysis predicts, should the quantity of below market housing be brought to market, that demand of 1,450 additional occupied dwellings per year from 2016-2021 could be the result (Figure 4). This "released demand" is likely to come from younger adults who may more quickly choose to leave the family home and from those who rent moving into ownership.

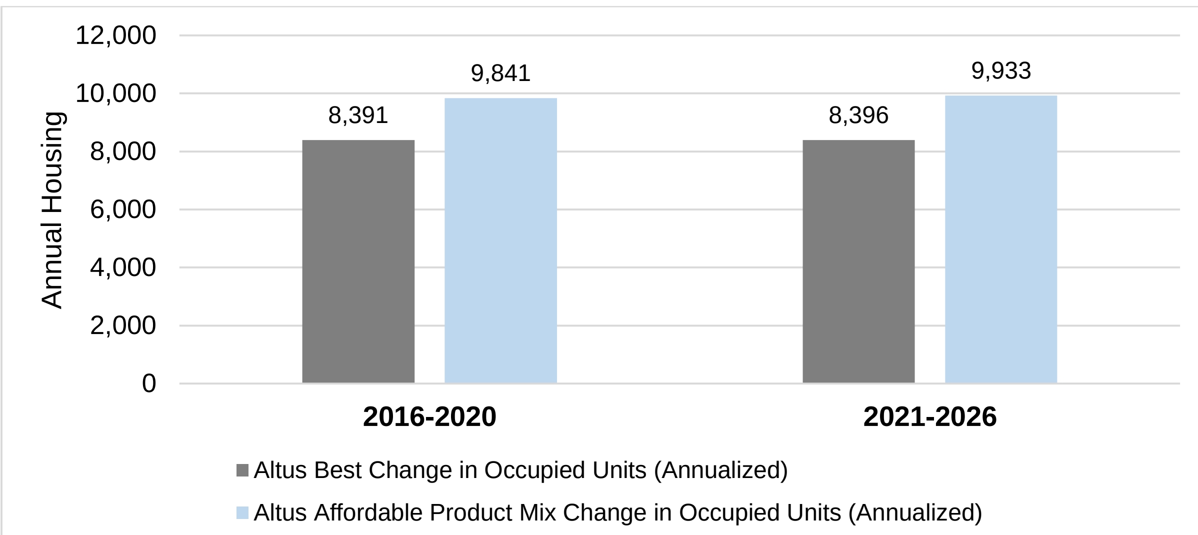

Figure 4: Comparison of Altus Best and Altus Affordable Product Mix Housing Forecasts

Bottom Line: *Altus' Affordable Product Mix scenario does expect a modest increase in new occupied units, should The City be successful in introducing a certain amount of below market price (-13%) single residential housing to the market. However, this conclusion requires that the housing be introduced at the lower price, which is subject to numerous market factors (e.g. mortgage policy, interest rates, etc.) that are beyond the control of The City. It also may not be aligned with other City policy goals, such as established area growth targets and new community intensity targets.*

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3. Summary of Available Capacity in New Communities

For a map of actively developing communities, please see Attachment 1.

The City's strategic growth work often involves discussion on current capacity to accommodate growth. Geodemographics prepares monthly and annual reporting on available capacity in new communities. Excerpts from those reports are included below to provide insight into current capacity levels.

Table 1 below displays current capacity, as of December 2017, across Calgary's 27 actively developing communities with land use approval. These units are part of an approved Outline Plan, and they have initial City services (water, sanitary, storm, transportation, emergency response). They may be unsubdivided or subdivided, as making a subdivision application is at the developer's discretion.

SECTOR	CID	COMMUNITY	SINGLE/SEMI RESIDENTIAL CAPACITY (UNITS)	MULTI RESIDENTIAL CAPACITY (UNITS)	TOTAL RESIDENTIAL CAPACITY (UNITS)
NORTH	1	Nolan Hill	158	903	1,061
	2	Sage Hill	310	5,536	5,846
	3	Sherwood	37	239	276
	4	Kincora	0	1,919	1,919
	5	Evanston	478	331	809
	6	Carrington	508	0	508
	7	Livingston	271	0	271
		Total North	**1,761**	**8,922**	**10,683**
NORTHEAST	8	Cityscape	929	1,961	2,890
	9	Saddle Ridge	1,835	1,974	3,809
	10	Skyview Ranch	16	6,321	6,337
	10	Redstone	685	1,818	2,503
	12	Cornerstone	736	997	1,733
		Total Northeast	**4,201**	**13,071**	**17,272**
EAST		-	-	-	-
SOUTHEAST	13	Copperfield	266	183	449
	14	Cranston	805	906	1,711
	15	Mahogany	2,932	3,935	6,867
	16	Seton	232	2,006	2,238
	17	Auburn Bay	91	438	529
		Total Southeast	**4,326**	**7,468**	**11,794**
SOUTH	18	Walden	913	926	1,839
	19	Legacy	1,876	947	2,823
	20	Silverado	75	0	75
	21	Belmont	0	0	0
	22	Yorkville	0	0	0
		Total South	**2,857**	**1,873**	**4,730**
WEST	23	Aspen Woods	333	293	626
	24	Crestmont	238	278	516
	25	West Springs	228	1,103	1,331
	26	Springbank Hill	149	0	149
		Total West	**948**	**1,674**	**2,622**
NORTHWEST		-	-	-	-
TOTAL		**27 communities**	**14,093**	**33,008**	**47,101**

Table 1: Serviced and Subdivided/Unsubdivided Capacity in New Communities

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A number of observations can be made about these capacity numbers:

- Four of seven new community sectors have capacity for at least 1,500 single/semi residential and 1,500 multi residential units
- Nine communities have capacity for at least 500 single/semi residential units
- 14 communities have capacity for at least 900 multi residential units
- 47 per cent of single/semi residential capacity is located in Saddle Ridge, Mahogany, and Legacy

However, there is information known about future servicing that helps add context to these numbers:

- Eight communities (Carrington, Livingston, Cornerstone, Belmont, Yorkville, Seton, Wolf Willow and Silverado) are in initial stages of development. So, despite having low capacity at this point, recent City servicing investments are expected to increase capacity in these communities in the short term.
- Ten communities (Nolan Hill, Sage Hill, Kincora, Evanston, Copperfield, Auburn Bay, Skyview Ranch, Cranston, Walden, Crestmont) have the potential to complete single/semi residential build out within 3 years.
- It is difficult to gauge the capacity statistics for the communities of Aspen Woods, West Springs, and Springbank Hill, as absorption trends are different in the West Sector, meaning current capacity is likely to last longer than it would in other sectors.

Capital and operating investments for new communities made through the 2019-2022 budget plan will add additional development capacity beyond what is displayed above.

Tables 2 and 3 show the number of additional housing units forecasted to be required in new communities for 2018-2022. It is important to note that the result of demand shown in the final column of the tables does not consider any additional servicing investments. Any investments approved would increase unit capacity in certain communities, and therefore would change the result of forecasted unit demand.

Sector	Capacity of Serviced Single/semi Residential Units with Approved Land Use	Forecasted Demand for Single/semi Residential Units	Difference
North	1,761	4,100	(2,339)
Northeast	4,201	3,870	331
East	0	170	(170)
Southeast	4,326	4,710	(384)
South	2,857	3,050	(193)
West	948	800	148
Northwest	0	0	0
	14,093	**16,700**	**(2,607)**

Table 2: Capacity and Forecasted Demand for Single Residential by Market Sector, 2018-2022

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Sector	Capacity of Serviced Multi Residential Units with Approved Land Use	Forecasted Demand for Multi Residential Units	Difference
North	8,922	2,190	6,732
Northeast	13,071	1,850	11,221
East	0	0	0
Southeast	7,468	2,200	5,268
South	1,873	1,470	403
West	1,674	340	1,334
Northwest	0	0	0
	33,008	**8,050**	**24,958**

Table 3: Capacity and Forecasted Demand for Multi Residential by Market Sector, 2018-2022

Conclusion: *There is currently a balanced level of single/semi residential capacity and choice among actively developing communities. However, there are a number of communities that may complete their single/semi residential build out within the next budget cycle (2019-2022). These completions will be partially offset by expected additional capacity in new communities in the Keystone Hills ASP, the West Macleod ASP, and the Cornerstone ASP, as well as any capacity initiated through the next budget cycle. The City will need to monitor both the capacity and the number of actively developing communities to ensure that there remains sufficient choice and competition in the market. Finally, capacity levels for multi residential units remain well in surplus of expected demand.*

The above is likely true if growth trends towards The City's forecasted levels. If growth begins to trend toward to the higher levels forecasted by Altus, communities will complete their single/semi residential capacity more quickly, increasing the need to initiate capacity in order to maintain a balanced market.