

General Committee Presentation

Town of Aurora Green Development & Design Standards

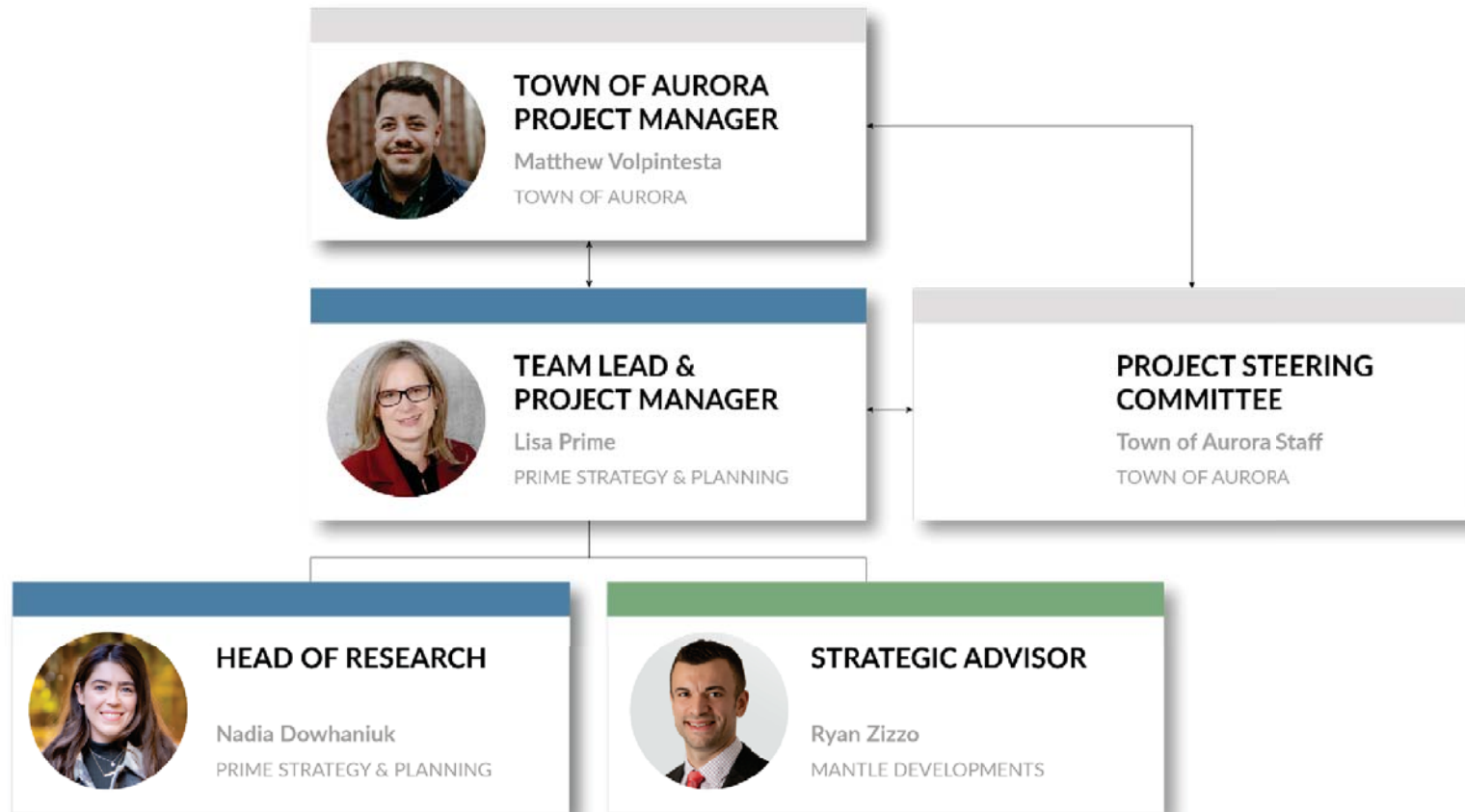
PRIME STRATEGY & PLANNING



Introduction

Project Team

PRIME STRATEGY & PLANNING



Agenda

PRIME STRATEGY & PLANNING



1. What are GDS?
2. Why is the Town implementing GDS?
3. Project Timeline
4. Summary of Consultation
5. Draft GDS
6. Draft Implementation Expectations
7. Staff Training Objectives
8. Next Steps



What are Green Development Standards?



What are GDS?

A simple definition from the Clean Air Partnership (CAP)

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- **Voluntary** and/or **mandatory** measures created by municipalities to mandate **sustainable development**.
- Comprehensive principles to guide development that **focuses on the community as a whole**.
- **Integrated into the planning approvals process**, where development applications are asked to meet certain criteria.
- **Policy tool** to support Official Plan policy goals, sustainability objectives, etc.



Why is the Town implementing GDS?



Why implement GDS?

Opportunity to meet growth and climate change objectives

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The Town must **manage population** and **employment growth** in a **sustainable way**.



The Town is committed to **reducing emissions** and **increasing climate resiliency**.



GDS can help to address several **municipal policies** and **climate objectives**.



Green Development Standards are **embedded in the Town's Official Plan** (Section 5.2).



Several **Ontario municipalities** have **implemented and/or are updating GDS**.

GDS Co-Benefits

Opportunity to achieve several co-benefits of community-wide development

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ECONOMIC



Increased property values



Reduced infrastructure costs



Longer lasting building stock



Job creation

ENVIRONMENT



Reduced energy consumption



Reduced vehicle dependency



Increased green space & biodiversity



Increased climate resiliency

SOCIAL



Improved air quality



Active lifestyles



Access to greenspace



Affordable & mixed-use housing

Project Timeline



Project Timeline

Schedule for developing & implementing the GDS

PRIME STRATEGY & PLANNING



APR

MAY

JUN

JUL

AUG

SEPT

OCT

NOV

DEC

JAN

Phase 1

Background Review & Discussion Paper

- **Timeframe:** April 2021 – August 2021
- **Tasks:** Discussion Paper for review by Steering Committee; preliminary consultation with developers and municipal staff.

Phase 2

Draft Guidelines & Stakeholder Consultation

- **Timeframe:** July 2021 – November 2021
- **Tasks:** Draft GDS guidelines, consultation with development industry and municipal partners on GDS directions.

Phase 3

Final Guidelines & Implementation Materials

- **Timeframe:** September 2021 – December 2021
- **Tasks:** Develop implementation materials; facilitate staff training sessions; present GDS to EAC.

Begin Phase 1
Implementation

Discussion Paper

High level summary of content to support draft GDS

PRIME STRATEGY & PLANNING



1 Introduction

- Description of the project.

2 Background & Context

- What GDS are and why GDS are being implemented
- Policy context for GDS (federal, provincial, local).
- Preliminary consultation.

3 Best Practice Review

- Scan of municipal GDS programs and lessons for the Town.
- Best practice for areas of interest and supporting examples:
 - Heritage and regenerative design, bird-friendly design, LIDs, construction waste management, municipal leadership, embodied carbon, district energy.
- Third-party certification and supporting examples (e.g., LEED, Passive House, ZCBS, WELL).

4 Incentive Options

- Municipal tools (e.g., CIPs, green bonds, etc.), York Region's incentive programs, and external incentive programs (e.g., Enbridge's Savings by Design).

5 Implementation of the GDS

- Compliance and reporting mechanisms.
- Internal implementation process considerations.

6 Recommendations

- Compilation of directions for the GDS presented throughout the Discussion Paper.
- "Quick Wins" identified.

7 Next Steps

Summary of Consultation



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Summary of Consultation

Input received relative to draft GDS requirements

- **Alignment with LSRCA** – Ensure alignment between the GDS and LSRCA expectations for development. Reiterate LSRCA requirements where possible to reinforce expectations (e.g., post development groundwater recharge rates, design features to reduce salt use, etc.)
- **Alignment with York Region** – Update mandatory requirements for 'WATER' to align with York Region's findings relative to water conservation.
- **Impact on infrastructure** – Consider the impact of expectations for electric vehicle infrastructure and charging stations on local infrastructure. Ensure infrastructure is prepared to accommodate.
- **Carbon sequestration** – Consider opportunities for carbon sequestration in all themes and ensure description of requirements reinforce opportunities for carbon sequestration. This extends to native plantings.
- **Permeable surfaces for mid to high-rise** – Consider allowing green roofs to function as an acceptable alternative to permeable surfaces for mid to high-rise buildings.

Summary of Consultation

Input received relative to implementation process

- **Incentives** – Several questions about incentives to support implementation of Tiers 3 and 4 from the development industry and some municipal partners. Recommended incentives include DC rebates, fast track approvals, etc.
- **Access to embodied carbon building materials** – Development industry partners stated that the Town can support use of certain building materials by supporting access to these materials and permitting their use.
- **Pilot implementation of GDS** – Several stakeholders recommended applying the draft GDS to current development applications and/or projects to ‘test’ the applicability.
- **Options for Tier 2** – Ensure there are several options in Tier 2 applicable across all developments. Consider bringing some requirements from Tier 3 into Tier 2 to increase options.

Draft GDS



PRIME STRATEGY & PLANNING

Draft GDS Themes

1

ENERGY

2

WATER

3

ECOLOGY

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COMPLETE COMMUNITIES

5

WASTE & MATERIALS

Draft GDS Phases & Tiers

Phase 1

Implementation ~Dec. 2021

TIER 1

MANDATORY

TIER 2

MANDATORY

Phase 2

Implementation TBD

TIER 3

VOLUNTARY

TIER 4

VOLUNTARY

Phase 1

Implementation ~Dec. 2021

TIER 1

MANDATORY

TIER 2

MANDATORY

- 1 **ENERGY**
- 2 WATER
- 3 ECOLOGY
- 4 COMPLETE COMMUNITIES
- 5 WASTE & MATERIALS

THEME: ENERGY

INTENT

To achieve greater energy efficiency in all new buildings and to decrease GHG emissions in support of the Town's objective to achieve net-zero emissions by 2050.

RATIONALE

- Enhanced energy efficiency is becoming an industry standard.
- Increasing expectations from all levels of government to meet GHG reduction targets.
- Mandatory requirements for energy performance supports GHG emission reductions and long-term expectations for net-zero.

PHASE 1

TIER 1	MANDATORY	Applicant must <u>achieve all criteria</u>
TIER 2	MANDATORY	Applicant must achieve <u>specified number of criteria</u>

PHASE 2

TIER 3	VOLUNTARY	Potential <u>incentives</u>
TIER 4	VOLUNTARY	Potential <u>incentives</u>

THEME: ENERGY

TIER 1

MANDATORY

Applicant must achieve all criteria

APPLIES TO

Energy 1.1

- Appropriate connections for electric vehicle (EV) infrastructure is provided accordingly:
 - For each dwelling unit with a residential parking space, a minimum one (1) vehicle space per unit is provided with an energized outlet capable of providing Level 2 EV charging or higher to the parking space.
 - Each residential parking space, excluding visitor parking, shall include an adjacent energized outlet capable of providing Level 2 charging or higher to the parking space, either dedicated to the parking space or using an Energy Management System.
 - A minimum 20% parking spaces are provided with electric vehicle supply equipment (EVSE) and the remainder are of spaces are designed energized outlets capable of providing Level 2 EV charging or higher to the parking space.
- Low-rise residential
- Multi-unit apartments/ townhomes with shared, common onsite residential parking spaces
- All development (including school board) excluding residential

THEME: ENERGY

TIER 1	MANDATORY	Applicant must <u>achieve all criteria</u>	APPLIES TO
Energy 1.2	<ul style="list-style-type: none"> Ensure buildings are designed to accommodate connections to solar PV or solar thermal technologies. 		<ul style="list-style-type: none"> All development
Energy 1.3	<ul style="list-style-type: none"> Develop an energy model for the building project using a third-party building energy simulation software. 		<ul style="list-style-type: none"> All development
Energy 1.4	<ul style="list-style-type: none"> Conduct a feasibility study to explore option to connect to existing and/or develop on-site energy generation systems 		<ul style="list-style-type: none"> Mid to high-rise residential, all non-residential, and municipal development in specific Town- areas (e.g., Major Transit Station Area)

THEME: ENERGY

TIER 2	MANDATORY	Applicant must achieve <u>2 out of 6 criteria</u>	APPLIES TO
Energy 2.1	<ul style="list-style-type: none"> Appropriate EVSE is provided accordingly: <ul style="list-style-type: none"> A minimum of one (1) vehicle space per unit is provided with the requirements identified in Tier 1 Energy 1.1 in addition to appropriate EVSE, such as an electric vehicle charging station. Each residential parking space, excluding visitor parking, shall include an adjacent energized outlet capable of providing Level 2 charging or higher to the parking space, either dedicated to the parking space or using an Energy Management System. A minimum 50% parking spaces are provided with electric vehicle supply equipment (EVSE) and the remainder are of spaces are designed with energized outlets capable of providing Level 2 EV charging or higher to the parking space 		<ul style="list-style-type: none"> Low-rise residential Multi-unit apartments/ townhomes with shared, common onsite residential parking spaces All non-residential development (including school board)
Energy 2.2	<ul style="list-style-type: none"> Buildings are designed and built to include solar technologies. 		<ul style="list-style-type: none"> All development

THEME: ENERGY

TIER 2	MANDATORY <small>Applicant must achieve <u>2 out of 6 criteria</u></small>	APPLIES TO
Energy 2.3	<ul style="list-style-type: none"> • Provide the necessary infrastructure for connection to district energy, where available. • <i>Note: If applicant can pursue Energy 2.3, requirements for Tier 2 are considered satisfied.</i> 	<ul style="list-style-type: none"> • Mid to high-rise residential, all non-residential, and municipal development in specific Town- areas (e.g., Major Transit Station Area).
Energy 2.4	<p>Energy use reduction for Part 3 and Part 9 buildings are met according to the following requirements:</p> <ul style="list-style-type: none"> • Part 9 buildings – Buildings are designed to meet or exceed a minimum performance of at least 10% better than that of the Ontario Building Code’s 2017 Supplementary Standard SB-12. • Part 3 buildings – Demonstrate minimum energy performance of at least 15% better than that of the Ontario Building Code’s 2017 Supplementary Standard SB-10 Divisions 1 and 3. 	<ul style="list-style-type: none"> • All development
Energy 2.5	<ul style="list-style-type: none"> • Demonstrate a minimum reduction in carbon dioxide equivalency (e.g., 10%). 	<ul style="list-style-type: none"> • All development

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ENERGY

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COMPLETE COMMUNITIES

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WASTE & MATERIALS

THEME: WATER

INTENT

To use water efficiently, protecting local water sources including water quality and health, and reducing flooding and drought.

RATIONALE

- Reducing potable water use and improving water efficiency can reduce energy and infrastructure required for treatment, distribution, and collection of water resources.
- Water efficiency can offer savings to occupants.

PHASE 1

TIER 1	MANDATORY	Applicant must <u>achieve all criteria</u>
TIER 2	MANDATORY	Applicant must achieve <u>specified number of criteria</u>

PHASE 2

TIER 3	VOLUNTARY	Potential <u>incentives</u>
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THEME: WATER

TIER 1	MANDATORY	Applicant must <u>achieve all criteria</u>	APPLIES TO
Water 1.1	<ul style="list-style-type: none">Demonstrate post-development peak flow rates are equal to or do not exceed pre-development peak flow rates for the two, one hundred year storm events and a minimum volume reduction of 5mm is achieved through LID features.	<ul style="list-style-type: none">All development	
Water 1.2	<ul style="list-style-type: none">Ensure post-development groundwater recharge rates meet pre-development rates, as defined through the LSRCA Source Protection Plan.	<ul style="list-style-type: none">All development	
Water 1.3	<ul style="list-style-type: none">Remove at least 85% total suspended solid on an annual loading basis from run-off leaving the site.	<ul style="list-style-type: none">All development	
Water 1.4	<ul style="list-style-type: none">25% of new hard surfaces (e.g., parking areas and walkways, not including buildings) are constructed using permeable materials. For some applicants (e.g., those developing from lot line to lot line), this requirement may be met through Ecology 1.7.	<ul style="list-style-type: none">All development	
Water 1.5	<ul style="list-style-type: none">All water consuming fixtures are WaterSense® labeled or meet maximum flow requirements.	<ul style="list-style-type: none">All development	

THEME: WATER

TIER 2	MANDATORY	Applicant must achieve <u>2 out of 5 criteria</u>	APPLIES TO
Water 2.1	<ul style="list-style-type: none"> BMPs replicating natural site hydrology processes, retain (e.g., infiltrate, evapotranspire, or collect and reuse) on-site the runoff from the developed site; reducing the local rainfall event runoff by an additional 10%, using low-impact development (LID) and green infrastructure (GI) practices. 		<ul style="list-style-type: none"> All development
Water 2.2	<ul style="list-style-type: none"> Remove at least 90% total suspended solid on an annual loading basis from run-off leaving the site. 		<ul style="list-style-type: none"> All development
Water 2.3	<ul style="list-style-type: none"> 50% of new hard surfaces (e.g., parking areas and walkways, not including buildings) are constructed using permeable materials. For some applicants (e.g., those developing from lot line to lot line), this requirement may be met through Ecology 1.7. 		<ul style="list-style-type: none"> All development
Water 2.4	<ul style="list-style-type: none"> Install rainwater harvesting and re-circulation/reuse systems for outdoor irrigation and outdoor water use, reducing potable water use for irrigation by 60%. 		<ul style="list-style-type: none"> All development
Water 2.5	<ul style="list-style-type: none"> Development incorporates design features to require less salt application without increasing liability. Design features are in accordance with the LSRCA's Parking Lot Design Guidelines to Promote Salt Reduction. 		<ul style="list-style-type: none"> All non-residential development

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WASTE & MATERIALS

THEME: ECOLOGY

INTENT

To improve natural heritage system function with respect to wildlife habitat and/or ecological functions, including ecosystem services and to incorporate carbon sequestration into community design.

RATIONALE

- Protecting and restoring ecological functions can benefit human and natural environment.
- Natural environment can help to mitigate against and build resilience and adaptation to impacts of climate change.

PHASE 1

TIER 1	MANDATORY	Applicant must <u>achieve all criteria</u>
TIER 2	MANDATORY	Applicant must achieve <u>specified number of criteria</u>

PHASE 2

TIER 3	VOLUNTARY	Potential <u>incentives</u>
TIER 4	VOLUNTARY	Potential <u>incentives</u>

THEME: ECOLOGY

TIER 1	MANDATORY	Applicant must <u>achieve all criteria</u>	APPLIES TO
Ecology 1.1	<ul style="list-style-type: none"> Bird-friendly design guidelines for low-rise residential, and mid to high-rise residential, all non-residential, and municipal buildings. 		<ul style="list-style-type: none"> All development
Ecology 1.2	<ul style="list-style-type: none"> Use native, drought-tolerant plants for a minimum 50% of the landscaped area, including trees, shrubs, and herbaceous plants. 		<ul style="list-style-type: none"> All development
Ecology 1.3	<ul style="list-style-type: none"> Introduce no invasive species within the site or along street frontages. 		<ul style="list-style-type: none"> All development
Ecology 1.4	<ul style="list-style-type: none"> Protect or relocate healthy, mature trees that exist within the project boundary. Where trees are removed, new trees are provided to mitigate the lost canopy. 		<ul style="list-style-type: none"> All development
Ecology 1.5	<ul style="list-style-type: none"> All exterior light fixtures are Dark Sky compliant. 		<ul style="list-style-type: none"> All development
Ecology 1.6	<ul style="list-style-type: none"> Create tree planting areas within the site and in the adjacent public boulevard that meet the soil volume and the other requirements necessary to provide tree canopy. 		<ul style="list-style-type: none"> All development
Ecology 1.7	<ul style="list-style-type: none"> Roof areas are provided with one or a combination of the following covering 30% of available roof space: Green Roof, Solar PV, or Cool Roof. 		<ul style="list-style-type: none"> All development

THEME: ECOLOGY

TIER 2	MANDATORY	Applicant must achieve <u>2 out of 5 criteria</u>	APPLIES TO
Ecology 2.1	<ul style="list-style-type: none"> Use native, drought-tolerant plants a minimum 75% of the landscaped area, including trees, shrubs, and herbaceous plants. 		<ul style="list-style-type: none"> All development
Ecology 2.2	<ul style="list-style-type: none"> Where surface parking is provided, plant large growing shade trees that are spaced appropriately having regard to site conditions and have access to a of 30 m³ soil per tree. 		<ul style="list-style-type: none"> All development
Ecology 2.3	<ul style="list-style-type: none"> All street trees are accompanied by the installation of enhanced street tree planting technology, such as permanent irrigation or watering systems that utilize non-potable water sources only, soil cells, etc. 		<ul style="list-style-type: none"> All development
Ecology 2.4	<ul style="list-style-type: none"> Develop an Operational Plan & Maintenance Manual that includes: description of maintenance procedures including techniques for reducing salt use in landscaped and naturalized areas, and tree monitoring plan designed to maximize the survival rates of planted trees. 		<ul style="list-style-type: none"> All development
Ecology 2.5	<ul style="list-style-type: none"> Calculate the embodied carbon and the carbon sequestration within landscape designs. 		<ul style="list-style-type: none"> All development

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WASTE & MATERIALS

THEME: COMPLETE COMMUNITIES

INTENT

To encourage site connectivity with existing, planned, and future public spaces and active transportation networks and to harmonize the GDS with other elements of planning complete communities.

RATIONALE

- Opportunity to reduce GHG emissions from transportation by supporting community design that prioritizes low-carbon and/or active transportation.
- Improving health and wellness for residents by developing sites and neighbourhoods with compact, walkable form and integrated greenspace.

PHASE 1

TIER 1	MANDATORY	Applicant must <u>achieve all criteria</u>
TIER 2	MANDATORY	Applicant must achieve <u>specified number of criteria</u>

PHASE 2

TIER 3	VOLUNTARY	Potential <u>incentives</u>
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THEME: COMPLETE COMMUNITIES

TIER 1	MANDATORY	Applicant must <u>achieve all criteria</u>	APPLIES TO
CC 1.1	<ul style="list-style-type: none"> Develop a Transportation Demand Management (TDM) plan. 		<ul style="list-style-type: none"> All development
CC 1.2	<ul style="list-style-type: none"> Provide access to a variety of park and open space options that align with Aurora's Official Plan, which comply with Public Works Operations and maintenance requirements. 		<ul style="list-style-type: none"> All development
CC 1.3	<ul style="list-style-type: none"> Accessibility measures and design features are provided in accordance with the Accessibility for Ontarians with Disabilities Act (AODA). 		<ul style="list-style-type: none"> All development
CC 1.4	<ul style="list-style-type: none"> Complete a cultural heritage impact assessment that describes cultural heritage resources and potential impacts of development. Recommend strategies to mitigate negative impacts, where the alteration, development, or redevelopment of property is proposed on, or adjacent to the cultural heritage resources. 		<ul style="list-style-type: none"> All development

THEME: COMPLETE COMMUNITIES

TIER 2	MANDATORY <small>Applicant must achieve <u>3 out of 9</u> criteria</small>	APPLIES TO
CC 2.1	<ul style="list-style-type: none"> Provide missing walkway connections between the site and existing public walkways. All new and existing streets are designed with continuous sidewalks or equivalent provisions in accordance with Aurora's Engineering Standards and Design Criteria. 	<ul style="list-style-type: none"> All development
CC 2.2	<ul style="list-style-type: none"> Provide carpool or shared-use vehicle parking spaces. 	<ul style="list-style-type: none"> All development
CC 2.3	<ul style="list-style-type: none"> Provide bicycle parking spaces in accordance with provisions in the Zoning By-law. 	<ul style="list-style-type: none"> All development
CC 2.4	<ul style="list-style-type: none"> Provide adequate space for residents to perform repairs and maintenance of bicycles. 	<ul style="list-style-type: none"> All development
CC 2.5	<ul style="list-style-type: none"> Provide public and/or private amenity spaces, where appropriate for multi-residential development and non-residential development, particularly development within Intensification Areas. Ensure amenity spaces include covered outdoor waiting areas for pedestrian comfort and protection from inclement weather. 	<ul style="list-style-type: none"> All mid to high-rise residential, all non-residential, and municipal development in specific Town- areas (e.g., Major Transit Station Area).

THEME: COMPLETE COMMUNITIES

TIER 2	MANDATORY	Applicant must achieve <u>3 out of 9 criteria</u>	APPLIES TO
CC 2.6	<ul style="list-style-type: none"> At least 70% of dwelling units and non-residential entrances are within 350 metres walking distance to the nearest transit stop, where feasible. 		<ul style="list-style-type: none"> All development
CC 2.7	<ul style="list-style-type: none"> Monthly public transit passes are provided to residents and businesses at no cost for a minimum of one (1) year including: <ul style="list-style-type: none"> One (1) pass per household or residential unit; and Passes for 10% of employees per business or non-residential units. 		<ul style="list-style-type: none"> All development
CC 2.8	<ul style="list-style-type: none"> Permanent and accessible urban agriculture space of at least 1m² per dwelling unit is allocated within an 800 m walking distance of all dwelling units through one or more of the following: Community garden, Edible landscaping, with labeled plants and signage containing harvesting guidelines, Small farm or orchard, Private garden, rooftop garden 		<ul style="list-style-type: none"> All development
CC 2.9	<ul style="list-style-type: none"> A secondary dwelling unit is provided in accordance with Aurora's Zoning By-law no. 6000-17. 		<ul style="list-style-type: none"> Low-rise residential

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WASTE & MATERIALS

THEME: WASTE & MATERIALS

INTENT

To encourage waste diversion from landfill through reuse strategies, local purchasing, source reduction, and the tracking and documentation of these activities.

RATIONALE

- Responsible management of waste is an essential aspect of sustainable building.
- Embodied carbon is a significant contributor of carbon emissions (emissions from pre-operation activity).

PHASE 1

TIER 1	MANDATORY	Applicant must <u>achieve all criteria</u>
TIER 2	MANDATORY	Applicant must achieve <u>specified number of criteria</u>

PHASE 2

TIER 3	VOLUNTARY	Potential <u>incentives</u>
TIER 4	VOLUNTARY	Potential <u>incentives</u>

THEME: WASTE & MATERIALS

TIER 1	MANDATORY	Applicant must <u>achieve all criteria</u>	APPLIES TO
Waste & Materials 1.1	<ul style="list-style-type: none">Develop and apply a waste stream management narrative and plan focusing on waste diversion. Provide documentation that affirms that management of Construction and Demolition Waste is in compliance with Provincial Regulation O. Reg. 103/94: Industrial, Commercial and Institutional Source Separation Programs.		<ul style="list-style-type: none">All development
Waste & Materials 1.2	<ul style="list-style-type: none">Provide separated space in all kitchen suites for segregated collection of garbage, recycling and organic waste.		<ul style="list-style-type: none">All development

THEME: WASTE & MATERIALS

TIER 2	MANDATORY	Applicant must achieve <u>2 out of 7 criteria</u>	APPLIES TO
Waste & Materials 2.1	<ul style="list-style-type: none">A minimum 25% of recycled/reclaimed materials are used for buildings and/or infrastructure including roadways, parking lots, sidewalks, unit paving, etc.		<ul style="list-style-type: none">All development
Waste & Materials 2.2	<ul style="list-style-type: none">Divert at least 75% of total construction and demolition material. Diverted material must include at least four material streams.		<ul style="list-style-type: none">All development
Waste & Materials 2.3	<ul style="list-style-type: none">Building is designed and built incorporating Portland-limestone cement and/or tall wood.		<ul style="list-style-type: none">All development
Waste & Materials 2.4	<ul style="list-style-type: none">Provide a dedicated collection area or room for household hazardous waste and/or electronic waste.		<ul style="list-style-type: none">Mid to high-rise residential and all non-residential development.
Waste & Materials 2.5	<ul style="list-style-type: none">Conduct a materials emissions assessment of the upfront embodied carbon of structural and envelope components.		<ul style="list-style-type: none">All development

THEME: WASTE & MATERIALS

TIER 2	MANDATORY <small>Applicant must achieve <u>2 out of 7</u> criteria</small>	APPLIES TO
Waste & Materials 2.6	<ul style="list-style-type: none"> Provide dedicated areas accessible to waste haulers and building occupants for the collection and storage of recyclable and compostable materials for the entire building. Collection and storage areas may be separate locations. 	<ul style="list-style-type: none"> Mid to high-rise residential and all non-residential development.
Waste & Materials 2.7	<ul style="list-style-type: none"> Include at least 5 of the 7 requirements listed below in the project product specifications: <ul style="list-style-type: none"> Concrete Mix: minimum 25% supplementary Cementous material Rebar/ Structural Steel/ Metal Decks: Minimum 50% recycled content Flooring: meet FloorScore or USGBC equivalent program Paints/ Coatings/ Adhesives/ Sealents: Meet SCAQMD rule 1113 and 1168 Low VOC content thresholds Plywood: no added formaldehd (NAF) or ultra-low-emiting formaldehyde (ULEF) Red List Materials: Do not use any materials from the International Living Future Institute's Red List 	<ul style="list-style-type: none"> All development

Phase 2

Implementation TBD

TIER 3

VOLUNTARY

TIER 4

VOLUNTARY

THEME: ENERGY

TIER 3	VOLUNTARY	APPLIES TO
Energy 3.1	<ul style="list-style-type: none">Design and construct the building to include high performance components addressing air tightness, glazing, HRV and heat pumps.	<ul style="list-style-type: none">All development
TIER 4	VOLUNTARY	APPLIES TO
Energy 4.1	<ul style="list-style-type: none">Design, construct, and certify the building in accordance with net zero standard (third-party compliance).	<ul style="list-style-type: none">All development
Energy 4.2	<ul style="list-style-type: none">District energy or other communal energy system or combined heat and power system is constructed for heating and/or cooling.	<ul style="list-style-type: none">All development

THEME: WATER

TIER 3	VOLUNTARY	APPLIES TO
Water 3.1	<ul style="list-style-type: none">• BMPs replicating natural site hydrology processes, retain (e.g., infiltrate, evapotranspire, or collect and reuse) on-site the runoff from the developed site; reducing the local rainfall event runoff by an additional 15%, using low-impact development (LID) and green infrastructure (GI) practices.	<ul style="list-style-type: none">• All development
Water 3.2	<ul style="list-style-type: none">• Install rainwater harvesting and re-circulation/reuse systems for outdoor irrigation and outdoor water use, reducing potable water use for irrigation by at least 80%.	<ul style="list-style-type: none">• All development
Water 3.3	<ul style="list-style-type: none">• At least 75% of new hard surfaces (e.g., parking areas and walkways, not including buildings) are constructed using permeable materials.	<ul style="list-style-type: none">• All development

THEME: ECOLOGY

TIER 3 VOLUNTARY		APPLIES TO
Ecology 3.1	<ul style="list-style-type: none"> Provide a minimum 50% available roof space as biodiverse green/vegetated roof. 	<ul style="list-style-type: none"> All development
Ecology 3.2	<ul style="list-style-type: none"> Plant the landscaped area using a minimum 100% native or biodiverse plantings. 	<ul style="list-style-type: none"> All development
Ecology 3.3	<ul style="list-style-type: none"> Larger growing shade trees, relative to the requirements for large growing shade trees in Tier 2, are planted along street frontages. 	<ul style="list-style-type: none"> All development
TIER 4 VOLUNTARY		APPLIES TO
Ecology 4.1	<ul style="list-style-type: none"> Enroll the project in the Climate Positive Design Challenge and use the Pathfinder tool to calculate the years to carbon positive design. Incorporate low-carbon sustainable material alternatives to the proposed landscape design. 	<ul style="list-style-type: none"> All development

THEME: COMPLETE COMMUNITIES

TIER 3	VOLUNTARY	APPLIES TO
CC 3.1	<ul style="list-style-type: none">Implementation and installation of all TDM requirements.	<ul style="list-style-type: none">All development
CC 3.2	<ul style="list-style-type: none">Include as part of the private development a community hub where people come together to receive services or meet one another, for a range of health and social services, cultural, recreational, and/or community needs.	<ul style="list-style-type: none">Mid to high-rise residential, all non-residential development
CC 3.3	<ul style="list-style-type: none">Provide a refuge area with heating, cooling, lighting, potable water, and power available and 72 hours of back-up power to the refuge area and essential building systems.	<ul style="list-style-type: none">Mid to high-rise residential, all non-residential development

THEME: WASTE & MATERIALS

TIER 3	VOLUNTARY	APPLIES TO
Waste & Materials 3.1	<ul style="list-style-type: none">A minimum 50% of recycled/reclaimed materials are used for buildings and/or infrastructure including roadways, parking lots, sidewalks, unit paving, etc.	<ul style="list-style-type: none">All development
Waste & Materials 3.2	<ul style="list-style-type: none">Divert at least 95% of the total construction and demolition material. Diverted material must include at least four material streams.	<ul style="list-style-type: none">All development
Waste & Materials 3.3	<ul style="list-style-type: none">Use Portland-limestone cement and/or tall wood and maximize the amount of recycled content in concrete and steel. Calculate and report the embodied carbon in the building structure and envelope.	<ul style="list-style-type: none">All development

THEME: WASTE & MATERIALS

TIER 4	VOLUNTARY	APPLIES TO
Waste & Materials 4.1	<ul style="list-style-type: none"> In addition to Tier 3 requirements for Portland-limestone cement and tall wood, include some level of bio-based materials in building structure. 	<ul style="list-style-type: none"> All development
Waste & Materials 4.2	<ul style="list-style-type: none"> Include all 7 requirements listed below in the project product specifications: <ul style="list-style-type: none"> Concrete Mix: minimum 25% supplementary Cementous material Rebar/ Structural Steel/ Metal Decks: Minimum 50% recycled content Flooring: meet FloorScore or USGBC equivalent program Paints/ Coatings/ Adhesives/ Sealents: Meet SCAQMD rule 1113 and 1168 Low VOC content thresholds Plywood: no added formaldehd (NAF) or ultra-low-emiting formaldehyde (ULEF) Red List Materials: Do not use any materials from the International Living Future Institute's Red List 	<ul style="list-style-type: none"> All development

Draft Implementation Expectations



PRIME STRATEGY & PLANNING

Draft Implementation

Continuous monitoring, review, and updating of the GDS

- **Phase 1** will be **implemented ~ January 2022 onward** (Council approved).
- The Town will further study **incentives to support implementation of Phase 2.**
- The Town will **track, monitor, and review the GDS.** We will provide recommended action items for continuous monitoring in our final report, including:
 - GDS metrics achieved in reports to Council for individual applicable development proposal.
 - Refining the GDS as needed to address legislative and provincial policy changes, local building expectations, etc.
 - Developing additional educational and/or training resources.
 - Providing additional guidance, support, and training to City staff and external stakeholders.

Draft Implementation

Supporting resources for applicants and staff

PRIME STRATEGY & PLANNING



- We have begun preparation of a summary GDS handbook to **support staff and applicants with implementation.**
- This handbook includes:
 - Background information to support the GDS.
 - **GDS implementation tables** identifying GDS requirement and application, how to demonstrate compliance, and review by the Town.
 - **Review matrix** identifying when each GDS requirement will be reviewed by Town staff.
 - Monitoring, review, and update recommendations for the GDS.

Staff Training Objectives



PRIME STRATEGY & PLANNING

Staff Training Objectives

Staff training to facilitate implementation

PRIME STRATEGY & PLANNING



- The purpose of staff training is to:
 - Explain to staff how to use, interpret and implement the GDS.
 - Advise of resources and technical staff training required to implement GDS.
- Staff training sessions will be facilitated in November/ December 2021. Sessions may be organized based on department.

Next Steps



PRIME STRATEGY & PLANNING

In Progress & Next Steps

Where we're headed

- **October 2021**

- Practice Training Exercise with staff to test application of the GDS against development applications submitted to the Town.
- Advance GDS handbook.
- Prepare materials for Staff Training session(s).
- Submit materials for Council report(s).

- **November – December 2021**

- Present to General Committee, Accessibility Advisory Committee, and Environmental Advisory Committee.
- Facilitate two (2) Staff Training sessions to support implementation of GDS Phase 1.
- Present to Council.

- **January 2022 onwards**

- Implement GDS Phase 1 and continued investigation by the Town to support implementation of Phase 2.

Contact

Lisa Prime

Principal & Founder

PRIME Strategy & Planning

lisa@primestrategyplanning.com

Matthew Volpintesta

Senior Policy Planner, Land Use & Real Estate

Town of Aurora

MVolpintesta@aurora.ca

Nadia Dowhaniuk

Head of Research

PRIME Strategy & Planning

research@primestrategyplanning.com

