
EAST OKOTOKS AREA STRUCTURE PLAN

Town of Okotoks

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1.0 INTRODUCTION

1.1 Purpose and Objectives

The purpose of this Area Structure Plan (ASP) is to provide a framework for future land use, subdivision and development of the plan area as shown in Figure 1.

The objectives of the Plan include the following:

- To accommodate industrial development on the site as a logical extension of the existing Okotoks Business Park;
- To identify and protect environmentally sensitive features as part of the Town of Okotoks natural open space system;
- To ensure that future urban development conforms with a Reclamation Approval issued under the Alberta Environmental Enhancement and Protection Act;
- To ensure development is consistent with the policies of the Municipal Development Plan;
- To ensure that an appropriate 32nd Street E. alignment and approach to the future Sheep River bridge crossing is defined and protected;
- To formally recognize the opportunity to locate a major park on the upper terrace land as a demonstration of successful site remediation and legacy of the former gas plant operation.

1.2 Background

The majority of the plan area is the site of the former Okotoks Gas Plant. The Okotoks Gas Plant was operated from 1959 to 1991 by a variety of companies. In 1992, a decision was made by Canadian Occidental Petroleum Ltd. to decommission the gas plant operation. Since that time the site has been the subject of numerous soil, groundwater and vegetation investigations in support of remediation and reclamation planning.

In late 1997, an interim forum of stakeholders – the Okotoks Plantsite Consultation Committee (OPCC) - was established to participate in the review of future land uses and associated remediation/reclamation activities for the site. Advice received from OPCC representatives, as well as other public comments has been considered and incorporated into this ASP.

Following discussions with the OPCC in 1997, a Human Health and Ecological Risk Assessment (CanTox Inc. 1998) was prepared for the site. This study concluded that surface and subsurface soil remediation work is required on industrially contaminated portions of the site that accommodated the former gas plant facilities.

The Okotoks Gas Plant Remediation and Reclamation Plan was approved by Alberta Environment (AENV) in March 2000. A Reclamation Approval (#17227-01-00) was issued by AENV, which outlines the terms and conditions for remediation and reclamation activities. The approved Remediation and Reclamation Plan outlines site "clean-up" measures required for protection of human health under the assumption of future General Industrial land uses on the Lower Terrace land and Public Parkland uses on the Upper Terrace lands impacted by the former gas plant operation. Other areas on the Upper Terrace were not affected by the former gas plant operation and could potentially accommodate a wider range of future land uses.

Approval of the East Okotoks Area Structure Plan by the Town of Okotoks will provide a more specific and reliable future land use framework for the ongoing site remediation and reclamation activities. As the regulatory authority for the remediation and reclamation process, Alberta Environment will be kept informed of municipal land use policies contained in the East Okotoks Area Structure Plan.

1.3 Legislative Framework

An Area Structure Plan, as defined in the *Municipal Government Act*,

- a) must describe:
 - the sequence of development proposed for the area;
 - the land uses proposed for the area;
 - the density of population proposed for the area;
 - the general location of major transportation routes and public utilities; and
- b) may contain any other matters which the Municipal council may consider necessary.

1.4 Interpretation

In this plan:

1. "Concept Plan" means an intermediate plan between an Area Structure Plan (ASP) and an Outline Plan that encompasses the entire contiguous land holding of a developer. Such a plan should provide information regarding the allocation of reserves and the mix of land uses proposed throughout the Plan

Area. Concept Plans are referred to the Okotoks Municipal Planning Commission (MPC) for consideration.

2. "Contamination" means an impact by non-naturally occurring harmful substances where their presence reduces the quality of natural resources for the use and enjoyment by humans or wildlife.
3. "Council" means the Council of the Town of Okotoks.
4. "Environmental Reserve" is as defined by Section 644(1) of the *Municipal Government Amendment Act, 1995*.
5. "Land Use Bylaw" means the *Okotoks Land Use Bylaw #40-98* adopted by Council pursuant to the *Municipal Government Act* or any succeeding Land Use Bylaw.
6. "MD" means the Municipal District of Foothills No. 31.
7. "Municipality" means the Town of Okotoks unless otherwise specified.
8. "Municipal Development Plan or MDP" means the *Okotoks Municipal Development Plan Bylaw #50-98* adopted by Council pursuant to the *Municipal Government Act* or any succeeding legislation.
9. "Municipal Reserve" is as defined by Section 666(b) of the *Municipal Government Amendment Act, 1995*.
10. "Outline Plan" means an intermediate plan between a Concept Plan and a Tentative Plan that encompasses a logical development cell or the entire contiguous land holding of a developer. Such a plan should provide information regarding the allocation of reserves and the mix of land uses proposed throughout the Outline Plan area. An Outline Plan should also show the entire road system proposed within the Outline Plan including sidewalks and pathways, information regarding servicing, proposed *Land Use Bylaw* Districts and all proposed Reserve parcels. Outline Plans are referred to the Okotoks MPC for consideration.
11. "Subdivision Approving Authority" means the Okotoks Municipal Planning Commission.
12. "Tentative Plan" is a detailed proposal for development of a site and may form the basis for application to subdivide.
13. "Town" means the Town of Okotoks.
14. "Plan" means the *East Okotoks Area Structure Plan*.
15. "Plan Area" refers to the area of land contained within the East Okotoks Area Structure Plan as defined in Section 2.0 and shown in Figure 2.

16. "Upper Terrace" refers to the glacial upland located above the east-west escarpment.
17. "Lower Terrace" refers to the land located south of, and below the east-west escarpment.

2.0 THE PLAN AREA

2.1 Plan Location and Boundaries

The Plan Area is located on the eastern edge of the Town of Okotoks and north of the Sheep River as shown in Figure 1. The plan area includes 64.1 hectares (158.4 acres) and is legally described as the SW ¼ Section 27, Township 20, Range 29, W4M.

The Plan Area (see Figure 2) is bounded by:

- 32nd Street E. on the west;
- the half section line to the north;
- the half section line to the east; and
- North Railway Street on the south (formerly 370th Avenue prior to annexation to the Town of Okotoks).

Existing ownership parcels within the plan area include Canadian Occidental Petroleum Ltd. (63.5 hectares / 156.9 acres) and a 0.186 ha (0.459 acre) parcel located in the southeast corner of the plan area owned by Genevin E. P. Milligan. An undeveloped historic road allowance registered in 1897 (0.417 ha / 1.03 acres) is located near the southwest corner of the site.

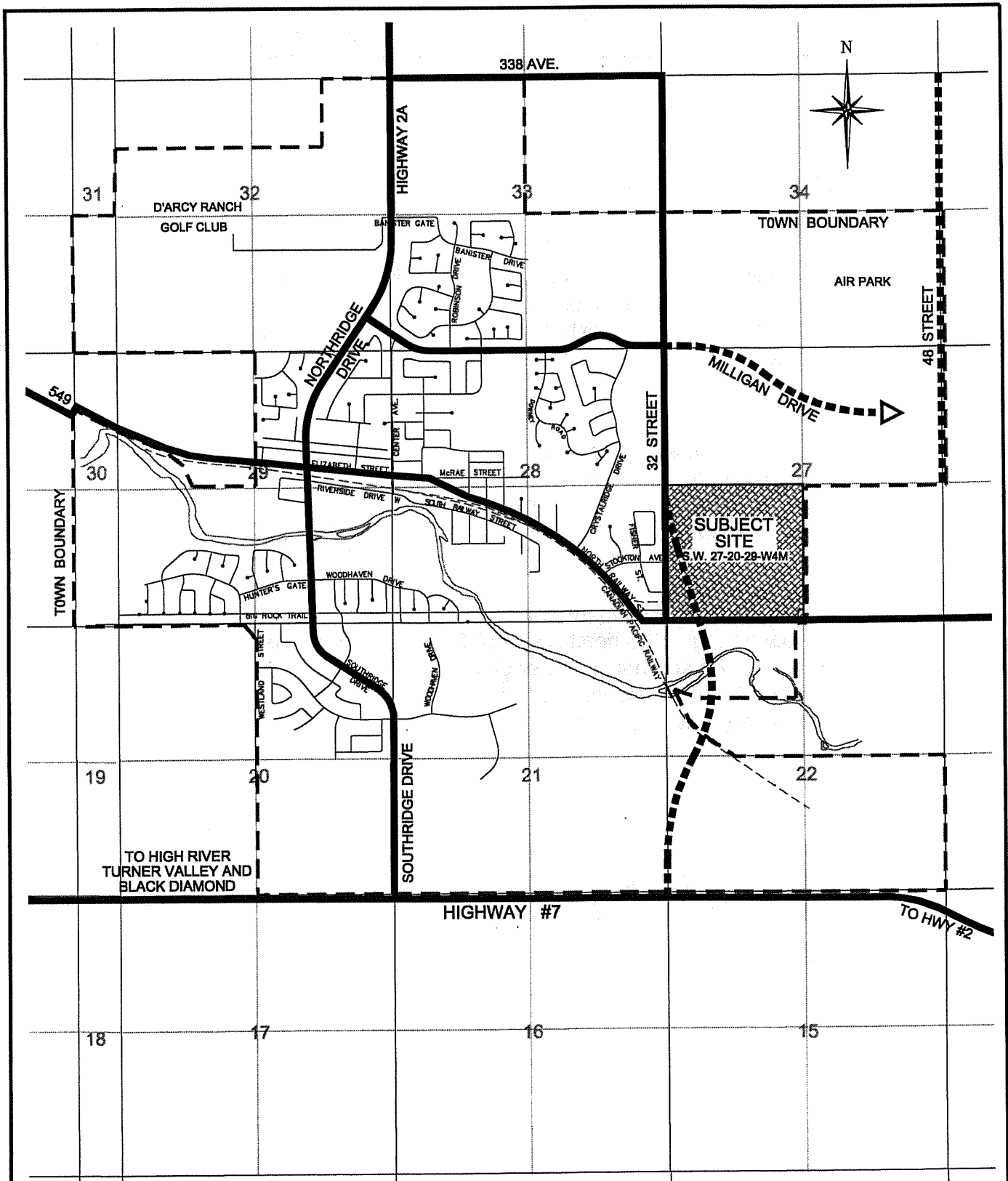
2.2 Site Analysis

Topography

The Plan area is comprised of an upland terrace (Upper Terrace), a steep east-west trending escarpment and a portion of an alluvial terrace of the Sheep River (Lower Terrace, see Figure 3).

In general, the topography slopes from north to south, toward the Sheep River. Topography varies from south-facing undulating to gently rolling topography on the Upper Terrace, which breaks to a 20-metre south-facing escarpment and then south to the virtually flat Lower Terrace.

A significant portion of the Lower Terrace is located within the Flood Fringe area of the Sheep River as mapped by Alberta Environment (Canada-Alberta Flood Risk Reduction Program Map # Edition 1, 2000, and Okotoks Flood Risk Mapping Study, Drawing FR-1, January 1996). This area is at risk of occasional flooding associated with major flood events (see Figure 4). Development within the Flood Fringe area will be subject to the floodproofing requirements of the Town of Okotoks Land Use Bylaw.



TRUCK ROUTES

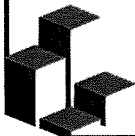
- EXISTING
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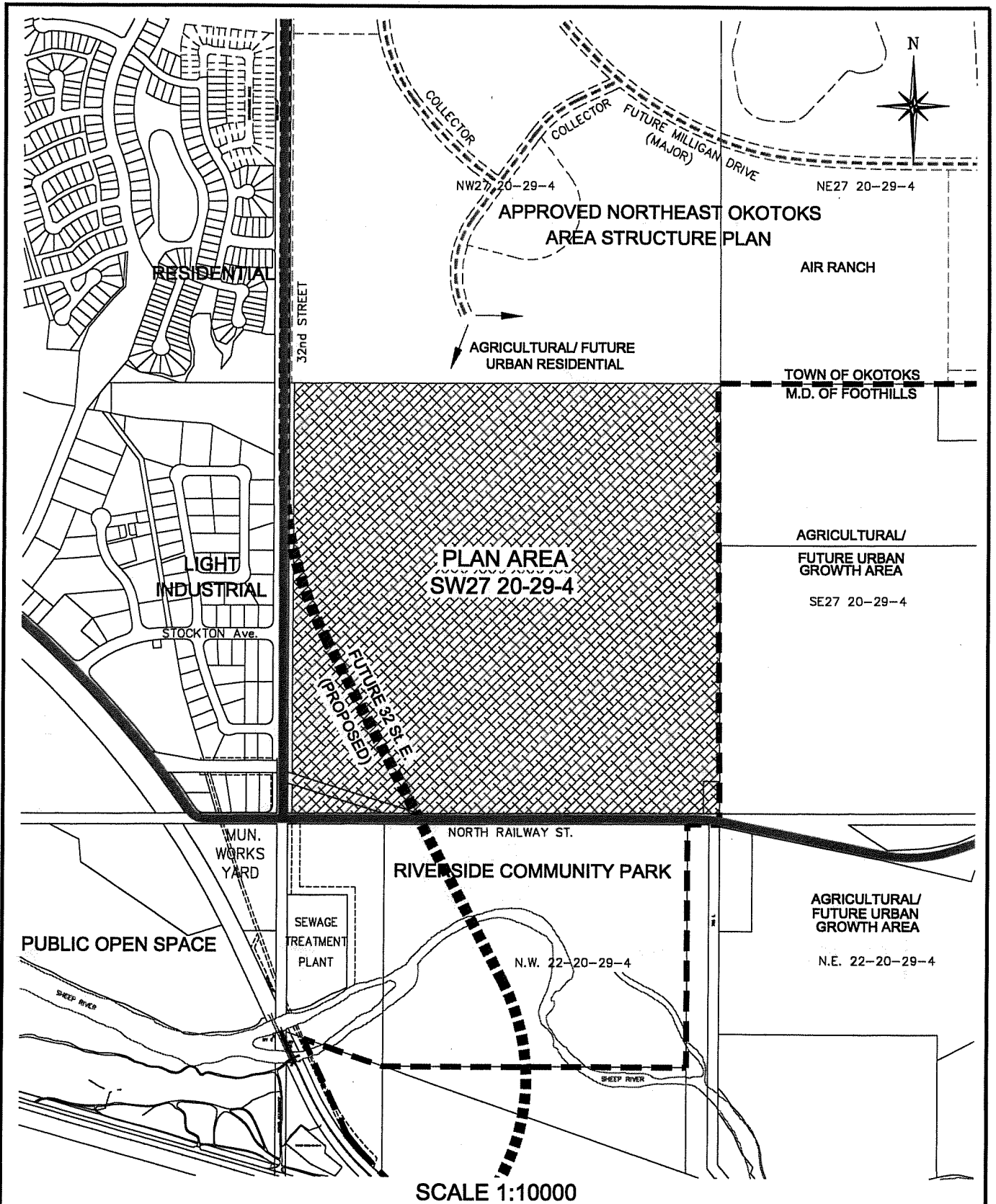
NOT TO SCALE

FIGURE 1:

PLAN LOCATION

EAST OKOTOKS AREA STRUCTURE PLAN





--- TOWN BOUNDARY
 — EXISTING ARTERIAL / COLLECTOR ROADS

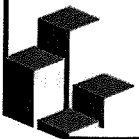


FIGURE 2:
PLAN AREA
 EAST OKOTOKS AREA STRUCTURE PLAN

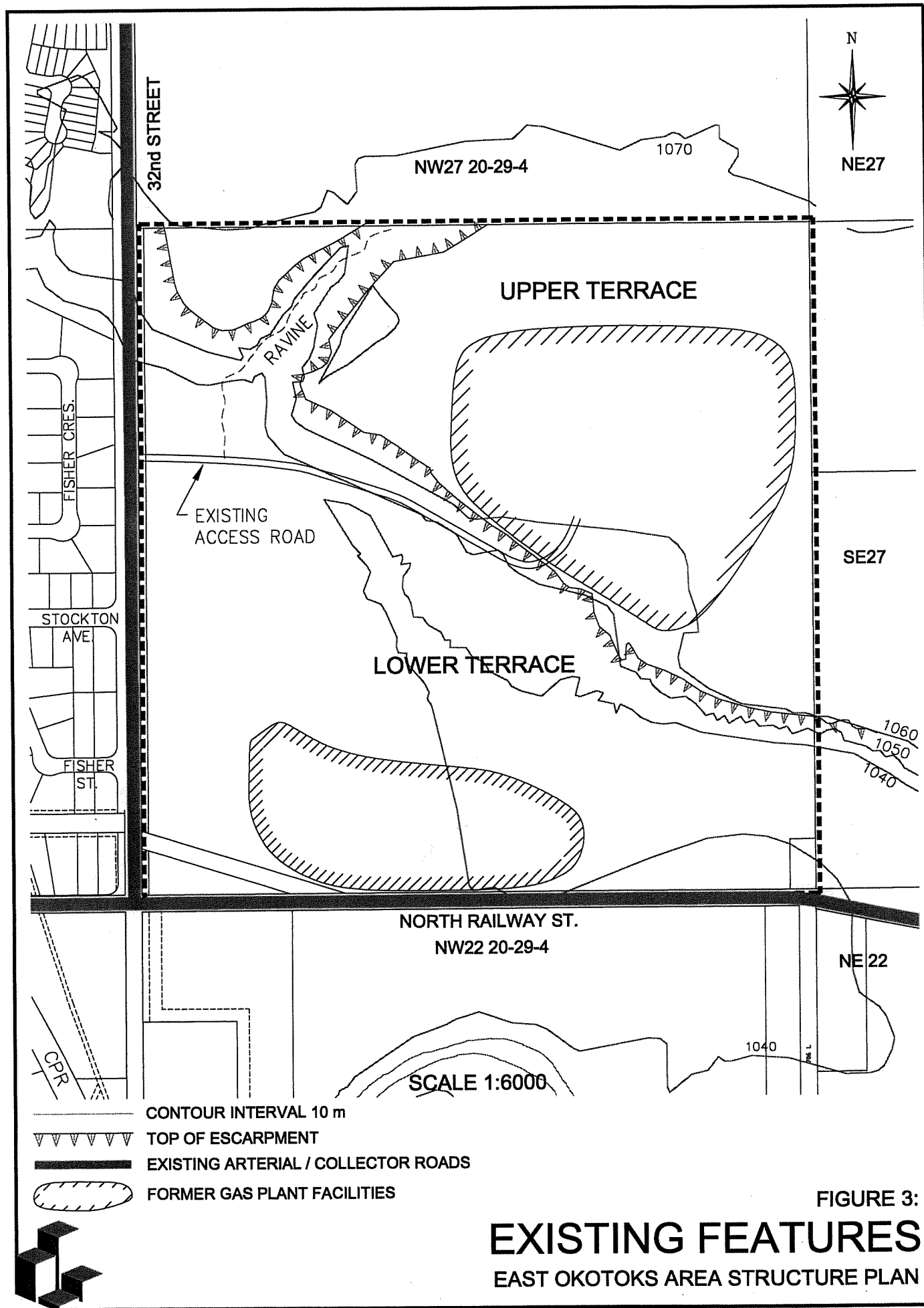
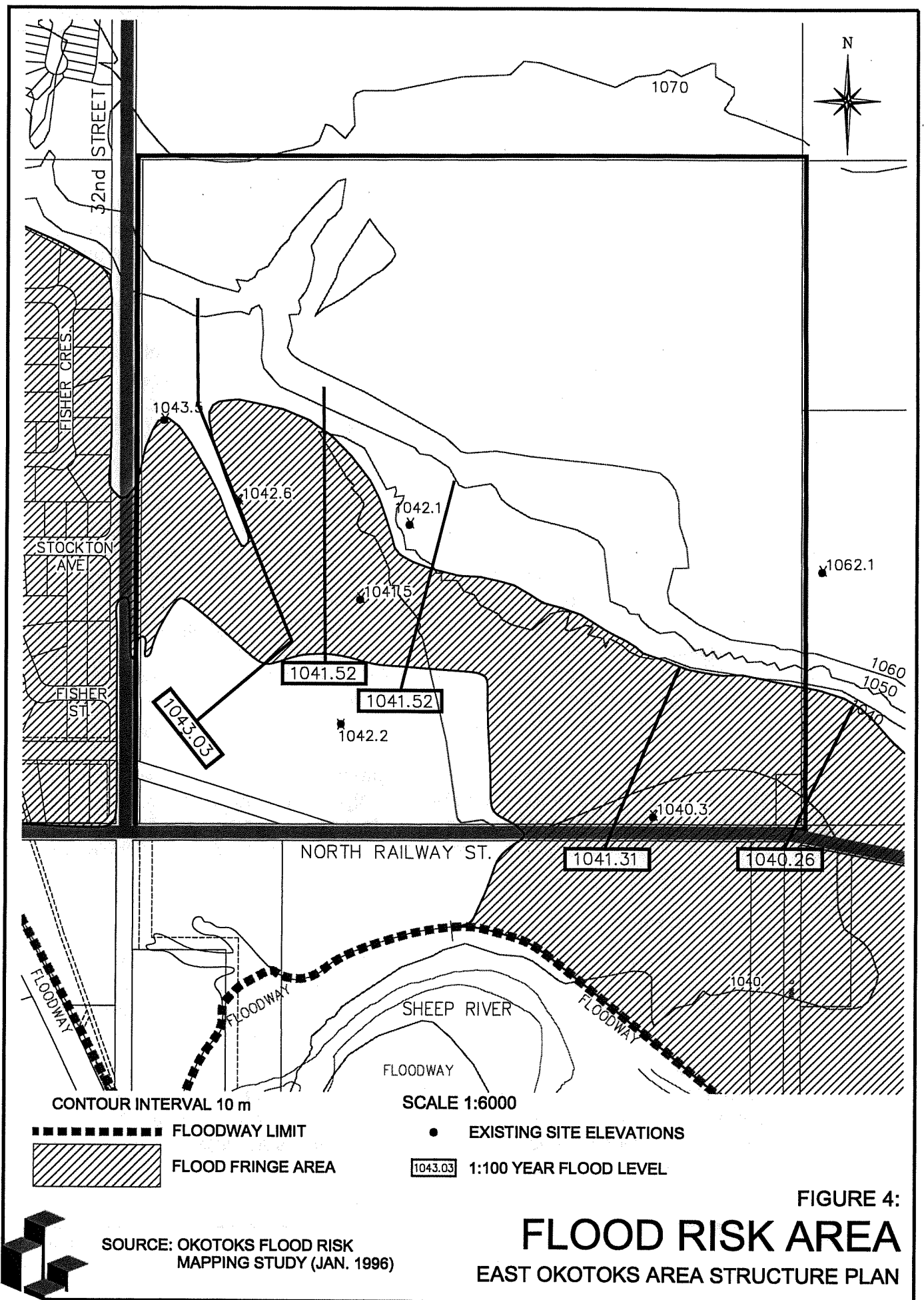


FIGURE 3:
EXISTING FEATURES
EAST OKOTOKS AREA STRUCTURE PLAN



Natural Features

Much of the plan area consists of non-native vegetation associated with disturbance from gas plant activities and interspersed with small remnants of discontinuous native plant communities. The south facing escarpment and the upland ravine are the most significant natural features within the Plan area (Golder and Associates, 1995. See Figure 3).

Vegetation on the south-facing escarpment remains largely undisturbed. It is dominated by shrubs such as snowberry, prickly rose and low-growing balsam poplar, with an under-story of native grass and herbaceous species. Wildlife observed using the escarpment includes deer, American goldfinch, eastern kingbird and black-billed magpie.

The upland ravine is the most ecologically diverse site in the plan area. The north facing ravine slope is dominated by aspen forest with balsam poplar subdominant. Under-story shrub, grass and vegetation communities are well stratified and diverse. The bottom of the ravine is more open; supporting shrubby and herbaceous vegetation more adapted to the wetter soil conditions (associated with the presence of an intermittent stream and higher water table). The ravine community merges into the drier south-facing slope of the ravine. This slope contains a mixture of low shrubs (e.g., prickly rose and chokecherry) in depressional areas and dry open grassland areas (dominated by native and cultivated grass and herbaceous species).

Birds observed using the north-facing slope of the ravine include warbling vireo, eastern kingbird, northern flicker and alder flycatcher. House wren, clay-coloured sparrows and a red-tailed hawk nesting site were observed on the south-facing slope. Numerous animal trails were observed throughout the north facing and ravine bottom habitats.

Existing Land Use

A 0.2-hectare parcel at the southeast corner of the Plan area contains a shed and corral. This parcel is currently used for horse boarding and has direct frontage access from North Railway Street, a paved two-lane rural standard roadway.

The remainder of the plan area is the site of the former Okotoks Gas Plant operation. This operation has been decommissioned and is undergoing demolition, remediation and reclamation for future urban land uses. The former gas plant facilities were located in two general areas as illustrated in Figure 3:

- the main plant or gas processing area on the Upper Terrace above the escarpment; and
- the sulphur handling, loading and storage areas on the Lower Terrace.

Existing road access to the former gas plant site is from 32nd Street E., a two-lane rural standard road that currently provides truck route access to the Okotoks Business Park. An existing driveway runs diagonally across the escarpment slope from 32nd Street to the former gas plant site on the Upper Terrace.

Adjacent Land Use

Lands immediately north, west and south of the plan area are located within the Town of Okotoks (see Figure 2). The Town's only existing industrial area, the Okotoks Business Park, is located immediately to the west across 32nd Street E. Land to the south of the plan area accommodates the Town of Okotoks sanitary wastewater treatment plant, an industrial recycling plant, and Riverside Park. Riverside Park provides sports-fields and riverbank recreational opportunities. Lands immediately north and northeast of the plan area are planned for future urban residential development as outlined in the approved Northeast Okotoks Area Structure Plan.

The quarter section located immediately east of the plan area is located within the M.D. of Foothills. This land is currently in agricultural use and contains a small number of acreage residential parcels. By agreement between the Town of Okotoks and the M.D. of Foothills (Intermunicipal Development Plan, 1998) this land is planned for future annexation to the Town of Okotoks.

2.3 Planning Policies

Town of Okotoks Municipal Development Plan (1998)

The Municipal Development Plan's (MDP's) Industrial section envisions the Town will continue to accommodate traditional forms of industrial land use in distinct industrial cells buffered from residential cells. The Lower Terrace area of the East Okotoks ASP is specifically targeted for traditional forms of industrial development as an expansion of the existing Okotoks Business Park. The MDP also encourages high technology, knowledge-based, research, education, and "green" industries to locate in high quality "business parks" within or adjacent to new neighbourhood cells.

Town of Okotoks / M.D. of Foothills Intermunicipal Development Plan (1998)

Section 3.1.3 of the Intermunicipal Development Plan (IDP) requires that the East Okotoks ASP and/or any amendments to the ASP be referred to the M.D. of

Foothills for review. This referral process is intended to minimize intermunicipal conflict and address the immediate and long-term impacts that development proposals may have on the logical growth sequence of both municipalities.

The East Okotoks ASP lands are identified in the IDP as an "Urban Growth Area." Within an Urban Growth Area, both the Town of Okotoks and the M.D. of Foothills agree that urban development should proceed in the "most orderly, economic and beneficial manner possible" (Section 3.4.1). The IDP addressed the former Okotoks Gas Plant site specifically wherein it states, "Both municipalities will cooperate to ensure these lands are reclaimed to acceptable levels and an appropriate use of these lands occurs." (Section 2.3.2).

32nd Street and the East Okotoks Sheep River Crossing

The Town of Okotoks plans future upgrades to 32nd Street E. to provide a major roadway and a second Sheep River bridge crossing. This improved major roadway will form part of the future truck route system linking Highway #7 at the south edge of Okotoks to Highway #2A at the north edge of the Town.

Various locations for a second Sheep River bridge have been studied. The general location of the new bridge and the associated re-alignment of 32nd Street are shown in Figure 2. This bridge location and roadway alignment is consistent with the location and alignment described in the Town of Okotoks MDP and as recommended by Alberta Transportation (1991).

Construction of 32nd Street E., north of North Railway Street is expected to ultimately provide a 4-lane divided major roadway within a 36-metre right-of-way. Initial upgrading of 32nd Street as traffic levels warrant will provide a 2-lane major road. 32nd Street will function as a "limited access" roadway with restricted intersection spacing. No direct access from adjacent development sites will be permitted. Existing MDP policy requires landscaping or fencing to create an aesthetically pleasing streetscape where development sites back onto 32nd Street.

2.4 Remediation and Reclamation Program

Existing Site Conditions

Soil conditions at the former gas plant site have been tested at approximately 400 borehole locations since 1989. Soil contamination in the form of various non-natural compounds has been found in areas corresponding mainly to the former gas plant facilities on the Upper Terrace and in the vicinity of the former sulphur

processing area on the Lower Terrace. Other smaller areas of the site may also require remediation prior to final urban land uses.

Remediation and Reclamation Activities

Under Alberta Environment Reclamation Approval #17227-00-01 the following remediation and reclamation activities will be undertaken on the former plant site.

- a) **Removal of underground lines and facilities** from the site along with associated environmental confirmation testing and reclamation.
- b) **Remediation of soils** to approved Alberta Environment standards associated with planned future land uses. Soil remediation techniques will include removal of any free-liquids, on-site soil treatment where feasible, and removal of soils to an off-site Class II industrial landfill. Groundwater remediation will occur by removal of free material at the groundwater surface as part of the soil excavation program, and as natural remediation processes such as biodegradation, oxidization, and dispersion.
- c) **Reclamation of the site** to a standard that will support planned urban land uses. Existing subsoil will be amended on-site over time until it meets AENV reclamation certificate criteria. Topsoil for disturbed areas will be imported from off-site, and redistributed from undisturbed on-site areas where available. An appropriate vegetation cover material will be seeded to complete site reclamation. Site reclamation is expected to take three years following completion of the remediation program.
- d) **Management and monitoring of surface water quality.** Surface water management has ensured that water from the former plant areas does not leave the site prior to testing for compliance with AENV criteria. Likewise, surface water is managed to ensure that flows from surrounding areas do not enter the former plant areas. As site remediation and reclamation proceeds, the need for on-site management of surface water flows will be reduced. In accordance with the AENV Reclamation Approval, runoff will not be released from the site during the reclamation period. All collected surface water will be sent to the plant disposal well.
- e) **Ongoing monitoring activities** to verify the suitability of the site for planned urban development. Soils verification sampling and analysis will occur following completion of the remediation program. Groundwater monitoring will measure plume dispersion and natural remediation processes through a series of on-site wells and piezometer sampling stations.

3.0 DEVELOPMENT CONCEPT

Figure 5 illustrates the Land Use and Roadways Plan for the East Okotoks plan area. The major components of the plan are summarized below and relevant policies are described in Section 4.0.

Figure 6 provides a Subdivision and Trails Concept Plan that is consistent with the Land Use and Roadways Plan. The Concept Plan is an intermediate plan between a typical ASP land use plan and an Outline Plan of subdivision. The Concept Plan provides additional information about the intended pattern of land uses and open spaces to be developed within the Plan Area. Details of the Concept Plan, such as the specific alignment of local roadways and the specific arrangement or size of lots are subject to refinement at the Outline Plan stage without a requirement to amend this ASP bylaw.

3.1 Plan Overview

General Industrial Area

Urban general industrial development will be the predominant land use on the Lower Terrace area. Industrial development in this area will form a logical extension of the existing Okotoks Business Park.

Public Open Space Area

Public Open Space areas include lands that are intended to be dedicated to the Town of Okotoks for use as public open space. These areas include the environmentally sensitive escarpment and ravine, setbacks from the top and toe of the escarpment/ravine, and adjacent developable lands located in the northwest corner of the plan area.

Public Open Space areas are subject to more detailed Environmental Reserve and Municipal Reserve delineation at the Outline Plan and Tentative Plan stages of subdivision design. The general disposition of Municipal Reserve land will be determined at the Outline Plan stage with reference to the policies contained in Section 4.2 of this Plan.

Open Space and Policy Review Area

Canadian Occidental Petroleum Ltd. has expressed a corporate interest in, and commitment to, provision of a large open space park to be located on the former gas plant site on the Upper Terrace. Under the provincially approved Reclamation and Remediation Plan the Upper Terrace land east of the upland ravine is being remediated and reclaimed to public parkland standards.

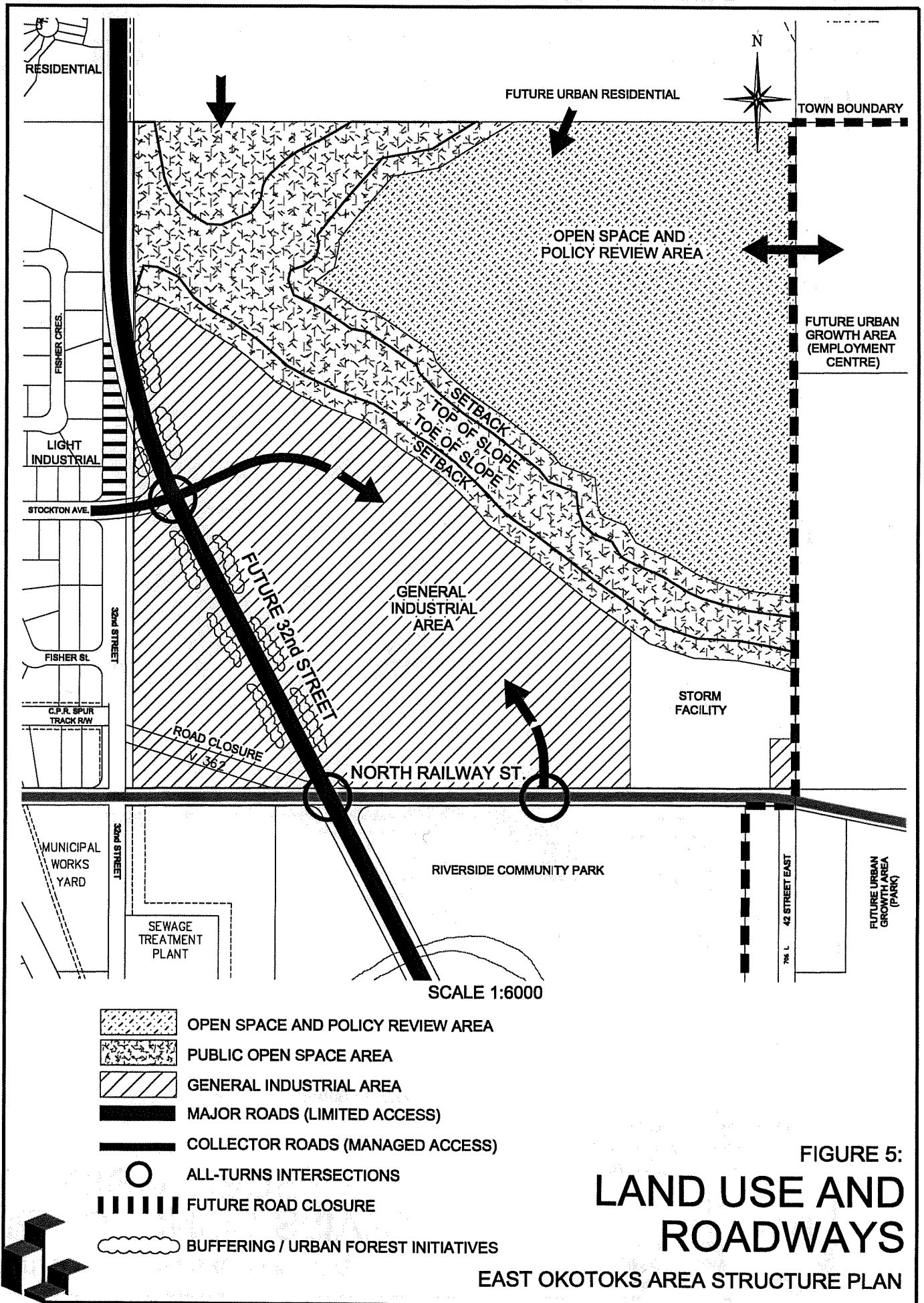


FIGURE 5:
**LAND USE AND
ROADWAYS**

EAST OKOTOKS AREA STRUCTURE PLAN

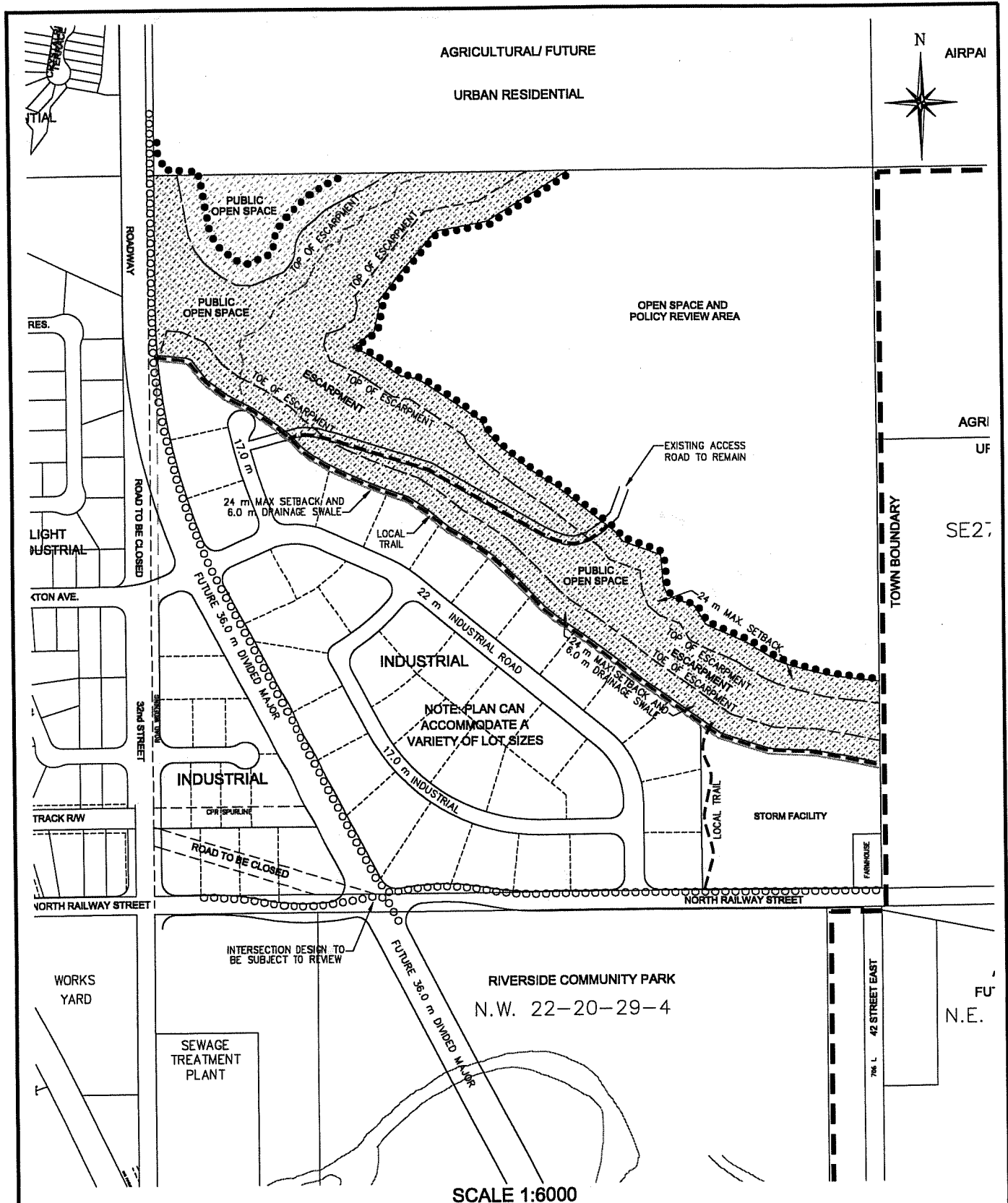


FIGURE 6:
**SUBDIVISION AND
TRAILS CONCEPT PLAN**
EAST OKOTOKS AREA STRUCTURE PLAN

During the remediation and reclamation process for the Upper Terrace land, further work is required to determine the most appropriate type and size of park and associated long-term ownership, maintenance and facilities plans. Therefore, the Upper Terrace area will be placed under Policy Review until remediation planning and park concept planning work is completed.

The Okotoks Municipal Development Plan encourages development of "business parks within or adjacent to new neighbourhood cells that apply higher landscaping, open space, architectural and sign, and site design standards". The Upper Terrace land presents an opportunity for development of light, non-polluting, high assessment per acre, high technology, research and development, knowledge-based, research, education and "green" industries as envisioned by the Municipal Development Plan and Sustainable Okotoks strategy. It is recommended that this opportunity be explored in association with development of a "Legacy Park" on the Upper Terrace and development in the proposed Urban Growth area to the east of the Upper Terrace.

Appropriate amendments to this ASP will be required prior to approval for any land uses within the Open Space and Policy Review Area.

Roadways

The plan accommodates re-alignment of 32nd Street in accordance with the recommendations of existing Town policies and roadway studies. Provision will be made to accommodate an ultimate 4-lane divided major arterial/truck route roadway. Primary access to the proposed General Industrial Area will be provided from North Railway Street and from a new intersection at Stockton Avenue and 32nd Street.

Access for the Open Space and Policy Review Area is subject to review once specific land uses and park activities are defined. Options for providing access to this area in the future are described in Section 4.5.

Utility Servicing

The Okotoks sewage treatment plant is located about 150 metres south of the plan area. The majority of the plan area is located downstream from the treatment plant. Therefore, preliminary engineering review indicates that a lift station will be required to service a large portion of the General Industrial Area.

Stormwater management for the plan area will follow Alberta Environment's "Stormwater Management Guidelines for the Province of Alberta" and employ "Best Management Practices" for the control of both stormwater quantity and quality. Stormwater management for the lower terrace will be provided by a combined piped system for minor drainage and overland routing for major drainage flows. Both systems will flow to a stormwater facility (e.g., a wet pond) for retention, sedimentation, and water quality monitoring prior to discharge at pre-development rates into an existing Sheep River watercourse.

Offsite stormwater flows from "upstream" development lands to the north will be conveyed through the plan area via the upland ravine and an existing drainage channel to be realigned along the base of the escarpment. Flows can be conveyed at pre-development rates into an existing Sheep River drainage channel as an alternative to routing a new storm trunk pipe directly to the Sheep River.

Water supply for the General Industrial Area will be extended from the adjacent Okotoks Business Park development. As water service is required for lands on the Upper Terrace, it will be extended from the adjacent residential areas to the north and northeast.

3.2 Summary of Plan Areas

The generalized land uses and approximate boundaries illustrated in Map 5 are summarized in the following table. All areas are approximate gross developable areas and are subject to review at Outline Plan stage of subdivision design.

POLICY AREA	Hectares	Acres
Public Open Space (escarpment, setbacks, and NW park)	15.4 ha	38.0 ac.
General Industrial Area	22.1 ha	54.6 ac.
Open Space and Policy Review Area	21.5 ha	53.2 ac.
32 nd Street Alignment (36 metres)	2.3 ha	5.6 ac.
Storm Pond Facility	<u>2.8 ha</u>	<u>7.0 ac.</u>
Total Plan Area	64.1 ha	158.4 ac

4.0 PLAN POLICIES

4.1 General

The policies of this section are intended to ensure that development occurs in conformity with senior Town of Okotoks land use policy documents and a Remediation and Reclamation Plan approved by Alberta Environment.

- a) All subdivision and development shall conform to the Town of Okotoks Municipal Development Plan, the Town of Okotoks / MD of Foothills Intermunicipal Development Plan, and the Town of Okotoks Land Use Bylaw #40-98.
- b) All development on the site shall comply with any provincially approved Remediation and Reclamation Plans to the satisfaction of Alberta Environment. The initial framework for site remediation and reclamation is provided by Alberta Environment Approval # 17227-01-00.
- c) All development on the site shall comply with the minimum setback standards from a sanitary waste treatment plant as set out in the Alberta Subdivision Regulations.
- d) Development within the 1:100 year floodplain fringe area as defined by the Okotoks Flood Risk Mapping Study (Alberta Environment, January 1996) shall comply with the requirements of the Canada-Alberta Flood Damage Reduction Program, and Section 9.11.0 (Land Subject to Flooding) of the Land Use Bylaw.

4.2 Public Open Space Area

The policies of this section are intended to ensure provision of a comprehensive public open space system including municipal reserve parks, trails, and protection of environmentally sensitive natural areas. The general location of Municipal Reserve and Environmental Reserve open space land shall be identified at the Outline Plan stage and the precise location of reserve sites shall be determined at the Tentative Plan stage.

- a) The top and toe, along with setbacks from the top and toe of the Sheep River escarpment and the associated ravine shall be surveyed to the satisfaction of Council prior to approval of any Tentative Plan of Subdivision within the plan area.

- b) Appropriate uses on the escarpment and associated ravine lands shall be limited to recreational uses, linear parks, natural open space areas, and pedestrian/bicycle pathway systems.
- c) Subdivision and development setbacks from the top and toe of the Sheep River escarpment will be provided in conformity with Municipal Development Plan policies. In the absence of a geotechnical or slope stability analysis, a subdivision property line setback of 24 metres (78.7 feet) from the top or toe of slope will be required. The Town will consider a reduced subdivision and/or development setback where a slope stability analysis prepared by a qualified professional indicates that subdivision or development will not impair the stability of the slope or integrity of the open space system.
- d) The existing driveway roadbed providing access from 32nd Street to the Upper Terrace shall be retained to provide legal access to a future park within the Open Space and Policy Review Area. Improvements to this access road should not alter the existing roadbed in any way that would significantly impact the existing escarpment slope or vegetation.
- e) Allowance shall be made for the provision of links in the Town-wide trail system along the top of the Sheep River escarpment and through or along the ravine. Design of any pathway through or along the ravine should consider retaining undisturbed local areas for wildlife and nesting sites.
- f) A total of 10% of the Gross Developable Area of the plan area (i.e., the area remaining for development after exclusion of any applicable protected and dedicated lands) will be dedicated to the Town of Okotoks as Municipal Reserve land and/or cash-in-lieu of municipal reserve land.
- g) Land used for private open space is not considered reserve land dedication and reserve requirements for these lands shall be met in full through registration of a deferred reserve caveat. In the event that subdivision is proposed on these lands at some future date, full dedication of reserve land shall then be required.
- h) A municipal reserve park is not anticipated within the General Industrial Area. Employees in this area will have good access to the adjacent escarpment and Riverside Community Park open spaces.
- i) Priorities for acquisition and design of Municipal Reserve parkland shall generally be in the following order:
 - Additional parkland to accommodate a trail along the top of the Sheep River escarpment;

- A park site at the northwest corner of the plan area, generally bounded by 32nd Street, the north boundary of the plan area, the escarpment, and the ravine;
- A linear park and trail connection between the escarpment open space and the riverbank open space;
- A linear park and trail connection along the toe of the Sheep River escarpment;
- Active recreational parkland on the Upper Terrace within the Park and Policy Review area.

4.3 General Industrial Area

The policies of this section are intended to facilitate early development of general industrial land uses on the Lower Terrace land. These lands are a logical extension of the existing Okotoks Business Park and can be readily serviced to alleviate an existing shortage of industrial land within the Town.

- a) Development in the General Industrial Area will include a wide variety of fully serviced light to medium industrial uses of a manufacturing, processing, assembling, or distributing nature.
- b) A wide variety of industrial lot sizes should be accommodated in accordance with market conditions and Town of Okotoks MDP policies.
- c) The Industrial Area should be developed to an intensity that reflects the availability of urban services, convenient accessibility to/from all areas of Okotoks, and its location on the Town's truck route system. A wide range of industrial and employment activities will be encouraged, particularly in locations abutting major roads.
- d) 32nd Street will ultimately be realigned to provide the major truck route entrance to Okotoks industrial areas. Subdivision and development of industrial lots will ensure that the future alignment for this roadway is protected.
- e) Direct access to the future 32nd Street alignment will be discouraged. Subdivision design should ensure that access to industrial lots is to/from an internal local industrial road.
- f) Where development is proposed to back onto the future 32nd Street alignment, landscaping and/or fencing design shall create an aesthetically pleasing streetscape and buffer along the major roadway.
- g) Sidewalks and/or pathways shall be provided in the Industrial Area to connect to nearby escarpment and riverbank parks and natural areas.

- h) Design guidelines for the General Industrial Area shall be established in consultation with the Town and implemented by the developer to encourage a reasonable standard of building quality and compatibility between buildings.
- i) The existing 0.5-acre parcel located at the southeast corner of the plan area may remain in its existing land use until an industrial land use amendment application is submitted by the landowner, and approved by the Town. Access for this parcel will continue to be to/from North Railway Street.
- j) Industrial development of the existing 0.5 acre parcel located at the southeast corner of the plan area will need to be compatible with existing rural land uses and possible future urban land uses to the east of the plan area. Opportunities for integrating this parcel into the larger industrial area should be considered.

4.4 Open Space and Policy Review Area

The Open Space and Policy Review Area includes the largest portion of the Upper Terrace land within the plan area. This area was the site of the former Okotoks Gas Plant and is being remediated and reclaimed by Canadian Occidental Petroleum Ltd. to a high standard suitable for public park uses.

Canadian Occidental Petroleum Ltd. intends to develop a portion of this area as a "Legacy Park" to be integrated with the Town-wide open space system; to provide a historical legacy; and to demonstrate successful gas plant site remediation planning. Details of the ultimate park size, activities, facilities, vegetation, servicing, access, operations and maintenance will be determined in consultation with the Town of Okotoks, and/or other third-party joint-venture participants, and implemented through appropriate amendments to this Area Structure Plan.

Ultimate development of the Open Space and Policy Review Area should be coordinated with future development of the planned employment centre on the Urban Growth lands located on the upper terrace land immediately east of the plan area. In this regard the site offers the opportunity to accommodate a high-quality employment node in association with a "Legacy Park". The site provides an ideal location for Town of Okotoks "target" industries such as light, non-polluting, high assessment per acre, high technology, research and development, knowledge-based, research, education and "green" industries and offices. The Okotoks MDP encourages these business parks to locate "within or adjacent to new neighbourhood cells that apply higher landscaping, open space, architectural and sign, and site design standards".

In certain portions of the upper terrace remediation criteria may preclude residences, basements, disturbance of subsoil, disturbance near monitoring wells, or agricultural uses. These restrictions may still allow for a range of land uses but could limit the types of activities within that particular land use. The policies of this section are intended to provide guidance for future development in the Open Space and Policy Review Area. All development in this area will be determined through appropriate Area Structure Plan amendments at such time as site remediation for the area is completed, park planning has progressed to the concept plan stage, and land uses and roadways can be coordinated with adjacent urban growth lands to the east.

- a) Any development within the Open Space and Policy Review area will require an amendment to this Area Structure Plan.
- b) A major portion of the Open Space and Policy Review Area will be appropriate for parkland and recreational use. Canadian Occidental Petroleum Ltd. will continue to work with the Town of Okotoks and other possible third party joint venture partners to define the most desirable activities, facilities and design parameters for a "Legacy Park".
- c) Subject to appropriate site remediation and reclamation approvals for the Upper Terrace land, consideration will be given to the potential of this area to accommodate a "high quality business park" and/or "institutional" land use in association with the planned "Legacy Park".
- d) Planning for future parkland and/or business park uses should be coordinated with the design of a future employment centre in the Urban Growth area located on the upper terrace land immediately east of the plan area.
- e) Access to a public park will be provided from 32nd Street via the existing plant site access roadbed, and from future extension of a road to the north boundary of the plan area (Northeast Okotoks ASP). Access to any future high quality business park in this location will require additional collector roadway access to the future Milligan Drive alignment via the planned Urban Growth (employment centre) lands to the east (i.e., SE1/4 Section 27).

4.5 Roadways

The plan area will accommodate a planned re-alignment of 32nd Street. 32nd Street will ultimately be a four lane divided major road, providing a second major access and truck-route across the Sheep River to serve the east side of Okotoks (Barton-Aschman Associates Ltd. 1986; Alberta Transportation and Utilities 1991, Municipal Development Plan, 1998).

Previous studies indicate that the Town will need to grow to a population of 14,000 to warrant a new two-lane Sheep River bridge crossing. A divided four-lane arterial will be justified once the Town reaches its ultimate population of 25,000 to 30,000 (ATU, 1991). These timing estimates are subject to the findings of a current Town-wide transportation review that incorporates the recent Sustainable Okotoks development model.

The intent of policies in this section is to ensure that development in the plan area protects an alignment for planned 32nd Street upgrading and to provide direction for the design of local roads within the plan area.

- a) An appropriate alignment for future upgrading of 32nd Street E. shall be protected. Alternative A-1 as recommended in the Sheep River Crossing (1991) report prepared by Alberta Transportation, Roadway Planning Branch is the alignment approved by Town of Okotoks Council.
- b) Direct frontage access to the future 32nd Street alignment will be restricted. All new industrial lots located east of the future 32nd Street alignment should take access to North Railway Street or to an all-turns intersection at 32nd Street and Stockton Avenue.
- c) Ultimate road width requirements for the future 32nd Street alignment; for North Railway Avenue; and for a relocated intersection at the new 32nd Street alignment and North Railway Avenue will be determined in cooperation with the Town of Okotoks prior to subdivision approval for development in the General Industrial Area.
- d) North Railway Street is expected to function as an industrial collector roadway within the ultimate Town of Okotoks roadway hierarchy and truck route system. Industrial lots should front onto North Railway Street wherever possible in conformity with Town of Okotoks MDP guidelines. Direct access to North Railway Street will be managed in accordance with the Town of Okotoks Transportation Plan.
- e) At the Outline Plan stage of subdivision design, consideration should be given to aligning collector road access to North Railway Street with the existing access to the Riverside Community Park parking lot.
- f) The existing 32nd Street alignment south of Stockton Avenue is planned to function as a local industrial roadway within the ultimate Town of Okotoks roadway hierarchy and truck route system. Direct access from industrial lots onto the existing 32nd Street alignment will be permitted.

- g) Convenient access to the future 32nd Street alignment should be maintained for existing businesses located in the Okotoks Business Park.
- h) Roadway access to the Public Open Space Area at the northwest corner of the plan area will be provided by a new local road to be extended from the future residential community to the north.
- i) Roadway access to the Open Space and Policy Review Area is subject to review in conjunction with a review of future land use for the area. Options for future access to this area include the following:
 - Retention and upgrading of the existing access driveway and roadbed from 32nd Street to function as an attractive rural standard “parkway” or park entrance driveway;
 - Connection to a planned residential roadway extending from the future residential community to the north of the plan area in NW1/4 of Section 27 (Northeast Okotoks ASP); and/or
 - Connection to the future Milligan Drive via the planned Urban Growth (Employment Centre) area located east of the plan area in SE1/4 Section 27 (e.g., in the case of a major recreational facility, destination park development, or possible business park development on a portion of the area).
- j) Boulevard trees shall be provided along both sides of the future 32 Street alignment in accordance with the Town Okotoks MDP Urban Forest policy.

4.6 Utility Servicing

Utility servicing policies are intended to ensure the orderly and economic extension of utilities to the plan area at a standard acceptable to the Town of Okotoks. Conceptual servicing requirements for sanitary sewer, stormwater management, and water supply are illustrated in Figures 7, 8, and 9 respectively. Servicing concepts are subject to confirmation and further design at the Outline Plan and Tentative Plan stages of subdivision design.

- a) When reviewing and deciding upon development and subdivision proposals the Town or its approving authorities shall ensure that municipal utilities (e.g., water, sanitary and storm sewers) are designed to meet appropriate engineering standards and satisfy the following criteria:
 - i) Water supply, treatment and distribution facilities shall be adequately designed to meet projected domestic consumption and fire-flow requirements;

- ii) Sanitary sewage collection and treatment facilities shall be adequately designed to meet peak demand requirements and to minimize maintenance and capital costs;
 - iii) The Town's storm water collection and disposal system is upgraded and/or expanded as required; and
 - iv) The provision of these facilities is comprehensively planned to meet anticipated growth and demand requirements of the entire Town.
- b) The developer shall be responsible for costs arising from provision of on-site utility lines and associated on-site facilities to service development in the plan area.
 - c) Off-site levies or acreage assessments to recover the costs of providing major public utilities will be imposed by the Town in respect to land that is to be developed or subdivided within the General Industrial Area and which has not been previously subject to an off-site levy. These levies shall be assessed, pursuant to the relevant sections of the *Municipal Government Act* and the Town's current off-site levy schedules.
 - d) Detailed requirements for the provision of services shall be determined at the Tentative Plan stage.
 - e) Figures 7, 8, and 9 illustrate general utility infrastructure concepts for servicing the Plan Area.
 - f) A sanitary trunk alignment will be provided within the plan area to serve development lands to the north and northeast. A conceptual alignment is illustrated in Figure 7. If required, this line could also service possible future land uses within the Open Space and Policy Review Area.
 - g) The operating license for two existing water wells located on the Lower Terrace will be transferred from Canadian Occidental Petroleum Ltd. to the Town of Okotoks.
 - h) Pathways and trails may also be required to provide vehicle access for maintenance of stormwater facilities.

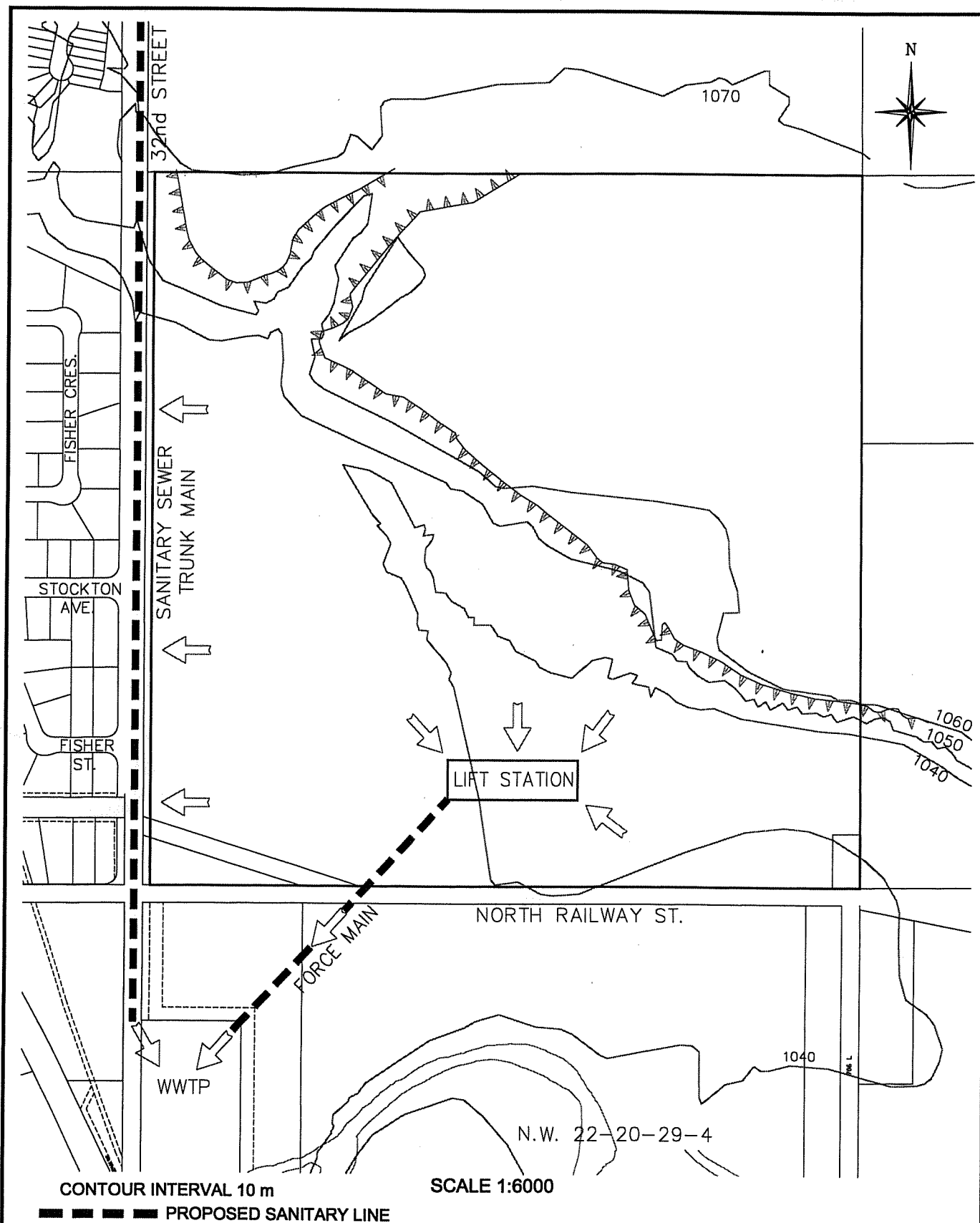


FIGURE 7:

SANITARY SEWER SERVICING

EAST OKOTOKS AREA STRUCTURE PLAN

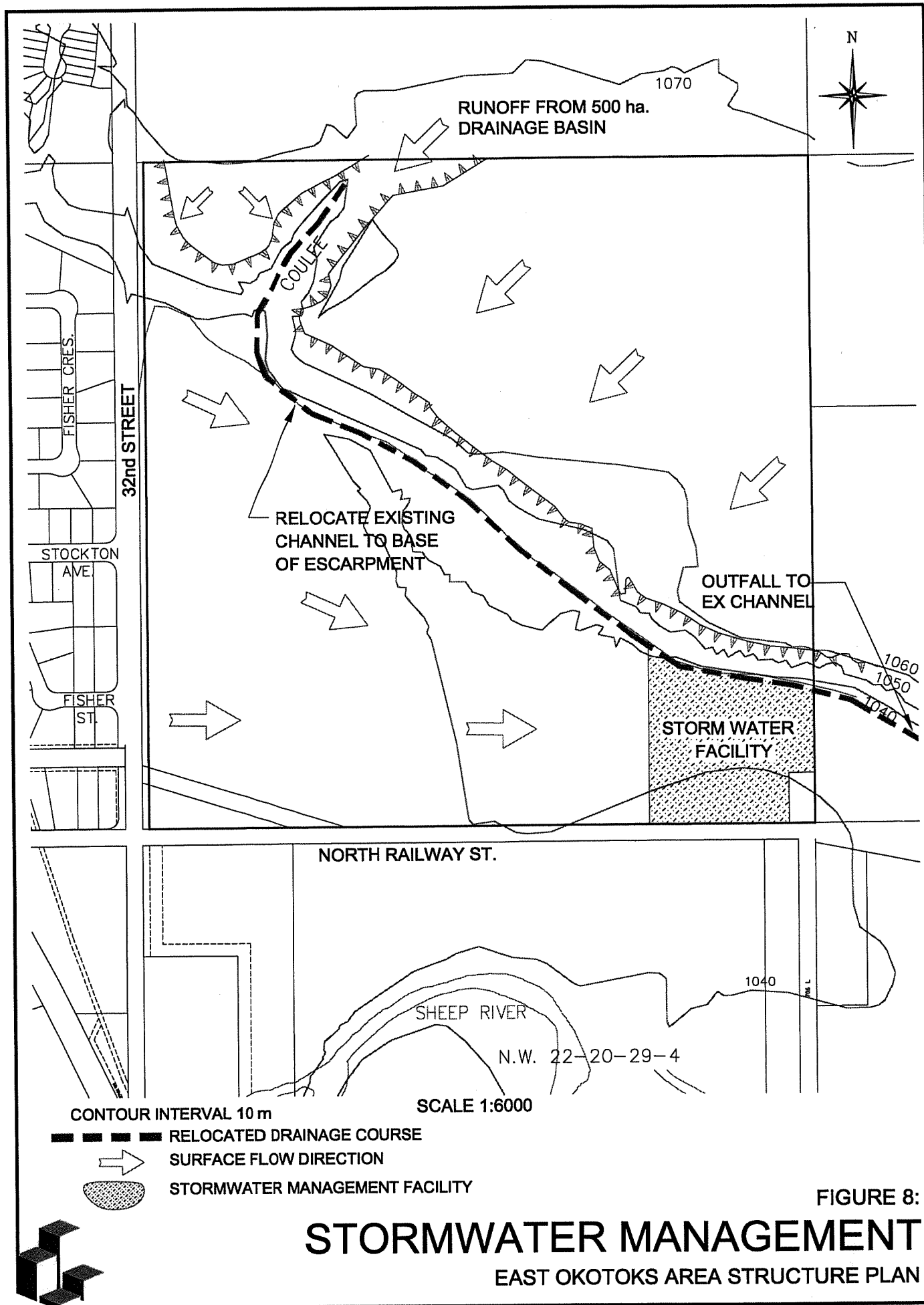


FIGURE 8:

STORMWATER MANAGEMENT EAST OKOTOKS AREA STRUCTURE PLAN

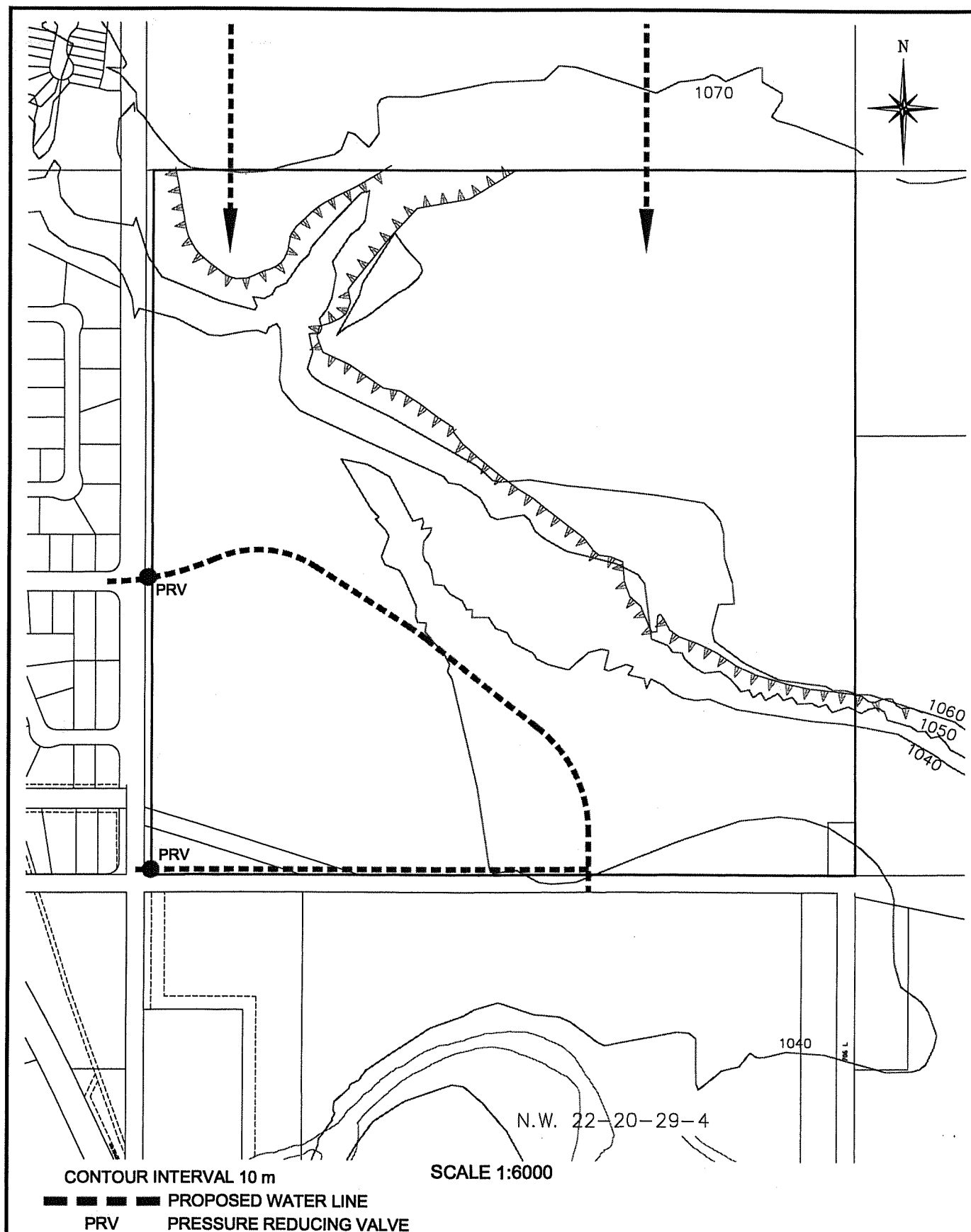


FIGURE 9:
WATER SERVICING
 EAST OKOTOKS AREA STRUCTURE PLAN

5.0 PLAN IMPLEMENTATION

5.1 Plan Adoption

The East Okotoks Area Structure Plan, passed in accordance with Part 7 of the *Municipal Government Act*, shall become a statutory planning document of the Town of Okotoks.

5.2 Plan Implementation Process – General Industrial Area

Initial development within the Plan Area is expected to occur in the General Industrial policy area located on the Lower Terrace lands. This section provides policies with respect to coordination of the site reclamation process with the industrial development process.

5.2.1 Stripping and Grading Permit

- a) The landowner shall apply for a Development Permit from the Town of Okotoks to initiate stripping, grading and stockpiling activities on the site. The development permit application shall be circulated to Alberta Environment for review and comment to ensure consistency with provincial approvals.
- b) A development permit application under policy 5.2.1(a), shall:
 - i) Provide details regarding removal of soil from the site (quantities, routes used to transport materials etc.) and any measures taken to replace these materials to facilitate future development of these lands;
 - ii) Demonstrate that the site is being restored to as close to original grades as possible (pre-gas plant) or is being enhanced to maximize the potential of the site for urban industrial development; and
 - iii) Demonstrate that all activities associated with reclamation of these lands is designed to:
 - Protect the future development potential of the subject land;
 - Mitigate impacts reclaimed soils may have on the public and private infrastructure planned for these lands; and
 - Mitigate the effects of any residual surface and ground water contamination.

5.2.2 Outline Plan Submission and Approval

- a) The landowner shall prepare and submit an Outline Plan for the entire lower terrace prior to any subdivision applications being considered for these lands. The Town may consider the submission of such a plan prior to remediation and reclamation being completed. However, the Town will not approve an

outline plan until all remediation and reclamation work is completed to the satisfaction of Alberta Environment and all requirements of Development Permit approvals required under Step 1 above are met to the satisfaction of the Town of Okotoks. Any outline plan submission shall be circulated to Alberta Environment for review and comment to ensure consistent with provincial approvals.

- b) In addition to standard Outline Plan requirements, an Outline Plan submission shall provide the following information:
 - i) A Risk Management Plan that describes:
 - Remediation of Lower Terrace lands to industrial land use standards including removal of saline soils;
 - Any restrictions on land use;
 - Any potential long term impacts that may occur to public or private infrastructure due to remediation activities;
 - Any potential long term impacts on surface or ground water due to remediation activities;
 - ii) A strategy to notify future land owners of any limitations on the land; and
 - iii) A comprehensive proposal for the disposition of reserves for the entire quarter section.

5.2.3 Land Use Bylaw Redesignation and Subdivision

- a) Land Use Bylaw amendments to establish final Districts for the General Industrial Area shall be submitted concurrent with each subdivision application for urban density industrial lots. Any subdivision and/or land use bylaw redesignation application shall be circulated to Alberta Environment for review and comment to ensure consistency with provincial approvals.
- b) The initial application for subdivision, whether it is intended to facilitate the transfer of a portion of the Plan area to another party, or is the first phase of development, would only be favourably considered after adoption of an Outline Plan for the Lower Terrace Lands.
- c) The initial subdivision application within the Plan area shall include conditions to:
 - i) Dedicate all portions of the escarpment and appropriate setback areas along the top and toe of slope as Environmental Reserve;
 - ii) Establish an appropriate mechanism to provide legal and physical access to upper terrace lands;

- iii) Dedicate any reserves deemed necessary to establish critical open space and trail linkages in advance of the expected phased development in the Plan area;
 - iv) Apportion any remaining municipal reserve requirements between all remnant parcels in accordance with the reserve disposition strategy approved in the outline plan and register deferred reserve caveats accordingly;
 - v) Provide lands required for the future 32nd Street alignment.
- d) Following and initial subdivision application and Outline Plan for the Lower Terrace land, subsequent subdivision applications for lower terrace lands will be processed in accordance with Town's standard subdivision process. Land Use designations for each subdivision phase will be processed concurrent with each subdivision application.

5.3 Plan Implementation Process - Open Space and Policy Review Area

This section provides policies with respect to the implementation process for future development within the Open Space and Policy Review Area.

- a) Prior to a proposal to accommodate development in the Open Space and Policy Review Area, Council shall approve an appropriate amendment to this Area Structure Plan.
- b) The Town of Okotoks will support initiatives by Canadian Occidental Petroleum Ltd. to establish an urban park within the Open Space and Policy review area. Potential public / private partnership arrangements between Canadian Occidental Petroleum Ltd., the Town of Okotoks and/or other parties may be explored as part of the park planning process.

5.4 Phasing – General Industrial Area

Figure 10 illustrates a possible phasing strategy for development of the General Industrial land on the Lower Terrace. The initial phase of development will occur on the lands located west of the future 32nd Street alignment. This initial phase will function as an extension of the existing Okotoks Business Park and may be serviceable with a gravity sanitary sewer connection to the Okotoks Sanitary Treatment Plant. Subsequent phases of development will extend from a new industrial collector roadway intersection at North Railway Street and proceed in a contiguous fashion to the north. Final phases of development will require a new all-turns intersection to be constructed at the Stockton Avenue and 32nd Street. Timing for construction of this second all-turns access point and later phases of

development may vary depending on traffic and emergency access requirements.

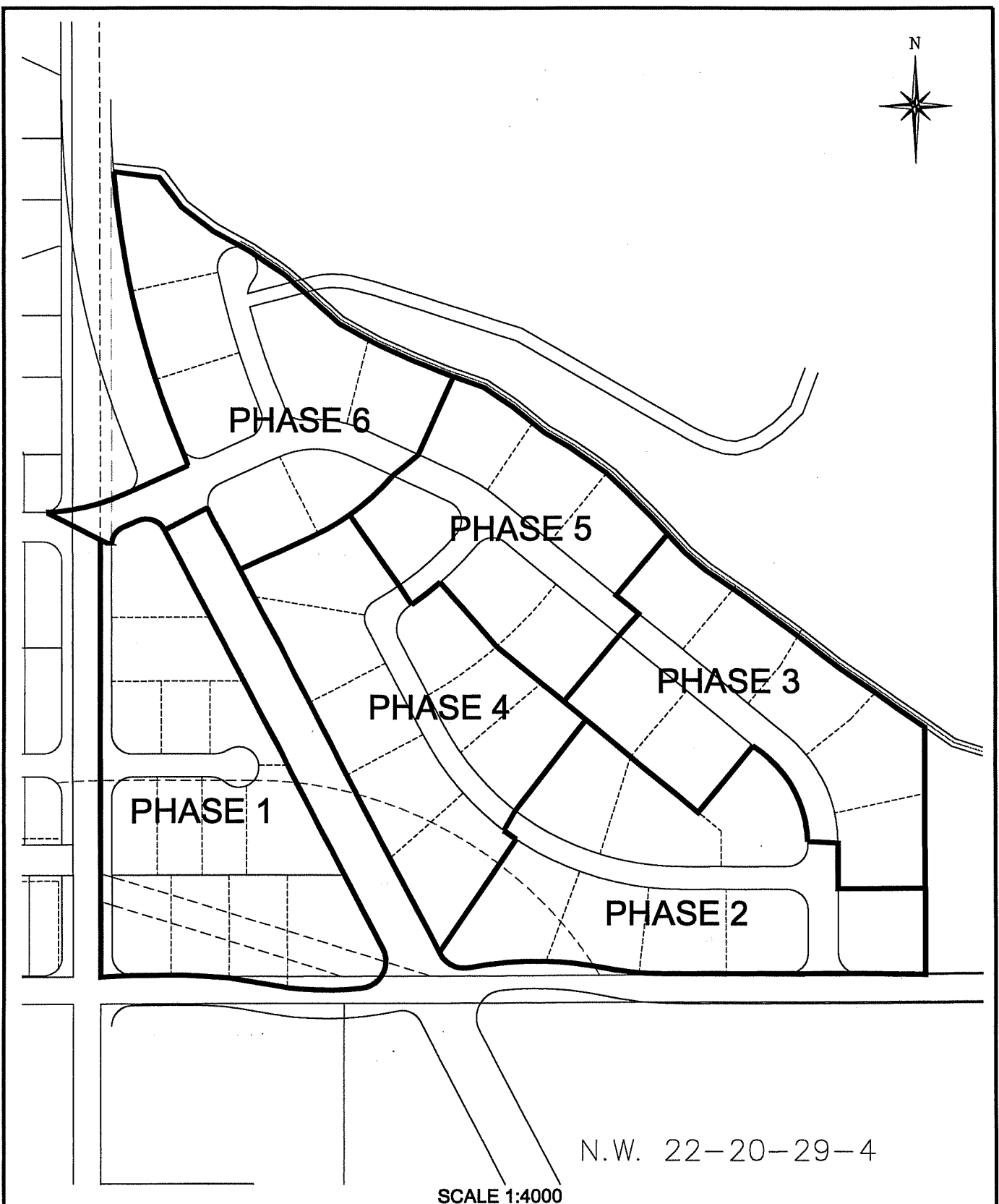
- a) The sequence of subdivision in all portions of the Plan Area shall represent a logical and efficient extension of existing utility and transportation infrastructure.
- b) Particular attention shall be given to completing key collector road links into a developing cell as soon as possible in the phasing scheme.
- c) In no case shall a local road be used to carry more than its design environmental capacity for an interim period.
- d) Temporary access to facilitate emergency access requirements may be considered.
- e) Temporary access to facilitate construction access into development cells to minimize conflict with existing phases in the developing area will be considered.

5.5 Plan Amendment

While this plan is intended to establish a long-term development pattern for the Plan Area, future conditions may require Council to make amendments to the Plan.

5.6 Developer's Agreements

The developer shall be required to enter into a Master Agreement prior to the approval of any Tentative Plan of Subdivision. The contents of this Agreement shall pertain to many of the broader development issues that are not specific to any one subdivision phase and include, but are not to be limited to, staging of development in relation to transportation infrastructure improvements. In addition, the Town shall require the Developer to enter into Servicing and Construction Agreements for each subdivision phase in accordance with the Master Agreement as adopted by Council.



NOTE:
PHASING PLAN IS CONCEPTUAL
ONLY AND MAY BE MODIFIED
WITHOUT AMENDMENT OF THIS ASP

FIGURE 10:
PHASING CONCEPT
EAST OKOTOKS AREA STRUCTURE PLAN

APPENDIX 1: REFERENCE DOCUMENTS

Detailed Soils Survey of the Okotoks Area. Scheeler, 1975. (Cited in Shoal and Lore, 1993).

Ecological Inventory of the Okotoks Gas Plant. Golder Associates Ltd., 1995.

Flood Risk Map. Alberta Environmental Protection, 1996.

Human Health and Ecological Risk Assessment of the Wascana Energy Inc. Gas Plant Site. CanTox Inc., 1998.

North East Okotoks Area Structure Plan. Town of Okotoks, 1989.

Okotoks Gas Plant Environmental Assessment Report. Shoal Environmental Consultants Ltd., 1995.

Phase II Environmental Site Decommissioning - Okotoks Gas Plant. Shoal Environmental Consultants Ltd., 1994.

Remediation and Land Reclamation Plan: Former Okotoks Gas Plant. Komex International Ltd., January 2000.

Sheep River Crossing / Town of Okotoks. Alberta Transportation and Utilities, Roadway Planning Branch, 1991.

Topsoil Survey of the Okotoks Gas Plant Site. 3-D Reclamation Inc., 1997.

Town of Okotoks, Municipal Development Plan, 1998.

Town of Okotoks / M.D. of Foothills Intermunicipal Development Plan, 1998.

Various unpublished environmental investigation, assessment and monitoring reports prepared for Canadian Occidental Petroleum Ltd. by Komex International Ltd., 1995-1998.

BYLAW NO. 25-01

**BEING A BYLAW OF THE TOWN OF OKOTOKS
IN THE PROVINCE OF ALBERTA
TO ADOPT THE
EAST OKOTOKS AREA STRUCTURE PLAN**

WHEREAS the Municipal Government Act R.S.A. 1994, Chapter M-26.1 came into force on January 1, 1995;

AND WHEREAS Part 17, Division 5, Section 633 of the Act provides that a Council may by bylaw adopt an area structure plan.


NOW THEREFORE the Council of the Town of Okotoks enacts as follows:

1. This Bylaw may be cited as the East Okotoks Area Structure Plan.
2. The East Okotoks Area Structure Plan attached hereto is hereby adopted as the Area Structure Plan for the subject lands.
3. This Bylaw comes into full force and effect upon the date of third and final reading.

READ A FIRST TIME this 16th day of July, 2001

READ A SECOND TIME this 20th day of August, 2001

READ A THIRD TIME and finally passed this 20th day of August, 2001


MAYOR


MUNICIPAL SECRETARY