



# CREEKSIDE Outline Plan

Creekside Development Ltd.

Town of Rocky Mountain House

Originally Approved: September 2001

Amended: June 18, 2019



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## 1.1 OVERVIEW

The Creekside Outline Plan Area, as shown on **Figure 1 - Location Plan**, hereafter referred to as Plan Area, is located in the south west portion of the Town of Rocky Mountain House, east of the existing Secondary Highway 752.

## 1.2 AMENDMENT

### 1.2.1 Past Outline Plans

The original version of this Outline Plan was submitted to the Town of Rocky Mountain House in August 2002. After a review by Town staff and discussions with representatives of Creekside Development Ltd, an amended version was submitted and that version was adopted by Resolution in December 2002.

A number of revisions have occurred since that time to reflect the changing nature of the Town of Rocky Mountain Housing market and the Creekside community.

#### *2016 Amendment*

An amendment is required in 2016 to change the Plan Boundary to include a parcel of land purchased by Creekside Development Ltd. Located along the north section boundary, this parcel of land is intended to provide additional residential opportunities for the neighbourhood. As part of the amendment, the following items have also been addressed which are further described throughout the remainder of the Outline Plan:

- Addition of 13.1ac (5.3ha) of land into the Outline Plan Area, to the northeast of the existing boundary
  - » This addition is shown on **Figure 2 - Amendment Area**.
- Additional information regarding 54<sup>th</sup> Street
- Revision of roadway alignment and land use in the southeast corner of the development
- Review of land use locations
- Revised phasing plan

The following sections of this report are intended to support the application, by discussing policy framework, site characteristics, proposed development concept and land uses, municipal and environmental reserve and open space, transportation and access and proposed site servicing.

## 1.3 LEGAL DESCRIPTION AND OWNERSHIP

### 1.3.1 Legal Description

The Creekside Plan Area is situated within the South West Area Structure Plan, containing some 137.07 acres (55.47 hectares) is described as:

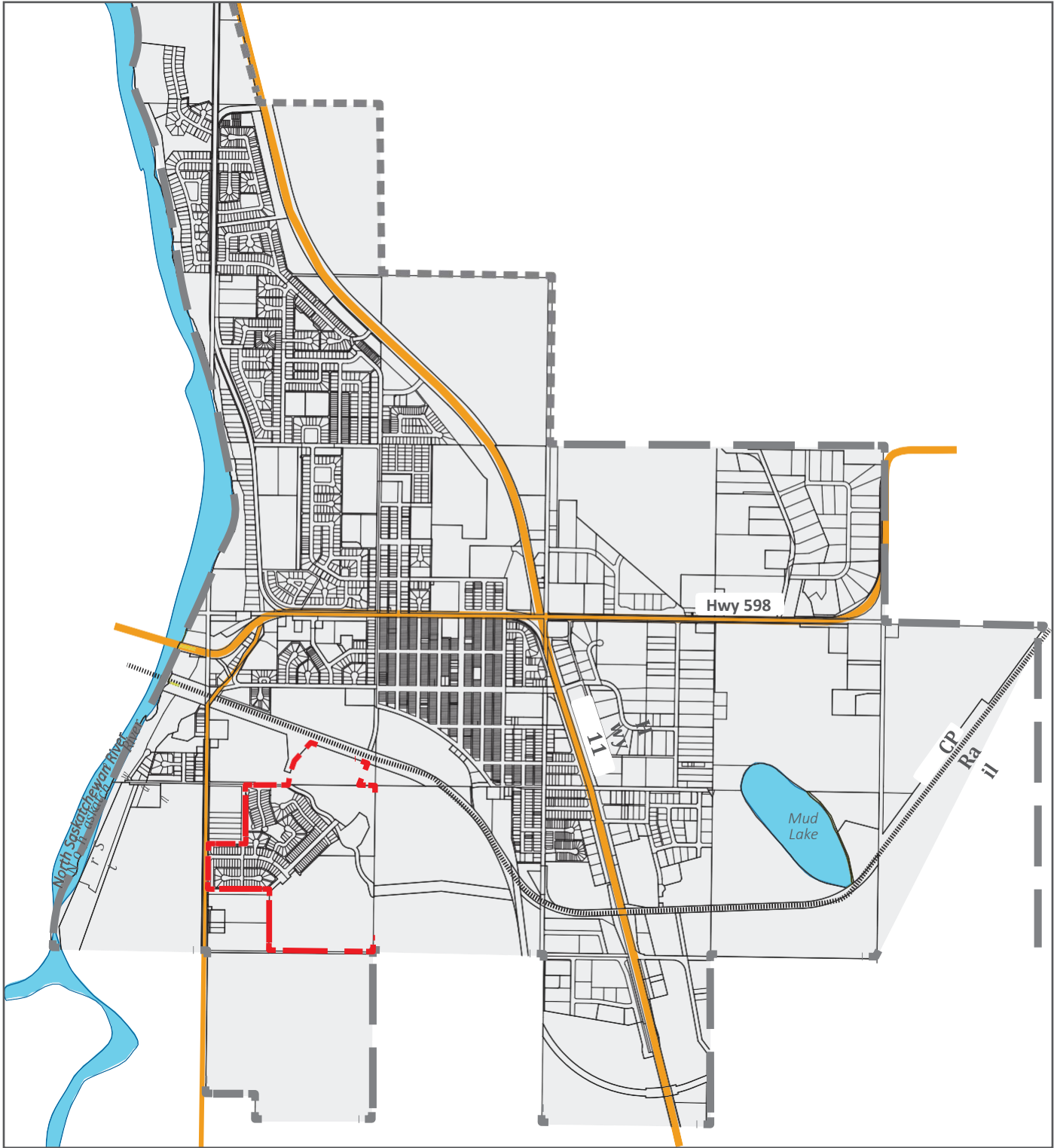
“The southwest quarter section twenty two (22) Township Thirty nine (39), Range Seven (7), west of the Fifth Meridian, excepting there out:

- a) Area subdivided under Plan 4045 ET;
- a) The southerly thirty-three (33) feet of the said quarter section lying east of the land subdivided under said plan, and
- b) Land as shown on Road Plan 2464 JY.”

In 2015, Creekside Development Ltd. purchased an additional parcel of land adjacent to the northeast boundary of Creekside, and west of an existing road right-of-way. This parcel, as shown on **Figure 2 - Amendment Area**, is legally described as Plan 1425210, Block 9, Lot 5; containing 13.1ac (5.3ha).

### 1.3.2 Ownership

The undeveloped portion of the Plan Area is owned by Creekside Development Ltd; however, there are several interests registered on title.

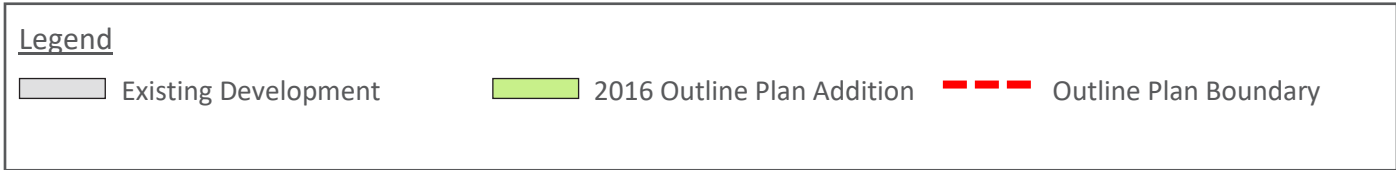
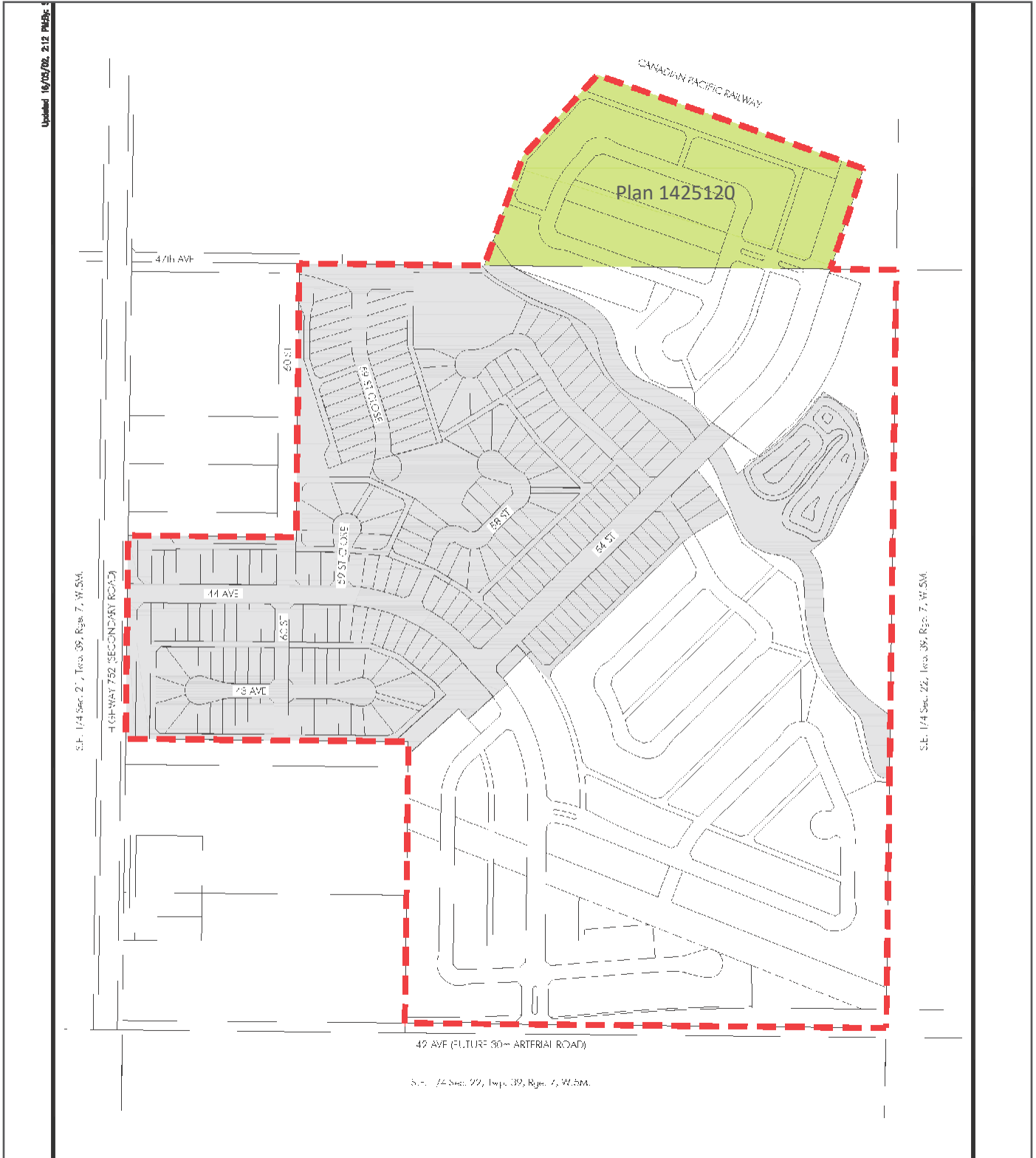


**Legend**

-  Highway
-  Water Body
-  CP Railway
-  Town Boundary
-  Outline Plan Boundary

**Figure 1 - Location Plan**

Creekside | August 2016



# Figure 2 - Amendment Area

Creekside | August 2016





## 2.1 RELEVANT PLANNING DOCUMENTS

The following relevant documents have been reviewed and referenced in preparation of this Outline Plan. Each plan and its implications are further described in this section.

- Province of Alberta Municipal Government Act (MGA), 2000
- Town of Rocky Mountain House Municipal Development Plan (MDP), 2012
- Town of Rocky Mountain House/Clearwater County Intermunicipal Development Plan (IDP), 2007
- Town of Rocky Mountain House South West Area Structure Plan (SWASP), 2011
- Town of Rocky Mountain House Land Use Bylaw (LUB), 2011

### Municipal Government Act (2000)

*The Municipal Government Act (MGA) of Alberta* outlines the purpose and powers of Municipalities. One of these powers is to require an Area Structure Plan for the purpose of providing a framework for subsequent subdivision and development of an area of land. As stated in s633(2), an Area Structure Plan must describe:

- the sequence of development proposed for the area,
- the land uses proposed for the area, either generally or with respect to specific parts of the area,
- the density of population proposed for the area either generally or with respect to specific parts of the area,
- the general location of major transportation routes and public utilities.
- and may contain any other matters the council considers necessary.

### Town of Rocky Mountain House/Clearwater County Intermunicipal Development Plan (2007)

*The Town of Rocky Mountain House/Clearwater County Intermunicipal Development Plan (IDP)* establishes a broad-based policy framework to ensure that development usually in and around the Town takes place in an environmentally responsible and sustainable manner without significant unnecessary costs and unacceptable negative impacts on either municipality.

### Town of Rocky Mountain House Municipal Development Plan (2012)

The Creekside Plan Area is included in the Town of Rocky Mountain House South West Area Structure Plan (SWASP); as such, this Outline Plan has been created to be consistent with the policies found in both the Town of Rocky Mountain Municipal Development Plan (MDP) and the SWASP.

*The Town of Rocky Mountain House Municipal Development Plan (MDP)* outlines broad policies for guiding growth and development to ensure that it is sustainable, orderly, appropriate, complementary, efficient, and that it enhances the quality of life for the citizens of Rocky Mountain House. In addition to the policies addressed by the SWASP, the Municipal Development Plan stipulates the following:

- The residential density for new neighbourhoods shall be at least 12.5 dwelling units per gross developable hectare unless otherwise approved in an Area Structure Plan
- Duplex and multi-family residential units shall make up at least 30% of the total housing units in a residential

neighbourhood unless otherwise approved in an area structure plan.

- The Town will require upon subdivision the dedication of the following land as environmental reserve to provide a buffer and provide public access, unless exceptional circumstances exist:
  - » Land subject to flooding by a 1:100 year flood;
  - » Land within 15m of the top of the bank of any creek or river.

## **Town of Rocky Mountain House South West Area Structure Plan (2011)**

*The Town of Rocky Mountain House South West Area Structure Plan (SWASP)*, approved by Council in 1998, updated in 2002, and again in 2011. The Plan provides a guide for future development on the south west side of the Town. Specific items addressed in this ASP which impact the development of the Creekside Outline Plan include the following:

- Map 1- Significant Features identifies the following key land characteristics affecting the Plan Area:
  - » Frontage along Secondary Highway 752 which has been subdivided into lots of various sizes and developed for residential use;
  - » Organic soils in the northeast corner of the subject site;
  - » Trappers Creek and it's associated Flood Plain, which bisects the area, flowing from south east to north west;
  - » A water injection well in the southwest; and
  - » Three hydrocarbon pipeline rights of way in the southern portion of the Plan Area.
  - » Low relief with an extensive area of organic and silty soils and a high water table
- Map 2- Land Use Concept identifies proposed land uses and the roadway layout inside the Plan Area:
  - » The majority of the Plan Area is identified for low density residential development
  - » Multiple family development is identified along the southeast boundary of the Plan Area
  - » A local commercial area is identified in the southwest corner of the Plan Area
  - » A school site is located north of the commercial area in the southwest corner of the Plan Area
  - » A stormwater management facility is located in the northeast corner of the Plan Area
- The South West Area Structure Plan also contains policies and statements that are key to the Creekside development:
  - » Residential density shall be greater than 30 but less than 40 people per gross hectare (12 and 16 per acre).
  - » Environmental reserve and or an environmental easement will be provided as key open space along Trappers Creek, which traverses the area.
  - » Single-family detached dwelling units should comprise 70% or more of the total housing stock.
  - » Generally no more than 25% of the total housing stock should comprise of semi- detached, multi- detached or multiple family dwellings.
  - » Where applicable, Outline Plans should consider criteria for the interface between conventional single detached housing and manufactured housing.
  - » The trail system in Creekside will include:
    - › A trail within the Environmental Reserve dedication along Trappers Creek.
    - › A trail from the Trappers Creek trail to ultimately connect with 54 Street.
    - › A trail from the Trappers Creek travels southwest along the south side of the collector road, through the abbreviated linear park and south along the east boundary of Block 1, Plan 4045 ET to connect with 42 Avenue, and
    - › A trail along the pipeline right of way in the south portion of the Creekside area. The Draft Plan indicates that the pipeline rights-of-way that are to be incorporated into the trail system to be dedicated as public utility lots.
  - » The minimum amount of Municipal Reserve dedication will be 10% of the gross developable area.

- » The arterial roads intended to serve the Creekside area include Highway 752 initially and possibly 42<sup>nd</sup> Avenue in the future, with right of way requirements of 50m and 60m respectively adjacent to Creekside.
- » The internal collector network and connections to the arterial streets will be restricted to that shown on the Land Use Concept in the Area Structure Plan.
- » Sound attenuation measures, such as berms and trees, will be required along Highway 752 and along 42<sup>nd</sup> Avenue.
- » The development of municipal services will be consistent with the Town's approved Utility Master Plans, Design Guidelines and the utility concepts of the Area Structure Plan.

### **Town of Rocky Mountain House Land Use Bylaw (2011)**

*The Town of Rocky Mountain House Land Use Bylaw (LUB)* describes all available land use districts to be utilized throughout the Town. The land use zoning of the developed portion of the Creekside Plan Area is consistent with the Outline Plan; whereas, the undeveloped portion of the Plan Area is zoned as RD -Reserved for Future Development. To accommodate future development in Creekside, Land Use Redesignation will occur on a phased basis and to be consistent with the Outline Plan.

## 3.1 EXISTING CONDITIONS

### 3.1.1 Topography

The site is relatively flat, sloping gently towards Trappers Creek in the northeast portion of the site. The elevation varies from 989m above sea level in the west central portion of the site to 977m above near Trappers Creek for a total difference of 12m.

Prior to development, the site was initially poorly drained. When stripping and levelling was done in 2005, slopes were adjusted to enhance natural drainage toward Trappers Creek.

### 3.1.2 Vegetation

As shown on **Figure 3 - Existing Conditions**, there is a small stand of large deciduous trees at the north end of the site with prairie grass throughout the central and south portions of the Plan Area. The northeast corner of the Plan Area is peat covered which is highly organic. The undeveloped portions of the original Plan Area have largely been cleared and levelled for future development.

### 3.1.3 Water Course

Trappers Creek runs diagonally across the northeast quadrant and flows from the southeast to the northwest.

### 3.1.4 Land Use

A number of Creekside phases have been developed and the remainder of the site has been cleared and grubbed with some pre-leveling of future phases complete.

### 3.1.5 Pipeline Rights-of-Way

Though previous iterations of the Creekside Outline Plan contemplated the possibility of the abandonment of pipeline rights of way in the southern portion of the plan area, it has become apparent that these pipelines will continue to remain operational for the foreseeable future. As such, these lands will not be considered for residential development. Though not suitable for residential development, portions of these lands could be effectively integrated into the area as part of the creation of open space amenity areas. The detail of each ROW is identified below:

- Canadian Natural Resources Ltd. 56221-1, Natural Gas, Operational
- Plains Midstream Canada ULC 7575-3, HVP Product, Operational
- Nova Gas Transmission Ltd 80099-4, Natural Gas, Operational
- Canadian Natural Resources Ltd. 56445-17, Oil Well Effluent, Discontinued
- Canadian Natural Resources Ltd. 56445-20, Oil Well Effluent, Operational

## 3.2 ADJACENT LAND USE

### 3.2.1 Inside SE ¼ Sec 22-39-07-W5M

As shown on **Figure 3 - Existing Conditions**, there is an existing area of R2 General Residential, large lot residential, in the northwest corner of the quarter section. An area of LC Local Commercial is located in the southwest corner of the quarter section.

### 3.2.2 Surrounding SE ¼ Sec 22-39-07-W5M

As shown on **Figure 3 - Existing Conditions**, the land immediately north of the quarter section is currently undeveloped land bound by the CP Rail line. South and east of the Plan Area is also undeveloped.

An existing large lot residential development is located northwest of the quarter section, west of Secondary Highway 752. In addition, the area contains an RV park, cottages, a church, and outdoor storage along the highway.

## 3.3 ACCESS

Present access to the site is via Secondary Highway 752 at both 47th Avenue and 44th Avenue. Secondary Highway 752 is identified as an “access restricted” facility in the Area Structure Plan. This means that access to new development will be restricted. Although Alberta Transportation and the Town of Rocky Mountain House establish policy pertaining to access from existing acreages, it is assumed that the acreages will maintain direct access until such time as they are redeveloped.

The *Town of Rocky Mountain House South West Area Structure Plan* shows two other future access points:

- a connection to the future 42nd Avenue, an arterial proposed to run along the south boundary of the Plan Area
- an extension of 54th Street using an existing road right-of-way. The Town of Rocky Mountain House has indicated that this road would extend north to 50th Avenue

## 3.4 GEOTECHNICAL CONSIDERATIONS

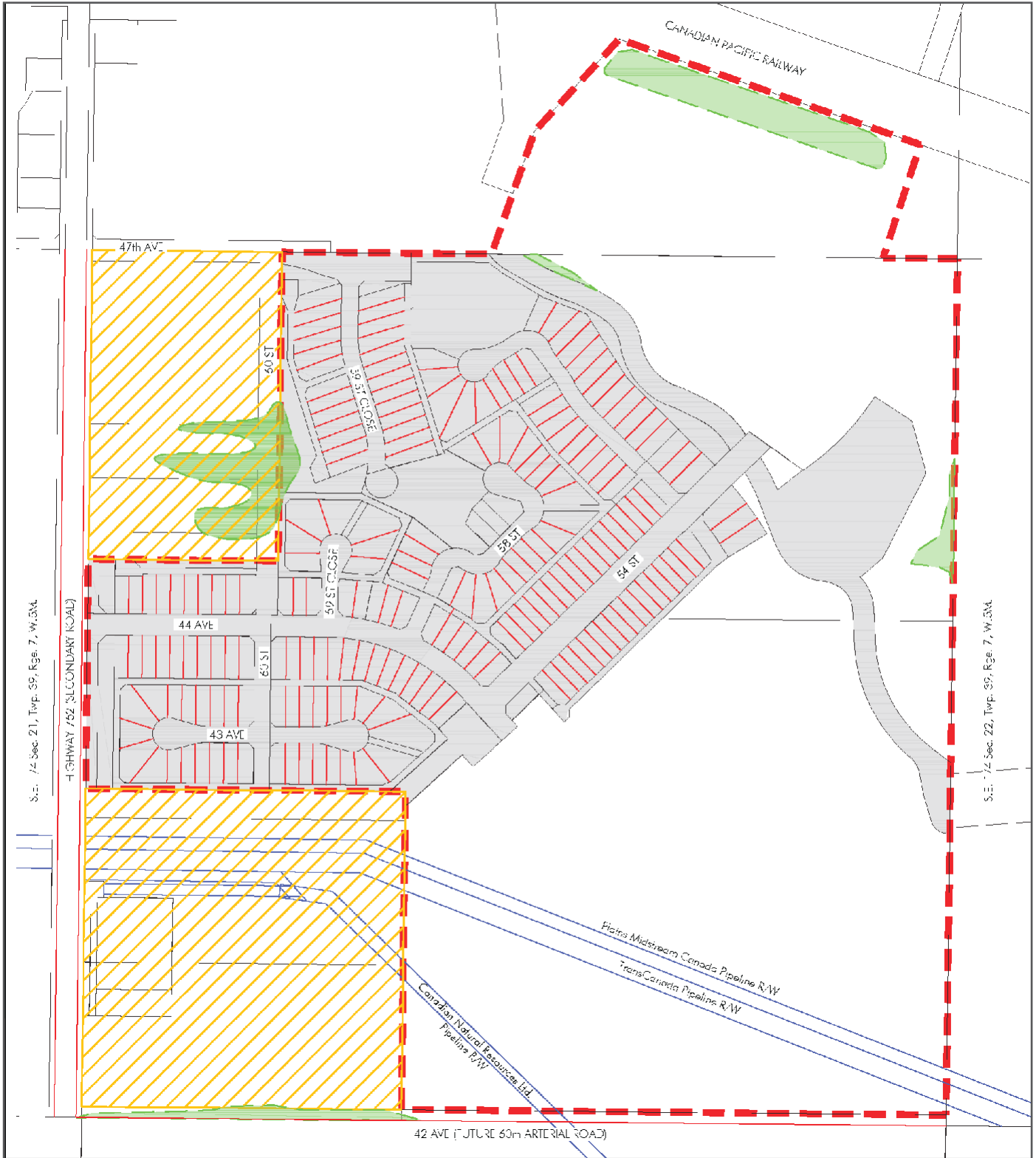
A geotechnical investigation and report was completed and submitted by Parkland Geotechnical Consulting Ltd., in July of 2001, with additional comments in March 2002. The investigation was conducted to determine the nature and engineering properties of the soil with respect to design and installation of underground services, road sub-grades and to provide general comments with respect to foundation systems. The investigation concluded that the site soil and groundwater conditions at Creekside were considered to be similar to many areas of Rocky Mountain House and other sites in Central Alberta.

The investigation provides recommendations pertaining to:

- Fill and sub-grade settlement
- Trench settlement considerations
- Frost considerations
- Front road servicing
- House foundations
- Sub-drains, and
- Utility pipe considerations

## 3.5 SITE SERVICING

As discussed in **Section 6 - Utility Services**, the Plan Area can be fully serviced with all urban infrastructure including sewer, water, storm water and shallow utilities.



**Figure 3 - Existing Conditions**



The Creekside Outline Plan has been prepared based upon the Developer’s aspirations for the neighbourhood, existing policies in the Town of Rocky Mountain House, current and anticipated market considerations, and characteristics of the Plan Area. The components of the Outline Plan include the development concept, density, open space, transportation and servicing including storm water management.

## 4.1 VISION

Creekside has been comprehensively planned as a diverse residential community that incorporates open space elements such as Trappers Creek, a constructed wetland, an abbreviated linear park, and local neighbourhood parks. The neighbourhood will integrate a variety of housing forms into the landscape in a manner that provides residents ample opportunity to experience open space amenities.

The focus of Creekside’s open space system is Trappers Creek and the adjacent constructed wetland and an array of additional open spaces throughout the neighbourhood. In addition, an emphasis has been placed on high quality landscaping, detailed architectural controls, boulevard streets, and consistent fencing to enhance the quality and livability of the neighbourhood while providing a more appealing environment for residents and pedestrians.

## 4.2 LAND USE

As shown on **Figure 4 - Concept Plan**, the Creekside neighbourhood includes a range of land uses and potential housing types including single-family detached, duplexes, and multi-family housing. All land uses have been located strategically to ensure a diverse housing mix, opportunities for potential home buyers at many price points, connectivity to the open space network, and convenient access via the transportation network.

The respective land uses proposed are illustrated in **Table 1 - Land Use Calculations**.

### 4.2.1 Residential Uses

Creekside incorporates a variety of housing options to reflect all demographics in the Town of Rocky Mountain House.

#### **Low Density Residential (R-1)**

R-1 Low Density Residential housing has been located along the south side of Trapper’s Creek.

#### **Compact Residential (R-1C)**

The R1C land use has been used throughout the community as it provides a range of lot sizes and housing styles. These lots will be developed with a minimum size of 400m<sup>2</sup> for interior parcels and 450m<sup>2</sup> for corner parcels.

#### **Narrow Lot Residential (R-1N)**

Narrow Lot residential (R-1N) lots are constructed along a portion of the 54 Street collector road northeast of 44 Avenue. These lots have a relaxation on the minimum setback from 6.0m to 4.5m as wider tree lined boulevards with separate sidewalk were constructed for the area. The specifics of this form are shown on the 54 Street Plan View and Cross Sections on the following pages.

The R1N land use does not permit front driveways or garages; therefore, these lots will be developed with a rear parking pad to provide two on-site parking spaces as required by the Town's Land Use Bylaw. To further enhance the aesthetic in this area, a common architectural theme will be used with facade features such as front porches and verandas.

### **General Residential (R-2)**

The R2 General Residential district has been used in the south portion of the Plan Area to accommodate row housing and semi-detached dwellings.

### **Multiple Family (R-3)**

Two R3 Multiple Family district areas have been identified in the Creekside development: one along the north boundary of the quarter section and a cul-de-sac in the south portion of the neighbourhood. The north area has been developed as a senior living complex consisting of assisted living units and independent living condo apartments; whereas, the south R3 area is envisioned for row housing.

### **Manufactured Home (R-4)**

An area of manufactured homes is located in the northwest portion of the Plan Area which accommodates 26 dwelling units.

## **4.2.2 Residential Development In Proximity to Railway Operations**

A rail line runs adjacent to the north boundary is owned by CP Rail and operated by CN. Both companies are part of The Railway Association of Canada which has recently created a set of guidelines for regulating development within proximity to railway tracks entitled *Guidelines for New Development in Proximity to Railway Operations* (2013). These regulations are intended to help municipalities guide the creation of their development regulations in these areas and are available under separate cover.

As identified in the *Town of Rocky Mountain House's South West Area Structure Plan*, there are several regulations that can minimize the potential impacts of railways on adjacent development.

### ***Building Setback***

A setback from the railway corridor is a highly desirable mitigation measure as it provides a buffer from railway operations; permits dissipation of rail-oriented emissions, vibrations, and noise; and accommodates a safety barrier. The standard recommended building setback for new residential development in proximity to railway operations is based on the railway line classification within Creekside; as such, 30m is required from the mutual property line to the building face.

The Creekside concept plan exceeds this recommended setback through the inclusion of an open space buffer, a lane, and the rear housing setback on individual lots.

### ***Fencing***

A continuous fence will be constructed along the shared property line with the railway to prevent trespassing on the rail property. The design of this fence will be guided by existing policies as outlined in *South West Area Structure Plan*.



### 4.3 LAND USE CALCULATIONS

Table 1 - Land Use Calculations.

	Hectares (±)	Acres (±)	% Net Developable Area
<b>Gross Plan Area</b>	<b>55.47</b>	<b>137.07</b>	
<i>Environmental Reserve</i>	<i>4.07</i>	<i>10.07</i>	
<b>Gross Developable Area</b>	<b>51.49</b>	<b>126.99</b>	<b>100.0%</b>
<b>Residential</b>	<b>30.84</b>	<b>76.19</b>	<b>60.0%</b>
R1 Low Density Residential	2.19	5.42	4.3%
R1C Compact Residential	21.83	53.93	42.5%
R1N Narrow Lot Residential	1.51	3.72	2.9%
R2 General Residential	1.98	4.90	3.9%
R3 Multiple Family Residential	1.92	4.74	3.7%
R4 Manufactured Home	1.41	3.49	2.7%
<b>Open Spaces</b>	<b>7.31</b>	<b>18.07</b>	<b>14.2%</b>
MR Municipal Reserve	6.75	16.69	13.1%
PUL Public Utility Lot	0.56	1.39	1.1%
<b>Transportation Network</b>	<b>13.25</b>	<b>32.73</b>	<b>25.8%</b>
Roadways	13.25	32.73	25.8%

#### 4.3.1 Density



















When complete, Creekside could encompass approximately 652 dwelling units, of which 161 were identified as multi-family. Density for Creekside is 12.67 dwelling units per gross developable hectare (652 dwelling units/51.49 ha).

Table 2 - Dwelling Unit Calculations.

	Estimated Units	% of Housing Stock
<b>Single Family Residential</b>	<b>491</b>	<b>75.3%</b>
R1 Low Density Residential	34	5.2%
R1C Compact Residential	395	60.6%
R1N Narrow Lot Residential	36	5.5%
R4 Manufactured Home	26	4.0%
<b>Multi-Family Residential</b>	<b>161</b>	<b>24.7%</b>
R2 General Residential	35	5.4%
R3 Multiple Family Residential	126	19.3%
<b>Total Estimated Units</b>	<b>652</b>	<b>100.0%</b>



**Legend**

- |   |  |   |
|---|--|---|
|  R-1 Low Density Residential     |  ER Environmental Reserve |  Proposed 2.5m Pathway     |
|  R-1C Compact Residential        |  MR Municipal Reserve     |  Proposed Child Play Area  |
|  R-1N Narrow Lot Residential     |  PUL Public Utility Lot   |  Potential School Bus Stop |
|  R2 General Residential          |  Two Storey Walkouts      |  School Bus Route 1        |
|  R-3 Multiple Family Residential |  Reduced Setbacks         |  Future School Bus Route   |
|  R-4 Manufactured Home           |  Existing Property Lines  |  Outline Plan Boundary     |

# Figure 4 - Concept Plan

Creekside | August 2016



## 4.4 OPEN SPACE

The open space network in Creekside is based upon the integration of Trappers Creek, the constructed wetlands, neighbourhood parks and linear connectivity. This network will be comprised of both Environmental and Municipal Reserve areas that form together to enhance and protect Trappers Creek, provide open space on either side which will accommodate a regional pathway along the northeasterly edge.

### 4.4.1 Environmental Reserve

The Environmental Reserve area in Creekside totals approximately 10.06 acres (4.07 ha). This area includes the following:

- the 1: 100 year floodplain surrounding Trappers Creek, as described in the *Trappers Creek, Rocky Mountain House Floodplain Delineation Study*, as previously submitted
- a minimum 6m width strip of land located along both sides of Trappers Creek, measured from the high water channel (1 in 100 year flow)
- the wetland area in the northeast portion of the Plan Area

### 4.4.2 Municipal Reserve

Municipal Reserve areas are intended to provide opportunities for recreation, an off-street pedestrian network, and a buffer between Trappers Creek and adjacent residential development. The Municipal Reserve areas of Creekside includes the following:

- area surrounding Trappers Creek
- local parks in the central portion of the Plan Area
- the linear park extending southwest of the 54th Street/44th Avenue intersection

All park spaces and landscaped areas will be programmed during the time of detailed design.

#### *Local Parks*

Two local parks have been located in Creekside. These parks are intended to provide a recreational space for residents that is within a short walking distance from their homes. It is envisioned that these parks will be programmed to include children's playground equipment as well as seating areas and trail linkages.

#### *Linear Parks*

A series of linear parks have been located throughout the neighbourhood. These areas are intended to provide off-roadway trail linkages to allow pedestrian short cutting.

#### *Other*

In several areas there are Municipal Reserve spaces identified in the centre of "p-loop" roadways. To minimize the required maintenance in these areas, landscaping approaches may be utilized.

Municipal Reserve has been used to provide additional protection to the area surrounding Trappers Creek. These areas may include a trail to provide pedestrian connectivity throughout the neighbourhood.

### 4.4.3 Trails

Creekside’s trail network is intended to provide residents with opportunities for recreation and facilitate active modes of transportation by linking various destinations within, and outside of, the neighbourhood together. The overall trail system is proposed with in the following locations and illustrated on **Figure 4 - Concept Plan**:

- Within the Environmental and Municipal Reserve areas along the northeasterly edge of the entire extent of Trappers Creek
- Within the Municipal Reserve along the northwesterly edge of the proposed wetland connecting the path along Trappers Creek with the northeast corner of the Plan Area, and ultimately the Downtown area.
- Within south portion of the collector road (54th Street) right-of-way from the path along Trappers Creek to the intersection between the two collector roads (44th Avenue and 54th Street),
- Within the abbreviated linear park to the southwest corner of the Plan Area,
- Trail in north cul-de-sac linear park, and
- Within the pipeline corridor in the south part of the Plan Area.
  - » In the event that the pipelines are abandoned prior to development, and the PUL shown for the existing right-of-way is converted to other land uses, the trail will be relocated to the north side of 42 Avenue.

The lane and PUL in the east portion of the Plan Area, between Road ‘B’ and Road ‘D’, will include a 6.0m wide lane and PUL with an additional 2.0m easement on both adjacent lots in order to allow for the possibility of future maintenance to the utilities.

Other local pathways and walkways provide essential pedestrian linkages between the various open space elements, and will contribute to the pedestrian movement and enjoyment within the neighbourhood.

## 5.1 ROADWAYS

### 5.1.1 Arterial roadways

The west boundary of the Plan Area abuts Secondary Highway 752, a limited access road. The Creekside Concept Plan provides for a 10.0m wide roadway widening along its west boundary to accommodate the ultimate 50.0m right-of-way proposed for this highway. In addition, a 15.0m wide Municipal Reserve parcel has been located parallel to the road widening to accommodate a berm that will serve as sound attenuation.

A second arterial roadway envisioned as a 60.0m ROW has been identified along the south boundary. Creekside has provided the necessary road ROW and additional PUL to accommodate buffering which may include berms, fencing and/or landscaping.

### 5.1.2 Collector Roadways

The Creekside Plan Area is serviced by three collector roadways:

- 44<sup>th</sup> Avenue, which runs from Highway 752 in the west at approximately the midpoint of the quarter section extending southeasterly through the Plan Area to the southeast corner of the Plan Area where the collector road turns south to join 42<sup>nd</sup> Avenue
- 47<sup>th</sup> Avenue, a connection from Highway 752 located on the north boundary of SW 22-39-7-W5
- 54<sup>th</sup> Street, which runs from 44<sup>th</sup> Avenue in the centre of the Plan Area to the northeast corner of the Plan Area connecting north to the Town's Downtown area

An internal collector network is provided as illustrated in **Figure 4 - Concept Plan**. The balance of the internal road system will consist of local roadways in the form of crescents, P-loops and cul de sacs.

#### *44th Avenue*

Located at the midpoint of the quarter section, 44<sup>th</sup> Avenue is the primary entrance into Creekside from the west. This Type 4 intersection extends into Creekside from Secondary Highway 752 and loops south towards 42<sup>nd</sup> Avenue.

#### *47th Avenue*

A roadway stub (47<sup>th</sup> Avenue) from Secondary Highway 752 is in the northwest corner of the quarter section, which provides access to the existing manufactured home subdivision. This roadway has a collector road right-of-way width (local road asphalt width) and will only service the existing manufactured home park and seniors housing complex.

#### *54th Street*

A third collector road, 54<sup>th</sup> Street, is provided to connect the Plan Area to the northeast. This roadway will ultimately cross the CP railway tracks and connect to the Town Centre at 49<sup>th</sup> Avenue. Once connected to the Town Centre, this collector road will provide key access to Creekside and will serve as the primary entry into the neighbourhood. This collector street will intersect 44<sup>th</sup> Avenue near the center of the Plan Area.

### 5.1.3 Local Roadways

A series of local roadways provides vehicular access throughout the Plan Area without encouraging short-cutting through the neighbourhood. All local roadways will be designed using the Town of Rocky Mountain House Design Guidelines.

### 5.1.4 Lanes

With the exception of lots backing onto open space or the Plan Area boundary, the community will be designed to include rear lane access. All lanes will be designed using the *Town of Rocky Mountain House Design Guidelines*. The length of the rear lane extending from 54th Street to Road 'D' has been addressed by adding an additional street connection along 44th Avenue. The *Town of Rocky Mountain House Design Guidelines* specify a maximum lane length of 350m before intersection with a street. The proposed design is well within this requirement and will provide residents with ample access to rear parking without encouraging short-cutting between streets.

## 5.2 TURNAROUNDS

All roadways that, due to construction phasing, are not constructed with logical connections; will be constructed with a temporary turnaround at their terminus until such a time that construction continues to the roadway's intended end.

Through discussions with the Wild Rose School Division, it was determined that temporary school bus turnarounds are required within the Creekside community. There are several locations which could be feasible for such a use; however, locations should be determined through coordination between the Wild Rose School Board and Town Administration. To ensure safe and functional use of the turnarounds, the Town will be responsible for the maintenance of these areas including installation of signage, snow clearing, and anything additional as related to their operation.

## 5.3 TRAFFIC IMPACT ASSESSMENT (TIA)

A Traffic Impact Assessment report prepared and submitted by Al-Terra Engineering in July 2002, addressed the impact of the Creekside development on Secondary Highway 752 and intersection improvements required at the existing and proposed accesses. The initial report assumed that, due to the uncertainty of right-of-way availability for 42nd Avenue and the 54th Street connection, the Creekside development would be served by two accesses to Secondary Highway 752. The report concluded that intersection improvements on Secondary Highway 752 would be required for both access points. Any future intersection improvements at 47th Avenue and Highway 752 will be determined by further development of the areas gaining their primary access through 44th Avenue to Highway 752. Improvements on Highway 752 at 44th Avenue were completed in 2004 during Phase 2 subdivision construction.

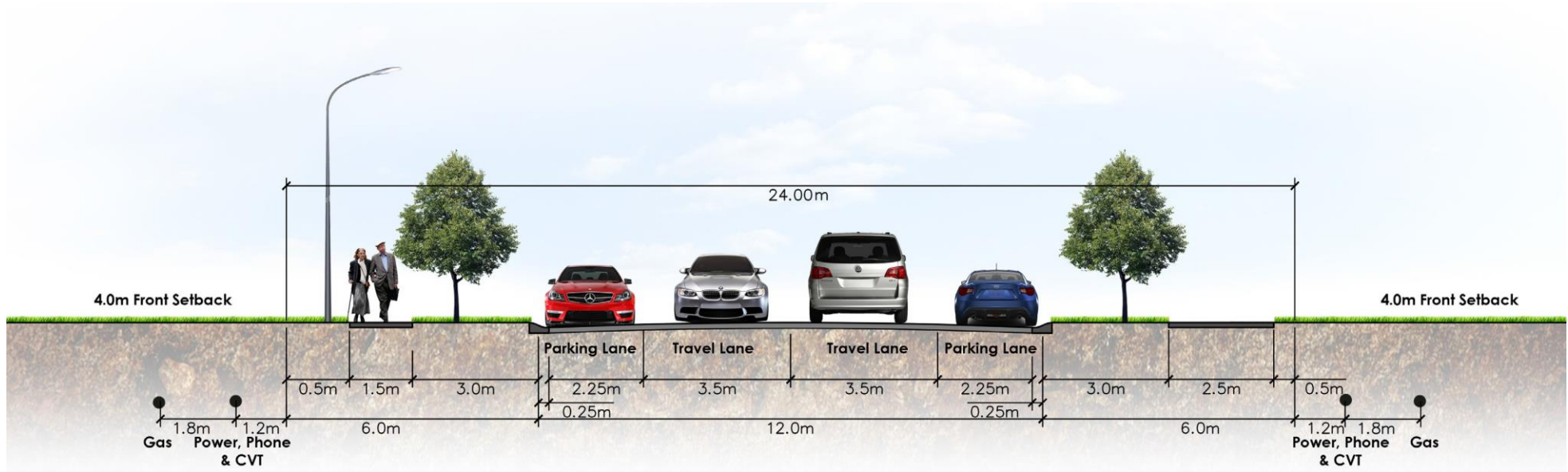
The report recommended that, due to the more urban nature and low speed limit on Highway 752 in the area of Creekside, these improvements be based on T.A.C. standards rather than Alberta Transportation standards.

In the March 2005 discussions, it was agreed that the only upgraded access on Secondary Highway 752 would be at 44th Avenue, and that an update to the existing TIA may be required upon the development of 400 homes in the community.

In November 2015 the Town of Rocky Mountain House indicated that 54th Street will possibly be extended south to Creekside in the near future. Given that this additional access, an update to the Traffic Impact Assessment may not be required if the transportation network is deemed to be operating satisfactory by the Town.



**Figure 5 - 54 St Cross-Sections Plan View**

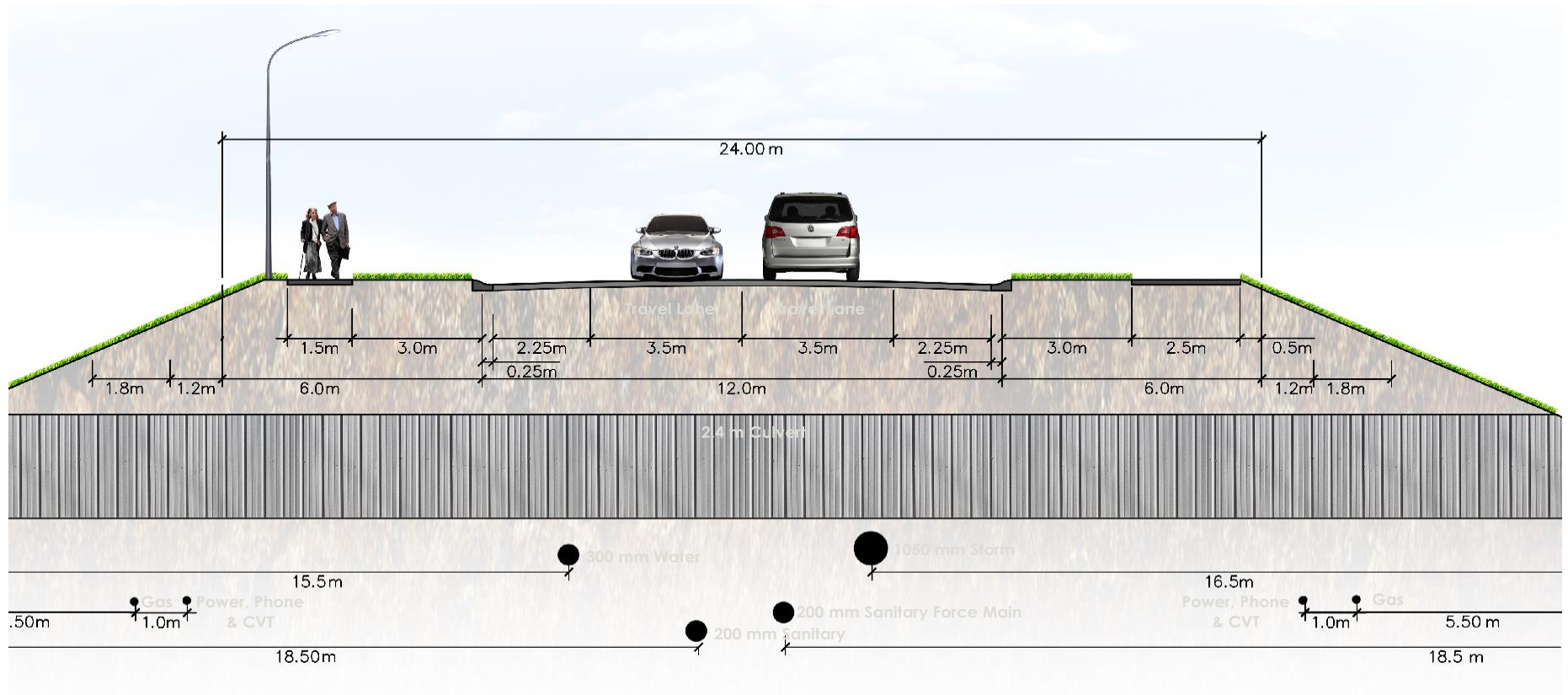


*\*This section of the collector roadway has already been completed*

## Figure 6 - 54 Street Cross-Section A-A

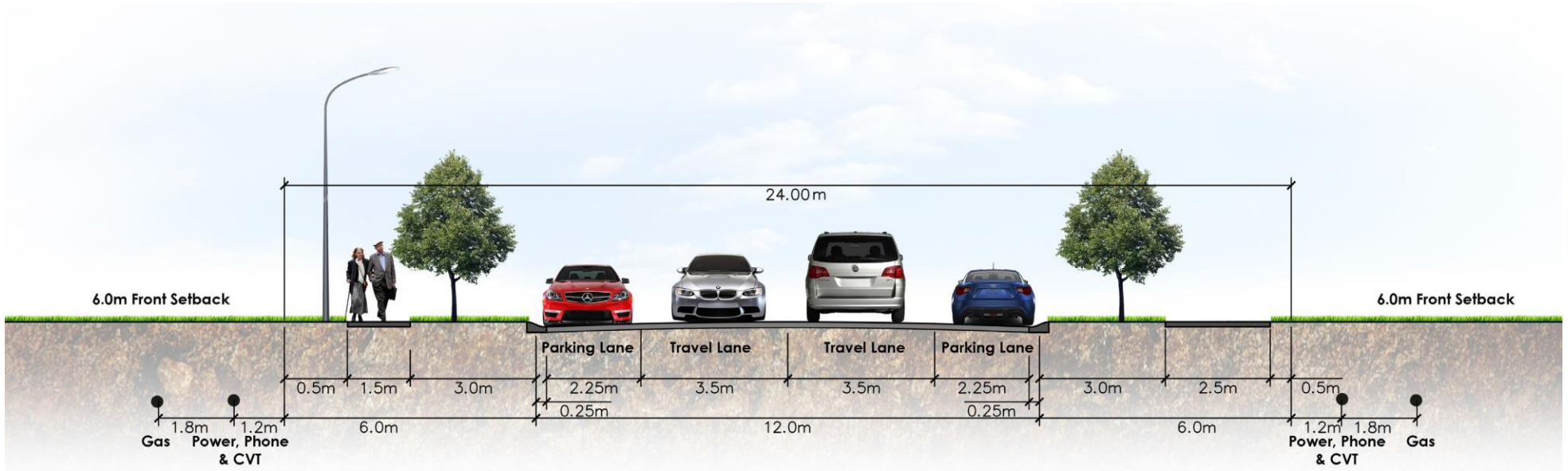
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**Figure 7 - 54 Street Cross-Section B-B**

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**Figure 8 - 54 Street Cross-Section C-C**

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## 6.1 SITE GRADING

The proposed drainage pattern for Creekside is shown in **Figure 9 - Overland Drainage**. In order to achieve this flow pattern, fill material will be taken from the constructed wetland, the lots adjacent to Secondary Highway 752, and from the south half of the Plan Area. Up to 0.5m can be cut from the south end of the site while still maintaining adequate cover over the sanitary main. This fill material will be placed in the northeast and north central areas, and along the lots adjacent to Trappers Creek.

As development progresses, lots with 1.0m or more of fill will be identified. Ground water levels will be monitored during development.

Prior to land use re-designation for each phase of development, a confirmation letter will be required from a licensed geotechnical engineer reviewing the soil conditions encountered during construction of the previous phase and making recommendations on any special conditions required for foundation inspection or design for the phase proposed for redesignation.

## 6.2 STORM WATER SERVICING

The proposed storm sewer routing is shown in **Figure 10 - Stormwater Management**. All storm water from the site will be discharged into a constructed wetland with overflow from the wetland draining into Trappers Creek. The pre-development flows from the drainage ditch currently crossing the Plan Area near the northern boundary will be collected and directed to the Creekside stormwater management facility. As a result, this drainage ditch will no longer be required on the Creekside lands and the right-of-way will be discharged.

The layout of the future subdivision lends itself to a dual drainage system that is controlled by a single storm water facility. In addition, the streets and lanes will incorporate depressional storage throughout the subdivision. All of Creekside's stormwater runoff from the southwest side of the Creek will be collected and conveyed across the Creek to the stormwater management facility and water from the northeast side of the creek will be handled in a similar manner. The roadway immediately north of the Creek crossing will be constructed to contain a low point which will direct the major flows over the curb down the paved maintenance vehicle access to the wetland fore bay. The roads will be designed to contain the major flows within the road right of way for conveyance to the wetland. Only a small portion of the rear yards for the lots adjacent the creek will be allowed to flow directly to the Creek.

**Figure 10 - Stormwater Management** includes the drainage areas, beyond Creekside, that have been accommodated within the wetland detention designs. The storm sewer trunk through the development will be oversized to accommodate the flows from these areas. Where oversized storm sewer trunks are required, cost recoveries from the benefiting areas will be pursued.

The drainage from the future 42nd Avenue will be accommodated through the development; however, cost recovery for oversized storm sewer trunk will be pursued.

A Master Drainage Plan prepared and submitted by Westhoff Engineering Resources Inc. in October 2002, addresses the stormwater management and constructed wetlands.

In addition to quantity control of storm discharge, quality control measures will also be incorporated in accordance with several Best Management Practice techniques identified in the 1999 Alberta Environment Stormwater Guidelines for the Province of Alberta.

### 6.2.1 Trappers Creek Alignment

In addition to the overall stormwater management concept, it is proposed that Trappers Creek be realigned. The realigned channel would be completed within the Plan Area only and would consist generally of a trapezoidal shape. Other features such as landscape planting and channel structures would also be utilized to enhance the Creek channel. A corrugated steel culvert would be installed within the realigned Creek to accommodate the 54th Street roadway crossing.

### 6.2.2 Constructed Wetland

In addition to providing sufficient capacity for stormwater retention and optimal achievement in sedimentation and filtration of potential storm water contaminants, the preliminary design for the wetland system is such that the facility can also serve as an open space amenity for the community. To facilitate this use, a landscape concept has been prepared for the wetlands as illustrated in **Figure 11 - Conceptual Wetland Design**.

Key elements of the Trappers Creek constructed wetland include:

- Trappers Creek realignment
  - » Realign Trappers Creek to include stable shorelines and reduce bank erosion
  - » Use indigenous plant material including native grasses to re-establish riparian vegetation
  - » Add additional landscape restoration
- Constructed wetland
  - » Utilize wetland as a stormwater filtration system in order Improve water quality before it is discharged to Trappers Creek
  - » Lower the overall water table in Creekside
  - » Provide a recreational community amenity
  - » Enhance potential wildlife habitat
  - » Utilize riparian vegetation and indigenous plant material including native grasslands
  - » Provide a vehicular access for on-going maintenance
  - » Install appropriate signage identifying the wetland as a stormwater management facility
  - » Attenuate storm water discharges from major storms

### *Storm Main Dewatering Lift Station*

A storm main dewatering lift station will likely be required immediately adjacent to the constructed wetland. This lift station is required to dewater the storm mains because the invert of the inlet to the pond is below the normal water level. Typically the mains can be located at an elevation such that a dewatering lift station is not required, but the existence of Trappers Creek complicates the issue.

In order to the wetland into Trappers Creek, the wetland must be higher than the creek. Therefore the wetland normal water level must be higher than the storm main invert and a minor dewatering lift station be installed, or the wetland

be lowered below the storm main and a major lift station be installed to drain the wetland into the creek during a storm event.

The latter is far more costly in terms of construction, earthwork, maintenance, and risk if the system fails. Further information on the operation of this system is included within the Servicing Study report.

The storm system, as illustrated in **Figure 10 - Stormwater Management** is located so that storm services can be provided to all roads within Creekside. A trunk line is shown running south along the east collector street and extending into the quarter section to the south. In the future, storm water from the quarter section to the south could be discharged through the Creekside Estates area after it has been released from storm detention facilities. Both the creek realignment and the storm water management system will require approval from Alberta Environment.

Owners of neighbouring lands that benefit from the Creekside storm water management system will be expected to contribute their share of the cost of the storm water system upon the development of said neighbouring lands.

### 6.3 SANITARY SEWER SERVICING

The overall sanitary sewer servicing concept for Creekside is shown in **Figure 12 - Sanitary Servicing**.

The sanitary trunk line was extended into the northwest corner of the development when Creekside Phase 1 was constructed. This line will service the remainder of the Plan Area by extending southeast as construction proceeds.

To facilitate future development south of the Plan Area, this trunk line will extend into the adjacent quarter section via the roadway in the southeast corner of Creekside. In order to extend the trunk line, over-sizing the line will be required. Due to this requirement, future cost recoveries will be pursued.

A portion of the sanitary sewer line which crosses Trappers Creek will require insulation as there will not be sufficient coverage if gravity drainage is to be maintained.

### 6.4 WATER DISTRIBUTION

The proposed water distribution system for Creekside is shown in **Figure 13 - Water Servicing**. The existing 200mm diameter water main, located along Secondary Highway 752, and the existing 300mm diameter water main, located in the 54th Street right-of-way, will provide an adequate supply of water and external looping to service the Plan Area.



As identified in the South West Area Structure Plan, a 300mm water main is required along 42nd Avenue; however, it is anticipated that this main, or a portion thereof, will not be required for the development of Creekside. For this reason, the installation of a water main along 42nd Avenue will be a Town initiative.

### 6.5 SHALLOW UTILITIES

Shallow utilities will extend into Creekside from existing lines situated within Secondary Highway Secondary 752. These are rural distribution lines, which will be relocated and incorporated within the Plan. ATCO Gas has a gate station along Secondary Highway 752 towards the south end of the quarter section. ATCO Gas will use this facility for servicing the quarter section.



Legend

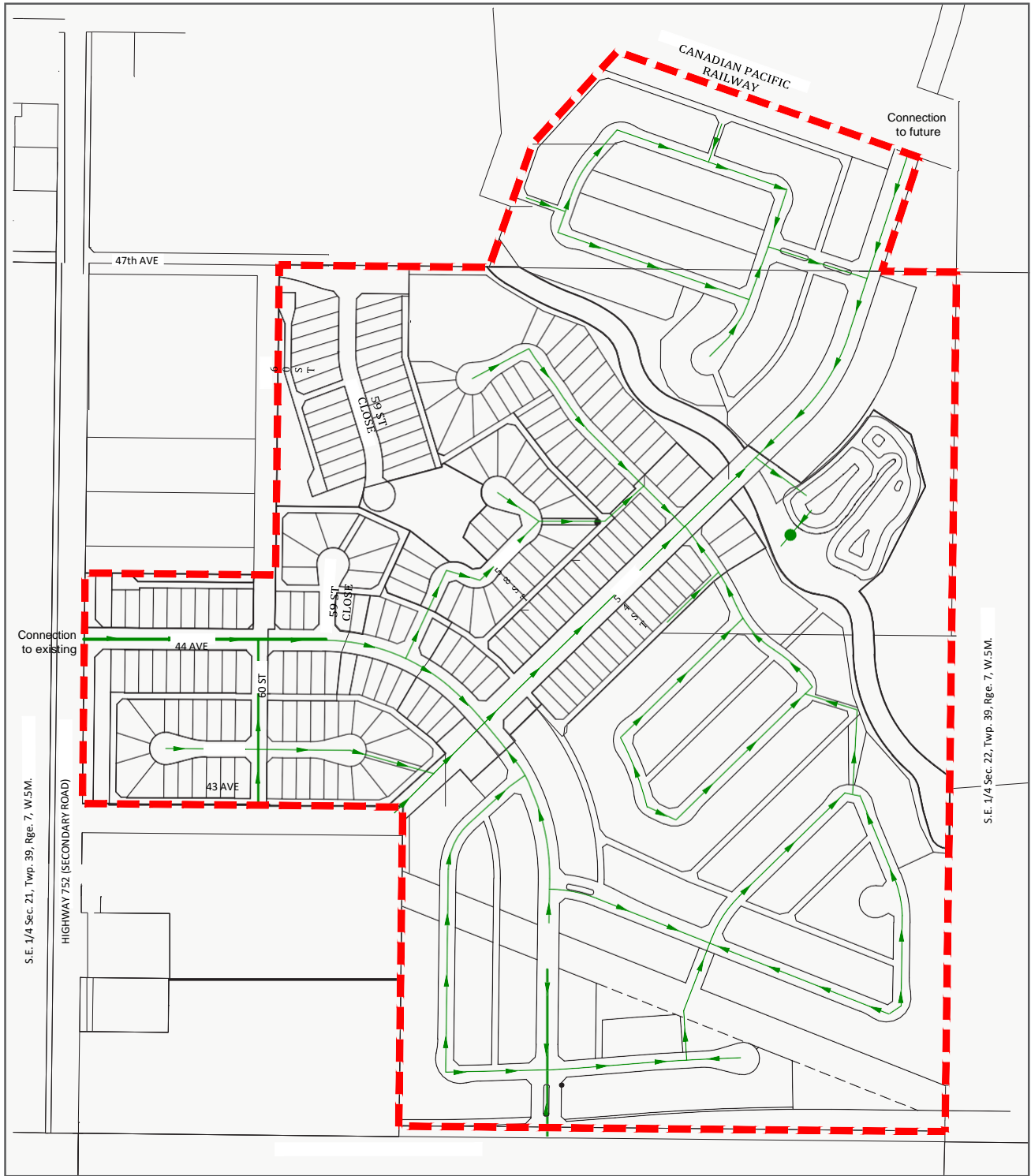
-  Overland Flow Direction
-  Outline Plan Boundary

**Figure 9 - Overland Drainage**



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Legend

-  Storm Servicing
-  Dewatering Lift Station

# Figure 10 - Stormwater Management



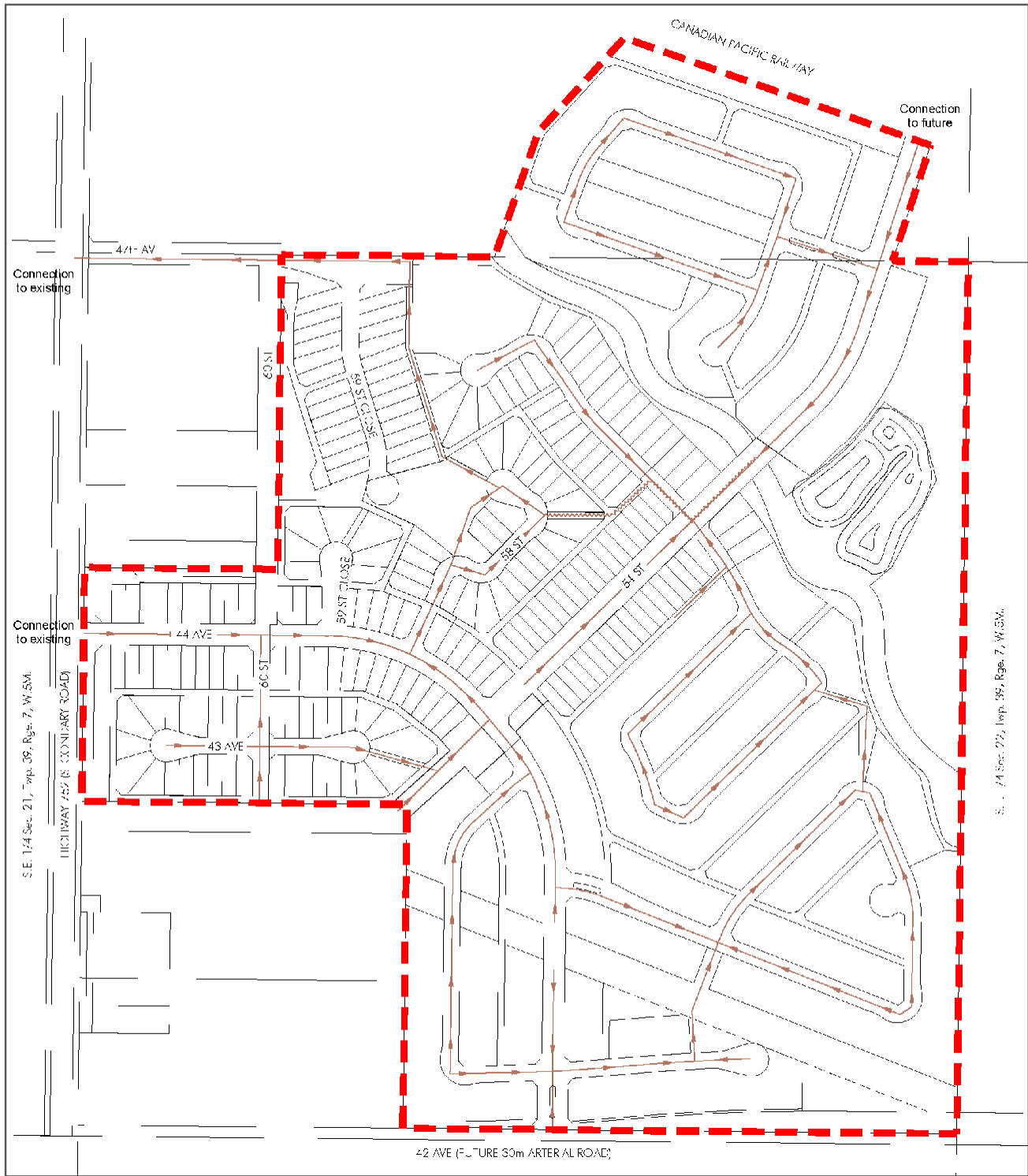
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**Figure 11 - Conceptual Wetland Design**

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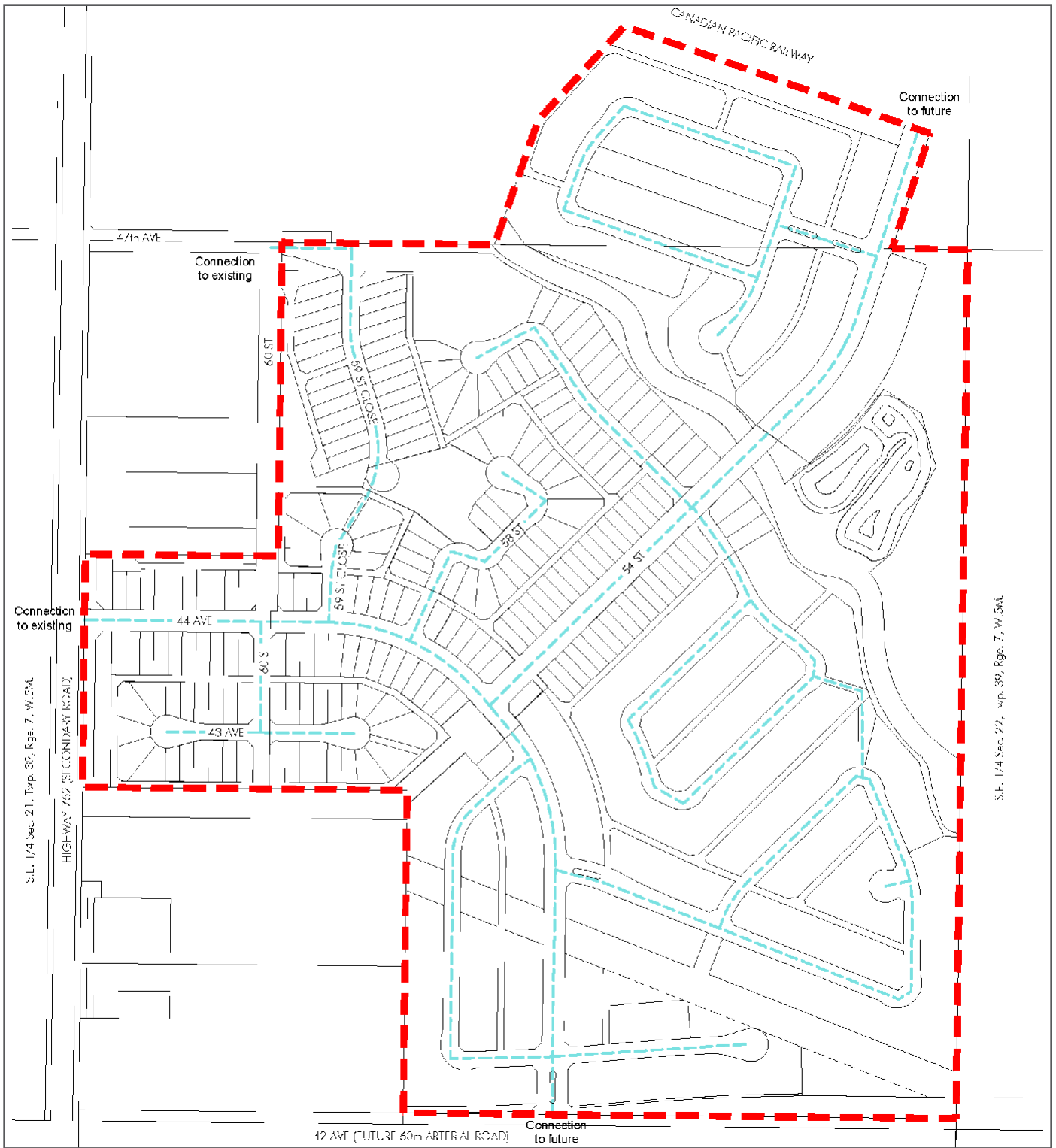
**Legend**

-  Sanitary Force Main
-  Sanitary Servicing
-  Outline Plan Boundary

# Figure 12 - Sanitary Servicing



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**Legend**

- - - - - Water Servicing
- - - - - Outline Plan Boundary

**Figure 13 - Water Servicing**

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## 7.1 COMPLETED PHASES

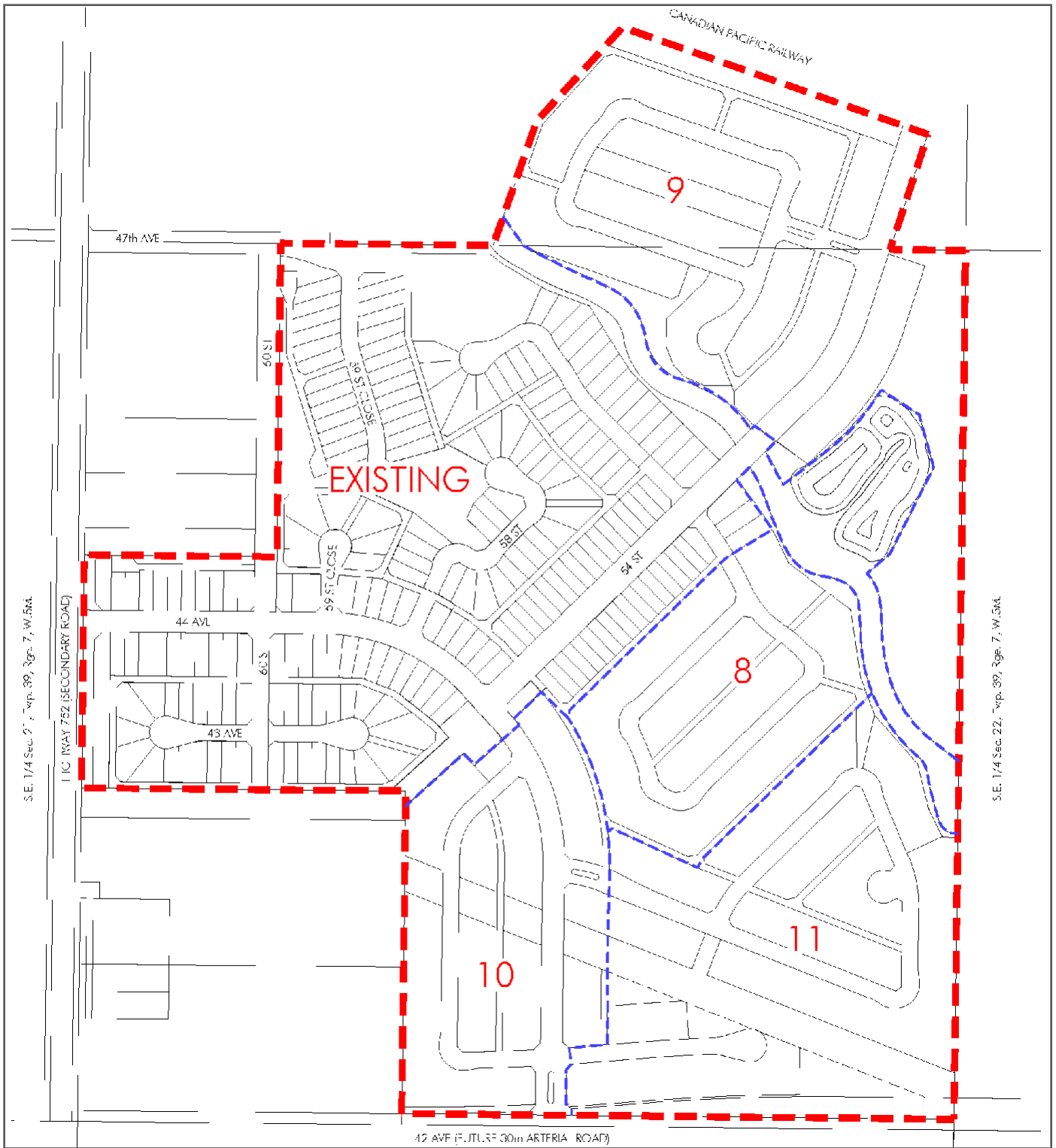
As of the beginning of August 2016, Phases 1 to 7 have been completed.

## 7.2 FUTURE DEVELOPMENT PHASING

The proposed phasing for Creekside is illustrated in **Figure 14 - Phasing Plan**. This phasing is based on the logical extension of infrastructure, servicing, and current market conditions. Generally speaking, each phase is anticipated to include between 25-50 lots. It should be noted that the phasing boundaries illustrated are conceptual only; these boundaries are subject to change to allow flexibility for the timing of key infrastructure, emergency access, and accommodation of market demands.

### 7.2.1 Impacts to Phasing

Development in Creekside will be based on current market conditions in the Town of Rocky Mountain House; the proposed sequence of development is shown on **Figure 14 - Phasing Plan**.



**Legend**

- 2** Phase Number
- Outline Plan Boundary
- Phase Boundary

# Figure 14 - Phasing Plan

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## 8.1 EXISTING VARIATIONS

It is the Developer's view that this Outline Plan is innovative in nature and reflects the intent and policies of the Town; however, there are some specific elements of the *Town of Rocky Mountain House Municipal Development Plan* and the existing *Southwest Area Structure Plan* that the Creekside Outline Plan is not in conformance with. These items are outlined below:

- As shown on **Figure 4 - Concept Plan**, an open space system comprised of local parks, linear connections, and green space in conjunction with the wetland park is seen to be appropriate in lieu of a 4.9 acre (2.0 hectare) centrally located recreation site.
- Portions of the pipeline utility rights-of-way should be accepted as part of the Municipal Reserve dedication where appropriate, at such time as the pipelines are abandoned and the rights-of-way can be used for development.
- Cul-du-sacs may exceed 100m in length when appropriate emergency access is provided; i.e. lanes, walkways, divided roads.

This 2016 Creekside Outline Plan amendment assumes continued acceptance of these variations.

## 8.2 PLAN APPROVAL

All planning documents approved by the Town of Rocky Mountain House must correspond and be in agreement with one another. To ensure this, as the Creekside Outline Plan is amended, so to must the following items be amended.

### 8.2.1 South West Area Structure Plan Amendment

To facilitate the implementation of this Outline Plan, the following amendments will be required to the *South West Area Structure Plan*:

- Schedule "A" Bylaw 07/17-LU- Map 2 Land Use Concept will need to be replaced with the concept plan as shown on **Figure 4 - Concept Plan** of this Outline Plan
- Map 6 Future Outline Plan Areas will need to be replaced to show the Creekside Plan Area as requiring one outline plan rather than two as currently identified as Outline Plan Area B and D.

### 8.2.2 Creekside Outline Plan Amendment

The Creekside Outline Plan will be adopted by Resolution via Town Council, following the 2nd and 3rd reading of the *South West Area Structure Plan* amendments.

### 8.2.3 Land Use Bylaw Amendment

Subsequent to the approval of the Creekside Outline Plan Amendment, the Town of Rocky Mountain House Land Use Bylaw Zoning Map- Land Use Bylaw 11/11 LU may be amended to reflect the land use areas as identified in this Outline Plan. This rezoning will be completed on a per-phase basis.

## **8.3 NEXT STEPS**

### **8.3.1 Servicing Study Revisions**

The servicing concepts and supporting information as shown in this Outline Plan are preliminary and may differ from the 2006 Serviceability Study previously accepted by the Town of Rocky Mountain House. While the concepts of the 2006 Serviceability Study remain valid, any revisions to municipal infrastructure needed as a result of the revised Creekside concept plan will be identified and provided through the detailed engineering design of each phase of development.

### **8.3.2 Subdivision Applications**

Subdivision applications will be required as per standard Municipal regulations and procedures.

The Subdivision Authority may approve a subdivision application that involves changes to local roads, lanes and/or public utility lots shown in Figure 4 – Concept Plan where detailed engineering and subdivision layout necessitates adjustments.

### **8.3.3 Wetland Provisions**

Provisions for the constructed wetlands, which will also serve as storm facilities, to be an allowable use within the lands dedicated as Environmental Reserve.

