Office Consolidation
2014 June

THE CITY OF CALGARY

Municipal Development Plan

Adopted by Council
September 2009

NOTE: This office consolidation includes the following amending Bylaws.

Amendment	Bylaw	Date	Description
1	5P2010	2010 February 22	(a) Add text to Section 2.3.5(b) and renumber accordingly.
2	5P2012	2012 January 10	(a) Delete and replace Map 1 entitled “Urban Structure”. (b) Delete and replace Map 2 entitled “Growth and Change”. (c) Delete and replace Map 3 entitled “Primary Transit Network” . (d) Delete and replace Map 4 entitled “Road and Street Network”. (e) Delete and replace Map 5 entitled “Natural Areas and Open Spaces”. (f) Delete and replace Map 6 entitled “Jurisdictional and Major Development Influences”. (g) Delete and replace Municipal Figure 2-5 entitled “Watershed Management”. (h) Delete and replace Figure 2-6 entitled “Energy Intensity Map” . (i) Delete and replace Figure 4-1 entitled “Calgary Retail Sectors and Regional Retail Distribution, by Type”.
3	6P2012	2012 January 10	(a) Delete and replace policy 2.3.5(b) in Section 2.3.5.
4	11P2012	2012 April 9	(a) Delete and replace Map 6 entitled “Jurisdictional and Major Development Influences”and replace with the revised Map 6 entitled “Jurisdictional Areas” and add Map 7 entitled “Major Development Influences”. (b) Delete and replace the third and fourth paragraphs in Section 1.3.2 Alignment in the Region. (c) Delete all references to the “Municipal District of Rocky View” and “M.D. of Rocky View” and replace with “Rocky View County.”
5	16P2012	2012 June 11	(a) Delete and replace Map 2 entitled “Growth and Change”.
6	8P2013	2013 March 18	(a) Delete and replace Map 2 entitled “Growth and Change”.
7	11P2013	2013 April 8	(a) Delete and replace policy text (f) under Section 2.4.3.
8	26P2013	2013 July 22	(a) Delete and replace Map 3 entitled “Primary Transit Network”. (b) Delete and replace Map 4 entitled “Road and Street Network”.
9	46P2013	2014 February 11	(a) After the Table of Contents, add a title page for “Volume 1”. (b) In Section 1.2, after the phrase, “The MDP is organized as follows:”, insert the text: “Volume 1: The Municipal Development Plan” (c) In Section 1.2, after the phrase, “Maps — supporting and aiding in the interpretation of the policies of the MDP.”, insert text: “Volume 2: Implementation Guidebooks Part 1 – New Community Guidebook” (d) In Section 1.4.4 Local Area Plans, delete and replace the first paragraph in its entirety. (e) In Section 1.5 Review of the MDP, delete and replace the first paragraph in its entirety. (f) In Section 1.7 Interpreting the MDP, delete and replace the first paragraph in its entirety. (g) In the Part 2 Introduction – City-wide policies, delete and replace the third sentence of the first paragraph in its entirety. (h) In Section 2.2.1.e, delete and replace the policy in its entirety. (i) In Section 2.3.1 Housing, delete and replace policy b.iii in its entirety. (j) In Section 2.6.4 Ecological networks, delete and replace policy x. in its entirety. (k) In Section 3.1.1 Local Area Plans, delete and replace the title, the first paragraph and policy a. (but not a. i-xi).

Amendment	Bylaw	Date	Description
9 ctnd	46P2013	2014 February 11	(l) In Section 3.3.1 General Activity Centre policies, in the footnote to Table 3-1: Summary of Activity Centre Characteristics, add “and/or Implementation Guidebooks” after Local Area Plans. (m) In Section 3.3.2 Major Activity Centres, delete and replace policy b. in its entirety. (n) In Section 3.3.3 Community Activity Centres, delete and replace policy b. in its entirety. (o) In Section 3.3.4 Neighbourhood Activity Centres, delete and replace policy a. in its entirety. (p) In Section 3.4 Corridors, in the footnote to Table 3-2: Summary of Corridor Characteristics, add “and/or Implementation Guidebooks” after Local Area Plans. (q) In Section 3.4.2 Urban Corridors, delete and replace policy c. in its entirety. (r) In Section 3.4.3 Neighbourhood Corridors, delete and replace policy c. in its entirety. (s) In Section 4.3.2 Agricultural operations, delete and replace policy c. in its entirety. (t) In Section 5.2 A strategic framework for growth and change, in Figure 5-1, add “and Implementation Guidebooks” after ‘Local Area Plans (ASPs, ARPs, Community Plans, etc.)’. (u) In Section 5.2.2 Strategic decisions, delete and replace the last sentence of the second paragraph in its entirety (v) In Part 6 – Glossary, add new terms and definitions (in alphabetical order) to the existing list of definitions. (w) After the Part 7 Maps, add a title page for ‘Volume 2: Supplemental Policies”. (x) Following the title page for Volume 2, add the “New Community Planning Guidebook” as Volume 2, Part 1 of the MDP.
10	1P2014	2014 January 13	(a) Delete and replace Map 1 entitled “Urban Structure”. (b) Delete and replace Map 2 entitled “Growth and Change”. (c) Delete and replace Map 3 entitled “Primary Transit Network” . (d) Delete and replace Map 4 entitled “Road and Street Network”. (e) Delete and replace Map 5 entitled “Natural Areas and Open Spaces”.
11	12P2014	2014 June 19	(a) Insert a new section 4.4 Flood Hazard Areas” after section 4.3.3. Airport Vinicinity Protection Area (AVPA).
12	18P2014	2014 June 10	(a) Delete and replace Map 1 entitled “urban Structure”. (b) Delete and replace Map 3 entitled “Primary Transit Network” . (c) Delete and replace Map 4 entitled “Road and Street Network”. (d) Delete and replace Map 5 entitled “Natural Areas and Open Spaces”.

Amended portions of the text are printed in *italics* and the specific amending Bylaw is noted.

Persons making use of this consolidation are reminded that it has no legislative sanction, and that amendments have been embodied for ease of reference only. The official Bylaw and amendments thereto are available from City Clerk and should be consulted when interpreting and applying this Bylaw.

PUBLISHING INFORMATION

TITLE:	**MUNICIPAL DEVELOPMENT PLAN**
AUTHOR:	THE CITY OF CALGARY
STATUS:	ADOPTED BY CALGARY CITY COUNCIL - 2009 SEPTEMBER BYLAW 24P2009 EFFECTIVE 2010 APRIL 1
PRINTING DATE:	2013 APRIL
ADDITIONAL COPIES:	THE CITY OF CALGARY RECORDS & INFORMATION MANAGEMENT (RIM) DEVELOPMENT & BUSINESS APPROVALS P.O. BOX 2100, STN "M", #8115 CALGARY, ALBERTA T2P 2M5
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Please note that the Municipal Develpoment Plan may be amended from time to time. The entire document, which is as up to date as possible, and amending pages can be downloaded online for printing.

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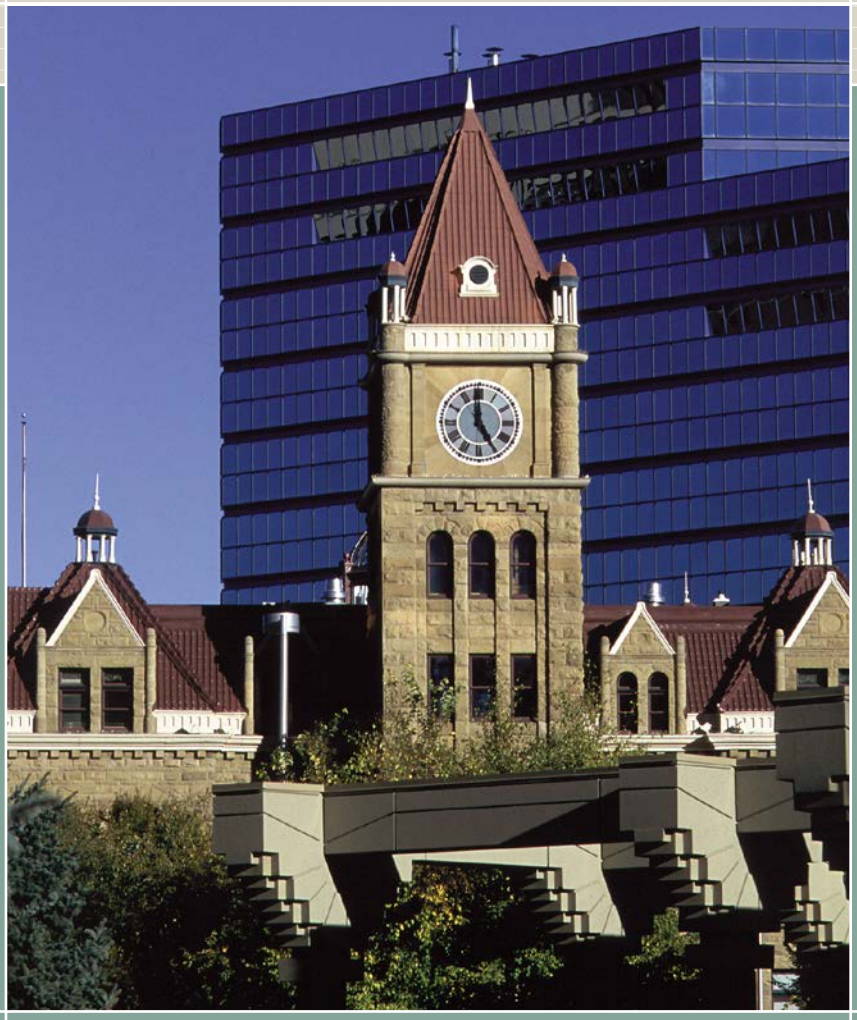
VOLUME 1:
The Municipal Development Plan



Part One

Role and scope of the Municipal Development Plan

Part 1 – Role and scope of the Municipal Development Plan

1.1 Introduction – building on the foundations of *Go Plan* and *The Calgary Plan*

In 2007, City Council approved Terms of Reference for an Integrated Land Use and Mobility Plan to review and update the Calgary Municipal Development Plan (MDP) and the Calgary Transportation Plan (CTP) with a mission to build a more sustainable city.

Sustainability is not new to The City's long-range planning. The MDP and CTP build upon the work of Calgary's previous transportation plan (*The Go Plan* -1995), which recognized the need to better link transportation and land use planning issues into long range planning for Calgary. A major emphasis of the *Go Plan* was to optimize the use of existing road and transit infrastructure by incenting land use and travel behavioural changes.

The Calgary Plan (1998), was a compilation of existing City policies that incorporated relevant direction from the *Go Plan* into land use and growth management policies. However, *The Calgary Plan* did introduce the principles of sustainable development into the statutory planning framework and included policy direction to integrate social, environmental and economic objectives into a co-ordinated decision-making process.

These previous policy documents have been expanded upon in the MDP and CTP. They start by setting a long-term 60-year strategy of a more sustainable city form for Calgary and the transportation networks needed to serve it. This is supported by a 30 year plan for managing growth and change, public investment and land use approval decisions. Finally, short-term, ten year, corporate decision-making, business planning, implementation and accountabilities are aligned to the strategies and plan to support Calgary's move to being a more sustainable city.

1.2 Organization of the MDP

The MDP is organized as follows:

Volume 1: The Municpal Development Plan

Bylaw 46P2013

Part 1 – Role and scope of the MDP

- Alignment of the MDP with provincial legislation, the Calgary Metropolitan Plan and other City policies.
- Implementation of the MDP:
  - How the MDP is to be implemented through various planning processes.
  - The City's duty to regularly review the MDP.
  - Amending the MDP.

Part 2 – City-wide policies

- Broad, city-wide land use and mobility Goals and Objectives and comprehensive policies addressing:
  - Creating a prosperous economy.
  - Shaping a more compact urban form.
  - Creating great communities.
  - Urban design.
  - Connecting the city.
  - Greening the city.

Part 3 – Typologies for Calgary's future urban structure

- Land use, mobility and design policies pertaining to specific geographic areas of the city.

Part 4 – Specific-use policies

- Policies relating to specific land use issues, or development processes.
- Other policy and content areas required by the Municipal Government Act (MGA).

Part 5 – A strategic framework for growth and change

- Polices to manage growth and change and direct implementation and public investment decisions by The City.

Appendices

- Glossary — definition and interpretation of terms used in the MDP.
- Maps — supporting and aiding in the interpretation of the policies of the MDP.

Volume 2: Implementation Gudiebooks
Part 1 - New Community Guidebook

Bylaw 46P2013

1.3 Alignment of the MDP

1.3.1 Municipal Government Act

The MDP is a statutory plan, prepared and adopted by bylaw, in accordance with Section 632 of the MGA. As required by the MGA, the MDP must address:

- Future land use within the city.
- The manner of and the proposals for future development.
- The co-ordination of land use, future growth patterns and other infrastructure with adjacent communities.
- The provision of the required transportation system within the city and in relation to adjacent municipalities.
- The provision of municipal services and facilities.
- Policies compatible with the subdivision and development regulations to provide guidance on the type and location of land uses adjacent to sour gas facilities.
- Policies respecting the provision of municipal and school reserves.
- Policies respecting the protection of agricultural operations within the city.

The MGA allows a municipal development plan to address other matters relating to the physical, social, environmental and economic development of the city. The MDP addresses these matters as they relate to the integrated land use patterns and mobility networks of The City. Such areas include:

- Proposals for the financing and programming of municipal infrastructure.
- Co-ordination of municipal programs.
- Other environmental, social or economic matters that relate to the growth and development of the city.

1.3.2 Alignment in the Calgary Region

The Provincial Land Use Framework requires that local municipal development plans align with regional plans for their respective river basins. The city lies within the area of the South Saskatchewan River Regional Plan (proposed for 2010), and more specifically the Calgary metropolitan area shown in Figure 1-1.

The MDP aligns with the aspirations of the Calgary Regional Partnership and the policies provided in the draft Calgary Metropolitan Plan (CMP). Supporting the growth directions of the CMP is a key policy in the MDP. The City will ensure that the MDP is reviewed regularly and remains current with the CMP.

Further issues of regional alignment may be determined through the joint preparation of Intermunicipal Development Plans (IDPs) for common boundary areas with regional neighbours (Rocky View County, the M.D. of Foothills and the Town of Chestermere). IDPs will be jointly defined and prepared in accordance with the MGA and include objectives specific to the needs of a defined IDP area, including administrative processes, infrastructure and transportation planning, land use interface issues, transition and interface of land uses between Calgary and developments in neighbouring municipalities, protection of growth areas and provisions for annexation.

Regional alignment with Rocky View County is administered through the Rocky View/Calgary Intermunicipal Development Plan (City of Calgary Bylaw 14P2011). This IDP was developed in accordance with the MGA and is designed to identify an area of mutual interest, to minimize land use conflicts across municipal borders, provide opportunities for collaboration and communication, and outline processes

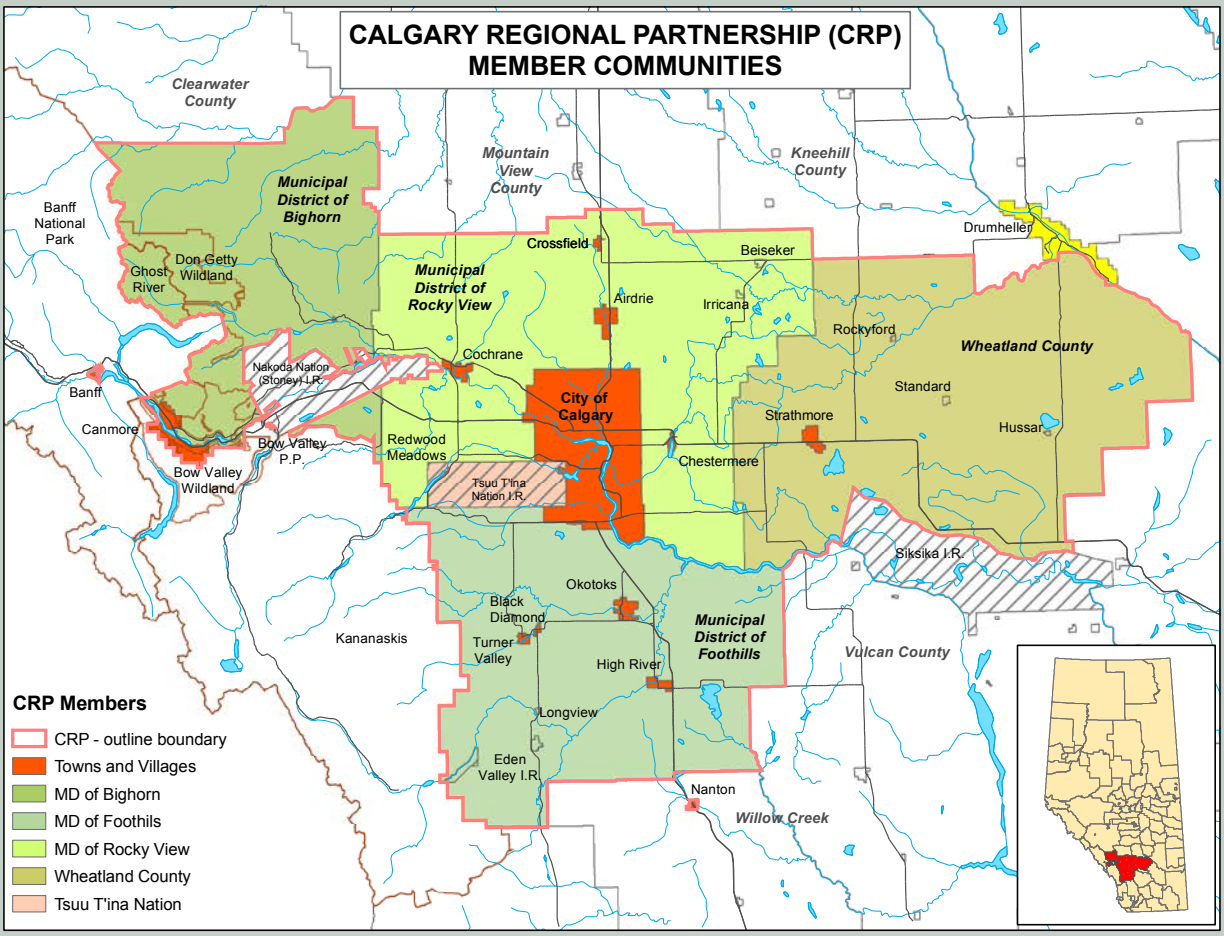


Figure 1-1: Calgary Metropolitan Plan area
Source: Calgary Regional Partnership, 2009

for the resolution of issues that may arise within the area identified in the IDP.

Map 6, Jurisdictional Areas, identifies future growth areas for The City of Calgary. Identified future growth areas may be subject to change corresponding to the originating IDPs from which they are derived. These growth areas are intended to only signal the starting point for future annexation discussions with adjacent municipalities, which typically would occur to meet the requirements of MDP policy 5.2.2 (b). **Bylaw 11P2012**

1.3.3 Alignment with other City policies and principles

In January of 2007, City Council adopted the Sustainability Principles for Land Use and Mobility. The Principles were derived from current City of Calgary policy direction, well recognized Smart Growth principles, and the direction of the Long Range Urban Sustainability Plan for Calgary (imagineCALGARY).

The Sustainability Principles for Land Use and Mobility are:

1. Create a range of housing opportunities and choices.
2. Create walkable environments.
3. Foster distinctive, attractive communities with a strong sense of place.
4. Provide a variety of transportation options.
5. Preserve open space, agricultural land, natural beauty and critical environmental areas.
6. Mix land uses.
7. Strategically direct and manage redevelopment opportunities within existing areas.
8. Support compact development.
9. Connect people, goods and services locally, regionally and globally.
10. Provide transportation services in a safe, effective, affordable and efficient manner that ensures reasonable accessibility to all areas of the city for all citizens.
11. Utilize green infrastructure and buildings.

In November of 2008, City Council approved the Key Directions for Land Use and Mobility, for use in the development of the MDP and CTP. The Key Directions represent the strategic moves that need to be accomplished in order to guide Calgary towards the imagineCALGARY vision and the Sustainability Principles for Land Use and Mobility.

The Key Directions for Land Use and Mobility are:

1. Achieve a balance of growth between established and greenfield communities.
2. Provide more choice within complete communities.
3. Direct land use change within a framework of nodes and corridors.
4. Link land use decisions to transit.
5. Increase mobility choices.
6. Develop a Primary Transit Network.
7. Create complete streets.
8. Optimize infrastructure.

The City has other Council policies that establish strategic direction in matters relating to social, environmental, economic and fiscal service delivery and management. These include Fair Calgary, the Environmental Policy, the Open Space Plan, Calgary Economic Development Strategy and the Long-Range Financial Plan. The MDP has been prepared in context with these policies to ensure that where environmental, social and economic policies impact, or are impacted by, land use and transportation decisions, relevant policies are included within the statutory framework of the MDP. In some cases reference is made to these other policies within the discussion portion of the MDP to provide a broader context for the policies and actions that follow, or to provide reference for implementers to seek information from more detailed policies.

1.4 Implementing the MDP

The MDP becomes effective following Third Reading by Council on the date set by Council in the bylaw. The MDP will be implemented through a variety of means and processes, to achieve the plan objectives. These processes are described below.

In addition, an implementation plan will be prepared outlining actions required by The City to implement the MDP, including the timing and outlining resource requirements. The implementation plan will be updated with each three year business cycle to maintain alignment with the growth and timing objectives contained in the MDP.

1.4.1 Guiding strategic decisions of The City

The MDP provides strategic direction to support corporate decisions around managing growth and change, prioritizing corporate initiatives and public investment. The MDP also helps to direct co-ordination between departments and business units to align directions and work programs to achieve the objectives of the MDP.

1.4.2 Facilitating private sector investment

Buy-in and investment by the private sector market is critical to achieving the vision of the MDP. The MDP provides the vision for growth and change in the city and direction and certainty to both business and communities, to support private sector investment to build housing, commercial and industrial developments.

1.4.3 Supporting community based initiatives

The MDP can help provide city-wide context to support community based planning initiatives. It can also provide guidance on smaller more locally scaled initiatives that support neighbourhood and community development.

1.4.4 Local Area Plans

The City provides a range of policy plans for "local" geographic areas, communities and neighbourhoods. The policies in Volume 1 of the MDP inform these Local Area Plans by providing a city-wide level of direction on land use, urban form and transportation that is interpreted and applied within a local planning context. The policies in Volume 2 of the MDP provide implementation-level guidance that is to be applied in conjunction with Local Area Plans. Local Area Plans include two categories: statutory and non-statutory.

Bylaw 46P2013

Statutory plans are those prepared in alignment with the regulations of the MGA. They are usually prepared at a community scale and include Area Redevelopment Plans (ARP) and Area Structure Plans (ASP). ARPs direct the redevelopment, preservation or rehabilitation of existing lands and buildings, generally within developed communities. ASPs direct the future land use patterns, transportation and utility networks and sequence of development in new communities. The MGA requires that all ASPs and ARPs must be consistent with the MDP.

ARPs and ASPs in existence prior to approval of the MDP are recognized by the MDP as policies providing specific direction relative to the local context. Future reviews of, and amendments to, those ARPs and ASPs will be required to align with the policies of the MDP.

Non-statutory Local Area Plans are also prepared for specific areas of the city, and include plans that apply to future growth corridors, watershed basins, areas of interest across multiple-communities or small redevelopment sites within one community. The City prepares these plans in a similar manner to its statutory plans, including depth of detail, public engagement and processes for plan approval. The non-statutory plans

are approved by resolution of Council, following a public hearing. Such plans may include but are not limited to:

- Regional Context Studies.
- Community studies or community design briefs.
- Station area plans – Comprehensive plans for transit-oriented development.
- Corridor land use studies – Comprehensive redevelopment plans for major streets.
- Open space and park plans.

These non-statutory Local Area Plans form an important part of The City's overall planning policy direction and will also be consistent with the MDP and with relevant ASPs and ARPs.

Where Local Area Plans do not exist for a community, or where the Local Area Plan does not provide significant policy direction to inform decision-makers, the MDP, as well as relevant transportation policies and guidelines of the CTP, should be considered to inform community planning solutions.

1.4.5 Outline plan and subdivision processes

The City undertakes detailed planning and design of new communities, or the redevelopment of large areas of existing communities, through the outline plan and subdivision process. This involves design details such as the preservation of environmental areas, open space locations and reserve dedications, development patterns, land use mixes and local street networks.

1.4.6 Land use amendment applications

Not all areas experiencing development pressures have the benefit of a Local Area Plan to provide guidance to a local community or specific application. In such cases, the MDP should be used to provide guidance on the application of an appropriate Land Use District, or identify appropriate land uses.

In areas where an approved ASP or ARP is in effect when making land use decisions, the specific policies and design guidelines of that plan will continue to provide direction. In cases where the ASP or ARP is silent, or does not provide sufficient detail on land use, development or design issues, the MDP should be used to provide guidance on the appropriate land use districts, as deemed appropriate by the Approving Authority.

1.4.7 Development permit applications

The MDP can provide direction and context to support the Approving Authority when making decisions on development permit applications. The MDP policies may be used, as applicable, to guide the use of discretion on land use or design for development permit applications made after approval of the MDP. The MDP also provides guidance within areas identified for long term urban intensification and the appropriateness for "temporary uses".

1.4.8 Urban design

Urban design policies in Part 2 set out the overall urban design vision for Calgary. The policies and guidelines are intended to inform a level of decision-making including Local Area Planning, outline plans, land use amendments and development permits. They are also relevant to city initiated design projects for public realm improvements, street corridors, open space plans, and transit station area planning.

1.4.9 On-going MDP sustainment

Administration is resourced to provide on-going support to internal and external implementers around interpretation and application of the policies, thresholds and targets of the MDP.

The MDP is a living document that The City will keep current by reviewing it regularly, updating and amending it. Administration will also monitor implementation of the MDP and bring forward amendments from time to time to clarify interpretation issues, policy gaps, implementation processes and corporate decisions. Parts 2, 3 and 4 of the MDP have been organized such that future policies can be incorporated into the MDP. Map 1 (Urban Structure) and Map 2 (Growth and Change) will be updated in conjunction with corporate decisions to direct growth and public investment, as defined in Part 5.

Amendments to the MDP will be undertaken in accordance with Section 1.6.

1.5 Review of the MDP

A major review Volume 1 of the MDP should be undertaken every 10 years to ensure that the goals, policy directions, processes, actions, and Core Indicators for Land Use and Mobility consider such factors as current growth forecasts, market trends, overall city and community values and The City's financial capacity. The Volume 2 Implementation Guidebooks will be reviewed for consistency with any policy changes made to Volume 1. The policies of Volume 2 will be reviewed on an on-going basis and amendments may be made as necessary. **Bylaw 46P2013**

1.6 Amending the MDP

Any changes to the MDP will require a bylaw amendment and public hearing.

Opportunities for broader public and stakeholder engagement may be desirable, depending upon the nature of the proposed MDP amendment, potential impacts or anticipated level of public interest generated by the change. Administration will assess and develop appropriate engagement processes for each future MDP amendment.

1.7 Interpreting the MDP

The policies in Volume 1 of the MDP are written to provide direction to multiple aspects of Calgary's land use planning, development and growth management framework. The policies in Volume 2 of the MDP are written to provide implementation-level guidance for specific aspects of Calgary's development. Where there is inconsistency between the two volumes, Volume 1 has precedence over Volume 2. **Bylaw 46P2013**

Within the MDP, "The City" is used to describe The City of Calgary as a municipal government, or corporation, whereas, "the city" and "Calgary" are used to describe the physical area of the municipality.

Most policies are written in the active tense, as deliberate statements or plans indicative of the direction that The City is proposing for future development or desired outcomes. In some of these policies, the word "should" is explicitly used to further clarify the directional nature of the statement (e.g., policies regarding threshold densities of people and/or jobs in Part 3 – Typologies). Policies that use active tense or "should" are to be applied in all situations, unless it can be clearly demonstrated to the satisfaction of The City that the policy is not reasonable, practical or feasible in a given situation. Proposed alternatives must be to the satisfaction of The City with regards to design and performance standards.

In some cases, policies are written to apply to all situations, without exception, usually in relation to a statement of action, legislative direction or situations where a desired result is required. The words "require", "must, "will" or "shall" are used within these policy statements.

The MDP provides a long-term strategy for the future growth of the city. It puts into place a plan and policies that will work towards achieving that strategy over time. No representation is made herein that any particular site is suitable for a particular purpose as shown on maps or implied through policies of the MDP. Site conditions or constraints, including environmental contamination, must be assessed on a case by case basis as part of subsequent development stages.

Implementation, actions and programs identified within the MDP will need to be reviewed within the priorities and municipal financial capacities of current and future City Councils.

The MDP also contains several indicators and associated targets. These city-wide indicators and targets, as identified in Sections 5.2.2 and 5.3, are intended to track overall progress towards achieving the goals and objectives of the MDP and CTP. The targets are not intended to be applied to the performance of individual Local Area Plans and land use applications.

Part Two

City-wide policies

Part 2 – City-wide policies

The city-wide policies presented in this section are the integrated land use and mobility policies of the MDP. They are the policies that guide growth and change across the city as a whole and speak to the kind of city Calgarians want for the future. *The policies also have relevance and provide direction across many specific scales of planning in the city, (e.g. Implementation Guidebooks, Local Area Plans, outline plans, land use amendments and development permits).* **Bylaw 46P2013**

The section is organized to align the MDP goals, objectives and policies within the overall context of the decision-making framework (Figure 2-1) that links the vision of imagineCALGARY through to actions that will be required to implement the plan. This framework ensures that the MDP is aligned with the long-term community vision for the city, as well as the actions and indicators. Each serves a purpose within the MDP and provides different degrees of direction to implementers and decision makers.

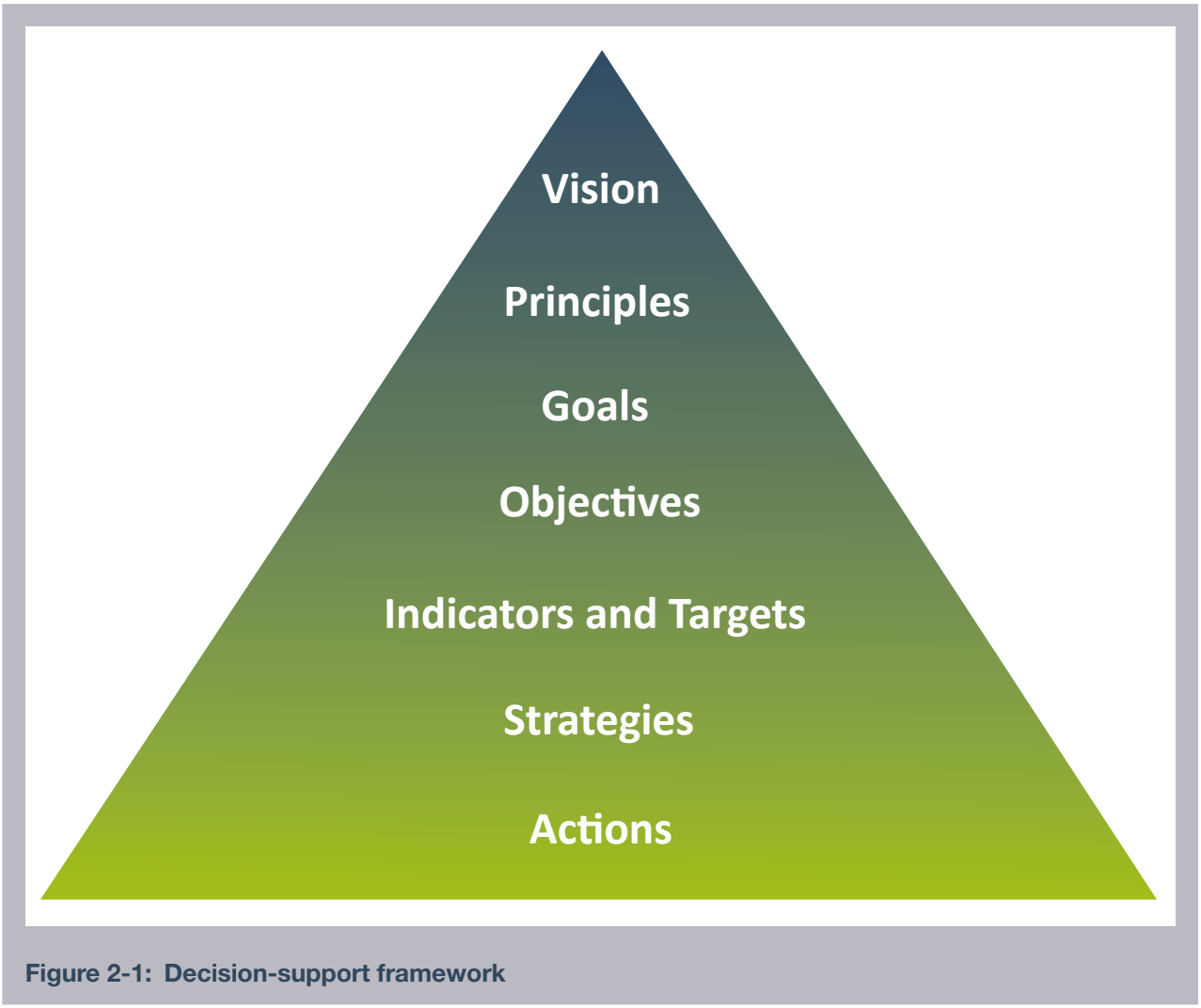


Figure 2-1: Decision-support framework

2.1 A prosperous economy

Goal Build a globally competitive city that supports a vibrant, diverse and adaptable local economy, maintains a sustainable municipal financial system and does not compromise the quality of life for current and future Calgarians.

Supports

Key Direction #1: Achieve a balance of growth between established and greenfield communities.
Key Direction #2: Provide more choice within complete communities.
Key Direction #4: Link land use decisions to transit.
Key Direction #5: Increase mobility choices.
Key Direction #8: Optimize infrastructure.

International trade flows and concentration of population and employment in urban centres have played pivotal roles in globalizing the world economy. Competition for investment, labour and resources extends beyond regional and national boundaries and occurs between world cities. The Calgary Economic Region (CER) is but one player in the global marketplace.

The driving force behind Calgary's economic growth over the past half century has been the energy industry and Calgary will continue to be Canada's "energy capital", focusing on both renewable and non-renewable energy resources. However, Calgary's economy has also recently diversified with significant local representation in the following sectors:

- Professional scientific and technical services
- Finance, insurance, real estate and leasing
- Business, building and other support services
- Health and wellness
- Research and learning
- Information and communication technologies
- Transportation and logistics
- Manufacturing (with value added)
- Environmental technologies
- Creative industries
- Tourism

The *Calgary Economic Development Strategy,* approved by City Council in 2008, identifies these sectors as the key drivers that will continue to support business investment and job creation in Calgary over the long term and attract international in-migration, population growth and demand for housing, services and mobility. In the shorter term, Calgary's population is expected to experience a significant demographic shift with the labour force comprising more elderly persons and relatively fewer young people. This will impact businesses' ability to attract and retain employees. It will also impact local housing needs, travel patterns and service delivery to the community, all of which may result in rising costs incurred by The City.

"To the extent that western Canadians get this [density supported by public transit] right we will be ahead of our international competitors; to the extent that we get it wrong, we will fall behind in the race to sustain economic prosperity and the quality of life to which it contributes."

Source: Canada West Foundation, March 2009

A prosperous city and sustainable urban growth

Responsible governments plan for long-term sustainability of the local economy. They serve current and future generations within the constraints of limited resources. Creating a competitive and enduring city means ensuring that the urban economy and urban form:

- Are resilient and adaptable to future economic cycles and unanticipated shocks.
- Support the financial strengths of the municipality.
- Preserve a good quality of life for citizens.
- Respect the region's natural environment.

Planning for the future growth, maintenance and the type of built environment of the city have significant long term implications for public spending. Therefore, the urban form and how, and where, Calgary grows become significant components of The City's overall economic policy.

Key economic principles that will inform the future framework for growth and change in the city are:

1. People are the greatest asset of a city. Calgary needs to:
   - Maintain an educated and diverse labour force.
   - Keep the labour force healthy and safe.
   - Provide a good quality of life for citizens.
   - Attract newcomers (both people and business).
2. A vibrant economy attracts business investment. Calgary needs to create:
   - An environment where the local economy can be reasonably resilient and adaptable to economic cycles and emerging global trends.
   - An environment where the local economy's global competitiveness is enhanced.
   - Efficient and cost-effective mobility linkages between business centres.
   - High-quality business locations.
3. The inter-dynamics of the three orders of government (municipal, provincial and federal) impact The City, its cash flow and the quality of life of Calgarians. Calgary needs to:
   - Influence regional, provincial and national economic policy decisions that impact cities.
   - Enhance and promote its competitive advantages in environmental protection and sustainability regionally, nationally and globally.
4. A municipal government provides services efficiently and equitably in a way that does not compromise the quality of life for future generations. The City needs to:
   - Maintain sustainable finances and reduce timing between public infrastructure investment and resulting revenues.
   - Provide and maintain affordable, efficient and environmentally balanced infrastructure, services and facilities.

2.1.1 Creating a city attractive to people

Objective Create a city that provides a good quality of life for its citizens; attracts and retains an educated, creative and diversified workforce; and has the financial capacity to support existing and future generations.

The long-term economic health of the city is vital when creating communities where residents and newcomers want to live and work. Equally important is ensuring that existing and future citizens have a good quality of life and will want to remain in the city.

Policies

a. Provide safe and healthy communities with a variety of housing choices, employment opportunities, local retail and services and mobility options.

b. Ensure impacts on overall housing affordability are considered as part of planning decisions.

c. Provide greater housing choices in locations close to job markets and in areas well served by the Primary Transit Network.

d. Provide mobility networks to connect citizens with major employment areas, places of learning and cultural and recreational destinations.

e. Ensure opportunities for life-long learning by supporting institutions offering post-secondary education, job training and skill development.

f. Design community and urban infrastructure that incorporates new technologies to allow home and community-based learning.

g. Facilitate the availability of competitively priced, easily serviceable and developable land for residential purposes, including opportunities for brownfield development.

2.1.2 Creating a city attractive to business

Objective Create a globally competitive city that protects and enhances the key drivers of the local economy and supports on-going business investment and expansion while attracting a growing workforce.

It is beyond the ability of The City to mandate when and how businesses in the sectors outlined above locate or expand. However, The City can enact public policy to ensure that adequate locations for office, institutional, retail and industrial development are protected in strategic and accessible areas that will meet the future needs of these businesses.

Policies

Supporting business and investment

a. Attract and retain suitable business and industry in Calgary by fostering economic diversification and providing a climate that supports and enhances economic activity.

b. Protect the integrity of viable employment and retail areas by supporting the retention and growth of existing businesses.

c. Promote Downtown Calgary as the location of choice for corporate head offices and supporting businesses.

d. Provide locations for office growth outside of the Downtown in areas well connected by public transit.

e. Remain open to innovation and provide flexibility to accommodate the changing needs of business.

f. Create and maintain clear policy direction, application procedures and development standards to reduce uncertainties and risks to the economy.

Supporting healthcare and learning institutions

g. Incorporate the long-term growth needs of existing healthcare and learning institutions within the land use framework and transportation networks of the city.

h. Provide a land use framework to help attract highly specialized businesses in the areas of healthcare, education and research and development.

i. Link existing healthcare and learning institutions to the Primary Transit Network.

j. Support and facilitate new healthcare and learning institutions to locate in areas served by the existing Primary Transit Network.

Supporting the transportation and logistics industry

k. Recognize the role of the Calgary International Airport as a global logistics centre while ensuring city-wide access is retained for public transit, passenger vehicles and goods movement.

l. Identify railroad inter-modal sites as strategic destinations within the regional logistics network and plan for supporting land uses that benefit from proximity to these facilities.

m. Recognize the access needs of the logistics industry by locating warehouses and local distribution centres in areas that provide direct roadway connections to the goods movement corridors.

Supporting manufacturing and industrial businesses

n. Ensure the availability of competitively priced, easily serviceable and developable land for industrial purposes; including providing opportunities for brownfield redevelopment.

o. Protect appropriately located industrial areas from undue encroachment by residential development in cases where the nature of that industrial activity requires separation from residential uses.

2.1.3 Ensuring a sustainable economy

Objective Support the sustainable growth and environmental integrity of Calgary and the Calgary Region.

Co-ordinating efforts between senior governments and municipalities is necessary to ensure efficient and aligned service delivery and to preserve the economic and environmental integrity of the Calgary Region.

As the environment and economy are inextricably linked, land use and mobility choices that affect the economy and growth of the city must take into account the impacts on the natural environment. Climate (greenhouse gas, water, etc.), land (natural areas, biodiversity) and energy issues are linked to the economy and cannot be addressed by one municipality alone. In the case of Green House Gas (GHG) emission reductions, Calgary may need financial assistance to implement a full set of successful initiatives. Co-operation among all orders of government will be needed to protect the environment and thus the economic well-being of the Calgary Region.

Policies

a. Work with external partners, and the federal and provincial governments to ensure environmental and economic sustainability are considered in decisions affecting the region.

2.1.4 Ensuring sustainable municipal finances

Objective The City will ensure that it has the long-term financial capability to support the city being created.

Sustainable municipal finances depend upon the ability of the local economy to support a healthy population and the quality of life in the local area. The ability to continue to meet citizen and business demand for services is, in turn, dependent on a municipality's financial ability to provide and maintain that infrastructure. Prudent planning and use of municipal infrastructure can help the growth cycle continue while minimizing the financial costs. As the level of government that delivers day-to-day services to citizens and businesses, municipalities are strategically placed to provide the majority of public services in the most efficient manner possible. Alignment in service delivery is achieved through co-ordination with federal and provincial governments and neighbouring municipalities. Co-ordination with other organizations providing health, education and social services through their own infrastructure will also assist in maintaining the growth cycle at minimum costs.

Policies

a. Optimize the use of existing infrastructure and services.

b. Manage assets wisely and provide infrastructure that is affordable and cost-effective over the long-term life cycle of the asset.

c. Make planning and capital investment decisions within a corporate strategic framework that identifies infrastructure requirements and financial consequences to The City (see also Part 5).

d. Accommodate growth while avoiding premature investment in municipal infrastructure.

e. Work with other levels of government to secure sustainable sources of municipal funding for both the capital and operational needs of The City.

2.2 Shaping a more compact urban form

Goal Direct future growth of the city in a way that fosters a more compact efficient use of land, creates complete communities, allows for greater mobility choices and enhances vitality and character in local neighbourhoods.

Supports

Key Direction #1: Achieve a balance of growth between established and greenfield communities.
Key Direction #2: Provide more choice within complete communities.
Key Direction #3: Direct land use change within a framework of nodes and corridors.
Key Direction #4: Link land use decisions to transit.
Key Direction #5: Increase mobility choices.
Key Direction #7: Create complete streets.
Key Direction #8: Optimize infrastructure.

Developing Areas

Areas of the city that are still under development, or being planned for future development. They include new residential communities, commercial areas and industrial subdivisions.

Developed Areas

Areas of the city that have already been built out. They include residential communities, commercial areas and industrial/business parks.

This section describes the vision for a long-term pattern of growth and development in Calgary over the next 60 years (as shown on Map 1, Urban Structure), and provides policies that will start to create that form of city over the next 30 years. The critical issues of creating a more compact urban form and reducing the rate of outward growth are addressed in this section. These include:

- Developing a future land use framework that will support transit.
- Creating a vibrant Centre City.
- Providing “complete” communities.
- Directing growth to strategic areas that can support neighbourhood and economic vitality.
- Reinforcing the character, quality and stability of neighbourhoods.
- Balancing growth between Developed and Developing Areas of the city.

The objectives and policies below represent the city-wide land use framework for creating an urban structure for the city that is livable, healthy and prosperous, and will remain so for future generations.

2.2.1 Vibrant, transit-supportive, mixed-use Activity Centres and Corridors

Objective Build and diversify urban activities in Activity Centres and Corridors.

The MDP proposes a more compact urban form for Calgary by locating a portion of new housing and jobs within higher intensity, mixed-use areas that are well-connected to the Primary Transit Network. Such areas define the strategic locations where high-quality transit and a diversity of commercial, residential and service uses currently exist, or where they could be developed over the long term. These locations have the capacity to support future residential and employment intensification in concert with the provision of high-quality urban environments and cohesive community development. Focusing most intensification to defined areas provides more certainty to the development and building industries and makes redevelopment more predictable for existing communities by lessening the impact on stable, low-density areas.

Activity Centres and Corridors will increasingly act as priority locations for:

- Accessible, safe and convenient public transit hubs along the Primary Transit Network.
- A greater variety of housing choices within or near existing residential communities.
- Higher density residential and employment concentrations outside of the Centre City.
- Local opportunities for employment and daily retail and service needs.
- Walkable destinations and local gathering places for adjacent communities.

What is the Primary Transit Network?

It is a permanent network of high-frequency transit services, regardless of mode, that operates every 10 minutes or better, 15 hours a day, seven days a week.

Activity Centres

Areas identified for future Activity Centres generally have a low-density built form today and an existing employment character to build upon. Their parcel size, location and built form provide the potential for comprehensive, higher-intensity development that can be integrated with the Primary Transit Network as well as with adjacent communities. Activity Centres are classified into three types:

Major Activity Centres (MAC) – Major Activity Centres are areas of high job and population growth located in strategic areas central to larger residential catchment areas and linked city-wide by the Primary Transit Network.

Community Activity Centres (CAC) – Community Activity Centres are areas of moderate job and population growth convenient to one or more communities and supported by the Primary Transit Network.

Neighbourhood Activity Centres (NAC) – Neighbourhood Activity Centres are smaller mixed-use areas within neighbourhood districts that are appropriate locations for local job and population intensification, in scale with neighbourhood context.

This hierarchy recognizes that all local contexts are not the same and that varying scales of development opportunity, mix of uses and levels of transit service will be needed to achieve city-wide objectives in a manner sensitive to local communities. Specific land

use, transportation and urban design policies and implementation strategies for each Activity Centre are provided in Part 3 of the MDP.

Corridors

Development opportunities within Corridors relate to their existing role as retail streets and their potential to become places for urban intensification along the Primary Transit Network. The existing block layouts, business types and varied ownership patterns means planning and development may transform incrementally. Corridors are classified into two types:

- Urban Corridor
- Neighbourhood Corridor

The Corridor hierarchy recognizes that all local contexts are not the same and that varying scales of development, the classification of road type, existing uses and levels of transit service will be needed to achieve city-wide objectives in a manner sensitive to local communities. Specific land use, transportation and urban design policies and implementation strategies for Corridors are provided in Part 3 of the MDP.

Policies

Activity Centres and Corridors

a. Direct a greater share of new growth to the Activity Centres and Corridors identified on Map 1, in a manner that:

   i. Provides compact, mixed-use, high-quality urban development;

   ii. Concentrates jobs and people in areas well served by primary transit service, located close to transit stations and stops;

   iii. Achieves the residential and employment intensity thresholds of the applicable Activity Centre and Corridor contained in Part 3 of the MDP;

   iv. Concentrates urban development in a built form that helps to optimize existing public investment, municipal infrastructure and facilities;

   v. Provides a mix of employment, residential, retail and service uses that support the needs of adjacent communities;

   vi. Supports a range of housing opportunities in terms of type, tenure, unit size and affordability; and,

   vii. Creates an urban environment and streets that promote walkability and local connectivity.

b. Plan the development of Activity Centres and Corridors appropriate to the local context by:

   i. Maintaining compatibility, avoiding dramatic contrast in height and scale with low density residential areas through limits on allowable heights and bulk of new development;

   ii. Creating transitions in development intensity between low density residential areas and more intensive multi-unit residential or commercial areas;

   iii. Locating the tallest buildings and highest densities closest to transit stops and stations, and stepping down heights and densities away from transit;

   iv. Massing new development to frame adjacent streets in a way that respects the existing scale of the street;

   v. Limiting the impacts of shadowing on neighbouring streets, parks and properties; and,

vi. Providing public systems, including connecting pathways, that facilitate direct, convenient, comfortable and safe pedestrian movement to transit, recreational uses and other services.

c. Co-ordinate planning and public investment decisions to support the development of a greater variety of medium and higher density housing forms in Activity Centres and Corridors.

d. Support Activity Centres and Corridors as locations for the growth and intensification of major employment uses (including post-secondary and medical institutions) by linking them to the Primary Transit Network.

e. *Identify the appropriate jobs and population ratio and planning area boundaries for Activity Centres and Corridors in the Implementation Guidebooks and/or the Local Area Planning process.* **Bylaw 46P2013**

f. Identify appropriate locations and scales of Activity Centres and Corridors required to support urbanization of the Future Greenfield areas through future Regional Context Study processes.

2.2.2 A transit-supportive land use framework

Objective Establish a land use framework that optimizes population and job growth within walking distance of transit.

The type and quality of transit service that can be economically supported in a community is determined almost exclusively from the land use characteristics of the area. There are four key land use elements that are critical to supporting quality transit service. These elements are:

Density – The intensity of people living or working in the area
Diversity – Mixing land uses
Design – Creating a quality pedestrian environment (see also Section 2.4 Urban design)
Distance – Locating the right uses close to transit

The successful integration of these elements within a local planning context will determine the ultimate success of encouraging transit ridership.

Transit-oriented development (TOD)

TOD is a strategy that promotes higher density, mixed use development within walking distance of a public transit station.

Density

To be cost-effective, transit must reach a sufficiently sized pool of potential riders. Development of population and jobs above minimum density levels is essential, as this affects the quality (frequency of service), range (service choices) and duration (hours of operation) of transit service that can be provided in an area. Minimum thresholds of 100 people or jobs per gross developable hectare are needed within walking distance of a transit network (approximately 400 metres) to support service levels of 10 minutes or less over extended periods of the day.

Where higher orders of employment or residential intensification are desired in MACs or Urban Corridors to support numerous routes of the Primary Transit Network, minimum thresholds of 200 people or jobs per gross developable hectare should be achieved within walking distance of the transit stop or station.

What does an Intensity Threshold look like?

What might the minimum target of 200 jobs and population per hectare (pph), look like on the ground? To illustrate this, three different options are provided: one where there is a balance (50/50 split) between jobs and population; one where there are more jobs than population (75/25 split); and one where there are fewer jobs than population (25/75 split). The appropriate split for each Major Activity Centre (MAC) or Urban Corridor will be determined through a Local Area Plan. Assumptions have been made on residential occupancy rate (two people per unit) and floor space per employee (30 sq. m).

	Jobs	Possible Job Form	Population	Possible Housing Form
Balanced	100 (3000 sq.m. of office)	Low and Mid-rise office	100 pph 50 uph	Townhouses, stacked townhouses
Job Focused	150 (4500 sq.m. of office)	Mid-rise office	50 pph 25 uph	Semi-detached Townhouse
Population Focused	50 (1500 sq.m. of office)	Low rise office, retail	150 pph 75 uph	Stacked townhouse, low-rise to high-rise apartments

How do minimum intensity thresholds compare to density?

Population Intensity (Population/Ha)	Dwellings per Ha		Dwellings per Ac	
	Assuming 2.5 persons per unit	Assuming 1.5 persons per unit	Assuming 2.5 persons per unit	Assuming 1.5 persons per unit
50	20	33	8	13
100	40	67	16	27
200	80	133	32	54

Table 2-1: Comparison of population intensity to housing density

Diversity

A diversity of land uses within transit areas is needed to create local destinations that attract transit riders as well as provide walkable destinations for residents and employees. Generally, a broad variety of residential and employment uses should be provided, supported by local retail, service, recreation and amenity uses. Diversity can also include a mix of uses and intensities between different transit areas, to promote counter-flow transit travel during peak commuter periods as well as support off-peak ridership. This also means providing more employment uses within Activity Centres outside of the Centre City and a broader mix of residential, cultural and entertainment uses in the Centre City and at larger transit hubs within more established areas of the city.

Design

All transit trips begin and end with a pedestrian. Creating a strong pedestrian environment within transit areas is essential to promote walkability. Design should include features that create a direct, convenient and safe pedestrian system that is integrated with transit service. Design must also recognize local context and create urban environments that support and integrate new development with existing communities.

Distance

People are most likely to use public transit if it is accessible and convenient to their travel needs. Higher density development should be focused closest to transit, within a distance that a rider is most likely to walk. This is typically a five minute walk, focussed within a 400 metre distance. A compact urban form focused around transit will promote greater mobility choices. Local Area Plans will determine areas appropriate for intensification.

Policies

Transit-supportive density and uses

a. Locate transit-supportive land uses, including higher-density residential and employment developments, within Activity Centres and Corridors supported by the Primary Transit Network.

b. Increase development densities in proximity of the Primary Transit Network by targeting residential and employment intensities within 400 metres of transit stops, in areas deemed appropriate through the Local Area Planning process and in accordance with the Typology thresholds identified in Part 3.

c. Locate land uses that will generate counter-flow transit ridership during peak-hour commuting times and support non-peak hour ridership.

d. Underutilized commercial and brownfield sites accessible to the Primary Transit Network should be redeveloped over time, where feasible, as mixed-use and/or employment intensive sites.

Design to encourage transit use

e. Ensure that the design and mix of land uses surrounding transit stops and stations support transit and emphasize a pedestrian oriented environment.

f. Manage vehicle traffic within transit station areas and reduce conflicts between pedestrians and vehicles.

g. Develop new mobility management strategies that will reduce the demand for vehicle access and parking.

2.2.3 A vibrant Centre City

Objective Create a liveable, vibrant and diverse Centre City.

The Centre City forms a prominent image of Calgary as an energy and business centre, serving as a focal point for office workers, residents and visitors. This image of the city will be reinforced through ongoing enhancement of the Centre City as a livable, thriving and caring place. The Centre City is expected to undergo significant growth in both residential and employment populations, and will serve as a model of how to achieve high-density residential and employment areas while ensuring an attractive environment and high quality of life. The *Centre City Plan* promotes the Downtown as the strong commercial core well-served by transit, supported and connected by walkable, mixed-use neighbourhoods, and Stampede Park. This plan supports the vision of meeting the needs of a series of unique neighbourhoods while continuing to retain and enhance the vital role that the Downtown and its surrounding neighbourhoods play in the entire city. The MDP provides high-level supporting policy to recognize the Centre City's role within the overall urban structure of the city.

Policies

Centre City

a. Reinforce the Downtown's position as Calgary's principal business centre, premier urban living environment and centre for the arts, culture, recreation, tourism and entertainment.

b. Support the development of distinct, vibrant, mixed-use neighbourhoods in the Centre City, well connected and easily accessible to the Downtown and to one another.

2.2.4 Complete communities

Objective Foster distinctive, complete communities with a strong sense of place.

Calgary's strategy for creating a sustainable city builds on the foundation of accommodating future growth within mixed-use communities of varied intensities at appropriate locations throughout the city. These communities are supported by a well-designed and compact urban form that is respectful of adjacent communities and provides appropriate transition to adjacent development.

The MDP promotes a city where new growth is leveraged to build more complete communities. This means supporting "completeness" in planning for communities, as well as the timely "completion" or build-out of those communities. Complete communities are vibrant, green and safe places, where people of varying ages, incomes, interests and lifestyles feel comfortable and can choose between a variety of building types and locations in which to live, and where daily needs can be met. This strategy supports diversity to ensure

a range of community retail and services, elementary schools, recreation facilities and community associations are more viable and accessible. The diversity within complete communities generates more choice, so that residents have the opportunity to live and remain in their own neighbourhood as their housing needs change over their lifetime. There are choices for businesses to locate across the city in communities or in a variety of employment areas accessible to local residential concentrations and quality transit service.

Policies

Complete communities

a. Support the development of complete communities to ensure a compact and well-designed urban form that efficiently utilizes land and infrastructure, provides housing choices at transit-supportive densities, local services and employment and promotes mobility options.

b. Communities should be planned according to the following criteria for complete communities and provide:

   i. A range of housing choices, covering a mix of built forms and ownership tenures, at densities that support transit viability, local commercial and other services;

   ii. Diversified employment opportunities that are integrated into the community or easily accessible by a number of modes of travel;

   iii. Neighbourhood stores, services and public facilities that meet day-to-day needs, within walking distance for most residents;

   iv. Public transit that is supported by good service and ease of access;

   v. Distinctive, attractive neighbourhoods that feature architectural and natural elements that contribute to a local identity and strong sense of place;

   vi. Public spaces, parks and recreation facilities that provide access to nature, cultural events and social gathering areas, and support sports, relaxation and outdoor activities;

   vii. Spaces for community gardens and local food production;

   viii. Local schools, social infrastructure, places of worship and community services;

   ix. A connected street and mobility network that promotes comfortable, safe and universally-accessible travel;

   x. A healthy natural environment with street trees and greenery, connections to the city's open space system and an integration of local natural systems with an urban development pattern that respects the natural function of the landscape;

   xi. Public infrastructure and services that are provided in a timely fashion and sustained over the long term by stable community populations; and,

   xii. Green infrastructure and energy-efficient community design and site planning (see Section 2.6).

Jobs/housing balance

c. Promote a greater balance of residential and employment within communities and across the city by:

   i. Increasing residential housing opportunities in areas close to existing employment concentrations;

ii. Increasing employment opportunities in areas close to existing residential concentrations; and,

iii. Creating better mobility linkages between existing concentrations of residential and employment populations.

d. Locate and plan new communities to ensure adequate access to employment opportunities within the hierarchy of activity centre and/or corridor areas located to serve the new growth areas.

2.2.5 Strong residential neighbourhoods

Objective Reinforce the stability of Calgary's neighbourhoods and ensure housing quality and vitality of its residential areas.

Residential communities are not static. They will evolve over time as demographics shift and buildings age, offering an opportunity to review and accommodate changing community needs. Understanding this community dynamic can help develop plans and strategies to stabilize local population fluctuations, support predictability for the market, guide public reinvestment and ensure long-term viability of local services and facilities.

Outside of the major focus of the Activity Centre and Corridor areas, low to moderate density infill development can be accommodated to support the efficient use of land, infrastructure and services as well as enhance housing choice and affordability. In many cases, public infrastructure and transit service are already in place to support redevelopment. Calgary's older residential areas present some of the best opportunities to accommodate infill development, increasing the range of housing for families and individuals within areas that take advantage of existing infrastructure, transit and existing amenities such as local retail, schools, parks and community services.

Intensification should be accommodated within existing communities in a sensitive manner. In commercial areas, infill and redevelopment can create more cohesive and vibrant neighbourhoods. Integrating new development with existing buildings can enhance or fill in gaps in the street wall to improve the vitality, appearance and security of streets and public spaces.

The City promotes infilling that is sensitive, compatible and complementary to the existing physical patterns and character of neighbourhoods.

Defining Community and Neighbourhood

The terms "Community" and "Neighbourhood" are both used within the MDP.

The term "Community" is typically used to describe a geographic area of between 5,000 and 20,000 residents, that was planned comprehensively and developed over a period of time. The boundaries of a community are usually used to delineate community associations and statistical data collection boundaries. This term also emphasizes the bonds that link residents to each other and to the neighbourhood they call home, or to a group with which they share a common interest.

The term "Neighbourhood" is used to describe a distinct part of a larger community, containing up to 5,000 people. A neighbourhood is typically considered as an area within walking distance of a local commercial area, school, park, transit station, etc. As "compact, pedestrian friendly and mixed use" areas, the neighbourhood becomes the building block from which enduring settlements are formed.

Policies

Neighbourhood infill and redevelopment

a. Encourage growth and change in low-density neighbourhoods through development and redevelopment that is similar in scale and built form and increases the mix of housing types such as accessory suites, semi-detached, townhouses, cottage housing, row or other ground-oriented housing.

b. Support development and redevelopment that provides a broader range of housing choice in local communities to help stabilize population declines and support the demographic needs of communities.

c. Encourage higher residential densities in areas of the community that are more extensively served by existing infrastructure, public facilities and transit, appropriate to the specific conditions and character of the neighbourhood.

d. Encourage redevelopment that incorporates green infrastructure solutions and shared energy efficiencies (See Section 2.6).

Large redevelopment sites

e. In Developed Areas, require comprehensive plans when large sites (greater than 1.0 hectare in size) become available for redevelopment. To the greatest extent possible, new development should be integrated into the fabric of the surrounding communities.

2.3 Creating great communities

Goal Create great communities by maintaining quality living and working environments, improving housing diversity and choice, enhancing community character and distinctiveness and providing vibrant public places.

Supports

Key Direction #2: Provide more choice within complete communities.
Key Direction #3: Direct land use change within a framework of nodes and corridors.
Key Direction #4: Link land use decisions to transit.
Key Direction #5: Increase mobility choices.
Key Direction #7: Create complete streets.
Key Direction #8: Optimize infrastructure.

This section sets out a framework of policies that focuses on housing, the quality of the physical environment and the amenities and services required for day-to-day, neighbourhood-focused living.

Forecasts indicate that there will be large changes in the coming decades, not only in the total numbers but also in the make-up of Calgary's population profile. Older citizens will make up an increasingly larger proportion of the population and Calgary will become more ethnically diverse. Future citizens will need different housing types, in different locations and configurations. Future growth will also bring clear challenges to providing affordable and quality housing, community services and wider mobility choices for an increasingly diverse population.

In addition to meeting housing demands, The City will strive to maintain strong communities. This means that future growth does not undermine what Calgarians value most in their neighbourhoods, communities and city as a whole. This includes the built and natural heritage, access to safe and attractive parks and public spaces and overall liveability. Preserving the best qualities in Calgary's neighbourhoods and supplementing them with new, sustainable development is a key piece of Calgary's future growth strategy.

Local context, a diversity of land uses and variation in building densities and scales all have significant implications for neighbourhood liveability and investment in public infrastructure and programs. The concept of "great communities" emphasizes these elements and the bonds that link Calgarians to their communities.

Policies in this section are aimed at promoting individual and community health and promoting a good quality of life by:

- Nurturing vibrant, active, healthy, safe and caring communities.
- Pursuing economic and housing diversification in order to make Calgary a city of variety and choice.
- Recognizing and building upon existing neighbourhood character, heritage and cultural identity.
- Providing quality public spaces, parks and other local amenities and leisure, cultural and recreation activities to all Calgarians.
- Designing communities for social cohesion and health and wellness.
- Providing citizens with opportunities to become involved in decision-making processes and effectively engaged in shaping their local communities.

Policies are also provided on a number of social issues that can have direct links to the built form of a city, including public safety, affordable housing and social inclusion.

2.3.1 Housing

Objective Ensure a choice of housing forms, tenures and affordability to accommodate the needs of current and future Calgarians and create sustainable local communities.

Access to adequate and affordable housing is a fundamental component of the quality of life in a city. Factors influencing access include price, supply and the distribution of a variety of housing types. The housing market and different levels of government play vital roles in ensuring that housing choice exists for a range of needs and income levels. The City will ensure that the residential planning framework supports the delivery of housing supply in a range of types and tenures to meet current and future community needs, preferences and financial capabilities.

Through setting public land use and transportation policy, The City exercises significant influence over how and where future housing is provided. Housing policy is addressed on four levels:

- Increasing housing choice across the city.
- Accommodating a mix of dwelling types to meet a full range of housing needs in all communities.
- Facilitating conditions to enable citizens from a wide economic and demographic spectrum to live within a community.
- Minimizing the impact of public decisions on the cost of housing and household mobility.

Neighbourhoods that accommodate a broad range of housing types can be less vulnerable to the consequences of community life cycling (i.e., population gain, peaking, population decline, levelling off). A population base that is relatively stable over the long term helps to ensure that community facilities (e.g., schools, retail and recreational facilities, community associations) and public services (e.g., personal and community services, medical services) are maintained and fully utilized. A limited range of housing choices can result in some residents leaving their community if their housing needs can no longer be met. Given Calgary's projected demographic changes, this becomes increasingly likely as people age or household composition changes and residents are no longer able, or wish to maintain a single-detached home. Existing communities that have the capability to add new housing units and compensate for declining populations tend to retain or regain their vitality, as evidenced in Calgary's inner-city communities. As well, new communities that are planned and built from the outset to include a wider variety of housing choices may avoid future population swings and ensure long term stability.

Policies

Housing diversity and choice

a. Provide for a wide range of housing types, tenures (rental and ownership) and densities to create diverse neighbourhoods that include:

   i. A mix of housing types and tenures, including single detached, ground-oriented (e.g., duplexes, row houses, attached housing, accessory dwelling units and secondary suites), medium- and higher-density and mixed-use residential developments; and,

   ii. A range of housing choices, in terms of the mix of housing sizes and types to meet affordability, accessibility, life cycle and lifestyle needs of different groups.

b. Promote a broader range of housing choice for all ages, income groups, family types and lifestyles by:

   i. Encouraging housing opportunities for low- and moderate-income households in all communities;

   ii. Promoting innovative housing types, such as co-housing, live/work and cottage and carriage housing and accessory dwelling units, as alternative means of accommodating residential growth and providing affordable housing options; and,

   iii. *Including supportive land use policies and development strategies in the Implementation Guidebooks and/or in Local Area Plans that encourage the provision of a broader range of housing affordable to all income levels.*

Bylaw 46P2013

c. Ensure a sufficient land supply for residential development in Developed and Developing Areas to accommodate Calgary's share of regional household growth (see Part 5 of the MDP).

d. Promote methods to efficiently use or adapt the city's existing housing stock to enable changing households to remain in the same home or neighbourhood for many years. Strategies may include allowing accessory units in low-density areas and other methods determined through community planning processes.

Increased opportunities for affordable housing

e. Recognize and encourage affordable housing as an integral part of "complete communities."

f. Create affordable housing by encouraging:

   i. A varied community composition by providing opportunities for small-scale affordable housing to locate in all areas of the city;

   ii. Affordable housing to locate in all areas of the city, with a focus on locations served by the Primary Transit Network and appropriate services, while avoiding an over-concentration of affordable housing in any one area;

   iii. Affordable housing serving families to locate in areas close to parks, schools, recreation facilities and commercial nodes;

   iv. New development and redevelopment to incorporate affordable housing that is visually indistinguishable from market housing;

   v. Affordable housing units of different sizes and types within market residential developments;

   vi. The provision of an adequate supply of rental accommodation across the city that is affordable to low-and moderate-income households; and,

   vii. Partnerships with developers, other orders of government and non-governmental agencies to pursue measures to ensure construction of affordable housing in multi-unit development projects, in new communities and within redevelopment areas.

Special care facilities

g. Accommodate special care facilities within residential and mixed-use communities to provide for a broad range of specialized accommodation and care in order to meet a diverse array of city-wide and community needs, including nursing homes, adult group homes, youth care facilities, rehabilitative homes and transitional facilities.

h. Special care facilities should be small scale in nature and dispersed throughout the city, in a form that fits with local neighbourhood character.

i. Discourage an over concentration of facilities serving one type of need in any community.

Child care services

j. Recognize child care services as an integral part of 'complete communities' and accommodate these services as appropriate within residential communities and workplace contexts.

2.3.2 Respecting and enhancing neighbourhood character

Objective Respect and enhance neighbourhood character and vitality.

The "sense of place" inherent in Calgary's neighbourhoods is a function of their history, built form, landscape, visual qualities and people. Together, the interaction of these factors defines the distinctive identity and local character of a neighbourhood.

The prospect of a more significant portion of future growth being directed to the Developed Areas of the city requires a heightened focus on higher quality standards of urban design and construction that ensures that development builds upon and adds value to the existing character of communities.

Activity Centres and Corridors and other comprehensive redevelopments provide some of the greatest opportunity for positive change. However, significant change can impact adjacent low density residential neighbourhoods. Attention must be paid to ensuring that appropriate local context is considered when planning for intensification and redevelopment.

Policies

a. Respect the existing character of low-density residential areas, while still allowing for innovative and creative designs that foster distinctiveness.

b. Ensure an appropriate transition of development intensity, uses and built form between low-density residential areas and more intensive multi-residential or commercial areas.

c. Ensure infill development complements the established character of the area and does not create dramatic contrasts in the physical development pattern.

d. Ensure that the preparation of Local Area Plans includes community engagement early in the decision making process that identifies and addresses local character, community needs and appropriate development transitions with existing neighbourhoods.

2.3.3 Heritage and public art

Objective Protect historic resources and promote public art.

Historic preservation is part of good city building and community identity. Heritage buildings and historic districts serve to enhance our perspective, understanding and awareness of our past and help to build a sense of identity and pride in our local communities.

Preserving historic buildings maintains a human scale of structure and detail that isn't often achieved in new development. These buildings generally provide a rich range of detail and texture and a diverse and attractive pedestrian environment. Historic preservation also provides tremendous economic and environmental benefits. The reuse of existing structures has significant energy savings. Furthermore, historic structures and districts can stimulate commercial activity and increase tourism activity and spending.

The Calgary Heritage Strategy identifies the following key principles:

Values: Historic preservation is about values. We preserve historic resources because they have value to our community – aesthetic, historic, scientific, economic, cultural, social, natural or spiritual qualities that make a place important or significant for past, present or future generations.

Alignment: To be most effective, historic preservation efforts must be integrated and aligned with overall community and City goals, planning principles, practices and process across all stakeholder groups.

The Alberta Historical Resources Act defines a historic resource as:

"… any work of nature or of humans that is primarily of value for its paleontological, archaeological, prehistoric, historic, cultural, natural, scientific or aesthetic interest including, but not limited to, a paleontological, archaeological, pre-historic, historic or natural site, structure or object."

Policies

Heritage

a. The City will identify and help to protect and manage Calgary's historic resources.

b. Ensure that the protection and enhancement of historic assets in Calgary is based on an understanding of their special character and form part of the wider design and urban development agenda.

c. Identify districts, public spaces and buildings of special historic quality and character, and adopt policies for their protection and enhancement.

d. Encourage owners to conserve and/or enhance Calgary's historic resources, including historic structures, streetscapes, landmarks and viewpoints, parks and gardens, landscapes, topographical and natural features, archaeological sites and artifacts.

e. The City will be a leader in preserving and enlivening historic resources using all tools and mechanisms currently available to a municipality.

f. The City will be a role model for the creative use and adaptive reuse of City-owned heritage buildings, including excellence in maintenance and restoration.

g. Incorporate local history interpretive elements in public realm improvements in communities and historic districts.

Public art

h. Integrate works of art within the public realm, particularly when designing new public buildings infrastructure and public spaces.

i. Encourage private developments to incorporate public art.

2.3.4 Parks, open spaces and outdoor recreation

Objective Create quality public parks, open spaces and other community amenities, and make leisure and recreation activities available to all Calgarians.

Parks and open spaces are special places within the urban environment. These spaces enrich the fabric of our city and provide a unifying framework across neighbourhoods and communities, a means of orientation and special places for gathering, relaxing or active recreation.

Calgary is a city recognized for its vast network of open spaces, consisting of parks, natural corridors, pathways and trail systems that serve many functions. The City will strengthen the connection between its natural areas, public parks and communities to enhance opportunities for outdoor recreation, retain Calgary's natural and cultural heritage and conserve biodiversity and important environmental systems. Together, these promote overall community health and quality of life for all Calgarians.

Calgary's most prominent natural open spaces occur on its ridges and hilltops and along its creeks and riverfronts within the river valley system. The City is committed to protecting the value and quality of these assets and will strive to sustain them while ensuring they remain accessible for the enjoyment and outdoor pursuits of all.

Public art:

Public art is an important component of a healthy and interesting place, contributes to the economy and inspires individual creativity. The City of Calgary Public Art Policy ensures that our visual environment and identity is as intentional, deliberate and carefully considered as other infrastructure systems.

In addition to these natural areas, The City provides quality public parks, open spaces and other community amenities by:

- Protecting, conserving and restoring environmentally significant areas, and providing a sustainable, connected and diverse open space system that represents the natural ecosystem of Calgary the region.
- Protecting, conserving and enhancing urban parks and opens spaces.
- Providing a healthy, well-managed urban forest and natural environment areas.
- Maintaining and improving the quality and distribution of, and public access to, recreation and cultural facilities, open space, parks and natural areas.
- Providing a safe, attractive and comfortable environment through quality landscaping.
- Protecting and promoting an integrated, open-space network to better connect communities. In the communities of Bowness and Montgomery, the multi-use pathway route is not to cross over privately owned land.
- Providing high-quality open space and neighbourhood, community, regional and city-wide recreation opportunities to service new development or redeveloped areas.
- Fully serving Calgarians with a comprehensive range of community services and programs.

Creating and sustaining healthy communities requires promoting active living through the provision of a wide range of accessible recreational programs, services, facilities and amenities. Many types of recreation are provided to serve all age groups and interests. The need for new types of parks may be more critical in some areas of the city due to denser development patterns. The important role that community associations, social recreation groups and civic partners play in providing and maintaining community facilities and programs is also acknowledged.

Policies

A high-quality public park system

a. Provide a high-quality park and open-space system to meet the varying needs of Calgarians.

b. Create a comprehensive and connected park, pathway and open-space system that links neighbourhoods, public parks, plazas and squares and the river valleys.

c. Maintain and enhance the riverfront as an active, liveable, pedestrian/bicycle-oriented amenity.

d. Protect and improve scenic landscapes that enhance the amenity and character of Calgary's river valley park system, other waterways and wetlands, natural tree stands and prominent escarpments.

e. Protect and promote large-scale landscaped and open-space areas that define neighbourhoods and local topography and enhance Calgary's river valley park system.

f. Protect the basic function of city parks and public open spaces, and prevent parkland conversion to other uses.

Land use, location and design

g. Provide neighbourhood parks within a five-minute walk of all residents.

h. Ensure sufficient community open space provision in Inner City and Established Areas by maintaining a minimum of 2.0 hectares of open space per 1,000 residents. Calculations should be applied to logical community clusters where parks and recreation amenities are accessible and shared between communities. Community open space includes areas dedicated for schools; community centres; playfields; outdoor performance spaces; community gardens; and habitat areas that offer public amenity.

i. Plans for new communities should include a hierarchy of parks and public spaces interconnected to adjacent neighbourhoods by pathways and complete streets.

j. Plan land uses adjacent to public parks that are supportive and enhance the vitality of both existing and new open spaces.

k. New development adjacent to the public pathway system should maintain existing connections to pathways or provide new linkages.

l. Encourage higher quality parks near high-density residential buildings to act as a local amenity and places for community gathering, with greater focus on site design qualities than the quantity of park space.

m. Design parks, facilities and recreational centres in a way that is compatible with nearby residential and commercial uses.

n. Locate and design public gathering areas within parks and public open spaces to optimize sun exposure during midday hours.

Inclusive, accessible, safe parks

o. Ensure that all public parks, open spaces and amenities are fully accessible and promote public safety.

p. Ensure public access is maintained or improved to major water bodies, including the Bow and Elbow Rivers and Nose Creek, where appropriate access can be acquired and maintained across public lands or from public roads and pathways.

q. Ensure that all parks, open spaces and amenities are located and designed in accordance with principles of universal access and barrier-free design.

r. Support the design and redesign of parks, recreation and cultural facilities to reflect changing user needs and preferences.

s. Design parks and open spaces to provide opportunities for cultural enjoyment and artistic pursuits.

Outdoor recreation

t. Develop and maintain open spaces, parks, recreational, sport and cultural facilities to provide for active recreation and passive recreational needs that are appropriate for all age groups and abilities.

u. Support linear parks and linkages, where appropriate, to promote connectivity and facilitate walking and cycling.

v. Recognize the role of complete streets and the sidewalk system as another means to provide amenity and recreation opportunities, particularly in dense neighbourhoods such as the Centre City, Activity Centres and Corridors, where additional land for traditional park space is more difficult to assemble.

w. Encourage the provision of outdoor recreational space in private developments, including private schools, institutions, campuses and business parks.

2.3.5 Municipal, school and environmental reserves

The MGA requires a municipal development plan to include policies respecting the provision for reserve lands, including municipal reserves (MR), school reserves (SR) or municipal and school reserves (MSR). These policies include, but are not limited to, the need for, amount of, and allocation of those reserves and the identification of school requirements in consultation with affected school authorities.

The subdivision authority may require certain lands, such as natural drainage courses; lands that are prone to flooding; unstable lands; and strips of land adjacent lakes, streams or other water bodies to be provided as environmental reserves (ER), subject to the provisions of the MGA.

Policies

Municipal and school reserves

a. Require that 10 per cent of lands that are the subject of a proposed subdivision be dedicated for the purpose of providing municipal reserve (MR), school reserve (SR) and/or municipal and school reserve (MSR), in accordance with the provisions of the MGA.

b. *Notwithstanding Policy 2.3.5(a) above, in the case of a strata (volumetric) subdivision of a portion of a building, the Subdivision Authority may consider reducing or eliminating the dedication of reserves or reducing or eliminating the payment of reserve cash-in-lieu, where the following condition is met to the satisfaction of the Subdivision Authority: the redevelopment site consists of a number of small parcels created on a prior subdivision that are required to be consolidated into a single parcel to meet the Alberta Building Code requirements for the building which is to be subsequently subdivided into strata lots.*

Where the Subdivision Authority does not require reserve to be dedicated as land or provided as money-in place of land, a deferred caveat should be registered against the Certificate of Title of the parcel(s) to the satisfaction of the Subdivision Authority. **Bylaw 6P2012, 5P2010**

c. Enable dedication of reserves to occur in the form of reserve land, money in lieu or, if warranted, filing a deferred reserve caveat against the title of the lands being subdivided. The means of reserve dedication will be determined by the Subdivision Authority upon the advice of the Joint Use Co-ordinating Committee.

d. Prioritize the location and allocation of municipal reserve, school reserve, municipal/school reserve land as follows:

   i. Neighbourhood needs – elementary schools, elementary/junior high schools and neighbourhood parks.

   ii. Community needs – junior high schools, community associations, open space linkages and priority environmentally significant lands.

   iii. Regional needs – high schools, pools, arenas, athletic parks and other recreational facilities.

e. Support the dedication of additional municipal reserves where the density of land being subdivided is equal to or more than 30 units per hectare, subject to the limitations of the MGA and the discretion of the Approving Authority.

f. Additional reserve land purchased by The City or the school authorities through the use of the Joint Use Reserve Fund should not be considered to comprise part of the landowner's dedication at the time of subdivision.

Environmental reserves

g. At the time of subdivision, Environmental Reserves (ER) should be provided in accordance with the MGA.

2.3.6 Community services and facilities

Objective Provide for a full range of community services and facilities.

Community services and facilities include community and recreation centres, arenas, community health clinics, community gardens and publicly funded schools and libraries. They are located across the city within both communities and neighbourhoods (as defined in Section 2.2.5). Providing opportunities for a full range of community services and facilities is the shared responsibility of The City and public agencies, with the participation of the development industry.

The presence of local schools is a positive addition to neighbourhood life and an essential component of complete communities. Recreation, which includes sport, arts and culture, physical and leisure activities also plays a key role in fostering active and vibrant neighbourhoods. The principles below represent characteristics of recreation services and community facilities used by The City to achieve active and vibrant neighbourhoods:

Integrated and proactive – Plan for the integration of new facilities, and balance development with redevelopment while satisfying future recreation and facility trends.

Multi-purpose – New and redeveloped/re-purposed recreation facilities will be designed with components that respond to diverse needs, interests, levels of ability and skill level.

Grouping – Group recreation facilities with other community services as appropriate.

Flexible – Ensure, to the degree possible, that facilities are flexible in design, with opportunities to accommodate as wide a range of uses as possible, and to be able to convert them to other uses in the future.

Adaptable – Strive to build and re-purpose facilities that will accommodate a range of sporting activities and artistic skills.

Policies

Community services and facilities

a. Maintain sites with existing public facilities and promote their reuse for new or expanded community services and recreational and educational facilities to meet changing community needs.

b. Ensure that recreation services and facilities are located conveniently to catchment areas of the users and are designed in accordance with the principles of universal design.

c. Optimize the availability of community facilities, including areas for public engagement, personal growth, health and learning.

d. Promote the optimum location of community services and facilities, including emergency services/protective services, recreational and educational facilities to meet community needs.

e. Locate community services and facilities in a manner that integrates with the open space system.

2.3.7 Foster community dialogue and participation in community planning

Objective Promote community education and engagement.

All Calgarians should be provided with opportunities to participate in shaping the future of their community. This means encouraging on-going education, engagement strategies and collaborative neighbourhood planning processes that consider MDP strategies and local community-based aspirations. Community planning is a way to engage, in a meaningful way, local residents and businesses in the future of their community and to provide a local interpretation and implementation of the MDP policies. Community planning initiatives should follow The City's *engage! Policy*.

Policies

Community participation

a. Recognize that community planning processes are critical implementation tools for refining and realizing the vision of the MDP.

b. Work with the broad public and local community groups in planning for the future of local neighbourhoods.

c. Provide for effective community consultation and participation in projects of significance to The City and local communities.

d. Local planning studies will ensure the necessary resources and timeframes to undertake community planning projects in a manner that is responsible, thorough, transparent and includes participatory community planning and consultation.

2.4 Urban design

Goal Make Calgary a livable, attractive, memorable and functional city by recognizing its unique setting and dynamic urban character and creating a legacy of quality public and private developments for future generations.

Supports

Key Direction #2: Provide more choice within complete communities.
Key Direction #3: Direct land use change within a framework of nodes and corridors.
Key Direction #5: Increase mobility choices.
Key Direction #7: Create complete streets.

Calgary is one of the most dynamic and fastest growing urban centres in Canada providing the opportunity to compete for business and workforce population globally. To compete on an international level, cities everywhere are recognizing the importance of the combination of physical characteristics and public amenities, which contribute to their image as attractive urban places.

Urban design brings together the many elements and areas of expertise involved in great place-making, including land use planning, transportation planning, architecture, landscape design, engineering and development economics. The effective co-ordination of all of these city-making pursuits, through the instrument of urban design concepts and principles, will result in the creation of distinctive and cherished places.

Urban design involves:

- The art of making places that are attractive, memorable and functional for the people who use them.
- The arrangement, shaping, appearance and functionality of urban public space.
- The complete collaboration and co-ordination of all related disciplines, including land use planning, transportation planning, architecture, engineering and landscape design, to achieve striking and effective results.

2.4.1 Creating a beautiful city

Objective Make Calgary a more beautiful, memorable city with a commitment to excellence in urban design.

Cities are made up of collections of great buildings and memorable spaces within and/or between the buildings where people live, work, play and visit. It is this collection – the built environment and its architecture and public spaces – that influences each individual's image of the city. The city can be planned and designed in a way that promotes the creation of civic beauty through a potent combination of architectural interest, material and spatial richness and visual variety. It is the resulting beauty of this combination, together with the legibility and complexity of the pattern, arrangement and scale of the streets spaces and buildings, that has a direct and daily impact on the quality of people's lives.

Memorable places are the special spaces that have a major role in defining and enhancing the image of the city, the legibility of the physical structure and the enjoyment of residents and visitors. Calgary has

Urban Design Elements

Thirteen Urban Design Elements are important to the creation of good urban design:

1. Creativity and innovation
2. Context and appropriateness
3. Connectivity and continuity
4. Functional and aesthetic integration
5. Legibility and accessibility
6. Enclosure and human scale
7. Comfort and safety
8. Quality and durability
9. Vitality and animation
10. Flexibility and adaptability
11. Diversity and variety
12. Sustainability and accountability
13. Wayfinding & orientation

a unique natural setting. Its location, proximity to the Rockies, riverfronts, escarpments, ridgelines and other natural features are memorable, act as landmarks and are special for the value they add to the passive and recreational open space system. Calgary also has certain buildings, public places, artworks and structures such as bridges that act as landmarks. These natural and cultural landmarks provide city reference points that contribute to wayfinding, sense of place and city identity. Enhancing Calgary's unique natural and constructed assets through the appropriate design of our built form and mobility networks can strengthen the prominence of these resources and contribute to making Calgary a more beautiful city.

Policies

Civic image

a. Locate and design significant sites and public buildings to promote their civic importance and, where appropriate, integrate open space that is designed to enhance the quality of the setting and support a variety of public functions.

b. Preserve, enhance and feature important elements of significant architectural, topographical, landscape, scenic, ecological, recreational or cultural interest.

Views and vistas

c. Identify, preserve and enhance scenic routes and principal views of important natural or constructed features.

Gateways

d. Celebrate entranceways and gateways at major entry points to the city, the Centre City and communities through the use of distinctive urban design features, lighting, enhanced vegetation and landscaping, and public art features.

Urban design excellence

e. Promote excellence, creativity and innovation in architecture, landscape, site and overall community design and sustainability in design.

Landscaping

f. Encourage the use of landscaping approaches and design techniques to define public spaces, screen parking areas and adjacent building forms and direct pedestrian movement.

g. Promote and protect trees in street corridors as a means to support pedestrian and amenity areas in commercial districts, soften industrial developments and enhance the attractiveness of residential communities.

2.4.2 Built form

Objective Promote site and building design that contributes to high quality living environments and attractive, walkable, diverse neighbourhoods and communities.

The City recognizes the importance of excellent urban design in the creation of great communities and neighbourhoods. The built form plays a critical role in defining the character and visual qualities of an area. To promote well-designed buildings, streetscape quality and attractive public spaces that reinforce or build unique neighbourhood character, community planning must include a consistent, design-led approach which:

- Creates a sense of place with unique neighbourhood character.
- Promotes design solutions that contribute to high-quality living environments.
- Provides well-connected, pedestrian-friendly and transit-supportive networks.
- Conserves, protects and integrates existing natural, cultural and heritage resources.
- Promotes community safety.

Two issues of particular importance to community design are tall buildings and the redevelopment of large sites within existing communities. A tall building is generally defined as a building whose height is greater than the width of the right-of-way of the street that it fronts. Well designed tall buildings can make a positive contribution to the city and create an interesting skyline. Tall buildings can also act as landmarks which, when appropriately located and designed, can contribute to orientation and way finding within urban areas. Tall buildings, by their nature, can have greater impacts on a larger area than small buildings and, thus, they have a larger civic responsibility and require additional built form principles to be applied to their design.

Policies

Site and building design

a. Promote high quality standards of urban design and construction that ensures that development builds upon and adds value to the existing character of communities.

b. The ground and lower levels of developments should demonstrate a strong relationship to the human scale and contribute positively to the public realm and street.

c. Encourage the development of low and mid-rise buildings to achieve the desired intensity of development.

d. In Developed Areas, require comprehensive plans when large sites (greater than 1.0 hectare in size) become available for redevelopment. To the greatest extent possible, new development should be integrated into the fabric of the surrounding communities.

e. Tall buildings are appropriate in the Centre City, Major Activity Centres, or Community Activity Centres and Urban Corridors where deemed appropriate through a Local Area Plan.

f. Plans and designs for tall buildings should ensure that they are:

   i. Sited and architecturally designed to contribute positively to the skyline of the city;

   ii. Designed with pedestrian scale at the base and a prominent roofline;

   iii. Integrated with adjacent areas by stepping down to lower-scale buildings and neighbourhoods; and,

iv. Considerate of the shadow impacts on adjacent residential areas and parks and open spaces.

2.4.3 Enhancing the public realm

Objective Enhance the public realm and promote pedestrian use through the coherent and collaborative design of streets, building interfaces and public spaces.

The public realm is made up of publicly accessible space both between and within buildings. The public realm includes streets and squares, special places, linkages, interfaces and pedestrian zones which are fundamental to the creation of a functional, visually attractive and safe environment for people.

Pedestrians, bicycles and cars all contribute to lively and interesting streets. Good urban design will encourage and facilitate their co-existence, with pedestrian use given strong emphasis and careful consideration.

Policies

a. Design streets and sidewalks to encourage pedestrian comfort, safety and linkages between neighbourhoods, open spaces and adjacent land uses.

b. Safe pedestrian connections, transit shelters, bicycle parking, benches and clear wayfinding signage should be provided to facilitate all travel modes.

c. Provide sufficient and uniform sidewalk width to allow for comfortable and safe pedestrian traffic, the planting of trees and additional landscaping and wayfinding elements. Sidewalks should enhance the visual character of streets, with landscaping and buffer planting used to reduce the impacts of vehicle traffic.

d. Promote a higher degree of attention to the architectural design and detailing of building edges in areas of interface with heavy pedestrian traffic, notably commercial streets such as Urban and Neighbourhood Boulevards (see CTP Section 3.7 – Complete streets).

e. Consider seasonal factors when designing the public realm.

f. *The design of buildings, open spaces, pathways and parking areas should adhere to the principles of Crime Prevention Through Environmental Design (CPTED) while ensuring light spill into adjacent property or the surrounding environment is minimized. A reduction in light spill should be achieved by minimizing the intensity of light sources and directing light only to where it is needed.* **Bylaw 11P2013**

g. Transit stations should be designed as vibrant, mixed-use areas incorporating public gathering areas and public art.

2.5 Connecting the city

Goal Develop an integrated, multi-modal transportation system that supports land use, provides increased mobility choices for citizens, promotes vibrant, connected communities, protects the natural environment and supports a prosperous, and competitive economy.

Supports

Key Direction #3: Direct land use change within a framework of nodes and corridors.
Key Direction #4: Link land use decisions to transit.
Key Direction #5: Increase mobility choices.
Key Direction #6: Develop a Primary Transit Network.
Key Direction #7: Create complete streets.

The design of the transportation system has a significant impact on the urban form of the city. It contributes to the shape of our communities and employment centres and determines how we are able to move around these places. As a result, the transportation system must perform a wide variety of roles and consider the local context. It must provide more mobility choice for Calgarians through walking, cycling, transit, high occupancy vehicles, single-occupant vehicles, commercial vehicles and emergency services.

This section provides a brief overview of the strategic changes for transportation in Calgary that will support the development of more complete communities and a more compact city, including:

- Transportation choice
- Transit networks
- Complete streets
- Local transportation connectivity

Comprehensive transportation policies for Calgary are provided in the Calgary Transportation Plan (CTP). The CTP provides relevant transportation policies, design guidelines and operational procedures that are closely linked with the MDP policies. Specific mobility policies are included in Part 3 of the MDP and are linked to specific land use "Typologies".

2.5.1 Transportation choice

Objective Maintain automobile, commercial goods and emergency vehicle mobility in Calgary while placing increased emphasis on sustainable modes of transportation (walking, cycling and transit).

A more sustainable city requires an integrated transportation system that supports a compact urban form. Bringing jobs, housing services and amenities closer together encourages non-automobile modes of travel, providing more choice to Calgarians. In most cases, it will not be practical to accommodate all modes of travel equally in every part of the Calgary. More sustainable modes of transportation should be emphasized where they can provide convenient and realistic travel choices. The Transportation Sustainability Triangle shows the relative sustainability of each transportation mode, with walking being the most sustainable.

Private vehicles will continue to be the most common travel choice, accounting for half to two-thirds of all trips in the future. This will be particularly true in outlying areas of the city where most destinations are too far to reach by walking and cycling, and where transit service is not as frequent or efficient. Transportation networks will be designed to manage the demand for vehicle use,

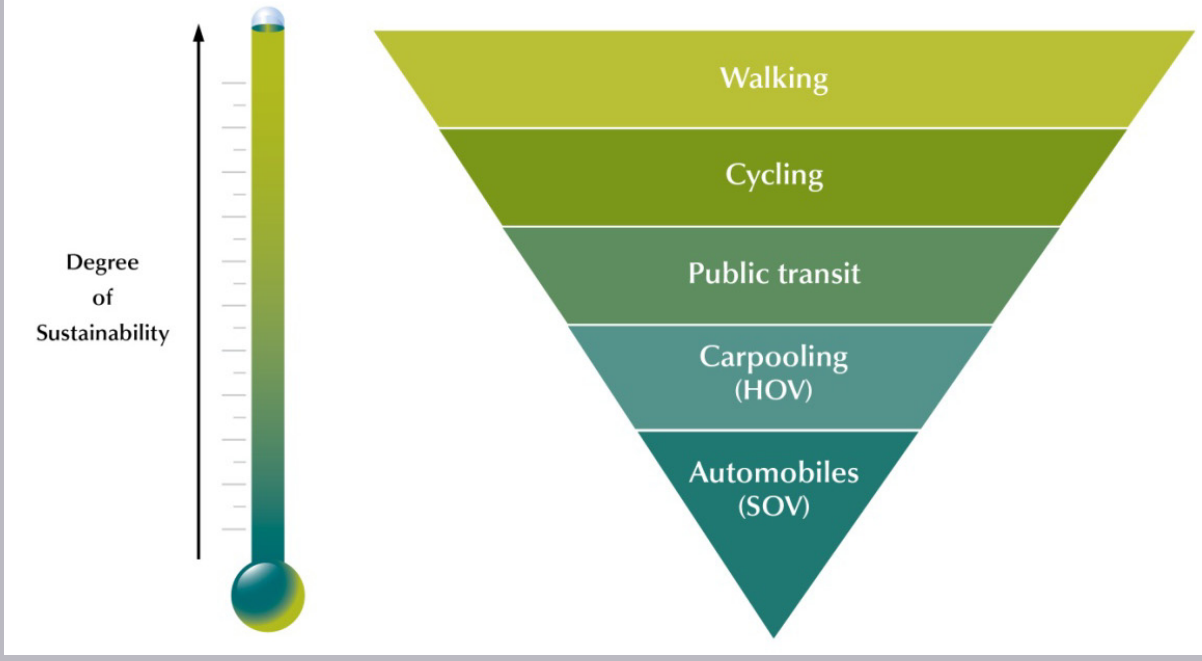


Figure 2-2: The Transportation Sustainability Triangle

and will be optimized using a wide range of tools and new technologies.

Increased walking and cycling activity will occur primarily in the various Activity Centres and Corridors located across the city. Homes, jobs, services and amenities will be located in close proximity to each other in these locations. Therefore, the needs of pedestrians and cyclists should be given the highest priority in Activity Centres and Corridors.

Transit service will offer the most convenient choices to people travelling between Activity Centres, and along the Corridors that connect them. Priority measures will enhance the reliability of transit services within and between these strategic locations, making transit competitive and an attractive option to private automobiles.

The city is a major hub for goods movement in western Canada and the movement of goods and services by air, rail and truck plays an important role in the Calgary economy. The City must consider the needs of goods and services movement with emphasis on access to industrial areas, the airport and intermodal rail facilities.

The needs of emergency services must also be considered carefully in all parts of the city.

Policies

a. Priorities for different transportation modes in each Typology must be assessed in accordance with Council approved policies and plans, including the CTP.

b. Include more sustainable forms of transportation to support the needs of land use and development.

c. Respect the needs of businesses and the impact on local communities in the planning, design and maintenance of goods and service movement in the city.

2.5.2 Transit

Objective Provide a safe, accessible, customer focused public transit service that is capable of becoming the preferred mobility choice of Calgarians.

Base Transit Service will continue to provide good coverage and a basic level of service to all areas of the city. In addition, a well connected Primary Transit Network will link major city-wide destinations and connect Activity Centres and Corridors. Providing a Primary Transit Network, integrated with a high quality urban environment and multi-modal transportation corridors, will offer a high degree of mobility, with an attractive service offering reduced travel times, accessibility, comfort and safety.

The elements of Calgary's new transit system strategy can be summarized as follows:

Base Transit Service

The Base Transit Service focuses on community level service with strong connections and convenient transfers to the Primary Transit Network. Areas served by the Base Transit Service will have a sufficient intensity of population and employment to achieve Council approved minimum performance policies for transit service.

Primary Transit Network

The Primary Transit Network, illustrated in Map 3, comprises a permanent network of high-frequency transit services that will include LRT, Bus Rapid Transit (BRT), streetcars/trams and frequent bus service that will operate every ten minutes or less over an extended time period, seven days a week. Primary Transit will provide for direct travel and seamless connections between transit services and regional transit connections and incorporate the highest standards with regard to level of service, operating speed, connectivity and amenities.

Regional transit

The City will work with the Calgary Regional Partnership to proactively plan regional transit services. The short term regional transit goal is to implement an integrated, regional Bus Rapid Transit (BRT) service that would provide two-way service between key destinations within Calgary and adjacent communities. The long term goal is to provide regional commuter rail service in selected corridors to connect regional growth corridors and nodes.

Linking transit and land use

Providing transit-supportive land uses in close proximity to transit service is critical to attracting ridership and making it a viable and efficient travel choice. Mixing jobs and housing and incorporating appropriate intensities within these transit hubs will be essential in meeting the required population and job thresholds, supported by 10 minute transit service levels.

Additional information on transit can be found in the CTP and Part 3 Typologies of the MDP.

Policies

a. Integrate land use planning with transit investments and service delivery to meet the objectives of both the CTP and MDP.

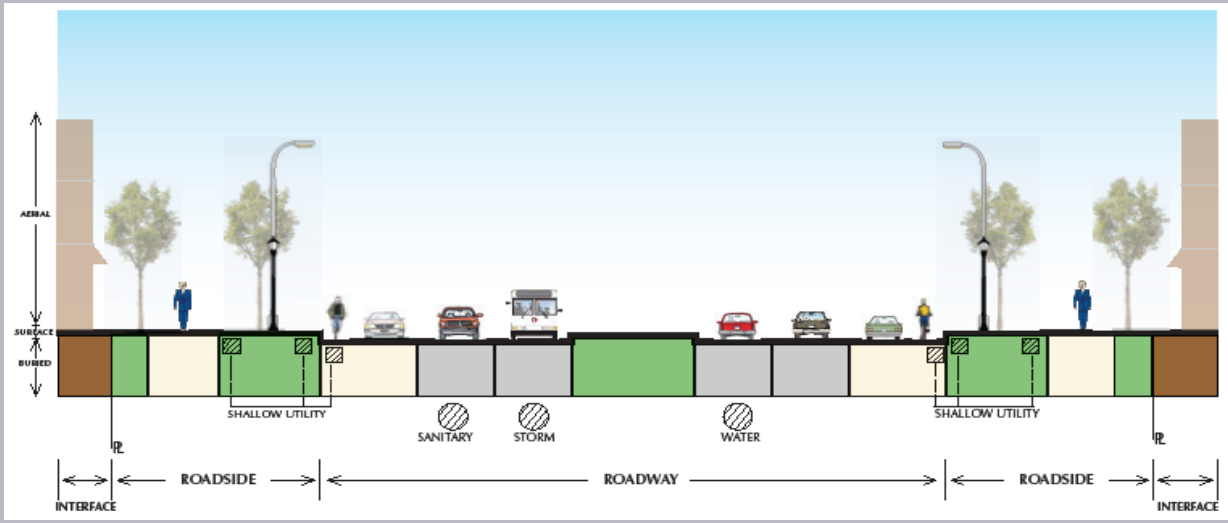


Figure 2-3: Complete Street zones

2.5.3 Complete Streets

Objective Increase the attractiveness, convenience and safety of all modes of transportation by creating a new selection of multi-modal streets that emphasize different modes of transportation, incorporate elements of green infrastructure and function in the context of surrounding land uses.

Complete Streets allow people to move by foot, bike, bus or car; provide places to live, work, shop and play, and support the natural environment and the economy. The main function of roads and streets is to provide a connection between the origin (where we are) and destination (where we want to go). Applying the Transportation Sustainability Triangle means the development of multi-modal corridors that focus on all modes of transportation. Complete Streets also accommodate the movement of emergency services vehicles. Not every street in Calgary will be able to meet the needs of all users. Different types of streets have different functions that should fit into the community context.

The Road and Street Palette

A new Road and Street Palette has been developed to differentiate between more traditional “roads,” which primarily serve long-distance vehicle trips and do not interact with adjacent land uses, and “streets,” which serve a broader range of transportation modes and do interact better with adjacent land uses.

Both streets and roads should provide mobility for a wide range of users, facilitate the movement for goods and services to support the economy and incorporate the elements of green infrastructure to enhance the environment. However, unlike streets, roads do not contribute to place-making since their primary role is the movement of people and goods over long distances at higher speeds. The Complete Streets section of the CTP and Map 4 of the MDP provide more information on Complete Streets and their functions.

Traditionally, the elements within the right-of-way (e.g., travel lanes, medians, sidewalks, underground utilities, streetlights) have been the main focus of transportation

planning and design. However, the right-of-way is only part of the overall Complete Street. Complete Streets include not only transportation and utility components but also green infrastructure and public realm elements. How each of these elements is combined depends on the surrounding land use context and the transportation mode priorities. Adjacent land uses might range from parks and green space to intense corridor development with a mix of commercial and residential buildings.

Complete Streets consist of horizontal and vertical zones, as shown in Figure 2-3.

The quality of the public realm in streets located in Urban and Neighbourhood Corridors is a very important design consideration. The urban design and public realm policies contained in Section 2.4 should be followed when designing Complete Streets to function in the context of the surrounding environment. The CTP also specifies several special street types to support these land uses.

Additional information on Complete Streets, along with policies and design guidelines, can be found in Part 3 of the CTP.

Policies

a. Ensure that land use strategies complement the Complete Street policies contained in Part 3 of the CTP.

2.5.4 Local transportation connectivity

Objective Create better connectivity in future communities and Activity Centres for walking, cycling, and street networks, while also increasing access and reducing response times for emergency services.

Connectivity describes the different route choices available to get from one place to another. In order for walking, cycling and transit to become viable alternatives to vehicle use, destinations must be located conveniently closer together and be more directly accessible to one another.

Research shows that increased connectivity has a number of benefits, including:

- Enhancing public safety by reducing response times for emergency services.
- Improving the health of Calgarians by making walking and cycling viable options for travelling to work or other daily needs.
- Improving accessibility to the regional street system and reducing delays for motorists entering or leaving developments.
- Reducing walking distances to transit stops and improving routing for City services such as Calgary Transit and Waste & Recycling Services.
- Building communities that have the ability to adapt over time.
- Increasing social interaction between residents.

Effective design of local transportation networks, in Calgary and other North American cities, has shown that the land requirements for transportation infrastructure can be minimized using a variety of different street networks, while enhancing connectivity relative to recent curvilinear designs. Within future residential communities, concerns about traffic on residential streets can also be mitigated through the proper design of streets to manage the flow of traffic and discourage undesirable driver behaviour.

Local transportation connectivity policies are included in Part 3 Typologies for Major Activity Centres, Community Activity Centres and Future Greenfields. Additional information on local transportation connectivity, along with policies and detailed guidelines to assess connectivity, can be found in Part 3 of the CTP.

Policies

a. Local transportation connectivity in Major Activity Centres, Community Activity Centres and Future Greenfield developments must be assessed according to the connectivity policies contained in the CTP.

2.6 Greening the city

Goal Conserve, protect and restore the natural environment.

Supports

Key Direction #1: Achieve a balance of growth between established and greenfield communities.
Key Direction #2: Provide more choice within complete communities.
Key Direction #3: Direct land use change within a framework of nodes and corridors.
Key Direction #5: Increase mobility choices.
Key Direction #7: Create complete streets.
Key Direction #8: Optimize infrastructure.

Over the last one hundred years, Calgary has developed within prairie landscape rich with wildlife habitat and species, as well as natural vegetation, blue skies, warm Chinooks, and beautiful river valleys. Calgary has since evolved into an urban centre that has grown into and around these natural areas, but faces environmental challenges as a result of how it has grown and developed.

It is clear that Calgarians want a healthy natural environment and aspire to a lifestyle that will reduce their ecological footprint. They want to manage and protect the air, water, land and biodiversity to benefit themselves and future generations. Environmental stewardship is a shared responsibility of government, business, communities and individual Calgarians. The City of Calgary is committed to leading and inspiring actions to reduce Calgary's ecological footprint and to conserve, protect and enhance the environment locally and regionally.

The City recognizes the need to partner with adjacent municipalities and regional neighbours to develop strategies for protecting watersheds, habitats and biodiversity and to establish ecological networks that benefit the region as a whole.

The MDP provides an opportunity to incorporate environmental objectives into land use, urban form and transportation planning to help to reduce impacts on the environment in areas such as:

- Protecting environmentally-sensitive areas that conserve biodiversity and contribute to people's quality of life, the quality of communities and the quality of ecological systems.
- Creating a more compact urban form that uses less land and, therefore, reduces habitat loss and fragmentation and adverse impacts on wildlife, vegetation and water quality and quantity.
- Reducing the amount of effective impervious areas by incorporating site level and neighbourhood level stormwater source control practices.
- Creating mixed-use developments that provide opportunities for more local travel choices by walking, cycling and transit.
- Facilitating energy-efficient buildings and creating opportunities for renewable energy generation that reduces dependence on fossil fuels.

Policies

a. All land use and transportation planning and development should seek to conserve and protect ecosystems by:

   i. Recognizing the interconnectedness of air, land, water, climate, ecosystems habitat and people;

   ii. Reducing Calgary's ecological footprint by using resources efficiently;

iii. Considering and managing the cumulative impacts of development;

iv. Protecting, conserving and enhancing water quality and quantity;

v. Establishing, protecting and restoring native habitat and areas of biodiversity locally and regionally;

vi. Supporting air quality that is not harmful to human health and the environment;

vii. Reducing the demand for non-renewable resources;

viii. Minimizing waste; and,

ix. Promoting innovative technologies and processes to achieve environmental goals.

2.6.1 Green infrastructure

Objective Connect green infrastructure throughout the urban fabric.

Green infrastructure is an interconnected network of natural green and engineered green elements that provide ecological services (e.g., water filtration, air filtration and food production) in urban environments. *Natural green elements* include trees, wetlands and riparian areas and natural open spaces. *Engineered green elements* include infrastructure (such as green buildings and green roadways) designed to mimic ecological functions or to reduce impacts on ecological systems. Figure 2-4 below shows the range of green infrastructure elements.

Green infrastructure requires a strategic approach to conservation and growth management. For green infrastructure to be fully integrated throughout the city, it must become part of the underlying framework that is used to guide future development patterns. The location and design of parks and open spaces are often considered secondary to traditional utility and road infrastructure, which is planned strategically well in advance of development. Green infrastructure elevates the ecological services that these green spaces provide to the same level as traditional forms of infrastructure.

Integrating green infrastructure into the urban fabric
Source: Design Centre for Sustainability, SALA, UBC

Policies

a. Land use planning and development, urban design and transportation planning processes should incorporate the principles of green infrastructure, which seek to:

   i. Support the ecosystem first – conserving the natural green elements is the priority;

   ii. Use resources efficiently;

   iii. Mimic nature through engineered green systems to reduce the impact on the ecosystem; and,

   iv. Improve the aesthetic (visual) quality and sense of place of all communities and landscapes.

b. Identify and protect strategic parcels, blocks, and corridors that increase ecosystem connectivity, provide opportunities for source control of stormwater infiltration, promote food production and composting, and encourage play and learning.

c. Facilitate the development of eco-industrial/business parks.

d. Integrate green infrastructure horizontally (e.g., parks, roads) and vertically (e.g., buildings) to maximize the provision of ecological services.

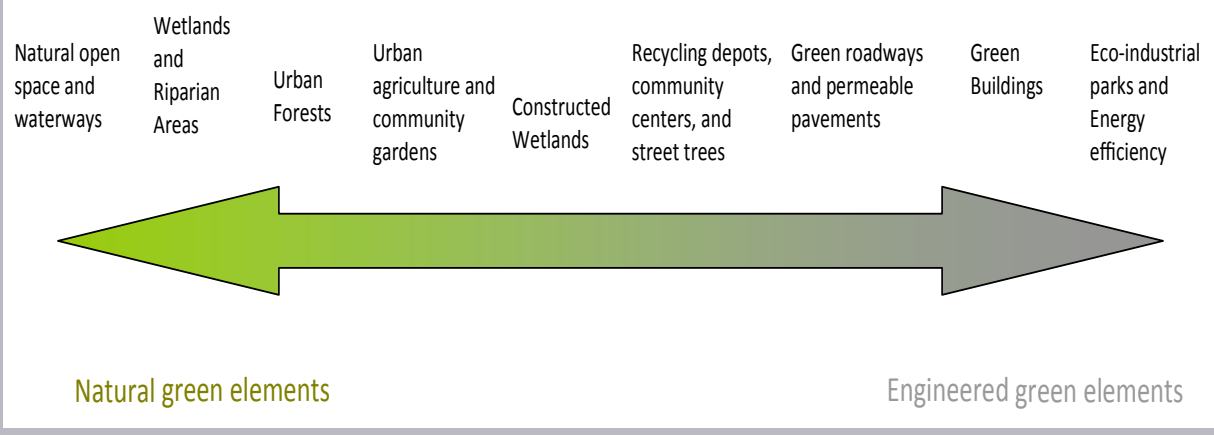


Figure 2-4: Green infrastructure is an interconnected network of natural and engineered green elements

2.6.2 Land

Objective Minimize the amount of land that is taken from undeveloped areas and placed in permanent use for residential, commercial, industrial, transportation or utility corridors.

In order to minimize the land required for development, it is necessary to create a more compact urban form. Creating a more compact urban form has some of the most direct benefits on the natural environment, including:

- Reduced disruption and fragmentation of habitat.
- Reduced impervious surfaces that lead to improved water quality.
- Brownfield redevelopment, which can manage contaminated sites and reduce soil and water pollution and improve community health.

In general, compact development minimizes the conversion of open land to urbanized uses and maximizes retained natural habitat. Compact development also has indirect benefits such as reduced trip lengths and increased choice of travel mode (see also Part 2 MDP).

Policies

a. Reduce the disruption and fragmentation of natural habitats.

b. Designs for new communities should seek to retain greater amounts of undisturbed land in order to promote biodiversity and improve water quality.

c. Encourage the remediation and redevelopment of brownfield sites.

d. Address critical ecological characteristics such as steep slopes and permeable soils as part of optimal site design.

2.6.3 Water

Objective Protect, conserve and enhance water quality and quantity by creating a land use and transportation framework that protects the watershed.

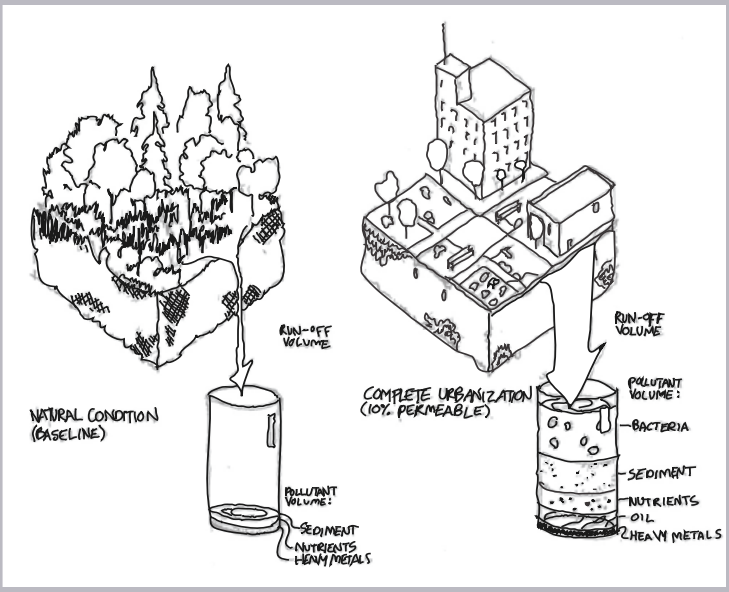
Water is a basic human need, critical for survival. Our rivers and creeks are the most visible part of a complex hydrological system. However, rivers are far more than the waters within their banks - they are the hearts of freshwater systems called watersheds that include all lands that drain to the rivers, as well as groundwater, springs, wetlands, ponds, streams and lakes within those lands. Watersheds reflect both the natural characteristics of their geography and the impacts of human activities within them.

The City recognizes its location within the regional watersheds and the decisions made in Calgary may have impacts on regional water quality.

Watersheds in the Calgary Region are being rapidly developed for residential and industrial purposes. Development alters the balance and quality of water by:

- Change hydrology and flow patterns.
- Increase runoff from precipitation and reduce groundwater recharge.
- Increase water pollution (sediment, nutrients, bacteria, toxins, heavy metals, etc.).
- Increase water acidity.
- Raise water temperatures.

Calgary is situated within six watersheds, including the Bow River, the Elbow River, Nose Creek, Fish Creek, Pine Creek and the Shepard Wetland/Western Headworks Canal (see Figure 2-5). With an increase in severe weather patterns, including floods and droughts, decreasing freshwater resources and increasing land use changes, Calgary is becoming increasingly vulnerable to climatic changes.



Impervious Land as Indicator of Ecological Health

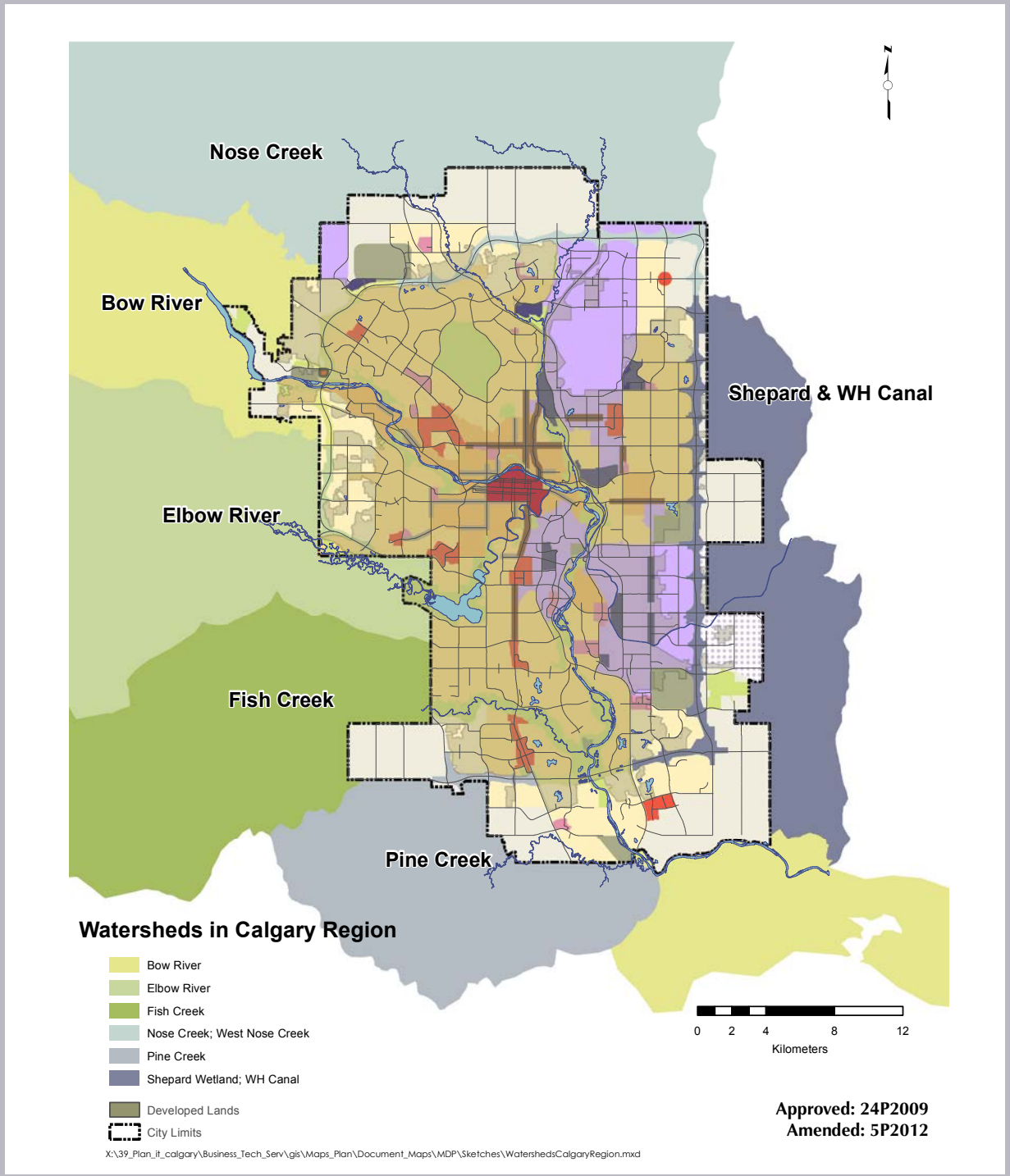


Figure 2-5: Watershed Management

Watershed Management

The Government of Alberta and other authorities have taken action to improve the quality and quantity of water in Alberta through the development of watershed management plans. The City of Calgary has been instrumental in working with its regional partners to create watershed management plans that will ensure the protection of our water resources. A watershed management plan considers water quantity, water quality, aquatic ecosystems and riparian areas, as well as a variety of land use issues that impact water. Watershed management plans require water and land use managers to work together to ensure healthy watersheds.

Policies

a. Recognize the importance of ground and surface water in supporting life and the prosperity of Calgarians and downstream municipalities.

b. Protect and integrate critical ecological areas such as wetlands, floodplains and riparian corridors into development areas.

c. Create watershed overlay maps to achieve water quality and quantity objectives and integrate the principles and policies of relevant watershed management plans into Local Area Plans.

d. Incorporate the principles of green infrastructure into community, road and street design (see Part 3 CTP).

e. Decrease impervious surfaces by minimizing development on undisturbed and agricultural lands.

f. Encourage the reduction of overall land disturbance and impervious surfaces associated with development (including existing riparian areas and wetlands) by:

   i. Preserving large, contiguous areas of absorbent open space within the city to maintain water quality;

   ii. Promoting site-level techniques such as low impact development to prevent, treat and store runoff and associated pollutants;

   iii. Using natural features (drainage and vegetation patterns) to increase onsite infiltration and minimize runoff;

   iv. Reducing the mean impervious cover by reducing the land required for vehicles, including parking lots, driveways, streets and directing runoff from impervious areas using appropriate stormwater source control best management practices;

   v. Designing to include pervious surfaces that allow the hydrologic cycle to continue close to its pre-development state, so that resulting flow duration curves do not impact fluvial morphology of streams or water balance of wetlands, aquifers are recharged and runoff pollutant loadings are prevented;

   vi. Developing stormwater plans to include stormwater source control practices, low-impact development strategies and technologies, post-development maintenance plans and setbacks to allow for infiltration and appropriate runoff timing; and,

   vii. Ensuring that approval standards are linked to water quality and quantity objectives of water management plans.

g. Promote water conservation initiatives, including on-site stormwater and wastewater reuse and treatment.

h. Encourage the design of public and private landscaping to reduce the need for water, and promote practices and vegetation choices that promote water conservation.

i. Increase the tree canopy to achieve water quality benefits by reducing evaporation and promoting infiltration.

2.6.4 Ecological networks

Objective Maintain biodiversity and landscape diversity, integrating and connecting ecological networks throughout the city.

An ecological network is a network of natural areas and open space providing the conditions necessary for ecosystems and species populations to survive in a human-dominated landscape. This network is one of the defining features that establish Calgary's character, sense of place and quality of life. The components of the network include the river valley system, natural environment parks, regional and neighbourhood parks, pathways, linear parks, school sites, community gardens and urban plazas. These provide a haven for many plant and animal species.

The real power of natural areas and open spaces – and their ability to significantly improve the quality of life in communities – lies in viewing and applying them as a system, rather than in individual components, that responds to the social needs (often recreational) of the city's population. Open spaces can be viewed as a structural pattern of landscape elements. These elements, patches and corridors, join together to form a matrix. The overall pattern determines flows and movements of species in and through the landscape.

A functioning ecosystem conserves biodiversity and contributes to the cleaning and production of air, land and water. These benefits can be retained by systematically acquiring land for the primary purpose of protecting beneficial ecosystem functions. Map 5 presents the Parks and Open Space System in Calgary. This map is supported by a range of City policies, principles and strategies including the Wetlands Policy, Urban Parks Master Plan and Open Space Plan.

Ecological networks are networks of natural areas and open space
Source: Design Centre for Sustainability, SALA, UBC

The open space typology (Table 2-2) categorizes open spaces based upon physical similarities. These categories serve as an evaluation framework to determine the value of the ecological network and the associated sensitivities that should be considered prior to any development/activities occurring.

Open space typology definitions

Patch

A patch is a relatively homogeneous non linear area that differs from its surroundings. Patches have several important functions, including settlement, resource, and habitat.

Corridor

A corridor is a strip of a particular type that differs from the adjacent land on both sides. Corridors have several important functions, including conduit, barrier and habitat.

Matrix

The matrix consists of a background ecological system, with a high degree of connectivity. For example, a forested landscape (matrix) with fewer gaps in forest cover (open patches) will have higher connectivity.

A primary function of Calgary's open space system is to protect ecosystems. In addition to the many social and environmental benefits of healthy ecosystems, the ecological services provided by the open space system should be viewed as an integral part of the city's services – contributing to the cleaning and production of air, land and water, and providing biodiversity.

The open space typology guides studies and analyses (e.g., biophysical analysis, wetland evaluation) which are used as input into Local Area Plans.

Policies

Ecological protection

a. Give the highest priority to the protection of environmentally-significant areas in the allocation of land use.

b. Protect biodiversity within river valleys, ravines, coulees and wetlands.

c. Ensure that the protection of significant habitats (sensitive ecological areas/unique environmental features) within the city's parks and open space system takes precedence over other uses.

d. Protect unique environmental features such as mature streetscapes, rivers and escarpments.

e. Establish setback zones of 18m (60 feet) from the top of an escarpment in any new development or redevelopment area.

Connecting nature

f. Create an interconnected open space system within and between watersheds to ensure that the ecological integrity of open spaces and parks are recognized and protected as the most critical element of Calgary's green infrastructure.

g. Align land uses and landscape elements to increase functional connectivity.

h. Utilize the Open Space Typology (Table 2-2) to guide planning and design for Calgary's open spaces and Local Area Plans.

i. Plan and support natural areas and parks to help shape the urban form and buffer incompatible uses by:

	Open Space Type	Type Classification	Type Expression	Type Amenity (Examples)	Function Value	Opportunity Scale
Calgary's Open Space	Patch	Natural patch	Wetlands Remnant forests Remnant forests Natural slopes	Priddis Wetland Griffith Woods Park Nose Hill Park Paskapoo Slopes	Individual well-being Community well-being Biodiversity Storm-water management Air conditioning	City-wide/ Community
		Disturbed patch	Capped landfills	Playfields	Individual well-being Community well-being Storm-water management Air conditioning	
			Brownfields	Southland Off-leash Park Fort Calgary		
			Storm ponds	Elliston Park		
			Modified slopes	McHugh Bluff Natural		
			Graded fields	Playfields Queens Park Cemetery Fox Hollow Golf Course		
	Corridor	Natural corridor	River Valleys	Prince's Island Park Shouldice Park McHugh Bluff Natural Park Edworthy Park Elbow Park Heritage Park Weaselhead Flats	Individual well-being Community well-being Biodiversity Storm-water management Air conditioning	City-wide/ Community
			Creek Coulee	Proposed Calgary Science Centre Confluence Park		
			Creek	Proposed Forest Lawn Creek Park		
			Linear Wetland Complexes	Sheppard Slough Education Centre		
		Disturbed corridor	Boulevards Roads Alleyways Irrigation cannal Utility-rights-of-way	Regional pathway	Individual well-being Community well-being Storm-water management Air conditioning	
	Matrix	Topography	Plain	Prairie and floodplains	Urban form Utility access Public safety and access	City-wide/ Community
			Undulating	East/South Calgary toporaphy		
			Rolling	West Calgary topography		
			Hummocks	Northwest Calgary - hills and small lakes		
			Steep slope	Escarpments and slopes		
			Terrace			
			Watercourses	Rivers and creeks River valleys, coulees and ravines		
		Eco region	Grassland Natural Region – Foothills Fescue Parkland Natural Region – Foothills Parkland Parkland Natural Region – Central Parkland Utility access Public safety and access	Distinct flora and associated fauna	Urban form Utility access Public safety and access	

Table 2-2: Calgary's Open Space Typology

i. Integrating natural features of the surrounding landscape into the design of urban development (including sites) to maintain a high degree of interconnectivity and permeability;

ii. Strategically protecting areas adjacent to water bodies to safeguard fresh water resources;

iii. Allowing for the modification of natural areas to increase their capacity to buffer more sensitive ecological areas such as water courses;

iv. Locating and designing parks and open spaces to connect with green streets, green alleys and lane initiatives (see CTP for details regarding the inclusion of green infrastructure in complete streets); and,

v. Developing partnerships between The City and Calgary's school boards to facilitate the greening of school yards and the proper design and redevelopment of recreational and athletic fields for all levels of play.

Regional partnerships

j. Build partnerships with neighbouring municipalities to work towards an integrated regional open space system.

k. Consider watershed management plans as a foundational tool for regional open space planning.

Biodiversity

l. Monitor and manage invasive species that pose a threat to biodiversity and undermine an area's ability to protect water resources.

m. Manage natural areas and open spaces primarily to conserve and promote native biodiversity.

n. Ensure the systematic conservation of land and water to reduce habitat fragmentation and ensure wildlife and fisheries connectivity.

o. Re-establish open space connections, where feasible, to link important habitat areas within the city and region.

Bioswales (bio-infiltration areas) promote absorption and infiltration of stormwater runoff in urban areas
Source: Design Centre for Sustainability, SALA, UBC

Protecting aquatic and riparian habitats

p. Ensure "no net loss" principles of significant wetland habitat and preserve existing wetlands as a priority over reconstruction.

q. Protect aquatic habitats through preservation, restoration and creation of wetland bank sites.

r. Protect riparian areas to meet habitat, water quality and public access through environmental reserve dedications and design alternatives.

s. Encourage and enable protection of source water and groundwater recharge areas.

River valleys and crossings

t. The impacts of urban development on the environmental integrity (health and aesthetic value) of the river and creek valleys should be mitigated by:

   i. Protecting and enhancing escarpments for open space, public views and setbacks for private property;

   ii. Preserving and restoring the riparian zones of our river systems;

   iii. Ensuring public access along significant escarpment and riparian areas; and,

   iv. Making environmental protection and passive recreational use the priority for river valley parks.

u. Any consideration for river valley and watercourse crossings (for transportation and infrastructure purposes) should always be determined within the wider context of urban need and treated with the utmost environmental sensitivity. Factors to be considered when planning, designing and constructing these crossings include:

   i. City-wide street connectivity that integrates (as opposed to separating) stream corridors into the community;

   ii. Waterway constraints (stream corridor considerations and riparian areas);

   iii. Location and design of stream channel crossings;

   iv. Minimizing impacts on adjacent communities and parks; and,

   v. Incorporating river crossing design principles (See CTP Appendix B).

Urban forestry

v. Protect and improve the parks and green spaces within the city, as shown in Map 5.

w. Promote the provision and maintenance of a healthy, viable urban forest in all areas of Calgary by protecting and increasing the existing urban forest.

x. *The Implementation Guidebooks and/or Local Area Plans should outline the target tree canopy in the study area and follow the Parks Urban Forestry Strategic Plan guidelines for tree planting intentions and opportunities.* **Bylaw 46P2013**

y. Ensure tree sustainability through tree planting plans and development phasing to create the greatest benefit for the site and the community.

z. Ensure the greening of the city as a system of linked green spaces through:

   i. An increase in the retention and planting of trees, bushes and shrubs on public and private land, particularly in areas lacking in this regard and those that are paved; and,

The urban forest benefits the environment by:

- Reducing particulate and gaseous air pollution.
- Providing fresh air through CO2 consumption and O2 production.
- Cooling the air through a natural air conditioning effect.
- Intercepting rainfall by reducing stormwater runoff and improving water quality.
- Reducing soil erosion by trapping and slowing stormwater runoff.
- Providing wildlife habitat.
- Reducing noise pollution by acting as a sound barrier.
- Changing the scale of a street corridor to a more human dimension.
- Add to the street's sense of place.
- Create physical barriers, directing foot traffic or screening views.

ii. Encouraging the planting of trees and green spaces as part of new developments, in front yards, backyards, rooftops, courtyards and plazas, etc.

aa. Further develop tree protection and planting measures to:

i. Ensure maximum conservation of existing trees in the site design and layout of new buildings; and,

ii. Protect trees and roots during street and building work, and the long-term viability of trees.

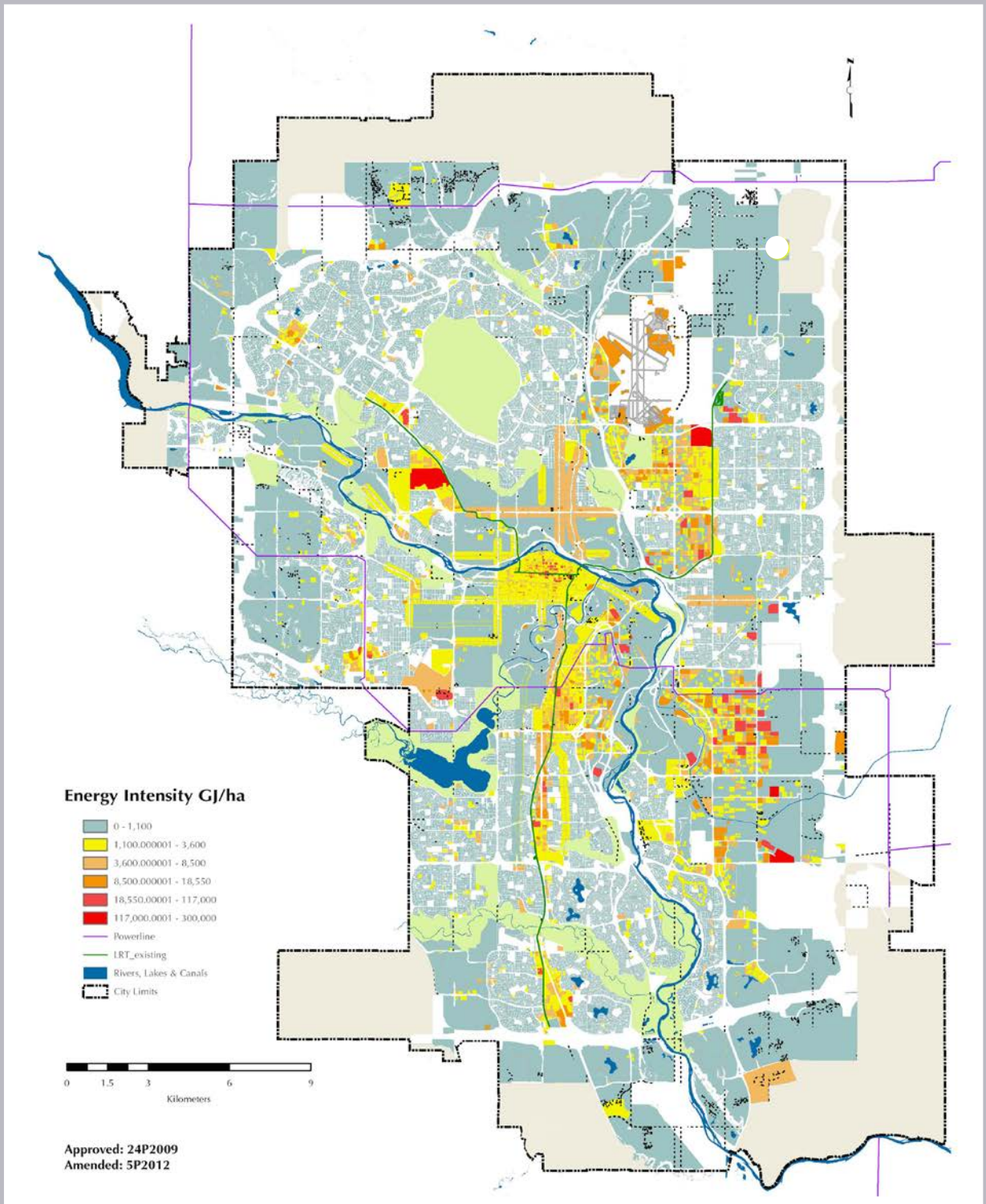


Figure 2-6: Energy Intensity Map

The Energy Intensity Map (Figure 2-6) illustrates the ultra high-efficiency improvements in the Calgary built environment in 60 – 70 years, based on the Urban Structure Map. In 30 years there is a 33 per cent reduction in average amount of gigajoules per hectare (GJ/ha) for all land uses, from today's usage as usual, to ultra-high efficiency. The GJ/ha metric assesses the appropriateness of land uses and the built form from an energy consumption perspective. The measure estimates the amount of space heating and cooling, hot water and electricity that would be consumed annually per hectare at full build out by 2036.

Continuing to organize land uses and develop buildings in the same manner as we do today, will result in a net increase in GJs of 45 million/yr and GHG emissions of 6,753 kt of GHG emissions. Improvements in the built environment can lead to a 33 percent reduction in the average amount of GJ/ha for all land uses and a decrease of 4189 kt of GHG emissions.

2.6.5 Energy

Objective Reduce the demand for non-renewable energy resources.

The impact of fossil fuel use on the environment is well documented. Climate change, air and water pollution all result from our dependence on these non-renewable energy sources. As Calgary expands, so do its energy requirements. Tackling the energy challenge will be important to the city's future prosperity. Across Canada, an increasing number of municipalities are engaged in the process of sustainable energy planning. The approach taken by each community is varied, but what is becoming evident is the importance of inter connecting urban form, land use and transportation, with an understanding of energy consumption and supply issues. Energy planning is therefore connected at the regional, community and building scales.

Energy use is the largest portion of Calgary's ecological footprint, accounting for 56 per cent of the calculation. Energy consumption in Calgary has increased for all energy types. These energy types include gasoline (transportation energy), electricity (for homes/buildings) and natural gas (for heating, manufacturing, cooking and recreation) to name a few. Changing our built form – homes, roads, offices structures, power plants, dams and transportation – will provide an opportunity to reduce our consumption of energy.

The following priorities should be considered in the integration of energy into land use and buildings:

- Efficient energy use.
- Reduce greenhouse gas emissions.
- Reduce fossil fuel use when possible.
- Allow successful solutions to emerge.
- Remove barriers and allow renewable energy sources and distributed generation to flourish.

Energy and land use influence each other directly and indirectly. The most common areas of impact focus on the following:

- Mixing residential, commercial, industrial and recreational uses of land, which decreases energy consumption by decreasing transportation demand and, in some instances, increases the feasibility of district heating.
- Higher densities supportive of higher energy intensities.
- Orientation and stacking of buildings.
- Minimizing penetration of solar radiation into structures during warm periods of the year and maximizing it during cold periods.
- Energy efficiency in all building types.

Creating more energy-efficient buildings and incorporating renewable energy sources both play a major role in determining the overall sustainability of the building. As with community design, greater energy efficiency of buildings can be influenced through land use and development processes.

Policies

Energy and land use

a. Co-ordinate sustainable energy planning at all scales of development in the city by:

   i. Promoting urban forms and infrastructure that support alternative and renewable energy production and reduced energy consumption;

   ii. Ensuring that energy efficiency is part of the design considerations for Local Area Plans and subdivisions;

   iii. Maximizing opportunities for renewable energy sources and systems;

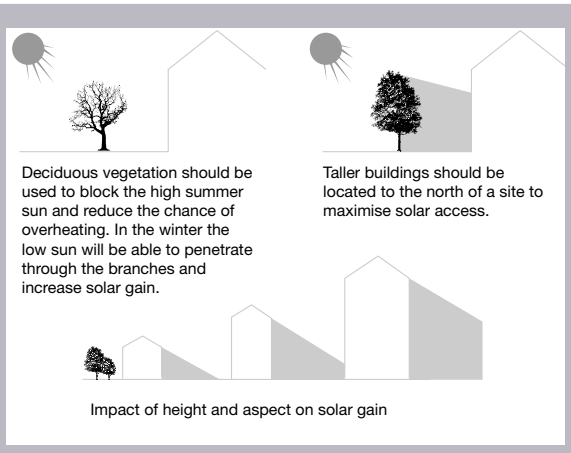
   iv. Minimizing the physical separation between building uses and encourage development densities that support alternative energy sources such as district energy systems; and,

   v. Promoting residential building orientations and street design patterns that maximize passive solar gain.

Energy and buildings

b. Promote energy-efficient building design and practices for all building types.

c. Strongly encourage the use of energy design and management systems such as LEED, Built Green, Go Green (or an equivalent rating system) to encourage energy efficiency in buildings.



Solar gain is affected by vegetation and building height

d. Eliminate barriers to energy efficient design practices.

e. Encourage the design of buildings to be more adaptable over time for a variety of uses and to reduce energy costs related to demolition and waste disposal.

f. Encourage the conversion and reuse of existing buildings.

g. Promote mixed-use buildings to even out heat and power demand, increasing the viability for on-site energy supply.

h. Support The City of Calgary's Sustainable Building Policy to inform, support and promote sustainable building practices and benefits inside and outside the Corporation.

i. Collaborate with partners and agencies in the transportation, energy industry and development and building fields to integrate energy efficiency into the planning, design and construction of buildings and neighbourhoods.

j. Encourage the incorporation of micro energy systems, solar panels or similar.

2.6.6 Waste

Objective Support The City's goals for waste reduction.

The City's "80/20 by 2020 Waste Diversion Goal" states that by the year 2020 Calgary will be recycling 80 percent of its waste and the remaining 20 percent will be going to landfills. Today, the numbers are reversed, with 80 percent of waste going to landfills. The successful implementation of this Council goal will have a profound impact on the amount of waste going to The City's landfill sites.

Policies

a. Encourage development that incorporates sustainable planning and building practices by:

   i. Encouraging the use of design practices that reduce construction waste in both Developing and Developed areas;

   ii. Utilizing best practices for building deconstruction with emphasis on recycling materials and material reuse; and,

   iii. Considering access points for the removal of waste and recycling friendly design elements in neighbourhoods, commercial and industrial areas.

b. Protect the operational needs of landfill and recycling facilities by reducing conflicts with incompatible uses by locating uses such as commercial, industrial and recreational between waste management facilities and incompatible uses (e.g., residential).

c. Encourage the use of landscaping practices that directly target the minimization of yard and garden waste.

d. Encourage the adaptation and reuse of older buildings for a variety of purposes, to reduce waste generated through building demolition.

Part Three

Typologies for Calgary's future urban structure

Part 3 – Typologies for Calgary's future urban structure

3.1 Introduction

Calgary consists of distinct geographic and functional areas that share common attributes with other areas across the city. Similar land use patterns, road layout, age of the building and the stage within a community life cycle help to define an area in terms of its development form and how it functions. They also provide determinants of how the area might change and transform in the future. These broad geographic areas, defined as "Typologies" are shown on the Urban Structure Map (Map 1) and form the organization of this section. Typology-based policies supplement other policies contained elsewhere in the MDP by providing interpretation of broad, city-wide policies within the context of a specific area to help provide guidance to planning and development processes.

The Typologies are:

Centre City (including Downtown)

Activity Centres

- Major Activity Centre
- Community Activity Centre
- Neighbourhood Activity Centre

Corridors

- Urban Corridor
- Neighbourhood Corridor

Developed Residential Areas

- Inner City
- Established

Developing Residential Areas

- Planned Greenfield
- Future Greenfield

Industrial Areas

- Standard Industrial
- Industrial–Employee Intensive
- Industrial Greenfield

3.1.1 *Implementation Guidebook and Local Area Plans*

Some Local Area Plans are intended to work in conjunction with an Implementation Guidebook. Some Typologies require a level of detailed investigation to clearly understand the local opportunities, constraints and impacts of the respective policies. In those cases, supplemental policies should be established within an Implementation Guidebook or a Local Area Plan.

Policies

a. *An Implementation Guidebook and/or Local Area Plan should include, but not be limited to the following:*

Bylaw 46P2013

i. Definition of the study area;

ii. Public engagement to identify local character and community needs;

iii. Assessment of parks, community facilities and service capacities;

iv. Assessment of infrastructure conditions and capacities;

v. Locations for intensification, transition and conservation;

vi. Land use diversity and development densities;

vii. Identification of the anticipated jobs and population for the total area and by Typology;

viii. Street types and locations, in accordance with the Complete Streets policies of the CTP;

ix. Development phasing, staging and public investment;

x. Other policies or context-specific guidelines as deemed appropriate; and,

xi. Impacts of land uses and densities and the need for transition and interface with development in adjacent municipalities.

3.2 Centre City

Centre City is the business and cultural heart of the city, the pre-eminent mixed-use area. The Centre City fulfills many functions. It has the largest employment concentration and is the location of highest density office developments; it offers the broadest variety of cultural activities and is an important high-density, mixed-use residential community. The Centre City is made up of diverse and unique "neighbourhoods" focused around the Downtown and includes Stampede Park. The Centre City is well connected with the rest of the city by multiple routes of the Primary Transit Network and high-quality pedestrian connections within and beyond its boundaries.

3.2.1 Centre City

Land use policies

a. Reinforce the Centre City as the focus of business, employment, cultural, recreation, retail and high-density housing within Calgary. This will be achieved by:

   i. Supporting the Downtown district as the location of choice for business and the largest employment centre in the city;

   ii. Developing high-density residential and support services;

   iii. Encouraging a greater mix of cultural, recreation and leisure activities;

   iv. Investing in the development of the Primary Transit Network; and,

   v. Providing high-quality pedestrian and cycling connections within the Centre City and to communities, Activity Centres and Corridors beyond its boundaries.

b. Plan to accommodate at least 232,000 jobs and 70,000 residents in the Centre City over the next 60 years. Individual neighbourhood densities will vary depending on their local context.

c. Preserve existing public lands in the Centre City for civic and cultural facilities such as parks, museums, libraries and any other creative venues that will enliven it as a destination for residents, employees and visitors.

d. Support the location of major educational institutions and related uses in areas of the Centre City well served by the Primary Transit Network.

Mobility policies

e. Transportation planning and investment decisions in Centre City should align with the Centre City Mobility Plan.

Public realm policies

f. The Centre City Plan will guide public realm improvements in the Centre City.

3.3 Activity Centres

Accommodating future urban growth within transit-supportive, mixed-use Activity Centres is a fundamental strategy for linking land use and transit. Currently, Calgary's primary Activity Centre is the Downtown. Recognizing that the Downtown and the even larger Centre City will reach their capacity over time, it is necessary to identify and plan for other strategic areas that will support long-term employment and population growth in locations and at intensities that will support the Primary Transit Network.

Three scales of Activity Centres are identified based on level and type of transit service, the expected level of intensity (density of jobs and population) and their city-wide location and local context. The three Activity Centre types identified from largest to smallest are:

Major Activity Centres

Major Activity Centres (MAC) are located strategically across the city to provide a major mixed-use destination central to larger residential or business catchment areas. They are located along one or more of the proposed Primary Transit Network routes, and contain one or more transit stations or stops. The MAC builds upon existing concentrations of jobs and/or population and has a sufficient land area to provide a high number of jobs and population to support the highest levels of transit service. MACs will have the highest density and building heights outside of Centre City, with the broadest range of land uses.

Community Activity Centres

Community Activity Centres (CAC) are located central to a number of residential communities or business areas, on a moderately sized land base, often on current shopping centre sites or around a specific employment area. CACs may be located at transit stations or stops on the Primary Transit Network. The smaller land base, or location relative to communities and transportation networks, may limit intensification opportunities, although they could add sufficient residential and employment uses to support higher levels of transit service. CACs will accommodate a broad mix of uses but, generally, at lower intensity levels than the MACs.

Neighbourhood Activity Centres

Neighbourhood Activity Centres (NAC) exist primarily within the developed areas of the city (1950s to 1990s communities) in the form of smaller commercial sites, strip malls or redeveloping public facilities. They are located central to a small residential catchment area and provide walkable destinations for local communities. NACs are typically served by a base level of transit service, though some may be located along the Primary Transit Network. NACs are appropriate sites to accommodate moderate intensification over time, with uses and development scales appropriate to the local context and community needs. NACs will also be an important part of new community designs. They will be locations for medium density housing (e.g., ground-oriented to medium density apartments), local retail and services, community facilities and integrated transit stops.

MACs and CACs are identified on Map 1. However, others, especially in the greenfield areas, could be located and defined as part of a Regional Context Study process and an MDP amendment to Map 1. The intensity for each Activity Centre, level of transit service and typical land uses are shown in Table 3-1.

3.3.1 General Activity Centre policies

The following policies apply to all scales of Activity Centres and are general in nature. Policies that are unique to specific activity centre types (MAC, CAC and NAC) are included below in this Section.

Activity Centre	Intensity (jobs and population per gross developable hectare)*	Transit Service	Typical Key Uses
Major	200 (minimum)	One or more Primary Transit stations	One or more major institutional uses, business and employment, high and medium density residential, retail and supporting services
Community	150 (minimum)	Primary Transit Station	Institutional use (opt), retail centre, medium and high density residential, business and employment
Neighbourhood	100 (minimum)	Primary Transit station or Transit stop	Local retail and local services, medium density residential

* Intensities for each specific Activity Centre will be determined through Local Area Plans *and/or Implementation Guidebooks* in consideration of land available for development, community context, and the opportunities to optimize infrastructure and public investment. **Bylaw 46P2013**

Table 3-1: Summary of Activity Centre Characteristics

Land use policies

a. Activity Centres should be locations for a mix of medium and higher density employment and residential uses.

b. Uses such as retail, recreation facilities, sport, cultural facilities, open space and community and protective services that support concentrations of jobs and population are encouraged.

c. The scale of retail appropriate to each Activity Centre should be determined in consideration of the retail policies in Part 4 of the MDP.

d. Within mixed-use areas, encourage retail and service uses at grade, with residential and office uses on upper floors.

e. Where a site fronts more than one street, public entrances should be located on the street with the greatest pedestrian activity, on both street fronts, or, in the case of a corner site, the entrance may be placed on the corner.

f. Larger buildings should be designed to reduce their apparent size by the recession of upper floors to harmonize with the lower scale of the surrounding neighbourhood.

g. City-owned land within an Activity Centre should be developed to support the land use and development objectives of that Activity Centre.

h. Appropriate transition of building scale between the Activity Centre and adjacent areas should be provided. These transitions should be sensitive to the scale, form and character of surrounding areas.

Mobility policies

i. Pedestrian environments should be the priority design element, focusing on pedestrian convenience, safety, comfort and enjoyment.

j. Create an internal street network that is interconnected, multi-modal and recognizes the needs of all users, in accordance with the Local Transportation Connectivity policies of the CTP.

Possible Major Activity Centre image
Source: Urban Advantage images

k. Facilitate movement, loading and unloading of delivery vehicles throughout the Activity Centre.

l. Transit facility designs should accommodate efficient transit access, comfortable passenger waiting areas and safe, direct and unobstructed routes for pedestrians and cyclists.

m. When designing new streets or retrofitting existing streets, use the Complete Streets policies and guidelines of the CTP.

n. Establish connections between the Activity Centre and the surrounding communities to encourage pedestrian and cyclist movement.

o. Parking impacts on surrounding residential areas should be limited by providing a mix of short-stay and longer-stay parking for different users, bicycle parking and on-street parking.

p. Convenient and high quality parking locations should be provided for bicycles, carpool and car-sharing vehicles, and vehicles with environmental benefits.

Public realm policies

q. Design transit facilities as public "places" that are a focal point within the Activity Centre.

r. Urban design should be used to ensure that the intensification of land use occurs in a sensitive manner and that new buildings contribute to a pedestrian-friendly streetscape with the following characteristics:

   i. Reduced building setbacks from public sidewalks; and,

   ii. Where appropriate, existing setbacks should be used to enhance the pedestrian interface (e.g., street furniture, landscaping, street trees, pedestrian level street lighting, wide sidewalks, etc.).

s. In addition to the Urban Design policies contained in Part 2.4 of the MDP, apply the following design policies to the Activity Centre:

   i. Establish a local identity for each Activity Centre; and,

   ii. Provide social spaces that provide for a comfortable and interesting public realm.

3.3.2 Major Activity Centres

Major Activity Centres (MACs) provide for the highest concentration of jobs and population outside of the Centre City area. In addition to achieving higher concentrations of jobs and population, the design and character of the MACs must also create a high-quality environment that features amenities for a comfortable street environment.

Land use policies

a. The MACs are those shown on Map 1.

b. *Local Area Plans for a MAC should provide a land use framework to achieve a minimum intensity threshold of 200 jobs and population per gross developable hectare. Individual MAC densities and the approximate jobs and population distributions will be established through a Local Area Plan or within an Implementation Guidebook.* **Bylaw 46P2013**

c. Future MACs in Future Greenfield areas will be identified through the Regional Context Study process and located to align with the Primary Transit Network and major road system. Specific land use and open space patterns, local mobility networks and urban design details should be developed through an ASP that includes the entire area of the future MAC.

d. MACs should be developed to function as an "urban centre" for a sub-region of the city and provide opportunities for people to work, live, shop, recreate, be entertained and meet their daily needs.

e. Each MAC should provide locations for high intensity jobs as part of institutional growth and/or mixed-use business centres.

f. Each MAC should contain a broad range of medium and high density housing opportunities and a mix of housing tenure and affordability levels to accommodate a diverse range and age of population.

g. Large format retail that provides services to residents and employees within the MAC and surrounding communities, should be located at the edge of a MAC and designed with an appropriate pedestrian-friendly design.

h. Open spaces that provide for a wide variety of activities within a medium to high density environment are encouraged. This will include the creation of public plazas and key gathering areas. Large sports fields may be appropriate, although they should be located at the edges of the MAC.

Mobility policies

i. Vehicle parking should be located, accessed and designed so as to minimize impacts on transit and pedestrian areas within the MAC. Smaller surface parking lots may be accommodated at peripheral locations away from the transit facility and pedestrian precincts, or located at the rear of buildings. Vehicle parking should ultimately be contained within structured facilities or underground.

3.3.3 Community Activity Centres

Community Activity Centres (CACs) provide for a concentration of jobs and population in strategic locations throughout the city, and represent a local destination for multiple communities. They provide an opportunity to accommodate significant numbers of workers and residents in centres that are well served by public transit. The design and character of each CAC must ensure a high-quality environment that features amenities to create a comfortable environment that accommodates pedestrians and cyclists and makes the CAC a desirable place for workers, residents and businesses to locate. Because CACs are often located at existing retail sites, retail is an important element to be retained. CACs are also appropriate within new greenfield areas to provide convenient locations for a range of higher density housing types, local employment and retail services to new communities, in an area well served by the Primary Transit Network.

Land use policies

a. The CACs are those shown on Map 1.

b. *Local Area Plans for a CAC should provide a land use framework to achieve a minimum intensity threshold of 150 jobs and population per gross developable hectare. Individual CAC densities and the appropriate job and population distributions will be established through a Local Area Plan or within an Implementation Guidebook.* **Bylaw 46P2013**

c. Future CACs in Future Greenfield areas will be identified through the Regional Context Study process and located to align with the Primary Transit Network and major road system. Specific land use and open space patterns, local mobility networks and urban design details should be developed through an ASP that includes the entire area of the future CAC.

d. Recognize that most CACs are existing commercial developments and should continue to provide a significant level of retail service.

e. CACs should contain a broad range of ground-oriented and medium to high density apartment housing and a mix of housing tenure and affordability levels to accommodate a diverse range of the population.

Mobility policies

f. Support the development of CACs with timely investment in the Primary Transit Network.

g. Facilitate the circulation of transit into the centre of each CAC, providing connections to the Primary Transit Network and surrounding communities.

h. Vehicle parking should be located, accessed and designed so as to minimize impacts on transit and pedestrian areas within the CAC. Smaller surface parking lots may be accommodated at peripheral locations away from the transit facility and pedestrian precincts, or located at the rear of buildings. Vehicle parking should ultimately be contained within structured facilities or underground.

Possible Community Activity Centre Illustration
Source: Design Centre for Sustainability, SALA, UBC

3.3.4 Neighbourhood Activity Centres

The Neighbourhood Activity Centre (NAC) is a neighbourhood-scale centre providing opportunities for residential intensification and local jobs, retail, services and civic activities. NACs exist either in older residential communities or within new communities. Within the Developed Areas, a NAC typically would develop on those smaller commercial sites that are not identified as either MACs or CACs on Map 1. Smaller commercial sites located throughout established areas have the potential to provide a diverse mix of uses that fit with the scale and character of the surrounding neighbourhood. Because many residential communities where NACs exist do not have potential for significant intensification, smaller commercial sites provide a good opportunity for moderate mixed-use intensification and new housing forms not available within the community. In new communities, there would be similar opportunities for NACs, which should be planned at the outset through the ASP process.

Land use policies

a. *Development of NACs should achieve a minimum intensity threshold of 100 jobs and population per gross developable hectare. Specific NAC intensities will be established based upon the local context, site size and available infrastructure, as determined through a Local Area Plan, an Implementation Guidebook, land use amendment or comprehensive development permit process.* **Bylaw 46P2013**

b. NACs should contain a broad range of ground-oriented and low-density apartment housing and a mix of housing tenure and affordability to accommodate a diverse range of the population.

c. NACs should include a mix of uses and retain retail services for the local community.

d. Encourage the creation of a public gathering space within each NAC.

e. Auto-oriented uses and designs that generate high volumes of traffic, consume large amounts of land in a low density form, require extensive surface parking, and create negative impacts for pedestrian travel and access should be discouraged.

Mobility policies

f. Where a NAC is in close proximity to a MAC or CAC and a street connection exists between them, ensure there is good pedestrian and cyclist infrastructure within that street.

g. To slow vehicular traffic and enhance the pedestrian environment, consider measures such as traffic-calming and off-peak parking on the street.

3.4 Corridors

Corridors share many of the same attributes as Activity Centres, but are linear in nature, and oriented along a street served by the Primary Transit Network. Corridor development has historically formed along street car lines and then auto-oriented roadways. That same right-of-way now provides the opportunity to re-integrate adjacent land uses within a transit oriented street framework. Since Corridors provide for the mobility needs of local and regional automobile commuters and border multiple residential communities, the land use and transportation system should be designed to include many different travel modes. Two scales of Corridors are identified, with specific policies to each:

- Urban Corridors
- Neighbourhood Corridors

3.4.1 General Corridor policies

The following policies apply to all Corridors and are general in nature. Policies that are unique to specific corridor type (Urban or Neighbourhood Corridor) are provided below.

Land use policies

a. Corridors should provide for a broad mix of residential, employment and retail uses.

b. The highest densities and tallest buildings on the Corridor should be concentrated into "nodes" that occur at the intersections of the Corridor with other major transit streets. Between the nodes, lower scales of commercial, residential and mixed-use development are appropriate.

c. Commercial development along the Corridor should be oriented to the transit street and public sidewalk.

d. Develop an active street environment by encouraging retail and service uses at-grade with residential and office uses on upper floors.

Corridor	Intensity (jobs and population per hectare*)	Transit Service	Typical Key Uses	Street Type (See CTP)
Urban	200 (minimum)	Located on Primary Transit Network	Retail, Office, Mixed-use buildings, medium and high density residential	Urban Boulevard, support for multiple modes
Neighbourhood	100 (minimum)	Located on Primary Transit Network	Low to medium density residential, retail, mixed-use buildings	Neighbourhood Boulevard, support for multiple modes

* Intensities for each specific Corridor will be determined through Local Area Plans *and/or Implementation Guidebooks* in consideration of land available for development, community context, and the opportunities to optimize infrastructure and public investment. **Bylaw 46P2013**

Table 3-2: Summary of Corridor Characteristics

e. Recognizing that the Corridor is pedestrian and transit oriented, large format retail should support a good pedestrian frontage along the transit street and public sidewalk by:

   i. Locating buildings close to the transit street and sidewalk; and,

   ii. Creating active building frontages by incorporating smaller retail units, public accesses and display areas visible to the sidewalk.

f. On corner sites, buildings should be placed adjacent to streets wherever possible to create defined street edges.

g. Retail buildings should provide front-door openings facing the transit street and principal public areas.

h. Appropriate transition of building scale between developments in the Corridor and adjacent areas should be provided. These transitions should be sensitive to the scale, form and character of the surrounding buildings and uses.

Mobility policies

i. When designing new streets or retrofitting existing streets within the Corridor, use the Complete Streets policies and guidelines in the CTP.

j. Make pedestrian connections to the Corridor from adjacent communities. These connections should occur primarily within streets that will facilitate good pedestrian and cyclist movement.

k. The impact on surrounding residential areas should be limited by providing a mix of short-stay and longer-stay parking for different users, bicycle parking and on-street parking.

l. Pedestrians and cyclists should be given the highest priority in the planning, design, operation and maintenance of transportation infrastructure in Corridors.

m. A strong pedestrian environment should be created along the transit corridor by discouraging on-site parking in front of the building and providing parking alternatives on street, and to the side and rear of buildings.

n. Priority and high-quality parking locations should be provided for bicycles, carpool and car-sharing vehicles, and vehicles with low environmental impacts.

o. Driveway access to parcels fronting onto Corridors should be consolidated and new accesses minimized to provide a continuous building façade and safer pedestrian zone.

p. Site layout, vehicular circulation and loading zones should be planned to minimize the impact of vehicles on the pedestrian realm.

Typical Corridor Cross Section
Source: Design Centre for Sustainability, SALA, UBC

Public realm policies

q. Create a human-scale environment along the Corridor by generally encouraging a maximum of a 1:2 building height to right-of-way width ratio. Additional height should be considered through the Local Area Plan.

r. For Corridors that run east-west, building heights should be designed to allow solar penetration through the block and reduce shadows cast onto public sidewalks on the north side of the street. Where practical, encourage taller buildings to locate on the north side of the corridor.

s. For Corridors that run east-west, south facing public open spaces and plazas should be incorporated in the buildings fronting the north side of the Corridor.

t. Public investment in key elements of the public realm should be provided to support intensification along Corridors.

u. Urban design should be used to ensure that the intensification of land use occurs in a sensitive manner and that new buildings contribute to a pedestrian-friendly streetscape with the following characteristics:

   i. Reduced building setbacks from public sidewalks; and

   ii. Where appropriate, existing setbacks should be used to enhance the pedestrian interface (e.g., street furniture, landscaping, street trees, pedestrian level street lighting, wider sidewalks, etc.).

3.4.2 Urban Corridors

Urban Corridors provide for a high level of residential and employment intensification along an Urban Boulevard street type, as defined in the CTP. The Urban Boulevard is a multi-modal street with a strong focus on walking, cycling and transit, though it continues to accommodate moderately high traffic volume. Urban Corridors emphasize a walkable pedestrian environment fronted by a mix of higher intensity residential and business uses.

Land use policies

a. The Urban Corridors are those shown on Map 1.

b. Additional Urban Corridors may develop over time as the role and function of some streets change. New Urban Corridors will be identified through an amendment to the MDP.

c. *Local Area Plans for an Urban Corridor should provide a land use framework to achieve a minimum intensity threshold of 200 jobs and population per gross developable hectare. Individual Urban Corridor densities and appropriate job and population distributions will be established through a Local Area Plan or within an Implementation Guidebook.*

Bylaw 46P2013

d. The Local Area Plan study area for an Urban Corridor should include all land fronting directly onto the Urban Boulevard, and extend back at least one block on either side, potentially extending along intersecting streets. The highest development densities are to be located on lands directly fronting onto the Urban Boulevard, stepping down to provide transition with lower scale buildings, as defined in Part 3 - Typologies for Calgary's future urban structure.

e. The Urban Corridor should contain a broad range of employment, commercial and retail uses as well as housing (form, tenure, and affordability) to accommodate a diverse range of the population. Apartments, mixed-use developments and ground-oriented housing are encouraged.

Mobility policies

f. Provide transit service along the Urban Corridor via the Primary Transit Network. Development adjacent to transit stops should locate entrances and provide features that make it safe and convenient for transit users.

g. The Urban Corridor should generally coincide with the Urban Boulevard street type as defined in the CTP.

Typical Urban Corridor
Source: Urban Advantage images

3.4.3 Neighbourhood Corridors

Neighbourhood Corridors typically are located along Primary Transit Network within the Inner City and have a strong historical connection to the communities they abut. They are the "main streets" for one or more communities, providing a strong social function and typically support a mix of uses within a pedestrian-friendly environment. Some areas have a more regional draw because of the unique uses present or the quality of the environment, while others serve a more local population base. Neighbourhood Corridors provide the opportunity for moderate levels of intensification of both jobs and population over time. To support this increased activity, the Neighbourhood Corridor should be served by the Primary Transit Network. Neighbourhood Corridors are also appropriate in greenfield communities as places to focus different housing types and densities and create local destinations adjacent to transit streets.

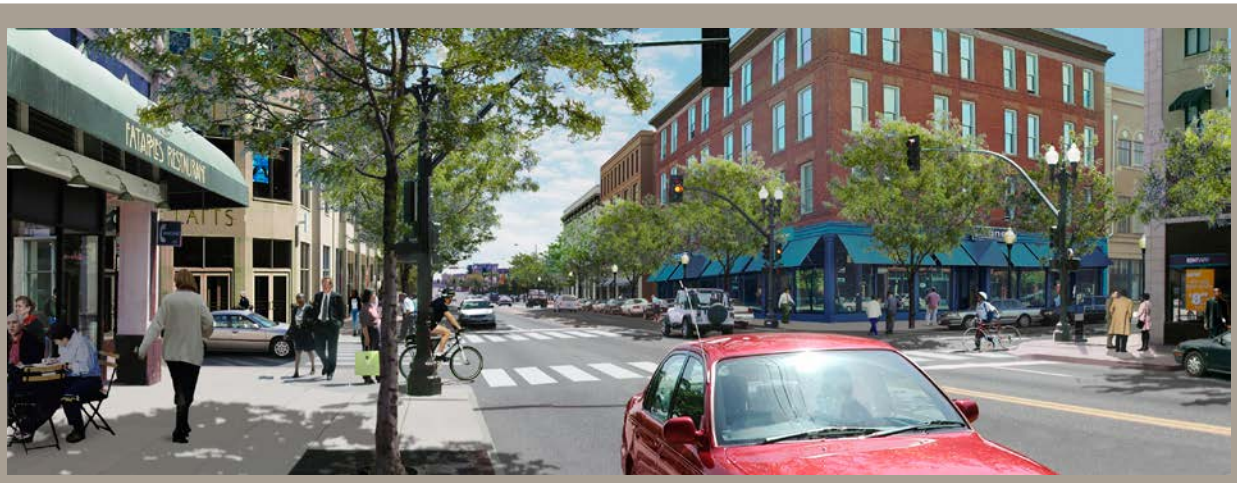
Land use policies

a. The Neighbourhood Corridors are those shown on Map 1.

b. Opportunities for additional Neighbourhood Corridors will be identified through an amendment to Map 1.

c. *Local Area Plans for a Neighbourhood Corridor should provide a land use framework to achieve a minimum intensity threshold of 100 jobs and population per gross developable hectare. Individual Neighbourhood Corridor densities and the appropriate job and population distributions will be established through a Local Area Plan or within an Implementation Guidebook.* **Bylaw 46P2013**

d. For Neighbourhood Corridors that have no Local Area Plans, areas for intensification should include those parcels that front directly onto the proposed Neighbourhood Boulevard (as defined in the CTP).



Typical Neighbourhood Corridor
Source: Urban Advantage images

e. Encourage ground-oriented housing, low-scale apart- ments and mixed-use retail buildings within the Neighbourhood Corridor, with the highest densities occurring in close proximity to transit stops and in locations where they merge with Activity Centres or Urban Corridors.

f. An appropriate transition between the Neighbourhood Corridor and the adjacent residential areas is required. Transition should generally occur at a rear lane or public street. These transitions should be sensitive to the scale, form and character of surrounding areas, while still creating opportunities to enhance the connectivity with the community.

g. Auto-oriented uses and designs that generate high volumes of traffic, consume large amounts of land in a low density form, require extensive surface parking, and create negative impacts for pedestrian travel and access should be discouraged.

Mobility policies

h. The Neighbourhood Corridor should generally coincide with a Neighbourhood Boulevard street type.

3.5 Developed Residential Areas

Developed Residential Areas defined on Map 1 include those communities that have been built out and are at various stages of their life cycle, either as stable residential communities or those experiencing moderate redevelopment activity. Two types of Developed Residential Areas are identified – Inner City Area and Established Areas.

3.5.1 General – Developed Residential Area Policies

The following policies apply to all Developed Residential Areas and are general in nature. Policies that are unique to the Inner City Area and the Established Area follow after this section.

Land use policies

a. Recognize the predominantly low density, residential nature of Developed Residential Areas and support retention of housing stock, or moderate intensification in a form and nature that respects the scale and character of the neighbourhood.

b. Redevelopment within predominantly multi-family areas should be compatible with the established pattern of development and will consider the following elements:

   i. Appropriate transitions between adjacent areas; and,

   ii. A variety of multi-family housing types to meet the diverse needs of present and future populations.

c. Redevelopment should support the revitalization of local communities by adding population and a mix of commercial and service uses.

Mobility policies

d. For multi-family housing, encourage parking that is well integrated into the residential environment (e.g., consider landscape buffering, smaller lots).

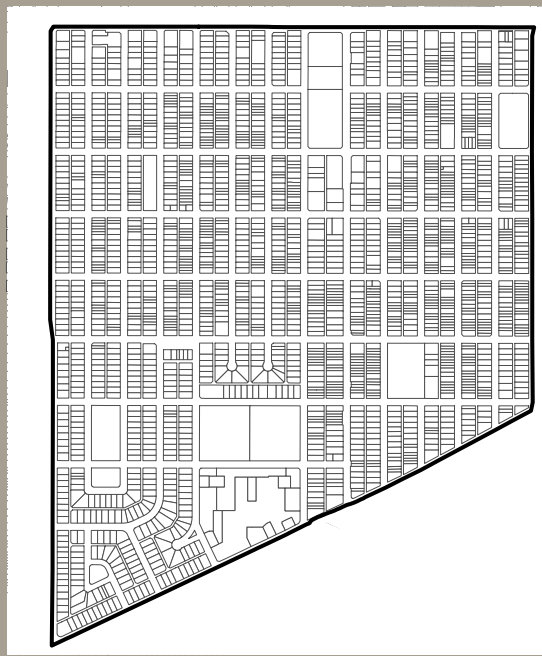
e. When designing new streets or retrofitting existing streets, use the Complete Streets policies in the CTP.

f. Ensure that high-quality pedestrian and cyclist connections and facilities are provided from the Developed Residential Area and linked to adjacent areas of higher intensity development (i.e., Neighbourhood Corridors and Neighbourhood Activity Centres).

g. Areas beyond the Primary Transit Network will be served with Base Transit Service, with opportunities for enhancing frequency of service as required.

3.5.2 Inner City Area

The Inner City Area comprises residential communities that were primarily subdivided and developed prior to the 1950s. Key features of these areas are a grid road network, older housing stock in the form of low to moderate housing densities and a finer mix of land uses along many of the edge streets. The Inner City Area has undergone redevelopment in recent years. Much of this intensification has taken place along busier roads and as low density infilling within lower density areas. Intensification and change will continue to occur within the Inner City Area; however, it is important to maintain stable family neighbourhoods.



Typical Inner City Area Development Pattern

Land use policies

a. Sites within the Inner City Area may intensify, particularly in transition zones adjacent to areas designated for higher density (i.e., Neighbourhood Corridor), or if the intensification is consistent and compatible with the existing character of the neighbourhood. Transition zones should be identified through a subsequent planning study.

b. A range of intensification strategies should be employed to modestly intensify the Inner City Area, from parcel-by-parcel intensification to larger more comprehensive approaches at the block level or larger area.

c. Maintain and expand, where warranted by increased population, local commercial development that provides retail and service uses in close proximity to residents, especially in the highest density locations.

d. Buildings should maximize front door access to the street and principal public areas to encourage pedestrian activity.

e. Encourage at-grade retail to provide continuous, active, transparent edges to all streets and public spaces.

Mobility policies

f. Transit stops should be easily accessible and, where possible, integrated with adjacent multi-family residential or retail buildings.

3.5.3 Established Areas

The Established Area comprises residential communities that were planned and developed between the 1950s and 1990s. They are primarily residential communities containing a mix of low- and medium-density housing with support retail in relatively close proximity. The road network is a blend of modified-grid and curvilinear. These are stable residential communities with limited redevelopment potential over the next 30 years. Populations have declined from their peak and housing stock is generally in good condition.

Land use policies

a. Encourage modest redevelopment of Established Areas.

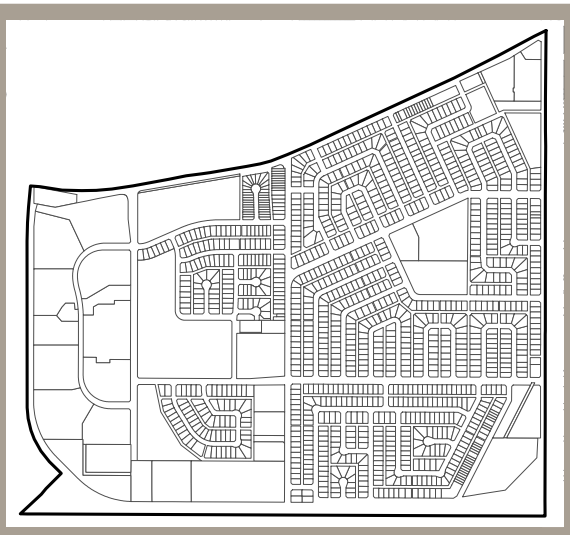
b. Redevelopment opportunities should be focused on the Neighbourhood Activity Centres, though changes to other sites may provide opportunities for redevelopment over time.

c. New developments in Established Areas should incorporate appropriate densities, a mix of land uses and a pedestrian-friendly environment to support an enhanced Base or Primary Transit Network.

Mobility policies

d. Provide opportunities to increase pedestrian, cycling and emergency services connectivity when redevelopment occurs where community support exists.

e. Transit stops should be easily accessible and, where possible, integrated with adjacent multi-family residential or retail buildings.



Typical Established Area Pattern

3.6 Developing Residential Communities

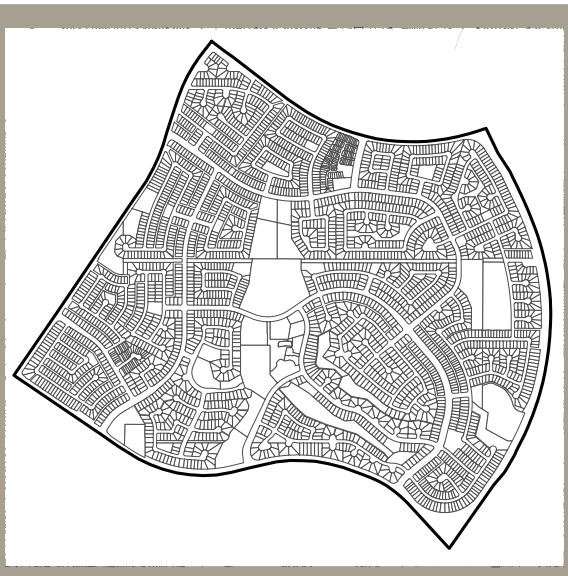
Developing Residential Areas include those communities that have an ASP completed and are in the process of developing and future growth areas that have not had an ASP approved. Two types of Developing Residential Areas are identified – Planned Greenfield Communities and Future Greenfield Communities.

3.6.1 Planned Greenfield Communities

Planned Greenfield Areas comprise residential communities that have been planned since the 1990s and are still being developed. Many of these communities were subject to the Sustainable Suburbs Study that was created in the mid-1990s and proposed greater community densities and mix of residential and commercial uses than communities built in the 1970s and 1980s. Typically, they are characterized as relatively low-density residential neighbourhoods containing single-family housing, smaller pockets of multi-family and locally-oriented retail in the form of strip developments located at the edges of communities. The road network is curvilinear, with a hierarchical streets system, including major collectors that circulate through a community with local crescents, p-loops and culs-de-sac feeding off of it. Transit service to most areas is provided from the internal collector roadway.

Land use policies

a. The ASPs for Planned Greenfield Areas, in existence prior to adoption of the MDP, are recognized as appropriate policies to provide specific direction for development of the local community. Future reviews of, and amendments to, ASPs will be required to align with the policies of the MDP.



Typical Planned Greenfield Pattern

3.6.2 Future Greenfield Area

Future Greenfield Areas are those large land areas in the city identified for future urban development that do not have an approved ASP in place. Planning for these areas should identify Activity Centres and/or Corridors that provide for a variety of housing types, opportunities for daily needs within walking distance to residential communities, and centres for transit access. Supporting the land use pattern is a street network that connects residents, jobs and commercial services through direct automobile, transit, bicycle, and pedestrian routes. The overall community design should integrate natural area protection within the open space and green infrastructure systems.

Land use policies

a. Future Greenfield Areas should:

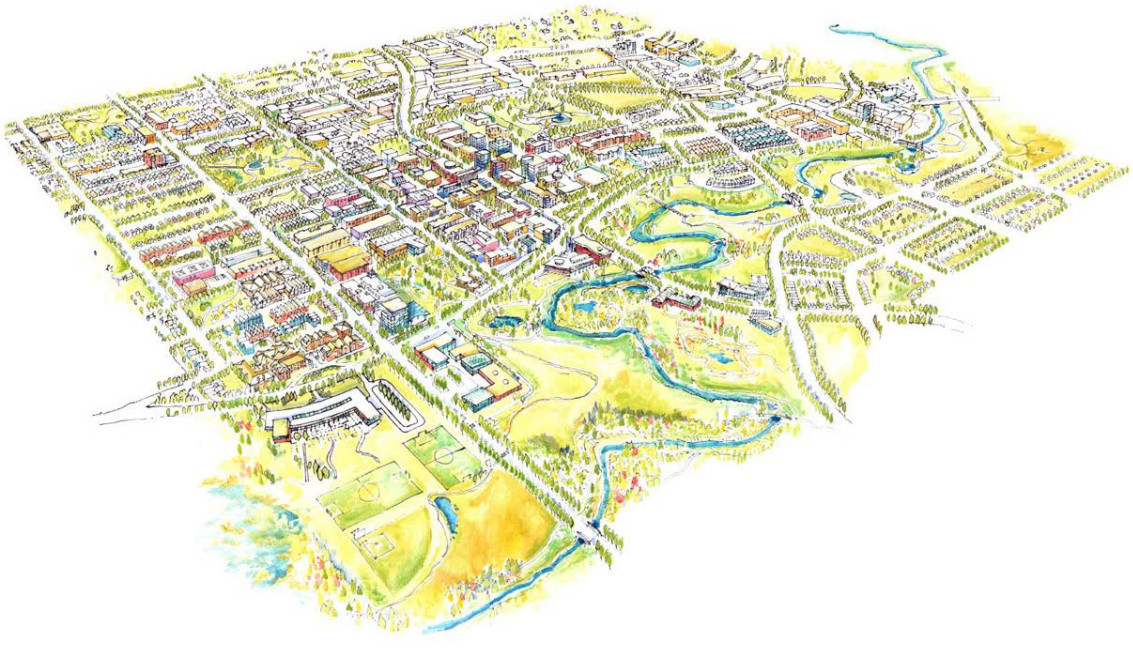
   i. Be protected for future urban development by restricting premature subdivision and development on parcels;

   ii. Retain environmentally significant natural areas, water courses and tree stands;

   iii. Allow for a limited range of uses that will not compromise the developability of the land for urban purposes; and,

   iv. Allow for local food production.

b. Plans for new communities in Future Greenfield Areas will be established through an Area Structure Plan



Possible Future Greenfield Area (Residential)
Source: Design Centre for Sustainability, SALA, UBC

(ASP), following completion of a Regional Context Study (RCS).

c. ASPs for new communities in Future Greenfield Areas will achieve a minimum intensity threshold of 60 people and jobs per gross developable hectare. This community intensity level includes NACs, CACs, Urban Corridors and Neighbourhood Corridors, as identified in the ASP. ASPs must also demonstrate how a target density of 70 people and jobs per gross developable hectare can be achieved over the life of the plan.

In addition to the intensity threshold, other factors should be considered in the development of an ASP. These include:

i. minimum residential density in conformity with the Calgary Metropolitan Plan;

ii. land use diversity;

iii. residential diversity;

iv. accessibility to the Primary Transit Network;

v. street and walk/cycle connectivity;

vi. ecological networks and green infrastructure; and,

vii. mix of local and regional retail.

d. New communities should be organized to include the following:

i. A number of distinct neighbourhoods that are defined by a 400-metre or five-minute walking distance from a NAC or Neighbourhood Corridor;

ii. A physical combination of public realm and related built form that establishes a "heart" or focus for the community;

iii. A NAC or Neighbourhood Corridor to serve each neighbourhood that contains multi-family housing and an enhanced transit stop, and may contain local employment, retail services or a school;

iv. A CAC may be provided to serve the needs of one or more communities. The location and scale of the CAC will be determined through the RCS and ASP processes; and,

v. Retail developments should be planned in accordance with the retail policies contained within Part 4.

e. NACs or Neighbourhood Corridors should be identified through the ASP process and appropriately separated from higher order Activity Centres or Corridors.

f. Encourage the concentration of residential density in areas adjacent to open space, parks, wetlands and sports fields, especially where the area is served by transit, services and other community amenities. These locations should be identified through the ASP process.

g. Create a hierarchy of recreation facilities and parks and open spaces that accommodate as many recreation functions as possible, appealing to a range of users, age groups and abilities (See Section 2.3).

h. New communities and neighbourhoods should be designed and have a built form that allows for adaptation, which can evolve and be reused over time.

Mobility policies

i. Create a street network that is interconnected, multi-modal, and balances the needs of all users, in accordance with the Local Transportation Connectivity policies of the CTP.

j. When designing new streets or retrofitting existing streets, use the Complete Streets policies in the CTP.

k. Facilitate the movement of cyclists by providing direct connections to the Primary Cycling Network.

l. Existing rural road rights-of-way in Future Greenfield Areas should be protected for potential incorporation into the future transportation network, as required.

Public realm policies

m. Activity Centres should contain locally-focused open spaces, which can include community and city-wide services and amenities such as schools, community association facilities, civic buildings, transit and recreation facilities.

n. Watercourses, significant wetlands and other key natural features should be prioritized for protection and integrated into the public open space and green infrastructure networks.

o. Parks and recreation facilities, sport and cultural facilities should be located throughout the community in walkable proximity to all residences and designed to provide for flexibility of recreation uses over the lifecycle of the community.

3.7 Industrial Areas

Industrial areas provide for a broad variety of industrial uses and intensities that support business in Calgary. Industrial areas must offer flexibility to support this variety of uses – both those that currently exist as well as uses that may arrive in the future. At the same time, industrial areas must remain predominantly industrial and resist the encroachment of non-industrial uses into them, including residential, office and retail. Three types of industrial types are identified – Standard Industrial, Industrial – Employee Intensive and Greenfield Industrial. The Standard Industrial Area policies provide a base layer of policy that will apply to all industrial areas throughout Calgary. Additional policy for industrial areas is contained within the Industrial – Employee Intensive and the Industrial Greenfield sections.

3.7.1 Standard Industrial Area

The Standard Industrial Area consists of existing planned industrial areas that contain a mix of industrial uses at varying intensities. These areas continue to offer a broad variety of industrial uses and as the area redevelops, the industrial character should be maintained.

Land use policies

a. Industrial uses should continue to be the primary use.

b. Allow for the development and retention of a broad range of industrial uses and a variety of industrial parcel sizes.

c. Uses that support the industrial function of this area and cater to the day-to-day needs of area businesses and their employees may be supported.

d. Discourage stand-alone office uses and regional retail developments in industrial areas.

e. Regional or city-wide recreation and sport facilities may be provided in industrial areas to meet the extensive land needs of city-wide recreation and sport programs. These facilities should be designed and located to be accessible to transit routes, cycling routes and pathways.

f. Portions of the Standard Industrial Areas may be appropriate for redevelopment as non-industrial or mixed-residential business areas, given their proximity to existing communities and the Primary Transit Network. Any proposal for such a change will require an amendment to relevant Local Area Plans or, if there is no Local Area Plan, an amendment to the MDP to indicate the area is no longer required for Standard Industrial Area purposes.

g. Encourage the development of eco-industrial/ business parks, characterized by:

   i. Water flows designed to conserve resources and on-site stormwater management that cascades water through uses at different quality levels;

   ii. Businesses that utilize clean production methods;

   iii. Businesses that have reduced energy needs and consumption;

   iv. Maximum energy efficiency through facility design or rehabilitation, co-generation, energy cascading and other means; and,

   v. Best environmental practices in materials selection and building technology. These include recycling or reuse of materials and consideration of life cycle environmental implications of materials and technologies.

Mobility policies

h. The road network should support the efficient movement of trucks, goods and services throughout the Standard Industrial Area.

i. Street networks should be designed to allow Base Transit Service and provide sufficient coverage to support the access needs of area businesses and their employees.

j. Convenient connections and accessibility should be achieved within industrial areas, as per the Local Transportation Connectivity policies in the CTP.

k. Streets that provide direct connections to transit services should provide facilities and amenities for pedestrians, cyclists and transit.

l. When designing new streets or retrofitting existing streets, use the Complete Streets policies in the CTP.

m. New intermodal sites and warehousing facilities should develop within 1600 metres of the Strategic Goods Movement Network (see the CTP).

n. Protect the integrity of primary goods movement corridors by limiting direct access from truck routes to adjacent properties.

o. Sidewalks shall be provided to connect to transit stops to major businesses in the surrounding industrial areas.

p. Transit waiting facilities should be provided in public rights-of-way or, where possible, integrated with adjacent industrial or commercial developments.

Public realm policies

q. In cases where the Standard Industrial Area interfaces with other types of land uses and public rights-of-way, provide street trees, landscaping, fencing and architectural elements for sites that are highly visible to the public from skeletal roads, and along the city's major entranceways.

r. Development or redevelopment of industrial sites should provide for good walking environments within the site and to adjacent public sidewalks and transit stops.

s. Public open space should be provided throughout the Standard Industrial Area to provide recreational opportunities for area employees.

3.7.2 Industrial-Employee Intensive

The Industrial-Employee Intensive Area is intended for manufacturing, warehousing and mixed industrial/office developments that have high labour concentrations and require access to the Primary Transit Network. They can be new business parks locating in newly planned areas (i.e., Greenfield Industrial typology), or they could also occur as part of redevelopment and intensification of the Standard Industrial Areas, at transit stops and along Corridors served by the Primary Transit Network.

Land use policies

a. Industrial-Employee Intensive Areas should achieve a minimum intensity threshold of 100 jobs per gross developable hectare.

b. Industrial-Employee Intensive Area should contain predominantly industrial uses. Other uses that support the industrial function may be allowed. Specific rules for the amount of support uses should be determined as part of the policy planning process and land use application process.

Mobility policies

c. Ensure that the Industrial-Employee Intensive Area is served by the Primary Transit Network.

d. Streets that provide direct connections to higher order transit services should provide amenities for pedestrians, cyclists and transit.

e. Roads and streets within Industrial-Employee Intensive Areas should provide for the efficient movement of goods.

f. When designing new streets or retrofitting existing streets, use the Complete Streets policies in the CTP.

g. Sidewalks should be provided along all streets to connect businesses with the Primary Transit Network.

Public realm policies

h. Encourage forms of accessible public or private open space to create amenities and local destinations in conjunction with transit stations, higher intensity uses and the local retail/service areas.

3.7.3 Greenfield Industrial Area

Greenfield Industrial Areas are future industrial areas located at the edge of the city. These areas provide land for future industrial growth.

Land use policies

a. Plans for industrial development in Greenfield Industrial Areas will be established through an Area Structure Plan (ASP), following completion of the RCS.

b. Ensure that the primary function of Greenfield Industrial Areas is for a broad range of standard industrial activities and industry-related commercial functions including:

   i. Value-added manufacturing, advanced technology industries, warehouse and distribution activities; and,

   ii. Employee intensive industrial uses in locations where the Primary Transit Network is provided within or adjacent to new industrial areas.

c. Greenfield Industrial Areas should be located to provide sufficient separation from adjacent non-industrial uses or include special conditions that reduce the potential for conflict.

Mobility policies

d. The road network should support the efficient movement of trucks, goods and services throughout the Standard Industrial Area.

e. Street networks should be designed to allow Base Transit Service and provide sufficient coverage to support the access needs of area businesses and their employees.

f. Convenient connections and accessibility should be achieved within industrial areas, as per the Local Transportation Connectivity policies in the CTP.

g. Streets that provide direct connections to transit services should provide facilities and amenities for pedestrians, cyclists and transit.

h. When designing new streets or retrofitting existing streets, use the Complete Streets policies in the CTP.

i. New intermodal sites and warehousing facilities should develop within 1600 metres of the Strategic Goods Movement Network (see the CTP).

j. Protect the integrity of primary goods movement corridors by limiting direct access from truck routes to adjacent properties.

k. Sidewalks should be provided to connect transit stops to major businesses in the surrounding industrial areas.

l. Transit waiting facilities should be provided in public rights-of-way or, where possible, integrated with adjacent industrial or commercial developments.

Part Four

Specific use policies

4.1 Retail

Retail development serves numerous purposes. It provides local and regional goods and services, supports employment areas, provides employment, contributes to the health and vitality of the local economy and provides opportunities to integrate transit into the design of concentrated centres of activity. Retail developments also play a special role in providing publicly accessible spaces and in shaping unique public gathering destinations across the city. These combined factors suggest there is a significant public interest in the location and urban design of retail development.

4.1.1 Retail structure

The retail landscape in Calgary has evolved over the years to include a wide variety of locations and scales. There are older patterns of development that have formed over many decades, and there are patterns and retail formats that have emerged more recently. Providing direction for this diversity of retail requires an approach that respects the current retail landscape as well as the desire to ensure that future retail developments are better aligned with the overall integrated land use and transportation strategies of the MDP.

The retail structure emphasizes the role and function of the various retail scales and their importance in providing retail service at the local and city-wide level. This categorization places less emphasis on the built form, which is often subject to shorter term, trend based designs. By utilizing this approach, it is simpler to categorize and monitor changes in retail over time. It also provides a framework for planning future retail developments in Calgary.

Policies

a. Retail development is categorized into six groups that define its role and function within Calgary. The size of the retail centre should not be defined by an individual retail development, but rather by all retail developments within the immediate vicinity. The six retail categories are:

   i. Regional

      a. Super Regional Retail Centre

      b. Regional Retail Centre 1

      c. Regional Retail Centre 2

   ii. Local

      a. Community Retail Centre 1

      b. Community Retail Centre 2

      c. Neighbourhood Retail Centre

b. The nine retail sectors (see Figure 4-1) should be used to monitor the distribution of retail throughout the city.

c. Within each of the nine retail sectors, the distribution between Regional and Local retail should be approximately 45 per cent Regional and 55 per cent Local within each of the nine retail sectors (see Figure 4-1).

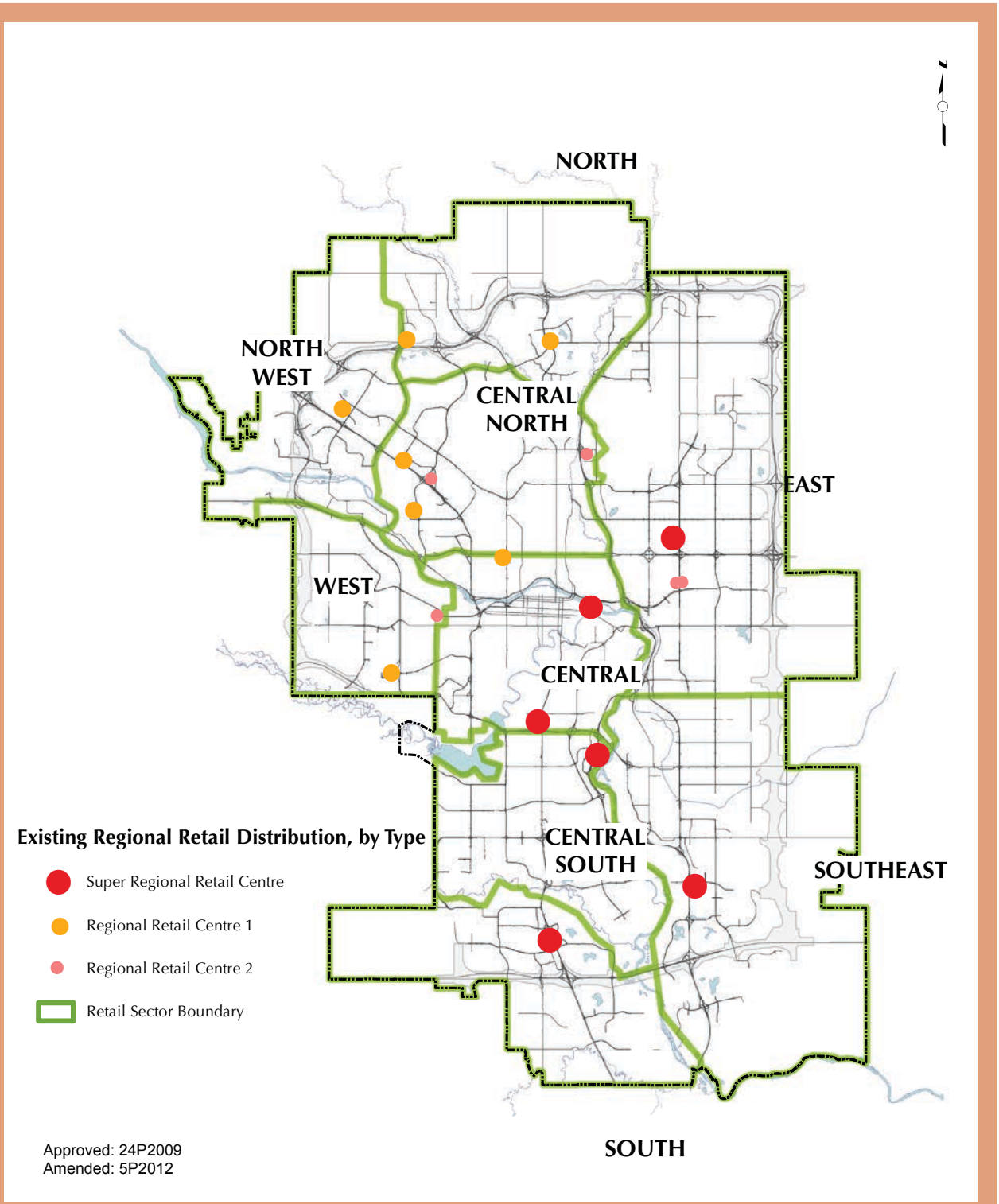


Figure 4-1: Calgary retail sectors and regional retail distribution, by type

4.1.2 Retail categories

The following table provides the framework for retail categories to determine the appropriate type and distribution of retail:

Retail Centre Category	Approximate Size (sq. m.)	Location Criteria	Suggested Proportion of Retail in Sector (percent)
Super Regional Retail	Larger than 93,000	Key city gateway locations	20
Regional Retail 1	46,500 to 93,000	Serving a retail sector	20
Regional Retail 2	9,300 to 46,500	Serving a retail sector	5
Community Retail 1	Approx. 9,300	Serving multiple communities	20
Community Retail 2	Less than 9,300	Serving one or more communities	20
Neighbourhood Retail	Less than 1,900	Serving a sub-area of a community	15

Table 4-1: Framework for retail categories

Policies

City-wide retail

a. Redevelopment, improvements and expansion of existing retail areas should be a priority.

b. The creation of new or the redevelopment of existing community and neighbourhood retail centres to serve community needs should be a priority.

c. The city should strive to achieve an appropriate mix of retail types within each of the nine retail sectors (see Table 4-1: Framework for retail categories).

d. A retail area should conform to the policies of the relevant Typology area, as defined in Part 3-Typologies for Calgary's future urban structure.

e. Create and retain viable local retail and mixed-use areas that encourage business creation, residential development and community services; while maintaining compatibility with the neighbourhood-oriented character of the retail.

f. Support the development and maintenance of areas with a wide range of character and function that provide for the employment, service, retail and housing needs of Calgary's existing and future population.

g. Support comprehensively planned retail developments at all scales to provide for high quality public systems (e.g., sidewalks, pathways, open spaces) and designed to allow for intensification to accommodate residential uses.

h. Facilitate the development of retail areas within communities, by providing:

   i. A full mix of uses to be developed over time;

   ii. Active ground floor uses;

   iii. Conveniently located, safe and accessible pedestrian linkages that connect retail entrances with internal and public pedestrian networks and transit stops; and,

   iv. Enhanced public realm pedestrian linkages and gathering spaces on site.

Established retail areas

i. Retail should be included as part of the mixed-use at Activity Centres and along Corridors.

j. Redevelopment of older shopping centres and commercial strips should include mixed use developments that create greater residential and employment variety while retaining a retail function.

Greenfield retail areas

k. Regional retail centres should be identified through a Regional Context Study. The location, scale and size of these sites will further be refined through a subsequent Area Structure Plan process.

l. Regional Retail centres should provide for:

   i. Direct on-site linkages and amenities for pedestrians; and,

   ii. Reduced visual and environmental impact of large parking lots.

m. New Regional Retail centres should be evaluated in terms of their impact on the city as a whole and their immediate surroundings, based on the following criteria:

   i. Consistency with the growth strategy of the MDP;

   ii. Compatibility with Local Area Plans and the location relative to Activity Centres and Corridors; and,

   iii. The physical impact of the centre with regard to:

      a. Integration with transit networks to serve retail centres;

      b. The ability of the street system to handle the associated traffic volumes;

      c. The need for other possible public expenditures;

      d. Integration with surrounding community development; and,

      e. The quality of the site development, including the landscaping, parking, access, pedestrian and vehicular circulation.

n. The location of community and neighbourhood retail centres should be identified through the Area Structure Plan process, and located and appropriately separated from other larger retail centres to support viability of the local retail. As a general guide, local retail developments should be:

   i. Located to support integrated residential development, or to serve adjacent higher density residential areas of the community; and,

   ii. Supported by a convenient pedestrian network that provides direct access to the retail site.

o. Retail sites should be planned around transit stops or stations and should provide good accessibility by a variety of modes to provide connections to surrounding neighbourhoods and developments.

4.2 Protection of sand and gravel resources

The City recognizes the strategic importance of retaining local sources of building materials within a sustainable city to minimize the need to import resources into the city. The MDP provides policies respecting the protection of sand and gravel sources from premature urban development, as well as direction for protecting existing sand and gravel extraction operations and mitigating conflicts with adjacent urban uses.

Policies

a. Protect existing and future aggregate sources from premature use for urban development, and ensure appropriate mitigative measures to protect and facilitate aggregate extraction.

b. Allow the continuation of existing sand and gravel extraction operations in accordance with the conditions of the necessary permits.

c. Support the recycling of concrete, pavement and stone in locations that minimize nuisance impacts of dust, noise, odours and truck traffic on surrounding urban development.

d. Routes for truck access and egress to the site should be indentified and located to minimize nuisance impacts.

4.3 MGA-mandated policies

This section provides policies for the land use and development adjacent to sour gas facilities, protection of agricultural operations, and development in the vicinity of the airport.

Map 6 identifies areas of the city where some of these constraints apply.

4.3.1 Sour gas policies

There are a number of issues pertaining to sour gas operations within Calgary's boundaries and adjacent municipalities that need to be considered within the MDP. One is ensuring that the minimum requirements of the MGA are included. Another is recognizing that parts of Calgary's long-term growth areas lie within, or adjacent to, active sour gas fields. These fields and the facilities may have decades of life left in them, and sour gas may not be extracted as quickly as desirable. Sour gas facilities could impact Calgary's future urban growth corridors and efficient community design and operations by leaving large areas of serviced land undevelopable, as well as the safety of the general public and emergency responders in the event of an accident.

The policies of the MDP provide municipal direction to guide the planning and development processes that deal with the locating of types of land uses in relation to sour gas facilities. The MDP also addresses compatibility issues between urban growth and sour gas facilities by minimizing nuisance impacts from dust, noise and truck traffic on residential communities. The MDP policies are intended to be applied in concert with other administrative policies and procedures for dealing with on-going issues around oil and gas activities and applications, including maintaining public safety and emergency response and working pro-actively with the industry to address public notification and information needs. Part 3 of the CTP also supports these policies and provides direction for emergency evacuation routes.

Policies

a. Support in principle the accelerated resource extraction in areas with little or no existing urban development to allow for orderly and safe city development; however, each situation will be evaluated on its merits.

b. The City will apply appropriate safety setbacks as determined by the Energy Resources and Conservation Board (ERCB).

c. Residential uses, permanent overnight accommodations and public facilities shall not be developed in the vicinity of sour gas operations, unless located outside setbacks established by the ERCB.

d. Industrial, commercial or other non-residential uses may be developed adjacent to sour gas facilities, subject to any setbacks as determined by the ERCB.

e. Reserve the right to apply The City's own setback regarding nuisance factors for sour gas facilities.

f. In determining appropriate locations and timing of growth within Long-term Growth Areas, Regional Context Studies should identify the location of active and future sour gas operations and facilities, the projected life span of those operations and the impact of the facilities and safety setbacks on the cost effective design of future urban communities, as well as potential impacts on Emergency Planning Zones, evacuation route planning and Calgary's emergency responders.

4.3.2 Agricultural operations

The MGA directs that a municipal development plan must contain policies respecting the protection of agricultural operations within its boundaries. The City recognizes that agriculture is a viable use of land prior to urban development. It supports its continuation by allowing extensive agriculture as a Permitted Use in the Land Use Bylaw and restricts the fragmentation of agricultural land until needed for urban development. The City also supports the use of such lands for the long term food security of the city.

Policies

a. Protect existing agricultural operations by maintaining appropriate definitions and land use designations in the Land Use Bylaw.

b. Prevent the premature fragmentation of agricultural land.

c. *Review proposals for subdivision or land use changes within the context of The City's growth management activities, ASPs, Implementation Guidebooks and development permit application processes.*

Bylaw 46P2013

4.3.3 Airport Vicinity Protection Area (AVPA)

The Calgary International AVPA Regulation defines lands within the city that are subject to the AVPA, as well as Noise Exposure Forecast (NEF) contour lines. These impose varying degrees of land use, development and building restrictions on affected parcels of land.

Policies

a. Enforce land use, development and building regulations within municipal areas impacted by airport operations.

b. Incorporate relevant land use, development and building regulations into Local Area Plans for areas impacted by the airport operations.

c. Notify the Calgary International Airport at the outset of land use planning studies or development applications for lands within the AVPA.

4.4 Flood Hazard Areas

This section provides policies that give direction to guide the planning and regulations that govern the development within the Flood Hazard Area (FHA), in concert with other administrative policies and the Land Use Bylaw.

In Canada, floods are the natural disasters that cause the most damage and expense to communities. Climate change models indicate flood events will likely occur more frequently and severely than in the past. Therefore it is imperative The City be proactive in its approach to increasing resiliency and be forward thinking with regard to regulating land uses and development within Flood Hazard Areas.

Throughout its history, Calgary has experienced flooding of varying degrees with recent major events occurring in 2005 and 2013. Though these floods caused minimal loss of life, they significantly impacted the city in causing social, environmental and economic damages. All citizens of Calgary are stakeholders, either directly or indirectly, in being impacted by flooding and in how The City responds to flood events. Therefore, the approach to flood risk reduction will place a priority on the public good over private interests.

The City's top priorities in the approach to reducing impacts from flood events are to:

- *Increase public safety through appropriate land use and development regulations in the FHA;*
- *Minimize property damage by requiring all development and redevelopment in the FHA to be designed to mitigate the potential impact or obstruction of floodwaters;*
- *Enhance Calgary's flood resiliency by employing a comprehensive approach to flood risk reduction measures; and*
- *Align The City's policies and regulations to meet at least the minimum standards set by the Province.*

Flood hazard mapping is developed by the Province and identifies the floodway, flood fringe and overland flow areas, each with varying levels of flood risk. These maps are based on the 100-year flood event and are a crucial part of informing policy direction regulating development. The 100-year flood event has a 1% likelihood of occurring in any given year, which is generally linked to a river water flow-rate. It does not mean that this size of flood event will only occur every 100 years.

The floodway is the area closest to rivers and has the highest risk for damage to buildings and development located there as the flood water is the deepest and fastest moving. Development in the floodway may potentially increase upstream water levels and therefore increase the risk of damage to those areas. Reducing the level of development within the floodway overtime will contribute to a reduction in risk exposure to people, property and the environment.

Flood fringe and overland flow areas have comparatively lower risk for flood damage, since flood water is shallower and slower moving than in the floodway. People can generally tolerate occasional flooding in these areas, and development does not cause higher upstream river water levels. Flood risk reduction measures can be incorporated into development to reduce the amount of damage that is likely to occur during a 100-year flood.

Due to this discrepancy in risk, a graduated approach to regulating land use and development in the FHA is appropriate, with the floodway having higher strictness than the flood fringe and overland flow areas.

The City regulates land use and development; however, where development and redevelopment in the FHA is allowed to occur, it is undertaken by choice of the land

owner, and involves their acceptance of risk of potential flood damage.

Policies

a. *Increase public safety, reduce private and public property damage and enhance the city's flood resiliency, through the following:*

   i. *Flood risk reduction work undertaken by, or on behalf, of The City of Calgary within the floodway, consisting of repairing river banks, erosion control, and land stability where the primary purpose is to enhance public safety, protect public infrastructure and ensure proper function of river morphology, be allowed without requiring a development permit;*

   ii. *All new development in the floodway should be refused by the Development Authority, with the exception of the following;*

      - *uses related to agriculture, open space, outdoor recreation, parks, transportation infrastructure and utilities; and*
      - *the redevelopment of low density residential buildings on the existing building footprint where sufficient risk reduction measures have been taken to the satisfaction of the Development Authority.*

   iii. *For redevelopment of existing buildings where the building footprint straddles both the floodway and flood fringe, the redeveloped building should be located exclusively in the flood fringe;*

   iv. *All redevelopment of existing low density residential buildings in the floodway must be done through a discretionary permit process;*

   v. *All buildings located in the floodway, flood fringe or overland flow area must be designed to prevent:*

      - *damage by floodwaters;*
      - *damage by elevated groundwater; and*
      - *incremental increase of upstream river water levels.*

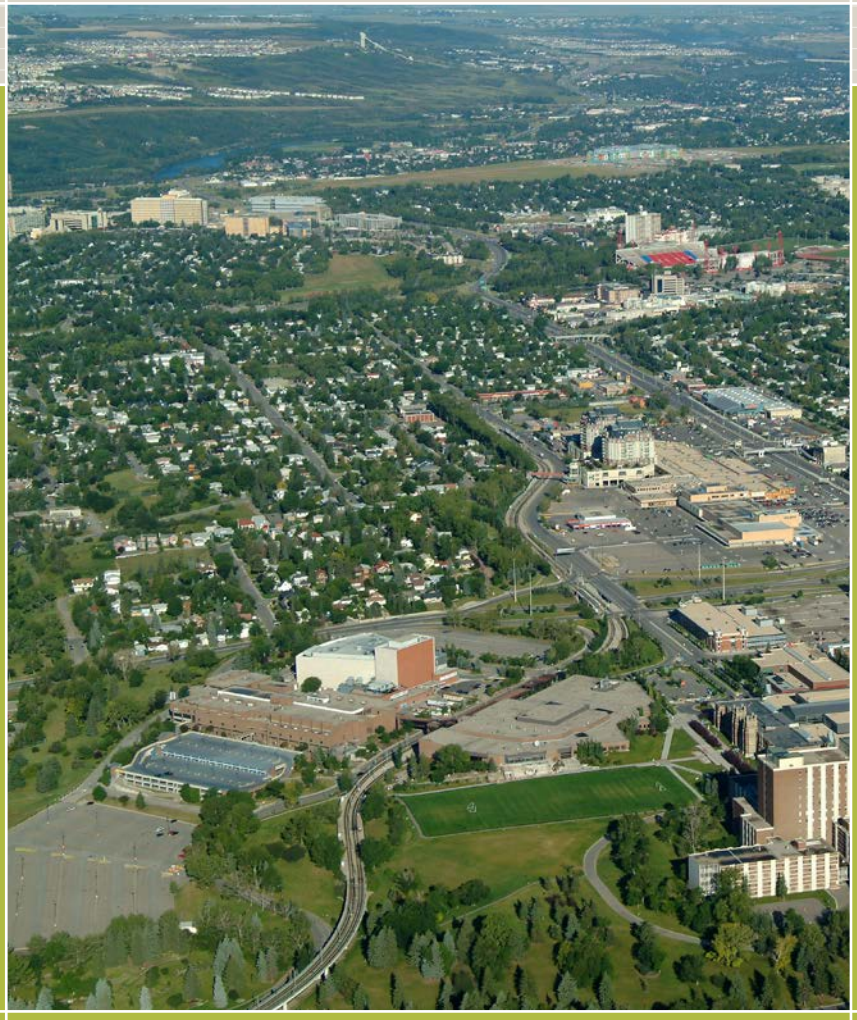
   vi. *The Development Authority, when reviewing applications that propose flood risk reduction measures, ensure that public safety and minimizing property damage take precedence in considering development relaxations that may alter the existing built form context and development pattern in a neighbourhood. Approved relaxations should be commensurate with the degree of proposed flood risk reduction measures;*

   vii. *Align The City's flood policy and development regulations to at least meet the minimum standards set by the Government of Alberta; and*

   viii. *Recognize the importance of using up to date flood modelling information as the basis for informing policy and development regulations;*

   ix. *In areas with Community Scale Flood mitigation measures in place, relaxation of redundant mitigation in individual buildings should be considered.*

Bylaw 12P2014



Part Five

Framework for growth and change

Part 5 – Framework for growth and change

Goal As stewards of the land within its jurisdiction, the City of Calgary will provide leadership on growth and change within a strategic framework that achieves the best possible social, environmental and economic outcomes while operating within The City's financial capacity. The City will work with key stakeholders to achieve this goal.

5.1 Introduction

The City of Calgary provides leadership on growth and change to ensure the best possible social, environmental and economic outcomes for the citizens of the city both now and in the future. The City must also ensure that growth and change occurs within its financial capacity as the cost of supplying and maintaining infrastructure and services is a considerable demand on the budget of the Corporation. In addition, The City must ensure that growth occurs within the legislative and regulatory framework of other orders of government. In particular, the Alberta Land Use Framework and the Calgary Metropolitan Plan will provide direction on how the city grows and interacts within a regional and provincial context. Section 5.2 presents a Strategic Framework for Growth and Change designed to facilitate Calgary's development patterns in a way that meets these challenges. The Framework is comprised of eight objectives, each with specific policies.

5.2 A strategic framework for growth and change

In order to strengthen The City's approach to managing growth, a Strategic Framework for Growth and Change has been developed (Figure 5-1). In practice, the Framework will ensure that policy, strategy and resources for growth are better aligned to facilitate Calgary's supply of planned and serviced lands and achieve the objectives of the Calgary Metropolitan Plan (CMP), the Municipal Development Plan (MDP) and the Calgary Transportation Plan (CTP).

The Strategic Framework indicates the role of the provincial government which provides legislative direction for land use and transportation planning through the Municipal Government Act, the City Transportation Act and the Alberta Land Use Framework. The MDP and CTP, in turn, provide policy direction for an integrated growth and change strategic process for The City of Calgary. This ongoing process will be led by senior management through the General Managers Strategic Growth Committee (GMSGC) and Directors Sub-Committee. When setting planning and investment priorities the GMSGC will consider the following inputs; the policy direction of the MDP and CTP, the MDP and CTP performance monitoring, the Monitoring Growth and Change Series (land supply and demand information), Regional Context Studies and information on The City's infrastructure and fiscal capacity for growth.

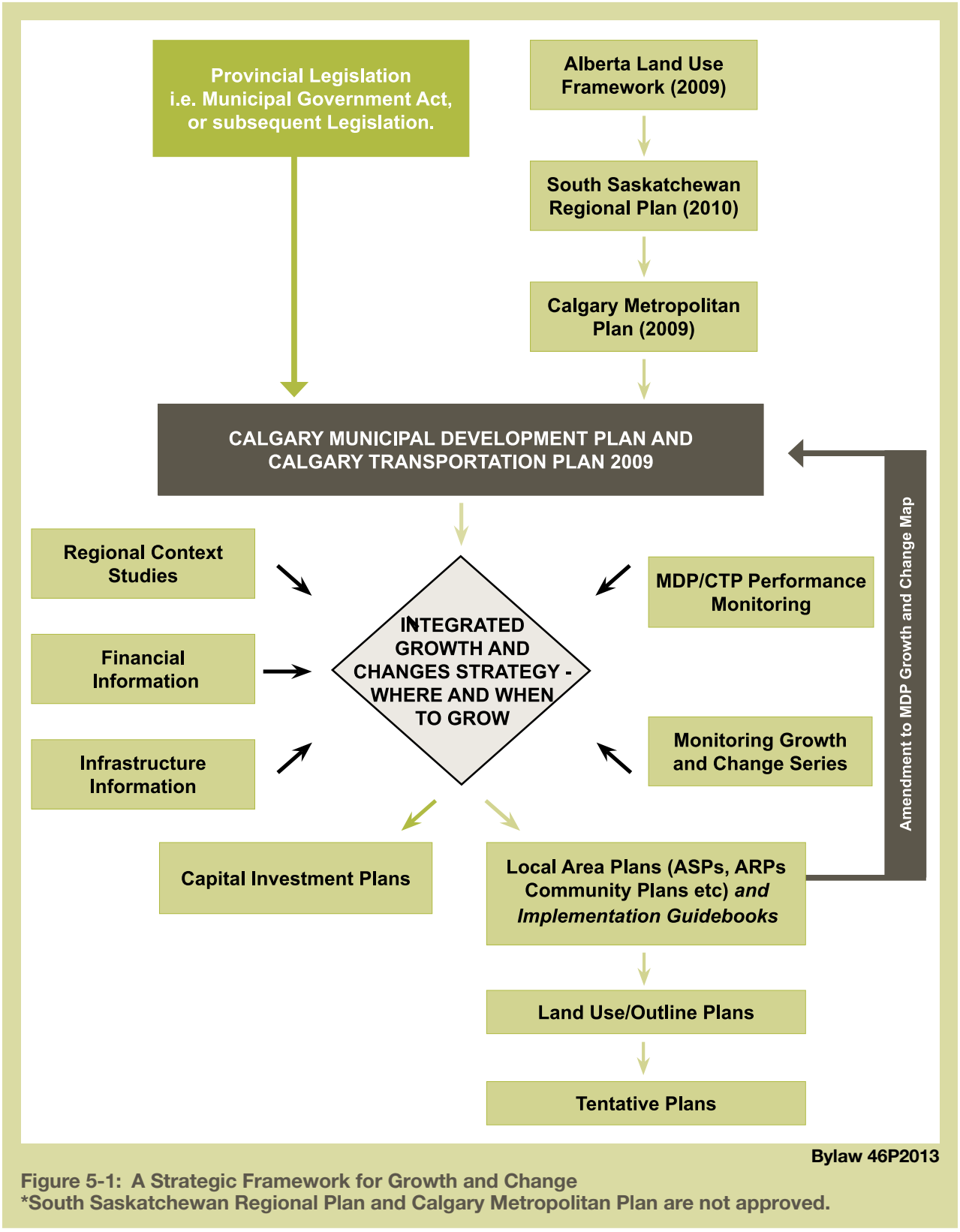


Figure 5-1: A Strategic Framework for Growth and Change
*South Saskatchewan Regional Plan and Calgary Metropolitan Plan are not approved.

5.2.1 Strong relationships

Objective Maintain strong relationships with municipal neighbours, regional partners and key stakeholders within Calgary, to ensure that growth and change decisions reflect provincial and regional policies and the direction of the MDP and CTP.

In order to achieve a good quality of life of for all people in the Calgary region, and to support the long-term health of our regional communities, The City of Calgary is committed to maintaining strong relationships with our municipal neighbours and regional partners. The City also supports strong relationships with key stakeholders within Calgary to ensure that the growth and change of our city benefits all citizens, now and into the future.

Policies

a. Continue to consult and work with inter-municipal and regional partners to ensure the best possible outcomes to issues of mutual interest within the framework of the draft Calgary Metropolitan Plan.

b. Continue to consult and work with the development and building industries regarding matters of municipal process and policy in order to ensure mutual understanding and to support shared goals and objectives.

c. Continue to consult and work with other stakeholders (including community associations and citizens' and industry groups) regarding matters of municipal process and policy to ensure mutual understanding and to support shared goals and objectives.

5.2.2 Strategic decisions

Objective Maintain Calgary's ability to grow over the long term by ensuring that growth and change decisions facilitate a land supply that aligns with the direction of the draft CMP, MDP and CTP.

The MDP and CTP are aligned with the policy directions of the Alberta Land Use Framework and the draft Calgary Metropolitan Plan. The MDP and CTP contain a 60 year perspective that provides policies for Calgary to: guide where growth occurs; define the patterns of growth; and define the city's transportation networks. The policies of the MDP provide the primary source of direction for strategic growth and change decisions and should remain the primary source until a formal review of MDP is complete. *A 10-year review cycle will provide policy certainty for three complete City business and budget cycles, while providing a clear long-term direction for development (as per Section 1.5)*.

Bylaw 46P2013

Policies

a. Continue to protect and manage Calgary's long-term growth requirements through the policies of the draft Calgary Metropolitan Plan and through Inter-municipal Development Plans with adjacent neighbours.

b. Maintain within The City's jurisdiction at least a 30-year supply of developable land for all uses.

c. Endeavour to accommodate 50 per cent of Calgary's future population growth over the next 60 to 70 years within Developed Areas of the city.

d. Endeavour to accommodate 33 per cent of Calgary's future population growth within Developed Residential Areas of the city by 2039.

e. City planning and investment decisions must support the policy and growth directions of the Calgary Metropolitan Plan, the Municipal Development Plan and the Calgary Transportation Plan.

5.2.3 Planned land supply

Objective Broaden The City's practice for determining planned land supply and maintain The City's practice for serviced land supply.

The City's practice is to maintain up to a 15-year planned land supply (i.e., land with approved policy plans in place) and up to five years of serviced suburban land (i.e., land with infrastructure in place). Both of these practices ensure that an adequate supply of land is in place to meet the growth needs of the city. Information on land supply and demand is produced regularly through The City's Monitoring Growth and Change Series.

To ensure information regarding Calgary's planned land supply is comprehensive and includes land in both the Greenfield and Developed Areas, it is necessary to develop a methodology to inventory land supply within the Developed Areas. It is also necessary to enhance commercial, retail and office land supply information. Comprehensive information will facilitate better decisions regarding city-wide growth and change.

Policies

a. Endeavour to maintain up to a 15 year planned land supply to support a healthy, competitive land market throughout the city.

b. Endeavour to maintain 3 - 5 years of serviced suburban land.

5.2.4 Support intensification of Developed Areas

Objective Support the strategic intensification of Developed Areas with a variety of processes and investments.

The City must take an active role in supporting the strategic intensification of Developed Areas. The City will undertake a review of how intensification of Developed Areas can be facilitated through The City's planning processes and investment decisions. This will require: continued attention to process improvements for development applications; a pro-active approach to community outreach and engagement; and the implementation of a wide array of planning and urban design initiatives in order to support intensification.

The City will provide leadership by sequencing and co-ordinating its infrastructure investment priorities to support intensification. It will also provide leadership through demonstration projects that will serve as models for the changes in urban form required to achieve the goals of the MDP 2009. The City will work with the development and building industries and communities to facilitate intensification initiatives that support the direction of the MDP and CTP.

Policies

a. Provide a wide choice of housing type and location by prioritizing and facilitating growth and redevelopment in existing communities in a variety of locations throughout the city.

b. The City will provide leadership on intensification through its investment in infrastructure and the public realm and through demonstration projects that model the changes required in housing and development forms.

c. The City will consult with communities and the development and building industry to facilitate intensification initiatives.

5.2.5 Linking land use to municipal financial and infrastructure capacity

Objective Ensure decision-making on growth and change incorporates The City's financial and infrastructure capacities.

The City will face significant capital and operating shortfalls over the next 10-year period if it continues to provide the same services, in the same way, with the same revenue. Much of this shortfall is driven by the choices around when, where and how we grow. It will be necessary to improve decision making by incorporating the implications of capital and operating expenditures into growth decisions, including Regional Context Studies and all Local Area Plans.

As the land use approving authority, The City has an obligation to provide essential infrastructure when it grants land use approvals for new developments, including core services such as water, wastewater, roads and fire and police services. The City is also responsible to its current and future citizens for ensuring the provision of complete community infrastructure including transit, libraries, parks and recreation facilities. Provision of infrastructure and the associated operating and maintenance costs require substantial ongoing investment.

In order to incorporate financial and infrastructure capacity into decision-making on growth and change, the information inputs will have to be enhanced. For example, a life-cycle costing methodology for infrastructure may be required.

Policies

a. Municipal capacity to finance growth shall be a priority consideration in growth and change decisions including Regional Context Studies, Local Area Plans and major land use applications.

b. Municipal capital investment in infrastructure (including new and maintenance/refurbished) should be prioritized in the following manner:

   i. Support intensification of Developed Areas of the city;

   ii. Expedite the completion of communities in Planned Greenfield Areas; and,

   iii. Supporting the development of Future Greenfield Areas.

c. Align The City's capital planning programs, such as the Transportation Infrastructure Investment Program, the Emergency Response Infrastructure Investment Program, the Culture, Parks and Recreation Infrastructure Investment Program, etc., to support the direction of the MDP and CTP.

5.2.6 Integrated decision-making

Objective Make decisions regarding growth and change in an inter-departmental and integrated manner.

Decisions on land supply must take into consideration the financial and infrastructure implications for The City. The MDP proposes a strategic decision-making process with a mandate to integrate corporate information and rely on an inter-departmental management structure.

Policies

a. Make land use planning decisions and investment decisions within a strategic, inter-departmental process.

5.2.7 Public accountability

Objective Provide a public accountability structure for making growth and change decisions and for communicating progress toward the direction of the MDP and CTP.

City Council is accountable for growth and change decision-making. In order to enhance that accountability, a Growth and Change Map (Map 2) is included in the MDP. This map will describe the areas where growth and development are being planned through Local Area Plans. When Council provides direction to proceed with Local Area Plans, amendments will be required to Map 2. Communicating with the public regarding progress toward the direction of the MDP and CTP will also be achieved by monitoring the Core Indicators (Figure 5-2) and reporting to Calgarians.

Policies

a. Recommendations to proceed with the preparation of a Local Area Plan shall be based on but not limited to the following criteria:

   i. Advancing the objectives of the MDP, CTP and other corporate strategic initiatives;

   ii. An assessment of The City's financial capacity;

   iii. An assessment of the City's infrastructure;

   iv. A demonstrated need for planned land within the city;

   v. Consideration of the operating and life-cycle costs to The City in supplying and maintaining infrastructure;

   vi. The City's ability to provide efficient and cost-effective utility servicing;

   vii. Opportunities for land use that supports Primary Transit Network;

   viii. Landowner interest; and,

   ix. Community interest.

b. City Council shall make the decision to begin preparation of a Local Area Plan by amending the Growth and Change Map of the MDP (Map 2).

c. Upon adoption of a new Local Area Plan, all relevant maps in both the MDP and CTP must be updated.

5.3 Monitoring and reporting

Objective Provide a basis for effective strategic decision making by monitoring and reporting on the progress made towards achieving the goals and objectives of the MDP.

The MDP and CTP are not static documents. They establish strategic policy directions but periodic progress checks must be undertaken to review whether progress is being made.

To evaluate progress toward the policy direction of the MDP and CTP, a broad spectrum of indicators and targets has been developed. The Core Indicators for Land Use and Mobility can be found in Figure 5-2. These indicators are proxy measures for the social, environmental and economic performance of the MDP and CTP. They are intended to track the overall progress towards achieving the goals and objectives of the MDP and CTP. However, these indicators and targets are not intended to be applied to individual Local Area Plans and land use applications. It is important to note that no one or two measures in isolation indicate progress. The full set of indicators should be measured and reported in order to provide a comprehensive picture.

Each of the indicators is accompanied by a target. The targets provide a desired performance outcome for an indicator over a specified period of time. The targets were based on benchmarking of other cities and through engagement with stakeholders. The targets represent a direction that The City wishes to achieve through its planning and investment processes and through collaborative work with other orders of government, the public and stakeholders.

A monitoring and reporting program will be developed for the Core Indicators for Land Use and Mobility as part of the MDP/CTP implementation program. A regular cycle of reporting on the Core Indicators will provide performance information to Council, Administration and the public.

Reporting will be conducted in advance of each 3-year City business planning cycle and will assist in developing investment strategies and strategic growth decisions. The reporting process will also help ensure that implementation strategies and corporate processes are aligned with the long term goals of the MDP and CTP. In addition to evaluating progress towards the targets contained in this section, additional reports will look at current growth forecasts, market trends and The City's financial capacity.

A major review of the Core Indicators for Land Use and Mobility should occur on a ten year basis as part of the MDP policy review process (which will assess whether the policy direction remains appropriate or requires adjusting). Each metric and target will be evaluated to ensure that they align with the updated vision and policies of the MDP and CTP.

Policies

a. The City will measure the Core Indicators for Land Use and Mobility on a continuous basis and report to Council, Administration and the public on the progress towards the targets prior to each business planning cycle.

#	Core Indicators	Metric	Baseline	60-year Target
1	Urban Expansion	Per cent of population growth accommodated within developed area (2005 boundary area)	In 2005, the developed area of the city was losing 5% of population to greenfield area.	50%
2	Density	People per hectare	In 2005, Calgary had a population density of 20 people per hectare.	27
		Jobs per hectare	In 2005, Calgary had employment density of 11 jobs per hectare.	18
3	Population / Jobs Balance	Population/Jobs East/West ratio	In 2005, the population/ jobs East/ West ratio was 2.7.	1.7
		Population/Jobs North/South ratio	In 2005, the population/ jobs North/ South ratio was 1.9.	1.7
4	Mix Land use	Land Use Diversity Index	In 2008, land use mix diversity index was 0.53.	0.7
5	Residential Mix	Residential Diversity Index	In 2008, residential diversity index was 0.19.	0.4
6	Road and Street Infrastructure	Roads to Streets ratio	0.72 (42% Roads and 58% Streets)	0.57 (36%Roads and 64% Streets)
7	Accessibility to Primary Transit Network	Per cent of population within 400m of Primary Transit Network	LRT is the only transit service approaching Primary Transit levels of service in Calgary today.	45%
		Per cent of jobs within 400m of Primary Transit Network	LRT is the only transit service approaching Primary Transit levels of service in Calgary today.	67%
8	Transit Service	Annual transit service hours per capita	Currently, 2.2 transit service hours are provided for each resident in Calgary annually.	3.7
9	Goods Access	Per cent of intermodal and warehousing facilities within 1600m (actual) of Primary Goods Movement Network	Currently, 73% of intermodal and warehousing facilities are located within 1600m of Primary Goods Movement Network.	95%
10	Transportation Mode Split	Walking and Cycling Mode Split (all purpose trips, 24 hours, city-wide)	In 2005, walk and bike trips contributed to 14% of all trips made.	20% - 25%
		Transit Mode Split (all purpose trips, 24 hours, city-wide)	In 2005, 9% of all trips were made by transit.	15% - 20%
		Auto Mode Split (all purpose trips, 24 hours, city-wide)	In 2005, 77% of all trips were made by car.	65% - 55%
11	Accessibility to Daily Needs	Per cent of population within Major and Community Activity Centres, and 600m of Urban and Neighbourhood Corridors	In 2006, 18% of all population was located within Major and Community Activity Centres, and 600m of Urban and Neighbourhood Corridors.	30%
12	Watershed Health	Per cent of impervious surface	In 1998, 32% of land cover was impervious (made up of roadways, parking and buildings).	10% - 20%
13	Urban forest	Per cent of tree canopy	Canopy cover was 7% in 1998.	14% - 20%
14	District Energy	Per cent of land area with densities supportive of district energy systems	In 2005, only 0.3% of land area had densities supportive of district energy systems.	1.7%

Figure 5-2: Core Indicators for Land Use and Mobility

Part Six

Glossary

Part 6 – Glossary

action
A specific task to help achieve an objective or implement a policy.

active modes
Non-motorized travel, primarily walking and cycling, but which also includes rollerblading and movements with mobility devices.

affordable housing
Housing that meets the needs of households earning 65 per cent or less of the median household income in Calgary that are spending 30 per cent or more of their gross annual household income on shelter.

amenity space
Common or private, indoor or outdoor space provided on-site and designed for active or passive recreational use.

Approving Authority
The Subdivision Authority, Development Authority or Subdivision and Development Appeal Board of The City of Calgary, as the context implies. **Bylaw 46P2013**

Area Redevelopment Plan (ARP)
A statutory plan as defined by the Municipal Government Act, that directs the redevelopment, preservations or rehabilitation of existing lands and buildings, generally within existing areas of the city.

Area Structure Plan (ASP)
A statutory plan as defined by the Municipal Government Act, that directs the future land use patterns, transportation and utility networks and sequence of development in new communities.

Arterial Street
Arterial Streets provide a high-quality environment for all modes of transportation. These streets are not destinations themselves, but provide reasonably direct connections between multiple communities and major destinations. They have varying degrees of interaction with adjacent land uses but, on average, allow for greater connectivity than through roads.

Base Transit Service
A network of feeder, crosstown, circulator and shuttle services whose primary function is to provide comprehensive community coverage to complement and augment the Primary Transit Network. The minimum level of service for the Base Transit Network is every 30 minutes.

benchmarking
A standardized method for collecting and reporting critical operational data in a way that enables relevant comparisons among the performances of different organizations or programmes, usually with a view to establishing good practice, diagnosing problems in performance and identifying areas of strength. Benchmarking gives the organization (or the programme) the external references and best practices on which to base its evaluation and to design its working processes.

brownfield site
A brownfield site is an abandoned, vacant, derelict or underutilized property where past actions have resulted in real or perceived contamination and where there is an active potential for redevelopment. Brownfield sites include parcels of all sizes from corner gas stations to large areas encompassing many properties.

built environment, or built form
The engineered surroundings that provide the setting for human activity and includes buildings, streets and structures (including infrastructure).

Bus Rapid Transit (BRT)
A type of limited stop bus service that relies on technology to speed up the service. It can operate on exclusive transit ways, high occupancy vehicle lanes and any type of road or street. A BRT line combines

intelligent transportation systems technology, priority for transit, rapid and convenient fare collection and integration with land use policy, in order to upgrade bus system performance substantially.

Calgary Region

The geographic area encompassing Calgary and other municipal jurisdictions, all of which comprise the Calgary Regional Partnership.

Calgary Regional Partnership

An association of municipalities in the Calgary Region – from Crossfield in the north to Nanton in the south, and from Banff in the west, to Wheatland County in the east, with Calgary at its Centre.

canopy cover

The area within the boundaries of Calgary covered by tree and forest foliage.

capacity

The volume of vehicles a roadway was designed to carry in a unit of time, such as an hour. Can also be applied to transit or bicycle/pedestrian pathways.

cascading energy

Energy cascading is using residual heat in liquids or steam from a primary process to provide heating or cooling to a later process. For example, excess steam from a power plant or refinery may be used in a food processing plant or greenhouse.

co-generation

The capturing and using of otherwise "wasted" heat from the electrical generating process.

compact urban form

A land-use pattern that encourages efficient use of land, walkable neighbourhoods, mixed land uses (residential, retail, workplace and institutional all within one neighbourhood), proximity to transit and reduced need for infrastructure.

complete community

A community that is fully developed and meets the needs of local residents through an entire lifetime. Complete communities include a full range of housing, commerce, recreational, institutional and public spaces. A complete community provides a physical and social environment where residents and visitors can live, learn, work and play.

complete street

A street designed and operated to enable safe, attractive and comfortable access and travel for all users, including pedestrians, cyclists and public transit and private vehicle users. A complete street incorporates green infrastructure and optimize public space and aesthetics wherever possible. The degree to which any one street supports different modes of transportation, green infrastructure or public space varies depending on surrounding context and role of the street.

Concept Plan

A plan that may be required, at the discretion of the Approving Authority, to be submitted at the time of Outline Plan / Land Use Amendment application, showing the relationship of the design of the subject site with adjoining parcels, the possible development of adjoining parcels, and/or the next phases of development. **Bylaw 46P2013**

congestion

A condition lasting 15 minutes or longer where travel demand exceeds the design capacity of a transportation facility.

connectivity

The directness of links and the density of connections in a path or road network. A connected transportation system allows for more direct travel between destinations, offers more route options and makes active transportation more feasible.

connectivity index
A value calculated as the number of links divided by the number of nodes in a given area (such as a community or Activity Centre). The higher the value, the easier it is to travel directly from one place to another. Two different indices are specified in this plan – one for active modes and another for streets.

core indicators
The most significant measures to provide an overall picture of our progress toward achievement of the key directions for land use and mobility.

Crime Prevention Through Environmental Design (CPTED)
The proper design and effective use of the built environment, which may lead to a reduction in the fear and incidence of crime and an improvement in quality of life.

cycle-track
Dedicated space for bicycles built into street right-of-ways. They are separated physically from both vehicle travel lanes and sidewalks to improve safety and efficiency for all modes of transportation.

density
A measure of the number of dwelling units on a parcel of land, expressed in units per hectare or in units per parcel.

design indicators
Design indicators are criteria for measuring progress towards sustainability, with a focus on the issues relating to the interaction and design of land use and transportation systems (e.g., proximity of population and jobs to convenient transit). Effective design issues should be measured easily and reliably, be simple and easy to understand, and can be used to drive future decision-making processes related to land use and transportation.

Development Permit
A Development Permit indicates permission from the Approving Authority for construction or changes of use in accordance with The City of Calgary Land Use Bylaw.
Bylaw 46P2013

diversity
An environment that offers a variety of experiences to patrons. Mix of land uses, architecture, street design and landscaping can all contribute to providing variety.

ecological integrity
A condition where the structure and function of an ecosystem are unimpaired by stresses induced by human activity and that condition is likely to persist.

ecological network
A network of ecological components (core areas, corridors and buffer zones) which provides the physical conditions necessary for ecosystems and species populations to survive in a human-dominated landscape.

ecosystem
A dynamic system of plants, animals and other organisms, together with the non-living components of the environment, that functions as an interdependent unit.

Engineered Stormwater Wetland
A constructed and/or modified water body that fluctuates with water drainage peaks but holds water at all times. The wetland is used to improve stormwater runoff quality through nutrient and sediment removal using vegetation, detention, settlement and other best management practices. The wetland is also used to manage the volume of runoff through storage and restricted pipe outlets. Engineered Stormwater Wetlands have a habitat function with existing or constructed riparian and upland vegetation communities. The wetland boundary may be dedicated as Environmental Reserve in accordance with the Municipal Government Act, and the adjacent buffer

or riparian and upland vegetation may be dedicated as MR, and all forebays should be dedicated as Public Utility Lots. **Bylaw 46P2013**

entranceways or gateways
Important transportation connections either to enter the city or to signify entrance into a specific part of the city. Well-designed entrances welcome people and provide a sense of arrival to an important place.

Environmental Open Space
A city-wide network composed of the River Valley System, the urban forest, Environmentally Significant Areas, and natural environment parks. Lands within the Environmental Open Space qualify as both or either Environmental Reserve or Environmentally Significant Area. Where an area identified as Environmental Open Space is not protected or acquired, it may be considered developable according to the policies of this Area Structure Plan, subject always to Plan Limitations. **Bylaw 46P2013**

Environmentally Significant Area (ESA)
A natural area site that has been inventoried prior to potential development and which, because of its features or characteristics, is significant to Calgary from an environmental perspective and has the potential to remain viable in an urban environment. A site is listed as an Environmentally Significant Area on the basis of meeting one or all of the criteria listed in Appendix C of The City of Calgary Parks' Open Space Plan.

escarpment
A steep slope formed by the erosive action of water, and normally adjacent to a watercourse.

Floor Area Ratio (FAR)
The quotient of the total gross floor area of a building on a parcel divided by the gross site area of the parcel. FAR is one of the measures to direct the size and massing of a building in relation to the area of the parcel of land it occupies.

goal
A desirable condition to be achieved – a sought-after end state that is not quantifiable or time-dependent. Provides context for corresponding objectives and policies.

goods movement
The transportation of goods, usually freight, by road, rail and/or air. Lighter service vehicles may also be included.

Green Corridor
The recreational component of Environmental Open Space, providing pathways and linking ecological networks. **Bylaw 46P2013**

green infrastructure
An interconnected network of natural green and engineered green elements applicable at multiple scales in the land use and mobility framework. Natural green elements include the conservation and integration of traditional green elements such as trees, wetlands, riparian areas and parks. Engineered green elements include systems and technologies designed to mimic ecological functions or to reduce impacts on ecological systems. Examples include green alleys, green buildings and green roadways and bridges.

greyfield
An outdated, vacant or failing commercial or institutional site. The term "grey" refers to the large area of concrete and asphalt that typically accompanies retail sites.

Gross Developable Hectare / Acre
Gross developable acre/hectare is calculated by starting with the gross area of land and deducting non-developable lands. **Bylaw 46P2013**

Gross Developable Residential Area

Gross Developable Residential Area is the total developable area available for general residential development. It is also used as the base measurement for density. GDRA is calculated by starting with the gross area of land and deducting non-developable land and land required for regional uses. **Bylaw 46P2013**

habitat fragmentation

Fragmentation occurs when a large region of habitat has been broken down, or fragmented, into a collection of smaller patches of habitat. Fragmentation typically occurs when land is converted from one type of habitat to another.

High Occupancy Vehicle (HOV) lane

A roadway lane designated for use by transit vehicles and carpools with at least two to three people. The highest service HOV lane is a reserved transit lane.

hydrology

The study of the movement, distribution and quality of water throughout the Earth; hydrology thus addresses both the hydrologic cycle and water resources.

impervious surfaces

Mainly artificial structures, such as building roofs, road pavements, sidewalks and parking lots that cannot be easily penetrated by water, thereby resulting in runoff.

indicator

A variable that is representative of progress towards the achievement of an objective, policy or action.

Industrial Arterial

Streets located in industrial areas. Their first priority is the efficient movement of heavy trucks but, as streets, they still accommodate all modes of transportation.

infrastructure

The technical structures that support a society, including roads, transit, water supply, sewers, power grid, telecommunications, etc.

intensification

The development of a property, site or area at a higher density than currently exists. Intensification can be achieved through redevelopment, development of vacant/underutilized lots, the conversion of existing buildings, or through infill development in previously developed areas.

intensity

A measure of the concentration of people and jobs within a given area calculated by totalling the number of people either living or working in a given area.

intermodal facilities

Places that accommodate connections between transportation modes. Typically refers to break of bulk locations between rail and air and truck

jobs/housing (population/jobs) balance

A measure of the relationship between the number of residents and the number of jobs in a specific area. The commonly used metric of this balance is simply the number of residents divided by the number of jobs in that community.

Joint Use Site

Lands set aside for or including a school building, a location for a school building or a school playing field and community playing fields with facilities and grounds which are accessible to both school and non-school users. **Bylaw 46P2013**

Land Use Bylaw (LUB)

The City of Calgary Land Use Bylaw 1P2007.

land use diversity
An indicator used to describe the mix of different land uses within a given community or planning area, expressed in terms of the mix of land use districts.

legibility
The degree to which users of a space are able to perceive and understand its layout and function readily.

life cycle cost
The sum of all recurring and one-time (non-recurring) costs over the full life span or a specified period of a good, service, structure or system. It includes purchase price, installation cost, operating costs, maintenance and upgrade costs and remaining (residual or salvage) value at the end of ownership or of its useful life.

Light Rail Transit (LRT)
Electrically-powered rail cars, operating in sets of three to five cars per train on protected rights-of-way, adjacent to or in the medians of roadways or rail rights-of-way. Generally at grade, with some sections operating in mixed traffic and/or tunnels or on elevated bridge structures.

linkages
Linear systems that connect places and built form. Linkages allow for the movement of people and goods within the urban fabric.

logistics
The management of the flow of goods, information and other resources, including energy and people, between the point of origin and the point of consumption in order to meet the requirements of consumers.

low impact development (LID)
An approach to land development that uses various land planning and design practices and technologies to simultaneously conserve and protect natural resource systems and reduce infrastructure costs.

Master Drainage Plan
A stormwater drainage plan prepared for a large drainage area, usually serviced by one or more outfalls.
Bylaw 46P2013

metric
A standard measure to assess performance in a particular area.

mixed-use development
The development of land, a building or a structure with two or more different uses, such as residential, office and retail. Mixed-use can occur vertically within a building, or horizontally on a site.

Mobility Assessment Plan (MAP)
Framework for assessing the multi-modal transportation impacts of new developments. Replaces Transportation Impact Assessment (TIA).

mode split or modal split
The proportion of total person trips using each of the various modes of transportation. The proportion using any one mode is its modal share.

native biodiversity
Species of flora and fauna that are indigenous to a specific area.

Natural Environment Park
A city-owned park where the primary role is the protection of an undisturbed or relatively undisturbed area of land or water, or both, and which has existing characteristics of a natural/native plant or animal community and/or portions of a natural ecological and geographic system. Examples include wetlands, escarpments, riparian corridors, natural grasslands and woodlots. A relatively undisturbed Natural Environment Park would either retain or have re-established a natural character, although it need not be completely undisturbed.
Bylaw 46P2013

Neighbourhood Boulevard
These streets form the backbone of Neighbourhood Corridors and Activity Centres. Pedestrians are given the highest priority on these streets, which are fully integrated with adjacent land uses and provide the highest level of connectivity of all street types. Similar to Urban Boulevards, high quality urban design and green infrastructure strategies are incorporated into Neighbourhood Boulevards.

objective
An expression of a desired outcome or more specific way to achieve a goal.

Outline Plan / Land Use Amendment Application
Detailed planning and design of new communities, or the redevelopment of large areas of existing communities, is done through the outline plan and subdivision process. This involves design details such as the preservation of environmental areas, open space locations and reserve dedications, development patterns, land use mixes and local street networks. **Bylaw 46P2013**

park and ride lots
Parking lots located at LRT stations or bus stops that allow automobile users to park their private vehicles, access and transfer to and from public transportation service in a convenient manner.

parkway
A street that focuses on integration with natural areas. Natural vegetation and new forms of stormwater management would be integrated with the street. Adjacent land uses would include large natural parks, waterways or special public institutions.

pedestrian-oriented or pedestrian-friendly
An environment designed to make travel on foot safe, convenient, attractive and comfortable for various ages and abilities. Considerations include directness of the route, interest along the route, safety, amount of street activity, separation of pedestrians and traffic, street furniture, surface material, sidewalk width, prevailing wind direction, intersection treatment, curb cuts, ramps and landscaping.

pedestrian-scale/human-scale
Refers to the scale (height/proportions) and comfort level that the street level and lower stories of a building provide for pedestrians as they walk alongside a building or buildings.

performance indicator
See “indicator”.

performance measurement
See “metric”.

policy
A deliberate statement or plan to achieve an objective. Policies are instructive, directional and positive, but not limited to a single course of action when some other course could achieve the same result.

Primary Cycling Network
A network of on-street cycling facilities, pathways and cycle tracks that connects major destinations such as Activity Centres, mixed-use Corridors and major institutions.

Primary Transit Network
A permanent network of high-frequency transit services, regardless of mode, that operates every 10 minutes or better, 15 hours a day, seven days a week.

primary transit threshold
A minimum intensity of people or jobs per gross developable hectare that is required within walking distance of a transit station or stop to support service levels of the Primary Transit Network.

prominent sites

Sites which by their location and relationship to the urban and geographical form have a strong visual impact. Prominent sites include those that terminate a street, are on a street corner, frame or adjoin a public park or open space or are located on a ridgeline or other highly visible location.

Public Plaza

A Community amenity that serves a variety of users, including building tenants and visitors and members of the public. This space type may function as a pedestrian site arrival point, home for public art, setting for recreation and relaxation and an inconspicuous security feature for high-profile buildings. Plazas are a beneficial feature of any lively streetscape. **Bylaw 46P2013**

public realm

The space around, between and within buildings that are publicly accessible, including streets, squares, parks and open spaces. These areas and settings support or facilitate public life and social interaction.

public utility

Areas that provide space for large scale public utilities such as landfills and water treatment facilities.

redevelopment

The creation of new units, uses or lots on previously developed land in existing communities.

residential diversity

An indicator used to describe the mix of residential types in an area, expressed in terms of the mix by residential land use district area, or by mix of housing unit types.

right-of-way (ROW)

Publicly-owned land containing roads and streets and/or utilities.

riparian areas

Riparian areas are those areas where the plants and soils are strongly influenced by the presence of water. They are transitional lands between aquatic ecosystems (wetlands, rivers, streams or lakes) and terrestrial ecosystems.

riparian corridor

A riparian corridor is the interface between land and a stream.

Road and Street Palette

A functional classification system that differentiates between traditional Skeletal Roads, which primarily serve long-distance trips and do not interact with adjacent land uses, and Streets, which serve a broader range of transportation modes and do interact with adjacent land uses.

secondary indicator

A potentially more detailed or finely focused indicator, several of which, when combined, may support a core indicator.

sense of place

A strong identity and character that is felt by local inhabitants and visitors. Factors that help to create a "strong sense of place" include natural and cultural features, built form and architecture, mobility to and within the place and the people who frequent that place. Areas with a good sense of place often have elements that are appealing to the five senses (sight, smell, touch, taste, sound) and generally encourage people to linger longer and enjoy the atmosphere.

Skeletal Road

Skeletal Roads have an emphasis on moving vehicular traffic over long distances. They typically operate at high speeds and have little direct interaction with adjacent land uses. Ideally, they should form a skeletal grid across the city with approximately three to five kilometre spacing.

stream corridor
Generally consists of the stream channel, floodplain, and transitional upland fringe

streetcars
Urban rail vehicles operating a low speeds (e.g., 10 to 25 kph) in mixed traffic, with closely spaced stops (e.g., every 200 metres).

Street-Oriented
Design that supports orienting building frontages and primary entranceways towards the street rather than internal to a site. **Bylaw 46P2013**

streetscape
All the elements that make up the physical environment of a street and define its character. This includes paving, trees and vegetation, lighting, building type, style setback, pedestrian, cycle and transit amenities, street furniture, etc.

sustainability
Meeting the needs of the present without compromising the ability of future generations to meet their own needs. It includes environmental, economic and social sustainability. Sustainability is defined by the 11 Sustainability Principles for Land Use and Mobility, approved by Calgary City Council on Jan. 8, 2007.

target
A desired performance outcome for an indicator over a specified time period.

Transit Hub
A place of connectivity where different modes of transportation (walking, cycling, bus and rail transit) come together seamlessly and where there is an attractive, intense and diverse concentration of housing, employment, shopping and other amenities around a major transit station.

Transit-Oriented Development (TOD)
A compact, mixed-use community within walking distance of a transit stop, that mixes residential, retail, office, open space and public uses in a way that makes it convenient to travel on foot or by public transportation instead of by car.

transit-oriented, transit-friendly or transit-supportive
The elements of urban form and design that make transit more accessible and efficient. These range from land use elements, (e.g., locating higher intensity housing and commercial uses along transit routes) to design (e.g., street layout that allows efficient bus routing). It also encompasses pedestrian-friendly features, as most transit riders begin and end their rides as pedestrians.

transit priority measures
Strategies that improve transit operating speeds and transit travel time reliability in mixed traffic, such as traffic signal priority or queue jumps.

Transit Plaza
An area developed to serve as a public transportation centre, including onsite driveways, walkways, benches, bus shelters, and landscape areas. **Bylaw 46P2013**

universal design
Universal design is the design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design.

Urban Boulevard
A street type that forms the backbone of Urban Corridors and Activity Centres. It gives the highest priority to walking, cycling and transit but accommodates reasonably high volumes of vehicular traffic. Urban Boulevards are fully integrated with adjacent land uses and provide high levels of connectivity to surrounding communities and destinations. High quality urban design

and green infrastructure are also critical components of Urban Boulevards.

urban forest
All the trees and associated vegetative understory in the city, including trees and shrubs intentionally planted, naturally occurring or accidentally seeded within the city limits.

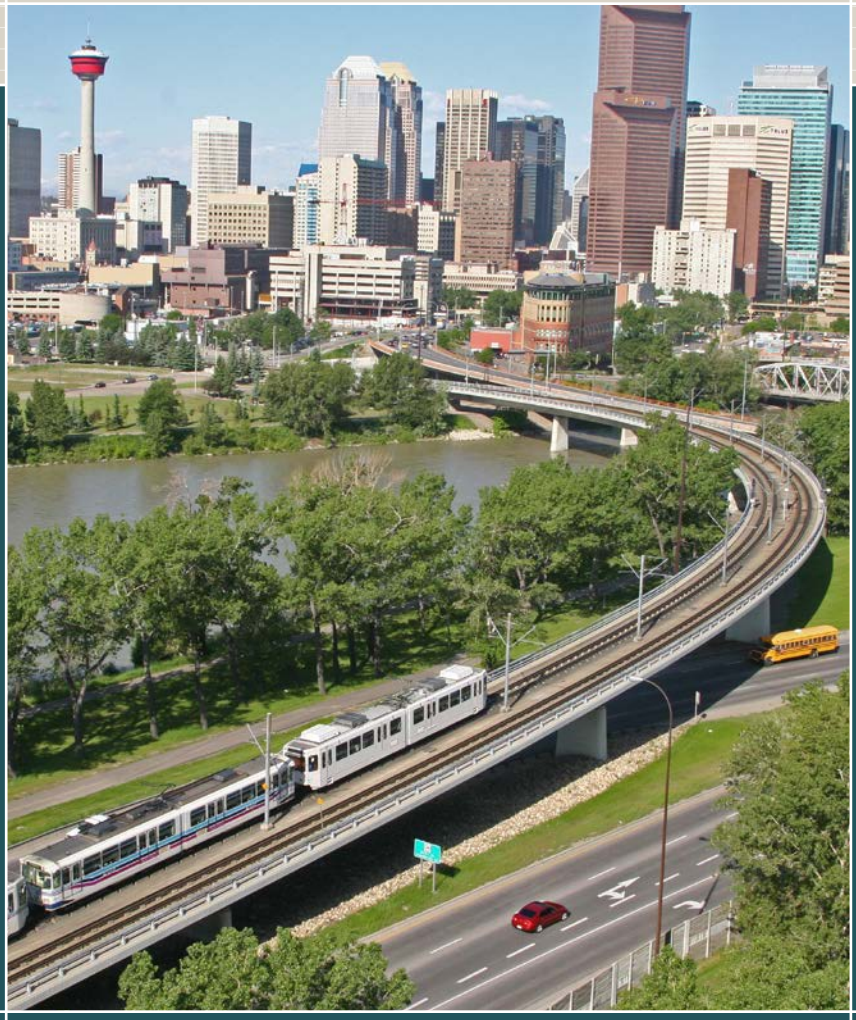
walkable
See "pedestrian-oriented."

Water Body
Any location where water flows or is present, whether the flow or the presence of water is continuous, intermittent or occurs only during a flood, and includes but is not limited to wetlands and aquifers. **Bylaw 46P2013**

watershed
Watersheds include groundwater, springs, wetlands, ponds, streams and lakes as well as all land that drains into these linked aquatic systems. Watersheds reflect both the natural characteristics of their geography and the impacts of human activities within them.

wayfinding
A term used to describe how people respond to the built environment to orient themselves. Elements that contribute to wayfinding include reference points such as signage, natural areas or parks, landmark buildings, bridges, distinctive lighting, public art, etc.

wetlands
A (Calgary) wetland is a waterbody and its bed and shores, that is naturally occurring or disturbed and is located within the Foothills Fescue and Foothills Parkland Natural Regions within the city of Calgary (as per the Wetland Conservation Plan).



Part Seven

Maps

Part 7 – Maps




VOLUME 2:
Implementation Guidebooks

MUNICIPAL DEVELOPMENT PLAN: VOLUME 2, PART 1

THE NEW COMMUNITY PLANNING GUIDEBOOK

Adopted by Council
February 11, 2014

TABLE OF CONTENTS

1.0 VISION AND CORE IDEAS

"Future Greenfield Areas are those large land areas in the city identified for future urban development that do not have an approved ASP in place. Planning for these areas should identify Activity Centres and/or Corridors that provide for a variety of housing types, opportunities for daily needs within walking distance to residential communities, and centres for transit access. Supporting the land use pattern is a street network that connects residents, jobs and commercial services through direct automobile, transit, bicycle, and pedestrian routes. The overall community design should integrate natural area protection within the open space and green infrastructure systems."

- MDP Section 3.6.2

Vision: Creating Complete Communities

The City will foster complete communities in greenfield areas by organizing development around compact activity centres and corridors that are connected, serviced and sustainable.

Core Ideas

1. Compact development

   New communities will make efficient use of land with focused growth in activity centres and corridors.

2. Multi-modal connectivity

   New communities will have a high degree of connectivity for pedestrians, cyclists, transit riders and motorists.

3. Utilities and community services

   New communities will have a full complement of utilities and social community elements.

4. Open space network

   New communities will have a conveniently located and interconnected system of programmed and natural open spaces serving a wide range of users.

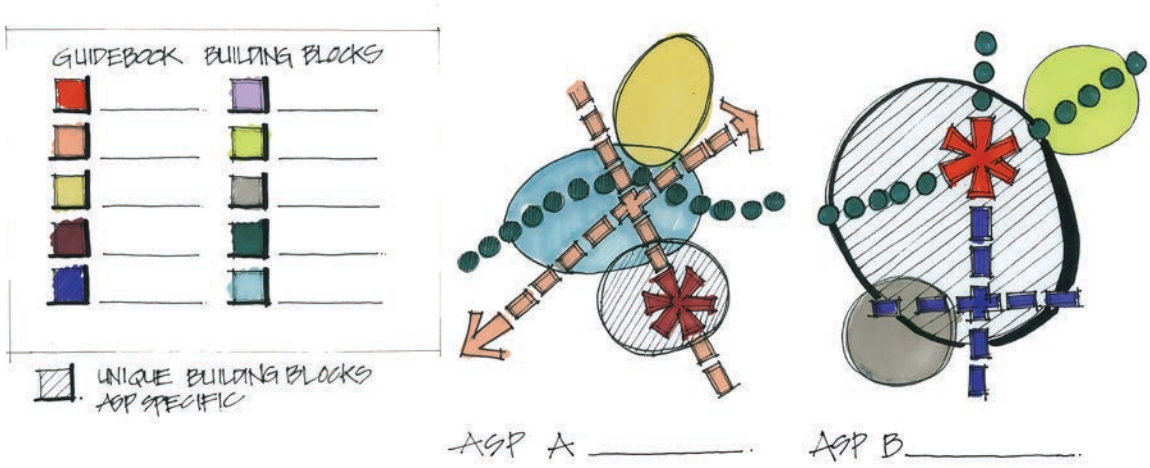
1.0 VISION AND CORE IDEAS

Guidebook Structure

This Guidebook:

- Provides the building blocks for new community design.
- Sets common standards for new community development.
- Translates the Volume 1 MDP objectives into implementation policy.

This Guidebook contains policy that is applied in conjunction with the policies of new community Area Structure Plans. It provides the basic building blocks for neighbourhood development.



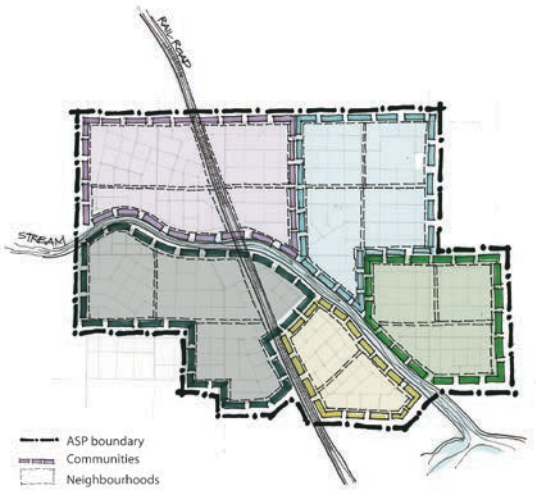
New community Area Structure Plans describe how those building blocks are arranged to produce neighbourhoods and communities. New community Area Structure Plans also provide any supplemental policies required in a particular plan area. Combined, they provide the policy for new community growth.

This structure translates the Municipal Development Plan's vision and core policies into implementation level policies in a way that standardizes and simplifies planning policies for new community growth.

This document starts by describing the forms of development (such as Neighbourhood Activity Centres, Urban Corridors, etc.) that are the building blocks of new neighbourhoods and communities. It then describes the community services and amenities that are necessary to support neighbourhoods and communities, such as transportation and parks. Lastly, implementation details are provided to guide Administration and applicants.

2.0 COMMUNITY FRAMEWORK

Greenfield development should result in complete communities. Growth in greenfield areas occurs at the neighbourhood and community scales. The neighbourhood is the basic scale. Neighbourhoods are comprised of multiple development forms within a walkable distance. Communities are comprised of a number of neighbourhoods and will have the elements needed for people to live, work, learn and play locally.



Complete Community

"A community that is fully developed and meets the needs of local residents through an entire lifetime. Complete communities include a full range of housing, commerce, recreational, institutional and public spaces. A complete community provides a physical and social environment where residents and visitors can live, learn, work and play."

- MDP Glossary

2.1 Communities

1. Composition

   Communities should be composed of a series of distinct neighbourhoods and be served by a community-scaled Activity Centre or focal point.

2. Intensity

   a. Each community shall achieve a minimum intensity of 60 people and jobs per gross developable hectare upon initial build-out.

   b. Each community shall be planned to achieve a potential minimum intensity of 70 people and jobs per gross developable hectare as plan area renewal and intensification occurs.

3. Identity

   Community identity should be enhanced through:

   a. preservation and integration of unique natural features;

   b. parks with character and other public spaces;

   c. a high quality of architecture and urban design to create attractive streetscapes;

   d. strong edge conditions;

   e. street names and signage that reflect local history and/or natural features;

   f. public art to be integrated with public places; and

   g. identification of historical resources, and development of interpretive features about such sites.

2.0 COMMUNITY FRAMEWORK

2.2 Neighbourhoods

"A neighbourhood is a distinct part of a larger community, containing up to 5,000 people. A neighbourhood is typically considered to be a primarily residential area within walking distance of a local commercial area, school, park, transit station, etc."

- MDP Section 2.2.5

1. Overview

   All lands within Communities should be identified as part of a Neighbourhood, with the exception of Environmental Open Space (see Section 3.4.2) which may form a boundary of one or more Neighbourhoods.

2. Size and Intensity

   a. A Neighbourhood should range between 40 and 75 hectares (99 and 185 acres) in size.

   b. A Neighbourhood should achieve a minimum density of 20 units per gross developable residential hectare (8 units per gross developable residential acre).

3. Composition

   A Neighbourhood should consist of a Neighbourhood Area that is designed around an Activity Centre, or Corridor. Each Neighbourhood should provide:

   a. A diversity of housing choices

   b. Neighbourhood-scale commercial and/or services

   c. Public spaces, parks and recreation facilities

   d. Public transit

   e. Green infrastructure

2.0 COMMUNITY FRAMEWORK

4. Housing and Service Mix

   The variability in housing mix and services should meet the needs of all ages, abilities, incomes, and sectors of society. To accomplish this, applicants are encouraged to incorporate the design elements of the following documents:

   a. Seniors Age-Friendly Strategy
   b. Alberta Building Code Standata on Adaptable Dwellings
   c. Calgary's Access Design Standards
   d. The Guidelines for Housing Affordability and Affordable Housing

5. Design

   a. A Neighbourhood should promote walkability, accessibility and sense of place.
   b. A neighbourhood should provide a distinct identity. This is created by designing development to incorporate natural features (including sightlines and access to natural areas), public parks, gathering places, streetscape design, distinctive buildings, landmarks and public art.
   c. The design of the Neighbourhood should incorporate emergency services safe design and Crime Prevention Through Environmental Design principles.
   d. The street and mobility network of a neighbourhood should be highly connective and block-based.

Typologies

Typologies are the building blocks of neighbourhoods and communities. They are distinct geographic and functional areas that share common attributes. These are detailed in sections 2.3 to 2.9.

2.3 Neighbourhood Areas

Neighbourhood Areas consist predominantly, though not exclusively, of residential uses. They provide a range of housing choices and convenient access to local destinations.

1. Neighbourhood Areas shall include a variety of housing forms and affordability levels.
2. Neighbourhood Areas should:
   a. include opportunities for home-based business uses; and
   b. provide opportunities for a variety of compatible uses only if such development does not compromise the viability of similar development in a nearby Activity Centre or Corridor.
3. If deemed appropriate in the Neighbourhood Area, multi-residential developments should:
   a. be located near transit, amenities, open space and should be integrated with other types of housing; and
   b. not compromise the viability of similar development in nearby Activity Centres, or Corridors.

2.4 Neighbourhood Activity Centres (NAC)

NACs are neighbourhood focal points containing a mix of transit supportive residential and non-residential uses. Connected to surrounding land uses by a network of converging streets, walkways and pathways, NACs are designed to have a positive pedestrian environment and an active public realm.

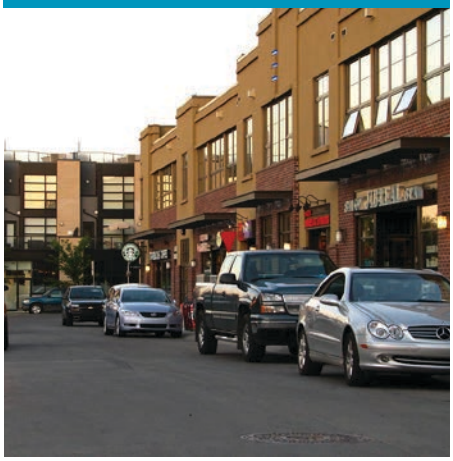
1. Location
    a. NACs should be located:
        i. central to the surrounding Neighbourhood Area in order that all neighbourhood residents live within a 400m radius and 700m walking route distance via the transportation network; and
        ii. along collector streets to allow access for transit services.

2. Size and Intensity
    a. Each NAC should be comprised of an area of approximately 2 to 4 hectares (5 to 10 acres).
    b. Each NAC shall be comprised of a mix of land uses that achieve a minimum intensity of 100 people and jobs per gross developable hectare.

3. Composition
    a. Each NAC should be a comprehensively planned, mixed-use area consisting of a central amenity space, medium-density multi-residential development, and a non-residential use.
    b. Buildings adjacent to streets within the NAC shall be street oriented and have direct pedestrian connections from the public sidewalk to building entrances.
    c. Ground floor units adjacent to a street within the NAC should have direct pedestrian access to the public sidewalk.
    d. At least 300m2 (3,230ft2) of building use area shall be provided in the NAC to provide for non-residential uses such as local commercial, civic, employment uses and other compatible uses in a mixed-use or stand-alone format.

"The Neighbourhood Activity Centre (NAC) is a neighbourhood-scale centre providing opportunities for residential intensification and local jobs, retail, services and civic activities"

- MDP Section 3.3.4



e. Non-residential development in the NAC:
   i. shall be oriented to the street and have direct pedestrian connections from the public sidewalk to building entrances;
   ii. may provide for only limited automotive uses;
   iii. should be small in scale, consistent with nearby residential areas; and
   iv. may include other compatible uses.

f. Residential uses in the NAC:
   i. shall accommodate a range of medium-density multi-residential development;
   i. should be developed on multiple sites less than 1 hectare (2.5 acres); and
   ii. should include opportunities for residential-based commercial uses.

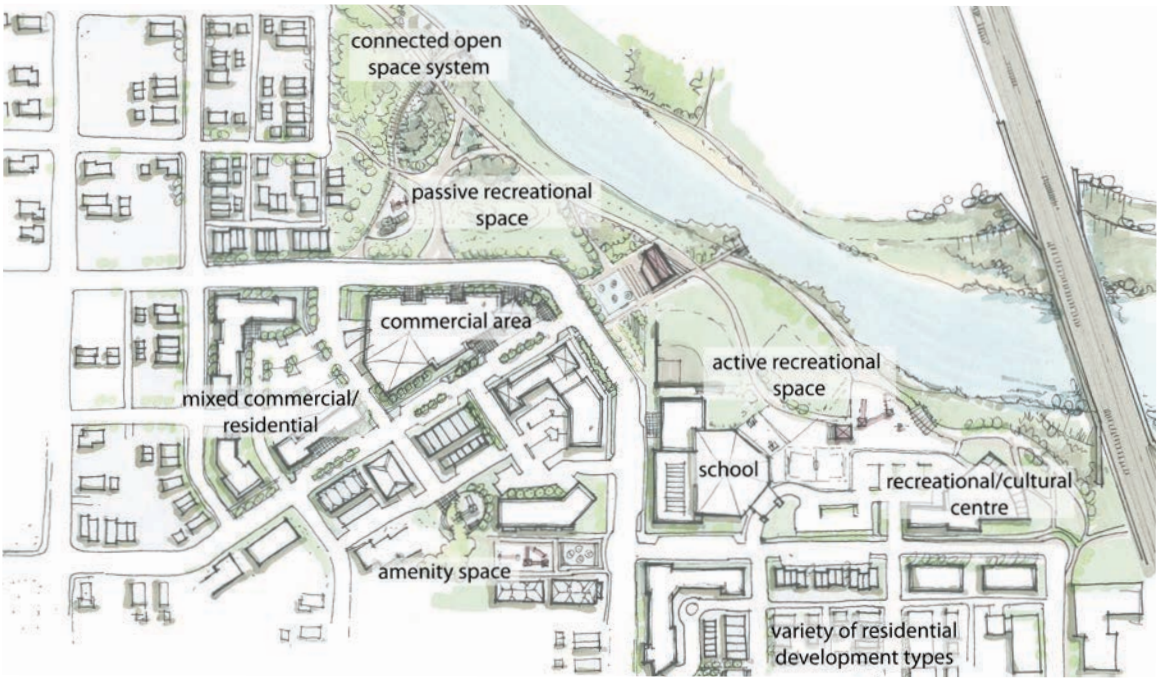
g. The central amenity space in a NAC:
   i. shall be designed as a multi-functional public space, such as a plaza or park;
   ii. shall comprise a land area of 0.2 to 1 hectare (0.5 to 2.5 acres);
   iii. shall provide bicycle parking;
   iv. should be bound by streets and/or active building facades;
   v. should be located on a prominent site;
   vi. should have a length to width ratio of less than 3:1;
   vii. should have no more than 25% of the dwelling units adjacent to the central amenity space in the form of single detached houses; and
   viii. should be located near one or more transit stops.

4. Modification of NAC Composition

If the Neighbourhood that a NAC is situated in contains a Community Activity Centre (CAC) or Urban Corridor (UC), then the medium-density multi-residential development and the non-residential components required in the NAC may instead be located in the CAC or UC. The NAC should always provide a central amenity space for residents even in the case where the Neighbourhood contains a CAC or UC.

2.5 Community Activity Centres (CAC)

1. Size and Intensity
   a. A CAC should be a minimum of 4 hectares (10 acres).
   b. Each CAC shall be comprised of a mix of land uses that achieve a minimum intensity of 150 people and jobs per gross developable hectare.
2. Composition
   a. To create a cohesive urban environment, the CAC shall include a mix of residential and commercial uses along with an appropriate amount of amenity space.
   b. No more than 70% of the land use in a CAC should be achieved with any one general land use type (e.g., residential, employment, retail, institutional, etc.).



   c. Commercial development in the CAC:
      i. should consist of small and medium format retail uses;
      ii. shall be integrated horizontally with other uses on the same or different sites within the CAC and/or vertically within building with other uses;
      iii. should include a site for a community-scale food store; and
      iv. should accommodate employment uses.

d. Residential development in the CAC:
   i. shall accommodate a broad range of ground-oriented and medium to high-density multi-residential development;
   ii. shall be integrated vertically and/or horizontally with other uses;
   iii. should comprise no less than 30% of the land use of the CAC; and
   iv. should be distributed throughout the CAC on multiple small and medium sites, less than 2 hectares large.

e. Amenity space(s) in the CAC:
   i. shall be designed to accommodate active and passive recreation;
   ii. shall comprise no less than 5% of the total land area of the CAC; and
   iii. should include a transit plaza central to the CAC with convenient and direct connections to transit service.

f. Cultural, recreational and institutional uses are promoted within the CAC.

g. A CAC should facilitate a variety of compatible uses.

2.6 Major Activity Centre (MAC)

The purpose of a MAC is to provide a comprehensively planned urban node serving the needs of one or more Communities.

1. Size and Intensity
   a. The size of a MAC will be set by each ASP that contains one.
   b. Each MAC shall be comprised of a mix of land uses that achieve a minimum intensity of 200 people and jobs per gross developable hectare when fully built-out. The people and jobs in a MAC do not count towards the overall community intensity of 60 people and jobs per gross developable hectare.
   c. No more than 60% of the land use intensity of a MAC should be achieved through any one general land use type (e.g. residential, employment, retail, institutional, etc.).

2. Composition

   a. A MAC shall include an integrated mix of residential, commercial and other uses, and should contain at least one other significant use plus appropriately designed amenity spaces.

   b. Commercial development in a MAC:

      i. shall include a mix of employment uses and small, medium and large format retail uses; and

      ii. shall be integrated horizontally with other uses on the same or different sites within the MAC and/or vertically within buildings with other uses;

   c. Residential development in a MAC:

      i. shall provide a broad range of medium- and high-density multi- residential development;

      ii. shall be integrated horizontally and/or vertically with other uses;

      iii. should be distributed throughout the MAC on multiple small and medium scale sites; and

      iv. should comprise no less than 30% of the land use intensity of a MAC.

   d. Amenity space(s) in the MAC:

      i. shall be designed to accommodate active and passive recreation;

      ii. should comprise no less than 5% of the total land area of the MAC; and

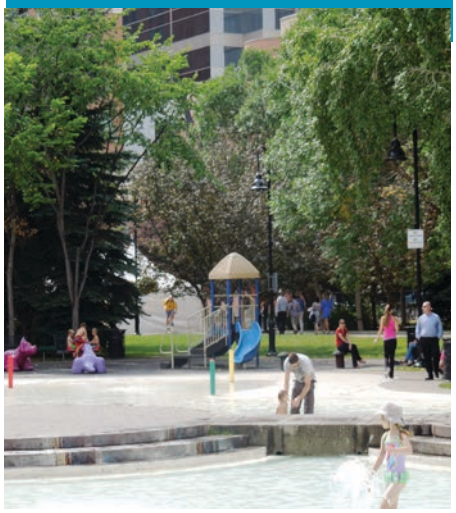
      iii. should include a transit plaza central to the MAC.

   e. A MAC should contain at least one other significant use such as a recreational, institutional or cultural use, a health care centre or a post-secondary education facility or campus.

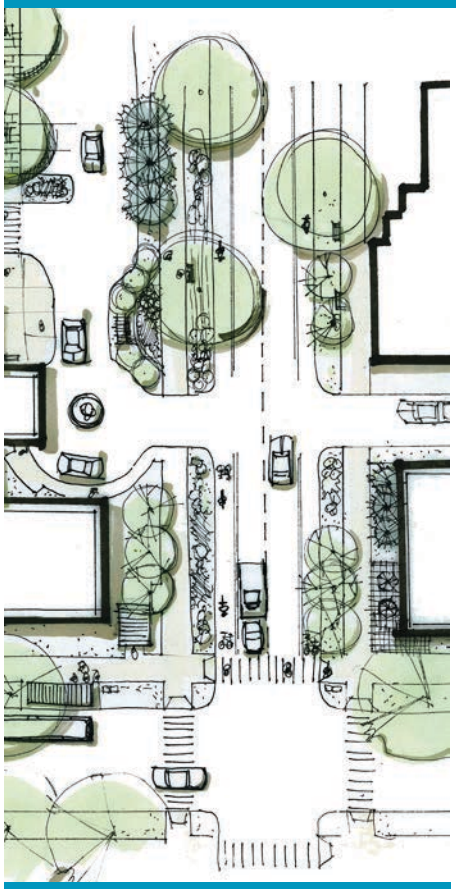
   f. A MAC should facilitate a variety of compatible uses.

"Major Activity Centres (MACs) provide for the highest concentration of jobs and population outside of the Centre City area. In addition to achieving higher concentrations of jobs and population, the design and character of MACs must also create a high-quality environment that features amenities for a comfortable street environment."

- MDP Section 3.3.2



2.0 COMMUNITY FRAMEWORK



"Neighbourhood Corridors (NCs)… are the 'main streets' for one or more communities, providing a strong social function and typically support a mix of uses within a pedestrian-friendly environment… NCs provide the opportunity for moderate levels of intensification of both jobs and population over time. To support this increased activity, the NC should be served by the Primary Transit Network. NCs are also appropriate in greenfield communities as places to focus different housing types and densities and create local destinations adjacent to transit streets."

- MDP Section 3.4.3

2.7 Neighbourhood Corridor (NC)

A NC has the same purpose and requirements as a NAC, but takes a more linear format such as main street retail area. In addition to the policies in Subsection 2.4, the following policies apply to a NC:

1. Each NC shall be comprised of a mix of land uses that achieve a minimum intensity of 100 people and jobs per gross developable hectare.

2. NCs should be located along a multi-modal Neighbourhood Boulevard.

3. The design of a NC will ensure a strong pedestrian orientation and emphasize the street as the focus of neighbourhood activity.

4. Each NC should comprise two or more block lengths and one or more blocks wide on either side of the Neighbourhood Boulevard.

5. Amenity space in a NC shall be designed as one or more multi-functional spaces, such as plazas or parks to create points of interest along the NC and/or enhance the design of prominent intersections or buildings. One of them should act as a central focus of the corridor.

2.8 Urban Corridor (UC)

In addition to the policies in Subsection 2.6 (excluding 2.6.1.c and 2.6.2.e), the following policies apply to an UC:

1. Each UC shall be comprised of a mix of land uses that achieve a minimum intensity of 200 people and jobs per gross developable hectare when fully built-out.

2. UCs should be located along a multi-modal Urban Boulevard.

3. A UC should be a minimum of one block wide on both sides of an Urban Boulevard the length of which shall be specified by each ASP containing one.

4. Each UC should provide a well-designed public realm lined by street-oriented buildings with primary entrances facing the Urban Boulevard.

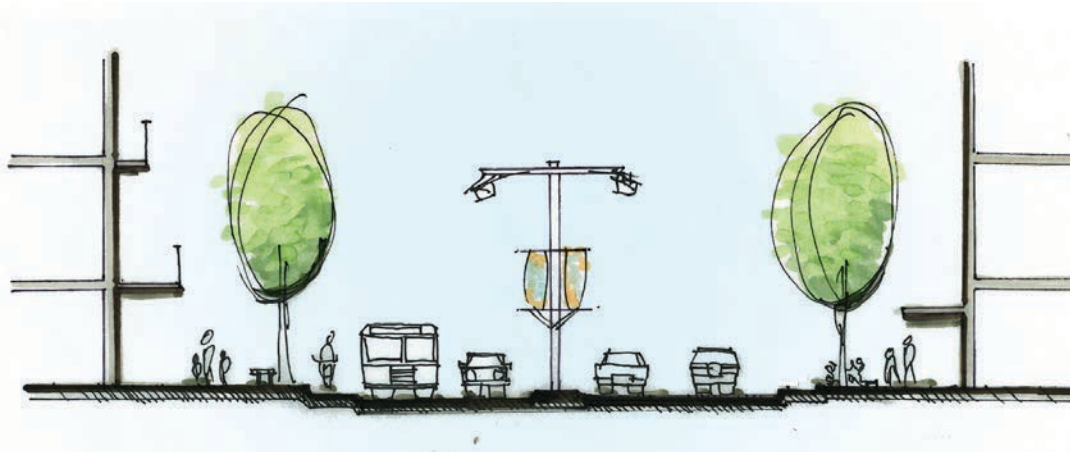
5. Development in each UC shall create a well-designed pedestrian environment while providing a variety of transit-supportive uses and active street frontages.

6. Commercial development in each UC shall accommodate retail uses that fit a pedestrian scale.

7. Amenity space in a UC shall be designed as one or more multi-functional spaces, such as a plaza or park to create point(s) of interest along the UC and/or enhance the design of prominent intersections or buildings with one serving as a central focus of the UC.

"Urban Corridors provide for a high level of residentail and employment intensification along an Urban Boulevard street type, as defined in the Calgary Transportation Plan. The Urban Boulevard is a multi-modal street with a strong focus on walking, cycling and transit, though it continues to accommodate moderately high traffic volume. Urban Corridors emphasize a walkable pedestrian environment fronted by a mix of higher intensity residential and business uses."

- MDP Section 3.4.2

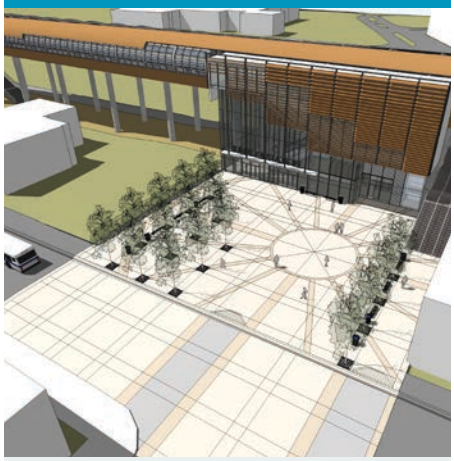


2.0 COMMUNITY FRAMEWORK

Transit-Oriented Development (TOD)

"A compact, mixed-use community within walking distance of a transit stop, that mixes residential, retail, office, open space and public uses in a way that makes it convenient to travel on foot or by public transportation instead of by car."

- MDP Glossary



2.9 Transit Station Planning Area (TSPA)

A TSPA includes land within 600m of any Light Rail Transit (LRT) or Bus Rapid Transit (BRT) station, or that area specified in an ASP. It is an overlay that modifies another typology's requirements to better support transit.

1. Development within the TSPA should be in accordance with The City's Transit Oriented Development Policy Guidelines.

2. A TSPA should apply to an approximate 600 metre radius, as conceptually identified in an ASP, and should include:
   a. an LRT or BRT station;
   b. a park and ride facility (optional);
   c. multi- residential development;
   d. retail;
   e. office uses;
   f. child care facilities; and
   g. transit supportive employment uses.

3. Development in each TSPA shall provide:
   a. a transition of land use intensities with the highest in proximity to the transit station and lowest further from the station; and
   b. streets, walkways and pathways that converge on the transit station and establish safe, direct and convenient pedestrian and cyclist connections to the wider area.

4. Higher quality transit stops should be provided within the TSPA that have an attractive shelter/seating, convenient passenger drop-offs, and bicycle racks/ lockers.

3.0 COMMUNITY SERVICES AND AMENITIES

Community services and amenities are what support and tie together the neighbourhood building blocks as described in the previous section. The physical elements provide mobility and water services. The social elements provide education, recreation and care facilities. The green elements provide open spaces for people and ecosystems. Together, they make places liveable.

3.1 Mobility

The mobility system should encourage sustainable modes of transportation and provide a highly-connected network of paths, streets and transit routes. This section builds on the following:

- Calgary Transportation Plan
- RouteAhead
- *Access Design Standards*
- *Bicycle Policy*
- Transit Friendly Design Guide
- *Pathway and Bikeway Plan*
- *Complete Streets Guide*
- Pedestrian Policy
- Cycling Strategy
- Calgary Community GHG Reduction Plan
- Roundabout Policy

3.1.1 Pedestrian and Bicycle Circulation

Regional and local bicycle and pedestrian routes should provide direct and convenient circulation within and through Communities.

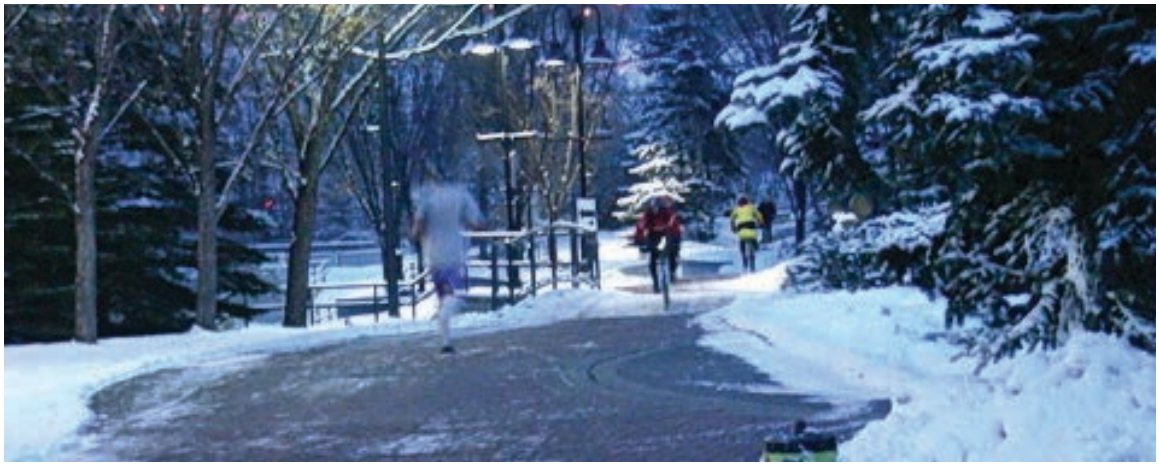


Photo Credit: Jean Chong

1. Active Mode Connectivity

   Active Mode Connectivity shall be maximized for pedestrians and cyclists. All Outline Plan applications shall provide quantitative measures demonstrating the active mode connectivity that is achieved for the application.

3.0 COMMUNITY SERVICES AND AMENITIES

2. Regional Pathways
    a. The regional pathway network should aim to:
        i. locate within or integrate with a park, linear park or natural feature;
        ii. complement the on-street bikeway network;
        iii. align with and connect to the Calgary Greenway System and Green Corridors, where applicable;
        iv. provide opportunities for active and passive linear recreation;
        v. not conflict with driveways / alleys;
        vi. link major open spaces and other significant community destination points; and
        vii. connect with other Communities and municipalities outside of each Plan Area.
    b. Where the regional pathway cannot be located within or integrated with a park or natural feature, it may be located within a road right-of-way in the form of a multi-use or regional pathway or designated
    bikeway separated from vehicle traffic.

3. Local Pathways, Sidewalks, and Walkways
    a. Direct, safe, continuous and clearly defined pedestrian access shall be provided from public sidewalks and transit stops to building entrances.
    b. Multi-modal street connections take precedence over pedestrian only connections.
    c. The local pathway, sidewalk and walkway system should:
        i. link origin / destination points within each Plan Area;
        ii. achieve short, convenient, and direct non-motorized connections to and within community focal points, facilities and typologies;
        iii. connect residential, commercial, institutional and industrial areas;
        iv. provide convenient and practical access to transit stops;
        v. connect to the regional pathway system and Green Corridors; and
        vi. be determined at the time of Outline Plan / Land Use Amendment application.

4. On and Off Street Bicycle Routes
    a. On-street bicycle route design treatments should be determined at the Outline Plan / Land Use Amendment stage, in accordance with any applicable policies.
    b. Appropriate cycle tracks for off-street cycling or bike lanes or wide curb lanes for on-street cycling should be provided for identified cycling routes.
    c. For multi-residential and non-residential uses, bicycle parking shall be provided near building entrances and pedestrian walkways without conflicting with pedestrian circulation.

3.1.2 Transit Service

Transit service should provide direct, convenient connections and transit stops should be located to facilitate direct pedestrian access.

1. Bus stops should be located to:
   a. serve significant destination points and housing areas;
   b. provide comfortable passenger waiting areas (benches, shelters, etc) and bicycle parking;
   c. provide direct, convenient transit service; and
   d. be within a five-minute walk (400m) of 90% of homes.

2. There should be safe, direct and unobstructed routes for pedestrians and cyclists to connect from transit stops to the pedestrian and bikeway network of a site.

3. Transit service areas, routes and bus stops shall be identified at the Outline Plan / Land Use Amendment stage and may be refined at the subdivision or development permit stage. The road network confirmed at the Outline Plan stage should facilitate direct, convenient and efficient transit service.

▲ bus shelter with canopy and wind protection

▼ within the 400m radius only the areas in blue are a 5 minute walk to the centre

3.1.3 Street Network

The transportation network should link Neighbourhoods together and be functional, safe and efficient for all modes of travel. The street network within each Plan Area shall accommodate walking, cycling and the efficient provision of public transit.

1. Block-Based Design

   Each Neighbourhood should be designed with a grid or modified grid block-based network of walkable streets. Where this is impractical due to topography or other natural features, single-access street patterns should be linked by safe and attractive pedestrian and bicycle connections.

▲ A walkway allows pedestrians to cut between blocks instead of circumnavigating.

▼ A walkway connects a residential area with an adjacent commercial area right through a building.

2. Local Street Layout:

   a. The layout of the local street network should provide direct connections and multiple route choices to origin / destination points and connectivity between sections of each Plan Area for all modes of transportation.

   b. The exact road and street pattern, including detailed design, typology / classification, street sizing and intersection/access spacing shall be determined at the Outline Plan / Land Use Amendment stage.

3. Emergency Access

   Connectivity shall be maximized for emergency vehicles and accommodate the ability of emergency services to provide emergency protection and response. Building and parking configurations shall also consider emergency access and egress.

3.1.4 Mobility in Activity Centres and Corridors

1. Mobility in Neighbourhood Activity Centres and Neighbourhood Corridors

   a. To provide a high degree of connectivity for pedestrians, cyclists and drivers the design of the transportation network in and around NAC and NC:

      i. shall be a block-based network of interconnected streets, walkways and pathways;

      ii. should provide a high-quality streetscape with active building facades; and

      iii. should provide safe and convenient walkway and pathway access.

   b. Transit facilities should be a well-integrated focal point of each NAC and NC. Transit service to these facilities must be direct and efficient.

   c. Areas adjacent to each NAC and NC shall establish a development pattern that ensures the proper functioning of each NAC and NC as a highly-connected transit-oriented area.

d. Site designs are encouraged to incorporate transportation demand management elements.

e. On-site parking areas should be located behind buildings and not directly adjacent to a (Neighbourhood or Urban) Boulevard.

f. The design of the streetscape shall accommodate elements such as street trees, street furniture, bicycle parking and appropriate lighting in order to enhance the experience of cyclists and pedestrians.

2. Mobility within Community Activity Centres and Major Activity Centres

   a. Meet all requirements for Mobility in NACs and NCs above.

   b. CACs and MACs should be served by the primary transit network, with a stop located at a transit plaza that acts as a focal point, allowing transfers to and from feeder lines.

   c. Where a CAC or MAC spans one or more arterial streets, the arterial street(s) shall be designed to accommodate the safe and convenient movement of pedestrians and cyclists.

3. Mobility within Urban Corridors

   a. UCs should be served by the primary transit network with feeder bus routes linking to surrounding Neighbourhoods.

   b. Streets parallel to the Urban Boulevard should be designed to provide alternate route options for traffic.

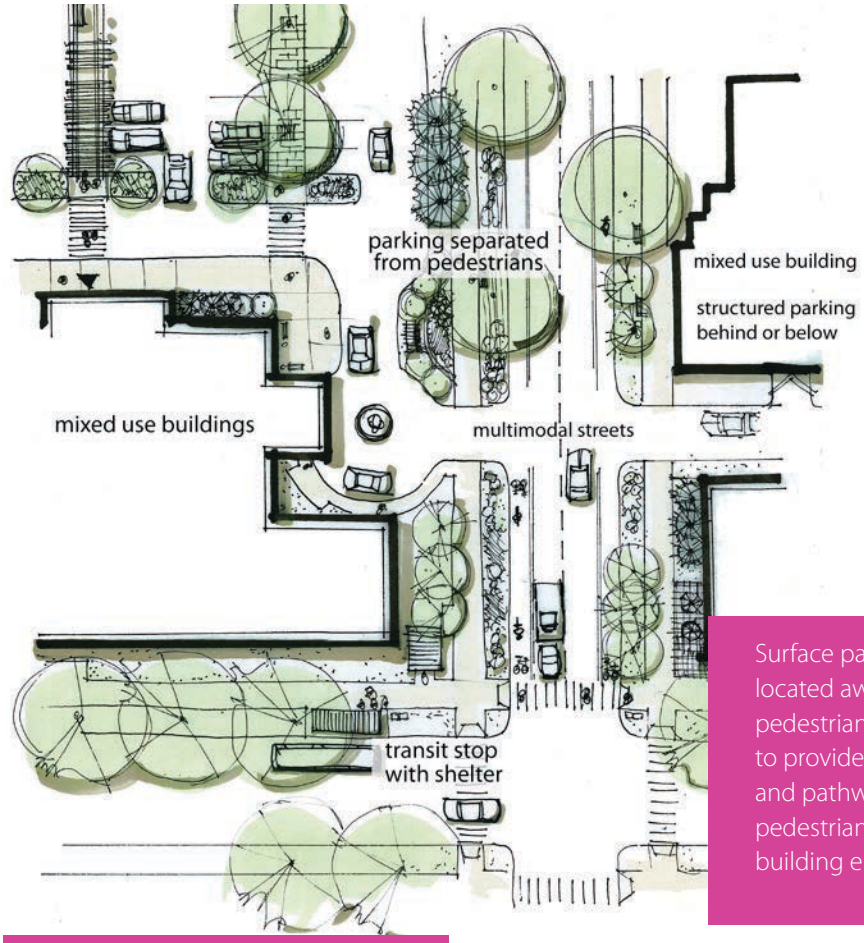
   c. Areas adjacent to the UC shall establish a pattern of development that ensures the UC is a highly-connected, transit-oriented area.

A transit plaza should be located in a prominent, central location and provide comfortable shelters, seating, signage, bicycle parking and adequate areas for transit patrons to transfer between routes. Ideally, the transit plaza will be integrated with surrounding buildings and include opportunities for transit patrons to access goods and services while waiting at the plaza.

3.0 COMMUNITY SERVICES AND AMENITIES

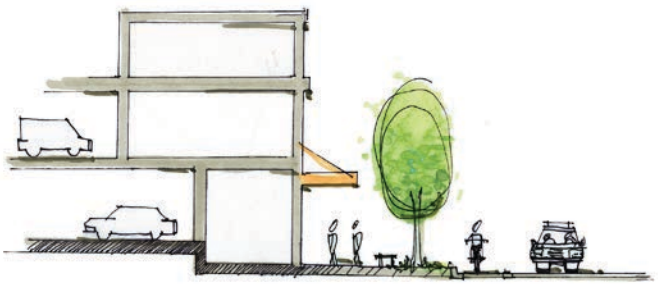
3.1.5 Parking Design

The following parking design elements are encouraged within CACs, MACs, Neighbourhood & Urban Corridors.



Surface parking facilities should be located away from transit and pedestrian areas and be designed to provide safe, convenient sidewalk and pathway connections for pedestrians and cyclists to access building entrances.

Street front retail should be supported by locating parking nearby on-street or locating parking at the rear of buildings. Provision of parking stalls in excess of the minimum requirements should be provided in structured and/or underground parking. Employing strategies that qualify for parking requirement reductions is encouraged.



3.0 COMMUNITY SERVICES AND AMENITIES

3.2 Utilities

These policies ensure that utility infrastructure will adequately, safely and efficiently service the ultimate development within each Plan Area. This section builds on the following:

- Water Efficiency Plan
- Watershed Water Management Plans
- Total Loading Management Plan
- Stormwater Management Strategy
- Stormwater Management Design Manual
- Stormwater Source Control Practices Handbook
- Wind Energy Conversion System Policy

3.2.1 Utility Infrastructure

1. Urban development in each Plan Area shall be serviced with municipal water, sanitary sewer and stormwater infrastructure and shallow utilities (i.e. gas, cable, electricity, telephone) as determined necessary by utility providers.

2. The provision, alignment and capacity of water distribution mains and water mains, sanitary sewer mains and trunks and stormwater mains and trunks within a development shall be in accordance with City standards, and confirmed through utility servicing studies / analysis.

3. The location of all utilities and the provision of rights-of-way and easements and related line assignments should be addressed to the mutual satisfaction of The City, the applicant and the utility companies and may be refined at each stage, as needed.

4. Utility rights-of-way and easements and public utility lots shall be provided as required to accommodate the development or the extension of municipal utilities necessary for development.

5. Utility rights-of-way should be designed to reduce the setback of buildings from the street wherever possible and ensure the long-term viability of street trees.

3.2.2 Water and Sanitary Servicing

The water distribution and sanitary collection systems shall be designed to adequately, safely and efficiently serve the full build out of each Plan Area.

1. The City shall identify any offsite water distribution mains and / or transmission water mains required to be installed to provide municipal water to an Outline Plan / Land Use Amendment area.

2. A Sanitary Sewer Servicing Study / Analysis may be required to demonstrate that the subject site can be serviced in accordance with the overall design of the sanitary sewer system for the area as part of an Outline Plan / Land Use Amendment application.

3. Alternative and more cost effective alignments and locations can be considered at the Outline Plan / Land Use Amendment stage.

3.2.3 Stormwater Management

1. Design

   The stormwater management system for each Plan Area shall be designed to adequately and efficiently serve development within each Plan Area, while preserving riparian and wetland areas where possible and adhering to all relevant City policies including stormwater management policies and plans.

a. Prior to an Outline Plan / Land Use Amendment application review, a Master Drainage Plan shall be prepared and approved by Water Resources and Parks.

   b. An Applicant shall submit a Staged Master Drainage Plan consistent with all stormwater management policies and plans in place at the time of application as part of an Outline Plan / Land Use Amendment application.

   c. Design of utilities, transportation and other infrastructure features shall address flood conditions, if applicable.

2. Stormwater Ponds

   a. Stormwater ponds should be located on a public utility lot wherever possible.

   b. Engineered stormwater wetlands may be integrated with environmentally significant areas where the long-term sustainability and viability of habitat functions and values can be demonstrated.

3. Best Management Practices

   Alternatives for stormwater quality and quantity enhancement should be assessed with regard to introducing: source controls; low-impact development methods; measures that reduce impermeable surfaces; and, stormwater reuse. Stormwater runoff targets should be adhered to.

3.0 COMMUNITY SERVICES AND AMENITIES

3.3 Facilities

Facilities provide care, culture, education, recreation and protection to citizens. They include cultural centres, health centres, social service facilities, public infrastructure, government buildings and other facilities that provide community services by the public sector, and non-profit agency, charity or partnership. This section builds on the following (other documents are noted in the relevant sections):

- Recreation Master Plan
- 10 Year Strategic Plan for Sport Facility Development & Enhancement
- Recreation Amenity Gap Analysis
- Art Spaces Strategy & Capital Plan
- Calgary Poverty Reduction Initiative.

This centre provides a large range of facilities, which include:

- public library
- facility rentals for sport, recreation, social, cultural and corporate events
- YMCA
- medical and wellness clinics
- food services
- educational services

1. Variety of Services & Facilities

   Site requirements for community services and facilities will be determined by each ASP.

2. Co-Location and Multi-Use Facilities

   To make efficient use of parking, outdoor amenity space, playing fields, etc. Community facilities may co-locate on sites or in buildings shared with other uses. Community facilities should be designed as multi-purpose and flexible with components that respond to diverse needs, with opportunities to accommodate as wide a range of users as possible and to be convertible to other uses in the future.

3.0 COMMUNITY SERVICES AND AMENITIES

3.3.1 Care Facilities

A broad range of specialized accommodation and care needs should be provided for as needed throughout the community in a form that fits with local character.

1. Child Care Facilities

   Child care needs should be met in each community through such measures as:

   a. designing child care facilities in accordance with The City's Child Care Service Policy and Development Guidelines;

   b. dispersing child care facilities throughout each Plan Area; and

   c. providing for various sizes and types of child care facilities.

2. Care Facilities

   a. Care Facilities shall be planned and designed in accordance with *The City's Planning Principles for the Location of Care Facilities and Shelters (2011*).

   b. Specialized housing and care needs in the community should be provided for through such measures as: enabling care facilities to locate in residential and mixed-use areas; and dispersing different types of care facilities throughout each Plan Area.

3. Seniors Care Facilities

3.3.2 Cultural Facilities

Cultural facilities (places of worship and community supportive uses) are an integral part of complete communities. Each Plan Area should:

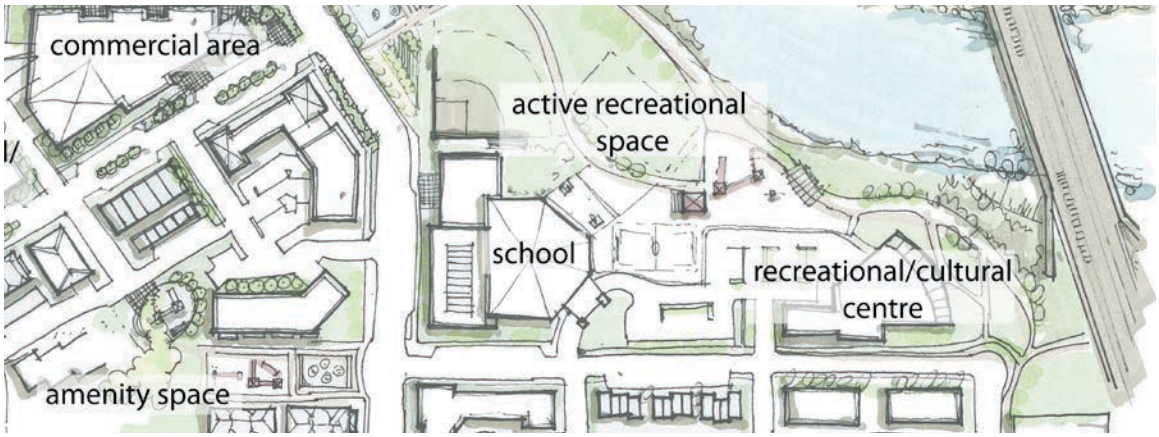
1. Encourage the development of places of worship and other cultural facilities where they can serve as community focal points;

2. Disperse places of worship and other cultural facilities at appropriate locations throughout each Plan Area to maximize coverage and avoid traffic congestion issues; and

3. Ensure that places of worship and other cultural facilities are appropriate for their location in the community relative to nearby buildings in the community.

3.3.3 Schools

Joint use sites (JUSs) and high schools provide education institutions together with sports fields and recreational areas.



1. General Provisions
    a. School sites must follow the requirements of: the School Act; the MGA; the Joint Use Agreement; and the Site Planning Team Standards for School Sites;
    b. A developer-prepared Concept Plan showing the proposed layout and amenities for a school site within the application area and a preliminary grading plan must be prepared and accepted prior to Outline Plan / Land Use Amendment approval.
    c. When a JUS or high school site is located in an Activity Centre, the school building envelope should be located closest to and integrated with the Activity Centre.

2. Size & Composition
    a. The size of a JUS or high school shall be indicated in each ASP and specifically determined through the Outline Plan / Land Use Amendment process. Suitable land should be provided for active playfields and park space.
    b. While flexible use of school buildings is encouraged, the predominant use of land within a JUS shall be for educational and recreational uses.
    c. High school sites shall contain a high school building and associated recreational and educational facilities, and other related uses or complementary activities.

3. High School
    a. A high school should be located on a site with two functional street frontages (ideally Collector roads). Access and egress, drop off points and parking should be designed according to Best Practices.
    b. A high school site should be in a location that will be served by the primary transit network.

3.0 COMMUNITY SERVICES AND AMENITIES

3.3.4 Community Centres

Community centres serve the physical, cultural, recreational and social needs of Communities.

a. One site per community should be provided from Municipal Reserve Land to accommodate a community centre and or community association facilities or uses.

b. The site should be approximately 1.2 hectares (3.0 acres) to 1.6 hectares (4.0 acres) in size.

c. The size of the site may be adjusted where facilities and open space are shared with other compatible and complimentary civic uses.

3.3.5 Municipal Facilities

1. Recreation Facilities

   The size, location, programming and configuration of sites required for recreation facilities shall be determined at the Outline Plan / Land Use Amendment stage.

2. Public Libraries

   A public library should be appropriately integrated with other public uses. It should be multi-purpose in design and where it is a freestanding facility, it should be on a parcel of land approximately 2 hectares (4.9 acres) in size.

3. Emergency Response Stations

   a. An Emergency Response Station site requires:

      i. approximately 0.8 hectares (2 acres);

      ii. all turns access to a major roadway;

      iii. a rectangular lot;

      iv. being situated at the highest elevation of the district where possible; and

      v. a minimum of two vehicular access points.

   b. The emergency response station should, where applicable, work in conjunction with other suitable public facilities as long as they do not interfere with the safe operations and access to the Emergency Response Station.

4. Recycling/Waste Diversion

   One Community Recycling/Waste Diversion depot should be provided in each community.

3.0 COMMUNITY SERVICES AND AMENITIES

3.4 Open Space Network

▼ Open space with pathways and interpretive signage about the native vegetation in the are

The open space network consists of the parks, pathways and natural areas within a community. This section builds on the following:

- Municipal Government Act
- Alberta Land Stewardship Act
- Water Act
- Open Space Plan
- Urban Park Master Plan
- Natural Areas Management Plan
- Riparian Strategy
- Calgary Wetland Conservation Plan
- Environmental Reserve Setback Guidelines
- Slope Adaptive Development Policy and Guidelines & Conservation Planning and Design Guidelines
- Off-Leash Area Management Plan
- Bird-Friendly Design Guidelines
- Calgary....A City of Trees: Parks Urban Forest Strategic Plan
- Cultural Landscape Strategic Plan
- Joint Use Agreement

3.4.1 General

The open space network is an interconnected system that provides social, biophysical and aesthetic benefits to a community. It is comprised of parcels and corridors which can be either developed or naturally-occurring and can support active and passive activities. Parcels generally consist of developed parks, joint use sites and protected natural areas. Corridors consist of pathway routes, linear natural features and green corridors that connect and support the parcel areas.

1. Open Spaces

   The Open Space system within each Plan Area shall promote, conserve and enhance an interconnected ecological and recreation system. It is a system of active and passive open space, with connections to retained EOS. It is comprised of parks, schools, public plazas, natural areas and other open spaces that provide social, biophysical, and aesthetic functions.

3.0 COMMUNITY SERVICES AND AMENITIES

a. Acquisition of land for the open space system can occur through dedication of Municipal Reserve, Municipal and School Reserve, Environmental Reserve, a conservation easement, voluntary conservation, voluntary reserve dedication, land purchase or other means.

b. Municipal Reserve should be allocated according to the priority of reserves under the Joint Use Agreement.

c. Private open spaces and recreational amenities of various sizes and forms should be provided within multi-residential developments, mixed-use and commercial developments.

2. Green Corridors
The green corridor is the recreational component of EOS and green infrastructure network. The land area for the green corridor shall be provided within retained EOS to the greatest extent possible.

   a. The green corridor shall:
      i. provide opportunities for a diversity of user access and activity;
      ii. provide ecological links between retained EOS areas where bossible;
      iii incorporate year-long seasonal adaptability / usability;
      iv. connect to or integrate with parks, recreation spaces and Joint Use Sites, where appropriate; and
      vi. include a 3.5m wide pathway, where feasible and appropriate.

   b. Accessibility: The green corridor shall provide walking and cycling connections to open spaces, natural features and the (local and regional) pathway network while linking major origin and destination points within communities.

3. Green Infrastructure Network

Outline Plans shall incorporate an interconnected green infrastructure network. The design of the interconnected green infrastructure network should minimize the loss of natural green elements and natural topography. Features required to maintain ecosystem connectivity should be identified and prioritized for protection or development in a manner that provides for connectivity.

4. Engineered Systems

Engineered systems that are designed to mimic nature are encouraged where natural functionality will be lost through development.

3.4.2 Environmental Open Space

Environmental Open Space (EOS) is the river valley system, the urban forest, environmentally significant areas and natural environment parks (including wetlands, natural water bodies, escarpments, riparian corridors, natural grasslands and native pasture and woodlots).

1. Verification
    a. The EOS Study Areas identified in each ASP were not necessarily field verified (at time of adoption) and may not reflect actual site conditions, are subject to further study and shall be delineated at Outline Plan / Land Use Amendment stage.
    b. Only EOS dedicated, acquired or otherwise protected by The City are subject to the use and preservation oriented EOS policies. These are referred to as 'retained EOS'.
2. Map Delineation
    a. Lands within the EOS Study Area in each ASP potentially qualify as both or either Environmental Reserve (ER) or environmentally significant area.
    b. EOS Study Area illustrated on each ASP's Land Use Concept identifies those areas of regional significance only.
3. Composition
    a. Recreational amenities may be allowed within EOS where there is no significant negative impact on ecological and hydrological functionality or connectivity.
    b. Treated stormwater releases into existing water bodies or retained EOS may be acceptable if the water contributes to the function of these natural features and provides for quality habitat.
    c. Pathway crossings shall be located to integrate the green corridor into Communities.
    d. The general categories of uses identified shall be refined through the land use districts applied within the EOS.
4. Protection
    a. Wetlands, riparian areas and their related uplands should be considered for protection and enhancement.
    b. Where lands within the EOS Study Area qualify as ER, they are to be dedicated as ER.

c. Where lands within the EOS Study Area do not qualify as ER, acquisition and protection of the lands may be pursued through alternative means.

d. Where lands identified within the EOS Study Area are not dedicated, acquired or otherwise protected by The City, the lands shall be considered developable and the adjacent land use category of the ASP applies.

e. Development in EOS Study Areas that are not protected as above should proceed in a manner that is sensitive to, and minimize impacts on ecosystem assets.

5. Interface

a. Where land abuts retained EOS, development should occur in a sensitive manner such that any runoff sustains and enhances EOS (pursuant to policy 3.4.2.3.b above) and an aesthetically appealing visual and ecologically sensitive transition is provided.

b. Development adjacent to retained EOS shall:

i. ensure an interconnected open space;

ii. protect the local watershed in its natural form; and

iii. protect, enhance and integrate critical ecological areas.

c. Single loaded roads and / or pedestrian connections should be located adjacent to retained EOS, along some stretches, to enable public views.

d. Grade-matching or development disturbance should occur only outside of EOS retained in a natural state.

e. Site grades for lands surrounding retained EOS shall demonstrate that the natural drainage channels
and areas shall remain viable in a post-development state.

f. Any consideration for (transportation, utility or other infrastructure) crossings through EOS areas (including water bodies) should be determined within the wider context of urban need and treated with environmental sensitivity.

4.0 IMPLEMENTATION

This section clarifies topics related to policy interpretation and development approvals. The first section clarifies topics surrounding the interpretation of the Guidebook and its relation to other policy documents. The second section clarifies the Outline Plan/Land Use Amendment process. The third section provides policies on urban growth and the fourth section clarifies the methodology for implementing intensity and density targets.

4.1 Guidebook Interpretation

1. Relation to Area Structure Plans (ASPs)

   The policies of this Part of the MDP set common standards for new community ASPs.

   a. This Guidebook applies only to those ASPs that state it does.

   b. An ASP may exempt itself from specific Guidebook provisions (and identify different standards) by describing the exemption in the ASP policy. The exemption would be maintained as the Guidebook is amended.

2. Precedence

   This Volume/Part (Volume 2, Part 1) of the MDP (i.e. the New Community Planning Guidebook) contains provisions that are intended to implement the policy direction established by Volume 1 of the MDP. If there is a conflict between the provisions in this Part and Volume and the provisions in Volume 1 of the MDP, Volume 1 takes precedence.

3. Policy Interpretation

   a. All policies and requirements [of this part and each ASP] are deemed achieved only when they are to the satisfaction of the Approving Authority.

   b. Where, at the end of a list of elements or criteria, a policy refers to other elements or opportunities, it is understood to be at the discretion of the Approving Authority to determine the range of what is allowed.

4.2 Application Requirements

These policies provide for implementation through the Outline Plan/Land Use Amendment process.

1. Outline Plans Precede Land Use

   Land Use approval should not be granted unless an Outline Plan for the site has been approved, where the Approving Authority deems an Outline Plan necessary.

2. Application Scale

   An Outline Plan should consist of at least one complete neighbourhood unit. Each Outline Plan / Land Use Amendment application should not have size greater than 150 ha (370 ac) of developable area, unless servicing or infrastructure solutions merit a larger area.

3. Application Assessment

   a. An Outline Plan/Land Use Amendment application shall provide, at the developer's expense, sufficient information for the Approving Authority to ensure the application complies with applicable policies. When a developer does not provide the required supporting information in a satisfactory manner, the Outline Plan/Land Use Amendment application may not be provided with a complete assessment or recommended for approval.

   b. Administration should encourage applicants to follow best practices as part of the Outline Plan / Land Use Amendment application process. Where City policies prevent the implementation of best practices, Administration is encouraged to explore innovative new ways to facilitate the aspect of an application reflecting best practices.

4. Concept Plan Requirement

   Where an Outline Plan / Land Use Amendment application for the entire area of any typology, except Neighbourhood Area, is not able to be provided, a Concept Plan shall be submitted for all lands within the typology and should reflect collaboration with all affected landowners.

4.3 Urban Growth Policies

These policies provide a decision-making process for Council to decide on the co-ordination of growth and servicing within each Plan Area, pursuant to growth management policies in place at the time.

1. Growth Management Overlay

   a. A Growth Management Overlay (Overlay) will be applied to the undeveloped parts of each ASP and will be removed as Council deems growth management issues have been resolved.

   b. A portion (or all) of an Overlay should be removed (through an amendment to the ASP) when issues regarding the coordination of the funding and financing of municipal infrastructure and services with the rate of growth have been resolved.

   c. The area removed from the Overlay should form a logical and well-defined planning and servicing area. Except in extenuating circumstances regarding servicing, the Overlay should not be removed for an area smaller than a Neighbourhood.

   d. Prior to acceptance of an Outline Plan/Land Use Amendment application for a site, the portion of the Overlay that applies to the site must be removed.

2. Growth Management Analysis Submission

   An application to amend an Overlay must include a growth management analysis that addresses the means of coordinating development with the funding and financing of municipal services over time. It shall contain the following elements:

   a. the projected phasing and rate of growth;

   b. the major on-site and off-site municipal water, sanitary, stormwater, emergency services and transportation infrastructure improvements necessary to serve the subject site;

c. the proximity of the application area to existing municipal water, sanitary, stormwater, emergency services and transportation servicing;
d. the Provincial, Municipal, and developer financial obligations for municipal water, sanitary, stormwater, emergency services and transportation infrastructure improvements, noting who pays for what, when;
e. whether or not the required municipal water, sanitary, stormwater, emergency services and transportation infrastructure to service the application area is identified within The City's Capital Budget and/or Capital Plan; and
f. The City's ability to provide emergency services to City and Provincial standards, considering both capital and operating costs.

4.4 Intensity / Density

These policies establish how intensity thresholds and density targets will be implemented.

1. The method in the Guide to the MDP and CTP will be applied when evaluating density and intensity. For a list of land uses and landscape features that are included and excluded from the Gross Residential Area, refer to the Calgary Snapshots document.

2. Each Outline Plan/Land Use Amendment, subdivision and Development Permit application shall demonstrate, to the satisfaction of the Approving Authority, that the intensity / density requirements applicable for the overall typology, neighbourhood and community areas are being achieved.

3. Each Outline Plan/Land Use Amendment application shall demonstrate, through a shadow plan, how the Community can accommodate additional housing and / or jobs to achieve an intensity of 70 people and jobs per gross developable hectare as plan area renewal and intensification occurs. Intensification can occur through various means, including, but not limited to:

   a. strategic intensification of Activity Centres and Corridors
   b. designating land for higher density or intensity than is to be built initially;
   c. ensuring that streets and utilities are designed with the capacity for additional intensity; and
   d. designing sites and buildings to enable and facilitate infilling.