

Harmony Stage 3 Neighbourhood Plan

HARMONY°

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Prepared by



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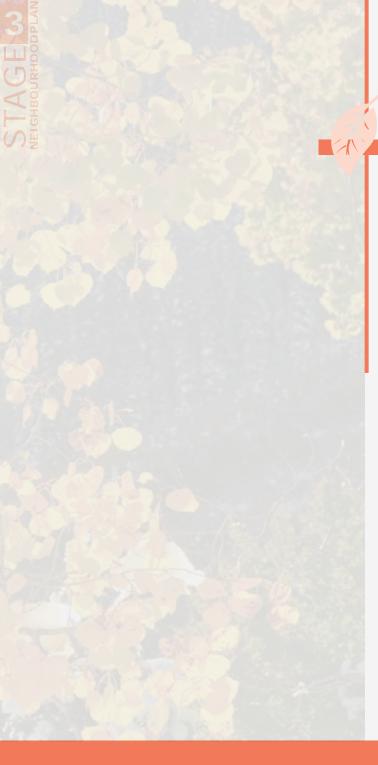
Conceptual Scheme Conformance

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Location and Ownership

LOCATION

Located in the western portion of Rocky View County, Harmony is in close proximity to a regional business node, country residential communities, ranching operations, and is surrounded by a diverse mix of uses including:

- Springbank Airport and associated businesses to the southeast
- Existing country residential subdivisions to the east and northeast
- · Historic Old Banff Coach Trail to the north
- Ranch and farm operations to the north, west, and southwest

OWNERSHIP

The entire Harmony community will occupy approximately 707 hectares (1,748 acres) of ranching and farming lands that were largely owned by the Copithorne family for over 60 years prior. All lands within the approved Harmony Conceptual Scheme (Bylaw C-6411-2007) boundary, are owned by Harmony Developments Inc. Harmony Developments Inc. is a partnership led by Bordeaux Developments, Qualico Communities and Elbow River Land Corporation (owned by the children of Bill and Harriette Copithorne).



Figure 1: Regional Context and Location

STAGE 3 CONTEXT

The approved Harmony Conceptual Scheme indicates that the development of the community should take place in stages. Harmony Stage 3 lands comprise approximately +/-114.67 hectares (+/-283.36 acres). The subject lands were previously unimproved, low quality pastureland. These lands are to the northwest of Stages 1 and 2, and offer direct connections to future stages along the western edge of the community, making them a logical extension of Harmony's nearby existing infrastructure system.

Anything outside of approved phases within Stage 1 is conceptual and subject to approval.

The County Plan requires "Development Cell Plans" for areas of a Conceptual Scheme that are of a certain size. Neighbourhood Plans amended to the Harmony Conceptual Scheme, serve the same purpose and function as the Development Cell Plans, just under a title that speaks more Future to the nature of the areas to which they apply. Development Refer to Stage 5 Neighbourhood Plan Stage 3 Stage 1 Future Refer to Stage 4 N.P. Future Development Future Development Future Developmen Stage 3 Amendment Area Springbank Airport Stage 1 Access to TWP. RD. 250 Figure 2: Stage 3 Lands



The Conceptual Scheme states that:

"Other than Stage 1 and Stage 6, the staging numbers do not necessarily correlate to the sequence of development and staging progression will take into account infrastructure, amenities, and market conditions."

Stage 3 offers a logical extension of infrastructure, completes the Lake and offers an extensive amount of amenities for residents.



Built to Date (Stage 1)



Construction of Stage 1, as envisioned by the Stage 1 Neighbourhood Plan, is underway. Fifteen show homes expressing the unique and eclectic architecture of Harmony are open now, and mark an important milestone for the Harmony community. Paintbrush Park, a central community hub, has been constructed along with the initial stages of the greenway to demonstrate how the extensive open space throughout Harmony will provide a variety of active and passive recreational opportunities for the region. Shaping of the Mickleson National Golf Course of Canada has also begun, with the signature course set to open in 2018, offering an amenity for the County within Harmony.



In concert with this, Harmony's innovative Water Management Strategy and water practices are currently being implemented. Construction of the sanitary treatment plant and the first stage of the Lake is underway, and commissioning of the water treatment plant began in November 2016. The Lake serves numerous purposes, including acting as a reservoir, aiding in flood management, and forming an integral part of the recreation areas for the community.

Other components of Harmony's water management strategy that facilitate water conservation, such as irrigating the golf course and open spaces with reclaimed and raw water, are also under construction.

Access from Stage 1 is being provided through the construction of the primary access road, Copithorne Trail, to Township Road 250.



The Stage 3 Neighbourhood Plan demonstrates the continuing provision of supporting infrastructure, housing product mix, and provision of community amenities at each stage of development.







Public Engagement Activities

Being a good neighbor is at the core of Harmony's public engagement activities. For more than a decade, Harmony has actively sought input from a wide range of stakeholders. Local community members, industry thought leaders and County representatives have all contributed to Harmony's community vision. Harmony's Stage 3 Neighbourhood Plan builds upon the existing inclusive philosophy and the extensive Stage 1 public engagement activities that have led to the overall community vision.

Public Engagement activities for Stage 3 have included:

- Individual and group meetings;
- Formal Open House and Information Session Events; and
- Information dissemination via project website, local news articles, and targeted email correspondence.





Stage 2 & 3 Open House

On January 21, 2016, Harmony hosted a Stage 2 & 3 Public Open House at the Edge School. The Open House was advertised in the Rocky View Weekly leading up to the event, a Bold sign was placed alongside Range Road 33, and through direct email invitations to interested stakeholder groups (such as neighbours of the development). Finally, an advertisement was run after the open house, providing another opportunity for community members to learn more. With Stage 1 of the community under construction and continual dialogue ongoing with stakeholders, there was a noticeable decrease in the number of visitors this time - approximately 20 groups attended. Most questions received by the Harmony team focused on:

- Development timelines for: Stages 2 and 3 overall, lake-front lots, Mickelson National Golf Course, and the Village Centre;
- How pathways around and throughout Harmony would be used and their timing;
- Multi-family and seniors housing options and their timing; and
- What upgrades would be made to surrounding roads- and timing of upgrades.



Airport Interface

Springbank Airport is an important neighbour for those in Harmony. Many of the design decisions for the community were made specifically with the airport in mind, which reflects years of collaboration with the Airport Authority. During the planning process, a detailed review of Harmony's plan as it relates to Springbank Airport was conducted by LPS Avia Consulting, the Calgary Airport Authority, NAV Canada and Transportation Canada, which concluded "Bordeaux Developments was found to be an industry leader in Canada in terms of developing an aviation compatible community in close proximity to an airport."

The design of Harmony does not permit the development of residential building envelopes within areas around Sprinkbank Airport that have a Noise Exposure Forecast higher than 25 decibles. This is in excess of Transport Canada's 30 NEF requirement. Harmony remains committed to developing a complete community with considerate and compatible transitions to neighbouring properties and operations.

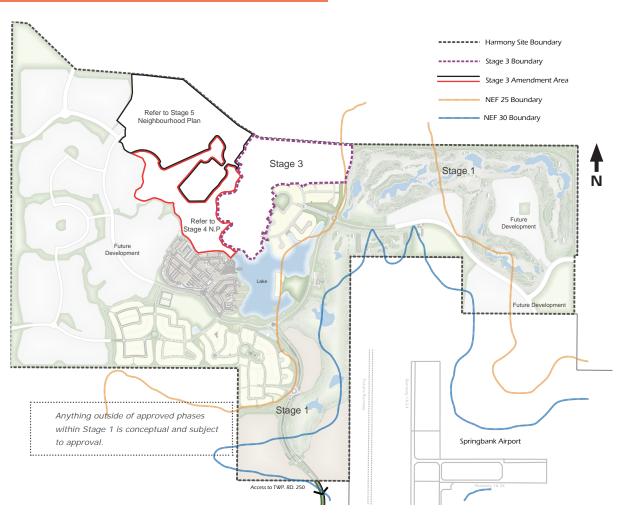


Figure 3: Airport Interface and NEF Contours



Purpose and Intent

The purpose of the Neighbourhood Plan is to provide a bridge between the community vision and principles articulated within the approved Conceptual Scheme and the more detailed development construction approval process (e.g. subdivision, development agreements, permits) within the Stage 3 boundary. The Stage 3 Neighbourhood Plan illustrated how this application aligns with the principles and policies of the approved Harmony Conceptual Scheme (Bylaw C-6411-2007) and the County Plan.

RVC County Plan Conformance: Section 9.7

Given the size of the area encompassed by the Harmony Conceptual Scheme, Neighbourhood Plans (known as Development Cell Plans in the County Plan) are required to guide more detailed development.

This Stage 3 Neighbourhood Plan provides this level of detail in preparation of development of a mixed-use, multi-lot neighbourhood.





Harmony Vision

RVC County Plan Conformance: Section 9

Within the County Plan, Harmony is an approved hamlet. The County Plan supports growth within these hamlets, and encourages their development as service hubs, strongholds of community identity, and attractive, high-quality mixed-use neighbourhoods.

Conceptual Scheme Conformance: Section 4.1

The Conceptual Scheme refers to building Harmony on the idea of a robust and holistic sense of community. As the Conceptual Scheme points out:

"In short, this community will be about people – all people. It will be configured to facilitate and enhance human values and the gathering of people together. It will honour the history and refine the balance between home life and workplace, marketplace, and green space, private life, and public involvement."

Stage 3 builds on this vision, which has already begun to develop in Stage 1. Acting as a link between the first and future stages of Harmony, Stage 3 embodies the underlying values of the community.

For over a decade, Harmony Developments Inc. has worked extensively with our neighbours, various levels of government, and industry thought leaders to design the community as a whole. This unprecedented community consultation and collaboration has resulted in a thoughtful community vision that complements the existing communities in the area, while also considering the needs and wants of future generations.

Harmony strives to honour the history of the land and refine the balance between home life and workplace, marketplace and open space, private life and public involvement, to build a better, more meaningful, complete community that enriches the lives and wellbeing of our residents and those of the greater regional area. Harmony embraces the ideals of a traditional village: a tapestry of diverse and distinctive homes; walkable-extensive pathways that are landscaped to fit with the prairie setting; neighbourhood stores, a balance of offices, schools and parks and a host of active and passive recreational activities.

The design and development practices of Harmony is based on two fundamental principles:

- 1. Respecting the municipality and neighbours, and
- 2. Following a holistic community design approach.

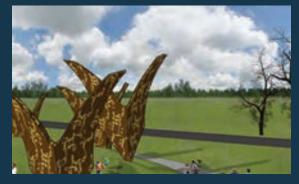




Harmony is designed to enhance and integrate with the surrounding communities and landscapes, provide exceptional amenities and implement sustainable development practices. Harmony reflects the desire for a comprehensive and complete community that supports those who live, learn, work, play, create, nourish, connect and sustain within it.

Arts Master Plan

Harmony Developments Inc. has prepared an Arts Master Plan with the vision to be sensitive, thoughtful and dynamic in our approach to integrating arts into the Harmony community. The Art Plan will respond to the natural setting and draw on best practices to guide the implementation of public art throughout the community.







Stage 3 Settlement Pattern

PLAN OVERVIEW

Harmony is structured as a collection of 10 villages, each with unique characteristics that link together to realize larger goals and objectives of the community. Stage 3 supports the completion and implementation of more villages in Harmony and is anticipated to accommodate between 650 and 800 homes. At a broader scale, these villages combine to continue building a complete community containing residential, a variety of recreational amenities, local and regional commercial, employment and institutional uses.

In alignment with the Conceptual Scheme and to facilitate clear reference to the phases of development, the villages that comprise Harmony have been labelled sequencially (shown in Figure 4). Stage 3 supports the development of Villages C and D, which connect previous phases of development to future phases on the north side of the Lake.

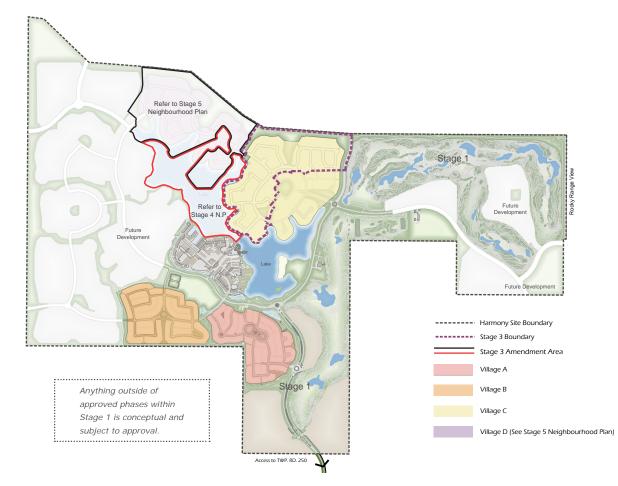
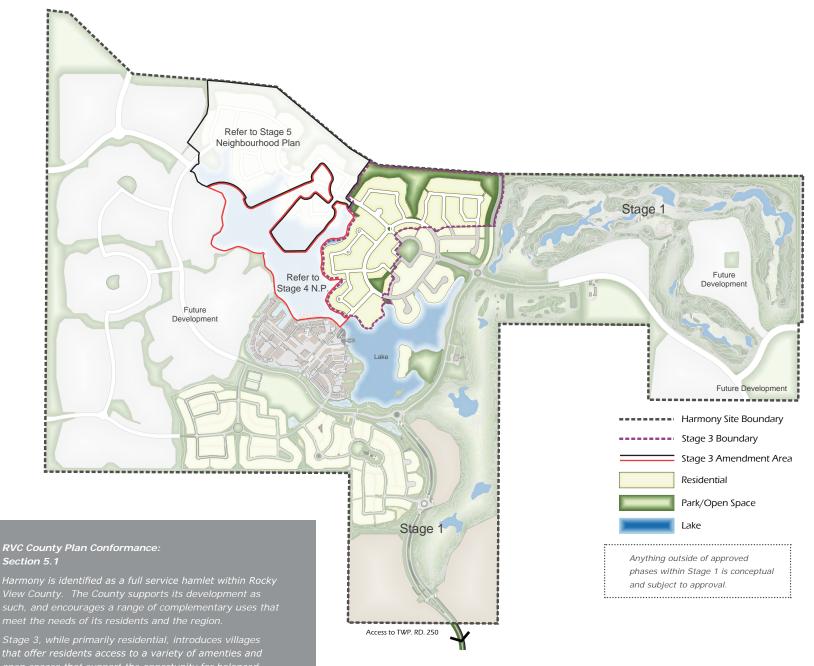


Figure 4: Villages











Stage 3 builds from the ongoing development of Stage 1 and the future development plans for Stage 2, and is a key phase of Harmony's implementation. Primarily composed of residential and community uses, the development of Stage 3 completes two villages and adds numerous amenity and open space areas including the completion of the Lake. Stage 3 also establishes key interfaces along the north with external ranching neighbours, and the south with the Lake.

Stage 3 is comprised of the following key components:

- A sensitive interface with the ranching lands along the northern border and Old Banff Coach Trail
- Continuity of the village concept settlement pattern
- +/-650 to 800 homes, including a variety of housing types
- A well-connected road network that links villages
- Completion of the Lake, which will facilitate a variety of seasonal-recreational activities
- Connections to open spaces, the village greenbelts, and regional pathway and trails networks
- A logical extension of existing servicing capacity and infrastructure

Conceptual Scheme Conformance: Section 5.2.1

As the Conceptual Scheme outlines, Harmony is built on the concept of a collection of integrated but distinct villages, each centered on and connected to open space and amenities. Stage 3 continues this settlement pattern by concentrating development in two residential villages centered around open space focal points. Strategic placement of higher density around the focal points and open spaces help to create a village-like context.



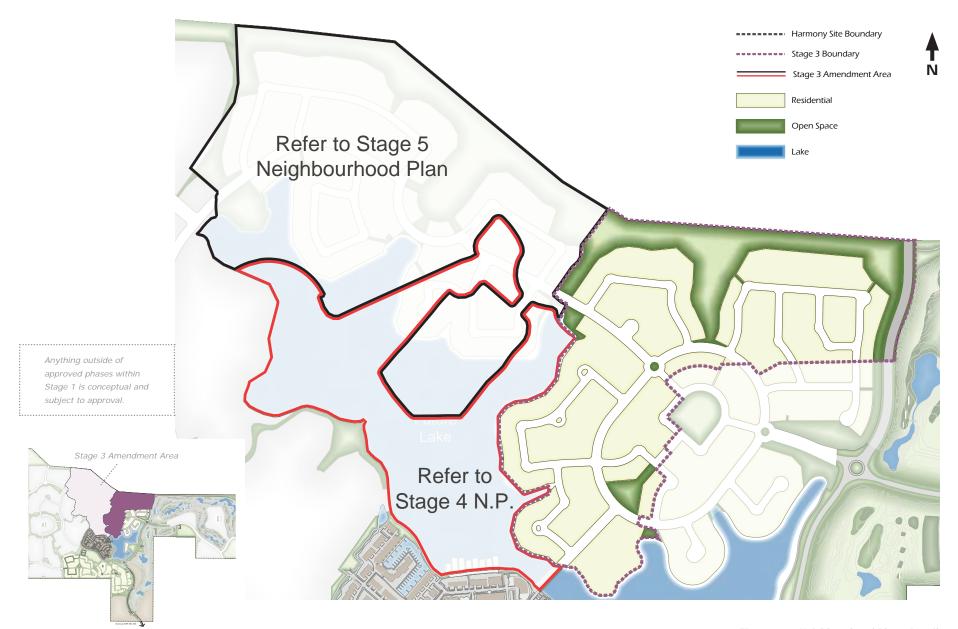
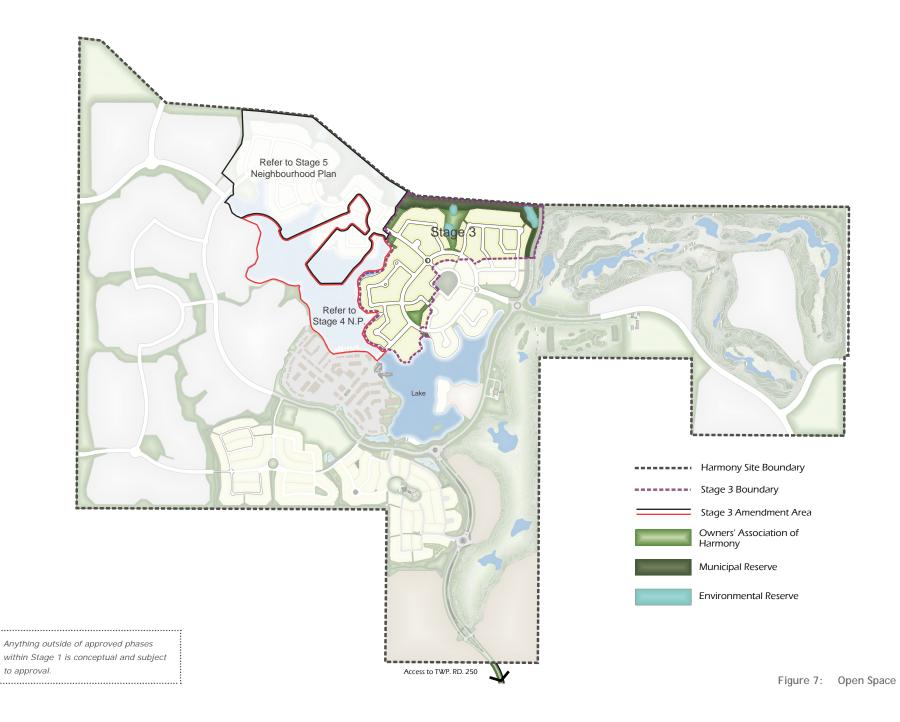


Figure 6: Neighbourhood Plan - Detail





RVC County Plan Conformance: Section 12

The County Plan requires hamlets to include well-designed and interesting open spaces that are connected by a network of multi-use paths and trails. The design of these spaces should be guided by a comprehensive plan that outlines details for their appearance and function.

Harmony's open spaces are comprehensively designed as a network that supports the overall well-being of residents and visitors

Stage 3 Open Space Layout

Stage 3 contains a significant amount of open space in the form of village parks, lake-edge amenities, pathways and trails, and village greenbelts that define each village and encircle the entire community. With over 50.71 hectares (125.31 acres) of open space, Stage 3 emphasizes the community-wide values of connecting to the land and opportunities for a balanced lifestyle.

Developable Area	Stage 2 hectares(acres)	Stage 3 hectares(acres)	Total hectares (acres)
Gross Developable Area	21.50 (53.13)	114.75 (283.54)	136.35 (336.92)
Environmental Reserve	0.00 (0.00)	1.23 (3.04)	1.23 (3.04)
Net Developable Area	21.50 (53.13)	113.52 (280.50)	135.02 (333.63)
Open Space Allocation			
Municipal Reserve	1.66 (4.09)	14.33 (35.41)	15.99 (39.51)
Owners Association of Harmony	1.58 (3.90)	5.78 (14.29)	9.72 (24.02)
Beach Club	2.36 (5.84)	0.00 (0.00)	2.36 (5.84)
The Lake	0.07 (0.17)	30.60 (75.61)	30.67 (75.79)
Total Open Space	5.60 (13.83)	50.71 (125.31)	56.38 (139.32)





A key goal of the Harmony community is to respect and enhance features of the land and cultural landscape in the design and development of the community. In line with this goal and as part of the approvals process, initial site assessments were completed to identify the presence of any natural or historical resources.

Natural and Historical Resources

As part of the open space and community landscape, Harmony is committed to preserving natural and historical resources where possible. An initial Biophysical Impact Assessment was completed in 2006 in support of the Harmony Conceptual Scheme process. Subsequent to this assessment, wetland assessment techniques and policies have evolved. As part of the Stage 3 Neighbourhood Plan preparation, a new assessment was undertaken in 2014 by Aquality Environmental Consulting that identified wetlands within this stage of Harmony. As a result, the design of Stage 3 incorporates the retention of key wetland resources and their associated catchment areas. The villages now interface with some of these wetlands and their catchment areas, creating unique natural edges and open space amenity for the community. Appropriate measures have been incorporated into the community design to protect these unique features. The Harmony Adaptive Wetland Innovation and Investment Strategy has been developed to guide the preservation, replacement and enhancement of wetlands in Harmony.

A Historical Resource Impact Assessment was completed in 2008 and seven historical sites were identified. Clearance from Alberta Culture has been received for five of the seven sites, as the extent and contents of these sites were sufficiently understood. Harmony has chosen to preserve the remaining two historical sites, both of which are located within Stage 3. History of the area has played a large role in guiding the vision for Harmony, and these sites have been incorporated in naturalized areas to provide educational opportunities.

In the summer of 2015, Harmony relocated two populations of Pale Blue Eyed Grass, a plant previously listed as species of conservation in Alberta. The populations were relocated to suitable locations onsite where they can thrive.



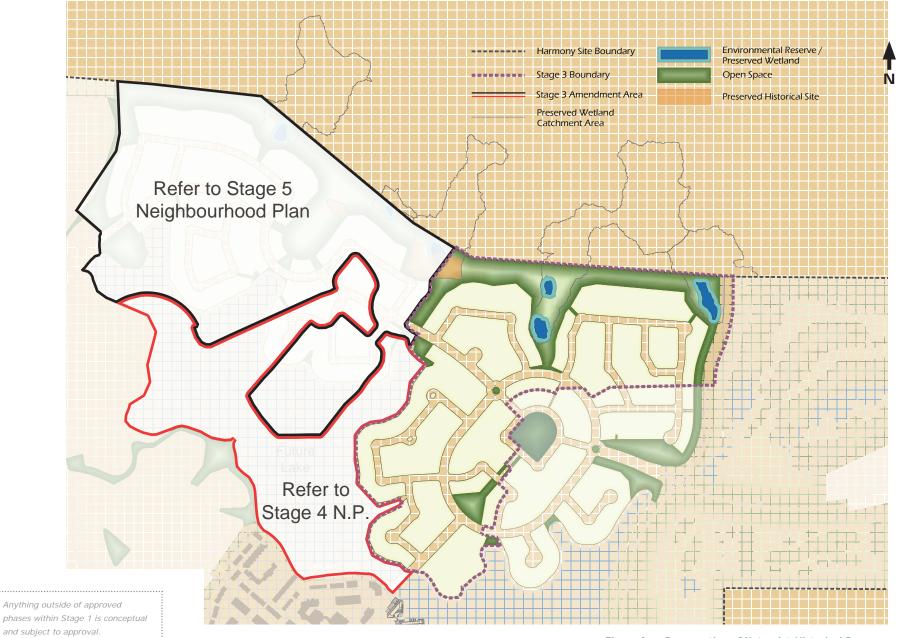
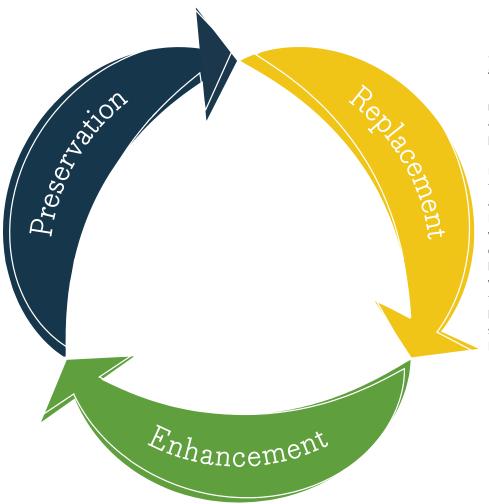


Figure 9: Preservation of Natural & Historical Resources



<u>Preservation</u>

Through thoughtful design, six wetlands will be preserved within Stage 3. These wetlands and their surrounding catchments will form part of the open space network and will remain untouched by development, contributing to the beautiful greenspace and habitat within Harmony.



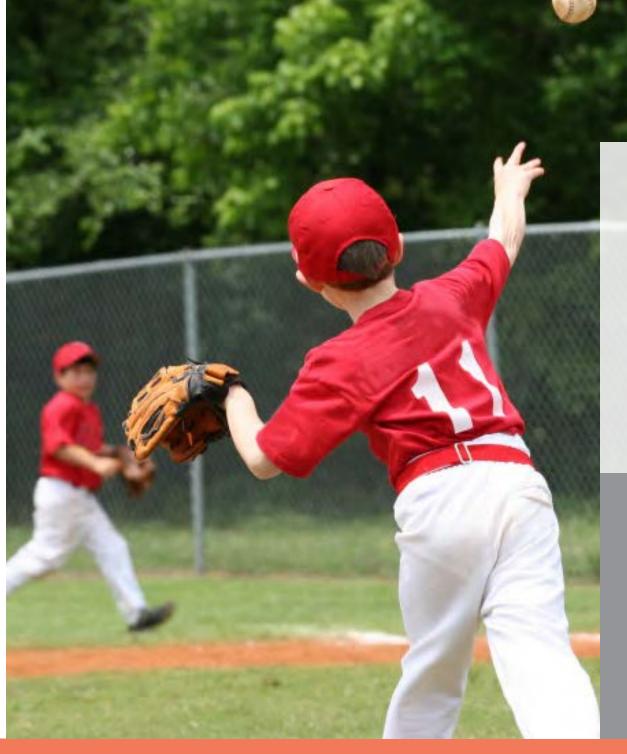
Replacement

In Stage 3, some wetlands will be replaced by constructed wetlands and the Lake. Constructed wetlands play a vital role both functionally (through the treatment of stormwater runoff and creation of habitat), and through the creation of naturalized amenities for the community. The large central wetland within Stage 3 will be replaced with the Lake. The design features of the Lake have been carefully planned to provide a wide range of wetland habitats along the shoreline, supporting greater biodiversity and the treatment of stormwater prior to entering the Lake.

Enhancement

Where avoidance is not achievable, efforts to disturb as little of the wetland as possible will be made. Additionally, where wetlands must be removed or replaced, compensation towards the enhancement of remaining wetlands and/or for the construction and enhancement of wetlands in other locations will be pursued.





Stage 3 Amenities

Stage 3 builds on the growing number of open space amenities in Stage 1 and 2. Stage 3 amenities include the extension of the Lake and associated recreational opportunities, continuation of Harmony's extensive trail system, passive and programed spaces (such as active parks), and the natural corridors surrounding and connecting the residential villages. All of these amenities enhance Harmony's overall open space network, create recreational opportunities for residents, and support the realization of Harmony's vision.

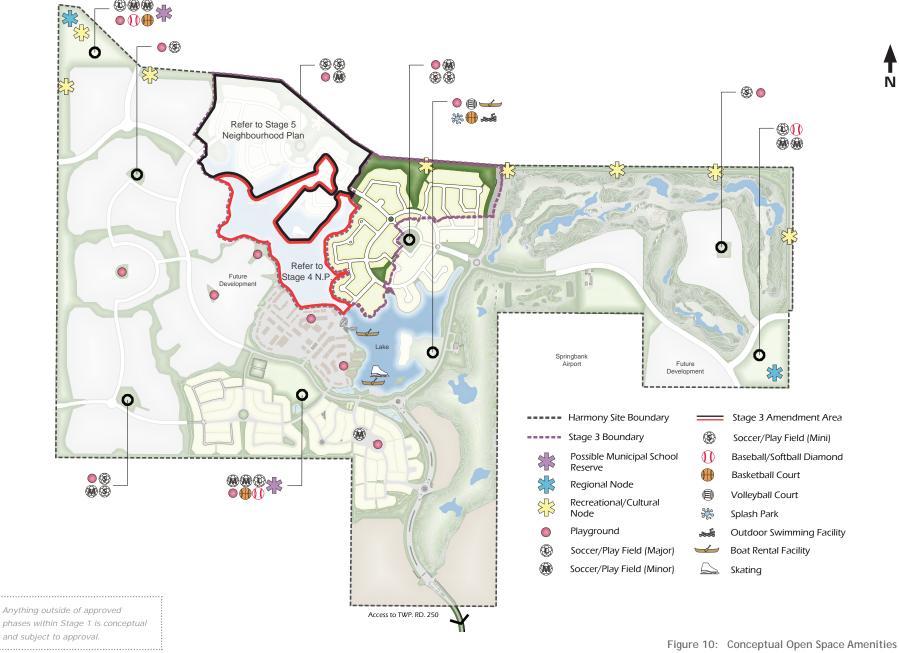
RVC County Plan Conformance: Section 12.7b

Diverse and multi-functional open spaces are encouraged by the County Plan as part of a comprehensively-planned open space network.

Harmony's multitude of open spaces serve a variety of purposes for a diversity of people.

The diversity of open spaces provided within Stage 3 provide opportunities for residents to engage in both passive and active recreation, each in multiple forms. Trails, pathways, playgrounds, sports fields, lake activities, and gathering spaces are all available for residents of all ages to use.









RVC County Plan Conformance: Section 12.9

The County Plan states that open spaces should be connected by paths and trails to provide recreational opportunities and increase pedestrian and cyclist connectivity within the community. As part of the broad vision for Harmony, which promotes a well-connected and health-supportive community, an extensive trail network is planned to connect major open space facilities and the diverse range of parks and green spaces in each village or neighbourhood.

Stage 3 includes significant contributions to this network and facilitates connections between Stages 1 and 2 and future areas of development

Trail System

Stage 3 continues implementation of Harmony's extensive trails system. Stage 3 connects to existing trails developed and planned in Stages 1 and 2, and expands across the northern edge of Harmony. This part of the trail system will connect to numerous amenities and open spaces in Stage 3, and eventually provide connections to future stages. Users will have the opportunity to see and learn about preserved wetlands and historical sites that are interwoven in the Stage 3 trails system. This includes the extension of the Open Air Museum along Old Banff Coach Trail, which emphasizes

the area's history and role in the regional landscape. Trail-goers will be able to connect to various other parts of the Harmony's village greenbelt system and see views of the Lake from various points along the trails. The trails system is designed to encourage activity, social interaction, and reduce reliance on the automobile. Trail designs will consider all age groups and physical abilities to ensure the system is accessible for all users. The system is comprised of:

- A regional multi-use pathway and trails system
- Connector sidewalks
- Greenways or natural corridors



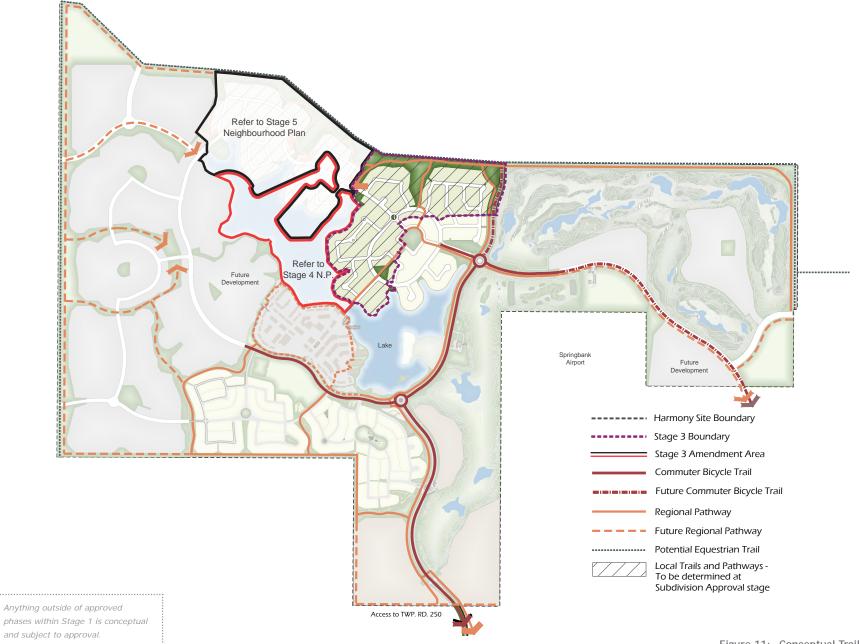


Figure 11: Conceptual Trail System



Conceptual Scheme Conformance Section 5.1.1

The Conceptual Scheme states that a recreational lake consisting of 1-3 water bodies and comprised of approximately 120 acres in surface area will form an important focal point for community activities.

Stage 3 supports the development of the second phase of the Lake, which is the final phase and establishes a +/-120 acre lake in alignment with this policy.

The Lake

Upon completion, Harmony's recreational lake will be +/-120 acres and offer a remarkable recreational amenity for Harmony. The Lake is being built in two phases and will offer various non-motorized recreational activities such as rowing, sailing, educational elements, and ice-skating during the winter season. The Lake functions as water reservoir; a component of the community support infrastructure system and flood protection. In addition, wetlands along the Lake edge will provide habitats for a diversity of native plants and animals.

Stage 3 includes the development of the second and final half of the Lake. The Lake edge will take a natural shape and incorporate small inlets that extend inwards to the villages.

Shoreline access will vary from public to private dependent on the adjacent land use. Much of the shoreline within Stage 1 would be considered public access as adjacent lands are owned by the Owner's Association of Harmony. Most of Stage 2 and 3 will be considered private shoreline access as the Lake is adjacent to private lots. Paid public access to the Lake will be provided through specific controlled access points to ensure the integrity of the Lake remains intact.



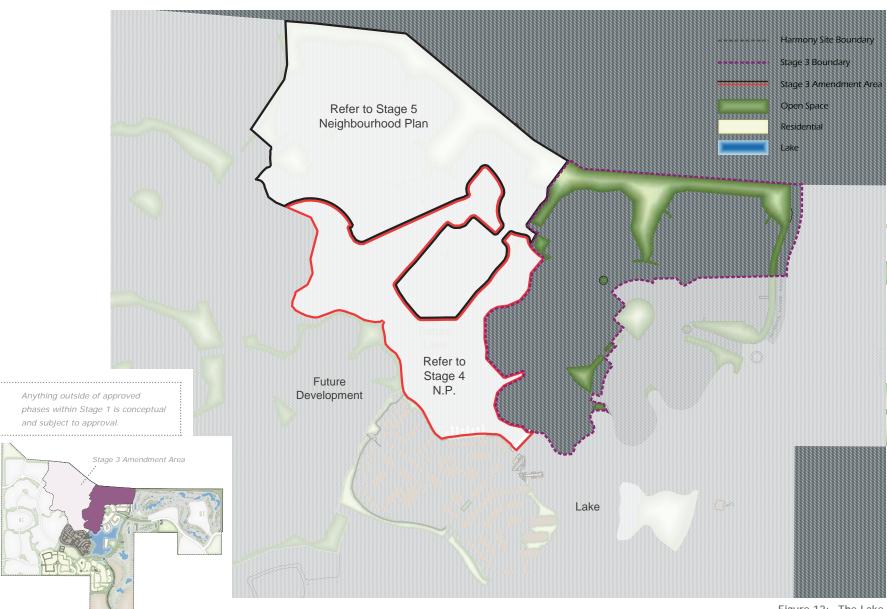
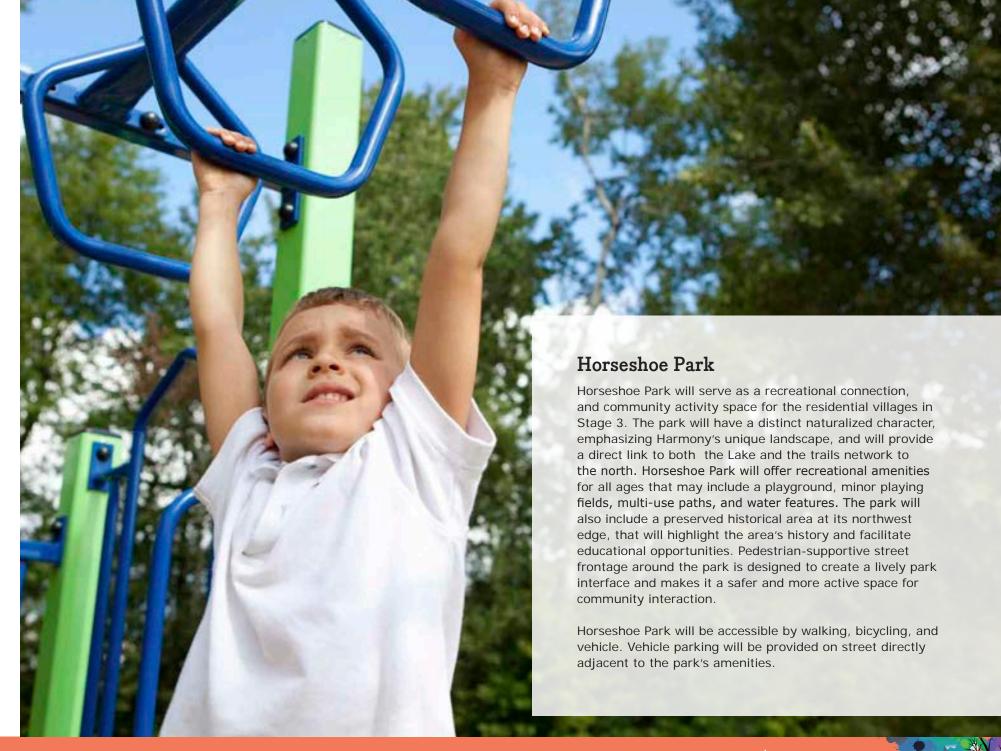
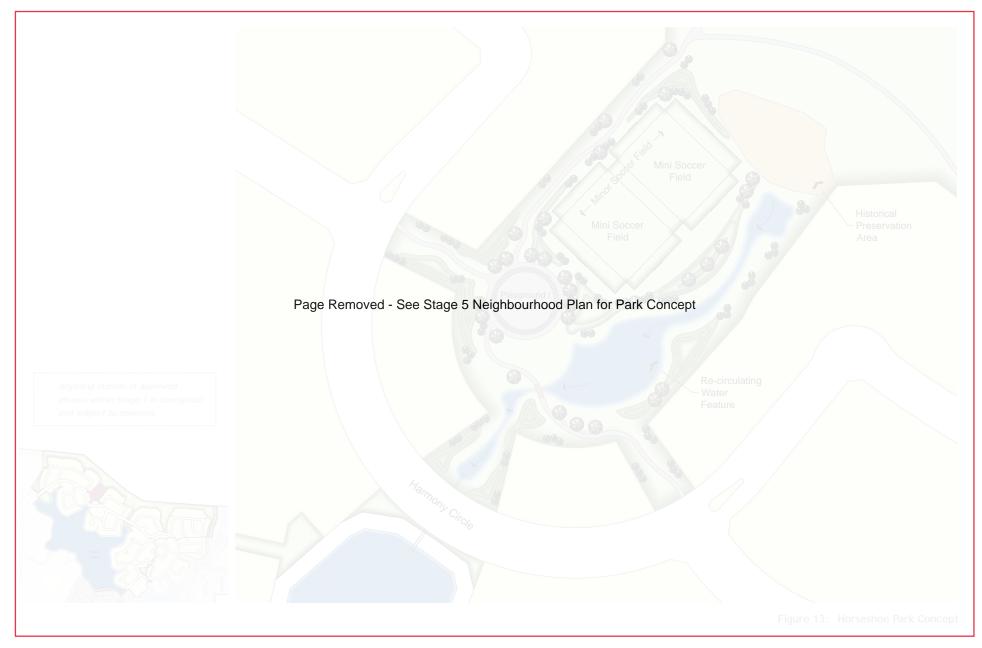
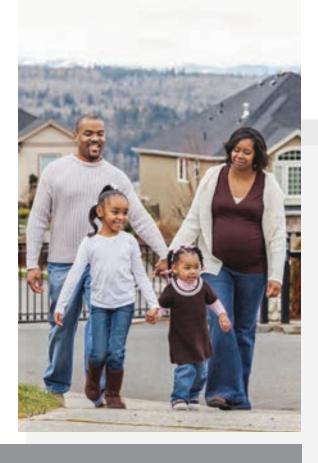


Figure 12: The Lake



Page to be removed from Stage 3 Neighbourhood Plan - updated park concept incoproated within Stage 5 Neighbourhood Plan





RVC County Plan Conformance: Section 4

The County Plan supports the development of hamlets and residential communities that maintain a strong sense of community and rural character, and provide amenities such as parks, open spaces, and gathering areas.

Harmony's residential neighbourhoods, including the residential villages in Stage 3, are designed to function like a traditional village that is built upon and celebrates the area's rich history. These neighbourhoods are designed to be attractive and distinct, but integrated as part of the broader community.

RESIDENTIAL VILLAGE

Stage 3 strengthens the residential village approach and will contain a wide variety of housing options. Stage 3 is anticipated to contain between 650 and 800 homes, with a diverse range of product types including but not limited to: single-family, villas, and multi-family homes to support residents through various life stages.

Relatively higher-density housing types will be placed intentionally to frame and activate parks, mobility corridors, and connections to the Village Core. The southeast corner of Stage 3 will contain a multifamily site that will situate townhomes in close proximity to the Village Centre, which will be south across the Lake, and both active and passive recreational amenities. These areas will transition gradually to lower density housing on the edges of Stage 3.

Careful integration of housing types supports the notion of complete communities and helps establish more diverse streetscapes. The layout will reflect sensitive transitions between housing types to complement active parks and open spaces closer to neighbourhood edges.

Architectural controls will align with both the local and community character to help integrate the unique product forms and define each village within the community.

Conceptual Scheme Conformance: Section 5.2.2

Respect for and integration with the adjacent land owners and uses is a paramount pillar of the Harmony vision

Stage 3 includes a large interface with the ranching and residential lands to the north of the community. Singlefamily homes and natural buffers (the village greenbelts) are used to seamlessly integrate with neighbouring lands.





Anything outside of approved phases within Stage 1 is conceptual and subject to approval.

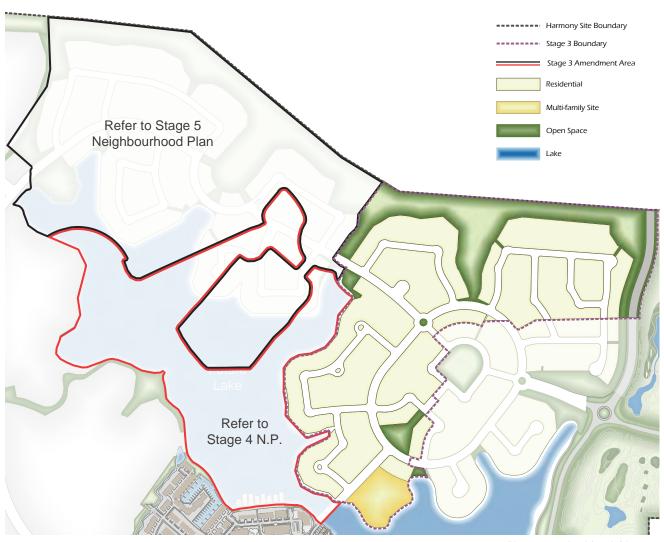


Figure 14: Residential Layout

NUMBER OF UNITS	GROSS DEVELOPABLE AREA (hectares/acres)	NET DEVELOPABLE AREA (hectares/acres)	UNITS PER HECTARE (UNITS PER ACRE)
650-800*	114.75/283.54	113.52/280.50	5.7-7.0 (2.3-2.9)

^{*} Number of units to be confirmed at subdivision.



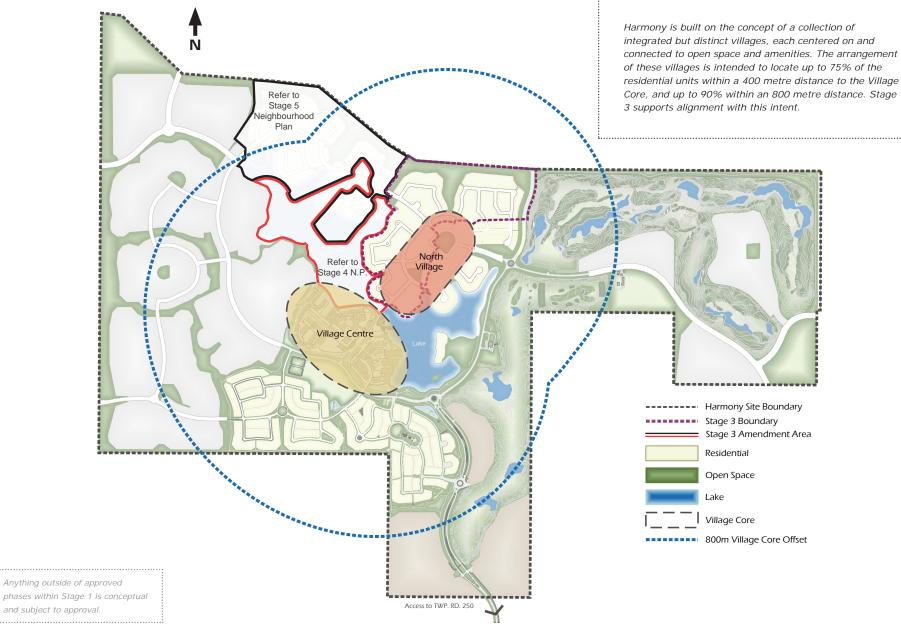


Figure 15: Units Proximal to Village Core

3. Development Practices



Sustainability Strategy

From the early planning stages, Harmony has been designed to promote sustainable living through a compact and mixed-use development form. In support of Harmony coming to life, a Sustainability Committee - comprised of company leaders involved in the creation of Harmony - has been created to ensure sustainability practices are implemented throughout the design and construction phases.

Some of the key sustainability initiatives include:



Harmony has been designed to include a network of constructed and preserved wetlands that provide natural stormwater treatment, guide water through the site and offer habitat for wildlife and residents to enjoy.

Harmony's sanitary will be treated and reclaimed for irrigation of the golf course to a zero setback limit. This setback is the first of its kind in Alberta and will reduce the community's consumption of first use water from the Bow River, and will provide an opportunity for irrigation of other potential uses with reclaimed water.





Harmony's extensive naturalized open spaces have been designed to allow for the introduction and settlement of native plant species and the creation of habitat. In the summer of 2015, Harmony relocated two populations of Pale blue-eyed grass, a plant previously listed as a species of conservation concern in Alberta. These populations were relocated to suitable locations onsite so they can thrive.



Harmony's development team is actively involved in encouraging change to legislation that would allow for the implementation of purple pipe systems in Alberta. Purple pipe systems refer to the reuse of reclaimed water for non-potable uses (e.g. irrigation of open spaces and commercial spaces, toilet flushing, etc.). Incorporation of purple pipe systems is important for conserving water resources and minimizing potable water use. A main purple pipe distribution line has been incorporated into the designs of Harmony Stage 1, 2 & 3 in anticipation of potential changes to provincial regulation.





Harmony's customized road standards incorporate stormwater management through road side swales, and support many modes of transportation.

Harmony's community lighting program is designed to meet safety requirements, achieve compliance with dark sky principles and reduce operation and maintenance costs. To achieve this the program includes:

- Efficient lighting distribution;
- LED fixture heads;
- · Low maintenance concrete light poles.





Harmony's triple stream waste collection program will implement mandatory curbside pickup for recycling, organics and waste, creating a convenient system for residents and "raising the bar" relative to programs currently seen within the region.



Supporting Infrastructure



Conceptual Scheme Conformance: Section 6.2

Shown in the Conceptual Scheme, the Harmony internal road network provides an arterial spine road to link major components of the community and provide connections to the regional road network. A circulatory collector roadway facilitates traffic flow through the core residential area. Stage 3 facilitates these connections, and acts as a necessary transportation link between Stages 1 and 2, and the future stages of development by continuing the extension of the circulatory collector.

MOBILITY

Mobility is a key component of achieving the vision for Harmony. In addition to the extensive trails system and commuter bikeway, Harmony's mobility system will include a hierarchy of road infrastructure.

The Stage 3 lands will be accessible via Harmony's internal circulation system. This includes the Copithorne Trail roadway to the south, which serves as the primary access to Harmony from County road network (TWP 250), and a portion of the Harmony Circle roadway, which acts as a spine of the central transportation system.

A Transportation Impact Assessment prepared in support of this application identifies the need for an access to Range Road 33 through the development of Stage 3. In conjunction with other approved development in the area, the assessment also recommends external improvements to intersections along Range 33, Township Road 250, and the TransCanada Highway and Range Road 33 interchange. Specific timing of the improvements will be tied to subdivision phasing.

Road Design Classifications

Internal road design parameters will be determined at the subdivision stage as per the Harmony road standards developed in conjunction with Stage 1 approvals and the Harmony Transportation Impact Assessment.

Street names for internal Harmony Stage 3 roads will be determined prior to the subdivision endorsement stage of the approval process.

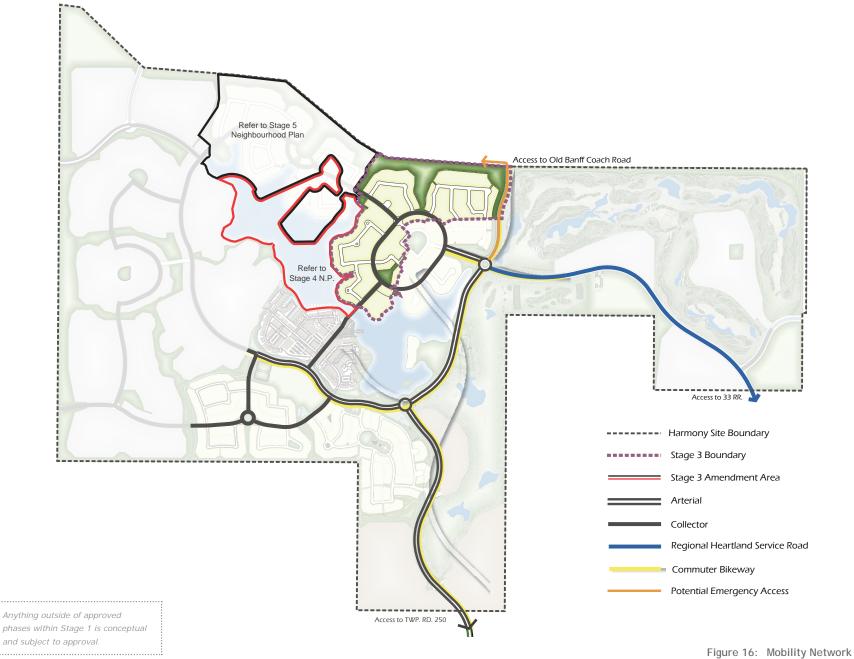
Off-Site Improvements

As part of the Stage 1 land use and subdivision approvals, offsite transportation network improvements to the Highway 1 and Range Road 33 interchange and Township Road 250 between Range Road 33 and Copithorne Trail were identified. These required improvements are still relevant as Stage 1 progresses.

Analysis of Stage 3 identified the need for a more robust network in the long term (2035), based on the proposed Harmony Stages 1, 2, and 3, as well as other planned development in the area. The timing and exact nature of network improvements will be reviewed and detailed at each phase of subdivision to ensure sufficient capacity and connectivity based on what is actually built at that time.

Cost Recovery payments may be applicable should the required offsite network improvements be advanced by another developer.







STORMWATER SYSTEM

Similar to the Stage 1 and 2 lands, stormwater runoff at the lot level will be collected and conveyed by grassed swales integrated within the neighbourhood streets. These swales will include overflow catch basins and underdrains. Major surface drainage will occur through laneway and street corridors. This neighbourhood system will then discharge into landscaped conveyance channels and constructed wetlands within the open space system. Stage 3 lands will ultimately drain into the Lake (Lake B) for flood management and further water quality treatment. There are a number of existing wetlands along the northern boundary of Stage 3 that will be protected.

To support Stage 3 development, the Lake will be expanded through the creation of Lake B to provide stormwater storage. Stage 3 development also includes the construction of a high capacity stormwater overflow pipe from the Lake directly to the Bow River. The creation of Lake B and the overflow pipe directly to the Bow River will complete the trunk stormwater management infrastructure that will support future stages of development in the full build out of Harmony.

Anything outside of approved phases within Stage 1 is conceptual and subject to approval.

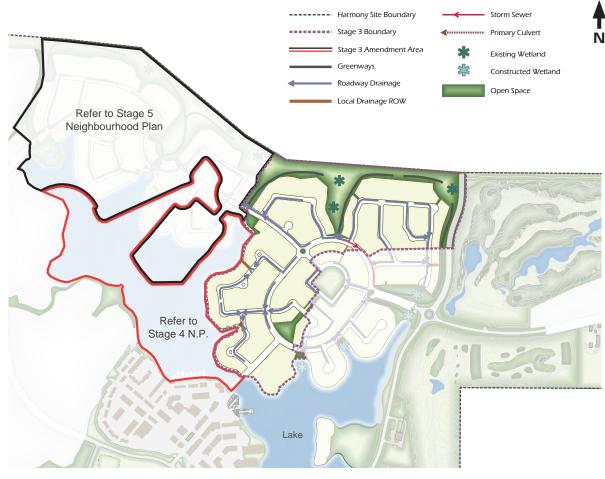


Figure 17: Stormwater System

SANITARY SYSTEM

Stage 3 lands will be serviced by the existing Harmony Sanitary Treatment Facility recently constructed as part of the Stage 1 development. Sanitary within Stage 3 will be collected via a piped system that will connect to the existing sanitary trunk line located adjacent to the east side of the Stage 2 lands where it is directed to the Sanitary Treatment Facility. Similar to Stage 1, after the sanitary is fully treated it will be used as reclaimed water to irrigate the golf course lands.



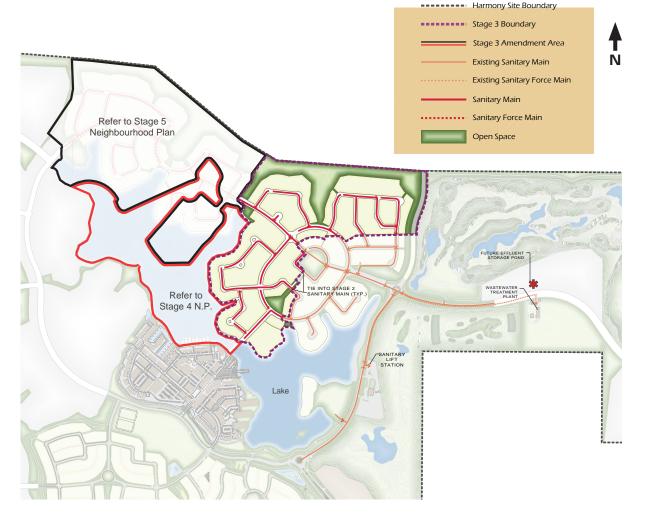


Figure 18: Sanitary System

Anything outside of approved phases within Stage 1 is conceptual and subject to approval.

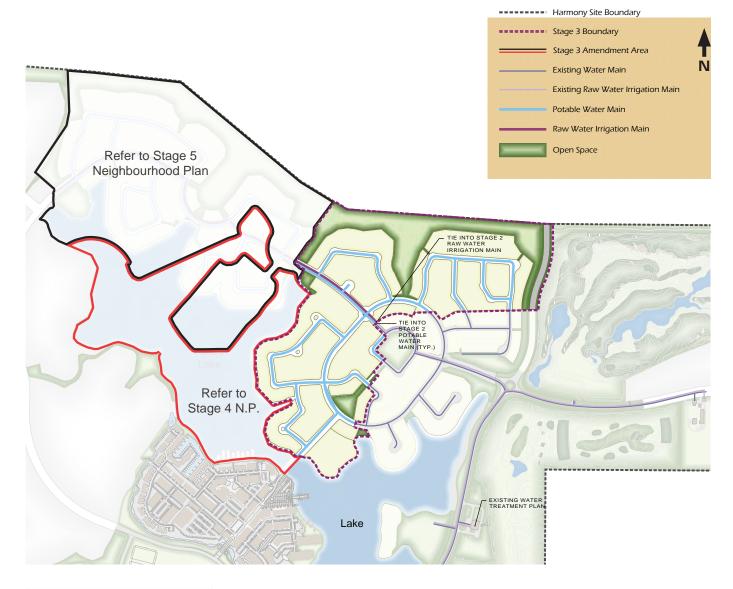


WATER SYSTEM

The eastern portion of the Lake functions as a raw water storage reservoir and pre-treatment for Stage 3. The Harmony Water Treatment Plant constructed with Stage 1 will provide treatment for Stage 3.

The potable water system for this stage is within one water pressure zone. A potable water main will be extended from Stage 3 southward to the Village Core to provide a loop connection for the overall Harmony water distribution network.

Raw water will be distributed into Stage 3 for open space irrigation.



Anything outside of approved phases within Stage 1 is conceptual and subject to approval.

Figure 19: Water System

SHALLOW UTILITIES

Shallow utilities will be connected from adjacent stages as required. Power, natural gas, telephone, and cable, will be buried in the road right-of-way throughout the Harmony Stage 3 Neighbourhood Plan. The intent is to reduce the footprint of these utilities by combining them into a single trench where possible. This approach will require further discussions with the various utility companies and the Municipality.

SOLID WASTE MANAGEMENT

Harmony's waste collection program encourages participation in waste diversion relative to current programs seen locally and within the region.
Harmony's waste collection program will implement mandatory curbside pick-up for items such as, recycling, organics and waste, establishing a convenient system for residents. Seasonal recycling and disposal events will supplement these regular practices to meet the needs of residents.









Background Assessments

WETLAND ASSESSMENT

In 2006, an initial Biophysical Impact Overview was completed for the Harmony lands. Since this study was completed, provincial policy has changed and dialogue with the Department of Environment and Parks has been ongoing. As a result of these ongoing conversations, Aquality Environmental Consulting Ltd. was retained by Harmony Developments Inc. to complete an additional wetland assessment for lands outside of Stages 1 and 2. New wetlands in Stage 3 were identified through this study. Design adjustments have been made to incorporate wetlands where possible into the community design.

ENVIRONMENTAL SITE ASSESSMENT

Pinchin Environmental Ltd. was retained on April 28, 2014 to conduct a Phase I Environmental Site Assessment (ESA) for all of the Harmony lands. Based on the results of the Phase I ESA, nothing was identified that is likely to result in potential subsurface impacts, and as such, no subsurface investigation work (Phase II ESA) is required at this time.

HISTORICAL RESOURCE IMPACT ASSESSMENT OVERVIEW

A Historical Resource Impact Assessment was completed in 2008 and seven historical sites were identified. Clearance from Alberta Culture and Tourism has been received for five of the seven sites, as the extent and contents of the sites were sufficiently understood. Harmony Developments Inc. has chosen to preserve the remaining two historical sites, both of which are located within Stage 3. History of the area has played a large role in guiding the vision for Harmony, and these sites have been incorporated in naturalized areas to provide educational opportunities.

TRANSPORTATION IMPACT ASSESSMENT

In 2015, a Transportation Impact Assessment (TIA) was completed in support of the Stage 2 and 3 applications. The purpose of the TIA was to identify any off-site transportation impacts and assess internal road network needs. As requested by Rocky View County, this study also addresses the needs and impacts of the long-term full build-out of Harmony. The TIA identifies the need for an access to Range Road 33 through the development of Stage 3 along with off-site improvements. Specific timing of the improvements will be tied to subdivision phasing.

STORMWATER SUB CATCHMENT MASTER DRAINAGE PLAN

In support of the Stage 3 Neighbourhood Plan, a Stage 3 Master Drainage Plan has been prepared. The Stage 3 Master Drainage Plan establishes the new drainage divide between West and East Harmony along with the creation of Lake B and a high-capacity stormwater overflow pipe to the Bow River. The Stage 3 Master Drainage Plan should be referred to in support of the Stage 3 approvals.

WATER AND WASTEWATER

A Water Treatment Plant and a Wastewater Treatment Plant were constructed as part of the Stage 1 approvals. A Site Servicing Strategy Update was prepared for the Stage 2 and Stage 3 lands in March of 2016. This report identifies future capacity requirements for these systems and potential related improvements. Specific timing of the improvements will be tied to the subdivison phasing.





Harmony Land Use Bylaw

The Harmony Stage 3 Neighbourhood Plan continues implementation of the policies in the Harmony Conceptual Scheme (Bylaw C-6411-2007). As with the other Neighbourhood Plans, and given the direct tie to the policies, this Neighbourhood Plan is included as an appendix to the Conceptual Scheme. The settlement pattern, land uses, and supporting infrastructure contained within the Stage 3 Neighbourhood Plan conform to the guiding principles and corresponding policies of the Harmony Conceptual Scheme.



The application for Stage 3 Neighbourhood Plan approval is supported by an accompanying land use amendment application. As demonstrated in the Stage 1 Neighbourhood Plan, the land use amendment provides a transition from policies in the Conceptual Scheme and Neighbourhood Plans to site specific regulations. The Stage 3 lands are contained within the Harmony Land Use DC-129 (Bylaw C-6688-2008) and are currently designated as "FD- Future Development Cell", which is intended for "lands awaiting development within the Harmony community subject to further land use amendments."

The Stage 3 lands will be amended from "FD- Future Development Cell" to the following districts:

GO - Golf Facilities and Open Space Cell For the extension of the Lake.

VR2 - Village Residential CellFor the implementation of the residential and open space areas in Stage 3.











APPENDIX D

Stage 4 Implementation Plan

APPENDIX E

Stage 5 Implementation Plan

APPENDIX F

Stage 6 Implementation Plan