BY-LAW NO. 2779 OF THE **COUNTY OF GRANDE PRAIRIE NO. 1**

A by-law of the County of Grande Prairie No. 1 in the Province of Alberta, to adopt the attached BALISKY -HODGES Area Structure Plan for the S ½ 11-72-6-W6

WHEREAS the Municipal Government Act, Statutes of Alberta, 2000, Chapter M-26. and amendments thereto, authorizes a Council to provide a framework for the subdivision and development of an area of land within the Municipality; and

WHEREAS the Council of the County of Grande Prairie No. 1 has properly notified the owners of land within the development area, pursuant to provisions of the Municipal Government Act, Statutes of Alberta, 2000, Chapter M-26, and amendments thereto.

NOW THEREFORE the Council of the County of Grande Prairie No. 1 duly assembled, hereby enacts as follows:

- 1. That this By-law shall be known as the "BALISKY - HODGES AREA STRUCTURE PLAN BY-LAW".
- 2. That the BALISKY - HODGES Area Structure Plan document is attached to this bylaw as an appendix and forms part of this by-law.
- 3. That Bylaw 1346, the Highways 2 and 43 Area Structure Plan be amended by deleting the SE 11-72-6-W6;
- 4. That this by-law shall take effect on the date of its final passage by Council.

READ A FIRST, SECOND AND BY UNANIMOUS CONSENT, A THIRD AND FINAL TIME THIS _ DAY OF _ FEBRUARY A.D. 2006.

REEVE W. a Con



BALISKY-HODGES AREA STRUCTURE PLAN

1

Į

(S1/2 11-72-6-W6M)

Prepared by:



In association with



Beairsto Lehners Ketchum Engineering Ltd.

February 2006

TABLE OF CONTENTS

Ì

1.0	Introduction1			
	1.1 1.2	Purpose of Plan		
	1.3	Existing Conditions1		
	1.4	Policy Framework		
2.0	Deve	elopment Concept 4		
	2.1	Goals of the Plan4		
	2.2	Land Use Concept4		
	2.3	Residential Development 4		
	2.4	Commercial Development5		
	2.5	Industrial Development		
	2.6	Oil and Gas Activity7		
	2.7	Municipal Reserve8		
• •	T urner			
3.0	Iran	sportation and Servicing9		
3.0	3.1	Road Network		
3.0				
3.0	3.1	Road Network		
3.U	3.1 3.2 3.3 3.4	Road Network9Sanitary Sewer11Water Supply11Stormwater Management12		
3.0	3.1 3.2 3.3 3.4 3.5	Road Network9Sanitary Sewer11Water Supply11Stormwater Management12Shallow Utilities14		
3.0	3.1 3.2 3.3 3.4	Road Network9Sanitary Sewer11Water Supply11Stormwater Management12		
3.0	3.1 3.2 3.3 3.4 3.5 3.6	Road Network9Sanitary Sewer11Water Supply11Stormwater Management12Shallow Utilities14		
	3.1 3.2 3.3 3.4 3.5 3.6	Road Network9Sanitary Sewer11Water Supply11Stormwater Management12Shallow Utilities14Lot Grading14 15		
	3.1 3.2 3.3 3.4 3.5 3.6 Impl 4.1	Road Network9Sanitary Sewer11Water Supply11Stormwater Management12Shallow Utilities14Lot Grading14Image: Image: I		
	3.1 3.2 3.3 3.4 3.5 3.6 Impl 4.1 4.2	Road Network9Sanitary Sewer11Water Supply11Stormwater Management12Shallow Utilities14Lot Grading14Image: Shallow Utilities1414Image: Shallow Utilities15PhasingPhasing15Proposed Zoning15		
	3.1 3.2 3.3 3.4 3.5 3.6 Impl 4.1	Road Network9Sanitary Sewer11Water Supply11Stormwater Management12Shallow Utilities14Lot Grading14Image: Statutory Plan Amendments15		
	3.1 3.2 3.3 3.4 3.5 3.6 Impl 4.1 4.2 4.3	Road Network9Sanitary Sewer11Water Supply11Stormwater Management12Shallow Utilities14Lot Grading14Image: Shallow Utilities1414Image: Shallow Utilities15PhasingPhasing15Proposed Zoning15		

LIST OF MAPS

I

Î

1	Location	Following Page 1
2	Existing Conditions	Following Page 1
3	Topography	Following Page 2
4	Future Land Use	Following Page 4
4A	School Site Shadow Plan	Following Page 8
5	Transportation	Following Page 9
5A	Future Regional Transportation Network	Following Page 9
6	Sanitary Sewer	Following Page 11
7	Water Distribution System	Following Page 11
8	Storm Water Management	Following Page 12
9	Phasing	
10	Proposed Zoning	Following Page 15
11	Levy or Endeavour to Assist Areas	

LIST OF TABLES

1	Plan Area Composition	2
	Land Use Area Estimates	
3	Detailed Land Use Area Estimates	6
4	Levies and Endeavours to Assists	17

1.0 INTRODUCTION

1.1 Purpose of Plan

The Balisky-Hodges Area Structure Plan has been prepared to provide a framework for future development of a half section of land north of the City of Grande Prairie in the County of Grande Prairie No. 1.

The primary objective of this Plan is to provide a framework for the development of the subject lands for industrial, residential and commercial purposes in a manner that is consistent with the goals, objectives and policies of the County of Grande Prairie No. 1. In addition, as the site fronts onto a primary highway, the requirements of Alberta Transportation need to be accommodated. The Plan establishes the future land use and circulation pattern proposed for the site, and provides details respecting proposed servicing for the area.

This Area Structure Plan has been prepared in accordance with the Municipal Government Act, the Subdivision and Development Regulation, and the County of Grande Prairie Municipal Development Plan.

1.2 Plan Area

The land affected by this Area Structure Plan is $5\frac{1}{2}$ 11-72-6-W6M, located 0.8 km north of the City of Grande Prairie and west of Highway 43 as illustrated in Map 1. The Plan area consists of two quarter sections of land, totaling approximately 130 ha as outlined in Table 1 below. The policies of this plan will apply to this area.

1.3 Existing Conditions

Existing development in the Plan area is restricted to a portion of the SE 11, which is the northerly portion of the Highway 2 North industrial park as shown in Map 2. There is also a single residence present on an acreage at the southwest corner of the Plan area. The balance of the Plan area is in agricultural production. A reclaimed gravel stockpile site is located in the northeast corner of the Plan area and most of the original site is now occupied by the Highway 43 service road. The east side of the Plan area is traversed by a high pressure gas line that runs parallel to Highway 43.

The site is bounded to the east by Highway 43 and to the west by Range Road 62. The Highway 2 North and McRae Industrial Parks are located across Highway 43 to the east, and commercial development is being commenced on lands to the north. Agricultural lands are located to the west and south.

1





Legal	Owner	Area (ha)
SW 11-72-6-W6M	Hodges Plumbing Ltd.	60.6
Lot 1, Block 1, Plan 0222494	O. & A. Hodges	4.1
SE 11-72-6-W6M	1121024 Alberta Ltd.	47.9
Plan 331PX	H.M. the Queen (AB Trans)	0.4
Lot A, Plan 9121063	Swanberg Bros. Trucking Ltd.	3.4
Lot B, Plan 915MC	Swanberg Bros. Trucking Ltd.	2.4
Lot R, Plan 915MC	County of Grande Prairie No. 1	0.6
Road Plan 2146JY	Highway 43 ROW	1.6
Road Plan 0323780	Service Road ROW	8.5
Total		129.5

Table 1 – Plan Area Composition

As illustrated in Map 3, the topography of the Plan area is characterized by some significant slopes on the west side of the area (average 3.7% slope), and more gradual grades on the balance (1.2%). Elevations range from 697m on the east side to 670m at the northwest corner.

1.4 Policy Framework

1.4.1 County of Grande Prairie Municipal Development Plan

The County MDP provides the general policy framework with which more detailed plans are required to be consistent. Section 13.5 of the Plan indicates that area structure plans are required as a prerequisite for the development of industrial parks, hamlets, highway commercial subdivisions, "or any other major development where such a plan would assist the County in making planning decisions".

The County of Grande Prairie Municipal Development Plan identifies the lands located in the Highway 2 corridor for future industrial use. There is no provision in the MDP, however, for residential use so an amendment to the MDP is required in order for this Plan to be approved.

1.4.2 Grande Prairie Intermunicipal Development Plan

The Plan area is located in the Grande Prairie IDP's "Referral Area", which requires that subdivision and major development applications proposed for the subject lands be circulated to the City for comment.



1.4.3 Highway No. 2/43 North Area Structure Plan

Approved in 1982, this ASP addresses 11 quarters of land immediately north of Grande Prairie, including the east half of the subject Plan area. However, the Highway No. 2/43 ASP is outdated and calls for continued agricultural development on the subject land. As a result, it is proposed that the affected portions of the Highway No. 2/43 ASP be rescinded upon approval of the Balisky-Hodges ASP.

1.4.4 County of Grande Prairie Land Use Bylaw

The east half of the Plan area is designated as Restricted Rural Industrial (RM-2) in the County's Land Use Bylaw. The acreage on the west boundary is zoned as Country Residential (CR-5), and the balance of the Plan area as Agricultural (AG). In order to facilitate the development of these lands for industrial, residential and commercial purposes, it is intended that portions of the Plan area be rezoned to the appropriate land use districts as a prerequisite to subdivision as discussed in Section 4.2.

1.4.5 Subdivision and Development Regulation

Section 14 of the Regulation requires that an area structure plan be prepared in advance of development on all lands that is located within 800m of a highway. This ASP has been prepared in accordance with the Regulation.

2.0 DEVELOPMENT CONCEPT

2.1 Goals of the Plan

The Balisky-Hodges Area Structure Plan has been prepared in accordance with the following goals and objectives.

- 1. To provide a sound planning framework for the future development of the Plan area that is consistent with the goals of the County of Grande Prairie No. 1.
- 2. To contribute to the continued development of the Highway 43 corridor for commercial and industrial purposes.
- 3. To provide for the development of a unique residential community in the Plan area and a transition from the commercial-industrial areas to residential development northwest of Grande Prairie.
- 4. To protect and maintain the operational safety and integrity of the Highway 43 corridor.
- 5. To establish an efficient and economical servicing and development concept for the Plan area.
- 6. To establish a "walkable" pedestrian and transit friendly community while being accessible to traditional motorized vehicle traffic.
- 7. To limit potential for conflicts between industrial and residential traffic in the Plan area.

2.2 Land Use Concept

The proposed land use concept for the subject lands is illustrated in Map 4. The intent of this plan is to provide a generalized land use plan with a conceptual lot layout that will be subject to further refinement at the time of subdivision and survey. A detailed breakdown of land uses proposed for the Plan Area is provided in Tables 2 and 3.

2.3 Residential Development

- 2.3.1 Three forms of residential development are proposed for the Plan area to allow for a variety of housing types. The proposed breakdown is as follows:
 - Lands in the northwest portion are to be developed as serviced acreage lots, consistent with residential development that is currently being developed on adjacent lands to the



Land Use Category	Total	Percent
Gross Developable Area	129.40	
Less Highway Right-of-Way	2.7	
Net Developable Area	126.7	100.0
Residential (All Types)	44.0	34.8
Commercial	27.9	22.1
Highway Industrial	4.0	3.1
Roadways	28.9	22.8
Utilities	11.7	9.2
Municipal Reserve	10.2	8.0

Table 2 –Land Use Area Estimates

north. Based on the layout illustrated in Map 4 a yield of 79 lots, with an average lot size of 0.16 ha is anticipated. It is intended that these lots be zoned under the Rural Estate (RE) District in the Land Use Bylaw;

- A node of multi-family residential development is proposed for the east-central portion of the Plan area adjacent to the school site and future commercial development. It is intended that the area adjacent to the proposed school site be zoned as High Density Residential (HDR) to allow for a variety of townhouse and apartment development, where densities of approximately 45 units/ha are anticipated (total 111 units).
- The balance of the Plan area is proposed for conventional urban residential development. This area is to be designated as Rural Residential (RR-2) in the Land Use Bylaw, which limits residential development to stick-built housing. A total yield of approximately 585 single family units is proposed in this area.
- 2.3.2 The total area proposed for residential development is 44 ha, or 35% of the Plan area. This results in a combined yield of approximately 775 units based on the layout shown in Map 4, and will accommodate 2,325 residents assuming a density of 3.0 persons per unit.
- 2.3.3 All residential development will be serviced with municipal water and sewer services.

2.4 Commercial Development

2.4.1 A 28 ha block of commercial development, designated as Comprehensive Commercial (CC) in the Land Use Bylaw, is proposed for a majority of the SE 11 on the east side of the Plan area, immediately east of the proposed residential area. This is to take advantage of the visibility

Land Use Category	SW 11	SE 11	Total	Percent
Gross Developable Area	64.73	64.67	129.40	
Less Highway Right-of-Way	0.0	2.72	2.72	
Net Developable Area	64.73	61.95	126.68	100.0
Residential	33.84	10.22	44.06	34.8
Estate Residential	12.92	0	12.92	10.2
Single Family Residential	20.92	7.74	28.66	22.6
Multi-Family Residential	0	2.48	2.48	2.0
Commercial	0.23	27.69	27.92	22.1
Highway Industrial	0.0	3.97	3.97	3.1
Roadways	14.96	13.90	28.86	22.8
Internal Roads	14.63	13.90	28.53	22.5
Road Widening	0.33	0	0.33	0.3
Utilities	10.42	1.28	11.70	9.2
Storm Pond	7.31	0	7.31	5.8
Public Utility Lots	3.11	1.28	4.39	3.4
Municipal Reserve ¹	5.28	4.89	10.17	8.0
School Site	4.04	4.08	8.12	6.4
Neighbourhood Parks	1.00	0	1.00	0.8
Other	0.24	0.81	1.05	0.8
Dwelling Units (Estate Residential)	79	0	79	
Dwelling Units (SF Residential)	427	158	585	
Dwelling Units (MF Residential)	0	111	111	
Total Units	506	269	775	

Table 3 – Detailed Land Use Area Estimates

afforded by highway frontage, with an additional node south of the school site intended to provide a buffer between future residential development and established industrial uses to the south. Given the nature of the Comprehensive Commercial district, a variety of highway-oriented commercial and office development may be accommodated.

1,518

807

2,325

2.4.2 All commercial and industrial development in the Plan area shall be the subject of a high level of design and landscaping in accordance with County requirements. This is a result of the high degree of visibility that these locations afford, as well as their close proximity to residential development.

Population Estimate (@ 3.0 ppu)

¹ The balance of municipal reserve owing shall be provided pursuant to Section 2.7.

ISL/ Beairsto Lehners Ketchum Engineering Ltd.

2.4.3 All commercial development will be serviced with water and sewer services in accordance with this plan.

2.5 Industrial Development

- 2.5.1 A relatively small area of approximately 4 ha (3% of the Plan area) is designated for highway industrial purposes, and accommodates existing development on the site. Currently designated as RM-2 in the Land Use Bylaw, it is proposed that this site eventually be redesignated to Highway Industrial (RM-4). In order to respond to potential changes in market conditions these lands may be designated as Comprehensive Commercial (CC) without an amendment to the Plan.
- 2.5.2 Given the close proximity of industrial uses to future residential development, no uses shall be permitted that involve the storage, manufacture or processing of hazardous materials. Special attention will have to be paid to the type of industrial use to be located in this area to ensure an effective transition between commercial/industrial development and the residential area.
- 2.5.3 All industrial development will be serviced with municipal water and sewer services in accordance with the provisions of this plan.
- 2.5.4 All future industrial development in the Plan area shall be the subject of a high level of design and landscaping in accordance with County requirements. This is a result of the high degree of visibility that these locations afford, as well as their close proximity to residential development.

2.6 Oil and Gas Activity

- 2.6.1 All oil and gas pipelines in this Area Structure Plan shall be identified and separated from adjacent lots by incorporating them into public utility lots registered to the County of Grande Prairie No. 1.
- 2.6.2 In order to protect the pipeline network from damage, it is recommended that road crossings of pipeline rights-of-way be kept to a minimum.
- 2.6.3 Developers shall submit detailed design drawings to the relevant affected pipeline company prior to construction within the subject development area. Crossing agreements may be required between the developer and the affected pipeline company where crossings of roadways, parking areas and similar features over pipelines occur.
- 2.6.4 All gas wells, facilities and pipelines and associated setbacks shall be identified on all Area Structure Plan land use maps and relevant subdivision plans.

- 2.6.5 Developers shall be required to register caveats on title of all affected lots recognizing the presence of oil and gas activity (i.e. wells and pipelines).
- 2.6.6 The County of Grande Prairie No. 1 is opposed to any further expansion or conversion of oil and gas activity in the Plan area and to the extent that it has jurisdiction, prohibits all future oil and gas activity within the ASP boundaries, particularly sour gas activity. Existing operational wells are hereby recognized but are encouraged to complete activity as soon as possible to limit any future potential conflicts between these well operations and future development in the area.

2.7 Municipal Reserve

- 2.7.1 In accordance with the Municipal Government Act, a maximum of 10% of the Plan area (12.7 ha) may be provided as municipal reserve at the time of subdivision, which is to be allocated in the Plan area as follows:
 - Two neighbourhood parks, totaling 1.0 ha (sizes of 0.34 ha and 0.67 ha), are to be provided in the westerly residential area;
 - A large parcel totaling 8.1 ha is provided in the central portion of the Plan area to accommodate a future regional high school. In the event that the site proposed exceeds Peace Wapiti School Board needs, a portion of the site may be developed for residential purposes as illustrated in Map 4A;
 - Approximately 1.0 ha of land is to be dedicated in parcel form by way of small linear parcels to provide trail linkages throughout the residential area.
- 2.7.2 The balance of the municipal reserve owing (approximately 2.5 ha) shall be provided to the County in land form unless there is a definitive indication that the land for parks and schools is not needed. If it is not needed, then cash-in-lieu will be established as a condition of subdivision approval or deferred to other land owned by the affected owner.
- 2.7.3 All municipal reserve land will be developed to County standards including landscaping, trails and parks equipment as required at the developer's expense.



3.0 TRANSPORTATION AND SERVICING

3.1 Road Network

As illustrated in Map 5, primary access to the Plan area is currently obtained from existing intersections along Highway 43 at 148th and 156th Avenues. Traffic impact assessments will be prepared for Alberta Infrastructure and Transportation and the County at the time of subdivision to determine if improvements to the 148th Avenue intersection is required in the future².

Range Road 62 (108th Street) is proposed to be upgraded to a major collector roadway that will provide a connection to the area's long term regional road network as illustrated on Map 5A, which identifies a broader, long term transportation plan for the entire area north of the City of Grande Prairie. The development of roads in the plan area is consistent with an overall transportation strategy for the area, which includes future highway locations, an arterial road network system linking the highways to future truck routes and land use areas. A major collector system to enable traffic to flow from the local roads to the arterial roads and ultimately to the highways is also indicated. Of particular importance to the County is the preservation and maintenance of the major collector road system that facilitates north-south traffic flow in the Clairmont corridor, and reduces reliance on the Highway 2/43 corridor. It is intended that this system be integrated into the area structure plan.

Internal vehicle circulation is to be accommodated by a road system that has been designed to facilitate a separation of residential and industrial traffic.

- 3.1.1 All roads in the single family residential areas are to be constructed to an urban (paved) standard in accordance with County specifications at the expense of the developer, while all estate residential and industrial roads are to be constructed to a rural (paved) standard. In instances where a proposed road straddles a property line, the cost of road construction shall be shared by both benefiting landowners. Local industrial roads shall provide a minimum right-of-way width of 30 metres. Local residential road rights-of-way will vary between a minimum of 20 metres and 30 metres depending on how surface water run-off is addressed. Industrial collector roads shall have a minimum 40 metre right-of-way.
- 3.1.2 Highway access to the Plan area shall be limited to the highway locations situated on the east side of the Plan area. No direct highway access to individual lots will be permitted, as all lots shall be accessed by the internal road system.
- 3.1.3 Prior to approval of any subdivision in future phases of the Plan area, traffic impact assessments (TIA) will be prepared for the County and Alberta Infrastructure and

² As the 156th Avenue intersection was recently signalized, no upgrades to this intersection are foreseen.

ISL/ Beairsto Lehners Ketchum Engineering Ltd.





Transportation, if required, to determine if the existing highway intersections and other major roads are suitable for the area at "build-out". Specific requirements for completion of the TIA include:

- Identification of intersections to be included in the TIA
- Proposed development layout;
- Development horizons;
- Confirmation of trip generation rates;
- Review of trip distribution assumptions;
- On-site circulation;
- On-site parking layout;
- Access;
- Traffic signal warrants (TAC 2003); and
- Synchro analysis of intersections.
- 3.1.4 Notwithstanding 3.1.3, traffic impact assessments may be requested by the County at the time of future subdivision phases to identify additional potential improvements to all external roadways.
- 3.1.5 Major collector road access is also to be provided at a single point from Range Road 62 (108th Street) on the west side of the Plan area, into the residential area. The primary east-west collector is 146th Avenue, and provides the only direct connection between the residential and industrial areas. North-south industrial traffic is to be accommodated by 102nd Street, while residential traffic is accommodated by two major collectors on the west side of the Plan area. The balance of the network is composed of a series of minor collectors and local roads.
- 3.1.6 Through the subdivision process, additional land shall be dedicated to the County from the developer to provide for the future widening of Range Road 62 (108th Street).
- 3.1.7 In order to facilitate pedestrian and bicycle movement within the Plan area and provide linkages to adjacent areas, a trail system shall be developed that is consistent with the concept identified in Map 5. The developer will be responsible for the construction of all trails required by this plan.
- 3.1.8 The County may impose a transportation levy to assist in paying for future upgrades to the road system in the area.
- 3.1.9 Public transit is not anticipated in the Plan area at this time. However, should transit routes be extended to this area, these routes shall be limited to major collector roads.
- 3.1.10 In the event that future flyovers are required and constructed, they will be the responsibility of the Developer and/or County.

3.2 Sanitary Sewer

The sanitary sewer for the Plan area is serviced by a single drainage basin as illustrated on Map 6. The Plan area will be serviced to the north using the existing sanitary sewer and lift station in the Four Mile Corner Development.

- 3.2.1 All new development in the Plan area will be serviced with municipal sanitary sewer as indicate on Map 6.
- 3.2.2 Existing development with private sewage disposal systems can remain in place until a sanitary sewer system is installed on lands adjacent to the existing development. When the services are available, the existing development must connect to the new system at the owner's expense.
- 3.2.3 Where the development of an area is contingent upon a servicing system to be developed in another area outside the Plan area, the land may not be developed until the servicing is available.
- 3.2.4 Offsite levies will be established in the Plan area to assist in the upgrading of existing municipal infrastructure required to service the development.
- 3.2.5 The County will require new development occurring in the benefiting area to compensate developers in the Plan area for expenses incurred in providing municipal services to the area. There is a \$5,373/ha recovery charge associated with tying into the existing Four Mile Corner system. In addition, lines through the NW11 and NE11 will need to be compensated back to the respective developers for use and oversizing. The entire fee for each quarter is payable upon initial hook-up of either quarter.
- 3.2.6 Development completed on adjacent lands by others shall be completely recoverable once these services are tied into. Contributions for such developments are outlined in Section 4.5. Other contributions may exist once further development occurs.
- 3.2.7 All development is subject to connection fees charged by Aquatera Utilities Inc.

3.3 Water Supply

Water supply for the Plan area will come from Grande Prairie. All areas have been designed to meet or exceed fire flows of 95L/s based on the latest North County Industrial Subdivision Water Master Plan. Excessive development in the SE 11 will necessitate a looping leg crossing Highway 2 at 148th Avenue. Estimated fire flows have been modeled and are illustrated in Map 7. Service schemes are subject to change based on the final Master Plans for servicing the Clairmont area.





- 3.3.1 All development in the Plan area will be serviced with municipal water as indicated on Map 7. Existing private water systems may remain in place until the municipal water system is installed. When the services are available, the existing development must connect to the new system at the owner's expense.
- 3.3.2 If either interim or "build out" fire flows are insufficient to meet FUS guidelines or building code applications then alternative internal pumps and sprinklers may be needed to mitigate risks.
- 3.3.3 The County may establish an offsite levy to assist in improving infrastructure required to service this development.
- 3.3.4 The County will require new development occurring in the benefiting area to compensate developers in the Plan area for expenses incurred in providing municipal services to the area. Section 4.4 outlines existing endeavours in place to compensate developers for existing and future infrastructure.

3.4 Storm Water Management

Storm water from this area is split into two separate drainage basins as illustrated on Map 8.

Drainage basin "A" travels north into the Four Mile Corner storm water management (SWM) system. This basin consists of both a rural and urban collection model. Westerly flows from this basin are to be directed along the north south quarter line and not onto the agricultural lands in the SW 11 prior to development of that quarter.

Drainage from basin "B" travels to the north and west and will ultimately route itself to Bear Creek. The watercourse throughout this basin will be controlled by the use of a SWM pond located on the west side of the SW 11. Topographically this is the lowest point in the Plan area. The pond will need to be designed in detail once development in the SW11 occurs.

Storm water from basin "C" is captured with an urban model of underground collection. Development in this area will need to adhere to construction and design standards of an urban system. Drainage travels to the southwest of the NW 2 where a SWM pond will be utilized to control the storm water. Interim storm water management measures may need to be developed to accommodate earlier development of lands in the SE 11. Discharge from this basin will travel west along an existing drainage corridor.

Basin "D" is almost completely composed of existing development and drainage patterns. Drainage from this area travels south through an existing watercourse and works its way through the SE 2, which is south of the Plan area. Future storm water management will need to be incorporated in plans developed for those more southerly lands to deal with the run-off from these lands.



- 3.4.1 Storm Water Management is required for quantity and quality control. Quantity control is required to reduce the potential impacts of urban storm water run-off on drainage ditches and watercourses (i.e. higher rates of erosion), and limit the potential for flooding on developed lands during major storm events. Quality control is required to mitigate any potential for environmental contamination of nearby bodies of water.
- 3.4.2 It is estimated that costs to upgrade the SWM pond and associated oversizing of culverts will be approximately \$105,000. With a benefiting area of approximately 236 ha this results in a recovery of \$442/ha. These costs are subject to reassessment in the future once final design details, actual costs and definable benefiting areas are more accurately ascertained.
- 3.4.3 Details pertaining to the sizing of pipe for underground collection, approaches and road crossings as well as drainage patterns are detailed in Map 8. Modifications may need to occur in the detailed design at the subdivision stage to reflect actual lot grading and configurations. A detail of the storm ponds for sizing and costing will need to be undertaken prior to the first phase of subdivision approval for drainage into the respective stormwater management facilities to assess recoveries and timing.
- 3.4.4 A regional storm water drainage study will need to be undertaken in conjunction with approvals of initial subdivisions in the area. This study will need to assess roads, approaches, and overland flow during the subdivision stages to allow for major events to occur without flooding private property. Drainage basin flows will need to be retained to predevelopment flows after development has occurred. If no study is available subdivision will be handled on a quarter by quarter basis.
- 3.4.5 Ditches, public utility lots, drainage easements and/or drainage caveats may be required as illustrated in Map 8 to allow for proper drainage of water. Any lands above the 1:100 year storm event may be considered as municipal reserve near a storm water management facility.
- 3.4.6 The County may establish an offsite levy to assist in improving infrastructure required to service this development.
- 3.4.7 The County will require new development occurring in the benefiting area to compensate developers in the Plan area for expenses incurred in providing municipal services to the area. Section 4.5 outlines existing endeavours in place to compensate developers for existing and future infrastructure.
- 3.4.8 Site specific storm water management reports shall be submitted to the County prior to development permit approval.

3.5 Shallow Utilities

- 3.5.1 All shallow utilities (natural gas, power, telephone) are to be extended into the Plan area by the individual franchise holders as required.
- 3.5.2 Shallow utilities may be located outside road rights-of-way in easements registered in the name of the County of Grande Prairie No. 1.
- 3.5.3 Any overhead power lines located adjacent to residential areas are to be installed underground at the Developer's expense.
- 3.5.4 ATCO Pipelines presently has a high pressure gas line that bisects the east half of the Plan area in a north-south direction. Any development will require that the line be moved or accommodations be made in the development pattern to ensure that no buildings are constructed over these lines. All appropriate crossing agreements are to be in place with ATCO Pipelines prior to constructing parking lots over this line. Crossings are to be constructed according to ATCO and County specifications.

3.6 Lot Grading

- 3.6.1 A grading plan for each subdivision will be prepared by the Developer in accordance with County standards, prior to approval of each subdivision plan within the Area Structure Plan boundary, with the intent that all future building projects conform to the grading plan. The grading plan is intended to ensure that surface drainage from all lots is directed to the roadside ditches and storm retention ponds as provided in Section 3.4 and to ensure that all new construction proceeds in a manner consistent with that intent.
- 3.6.2 Lot grading plans shall be submitted to the County prior to development permit approval.

4.0 IMPLEMENTATION

4.1 Phasing

The proposed timing of development in the Plan area will be dependent on market conditions and the logical extension of municipal services. A tentative phasing plan is proposed on Map 9.

4.2 Proposed Zoning

Proposed zoning for the Plan area is identified on Map 10. The areas slated for residential development will be zoned under the Rural Estate (RE), Rural Residential (RR-2), and High Density Residential (HDR) Districts of the Land Use Bylaw. The industrial areas will be zoned under the Highway Industrial (RM-4) District, and the commercial site as Comprehensive Commercial (CC). The school site will be designated as Limited Institutional and Recreation (L-IR). All zoning changes will be made in advance of subdivision approval³.

4.3 Subdivisions and Development

- 4.3.1 All developers shall be required to enter into development agreements with the County and Aquatera Utilities Inc. as a condition of subdivision approval. The matters to be included in these agreements will include but not be limited to the provision of roads and municipal services, and the payment of off-site levies. The agreements will also deal with issues related to benefiting areas.
- 4.3.2 Detailed engineering drawings and specifications for roads, water, sanitary sewer, and storm drainage shall be prepared by the developer and approved by the County and Aquatera Utilities Inc. prior to subdivision approval on the subject lands.
- 4.3.3 The lot sizes and yields identified in this Plan are conceptual and may be subject to revision at the time of survey. An amendment to this Plan will not be required to accommodate minor design changes.
- 4.3.4 The resubdivision of lots in the Plan area may be supported without amendment to the Plan provided that the resulting lot sizes meet the minimum requirements of the Land Use Bylaw, and the capacity of servicing systems is not negatively affected. Where possible, buildings should be sited in a way that allows for the future resubdivision of lots.

³ Existing development in the southeast portion of the Plan area fronting onto Highway 43 is currently zoned RM-2. Redesignation of these lands to RM-4 is recommended to reflect the uses that are present and the highwayfrontage location of the lands in question.

ISL/ Beairsto Lehners Ketchum Engineering Ltd.





4.4 Benefiting Areas

- 4.4.1 Where municipal infrastructure is developed that provides a benefit to lands outside of the Plan area, the County will assist in collecting a portion of the costs of the infrastructure from the said lands that benefit from the infrastructure at the time the lands that benefit initiate subdivision or development activities. A summary of applicable fees and levies is provided in Table 4, with benefiting areas illustrated in Map 11. These costs are subject to reassessment in the future once final design details, actual costs and definable benefiting areas are more accurately ascertained.
- 4.4.2 The efforts to collect costs from benefiting areas will expire within 20 years of the initial approval of this Plan. Developers who develop in a particular quarter will be responsible for the entire contribution of their costs and costs incurred by other developers that benefit their quarter at the time of first subdivision. Costs incurred by the County are to be recovered on a per hectare basis, or other cost recovery mechanism acceptable to the County.

4.5 Levies

- 4.5.1 All levies identified in the plan shall be collected at the time of subdivision.
- 4.5.2 In addition to the levies identified in this plan, developers will be required to pay a connection fee to Aquatera Utilities Inc.



Infrastructure Development	Areas	Rate ⁵
Sanitary Main through NW 11	L	\$243,995
Oversizing Sanitary Main through NW 11	S	\$442/ha
Sanitary Main through NE 11 – 102 nd	D	\$29,852
Four Mile Corner Lift Station and Upgrade ⁶	A,B,C,D,E,G,H,K,L,M,N,S	\$5,373/ha
Highway 2 (100 th Street) Water Crossing-156 th Avenue ⁹	A,B,C,D,E	\$36,522/qtr
Highway 2 (100 th St) 156 th Avenue Intersection Upgrade ⁹	A,B,C,D,E	\$25,917/qtr
156 th Avenue Road Construction ⁹	B,C	\$140,091/qtr
Water Main on Service Road south of 156th Avenue ⁹	В	\$43,844
Highway 2 (100 th Street) Water Crossing-148 th Avenue	A,B,E,O,P	\$56,383/qtr
Regional Storm Pond Contribution into NW 11	B,C,D,M,Q,R	\$435/ha
Regional Storm Pond Contribution into SW 11	G,L,N,T	TBD ⁷
Regional Storm Pond Contribution into NW 2	E,J,P	TBD ¹³
Regional Storm Pond South of Plan Area	0	TBD ¹³
Levies or Secondary Contributions ⁸		
Clairmont Sanitary Lagoon – Levy ⁹	All areas	See latest bylaw
Transportation Levy ¹⁰	All areas	See latest bylaw
Aquatera Water Fee ¹¹	All areas	Function of
		Service
Aquatera Sanitary Fee ¹⁷	N,O,P	Function of
		Service

Table 4 – Levies and Endeavours to Assist⁴

ISL/ Beairsto Lehners Ketchum Engineering Ltd.

⁴ Endeavours to assist shall be payable at the first time of subdivision in a quarter for the entire quarter.

⁵ Value of the infrastructure development could change based on actual costs of construction and design implications. Some costs may be up fronted by developers and recovered at a later date.

⁶ These costs are identified in the Four Mile Corner Phase 1 servicing agreement.

⁷ TBD (to be determined) costs shall be calculated prior to the first subdivision draining into the respective ponds.

⁸ Secondary contributions are those costs above what is required to pay for the existing infrastructure but are needed to pay for future upgrades and expansion. These numbers could change after a sanitary master plan is completed.

⁹ The Clairmont Sanitary Lagoon Levy is a fee that will need to be determined to offset the cost of future sewage lagoon and force main upgrades along Township road 722. This is a levy paid for at the building permit stage.

¹⁰ This levy is charged to collect for regional roads. It shall not apply if regional roads are being constructed by the developer.

¹¹ This fee is charged at the building permit stage.