BY-LAW NO. 2747 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 West Kehn-Althen Area Structure Plan for W ½ 14-72-6-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 "ALTHEN WEST AREA STRUCTURE PLAN BY-LAW".
- 2. That the Althen West Area Structure Plan document is attached to this by-law as an appendix and forms part of this by-law.
- 3. That this by-law shall take effect on the date of its final passage by Council.

READ A FIRST, SECOND AND BY UNANIMOUS CONSENT OF ALL COUNCILLORS PRESENT, A THIRD AND FINAL TIME THIS 25 DAY OF ARR., A.D. 2005.

RFFVF

COUNTY ADMINISTRATOR

WEST KEHR-ALTHEN AREA STRUCTURE PLAN

(W¹/₂ 14-72-6-W6M)

Bylaw No.: 2747 Adopted: April 25, 2005

Prepared by:



In association with

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Beairsto Lehners Ketchum Engineering Ltd.

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1.0 INTRODUCTION

1.1 Purpose of Plan

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

The primary objective of this Plan is to provide a framework for the development of the subject lands for industrial purposes in a manner that is consistent with the goals, objectives and policies of the County of Grande Prairie No. 1. 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 located approximately 2.4 km north of the City of Grande Prairie, 800m west of the intersection of Highways 2 and 43 (Four Mile Corner) as illustrated in Map 1. The Plan area consists of a section of land totaling approximately 130 ha as outlined in Table 1 below. The policies of this plan will apply to this area.

Table 1 – Plan Area Composition

Legal	Owner	Area (ha)
NW 14-72-6-W6M SW 14-72-6-W6M	Grant Althen Murray Kehr	64.7 57.5
Road Plan 042-0234		7.2
Total		129.4

The site is bounded to the south by Township Road 722 (Future Highway 43) and to the west by Range Road 62. The recently completed Four Mile Corner interchange is located ½ mile east of the Plan area. The Plan area is surrounded by agricultural lands to the north, south and west. The Precision Industrial Park, currently under development and includes the County office, is situated on the adjacent lands to the east.

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1.3 Existing Conditions

The Plan area is currently in agricultural production. The land in question has a Canada Land Inventory rating of 100% 2c.

A gravel service road is located along the south boundary of the SE 14 and a large borrow pit is located on the NE 14, both of which were constructed as part of the Four Mile Corner interchange. Lands to the east of the Plan area are traversed by a high pressure gas line that runs parallel to Highway 2.

The Plan area is characterized by a large hill that crests in the north end at an elevation of 693 m as illustrated in Map 3. From this point, a small portion of the Plan area drains to the northeast (1.3% grade), while the majority of the area drains to the south, collecting in a depression at the south end of the Plan area. The north-south elevation change falls to 679m at this point, or 1.6% slope (14m).

There is very little native vegetation in the Plan area, with treed areas limited to the depression at the south end.

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. The content of this ASP is consistent with this policy direction.

1.4.2 County of Grande Prairie Land Use Bylaw

A majority of the Plan area is currently designated as Agricultural (AG) in the County's Land Use Bylaw. The exception is NE 14 which is zoned as Highway Industrial (RM-4) and Restricted Rural Industrial (RM-2). In order to facilitate the development of these lands for industrial purposes, it is intended that the Plan area be rezoned to the appropriate districts as a prerequisite to subdivision.

1.4.3 Clairmont Planning and Servicing Areas Study

The Clairmont Planning and Servicing Areas Study establishes logical area structure plan and servicing areas for lands in the vicinity of Clairmont. This study was prepared in order to address broad planning and servicing opportunities for future development around Clairmont.

This Area Structure Plan corresponds to a portion of planning area P5 as defined in the Study.

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MAP 2 EXISTING CONDITIONS





2.0 DEVELOPMENT CONCEPT

2.1 Goals of the Plan

The West Kehr-Althen 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 economic development of the Clairmont area through the development of the plan area for industrial and commercial purposes.
- 3. To establish an efficient and economical development concept for the Plan area.

2.2 Land Use Concept

A detailed breakdown of land uses proposed for the Plan Area is provided in Table 2. The overall development concept proposed for the area 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.

Land Use Category	NW 14	SW 14	Total	Percent
Gross Developable Area	64.7	64.7	258.8	
Less Road Plans	0.0	(7.2)	(7.2)	
Add Service Road Closure	0.0	2.2	2.2	
Net Developable Area	64.7	59.7	124.4	100.0
Industrial	40.2	46.5	86.7	69.7
Highway Industrial	11.0	16.7	27.7	22.2
General Industrial	29.2	29.8	59.0	47.5
Roads	9.7	5.8	15.5	12.5
Storm Pond	4.4	0.0	4.4	3.5
Municipal Reserve	10.4	7.4	17.8	14.3

Table 2 - Land Use Area Estimates

2.3 Industrial Development

2.3.1 As noted in Table 2, a mixture of highway-oriented commercial and general industrial development is proposed, the location of which is intended to take advantage of exposure to highway traffic and optimize opportunities for transition between uses.

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- 2.3.2 General industrial development, totaling approximately 59 ha, is proposed for the Plan area. Uses encouraged in this area are those that are characteristic of other industrial parks in the vicinity, and would be administered under the Rural Medium Industrial (RM-2) District of the Land Use Bylaw. Lot sizes designated for this use are intended to average approximately 1.9 ha based on the layout illustrated in Map 4.
- 2.3.3 Given the proximity of the Plan area to the future Highway 43 alignments, it is proposed that those lands located along the south boundary of the Plan area be designated as Highway Industrial (RM-4) in the Land Use Bylaw. This comprises approximately 17 ha (13%) of the Plan area. It is the intent of these Districts that development be subject to a high level of design and landscaping given the high degree of visibility that these locations afford.
- 2.3.4 Highway Industrial zoning is also proposed for the north end of the Plan area adjacent to Bauman Road. This is recommended as a means of minimizing the potential for detrimental impacts on residential development proposed to the north, by providing a transition from general industrial development in the balance of the Plan area. In order to respond to potential changes in market conditions, however, these lands may be designated as Comprehensive Commercial (CC) without an amendment to this Plan. The land affected totals approximately 11 ha.

2.4 Municipal Reserve

- 2.4.1 In accordance with the Municipal Government Act, a maximum of 10% of the Plan area (12.4 ha) may be provided as municipal reserve at the time of subdivision. It is proposed that the municipal reserve owing be allocated as follows:
 - A large parcel totaling approximately 17 ha is proposed at the centre of the Plan area, situated adjacent to the storm pond for amenity value¹, to be developed as a regional recreation facility²;
 - A 1m wide strip, totaling approximately 0.1 ha is to be provided adjacent to the south boundary of 84th Avenue (Bauman Road) to deter direct access to the roadway;
 - Approximately 0.7 ha of land is to be dedicated in parcel form by way of a 15m wide corridor to accommodate a trail linkage extending from the regional park to future residential lands to the north.

It should be noted that the land required for this site exceeds the amount of MR that is potentially available from the lands in which they are located. Therefore, it will be necessary to apply cash-in-lieu or reserve deferral from adjacent lands outside the Plan area in order to assemble the required land;

- 2.4.2 All municipal reserve will be graded and seeded to County standards at the developers' expense.
- 2.4.3 The timing of the development of the municipal reserve areas will be at the discretion of the County.

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¹ The proposed 17 ha municipal reserve parcel excludes the area of the storm pond itself.

 $^{^2}$ The owner of the S $\frac{1}{2}$ 14 has indicated that a park with an emphasis on local history may be desirable. Potential development for the site could be sports fields, ball diamonds, arena, campground, and a playground.

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3.0 TRANSPORTATION AND SERVICING

3.1 Road Network

As illustrated in Map 5 access to the Plan area is to be obtained from Highway 2 through the extension of Bauman Road (84th Avenue) across the north boundary of the Plan area. A second access point is proposed from the future Highway 43 at the southwest corner of the Plan area at Range Road 62 (108th Street).

Map 5A identifies a broader, long term transportation plan for the entire area north of the City of Grande Prairie. The map indicates 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.

Range Road 62 currently intersects with Township Road 722, which is to eventually be developed as the westerly extension of Highway 43. All future planning and design approvals will take this into account to ensure that sufficient right-of-way is acquired for the ultimate design of the Highway 43 corridor. Traffic impact assessments will be prepared at the time of subdivision to determine if improvements to these intersections are required in the future.

Based on previous cost assessments it may be prudent to assess a levy to recover the cost of upgrading the range road. It is suggested that all quarters adjacent to Range Road 62 be assessed a levy of \$3750/ha to construct the improvements. This would include all of the westerly quarters. Once the intersection of Bauman Road and Highway 2 is determined a cost recovery mechanism could be developed to off-set future costs.

- 3.1.1 All roads are to be constructed to County specifications at the expense of the developer. In those instances where a proposed road straddles a property line, the cost of road construction shall be shared by the affected landowners.
- 3.1.2 All roads are to be paved and constructed in accordance with County specifications for road construction, with the exception of Bauman Road (the main east-west road across the north end of the Plan area) which is to be accommodated as an arterial road in a 50 m right-of-way.
- 3.1.3 All lots shall be accessed by the internal road system. No direct highway access will be permitted. Arterial access will be restricted. No highway frontage service roads are proposed for the Plan area, and the existing service road located in the south boundary of the Plan area is to be closed and replaced by the internal road system.

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The drainage basin includes a significant amount of land to the north and south, which causes many of the pipes in the plan area to be oversized, occasionally over trenched and the lift station made larger. The location of the lift station will necessitate an agreement between landowners in the form of rightsof-way and cost sharing arrangements to make this location effective. A preliminary estimate indicates that the cost of the fore mentioned items is approximately \$1.35 million (2003 dollars). The benefiting area is approximately 442 Ha. The benefiting area is identified on Map 6A. A levy to recapture the costs of the installation would be approximately \$3060/ha in 2003 dollars. A policy to recover costs will need to be established prior to the construction of the lift station. Developer costs should be entirely recoverable from each upstream quarter at the time of initial subdivision.

Staging of the lift station upgrade requirements may be necessary for operational and pump efficiency purposes.

A portion of the planning area is presently included in the Clairmont off-site levy Bylaw No. 2657. It would likely be prudent to review the existing off-site levy by-law and only include the relevant infrastructure. This would include upgrading the Clairmont sewage lagoon and perhaps a small portion of a larger future Clairmont force main. Should a new levy be created it should include the new lift station levy proposed as part of this ASP with the Clairmont upgrades to create a single chargeable levy.

In lieu of the immediate installation of the regional lift station for the entire area a temporary lift station could be constructed, as well as a force main along Range Road 62, which would ultimately tie into the force main, which exists along township road 724.

- 3.2.1 All development in the plan are shall be serviced with municipal water and sanitary sewer services. No private sewage systems will be allowed.
- 3.2.2 Offsite levies will be established in the plan area to assist in the upgrading of existing municipal infrastructure required to service the development.
- 3.2.3 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.
- 3.2.4 The sanitary sewer system will be sized to accommodate the area identified on Map 6A.

3.3 Water Supply

Water for this plan area will come from crossover connections to water access points on the east side of Highway 2. A preliminary analysis shows there are sufficient flows to accommodate the 1200 IGPM (95 LPS) required by the County, if sufficient cross connections are installed. The flows are sufficient on the east end but become progressively weaker as one moves to the west. Looping at a minimum of two locations is recommended with further developments into the plan area to create an affective and redundant system.

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A cross connection within Crossroads provides this opportunity. To increase the flows on the westerly portions it is required that a third cross connection 0.8 Km north of the County Office be installed. Also improvements to the feeder line from the Clairmont Pumphouse to a location in Northgate would increase flows in the range of another 20 L/s.

Map 7 depicts the proposed location and sizings of the future water system. To maintain consistency, all tie-ins across Highway 2 should be treated as benefiting larger areas, the costs for which will be shared and recovered through levies that are assessed across that broader benefiting geographical area.

- 3.3.1 All development in the plan area will serviced with a municipal water system as illustrated on Map 7.
- 3.3.2 If an additional storage reservoir and pumping system is needed north of this Plan area that meets location criteria established by the County, the costs associated with constructing this shall be recovered through off-site levies.

If flows are insufficient to meet FUS guidelines or building codes then alternative internal pumps and sprinklers may be needed to mitigate risks.

3.4 Storm Water Management

Storm water management shall be 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.

Storm water for the plan area drains to three distinct watercourses as depicted in Map 8. In the northeast (Drainage Basin B), the water is directed to the Highway 2 ditch and then directly downstream into Clairmont Lake. It is the intent of this ASP to use the lake for retention purposes. Ducks Unlimited operates a weir system at the outfall of the lake which is successfully being used to regulate flows and maintain lake levels. This has proven to be an acceptable method in adjacent areas for mitigating the impacts of increased flows on the downstream wetlands. The combination of a natural wetland that acts as an environmental cleansing agent as well as the incorporation of a grassed drainage ditch proves to be quite effective in providing water quality management as well as quantity management. Should Alberta Environment require further quality management a wet pond at the last leg of the drainage course prior to the water entering the lake would be required. Map 8A indicates the location and contributing areas to such a pond. The need for such an auxiliary pond would be particularly true if the County changes its design philosophy from overland drainage to an underground storm water collection system. Funds to recover the cost of such a pond would be best suited to a levy structure. This could be assessed on lands that propose developments with curbs and an underground storm drainage collection system. It would also include changes from industrial ditch system to an urban cross-section.

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It is a requirement that additional culverts across Highway #2 and the downstream railroad be installed once development begins to change from a rural to urban landscape. A preliminary estimate indicates that the cost of the fore mentioned items is approximately \$137,000. Assessed on a benefiting area of 90.4 ha a tentative levy would be approximately \$1500/ha. A policy would need to be created to administer this recovery.

The County may implement a review process at the time of development permit to ensure businesses wishing to locate within any of the drainage basin do not impose any undo or unreasonable environmental risk to the area as part of their normal operations. Should there be a suspicion of risk it the County will require site specific on-site storm water management to minimize any spill related incidents. Based on the nature of the zoning only certain areas will be at elevated risk of this occurring.

A less significant drainage system is that of Drainage Basin "E". This area is small and was accommodated in the Crossroads development. No additional considerations are required for this section.

The last and largest drainage basin is "A". This basin works its way slowly southward and onto multiple quarters to the south. Ultimately this watercourse takes itself to Bear Creek. This poses a more difficult problem in that predevelopment flows are more critical than in the other basins. Fortunately, as part of the Four Mile Corner overpass construction two large ponds were created to supply fill for that project. These ponds were prudently placed within the downstream watercourse of this basin and as such will act effectively as SWM ponds for this basin. This will also prove effective in minimizing downstream approach and road culverts, which are required. Accommodating these flows, however, will require somewhat of a concerted effort to ensure proper drainage patterns are maintained. This will likely mean the provision of PULs or drainage easements to accommodate flows. In Map 8 the location of PULs and ponds are shown. The cost of converting these ponds is relatively small. These storm ponds shall be brought up to County standards prior to subdivision approval for Phase 2 of this Area Structure Plan. The costs associated with their expansion/conversion may be recovered through "Endeavor to Assist" agreements at the subdivision and development stages or by implementing a levy structure. Map 8A indicates the benefiting areas for any such improvement contributions.

- 3.4.1 Storm drainage will be provided as indicated on Map 8.
- 3.4.2 The storm water pond will be designated as a Public Utility Lot. The land around the top of the pond may be used for Municipal Reserve.
- 3.4.3 A storm drainage master plan will be prepared for the area prior to beginning of Phase 2. The plan will identify the development standards for the storm pond and all required drainage passageways that need to be protected and the timing of the required improvements. The improvements must be done no later than the time the land is accepted as Municipal Reserve. The plan must identify future improvements in the planning area as well as future downstream improvements on other lands.

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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 ATCO Pipelines presently has a high pressure gas line that bisects the easterly quarters 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.

3.6 Lot Grading

- 3.6.1 A grading plan will be prepared by the Developer in accordance with County standards and the Storm water management drainage master plan, prior to approval of any subdivision plan within the Area Structure Plan boundary, with the intent that all future building projects conform to the grading plan.
- 3.6.2 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.

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. The overall phasing plan is proposed on Map 9.

4.2 Proposed Zoning

Proposed zoning for the Plan area is identified in Map 10. The industrial areas will be zoned under the Rural Medium Industrial (RM-2) and Highway Industrial (RM-4) Districts. The commercial area will be zoned Comprehensive Commercial (CC). All zoning changes will be made in advance of subdivision approval.

4.3 Subdivision and Development

- 4.3.1 All developers shall be required to enter into development agreements with the County 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 development agreements will also deal with the issue of 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 altered at the time of subdivision without requiring an amendment to this Plan.
- 4.3.4 The resubdivision of lots in the Plan area may be supported 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.

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.
- 4.4.2 The efforts to collect costs from benefiting areas will expire within 20 years of the initial approval of this plan.

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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 may be required to pay a connection fee to Aquatera Utilities Inc.

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