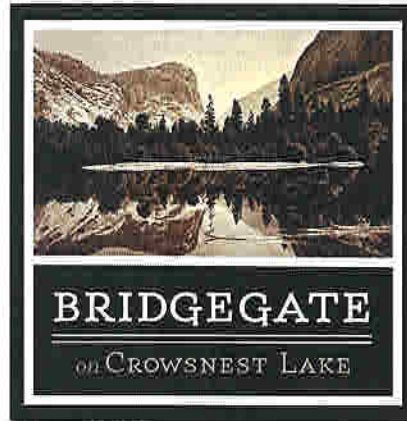




BRIDGEGATE

on CROWSNEST LAKE



BRIDGEGATE RESORT VILLAGE
on Crowsnest Lake

A R E A S T R U C T U R E P L A N

Municipality of Crowsnest Pass, Alberta

on behalf of
Bridgecreek Development Corp.
Developer

Civic Design Group Inc.
Town Planners and Urban Design

Glamin & Associates
Survey and Environmental

Veritas Development Solutions
Engineers

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1.0 BACKGROUND

1.1 INTRODUCTION

On behalf of Bridgecreek Development Corporation, Civic Design Group has prepared this Area Structure Plan for the future development of a mixed use, bareland condominium recreational resort development on Crowsnest Lake within the Municipality of Crowsnest Pass.

1.2 SITE AREA

The subject lands are located within the municipality of Crowsnest Pass in an area known as the Sentinel. Gross Lands covered within the ASP boundary total approximately 55 acres with an additional 38 acres of Lake area. The ASP boundary includes lands directly adjacent to Highway No. 3 and Crowsnest Lake. The most northern property line runs parallel to the Canadian Pacific Railway line right of way, which was established in the late 1800's. The mouth of the Crowsnest River starts at the southeast portion of the site.

Legal description

Lands within the ASP boundary are located within the following quarter sections:

Portion of NE ¼ Sec. 9-8-5-5

Portion of SE ¼ Sec. 9-8-5-5



Figure 1.1, Location Plan

1.3 EXISTING LAND USES

Zoning Districts

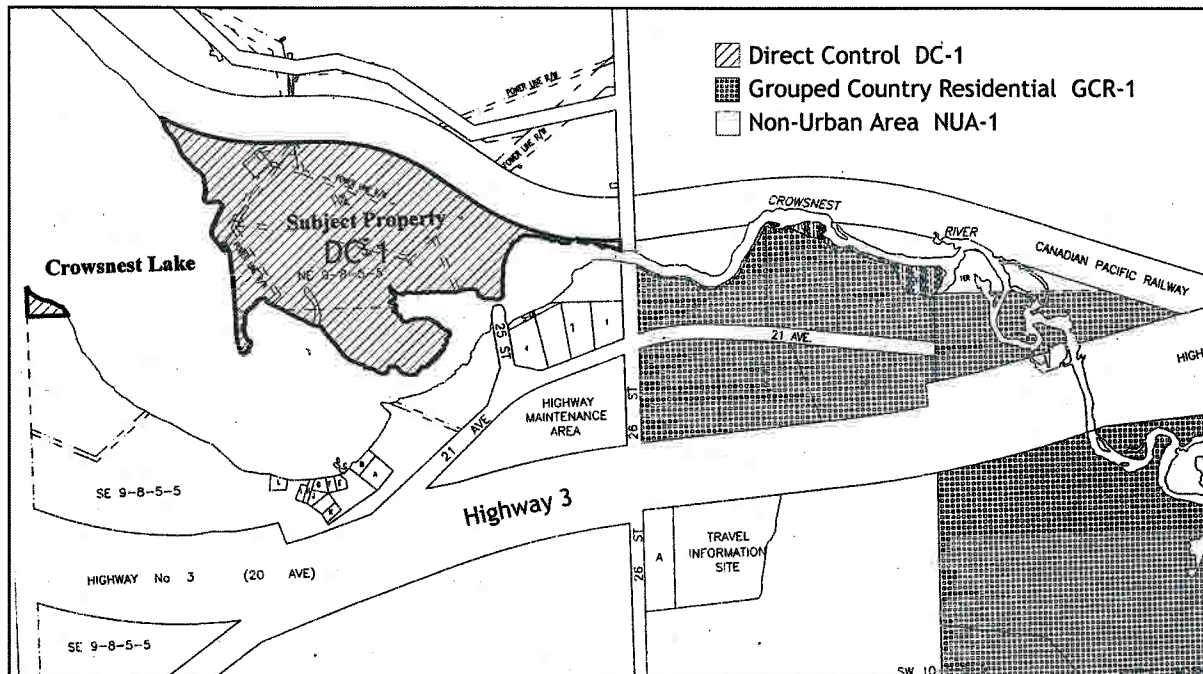
Lands to the north of Crownsnest Lake are currently zoned Direct Control (DC-1) which defers specific elements of land use to the discretion of council. Lands to the south of the lake are zoned as Non-Urban Area (NUA-1).

Existing Uses

The northerly portion of the site currently accommodates 7 rental houses and 8 rental cabins. An abandoned electrical generation plant is located on the western shore of the subject site. An abandoned community dance hall built in 1930 by Mr. Alec Moreney which occupies land owned by Alberta Forestry is located on the southeast portion of the site. This structure functioned as a community hall until the 1960's and has since fallen to disrepair. An existing public boat launch area lies just east of the dance hall. The southeast portion of the site currently accommodates 5 privately owned residential acreage lots ranging in size from 1 to 5 acres. Lands directly south of the acreage lots have been set aside for highway maintenance purposes.

Adjacent Uses.

Lands to the north, south, and west of the subject site are currently designated as Non Urban Area (NUA-1). A smaller portion of land east of the site and south of the Crownsnest River has been designated as Grouped Country Residential (GCR-1).



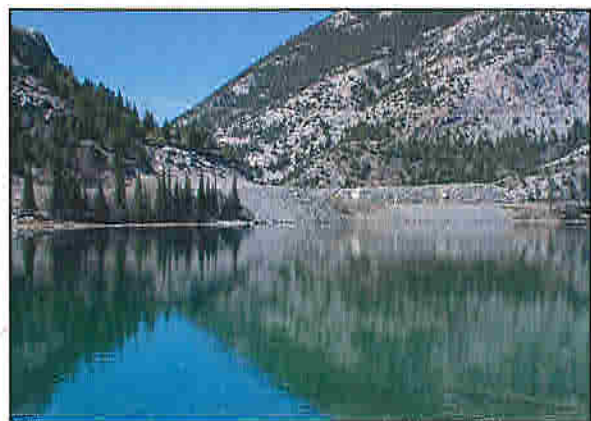
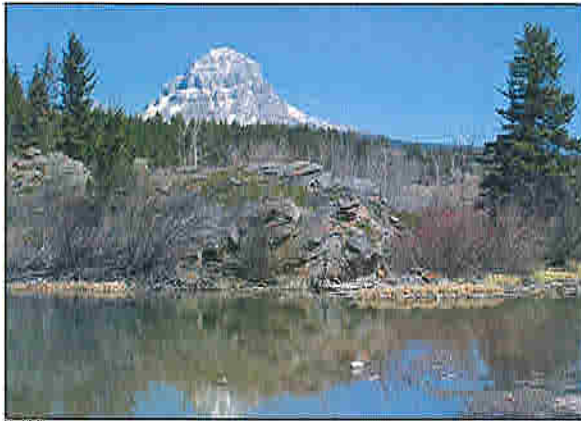


Figure 1.3, Site Photos

1.4 TOPOGRAPHY AND LAND COVER

Carved out of the Crowsnest River system, the subject site has significant topographical features and a diversity of foliage and land cover. The site can be divided into three general topographical areas. An east-west ridgeline bisects the northern portion of the subject lands-forming an upper bench and lower bench. A third area, referred to as the "south shore" takes in the remaining lands between the lake and Highway 3 (Crowsnest Trail). The overall elevation of the site ranges from 1347.5m to 1369.5m.

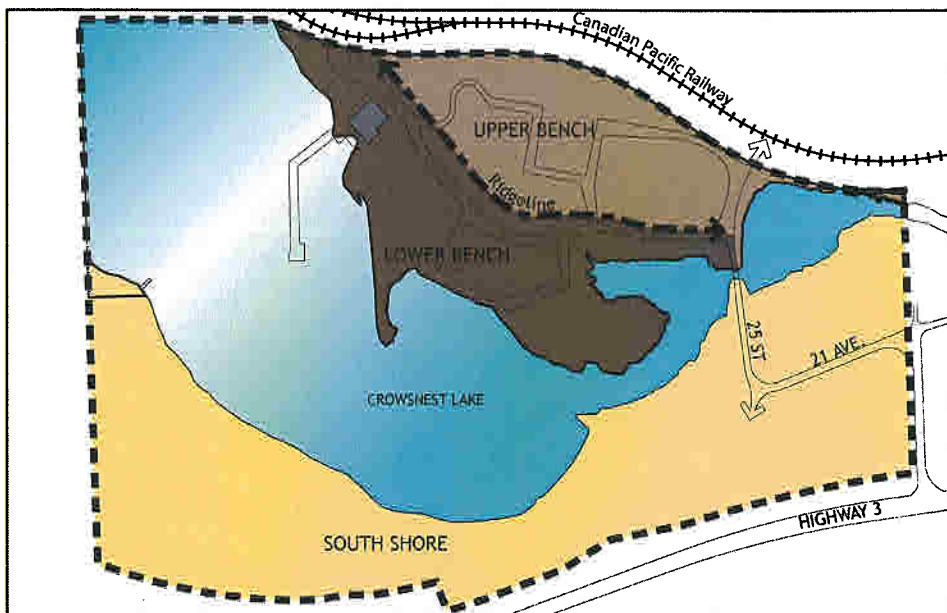


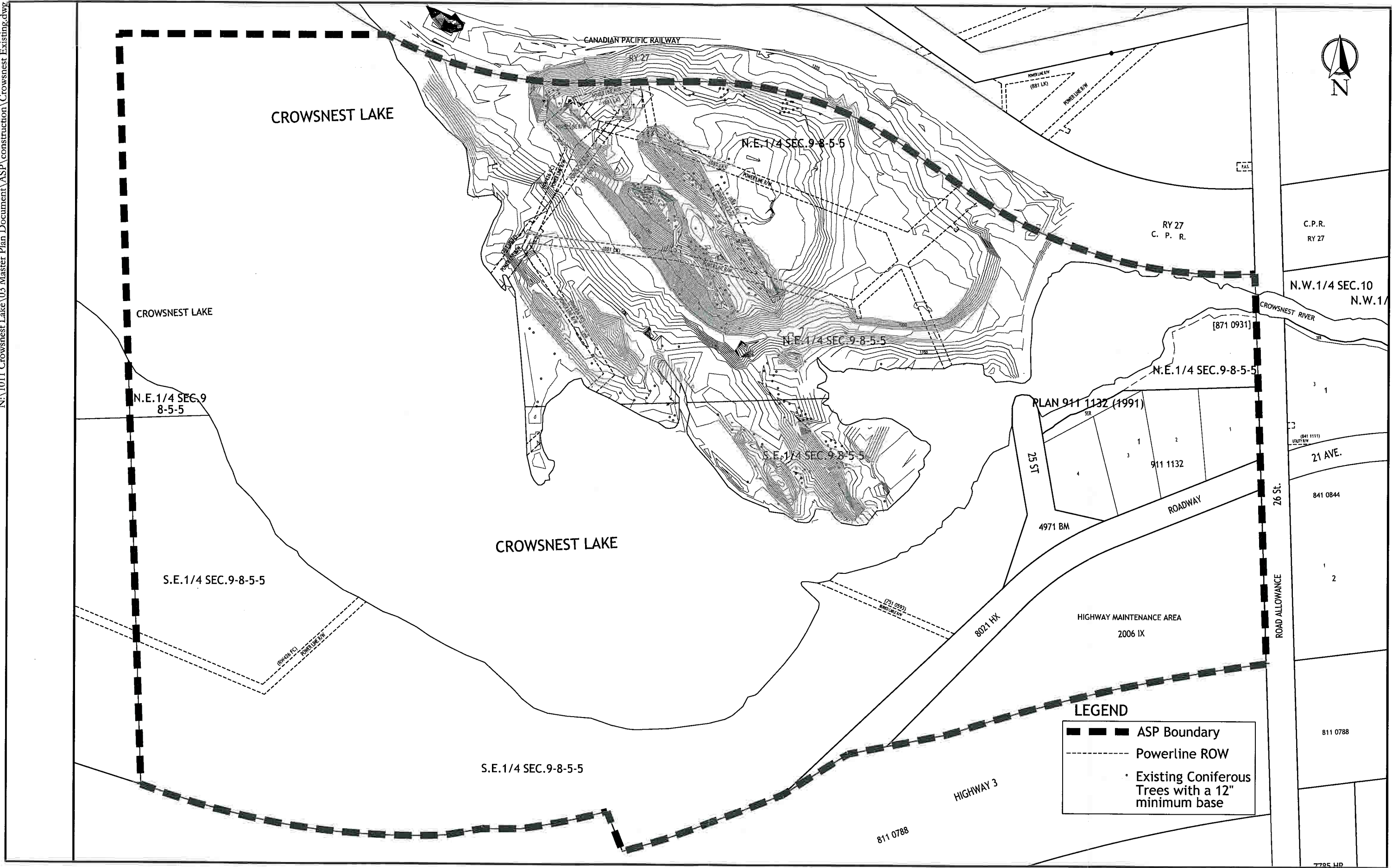
Figure 1.4, Topographic Areas

Upper Bench

The "upper bench" will house the proposed "Upper Village" and falls between the CPR right of way to the north and the major east-west ridgeline to the south. This area has rolling topography set atop a surrounding ridgeline. This site is generally more than 5 meters above the surrounding area. The majority of the land cover has been significantly altered by development and is largely defined by grasses and planted trees. Undisturbed areas feature a variety of coniferous and deciduous trees intensifying on the ridge to the south. A number of bedrock outcroppings are visible throughout the site.

Lower Bench

The "lower bench" will house the proposed "Lower Village" and is positioned to the south of the east-west ridge line and the shoreline. A small portion borders the CPR right of way on the northwest. The lower bench has historically been used for the power plant operations and is characterized by long ridges and valleys generally stretching east-west. The major east-west ridgeline on the southern side exhib-



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Topographic and Legal

Fig. 1.5



BRIDGEGATE RESORT VILLAGE ON CROWSNEST LAKE

Area Structure Plan
Crowsnest Lake, AB

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Fig. 1.6

Existing Land Cover

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Date: SEPT. 2005

Drawn by: LLL
Project No: 1011

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its significant exposed rock outcroppings and is bolstered by a number of mature deciduous and coniferous trees. Two points extend south into the lake and are characterized by mature tree stands and a rugged terrain of small valleys and exposed rock outcroppings.

To the northwest, the site levels to a gentle slope consisting of grassy meadows and clusters of deciduous trees. These lands allow for easy access to the water and powerhouse. The shoreline has been altered near the power house, and may require enhancement elsewhere.

South Shore

The "south shore" lands lie between Highway No. 3 and the south shore of the Crowsnest Lake. The south shore lands are primarily characterized as gently sloping lands including the forested area to the southwest adjacent to the abandoned dance hall. Dense stands of largely undisturbed forest exist on the western portion of the site.

1.5 HISTORICAL CONTEXT

The history of the subject lands are significant in that they are located in an area known as the Sentinel. The book "Crowsnest and its People" published by the Crowsnest Pass Historical Society in 1979 best describes the history of the Sentinel and the area. The following is a brief excerpt as it relates the subject lands.

"The history of the Sentinel was originally called Sentry Siding. The siding was set up in 1909 so clay could be loaded into railway cars and shipped to Medicine Hat to be used in the manufacture of sewer pipe. The name Sentry was later changed to Sentinel and a flag station was erected east of the railway crossing on Crowsnest 3 near Ferguson Supply of 1977.

The first boom period at Sentinel was the building and operating of the East Kootenay Power Plant on the shore of Crowsnest Lake. They adopted the name of Sentinel. Since then practically all the area west of Coleman to the Lake is referred to as Sentinel.

The siding at Sentinel grew over the years to its present size mainly to accommodate coal trains. Stock chutes and facilities were installed and for years were in use for loading and unloading live stock. (cattle horses and sheep.)

Early attempts were made to attract tourists to the Sentinel and lake areas. As early as 1915 Mr. Wes Johnston operated a passenger boat for Sunday visitors.

In 1930 Mr. A. Morency had a dancing pavilion and cabins constructed at the lake. He took passengers cruising while other boats were rented to fishing enthusiasts.

Another attempt was made to "trap" the tourist trade when Mr. Regner began construction of three log cabins, near the base of Sentry Mountain in 1935. He also set up gasoline pumps. The cabins were never completed and the gas tanks were never operated.

In the late 1940's Mr. and Mrs. C. Huffman set up Glacier Cabins (now called Kozy Knest) on the west shore of Crowsnest Lake. They offered travelers comfortable accommodation.

In 1951 Mr. and Mrs. Jim Kerr opened Chinook Motel, "a home away from home", on Allison Creek where the scenic grandeur was not surpassed anywhere in Alberta. In recent years industry has taken over Sentinel Valley.

East Kootenay Power Plant, Sentinel

In June 1922, East Kootenay Power had first supplied power to the Crowsnest Pass from a hydroelectric plant at Bull River, B.C. In March, 1924 a hydro plant at Elko, B.C. increased the company's generating capacity but demand for more power warranted the building of a steam generating plant at Sentinel, on the shore of Crowsnest Lake. The plant was to serve as an auxiliary source of power to the hydro plants. It was not long until the increased power load of the area justified the plant being run constantly.

The area at the east end of Crowsnest Lake had been officially designated a recreation area, jointly controlled by the towns of Coleman and Blairmore. Negotiations for release of land on which East Kootenay Power Company would construct a steam generating plant began in March, 1924. Coleman Council minutes of July 18, 1926 indicate 2.9 acres was released and construction of the plant began that year.

Sentinel was the ideal site as a centre for distribution of power, adequate water supply from Crowsnest Lake and proximity to coal mines. It was to be the first plant in the far west which would use pulverized coal as fuel.

The method of firing was by powdered fuel being blown into the fire boxes by pressure and burned in suspension, 90% of the residue being carried off by a smokestack 200 ft. high and 11 ft. in diameter at the base. This would be the most complete supersteam plant in Alberta. It would require 200 tons of coal daily and take 10,000 gallons of water from the lake.

In 1929 and in 1946 equipment was replaced to keep abreast of progress.

Seven fine homes were built at the site for married employees and a three storey staff house for single men and visiting executive.

The chief engineer when the plant went into operation in 1927 was Mr. John T. Watson who left in 1928 to become city manager at Lethbridge. He was followed by Mr. Arthur Reid who left in 1929. Mr. Hugh Craig Sr. was chief for a time and Mr. Jack Penn, of a pioneering family from Hillcrest, was chief engineer for a number of years, followed Mr. Tinge.

Names recalled as earliest employees at the Power Plant are Dan Ross, Alb May, Nick Driver, Bill Driver, Adamson, Tommy Baker, Ken Blain, Fred Greenwood, Billie Archer, Billie Burns, Cliff Uphill, Neidig, and Billie Meier as line-man.

Eventually B.C. Hydro took over East Kootenay Power Plants in B.C. The plant at Sentinel, Alberta was taken over Calgary Power. Mr. Dave Koop was chief engineer when operations ceased in February 1969."

1.6 CORE PRINCIPLES

The core principles of the design approach for this ASP is focused on the creation of humanly scaled cities, towns, hamlets and neighbourhoods through an imaginative and integrative approach to town planning. This approach is based on time-tested principles of town planning found in the most treasured places in the world. This will allow for the development and implementation of an environmentally, economically, and socially sustainable plan for future generations to enjoy.



- Rotunda
- Pool House/
Pool courtyard
- Private Courtyard (TYP.)
- Fountain/Sculpture
- Water Feature
- Hill Top Pavilion/
Look Out
Sculpture
- Sales/Greeting Centre
- Stone Bridge
- Interpretive Pathway
Entry
- Sculpture
- Interpretive Centre
Pavilion

CONCEPT ONLY

This is a schematic plan only and subject to change.
Suggested Bldg and land uses are conceptual only and
may change. For discussion purposes only.

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Descriptive Plan

Fig. 2.1



BRIDGEGATE RESORT VILLAGE ON CROWNEST LAKE

Area Structure Plan
Crownest Lake, AB

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2.0 DEVELOPMENT PLAN

2.1 VISION

Bridgeway Resort Village on Crowsnest Lake is envisioned to become Crowsnest Pass's premier resort village destination. For centuries the site has been a draw for living, working, and recreating along the Crowsnest lake shore at the mouth of the Crowsnest River. It is appropriate then, that the site embraces the historical use of this land with a resort village that once again brings people to enjoy its serene shoreline, picturesque setting, and intimate natural features as a playground and a home.

The Resort

As a resort, Bridgeway will offer a diversity of homes and accommodations in a range of settings. This will attract a broad cross section of residents to the village. Shopping and restaurants centred around the redeveloped power house will offer residents and visitors an active village life with cafes, main-street style shopping, and a range of eating establishments. Other amenities will include an aquatics centre, a beach, a boat launch and dock facilities, a number of indoor and outdoor pools, a multi-use lawn, and several amenities buildings that will serve as bandshells, lookouts, picnic areas, and other uses. A system of natural pathways leading to a number of smaller amenity buildings will offer a quiet setting away from village life.

The Village

As a village, Bridgeway will take its form from the time-tested village character celebrated in the world's most loved places. Narrow tree lined streets, intimate public spaces, attractive humanly scaled architecture, a dense network of sidewalks and pathways, and carefully crafted streetscapes will invoke visitors and residents the charm and character of a place that they will soon come to love. Visitors and residents will arrive by car, bus, water, helicopter, floatplane, or at the Village's train station on the CPR line. Once in the village, they will be able to access the village by foot along comfortable, attractive streets and pathways.

From the outside, the village will display a compact, contained urban environment surrounded by natural forests and parkland. This distinct duality of urban and natural is characteristic of the picturesque villages of Europe. Along with attractive architecture, the village will enhance rather than detract from the viewshed as seen from Crowsnest Trail and elsewhere.

The Environment

Environmental integration and a link to nature are a primary focus of the Village. Preserved natural areas will be enhanced and protected for the enjoyment of visitors, residents, and wildlife. The village displays the walkable, human scaled urban form time tested throughout the world. Human systems such as stormwater will be integrated symbiotically with natural ones. Heating technologies utilizing geothermal energy and alternative energy systems harnessing the wind and the sun will be pursued. LEEDS qualified projects will be preferred.

2.2 CONCEPT

Responding to the natural form of the subject site, three general areas are formed. An 'upper village' is found at the upper bench, a 'lower village' at the lower bench, and an additional development area within the 'south shore'.

The village is envisioned to have a distinct edge from the surrounding natural areas. To conserve land, concentrate village activity, and reduce the overall environmental footprint for the village, development is envisioned to "go up" rather than spreading out. Separating the lower and upper village is a significant ridgeline with a number of unique rock outcroppings and mature tree stands. This ridgeline forms a natural seam between the two village areas. A system of pedestrian pathways and sidewalks link the two villages and tie in surrounding natural areas. Pedestrian movement will take precedent over vehicular movement.

Lower Village

The lower village will be the first to begin construction following a main east-west 'spine' street. Following a crescent formed between the ridgeline and the shoreline, a number of blocks are formed that will include street oriented row houses, a low rise mixed use building on the north, and towers supported by mid rise bases. Tower blocks will include street accessible town-houses, single and double level flats, tower units, and penthouses at the top of the towers. Rooflines and units are articulated to maximize views. Parking is provided underground.

A narrow street wraps around the eastern-most block allowing a lively public edge to a beach and a significant preserved natural area that protects the mouth of the Crownsnest River. The second block is bordered on the south by a pathway and a preserved natural point into the river. Terminating the view of the spine road is a railway station and platform. The station forms the gateway to a plaza fronted by a resort hotel and conference centre anchoring the western edge of the site.

The existing power house is redeveloped providing a number of restaurant and entertainment uses. Ground floor, street-oriented commercial uses surround a plaza and the main east-west spine. The plaza surrounds three sides of the power house and leads into a boat ramp, marina access, and a lakeside restaurant patio. A marina extends into the lake allowing for boat slips and water access to the village.

Upper Village

Three narrow roadways rise into the upper village. The upper village is largely mid-rise with street and courtyard oriented units and courtyard apartments. A single tower rises on the eastern edge with views down the crownsnest river corridor. The buildings are organized on a central east-west spine. The spine accommodates a formal street, a multi-use lawn at the centre of the village, and terminates at a multi-use civic building at the western end.

Buildings form private courtyards internally, and semi-public courts in between. These courts host pool areas, plazas, and other recreational uses. To mitigate train noise, buildings on the north end are oriented to form a high wall extending through the back of private courtyards and semi-private courts. An aquatic/recreational centre anchors the western edge of the upper village and forms a formal link to the lower village.

The entire upper village is elevated to accommodate underground parking and enhance views. Additional underground parking on the northern edge may accommodate the lower village as well. A natural water feature may be formed at the small valley formed at the south-western edge of the site.

South Shore

The south shore will allow for additional resort village uses significant areas of natural forested area. Hotel, institutional, commercial, and residential uses may be accommodated near the access road. The existing dance hall will be reconstructed to address its historical significance and the existing public boat launch will be enhanced. A potential heliport will provide helicopter access to the site.

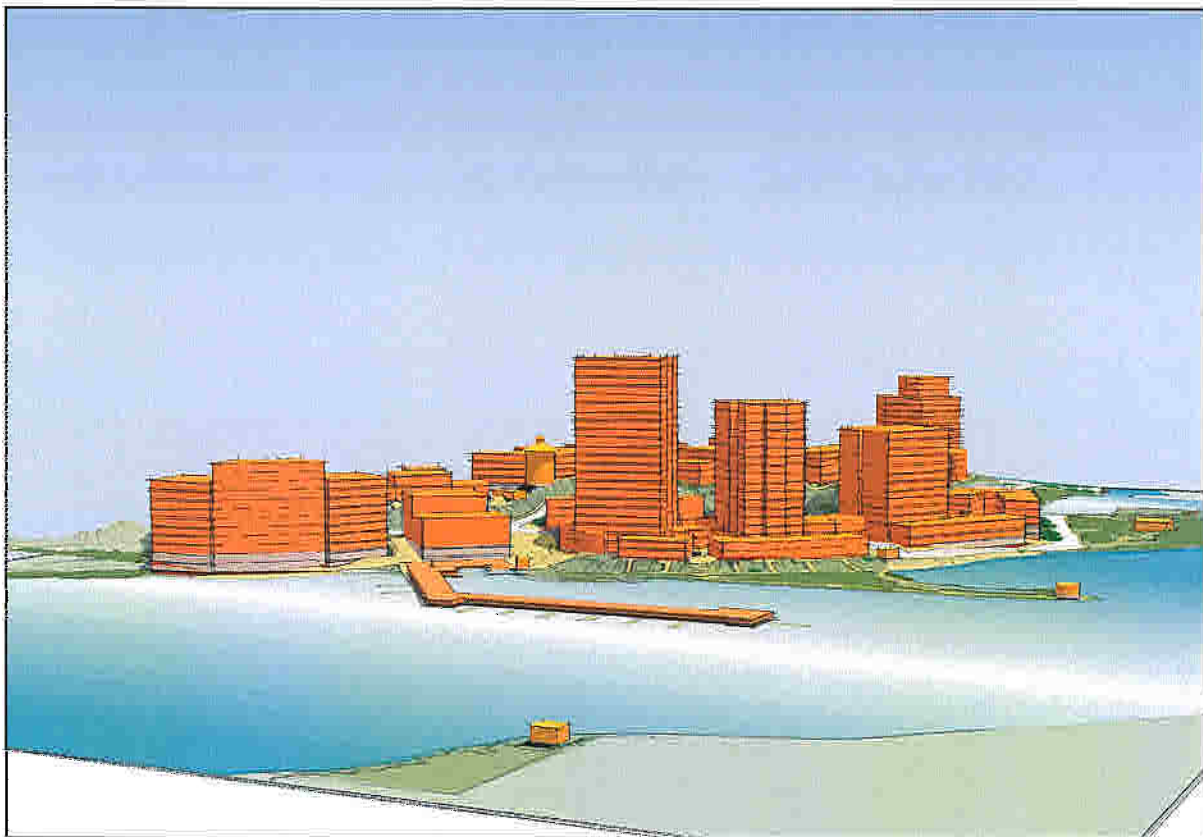


Figure 2.1, Conceptual Massing Model - View A



Figure 2.2, Conceptual Massing Model - View B



Figure 2.3, Conceptual Massing Model - View C

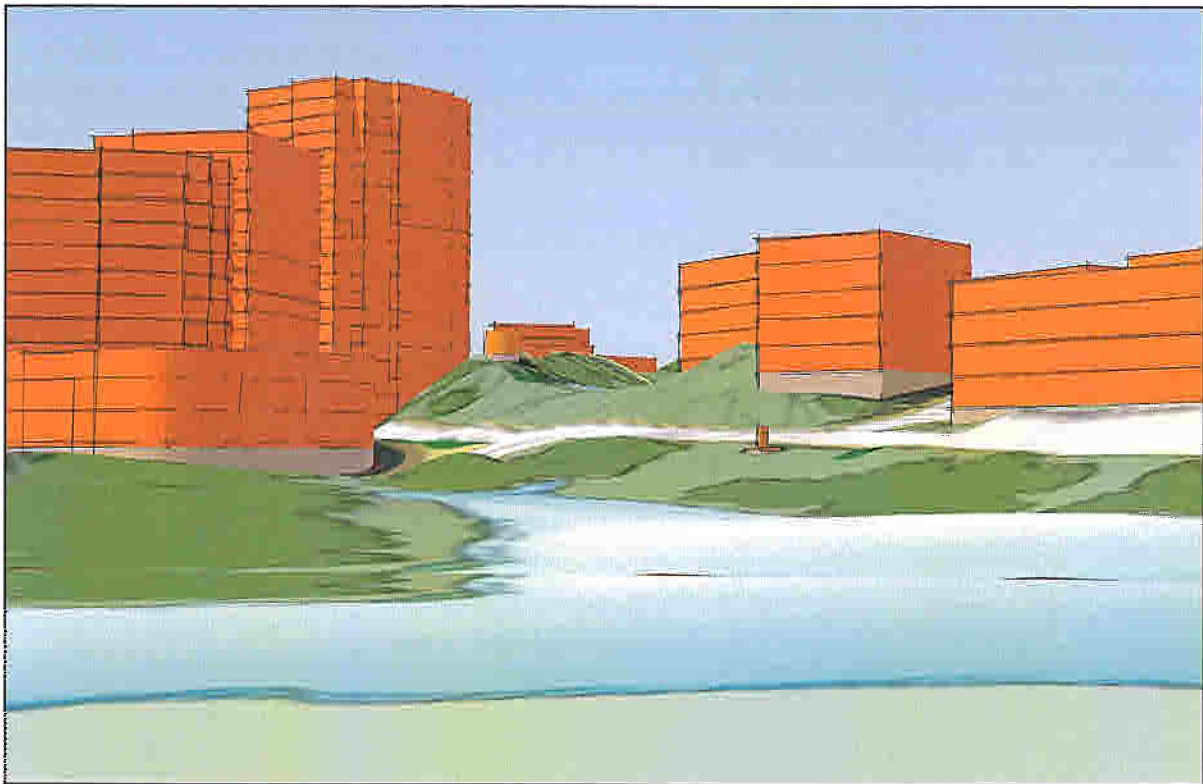


Figure 2.3, Conceptual Massing Model - View D

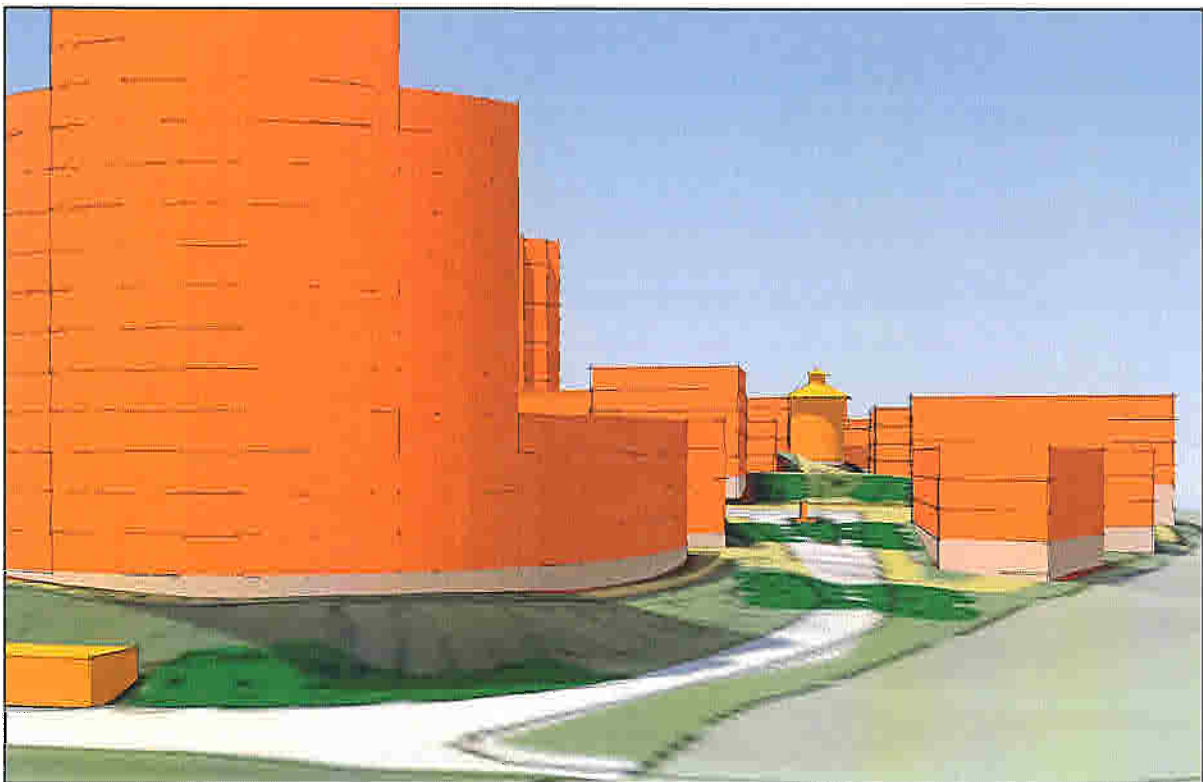


Figure 2.4, Conceptual Massing Model - View E

3.0 LAND USE

3.1 OVERVIEW

This section describes the general land uses proposed for the subject site. A more comprehensive and detailed "Comprehensive Resort Village" land use district in conjunction with detailed development standards will be submitted after ASP approval. This process is further outlined in Section 6.0. It will be the intention of the proposed CRV district to respect the natural setting while accommodating a comprehensive master plan tied to detailed development standards.

3.2 GENERAL LAND USES

All lands within the planning area are under either Direct Control (DC-1) or Non Urban Area (NUA) and currently defer land uses to the discretion of council. Specific land uses and parameters will be identified within the forthcoming land use district. The general land uses proposed within the planning area include, but are not limited to the following:

- Commercial including retail, entertainment, restaurants, drinking establishments, office, outdoor cafes, services, casino
- Residential
- Accommodations and related services
- Institutional
- Civic Spaces and municipal reserves
- Recreational Uses

3.3 NATURAL AREAS

In accordance to the Municipal Government Act, a minimum 10% of the gross developable land is to be either dedicated as municipal reserve or cash-in-lieu will be provided to the local Municipality. As illustrated within the proposed plan the retention of significant natural site features and vegetation is of primary importance. The proposed plan will meet and likely exceed the Municipal Reserve (MR) requirement. A detailed analysis of proposed Municipal Reserve Lands will be provided at future subdivision stages to the satisfaction of the Approving Authority.

3.4 DENSITY

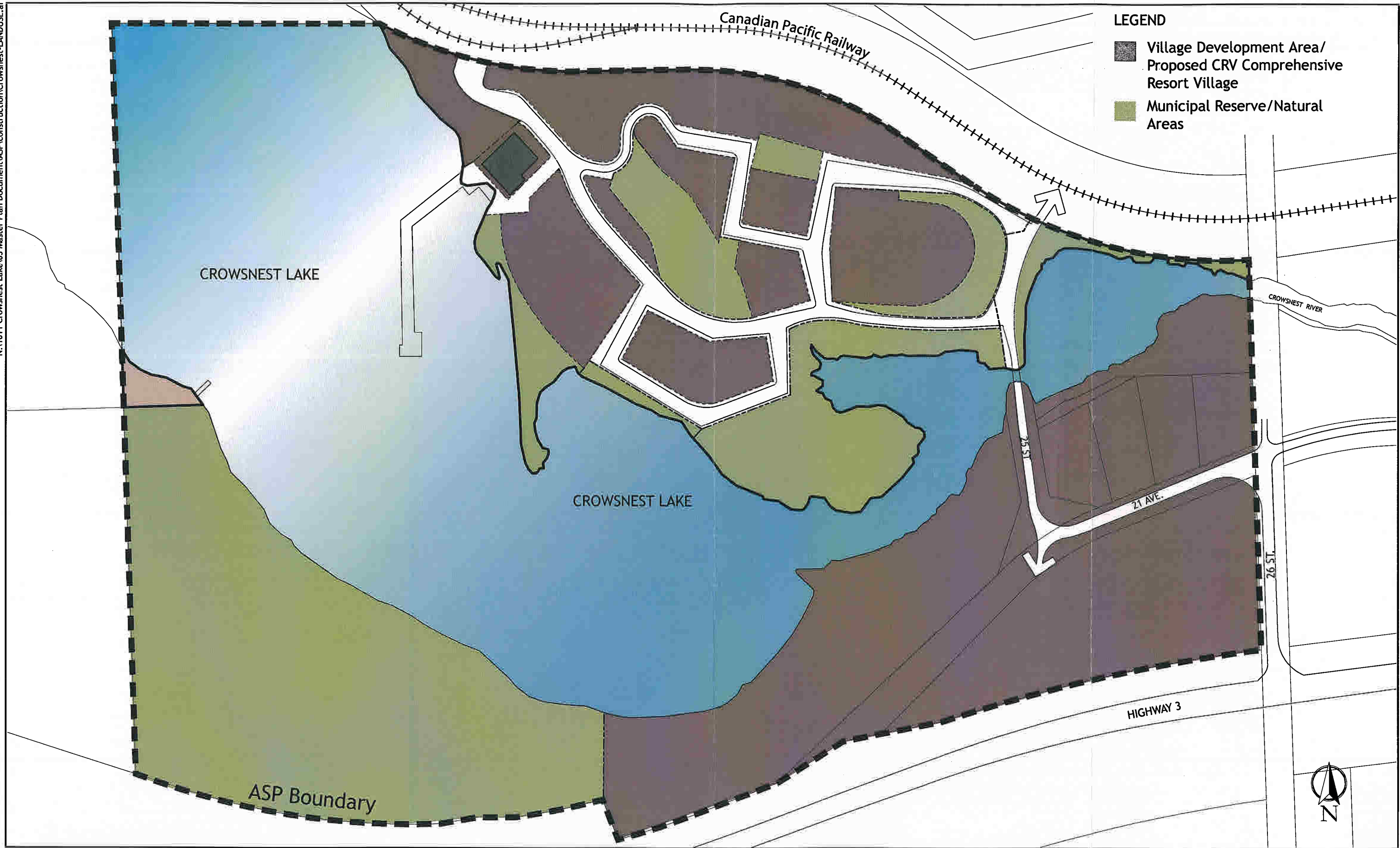
The anticipated density within the ASP boundary is to be up to 2000 residential dwelling and/or accommodation units of various sizes. Primary residential densities will occur in both the upper and lower village lands with the bulk of the densities to occur within the lower village lands.

3.5 BUILDING HEIGHT AND PLACEMENT

In order to ensure the greatest amount of flexibility in the design and implementation of the proposed plan, the maximum building height within the ASP boundary shall not exceed 25 stories. Building Placement will be in accordance to architectural, environmental, and urban design standards. The primary façade and entry to each building shall be oriented to the street, where possible.

3.6 PARKING AND LOADING

Parking and Loading will be provided as necessary, and will be designed to accommodate adequate access and servicing requirements. Throughout the Upper and Lower Village lands parking will generally be accommodated in either underground parking garages and or above ground parkade structures both visually screened from the street face. Above ground parking lots will be accommodated at the rear of the building. On street parking will be accommodated where possible to enhance commercial viability and provide the pedestrian with a sense of security. Parking for individual buildings may be accommodated off-site, or by shared parking standards, within the ASP boundaries and to the satisfaction of the approving authority.



BRIDGEGATE RESORT VILLAGE ON CROWSNEST LAKE

Area Structure Plan
Crownsnest Lake, AB

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4.0 TRANSPORTATION

4.1 OVERVIEW

The urban form of the village is traditionally characterized by a fine grained network of humanly scaled thoroughfares. The network allows multiple and direct routes to destinations and forms a block structure that is fundamental to sound urban form. A hierarchy differentiates local routes and more intense regional routes.

4.2 THOROUGHFARE STANDARDS

The pedestrian serves as the primary mode of transportation within the village. All thoroughfares should be designed to adequately accommodate vehicular movements, but shall avoid oversized street dimensions that reduce pedestrian safety, encourage speed, and detract significantly from the character of the village. Minimum carriageway widths are strongly encouraged. Alternate means of accommodating emergency vehicles and service vehicles should be pursued rather than typical methods of oversized streets and cul-de-sac bulbs, to the satisfaction of the approving authority.

For character and for alternate means of slowing and controlling traffic, alternative street standards may be employed. These may include alternative surface treatments, non-aligned curbs resulting in the contraction and expansion of the street, squared corners and reduced corner radii, and unique sidewalk and edge treatments. On-street parking, street trees, and lighting are allowable on all thoroughfares and shall be integrated as part of the comprehensive design of the village. All street standards shall be designed to the satisfaction of the approving authority.

4.3 SITE ACCESS

The site is currently accessed from the south at the intersection of 26th Street and Crownsnest Trail (Highway 3). The village is then accessed through a series of municipal roadways, east along 21st Avenue and then north along 25th street. While not ideal, this provides an adequate access to the site.

Crownsnest trail is a major thoroughfare serving the east-west traffic through the pass and is currently under review for improvements and possible realignment. Future access may be provided onto 25th allowing direct access into the village. The future intersection design will take into consideration the densities proposed for the subject site, and will minimize impacts on existing residential uses.

4.4 PEDESTRIAN NETWORK

A range of pedestrian pathways will form a permeable network throughout the site and will range from more urban sidewalks, plazas, and midblock passages to more natural pathways. Pathway and sidewalk connections outside of the site will be encouraged when possible.

4.5 VEHICULAR NETWORK

Access to the village is on the eastern edge along 25th street. As an entry road, 25th Street will serve as an important entry feature and should be improved to reflect the character of the village while adequately accomodating vehicular traffic. Street design should be kept narrow and should be equipped with adequate sidewalks and/or pathways. The existing bridge over the mouth of the Crownsnest River should remain as a narrow two lane bridge with the addition of sidewalks on both sides. The bridge will be rebuilt to reflect the character of the village and will act as the primary entry feature.

Internal village circulation is accomodated by a small network of public and private streets. Figure 4.1 demonstrates the proposed circulation network. An east-west public roadway will form a spine through the village from 25th street terminating at the proposed hotel site and train station.

4.6 RAIL

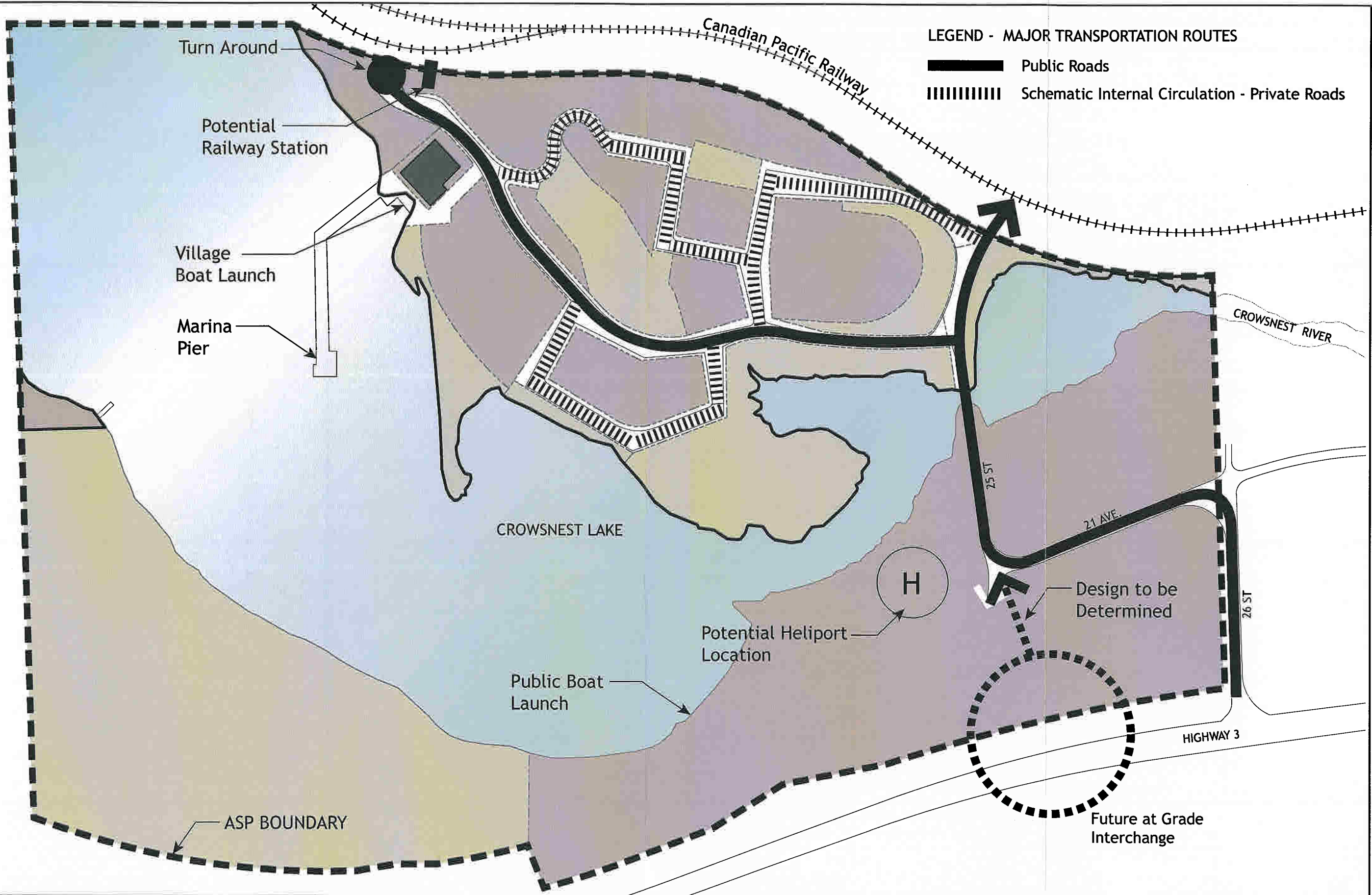
An active Canadian Pacific Railway line borders the village to the north. A recently built spur line provides the potential for a passenger rail connection with Canada wide connections including the immediate local connection to Fernie and Banff. The feasibility of this connection will be considered as part of a separate agreement with Canadian Pacific Railway.

4.7 WATERWAYS

A proposed dock will provide access to and from the village site by private watercraft. Regulations concering the use of private watercraft will be provided as part of the approved land use district, or by seperate agreement to the satisfaction of the approving authority. An existing public boat launch in the south shore area will be enhanced and integrated into future development schemes.

4.8 AIRCRAFT

A heliport may be provided in the south shore area and will be positioned and designed to minimize impacts on surrounding uses. Additional air access may be provided by floatplanes.



LEGEND - MAJOR TRANSPORTATION ROUTES

- Public Roads
- Schematic Internal Circulation - Private Roads

PRELIMINARY
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Project No: 1011

Scale: 1:2500
Date: SEPT. 2005

Access & Transportation

Fig. 4.1



BRIDGEGATE RESORT VILLAGE ON CROWSNEST LAKE
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5.0 SERVICING OVERVIEW

5.1 SERVICING OBJECTIVES

Servicing of the lands defined within the ASP boundary will be designed and constructed in accordance with the guidelines from the Municipal District of the Crownsnest Pass, as well as Alberta Environment and related standards and practices in effect at the time of the development.

The objectives for the servicing strategy are as follows:

- Making effective use of the existing topographic conditions to service the subject property in the most effective and efficient manner,
- Connect to the off-site servicing connections provided by the MD,
- Extend the services into the property allowing for phased construction,
- The initial costs for on-site roads, sidewalks, water, sanitary and storm sewer, shallow utilities, etc. shall be borne by the Developer,
- Provide a comprehensive design that minimizes the impacts to the environment and in particular the Crownsnest Lake.
- Design a stormwater management system that meets or exceeds the Alberta Environment guidelines.

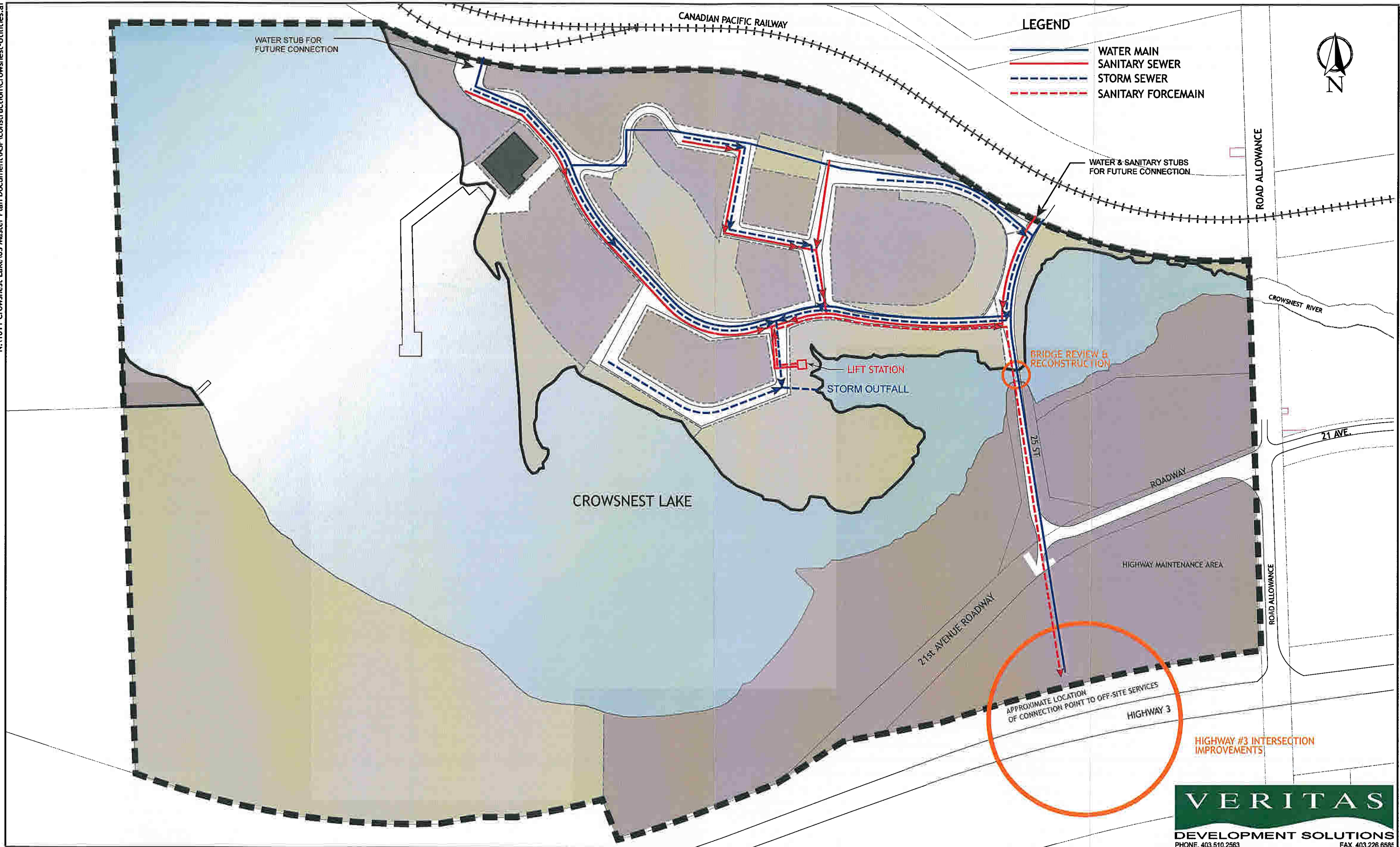
5.2 PROPOSED WATER SUPPLY AND DISTRIBUTION

The water supply system for the subject lands is proposed to connect to the MD's domestic supply system. Off site upgrades will be required to extend the water servicing from its current location to the subject property. The details concerning the location of the connection point will be identified in the servicing review to be completed by Stantec Consulting of Lethbridge. This report will also identify the trunk size of the main entering the site.

In general, the watermains within the resort core will be looped, and the use of 'dead end' lines will be minimized. The water supply system will serve both domestic usage and fire fighting capability. A complete detailed Water Network Analysis will be provided at the time of detailed design in order to accurately size the mains. Stubs for future development areas will be provided in the areas identified in Figure 5.1. The need for a balancing tank/reservoir will be assessed once the Stantec report is available.

5.3 PROPOSED SANITARY SERVICING & WASTEWATER COLLECTION

A sanitary sewer system within the property is proposed to collect wastewater via gravity sewer connections to each development parcel. Figure 5.1 shows the preliminary collection system within the road allowance and also identifies a lift station at the low end of the site, near the intersection of Crownsnest Lake and Crownsnest River. The lift station will likely be required to connect into the proposed off-site tie-in point, based on a preliminary review of the topogra-



BRIDGEGATE RESORT VILLAGE ON CROWSNEST LAKE

Area Structure Plan
Crownsnest Lake, AB

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phy. The invert elevation on the north side of Crowsnest River near the existing bridge appears to be below the assumed elevation of the gravity connection to be provided by the MD of Crowsnest Pass. The off-site servicing review by Stantec will identify the proposed connection point, at which time we could confirm whether or not a lift station is required.

Development areas on the south side of Crowsnest Lake will also make connection to the gravity main to be installed by the MD along Highway #3. Stubs for future connection will also be included for developments areas to the north of the existing railway right-of-way.

The gravity sewer system to be installed by the MD connects to the existing sewage treatment plant located in Frank. Again, the off-site servicing review by Stantec will identify if the existing plant has sufficient capacity and make recommendations for any upgrades required.

5.4 STORM WATER MANAGEMENT

An on-site storm water collection system is proposed to service the entire resort core area. Storm water runoff will be discharged into the Crowsnest Lake, since it is the lowest point in the development area. Therefore the discharge of storm water shall be managed in accordance with the required quantity and quality guidelines established by the MD of Crowsnest Pass and Alberta Environment. Storm water will be collected through catch basins and a collection system within the roadway allowances. Storm water management may include buried treatment facilities to ensure that the quality of the water entering the lake has been treated for oil and grit removal.

A storm water master drainage plan will be required in order to guide all subsequent storm water design. This document will identify treatment options, estimated flow volumes and provide recommendations for the detailed design process. To our knowledge, there has not been a comprehensive stormwater analysis completed for the subject lands.

5.5 SHALLOW UTILITIES

Electrical System

Fortis is currently responsible to maintain the transmission lines that cross the property. The East Kootenay Power Plant was once present on-site (building still remains). Given the history of the site, a large amount of electrical infrastructure still remains. Therefore, the existing transmission lines will be used to service this site development.

An internal power distribution system will be designed to service the individual development parcels. All new electrical lines within the site will be buried underground and protected with utility easements.

Natural Gas

ATCO Gas currently has service to the subject lands via an underground pipeline. Therefore the future development area will be serviced through this existing system. ATCO Gas will be contacted directly to discuss the availability of gas and the need for off-site upgrades, should they be required.

Telecommunications

Telus provides telephone service to the to the Crowsnest Pass area. In the case of the subject property, Telus has a submarine line at the bottom of Crowsnest Lake. Service would be made to the site through the closest connection point and run underground throughout the development. High speed internet and fiber optic capabilities will be considered throughout the development. A common utility trench would likely be used to run all shallow utilities within the same easement.

6.0 IMPLEMENTATION

6.1 MASTER PLAN

Following approval of the Area Structure Plan, a subdivision plan, detailed engineering, and a comprehensive land use district will be submitted for approval. A comprehensive Master Plan will be produced for the village providing all the necessary documents to implement the plan including detailed design concepts, subdivision, outline plan, the implementation process, and a summary of engineering.

6.2 LAND USE: COMPREHENSIVE RESORT DISTRICT

The area structure plan establishes general land uses as described in section 3.0. Following ASP approval, a "Comprehensive Resort Village" land use district will be submitted for approval and will include the following:

- **Regulating Plan**

A plan indicating thoroughfare locations and types, the form and location of public spaces, building or lot types, build-to lines for buildings, primary frontages, and other design elements as necessary.

- **Urban Standards**

A matrix of graphics and text regulating the configuration of buildings and development parcels and how they affect the public realm. Parameters may include height, frontage types, frontage treatments, building functions, building entries, parking and parking access, and other design elements as necessary.

- **Architectural Standards**

To establish a harmonious architectural character and a high standard for architectural quality and construction, the Architectural Standards will set out minimum standards and will communicate the intentions for the desired style and character of architectural expression.

- **Thoroughfare Standards**

To establish thoroughfares that serve both capacity and character, the Thoroughfare Standards will establish specifications and parameters for all vehicular and pedestrian ways specialized for their context and use. Specifications will include roadways, sidewalks, planters, street trees, and street lights.

- **Landscape Standards**

To establish coherent landscaping and street tree planting throughout the village, and to provide for a healthy natural-urban landscape in harmony with the Crownsnest region, Landscape Standards will set out specifications for plant species, their location, and planting pattern.

■ **Environmental Standards**

In pursuit of long term environmental viability and an urban pattern that is integrated with the surrounding environment, the Environmental Standards will provide requirements, recommendations, and best practices regarding both the public realm and private development lots. Standards may include building materials, construction techniques, natural areas protection, and other parameters as needed. Standards will be reflective of LEED Canada standards as maintained by the Canadian Green Building Council.

6.3 OUTLINE PLAN

The information presented under Section 5.0 Servicing Overview is preliminary in nature and based on the information available to date. Through a more detailed Outline Plan process, additional engineering reviews, reports, and studies will provide a greater level of detail and serve as guiding documents for the balance of the design process. A number of supporting documents to the Outline Plan have been identified and are noted in the following list along with a description of the corresponding scope of work. The preliminary review presented herein is subject to a more thorough review contained in these reports. These engineering reports will be summarized within the Master Plan.

■ **Storm Water Master Plan**

A Storm Water Master Plan identifies the manner in which the runoff from the site will be addressed with respect to quality and quantity before being discharged into the receiving water course. This document will provide the framework for all subsequent design associated with how runoff is collected and managed. This report would be subject to the review of the MD of Crowsnest Pass, as well as Alberta Environment.

■ **Transportation Impact Study**

This report will address items related to the access requirements from Highway #3, laning requirements on the private bridge crossing the Crowsnest River and the alignment and preliminary design of the internal roadway system. This report will form as the backbone for all the subsequent road designs associated with this development.

■ **Environmental Site Assessment (ESA) Level 1.**

An ESA provides a general overview of the history and past uses of a site to highlight potential environmental liabilities, non-compliance with current regulations, possible chemical use or waste management issues.

■ **Off-site Servicing Review.**

Stantec Consulting of Lethbridge has been retained to conduct a servicing review and preliminary design for water and sanitary sewer servicing to the subject lands. The outcome of this report is critical to the design of the related on-site servicing concept and therefore direct communication with Stantec will be required. The Stantec report

must be reviewed in consort with the servicing concept presented in subsequent engineering designs for the Crowsnest Lake Resort. The servicing strategies presented are therefore very broad in nature since the details cannot be established until such time as the Stantec report is complete.

■ **Geotechnical Investigation.**

A drilling program and field review of the existing conditions is required to provide the necessary background on subsurface conditions. Water table elevations, depth of bedrock, pavement structure designs, footing recommendations, etc. will be included in this document.

6.3 SUBDIVISION

The village will be organized as a bareland condo with a number of subdivided development parcels. A subdivision plan will be provided following approval of the ASP, and will be submitted as part of the Outline Plan process.

6.4 SEQUENCE OF DEVELOPMENT

The staging of development within the village will be guided primarily by servicing and market constraints. Some degree of flexibility will be required as the project progresses. Early phases will be concentrated of the lower village moving from the eastern edge to the west, as well as the redevelopment of the existing power house. The public east-west street through the village site will be the first thoroughfare constructed and will serve as a central spine for phasing. Figure 6.1 illustrates tentative phasing of the village.



Figure 6.1, Tentative Sequence of Development