ANSAR INDUSTRIAL PARK

AREA STRUCTURE PLAN

Pt. N½ 11-24-26-W4M

December, 2013

SUBMITTED TO ;

WHEATLAND COUNTY

WHEATLAND COUNTY
PROVINCE OF ALBERTA
BYLAW 2013-02
DIVISION # 4
WCASP-11-001
(Ansar Industrial Park)

Being a bylaw of Wheatland County for the purpose of adopting an Area Structure Plan to provide a comprehensive framework for development within the Wheatland County West Highway 1 Area Structure Plan located at N ½ 11-24-26-W4M containing 90ha (223ac)+/-.

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

WHEREAS a Public Hearing was held January 14, 2014 at the Wheatland County office.

BLAND MOVED First Reading of Bylaw 2013-02, on February 12, 2013, this being a by-law for the purpose of adopting an Area Structure Plan to provide a comprehensive framework for development within the Wheatland County West Highway 1 Area Structure Plan located at N ½ 11-24-26-W4M containing 90ha (223ac)+/-.

Carried.

BLAND MOVED Second Reading of Bylaw 2013-02 on January 14, 2014 and it was

Carried.

VANDER VELDE MOVED Third and Final Reading of Bylaw 2013-02 on January 14, 2014 and it was

Carried.

Glenn Koester
Reeve

Alan Parkin
Chief Administrative Officer

PROPOSED

ANSAR INDUSTRIAL PARK AREA STRUCTURE PLAN

N½ 11-24-26-W4M

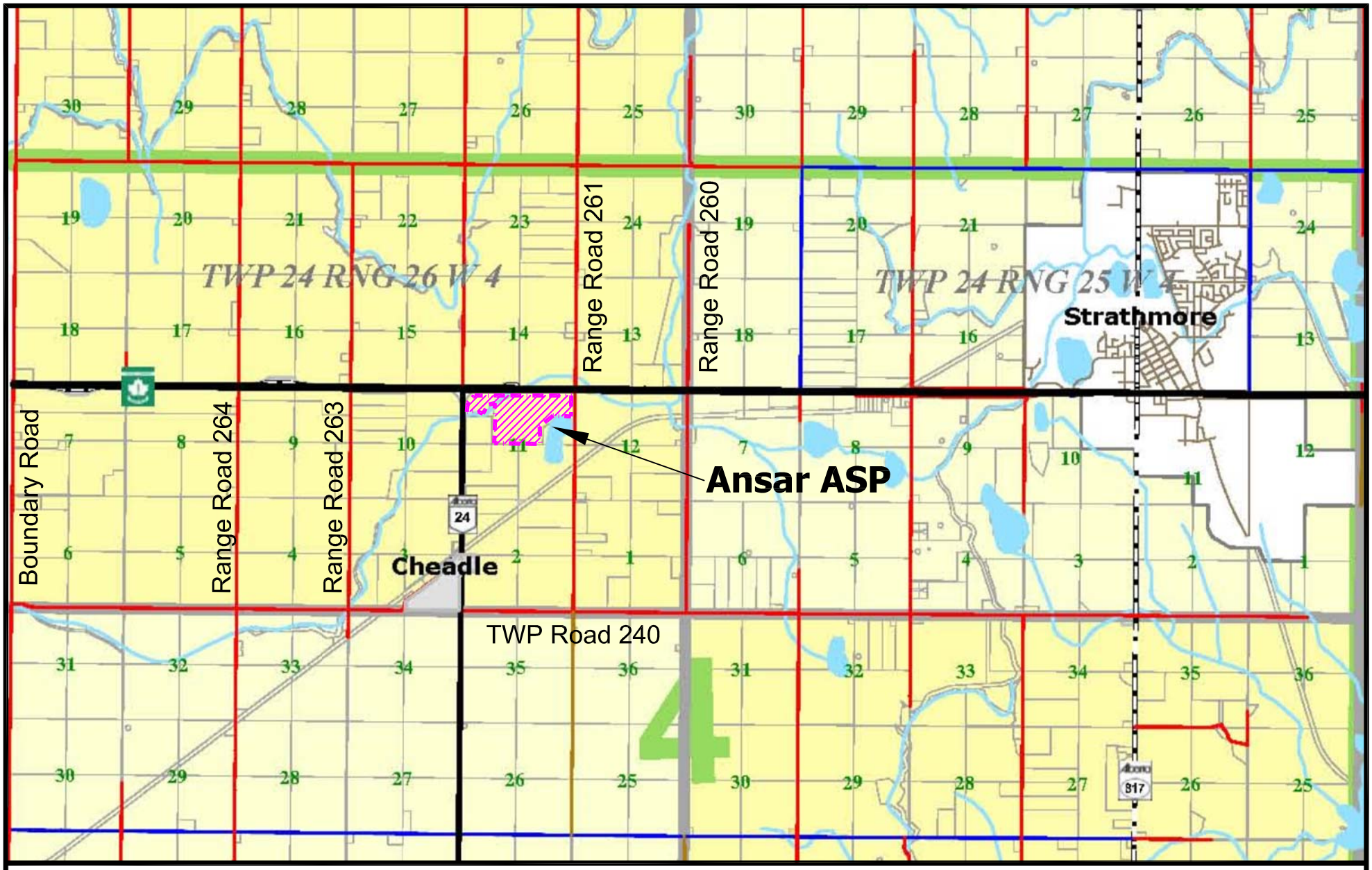
SUBMITTED TO ;

WHEATLAND COUNTY

REVISED
DECEMBER 9, 2013

MATRIX **Planning**

Ansar ASP Location- Pt. N1/2 11-24-26-W4M



File: Ansar ASP Dec10.v3.dwg Dec 19, 2010 Project: Map:Location1

EXECUTIVE SUMMARY

This Area Structure Plan follows the spirit and intent of the Master West Wheatland ASP approved in May, 2006 as well as the West Highway 1 ASP Transportation Review and the West Highway 1 Master Drainage Plan, 2008. It provides for the subsequent industrial rezoning and subdivision of two parcels located near the intersection of Highway 1 and Highway 24.

This ASP is a single application shared by two separate landowners. As such, the larger parcel to the east requires access to both Highway 24 and Range Road 261. This design is also a further link in the overall goal of Wheatland County and Alberta Transportation (AT) to plan and build a continuous service road parallel to the south side of Highway 1. This road would eventually link the County's Boundary Road in the west to Strathmore in the east. The ASP access and stormwater management is designed in such a manner as to allow for independent timing of initial subdivision for either parcel.

Areas in Title – Two parcels are included in this ASP. Both parcels together total 90.3 hectares (223 ac). The individual parcels are under separate ownership and sized as follows;

- Plan 8910925 is located at the corner of Highway 24 and Highway 1 on a 15.1 hectare (37.31 ac) parcel.
- Plan 0010401 is located to the east of Highway 24 and fronts onto Highway 1 and Range Road 261. It contains 75.23 hectares (185.9 acres).

Potential Lot Yield - The net proposed net developable area (excluding stormwater facilities, roads, etc) contains approximately 79 hectares (195 ac). From this net area, approximately 50 to 70 lots are expected to be subdivided over several phases. While the proposed County Land Use Bylaw's I-G District states a minimum parcel size of 0.4 hectares (1 ac), market demand is

expected to be for a range of parcels ranging from 1 hectare (2.47ac) and larger with an assumed average of 1.25 hectares (3ac) or greater. As such, many parcels in Plan 0010401 may be configured into 1 hectare or larger increments at subdivision stage to allow for purchase of multiple lots by a single operator as needed. The ASP projects 3 Phases including potential subphases that will be brought forward according to market demand and future access improvements to Highway 1.

Soils, Drainage, Stormwater Management - The site is relatively level with a total relief of 7 metres, draining down to the north towards Highway 1 and to the drainage (known as Hartell coulee) in the northwest of the Plan area. Geotechnical assessment has determined that the soils are suitable for the proposed development. The stormwater Staged Master Drainage Plan was designed by Paul Jacobs of Stormwater Solutions in consultation with the Western Irrigation District (WID). The concept proposes a menu of storm water management options acceptable to WID. Detailed stormwater designs will be prepared at subdivision approval stage and will be in conformity with Provincial requirements. Stormwater management will be accomplished in accordance with County Policy and Alberta Environment and Sustainable Resource Development guidelines.

Transportation - A Transportation Impact Assessment (TIA) was prepared with input from AT (see supporting technical appendices (Appendix C) under separate cover. The Province has also completed a Provincial *Highway 1 Alignment Planning Study* in 2012. Current plans call for the eventual construction of an interchange at the intersection of Highway 1 and Highway 24. The ASP proposes a design that anticipates and is consistent with this Highway 1 Alignment Planning Study. Implementation of the ASP and AT planning study would involve the purchase of some ASP land by Alberta Transportation for interchange construction.

Within Phase 1 of the ASP, up to 15 lots are proposed in accordance with the TIA (as revised November 15, 2013). An addendum at the end of the TIA contains correspondence between the developers transportation consultant and AT staff. The correspondence provides the context within which to understand access and egress conditions for the ASP site as it relates to Highway 24 and Range Road 261. The actual number of lots approved in any one phase will be subject to subdivision approval by the County and Alberta Transportation.

Water and Sewer - A hydrological report (under separate cover) has assessed groundwater volume and quality as adequate for the proposed development. Water and sewer will be supplied by on-site servicing in accordance with County requirements. Allowance for full water and sewer servicing may be contemplated at some future point by the County. The ASP provides adequate space for future piped servicing to be retrofitted.

The Ansar ASP conforms to the spirit and intent of the West Highway 1 ASP Transportation Review and the West Highway 1 Master Drainage Plan, 2008 and attendant off-site levy policy.

Landscaping will be done on a phase by phase basis by the developer. Landscaping for parcels fronting along Highway 1 and Highway 24 will be undertaken as part of the subdivision agreement. Final hard and soft landscaping and architectural design on a lot by lot basis will be determined at the development permit stage in accordance with the County Land Use Bylaw.

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APPENDICES
(under separate cover - added for convenience only, not part of ASP bylaw)

Appendix A - Environmental Review – Corvidae Consulting Ltd.

Appendix B - Ansar Industrial Park Geotechnical Assessment – Levelton Consultants Ltd.

Appendix C - Ansar Industrial Park Transportation Impact Assessment plus Feb 28, 2012 revisions letter to Alberta Transportation – Bunt and Associates Engineering Ltd.

Appendix D - Ansar Industrial Park Groundwater Assessment – Sabatini Earth and Environmental Ltd

Appendix E - Ansar Industrial Park Staged Master Drainage Plan

Appendix F - Ansar Industrial Park Landowner Notification

1 INTRODUCTION

1.1 How To Use This Document

This Area Structure Plan is divided into three sections:

I. background information (sections 1,2,3)
II. an explanation of the Plan Concept (section 4) and,
III. a set of specific Policies that will guide the Subdivision and Development Authorities in their decisions (section 5).

1.2 The General Setting (Map 1)

The Plan area is located 6.5 km (4 miles) to the west of the Town of Strathmore at the southeast intersection of Highway 1 and Highway 24. Both parcels together total 90.3 hectares (223 ac). Two individual parcels under separate ownership comprise the total ASP area. They are sized as follows;

- Plan 8910925 is located at the corner of Highway 24 and Highway 1 on a 15.1 hectare (37.31 ac) parcel owned by Murray Family Holdings Ltd. at the time of this ASP document.
- Plan 0010401 is located to the east of Highway 24 and fronts onto Highway 1 and Range Road 261. It contains 75.23 hectares (185.9 acres) and is currently by Martin and Antonia Regehr under agreement to purchase by the current developer, 1095142 Ontario Ltd.

Highway 1 is a divided, four land highway bounds the north side of the site. It became a divided highway in the 1970's. Highway 24 to the west is a paved, two lane highway. Range Road 261 is a gravelled road that bounds the east side of the Plan area.

Farming operations surround the adjacent lands in all directions. In addition, a number of farmsteads and rural residences are located along Highway 24 and Range Road 261.

1.3 Existing Policy Framework

- *The Wheatland County Municipal Development Plan, 2013* identifies the subject parcels as suitable for rural commercial/ industrial uses. More specifically, Section 3.7 of the MDP states the following;

The current West Highway 1 ***Area Structure Plan*** *(WHASP) was developed to focus* ***commercial*** *and* ***industrial development*** *in the county along the south side of Highway 1 between the Town of Strathmore and Rocky View County. This is an area for* ***industrial*** *and* ***commercial development****, subject to site specific suitability.*

The following excerpts from the MDP Objectives relate most directly to the Ansar ASP;

"Commercial and Industrial Development Objectives
1. Allow for the expansion and diversification of the County's ***commercial*** *and* ***industrial*** *base.*
2. Promote the growth and diversification of employment opportunities in designated areas.
3. Direct ***commercial*** *and* ***industrial development*** *to designated areas.*
5. Facilitate employment for residents within close proximity to their places of residence.
7. Facilitate a good supply of properly located ***industrial*** *and* ***commercial*** *land to meet market needs."*

The following MDP Policy excerpts relate most directly to the Ansar ASP;

"Commercial and Industrial Development Policies
1. New ***commercial*** *and* ***industrial development*** *is directed to designated areas, and separation or buffering from* ***residential*** *sites is encouraged.*
3. The County shall consider transportation access as a major component of ***commercial*** *and* ***industrial development*** *applications in order to properly manage vehicle traffic from employment, patronage, and the shipment of goods and services.*
4. The County shall require that ***commercial*** *and* ***industrial development*** *applications demonstrate that they will cause no significant adverse impacts on the natural environment, including but not limited to, ground and surface water, soil quality, air quality, wildlife and vegetation. If impacts are expected, the application must demonstrate how these will be mitigated.*
5. The County shall take the cumulative ***development*** *effect into consideration for all* ***commercial*** *and* ***industrial development*** *applications.*
7. The County shall consider the broader area context and the impact upon it when considering a ***commercial*** *or* ***industrial development*** *application for approval.*
*8. The County shall support opportunities for agro-****industrial*** *activities such as the processing and/or shipping of agricultural products where appropriate, to support the agricultural and related industries.*

*9. **Infill** and intensification of existing **industrial** and **commercial** parks shall be encouraged through amendments to existing approved plans as a means of promoting the efficient use of land and **infrastructure**.*
*11. The County may consider **commercial** and **industrial** off-site levies, and / or local improvement taxes, to ensure the fair and equitable distribution of costs between the proponents of all new and future **development**, in designated **commercial** or **industrial** areas."*

- *The Wheatland West Area Structure Plan 2006 (WHASP)* identifies a framework for future subdivision and development. The WHASP provides for a wide variety of commercial and industrial land uses and sets out requirements for more detailed area structure plans and conceptual schemes. The Ansar Industrial Park Area Structure Plan is consistent with the requirements of the WHASP.

- The implementing off-site levy bylaw (#2007-109) for The Wheatland West Area Structure Plan is informed by the Master Drainage Plan by Stormwater Solutions Inc. 2008 West Highway 1 ASP Transportation Review, 2008 by D.A. Watt Consulting. This bylaw document was consulted in the preparation of this ASP.

- The current *Wheatland County Land Use Bylaw* designates the current zoning as Agricultural General (A-G). However, the WHASP provides for the rezoning of lands to the Industrial General (I-G) District of the Land Use Bylaw. The district includes a wide variety of industrial and secondary commercial uses at a variety of parcel sizes.

2 EXISTING PHYSICAL SITE CHARACTERISTICS

2.1 Topography, Drainage, Vegetation and Habitat (Map 2)

Topography - The Plan area is comprised of a two parcels totalling 90.33 hectares (223 ac). The Plan area is relatively flat, with gentle topography.

Therefore, there is a low potential of soil erosion due to overland run-off during seasonal rainfall and/or storm events.

Total topographical relief is approximately 7 metres sloping gently downward to the north and northwest. While a slight hill located in the east half of NE 11 has a slope of approximately 3.3%, the remainder of the site is gently sloping with an average grade of approximately 1.0% except for the actual banks of the Hartell coulee which can be as much as 35% over short distances.

Drainage - The south western and south central portion of the Plan area is higher than the surrounding area, resulting in overland drainage flowing to the north east toward a lower area in the central portion of the Plan area, with additional drainage to the northwest. The natural outfall is a northeast flowing drainage often referred to as Hartell coulee. The drainage is located downstream from Weed Lake, which is the outfall for the Langdon wastewater treatment plant. This drainage then flows under Highway 1 culverts towards Serviceberry Creek. The watercourse is under joint administration of both Alberta Environment and Sustainable Resource Development and the Western Irrigation District (WID) and is administered as part of the Serviceberry Creek watershed system. Serviceberry Creek is part of the Red Deer River basin.

A canal and earthen berm/dam system was constructed by the adjacent landowner in the south half of section 11. This effectively bisects a natural shallow area. The pond overflow and storm water run-off draining into the slough has had the result of creating a reservoir on SE11 and an intermittent slough to the north on a separate title located within NE 11. In personal communications with the landowner of SE 11 at the time (Mr. Ken Jones), the stability of the earthen dam is of concern to the landowner. The wetland in NE 11 is contained within a separate title and is not part of the Plan area.

Special stormwater management considerations - According to the approved Wheatland County West Highway 1 Master Drainage Plan 2008, the Ansar property falls within catchment areas A20 & A22; which have targeted Unit Area Release Rates (UARR) of 1.34 L/s/ha. In the master drainage plan, Figure 3.2 of the document identifies a future Pond 22 to be located in the north central area of the site and Pond 20 to be located in the west area of the site. However, as the site currendy drains to Hartell Coulee (being a branch of the WID), the WID Stormwater Guidelines (WID Guidelines) must be followed as well.

Vegetation - The proposed ASP is located on previously disturbed agricultural lands within the Foothills Fescue Natural Subregion of southern Alberta. Most of the plant communities on the property have been modified due to agricultural and grazing activity and reflect low to high levels of ongoing disturbance.
The cultivated vegetation present at the project location at the time of the field visit in July 2010 consisted of unripend wheat. In the areas surrounding the watercourse and wetland are populated by bullrushes and sedges, with the presence of submergent macrophyte growth in the open water areas.

Environmental Review - An Environmental Review for the Plan area has been prepared by Corvidae Consulting. This assessment was based on field assessment done over the spring and summer of 2010 and included a detailed assessment of flora and fauna. The report focuses attention on the proposed box culvert crossing structure across Hartell coulee. The full report is contained in Appendix A under a separate cover.

A fish and fish habitat (QAES) assessment conducted at wetland located at the proposed crossing location on Serviceberry Creek (LSD/UTM) included:

- a review of existing fisheries and species of special concern data available for the study area;
- an application of Corvidaes' Watercourse Evaluation Procedures (WEP); and

- an assessment of the sensitivity to construction activities for the crossing location.

Fish species historically observed in Serviceberry Creek drainage are summarized in the Environmental Review in Appendix A. No species of special concern were identified within the drainage in the vicinity of the proposed crossing. In addition, there is minimal wildlife value and no nests, burrows or dens of sensitive species at the time of the site assessment.

The consulting biologists have also determined that for the slough parcel in NE 11 (which is under separate title) no nests, burrows or dens of sensitive species were identified at the time of the site assessment.

With respect historical resources, the *Listing of Historic Resources* (formerly known as the *Listing of Significant Historical Sites and Areas*) was reviewed and no records were found for historical sites in the 11-24-26 W4M area. Due to the entire project area being previously disturbed for agricultural use, there are no heritage resources concerns as per the Heritage Resources Act.

2.2 Geotechnical Assessment

A Geotechnical Assessment was undertaken for the Plan area by Levelton Consultants Ltd. (formerly known as Sabatini Earth and Environmental Ltd). This assessment was based on field assessment done in October 2010. The full report is contained in Appendix B under a separate cover.

Soils classes - Agricultural region of Alberta Soil Inventory Database (AGRISID) identifies the following soils characteristics on the site;

- The soils within the Plan area have been identified as Orthic Black Chernozem on medium textured till. (AGRIC, 2005)
- The Plan area also contains soils with Rego profiles. (AGRIC, 2005)

- The soils along the Northwestern margin of the Plan area adjacent to Hartell coulee have been identified as containing miscellaneous undifferentiated mineral soils
- Saline soils may be present. (AGRIC, 2005)

Canada Land Inventory (CLI) Soil Classes – While the CLI ratings have been superceded by more detailed assessment methods, the CLI still provides a good first overview of general agricultural land capability as follows;

- The soils within the Plan area have been identified as Canada Land Inventory (CLI) Class 1 and Class 5).
- The soils are characteristic of the Thin Black Soil Zone of south-central Alberta and are predominantly Chernozemic with a few Solonetzic areas.

Geotechnical test results - On October 12, 2010 a total of ten (10) test holes were drilled on the subject site using a truck mounted solid stem auger rig. All test holes were drilled to practical refusal in bedrock to depths ranging from 6.1 metres to 7.6 metres below ground surface. The geologic profile at the testhole locations generally consists of a thin layer of topsoil followed by variable layers of gravel, silty and clay till overlying bedrock. The geological engineers do not expect these strata will pose substantive constraints to site development.

Bedrock was encountered at all test holes locations at depths ranging from 2.8 metre below ground surface to 6.0 metres below ground surface. The bedrock is described as clay, shale or sandstone; brown to grey, damp and very weak. The weak nature of the bedrock would allow conventional excavation procedures for excavation deeper than 3 metres if required.

A detailed slope stability investigation was not included within the scope of this geotechnical investigation due to the generally level terrain. However, there were no signs of slope instability noticed during the investigation.

There were no signs of water ponding near the testhole location. Groundwater measurements were taken October 22, 2010. One hole near the Hartell coulee riparian zone indicated groundwater at 1.3 metres in depth. However, the remaining holes resulted in a median groundwater level of 3.3 metres below surface ground level.

3 EXISTING HUMAN FEATURES (Map 2, 3)

3.1 Existing Land Use

Current Land Use Activity on the parcel – The land is currently used as farmland. There are no dwellings and/or buildings on within the Plan area, with the exception of a single steel grain bin on the extreme north eastern quarter of the Plan area.

Encana has developed a well site in the southeast corner of NE11 including a pipeline running south from the well. Section 11 of the Provincial Subdivision and Development Regulation requires a 100m setback from this facility for subdivisions that will result in the development of an overnight accommodation or public facility.

Atco Gas Ltd. has recently installed an east-west 200mm service natural gas line along the north side of the plan area. This line included an alignment bored underneath Hartell coulee. The right of way is 16m in width and is located 13m south of the north property line. Atco requires a 3m building setback from the edge of right of way. A right of way agreement has been signed between the landowner and Atco which provides for the line to be relocated by Atco at their expense if the line unduly interferes with future development. The location of future stormwater management facilities may require this provision to be activated.

Fortis Energy operates a 138 kV powerline running east and west within the south edge of the Highway 1 right of way and adjacent to the Plan area property line. The maximum vehicle height allowed at the intersection is currently 5.4 metres (17.7ft) and the minimum setback from the right of way is 5 metres.

Surrounding Land Use – The parcel is surrounded on the north, east and south primarily by cropland. Three country residential homes are located on acreages directly adjacent to the Plan area. This includes a 12 hectare parcel to the southeast of the property (Robert and Dorothy Stanley), a 1.5 hectare parcel containing a long panhandle driveway owned by Bjarne and Doraine Jensen and a 15.1 hectare parcel owned by Lance and Lina Kind. Another 15.4 hectare parcel owned by Merle Smith containing two dwellings is located to the southeast of the Plan area boundary. In total, three residential parcels share a property line with the Plan area and a total of seven residences are located within 400m of the Plan area boundaries. Additional dwellings are located along Highway 24 south of the Plan area. The hamlet of Cheadle is located 1.6 km south of the Plan boundary.

3.2 Transportation Network

Existing Access - The current access into the Plan area is by way of two access roads. Access to the 75.2 hectare parcel is provided off Highway 1 via Range Road 261. The other 15.1 hectare parcel within the ASP is accessed by way of Highway 24 across an informal approach along the Highway 24 right of way. Range Road 261 has a 7 to 7.5 metre wide gravel surface and is used as an access to Highway 1 by eight residences within a one mile stretch. Consequently, the existing traffic volumes on the range road are negligible.

West Highway 1 ASP Transportation Review, 2008 – This report, prepared by D.A. Watt and Associates, was used as supporting information for assessing

the County off-site levy bylaw. The report identified a conceptual road system for future development across parcels within the County's West Highway 1 ASP, 2006. The Ansar Industrial ASP is in conformity with the spirit and intent of the D.A. Watt study.

Highway 1 Alignment Planning Study - The 2008 report noted above further stated that at the time, AT contemplated an interchange at the intersection of Highway 1 and Highway 24. At the time of the completion of the 2008 report, the Province was undertaking a *Highway 1 Alignment Planning Study* to determine the overall functioning and linkages between the Provincial highways in the region as well as a potential Strathmore bypass. At the time of preparation of the TIA for this Ansar ASP, the Provincial *Highway 1 Alignment Planning Study* was nearing completion. The Province finalized its open house components in November 2011 and identified a proposed plan that includes an interchange at the intersection of Highway 1/24. Officials at AT expected a final plan to be approved in the second half of 2012.

Traffic Impact Assessment (TIA) Process - The landowner retained Bunt and Associates Engineering (Leslie Radway, P.Eng. and Glen Pardoe, P.Eng.) to prepare a TIA for the proposed development. Consequently, to ascertain that the analysis will match AT requirements, the scope of the TIA was first verified in 2010 with Mr. Trevor Richelhof representing AT's Calgary office. Traffic analysis was carried out using the Synchro 7.0, a traffic analysis software package based on the methods outlined in the U.S. *Highway Capacity Manual*.

Correspondence was initiated with Alberta Transportation from the beginning of the TIA in 2010 and correspondence has been continuous to November, 2013. During this time period, Alberta Transportation prepared an area network planning study which eventually identified an interchange to be located at the intersection of Highway 24 and Highway 1. Thereafter, the Province has agreed

to allow access for the project based on specific improvements and limitations to be implemented at the subdivision approval stage.

A final addendum to the TIA was incorporated into a November 15, 2013 iteration of the TIA. This addendum documents correspondence between Bunt and AT leading to an agreement regarding access conditions for the ASP site. The full revised report and the November 15, 2013 Addendum correspondence are contained in Appendix C under a separate cover.

A roadside development permit and approval at subdivision stage must be obtained from Alberta Transportation (AT). This process will further define the access and egress conditions onto Highway 24 and Highway 1.

TIA Assumptions - For the purpose of determining a working scenario, the TIA report conservatively assumed a full ASP build out of 60 lots at approximately 1.25 hectares (3.1 ac) each for a total of approximately 75 hectares of net developable land. This assumption does not preclude the likelihood that larger and fewer lots are more likely to be marketed or that more and smaller lots would be purchased in multiples for a single business. Alberta Transportation officials were aware of this working scenario as well as the assumption that once Phase 1 of the ASP was subdivided and developed, AT would have established a transportation system that would address access to Highway 1 from Highway 24, and the larger West Highway 1 ASP study area. For the purposes of the TIA, it was originally assumed that access to Highway 1 from Highway 24 would, at some time in the future, be eliminated in favour of an internal road system and that an alternate future access to Highway 1 would be clarified by AT. In the interim, subdivision for a portion of the ASP area would be able to access Highway 1 from Highway 24. At the same time, Range Road 261 would also be closed at some point in the future and access would be re-directed to Highway 1 through an internal road system

A Provincial Highway 1 alignment study has been in preparation for a number of years. This ASP has endeavoured to align with the various iterations of the Provincial draft proposals over time. The discussion below reflects the most recent correspondence with Alberta Transportation (as of November, 2013) respecting their future plans for the intersection of Highway 1 and Highway 24.

The existing TIA analysis indicates that the intersection of Range Road 261/ Highway 1 is currently operating within acceptable capacity parameters. The existing intersection configuration suggests that the intersection is built to an AT Major treatment standard and this is generally sufficient for the existing condition. An intersection sight distance review indicated that the current intersection sight distance to the west is sub-standard for tractor trailer trucks (WB-21) seeking to enter the Highway from Range Road 261 and illumination should be considered by AT for this intersection without consideration of site generated traffic. In any event, it is also noted that minimum stopping sight distances are indeed currently being met.

TIA Opening Day (Initial Phase) - The Opening Day analysis indicated that all studied intersections, including the site access, can be expected to continue to operate within acceptable parameters with the inclusion of traffic associated with the development of 15 lots within the subdivision, plus background traffic growth including the two recently approved industrial lots south of the site on Range Road 261. Specific improvements necessary for the accommodation of site generated traffic at Opening Day include the following:

- Construction of the site access on Range Road 261 per typical County design guidelines to MAR I/C standard.
- Extension of the westbound left turn lane storage length on Highway 1 by 25 metres.
- Widening of Range Road 261 to accommodate a 10 metre finished surface between the site access and Highway 1 per the County Major Access Road – Industrial/Commercial (MAR I/C) standard.

- Dust control or chip seal should be provided along Range Road 261 south to Township Road 240, and considered for Township Road 240 west to Highway 24. Since it is not known what level of improvement costs were assigned by the County to other approved or pending developments in the corridor, it is anticipated that the Ansar site would be required to provide the full dust control or chip seal improvement along their frontage on Range Road 261, and to contribute to part of the cost of the same improvement south to Township Road Road 240; and to a lesser degree west on Township Road 240 to Highway 24.
- Also, despite the fact that the eastbound Highway 1 intersection sight distance issue exists today without consideration of the site, some improvement to safety at the intersection would be appropriate concurrent with the development of the site. To this end, it is recommended that the intersection be illuminated, and that "trucks entering" signage be placed on eastbound Highway 1 west of the intersection with Range Road 261.

Long-term (later phases) - As the Long-term background analysis already indicated that the south leg (northbound approach) of the intersection would experience LOS D. Bunt & Associates improved operation of the intersection by adding a separate northbound right-turn lane in the model. However, it was found that this approach is still expected to operate at a LOS D, but only marginally. It is noted that the delay is expected to be just under 26 seconds, which only slightly exceeded the LOS C threshold of 25 seconds, and since this is a 20 year future condition, and since a by-pass for Highway 1 around the study area may be in place by that horizon; in Bunt & Associates' opinion, it represents an acceptable level of operation representing effective capacity of the intersection at that time.

The specific improvements to support the long-term traffic are as follows:

- A further extension of the westbound left turn bay on Highway 1 to 35 metres (this may not be required if background growth does not occur to the level assumed in the study and is therefore suggested to be monitored and perhaps not constricted if found to be unnecessary).
- Widening of Range Road 261 south of Highway 1 to provide a separate northbound right-turn lane.

Crossing Structure over Hartell coulee - A QAES (Qualified Aquatic Environmental Specialist) assessment was conducted to determine fish presence and evaluate fish habitat conditions at the proposed crossing location. The assessment was conducted by Corvidae personnel on June 21, 2010. The purpose of this report is to meet regulatory guidelines for approval and to assist Ansar in the selection of appropriate crossing structures, construction methods and best management practices.

Under the Code of Practice (COP) for Watercourse Crossings, *Water (Ministerial) Regulation* (AR 205/98) of the *Water Act*, the tributary to Serviceberry Creek is rated as Class C. Class C watercourses in this region have a restricted activity period (RAP) of April 16 to July 15 (AENV, 2007). A more detailed description of environmental construction management considerations for the crossing structure is outlined in the Environmental Review contained in Appendix A under a separate cover.

3.3 Existing Water Supply

Potential Groundwater Capacity – The developer retained Sabatini Earth Technologies Ltd. to prepare a groundwater supply evaluation on behalf of the landowner. The full report dated February 2009 is contained in Appendix D under a separate cover.

A Phase I Aquifer Evaluation was undertaken to determine whether the aquifer underlying the above site could supply water demands associated with the proposed approximately 60 lot dry industrial/ commercial subdivision. Water well data was examined to determine the likely aquifer potential in the area.
Aquifers underlying the area consist of bedrock sandstone units typically at a depth of approximately 50 to 150 feet. Twenty year safe yields of wells (Q20) in the area are calculated to be approximately 22,200 m^3/year (9.3 imperial gallons per minute). This is sufficient to supply water for at least 60 lots at a rate of 660 *m^3/year/lot* for typical shop and commercial/ industrial users from individual wells or a well field (likely 3 wells).

With the data available, static water levels appear to have fluctuated from the 1960s to the present. No indications of aquifer dewatering are present. Based on examination of the strata and proximity to the water bodies, the groundwater is not in direct influence of the surface water and there should be no restrictions on using a groundwater source assuming the conditions examined are met.

A water sample analyzed from a nearby well for routine dissolved constituents shows that the water exceeds the limits for pH, fluoride, sodium and total dissolved solids. The limits for sodium and total dissolved solids are based on aesthetic criteria and no health concerns are noted. If desired, these constituents can be removed by reverse osmosis or distillation. All wells should be tested for routine dissolved constituents and coliform bacteria content prior to use.

Licensing will be required for all wells regardless of whether individual wells or community wells are utilized. Treatment of the water will also be required if a community well supply is developed.

3.4 Land Development Capability

The review of the opportunities and constraints reveals that there are opportunities to create a number of parcels for industrial subdivision with on-site servicing. The following opportunities support the development of the land for further commercial/ industrial development

- The land uses proposed are in accordance with the County's West Highway 1 Area Structure Plan 2006,
- The land is relatively level with ample slope for stormwater management and for gravity services if and when they become feasible,
- Access to Highway 1 is intended to be in conformity with the spirit and intent of the West Highway 1 ASP Transportation Review, 2008 and in accordance with Alberta Transportation long term options for road access. The proposed collector road acts as a service road to help these jurisdictions achieve alternate access to the freeway system over the long term,
- Ample water volume appears to be present to service development of the number of lots anticipated,
- On-site and off-site runoff is manageable within a proper stormwater management plan. Opportunities exist to treat stormwater run-off into Hartell coulee in accordance with Alberta Environment and Sustainable Resource Development guidelines,
- Soil types are suitable for structures of the type that would accommodate industrial land uses,
- Environmental review has determined that the proposed crossing will have impacts that are manageable under construction guidelines established within the environmental review prepared by Corvidae Consulting.

Constraints of the site include the following;

- The Hartell coulee will require a creek crossing, thus adding to development costs,
- The stormwater management facilities will need to be investigated at the subdivision stage in more detail to determine the allowable excavation depths to groundwater,
- The timing of interchange construction at Highways 1/24 will cause uncertainties at the subdivision stage,
- The unknowns associated with long term access to Highway 1 creates some uncertainty.

3.5 Landowner Communications

In January 2010, an information letter was mailed to landowners adjacent to the ASP area respecting the proposed application. A copy of the circular is provided in Appendix F under a separate cover. In addition, since 2009, direct meetings were held with specific landowners explaining the proposed ASP, access options and adjacent landowner's interests. These included Bjarne and Doraine Jensen, Lance Kind, Merle Smith, Robert and Dorothy Stanley and Kenneth and Craig Jones.

4 ANSAR INDUSTRIAL PLAN CONCEPT

4.1 Introduction

Section 4 of this Plan provides the spirit and intent in which the plan policies are written. This section should not be interpreted as policies but rather as context for the policies. Section 5 contains the specific policies that express the specific Plan regulations. Relaxing these policies is within the purview of the County where the relaxations are in keeping with the spirit and intent of the overall concept. The mapping included in the Plan is conceptual and may require further field measurements at the subdivision and development permit stage to verify any discrepancies.

4.2 Future Land Use Concept (Map 4)

The land use concept works within the outline of the master planning document – the County's Wheatland West Highway 1 Area Structure Plan (WHASP), 2006. Expected land uses are intended for parcels serving local and regional industry and may include offices, shops, agricultural, oil and gas related business, areas for open storage of a wide range of equipment and materials. Additional secondary commercial uses such as warehousing, and wholesale sales are also appropriate. It is expected that some commercial uses in support of the industrial users may choose to locate in the area. These uses will be in accordance with the Industrial General district (I-G) of the land use bylaw.

The existing configuration of the land is designed to be able to respond to future market demand, optimize development costs, optimize highway frontage and allow the costs for highway landscaping mitigation to be shared over a wider number of lots.

This ASP is a partnership among two landowners. As such, the larger parcel requires access to both Highway 24 and Range Road 261. This design is also a further link in the overall goal of Wheatland County and Alberta Transportation to plan and build a continuous, parallel service road to Highway 1 the County's Boundary Road to the west and Strathmore to the east. The ASP access and stormwater management is designed in such a manner as to allow for independent timing of initial subdivision for either parcel.

The current land use configuration on Map 4 is conceptual only. The final subdivision lotting scheme would be configured to reflect market conditions at the time. However, a future conceptual lotting is intended to be approximately 160-230 metres in depth with lots averaging 1.25 hectares. This lotting arrangement offers the flexibility for a business to acquire multiple lots should larger parcels be required the need for re-subdivision.

Potential Lot Yield - The net proposed net developable area (excluding potential for stormwater facilities, roads, etc) contains approximately 79 hectares (195 ac). From this net area, approximately 50 to 70 lots are expected to be subdivided over several phases.

There will be no additional permanent population generated by uses proposed within the Plan area on the site.

4.3 Transportation Network

4.3.1 East-west collector road

This ASP traffic circulation consists of a single, paved east-west collector road within a 30m right of way width to connect Range Road 261 and Highway 24. This proposed collector road offers an opportunity for the County and the

Province to add to the existing and future collector connection system as an added link to the parallel service road system to Highway I as originally envisioned in the 2006 *WHASP, the 2008 West Highway 1 ASP Transportation Review*, 2008 and the Provincial *Highway 1 Alignment Planning Study.*

Proposed access to Range Road 261 is approximately 200 metres south of the intersection at Highway 1. Proposed access to Highway 24 is approximately 300 metres south of the intersection at Highway 1.

4.3.2 Highway 1 Alignment Planning Study

As of the date of this ASP, the Province is preparing a *Highway 1 Alignment Planning Study* to determine the overall functioning and linkages between the Provincial highways in the region as well as a potential Strathmore bypass. A third and final November 24, 2011 open house was held in Strathmore. The proposed design identified a future interchange at the intersection of Highways 1 and Highway 24. Alberta Transportation has indicated that the report is expected to be formally approved in the second half of 2012. For the purposes of this ASP, it is assumed that the Alberta Transportation alignment study report will be approved with this approved interchange.

4.3.3 Future interchange planning implications

The ASP anticipates an interchange in accordance with the draft *Highway 1 Alignment Planning Study* and identifies the protection of a right of way for such a future interchange. The land labeled “estimated limit for typical interchange ROW” is intended for future purchase by the Province. The detailed area required for this part of the interchange would be identified at subdivision stage. Future land use concept Map 4 conceptually identifies an internal road design that may be required should an interchange be constructed. The following terms of use would inform future subdivision and development in this ASP:

a) The protected interchange right of way is identified conceptually as per Map 4. Detailed design will occur in cooperation with the Province at the time of subdivision. If there is no immediate land sale to the Province, a temporary development permit may be allowed on the land recognizes the future conversion of the land to an interchange. Any development permit issued within the protected right of way would recognize that structures would be removed upon purchase by the Province or at the time of construction of an interchange.
b) The County will inform development permit applicants of the use restrictions within the future interchange right of way based on the understanding that an interchange will be built at that location at some future time.
c) Should access to Highway 1 from Highway 24 be closed prior to the construction of an interchange, interim access to Hwy 1 will be via Twp Road 234 (Glenmore Trail) and subsequently Twp Rd 240 at Cheadle.
d) The final interchange design and right-of-way required may differ from current design. The final edge of right of way will be reviewed by the Province at each subdivision phase.
e) Purchase of land to the south of the ASP required for added service road access will be at the Province's cost.

4.3.4 Road standards and sequencing - Collector road standards and intersection treatment will be in accordance with County requirements for this area. A 30 metre road right of way is assumed for the collector road. It is anticipated that permanent access will be available at Highway 24. Phase 1 development is expected to consist of paved roads servicing the east and west ends of the development with completion of the entire east-west collector at Phase 3. An interim emergency road access to Range Road 261 may be completed prior to Phase 3 to a gravel standard until such time as Phase 3 subdivision approval is granted.

a) Phase 2 cul de sac - Map 4 shows a dashed line outlining a cul de sac. This optional road configuration would be proposed should the emergent market prefer an alternative lot configuration.

b) Single lot access - The lot configuration for the awkwardly shaped land south of the Encana wellsite may require that an independent and separate access to and from Range Road 261 be provided for that lot only.

c) Watercourse crossing - A road crossing of Hartell coulee was evaluated by the environmental biologists at Corvidae Consulting and the project engineer, Mulyk Consulting Inc. The crossing is proposed to be constructed using concrete box culverts.

4.3.5 Adjacent landowner access - The land owned by Bjarne and Doraine Jensen consists of a 1.54 hectare parcel that is currently accessed by means of a panhandle access road. The Ansar ASP planning consultant met with the Jensen's on September 9, 2010. Mr. and Mrs. Jensen expressed a desire to reduce maintenance costs for the current driveway. They also expressed a willingness to enter into discussions to coordinate their access point with the proposed collector road, thereby reducing their maintenance costs for the current panhandle access. This would then result in only one access point onto Highway 24 rather than two adjacent access points. The location of the new location for the driveway access to the collector road could be located east of Hartell coulee or an alternate configuration to be negotiated at the time of subdivision approval.

4.3.6 Road building agreement – The proposed east-west collector road to service the ASP area will be by built by the developer in phases and turned over to the County as a public road. The road would be constructed in the context of a subdivision agreement at the time of subdivision approval.

4.4 Reserve Land

In accordance with County policy, eligible Municipal Reserve land is proposed to be taken as cash in lieu of reserve at the time of subdivision endorsement on a phased basis. In addition, the County expressed a preference to assign any land eligible as Environmental Reserve (ER) to be designated as either an Environmental Reserve easement or other designation as is mutually agreeable. It is recognized that the Hartell coulee is jointly administered by the Western Irrigation District (WID) and Alberta Environment and Sustainable Resource Development. Therefore, appropriate designations for the Hartell coulee will be considered at subdivision stage as may be agreeable among the landowners and relevant agencies.

4.5 Water and Sewer Servicing

Servicing is to be provided on-site for each parcel created to the satisfaction of the County and Alberta Environment and Sustainable Resource Development. Based on the groundwater assessment report (under separate cover), an adequate water supply is available to supply on-site requirements for most light to medium industry. Moreover, the assessment determined that the groundwater is not directly under the influence of surface water. Groundwater quality will likely require some treatment and the quality of water will depend on each individual well drilled. Trucked-in water may be an option at the development permit stage for some uses requiring low volumes of potable water. Future intended uses are expected to require minimal water consumption, but details of expected water consumption will be determined at the development permit stage on a case-by-case basis.

Sewage disposal will be on-site and in accordance with Alberta Provincial requirements. This will be addressed at the individual development permit stage.

The 2006 WHASP provides for the opportunity to retrofit piped water and sewer systems in the area. The County may request this to be included as a right of way at the time of subdivision approval to accommodate this option along the south side of the proposed access road should subdivision of adjacent lands be contemplated.

4.6 Stormwater Management

Staged master drainage plan and Western Irrigation District (WID) - The landowner retained Paul Jacobs of Stormwater Solutions Inc. to develop a Stormwater Staged Master Drainage Plan for the ASP site. The complete stormwater plan can be located in Appendix E of the "Supporting Appendices Documents" under separate cover. This staged master drainage plan was developed in consultation with the Western Irrigation District (WID) during 2012 and 2013. This stormwater management plan was reviewed by WID. This report will be used as the basis for stormwater management implementation at the subdivision approval stage.

WID and the developer recognize that there are a variety of mechanisms to manage stormwater from the ASP area that would be acceptable to WID. Therefore, the Ansar ASP Stormwater Management report includes alternative solutions for stormwater management on the site. While the ASP is conceptually developed in three (3) phases, the options developed in this report have been designed to anticipate full build out.

Due to the water quality restrictions imposed by the WID Guidelines, zero release rate is proposed for this development. An option with postponed

release of stormwater runoff to the WID system after irrigation season (October) may be an acceptable alternative. If this is to occur, then approval must be sought from the WID.

WID had also expressed concern regarding access to the banks of Hartell Coulee for maintenance purposes. Therefore, an easement will be placed on the undevelopable land on both sides of Hartell coulee within the ASP area. An easement will be registered in favour of the Western Irrigation District (WID) for access and maintenance purposes. This will be undertaken as part of subdivision approval process.

Management Plan Options - The stormwater plan has identified 5 management options, (A-E) each of which, or in combination with others, may be acceptable to WID and the County at the time of subdivision approval and/or development permit approval.

Options are evaluated with a continuous simulation (QHM) model only. A single storm event (SWMHYMO model) was found to not be valid in the options as there is no release rate. Therefore, a 1:100 year, 24 hours storm would not govern in any of the options. The options below provide a variety of stormwater management solutions that all respect best management practices (BMP's). A map illustrating each of these options is located in Appendix E under separate cover.

Option A - evaluates individual pond storage requirements for each lot with zero release and a main pond for roads with zero release consideration.
Option B - evaluates a single pond storage requirement servicing both lots and roads with zero release consideration.
Option C - evaluates individual pond storage requirement for each lot with annual runoff volumes
restricted to 26 mm and a main pond servicing roads and restricted runoff from lots.

restricted to 26 mm and a main pond servicing roads and restricted runoff from lots.

Option D - evaluates individual pond storage requirements for each lot that drains to the existing southeast slough with post-development volumes equal or less than existing volumes.

Option E - evaluates individual pond storage requirement for each lot with annual runoff volumes restricted to 26 mm and a main pond servicing roads and restricted runoff from lots. The pond can discharge to Hartell Coulee at the end of the irrigation season.

4.7 Landscaping Requirements

The Master ASP requires that any development within 300m of the Trans Canada Highway be subject to landscaping provisions along the Trans Canada in accordance with the County Land Use Bylaw Highway Corridor Overlay District. The initial rough-grading and contouring of the ASP lands after each subdivision stage will provide some landscaping in the form of earthwork to be undertaken as a starting point for development of the lots. Final design and implementation of landscaping and placement of vegetation for those parcels fronting Highway 1 and Highway 24 will be will be addressed at the subdivision approval stage. The landscaping of individual lots within each phase will be at development permit stage.

Where necessary and required, the developer will work with those landowners directly adjacent to the Plan area to discuss options for additional landscaping in the form of berms and trees to provide screening for existing residential uses and where there is significant visual impairment. This discussion and design would be negotiated during the phase of subdivision adjacent to the landowner.

A conceptual design of the landscaping at the engineering grading stage will identify the rough grading of the required landscaping.

4.8 Phasing (Map 5)

The ASP is proposed to be developed over three phases. The actual subdivision approval will depend on the capacity of Highway 1 to accept traffic prior to interchange construction. Phase 1 is anticipated to be approximately 26.5 hectares, This will allow for a maximum of approximately 15 lots with an average configuration of 1.25 hectares per lot or larger and typical frontage widths of approximately 50 metres or greater. Buyers will have the opportunity to assemble land in increments of one or more lots to meet their space needs and as a result, total occupancy may be adjusted downward. Phase 1 will require implementation of roadway and on-site stormwater management.

Phase 2 will contain approximately 16 lots and occupy 20 hectares. Phase 3 will contain approximately 21 lots and occupy 27 hectares. It will allow for the completion of the east-west collector, thereby providing a paved access between the quarter section to the east of RR 261 and Highway 24.

Ansar ASP Phasing Summary[1]

Phase	# est.parcels (assumes an avg. 1.25ha per parcel)	est. net developable land[2] ha (ac)	30m collector road	
			row length m (ft)	row area ha (ac)
1	15	20.1 (49.6)	350 (1148)	1.05 (2.59)
2	16[3]	20.0 (49.4)	1389 (4557)	4.2 (10.3)
3[4]	21[3]	26.6 (65.8)	502 (1647)	1.5 (3.7)
total	63	66.7 (164.8)	2241 (7352)	7.2 (17.8)

1 gross area in title = 90.33 ha (223.2ac)
2 area calculation includes developable lands but excludes road rights of way
3 lot yield is dependent on configuration of stormwater management facilities
4 an additional 8.4 ha may be considered for temporary development permit until an interchange is required

5) AREA STRUCTURE PLAN POLICIES

5.1 Introduction

The following policies are the specific actions and standards that a land owner/ developer and the municipality shall follow unless an application is made to amend the Plan and/or the Land Use Bylaw. Relaxation of these policies is within the purview of the County where the relaxations are in keeping with the spirit and intent of the overall concept.

5.2 Land use Policies

a) ASP Conformity - The future land use concept map is identified in Map 4. Future subdivision and development shall be in accordance with Area Structure Plan sections 4 and 5 as well as Maps 4 and 5. Major deviations to the Plan design and policies shall require an amendment to this Plan. Relaxations may be considered without an amendment to this Plan where the reconfiguration of parcels, stormwater management options, road design or phasing would, in the opinion of the approving authority, maintain the overall intent of the Plan policies.

b) Conceptual design - The ASP Future Land Use Concept Map is conceptual. For each phase of development, lot configuration and final road alignments will be designed prior to the subdivision approval stage for that phase. The actual size and number of lots within each phase will be determined at the detailed subdivision design stage.

5.3 Transportation Policies

a) Primary Collector Road - A primary collector road parallel to Highway 1 as shown conceptually on Map 4 will be constructed as required to provide access and connect the Plan area with adjacent parcels and to provide indirect access to Highway 1 by way of Highway 24 and Range Roads 261. The road right of way and standards shall be within a 30 metre right of way or otherwise in accordance with Wheatland County standards.

b) Road Intersections - The developer shall construct road intersections at Highway 24 and Range Road 261 to provide access to the ASP lands in accordance with County standards.

c) Development Agreement - At the time of subdivision approval, the developer shall enter into an agreement to ensure that the road concept as shown in Maps 4 is constructed to County standards.

d) Protection of Interchange Right-of-Way - The Province has identified a proposed future interchange at the intersection of Highways 1 and Highway 24. Land will be protected for use as part of the interchange. Acquisition of land to the south of the ASP for service road access will be the Province's responsibility.

5.4 Servicing Policies

a) Development Agreement - The Developer shall enter into a development agreement with the County at time of subdivision approval for the Plan area in respect of managing stormwater and on site sewage disposal.

b) Servicing Standards – Parcels will be serviced with on-site water and sewer servicing. Lot owners may connect to future piped water and/or sewage disposal systems on a local improvement basis within the benefiting Plan area.

c) Servicing Costs - Applicants for development permit approval shall be responsible for all costs associated with on site infrastructure development related to on-site water supply, wastewater, on-site stormwater management and all franchised utilities.

d) Wastewater Management – Sewage treatment shall be constructed to Alberta Labour Standards in appropriate locations on parcels for potential future connections to piped services.

e) Water supply and distribution - On-site water and sewer may be provided for each parcel created at the development permit stage to the satisfaction of the County and Alberta Environment and Sustainable Resource Development. Water shall be provided in accordance with Provincial requirements. A piped water supply, water license or alternative water supply arrangement, treatment and distribution system is appropriate for each development permit application and approvals shall be provided to the satisfaction of the County and Alberta Environment and Sustainable Resource Development.

f) Potential for future piped services - Future retro-fitting to a piped water and/ or sewage disposal system may use existing rights of way or require that a common right of way be reserved within property setbacks or within the collector road right of way as may be agreed to between the County and the developer.

g) Stormwater management - Stormwater management shall be implemented in accordance with the Ansar Industrial Park Staged Master Drainage Plan in consultation with WID and Wheatland County.

i) On-site, Low-Impact Development initiatives (LID) will be applied in order to manage stormwater on individual lots.

j) The specific stormwater management facilities and techniques to be constructed, shall be in accordance with County and Provincial requirements.

l) Fire protection - The developer shall provide fire protection measures to the satisfaction of the County.

m) Shallow utilities - Underground power, communications and natural gas services shall be provided to the satisfaction of the County.

5.5 Reserve Land and Landscaping Policy

a) Reserve land is intended to be provided as cash in lieu of reserve land at the time of subdivision. No Environmental Reserve land is required to be provided.

b) An Environmental Reserve (ER) easement or appropriate alternative designation other than ER easement will be considered at subdivision stage as may be agreeable among the landowners and relevant agencies including the WID and Alberta Environment and Sustainable Resource Development for those lands adjacent to Hartell coulee and other areas demonstrated to be significant riparian areas. Specifically, an easement will be placed on the undevelopable land on both sides of Hartell coulee. An easement in favour of the Western Irrigation District (WID) will be illustrated, documented and registered for access and maintenance purposes in favor of WID. This will be prepared at the subdivision stage as a condition of subdivision.

c) Landscaping shall be undertaken subsequent to subdivision endorsement stage on a Phase by Phase basis and shall consist of rough grading of the site including berms with any necessary planting in order to shape and contour land that is exposed to Highway 1 where it is required to be undertaken in accordance with the Highway Corridor Overlay District of the Land use Bylaw. More defined landscaping including vegetation, additional land contouring and architectural features of individual lots will be undertaken at the development permit stage.

d) The developer will work with adjacent landowners at the time of Plan area development to provide a mutually agreeable resolution to issues of viewshed mitigation for adjacent residences that may arise at the subdivision development stage.

e) The 30 metre primary collector road right of way provides ample room for drainage and additional space for the potential future installation of piped infrastructure. It is intended that the urban design of buildings and other development would allow setback relaxations from the collector road where road right of way is not required for actual road development or drainage and where it is proposed to be landscaped at the development permit stage.

5.6 Phasing Policies

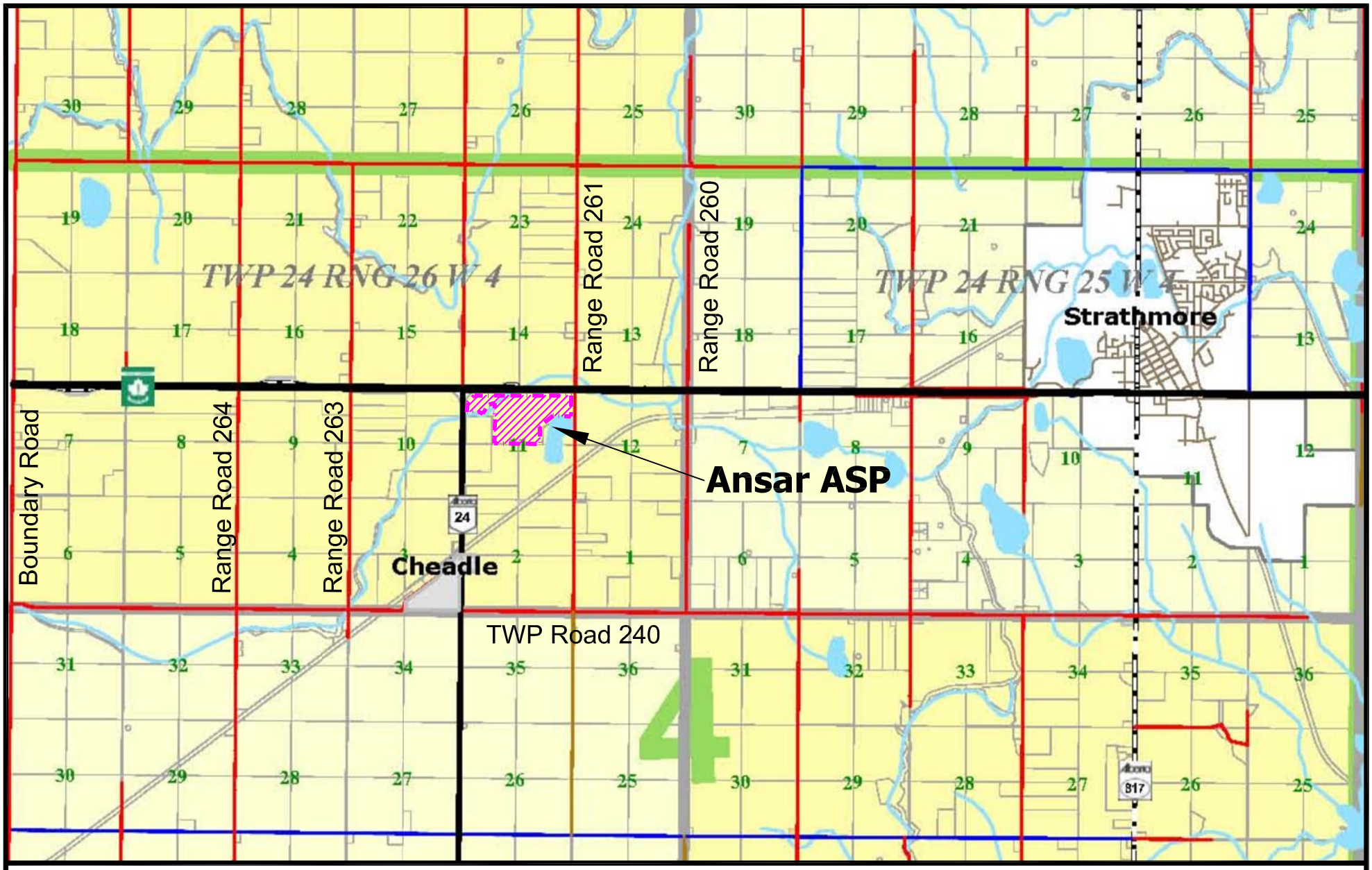
a) The Phasing of the Plan area is shown in Map 6. The Phasing is conceptual and may be changed to the satisfaction of the County without the need to amend this Plan.

b) The actual number of Phase 1 parcels approved by the County will be determined in conjunction with Alberta Transportation referral comments.

5.7 Implementation Policies

a) Subdivision Agreement - The developer shall enter into an agreement with the municipality at the subdivision approval stage to ensure standards of road construction, stormwater management, site preparation, development charges, off-site bylaws, endeavours to assist and any other matter required by the County under the provisions of the Municipal Government Act.

b) Re-zoning – Future subdivision applications shall require concurrent third reading approval to the appropriate Rural Industrial zoning district, being the Industrial General District (IG) as amended from time to time.



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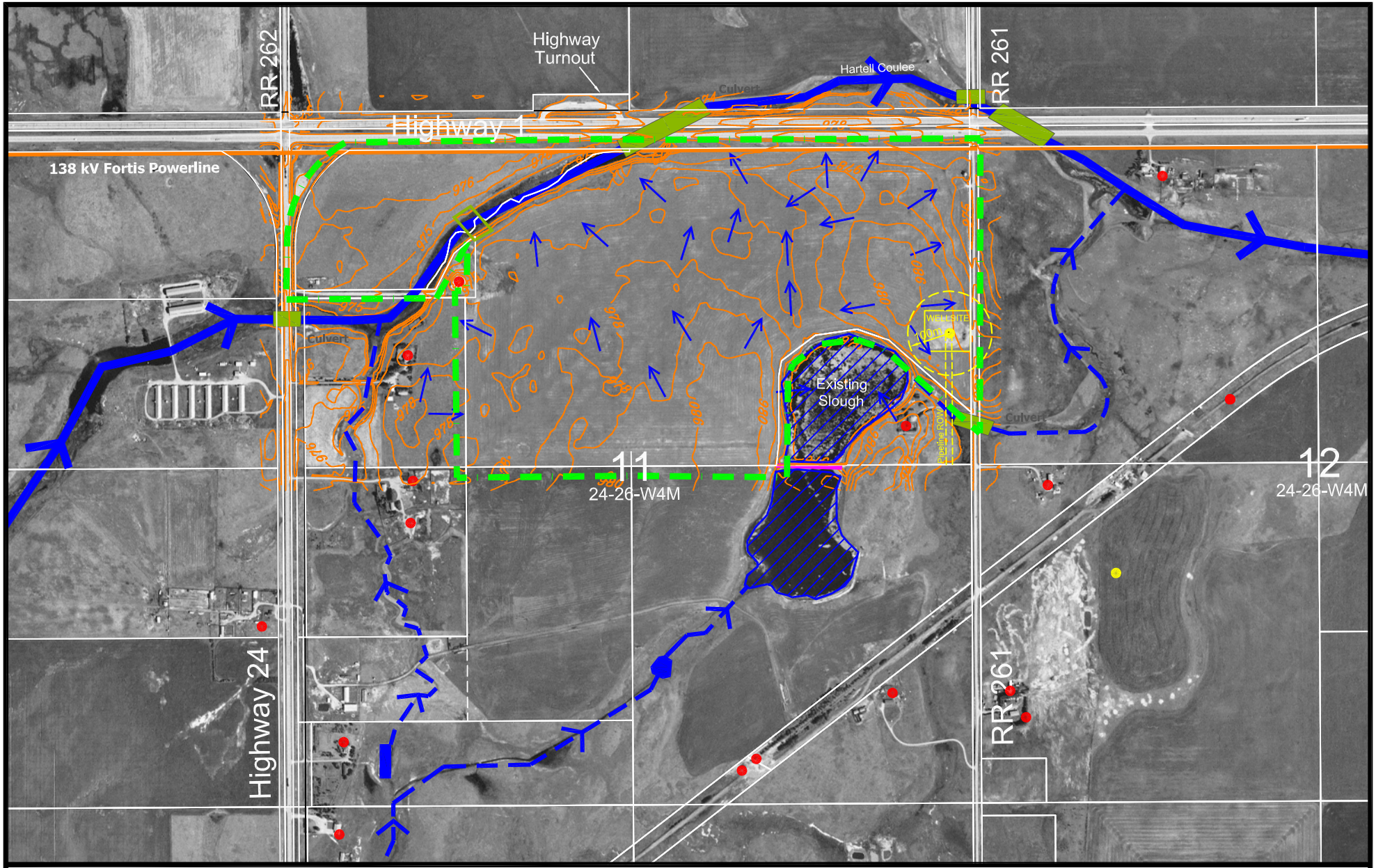

Legend

- ASP Boundary
- Transmission Power Line
- Dam Structure
- Intermittent Drainage
- Western Irrigation District Watercourses
- Intermittent Pond/Reservoir
- Culvert
- Residence
- Oil/Gas Well
- Contours (1m)
- Drainage Flow Direction

Existing Land Use & Drainage
Map 2

Ansar ASP
N1/2-11-24-26-W4M

MATRIX *PLANNING*

Scale: 1 : 12 500

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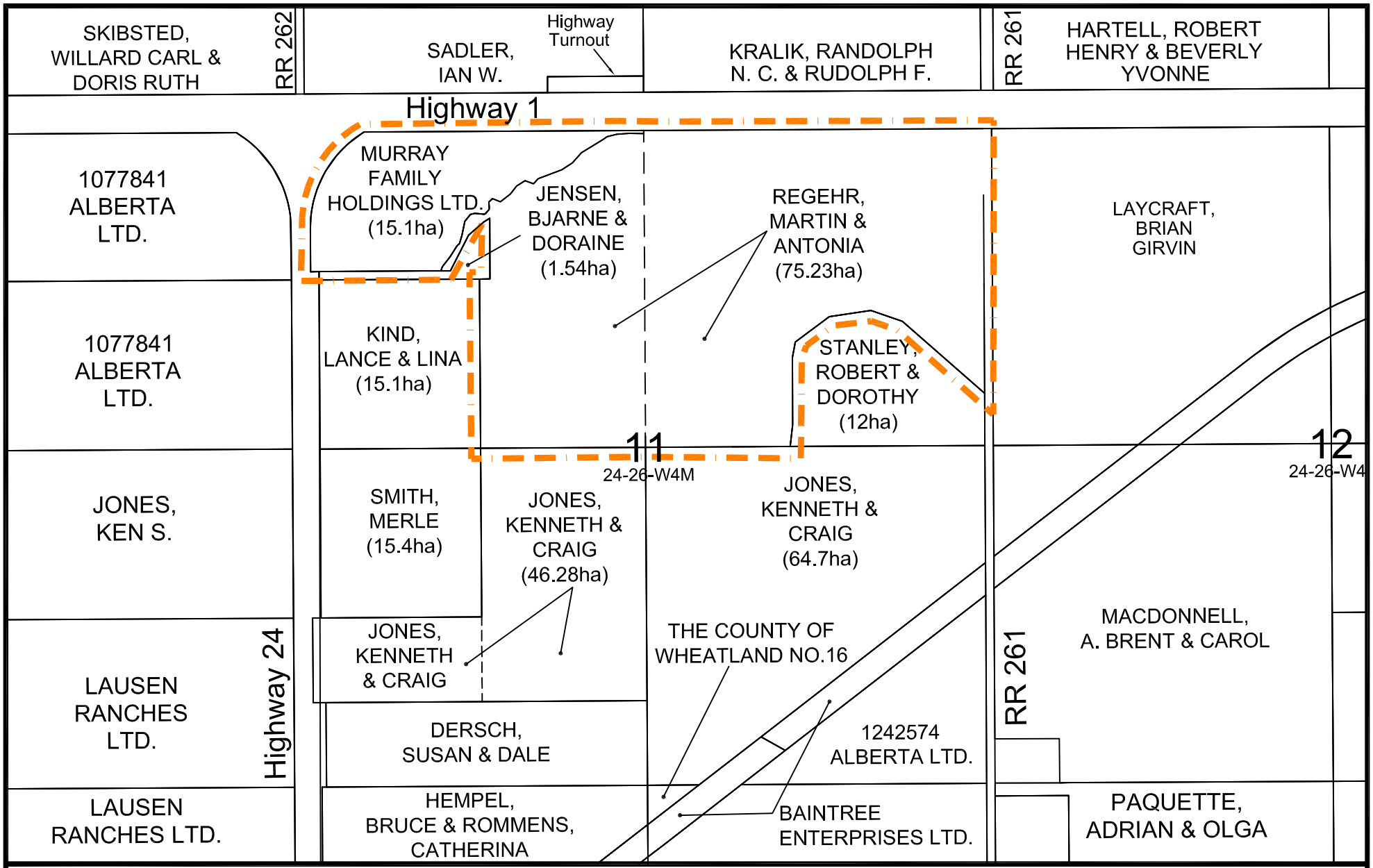
File: Ansar ASP Dec10.v3.dwg Dec 19, 2010 Map:ELU2



Legend

ASP Boundary

Land Ownership
Map 3

Ansar ASP

N1/2-11-24-26-W4M

MATRIX *PLANNING*

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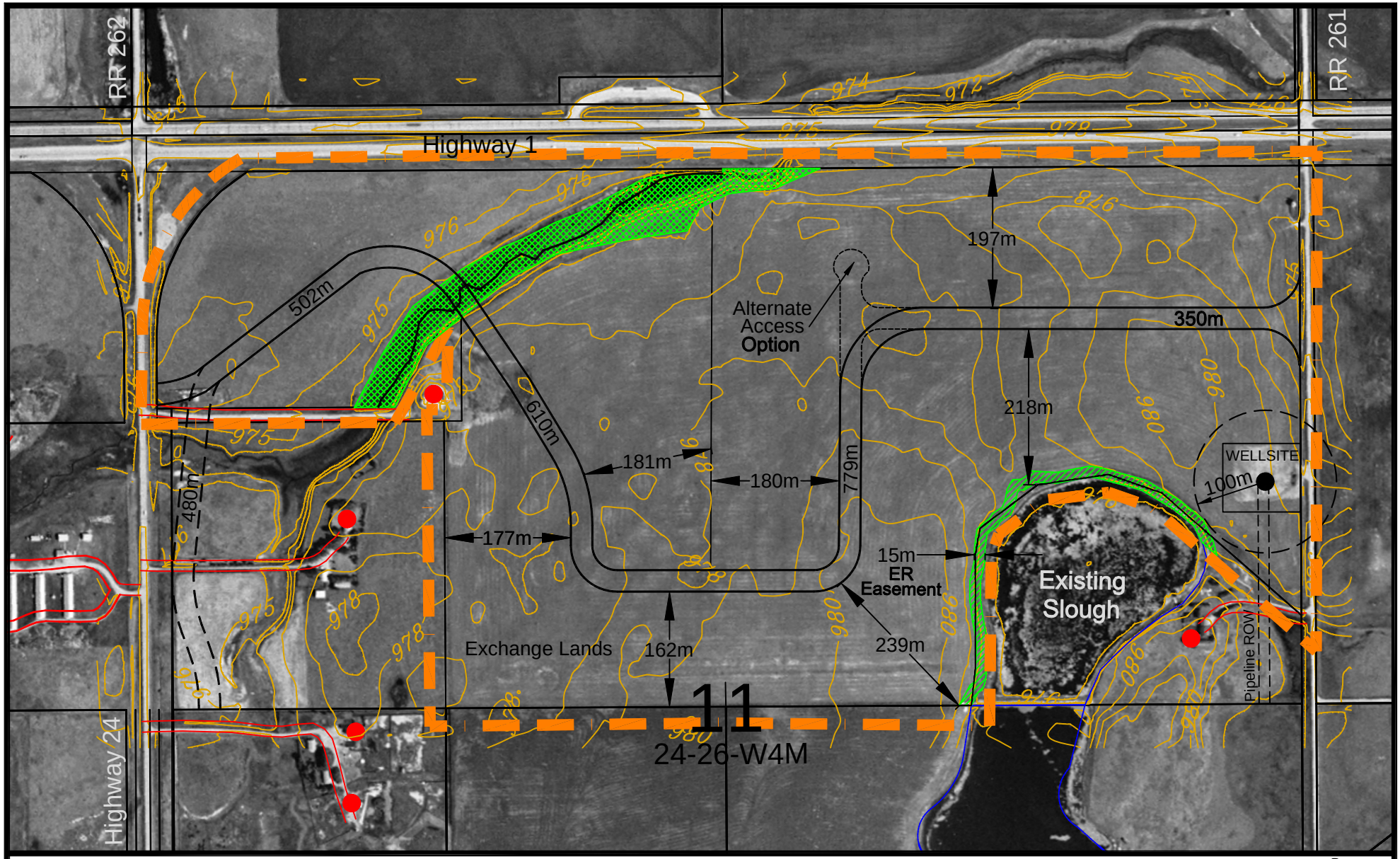

Future Land Use Concept
Map 4

Legend

- ASP Boundary
- CONTOURS (1m)
- Existing Residences
- Existing Access Driveways
- Proposed Environmental Reserve Easement
- Proposed WID Easement
- Collector Road (30m r.o.w.)
- Future Service Road Extension

Ansar ASP
N1/2-11-24-26-W4M

MATRIX *PLANNING*
Scale: 1 : 7 500
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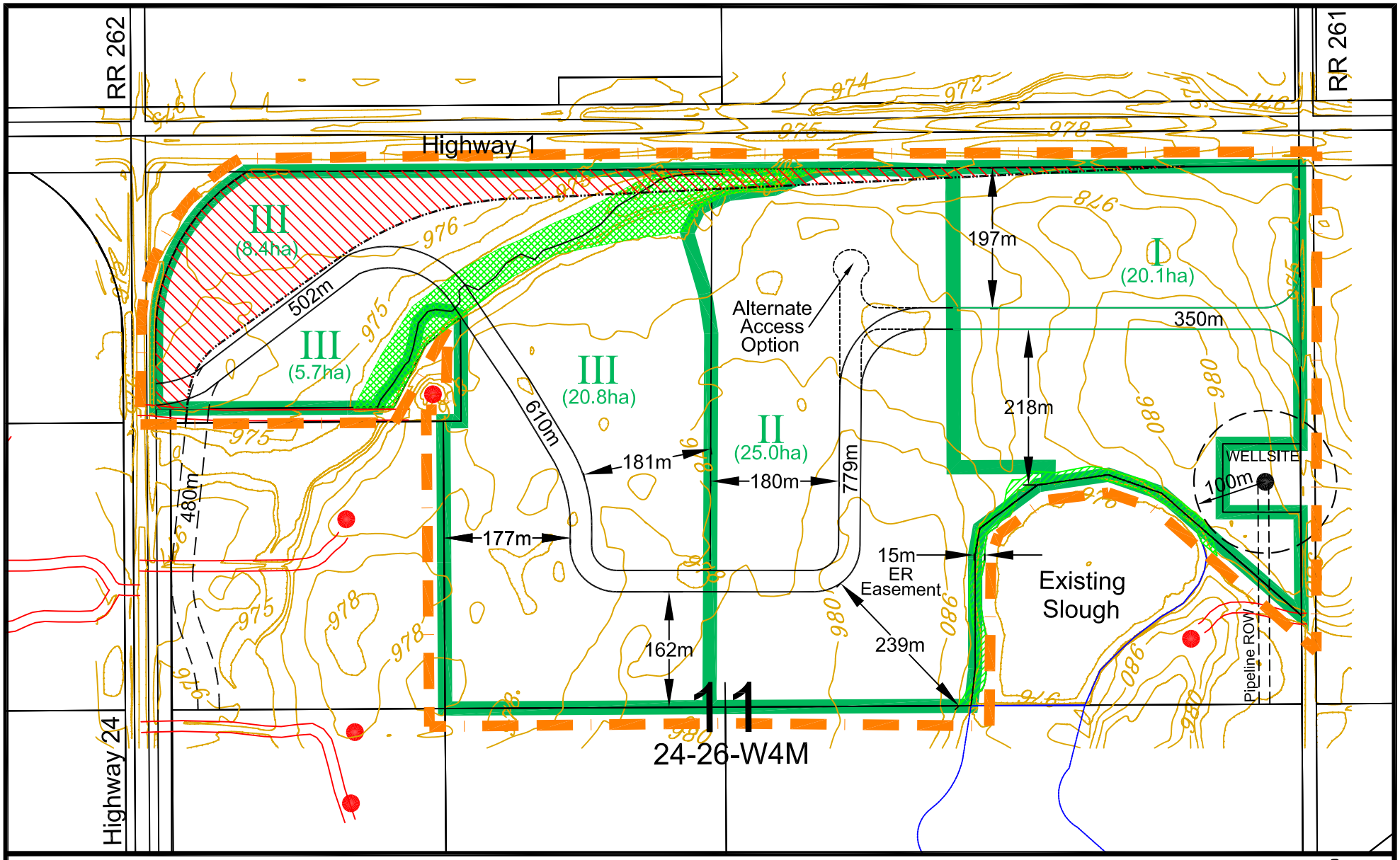
Dec 03, 2013

File: Ansar_v11.dwg Dec 03, 2013 Project: Map:Map4



Phasing Concept
Map 5

Legend

- ASP Boundary
- CONTOURS (1m)
- Existing Residences
- Existing Access Driveways
- Proposed Environmental Reserve Easement
- Proposed WID Easement
- Collector Road (30m R.O.W.)
- Future Service Road Extension Option
- I — Phasing (Net Developable hectares)
- Estimated Limit for Typical Interchange R.O.W (Subject to Change)

Ansar ASP
N1/2-11-24-26-W4M

MATRIX *PLANNING*

Scale: 1 : 7 500

0 75 150

Dec 03, 2013

File: Ansar_v11.dwg Dec 03, 2013 Map:Phasing

6) ASP MAPS

1. ASP Location
2. Existing Land Use and Drainage
3. Existing Land Ownership
4. Future Land Use Concept
5. Phasing Concept