



PARK PLANNING AND DEVELOPMENT

TERMS OF REFERENCE
JULY 2023



INTRODUCTION

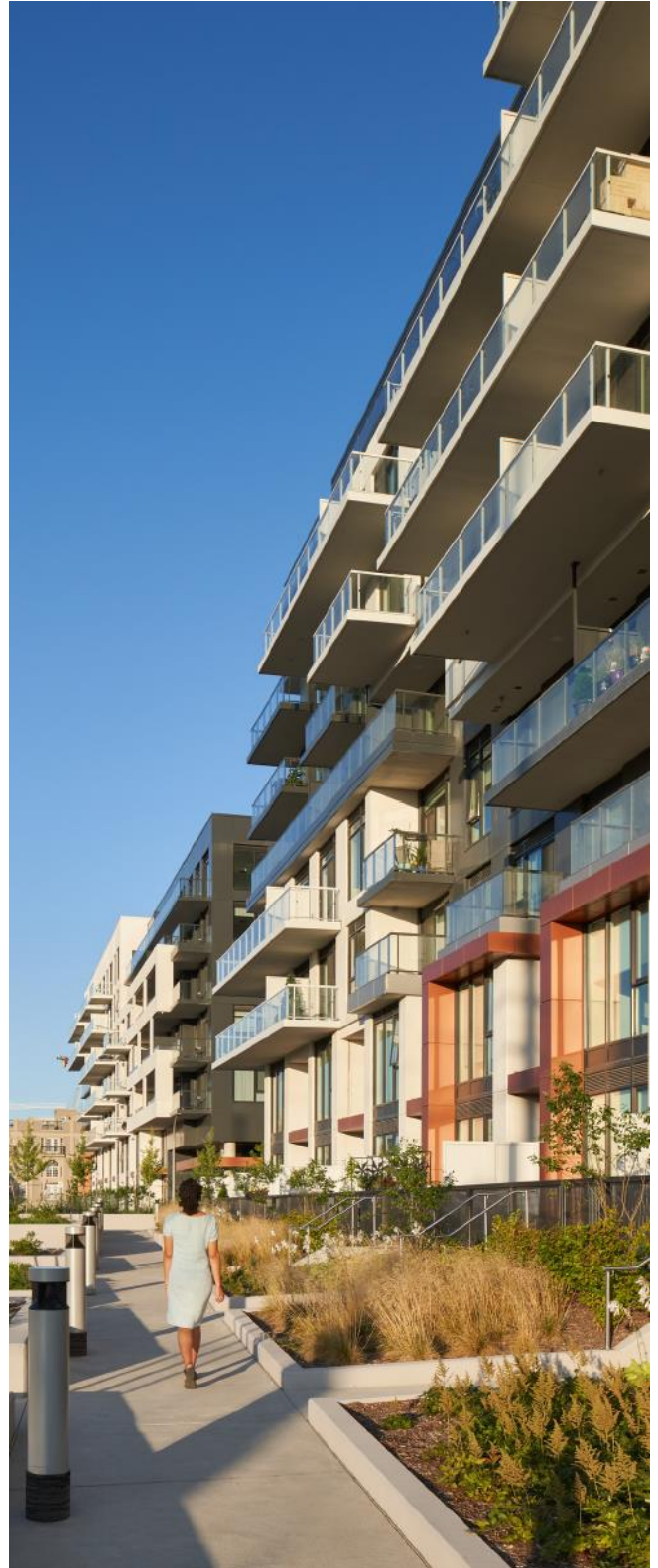
The City of Markham Parks Planning Group has prepared this Terms of Reference (ToR) to provide applicants with an overview of the objectives, standards and deliverable for development applications that are conveying parkland to the City. The document defines the applicant's scope of work and establishes the framework within which parkland will be accepted by the City. The ToR document aims to ensure that applicants and their consultants have access to consistent information required to streamline the preparation of plans, minimize review timelines, and secure approvals from the City of Markham Parks Planning team.

Applicants are encouraged to review the ToR document before starting the development application process and to refer back to the document throughout the review process. The Terms of Reference explains in detail and plain language the City's expectations for planned parkland, the conveyance of land and delivery of acceptable base park conditions by the applicant.

This document has been structured to correspond with the typical steps in the development approvals process:

- **Section 1:** How parkland is reviewed as part of development applications
- **Section 2:** Ensuring parks contribute to the citywide parkland system
- **Section 3:** Park block design criteria
- **Section 4:** Base park development standards
- **Section 5:** Collection of securities, warranty period and release of securities
- **Section 6:** Optional applicant led design and construction of above base park

The ToR is not intended to be a substitute for professional advice or coordination with City staff. For questions of clarity or interpretation, applicants are encouraged to coordinate with a City of Markham Parks Planning staff assigned to their application.



SECTION 1: HOW PARKLAND IS REVIEWED AS PART OF DEVELOPMENT APPLICATIONS

1.1. How Parkland is Reviewed as Part of Development Applications

Park Planning plays an active role in the review of development applications submitted to the City of Markham, including Pre-consultations (PRCN), Official Plan Amendments (OPA), Zoning By-law Amendments (ZBA), Plan of Subdivisions (SU), Technical Reviews (TEC), and Site Plan Control (SPC).

In coordination with the City's Urban Design department, Parks Planning staff will advise when parkland dedication is a requirement related to Planning Act approval, how much parkland dedication is required, and whether the parkland dedication requirement should be satisfied through the dedication of land, payment of cash-in-lieu or a combination of thereof (Section 10.8.2.4 Official Plan).

The City of Markham's Parkland Dedication By-law 22-102 and sections 42, 51.1 and 53 of the Planning Act, R.S.O. 1990, c. P.13, identify the rates at which land for park and other recreational purposes are to be conveyed to the City. The applicable rate is subject to the date of any previous approvals and should be confirmed by Urban Design and Parks Planning staff at the time the application is submitted.

1.2. Acceptance of Cash-In-Lieu of Parkland

In recognition of an anticipated undersupply of parkland, the priority of the City of Markham is the acquisition of new public parkland. The City determines whether parkland dedication or cash-in-lieu should be provided based on direction from the City's endorsed parkland and recreation policies through a comprehensive assessment of the surrounding existing and planned park system. Key considerations for determining whether cash-in-lieu of parkland will be accepted include:

- 1.2.1. The configuration of the developable lands and its ability to integrate a suitable park block based on additional criteria identified in Section 2 and 3 of this document;
- 1.2.2. The availability or identification of other more suitable, proximate parcels for park development, where doing so maintains compliance with applicable comprehensive plans and policies;
- 1.2.3. The availability of more suitable parcels for acquisition within the same parkland service area and can be secured through off-site dedication;
- 1.2.4. The size of the park block based on parkland dedication generated is insufficient to accommodate a reasonable park size, such as within intensification areas; and,

- 1.2.5. The need for parkland in the given parkland service area, based on service levels established in the Integrated Leisure Master Plan.

1.3. Overview of Criteria for Evaluating Acceptability Proposed Park Blocks

The location, size, and shape of proposed park blocks are reviewed against matters prescribed by relevant sections of the Council endorsed 2014 Official Plan (Sections 4.3.2.1 to 4.3.2.4), including:

- Conformity to approved secondary plans, community design plans, precinct plans and comprehensive block plans;
- Meeting minimum park sizes;
- Contributing to the broader parks network, to ensure residents are served efficiently; and,
- Viability to accommodate planned recreational and parkland service delivery functions over the long term.

These criteria are further described in Sections 2 and 3 of this document.

SECTION 2: ENSURING PARKS CONTRIBUTE TO THE CITYWIDE PARK SYSTEM

2.1. A Comprehensive and Forward Looking Parkland System

The City is responsible for planning and developing a comprehensive park system that contributes to the quality of life, health and social well-being of residents. The public benefit of any given park extends beyond the boundary of an individual development site and future parks should therefore be considered in the broader context of the subject development site. In areas of anticipated growth, the City provides direction for the overall parkland system as part of secondary plans, community design plans, block plans and precinct plans.

A comprehensive and forward looking approach to park planning ensures:

- An appropriate amount of parkland is available to meet the recreation needs of existing and future residents;
- Parks are accessible, located in a manner that attracts and efficiently serves residents, and are distributed equitably;
- Parks are place-based, addressing the specific needs or challenges of the community and responding to surrounding environmental contexts;
- Parks are sized and shaped efficiently to support recreational needs and facilities of Markham's Integrated Leisure Master Plan; and

- Parks assets can be maintained and managed sustainably, now and in the future.

Applicants are reminded that Parks Planning staff may seek adjustments to a development proposal where doing so enhances connectivity and otherwise improves service to residents within a larger catchment area than an individual development site.

2.2. City of Markham Park Typologies

The City’s Official Plan establishes a park classification system to support clear and consistent expectations for the planning, acquisition and delivery of parks through the development approval process. The parks classification system identifies the types of parks that are needed and establishes criteria for size, use, amenities and features, walking distance, location and programs, etc. for each classification category.

Park Classification Category	Park Size
Community Park	More than 6 hectares
Neighbourhood Park Active Park	1 to 6 hectares
Neighbourhood Park Urban Square	0.5 to 5 hectares
Neighbourhood Park Parkette	0.5 to 1.5 hectares
Neighbourhood Park Urban Parkette	0.2 to 0.5 hectares

The acquisition of contiguous park blocks that conform to the above park classification system is a priority of the City. Minimum park sizing ensures that an adequate variety of parks are available and the diverse planned recreational and leisure activities can be delivered to the residents of Markham.

2.3. Secondary Plans, Community Design Plans and Design Guidelines

A broad framework of regulations is used in the City of Markham to plan and develop a system of parks and open spaces throughout the municipality, as well as to promote and implement design excellence. The City of Markham has a number of secondary plans, community design plans and design guidelines that may prescribe the location and classification of parks, provide additional policy direction, and detailed design guidance for parks planning and development. Applicants are responsible for reviewing these documents, where applicable, and ensuring parkland proposals are consistent with the policies outlined in those plans.

2.4. Master Parkland Agreements

A number of high growth areas have area specific parkland agreements between the City and landowner’s groups that have been established and defined through Secondary Plans and associated agreements. For applications subject to an existing agreement, site specific parkland dedication requirements will be clarified as part of the development application process.

In high growth areas undergoing or with recently approved Secondary Plan, the City will work with landowners to establish a master parks agreement to ensure the cost of providing parkland is shared equitably among landowners. The benefit and intent of establishing a master parks agreement is to ensure the implementation of the overall park system identified in the Secondary Plan. The agreement recognizes the city building objective to prioritize equitable distribution and appropriately sized parks that serve the overall community, but may not always be equally shared among the properties within a Secondary Plan area.

If an application is found to not be subject to an existing parks agreement, Parks Planning will provide the applicant with any pertinent information on the status of active secondary planning work and parks agreement initiatives.

2.5. Phased Development and Timing of Parkland Development

Park blocks are conveyed to the City at the time of registration for applications involving a draft plan of subdivision and prior to building permit for applications that do not require a draft plan of subdivision. For phased developments, the City prioritizes the completion of the base park and opening of park facilities as early as possible in the development phasing as possible. To ensure timely access to the park by future residents, the completion of base park development should align with the occupancy of the residential development.

SECTION 3: PARK BLOCK DESIGN CRITERIA

3.1. Location of Park Blocks

Placement criteria for City parks will vary significantly based on park typology. In determining the location of future parks, the City identifies the following principles and objectives for determining the location of proposed park blocks:

- 3.1.1. It is intended that new development and redevelopment will be planned in a comprehensive manner. Decisions on park location are more effective during network scale planning stages as part of the secondary plan, community design plan, precinct plan or comprehensive block plan. Where such frameworks are available, proposed park blocks must comply with prior strategic park siting decisions;
- 3.1.2. Parks should be located centrally to the population they serve to maximize population catchment, minimize trip distances for active transportation modes, and provide convenient access by public transit;

- 3.1.3. Parks may be located where preservation of individually significant trees and groupings of trees can be achieved while meeting the park grading and programming requirements;
- 3.1.4. Parks are encouraged to be located adjacent to the Greenway System, in particular where they provide public access and views of the Greenway System;
- 3.1.5. Proposed parks should contribute to a more equitable distribution of parks, preferably rectifying gaps in park service levels, addressing underserved communities, or pre-empting park service deficiencies in communities with higher than previously projected densities. Placement adjacent or visible from planned or existing active transportation networks, transit services, and community service hubs are some locations that can contribute to equity objectives;
- 3.1.6. To consider the community's existing and planned context to achieve appropriate relationships with adjacent land uses and mitigate potential conflicts;
- 3.1.7. Parks should be placed in prominent locations, such as where they enjoy high visibility from an adjacent street(s), a corner or through lot, or where they benefit from a view terminus, such as at a T-intersection or placement atop a prominent landform;
- 3.1.8. To consider future opportunities for expansion of parks through redevelopment of adjacent lots, consolidation of adjacent parklands;
- 3.1.9. Urban Square and other compact urban park typologies must be located in high pedestrian areas, embedded prominently within a mixed use corridor, and/or proximate to existing or planned community service hubs;
- 3.1.10. Parks should be located to maximize sunlight access and sky view. Placement of parkland where the excessive shadowing impacts of tall buildings are anticipated is strongly discouraged.

3.2. Shape and Configuration of Park Block

Park blocks shall be shaped and configured to accommodate planned amenities and facilities, while also satisfying the standards for grading, drainage, facility setbacks, and other requirements. To the satisfaction of Parks Planning, park blocks shall:

- 3.2.1. Have a minimum size and depth to accommodate amenities and recreational facilities that serve the needs of the projected populations;
- 3.2.2. Provide for sufficient setbacks from adjacent land uses and residential lots, roadways, natural heritage features, etc.;
- 3.2.3. Park blocks should be characterized by a broad and deep developable area, and having generally a regular rectangular square shape, as opposed to elongated, truncated, or complex parcel shapes, to maximize park design flexibility and programmability;

- 3.2.4. Park blocks need to maximize public street frontage along the edges to ensure visibility and safety as described further below. Irregular or flag shaped parcels predominantly surrounded by privately owned property are therefore not suitable for a City park, as portions of a park are typically concealed from public view of the adjacent right of way and provide the public with limited points of access.

3.3. Safe and Accessible Park Block

The planning and design of park blocks as part of development applications shall ensure that proposed parks can be made safe and accessible by:

- 3.3.1. Maximizing public street frontage and minimizing opportunities for concealment;
- 3.3.2. Ensuring park blocks are highly visible and recognizable as public space with clear demarcation between public and private property;
- 3.3.3. Situating active uses (ex. institutional, commercial uses) on the ground floor of buildings fronting parks;
- 3.3.4. Avoiding backlotting conditions adjacent to parks;
- 3.3.5. Ensuring parklands match grades with the surrounding properties streets, by eliminating retaining walls, managing significant grade changes, to preserve visible and aural communication in and out of the park;
- 3.3.6. Discouraging service and loading areas, such as those provided in condominiums developments, adjacent to parkland;
- 3.3.7. Considering Crime Prevention Through Environmental Design (CPTED) principles;
- 3.3.8. Managing light trespass from automobile oriented street lamps; and
- 3.3.9. Providing multiple opportunities for circulation in and out of the park and to the broader active transportation system.

3.4. Comfortable Microclimate Conditions

As part of development applications, the wind impacts of proposed developments on existing and proposed park blocks are evaluated to ensure the parks will be comfortable for users throughout the year. The preparation of a Wind Study, in accordance with the City's Pedestrian Level Wind Study Terms of Reference, is coordinated by Urban Design. Where a wind study is identified as a submission requirement, Park Planning will review the study to assess the wind impacts on the park block. Where wind impacts exceed the thresholds identified in the Wind Study Terms of Reference within park blocks, Park Planning and Urban Design will work with the applicant to modify the building massing and setbacks to achieve an acceptable wind condition. Where massing and setbacks cannot fully mitigate adverse wind impacts, the development application will also need to evaluate alternative locations for the park block or the

implementation of wind mitigation measures on private lands to achieve comfortable wind conditions in the park.

Sun and shadow is another important factor to ensuring park blocks are comfortable throughout the year. The preparation of a Sun/Shadow Study, in accordance with the City's Terms of Reference, is coordinated by Urban Design. Where Sun/Shadow Studies are identified as a submission requirement, Park Planning will review the shadow impacts to the park block to assess how many hours the park block will be shadowed throughout the year. Where negative shadow impacts are identified within the park block, Park Planning and Urban Design will work with the applicant to modify the building massing or identify alternative locations for the park block.

3.5. Managing Parkland Encumbrances

Encumbrances on parkland can be divided into two main categories: legal encumbrances and physical encumbrances. Legal encumbrances are restrictions or limitations on the use of parklands that are established through legal means such as conservation easements, special zoning restrictions, or access easements. Physical encumbrances are barriers or other physical structures that have the effect of restricting access to or limiting activities in the park, such as buried infrastructure, above ground infrastructure, or parklands with significant grade changes. Park blocks should generally aim to eliminate encumbrances and where unavoidable may result in a reduced parkland credit.

3.6. Tree Preservation

Tree Preservation in Park Blocks allow for many benefits to the environment and residents that use public parks. Existing trees support cleaning the air by removing pollutants, producing oxygen, and providing shade on hot days. Tree preservation also helps to maintain habitat for a variety of wildlife and can help to reduce erosion and storm water runoff.

There may be instances where it is necessary to remove trees located within a proposed park block, such as to meet grading requirements, provide suitable grade transition to adjacent uses, ensure appropriate drainage or to fit new park facilities. In such cases, a detailed assessment of preserving the trees and impacts to the park design will be undertaken by City staff. A park concept plan may be required by the applicant to demonstrate how the proposed grading requirements and park facilities can be accommodated on site. If the trees within the proposed park block cannot be preserved, then tree compensation will be required based on the approved Arborist Report and Tree Preservation Plan.

3.7. Park Concept Plan

Parks Planning staff may require the applicant to submit a park concept plan where there are existing or proposed constraints impacting the viability of a park parcel to

support planned facilities and typical park development standards. Examples include proposals where encumbrances such as constrained grading conditions, buried or above ground infrastructure, and retained vegetation. The purpose of the concept plan will be to demonstrate the proposed shape and size of park is appropriate and can be graded and serviced to accommodate the planned recreational facilities on the site. A park concept plan should indicate the following, as appropriate:

- The placement of proposed parks facilities and structures, consistent with City of Markham facility sizing requirements;
- Delineate hard surfacing (sidewalks, plaza, parking areas) and soft surfacing (sod, naturalized areas);
- The placement of fencing, wind and noise mitigation structures, and other screening structures;
- All above and below ground infrastructure or utilities;
- The limits of existing natural features, preserved trees, and environmentally sensitive areas (to ensure these are outside of the park block);
- Vegetation to be removed and preserved;
- Adjacent curbs, sidewalks and roads;
- Grading information sufficient to demonstrate conformity with City of Markham Engineering Criteria;
- Finished first floor elevations for buildings adjacent to the Park Block;
- Stormwater catchment areas and elevations at property lines; and,
- A minimum soil depth of 1.5 metres.

During the pre-application consultation or “clarification and understanding” phase the Parks Planner assigned to your file will provide the planned facility requirements for the proposed park block. The planned facilities will be based on the Development Charge Background Study (DCBS), and/or service targets from the City’s Integrated Leisure Masterplan (ILMP).

SECTION 4: BASE PARK DEVELOPMENT STANDARDS

4.1. Environmental Clearance

The review of environmental clearance requirements is led by Environmental Engineering department. The content outlined here provided a general overview of the requirements to be satisfied by developers when conveying a park block to the City in order to manage environmental risks, comply with provincial legislation and ensure that any park blocks are clean prior to being conveyed to the City. Additional requirements may be provided Environmental Engineering as part of specific applications.

4.1.1. Technical Requirements:

- i. Retain a “Qualified Person” to prepare all necessary Environmental Site Assessments (ESA) for all lands to be conveyed to the City. The “Qualified Person” is defined as the person who meets the qualifications prescribed by the Environmental Protection Act and O. Reg. 153/04, as amended. The lands to be conveyed to the City shall be defined as any land or easement to be conveyed to the City, in accordance with the City’s Environmental Policy and Procedures for Conveyance of Land to the City Pursuant to the Planning Act.
- ii. Submit Environmental Site Assessment (ESA) report(s) prepared by a Qualified Person, in accordance with the Environmental Protection Act and its regulations and all applicable standards, for all lands to be conveyed to the City for peer review and concurrence.
- iii. A Peer Review Fee is required to be paid and the specific amount will be clarified after submission of the ESA.
- iv. Submit Environmental Clearance(s) and Reliance Letter(s) from a Qualified Person to the City for all lands or interests in lands to be conveyed to the City to the satisfaction of the City. The Environmental Clearance and Reliance Letter will be completed in accordance with the City’s standard and will be signed by the Qualified Person and a person authorized to bind the Owner’s company. The City will not accept any modifications to the standard Environmental Clearance and Reliance Letter, except as and where indicated in the template.
- v. File a Record(s) of Site Condition with the Provincial Environmental Site Registry and provide a Letter of Acknowledgment from the Ministry of Environment, Conservation and Parks (MECP) for the lands to be conveyed to the City prior to the conveyance.

4.1.2. Agreement Conditions:

- a. The Owner covenants and agrees that if, during construction of on the Lands, including but not limited to the Public Park , contaminated soils or materials or groundwater are discovered, the Owner shall inform the City immediately, and undertake, at its own expense, the necessary measures to identify and remediate the contaminated soils or groundwater, all in accordance with the Environmental Protection Act, R.S.O. 1990, c. E.19 and its regulations, to the satisfaction of the Director of Planning and Urban Development and the Ministry of the Environment, Conservation and Parks.
- b. The Owner covenants and agrees to assume full responsibility for the environmental condition of the Lands. In the event that any contamination on the Public Park is not remediated to the satisfaction of the Senior Manager Parks, in their sole discretion, the City shall not be obligated to accept title to

the Public Park and the CIL Payment shall be recalculated without reduction for conveyance of any lands.

4.2. Tree Removal

Trees have significant ecological, social, and economic value and the preservation of existing trees is prioritized as part of the review of development applications. Proposals to remove existing trees in proposed parks are closely evaluated on a case by case basis. Parks Planning staff will seek to retain existing, viable trees and understory vegetation where:

- Preservation can be achieved through reasonable, cost effective measures, commensurate to the potential, long-term values of the preserved features, in the sole discretion of the Parks Planning team;
- Full or partial preservation of features does not preclude the delivery of planned facilities within the park;
- Does not require major regrading, retaining structures, or cost prohibitive maintenance and lifecycle costs, as determined by the Parks Planning, Parks Development, and Operations departments.

4.2.1. Technical Requirements:

- i. Please note the acceptance of plans indicating trees to be preserved, removed, or compensated is separate from the form issuance of a tree permit from the City of Markham. Prior to tree removal, a permit or agreement must first be issued to injure or destroy trees from the City.
- ii. Where an environmental impact study or arborist report is a requirement of an application, the study should provide specific recommendations on:
 - The health and viability of park trees;
 - Strategies for preservation;
 - Mitigation strategies during construction, partial feature removal;
 - Ongoing maintenance procedures, for a minimum of 5 years;
 - Timing considerations related to tree removals.
- iii. Where trees are to be preserved, applicants are required to take steps necessary to ensure all base park development plans and works support the preservation of trees, including:
 - Coordinating park grading plans to demonstrate tree root systems will be protected from construction activities;
 - Tree protection fencing and signage in accordance with the City of Markham's Arborist Report Terms of Reference is shown on appropriate landscape, erosion sediment, and grading plans;

- iv. Where preservation of trees is sought, applicants may be required to provide a park concept plan, to demonstrate the viability of the park block to accommodate planned park facilities;
- v. The City will require compensation for the removal or damage of trees in park blocks;
- vi. Cost estimates for parks tree preservation and maintenance shall be provided, upon request by Parks Planning;
- vii. Maintenance of trees marked for preservation is the sole responsibility of the Owner, until such time that the park block is formally accepted by the City, i.e. the prescribed maintenance period ends.

4.2.2. Agreement Condition:

- a. The owner agrees to maintain all Tree Preservation Works in accordance with the Accepted Plans, in working condition for the duration of any work on the Lands, including site alteration and construction (Provided by Urban Design).

4.3. Staging on Park Blocks

Park Blocks are typically conveyed to the City at the time of execution of the subdivision or site plan agreement. The City acknowledges that developers may wish to utilize proposed park blocks as construction staging areas. Requests to permit staging on park blocks to be conveyed to the City can be reviewed on a case by case basis. Applicants should reach out to the assigned Parks Planner to discuss the use of lands to be conveyed as parkland for purposes of staging, prior to submitting proposals which utilize parklands for construction staging purposes for future phasing.

With exception to works related to base park development, construction staging and storage of materials or equipment on lands once they are conveyed to the City as parkland, whether for the purposes of development underway or for subsequent phases, is not permitted prior to entering into permission to enter agreement with the City. Requests for the use of parkland for these purposes should be accompanied by:

- Plans delimiting areas for work within the park
- The scope of works and storage within the park
- Timeline of works and date of removal
- Information required by the City to determine the securities

4.3.1. Technical Requirements:

- i. Where storage and staging works are proposed as part of any site plan control, and/or draft plan application, the limits of the staging and storage areas within a park shall be clearly defined on erosion sediment control, staging plans, and phasing plans. The perimeter of such areas should be demarcated by erosion sediment control fencing and access points identified.
- ii. Timing provisions related to the removal of such materials is a requirement of the Parks Planning department. Applicants should contemplate and supply the City with a preferred date or milestone on which the applicant anticipates complete removal from the park site (date, number of units occupied, phase, etc.). Such timing or milestone will be attached to the development agreement.
- iii. The City may require payment of market rent and provision of securities to ensure the removal of materials and restoration of the park block to a satisfactory condition.

4.3.2. Agreement Conditions:

- a. The Owner covenants and agrees that shoring/staging works, or storage of construction equipment/materials, other than the materials, equipment, and stockpiles required for the construction of the park improvements are not permitted on lands once they are conveyed to the City for parks purposes prior to entering into a permission to enter agreement with the City.

4.4. Base Park Grading

The goal of the base park grading works is to ensure the grading will be designed and constructed to suitably transition to existing and proposed grades surrounding the park block while also ensuring positive surface drainage and appropriate stormwater management infrastructure is provided.

4.4.1. Technical Requirements:

- i. The base park block grading plan should provide a slope between 2% and 4% across the entire park block to provide positive surface drainage.
- ii. Park grading shall avoid steep slopes greater than 3:1 and retaining walls to transition/match grades along park property lines.
- iii. The park block shall be graded to capture all runoff within the park boundary and direct it to catch basins connected to the municipal storm water system.

- iv. Parks adjacent to greenways should ensure that all surface runoff is captured on site and does not surface drain into the greenway.
- v. All slopes, including side slopes of swales, shall not exceed than 3:1
- vi. Where perimeter cut-off swales are utilized in the grading plan, the swale centreline should be setback 5 metres from the park property line.
- vii. The base park block grading must accommodate a 300mm depth of topsoil spread over the entire park and include drawings notes confirming this is provided for in the grading plan.
- viii. Any trail connections to the park blocks should avoid steep slopes as per the City's Design Guidelines for Separated Cycling Facilities, Multi-Use Paths and Trails. Generally, a slope less than 4% is preferred where no major constraints are present.

4.4.2. Agreement Conditions:

Prior to final occupancy the Owner covenants and agrees to provide the following servicing and grading work for the park block:

- a. Rough grade using clean non-organic fill and compacted to 95% SPD to minus 300mm (+50mm tolerance) from the accepted grading plans or 12" below (+2" tolerance).
- b. Prior to spreading topsoil, the rough grade is to be certified by the Consulting Engineer as engineered, debris free, non-organic, compacted to 95% SPD and shall be accompanied by the Consulting Engineer's seal which has been signed and dated.
- c. Prior to spreading topsoil provide a "rough grade" topographic as-built survey in PDF and CAD format which supports the certification of grades minus 300mm (+50mm tolerance) below the accepted park grading plans. Plans shall show spot elevations on a 10m x 10m grid, contours at 0.5m contour intervals, as well as perimeter grades which match engineered grading plans.
- d. Prior to spreading topsoil, provide results of topsoil fertility testing confirming that the topsoil to be installed in the park block meets the City of Markham's minimum requirement for levels of nitrogen, phosphorus, potassium, micro nutrients, atrazine, and identifies any contaminants and its textural class and organic content (minimum 4%). The owner agrees to amend topsoil as necessary to the satisfaction to the Director of Planning and Urban Design.
- e. Provide and install topsoil to a depth of 300mm, spread over the entire park, including removal of all boulders and non-organic debris larger than 100mm from topsoil, and seed the park with a City approved seed mix to the satisfaction of the Director of Planning and Urban Design.

- f. Following the spreading of topsoil, provide a certification from the landscape architect confirming that the tested topsoil has been spread over the park to minimum depth of 300mm.
- g. Should any issues arise during above base park construction with regards to the structural capacity of the sub-soil or presence of topsoil fill, debris, etc., and additional works are required to ensure that the park can be built to City standards, the Owner shall, at the direction of the City's Director of Planning and Urban Design undertake such additional work as required or the City may draw on letters of credit to rectify any deficiencies.
- h. Provide a certification letter completed by an Ontario Land Surveyor indicating they have identified or replaced all standard iron bars and/or monuments as shown on any reference plan prepared for the purposes of any property line or easement required pursuant to the development agreement.

4.5. Geotechnical

After completion of the base park grading works, the applicant is responsible for providing a geotechnical report to the satisfaction of the Senior Manager of Parks and Open Space, demonstrating the structural capacity of the soil is acceptable for park development and that all soil placed within the park block meets the standards identified below:

4.5.1. Technical Requirements:

- i. After the completion of the base park grading and top soiling works, the City requires the preparation of geotechnical report in accordance with the City of Markham Engineering Criteria (Section I - Geotechnical Requirements).
- ii. The geotechnical investigation shall be based on four boreholes per acre.
- iii. A geotechnical report should be accompanied by the Consulting Engineer's seal.
- iv. The geotechnical report shall confirm that all soil placed within the park block meets the soil standards for Agricultural or Other Property Use listed under Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition of the Soil, ground water and sediment standards for use under Part XV.1 of the Environmental Protection Act.

4.5.2. Agreement Conditions:

- a. After completing rough grading and spreading of topsoil, provide a geotechnical report completed by a qualified professional (QP) confirming

suitable parkland soil requirements, bearing capacity of subsoil, textural class, and chemical analysis identifying no contaminants with a bore hole log report including a minimum of four (4) boreholes per acre, to the satisfaction of Director of Planning and Urban Design.

- b. Should the results of geotechnical report demonstrate that the soil within the park block does not meet suitable parkland soil requirements at the discretion of the Director of Planning and Urban Design, the Owner shall, at the direction of the City's Director of Planning and Urban Design, excavate and remove soils to an appropriate depths and supply and install suitable soils at the Owner's expense.
- c. If issues arise related to the soil placed within the base park block during construction of the above base park, the City may draw on the base park securities to address any deficiencies.

4.6. Base Park Sanitary Servicing

The goal of the base park water servicing standard is to provide efficient access to municipal water supply for future park development. The water service may be used for drinking, washrooms, amenities such as splash pads, maintenance, irrigation or other purposes.

4.7.1. Technical Requirements:

- i. The base park servicing plan should locate an independent water main service connection to the park block.
- ii. The base park water service should not be routed through private property to limit the need for easements.
- iii. The size of the water service connection size will be confirmed by Parks Planning staff and shall generally be 50mm for parkettes, 100mm for neighbourhood parks and 200mm for community parks.
- iv. The water line shall include a shutoff valve at the park property line with a water line extending one (1) metre into the park block and plugged.
- v. The servicing drawings shall specify the invert of the plugged service connection.

4.7.2. Agreement Condition:

Prior to final occupancy the Owner covenants and agrees to provide the following servicing and grading work for the Park Block:

- a. A water service connection be installed to service the park block in accordance with the accepted plans and to the satisfaction of the Director of Planning and Urban Design.

4.8. Base Park Sanitary Servicing

The goal of the base park sanitary servicing standard is to provide efficient access to the City's sanitary service to support future park development and amenities such as washrooms.

4.8.1. Technical Requirement:

- i. The base park servicing plan should locate an independent 200mm sanitary line extending one (1) meter into the park block property and terminate in a manhole at an elevation flush with the adjacent grades and in accordance with City of Markham Engineering Design Criteria and Standards.

4.8.2. Agreement Condition:

Prior to final occupancy the Owner covenants and agrees to provide the following servicing and grading work for the Park Block:

- a. A 200mm diameter sanitary line be installed to service the park block in accordance with the accepted plans and to the satisfaction of the Director of Planning and Urban Design.

4.9. Base Park Stormwater Management Servicing

The goal of the base park stormwater management standard is to provide the appropriate service connection(s) and infrastructure to capture stormwater runoff from the park block in coordination with the base park grading plan.

4.9.1. Technical Requirements:

- i. The base park servicing plan should locate catch basin/manhole(s) at the low point of all catchment areas near the perimeter of the park. The placement of catch basin/manhole(s) in the center of the park block shall be avoided in order to maximize the City's flexibility for designing and programming the above base park.
- ii. Catch basins located at the low-end of a cut-off swale should be setback 3-5 metres from the park property line to provide sufficient space for any swales to transition to the grades at the property line.

- iii. The sizing of stormwater services and the provision of control manhole(s) at the property line shall be in accordance with the City of Markham Engineering Criteria and Standards.

4.9.2. Agreement Conditions:

Prior to occupancy the Owner covenants and agrees to provide the following servicing work for the Park Block:

- a. Stormwater catch basin/manhole(s) be installed at the low end of each drainage area within the Park Block to service the Park Block in accordance with the accepted plans and to the satisfaction of the Director of Planning and Urban Design.

4.10. Base Park Electrical Servicing

The goal of the base park electrical service standard is to provide convenient access to an electrical utility service to support park facilities and amenities. The base park electrical service plan or composite utility plan should illustrate the specifications below with the detailed notation of what is being provided.

4.10.1. Technical Requirements:

- i. The base park electrical service plan or composite utility plan shall locate and provide an independent electrical service connection and supporting infrastructure, such as transformers and electrical service boxes.
- ii. The electrical service required for the park block will be confirmed by Park Planning staff based on the type of park.
- iii. For parkettes and neighbourhood parks: A 120/240 volt, single-phase, three-wire power supply to be made available to each park property for future use. The provision of this power supply will consist of a 3-conductor #3/0 aluminum underground cable drop located inside of the park property, three metres from the street line and one metre from the adjacent property line. The cable supply will originate from the closest single-phase pad mounted transformer and will be left coiled and attached to a 2"x4" wood stake, visible above grade.
- iv. For community and destination parks: A three-phase, 27, 600-volt power supply to be made available to each park property for future use. The provision of this power supply will consist of either a high voltage distribution switchgear located at the perimeter of the park property with a vacant switch dedicated for park use only or three-phase underground supply cables located within the road allowance directly adjacent to the park property.

4.10.2. Agreement Condition:

Prior to occupancy the Owner covenants and agrees to provide the following servicing work for the Park Block:

- a. An electrical service connection be installed to service the Park Block in accordance with the accepted plans and to the satisfaction of the Director of Planning and Urban Design.

4.11. **Seeding**

The scope of base park development includes the seeding of graded parklands, prior to beginning the warranty period for the park. The interim seeding of parkland ensures soil erosion issues are managed during the interim state.

4.11.1. Technical Requirements:

- i. Following finish grading and top soiling, and prior to the beginning of the maintenance period, the Owner shall seed and establish grass within the park and maintain the grass until acceptance in accordance with the maintenance requirements outlined below.
- ii. Notation on the park grading plan specifying technical requirement.

4.11.2. Agreement Condition:

Prior to occupancy, the Owner covenants and agrees to:

- a. Provide and install topsoil to a depth of 300mm, spread over the entire park, including removal of all boulders and non-organic debris larger than 100mm from topsoil, and to seed the park with a City approved seed mix to the satisfaction of the Director of Planning and Urban Design.

4.12. **Fencing**

Each Park Block shall be secured with a perimeter fence to prevent dumping activity, and manage encroachment, and liabilities associated with the temporary base park.

4.12.1. Technical Requirements:

- i. Prior to final certification of base park works, a page wire fence around the perimeter of the park and construction gate shall be provided in accordance with OPSD 971.101.
- ii. Fencing shall be installed 0.05 m from the property line, or where a walkway directly abuts a park property line 0.30 m from the sidewalk.
- iii. Fencing location and notation specifying Technical Requirements 1 and 2 are to be shown on the park grading or landscape plans.

4.12.2. Agreement Conditions:

- a. Prior to occupancy, the Owner covenants and agrees to provide a temporary fence around entire park block at property line, complete with construction gate, in accordance with OPSD 971.101;
- b. The Owner covenants and agrees to maintain the fencing for the two-year maintenance period, or until final acceptance of the park by the City, to the satisfaction of the Director of Planning and Urban Design.

4.13. **Signage**

Littering and illegal dumping are common problems in conveyed park blocks, especially where upkeep issues are unaddressed by the developer during the construction phase and maintenance period. Interim park signage affixed to temporary protection fencing communicates to residents the purpose and value of the future park block use and serves as a reminder to dispose of waste responsibly.

4.13.1. Technical Requirements:

- i. Prior to final certification of base park works, each park parcel shall be provided professional signage, affixed to the temporary protection fence at along each public street frontage or public walkway/trail. Sign locations are to be identified on the landscaping or grading plans along with the perimeter fencing.
- ii. Signs shall be in high contrast in black and white, large font, and a minimum 30cm x 50 cm.
- iii. The park signage shall include the information listed below:
 - o Future City of Markham Park
 - o No public access
 - o No Dumping
 - o No Removal of Soil or Vegetation
 - o No Storage of Materials

- Contact <insert developer name and phone number> if you witness dumping or identify maintenance issues.

4.13.2. Agreement Condition:

- a. The Owner covenants and agrees to provide park signage affixed to the temporary protection fence, in accordance with the location and signage detailed prescribed in the accepted drawings.

4.14. **Tieback Encroachments**

There may be situations where developers are constructing foundations in close proximity to existing or future park blocks and there may be a need for tiebacks to encroach into a park block. The owner should advise Parks Planning of any proposed tieback encroachments within the park as early as possible so that the potential impacts can be assessed and mitigated. In addition to the requirements and conditions identified below, developers will also be required to enter into a Pile and Tieback Encroachment agreement with the City.

4.14.1. Technical Requirements:

- i. Provide a plan and section showing the location and depth of all tiebacks proposed within the park block.
- ii. The location and depth of tiebacks may need to be adjusted to accommodate any proposed park facilities, footings or infrastructure.

4.14.2. Agreement Conditions:

- i. The Owner covenants and agrees to provide a certification letter from the Engineer to the satisfaction of the Senior Manager of Parks Planning, Design and Construction (“Senior Manager Parks”), confirming that the tiebacks encroaching into the Public Park have been de-stressed and verifying the depth and location of the tie-backs within the park block.

4.15. **Maintenance**

Developers are required to maintain park blocks in a clean and orderly condition until they are accepted by the City following the maintenance period. Mowing, litter and dumping removal, maintenance of perimeter fencing and maintenance of all base park improvements are the sole responsibility of the developer.

4.15.1. Technical Requirements:

- iii. Developers are required to establish and maintain the seeded park grass for the duration of the Maintenance Period, cutting vegetation minimum of six times per year, between the dates of May 1 and October 30.
- iv. Developers are required to monitor and proactively remove all refuse, junk, dumping, debris, or other material deposited on the park block. Upon receipt of written request from the City, the applicant is required to remove said material within 48 hours.

4.15.2. Agreement Conditions:

- a. The Owner agrees to remove all refuse, junk, dumping, debris or other material deposited on the park block(s), at the expense of the Owner for the two-year maintenance period, or until final acceptance of the park by the City, to the satisfaction of the Director of Planning and Urban Design. If the Owner fails to remove the aforesaid material upon written notice from the City, the City may remove the said material and draw from letters of credit for all expenses incurred by the City.
- b. The Owner agrees to cut the grass/vegetation a minimum of six times per year, between the dates of May 1 and October 30th, for the two-year maintenance period, or until final acceptance of the park by the City, to the satisfaction of the Director of Planning and Urban Design.

SECTION 5: SECURITIES, CERTIFICATIONS, ACCEPTANCE AND ASSUMPTION

5.1. Scope of Securities

To safeguard the City in the event that a developer fails to fulfill their obligations under the agreement, Parks Planning requires a letter of credit to be submitted as a financial guarantee that base parkland development works can be completed, within agreed upon timeframes.

- 5.1.1. Securities for Base Park Development works are typically collected by Parks Planning to cover 100% of the value of planned materials and labour associated with the following parkland development works:
 - i. Depositing or removal of soil stockpiles (if applicable)
 - ii. Base park grading
 - iii. Supply and spread of topsoil (300 mm depth)
 - iv. Seeding

- v. Temporary protection fencing
- vi. Electrical servicing connections
- vii. Maintenance

On a case by case basis, additional securities may be collected for the following works:

- viii. Stockpile removal and disposal

In cases where park blocks are to be conveyed to the City after the execution of the development agreement, securities are also collected by the Urban Design group for the full land value of the parkland dedication. Please refer to the assigned Urban Design specialist for additional information on the collection of parkland dedication securities.

- 5.1.2. In cases where park blocks are to be conveyed to the City after the execution of the development agreement, securities are also collected by the Urban Design group for the full land value of the parkland dedication. Please refer to the assigned Urban Design specialist for additional information on the collection of parkland dedication securities.

5.2. Cost Estimates

Cost estimates for the works described in section 5.a.ii, listed above, should be incorporated into the application's landscape works cost estimate and submitted to the Urban Design group for review.

Estimates for base park development works are reviewed by Parks Planning against annually updated industry standard unit costs, in coordination with the Parks Development and Development Engineering.

Include items list for cost estimates:

- Removal of any Stockpiles (If Applicable);
- Base Park Grading;
- Topsoil Supply and Spreading;
- Seeding;
- Electrical Connection;
- Fencing; and
- Maintenance, Mowing and Debris Removal,

5.3. Release of Securities

The release of securities for base park works take place at two milestones: 1) the beginning of the Maintenance Period and 2) upon final acceptance of the park.

To begin the Maintenance Period, all certification letters, listed below, must be submitted, reviewed, and inspected by City staff. If deficiencies are identified, the Owner shall, at the direction of the City's Director of Planning and Urban Design, undertake such additional work as required and resubmit certifications to demonstrate work complies with accepted plans and drawings. Upon the date of satisfactory receipt of all certifications listed in below, the Maintenance Period begins and an amount equal to 80% of collected securities for base park development works will be released to the Owner.

Should any issues arise during the two-year Maintenance Period with regards to the condition of base park development works, the Owner shall, at the direction of the City's Director of Planning and Urban Design undertake such additional work as required. If the Owner fails to undertake such additional works within the timing specified by the notice by the City, the City may enter onto the Lands and undertake such additional work as required, and may draw from the remaining 20% letters of credit for all expenses incurred by the City.

At the close of the two-year Maintenance Period, or at an earlier date at the sole discretion of the City, the base park development works will be inspected by City staff. Should any issues arise during the inspection with regards to the condition of base park development works, the Owner shall, at the direction of the City's Director of Planning and Urban Design undertake such additional work as required. If the Owner fails to undertake such additional works within the timing specified by the notice by the City, the City may enter onto the Lands and undertake such additional work as required, and may draw from the remaining 20% letters of credit for all expenses incurred by the City. Upon acceptance of the park, the remaining balance of letters of credit will be released to the Owner.

5.4. Base Park Development Certifications

During the course of constructing the base park, developers are required to submit several certificates to the City, prior to advancing to certain construction and approval milestones. The following summarizes the certifications to be submitted to City in the course of preparing park blocks for acceptance, in order of appearance:

5.4.1. Certificate of Completion of Internal Underground Works

- i. Requirements: Written certification provided by the Consulting Engineer to the Director of Engineering that the Internal Underground Works, including those works within a park, have been completed in accordance with the Engineering Drawings;

- ii. Timing: To be submitted prior to Certificate of Park Fine Grading and As-Builts.

5.4.2. Certificate of Base Park Grading and As-Built

- i. Requirements: As constructed grading survey drawings, as constructed digital files (CAD format), and a certification letter from the Owner's consulting engineer confirming that rough grading works authorized in the park block have been constructed in accordance with final accepted drawings, as engineered, debris free, non-organic, compacted to 95% SPD, and function as designed. The certification letter should be accompanied by the engineer's seal, signed and dated by them. As-constructed surveys and digital files must support the certification of grades minus 300mm (+50mm tolerance) below the engineered grading plan, show spot elevations on a 10 m x 10 m grid, contours at 0.5 m contour internals, as well as perimeter grades.
- ii. Timing: To be submitted prior to the spreading of topsoil on a park.

5.4.3. Geotechnical Report for each Park Block

- i. Requirements: Geotechnical report completed by a qualified professional (QP) in accordance with Section 4 Base Park Development Standards - Geotechnical, confirming suitable parkland soil requirements, bearing capacity of subsoil, and their textural class, with a bore hole log report including a minimum of four (4) boreholes per acre.
- ii. Timing: Report to be submitted prior to depositing topsoil on a park

5.4.4. Topsoil Testing Report

- i. Requirements: Applicant to supply topsoil testing report. Detailed requirements set out in Section 4 Base Park Development Standards - Base Park Grading.
- ii. Timing: Report to be submitted prior to depositing topsoil on a park

5.4.5. Certification of Completion (Base Park Landscape Works)

- i. Requirement: A written certificate issued by the Landscape Architect that topsoil which was tested and submitted to the City has been spread to a

depth of 300mm across the entire park block. The landscape shall also certify that the seeding, perimeter fencing and park signage have been completed in accordance with the accepted Grading or Landscape Plans.

- ii. Timing: To be submitted prior to the commencement of the Maintenance Period.

5.4.6. Re-monumentation

- i. Requirements: A certification letter completed by an Ontario Land Surveyor indicating they have identified or replaced all standard iron bars and/or monuments as shown on any reference plan prepared for the purposes of any property line or easement required pursuant to the development agreement.
- ii. Timing: To be submitted prior to the commencement of the Maintenance Period.

5.4.7. Optional: Inspection Certificate/As-built of Underground Structures for Strata/Dual Use Facilities in Parks

- i. Requirements: Certification of underground structures, confirming underground structures have been constructed in accordance with the final accepted plans and drawings and shall function as designed and support the required load bearing capacity. Provides both the accepted plans and as-constructed structural plans for underground structures beneath the Public Park. The Letter of certification shall be accompanied by the Structural Engineer's seal which has been signed and dated by the engineer.
- ii. Timing: To be submitted prior to commencement of the maintenance period.

5.4.8. Certification that all tiebacks and/or piles have been installed as per the approved plans are located at a specified depth.

5.5. Maintenance Period

Upon receipt and satisfactory review of all applicable certificates listed in the section above, Parks Planning will complete a site inspection and determine whether the applicant's obligations for base park development, as set out in the development agreement, have been satisfied. If no additional works are required, Parks Planning will

provide a written Park Block Notice of Acceptance for Maintenance, meaning the base park development works are accepted and the Maintenance Period begins.

5.5.1. During the Maintenance Period, the Owner will be responsible for:

- i. Establishment of seeding and ongoing mowing obligations
- ii. Removal of garbage/dumping
- iii. Maintain and keep all base park development works in a state of repair and operation
- iv. Remedy all deficiencies, at the request of the Parks Planning Staff, related to the base park development works identified in the development agreement and the accepted plans within the timeframe provided in the written request.

5.5.2. The Maintenance Period for the park block shall last until assumption of the park block.

5.6. Assumption of Park Block

Assumption, or final acceptance of maintenance of the park block by the City, is the date upon which the Director of Planning and Urban Design determines that all obligations related to parkland set out under the development agreement have been completed, the Maintenance Period has expired, and no other obligations under the development agreement remain outstanding, other than those specified as condition(s) of Assumption. Upon assumption, Parks Planning will issue a letter releasing the remainder of securities for base park development works

SECTION 6: DEVELOPER BUILD PARKS

6.1. Developer Build Parks

Where authorized by the Senior Manager of Parks Planning, Design and Construction, a developer may lead the coordination and up-front the cost of the design and construction of the above base park works. In recognition of the added benefit to community building when a developer contributes to the development of community assets, the City of Markham encourages developer build park arrangements for parkettes and neighbourhood parks, through a developer build park agreement. In certain instances, the City shall require a developer build park as a condition of

deviating from park policies, design criteria and base park standards. Developer build parks refer to the applicant taking on the following responsibilities:

- Procuring the design services of a qualified Landscape Architect
- Procuring the engineering, surveying, geotechnical services required to construct the park to City standards
- Obtaining any approvals and permits, and
- Preparing tender documents related to the procurement of construction services
- Supervising the construction of the park
- Providing contract administration and warranty services in support of final park design and construction.

Park design, contract administration, and construction costs are front-ended by the developer and reimbursed, up to a maximum amount specified by the City.

6.2. Park Budget and Financial Obligations of the Develop

The Parks Planning team provide the applicant with facilities requirements for the park and determine the maximum amount that the City may reimburse the developer, for design services and physical construction.

The developer is responsible for front-ending all costs associated with park design and construction. The developer is reimbursed upon substantial completion of the above base park works.

6.3. Proposals Requiring Developer Build Parks

A developer build park will be a requirement of Parks Planning acceptance of the parkland proposals with complex dual use facilities and/or stratified ownership arrangements.

6.4. Template Development Build Agreement

Upon request, the Parks Planning team can supply an interested applicant with draft developer build agreement clauses for review.

WHAT ELSE SHOULD WE KNOW?

For more information, contact:

City of Markham | Development Client Services

101 Town Centre Boulevard

Markham, Ontario, L3R 9W3

905-475-4861

DevelopmentServices@markham.ca