

NATIONAL CAPITAL VIEWS PROTECTION



NATIONAL CAPITAL COMMISSION

DU TOIT ALLSOPP HILLIER

CENTRE FOR LANDSCAPE RESEARCH, UNIVERSITY OF TORONTO

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SECTION 1: INTRODUCTION

1.1	The Value and Care of The National Symbols	1
1.2	This Report	1
1.3	Blanket Height Controls and View Plane Controls	2
1.4	Revised Views Protection Measures	4
1.5	Background and Foreground Controls	5

SECTION 2: HEIGHT CONTROLS IN THE NATIONAL CAPITAL FROM 1910

2.1	Controls in Ottawa from 1910 to 1971	7
2.1.1	The Federal Plan (Holt) Commission	7
2.1.2	The Gréber Plan	8
2.1.3	Changes of the 1960's	10
2.2	Ottawa Central Area Study 1969	11
2.2.1	The Objectives of the 1969 Study	11
2.2.2	The Height Limits of the 1969 Study	12
2.2.3	The Wellington Street Frontage	13
2.2.4	Absolute Height Ceiling	13
2.2.5	Foreground Controls	14
2.3	The 1971 Official Plan Amendment	15
2.4	1990–2002 Views Protection Studies and Policies	17
2.4.1	1990 City of Ottawa Official Plan Review	17
2.4.2	1993/1994 Secondary Planning Study	19
2.4.3	Foreground Views Protection Studies	21
2.4.4	Implementation of the Height Controls	21

SECTION 3: THE VISION FOR THE CENTRE OF THE NATIONAL CAPITAL

3.1	A Convergent Vision	23
3.2	The Core Area Concept Plan	23
3.2.1	Sense of Place	23
3.2.2	Confederation Boulevard	27
3.2.3	The Central Capital Landscape	28
3.2.4	The Parliamentary Precinct Area	29
3.2.5	Capital Scenic Approach Routes	31
3.2.6	Civic Street Approaches	32
3.2.7	Pathways	33
3.2.8	Waterways	34
3.2.9	Context for Views Protection Measures	35

SECTION 4: THE VIEWS PROTECTION – METHODOLOGY

4.1	The Views Protection Approach	37
4.1.1	The Six Basic Steps	38
4.1.2	Reaching Consensus on Value Judgements	39
4.2	Defining the Subjects of Views Protection – The National Symbols	40
4.2.1	Hierarchy of Importance	41
4.3	Defining The Viewpoints	42
4.3.1	Anatomy of Viewsheds	43
4.3.2	Approach Routes and Entrances to the Central Capital Landscape	45
4.3.3	Viewpoints and Viewing Zones Within the Central Capital Landscape	47
4.3.4	Composite of Important Viewing Zones and Viewpoints	48
4.3.5	Isolating Key Viewpoints	49
4.3.6	The Selected Key Viewpoints	51
4.4	Defining the Areas to be Controlled	53
4.4.1	The Areas of Foreground Design Control	53
4.4.2	Defining the Areas of Background Height Control	54
4.5	Defining the Benchmarks of Visual Integrity and Symbolic Primacy	58
4.5.1	Visual Integrity of the Silhouette	59
4.5.2	The Centre Block Benchmarks	60
4.5.3	Visual Integrity of Secondary Symbols	61
4.6	Isolating the Controlling Views	63
4.6.1	Three Control Viewpoints for Ottawa Background Controls	63
4.6.2	Control Viewpoint 6 - Background Controls West of the Canal	64
4.6.3	Control Viewpoint 1 - Background Controls West of the Canal	66
4.6.4	Control Viewpoint 12 - Background Controls East of the Canal	68
4.6.5	Control Viewpoint 16 - Foreground Controls LeBreton Flats	70
4.6.5	Control Viewpoints for Ottawa Foreground Controls	73
4.7	Evaluation of Development Capacity	74
4.7.1	Heights of Control View Planes	74
4.7.2	Massing Models for the Test Sites	75
4.7.3	Calculated “Flexibility Factor”	77
4.7.4	Assessment of the Redevelopment Sites	77
4.7.5	Benchmark at the Centre Block Eavesline	78
4.7.6	Conclusions of the Site Capacity Tests	78
4.7.7	Conclusions for East of the Canal	78
4.7.8	Conclusions for The Core (West of the Canal)	79

SECTION 5: THE VIEWS PROTECTION CONTROLS

5.1	Building Heights Control Policies	81
5.1.1	Important Views and View Sequences	81
5.1.2	View Plane Controls	83
5.1.3	Background and Foreground	83
5.1.4	Other Height Limits	83
5.2	Application of Height Controls	84
5.2.2	All Developers Subject to the Same Rules	85
5.2.3	All Controlling Agencies to Use the Same Rules	85
5.2.4	Enhancement and Public Awareness Programme	85
5.3	Background Height Controls	86
5.3.1	Primary Background Protection	86
5.3.2	Secondary Background Protection	86
5.3.3	Areas Subject to Background Height Controls	87
5.4	The Core (Central Area West of the Canal)	88
5.4.1	The Core (East) – Viewpoint 6 / Centre Block Ridge	88
5.4.2	The Core (Central) – Viewpoint 1 / Centre Block Ridge	90
5.4.3	The Core (Central) – Viewpoint 1 / Lateral Transition Planes	92
5.4.4	The Core (West) – Viewpoint 1 / Mackenzie Tower	94
5.5	Background Building Height Limits East of the Canal	96
5.5.1	The Central Area East of the Canal	96
5.6	Composite Background Height Control Planes	98
5.7	Illustrations of the Height Controls	100
	Control Viewpoint 6 (Alexandra Bridge)	101
	Control Viewpoint 1 (Sussex Drive)	102
	Control Viewpoint 12 (Portage Bridge)	103
	The Sequence of Views	104
5.8	Foreground Controls	107
5.8.1	Confederation Boulevard Frontage	108
5.8.2	Wellington Street Frontage	109
5.9	LeBreton Flats Foreground Controls	111
5.9.1	Control Viewpoints 16 and LB/B	111
5.9.2	The Subjects of Views Protection	112
5.9.3	The Benchmarks	112
5.9.4	The South Lateral Height Control Plane	114
5.9.5	Viewpoint LB/B	116
5.9.6	Protected Viewshed	116
5.10	Sussex Drive – Foreground Controls	118
5.11	Rideau Canal Pedestrian Bridge	120

APPENDICES



Figure 1: The old Dollar bill – the image of Parliament Hill (and the Chateau Laurier Hotel) and the wild landscape setting – that was carried in the pockets of every Canadian



Figure 2: The Capital circa 1870, with the Parliament Buildings standing clearly above the rest of the city

SECTION 1: INTRODUCTION

1.1 The Value and Care of The National Symbols

The National Symbols – the national parliamentary, judicial and cultural buildings and their landscape setting, form a unique and memorable ensemble of great civic, national and international significance. They are part of, and represent, the Canadian identity. They belong to the country at large.

The care and protection of the National Symbols is both a national obligation and a civic responsibility. The Federal Government and Municipal Councils are the custodians on behalf of present and future generations of Canadians, whether citizens of Ottawa and Gatineau (Hull) or of other communities across the country.

The value of the National Symbols is economic as well as symbolic. The economic value stems from their attraction to visitors and tourists, and to private building developers who seek to capitalize on proximity to the places of national focus. In this latter regard, the attraction of the National Symbols also carries with it the seeds of their potential devaluation and erosion. Private development, in quest of the income-generating potential of adjacent sites, can, too easily, visually overwhelm and diminish their value.

The custodianship of the National Symbols requires an extremely long-term vision. As part of its mandate to safeguard and enhance the national treasures and to instill pride by Canadians in their Capital, the National Capital Commission, in collaboration with the municipal governments, has long been involved in regulating development in order to preserve the visual integrity of the National Symbols.

1.2 This Report

This report assembles the current “views protection” controls and policies which are intended to protect and enhance the visual integrity and symbolic primacy of the National Symbols. The report includes a brief history of building height controls in the national capital since the first City of Ottawa bylaw in 1910. The urban design context for the views protection policies is presented and the methodological approach of the recent studies is summarized. The final section of the report presents the conclusions of these studies which form the basis of the present statutory municipal controls, design guidelines and other Capital planning instruments.

1.3 Blanket Height Controls and View Plane Controls

The need to visually protect the pre-eminent symbolic buildings in Canada's capital has been the source of long standing debate between private and public interests.

Such issues have been confronted in other parts of the world and the control of the heights of buildings is common planning practice. Capital cities, in particular, establish height limits around the primary symbolic buildings to ensure that these remain centre-stage in the composition of their cities, as in Washington, Paris and London.

Such controls are often straightforward designations of a uniformly applied, maximum permitted height of buildings above the ground level. These might be termed **blanket height limits**, and they are usually extended over a large enough area of a city to ensure that the subject symbol is visually prominent from all directions.

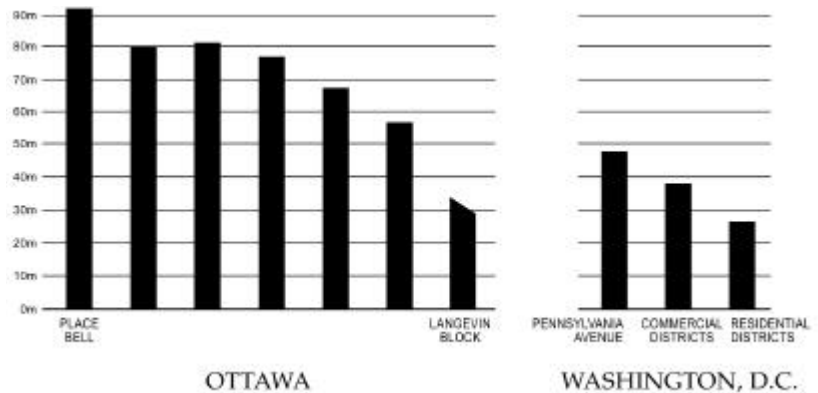


Figure 3: Comparison of Height Limits, Ottawa and Washington

Blanket height limits were first introduced to Ottawa in 1910 and were effectively maintained until the early 1970s, when they were superseded by a different system of limits, based on **angular control planes**. These control planes have an effect similar to the controls applied around airports and are more adaptable to the topographically complex geography of the central area of Canada's National Capital.

The mechanism used in the angular control planes approach, is derived from **view planes** projected from specific **viewpoints** towards the subject building or monument and extended into the background area, behind the subject. These view planes are used to establish height controls in the foreground areas – so as to avoid blocking or interfering with the view; and height controls in the background areas – so as to avoid obscuring or competing with the silhouette of the Capital’s skyline.



Figure 4: The View Plane Idea established in the 1969 Ottawa Central Area (Hammer Study)

Height controls based on **view planes** are less restrictive and provide greater design flexibility than **blanket limits**, particularly for the development of buildings sited in the background areas, on lower ground and more distant from the National Symbols. However, view planes are generally less effective in protecting visual primacy at the broader city scale, since the controlled **viewsheds** tend to affect more limited areas of the city.

The controls generated from view planes establish **visual thresholds** with little tolerance for error or the granting of additional height privileges. A height control at the visual threshold operates like an on/off switch – a building behind a primary subject is either visible or is not visible above the subject. Because of the small tolerances, increased height variances granted to private developments in Ottawa's central area have invariably resulted in visual impacts on and erosion of the significance of the primary symbols.

1.4 Revised Views Protection Measures

The "heights debate" was re-kindled in 1990, by a proposal for a commercial office tower in downtown Ottawa that would have significantly exceeded the regulated limits and visually overwhelmed the national symbols.

In response, an assessment of Ottawa's height controls was initiated by the National Capital Commission at the request of the City of Ottawa. This review was intended to evaluate the effectiveness of the existing height limits and related policies after two decades of their application, and to acknowledge the many physical changes in the central urban area that had occurred since the height controls were first instituted.

As a result, a comprehensive secondary plan was launched, as part of the City of Ottawa's review of its Official Plan. It was intended "to investigate and recommend strategies and mechanisms that will ensure the protection and enhancement of the visual integrity and symbolic primacy of the Parliament Buildings and other national symbols...". The terms of the study outlined a much broader definition of "National Symbols" than earlier studies. While the 1969 **Hammer Study**, (which formed the basis of the existing controls) had focused on the pre-eminent symbols of Parliament – the Centre Block and the Peace Tower, the new study was required to broaden the definition to include all the national institutional and cultural buildings, and the landforms, within the centre of the National Capital. The study was also required to ensure that the development potential in Ottawa's Central Area be maintained.

The new study necessarily adopted the *angular control planes* approach, given the historic investment and the shaping of the downtown that had taken place according to the existing heights policies.

The conclusions documented in the **Ottawa Views** (1993) and **Ottawa Views Addendum** (1994) reports amend and refine those of the **Hammer Study**. They result from the employment of sophisticated computer simulation technology to analyze and evaluate a wide range of static and dynamic viewing positions and the potential visual impacts of new development. The effects of alternative measures for controlling new building development were examined both in terms of the levels of visual protection for the National Symbols and the potential for built-form flexibility and as-of-right densities on the redevelopment sites.

The recommendations of the **Ottawa Views Addendum** report form the basis of the current City of Ottawa's Official Plan building heights control policies and by-law standards for the Central Area, as well as the National Capital Commission's planning policies. A study is presently underway to develop similar views protection policies for the Ville de Gatineau side of the Ottawa River, based on principles which have been approved by the N.C.C.

1.5 Background and Foreground Controls

Ottawa Views, like the *Hammer Study* focused on “background” development — buildings which are seen **behind** the National Symbols and which, if uncontrolled, could visually overwhelm the symbolic buildings and obliterate their silhouette. Both the 1969 and 1993/94 “views protection” studies also recognized the importance of controlling the visual foreground areas. But in recognition of the greater complexity and subtlety of the foreground design issues which cannot be addressed simply by height controls, both studies recommended that site-specific urban design studies and review procedures be put in place.

Several of these “foreground views protection” studies have now been completed. The most notable is the 1999 *LeBreton Flats Views Protection* study which recommended building height and setback controls that are now incorporated into the City of Ottawa's Official Plan and Zoning Bylaws and NCC planning policy. Other foreground views protection studies have addressed specific architectural, engineering and landscape architectural proposals.

With regard to review procedures, most of the “foreground” territory is federally owned land and waterways and its planning is the responsibility of the NCC and other federal agencies. Views protection review is conducted through the NCC's Advisory Committee on Planning, Design and Realty (ACPDR) as part of the committee's broader urban design advisory mandate.

Investigate and recommend strategies and mechanisms that will insure the protection and enhancement of the visual integrity and symbolic primacy of the Parliament Buildings and other national symbols in addition to the Centre Block and Library, and that such mechanisms of protection and enhancement shall include the development of objective, numeric and verifiable measurements which quantify the term 'visual integrity'.

[Terms of Reference of the Ottawa Views Study, City of Ottawa Official Plan]



Figure 5: Ottawa in 1899

SECTION 2: HEIGHT CONTROLS IN THE NATIONAL CAPITAL FROM 1910

2.1 Controls in Ottawa from 1910 to 1971

2.1.1 *The Federal Plan (Holt) Commission*

The first building height control bylaw in the City of Ottawa was introduced in 1910. It was superseded only four years later by a second bylaw, enacted at the request of the Federal Plan Commission (chaired by Herbert S. Holt), to protect Parliament Hill from competitive development. The 1914 bylaw applied to the whole city area and limited all buildings to a height of 110 feet.



Figure 6: Aerial View of Holt Commission's Plan, 1915

In the year following the 1914 bylaw enactment, the "Holt Commission" released its final report. Charged with the preparation of a comprehensive scheme for the future growth and development of the City of Ottawa and the City of Hull, the Commission made further recommendations aimed at preserving the dominant skyline of the parliamentary and departmental buildings. These recommendations included the overall architectural regulation of buildings on streets, plazas or parkways, in order to maintain a general scheme of architectural harmony and, more specifically, the regulation of height, colour, materials and architectural design of new buildings constructed on the south side of Wellington Street.

The Holt Commission further recommended modifications to the 110-foot building height controls. Based on a series of horizontal planes, the highest allowable development of 110 feet was to be at Sparks and O'Connor Streets and the lowest at Lyon Street, at a height of 80 feet. The Commission's modified proposals for building heights were not enacted and despite many subsequent proposals for its change, the uniform 110-foot limit remained in effect for almost 50 years.

2.1.2 The Gréber Plan

The Gréber Plan of 1950 was the single most influential planning instrument in shaping the modern cities and the National Capital Region. The plan was the culmination of over a decade of intermittent study, and it presented a far-reaching and ambitious vision for the Nation's Capital.

The Gréber Plan took the City of Ottawa's 110-foot height bylaw as a given. The illustrative model of Ottawa's central area indicates an emphasis on the higher, vertically proportioned parliamentary and other federal buildings rising above the lower, relatively uniform building forms of the commercial downtown.

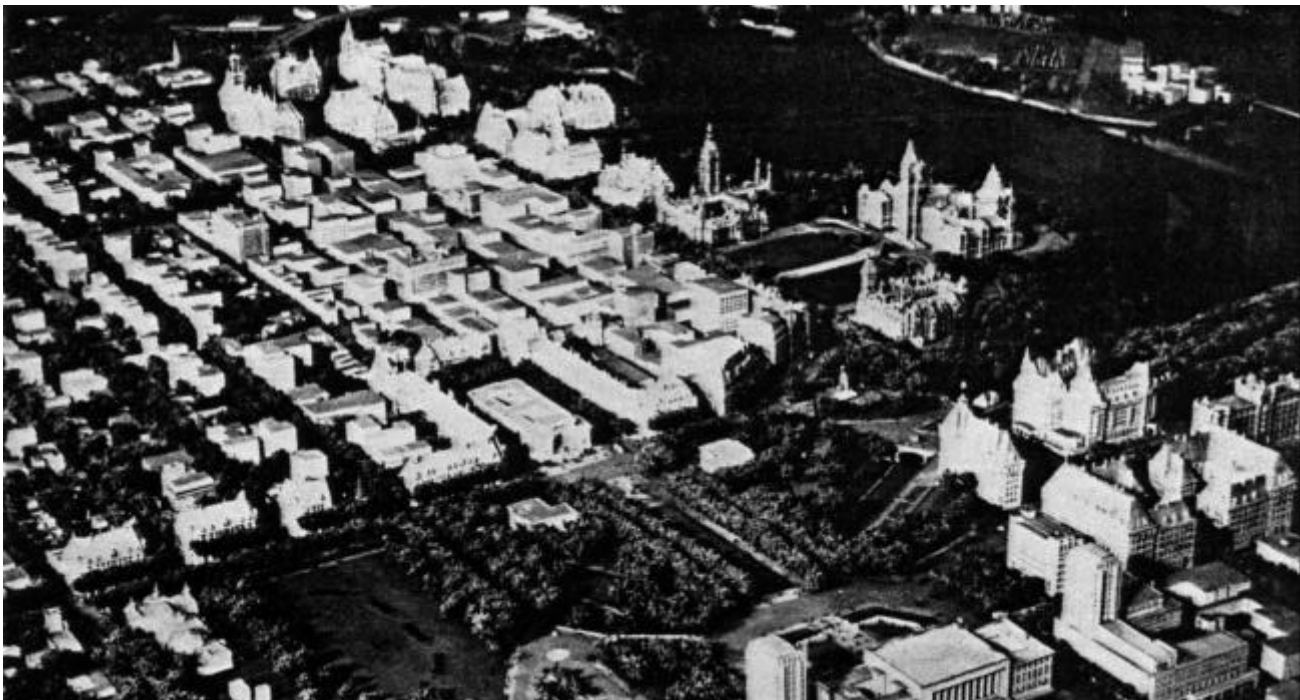


Figure 7: Model of Gréber Plan for Central Area (photo, Gréber Report)

The plan did however stress the need for coherent building design and consistent heights along the Capital's formal streets – Elgin, Sussex and Wellington in Ottawa, and Laurier in Hull. On Sussex Drive, the recommended height was 60 feet above grade. On Elgin Street heights were recommended to closely follow the cornice lines of the Langevin Block, the Post Office and the wings of the Lord Elgin Hotel.



Figure 8: South Side of Wellington Street Opposite Parliament Hill (photo, Gréber Report)

The plan proposed that the south side of Wellington Street be treated as a continuous monumental background to the parliamentary buildings and "should be subject to very strict height regulations." Based on the cornice height of existing buildings, a horizontal height plane was defined at an elevation of 320 feet above sea level, to which all future buildings were to conform. In the **Gréber Plan**, height controls for Wellington Street were part of a greater vision for the centre of the Nation's Capital:

"The whole of the silhouette of the street, as seen from the Hull shore, would thus be composed of a series of monumental buildings of a picturesque and vertical character separated by gardens and detached from the continuous horizontal background formed by existing and future buildings comprising the south side of Wellington Street."

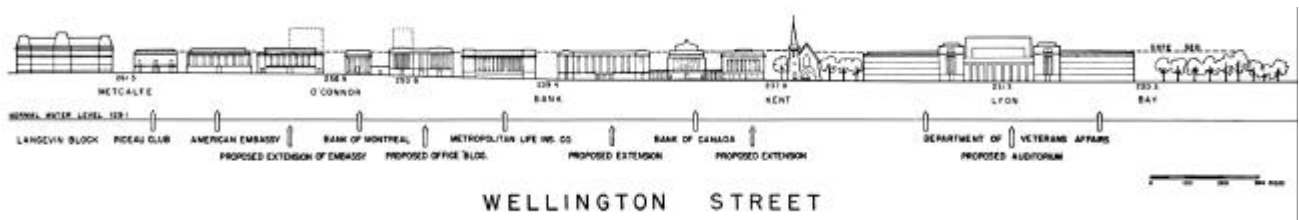


Figure 9: Proposed Wellington Street Facade, 1950 (Gréber Report)

2.1.3 Changes of the 1960's

In 1963, following the report by the City of Ottawa's Planning Branch to the Board of Control, the 110-foot height limit was replaced with a **Floor Space Index** method of control. The enacting bylaw allowed buildings throughout the city to be built to an elevation of 500 feet above sea level, only one foot below the clock face of the Peace Tower. The new limit theoretically allowed building heights to be increased substantially over those of previous eras, with buildings more than 250 feet tall being permitted in most of the present central area.

Reviews of the 1963 bylaw were conducted only months after its passage; the most influential of which was carried out by Sir Robert Matthew and Edmund Bacon. These consultants recommended that an absolute height limit of 150 feet was necessary to maintain the "dignity of the Parliament Buildings and their dominance of the skyline." The next year, 1964, a new bylaw establishing the 150-foot limit in the central part of the city was enacted.

The following four years saw considerable review and opposition to the 150-foot limit. Debate shifted from the singular issue of building height to the more general concern for design and siting of buildings, as well as to defining the boundaries of the area in which buildings would be subject to the lower height controls. Several development applications exceeding the height limits were received during this period. In 1966, the rezoning for the first phase of the Place de Ville development in downtown Ottawa was successfully submitted to the Ontario Municipal Board. The resulting building broke the 150-foot height barrier by one hundred feet.



Figure 10: Aerial View of Place de Ville (Ottawa Views, 1993)

2.2 Ottawa Central Area Study 1969

It was largely as a result of the dramatic change in building heights policy, precipitated by this precedent setting O.M.B. decision, that the City of Ottawa, the National Capital Commission, and the Ontario Department of Highways commissioned the preparation of the Ottawa Central Area Study. Prepared by Hammer, Green, Siler Associates, the **Hammer Study** was completed in 1969. It became the basis of the City of Ottawa 1971 Official Plan Amendment 62 and Bylaw Z2K, which provided a new approach and policy for limiting building heights to protect views of the Parliament buildings.

The Parliament buildings were conceived to be seen against the sky, and any interruption of the outline of the roof as silhouetted would impair the visual impact of this group of buildings and detract from their unique symbolic significance.

(Hammer Study)

2.2.1 The Objectives of the 1969 Study

The Ottawa Central Area Study was based on the dual premises of economic expansion and national symbolism. The objective was "to encourage large-scale investment of private capital in central Ottawa to meet the indicated future space needs" and, at the same time, to ensure that Parliament Hill not be "jeopardized by the tide of urban development."

The *Hammer Study* recommended height limits which reflected the specific topographical circumstances and the actual (or potentially) available views of the parliament buildings. A series of height plane controls were developed to create "tight restrictions on height in the northern part of the Central Area near Parliament Square," while placing the "great bulk of the developable area" further south. These height planes allowed most building development to be considerably in excess of the previous 150-foot height ceiling.



Figure 12: "This could be: Parliament Hill overpowered by uncontrolled development "

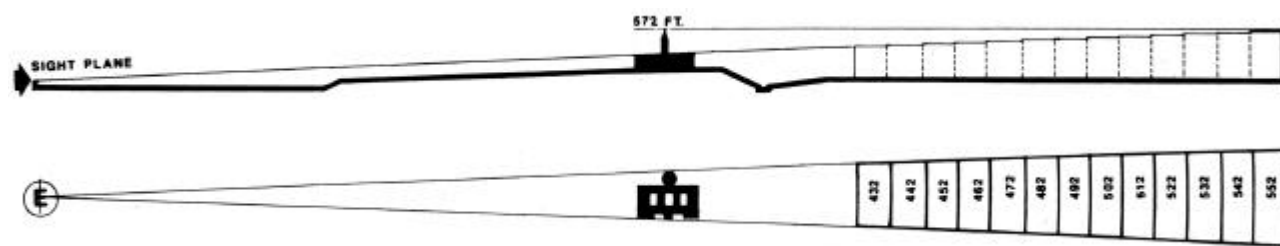


Figure 11: Hammer Study's Viewpoint Projection and Planes, in Elevation and Plan

2.2.2 The Height Limits of the 1969 Study

The procedure for calculating *background* building height controls was to identify the major viewpoints "from which a full view of the Parliament buildings silhouetted against the sky could be observed." From each of the selected viewpoints, planes were drawn through the roof line of the Parliament Building (Centre Block) and projected out into the space beyond. Thus, any building constructed behind the Centre Block and below the *height plane* "would not mar the silhouette of the Parliament buildings as seen from the vantage point."

This same procedure was repeated from each viewpoint. Where height control planes overlapped, the lower plane was used to ensure that all viewpoints were protected. This resulted in a series of *heights districts* representing the maximum height to which buildings could be built without marring the silhouette. To facilitate calculation, the angular height control planes were translated into a series of 10 foot (3 metre) steps and plotted as contoured zones over the Central Area.

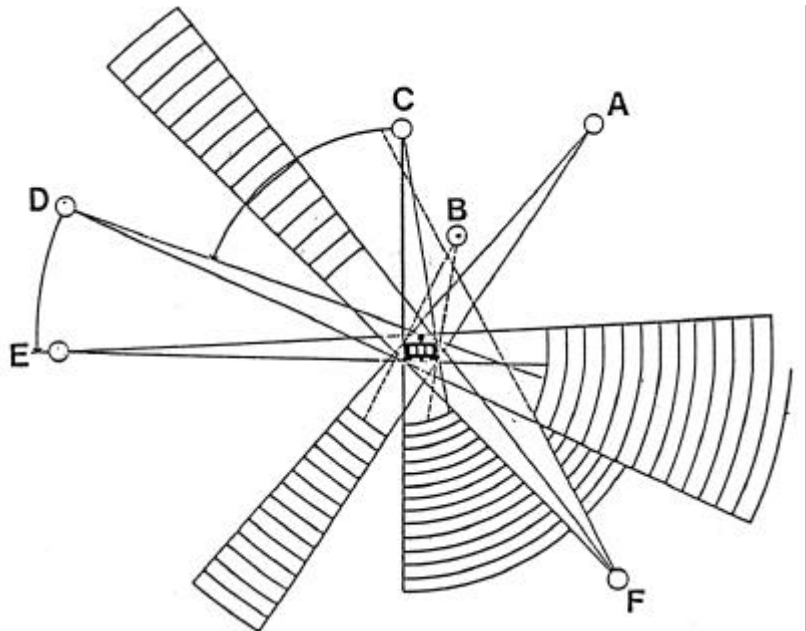


Figure 13: "Diagram of the primary height control typology resulting from the visual protection of the roof outline of the Parliament Building as seen from viewpoints A,B,C,D,E and F" (Hammer Study)

To avoid visually dominant buildings seen at the side of the Centre Block, the *Hammer Study* included further stepped planes in the lateral areas of the primary height control planes, as well as recommendations for building orientation and colour.

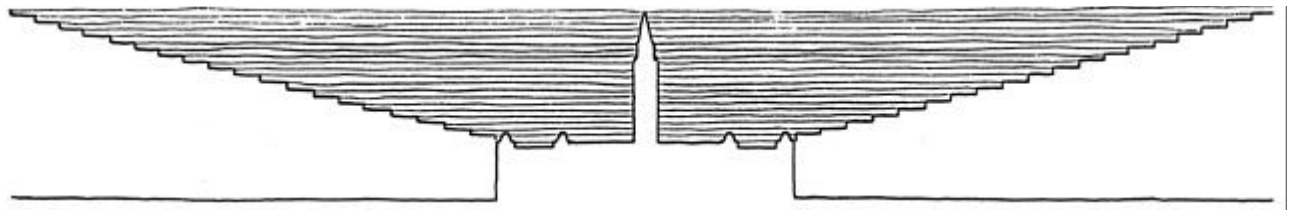


Figure 14: "Diagram of the 1:4 height control outline next to the Parliament roof line" (*Hammer Study*)

Although the *Hammer Study's* subject was Ottawa Central Area, its views protection measures did extend across the Ottawa River, to downtown Hull (Gatineau). However, because of the angle of the height control planes and the lower topography on the north banks of the river, the background height controls in Gatineau presented little practical limitation to building heights at that time.

2.2.3 The Wellington Street Frontage

In acknowledgment of their role in forming an appropriately scaled "fourth side" of the "Parliament Square", buildings on the south side of Wellington Street, between Confederation Square and Kent Street, were recommended to be no higher than the Langevin Block, resulting in a maximum elevation of 375 feet above sea level, 55 feet higher than proposed by Gréber. Similarly, a maximum height elevation of 390 feet was recommended for the buildings behind the Wellington Frontage, facing Sparks Street, in order to prevent the backs of these buildings from dominating the view from Parliament Hill.

2.2.4 Absolute Height Ceiling

In the areas of the central area farthest from Parliament Hill, where the extended view planes were ineffective, an absolute maximum height limit was established. This was set, to ensure that no building would be higher than the Peace Tower, at an elevation of 577 feet (176 metres) above sea level, (the same height as the approved Place de Ville, Phase I).



Figure 15: View Toward Parliament Hill and the Chateau Laurier (Hammer Study)

2.2.5 Foreground Controls

The same viewpoints and projected planes used to control background height limits were also employed to define the areas for foreground views protection. For these areas, the *Hammer Study* recognized that most of the views were over the river, and thereby protected from development under normal conditions. It recommended that “planned development regulations” be imposed should future development threaten to obstruct the views. The Rideau Canal / Colonel By Drive area was singled out as a particularly sensitive view corridor and the report recommended that foreground controls be developed through a “detailed and comprehensive design plan.”

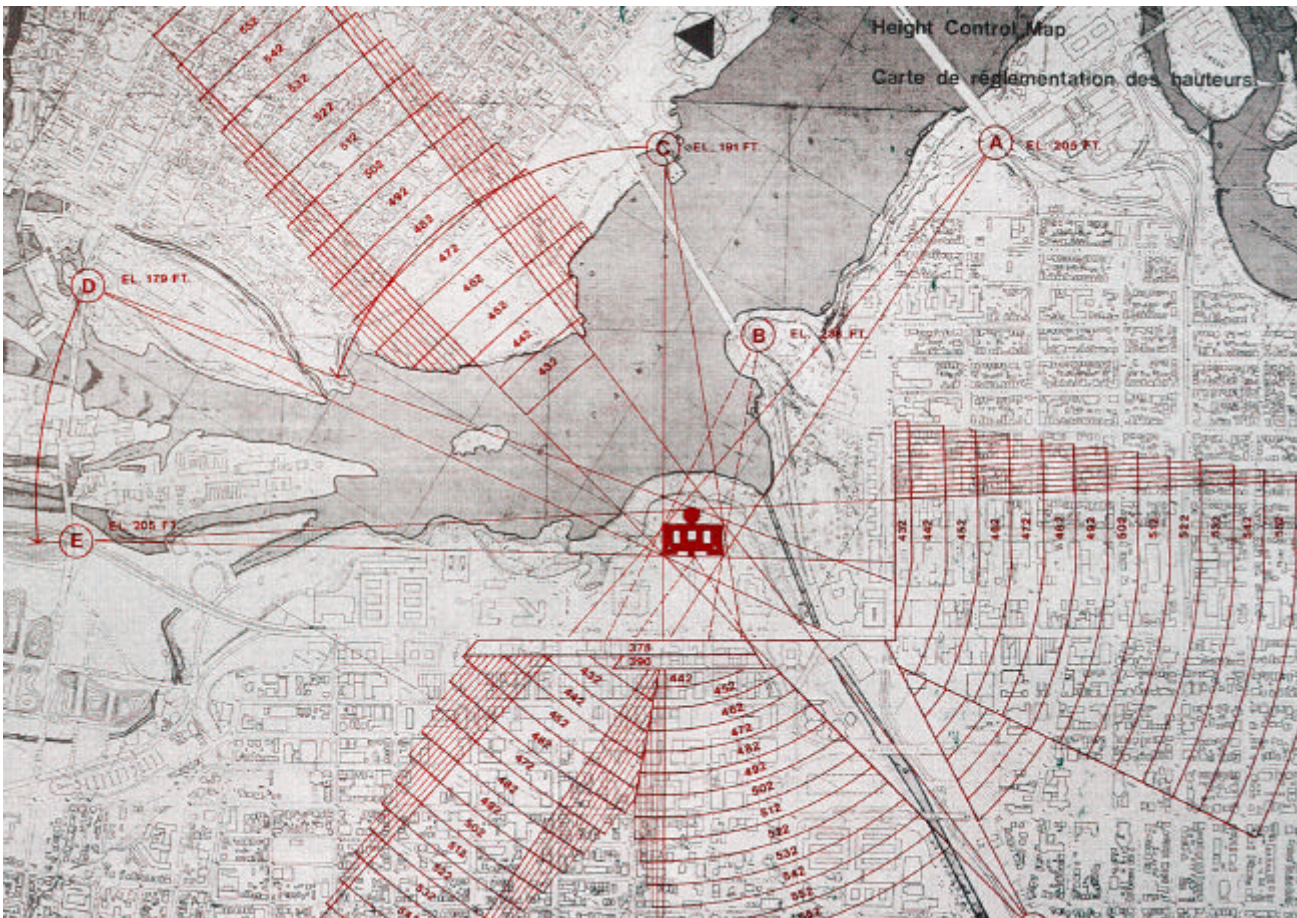


Figure 16: Height Control Map (Hammer Study)

2.3 The 1971 Official Plan Amendment

The City of Ottawa Official Plan Amendment No. 62, Central Area, March 1971, was intended to "establish certain policies of land use, density, and building height." It incorporated most of the views protection height control recommendations of the 1969 Ottawa Central Area Study, (*Hammer Study*).

The primary height control document was Schedule C, which set out the allowable building heights (in feet above sea level) for the city blocks in the Central Area. It interpreted the *Hammer Study's* contoured height planes by averaging the elevations of the contours on each city block. This averaging resulted in slightly higher permitted limits on many of the blocks.

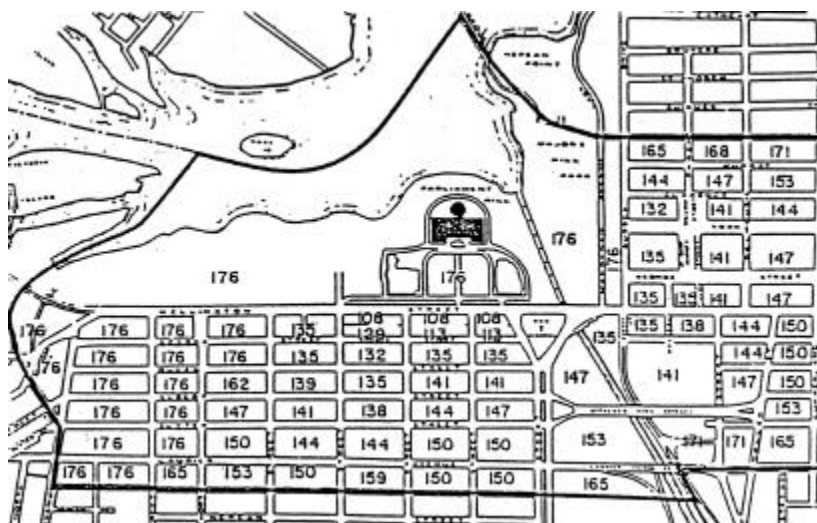


Figure 17: Height Control Map, Schedule C, Official Plan Amendment No. 62 (in metres above sea level)

The *Hammer Study's* Height Contour map became Schedule D of the Official Plan Amendment, and was included as a supplementary interpretation document for use by the Committee of Adjustment in assessing applications to vary building heights. Schedule D, in fact, became the operative document for developers and architects of central area buildings.

The foreground views protection measures recommended in the *Hammer Study* were not included in the OP Amendment. Instead, design issues, which were not specifically quantified in the *Hammer Study* were referred to the City of Ottawa Design Committee which was “to have regard for the principles” of the study.

The Rideau Canal area, which the *Hammer Study* identified as a special view protection area requiring a “detailed and comprehensive plan”, was discounted. The OP Amendment included this canal area as part of the Height Control Map (Schedule C) with assigned height limits similar to those of the adjoining city blocks.

These Official Plan height control policies of the City of Ottawa remained in effect for twenty-five years, until the passage of Ottawa’s Official Plan Amendment 14 in 1996.



Figure 18: Schedule D, Official Plan Amendment No. 62 (in metres above sea level)

2.4 1990–2002 Views Protection Studies and Policies

2.4.1 1990 City of Ottawa Official Plan Review

The “heights” issue again became the topic of public debate in 1990, triggered by a proposal for a new office tower in Ottawa’s Core, which would have significantly exceeded the regulated height limit. The debate was carried out in a series of public forums, organized to consider Ottawa’s existing and potential Central Area Official Plan policies.

The National Capital Commission participated in this public debate. Its principal concerns were that the proposed office tower would have a very damaging visual impact on the symbolic primacy of the parliament buildings, and would establish a precedent for much higher downtown buildings that would visually overwhelm the National Symbols. The NCC initiated one of the public information forums and, at the request of the City of Ottawa, sponsored a preliminary review of the existing (OPA 62) building height controls to see if any increase in building height was possible.

This study concluded that, subject to more detailed analyses, no increase in the permitted building heights in any part of the Central Area seemed possible without compromising the visual integrity of the National Symbols. The report further suggested the possible need for more restrictive height controls in some parts of the Central Area to meet views protection objectives. The report of this preliminary study became a working paper of the City of Ottawa Official Plan review process. A concurrent transportation study prepared by the City of Ottawa also concluded that transportation capacity imposed significant limits on the scale of development in Ottawa’s central area.

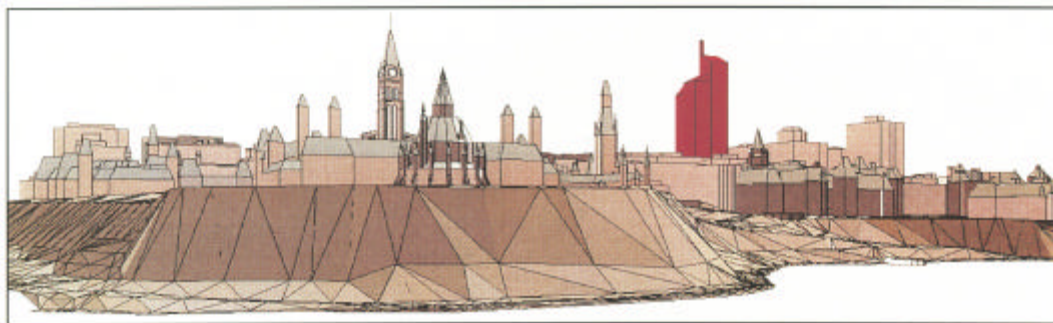
The NCC also produced a video (*A Vanishing Symbol*) to promote the protection of the unique visual qualities of the National Capital and its primary national symbols. Computer simulations of the proposed office tower, and similar high buildings on vacant sites in Ottawa’s core, were presented in the video and a companion leaflet. These powerfully illustrated the potential danger of relaxing the height controls.

The outcome of the public consultation process was the requirement by City Council for a Secondary Planning Study which would develop recommendations for new views protection policies.



One Big Building?

Un seul grand édifice?



A proposal has been made to construct a forty storey building at Queen and Kent Streets. Computer simulation shows that, from many viewpoints, this would severely compromise the image of the Parliament Buildings.

On a proposé de construire un édifice de quarante étages à l'angle des rues Queen et Kent. La simulation par ordinateur montre qu'à partir de plusieurs points de vue, cette construction compromettrait gravement l'image des édifices du Parlement.

Many big buildings would have an even greater impact. Computer simulations illustrate the effect of adding fifteen storeys to the present height limits on potential new development sites.

L'impact de nombreux grands édifices en hauteur serait encore plus grand. La simulation par ordinateur montre l'incidence qu'aurait l'ajout de quinze étages à la limite permise actuellement sur les terrains susceptibles de recevoir de nouvelles constructions.



Several Big Buildings?

Plusieurs grands édifices?

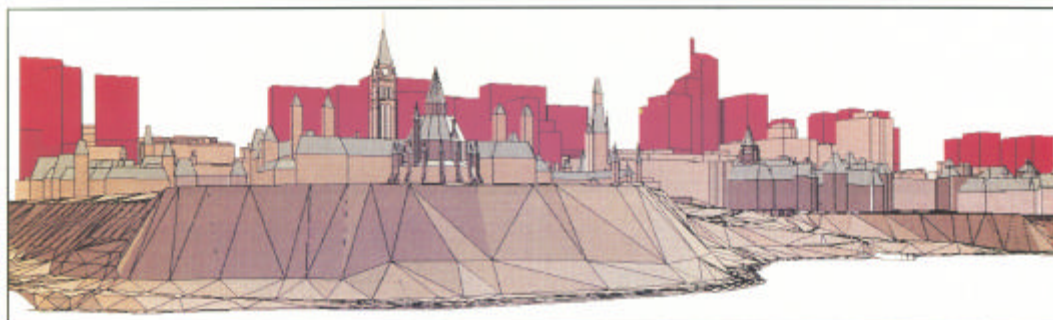


Figure 19: Page from "Protecting the Parliamentary Precinct Skyline – Central Ottawa Height Controls" N.C.C. Publication, 1990.

2.4.2 1993/1994 Secondary Planning Study

The statement in the new Official Plan defined the terms of reference of the Secondary Study:

City Council, through a Secondary Planning Study undertaken in consultation with the National Capital Commission, business community and public, shall investigate and recommend strategies and mechanisms that will ensure the protection and enhancement of the visual integrity and symbolic primacy of the Parliament Buildings and other national symbols in addition to the Centre Block and Library, and that such mechanisms of protection and enhancement shall include the development of objective, numeric and verifiable measurements which quantify the term 'visual integrity'.

The Parliament Buildings are the Centre Block and Library, East Block and West Block. Other national symbols include major public buildings, monuments, and physical landforms within the Parliamentary Precinct and around Confederation Boulevard.

This study shall assume that the development potential that exists within the Central Area (i.e., that defined by the Zoning Bylaw on the date of adoption of this Plan) be maintained.

Through these terms of reference, much broader concepts and definitions of national symbols and visual protection (and enhancement) were presented than had previously been considered. At the same time, more exacting measures with which to regulate and judge proposed building developments, were required.

The recommendations of the Secondary Planning Study, jointly sponsored with the N.C.C., were first presented in the 1993 report; *Ottawa Views*. This study was the subject of further review and input from local community and private development industry representatives, and the final recommendations were published in the 1994 *Ottawa Views Addendum* report.

The **Ottawa Views** study and the *Addendum* report provided the technical and methodological basis of the current views protection measures. The reports' recommendations relate primarily to the control of heights of **background** buildings, which are seen behind or beyond the National Symbols and which could potentially visually obscure or overpower the silhouette.

The recommendations also specify the areas subject to foreground views protection controls as defined by an urban design plan and a review mechanism. The **Ottawa Views Addendum** recommendations are incorporated in the City of Ottawa Official Plan (OPA 14, 1996) and zoning by-law for the Central Area (Z-2K) and the NCC's planning policy.

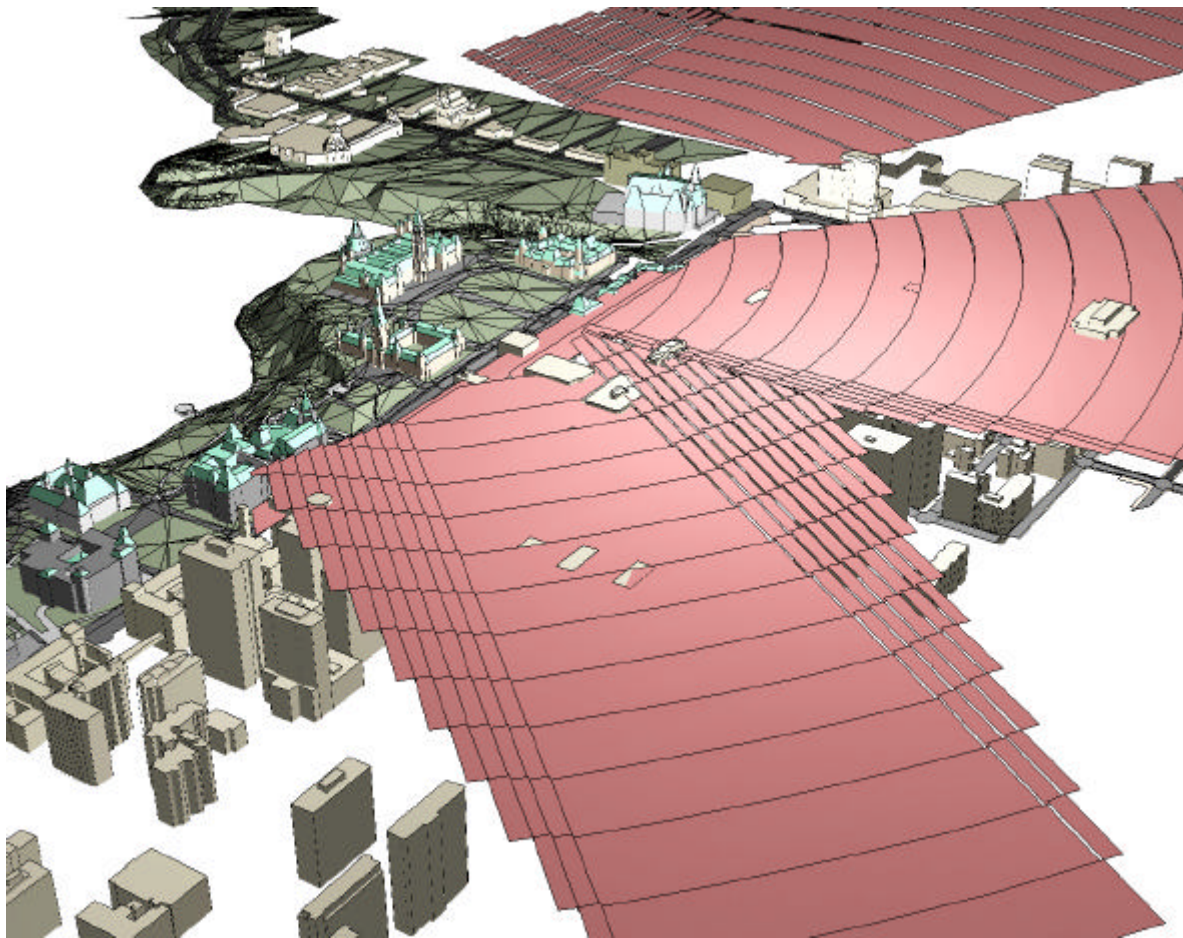


Figure 20: Computer model of the "Hammer" Height Control Planes showing the non-conforming buildings in The Core (Ottawa Views, 1993)

2.4.3 Foreground Views Protection Studies

Two subsequent studies; for Sussex Drive, (1996) and LeBreton Flats Views Protection (1999), defined building height and setback controls for development seen in the **foreground** of views of the National Symbols. The recommendations of both studies are part of the NCC'S planning policy and the LeBreton Flats recommendations are included in the Ottawa's Official Plan Amendment 27.

Similar views protection policy recommendations are currently being prepared for the City of Hull (which formed part of the consolidated City of Gatineau in January, 2002).

2.4.4 Implementation of the Height Controls

The computer modeling techniques employed in the *Ottawa Views* study presented the opportunity to analyse the existing (OPA 62 / Z-2K) height controls in new and revealing ways. For the first time, the "Hammer" height control planes were represented three-dimensionally. Buildings which had been approved and constructed in excess of the maximum height limits could be similarly displayed and their visual impact on the National Symbols, more accurately assessed than ever before.

The use of these new analytical tools led to a greater awareness that previous relaxations of the mandated building height controls have had a serious, erosive impact on the visual integrity of the National Symbols. Thus the *Ottawa Views Addendum* recognized the need to ensure that the new height controls be strictly and precisely enforced and that the controls be equally applicable to both publicly and privately sponsored developments. This is now reflected in the safeguards relating to the implementation of the views protection policies, incorporated into Ottawa's Official Plan (OPA 14) and the NCC's planning guidance.



Figure 21: The Chateau Laurier, Parliament Hill, and the MacKenzie Tower of the West Block seen across the Ottawa River from the Museum of Civilization

SECTION 3: THE VISION FOR THE CENTRE OF THE NATIONAL CAPITAL

3.1 A Convergent Vision

In the three decades since height controls based on angular view planes were first introduced in Ottawa, there have been substantial changes in the physical form and character of the Core of the National Capital: Many new major federal and municipal institutions have been built, much of the downtown areas of Ottawa and Hull (Gatineau) have been redeveloped or restored, and new infrastructure and public space improvements have been completed.

Of greater significance is the emergence of a more coherent and broadly shared vision of the Capital's central area. No such clarity of context existed for the 1969 Ottawa Central Area Study even though similar concepts were essential points of the earlier Gréber Plan. More recent National Capital Commission and City of Ottawa policies, and Public Works and Government Services Canada's studies for the Parliamentary Precinct have re-instated a thematic context for a range of planning initiatives. The shared vision provides a strong foundation for determining the most valued components of the national capital's cultural and natural heritage, and for developing the necessary standards and procedures for their protection.

3.2 The Core Area Concept Plan

The Concept Plan for the centre of the National Capital (*Core Area, Concept of Canada's Capital; NCC; April 2000*) brings together and elaborates many of the elements of this vision. It provides a consolidated view of the earlier plans, ideas and initiatives, and establishes the principles and objectives for long-term planning for further development and enhancement. Based on the *Concept*, a *Sector Plan*, specific to the federally owned property, is currently being prepared.

3.2.1 Sense of Place

The basis of the revived vision and the foundation of the Concept Plan is the Core's *urban morphology* – the remarkable pattern of landform, vegetation, buildings and streets, which combine to make a distinctive and memorable place.



Figure 22: Aerial View of the "Central Capital Landscape"

When viewed from the air, the heart of the Capital Core can be seen as a great space, enclosed by the built-up cities of Hull and Ottawa. This space is focused on the river. It has gently sloping land on one side and dramatic escarpments on the other, upon which are sited the Nation's major institutions. It is a space one comes across with dramatic impact after moving through the surrounding city. It is a space which provides breathtaking views of the buildings it contains.

There are two broad counterbalancing components of the urban morphology – a river-centred landscape and the framing edges of the built-up cities.

The forms of the buildings, circulation routes and landscapes of the river-related space are predominantly picturesque. The buildings are individual **objects**, designed **in the round** to be seen from all directions, with space and landscape between them. Buildings combine to make architectural groupings and the landscape acts as an organizing matrix, defining and connecting the outdoor spaces.

By contrast, the bounding city fabric is made up of orthogonal grids of the streets and city blocks which deflect to align with bends in the Ottawa River. The city blocks typically are edged by buildings with street-related facades, which combine to form the spatial walls of the streets. In contrast to the generous green and flowing landscape of the river-related central space, the outdoor spaces of the city fabric are the more enclosed and compact spaces of streets, arcades, forecourts, squares and courtyards.

These special and remarkable qualities characterize the centre of the National Capital. They distinguish this place from all others and reflect an identifiable "Sense of Place". The specialness of this place stems from a synergetic combination of natural landscape and the urban interventions which have both responded to and reshaped the landscape. The aim of the Core Area Concept Plan is to strengthen, enhance and reveal the constituent parts of this unique synergy.

The essential character of the centre of the Capital is defined by:



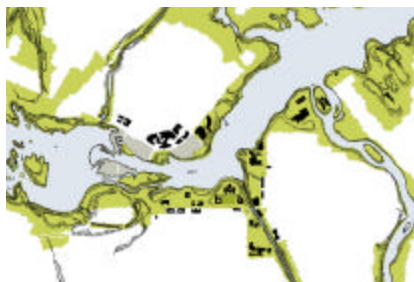
The aquatic and topographic foundation.



Primary National Symbols located on the most prominent sites overlooking the Ottawa River.



Major public landscape spaces associated with the rivers and waterways..



National symbols, civic, governmental and institutional buildings sited within or adjacent to the public landscape spaces.



Urban development pattern of both cities, ordered by a framework of streets and blocks, which meets the public landscape spaces with clear and definite edges.



*The Capital realm which is the public landscapes associated with the waterways and the setting for the principal national institutions.
The Civic realm of urban blocks, streets and squares which define the edge of the Capital landscape.*

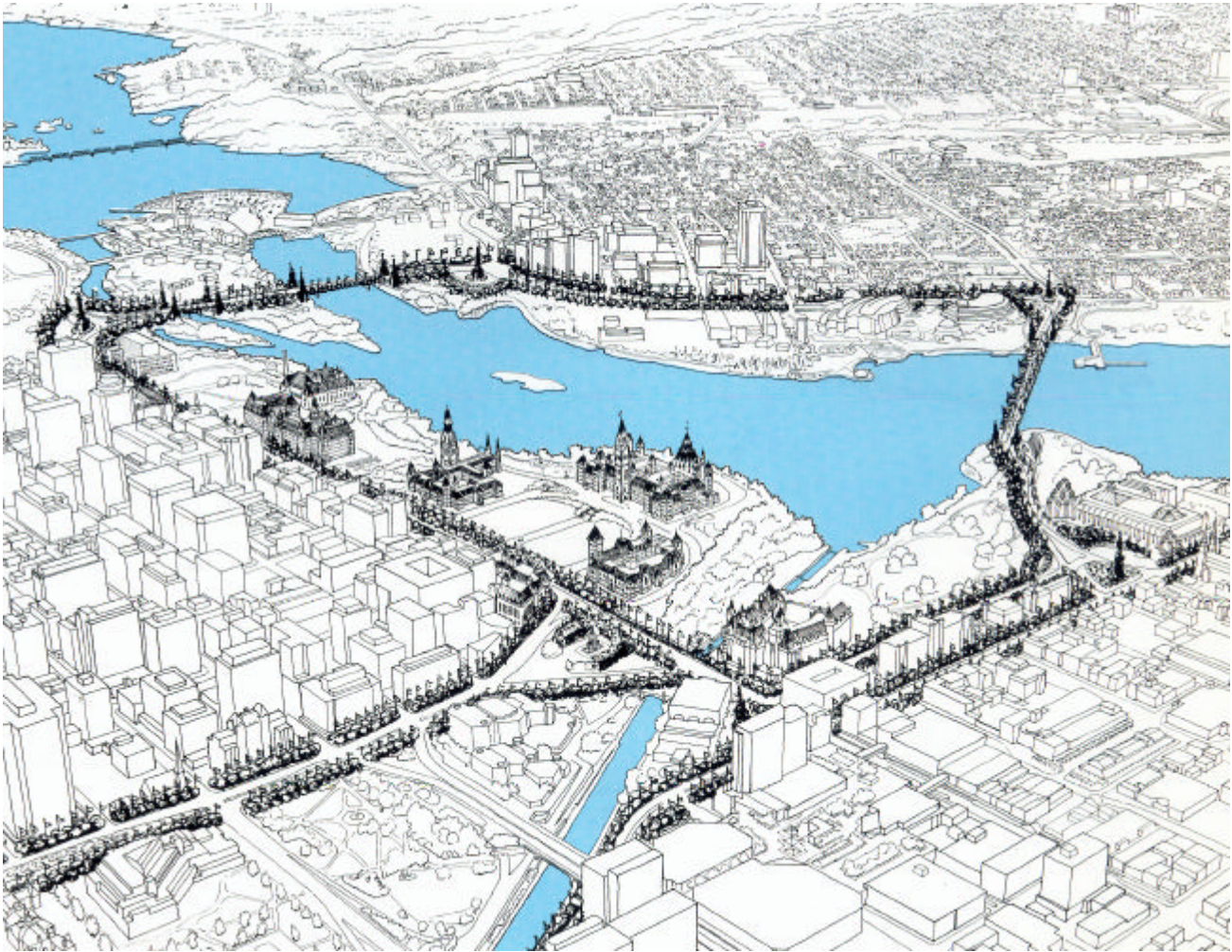


Figure 23: Confederation Boulevard – Conceptual Perspective (NCC, 1985)

3.2.2 Confederation Boulevard

The ceremonial routes, now named Confederation Boulevard, have three primary purposes: to graciously accommodate formal ceremonies, public celebrations and events; to act as perceptual linkages between the parts of the National Capital Core and to physically and symbolically interconnect both sides of the Ottawa River.

Confederation Boulevard is on the seam between the Capital and Civic (*Crown* and *Town*) realms. It defines their edges and it welds the two realms together. The central Confederation Boulevard **Ring** connects the two sides of the Ottawa River, it links the cities of Ottawa and Hull into a single unified urban composition and it encircles the *Central Capital Landscape*. This is the symbolic centre of the Capital Core.

The completed **Ring** has proved successful to its ceremonial and symbolic purpose. It has also added new dimensions to the Capital by opening up, for the enjoyment of visitors and residents alike, new or freshly discovered perspectives of the Capital's landscape and its national institutions.

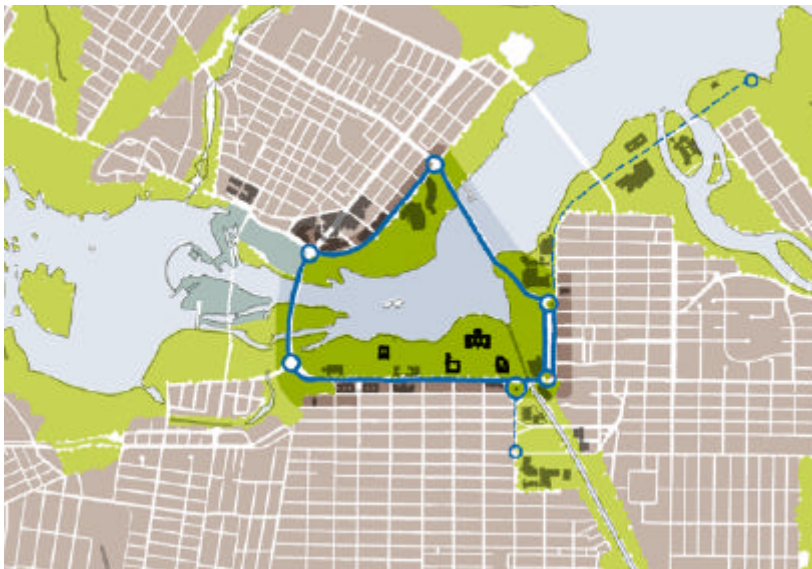


Figure 24: Confederation Boulevard and the Central Capital Landscape

3.2.3 The Central Capital Landscape

The great river-centred landscape space which includes the principal nationally symbolic buildings, and which is framed by the central *Ring of Confederation* Boulevard and the built-up edges of the cities is referred to as the *Central Capital Landscape*.

This *Landscape* is a complex composition of buildings, topographic features, vegetation and interlocking public open spaces. Its component parts, both singularly and in their compositional contexts, are of great cultural, symbolic, aesthetic as well as economic value. They are to be protected and enhanced, through positive interventions and through the legislated control of potentially damaging intrusions. The *views protection* measures are concerned with controls – to ensure the protection of the most significant public views of the most important components of the Central Capital Landscape. These public views are from within the great landscape space and from the routes entering it.



Figure 25: The Central Capital Landscape

3.2.4 The Parliamentary Precinct Area

The centre-piece of the Central Capital Landscape is Parliament Hill and the associated precinct of national institutions.

The long-range development plan for the Parliamentary Precinct Area (1987) and the new Planning Framework for the Parliamentary Precinct (2001) consolidate and update the themes of the earlier Gréber plan. The priority is the preservation and enhancement of the symbolic primacy and visual integrity of Parliament Hill – the unique composition of the three Victorian gothic buildings, the formal landscape which joins them together and the rugged escarpment landscape which bounds their plateau setting.



Figure 26: The 1987 Parliamentary Precinct Area Demonstration Plan



Figure 27: The 1987 Parliamentary Precinct Area Demonstration Plan – Aerial

Based on the precedents of Parliament Hill, the plans set out the planning principles to guide all building and landscape development. They establish a framework for the future development of the western part of the plateau extending from the West Block to the escarpment below the National Library. This includes the addition of a "third" building to complete the enclosure of the Supreme Court Lawn, and a new building on the extension of Bank Street, between the West Block and Confederation Building.

A further principle is the reinforcement of a formal but free-flowing landscape on the north side of Wellington Street within which the national institutions are sited as architecturally independent **pavilions**. These are seen from all sides, sometimes as separate **objects**, sometimes in complex overlapping compositions.

To the south of the precinct, any new buildings fronting Wellington Street are planned to give spatial definition to the *Crown (Capital)* landscape and to establish a clear edge to the pattern of urban streets and blocks. Any new infill buildings are therefore planned to follow generally consistent alignments and heights to maintain a unified **street wall** to Confederation Boulevard. In the case of new buildings opposite the Parliamentary Lawns, these should help contain the great quadrangle defined on the other three sides by the Parliamentary Buildings.

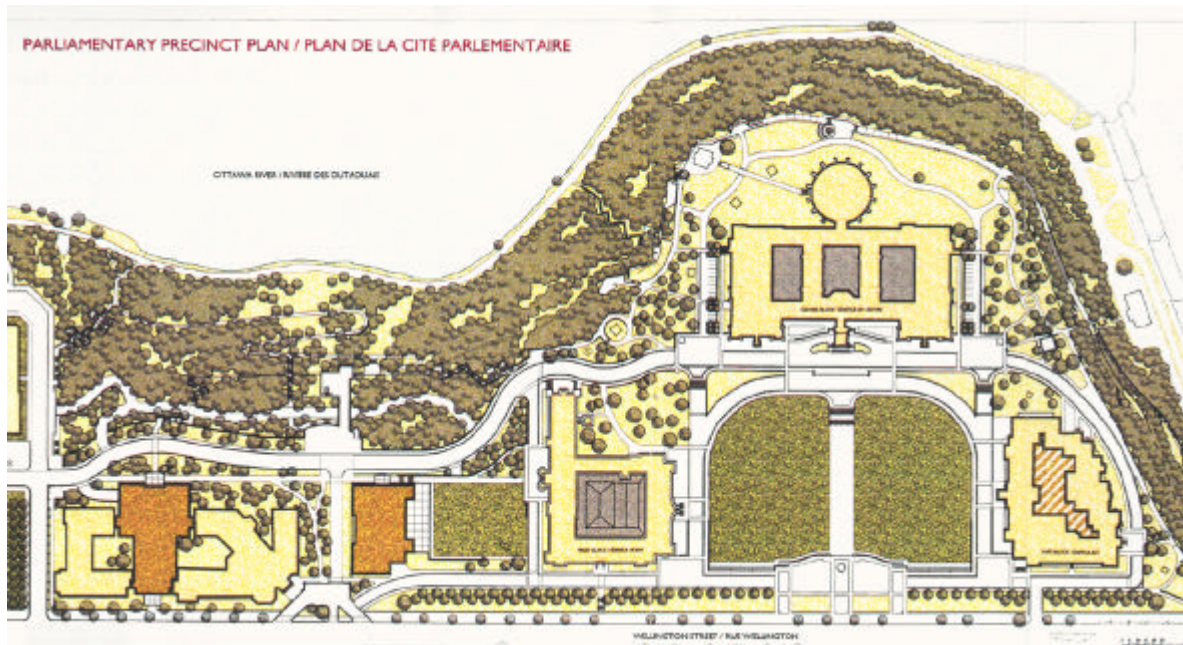


Figure 28: The 2001 Planning Framework for the Parliamentary Precinct

3.2.5 Capital Scenic Approach Routes

Among the most significant early accomplishments of the National Capital Commission and its predecessors was the creation of a network of scenic driveways and parkways. These link the river and canal corridors, and the scenic routes in the Greenbelt and Gatineau Park, with the centre of the Capital culminating at Parliament Hill.

Some recent developments in the centre of the capital have tended to erode these ideas, and the Core Area Concept proposes to revive the concept, particularly where the boulevards and scenic approach routes enter the Nodes of the Confederation Boulevard Ring.

The scenic routes are primarily 'ceremonial' driveways, such as Sussex Drive and Colonel By Drive, and they afford important introductory views of the National Symbols as the routes approach and enter the Central Capital Landscape. The analysis of the kinetic views along the approach routes is a significant part of the *views protection* assessment.



Figure 29: The Central Capital Landscape and the Scenic Approach Routes

3.2.6 Civic Street Approaches

Many civic streets provide important connections from downtown areas to Confederation Boulevard, the Central Capital Landscape and the Ottawa River.

Some of these streets are identified as key connections, both symbolically and in terms of visual, pedestrian, and/or vehicular access, which should be reinforced and intensified as improved approach routes to Confederation Boulevard. Views from these key street approaches are included in the *views protection* analyses.



Figure 30: Confederation Boulevard and the Central Capital Landscape

3.2.7 Pathways

The component parts of the pedestrian and cycle pathway systems within the Core Area closely correspond its four landscape types:

The first type is the river banks which provide an ideal setting for commuter and casual recreational walking and cycling. The present shoreline walkways and bicycle paths are part of an extensive city-wide, regional and national network.

The second are the pathways on the rim of the Parliament Hill escarpment and the terraces of the Museum of Civilization, which provide models for a more extensive pathway system planned for the top of the banks of the Ottawa River.

The third is the *Grand Esplanade*, running along the inner side of Confederation Boulevard, which is the most formal of the pedestrian routes. It gives cohesion to the city edge of the Central Capital Landscape, as well as a constant line of reference within the city fabric. The esplanade has been deliberately designed to offer enhanced public views of the nationally important institutions and their settings. Views from Confederation Boulevard therefore figure prominently in the *views protection* assessments and policies.

The fourth component of the pedestrian system is the network of urban street sidewalks and pedestrian malls, which link into the other pathway systems.



Figure 31: Pathways

3.2.8 Waterways

The river is the historic focus of the Capital and the *common ground* between the two cities.

Once the primary transportation corridors, the Ottawa River and its tributaries have a diverse range of natural and cultural features which reflect the nature and history of the Core Area. The Concept Plan proposes that the waterways should have a greater role in day to day, as well as the tourist experience of the Capital and both the land-based and boat access will be coordinated to enhance the specific qualities of riverside sites.

There are many parts of the riverside where additional facilities and greater public exposure and access will reinforce the integration of waterway uses with other urban activities. Other riverside areas and special places will be maintained as natural, contemplative retreats from intense city life.



Figure 32: Waterways

3.2.9 Context for Views Protection Measures

The foregoing summary of the *Core Area Concept* and related plans, provides an outline of the urban design framework within which the recent views protection analyses have been prepared.

Two underlying concepts embedded in this framework have particular importance to the views protection policies. The first is that the subjects of views protection – the “National Symbols” – should be broadly defined to include not only the focal parliamentary building but the entire ensemble of other major, national parliamentary, judicial and cultural institutional buildings and monuments as well as their topographic and landscape setting and the frame of bounding city areas. This ensemble is referred to as the *Central Capital Landscape*.

Though the Centre Block, including the Library and Peace Tower, is the pre-eminent element of the larger composition and is the principal subject of views protection, it is inseparable from the immediate Parliament Hill setting and the greater building and landscape ensemble.

It should also be recognized that the composition of the *Central Capital Landscape* is dynamic – further national institutional buildings and landscapes will be added and the framing, built-up city edges will be consolidated and changed. The *Core Area Concept* and supportive plans provide a guide to such changes.

The second concept embedded in the *Core Area Concept* plan, which is important to the views protection analyses, is the definition of the ceremonial and other significant public routes. It is from these most public and accessible places that the views of the National Symbols should be protected – along Confederation Boulevard, at belvederes within the Central Capital Landscape and on the scenic driveway and civic street approaches to the Central Capital Landscape.

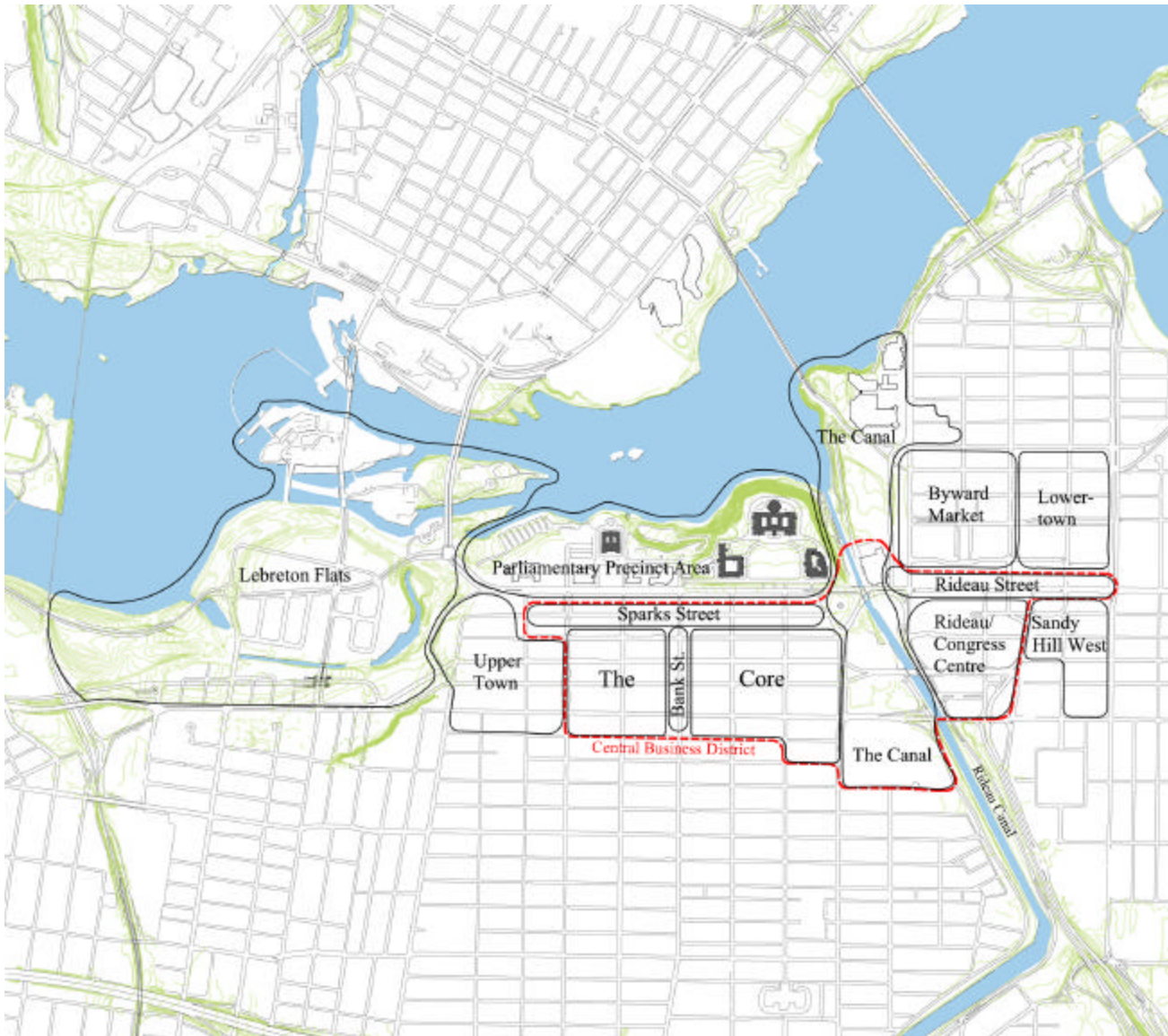


Figure 33: "Character Areas" and "Theme Streets" of Ottawa's Central Area (as defined in the Official Plan).

SECTION 4: THE VIEWS PROTECTION – METHODOLOGY

4.1 The Views Protection Approach

The height limits and other controls, which are necessary to protect the pre-eminence of the symbolically important buildings and features in the centre of the National Capital, are the distillation of a very complex and lengthy process. Yet the objectives of the process are simple and straight forward, as must be the system of regulation and review.

The diagrams and numbers which define the statutory and other controls reflect a wide range of value judgements – judgements dealing with the visual criteria—about visual qualities and visual relationships and compositions. The mandate of the *views protection* studies also required that these judgements be broadly agreed to through consultative processes, and that the conclusions be transformed into specific measurements of regulation. For instance, the terms of the *Ottawa Views* and *Addendum* studies called for “consultation with the National Capital Commission, business community and public” and the development of “objective, numeric and verifiable measurements which quantify the term *visual integrity*.” (City of Ottawa, Official Plan)

Not surprisingly, it was questions related to visual judgement that occupied much of the time and effort of consultants, municipal and National Capital planning staff; representatives of public, professional and business groups, as well as the governmental review agencies, who were collectively involved in the preparation of the *views protection* controls recommended in the *Ottawa Views Addendum* report.

The foundations for these judgements had already been laid by the 1969 *Ottawa Central Area Study* (the Hammer Study) which formed the basis of the 1971 City of Ottawa OPA 62 and Zoning Bylaw Z-2K. A considerable part of the *Ottawa Views* and *Addendum* studies involved re-visiting this earlier study, reviewing the outcome of the existing “heights” controls, and postulating methods for refining and improving the effectiveness of the “angular control planes” approach that the *Hammer Study* introduced to the National Capital.

4.1.1 The Six Basic Steps

The adopted approach to view-protection, first presented in the *Ottawa Views* study, and refined in subsequent view-protection studies, consists of six basic steps:

- Define the subjects (national symbols) which should be visually protected and enhanced, and assign relative visual and symbolic values to the component parts.
- Define the vantage zones and viewing positions from which visual assessments can be made most effectively. Isolate key viewpoints within these zones and analyze the important visual, compositional characteristics of the views from these viewpoints. Summarize the compositional attributes, which should be maintained and/or improved.
- Define the areas in which building heights should be controlled in the background and the foreground of the views from the key viewpoints.
- Define appropriate measures or "standards" for protecting the visual integrity of the subjects in each of the views from the key viewpoints.
- Isolate a minimum number of key viewpoints from which the projected height control planes will provide comprehensive view-protection for all of the other identified key viewpoints.
- Assess the impact of height controls on the development capacity of affected sites to ensure that as-of-right redevelopment densities are protected.

4.1.2 Reaching Consensus on Value Judgements

The six steps, described in the following pages, are necessarily presented as a linear sequence. In practice, the steps are interactive and the procedures are iterative.

Each of the steps requires a process of analysis, speculation, judgement and synthesis which is separately and collectively interactive and which necessarily involves interpretation and values. Computer-generated, three dimensional simulation models, used throughout the views protection studies, provide the tools for testing and evaluating a large number of variables and speculative assumptions through the six steps. As important, the simulation techniques allow for a transparent process in which value judgments could be openly examined, debated and tested in public, community and stakeholder forums.

The judgements made in the views protection studies are informed by objective information. They have also been made by combining the opinions and reactions of people trained in visual perception as well as people who are not specifically trained. They combine the evaluation of consultants who have examined the question in some considerable detail, as well as national planning and design advisory committees looking at it with fresh eyes, members of the City of Ottawa and National Capital Commission planning and design staff, and representatives from the development industry, professional and community organizations.

It is through a process of consultation and consensus-building that judgements which at first seem highly speculative and subjective are examined, articulated and refined to a point where they can be broadly agreed to, measured and objectified.

4.2 Defining the Subjects of Views Protection – The National Symbols

The “National Symbols” — the views of which are to be protected, preserved and enhanced — are broadly defined as the Parliament Buildings including the Centre Block and Library, the East and West Blocks and other major public buildings, monuments and physical landforms within the Parliamentary Precinct and around Confederation Boulevard.

The collective ensemble of these elements, referred to as the “Central Capital Landscape”, has three major parts: In the centre is the river and the open, relatively unobstructed landscape around the water's edge. Bounding this centre, on the escarpment and higher riverbanks, is the territory of National Symbols: a zone of buildings and monuments arranged as free standing *pavilions*. Around this territory, is the ceremonial ring of Confederation Boulevard and the leading edge of the urban buildings of the two cities.



Figure 34: The Central Capital Landscape; The Composite Subject of the Views Protection

4.2.1 Hierarchy of Importance

Within these broad patterns of the Central Capital Landscape, and recognizing the symbiosis of landform, buildings, and surrounding urban form which is fundamental to the visual composition, the various symbolic buildings have been ranked in a hierarchy of importance.

The Centre Block, including the Parliamentary Library and the Peace Tower and its promontory escarpment are considered the most important National Symbol and worthy of the greatest protection and enhancement.

Other buildings and key elements of the landform are ranked in terms of their visual importance and in terms of the necessary levels of their visual protection into three further categories.

For the purposes of developing **background** height controls, it was concluded that to rank buildings and landscape features other than the Centre Block, (including the Library and Peace Tower) into categories of visual importance, serves no practical purpose since it is impossible to avoid compromising the silhouette of all secondary symbols. The symbols, other than the Centre Block, together with the landforms, are all placed in a single, second category.

For the purposes of developing **foreground** height controls and other built-form regulations, the four category hierarchy provides a valuable means of assessing variable levels of views protection.



Figure 35: Hierarchy of Importance for the Purposes of Developing Height Controls

4.3 Defining The Viewpoints

There are innumerable vantage points in Ottawa and Gatineau (Hull) from which the Central Capital Landscape is visible — from within and from outside, from far and near, from the private or public realm, from inside buildings or out of doors, from ground level or from upper floors.

The selection of the viewpoints from which the views are **important** enough and in the **national public interest** to protect (and enhance), was based not only on the quality of the available views but also on the public accessibility of the location, the likelihood of effective views protection and a viewpoint's position in the evolving urban context.

Much of the initial groundwork had been prepared in the 1969 **Hammer** studies. As many as possible of the previously designated viewpoints were retained since they formed the basis of the building height control policies already in place.



Figure 36: View from the “Belvedere” on the top of Nepean Point

4.3.1 Anatomy of Viewsheds

A necessary prior step to determining specific viewpoints (and analyzing the views) is to establish a common definition of the component parts of the viewed territory. This territory, emanating from a viewpoint, can be described as a “viewshed” which encompasses the subject viewed, its foreground, its background and the lateral areas.

Each viewshed has an **anatomy** of six parts: the viewpoint, the subject, the central foreground immediately between the subject and the viewpoint, the central background immediately behind the subject, and lateral foreground and lateral background areas.

Issues of the foreground relate primarily to visual access or openness, obstruction and/or framing of views. Issues of the background relate primarily to the obscuring or bracketing of the silhouette and/or its being or not being visually overpowered by the perceived mass and height of other objects rising above or beside it.

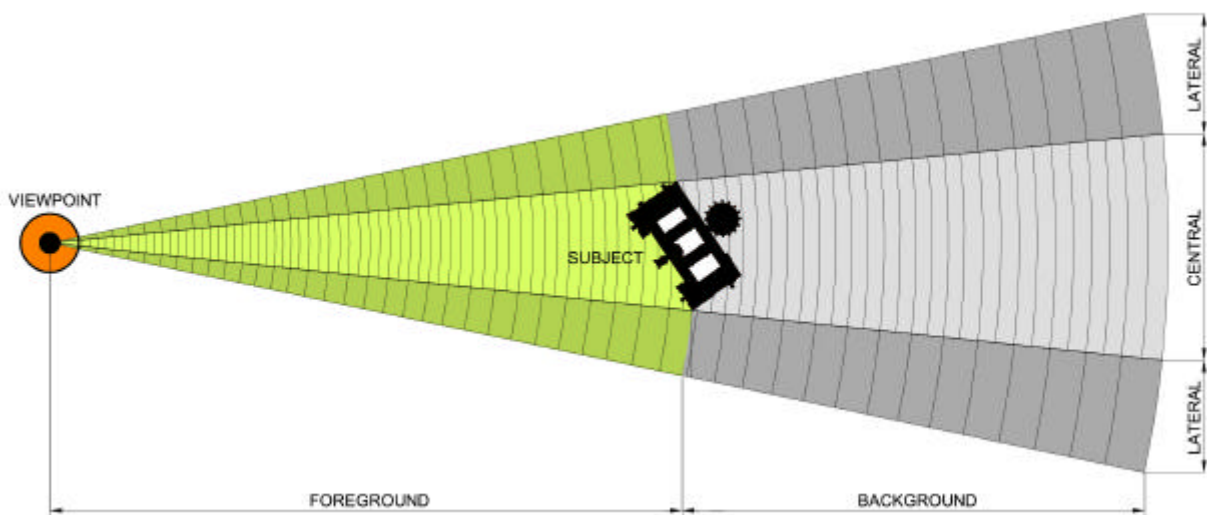


Figure 37: Anatomy of a Viewshed



Figure 38: Viewpoints and View Sequences on the Approach Routes and City Streets

4.3.2 Approach Routes and Entrances to the Central Capital Landscape

Figure 38 illustrates the principal approach routes into the centre, from which good views of the Central Capital Landscape and Parliament Hill are available: three scenic approach routes in Ottawa and two in Gatineau, the Chaudière Bridge and city streets leading to Confederation Boulevard. Views from these approaches are dynamic in nature, providing an unfolding sequence of views of the subject, sometimes clearly seen, sometimes obscured for a while and revealed again later.

The illustrated viewpoints and view sequences along the scenic approach routes and city streets are the positions which afford the best views or where there is a potential for an excellent view. Particularly significant views open-up where the approach routes and city streets enter the Central Capital Landscape.



Figure 39: View from Nicholas Street



Figure 40: View from Confederation Square



Figure 41: View from Sussex Drive

- The Esplanade of Confederation Boulevard
- Escarpment and Terrace Edges
- Riverside Pathways
- Actual or Potential Belvedere Locations and Special Viewing Positions



Figure 42: Four Viewing Zones and "Belvederes" within the Central Capital Landscape



Figure 43: View from the Victoria Island "Belvedere" – Viewpoint 15
(National Gallery left, Centre Block centre right, West Block extreme right)

4.3.3 Viewpoints and Viewing Zones Within the Central Capital Landscape

Inside the Central Capital Landscape there are three principal viewing zones related to the pathway systems and the topographic levels of the river valley. These are: the Confederation Boulevard Esplanade, the escarpment or terrace edge promenade, and the riverside pedestrian and cycle pathways (which also act as 'surrogates' for viewing from watercraft).

Confederation Boulevard is the primary symbolic link between Ottawa and Gatineau and between the principal national and civic institutional buildings. Its Esplanade provides a complex sequence of changing views into and across the Central Capital Landscape. Unlike views from the riverside pathway or the rim of the escarpment which are mostly open and panoramic, views from Confederation Boulevard are constantly shifting from closed to open and framed. In both Ottawa and Gatineau, the emerging pattern of federal development inside the ring of ceremonial routes is an alternating rhythm of buildings and unobstructed gaps between them. In many cases the gaps coincide with the ends of city streets which connect into Confederation Boulevard. It is the continuation of this pattern that is proposed in the presently undeveloped sections, particularly the E.B. Eddy lands in Gatineau.

In addition to the three categories of viewing zones within the Central Capital Landscape, there are unique places to which visitors and recreating residents are drawn for the special qualities of the views they afford. Heights of land such as Nepean Point, the cliff edge in Majors Hill Park, the promontories behind the Parliamentary Library and the Supreme Court and the upper terrace of the Museum of Civilization, are among these unique places. As are some key locations on the Alexandra and other bridges or at the river's edge, such as the eastern tip of Victoria Island or the point of land south of the Eddy Plant. These special places are "Belvederes", meaning literally, *beautiful views*.



Figure 44: View from Confederation Boulevard



Figure 45: View from the terrace edge promenade



Figure 46: View from a riverside pathway

4.3.4 Composite of Important Viewing Zones and Viewpoints

Figure 47 is a composite diagram which combines and summarizes the important viewing zones and viewpoints on both the approaches to, and within, the Central Capital Landscape, as presented above. Significant views from these viewpoints or view sequences presently exist or are expected to in the future.



Figure 47: Composite of Important Viewing Zones and Viewpoints

4.3.5 Isolating Key Viewpoints

While there is a multiplicity of viewing positions and dynamic sequences, in practice only a limited number of representative, high priority viewpoints are needed to analyze the scope and range of the experiences and to determine the broad measures of visual protection. Just as the National Symbols are ranked into categories of importance, values have also been assigned to viewpoints.

Using advanced computer simulation techniques to examine and compare the viewsheds of all the important viewpoints, presented above, a small number of viewpoints are identified as “key viewpoints”.

The *key viewpoints* are selected because they represent the highest quality and least marred pedestrian and motorist views of the National Symbols which are frequently seen and experienced by local residents and visitors to the National Capital. The views from the *key viewpoints* are, or potentially are “picture postcard” views.

More importantly, these viewpoints are *representatives* of all of the other important viewing positions on Confederation Boulevard, on the city streets and on the approach routes. The selected viewpoints are also “key” in the sense that their viewsheds are the most critical to protect. Protection of the viewsheds of the *key viewpoints* will effectively protect all other important viewsheds to the same or a greater degree.

It should be noted that the reductive process of *isolating the key viewpoints* is founded on a complex and iterative procedure of identifying a wide range of viewsheds and evaluating the potential impacts of alternative height controls. The analyses are framed in the context of the existing physical conditions and “most likely” planning proposals in the Core Area of the capital. Should significant changes in the physical conditions occur and/or revisions to the views protection controls be contemplated, they should not be implemented without first returning to the underlying procedures of the viewsheds analysis.



Figure 48: View from York Street



Figure 49: View from Nepean Point



Figure 50: View from Rideau Canal, next to Confederation Square



Figure 51: Location of Key Viewpoints

Viewpoint Reference No.

- | | |
|---|---|
| <ol style="list-style-type: none"> 1. Sussex Drive, at the Macdonald-Cartier Bridge (as O.P. Amendment No. 62, Viewpoint 'A') 2. Sussex Drive, 76.5 metres south of Viewpoint 1 3. Sussex Drive at The National Gallery 4. Nepean Point (as O.P. Amendment No. 62, Viewpoint 'B') 5. Alexandra Bridge Boardwalk, first of a four viewpoint sequence 6. Alexandra Bridge Boardwalk 7. Alexandra Bridge Boardwalk 8. Alexandra Bridge Boardwalk, mid-point 9. "Belvedere" at south end of Alexandra Bridge 10. Terrace-level in front of The Museum of Civilization 11. "Belvedere" at edge of Ottawa River (Hull) | <ol style="list-style-type: none"> 12. Intersection of Portage Bridge and Rue Laurier (similar to O.P. Amendment No. 62, south end of Viewpoint 'C' arc) 13. Mid-point of the Portage Bridge (Rue Laurier/Victoria Island) 14. Mid-point of the Portage Bridge (Victoria Island/Ottawa River Parkway) 15. Victoria Island "Belvedere" 16. Ottawa River Parkway, mid-point of CPR Bridge 17. Nicholas Street, north of Queensway ramps 18. Mackenzie King Bridge at stairway 19. York Street at By Ward Market Street 20. York Street at Sussex Drive 21. Metcalfe Street north of Queen Street <p>LB/B. Supplementary viewpoint at intersection of proposed LeBreton Boulevard and Booth Street</p> |
|---|---|

4.3.6 The Selected Key Viewpoints

Twenty-one Key Viewpoints were selected in the 1993 *Ottawa Views* study and incorporated in the City of Ottawa Official Plan. The 1993 study includes illustrations and descriptions of the Key Viewpoints and an analysis of each view and the desirable visual condition in the central and lateral areas of the foreground and background of the viewshed.

Six of the Key Viewpoints relate to the sequential experiences on the Approach Routes in Ottawa – Sussex Drive, the Rideau Canal corridor and the Ottawa River Parkway. A further three Key Viewpoints are on important City Street Approaches – Metcalfe Street and York Street.

The remaining twelve Key Viewpoints are at various locations on the Confederation Boulevard ring or at belvederes within the Central Capital Landscape.

The protection of the viewsheds of these key viewpoints is the basis for determining the appropriate building height controls in both the foreground and background areas.

Because of the complexity of foreground design issues, foreground protection may require further built-form and landscape controls related to additional viewsheds. The 1999 *LeBreton Flats Views Protection* study for example, recommended the addition of supplementary *Key Viewpoint* LB/B. This is now incorporated into the Ottawa Secondary Official Plan and Zoning Bylaws. Current studies for similar building height controls in Ville de Gatineau may also recommend that further key viewpoints be established.

The key views are not only protected, but their protection is to be promoted through an enhancement and public awareness programme. Enhancement measures include the preparation of detailed design guidelines for the settings of the viewpoints, the installation of survey markers, belvedere platforms and other amenities, appropriate to the particular locations. The public awareness programme is intended to promote, both locally and nationally, the appreciation, interpretation and protection of the views.



Figure 52: View from Viewpoint 4, Nepean Point



Figure 53: View from Viewpoint 16, Ottawa River Parkway



Figure 54: View from Viewpoint 17, Nicholas St.



Figure 55: Areas of Foreground Design Control

4.4 Defining the Areas to be Controlled

4.4.1 *The Areas of Foreground Design Control*

Figure 55 shows the areas within the Central Capital Landscape and on the approach route corridors that require some form of building and landscape design control if the views are to be protected. This definition of the protected foreground area is a combined *overlay* of the viewsheds of the view points and view sequences outlined in 4.3.

The areas of Building Design Control refer primarily to the *pavilion* buildings or building sites which are set within the landscape matrix of the Central Capital Landscape and the approach route corridors, together with the buildings/sites at the edges of the built-up areas which frame these landscape spaces. These require design controls and guidelines which recognize the need to both protect existing views and the potential to enhance the visual compositions.

The areas of Landscape Design Control should remain predominantly open, without building construction except such minor elements as monuments, belvederes, pedestrian shelters, etc. The design of the landscape, particularly the placement of major tree plantings, should take the composition of views into full account.

The complexity of the foreground and the variable development potential of its many areas, necessitate site-specific analyses and design controls which are tailored to the particular circumstances. View protection controls in the foreground areas are therefore prepared as part of comprehensive landscape and architectural design controls and review mechanisms at the time that development proposals are initiated. These have, for example, been prepared as part of the LeBreton Flats development plan and the environmental assessment of the proposed pedestrian bridge crossing of the Rideau Canal, presented in Section 5.

4.4.2 Defining the Areas of Background Height Control

Buildings which are potentially subject to background height controls are those which, if unlimited, would be visible behind the National Symbols. That is, buildings located within the central and lateral background areas of the protected viewsheds.

The full extent of the background areas in Ottawa Central Area, where building height controls might be necessary for *views protection* is illustrated in Figure 56. This diagram combines the backgrounds of the viewsheds of the 21 Key Viewpoints. The subjects of the views include the primary, secondary and tertiary level National Symbols as well as significant topographic features in the Central Capital Landscape.

The diagram illustrates the broad extent of the visual “shadow” of the National Symbols as a result of the “sweeping” effect of the multiple viewsheds of the key viewpoints. Almost all of Ottawa’s Central Area, outside the Central Capital Landscape, is in the background area of more than one of the key viewsheds and is potentially subject to background “views protection” height controls.

Building development in much of this background area is already limited by other height controls. For example, some parts of the Central Area are mixed-use and/or heritage districts where a low-rise built-form is mandated.

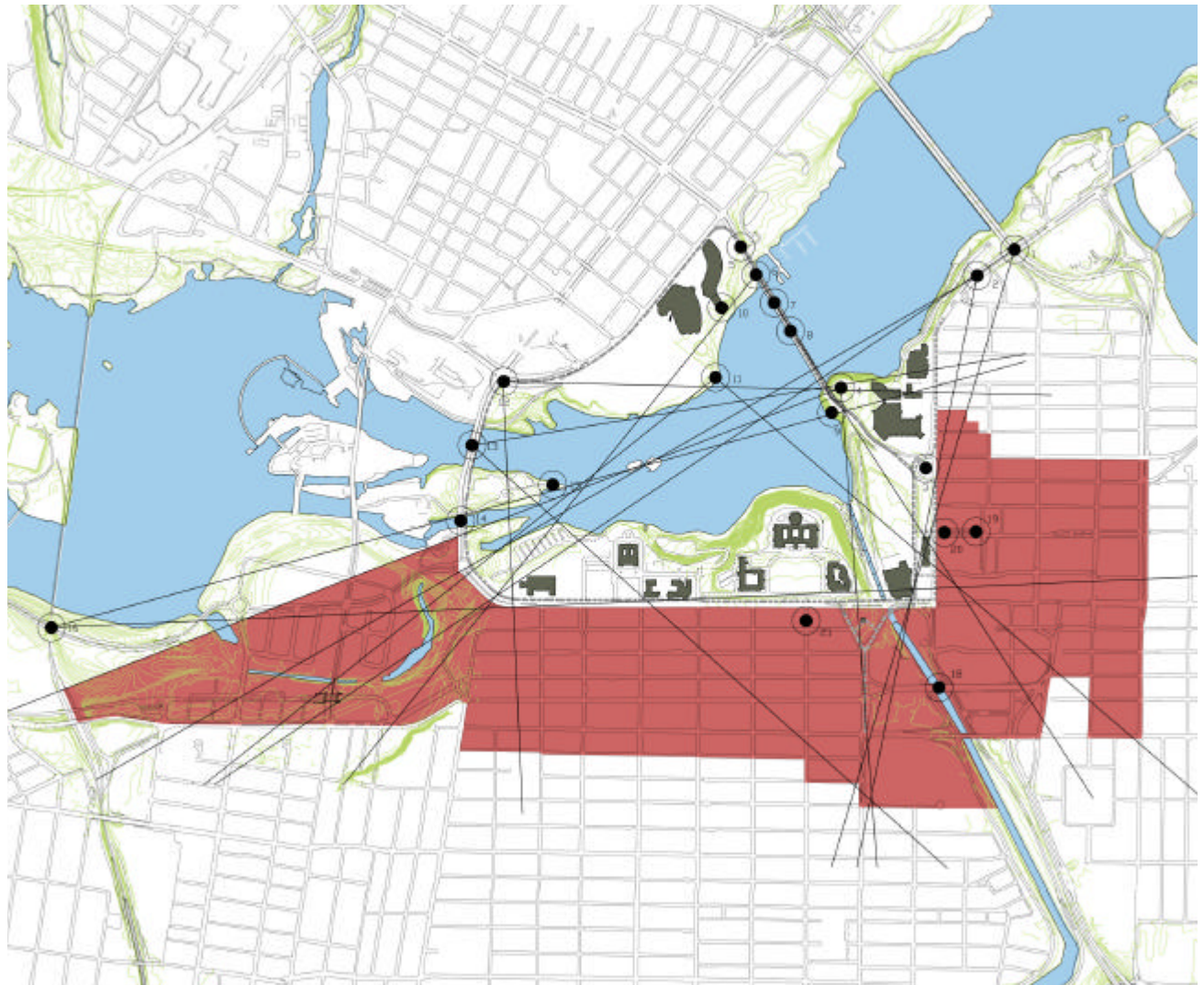


Figure 56: Full extent of the background areas in Ottawa's Central Area

Figure 57 illustrates all the development blocks or sites in the background areas where buildings are presently controlled to lower height limits than those required to protect the key views of the National Symbols.

The details of these “other” height limits are documented in the *Ottawa Views* study. That study also confirmed, through computer simulation analyses, that most of these “other” limits are lower, by a substantial margin, than those required to protect the visual integrity of the National Symbols. In the few instances where particular interpretation of the height controls or minor variances could

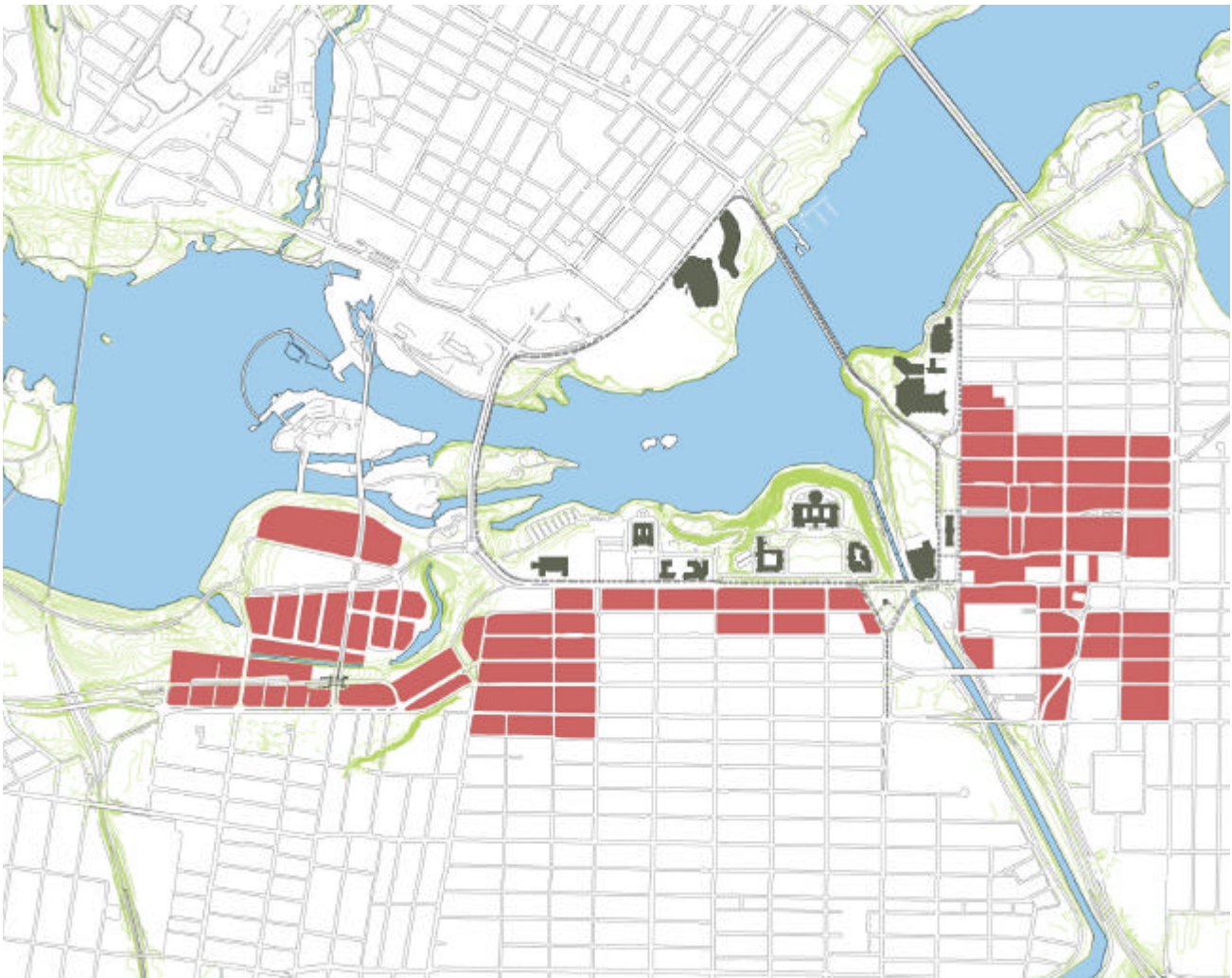


Figure 57: Development blocks and sites with other lower height controls

potentially result in building heights that negatively impact the views, they are included in *views protection* height control assessments.

Figure 58 identifies the remaining development blocks and sites which are subject to *views protection* background height controls. These are concentrated in the Core, west of the Rideau Canal, and in the Rideau Street and Rideau/Congress Centre areas, east of the Canal.

The definition of the areas of background height control in Gatineau (Hull) are the subject of current studies.

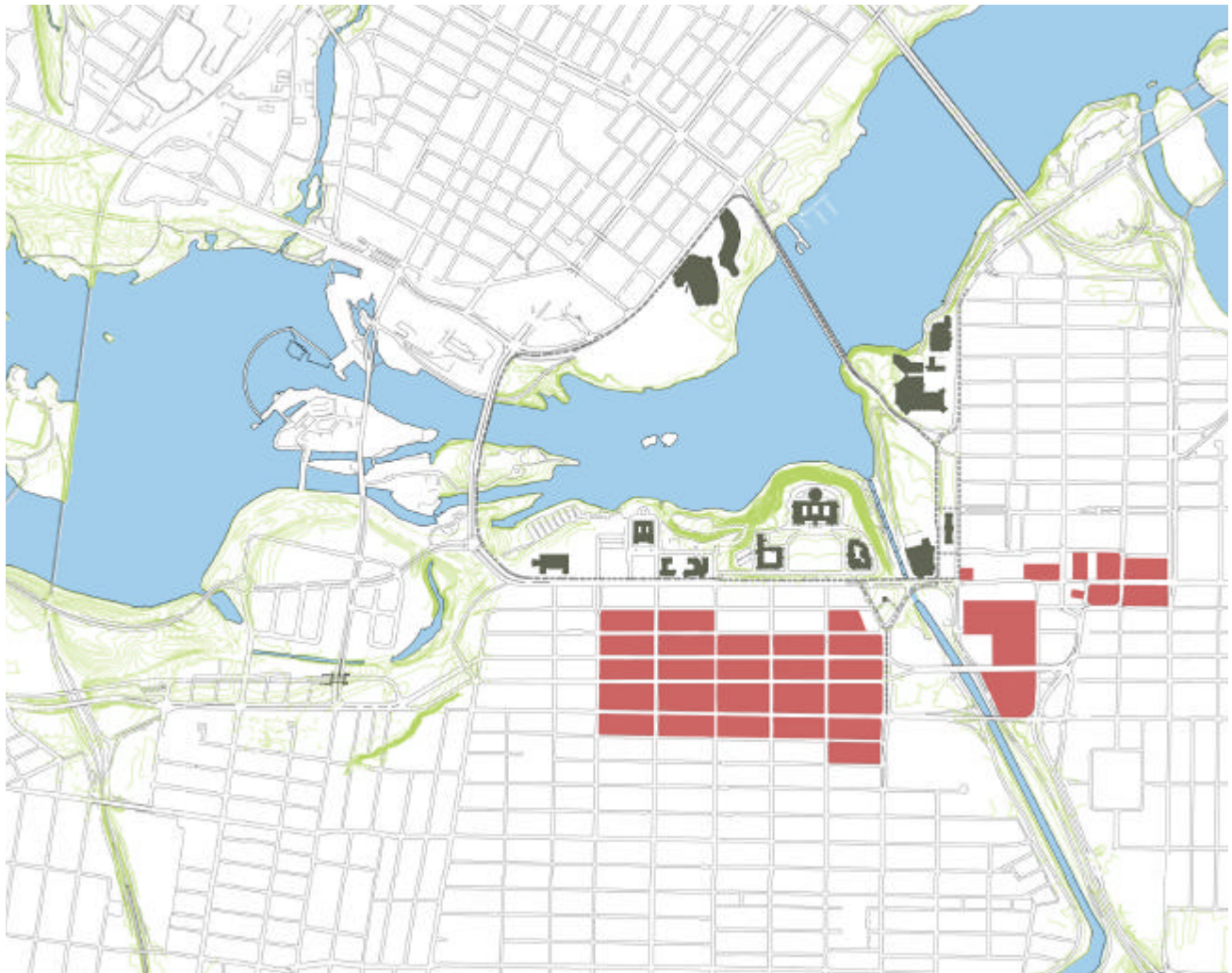


Figure 58: Development blocks and sites which are subject to background height controls



Figure 59: Silhouette of Parliament Hill seen from the Portage Bridge

4.5 Defining the Benchmarks of and Symbolic Primacy

In order to determine the exact limits to which building heights should be controlled, precision must be brought to the “standards” or “benchmarks” used to measure *visual integrity* and *symbolic primacy*.

From any given viewpoint it can be established whether a particular building or composition is either visible or not visible, its silhouette is affected or not, the view is partially blocked or not, other buildings nearby or in the background are lower or higher or more or less massive and so on. All these aspects can be observed and precisely measured. Such objective measurements help in reaching conclusions about whether or not the visual integrity of all or some of the National Symbols are compromised.

The *standards* arrived at through the various views protection studies reflect a balance of ideal definitions of *visual integrity* (visual wholeness) and *symbolic primacy* (symbolic pre-eminence), of the national symbols with the realities of the existing built-form as well as the as-of-right expectations of the private development industry. As with many other aspects of the views protection analyses, the issue of establishing a practical definition of *visual integrity* is one of judgement as to “where to draw the line” or in establishing a reasonable “threshold” for building heights.

From the perspective of protecting the visual integrity of the National Symbols, the “threshold” should be as low as possible for buildings which are seen behind or in the lateral background areas of the National Symbols.

From a number of other perspectives, buildings in the Central Area should be as high as possible. The first of these is the development density. The second is the question of urban design considerations at the street level, particularly with regard to the vitality of the pedestrian realm. Third, is the creation of a variable and interesting city skyline through the provision of architectural rooftop features or diminishing tops to the buildings. Fourth, owners and developers often wish to build as high as possible, both to obtain visual prominence for their buildings and because floors which command fine views, particularly toward the Parliament Buildings, also command higher rents.

These are powerful forces which tend to push built form to the very limits of maximum height planes, and wherever possible, beyond them. At a practical level, it is important to establish height limits which are not easily circumvented while at the same time fulfill the multiple objectives.

Benchmark n. 1: a mark on a permanent object indicating elevation and serving as a reference in topographic surveys and tidal observations. 2a: a point of reference from which measurements may be made. b: something that serves as a standard by which others may be measured or judged. c: a standardized problem or test that serves as a basis for evaluation or comparison (as of computer system performance).

Integrity n. 1: firm adherence to a code of especially moral or artistic values: INCORRUPTIBILITY. 2: an unimpaired condition: SOUNDNESS. 3: the quality or state of being complete or undivided: COMPLETENESS.

Primacy, n. 1: the state of being first (as in importance, order, or rank) : PREEMINENCE the primacy of intellectual and esthetic over materialistic values

(from Merriam-Webster Online Dictionary < <http://www.m-w.com/> >)

4.5.1 Visual Integrity of the Silhouette

The principal concern with regard to buildings seen behind the National Symbols (i.e. in the central and lateral background areas of viewsheds), is their impact on the skyline profile or silhouette. This silhouette is of particular significance in the national capital since many of the important symbolic buildings are designed in a neo-gothic or chateaux style with highly modeled and articulated upper roofs. Furthermore, these roof forms are frequently seen with *back-lighting*, where their shaded sides are seen in high contrast against a lighter sky.

The basic approach to establishing a practical measurement for the *benchmarks*, is reflected by the sequence of sketches on the right, it illustrates diagrammatically, the varying impacts on the silhouette of the Centre Block (primary symbol) and the East Block (secondary symbol) of different height limits applied to the background buildings.

In Figure 60, with no visible background buildings, the full extent of the building profiles above the escarpment tree line are visible – the visual integrity of the silhouette is undisturbed.

Figure 61 illustrates the potential impact of background buildings which rise to the height of the **eavesline** of the Centre Block (as seen from this viewpoint). Significant parts of the main building and the roof forms of the Centre Block are clearly legible. The towers of the East Block, except for the upper most spire, are obscured. From this vantage point, background buildings constructed no higher than the eavesline of the Centre Block can be said to maintain the visual integrity of the silhouette of the primary symbol but overwhelm the secondary symbol.

Figure 62 illustrates the potential impact of background buildings rising to the height of the **ridgeline** of the Centre Block (as seen from this viewpoint). In this scenario the main building of the Centre Block is no longer legible and is barely distinguishable from the main body of the Parliamentary Library. Only the towers and spires above the ridge of the Centre Block roof are discernable as is the upper half of the East Block spire. It is at this point that the visual integrity of the silhouette of the primary national symbol seems to hang in the balance and where the *Hammer Study* essentially “drew the line”.

The final Figure 63 represents the likely visual impact of limiting background building heights to protect only the spire of the Peace Tower. The silhouettes of the upper towers and spires of the Centre Block and Library are obscured and the principal national symbol is overwhelmed.



Figure 60: A Fully Legible Silhouette of the Centre Block, and East Block above the tree line



Figure 61: Silhouette Obscured to the Centre Block Eavesline: the Main Building Form is still Legible but most of the East Block is obscured



Figure 62: Silhouette Obscured up to the Centre Block Roof Ridgeline: Only the Spires are Legible



Figure 63: Silhouette of the Spires Obscured: the Subject is Visually Overpowered

4.5.2 The Centre Block Benchmarks

The above illustrates schematically, the rationale and the procedure for defining the benchmarks. Such testing and visual analyses of alternatives, to the high levels of detail and accuracy that are possible with computer simulation, were conducted from each of the *key viewpoints*. As a result it was concluded that a benchmark at the level of the **eavesline** of the Centre Block provides the most appropriate standard of visual integrity for the silhouette of the primary symbol.

Where this benchmark produces a limit on background buildings which does not give sufficient flexibility for achieving as-of-right densities, then a benchmark at the height of the Centre Block **ridgeline** provides the basis for protecting the silhouette. It is important to emphasize, however that this ridgeline standard provides only the minimum, essential protection of the primary symbols and must be considered the absolute “threshold” of visual integrity.

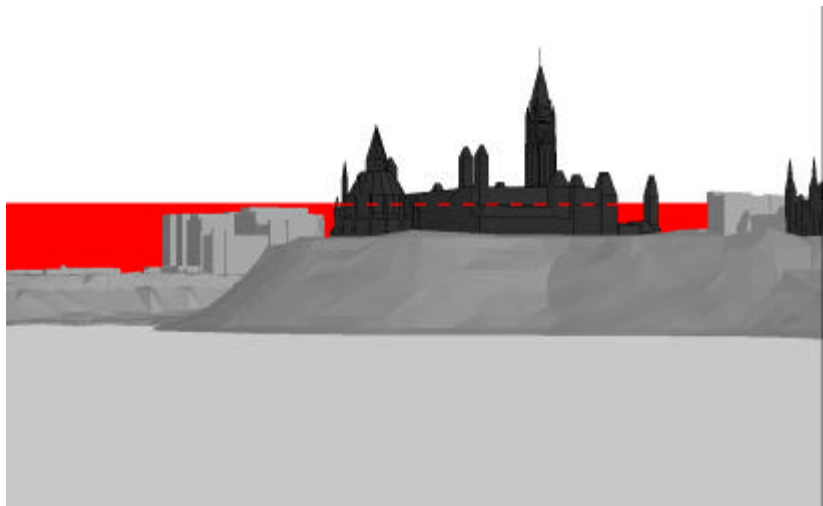


Figure 64: Diagram of Benchmark at the Eavesline of the Centre Block seen from Viewpoint 12

4.5.3 Visual Integrity of Secondary Symbols

Buildings in Ottawa's Central Business District, which were developed in accordance with (or somewhat exceeded) the height limits of the 1971 OPA 62 and Bylaw Z-2K, now obscure the silhouettes of many of the Secondary National Symbols. In the western part of the Parliamentary Precinct Area in particular, only the silhouettes of the upper parts of the Mackenzie Tower of the West Block and the tower of the Confederation Building remain visible from most of the key viewpoints on Confederation Boulevard.

Protecting the visual integrity of these secondary symbols therefore comes down to ensuring that the remaining tower silhouettes are not obscured and that buildings which are seen behind do not overwhelm or overpower the secondary symbols. In principle, "not overwhelming" means that the apparent mass of the background buildings which is visible above the rooflines of the secondary symbols, should be of lesser height and volume than that of the symbolic buildings.

In practical terms, this minimal standard of protection for the secondary symbols is achieved by extending the benchmark of the primary symbol into the lateral areas. This is supplemented by a height control plane projected from a benchmark on the Mackenzie Tower of the West Block to limit buildings in the western-most part of the Core.



Figure 65: The silhouette of the upper section of the Mackenzie Tower is the only part of the West Block not obscured by buildings in the background

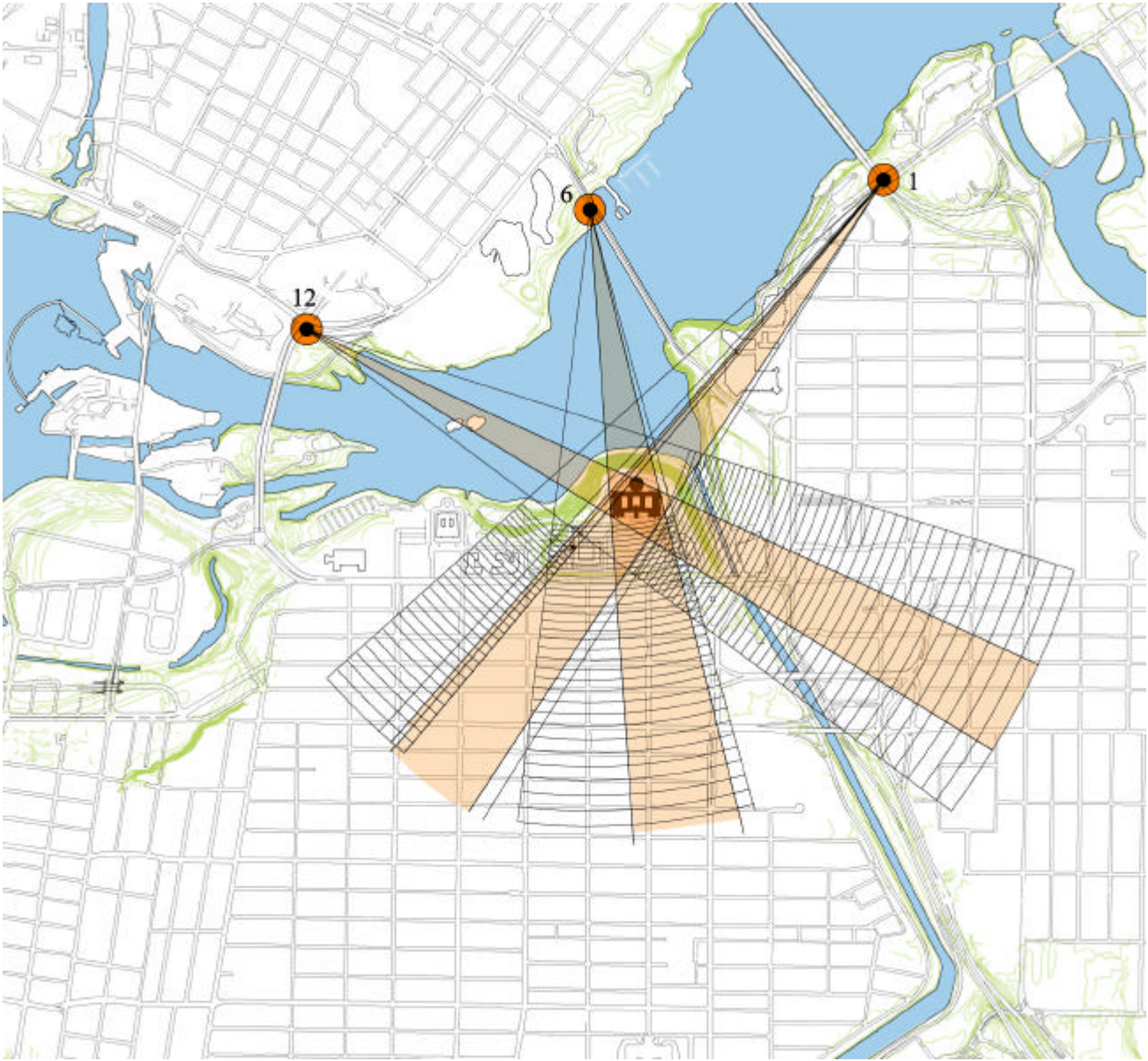


Figure 66: Background Control Viewpoints and Views

4.6 Isolating the Controlling Views

The advanced computer technology employed in the *views protection* studies provides the opportunity to both analyze the situation from a multiplicity of viewing positions and to develop numerical height controls which combine or "overlay" controlling height planes from all of the view points.

However, the fundamental difficulty with any such approach, is to reduce the results of a highly complex and multi-dimensional technique to a practical planning tool—a tool which is easily understood, interpreted and applied on a day-to-day basis. To respond to this issue, the approach, recommended in the *Ottawa Views* study and adopted in O.P.A. 14 is a similar but simpler system of background height limits to that of the *Hammer Study*.

4.6.1 Three Control Viewpoints for Ottawa Background Controls

The procedure adopted for background height controls was first to determine the *key viewpoints* which "represent" a multiplicity of viewpoints or vantage zones, as discussed in 4.3. From the key viewpoints, an even smaller number were isolated to act as the generating viewpoints for the *control viewsheds*. These are the points from which the background *height control planes* are projected and which act as "surrogates" for the viewsheds of all the other key viewpoints.

The selection of the control viewsheds was determined through an iterative testing process. The visual impacts of computer simulated background buildings, built to alternative height control planes projected from each of the key viewpoints, were evaluated from all of the other key viewpoints until the most effective combination of control planes had been isolated.

Three of the key viewpoints are defined as control viewpoints from which the Ottawa background height control view planes are projected. One view plane controls background building heights in the area east of the Rideau Canal and three view planes, projected from two viewpoints, control background building heights in the area west of the canal. At least one additional control viewpoint will be necessary to generate background height controls in central Gatineau (Hull).

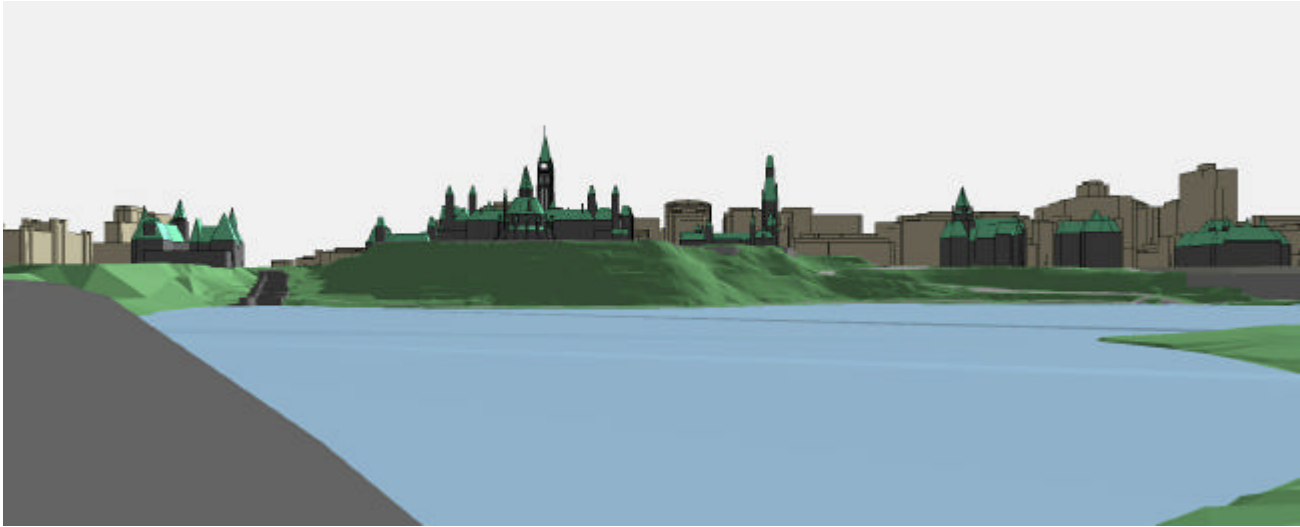


Figure 67: Computer generated existing view from Control Viewpoint 6

4.6.2 Control Viewpoint 6 Background Controls West of the Canal

Viewpoint 6 on the Alexandra Bridge is one of the two selected control viewpoints that establish background controls in Ottawa's Core (west of the Canal). Located on the bridge "boardwalk", Viewpoint 6 is part of the Confederation Boulevard viewing sequence between the Canadian Museum of Civilization and the National Gallery. It is a much-used pedestrian and cycle route travelled by commuters, tourists and recreational users and is a popular place for sight-seeing.

The boardwalk offers spectacular panoramic views across and up-river. Looking towards Ottawa, the panorama encompasses the Chateau Laurier, the Rideau Canal, Parliament Hill and the whole Parliamentary Precinct, the Supreme Court, the National Library and beyond to the Islands and the Portage Bridge. The views change along the route as it passes the face of Parliament Hill and climbs the slope to Major's Hill Park.

Viewpoint 6 is at the top of the slope at the northern end of the Alexandra Bridge. Because of the high elevation of the viewpoint, the protection of the viewshed ensures that many other viewsheds are protected, particularly those of other key viewpoints on the Alexandra Bridge, and important viewpoints in Gatineau (Hull) at the Museum of Civilization and along Confederation Boulevard.

The principal criteria for the protection of the Viewpoint 6 viewshed are to ensure that no background buildings are visible above the Centre Block. Where buildings are seen “overlapping” or immediately to the side they should appear lower than the Centre Block, preferably no higher than its roof eavesline. Buildings in the wider lateral background areas should conform to the general line of roofs in The Core and should not obscure the silhouette of the upper towers and spires of the Confederation Building and the Mackenzie Tower. Whenever their redevelopment occurs, existing buildings which do not meet the criteria, such as Place Bell Canada and Place de Ville, should be required to conform.

The height control plane is projected from the viewpoint, through a benchmark on the Centre Block roof and across the area behind the Centre Block. Visual protection for the Secondary National Symbols and lateral background height controls for the Centre Block are provided by extending the control view plane in an arc across the eastern half of the Core.

The preferred benchmark elevation is at the **eavesline of the Centre Block**. However, as described below (in 4.7), this benchmark results in height limits that do not provide sufficient flexibility for achieving the permitted development densities on some sites in the Core. For this reason, the **ridgeline of the Centre Block** is the selected benchmark for the projection of the height control plane from Viewpoint 6.



Figure 69: View from the entrance terrace, Museum of Civilization



Figure 68: Existing view from Control Viewpoint 6, Alexandra Bridge



Figure 70: Computer generated existing view from Control Viewpoint 1

4.6.3 Control Viewpoint 1 Background Controls West of the Canal

Viewpoint No. 1, on Sussex Drive, is the position of the second “controlling viewshed” for the Core. This control point is selected as the “representative” viewpoint in the dynamic sequence of views on the approach route, where the first clear view of the silhouette of the Parliament Buildings appears. It is located on Sussex Drive at the Macdonald Cartier Bridge and corresponds to Viewpoint A of the *Hammer Study* and OPA 62. Key Viewpoint 2 is further south on Sussex Drive (76.5 m from Viewpoint 1) and is where the spires can be seen as separate silhouettes.

Sussex Drive is one of the most important approaches to the centre of the capital. It is a popular commuter route and visitor surveys indicate that it is one of the most frequently used gateways to the city centre.

The view sequence, most often seen by people in cars or on bicycles, is on the Mile of History — the route between Parliament Hill and the Governor General’s Residence, the residences of the Prime Minister and the Leader of the Opposition and many of the foreign embassies. It is the processional route taken on the opening of Parliament and by visiting dignitaries.

In both views, the middle foreground includes privately owned properties, the Royal Canadian Mint, and Nepean Point. The Centre Block, Peace Tower and Library spires and roofs together with the truncated spire of the National Gallery and the Mackenzie Tower are all visible. The Supreme Court is seen in profile but the Confederation Building is obscured. The Place de Ville, (Tower C and hotel), dominates the silhouette of the central part of the Parliamentary Precinct. The views of the skyline change in an unfolding sequence until they disappear as one descends the hill and passes the Mint. It opens up again over Major's Hill Park as one emerges in front of the National Gallery.

The primary objective here is to protect the silhouette of the Centre Block above the ridgeline in much the same way as it has been protected in the past, both over the thirty years since the adoption of the *Hammer Study* and, indeed, since the founding of the nation's Capital. Since this viewpoint is at a somewhat higher elevation than the Alexandra Bridge, the Sussex Drive view is not protected by the Viewpoint No. 6 view plane.

Such protection can be retained by overlaying the single narrow view plane projected through the **Centre Block ridgeline**. Lateral background controls are provided by sloping transition planes extended 25 metres on both sides of the Centre Block.

The extended lateral background area, west of the Centre Block, is protected by a second height control plane emanating from Viewpoint 1. The height control plan is projected from Viewpoint 1, through a benchmark at the **eavesline of the Mackenzie Tower** and extended over the lateral area. This control view plane limits heights in the western part of the Central Business District to protect the secondary National Symbols (the Supreme Court, the West Block and the National Library) and to further protect the lateral background areas of the Centre Block.



Figure 71: View from Sussex Drive (Viewpoint 2)

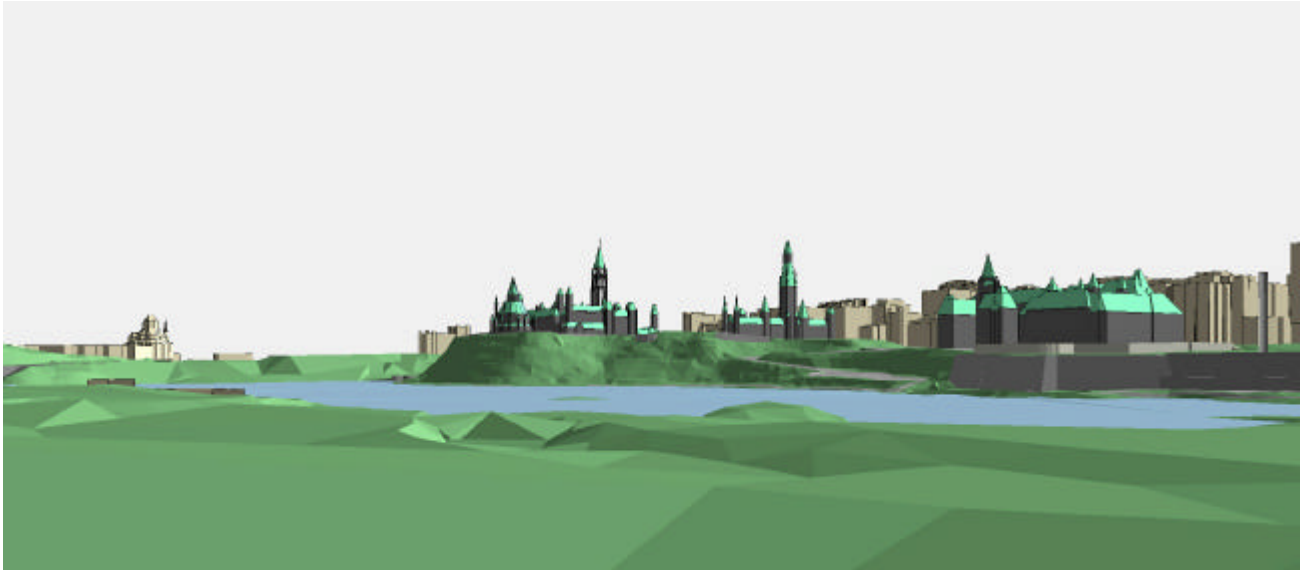


Figure 72: Computer generated existing view from Control Viewpoint 12

4.6.4 Control Viewpoint 12 Background Controls East of the Canal

Viewpoint 12 on Confederation Boulevard at the Portage Bridge / Rue Laurier intersection is the selected location of the “controlling view” for the background controls in the eastern half of Ottawa’s Central Area.

This is one of the busiest traffic intersections in the Capital region and the completion of the Esplanade on this section of the Confederation Boulevard has significantly increased the local and tourist pedestrian and cycle use.

There are important views of Parliament Hill, the Parliamentary Precinct and the Supreme Court from this area of Confederation Boulevard and from Boul. Alexandre-Taché as it approaches the Central Capital Landscape. These views will be much enhanced when the E.B. Eddy industrial facilities are redeveloped.

Except for the distracting visual clutter in the foreground, from Viewpoint 12, the Peace Tower, Centre Block, Library and much of the escarpment of Parliament Hill as well as the tower of the East Block, the Mackenzie Tower and other parts of the West Block are seen in bold relief. The principal threat to the silhouette of the Centre Block and Library and the lateral areas comes from potential high-rise development in the Rideau Street area.

Simulation analyses confirm that the protection of the Viewpoint 12 viewshed will effectively protect other viewsheds – specifically those of the key viewpoints on the Portage Bridge and in views from Confederation Boulevard on Rue Laurier.

To protect the silhouette, the desirable background condition would have no buildings visible above the brow of Parliament Hill adjacent to the library and buildings seen to the side or “overlapping” the Centre Block would be below its eavesline. In the wider lateral areas, the desirable condition would have no background buildings above the roof lines of the West Block, Confederation Building and the Supreme Court.

In support of these views protection objectives, the height control plane to limit building heights east of the Canal is projected from Viewpoint 12, through the benchmark at the **eavesline of the Centre Block** and across the Central Area behind the Centre Block. Visual protection of the lateral background areas of the Centre Block and of the Secondary National Symbols is provided by extending the control plane in an arc across the appropriate area of the Central Area.



Figure 74: View from Boul. Alexandre-Taché, in Hull (Gatineau)



Figure 73: View from the Portage Bridge



Figure 75: View from Viewpoint 16, Ottawa River Parkway

4.6.5 Control Viewpoint 16 **Foreground Controls LeBreton Flats**

Key Viewpoint 16 is the selected location of the “controlling view” for foreground controls in LeBreton Flats. It is the “representative” viewpoint of the introductory view sequence, primarily for motorists approaching the downtown from the west. The panoramic views from the Ottawa River Parkway as it rises over the C.P.R. tracks gives motorists a brief but special appreciation of the geography of Ottawa’s centre.

From this location, most of the Parliamentary Precinct, much of the Central Capital Landscape, and the downtown skyline are seen across the open landscape of the river and the flats.

The principal subject of views protection, the Centre Block, is seen behind the Supreme Court. Most of the Parliamentary Library is clearly visible to the north side of the Court while the upper part of the Peace Tower and the upper roofs and other towers/spires of the Centre Block are visible above the ridge of the Supreme Court.

Such visual juxtapositions of the buildings in the Parliamentary Precinct are characteristic of views of the premier symbols within the Central Capital Landscape. This is further exemplified in the lateral areas of the viewshed — the National Library, the Justice Building, the Confederation Building, and the Mackenzie Tower of the West

Block are all visually superimposed on each other to form a complex composition of highly modeled stone walls and copper-clad roofs and towers. With the exception of the simpler planar volumes of the National Library on the “front row” of this composition, it is almost impossible to visually disentangle the individual elements of this collective image of National Symbols.

Also apparent from Viewpoint 16, are the plateau of Parliament Hill and the slightly lower West Precinct area, together with the treed escarpments, which provide the visual “base” of the Precinct composition.

The principal objective for protecting the viewshed is to ensure that the view of the entire composition of National Symbols north of Wellington Street including their landscape “base”, is not obstructed by foreground buildings. This includes maintaining a clear view of the profile of the Parliament Hill escarpment (north) and at least the tops of trees in front of the building group. In the south lateral area (right side), at least the upper walls and roofs of the Justice and Confederation Buildings should remain visible.



Figure 76: View from Ottawa River Parkway at Booth Street

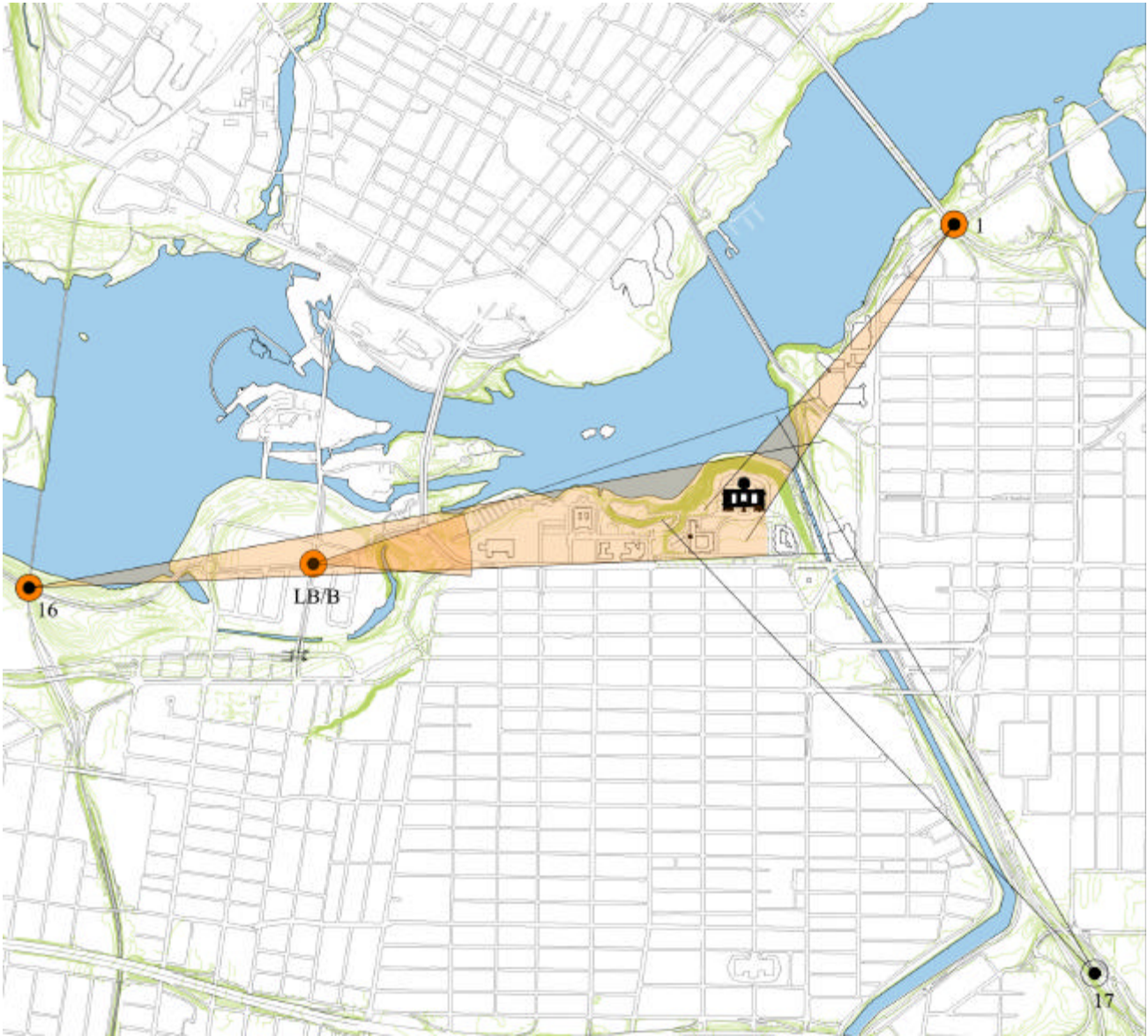




Figure 77: Foreground Control Viewpoints and Viewsheds

-  Control Viewpoint
-  Key Viewpoint

4.6.5 Control Viewpoints for Ottawa Foreground Controls

The approach of isolating a small number of critical “controlling” views (and viewpoints) for the purpose of generating *background* building height limits is equally applicable to the development of *foreground* controls. However, because the protection of visual corridors in the foreground areas is closely tied to the specific nature of each development proposal, the full range of critical visual issues cannot be identified and explored in advance of the proposals coming forward. For this reason, additional “control” viewpoints and “key” viewpoints are identified as the urban design study for each foreground area proceeds.

Similarly, the further definitions of visual integrity and symbolic primacy represented by selected *benchmarks* and other standards, as they relate to foreground views protection, are also developed as each site specific study proceeds.

Figure 77 indicates the control viewpoints and viewsheds, employed to date on three foreground views protection studies: the *LeBreton Flats Views Protection Study*, the height control guidelines for an embassy on Sussex Drive, and the *Rideau Canal Pedestrian Crossing Environmental Assessment*.



Figure 78: The silhouette of Parliament Hill

4.7 Evaluation of Development Capacity

4.7.1 Heights of Control View Planes

The height limits for buildings in the backgrounds of the viewsheds, are a compromise between “ideal protection” for the National Symbols and the protection of the private development rights. The heights of the control view planes have been established first, in relation to the *benchmark* for the preferred standard of visual protection for the National Symbols, as outlined in the 4.5, and second, in relation to the calculation of achievable density on the potential redevelopment sites in the viewshed background areas, as outlined below. The final, statutory heights of the control view planes are a balance of heights which are kept as low as possible in order to minimize visual interference with the silhouette of the National Symbols and as high as possible to afford design flexibility in achieving the permitted development densities.

As part of the 1993 *Ottawa Views Study*, the recommended height limits were first developed in relation to a general assessment of the development capacity of the city blocks within the Central Area. The second stage of examination was a detailed analysis of the achievable density on specific test redevelopment sites.

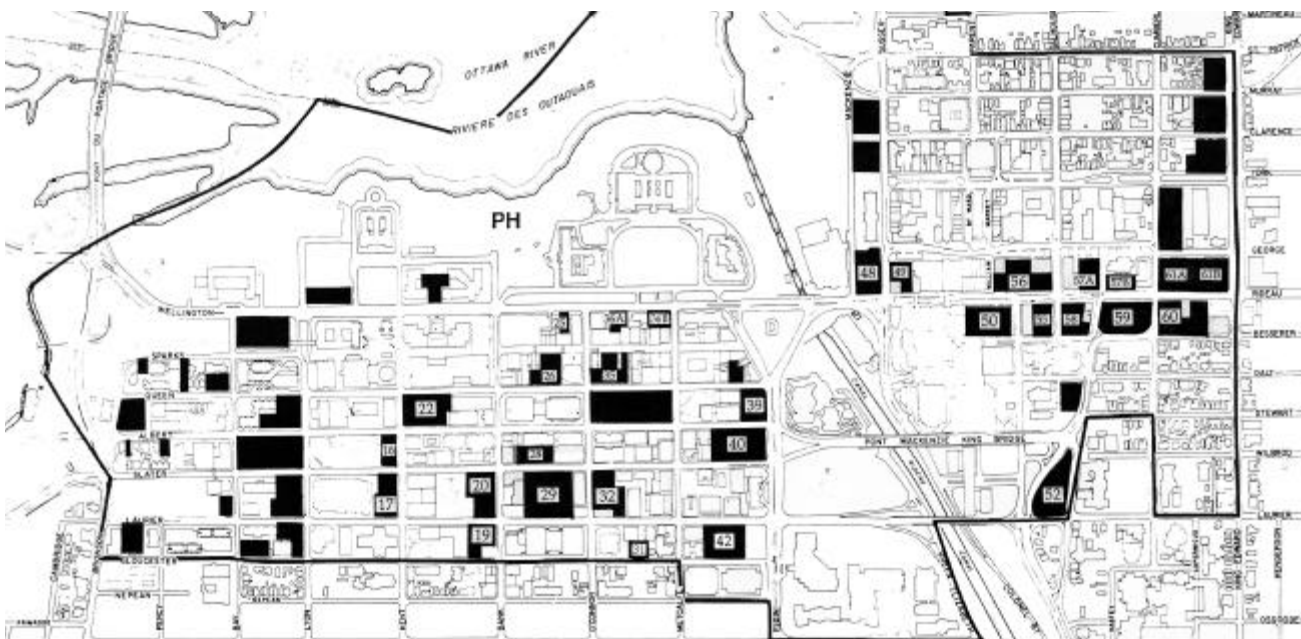


Figure 79: Central Area Sites with Redevelopment Potential and the 26 Test Sites (from *Ottawa Views*)



Figure 80: Massing models (red) on the 26 Test Redevelopment Sites in Ottawa's Central Area

4.7.2 Massing Models for the Test Sites

The *Ottawa Views* study examined twenty-six redevelopment sites selected on the basis of the City of Ottawa's 1990 Central Area Development Capacity/Market Analysis (CADCA).

The objective of the analysis of each test site was to confirm that the recommended height limits would facilitate redevelopment to the full development capacity as defined by the zoning bylaw — usually a maximum commercial gross floor area to a density of 8.0 FSI — and provide sufficient flexibility for a reasonable range of alternative building design solutions and architectural expressions. Bulk massing models were developed for each site in order to provide a reasonable basis for testing density capacity and design flexibility while reflecting both the policies of the new Official Plan and the current development industry practices prevailing in Central Ottawa.

The massing models for the redevelopment sites, represent the maximum building envelope within a set of design parameters as well as the height limits derived from the preceding *views protection* analyses. The gross floor area of these massing envelopes was then calculated in order to derive a bulk density—referred to as the “aggregate density”.

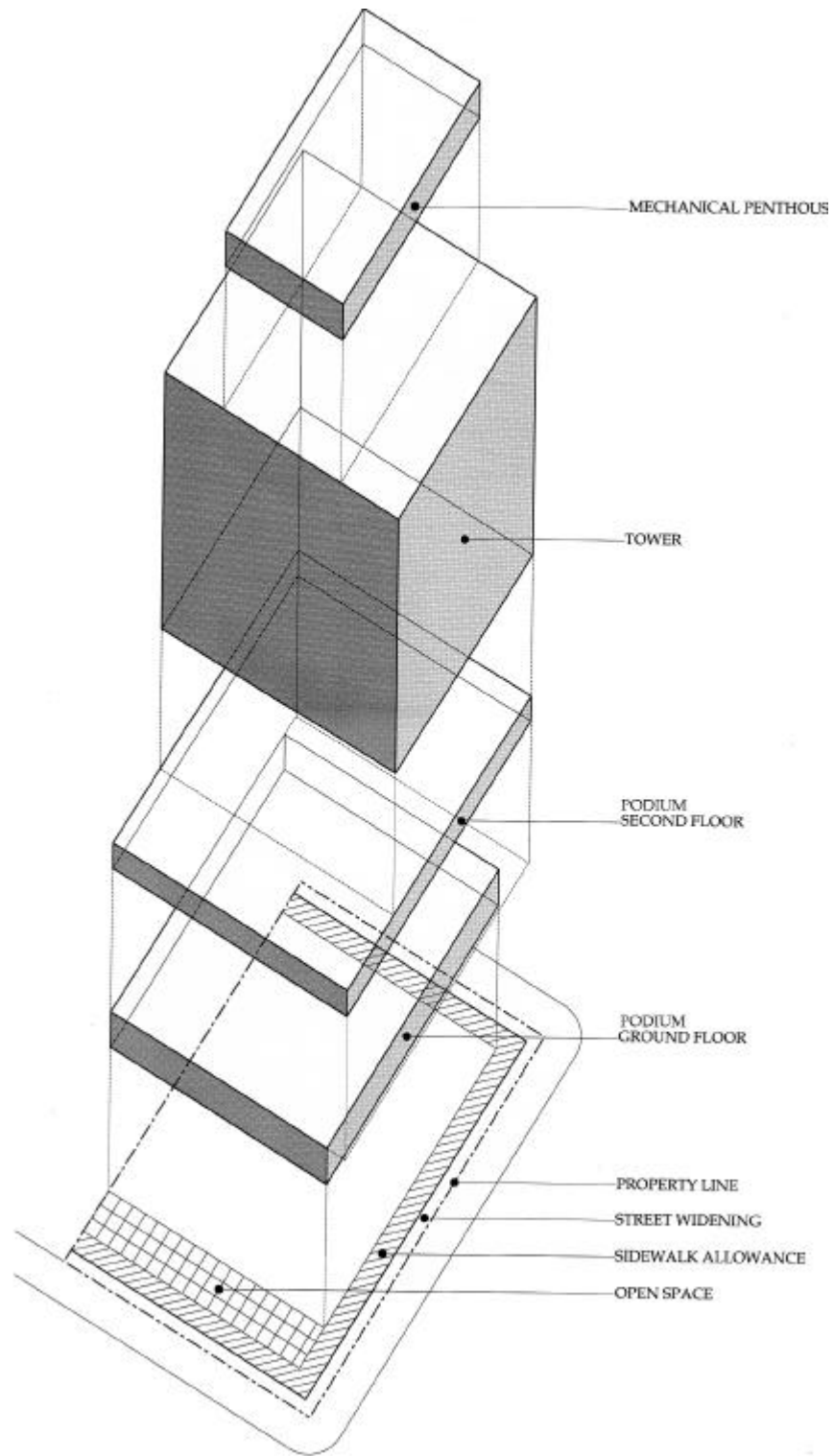


Figure 81: Elements of a typical commercial office development incorporated into the Test Massing models.

4.7.3 Calculated “Flexibility Factor”

The level to which the calculated aggregate density for a site exceeds the maximum permitted density under the zoning bylaw, is assumed to be a reflection of the level of flexibility that is available for meeting other Official Plan policies and objectives. Hence, a calculated aggregate density of 12.0 FSI for a site which has a maximum zoning density of 8.0 FSI., can be said to provide a “flexibility factor” of 4.0 FSI or 50% — a very high level of design flexibility for providing additional public open space, for modeling building “caps”, and for meeting other urban design and land use objectives of the Official Plan.

Conversely, a calculated aggregate density that is only slightly greater than the maximum permitted zoning density can be said to have little flexibility for design innovation or for achieving other Official Plan objectives.

From initial built form/architectural analyses it was concluded that an aggregate density approximately 25% above the permitted maximum zoning density represents a reasonable target “flexibility threshold” to achieve other Official Plan objectives. That is, an aggregate density of approximately 10.0 FSI for sites with a maximum permitted density of 8.0 FSI.

4.7.4 Assessment of the Redevelopment Sites

Of the twenty-six potential redevelopment sites tested, twelve have “other” building height limits on all or part of the site area, in order to meet environmental and urban design objectives other than the visual protection of National Symbols. These include sites fronting on Confederation Boulevard which are limited to “medium profile” to maintain the existing street scale; sites on Sparks and Rideau Streets which are subject to angular profile controls to ensure minimum sunlight access to the streets; and sites on Bank and Rideau Street which are limited to protect heritage structures. These dozen sites were included in the tests in order to determine the potential g.f.a. yields and to confirm that these “other” height limits are indeed lower, by a sufficient margin, than the “views protection” building height limits.

4.7.5 Benchmark at the Centre Block Eavesline

The calculations for all of the 26 test sites were initially based on building height limits generated from view control planes projected through a benchmark at the eavesline of the Centre Block. This “eavesline” benchmark was recommended because it provides the preferred level of visual protection for the silhouette of the entire Centre Block roofline, the lateral background areas and the upper tower and spire elements of the secondary symbolic buildings.

The application of this benchmark also results in height control planes that have a “margin of safety” — some minor, discretionary additions to building height can be accommodated on some sites without having any significant visual impact on the silhouette.

4.7.6 Conclusions of the Site Capacity Tests

The conclusion drawn from the initial detailed evaluations was that the single, “eavesline” benchmark standard of “visual integrity” of the silhouette could not feasibly be applied to the whole of Ottawa’s Central Area.

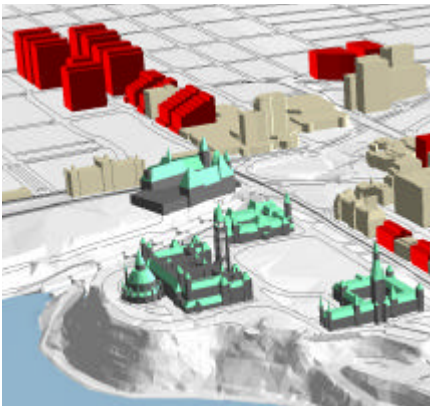


Figure 82: Massing models East of the Canal

4.7.7 Conclusions for East of the Canal

In the eastern part of the Central Business District the *eavesline* controls on building heights allow aggregate densities well in excess of the 25% above the 8.0 FSI zoning density. Some sites, towards the lower, eastern end of Rideau Street, can accommodate commercial office buildings of 15 to 19 storeys with aggregate densities of more than 12.0 FSI (50% more than permitted) with the *eavesline* height limits. Thus, it is concluded that a height control plane constructed from Viewpoint 12, through the eavesline benchmark on the Centre Block, and projected over the eastern part of the CBD, imposes no practical constraints on development capacity and allows a high degree of design flexibility.

4.7.8 Conclusions for The Core (West of the Canal)

On test sites in the Central Business District, west of the Rideau Canal (referred to as the “Core”), the evaluation of development capacity, applying the “eavesline” derived limits, produced less clear conclusions. In the western part of the Core, the calculated aggregate densities for most of the test sites exceed the permitted densities by a sufficient margin (i.e. the flexibility factor is at least 25%). However, several other test sites, particularly in the southern, central part of the Core, are affected by “other” height limits and/or are awkwardly sized or shaped in relation to the standard floor plates for commercial office buildings. These constraints, plus the “eavesline” height limits, result in aggregate densities which are less than the targets.

Iterations of the massing studies on these sites confirmed that some relaxation of the “eavesline” height limits would be necessary in order to achieve aggregate densities that are at least 25% greater than the permitted. Further detailed analyses of alternative scenarios for the height controls and their development capacity implications concluded with the final recommendation that the height control planes be raised to a benchmark at the *ridgeline* of the Centre Block in order to achieve or exceed the aggregate density targets. This is coupled with modified height controls for the western part of the Core.

These recommendations are now incorporated in Ottawa’s Official Plan. The height controls planes for the Core are based on two benchmarks. The first is the *ridgeline* of the Centre Block. The height control planes are projected through this *ridgeline* benchmark from Viewpoint No. 1 and No. 6 over the central and eastern parts of the Core. The second benchmark is the *eavesline* of the Mackenzie Tower on the West Block and the projected height control plane from Viewpoint 1 extends over the western part of the Core.

The selection of the *ridgeline* benchmark on the Central Block allows for adequate development capacity but establishes an “absolute threshold” for the visual protection of the Centre Block’s silhouette. There is no leeway for additional building height without impacting the visual integrity of the Primary National Symbol. The implementing measures must therefore ensure that the height limits are firmly and precisely controlled.



Figure 83: Silhouette of Parliament Hill seen from the Portage Bridge

SECTION 5: THE VIEWS PROTECTION CONTROLS

5.1 Building Heights Control Policies

This concluding section of the report summarizes and illustrates the recommendations of the views protection studies, conducted since 1990, and the resultant planning and urban design policies and guidance.

The *Ottawa Views Addendum* report (August 1994) and the *LeBreton Flats Views Protection* report (May 1999) are the principal background documents. The recommendations of these reports provided the basis for the preparation of amendments to the Official Plan and the Comprehensive Zoning Bylaw of the City of Ottawa and the National Capital Commission's Federal Land Use Plan.

5.1.1 Important Views and View Sequences

The views to be protected are primarily those from within the Central Capital Landscape enclosed by Confederation Boulevard and from important approach routes to it. Views protection measures within this territory acknowledge dynamic viewing experiences as well as a selected series of static views. A priority of importance has been established and key viewpoints have been selected because they both provide outstanding views of the National Symbols and are representative of a range of static and dynamic sequences of views. These are referred to as "**Key Viewpoints**".

These key viewpoints are the viewing positions used for analysis and for judging and establishing standards of control. Twenty-one key views are used for detailed analysis and evaluation. Four of these are used to generate the height control planes and are called "**Control Viewpoints**". An additional, supplementary Control Viewpoint is used for foreground set-back controls in LeBreton Flats.

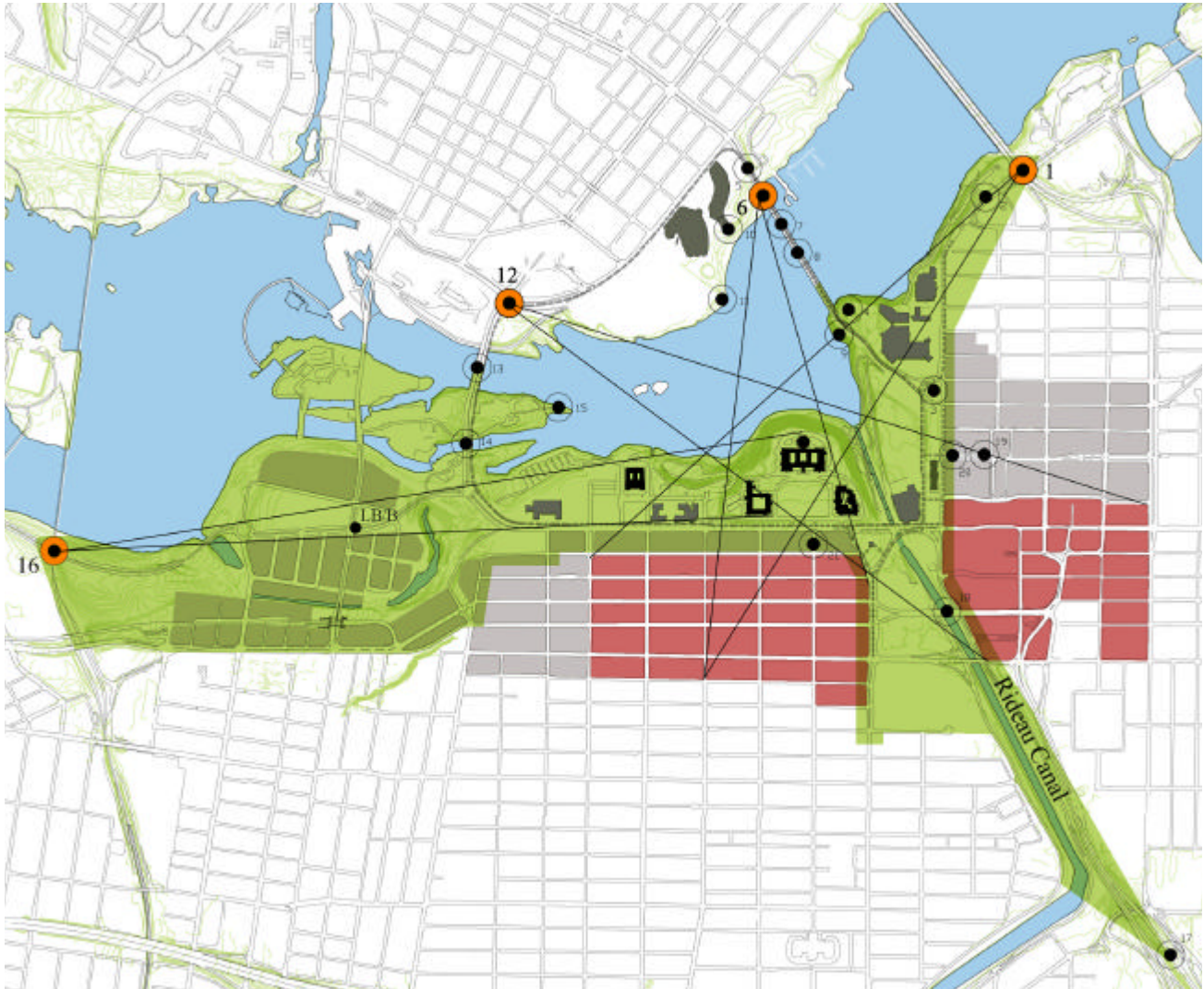


Figure 84: Areas subject to Background and Foreground Height Controls

- City Blocks subject to Background Height Controls
- Area of Foreground Controls
- City Blocks in Ottawa's Central Area
- Control Viewpoint
- Key Viewpoint

5.1.2 View Plane Controls

Height controls to protect and enhance the visual integrity of the National Symbols are based on angular view planes referred to as “**height control planes**”.

These are constructed by projecting planes from the **control viewpoints**, through vertical **benchmarks** on the symbolic buildings which are the subjects of the views protection, and extending the plane into the area beyond the subjects.

The height control planes establish the maximum heights of buildings in the background and/or the foreground areas of the viewsheds of the control viewpoints — no new building is allowed to rise above the height control plane.

5.1.3 Background and Foreground

Protection and enhancement of the views of the National Symbols encompass two basic parts of **viewsheds**: the foreground and the background. Issues of foreground control relate primarily to visual access or openness. Issues of background control relate primarily to the visibility of a clear silhouette.

Background Controls are described in detail in section 5.3 and Foreground Controls are dealt with in section 5.8.

5.1.4 Other Height Limits

Parts of the Central Area, including the By ward Market, Lower Town, Upper Town, Sandy Hill West and parts of Wellington, Sparks, and Rideau Streets, are subject to lower height controls than are necessary to protect the visual integrity of the National Symbols. It is assumed that these height controls will be retained. Any proposal or application to amend the height limits in these areas will be reviewed to ensure that there will be no impact on the visual integrity of the National Symbols. This review may require a similar procedure of analysis and evaluation to that outlined in Section 4.

Medium profile development is required along Wellington Street, Elgin Street, Colonel By Drive, and Mackenzie Street where appropriate, to ensure that the edges of the Central Capital Landscape and the Rideau Canal area provide a transition zone of mid-rise buildings.

Note to John Abel

John, we do not have the current wording of these policies. Please add.

5.2 Application of Height Controls

The method for the application of the height controls as outlined above is similar to, but somewhat more simple than the present development review and control mechanisms of OPA 62, 1971 and Bylaw Z-2K.

The height control view planes are interpreted to establish height limits at the corners of each applicable city block within the affected area. The block height limit are determined by the lowest elevation of the control view plane as it passes over each block.

5.2.1 The Area of "Minor Variance"

The area of "minor variance" increase in building height over and above the block height limit which may be applied to a specific development site should not exceed the vertical profile of the control view plane for the site. The control view plane should be expressed as an elevation above sea level at each of the far corners of each block. In the case of some blocks in the Core, additional spot elevations should be included at the perimeter of the block where there are significant changes in the topography of the composite control view plane, resulting from the intersection of the Sussex Drive and Alexandra Bridge view planes. This would provide a "minor variance" heights map equivalent to but simpler than Schedule D, Official Plan Amendment No. 62, dated 1971. This recommended "minor variance" height map is illustrated in Attachment 2: Proposed Minor Variance Height Limits.

It is recommended that strict adherence to this approach in any "minor variance" in the height limits, should be reflected in the areas of discretionary decisions by the Committee of Adjustment. It is further recommended that, should any decision by the Committee of Adjustment grant a minor variance for height which exceeds the maximum height for the property concerned, as indicated on Attachment 2, that Ottawa City Council appeal such decisions to the Ontario Municipal Board.

5.2.2 All Developers Subject to the Same Rules

Both private and public developers should be subject to the same height limits and design controls. A method should be established to include Federally sponsored projects, which are not legally subject to the Ontario Planning Act, to ensure that these projects comply with both foreground design controls (as established by an urban design plan referred to in Recommendation 6) and background height limits.

Developers of sites which are already occupied by buildings and which do not conform to these controls should be required to do so when the sites are redeveloped.

5.2.3 All Controlling Agencies to Use the Same Rules

At least five authorities have jurisdiction over development which will effect the objectives set out in this report: the City of Ottawa, the National Capital Commission, the City of Ottawa Committee of Adjustment, Public Works Government Services Canada, and the City of Hull. The recommendations should be approved and adopted, to the extent they influence their jurisdiction, by each authority.

In the case of Hull, these recommendations deal only with development between Confederation Boulevard and the Ottawa river. However, in order to fully protect views in which Hull forms the background, background height limits are also required in Hull.

5.2.4 Enhancement and Public Awareness Programme

The key views should not only be protected, their protection should also be promoted through an enhancement and public awareness programme. Enhancement measures should include the preparation of detailed design guidelines for the protection and enhancement of the settings of the viewpoints, the installation of survey markers, belvedere platforms and other amenities, appropriate to the particular locations. The public awareness programme should promote, both locally and nationally, the appreciation, interpretation and protection of the views.

5.3 Background Height Controls

5.3.1 Primary Background Protection

The Centre Block, including the Peace Tower and the Parliamentary Library as well as the promontory of Parliament Hill, are afforded the highest level of visual protection.

These visual limits which are prescribed by the height control planes permit at least the upper part of the silhouette of the Centre Block to remain unobscured. They will also permit the Peace Tower and Library to form the focal point of the composition without distraction or overpowering by apparently equal or greater mass or height of buildings behind or beside the subject.

5.3.2 Secondary Background Protection

The Supreme Court, Confederation Building and East and West Blocks and other Secondary National Symbols are afforded the second level of visual protection. In these cases, the silhouette is protected where possible but as a general principle the level of protection is less restrictive than for the Centre Block. The silhouette of background buildings may rise above the roof line of the Secondary National Symbols, but no higher than the eavesline of the Mackenzie Tower on the West Block when viewed from Sussex Drive.

The control view planes for the visual protection of the primary symbol also provide this secondary level of visual protection.

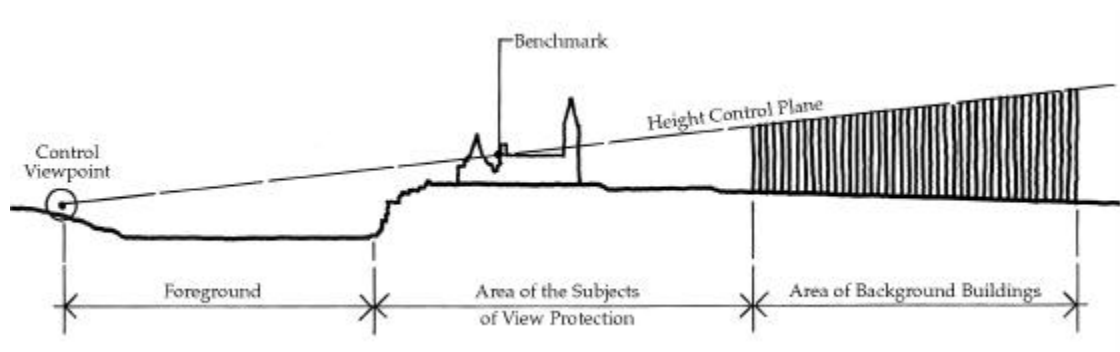


Figure 85: Diagram of a Background Height Control Plane

5.3.3 Areas Subject to Background Height Controls

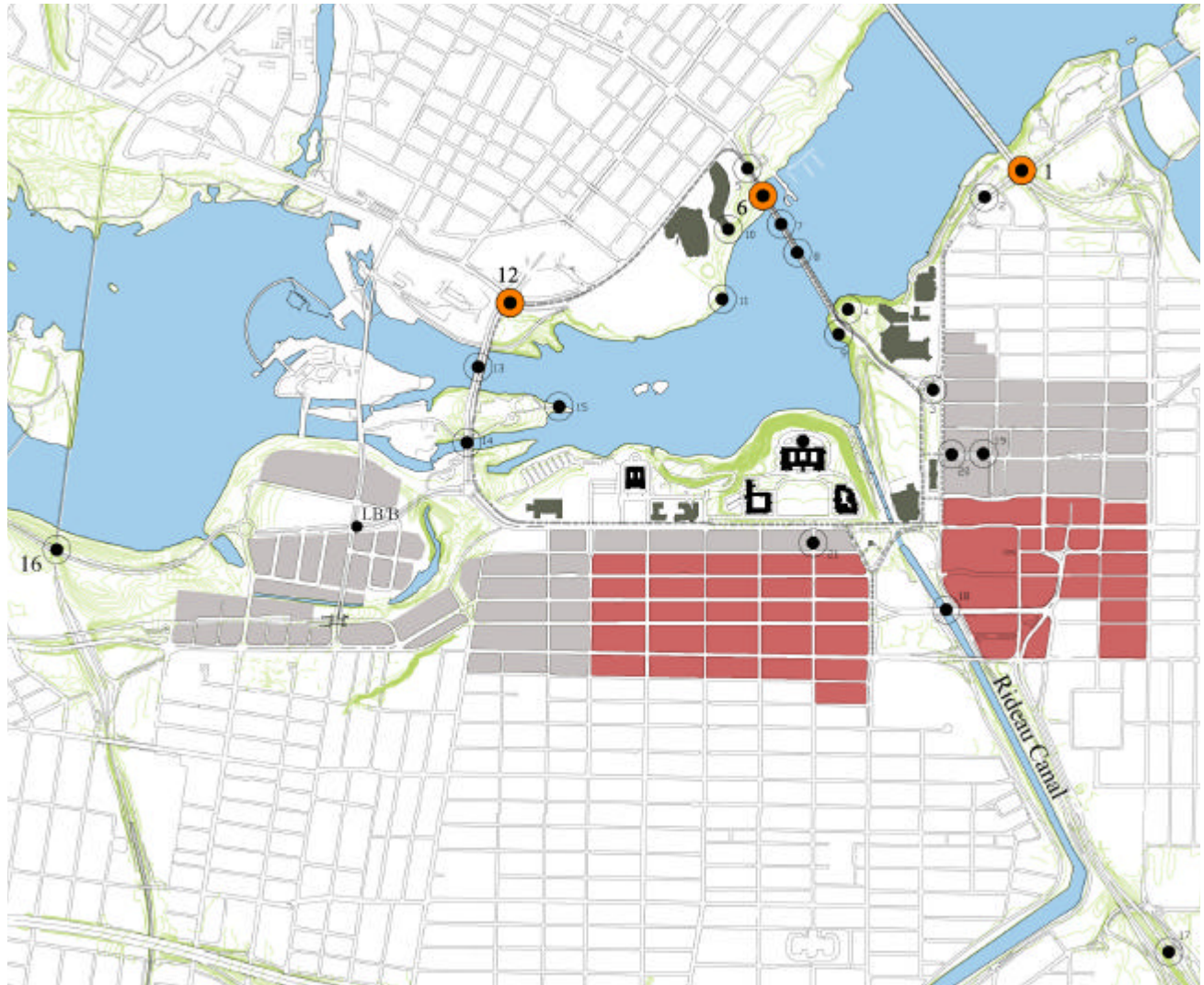
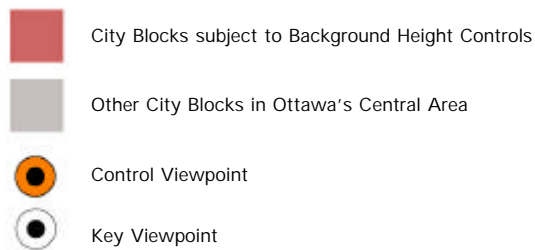


Figure 86: City Blocks subject to Background Height Controls



5.4 The Core (Central Area West of the Canal)

The height limits for the Central Area, west of the Canal are established by projecting view planes from Sussex Drive and from the north end of the Alexandra Bridge through the ridgeline of the Centre Block. In order to provide lateral background height controls and to protect the upper silhouette of the Centre Block from other key viewpoints, the Alexandra Bridge control view plane is extended in an arc over the appropriate areas of the Central Area, west of the Canal. Lateral height controls for the Sussex Drive control viewpoint should be limited to a transition zone of 25 metres on either side of the Centre Block.

5.4.1 The Core (East) – Viewpoint 6 / Centre Block Ridge

Viewpoint 6 on the Alexandra Bridge is the controlling viewpoint for the eastern half of The Core. The height control plane is projected from the viewpoint (elevation: 60.48 m) through the benchmark elevation (113.36 m) on the ridge of the main roof of the Centre Block. The control plane is extended into the lateral background areas on both sides of the Centre Block to limit the heights of buildings seen at the sides.

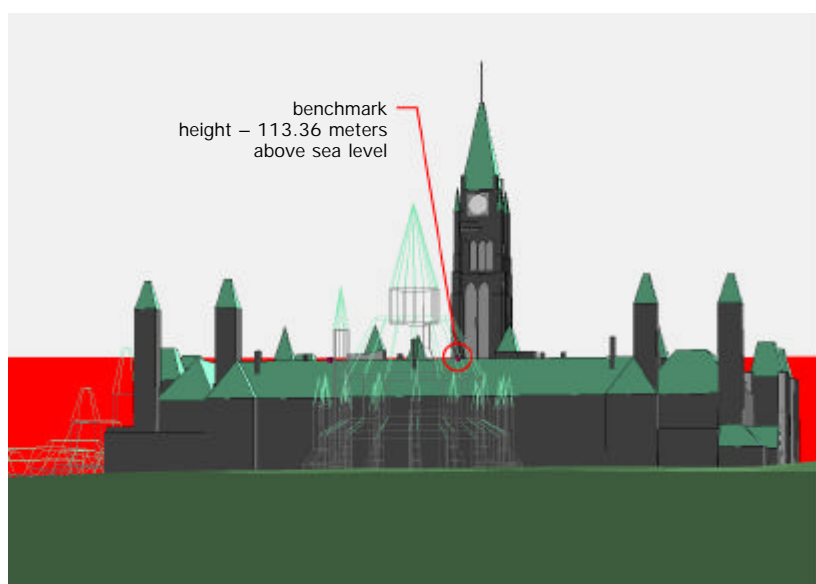


Figure 87: Location of benchmark on the ridgeline of the Centre Block

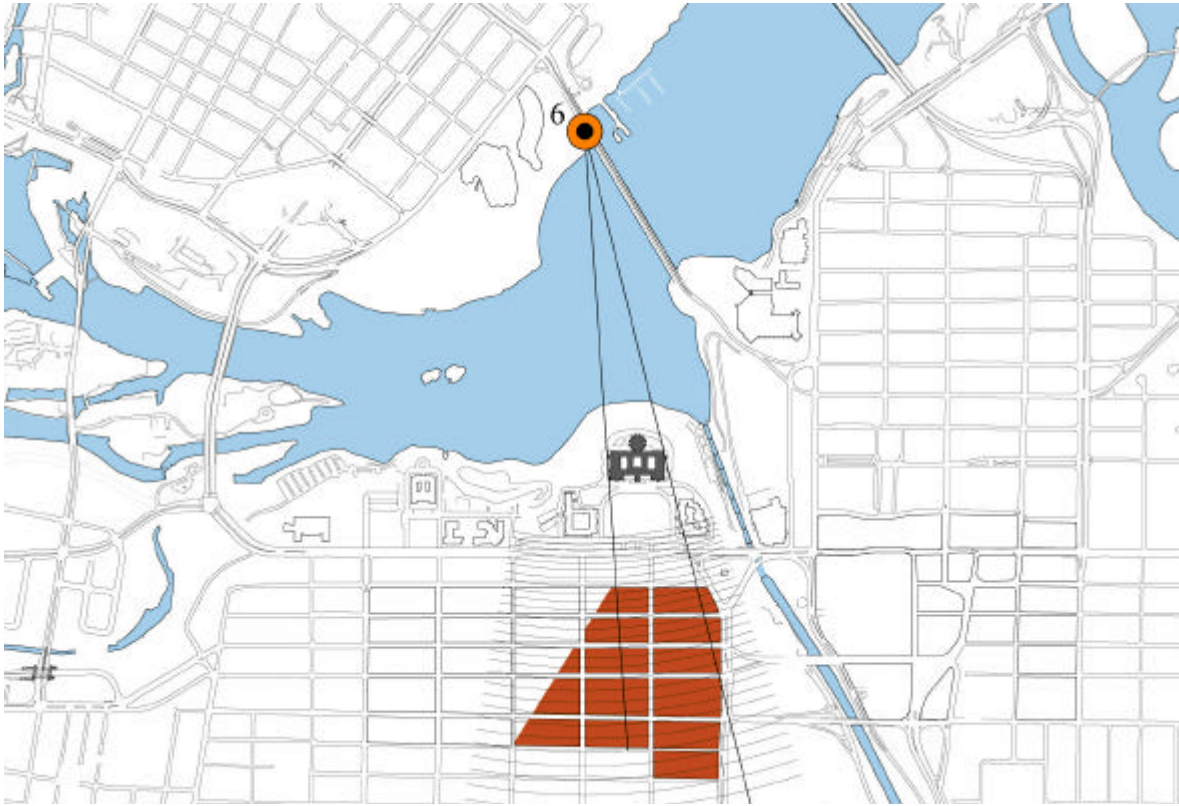


Figure 88: Plan of area controlled by viewpoint 6

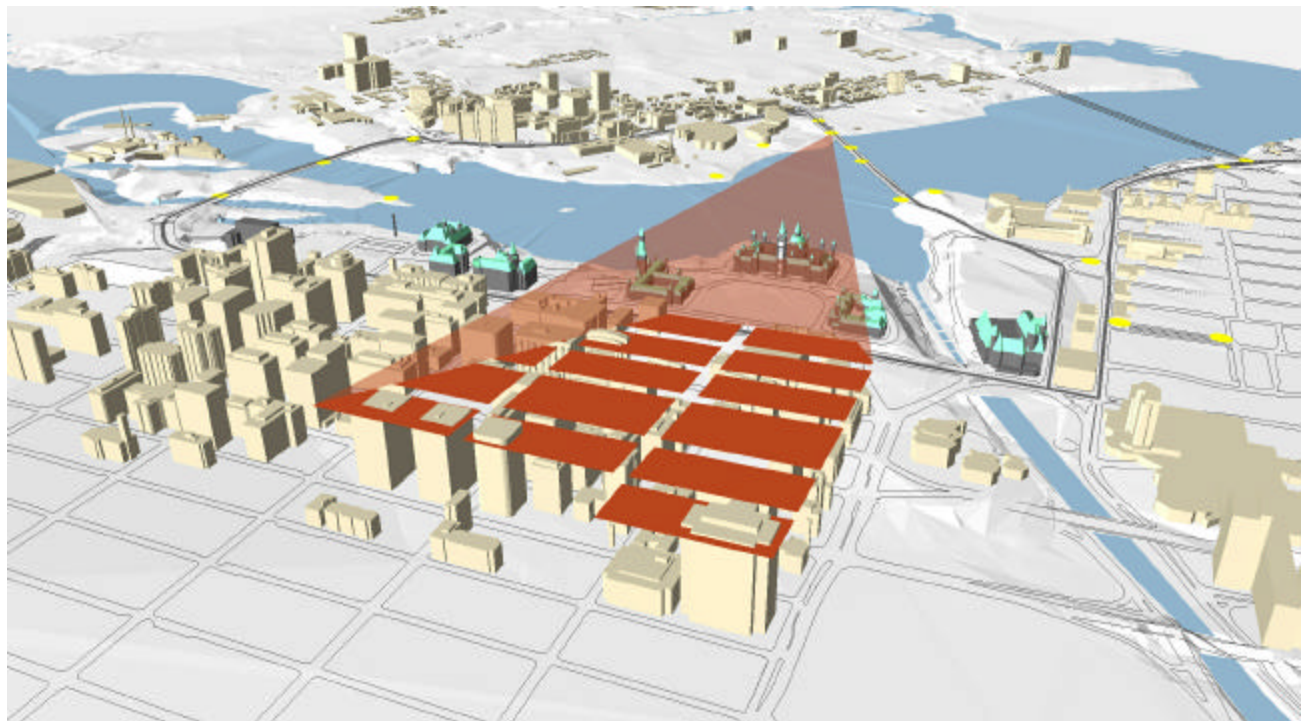


Figure 89: Computer generated image of height plane controlled by viewpoint 6

5.4.2 The Core (Central) – Viewpoint 1 / Centre Block Ridge

Viewpoint No. 1 on Sussex Drive is the controlling viewpoint limiting building heights in the central and south-western parts of the Core. In order that no background buildings be visible above the Centre Block, the height control plane is projected from Viewpoint 1 (elevation: 63.01 m), through the benchmark (elevation 113.36 m) on the ridge of the main roof of the Centre Block, and into the central background area of the viewshed.

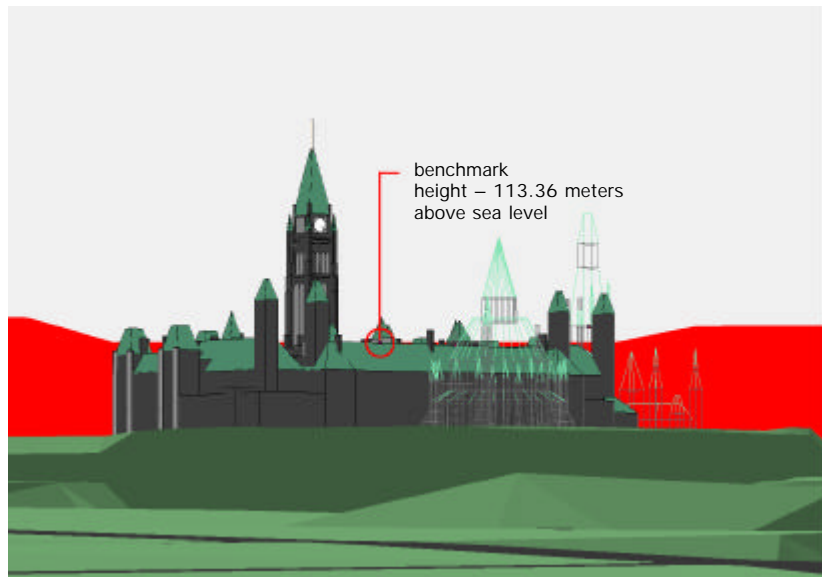


Figure 90: Location of benchmark on the ridgeline of the Centre Block

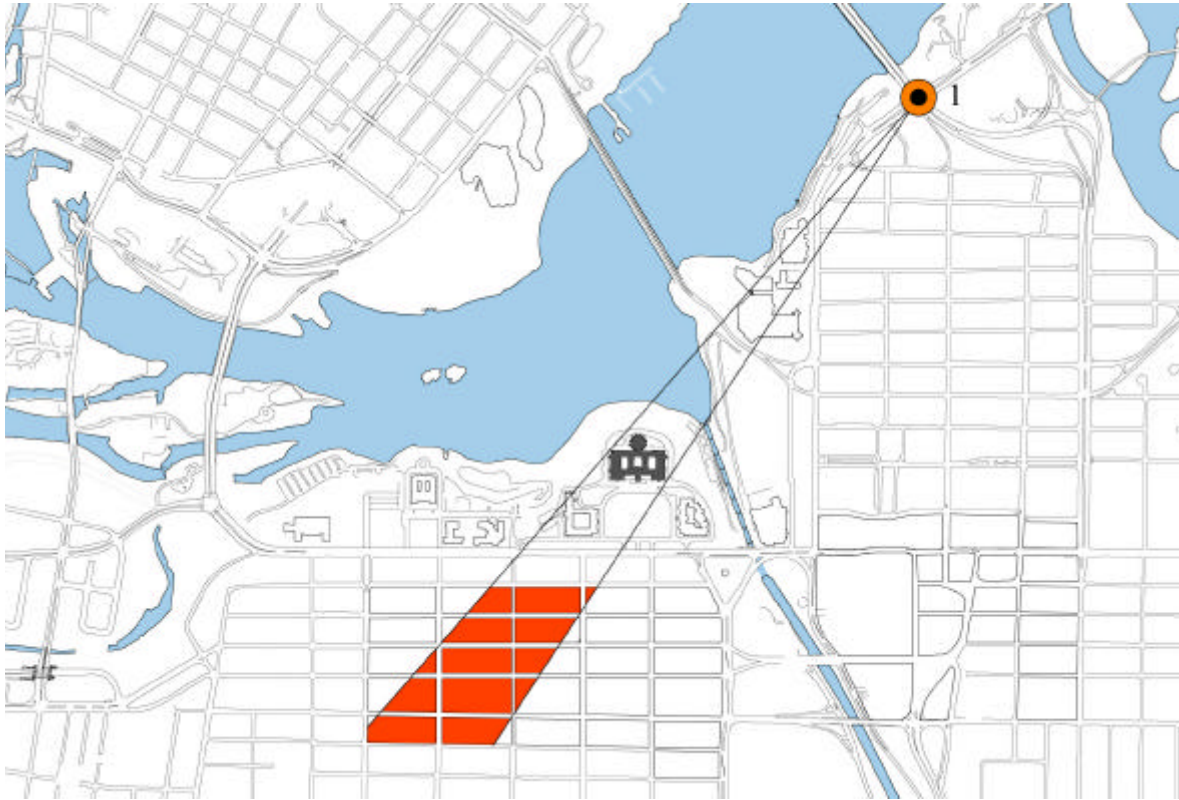


Figure 91: Plan of area controlled by viewpoint 1



Figure 92: Computer generated image of height plane controlled by viewpoint 1

5.4.3 The Core (Central) – Viewpoint 1 / Lateral Transition Planes

Lateral transition planes are included on both sides of the Sussex Drive (Viewpoint 1) height control plane (referred to above). These lateral transition planes achieve two *view protection* purposes: they ensure that buildings seen in the lateral areas immediately adjacent to the Centre Block do not visually rise above the ridgeline benchmark and they form transitions with the higher control planes on either side of the Sussex Drive plane. The lateral transition planes are located 25.0 metres from the sides of the Centre Block (measured at the Centre Block) and are sloped to connect the edges of the higher and lower control planes.



Figure 93: Lateral Transition Planes



Figure 94: Plan of the lateral transition plans

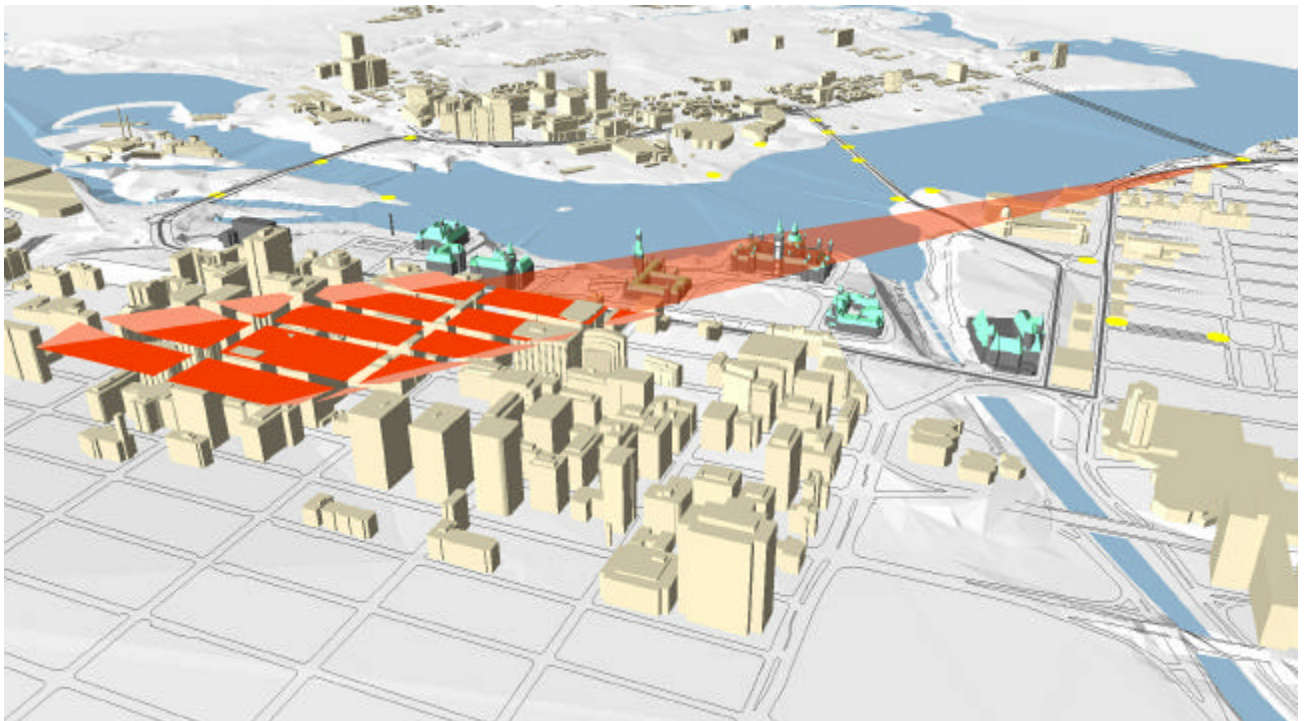


Figure 95: Computer generated image of transition planes

5.4.4 The Core (West) – Viewpoint 1 / Mackenzie Tower

Building height limits in the north-west part of the Core are controlled from the Sussex Drive Viewpoint 1 (elevation: 63.01 m) using the benchmark of the eaves of the Mackenzie Tower of the West Block (elevation 130.0 m). The height control plane is projected from the viewpoint, through the benchmark and extended into the lateral background of the viewshed.

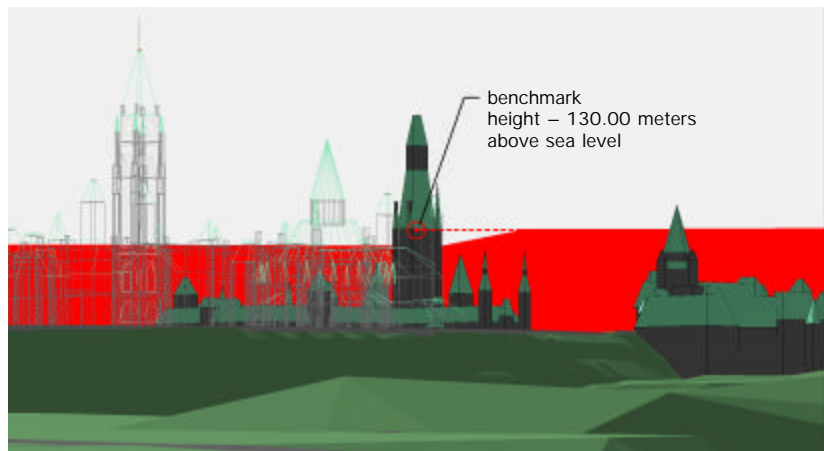


Figure 96: Location of benchmark on eavesline of the Mackenzie Tower of the West Block



Figure 97: Plan of area controlled by viewpoint 1



Figure 98: Computer generated image of Height Plane controlled by viewpoint 1

5.5 Background Building Height Limits East of the Canal

The purposes of the *views protection* building height limits established for the Central Area, east of the Rideau Canal, are to ensure that no new or redeveloped building will be seen above the roof of the Centre Block when viewed from any of the twenty-six key viewpoints. Buildings in the lateral background areas on either side of the Centre Block should not be higher than the level of the eaves of the main roof of the Centre Block when viewed from across the Ottawa River and specifically from the controlling viewpoint on Confederation Boulevard in Gatineau (Hull) at the Portage Bridge and Rue Laurier (Viewpoint No. 12).

5.5.1 The Central Area East of the Canal

Building height limits for the Central Area, east of the Canal are established by projecting a view plane from Control Viewpoint 12 (elevation 58.01 m asl) through the benchmark at the eavesline of the Centre Block (elevation 102.50 m asl). In order to provide lateral background height controls, the height control plane is extended over the appropriate areas of the Central Area, east of the Canal.

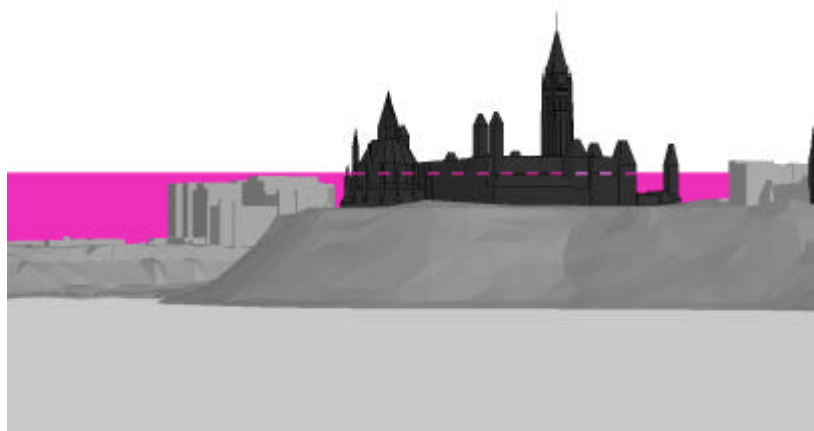


Figure 99: Diagram of control height plane defined by the eavesline of the Centre Block

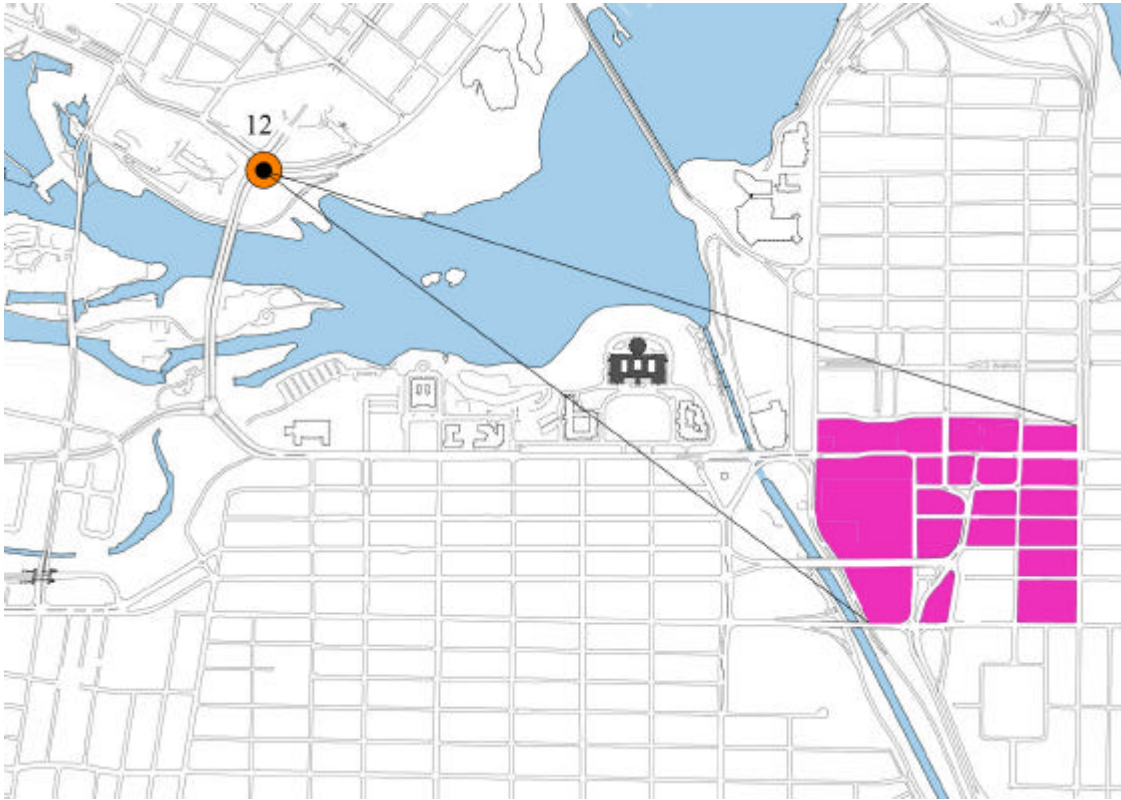


Figure 100: Plan of area controlled by viewpoint 12

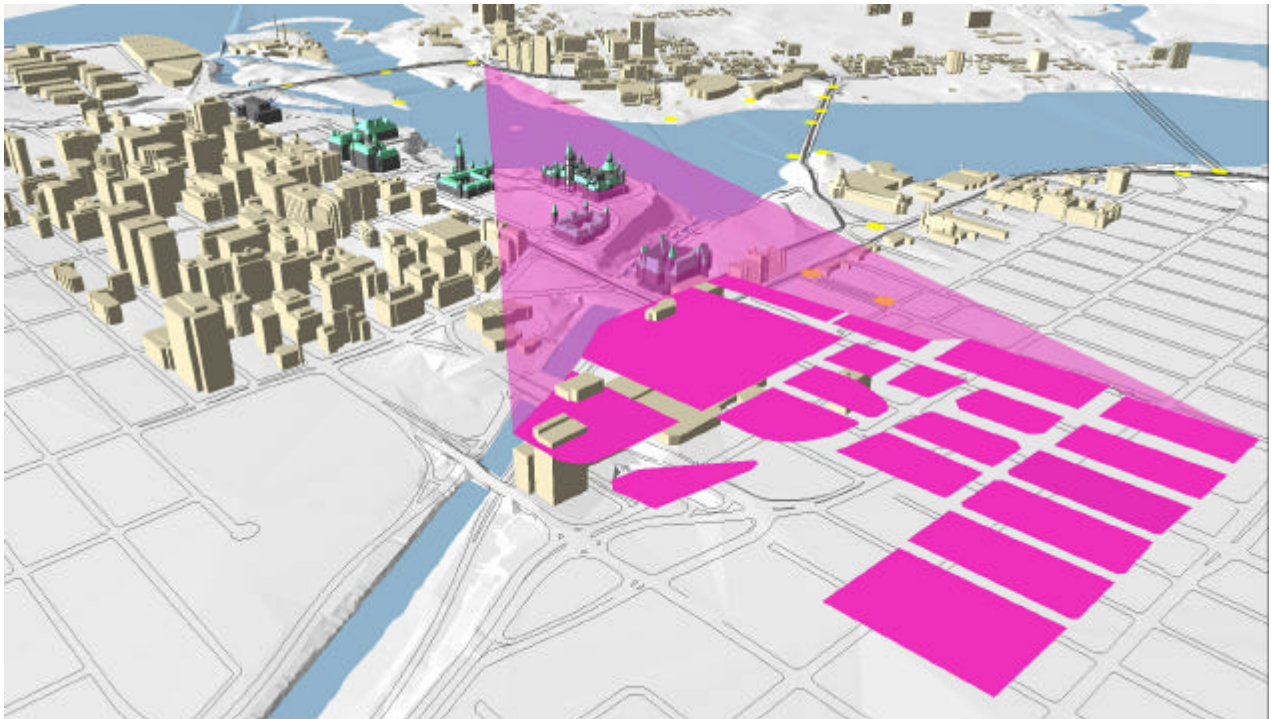


Figure 101: Computer generated image of Height Plane controlled by viewpoint 12

5.6 Composite Background Height Control Planes

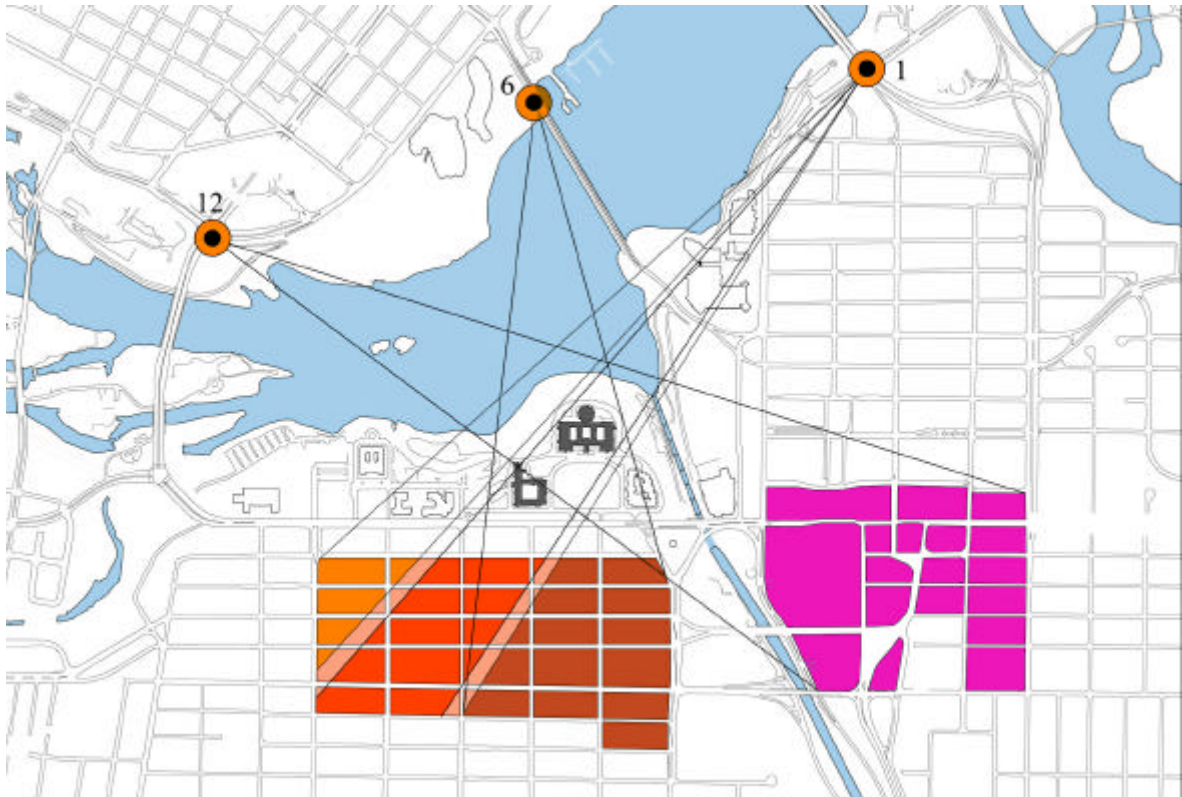


Figure 102: Composite of the Background Height Planes



Figure 103: Computer generated image of the composite of Height Control Planes, looking South

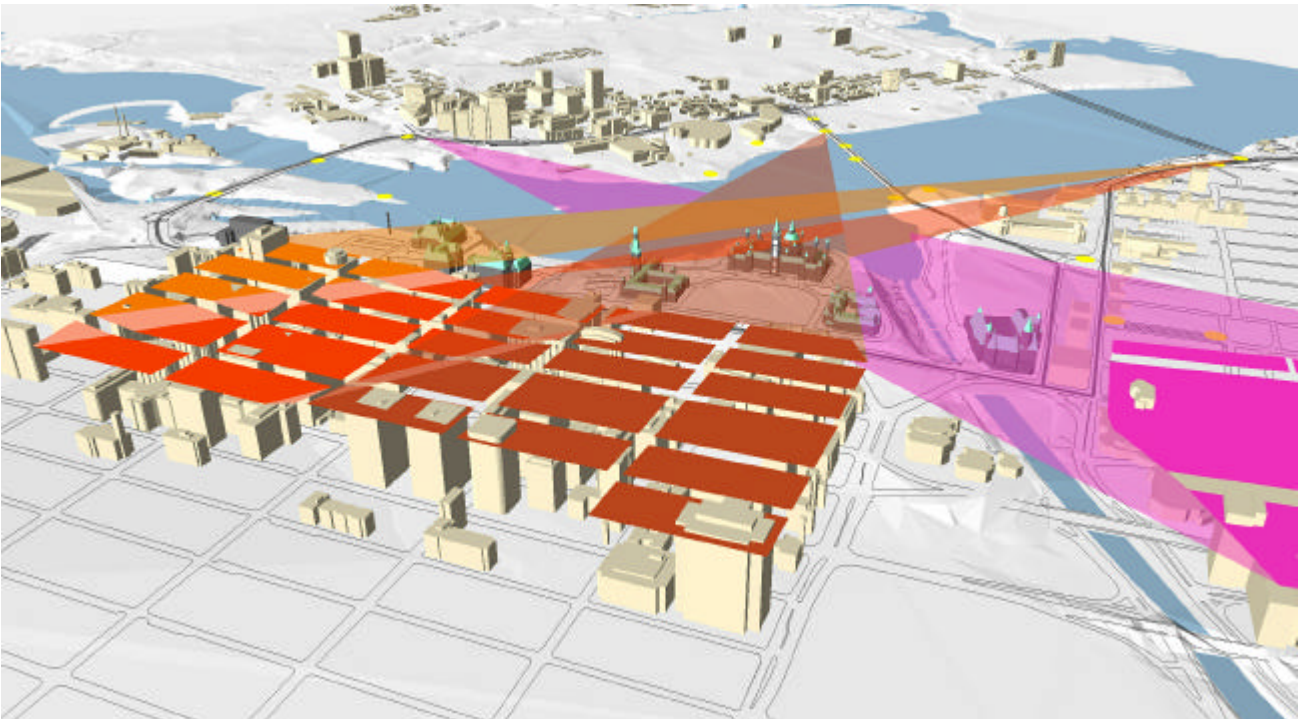


Figure 104: Computer generated image of the composite of Height Control Planes, looking North

5.7 Illustrations of the Height Controls

Figures 105-110 are computer generated views from the three control viewpoints relating to background height controls. The illustrations are grouped in pairs. The first shows the existing buildings in Ottawa's Central Area with the composite height control planes superimposed. The red shaded areas below the planes represent the area where new development could potentially be developed to the maximum of the height limits. The second of each pair of illustrations represents the theoretical outcome of the redevelopment of all existing buildings and sites in the Central Area to the maximum of the height controls.

Control Viewpoint 6 (Alexandra Bridge)



Figure 105: Computer generated view from Viewpoint 6 showing existing buildings and the Height Control Planes



Figure 106: Computer generated view from Viewpoint 6 showing all existing buildings and potential redevelopment sites constructed to the Height Control Planes

Control Viewpoint 1 (Sussex Drive)



Figure 107: Computer generated view from Viewpoint 1 showing existing buildings and the Height Control Planes



Figure 108: Computer generated view from Viewpoint 1 showing all existing buildings and potential redevelopment sites constructed to the Height Control Planes

Control Viewpoint 12 (Portage Bridge)

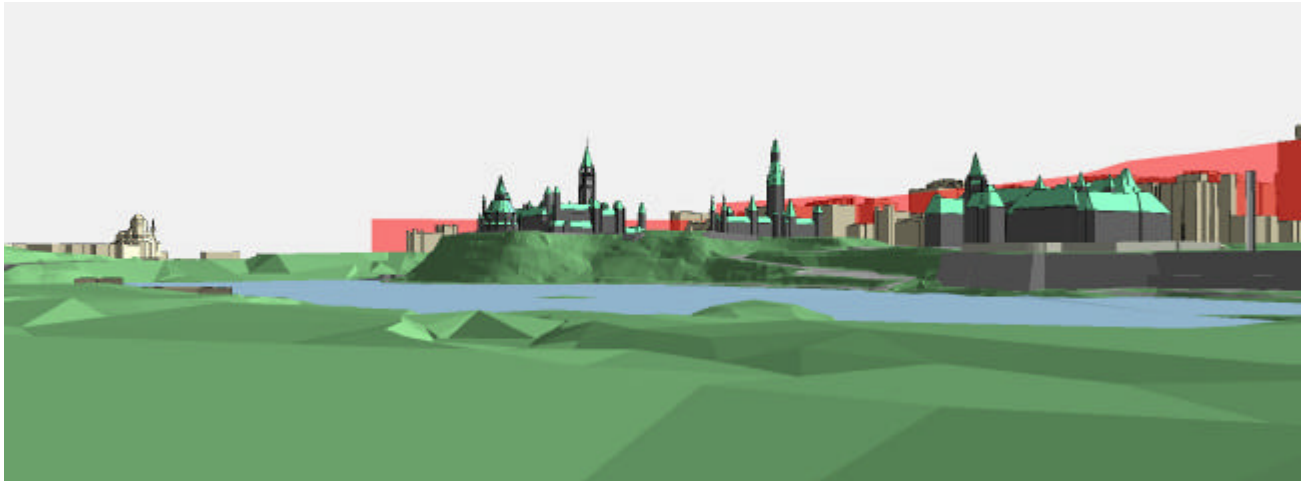


Figure 109: Computer generated view from Viewpoint 12 showing existing buildings and the Height Control Planes

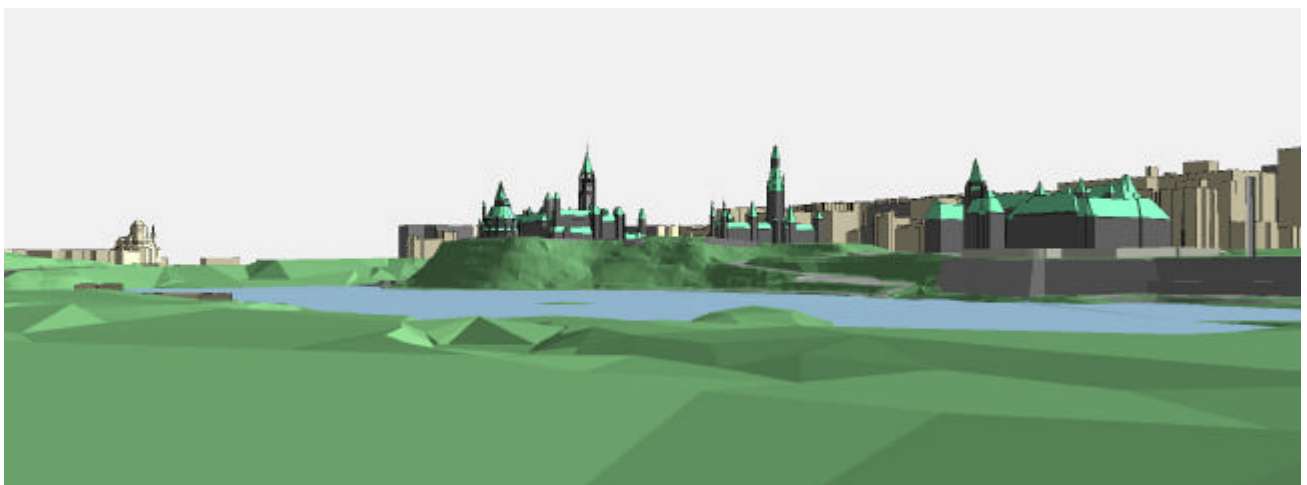


Figure 110: Computer generated view from Viewpoint 12 showing all existing buildings and potential redevelopment sites constructed to the Height Control Planes

The Sequence of Views

The following images are snapshots of the computer model taken in sequence from Viewpoint 4, at Nepean Point, to Viewpoint 14, located at the southern end of the Portage Bridge.

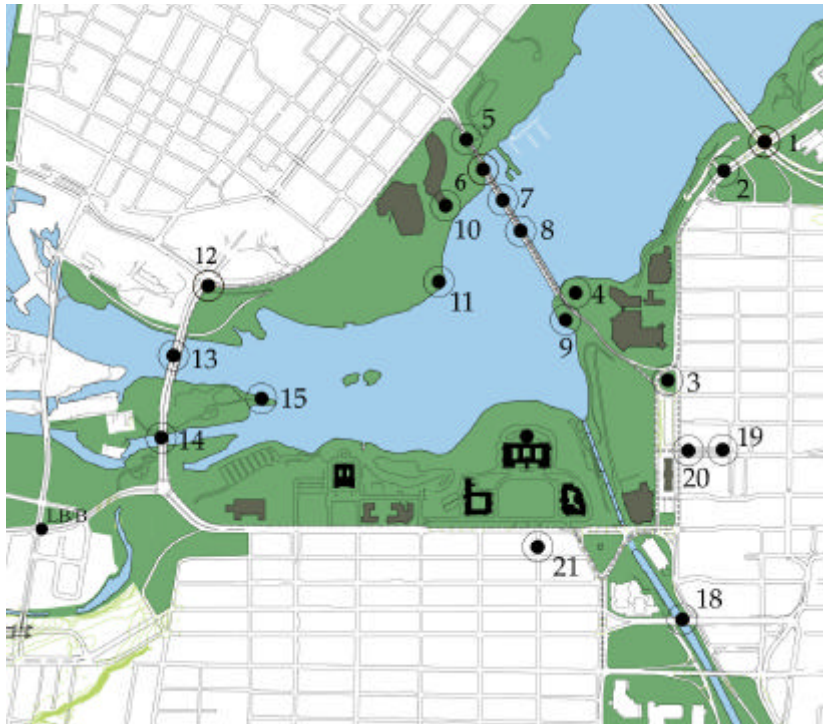


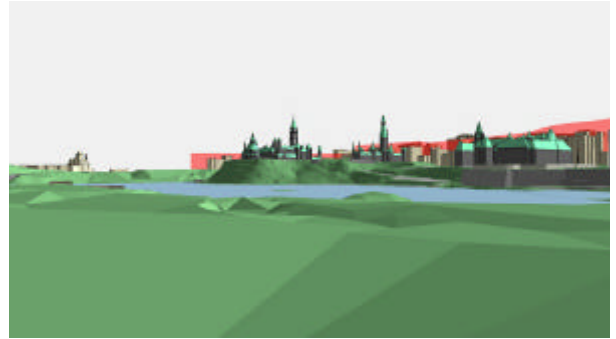
Figure 111: Location of Key Viewpoints

Viewpoint Reference No.

- | | |
|---|---|
| 1. Sussex Drive, at the Macdonald-Cartier Bridge | 12. Intersection of Portage Bridge and Rue Laurier |
| 2. Sussex Drive, 76.5 metres south of Viewpoint 1 | 13. Mid-point of the Portage Bridge (Rue Laurier/Victoria Island) |
| 3. Sussex Drive at The National Gallery | 14. Mid-point of the Portage Bridge (Victoria Island/Ottawa River Parkway) |
| 4. Nepean Point | 15. Victoria Island "Belvedere" |
| 5. Alexandra Bridge Boardwalk, first of a four viewpoint sequence | 16. Ottawa River Parkway, mid-point of CPR Bridge |
| 6. Alexandra Bridge Boardwalk | 17. Nicholas Street, north of Queensway ramps |
| 7. Alexandra Bridge Boardwalk | 18. Mackenzie King Bridge at stairway |
| 8. Alexandra Bridge Boardwalk, mid-point | 19. York Street at By Ward Market Street |
| 9. "Belvedere" at south end of Alexandra Bridge | 20. York Street at Sussex Drive |
| 10. Terrace-level in front of The Museum of Civilization | 21. Metcalfe Street north of Queen Street |
| 11. "Belvedere" at edge of Ottawa River (Hull) | LB/B. Supplementary viewpoint at intersection of proposed LeBreton Boulevard and Booth Street |



Key Viewpoint 4



Key Viewpoint 12



Key Viewpoint 6



Key Viewpoint 13



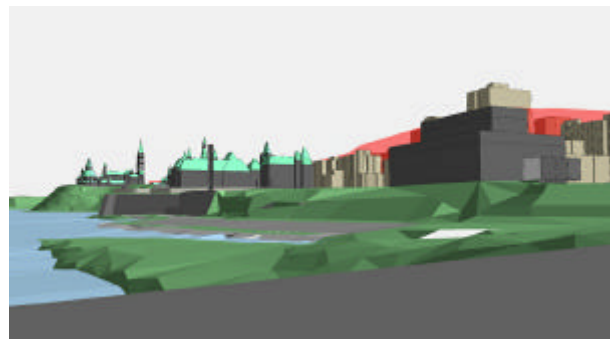
Key Viewpoint 10



Key Viewpoint 15



Key Viewpoint 11



Key Viewpoint 14

Figure 112: Sequence of computer generated views from various key viewpoints, from Nepean Point to the southern end of the Portage Bridge



Figure 113: Areas Subject to Foreground Controls

- Areas of Foreground Controls
- Control Viewpoint
- Key Viewpoint

5.8 Foreground Controls

The areas which are subject to foreground controls include the Central Capital Landscape, the viewsheds of the principal Approach Routes, together with the city blocks which lie at the edges of the open space areas, as illustrated in Figure 113. The foregrounds are regulated through maximum building height and other building envelope controls together with design review procedures for the urban design, landscape and architectural aspects of any proposed development.

Most of the land within the Foreground areas is in Capital (Crown) territory and owned by agencies of the federal government. Consequently, the majority of the foreground areas is not subject to statutory municipal (or provincial) regulation but is the responsibility of the National Capital Commission, working cooperatively with other federal agencies and other levels of government. The procedures for the planning and design review of development initiatives in the foreground areas are therefore those already adopted by the NCC for proposals on federal lands.

In the case of LeBreton Flats, where parcels of NCC owned land are to be released for private development and are therefore subject to municipal regulation, the City of Ottawa's Secondary Official Plan, including the views protection controls, was developed through a collaboration with NCC.

Measures to protect the foregrounds in other areas have been developed through sub-area studies, conducted in response to specific building and landscape development proposals as they are initiated. To date, all of the foreground protection studies, conducted in the context of the current Ottawa Central Area views protection policies, have focused on proposals that affect the viewsheds of **Approach Routes** – Sussex Drive, the Rideau Canal corridor, and the Ottawa River Parkway (LeBreton Boulevard). The *LeBreton Flats Views Protection* study forms the basis of Official Plan Amendments and Zoning Bylaws. The other studies have resulted in site and proposal-specific guidelines and directives, documented in NCC working papers or in published reports and in the case of the Rideau Canal pedestrian crossing, the preparation of a Planning and Environmental Assessment Report.

5.8.1 Confederation Boulevard Frontage

Included in the areas of foreground control are the city blocks at the edges of the urban (civic) districts adjacent to Confederation Boulevard. Building height controls or guidelines applicable to the frontage of these city blocks are intended to moderate the height and scale of buildings which define and frame the Central Capital Landscape and the Rideau Canal park area.

In most instances, the directives for building height are expressed as a requirement for “medium profile” buildings. This is defined as up to eight storey buildings in the City of Ottawa Official Plan. Lower height limits are applicable in some districts such as the By Ward Market Area.

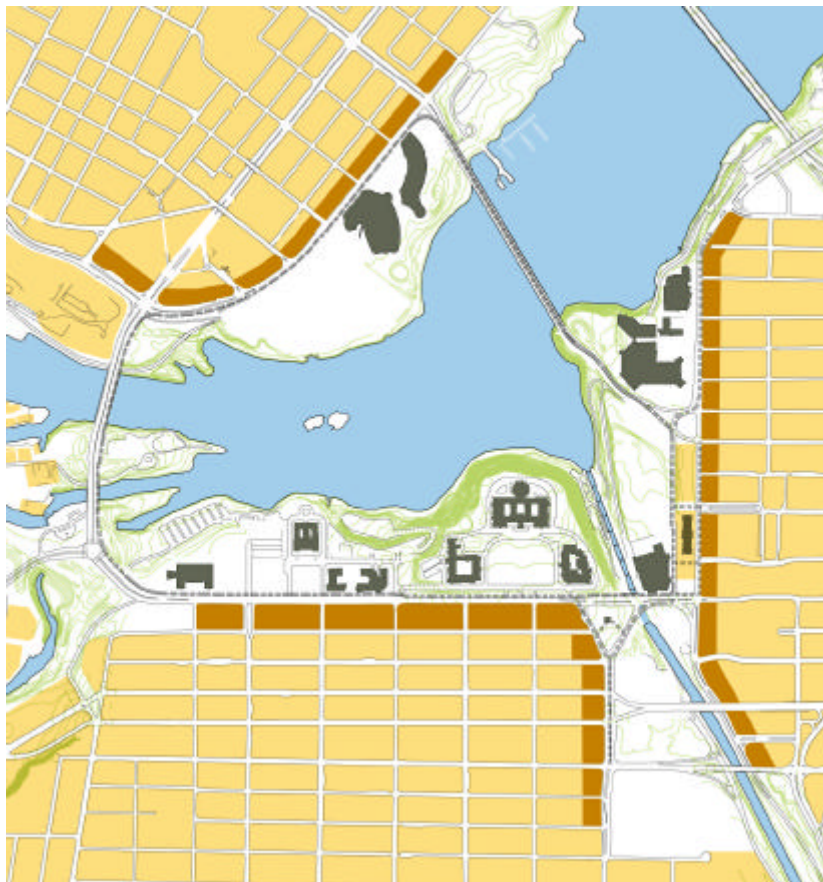


Figure 114: Confederation Boulevard Frontage

5.8.2 Wellington Street Frontage

Specific height controls apply to the frontage buildings on the south side of Wellington Street. The three blocks facing Parliament Hill (between Bank and Elgin Streets) are required to be “medium profile” buildings in order to protect the visual integrity of the Parliamentary Lawn composition. The height limit for the northern half of these blocks is 108.0 metres (a.s.l.) and for the southern half of the blocks is 113.0 metres (a.s.l.).

For the remaining three blocks on Wellington, between Bay and Bank Street, the north halves of the blocks have a height limit of 108.0 metres (a.s.l.) to maintain a constant horizontal building profile along the entire street, between Bay and Elgin Streets. The southern halves of the three western blocks have a height limit of 125.0 metres (a.s.l.) to provide a building profile which steps away from Confederation Boulevard and the Central Capital Landscape.

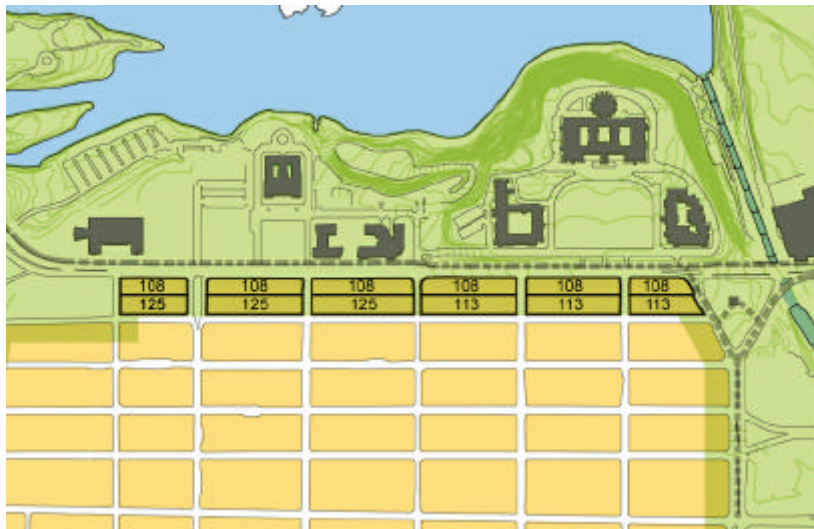


Figure 115: Specify height controls on the Wellington Street Frontage

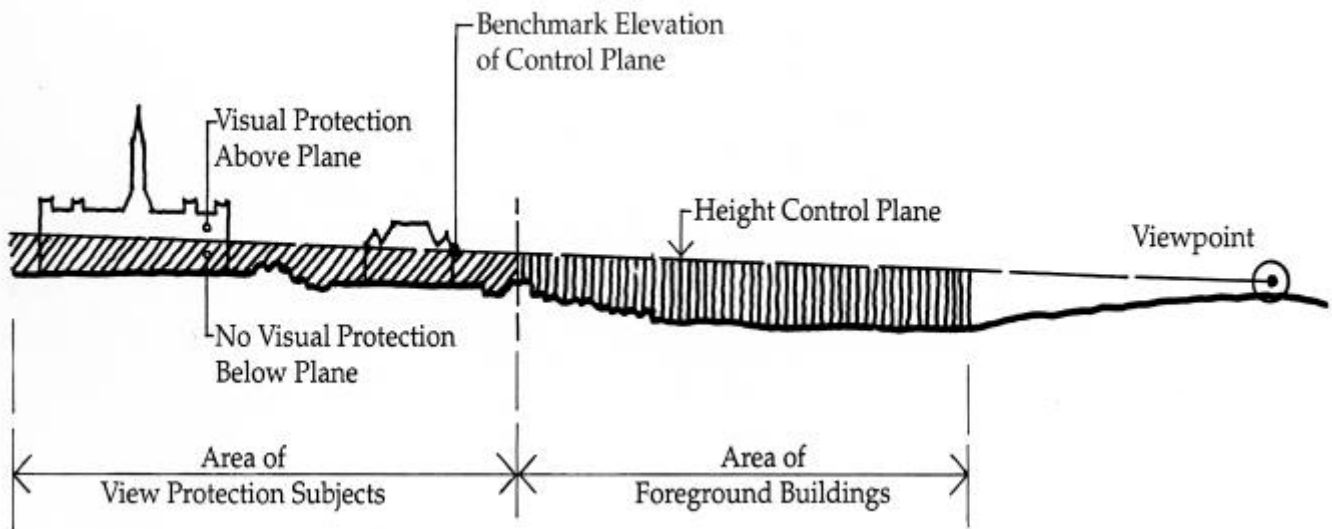


Figure 116: Diagram of a Foreground Height Control Plane

5.9 LeBreton Flats Foreground Controls

The City of Ottawa, Official Plan Amendment No. 27 sets out the vision, objectives and policies for the new urban district, planned for LeBreton Flats, on the western edge of the City's central area. Included in OPA 27 are the building height and setback controls, which will protect the foreground areas of the most important views of the National Symbols as the district is built up. The controls are based on the recommendations of the 1999 *LeBreton Flats Views Protection* study.

Further building height, setback, and build-to requirements, established in relation to other urban design criteria, are part of the implementing central area by-law.

5.9.1 Control Viewpoints 16 and LB/B

The foreground views protection measures for LeBreton Flats are formulated on the basis of protecting many views of the National Symbols by controlling the foreground of the viewsheds of two control viewpoints. The first, Viewpoint 16, is one of the twenty-one key viewpoints identified in the O.P.A. 14. It is located on the Ottawa River Parkway at its crossing of the CPR tracks at the western boundary of the Central Area, as illustrated in Figure 117. Supplementary controls are generated from a second control viewpoint (LB/B) on the proposed alignment of LeBreton Boulevard at Booth Street, described in sections 5.9.5 and 5.9.6.

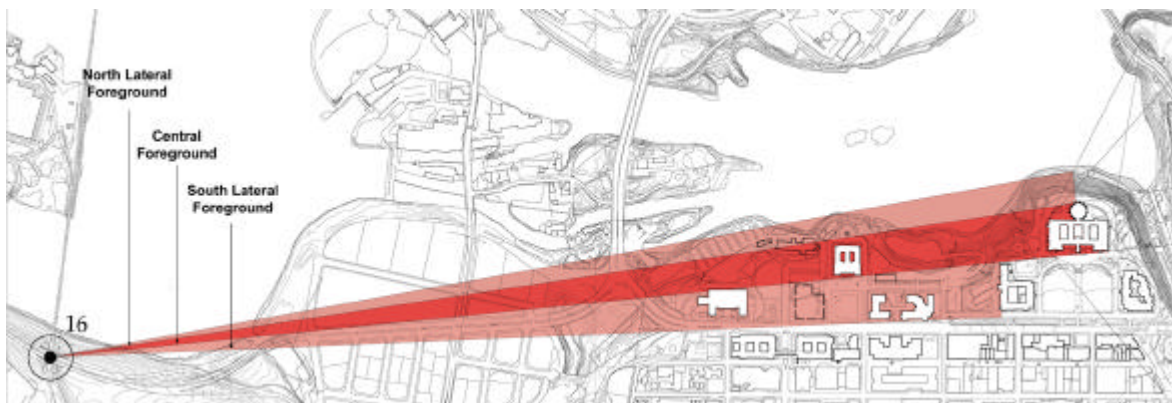


Figure 117: Plan of the viewshed of Viewpoint 16

5.9.2 The Subjects of Views Protection

The individual elements of the composition of National Symbols seen from Viewpoint 16 (presented in 4.6.5) are not of equal visual or symbolic value. However, collectively they represent one of the strongest available images of the National Symbols in a long distance view, requiring comprehensive foreground view protection. To this purpose, height controls are tailored to particular areas of the viewshed.

The subjects of views protection seen from Viewpoint 16 fall within central and lateral foreground areas, shown in Figures 118 and 119. The central foreground is defined by the extremities of the Centre Block and Parliamentary Library which encompasses the west facade of the Supreme Court. Subjects of views protection in the lateral areas include the upper half of Parliament Hill escarpment in the north and most of the other Precinct Area buildings (north of Wellington Street) in the south.

5.9.3 The Benchmarks

The top of the parapet walls on the Supreme Court terrace (elevation ??? m. asl) is the selected benchmark for the central and north lateral foreground areas. Although the parapet wall is barely visible, a height control plane at this elevation provides visual protection for the top of the trees seen in front of the Supreme Court's west facade and all the buildings and landscape elements currently visible above these trees.

The south lateral foreground includes the LeBreton Common open space, where no major permanent buildings will be permitted, and extends southward to include the Justice Building and the higher elements of the Confederation Building visible behind. To protect the view of the upper roofs and the silhouette of the towers/spires of these parliamentary buildings, the elected benchmark for the south lateral foreground is the eavesline of the Justice Building (elevation ??? m. asl).



Figure 118: Detail of the view from Viewpoint 16

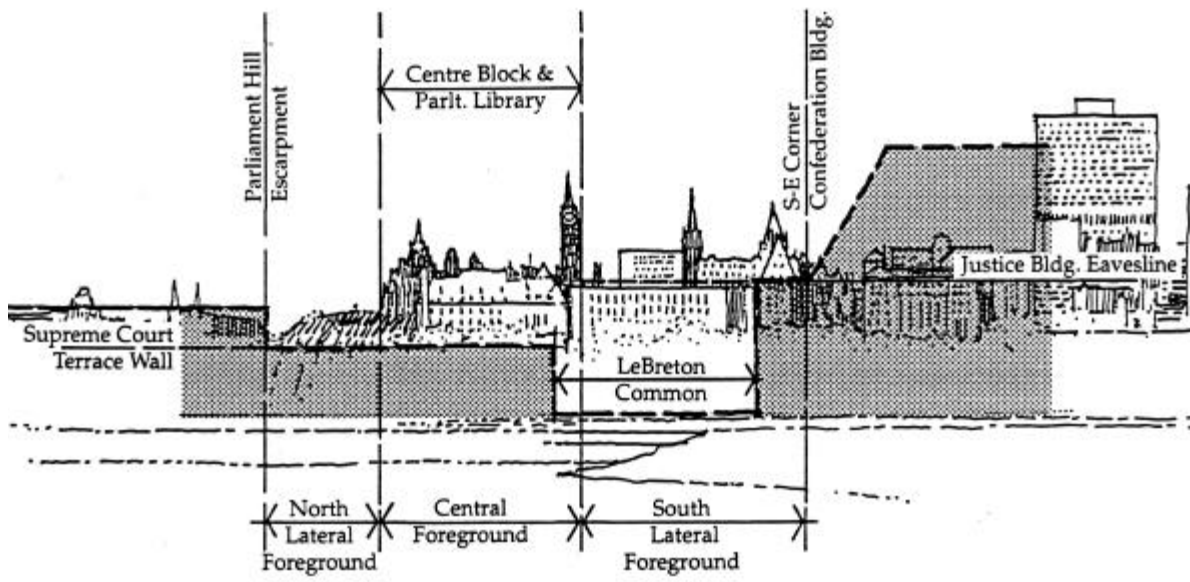


Figure 119: Diagram of the Subjects of Views Protection and the Benchmarks from Viewpoint 16

5.9.4 The South Lateral Height Control Plane

The height control plane in the south lateral foreground projected to the Justice Building benchmark from Viewpoint 16 (elevation ??? m. asl), limits the heights of buildings fronting on the south side of LeBreton to approximately 22.5 metres/six storeys. Additional setbacks for the upper parts of these buildings is recommended to provide a further transition in building heights adjoining LeBreton Common.

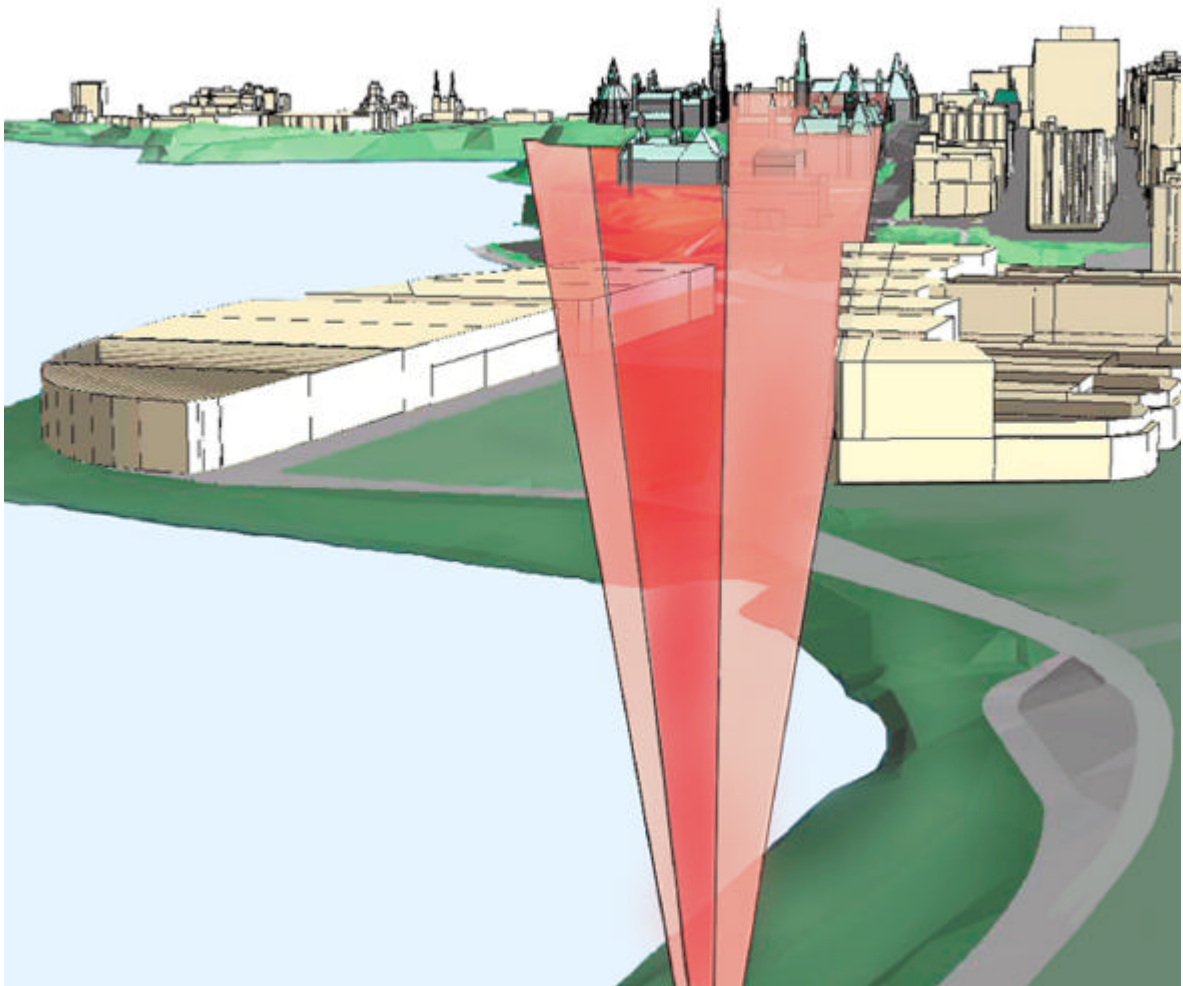


Figure 120: Computer generated image of the Height Control Planes from Viewpoint 16

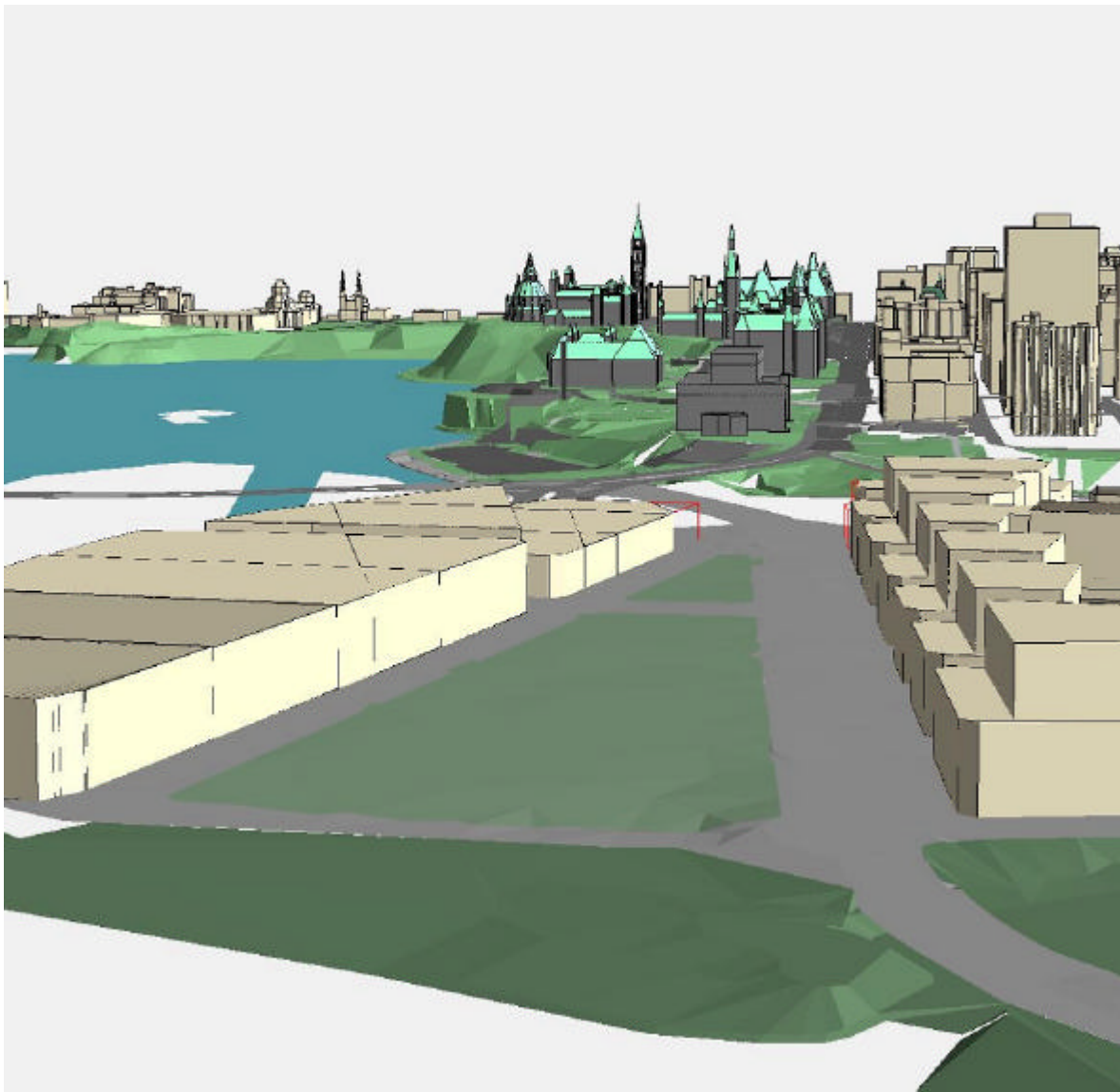


Figure 121: Computer Model of the Required Profile Modifications to the Building Envelopes fronting on LeBreton Boulevard

5.9.5 Viewpoint LB/B

Additional foreground controls are provided to protect the views of the National Symbols from LeBreton Boulevard and LeBreton Common. Control Viewpoint LB/B is the selected location for the view which “represents” the range of views for pedestrians on the Boulevard’s sidewalks as well as eastbound motorists. This supplementary control viewpoint is located on the west side of the LeBreton Boulevard / Booth Street intersection at elevation ??? m. asl.

5.9.6 Protected Viewshed

From Viewpoint LB/B, an open panoramic viewshed protects the visual opening between buildings at the eastern end of the LeBreton Flats development. The panorama encompasses the National Gallery in the north to the Garden of the Provinces in the south, thus bracketing part of the river related landscape, the western end of the Precinct, the Wellington Street corridor and most of the west facade of the West Memorial Building.

This protected panoramic viewshed defines “no-build” areas in parts of the development blocks, north and south of LeBreton Common. Landscape design proposals will require careful review to ensure that the visual “window” into the Central Capital Landscape is fully acknowledged.

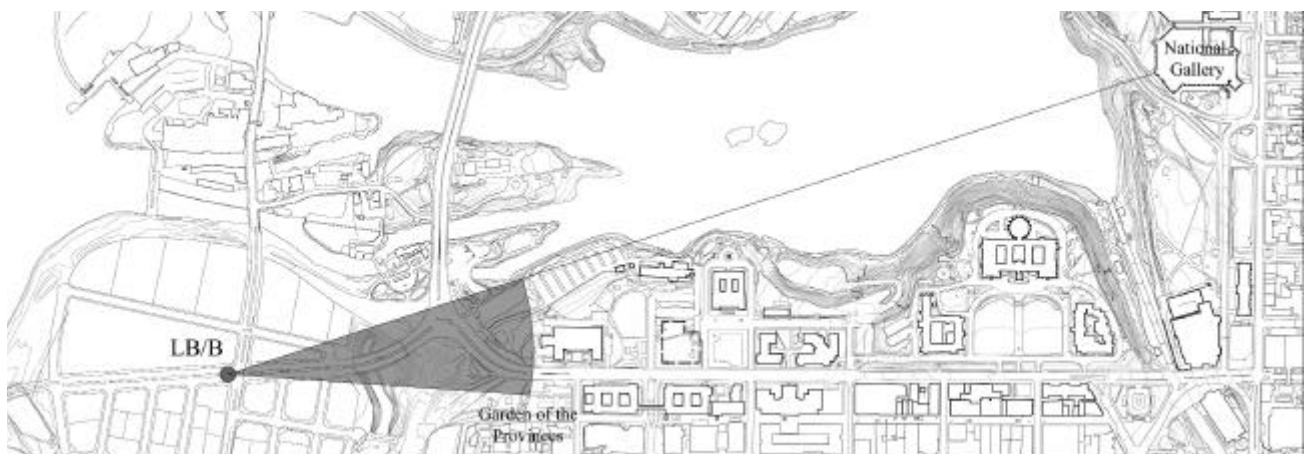


Figure 122: Plan of the panoramic view controlled by Viewpoint LB/B

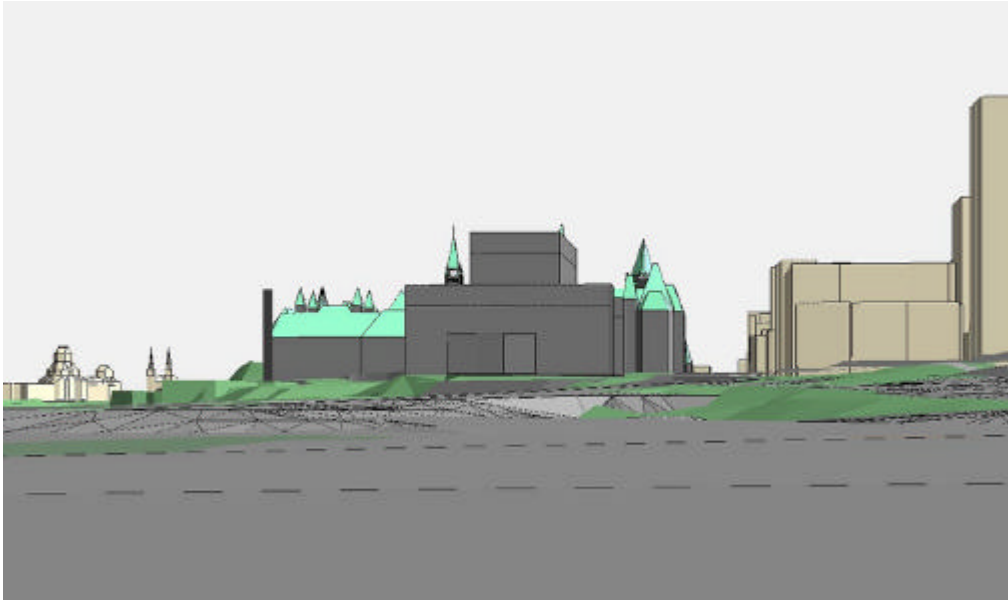


Figure 123: Computer generated view from Viewpoint LB/B before development

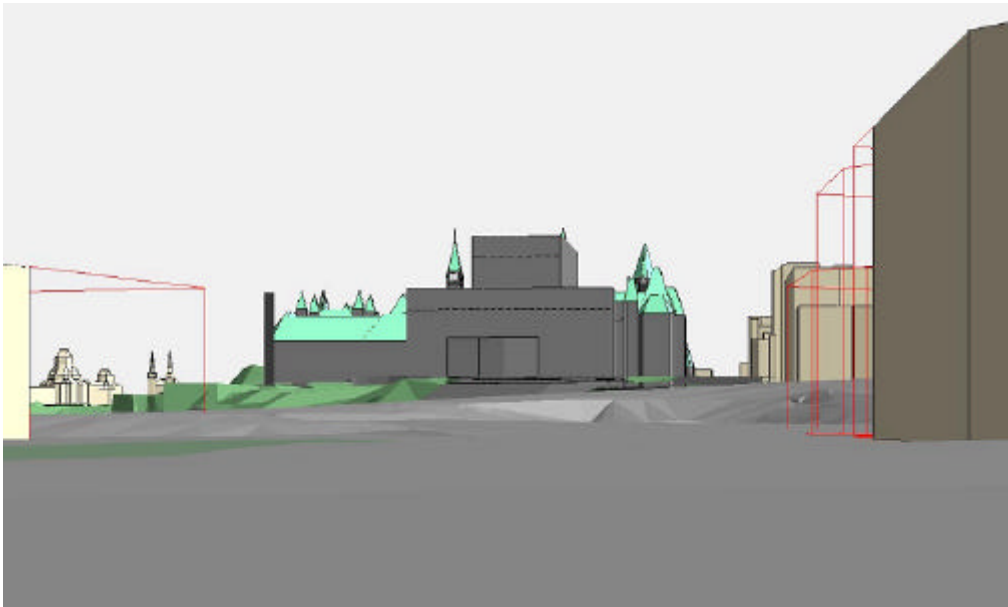


Figure 124: Computer generated view from Viewpoint LB/B and affected building envelopes (shown in wireframe)

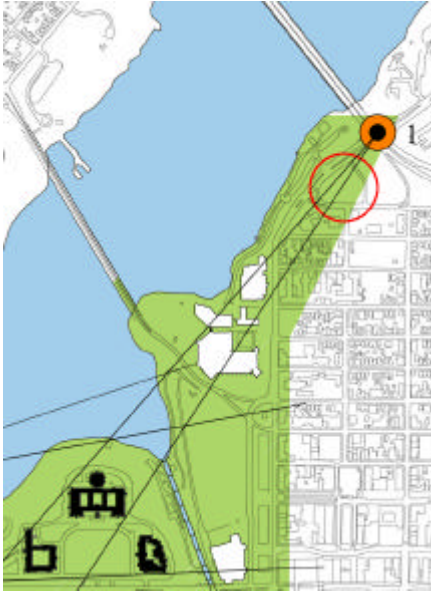


Figure 125: Location of the embassy building

5.10 Sussex Drive – Foreground Controls

Building height guidelines were prepared by the National Capital Commission for a proposed embassy building to be developed on Sussex Drive at Boteler Street, as illustrated in Figure 125. The site lies within the Area of Foreground Controls and within the viewsheds of Key Viewpoints 1 and 2.

The site is to the south of Viewpoint 1, one of the control viewpoints for defining background building height controls, west of the Rideau Canal. The subjects of “background” views protection are the tower and spire silhouettes of the National Symbols including the National Gallery, seen above the ridgeline of the Centre Block.

In this instance the viewpoint location and the subject of views protection for the purposes of foreground height controls are the same as those used to determine background height controls. Thus, the background height control plane projected from Viewpoint 1 (elevation 63.01 m asl) through the ridgeline benchmark of the Centre Block (elevation 113.36 m asl), together with the lateral height control planes, is extended into the foreground area, to determine the foreground building height limits.

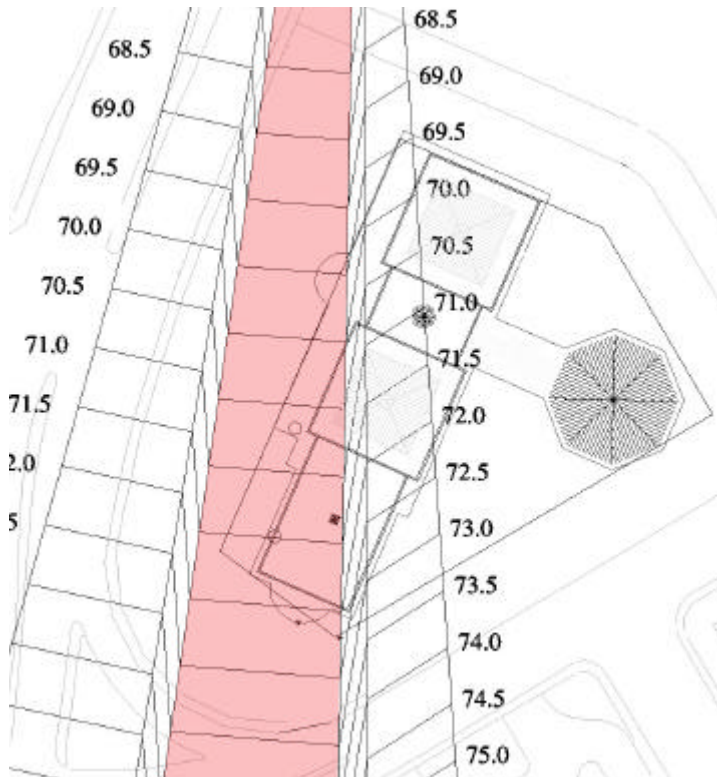


Figure 126: Plan view of height planes projected from Viewpoint 1 (the highlighted plane is the same as the one controlling the central area of The Core, described in section 5.4.2)

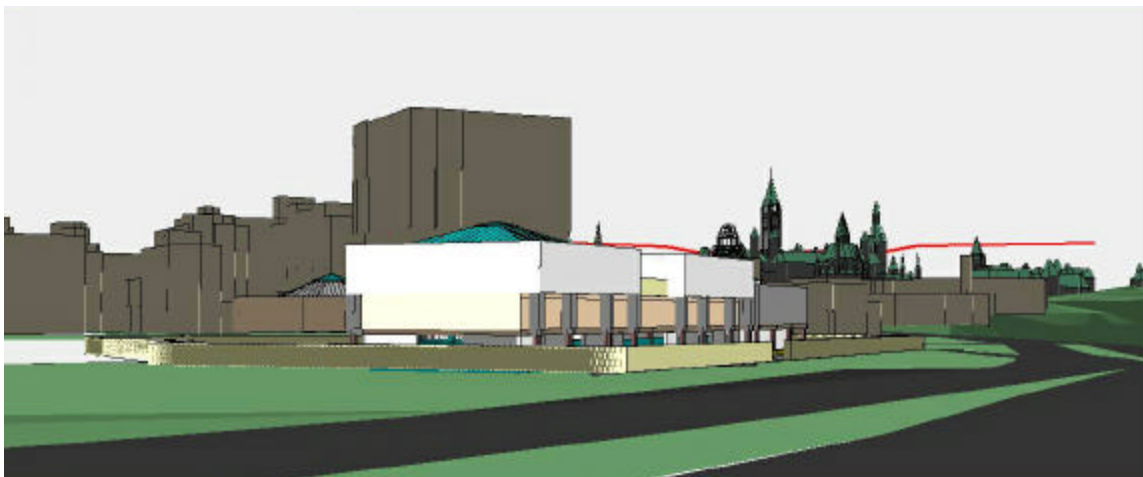


Figure 127: Computer generated view from Viewpoint 1, showing the relationship between the embassy building and the profile of the height planes (red line)



Figure 128: Location of proposed Rideau Canal bridge within the Area of Foreground Control

5.11 Rideau Canal Pedestrian Bridge

The proposed introduction of a new bridge crossing of the Rideau Canal is the subject of an Environmental Assessment conducted by the City of Ottawa in collaboration with Parks Canada and the NCC. The assessment includes an urban design review and foreground views protection analyses, of the type called for in the City of Ottawa Official Plan and as adopted by the NCC.

The Rideau Canal is a heritage waterway linking the Ottawa River at Parliament Hill to the St. Lawrence Seaway near Kingston. In the National Capital it forms a recreational parkway and serves as a ceremonial entrance to the Parliamentary Precinct. The canal is owned by Parks Canada, while the pathways and lands adjacent to it belong to the National Capital Commission (NCC).

The purpose of the pedestrian bridge at the Nicholas Street underpass, near the Transitway's Campus Station, is to allow local residents, tourists and students to cross the canal at this busy transit stop and link the University of Ottawa community to south downtown. The prominent location of the bridge presents a significant design challenge — to find a balance between respect for the heritage setting and the opportunity to celebrate a new landmark.

The design criteria for the bridge structure and associated landscape were established through the consultative public process to ensure that the final design would be of the highest quality, reflective of both



Figure 129: View of Rideau Canal, looking north

the unique setting and current structural technology. An important aspect of this study is the integration of the analysis of the potential visual impacts on the views of the National Symbols with the overall design and evaluation process.

Extensive photo analysis and computer modeling of each design alternative was employed to ensure visual protection of the National Symbols such as the Peace Tower. The viewpoints selected as the basis for the visual analyses include Key Viewpoint 17 as well as some other important local viewpoints, shown in Figure 130. The combination of views, from all the viewpoints, is the basis for evaluating the visual impact of the structure on its surroundings and on the visible silhouette of the National Symbols.

Views and Vistas is one of six criteria groupings identified in the E.A. study to analyse and compare the various design concepts. This



Figure 130: Typical viewpoints used to assess the visual impacts

criterion is assigned a weight of 25 out of 100, and is balanced with the other groupings of criteria related to: *Natural Environment, Contextual Environment, Architectural Expression, Functional Requirements, and Economic Environment.*

The Rigid Frame Bridge is the selected preferred alternative and is shown in Figures 131 to 134. Examples of the bridge configurations and siting alternatives, evaluated in the Environmental Assessment, are illustrated in Figures 135 to 138.



Figure 131: Photo visualization of the Rigid Frame Bridge (Double Leg) from Colonel By Drive



Figure 132: Concept plan of the Rigid Frame Bridge



Figure 133: Rigid Frame Bridge (Single Leg)



Figure 134: Rigid Frame Bridge (Single Leg)



Figure 135: High-Level Cable Stay Bridge



Figure 136: High-Level Cable Stay Bridge (viewed from Key Viewpoint 17)



Figure 137: High-Level Curved Single Arch Bridge



Figure 138: High-Level Curved Single Arch Bridge

APPENDICES