

Outline Plan

Century Hills



Prepared for: Sturgeon Valley Developments Inc.

Prepared by: Invistec Consulting Ltd.

October 2024

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Executive Summary

The Century Hills Outline Plan (OP) is a non-statutory planning document that builds on and further refines details set-forth within the Sturgeon Valley Core Area Structure Plan (ASP). The OP includes information as it relates to the planning and policy framework set forth within the Edmonton Metropolitan Region Growth Plan and Sturgeon Valley Core Area Structure Plan (ASP); provides key details on planning process (public engagement), location, demographics, and existing conditions; provides a land use concept and associated policies to support and implement the concept; explores engineering analysis as it relates to transportation, infrastructure and utility servicing; an implementation section that provides key information on how the plan itself may be realized; and lastly a noise impact assessment to ascertain noise impacts from Range Road 250 on future development.

Invistec would like to thank members of Administration for the support they provided to the Project Team from the inception of the project through to the finish. In addition, Invistec would like to thank members of the Sturgeon Valley community who participated and provided insightful commentary on the Plan itself.

It is with pleasure that we deliver the Century Hills OP to Sturgeon County on behalf of the landowner.

Sincerely,

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01 Introduction

1.1 Purpose and Scope

The Century Hills Outline Plan (OP) serves to build upon the Sturgeon Valley Core Area Structure Plan (ASP). Within the OP, additional detail has been provided to capture how development will support the policies within the ASP, and will also provide further information as it relates to the future subdivision and development within the OP area.

1.2 Plan Area, Location, and Size

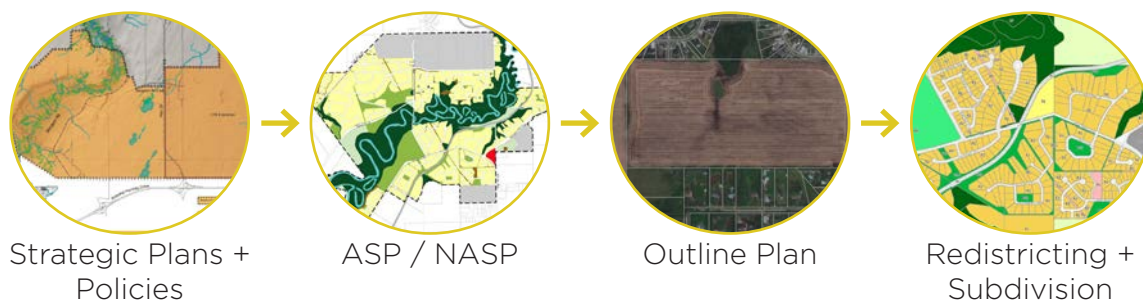
The Century Hills OP is located within the Sturgeon Valley Core Area Structure Plan and encompasses approximately 29.93 hectares (74.08 acres) of land located on NE-13-54-25-W4M. The OP is bounded by:

- Tuscany Hills subdivision to the north;
- Range Road 250 to the east;
- Neighbourhood Area Structure Plan 1 (of the Sturgeon Valley South ASP) to the west; and
- North Point subdivision to the south.

The Plan Area represents a logical continuation of growth and development within the Sturgeon Valley Core area and meets the general intent of higher order statutory policy plans in place that recommend contiguous development and efficient use of existing infrastructure systems already in place.

1.3 Planning Framework

Planning in Alberta is governed by the Municipal Government Act (MGA), which enables municipalities to establish statutory plans to facilitate future subdivision and development. This is guided by the County's Municipal Development Plan, and the Sturgeon Valley Core ASP, which this Outline Plan shall adhere to.



1.4 Authorization

The Sturgeon Valley Core ASP was approved by Sturgeon County Council on September, 14, 2021, through the adoption of Bylaw 1557 / 21. Through this adoption, future Outline Plans may be submitted in support of the ASP.

1.5 Amendment Process

The Century Hills OP may be amended from time to time in order to remain current and up-to-date in response to broader market conditions. Amendments to text, policies, or maps, shall be subject to Sturgeon County's Terms of Reference for Outline Plans.

1.6 Ownership

The Plan Area is entirely owned by Sturgeon Valley Developments Inc - a private landowner.

1.7 Plan Area History

The Plan Area historically has been used for farmland cultivation and oil & gas exploration. The Plan Area will continue to remain in an agricultural state until time of redistricting and subdivision.

Figure 1 - Location Map

 Plan Area



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02 Planning Process

2.1 Planning Consultation Process

Consultation for the Century Hills OP process proceeded in accordance with Sturgeon County's public engagement framework for Outline Plans. All affected landowners were notified via post-card mail-outs prior to the Public Open House (December 8, 2021). The following is a summary of consultation that occurred.

Pre-Application Meeting - April 7, 2021

As part of the OP Terms of Reference, a pre-application meeting was held with Sturgeon County's Planning Department. The purpose of the meeting was to discuss the scope and requirements for the OP. In addition to the initial pre-application meeting, Invistec met multiple times throughout the course of the project process with members of County Administration to further flesh out key project questions and processes.

Mail-Out Notification - November 26, 2021

A mail-out notification post-card was sent to all affected area landowners, as determined by Sturgeon County Administration. The notification post-card alerted affected area landowners of the Outline Plan public open house date, time, and venue location, the project area, and provided details as to what would be discussed at the open house event.

Public Open House - December 8, 2021

Invistec hosted a public open house on December 8, 2021 with a member of Sturgeon County Administration in attendance. The purpose of the open house was to provide a presentation on the proposed land use concept, the planning process, and to hear from attendees regarding questions and comments about the plan. All feedback received was summarized into a What We Heard Report and is submitted under separate cover.

2.2 Planning Consultation Results

The Public Open House was held at Cattail Crossing Golf & Winter Club on December 8, 2021 from 6pm-8pm. A total of 33 local area residents attended the Open House with 159 post card mail outs being sent to local area residents / landowners on November 26, 2021. The Project Team discussed the land use concept with residents, answered questions regarding the project, provided a formal presentation and project overview, and concluded with a question and answer period. Local area residents were asked to provide feedback through digital or hard-copy feedback forms. A total of 22 responses were received between December 9, 2021 - January 10, 2022. In addition, a Project Team member provided residents who could not attend the event with presentation materials and answered any inquiries they had as it related to the proposal. Several key themes emerged from feedback analysis with them being grouped as follows:

- **Density and Housing:** some respondents stated they would like to see the plan be developed as Large Lot Transitional only. The Plan contemplates a mixture of Single Detached (low density) Residential and Large Lot Transitional.
- **Open Space:** respondents indicated they liked the incorporation of open space and natural areas in the proposed plan and would like to see more open space included for natural areas and wildlife.



- **Neighbourhood Commercial:** some respondents disagreed with the inclusion of neighbourhood commercial in the plan area due to existing commercial services being located nearby in the City of St. Albert. Respondents stated that the inclusion of neighbourhood commercial would also be a traffic and safety concern.
- **Servicing and Infrastructure Capacity:** with increased population proposed, respondents stated concerns around fire, police, road traffic, and utility servicing (primarily water and drainage) and want to ensure that these services can be appropriately met.
- **Community Safety:** respondents pointed out a concern with increased population bringing forward increased crime within the Valley Core area. Further, resident feedback also highlighted concerns around traffic and safety of residents in Tuscany Hills who use their roads to go for walks (as they do not have sidewalks).



2.3 Redistricting & Subdivision

Land within the OP is currently districted Agriculture (Ag). Redistricting and subdivision of land will be required to facilitate the allowable densities and desired uses found within Figure 6 - Land Use Concept. Stage 1A will be redistricted concurrently with the Outline Plan application. Future redistricting applications for subsequent stages of development will require verification through updated reports at the Outline Plan level.

2.4 Rationale

Century Hills OP will help to achieve contiguous and efficient use of infrastructure within the County. Furthermore, the proposed OP meets the spirit and intent set-forth within higher order statutory plans set in place by the Edmonton Metropolitan Region Board's Growth Plan, and Sturgeon County's Sturgeon Valley Core Area Structure Plan (ASP). Lastly, the OP will enable further housing opportunities and neighbourhood commercial services, which helps to contribute to the overall vision for the Sturgeon Valley Core area.

03 Policy Framework

3.1 Edmonton Metropolitan Region Growth Plan

Table 1. Compliance with the Edmonton Metropolitan Growth Plan

Edmonton Metropolitan Region Growth Plan	Century Hills Outline Plan
<i>Appendix G - Negotiated Policies for the Sturgeon Valley Special Study Area</i>	
<p>1.0 Guiding Principle of the Sturgeon Valley Special Study Area Sturgeon County - in collaboration with the City of St. Albert and City of Edmonton, will plan for the completion of the Sturgeon Valley in a contiguous, compact manner with transitions that are sensitive to existing established communities, surrounding agricultural area and metropolitan boundaries.</p>	<p>The OP represents a logical extension of development within Area C of the SVSSA. With existing Country Residential to the north and south of the OP area, Century Hills will build upon existing development in a contiguous manner.</p>
<p>Area C - Contains the existing Sturgeon Valley community; an established serviced rural residential development containing approximately 3,400 residents. This Valley Core includes 33 multi lots nearing 86% built-out, with 1,452 approved/registered lots.</p>	<p>The OP falls within Area C and is captured within the Sturgeon Valley Core Area Structure Plan.</p>
<p>3.1.2.b.i - Within the overall density target above, development will demonstrate a gradient / transitioned approach. This ensures that: i. the character and built form of the established Sturgeon Valley community (Area C) is protected, such that higher densities shall be applied progressively between that community and the urban areas of Edmonton and St. Albert (Areas E and F)</p>	<p>The OP land use concept meets the density target set-forth within the Edmonton Metropolitan Region Growth Plan and Sturgeon Valley Core Area Structure Plan. In addition, Large Lot Transitional has been located within the OP to complement and transition existing adjacent development north and south of the OP. In addition, an existing tree stand borders the Plan Area to the south and will provide privacy and mitigation from future development.</p>
<p>3.1.2.d - A variety of non-residential developments will be incorporated within the planning areas to provide diverse employment opportunities.</p>	<p>The OP provides non-residential employment opportunities through the inclusion of neighbourhood commercial.</p>

Edmonton Metropolitan Region Growth Plan	Century Hills Outline Plan
<i>Appendix G - Negotiated Policies for the Sturgeon Valley Special Study Area</i>	
3.1.2.f. - Greenspace and protection of natural areas will be incorporated to contribute to an open and connected environment that can be actively used by residents of the community and also may assist with the transitional gradient.	The OP incorporates Open Space within the land use concept, and in doing so will enhance pedestrian connectivity options, and provides the opportunity for future residents to gather and recreate within this space.
3.1.2.h - Inclusion of a comprehensive Fiscal Impact Assessment that illustrates the full, life-cycle development costs.	A Fiscal Impact Assessment will be completed at the time of future subdivision in support of the Outline Plan application.
3.2.3 - Future residential development in Area C will be consistent with existing development densities, up to a maximum density of the lowest Rural Tier minimum greenfield residential density target as identified in the Edmonton Metropolitan Region Growth Plan.	The OP has a planned density of 17 units per net residential hectare.

3.2 Sturgeon County Municipal Development Plan

Table 2. Compliance with Sturgeon County Municipal Development Plan

Sturgeon County Municipal Development Plan	Century Hills Outline Plan
<i>1.2 Establishing Effective and Collaborative Processes</i>	
1.2.8 - Shall foster community dialogue and participation when collaborating with the general public regarding land-use planning.	Mail out notifications were distributed to affected area residents inviting them to attend a Public Open House held December 8, 2021 to discuss the Outline Plan and its proposed land use concept. Moreover, Invistec fielded email inquiries about the project process, as well as mailed out an additional public notification letter in January 2024 to close the loop with community members.
<i>1.4 Enacting Responsible Subdivision and Development Practices</i>	
1.4.1 - Shall apply the full entitlements of environmental, municipal and school reserve dedication during the subdivision process, in accordance with the Municipal Government Act (MGA) and based on the needs of Sturgeon County.	The OP has dedicated 8.15% municipal reserve for future park and open space. The remainder shall be paid through cash-in-lieu.
1.4.3 - Shall apply the requirements outlined within the Province of Alberta's Water Act.	The OP has included a desktop Wetland Assessment and has also included a field assessment to verify grades of wetlands found within the Plan Area. Low grade wetlands have been impacted at a cost verified by a Wetland Area Impact Assessment and formal Water Act Application reviewed and approved by Alberta Environment and Parks. Related Water Act approvals and documentation has been provided under separate cover.

Sturgeon County Municipal Development Plan	Century Hills Outline Plan
<p>1.4.5 - Shall refer to and apply the provincial setback regulations and guidelines respective to sour gas and other oil and gas facilities, including pipelines, when considering subdivision and development applications. Proposed land uses in proximity to sour gas facilities shall complement the activity and minimize risk to the public's health and safety.</p>	<p>The OP has no sour gas facilities. An active ATCO pipeline that bisects the Plan Area carries low pressure gas and has been incorporated within the Land Use Concept. No AER, AUC, or ATCO Pipeline development setbacks for these pipelines outside of the pipeline right-of-way is required. AER Directive 079 will inform the future requirements for setbacks from an abandoned well.</p>
<p><i>2.1 Creating Attractive and Complete Communities</i></p>	
<p>2.1.1 - Should identify and apply usable and accessible municipal reserve land dedication for the development of open spaces, parks and other public amenities.</p>	<p>The OP has incorporated municipal reserve land that may be utilized as open space area and may connect to walkways within the Plan Area.</p>
<p><i>2.3 Accommodating Diverse Housing Options</i></p>	
<p>2.3.6 - Should advocate for compact residential types, mixed-use developments, secondary suite allowance, walkable communities and communal open space in accordance with the Edmonton Metropolitan Region Growth Plan's strategic principles.</p>	<p>The OP has provided for various forms of Small Lot Transitional products, and also provided neighbourhood commercial opportunity to support future resident needs within the Plan Area.</p>
<p><i>5.4 Implementing Responsible Non-Residential Subdivision and Development Practices</i></p>	
<p>5.4.22 - Shall develop and implement commercial retail development standards that promote high-quality design principles, including both a type and scale appropriate to the area in which the development is located.</p>	<p>The OP has included policy that will require neighbourhood commercial development provide design principles that are appropriate and sufficient, to the satisfaction of the Development Authority.</p>
<p><i>Neighbourhood G Placemaking Principles</i></p>	
<p>1.1 Responsible to the Regional Context, delivering sustainable places.</p>	<p>The OP has been developed to align with regional policy (EMRB Growth Plan) and brings online future residential and commercial opportunities within Neighbourhood G.</p>
<p>1.2 Demonstrating long-term viability, ensuring complete, well-serviced communities.</p>	<p>A Financial Impact Assessment will be required to be completed at the time of subdivision.</p>
<p>1.3 Providing logical and timely infrastructure that provides high-quality service to residents now and in the future.</p>	<p>The OP has considered the greater extent of the Sturgeon Valley and has provided connectivity options to future Valley planning areas.</p>
<p>1.4 Creating a well-connected community, through the design of an interconnected Valley network.</p>	<p>The OP has provided for alternative modes of transportation by utilizing urban cross sections that allow for sidewalk connectivity, and public utility lots, which will serve as connecting points to other neighbourhoods and open spaces within the Valley Core area.</p>

3.3 Sturgeon Valley Core Area Structure Plan

Table 3. Compliance with the Sturgeon Valley Area Structure Plan

Sturgeon Valley Core Area Structure Plan	Century Hills Outline Plan
<i>5.3 Agriculture</i>	
5.3.3 - outline plans may consider lands to be retained for urban agriculture, or to incorporate agricultural elements into the development, such as community gardens, greenhouses, etc.	The OP has dedicated municipal reserve as future public open space. At time of future development, opportunities may exist for community garden use within the public open space.
<i>5.4 Valley Core Reserve</i>	
5.4.1 - The County shall direct future multi-lot residential development to areas designated as Valley Core Reserve. The designation of additional area as Valley Core Reserve shall be through an orderly amendment process.	The OP falls within and is identified as Valley Core Reserve lands.
5.4.2 - The County shall require that landowners and/or applicants to prepare and submit to the County an Outline Plan prior to submitting a redistricting and tentative plan of subdivision to facilitate the approval process.	The OP will be submitted in advance of subdivision.
5.4.4. - The County shall permit development density up to a maximum of 20du/nrha on lands designated as Valley Core Reserve.	The OP proposes a density of 17 du/nrha.
5.4.5 - The County shall require that lands designated as Valley Core Reserve are developed in a manner complementary to regional policies and cognizant of existing communities.	The OP has been developed in a way in which it complements regional and local aspirations, while also ensuring character, architecture, and quality is kept to a standard that complements existing / surrounding development.
5.4.6 - Proposed residential lots within the Valley Core Reserve that abut existing multi-lot residential lots prior to the adoption of this Area Structure Plan shall be developed in a manner consistent with the land use district of the existing multi-lot residential lots.	The OP has provided complementary Large Lot Transitional where the site abuts existing multi-lot residential.
<i>5.5 Residential</i>	
5.5.3 - The County shall require that any development within the Plan area meets all fire protection requirements as outline in the National Fire Code - Alberta Edition and the National Building Code - Alberta Edition, as well as the High Intensity Residential Fires (HIRF) requirements.	Future applications for development within the OP shall meet minimum separation requirements and for any development that cannot, shall be subject to further fire-proofing to the satisfaction of the contracted safety codes official for Sturgeon County.

Sturgeon Valley Core Area Structure Plan	Century Hills Outline Plan
5.6 Environmental Protection	
<p>5.6.9 - The County may require an environmental impact assessment prepared by a qualified professional for any proposed development within or adjacent to lands designated as Environmental Protection.</p>	<p>The OP has completed supporting environmental technical studies (under separate cover) as per the requirements of submitting OPs to Sturgeon County.</p>
<p>5.6.10 - The County shall require subdivision applicants to obtain appropriate approvals in accordance with the Historical Resources Act.</p>	<p>The OP has no Historical Resources within the Plan Area and therefore is not subject to further approvals. A confirmation correspondence from the Branch of Historical Resources was confirmed in addition to a desktop map and research completed and provided within the OP.</p>
<p>5.6.11 - The County shall require that development complies with all setback requirements from oil and gas infrastructure as prescribed by the Alberta Energy Regulator.</p>	<p>The OP has no sour gas facilities. An active ATCO pipeline that bisects the Plan Area carries low pressure gas and has been incorporated within the Land Use Concept. No AER, AUC, or ATCO Pipeline development setbacks for these pipelines outside of the pipeline right-of-way is required. AER Directive 079 will inform the future requirements for setbacks from an abandoned well.</p>
5.7 Parks, Open Space, Trails, and Recreation Facilities	
<p>5.7.2 - The County shall take 10% of the gross developable land to be subdivided as municipal reserve, cash-in-lieu, or a combination thereof. If land is taken, it should be in a configuration that supports the ASP objectives of establishing linked greenway corridors, buffering of land uses, and internal amenity space.</p>	<p>The OP has dedicated 8.15% municipal reserve. The proposed public open space supports the objectives of the ASP. The remaining 1.85% of MR owed will be cash-in-lieu.</p>
5.9 Transportation	
<p>5.9.5 - The County shall require that any future roadway upgrades or expansions meet the County's General Municipal Servicing Standards.</p>	<p>The County has updated their General Municipal Servicing Standards to accommodate the density requirements of the ASP.</p>
5.10 Servicing Standards	
<p>5.10.2 - During the preparation of Outline Plans, applicants shall be required to prepare detailed reports outlining the impact that the new development will have on the municipal water and wastewater infrastructure, and describe any upgrades that may be required and the associated cost. When carrying out this assessment, the applicant will need to consider the adjoining lands that may also be developed in the future.</p>	<p>An Engineering Design Brief, Hydraulic Network Analysis Report, and Lift Station Report has been prepared and submitted (under separate covers) in support of the OP. The reports include engineering analysis of sanitary, storm, and water networks to accommodate the proposed densities, roadway network, and stormwater run-off.</p>

Sturgeon Valley Core Area Structure Plan	Century Hills Outline Plan
<p>5.10.3 - The County shall require wastewater servicing concepts to be developed as a part of Outline Plans. Where possible, new wastewater servicing shall be an extension of existing wastewater infrastructure.</p>	<p>Wastewater servicing and Lift Station analysis have been prepared and submitted (under separate covers within the engineering design brief and Lift Station Report's) in support of the OP. Further analysis and detail drawings shall occur at future subdivision stage.</p>

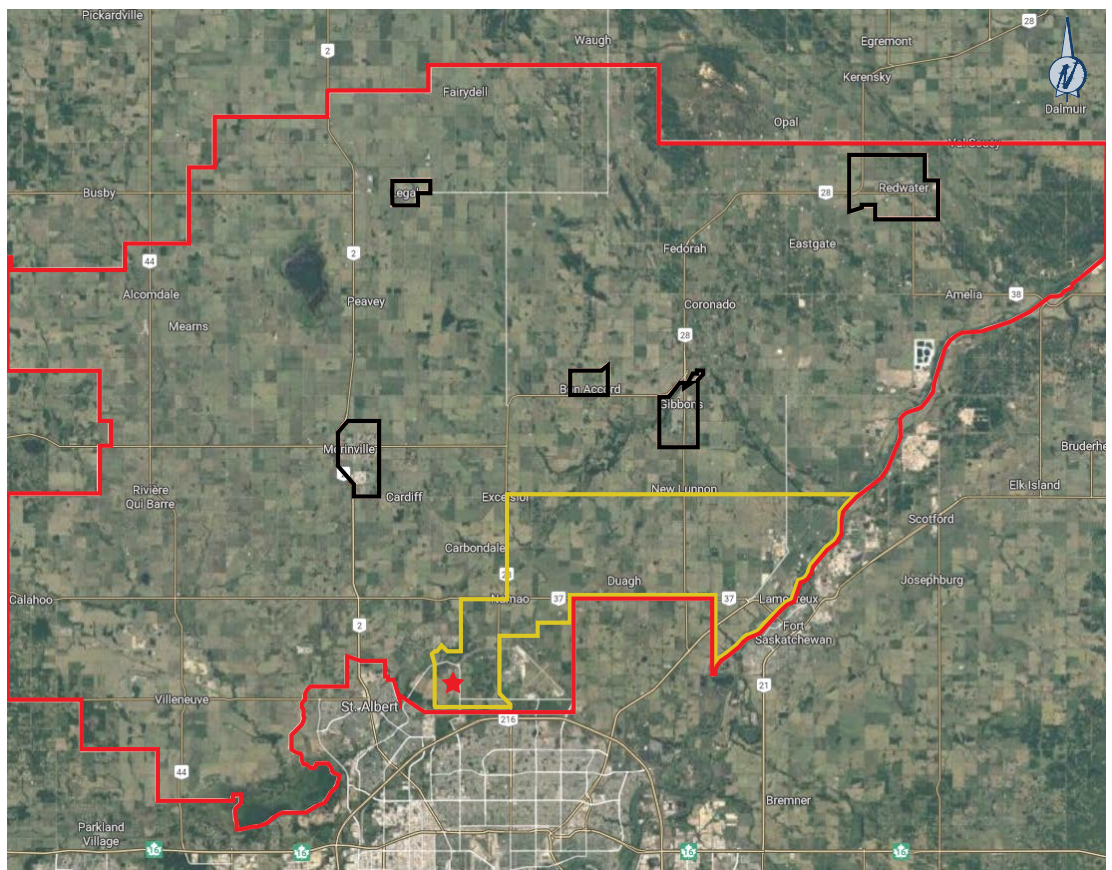
04 Existing Conditions

4.1 Demographics

The Plan Area is located within the Sturgeon Valley Core Area, and more specifically, within Division 1. According to the 2019 Sturgeon County Municipal Census, Division 1 comprises 3,290 people (or 16%) of the County's total population (as of 2019). A community profile portrait has been created to establish a comparative breakdown of key County demographic data.

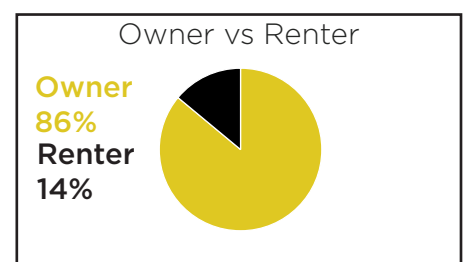
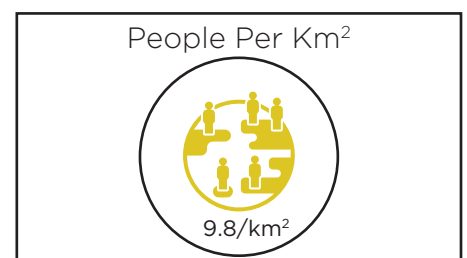
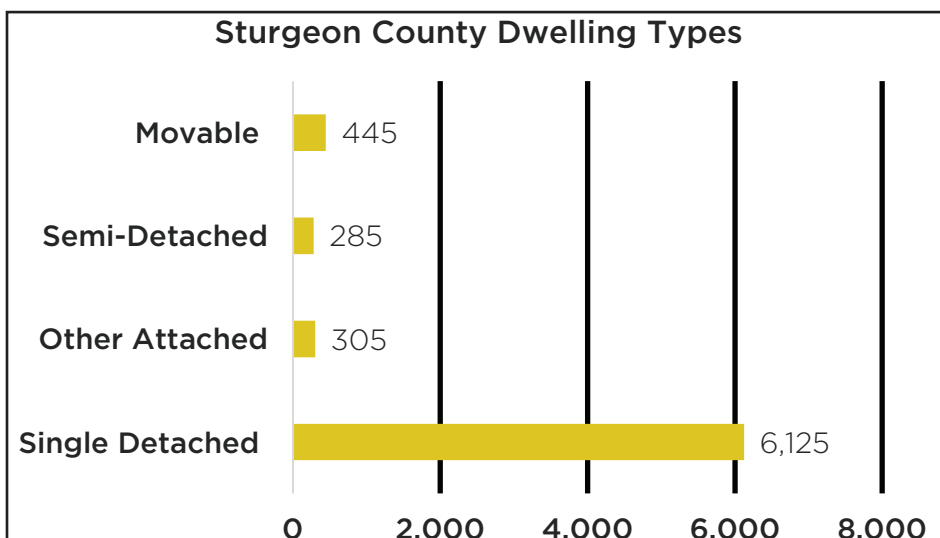
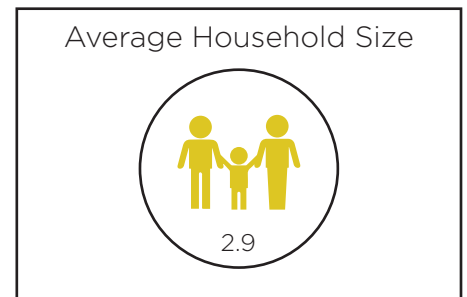
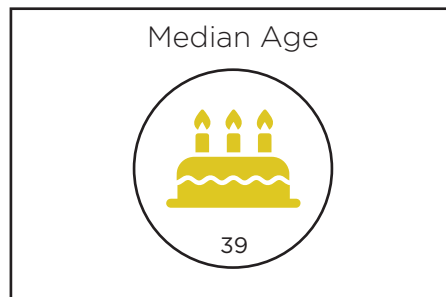
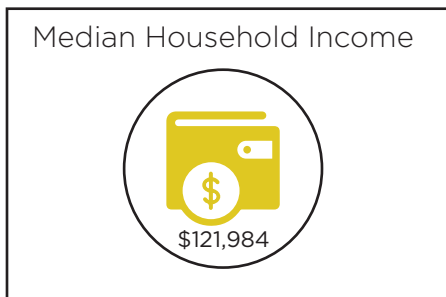
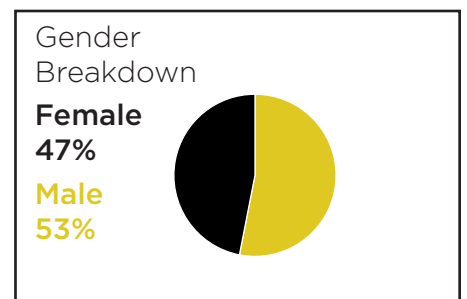
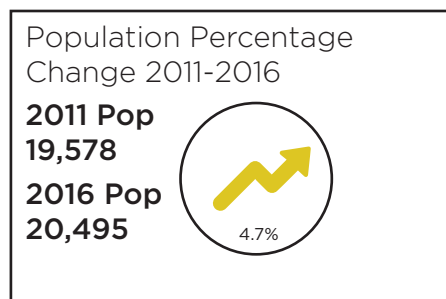
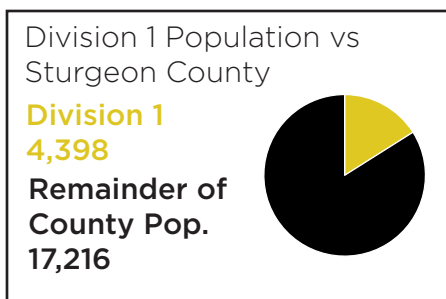
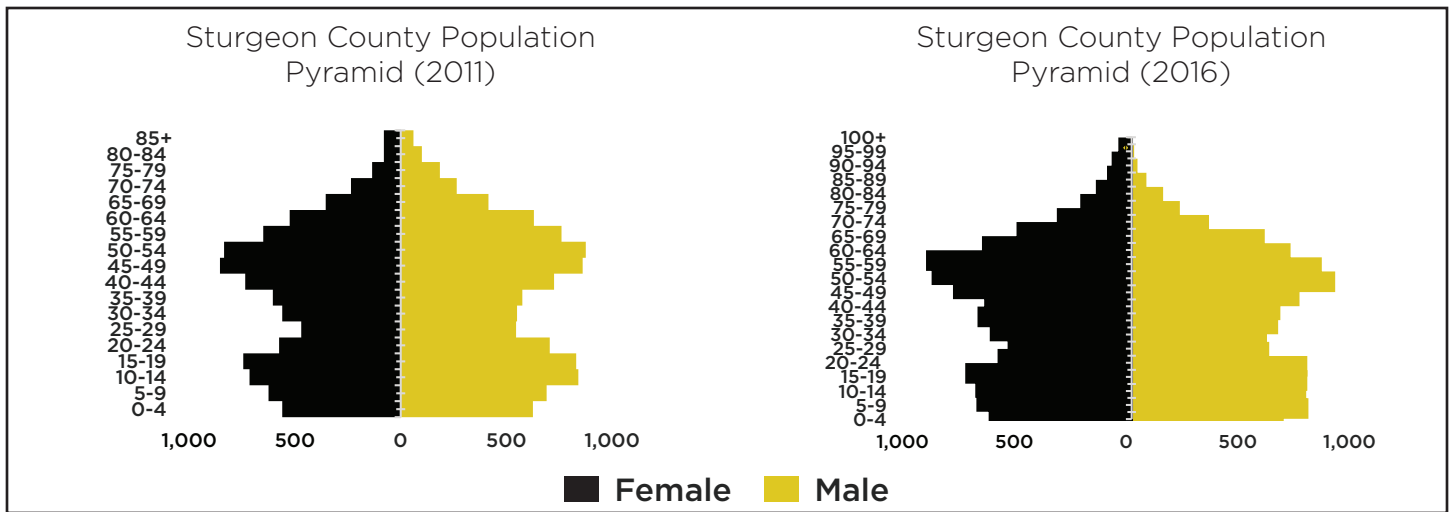
Figure 2 - Division Map

- ★ Plan Area
- ▭ Sturgeon County Boundary
- ▭ Town Boundary
- ▭ Division 1 Boundary



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4.1.1 Sturgeon County Community Profile



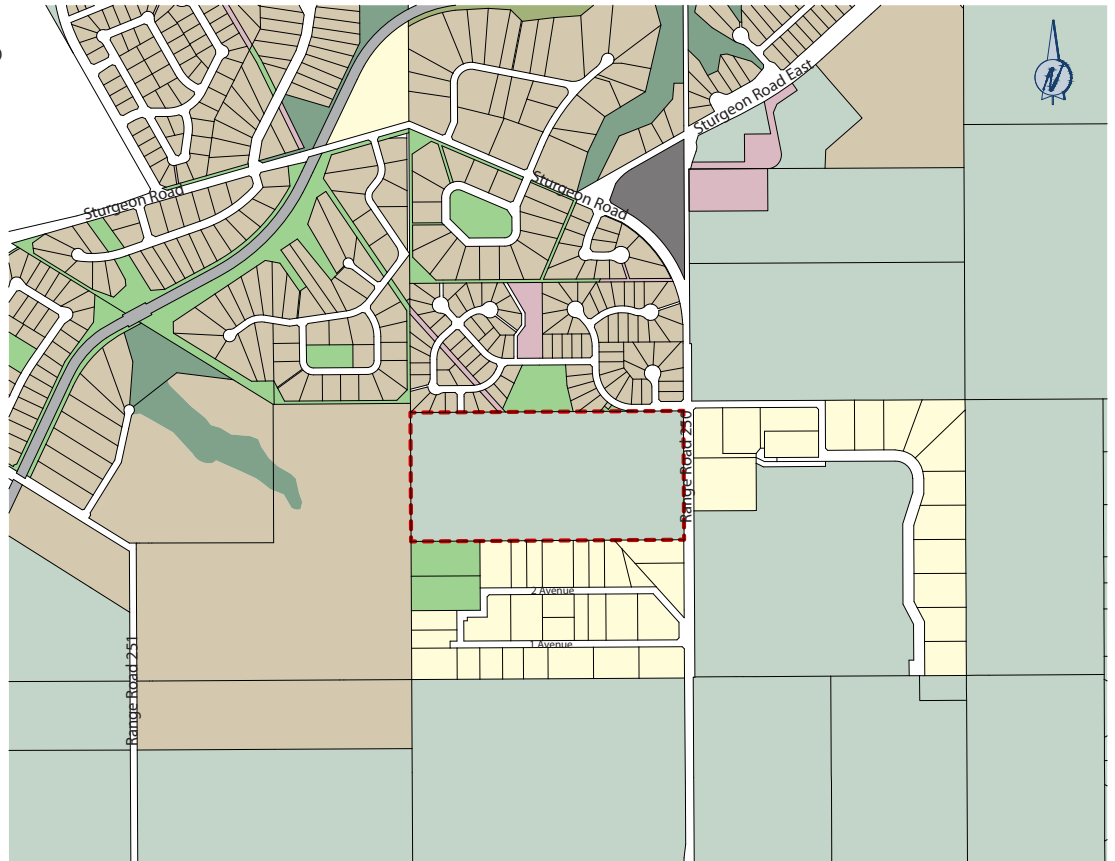
Source: 2019 Municipal Census, Sturgeon County., 2016 Census Profile, Statistics Canada

4.2 Existing Land Use Districts

The Plan Area is currently districted Agriculture (Ag) in support of traditional agricultural practices. Adjacent existing land uses include Country Residential District (R-1) to the south, Public Open Space District (POS) to the south, Country Estates Residential District (R-2) to the west, Country Estates Residential District (R-2) to the north, Public Open Space District (POS) to the north, and a mix of Agriculture District (Ag) and Country Residential District to the east of the Plan Area.

Figure 3 - Existing Land Use Districts Map

- Plan Area
- Agriculture
- Alternate Jurisdiction
- Country Estate
- Country Residential
- Direct Control
- Environmental Protection
- Public Open Space
- Public Utility



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4.3 Local Existing Amenities

The Plan Area is not currently served by local commercial amenities or services. Valley Area residents are required to drive to either St. Albert or north Edmonton in order to satisfy their commercial service needs.

4.4 Site Considerations and Constraints

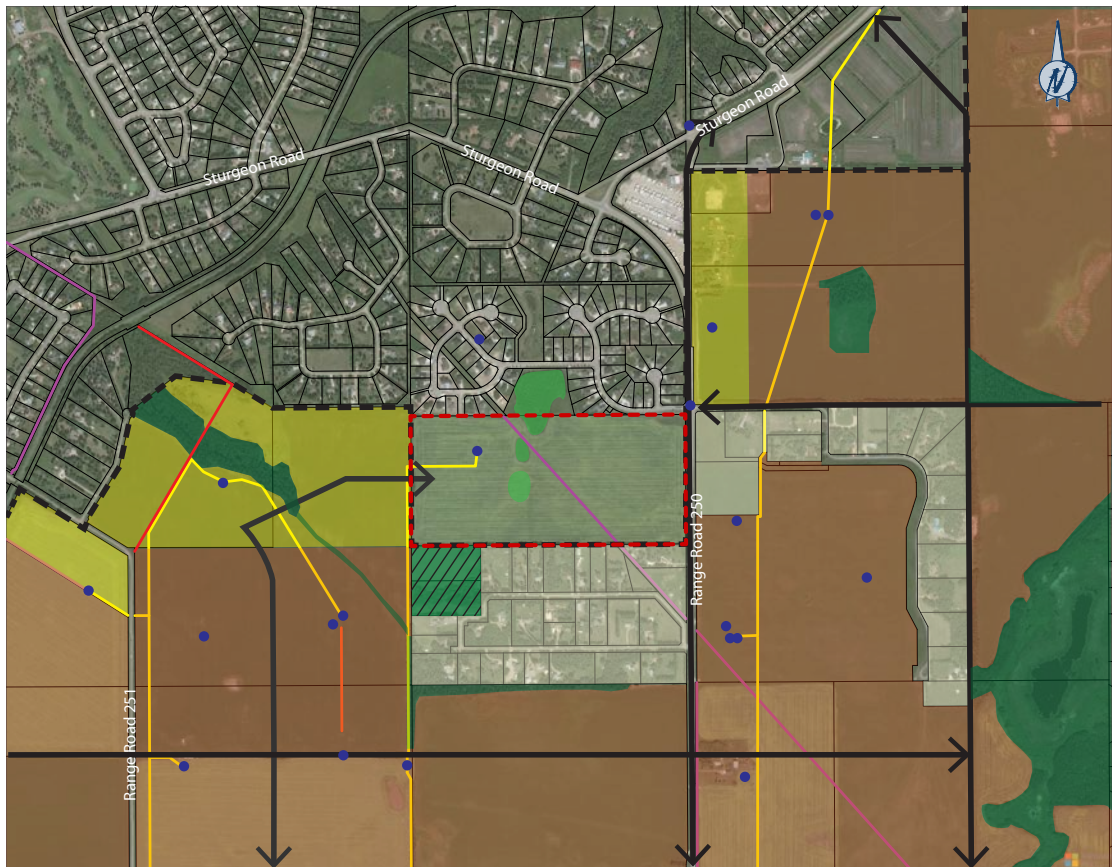
Century Hills has oil and gas infrastructure along with natural areas that have been factored into the planning and design of the land use concept. Considerations have been made to ensure the active ATCO pipeline ROW serves as a future shared use pathway amenity, while the abandoned well is protected through a registered easement of at least 5m as per Alberta Energy Regulator directive 079. Both identified natural areas are of class D wetland value and will be impacted to accommodate roadway, residential, and public open space. By impacting the two identified natural areas, future programming and functional public open space may be achieved in a manner that benefits future residents and acts as a central gathering space within the Plan Area.

Further, the Century Hills Outline Plan is located adjacent to lands within the Sturgeon Valley South ASP, which has densities for lands immediately west of the OP approved to a maximum density of

20 du/nrha, and lands directly east with an approved density of 20 to 35 du/nrha. Considerations for access and utility infrastructure have been incorporated into the planning and engineering elements of this OP.

Figure 4 - Site Considerations Map

- Plan Area
- Abandoned Well
- Natural Area
- Miscellaneous Pipeline
- Gas Pipeline
- Saltwater Pipeline
- Power Line
- Sturgeon Valley South Area Structure Plan
- Sturgeon Valley South ASP 20 du/nrha (maximum)
- Sturgeon Valley South ASP 35 du/nrha (minimum)



Source: SPIN2, 2021

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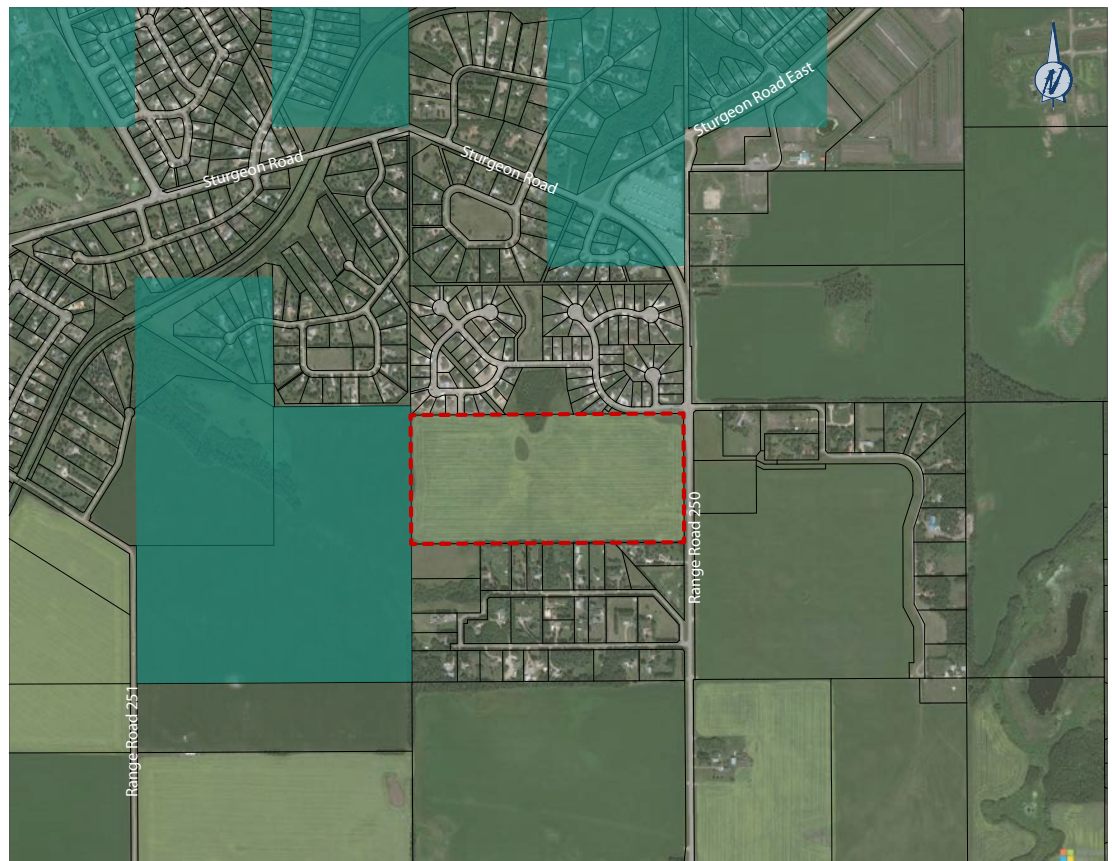
Note: the gas pipeline that bisects the Plan Area has 1 line abandoned with another line remaining active - development shall respect the existing ATCO infrastructure and shall coordinate with ATCO prior to any ground disturbances. The abandoned well has been discharged from title and shall be respected through the provisions of a registered working easement of at least 5m in radius as per Alberta Energy Regulator (AER) directive 079. This easement shall be registered at time of future subdivision. Lastly, the saltwater pipeline that feeds into the abandoned well has been discharged from title and shall be cut, capped, and removed prior to future construction in accordance with the Province's Pipeline Act - Pipeline Rules.

4.5 Historical Features

A desktop search was conducted June 1, 2021 in order to ascertain if the Plan Area had any historical features. Desktop research indicated no historical resources are present within the immediate Plan Area and therefore no Historical Resource Assessment is required in support of this OP. Confirmation of this notion was also received via email correspondence dated August 4, 2021 by Historical Resources Management Branch - a copy of which has been provided under separate cover.

Figure 5 - Historic Resources Map

-  Plan Area
-  HRV5



Source: Alberta Historic Resources Management Branch, 2021

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4.6 Biophysical Features

The Plan Area consists of mainly flat with gently rolling terrain. The Plan Area is 691 metres above sea level, with low lying areas found in the central and eastern portions of the Plan Area. Regional groundwater flow is generally towards the northeast and the Sturgeon River. The majority of the Plan Area is covered with agricultural crops. One tree stand and two wetlands were identified, however, both wetlands were classified as low grade (class D) season graminoid marshes (M-G-III) and will be impacted to accommodate future development.

Soil conditions within the Plan Area consist of superficial topsoil, underlain by lacustrine clay, silty clay, clayey silt, and silty sand. Soil conditions do not present any challenges to supporting future residential development.

4.7 Environmental Features

An updated Phase I ESA and Groundwater Monitoring Report was completed by Nichols Environmental in support of this OP. The report was prepared June 29, 2021 and concluded the following:

- The level of environmental risk associated with the Plan Area is low given the remediation and reclamation undertaken to date and the most recent (May 2021) groundwater sampling data, which did not indicate any potential contaminants of concern that would suggest residual impacts associated with the former well-site and pose a risk to human health or the environment; and
- No further assessment is recommended at this time.

The complete Phase I ESA and Groundwater Monitoring Report has been submitted under separate cover.

4.8 Geotechnical Investigation

JR Paine conducted an update to their 2010 geotechnical site exploration and investigation report. Findings of the updated report conclude that the subsurface soil conditions encountered throughout the site are considered satisfactory to support and construct standard house concrete footing foundations and basement slab-on-grade. The entirety of the report has been submitted under separate cover in support of this OP.

4.9 Utility Infrastructure

Currently, the OP is not serviced by utility infrastructure. Shallow, deep and franchise utilities will all be required to be installed at the time of future development in order to service the OP. Existing water and sanitary infrastructure located within Tuscany Hills may be utilized for future servicing connections for Stage 1A.

4.10 Transportation Network

The Plan Area is bounded to the east by Range Road 250. The primary access into the development will be directly from Range Road 250. Range Road 250 is earmarked to be a future 4-lane divided arterial roadway to support growth within the Valley. Therefore, Range Road 250 will require widening to accommodate future projected traffic volumes. Due to existing residential development north and south of Century Hills OP, arterial roadway dedication along the west portion of Range Road 250 will be limited and its ultimate additional dedication area is subject to the detailed design stage once Range Road 250 has an approved County concept plan.

Pedestrian traffic will be accommodated through a mix of sidewalks, open space (MR), PUL's, stormwater management walkways, and a multi-use trail within the pipeline right-of-way. Sidewalks will be provided within all local and collector roadways in accordance with Sturgeon County's General Municipal Servicing Standards 2023 update.

Refer to Section 7: Engineering for additional details on the proposed roadway network.

05 Vision Statement

5.1 Vision

Century Hills will be a fully serviced residential development and will provide a mix of complementary estate homes similar to what is found within the Valley Core area, while also providing opportunities for other forms of Small Lot Transitional. Century Hills will also bring new local amenities through the inclusion of neighbourhood commercial, pathways, and public open space. Smart City design features and opportunities should also be considered wherever possible to provide new methods of community energy consumption and digital connectivity. Ultimately, Century Hills will provide complete community standards, while contributing to the greater Sturgeon Valley character.



5.2 Guiding Principles

Century Hills is guided by the following development principles:

- **Housing Character:** Century Hills will build upon local area architecture and scale to ensure sense of place is achieved;
- **Connectivity:** Century Hills will utilize interconnecting pedestrian walkways and open spaces for future residents to utilize and navigate across the community, ultimately providing them with an increased opportunity to achieve an active balanced lifestyle;
- **Infrastructure Efficiency:** Century Hills represents a logical continuation of development within the Sturgeon Valley Core Area by building upon Tuscan Hills subdivision to the north and North Point subdivision to the south as well as future planning to both the west and the east. Alternative (renewable) energy solutions for heating (hydrogen and natural gas blending), and solar electricity should be considered and integrated, wherever possible; and
- **Land Stewardship:** Century Hills will implement updated policies derived from the Edmonton Metropolitan Region Growth Plan Special Study Area Policies and the Sturgeon Valley Core Area Structure Plan policies for density, design, and environmental considerations.

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06 Development Strategy

6.1 Land Use and Population Statistics

	Area (ha)	% of GDA
Total Plan Area	29.97	
Public Utility Lot (Pipeline)	0.71	
Public Utility Lot (Utility Easement)	0.51	
Public Utility Lot (Stormwater Management Facility)	2.08	
GROSS DEVELOPABLE AREA	26.67	100.0%
Municipal Reserve (MR) (Park + Open Space)	2.34	8.78%
Neighbourhood Commercial	0.76	2.85%
Public Utility Lot (Walkway)	0.22	0.82%
25m Road Right of Way (Collector)	2.05	7.68%
20m Road Right of Way (Local)	4.55	17.05%
6m Alley	0.47	1.76%
TOTAL Non-Residential Area	10.39	38.95%
Net Residential Area (NRA)	16.28	61.05%

RESIDENTIAL LAND USE AREA, UNIT, AND POPULATION COUNT

Land Use	Area (ha)	% of NRA	Units/ha	Units	PPDU	Pop.
Large Lot Transitional	3.10	19%	5	16	3.16	50
Small Lot Transitional	13.19	81%	20	264	3.16	834
Total Residential	16.29	100%		280		884

Population Density (ppnrha) 54.3

Unit Density (upnrha) 17

STUDENT GENERATION

	Elementary (K-6)	Junior High (7-9)	Senior High (10-12)	Total
Public	37	18	18	74
Separate	18	9	9	37
TOTAL	55	28	28	111

6.2 Land Use Concept

The land use concept for the Century Hills OP includes a mix of uses, which is comprised of Large Lot Transitional, Small Lot Transitional, Neighbourhood Commercial, Public Utility Lots, and Parks and Open Spaces. The land use concept is illustrated in Figure 6.

6.2.1 Overall Development Rationale

The Plan's primary intent is to provide a complementary form of Large Lot Transitional development that is adjacent to existing subdivisions, which then transitions to a Small Lot Transitional form of development. The Plan also contemplates a future neighbourhood commercial component with prime Range Road 250 exposure.

The proposed Plan has one abandoned ATCO pipeline, one active low pressure ATCO gas pipeline, and one abandoned well. The ATCO gas pipeline(s) that bisects the Plan Area southeast to northwest has been incorporated into the design of the plan. The abandoned well has also been incorporated into the plan and will be integrated through the regulations set-forth within AER directive 079.

Residential uses dominate the land use concept and will be located throughout the Plan Area. The net residential area is 16.29ha. The Plan, in accordance with the Edmonton Metropolitan Region Growth Plan, Appendix G – Sturgeon Valley Special Study Area for the Metropolitan Area, will meet the 2-20 du/nrha by providing an overall planned density of 17 du/nrha.

Neighbourhood commercial has also been provided within the southeast segment of the Plan Area and will provide daily consumer and retail needs to existing and future residents. There will be 0.76ha of neighbourhood commercial provided.

6.2.2 Large Lot Transitional

Large Lot Transitional includes opportunities for larger lots and larger homes complementary to what exists within the current Sturgeon Valley Core area. By including opportunities for Large Lot Transitional, a gradient in density transition will occur within the OP, and serve as a product transition between the Small Lot Transitional and existing forms of residential development adjacent to the OP. Large Lot Transitional will utilize Sturgeon County's Transitional Valley Residential District (R-7) in the Land Use Bylaw, and its expected use is Dwelling, single detached.

6.2.3 Small Lot Transitional

Small Lot Transitional includes opportunities for varied lot depths and widths and this land use will primarily be on the interior of the Plan Area. Small Lot Transitional will utilize Sturgeon County's Transitional Valley Residential District (R-7) in the Land Use Bylaw.

6.2.4 Neighbourhood Commercial

Neighbourhood commercial development is a critical component to the Plan as it will not only provide opportunities to service future resident consumer retail needs, but will also allow the County to continue to diversify its tax base and achieve a greater balance between residential and non-residential land uses. Furthermore, the location of the commercial land has strong exposure and siting along Range Road 250. Neighbourhood Commercial will utilize Sturgeon County's Neighbourhood Commercial District (C-3) in the Land Use Bylaw.

6.2.5 Park / Open Space

The parks and open spaces in the Plan will include opportunities for pedestrian walking paths. A series of interconnecting walkways / pathways will facilitate pedestrian circulation throughout the Plan Area and allow for residents to reach various parts of the neighbourhood safely and conveniently. Park and Open Space will utilize Sturgeon County's Public and Open Space District (POS) in the Land Use Bylaw.

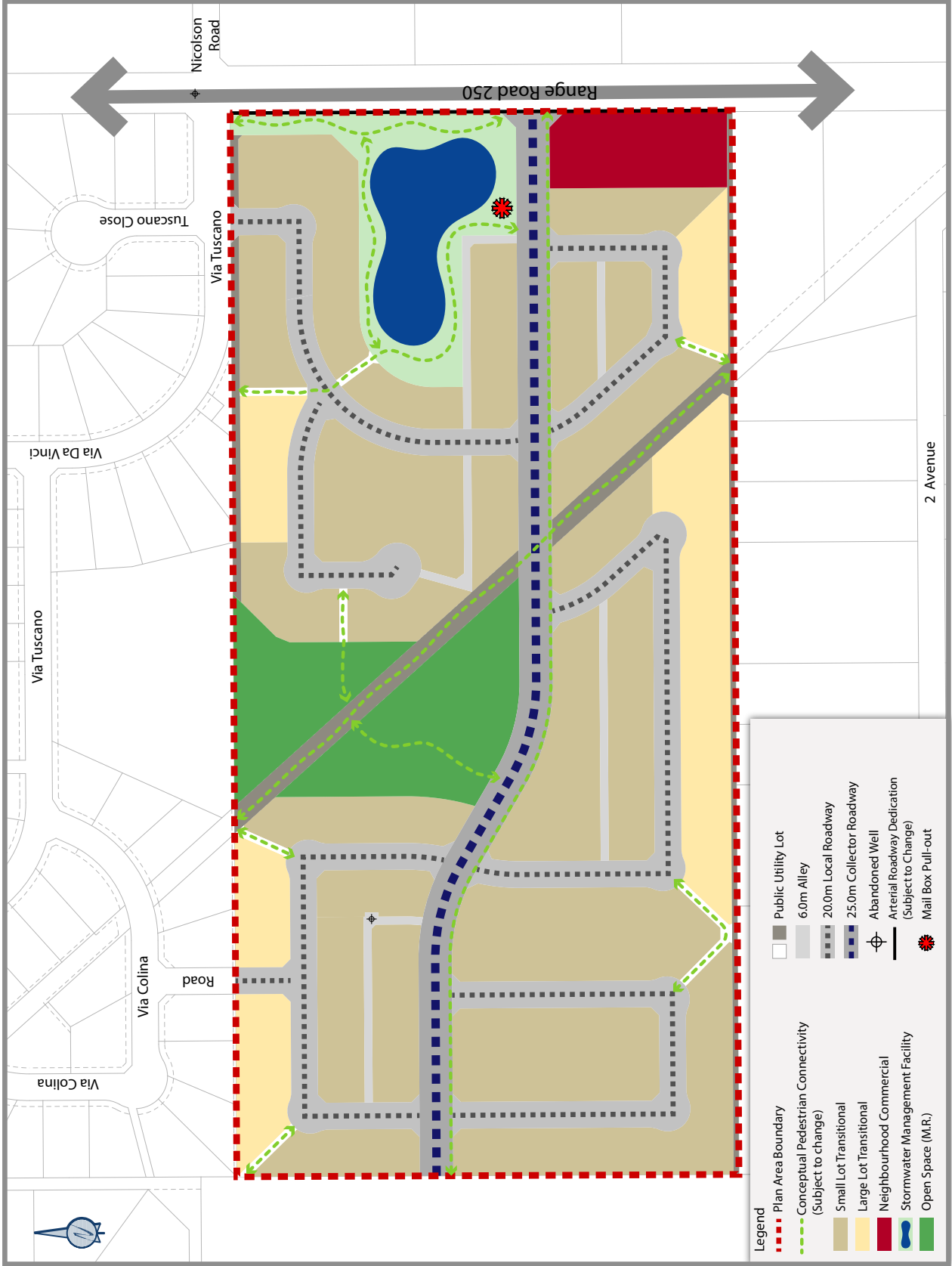
6.2.6 Stormwater Management Facility

A 2.08ha stormwater management facility serves the Century Hills Plan Area. Sturgeon County's Public Utility District (PU) in the Land Use Bylaw shall be used to implement the stormwater management facility.

6.2.7 Utility Easements and Pipeline

Several public utility lots will accommodate the required utility easements such as back of lot drainage swales and the existing ATCO pipeline right-of-way. The Public Utility District (PU) will be utilized to accommodate this infrastructure.

Figure 6 - Land Use Concept



Note: arterial roadway dedication is conceptual and subject to change at the detailed design stage once Range Road 250 has an approved concept plan.

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6.3 Policies and Objectives

Century Hills OP builds upon the Sturgeon Valley Core Area Structure Plan's vision and guiding principles and incorporates them into its land use policies. This is achieved through the incorporation of estate and Small Lot Transitional that complements existing Valley Area character and design; provides public open space that will connect residents across the neighbourhood and beyond; establishes connectivity options to existing development; incorporates small neighbourhood commercial services which will help satisfy daily needs of existing and future residents; and provides a stormwater management facility to manage and control stormwater run-off.

6.3.1 General Plan Area Policies

- a. Future applications that do not conform to the intent of this Outline Plan may require an amendment to this Outline Plan in accordance with Sturgeon County terms of reference for amending non-statutory plans.
- b. Century Hills will meet the prescribed density range of 2-20 dwelling units per net residential hectare as stipulated within Appendix G negotiated policies for the Sturgeon Valley Special Study Area.
- c. Development will respect and adhere to Alberta Energy Regulator setback regulations for existing oil and gas infrastructure.
- d. The incorporation of Crime Prevention Through Environmental Design principles via landscaping, lighting, and building orientation should be incorporated into the neighbourhood design.
- e. Winter design elements should be incorporated to enliven neighbourhood public spaces and support year-round uses, where feasible.
- f. Native vegetation and drought resistant species should be incorporated throughout the neighbourhood to minimize water use and maintenance.
- g. Existing tree vegetation along the southerly edge of the Plan Area abutting North Point should be retained and respected, where possible.
- h. Residential Development located along the northerly and southerly most edges of the Plan Area will have a common rear-yard fence line that enhances privacy for existing residential development.
- i. Development practices that include energy efficiency such as hydrogen and solar and low impact development should be explored and incorporated at the detailed design stage.
- j. Development will be of high quality and be designed in an aesthetically pleasing manner.
- k. Opportunities for home-based businesses should be supported wherever possible to enable work from home functions, and support business diversification.



Example of Large Lot Transitional development

6.3.2 Large Lot Transitional Policies

- a. Large Lot Transitional development will be located adjacent to Tuscany Hills and North Point subdivisions as shown on Figure 6, Land Use Concept.
- b. Large Lot Transitional development will feature larger lots and larger single detached homes that are comparable to the existing Valley Core area.
- c. Large Lot Transitional development will incorporate enhanced rear-yard landscaping in order to further buffer development between Tuscany Hills/North Point and Century Hills, to the satisfaction of the development authority.



Example of Small Lot Transitional development

6.3.3 Small Lot Transitional Policies

- a. The primary form of low-density residential should be single detached.
- b. Other forms of low-density residential may be provided, including semi-detached, and duplex housing.
- c. Small Lot Transitional development will be located in accordance with Figure 6, Land Use Concept.
- d. Small Lot Transitional will utilize architectural elements and designs that are characteristic of the Valley Core area.



Example of neighbourhood commercial development

6.3.4 Neighbourhood Commercial Policies

- a. Neighbourhood Commercial development shall have a minimized impact on adjacent land uses through sensitive site design and the provisions of Sturgeon County's Land Use Bylaw, and be to the satisfaction of the Development Authority.
- b. Neighbourhood Commercial development will be adjacent to Range Road 250 to maximize exposure and visibility.
- c. Land designated as neighbourhood commercial should provide uses that serve the needs of residents of Century Hills and other immediate Valley area residents.
- d. Neighbourhood Commercial development will be pedestrian-friendly, accessible, and aesthetically pleasing.
- e. Street furniture, pedestrian crosswalks, and parking lot landscaping will be utilized to support pedestrian circulation.



Example of programmed public open space

6.3.5 Public Open Space Policies

- a. All streets and sidewalks will connect to all parts of the neighbourhood's open spaces, stormwater management feature, and adjacent Tuscan Hills subdivision.
- b. The pipeline utility right-of-way may accommodate a shared use path to provide pedestrian circulation and connectivity throughout the Plan Area and the Valley Core.
- c. Programming, or enhanced landscaping should be incorporated on public lands to provide points of interest, serve as landmarks for local residents, and visitors.
- d. Public Open Spaces may incorporate placemaking elements that reflect and celebrate the region's cultural history.
- e. Public Open Spaces should be designed to support community interaction and socialization with seating areas, picnic tables, fire pits or other similar features to promote communal interaction.
- f. Park programming should minimize exposure to wind and maximize exposure to sunlight.
- g. Permeable surfaces may be considered for pathways across the neighbourhood network to minimize the amount of impervious surface area.
- h. Community gardens may be incorporated into the programming of public open spaces and rainwater harvesting may be utilized to provide irrigation for the garden(s).



Example of community garden



Example of pedestrian connectivity through walkways

6.3.6 Engineering Policies

- a. Traffic calming measures (such as speed humps, curb extensions, raised pedestrian crossings) at key intersections and locations may be considered to improve pedestrian safety by slowing down traffic.
- b. A community entrance feature at the primary entrance to Century Hills may be located within a Public Utility Lot or within a divided boulevard off Range Road 250.
- c. Noise attenuation measures along Range Road 250 will be designed as per the recommendations of the Noise Impact Assessment Report.
- d. The primary collector roadway will incorporate sidewalks, street trees or naturalized landscaping to enhance the pedestrian experience.
- e. The stormwater management facility will be publicly accessible and include a shared use-path to provide for pedestrian recreation opportunities.
- f. Shallow, deep, and franchise utilities will be extended into the plan area as required.
- g. Infrastructure will be provided on a phased approach to accommodate efficient extension of services.



Example of integrating stormwater management into residential development

07 Engineering

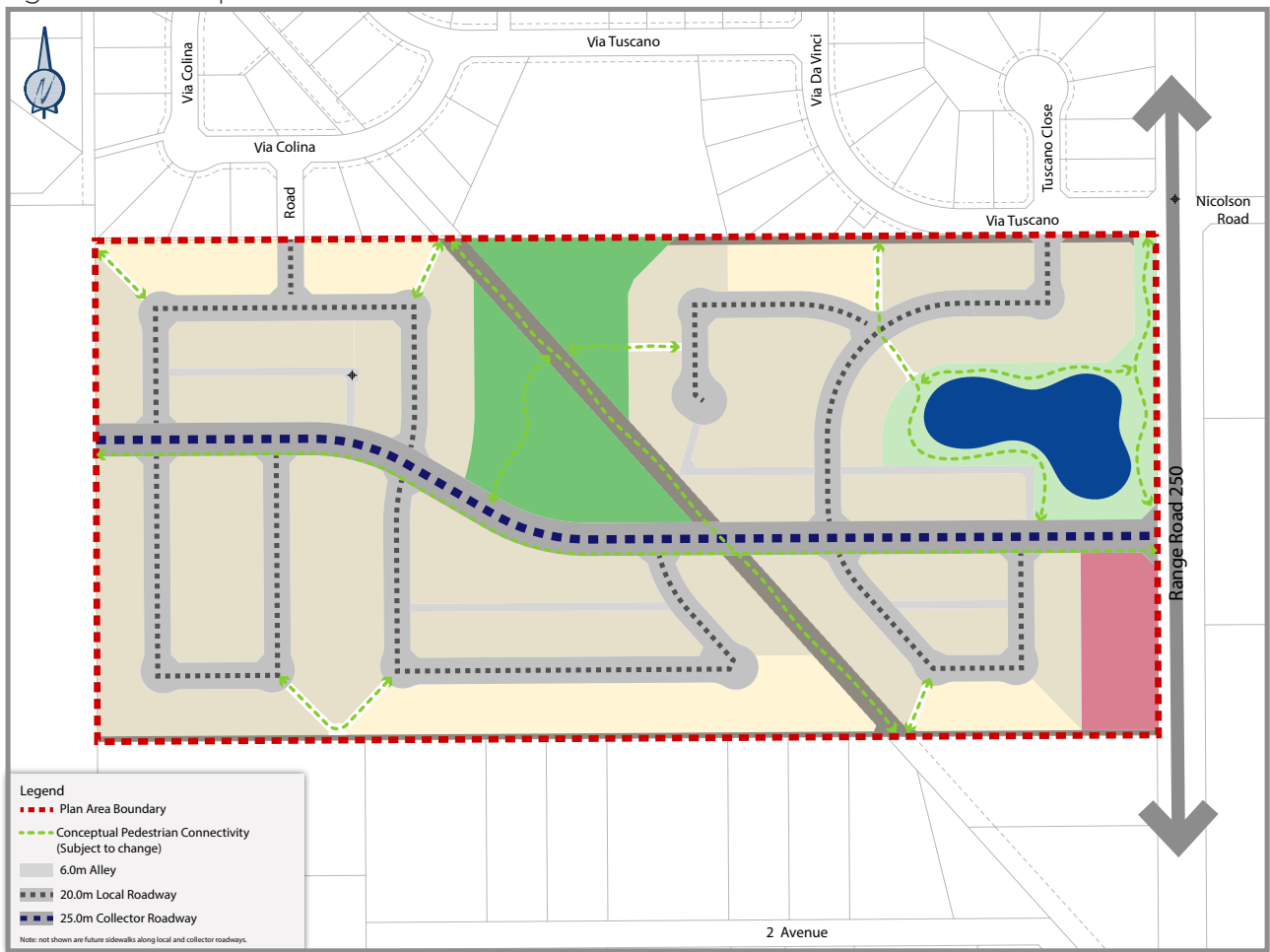
7.1 Traffic Impact Assessment

A Traffic Impact Assessment was completed for the Plan Area by WATT Consulting Group in January 2023. The TIA makes several recommendations to accommodate future on-site and off-site traffic.

An addendum to the TIA was prepared by Invistec Consulting Ltd in February 2024 for the first stage of development, Stage 1A. The purpose of this addendum was to examine the expected operation of the proposed access for Stage 1A (Range Road 250 and Via Tuscano). This study concluded that the traffic impact of Stage 1A on Via Tuscano will be insignificant. This intersection will continue to operate at a very high standard. The development of Stage 1B will include direct access to Range Road 250 via a collector road. This collector road will become the primary access to the Outline Plan area.

The full TIA report and addendum have been submitted under separate cover.

Figure 7 - Transportation and Circulation



7.2 Internal Roadway System

The collector roadway will provide multiple connection points for local roadways within the Plan Area. The proposed east-west collector roadway will have a 25.0m right-of-way and be designed with an urban cross section. The proposed local roadways will have a 20.0m right-of-way and will also be designed with an urban cross section. Details of each roadway-cross section and cul-de-sacs can be referenced through Sturgeon County's General Municipal Servicing Standards (GMSS).

Stage 1A will initially be accessed through the intersection of Range Road 250 and Via Tuscano, which will become a secondary access in the future. Primary access for this subdivision will be via a future collector roadway connecting to Range Road 250 and serving the neighbourhood. The ROW for the collector road will be dedicated at each stage of subdivision, as required. The developer shall provide securities for the construction of required stages of the collector road in accordance with County policies. In the interim, the area can be accessed through a temporary emergency access south of Stage 1A connecting with Range Road 250. The collector road will also be the alignment for a planned major waterline serving valley south lands to the west.

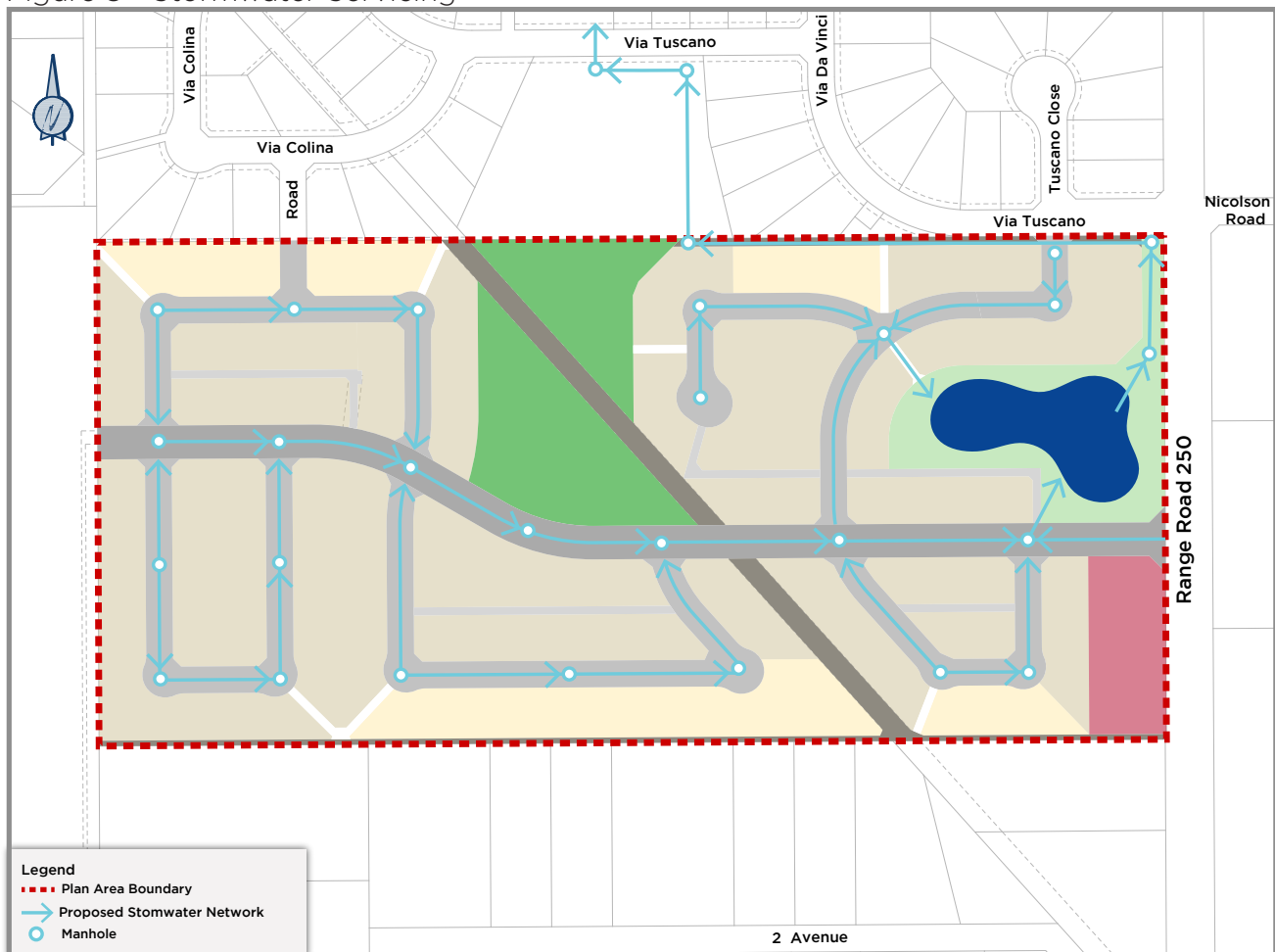
7.3 Transportation and Circulation

A primary feature of the OP is the strategic placement and incorporation of public open spaces and pedestrian linkages throughout the neighbourhood. Transportation and pedestrian circulation network is demonstrated within Figure 7.

7.4 Storm Servicing

The proposed storm servicing concept consists of both minor and major systems which include catch basins and storm pipes sized to carry the 1:5 year storm and overland drainage components to convey the 1:100 year storm to the proposed Stormwater Management Facility (SWMF) located along the east boundary of the OP. The proposed SWMF shall store the 1:100 year stormwater with a controlled discharge set at the pre-development rate. The SWMF outfall will connect and direct drainage into the existing SWMF that is located within Tuscano Hills. Stormwater servicing is demonstrated within Figure 8.

Figure 8 - Stormwater Servicing



Stormwater servicing subject to change based on final design.

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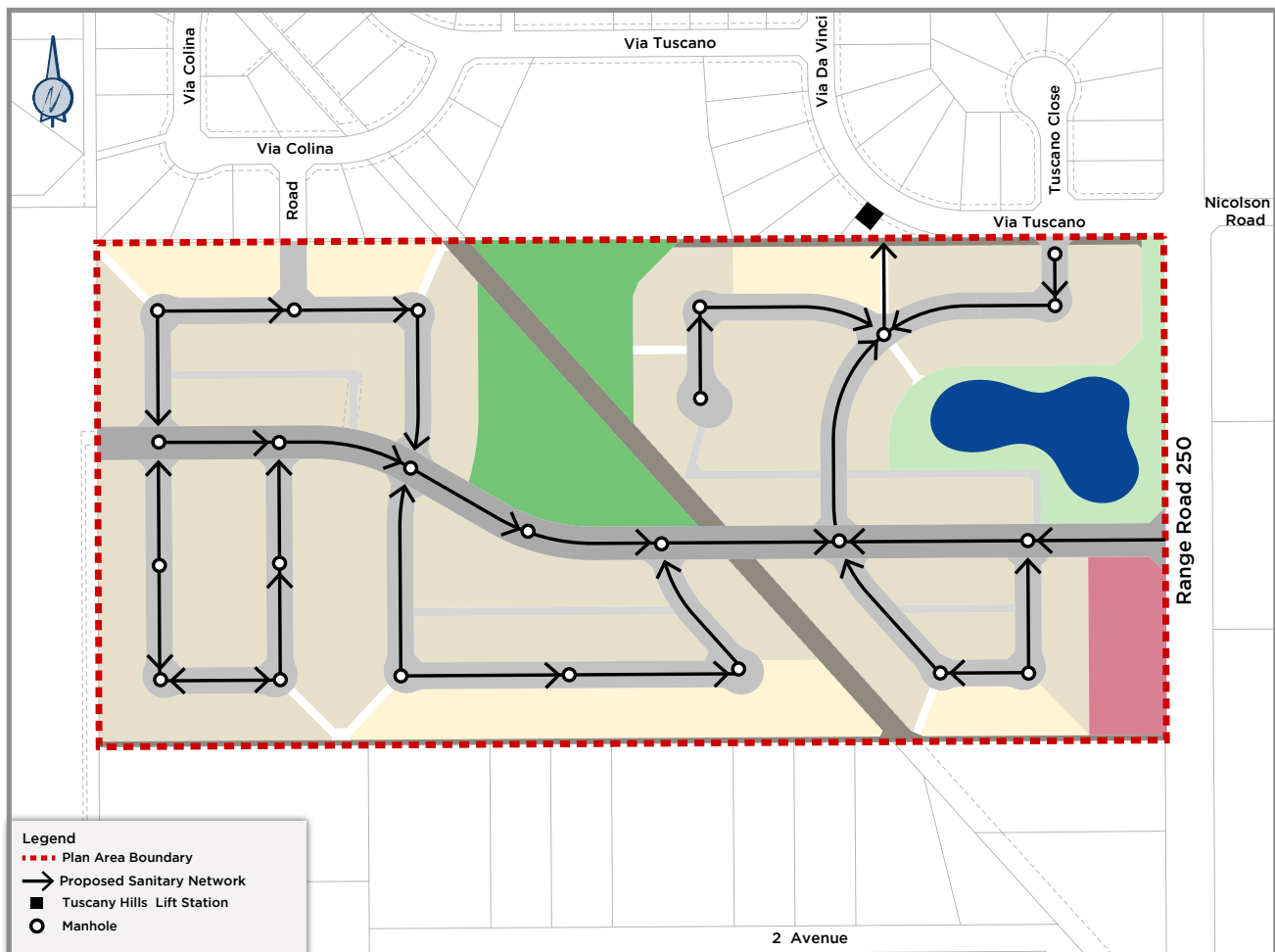
7.5 Sanitary Servicing

The proposed sanitary system can accommodate the peak flow from the Plan Area for Stage 1A. Sanitary servicing will be provided by a gravity system that will convey the sanitary sewage to the Tuscany Hills lift station. The Tuscany Hills lift station upgrades will require improvements for future stages of development. This upgrade to accommodate subsequent stages will be developer funded, and the improvements to the lift station include the following:

1. The existing pumps and force main capacity are sufficient to meet requirements for Stage 1A. Stage 1B, Stage 2, and Stage 3 will require the addition of new pumps of 30 HP each and a second force main of 180 mm in diameter are proposed.
2. For Stage 1B and Stage 2 flows, either upgrade option can be chosen; replacing the existing pumps with the proposed 30 HP pumps or adding the second force main.
3. For Stage 3 flows, both pump upgrades and a second force main installation will need to be completed.

The final design of these services will be determined through the detailed design process.

Figure 9 - Sanitary Servicing



Sanitary servicing subject to change based on final design.

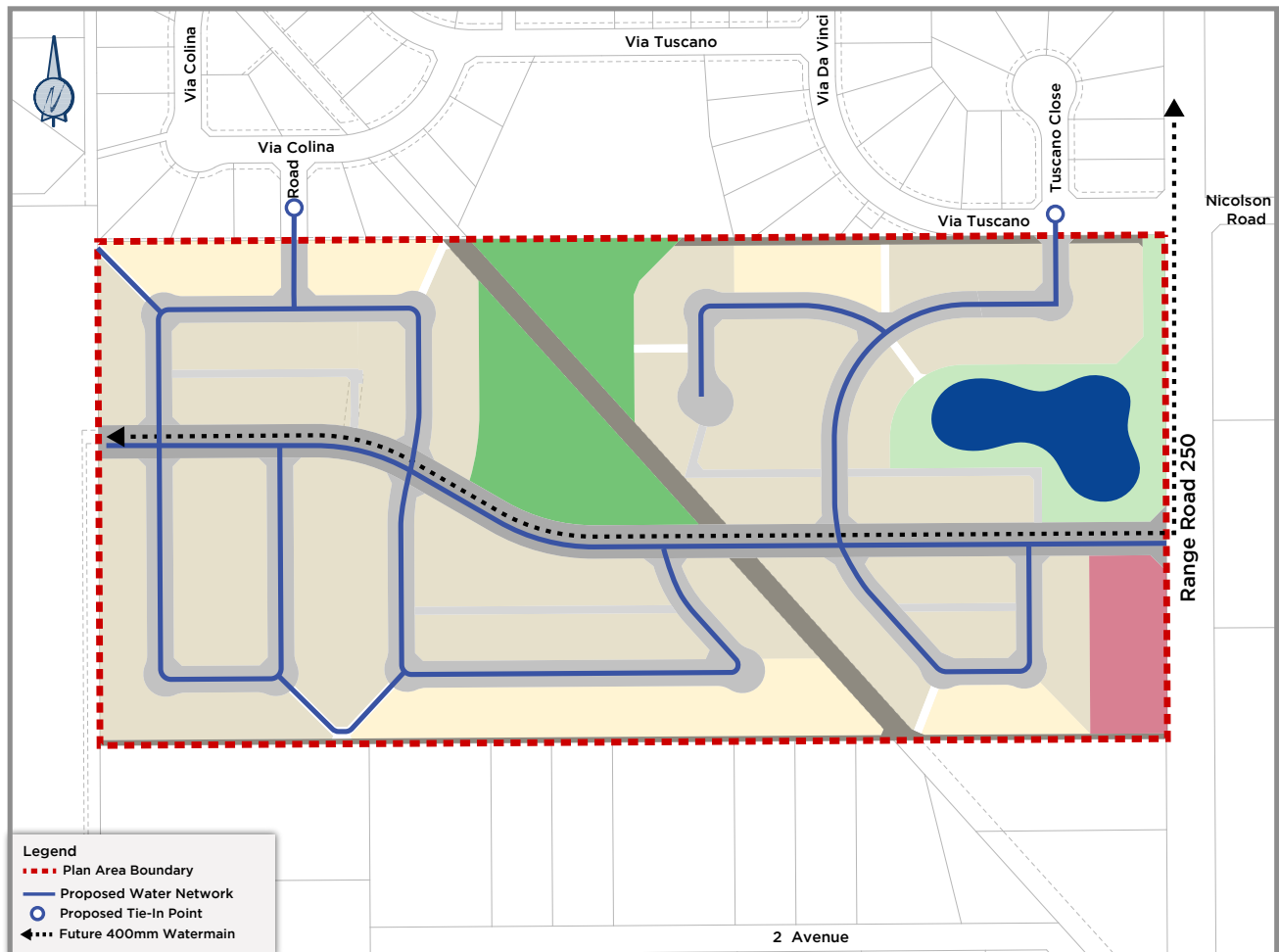
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7.6 Water Servicing

The proposed water network consists of pipes, hydrants and valves designed to the Sturgeon County engineering standards. Water service will connect to two watermain connections that are available adjacent to the Plan Area. The two connection points (200mm) at the north boundary are to the existing Tuscano Hills water network. A future 400mm watermain will directly or indirectly service the Plan Area and the greater Valley area, however this is subject to Allin Ridge Reservoir upgrades.

The alignment of the 400mm watermain is currently undetermined, however, it is expected to be located within the future collector road ROW. Final alignment will be determined at detailed design. Once this watermain becomes operational, water looping will be provided.

Figure 10 - Water Servicing



Water servicing subject to change based on final design.

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Further information regarding engineering servicing design and hydraulic network analysis has been submitted under separate covers.

7.7 Shallow / Franchise Utilities

Shallow utilities including power, gas and telecommunications are all located within close proximity to the OP and will be extended through the subdivision as required.

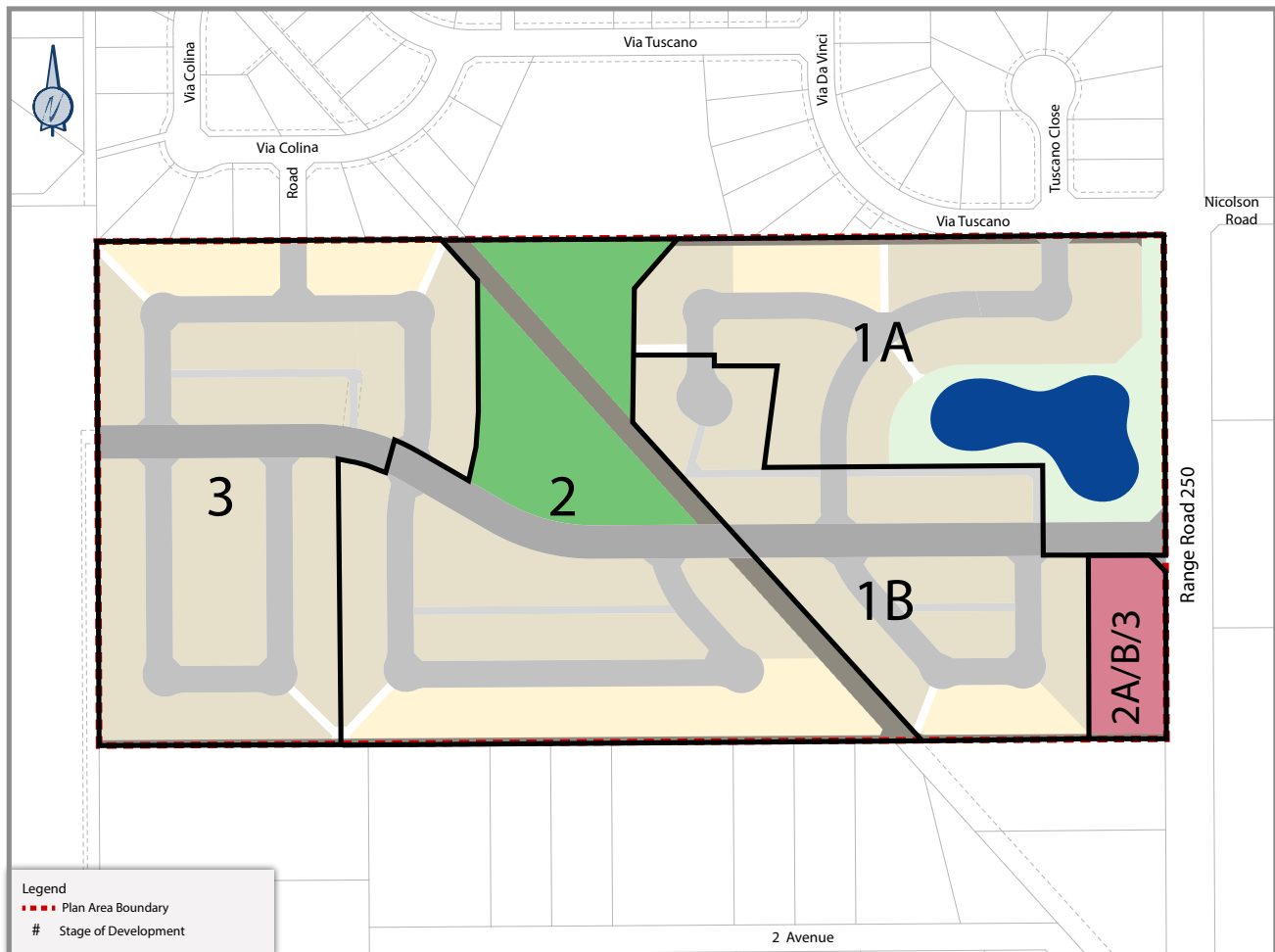
7.8 Staging

Stage 1A will be the first stage of development and proceed as generally illustrated within Figure 11 below. Submitted under separate cover is a Lift Station report, detailing the capacity of the existing lift station and identifying when future developer funded upgrades are required. Stage 1A will accommodate a mix of Small Lot Transitional lots and Large Lot Transitional lots. It is estimated that Stage 1A can accommodate a mixture of 48 Small Lot Transitional parcels and 4 Large Lot Transitional parcels, creating a combined flow rate of 3.4L/S. Flow rates beyond this will trigger developer-funded lift station upgrades that are necessary to support subsequent development stages. The combination of lot sizes and number of lots within Stage 1A will be further informed by detailed engineering design at time of subdivision in conjunction with the findings of the Lift Station report.

For the staging of the roadway network, the County's standards require a secondary access for developments greater than 20 parcels, for this reason, Stage 1A includes a secondary access planned at the intersection of Range Road 250 and Via Tuscano, which will act as the interim access to the development. A temporary secondary access will be constructed as required within or adjacent to the planned collector ROW, to the satisfaction of the County.

Neighbourhood commercial will be staged in accordance through a combination of market demand, water pressure infrastructure availability, as well as relevant studies and required infrastructure upgrades. Interim water servicing measures in Stage 1A may be required in order to meet County standards.

Figure 11 - Staging



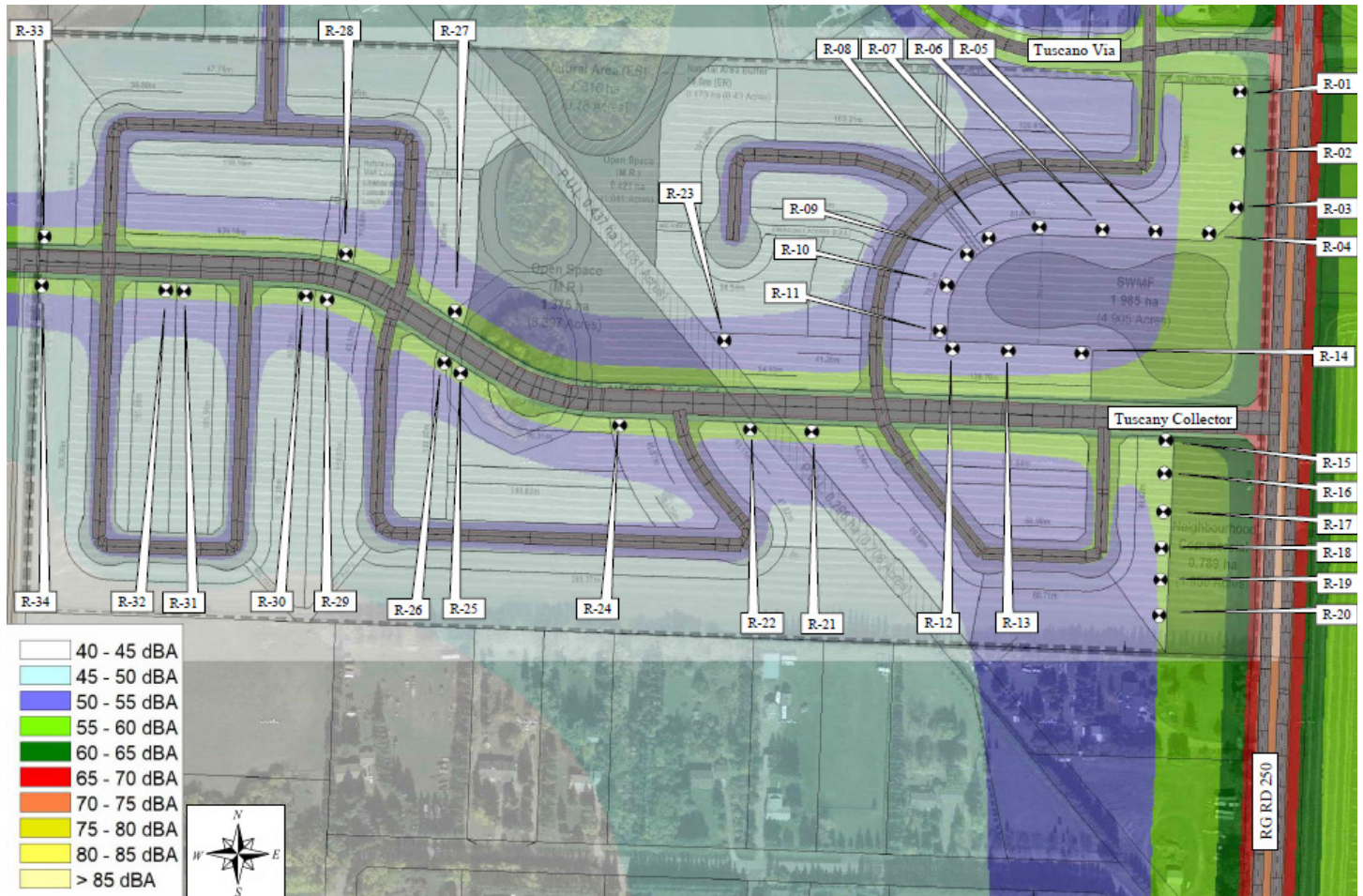
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08 Noise Impact Assessment

The noise modeling results indicate sound levels will be below the Sturgeon County criteria of 65dBA at all residential receptor locations. As such, additional noise mitigation is not required. A full copy of the Noise Impact Assessment report has been submitted under separate cover.

Figure 12 - Modeled $L_{eq,24}$ Sound Levels



Source: ACI (2022)