


**Cypress County  
Dunmore Master Area Structure Plan**

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## 1 Introduction

The Dunmore Master Area Structure Plan (ASP, the Plan) has been prepared for the benefit of the Hamlet of Dunmore and adjacent County lands. Of the numerous hamlets in Cypress County, Dunmore is expected to experience the most intensive growth and development pressures in the long term. This ASP will act as a guide to the orderly expansion of the Hamlet over the next 20 to 40 years. The boundary of the Plan area is shown on Figure 1 (Location).

### 1.1 Purpose of the Plan

The purpose of this ASP is to provide a framework for future subdivision, servicing, and development of the Dunmore Urban Services Area. The ASP includes consideration of:

- future land uses,
- population projections ,
- the natural environment and resources,
- recreation and community services,
- major transportation routes
- major servicing and utilities,
- phasing of development, and
- policies accommodating interim development.

Area Structure Plans are long-term “living documents.” As variables change, it is not uncommon for plans to receive review and amendments. The vision of this ASP should remain consistent; however, more detailed components may be amended in accordance with County needs.

### 1.2 Vision

The County’s long term vision for the Plan area is one of growth and development to an ‘urban’ level of services for its residents while maintaining desirable aspects of the existing hamlet lifestyle. With foreseeable development opportunities in the future the community will evolve over the long term to be an increasingly competitive regional alternative for residential, commercial and industrial development.

Much of the past growth in Dunmore has been a result of its desired rural hamlet lifestyle and proximity to regional urban conveniences. As Dunmore grows, the importance of providing urban conveniences and amenity locally will increase. Providing a ‘road map’ for growth will ensure that development strives toward a complete, safe and efficient community for the future. This Plan aims to achieve this through the provision of lands for parks and open space, school sites, local and regional commercial districts, commercial/industrial employment districts, residential neighbourhoods, and development phasing policies.

### 1.3 Objectives

The objectives of the Dunmore Master ASP are:

- Provide for the orderly expansion of the Hamlet of Dunmore.
- Provide a Plan that is consistent with existing municipal, provincial, and federal policies, regulations and plans for the area.

- Create a 'Complete Community' where individuals can live, work, learn, play and meet.
- Provide development policies to guide and accommodate interim and long-term growth.
- Provide efficient conceptual servicing concepts.
- Provide an efficient conceptual transportation network.
- Outline requirements for development of sand and gravel resources.
- Provide pedestrian connectivity and spaces for formal and informal recreation opportunities (i.e. trails, parks, and open space).
- Provide protection of natural areas (i.e. riparian areas, creek banks, and slopes).

## 2 Policy Context

A map of the relevant policies affecting the Plan area is displayed on Figure 2 (Policy Context).

### 2.1 Municipal Government Act

The ASP has been prepared in accordance with the requirements set out in Section 633 of the Municipal Government Act (MGA). Section 633 of the MGA states that an Area Structure Plan must describe:

- the sequence of development for the plan area,
- the land uses proposed for the area, either generally or with respect to specific parts of the area,
- the density of population proposed for the area either generally or with respect to specific parts of the area,
- the general location of major transportation routes and public utilities, and
- other matters council considers necessary.

### 2.2 Tri-Area Inter-municipal Development Plan (2009)

The Tri-Area Intermunicipal Development Plan (IDP) between the City of Medicine Hat, the Town of Redcliff, and Cypress County was adopted by the three municipalities in 2009. As the primary policy document within the Tri-Area, all other planning documents within the IDP jurisdiction must be consistent. Preparation of the Dunmore Master Area Structure Plan is identified in the IDP as a future implementation task. The IDP boundary affecting the DUS Area is shown on Figure 3 (Policy Context).

The IDP established a regional framework for attracting economic activities and managing land use, subdivision, and development within the Tri-Area over a 50 year time horizon. Within the IDP horizon a population of 145,000 persons in the Tri-Area is projected by 2057. Of this regional population, the Dunmore area is estimated to be home to between 4,000 and 5,000 persons.

The IDP includes the Dunmore Urban Services Area as part of the Future Land Use Concept for the Tri-Area. The IDP policies for the Plan area establish a broad long-term vision of expanding hamlet boundaries, piped water and sewer, an urban level of services, and the preservation of desirable rural characteristics.

### 2.3 Cypress County Municipal Development Plan (2011)

A major factor in determining the policy direction of the ASP is the Cypress County Municipal Development Plan (MDP). The MDP was prepared to be consistent with the IDP and provides further direction for the implementation of Area Structure Plans as well as guidelines for the orderly economic development of the County.

Adopted in 2011, the MDP expresses the importance of maintaining the County's agricultural base while at the same time promoting rural growth in existing Hamlets. The objectives of the MDP encourage industrial and commercial development in the County, promote major hamlets as residential communities and local service centres, promote the development of recreation potential, and emphasize the importance of conservation of the natural environment.

## **2.4 Cypress County Land Use Bylaw No. 2011/04 (2011)**

Land Use Bylaw's provide legal means for local governments to implement community visions and policies. The vision and policies of this ASP will be implemented through the Cypress County Land Use Bylaw (LUB). The ASP provides conceptual land uses, and formal amendments to the LUB may be required prior to development to establish the appropriate LUB district.

## **2.5 Township Road 120 Master Area Structure Plan (2012)**

The Township Road 120 Master ASP was adopted by the County in 2012. The Township Road 120 ASP recognizes a long-term potential for the development of a fully serviced commercial and industrial area west of the Plan.

There are three easterly quarter sections of the Township Road 120 Master ASP that abut the Plan area. Within these quarter sections are three active sand and gravel extraction operations and an asphalt plant. These quarter sections are designated for such industrial activities in the Township Road 120 ASP and the IDP; therefore, it can be expected that the use of these lands will be industrial in nature in the long term. Proximity of the Dunmore Master ASP boundary to established industrial uses with a potential long term presence are important considerations.

## **2.6 East Dunmore Area Structure Plan (2002)**

The East Dunmore Area Structure Plan (East ASP) was adopted by the County in 2002. When the East ASP was adopted, the relevant policy documents of the area included the Cypress County General Development Plan and the intermunicipal Urban Fringe Plan. The Cypress County General Development Plan was replaced in 2011 by the Cypress County Municipal Development Plan, and the Urban Fringe Plan was replaced in 2009 by the Tri-Area Inter-Municipal Development Plan. Therefore the changes adopted in the higher level plans has made components of the East ASP out of date and inconsistent. To address this the East ASP bylaw shall be repealed to ensure the Dunmore ASP is formally recognized as the comprehensive plan for the area.

## **2.7 Highway 1 & 3 Network Functional Planning Study – Future Realignment (2009)**

In 2009, Stantec Consulting Ltd. produced on behalf of Alberta Transportation, the Highway 1 & 3 Network Functional Planning Study – Future Realignment – Medicine Hat (Realignment Plan). The results of the Realignment Plan that directly affect the Plan area are shown on Figure 6 (Man Made Considerations).

Currently, Highways 1 and 3 passing through the Town of Redcliff and the City of Medicine Hat do not meet Transportation Canada's National Highway System (NHS) standards. It was determined that upgrading the existing highways to meet NHS standards would be extremely disruptive and costly due to the amount of existing adjacent development and infrastructure. With highway realignment being the best option, the Realignment Plan was prepared for the purpose of developing future realignment paths for Highways 1 and 3 through the Tri-Area region.

The future Highway 1 road right-of-way defines the south and east boundary of the Dunmore Master ASP and represents significant development constraints and opportunities for the Plan area.



## **2.8 Dunmore Area Structure Plan (1997) Bylaw 96/05**

The Dunmore Area Structure Plan was adopted by the County in 1997. The 1997 ASP only affected lands within the existing hamlet boundary.

This Master ASP will replace the Dunmore Area Structure Plan.

### 3 Community Consultation

Community consultation for the ASP consisted of an open house, numerous telephone discussions and email exchanges with residents/stakeholders, interviews with major stakeholders, meetings with County Staff, and a public hearing held by Council.

In May of 2012, Scheffer Andrew Ltd. distributed over 475 letters to stakeholders in and adjacent to the Plan area. Recipients included major land owners and lease holders, regional, provincial, and national interests, residents of the Plan area, and residents and land owners from adjacent County lands. The letter invited individuals to the open house, stated the purpose of the event, and gave the date, time and place. An advertisement for the open house was placed in the Cypress Courier, on the Cypress County Web site, and a poster board advertisement was placed in the lobby of the County Office.

The open house was held on June 19, 2012 at the Cypress County municipal office. Sixty individuals attended the open house. Information boards were displayed in Council chambers and County and Scheffer Andrew Ltd. staff engaged the attendees with questions and discussion as individuals arrived. A stakeholder feedback sheet was provided for individuals to submit written feedback. Business cards for County and Scheffer Andrew Ltd. staff were made available to attendees.

County and Scheffer Andrew Ltd. staff made a brief presentation to introduce the ASP project and explain the stakeholder feedback sheet. A question and answer period and additional discussion with attendees continued after the presentation.

The main relevant topics of interest expressed prior to and during the open house centred around:

- A desire of residents to see the existing Hamlet boundaries fully developed,
- Concerns about the impacts of the asphalt plant and potential expansion of sand and gravel resource extraction in the area,
- A lack of pedestrian connectivity between residential neighbourhoods, the school and other areas,
- A lack of formalized parks and access to natural open space,
- A lack of local amenities including community gathering places and local commercial establishments,
- The future HWY 1 realignment Plans,
- Future potential sanitary system,
- Water Gate Agreement with the City of Medicine Hat and eventual piped water and sewer in the area, and
- Concerns with previously approved development plans within the plan area.

After the open house, the stakeholder feedback sheet and poster board information was made available on the County Web site. Follow up emails were sent to those who requested additional information.

A second open house was held on March 19, 2013 at the Cypress County municipal office. Approximately forty individuals attended the open house. Information boards were displayed in Council chambers and County and Scheffer Andrew Ltd. staff engaged the attendees with

questions and discussion as individuals arrived. County and Scheffer Andrew Ltd. staff made a brief presentation highlighting the key elements of the ASP. After the presentation the consultation team answered individual questions. Full copies of the draft ASP were made available to participants for their review.

Advertisements were placed in the Cypress Courier informing County residents of the scheduled public hearing.

## 4 Influencing Factors

### 4.1 Plan Boundary

The ASP affects approximately 1,600 ha (4,000 ac) within Cypress County. The plan boundary includes the existing Hamlet of Dunmore and land bounded by the Bullshead Creek and Range Road 52 to the west, the future Trans Canada Highway (TCH) re-alignment to the south and east, and the CP Railway to the north. Figure 1 (Location) shows the plan boundary.

### 4.2 Access

Access to the Plan area is primarily provided through a network of major roadways consisting of the TCH, Eagle Butte Road, Highway 41, and Township Road 120. The developed portions of the Plan area are well served with collector, local, and service road connections from the existing transportation network. Each major roadway in the existing Plan area has varying degrees of access restriction. It can be expected that such restrictions will change as Dunmore grows and provincial highway plans take action.

### 4.3 Environmental Considerations

Environmental considerations are significant factors in determining a development concept for an area. Natural features can act as barriers to development as well as provide opportunities to add value and amenity. The major environmental considerations of the Plan area are displayed in Figure 5 (Environmental Considerations) and described below.

#### 4.3.1 Site Description and Topography

The topography of an area is important for identifying undevelopable slopes, low areas, existing drainage patterns, water features, scenic views, habitat areas, potential utility servicing routes and location of infrastructure and storm water management facilities, and other valuable information about a landscape. The overall topographical pattern is a gradual to moderate north-westerly slope with the highest elevations at the southern boundary along the future TCH Bypass and the lowest elevations in the northwest corner at the Bullshead Creek. The overall pattern is interrupted by a number of scattered low areas and ravines that run from south to north through the plan area. A detailed topographical map is shown on Figure 2 (Topography).

#### 4.3.2 Bullshead Creek

The Bullshead Creek abuts the Plan area at its most westerly boundary. The creek and adjacent lands are identified in the IDP as environmentally significant and provides protection to the riparian areas of the Bullshead Creek from erosion and development impacts by designating a 100 m buffer, on both sides of the creek, to be left undeveloped. The 100 m buffer is based on a policy decision and can be complemented with further future hydrological (floodplain and creek flow) and biophysical (plants and animals) assessments to more definitively establish an appropriate buffer based on specific site characteristics. Currently there have been no detailed assessments conducted at this time for the Bullshead Creek in the Plan area.

Requirements for development adjacent to the creek will consider and conform to federal and provincial legislation and regulations, the IDP, MDP, LUB and site specific hydrological and

biophysical assessments. Specific development policies are outlined in Section 5 Development Concept. The goal of the policies is to protect sensitive riparian lands, retain a natural corridor through the valley, provide public access, and not unduly restrict resource extraction and development.

#### 4.3.3 Surface Water Features

Apart from the Bullshead Creek and valley, the Plan area has a relatively small number of surface water features. These include a handful of low areas, a ravine that bisects the plan area in a north-south direction and additional ravines concentrated in the northwest portion of the plan south of the Trans Canada Highway. The overland drainage pattern generally flows from the high ground in the south to the low lands in the north ultimately discharging into the Bullshead or Ross Creeks. The surface water features and low areas create opportunities for open space, visually pleasing natural areas, and integration of storm water management facilities. Whenever possible, the natural drainage pattern of the land should be maintained, which should reduce the development impacts on the environment and potentially reduce costs.

#### 4.3.4 Biophysical Impact Assessment Requirements

Biophysical Impact Assessments (BIAs) are used to assess baseline conditions and determine the biophysical impacts of a development on a particular area with regard to plant and animal species. BIAs are typically required when a land development proposal creates uncertainty with regard to its environmental effects. The ASP area includes undeveloped and undisturbed lands, which potentially may include protected or sensitive plant or animal species. BIAs were not completed as part of this ASP, as natural features can change over time making assessments time sensitive. Ideally, BIAs should be completed as close to development commencing as possible to achieve an accurate assessment.

#### 4.3.5 Historical Resources Act Requirements

The Historical Resources Management Branch of the Alberta Ministry of Culture and Community Services performed an assessment of Historical Resources Act requirements for the Plan area. It was determined that a Historical Resources Impact Assessment must be conducted by an archaeological consultant on all undisturbed lands prior to the initiation of any land surface disturbance activities. The province has indicated that within undeveloped lands there are two identified archaeological sites of interest, D1Op 6 and D1Op 32. Historical Resources Act Clearance is granted when a Historical Resources Impact Assessment meets the requirements of the Historical Resources Management Branch. If warranted, a deep testing program may be required in areas of significant sedimentation. During the conduct of the Historical Resources Impact Assessment, an archaeological consultant will be required to comment on the relationship between the proposed development and the identified archaeological resources.

#### 4.4 Man-Made Considerations

Man-Made considerations are significant factors in determining a development concept for an area both in terms of constraints and opportunities. Figure 6 (Man Made Considerations) displays the Man-Made Considerations. The implications, both challenging and positive, of each man-made feature on the development concept are discussed below.

#### 4.4.1 Land Use

Existing developments and the land use designations within the Plan area and the surrounding area are important considerations for the development concept. The most significant existing developments include the hamlet residential dwellings south of the Trans Canada Highway, the commercial/industrial uses adjacent to the highway, and the sand and gravel extraction uses in the Bullshead Creek valley. Major existing land uses are displayed on Figure 6 (Man Made Considerations).

#### 4.4.2 Land Ownership

The Plan area consists of numerous land owners with a wide range of holding sizes. The major undeveloped parcels of the plan area are relatively unfragmented; an attribute that can facilitate future development consistent with the Plan and lessen potential conflicts between land owners. Large parcels of unsubdivided land are preferable for development. In addition, all future subdivision of the unfragmented and undeveloped lands will have to be consistent with the vision of the Plan.

Table 1 lists the major land owners (i.e. holdings greater than 40 ha (99 ac)) within the plan boundary.

**Table A - Major Land Owners**

Landowner	Approximate Area (ha)	%
Mastel, A	279	17
Jans, E & L	212	13
Cavan Ranch	114	7
Cheema Management	84	5
Mardian, M & B	62	4
Felesky, E	52	3
Wilde	37	2
Martinson, A	32	2
Kuntz, D & V	29	2
Monarch Land Ltd.	28	2
Alberta Transportation	28	2
Small Parcel Owners (less than 25 ha)	692	41
<b>Total</b>	<b>1649</b>	<b>100 %</b>

#### 4.4.3 Oil and Gas Infrastructure

Regulation of oil, natural gas, and pipeline development in Alberta is performed by the Energy Resources Conservation Board (ERCB). A Land Development Information Package prepared by the ERCB provided the location of all registered oil and gas infrastructure and associated right-of-ways affecting the Plan area.

The Alberta Subdivision and Development Regulation mandate a 100 m setback from active gas and oil wells. There are 6 active wells in the Plan area. There are no sour gas wells within the Plan area. Abandoned wells require a 5 m setback from development. There are 5 abandoned wells in the Plan area. Oil and gas pipelines and their associated rights-of-way can also constrain development; however, it is generally economically feasible for developers to relocate/realign pipelines to better accommodate future development.

Oil and gas resource extraction and their development policies are contained in Section 9.

#### 4.4.4 Confined Feeding Operations

Confined Feeding Operations (CFO's) are defined as "fenced or enclosed land or buildings where livestock are confined for the purpose of growing, sustaining, finishing or breeding by means other than grazing and any other building or structure directly related to that purpose." The Natural Resources Conservation Board (NRCB) regulates CFO's under the Agricultural Operation Practices Act.

The NRCB grants permits for new or expanding CFOs based on a number of requirements. Consistency with the municipal development plan of an area is one requirement. The County has designated in its MDP areas where confined feeding operations are to be excluded, and the Plan area is within this CFO exclusion area. Future CFOs outside of the Plan area must be consistent with the NRCB's Minimum Distance Separation policy and the County's MDP; therefore, the growth of the Plan area is not expected to be impacted by future CFOs.

#### 4.4.5 Sand and Gravel Extraction

Significant areas within and adjacent to the Plan are currently being utilized for sand and gravel extraction. Additionally, there are undeveloped lands that consist of commercially viable sand and gravel deposits that are expected to be mined in the future. Sand and gravel extraction is valuable to the region and the County. Extraction does present challenges in the form of impacts to aesthetics and nuisances associated industrial operations.

Applications for development of sand and gravel extraction operations, as well as residential subdivisions in close proximity to existing sand and gravel operations, will be reviewed to ensure that potential conflicts are minimized. Evaluation of proposals for sand and gravel extraction must include assessment of foreseeable impacts, mitigating measures, and reclamation of exhausted sand and gravel sites. Additional studies may be required, at the discretion of the Development Authority, in order to assess potential impacts from dust, noise, smell, vibration and other impacts identified by Cypress County.

The development policies associated with gravel and sand extraction are located in Section 9.

## 5 Development Concept

The Development Concept integrates the natural and man-made considerations of the Plan area with the needs of the community while meeting all relevant policy guides and regulatory requirements.

The land use designations and their areas displayed on Figure 7 are conceptual. They are intended to provide a broad road map for future development. Further planning through conceptual schemes will revise the designation and area of land uses. Major deviations from this Plan will require amendments; however, if the 'spirit' of the Plan is preserved amendments are not necessary.

### 5.1 Concept

The concept recognizes the established development pattern within the existing hamlet, and integrates compatible and complementary land uses to create a complete 'urban' community while maintaining a distinct hamlet character.

The key elements of the concept include:

- An industrial/commercial ribbon along the Trans Canada Highway,
- Low density residential south of the Trans Canada Highway,
- Sand and gravel extraction in and adjacent to the Bullshead Creek valley,
- A regional commercial node at the interchange of the TCH bypass and Highway 41,
- An east/west community trail and open space corridor linking the community to the valley, and
- A multi-use node that will serve as the community's gathering place.

### 5.2 Residential

The Plan accommodates approximately 269 ha of additional residential growth. The predominant dwelling type is anticipated to be low density residential (i.e. single detached dwellings). The majority of the residential lands are located south of the existing TCH. These lands are excellent for residential in that they provide for interesting topography and views to the north.

Once serviced with a sanitary sewer system residential development can achieve a density range of 8 to 12 units/gross ha with a typical lot size of 500 m<sup>2</sup>(0.12 ac) to 800 m<sup>2</sup>(0.2 ac). It is expected that the initial phases of future expansion will be at a lower density of approximately 1,800 m<sup>2</sup> (0.44 ac) per residential lot as they will be developed on a sanitary tank/field system consistent with the minimum lot area requirements of the LUB.

There is a small pocket of land in the northwest corner of the Plan area adjacent to the Bullshead Creek and the TCH that is designated for residential development. It is anticipated that these lands will be developed at a lower density due to servicing challenges and potentially incompatible adjacent uses.

Small multi-family developments could be permitted at key locations (i.e. hamlet core, adjacent to major road, etc.) without a formal amendment to this Plan.



At several locations the planned residential is adjacent to potentially incompatible uses (sand and gravel, industrial/commercial, TCH bypass), and therefore at these locations special consideration to neighbourhood design, buffering, screening and other mitigating measures will be required at the time of development.

### 5.3 Commercial/Industrial

The Commercial/Industrial lands designated are located adjacent to the CP Railway main line, TCH and Highway 41. A significant portion of these lands are already developed as either commercial or light industrial uses.

The combination of commercial and light industrial uses is seen as compatible. It is not expected that heavy industrial uses will be developed within the Commercial/Industrial designated areas. Anticipated uses include highway commercial (truck stops, restaurants, hotels, etc.), and light industrial uses (i.e. oil/gas shops and yards, storage, warehousing, offices, etc.).

#### 5.3.1 Live/Work Area

The area within the existing hamlet between the TCH and the CP Railway main line is significantly developed. This area has a unique character with residents and light and medium industrial and commercial uses coexisting and often being accessory to one another. The Plan recognizes this development pattern by creating a live/work area that allows the development of low impact light industrial and commercial uses in addition to single family homes on larger parcels. This district builds off an existing strength of the area in that it fosters the complimentary arrangement of large multi-use lots and offers a unique choice for residents to live and work at the same location.

Diversity of choice for residents will be maintained and enhanced creating a desirable live/work area with reasonable controls to discourage land use conflicts. The live/work area will contribute to maintaining the existing hamlet lifestyle that has attracted residents to this district.

#### 5.3.2 Flex Site

Undeveloped lands at the north western most extent of the Plan area, adjacent to the Bullshead Creek to the north of the TCH and bounded by two sections of CP Rail line, offer a variety of development opportunities. Due to access constraints, the opportunities provided by recreational uses to the north, the proximity of the CP Railway lines, and location of industrial uses to the south; the opportunities for this flex site vary. A range of recreational or industrial uses could be appropriate for this site.

### 5.4 Commercial

#### 5.4.1 Hamlet Core

Public consultation revealed that there is a significant need for local neighbourhood commercial to meet daily needs and gathering places for community members to interact. This Plan recognizes an opportunity to establish a centrally located multi-use destination that could over time evolve to become the 'heart' of Dunmore. Parks, existing and future school sites and neighbourhood commercial uses all within proximity of existing residential communities and connected by a

network of trails will complement each other and facilitate social interaction. Community gatherings/festivals will occur in this area. It is envisioned that the hamlet core will be the location where the community can gather and it will provide a common identity for the community.

#### 5.4.2 Regional Commercial

Highways create attractive locations for commercial businesses due to visibility and access. The future TCH bypass and interchange is anticipated over the long-term to create significant demand for regional commercial development. Approximately 51 ha of regional commercial is designated for the lands adjacent to the TCH bypass and Highway 41 interchange. The regional commercial uses are anticipated to be in the form of large scale commercial developments (i.e. box stores, power centres, enclosed malls, etc.).

The regional commercial area, although designed to service a much larger regional population, will be integrated into the adjacent community with pedestrian and local road linkages, and pedestrian scale design. Additionally, future planning through a conceptual scheme will be required to ensure this node of development achieves the desired goals.

#### 5.5 Sand and Gravel Operations

Lands in or adjacent to the Bullshead Creek valley that have been previously identified as important sand and gravel resource areas are recognised as such in this Plan.

Important considerations for development of sand and gravel operations include:

- intensity of extraction operation, or other industrial use,
- mitigating measures for nuisances such as smells, dust, noise, vibration, and aesthetics,
- protection of the environment,
- remediation and reclamation of exhausted sand and gravel sites

Special consideration of these factors are required at the subdivision and development permit stages to ensure appropriate measures to reduce land use conflicts are implemented.

#### 5.6 Open Space

Open space, both formally landscaped and natural, are essential components to the physical structure of the Plan. The benefits that can be achieved with Open Space include:

- Transition and buffering between uses,
- Provides connectivity, local recreation and social amenities,
- Improves the health and wellbeing of residents,
- Builds community identity and sense of place.

The Open Space concept is comprehensive and purposeful in that parks, school sites, and natural areas are dedicated to maximize potential trail linkages, views, and stormwater management.

The Open Space concept is displayed on Figure 9.

### 5.6.1 Natural Areas

Areas of steep slopes, species habitat and environmentally sensitive lands are deemed undevelopable in the Plan and are therefore shown as Natural Area. Along with protecting sensitive areas, the Natural Area will be part of the Plan's open space system.

The Natural Areas are only shown conceptually and it is expected that as more detailed planning work is completed for specific areas the boundaries of the Natural Areas will be adjusted. The general principles for defining Natural Areas should be established via federal, provincial, municipal regulations and policies. It is anticipated that the following lands will ultimately be dedicated:

- Creek valley and upland slopes greater than 15% that are of a substantial quantity.
- Lands adjacent to the Bullshead Creek, which are within the 1:100 floodplain and/or are environmentally significant.
- Substantial natural water bodies that are potentially subject to flooding or are environmentally significant.

The Natural Areas are intended to be left in their natural state including topography and vegetation. Low impact recreational uses (i.e. trails and benches) are appropriate within the Natural Areas. Additionally, complementing community infrastructure (i.e. stormwater management facilities) may also be appropriate.

At the time of subdivision the Natural Area lands will be dedicated as Environmental Reserve.

### 5.6.2 School and Park Sites

The open space of the Plan secures appropriate locations for two future school sites. One of the sites is located within the current hamlet boundaries and will be incorporated into the Hamlet Core area located on the main spine of the Plan's trail network. The other school site is located in the east half of the Plan area amongst the residential community.

School locations are in proximity to major roads which will ensure that commuting via automobiles will be safe and efficient. Additionally, the schools are well linked into the Open Space system and community trail network.

Parks are strategically located within the plan area to maximize their benefits to residents. Generally, a park will be accessible to all residents of the community within a 5 minute walk to each dwelling. Also, the parks are placed to ensure that a walk to the park does not involve crossing a major roadway.

Parks will be landscaped and where appropriate have recreation facilities (i.e. trails, playgrounds, soccer/baseball fields). There is the opportunity (and space) to have more comprehensive regional or County recreation facilities in the Hamlet Core area.

The school and park sites will be dedicated as Municipal Reserve at the time of subdivision.

### 5.6.3 Linear Park Corridors

The Plan provides for a comprehensive trail corridor that provides a continuous pedestrian/bicycle link through the community, to the creek valley and to the City of Medicine Hat. The community trail corridor generally runs east/west along the base of the south slope from the eastern edge of the Plan area to the Bullshead Creek valley. Feeder trail networks from the upland residential areas will generally follow existing drainage draws to link with the community trail corridor.

In the Bullshead Creek valley it is anticipated that the trail will generally follow the alignment of the creek. Portions of this proposed linkage are outside of the Plan area, and therefore adjustments to other policy documents should be considered.

Where the linear park corridor is not located in a Natural Area the lands will be dedicated as Municipal Reserve.

### 5.6.4 Stormwater Management Facilities

The stormwater management facilities (SWMF) are intended to be multi-purpose in that they also function as open space and amenity areas. The SWMFs will generally have a naturalized landscaping aesthetic with low intensity recreation opportunities built into their design. The recreation facilities will include trails, benches, and open access (no fences) to the facilities.

To complement and be fully integrated into the community it is important that all SWMF south of the existing TCH (including those in commercial areas) integrate recreational opportunities into their design.

At the time of subdivision the SWMFs will be dedicated as Public Utility Lots. Those SWMFs that incorporate recreational opportunities and add to the community will receive municipal reserve credit for 20% of their area.

### 5.6.5 Municipal Reserve Credit

The Plan dedicates 7 percent (102 ha) of the net developable area as Municipal Reserve. A portion of the Plan area has already been developed and has either dedicated municipal reserve or money in lieu. Thus, this Plan estimates the remaining approximate amount of municipal reserve that will be generated from those land owners who have not previously dedicated reserve or money.

To create a complete and functional community, cooperation and a 'plan' is required to ensure that parks and school sites are located in appropriate locations to serve future residents. To accomplish this where there are multiple land owners in an area, it is often necessary for some land owners to have to provide more than their share of the 10% reserve dedication, while others are requested to pay 'money in lieu' of dedicating land to compensate those land owners who provided the land. Thus, to implement this Plan the concept of over dedication and being compensated by other land owners is crucial.

## 5.7 Land Use Distribution

The table below displays the land use statistics for the Plan area.

**Table B – Land Use Statistics**

	Area (ha)	% of NDA
<b>Gross Developable Area</b>	<b>1,649</b>	
Natural Areas	166	
<b>Net Developable Area (NDA)</b>	<b>1,483</b>	<b>100%</b>
Residential	481	32%
Commercial/Industrial	174	12%
Commercial	65	4%
Sand and Gravel	99	7%
Flex Site	13	0%
Open Space (Parks & Schools)	102	7%
Stormwater Management Facilities	51	5%
Transportation (CP Rail, TCH, bypass & arterials)	498	33%
<b>Total</b>	<b>1483 ha</b>	<b>100%</b>

**Table C – Unit and Population Estimates**

	Gross Area (ha)	Units/Gross ha	Units	People/Unit	Population
Existing Hamlet	306	1.1 <sup>1</sup>	341	2.8	945
Residential	481	4.0 <sup>2</sup>	1,924	2.8	5,387
<b>Total</b>	<b>787</b>	-	<b>2,265</b>	-	<b>6,332</b>

Notes:

- 1 Calculation includes developed lands within hamlet, not just residential.
- 2 Initial stages of development will be at a lower density of 2.5 units/ha due to septic tank/field systems. Long-term development will be at a low urban density of 8 units/ha once sanitary system is established.

## 5.8 Development Concept Policies:

### General

- 5.8.1 *Buildings and sites should be designed to wherever possible incorporate sustainable building design and technologies (energy efficient mechanical systems, low flow fixtures, solar, geothermal, rain capture and reuse, etc.).*
- 5.8.2 *Development shall strive to maintain the natural drainage pattern of the land to reduce impacts from development.*
- 5.8.3 *Development shall be integrated and sensitive to the existing hamlet development.*
- 5.8.4 *The developer shall employ mitigative measures to ensure that accumulation and spread of construction debris is limited as much as possible.*
- 5.8.5 *The preparation of Conceptual Schemes and subdivision and development applications shall meet the requirements of the Alberta Historical Resources Act.*
- 5.8.6 *Application for subdivision and development shall include information, satisfactory to the Development Authority, detailing all existing oil and gas infrastructure of the affected area.*

### Residential

- 5.8.7 *The front and rear yards of individual lots should, where walkout lots are not possible, be designed to accommodate decreased lot grades in accordance with Alberta Environment Best Management Practices.*

### Commercial/Industrial

- 5.8.8 *Applications for development within the Commercial/Industrial District shall consider potential land use conflicts and long term implications of the proposal on existing and future adjacent uses.*

- 5.8.9 *Applications for development within the Live/Work Area shall consider the compatibility of adjacent uses and long term implications of the proposal on the existing character of the area.*
- 5.8.10 *Development within the Commercial/Industrial Districts shall be a mix of compatible and complimentary commercial and light industrial uses.*
- 5.8.11 *Application for development of the Flex Site shall be assessed to determine compatibility with adjacent uses.*
- 5.8.12 *Application for development of the Flex Site shall be assessed to determine impacts to traffic in the area. At the discretion of the Development Authority, an application for development of the Flex Site may require preparation of a Traffic Impact Assessment to the satisfaction of Cypress County, the City of Medicine Hat, and Alberta Transportation.*

#### Commercial

- 5.8.13 *The Hamlet Core shall be developed as the hub of community activity with neighbourhood commercial, institutional, and recreation uses.*
- 5.8.14 *Development within the Hamlet Core shall be integrated with surrounding existing uses of the area.*
- 5.8.15 *The transportation network of the Plan area shall facilitate the prominence of the Hamlet Core as the community hub.*
- 5.8.16 *Development within the Hamlet Core shall incorporate design elements that encourage social interaction, recreation, and pedestrian connectivity.*
- 5.8.17 *Development within the Regional Commercial district shall be integrated with adjacent residential Districts through the use of local road layout, building design and siting, landscaping buffers and screening, and pedestrian connections.*
- 5.8.18 *Prior to the development of the Regional Commercial district a retail/commercial market assessment should be completed to determine the extent of commercial lands required to meet market demands.*

#### Sand and Gravel

- 5.8.19 *Proposals for sand and gravel extraction shall include an assessment, to the Satisfaction of Council, of foreseeable impacts, mitigating measures, and reclamation/remediation of exhausted sand and gravel sites.*
- 5.8.20 *Special consideration of applications for Sand and Gravel operations are required at the subdivision and development permit stages to ensure appropriate measures to reduce land use conflicts are implemented.*

Open Space

- 5.8.21 *In accordance with the provisions of the Municipal Government Act, upon subdivision Cypress County will require all Natural Area lands to be dedicated as environmental reserve.*
- 5.8.22 *Low impact passive recreational opportunities (i.e. trails) can be located within the Natural Areas.*
- 5.8.23 *The filling or draining of surface water bodies is subject to review and approval under the Water Act and Public Lands Act.*
- 5.8.24 *Environmentally sensitive construction practices should be employed to minimize the impact on the biophysical realm.*
- 5.8.25 *Safe development setbacks from slopes shall follow the provisions of the Land Use Bylaw or be in accordance with geotechnical investigations to the satisfaction of Cypress County. Safe development setbacks from slopes shall be established at the conceptual scheme stage.*
- 5.8.26 *In accordance with the Municipal Government Act, up to 10% of the gross developable area will be dedicated as municipal reserve.*
- 5.8.27 *Stormwater management facilities that include recreational/amenity opportunities, to the satisfaction of Cypress County, shall receive municipal reserve credit for 20% of the entire area set aside for the stormwater management facility.*
- 5.8.28 *The landscaping of public parks and open space shall include Chinook tolerant and drought resistant species which are sustainable in local climate conditions.*
- 5.8.29 *Creek valley and upland slopes greater than 15% that are of a substantial quantity shall be dedicated as environmental reserve.*
- 5.8.30 *Lands adjacent to the Bullshead Creek, which are within the 1:100 floodplain and/or are environmentally significant shall be designated as Environmental Reserve.*
- 5.8.31 *Substantial natural water bodies that are potentially subject to flooding or are environmentally significant shall be designated as Environmental Reserve.*



## 6 Transportation Network

There are significant factors that influence the transportation network. Future Alberta Transportation plans of the TCH bypass and Highway 41 extension largely determine the configuration of the transportation network.

The transportation network is displayed on Figure 8 (Transportation Network).

### 6.1 Trans Canada Highway

Currently the TCH is the primary access to the Plan area and it can be expected that this will remain the case for years to come. Once plans for a TCH bypass and Highway 41 extension are realized, the importance of the TCH as a regional connection within the Tri-Area will increase while its importance as a provincial Highway will diminish. This may prove beneficial to the Plan area as more intensive use of the TCH by local business and residents could result.

### 6.2 Trans Canada Highway Bypass

Alberta Transportation plans for the Trans Canada Highway bypass and interchange are long-term plans and will be initiated by the provincial government. Important to this Plan is the consideration of the planned bypass right-of-way and incorporating the needs of Alberta Transportation with the land uses of the Plan. Buffering of the impacts of the HWY 1 and interchange and integrating the future commercial uses with neighbouring residential are important to the success of the regional commercial lands at the interchange.

It is anticipated the only available vehicle access to/from the TCH bypass will be at the interchange.

### 6.3 Highway 41

Similar to the above noted TCH bypass, Alberta Transportation has plans to realign and extend Highway 41. As a result, a major interchange is located at the intersection of the TCH bypass and the extended Highway 41.

It is expected that access within the Plan area will be available from Highway 41, but limited to 800 m spacing.

### 6.4 Township Road 120

Commercial and Industrial development potential within the Township Road 120 ASP lands will cause significant increase in commuter and commercial traffic that utilize Township Road 120. Increased use, Alberta Transportation plans, and providing access to the east lands within the Plan area may warrant a re-alignment and extension.

### 6.5 Eagle Butte Road

The recently re-constructed Eagle Butte Road will remain in use until the development of the TCH bypass. Once the TCH bypass is constructed, Eagle Butte Road will function as a collector for future residential development.

## 6.6 Collector and Local Road Network

The collector and local road network are not determined by this Plan. Collector and local roads will be determined by adoption of site specific conceptual schemes to the satisfaction of Council. Collector and local roads must be constructed to meet all relevant requirements and provide safe and efficient means for vehicular transportation.

## 6.7 Trails

Trails are a critical component of the open space network, and will provide much needed connectivity, and recreational opportunities. Trails will link with the collector and local road network to create multi-modal transportation opportunities.

## 6.8 Transportation Policies

- 6.8.1 *All roadways, intersections and accesses shall be developed to Cypress County standards.*
- 6.8.2 *The local road system should allow for a number of vehicular and pedestrian route alternatives linking community destinations.*
- 6.8.3 *Local roads should be aligned to allow for dwellings to benefit from solar orientation.*
- 6.8.4 *Where feasible, sidewalks or trails may be installed to facilitate pedestrian connectivity.*
- 6.8.5 *Intersections and accesses to the Trans Canada Highway bypass and Highway 41 shall be in conformance with Alberta Transportation standards.*

## 7 Servicing

This ASP is at a conceptual level of detail, and therefore it is anticipated that a master servicing study will be completed in the future to provide further detail to the concepts.

The IDP envisions the Plan area in the future becoming a substantial urban development with full urban services. It is expected that the realization of the envisioned urban community will take a number of decades, and thus interim development which utilizes existing rural servicing strategies will be accommodated.

The water and sanitary concepts are displayed in Figure 10. The stormwater management concepts are displayed in Figures 11a and 11b.

### 7.1 Water

Currently potable water is sourced from the City of Medicine Hat through a water gate located on the north side of Highway 1 inside the City of Medicine Hat. A potable water reservoir, which is the current distribution hub for potable water service is located north of the Trans Canada Highway on 2<sup>nd</sup> Avenue, 300 m west of 11<sup>th</sup> Street.

Existing agreements with the City of Medicine Hat and existing infrastructure limit the peak flows and total water that is supplied to the County. It is anticipated that the County will be able to acquire more water from the City of Medicine Hat at some point in the future. In the interim it is expected that the existing reservoir will accommodate some additional growth however additional water gates, supply lines and reservoirs will be required at some point.

It is noted that water consumption per capita is currently very high compared to municipal norms. It is believed that the high water consumption is a result of using the water for irrigation of landscaping. Other sources of irrigation water for use on landscaping and/or reduction of water demands for landscape irrigation (i.e. Xeriscaping) should be explored fully.

#### 7.1.1 Interim Development (pre piped system)

Development in areas that are currently not serviced with municipal potable water, could consider:

- Use of water wells, although drilling and testing of water wells should be a precondition of development approval,
- use of water cisterns, and
- extension of the municipal potable water supply network to the area.

For low intensity development the use of water wells and water cisterns may be appropriate on an interim basis however provisions should be made to ultimately connect to the potable water supply network. In addition water for fire fighting requirements should be considered in development areas that are not being connected to the municipal potable water supply.

### 7.1.2 Reservoir and Network Upgrades

To efficiently service the future development south of Township Road 120 and east of Eagle Ridge Estates, a new reservoir and pump station should be constructed at a high point in the land in the vicinity of the intersection of the future Trans Canada Highway and Highway 41. This reservoir would serve as a distribution point to future lands. It is unknown if the existing City water gate and County water mains will be upgraded or the planned west City/County water gate and distribution line will provide water to the new reservoir. Either option is likely to require upgrades to the current water network along with strategic lands set aside for transmission main corridors and water reservoir. Specific locations of the south reservoir and transmission line corridors must be examined in the master servicing study.

## 7.2 Sanitary

Currently, the sanitary collection and disposal is accommodated via septic tanks and fields. As the Plan area grows and develops, the community will be required to transition to a sanitary sewage collection, treatment (treatment can be avoided by the County if the sewage is disposed of in the City of Medicine Hat's sewage collection system) and disposal system. It is anticipated that the 'trigger' for the requirement of an urban system will be mandated by Alberta Environment or local health departments, who will provide direction on when the threshold is crossed. New developments will be the first to connect to the ultimate urban sanitary system.

### 7.2.1 Interim Development (pre piped system)

All development proposals should consider connecting to a sanitary collection system. Past County studies have indicated that soils in the Plan area are conducive to septic fields however it is unlikely that this practice will be acceptable in the long-term considering significant growth in the Plan area.

### 7.2.2 Sanitary System (connection to the City of Medicine Hat)

At the current level of detail a sanitary connection to the City of Medicine Hat is potentially possible. This would involve the design and construction of a large lift station and force main to bring the sanitary sewage to a location that the City of Medicine Hat's system could accommodate the flows. It is anticipated that the main lift station would be located north of the current Trans Canada Highway in the vicinity of Range Road 51.

It is anticipated that the majority of the Plan area, south of the current Trans Canada Highway, would flow by gravity to this lift station. The Industrial /Commercial lands north the Highway and east of Highway 41 may require smaller lift stations.

### 7.2.3 Sanitary System (County independent sewage lagoon)

At the current conceptual level of detail an independent County sewage lagoons could be potentially located north of the existing Paterson grain elevators. Depending on the topography of the chosen lagoon location, and the design of the network, it would be anticipated that the majority of the new development sanitary flows could run by gravity to the lagoons. The existing Hamlet core would likely need the design and construction of a lift station in the northeast corner to direct flows to the lagoon.

Advantages of a County lagoon are:

- No requirement to pay City of Medicine Hat sewage offsite levies,
- no requirement to pay City of Medicine Hat oversize charges,
- no need to pay ongoing service charges to the City of Medicine Hat, and
- County control of when and how large the lagoons need to be.

Disadvantages of a County lagoon are:

- Alberta Environment approvals of a lagoon are required,
- yearly discharge to a surface water body is required (likely Ross Creek to the north),
- County would be required to have staff with the correct operations licences, and
- Ongoing maintenance and operation costs.

The Master Servicing Study will explore and recommend the preferred functional and economical option for future sanitary treatment. It is possible that a staged and/or hybrid approach maybe the best alternative.

### 7.3 Stormwater Management

A conceptual Stormwater management plan has been developed for the Plan area. Alberta Environment defines stormwater management as:

*The term "stormwater management" implies a comprehensive approach to the planning, design, implementation, and operation of stormwater drainage improvements. The purpose of the stormwater management approach is to develop effective drainage systems that balance the objectives of maximizing drainage efficiency and minimizing adverse environmental impacts.*  
(Stormwater Management Guidelines for the Province of Alberta 1999)

Alberta Environment currently requires stormwater management plans to address both the quality and quantity of the water ultimately being discharged into natural bodies of water. All stormwater plans include facilities that provide one or more of the following functions:

- Collection,
- conveyance (transfer),
- storage,
- treatment, and
- discharge

Examples of different stormwater management facilities and the functions they provide are:

Facility	Collection	Conveyance	Storage	Treatment	Discharge
Curb & Gutter	Yes	Yes	Limited (short-term)	No	Rarely. Not desirable
Catchbasin	Yes	No	No	No <sup>1</sup>	
Ditch	Yes	Yes	Some	Some	Occasionally
Canal <sup>2</sup>	Yes	Yes	Yes	Yes	Occasionally
Pipe	No	Yes	Limited (short-term)	No	Yes
Mechanical oil/grit separator	No	No	No	Yes <sup>3</sup>	No
Bio Swale	Limited	Yes	Some	Yes	Yes
Wetland	Limited	Yes	Some <sup>4</sup>	Yes	Yes
Wet Pond	Limited	Yes	Yes	Yes	No
Dry Pond	Limited	Yes	Yes	Yes <sup>5</sup>	No
Evaporation Pond	Limited	No	Yes	Yes	Yes <sup>6</sup>

**Notes:**

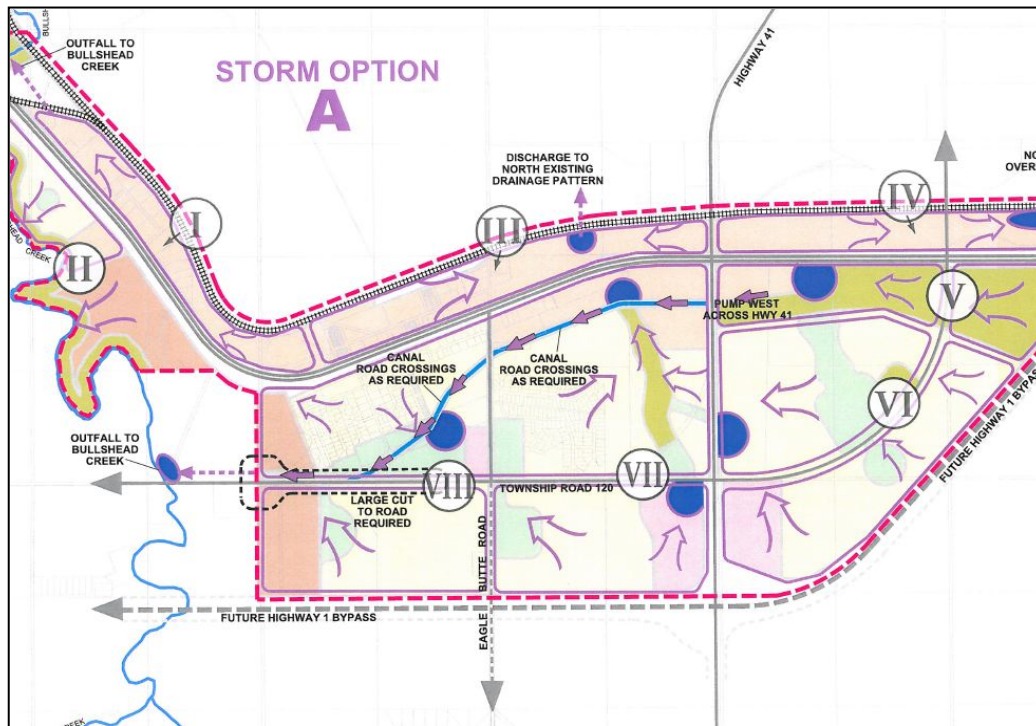
- 1 Most studies indicate while catchbasin sumps are good at capturing gravels and large items they do nothing to treat chemicals and have been observed to make pollutant loadings higher.
- 2 A canal for stormwater purposes is a long, wide ditch with no slope and a permanent water level. Its primary function is to convey large volumes of water with very little change in elevation. In practice its function is a combination of wet pond and ditch.
- 3 First flush treatment only.
- 4 Maximum depth limits storage capacity.
- 5 Will require polishing of discharge to meet current guidelines for disposal to water bodies.
- 6 Discharge limited to evaporation and infiltration

At the current conceptual level of detail it is impossible to define what facilities will be used and the sizing of these facilities. In the case of facilities that require a large land area to be set aside a very preliminary estimate of the size of the facility and the land required has been made.

Two distinct options or strategies for accommodating the stormwater management have been developed. The strategies are outlined in this section as Option A and B. A Master Servicing Study is required to assess the needs and outline strategies in greater detail.

### 7.3.1 Option A – Discharge West to Bullshead Creek

Option 'A' consists of routing the entire stormwater runoff from Areas V through VIII, west to the Bullshead Creek. A series of storage facilities interconnected with pipe and canals would convey the accumulated stormwater from the east to the Bullshead Creek. A short narrative on the drainage of each Area is described below. A clip of Figure 11a is shown below for reference.



#### Area I

The commercial/industrial lands in this area were previously developed and are currently draining to the existing highway ditch, in an uncontrolled manor. The highway ditch drains northwest to the Trans Canada Highway/Bullshead Creek crossing. The County should proactively examine runoff quantity and quality with every development application made in this area with a view that current practices may not be acceptable in the future. The County should conduct a study to determine the conveyance, storage and treatment capacity of the existing ditch and identify improvements and restrictions on development (i.e. onsite treatment and storage) that will be required to bring the stormwater management system in this area into compliance with current regulations.

#### Area II

The country residential and industrial lands, adjacent to the creek and south of the TCH, in the Northwest Corridor, will be required to retain and treat stormwater runoff on-site before discharging runoff into the Bullshead Creek.

Area III & IV

The lands generally slope north and drain towards to the CPR right-of-way with portions appearing to be intermittently wet. Due to the lack of natural drainage, filling, pumping or ditching is required to drain the area.

Area V

Runoff from this area will collect in a storm pond. The stormwater will then be pumped west across Highway 41.

Area VI

To minimize the volume of runoff that is pumped it is important that the stormwater from this high area be kept at a high elevation and be directed to the west so that it can flow by gravity. Runoff will collect in a stormwater storage facility and then ultimately flow west under Highway 41 into the canal system.

Areas VII & VIII

Runoff will collect in storage facilities. A combination of canals and pipes will convey the stormwater to the west into a storage/treatment facility before discharging into the Bullshead Creek.

Currently runoff, from the existing hamlet area, is being directed into the TCH Ditch. It is likely that the Hamlet core will require its own SWMF with a pump to integrate it into Option A or it will continue to drain to the TCH Ditch.

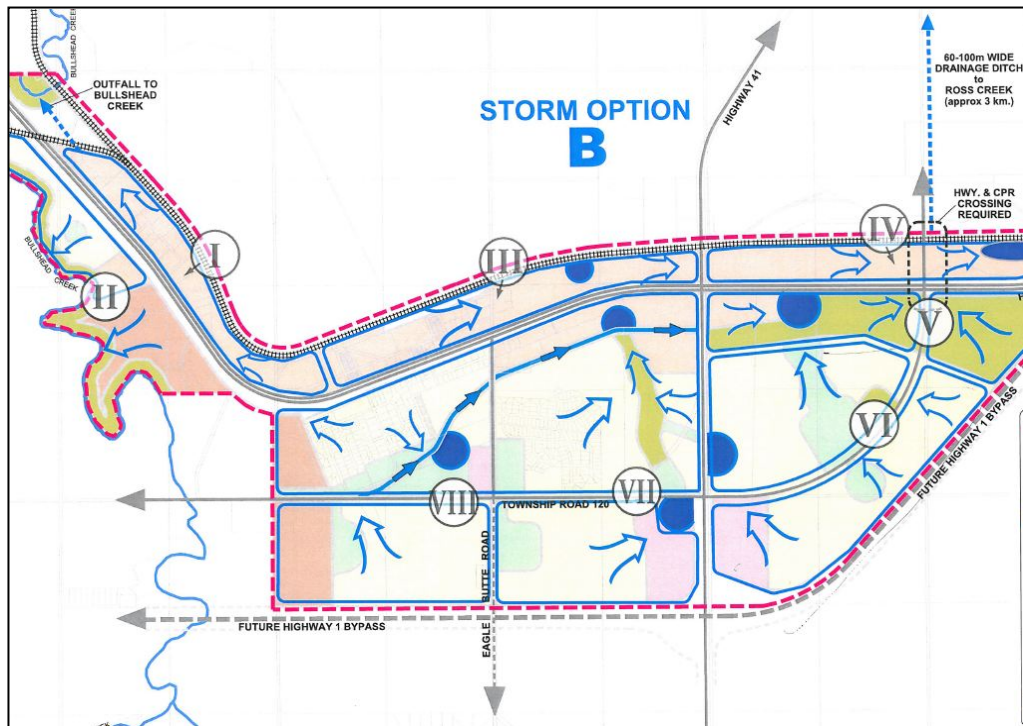
Option A requires a substantial re-grading project in the vicinity of the intersection of Township Road 120 and Range Road 52.

Option A – Discharge West to Bullshead Creek	
Benefits	Challenges
<ul style="list-style-type: none"> <li>Integrates well with current development pattern (west to east).</li> <li>Discharge location (Bullshead Creek) is relatively close.</li> <li>Front end costs are anticipated to be less overall than Option B.</li> </ul>	<ul style="list-style-type: none"> <li>Expensive and disruptive lowering of Township Road 120 at Range Road 52.</li> <li>Pumping of the lower east lands stormwater to the west.</li> <li>Areas III and IV are undevelopable in this option without filling, pumping or ditching to drain the area.</li> </ul>



### 7.3.2 Option B – Discharge North to Ross Creek

Option 'B' consists of routing the majority of the stormwater in a north-easterly direction to a point near the intersection of Township Road 120 and the current TCH. A constructed north drainage ditch will then drain the stormwater north for approximately 2.6 km to the Ross Creek discharge point. A clip of Figure 11b is shown below for reference.



#### Area I & II

Same as Option A.

#### Area III, IV & V

These areas will drain by gravity to the start of the north drainage ditch shown in Figure 12. Storage and attenuation are required in the areas of development.

#### Area VI

Runoff will collect and travel to a stormwater storage facility and then ultimately be conveyed to the north drainage ditch.

#### Area VII & VIII

Runoff will collect in storage facilities, where it will be conveyed to the north drainage ditch.

**Option B – Discharge North to Ross Creek**

Benefits	Challenges
<ul style="list-style-type: none"> <li>• System is based upon gravity. No pumping at Highway 41.</li> <li>• Drains low/wet areas north of the TCH.</li> <li>• Drainage ditch area is likely gravel and could be useful in other applications.</li> </ul>	<ul style="list-style-type: none"> <li>• Costly crossing of TCH and CP Rail.</li> <li>• Large drainage ditch will be required north to Ross Creek.</li> </ul>

Further engineering work and input from County staff through the Master Servicing Study is required to select a preferred option. It is recommended development preceding storm options A or B retain their own storm runoff.

**7.4 Shallow Utilities**

The City of Medicine Hat and Fortis Alberta provide electrical power to the County. At this time, the City of Medicine Hat has franchise rights to provide power to the majority of existing developed areas in Dunmore. The remaining undeveloped areas of the Plan are currently within the Fortis Alberta franchise area.

AltaGas has the franchise rights for distribution of natural gas service within the Plan area.

Production and distribution capacity for power and natural gas service in the Dunmore area are not a limiting factor to development. The County will work with developers and the service providers in the Plan area prior to development to resolve any potential franchise service constraints.

There is a range of communications options suitable for home and business use in the County. Telus, Bell, and Rogers Communications are a few of the available telecommunications providers capable of serving the Plan area.

Limitations to the above shallow utilities in the plan area are marginal.

**7.5 Solid Waste**

Cypress County is a member of the Redcliff Cypress Regional Landfill Authority. The landfill site is located west of the Town of Redcliff. Currently, Dunmore does not receive door to door garbage pick-up. Household waste is accepted at eight transfer stations in the County, one of which is located in Dunmore. It is anticipated that at a point in the future an alternative (i.e. door-to-door, or block transfer sites) will be desired and economical to serve the community.

## 7.6 Servicing Policies

- 7.6.1 *A Master Servicing Study should be completed prior to developing any lands to further detail the outlined concepts. Alternatively a site specific design brief shall be completed by the developer to the satisfaction of Cypress County to accommodate interim development.*
- 7.6.2 *Infrastructure shall be designed to accommodate lands outside of the Plan area where appropriate to the satisfaction of Cypress County.*
- 7.6.3 *The developer is encouraged to explore the most cost efficient servicing options available.*
- 7.6.4 *The developer shall take into consideration the long-term operation and maintenance cost, to Cypress County when evaluating servicing options.*
- 7.6.5 *The layout of municipal utilities will be subject to refinement at the subdivision stage.*
- 7.6.6 *All water services are to be metered and designed for peak servicing requirements and adequate fire suppression needs.*
- 7.6.7 *Wherever possible, stormwater management facilities and utility corridors shall accommodate passive recreation opportunities.*
- 7.6.8 *Shallow utilities shall be placed underground and the developer will provide the required rights-of-way.*
- 7.6.9 *Any future transfer stations will be well maintained, screened from view, and kept neat and tidy at all times.*
- 7.6.10 *Fire hydrants shall be installed during each phase of development to ensure adequate fire suppression.*

## 8 Protective & Emergency Services

Police service in Cypress County is provided by the RCMP. In addition, a County funded RCMP officer provides enhanced policing for County specific issues such as vehicle and traffic safety. A Peace Officer is responsible for enforcing municipal bylaws. Additional staff in either capacity can be sought at any time to achieve a desired level of protective services in the County.

The County provides its own fire protection services. Volunteer firefighters are based out of fire halls located in the communities of Hilda, Irvine, Schuler, Seven Persons, Walsh, Elkwater (Cypress Hills Provincial Park), Onefour Research Station, Box Springs, and Jenner. In addition, through a cooperative agreement, the County also has fire trucks manned by full-time personnel located in CFB Suffield and the City of Medicine Hat.

Emergency Medical Services are administered by Alberta Health Services. All emergency services within the County use the 9-1-1 system.

### 8.1 Protective & Emergency Services Policies

- 8.1.1 *The ASP area shall be designed as a safe community for residents, by employing Crime Prevention Through Environmental Design (CPTED) principles in the design of public and private spaces.*
- 8.1.2 *The ASP area shall have sufficient protective and emergency services.*
- 8.1.3 *Roadways shall be designed to accommodate the delivery of protective and emergency services.*

## 9 Resource Extraction

Within the Plan area are active gas wells and pipelines. These resource extraction facilities within the Plan area need to be protected to ensure they remain viable and to ensure public safety.

### 9.1 Gas Wells

#### 9.1.1 Active and Abandoned Wells

Currently the Plan area contains 6 active gas wells and 5 abandoned gas wells. Development within the Plan area will conform to the legislated development setbacks of the Subdivision and Development Regulation.

The Subdivision and Development Regulation states:

#### *Gas and Oil Wells*

*11(1) A subdivision application or development application shall not be approved if it would result in a permanent additional overnight accommodation or public facility, as defined by the ERCB, being located within 100 meters of a gas or oil well or within a lesser distance approved in writing by the ERCB.*

*(2) For the purposes of this section, distances are measured from the well head to the building or proposed building site.*

*(3) In this section, "gas or oil well" does not include an abandoned well as defined by the ERCB.*

*(4) An approval of the ERCB under subsection (1) may refer to applications for subdivision or development generally or to a specific application (2002, p.12).*

#### 9.1.2 Pipelines

For all ERCB licensed pipelines (including abandoned lines), the minimum setback distance is the edge of the right-of-way.

To accommodate the development concept several gas pipelines will likely need to be relocated. The developer will work with the respective pipeline owners and Cypress County to establish the desired alignments.

### 9.2 Sand and Gravel

Mitigating measures and low impact practices and technologies will be an expectation of operations within proximity to residential, commercial, and institutional areas.

Reclamation of depleted sand and gravel operations are important considerations in the Plan area. At the discretion of the Development Authority, a proposal for the development of a sand and gravel extraction operation will be required to provide a detailed reclamation program that allows for any range of subsequent uses of an exhausted site.

### 9.3 Resource Extraction Policies

- 9.3.1 *In accordance with the Alberta Subdivision and Development Regulation, development shall respect the required setbacks from oil and gas wells.*
- 9.3.2 *Resource extraction pipelines will be relocated where possible to allow for efficient urban development. The cost of relocation shall be at the developer's expense.*
- 9.3.3 *The owner of affected resource extraction infrastructure will be consulted during the detailed design process to ensure continued maintenance access is accommodated.*
- 9.3.4 *ERCB minimum requirements regarding setbacks from abandoned wells shall be maintained.*
- 9.3.5 *Proposals for sand and gravel extraction shall include a reclamation/remediation plan to prepare for the future use of the sand and gravel sites.*

## 10 Implementation Strategy

### 10.1 Implications for Other Municipal Plans and Bylaws

This ASP has been prepared to be generally consistent with the numerous overarching policy documents that affect the plan area.

To achieve consistency between plans the following is required:

- Repeal Dunmore ASP bylaw (1997),
- Repeal East Dunmore ASP bylaw (2002),
- Amend the Land Use Bylaw as development occurs.

### 10.2 Dunmore Master Servicing Study

A Dunmore Master Servicing Study is required as a supplement to this ASP. The study should explore the servicing concept in the ASP to a greater detail, and options for implementation (i.e. cost sharing, levies, etc.).

### 10.3 Conceptual Schemes and Design Briefs

This Plan addresses future development in conceptual terms. Prior to development, and at the discretion of the Development Authority, an application for subdivision and development may require the preparation of a site specific conceptual scheme and design brief. The boundary of the conceptual scheme will be based on good planning practice and not necessarily land ownership. These documents would ensure consistency with the Plan and outline servicing details.

### 10.4 Development Sequence

Development of the Plan area will follow a general practice of contiguous expansion. It is generally anticipated that future development will occur from areas adjacent to existing development. Additionally, the sequencing and extent of development will largely be governed by the availability of full urban services (water and sanitary) to accommodate the expansion of the community.

### 10.5 Implementation Policies

- 10.5.1 *Cypress County will repeal the previously adopted Dunmore ASP bylaws which are not inconsistent with this Plan.*
- 10.5.2 *Cypress County will prepare a Master Servicing Study to supplement this ASP.*
- 10.5.3 *Prior to the approval of subdivision or development, and at the discretion of the Development Authority, a site specific conceptual scheme and design brief shall be prepared by the applicant to the satisfaction of Cypress County Council.*
- 10.5.4 *Conceptual Schemes shall provide information on land use, density, major road networks, trails, and any other information Cypress County Council requires.*
- 10.5.5 *Design Briefs shall provide information on servicing, stormwater management, water, sanitary, transportation, and any other information required by Cypress County Council.*

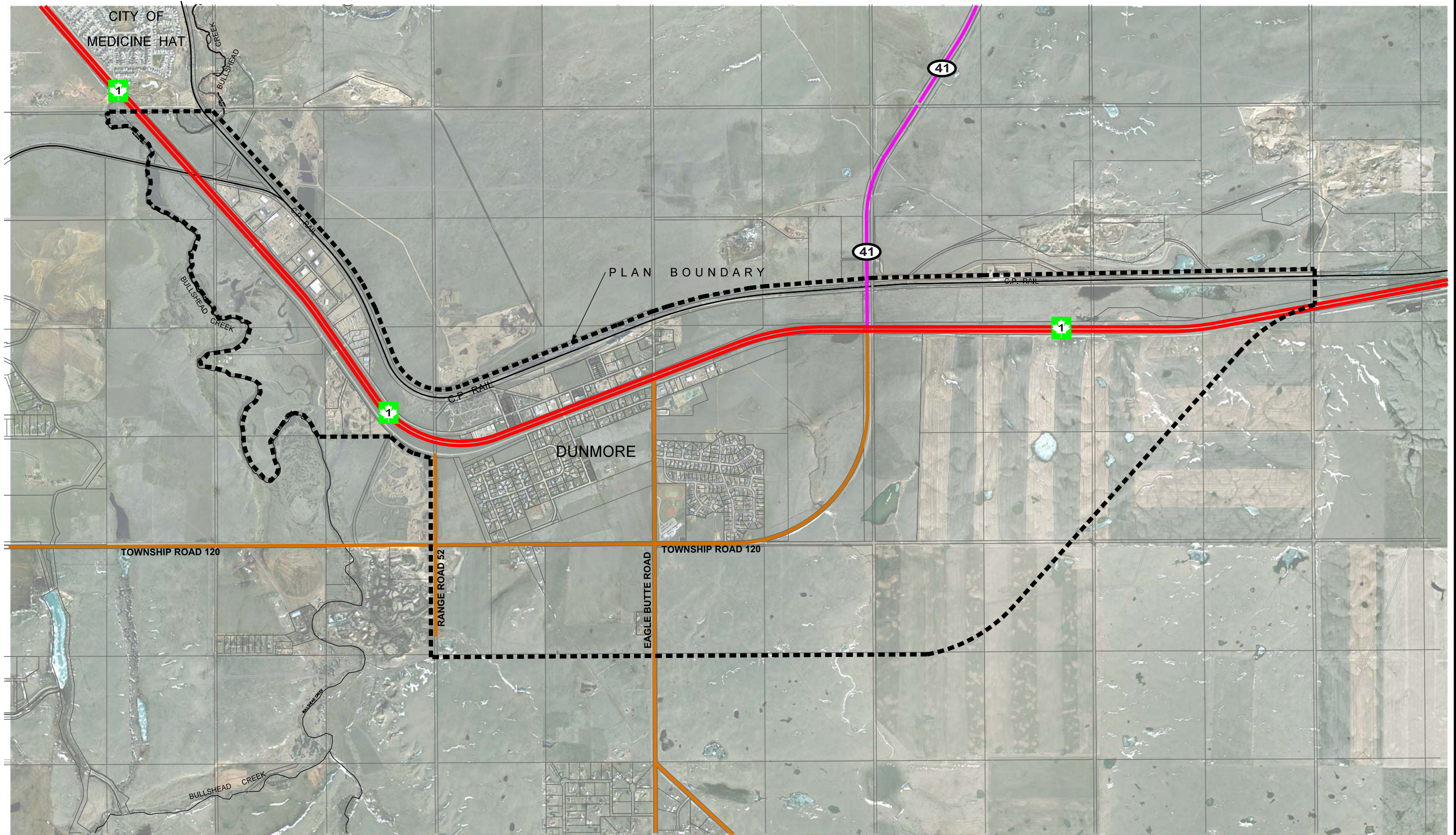


FIGURE 1

# LOCATION

DUNMORE MASTER AREA STRUCTURE PLAN  
 CYPRESS COUNTY, AB

BOUNDARY CONTAINING APPROXIMATELY 1649 ha

SCALE 1 : 28000

March 2013

v2\_38703.location.dgn





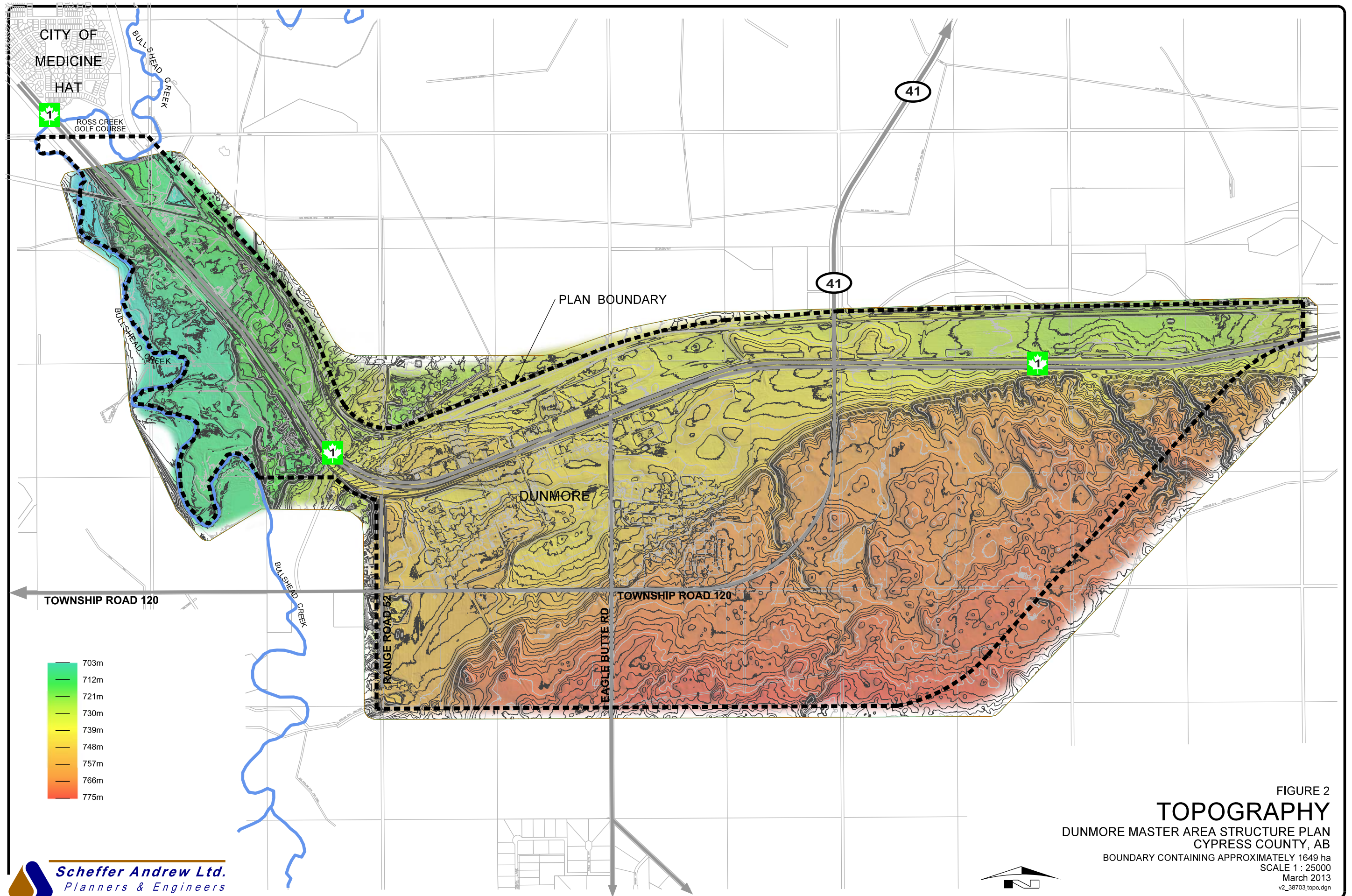
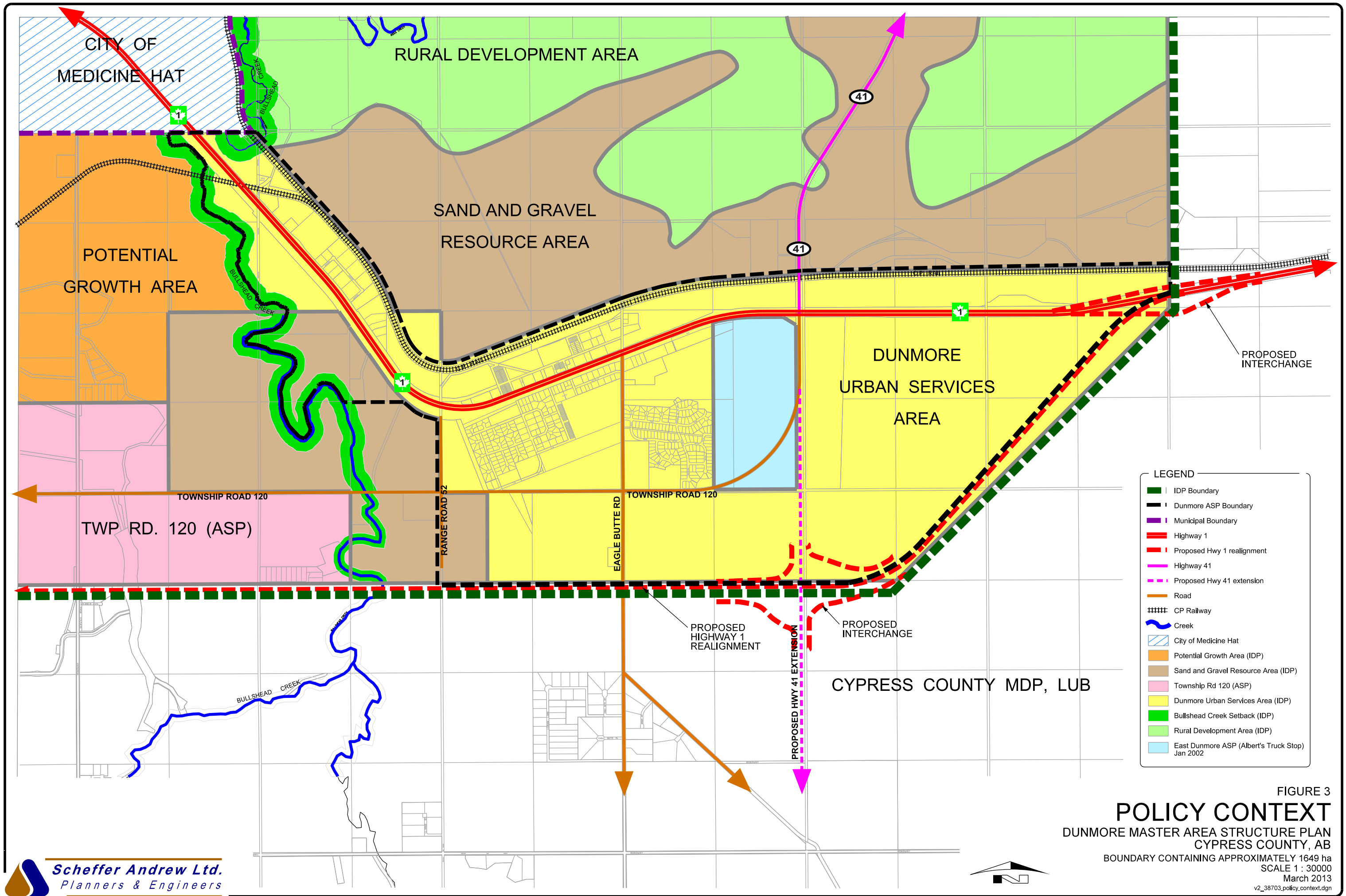


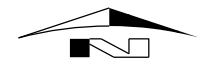
FIGURE 2  
**TOPOGRAPHY**  
 DUNMORE MASTER AREA STRUCTURE PLAN  
 CYPRESS COUNTY, AB  
 BOUNDARY CONTAINING APPROXIMATELY 1649 ha  
 SCALE 1 : 25000  
 March 2013  
 v2\_38703\_topo.dgn

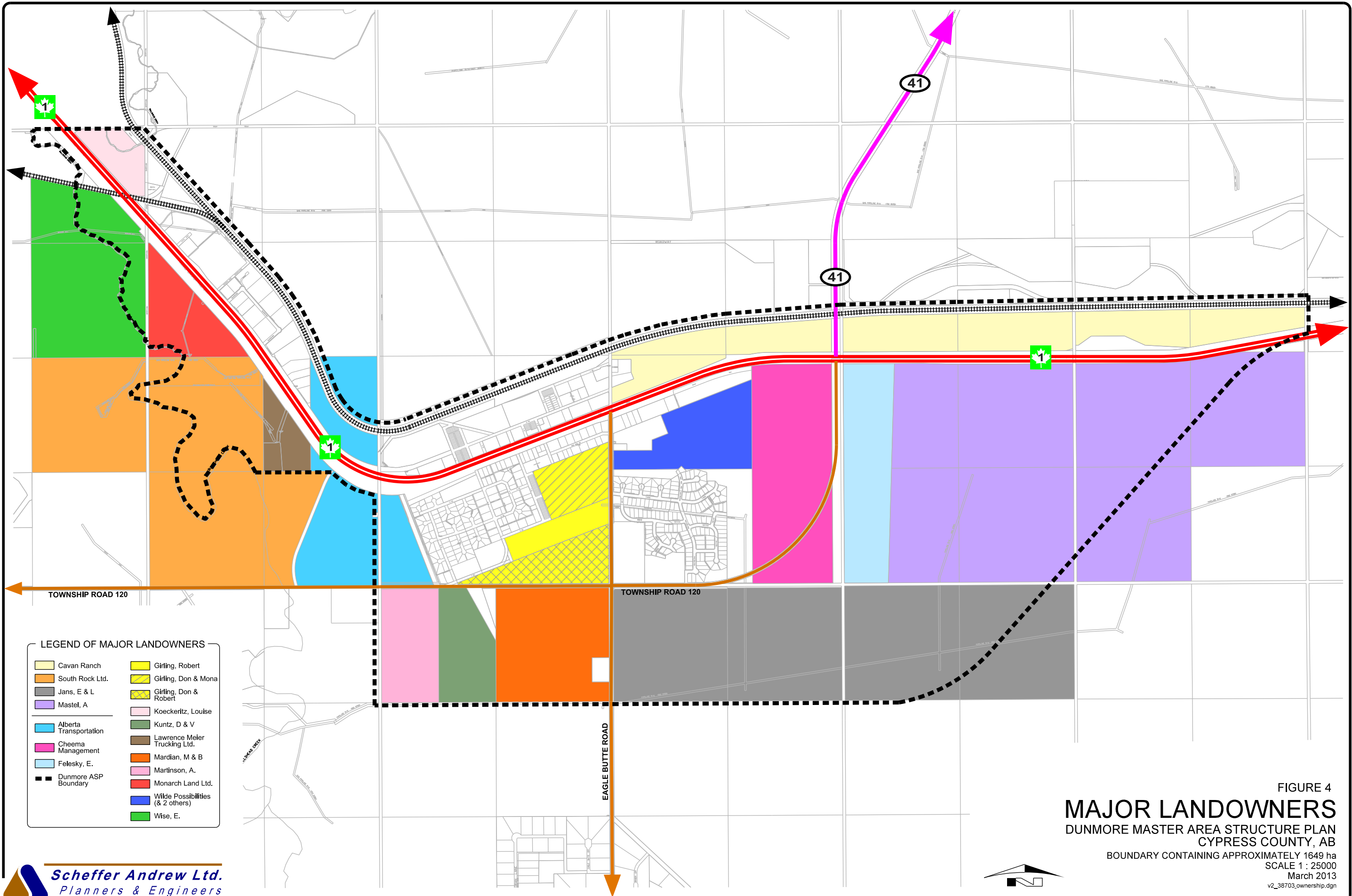


**LEGEND**

- IDP Boundary
- Dunmore ASP Boundary
- Municipal Boundary
- Highway 1
- Proposed Hwy 1 realignment
- Highway 41
- Proposed Hwy 41 extension
- Road
- CP Railway
- Creek
- City of Medicine Hat
- Potential Growth Area (IDP)
- Sand and Gravel Resource Area (IDP)
- Township Rd 120 (ASP)
- Dunmore Urban Services Area (IDP)
- Bullshead Creek Setback (IDP)
- Rural Development Area (IDP)
- East Dunmore ASP (Albert's Truck Stop) Jan 2002

**FIGURE 3**  
**POLICY CONTEXT**  
 DUNMORE MASTER AREA STRUCTURE PLAN  
 CYPRESS COUNTY, AB  
 BOUNDARY CONTAINING APPROXIMATELY 1649 ha  
 SCALE 1 : 30000  
 March 2013  
 v2\_38703\_policy\_context.dgn

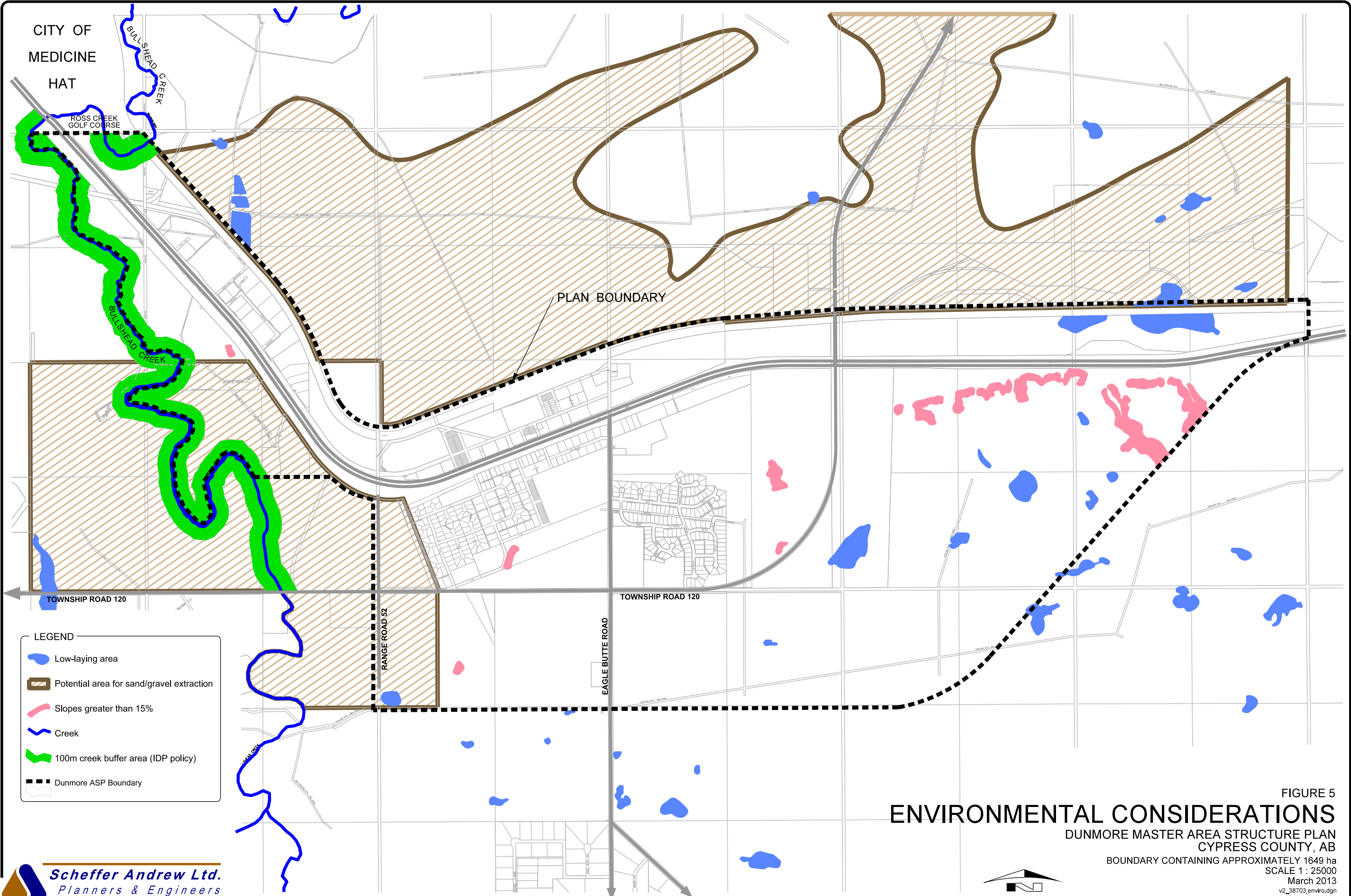




**LEGEND OF MAJOR LANDOWNERS**

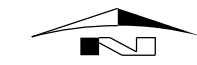
Cavan Ranch	Girling, Robert
South Rock Ltd.	Girling, Don & Mona
Jans, E & L	Girling, Don & Robert
Mastel, A	Koeckeritz, Louise
Alberta Transportation	Kuntz, D & V
Cheema Management	Lawrence Meier Trucking Ltd.
Felesky, E.	Mardian, M & B
Dunmore ASP Boundary	Martinson, A.
	Monarch Land Ltd.
	Wilde Possibilities (& 2 others)
	Wise, E.

**FIGURE 4**  
**MAJOR LANDOWNERS**  
 DUNMORE MASTER AREA STRUCTURE PLAN  
 CYPRESS COUNTY, AB  
 BOUNDARY CONTAINING APPROXIMATELY 1649 ha  
 SCALE 1 : 25000  
 March 2013  
 v2\_38703\_ownership.dgn



**FIGURE 5**  
**ENVIRONMENTAL CONSIDERATIONS**  
 DUNMORE MASTER AREA STRUCTURE PLAN  
 CYPRESS COUNTY, AB

BOUNDARY CONTAINING APPROXIMATELY 1649 ha  
 SCALE 1 : 25000  
 March 2013  
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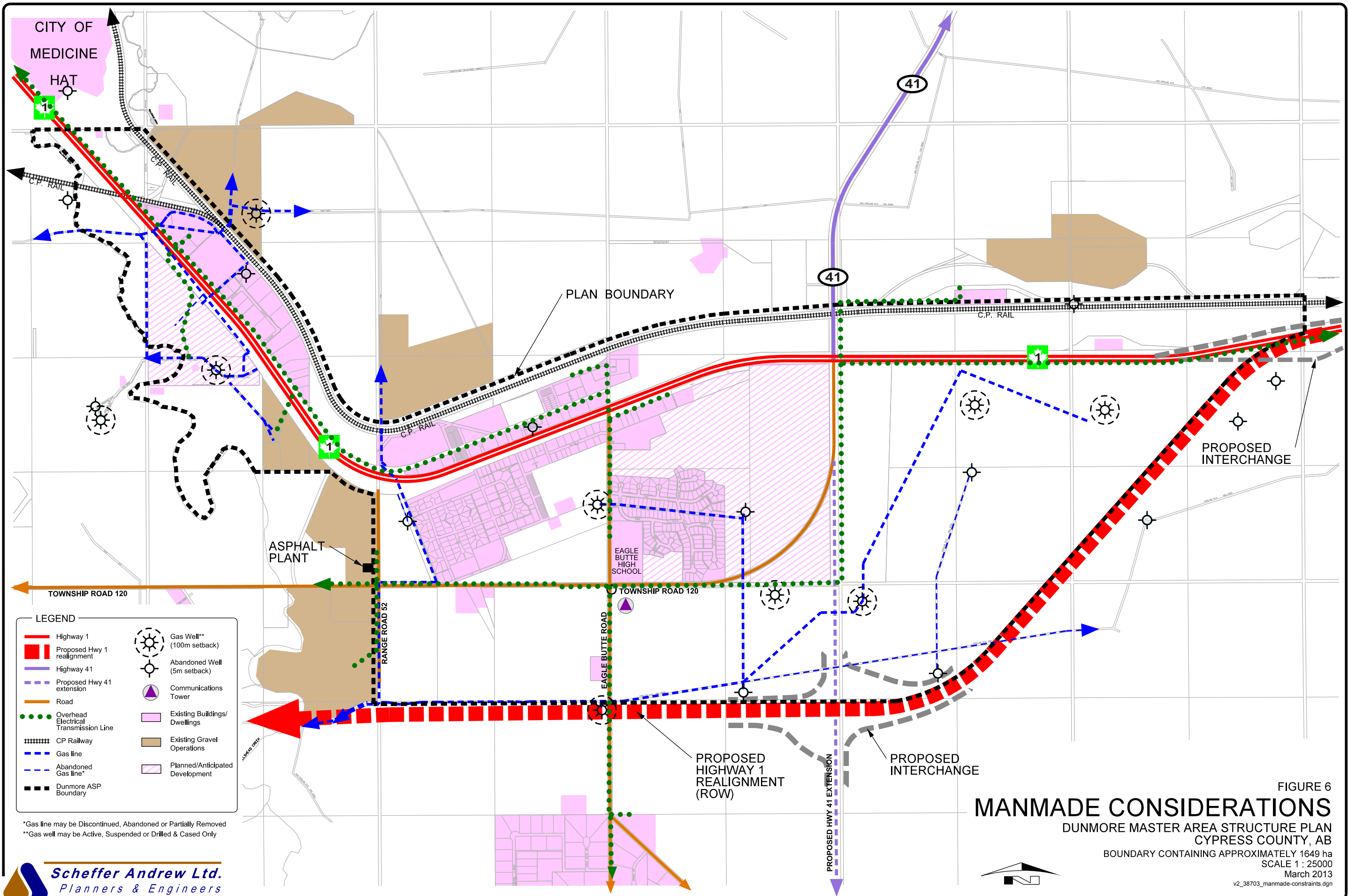


FIGURE 6

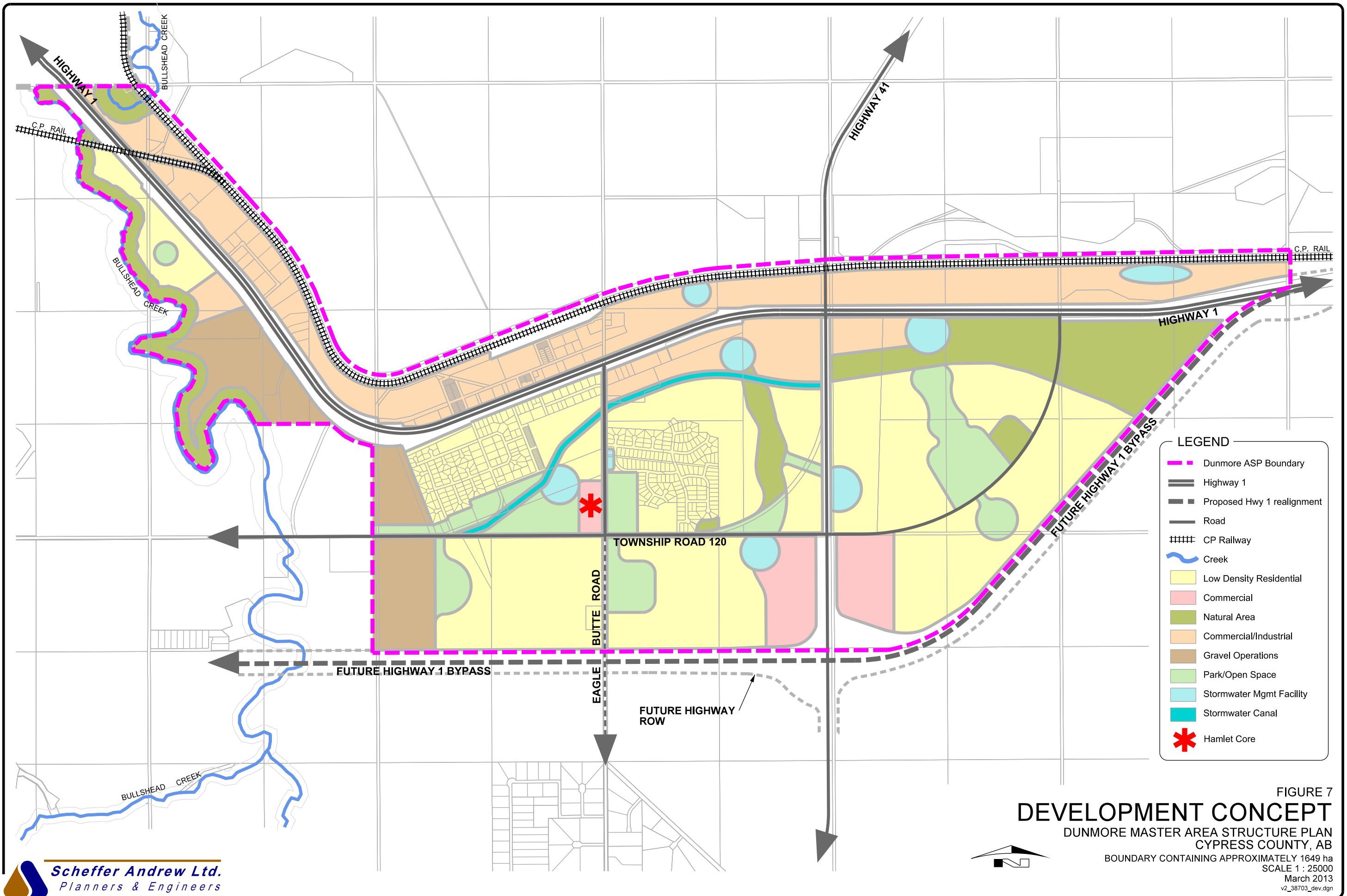
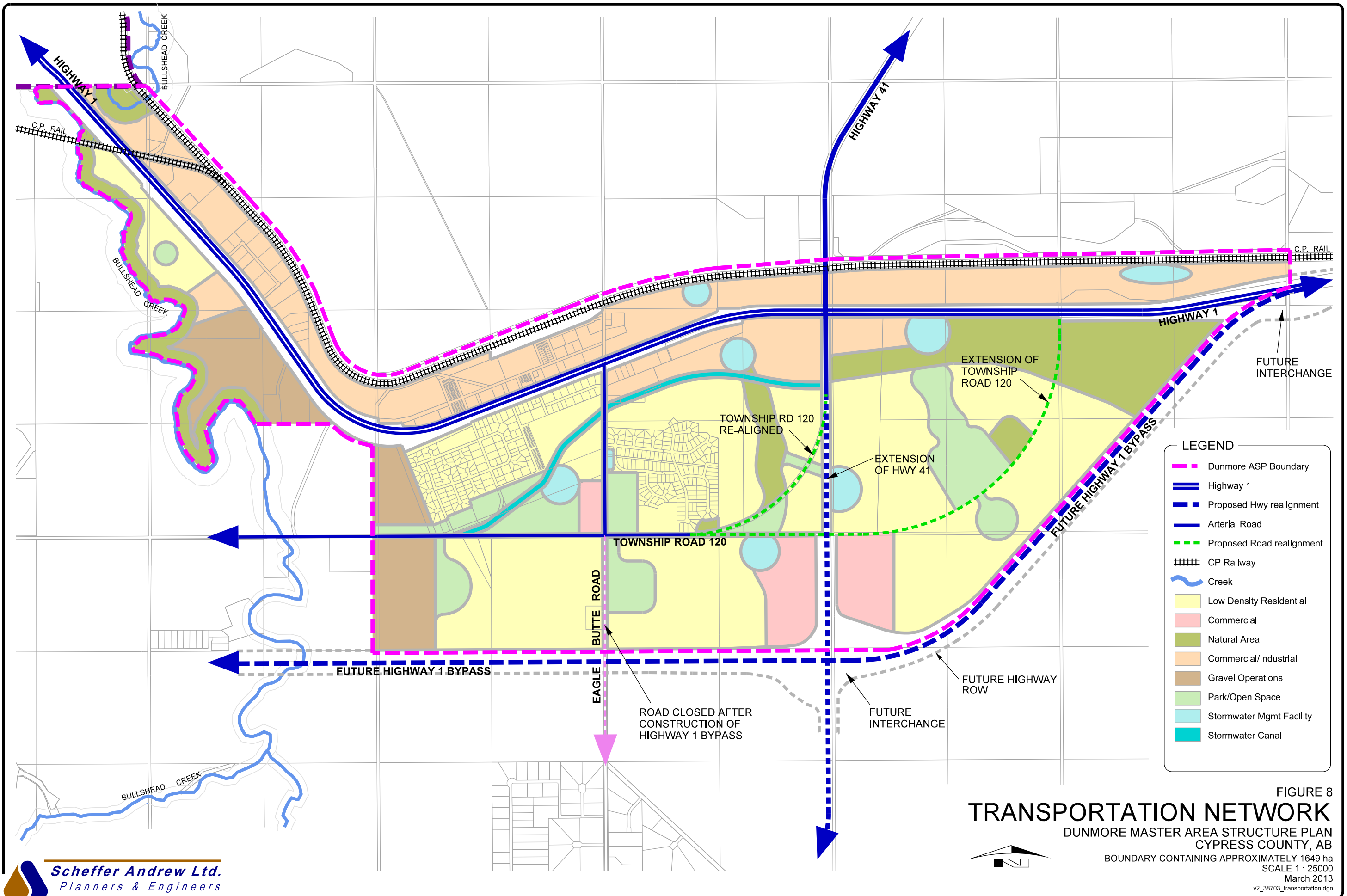
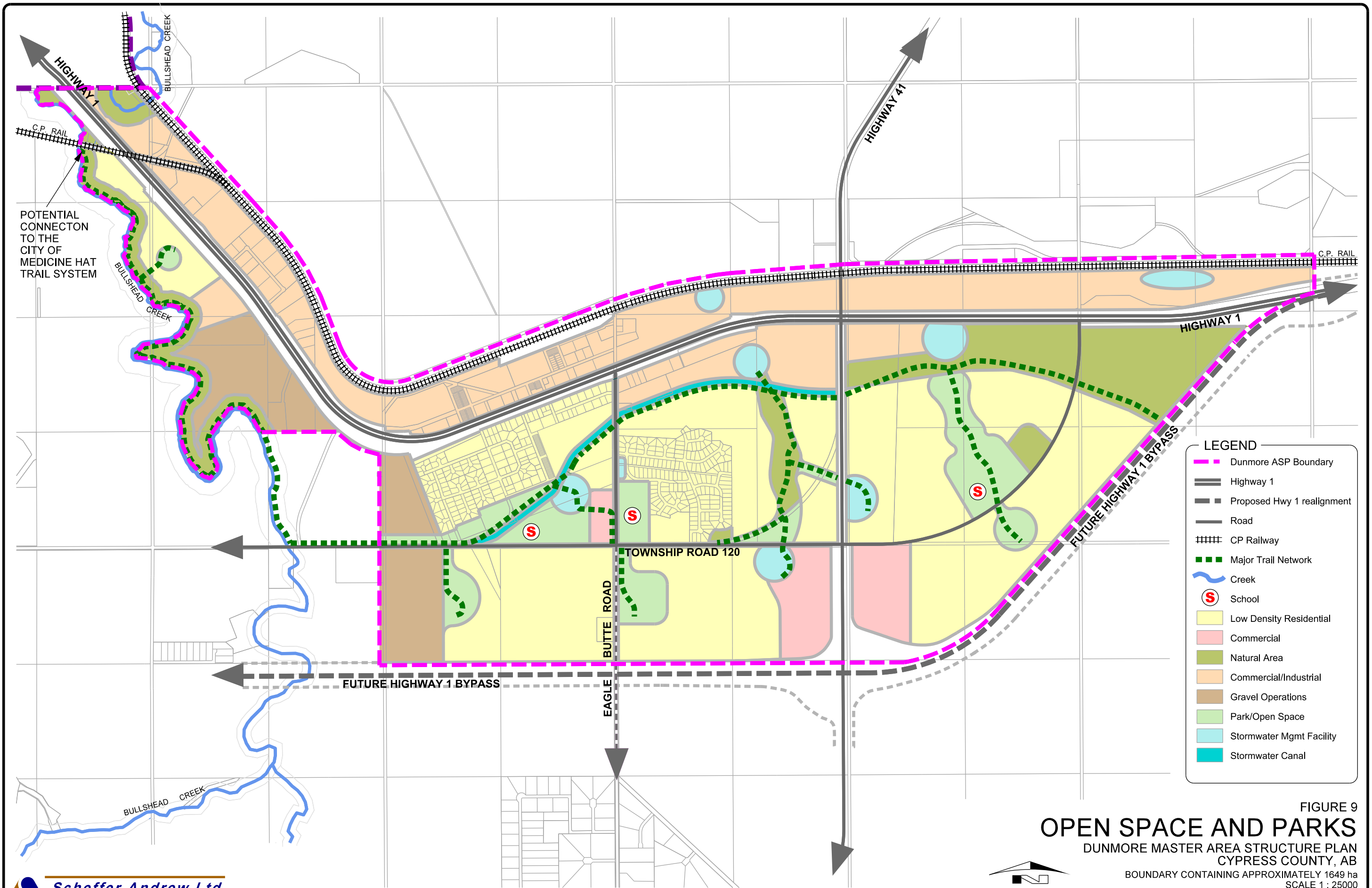


FIGURE 7  
**DEVELOPMENT CONCEPT**  
 DUNMORE MASTER AREA STRUCTURE PLAN  
 CYPRESS COUNTY, AB

BOUNDARY CONTAINING APPROXIMATELY 1649 ha  
 SCALE 1 : 25000  
 March 2013  
 v2\_38703\_dev.dgn





**FIGURE 9**  
**OPEN SPACE AND PARKS**  
 DUNMORE MASTER AREA STRUCTURE PLAN  
 CYPRESS COUNTY, AB

BOUNDARY CONTAINING APPROXIMATELY 1649 ha  
 SCALE 1 : 25000  
 March 2013  
 v2\_38703\_open space.dgn



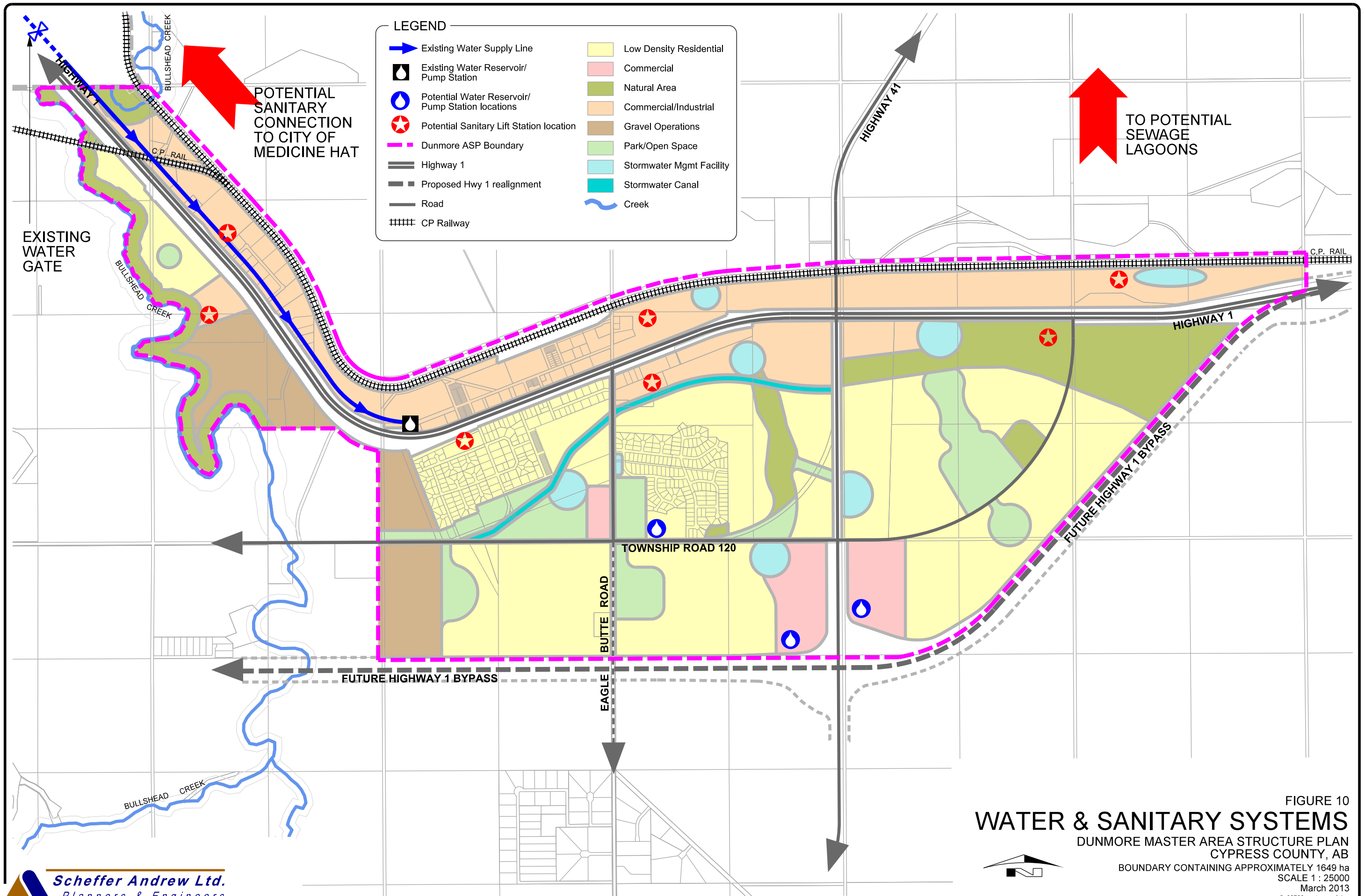
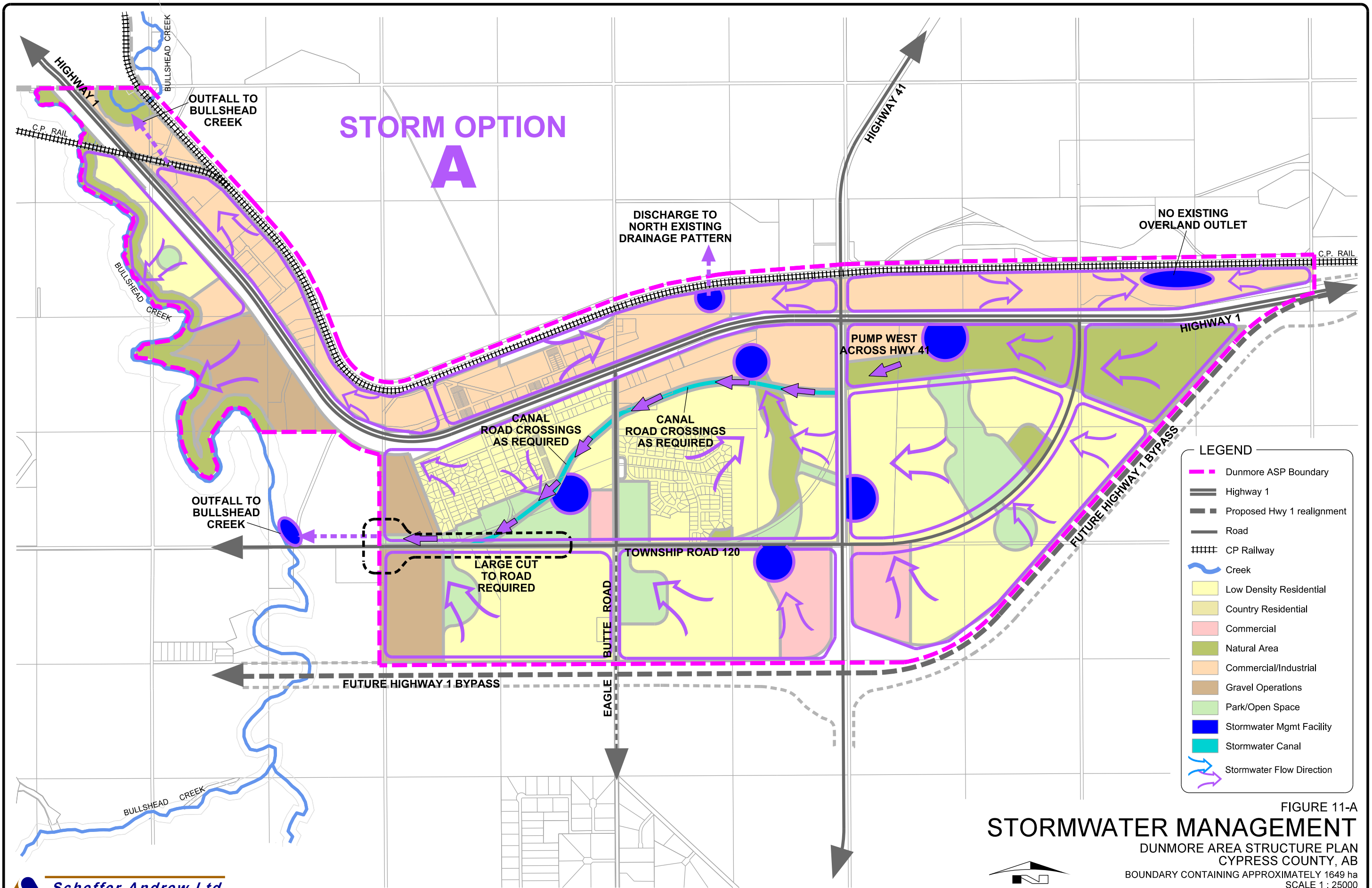
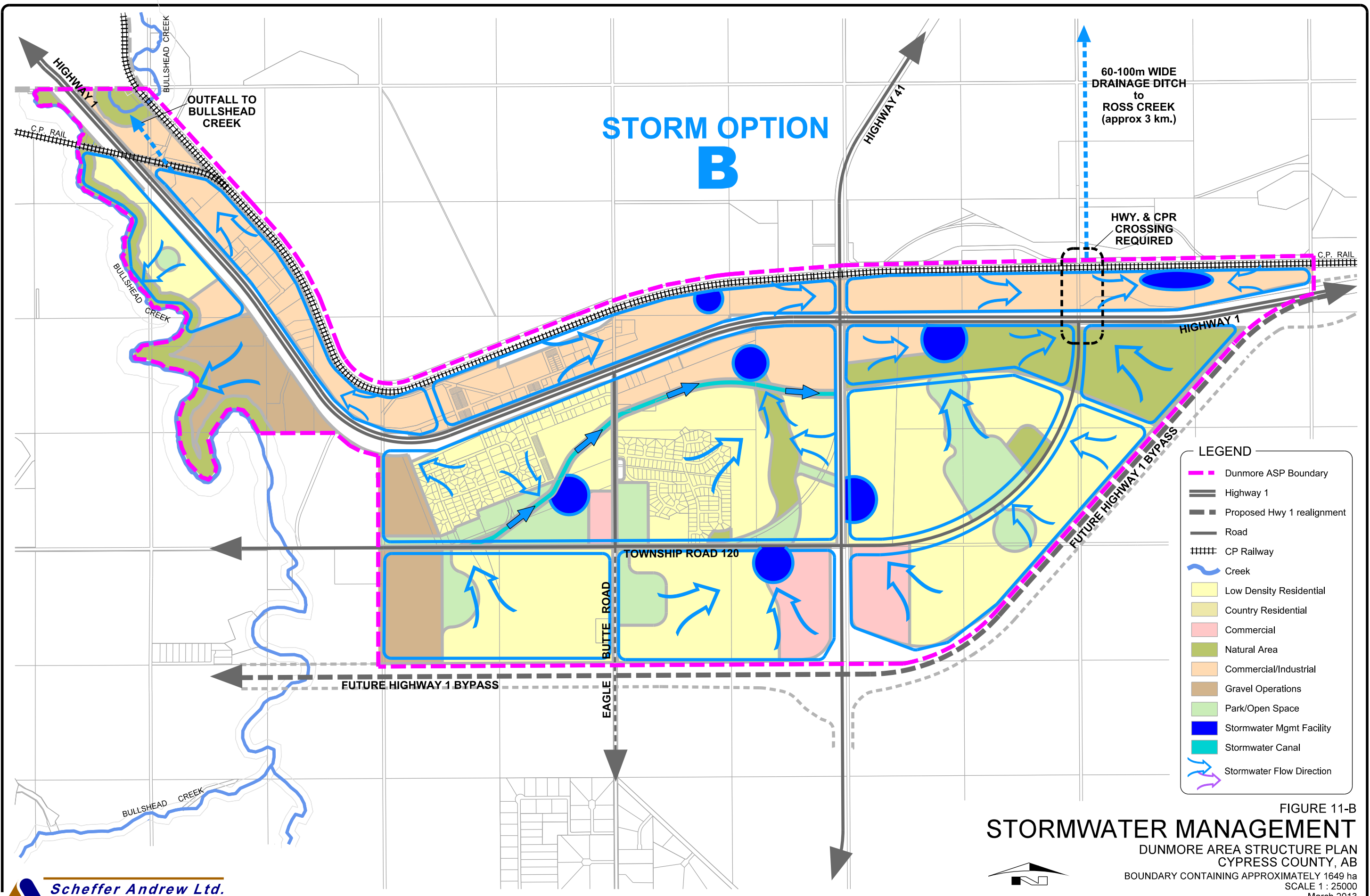


FIGURE 10  
**WATER & SANITARY SYSTEMS**  
 DUNMORE MASTER AREA STRUCTURE PLAN  
 CYPRESS COUNTY, AB  
 BOUNDARY CONTAINING APPROXIMATELY 1649 ha  
 SCALE 1 : 25000  
 March 2013  
 v2\_38703\_water\_sani.dgn



# STORM OPTION B



60-100m WIDE DRAINAGE DITCH to ROSS CREEK (approx 3 km.)

HWY. & CPR CROSSING REQUIRED

- LEGEND**
- - - Dunmore ASP Boundary
  - Highway 1
  - Proposed Hwy 1 realignment
  - Road
  - CP Railway
  - ~ Creek
  - Low Density Residential
  - Country Residential
  - Commercial
  - Natural Area
  - Commercial/Industrial
  - Gravel Operations
  - Park/Open Space
  - Stormwater Mgmt Facility
  - Stormwater Canal
  - Stormwater Flow Direction

**FIGURE 11-B**  
**STORMWATER MANAGEMENT**  
 DUNMORE AREA STRUCTURE PLAN  
 CYPRESS COUNTY, AB  
 BOUNDARY CONTAINING APPROXIMATELY 1649 ha  
 SCALE 1 : 25000  
 March 2013  
 v\_238703\_storm.dgn