TEAM BLACK WALNUT

AN ORGANIZED WILD

A LANDSCAPE FOR COMMUNITY, INCLUSIVITY, AWARENESS, AND SUSTAINABILITY

MAY 16, 2024

SITE PLAN

INTRODUCTION

1.Vision and Design Program

An Organized Wild honours the site's spirit of place through naturalized and artistic interpretations of its natural and cultural history. It proposes an ecologically sustainable, culturally sensitive landscape that works with, rather than opposes nature and natural process - designed to appeal to people's aesthetic sensibilities while simultaneously providing habitat for birds, pollinators, and other wildlife, while also making inroads towards Truth and Reconciliation. On a regional scale, *An Organized Wild* offers site level solutions to broader Don River watershed concerns such as excessive runoff, water quality, habitat loss, and fragmentation. *An Organized Wild* will be a living testament to the OAA's commitment to design innovation in climate action and resilience, by modelling ecological and cultural sensibilities through the adoption of innovative green technologies and best practices, for the benefit of both its membership and the public at large.

At this stage, *An Organized Wild* is conceptual and is by no means a finished product, nor does it resolve all its intricacies and details such as the planting design or the art installations. In an ongoing design collaboration with the OAA, there remains great potential for further creative exploration, elaboration and refinement to fine-tune the vision together and strengthen the ambitions of the OAA's Renew and Refresh Initiatives.

2.Design Goals and Objectives

An Organized Wild is premised on six foundational project goals, each with a related subset of Design Objectives (DO) that define the design program for the site.

Goal No. 1: Create a safe, welcoming and accessible approach and arrival experience to the OAA headquarters, for both pedestrians and drivers.

DO 1: Design an inclusive, visually impactful, and attractive pedestrian access, with both a staircase and an accessible AODA ramp, to more effectively articulate the building entrance, and to draw in and welcome visitors and passers-by alike.

DO 2: Frame the entrance walkway with strategic tree and shrub plantings designed as a gateway to the building.

DO 3: Embed a furnished Privately Owned Public Space (POPS) within the entry experience, overlooking the meadow and in view of the rainwater cistern art installation.

DO 4: Improve traffic safety within the parking lot by altering the stall design to incorporate circular traffic flow, while maintaining a total of 39 parking spaces and a more effective service bay.

DO 5: Redefine the west parking lot with decorative structural screens and articulated plantings to spatially contain and visually animate the space.

Goal No. 2: Create an absorptive landscape that is sustainable, resilient and also supportive of a net-zero future.

DO 6: Retain on-site 10mm of runoff from rainfall events with a stormwater management (SWM) strategy that includes a retrofitted rooftop rainwater harvesting system, site level infiltration, permeable pavements, bioswales, a peak flow containment tank and other innovative SWM practices.

DO 7: Specify native, drought tolerant and hydrophilic species in low-maintenance, resource efficient, naturalized schemes adapted to local and site specific conditions, arranged in self-sustaining and adaptable plant communities.

DO 8: Specify locally-sourced, energy-efficient, low-carbon building materials, such as low carbon concrete and low-voltage lighting, while recycling existing materials.

Goal No. 3: Design an ecological landscape that is attuned to the site's natural history, and which advocates for nature and wildness.

DO 9: Conduct an ecological inventory, assessment and ecological land classification of adjacent natural areas to confirm local native flora and fauna appropriate for the site.

DO 10: Develop a planting plan rich in biodiversity, with a target of 90% native species mixed with 10% non-invasive exotic species introduced for horticultural aesthetic effect.

DO 11: Design plant groupings as natural communities such as pollinator meadows and woodlands for maximum habitat value and biodiversity optimization, with stylistic interpretation for aesthetic effect. NOTE: as part of this goal, we recommend ALL glass on the building be retrofitted with bird-friendly window treatments.

DO 12: Embrace and work with natural succession to develop naturalized plantings that can evolve and adapt with changing conditions with minimal maintenance.

Goal No. 4: Incorporate landscape art and planting elements that express the site and local area's Indigenous and cultural history.

DO 13: In collaboration with Indigenous Artists and the Mocassin Identifier ProjectTM, support equity by honouring and celebrating First Nations connection to the land through strategic art installations that promote reconciliation and cultural bridging.

DO 14: Reflect the site's Indigenous past with input on medicinal and edible species of the Don Valley, as well as the site's agricultural post-settlement history through stylized interpretations of hedgerows, woodlots and other rural landscape cues.

Goal No. 5: Address functional and aesthetic landscape requirements outlined in the terms of reference.

DO 15: Accentuate the modernist building aesthetic through juxtaposition with a naturalized, "rewilded" landscape.

DO 16: Provide staff and public with a street-oriented outdoor seating area in which to experience the natural landscape and views of the valley, by incorporating a POPS into the design.

DO 17: Retrofit the parking lot design to improve service truck access to and from the site.

DO 18: Add an EV charging station for two vehicles.

DO 19: Include "night sky friendly" low voltage (and/or solar powered) landscape lighting enhancements in strategic locations around the site, for aesthetic effect and to enhance site security.

DO 20: Maintain and/or enhance user safety and security by avoiding conflicts with existing security systems and by ensuring open sightlines and ample pedestrian lighting.

Goal No. 6: Educate and build awareness with respect to sustainability, ecology, natural history and cultural history.

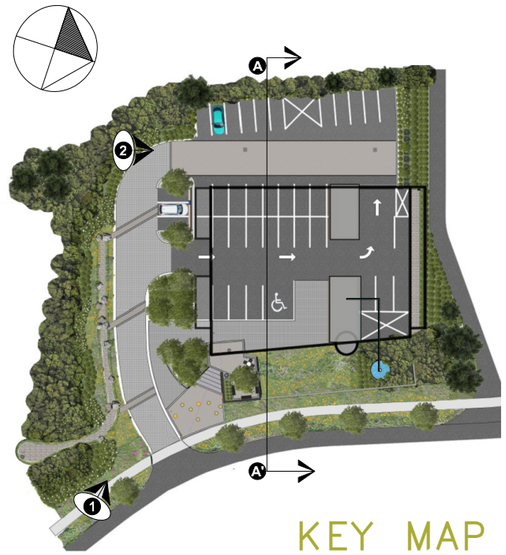
DO 21: Lead by example, by creating a landscape that overtly demonstrates sustainability and ecological responsibility to both design professionals and the public at large.

DO 22: In the spirit of "form follows function", incorporate design features that visually represent and promote sustainability and ecology, such as a rainwater harvesting cistern, the EV charging stations, naturalized plantings, habitat structures and decorative permeable pavements.

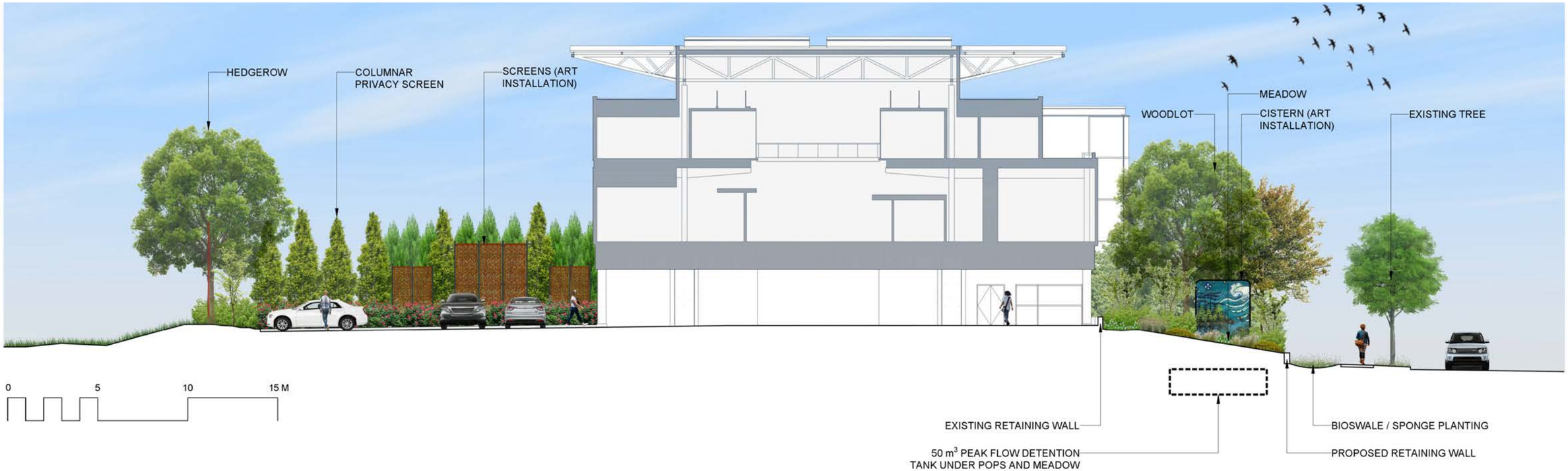
DO 23: Incorporate interpretive and educational signage that highlights and draws attention to the site's sustainable design, its natural history and its cultural heritage.

DO 24: Incorporate landscape art that pleases the eye while inspiring a greater understanding and appreciation of the site's Indigenous history and their traditional knowledge.

CROSS SECTION AND PERSPECTIVES



KEY MAP



PLANTING PLAN

AREA "E" - WOODLAND CORRIDOR

Naturalized woodland restoration area designed as a linkage corridor between adjacent habitat fragments. Existing naturalized vegetation along property line to service as a foundation for the proposed planting. Will include nesting boxes, hibernacum and other potential habitat features.

Species composition: 100% native
100 Trees (various sizes)
200 Shrubs
500 Grasses and Wildflowers

AREA "F" - HEDGEROW

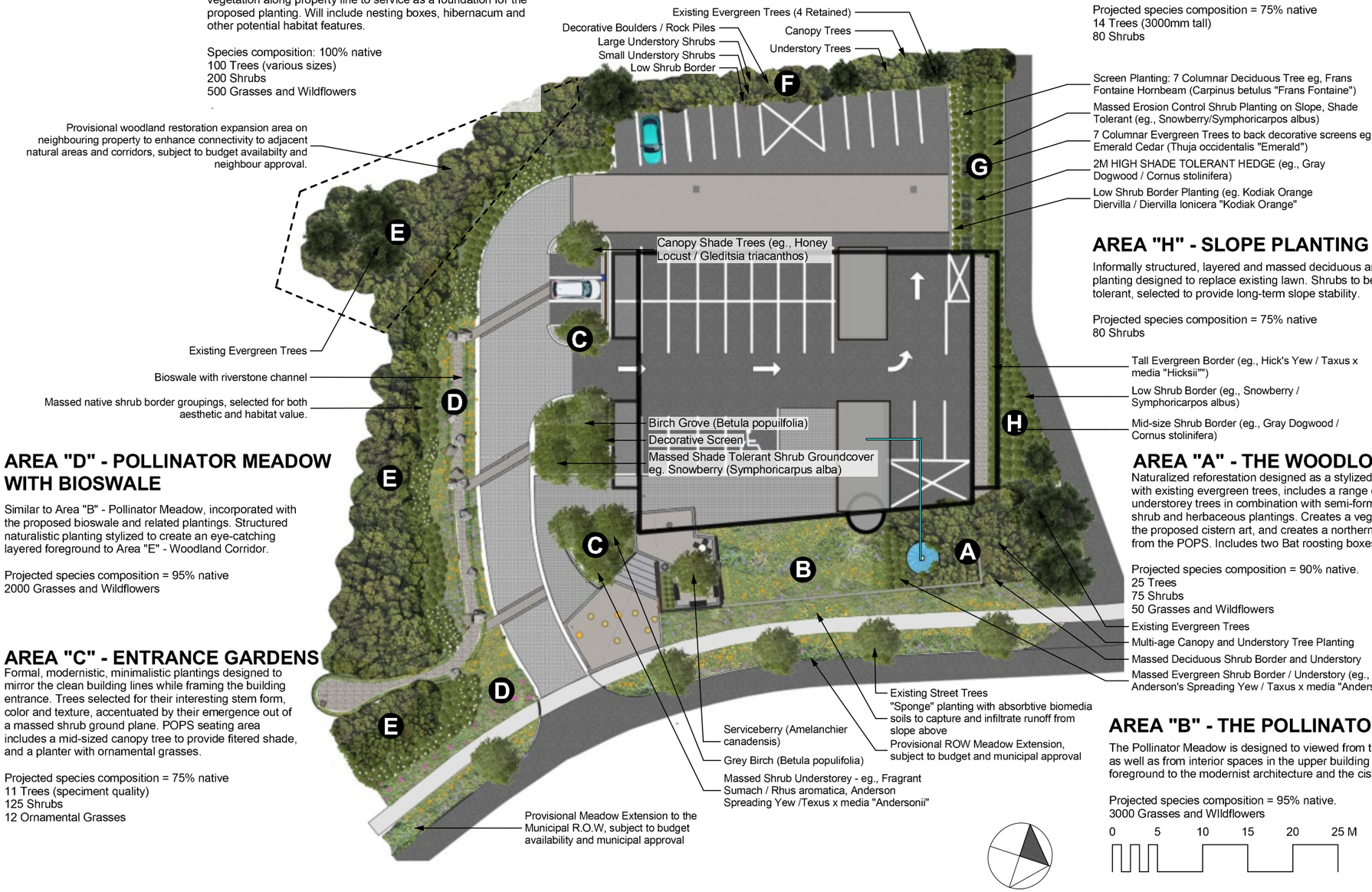
Stylized rural Ontario hedgrerow, designed in accordance with woodland restoration guidelines and plant lists. Retains the four healthy existing evergreen trees currently supplemented by a variety of trees, shrubs, wildflowers and grasses. Plants to be selected for high bird and insect habitat value. Low shrub border along asphalt edge provides strong edge definition. Includes nexting boxes, rotting logs, decorative boulders and boulder piles typical of hedgerows.

Projected species composition = 90% native
20 Trees
90 Shrubs
100 Grasses and Wildflowers

AREA "G" - SCREEN PLANTING

Formally structured planting designed to spatially enclose the parking lot by blocking views to the adjacent buildings and laneway. Planting composed primarily of tall columnar deciduous and evergreen trees with low shrub border along curb, to complement and work in tandem with the Corten steel screens.

Projected species composition = 75% native
14 Trees (3000mm tall)
80 Shrubs



AREA "H" - SLOPE PLANTING

Informally structured, layered and massed deciduous and evergreen shrub planting designed to replace existing lawn. Shrubs to be shade and drought tolerant, selected to provide long-term slope stability.

Projected species composition = 75% native
80 Shrubs

AREA "D" - POLLINATOR MEADOW WITH BIOSWALE

Similar to Area "B" - Pollinator Meadow, incorporated with the proposed bioswale and related plantings. Structured naturalistic planting stylized to create an eye-catching layered foreground to Area "E" - Woodland Corridor.

Projected species composition = 95% native
2000 Grasses and Wildflowers

AREA "A" - THE WOODLOT

Naturalized reforestation designed as a stylized rural woodlot integrated with existing evergreen trees, includes a range of native canopy and understorey trees in combination with semi-formal massed understory shrub and herbaceous plantings. Creates a vegetated backdrop to the the proposed cistern art, and creates a northern terminus to the sightline from the POPS. Includes two Bat roosting boxes.

Projected species composition = 90% native.
25 Trees
75 Shrubs
50 Grasses and Wildflowers

Existing Evergreen Trees
Multi-age Canopy and Understory Tree Planting
Massed Deciduous Shrub Border and Understory
Massed Evergreen Shrub Border / Understory (eg., Anderson's Spreading Yew / Taxus x media "Andersonii"

AREA "C" - ENTRANCE GARDENS

Formal, modernistic, minimalistic plantings designed to mirror the clean building lines while framing the building entrance. Trees selected for their interesting stem form, color and texture, accentuated by their emergence out of a massed shrub ground plane. POPS seating area includes a mid-sized canopy tree to provide fitered shade, and a planter with ornamental grasses.

Projected species composition = 75% native
11 Trees (speciment quality)
125 Shrubs
12 Ornamental Grasses

AREA "B" - THE POLLINATOR MEADOW

The Pollinator Meadow is designed to viewed from the street and POPS as well as from interior spaces in the upper building floors. Natural foreground to the modernist architecture and the cistern art.

Projected species composition = 95% native.
3000 Grasses and WIldflowers

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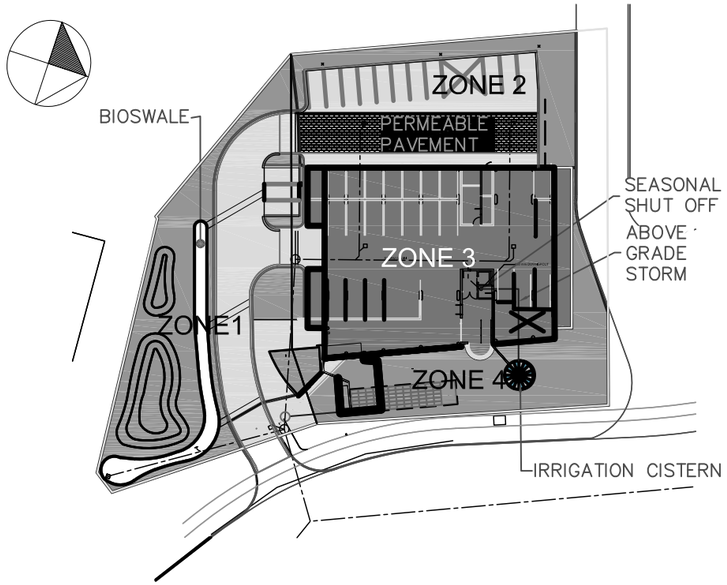
STORMWATER MANAGEMENT STRATEGY



STORMWATER RETENTION

Warm Weather Months

	Retention Method	Area	% of Total Area	Retention Volume (m^3)	Retention Over Site Area (mm)
Zone 1	Bioswale	1,414	33.9%	16.8	4.0
Zone 2	Permeable Pavement	899	21.5%	31.3	7.5
Zone 3	Irrigation Cistern	1,150	27.5%	20.0	4.8
Zone 4	Landscaping	712	17.1%	3.6	0.9
		4,175			17.1

Cold Weather Months

	Retention Method	Area	% of Total Area	Retention Volume (m3)	Retention Over Site Area (mm)
Zone 1	Bioswale	1,414	33.9%	16.8	4.0
Zone 2	Permeable Pavement	899	21.5%	31.3	7.5
Zone 3	Irrigation Cistern	1,150	27.5%	-	0.0
Zone 4	Landscaping	712	17.1%	3.6	0.9
		4,175			12.4

STORMWATER MANAGEMENT DESIGN

Wet Weather Flow Management Guidelines Criteria

Water Balance – The minimum on-site runoff retention requires the proponent to retain all runoff from a small design rainfall event, typically 5mm.

Water Quality – 80 percent average annual TSS removal from runoff originating on-site.

Water Quantity – For discharge to a municipal storm sewer, the flood flow requirement is to control the 100-year post development flow to the 2-year pre-development level, as per the WWFM Guidelines.

Water Balance

The minimum requirement for on-site retention is 12.9m3, based on a site area of 4,175m2. The site has been separated into 4 zones for stormwater retention.

Zone 1 is located on the south portion of the site, including the existing driveway and landscaped area. A bioretention swale is proposed along the south side of the driveway to provide filtration and infiltration of runoff from the driveway. A series of water bars will collect drainage flowing from west to east along the driveway and direct the flow toward the bioretention swale. The water bars will consist of a permeable pavement strip with a clearstone reservoir and subdrain sloped toward the bioswale. The bioswale will consist of a layer of permeable filter media above a storage reservoir with a depth of 0.3m and width of 2.0m. Based on a swale length of 50m, a retention volume of 12m3 is provided. After accounting for initial abstractions, a total of 31.3m3 of retention storage is provided in Zone 1.

Zone 2 includes the west parking area and surrounding landscaped areas. The existing area drains toward 2 catchbasins in the middle of the drive aisle. Permeable pavement will be provided along the driveway to filter and infiltrate parking lot runoff. The retention will be provided in a 0.3m deep reservoir with a surface area of 245m3 and a porosity of 0.4, providing a retention volume of 29m3. After accounting for initial abstractions, a total of 16.7m3 of retention storage is provided in Zone 2.

Zone 3 is the existing building roof. Drainage is currently directed to 4 rainwater leaders from the various roof levels. It is our understanding that these connect to a single 250mm diameter drainage stack at the first level and then to the storm sewer system. The intent is to connect the roof drainage at the parking garage ceiling level and directed it to a rainwater harvesting cistern at the front of the building. A shutoff valve would be installed such that during the cold weather months, roof water will be directed to the storms sewer system. The cistern has been designed to capture 20m3 of rainwater.

Zone 4 includes the landscaped areas. The landscape areas will implement absorbent topsoil, as per City criteria. The typical initial abstraction of 5mm is applied to these areas; however, this is a conservative value based on the proposed soils and dense planting strategy.

Based on the retention storage provided within each zone, a weighted calculation was completed to estimate the average retention over the site. An overall stormwater retention estimate for the site has been completed based on the warm weather and colder weather operations. In the warm weather months, the retention will be 17.1mm and in the cold weather months, when the irrigation cistern is not in use, retention will be 12.4mm over the site area.

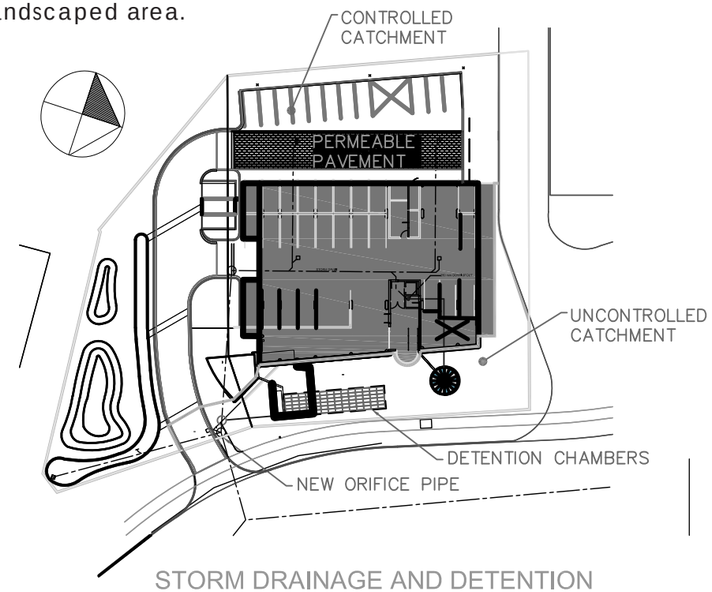
Quality Control

The bioswale and permeable pavement in Zone 1 and Zone 2, respectively, have been sized to provide a minimum of 80 percent TSS removal, using MECP sizing guidelines. Runoff from rooftop and landscaped areas (Zones 3 and 4) are generally considered clean and no additional quality controls are required.

Quantity Control

As this is a developed site with an imperviousness greater than 50%, a pre-development runoff coefficient of 0.5 is used with the 2-year design storm to determine the target flow. The target flow from the site is 51.1L/s.

The existing storm sewers will be used for post-development drainage, with minor changes to direct surplus flows to a stormwater chamber system. An orifice tube will be installed at the outlet to control peak flows to the target flow, less the uncontrolled flows. A detention storage volume of approximately 50m3 is required to control the 100-year storm to the target flow. This will be provided in a stormwater chamber system located under the front landscaped area.



STORM DRAINAGE AND DETENTION