



REVISED AGENDA

SPC ON PLANNING AND URBAN DEVELOPMENT

March 3, 2021, 9:30 AM
IN THE COUNCIL CHAMBER

Members

Councillor J. Gondek, Chair
Councillor D. Farrell, Vice-Chair
Councillor G-C. Carra
Councillor P. Demong
Councillor S. Keating
Councillor W. Sutherland
Councillor E. Woolley
Mayor N. Nenshi, Ex-Officio

SPECIAL NOTES:

*Public are encouraged to follow Council and Committee meetings using the live stream
<http://video.isilive.ca/calgary/live.html>*

*Public wishing to make a written submission may do so using the public submission form at the following link:
[Public Submission Form](#)*

*Public wishing to speak are invited to contact the City Clerk's Office by email at
publicsubmissions@calgary.ca. to register and to receive further information.*

Members may be participating remotely.

1. CALL TO ORDER
2. OPENING REMARKS
3. CONFIRMATION OF AGENDA
4. CONFIRMATION OF MINUTES
 - 4.1. Minutes of the Regular Meeting of the Standing Policy Committee on Planning and Urban Development, 2021 February 03
5. CONSENT AGENDA

5.1. DEFERRALS AND PROCEDURAL REQUESTS

None

5.2. BRIEFINGS

- 5.2.1. List of Outstanding Motions and Directions for the SPC on Planning and Urban Development, PUD2021-0327

6. POSTPONED REPORTS

(including related/supplemental reports)

None

7. ITEMS FROM OFFICERS, ADMINISTRATION AND COMMITTEES

- 7.1. Multiple Municipal Historic Resource Designations – March 2021, PUD2021-0100

REVISED MATERIAL

- 7.2. *Citywide Growth Strategy Industrial, PUD2021-0150*

8. ITEMS DIRECTLY TO COMMITTEE

8.1. REFERRED REPORTS

None

8.2. NOTICE(S) OF MOTION

None

9. URGENT BUSINESS

10. CONFIDENTIAL ITEMS

10.1. ITEMS FROM OFFICERS, ADMINISTRATION AND COMMITTEES

None

10.2. URGENT BUSINESS

11. ADJOURNMENT



MINUTES

SPC ON PLANNING AND URBAN DEVELOPMENT

**February 3, 2021, 9:30 AM
IN THE COUNCIL CHAMBER**

PRESENT: Councillor J. Gondek, Chair
Councillor D. Farrell, Vice-Chair (Remote Participation)
Councillor G-C. Carra (Remote Participation)
Councillor P. Demong (Remote Participation)
Councillor S. Keating (Remote Participation)
Councillor W. Sutherland (Remote Participation)
Councillor E. Woolley (Remote Participation)
Councillor J. Farkas (Remote Participation)

ALSO PRESENT: General Manager S. Dalgleish (Remote Participation)
Legislative Coordinator M. A. Caro
Legislative Advisor A. de Grood
Legislative Advisor J. Palaschuk

1. CALL TO ORDER

Councillor Gondek called the Meeting to order at 9:32 a.m.

2. OPENING REMARKS

Councillor Gondek provided opening remarks and a traditional land acknowledgement.

ROLL CALL

Councillor Farrell, Councillor Carra, Councillor Demong, Councillor Keating, Councillor Sutherland, Councillor Woolley, Councillor Farkas and Councillor Gondek.

3. CONFIRMATION OF AGENDA

Moved by Councillor Woolley

That the Agenda for the 2021 February 03 Regular Meeting of the Standing Policy Committee on Planning and Urban Development be confirmed.

MOTION CARRIED

4. CONFIRMATION OF MINUTES

4.1 Minutes of the Regular Meeting of the Standing Policy Committee on Planning and Urban Development, 2021 January 13

Moved by Councillor Sutherland

That the Minutes of the 2021 January 13 Regular Meeting of the Standing Policy Committee on Planning and Urban Development be confirmed.

MOTION CARRIED

Councillor Farrell introduced a group of students from Queen Elizabeth School in Ward 7 along with their teacher.

5. CONSENT AGENDA

5.1 DEFERRALS AND PROCEDURAL REQUESTS

None

5.2 BRIEFINGS

None

6. POSTPONED REPORTS

6.1 Guidebook for Great Communities, PUD2021-0015

Report PUD2021-0015 was heard in conjunction with Report PUD2021-0030.

The following documents were distributed with respect to Report PUD2021-0015:

- A Presentation entitled "PUD2021-0015, Guidebook for Great Communities, PUD2021-0030, North Hill Communities Local Area Plan", dated 2021 February 03
- A Presentation from Katherine Parsons
- A Presentation from Karen Paul
- A Presentation from Nathan Hawryluk
- A Package of Additional Public Submissions
- A Revised Attachment 8
- A Presentation from Greg Miller
- A confidential opinion poll
- A list of proposed amendments

The following speakers addressed Committee with respect to Reports PUD2021-0015 and PUD2021-0030:

1. Jacqueline Grabowski
2. Sonja Johnson
3. Simonetta Acteson
4. Teresa Tousignant
5. Risa Desa

Councillor Farkas rose of a Question of Privilege
The Chair ruled on the Question of Privilege

6. Tracey Johnson
7. Tim Holz
8. Lisa Poole
9. Rachel Timmermans
10. Mike Read
11. Paul Bergmann
12. Ali McMillan
13. Deb Lee
14. Verna Leask
15. Mary Jensen

By General Consent, pursuant to Section 6(1) of Procedure Bylaw 35M2017, Committee suspended Section 32(d) of the Procedure Bylaw in order to allow members of the public who spoke at the 2021 January 13 SPC on Planning and Urban Development meeting with respect to Reports PUD2021-0015 and PUD2021-0030 to also speak at the 2021 February 03 SPC on Planning and Urban Development meeting.

By General Consent, pursuant to Section 6(1) of Procedure Bylaw 35M2017, Committee suspended Section 78(2)(a) in order to shorten the lunch break.

Committee recessed at 12:04 p.m. and reconvened at 12:51 p.m. with Councillor Gondek in the Chair.

ROLL CALL

Councillor Demong, Councillor Farkas, Councillor Farrell, Councillor Sutherland, Councillor Woolley, Councillor Gondek, Councillor Carra.

Absent from Roll Call: Councillor Keating (rejoined the Remote Meeting at 1:03 p.m.)

16. Chris Ollenberger
17. David Grant Gunderson
18. Laura Mergen
19. Katherine Parsons
20. Allan Turnbull
21. Court Ellingson
22. Karen Paul, Calgary Heritage Initiative
23. Robert Selzler
24. Julie Punt

Councillor Woolley rose on a Question of Privilege.

The Chair ruled on the Question of Privilege.

25. Anne Davidson
26. Lorna Cordiero
27. Chip Johnston
28. Jane Virtue, Elbow Park Community Association
29. Nathan Hawryluk
30. Bethel Afework

- 31. Stuart Davie
- 32. Asia Walker, Heritage Calgary

Councillor Gondek left the Chair at 2:50 p.m. and Councillor Farrell assumed the Chair (Remotely).

- 33. Mike Wilhelm, Shaganappi Community Association
- 34. Simonetta Acteson
- 35. Tim Holz

Committee recessed at 3:16 p.m. with Councillor Farrell in the Chair (Remotely) and reconvened at 3:45 p.m. with Councillor Gondek in the Chair.

Councillor Farrell returned to her regular seat in Committee.

ROLL CALL:

Councillor Carra, Councillor Demong, Councillor Farkas, Councillor Farrell, Councillor Keating, Councillor Sutherland, Councillor Woolley, and Councillor Gondek.

- 36. Carol Morgan
- 37. Sue Homik
- 38. Shirley King
- 39. Glenis Schmitt
- 40. Jeanne Kimber
- 41. Greg Miller
- 42. Sherri Fountain
- 43. Heather Rae
- 44. Marie Semenick-Evans
- 45. Alex Vainshtein
- 46. Doug Laird
- 47. Hugoline Morton
- 48. Miek Borkristl
- 49. Brent Fraser
- 50. Martha Mottahedeh
- 51. Scott Rusty Miller

Councillor Carra rose on a Question of Privilege.

The Chair ruled on the Question of Privilege.

- 52. Dave White
- 53. Matthew McArthur
- 54. David Barrett
- 55. Dan Evans
- 56. John Amonson
- 57. Chris Stanley
- 58. Lisa Poole

Committee recessed at 6:19 p.m. and reconvened at 7:07 p.m. with Councillor Gondek in the Chair.

ROLL CALL:

Councillor Carra, Councillor Farkas, Councillor Farrell, Councillor Keating, Councillor Demong, Councillor Sutherland, Councillor Woolley, and Councillor Gondek.

59. Karim Lalani

Moved by Councillor Keating

That with respect to Report PUD2021-0015, the following be approved:

That any late distributions for today's meeting be received for the Corporate Record and forwarded to Council.

MOTION CARRIED

Moved by Councillor Farkas

That with respect to Report PUD2021-0015, the following be approved:

That the Administration Recommendation be amended by deleting the report by date "2021 March 22" and replacing with "2021 November 15"

ROLL CALL VOTE:

For: (1): Councillor Farkas

Against: (7): Councillor Gondek, Councillor Farrell, Councillor Carra, Councillor Demong, Councillor Keating, Councillor Sutherland, and Councillor Woolley

MOTION DEFEATED

Moved by Councillor Carra

That with respect to Report PUD2021-0015, the following be approved:

That the Standing Policy Committee on Planning and Urban Development recommend that Council:

1. Hold a Public Hearing at the 2021 March 22 Combined Meeting of Council and give three readings to the proposed bylaw, the proposed Guidebook for Great Communities (Attachment 3); and
2. Receive Councillor Carra's list for the Corporate Record.

For: (7): Councillor Gondek, Councillor Farrell, Councillor Carra, Councillor Demong, Councillor Keating, Councillor Sutherland, and Councillor Woolley

Against: (1): Councillor Farkas

MOTION CARRIED

6.2 North Hill Communities Local Area Plan, PUD2021-0030

Report PUD2021-0030 was heard in conjunction with Report PUD2021-0015.

The following documents were distributed with respect to Report PUD2021-0030:

- A Presentation entitled "PUD2021-0015, Guidebook for Great Communities, PUD2021-0030, North Hill Communities Local Area Plan", dated 2021 February 03
- A Package of Additional Public Submissions

Moved by Councillor Farrell

That with respect to Report PUD2021-0030, the following be approved:

That the Standing Policy Committee on Planning and Urban Development:

1. Recommend that Council:

a. Hold a Public Hearing at the 2021 March 22 Combined Meeting of Council:

i. Give FIRST READING to the proposed bylaw, the proposed North Hill Communities Local Area Plan (Attachment 3); and

ii. WITHHOLD second and third readings of the proposed bylaw until the North Hill Communities Local Area Plan has been approved by the Calgary Metropolitan Region Board.

b. Following third reading of the proposed bylaw, the proposed North Hill Communities Local Area Plan:

i. RESCIND, by resolution, the Centre Street North Special Study and the North Bow Special Study; and

ii. REPEAL, by bylaw, the North Hill Area Redevelopment Plan, Crescent Heights Area Redevelopment Plan, Winston Heights-Mountview Area Redevelopment Plan, and 16 Avenue North Urban Corridor Area Redevelopment Plan.

For: (7): Councillor Gondek, Councillor Farrell, Councillor Carra, Councillor Demong, Councillor Keating, Councillor Sutherland, and Councillor Woolley

Against: (1): Councillor Farkas

MOTION CARRIED

7. ITEMS FROM OFFICERS, ADMINISTRATION AND COMMITTEES

None

8. ITEMS DIRECTLY TO COMMITTEE

8.1 REFERRED REPORTS

None

8.2 NOTICE(S) OF MOTION

None

9. URGENT BUSINESS

None

10. CONFIDENTIAL ITEMS

10.1 ITEMS FROM OFFICERS, ADMINISTRATION AND COMMITTEES

None

10.2 URGENT BUSINESS

None

11. ADJOURNMENT

Moved by Councillor Farrell

That this meeting adjourn at 8:41 p.m.

MOTION CARRIED

The following items have been forwarded to the 2021 March 22 Combined Meeting of Council:

OTHER REPORTS AND POSTPONEMENTS FOR PUBLIC HEARING

- Guidebook for Great Communities, PUD2021-0016
- North Hill Communities Local Area Plan, PUD2021-0030

The next Regular Meeting of the Standing Policy Committee on Planning and Urban Development is scheduled to be held on 2021 March 3 at 9:30 a.m.

CONFIRMED BY COMMITTEE ON

CHAIR

ACTING CITY CLERK

BRIEFING

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Item # 5.2.1

Planning & Development Briefing to

**SPC on Planning and Urban Development
2021 March 03**

**ISC: UNRESTRICTED
PUD2021-0327**

List of Outstanding Motions and Directions for the SPC on Planning and Urban Development

PURPOSE OF BRIEFING

The purpose of this briefing is to provide an updated list of outstanding motions and directions for the SPC on Planning and Urban Development.

SUPPORTING INFORMATION

On 2007 February 07, Personnel and Accountability Committee approved PAC2007-05 Status of Outstanding Motions and Directions, directing Administration to bring forward as an item of business to each SPC a list of tabled and referred motions and reports for each committee; such lists to be reviewed by each Standing Policy Committee to be dealt with on a quarterly basis.

ATTACHMENT(S)

1. List of Outstanding Motions and Directions for the SPC on Planning and Urban Development.

List of Outstanding Motions and Directions for the SPC on Planning and Urban Development

PUD2021-0327
Attachment 1

#	ITEM	DATE OF REQUEST	MOVED AT COUNCIL BY	SUBJECT	ANTICIPATED MEETING DATE
1	Guidebook for Great Communities	2020 July 27	Councillor Farrell	<p>That with respect to Report PUD2020-0721 the following be adopted:</p> <p>That Council:</p> <ol style="list-style-type: none"> 1. Direct Administration to revise the proposed Guidebook for Great Communities based on the work outlined in Attachment 3 and Attachment 4 and to return to the Standing Policy Committee on Planning and Urban Development no later than 2021 January, in conjunction with the North Hill Communities Local Area Plan. 2. Direct Administration to return to the Standing Policy Committee on Planning and Urban Development with a scope for the Renewal of the Land Use Bylaw at the same time as the Guidebook for Great Communities. 	<p>2021 March 22 Public Hearing</p> <p><i>Returned to PUD Jan 13 and Feb 3. Going to Council 2021 March 22.</i></p>
2	North Hill Communities Local Area Plan Referral for Additional Direction	2020 July 27	Councillor Farrell	<p>That with respect to Report PUD2020-0739, the following be adopted:</p> <p>That Council direct Administration to revise the proposed North Hill Communities Local Area Plan as outlined in Attachment 2 and Attachment 3, and to return to the Standing Policy Committee on Planning and Urban Development no later than 2021 January, in conjunction with the Guidebook for Great Communities.</p>	<p>2021 March 22 Public Hearing</p> <p><i>Returned to PUD Jan 13 and Feb 3. Going to Council 2021 March 22.</i></p>

List of Outstanding Motions and Directions for the SPC on Planning and Urban Development

PUD2021-0327
Attachment 1

3	PUD2018-0819 North Hill Communities Local Area Plan Referral for Additional Direction	2020 July 15	Councillor Farrell	Direct Administration to include policy in the North Hill Communities Local Growth Planning Initiative (scheduled for completion in Q4 2019) that acknowledges the existence of a restrictive legal caveat affecting parcels within Capitol Hill, and that addresses the misalignment between the caveat and the objectives of the future Area Redevelopment Plan; and	2021 March 22 Public Hearing <i>Included in North Hill plan above.</i>
4	PUD2018-0347 Local Growth Planning in North Central Green Line Communities (Motion Arising)	2018 May 7 (public hearing)	Councillor Chahal	Direct Administration to report back to Council through the SPC on Planning and Urban Development no later than Q4 2019. That with respect to Report PUD2018-0347, the following Motion Arising be adopted: That Council direct Administration to investigate the inclusion of the lands south of McKnight Blvd between 4 Street NW and Edmonton trail	2021 March 22 Public Hearing <i>Included in North Hill plan above.</i>
5	Amendments to the Airport Vicinity Protection Area (AVPA)	2020 Sept 2	Councillor Carra	Direction from report PUD2020-0968 Direct the Airport Vicinity Protection Area committee to work with the Calgary Airport Authority (CAA) to discuss a plan and timing, subject to CAA executive and board review, to consider and explore the removal, from the Airport Vicinity Protection Area Regulation, of development restrictions on Places of Worship and Halls & Auditoriums in the NEF35 contour.	2021 April 7 PUD

List of Outstanding Motions and Directions for the SPC on Planning and Urban Development

PUD2021-0327
Attachment 1

6	Rowhouse/R-CG Integration (Motion Arising)	2019 July 29	Councillor Farrell	<p>That Council direct Administration, as part of ongoing review of the low-density land use districts and existing work on the Developed Areas Guidebook, to bring forward land use amendments that better facilitate mid-block rowhouse implementation, with particular consideration to:</p> <ol style="list-style-type: none"> 1. Allowing courtyard-style development with rules that require building separation distances that allow for reasonable sunlight penetration, sufficient private amenity/gathering space, and that minimize sideyard massing challenges 2. Any additional rules required to enable successful internal private amenity/gathering space, including minimum dimensions and green landscaping requirements 3. Height limits, chamfers, setbacks, and/or stepbacks that reduce side/rear massing impacts and support appropriate transitions to adjacent parcels of varying intensities or scales of development, returning to Council through the Standing Policy Committee on Planning and Urban Development no later than Q4 2020*. 	<p>2021 April 7 PUD</p> <p><i>*Deferral granted at 2020 Dec 2 PUD for Land Use Bylaw Scoping Report which this item will accompany</i></p>
7	Community Outreach for Planning	2019 Sept 4	Councillor Davison	<p>That with respect to Report PUD2019-1104, the following be approved:</p> <ol style="list-style-type: none"> 1. That the Standing Policy Committee on Planning and Urban Development receive this report and presentation for the Corporate Record; and Administration report back to Committee in 12 months 	<p>2021 June 2</p> <p><i>(deferred due to COVID)</i></p>
8	Updates to the Belvedere Area Structure Plan and Rocky View/Calgary Intermunicipal Development Plan	2020 Feb 24	Councillor Carra	<p>That with respect to Report PUD2020-0047, the following be adopted: That Council:</p> <p>Direct Administration to complete any consequential amendments to the Belvedere Area Structure Plan and the Rocky View/Calgary Intermunicipal Development Plan and report back no later than Q4 2020.</p>	<p>2021 June 2</p> <p><i>(deferred due to COVID)</i></p>

List of Outstanding Motions and Directions for the SPC on Planning and Urban Development

PUD2021-0327
Attachment 1

9	Notice of Motion C2018-1337	2018 November 19	Councillors Carra, Colley- Urquhart and Keating	<p>NOW THEREFORE BE IT RESOLVED THAT COUNCIL:</p> <p>Direct Administration to:</p> <ol style="list-style-type: none"> 1. Scope out the requirements and implications of modifying the Subdivision and Development Regulation setbacks or the definition of “food establishment” in accordance with the Calgary Charter Regulation including analyzing: <ol style="list-style-type: none"> i. The risks and liabilities The City could assume; ii. The benefits and disadvantages; iii. Any challenges from an operational perspective; and iv. The additional resources that may be required for implementation. 2. Report back to Council through the SPC on Planning and Urban Development no later than Q3 2019* unless additional resources are required to complete the scoping exercise described above, and no funding source can be identified, in which case return to Council as soon as reasonably possible. 	<p>2021 Q2</p> <p><i>Deferred to 2021 Q2 through PUD2021-0046 (2021 CPP Work Plan)</i></p>
10	Green Line Southeast Local Area Plans (Historic East Calgary Communities Local Area Plan and 'Area 34' Communities Local Area Plan)	PUD2018-1027 2018 Oct 9 Regular Council		<ol style="list-style-type: none"> 1. That Council direct Administration to defer completion of the local area plans for Inglewood, Ramsay and Millican-Ogden to return to Council no later than Q2 2020 to allow for: <ol style="list-style-type: none"> a. Council adoption of comprehensive amendments to the <i>Developed Areas Guidebook</i>; and b. engagement with local communities on changes to the local area plans impacted by amendments to the <i>Developed Areas Guidebook</i>. 2. That Council direct Administration to defer completion of the local area plan for South Hill to return to Council no later than Q2 2020 to allow for: <ol style="list-style-type: none"> a. Council adoption of comprehensive amendments to the <i>Developed Areas Guidebook</i>; b. the completion of the Corporate Land Strategy; and <p>engagement with local communities on changes to the local area plan impacted by amendments to the <i>Developed Areas Guidebook</i> and results of the Corporate Land Strategy.</p>	<p>Historic East Calgary LAP: deferred to Q3 2021 due to COVID-19</p> <p><i>Area 34 (South Hill): deferred to Q4 2022 through PUD2021-0046 (2021 CPP Work Plan)</i></p>

List of Outstanding Motions and Directions for the SPC on Planning and Urban Development

PUD2021-0327
Attachment 1

11	Health Impact Assessment Update	2019 June 17	Councillor Gondek	3. Direct Administration to report back to Council, through the SPC on Planning and Urban Development, on the progress of the HealthYYC Initiative no later than 2021 June.	<i>Deferral due to COVID due 2021 Q4</i>
12	Review and Update of the Municipal Development Plan and Calgary Transportation Plan	2020 Nov 2	Councillor Gondek	<i>Remaining direction from report PUD2020-1106</i> 4. Direct Administration, as part of the next MDP/CTP monitoring report, to report back on: a) Proposed changes to the 14 core indicators, and related impacts, taking into consideration the forthcoming CMRB Growth Plan. b) The impacts of COVID-19 on achieving the long-term vision of the plans.	2022 Q1
13	Policy amendment to Beltline ARP (Motion Arising re: CPC2019-0756)	2019 July 29	Councillor Colley-Urquhart	That with respect to Report CPC2019-0756, the following Motion Arising be adopted: Council direct administration to consider future situations where existing building to be demolished have greater than currently-allowed base density and return to the Standing Policy Committee on Planning and Urban Development with policy amendments if needed as soon as possible, as part of the Beltline Area Redevelopment Plan review if appropriate.	2022 Q1
14	Building Maintenance Bylaw Update (PUD2020-0899)	2018 Dec 3	Councillor Farrell	Provide a monitoring report to Council through the SPC on Planning and Urban Development no later than Q3 2020 and a final evaluation report with a scoping report, risk matrix and amendments if required through the SPC on Planning and Urban Development no later than Q1 2022.	2022 Q1
15	Modernizing the Joint Use and Planning Agreement	2020 Dec 14	Councillor Gondek	That with respect to Report PUD2020-1314, the following be adopted: That Council: 1. Direct Administration to partner with the Calgary Board of Education, Calgary Catholic School District and the Conseil Scolaire FrancoSud to draft a modernized Joint Use and	2022 Q2

List of Outstanding Motions and Directions for the SPC on Planning and Urban Development

PUD2021-0327

Attachment 1

				<p>Planning Agreement and return to Council through the SPC on Planning and Urban Development no later than Q2 2022.</p> <p>Appoint the Mayor and the chair of the SPC on Planning and Urban Development, or their delegate, to represent Council on an elected officials coordinating committee for the modernized Joint Use and Planning Agreement with the Calgary Board of Education, Calgary Catholic School District and the Conseil Scolaire FrancoSud.</p>	
16	Hillhurst/ Sunnyside Area Redevelopment Plan (Riley Communities Local Area Plan)	2018 July 16	Councillor Farrell	<p>That with respect to Report PUD2018-0826, the following be approved:</p> <p>That the SPC on Planning and Urban Development recommend that Council approve Administration's request to defer amendments to the Hillhurst/Sunnyside Area Redevelopment Plan and report back to the SPC on Planning and Urban Development with amendments to the Hillhurst/Sunnyside Area Redevelopment Plan no later than 2019 Q2.</p>	<i>Deferred to 2022 Q2 through PUD2021- 0046 (2021 CPP Work Plan)</i>
17	Chinook Area Redevelopment Plan ('Area 8' Communities Local Area Plan)	2018 Nov 5 PUD 2019 March 6 PUD		<p>That with respect to Report PUD2018-1178, the SPC on Planning and Urban Development refer PUD2018-1178 to Administration for amendments to the Chinook Station Area Redevelopment Plan to: <i>[note: Points 1 & 2 went to PUD Q1 2019]</i></p> <p>3. Explore ways to anticipate, as a place-holder, the future development of a 50 Ave SE LRT Station; 4. Develop a funding strategy for public realm and deep utility improvements, leveraging the work on the New Communities Growth Strategy; and</p> <p>Return to a Regular Meeting of the SPC on Planning and Urban Development no later than the Q4 2019. And further, return with an update to PUD on progress with points 1 and 2 by Q1 2019.</p> <p>Note: 2019 March 06: Refer to Administration the directions from prior report PUD2018-1178, as follows:</p> <p>a. Directions 1-3, and 5, to return by 2020 September to the SPC on Planning and Urban Development, with the recommendations aligned with work currently underway on the Developed Areas' Guidebook and plans for multi-community local area plans.</p>	<i>Deferred to 2022 Q4 through PUD2021- 0046 (2021 CPP Work Plan)</i>

List of Outstanding Motions and Directions for the SPC on Planning and Urban Development

PUD2021-0327
Attachment 1

18	Heritage Conservation Tools and Incentives Update Report	2020 July 27	Councillor Gondek	That with respect to Report PUD2020-0758, the following be adopted: That Council direct Administration to: 1. Undertake a two-year phased program (2021 – 2023) to implement the heritage area policy tools, using the recommended thresholds, through the local area planning process, Land Use Bylaw amendments, or associated land use redesignations, and return to the Standing Policy Committee on Planning and Urban Development to report on the progress in Q1 2024	2024 Q1
19	Motion arising regarding land use amendment fees for secondary suites	2021 Feb 8	Councillor Sutherland	That with respect to Report CPC2020-1371, the following Motion Arising be adopted: That Council direct Administration to review its policy on fees charged in similar situations, returning to the Standing Policy Committee on Planning and Urban Development as soon as possible.	TBD
20	Status of Outstanding items	2007 Feb 7	Councillor Colley-Urquhart	On 2007 February 07, Personnel and Accountability Committee approved PAC2007-05 Status of Outstanding Motions and Directions, directing Administration to bring forward as an item of business to each SPC a list of tabled and referred motions and reports for each committee; such lists to be reviewed by each Standing Policy Committee to be dealt with on a quarterly basis.	Ongoing quarterly

Multiple Municipal Historic Resource Designations – March 2021

RECOMMENDATION(S):

That the Standing Policy Committee on Planning and Urban Development recommend that Council give three readings to each of the following proposed bylaws, to designate as a Municipal Historic Resource:

- a) the George A. Turner Residence (Attachment 2);
- b) the Johnston Residence (Attachment 3);
- c) the Upshall (Corson) Residence (Attachment 4); and
- d) the Walter Hargrave Residence (Attachment 5)

HIGHLIGHTS

- Protecting Calgary's historic resources is an identified objective of The City; designating the proposed historic buildings would legally protect them from demolition or unapproved alteration to heritage elements on a permanent basis.
- What does this mean to Calgarians? Conservation of Calgary's historic buildings and sites is important to Calgary's culture, history, and identity, and steps should be taken to conserve them for future generations to enjoy. Designation as Municipal Historic Resources ensures these buildings are conserved for all Calgarians, present and future.
- Why does this matter? Protecting historic buildings benefits Calgary by reducing environmental impacts through the reuse of structures/materials, and generating economic uplifts such as increased tourism and job growth in the skilled trades. Designation of the proposed historic buildings will enable private property owners to become eligible for financial assistance in matching grant funding from The City of Calgary, which promotes the rehabilitation of heritage sites and supports the local economy through reinvestment and jobs creation.
- The properties listed in the report were built in the early 1900s during Calgary's Pre-World War One boom period (1906-1913).
- The owners of all properties have formally requested designation.
- In 2020, Heritage Planning met its goal of designating seven (7) sites per year. Approval of the designations included in this report would mean four (4) Municipal Historic Resource designations in 2021 to date, bringing the total achieved to 110 overall.
- At the 2018 November 30 Regular Meeting of Council, through C2018-1158, Council adopted the One Calgary 2019-2022 Service Plans and Budgets. The City Planning and Policy Service actions proposed to "continue to legally protect heritage assets and directly support landowners".
- Strategic Alignment to Council's Citizen Priorities: A city of safe and inspiring neighbourhoods.
- Background and Previous Council Direction is included as Attachment 1.

Multiple Municipal Historic Resource Designations - March 2021

DISCUSSION

The following sites are proposed for Municipal Historic Resource designation. They have been evaluated by Heritage Calgary using the Council-approved Historic Resource Evaluation System, which assesses sites against nine value areas. Once evaluated, the Calgary Heritage Strategy (LPT2007-64) states that these “significant historic resources” “can and should be protected through Designation Bylaws”.

George A. Turner Residence

- Built in 1912
- 3210 – 6 Street SW [Elbow Park]
- Recognized for its Style and Symbolic values as an example of a Craftsman house, one of the styles common in the early development of the community. It represents the early development of Elbow Park – one of Calgary's earliest planned suburbs – during its first wave of building from c.1911 to World War One.

Johnston Residence

- Built in 1912
- 1723 – 13 Ave SW [Sunalta]
- Recognized for its Style and Symbolic Values as a substantial and very well-preserved side-gabled variation of a Craftsman-style home in Sunalta. As a mid-scale home constructed in the Sunalta subdivision shortly after it was established, the Johnston Residence, is symbolic of this early middle class neighbourhood.

Upshall (Corson) Residence

- Built in 1911
- 602 – 18 Ave NW [Mount Pleasant]
- Recognized for its Style and Symbolic Values, it is the only Queen Anne Revival–style dwelling in the neighbourhood. Typical Queen Anne Revival–style features include its hipped roof with lower cross gables, bay window, and inset veranda. Built in 1911, it represents the earliest phase of development of the Mount Pleasant neighbourhood.

Walter Hargrave Residence

- Built in 1913
- 1732 – 13 Ave NW [Hounsfield Heights]
- Recognized for its Style and Symbolic values as an example of an Arts & Crafts dwelling, typified by its horizontal emphasis; low, sheltering roof with deep eaves and exposed rafters; open verandas (later enclosed); and variety of surface materials. It is one of the earliest buildings in Hounsfield Heights, representing its pre-World War One founding.

Proposed Bylaw Schedules

Detailed information on all properties can be found in Attachments 2 to 5, the proposed designation bylaws.

Each proposed bylaw provides conditions for the treatment of that property. Schedule A geographically situates the site location; Schedule B includes the Statement of Significance from the property's heritage evaluation, and outlines specific 'Regulated Portions' that cannot be removed, altered, or destroyed without approval from the City of Calgary; Schedule C compiles a reference list of key standards from the *Standards and Guidelines for the Conservation of Historic Places in Canada*, a national best-practice manual.

Multiple Municipal Historic Resource Designations - March 2021

STAKEHOLDER ENGAGEMENT AND COMMUNICATION (EXTERNAL)

- ☐ Public Engagement was undertaken
- ☒ Public Communication or Engagement was not required
- ☒ Public/Stakeholders were informed
- ☒ Stakeholder or customer dialogue/relations were undertaken

Public communication or engagement was not required for the recommendations. The proposed designation bylaws impact specific privately-owned property, and all property owners have expressly agreed to designation as a Municipal Historic Resource.

The owner of each property intended for designation was circulated their proposed bylaw and provided agreement in-writing to it being presented to the Standing Policy Committee on Planning and Urban Development, and City Council. Per the Alberta Historical Resources Act, a 'Notice of Intention' to designate each property was issued to the property owners in accordance with the 60-day notice requirement of the Act.

Heritage Calgary, a civic partner, has expressed support of these proposed designations as outlined in Attachment 6 to this report.

IMPLICATIONS

Social

Protection of Calgary's heritage resources through designation is recognized as an essential part of conserving our history, culture and identity. A 2020 Citizen Perspective Survey Report indicates a majority of Calgarians agree that conservation of Calgary's historic buildings and sites is important to them personally (83%), is important to Calgary's culture (94%) and more should be done to conserve them for future generations to enjoy (86%).

Environmental

Conservation of heritage resources contributes to the reduction of carbon emissions through avoidance of new material use and diverted landfill waste. Historic buildings have 'inherent sustainability' through their long life-cycle, reparability and traditional building design. Demolition of buildings in Canada has been shown to generate approximately 25% of all landfill waste; conservation offers a significant opportunity to reduce unnecessary landfill usage and material loss.

Economic

The conservation of heritage resources has economic benefits including job growth and retention in skilled trades and construction; increased tourism through attractive streets; and attracting innovative/start-up businesses by offering affordable commercial/industrial spaces.

Multiple Municipal Historic Resource Designations - March 2021

Service and Financial Implications

No anticipated financial impact

Include actual figure

The Municipal Development Plan, Calgary Heritage Strategy (2008), Culture Plan for Calgary, One Calgary 2019-2022 Service Plan, Council Priority N3 'A City of Safe and Inspiring Neighbourhoods' directing the 'Cherishing and protecting our heritage', and a variety of community plans support the conservation of Calgary's Historic Resources.

RISK

No risks have been identified in designating the proposed sites as Municipal Historic Resources. All property owners are in agreement with the proposed designations, which do not prescribe activities in the buildings or on the properties. Designation allows each owner to retain all rights to the individual enjoyment of their property, and does not prevent a property from being sold.

ATTACHMENT(S)

1. Previous Council Direction, Background
2. Proposed Wording for a Bylaw to Designate the George A. Turner as a Municipal Historic Resource
3. Proposed Wording for a Bylaw to Designate the Johnston Residence as a Municipal Historic Resource
4. Proposed Wording for a Bylaw to Designate the Upshall (Corson) Residence as a Municipal Historic Resource
5. Proposed Wording for a Bylaw to Designate the Walter Hargrave Residence as a Municipal Historic Resource
6. Heritage Calgary Letters of Support

Department Circulation

General Manager	Department	Approve/Consult/Inform
Stuart Dalglish	Planning & Development	Approve

Background

Context

Protecting heritage sites through legal designation is an internationally recognized best practice in planning and is supported by City of Calgary policy. The four (4) proposed Municipal Historic Resource Designations in this report follow to the Calgary Heritage Strategy mandate to 'Identify', 'Protect' and 'Manage' sites of heritage significance. Information on overall progress towards Calgary's long-term heritage conservation goals can be found online at www.calgary.ca/heritage (see 'Progress Snapshot').

The One Calgary 2019-2022 Service Plan directs Administration to seek a target of seven designations per year. Detailed information on the qualifications and processes for designation as a Municipal Historic Resource, and incentives (including grants) can be found online at www.calgary.ca/heritage (see 'About Heritage Designation').

Designations are owner-driven and achievement of the target of seven annual designations can be affected by influences outside of Heritage Planning's purview.

To date, a total of 106 properties in Calgary have been designated as Municipal Historic Resources out of 787 extant sites on the Inventory of Evaluated Historic Resources (approximately 13%). Approval of the designations included in this report would bring the number of Municipal Historic Resource designations in 2021 to four (4).

Previous Council Direction

DATE	REPORT NUMBER	DIRECTION/DESCRIPTION
11/30/2018	C2018-1158	One Calgary 2019-2022 Service Plans and Budgets The City Planning and Policy Service actions proposed to "continue to legally protect heritage assets and directly support landowners" which are measured through a target set through the Services Plans and Budgets of seven designations per year
11/7/2016	CPS2016-0867	Culture Plan for Calgary Heritage Conservation is identified as one of the 5 Strategic Priorities of the Plan.
2/4/2008	LPT2007-64	Calgary Heritage Strategy (2008) Approved content of the Strategy states that significant historic resources "can and should be protected through designation bylaws".

Proposed Wording for a Bylaw to Designate the George A. Turner Residence as a Municipal Historic Resource

WHEREAS the *Historical Resources Act*, R.S.A. 2000 c. H-9, as amended (the “Act”) permits The City of Calgary Council (“City Council”) to designate any historic resource within the municipality whose preservation City Council considers to be in the public interest together with any specified land in or on which it is located, as a Municipal Historic Resource;

AND WHEREAS the owners of the George A. Turner Residence have been given sixty (60) days written notice of the intention to pass this Bylaw in accordance with the Act,

NOW, THEREFORE, THE COUNCIL OF THE CITY OF CALGARY ENACTS AS FOLLOWS:

SHORT TITLE

1. This Bylaw may be cited as “City of Calgary Bylaw to Designate the George A. Turner Residence as a Municipal Historic Resource”.

BUILDING AND LAND DESIGNATED AS A MUNICIPAL HISTORIC RESOURCE

2. The building known as the George A. Turner Residence located at 3210 6 ST S.W., and the land on which the building is located being legally described as PLAN 3452W BLOCK A LOTS 25 AND 26 (the “Historic Resource”), as shown in the attached Schedule “A”, are hereby designated as a Municipal Historic Resource.
3. The specific elements of the Historic Resource possessing heritage value are hereafter referred to as the Regulated Portions (the “Regulated Portions”). The Regulated Portions are identified in the attached Schedule “B”.

PERMITTED REPAIRS AND REHABILITATION

4. a) The Regulated Portions of the Historic Resource as described or identified in Schedule “B” shall not be removed, destroyed, disturbed, altered, rehabilitated, repaired or otherwise permanently changed, other than for routine preservation and maintenance work, without prior written approval from City Council, or the person appointed by City Council as the Approving Authority for the purposes of administration of Section 26 of the Act. Any alteration, rehabilitation, repair or change to the Regulated Portions must be in accordance with the terms of the Parks Canada 2010 publication Standards and Guidelines for the Conservation of Historic Places in Canada, (the “Standards and Guidelines”), as referenced and summarized in the attached Schedule “C”.
- b) All portions of the Historic Resource which are not described or identified as a Regulated Portion in Schedule “B” are hereby known as the Non-regulated Portions (the “Non-regulated Portions”). The Non-regulated Portions are not subject to the *Standards and Guidelines* and may be rehabilitated, altered or repaired, provided that such rehabilitation, alteration, and repair does not negatively impact the Regulated Portions or adversely affect the historical, contextual or landmark character of the property, and that all other permits required to do such work have been obtained.

COMPENSATION

5. No compensation pursuant to Section 28 of the *Act* is owing.

EXECUTION OF DOCUMENTS

6. Any employees of The City of Calgary who exercise land use and heritage planning powers and duties are hereby authorized to execute such documents as may be necessary to give effect to this Bylaw.

SCHEDULES

7. The schedules to this Bylaw form a part of it.

TEXT FOR DISCUSSION ONLY

SCHEDULE "A"



3210 6 ST SW



SCHEDULE “B”

Description

The George A. Turner Residence, built in 1912, is a 2-storey rectangular house with off-centre entrance, wraparound (now enclosed) front veranda, and prominent deep-pitched front-facing gable. Its second storey, seen above the veranda, is clad in stucco with mock half-timbering. The house sits among similar-sized houses in compatible styles on a residential block.

Heritage Value

The George A. Turner Residence, built in 1912, represents the early development of Elbow Park—one of Calgary's earliest planned suburbs. Elbow Park had its start in 1907 when former ranch land owned by Colin George Ross and Felix McHugh was annexed by the City. It was subdivided into lots and sold or brokered by F.C. Lowes & Co. with the goal of creating an upper-class district. This was Freddy Lowes' first of many neighbourhood-planning ventures in Calgary.

While a few grand or speculative properties were built as early as 1909, the main wave of development in Elbow Park began in 1911, starting in the contiguous areas of Rosevale, where this house is located, and Glencoe, as well as in Garden Crescent and East Elbow Park, with clusters of homes elsewhere in the neighbourhood. A streetcar line served Elbow Park by 1910. There were 11 houses on this block in 1912, the first year the block was listed in the city directory; 13 by 1913; 15 by 1914, including this one listed for the first time. The house continues to contribute to a streetscape of similar-sized houses in compatible styles, many dating from the same historical era. By 1915 at least half the existing building stock of Elbow Park had been built, with Glencoe and Rosevale densely filled while other parts remained little developed. Elbow Park experienced new spurts of building activity in 1919, in the late 1920s (cut short by the Depression), and, significantly, in the late 1940s and early 1950s.

This residence exemplifies the housing constructed by speculative builders in Elbow Park to serve Calgary's burgeoning middle class during the city's pre-WWI population boom. During the first wave of building in Elbow Park, most houses were developed by individual owners, hiring contractors, for their own use and/or as rental units. Elbow Park also saw much speculative building by contractors and realtors, who often built new houses in pairs. This house was built by Harold A. Christensen (Doyle, Thomas & Christensen). Those construction partners also built 4 houses on adjacent lots backing up to this one (3207, 3211, 3213, 3217 on what is now Elbow DR).

This is a good representative of the substantial homes built in the neighbourhood for upper-middle-class residents. Most early houses were 1½ or 2-storey homes such as this one, worth \$2,000 or more. From its beginnings, Elbow Park was favoured by white-collar workers. In 1913 about half of working residents—at percentages much higher than Calgary as a whole—were businessmen, professionals (especially lawyers, doctors, dentists, and accountants), and brokers or financial managers. Some 20% held sales or clerical jobs or were skilled workers and tradesmen.

The first owner/occupant of this houses was George A. Turner (1914-1919), who worked for a hardware company. After that, Ernest H. Levy, manager of a dry cleaning business, and his wife, Blanche, owned the house in 1919-1948 and lived there c.1919-1928 and again in the 1940s. Elmer J. Anderson, an optician, rented the house in the 1930s. The next long-time

owner/occupants were Jack and Esther Wise, owners of a dress shop (1949-1969), then John Mayell, an architect, with his wife Megan, a teacher, and their 2 children (1969-2017).

The Turner Residence is a good example of a Craftsman house, a style popularized by commercial pattern books of the time and common in Elbow Park. Typical features of the style seen here include its horizontal emphasis, sheltering gable roof, use of varied natural materials (in this house: brick, stucco, timber), large veranda for indoor-outdoor living, and exposed structural elements (open eaves, exposed rafters)—all meant to create a cozy, picturesque look in harmony with nature. Highlights of the interior are the grand curving oak staircase; and the oak door and window casings, deep baseboards, and living/dining room pedestal dividers.

Character-Defining Elements

Character-defining elements include, but are not limited to:

- 2-storey rectangular plan with full basement, 1-storey wraparound veranda (originally shorter on south elevation); back south-side sun-room extension; rear extension;
- side-gable roof with deep-pitched front-facing cross gable, raised shed roof section in rear; side-gable roof over veranda, flat roof over sun-room; deep eaves with tongue-and groove soffits, exposed rafters;
- wood construction faced in red brick in stretcher bond, stucco and mock half-timbering on 2nd storey; concrete foundation; sandstone lintels and sills (1st storey), painted wood door and window surrounds (2nd storey);
- veranda with plank flooring, tongue-and-groove ceiling; sunroom with wood plank flooring;
- fenestration of rectangular, mainly symmetrical window and door openings; off-centre front doorway, side basement doorway, other exterior doorways at 1st storey rear, 2nd-storey rear (to porch), west wall of sun-room;
- 3-sided front vestibule comprising moulded oak frame, oak front door and two oak side walls each mainly filled with bevelled glass, transoms across all 3 sections of leaded glass in a geometric pattern; front window topped by leaded glass in geometric pattern; single-panelled oak entrance door; oak sun-room door mainly filled with bevelled glass; inner and outer 2nd-storey porch doors of panelled wood with top lights;
- red-brick chimney in stretcher bond with plain concrete cap; and
- moderate set-back on a landscaped lot with one mature tree, within a residential street and neighbourhood.

interior features including:

- unusually large living room (if layout can be verified as original);
- curved, closed-string oak staircase with oak balustrade with turned posts, panelled newel post;
- oak trim including door and window casings, deep baseboards, panelled pedestals between living/dining rooms; on 2-storey: painted wood doors, moulded door and window casings;
- wood plank flooring;
- brick (bedroom) and brick and stucco (living room) fireplaces, both with crenellated and corbelled top, molded oak mantelshelf;
- lathe-and-plaster walls; fir flooring (one bedroom); tongue-and-groove sun-room walls; and original door hardware, radiators, push-button door bell and electrical switch plates, laundry chute door.

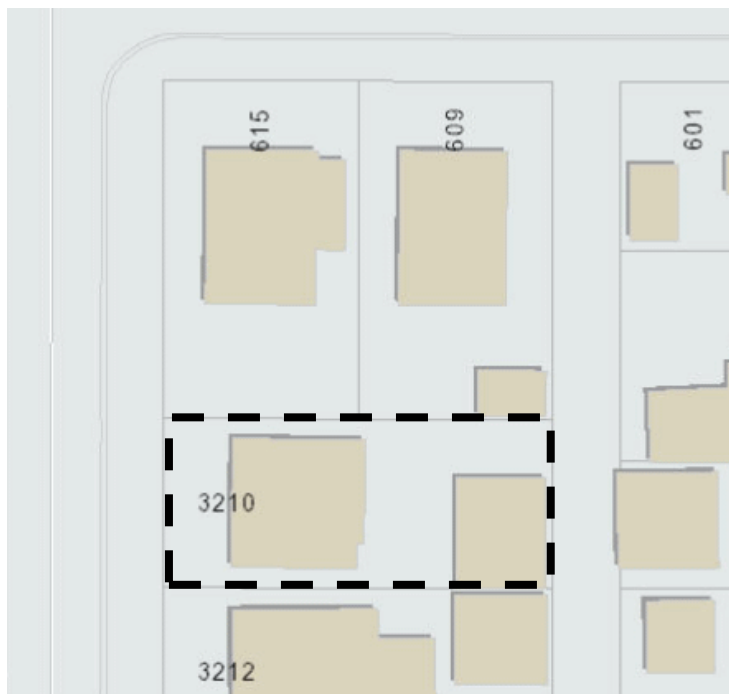
REGULATED PORTIONS

1.0 Context, Orientation and Placement

The following elements are regulated:

- a) The building's existing location and placement on the property (Images 1.1 and 1.2)

Note: The original wraparound veranda wraps terminated part way around the south facade. The enclosed extension that connects the veranda to the easterly south-facing sun-room, while sympathetically designed, is not regulated, and a return to original configuration/appearance would not be precluded where documentation of original configuration exists (Image 1.2)



(Image 1.1: Current building orientation and placement on parcel)



(Image 1.2 Original building configuration (ca. 1911), showing wraparound porch distinct from sunroom)

2.0 Exterior

The following elements are regulated:

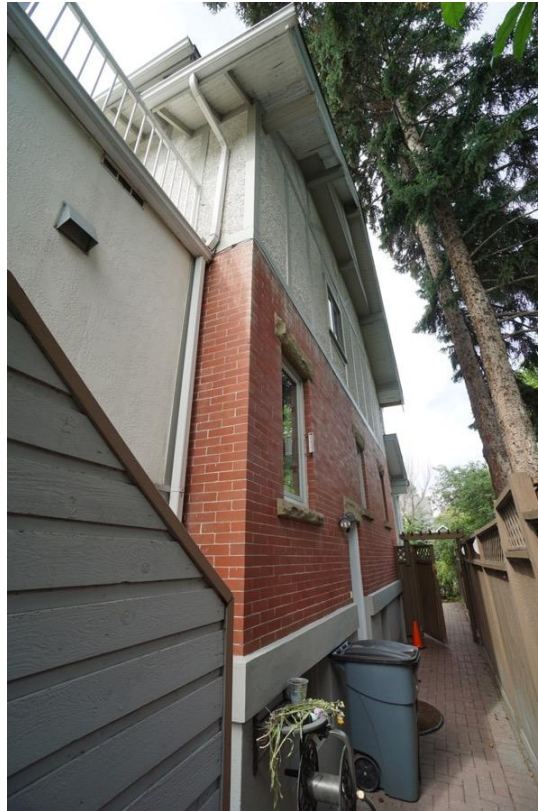
- a) Two-storey square massing; stretcher bond red brick cladding (first storey), stucco and mock half-timbering (second storey) (Images 2.1 – 2.6 and 2.14);
- b) Side-gable roof with deep-pitched front-facing cross gable, raised shed roof section (rear), side-gable roof with outriggers and moulded capitals (veranda), flat roof (sun-room), deep open eaves, wood tongue-and groove soffits, exposed rafters (side and cross gable) (Images 2.1 – 2.8);
- c) Wraparound verandah with extant brick piers (Images 2.2 and 2.13) ;
- d) Original fenestration (window patterns and openings), sandstone lintels and sills on first storey (Images 2.1, 2.2, 2.3, 2.4, 2.5, 2.7, 2.9, 2.10, 2.11, and 2.12) and
- e) One red-brick chimney in stretcher bond with plain concrete cap (Images 2.1).



(Image 2.1: View from the northwest)



(Image 2.2: Oblique view of south facade)



(Image 2.3: Oblique view of the north facade)



(Image 2.4: Oblique view of the north facade)



(Image 2.5: East facade)



(Image 2.6: Front-facing portion of cross-gable roof, wood tongue-and-groove soffits, exposed rafters, wood mock half-timbering)



(Image 2.7: Side-gable roof with outriggers and moulded capitals (veranda))



(Image 2.8 Verandah eaves, wood tongue-and-groove soffits, exposed rafters)



(Image 2.9: south façade sunroom with extant window openings).



(Image 2.10: north side of the rear porch extension)



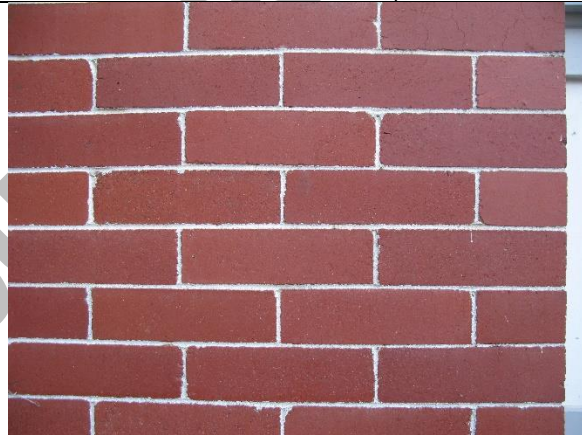
(Image 2.11: Example of window opening with sandstone lintel and sills)



(Image 2.12: Example of door opening with sandstone lintel)



(Image 2.13: Example of extant brick piers supporting verandah)



(Image 2.14: Example of brick cladding with white mortar finish)

3.0 Interior – First Floor

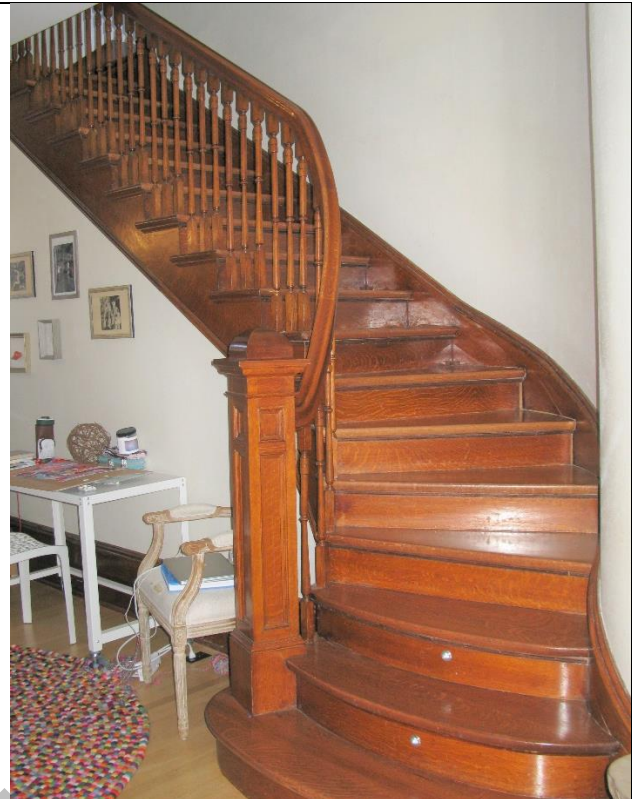
- a) Those extant portions of the original floor-plan / configuration including “L” shaped wraparound porch; sun-room and rear extension;
- b) Veranda area finishing with stretcher bond red brick cladding, wood tongue-and-groove ceiling; front window topped by leaded glass in geometric pattern; sandstone lintels and sills (Image 3.1 & 3.4);
- c) Extant original three-sided front vestibule comprising moulded oak frame, oak front door and two oak side walls filled with beveled glass, transoms across all three sections of leaded glass in geometric pattern (Images 3.2);
- d) Extant original oak woodwork including staircase balustrade, turned posts, paneled newel post; windows and doors trim and casings, deep baseboards, paneled pedestals (Images 3.3 – 3.7); and
- e) Extant original brick and stucco (living room) fireplace, with crenellated and corbelled top, molded oak mantelshelf (Image 3.8).



(Image 3.1: Veranda, showing plank flooring and tongue-and-groove ceiling; front window, topped by leaded glass in geometric pattern, with sandstone lintels and sills)



(Image 3.2: three-sided front vestibule comprising moulded oak frame, oak front door and two oak side walls filled with beveled glass, transoms across all three sections of leaded glass in geometric pattern)



(Image 3.3: original oak staircase balustrade, turned posts, paneled newel post)



(Image 3.4: Front window topped by leaded glass in geometric pattern. Example of window casing)



(Image 3.5: Detailing on a typical door trim and casing)



(Image 3.6: Example of paneled pedestal)



(Image 3.7: Example of a typical deep baseboard with detailing)



(Image 3.8: brick and stucco (living room) fireplace, with crenellated and corbelled top, molded oak mantelshelf)

SCHEDULE "C"

The primary purpose of the *Standards and Guidelines* is to provide guidance to achieve sound conservation practice. They are used to assess proposed changes to designated Municipal Historical Resources and form the basis for review and assessment for the approved rehabilitation program.

The *Standards and Guidelines* were developed by Parks Canada and were formally adopted by The City of Calgary in 2005. They provide a philosophical consistency for project work; and while neither technical nor case-specific, they provide the framework for making essential decisions about those features of a historic place, which should be maintained and cannot be altered.

The *Standards* listed below and the referenced *Guidelines* shall apply to the Regulated Portions and any rehabilitation or maintenance work undertaken with respect to them at any time.

The Standards

Definitions of the terms in italics below are set forth in the Introduction of the *Standards and Guidelines*. In the event of a conflict between the italicized terms below and those in the *Standards and Guidelines*, the latter shall take precedence. The Standards are not presented in a sequential or hierarchical order, and as such, equal consideration should be given to each. All Standards for any given type of treatment must therefore be applied simultaneously to a project.

General Standards (all projects)

1. Conserve the *heritage value* of a *historic place*. Do not remove, replace, or substantially alter its intact or repairable *character-defining elements*. Do not move a part of a *historic place* if its current location is a *character-defining element*.
2. Conserve changes to a *historic place* which, over time, have become *character-defining elements* in their own right.
3. Conserve *heritage value* by adopting an approach calling for *minimal intervention*.
4. Recognize each *historic place* as a physical record of its time, place and use. Do not create a false sense of historical development by adding elements from other *historic places* or other properties or by combining features of the same property that never coexisted.
5. Find a use for a *historic place* that requires minimal or no change to its *character defining elements*.
6. Protect and, if necessary, stabilize a *historic place* until any subsequent *intervention* is undertaken. Protect and preserve archaeological resources in place. Where there is potential for disturbance of archaeological resources, take mitigation measures to limit damage and loss of information.
7. Evaluate the existing condition of *character-defining elements* to determine the appropriate *intervention* needed. Use the gentlest means possible for any *intervention*. Respect *heritage value* when undertaking an *intervention*.

8. Maintain *character-defining elements* on an ongoing basis. Repair *character-defining elements* by reinforcing their materials using recognized conservation methods. Replace in kind any extensively deteriorated or missing parts of *character-defining elements*, where there are surviving prototypes.
9. Make any *intervention* needed to preserve *character-defining elements* physically and visually compatible and identifiable upon close inspection and document any *intervention* for future reference.

Additional Standards Relating to Rehabilitation

10. Repair rather than replace *character-defining elements*. Where *character-defining elements* are too severely deteriorated to repair, and where sufficient physical evidence exists, replace them with new elements that match the forms, materials and detailing of sound versions of the same elements. Where there is insufficient physical evidence, make the form, material and detailing of the new elements compatible with the character of the *historic place*.
11. Conserve the *heritage value* and *character-defining elements* when creating any new additions to a *historic place* or any related new construction. Make the new work physically and visually compatible with, subordinate to and distinguishable from the *historic place*.
12. Create any new additions or related new construction so that the essential form and integrity of a *historic place* will not be impaired if the new work is removed in the future.

Additional Standards Relating to Restoration

13. Repair rather than replace *character-defining elements* from the restoration period. Where *character-defining elements* are too severely deteriorated to repair and where sufficient physical evidence exists, replace them with new elements that match the forms, materials and detailing of sound versions of the same elements.
14. Replace missing features from the restoration period with new features whose forms, materials and detailing are based on sufficient physical, documentary and/or oral evidence.

Guidelines

The full text of the *Standards and Guidelines* is available online through www.historicplaces.ca, or from:

Parks Canada National Office
25 Eddy Street
Gatineau, Quebec K1A 0M5

Proposed Wording for a Bylaw to Designate the Johnston Residence as a Municipal Historic Resource

WHEREAS the *Historical Resources Act*, R.S.A. 2000 c. H-9, as amended (the “Act”) permits The City of Calgary Council (“City Council”) to designate any historic resource within the municipality whose preservation City Council considers to be in the public interest together with any specified land in or on which it is located, as a Municipal Historic Resource;

AND WHEREAS the owners of the Johnston Residence have been given sixty (60) days written notice of the intention to pass this Bylaw in accordance with the Act;

NOW THEREFORE THE COUNCIL OF THE CITY OF CALGARY ENACTS AS FOLLOWS:

SHORT TITLE

1. This Bylaw may be cited as “City of Calgary Bylaw to Designate the Johnston Residence as a Municipal Historic Resource”.

BUILDING AND LAND DESIGNATED AS A MUNICIPAL HISTORIC RESOURCE

2. The building known as Johnston Residence, located at 1723 13 AV S.W., and the land on which the building is located being legally described as PLAN 5380V BLOCK 219 LOT 9 AND THE WEST HALF OF LOT 10, as shown in the attached Schedule “A”, are hereby designated as a Municipal Historic Resource.
3. The specific elements of the Historic Resource possessing heritage value are hereafter referred to as the Regulated Portions (the “Regulated Portions”). The Regulated Portions are identified in the attached Schedule “B”.

PERMITTED REPAIRS AND REHABILITATION

4. a) The Regulated Portions of the Historic Resource, as described or identified in Schedule “B” shall not be removed, destroyed, disturbed, altered, rehabilitated, repaired or otherwise permanently changed, other than for routine preservation and maintenance work, without prior written approval from City Council, or the person appointed by City Council as the Approving Authority for the purposes of administration of Section 26 of the Act. Any alteration, rehabilitation, repair or change to the Regulated Portions must be in accordance with the terms of the Parks Canada 2010 publication Standards and Guidelines for the Conservation of Historic Places in Canada, (the “Standards and Guidelines”), as referenced and summarized in the attached Schedule “C”.
- b) All portions of the Historic Resource, which are not described or identified as a Regulated Portion in Schedule “B” are hereby known as the Non-regulated Portions (the “Non-regulated Portions”). The Non-regulated Portions are not subject to the *Standards and Guidelines* and may be rehabilitated, altered or repaired, provided that such rehabilitation, alteration, and repair does not negatively impact the Regulated Portions or adversely affect the historical, contextual or landmark character of the property, and that all other permits required to do such work have been obtained.

COMPENSATION

5. No compensation pursuant to Section 28 of the *Act* is owing.

EXECUTION OF DOCUMENTS

6. Any employees of The City of Calgary who exercise land use and heritage planning powers and duties are hereby authorized to execute such documents as may be necessary to give effect to this Bylaw.

SCHEDULES

7. The schedules to this Bylaw form a part of it.

SCHEDULE "A"



1723 13 AV SW



SCHEDULE “B”

Description

The 1912 Johnston Residence is a substantial one and one-half-storey, wooden-frame Craftsman-style home with bevelled-wood siding on the lower level and wooden shingles on the veranda and upper level. The side-gabled roof overhangs a full-width front veranda with tapered piers and twinned tapered posts as well as an offset front entry with sidelights. The house features a decorative roofline with large cross-gabled dormers, exposed rafter tails, corner brackets and stickwork detailing. It is located on 13th Avenue on a quiet residential street with tree-lined boulevards, landscaped setbacks with mature plantings, and many homes of the same period. The home is situated in the early southwest inner city community of Sunalta, in close proximity to the boundary with Scarboro and a few blocks south of the Bow River.

Heritage Value

As a mid-scale home constructed in the Sunalta subdivision shortly after it was established, the Johnston Residence is symbolic of this early middle class neighbourhood. Sunalta was one of three CPR subdivisions in Calgary designed by landscape architect John Olmsted, who from 1898 headed the firm established by his father Frederick Law Olmsted. He was engaged in 1909 by the CPR's Assistant Land Commissioner and chief surveyor J. Lonsdale Doupe. Sunalta was to be marketed to the middle class with a *garden city* design on the hillside, today's Scarboro, and a lower grid-iron plan that transitioned to the existing layout of the city, today's Sunalta.

In 1912, at the height of the boom, hundreds queued overnight in the rain to purchase lots in Sunalta even though prices had doubled from 1909. That year Raleigh P Hickie, a US-born building contractor and Alberta farmer, who came to Calgary in 1910, acquired a 37.5 foot lot a short distance from where 13 AV terminates at the boundary with Scarboro, just north of the Sunalta recreation ground and tennis club. Hickie, who built many Sunalta houses, constructed an 8-room dwelling and was living there by August.

The Johnston Residence is valued as a substantial and very well-preserved side-gabled variation of a Craftsman-style home in Sunalta. Elements of the home's Craftsman stylistic detailing are its one and one-half-storey form with side-gable roof that deeply overhangs a full-width front veranda with tapered piers and twinned tapered posts. A feature of the side-gabled variation is the sleeping porch, which could also be placed on the front façade. Decorative wooden elements like centred gable dormers, exposed rafter tails, corner brackets, verge boards and stickwork in the gables show the home's craftsmanship, and draw the eye to the roofline. In addition, the home shows English Arts & Crafts influences like the steep roof pitch, and use of materials with contrasting textures such as the smooth bevelled-wood siding on the lower level and the wooden shingles on the veranda and upper level. The high quality craftsmanship extends to the interior with extensive built-in cabinetry.

By late 1913 the new resident owners, Frederick Johnston (Fred, b.1878), his wife Bertha (Clarke, b. ca.1887) and mother-in-law Hattie, were living in the home. Fred was raised in Manitoba and in 1907 moved to Calgary, established Johnston's Storage & Cartage, and married Ontario-born Bertha. He founded Arctic Ice, three years later and by 1911 his two companies boasted 42 employees, 21 teams of horses, an ice house, four warehouses and multiple stables. He was also a director of the Alberta Horse Breeders Association and an officer of the 1908 Dominion Exhibition. The next long-term residents, by 1919, were farmer George Foster Beatty (1876-1964), his wife Clara (nee Purdue, 1887-1942), and their two pre-

school children, Georgina & Lloyd. The couple were born in Ontario; George had come west with his family in 1902 to farm in the Stavely area. The couple resided in Calgary from 1917, although they continued to farm in Stavely and in 1918 also began operating a Hereford cattle ranch in Midnapore where they gave financial support to build the Midnapore School (municipal historical resource). George's farming career ended in 1951 with the sale of his Midnapore farm which set a provincial land price record. That year his son, then working as a plasterer, was living in the home.

In 1952 Susie Sterling and husband Edward, a farmer, became the resident owners of the Johnston Residence; a year later they partitioned it into 2 suites, and in 1954 added a basement suite. From 1963 the owners were landman James O'Byrne, and his wife Leona O'Byrne who lived there for a short period. There were a number of long-term renters, the longest being Mrs Aileen Palmer and her children. Aileen lived in the home for 5 decades and was active in the community.

Character-defining Elements

The character-defining elements include:

Exterior:

- form, scale and massing as expressed by its one and one-half-storey, rectangular plan with long façade; hip-roofed bay window on west façade and shed-roofed bump-out on east façade;
- high-pitched, side-gable roof with large front and rear cross-gable dormers; stickwork in the gable peaks; overhanging eaves with decorative exposed rafter tails and moulded frieze; projecting verges with vergeboards with decorative ends, decorative wooden brackets and moulded frieze; wooden tongue-and-groove soffits; tall, red-brick internal rear chimney;
- wooden-frame construction with bevelled-wood siding on the lower storey and wooden-shingle cladding on the upper storey and verandas; wooden tongue-and-groove ceilings and inner balustrades on verandas and balcony; wooden belt course, water table with drip mould and cornerboards;
- original fenestration pattern on all façades; windows such as single, double, triple and quadruple assemblies of tall windows; fixed and 1-over-1 hung wooden sashes; 2-light fixed wooden-sash windows; double-assemblies of 2-over-2 wooden-sash windows with leaded glass in the upper lights and 4-light wooden-sash storm windows; fixed wooden-sash, multi-light, leaded-glass window in front vestibule; wooden trim; plain lintels with drip moulds; lug and continuous sills in wood;
- offset front entry with side-lights, 3-light transom, wooden surround, and original wooden door with glazed panel and original hardware; offset rear entry with original external door with wooden and glazed panels and hardware; and
- full-width front veranda with wooden tongue-and-groove ceiling, tapered piers with twinned, tapered posts supporting moulded entablatures, closed balustrade with wooden shingles; full-width rear veranda with wooden tongue-and-groove ceiling, tapered wooden posts, closed balustrade with wooden shingles and courses of decorative shingles; upper rear balcony with shed roof, tapered wooden posts and closed balustrade with wooden shingles with courses of decorative shingles.

Interior:

- cast-iron clawfoot tub, lower floors and extensive woodwork: wooden quarter-turn staircase with landing, open balustrade with square spindles, handrail and decorative newel posts; coffered ceilings; fireplace mantle; multi-light French doors with sidelights and original hardware; built-in cabinetry; interior multi-panel doors, upper floors and moulded trim around windows and doors;
- garage with wooden-shingled, hipped roof, bevelled-wood siding, and wooden trim and cornerboards;
- placement and orientation on property; setbacks on all sides; landscaped front and rear setbacks; and
- location fronting 13th Avenue, a quiet residential street with many houses from the same period with landscaped front setbacks, as well as grassy City boulevard with mature trees.

REGULATED PORTIONS

1.0 Land

The Land is regulated as follows:

- a) The building's existing location and placement on the property (as shown on attached Schedule "A").

2.0 Exterior

The following elements are regulated:

- a) One and one-half storey massing, rectangular plan; bevelled wood siding on the lower storey and wood shingle cladding on the upper storey; wood belt course, water table with drip mould and cornerboards (Images 2.1, 2.5 - 2.6);
- b) Side-gable roof with front and rear cross-gable dormers; stick work (gable peaks); overhanging eaves with exposed rafter tails, wood brackets, wood tongue-and-groove soffits and moulded frieze; projecting verges with vergeboards with decorative ends (peak of gables) (Images 2.1, 2.2, 2.5 - 2.6);
- c) Full-width front veranda with closed balustrade, tapered piers and twinned, tapered posts supporting moulded entablatures; wood tongue-and-groove veranda ceiling; and upper floor closed balustrade balcony (Images 2.1 and 2.3);
- d) Hip-roofed bump out on east façade and shed-roofed bay window on west façade; both with overhanging eaves with exposed wood rafter tails (Images 2.5 and 2.6); and
- e) Original extant fenestration composed of: (one) double-assembly of 2-over-2 with leaded glass in the upper lights profile; (one) fixed, multi-light, leaded glass profile; (two) fixed, multi-light, leaded glass profiles; (one) fixed 2-light profile; (two) 2-light single hung profiles; (one) quadruple assembly of multi-light, leaded glass profile; (three) 1-over-1 hung profiles; plain lintels with drip moulds; lug and continuous sills on west bay window (Images 2.1 – 2.3 and 2.5 – 2.7) and;
- f) Front entry with (two) side-lights, 3-light transom, wood surround, and original wood door with glazed panel (Image 2.4).

Note: South (rear) façade is not regulated.



(Image 2.1: North (front) façade showing front cross-gable dormer and full-width front veranda)



(Image 2.2: Detail of front cross-gable dormer on high-pitched, side gable roof; stick work (gable peak); overhanging eaves with exposed rafter tails, wood brackets, wood tongue-and-groove soffits and moulded frieze; projecting verges with vergeboards with decorative ends)



(Image 2.3: Detail of full-width shingle clad, front veranda with closed balustrade, tapered piers and twinned, tapered posts supporting moulded entablatures)



(Image 2.4: Detail of offset front entry on front veranda with side-lights, 3-light transom, wood surround, and original wood door with glazed panel and wood tongue-and-groove ceiling)

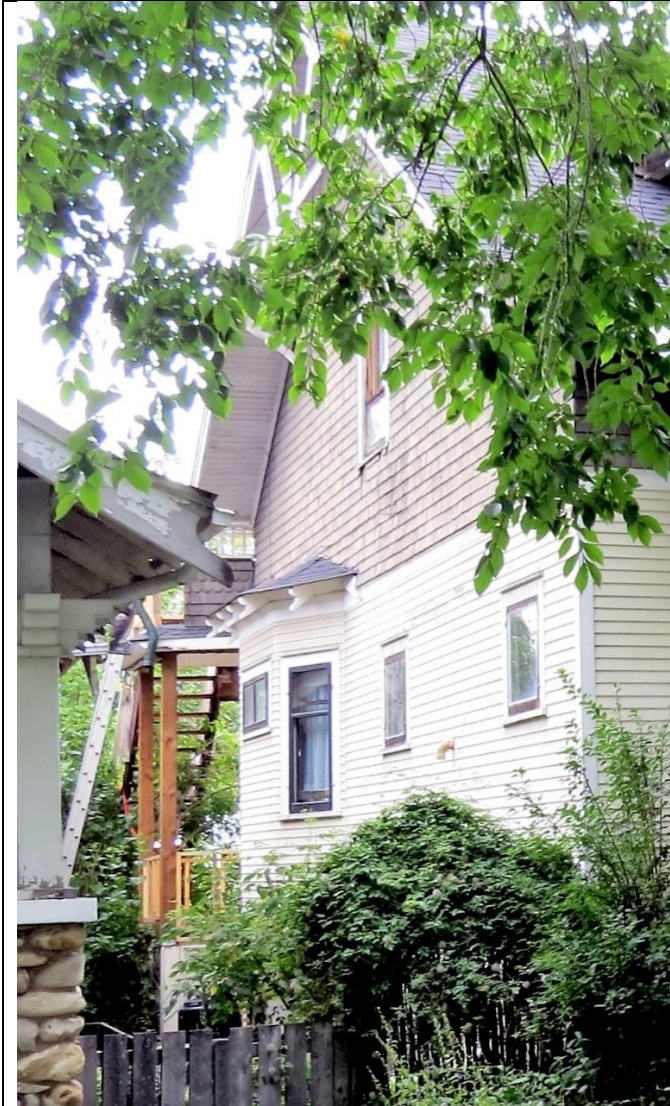


Image 2.5: Hip-roofed bump out on east façade, bevelled wood and shingle cladding, exposed rafter tail; and example of 1-over-1 single hung profile and 2-light fixed profile



Image 2.6: Shed-roofed bay window with exposed rafter tails on west façade, projecting verges in side gable with stick work in the gable peak, wood belt course, water table with drip mould and corner boards



3.0 Interior

The following elements are regulated:

- a) Woodwork trim around windows (Images 3.1 – 3.4);
- b) Multi-light French doors with sidelights and original hardware (Image 3.5); and
- c) Wooden built-in features including; room separator with built-in cabinetry (Image 3.6), room separator - no cabinetry (Image 3.7) and built-in drawer and cabinet unit (Image 3.8).



Image 3.3: Example of woodwork trim around windows



Image 3.4: Example of woodwork trim around windows



(Image 3.5: Multi-light French doors with sidelights and original hardware)



(Image 3.6: Room separator with built-in cabinetry)



(Image 3.7: Room separator (left) with built-in drawer and cabinet unit (right))



(Image 3.8: Built-in drawers and cabinet (partitioning wall constructed over built-in drawer and cabinet unit during previous renovation))

SCHEDULE "C"

The primary purpose of the *Standards and Guidelines* is to provide guidance to achieve sound conservation practice. They are used to assess proposed changes to designated Municipal Historical Resources and form the basis for review and assessment for the approved rehabilitation program.

The *Standards and Guidelines* were developed by Parks Canada and were formally adopted by The City of Calgary in 2005. They provide a philosophical consistency for project work; and while neither technical nor case-specific, they provide the framework for making essential decisions about those features of a historic place, which should be maintained and cannot be altered.

The *Standards* listed below and the referenced *Guidelines* shall apply to the Regulated Portions and any rehabilitation or maintenance work undertaken with respect to them at any time.

The Standards

Definitions of the terms in italics below are set forth in the Introduction of the *Standards and Guidelines*. In the event of a conflict between the italicized terms below and those in the *Standards and Guidelines*, the latter shall take precedence. The Standards are not presented in a sequential or hierarchical order, and as such, equal consideration should be given to each. All Standards for any given type of treatment must therefore be applied simultaneously to a project.

General Standards (all projects)

1. Conserve the *heritage value* of a *historic place*. Do not remove, replace, or substantially alter its intact or repairable *character-defining elements*. Do not move a part of a *historic place* if its current location is a *character-defining element*.
2. Conserve changes to a *historic place* which, over time, have become *character-defining elements* in their own right.
3. Conserve *heritage value* by adopting an approach calling for *minimal intervention*.
4. Recognize each *historic place* as a physical record of its time, place and use. Do not create a false sense of historical development by adding elements from other *historic places* or other properties or by combining features of the same property that never coexisted.
5. Find a use for a *historic place* that requires minimal or no change to its *character defining elements*.
6. Protect and, if necessary, stabilize a *historic place* until any subsequent *intervention* is undertaken. Protect and preserve archaeological resources in place. Where there is potential for disturbance of archaeological resources, take mitigation measures to limit damage and loss of information.
7. Evaluate the existing condition of *character-defining elements* to determine the appropriate *intervention* needed. Use the gentlest means possible for any *intervention*. Respect *heritage value* when undertaking an *intervention*.
8. Maintain *character-defining elements* on an ongoing basis. Repair *character-defining elements* by reinforcing their materials using recognized conservation methods. Replace in kind any

extensively deteriorated or missing parts of *character-defining elements*, where there are surviving prototypes.

9. Make any *intervention* needed to preserve *character-defining elements* physically and visually compatible and identifiable upon close inspection and document any *intervention* for future reference.

Additional Standards Relating to Rehabilitation

10. Repair rather than replace *character-defining elements*. Where *character-defining elements* are too severely deteriorated to repair, and where sufficient physical evidence exists, replace them with new elements that match the forms, materials and detailing of sound versions of the same elements. Where there is insufficient physical evidence, make the form, material and detailing of the new elements compatible with the character of the *historic place*.
11. Conserve the *heritage value* and *character-defining elements* when creating any new additions to a *historic place* or any related new construction. Make the new work physically and visually compatible with, subordinate to and distinguishable from the *historic place*.
12. Create any new additions or related new construction so that the essential form and integrity of a *historic place* will not be impaired if the new work is removed in the future.

Additional Standards Relating to Restoration

13. Repair rather than replace *character-defining elements* from the restoration period. Where *character-defining elements* are too severely deteriorated to repair and where sufficient physical evidence exists, replace them with new elements that match the forms, materials and detailing of sound versions of the same elements.
14. Replace missing features from the restoration period with new features whose forms, materials and detailing are based on sufficient physical, documentary and/or oral evidence.

Guidelines

The full text of the *Standards and Guidelines* is available online through www.historicplaces.ca, or from:

Parks Canada National Office
25 Eddy Street
Gatineau, Quebec K1A 0M5

Proposed Wording for a Bylaw to Designate the Upshall (Corson) Residence as a Municipal Historic Resource

WHEREAS the *Historical Resources Act*, R.S.A. 2000 c. H-9, as amended (the “*Act*”) permits The City of Calgary Council (“City Council”) to designate any historic resource within the municipality whose preservation City Council considers to be in the public interest together with any specified land in or on which it is located, as a Municipal Historic Resource;

AND WHEREAS the owners of the Upshall (Corson) Residence have been given sixty (60) days written notice of the intention to pass this Bylaw in accordance with the *Act*,

NOW, THEREFORE, THE COUNCIL OF THE CITY OF CALGARY ENACTS AS FOLLOWS:

SHORT TITLE

1. This Bylaw may be cited as “City of Calgary Bylaw to Designate the Upshall (Corson) Residence as a Municipal Historic Resource”.

BUILDING AND LAND DESIGNATED AS A MUNICIPAL HISTORIC RESOURCE

2. The building known as the Upshall (Corson) Residence, located at 602 18 AV N.W., and the land on which the building is located being legally described as PLAN 29340; BLOCK 12; LOTS 1 AND 2 EXCEPTING OUT OF THOSE PORTIONS OF SAID LOTS LYING NORTH OF THE SOUTH EIGHTY FIVE (85) FEET THEREOF ALL MINES AND MINERALS (the “Historic Resource”), as shown in the attached Schedule “A”, are hereby designated as a Municipal Historic Resource.
3. The specific elements of the Historic Resource possessing heritage value are hereafter referred to as the Regulated Portions (the “Regulated Portions”). The Regulated Portions are identified in the attached Schedule “B”.

PERMITTED REPAIRS AND REHABILITATION

4. a) The Regulated Portions of the Historic Resource as described or identified in Schedule “B” shall not be removed, destroyed, disturbed, altered, rehabilitated, repaired or otherwise permanently changed, other than for routine preservation and maintenance work, without prior written approval from City Council, or the person appointed by City Council as the Approving Authority for the purposes of administration of Section 26 of the *Act*. Any alteration, rehabilitation, repair or change to the Regulated Portions must be in accordance with the terms of the Parks Canada 2010 publication Standards and Guidelines for the Conservation of Historic Places in Canada, (the “*Standards and Guidelines*”), as referenced and summarized in the attached Schedule “C”.
- b) All portions of the Historic Resource which are not described or identified as a Regulated Portion in Schedule “B” are hereby known as the Non-regulated Portions (the “Non-regulated Portions”). The Non-regulated Portions are not subject to the *Standards and Guidelines* and may be rehabilitated, altered or repaired, provided that such rehabilitation, alteration, and repair does not negatively impact the Regulated Portions or adversely

affect the historical, contextual or landmark character of the property, and that all other permits required to do such work have been obtained.

COMPENSATION

5. No compensation pursuant to Section 28 of the *Act* is owing.

EXECUTION OF DOCUMENTS

6. Any employees of The City of Calgary who exercise land use and heritage planning powers and duties are hereby authorized to execute such documents as may be necessary to give effect to this Bylaw.

SCHEDULES

7. The schedules to this Bylaw form a part of it.

TEXT FOR DISCUSSION ONLY

SCHEDULE "A"



602 18 AV NW



SCHEDULE “B”

Description

The Upshall (Corson) Residence, built ca. 1911, is a two-storey, wood-frame, Queen Anne Revival–style dwelling with hipped roof with lower cross gables, bay window, and inset veranda (now enclosed). The property comprises a softly landscaped corner lot on a residential street in the Mount Pleasant neighbourhood.

Heritage Value

The Upshall (Corson) Residence, built c. 1911, represents the earliest phase of development of the Mount Pleasant neighbourhood, one of Calgary’s early communities. A plan for the West Mount Pleasant Subdivision that includes this site (between 18th and 26th Avenues, 4th and 9th Streets) was registered in 1906. By 1910, the year that Mount Pleasant was annexed by the City, there were only 9 households in this subdivision, with 51 a year later – the year the Upshall (Corson) Residence is thought to have been built. With most of these original properties subsequently redeveloped, the Upshall (Corson) Residence survives as one of the oldest properties in the area.

By 1913, the block where this house is located had 6 houses, including this one, on its north side (filling up about half the block) and 5 on the south side (filling less than half). There were 12 houses on the block by 1920 through 1930, and just one more by 1940. These early houses were a mix of one-storey bungalows and more-substantial two-storey houses, being predominantly Foursquare in style. Until the mid-1940s, the neighbourhood was largely undeveloped with much open space and a semi-rural character. The neighbourhood experienced rapid growth after the Second World War.

This property was constructed and first owned by carpenter Benjamin Upshall who occupied the house upon completion. The property was most likely developed for speculative purposes and was subsequently sold numerous times while being rented out by the various owners. John and Mary Corson owned and occupied the house the longest—together from 1933 until John’s death (c.1955), then by Mary until 1976. There they raised five sons and a daughter and also housed other relatives. The Corson children’s walk from this house to Crescent Heights High School (1019 1st Street NW) was almost entirely through vacant lots. In the winter, the empty lot west of this house was used as a community skating rink, and the Upshall (Corson) Residence basement served as a “club house” for neighbourhood children, who entered through the side door. The family planted potatoes on one of the empty lots that then dominated the area, and stored them in their basement root cellar. During the Stampede, the family used the roof deck to get an unimpeded view of fireworks from the Stampede grounds.

The Upshall (Corson) Residence is the only Queen Anne Revival–style dwelling in the community with other early houses remaining on this and surrounding blocks being more modest bungalows and Foursquare-style homes. Characteristic of Queen Anne Revival–style homes, it features a hipped roof with flared eaves, central flat deck and lower cross gables, bay window, inset veranda, and a combination of cladding materials including wood shingles – patterned in the gables – and lapped siding. Interior features of note include its open dog-leg staircase with dark-stained fir balustrade, dark-stained fir panelled doors with entablature surrounds, and first-floor wainscoting.

Character-Defining Elements

The character-defining elements of the Upshall (Corson) Residence include its:

- Square, two-storey, side-hall plan with two-storey bay window projection; rear porch extension with second-storey;
- Wood-frame construction clad in lapped wood siding at the first-storey level, wood-shingle cladding at the second-storey level, and patterned (diamond-shaped) wood-shingle cladding within the gables; plain wood belt course, corner boards, and window surrounds; board-formed concrete foundation;
- Hipped roof with central flat deck (widow's walk), lower cross gables, flared eaves and closed wooden tongue-and-groove soffits; interior brick chimney;
- Half-width, integral veranda with wooden tongue-and-groove ceiling
- Fenestration (window pattern) with 1-over-1, wooden hung-sash windows (with original glass); transom lights containing gold-coloured stained glass;
- Open dog-leg staircase with dark-stained fir balustrade with turned balusters and square newel posts with bull-nosed caps; also in dark-stained fir are panelled doors with entablature surrounds, vertical-panelled wainscoting with plate rail in dining room and tongue-and-groove wainscoting with chair rail in first-storey hallway, and
- Wide baseboards; narrow-width wood flooring throughout the house; decorative wrought-iron heating-vent covers; plaster ceiling medallions; some original door and window hardware.

REGULATED PORTIONS

1.0 Land

The Land is regulated as follows:

- a) The building's existing location and placement on the property (as shown on attached Schedule "A").

2.0 Exterior

The following elements are regulated:

- a) Two storey massing; square plan; lapped wood siding on first storey and wood shingle cladding on second storey with flared edges; wood belt course; corner boards; two storey bay window projection (Images 2.1 - 2.3, 2.8 - 2.10);
- b) Hipped roof with bell-cast (curved) eaves (at roof corners) with central flat deck; lower cross gables with moulded eaves with return; diamond-shaped wood shingle cladding on gables; plain frieze, closed wood tongue-and-groove soffits (Images 2.1 - 2.4, 2.7, and 2.10);
- c) Half-width, inset veranda with wood tongue-and-groove ceiling; enclosed balcony (Images 2.1 – 2.2 and 2.10); and
- d) Fenestration with painted wood windows including: fourteen 1-over-1 single hung windows (two in double assembly); two fixed 1-light window (one with 2-light storm window); half-moon architectural window; two fixed multi-light windows; three double assemblies of 1-over-1 single hung windows; nine 6-light storm windows; five 4-light storm windows (Images 2.1 – 2.4 and Images 2.8 – 2.16).

Note: North (rear) façade is regulated in the area demarked by the dashed border (Image 2.10).

A return to original appearance/design of the roof-deck with balustrade would not be precluded where documentation of original configuration exists (Image 2.3).



(Image 2.1: Front (south) façade)



(Image 2.2: Detail of front lower cross gables with moulded eaves with return; half-moon architectural window, wood shingle and diamond-patterned shingle cladding; plain frieze)



(Image 2.3: Historic image of front façade, 1985, showing roof-deck balustrades on central flat-deck, Copyright Alberta Heritage Survey, 850R)



(Image 2.4: Detail of hipped roof with bell-cast (curved) eaves (at roof corners))



(Image 2.5.: East façade)



Image 2.6: Detail of flared wood shingled corner on second storey



Image 2.7: Detail of closed wood tongue-and-groove soffits under eaves



Image 2.8: West façade – oblique from north



Image 2.9: West façade - oblique from south



(Image 2.10: Rear (north) façade showing cross gable with wood shingle and shingle diamond-pattern; enclosed balcony with two of three double assemblies of 1-over-1 single hung windows and 1-over-one single hung window. Note: Regulated portions are in area with dashed border.)



Image 2.11: Example of 1-over-1 single hung wood window and 6-light wood storm window



Image 2.12: Example of two 1-over-1 single hung wood sash windows in a double assembly format and 4-light wood storm windows

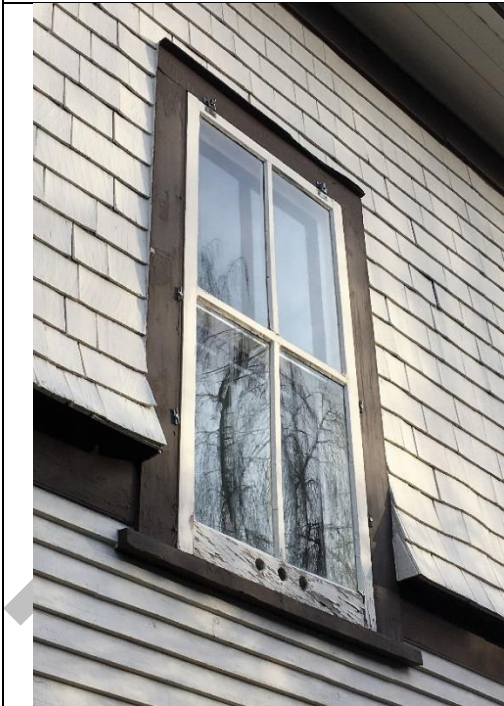


Image 2.13: Example of 1-over-1 single hung wood window and 4-light wood storm window

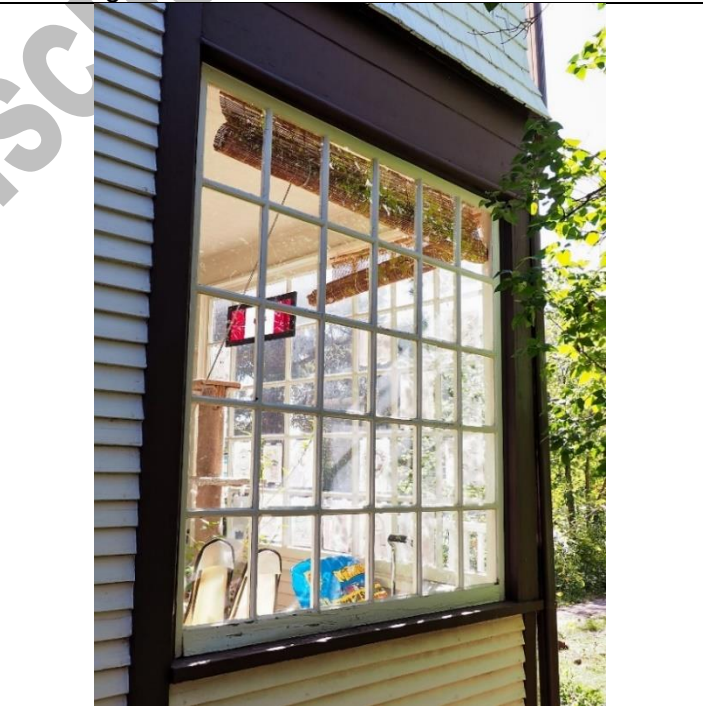


Image 2.14: Example of fixed, multi-light wood sash windows on inset veranda



(Image 2.15: Example of 1-over-1 single hung wood window and 6-light wood storm window)



(Image 2.16: Example of fixed one-light wood window with 2-light wood storm window)

3.0 Interior

The following elements are regulated:

- a) Original wood window casings throughout residence (Images 3.1 – 3.3).



Image 3.1: Example of original wood window casing

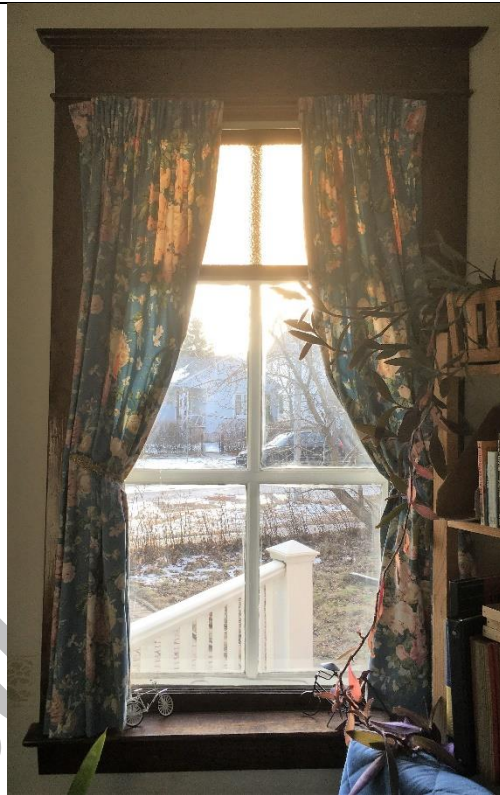


Image 3.2: Example of original wood window casing



(Image 3.3: Example of original wood window casing)

SCHEDULE "C"

The primary purpose of the *Standards and Guidelines* is to provide guidance to achieve sound conservation practice. They are used to assess proposed changes to designated Municipal Historical Resources and form the basis for review and assessment for the approved rehabilitation program.

The *Standards and Guidelines* were developed by Parks Canada and were formally adopted by The City of Calgary in 2005. They provide a philosophical consistency for project work; and while neither technical nor case-specific, they provide the framework for making essential decisions about those features of a historic place, which should be maintained and cannot be altered.

The *Standards* listed below and the referenced *Guidelines* shall apply to the Regulated Portions and any rehabilitation or maintenance work undertaken with respect to them at any time.

The Standards

Definitions of the terms in italics below are set forth in the Introduction of the *Standards and Guidelines*. In the event of a conflict between the italicized terms below and those in the *Standards and Guidelines*, the latter shall take precedence. The Standards are not presented in a sequential or hierarchical order, and as such, equal consideration should be given to each. All Standards for any given type of treatment must therefore be applied simultaneously to a project.

General Standards (all projects)

1. Conserve the *heritage value* of a *historic place*. Do not remove, replace, or substantially alter its intact or repairable *character-defining elements*. Do not move a part of a *historic place* if its current location is a *character-defining element*.
2. Conserve changes to a *historic place* which, over time, have become *character-defining elements* in their own right.
3. Conserve *heritage value* by adopting an approach calling for *minimal intervention*.
4. Recognize each *historic place* as a physical record of its time, place and use. Do not create a false sense of historical development by adding elements from other *historic places* or other properties or by combining features of the same property that never coexisted.
5. Find a use for a *historic place* that requires minimal or no change to its *character defining elements*.
6. Protect and, if necessary, stabilize a *historic place* until any subsequent *intervention* is undertaken. Protect and preserve archaeological resources in place. Where there is potential for disturbance of archaeological resources, take mitigation measures to limit damage and loss of information.
7. Evaluate the existing condition of *character-defining elements* to determine the appropriate *intervention* needed. Use the gentlest means possible for any *intervention*. Respect *heritage value* when undertaking an *intervention*.
8. Maintain *character-defining elements* on an ongoing basis. Repair *character-defining elements* by reinforcing their materials using recognized conservation methods. Replace in kind any

extensively deteriorated or missing parts of *character-defining elements*, where there are surviving prototypes.

9. Make any *intervention* needed to preserve *character-defining elements* physically and visually compatible and identifiable upon close inspection and document any *intervention* for future reference.

Additional Standards Relating to Rehabilitation

10. Repair rather than replace *character-defining elements*. Where *character-defining elements* are too severely deteriorated to repair, and where sufficient physical evidence exists, replace them with new elements that match the forms, materials and detailing of sound versions of the same elements. Where there is insufficient physical evidence, make the form, material and detailing of the new elements compatible with the character of the *historic place*.
11. Conserve the *heritage value* and *character-defining elements* when creating any new additions to a *historic place* or any related new construction. Make the new work physically and visually compatible with, subordinate to and distinguishable from the *historic place*.
12. Create any new additions or related new construction so that the essential form and integrity of a *historic place* will not be impaired if the new work is removed in the future.

Additional Standards Relating to Restoration

13. Repair rather than replace *character-defining elements* from the restoration period. Where *character-defining elements* are too severely deteriorated to repair and where sufficient physical evidence exists, replace them with new elements that match the forms, materials and detailing of sound versions of the same elements.
14. Replace missing features from the restoration period with new features whose forms, materials and detailing are based on sufficient physical, documentary and/or oral evidence.

Guidelines

The full text of the *Standards and Guidelines* is available online through www.historicplaces.ca, or from:

Parks Canada National Office
25 Eddy Street
Gatineau, Quebec K1A 0M5

Proposed Wording for a Bylaw to Designate the Walter Hargrave Residence as a Municipal Historic Resource

WHEREAS the *Historical Resources Act*, R.S.A. 2000 c. H-9, as amended (the “Act”) permits The City of Calgary Council (“City Council”) to designate any historic resource within the municipality whose preservation City Council considers to be in the public interest together with any specified land in or on which it is located, as a Municipal Historic Resource;

AND WHEREAS the owners of the Walter Hargrave Residence have been given sixty (60) days written notice of the intention to pass this Bylaw in accordance with the Act,

NOW, THEREFORE, THE COUNCIL OF THE CITY OF CALGARY ENACTS AS FOLLOWS:

SHORT TITLE

1. This Bylaw may be cited as “City of Calgary Bylaw to Designate the Walter Hargrave Residence as a Municipal Historic Resource”.

BUILDING AND LAND DESIGNATED AS A MUNICIPAL HISTORIC RESOURCE

2. The building known as the Walter Hargrave Residence, located at 1732 13 AV N.W., and the land on which the building is located being legally described as PLAN 5625AC BLOCK 20 THE WESTERLY 98 FEET OF THE SOUTHERLY 16 FEET OF LOT 11 AND THE WESTERLY 98 FEET OF LOTS 12 AND 13 EXCEPTING THEREOUT ALL MINES AND MINERALS (the “Historic Resource”), as shown in the attached Schedule “A”, are hereby designated as a Municipal Historic Resource.
3. The specific elements of the Historic Resource possessing heritage value are hereafter referred to as the Regulated Portions (the “Regulated Portions”). The Regulated Portions are identified in the attached Schedule “B”.

PERMITTED REPAIRS AND REHABILITATION

4. a) The Regulated Portions of the Historic Resource as described or identified in Schedule “B” shall not be removed, destroyed, disturbed, altered, rehabilitated, repaired or otherwise permanently changed, other than for routine preservation and maintenance work, without prior written approval from City Council, or the person appointed by City Council as the Approving Authority for the purposes of administration of Section 26 of the Act. Any alteration, rehabilitation, repair or change to the Regulated Portions must be in accordance with the terms of the Parks Canada 2010 publication Standards and Guidelines for the Conservation of Historic Places in Canada, (the “Standards and Guidelines”), as referenced and summarized in the attached Schedule “C”.
- b) All portions of the Historic Resource which are not described or identified as a Regulated Portion in Schedule “B” are hereby known as the Non-regulated Portions (the “Non-regulated Portions”). The Non-regulated Portions are not subject to the *Standards and Guidelines* and may be rehabilitated, altered or repaired, provided that such rehabilitation, alteration, and repair does not negatively impact the Regulated Portions or adversely

affect the historical, contextual or landmark character of the property, and that all other permits required to do such work have been obtained.

COMPENSATION

5. No compensation pursuant to Section 28 of the *Act* is owing.

EXECUTION OF DOCUMENTS

6. Any employees of The City of Calgary who exercise land use and heritage planning powers and duties are hereby authorized to execute such documents as may be necessary to give effect to this Bylaw.

SCHEDULES

7. The schedules to this Bylaw form a part of it.

TEXT FOR DISCUSSION ONLY

SCHEDULE “B”

Description

The Walter Hargrave Residence, built in 1913, is a one and one-half storey Arts & Crafts style house, clad mainly in cast-stone blocks and concrete-bricks, with low-pitched side gable roof, full-width partially enclosed front veranda, and central second-storey extension with front-facing gable roof. It sits on a large corner lot within a residential block and neighbourhood.

Heritage Value

The Walter Hargrave Residence, built in 1913, is one of the earliest buildings in Hounsfield Heights.

The communities of Hillhurst, West Hillhurst, and Hounsfield Heights were created on land acquired by homesteader Thomas E. Riley and added to by his sons. He and his wife, born Georgina Hounsfield, raised 10 children in a house they built in what would become Hounsfield Heights, called Hounsfield Lodge Farm. Construction of the CPR mainline through Calgary in 1883 brought an influx of pioneer and immigrant settlers. To make land available to house them, the Riley family began subdividing and selling portions of their land, starting in 1904 with Hillhurst.

Edmund J. Riley and Thomas C. W. Riley, sons of Thomas E., filed plan 5625AC for “Hounsfield Heights” in 11 July 1910. Most of Calgary’s pre-WWI subdivisions used a grid pattern with 25 ft. lots, meant to be affordable to middle- and working-class residents. Hounsfield Heights, by contrast, had 50 ft. lots, and minimum building cost and set-back requirements, to create an upscale suburb. The plan included some curving streets that follow the topography, in the manner of the “picturesque suburb” popularized throughout N. America by landscape designer Frederick Law Olmsted, whose firm helped plan part of Upper Mount Royal. Newspaper ads for Hounsfield Heights compared it to Mount Royal, and touted the large lots and river and mountain views. City utilities were provided in 1911. But development languished, probably due to the neighbourhood’s higher costs and isolation. Streetcars went up 10 ST to 16 AV by 1912, but bypassed Hounsfield Heights, whose eastern boundary is 14 ST. There were just 4 houses there at the end of 1911, 7 at the end of 1912, 10 including this one at the end of 1913. WWI ended Calgary’s building boom.

Hounsfield Heights did not thrive until the 1950s, driven by the city’s resource boom, government housing support for returning WWII servicemen, and the access provided by the 14 Street Mewata Bridge that opened in 1954. This house was the only one on its block until 1952 when 3 were added, heralding a new wave of building in the neighbourhood, accompanied by road improvements and sidewalks.

This house was probably built as a speculative venture, by Wilfred C. Chambers, employee of Toole Peet & Co, real estate brokers involved in much development in early Calgary. Its size and fine features indicate it was intended for an affluent buyer. Instead, it was rented to Walter Hargrave, a commercial traveller for the printing firm J. D. McAra, in 1915; sat vacant for 3 years; then had another short-term tenant. The Royal Trust Co. bought it in a foreclosure sale in 1916. George W. Buchan Jr., shoe company manager, lived there in 1920–21 and 1925–28, with his wife, Annie, who owned it part of that time and after. Oil company president William A. Murphy rented it in 1929–38, followed by vacancy then another renter. From 1945 through to today, the house has mainly had long-time owner-occupants.

This house is unique in Calgary for its early use of concrete. The first levels are constructed of poured concrete, concrete bricks, and “cast stone” blocks moulded from concrete to resemble stone. Before WWI, cast stone was used in a few houses and larger buildings in Calgary (more commonly elsewhere in N. America), but there are no documented instances of a poured concrete house or the use of concrete bricks. The owners heard that the builders of the concrete Centre Street Bridge (1915) also produced the materials for this house.

This is a fine example of an Arts & Crafts dwelling, typified by its horizontal emphasis; low, sheltering roof with deep eaves and exposed rafters; open porches (later enclosed here); and variety of surface materials—all meant to create an unpretentious building in harmony with nature. Interior highlights are its Douglas fir door and window frames, panelled doors, and ceiling beams. The separate WC is an upscale feature, unusual in Calgary.

Character-Defining Elements

Character-defining elements include, but are not limited to:

- One and one-half storey rectangular form; wraparound front veranda; second-storey central porch extension; side-hall plan with off-centre entrance; full basement;
- double-pitched side-gable roof; front-facing lower cross gable over second-storey porch extension; rear extended shed dormer; deep open eaves with exposed rafters, wood-plank soffits; tongue-and-groove veranda ceiling;
- basement and main storey constructed of double wall of poured concrete with space between, hollow rock-faced concrete blocks (on outer wall) and concrete bricks (on both walls, per owner) laid in stretcher bond and incorporating flat window heads; inside gables: wood-frame construction clad in stucco and wood mock half-timbering; painted-wood window and door surrounds; concrete sills;
- single-hung sash windows with multi-pane upper portions; multi-pane fixed windows; awning window (basement); hopper windows (bathroom and WC); wood storm windows;
- exterior doors of Douglas fir with 15-panes (front) and with panels topped by clear or pebble-glass panes (some now interior due to additions); short cellar opening with plain wood door;
- exterior front staircase walls of hollow rock-faced concrete blocks and concrete bricks laid in stretcher bond, concrete cap with pebble aggregate;
- concrete-brick chimney with plain cap;
- interior features including original layout with foyer and separate WC; quarter-turn closed staircases to second storey and to basement; Douglas fir baseboards, door and window frames, panelled doors including a pocket door, crown moulding and ceiling beams (living and dining rooms), stair rails, newels, and balustrades including some ceiling-height bannisters; built-in wood medicine cabinets; lathe-and-plaster walls; tongue-and-groove wainscot (basement stairs); original door and handrail hardware; push-button light switches; original or early light fixtures; cast-iron heating vents in grid pattern;
- deep set-back on a very large corner lot planted with grass, bushes, and trees; concrete-brick walkways; raised lot surrounded by a concrete retaining wall; on a residential street of detached houses.

REGULATED PORTIONS

1.0 South Façade

The following elements are regulated:

- a) Stretcher bond concrete brick cladding; continuous hollow rock-faced concrete block band (three rows) (Images 1.1 – 1.3);
- b) Wraparound verandah with hollow rock-faced concrete block support pillars terminating under painted wooden frieze board; wooden tongue-and-groove ceiling; arched drainage openings with keystone decoration (Images 1.4 – 1.5);
- c) Second storey porch extension; stretcher bond concrete brick cladding with hollow rock-faced concrete block corner columns; stucco and wood mock half-timbering (Image 1.6);
- d) Original fenestration (window patterns and openings); a triple assembly consisting of a 12-over-1 flanked by 6-over-1 wood windows with sill and flat gauge lintel in concrete brick; doorway with flat gauge lintel in concrete brick (Images 1.5 and 1.7); and
- e) Exterior front staircase walls of hollow rock-faced concrete block cladding and concrete bricks laid in stretcher bond (Images 1.8);

Note: The concrete entrance stairs and concrete cap with pebble aggregate while replaced in kind, is not regulated.



(Image 1.1: South façade)



(Image 1.2: ca. 1996 photo showing south façade with original window assembly on second storey)



(Image 1.3 Stretcher bond concrete brick cladding; continuous hollow rock-faced concrete block band (three rows in south-facing façade, transitioning to two rows))



(Image 1.4 Enclosed portion of verandah: tongue-and-groove ceiling, hollow rock-faced concrete block clad support pillars, wood header)



(Image 1.5: triple assembly consisting of a 12-over-1 flanked by 6-over-1 wood windows with sill and flat gauge lintel in concrete brick)



(Image 1.6: detail of second storey porch extension, stretcher bond concrete brick cladding with hollow rock-faced concrete block corner columns; stucco and wood mock half-timbering)



(Image 1.7: doorway with flat gauge lintel in concrete brick)



(Image 1.8: Detail showing exterior front stairs: walls of concrete bricks laid in stretcher bond and hollow rock-faced concrete blocks)

2.0 East Façade

- a) Stretcher bond concrete brick cladding; stucco and wood mock half-timbering; continuous hollow rock-faced concrete block band (two rows); continuous wood band with decorative trim (Images 1.3 and 2.1 – 2.3); and
- b) Original fenestration (window patterns and openings); two 15-pane wood windows with concrete sills (main storey); three 6-over-1 wood hung windows with flat window heads and painted wood trim (Images 2.2 – 2.5).

Note: The east side single-storey projecting vestibule built between 1959 and 1986, while sympathetically designed, is not regulated and a return to original configuration/appearance would not be precluded where documentation of original configuration exists (Image 2.2).



(Image 2.1: View of house from southeast)



(Image 2.2: Historic photo ca.1959, view of house from southeast)



(Image 2.3: photo ca.1996, view of house from southeast)



(Image 2.4: example of one of two 15-pane wood windows with concrete sills; continuous wood band with decorative trim)



(Image 2.5: example of one of three 6-over-1 wood hung windows with flat heads and painted wood trim)

3.0 West Façade

The following elements are regulated:

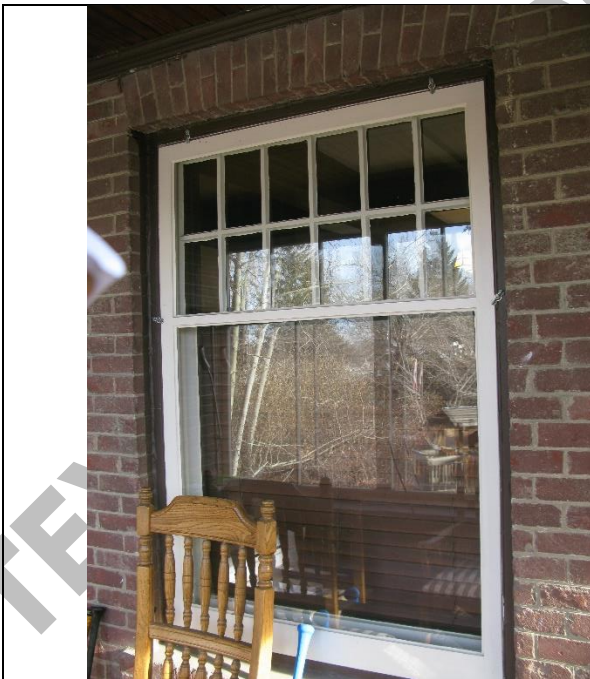
- a) Stretcher bond concrete brick cladding; stucco and wood mock half-timbering; continuous hollow rock-faced concrete block band (two rows); continuous wood band with decorative trim (Images 1.3 and 3.1);
- b) Wraparound front verandah with hollow rock-faced concrete block support pillars terminating under painted wooden frieze board; wooden tongue-and-groove ceiling (Images 1.4 and 3.1); and
- c) Original fenestration (window patterns and openings); a triple assembly consisting of a 12-over-1 flanked by 6-over-1 wood windows, with concrete sill; a 12-over-1 wood window with sill and flat gauge lintel in concrete brick; two double assemblies of 6-over-1 wood windows with flat heads and painted wood trim (Images 3.2 – 3.4).



(Image 3.1: West façade)



(Image 3.2: triple assembly consisting of a 12-over-1 flanked by 6-over-1 wood windows, with concrete sill; continuous wood band with decorative trim)



(Image 3.3: a 12-over-1 wood window with sill and flat gauge lintel in concrete brick, located within wraparound verandah)



(Image 3.4: example of one of two double assemblies of 6-over-1 pane hung wood windows, with flat head and painted wood trim)

4.0 North Façade

The following elements are regulated:

- a) Stretcher bond concrete brick cladding; stucco and wood mock half-timbering; continuous hollow rock-faced concrete block band (two rows); continuous wood band with decorative trim (Images 1.3 and 4.1 – 4.2);and
- b) Original fenestration (window patterns and openings); a 6-over-1 wood window and a 12-pane wood window, both with concrete sills; four multi-pane wood windows (shed dormer) (Images 4.1 – 4.4).

Note: The north extension, while sympathetically designed, is not regulated and a return to original configuration/appearance would not be precluded where documentation of original configuration exists (Image 4.2)



(Image 4.1: North façade)



(Image 4.2: Photo ca. 1996 of rear façade)



(Image 4.3: 12-pane wood window with
concrete sill)



(Image 4.4: examples of the multi-pane wood
windows (shed dormer))

5.0 Form, Scale, Massing and Roof

The following elements are regulated:

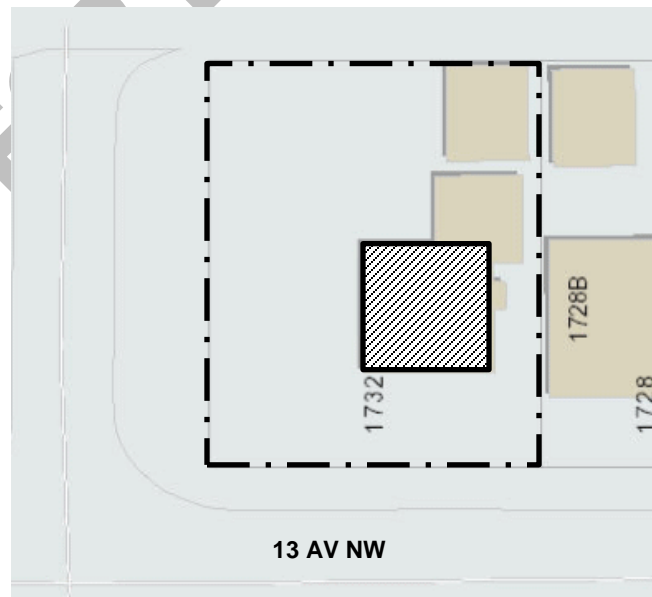
- a) One and one-half storey massing with double-pitched side-gable roof; front-facing lower cross gable with rear extended shed dormer; linear profile, rectangular plan (Images 1.1, 1.2, 2.1, 2.2, 2.3, 3.1, 4.1, and 4.2);
- b) Open eaves with exposed rafters, projecting painted plain-wood bargeboard, painted wood-plank soffits, painted plain wooden frieze (Images 5.1 and 5.2).



6.0 Land

The Land is regulated as follows:

- a) The original building's existing location and placement on the property (Image 6.1).



(Image 6.1: Building orientation and placement on parcel)

7.0 Interior

The following elements are regulated:

- Original Douglas fir main door assembly with panels topped by 15 glass panes and plain wooden trim (Image 7.1);
- Original Douglas fir second storey porch exterior wood door with panels topped by 12 glass panes and plain wooden trim (Image 7.2);
- Extant original main floor Douglas Fir woodwork including baseboards, window and door casings, pocket door, crown moulding and ceiling beams (living and dining rooms) (Images 7.3 – 7.7);
- Quarter-turn closed staircase to second storey with Douglas fir stair rail, newel, and ballustrade (Image 7.7)

Note: While the back extension (ca. 1996) reused original materials, these are not regulated.

	
<p>(Image 7.1 Main entry 15-pane Douglas fir door)</p>	<p>(Image 7.2 Second storey veranda 12-pane Douglas fir exterior door)</p>
	
<p>(Image 7.3 Example of baseboard)</p>	<p>(Image 7.4 Example of window casing)</p>



(Image 7.5 Pocket door and example of typical door casing)



(Image 7.6 Example of extant original Douglas Fir crown moulding and ceiling beams in living and dining rooms)



(Image 7.7: Quarter-turn closed staircase to second storey with Douglas fir stair rail, newel, and balustrade; example of a window casing)

SCHEDULE “C”

The primary purpose of the *Standards and Guidelines* is to provide guidance to achieve sound conservation practice. They are used to assess proposed changes to designated Municipal Historical Resources and form the basis for review and assessment for the approved rehabilitation program.

The *Standards and Guidelines* were developed by Parks Canada and were formally adopted by The City of Calgary in 2005. They provide a philosophical consistency for project work; and while neither technical nor case-specific, they provide the framework for making essential decisions about those features of a historic place, which should be maintained and cannot be altered.

The *Standards* listed below and the referenced *Guidelines* shall apply to the Regulated Portions and any rehabilitation or maintenance work undertaken with respect to them at any time.

The Standards

Definitions of the terms in italics below are set forth in the Introduction of the *Standards and Guidelines*. In the event of a conflict between the italicized terms below and those in the *Standards and Guidelines*, the latter shall take precedence. The Standards are not presented in a sequential or hierarchical order, and as such, equal consideration should be given to each. All Standards for any given type of treatment must therefore be applied simultaneously to a project.

General Standards (all projects)

1. Conserve the *heritage value* of a *historic place*. Do not remove, replace, or substantially alter its intact or repairable *character-defining elements*. Do not move a part of a *historic place* if its current location is a *character-defining element*.
2. Conserve changes to a *historic place* which, over time, have become *character-defining elements* in their own right.
3. Conserve *heritage value* by adopting an approach calling for *minimal intervention*.
4. Recognize each *historic place* as a physical record of its time, place and use. Do not create a false sense of historical development by adding elements from other *historic places* or other properties or by combining features of the same property that never coexisted.
5. Find a use for a *historic place* that requires minimal or no change to its *character defining elements*.
6. Protect and, if necessary, stabilize a *historic place* until any subsequent *intervention* is undertaken. Protect and preserve archaeological resources in place. Where there is potential for disturbance of archaeological resources, take mitigation measures to limit damage and loss of information.
7. Evaluate the existing condition of *character-defining elements* to determine the appropriate *intervention* needed. Use the gentlest means possible for any *intervention*. Respect *heritage value* when undertaking an *intervention*.
8. Maintain *character-defining elements* on an ongoing basis. Repair *character-defining elements* by reinforcing their materials using recognized conservation methods. Replace in kind any

extensively deteriorated or missing parts of *character-defining elements*, where there are surviving prototypes.

9. Make any *intervention* needed to preserve *character-defining elements* physically and visually compatible and identifiable upon close inspection and document any *intervention* for future reference.

Additional Standards Relating to Rehabilitation

10. Repair rather than replace *character-defining elements*. Where *character-defining elements* are too severely deteriorated to repair, and where sufficient physical evidence exists, replace them with new elements that match the forms, materials and detailing of sound versions of the same elements. Where there is insufficient physical evidence, make the form, material and detailing of the new elements compatible with the character of the *historic place*.
11. Conserve the *heritage value* and *character-defining elements* when creating any new additions to a *historic place* or any related new construction. Make the new work physically and visually compatible with, subordinate to and distinguishable from the *historic place*.
12. Create any new additions or related new construction so that the essential form and integrity of a *historic place* will not be impaired if the new work is removed in the future.

Additional Standards Relating to Restoration

13. Repair rather than replace *character-defining elements* from the restoration period. Where *character-defining elements* are too severely deteriorated to repair and where sufficient physical evidence exists, replace them with new elements that match the forms, materials and detailing of sound versions of the same elements.
14. Replace missing features from the restoration period with new features whose forms, materials and detailing are based on sufficient physical, documentary and/or oral evidence.

Guidelines

The full text of the *Standards and Guidelines* is available online through www.historicplaces.ca, or from:

Parks Canada National Office
25 Eddy Street
Gatineau, Quebec K1A 0M5



Thursday, January 14, 2021

SPC on Planning & Urban Development

City of Calgary

PO Box 2100 Stn M

Calgary AB, T2P 2M5

Re: Designation of George A Turner Residence

Dear Members of Planning & Urban Development:



Heritage Calgary, in accordance with its role to advise Council and Administration on heritage matters in the City of Calgary, would like to take this opportunity to support the designation of the George A Turner Residence, located in the community of Elbow Park, as a Municipal Historic Resource.

The George A Turner Residence is listed on the Inventory of Evaluated Historic Resources as a Community Historic Resource. Built in 1912, the Residence

represents the early development of Elbow Park—one of Calgary's earliest planned suburbs—and exemplifies the housing constructed by speculative builders in the community to serve the Calgary's burgeoning middle class during the city's pre-World War I population boom. It is representative of the substantial homes built in the neighbourhood for upper-middle-class residents and continues to contribute to a streetscape of similar-sized houses in compatible styles, many dating from the same historical era.

The Turner Residence is a good example of a Craftsman house, a style popularized by commercial pattern books of the time and common in Elbow Park. Typical features of the style seen here include its horizontal emphasis, sheltering gable roof, use of varied natural materials (in this house: brick, stucco, timber), large veranda for indoor-outdoor living, and exposed structural elements (open eaves, exposed rafters)—all meant to create a cozy, picturesque look in harmony with nature.

Thank you for your thoughtful consideration on this matter. Should you or your staff require more information, please contact me at awalker@heritagecalgary.ca.

Sincerely,

Asia Walker, RPP MCIP

Heritage Resources & Research Coordinator



Thursday, January 14, 2021

SPC on Planning & Urban Development

City of Calgary

PO Box 2100 Stn M

Calgary AB, T2P 2M5

Re: Designation of Johnston Residence

Dear Members of Planning & Urban Development:



Heritage Calgary, in accordance with its role to advise Council and Administration on heritage matters in the City of Calgary, would like to take this opportunity to support the designation of the Johnston Residence, located in the community of Sunalta, as a Municipal Historic Resource.

The Johnston Residence is listed on the Inventory of Evaluated Historic Resources as a Community Historic Resource. As a mid-

scale home constructed in 1912 in the Sunalta subdivision shortly after it was established, the Johnston Residence is symbolic of this early middle-class neighbourhood. Sunalta was one of three CPR subdivisions in Calgary designed by landscape architect John Olmsted, who from 1898 headed the firm established by his father Frederick Law Olmsted.

The Johnston Residence is valued as a substantial and very well-preserved side-gabled variation of a Craftsman-style home in Sunalta. Elements of the home's Craftsman stylistic detailing are its one and one-half-storey form with side-gable roof that deeply overhangs a full-width front verandah with tapered columns and twinned tapered posts. Decorative wooden elements like centred gable dormers, exposed rafter tails, corner brackets, verge boards and stickwork in the gables show the home's craftsmanship, and draw the eye to the roofline. English Arts & Crafts influences are reflected in the steep roof pitch and use of materials with contrasting textures such as the smooth bevelled-wood siding on the lower level and the wooden shingles on the verandah and upper level.

Thank you for your thoughtful consideration on this matter. Should you or your staff require more information, please contact me at awalker@heritagecalgary.ca.

Sincerely,

Asia Walker, RPP MCIP

Heritage Resources & Research Coordinator



Thursday, January 14, 2021

SPC on Planning & Urban Development

City of Calgary

PO Box 2100 Stn M

Calgary AB, T2P 2M5

Re: Designation of Upshall (Corson) Residence

Dear Members of Planning & Urban Development:



Heritage Calgary, in accordance with its role to advise Council and Administration on heritage matters in the City of Calgary, would like to take this opportunity to support the designation of the Upshall (Corson) Residence, located in the community of Mount Pleasant, as a Municipal Historic Resource.

The Upshall (Corson) Residence is listed on the Inventory of Evaluated Historic Resources as a Community Historic

Resource. This Residence, built c. 1911, represents the earliest phase of development of the Mount Pleasant neighbourhood, one of Calgary's early communities. With most of the original houses in this community subsequently redeveloped, the Upshall (Corson) Residence survives as one of the oldest properties in the area.

The Upshall (Corson) Residence is the only Queen Anne Revival-style dwelling in the community with other early remaining houses being more modest bungalows and Foursquare-style homes. Characteristic of Queen Anne Revival-style homes, it features a hipped roof with flared eaves, central flat deck and lower cross gables, bay window, inset veranda, and a combination of cladding materials including wood shingles - patterned in the gables - and lapped siding.

This property was constructed and first owned by carpenter Benjamin Upshall, but John and Mary Corson owned and occupied the house the longest: together from 1933 until John's death (c.1955), then by Mary until 1976. In the winter, the empty lot west of this house was used as a community skating rink, and the Upshall (Corson) Residence basement served as a 'club house' for neighbourhood children, who entered through the side door.

Thank you for your thoughtful consideration on this matter. Should you or your staff require more information, please contact me at awalker@heritagecalgary.ca.

Sincerely,

Asia Walker, RPP MCIP

Heritage Resources & Research Coordinator

#304, 319 10 AVE SW CALGARY, AB T2R 0A5 | 403 805 7084 | HERITAGECALGARY.CA



Thursday, January 14, 2021

SPC on Planning & Urban Development

City of Calgary

PO Box 2100 Stn M

Calgary AB, T2P 2M5

Re: Designation of Walter Hargrave Residence

Dear Members of Planning & Urban Development:



Heritage Calgary, in accordance with its role to advise Council and Administration on heritage matters in the City of Calgary, would like to take this opportunity to support the designation of the Walter Hargrave Residence, located in the community of Hounsfield Heights / Briar Hill, as a Municipal Historic Resource.

The Walter Hargrave Residence is listed on the Inventory of Evaluated Historic Resources as a City-Wide Historic Resource. The Walter Hargrave Residence, built in

1913, is one of the earliest buildings in Hounsfield Heights. Hounsfield Heights did not thrive until the 1950s, driven by the city's resource boom, government housing support for returning WWII servicemen, and the access provided by the 14 Street Mewata Bridge that opened in 1954. This house was the only one on its block until 1952 when 3 were added, heralding a new wave of building in the neighbourhood, accompanied by road improvements and sidewalks.

This is a fine example of an Arts & Crafts dwelling made unique in Calgary by its builder's early use of concrete. The first levels are constructed of poured concrete, concrete bricks, and "cast stone" blocks moulded from concrete to resemble stone. Before WWI, cast stone was used in a few houses and larger buildings in Calgary (more commonly elsewhere in N. America), but there are no documented instances of a poured concrete house or the use of concrete bricks.

Thank you for your thoughtful consideration on this matter. Should you or your staff require more information, please contact me at awalker@heritagecalgary.ca.

Sincerely,

Asia Walker, RPP MCIP

Heritage Resources & Research Coordinator

#304, 319 10 AVE SW CALGARY, AB T2R 0A5 | 403 805 7084 | HERITAGECALGARY.CA

Citywide Growth Strategy: Industrial

RECOMMENDATION(S):

That the Standing Policy Committee on Planning and Urban Development recommends that Council direct Administration to undertake the Citywide Growth Strategy: Industrial Action Plan as identified in Attachment 3, and report back to Council through the Priorities and Finance Committee no later than 2022 February.

HIGHLIGHTS

- As part of the Citywide Growth Strategy, this report provides an Action Plan to increase Calgary's economic and business competitiveness by advancing and enabling the development of Calgary's industrial lands (Attachment 3). It is a combination of strategic actions identified by a consultant's report commissioned for this work, as well as priorities identified by the multi-stakeholder Industrial Strategy Working Group. It is aligned with existing City of Calgary initiatives that have industrial growth as a focus.
- What does this mean to Calgarians? Industrial business and development are critical to the economic prosperity of Calgary. The Citywide Growth Strategy: Industrial (the "Strategy") can facilitate the growth of existing and future industrial areas. This Strategy identifies actions to help retain existing, and attract new, industrial growth and development. This work can support job creation, economic development, and diversification.
- Why does it matter? The Strategy articulates a plan for supporting growth in Calgary's industrial sector and highlights a set of actions to attract a wide range of existing and new industrial activities. The Strategy also looks to the future to help facilitate economic diversification and ensure the availability of a healthy land capacity.
- A number of related City of Calgary initiatives (described in Attachment 4) are currently exploring different ways to catalyze industrial growth; this Action Plan was designed with the intent to bring this work together to build corporate momentum, focus effort and reduce overlap.
- The recommendation proposes a report back on these related actions by 2022 February. The Strategy also looks ahead to bringing forward growth-enabling investment recommendations as part of the 2023-2026 business plan and budget cycle.
- The City can help enable growth in a number of ways, including through streamlined regulation, public investment, managing development costs, strategically positioning City owned lands, and promoting a healthy business environment. This report was prepared with these roles in mind, and helps advance Calgary's economic strategy –*Calgary in the New Economy*.
- Calgary's industrial sector continues to be an important source of jobs and is a critical contributor to Calgary's tax base.
- Strategic Alignment to Council's Citizen Priorities: A prosperous city
- Background and Previous Council Direction is included as Attachment 1.

DISCUSSION

Background

Since 2016, there have been a number of initiatives in support of the industrial sector (sector that supports industrial business), either directed by Council or initiated by Administration. This

Citywide Growth Strategy: Industrial

Strategy provides an Action Plan that centralizes existing efforts, and identifies additional actions in support of the industrial sector (Attachment 3).

This Strategy for industrial development, together with New Community Growth Strategy and Established Area Growth and Change Strategy, comprise an integrated Citywide Growth Strategy. This work is also part of a group of interconnected planning initiatives which support Next Generation Planning (Attachment 2). The geographic scope of this work is the existing industrial areas and the vacant and undeveloped industrial areas, which total approximately 7,000 hectares of land, or 8.5 per cent of total land area of the city. Please refer to Attachment 1 for more information on the background and previous Council direction for this work.

Calgary Economic Development (CED)'s strategy, *Calgary in the New Economy*, has four key pillars: Talent, Innovation, Place, and Business Environment. The Citywide Growth Strategy: Industrial has identified actions that help advance Place and Business Environment.

Purpose

The purpose of this Strategy is to increase Calgary's economic and business competitiveness and enable the development of Calgary's industrial lands.

The work advances goals of the Municipal Development Plan (MDP) and Calgary Transportation Plan (CTP) to ensure the availability and accessibility of lands for a wide range of future industrial activities, and to protect existing industrial areas from undue encroachment of non-industrial uses that may threaten future viability.

As with the other components of the Citywide Growth Strategy, this work aims to consider MDP/CTP Alignment, Market Demand, and Financial Impacts in decision-making.

Importance of a Vibrant Industrial Sector

Industrial areas play a crucial role in Calgary's economic prosperity, and contribute approximately 22 per cent of Calgary's total municipal tax revenue, or around \$300 million annually. Industrial areas also supply many employment opportunities for the citizens of Calgary and the region. In 2020, Calgary's industrial areas supported over 66,000 jobs, accounting for 11 per cent of jobs in the city. Industrial sub-sectors such as manufacturing, wholesale trade, transportation, and warehousing are projected to generate approximately 85,000 total jobs by 2041. As these sectors drive industrial land demand, there is an anticipated need for roughly 600-900 net new hectares of lands to accommodate industrial growth by 2041. The City needs to be ready to facilitate this growth. This Strategy considers actions that can support the timely development of existing and vacant and undeveloped industrial lands.

Citywide Growth Strategy: Industrial Action Plan

To gain a better understanding of challenges and opportunities facing the industrial sector in Calgary, a professional consulting firm was retained to provide current context and identify evidence-based recommendations. Combining the consultant's recommendations (Attachment 5) with direct input from the multi-stakeholder working group and existing City initiatives, this report proposes an **Action Plan** to enable industrial development, and is organized under the following topics that The City can influence:

A. Development enabling regulatory improvements

1. *Streamlining Land Use Bylaw Industrial Districts (industry priorities)*
 - i. *Pilot a flexible industrial based Direct Control District; and*
 - ii. *Prioritize industrial districts in the review of the Land Use Bylaw.*
2. *Update the industrial policies in the Municipal Development Plan;*

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SPC on Planning and Urban Development**

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Citywide Growth Strategy: Industrial

3. *Evaluate the impact of the proposed changes to Airport Vicinity Protection Area (AVPA) Regulations on the industrial sector; and*
4. *Monitor industrial development activities to determine if industrial growth has been enabled and competitiveness increased.*

B. Public realm, infrastructure and servicing investment

1. *Identify and prioritize growth-enabling investments in industrial areas for the 2023-2026 business plan and budget.*

C. Cost

1. *Property Taxes (industry priority): Enable growth by exploring stakeholder concerns regarding property tax policy. Partner with internal departments to develop a corporate approach; and*
2. *Development Cost (industry priority): Explore development costs (including off-site levies, development standards, approvals and fee structure) to ensure they are competitive and support growth.*

D. Public lands

1. *Through the Real Estate Working Group, assess how The City can position its lands to achieve the goal of enabling development.*

E. Business environment

1. *Work with Calgary Economic Development (CED) and industrial stakeholders to increase Calgary's competitiveness and improve awareness of the city's advantages; and*
2. *Work with the Business Advisory Committee (BAC) to advance necessary process improvements in support of the industrial sector.*

With an acceptance of Attachment 3, Council will help advance a common plan with stakeholders, and establish accountability with a report back by 2022 February. Attachment 6 also outlines future actions that are either sequential to those in Action Plan or are not yet resourced to undertake within the Action Plan timelines.

Stakeholder and Corporate Alignment

Industrial stakeholders have clearly communicated the importance of leveraging Calgary's advantages in order to remain regionally competitive, while raising concerns related to municipal costs of development experienced by developers and builders, and ultimately tenants. Calgary's advantages include:

1. Strategic location as a distribution centre, and its multimodal logistics network of air, rail, and highways;
2. A large and growing labour force;
3. High quality services and utilities, including transit, water and power networks;
4. Availability of vacant serviced industrial lands in multiple locations, with a range of parcel sizes and land use options; and
5. A network of established and existing industrial businesses that can serve as a suppliers and buyers of goods and services to new industrial businesses.

Since 2016, Administration has been working with stakeholders to explore a number of opportunities to enable industrial growth. This report provides a progress update for the most recent actions (Attachment 7).

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Citywide Growth Strategy: Industrial

Alignment with Related City Initiatives

This work aligns with other City of Calgary initiatives that also have facilitating industrial development as part of their mandates. These related initiatives share a common goal of enabling industrial growth, but are considered distinct due to different timelines, governance structures, and geographic scopes. Attachment 4 contains a schematic of these related initiatives in support of the industrial sector: Citywide Growth Strategy, Financial Task Force, Real Estate Working Group (REWG), Real Estate & Development Services 2013-2022 Industrial Land Strategy, Off-site Levy Bylaw Review, Land Use Bylaw Priorities 2021, regional strategy, Business Advisory Committee, and Financial Task Force. These related initiatives are focused on property tax, development cost, land use regulations and policy, and industrial attraction and business friendly actions.

STAKEHOLDER ENGAGEMENT AND COMMUNICATION (EXTERNAL)

- ☐ Public Engagement was undertaken
- ☐ Public Communication or Engagement was not required
- ☒ Public/Stakeholders were informed
- ☒ Stakeholder or customer dialogue/relations were undertaken

In 2016, a multi-stakeholder Industrial Strategy Working Group was established. That group continues to exist today, and has helped guide the scoping of this Strategy and identification of priority actions. This is a diverse group of internal and external stakeholders, comprised of members from land development associations (BILD & NAIOP), industrial land owners and developers, Calgary Economic Development, professional consultants, industrial brokers, Calgary Airport Authority, and cross departmental Administration representatives. Stakeholder letters are anticipated prior to this report coming to Planning and Urban Development Committee.

Recognizing a need to align this work with related City initiatives, Administration will regularly seek out and provide updates to the Real Estate Working Group, Off-site Levy Bylaw Review team, Calgary Goods Movement & Logistics Advisory Group. Administration has informed Calgarians about this work through updates on www.calgary.ca/industrialareas. Additionally, Administration will provide updates to the Council-led Business Advisory Committee to ensure alignment as the committee focuses on exploring improvements to the competitiveness of industrial lands.

IMPLICATIONS

The social, environmental, and economic impacts of this Strategy are summarized in Attachment 8.

Service and Financial Implications

No anticipated financial impact

There is no direct financial impact from this report. However, this Strategy will explore investment opportunities in support of industrial areas, and there may be capital and operating impacts associated with future recommendations. Additionally, how The City responds to

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Citywide Growth Strategy: Industrial

concerns about the municipal costs of development incurred by developers and builders may also carry a financial impact for City revenues.

RISK

Attachment 9 provides a summary of risk associated with this work.

ATTACHMENT(S)

1. Background and Previous Council Direction
2. Planning Calgary Now and for the Next Generation
3. Citywide Growth Strategy: Industrial Action Plan
4. Integration of City of Calgary Initiatives and Committees Supporting the Industrial Sector
5. Industrial Growth Consultant Report
6. Strategic Actions Not Currently Resourced in Action Plan
7. Progress Update on Recent Actions
8. Summary of Social, Environmental and Economic Implications
9. Risk Summary

Department Circulation

General Manager	Department	Approve/Consult/Inform
Stuart Dalgleish	Planning & Development	Approve
Chris Arthurs	Deputy City Manager's Office	Consult
Carla Male	Chief Financial Officer Department	Consult

Background and Previous Council Direction

Background

Although The City has been working on initiatives and actions to enable growth in industrial areas since the initiation of the 2016 Industry/City Work Plan, until now industrial areas have not been the subject of a scoping exercise in the same way as the other two components of the Citywide Growth Strategy. The Citywide Growth Strategy: Industrial (the “Strategy”) is the third of three components that, together with New Community Growth Strategy and Established Area Growth and Change Strategy, aim to build an integrated Citywide Growth Strategy. This scoping project was also identified in the Next20 review of the Municipal Development Plan (MDP)/Calgary Transportation Plan (CTP) as a critical follow-up action.

As a land developer in the industrial sector, The City of Calgary’s Real Estate & Development Services has a strategy (LAS2013-06) for City-owned industrial lands, however a comprehensive strategy does not yet exist that advocates for growth and reduction of obstacles, regardless of ownership. This Strategy is meant to help enable growth on all industrial lands in Calgary regardless of ownership.

Municipalities across North America have adopted an Industrial Strategy or Employment Lands Strategy to manage the long-term growth of their industrial lands and guide their land use planning decisions.

This Strategy responds to Council’s direction by identifying actions and investment that enables growth in industrial areas. A comprehensive action plan will support the longer-term growth of existing and future industrial lands by improve Calgary’s competitiveness and advancing goals of the MDP. The Strategy also prioritizes the availability of lands for industrial purposes, and protect existing industrial areas from undue encroachment of non-industrial uses that may threaten future viability of industrial areas.

The direction to explore a scoping report for the Strategy was first provided in 2016. Since then, work plan updates have been regularly provided to Council outlining progress on actions within the Industry/City Work Plan in support of the industrial sector. A summary of these progress reports and the timelines is on the next page.

Previous Council Direction

Industry/City Work Plan:

The Citywide Growth Strategy: Industrial (The Strategy) was initially contemplated as part of the Industry/City Work Plan in 2016 January (PUD 2016-0406, Attachment 1). Initiative #6 of the Industry/City Work Plan recommended the scoping work for The Strategy and identified the following actions:

- Monitor the impacts of the off-site levy rates on industrial development;
- Identify strategies for continued support of industrial development;
- Continue analysis of industrial land supply; and
- Review potential policy impact.

Citywide Growth Strategy:

Council provided clarity on the process for The Strategy through the 2019 Growth Monitoring Report, PFC2019-1062, Item 7.12, Recommendation 8(d), in 2019 November:

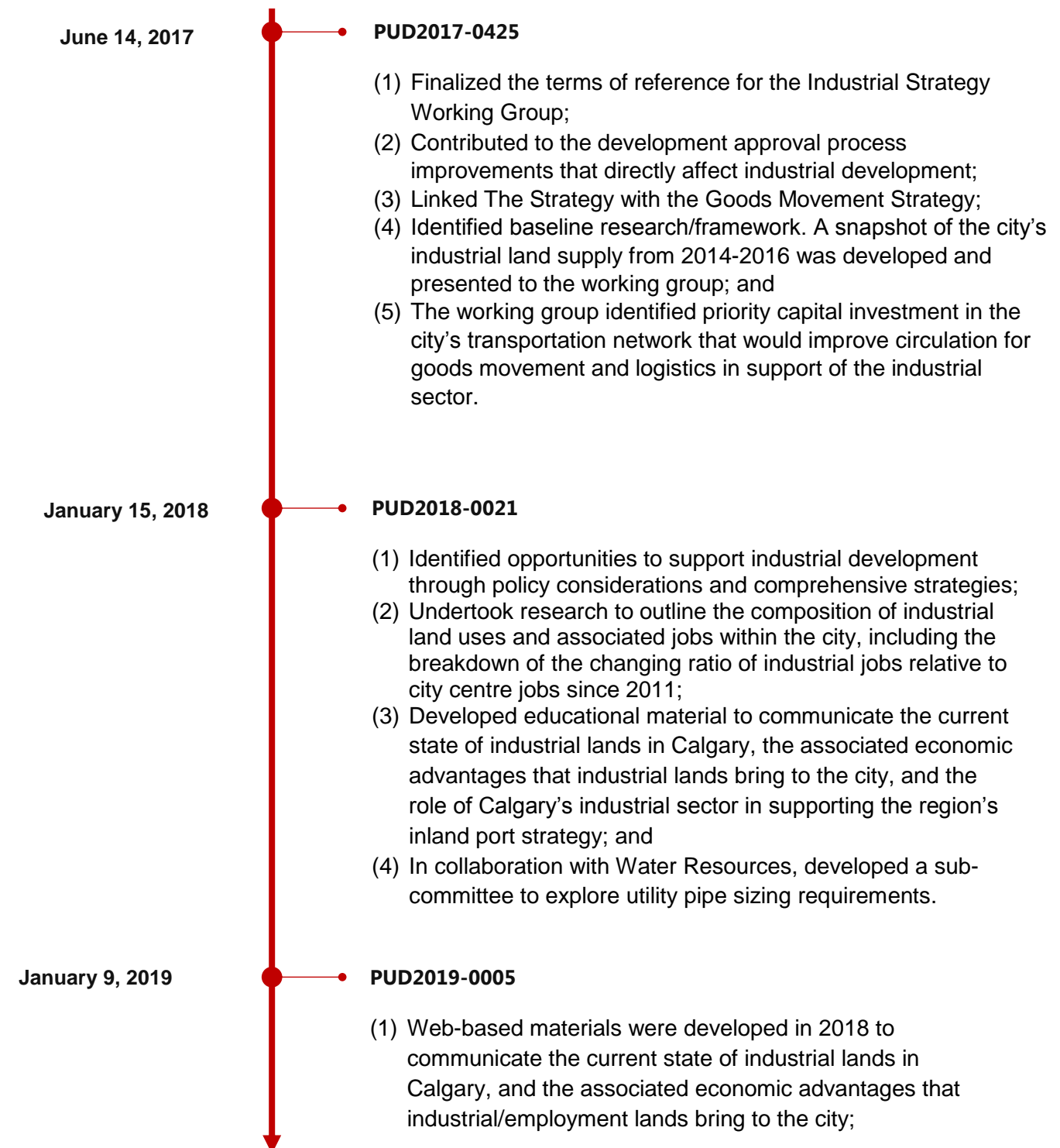
8. Remain committed to the following 4 guiding principles outlined in Attachment 3 through this modified process for business cases for growth:


d. Continue to drive toward a Comprehensive Citywide Growth Strategy that includes new communities, established areas and industrial areas for 2022 March.

Next20 Review of the Municipal Development Plan and Calgary Transportation Plan:

More recently, the 2020 Review and Update of the Municipal Development Plan (MDP) and Calgary Transportation Plan (CTP) (PUD2020-1106, Attachment 4) identified the need for an industrial strategy to further implement the MDP and CTP. Recommended Action #7 in Attachment 4 indicated to “scope and undertake a CityWide Growth Strategy: Industrial and based on the recommendations of this work, make necessary amendments to the respective policies in the Industrial Typology sections of the MDP”.

Summary of Industry/City Work Plan updates provided to Council in support of the industrial sector.



- 
- (2) Conducted additional research around the cost/value proposition for industrial development in Calgary relative to some regional municipalities;
 - (3) Explored issues/opportunities for mutual access for industrial sites;
 - (4) Provided input to prioritize infrastructure investment for 2019-2022 budget cycle and beyond to further support industrial development. These priorities were shared with Transportation to help inform their project budget planning work;
 - (5) Provided input on policies, and local area planning updates, that impacted the industrial sector;
 - (6) Continued to build partnerships and to provide input in support of industrial development; and
 - (7) Continued to provide input on relevant continuous process improvements work.

January 15, 2020

PUD2020-0020

- (1) Work completed in 2019 continued to advance small-scale improvements to current development planning processes;
- (2) Advanced mutual access discussions and provided updated information on options under current legislation;
- (3) Market updates and discussion were presented through regular working group meetings;
- (4) The working group members were regularly informed on the progress of the Goods Movement Strategy, and the Guidebook for Great Communities; and
- (5) Maintained alignment with work related to funding and financing, and began the development of a scoping report.

Planning Calgary Now and for the Next Generation

We're changing the way we plan our city through what we call **Next Generation Planning**. Initiated in 2019, this new way of planning makes sure our citizens, and the people who move to and invest in Calgary, can make a great life and a great living in our city. It's a better way to plan our future. Next Generation Planning:

- allows The City to be more fiscally responsible, giving better value to citizens, over a longer period of time
- supports our existing communities to be vibrant and successful for decades to come
- allows for closer working relationships with our citizens

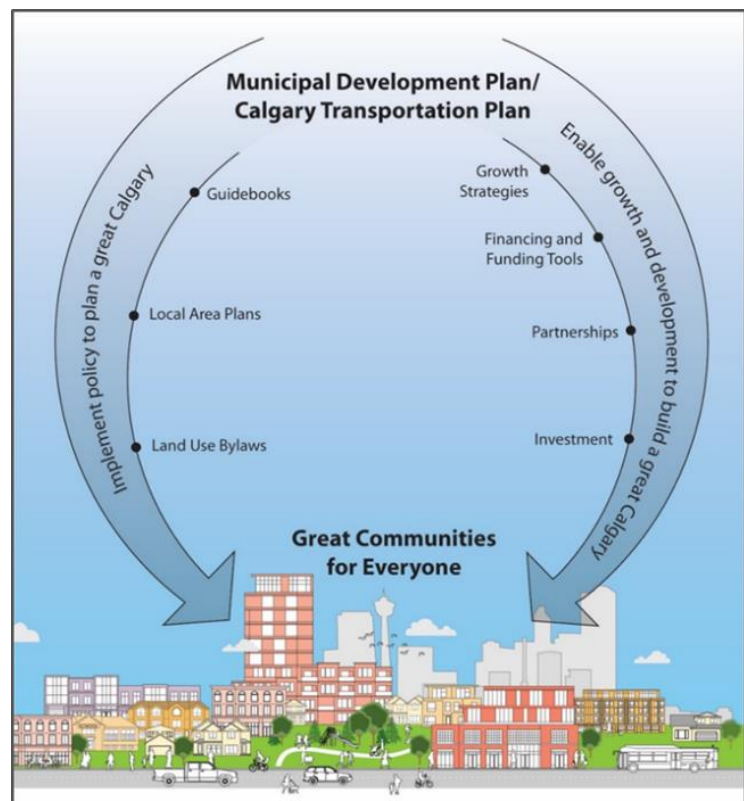
Currently, made up of nine initiatives, Next Generation Planning helps us carry out the policies and meet the goals in our Municipal Development Plan and Calgary Transportation Plan (MDP/CTP). It:

- provides a coordinated and clear planning system for the whole city
- modernizes our planning and development approach
- updates and simplifies policy to meet the MDP and CTP
- creates a better toolbox to allow for development and investment in Calgary

Calgary has momentum

Calgary is building on the success of the past ten years from the investments we've made in our city. We've improved the way people can move around Calgary, by growing our primary public transit network and adding new and more transportation options. We're constructing our Main Streets and are providing a better mix of housing and amenity options for our citizens.

These nine Next Generation Planning initiatives will work together with existing policies. The goal is to plan a great Calgary that will enable growth and development so we can continue building a great city.



Next Generation Planning Initiatives

Calgary's LONG-RANGE VISION

1. **Planning our city for 2 million people-** The **Municipal Development Plan** and **Calgary Transportation Plan** are our vision, with goals and policies to make sure we're successful.

Our approach to PLAN A GREAT CALGARY

2. **Planning communities for people and their activities-** The **Guidebook for Great Communities** will make it easier for a person to find a place to live and grow in any community, regardless of stage of life, income or age. It allows communities to offer more types of housing, shops and service options, closer to where people live.
3. **Planning future development and growth in our communities-** We're creating **Local Area Plans** to guide future development, growth, reinvestment and renewal in Calgary's communities.
4. **Planning the different types of development in communities-** Renewing the **Land Use Bylaw** positions it to better guide how a building is designed, a site is laid out and landscaped, and what types of businesses or activities can happen at buildings or sites.
5. **Protecting Calgary's past, for our future-** Our **Heritage Conservation Incentives and Programs** include tools and grants that encourage property owners to designate and conserve historical properties and spaces.

Our approach to enable BUILDING A GREAT CALGARY

6. **Supporting growth in Calgary's existing, new and industrial communities**

A City-wide Growth Strategy, composed of three elements:

- The **Established Area Growth and Change Strategy** guides investments, creates financial tools to allow growth, and attracts private investment to our communities.
- The **New Community Growth Strategy** aligns planning policy, market demand, and service needs with City budgets, so our newest communities are successful now and in the future.
- The **Industrial Area Growth Strategy** will further support diversifying our city's economic growth and strengthen this city as an inland port and distribution centre for western Canada.

7. **Funding new growth in Calgary-** The **Off-Site Levy** and **Centre City Levy** help pay for new services, like water and sanitary trunks, roads, libraries and fire halls in our existing and new communities.
8. **Making Calgary's streets more attractive for investment and places to gather-** Our **Main Streets Program** is improving 24 of Calgary's streets to celebrate community character, encourage business development, create a vibrant destination, and improve public health.
9. **People living and working closer to Calgary's transit network-** Implementing the **Transit Oriented Development Program** means more people will live, work and shop within walking distance to our transit network. It's an easy and economical way of living and travelling in our city.

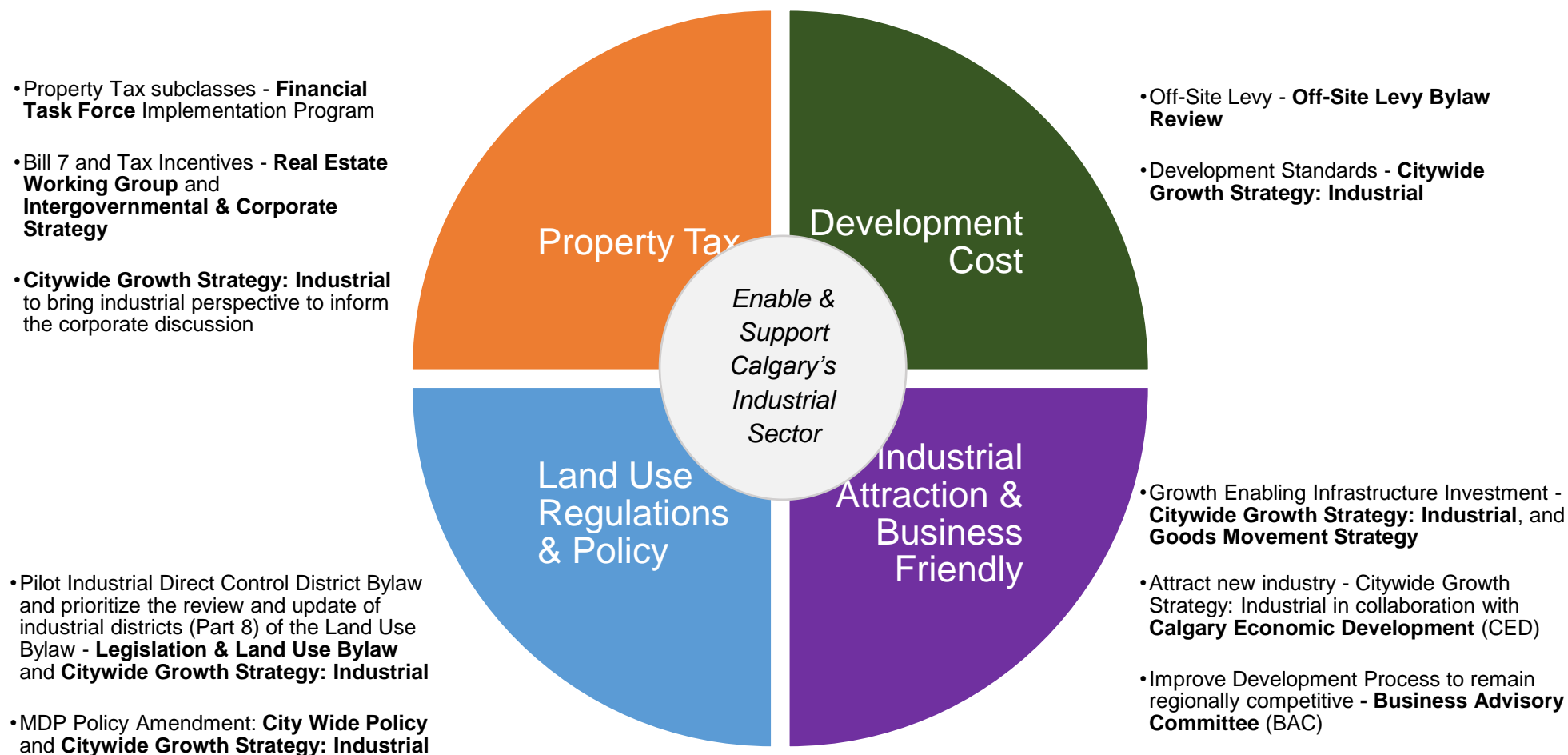
Citywide Growth Strategy: Industrial Action Plan

*To increase Calgary's economic and business competitiveness and enable the
development of Calgary's industrial lands*

Actions	Next Milestone Date	Anticipated End Date	Lead Senior Management Role
A. Development Enabling Regulatory Improvements			
1. <u>Streamlining Land Use Bylaw Industrial Districts (Industry priorities):</u> i. <i>With industrial stakeholders, pilot an Industrial Direct Control land use district that increases flexibility for industrial uses</i>	Q2 2021	Q3 2021	GM PD (Stuart Dalglish)
ii. <i>Prioritize the review and update of industrial districts (Part 8) of the Land Use Bylaw</i>	Q2 2021	Q2 2022	
2. <i>Update and strengthen industrial policies in the Municipal Development Plan to reinforce that industrial uses be the primary use within industrial areas</i>	Q1 2022	Q4 2022	
3. <i>Identify the importance of industrial development to internal and external stakeholders during policy exercises that impact industrial areas such as Airport Vicinity Protection Area (AVPA) related projects, and local area plans</i>	Q3 2021	Q2 2022	
4. <i>Monitor industrial indicators to determine if industrial growth has been enabled and competitiveness increased. Indicators include, but are not limited to, industrial land absorption, available land supply, regional growth share, and economic diversification indices.</i>	February 2022	Ongoing	
B. Public Realm, Infrastructure and Servicing Investments			
1. <i>Identify and prioritize investments that enable growth and enhance regional goods movement as part of budget preparation and adjustments. Ensure investments that benefit industrial are considered as part of the 2023-2026 service plan and budget cycle, including as priorities are set early in the year, progressing to when final decisions are made in November 2022.</i>	February 2022	Q4 2022	GM PD (Stuart Dalglish) GM CFOD (Carla Male)

C. Cost			
1. <u>Property Taxes (Industry priority):</u> Identify and evaluate solutions for improving the competitiveness of Calgary's non-residential tax rate for the industrial sector. <i>Align with other City of Calgary growth and business friendly initiatives, including the Financial Task Force (FTF), the Council-led Business Advisory Committee (BAC) and the Administration-led Real Estate Working Group (REWG)</i>	Q2 2021	Q4 2021	GM CFOD (Carla Male)
2. <u>Development Cost (Industry priority):</u> i. <i>Ensure the costs and benefits to the industrial sector of the off-site levy calculations and processes are considered in the Off-Site Levy Bylaw Review work</i>	Q4 2021	February 2022	GM PD (Stuart Dalgleish)
ii. <i>Identify and review development standards, approvals and fee structures that support the financial feasibility of industrial development</i>	Q3 2021	Q4 2021	
D. Public Lands			
1. <u>Public Lands:</u> <i>Through the Real Estate Working Group, monitor the industrial land market in order to assess how The City can position its lands to achieve the goal of enabling development</i>	Q4 2021	Ongoing	A/GM DCMO (Chris Arthurs)
E. Business Environment			
1. <i>Work with Calgary Economic Development (CED) and industrial stakeholders to increase Calgary's competitiveness and improve awareness of the city's advantages, including to help attract key industrial clusters and facilitate the incubation of new clusters</i>	Q2 2021	February 2022	w/ Calgary Economic Development (CED)
2. <i>Work with Business Advisory Committee (BA) to find ways to expedite the industrial approvals process. This should shorten time to development and improve regional competitiveness.</i>	Q2 2021	Q4 2021	BAC Committee Chair (Councillor Ward Sutherland)

Integration of City of Calgary Initiatives and Committees Supporting the Industrial Sector

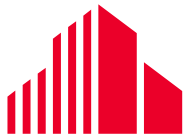


Industrial Growth Consultant Report

To support the development of the Citywide Growth Strategy: Industrial scoping report and work plan, Cushman & Wakefield were selected through a competitive process to provide a third party expert perspective on the opportunities and challenges present for industrial development in Calgary.

Cushman & Wakefield partnered with metroeconomies and The Planning Partnership to deliver this report. Administration wishes to thank all three firms for their comprehensive and timely analysis.

This attachment includes the report in full.



**CUSHMAN &
WAKEFIELD**

PUD2021-0150
REVISED Attachment 5



The **Planning** Partnership

INDUSTRIAL AREA GROWTH STRATEGY CONSULTING REPORT

THE CITY OF CALGARY

FEBRUARY 2021

CUSHMAN & WAKEFIELD
161 BAY ST., SUITE 1500
P.O. BOX 602
TORONTO, ONTARIO
M5J 2S1
(416) 862-0611

February 26, 2021

To: Abdul Jaffari, RPP, MCIP
Senior Growth Management Planner
Calgary Growth Strategies
The City of Calgary
abdul.jaffari@calgary.ca

Re: Industrial Area Growth Strategy Consulting Report

Cushman & Wakefield partnered with metroeconomies and The Planning Partnership to undertake this Industrial Area Growth Strategy Consulting Report. The Consultant Team is appreciative of the considerable support received from City staff and input from the Industrial Strategy Working Group throughout this engagement. We are pleased to have once again demonstrated our real estate market intelligence, land supply and demand analysis, and strategic growth management capabilities to The City of Calgary.

If you have any questions, please contact the undersigned.

Respectfully submitted,

Cushman & Wakefield ULC



Andrew Browning
Vice President, Valuation & Advisory
Cushman & Wakefield
andrew.browning@cushwake.com
(416) 359-2510

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EXECUTIVE SUMMARY

This Industrial Area Growth Strategy Consulting Report is one of several projects that are components of The City of Calgary's overall growth management strategy. Together with the New Community Growth Strategy and the Established Area Growth and Change Strategy, this project provides insights and strategic directions for the Citywide Growth Strategy. Specifically, the purpose of this report is to articulate Calgary's competitive advantages to exploit opportunities in its industrial areas, to identify the economic sectors and industries that The City is best positioned to attract, and to enable growth. This report explores a series of key topics/questions to assist The City of Calgary with its industrial land use planning and economic development strategy.

Industrial activities continue to be critical to the economic health of cities and regions. It is vital that municipalities plan for the provision of an adequate industrial land supply to provide a range of choice among prospective occupiers, given the competitive development market. The city's industrial/employment areas are important for a number of reasons, including providing a source of jobs, supporting the tax base, facilitating expansion of the local economy, and providing a home to many of the activities that support the local population.

The 20 largest industrial-type employment clusters in Calgary span the range of industries from transportation and warehousing (warehousing and storage; general freight trucking; and specialized freight trucking) to wholesale trade (seven different industry groups) to manufacturing (accounting for 10 of the 20 largest industry groups). Looking forward, many of the largest industry groups in 2016 across the Calgary CMA are anticipated to drive employment growth over the next 25 years. Of the largest industry groups/clusters in 2016, 11 are among the top 20 largest in terms of industrial-type employment growth for the period from 2016-2041. Among the leading sectors for employment growth include warehousing and storage, general and specialized freight trucking, food merchant wholesalers, architectural and structural metals manufacturing, and recyclable material merchant wholesalers – a diverse range of uses with varied site selection requirements.

Calgary's industrial competitive advantages include its strategic location in Western Canada, the diversity of its industrial employment base, the presence of Calgary International Airport, its large and growing labour force, and Alberta's tax advantage. Calgary offers prospective industrial occupiers with the full breadth of required site selection attributes to start a new business – it has available lands for development, and a network of established industry that can serve as suppliers and buyers/end-users of goods and services. The city is well served by transportation to facilitate movement of raw materials and finished products to markets nearby, across Canada, and internationally.

Cushman & Wakefield collaborated with City staff to develop a data set of available industrial parcels across the city. This Vacant Industrial Land Inventory is comprised of both privately-owned lands, as well as City-owned lands. The overall vacant industrial land inventory totals approximately 2,400 net hectares. Based on the Consultant Team's review of the vacant industrial land supply that is planned and designated, there is an adequate provision of lands across a range of geographic areas, Land Use Districts, and parcel sizes, to accommodate a spectrum of prospective occupiers and users. As well, there are lands in varying stages of servicing – from fully serviced, to partially serviced, to currently "raw" lands – such that this should not represent a constraint to accommodating industrial-type job growth for the foreseeable future.

The range of sites across the city provide suitable access and visibility to users that prioritize these attributes, and the Ring Road – upon completion – will greatly enhance goods movement. Linking back to the earlier discussion regarding the industry clusters that are prominent in the city, and which are poised to grow over the forecast horizon, it is the view of the Consultant Team that the present supply of planned industrial lands is capable of meeting the site selection requirements across a broad range of industry groups, and that there are no apparent obstacles from a land supply perspective to enabling growth and incubating new opportunities that are not already present in the local market. The city's land supply itself is a competitive advantage that can be leveraged to foster economic development.

Cushman & Wakefield also collaborated with City staff to develop a data set of occupied industrial parcels across the city – properties with one or more buildings on them. By count of parcels, of the total of almost 3,200 parcels identified within the Strategic Industrial Areas, 83% are industrial, 14% are commercial, and the remaining land uses account for a 3% share. Among this data set, the Consultant Team has identified 160 existing industrial properties that meet the criteria of having less than 20% site coverage and which are also at least 2 hectares in size, which represent prospective properties that could be intensified in the future. Of course, it is not reasonable to assume that all “underutilized” sites will intensify – but only a small share of intensification has the effect of lessening the extent of new greenfield industrial development over time (and the associated cost of extending municipal services).

A forecast of employment by industry enabled Cushman & Wakefield to translate job growth into land demand by utilizing an employment density figure (number of employees per hectare of land). Two forecast approaches were used to estimate future land demand based on industrial-type employment growth: (a) we utilized the net new industrial-type employment in each industry sector over the 2016-2041 forecast horizon; and, (b) we only included industry groups that are anticipated to see increased employment during the forecast horizon (industry groups that are projected to see a decline in employment are not included in the total employment in each industry). The result is an anticipated need for roughly 600-900 net hectares of land to accommodate industrial growth from 2016 through 2041 within the City of Calgary.

One of the key objectives of this Industrial Area Growth Strategy Consulting Report is to evaluate how The City of Calgary is positioned for industrial land development relative to the Calgary Metropolitan Region (CMR). This examination provides a comparison of industrial property tax rates, off-site levies and other development-related charges/fees, and municipal reserve requirements. The City of Calgary had the highest non-residential (industrial) mill rate in 2020 among the CMR municipalities. An examination of off-site levies and other development-related costs reveals that an “apples-to-apples” comparison of a prospective industrial development located in the City of Calgary versus the East Balzac area within Rocky View County is a challenge because the two municipalities have differing approaches to recovering development-related costs. Overall, however, it is apparent that the costs to develop an industrial building in East Balzac are less than the same facility locating in the City of Calgary. Finally, higher land values in Calgary contribute to higher municipal reserve requirements compared to neighbouring East Balzac.

This Industrial Area Growth Strategy Consulting Report concludes with planning policy perspectives to assist City staff going forward, including a review of the Municipal Development Plan and Land Use Bylaw 1P2007. The Consultant Team's strategic growth management recommendations cover the themes of industry trends, site selection, industry clusters, planning policy, land supply monitoring, and competitive markets.

1.0 INTRODUCTION

1.1 Project Overview

This Industrial Area Growth Strategy Consulting Report is one of several projects that are components of the overall growth management strategy being undertaken by The City of Calgary. Together with the New Community Growth Strategy and the Established Area Growth and Change Strategy, this project will provide insights and strategic directions for the Citywide Growth Strategy. Specifically, **the purpose of this Industrial Area Growth Strategy Consulting Report is to articulate Calgary's competitive advantages to exploit opportunities in its industrial areas, to identify the economic sectors and industries that The City is best positioned to attract, and to enable growth.** This reporting will feed into The City's Industrial Area Growth Strategy, and provide short-term and long-term recommendations to foster growth, and attract and retain businesses.

Calgary's Municipal Development Plan (MDP) provides direction for growth and change, prioritizing corporate initiatives and public investment. Further, the MDP provides direction and certainty to both business and communities, in support of private sector investment in housing, commercial, and industrial developments. The City's five Industrial Area Structure Plans (ASP) refine and implement The City's broader planning objectives contained in the MDP (the industrial ASPs are for the Northeast, Shepard, Southeast 68 Street, Southeast, and Stoney areas). These plans help to shape the physical environment with the goal to achieve a pattern of orderly, economical, compatible development, in support of successful business and industrial sector growth. Ultimately, the objective of these analyses is to enable The City to plan for (anticipate) and manage growth (execute and monitor) to develop complete communities, meet population and employment growth targets, and manage associated infrastructure spending in a cost-effective manner.

Our approach to this project involved close collaboration among the experts from various disciplines that comprise the Consultant Team, to develop evidence-based conclusions and recommendations to guide industrial land planning in Calgary over the next several decades. We have identified actions that are required over the short term to address immediate needs, as well as longer-term planning issues that warrant monitoring by City staff as lands are absorbed, and as market conditions evolve.

The project deliverables include this comprehensive **Industrial Area Growth Strategy Consulting Report**, which describes our methodology, and includes all of our analysis supporting the strategic recommendations. This report presents our land supply and demand analysis; explores our assessment of market and industry trends; identifies Calgary's competitive advantages compared to competitive markets; and provides strategic planning policy and growth management guidance. As well, we have delivered an up-to-date **Industrial Land Inventory Database**, and associated **Mapping**. A **Presentation** of the final report has also been prepared.

This report explores a series of key topics/questions to assist The City of Calgary with its industrial land use planning and economic development strategy, including:

- From an industrial perspective, what is Calgary's competitive advantage, and what economic sectors is Calgary best positioned to attract?
- Identify the leading industry clusters in Calgary by determining their size, their contribution to the city and regional economy, and their potential for growth. As well, identify their site selection criteria and land needs.
- How do industrial land uses benefit Calgary's overall economy?
- How is Calgary positioned for industrial land development relative to the Calgary Metropolitan Region?

- What are the trends of industrial development in North America?
- What is the forecasted market demand for different categories of industrial land? Based on Calgary's location and advantages, is there enough serviced or planned industrial land?
- Recommend short-term and long-term solutions/actions to attract and retain capital investment in industrial land development in Calgary, and recommend actions that The City could take to respond to its weaknesses and capitalize on its strengths.

1.2 Consultant Team Overview

A multi-disciplinary Consultant Team was assembled to address the requirements of this project. The firms featuring wide-ranging experience across the multiple disciplines needed in order to undertake this work. **Cushman & Wakefield** (real estate market and employment trends, and land supply/demand analysis) is the Lead Consultant and Project Manager, partnered with Sub-Consultants **metroeconomics** (economic and employment forecasting) and **The Planning Partnership** (strategic land use recommendations and GIS/mapping).

2.0 UNDERSTANDING THE LOCAL INDUSTRIAL LANDSCAPE AND MARKET TRENDS

2.1 Introduction

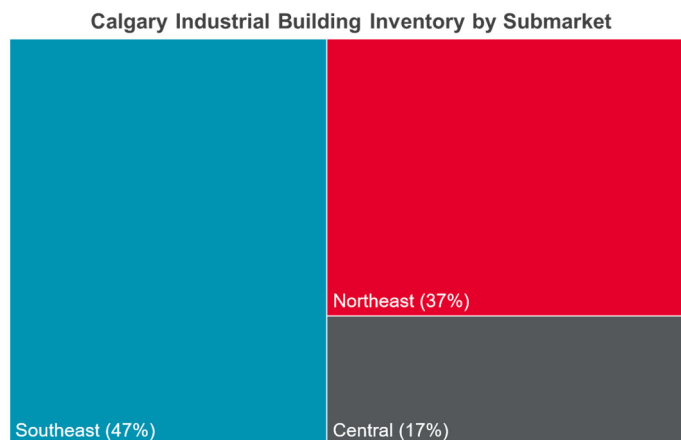
The following section explores the composition of the local industrial market, as well as key trends. A current and historic industrial market overview provides insights regarding inventory, vacancy, absorption, new supply, and rental rates, on a submarket basis. As well, we discuss the impacts of the COVID-19 crisis on the industrial market as an asset class as a whole, as well as offer local perspectives. Finally, we explore the importance of industrial/employment areas to cities.

Note that while the balance of this report is primarily expressed in metric units (hectares, square metres, etc.), this section utilizes imperial measures (square feet, dollars per square foot, etc.). This is because commercial real estate data is typically tracked in imperial units – including Cushman & Wakefield’s market survey data, which is presented below.

2.2 Industrial Market Overview

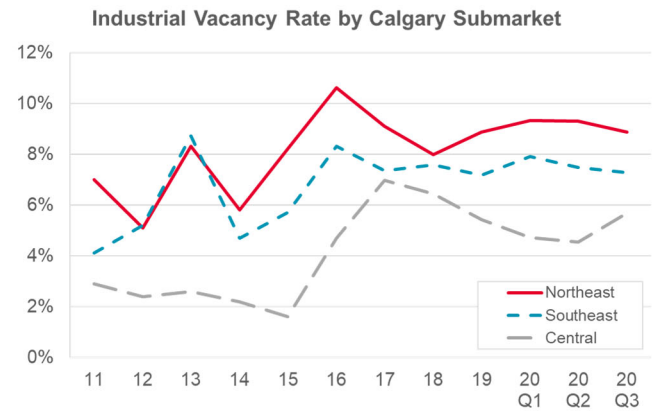
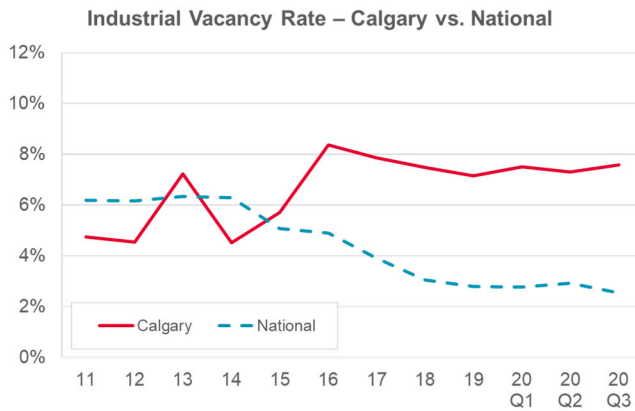
2.2.1 Inventory

Cushman & Wakefield defines the “Calgary” industrial market as the City of Calgary, plus East Balzac in Rocky View County. Cushman & Wakefield Research reports an industrial inventory of nearly 131 million sf across Calgary’s industrial market, as at 2020 Q3. This ranks it fourth largest in Canada – behind Toronto, Montreal, and Vancouver (just ahead of Edmonton, at 130 million sf). Calgary’s industrial market is divided into three submarkets, as tracked by Cushman & Wakefield: Southeast (60.8 million sf), Northeast (47.7 million sf), and Central (22.3 million sf).



2.2.2 Vacancy Rate

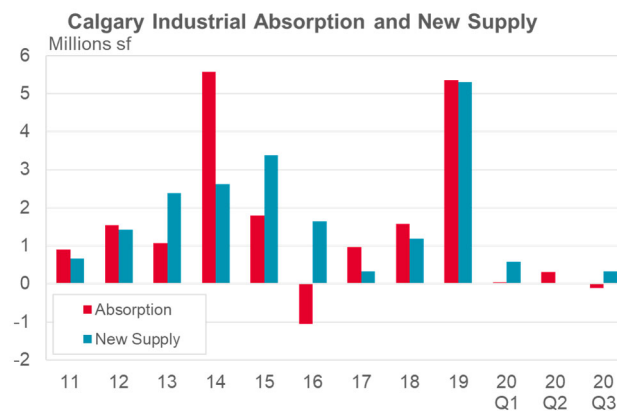
With nearly 10 million sf of vacant space market-wide, Calgary’s industrial vacancy rate was 7.6% in 2020 Q3. By submarket, vacancy was lowest in Central (5.7%), followed by Southeast (7.3%) and Northeast (8.9%). It has been in a range of around 7-8% over the past five years, whereas in the first half of the decade, vacancy averaged closer to 5%. For comparison, Cushman & Wakefield reported a National industrial vacancy rate of 2.5% this past quarter, while vacancy has averaged close to 5% over the past 10 years. Historically, the vacancy rate has been the highest in the Northeast, and lowest in the Central submarket. The two exhibits below are shown on the same scale, for comparison.



2.2.3 Absorption and New Supply

The industrial market across Calgary has averaged just over 2 million sf of positive absorption annually over the past decade (absorption is defined as the change in occupied space from one period to another, such as year-over-year). 2016 was the only year in which negative absorption was recorded (a decline in the amount of occupied space). Despite the challenges associated with the current economic environment due to COVID-19, absorption has been positive through the first three quarters of 2020 (approximately 233,000 sf).

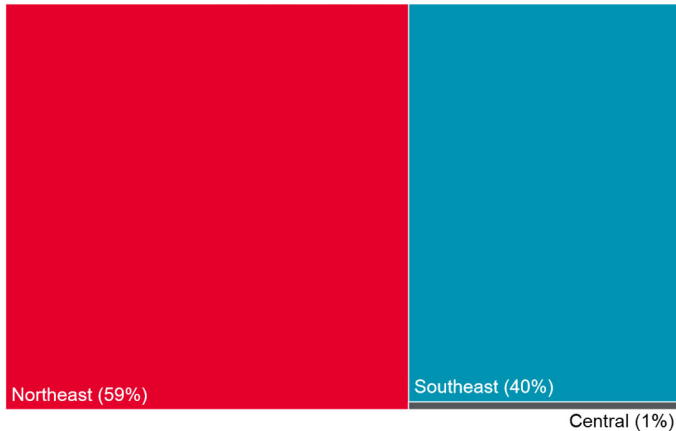
Over the past 10 years, the Calgary industrial market has averaged just over 2 million sf of new supply annually; this figure has ranged from a low of 324,000 sf in 2017, to a high of nearly 5.3 million sf added in 2019. Through the first three quarters of 2020, the market has seen close to 575,000 sf new supply added. There is a further 2.5 million sf presently under construction (approximately 2.1 million sf in the Northeast, and 0.4 million sf in the Southeast).



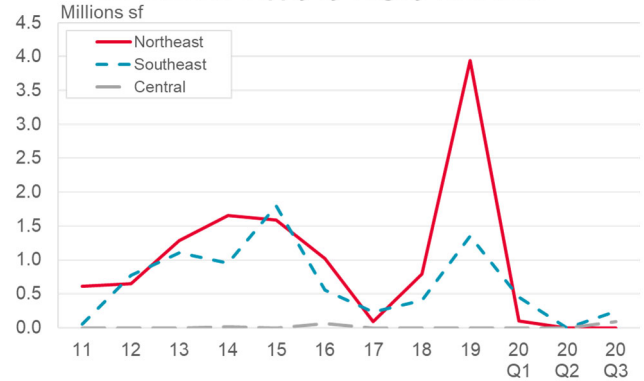
By submarket, the Northeast has accounted for approximately 60% of all new industrial supply completed during the past decade, while the Southeast has accounted 40% (the Central submarket has contributed a negligible 1% share of overall new supply, due to the built-up nature of the city's centrally-situated industrial areas). Notably, from 2011-2017, new supply in the Northeast and Southeast was fairly balanced; the significant new supply added in 2019 in the Northeast (some 4 million sf) accounts for a sizable portion of the overall variance in new supply by geography.

Of the total 24.1 million sf of new industrial construction recorded across the Calgary industrial market since 2010, 18.6 million sf (77%) was in the City of Calgary, while 5.5 million sf (23%) was in East Balzac (Rocky View County). This new supply figure includes both properties that are included in the Cushman & Wakefield market survey data, as well as properties that were built but are excluded from our reported statistics (such as industrial condominiums, owner-occupied buildings, building size is too small, or other factors).

New Industrial Supply by Calgary Submarket (2011-2020 Q3)



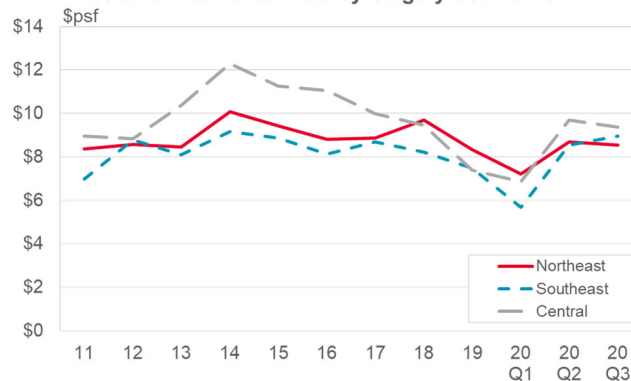
New Industrial Supply by Calgary Submarket



2.2.4 Rental Rates

2020 Q1 represented the recent cyclical low rental rate for industrial space in Calgary, influenced by economic fears associated with the dawn of the COVID-19 crisis in Canada. However, rents have rebounded strongly over the past two quarters, and are back at the level seen during much of the past decade (roughly \$8.75 net psf on average city-wide, with some variance among the submarkets).

Industrial Net Rental Rate by Calgary Submarket



2.3 Impacts of COVID-19

2.3.1 Overview

Cushman & Wakefield is a thought leader on the COVID-19 crisis and recovery process, from a commercial real estate perspective. We advise occupiers and landlords on a daily basis, and are knowledgeable about their needs, and site selection priorities. Cushman & Wakefield identifies the Industrial/Logistics sector as a clear “Winner” among the various commercial real estate asset classes. The “Winners” are those sectors that were already benefiting from long-term demographic and structural shifts in the economy, only to see those shifts accelerated by COVID-19. They are also benefiting from the rapid evolution of technology and its application to a specific set of challenges. Though the North American industrial market faces a bumpy 2020 and beyond linked to the pandemic and recession fallout, structural trends favour increased demand and strong performance in both the near- and long-term. Other notable real estate asset class “Winners” include Data Centres and Life Sciences.

2.3.2 North American/Global Industrial Market Perspectives

The following are some perspectives drawn from recent Cushman & Wakefield Research publications exploring the impacts of the COVID-19 crisis on the industrial real estate market:

- The move to online shopping has been happening for some time now. Internet sales were estimated to account for 16.7% of all core retail sales (defined as total sales minus auto, gasoline, and restaurants) at the end of 2019. Six months later, that share had surged to 22.5%, as large segments of the population remained at home to reduce health risks. In the second quarter of 2020, internet sales surged 44.5% year-over-year. In this environment, it is no surprise that demand for logistics space is nearly back to pre-crisis levels, and occupancy is near all-time highs. When have we ever seen a recession lead to higher demand for space of any kind?
– *NOTE: While these rates of online sales reference U.S. data, a comparable dynamic is likely in Canada.*
- Logistics real estate fundamentals were healthy heading into the pandemic-induced slowdown. At 4.9%, market vacancy in the United States remained near its historic low of 4.8%, while in Canada the vacancy rate was a razor-thin 2.8% for all industrial product in 2020 Q1. Absorption came in at 47 million sf in 2020 Q1, the 40th consecutive quarter of North American occupancy growth. Extremely tight market conditions in both Canada and the U.S. warrant new development and minimize the risk of new supply undermining asset values.
- As the world adjusts to life during the COVID-19 pandemic, we are seeing a marked acceleration in the adoption or improvement of supply chain innovations, and an opportunity to address some pain points that had been lower on the priority list for many industries.
- Compared to prior economic downturns, the big differentiator for the industrial market this time around will be the growth of e-commerce/logistics space. With the boom of e-commerce, we have seen the industrial market excel in the current expansion – more than almost any other cycle. With the sale of more goods online, there is a need for the logistics space to house the goods outside of a traditional brick and mortar store. Especially in the COVID-19 era, consumers want goods shipped directly to them, cutting out the retail location as the middleman, going straight from business to consumer (B2C). This will drive the need for more industrial inventory in more locations, both for large box warehouse and last mile infill to reach the consumer faster.
- The need for more North American logistics space will become apparent as the pandemic persists, and with that comes the need for faster e-commerce adoption. With the growing consumer demand for goods at a faster, more streamlined rate, and growing retailer demand, the answer for suppliers is to invest in an e-commerce model for direct to consumer shipments. Greater adoption of e-commerce will take several years to implement across many markets, meaning demand will continue to be widespread for longer than just through the remainder of the pandemic.
- Setting aside “panic buying” of certain food items, toilet paper, and cleaning products, the pandemic is raising questions and challenges around managing inventories. Beyond the immediate actions to sell through current seasonal inventories online – sometimes using closed stores as distribution points for “ship from store” – retailers and manufacturers are already contemplating longer-term changes to inventory “days of supply” to avoid disruptions wrought by upstream supply chain points being shuttered or severely reduced in production capacity. Just-in-time inventory management may need new buffers throughout the supply chain, and some sectors are considering supply chain diversity to rebalance their reliance on some geographies – especially those with longer transit times.

- COVID-19 has amplified awareness of the need for contactless technology far beyond payment and delivery solutions used by sellers and consumers. Optical and voice-enabled technology, automation, and robotics will find new adopters in warehouse material handling equipment, order pick technology, and shipping/receiving processes. Robotics in the warehouse may help limit contact among team members receiving goods, picking orders, and shipping them out. Autonomous vehicles may help to offset driver shortages to meet the increased demand for shipments to consumers, and to expedite the shipment of critical goods to rural or remote geographies with fewer transit options and with immunocompromised populations.
- One of the most active property types in industrial real estate is cold storage. With online grocery more popular than ever before, restaurants and farmers forced to adjust their food supply chain, and the shutdown of processing plants despite being “essential,” the need for cold storage warehouse space is growing like never before. China, the UK, and the U.S. are all seeing companies looking for new cold storage warehouses, opportunities to expand their existing space, infill properties to better serve e-commerce consumer needs, or ways to modernize facilities to make their supply chains more adaptable.
- Despite the strong tailwinds, the COVID-19 era is still a recessionary period, and any recession can cause pain for consumers and businesses. While consumers – the key driver of logistics demand – felt more at ease spending in recent months, recent virus flare-ups, uncertainty surrounding fiscal aid, and a cooling labour market could weigh on their willingness to spend.
- While the risk of oversupply for the market is low, it does present a risk for some individual markets with large speculative pipelines.
 - *NOTE: This is not viewed as a concern for Calgary’s industrial market, which has brought manageable levels of new supply to market in recent years, with absorption tracking closely with new construction. There is currently 2.5 million sf of industrial space under construction (2020 Q3), compared to an annual average of 2 million sf of new supply this past decade.*
- Manufacturers are likely to hold more inventory as they seek more flexibility and less vulnerability to disruptions. Diversifying component sourcing, including an emphasis on localizing or regionalizing components to be closer to plants while holding more inventories, will require additional logistics real estate. Reshoring or nearshoring would shorten supply chains, effectively reducing long lead times, thereby giving manufacturers more control over production quantities to allow for greater flexibility in response to demand.
- The economic health of Canada’s primary trading partner, the U.S., will play a key role in the speed of its recovery.

2.3.3 Calgary Industrial Market Perspectives

While the preceding commentary explored the industrial asset class broadly, the following perspectives pertain specifically to Calgary’s industrial market:

Real Estate Fundamentals

- Calgary’s industrial market boasted relatively healthy market fundamentals leading into the COVID-19 pandemic. Absorption was just less than 5 million sf in 2019, and the overall vacancy rate has only seen a slight increase – registering 20 bps above the pre-COVID-19 figure of 7.4%, to close 2020 Q3 at 7.6%. Despite Calgary’s tax increase that went into effect January 2019 and some price-conscious tenants considering relocations to surrounding counties that offer lower operating costs and taxes, landlords have not had to lower their rents in order to compete.
- Though the full effects remain to be seen, the timing of COVID-19 did hit the market with enough time to have an impact on first quarter fundamentals. Calgary’s construction cycle means that spring is when developers will often kick off new developments; however, the immediate economic slowdown that came with COVID-19 (and compounded by the stalled energy sector) resulted in many developers placing speculative ground breakings on hold.

Economic Fundamentals

- Calgary's economy is led by the oil and gas sector, which has caused greater economic swings for the energy-dependent city. At the close of the first quarter of 2020, Calgary had one of the highest unemployment rates of Canada's major cities, sitting at 8.6%. This is a dramatic turnaround from years past, when Calgary-based companies struggled to find employees, and Canadians flocked to the Western Canadian city. This in-migration grew the city's population from 1.1 million in 2006 to 1.5 million in 2019.
- The industrial market's drivers have been less impacted by the oil and gas headwinds (with resource-related industrial activity focused further north, in Edmonton). Although year-over-year manufacturing job growth was down, the transportation and warehousing sector – which directly supports e-commerce demands – was up 5.2% versus pre-COVID-19.

Market Strengths

- Though Calgary is widely associated with the oil and gas industry, the diversity of the city's industrial market goes far beyond the energy sector. Connected by both east-west and north-south major truck routes, a robust railway system, and the Calgary International Airport (which counted 4,305 cargo landings in 2019), Calgary is the leading Western Canadian inland port. Calgary is already home to major distribution hubs for Canadian Tire, Walmart, Costco, and Amazon. Amazon, the e-commerce giant, opened its first fulfillment center in Alberta in December 2018 – a 600,000 sf facility which serves not only the Calgary metropolitan population, but is also the main hub for the entire Southern Alberta region. In June 2020, Lowes Canada announced plans for a 1.2 million sf build-to-suit distribution center in Calgary's Northeast market, with delivery anticipated for 2021 Q4.
- Furthering the strength of the city's logistics network, The City of Calgary, in partnership with the Province of Alberta, has invested heavily in improved truck transportation routes in recent years. With a total of 101 kilometers of free-flow traffic that is set for completion in 2022, the Calgary Ring Road provides improved connection of the city's peripheral industrial parks to major truck-transportation routes, and further positions the city to continue to leverage the growing demand for e-commerce and logistics.

Headwinds

- **Slowing demand and robust construction likely to hold vacancy rates** – As developers responded to tenants' increasing demands for newer, more efficient buildings (both from an operations standpoint and energy usage perspective), the flight-to-quality has left a hole in the market as older-generation buildings that are not able to compete with modern standards remain vacant. Given the softening fundamentals, at least in the near-term, the overall vacancy rate is expected to remain elevated.
- **Rising municipal taxes push tenants out** – Following The City of Calgary's increase of property and business taxes in 2018 and 2019, a number of businesses opted to relocate their operations to nearby communities that offered more competitive tax structures. Although many businesses are still tied to the city due to the proximity to the population and transportation routes, companies that can relocate in order to reduce their overall overhead will likely do so.
- **Protracted oil and gas recovery** – Although Calgary has been through several boom and bust cycles due to the dynamics of the energy sector, and Calgarians pride themselves on their entrepreneurial spirit and adaptability, the protracted recovery from 2015 has certainly weighed on the city. With the additional downturn due to COVID-19, many Calgarians are tightening their wallets and monitoring their discretionary spending, which will certainly impact the warehouse/distribution and manufacturing sectors of the city's industrial market.

Tailwinds

- **Growing e-commerce** – With an Amazon distribution center serving not only the metropolitan Calgary area but also the southern half of the province, demand for warehouse distribution properties is expected to grow. This is particularly the case for industrial parks near the Calgary International Airport and the Calgary Ring Road, which connects the city's residents and businesses.
- **Tempered new construction keeps vacancy rates in check** – Although Calgary's industrial markets began to register softening fundamentals as new deliveries started to show signs of outpacing net absorption at the end of 2019, developers planning kick-off spring 2020 speculative construction were able to delay projects and retain current inventory, keeping future vacancy rates in check.
- **National demand continues to hold** – The announcement of Lowes Canada's decision to open a 1.23 million sf, build-to-suit distribution center in the High Plains Industrial Park within Rocky View County (in Calgary's Northeast submarket, as tracked by Cushman & Wakefield) continues to prove that not only is the Calgary area the leading inland Western Canadian distribution hub, but that the population continues to demand quick deliveries of product.

Conclusions

- Unlike in the prior Dot-Com and Global Financial Crisis downturns, Calgary was already weathering the impacts from a protracted economic downturn in the energy sector that began in 2015 when the COVID-19 pandemic began in early 2020. With softer market dynamics that were just showing signs of recovery, COVID-19 proved to be yet another blow to the city's previously traditional boom-bust economy, and as a result, it will likely take longer to fully recover.
- With pent-up e-commerce demand given Canadians' slower adoption of online shopping (compared to other countries – particularly the U.S.), and growing employment in the transportation and warehouse sectors, the impacts of COVID-19 are anticipated to be comparably minimal on the industrial real estate sector, versus other asset classes.
- Although Calgary's industrial market faces softer market conditions in the near-term, the city's increased adoption of e-commerce, improved transportation routes, and airport infrastructure, positions the sector well for a faster recovery.

2.4 The Importance of Industrial/Employment Areas

Industrial activities continue to be critical to the economic health of cities and regions. It is vital that municipalities plan for the provision of an adequate industrial land supply to provide a range of choice among prospective occupiers, given the competitive development market. The city's Industrial/Employment Areas are important for a number of reasons, as follows:

- Calgary's industrial sector continues to be an important source of jobs. Industrial areas supply a huge number of employment opportunities for residents of the city and beyond. Having jobs in proximity to desirable residential communities creates an advantageous live-work relationship, reducing travel trips and times.
 - In 2016, there were approximately 70,800 jobs across the Calgary CMA associated with industrial-type employment. This represented an 11% share of total employment.
- More local dollars and jobs increase economic stability for the entire community, including the overall standard of living. Established industrial/employment areas are an important component of the existing tax base, helping to maintain and improve local infrastructure and investment.
- A diversified industrial land base – with alternative locations, land costs, and contexts – helps accommodate and expand the local economy, and reduces a community's vulnerability and dependence on a single industry sector.

- While industrial-type jobs account for approximately an 11% share of total employment, they generated an estimated 14% of total GDP in the Calgary CMA in 2016. Industrial-type jobs have a higher average productivity of \$230,000 of GDP per employee, compared to \$183,000 of GDP per employee across all industries.

GDP Productivity per Worker by Industry – Calgary CMA, 2016



Note: Industrial-Type Employment is a subset of several categories, including Manufacturing, Wholesale Trade, and components of the Transportation and Warehousing sector.

- Employment areas are home to many of the activities that support the local population, such as auto repair shops, household repair services, wholesale distribution, and warehousing of consumer products. As well, these areas provide small, cost-effective, flexible spaces that are critical for business start-ups and high-tech incubators, as well as artist studios. Mature industrially-zoned areas remain important to a healthy, dynamic, and vital economy.
- Freight-supportive transportation facilities are part of a larger logistics chain that moves goods across Canada, and internationally. Calgary is Western Canada's leading inland port. While transportation and warehousing/distribution businesses may have comparably low employment densities, it is important to recognize they are a land use that is part of a network that needs to be protected.
 - Employment in the transportation and warehousing sector – including freight-related jobs, and warehousing and storage, totaled approximately 11,200 jobs in 2016. This represented approximately one-sixth of total industrial-related employment in the Calgary CMA.
- After years of industrial activity, sites may carry a legacy of contamination (on-site and off-site). Under current economic conditions and existing remediation techniques, these parcels are often unsuitable for residential and commercial developments. For such properties, ongoing industrial activity remains the highest and best use.

The historically lower levels of vacancy and higher rental rates achieved in the Central submarket are a testament to the enduring nature of industrial areas, and their ongoing appeal among many occupiers. Calgary's industrial areas each feature different types of land and serve different functions across the range of industrial uses, and they need to be preserved going forward as an element of the local economic base.

3.0 INDUSTRY CLUSTERS

3.1 Introduction

The following section identifies the geographic components of the Calgary CMA, and compares employment by industry – and industry groups within industries – to identify the prominent industry groups in Calgary. The site selection criteria of these industry groups are linked to land requirements.

3.2 Components of the Calgary CMA

metroeconomics prepared a synopsis of employment by industry on a place of work basis for the Calgary Census Metropolitan Area (CMA), as well as all of the individual Census Subdivisions (CSDs) that comprise the CMA. Place of work data refers to the location of the employer (where the employee works), as opposed to the location of the residence of the employee (where the employee lives). Data from the 2016 Census is provided.

Statistics Canada identifies nine CSDs that together form the Calgary CMA. These are illustrated in the following exhibit, along with their 2016 population (in descending size) and employment by place of work.

- While the City of Calgary accounted for an 89% share of the population of the CMA in 2016, it captured close to 93% of total employment by place of work (EPOW).
- The nearby communities of Airdrie, Cochrane, and Chestermere had a notably lower share of employment compared to their respective shares of the CMA's population. This is primarily attributable to residents commuting to jobs in the City of Calgary.

COMPONENTS OF CALGARY CMA					
CSD Type	CSD Name	Population 2016	% Share	Employment ¹ 2016	% Share
City	Calgary	1,239,220	89.0%	593,280	92.7%
City	Airdrie	61,581	4.4%	15,465	2.4%
Municipal district	Rocky View County	39,407	2.8%	18,615	2.9%
Town	Cochrane	25,853	1.9%	7,490	1.2%
City	Chestermere	19,887	1.4%	2,735	0.4%
Town	Crossfield	2,983	0.2%	1,195	0.2%
Indian reserve	Tsuu T'ina Nation 145	1,643	0.1%	890	0.1%
Town	Irricana	1,216	0.1%	115	0.0%
Village	Beiseker	819	0.1%	245	0.0%
TOTAL – CALGARY CMA		1,392,609	100.0%	640,030	100.0%

Note 1: Employment refers to employment by place of work (EPOW).

Sources: Statistics Canada and metroeconomics

3.3 Employment by Industry

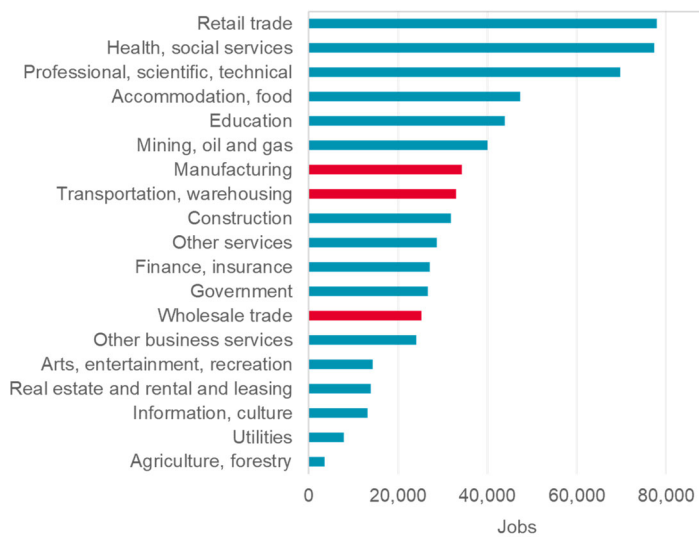
3.3.1 Analysis of 2-Digit NAICS Categories (Industry Sectors)

Three NAICS categories generate the majority of the demand for industrial-type space: manufacturing; wholesale trade; and transportation and warehousing.

- **Manufacturing** – Establishments in the Manufacturing sector are often described as plants, factories, or mills, and characteristically use power-driven machines and materials-handling equipment. The materials, substances, or components transformed by manufacturing establishments are raw materials that are products of agriculture, forestry, fishing, mining, or quarrying, as well as products of other manufacturing establishments.
 - Cushman & Wakefield considers all subsectors/industry groups within the manufacturing sector to be drivers of industrial building and land demand.
- **Wholesale trade** – The Wholesale Trade sector comprises establishments engaged in wholesaling merchandise, generally without transformation, and rendering services incidental to the sale of merchandise. The merchandise described in this sector includes the outputs of agriculture, mining, manufacturing, and certain information industries, such as publishing. Wholesalers sell merchandise to other businesses, and normally operate from a warehouse or office. These warehouses and offices are characterized by having little or no display of merchandise. In addition, neither the design nor the location of the premises is intended to solicit walk-in traffic. Wholesalers do not normally use advertising directed to the general public.
 - Cushman & Wakefield considers all subsectors/industry groups within the wholesale trade sector to be drivers of industrial building and land demand.
- **Transportation, warehousing** – The Transportation and Warehousing sector includes industries providing transportation of passengers and cargo, warehousing and storage for goods, scenic and sightseeing transportation, and support activities related to modes of transportation. Establishments in these industries use transportation equipment or transportation-related facilities as a productive asset. The type of equipment depends on the mode of transportation. The modes of transportation are air, rail, water, road, and pipeline. While jobs in the transportation industry are often associated with having “no fixed place of work”, the warehousing and storage-related jobs are linked with industrial-type buildings, along with the storage and maintenance of transportation equipment.
 - The following industry groups are drivers of industrial building and land demand: general freight trucking; specialized freight trucking; freight transportation arrangement; and warehousing and storage. Employment in these industry groups accounted for a nearly 30% share of total transportation and warehousing sector employment in the City of Calgary in 2016.

The exhibit below presents the composition of employment by place of work (EPOW) across the 19 NAICS industry sectors for the Calgary CMA in 2016. Those industries associated with industrial-type land and building needs are not among the largest industry sectors, ranking 7th, 8th, and 13th. Together, industrial-type employment totaled approximately 70,800 jobs across the CMA in 2016, representing an 11% share of total employment by place of work. For the City of Calgary, industrial-type jobs exceeded 64,300, accounting for just less than 11% of total employment by place of work.

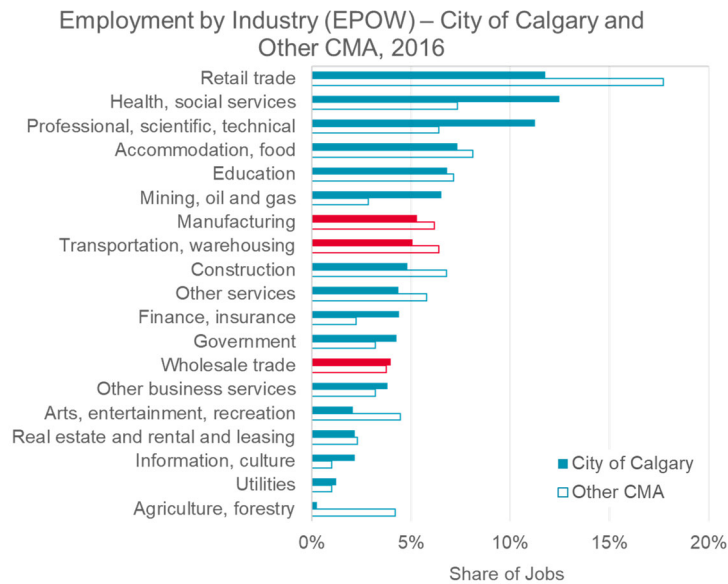
Employment by Industry (EPOW) – Calgary CMA, 2016



Note: Employment that is associated with industrial-type demand is indicated in red.

The exhibit below illustrates the share of total employment by place of work (EPOW) for the 2-digit NAICS categories for both the City of Calgary, and the other CSDs that collectively comprise the balance of the Calgary CMA (referred to here as “Other CMA”). The following observations are notable:

- Retail trade is the largest category of employment across the Calgary CMA. It accounts for a larger proportion of employment in the Other CMA geography (nearly 18%) compared to the City of Calgary (about 12%).
- Health and social services is the second largest category, representing a 12.5% share of jobs in the City of Calgary, and a roughly 7% share in Other CMA.
- Professional, scientific, and technical services accounts for the third largest share of total employment across the CMA. It accounts for over 11% of jobs in the City of Calgary, while just 6.5% of jobs in Other CMA.
- The three categories of employment that are associated with industrial-type land demand account for a fairly similar share of employment in both the City of Calgary and Other CMA – generally in the range of 4-6% of total employment.
- Most of the other industries have a similar share of total employment within the City of Calgary and the Other CMA geography, with the exceptions of mining, oil, and gas (higher in City of Calgary); finance and insurance (higher in City of Calgary); arts, entertainment, and recreation (notably higher in Other CMA); and agriculture and forestry (notably higher in Other CMA).



3.3.2 Analysis of 4-Digit NAICS Categories (Industry Groups)

NAICS has a hierarchical structure. The preceding analysis examined the 2-digit level, which is referred to as “sectors”. At the 3-digit level, the classification is known as “subsectors”, while at the 4-digit level, the classification is known as “industry groups”. For the purposes of our clusters analysis, we will further explore the composition of employment by industry at the 4-digit level.

- Example: While the 2-digit code “31” refers to Manufacturing as a “sector”, the 4-digit code “3111” refers to “Animal food manufacturing”, while the code “3112” refers to Grain and oilseed milling”, and so on.

In the preceding section, we discussed the three NAICS sectors that generate the majority of demand for industrial-type premises: manufacturing; wholesale trade; and transportation and warehousing. However, there are other industry groups that may be found in industrial areas – although the line is blurred in many cases between industrial uses and commercial uses. Note that the Consultant Team has not made a separate allocation for these industry groups; our land demand analysis focuses on the three primary industry sectors that drive industrial land and building demand. A list of these industry group is as follows:

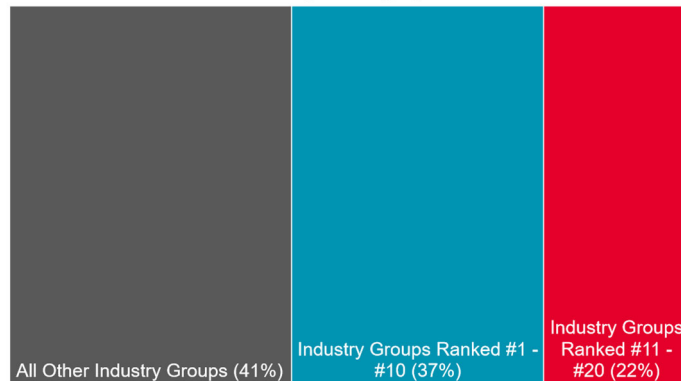
- Support activities for mining and oil and gas extraction.
 - This industry group may have a component of industrial space needs (including some office space), but is primarily associated with activities at resource sites.
- In general, the following are considered commercial uses, although some may seek sites in industrial/employment areas:
 - Automotive dealers; other motor vehicle dealers; and automotive parts, accessories, and tire stores.
 - Building material and supplies dealers.
 - Lawn and garden equipment and supplies stores.
 - Motion picture and video industries; sound recording industries; and radio and television broadcasting.
 - Data processing, hosting, and related services.

- Automotive equipment rental and leasing; and commercial and industrial machinery and equipment rental and leasing.
- Consumer goods rental; and general rental centres.
- Waste treatment and disposal; and remediation and other waste management services.
 - The inclusion of the collection of waste as a component of this category means that a portion of the employment is considered “no fixed place of work”. Also, employment growth in this category is likely linked to existing land uses/sites, and does not necessarily translate to additional future land requirements.

metroeconomics has prepared the following summary of the Calgary CMA's largest industry groups, from an industrial-type land and buildings point of view for 2016, as illustrated in the exhibit below.

- The top 10 industry groups associated with industrial type demand across the Calgary CMA account for 35% of all industrial-type jobs. This compares to a 37% share in the City of Calgary, and a 58% share across the balance of the CMA.
- The 20 largest industry groups associated with industrial type demand across the Calgary CMA account for 58% of all industrial-type jobs. This compares to a 59% share for the City of Calgary, while the Other CMA share is much higher, at 76%.
 - Of the 20 largest industry groups in the Calgary CMA, 19 are among the top 20 in the City of Calgary, with only minor adjustments to the rankings (this is as expected, since the City of Calgary accounted for a nearly 93% of total employment by place of work in the CMA in 2016).

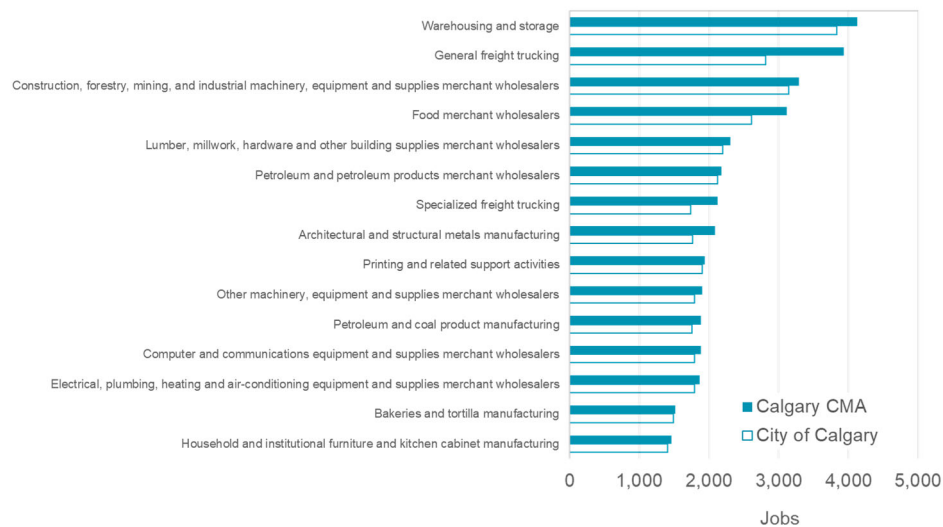
**Industrial Groups by Share of Industrial-Type Employment in
City of Calgary**



There are several notable conclusions from this data:

- The largest clusters span the range of industries from transportation and warehousing (warehousing and storage; general freight trucking; and specialized freight trucking) to wholesale trade (seven different industry groups) to manufacturing (accounting for 10 of the 20 largest industry groups).
- The largest industrial-type employers in the CMA that are located outside of the City of Calgary have a disproportionately large impact on total industrial-type employment in these outlying areas, compared to the City of Calgary itself, which is more diversified across its industrial base.

Employment by Industry Group (EPOW) – Calgary CMA and City of Calgary, 2016



Looking forward, many of the largest industry groups in 2016 across the Calgary CMA are anticipated to drive employment growth over the next 25 years. Of the top 20 industry groups/clusters in 2016, 11 are among the top 20 largest in terms of industrial-type employment growth for the period from 2016-2041. The following exhibit presents the 20 industry groups that are anticipated to account for the largest gains in employment over the 25-year forecast horizon across the Calgary CMA, along with their 2016 ranking (refer to Appendix A for a full methodology of the employment projections).

TOP 20 INDUSTRY GROUPS BY EMPLOYMENT INCREASE (2016-2041) – CALGARY CMA

Industry Group	Jobs 2016	Rank 2016	Jobs 2041	Rank 2041	Change 2016-2041	Rank 2016-2041
Warehousing and storage	4,130	1	12,327	1	8,197	1
General freight trucking	3,935	2	10,058	2	6,123	2
Food merchant wholesalers	3,120	4	6,079	3	2,959	3
Specialized freight trucking	2,125	7	3,654	4	1,529	4
Architectural and structural metals manufacturing	2,085	8	3,500	5	1,415	5
Other miscellaneous manufacturing	1,325	17	2,639	9	1,314	6
Recyclable material merchant wholesalers	815	27	2,066	11	1,251	7
Bakeries and tortilla manufacturing	1,520	14	2,657	8	1,137	8
Beverage merchant wholesalers	470	41	1,245	21	775	9
Petroleum and petroleum products merchant wholesalers	2,180	6	2,829	7	649	10
Beverage manufacturing	1,105	21	1,685	14	580	11
Glass and glass product manufacturing	480	40	956	26	476	12
Farm product merchant wholesaler	255	68	711	32	456	13
Household and institutional furniture and kitchen cabinet manufacturing	1,460	15	1,878	12	418	14
Other food manufacturing	610	36	952	27	342	15
Aerospace product and parts manufacturing	430	44	748	31	318	16
Meat product manufacturing	1,235	19	1,493	17	258	17

Navigational, measuring, medical and control instruments manufacturing	1,190	20	1,436	20	246	18
Basic chemical manufacturing	855	25	1,094	24	239	19
Sawmills and wood preservation	355	53	586	39	231	20

Sources: Statistics Canada and metroeconomies

The following exhibit presents the 20 industry groups that are anticipated to account for the largest gains in employment over the 25-year forecast horizon across the City of Calgary, along with their 2016 ranking (refer to Appendix A for a full methodology of the employment projections, and Appendix B for a comparative analysis of the Calgary CMA versus other Western Canadian and Pacific Northwest U.S. metropolitan areas).

TOP 20 INDUSTRY GROUPS BY EMPLOYMENT INCREASE (2016-2041) – CITY OF CALGARY

Industry Group	Jobs 2016	Rank 2016	Jobs 2041	Rank 2041	Change 2016-2041	Rank 2016-2041
Warehousing and storage	3,830	1	11,505	1	7,675	1
General freight trucking	2,810	3	7,400	2	4,590	2
Food merchant wholesalers	2,615	4	5,188	3	2,573	3
Specialized freight trucking	1,735	13	3,051	5	1,316	4
Architectural and structural metals manufacturing	1,765	11	2,963	6	1,198	5
Other miscellaneous manufacturing	1,190	17	2,370	9	1,180	6
Recyclable material merchant wholesalers	730	27	1,846	11	1,116	7
Bakeries and tortilla manufacturing	1,490	14	2,604	8	1,114	8
Beverage merchant wholesalers	470	37	1,245	20	775	9
Petroleum and petroleum products merchant wholesalers	2,125	6	2,759	7	634	10
Beverage manufacturing	1,085	20	1,654	13	569	11
Glass and glass product manufacturing	460	39	916	26	456	12
Farm product merchant wholesaler	245	67	687	32	442	13
Household and institutional furniture and kitchen cabinet manufacturing	1,405	15	1,807	12	402	14
Aerospace product and parts manufacturing	405	44	704	31	299	15
Other food manufacturing	465	38	726	30	261	16
Meat product manufacturing	1,170	18	1,414	16	244	17
Basic chemical manufacturing	845	25	1,081	22	236	18
Navigational, measuring, medical and control instruments manufacturing	1,125	19	1,358	19	233	19
Industrial machinery manufacturing	190	70	374	46	184	20

Sources: Statistics Canada and metroeconomies

3.4 Site Selection Criteria and Land Requirements

3.4.1 Overview

Across the spectrum of industrial lands uses, there tends to be a consistent set of site selection criteria that are considered in location decision-making. The include the following:

- Real estate factors – geographic location; availability and cost of business premises, or cost of land and new building construction; and location of customers and suppliers;
- Economic factors – availability of raw materials and intermediate goods (production inputs); labour force availability; labour cost; and government incentives; and,
- Infrastructure factors – transportation; telecommunications; and utilities.

Certain industry groups exhibit particular site selection requirements for their operations. The following are such examples:

- Some businesses may be labour-intensive, while others may require far less labour input. Those with greater need for labour – particularly skilled labour – may be inclined to locate within or in close proximity to large population centres. However, even within an industry group, there may be significant variation (for example, comparing the employee density within an Amazon warehouse [relatively high] versus a warehouse for automotive parts [relatively low]). Non labour-intensive industrial businesses may seek to locate further from urban areas/population centres to take advantage of lower land costs, for example. A related consideration for labour-intensive businesses may be access to public transit, to provide commuting options for their workforce (particularly for lower-wage occupations).
- Highway access is vital for certain businesses that have a high volume of shipping and receiving. On the other hand, businesses with fewer inputs to their production process – or those not reliant upon just-in-time delivery – will not require highway access/proximity (or at least, may not prioritize it to the same extent as other site selection factors).
- Adjacency to a rail line may be an important site selection factor for some businesses – particularly those reliant upon commodities in their production process, or those that distribute finished goods across a large market area. However, it is challenging to associate specific industry groups with needed access to a rail spur. For many businesses, proximity to intermodal (container shipping via truck-to-rail facilities) satisfies their supply chain needs.
 - CP's Calgary Intermodal Facility is located in the southeast part of the city, in the vicinity of 114 Ave SE and 52 St SE.
 - CN's Calgary Logistics Park (opened in 2013) is located east of the city, in Rocky View County, off Township Road 250 near the hamlet of Conrich. This intermodal terminal relocated from CN's Sarcee Yard off Barlow Trail near 50 Ave SE, in southeast Calgary.

In reviewing the employment forecast for the top 20 industry groups across the CMA, many do not have distinguishing site selection characteristics of importance. However, the following list of attributes/needs are identified for select businesses within the forecasted higher growth industry groups identified below.

INDUSTRIAL SITE SELECTION CRITERIA						
Industry Group	Proximity to Highway	Very Large Sites	Outside Storage	Truck/Vehicle Parking	Minimum Separation Distance	Heavy Industrial Zoning
Warehousing and storage	Yes	Yes		Yes		
General freight trucking	Yes			Yes		
Specialized freight trucking	Yes			Yes		
Architectural and structural metals manufacturing			Yes			Yes
Meat product manufacturing					Yes	
Basic chemical manufacturing					Yes	Yes
Sawmills and wood preservation		Yes	Yes		Yes	Yes

3.4.2 Linkage to Industrial Land Use Districts

The City of Calgary currently has seven Land Use Districts/zones that apply to industrial uses, as summarized on the following exhibit. We have identified those of particular importance to the largest industry clusters in Calgary, tied to some of the industry groups (underlined) that are forecast to contribute to significant industrial land need over the forecast horizon (among the top 20 growth industry groups in the city).

INDUSTRIAL LAND USE DISTRICTS IN CITY OF CALGARY		
Symbol	Name	Description
I-B	Industrial – Business District	I-B is an industrial designation that is primarily for business park uses, with high quality buildings in a campus-like setting – typically in highly visible locations next to major roadways.
I-C	Industrial – Commercial District	I-C is an industrial designation that allows light industrial and limited small-scale commercial uses that are compatible with adjacent industrial areas. - <i>A range of manufacturing establishments – such as <u>Bakeries, Beverage, Glass and glass products, Furniture and kitchen cabinetry, Meat products, and Other foods</u> – may seek to locate in an I-C zone in order to accommodate small-scale commercial uses that complement their core business activities.</i>
I-E	Industrial – Edge District	I-E is an industrial designation that allows a limited range of low impact light industrial uses that are suitable in close proximity to residential areas.
I-G	Industrial – General District	I-G is an industrial designation that is primarily for a wide range of general industrial uses. - <i>I-G is the most prevalent industrial land use designation today across Calgary's built-up industrial/employment areas, and this zone will continue to accommodate a broad range of industrial occupier needs going forward.</i>
I-H	Industrial – Heavy District	I-H is a heavy industrial designation that is primarily for large, purpose-built heavy industrial developments that typically locate close to hazardous goods routes and rail lines. - <i>I-H-designated lands will be required in the future for uses such as <u>Basic chemical manufacturing</u>, which is among the top 20 industry groups forecast for employment growth over the next 25 years.</i>

I-O	Industrial – Outdoor District	<p>I-O is an industrial designation that is primarily for outdoor storage, salvage, and equipment yard uses on land that has limited or no municipal services.</p> <ul style="list-style-type: none"> - <i>The need for outside storage of raw materials and finished goods that is associated with certain industry groups noted above (such as <u>Architectural and structural metals manufacturing</u>) is distinct and different from the intent of this IO designation. This is related to a manufacturing or on-site production function, as opposed to purely a storage function. I-O-designated lands generally support/complement other industrial activities that take place.</i>
I-R	Industrial – Redevelopment District	<p>I-R applies to seven older industrial areas that were developed before current land use standards were introduced. Properties in these areas often have significant development constraints that affect matters such as parking, access, and landscaping.</p>

Sources: *The City of Calgary and Cushman & Wakefield*

4.0 ISSUES AFFECTING CALGARY'S INDUSTRIAL LANDS

4.1 Introduction

In order to inform the strategic directions that underpin this Industrial Area Growth Strategy Consulting Report, the Consultant Team has provided research and analysis of various topics of interest related to industrial land development. The issues explored in the following section were identified in collaboration with City staff.

4.2 Trends Impacting Industrial Real Estate and New Development

The following section identifies a number of issues impacting demand for industrial real estate, including new development trends.

- **Industrial buildings are getting larger** – There has been a trend of increasing building size in recent years – in large part influenced by the growth in very large distribution facilities that are in demand due to rising e-commerce activity. Cushman & Wakefield's data for Calgary indicates an average building size of roughly 4,500-5,500 m² for new supply added from 2010-2012, which increased considerably to an average of nearly 9,500 m² for the period from 2015-2020.
- **Industrial buildings are getting taller** – There is a strong correlation between industrial building age and ceiling clear height. Older vintage properties were often built with a clear height of 12' to 20', which suited user requirements at the time. Over the past several decades, the average ceiling clear height in new facilities has increased to 30' to 40'. It is now not uncommon for new warehouse facilities to exceed 40' clear height, in order to take advantage of taller racking system, and lift trucks that are capable of reaching such heights, while carrying heavier loads than in the past. While these facilities make more efficient use of land, there may be implications to municipalities that charge development fees based on new floorspace (whereas cubic space is arguably a more suitable measure, as floorspace is replaced by vertical space). Some facilities are designed with multiple mezzanines to take full advantage of the interior space available.
- **There is increasing demand for larger parcels of land** – In recent years, supply chain modernization and rapid adoption of e-commerce has fueled demand for new industrial supply – particularly parcels that accommodate large warehouse and distribution facilities. Typically, these are located on the periphery of urban areas, offering ready access to the market, while taking advantage of lower land costs. These facilities are becoming increasingly large, as enterprises streamline their distribution networks into fewer, larger facilities. As well, distribution centres often seek large yards to accommodate on-site trailer storage in secured areas, so that drivers can drop their trailers and exit, rather than waiting to off-load goods (the goods are later off-loaded as needed).
- **There is growing demand for warehousing space** – Post-pandemic, there is a view that manufacturers are likely to hold more inventory, as they seek greater flexibility and less vulnerability to disruptions. Diversifying component sourcing, including an emphasis on localizing or regionalizing components to be closer to plants while holding more inventories, will require additional logistics real estate. Reshoring or nearshoring would shorten supply chains, effectively reducing long lead times, thereby giving manufacturers more control over production quantities to allow for improved responsiveness to demand.

- **There has been increased interest in centrally-located sites** – With growing consumer demand for goods at a faster, more streamlined rate (same day/next day shipping), and growing retailer demand, the answer for suppliers is to invest in an e-commerce model for direct-to-consumer shipments. Greater adoption of e-commerce will take several years to implement across many markets – including Calgary, although it has already seen considerable growth in this segment – meaning demand will continue to be widespread beyond the present COVID-19 pandemic. Opportunities to situate “last-mile” logistics facilities within urban areas that reduce shipping times and costs will continue to grow in appeal – particularly for time-sensitive shipments. This is likely to place upward pressure on industrial land values for centrally-situated zoned lands, as well as introduce adaptive reuse opportunities for existing properties that can suit this purpose, or demolition and new construction on sites that are well suited for such uses.

The integration of industrial uses into former retail spaces is an emerging phenomenon, as empty mall anchor units within underperforming shopping centres are repurposed as last-mile delivery centres, or even light industrial uses. There is nascent interest in exploring the repurposing of these spaces, but this is likely to be far more prevalent in “over-retailed” U.S. markets, compared to Canada.

- **The adoption of automation/robotics has accelerated** – Modern industrial facilities are increasingly incorporating automation at different stages/performing different functions. This could include robotics (and “cobots” – collaborative robots) involved with receiving, inventorying, and storing materials; to managing inventories; to the distribution process – including autonomous, self-charging, laser-guided vehicles that find their own efficient pathways within the facility, and operate 24/7. Drones are being used inside facilities to monitor inventory, check temperatures in climate-sensitive facilities, and identify potential safety concerns (via video monitoring). Today, automated processes are putting finished goods onto freight vehicles; in the not too distant future, the freight vehicles themselves will be driverless. Increasingly, automation is being used to locate and bring the product to the warehouse employee for inspection, final packaging, and shipping. Overall, the shift is toward increased productivity, and less human involvement in industrial processes, as labour availability becomes more scarce. From an operations perspective, the goal is to reduce or eliminate bottlenecks, and leverage efficiencies. From a land needs perspective, this will mean that the same amount of land will employ fewer workers in the future. From a servicing perspective, this generates additional requirements for power.

One notable trend to consider is the much larger number of employees associated with consumer goods warehouses and distribution centres compared to manufacturing warehouses. These large distribution centres require significant labour, and therefore have different site selection needs (proximity to available labour force) versus those industrial businesses with a much lower employment density.

- **There has been an observed desire for greater on-site amenities** – With the rise of larger and larger industrial facilities, in effect a small community is formed among the employees. Some employers are now implementing in-house features such as daycares, gyms/fitness studios, and prayer/meditation rooms, in order to attract and retain talent, and offer an appealing workplace environment. Major warehouse facilities have become “employment centres” with 24-hour operations.

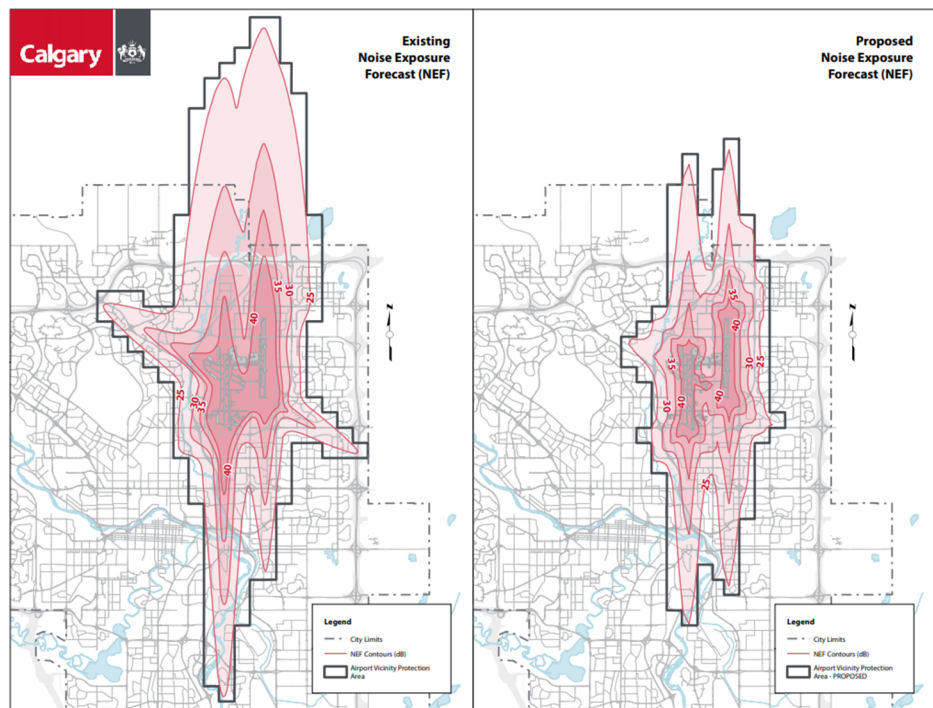
- **Some industrial-designated lands face conversion pressure** – In many large, urban areas, undeveloped industrial lands face pressure for conversion to other uses – with industrial not viewed as the highest and best use, from a land economics perspective. Often, this is due to their relatively lower land cost (compared to commercial or residential lands). Sites that are occupied by industrial uses but which could be repurposed or demolished may face similar market pressures for land use conversion. This often applies to lands that are centrally located, and that are large (and therefore can potentially accommodate significant density, if redeveloped). In some instances, issues related to compatibility with adjacent uses may also be raised to justify such conversions.

4.3 Impact of Airport Vicinity Protection Area Changes

In 2016, The City of Calgary and Calgary Airport Authority began reviewing opportunities for regulatory changes related to the Airport Vicinity Protection Area (AVPA). The AVPA outlines land uses that are prohibited within certain locations in Calgary – identified as Noise Exposure Forecast (NEF) areas – due to potential noise impacts from aircraft flying over communities as they arrive or depart. While existing residences in the area are not prohibited, new subdivision and redevelopment in residential areas (new higher density dwelling units) is currently restricted in the NEF 30+ areas.¹ While the NEF contours have not been reviewed or updated since 1979, aviation regulations and technologies have changed and advanced since then. The proposed changes to the AVPA limits (subject to provincial approval) have the effect of permitting a broader range of uses in areas that were previously subject to the development limitations imposed by the regulations.

- Uses including residences, schools, and medical care facilities are prohibited with NEF zones of 30 or higher.
- The following uses are prohibited within NEF zones 35 or higher: daycares; halls and auditoriums; places of worship; outdoor exhibition and fairgrounds; and outdoor spectator entertainment/sports facilities.
- Clinics and outdoor eating establishments are prohibited within the NEF 40+ zone.
- Campgrounds are prohibited throughout the AVPA.

The image at right identifies the existing (left) and proposed (right) Noise Exposure Forecast contour lines, and the substantially smaller AVPA area that is proposed.



¹ <https://www.calgary.ca/pda/pd/calgary-land-use-bylaw-1p2007/airport-vicinity-protection-area.html>

Overall, the proposed changes would reduce the number of parcels and the total land area that is impacted under the current NEF contours, while continuing to protect airport operations. The current NEF contours impact 33,201 parcels (approximately 10,656 hectares) with some degree of development restrictions. The proposed contours would impact 12,309 parcels (approximately 7,777 hectares), resulting in a 63% reduction in the number of parcels, and a 27% reduction in the total land area affected.²

There are 263 parcels that are presently designated as an Industrial land use that would be removed from NEF contours under the proposed changes, while three would be added to the revised NEF contours. From the perspective of this Industrial Area Growth Strategy Consulting Report, a key takeaway is that some lands that previously faced restrictions regarding certain identified sensitive land uses would be subject to a wider range of permissions under the proposed changes. This may mean that an employment use is no longer the highest and best use of these lands, and they may face land use conversion pressure. However, the loosening of development restrictions pertains to lands furthest from the airport (the lowest NEF range), and employment lands in proximity to the airport itself – which are particularly well-suited for industrial development – remain viable.

4.4 Climate Change and Industrial Development

The industrial sector has opportunities to contribute to a healthier environment and to reduce its impacts. Increasingly, developers and occupiers are seeking LEED (Leadership in Energy and Environmental Design) certification for their new buildings as part of their overall corporate commitment to sustainability. LEED certification provides independent, third-party verification that a building, home, or community was designed and built using strategies aimed at achieving high performance in key areas of human and environmental health: location and transportation, sustainable site development, water savings, energy efficiency, materials selection, and indoor environmental quality. There are a number of LEED rating systems available to meet the needs of different building and project types. Each system consists of prerequisites and credits. Prerequisites are required elements, or green building strategies, that must be included in any LEED certified project, while credits are optional elements or strategies that projects can elect to pursue to gain points toward certification.³ With four possible levels of certification (certified, silver, gold and platinum), LEED is flexible enough to accommodate a wide range of green building strategies that best fit the constraints and goals of particular projects. Overall, environmentally-friendly construction initiatives – whether pursued to obtain LEED certification or not – are viewed as a modest development cost premium versus traditional industrial building construction approaches, with long-term value achieved through reduced energy consumption. Among the characteristics of green initiatives related to industrial development include:

- More energy-efficient building envelopes, HVAC, and lighting;
- Increased utilization of recycled building materials;
- Reinforced roofs that can collect rainwater and store in a cistern for future use, and green roofs;
- Installation of solar panels and wind turbines to collect/generate energy;
- Electric vehicle charging stations – both for employee's personal vehicles and equipment used within the premises; and,
- Geothermal energy systems – although very expensive in industrial applications, given the size of buildings.

² <https://pub-calgary.escribemeetings.com/filestream.ashx?DocumentId=139525>

³ https://www.cagbc.org/CAGBC/LEED/Certification_Process/CAGBC/Programs/LEED/LEED_Certification_Process.aspx?hkey=1ccc60d7-7815-428d-a7e3-cf78786a1902

5.0 LAND SUPPLY/DEMAND ANALYSIS AND LEVERAGING COMPETITIVE ADVANTAGES

5.1 Introduction

Calgary Economic Development answers the question “Why Calgary?” by highlighting the attractive cost of living, cost of doing business, access to top talent, and overall quality of life.⁴ From an industrial point of view, these attributes are important, along with the city’s locational advantages and relative absence of physical geographic constraints, its role as a regional service and business centre, and proximity to natural resources. The low cost of doing business, exceptional infrastructure and commercial fibre networks, efficient road and transit systems, and regional transportation network centered on a globally connected airport, all contribute to boosting trade and investment and fostering growth among existing or emerging local companies.

The following section explores various attributes that contribute to Calgary’s competitive advantage from an industrial perspective, to ensure that these traits can be leverage for future growth, aligned with its industrial land supply and prospects for growth. In addition, characteristics of the city’s industrial land supply and occupied industrial areas are analyzed, and a land demand projection is provided, in order to understand land supply and demand dynamics.

5.2 Calgary’s Industrial Competitive Advantages

Strategically Location in Western Canada

Calgary is strategically positioned to function as a distribution hub to service other markets in Western Canada, including communities across Alberta, British Columbia, Saskatchewan, and Manitoba. Calgary functions as Western Canada’s largest inland port. The city is well connected by highways (including the new Ring Road, and Trans-Canada Highway), railways, and Calgary International Airport. Within one day’s drive, trucks can reach markets of 16 million people in Western Canada and the Pacific Northwest, and Alberta’s transport system brings over \$122 billion of province-wide products to international markets each year.⁵ The City’s *Goods Movement Strategy* builds upon the Municipal Development Plan (MDP) and Calgary Transportation Plan (CTP) which recognize that efficient goods movement is essential to the city’s wellbeing and quality of life, as well as to the achievement of transportation, land use, economic, and environmental aspirations and goals.⁶

Diversity of Industrial Employment Base

The preceding analysis of industry clusters in Calgary reveals that a diverse range of industry groups account for the largest categories of employment. The 20 largest industry groups in terms of 2016 employment included Manufacturing (10 industry groups), Wholesale trade (7 industry groups), and Transportation and warehousing (3 industry groups), which together accounted for nearly 60% of total industrial-type employment. Notably, 12 of the 20 largest industry groups in 2016 are anticipated to be among the top 20 in terms of employment growth through 2041. This means that eight industry groups – which are not currently among the top 20 employers – will emerge among those experiencing the largest increase in employment over the next two decades or more.

⁴ <https://calgaryeconomicdevelopment.com/why-calgary/>

⁵ <https://www.calgary.ca/realstate/distribution-and-warehousing.html>

⁶ The City of Calgary Goods Movement Strategy. p. 3.

The largest industrial-type industry group in Calgary in 2016 was Warehousing and storage (just over 3,800 jobs). It is anticipated to retain the highest ranking in 2041, and add approximately 11,500 jobs over this time horizon. While it is the single largest industry group – one-third larger than General freight trucking (2,800 jobs in 2016), it accounted for just a 6% share of total industrial-type employment. This further reinforces the range of diversity across Calgary's industrial marketplace.

Presence of Calgary International Airport

Calgary International Airport (YYC) is located in the City of Calgary – unlike some airports in major Canadian cities such as Vancouver International Airport (situated in Richmond), Edmonton International Airport (situated in Nisku), Toronto Pearson International Airport (mostly located in Mississauga, with a portion in Etobicoke/Toronto), and Montreal-Pierre Elliott Trudeau International Airport (located in Dorval). This is important, since the financial and economic benefits of the airport predominantly accrue to The City of Calgary itself, and not an adjacent municipality. The Airport and related uses are a large employment cluster that ranks second largest after the Central Business District in terms of overall employment.

Calgary International Airport plays an important role in the local industrial market as a key logistics hub, and has been an active land developer since 1992. An *Approved Land Use Plan* between the Calgary Airport Authority and The City of Calgary establishes the various zones within the Calgary Airport Authority Lands, and denotes the restrictions and permitted uses with respect to each zone. From an industrial perspective, the lands are home to considerable air cargo-related operations, as well as mail/courier facilities (including Canada Post, DHL, FedEx, Purolator, and UPS), functioning as an Inland Port. Direct access to cargo apron space is a key differentiator for some users in the warehousing, transportation, and logistics industries. Airport lands are available on a long-term land lease basis to prospective occupiers, and substantial land remains available on both the west and east side of the Airport – some of which is runway-adjacent. The nearby Ring Road and other local highways and arterials in northeast Calgary offer excellent accessibility to/from the site.

Through the *Agreement on Land Use, Development Guidelines and Acreage Assessment Levies* (1993), the Calgary Airport Authority remits fees related to aspects of development activity that occurs on its lands such as development permit fees, building permit fees, outline plan fees, acreage assessments, as well as property taxes and business taxes.

Large and Growing Labour Force

Ranked as the country's third largest municipality in terms of population, the City of Calgary had just over 1.24 million residents in 2016, and a labour force of just less than 730,000 (approximately 660,000 employed, and 70,000 unemployed). This resulted in a participation rate of 73% for Calgary, compared to a participation rate of 65% for Canada as a whole. With the number of employed in Calgary anticipated to increase by some 370,000 jobs (62%) by 2041 compared to 2016 (source: metroeconomics), this large and growing pool of labour is among the reasons that businesses have chosen the city as the site for their operations.

Alberta's Tax Advantage

Alberta continues to have an overall tax advantage compared to other provinces, with no sales tax, no payroll tax, and no health premium. Alberta's tax advantage is an estimate of the total additional provincial taxes individuals and businesses would pay if Alberta had the same tax system as other provinces. The Province calculates Alberta's tax advantage to be \$14.4 billion in 2020-21. This comparison includes personal and corporate income tax, sales tax, fuel tax, carbon charges (excluding the federal carbon pricing backstop), tobacco tax, health premiums, payroll tax, liquor tax and markups, land transfer tax, and other minor taxes.⁷

⁷ <https://www.alberta.ca/alberta-tax-advantage.aspx>

While these taxes are not specific to the industrial sector, they have the effect of encouraging business investment in the province, and have a positive impact on the cost of living for the local labour force and their families.

Industrial Ecosystem is Present

Calgary offers prospective industrial occupiers with the full breadth of required site selection attributes to start a new business – it has available lands for development, and a network of established industry that can serve as suppliers and buyers/end-users of goods and services. The city is well served by transportation to facilitate movement of raw materials and finished products to markets nearby, across Canada, and internationally.

5.3 Vacant Industrial Land Supply Analysis

5.3.1 Vacant Industrial Land Inventory Overview

Cushman & Wakefield collaborated with City staff to develop a data set of available industrial parcels across the city. This Vacant Industrial Land Inventory is comprised of both privately-owned lands, as well as City-owned lands.

The privately-owned vacant lands have the following characteristics:

- Lands that are situated in The City's Strategic Industrial Areas, and/or;
- Lands designated as Industrial in the Municipal Development Plan, and/or;
- Lands within one of the seven existing Industrial Land Use Districts (I-B, I-C, I-E, I-G, I-H, I-O, or I-R), and/or;
- Lands that are designated as a Direct Control District that has an industrial basis, and/or;
- Future Urban Development Districts with an industrial component within an Area Structure Plan.

In addition, the inventory includes City-owned lands controlled by Real Estate & Development Services (RE&DS) that are considered to be suited for future industrial development – including vacant sites and redevelopment sites – as well as select other sites controlled by other City of Calgary entities (e.g. Transportation Infrastructure, Water Resources, etc.).

5.3.2 Methodology and Approach

The City of Calgary's Geodemographics staff provided property attributes for all properties in the above-noted data set. This included the following:

- Industrial Area – Central, Northeast, Northwest, Southeast, or Southwest;
- Parcel size (hectares) – and the Consultant Team created size cohorts (e.g. <0.5 hectares, 0.5-1 hectare, 1-5 hectares, etc.);
- MDP Designation;
- Land Use Designation, and the Consultant Team added the Land Use/Zoning Type (Industrial, Industrial – Multiple [refer to detailed discussion below], Future Urban Development, or Direct Control);
- Servicing (refer to detailed discussion below); and,
- City-owned lands – yes or no.

The following section outlines the Consultant Team's approach to addressing specific issues that were encountered, or our approach to classifying lands.

Multiple Land Use Designations

There are a small number of parcels that have multiple Land Use Districts that are associated with them; it is assumed that this is because of their large size, or the fact that they have not yet be subdivided into development lots. There are four parcels – ranging in size from approximately 20 to 170 hectares – that have been included in the Vacant Industrial Land Inventory under the “Industrial – Multiple” zoning category due to one or more industrial LUDs being in place. While it is acknowledged that this may slightly overstate the actual portion of industrial land that could be developable, it has little impact on the overall size of the land inventory, and doesn’t affect the conclusions that are drawn by the Consultant Team. This is an item that requires ongoing monitoring by City staff as these parcels are absorbed over time.

Servicing

City staff has provided data which has allowed the Consultant Team to identify the status of servicing of the vacant lands, which points to their readiness for development. We have created three classifications, as follows:

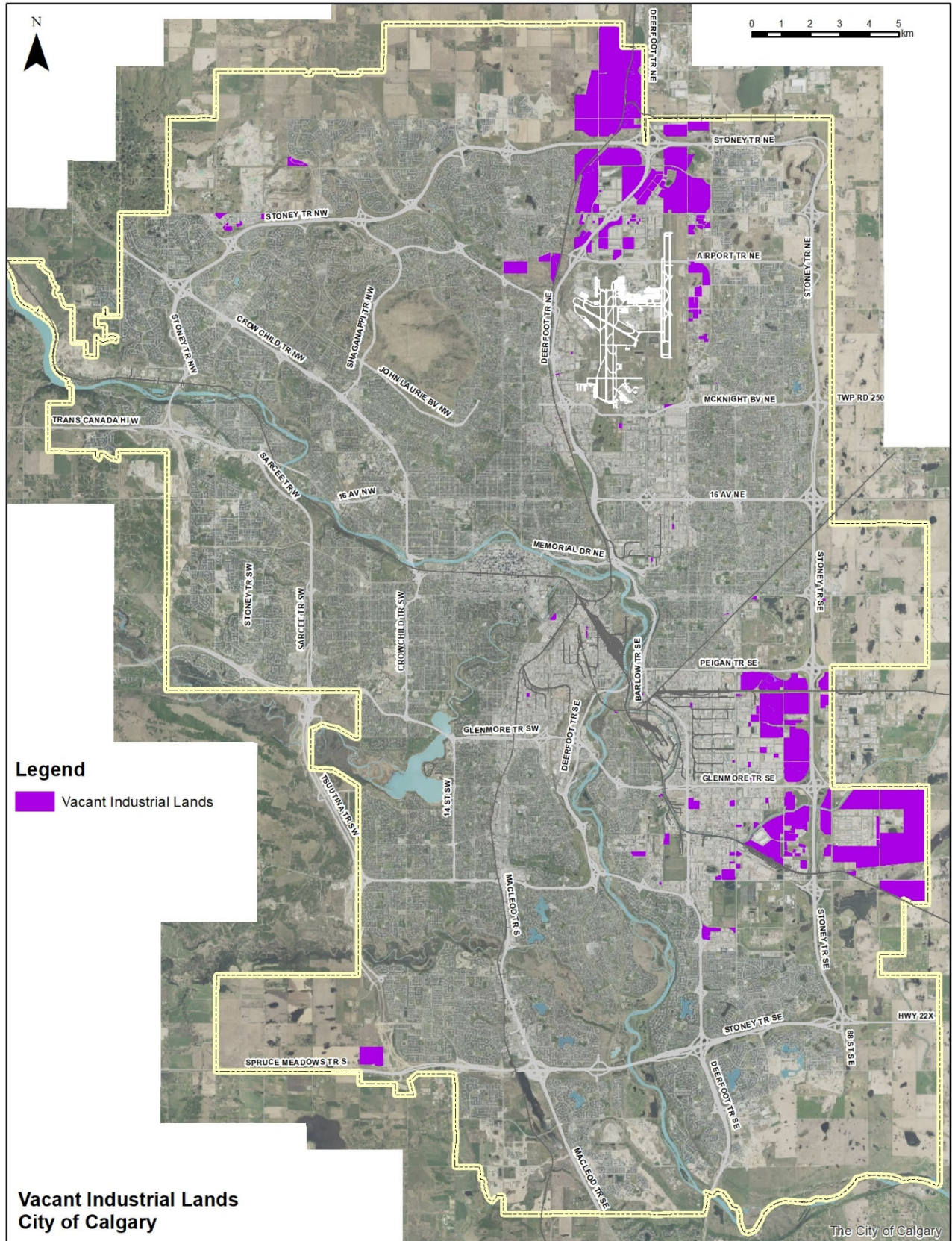
- “Serviced” – municipal services are in place at the property line/parcel boundary (and in the case of RE&DS sites, this means serviced land which is available for sale). These are considered to be “shovel-ready” lands suited for development – either in a state to allow building activity to commence, or site preparations to be advanced.
- “Partially Serviced” – some municipal services are present, but not all. The timing (and cost) of bringing the additional required services to the site will vary on a site-by-site basis. In the case of RE&DS lands, these include sites that are unserviced (but funded), or those where servicing is in progress (and funded). These lands are not considered readily developable at this time. This is an item that requires ongoing monitoring by City staff as the level of servicing evolves over time.
- “Unserviced” – this classification refers to sites where there are currently no municipal services in place. In the case of RE&DS sites, these are “raw” lands that are unserviced and unfunded. Again, this is an item that requires ongoing monitoring by City staff as the level of servicing evolves over time.

5.3.3 Attributes of the Vacant Industrial Land Inventory

Total Vacant Industrial Land Inventory

There is a total of close to 3,000 hectares of vacant industrial land city-wide, across nearly 350 individual parcels (please refer to map on following page). Importantly, a portion of this land supply is identified in “gross” hectares, meaning that there has not yet been any adjustment made for the future on-site land requirements for roads, utilities, or stormwater management ponds to service any eventual subdivided lands/lots, nor any adjustment made to account for the presence of natural features such as waterways, wetlands, or other physical features (slopes, valley lands, etc.) which could limit the “developable” land area.

In a land needs assessment, it is common to attribute a factor of 75% or 80% to represent the “net developable” portion of lands compared to the “gross” total land area. **For the purposes of this analysis, the Consultant Team will utilize a factor of 80% to adjust the overall land inventory from “gross” to “net” (recognizing that some lands are already considered “net” – generally the smaller parcels already designated as an industrial LUD). This adjustment brings the overall estimated vacant industrial land inventory total to approximately 2,400 net hectares city-wide.** This figure is of importance in comparing land supply to anticipated land demand (discussed in the following section). The balance of this examination of land inventory is on a “gross” basis, for illustrative purposes, since it is outside of the scope of this project to make a site-by-site assessment of “net” versus “gross” land area.

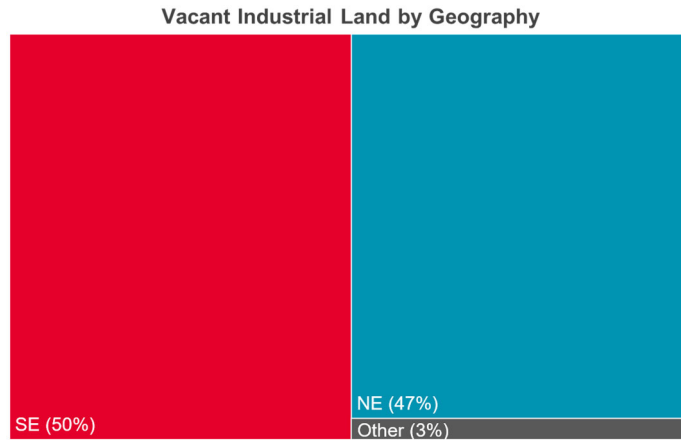


Vacant Industrial Land by Geography

The city's vacant industrial land supply is geographically distributed as follows:

- Southeast – 1,489 ha (50% share)
- Northeast – 1,407 ha (47%)
- Other – 78 ha (3%)

The vacant industrial land inventory is evenly balanced between the Southeast and Northeast. For comparison, Cushman & Wakefield currently tracks Calgary's industrial building inventory as follows: Southeast (47% share of total inventory); Northeast (37% share); and Central (17% share).

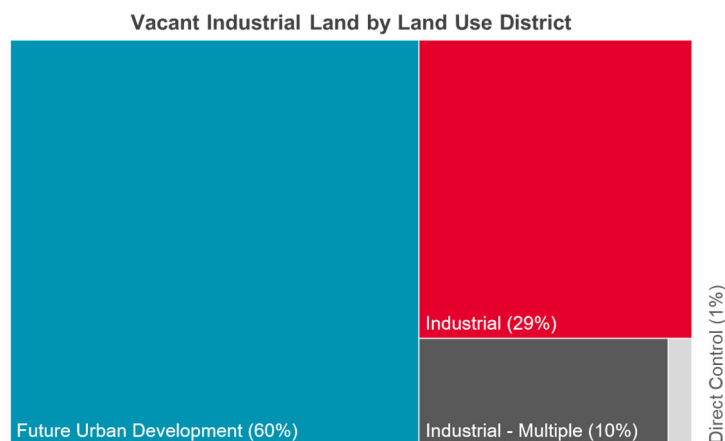


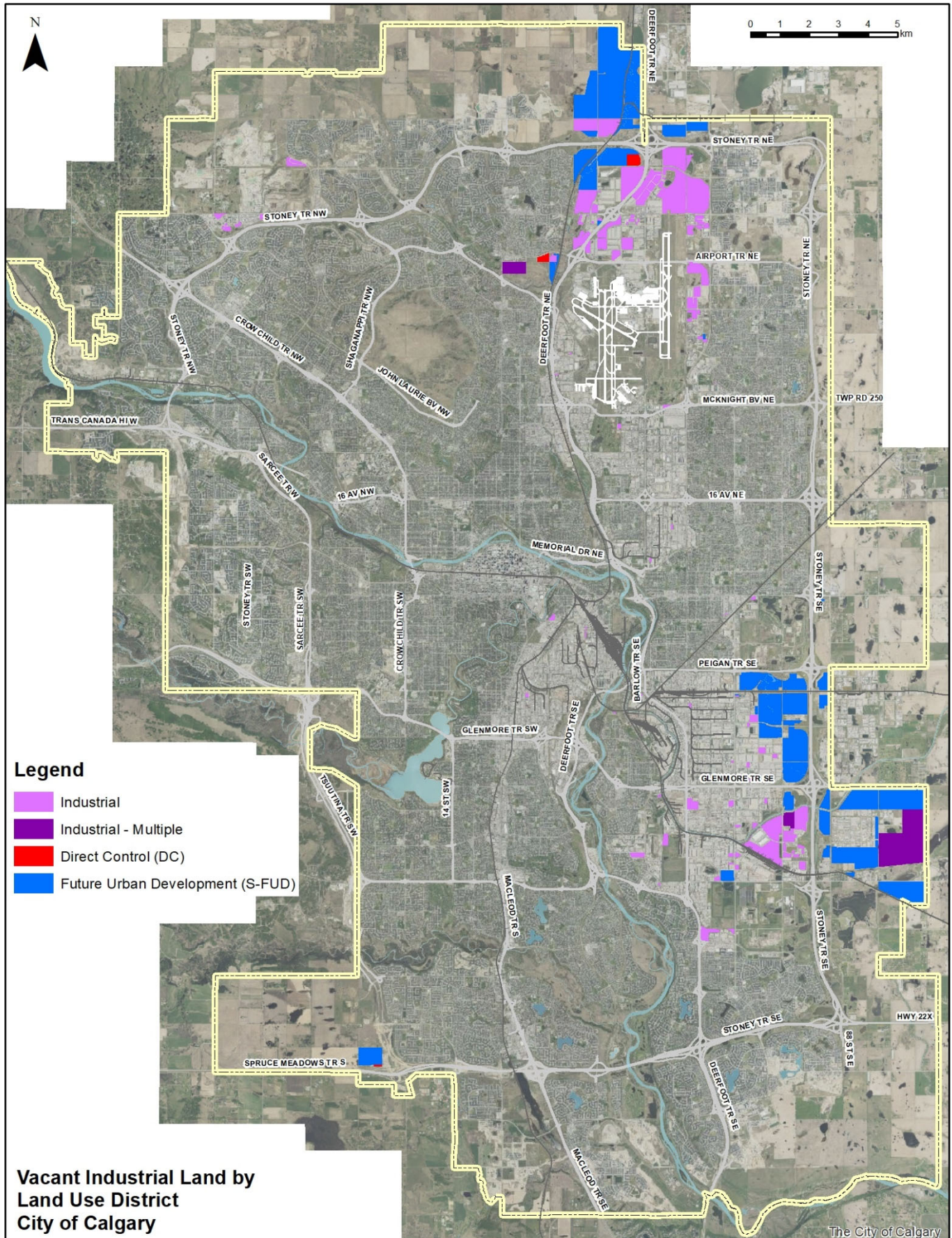
Vacant Industrial Land by Land Use District

The vacant industrial land is categorized by Land Use District as follows (please refer to map on following page):

- Future Urban Development – 1,748 ha (60% share)
- Industrial – 874 ha (29%)
- Industrial – Multiple (multiple LUDs, including industrial) – 287 ha (10%)
- Direct Control – 27 ha (1%)

Future Urban Development comprises a significant share of the overall inventory. The component of these lands that is associated with a future industrial use has been identified by The City of Calgary's Geodemographics staff, and accounted for in our analysis. This status will need to be monitored over time.



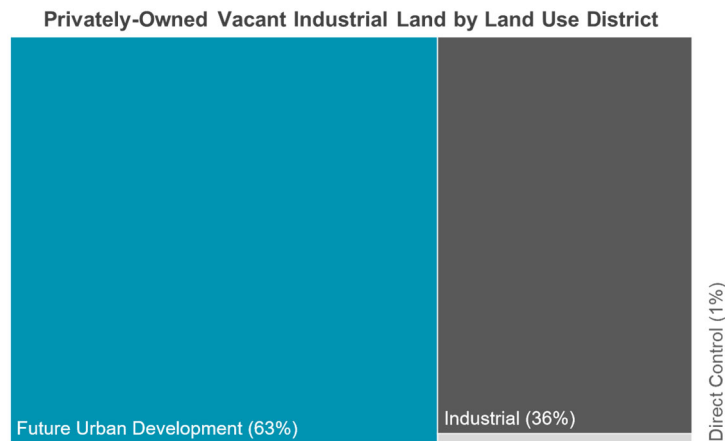


Vacant Industrial Land by Ownership

Privately-owned land (2,033 ha) accounts for two-thirds of the total vacant industrial land in Calgary, while City-owned lands (940 ha) account for a one-third share (please refer to map on following page). The City, through its Real Estate & Development Services division, plays a key role in the local industrial land development marketplace.

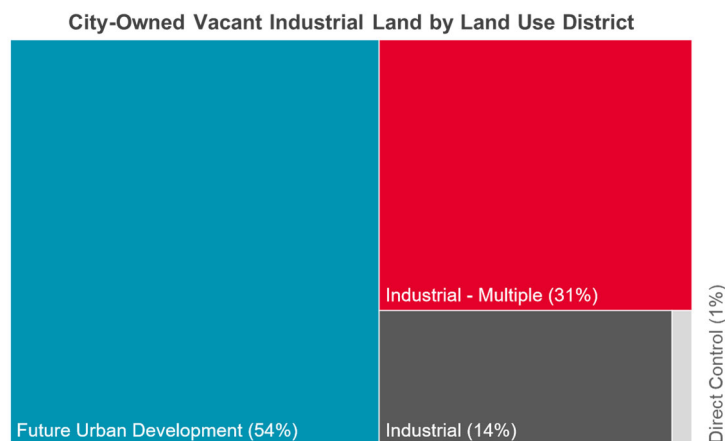
The following exhibits illustrate the vacant industrial land supply by ownership and Land Use District. Privately-owned vacant industrial lands have the following distribution of LUDs:

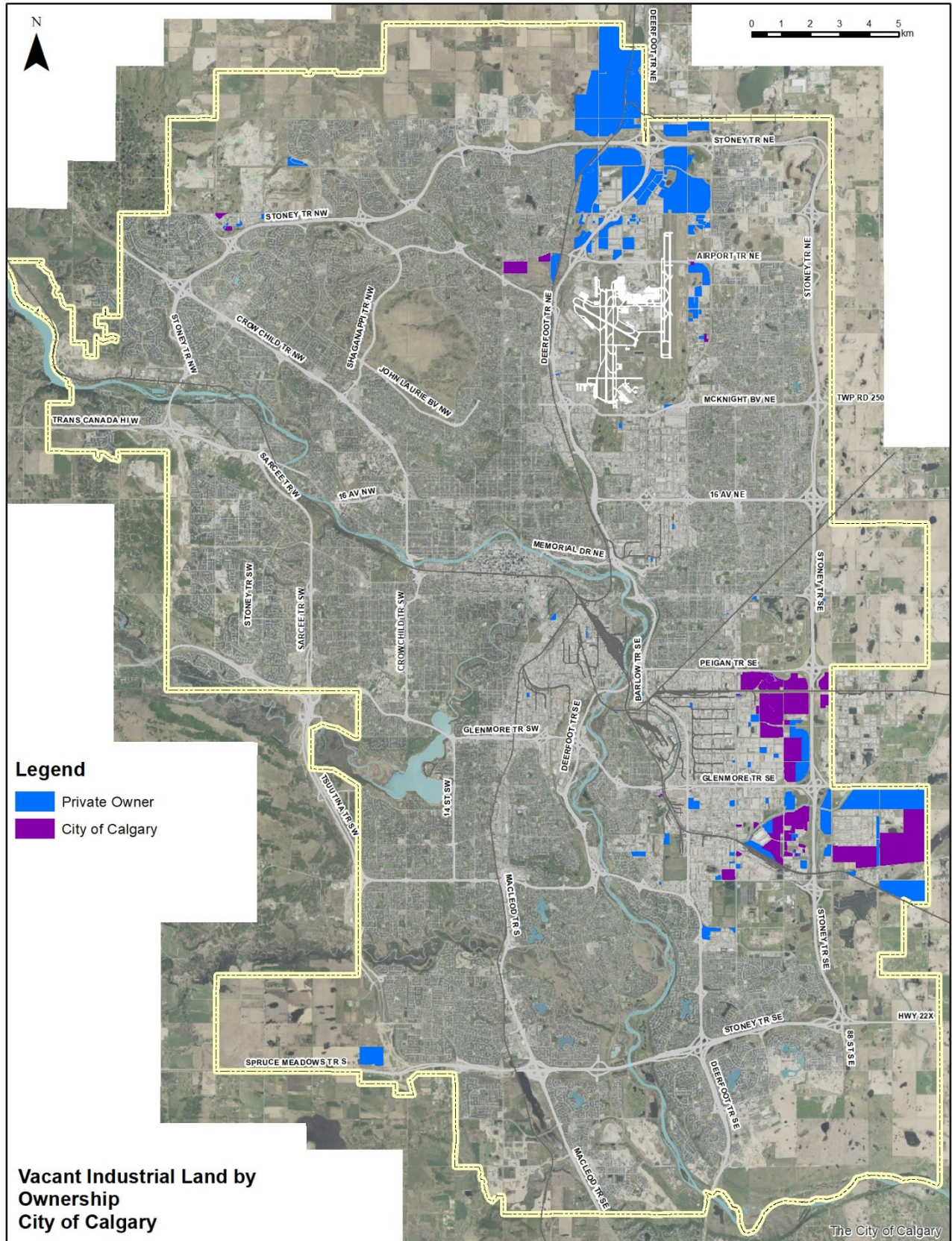
- Future Urban Development – 1,275 ha (63% share)
- Industrial – 740 ha (36%)
- Direct Control – 18 ha (1%)



City-owned vacant industrial lands have the following distribution of Land Use Districts:

- Future Urban Development – 509 ha (54% share)
- Industrial – Multiple (multiple LUDs, including industrial) – 287 ha (31%)
- Industrial – 135 ha (14%)
- Direct Control – 9 ha (1%)

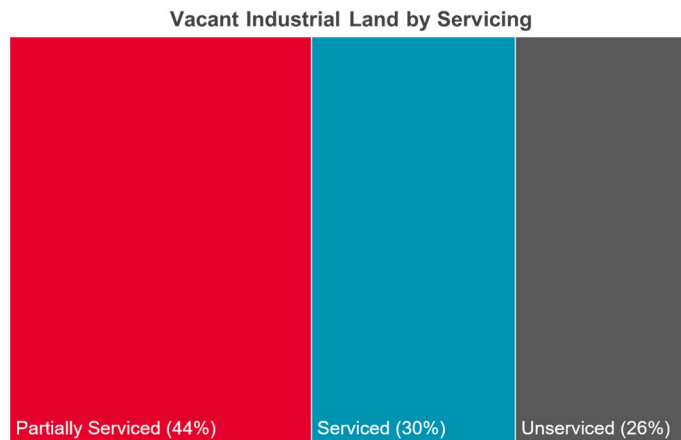




Vacant Industrial Land by Status of Servicing

Calgary has a significant supply of serviced vacant industrial land, at nearly 900 hectares. There is also a considerable supply of partially-serviced lands – with varying timing to be brought to full servicing. Additionally, there are longer-term lands which are currently unserviced (i.e. “raw”). The following illustrates the distribution of lands by the status of servicing (please refer to map on following page):

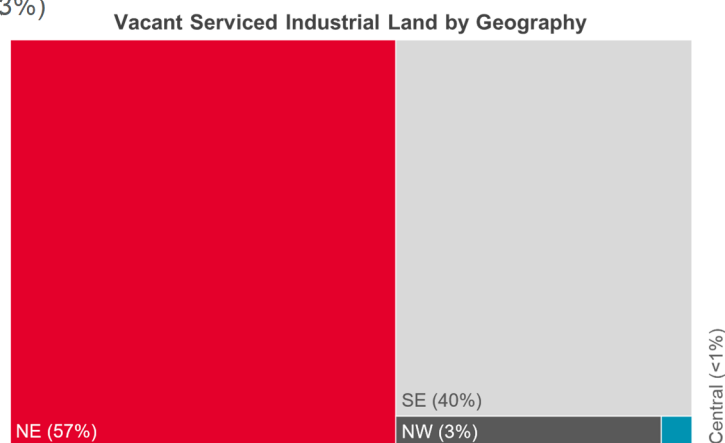
- Serviced – 887 ha (30% share)
- Partially Serviced – 1,315 ha (44%)
- Unserved – 771 ha (26%)

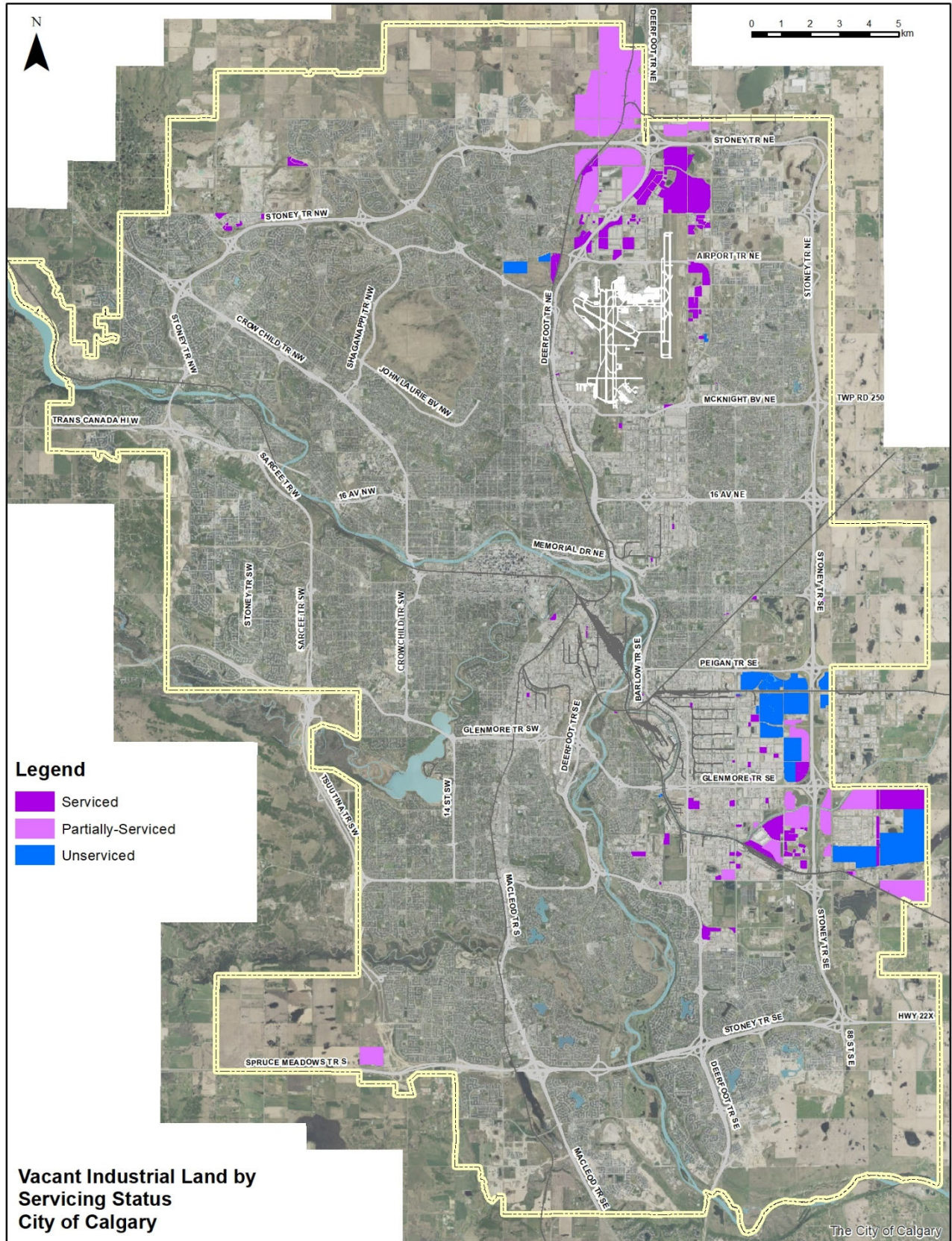


Vacant Serviced Industrial Land by Geography

The following exhibit illustrates the distribution of the city's vacant serviced industrial land supply by geographic location:

- Northeast – 502 ha (57% share)
- Southeast – 356 ha (40%)
- Other – 29 ha (3%)

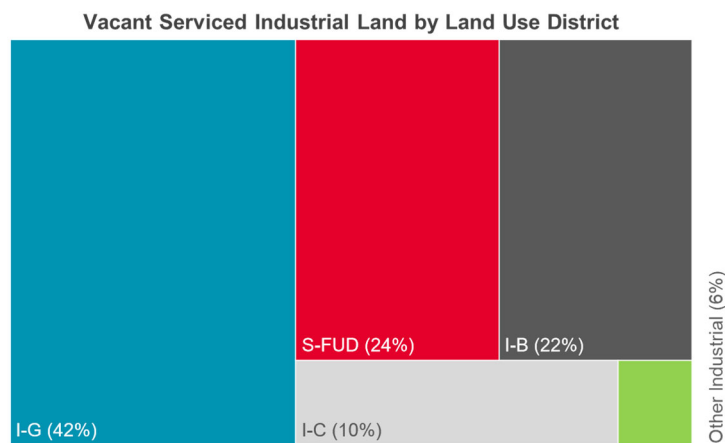


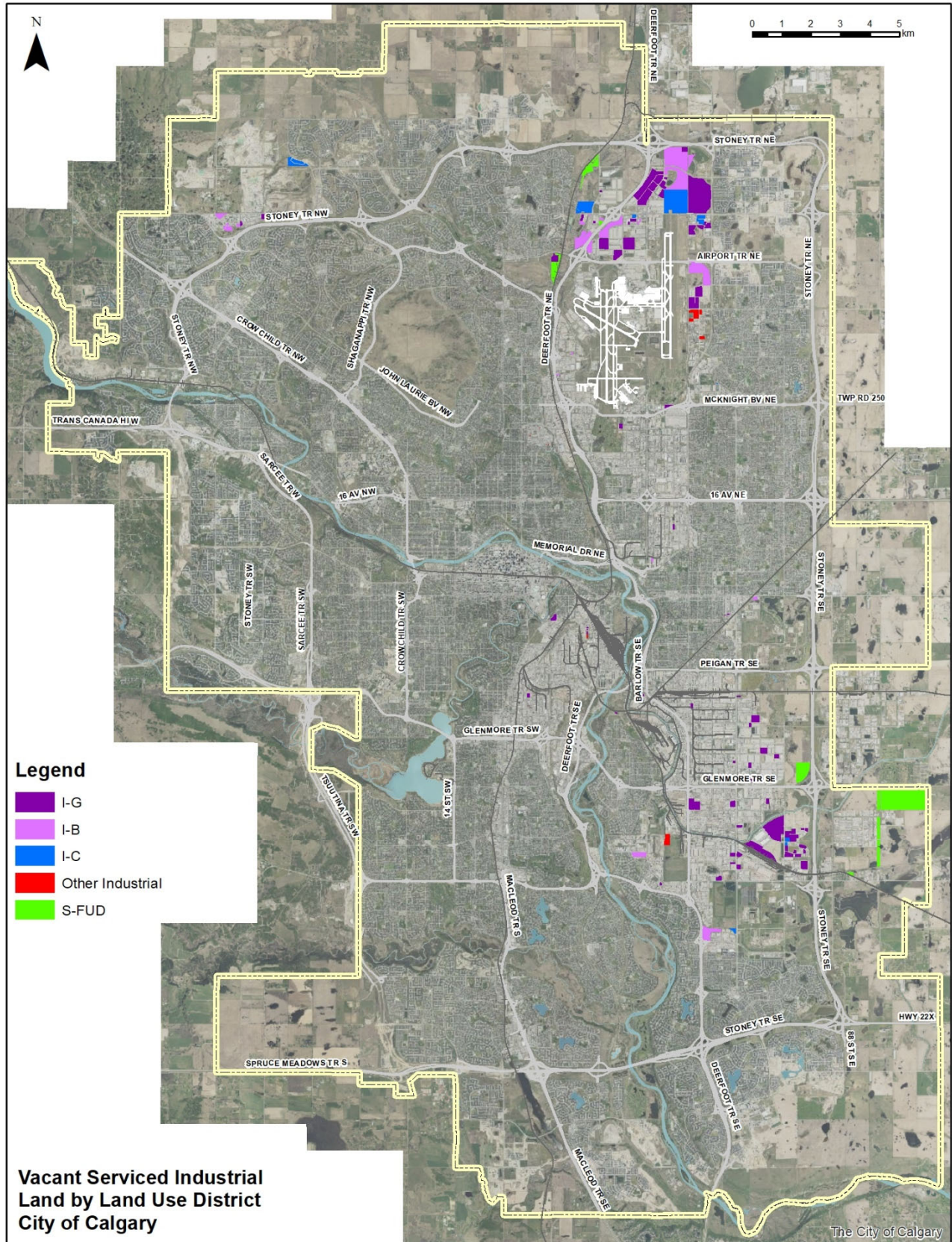


Vacant Serviced Industrial Land by Land Use District

- The following exhibit illustrates the distribution of the city's vacant serviced industrial land supply by Land Use District:
- Industrial – General (I-G) – 372 ha (42% share)
- Future Urban Development (S-FUD) – 209 ha (24%)
- Industrial – Business (I-B) – 198 ha (22%)
- Industrial – Commercial (I-C) – 88 ha (10%)
- Other Industrial LUDs – 20 ha (6%)

This range of LUDs should provide considerable choice and site selection options for prospective users across the spectrum of industrial-type businesses that are seeking sites to expand, or to enter the Calgary market (please refer to map on following page).





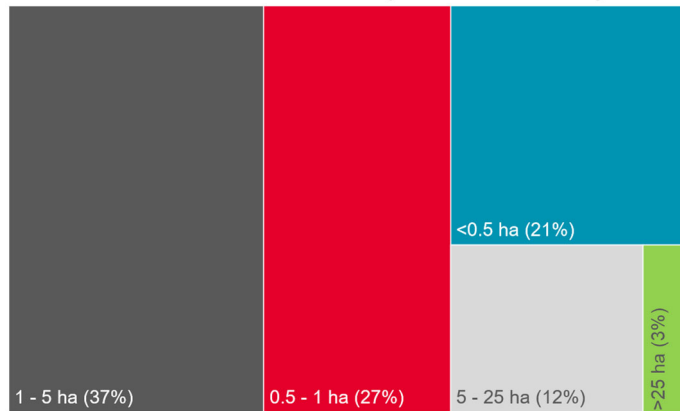
Vacant Serviced Industrial Land by Parcel Size

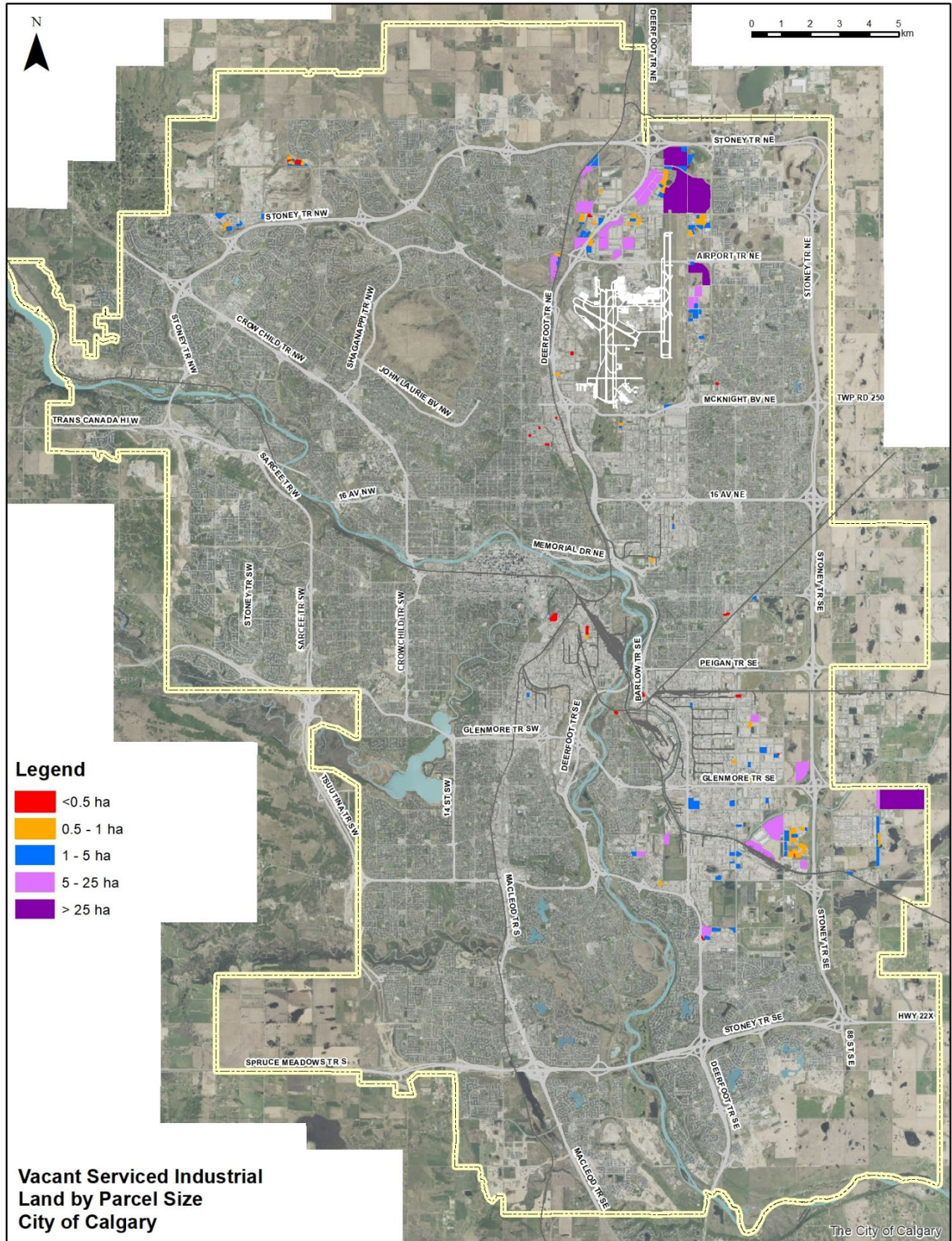
The Consultant Team has developed a set of parcel size cohorts to enable analysis of the vacant serviced land supply by parcel size – both the count of the number of parcels in each cohort, and the total size of each cohort in terms of land area. The following illustrates this distribution of the city's vacant serviced industrial land supply by size of parcel:

- <0.5 ha – 12 ha (21% share of count of parcels)
- 0.5 – 1 ha – 52 ha (27% share of count of parcels)
- 1-5 ha – 239 ha (37% share of count of parcels)
- 5-25 ha – 739 ha (12% share of count of parcels)
- >25 ha – 1,932 ha (3% share of count of parcels)

There would appear to be a significant number of vacant serviced industrial parcels to accommodate the needs of prospective occupiers across the full range of property sizes (please refer to map on following page). For reference, a 1 hectare parcel can accommodate a 4,000 m² building at a site coverage of 40%.

Vacant Serviced Industrial Land by Count of Parcels by Size





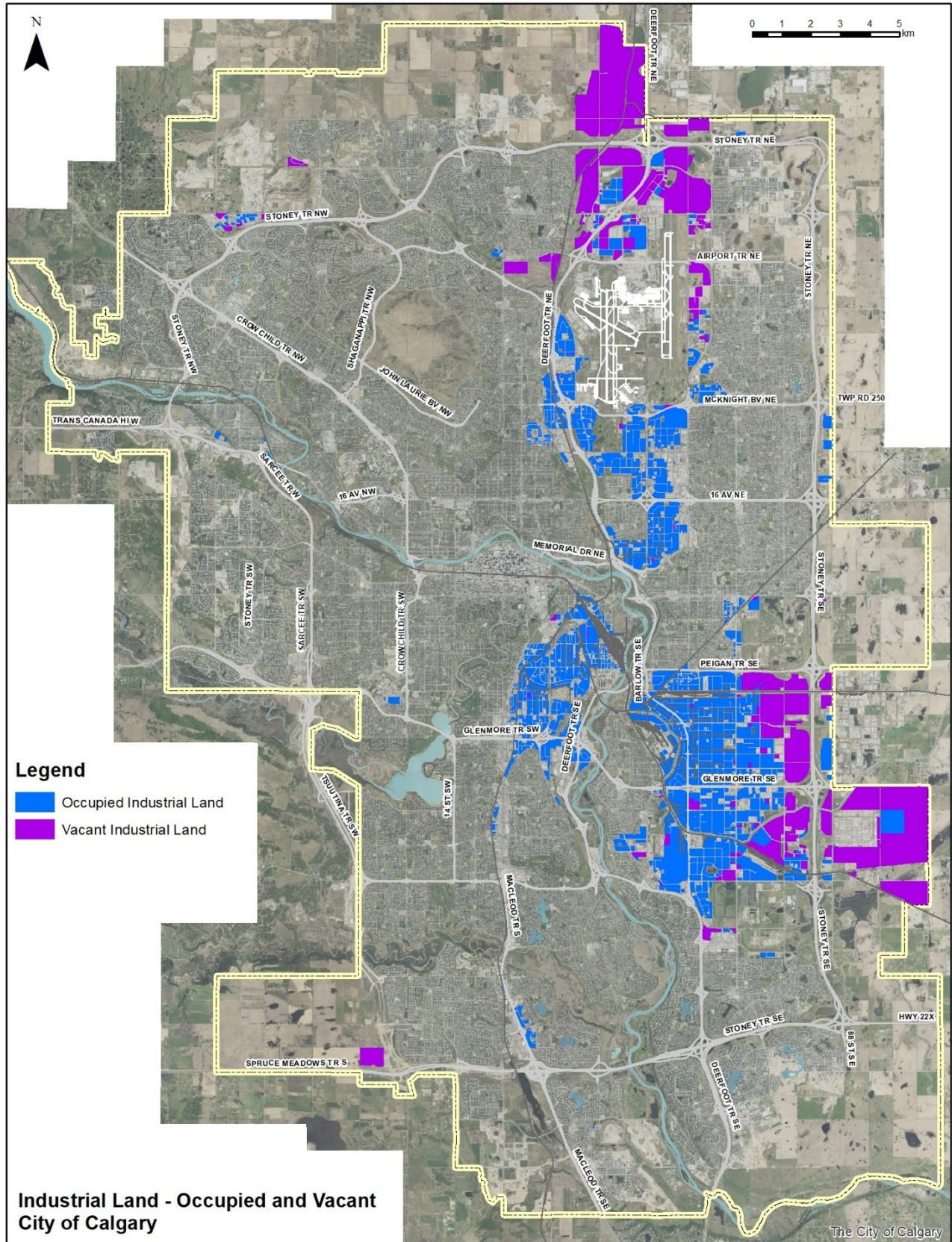
5.4 Occupied Industrial Land Supply Analysis

5.4.1 Occupied Industrial Land Inventory Overview

Cushman & Wakefield collaborated with City staff to develop a data set of occupied industrial parcels across the city – properties with one or more buildings on them. This data set includes lands that are situated across The City's Strategic Industrial Areas. The land uses in these areas is not strictly industrial in nature; there are commercial, institutional, and a small number of other property types also situated in these areas. However, our primary focus is on industrial-type properties (please refer to map on following page which identifies occupied and vacant industrial-designated lands).

- By count of parcels, of the total of almost 3,200 parcels identified within the Strategic Industrial Areas, 83% are industrial, 14% are commercial, and the remaining land uses account for a 3% share.
- By land area, industrial uses represent an 84% share of the total lands (3,591 ha), followed by commercial at a 12% share (491 ha), with the remaining land uses account for a 4% share (183 ha).





5.4.2 Methodology and Approach

The City of Calgary's Geodemographics staff provided property attributes for all lands in the above-noted data set. This included the following:

- Industrial Area – Northeast, Northwest, Southeast, or Southwest;
- Parcel size (hectares);
- MDP Designation;
- Land Use Designation;
- Building footprint (m²); and,
- Site coverage – (building footprint divided by parcel size).

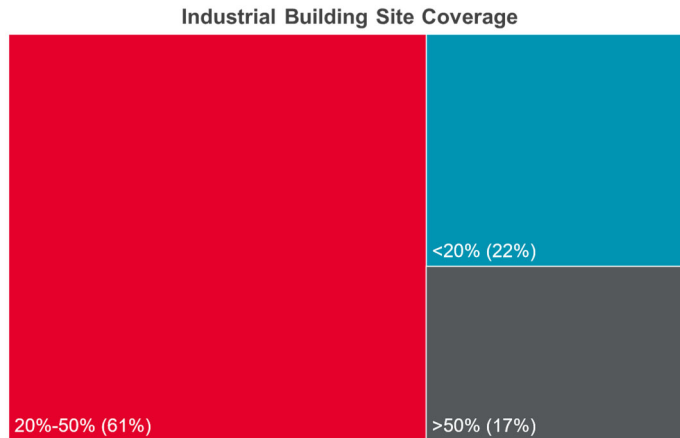
From a land supply perspective, the Consultant Team is particularly interested in identifying the extent of “underutilized” lands within the existing built inventory. This is a reference to properties that are currently in use, but have a very low site coverage – hence the potential to accommodate additional uses over time (either through an addition to an existing building, the construction of another building on site, or perhaps a property severance to facilitate additional development). However, there are a number of limitations that must be considered, including:

- Does the property exhibit a low site coverage because the remaining lands are being used for outside storage of raw or finished goods, equipment storage, or vehicle parking?
- Does the orientation of the existing building(s) on the site encumber future development?
- Does the parcel orientation limit future development (such as a triangular or pie-shaped property, which is not as well suited as a rectangular property for development, due to required setbacks, and creating a functional building layout)?
- Is there an issue related to accessibility of the undeveloped portion of the property which makes it unlikely to intensify over time?
- Is there a physical reason that the undeveloped lands have not been utilized to date (such as the presence of a waterway, wetlands, or other physical features [slopes, valley lands, etc.] which could limit the “developable” land area)?
- Is the property owner motivated to intensify uses on the site?

5.4.3 Site Coverage Analysis

The Consultant Team has analyzed the data set and determined that the average site coverage for industrial uses city-wide is 40% (across over 2,600 industrial properties that were included in the analysis). The following illustrates the distribution of industrial property site coverage:

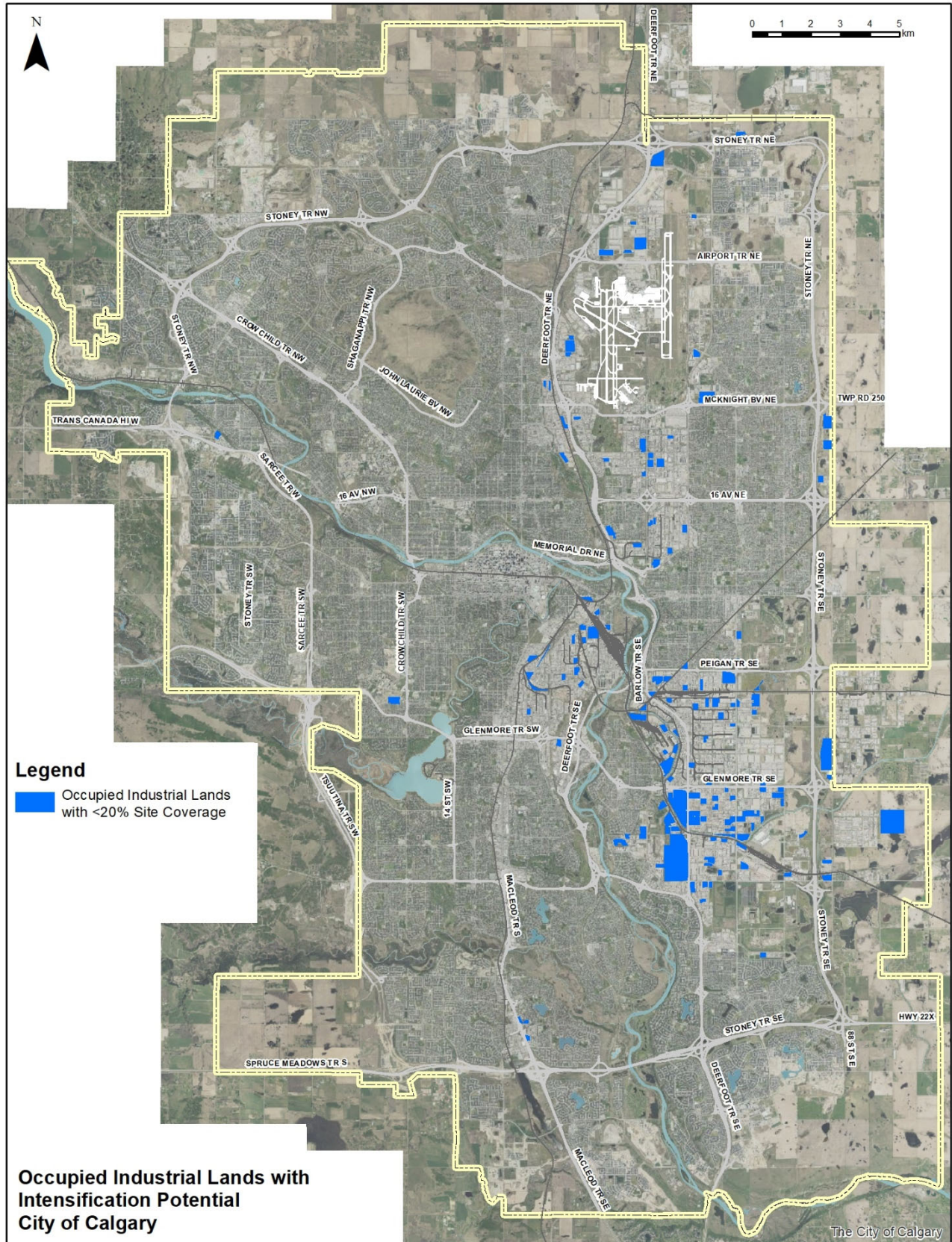
- <20% site coverage – 579 properties on 1,208 hectares of land (22% share of total industrial property count)
- 20%-50% site coverage – 1,601 properties on 1,824 hectares of land (61% share)
- >50% site coverage – 436 properties on 508 hectares of land (17% share)



The properties within the “<20% site coverage” cohort are of the most interest to this analysis, since these represent sites that may be underutilized, and therefore capable of absorbing additional density through intensification over time. To the extent that more industrial space (and jobs) are accommodated on existing sites, there is correspondingly less requirement to bring new greenfield sites on stream. The preceding analysis considered all sites in the existing built inventory, regardless of size; however, it is most useful to assess the capacity of larger sites to intensify.

A 1 hectare site that is home to a 2,000 m² building has a site coverage of 20%. If this site was intensified up to a 40% site coverage, an additional 2,000 m² of building floor area would be created. This is obviously a nominal figure in the scope of the city’s overall industrial marketplace. In order to have a more meaningful impact on land needs going forward, we will limit the analysis to sites that are at least 2 hectares in size. A 2 hectare site at 20% site coverage accommodates 4,000 m² of floorspace; if intensified to a coverage of 40%, an additional 4,000 m² of floorspace is created (or a doubling of the building area to 8,000 m²). For sites that are below 20% site coverage, even more additional floorspace can be accommodated to bring them up to the 40% site coverage average across the city’s industrial areas.

The Consultant Team has identified 160 existing industrial properties that meet the criteria of having less than 20% site coverage and which are also at least 2 hectares in size (please refer to map on following page). If all of these sites were to intensify up to a 40% site coverage factor, then an additional 3.1 million m² of floorspace would be created. This would reduce the requirement for up to 775 hectares of greenfield lands in the future (assuming 40% site coverage for new development). Of course, it is not reasonable to assume that all “underutilized” sites will intensify – but only a small share of intensification has the effect of lessening the extent of new greenfield industrial development over time (and the associated cost of extending municipal services).



5.5 Industrial Land Demand Projection

5.5.1 Overview

There are three principal industries that generate demand for industrial space: Manufacturing, Wholesale Trade, and Transportation and Warehousing. As discussed earlier, Cushman & Wakefield considers all subsectors/industry groups within the Manufacturing and Wholesale Trade sectors to be drivers of industrial building and land demand. 100% of future employment growth in these industry sectors is included in our land demand modeling. Within the Transportation and Warehousing sector, the following industry groups are associated with industrial-type demand: General freight trucking; Specialized freight trucking; Freight transportation arrangement; and Warehousing and storage. These industry groups are projected to represent 40% of the total increase in employment within the broader Transportation and Warehousing sector from 2016-2041, which is accounted for in our land demand modeling.

metroeconomics' forecast of employment by industry enables Cushman & Wakefield to translate this job growth into land demand by utilizing an employment density figure (number of employees per hectare of land). This is influenced by the site coverage (ratio of building floor area to land area). An analysis of the city's existing industrial building supply indicates that the average site coverage is 40% across all properties within the Industrial land use designation. This is in line with the Consultant Team's observations in other major metropolitan markets in Canada. Notably, there has been an identified trend toward higher site coverage, as developers maximize site utilization, and seek to minimize land costs – although there are practical limits, in order to ensure suitable space for on-site storage, truck movements, employee parking, and required setbacks.

While The City of Calgary does not conduct an employer survey (which would enable the Consultant Team to link employment at businesses with a building's municipal address, and thus use property data to calculate employee density), a benchmark range of 30-35 jobs per net hectare would be in line with observations in other major metro areas in Canada (a range of 25-40 is generally seen, with the upper end of the range including business parks with a considerable share of flex industrial properties with a higher component of office-type uses, and the lower end of the range reflecting a greater extent of outside storage of machinery, equipment, and raw and finished goods). Higher densities are generally associated with higher cost land markets (major cities), while lower densities are observed in lower cost land markets (secondary and tertiary markets).

5.5.2 Forecast Approaches

Cushman & Wakefield has developed two forecast approaches to estimate future land demand based on industrial-type employment growth.

Approach 1 – Net New Industrial-Type Employment

In this Approach, we have utilized the net new industrial-type employment in each industry sector over the 2016-2041 forecast horizon. Growth in many industry groups is partially offset by a decline in some segments within these industry groups, resulting in net new employment by industry. This net amount is the figure that is used in our modeling.

Approach 2 – Only Consider Growth Industries

In this Approach, we have only included industry groups that are anticipated to see increased employment during the forecast horizon. Consequently, industry groups that are projected to see a decline in employment are not included in the total employment in each industry. This recognizes that while total employment in an industry group may decline over time, these jobs may be replaced by increased productivity through process improvements and enhanced automation. Thus, industry output and demand for industrial premises may stay the same or even grow, despite declining employment.

The exhibit below illustrates the outcomes of our two Approaches, using varied employment densities for comparative purposes.

LAND NEEDS PROJECTION APPROACH 1 – NET NEW INDUSTRIAL-TYPE EMPLOYMENT					
Industry Sector	Jobs (2016)	Jobs (2041)	Change (2016-2041) ¹	Land Need @ 30 Jobs per Net Hectare	Land Need @ 35 Jobs per Net Hectare
Manufacturing	31,450	34,132	2,682		
Wholesale trade	23,520	27,825	4,305		
Transportation, warehousing	9,375	23,118	13,743		
TOTAL	64,345	85,076	20,731	691	592
Note 1: "Change 2016-2041" indicates the change in employment across all industry groups within each sector.					

LAND NEEDS PROJECTION APPROACH 2 – ONLY CONSIDER GROWTH INDUSTRIES					
Industry Sector	Jobs (2016)	Jobs (2041)	Change (2016-2041) ¹	Land Need @ 30 Jobs per Net Hectare	Land Need @ 35 Jobs per Net Hectare
Manufacturing	31,450	34,132	7,390		
Wholesale trade	23,520	27,825	6,060		
Transportation, warehousing	9,375	23,118	13,743		
TOTAL	64,345	85,076	27,193	906	777
Note 1: "Change 2016-2041" only indicates the change (increase) in employment in industry groups within each sector that are forecast to add jobs over the forecast horizon.					

5.5.3 Summary

The preceding land demand assessment explores two approaches to utilizing forecasted industrial-type employment to derive an estimate of land demand – and includes two employment densities (30 and 35 jobs per net hectare) to provide a range of outcomes. The result is an **anticipated need for roughly 600-900 net hectares of land to accommodate industrial growth from 2016 through 2041 within the City of Calgary**. This translates to absorption of approximately 24-36 hectares annually. As a "market reality check", the overall Calgary market (as tracked by Cushman & Wakefield – which includes East Balzac) has seen an annual average of approximately 50-65 hectares of industrial land absorbed annually from 2011-2019 (this is based upon annual average new supply of approximately 2.1 million sf/195,000 m², and an estimated site coverage of 30%-40%).

5.6 Land Supply and Demand Conclusions

Based on the Consultant Team's review of the vacant industrial land supply that is planned and designated, there is an adequate provision of lands across a range of geographic areas, Land Use Districts, and parcel sizes, to accommodate a spectrum of prospective occupiers and users. As well, there are lands in varying stages of servicing – from fully serviced, to partially serviced, to currently "raw" lands – such that this should not represent a constraint to accommodating industrial-type job growth for the foreseeable future.

The range of sites across the city provide suitable access and visibility to users that prioritize these attributes, and the Ring Road – upon completion – will greatly enhance goods movement. Linking back to the earlier discussion regarding the industry clusters that are prominent in the city, and which are poised to grow over the forecast horizon, **it is the view of the Consultant Team that the present supply of planned industrial lands is capable of meeting the site selection requirements across a broad range of industry groups, and that there are no apparent obstacles from a land supply perspective to enabling growth and incubating new opportunities that are not already present in the local market. The city's land supply itself is a competitive advantage that can be leveraged to foster economic development.** Further, the ability of “underutilized” sites across the existing built inventory to intensify over time must also be considered – although we caution that this should not be relied upon in any significant way to take the place of new greenfield development, in terms of long-term growth management planning (due to the risks discussed earlier related to outside storage requirements, building orientation, parcel orientation, accessibility, and physical constraints – not to mention the owner's intentions over the longer term).

To reiterate an important point discussed above, while there is a total of close to 3,000 hectares of vacant industrial land city-wide, the vast majority of this land supply is considered to be “gross” hectares (since there has not yet been any adjustment to account for roads, utilities, stormwater management, nor for the presence of natural features/physical features which could limit the “developable” land area). For the purposes of this analysis, the Consultant Team has applied a factor of 80% to adjust the overall land inventory from “gross” to “net”, which brings the total estimated vacant industrial land inventory total to approximately 2,400 net hectares city-wide. At present, there is nearly 900 hectares of serviced lands (a blend of “net” and “gross”), and a further 1,300 hectares of partially-serviced lands (again, a blend of “net” and “gross”). **Based on anticipated demand for roughly 600-900 net hectares of land to accommodate industrial growth from 2016 through 2041, there is a suitable industrial land supply in the city.**

Although land economics appear to be a challenge from the perspective of the local development community bringing sites to market at the present time, this is unrelated to the city's supply of lands at an aggregate level (note: the topic of land development economics is explored in a later section of this report).

LAND SUPPLY SUMMARY				
Land Use District/Type	Land Area (Total ha)	Net or Gross	Adjustment Gross to Net	Land Area (Net ha)
Industrial-Designated	1,189	Blend of Net and Gross		
Future Urban Development	1,784	Gross		
TOTAL (ROUNDED)	3,000		80%	2,400

LAND DEMAND SUMMARY			
Forecast Approaches	Employment Growth (2016-2041)	Land Need @ 30 Jobs per Net ha	Land Need @ 35 Jobs per Net ha
Approach 1 – Net New Industrial-Type Employment	20,731	691	592
Approach 2 – Only Consider Growth Industries	27,193	906	777
RANGE (ROUNDED)		700-900	600-800

6.0 COMPETITIVE MARKETS ASSESSMENT – CALGARY METROPOLITAN REGION

6.1 Introduction

6.1.1 Components of Calgary Metropolitan Region

One of the key objectives of this Industrial Area Growth Strategy Consulting Report is to evaluate how The City of Calgary is positioned for industrial land development relative to the Calgary Metropolitan Region. This is intended to explore the land development economics of new industrial construction. The following section considers the competitive position of The City of Calgary compared to the other member municipalities that together form the Calgary Metropolitan Region (CMR). The CMR is comprised of:

- City of Airdrie
- City of Calgary
- City of Chestermere
- Town of Cochrane
- Foothills County
- Town of High River
- Town of Okotoks
- Rocky View County
- Town of Strathmore
- Wheatland County (a portion of the County)

The following section compares industrial property tax rates; off-site levies and other development-related charges/fees; municipal reserve requirements; and also explores partnership and synergistic relationship opportunities.

6.2 Property Tax Rates Comparison

The following exhibit compares the 2020 industrial/non-residential property tax rates for The City of Calgary and other Calgary Metropolitan Region municipalities, in descending order of non-residential mill rate. Also indicated is the 2020 residential mill rate, and the ratio of non-residential to residential mill rate.

- The City of Calgary had the highest non-residential (industrial) mill rate in 2020, at 0.019407 (or a property tax bill of \$19,407 per \$1 million of assessed value).
 - For comparison, Rocky View County – which surrounds the City of Calgary to the east, north, and west – had a mill rate that was 58% that of Calgary (resulting in a property tax bill of \$11,265 per \$1 million of assessed value).
 - For a hypothetical industrial property valued at \$143 psf (source: Altus Investment Trends Survey 2020 Q3 – average Calgary industrial building value), the property taxes in Calgary would be \$2.78 psf, versus \$1.61 psf in Rocky View County (or a savings of \$1.17 psf).
- The City of Calgary had the highest ratio of non-residential (industrial) mill rate to residential mill rate, at 2.58:1.00. This means that a non-residential (industrial) tax bill was 2.58 times higher per unit of assessed value compared to a residential tax bill.
 - Elsewhere across the Calgary Metropolitan Region, this ratio ranged from a low of 1.28:1.00 in the Town of Strathmore, to a high of 2.22:1.00 in Rocky View County. The average was approximately 1.71:1.00 (this average excludes the City of Calgary itself).

PROPERTY TAXES BY MUNICIPALITY				
Municipality	Non-Residential (Industrial) Mill Rate 2020 ²	Non-Residential (Industrial) Property Taxes per \$1,000,000 of Assessed Value	Residential Mill Rate 2020 ²	Ratio of Non-Residential to Residential Mill Rate
City of Calgary	0.019407	\$19,407	0.007522	2.58:1.00
Town of Okotoks	0.016327	\$16,327	0.008887	1.84:1.00
City of Airdrie ¹	0.013650	\$13,650	0.007387	1.85:1.00
Town of High River	0.013131	\$13,131	0.009612	1.37:1.00
Wheatland County ¹	0.012761	\$12,761	0.006236	2.05:1.00
Foothills County	0.012223	\$12,223	0.006220	1.97:1.00
Town of Strathmore ¹	0.011720	\$11,720	0.009142	1.28:1.00
Rocky View County ¹	0.011265	\$11,265	0.005077	2.22:1.00
City of Chestermere ¹	0.010963	\$10,963	0.007667	1.43:1.00
Town of Cochrane	0.010236	\$10,236	0.007418	1.38:1.00
<i>Note 1: Some municipalities have an additional levy for Designated Industrial Properties (included in the rates above).</i>				
<i>Note 2: The mill rates shown for Town of Okotoks and Foothills County are the 2019 rates.</i>				
<i>Sources: Municipal websites.</i>				

6.3 Off-Site Levies and Other Development-Related Charges/Fees Comparison

6.3.1 Introduction

The City of Calgary is encountering direct competition from the thriving Nose Creek Business Park and High Plains Industrial Park located in East Balzac, in neighbouring Rocky View County. The Consultant Team has prepared a comparison of off-site levies and other development-related charges/fees for a hypothetical industrial development for each location. Given the limited extent of industrial development occurring elsewhere in the Calgary Metropolitan Region, this direct comparison is the most applicable for the purposes of this Industrial Area Growth Strategy Consulting Report.

The following describes the hypothetical industrial building to be constructed:

- 50,000 m² building
- 12.5 hectares of land required
- 40% site coverage

6.3.2 City of Calgary

Within the City of Calgary, the off-site levy for storm sewer varies by watershed. The Nose Creek Area and the Shepard Area are the two locations that would attract the majority of industrial demand. Levies for sanitary sewer, water, treatment plant, and transportation are uniform city-wide. Together, these off-site levies range from \$405,000 per hectare in the Nose Creek Area to \$434,000 per hectare in the Shepard Area. For a 12.5-hectare site, these amounts total approximately \$5.1-\$5.4 million.

In addition, there are other development-related costs such as the Community Service Charge, various fees, and the Developer Funded Infrastructure Stabilization Fund to take into consideration. When these elements are added to the off-site levies, the total costs are between \$6.3-\$6.7 million for 12.5 hectares of land. The following exhibit illustrates the off-site levies and other development-related costs for new greenfield industrial construction in Calgary.

OFF-SITE LEVIES AND OTHER DEVELOPMENT-RELATED COSTS – THE CITY OF CALGARY			
Expense	Cost per Hectare	Total Cost (12.5 ha)	Cost per m² of Floor Area
Off-Site Levies			
Storm Sewer Levy – Nose Creek	\$18,000		
Storm Sewer Levy – Shepard	\$47,070		
Sanitary Sewer Levy	\$53,490		
Water Levy	\$46,326		
Treatment Plant Levy	\$147,642		
Transportation Levy	\$139,729		
SUB-TOTAL OFF-SITE LEVIES – NOSE CREEK	\$405,000	\$5,065,000	
SUB-TOTAL OFF-SITE LEVIES – SHEPARD	\$434,000	\$5,427,000	
Charges			
Community Services Charge	\$80,434		
Fees			
Traffic Signage & Road Markings	\$697		
Inspection Fees	\$2,493		
Surveys Act Base Map Fee	\$482		
Developer Funded Infrastructure Stabilization Fund			
Utility Oversize	\$5,500		
Major Road Standard Oversize	\$10,500		
TOTAL – NOSE CREEK AREA	\$505,000	\$6,315,000	\$126
TOTAL – SHEPARD AREA	\$534,000	\$6,678,000	\$134
<i>Note: Sub-Totals and Totals are rounded.</i>			

6.3.3 East Balzac – Rocky View County

There are three off-site levies in place in Rocky View County that must be considered in evaluating development costs in East Balzac, as discussed below.

- Rocky View County's Regional Stormwater Off-Site Levy Bylaw does not apply to lands in East Balzac.⁸ Instead, excess lands must be set aside to accommodate stormwater. While the County does not impose a fee/levy, the developer instead incurs the cost of providing land for stormwater management. Cushman & Wakefield estimates raw industrial lands to be valued in the range of \$500,000 per acre/\$1,235,000 per hectare in East Balzac (although this will vary over time as land values change, as it is a market-driven development expense). Stormwater management needs will vary on a site-by-site basis based on property and building characteristics.
- Rocky View County imposes off-site levies for Regional Transportation Infrastructure. The Urban Base Levy and Rural Base Levy are equivalent, at \$11,354 per hectare. In addition, within the East Balzac area, the County requires specific upgrades to Regional Transportation Infrastructure to create road infrastructure connections to the Provincial Highway System to accommodate future development. The collection of the East Balzac Special Area 1 Levy will fund the necessary infrastructure. The levy calculation is \$42,500 per hectare.⁹
- With respect to Rocky View County's Regional Water and Wastewater Off-Site Levy Bylaw, the County requires the developer to submit specific projected flows for both water and wastewater together with sufficient and acceptable justification for the projected flows for all proposed Development Permit applications or Subdivision applications. There are a number of levies and charges that apply to industrial development lands in East Balzac, including:
 - Langdon Wastewater Treatment Plant Levy – \$8,358.25 per m³/day
 - ERVWWTM & Regional Lift Stations Levy – \$7,599.49 per m³/day
 - Graham Creek Water Treatment Plant (WTP) and Raw Water Reservoir (RWR) Levy – \$9,715.50 per m³/day
 - East Balzac Transmission Main (Base) – \$926.12 per m³/day
 - East Balzac Transmission Main (Oversize) – \$244.23 per m³/day
 - East Balzac Pump Station & Reservoir and RR293 Loop – \$1,157.81 per m³/day
 - Conrich Transmission Main (Oversize) = \$141.92 per m³/day
 - East Rocky View Back-Up Loop – \$3,613.97 per m³/day
 - Total – \$31,757.29 per m³/day¹⁰
- In discussion with Rocky View County staff, water and wastewater consumption varies depending on the type of industrial use – warehousing and distribution is lower than manufacturing, which typically has a higher staffing component, and also may consume water during the production process. For the purposes of this analysis, we have applied a figure of 10 m³/day, based on precedents indicated by County staff for a warehouse-type use (warehousing and distribution uses are common in this area, and several large facilities have been completed in recent years).
- The cost of borrowing which has accrued up to and including December 31, 2019, is included within the calculation of the off-site levies. Rocky View County also levies the proportionate share of the future cost of water and wastewater capital financing costs ("cost of borrowing") on all development, which is not accounted for in our model below. This depends on the remaining financing cost, the timing of development, and the anticipated water and wastewater consumption of each project as a share of the total system capacity.

⁸ <https://www.rockyview.ca/Portals/0/Files/Government/Bylaws/C-8008-2020-Regional-Stormwater-Off-Site-Levy-Bylaw.pdf>

⁹ <https://www.rockyview.ca/Portals/0/Files/Government/Bylaws/C-8007-2020-Regional-Transportation-Off-Site-Levy-Bylaw.pdf>

¹⁰ <https://www.rockyview.ca/Portals/0/Files/Government/Bylaws/C-8009-2020-Regional-Water-Wastewater-Off-Site-Levy-Bylaw.pdf>

OFF-SITE LEVIES – EAST BALZAC, ROCKY VIEW COUNTY			
Expense	Cost per Hectare	Total Cost (12.5 ha)	Cost per m ² of Floor Area
Regional Stormwater Off-Site Levy			
Not applicable to East Balzac ¹	\$0		
SUB-TOTAL	N/A	\$772,000¹	
Regional Transportation Off-Site Levy			
Urban/Rural Base Levy	\$11,354		
East Balzac Special Area 1 Levy	\$42,500		
SUB-TOTAL	\$53,854	\$673,000	
Regional Water and Wastewater Off-Site Levy			
Modeled as a hypothetical warehouse facility (note: consumption would likely be greater for a manufacturing-type facility, with a higher employment density, and potentially water usage in the production process). ^{2,3}	Based on projected consumption of 10 m ³ /day.	\$318,000	
TOTAL		\$1,763,000	\$35
<p><i>Note 1: While no Regional Stormwater Off-Site Levy is applicable in East Balzac, the property owner/developer would need to set aside excess land for stormwater management purposes, and absorb this cost. However, this will vary on a site-by-site basis based on property and building characteristics. If 5% of the site is required for such uses, this translates to approximately two-thirds of a hectare. At a value of \$1,235,000 per hectare in East Balzac (Cushman & Wakefield estimate), this reflects a cost of approximately \$772,000.</i></p> <p><i>Note 2: Projected consumption for other industrial-type uses may be 3-5 times greater than a warehousing and distribution-type use, which typically has few employees and little water/wastewater demand.</i></p> <p><i>Note 3: The expense related to capital financing costs for water/wastewater is not included in the figure above. This amount depends on the remaining financing cost, the timing of development, and the anticipated water and wastewater consumption of each project as a share of the total system capacity.</i></p> <p><i>Note 4: Sub-Totals and Totals are rounded.</i></p>			

Within Rocky View County, the “voluntary recreation contribution” refers to a voluntary monetary donation by owners or developers applied to each new unit for residential or non-residential development. The 2020 Master Rates Bylaw indicates a rate of \$800 per acre (\$1,976 per hectare).¹¹ This is far less than the Community Services Charge imposed by The City of Calgary, which is influenced by the disparity in the extent of community and recreation facilities within the City of Calgary versus the County. The City of Calgary Community Services Charge also includes charges that support services such as libraries, policing, transit, and emergency services.

Other points of comparison regarding development-related costs include the following:

- Rocky View County requires the developer to undertake road marking. Therefore, this is not a cost levied by the County (unlike in Calgary) – it is a direct expense incurred as part of the development.
- Inspection fees in Rocky View County are recovered through the Master Rates Bylaw, whereas The City of Calgary imposes such fees on a per hectare basis for new development.

¹¹ <https://www.rockyview.ca/Portals/0/Files/Government/Bylaws/RVC-Master-Rates-Bylaw.pdf>

- Unlike The City of Calgary, Rocky View County does not have a Developer Funded Infrastructure Stabilization Fund. Instead, a developer that has front-ended the cost of infrastructure will recapture the portion of this project that is attributable to future development. The County collects the appropriate charges from the later developers and remits payment to the original developer that incurred the front-ended expense. These two approaches seek to accomplish the same thing, whereby the initial/leading developer is financially responsible for their portion of the infrastructure upgrade only.

6.3.4 Summary

The preceding examination of off-site levies and other development-related costs reveals that an “apples-to-apples” comparison of a prospective industrial development located in the City of Calgary versus the East Balzac area within Rocky View County is a challenge (refer to exhibit below). The two municipalities have differing approaches to recovering development-related costs. Many are on a land area basis; others are on a site-specific consumption basis (e.g. water/wastewater in RVC); land value influences some costs (e.g. excess land needed for stormwater management in RVC); and certain charges are imposed at a dramatically different rate, based on the disparity in municipal services provided (Calgary’s Community Services Charge versus RVC’s “voluntary recreation contribution”). Overall, however, it is apparent that the costs to develop an industrial building in East Balzac are less than the same facility locating in the City of Calgary.

COMPARISON – CALGARY VS EAST BALZAC				
Expense Item	City of Calgary (per ha)	City of Calgary (total)	East Balzac (per ha)	East Balzac (total)
Storm Sewer Levy	\$18,000 ¹	\$225,000	N/A	\$772,000 ²
Sanitary Sewer Levy	\$53,490	\$669,000	N/A	\$318,000 ^{3,4}
Water Levy	\$46,326	\$579,000		
Treatment Plant Levy	\$147,642	\$1,846,000		
Transportation Levy	\$139,729	\$1,747,000	\$53,854	\$673,000
SUB-TOTAL (ROUNDED)	\$405,000	\$5,065,000	N/A	\$1,763,000
Community Services Charge	\$80,434	\$1,006,000	\$1,976	\$25,000
Various Fees	\$3,672	\$46,000	N/A	Note 5
Developer Funded Infrastructure Stabilization Fund	\$16,000	\$200,000	N/A	Note 6
TOTAL (ROUNDED)	\$505,000	\$6,315,000	\$143,000**	\$1,788,000**

**** It is necessary to review all notes below in order to compare City of Calgary and East Balzac.**

Note 1: Storm Sewer Levy for City of Calgary is for Nose Creek area.

Note 2: Storm water management is undertaken on-site. Assumed extra 5% land area required @\$1,235,000/ha.

Note 3: Water and Wastewater Off-Site Levy in Rocky View County is charged on a consumption basis. A rate of 10 m³/day is assumed for warehouse-type use.

Note 4: The expense related to capital financing costs for water/wastewater is not included in the figure above.

Note 5: Rocky View County requires the developer to undertake road marking. Therefore, this is not a cost levied by the County (unlike in Calgary) – it is a direct expense incurred as part of the development. Inspection fees in Rocky View County are recovered through the Master Rates Bylaw.

Note 6: Rocky View County does not have a Developer Funded Infrastructure Stabilization Fund. Instead, a developer that has front-ended the cost of infrastructure will recapture the portion of this project that is attributable to future development (The County collects the appropriate charges from the later developers and remits payment to the original developer).

6.4 Municipal Reserve

The Province of Alberta's *Municipal Government Act* requires municipal reserve to be provided when land is subdivided. The registered owner of land that is the subject of a proposed subdivision shall provide to the municipality, without compensation, land for municipal reserve. Land that is provided for municipal reserve shall not exceed 10 percent of the gross area of the lands that are subject to subdivision.¹² Council may require the registered owner to provide money in place of municipal reserve (or a combination of land and money in place of municipal reserve). Referred to as “cash-in-lieu” of reserve, this money shall not exceed 10% of the appraised market value of the gross area of the land to be subdivided. If money is required to be provided in place of municipal reserve, the applicant must provide a market value appraisal. In situations where the subdivision results in large parcels that could be subdivided further, part or all of the municipal reserve may be deferred by caveat to the proposed parcels or remainder of the parcel.

Cushman & Wakefield estimates raw industrial land to be valued at \$700,000 per acre (\$1,729,000 per hectare) in Calgary, compared to \$500,000 per acre (\$1,235,000 per hectare) in East Balzac. Accordingly, the hypothetical required 12.5-hectare land parcel would generate a cash-in-lieu payment of \$2,161,000 in the City of Calgary versus \$1,544,000 in East Balzac. The variance in cash-in-lieu amounts to \$617,000, or nearly \$50,000 per hectare.

MUNICIPAL RESERVE CASH-IN-LIEU COMPARISON		
Metric	The City of Calgary	East Balzac – Rocky View County
Land Value (per acre)	\$700,000	\$500,000
Land Value (per hectare)	\$1,729,000	\$1,235,000
Parcel Size (hectares)	12.5	12.5
Land Value	\$21,613,000	\$15,438,000
Cash-in-Lieu	10% of land value	
Cash-in-Lieu	\$2,161,000	\$1,544,000

6.5 Partnership and Synergistic Relationship Opportunities

6.5.1 Introduction

Municipalities within a larger economic region may be presented with opportunities to explore mutually beneficial opportunities to leverage their collective strengths, and to mitigate risk. The City of Calgary is a member of the Calgary Metropolitan Region Board (CMRB). The CMRB is comprised of elected officials from each of the Region's 10 member municipalities (City of Airdrie, City of Calgary, City of Chestermere, Town of Cochrane, Foothills County, Town of High River, Town of Okotoks, Rocky View County, Town of Strathmore, and a portion of Wheatland County). The CMRB is committed to supporting the long-term social, environmental, and economic wellbeing of the Calgary Metropolitan Region by facilitating collaborative regional planning practices, optimizing shared services and land use, and fostering sustainable growth.¹³ The CMRB's role is to ensure planning for regionally-significant growth is coordinated between municipalities.¹⁴ The following explores various synergistic relationships that may exist with respect to industrial land and employment.

¹² <https://www.rockyview.ca/Portals/0/Files/BuildingPlanning/SubRed/Redesignation-and-Subdivision-Guide.pdf>

¹³ <https://www.calgarymetroregion.ca/>

¹⁴ <https://www.calgarymetroregion.ca/interim-growth-plan>

6.5.2 Joint Marketing Initiatives

Municipalities within a broader economic region can benefit by pooling funds in a collective marketing effort in order to promote local opportunities, and seek to attract investment. Such marketing efforts – branding/positioning the region as an entity – recognize shared locational attributes, local infrastructure, and natural resource opportunities, among other common features that may distinguish the region from competitive markets. The decision of a prospective investor to situate in one municipality versus another is viewed as a collective “win”, in the hopes that spin-off opportunities may materialize to benefit the greater region. This is contrary to the conventional view that expanding the municipal tax base by attracting investment and creating employment opportunities at the expense of a competing jurisdiction is desirable.

A central element of such an approach is harmonized development-related costs, such that the site selection decision is not predominantly influenced by financial considerations (and so that other factors are also evaluated in the process – including economic factors and infrastructure factors – and not dictated primarily by real estate factors [i.e., cost of land/cost of development/cost of occupancy]).

6.5.3 Regional Infrastructure Decision-Making

Collaboration on the part of adjacent municipalities is vital in ensuring sustainable growth management practices. Where feasible, infrastructure emplacement and upgrades should take into account the growth aspirations of communities, and consider the most efficient and effective means of providing the necessary infrastructure (roads, water, wastewater, stormwater management, community facilities, etc.) that is needed to support existing business and attract and enable growth. Regional partnership opportunities may exist in leveraging excess infrastructure capacity, and appropriate cost-sharing to enable extension of services and capacity upgrades over time.

CMRB is mandated to develop policies regarding the coordination of regional infrastructure investment and service delivery while ensuring environmentally responsible land-use planning, growth management, and efficient use of land.¹⁵ The Growth & Servicing Plan for the Calgary Metropolitan Region is in development, and will come into effect in 2021. The plan will serve as a best-practice guide for achieving long-term prosperity in the Calgary Metropolitan Region, providing policies and high-level guidance to municipalities on regionally significant topics including:

- Residential, commercial, and industrial land use;
- Corridors for transportation, recreation, energy transmission, utilities, and transit;
- Infrastructure planning and development;
- Water quality, water use, and management (including flood mitigation); and,
- Environmental sustainability and the conservation of agricultural lands.¹⁶

6.5.4 Advocating as a Collective

Another synergistic benefit of inter-regional collaboration is the ability to communicate a collective goal, or vision, to other levels of government (provincial and federal). In particular, advocating for a fair share of infrastructure spending and program commitments is more likely to be successful when municipalities combine their resources (and voices). Aggregating and aligning a larger pool of influential voters can result in action on the part of upper levels of government. As well, pooling municipal capital to share in the cost of strategic investments alongside senior levels of government can make projects more likely to be realized and/or accelerate their delivery timeline.

¹⁵ <https://www.calgarymetroregion.ca/about-cmrh>

¹⁶ <https://www.calgarymetroregion.ca/growth-and-servicing-plan>

7.0 PLANNING POLICY PERSPECTIVES

7.1 Introduction

As part of its ongoing work related to the Industrial Area Growth Strategy, City staff have conducted considerable work in exploring changes to the industrial land use framework in the city. To support this work completed to date, the Consultant Team has provided an assessment of The City's prevailing planning policy.

7.2 Calgary Industrial Planning Framework Overview

7.2.1 Municipal Development Plan Review

The following presents a summary of key elements of Calgary's Municipal Development Plan (MDP) that pertain to this Industrial Area Growth Strategy Consulting Report:

- In Part 2 – City-wide Policies, the MDP sets the stage for establishing and achieving appropriate city-building objectives. Certainly, economic opportunity and development are fundamental topics, and are discussed at some length in Section 2.1. The objectives and policies within this part of the MDP are typically aspirational, and lay an appropriate foundation for the more detailed planning policies within the subsequent Parts of the Plan.

Of particular importance to this Industrial Area Growth Strategy Consulting Report is subsection 2.1.2 Creating a City Attractive to Business, which states that 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."* This subsection goes on to state that, in support of manufacturing and industrial businesses more specifically that The City *"ensure the availability of competitively priced, easily serviceable and developable land for industrial purposes; including opportunities for brownfield redevelopment."* This policy subsection, which is relatively high level, does introduce the important concept of establishing and protecting a supply of land to accommodate future industrial growth. That is good planning policy, and a crucial economic development principle.

- In Part 3 – Typologies for Calgary's Future Urban Structure, subsection 3.7 focuses on the policy framework for The City's Industrial Areas, which are identified on Map 1 – Urban Structure. Map 1 identifies three primary agglomerations of industrial land use activity that include Standard Industrial and Industrial – Employee Intensive designations, as well as other, smaller areas that are similarly designated. Map 1 also identifies a relatively large area as Industrial Greenfield. The largest geographical agglomeration is focused on the Calgary International Airport, although much of the designated land area is utilized by the airport function itself.
- In Part 4 – Specific Use Policies, subsection 4.3.3 identifies the policy framework for the Airport Vicinity Protection Area (AVPA). Map 6 identifies both the Calgary International Airport/30 NEF and the Airport Vicinity Protection Area Boundary. In effect, the 30 NEF contour generally coincides (with some exceptions) with the Standard Industrial and Industrial – Employee Intensive designations (the Consultant Team notes that changes to the AVPA are presently under consideration).

- With respect to industrial land use, the policies contained within the MDP are not complex in structure; the policy framework is straight-forward. The Standard Industrial and Industrial – Employee Intensive designations are developed to recognize different objectives in terms of employment density, land use, mobility context, and public realm requirements. The Industrial Greenfield designation recognizes an undeveloped area, requiring additional planning work (an Area Structure Plan) to be done prior to actual development. The wording that describes the specific land use policies is considered to be very flexible, and an invitation to either intrusion – the introduction of non-industrial uses (such as major commercial or major institutional) into an industrial area – or larger applications for the conversion of the designated lands to non-industrial land uses, including residential uses.
- The 30 NEF contour identified on Map 6 provides the associated industrial land areas with an added level of protection from conversion to non-industrial land uses simply because that contour provides a prohibition to sensitive land uses (residential, and some institutional). However, over time, NEF contours change (as the results of the current AVPA analysis indicate), and may be removed from some lands that are currently within the Standard Industrial and Industrial – Employee Intensive designations. The removal of that added level of protection from sensitive land uses could result in requests for conversion to non-industrial land uses.

7.2.2 Land Use Bylaw 1P2007 Review

The following comments reflect the Consultant Team's review of The City's Land Use Bylaw 1P2007:

- With respect to industrial land uses, The City's Land Use Bylaw is complex. It establishes seven separate categories for use within the Standard Industrial and Industrial – Employee Intensive designations of the MDP. These categories are as follows:
 - I-B – Industrial – Business District
 - I-C – Industrial – Commercial District
 - I-E – Industrial – Edge District
 - I-G – Industrial – General District
 - I-H – Industrial – Heavy District
 - I-O – Industrial – Outdoor District
 - I-R – Industrial – Redevelopment District
- The categories sometimes identify where they should be located – edge versus internal; sometimes the by the type of industry – light, medium, or heavy industry; and sometimes whether or not outside storage is permitted. Further, the lists of permitted and discretionary uses are also complex and very specific.

8.0 STRATEGIC GROWTH MANAGEMENT RECOMMENDATIONS

8.1 Introduction

The purpose of this Industrial Area Growth Strategy Consulting Report is to articulate Calgary's competitive advantages to exploit opportunities in its industrial areas, to identify the economic sectors and industries that the city is best positioned to attract, and to enable growth. The preceding research and market analysis explored the local industrial landscape and market trends, including using Cushman & Wakefield's market survey data to paint a picture of the historic and current market performance, and provide insights regarding the impact of the COVID-19 pandemic on the industrial real estate sector. The Consultant Team also explored the key industry clusters that have been drivers of demand for industrial land and buildings, and provided an outlook for employment growth by sector. Further, the Consultant Team identified the site selection criteria for key industry sectors, and corresponding land requirements. As well, issues and trend impacting industrial real estate and new development were examined.

The Consultant Team has identified Calgary's industrial competitive advantages, which includes its strategic location, diverse industrial employment base, presence of Calgary International Airport, large and growing labour force, and Alberta's tax advantage. An analysis of the vacant industrial land supply, and opportunities for intensification of existing occupied sites, set the stage for an assessment of the ability of the city's industrial land to accommodate forecast demand through 2041 – including a projection of industrial land demand. Additional components of this Industrial Area Growth Strategy Consulting Report include a competitive markets assessment comparing property tax rates, off-site levies, and other development-related charges/fees, as well as a review of existing planning policies related to industrial lands.

Calgary offers prospective industrial occupiers with the full breadth of required site selection attributes to start a new business – it has available lands for development, and a network of established industry that can serve as suppliers and buyers/end-users of goods and services. The city is well served by transportation to move raw materials and finished products to markets nearby, across Canada, and internationally. It is vital that municipalities plan for the provision of an adequate industrial land supply to provide a range of choice among prospective occupiers, given the competitive development market. This also facilitates the attraction of new/emerging economically productive clusters. The City needs to continue to offer a suitable land supply to accommodate occupier requirements, and ensure a supportive planning policy environment. A diversified industrial land base – with alternative locations, land costs, and contexts – helps accommodate and expand the local economy, and reduces a community's vulnerability and dependence on a single industry sector.

To reiterate the Consultant Team's land supply and demand conclusions, **the present supply of planned industrial lands appears capable of meeting the site selection requirements across a broad range of industry groups, and there are no apparent obstacles from a land supply perspective to enabling growth and incubating new opportunities that are not already present in the local market. The city's land supply itself is a competitive advantage that can be leveraged to foster economic development.** The following section presents the Consultant Team's recommendations regarding actions that The City could take to respond to its weaknesses, and actions that The City could take to capitalize on its strengths. We link back to the analysis presented earlier in our work, and provide recommendations to enable The City of Calgary to capitalize on its competitive advantages, to foster growth, attract and retain businesses, and undertake strategic growth management. These recommendations are organized by the same topics/themes that appear throughout this Industrial Area Growth Strategy Consulting Report.

8.2 Industry Trends-Related Recommendations

Recognize Increasing Demand for Warehousing and Logistics Facilities

- With the boom of e-commerce, we have seen the industrial market excel in the current expansion – it has been a bright light compared to many other commercial real estate sectors (retail and office in particular).
- The move to online shopping has been happening for some time now, and has been accelerated by the COVID-19 pandemic, and retailer's response to consumer behaviours.
- With the sale of more goods online, there is a need for the logistics space to house the goods outside of a traditional brick and mortar store.
- Greater adoption of e-commerce will take several years to implement across many markets, meaning demand will continue to be widespread for longer than just through the remainder of the pandemic.
- As the world adjusts to life during the COVID-19 pandemic, we are seeing a marked acceleration in the adoption or improvement of supply chain innovations, and an opportunity to address some pain points that had been lower on the priority list for many industries.
- Manufacturers are likely to hold more inventory as they seek more flexibility and less vulnerability to disruptions. Reshoring or nearshoring would shorten supply chains, effectively reducing long lead times, thereby giving manufacturers more control over production quantities to allow for greater flexibility in response to demand.

RECOMMENDATIONS

Since warehousing and distribution facilities typically require large sites, The City should resist conversion requests for large industrial-designated sites – particularly those that offer superior access to arterials and highways. For the purposes of this recommendation, a “large” site can be considered to be in excess of 5 hectares (which could accommodate a 20,000 m² building at 40% site coverage).

Continue to Ensure Efficient Goods Movement

- Connected by both east-west and north-south major truck routes, a robust railway system, and the Calgary International Airport (which counted 4,305 cargo landings in 2019), Calgary is the leading Western Canadian inland port.
- With a total of 101 kilometers of free-flow traffic that is set for completion in 2022, the Calgary Ring Road provides improved connection of the city's peripheral industrial parks to major truck-transportation routes, and further positions the city to continue to leverage the growing demand for e-commerce and logistics.
- Calgary's Ring Road facilitates reliable goods movement into and around Calgary, and provides more options for people travelling around the city. It shortens the travel time between communities and popular destinations in and outside of Calgary. While this is beneficial to existing industrial occupiers in the city, the Ring Road also has the effect of increasing accessibility to other communities in the region, thus enhancing their desirability from an industrial site selection perspective by improving access to labour and goods movement.

RECOMMENDATIONS

Calgary has invested to enhance goods movement across the city, providing connections from businesses to markets. The City must ensure that goods can move efficiently by implementing its *Goods Movement Strategy*. This means continuing to make priority investments in transportation infrastructure, collaborating with external partners to enhance regional goods movement, enhancing last-mile delivery, and promoting planning for logistics centres and industrial areas (such as this Industrial Area Growth Strategy Consulting Report).

The City should ensure that vacant and occupied industrial sites that are adjacent/in proximity to intermodal (truck-railway) facilities, as well as rail yards, are retained for industrial uses going forward. These sites have unique site selection attributes that should be preserved. Also, industrial lands that are served by a rail spur should also be protected for ongoing industrial use, to ensure that occupiers seeking this property feature can find sites that enable them to efficiently move goods to and from their operations.

8.3 Site Selection-Related Recommendations

Preserve Industrial/Employment Opportunities on Centrally-Situated Sites and Within Established Industrial Parks

- Established industrial/employment areas are an important component of the existing tax base, helping to maintain and improve local infrastructure and investment.
- Calgary's industrial areas each feature different types of land and serve different functions across the range of industrial uses, and they need to be preserved going forward as a vital element of the local economic base.
- Employment areas are home to many of the activities that support the local population, such as auto repair shops, household repair services, wholesale distribution, and warehousing of consumer products. As well, these areas provide small, cost-effective, flexible spaces that are critical for business start-ups and high-tech incubators, as well as artist studios. Eclectic, mature industrially-zoned areas remain important to a healthy, dynamic, and vital economy.
- Of note, the historically lower levels of vacancy and higher rental rates achieved in the Central submarket are a testament to the enduring nature of industrial areas, and their ongoing appeal among many occupiers.

RECOMMENDATIONS

The City must weigh trade-offs regarding new development – particularly transit-oriented development (TOD) – versus the preservation of established industrial/employment areas. Where city-building priorities unlock TOD potential, The City should ensure that some extent of employment uses is incorporated within a redevelopment of industrial lands that is undertaken as part of a transit-oriented development project or another form of redevelopment. As well, The City should ensure that development that occurs on sites in industrial areas does not compromise the viability of remaining business in the area.

Recognize that Industrial Buildings are Getting Larger and there is Increasing Demand for Larger Parcels of Land

- There has been a trend of increasing building size in recent years – in large part influenced by the growth in very large distribution facilities that are in demand due to rising e-commerce activity. Cushman & Wakefield's data for Calgary indicates an average building size of roughly 4,500-5,500 m² for new supply added from 2010-2012, which increased considerably to an average of nearly 9,500 m² for the period from 2015-2020.
- In recent years, supply chain modernization and rapid adoption of e-commerce has fueled demand for new industrial supply – particularly parcels that accommodate large warehouse and distribution facilities. Typically, these are located on the periphery of urban areas, offering ready access to the market, while taking advantage of lower land costs. These facilities are becoming increasingly large, as enterprises streamline their distribution networks into fewer, larger facilities. As well, distribution centres often seek large yards to accommodate on-site trailer storage in secured areas, so that drivers can drop their trailers and exit, rather than waiting to off-load goods (the goods are later off-loaded as needed).

RECOMMENDATIONS

As discussed above, The City should resist conversion requests for large industrial-designated sites. For the purposes of this recommendation, a “large” site can be considered to be in excess of 5 hectares (which could accommodate a 20,000 m² building at 40% site coverage).

Recognize Evolving Demands on Centrally-Situated Sites

- Opportunities to situate “last-mile” logistics facilities within urban areas that reduce shipping times and costs will continue to grow in appeal – particularly for time-sensitive shipments. This is likely to place upward pressure on industrial land values for centrally-situated zoned lands, as well as introduce adaptive reuse opportunities for existing properties that can suit this purpose, or demolition and new construction on sites that are well suited for such uses.
- The integration of industrial uses into former retail spaces is an emerging phenomenon, as empty mall anchor units within underperforming shopping centres are repurposed as last-mile delivery centres, or even light industrial uses.

RECOMMENDATIONS

The completion of the Ring Road will represent fulfilment of dramatically improved movement of labour and goods around the city. The need for “last mile” logistics solutions is less acute in a city the size of Calgary compared to other larger, more congested markets in North America. Although this is not considered an urgent matter, City staff should monitor demand for “last mile” facilities, and adapt land use policy as needed in the future to address this market segment.

While there is nascent interest in exploring the repurposing of former retail spaces (such as shopping centre anchor units) into industrial uses (such as “last mile” distribution points), in the Consultant Team’s view, this trend is likely to be far more prevalent in “over-retailed” U.S. markets, compared to Canada.

Continue to Support and Collaborate with Calgary International Airport

- Calgary International Airport (YYC) is located in the City of Calgary – unlike some airports in major Canadian cities. This is important, since the financial and economic benefits of the airport predominantly accrue to The City of Calgary itself, and not an adjacent municipality.
- The Airport and related uses are a large employment cluster that ranks second largest after the Central Business District in terms of overall employment.
- Calgary International Airport plays an important role in the local industrial market as a key logistics hub, and has been an active land developer since 1992. An *Approved Land Use Plan* between the Calgary Airport Authority and The City of Calgary establishes the various zones within the Calgary Airport Authority Lands, and denotes the restrictions and permitted uses with respect to each zone.

RECOMMENDATIONS

The City should continue to liaise with the Calgary Airport Authority to understand its needs, and work collaboratively to ensure that the airport can be leveraged as a continuous competitive advantage. Ensuring efficient goods movement to and from the airport is one area of partnership that requires ongoing attention to take advantage of the Inland Port’s capacity. Improved public transit is another area that could enhance the airport’s function as an employment hub.

8.4 Industry Clusters-Related Recommendations

Facilitate Opportunities for Growth of Key Industry Clusters and the Incubation of New Clusters

- The analysis of Calgary's largest industrial groups illustrates the breadth of industries and diversity of uses that are drivers of industrial-type land demand. It also emphasizes the need to provide for a range of industrial lands suited to the varied site selection factors of importance. While many industrial users have common requirements – such as access to labour; proximity to suppliers and customers; access to highway and intermodal distribution networks; suitable services/infrastructure, including utilities and telecommunications, and more – some of the industry groups that the city is forecast to see sizable employment growth in require specific site selection attributes including: availability of large sites; permission for outside storage and/or truck/vehicle parking on site; acceptable minimum separation distance from other land uses; and heavy industrial zoning, to name a few.
- The top 10 industry groups associated with industrial type demand in the Calgary CMA currently account for 37% of all industrial-type jobs, while the top 20 account for a 59% share.
- The largest clusters span the range of industries from transportation and warehousing (warehousing and storage; general freight trucking; and specialized freight trucking) to wholesale trade (seven different industry groups) to manufacturing (accounting for 10 of the 20 largest industry groups).
- Looking forward, many of the largest industry groups in 2016 in Calgary are anticipated to drive employment growth over the next 25 years. Of the top 20 industry groups/clusters in 2016, 12 are among the top 20 largest in terms of industrial-type employment growth for the period from 2016-2041.

RECOMMENDATIONS

The need to provide for availability of large sites has been addressed previously – The City should resist conversion requests for large industrial-designated sites. Once again, for the purposes of this recommendation, a “large” site can be considered to be in excess of 5 hectares (which could accommodate a 20,000 m² building at 40% site coverage).

Rear yard outside storage needs associated with building operations should be permitted on all industrial lands, without limitation due to land size/area/frontage. Outside storage must be adequately screened/landscaped from view from the roadway. The vacant land supply analysis indicates that there are eight sites zoned I-O – Industrial – Outdoor District (ranging from approximately 1-2 hectares in size) remaining undeveloped.

The City faces a potential shortage of Heavy Industrial-zoned lands (I-H). The vacant land supply analysis indicates that there are only two sites zoned I-H (0.6 hectares and 7.6 hectares) remaining undeveloped. While future employment growth in industry sectors that demand heavy industrial lands may take place primarily within established businesses, The City should identify additional sites that would be suited to accommodate I-H-type needs, and either (a) re-zone lands presently under another industrial LUD to I-H, or (b) expedite any pending/future applications for zoning amendments to allow I-H-type uses. Consideration for the designation of I-H lands within Future Urban Development Districts (S-FUD) should also be given. City staff should monitor the update/absorption of industrial lands and track all heavy industrial demand closely for site attributes (size and geographic location – and if possible, number of employees per new establishment).

It is important that The City ensure a suitable land supply to meet the needs of those industry clusters associated with the most significant share of projected employment growth through the 2041 forecast horizon. The following additional observations pertain to land use planning/zoning related to the city's most prominent industry clusters:

- A range of manufacturing establishments – such as Bakeries, Beverage, Glass and glass products, Furniture and kitchen cabinetry, Meat products, and Other foods – may seek to locate in an I-C zone in order to accommodate small-scale commercial uses that complement their core business activities.
- I-G is the most prevalent industrial land use designation today across Calgary’s built-up industrial/employment areas, and this zone will continue to accommodate a broad range of industrial occupier needs going forward.
- I-H-designated lands will be required in the future for uses such as Basic chemical manufacturing, which is among the top 20 industry groups forecast for employment growth through the 2041 forecast horizon.

City staff should monitor the types of industry sectors that are becoming tenants/occupiers of its new industrial supply. This will enable the creation of site selection “profiles” of various sectors – in particular, those that are forecast to account for a significant share of future industrial demand. This will allow The City to proactively manage its industrial land supply to ensure that suitable lands remain available in term of zoning permissions, and to anticipate future servicing/infrastructure timing.

8.5 Planning Policy Recommendations

Municipal Development Plan Overall Recommendations

RECOMMENDATIONS

It is recommended that the land use policies within both subsection 3.7.1 and 3.7.2 be strengthened to:

- Clearly specify the requirement that industrial uses must be the primary use within the Standard Industrial and Industrial – Employee Intensive designations;
- Prohibit the intrusion of major retail and major institutional land uses within the Standard Industrial and Industrial – Employee Intensive designations. Intrusions can have a detrimental impact on the long-term viability of an industrial area. Intrusions are the beginning of the erosion of the industrial function of the area, and may lead to larger scale conversion requests in the longer term; and,
- Require that any conversion application only be considered on the basis that the long-term viability of the industrial area will be maintained, and that there is a defined need for the conversion. The issue of need must be defined based on a clear understanding that the land is not required for the uses that it is designated for over the time horizon of the Plan, and that the land is needed for the proposed alternative use. The issue of need is crucial to ensure balanced growth management over time.

Land Use Bylaw Overall Recommendations

RECOMMENDATIONS

It is recommended that the land use policies Part 8 of the Land Use Bylaw be comprehensively reviewed to:

- Reduce the number of zones to be more specifically linked to the location, design, scale, and potential impact of the permitted uses:

- Development along the "edges" of the industrial areas would be more modestly scaled; would focus on light and medium industrial uses; would have permission for the broadest array of supportive non-industrial land uses; and would present a prestige image through enhanced landscape and building design features. Edge industrial uses are expected to be an appropriate transition between more sensitive land uses (e.g. a residential community) and the heavier industrial activities described below; and,
- Development "internal" to the industrial areas would include larger scale heavy industrial uses as well as light and medium industrial uses, with less emphasis on design and image, and less concern about mitigating industrial impacts. The range of permitted uses would be more restricted to the industrial function of the area. These lands are very important to attract heavy industrial uses, and it is equally important to protect those industrial users from the impact concerns of those more sensitive land uses. Ensuring minimum required separation distances is essential for those affected land uses.
- Harmonize and simplify:
 - The lists of permitted and discretionary land uses to remove confusion, and permit appropriate land use types in multiple locations – as well as facilitate a change of use as tenants/occupants vacate, and are replaced by new uses which are generally compatible; and,
 - The landscape requirements, which are very specific and surprisingly similar among all of the zones.

The City's proposed Guidebook for Great Communities includes Industrial Urban Form Categories which creates a new vision for industrial land use planning in the city. The Guidebook is a tool used by citizens, stakeholders, and The City to develop a local area plan by applying the urban form categories in Chapter 2. The local area plan reflects unique community characteristics, with policies that guide growth and redevelopment. After a local area plan is approved, the Guidebook also helps to guide planning applications. The Guidebook only applies to communities with local area plans that are completed using the Guidebook.

The Guidebook states that *"There are two Industrial urban form categories – Industrial General and Industrial Heavy. These areas primarily include a range of industrial uses with off-site impacts. Block patterns and site layouts will prioritize large vehicle and goods movement along public streets. Industrial areas are critical to supporting economic diversity and decisions regarding encroachment of other uses into these areas must be carefully considered to minimize impacts on the operational requirements of industrial areas."* (p. 60) The simplicity of this approach is aligned with the Consultant Team's recommendations.

The Guidebook identifies the policies of each urban form category, and describes the purpose; land use(s); and applicable site, building, and landscape design policies.

- *Industrial General – Industrial General areas are characterized by a range of light and medium industrial uses and represent the city's primary industrial land supply. These areas allow for a range of building sizes and industrial uses, some of which may include outdoor activities and storage. Industrial General areas are expected to support a safe pedestrian experience that improves connectivity to and within these sites and to public transit. These areas may have limited off-site impacts.* (p. 62)
- *Industrial Heavy – Industrial Heavy areas are characterized by a range of heavy industrial uses. A significant portion of industrial activities occur outdoors, and may generate off-site impacts on neighbouring parcels such as noise, dust, vibration, and odour. These activities generally require larger sites with buildings that may integrate heavy machinery.* (p. 64)

- *Industrial Transition – Additional policy guidance only applies to the following urban form categories which transition to an industrial urban form category: Neighbourhood Flex-Industrial, Neighbourhood Connector-Industrial, Neighbourhood Local-Industrial, and Commercial Corridor-Industrial. (p. 27)*

With the rise of increasingly larger industrial facilities, in effect a small community is formed among the employees. In response, there has been an observed desire for greater on-site amenities. Some employers are now implementing in-house features such as daycares, gyms/fitness studios, and prayer/meditation rooms, in order to attract and retain talent, and offer an appealing workplace environment. It is important that the Zoning Bylaw reflect these evolving needs for on-site amenities for workers, which could even be shared among neighbouring/nearby businesses.

Anticipate Change due to AVPA Review/Update

- In many large, urban areas, undeveloped industrial lands face pressure for conversion to other uses – with industrial not viewed as the highest and best use, from a land economics perspective. Often, this is due to their relatively lower land cost (compared to commercial or residential lands). Sites that are occupied by industrial uses but which could be repurposed or demolished may face similar market pressures for land use conversion. This often applies to lands that are centrally located, and that are large (and therefore can potentially accommodate significant density, if redeveloped). In some instances, issues related to compatibility with adjacent uses may also be raised to justify such conversions.
- Proposed changes to NEF contours would have the effect of permitting a broader range of land uses compared to the prevailing Airport Vicinity Protection Area (AVPA). This may mean that an employment use is no longer the highest and best use of these lands, and they may face land use conversion pressure. However, the loosening of development restrictions pertains to lands furthest from the airport (the lowest NEF range), and employment lands in proximity to the airport itself – which are particularly well-suited for industrial development – remain viable. City staff has identified that nearly 590 hectares of Industrial-designated lands would move from a more restrictive contour level to NEF 30 or below. While a significant portion of these lands are already developed, there are vacant lands to the north and west of the airport that may be more likely to be subject to conversion pressure.

RECOMMENDATIONS

With respect to lands within the current AVPA, those sites designated Industrial that would move to a lower NEF contour such that a broader range of non-employment land uses could be supported (e.g. residential) which are not contiguous to established industrial uses could be suited to land use conversion. This applies in particular to lands west of Deerfoot Trail NE/south of 96 Ave NE, as well as lands in the vicinity of Metis Trail NE/128 Ave NE. Lands to the southwest and south of the airport are largely built-up and integral to industrial parks in this area, and therefore do not merit consideration for conversion. The potential for conversion of Industrial-designated lands on the east side of the airport along Metis Trail will require a site-by-site assessment to properly manage the interface between existing employment and residential uses, and whether the proposed new use(s) are appropriate/desirable from a land use planning perspective. Industrial-designated lands located north of the airport are well suited to meet the city's industrial needs, given airport proximity and good highway access – and in some instances, offering larger parcels of land.

Prevent the Incursion of Major Commercial and Institutional Uses in Industrial Areas

- By count of parcels, of the total of almost 3,200 parcels identified within the Strategic Industrial Areas, 83% are industrial, 14% are commercial, and the remaining land uses account for a 3% share.

- By land area, industrial uses represent an 84% share of the total lands (3,591 ha), followed by commercial at a 12% share (491 ha), with the remaining land uses account for a 4% share (183 ha).

RECOMMENDATIONS

While some commercial uses serve as an amenity to workers in industrial parks/business parks/employment areas, major retail uses are primarily intended to serve the residential population. Such uses can be intrusive within industrial areas, which should be preserved with industrial operations as their core land use function. Similarly, institutional-type land uses are suited to mixed-use areas or campus-style settings, as opposed to industrial zones. While some established industrial areas may not conform to this objective due to the established pattern of land use, the planning of new industrial areas should adhere to these principles.

Encourage Intensification on Established Industrial Sites

- The Consultant Team has analyzed The City's occupied industrial land data set and identified that there are 579 properties on 1,208 hectares of land (22% share of total industrial property count) that have a site coverage of less than 20%. For comparison, the average industrial site coverage in Calgary is 40%.
- Properties within this "<20% site coverage" cohort are of the most interest to this Industrial Area Growth Strategy Consulting Report, since these represent sites that may be underutilized, and therefore capable of absorbing additional density through intensification over time.
- This site coverage analysis considered all sites in the existing built inventory, regardless of size; however, it is most useful to assess the capacity of larger sites to intensify. The Consultant Team has identified 160 existing industrial properties that meet the criteria of having less than 20% site coverage and which are also at least 2 hectares in size.
 - If all of these sites were to intensify up to a 40% site coverage factor, then an additional 3.1 million m² of floorspace would be created. This would reduce the requirement for up to 775 hectares of greenfield lands in the future (assuming 40% site coverage for new development). Of course, it is not reasonable to assume that all "underutilized" sites will intensify – but only a small share of intensification has the effect of lessening the extent of new greenfield industrial development over time (and the associated cost of extending municipal services).

RECOMMENDATIONS

City staff should be receptive of initiatives by existing industrial landowners to intensify their sites, whether through building an addition, or sub-dividing land in order to create a new development lot that could be built upon ("unlocking" land for new development). In order to incentivize such development, The City could consider reduced or waived development-related fees, expedited planning approvals, or other initiatives to spur intensification within established industrial areas. This would lessen the need for new greenfield development, take advantage of existing servicing, provide employment in proximity to labour, and contribute to sustainable growth management.

The Consultant Team's work constituted a "desktop" analysis of occupied lands and site coverage. The identified list of 160 existing industrial properties that meet the criteria of having less than 20% site coverage and which are also at least 2 hectares in size could be examined in more detail to assess the potential for intensification – including contacting the property owner to inquire about their motivations and strategic objectives. This proactive work could spur action on the part of select property owners to pursue intensification, or consider a property disposition which might unlock the site's development potential to another user. The City could leverage its own land holdings in any negotiations. Understanding whether these sites are owner-occupied or leased to a tenant(s) by a landlord is a potential first step to exploring their capacity to contribute to accommodating a portion of the city's future industrial-type employment growth.

8.6 Land Supply Monitoring Recommendations

RECOMMENDATIONS

Building upon in-place activities that are being undertaken by City staff, the following land supply monitoring by City staff is recommended:

- Monitor industrial land absorption to identify vacant industrial land by geography, and by status of servicing.
 - Note: Presently, the vacant industrial land inventory is evenly balanced between the Southeast and Northeast.
 - Note: Calgary has a significant supply of serviced vacant industrial land, at nearly 900 hectares. There is also a considerable supply of partially-serviced lands – with varying timing to be brought to full servicing. Additionally, there are longer-term lands which are currently unserviced (i.e. “raw”).
- Monitor lands within Future Urban Development Districts to ensure that an accurate representation of the extent of industrial lands supply is known.
 - Note: Future Urban Development comprises a significant share of the overall vacant industrial land inventory (60% share).
- Monitor the uptake of City-owned versus privately-owned lands to understand the influence of The City on the local industrial land market.
 - Note: Privately-owned land (2,033 ha) accounts for two-thirds of the total vacant industrial land in Calgary, while City-owned lands (940 ha) account for a one-third share. The City, through its Real Estate & Development Services division, plays a key role in the local industrial land development marketplace.
- Monitor the uptake of industrial land by Land Use District to understand the characteristics of land demand by type of use, and to consider rezoning as needed to re-balance available supply by LUD.
 - Note: The current range of LUDs should provide considerable choice and site selection options for prospective users across the spectrum of industrial-type businesses that are seeking sites to expand, or to enter the Calgary market.
- Monitor the uptake of industrial land by parcel size, in order to assess whether RE&DS should participate in the market by bringing additional “shovel-ready” lands to suit particular demands by lot size (to ensure a more balanced supply of available lands by parcel size) – particularly if the private ownership land market appears to be under-serving this demand.
 - Note: At present, there would appear to be a significant number of vacant serviced industrial parcels to accommodate the needs of prospective occupiers across the full range of property sizes.
- Monitor the status of servicing of “Partially Serviced” and “Unserviced” industrial lands in order to maintain an up-to-date inventory.
 - Note: The Industrial Land Inventory Database compiled by the Consultant Team represents a “snapshot” in time. Future servicing that occurs will need to be taken into account in monitoring/updating the Industrial Land Inventory Database.

8.7 Competitive Markets Assessment-Related Recommendations

Overview

- One of the key objectives of this Industrial Area Growth Strategy Consulting Report is to evaluate how The City of Calgary is positioned for industrial land development relative to the Calgary Metropolitan Region. In particular, East Balzac within Rocky View County has emerged as a significant competitor to The City of Calgary with respect to attracting new industrial development.
- While solutions to these issues requires a deep understanding of The City's municipal finances, and is inherently political in nature, the following outlines the Consultant Team's examination of the City of Calgary's competitive position from a land development economics and occupancy cost perspective.

Property Tax Rates Comparison

- The City of Calgary had the highest non-residential (industrial) mill rate in 2020, at 0.019407 (or a property tax bill of \$19,407 per \$1 million of assessed value).
 - For comparison, Rocky View County – which surrounds the City of Calgary to the east, north, and west – had a mill rate that was 58% that of Calgary (resulting in a property tax bill of \$11,265 per \$1 million of assessed value).

CONCLUSION

Industrial occupiers within the City of Calgary face a significantly greater industrial property expense versus comparable facilities elsewhere across the Calgary Metropolitan Region. This is among the reasons that East Balzac has attracted considerable new industrial growth in recent years. If this disparity is not addressed, The City could see existing businesses vacate to other markets, and its share of overall new industrial activity will continue to be affected.

Off-Site Levies and Other Development-Related Charges/Fees Comparison

- The Consultant Team prepared a comparison of off-site levies and other development-related charges/fees for a hypothetical industrial development within the City of Calgary versus the East Balzac area of Rocky View County. The following describes the key attributes of the hypothetical industrial building to be constructed: a 50,000 m² building requiring 12.5 hectares of land (based on an assumed 40% site coverage).

CONCLUSION

The examination of off-site levies and other development-related costs reveals that an “apples-to-apples” comparison of a prospective industrial development located in the City of Calgary versus the East Balzac area within Rocky View County is a challenge. The two municipalities have differing approaches to recovering development-related costs. Many are on a land area basis; others are on a site-specific consumption basis (e.g. water/wastewater in RVC); land value influences some costs (e.g. excess land needed for stormwater management in RVC); and certain charges are imposed at a dramatically different rate, based on the disparity in municipal services provided (Calgary's Community Services Charge versus RVC's “voluntary recreation contribution”). Overall, however, it is apparent that the costs to develop an industrial building in East Balzac are less than the same facility locating in the City of Calgary.

Combined with lower average industrial land costs (Cushman & Wakefield estimates raw industrial land to be valued at \$500,000 per acre [\$1,235,000 per hectare] in East Balzac, compared to \$700,000 per acre [\$1,729,000 per hectare] in Calgary) – which are not directly controllable by the municipality – lower development-related levies and costs make East Balzac an appealing location for new industrial development. Additionally, its location just north of the City of Calgary allows businesses to draw upon Calgary's labour pool.

APPENDIX A – EMPLOYMENT FORECAST METHODOLOGY

Introduction

metroeconomics has combined years of experience and extensive modeling capabilities to provide clients with a range of consulting services in assessing the economic and demographic potential of virtually any economic region in Canada. The system includes detailed projections at the all-U.S. and all-Canada level, and allocations of the national trends to the states, provinces, and metropolitan areas that define each country. This note briefly defines our system.

U.S. Projections

The future of the U.S. economy is a key determinant of the future of the Canadian economy, due to the strong trade ties between the two nations. The U.S. projections begin with an age-cohort model of the total population, and assumptions about fertility rates, mortality rates, and annual net immigration. The resulting age and gender projections are turned into projections of the future labour force, assuming future labour market participation rates by age. The future potential labour force is translated into projections of future total employment which, in turn, is translated into future potential real GDP (Gross Domestic Product, or total economic output in constant dollar terms). Real total GDP is translated into projections by industry based on past trends in growth by industry relative to the overall economy.

Canadian Projections

The Canadian projections are driven by the above described expectations regarding overall real GDP growth in the U.S. Canadian projected total real GDP is turned into a projection for total employment based on assumptions regarding future labour productivity growth. Future employment growth drives a national age cohort model of the population, based on assumptions regarding future fertility and mortality rates.

Future national net in-migration is determined by the future labour market requirements of the country. If labour is domestically under-supplied, net in-migration increases to bring the labour market into equilibrium (considering likely future labour market participation rates by age and gender, and likely future unemployment rates). If labour is domestically over-supplied, net in-migration decreases to balance the labour market. This linkage of future migration flows to the needs of the labour market is especially important these days, as Canada faces the gradual retirement of the Baby Boom generation from now through to the mid-2030s.

Projected total GDP for Canada is translated into projections by industry based on past trends in growth by industry relative to the overall economy. National GDP by industry is translated into GDP by industry by province, based on expected future shares of industrial expansion by province. Future GDP by province is translated into future employment by province, which in turn informs future migration flows by province. Migration patterns to and from provinces are determined by links to detailed provincial age cohort models.

In metroeconomics' Base Case projections, metropolitan area growth within provinces is allocated based on past and expected future shares of metro growth by province.

Detailed projections of GDP by industry, employment by industry and population by age and gender at the provincial and metro level, are developed using models informed by the projected national and provincial projections for real GDP and employment by industry.

Customized Projections of Sub-Provincial Areas

Employment by industry in any given area can be decomposed into economic base (EB) jobs (those that drive the overall economy) and community base (CB) jobs (those that serve the local population). The population growth of an area typically depends on its potential for growth in economic base employment, while an area's growth in community base employment depends on its population growth.

In recognition of this interdependence between population and employment growth, metroeconomics has developed a community-based projection system that takes account of the economic and demographic factors influencing an area's growth potential. The system takes these factors into account as follows:

- The economic base of the community is identified through the de-composition of local jobs on a place of work basis by industry into those that are economic base jobs and those that are community base jobs; this is achieved using a location quotient process (described below).
- Economic base industries produce goods and services consumed primarily by businesses or people outside of the local community; these industries – also called export-based industries – produce agriculture, mining, or manufactured products for consumption elsewhere, or provide tourism or higher-order education/health care services to visitors/temporary residents.
- The potential for growth of a local community's economic base jobs is identified through assessing how many such jobs exist today, and how many might exist in the future, drawing on metroeconomics' extensive Base Case forecasts of economic base industrial job trends nation-wide and province-wide.
- An assessment is also made of the potential for residents to commute to jobs in nearby employment locations, drawing on existing patterns, and on metroeconomics' Base Case forecasts of such jobs by sub-provincial area in those commuter destinations.
- The potential for job growth within the local area and for job growth in nearby locations determines the potential for job growth among residents.
- The metroeconomics system ties this resident job growth potential to the demographic side of the community; if potential job growth among residents exceeds the current supply of workers (based on an age and gender assessment of the current population, age specific rates of labour force participation, the level of unemployment, and the need to replace retiring workers), in-migration occurs; thus, job growth potential determines population growth potential, since each new job-holding resident typically brings along one or two dependents.
- The system further considers the fact that each new resident increases the need for workers who service the local population – the community base jobs – and that these additional community base jobs, in turn, create the need for more workers, more residents, etc.
- Employed-residents growth, in other words, drives the community's net in-migration requirements which, along with standard assumptions regarding fertility and mortality rates, provide the parameters needed to develop local area population projections by age and gender.
- Projected economic base jobs by industry are added to projected community base jobs by industry to determine the total number of jobs by place of work that will exist in the community in the decades ahead.

The Location Quotient procedure is carried out at the 2-digit NAICS level (about 20 industries) for a local area (e.g. region, CMA, municipality) as follows:

- All jobs in agriculture and forestry, in mining and oil and gas extraction, and in manufacturing, are considered economic base jobs, as most of their production is consumed by businesses and people outside of the area.

- The number of jobs per 1,000 residents in the area in all other industries is compared to that ratio for the relevant province. Where the ratio in an industry in an area exceeds that of the province, it is assumed the “excess” jobs are providing services to people or businesses outside of the area. These excess jobs, therefore, are considered as export-based service jobs, and their output as exportable services.

metroeconomics turns the 2-digit employment projections of employment for each of the 20 industries into projections at the 4-digit NAICS level for each of 300 industries (industry groups) as follows:

- The average annual growth rate of employment between 2011 and 2016 for each of the 300 industries is calculated based on Census of Canada data.
- The annual growth rates are applied to each industry each year in the future to develop preliminary projections of employment in the area for each of the 300 industry groups. Extreme growth rates are constrained within a reasonable range (for example, no industry is likely to grow over the long term at a 10% annual rate).
- The preliminary employment projections at the 4-digit level (300 industries) are summarized to the 2-digit level industry (20 industries).
- Based on the preliminary 4-digit details, the components of each 2-digit industry are constrained to the 2-digit projected totals developed for the area using the Location Quotient-based projection procedure described above.

APPENDIX B – COMPETITIVE MARKETS ASSESSMENT – WESTERN CANADA AND PACIFIC NORTHWEST U.S.

Introduction

Understanding Calgary's strengths and weaknesses relative to other markets allows The City to leverage its competitive advantages, and act to mitigate or eliminate factors which impede growth. The analysis in the following section explores how Calgary's industrial building inventory, real estate market indicators, employment, and industry clusters compare to a number of other major markets across Western Canada and the Pacific Northwest United States. The comparative markets are as follows:

- Vancouver CMA (Census Metropolitan Area – as per Statistics Canada)
- Edmonton CMA
- Saskatoon CMA
- Regina CMA
- Winnipeg CMA
- Seattle-Tacoma-Bellevue MSA (Metropolitan Statistical Area – as per U.S. Census Bureau)
- Portland-Vancouver-Hillsboro MSA
- Boise MSA

Since data collection methodologies vary between Statistics Canada and the U.S. Census Bureau, not all data can be compared among the markets.

As discussed earlier in this report, there tends to be a consistent set of site selection criteria that are considered in location decision-making among industrial users. The include the following:

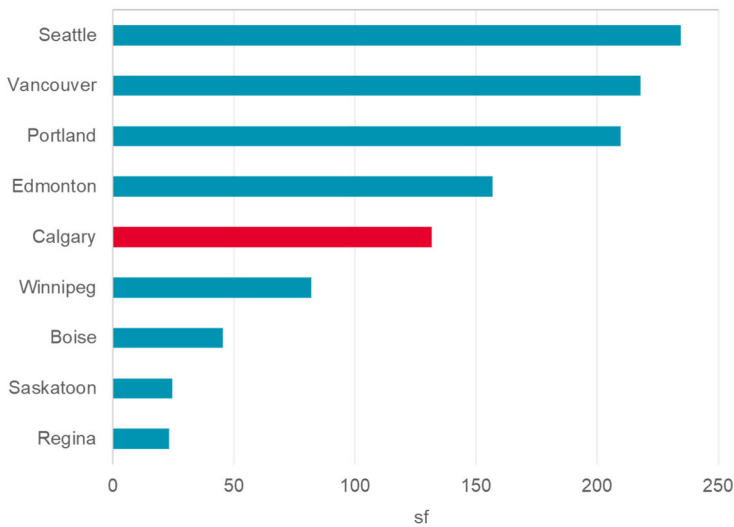
- Real estate factors – geographic location; availability and cost of business premises, or cost of land and new building construction; and location of customers and suppliers.
 - From the perspective of comparing Calgary to other Western Canadian and Pacific Northwest U.S. industrial markets, the relative one-time cost of land and new building construction is less of a consideration than it is when considering a location within a select industrial market (i.e. City of Calgary versus a neighbouring municipality), as the other site selection factors are fairly uniform within a selected market, versus broader variations that will occur in other metro areas. Geographic location itself – tied to the location of a company's customers and suppliers – is a primary consideration when evaluating one metro area versus another. Real estate occupancy costs differ from market to market, and are examined below, along with inventory size, space availability, and other key real estate metrics.
- Economic factors – availability of raw materials and intermediate goods (production inputs); labour force availability; labour cost; and government incentives.
 - Labour varies from market to market, and the presence of industrial employment clusters is profiled below for the comparative Western Canadian markets.
- Infrastructure factors – transportation; telecommunications; and utilities.
 - Since all of the comparative industrial markets are metropolitan areas, suitable infrastructure is already in place to foster economic growth. From a site selection perspective, insufficient infrastructure is more of a concern when comparing smaller markets.

Real Estate Market Indicators – Snapshot 2020

Inventory

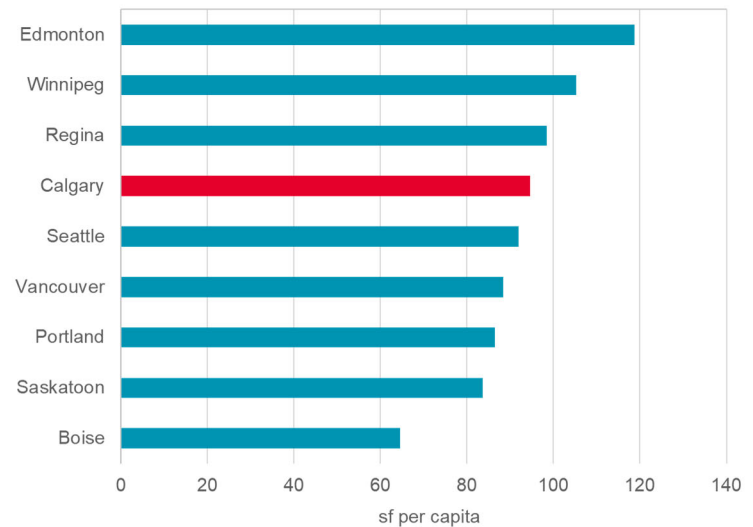
Among the nine markets being compared, Calgary has the fifth largest industrial building inventory, at approximately 132 million sf. The Calgary CMA has 95 sf of industrial space per capita, which falls in the middle third of the range of comparative markets.

Industrial Building Inventory – 2020 Q4



Note: Data for Edmonton, Winnipeg, Saskatoon, and Regina is sourced from Colliers (Cushman & Wakefield does not track these markets). All other data is Cushman & Wakefield.

Industrial Space per Capita

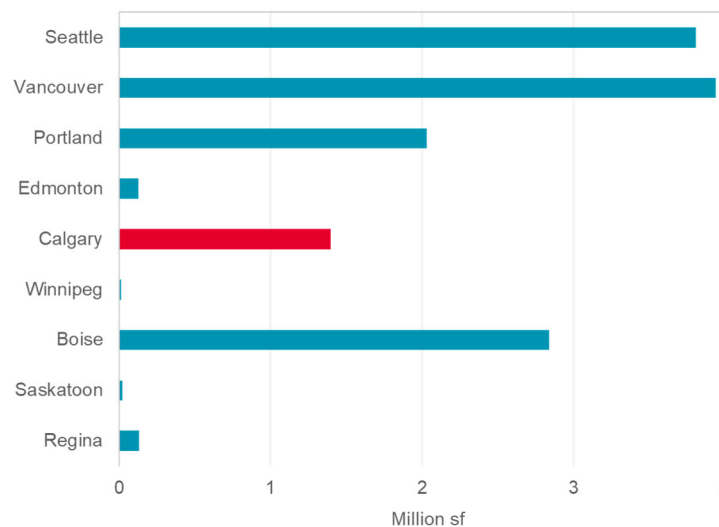


Note: Data for Edmonton, Winnipeg, Saskatoon, and Regina is sourced from Colliers (Cushman & Wakefield does not track these markets). All other data is Cushman & Wakefield.

New Supply

The exhibit below is organized by inventory size in descending order. While the two largest industrial markets (Seattle and Vancouver) saw the greatest amount of new supply added this past year, Boise ranked a strong third place (although it has an inventory roughly one-third the size of Calgary). The Calgary market ranked fifth highest in terms of new construction additions in 2020, at approximately 1.4 million sf.

Industrial New Supply – 2020

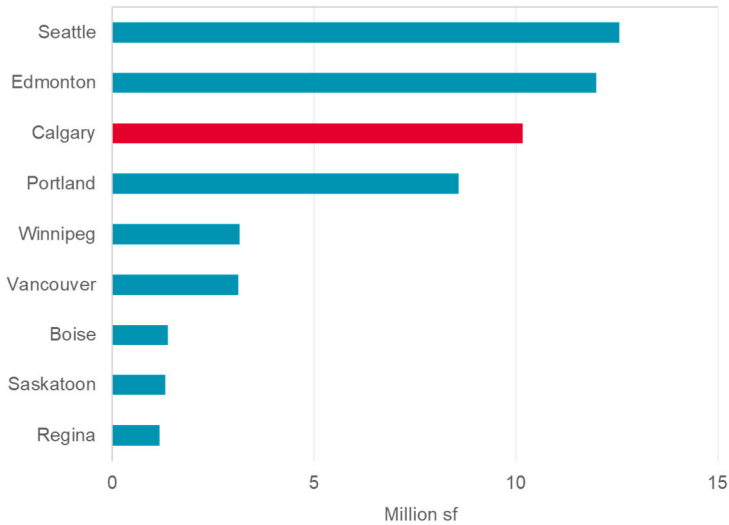


Note: Data for Edmonton, Winnipeg, Saskatoon, and Regina is sourced from Colliers (Cushman & Wakefield does not track these markets). All other data is Cushman & Wakefield.

Vacancy Space and Vacancy Rate

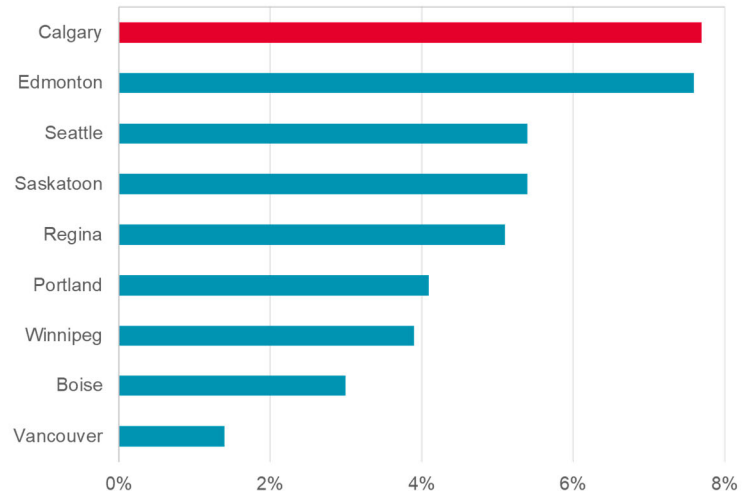
Calgary had the highest year-end 2020 industrial vacancy rate among all the markets examined, at 7.7% (just ahead of Edmonton, at 7.6%). The effects of a prolonged slump in energy prices (and the associated decline in extraction activities) is evident in the performance of Alberta's industrial markets. Calgary currently has over 10 million sf of vacant industrial space.

Industrial Vacant Space – 2020 Q4



Note: Data for Edmonton, Winnipeg, Saskatoon, and Regina is sourced from Colliers (Cushman & Wakefield does not track these markets). All other data is Cushman & Wakefield.

Industrial Vacancy Rate – 2020 Q4

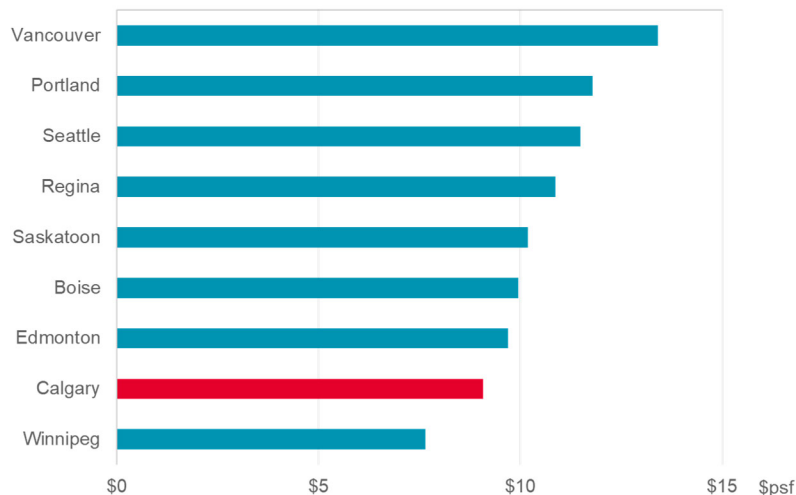


Note: Data for Edmonton, Winnipeg, Saskatoon, and Regina is sourced from Colliers (Cushman & Wakefield does not track these markets). All other data is Cushman & Wakefield.

Rental Rate

Prevailing net rental rates in Calgary rank second lowest among the nine comparative markets. At around \$9.10 psf, Calgary places ahead of just Winnipeg (\$7.65 psf) in terms of average asking net rental rate at year-end 2020. Other markets examined range from \$0.60 psf to over \$4.00 psf more expensive compared to industrial space in Calgary.

Industrial Net Rental Rate – 2020 Q4



Note 1: Data for Edmonton, Winnipeg, Saskatoon, and Regina is sourced from Colliers (Cushman & Wakefield does not track these markets). All other data is Cushman & Wakefield.

Note 2: Currency has been converted to \$CDN for Seattle, Portland, and Boise markets.

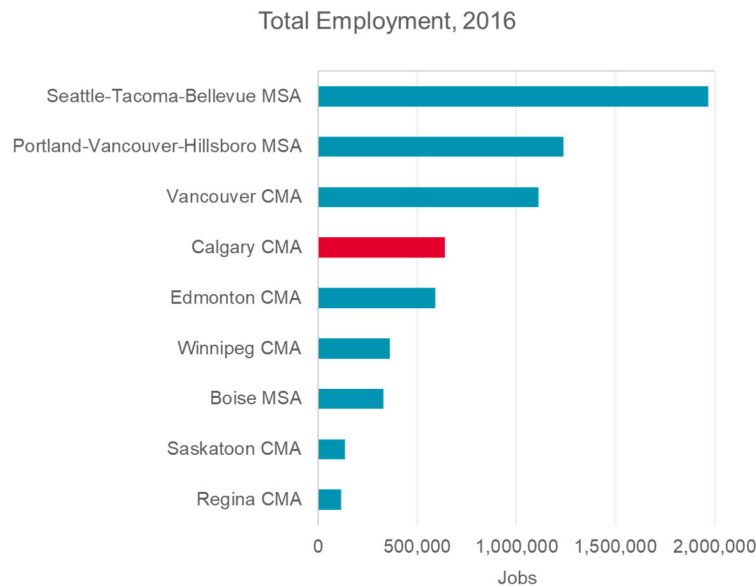
Conclusions

For industrial occupiers seeking space (new premises, or potentially renewing an existing lease), conditions are currently favourable in the Calgary market compared to the other metro areas that have been analyzed. Calgary's vacancy rate is the highest among the nine comparative markets, and its average asking net rental rate ranks second lowest (behind only Winnipeg). For comparison, while Vancouver's industrial inventory is two-thirds larger than Calgary's, it has one-third the amount of industrial vacant space – meaning there are far fewer site selection options for prospective users.

Employment

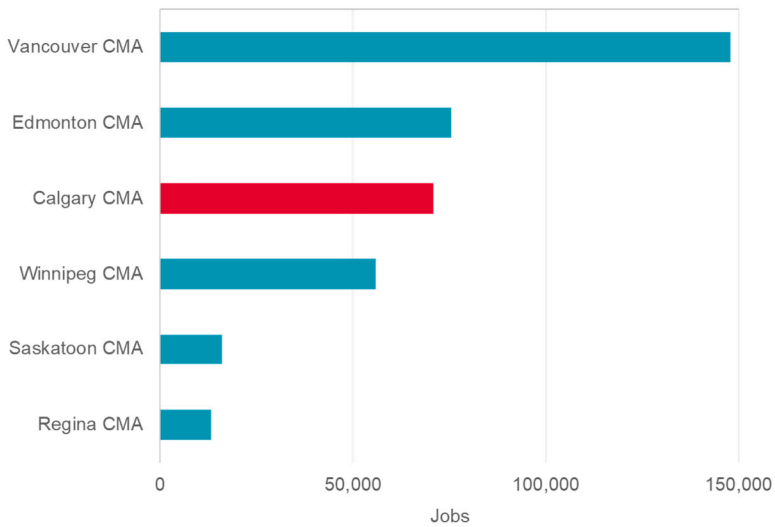
Comparison of Total Employment and Industrial-Type Employment

Among the comparative markets in Western Canada and the Pacific Northwest U.S., the Calgary CMA ranks fourth largest in terms of total employment, based upon 2016 Census data. Total employment by place of work was approximately 640,000 jobs in 2016.

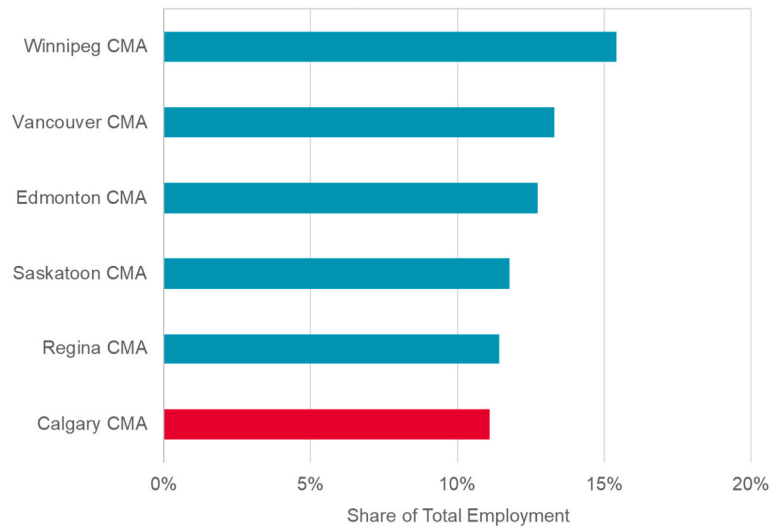


In terms of industrial-type employment as a share of total employment, the Calgary CMA ranked third among the Canadian markets (analysis of the U.S. comparative markets is not possible, as detailed employment data by industry is compiled differently by Statistics Canada and the U.S. Census Bureau). The Calgary CMA had approximately 70,800 industrial-type jobs in 2016, representing a roughly 11% share of total employment. Notably, this share was the lowest among the Western Canadian comparative markets, which ranged from roughly 11% (Calgary CMA) to 15.5% (Winnipeg CMA). This is due to the presence of a sizable office market – particularly compared to the other CMAs examined here – which accounts for a significant share of overall employment in Calgary.

Industrial-Type Employment, 2016



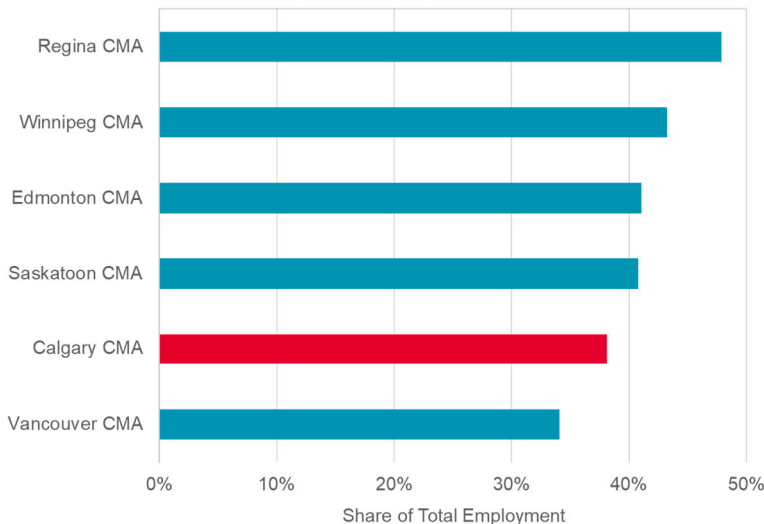
Industrial-Type Employment as a Share of Total Employment, 2016



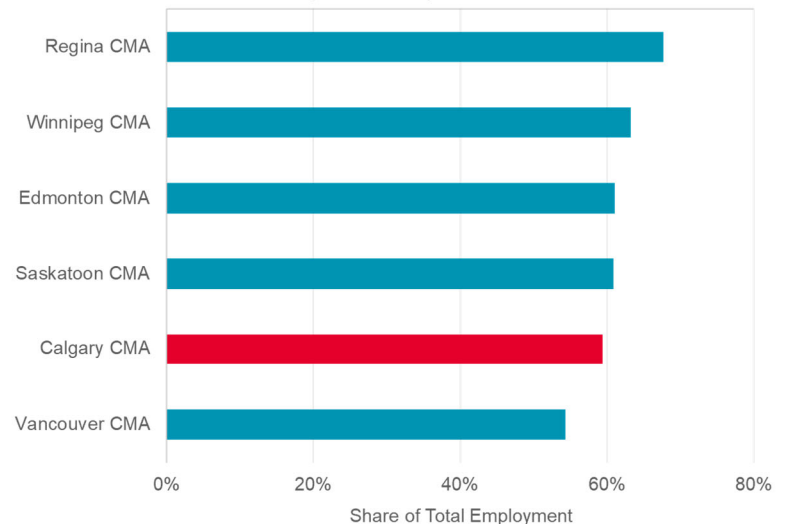
Industry Clusters

As detailed earlier in the body of this report, the largest clusters across the Calgary CMA span the range of industries from transportation and warehousing (warehousing and storage; general freight trucking; and specialized freight trucking) to wholesale trade (seven different industry groups) to manufacturing (accounting for 10 of the 20 largest industry groups). The top 10 industry groups associated with industrial space demand across the Calgary CMA account for 35% of all industrial-type jobs, while the 20 largest industry groups account for nearly 60% of all industrial-type jobs. Compared to the other Western Canadian CMAs examined Calgary is relatively more diversified, with less concentration of employment among the largest industrial-type employment sectors.

Top 10 Industrial Groups as a Share of Total Industrial-Type Employment, 2016



Top 20 Industrial Groups as a Share of Total Industrial-Type Employment, 2016



Interestingly, the single largest industrial-type employment industry group is different in each of the comparative Western Canadian CMAs. The Calgary CMA's largest industrial-type employment category is warehousing and storage, which represents a 5.8% share of overall industrial-type employment; this compares to a range of 6.3% to 8.5% for the top industry group in the other comparative Western Canadian CMAs. This further illustrates the breadth of industrial-type employment across the Calgary CMA.

TOP INDUSTRIAL-TYPE EMPLOYMENT INDUSTRY GROUP IN EACH CMA			
CMA	Category	Employment (2016)	Share of Industrial-Type Employment (2016)
Vancouver	Food merchant wholesalers	9,295	6.3%
Edmonton	Construction, forestry, mining, and industrial machinery, equipment and supplies merchant wholesalers	6,090	8.1%
Calgary	Warehousing and storage	4,130	5.8%
Saskatoon	Meat product manufacturing	1,110	6.9%
Regina	Petroleum and coal product manufacturing	1,130	8.5%
Winnipeg	General freight trucking	4,265	7.6%

The exhibit below identifies the 20 largest industry groups in the Calgary CMA in terms of industrial-type employment (the ten largest are highlighted), along with the ranking of those same industry groups across the comparative Western Canadian CMAs.

The following are some notable observations that can be drawn from this analysis:

- Warehousing and storage is the Calgary CMA's top industrial-type employment group, and ranks within the top six in Vancouver (3rd highest), Regina (4th), and Edmonton (6th). It is relatively less prominent as an employment category in Saskatoon (14th highest ranked) and Winnipeg (15th).
- General freight trucking is among the top three industry groups in all comparative Western Canadian CMAs.
- The other industry groups in the Calgary CMA's top five are also prominent employment generators in the comparative municipalities (generally ranked within the top 5-10).
- In examining the prevalence of the Calgary CMA's top 10 and top 20 industrial-type employment groups compared to other Western Canadian CMAs, there is quite a bit of similarity to Vancouver, Edmonton, and Winnipeg (the larger metropolitan areas), while Saskatoon and Regina show a greater variance in the types of industry groups that are among the largest employers.

TOP 10 INDUSTRIAL-TYPE EMPLOYMENT INDUSTRY GROUPS – RANKED

Category	Calgary CMA	Vancouver CMA	Edmonton CMA	Saskatoon CMA	Regina CMA	Winnipeg CMA
Warehousing and storage	1	3	6	14	4	15
General freight trucking	2	2	2	2	3	1
Construction, forestry, mining, and industrial machinery, equipment and supplies merchant wholesalers	3	8	1	3	2	9
Food merchant wholesalers	4	1	11	4	5	7
Lumber, millwork, hardware and other building supplies merchant wholesalers	5	4	8	7	10	14
Petroleum and petroleum products merchant wholesalers	6	90	21	22	39	68
Specialized freight trucking	7	18	3	5	9	10
Architectural and structural metals manufacturing	8	11	4	13	16	13
Printing and related support activities	9	7	14	22	21	5
Other machinery, equipment and supplies merchant wholesalers	10	12	7	17	13	19
Petroleum and coal product manufacturing	11	84	5	72	1	92
Computer and communications equipment and supplies merchant wholesalers	12	17	24	30	24	25
Electrical, plumbing, heating and air-conditioning equipment and supplies merchant wholesalers	13	15	13	8	12	20
Bakeries and tortilla manufacturing	14	5	16	38	17	18
Household and institutional furniture and kitchen cabinet manufacturing	15	9	31	10	26	3
Plastic product manufacturing	16	14	10	28	28	4
Other miscellaneous manufacturing	17	10	15	16	19	12
Other general-purpose machinery manufacturing	18	37	26	43	49	33
Meat product manufacturing	19	13	19	1	41	6
Navigational, measuring, medical and control instruments manufacturing	20	28	39	47	61	49
How many of Calgary CMA's top 10 industry groups are in the respective CMA's top 20?	-	9	9	8	7	8
How many of Calgary CMA's top 20 industry groups are in the respective CMA's top 20?	-	16	15	12	12	15

Conclusions

The comparative industrial markets across Western Canada all exhibit uniqueness in some aspects of their industrial employment clusters – for instance, all have a different #1 ranked industry from an industrial-type employment perspective. Overall, the larger metropolitan areas (Vancouver, Calgary, Edmonton, and Winnipeg) generate employment across a fairly similar scope of industry groups, while the smaller metros (Saskatoon and Regina) exhibit more variance. To different degrees, and varying among the industry groups, all of these comparative markets represent a competitive threat to the Calgary industrial market. Overall, it appears that the Edmonton CMA most closely reflects the range of industry clusters that are present in the Calgary CMA, as well as their relative contribution to industrial-type employment within the metro area.

Comparative Analysis Conclusions

The preceding examination that explores the Calgary CMA in the context of comparative markets reveals that there are certain aspects which are similar across most markets, but that all metro areas have defining elements of their industrial base. The broad-based appeal of Calgary as a location for industrial activities is evident in the diversity of the industrial-type employment clusters that call the city home. While Calgary's industrial market has been impacted by energy prices and the COVID-19 pandemic-induced recession, future anticipated economic growth will see vacancy levels decline and underpin rental rates once again. The new industrial pipeline for the Calgary industrial market has remained healthy, while not introducing excess/speculative new supply to the market.

As stated earlier in this report, the present supply of planned industrial lands in Calgary appears capable of meeting the site selection requirements across a range of industry groups, and there are no apparent obstacles from a land supply perspective to enabling growth and incubating new opportunities that are not already present in the local market. The city's land supply itself is a competitive advantage that can be leveraged to foster economic development. In response to industry trends – and together with the recommended refinements to planning policy to enhance economic development and monitor land supply – The City can support its industrial market to generate opportunities in industrial areas, capture the economic sectors and industries that The City is best positioned to attract, and enable growth.

Strategic Actions Not Currently Resourced in Citywide Growth Strategy: Industrial Action Plan

This attachment outlines strategic actions that would support the industrial sector; however, they are either sequential to work currently outlined in the Action Plan (Attachment 3), or cannot yet be resourced by Administration in order to be done along the timelines of Action Plan. The actions will be considered for work in future phases of the Citywide Growth Strategy.

Theme	Focus Area	Actions
Industrial Trends, Site Selection, Industrial Cluster	<ul style="list-style-type: none"> • Facilitate expected increasing demand for warehousing and logistics • Facilitate large industrial buildings and parcels • Facilitate opportunities for growth of key industry clusters and incubation of new clusters 	1. Identify and action strategies to encourage larger industrial-designated parcels to maintain industrial land uses – particularly those that offer superior access to arterial roads and highways.
Monitoring	Ongoing monitoring of “last mile” facilities	2. In recognition of their importance to the function of industrial areas, The City should monitor supply and demand for “last mile” facilities, and adapt land use policies as needed to address this market segment.
Industrial Cluster	Respond to the shortage of Heavy Industrial (I-H) designated lands	3. Identify additional parcels to accommodate the future operational need of heavy industrial uses, such as basic chemical manufacturing, and develop policy for their protection for this future purpose.
Policy and Regulation	Encourage intensification of the existing industrial parcels	4. Identify potential incentives for landowners in the existing industrial areas to unlock the redevelopment/intensification potential of their properties

Progress Update on Recent Actions

Since 2016, Administration has been working closely with industry stakeholders to mitigate obstacles to new industrial development. More recently, two growth-enabling short-term actions were identified by stakeholders during the scoping phase of this Strategy, and efforts to address them are currently underway. This attachment outlines the progress made on these two actions, and anticipated next steps.

1. Pilot a Flexible Industrial Direct Control (DC) District

Based on concerns raised by industry stakeholders over the past six months, there is a desire for increased regulatory flexibility in the Land Use Bylaw. The main concern identified is related to the current allocation of uses across the range of industrial land use districts. The current volume of uses and their allocation across generally similar districts results in the need for change of use permits and/or land use redesignations from one industrial district to another. These changes are needed to accommodate the variety of tenants or purchasers who typically locate in industrial areas. Requiring landowners to get permits and land use changes adds costs and decreases the efficient use and development of industrial lands.

The consultant work provided a third-party perspective on The City's planning policies and regulations. It supports the consolidation of industrial land use districts in the Land Use Bylaw, and recommends to increase flexibility within them. The report advocates to simplify the uses in the industrial land use districts to reduce redundancies and expedite industrial development. The report also reinforces the need to protect core industrial areas from intrusion of large commercial and institutional uses, and recognize opportunities for a broader range of complementary uses on the edges of industrial areas.

The Industrial Strategy Working Group is exploring a pilot Direct Control (DC) District Bylaw that would remove redundancy of uses and unnecessary permit/land use processes. This pilot approach is similar to that taken to support Mattamy's mixed residential communities in northeast Calgary that informed the creation of the new Residential - Low Density Mixed Housing (R-G) District. The pilot industrial DC would inform updates to the industrial districts that are being undertaken at the same time as this Strategy.

Development of the Potential Pilot Direct Control District

The pilot DC is intended to provide more flexibility and certainty to land owners, tenants, and developers. The pilot DC will be based on the existing Industrial - General (I-G) District, and its purpose is similar to I-G with the addition requirements of pedestrian pathways, increased flexibility for the floor area ratio, and allowance for variable building heights. The primary flexibility of the pilot DC is in the mix of allowable uses. These represent a combination of many of industrial and support uses found in the existing I-G, Industrial - Business (I-B), and Industrial - Commercial (I-C) Districts.

Next Steps:

Industrial developers have provided a concept of what such a DC could look like. The Industrial Strategy Working Group is currently developing the details of the pilot DC. Further development of the potential pilot DC is underway including:

- Considering innovative approaches to accommodate permitted uses that better support industrial activities and growth;

- Review of the pilot regulations to ensure consistency with the Land Use Bylaw;
- Review the pilot regulations with regard to the consultant's recommendations;
- Creating an implementation, monitoring and evaluation program for the pilot DC;
- Identifying suitable locations within the city where this DC could apply; and
- Identify characteristics of candidate sites for which this DC would be appropriate.

2. Development Standards

Discussion is underway with industry stakeholders to identify current and anticipated development standards that may challenge efficient and affordable industrial development. Although no specific challenges have yet been identified for mitigative work, Administration and industry stakeholders will continue to use the Industrial Strategy Working Group as a place to explore the opportunity for improvements. These ideas may also be identified by related groups, such as the Business Advisory Committee and Real Estate Working Group.

Summary of Social, Environmental and Economic Implications

This attachment outlines the summary of social, environment and economic benefits associated with the Citywide Growth Strategy: Industrial report.

Social

The Strategy supports Council's Social Wellbeing Policy by promoting equitable and inclusive growth through identifying potential City investments in industrial areas, and by supporting the development and intensification of non-residential properties for the general benefit of employment opportunities in the city. Supporting industrial areas in different quadrants of the City will provide a diversity of employment opportunities to nearby residential areas.

Environmental

The Citywide Growth Strategy: Industrial advocates for the intensification of industrial properties in built up areas of the city that are at least 2 hectares in size and are below average for site coverage. This could bring development to the market and reduce the need for greenfield industrial lands in the future. Utilizing well planned, well connected and centrally located industrial areas helps mitigate greenhouse gas emissions by supporting the efficient movement of goods and allowing employees access to sustainable transportation modes. This Strategy is fully aligned with the vision for industrial lands in the Municipal Development Plan, where it says in Part 3.7, "Industrial areas contribute to a strong and prosperous economy for Calgary, and should be maintained as a major economic driver for the city."

Economic

Industrial areas contribute a significant portion of the city's property tax revenue, and supply a substantial portion of the city's jobs. It is expected that warehousing and storage, general freight trucking, food merchant wholesalers, metal manufacturing, glass product manufacturing, aerospace product and parts manufacturing, food manufacturing, basic chemical manufacturing and industrial machinery manufacturing sectors will grow. These sectors are anticipated to account for the largest gains in employment over the next 25 years, and therefore can continue to play a critical role in Calgary's economic diversity and resilience. As the economy of Calgary, and the Calgary Region, seeks greater diversification, the industrial sector is uniquely positioned to support this.

Risk Summary

This attachment outlines the risks associated with the recommendations in the Citywide Growth Strategy: Industrial (the “Strategy”) report.

Risk of not undertaking the Strategy

In this competitive industrial market, there is a risk for Calgary losing additional industrial development to surrounding municipalities and other continental cities if financial challenges to industrial development are not addressed, and if Calgary’s competitive advantages are not highlighted. In order to maintain Calgary’s high rankings on liveability and affordability surveys, a strong economy and resilient tax base is required.

Competition and encroachment from non-industrial uses are putting considerable pressure on industrial lands; this should be managed strategically. Since 2009, 464 hectares of industrial lands were converted to industrial commercial or other non-industrial districts. Non action may result in deterioration of existing industrial lands and a decrease in the non-residential tax base in the city.

Risk of delaying the Strategy

Since 2016, industrial stakeholders have been working collaboratively with Administration aiming to achieve a common goal of supporting and enabling industrial development. These same stakeholders have been involved in building and refining the actions identified in Attachment 3. If this Strategy is delayed or does not proceed, there is risk of reputational loss for The City, and it may generate friction with stakeholders.

Staff resourcing

The scope of work and project timeline outlined in *Citywide Growth Strategy: Industrial Action Plan* (Attachment 3) are aggressive and there is a risk of project delay. The actions are achievable and can improve Calgary’s industrial competitiveness. Work that is important but not yet resourced is included in Attachment 6. Any additional actions added to the Action Plan may result in project delay.