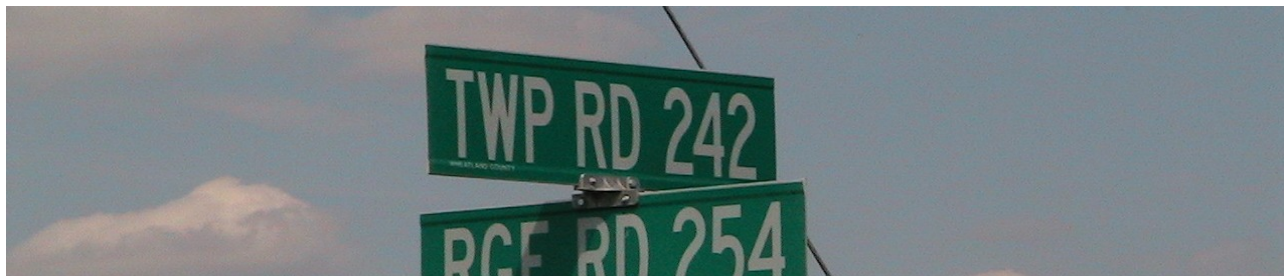

THIESSEN AREA STRUCTURE PLAN & SUBDIVISION APPLICATION

PREPARED FOR WHEATLAND COUNTY

FEBRUARY 2007



PLANNING PROTOCOL INC. 3916 – 1 STREET NE CALGARY, ALBERTA T2E 3E3

WHEATLAND COUNTY
PROVINCE OF ALBERTA
BYLAW 2007-54
(THIESSEN INDUSTRIAL PARK AREA STRUCTURE PLAN 2007-004)

Being a bylaw of Wheatland County for the purpose of adopting an Area Structure Plan to provide a comprehensive framework for development of the Thiessen Industrial Park for Industrial/ Commercial Land Uses within Lots 1 - 3, Block 1, Plan 9611500 containing 15.57ha. (38.47ac.)+/- within the NE ¼ Section 8-24-25 W4M.

WHEREAS notification of this By-law was circulated to area landowners within 1 mile and it was advertised in the Strathmore Standard two (2) weeks prior to the public hearing date.

WHEREAS a Public Hearing was held on July 3, 2007 at the Wheatland County office.

FARTHING MOVED first reading of Bylaw 2007-54, on May 15, 2007, this being a by-law the purpose of adopting an Area Structure Plan to provide a comprehensive framework for development of the Thiessen Industrial Park for Industrial/ Commercial land Uses within Lots 1 – 3, Block 1, Plan 9611500 containing 15.57ha. (38.47ac.)+/- within the NE ¼ Section 8-24-25 W4M.

Carried.

FARTHING MOVED second reading of Bylaw 2007-54, on July 3, 2007 and it was

Carried.

KOESTER MOVED third and final reading of Bylaw 2007-54, on July 3, 2007 and it was

Carried.

Ben Armstrong
Reeve

Jennifer Deak
County Manager

TABLE OF CONTENTS

1.0 Introduction.....	5
1.1 Purpose.....	5
2.0 ASP Objectives.....	6
3.0 ASP Area.....	7
3.1 ASP Area Location	7
3.2 Definition of ASP Area.....	7
3.3 Boundaries of ASP Area.....	7
3.4 Current Land Use.....	8
3.5 Site Context and Surrounding Land Use	8
4.0 Physical Site Features.....	10
4.1 Topography	10
4.2 Subsurface Conditions	10
4.3 Hydrology	10
4.4 Vegetation.....	11
4.5 Existing Structures.....	11
4.6 Environmental Considerations.....	11
4.7 Historical Considerations.....	12
4.8 Endangered Wildlife Species.....	12
4.9 Wetlands	12
4.10 Oil and Gas Infrastructure.....	12
5.0 Proposed Land Use	14
5.1 Light Industrial.....	14
5.2 Emergency Access	15
5.3 Road Widening	15
5.4 Municipal Reserve	15
5.5 Oil and Gas Infrastructure.....	15
5.6 Wetlands	16
6.0 Subdivision and Development Sequence.....	17
6.1 Subdivision Statistics	17
6.2 Water Resources	17
6.3 Phasing.....	18
7.0 Industrial Design.....	19
7.1 Building Design	19
7.2 Landscape Guidelines	19
8.0 Servicing.....	21
8.1 Transportation.....	21
8.2 Water Supply	22

8.3 Sanitary Sewage Disposal	22
8.4 Stormwater Management	23
8.5 Garbage Disposal	23
8.6 Light Standards	23
8.7 Private Utilities	24
9.0 Emergency Services	25
9.1 Fire	25
10.0 Implementation	26

FIGURES

Figure 1:	Regional Location Map
Figure 2:	ASP Boundaries and Aerial Photo
Figure 3:	Contour & Surrounding Land-use Map
Figure 4:	Proposed Land-use Map
Figure 5:	Proposed Conceptual Plan
Figure 6:	Tentative Plan of Subdivision (Phase One)
Figure 7:	Road Cross-section

APPENDICIES

Appendix I:	Letter from Pioneer Land and Environmental Services
Appendix II:	Letter from Historical Resources Management
Appendix III:	Letter from Ducks Unlimited
Appendix IV:	Water Reconnaissance Report
Appendix V:	Site Photos
Appendix VI:	Public Consultation

SUPPORTING REPORTS

- Phase I Environmental Site Assessment, GTech Earth Sciences Corp.
 - Preliminary Stormwater Management Plan, Bel MK Engineering
 - Geotechnical Investigation, GTech Earth Sciences Corp.
 - Transportation Impact Assessment, Marshall Macklin Monaghan
 - Historical Resources Overview, Historical Resource Management
 - Landscape Plan, Planning Protocol Inc.
-

1.0 Introduction

The Thiessen Area Structure Plan (ASP) was prepared at the request of Wheatland County. This plan provides a framework for the subsequent subdivision, and development of Plan 9611500 Block 1 Lots 1-3. Preparation of this ASP has been guided by the Wheatland County Land-use Bylaw (Bylaw 2006-02), West Highway 1 ASP and the Wheatland County Municipal Development Plan (MDP).

1.1 Purpose

The Thiessen ASP provides a comprehensive land use rationale for the redesignation of 15.56 hectares (38.47 acres) comprising Plan 9611500 Block 1 Lots 1-3. The policies set forth in the ASP are intended to guide the development of the subject lands for light industrial land-use, emergency access and the supporting services and infrastructure. Specific direction is provided to achieve the objectives of this ASP.

2.0 ASP Objectives

- 2.0.1 To establish a rational policy framework for the redesignation, subdivision, and development of the ASP area for light industrial development, and the supporting services and infrastructure, in accordance with the Wheatland County LUB (Bylaw 2006-02), West Highway 1 ASP and the Wheatland County MDP.
- 2.0.2 To provide a contextual basis to address development constraints and opportunities by describing the physical characteristics within the ASP area and the surrounding lands.
- 2.0.3 To institute design guidelines that assist in establishing a built form that is in character with the expected development in the West Hwy 1 ASP area, and minimizes conflicts between different land uses.

3.0 ASP Area

3.1 ASP Area Location

The subject lands (or ASP area) are located 1.6 km (1 mi.) west of the Town of Strathmore, south of Hwy 1 (Trans-Canada Hwy). The property is 15.57 hectares (38.47 acres) within Plan 9611500 Block 1 Lots 1-3, which is located along Range Road 254, but fronting onto an east-west service road (Township Road 242) parallel with Hwy 1. The regional location of the property is shown in **Figure 1 – Regional Location**.

3.2 Definition of ASP Area

The Thiessen ASP area is 15.57 hectares (38.47 acres), and is comprised of three titled parcels of land. The legal description of this title is paraphrased as follows:

Parcel 1

PLAN 9611500
BLOCK 1
LOT 1
EXCEPTING THEREOUT ALL MINES AND MINERALS
AREA: 7.41 HECTARES, (18.31 ACRES) MORE OR LESS

Parcel 2

PLAN 9611500
BLOCK 1
LOT 2
EXCEPTING THEREOUT ALL MINES AND MINERALS
AREA: 4.08 HECTARES, (10.08 ACRES) MORE OR LESS

Parcel 3

PLAN 9611500
BLOCK 1
LOT 3
EXCEPTING THEREOUT ALL MINES AND MINERALS
AREA: 4.08 HECTARES, (10.08 ACRES) MORE OR LESS

3.3 Boundaries of ASP Area

The Thiessen ASP area is bounded by agricultural quarter sections (balance of NE 8-24-25 W4M, NW 8-24-25 W4M) to the south and south west, by a service road (Township Road 242)

to the north, by an empty quarter-section (with house) to the west, and Range Road 254 to the east. See **Figure 2 – ASP Boundary** for the boundaries of the property and ASP area.

3.4 Current Land Use

The Thiessen ASP area is designated General Agriculture (GA) by the Wheatland County Land-use Bylaw. The purpose of the GA district is to provide for the conservation of extensive areas of land for Agricultural Industry. The land use district is shown in **Figure 3 – Surrounding Land-use Map**.

The property currently has four rectangular industrial buildings on the site, which are used for industrial activities. Three mobile homes are presently situated within the area where the old CPR ROW used to intersect across the property. A gas wellhead (operated by Encana) is located near the eastern boundary of the ASP area. Several signs advertising off-site businesses are situated north of the wellhead.

3.5 Site Context and Surrounding Land Use

A variety of land uses surround the subject lands, and as shown in **Figure 3 – Surrounding Land-use Map**:

North – North West

The parcels directly north of the ASP area and Hwy 1 are agricultural quarter sections. One house faces the ASP area from across the highway, though covered by bushes.

Northeast

Northeast of the plan area are residences on large acreage properties, each with assorted secondary buildings. Cora-Lynn Drilling and Auction Stockyards are businesses situated northwest of the site.

West

The land immediately west of the ASP area is a quarter section with some subdivision, but most of the area is under agricultural cultivation. The northeast portion of the quarter section has two mobile homes situated on it. The old CPR right-of-way still exists, and intersects the quarter section in a NE – SW orientation. A large shallow lake and a natural gas well-head are also featured in the southern portion of the quarter section. It is expected that the parcel due west of the ASP area will be subdivided into an industrial subdivision sometime in the future.

South – South East

Thiessen

Wheatland County

PLAN SHOWING

ASP BOUNDARY &

AERIAL PHOTO

AFFECTING

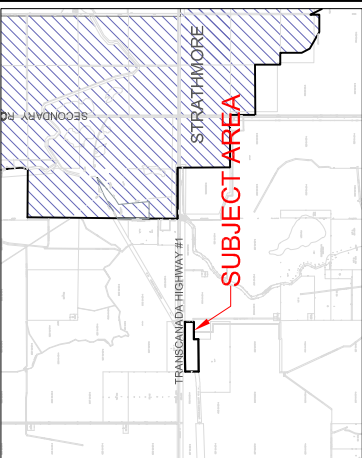
Plan 9611500 Block 1

Lots 1-3

SCALE: 1:3000



ALL DIMENSIONS SHOWN ARE IN METRES
AND THEREOF SUBJECT TO CONFIRMATION
IN FIELD AT LEGAL SURVEY STAGE



LEGEND

SUBJECT AREA -



Figure 2

DRAWN BY	DATE		FILE NO.
	T. SANTIANO	FEB 20/07	
CHECKED BY	DATE		P
	R. POTRIE	FEB 20/07	
PLANNING PROTOCOL INC.			(403) 230-5522
			(403) 230-0335
			FAX: E-MAIL: r.potrie@planningprotocol.com
			3816-1st STREET N.E. CALGARY ALBERTA T2E 3E3 WEBSITE: www.planningprotocol.com

The land immediately south of the plan area is the balance of NE 8-24-25 W4M, containing two parcels. One 18.59 acre parcel fronting onto Range Road 254 has a small house, and is permitted to store automotive vehicles on his property. The other balance property on the quarter section is under agricultural cultivation, but also contains large shallow lakes due to poor drainage.

East

Due east of the ASP area, across Range Road 254, is a full quarter-section used for agricultural purposes. This parcel features some slopes between 5% - 10%, a watercourse and a gas well-head. An access to Hwy 1 is situated near the central portion of the northern border of this quarter-section, from off Township Road 242.

4.0 Physical Site Features

4.1 Topography

The Thiessen ASP area is characterized by a low relief landscape, thus the parcel is generally flat. The highest portion of the parcel is near the eastern and western boundaries of the ASP area. **Figure 3** presents the natural topography found on the site. **Figure 2** presents an aerial photo of the subject lands. The topography can also be seen in **Appendix V – Site Photos**.

4.2 Subsurface Conditions

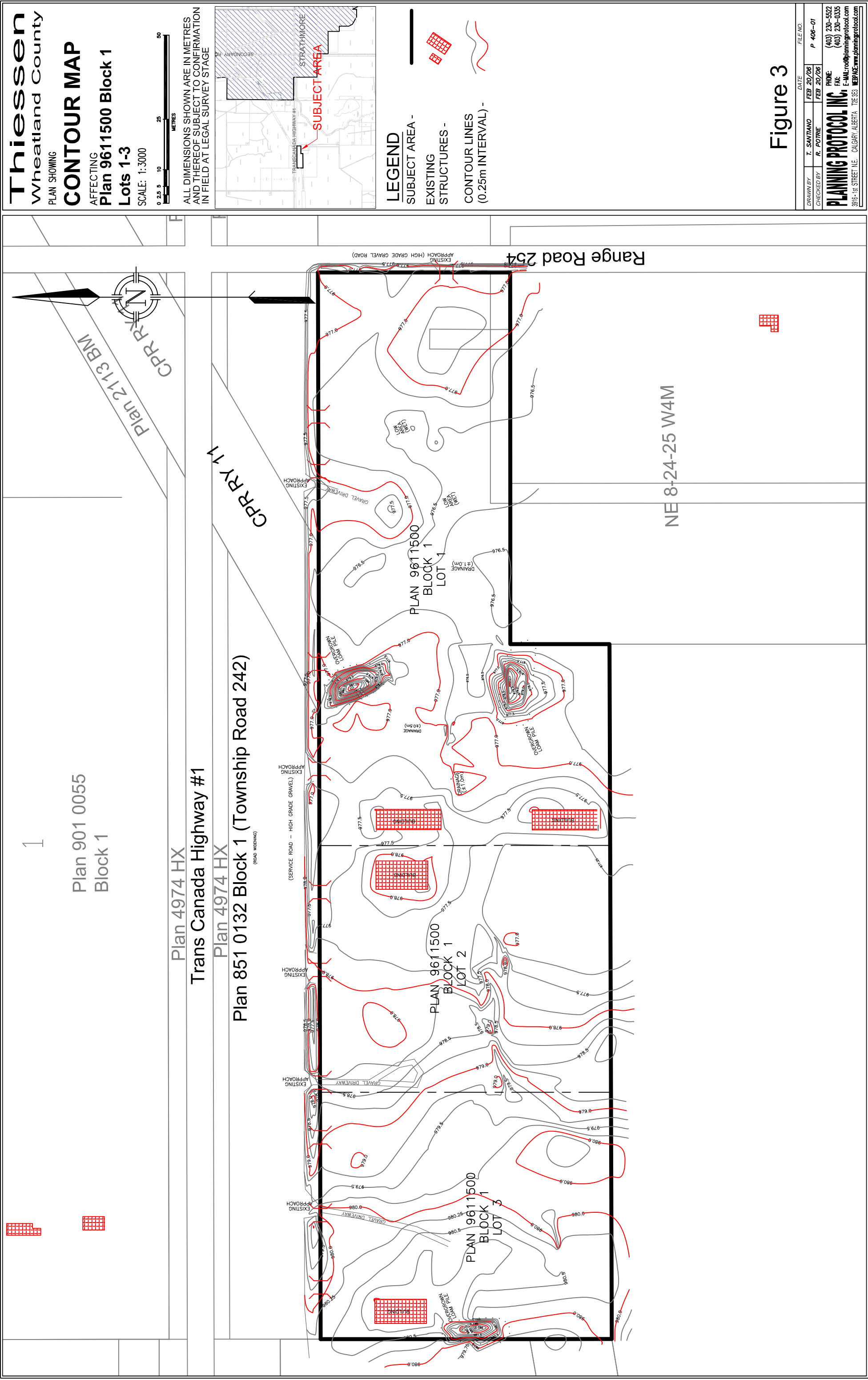
GTech Earth Sciences Corp. has conducted a Geotechnical investigation on the subject lands. The following is a summary of their findings:

- Soil horizons consist of topsoil overlaying low plastic clayey silt and/or sandy silt till layers over a soft sandstone or siltstone bedrock
- Highly frost susceptible in-situ silts and high groundwater were encountered within the frost penetration zone. Care and caution in the foundation design is warranted
- Underground contractors are advised to perform advance investigative test pits for tender preparation, due to possible difficulty from high groundwater and bedrock.
- Roads and parking areas should perform reasonably well on condition of proper design, compaction, drainage and maintenance.
- Sulfate resistance concrete with a minimum compressive strength of 32.0 MPa, after 56 days, is recommended for all concrete that will be in contact with the soil
- It is recommended that all metal that will be in contact with the native soil be designed for a heavy degree of corrosion

The Geotechnical Investigation by GTech Earth Sciences Corp. is submitted under separate cover.

4.3 Hydrology

GTech Earth Sciences Corp reports that groundwater levels were found 0.67 m. under the surface in the eastern portion (Lot 10) of the Plan Area. Groundwater levels in the western portion of the site were measured at 1.88 m. (Lot 6/ Roadway) and 3.41 m. (Lot 2).



4.4 Vegetation

Vegetation on a majority of site consists mainly of native prairie grasses. Some trees exist around the areas around the mobile homes, near the southern border of the plan area. There are no significant plant communities within or in proximity to the subject lands that require special consideration.

Vegetation can be seen in **Appendix V – Site Photos**.

4.5 Existing Structures

The ASP area contains several existing structures.

Three mobile homes are situated on the property. Two of these homes are situated in the western portion of the ASP area, but are well set-back on the property and are situated near the southern property border. The third mobile home is situated in the eastern portion of the plan area, close to the frontage road and adjacent to the wetland area. All three mobile homes will be removed prior to construction on the site.

Three light industrial building and one medium industrial building exists on the subject property. All four sites are presently occupied, although Cal-Frac (medium industrial) will be leaving for another location sometime in the future. The buildings are presently serviced by well-water and pump-out sewage tanks.

The current tenants display both light and medium industrial land-use characteristic. Judging from the worksite appearance, Canadian Subsurface and DT Mechanical appear to be light industrial. Cal-Frac and Rodan Transport appear to be medium industrial by virtue of the equipment parked in their work areas, but no other site activities conform to the classification of medium industrial. Rodan Transport has equipment on their site very briefly (is generally transported away) that it cannot be considered medium industrial.

Existing structures can be seen in **Appendix V – Site Photos**.

4.6 Environmental Considerations

GTech Earth Sciences Corp. conducted an Environmental Site Assessment of the subject lands. The following is a summary of its conclusions:

Section 5.0 of the ESA concludes:

“Based on the materials reviewed and consulted for in this investigation, the site visit and interviews, there is no evidence of significant contamination, past or present, existing on the subject property. Therefore, no further environmental study (Phase II ESA) is warranted”

The Phase I ESA has been submitted under separate cover.

4.7 Historical Considerations

Historical Resource Management conducted a Historical Resources Overview (HRO) on the Thiessen ASP area. This report has been submitted under separate cover. The report concluded:

“The proposed development area appears to be completely disturbed, and therefore we are recommending that Historical Resources Act clearance be granted and that the development be allowed to proceed as planned”

A reply has not yet been received from Alberta Community Resources. The reply will be submitted under separate cover.

The Historical Resources Overview (HRO) is shown in **Appendix II**.

4.8 Endangered Wildlife Species

Pioneer Land and Environmental Services were retained conduct a Fish and Wildlife Management Information Search (FWMIS) on the subject property, in order to identify known species-at-risk in the immediate area. Pioneer Land and Environmental Services has concluded:

“No historically observed species at risk were identified in either the FWMIS or ANHIC database for the project area”

The letter from Pioneer Land and Environmental Services is shown in **Appendix I**.

4.9 Wetlands

Ducks Unlimited was contacted to provide some guidelines as to how development should anticipate wetland areas.

Brian Peers from Ducks Unlimited has recommended keeping development as far away from the wetland as possible. He also stated that having a buffer around the edge of the wetland would be desirable, and that the larger the buffer, the more functional the wetland will be.

A letter from Ducks Unlimited is shown in **Appendix III**.

4.10 Oil and Gas Infrastructure

Encana presently maintains a natural gas well-head on Lot 10. Encana was contacted to provide some guidelines as to how a development might accommodate how they will service their wellhead in the future. Encana has asked only that, aside from emergency access, the privacy of their approach be respected.

5.0 Proposed Land Use

The ASP area is currently designated General Agriculture (GA) under the Wheatland County *Land-use Bylaw*. The Thiessen ASP calls for the property to be rezoned to the Industrial /Commercial (IC) district as outlined in the Wheatland County Land-use Bylaw, and conform to all requirements listed. The West Hwy 1 ASP, Section 2.5 (a.) sets out the general description of anticipated industrial type-uses for the subject property.

The subject lands will be subdivided to accommodate similar industrial forms as what presently exists. The subdivision of the subject property will be undertaken in two phases.

The proposed land uses for the subject lands is shown in **Figure 4 – Land-use Map**. The proposed concept is shown in **Figure 5 – Concept Plan** and tabulated in **Table 1**. The proposed phasing is shown in **Figure 6 – Phasing Map**.

Table 1: Land Use Statistics (Approximate)

	Acres	Hectares	Lots	Percent of Total Area
Light Industrial	37.41	15.14	10	97.4%
Road Widening	.99	.4	-	2.6%
Total	38.4	15.54	10	100.00

- Policy 5.0.1 Land uses within the plan area shall conform to the Industrial /Commercial (IC) district as outlined in the Wheatland County Land-use Bylaw.
- Policy 5.0.2 Land uses within the ASP area shall conform to the land-use requirements illustrated in Section 2.5 (a.) of the West Hwy 1 ASP.
- Policy 5.0.3 Activities occurring on lands within the ASP area shall generally conform to characteristics identified with Light Industrial Land-use, as listed in Section 4.18.04 of the Wheatland County Land-use Bylaw and Appendix 2 of the West Hwy 1 ASP
- Policy 5.0.4 Lands within the ASP Area shall be developed as generally shown in **Figure 6 – Proposed Concept Plan** and as generally tabulated in **Table 1**.
- Policy 5.0.5 Development within the ASP area shall be constructed in one phase.

5.1 Light Industrial

The light industrial component of the proposed development will occupy approximately 15.14 hectares (37.41 acres) of the gross area. Approximately 10 light industrial condominium lots are

proposed. The proposed Light Industrial lots will conform to the Industrial/ Commercial (IC) Land-use district, as per the Wheatland County Land-use Bylaw.

The proposed light industrial lots will have gravel surface yards, for dust control.

Policy 5.1.1 Light industrial lands subdivided within the plan area shall conform to all requirements as set forth within the Wheatland County Land-use Bylaw.

Policy 5.1.2 Activities occurring on parcels anticipated for Light Industrial land-use shall generally conform in general to Wheatland County Land-use Bylaw, Section 4.18.04 and Appendix Two of the West Hwy 1 ASP

Policy 5.1.3 Lots proposed in the ASP area will have a gravel surface, for dust control.

Policy 5.1.4 Lots will be registered as condominium lots.

5.2 Emergency Access

An access easement will be registered on lots 2 through 8 so to provide secondary emergency access to the proposed parcels.

The easement in the Thiessen ASP area will be 6 m. wide.

5.3 Road Widening

At some point in the future, Township Road 242 will need a wider road surface to accommodate more traffic, and become an arterial standard road. Future road widening for Township Road 242 can be accommodated within the present ROW allocation.

Policy 5.3.1 Five meters will be dedicated along the northern boundary of the site for road widening.

5.4 Municipal Reserve

Cash-in-lieu of land will be offered to satisfy Municipal Reserve.

Policy 5.4.1 Cash-in-lieu of land shall be paid to satisfy the requirement of dedicating Municipal Reserve.

5.5 Oil and Gas Infrastructure

Building setbacks from the wellhead will conform to distances outlined in the West Hwy 1 ASP section 2.5 (a) and Wheatland County Land-use Bylaw section 4.04.01 (f).

Because of the nearby wellhead, Lot 10 will be used for vehicle and property storage.

Policy 5.5.1 Well-head building setbacks will conform to distances outlined in the West Hwy 1 ASP Section 2.5 (a) and Wheatland County Land-use Bylaw Section 4.04.01 (f).

Policy 5.5.2 Because of the nearby wellhead, Lot 10 will be used for vehicle and property storage only.

5.6 Wetlands

Buildings on Lot 9 will be constructed as far away from the wetland area as the parcel permits. A buffer will be constructed around the edge of the wetland, in the form of a berm and site grading, to protect the wetlands.

The wetland will be used as a part of the overall Stormwater Management Plan. The Stormwater Management Plan will be submitted under separate cover.

The wetland will also be used, when necessary, as a water pit for the Strathmore Rural Volunteer Fire Department.

Policy 5.6.1 Building development will be set back from the existing wet areas in accordance to Wheatland County LUB sec. 4.04.02 c.

Policy 5.6.2 Protective berming will be constructed on Lot 9 to protect the wetland

Policy 5.6.3 Areas around the wetland will be graded, to contain the wetland

Policy 5.6.4 The wetland area will be actively used for local Stormwater Management

Policy 5.6.5 The wetland area will be used as a water pit by the Strathmore Rural Volunteer Fire Department

6.0 Subdivision and Development Sequence

This document is a combined Area Structure Plan and Subdivision application. Subdivision of the ASP area will be undertaken as shown in **Table 2**, subject to correction by Legal Survey.

Policy 6.0.1 Subdivision of the ASP area will be undertaken as per Section 6 of the Thiessen ASP, subject to correction by Legal Survey.

Policy 6.0.2 Section 6.0 requests subdivision approval for Phase One of the ASP area, as calculated in **Table 2**.

6.1 Subdivision Statistics

The ASP area will be subdivided into 10 industrial lots. The parcel dimensions conform to all requirements listed in the Wheatland County Land-use Bylaw, and will appear as shown in **Table 2**, subject to correction by Legal Survey. The dimensions and area of each lot are shown below in **Table 2**. A map of the tentative subdivision can be seen in **Figure 6 – Tentative Plan of Subdivision**.

Table 2 – Lot Dimensions

Lot Number	Width (Front)	Length (m)	Area (Ac.)
1	60.0 m.	214.4	3.18
2	60.0 m.	214.4	3.18
3	60.0 m.	214.4	3.18
4	60.0 m.	214.4	3.18
5	57.0 m.	214.4	3.02
6	80.6 m.	214.4	4.27
7	97.5 m.	214.4	5.16
8	67.8 m.	214.4 / 137.4	3.23
9	132.3 m.	139.4	4.56
10	128.7 m	140.0	4.45

Policy 6.1.1 Parcel dimensions in the proposed industrial subdivision will appear as shown in Table 2, subject to correction by Legal Survey.

Policy 6.1.2 Parcel dimensions will conform to all requirements listed in the Wheatland County Land-use Bylaw

6.2 Water Resources

The proposed industrial subdivision will be serviced by well water. These wells will be drilled one each lot after subdivision approval.

At present, three wells are located on the subject property. These wells are located on Lots 1, 7 and 9.

Each lot is expected to produce a productive well, due to the low local intensity of water wells, and by the strength of existing wells. A local Water Well Reconnaissance Report is shown in **Appendix VI**, which shows the pump testing rates for wells in the Thiessen ASP area amongst other wells in the area.

Policy 6.2.1 The wells for each lot in the proposed industrial subdivision will be drilled after subdivision approval.

6.3 Phasing

The proposed industrial subdivision will be constructed in one phase

Policy 6.3.1 The proposed industrial subdivision will be constructed in one phase.

7.0 Industrial Design

7.1 Building Design

This ASP encourages the establishment a built industrial form that minimizes sight pollution and helps maintain a pleasant view from Hwy 1. The built industrial form will have a definite industrial character, as pre-fabricated metal industrial ‘bay units’ are proposed as the buildings in the ASP area. The industrial bay units will be registered as condominium units.

General

- Policy 7.1.1 The built industrial form in the Thiessen ASP area should minimizes sight pollution and helps maintain a pleasant view from Hwy 1.
- Policy 7.1.2 Onsite buildings will be pre-fabricated metal industrial ‘bay units’, which will be registered as condominium units.

7.2 Landscape Guidelines

This ASP proposes landscaping to screen the industrial activities occurring on the site from adjacent property owners and cars travelling on Hwy 1. Site screening will employ berming, soft landscaping, tree vegetation, site signage and lighting to screen light industrial activities from public view.

Site landscaping shall accommodate the public-at-large and neighbouring property owners in different ways. Landscaping in the southern portions of lots 7 -9 are constructed to screen the view of the residence to the south-east. Large berms on the eastern and western portions of the ASP area is meant to block the diagonal parallax view of oncoming traffic in both directions. Berms constructed between buildings on lot 1 are constructed to screen the view of the existing residences to the west. The frontage of the present and future businesses will be screened to the neighbours to the north by berming, signage and vegetation.

Landscaping features will be undertaken as per the Wheatland County Land-use Bylaw and the West Hwy 1 ASP, excepting Wheatland County Land-use Bylaw, section 4.09. #1.

A Landscaping Plan for the Thiessen ASP area will be completed by Planning Protocol Inc. and submitted under separate cover.

- Policy 7.2.1 The Landscape Plan shall be in accordance with Wheatland County Land-use Bylaw Sections 4.08, 8.09.04, 8.10, 11.02.04, 11.03 - 06
- Policy 7.2.2 The Landscape Plan shall be in accordance with West Hwy 1 ASP Sections 2.8, 3.1 (g), 3.4

- Policy 7.2.3 An exemption from Wheatland County LUB, Section 4.09. #1 shall be permitted.
- Policy 7.2.4 Landscaping to be implemented in the Thiessen ASP area shall be as shown in the Landscaping Plan, which is submitted under separate cover.

8.0 Servicing

8.1 Transportation

External Roads

Access to the site will be provided by the existing and future road network. This network includes the following roads:

- **Highway One (Trans-Canada Hwy), Existing Provincial Highway:** Highway (Freeway) north of ASP area running in east-west direction. This roadway is the primary route for nearly all traffic entering and exiting the ASP area.
- **Township Road 242, Existing Collector Road:** Extends east from Range Road 254 and fronts onto the ASP area. This road will be extended further west past the ASP area as the western adjacent property develop sometime in the future.
- **Range Road 254, Existing Collector:** Extends south from Hwy 1 and along the eastern border of the ASP area. This road is where the tentative location of where Map A of the West Highway 1 ASP shows an interchange being constructed in the future.
- **East-West Arterial, Proposed Arterial:** Map A in the West Hwy 1 ASP shows a proposed east-west arterial road that will be constructed sometime south of the ASP area. This road is conceptual, and may not be constructed for many years. The ASP area will not connect with this road.

Internal Roads

No internal roads are proposed within the Thiessen ASP area. All lots will have access from Township Road 242.

Five meters of road widening is proposed for Township Road 242. Township Road 242 will be upgraded to gravel standard.

Policy 8.1.1 Lot access will be provided from Township Road 242

Policy 8.1.2 Five meters of road widening is to be dedicated for Township Road 242.

Policy 8.1.3 Township Road 242 will be upgraded to gravel standard.

Site Access (Approaches)

Site access will be provided from Township Road 242. Lot 10 will maintain the present approach and access from Range Road 254 constructed by Encana. All approaches will be constructed/upgraded to specifications outlined by Wheatland County.

- Policy 8.1.4 All approaches will be constructed to specifications outlined by Wheatland County.
- Policy 8.1.5 Where applicable, lots may maintain the present approach location, but will be upgraded where necessary.

Transportation Impact Assessment (TIA)

At the request of Alberta Transportation and Infrastructure, a Transportation Impact Assessment (TIA) was conducted for the Thiessen ASP area by Marshall Macklin Monaghan.

The TIA has been submitted to Alberta Infrastructure and Transportation.

8.2 Water Supply

Water is to be supplied to the subject lands from existing and proposed wells. Wells presently exist on Lots one, seven and nine.

In the medium-long term future, water will be provided to the site through a regional county water system. Lots will be developed with the appropriate site servicing to accommodate the eventual hook-up to a future regional water system.

A Water Well Reconnaissance Report showing existing wells in the ASP area, as well as the adjacent quarter sections, is shown in **Appendix VI**.

- Policy 8.2.1 Water will be supplied to the proposed development by the existing and future wells.
- Policy 8.2.2 All lots will be constructed with the appropriate site servicing to accommodate the eventual hook-up to a future regional water system.

8.3 Sanitary Sewage Disposal

Sewer servicing will be supplied to the subject lands from pump-out septic tanks.

In the medium-term future, sewage will be provided to the site through a regional county sewage system. Lots will be developed with the appropriate site servicing to accommodate the eventual hook-up to a future regional sewage system.

- Policy 8.3.1 All sanitary sewer lines and services shall be constructed in accordance to standards outlined by Alberta Environment, and to the satisfaction of Wheatland County.
- Policy 8.3.2 All lots will be constructed with the appropriate site servicing to accommodate the eventual hook-up to a future regional sewage system.

8.4 Stormwater Management

Bel MK Engineering has been commissioned to develop a Stormwater Management Plan for the ASP area. The Stormwater Management Plan will be submitted under separate cover.

- Policy 8.4.1 All stormwater services shall be constructed in accordance with Alberta Environment standards to the satisfaction of Wheatland County.
- Policy 8.4.2 The overall stormwater drainage within the ASP area will be undertaken as per the Stormwater Management Plan, to be submitted under separate cover from Lee Maher Engineering Associates.
- Policy 8.4.3 Onsite stormwater management on each lot will be undertaken by the Developer, to the satisfaction of Wheatland County.

8.5 Garbage Disposal

Garbage disposal will be provided by a private garbage collection company.

All onsite garbage disposal units will be screened from public view.

- Policy 8.5.1 Garbage disposal will be arranged by each lot owner through a private garbage collection company.
- Policy 8.5.2 Onsite garbage disposal area will be screened from public view.

8.6 Light Standards

On-site lighting will be established by developers to enhance safety and security within the ASP area. One streetlight will be installed on Township Road 242.

The lightpost will be installed by the Developer to the satisfaction of Wheatland County and Fortis. When locating the lighting infrastructure, the Developer shall have consideration for the minimizing light pollution onto adjacent properties. Fortis will own and maintain the light standards.

The TIA completed by Marshall Macklin Monaghan recommended partial illumination of the Highway 1/ Range Road 254 to be installed during Phase 1 development. The TIA also recommended that updated warrant calculations be completed after Phase 1 construction for a more accurate assessment of whether partial illumination is required at all.

- Policy 8.6.1 The Developer is to install one onsite light post within the ASP area, while having consideration with respect to potential light pollution.
- Policy 8.6.2 Lighting fixture shall be owned and maintained by Fortis.
- Policy 8.6.3 The streetlight fixture will be designed and installed by the Developer, to the satisfaction of Wheatland County and Fortis.
- Policy 8.6.4 The location of onsite lighting will be situated as per the Landscape Plan.
- Policy 8.6.5 Partial illumination may be required for the Highway 1/ Range Road 254 intersection during Phase One construction, if justified by updated warrant calculations.

8.7 Private Utilities

Gas, power, telephone and cable TV services will be provided by the respective utility companies. Private utilities will be located within the road right-of-way in front of each proposed parcel.

Detailed utility access designs to the proposed lots will be fulfilled during the subdivision condition process.

- Policy 8.7.1 Private utilities shall be provided to each proposed lot within the ASP area by the respective utility company.
- Policy 8.7.2 Private utilities will be located within the road right-of-way in front of each proposed parcel.
- Policy 8.7.3 Detailed utility access designs to the proposed lots will be fulfilled during the subdivision condition process

9.0 Emergency Services

Policy 9.0.1 The building on each lot will be clearly marked with a distinct lot number sign to enable prompt recognition of individual industrial units by emergency services.

Policy 9.0.2 All development shall be connected to the 911 emergency service.

9.1 Fire

The Strathmore Rural Volunteer Fire Department will provide fire protection services to the plan area.

The existing wetland in Lot 10 will be used as a water pit by the Strathmore Rural Volunteer Fire Department.

Policy 9.1.1 Fire protection services shall be provided by the Strathmore Rural Volunteer Fire Department.

Policy 9.1.2 The existing wetland in Lot 10 will be used as a water pit by the Strathmore Rural Volunteer Fire Department

10.0 Implementation

The ASP area has been designed to be compatible with surrounding land uses and to be consistent with the vision contained within the West Hwy 1 ASP and the Wheatland County LUB. Subdivision and development consistent with the policies of this ASP will maximize the development potential of the ASP Area. Subdivision of the ASP area will be implemented through conditions of subdivision approval by Wheatland County.

Policy 10.0.1 Wheatland County shall implement this ASP through the subdivision and development approval process.

Appendix I: Letter from Pioneer Environmental (FWMIS Search)

Appendix II: Letter from Historical Resources Management (HRO) and Alberta Community Development

Appendix III: Letter from Ducks Unlimited (Wetland)

Appendix IV: Alberta Environment Water Reconnaissance Report (Water)

Appendix V: Site Photos

Appendix VI: Public Consultation