

4.0 ANALYSIS & IMPLEMENTATION

4.1 Urban Design Guidelines

4.1.1 Purpose

These guidelines have been prepared to guide the form and character of development as set out in the Concept Plan. The plan, and guidelines establish an approach which is intentionally flexible as the details of actual development programs, utility location, and the like will require considerable refinement and adjustment as subsequent and increasingly more detailed designs move the concept towards fruition. The design guidelines form a framework to guide urban design decisions, and evaluation of submissions for approval. While the end product will undoubtedly differ in detail, the development should have a grain, pattern, and connectivity that is comparable to that described in this document.

4.1.2 Organization

Early in the planning of Kanata West, design objectives were established. These were based on the direction established by the City of Ottawa and on the values and attributes expressed through the various community consultations held early in the process. These objectives are broad by definition, and have been expanded to form a set of design principles, which will begin to illustrate how development will accomplish the design objectives. The design principles establish the key elements of Kanata West as a whole and set out broad, comprehensive approaches that deal with the overall urban structure of this new community.

The design guidelines flow out of the principles and are organized by land use zone. They describe the essential templates for block pattern, open space and parks, streetscape and building siting and massing to establish not only form, but the character of each district within Kanata West. As these land use zones take on personality we begin to regard them as character areas or districts.

Illustrations have been prepared to convey the guidelines. The key figure among these is the Demonstration Plan as set out in Figure 4-1. While this is a scaled plan drawing, it is very conceptual in nature and serves to demonstrate the patterns of development which will result when applying the design principles and guidelines. This illustration makes broad

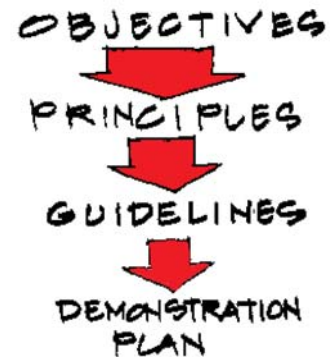




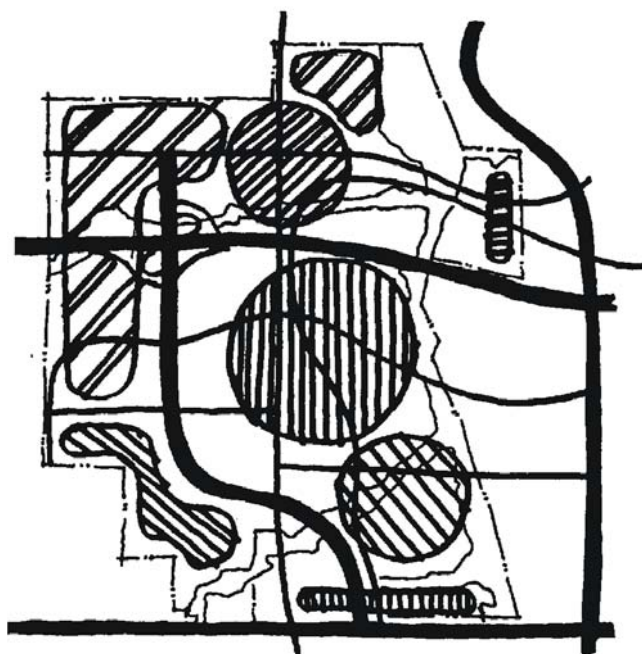
Figure 4-1
The Demonstration Plan

assumptions, and is intended to convey a design approach with respect to the organization and patterns set out in this document.

4.1.3 Design Principles

4.1.3(1) Areas and Districts

The land uses of Kanata West have been deliberately arranged to locate the more dense uses towards the core. Uses at the periphery are complementary to those existing uses beyond the boundaries. While the land use plan illustrates the various zones as distinct colours, the range of permitted uses indicates that the likely result will be a transition of uses across the zones. For example, a cross section through Residential Neighbourhood 'A' would expect ground oriented housing adjacent to Stittsville, moving to low stacked units and apartments along the North-South Arterial, then a cell of ground oriented housing, then again residential or office in three and four storey buildings on Main Street, with a mix of uses including ground floor services and shops in the Mixed Use Area.



Kanata West will be made up of distinct districts and neighbourhoods

This mix of uses in the zones is intended to provide transitions so that the abrupt differences implied by colour change at boundary streets will be in fact an overlap. Uses which make sense along those streets will be seen on both sides, with the main portion of permitted uses, such as office in the case of the Intensive Employment Area, are located in the blocks behind the boundary. This will result in a series of character areas which have “natural” boundaries of similar and complementary uses, but can evolve as distinct sub-units. This is a deliberate departure from the more traditional land use approach that often resulted in expansive tracts of single land uses. This segregation of land uses, no matter how well

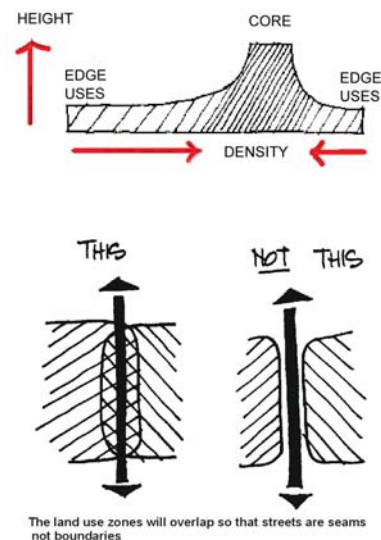


Figure 4-2

designed, required travel between day uses and dormitory areas, suffered from lack of hierarchy or landmarks and tended to promote conflict at edge conditions with different land uses.

This principle of transition is also markedly different from the approach in ROPA 9 in its permitted use of a vast, monoculture of business park development. This shift in planning approach is consistent with that seen across North America over the last decade, and is derived from analysis of how healthy urban areas have adjusted to changing uses but remained vital, and livable by allowing ranges and mixes of uses within well defined districts.

4.1.3(2) Block Pattern

Just as the density increases from the periphery to the core, the block pattern also provides a transition from the edges to the regular grid of the core districts. The transition in the residential quadrant makes use of a modified grid taking a radial form to accommodate the N-S Arterial and reconcile its pattern with the block grid of the Intensive Employment Area and Mixed Use District. The pattern shown on the demonstration plan uses parks to terminate the radial streets which cross the N-S Arterial, and purposefully avoids direct, through connections to John Street to prevent shortcutting through the neighbourhood to Hazeldean Road.

The Community Level Retail Districts are set out in a grid pattern as large blocks. When these blocks are designed for subdivision application, the internal circulation routes should conform to municipal road standards. This would allow those routes to become public streets when, or if, the sites are redeveloped allowing the sites to accept more density and take on a finer grain of block pattern.

The Prestige Business park is adjacent to the rural lands and is organized around an internal green corridor. The urban design response is for the roads to reflect an organic form, but to close as loops so as to provide viable transit routes, as well as good pedestrian connectivity, within and through the quadrant.

The northeast corner “swing” zone is buffered from Kanata by the Carp River. As such the issues of adjacency to the suburban patterns of Kanata Lakes were considered to be less of an influence than the urban grid of the abutting Employment, Entertainment and Leisure District and Intensive Employment Area. Should this area be built for residential use, however, it should conform to the urban grid pattern recommended for the other residential areas.

4.1.3(3) Open Space

The concept of open space as a design principle is very broad and includes not only the natural watercourse corridors, but also the parks, sidewalks along streets and semi-public spaces associated with the siting and site development patterns set out in the guidelines. The watercourses

are the most distinctive existing element of the Kanata West lands. These green spaces are ample in total area and offer not only greenway connection through and beyond the community, but offer effective boundaries between.

Parkland is another major type of open space and its form is consistent with the principle of increasing urbanity in the core areas. While Residential Neighbourhood 'A' and the North Neighbourhood may have parks and through block connections similar to suburban subdivisions, public parks in the core areas would take the form of urban plazas or squares. These would not only as outdoor amenity and gathering places, but also become landmark places lending order to the streets and block pattern.

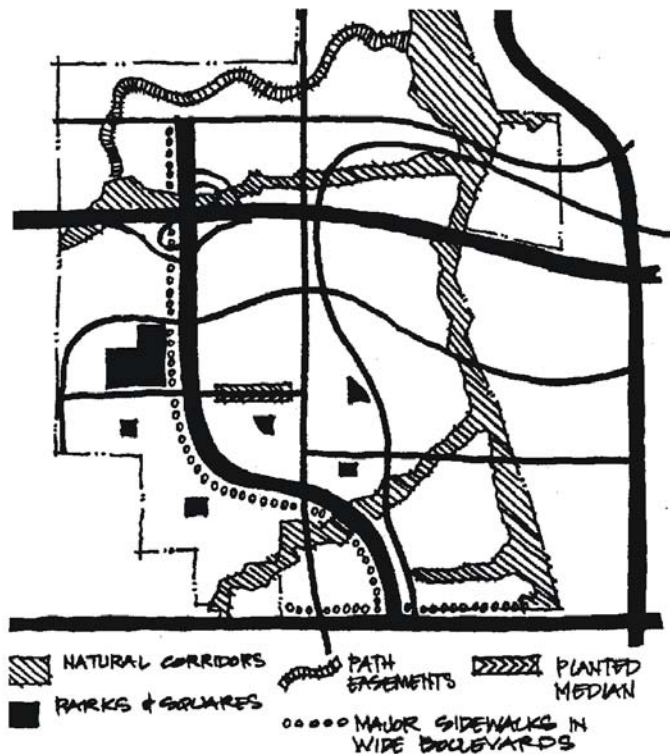


Figure 4-3

Distribution of parkland has been influenced by the water course corridors which contribute significant green space to the adjacent districts and neighbourhoods. As a result consolidation of the parkland dedication to another location in the community would be reasonable given the ample green space adjacent to Neighbourhood 'B' and the North Neighbourhood. Consolidation of parkland for a location in the Prestige Business Park would provide a considerable community asset in the form of a major sports park. Heavily used sports fields are often a conflict within residential neighbourhoods, but work well within business parks where noise and lighting are less likely to cause a disturbance. There is also potential to use adjacent parking lots during the evenings and weekends. This association with the Prestige Business Park also recognizes the needs of industrial sports leagues and the trend of adults continuing to play team sports.

High technology areas elsewhere in North America often demonstrate a preference for green, park-like settings in association with high quality architecture. While the format can provide a pleasant environment, it often results in a sprawling character lacking in landmark and urban clarity and rendering public transit inefficient.

The urban design response to this preference for green campus - like settings in Kanata West is to establish a pattern of development which, not only has a high percentage of green space, but utilizes a green corridor to organize buildings. This pattern is more fully described in the Prestige Business Park section of the design guidelines. This green corridor will supplement and enhance the trail system made possible along the watercourse corridors and be connected to the sidewalk system along all streets.

Paths along the edges of the watercourse corridors will provide good east-west connections, but north-south movements are blocked by Highway 417. It is essential that the pedestrian and path network provide good connections to the sidewalks crossing the Highway. This may require stairs at the ends of the overpasses to connect to the natural corridors. Pedestrian bridges may be appropriate at Feedmill Creek and the Carp River to provide direct connections to the rapid transit corridor and to the existing Kanata park and arena complex. There may also be some remnant lands (such as at the highway Interchange) which may be naturalized to benefit the urban forest in terms of air quality, distinctive character and amenity to the image of Kanata West.

One of the existing water courses is the intermittent stream located close to Hazeldean Road. This drainage course is not much more than an agricultural drain and has limited vegetation or natural value in its present state. Therefore, the concept plan proposes to relocate this watercourse and supplement its groundwater flow through use of sub-drains in a location approximately 100 m north of its present alignment. This is described in more technical detail in the sections of the report describing environmental considerations.

4.1.3(4) Streets

In keeping with the objectives for compact design and pedestrian movement, all streets are to have sidewalks. These sidewalk networks will be enhanced by connection to the path system along the watercourse corridors and through the business park. The width and locations of the sidewalks vary from district to district in keeping with the character of development and the type of roadway they are associated with. For example, sidewalks on the north side of Hazeldean Road and the east side of the N-S Arterial are significantly set back from the curb with trees located in a generous boulevard, in recognition of the width and travel speed of those roadways. However, sidewalks in the residential neighbourhoods are located at top of curb.

All forms of development are to face onto the arterial and arterial/collector roadways thereby avoiding the barrier imposed by rear facing lots

with associated fences or noise attenuation walls. This can be achieved through the orientation of buildings. Buildings should face the roadway with vehicular access and outdoor amenity space provided from the back. In the case of ground-oriented residential, access should be provided through a service road.

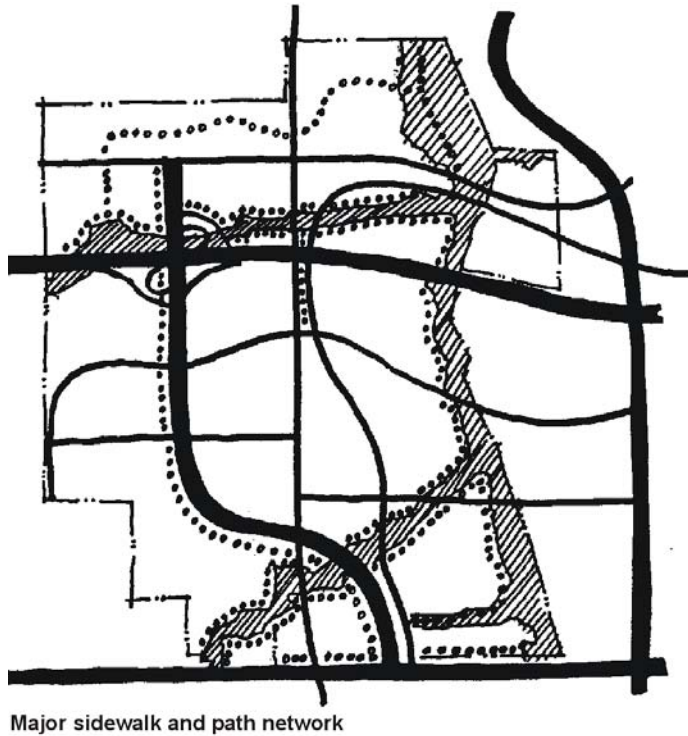


Figure 4-4

Generally, the streets - as established by each character area's block pattern - should provide multiple entries into each area so as to encourage connectivity. There are two exceptions to this principle. The first is in Residential Area 'A' where the streets should provide a discontinuous linkage to John street in order to discourage short-cutting through this neighbourhood. The second exception is in the location of watercourse corridors where crossings should be minimized.

Another key principle is that the rapid transit route be accommodated through the Intensive Employment Area, the Employment, Entertainment and Leisure District and the Mixed Use area as an at grade street with frequent stops. This will avoid the divisive barrier created by a grade separated corridor with stations designed to accommodate vehicle movements rather than compact pedestrian relationships.

4.1.3(5) Community Gateways

The real perception of entering Kanata West will be through the core zones bounded by Campeau Drive, the Carp River and the N-S Arterial. Gateways in these location should be enhanced by creation of woodlots flanking the roadways where Palladium Drive crosses the Carp River and where Maple Grove crosses Poole Creek. Entries at Palladium Drive and Huntmar from the N-S Arterial will be punctuated by the sports park at

Palladium Drive and the Poole Creek crossing at Huntmar, but be articulated by buildings flanking the street and the experience of entering, or leaving these urban buildings lined streets. Main Street will be distinctive by virtue of its treed median and urban cross-section defined by continuous building facades.

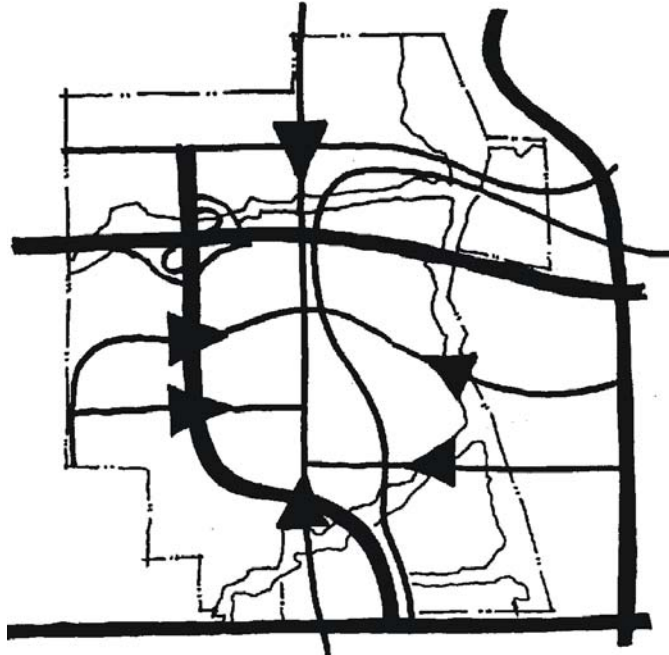
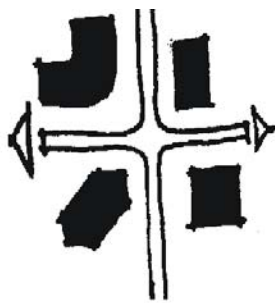


Figure 4-5

Community gateways in the core area

4.1.3(6) Building Siting and Massing

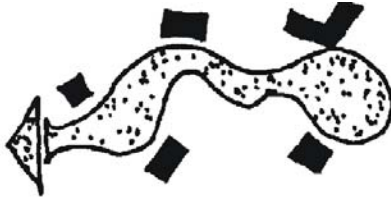
The design principle for siting buildings is to define street corridors and articulate the massing to express corners of blocks. Two exceptions to this pattern are the community scale retail which uses the buildings to break down the scale of associated parking lots, and the business park which organizes buildings along an internal greenway path system. The other key design principle as it relates to buildings is that uses be mixed within the core areas, often vertically within buildings, and that unit types and tenure be mixed on a lot by lot basis in the residential neighbourhoods.



Buildings should express corners and intersections



Building to define street corridors



The buildings in the business park are to be organized along a greenway path



All site plans must prove the initial development has the ability to accept additional density which may require parking garage structures

4.1.3(7) Pedestrian and Bicycling Circulation

Pedestrian connectivity will be supported by provision of sidewalks on both sides of all streets. The watercourse corridors are also opportunities to create an extensive inter and intra district recreational path system. Attention to allowing these recreational paths to continue under, and connect up to, the street bridges will be required. Additionally several pedestrian bridges across the watercourses would complete the recreational pathway network. Key among these desired connections would be crossings over the Carp River in the vicinity of the relocated Hazeldean Creek and crossings of the Feedmill Creek ravine.

Cyclists too are free to use all streets and pathways (with the exception of Highway 417). Designated bicycle lanes on the North-South Collector are recommended, with shared lanes on the other collector/arterial streets, as indicated on the Pedestrian and Bicycling Circulation Plan.

4.1.4 Design Guidelines

4.1.4(1) Employment Entertainment and Leisure District

The character of this district will build on the presence and momentum established by the office buildings on Cyclone Taylor Boulevard. The area's proximity to the Highway offers high profile and access, two highly desirable assets for commercial property. The provision of rapid transit, complete with stops integrated into buildings, will encourage compact development and further animate the entertainment and leisure uses all within comfortable walking distance. While there will be a sizable working population this district will attract visitors to the events and attractions offered, and extend those visits by providing urban amenities and recreation such as restaurants, nightclubs and shopping.

This district has all the potential - given rapid transit, good highway access, and the range of urban recreation uses - to be a “bright lights” district which will serve as a catalyst for development of the other core areas.

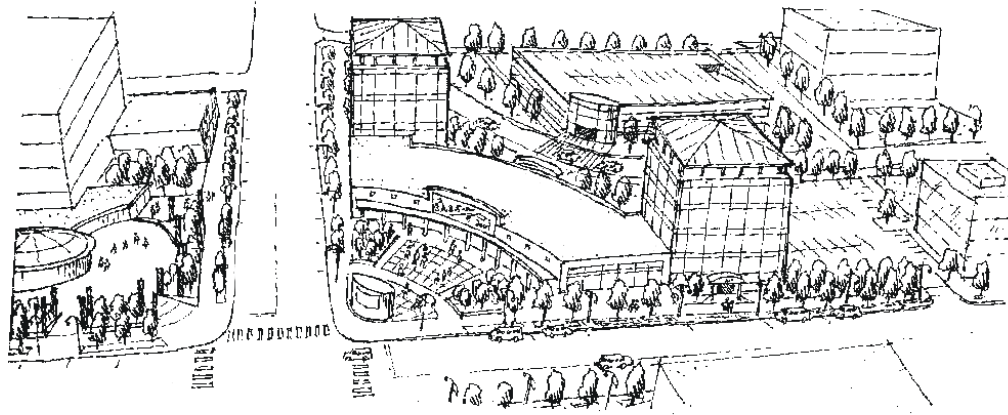


Figure 4-6

Buildings and their corner plazas at the Campeau and Huntmar Intersection

Block Pattern

With the exception of the existing Corel Centre Lands, the development pattern for the Employment, Entertainment and Leisure District should be an urban grid. The Feedmill Creek corridor will serve as the major organizing element through this district, so that blocks provide access within the east - west parcels of development land adjacent to the natural corridor.

Block Pattern Guidelines

Subdivision applications must satisfy the following guidelines:

- .1 Blocks must be set-out as a grid or modified grid with the east-west bias as a long axis, with lengths approximately twice the width;
- .2 30% of streets to be single-loaded abutting the Feedmill Creek corridor.

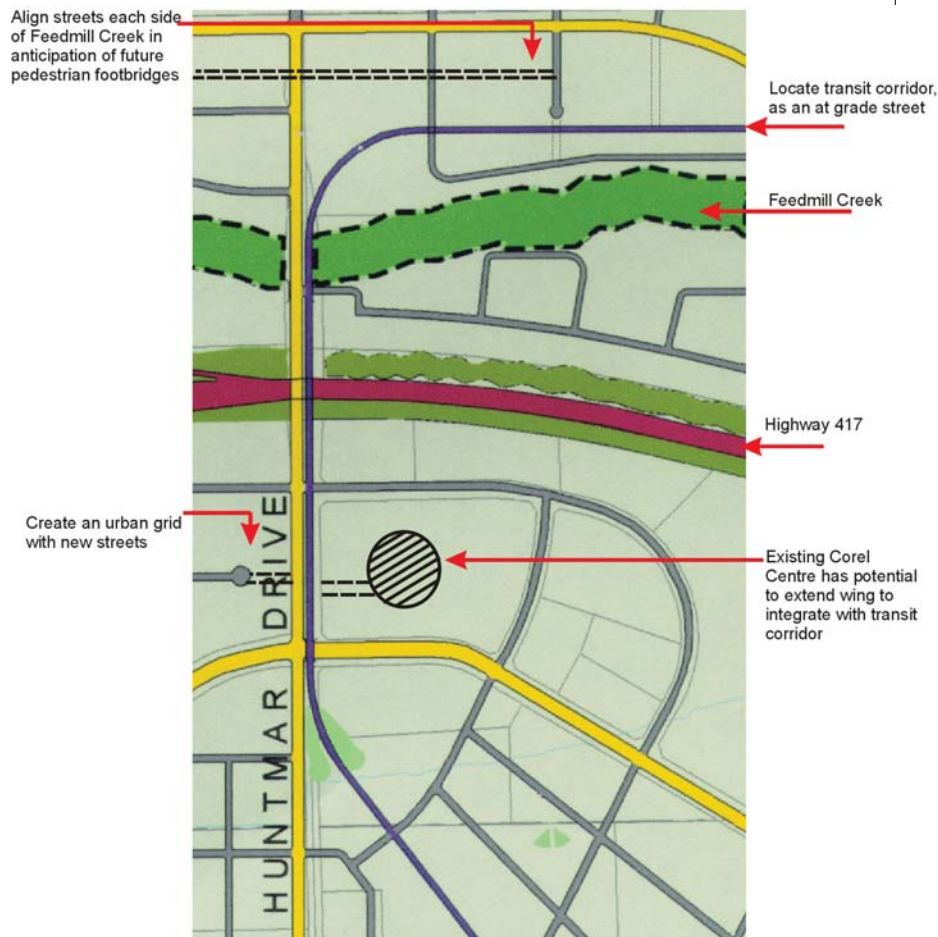


Figure 4-7

Parks and Open Space

Due to the low residential content and the presence of the Feedmill Creek in the Employment, Entertainment and Leisure District the parkland contribution is considered to be more useful if consolidated elsewhere in Kanata West, principally for a sports field complex located to the west of the development lands. Semi-public spaces such as plazas and courts associated with the buildings in the District, will provide outdoor amenity and open space relief. As the main organizing element the Feedmill Creek Corridor will be protected by restricting development to 5 m from the top of the slope. Location at streets along the corridor will provide public visual access and facilitate east-west circulation.

Parks and Open Space Guidelines

Subdivision applications must satisfy the following guidelines;

- .1 Provide recreation paths along top of slope in the 5 m reserve along both sides of Feedmill Creek;
- .2 A pedestrian bridge crossing should be provided at some mid-point east of Huntmar to provide pedestrian connection across the ravine. This should align with a north-south street on each side of the ravine;
- .3 Paths along ravine lands should be connected to the sidewalks on both sides of the overpass, as well as connect under the Huntmar overpass;
- .4 Provide entry plazas or courts at office buildings and hotels as semi public space. These should be articulated with textured paving, trees, benches and the like;
- .5 Larger “plazas” should be provided as semi-public space associated with entertainment and leisure use buildings, and should include deciduous shade trees, benches, water features or sculpture. These plazas should serve as gathering and social areas, as well as exterior extensions to the building’s recreational function and marketing profile;
- .6 Apartment buildings and hotels should provide common outdoor amenity areas in addition to balconies and semi-public entry plazas.

Streetscape

With the range of employment, entertainment and leisure uses and the rapid transit, access sidewalks and pedestrian friendly streetscapes are key elements in providing functional connectivity and appropriate ambiance in this core district. The associated night-time use patterns also suggest that pedestrian lighting will create a major part of the district’s character, enhancing not only the sense of security but also lending a festive quality to the district streets.

Streetscape Guidelines

Subdivision applications must satisfy the following guidelines:

- .1 Continuous sidewalks minimum 2.0 m wide both sides of all streets, with textured coloured paving in boulevards;
- .2 Deciduous street tree planting \pm 6 m oc. located in boulevard;
- .3 Provide pedestrian lighting in addition to street lights using a distinctive common fixture for the whole district;
- .4 Parallel on-street parking encouraged in keeping with ground oriented uses;

- .5 Provide a minimum 3 m wide landscape buffer between buildings, with deciduous trees twinning those in the boulevard to mirror those in the sidewalk;
- .6 Integrate the rapid transit corridor into the district, with an alignment as a normal street and, where possible, with stops directly adjacent or within major buildings, such as the Corel Centre.

Building Siting and Massing

The building height target in the High Profile Employment Entertainment and Leisure District is ten to fifteen storeys. It is recognised that higher profile buildings will likely evolve over time; initial lower density developments should not preclude the ability to accept additional density in the future. The buildings are to be located close to the lot lines in order to define the street corners. The intersection of Campeau Drive and Huntmar Road in particular should be articulated by building forms which create plazas on all four corners to give landmark identity and outdoor amenity to this location. Parking garage structures should be located close to lot lines and given architectural treatment as building facades or, ideally, have building uses with parking behind. Buildings with entertainment and leisure uses should not only create outdoor plazas as crush spaces and semi-public use areas, but reflect the festive nature of those attractions. These buildings should have very clear entrances and convey a sense of the urban recreation which is available within a cluster of these types of buildings, creating a unique character and distinctive marketing attraction for the district. As a “bright lights” district, lighted signs, video displays, neon, and theatre marques will all contribute to its “after hours” ambiance.

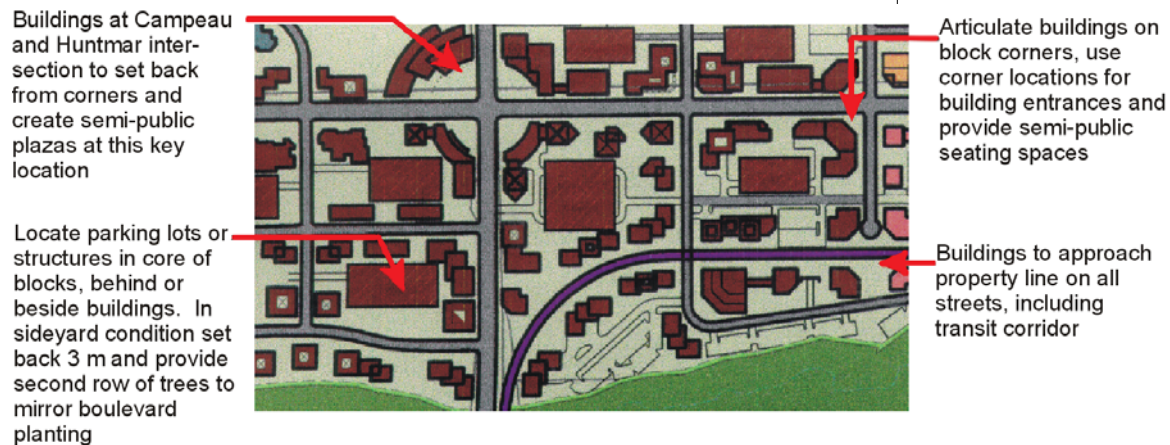


Figure 4-8

Building Siting and Massing Guidelines

Sub-division applications must satisfy the following guidelines:

- .1 Locate buildings close to lot lines abutting sidewalks or extend pavement to side-walks;
- .2 In gaps between buildings, parking lots, and parking structures develop 3 m side yard planting strip with deciduous street tree planting to mirror boulevard trees and colonnade sidewalks;
- .3 In keeping with the evening activity associated with the entertainment and leisure uses, develop a theme of pedestrian light standards, building lighting (avoid up lighting) and animated signs;
- .4 Buildings should articulate corner locations through design of both street frontage and by orienting, where possible, building entrances to the corner;
- .5 Define Huntmar and Terry Fox intersection by setting buildings back at all four corners;
- .6 Locate parking structures no closer than 3 m from side lot lines.

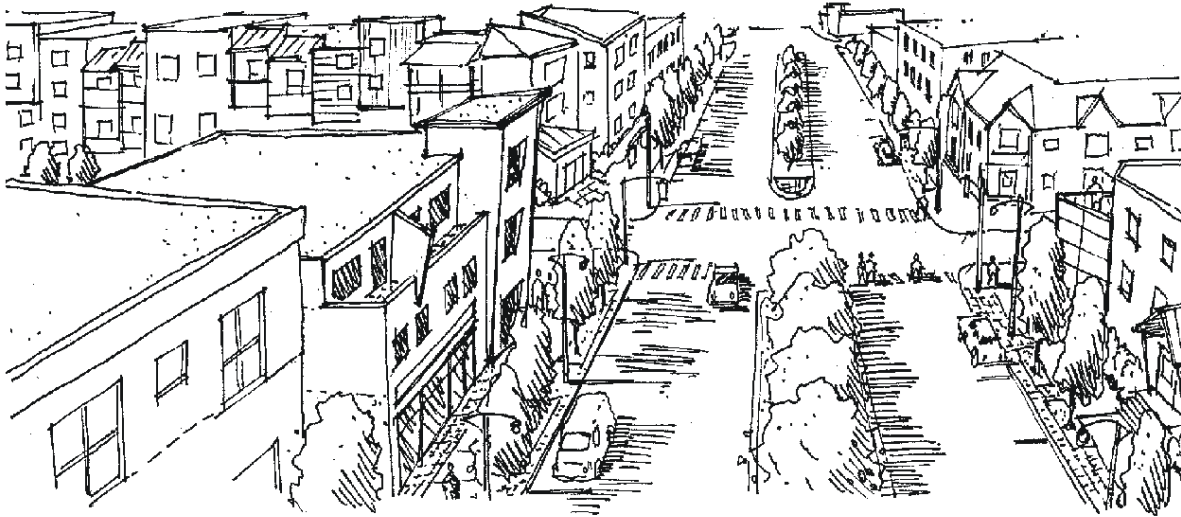
4.1.4(2) Mixed Use District

The Mixed Use District will serve as a vibrant transition area between the larger buildings of the Intensive Employment Area and Employment, Entertainment and Leisure District, and the finer grain of the Residential Neighbourhood 'B'. With building height limits of four storeys and the rapid transit corridor/street running through the district, along with the range of permitted uses this district has the essential elements of a lively, pedestrian oriented urban core. Given the high content of residential accommodation and adjacency to the residential neighbourhoods to the south, this district has potential to become an urban village.

Main Street with its commercial uses will be a community meeting place, supported by the nearby working population by day and the local residents during evenings and weekends. The boulevard which designates Main Street as a gateway from the N-S arterial on the west will end at the Huntmar intersection, allowing a tighter cross-section so that the shops, and restaurants along these blocks have good profile and accessibility for pedestrians. Main Street will be visually anchored at the east end with an urban park which will establish a strong landmark as well as the dynamic location where Main Street abuts the transit street. This would be an ideal site for a public building, given its landmark location and association with the park.

As in the Employment Entertainment and Leisure District, the rapid transit corridor is conceived to be at grade, and have frequent stops along this special street, rather than isolated stations. The buildings along this street will be ground-oriented and face the street in the same manner as

elsewhere in the district, with at-grade level transit vehicles passing within a treed central boulevard. A location along this street would be very well suited to a major Facility or Institutional/Corporate Campus, with the highest profile sites being those facing the park at the Main Street.



Mixed Use District "Main Street West"

Figure 4-9

Mixed Use District Block Pattern

Just as the Mixed Use District provides a transition land use between prominent employment and residential districts, the block pattern should provide connectivity and transition between the Corel Centre lands and the urban grids of the Intensive Employment Area and Residential Neighbourhood 'B'. Palladium Drive, as an arterial roadway, and the rapid transit route impose limitations on the frequency of intersections or crossings of the rapid transit to minimize disruptions of those transportation facilities. This constraint must be balanced with the need to provide pedestrian connectivity. This balance can be achieved with at-grade crossings spaced no further apart than 200 m along Palladium Drive and the rapid transit corridor, and 80-120 m between those corridors.

Given the size and catalytic role of the Corel Centre, consideration should be given to protecting a view corridor by aligning one of the streets in the Mixed Use District axially to that building. The park or urban square which terminates "Main Street" would also ideally be located along this Corel Centre axis lending even more significance to this key public location.

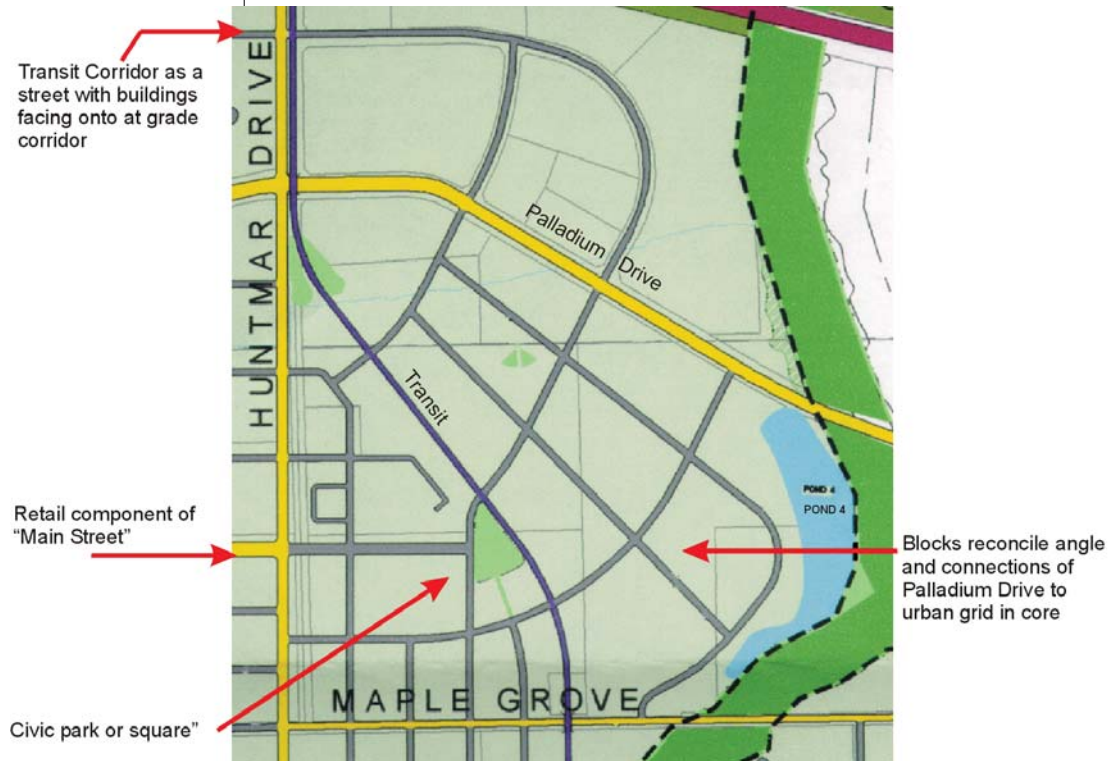


Figure 4-10

Block Pattern Guidelines

Subdivision applications must satisfy the following guidelines:

- .1 Blocks should be set out as grid and modified grid with blocks of approximately equal length and width, where possible;
- .2 Main Street should terminate in a park or urban square;
- .3 Frequent intersections spaced 80 -100 m apart along Huntmar Drive and the Maple Grove extension;
- .4 Limit at-grade crossings of the rapid transit route to approximately 200-250 metre spacings.

Parks and Open Space

The main function of parks in the Mixed Use District is to provide order and identity as well as to provide open space relief within this urban district. Parks in this district can be relatively compact, as small as 400 m², and be expressed as urban squares. These spaces should facilitate informal use by individuals at lunch time, gathering of larger groups for special events, provide shade and sitting opportunities, encourage social interaction and a sense of personal security, as well as have distinctive character as district landmarks and place markers.

The major park at the east end of Main Street is intended not only to terminate the street as one of the gateways into the core area, but also serve as a major landmark and organizing element for this vibrant meeting place of residential, mixed use and employment uses. This park may take the form of an urban plaza with a major portion of the surface in a richly textured pavement, surrounded by ample seating and edges defined by pedestrian lights and trees.

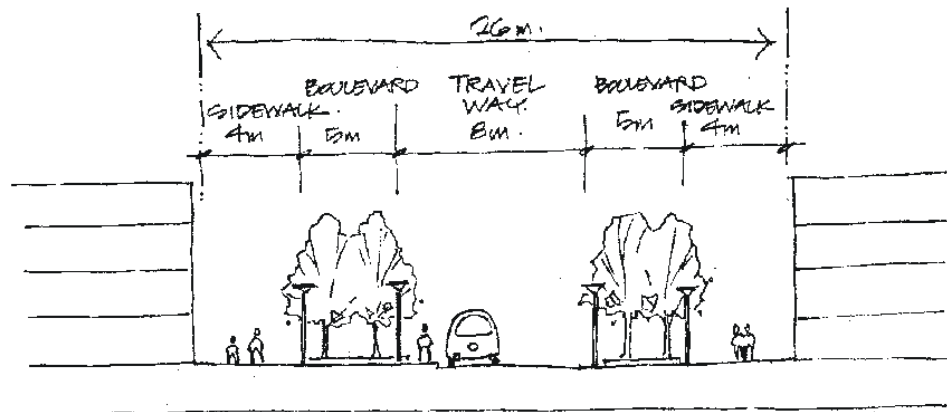
Parks and Open Space Guidelines

Sub-division applications must satisfy the following guidelines:

- .1 Parks shall be developed as urban plazas and may be as small as 400 square metres;
- .2 These urban parks shall have edges well defined by deciduous trees and/or raised planters, provide ample seating both in the form of benches, but also wide planter walls, steps and the like, as well as provide paved circulation and gathering space;
- .3 Continue pedestrian theme lighting into parks with same light fixture as used on streets throughout district;
- .4 Provide ample textured, coloured pavement to facilitate year round use and group events;
- .5 Provide a focal point in form of sculpture, public art or as a minimum a specimen tree;
- .6 Layout such that a minimum of 75% of the park's edges are directly abutting streets.

Streetscape

Given the range of grade-oriented, and live/work uses in the Mixed Use District the sidewalks and boulevard planting make a critical contribution in creating a pedestrian-oriented lively urban district. Sidewalks should be minimum 2.0 metre wide with deciduous street tree planting located in the boulevard adjacent to the curb. This district in keeping with Residential Neighbourhood B and the Employment, Entertainment and Leisure District should have pedestrian light standards in addition to street lighting as a thematic element, but also to ensure a comfortable, secure ambiance, and continuity through the core. Main Street from the N-S Arterial to Huntmar Drive will have a treed central median which will give it a unique identity, hopefully a "prestige address" and gateway character. The median is dropped between Huntmar Drive and the park as this area is where shops and restaurants are to be located to create a retail "main street" district.



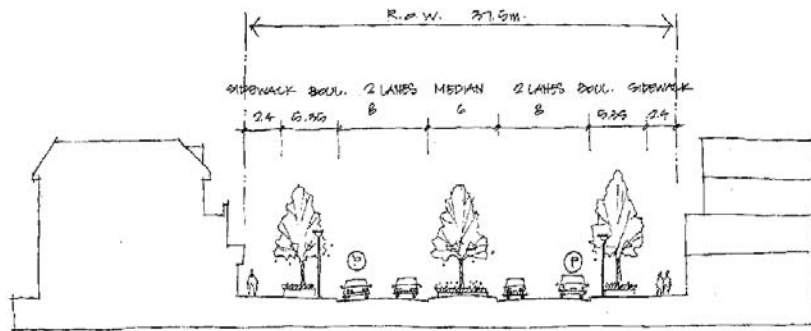
Rapid Transit Street - Mixed Use District Streetscape

Figure 4-11

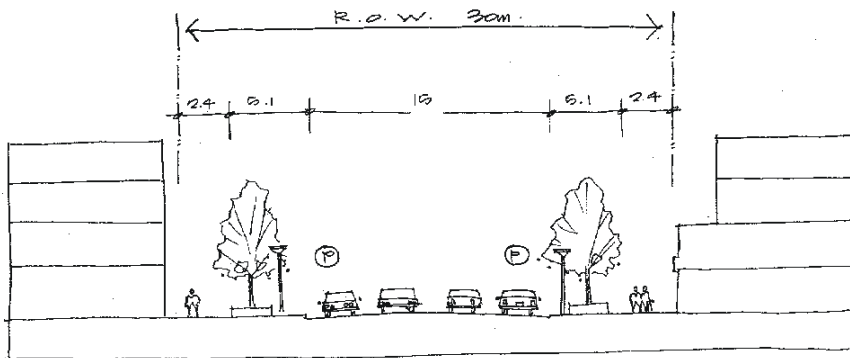
Streetscape Guidelines

Sub-division applications must satisfy the following guidelines:

- .1 Provide minimum 2.0 m wide sidewalks both sides all streets, sidewalks to be minimum 2.4 m wide along "Main Street" between the N-S Arterial and the Park east of Huntmar Drive;
- .2 Deciduous street tree planting ± 6 m spacing on centre in boulevards, and in "Main Street" median;
- .3 Use coloured, textured paving in boulevards between trees;
- .4 Provide pedestrian light standards in addition to street lights - use a common fixture for the whole district;
- .5 Provide a minimum 3 m. wide landscape buffer between buildings with deciduous trees twinning those in the boulevard to colonnade the sidewalk;
- .6 Provide parallel on street parking in keeping with at-grade uses;
- .7 Integrate rapid transit corridor into the district as a street, complete with treed medians along transit route and frequent at-grade stops. As shown in Figure 4-11, the intent is to orient buildings close to the sidewalk as a 'regular street', with larger sidewalks, perhaps as wide as 4 m.



Main Street West



Main Street East

Figure 4-12

Building Siting and Massing

The Mixed Use District, with its four storey height limit, and vibrant synergy of land uses has the key attributes of a pedestrian oriented urban district. Buildings should define the streets by being located on the lot lines and ideally providing continuous street frontage. Interior block buildings are expected to define interesting grade oriented streetscapes, while corner locations should anchor the blocks by setting back and creating a chamfer or radius and stepping above the mid block height with a low tower or roof. These block corners are ideal locations for building entrances.

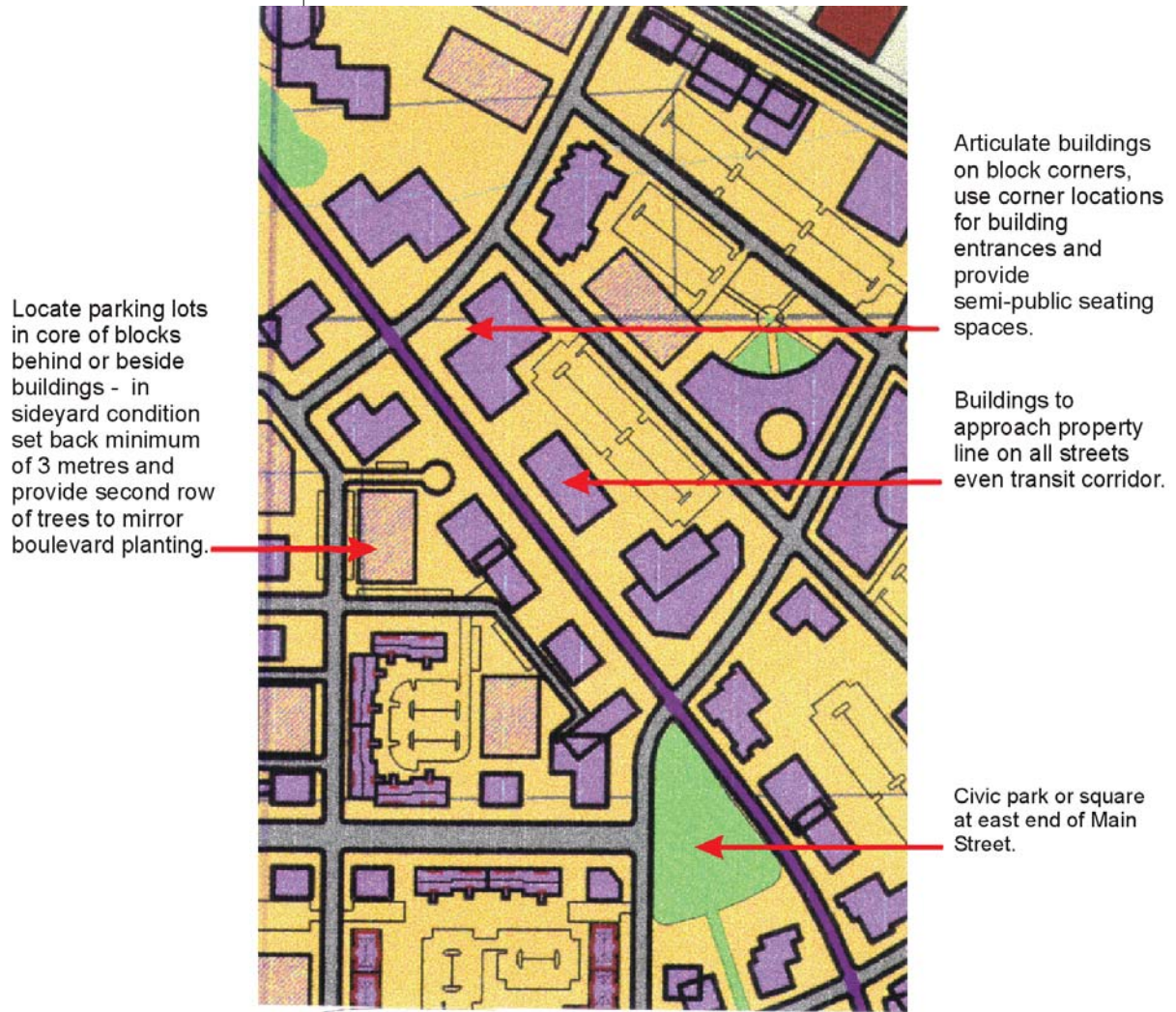


Figure 4-13

Building Siting and Massing Guidelines

Sub-division applications must satisfy the following guidelines:

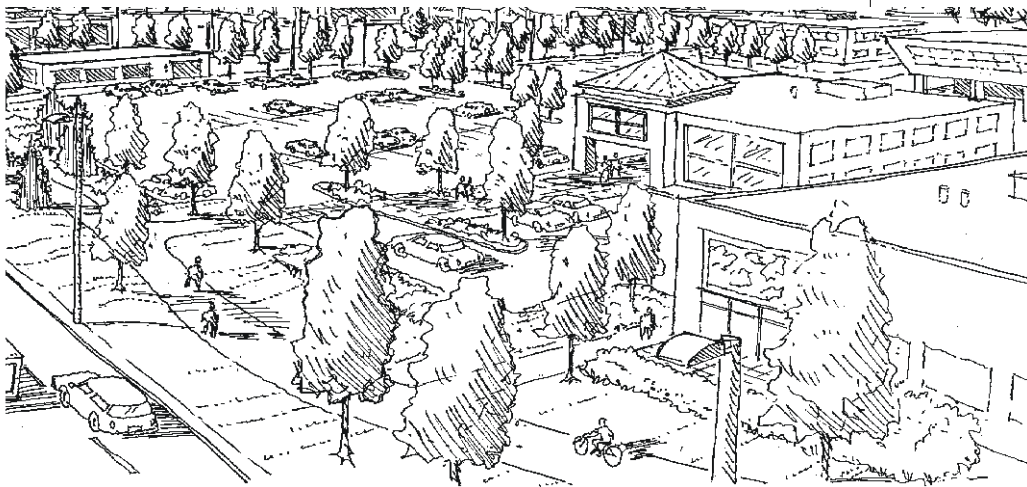
- .1 Buildings to be located close to lot lines, abutt sidewalks or extend pavement to sidewalks;
- .2 Develop 3 m side yards in gaps between buildings (parking lots and park structures) to mirror deciduous street tree planting as second row to trees to colonnade sidewalks;
- .3 Provide facade lighting on buildings (avoid up-lighting) and provide well lit shop windows;
- .4 Buildings at corners should chamfer or radius as well as change the roof-line at the corner with a vertical element or canopy;

- .5 Parking garage structures should be internal to block, or if along side-yard frontage incorporate grade oriented building uses along exterior edge.

4.1.4(3) Community Level Retail District

There are two Community Level Retail zones on the edges of Kanata West. Both abut existing community retail areas and rely on their relationship to roads and provision of parking to function competitively.

The retail zone located on the north side of Hazeldean road occupies a block approximately 250 m wide. The front yard set-back should be 8 - 10 m wide along the Hazeldean Road right-of-way to provide a linear greenspace along Hazeldean as well as a generous east-west pathway alignment. The recommended development pattern for both locations of the Community Retail use is for the large buildings to be set back parallel to Hazeldean or First Line Road, with smaller buildings located up close to the front yard setback and flanking the parking courts. These parking courts should be sub-divided into "rooms" through use of well planted circulation aisles. Principal drive aisles should be dimensioned as city streets and aligned to allow possible conversion into public rights-of-way defining urban blocks should demand for more buildings and less parking contribute to these areas evolving into a more urban form sometime in the future. While retail opportunities may focus on Hazeldean Road in the short term and to the east end, when Huntmar Drive and the North-South Arterial are constructed these courts may open to the corner condition and take advantage of both frontages.



Community Retail District

Figure 4-14

Opportunity also exists for higher density, office development in the vicinity of the rapid transit corridor which might integrate a station in those buildings and provide an above grade pedestrian linkage over the north-south arterial. While the retail uses rely on vehicular access, pedestrian connectivity and porosity is also important to allow people to walk to, and through, these sites as one element of a larger community.

Block Pattern

The development parcel along Hazeldean Road will be created, in part, by relocating the existing water course, to a new location farther north, separating the retail district from Residential Neighbourhood “B”. North-South local streets will be required to provide access from Hazeldean Road, but these should be discontinuous with the residential streets in the adjacent Neighbourhoods “A” and “B” to limit short cutting movements through the neighbourhood.

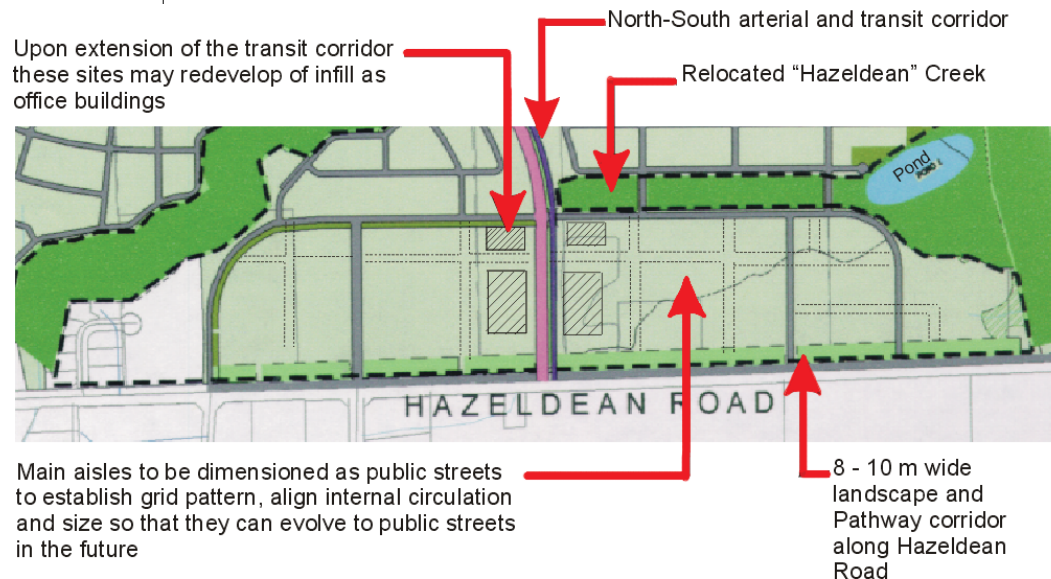


Figure 4-15

Block Pattern Guidelines

Sub-division applications must satisfy the following guidelines:

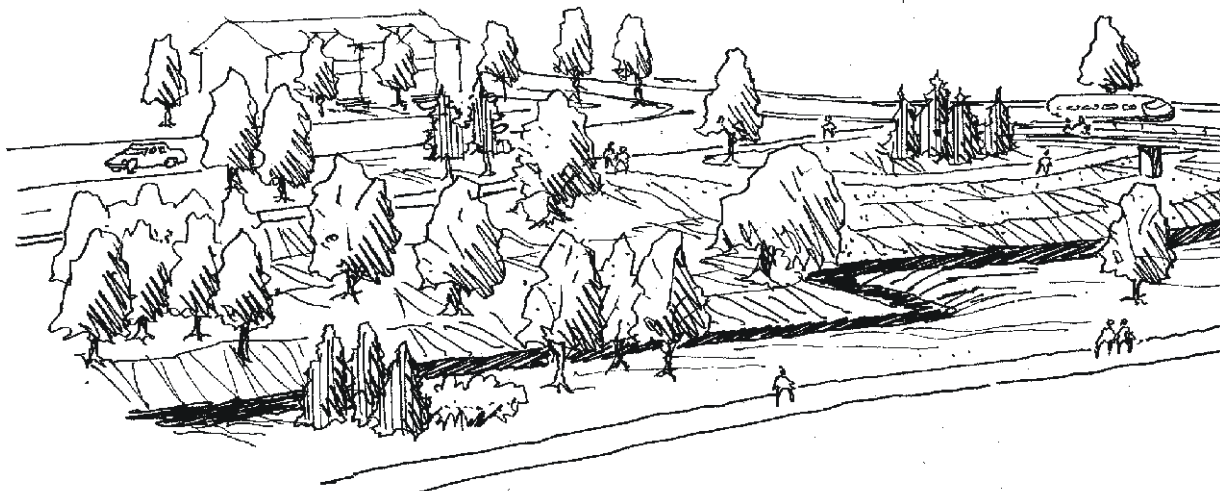
- .1 Parking lots to be set back from Hazeldean Road behind the 8 - 10 m front yard setback wide (to be measured from the ROW);
- .2 Provide clearly defined entry aisles by planting deciduous trees in minimum 3 m wide medians - align aisles with adjacent sites and provide continuous pedestrian sidewalks for internal and through pedestrian circulation;
- .3 Provide minimum 2.4 m wide islands at end of parking rows with minimum one deciduous tree in each, and shrub under-

planting. This aisles should comply to city street standards and anticipate a future block pattern;

- .4 Back buildings together to create service lanes internal to the blocks, or alternately provide ample - 10 m wide landscape buffers to provide visual screening of the loading and service function from the back of retail buildings.

Parks and Open Space

While the Community Level Retail District does not include parkland, it is well defined by water course corridors and the linear pathway abutting Hazeldean Road. The district is flanked on the west end by the Poole Creek corridor and the east by the Carp River Corridor. The portion of the district east of the rapid transit corridor will be bounded on the north edge by the relocated water course. This water course now exists closer to Hazeldean Road and has a diagonal alignment which constrains efficient development of this area because of its small irregular shaped size. This existing drain has limited value in terms of its natural qualities or contribution to the water quality of the Carp River. Relocation of this water course to the north is possible, not only because of its current low environmental quality, but because the land is very flat. The new water course can be sculpted and planted to be more “natural” in its environmental character and function.



Relocated “Hazeldean Creek” with recreation paths along and under open span bridges

Parks and Open Space Guidelines

Subdivision applications must satisfy the following guidelines:

- .1 The relocated watercourse corridor is to be approximately 30 m wide and be designed to appear natural with minimum use of engineered features such as retaining walls, “rip-rap” slope pavement and the like;

Figure 4-16

- .2 All planting, including seed mixes to be native species with minimum 40% of trees to be coniferous;
- .3 Plant material to be grouped in natural copses, vary size of material at time of planting;
- .4 Enclose all deciduous trees individually with fencing until the trees are considered large enough to be safe from beavers;
- .5 Avoid use of culverts. Creek crossing should be on open span bridges which allow the recreation pathway to continue underneath.

Streetscape

The 8 - 10 m wide pathway corridor in the front yard setbacks abutting Hazeldean Road will contribute a distinctive streetscape character to Hazeldean road along the Community Level Retail District. This pathway corridor is intended to extend the green space provided within the Hazeldean Road right-of-way as well as provide space for a sinuous pathway which would connect to the recreation lands east of the Carp River. Planting in this corridor should be predominantly deciduous street trees, which can be grouped in clusters to enhance their visual impact while allowing lines of sight underneath for safety and security. Boulevard planting facing the retail buildings along First Line Road can have a similar character to Hazeldean Road but in a more conventional boulevard and 3 m wide front yard set-back.

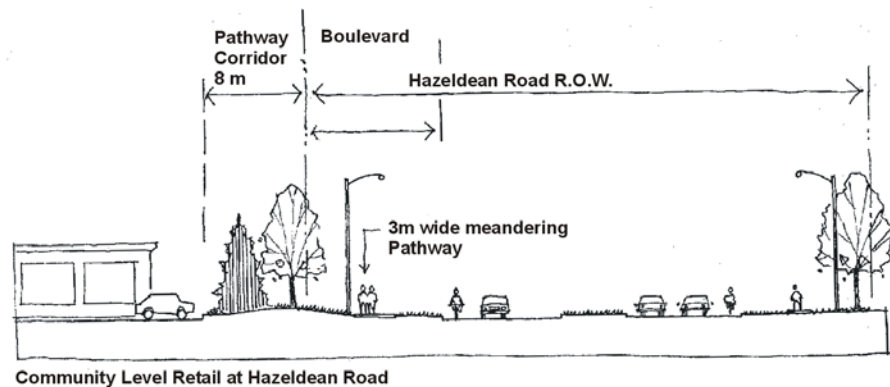


Figure 4-17

Streetscape Guidelines

Sub-division applications must satisfy the following guidelines:

- .1 Provide continuous sidewalks minimum 2.0 m wide along facing and abutting streets, and provide minimum 2.0 m wide sidewalk connections from site to sidewalks in boulevards;
- .2 Provide deciduous street tree planting on ± 6 m centres along public streets and internal aisles;

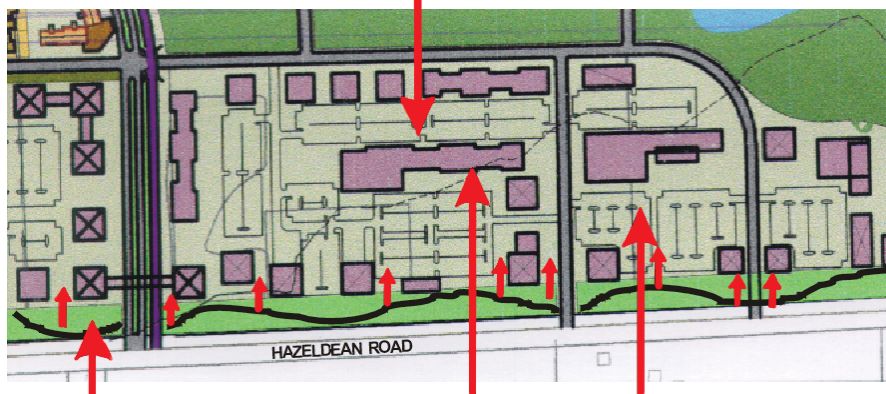
- .3 Provide park- like, groupings of trees with 20% coniferous content in the 8- 10 m wide pathway corridor along the Hazeldean front yards;
- .4 The pathway along the Hazeldean corridor to be minimum 3 m wide and have sinuous alignment. Connect this pathway into sites with minimum 2.0 m wide sidewalks;
- .5 The First Line Road Community Retail District Retail to provide a 3 m landscape setback from parking abutting right-of-way at front of lots.

Building Siting and Massing

While retail uses normally only require one storey (often built as a two storey volume), the zoning in the Community Retail District will allow up to four storeys and allowing services, offices or residential uses above the ground floor. Taller office- use buildings are expected as a market response to the accessibility offered by rapid transit if or when that corridor extends to intersection of the north-south arterial and Hazeldean Road. The pattern of larger buildings to the rear of the lot and smaller, stand-alone buildings flanking parking lots and up to the front set-backs are a pattern retailers are familiar with and which works from their perspective. Care must be taken to screen rear loading areas by backing other buildings onto loading courts.

Other uses such as service or residential, as allowed in the Community Level Retail Zone, could easily front onto streets along “Hazeldean Creek”, thus creating a rear service court or lane north of the larger retail buildings.

Buildings facing street along “Hazeldean Creek” corridor offer a good location for uses other than retail as allowed in zone. These buildings should also screen service courts or lanes behind large retail blocks.



8 - 10 m wide easement along Hazeldean Road with 3 m wide path and Park like planting

Site large building to rear of lots with smaller buildings located to front and sides of properties

Main aisles to be dimensioned as public streets and conform to block grid to allow conversion should in-fill occur in the future

Figure 4-18

Building Siting and Massing Guidelines

Sub-division applications must satisfy the following guidelines:

- .1 Locate large footprint buildings towards rear of lot and establish block pattern with clearly defined access and drive aisles;
- .2 Locate stand alone buildings close to front or side lot lines and provide pedestrian connections, do not interrupt these connections with “drive through” lanes;
- .3 Back buildings on to each other to screen loading and “back of house” sides. These “Screened Buildings” may have uses other than retail, and use this laneway condition to access parking as well as loading.

4.1.4(4) Intensive Employment Area

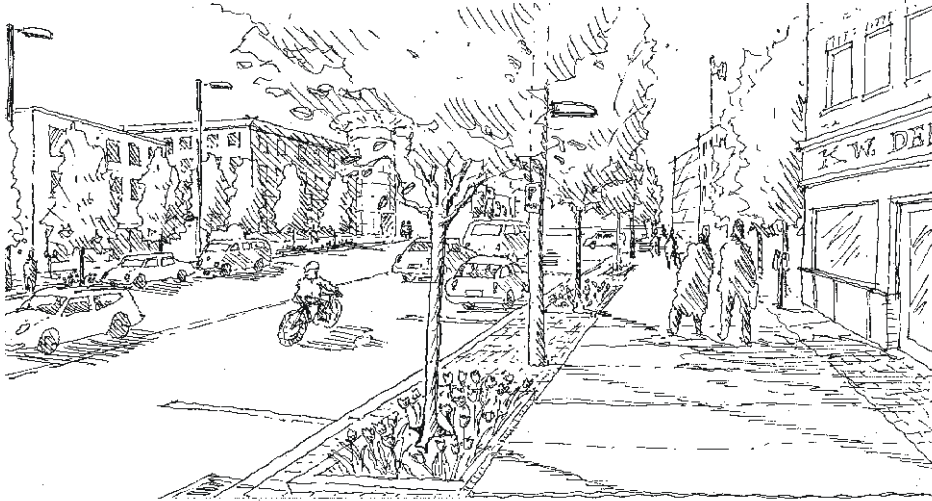
The Intensive Employment Area wraps the Employment Entertainment and Leisure District and Mixed Use District. This is an area of predominately office and commercial uses but does include a retail component organized in a grid of urban blocks. The buildings of the area will define the streets and provide frequent and direct walking connections to the rapid transit corridor and lively attractions of the Employment, Entertainment and Leisure District, Mixed Use District and Residential Neighbourhoods. While more employment oriented than the Mixed Use zone, this area too will have the qualities of an urban village.

All of the buildings in the area are within reasonable walking distance of the rapid transit route and the residential options offered in the Mixed Use area and neighbourhoods. Similarly, distances are reasonable to walk to Main Street at lunch, to the Employment, Entertainment and Leisure District, or sports park after work. As with all the core areas a well connected sidewalk network in a comfortable streetscape is an essential element to making this area an attractive location for employees and employers.

A retail component within the District was anticipated in ROPA 9, and recognized in the land use descriptions. It is expected that these retail uses will cluster in the vicinity of Campeau Drive and the 417 access ramps. While these buildings may be lower in height than those closer to the transitway, the street orientation and parking to rear or side pattern is expected within this District.

The Auto-Park - a cluster of automobile dealerships - is located within this zone. This will provide a well landscaped and pedestrian accessible enclave. As a first generation development the Auto Park is located within the boundaries of the south side of the Palladium interchange which, until Kanata West develops, is a fairly isolated location. With time, it is expected that the adjacency of more dense land uses and the potential offered by Intensive Employment zoning provisions will provide incentives for infill or redevelopment of the Auto Park in a form

matching that of the whole area. The Auto Park is to be developed as one site with consistent signage and lighting and well landscaped boulevards which will convey a sense of quality and encourage pedestrian circulation between the various individual dealerships.



Intensive Employment Area

Block Pattern

The structure of the Intensive Employment Area is a block pattern with the long axis biased in an east-west direction. While intersections along the North-South arterial are limited to 300 m spacings to facilitate its traffic function, the other streets of the district should make frequent, and regularly spaced connection across Palladium Drive, Huntmar Drive and the Maple Grove Extension - or "Main Street" to provide connectivity and porosity through the whole core of Kanata West.

Figure 4-19



Figure 4-20

Block Pattern Guidelines

Sub-division applications must satisfy the following guidelines:

- .1 Set out blocks in an urban grid, with lengths approximately twice the width.
- .2 The Auto Park to be developed as one large block with private internal streets which will reduce barriers to redevelopment. These internal streets shall connect to the adjacent urban grid.

Parks and Open Space

Similar to the Employment, Entertainment and Leisure District there is minimal need for significant public parkland in the Intensive Employment Area due to the predominant daytime, commercial and office uses within the Area. Provision of small “vest pocket” parks or entry plazas as part of private site development should be encouraged to provide articulation to building entrances and offer outdoor amenity space.

Parks and Open Space Guidelines

Sub-division applications must satisfy the following guidelines:

- .1 Provide recreation paths along top of slope in 5 m reserve along both sides of Freedmill Creek;
- .2 Connect recreation paths to the sidewalks on both sides of the overpass, provide an at-grade crossing at the north-south arterial;
- .3 Provide entry plazas or courts at buildings as semi-public space - these should be articulated with textured paving, trees, benches and the like;

Streetscape

The buildings of the Intensive Employment Area are to be located along the street right-of-way even along the north-south arterial and Palladium Drive. Huntmar Drive and the Maple Grove Extension ("Main Street") are expected to be animated with small scaled retail, restaurants and the like, and as such should offer generous sidewalks, and regular boulevard street tree planting. The Intensive Employment Area is the location of two main gateways to Kanata West. These are at the north-south arterial and Palladium Drive, the Maple Grove Extension ("Main Street") and Palladium Drive at the Carp River.

Streetscape Guidelines

Sub-division applications must satisfy the following guidelines:

- .1 Provide minimum 2 m wide sidewalks both sides of all streets, sidewalks to be 2.4 m wide along "Main Street";
- .2 Provide deciduous street tree planting \pm 6 m spacing on Main Street median and in boulevards; use coloured textured paving in boulevard;
- .3 Provide pedestrian light standards in addition to street lights - use a common fixture for the whole area;
- .4 Develop 3 m side yard planting strip in gaps between buildings (parking lots) with street tree planting to mirror boulevard trees and colonnade sidewalk.
- .5 Within the Auto Park provide minimum 5 m wide boulevards on internal private streets with minimum 2 m wide sidewalk centred between deciduous street trees on outer boulevard and near continuous shrub planting on car lot side. Gaps or entry courts are to interrupt the landscape edge at entrances to the individual dealerships. All lighting, signage, pedestrian pavements, bollards, vehicular gates and the like to be consistent for the whole development;

- .6 Within the Auto Park provide a landscape buffer, complete with near continuous shrub planting along Palladium drive, with an entrance gateway treatment at the Palladium Drive intersection;

Building Siting and Massing

The buildings of the Intensive Employment Area are limited to six storeys and should be built close to the exterior of the blocks to define the streets, and the corners in particular. Buildings on the north-south arterial should be located along the west lot line to define that corridor as a walkable street and be expressed as the front of the buildings, complete with entrances. Vehicular access and direct access from the parking lots

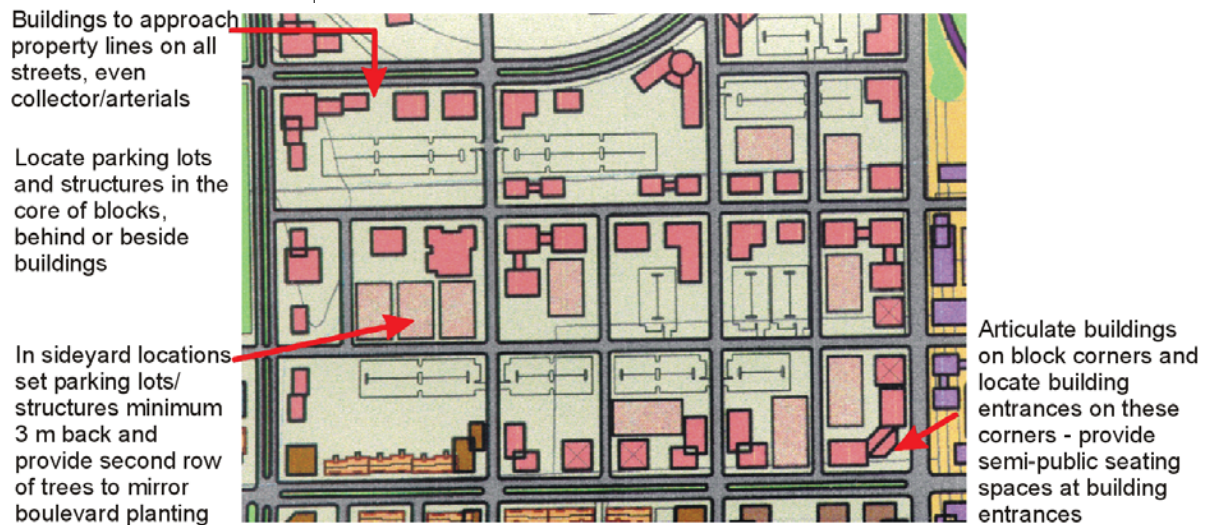


Figure 4-21

will be from the rear of the lot, requiring careful attention to building entries and separation of loading functions on that side.

Building Siting and Massing Guidelines

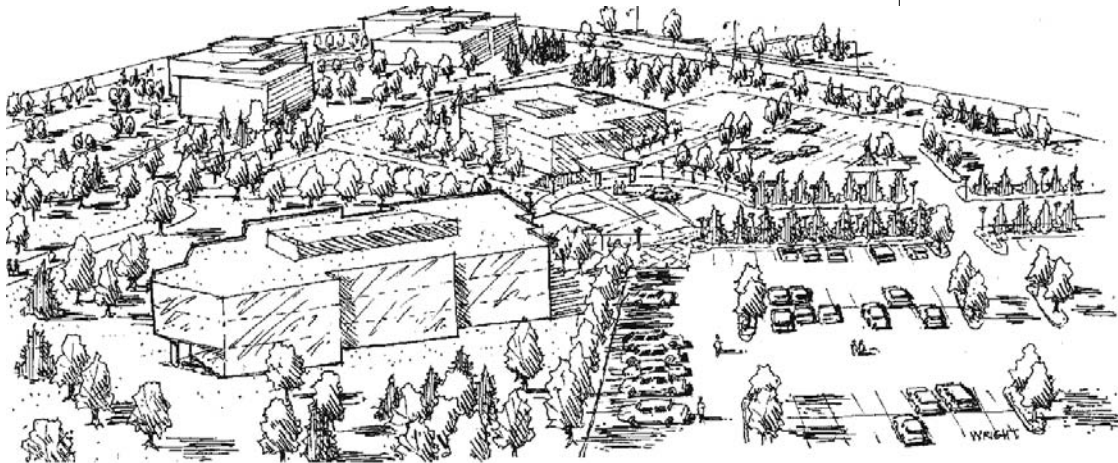
Sub-division applications must satisfy the following guidelines:

- .1 Site buildings close to lot lines and corners of blocks;
- .2 Buildings on block corners to articulate this end of block condition with chamfered or radiused floor plan and a vertical change from the bulk of the building at the corner. Locate main pedestrian entrances at these corner locations;
- .3 Garage structures to be located to interior of blocks, or if approaching lot lines accommodate building functions in their street facades;
- .4 Integrate stops on the rapid transit corridor into adjacent buildings and provide public access from adjacent streets as well as through these buildings.

- .5 Within the Auto Park, buildings are to be located as pavilions within individual dealership sites. Architectural treatment to be four sided in response to internal circulation pattern and visibility from all exterior edges of development block.

4.1.4(5) Prestige Business Park

The Prestige Business Park is envisioned to be a development of high quality office buildings in a green, campus like setting. The campus character will be established through the continuity of a generous green open space with a path easement running continuously throughout to provide a recreational and commuter linkage for pedestrians and cyclists across the north end of the Kanata West lands and the north-south arterial boulevard. There may be opportunities to preserve and incorporate existing trees into these sites, providing a more immediate presence than



Prestige Business Park

newly planted landscapes. This easement should be considered as part of the parkland requirement for these areas.

Block Pattern

The Prestige Business Park represents a lower density transition between the core, urban character, of Kanata West and the rural and suburban lands to the west, north and east. As a transition zone the block pattern is organic, with buildings organized along an internal greenway, and roads

Figure 4-22

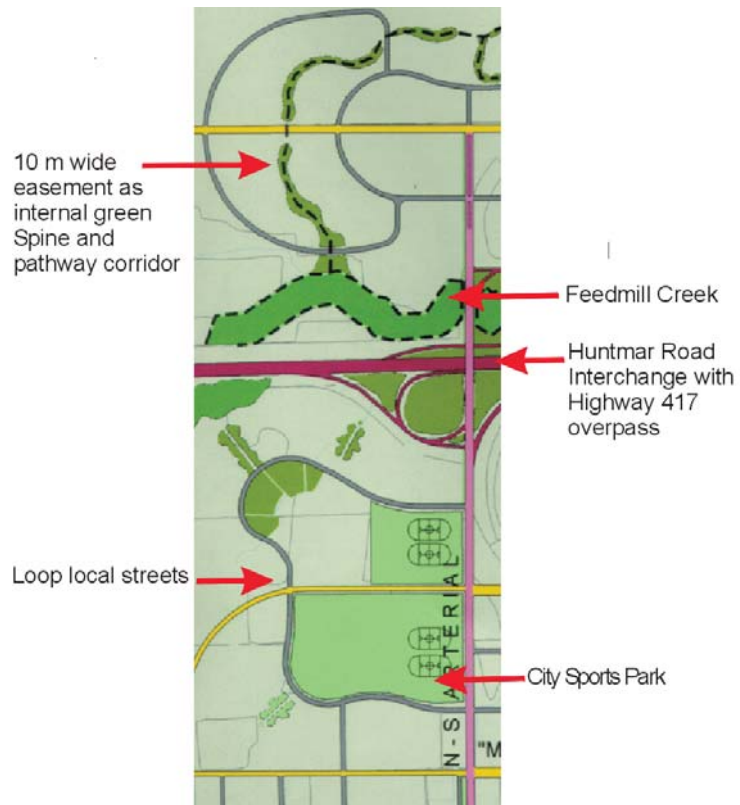


Figure 4-23

providing vehicular access to parking lots located between the buildings and roads.

Block Pattern Guidelines

Sub-division applications must satisfy the following guidelines:

- .1 Provide a 10 m wide easement across rear of properties (5 m each property when abutting);
- .2 The rear easement should be contiguous and link to the ravine lands of Feedmill Creek north of Highway 417, as well as sidewalks, and the major sports park;
- .3 Provide a looping system of local streets.

Parks and Open Space

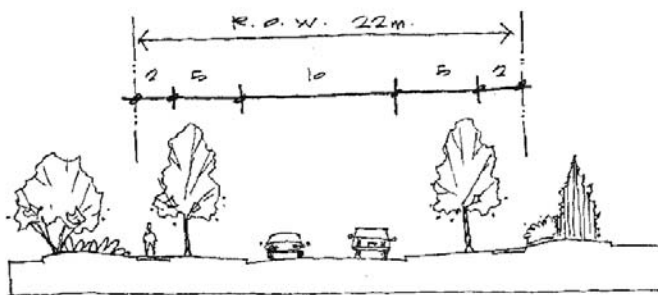
The Prestige Business Park's distinctive character will be largely that of green open space. This open space will be predominately on the private development land in the form of generous side yards flanking parking lots, landscape courts between buildings, and the continuous recreational pathway easement organizing the core of the development blocks. Pathways should also be developed along the top of the Feedmill Creek ravine to provide east-west movement, and within the north-south arterial boulevard. A major sports field park is planned to be located within the Prestige Business Park lands.

This is a consolidation of parkland dedication from the other districts which by virtue of function (i.e., daytime, employment) and natural open space corridors of the creeks require less parkland in their immediate areas. Location of sports fields adjacent to business park uses will allow for some sharing of parking and minimal conflict with evening or weekend lights and activity. The size and precise location of the park will be determined as the plan evolves and the specific needs of the community are defined.

Parks and Open Space Guidelines

Sub-division applications must satisfy the following guidelines:

- .1 Provide a 3 m wide recreational pathway in the rear yard easement. The pathway should have a sinuous alignment, and connect to sidewalks at, or close to, safe crossing points or street intersections;
- .2 Provide informal native tree species groupings along the pathway to emphasize the sinuous alignment;
- .3 The sports park should abut surrounding streets and have edges well defined with planting. Path connections through the park should anticipate short cut movements to eliminate wearing of beaten paths across fields. Use grade to separate groups of fields and provide informal seating. Provide a perimeter loop path as well as amenities for groups and families over and above the sports fields. As an example, an area for group functions would include, barbeques, complete with picnic/shade structure, pavement, benches, tables, children's play area, drinking fountain, water, electricity and washrooms;
- .4 Co-ordinate the sports park location and layout to maximize opportunities for on street parking and off-peak parking on adjacent private properties.
- .5 Integrate White Cedar forest into park development, as appropriate.



Local Street - Prestige Business Park

Figure 4-24

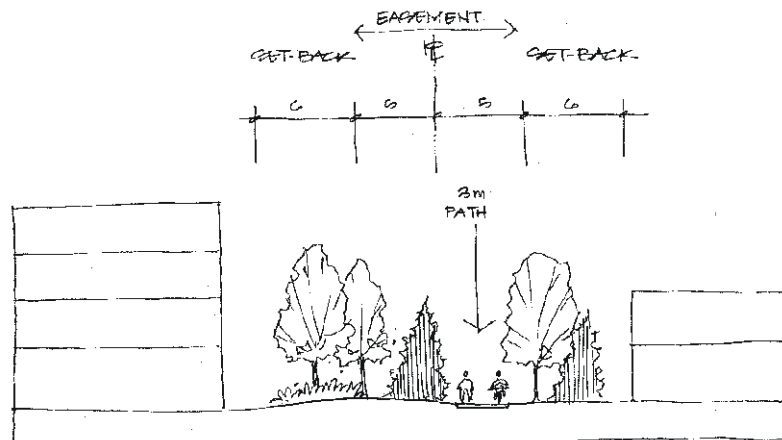


Figure 4-25

Core Path - Prestige Business Park

Streetscapes

While the path system located through the rear of the lots will provide pedestrian access to and through the Park, sidewalks will also be provided on both sides of all streets to facilitate foot movement through the area.

Streetscape Guidelines

Sub-division applications must satisfy the following guidelines:

- .1 Provide 2 m sidewalks on both sides of all internal streets as well as the higher order collectors and arterial;
- .2 Provide informal groupings of trees spanning the boulevard and front and side yards to create a park-like landscape character rather than regimented street tree planting. Tree species should be native and contain minimum 30% coniferous material.

Building Siting and Massing

Buildings in the Prestige Business park can be four storeys in height and are to be organized along an internal greenway easement. Parking lots should be located between the building and street but offset to allow for a clear unobstructed access road to the building. Drop-off loops should be provided at the buildings, which might be shared with another buildings, creating landscape courts. Side yards and the street boulevard should be generous, no less than 8 m between parking lots of abutting properties with grouped informal landscape treatments which conveying a park-like quality rather than deliberate screening and separation of individual properties.



Figure 4-26

Building Siting and Massing Guidelines

Sub-division applications must satisfy the following guidelines:

- .1 To the greatest extent possible, existing trees should be integrated into site development plans as a site feature and amenity;
- .2 Locate buildings towards rear of lots and, where possible, group buildings to form court spaces abutting the rear open space and path easement;
- .3 Provide clearly defined approach aisles and drop off loops to building entrances and locate parking lots to the side of these aisles;
- .4 Make pedestrian sidewalk connections to the rear easement pathway and along the site entry aisles to the street boulevard;
- .5 Provide minimum 4 m side yard setbacks with informal groupings of trees which convey a park-like quality to the open space rather than a buffer or screen between properties;
- .6 Site buildings close to the street in locations abutting the N-S Arterial, Campeau Drive and Huntmar Drive;

- .7 Site identification signs should be located close to entry aisles with the front, and be ground based slabs or walls which use the dominant materials reflecting on that site's building architecture.

4.1.4(6) Residential Neighbourhood

While there are subtle differences in the recommended zoning of the three Neighbourhoods (see Volume 2 - Appendix F), all share a common set of design principles and guidelines. The development pattern and grain for Kanata West is modelled after neighbourhoods built through the years between the two World Wars. Familiar characteristics of neighbourhoods from this era include: the modified grid pattern of urban blocks, building and entrance relationship to street, garages set to the rear of lots, continuous sidewalks, and a variety of residential building types and tenure.

These older neighbourhoods are typically well served by transit, and have good access to schools, personal services and convenience shopping. Further, these neighbourhoods provide a variety of accommodation in terms of size, cost and tenure which provides for a broad mix of age and income groups. This differs from the more homogeneous new subdivisions and offers housing choices to complement those existing in the west end of Ottawa.

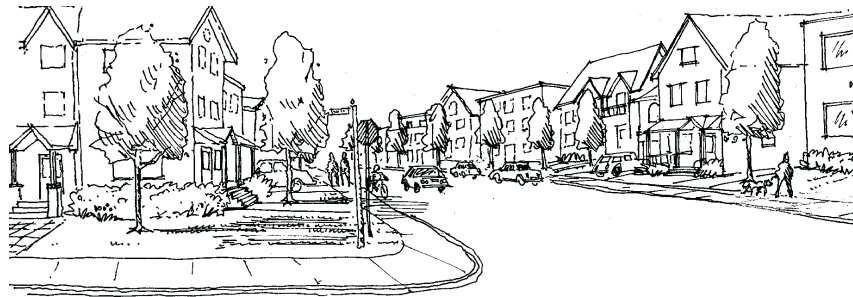


Figure 4-27

Residential Neighbourhood 'A' is expected to provide a transition and, as such, apartment buildings are restricted to sites along the N-S Arterial. It is expected that there will be a general stratification from single family dwellings to multiples located closer to the N-S Arterial, however this should be reflected as a fine grain lot by lot mix, rather than on a block basis. Similarly, a continuous row of apartment buildings along the N-S Arterial should be avoided with insertion of row houses, duplexes and semi-detached dwellings facing onto a service road parallel to the N-S Arterial.

Block Pattern

The structure of all the residential neighbourhoods is an urban grid. Where possible these should be oriented east-west, but must reconcile the geometry of the north-south arterial by providing radial streets to cross from Residential Neighbourhood "A" through to the Mixed Use District. Local Streets intersecting the north-south arterial are required to provide connectivity for vehicular access, as well as for pedestrian connections

from Neighbourhood 'A'. The arterial road function limits the intersection spacing to a minimum of 200 m. This would still allow four crossing points.

Where possible street axes should terminate in parkland or at the creek corridors. Parks should be bounded by streets, as opposed to rear yards. In a similar manner, streets should maximize the single loaded condition along the natural corridors.

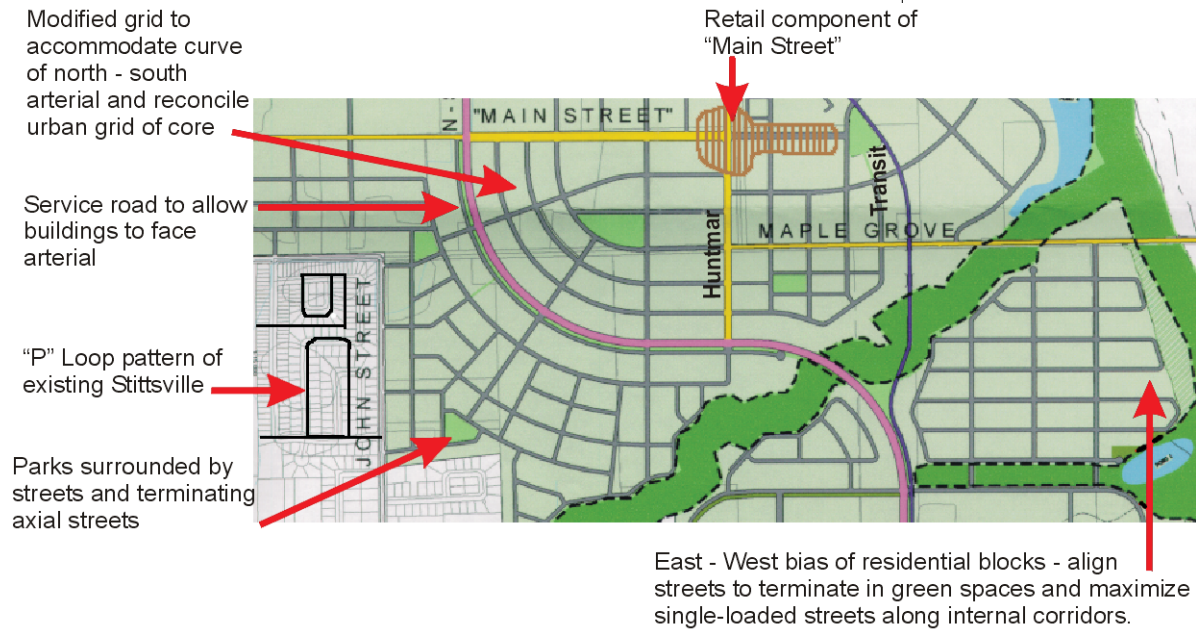


Figure 4-28

Block Pattern Guidelines

Sub-division applications must satisfy the following guidelines:

- .1 Layout blocks an urban grid, or radial grid, with lengths approximately twice the width;
- .2 Provide connection across the N-S Arterial and Maple Grove Extension at minimum allowable spacings;
- .3 Align streets to terminate at parks or natural corridors to provide green visual terminus and direct sidewalk connections to open space;
- .4 Parks to have street frontage or natural areas on three sides;
- .5 Target up to 50% single-loaded streets along natural water courses.

Residential Neighbourhood Parks and Open Space

Allocation of parks within the overall Kanata West lands must be refined based on more detailed recreation analysis. However the general principle is that those neighbourhoods abutting the natural corridors such as the

pocket located between Pooles Creek and Hazeldean Creek will have less need than those areas removed from the natural corridors. Where there is need, the parks in the Residential Neighbourhoods have a role similar to those in the Mixed Use District. In addition to providing an open space amenity, they should be urban places and landmarks. These parks should be bounded by streets so that buildings face onto the street and park leaving open visual and physical access on all sides. These parks need not be large, and given the proximity of residential buildings, sports fields would be inappropriate. There should be enough space for some free play such as pre-school soccer, a play structure, shade structure or gazebo and paths and pavements to support small group events such as block parties or day care centre picnics.

Storm water pond facilities should be integrated into the realigned creek corridor and designed to permit pedestrian and bike circulation around the edges. This feature, and the relocated stream should be designed to appear natural and use a palette of native plant species.

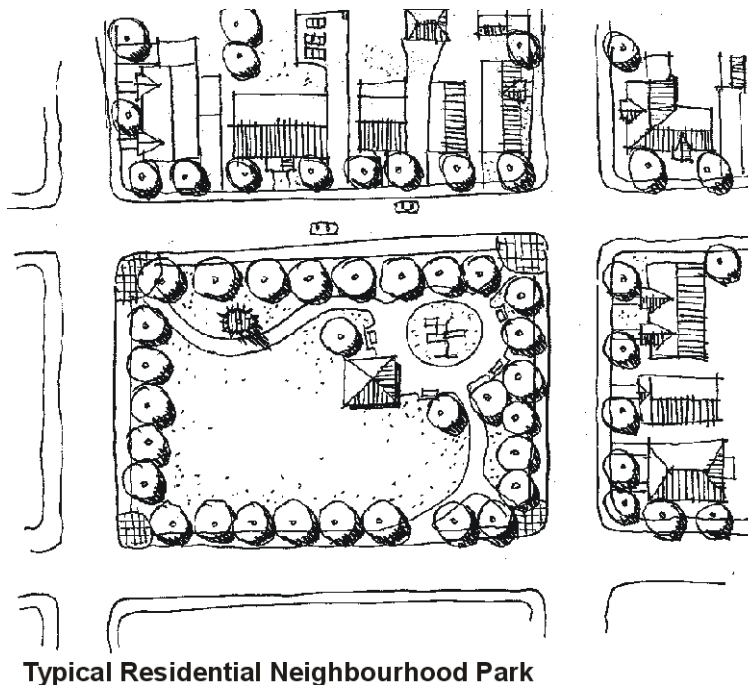


Figure 4-29

Parks and Open Space Guidelines

Sub-division applications must satisfy the following guidelines:

- .1 Parks to have street frontage or natural areas on three sides;
- .2 Define edges of parks with tree planting; formal arrangements are appropriate provided adequate space is left for free play;

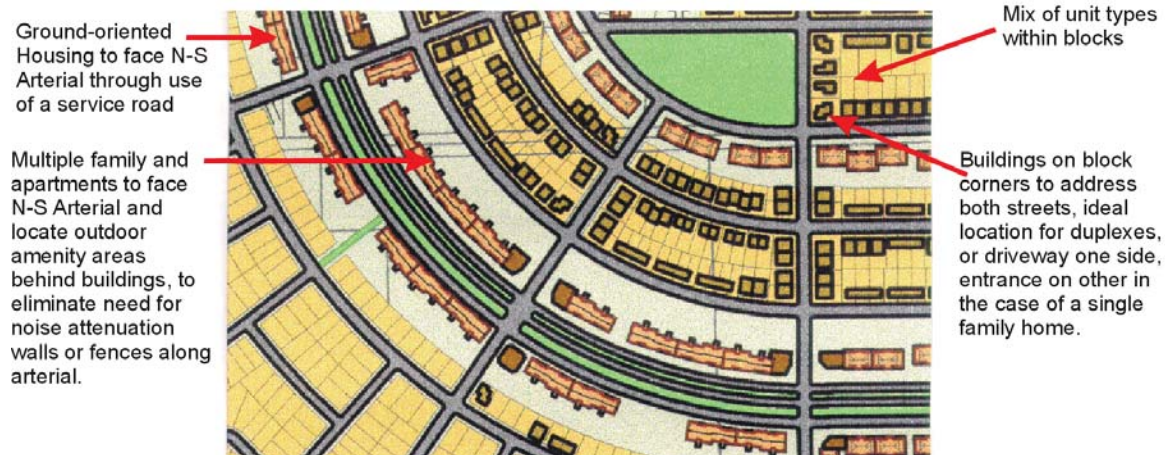
- .3 Provide play structure(s), a shade structure or gazebo, benches, waste receptacles, pedestrian lighting and pavements to facilitate through circulation and small group gatherings;
- .4 Integrate storm water pond into creek corridor allowing pedestrian circulation around edges;
- .5 All planting in watercourse corridors to be native species, arranged in natural groupings and species associations including meadow grasses;
- .6 Provide 2 m wide path connections along creek corridors in 5 m buffer and, if possible, under N-S Arterial and transit corridor bridges.

Residential Neighbourhood Building Siting and Massing

A variety of housing types and tenures are encouraged within this neighbourhood. This is expected to be generally stratified with predominately single family dwellings on the outer edges, transitioning to more dense forms of multiple family homes adjacent to the N-S Arterial and abutting the core areas.

Noise attenuation fences are to be avoided along the N-S Arterial by locating outdoor amenity space on back sides of buildings. Multiple unit buildings can provide a face to the Arterial, or a service road can be used to provide access to the entries of ground-oriented type units. While that is the general principle, and describes the edge sites, there should be a mix of unit types along the internal streets, on a lot by lot basis, not block by block. Garages are to be set back from face of building, access from side yards on corner locations or as stand-alone structures towards the back of the lot. Porches and entries, especially on multiple unit buildings are to project from building faces to create semi-private space along the streets.

Figure 4-30



While the siting pattern is to reflect the compactness and variety of unit type and tenure of mid-century neighbourhoods, the architecture may be contemporary and need not attempt to replicate older neighbourhoods in terms of materials or detailing. Rather it should reflect human-scaled proportions, contextual respect, and use durable, long-lived materials. Public buildings, schools and places of worship should be afforded a different status by way of building siting and be allowed to have generous side and rear yards in keeping with their community function and large footprint.

Building Siting and Massing Guidelines

Sub-division applications must satisfy the following guidelines:

- .1 Garages to be set back from face of building or stand alone structures at rear of lots;
- .2 Porches and entrances to project from face of buildings;
- .3 Mix units on a lot by lot basis;
- .4 Corner blocks are ideal locations for semi-detached or multiple units which can provide entrances at both the long and short side of the block;
- .5 Building roofs to provide stepped profile and corner on block ends. Multiple unit building roofs to step in profile, interrupted by dormers, gables and slope or step down on ends;
- .6 Use corner locations to transition unit types.

Streetscape

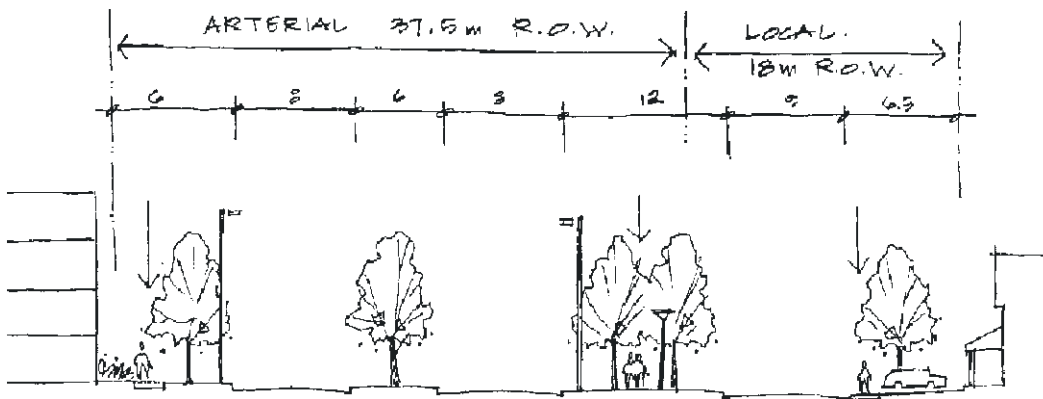
In keeping with the objectives that Kanata West be a pedestrian oriented development, the neighbourhoods will have continuous sidewalks on both sides of all streets and provide not only expedient connections, but a pleasant walking environment. Trees will be located within the boulevard to visually pinch the street width and give these streets a comfortable scale and ambiance.

Streetscape Guidelines

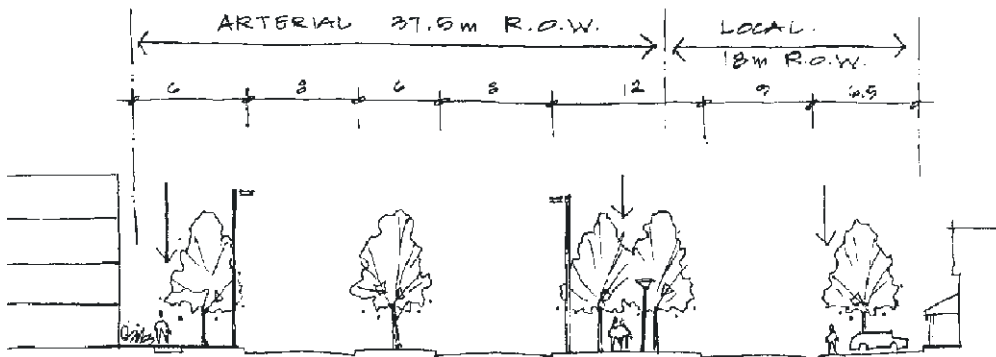
Sub-division applications must satisfy the following guidelines:

- .1 Provide continuous sidewalks on both sides of all streets located at top of curb and minimum 2 m wide;
- .2 Provide deciduous street trees located within the right-of-way spaced approximately 8 m on centre, or one per ground oriented dwelling unit (2 on corner lots);

- .3 Consider a service road along the N-S Arterial to allow ground oriented dwellings to face these major roads. Avoid rear facing lots and fences along these neighbourhood edges;



N-S Arterial with service street (local) on south/west side



Local Street - Residential Neighbourhoods

Figure 4-31

- .4 Provide a generous green boulevard with continuous sidewalk along the west and south sides of the N-S Arterial, complete with a liner row of deciduous street trees.

4.2 Environmental Guidelines

From a terrestrial resource perspective, the Kanata West Concept Plan area offers few areas of interest. The environmental analysis, carried out (Brunton, 2001), concludes that the area has relatively little natural environment habitat and ecological diversity. The Poole Creek and Feedmill Creek valleys offer well established and diverse vegetation and habitat and provide opportunities for ecological and recreational linkages. A few of the tableland features are of local interest.

Several features are identified that should be considered in the development plan, including:

- The locally significant white pine grove and eastern hemlock tree;
- The value of wetlands to downstream fish habitat; and
- Existing and potential wildlife corridors along Poole Creek, Feedmill Creek, and the Carp River

The stream corridors within the study area are comprised of Carp River, Poole Creek and Feedmill Creek. These stream corridors are significant ecological features within the study area that provide aquatic habitat, aesthetic and social benefits. At present, the Carp River provides low quality, warm water habitat. Both Poole and Feedmill Creek have sensitive cold/cool water habitats. Both Poole Creek and Feedmill Creek have contribute significantly to the Carp River baseflow.

The open space network is logically located along the linked Poole Creek, Feedmill Creek, and Carp River corridors. These corridors are locally significant and are of sufficient width to accommodate both wildlife and passive recreation.

The open space network will mainly consist of the linked corridors of Poole Creek, Feedmill Creek, and the Carp River. The Poole Creek and Feedmill creek corridors extend to the top-of-bank of their respective stream valleys and include an additional 5 meter buffer zone on either side. Based on these criteria, the average width of the Poole Creek corridor will be approximately 100 m and the Feedmill Creek corridor approximately 80 m.

In the Poole and Feedmill Creek corridors the emphasis will be on protecting and restoring existing vegetation. The recreational pathway will, therefore, be located on the tableland, rather than in the valley. There will be an adequate buffer between the valley lands and the recreational pathway.

The Carp River corridor is the critical component that allows linking of the Poole Creek and Feedmill Creek corridors. The Carp River corridor is

located within the river's wide, shallow floodplain. As explained in the discussion of Existing Environmental Conditions in Section 3.3, the Carp River is largely degraded. Extensive sediment buildup has been observed along the entire channel, and sediment is also starting to affect the lower reaches of Poole Creek and Feedmill Creek.

Through the Carp River Watershed/Subwatershed study it was concluded that the preferred mitigative solution to these problems is the creation of a riverine wetland. The riverine wetland will consist of a narrow, meandering, low flow channel, overbank wetlands, and off line and on line deep water areas. The proposed 100 m wide Carp River corridor will be sufficient to accommodate the new channel, floodplain/wetland overbank areas, deep water pools, and a recreational pathway.

Hazeldean Creek is a small, intermittent stream that drains areas along Iber Road. This stream does not have specific environmental features that must be protected. As such, it is possible to relocate the stream from its existing location as long as the character and quality are maintained. The relocated corridor has significant potential to contribute to the Kanata West open space network and recreational pathway system.

Environmental guidelines for the Kanata West Concept Plan area are based on the need to provide a balance between social, economic, and environmental considerations that satisfy public interest and meet market need. These guidelines also recognize the significance of baseflow from the Poole Creek and Feedmill Creek tributaries to the Carp River system.

One of the stated objectives of the Kanata West Concept Plan is to: *Preserve and enhance environmental features, particularly those related to the Carp River, and protect existing resource areas.* The environmental guidelines outlined in this section are cognisant of this and other objectives of the Concept Plan, the findings of the terrestrial and aquatic environment studies that were undertaken as part of this study, and the findings of the Carp river watershed/Subwatershed Study.

The following are the recommended guidelines for the Kanata West Concept Plan area are:

4.2.1 General

- Development will proceed in accordance with the recommendations of the Carp River Watershed/Subwatershed Study.
- Implement stormwater management practices that:
 - Protect recharge and discharge areas;
 - Protect the existing temperature profiles in Feedmill Creek and Poole Creek;
 - Maintain or enhance baseflow in Feedmill Creek and Poole Creek;
 - Accommodate external drainage areas;

- Are based on the principles and hierarchy of solutions described in the MOE “Storm Water Management Planning and Design Manual”, and
- Implement appropriate erosion and sediment control measures during construction.

4.2.2 Terrestrial

- Protect significant features as identified in the Terrestrial Environment report;
- Adopt “Design with Nature” principles to protect and integrate natural features within future development;
- Protect and restore existing vegetation buffers in the Poole Creek and Feedmill Creek valley lands; and
- Identify the conditions necessary to maintain the significant features and their function. This may include buffer zones and provisions to maintain groundwater levels.

4.2.3 Aquatic

- Identify erosion sites and develop a strategy to stabilize the channel using natural channel design principles;
- Minimize the number of stream crossings. Where crossings are required, develop an appropriate fisheries protection plan in conformance with provincial Class EA requirements; and
- Maintain the environmental function of Hazeldean Creek.

4.2.4 Poole Creek / Feedmill Creek

- Maintain and restore existing vegetation;
- Provide an environmental protection area that extends at least 5 m beyond the top-of-bank of the stream valleys or 30 m from the high water mark, whichever is greater;
- Provide floodline mapping for the portion of Feedmill Creek that is located within the Kanata West Concept Plan area;

POOLE CREEK / FEEDMILL CREEK - Section

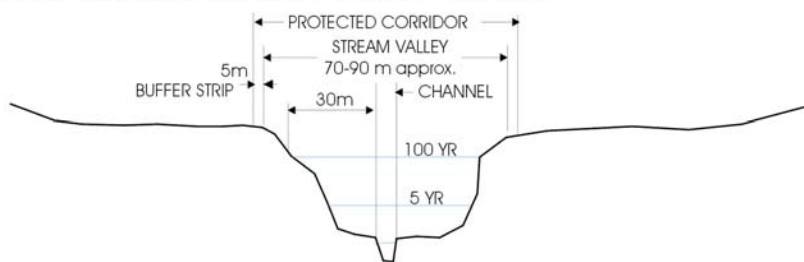


Figure 4-32

- Where recreational pathways are constructed on the table land, increase the 5 m buffer zone by the width of the pathway plus 1.5 m.; and
- Consider construction of pathways in the valley lands only if this can be accomplished without disturbing the natural function of the corridor.

4.2.5 Carp River

The reaches of the Carp River within the Kanata West Concept Plan Area have been severely affected by past landuse practices and channelization. This section of the river is classified as a degraded warm water fishery. As part of the Carp River Watershed/Subwatershed Study, it has been concluded that the most feasible rehabilitation option is the establishment of a riverine wetland system.

Measures to rehabilitate the river and its function to meet the previously described objective include:

- Establishment of a 100 m corridor to accommodate river restoration and the establishment of recreational pathways;
- Adjacent developments to implement the Carp River restoration works as set out in the Carp River Watershed / Subwatershed Study through the development approval process;
- Where feasible, locate stormwater management facilities immediately adjacent to the Carp River corridor and integrate the design of these facilities with the requirements of the corridor. Preferred stormwater management options adjacent to the river corridor are constructed wetland facilities and wet ponds, and

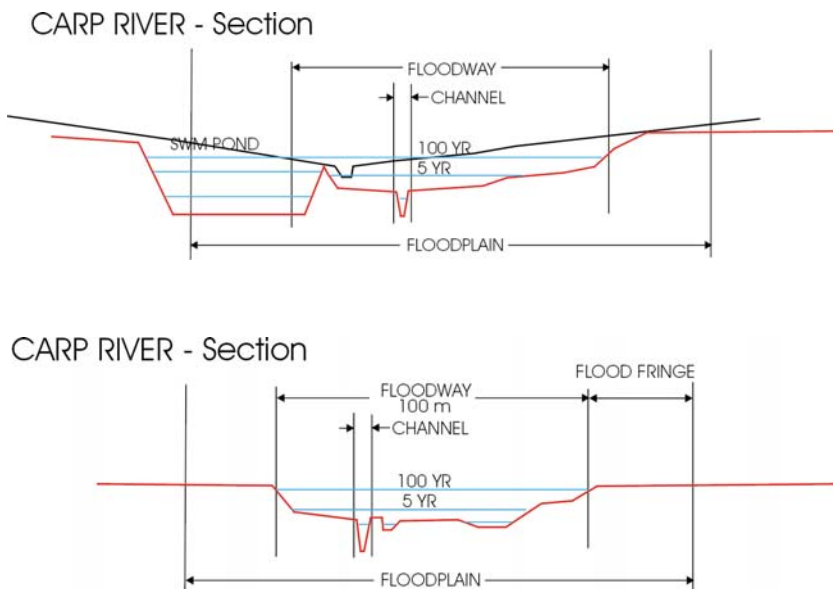


Figure 4-33

- Develop a conceptual design of the corridor that shows restoration options and recreational pathways.

It should be recognized that additional guidelines may be developed as part of the Carp River Watershed/Subwatershed Study. Final guidelines will be recommended for adoption by the City of Ottawa and Mississippi Conservation.