
Cultural Heritage Impact Statement

1110 Fisher Avenue, Ottawa, ON



Prepared by: Julie Harris, Contentworks Inc., 22 October 2019

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Introduction

About the CHIS

The City of Ottawa has requested a Cultural Heritage Impact Statement (CHIS) to consider potential impacts of a proposed development adjacent to the Central Experimental Farm (CEF), a National Historic Site of Canada that is identified as a separate Designation and Land Use in the City of Ottawa's *Official Plan*. Section 3.4 (4) of the *Official Plan* includes the policy that:

Proponents of development proposals or public works in or adjacent to the Central Experimental Farm are required to prepare a cultural heritage impact statement as described in Section 4.6.1. Reference to the Commemorative Integrity Statement prepared by Parks Canada will ensure that the proposed development does not compromise the characteristics that represent and contribute to the Central Experimental Farm's heritage value.

The project at 1110 Fisher Avenue involves the construction of a new ten-storey (including penthouse) residential development. The building will contain a total of 62 units, plus amenities including a gym, bicycle parking, and tenant storage lockers. The building will also contain three levels of below-ground parking. Previous development concepts for the same property include a seven-storey residential complex that was the subject of a Heritage Impact Study, January 2013, and a set of nine four-storey townhouses considered in 2014-5.

The CHIS for the project adjacent to the CEF is authored by Julie Harris¹, CAHP, on behalf of the property owner.

Planning Application

The current zoning of the property is R3A (2229). A New Zoning Amendment application for R5 Zoning was submitted May 21st, 2019. A previous development plan (2014) is no longer being pursued for the property.

About the CEF National Historic Site of Canada

The Central Experimental Farm is a large National Historic Site of Canada of about 4 square kilometres owned by the Government of Canada. Its heritage attributes are spread out across the property and include shelterbelts, historic buildings, views, plantings, gardens, circulation systems and farm fields. The only attributes that have potential to be impacted, as discussed in this CHIS, are views across the fields and the use of the fields for science. The closest attribute, other than farm fields, is the south end of the shelterbelt along Fisher Avenue. It is located 140 metres away from the subject property. All other attributes, such as the Main Dairy Barn or ornamental gardens, are located at least a few hundred metres away.

The critical issue is that the conservation of some of its most important heritage attributes, especially the Farm's fields, depends on the continuing operation of the Farm as a scientific research facility. If fields were to lie fallow or be converted into commercial farming operations, the landscape would change. For this reason, this CHIS is concerned with impacts on scientific activities, as well as features of the physical

¹ Julie Harris, President, Contentworks Inc., is a Professional Member of the Canadian Association of Heritage Professionals. She has over 30 years of experience in heritage evaluation and historical research. She has been qualified as a witness in the field of heritage evaluation for the purposes of an OMB; served as a provincial appointee to the Conservation Review Board of Ontario; and conducted architectural histories for hundreds of buildings and landscapes for various government clients in Ontario and other parts of Canada. She was the historian for the study of the Central Experimental Farm that served for its evaluation as a National Historic Site of Canada and was a co-author of the Central Experimental Farm Management Plan with Julian Smith & Associates. E: jharris@contentworks.ca

place. Threats to activities can include shadowing of fields from tall buildings, increased traffic (pedestrians, cyclists, dogs and vehicles) cutting through the farm, complaints about noise, smells, dust and specific crops (eg. genetically modified plants) by the general public and nearby residents. CEF scientists can often adapt their experiments to changes caused by new wind patterns and additional heat islands resulting from development around the Farm, but public behaviour is more difficult to address.

Sources

The following information sources were used to prepare the CHIS for 1110 Fisher Avenue:

- Paterson Group Geotechnical Investigation (PG3565-LET.01 Revision 1) – 10 May 2019.
- 1110 Fisher Avenue Development Cultural Heritage Impact Statement, ARC Associates, January 2013.
- Shadow studies [2019].
- Architectural drawings and site plan prepared for Prestige Design + Construction by ARC Associates, 8 May 2019
- Previous site plan prepared for Prestige Design + Construction by ARC Associates, September 2014
- Statement of Significance for the Central Experimental Farm National Historic Site of Canada, online at: www.historicplaces.ca/en/rep-reg/place-lieu.aspx?id=13811&pid=0.
- 966 Fisher Avenue, Planning Rationale, 23 April 2014 [for properties to the north of the subject property]

The consultant conducted a site visit on 16 May 2019.

Present Owner and Contact Information

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Ottawa, ON K2G 5X8
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Development Site and Site History

The legal description of the property parcel is PIN 040450016. The property is a flat site with approximately 32 m of frontage along Fisher Avenue and a depth of about 46 m on the south side and about 50 m on the north side, owing to the angle at which the property sits on Fisher Avenue (total area 1,518.5 sq. m.) The property's south and west boundaries are immediately adjacent to the property belonging to Turnbull School (a private elementary school at 1132 Fisher Avenue), and the north boundary is adjacent to the back yards of a set of private homes on Trent Street. The subject property is zoned R2F with the current Zoning By-law 2008-250 Consolidation. The former Ottawa Zoning By-law, 1998, consolidated to July 2003, zoned the property as R2A.

The property consists of a cleared parcel that was formerly part of one of the small farms that once stretched along Fisher west of the Central Experimental Farm prior to post-war development began to fill in most of the neighbourhood to the north and then later, to the west and south. The farmhouse is no longer extant.

The subject property faces east towards fields of the Central Experimental Farm that were originally part of the Booth Farm but integrated into the experimental farm in 1928. For many years the field was known as Field #3.



Figure 1: Subject site (PIN 040450016) located at 1110 Fisher Avenue, as shown on the City of Ottawa GeoOttawa mapping tool.



Figure 2: Subject site at 1110 Fisher Avenue. Source: Contentworks, 16 May 2019.



Figure 3: Aerial view of the area near the development site, 1928, with an arrow showing the location of the subject property. All of the land to the east remains within the boundaries of the Central Experimental Farm. Source: GeoOttawa.



Figure 4: Aerial view of the area near the development site, 1958, with an arrow showing the location of the subject property. All of the land to the east remains within the boundaries of the Central Experimental Farm. Source: GeoOttawa.

1 Description of Context

Subject Property – 1110 Fisher Avenue

The subject property is an empty lot of 1,518.5 sq. m. located across Fisher Avenue from the Central Experimental Farm National Historic Site of Canada.

Surroundings and Streetscape

The property is located on the west side of Fisher Avenue; the Central Experimental Farm extends the full length of the east side of Fisher Avenue from Baseline Road north to Carling Avenue, with a narrow strip along the east side of Fisher reserved for a multi-use path. The west side of Fisher includes tall 22-storey residential towers at 1140 Fisher Avenue (two lots to the south of the subject property) constructed in the early 1970s and the one-storey Turnbull School (a private elementary school) at 1132 Fisher Avenue, immediately to the south of the subject property, constructed in the 1990s. Further north, most of the lots are occupied by single family homes that date from the early post war period. An application has been submitted to the City for 966 to 974 Fisher Avenue to build two three-story apartment buildings.

With the notable exception of the Central Experimental Farm, there are no formally identified municipal or federal heritage properties in the vicinity of the subject property.²



Figure 5: 3D (looking northwest) adjusted Google view of the area near the development site, 2019, with an arrow showing the location of the subject property. Source: Google Maps, accessed July 8, 2019.

² Review on 16 May 2019 of the list of Individual Designations for the City of Ottawa at <https://ottawa.ca/en/city-hall/planning-and-development/heritage-conservation/individual-designation#individual-designation-list-properties> and the Historic Places of Canada database at www.historicplaces.ca.



Figure 6: Apartment towers, 1140 Fisher Avenue, two lots south of the subject property. These 22-storey towers were built almost two decades before the designation of the Central Experimental Farm as a National Historic Site of Canada in 1997. Source: Contentworks, 16 May 2019.



Figure 7: View west towards the site, 2012, from Ash Lane on the Central experimental Farm. The view is unchanged in 2019. The new building will be about half the height of the towers visible in the photo. Source: Google Maps, accessed July 8, 2019.



Figure 8: Surrounding area near 1110 Fisher Avenue, south of Trent Street. Source: Google Maps, 2019.

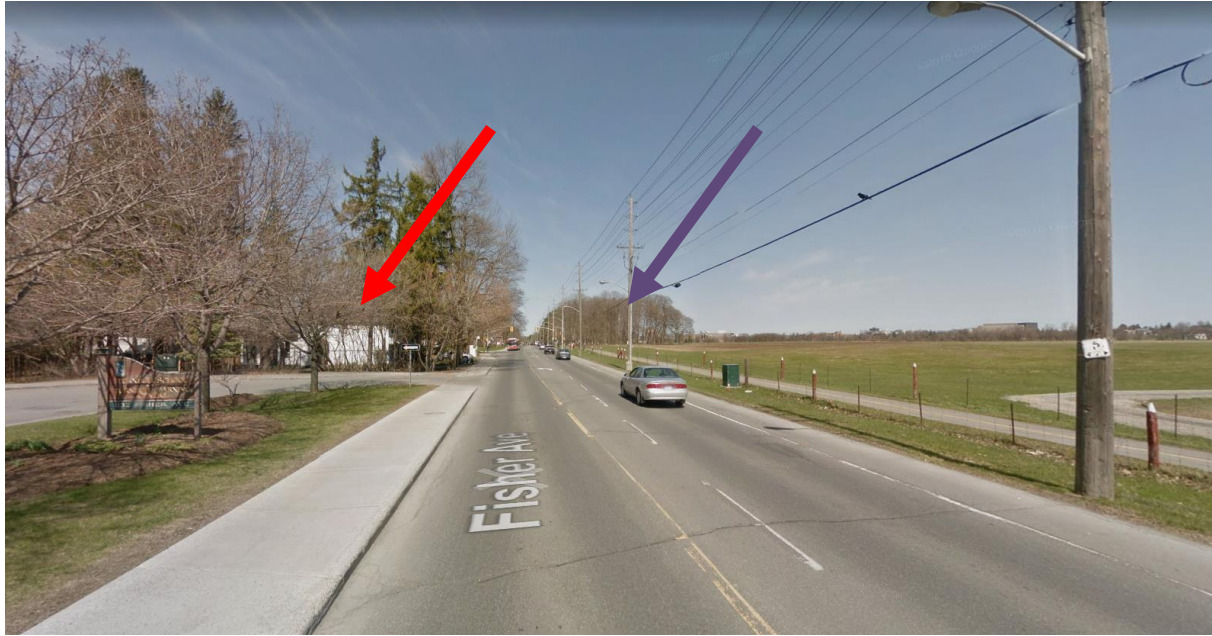


Figure 9: Looking north along Fisher Avenue, 2012. This view was chosen because more of the street is visible when the trees are without leaves. The white house (red arrow) on the subject property (arrow) at 1110 Fisher Avenue has been demolished. The closest shelterbelts on the CEF are located at the purple arrow. Source: Google Maps, 2012, accessed July 8th, 2019.



Figure 10: Looking south along Fisher Avenue, July 2018, with the subject property at 1110 Fisher Avenue on the right. Source: Google Maps, July 2018, accessed July 8th, 2019.

2 Relevant Information from Council Approved Documents

Heritage Values of the Central Experimental Farm

The CHIS is concerned with the impact of the proposed development on the heritage value of the Central Experimental Farm National Historic Site of Canada. The Farm is identified in the City of Ottawa's Official Plan as a heritage property. Owned by the Government of Canada, the Farm was recognized as a National Historic Site in 1997 and contains several Federal Heritage Buildings. Two documents outline the heritage value of the Central Experimental Farm and guide its heritage conservation – the Commemorative Integrity Statement (CIS) and the Statement of Significance (SOS). The most succinct document is the Statement of Significance, which is reproduced in this CHIS as Appendix A, but Section 3.3 (4) of the Official Plan asks the CHIS to address the Commemorative Integrity Statement (CIS). Pertinent sections of the CIS are included in the CHIS as Appendix B.

The summary of the heritage value of the CEF, as stated in the SOS is:

The Central Experimental Farm was designated a national historic site of Canada in 1997 because:

- as a cultural landscape, the more than 400-hectare farm in the heart of the Nation's Capital reflects the 19th-century philosophy of agriculture and carefully integrates an administrative core and a range of other buildings with arboretum, ornamental gardens, display beds and experimental fields in a picturesque composition;
- since its establishment in 1886, the farm has made significant scientific contributions to agriculture in Canada by uniting scientific experimentation with practical verification, as exemplified by the development of the hardy strains of wheat that were so influential in expanding Western Canadian agriculture;
- a rare example of a farm within a city, the Central Experimental Farm has become a symbol of the central role agriculture has played in shaping the country.

Directly Affected Cultural Heritage Attributes

The CIS and SOS for the Central Experimental Farm National Historic Site of Canada organize the cultural landscape into three parts:

- a central core of administrative, scientific, and functional farm buildings and spaces;
- the experimental fields, plots, and shelterbelts; and
- the arboretum, ornamental gardens and experimental hedges.

The part of the CEF that could be impacted by a development on Fisher Avenue north of Trent Street is the experimental fields, plots and shelterbelts.

The CIS states that:

The designated place will be unimpaired and not under threat when:

- the present boundaries and spatial balance of the Farm, which enhance understanding of the historic and on-going agricultural research function, are safeguarded and maintained;
- the surviving 19th century landscape plan, including the core administration, scientific and farm buildings, plus the arboretum, lawns, ornamental gardens and display beds, experimental fields,

plots and shelterbelts, and circulation patterns set in a Picturesque composition, is safeguarded and maintained in accordance with recognized heritage conservation principles;

- a sufficiently large area to carry out and support the scientific research function is maintained;
- the character of a “farm” as defined by fields, utilitarian buildings and circulation patterns is recognized; and
- the “farm within a city” remains sufficiently large to provide a contrast to the scale of urban development.

The CIS and SOS also recognize that: “The Farm is now bounded on three sides by urban development, characterized by major roadways carrying high volumes of traffic, and mature residential and institutional areas.” As recognized in the CIS and SOS, development within the urban areas outside the boundaries of the CEF is not necessarily a threat to the heritage value or integrity of the CEF as a historic place.

Views outward from the CEF are not identified as character defining attributes but they are important because they create a sense of place and an understanding of the unique environment of a farm within a city. While views to urban forms are not in and of themselves a concern, some changes to views can confuse an appreciation of the boundaries of the CEF. The shelterbelt plantings along Fisher Avenue, for example, have value as historic plantings. Developments that rise above the shelterbelts may threaten perceptions about the scale of the shelterbelts and their position as edge markers from views within the CEF. The proposed project does not face shelterbelts, however. It faces fields.

For reasons besides shadowing and altering views, all development near the CEF that brings more people into the area can challenge conservation efforts related to preserving the CEF. Examples taken from previous discussions with CEF scientists at public events have raised issues related to increased traffic that makes it more difficult for research personnel to access experimental plots, complaints from cyclists and others about manure on paths, human and pet incursions on farm fields that damage research experiments. The conservation of the CEF and the protection of its character-defining elements requires active management and education efforts to reduce the unintended consequences of activities that may seem harmless in other environments.

Standards and Guidelines for the Conservation of Historic Places in Canada

The City requires a CHIS to consider the impacts of a proposed intervention to a heritage property in the context of the *Standards and Guidelines for the Conservation of Historic Places in Canada* (hereafter cited as *Standards and Guidelines*.) The *Standards and Guidelines* include process steps, treatment categories, and general and specific guidelines to conserve the attributes³ of heritage resources. The proposed project is considered in the context of its potential to affect the preservation of heritage attributes of the historic place, including farm fields, through impacts on the cultural landscape’s heritage value and physical attributes. The *Standards and Guidelines* divide physical attributes into several categories, such as Land Patterns, Visual Relationships, Water Features, etc. The most relevant categories are Evidence of Land Uses (section 4.1.1 of the *Standards and Guidelines*) and Visual Relationships (section 4.1.5).

The most pertinent guidelines for examining the impact of the proposed development from Section 4.1.1 on Evidence of Land Use are:

- Documenting all interventions that affect land use and ensuring that this documentation will be available to those responsible for future interventions.
- Not introducing a new feature that is incompatible in function with the past or continuing land use.

³ Heritage attributes is the term used under the *Ontario Heritage Act*; the *Standards and Guidelines* use character-defining elements.

The most pertinent guidelines for examining the impact of the proposed development from Section 4.1.5 on Visual Relationships are:

- Documenting the visual relationships in the cultural landscape
- Protecting and maintaining the features that define visual relationships

Since the city has long surrounded the Farm, views of the fields from key vantage points, such as along Baseline Road, Carling Avenue, Prince of Wales Drive and Fisher Avenue, and the fields themselves as landscape elements will not change with new development on Fisher Avenue. The key issue when considering conservation steps is any mitigation or conservation measures that should be considered to retain evidence of land use, specifically the use of the entire CEF as an historic scientific landscape with Picturesque elements and with extensive farm fields.

3 Description of Heritage Resources

Central Experimental Farm National Historic Site of Canada

The Central Experimental Farm National Historic Site of Canada (CEF) is identified in the City of Ottawa's Official Plan as a heritage property. Owned by the Government of Canada, it was recognized as a National Historic Site in 1997 and contains several Federal Heritage Buildings. Two documents guide the heritage conservation of the CEF – the Statement of Significance (SOS) and the Commemorative Integrity Statement (CIS). The most succinct document is the SOS, which is reproduced in this CHIS as Appendix A. The CIS, selections of which are included in Appendix B, is focused on the actions that Parks Canada and the owner can take to protect the site's heritage value.

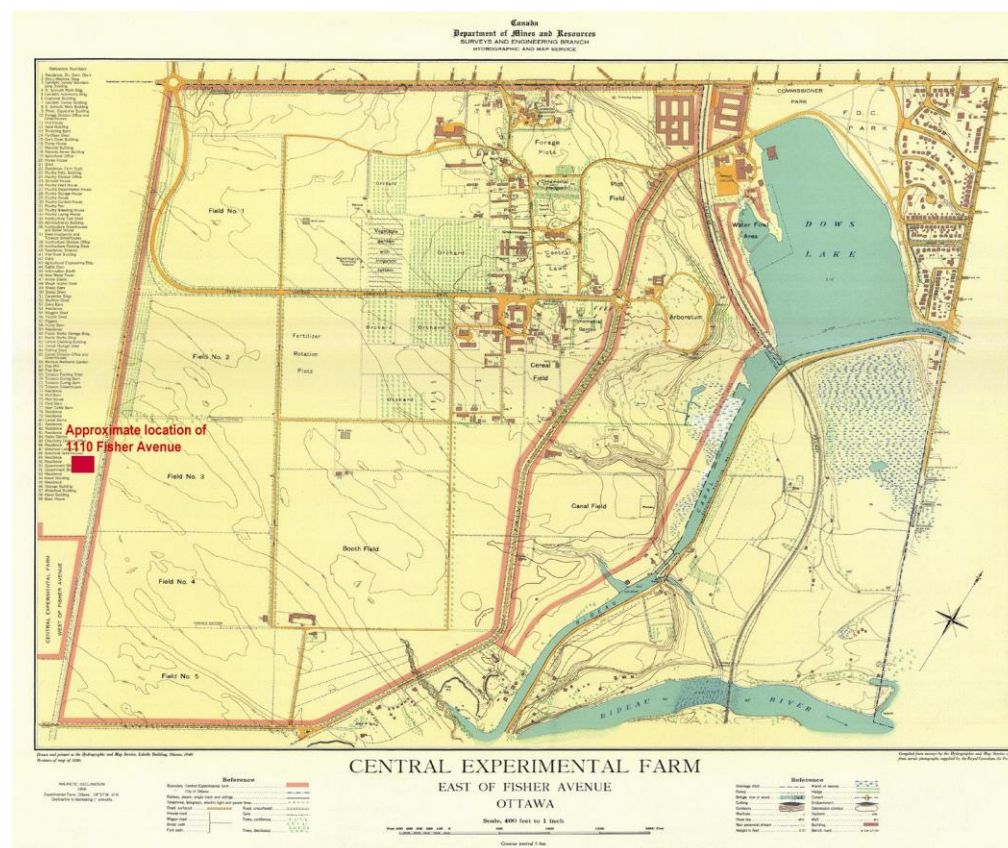


Figure 11: Map of the central section of the Central Experimental Farm, 1946. Source: Contentworks files on the Central Experimental Farm, with annotation by Contentworks.

The CHIS examines the potential impact of the proposed development at 1110 Fisher Avenue on the heritage attributes of the CEF, as per the SOS for the CEF and its related document, the CIS. The key elements contributing to the heritage value of the Farm, as articulated in the SOS, include:

- its location in the urban centre of Ottawa, encompassing a variety of soil types, cleared fields, and various buildings;
- its pastoral appearance, as well as the orderliness and neatness critical to the Farm's scientific pursuits;
- its plan, made up of three clearly defined zones: the central core of the functional farm, science and administration buildings;
- the experimental fields and plots with their bordering shelterbelts; and the arboretum, ornamental gardens and experimental hedges;
- the buildings, which illustrate the Picturesque character with their compatible scale, varied volumes and silhouettes.

The zone containing the experimental fields and plots with their bordering shelterbelts is directly adjacent to the subject property and proposed development. The key heritage elements of this zone are:

- the orderly organization of the fields based on a grid system reinforced by a regular system of roadways and access lanes, and distinctive internal fencing of red "pencil posts" with white tops;
- the open cultivated fields, with their variable sizes, colours, textures and seasonal variations;
- the relationship between the open fields and the heavily screened Driveway with its parkway characteristics of curbs and streetlights, which emphasize the integration of a farm within a city;
- the shelterbelts, made up of hardy trees which protect the fields;
- the core brick-clad science and administration buildings;
- the views including the view from the corner of Baseline and Fisher, the view southwest from Carling Avenue across the fields, the framed view looking east from Fisher along Cow Lane; and the view from any point along the periphery into the open fields.

4 Proposed Development

The development application including a New Zoning amendment application for change from R3 (maximum height of 14 m) to R5 Zoning and permission to construct a 10-storey residential building (ground floor, eight full floors and one penthouse level) with three floors of parking underground. The proposed building will have a front yard setback of 6.76 m (above the 3 m required) after the City takes the road allowance.

Overall Plan and Design

The proposed project at 1110 Fisher Avenue consists of a ten-storey (including mechanical penthouse and roof amenities) residential building with a total of 62 living units. The ground floor of the new building will include amenity spaces for the residents. The total height is 31.42 m. The building has a square footprint with cut-ins at each corner to allow for additional window space at each corner. The building is clad in brown brick and artificial stone with artificial stone detailing for spandrels, window lintels and cornices. The windows are glazed in clear glass and set in dark bronze frames.

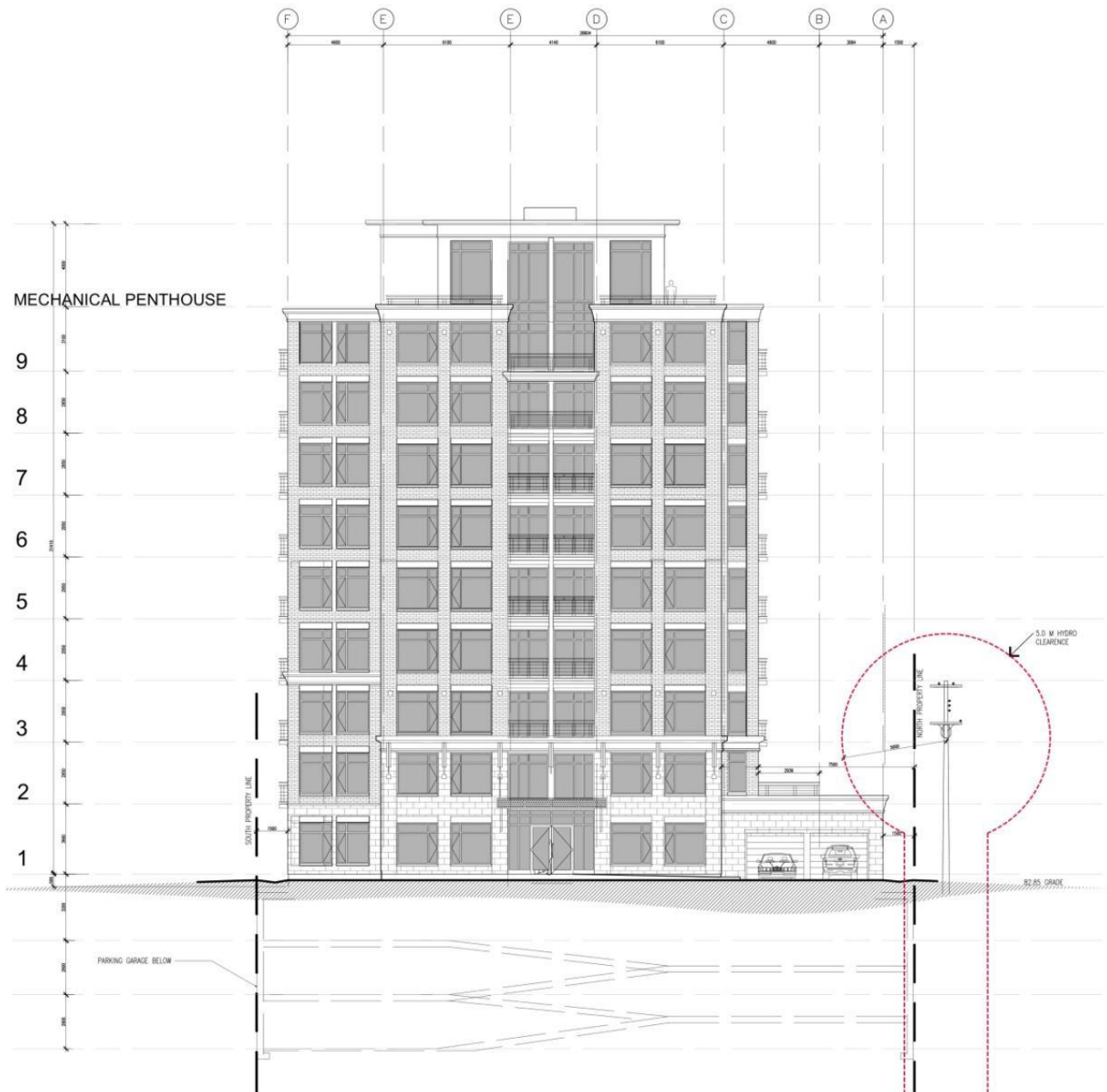


Figure 12: Elevation drawing of the east (main) elevation of 1110 Fisher Avenue. Source: ARC Associates, 8 May 2019.

The upper storeys sit on a ground floor podium that has a larger footprint than the main tower block. In its overall architectural style and detailing, the building is strongly reminiscent of early 20th century apartment buildings and public buildings found in Ottawa's central neighbourhoods, but it retains a very contemporary appearance in the handling of windows, balconies and the broad podium level.

The main (east) elevation is divided into five bays. The centre bay will house the main entrance on the ground floor, and balconies for the two east-facing units on each of the second through ninth storeys. The bays will be articulated in brown brick. The west elevation will be similarly divided, with the addition of one balcony to the ground floor unit in the northwest corner of the building. The south elevation has one

centre bay that accommodates the balconies from the second through ninth storeys, as well as one balcony and a back door in the centre bay on the ground floor, and a row of three windows for the ground floor unit at the northwest corner of the building.

The main entrance to the building will be accentuated by a cornice running between the second and third storeys. The single-storey entrance to the underground parking at the northeast corner of the building will also have a cornice along its roof line, which will wrap around the north elevation to the roof line of the single-storey ground floor unit at the northwest corner of the building.

The ground level of the building will include a lobby, amenity spaces, and six living units, as well as a stairwell and elevators.

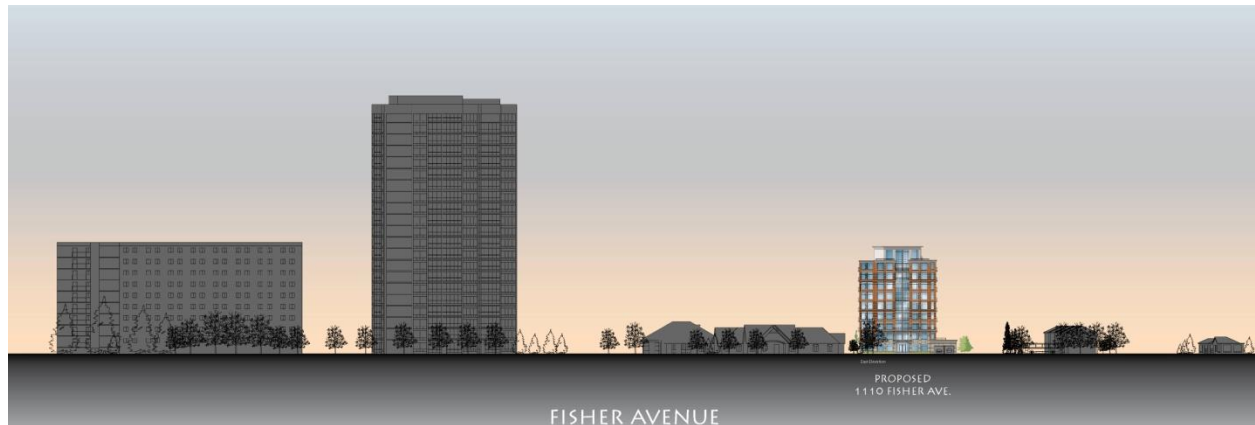


Figure 13: Schematic view of the streetscape (west side) of Fisher Avenue with the proposed development in context. Source: ARC Associates, 16 May 2019.



Figure 14: East (facing the Central Experimental Farm) and north elevations of the project at 1110 Fisher Avenue. Source: ARC Associates, 16 May 2019.



Figure 15: West and south elevations of the project at 1110 Fisher Avenue. Source: ARC Associates, 16 May 2019.

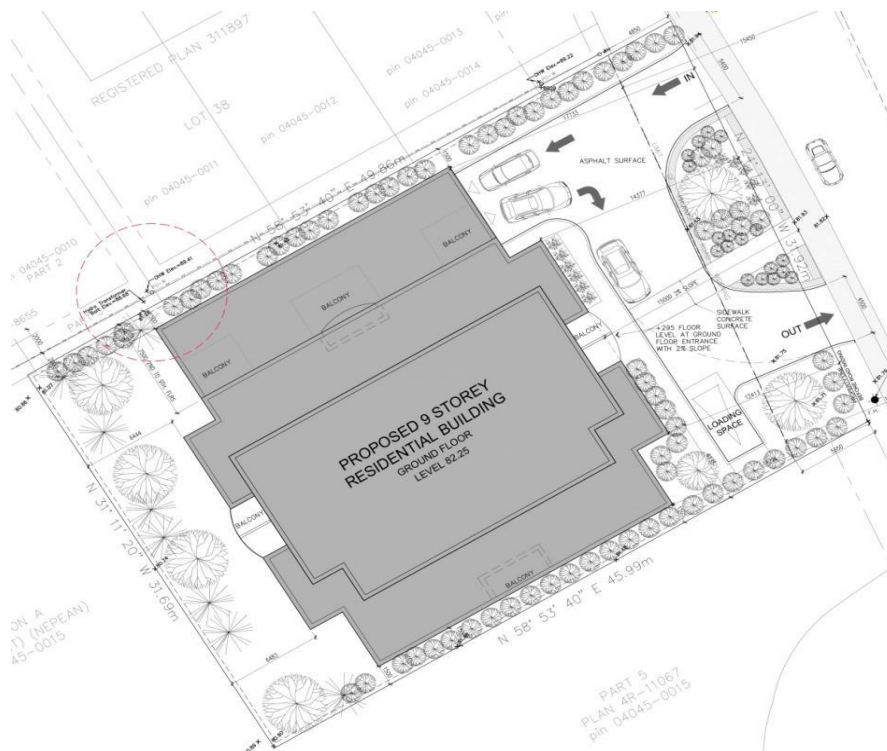


Figure 16: Site plan for 1110 Fisher Avenue. Source: ARC Associates, 8 May 2019.

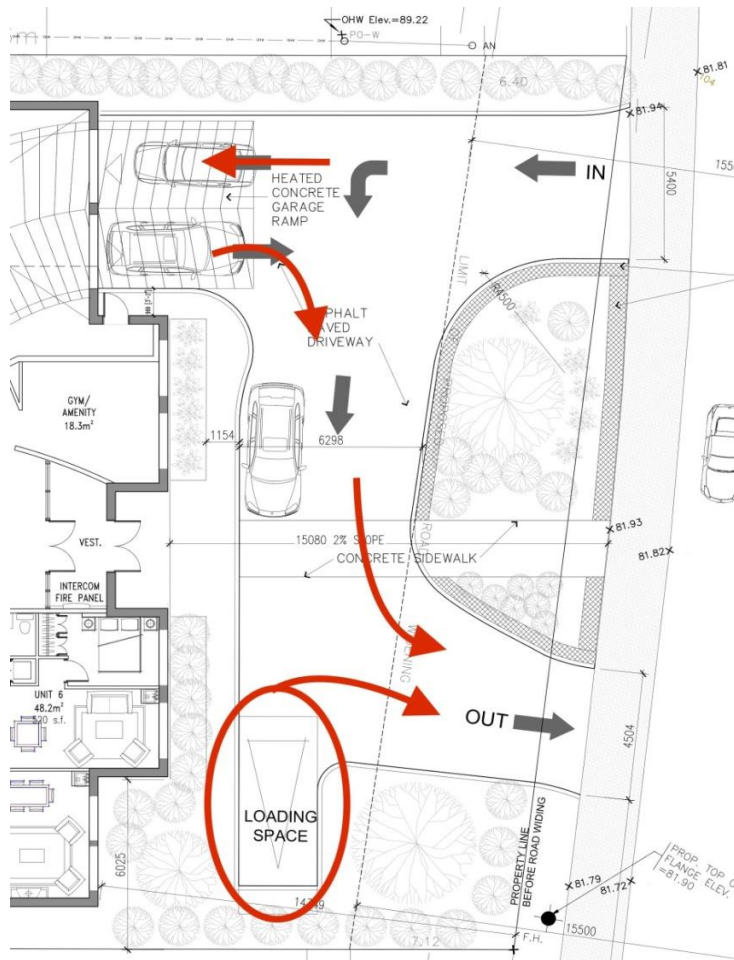


Figure 17: Site plan showing the loading space in front of the main entrance of the building (east elevation), as well as intended circulation through the driveway and in and out of the underground parking. Source: ARC Associates, 8 May 2019, annotated by Contentworks.

Parking and Circulation

The project includes 65 parking spaces across three levels of underground parking, plus one ground level parking spot for loading. Three handicapped parking spaces will be included in the underground parking. The entrance to and exit from the underground parking will be at ground level to the north of the main entrance, facing Fisher Avenue to the east.

There is a semi-circular driveway in front of the building, off Fisher Avenue. Cars will enter the driveway at the northeast corner of the lot, and can either continue straight into the underground parking, or veer left, passing the main entrance before exiting again at the southeast corner of the lot.

Landscaping and Grounds

The entrance to the building will be located on Fisher Avenue. The site plan allows for small beds to be planted along the east elevation on either side of the main doors and the entrance to the underground parking. There is also space for trees and shrubbery between the loading parking spot and Fisher Avenue (approximately 40 sq. m.), and in the island that separates the driveway from Fisher Avenue, on either side of the pathway leading to the front door (approximately 84 sq. m.).

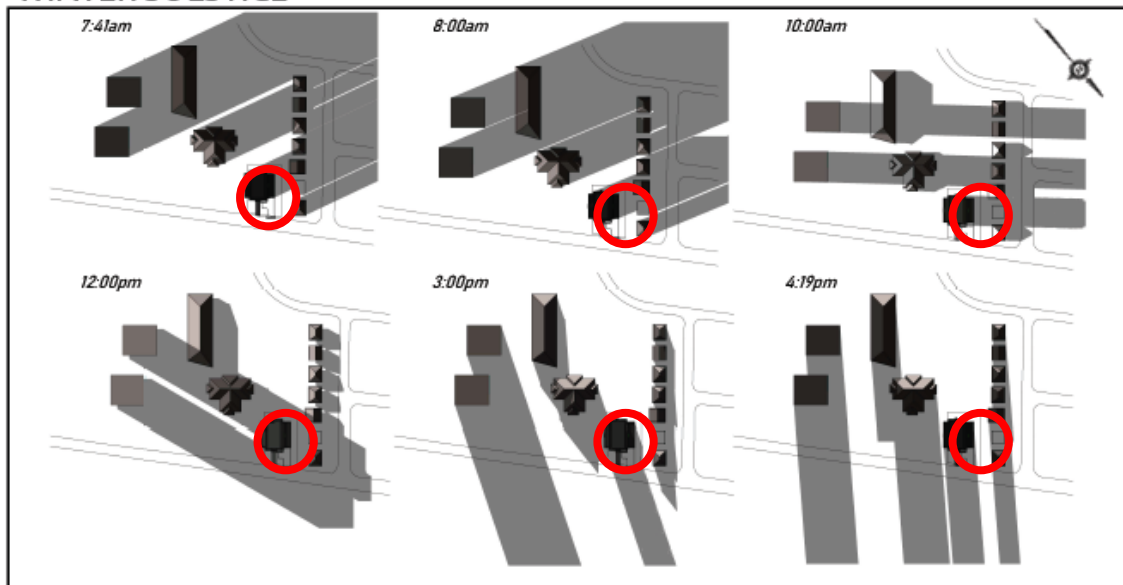
Organization

The footprint of the building sits at a slight angle from the street, between 17.7 m and 12.4 m back from the property line along Fisher Avenue, which also allows for a road widening allowance. The side yards are 1.5 m wide and the rear yard is 6.5 m deep.

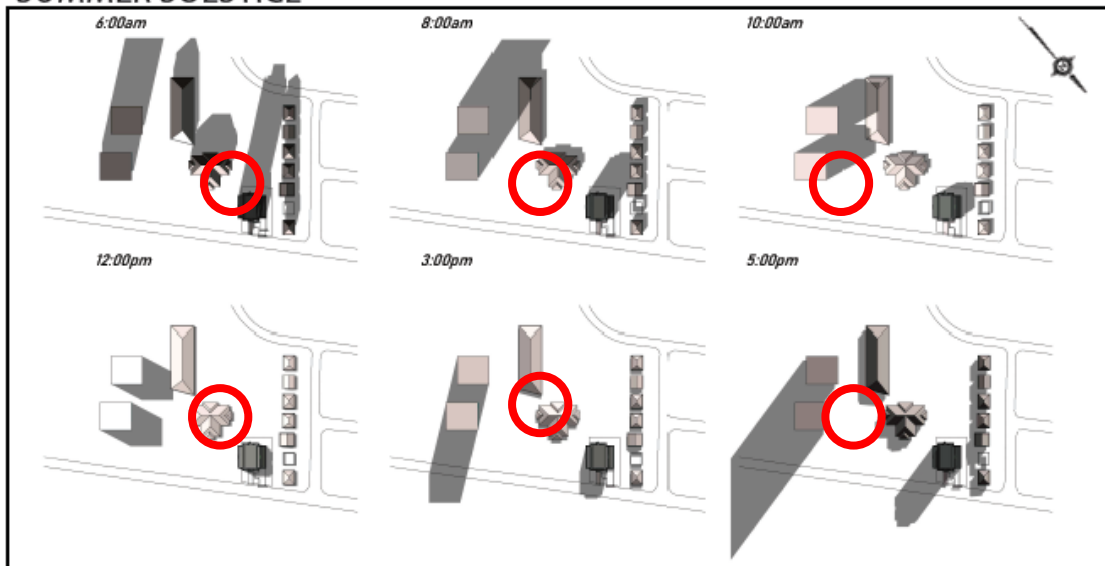
Shadow Studies

Figure 18 a, b and c below: Shadow studies of the proposed building at 1110 Fisher Avenue, May 2019. Source: ARC Associates Inc. The proposed building at 1110 Fisher will cast a much shorter shadow than 1140 Fisher due to its shorter height, in spite of being located closer to the street. Furthermore the shadow will fall in the late afternoon which has much less of an impact on plant growth.

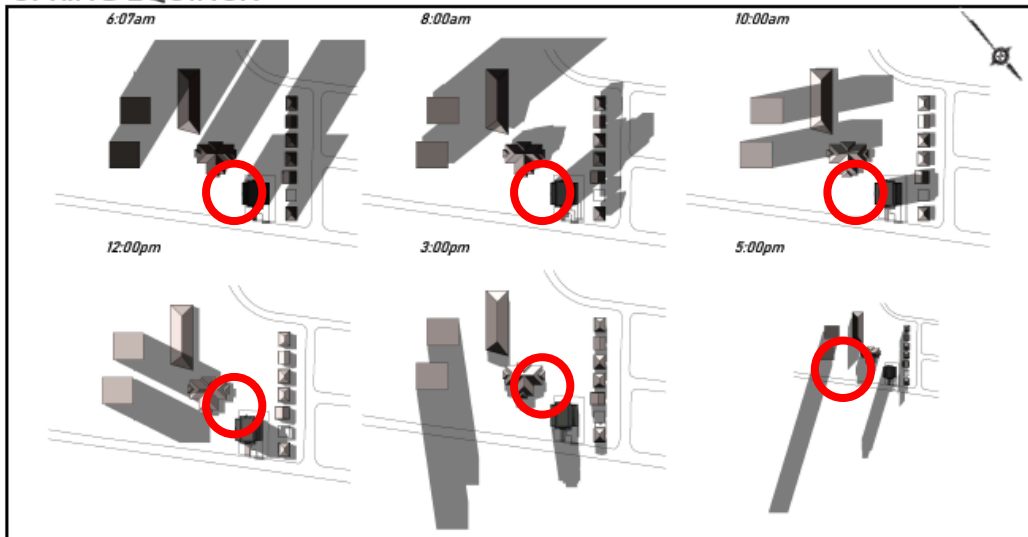
WINTER SOLSTICE



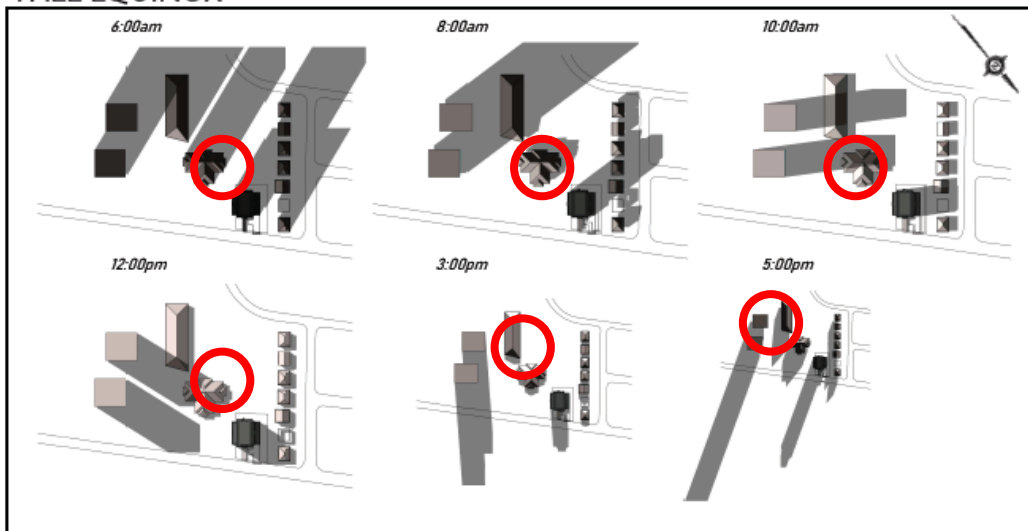
SUMMER SOLSTICE



SPRING EQUINOX



FALL EQUINOX



5 Impact of Proposed Development

Impacts Table

Section 3.4 (4) of the *Official Plan* includes the policy requires the CHIS to reference the CIS in determining impacts. This table examines each of the pertinent points in sections 4.3 (Objectives for the Designated Place), as well as impacts on pertinent characteristics identified in the SOS.

A summary of the pertinent attributes to be considered are:

- the present boundaries and spatial balance of the Farm, which enhance understanding of the historic and on-going agricultural research function, are safeguarded and maintained;
- the surviving 19th century landscape plan, including the core administration, scientific and farm buildings, plus the arboretum, lawns, ornamental gardens and display beds, experimental fields,

plots and shelterbelts, and circulation patterns set in a Picturesque composition, is safeguarded and maintained in accordance with recognized heritage conservation principles;

- a sufficiently large area to carry out and support the scientific research function is maintained;
- the character of a “farm” as defined by fields, utilitarian buildings and circulation patterns is recognized; and
- the “farm within a city” remains sufficiently large to provide a contrast to the scale of urban development
- distinctive views, including but not limited to:
 - the view from the corner of Baseline and Fisher, looking northeast; the view southwest from Carling Avenue across the fields; the framed view looking east from Fisher along Cow Lane; and the view from any point along the periphery into the open fields.

Other attributes, such as buildings, shelterbelts and key directional views, are unrelated to potential impacts from the development.

Area of Potential Impact	Indicator	Impact Potential of Rezoning for the Proposed Development and the Proposed Development
Location in the urban centre of Ottawa, encompassing a variety of soil types, cleared fields, and various buildings	Presence of cleared fields and use of fields	No impact.
Pastoral appearance, orderliness and neatness	Views of fields in use, whether planted or in fallow, with clear demarcations in the planted materials	No impact.
Buildings, which illustrate the Picturesque character with their compatible scale, varied volumes and silhouettes	Historic buildings on the farm retain their historic dimensions and shapes, and can be distinguished from each other and the surrounding area.	Minor impact from the proposed development and the rezoning. Historic buildings are located a long distance away. The Booth Barn, the closest building, is 732 m away. The Picturesque elements of the CEF landscape do not extend into the farm fields but the scale of the historic buildings continues. The addition of another tall building immediately adjacent to the CEF will reinforce the difference between historic building forms within the CEF landscape, and the forms of buildings of the evolving landscape outside. Retaining a simple form for the new building to allow it to blend into the background rather than become an object in the view across the fields is desirable.

Boundaries and spatial balance	Continuing use of fields for research and the retention of regular boundary along Fisher Avenue.	Fisher Road as a long-standing western boundary for older sections of the CEF will continue. Spatial balance could be disrupted if buildings overwhelm landscape elements. A building of 10 storeys that occupies a relatively narrow lot will not affect the spatial balance that allows the scale of the CEF to be understood.
Surviving 19th century landscape plan	Organization of the CEF into zones consisting of an entry area, working and ornamental areas, and fields is legible.	No impact.
Sufficiently large area to carry out and support the scientific research function	Fields and buildings used for scientific research are sufficiently large and unencumbered by restrictions, including shadowing and dust can impede research.	<p>The extent to which the shadowing will affect scientific activities will require input from the research institution, but it is very likely that the impact is lessened by the shadow falling from the west rather than the east. This means that the plots will continue to receive morning light, when photosynthesis is optimal.⁴ The research scientists working on the land affected by the shadows are the sole sources of definitive information about the impacts of shadows.</p> <p>The potential impact from dust during the construction period is unknown.</p> <p>Addition of 50+ vehicles and approximately 95⁵ residents has potential to add to the number of instances of unacceptable uses and trespasses on the Farm. One of the only non-obtrusive and publicly tolerable mitigation measures is public education.</p>
Character of a “farm” as defined by fields, utilitarian buildings and circulation patterns is	Zones and circulation systems are understood and visible.	No impact.

⁴ Numerous scientific studies have demonstrated the difference between morning, midday and afternoon sunlight on photosynthesis, although the explanation about why the difference occurs appears to be less certain, but appears to be related to increasing stress during the day as the plant grows and seeks moisture. See, for example, Koyama K, Takemoto S. Morning reduction of photosynthetic capacity before midday depression. *Sci Rep.* 2014;4:4389. Published 2014 Mar 17. doi:10.1038/srep04389. Online at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3955906/>.

⁵ Based on an estimate of 1.5 residents per living unit.

recognized.

The “farm within a city” remains sufficiently large to provide a contrast with urban development

The Farm is visible, its scale is understood and urban development is clearly separate from Farm activities and the Farm landscape.

Minor impact, providing that the building does not set a precedent for development further north along Fisher. The streetscape along Fisher that sits to the west of the shelterbelt should remain lower than the tree canopy.

Distinctive views

Specific distinctive views are eliminated or restricted.

Minor impact. The view to Fisher from across the fields will change, but it will remain an obvious urban boundary for the CEF.

Impacts Summary

Positive impacts of the proposed development include:

- The building’s handsome design that uses materials and forms that are compatible with built and landscape attributes of the Central Experimental Farm and will serve as a sympathetic urban backdrop for the Farm in the City.
- The planting of trees along the street between the sidewalk and the semi-circular driveway will create a softer transition from fields to buildings.

Adverse impacts from the proposed development include:

- Reinforcement of Fisher Avenue as an abrupt transition from farm to urban development.
- The possibility for construction dust to affect research projects since the wind could carry dust from the development to research plots.
- Additional stress on research land from additional vehicles, people and pets (cats and dogs) associated with the development is possible.

6 Alternatives and Mitigation Strategies

Alternatives

No alternatives are proposed. A previous proposal for development of the site was considered that involved a different type of development that it is no longer under consideration by the proponents.

Mitigation

Options for mitigating negative impacts could include:

- An important opportunity exists to develop communications products, similar to printed and online products created for residents of new subdivisions in environmentally sensitive areas, that would give residents information about actions that they can take to retain the CEF’s value as a living scientific landscape.

- Reducing the height of the building to 6 or 7 storeys to soften the transition from the new building height to adjacent properties on Fisher Avenue that should remain below the height of the shelterbelt tree canopy
- Using a lighter colour brick to allow the new building to become less conspicuous in views towards Fisher Avenue
- Consulting with CEF researchers to confirm whether any precautions should be taken during construction to minimize disruption of research and farm maintenance activities.

7 Conclusion

Based on a review of the proposed development (building of a nine-storey residential building with a penthouse) and consideration of both positive and negative impacts, the consultant believes that a project that is taller than current zoning allows is compatible with the heritage character, attributes and value of the CEF. Lowering the height of the building would soften the transition from the new building to properties to the north that should remain lower in height (when viewed from across the fields and looking along Fisher in either direction) than the tree canopy of the shelterbelt. The most important action to take to mitigate potential threats to the CEF as an historic place would be to include a communications project to inform residents in the new building, as well as residents in the entire area, about their role in contributing to the conservation of the CEF as a living scientific landscape of heritage value.

Appendix A: Statement of Significance for the Central Experimental Farm National Historic Site of Canada

Description of Historic Place

The Central Experimental Farm National Historic Site of Canada, located in urban Ottawa, Ontario, is comprised of various structures and buildings embedded within a large rural landscape. Flanked by broad expanses of farmland, its central area consists of the administrative core, housed in a variety of eclectic and picturesque structures, and encompasses an arboretum, specimen plantings, and intricate ornamental gardens. Official recognition refers to the cultural landscape with its natural, built, and landscaped components at the time of designation.

Heritage Value

The Central Experimental Farm was designated a national historic site of Canada in 1997 because:

- as a cultural landscape, the more than 400-hectare farm in the heart of the Nation's Capital reflects the 19th-century philosophy of agriculture and carefully integrates an administrative core and a range of other buildings with arboretum, ornamental gardens, display beds and experimental fields in a picturesque composition;
- since its establishment in 1886, the farm has made significant scientific contributions to agriculture in Canada by uniting scientific experimentation with practical verification, as exemplified by the development of the hardy strains of wheat that were so influential in expanding Western Canadian agriculture;
- a rare example of a farm within a city, the Central Experimental Farm has become a symbol of the central role agriculture has played in shaping the country.

Eager to introduce profitable new agricultural methods and products, the federal government created the Central Experimental Farm in 1886. The Department of Agriculture selected a rectangular parcel of land, over 400 hectares in area, approximately 3 kilometres from Parliament Hill. Located on a desirable site, due to its variety of soil types and access to land, water, and rail transport, the farm would serve both Ontario and Québec. As the city of Ottawa grew, the Farm was gradually absorbed into the urban environment and is now situated well within the city limits.

The plan of the Farm is based on three clearly defined zones: a central core of administrative, scientific, and functional farm buildings and spaces; the experimental fields, plots, and shelterbelts; and the arboretum, ornamental gardens and experimental hedges. The Farm's Picturesque landscape is the result of a movement promulgated by a 18th-century English aesthetic theorists and practitioners who sought to bring landscape design closer to an idealized nature. One convention of this movement was the adoption of certain standard features of the British country estate, including large stretches of lawn and fields, use of water, masses of trees and shrubbery, and winding pathways. These features, designed to enhance nature's inherent beauty by emphasizing its irregularity, variety, and intricacy in form, colour, and texture, integrate harmoniously with the administrative, scientific, and functional farm buildings. The Picturesque qualities of the Farm are a significant aspect of the 19th-century philosophy of agriculture.

This philosophy also recommended the use of chemistry and genetics to make farm life more productive and appealing. Its proponents sought to develop better farming methods by applying a new scientific methodology to farming. Since its establishment, the Central Experimental Farm has contributed substantially to the development of Canadian agriculture through scientific research, experimentation, and practical verification. The Farm has addressed issues such as human and animal health, the importation of

plants and livestock, the identification and control of imported insect pests, and soil fertility. It also contributed to the expansion of agriculture in western Canada through the development of hardy strains of wheat, and in eastern Canada through research on forages and grasses. The Farm soon became the headquarters of a national system of experimental farms, as its central location and administration served to address a range of national agricultural issues.

Character-Defining Elements

Key elements contributing to the heritage value of this site include:

- its location in the urban centre of Ottawa, encompassing a variety of soil types, cleared fields, and various buildings;
- its pastoral appearance, as well as the orderliness and neatness critical to the Farm's scientific pursuits;
- its plan, made up of three clearly defined zones: the central core of the functional farm, science and administration buildings; the experimental fields and plots with their bordering shelterbelts; and the arboretum, ornamental gardens and experimental hedges;
- the buildings, which illustrate the Picturesque character with their compatible scale, varied volumes and silhouettes.

Key elements contributing to the heritage value of the central core include:

- the intimate scale of the interior of the zone, and the campus-like atmosphere;
- the compatible scale and design of both Prince of Wales Drive and the Driveway, which have evolved from the main north-south and east-west roads in the original 1880s plan and link the Farm to the city;
- the placement and design of the core administration buildings with their wood-clad exteriors, and their relationships to each other and to their landscape setting, which reveal their original functions and the orderly development of the original 1880s Picturesque plan;
- the associations of the buildings with key figures in the development of Canadian agriculture, such as William Saunders, Charles Saunders, and Sir John Carling;
- the buildings' small, single-storey board and batten style, conveying their continued role as part of a complex of support buildings;
- the model farm, intended to demonstrate the most efficient and orderly layout of farm buildings.

Key elements contributing to the heritage value of the experimental fields, plots, and shelterbelts include:

- the orderly organization of the fields based on a grid system reinforced by a regular system of roadways and access lanes, and distinctive internal fencing of red "pencil posts" with white tops;
- the open cultivated fields, with their variable sizes, colours, textures and seasonal variations;
- the relationship between the open fields and the heavily screened Driveway with its parkway characteristics of curbs and streetlights, which emphasize the integration of a farm within a city;
- the shelterbelts, made up of hardy trees which protect the fields;
- the core brick-clad science and administration buildings;
- the views including the view from the corner of Baseline and Fisher, the view southwest from Carling Avenue across the fields, the framed view looking east from Fisher along Cow Lane; and the view from any point along the periphery into the open fields.

Key elements contributing to the heritage value of the arboretum and ornamental gardens include:

- the Picturesque nature of the site, evidenced in the skillful use of topography and water, and the incorporation of the shoreline of the Rideau Canal, Dow's Lake, and the lagoons into the visual composition;
- the circulation pattern in the arboretum, laid out in a typically Picturesque design of curving promenades and constantly changing views;
- the glass and metal frames of the greenhouses;
- the arboretum itself, including a wide variety of specimen trees and shrubs, planted to test and demonstrate suitable tree species for various hardiness zones of Canada.

Appendix B: Commemorative Integrity Statement for the Central Experimental Farm National Historic Site of Canada - Selected Sections

4.1 Character of the Designated Place

The Central Experimental Farm is characterized as a planned, designed and evolved cultural landscape whose national significance lies in part in its physical manifestations of the 19th century philosophy of agriculture and the Picturesque landscape linked by the 1880's design. Incorporated into this are administrative, scientific and agricultural buildings which respect the original design. Implicit in the Picturesque design are the relationships between the core zones, between buildings and the outdoor spaces, including the well-established system of paths and roadways, the long vistas across fields and water, and the intangible, life-giving qualities of light. All are still legible on the landscape, all enhance the aesthetic character of the Central Experimental Farm, and all reinforce the sense of historic place. The original plan divides the Farm into three clearly defined primary zones, each representing an area of concentration and specialization: the central core of functional farm, science and administration buildings; the experimental fields and plots with their bordering shelter belts; and the arboretum, ornamental gardens and experimental hedges.

4.1 a Within the first zone, the central core is organized around the Driveway. To the north of the Driveway, the science and administration buildings are arranged around an expanse of lawn, south of the Saunders Building. Trees and shrubs are laid out in a gardenesque manner so that each plant is displayed to its best advantage. To the south of the Driveway is situated the model farm. The model farm was intended to demonstrate the most efficient and orderly layout of farm buildings, although its primary functions included pure and applied scientific agricultural research and practical farming. The task of directing the entire network of Dominion Experimental Farms, as well as the Central Experimental Farm, was carried on from the administration buildings. Originally, many of the residences for senior Farm personnel were grouped in this central core.

4.1 b The second zone of experimental fields and plots is located to the south and west of the central core. Planted with a variety of crops for testing, these are well laid out in a highly -9-ordered pattern, with an orderly system of laneways for easy access, and protective fencing.

Within the fields are clusters of small buildings which serve as field laboratories, supporting the active research projects. The Booth barn complex, in part predating the establishment of the farm, is located at the south end of the fields, near Baseline Road.

The Farm's development of hardy trees for shelterbelts is illustrated by the remaining stands of trees at the west side of the Farm, along the north end of Fisher Avenue. The shelterbelts serve the practical agronomic function of protecting the fields. Extensive research was formerly carried out on the design and establishment of shelterbelts, as well as the tree species which were most suitable; such information was particularly important to prairie farmers.

4.1 c In the third zone, the arboretum is laid out on the easternmost side of the Farm. Planned as a means of testing and demonstrating suitable tree species for various hardiness zones of the country, this site is characterized by its wide variety of specimen trees and shrubs. Together with

the experimental hedge collection, located north of the Saunders Building lawn, and the ornamental beds west of Prince of Wales Drive, the arboretum illustrates the scope of the Farm's scientific activity, as well as the view that beautification schemes enhance farm life. These primary zones are orchestrated into a unified plan that is characterized by its pastoral appearance. It incorporates such features as long stretches of lawn and fields, gently rolling land, pleasing water vistas, a core of buildings attractively set among groups of mature trees and clumps of shrubbery, and winding pathways that encourage outdoor enjoyment and provide leisurely changes of experience.

The orderliness and neatness which are so characteristic of the Farm are not only pleasing to the eye, but are also critical to the Farm's scientific pursuits. The Picturesque character of the core farm buildings is illustrated by their compatible scale, varied massing and silhouettes, as well as by the variety and application of their wood cladding. The same vocabulary is applied to the core science and administration buildings, but these are distinguished from the farm buildings by the use of brick cladding. The glass and metal framed greenhouses exhibit similar qualities. Buildings of the 1920s and 1930s adhere to the established design vocabulary, but are modified to suit the more functional taste of the period.

The Picturesque quality of the Central Experimental Farm is further enhanced by the manner in which the core buildings are frequently set off by flower beds, shade trees, shrubbery and lawn. The Sir John Carling Building, situated at the northeast corner of the property, respects the underlying organization of the 1880s plan through its location in the central core, and its setting of lawns and flower beds. As the headquarters of the Department of Agriculture and Agri-food Canada, it speaks to the pivotal role of the department in the agricultural history of Canada.

Although not linked to agricultural research, the Observatory complex at the north end of the property likewise reflects the historic character of its surroundings as a "scientific campus" and contributes to the character of the Central Experimental Farm.

The Farm is now bounded on three sides by urban development, characterized by major roadways carrying high volumes of traffic, and mature residential and institutional areas. This provides a strong sense of contrast and juxtaposition, emphasizing the rural qualities of the Farm: it is possible to drive along a multi-lane urban roadway and suddenly come across a view of wide fields bordered by leafy green lanes to the cluster of barns in the central core.

The parkways which now run through the Farm, the Driveway which is owned by the National Capital Commission and Prince of Wales Drive which is owned by the Regional Municipality of Ottawa- Carleton, are scenic roadways which link the Farm to the city and reinforce the distinctive character of the historic place.

4.2 Objectives for the Designated Place

The designated place will be unimpaired and not under threat when:

- the present boundaries and spatial balance of the Farm, which enhance understanding of the historic and on-going agricultural research function, are safeguarded and maintained;
- the surviving 19th century landscape plan, including the core administration, scientific and farm buildings, plus the arboretum, lawns, ornamental gardens and display beds, experimental fields, plots and shelterbelts, and circulation patterns

set in a Picturesque composition, is safeguarded and maintained in accordance with recognized heritage conservation principles;

- a sufficiently large area to carry out and support the scientific research function is maintained;
- the character of a “farm” as defined by fields, utilitarian buildings and circulation patterns is recognized; and
- the “farm within a city” remains sufficiently large to provide a contrast to the scale of urban development. the historic values of the designated place are communicated to the public.

5.1 Landscape Features that Symbolize or Represent the Site’s National Historic Significance

As previously noted, this cultural landscape is manifested by its division into three primary zones. Each zone is comprised of patterns and features which, together, give each its unique character. These character-defining elements can be categorized as either landscape elements or buildings.

5.1 b The Experimental Fields, Plots and Shelterbelts

The cultural landscape within this zone is characterized by the following elements which, as they visually express both the Picturesque composition and the activity of scientific agricultural research and practical verification, are level 1 resources: the orderly organization of the fields based on a grid system reinforced by a regular system of roadways and access lanes, many of which are tree-lined, and distinctive internal fencing: red “pencil posts” with white tops; within the parameters of the grid system the variable sizes, colours, textures and seasonal variations of the fields and of the plots into which they are subdivided, which reflect ongoing agricultural research needs; the presence of clusters of small research support buildings in the fields; the relationship between the open fields and the heavily screened Driveway with its parkway characteristics of curbs and street lights and; the remaining shelterbelts on the western perimeter of Fisher Avenue at the north end of the Farm.

5.2 Historic Values of the Cultural Landscape

Taken as a whole, the Central Experimental Farm is valued as a distinctive cultural landscape which: symbolizes the central role agriculture has played in shaping the country; portrays the 19th century philosophy of agriculture, within a Picturesque composition; reflects its function of agricultural research and practical verification in its layout and design; reflects the key role of the Central Experimental Farm in testing agricultural techniques and selecting varieties of crops and horticultural plants suitable for a wide range of climatic zones and soil types; and which represents a rare example of a farm within a city.

5.2 b The experimental fields, plots and shelterbelts are valued for for the open fields which underscore the agricultural character of the place, and which are essential to an understanding of both the historic and the on-going function of scientific agricultural research, and to the understanding of ‘a farm within the city’; the distinctive landscape features such as the orderly circulation system, the allées of trees, the fences, the divisions of fields into experimental plots, and the changing patterns of colours and textures which enhance an understanding of the on-going research function; the shelterbelts, which are valued for their role in research directed towards expanding agriculture in western Canada; and

- their distinctive views, including but not limited to:
 - the view from the corner of Baseline and Fisher, looking northeast to the central core, with the Booth barn complex in the foreground;
 - the view southwest from Carling Avenue across the fields;
 - the framed view looking east from Fisher along Cow Lane; and
 - the view from any point along the periphery into the open fields.