

# **St. Germaine Creek Area Structure Plan**

**Town of Peace River, Alberta**

**Prepared by Focus Corporation**

**JULY 2009**

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## **1. INTRODUCTION**

### **1.1. Purpose of Plan**

The St. Germaine Creek Area Structure Plan (ASP) has been prepared to provide a framework for the future development in the northwest section of the Town of Peace River, Alberta. This plan has been prepared by Focus Corporation on behalf of the Owners of the plan area to provide a proactive and coordinated plan towards its development in accordance with goals and objectives of the Town of Peace River. This document contains a general land use concept that is integrated with overall servicing concepts, and serves as a guideline for subsequent detailed subdivision design. The primary intent of this Plan, in addition to illustrating development concepts that are consistent with other statutory plans, is to demonstrate how new development will tie-in to the Town's established urban fabric.

The St. Germaine Creek Area Structure Plan has been prepared in accordance with Section 633 of the Municipal Government Act and Policy 12.4 of the Town of Peace River Municipal Development Plan.

### **1.2. Report Format**

This Area Structure Plan report is divided into six sections containing the relevant criteria for the evaluation of the project. Maps/Plans relating to each section are located in Appendix A. Sections One and Two provide the background information necessary for the preparation of development alternatives. Section Three, Four and Five describe the relevant elements of the plan including the plan objectives, the development concept, servicing and transportation. Section Six describes the anticipated implementation procedures including statutory requirements and proposed zoning.

### **1.3. Sub-Plan Areas**

The Development Concept is best described by breaking the area into two (2) areas as shown on Map 2—Sub-Plan Areas.

### ***Sub-Plan Area #1***

This area will include the SE ¼ Section 35, Township 83, Range 22, West of the 5<sup>th</sup> Meridian. The area is bounded on the east side by Highway 743 and by Highway 2 on the south. The area is transected by the St. Germaine Creek which runs from the northwest to the southeast crossing Highway 2 at 74<sup>th</sup> Street.

The Gross Developable Area for Sub-Plan Area #1 is approximately 60.22 ha.

It should be noted that the Town of Peace River and Subdivision authorities have issued consent for development of two (2) parcels of land on the southeast corner of SE 35-83-22-W5M. The gross developable area being 7.37 ha. This area has been included in the Area Structure Plan.

### ***Sub-Plan Area #2***

This area includes the NE ¼ Section 35, Township 83, Range 22, West of the 5<sup>th</sup> Meridian, comprised of 2 parcels of land legally described as Plan 8923388, Block 1, Lots 2 & 3, consisting of 0.92 ha. and 61.05 ha. of land respectively. The area is bounded on the east side by Highway 743 and along the north by Township Road 840. St. Germaine Creek runs along the western boundary of the Sub-Plan Area. The lands located to the west side of the creek outside of the Environmental and Municipal Reserve lands will be excluded from the Area Structure Plan document. This provides approximately 60.89 ha. of land as the Gross Developable Area for Sub-Plan Area #2.

## **2. PHYSICAL ANALYSIS & POLICY CONTEXT**

### **2.1. Plan Area Location**

As indicated in Map 1—Plan Location, this ASP applies to two quarter sections of land comprised of approximately 122 ha. of land in the northwest portion of the Town of Peace River. The estimated Net Developable Area to be included in the ASP is 114.62 ha. The Plan area is bounded on north by Township Road 840, on the east by Highway 743 (74<sup>th</sup> Street), by Highway 2 on the south and on the west by rural undeveloped land.

The St. Germaine Creek traverses the subject lands from the northwest to the south eastern corner.

## **2.2. Existing Conditions & Environmental Attributes**

As illustrated on Map 3—Existing Conditions, the land is largely open pasture to the north and east of the St. Germaine Creek. The farmstead in the southeast corner of the aerial photograph has been removed with the current development under construction. Rolling hills typical of the Peace River Valley area are noted throughout the plan area. The topography and drainage in the Plan area is variable and undulating with a general slope from the north western corner towards the south east corner following the St. Germaine Creek as the natural drainage course. The lowest point for each of the two Sub-Plan areas is on the east boundary along Highway 743. The land is largely grassed pasture with some native vegetation and trees adjacent to and within the riparian area of St. Germaine Creek and amongst the existing acreage developments to the southwest.

There are several existing acreage residences and buildings located within the southwest portion of Sub-Plan Area #1 along the southern boundary adjacent to Highway 2. There is a single residence located in Sub-Plan Area #2 adjacent to Township Road 840.

## **2.3. Ownership & Disposition**

As illustrated in Map 4—Ownership & Disposition, the plan area consists of nine (9) parcels of land held by separate private Owners. All of the Owners have agreed to take part in the Area Structure Plan. There are no instruments on any of the titles that should affect development. The ownership and disposition is outlined in the following table.

**Table 1—Ownership & Disposition**

<b>Parcel #</b>	<b>Legal Description</b>	<b>Owner</b>	<b>Area (ha)</b>
1	Lot 2, Block 1, Plan 8923388	Hugh James David Clements & Valerie Eileen Clements	0.92
2	Lot 3, Block 1, Plan 8923388	Four Eyes Development Ltd.	61.05
3	Lot 4, Block 1, Plan 9721496	Normand and Pierrette Boucher	13.75
4	Part of W. ½ SE 35-83-22 W5M	Berry T and Sally A Heinen	13.77
5	Certificate of Title	Gary Guy & Marlene Joyce Sasseville	3.04
6	Plan 1703TR, Lot C	Kelvin & Susan Creighton	2.73
7	Plan 2975HW, Parcel B	Terence Charles & Louise Julaine Hamer	1.95
8	Plan 2559HW, Parcel A	Ostap Mocyk	2.17
9	Part of E. ½ SE 35-83-22 W5M	1208338 Alberta Ltd.	22.81
	<b>Subtotal (Titled Land)</b>		<b>122.19</b>
	Plan 1552LZ Road	Town of Peace River/Alberta Transportation	1.62
	Plan 9021951 Road	Town of Peace River/Alberta Transportation	4.88
	Plan 2620BF Road	Town of Peace River/Alberta Transportation	0.81
	<b>Subtotal (Road/Highway Widenings)</b>		<b>7.31</b>
	<b>Total Pre-Development Area</b>		<b>129.50</b>

#### 2.4. Policy Context

There are a number of plans and policy documents currently in force that provide a broader policy context for ASP preparation. These plans, both statutory and non-statutory are outlined below.

##### *Town of Peace River Municipal Development Plan*

The Municipal Development Plan (MDP) was adopted in March of 2001 and is the Town's primary land use policy document and is intended to provide a framework for the future planning of the Town of Peace River, and to function as a guide for the future growth and development of the community. This plan has been developed in accordance with the goals and policy objectives of the MDP.

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***Town of Peace River Land Use Bylaw No. 1731***

Adopted June 23, 2003, amended to February 12, 2007, the Town of Peace River Land Use Bylaw No. 1731 is intended to control and regulate the use and development of land and buildings within the Town of Peace River and to achieve the orderly and economic development of land.

**3. PLAN OBJECTIVES**

The St. Germaine Creek Area Structure Plan is intended to achieve the following objectives:

- To provide an overall framework for the future development of the ASP area;
- To create a community focused on connections to nature, healthy active living, and social and environmental sustainability;
- To show pedestrian trail linkages and corridors between school sites, parks, and the St. Germaine Creek area
- To integrate future development with the existing urban fabric and approved plans for adjacent lands;
- To ensure land use patterns are planned so as to encourage compatibility between existing and future development that are in the greater long-term planning and economic public interest;
- To develop a residential neighbourhood that will provide a variety of housing opportunities;
- To identify locations for community service facilities including schools and major parks
- To identify a collector road system for general access, egress, and public transit;
- To provide a servicing system based on the economical and efficient extension of municipal infrastructure and utilities;
- To utilize storm water management facilities, wherever possible, as amenity features;
- To integrate natural features into future urban development; and
- To ensure the provision of high quality commercial development opportunities along Highway #2 and Highway # 743 that will further the Town's goals of being a service centre for the surrounding region.

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## **4. PROPOSED DEVELOPMENT CONCEPT**

### **4.1. Introduction**

The proposed Development Concept for the St. Germaine Creek Area Structure Plan area is illustrated on Map 5—Development Concept Plan. The intent of this plan is to provide a generalized land use plan that will be subject to further refinement through Preliminary and Detailed Design preparation in advance of subdivision.

The Development Concept and accompanying goals, objectives, and policies were determined giving regard to the following:

- Policies contained in the Municipal Development plan;
- Consultation with property Owners, the general public, school authorities, utility providers, and the Town of Peace River;
- Existing policies and standards contained in various master plans and other statutory plans;
- Natural and man-made constraints to development
- Sound long-range planning principles.

### **4.2 Development Phasing**

Phasing of Development is dependant on many factors, most of which cannot be easily forecasted. Map 12 – Phasing Concept was prepared based on current Ownership, servicing restrictions and the general state of the economy in the Peace River region. It has been assumed that each Sub-Plan Area will be developed at the same time. This is a concept and it is expected that as Ownership changes and market changes occur phasing boundaries will be modified.

### **4.3 Sub-Plan Area #1—Development Concept**

#### ***4.3.1. Highway Commercial Development***

The southern most strip of land adjacent to Highway 2 and bounded to the north by the theoretical extension of 99<sup>th</sup> Avenue is currently zoned as Highway Commercial District.

It is envisioned that the lands adjacent to Highways 2 and 743 will be allocated as Highway Commercial District allowing for the development of larger format commercial

opportunities requiring larger tracts of land. Some of this land is currently zoned as Commercial – Shopping Centre District and may require rezoning to Highway Commercial to support some types of Development.

#### **4.3.2. Commercial Development**

The portion of the quarter section to the north of the theoretical extension of 99<sup>th</sup> Avenue is currently zoned as Commercial – Shopping Center District.

It is envisioned that the interior lands within Sub-Plan Area #1 will be developed within the Commercial—Shopping Centre District allowing for the establishment of commercial developments that will serve the entire community of Peace River as well as the regional trade area.

#### **4.3.3. Environmental Reserve**

This plan recognizes and upholds the ecological value of the St. Germaine Creek and recognizes the importance it holds as a drainage course for storm water in the local area and from the lands upstream of this development area. As such the top of valley bank will be used to allocate Environmental Reserve on either side of the creek in order to protect it from urban development. The total approximate area to be allocated for the Environmental Reserve is 4.55 ha.

#### **4.3.4. Open Space and Municipal Reserve**

In accordance with the Municipal Government Act, 10 % of the Net Developable Area must be set aside as Municipal Reserve for parks and open space. If acceptable to the Town of Peace River and the subdivision authority a portion or all of the required allocation may be offered as cash-in-lieu. Sub-Plan Area #1 has approximately 0.62ha. of land allocated to Municipal Reserve (1.11% of Net Developable area). As this land area is strictly commercial it is deemed acceptable to provide cash-in-lieu for Municipal Reserve. See Map 6 - Open Space Plan for a conceptual layout of parks, open space and pedestrian trail system linkages. Due to the nature of the anticipated development type

pedestrian walkways were not considered but their requirement will be at the discretion of the Town at development stage.

#### **4.4. Sub-Plan Area #2—Development Concept**

##### **4.4.1 Residential Development**

It is envisioned that residential development will be allocated on the east side of the St. Germaine Creek comprising approximately three quarters of Sub-Plan Area #2. The developments will include a variety of housing types and sizes suitable to encourage a range of demographics and affordability. The predominant type will be street-oriented single detached homes with garages facing the street. Lots located along the major collector will require extra depth to allow for noise attenuation measures.

A new land use district, proposing narrower lots and allowing for the possibility of secondary suites, as recommended by the Municipal Planning Commission, will be submitted concurrently with this report (Appendix B). The area allocated to this proposed new zone is in the north eastern corner of the residential area adjacent to the Major Collector, the Highway Commercial District and Township Road 840.

A 5.76 ha. area located adjacent to the Highway Commercial District along the southern boundary of Sub-Plan Area #2 is envisioned to comprise multi-family residential developments. This area will be zoned as Residential Medium Density under the Town of Peace River Land Use Bylaw.

##### **4.4.2 Commercial Development**

It is envisioned that the lands adjacent to Highway 743 will be allocated to Highway Commercial allowing for the development of larger format commercial opportunities requiring larger tracts of land.

##### **4.4.3 Environmental Reserve**

This plan recognizes and upholds the ecological value of the St. Germaine Creek and recognizes the importance it holds as a drainage course for storm water in the local area and from the lands upstream of this development area. As such, a 10m development

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setback from the top of valley bank will be allocated for Municipal Reserve (MR) on either side of the creek in order to protect it from urban development. In addition 5 meters inside the top of valley bank will be considered MR and the remaining interior portion will be given up as Environmental Reserve. The total approximate area to be allocated for the Environmental Reserve is 1.10 ha.

#### ***4.4.4. Open Space and Municipal Reserve***

In accordance with the Municipal Government Act, 10 % of the Net Developable Area must be set aside as Municipal Reserve for parks and open space. If acceptable to the Town of Peace River and the subdivision authority a portion of the required allocation may be offered as cash-in-lieu. Sub-Plan Area #1 has approximately 5.97 ha. of land allocated to Municipal Reserve. (9.98 % of Net Developable area) A pedestrian trail system along the east side of the St. Germaine Creek and throughout residential areas will provide linkage between residential areas, parks and/or school within Sub-plan Area #2. See Map 6 - Open Space Plan for a conceptual layout of parks, open space and pedestrian trail system linkages. Only major pedestrian trails have been shown and it is anticipated that pedestrian walkway will be constructed throughout all residential areas. Walkways throughout commercial areas would be at the discretion of the Town at development stage.

#### **4.5 Noise Attenuation**

Sub-Plan Area #2 envisions a mixture of uses integrated throughout the area; therefore steps will need to be taken to provide noise attenuation between commercial and residential land uses and arterial transportation routes. Noise attenuation measures in the form of trees and vegetation, fencing and/or berms may be placed along either side of the major collector road which transects Sub-plan area #2 from the southeast to the northwest through the low density residential areas. The same will be required at the Highway Commercial lands adjacent to the low density residential developments. (See Map 5- Development Concept Plan for details).

**4.6. School Site**

A 3.26 ha. school site will be provided in the far north western corner of Sub-Plan Area #2. The site, located adjacent to a major and minor collector, will be suitable for a single school site at the discretion of the local school board. In the interim it may provide space for the development of informal playing fields for various sports or other amenities that are deemed appropriate for the area. Refer to Table 2 – Population Estimates & Student Generation.

**Table 2—Population Estimates & Student Generation**

		<b>Area #1</b>	<b>Area #2</b>	<b>Totals</b>
<b>Residential Units</b>				
Low Density	20 units/net ha	0	355	355
Low to Medium Density	30 units/net ha	0	149	149
Medium Density	74 units/net ha	0	426	426
<b>Total Units</b>		<b>0</b>	<b>930</b>	<b>930</b>
<b>Population</b>				
Low Density	3.2 people/unit	0	1,136	1,136
Low To Medium Density	3.2 people/unit	0	476	476
Medium Density	1.6 people/unit	0	681	681
<b>Total Population</b>		<b>0</b>	<b>2,293</b>	<b>2,293</b>
<b>Total Student Population</b>	20% of Total Population	<b>0</b>	<b>459</b>	<b>459</b>
<b>Public School Students</b>	<b>62.3% of Total Students</b>	<b>0</b>	<b>286</b>	<b>286</b>
Grades K-9	72% of Public School Students	0	206	206
Grades 10-12	28% of Public School Students	0	80	80
<b>Separate School Students</b>	<b>37.7% of Total Students</b>	<b>0</b>	<b>173</b>	<b>173</b>
Grades K-9	79% of Separate School Students	0	137	137
Grades 10-12	21% of Separate School Students	0	36	36

## 4.7 Land Use Summary

The following Table 3 – Land Use Summary provides a tabulated summary of the proposed land uses for the entire ASP area.

**Table 3—Land Use Summary**

Land Use Category	Area #1 (SE 35)		Area #2 (NE 35)		Totals	
	Area (ha)	% of NDA	Area (ha)	% of NDA	Area (ha)	% of NDA
<b>Gross Developable Area</b>	<b>60.22</b>		<b>61.97</b>		<b>122.19</b>	
Less Excluded Lands			1.08		1.08	
Less Environmental Reserve	4.55		1.10		6.49	
<b>Net Developable Area</b>	<b>55.67</b>	<b>100.00</b>	<b>59.79</b>	<b>100.00</b>	<b>115.46</b>	<b>100.00</b>
<b>Commercial</b>	<b>45.48</b>	<b>81.70</b>	<b>10.72</b>	<b>17.93</b>	<b>56.20</b>	<b>48.67</b>
Highway						
Commercial	19.82	35.60	10.72	17.93	30.54	26.45
Commercial-- Shopping Centre	25.66	46.10	0.00	0.00	25.66	22.22
<b>Residential</b>	<b>0.00</b>	<b>0.00</b>	<b>28.50</b>	<b>47.67</b>	<b>28.50</b>	<b>24.68</b>
Low Density Residential	0.00	0.00	17.76	29.70	17.76	15.38
Low to Medium Density Residential	0.00	0.00	4.98	8.33	4.98	4.31
Medium Density Residential	0.00	0.00	5.76	9.63	5.76	4.99
<b>Municipal Reserve</b>	<b>0.62</b>	<b>1.11</b>	<b>5.97</b>	<b>9.98</b>	<b>6.59</b>	<b>5.71</b>
Trail System & Pedestrian Links	0.00	0.00	0.97	1.62	0.97	0.84
Neighbourhood Parks	0.00	0.00	1.32	2.21	1.32	1.15
School Site	0.00	0.00	3.26	5.45	3.26	2.82
Development Setback	0.62	1.11	0.42	0.70	1.04	0.90
<b>Stormwater Facilities</b>	<b>2.00</b>	<b>3.59</b>	<b>2.00</b>	<b>3.35</b>	<b>4.00</b>	<b>3.47</b>
<b>Roads</b>	<b>7.57</b>	<b>13.60</b>	<b>12.60</b>	<b>21.07</b>	<b>20.17</b>	<b>17.47</b>

## **5. PROPOSED SERVICING CONCEPT**

### **5.1 General**

Servicing for the St. Germaine Creek area must be in accordance with the Municipal, Environmental and Transportation standards and requirements. Servicing will connect to existing infrastructure systems in the area. The most efficient method of servicing will be considered.

### **5.2 Sub-Plan Area #1—Servicing Concept**

#### **5.2.1. *Transportation***

As illustrated on Map 7—Transportation Plan, Sub-Plan Area #1 is bordered by Highway 2 to the south and Highway 743 to the east. The safe and efficient operation of the provincial highway network is essential for local, regional and provincial economic development. The municipality must manage the impact that the approved developments have on the existing provincial corridors. This area may be serviced only through two long term access points on Highway 743. One existing access on Highway 2 currently serves acreage residential properties and may serve as a temporary access if an acceptable TIA is approved by Alberta Transportation (AT).

One major collector road will transect this quarter section from east to west along 97<sup>th</sup> Avenue and may temporarily connect to Highway 2 and also provide future access to this development area from a future interchange and arterial road further west. The existing service road bordering the south boundary of the quarter section may be utilized as a local dead end (cul-de-sac) road if the future commercial properties require highway frontage. Figure 1 – Local Service Road provides the conceptual cross section of this transportation structure. Another major collector will border the north boundary of the quarter (92<sup>nd</sup> Avenue). The remainder of the subject lands will be serviced through minor collector and local road connections with adjacent lands to the west and north and the proposed major transportation portals. The Municipal road allowance widths and road standards will be confirmed at development stage.

AT has only provided confirmation for long term local accesses to Highway 743 at 97<sup>th</sup> Avenue and 92<sup>nd</sup> Avenue. An acceptable traffic impact assessment (TIA) was approved for these accesses addressing the development of the lands in parcels 1, 2 and 9 as shown on Table 1 and Map 4 – Ownership and Disposition. The Town of Peace River must require that the Owners of lands not addressed by the approved TIA complete an acceptable TIA addressing each phase of Development, enforceable via Development Agreement. The Development Agreements must also cause the improvements to the intersection(s) recommended in the accepted TIA to occur for each phase of development.

AT has indicated that the existing access on Highway 2 must be removed to accommodate the future national transportation corridor plan and that it does not appear to be safe for the anticipated traffic volumes concurrent with commercial development due to the existing grade of Highway 2 and spacing of signalized intersections. The national corridor will not likely be constructed in the near future due to cost constraints and unwarranted traffic volumes. The Town, local land Owners and Developers have a requirement to improve this access for short term temporary use. This will require a traffic impact assessment to be prepared and submitted to AT for approval of the warranted improvements to accommodate more intensive use of this access.

A National Highway Corridor committee is currently reviewing accesses onto Highway 2 and will be presenting the findings in 2009.

### **5.2.2. *Water Distribution***

Sub-Plan Area #1 will be provided servicing by connecting to the Town of Peace River's existing water distribution system. Three connections are required. One connection each at 67<sup>th</sup> Street south of Highway 2 at 101<sup>st</sup> Avenue 99<sup>th</sup> Avenue west side of Highway 743 and at 92<sup>nd</sup> Avenue east of Highway 743 at 76<sup>th</sup> Street (Weberville Industrial Park). All three connections are to provide the water capacity necessary to support fire protection requirements throughout the plan area.

The conceptual layout and sizing of water distribution mains is illustrated on Figure 8.

A water system network analysis will be required at the design stage to confirm pipe sizing and appurtenance requirements.

### **5.2.3. Sanitary Sewer Collection**

Sub-Plan Area #1 will be provided servicing by a single sanitary sewer connection to the existing 375mm diameter main at 99<sup>th</sup> Avenue and Highway 743. Upgrades to the existing sanitary sewer system downstream of Highway 743 may be required to accommodate the sanitary sewer servicing area as detailed in the 'Overall Sanitary Sewer Servicing Concept', January 2008 by Focus Corporation submitted to the Town of Peace River. As per the Town's direction the servicing area in the above noted report was calculated based on the capacity of the largest downstream main (525mm diameter main crossing highway #2 at 80<sup>th</sup> Street). This provided an overall servicing area that included the ASP area and 30Ha of future development to the west of Sub-Plan Area #1 and 30Ha to the north of Sub-Plan Area #2.

The conceptual layout and sizing of sanitary sewer mains is illustrated on Map 9 – Sanitary Sewer Servicing Concept.

A sanitary sewer network analysis will be required at the design stage to confirm pipe sizing requirements.

### **5.2.4. Storm Water Management**

Effective storm water management plans/designs must restrict post-development flow rates to the calculated pre-development run-off rates. The natural topography of Sub-Plan Area #1 directs run-off to the St. Germaine Creek at several locations and to the Highway 743 ditch drainage system directing flows to two (2) existing 600mm diameter culvert crossings.

Sub-Plan Area #1 is transected by the St. Germaine Creek from the northwest to southeast corner. Run-off from Plan areas west of the St. Germaine Creek discharge storm water flows either naturally or via the service road and highway ditch drainage system to the St. Germaine Creek. The natural and variable terrain of the land has many areas of steeper slopes and may present challenges in directing the 1:100 year overland

drainage flow to the storm water management facilities. The complexity of land ownership may lead to development phasing challenges regarding the number and location of storm ponds. From a design perspective and Municipal preference a single storm water management facility in the southeast area adjacent the St. Germaine Creek and the service road is preferred.

If development proceeds in a manner not consistent with that required to secure the land for a single storm water management facility a number of smaller retention ponds could be required as indicated on Map 10 – Storm Water Management Concept Plan.

The preferred storm water management design would include an underground piped storm collection system for a minimum 1:5 year return storm with a major overland drainage route for the 1:100 year return storm. Directing the overland 1:100 year storm run-off to the management facilities may be challenging based on the naturally steep slopes/grades in the area. The alternative may be to provide oversized underground pipe networks to retain the 1:100 year storm run-off from municipal road allowances and require private lot/roof storage systems on individual lots with controlled release to the municipal piped storm network.

Plan areas to the east of the St. Germaine Creek naturally discharge storm run-off to several locations along the creek and to the Highway 743 ditch drainage system. Post-development discharge to each receiving body must be restricted to the pre-development rates. This area poses similar challenges in storm water management design stemming from naturally steeper slopes/grades.

The area outlined in red on Map 10 has been designed for pipe storage/retention on municipal road allowances and private lot storage/retention with controlled release to the Municipal storm sewer. The balance of the area may require a similar system design but storm water retention ponds are the preferred alternative.

Possible storm water pond locations are shown on Map 10 – Storm Water Management Concept Plan based on visual and aerial observations and existing contour data. Due to

the variable terrain and complexity of land ownership throughout sub-Plan Area #1 the locations of the storm ponds may change or be eliminated altogether.

To summarize the storm water facilities must be designed to restrict runoff to the calculated pre-development rates. Best management practises as outlined in Alberta Environment Standards & Guidelines must be considered and incorporated, where appropriate, into the design of the storm water collection system and storm water management facilities. The Storm Water Management Plan must incorporate accommodation of both the minor and major storm return events (1:5 year and 1:100 year storm). The preferred storm system would incorporate a piped system designed for the 1:5 year storm with a major overland route for the 1:100 year storm to a minimum number of storm ponds. The complexity of Ownership and natural sloping terrain may pose challenges in pond location siting and/or require a pipe storage and retention system for Municipal road allowances and private lot storage with controlled release to the Municipal piped system.

In preparing Development Agreements for subdivision development or issuing Development Permits for private lot development the Town of Peace River must specifically provide the requirements and expectations for storm water management designs, plans and future maintenance.

Authorization under the Water Act from Alberta Environment is required for approval to construct storm water ponds or outfall lines and structures discharging to the St. Germaine creek.

#### **5.2.5. *Shallow Utilities***

All shallow utilities (natural gas, power, telephone, cablevision) would be extended into the Plan area by the individual franchise holders as required. All utility lines located in the Plan area must be installed by the Developer in accordance with Town policy and approval.

As illustrated on Map 7—Transportation Concept Plan, Sub-Plan Area #2 is bordered by Highway 2 to the south and Highway 74 to the east. The safe and efficient operation of

the provincial highway network is essential for local, regional and provincial economic development. The municipality will manage the impact that the approved developments have on the provincial corridors.

### **5.3. Sub-Plan Area #2**

#### **5.3.1. *Transportation***

This area will be serviced through two long term access points onto Highway 743. A TIA for Sub-Plan Area #2 has been prepared and accepted by AT addressing the access onto Highway 743 at 89<sup>th</sup> and 92<sup>nd</sup> Avenue. The 89<sup>th</sup> Avenue access will be an arterial road and will transect the Plan area from the eastern central boundary to the northwest corner (Township Road 840). The eastern portion of Township Road 840 (TR840) connecting to Highway 743 must be closed at a future date as development proceeds. Road network connections to TR840 from Sub Plan Area #2 will intensify traffic requiring the realignment of TR840 to the existing 89<sup>th</sup> Avenue intersection. This arterial road connection to Highway 743 will link the existing and proposed development areas north of Highway 2 to the future interchange west and south of Sub-Plan Area #2. The second access at 92<sup>nd</sup> Avenue will be a major collector, running in a long arc from the southeast corner west along the quarter line then north near the western boundary intersecting with the other major collector road near the northwest corner of the Sub-Plan Area #2. The remainder of the Plan area will be serviced through internal local and minor collector road connections. The municipal road allowance widths and road standards will be confirmed at development stage.

The Town of Peace River must cause the improvements to the intersection(s) recommended in the accepted TIA to occur for each phase of subdivision via Development Agreement.

#### **5.3.2. *Water Distribution***

Map 8 – Water Servicing Concept provides the conceptual layout and line sizing for Sub-Plan Area #2. The area is split into two pressure zones, the existing Reservoir 475 high pressure zone in the southeast and a new pressure zone to the northwest.

The southeast portion will be provided servicing by connecting to the Town of Peace River's existing water distribution system. Two connections are required. One connection at 92<sup>th</sup> Avenue east of Highway 743 at 76<sup>th</sup> Street and at 89<sup>th</sup> Avenue east of Highway 743 at 76<sup>th</sup> Street (Weberville Industrial Park). Both connections are required to provide the water capacity necessary to support fire protection requirements throughout the plan area and existing and future development areas east of Highway 743.

The northwest portion of Sub-Plan Area #2 will require a new pressure zone to provide water servicing. This will be provided by a new reservoir and pumphouse located to the north and/or west of the northwest corner of Sub Plan Area #2. The reservoir must be supplied by a dedicated water supply main from the existing Reservoir 475. This reservoir should be designed to service future development areas to the north and/or west of Sub-Plan Area #2. The dedicated water supply main may be sized along its length to convey flows required for the regional servicing area and the Town of Peace River long range planning areas to the north and west of this ASP area.

A water system network analysis will be required at the design stage to confirm pipe sizing and appurtenance requirements.

### **5.3.3. *Sanitary Sewer Collection***

Sub-Plan Area #2 will be provided servicing by a single sanitary sewer connection to the existing 375mm diameter main at 99<sup>th</sup> Avenue and Highway 743 through Sub-Plan Area #1. Upgrades to the existing sanitary sewer system downstream of Highway 743 may be required to accommodate the sanitary sewer servicing area as detailed in the 'Overall Sanitary Sewer Servicing Concept', January 2008 by Focus Corporation submitted to the Town of Peace River. As per the Town's direction the servicing area in the above noted report was calculated based on the capacity of the largest downstream main (525mm diameter main crossing highway #2 at 80<sup>th</sup> Street). This provided an overall servicing area that included the ASP area and 30Ha of future development to the west of Sub-Plan Area #1 and 30Ha to the north of Sub-Plan Area #2.

The conceptual layout and sizing of sanitary sewer mains is illustrated on Map 9 – Sanitary Sewer Servicing Concept.

A sanitary sewer network analysis will be required at the design stage to confirm pipe sizing requirements.

#### **5.3.4. Storm Water Management**

Effective storm water management plans/designs must restrict post-development flow rates to the calculated pre-development run-off rates. The natural topography of Sub-Plan Area #2 generally directs run-off in a northwest to the southeast direction. The majority of Sub-Plan Area #2 discharges through the existing culvert crossing Highway 743 to the east, south of 89<sup>th</sup> Avenue.

It is envisioned that the storm water management design would include an underground piped storm collection system with the capacity for a 1:5 year return storm and a major overland drainage route designed for the 1:100 year return storm. The piped and overland drainage network would direct storm water to a single storm water pond adjacent to Highway 743. See Map 10 – Storm Water Management Concept Plan for details.

The storm water facilities will be designed to restrict runoff to pre-development controlled rates. Best management practises as outlined in Alberta Environments Standards & Guidelines must be considered and incorporated where appropriate, into the design of the storm water collection system and storm water management facilities.

In preparing Development Agreements for subdivision development or issuing Development Permits for private lot development the Town of Peace River must specifically provide the requirements and expectations for storm water management designs, plan and future maintenance.

Authorization under the Water Act from Alberta Environment is required for approval to construct storm water ponds or outfall lines and structures discharging to the St. Germaine Creek.

### 5.3.5. *Shallow Utilities*

All shallow utilities (natural gas, power, telephone, cablevision) would be extended into the Plan area by the individual franchise holders as required. All utility lines located in the Plan area must be installed by the Developer in accordance with Town policy.

## 6. IMPLEMENTATION

### 6.1. Statutory Requirements

The purpose and policies of the St. Germaine Creek Area Structure Plan shall be implemented through:

#### 6.1.1. *Town of Peace River Municipal Development Plan No. 1698*

The proposed St. Germaine Creek Area Structure Plan complies with the directives and land uses proposed for the subject lands. No amendments are required to adopt the ASP under the MDP.

#### 6.1.2 *Adoption of the Area Structure Plan Document*

The St. Germaine Creek Area Structure Plan will be required to be adopted by the Town council as a bylaw in order for development to occur.

#### 6.1.3. *Town of Peace River Land use Bylaw No. 1731*

The Town of Peace River Land Use Bylaw will be the primary method of implementing the provisions of the St. Germaine Creek Area Structure Plan, including zoning and the application of development regulations.

The land use districts, as illustrated in Map 11—Zoning Concept Plan, will include:

- **Highway Commercial (C-2)**

For those developments located adjacent to Highways 2 & 743 (only if required for Sub-Plan Area #1).

- **Commercial—Shopping Centre (C-3)**

For those developments located within the interior of Sub-Plan Area #1

- **Residential 1-A(20) District (R-1-A(20))**

The low density residential areas located within Sub-Plan Area #2. The primary dwellings within this area will be single detached family residences.

- **Residential Medium Density (R-3)**

To provide for the development of medium density residential dwellings in the form of apartments or row dwellings

- **New low to medium density residential land use district (NZ)**

As recommended by the Municipal Planning Commission, this Area Structure Plan includes a proposal for the creation of a new land use district allowing for narrower lots and secondary suites. (Appendix B.)

- **Community Development District (COM)**

The School site proposed within Sub-Plan Area #2 will be zoned under the Community Development District

## 6.2 Interpretation

This Plan shall be interpreted with flexibility having regard to its purpose and concepts, as well as the objectives and policies of the Municipal Development Plan. Council's decision on interpretation shall be final.

## 6.3 Amendments

The Town of Peace River will monitor and evaluate the implementation of the St. Germaine Creek Area Structure Plan and, when required, amend accordingly.

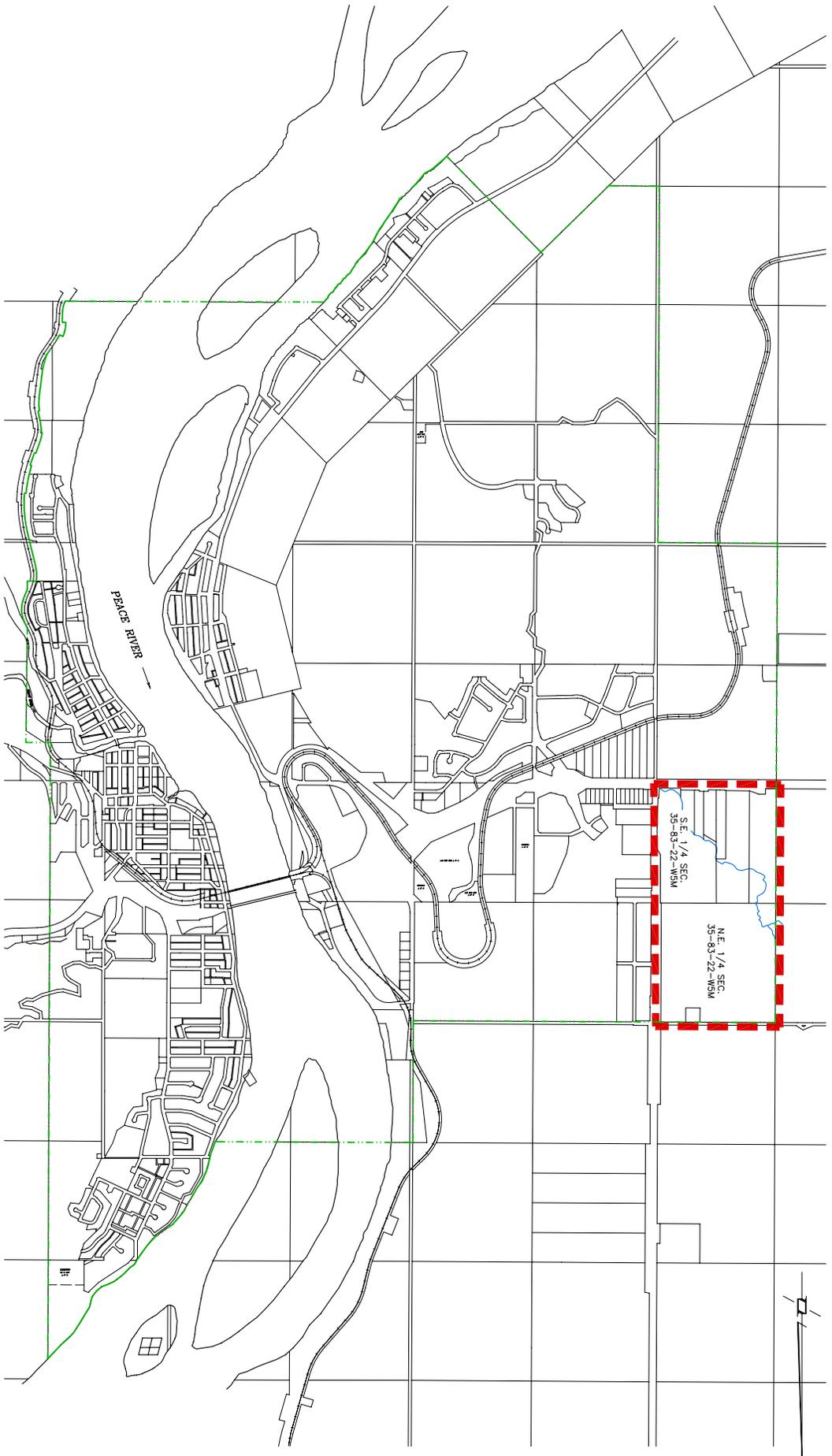
Minor adjustments to the ASP shall not require the passing of a bylaw under the Municipal Government Act. When an amendment to the ASP is required, the provisions of the MGA shall apply.

An amendment to the ASP may be required if, in the opinion of the approving authority, a proposed subdivision application or development permit application results in one or more of the following changes to the Plan:

- A change in the general land use pattern of an area within the subject lands;

- A change in size or location of the school site;
- The elimination, reclassification or significant realignment of proposed arterial, major or minor collector roads, and
- Significant changes to the location of major utility networks or storm water management facilities.

# **APPENDIX A**

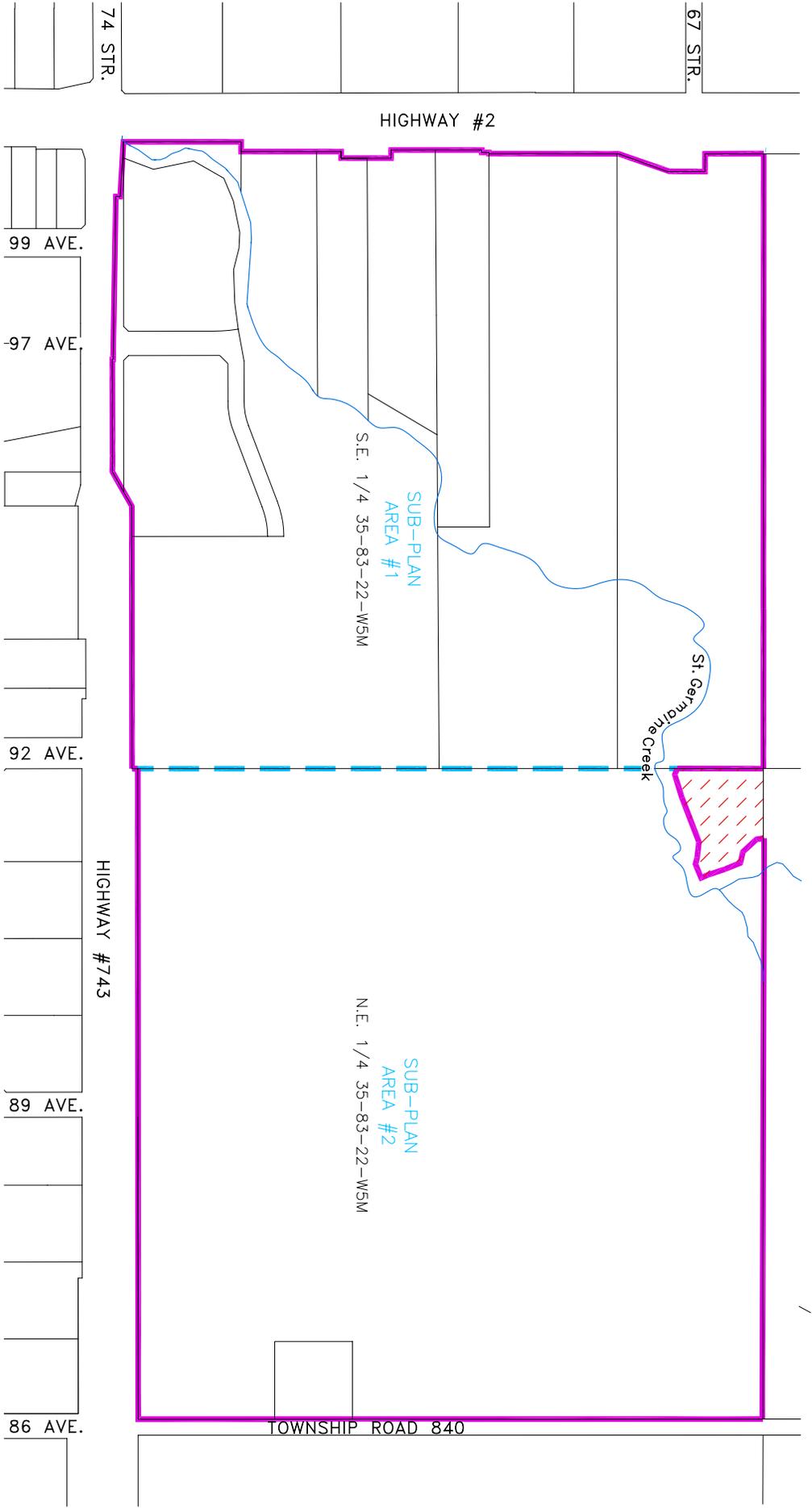


PLAN BOUNDARY  
TOWN BOUNDARY

## MAP 1 LOCATION PLAN

ST. GERMAINE CREEK AREA  
STRUCTURE PLAN  
PEAGE RIVER, ALBERTA

SCALE-1: 40,000



-  SUB PLAN AREA DIVISION
-  PLAN BOUNDARY
-  EXCLUDED AREA

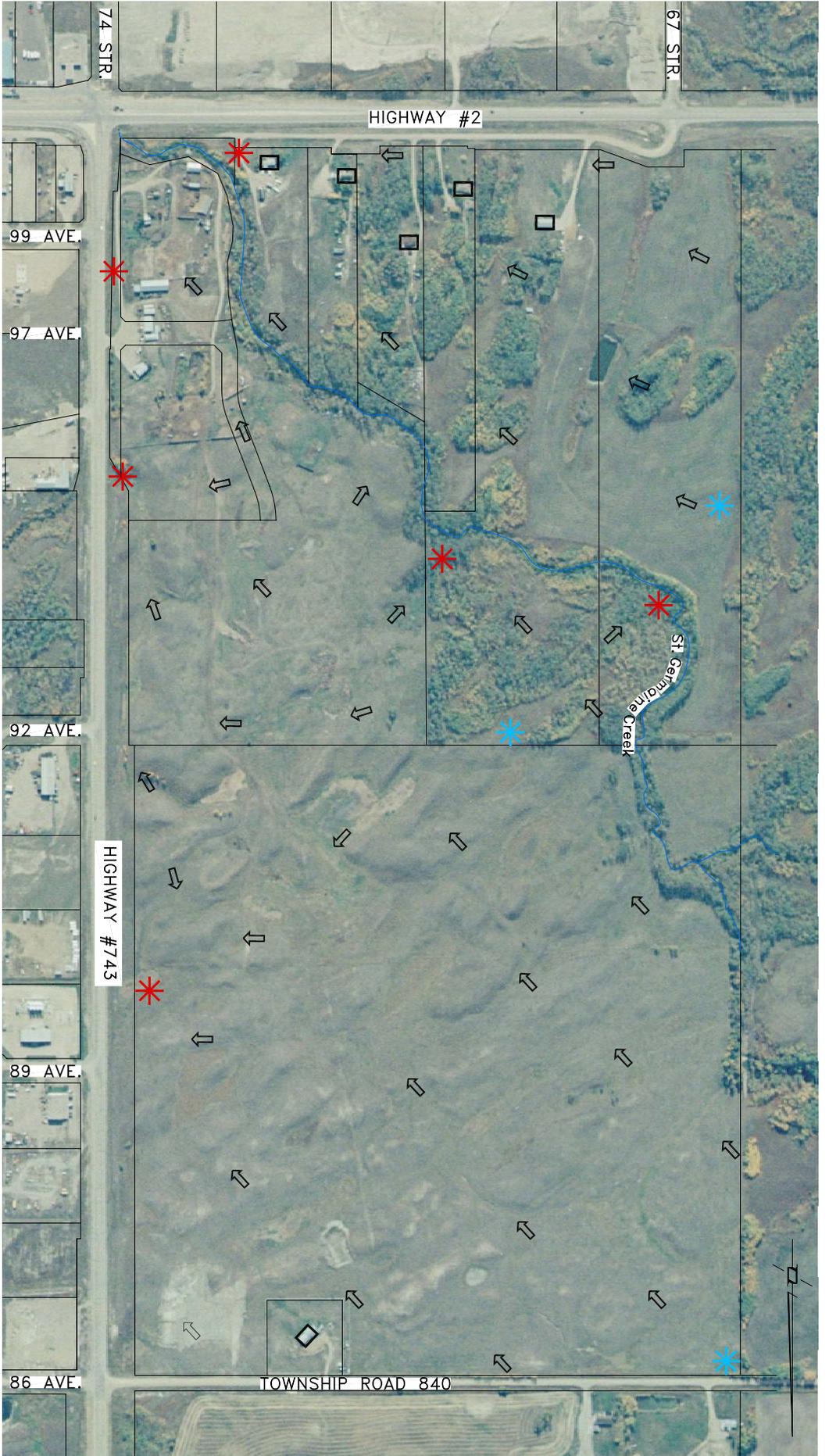
# MAP 2

## SUB-PLAN AREAS

ST. GERMAINE CREEK AREA  
STRUCTURE PLAN  
PEACE RIVER, ALBERTA

SCALE-1:7500





□ EXISTING STRUCTURE

\* LOW POINT

\* HIGH POINT

⇨ SLOPE DIRECTION

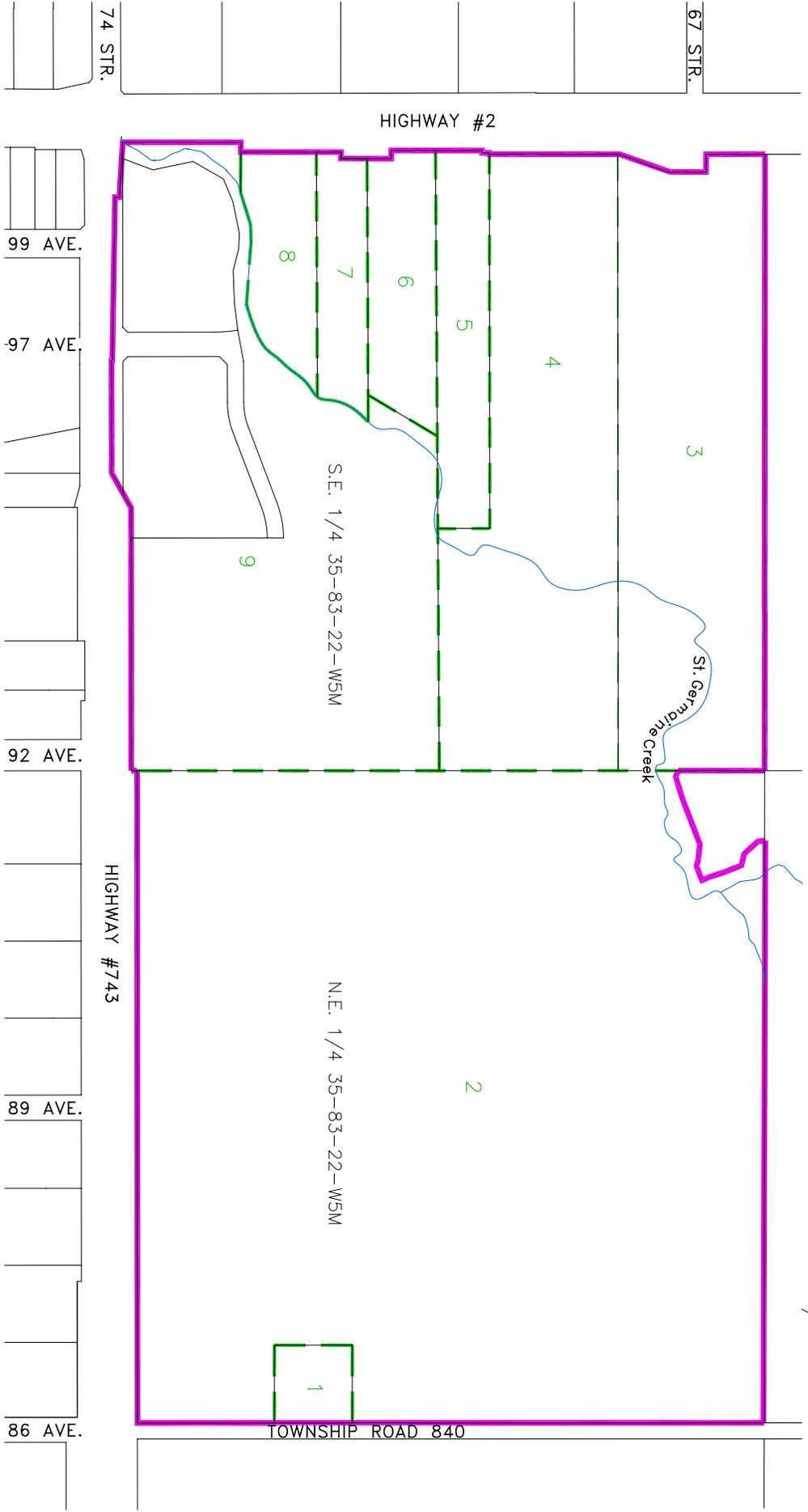
# MAP 3

## EXISTING PLAN AREA CONDITIONS

ST. GERMAINE CREEK AREA  
STRUCTURE PLAN  
PEACE RIVER, ALBERTA

SCALE--1: 7500

# FOCUS



 PLAN BOUNDARY  
 OWNERSHIP BOUNDARIES

# MAP 4

## OWNERSHIP AND DISPOSITION PLAN

ST. GERMAINE CREEK AREA  
 STRUCTURE PLAN  
 PEACE RIVER, ALBERTA

SCALE-1:7500





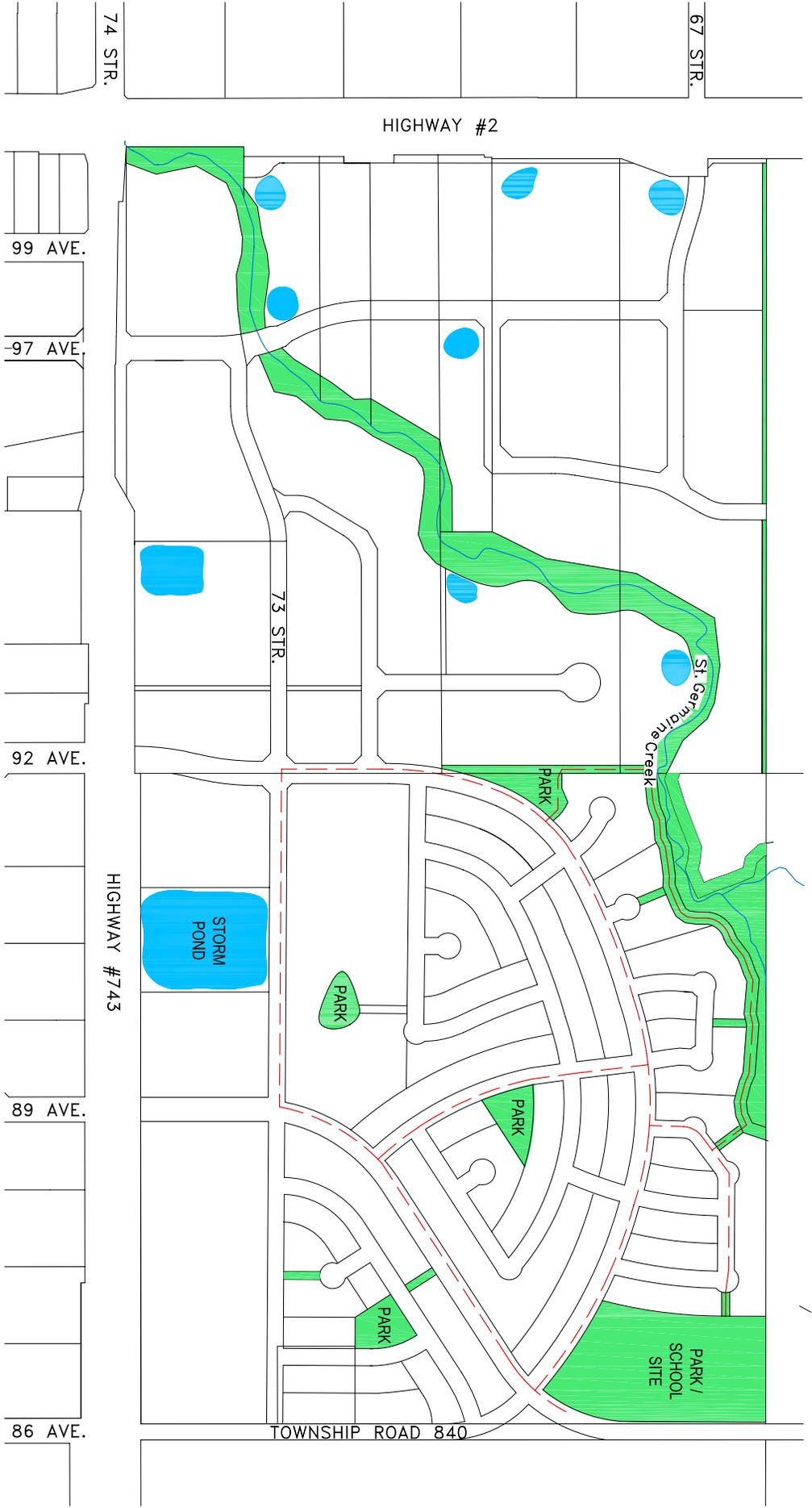
# FOCUS

- HIGHWAY COMMERCIAL
- COMMERCIAL - SHOPPING CENTER
- STORM WATER FACILITY
- LOW DENSITY RESIDENTIAL
- COMMUNITY DEVELOPMENT DISTRICT
- MEDIUM DENSITY RESIDENTIAL
- PRIMARY PEDESTRIAN LINKAGE
- EXCLUDED AREA
- NOISE ATTENUATION

## MAP 5 DEVELOPMENT CONCEPT PLAN

ST. GERMAINE CREEK AREA  
STRUCTURE PLAN  
PEACE RIVER, ALBERTA

SCALE - 1:7500



-  POTENTIAL STORM WATER FACILITY LOCATION
-  COMMUNITY DEVELOPMENT DISTRICT/PARK
-  PRIMARY PEDESTRIAN LINKAGE

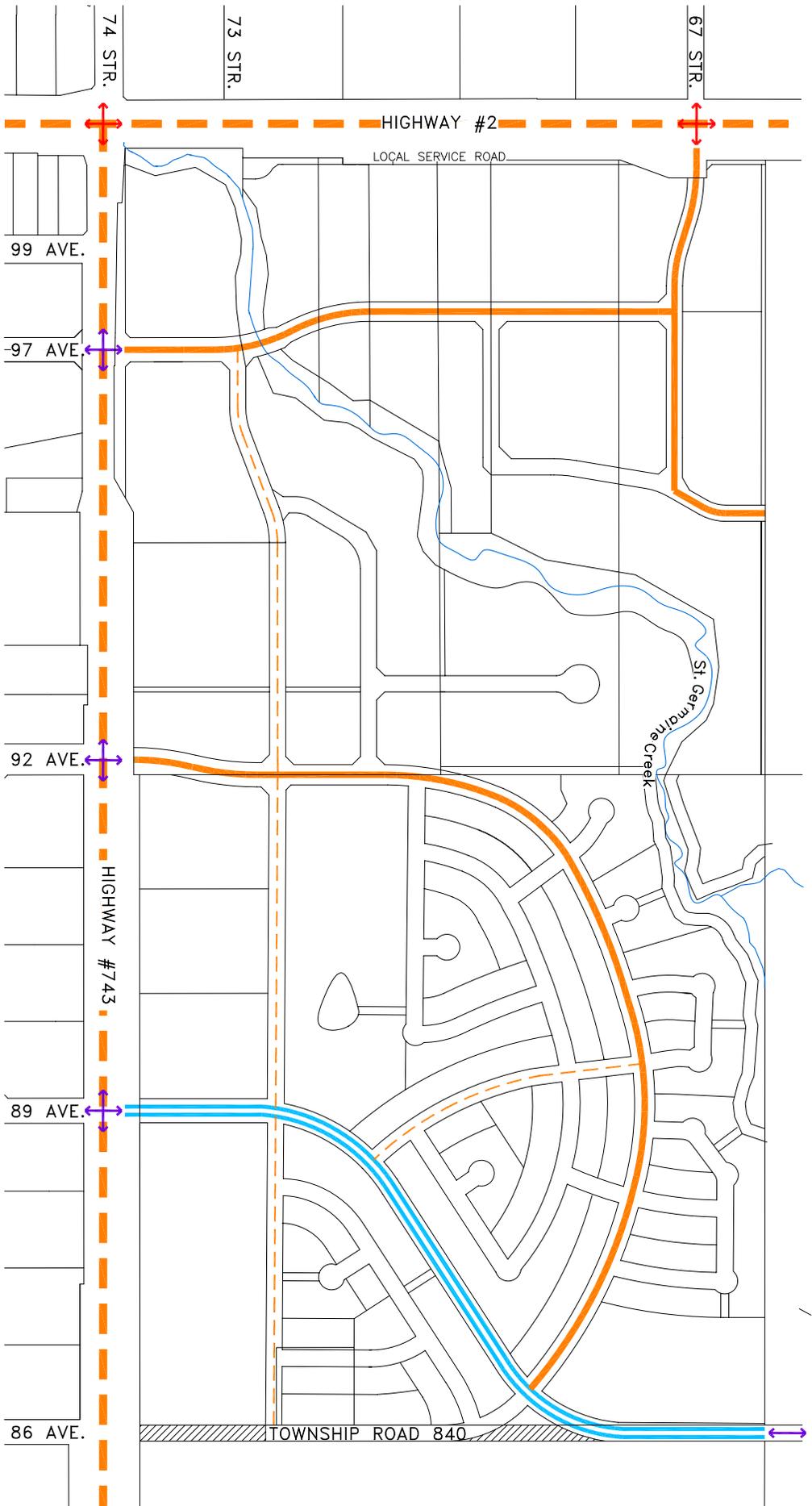
# MAP 6

## OPEN SPACE PLAN

ST. GERMAINE CREEK AREA  
STRUCTURE PLAN  
PEACE RIVER, ALBERTA

# FOCUS

SCALE--1: 7500



-  ARTERIAL ROAD
-  MAJOR COLLECTOR ROAD
-  MINOR COLLECTOR ROAD
-  HIGHWAY

-  ROAD TO BE CLOSED
-  2 WAY TRAFFIC
-  ALL DIRECTIONAL INTERSECTION
-  TEMPORARY ALL DIRECTIONAL INTERSECTION

# MAP 7

## TRANSPORTATION PLAN

ST. GERMAINE CREEK AREA  
 STRUCTURE PLAN  
 PEAGE RIVER, ALBERTA



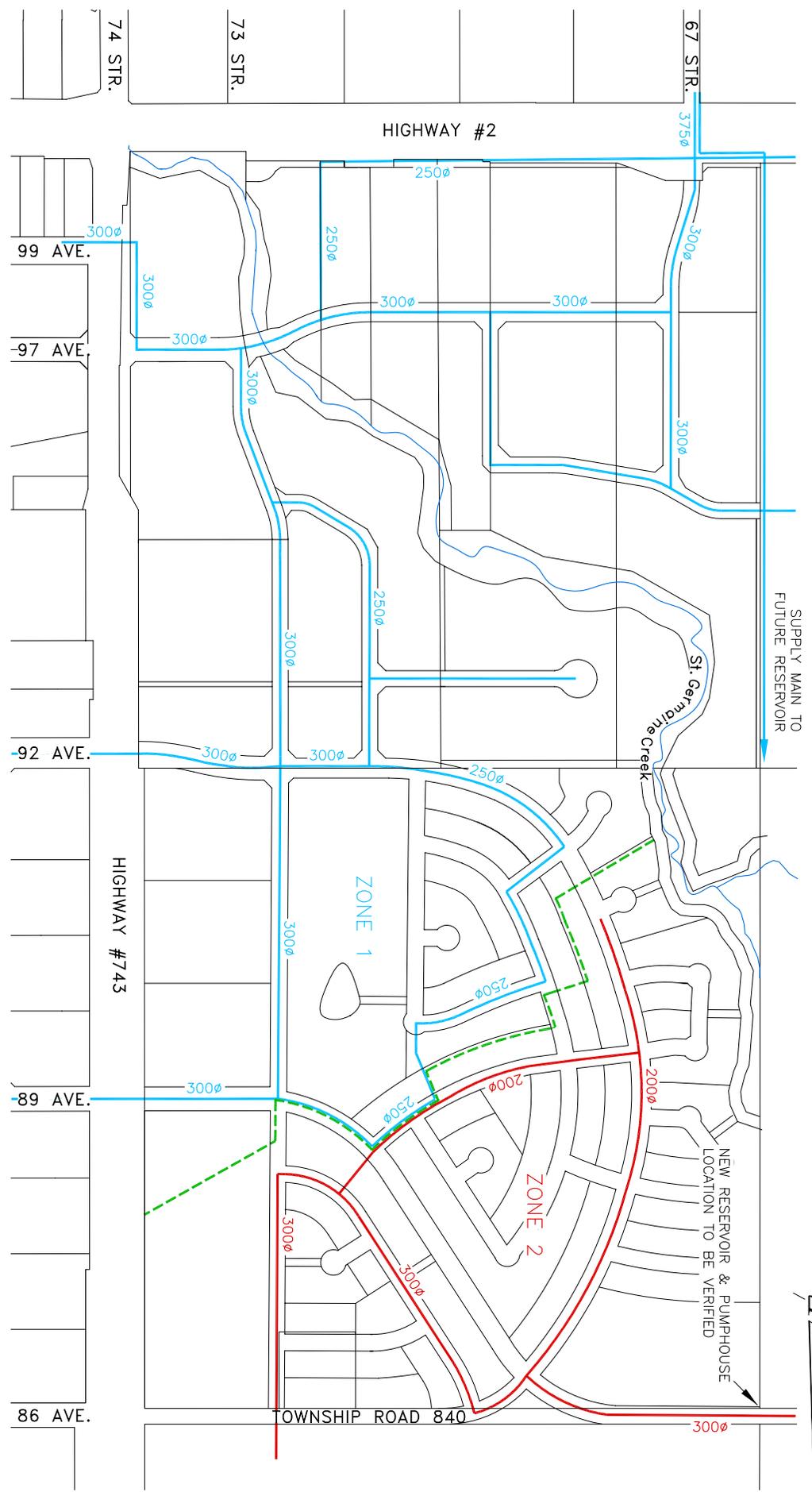
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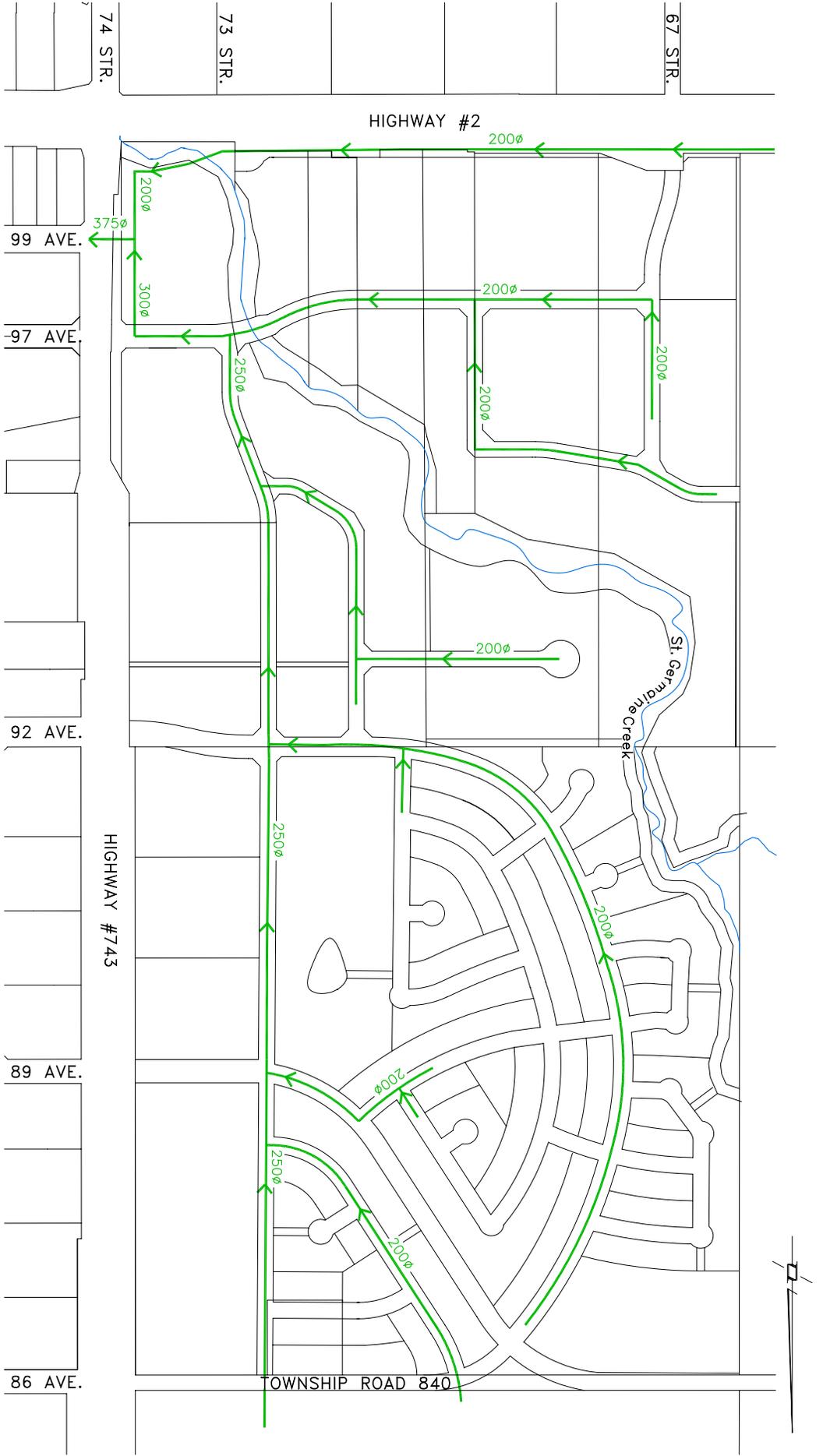
- ZONE 2
- ZONE 1
- - - RESERVOIR 475 HIGH PRESSURE ZONE
- 300Ø CONCEPTUAL DESIGN PIPE SIZE

## MAP 8 WATER SERVICING CONCEPT

ST. GERMAINE CREEK AREA  
STRUCTURE PLAN  
PEACE RIVER, ALBERTA

SCALE-1: 7500





# MAP 9

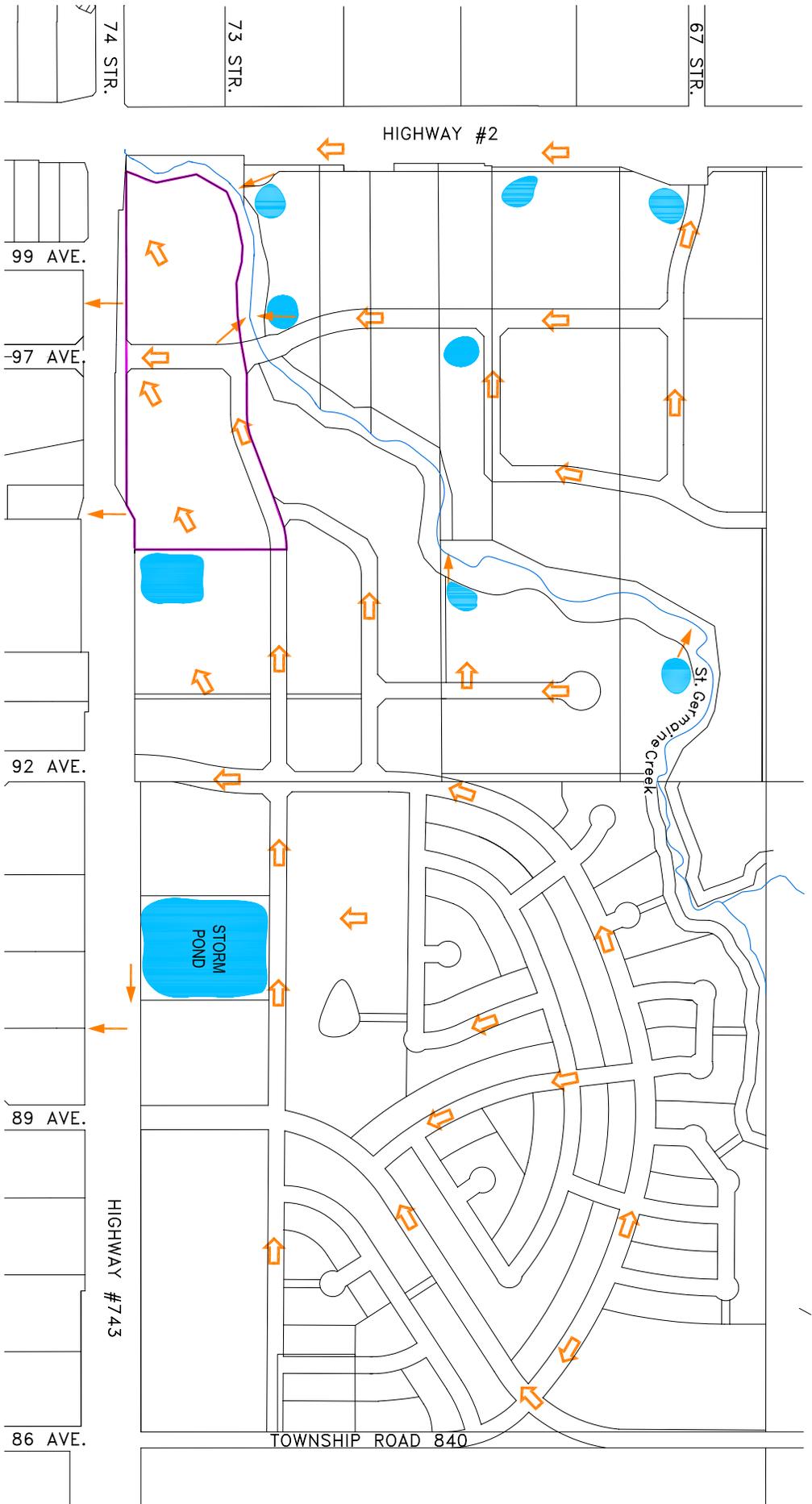
## SANITARY SEWER SERVICING CONCEPT

- PROPOSED GRAVITY SANITARY SEWER LINE
- ← DIRECTION OF FLOW
- 200ø CONCEPTUAL DESIGN SIZE

SCALE=1:7500



ST. GERMAINE CREEK AREA  
STRUCTURE PLAN  
PEACE RIVER, ALBERTA



-  DIRECTION OF SLOPE
-  OUTLET LOCATION
-  DESIGNED FOR LOT AND PIPE STORAGE
-  POSSIBLE STORM WATER FACILITY LOCATION

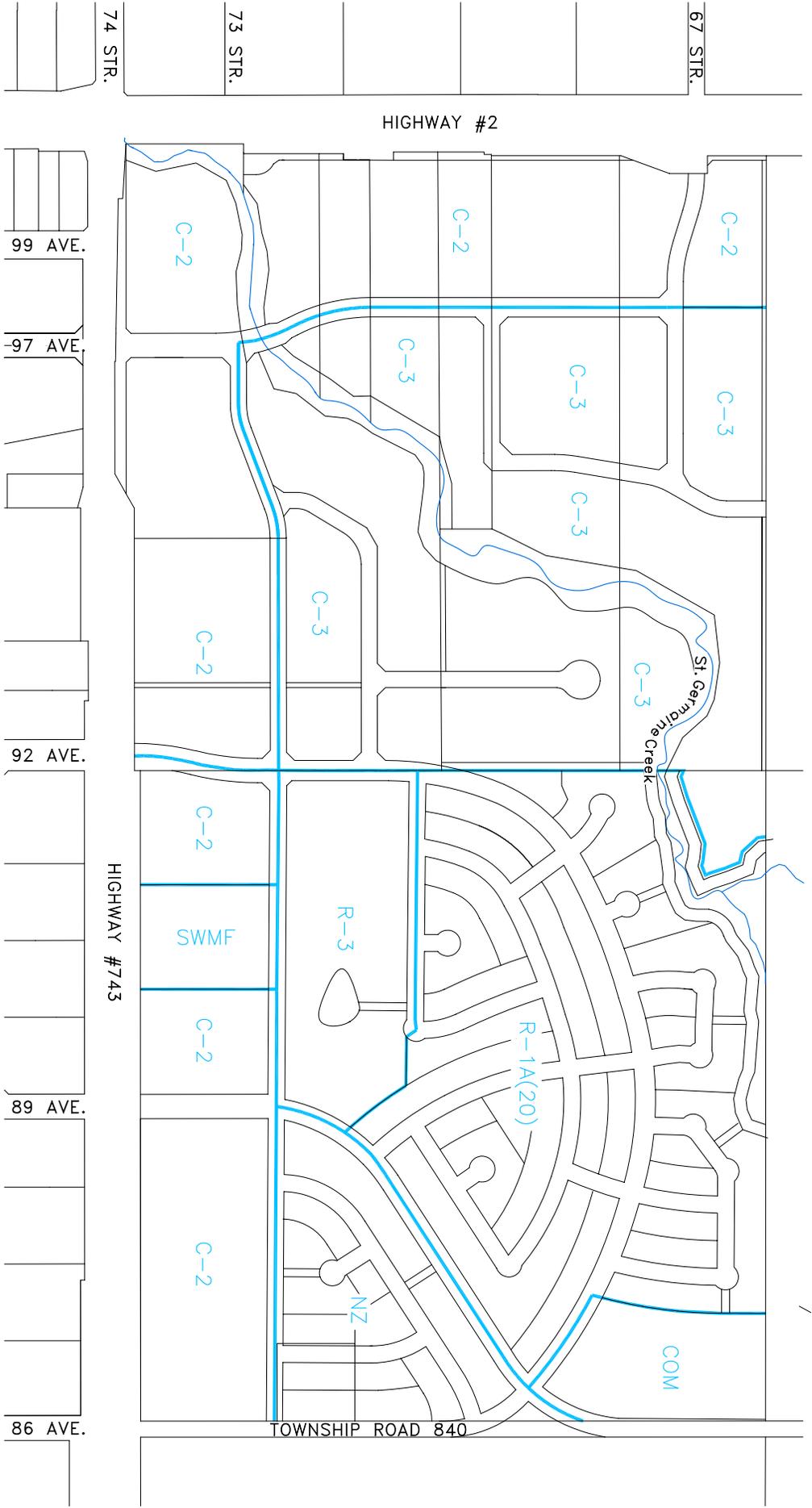
# MAP 10

## STORM WATER MANAGEMENT CONCEPT PLAN

ST. GERMAINE CREEK AREA  
STRUCTURE PLAN  
PEACE RIVER, ALBERTA

SCALE--1:7500





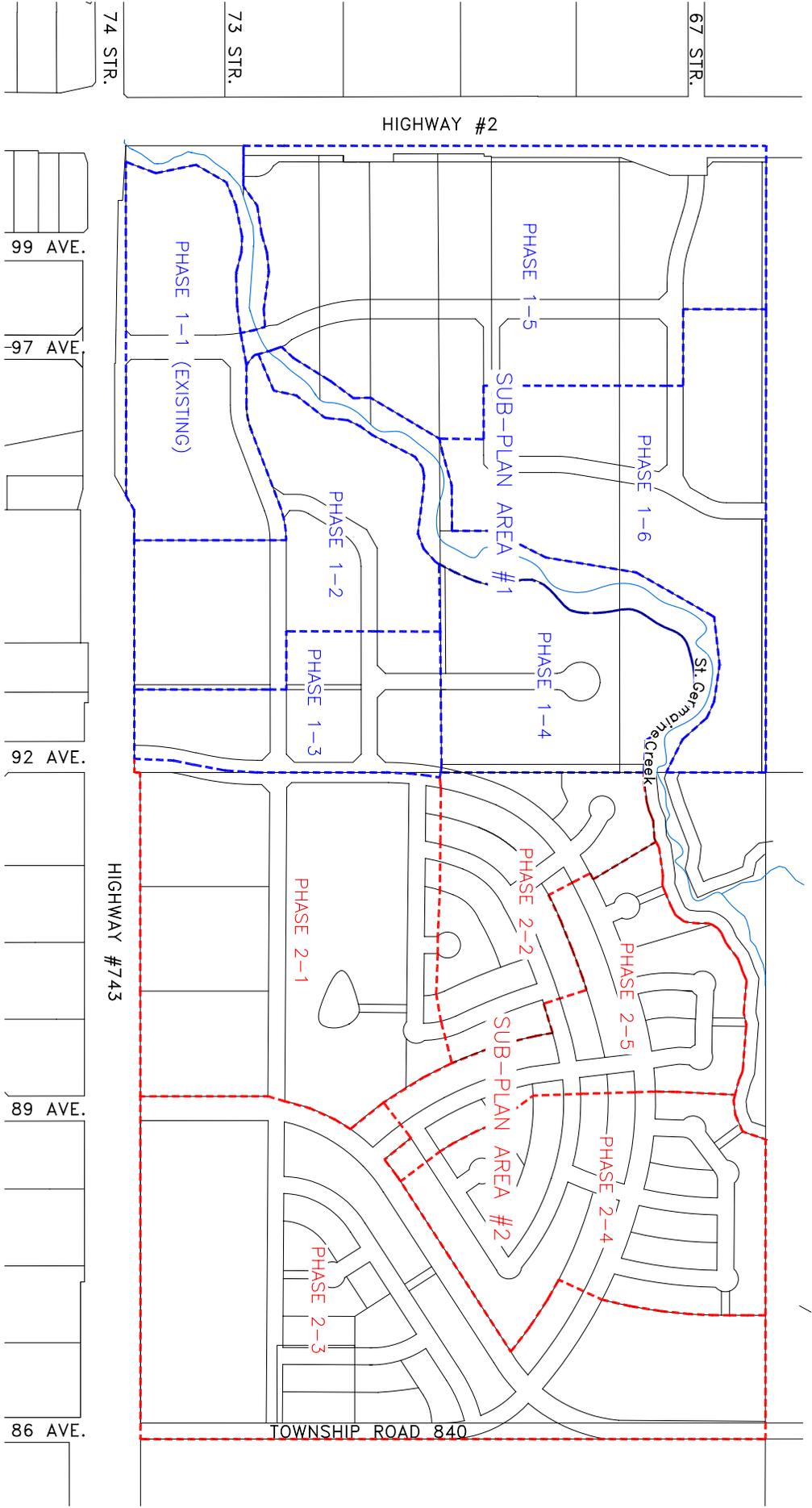
**FOCUS**

- BOUNDARY OF ZONE
- R-1A(20) LOW DENSITY RESIDENTIAL
- R-3 MEDIUM DENSITY RESIDENTIAL
- COM COMMUNITY DEVELOPMENT DISTRICT
- C-2 HIGHWAY COMMERCIAL
- C-3 SHOPPING CENTER
- SWMF STORM WATER FACILITY
- NZ PROPOSED NEW ZONE

**MAP 11**  
**ZONING CONCEPT PLAN**

**ST. GERMAINE CREEK AREA**  
**STRUCTURE PLAN**  
 PEAGE RIVER, ALBERTA

SCALE=1:7500



- - - - - PHASE BOUNDARY SUB-PLAN AREA #1
- - - - - PHASE BOUNDARY SUB-PLAN AREA #2

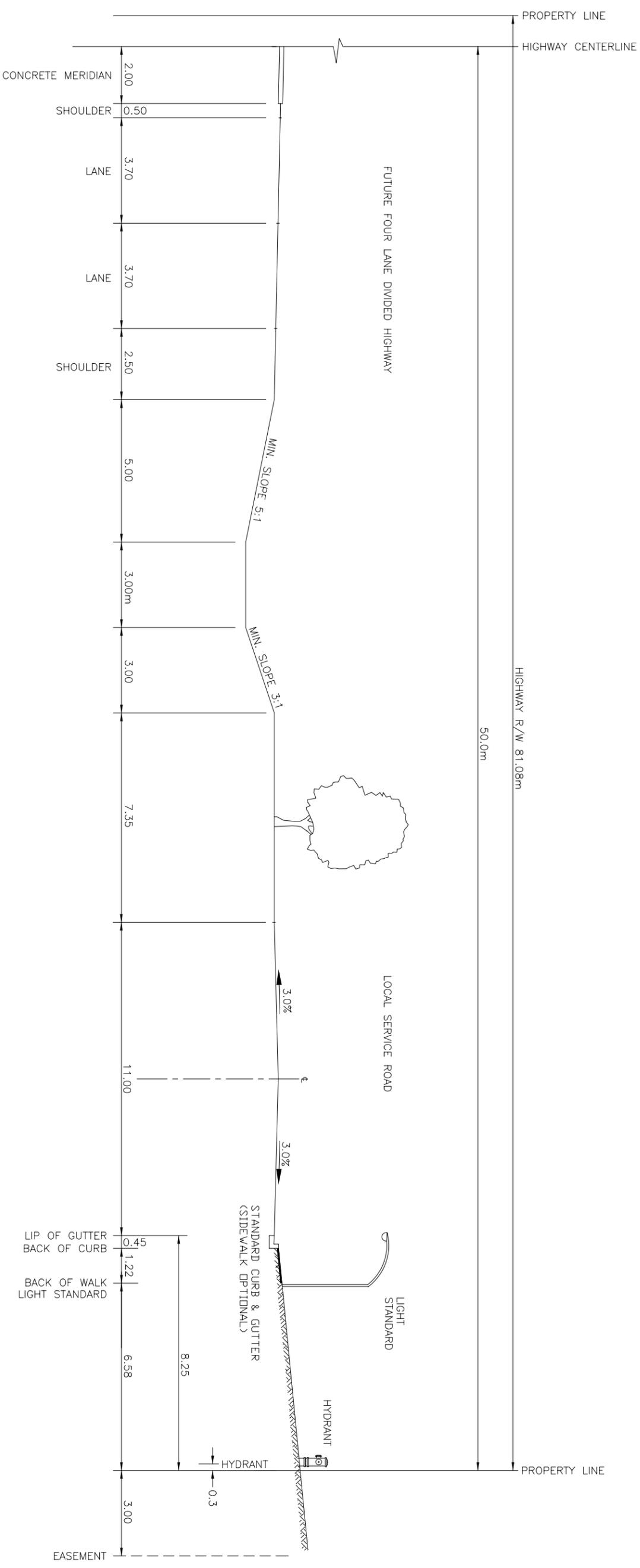
# MAP 12

## PHASING CONCEPT

ST. GERMAINE CREEK AREA  
STRUCTURE PLAN  
PEACE RIVER, ALBERTA



SCALE--1: 7500



**FIGURE 1**  
 LOCAL SERVICE ROAD  
 (ADJACENT HIGHWAY #2)

**ST. GERMAINE CREEK AREA**  
 STRUCTURE PLAN  
 PEACE RIVER, ALBERTA

# **APPENDIX B**

## Zoning for Peace River – Potential New Zone for Medium to Low Density

The goal of the zoning is to develop a district similar to the Residential Two Family District with slightly higher densities that may allow for the development of narrower lots more affordable housing.

Permitted uses currently include duplex, semi-detached and single detached dwellings.

### Comparative Analysis

Municipality	R-2 Peace River	Grande Prairie	M.D. of Wood Buffalo	City of Red Deer
<b>Land Use Category</b>				
<i>Single Detached</i>				
Lot Area	510.95m <sup>2</sup> (5,500ft <sup>2</sup> )	415m <sup>2</sup>	366m <sup>2</sup>	360m <sup>2</sup>
Lot Width	15.24m (50ft)	12.2m (40ft)	12.2m	10.5
<i>Duplex</i>				
Lot Area	557.7m <sup>2</sup> (6,000ft <sup>2</sup> )		297m <sup>2</sup>	
Lot Width	18.29m (60ft)		12.2m (40ft)	
<i>Semi-Detached</i>				
Lot Area	325.15m <sup>2</sup> (3,500ft <sup>2</sup> )	302m <sup>2</sup> (3,250ft <sup>2</sup> )/unit	297m <sup>2</sup>	232m <sup>2</sup> /unit
Lot Width	10.06m (33ft)	9.15m (30ft)/unit	12.2m (40ft)	7.6m/unit
<i>Row Dwelling</i>				
Lot Area (Interior)	185m <sup>2</sup> (2,000ft <sup>2</sup> )			
Lot Area (exterior)	222.96m <sup>2</sup> (2,400ft <sup>2</sup> )			240m <sup>2</sup>
Lot Width	6.1m (20ft)			6.1m/unit

## Recommended Provisions for a new land use zone district

The purpose of the proposed zoning would be to provide for the development of single double, and certain multi-family dwellings with more narrow lots and slightly higher densities than current districts allow.

### Proposed Permitted Uses:

- Single detached dwellings
- Duplexes
- Semi-detached dwellings
- Secondary/Basement suites
- Row Dwellings

### Proposed Site Provisions

<b><i>Lot Area</i></b>	
Single Detached Dwellings	415m <sup>2</sup> (4,467ft <sup>2</sup> )
Duplex	302m <sup>2</sup> (3,250ft <sup>2</sup> )
Semi-detached Dwelling	302m <sup>2</sup> (3,250ft <sup>2</sup> )
Row Dwelling	167.22m <sup>2</sup> (1,800ft <sup>2</sup> )
<b><i>Lot Width</i></b>	
Single Detached Dwelling	12.2m (40ft)
Duplex	12.2m (40ft)
Semi-detached Dwelling	9.15m (30ft)/unit
Row Dwelling	5.5m (18ft)/unit