

ADMINISTRATIVE REPORT

TO: City Planning Committee
FROM: Administration
DATE: May 6, 2024
RE: Official Community Plan Amendment – Maximum Building Heights in Mixed – Use Downtown Core

ISSUE

An Official Community Plan (OCP) amendment to increase the maximum building height in the Mixed-Use Downtown Core designation to 40 m.

REFERENCE

- [Whitehorse 2040 Official Community Plan](#)
- [Accommodating Future Residential Demand in Whitehorse](#)
- [Zoning Bylaw 2012-20](#)
- [Sustainability Plan \(2015\)](#)
- [National Building Code of Canada](#)
- [Council Motion 2024-03-09 Building Height Maximum](#)
- [Whitehorse 2040 Official Community Plan – Phase 3B Engagement Summary](#)
- [Zoning Bylaw Rewrite - Round 1 Engagement Summary](#)
- [2021 Downtown Development Capacity Assessment](#)
- Location Map – Downtown Land Use Designations (Attachment 1)
- Example Shadow Impact (Attachment 2)
- Proposed Bylaw 2024-26 (Attachment 3)

HISTORY

At the February 12, 2024 Regular Council meeting, Council passed Motion 2024-03-09 to direct Administration to bring an Official Community Plan (OCP) amendment forward under the bylaw process to replace Section 15.8.7 of the OCP with the following wording “The maximum building height allowed in the Mixed Use – Downtown Core designation will be 40 metres.”

Administration has received multiple letters of support and opposition to this motion. If the proposal were to pass First Reading, Administration will send the proposed bylaw to the letter senders to advise that the public hearing process has now opened and that, if they wish to comment on the bylaw, they will need to resubmit their letter.

On April 4 and April 24, 2024, the proposed amendment by Council was reviewed by the Development Review Committee (DRC). The DRC raised several concerns regarding the proposed amendment:

- The OCP does not specify where within the designation the increased height will be permitted;
- The OCP lacks clear guidelines to assess the shadow and wind impacts of tall buildings when reviewing development permit applications;
- Parks and public spaces should be protected from excessive shadowing, especially in Downtown South;

- Municipal infrastructure and fire protective services may not have the capacity to support increased density;
- Tall building developments may not have the ability to provide sufficient parking; and
- Due to the impacts of tall buildings, the OCP should require community benefits to offset the increased height.

If the proposal were to pass First Reading, the schedule for the OCP amendment is as follows:

Planning Committee:	May 6, 2024
First Reading:	May 13, 2024
Newspaper Ads:	May 17 and May 24, 2024
Public Hearing:	June 10, 2024
Report to Committee:	July 2, 2024
Second Reading:	July 8, 2024
Ministerial Review:	August 30, 2024, (assuming a full 45-day review period)
Third Reading:	September 9, 2024

ALTERNATIVES

1. Proceed with the proposed OCP amendment under the bylaw process; or
2. Do not proceed with the proposed OCP amendment under the bylaw process.

ANALYSIS

Official Community Plan

The Mixed-Use Downtown Core area (see Attachment 1) is intended to be the heart of the community and accommodate a range of opportunities to live, work, learn, and play in an aesthetically pleasing environment that reflects the community's heritage and encourages interaction between private and public spaces (OCP Policy 15.8).

Tall buildings of up to 40 m (approximately 12 storeys) are not contrary to the intent of this designation. The proposed amendment also aligns with OCP Policies 8.1, 8.32, and 8.35, which encourage compact development, and in particular, high-density development in the Downtown, which may be achieved by increasing building heights in certain areas. The proposed amendment supports compact, high-density development, optimizes public service use, and could protect the wilderness by focusing development within the Downtown. The proposed amendment would not change the maximum 20 m building height along Main Street east of Fourth Avenue as OCP Policy 15.8.13 would still apply to these areas.

The OCP Growth Strategy used Whitehorse's estimated average household size and Yukon Bureau of Statistics' (YBS) 2019 preferred population growth projections to identify that 6,150 additional dwellings units would be required by 2040 to accommodate Whitehorse's population growth, which at 2.4 people per household, would be 14,760 people.

The OCP provides development opportunities for this growth projection and over 25% in contingency, totalling 7,360 additional residential units. This would provide enough units to accommodate an additional 17,664 people.

YBS revised their preferred population growth projection in May 2024. The estimated population of Whitehorse is now expected to grow to 46,110 people by 2040. The OCP accommodates growth for 47,189 people.

Zoning Bylaw

The maximum height currently allowed within the Mixed-Use Downtown Core designation is up to 25 m within some areas of the designation. As previously noted, concern was expressed by DRC about where buildings up to 40 m would be permitted, particularly concerning other areas within the Downtown that have smaller maximum building heights, such as Residential – Old Town designation (10 m) and Public Waterfront zone (10 m). The additional height could also impact lands within the Downtown Core designation, including parks, schools, and other buildings.

It is also noted that the Zoning Bylaw does not have requirements around providing a minimum amount of market or non-market (affordable) housing within Downtown developments. Increased heights would therefore not necessarily result in market or non-market housing being provided on a site. For example, an office building up to 40 m could be developed.

Previous Engagement on Downtown Building Heights

Community feedback on the draft OCP in summer 2022, specifically on raising the maximum building height to 32.5 m within the Downtown Core, revealed that 62% of the 376 respondents considered this height too tall (24% a bit too high, 38% way too high). Informed by public input, Administration recommended, and Council approved the OCP, to limit building height in the Downtown Core designation to 25 m, noting buildings up to 30 m could be considered. The proposed maximum building height significantly exceeds the height that a majority of respondents felt was too high.

In the Round 1 Engagement of the Zoning Bylaw Rewrite, survey respondents were asked about their level of support for allowing taller buildings in the downtown area and/or near public transit hubs. The majority (60%) supported this measure (22% supporting, 38% strongly supporting). However, it is important to note that this question was asked in the context of the existing OCP maximum height of 30 m and should not be assumed that respondents are necessarily supportive of height beyond that.

Sustainability Plan

A goal of the Sustainability Plan is a strong downtown and livable neighbourhoods. As part of this goal, the City set a target of increasing downtown population by 10% by 2020, 20% by 2030, and 40% by 2050. A 40% increase in the Downtown population from 2015 (2,836 people) would be approximately 4,000 residents in 2050 or 1,134 additional people.

In 2023, there were 3,173 residents in Downtown, representing an 11% growth.¹ This is above the 2020 target set in the Sustainability Plan. In addition, a 2021 Downtown Development Capacity Assessment found that there were approximately 100 lots within Downtown with high development potential (vacant and uncontaminated). These 100 lots were estimated to be able to accommodate approximately 900 dwelling units (or 2,160 people). This is well above the 2040 target set in the Sustainability Plan.

¹ Government of Yukon (Yukon Bureau of Statistics), Community Statistics, Population estimates by age and sex: <https://arcg.is/0CGOCf1>

The Sustainability Plan also set targets to reduce per capita and total Green House Gas (GHG) emissions within Whitehorse. Taller buildings generally produce higher GHG emissions in their construction and may be more or less energy efficient to operate than smaller buildings depending on their design. On the other hand, denser developments typically reduce the duration and overall number of vehicular trips and support active transportation and transit.

National Building Code Requirements for High Buildings

Section 3.2.6. of the National Building Code (NBC) of Canada requires additional features for buildings over 36 m, dependant on occupant loads. These regulations add to the development costs of tall buildings. A maximum permitted building height set too close to the height that triggers additional construction costs may not incentivize developers to construct taller buildings if the increased costs to meet the additional requirements are not offset by the revenue generated by the extra floor area. It is unclear if the additional 4 m (from 36 m to 40 m), or one more storey, would be enough to offset the costs associated with meeting the additional NBC requirements.

Wind and Shadow Impacts

Tall buildings can significantly impact wind flow in urban environments, leading to a wind tunnel effect. This effect is characterized by the acceleration of wind speed when the wind is funnelled between closely spaced tall buildings and deflected downward towards street level. Complex patterns of eddies and turbulence can be created when wind interacts with tall buildings.

Shadows

Tall buildings can also have shadowing impacts on the surrounding neighbourhood, especially in our northern context. This is not unique to buildings taller than 30 m, as taller buildings can increase both the duration of shadow and the total area covered by shadows.

Administration completed a shadow analysis to illustrate the different shadow impacts of 25, 30, 35, and 40 m buildings within the Downtown Core (see Attachment 2). Taller buildings do cast longer shadows, having the potential to have farther reaching impacts. However, the shadow impacts of buildings over 30, 35, and 40 m do not appear to be significantly larger than those of 25 m buildings during the spring, fall and summer months. However, in the months around the winter solstice in late December, shadow differences may be significant, when sunlight is present. A 10 m increase in height can result in an additional 100 m of shadow distance, equivalent to about one north-south city block. Approximately half of the days on average in November, December, and January do not have any measurable amount of sunshine in Whitehorse due to prevalent overcast conditions. Therefore, in winter the shadow impact is not anticipated to be significant.

Some of the impacts of wind and shadowing could be mitigated through design guidelines and regulations that influence building orientation, placement, shape, and design.

Summary

Overall, even with updated projections from YBS indicating higher than anticipated growth rates over that used in the OCP, the resulting population growth should still be accommodated by the development opportunities provided for in the OCP. Further,

community feedback on building heights has not appeared to have changed. Finally, it should be noted that increased building heights also may not directly result in additional residential units. Administration therefore recommends the proposed amendment does not proceed under the bylaw process

If the proposed amendment was to proceed under the bylaw process, Administration recommends including development guidelines to address wind and shadow impacts.

If Council were to approve the proposed OCP amendment, the new maximum building height would be implemented through the Zoning Bylaw Rewrite process.

ADMINISTRATIVE RECOMMENDATION

THAT Council direct that Bylaw 2024-26, a bylaw to amend the Official Community Plan to increase the maximum building height in the Mixed-use Downtown Core designation to 40 m, not proceed under the bylaw process.