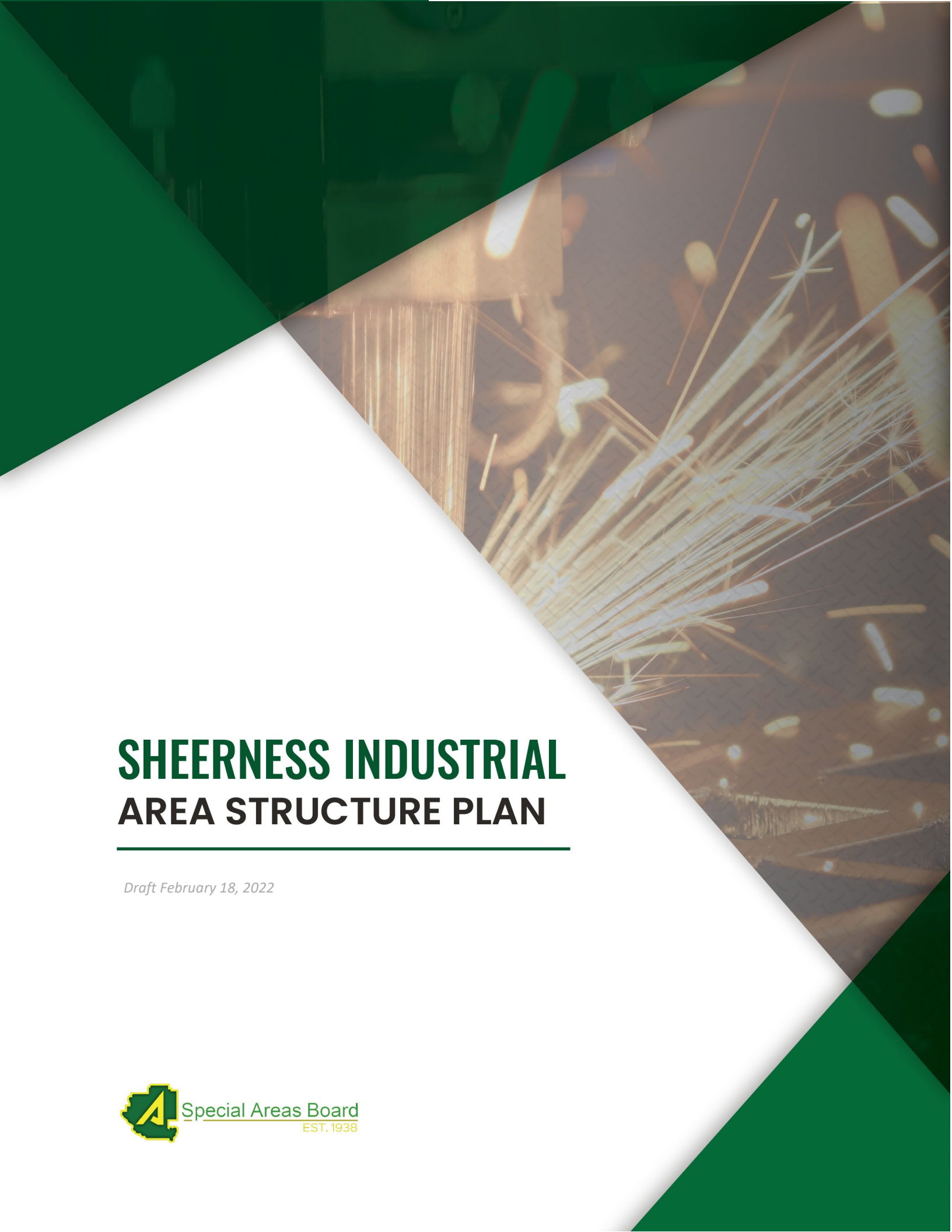

SHEERNESS INDUSTRIAL
AREA STRUCTURE PLAN

Draft February 18, 2022

Special Areas Board
EST. 1938

ACKNOWLEDGEMENTS

Special Areas Administration
Special Areas Board

Primary Author:
Palliser Regional Municipal Services

Engineering Analysis:
Scheffer Andrew Ltd.

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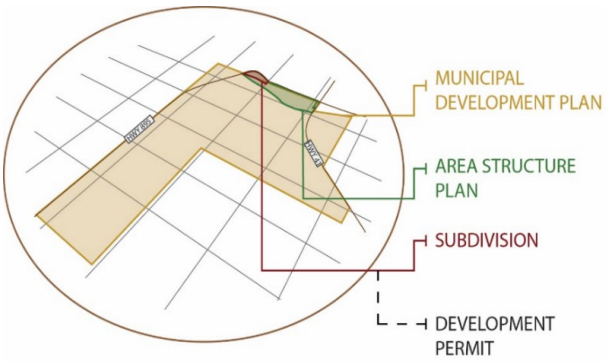
SUPPORTING REPORTS (under separate cover)

Report	Consultant / Author
Transportation Study	Scheffer Andrew Ltd.
Functional Servicing Report	Scheffer Andrew Ltd.
Storm Water Management	Scheffer Andrew Ltd.
Shallow Utilities Report	Scheffer Andrew Ltd.

HOW TO READ THIS DOCUMENT

An Area Structure Plan (ASP) is intended to be read holistically and jointly with other applicable statutory plans and bylaws within the municipality. As a statutory plan all subdivision and development applications within the Plan Area must comply with this ASP. The purpose of the ASP is to provide the overall vision and broad policy guidance, while leaving the details to subsequent subdivision and development approval processes.



MUNICIPAL DEVELOPMENT PLAN
Guides overall growth and development in Special Areas Board.

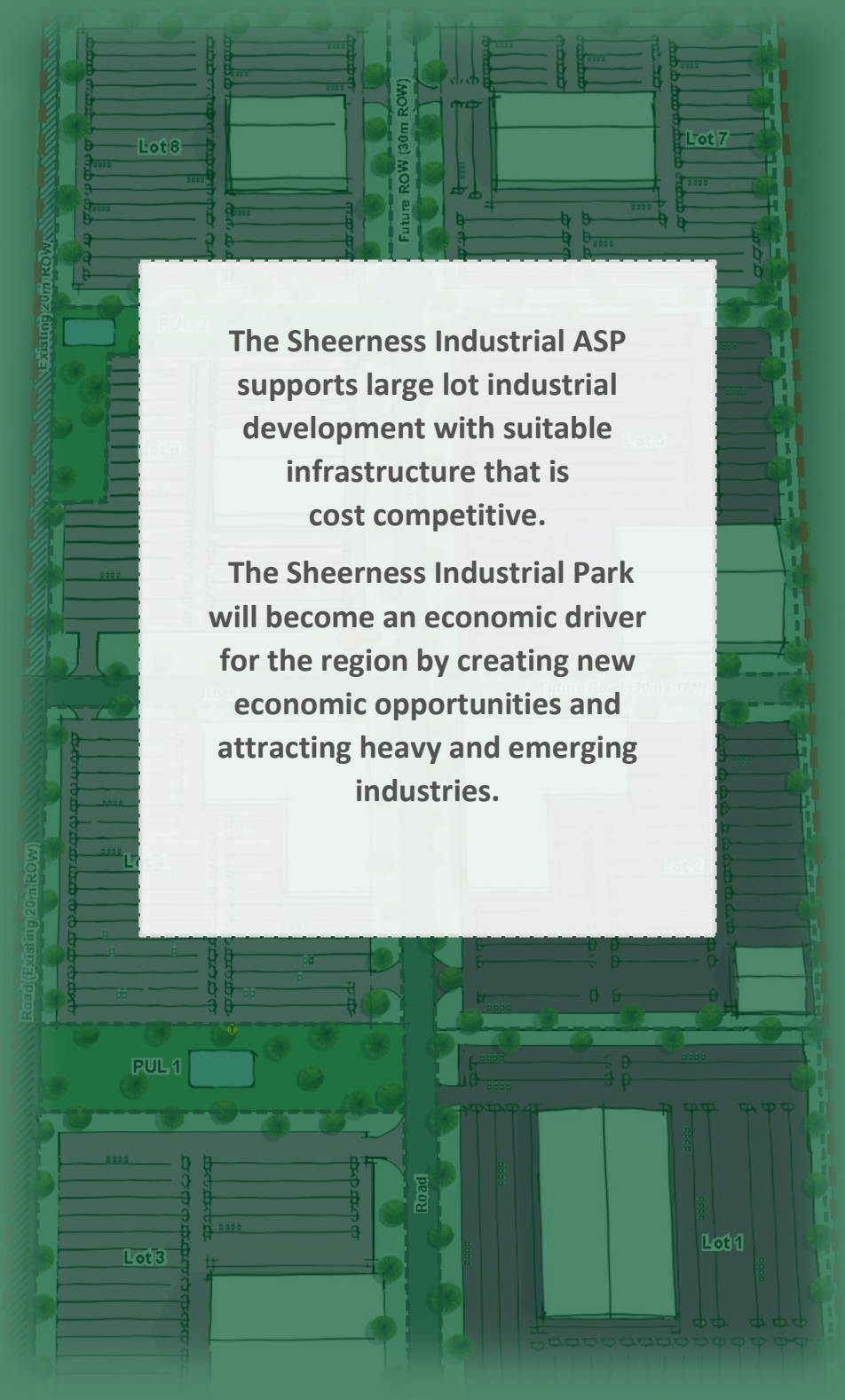
AREA STRUCTURE PLAN
Provides the vision for the physical development of a specific area.

SUBDIVISION
A process to divide an area of land divided into legal lots.

DEVELOPMENT PERMIT
A process to gain approval for a specific development on an area of land.

INTERACTIVE LINKS

The digital version of this document has interactive links. The Table of Contents sections, sub-sections and figures can be clicked to jump to the desired section or figure. Similarly figure references, definitions and acronyms are highlighted in **BOLD GRAY** text in the document and if clicked on will jump the reader to the applicable figure or *Section 7.0 Definitions and Acronyms*.



The Sheerness Industrial ASP supports large lot industrial development with suitable infrastructure that is cost competitive.

The Sheerness Industrial Park will become an economic driver for the region by creating new economic opportunities and attracting heavy and emerging industries.

1 INTRODUCTION

1.1 PLAN PURPOSE

The purpose of the Sheerness Industrial Park is to attract new industrial investment which will create new economic opportunities for the region. The Sheerness Industrial Park offers an appropriate location for industrial uses away from areas and citizens which could otherwise be adversely affected (see **FIGURE 1 | CONTEXT**). The purpose of the Sheerness Area Structure Plan is to create a clear policy document to guide the planning and development of the industrial park.

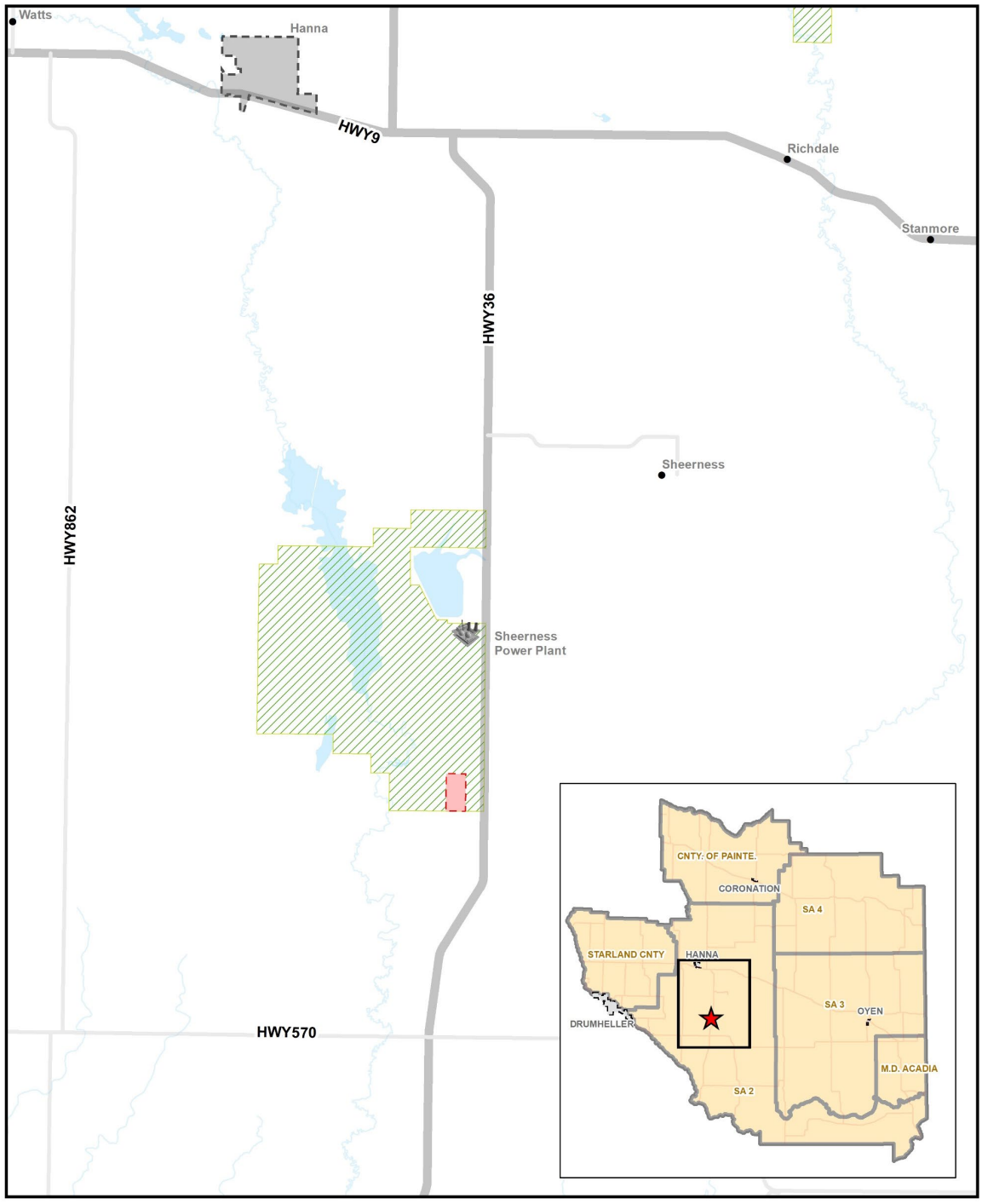
An ASP is a statutory document approved by the Board of Special Areas. An ASP provides citizens, developers, administration and the Special Areas Board with a road map when considering applications for land use redesignation, subdivision and development in the Plan Area. Since the ASP is a statutory document it must align with higher-level plans, including the Municipal Development Plan (MDP).

The ASP does not predict the rate or pace of development within the plan area, since market forces will determine when and if a parcel of land develops.

1.2 PLAN VISION

The Sheerness Industrial ASP vision is to support large lot industrial development with suitable infrastructure that is cost competitive. The Sheerness Industrial Park will become an economic driver for the region by creating new economic opportunities and attracting heavy and emerging industries.

FIGURE 1 | CONTEXT



1.3 MUNICIPAL GOVERNMENT ACT

The Municipal Government Act (MGA) section 633 dictates the basic requirements for an Area Structure Plan. The MGA (current as of June 17, 2021) states the following in section 633:

"633(1) For the purpose of providing a framework for subsequent subdivision and development of an area of land, a council may by bylaw adopt an area structure plan.

(2) An ASP

(a) must describe:

(i) the sequence of development proposed for the area,

(ii) the land uses proposed for the area, either generally or with respect to specific parts of the area,

(iii) the density of population proposed for the area either generally or with respect to specific parts of the area, and

(iv) the general location of major transportation routes and public utilities, and

(b) may contain any other matters the council considers necessary, including matters relating to reserves, as the council considers necessary.

1.4 INTERPRETATION

The plan policies are written as 'shall', 'should' or 'may' statements.

Policy statements utilizing 'shall' outline mandatory compliance.

'Should' or 'may' policy statements outline policies to which compliance is encouraged and recommended.

In certain circumstances the 'should' or 'may' statements may not be practical and therefore the policy provides flexibility to respond to such circumstances.

2 PLAN AREA AND SITE ANALYSIS

2.1 PLAN AREA DESCRIPTION

The Plan Area is located within Special Area No. 2, approximately 800 metres west of Hwy 36 and bordered by Township Road 280 to the south. The area falls within the southern end of the Bullpound Community Pasture, south of the Sheerness power plant and Prairie Oasis Park (**see FIGURE 1 | CONTEXT).** The hamlets of Sheerness, Rose Lynn and Sunnybrook fall to the east and Lonebutte to the west within a 20 km radius.

The Plan Area includes a few constraints, including wetlands (ephemeral waterbodies or temporary marshes), bird nesting areas, a gas right of way, a pipeline, and a suspended well site. The Plan Area is located between the Sheerness raw water supply and Special Areas potable water supply system and is adjacent to existing irrigation. Also existing on the site is a driving test track/resource road that will be decommissioned prior to development (**see FIGURE 2 | EXISTING CONDITIONS)**.

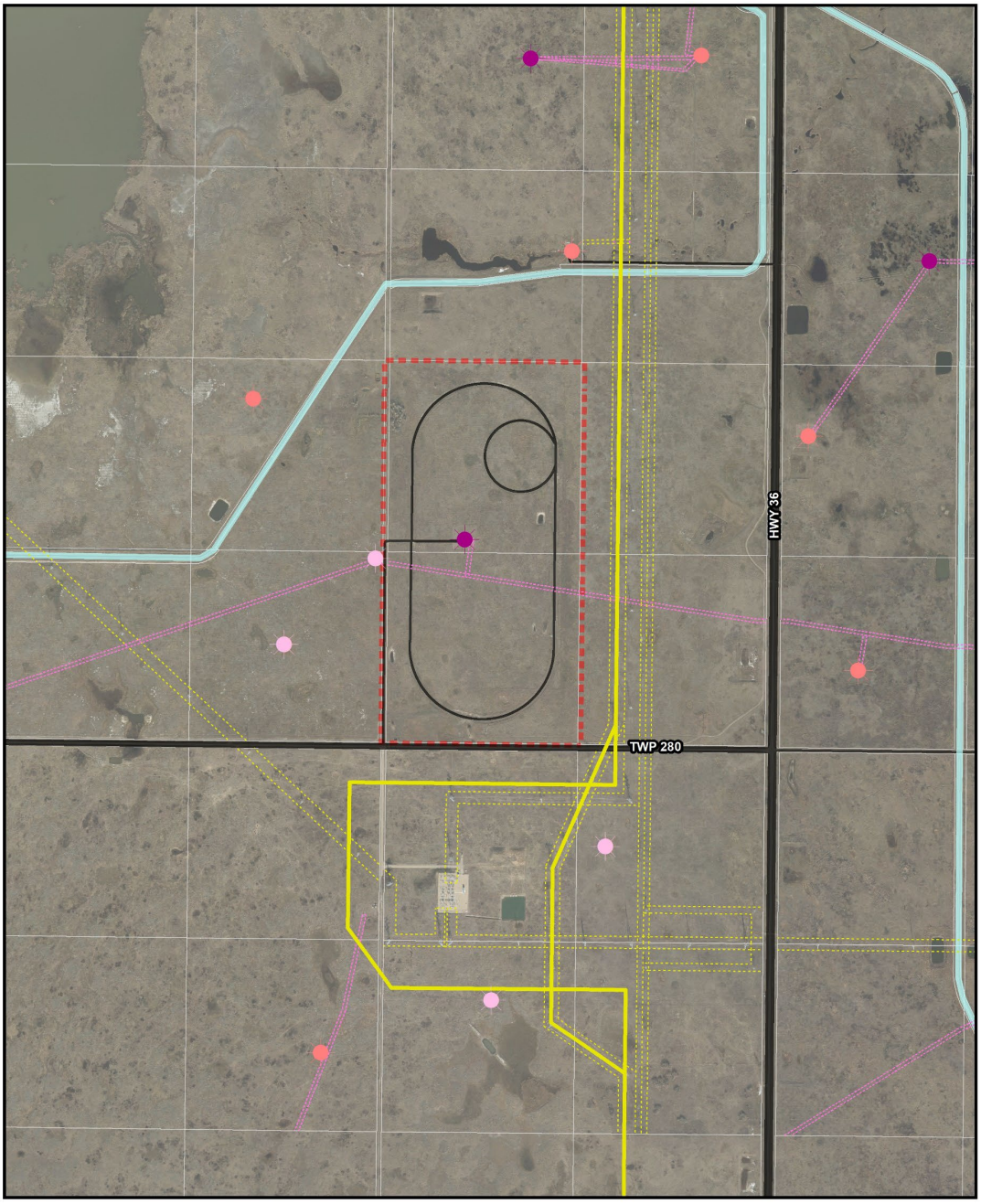
SHALLOW UTILITIES

The existing East Central Gas Co-op lines are located approximately 4.8km north, 5.6km east, and 5.6km west of the site (**see FIGURE 2 | EXISTING CONDITIONS)**. These lines range in size from ¾" to 1". The nearest East Central Gas Coop tap to the TransCanada line is located approximately 7km from the site. The existing TransCanada gas supply line is located approximately 4.2km east of the site.

ELECTRICITY

The existing ATCO Energy overhead lines are located 800m east of Highway 36 1.6km from the site), along Range Road 280 (poles 643009 and 643010). ATCO has indicated that the lines on the poles have three-phase power (**see FIGURE 2 | EXISTING CONDITIONS)**.

FIGURE 2 | EXISTING CONDITIONS



Abandoned Well
RecCertified Well
Suspended Well
ATCO 500KV Power Line
ATCO Power ROW
Raw Natural Gas ROW
Canal
Resource Road
Rural Collector
Primary Highway
ASP Boundary
Legal Parcel

0 0.5 1 Km

N

Existing Conditions

2.2 PLAN AREA OWNERSHIP

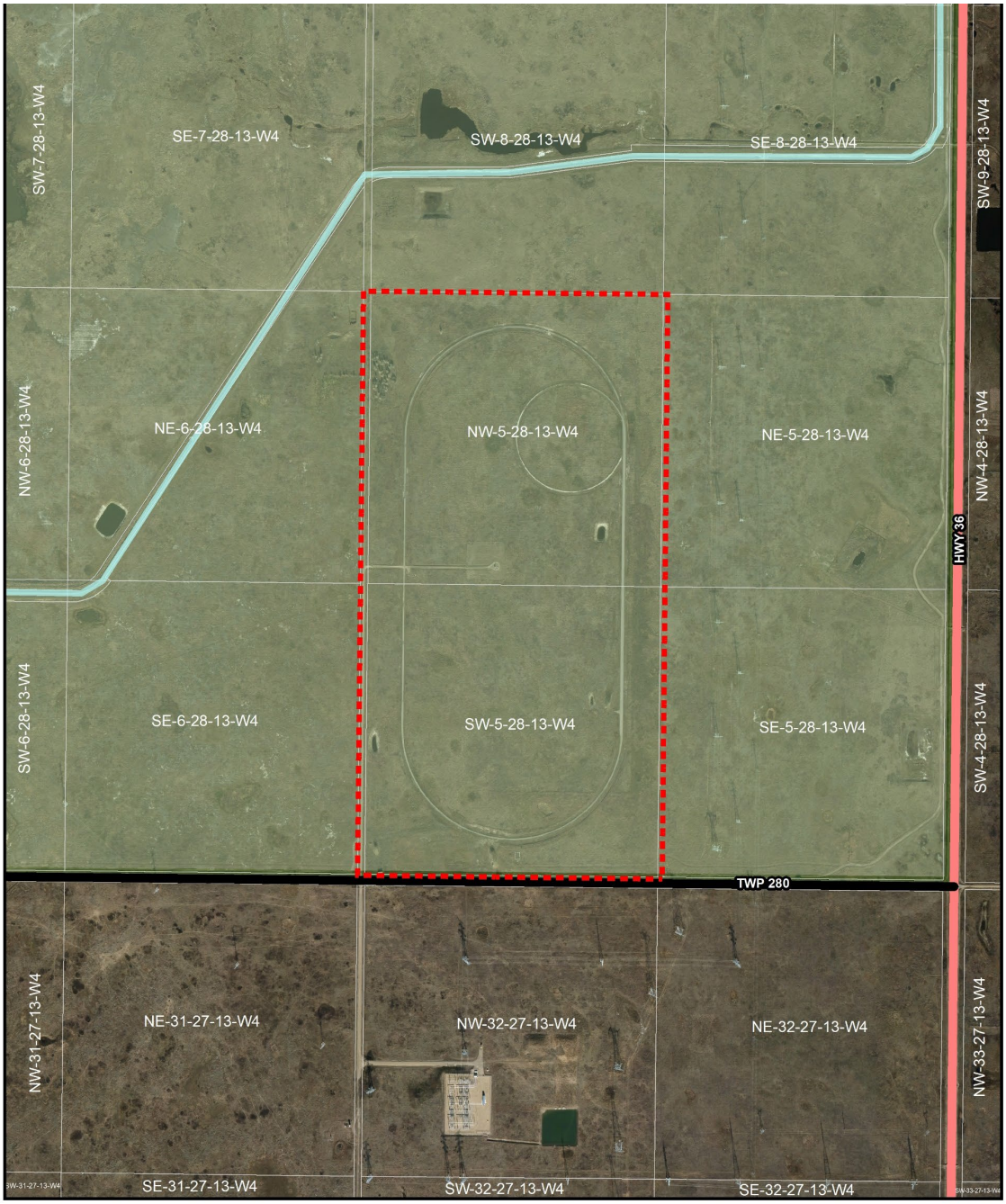
As shown on **FIGURE 3: LEGAL PARCELS**, the Plan Area consists of 2 legal parcels, a half section totaling approximately 319 acres (128 ha) plus a portion of the road right-of-way on the west side. **TABLE 1** lists the legal titles, including title number, legal description, land area and owner. Both quarter sections are owned by Special Areas Board.

TABLE 1: PLAN AREA LAND OWNERSHIP

Plan Area Legal Descriptions					
Parcel Index #	**Title #**	**Legal Description**	**Owner (as of September 2021)**	**Area (Acres)**	**Area (Hectares)**
1	141158850001	SW5-28-13 W4M	Special Areas Board	159*	64.3*
2	141158850	NW5-28-13 W4M	Special Areas Board	160*	64.7*
			Total of Titled Lots	**319**	**128**
N/A	N/A	Roads / Non-titled land	N/A	7.97	3.23
			Total Plan Area	**326.97**	**131.23**

*land area calculations from Land Titles may differ slightly from other area calculations used within this document.

FIGURE 3 | LEGAL PARCELS

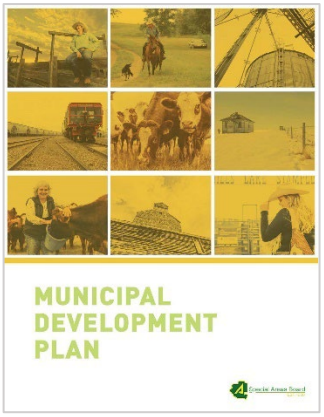


2.3 LAND USE ORDER / ZONING

As per the Special Area Board's Land Use Order (LUO) the ASP area is designated as Agricultural (A). The Agricultural district is intended for extensive agricultural use and related land uses, including dwellings. Various commercial and industrial uses are listed as discretionary uses in the Agricultural District.

However, given the unique nature of this proposed industrial park, the Rural Industrial (RI) district would be the most appropriate district within the Land Use Order. Redesignation to the RI district may occur prior to adoption of this ASP.

2.4 MUNICIPAL DEVELOPMENT PLAN (MDP)



The Special Areas Board Municipal Development Plan (MDP) was adopted in 2020 and guides the overall growth and direction of Special Areas Board. The MDP includes six key goals, including:

- "grow the local economy,"
- "promote growth & development through smart municipal investment" and
- "create and maintain a sustainable tax base."

Currently, the majority of tax revenue (65%) comes from non-residential linear assessment made up of oil & gas pipelines. It is anticipated that provincial economic and policy changes to linear assessment will affect revenue from this stream, pushing the Special Areas Board to explore other areas of tax revenue to maintain the current level of services.

The Special Areas Board has outlined several priority growth areas within the MDP. The focus of growth in these areas should be adjacent to existing services, such as water lines and road infrastructure.

The Plan Area is within the vicinity of two identified growth focus areas specified in Figure 6 of the MDP. Policy 7.1.2 states the Board encourages economic diversification throughout the region where businesses will be supported by adequate infrastructure and transportation networks. The Plan Area is in close proximity to Highway 36, an irrigation canal that may be used for raw water and/or stormwater outfall, and within the vicinity of the Henry Kroeger Water Line.

The MDP also outlines important environmental policy to preserve the ecological integrity of the surrounding landscape and ecological features of the region. To remain in line with these goals, a Biophysical Inventory has been completed for this ASP and a buffer has been included on the southwest corner to accommodate a nearby hawk nesting area.

Figure 6: Rural Development Plan

3 VISION

3.1 ASP VISION

The vision for the Sheerness Industrial ASP is to support large lot industrial development with suitable infrastructure that is cost competitive.

The Sheerness Industrial Park will become an economic driver for the region by creating new economic opportunities and attracting heavy and emerging industries.

The Sheerness Industrial ASP envisions an industrial park that will become an economic driver for Special Areas by growing the local economy. Covering approximately 320 acres with industrial lots, the site is easily accessed by existing roadways Hwy 36 and Township Rd 280. The site is strategically placed to minimize disturbance to local residents and is respectful of nearby wildlife habitat.

3.2 ASP GOALS

The following ASP goals were identified during the formation of the Plan:

4 LAND USE POLICY

4.1 ASP DEVELOPMENT STRATEGY

The Sheerness Industrial ASP will be completed in three phases, resulting in a mix of industrial uses. Development will begin from south and continue northward, without overbuilding unnecessary infrastructure. Each lot is accessible via the internal roadway network to be built, with some lots having direct access off Township Rd 280. Industrial lots are anticipated to range in size from approximately 30 to 44 acres with a total of 286 acres of salable lots. Final lot size and configuration will be determined at the subdivision stage.

4.2 DEVELOPMENT STATISTICS

FIGURE 4 | DEVELOPMENT CONCEPT will yield approximately 285 acres (115 hectares) of developable industrial land.

Land Use		Area (acres)	Area (ha)	% of ASP
Industrial Lots	**Phase**			
Lot 1 –Industrial	1	40.64	16.45	12.40%
Lot 2 –Industrial	1	29.89	12.09	9.13
Lot 3 – Industrial	1	34.96	14.15	10.68
Lot 4 – Industrial	1	31.61	12.79	9.65%
Lot 5 –Industrial	2	43.60	17.64	13.32%
Lot 6 – Industrial	2	31.94	12.93	9.76%
Lot 7 – Industrial	3	36.83	14.91	11.25%
Lot 8 – Industrial	3	33.68	13.63	10.29%
Total - Proposed Lots (8)	**various**	**283.15**	**114.59**	**86.46%**
PUL 1	**1**	**8.19**	**3.32**	**2.50%**
PUL 2	**2**	**8.08**	**3.27**	**2.47%**
Public Utilities (e.g. storm pond)	various	16.06	6.50	4.91%
Roads / Right-of-ways				
Existing Roads/ROWs		4.55	1.84	1.39%
Future Roads/ROWs		23.83	9.64	7.28%
Total		**28.38**	**11.48**	**8.67%**
Grand Total – All land uses		**327.80**	**132.57**	**100%**

*Calculations provided in the table above are based on *Figure 4: Development Concept*

FIGURE 4 | DEVELOPMENT CONCEPT

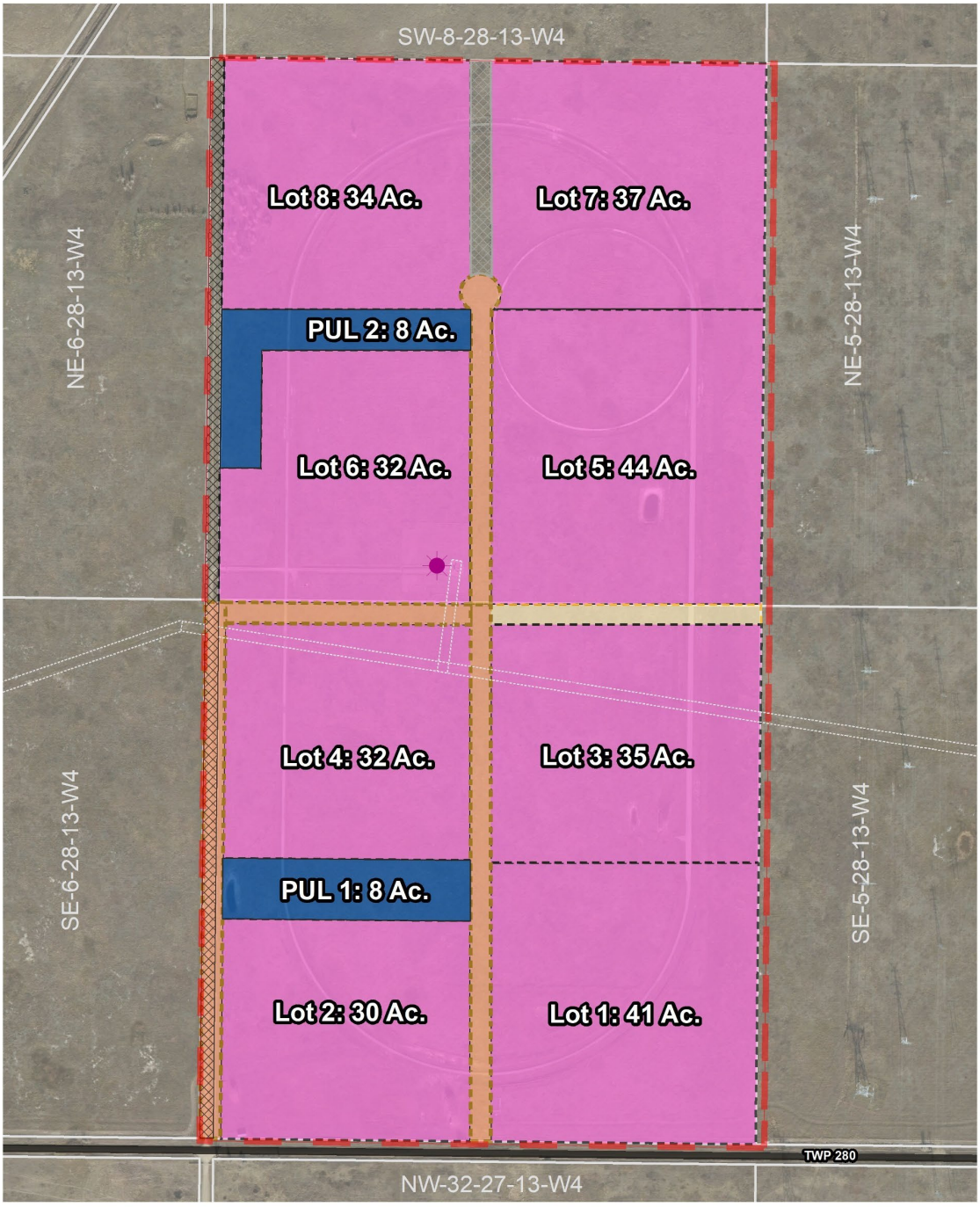


FIGURE 5 | DEVELOPMENT VISION – 3D

Legend

- ASP Boundary
- Legal Parcel
- Public Utility Lots
- Heavy Industrial
- Medium - Heavy Industrial
- Suspended Well

*Not to scale

Development Vision

4.3 INDUSTRIAL LAND USE

The ASP lands are intended for a variety of industrial land uses, which benefit from a location in close proximity to Highway 36 and farther away from populated areas. The only other land uses on the site are utility parcels in the northwest and southwest corners designated as Public Utility Lots (PULs) for the purpose of managing drainage and storm water.

General Policies:

Policy 4.3.1 Future subdivision of lots shall be guided by **FIGURE 4 | DEVELOPMENT CONCEPT** with exact lot lines and lot configurations to be determined at the time of subdivision. Lots may be subdivided (or consolidated) in the future to suit new tenants or operations as needed.

Policy 4.3.2 Guided by **FIGURE 4 | DEVELOPMENT CONCEPT** the Sheerness ASP industrial lots are intended to be medium to large in size, generally ranging from 30 acres (12 ha) to 44 acres (18 ha) with larger lots also acceptable.

Policy 4.3.3 Appropriate land uses in the Plan Area will include a broad spectrum of industrial uses. Residential uses are not permitted.

Policy 4.3.4 Individual industrial sites and developments should be planned in a way that minimizes impacts to adjacent industrial properties and creates a cohesive overall development pattern in the industrial park. Individual developments should address the following when site planning:

- strategic location of buildings farther from neighbouring properties;
- use of landscaping (trees, shrubs, berms) and fencing/noise attenuation walls to create buffers between properties and land uses;
- strategic placement of parking areas to create a buffer/separation between buildings and sites; and
- alignment of driveway access points with adjacent parcels;

Policy 4.3.5 Development applications for a heavy industrial land use proposed in the ASP shall be referred to Special Areas' Fire Services for comment prior to approval. Where additional firefighting capacity is required for the proposed development, the individual site owner/operator applying for the development shall either provide additional capacity on-site or enter into an agreement with Special Areas to ensure sufficient firefighting capacity exists.

Policy 4.3.6 Heavy industrial land uses proposed that pose a potential off-site risk to life and/or property (e.g. chemical/fertilizer plants or heavy manufacturing operations) **may be required** to provide a **Hazard Risk Assessment** as part of any development permit or subdivision application. The operator/owner shall communicate regularly with Special Areas Board, including notification of any incidents or if the risk level at the site changes.

Policy 4.3.7 Heavy industrial land uses proposed that pose a potential off-site risk to life and/or property (e.g. chemical/fertilizer plants or heavy manufacturing operations) **shall** provide a copy of their **Emergency Management Plan** as part of any development permit or subdivision application. The operator/owner shall communicate regularly with Special Areas Board, including notification of any incidents or if the risk level at the site changes.

4.4 INTERFACE AREAS

It is important to plan for how industrial development of the ASP will interact with the adjacent agricultural uses. The Plan Area falls within, and is surrounded on the north, east and west sides by public community pasture lands that are managed by Special Areas. Design sensitivity to adjacent agricultural land is important to ensure any impacts are minimized to grazing livestock or other agricultural-related operations.

Policy 4.4.1 Industrial development applications located adjacent to agricultural land uses should submit details on how the application will minimize impacts on adjacent agricultural operations. This should be in the form of text and illustrations (e.g. detailed site plan).

Policy 4.4.2 Transitional space between uses should be achieved by providing appropriate setbacks between agricultural uses and industrial development.

Policy 4.4.3 High-quality landscaping (e.g. trees, berms, storm ponds, or shrubs) should be located within the setback areas of an industrial property.

4.5 NATURAL ENVIRONMENT

A Biophysical Inventory (BI) by Ghostpine Environmental Services Ltd. and a Phase 1 Environmental Site Assessment by Athena Environmental Consultants Ltd. were completed as part this ASP process. As shown on **FIGURE 6 | ENVIRONMENTAL CONDITIONS**, the BI identified a number of wetlands and other environmental features (e.g. bird nests, noxious species and den sites) both within and nearby the Plan Area that require sensitivity during the development process. The Phase 1 ESA identified three Areas of Environmental Concern (AECs). Future developers are legally obligated to ensure compliance with all provincial legislation pertaining to wildlife and environmental features.

Policy 4.5.1 All lands that qualify as environmental reserve should be dedicated as environmental reserve or environmental reserve easement through the subdivision process, as per the *Municipal Government Act*.

Policy 4.5.2 All subdivision and development applications that may impact a wetland shall provide proof to the subdivision authority or development authority, whichever is applicable, of compliance with the Alberta Water Act and Alberta Wetland Policy.

Policy 4.5.3 If a wetland is identified on a proposed development site, the applicant shall use the provincial system to determine wetland classification, relative wetland value and work with the province to complete the process for protection, replacement or compensation as dictated by the Alberta Water Act and Alberta Wetland Policy.

Policy 4.5.4 All developments shall comply with all applicable federal and provincial policies related to the natural environment.

Policy 4.5.5 Developers, both individual site operators/owners and the overall developer of the Plan Area, shall be required during the construction stages (including site clearing, stripping, and grading) to minimize erosion and silt depositing into existing watercourses and drainage systems. An Erosion and Sediment Control Plan shall be submitted to the municipality at the time of construction.

Policy 4.5.6 Individual site owners/operators in the ASP area are encouraged to implement the recycling of by-products, water conservation, and the use of alternative energy resources.

Policy 4.5.7 Developers, both individual site operators/owners and the overall developer of the Plan Area, should contact Alberta Environment and Parks prior to development to ensure compliance with all legislation pertaining to environmental sites identified in the Plan Area (see **FIGURE 6 | ENVIRONMENTAL CONDITIONS)** and further identified within the Biophysical Inventory completed by Ghostpine Environmental Services.

FIGURE 6 | ENVIRONMENTAL CONDITIONS

4.6 RESERVES

Policy 4.6.1 Reserves will be determined at the time of subdivision in accordance with the Municipal Government Act (MGA) and Municipal Development Plan (MDP).

Policy 4.6.2 Cash-in-lieu of reserve land is the preferred method of reserve payment for the Sheerness Industrial ASP lands.

Policy 4.6.3 Deferment of municipal reserve is strongly discouraged.

Policy 4.6.4 If municipal reserve is provided as reserve land, the amount, type, location, and shape of reserve land shall be suitable for public use and readily accessible to the public and shall comply with any applicable policies in the Special Areas Board *Municipal Development Plan*, *Intermunicipal Development Plan* or any other relevant municipal plans or strategies (e.g. Parks / Recreation / Open Space Master Plan).

4.7 AREAS OF ENVIRONMENTAL CONCERN

Policy 4.7.1 Prior to development for any land areas shown on **FIGURE 6 | ENVIRONMENTAL CONDITIONS** as Areas of Environmental Concern (AECs) the landowner of the site shall undertake subsequent environmental investigations (e.g. Phase 2 ESA) in accordance with the recommendations in the Phase 1 Environmental Site Assessment conducted by Athena Environmental Consultants Ltd. dated November 22, 2021.

5 INFRASTRUCTURE POLICY

5.1 WATER SERVICING

The site will be serviced with raw water from regional off-site sources. The developer, Special Areas Board, will determine at a later time the optimal raw water servicing strategy for the development and proceed accordingly in alignment with the below policies and **FIGURE 7 | WATER SERVICING STRATEGY**. Tenants or operators on the site will be responsible for treating water or providing treated water, if needed on individual lots in the development. Given the industrial nature of this development, the requirements for treated water are anticipated to be low. Additionally, limited fire flows will be available through the raw water distribution system options, and tenants or operators will be responsible for ensuring suitable fire protection on individual sites.

General Water Policy

Policy 5.1.1 Water servicing for all new developments shall align with **FIGURE 7 | WATER SERVICING STRATEGY**.

Policy 5.1.2 All costs associated with the construction of water infrastructure on a private lot are the responsibility of the individual landowner of that lot. Costs may include pump stations, pipeline crossings, pump and canal operation, electricity, and reservoir maintenance.

Policy 5.1.3 Special Areas Board encourages the reduction and reuse of water in accordance with provincial laws and regulations.

Policy 5.1.4 Special Areas Board may request from a developer details on the anticipated water use for any proposed development.

Policy 5.1.5 Where a proposed development is deemed to be a high water user by Special Areas Board the application may:

a) be refused,
b) the applicant requested to provide water reduction strategies, or
c) the applicant requested to provide their own source of water.

Policy 5.1.6 Special Areas Board, acting as the developer, shall determine the anticipated daily water demand and be responsible for the design and construction of a water supply, distribution, and storage system that will serve the Plan Area. The water system may be constructed in phases as required. Individual site owners/developers will be responsible for connection to the larger water system.

Policy 5.1.7 A water servicing report shall be prepared by a qualified professional as a condition of subdivision approval for each phase of development. The report will address servicing capacity and updates, location of facilities, required supportive infrastructure and further subdivision requirements.

There are 3 options being considered to provide raw water service within the Sheerness ASP plan area as shown on FIGURE 7 | WATER SERVICING STRATEGY. These options are being considered under the following assumptions.

- **Water is to be provided year-round with pipes to be buried below frost level at 2.5-3m underground.**
- **The canals that provide raw water to the region do not operate in winter, therefore there is a need to store 6 months of demand in future reservoirs.**

Policy 5.1.6 Water servicing may be provided to the site through any of the 3 options (or a combination of the 3 options) outlined in this Area Structure Plan.

Policy 5.1.7 Special Areas Board, acting as the developer, shall only be responsible with supplying the site with raw untreated water and it is the responsibility of individual site owners / tenants or operators to comply with all provincial health regulations pertaining to the consumption and/or use of water.

Policy 5.1.8 Individual site owners / operators are responsible for fire protection as all 3 raw water servicing options will not necessarily provide raw water meeting the required fire flows.

5.2 WATER SERVICING - OPTION A

In Option A as shown on FIGURE 7 | WATER SERVICING STRATEGY water will be piped directly below the frost level from the Sheerness Reservoir to the site. With a low overall slope and under low demand scenarios, the site could be supplied by a 200mm or 300mm gravity pipe. For higher demand scenarios, the capacity could be increased by adding pumps to the line. This option results in high up-front costs to install the pipe, but would provide for high and reliable flows from the sizeable Sheerness Reservoir.

Policy 5.2.1 If Water Servicing Option A is chosen, Special Areas Board, acting as the developer will be responsible for a water servicing solution involving obtaining raw water for the Plan Area from the Sheerness Reservoir and piping it to the site. Individual site tenants/owners will be responsible for connecting their individual lot to this system and treating water on site as needed in compliance with health regulations.

Policy 5.2.2 Special Areas Board, acting as the developer, shall consult Alberta Environment and the Sheerness power plant to ensure that a direct connection is viable.

Policy 5.2.3 If additional capacity is required, additional pumps shall be added to the line assuming the line is pressure rated pipe.

5.3 WATER SERVICING - OPTION B

In Option B as shown on **FIGURE 7 | WATER SERVICING STRATEGY** the water is obtained from the existing concrete canal during summer months, stored in a new reservoir, and piped below frost level to the site. With a low overall slope and under low demand scenarios, the site could be supplied by a 200mm or 300mm gravity pipe. For higher demands, the pipe could be oversized. The size of the new reservoir would vary based on demand and may increased over time.

Policy 5.3.1 If Water Servicing Option B is chosen, Special Areas Board, acting as the developer will be responsible for a water servicing solution involving obtaining raw water for the Plan Area from an existing concrete canal during the summer months, storing it in a new reservoir and piping it below frost level to the site. Individual site tenants/owners will be responsible for connecting to this system and treating water on site as needed in compliance with health regulations.

Policy 5.3.2 Special Areas Board, acting as the developer, should consult with potential external stakeholders who would benefit from increased reservoir capacity.

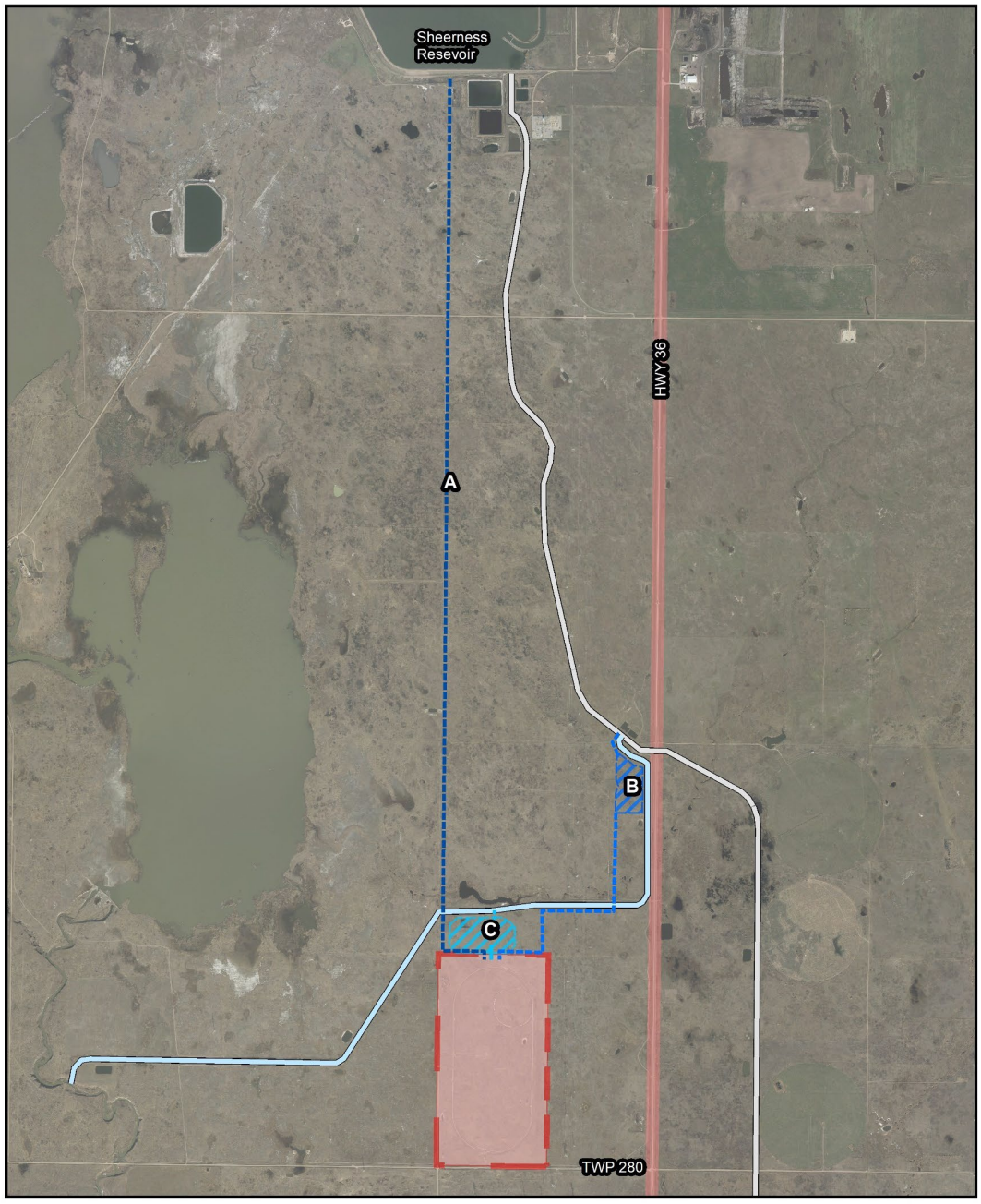
5.4 WATER SERVICING - OPTION C

In Option C as shown on **FIGURE 7 | WATER SERVICING STRATEGY** water is to be obtained from the existing dirt canal that is manually operated during summer months, stored in a new reservoir, and piped below frost level to site. Water would need to be pumped to the site. As demands change over time, the pipe size and capacity could be increased.

Policy 5.4.1 If Water Servicing Option C is chosen, Special Areas Board, acting as the developer, will be responsible for a water servicing solution involving obtaining raw water for the site from an existing dirt canal during the summer months, storing it in a reservoir and piping it below frost level to the site. Individual site tenants/owners will be responsible for connecting to this system and treating water on site as needed in compliance with health regulations.

Policy 5.4.2 Special Areas Board, acting as the developer, should consult with potential external stakeholders who would benefit from increased reservoir capacity.

FIGURE 7 | WATER SERVICING STRATEGY



5.5 WASTEWATER SERVICING

Wastewater servicing will be the responsibility of individual site owners/operators. Wastewater solutions must comply with provincial regulations and may include septic field systems, pump out tanks or other viable solutions in compliance with Alberta Safety Codes.

Policy 5.5.1 Private wastewater treatment systems shall be designed and installed by a qualified professional in accordance with the applicable municipal and provincial standards.

Policy 5.5.2 Individual on-site wastewater and septic solutions shall be permitted in accordance with the Safety Codes Act.

Policy 5.5.3 Individual site owners/operators shall confirm the suitability of the site for the proposed private wastewater treatment system prior to development as part of the development permit approval process. In the case where a septic field system is proposed, a Private Septic Treatment System (PSTS) report by a qualified professional shall be provided by the individual site owner/operator to the municipality as part of the development permit approval process.

Policy 5.5.4 All costs associated with the construction of wastewater infrastructure on a private lot are the responsibility of the individual site owner/operator.

5.6 STORMWATER SERVICING

Stormwater management systems are based on the dual drainage concept to provide collection, conveyance, storage, and treatment of stormwater runoff. Dual drainage systems are comprised of both minor and major collection systems. The minor system includes roof leaders, roof gutters, lot drainage, roads and gutters, and underground pipe infrastructure. It is designed to collect and convey stormwater runoff during minor rainfall events. The major system includes overland conveyance systems, roads and gutters, drainage ditches/swales, trapped lows and end-of-pipe stormwater management facilities such as dry ponds, wet ponds, evaporation ponds, and constructed wetlands. The major system is designed to convey, store, treat and discharge stormwater runoff collected during major rainfall events in excess of the minor system.

The Plan Area is currently all overland drainage with minimal existing defined drainage paths.

Several constraints within the Plan Area are identified that impact the stormwater drainage:

- The area is relatively flat in elevation;
- Existing pipeline and well development within the Plan Area; and
- The area is bound on two sides - a Township Road on the south and partially developed road allowance on the west.

Gravelled roads with overland drainage ditches are desired for the Plan Area. Storm sewers and curb and gutter are not desired. To accommodate a gravelled road with ditches, a minimum 30 m wide right-of-way is required to achieve a road with suitable ditches. A proposed right-of-way cross section for the Plan Area is shown in **FIGURE 10: ROAD CROSS-SECTION**. A potential location for two storm ponds in the Plan Area's northwest and southwest are shown on **FIGURE 8 | STORMWATER PLAN**.

Policy 5.3.1 Developments shall adhere to the Stormwater Master Plan for the ASP as shown on **FIGURE 8 | STORMWATER PLAN**.

Policy 5.3.2 Special Areas Board acting as the developer shall submit a Stormwater Management Plan prior to subdivision approval that reflects alignment with this ASP and specifically **FIGURE 8 | STORMWATER PLAN**.

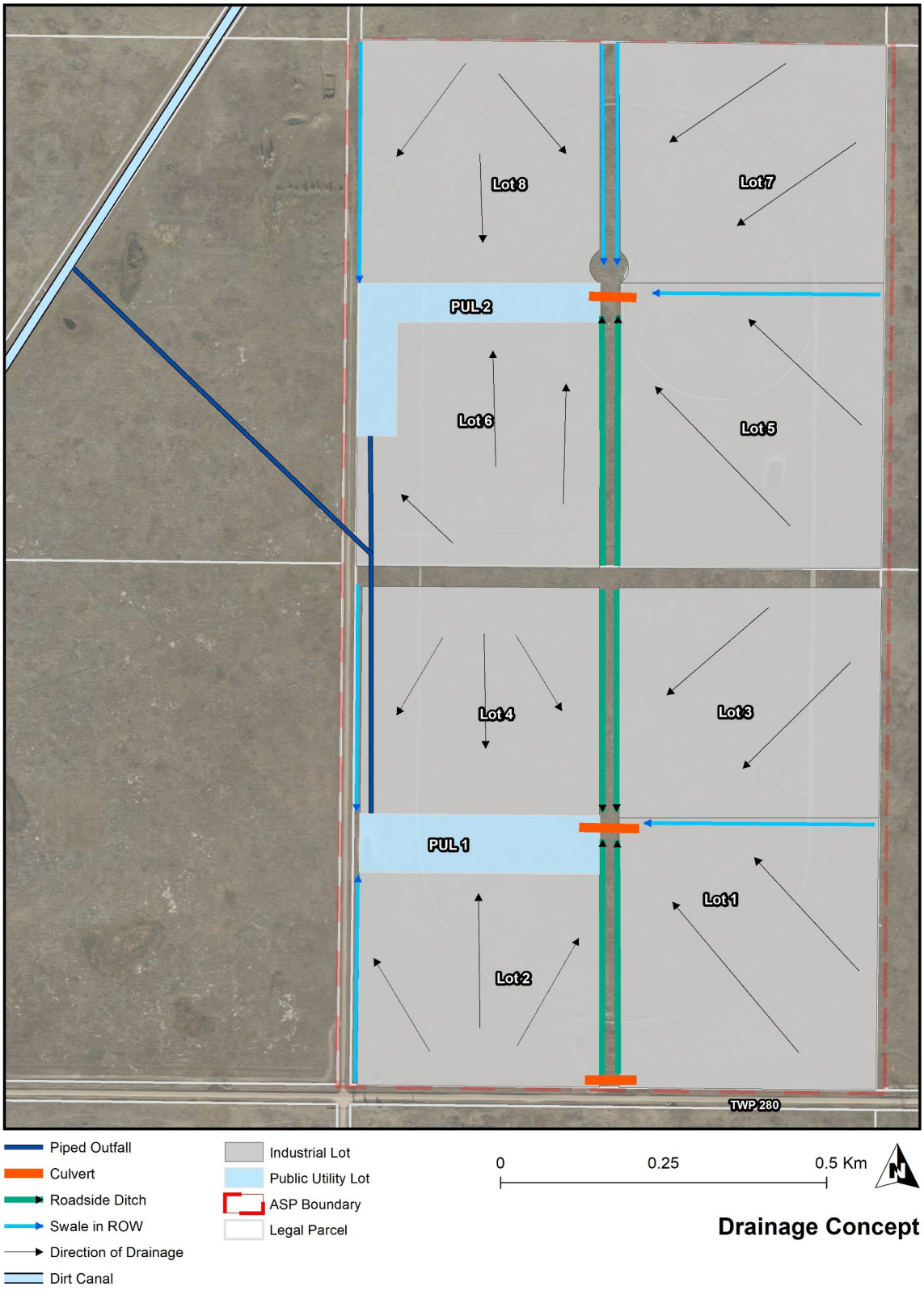
Policy 5.3.2 Individual site owners, shall submit a Drainage Plan or Stormwater Management Plan as part of any development permit or subdivision application that reflects alignment with this ASP and specifically **FIGURE 8 | STORMWATER PLAN**.

Policy 5.3.3 Drainage Plans and Stormwater Management Plans submitted by a developer or individual site owner/operator shall comply with any new stormwater plans, management policies, and interim servicing policies that may be introduced after the adoption of this Plan.

Policy 5.3.4 Stormwater conveyance systems should be designed to accommodate upstream and downstream properties and adjacent road networks.

Policy 5.3.5 Measures should be taken to maintain the value of any natural wetlands and/or natural drainage courses that are retained. This may involve receiving treated stormwater through direct or indirect flow.

FIGURE 8 | STORMWATER PLAN



5.7 TRANSPORTATION

The transportation network must be planned and developed in a manner that is safe, coordinated, and efficient manner. A Transportation Management Report (TMR) was completed to identify the potential impacts of the ASP on the local and regional transportation systems. The TMR was not intended as a comprehensive Transportation Impact Assessment for the plan area. Key intersections and roadways near the study area were reviewed to determine what, if any, improvements are required to accommodate existing and future background traffic volumes, as well as existing and future combined traffic volumes.

The increased traffic volume from the Plan Area will primarily impact traffic on Highway 36 and the majority of traffic is expected to travel between the plan area and toward the Town of Hanna to the north. The existing intersection of Highway 36 / Township Road 280 appears to be similar to a Type III intersection with southbound and northbound right turn lanes. Under the assumption of full build out, it is projected that the intersection will warrant upgrades to a Type IV intersection with a northbound left turn lane and partial illumination. This upgrade is subject to the types of development to proceed within the plan area.

Gravel surfaces are proposed to be used for the municipal grid road, Township Road 280, and the public roads internal to the development shown on **FIGURE 9 | TRANSPORTATION PLAN**. A paved road may be more cost-effective than the continuous maintenance that would be required on a gravel road, however, there is no other reason the road would need to be paved and the final surface is at the discretion of the Special Areas Board and lot purchasers.

Policy 5.4.1 The future road network for the Plan Area shall align with the existing and future roads identified on **FIGURE 4 | DEVELOPMENT CONCEPT** and **FIGURE 9 | TRANSPORTATION PLAN**.

Policy 5.4.2 The municipality may require the applicant for a subdivision or development permit to identify potential impacts on the local and regional transportation systems either through a **Transportation Impact Assessment** (TIA) or **Transportation Study**. The **Transportation Impact Assessment** (TIA) or **Transportation Study** should assess the background traffic and the potential required intersection upgrade should be determined based on the type of development proposed through the subdivision or development permit.

Policy 5.4.4 Where a **TIA** or **Transportation Study** identifies a road or intersection requires upgrading due to a proposed development, the Board may require the subdivision or development permit applicant to upgrade the road or intersection at the expense of the applicant.

Policy 5.4.5 Roads and rights-of-way in the plan area shall adhere to Special Areas Board's engineering standards for industrial roads.

Policy 5.4.6 Internal road right-of-ways shall be 30 metres and the gravel surface cross section shall be 10m in accordance with **FIGURE 10: ROAD CROSS-SECTION 1** and as shown on **FIGURE 9 | TRANSPORTATION PLAN**.

Policy 5.4.6 The north-south range road on the west edge of the site shall be a 30 metre right-of-way and gravel surface with an 8.5 metre top in accordance with **FIGURE 11: ROAD CROSS-SECTION 2** and as shown on **FIGURE 9 | TRANSPORTATION PLAN**.

Policy 5.4.7 In accordance with Municipal Government Act Section 662, where a future roadway or roadway widening is required as identified in this ASP or by the Board at the time of subdivision, the subdivision applicant shall dedicate land for the required roadway to Special Areas Board without compensation.

5.8 EMERGENCY SERVICING

Policy 5.5.1 The Special Areas No.2 existing emergency services partners (Hanna RCMP, Fire Services and Health Centre/EMS) will serve the ASP lands.

Policy 5.5.2 Following adoption of this ASP, the Special Areas Board should update its Emergency Management Plan to take into consideration industrial development as outlined in this ASP.

5.9 SHALLOW UTILITIES (ELECTRICITY & GAS)

As part of the ASP technical studies, Sheffer Andrew prepared a Shallow Utilities Technical Report in January 2022. This report analyzed various options to service the Plan Area with natural gas and electricity.

Natural Gas Service

The natural gas franchise owner for the area is the East Central Gas Co-op. They purchase gas from Gas Alberta, who are supplied by TransCanada Pipelines. The nearest East Central Gas Co-op lines are approximately 4.8m north, 5.6km east, and 5.6km west of the Plan Area (**see FIGURE 2 | EXISTING CONDITIONS)**. These lines range in size from ¾" to 1". To meet the expected demand of future tenants in the Plan Area, upgrades will be required. In a high-usage scenario the upgrades (as outlined in the Shallow Utilities Report) could be more than $1 million, since a new tap into the TransCanada line could be needed. In a lower usage scenario the upgrades would be in the range of $0.6 million, which requires a 7km extension of a 3" gas main by East Central Gas Co-op. Additionally, East Central Gas Co-op has a limit of 1,000 GJ/day for each tap to the TransCanada line, which may be limiting. The capital costs to install these upgrades would be borne by the developer.

Electricity

ATCO Energy is the provider of electricity to the Plan Area. Single-phase power to the site would be approximately $120,000 whereas three-phase power would be in the range of $200,000 - $235,000. Three-phase power is recommended for the Industrial Park. The capital costs to service the site with electricity would be the responsibility of the developer.

Policy 5.6.1 All new development shall be serviced with shallow utilities (electricity and gas) at the expense of the individual site owner/operator.

FIGURE 9 | TRANSPORTATION PLAN

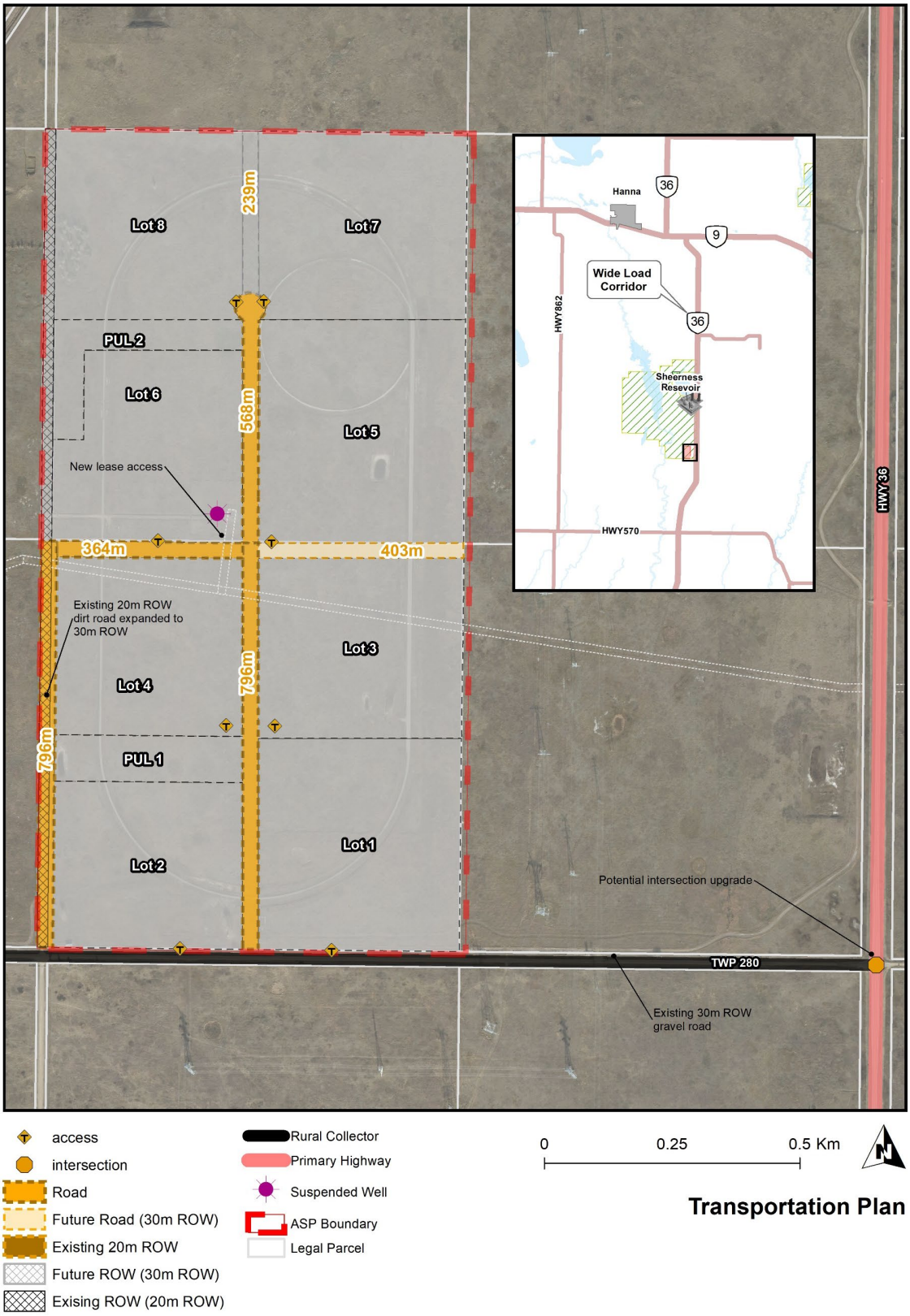


FIGURE 10: ROAD CROSS-SECTION 1

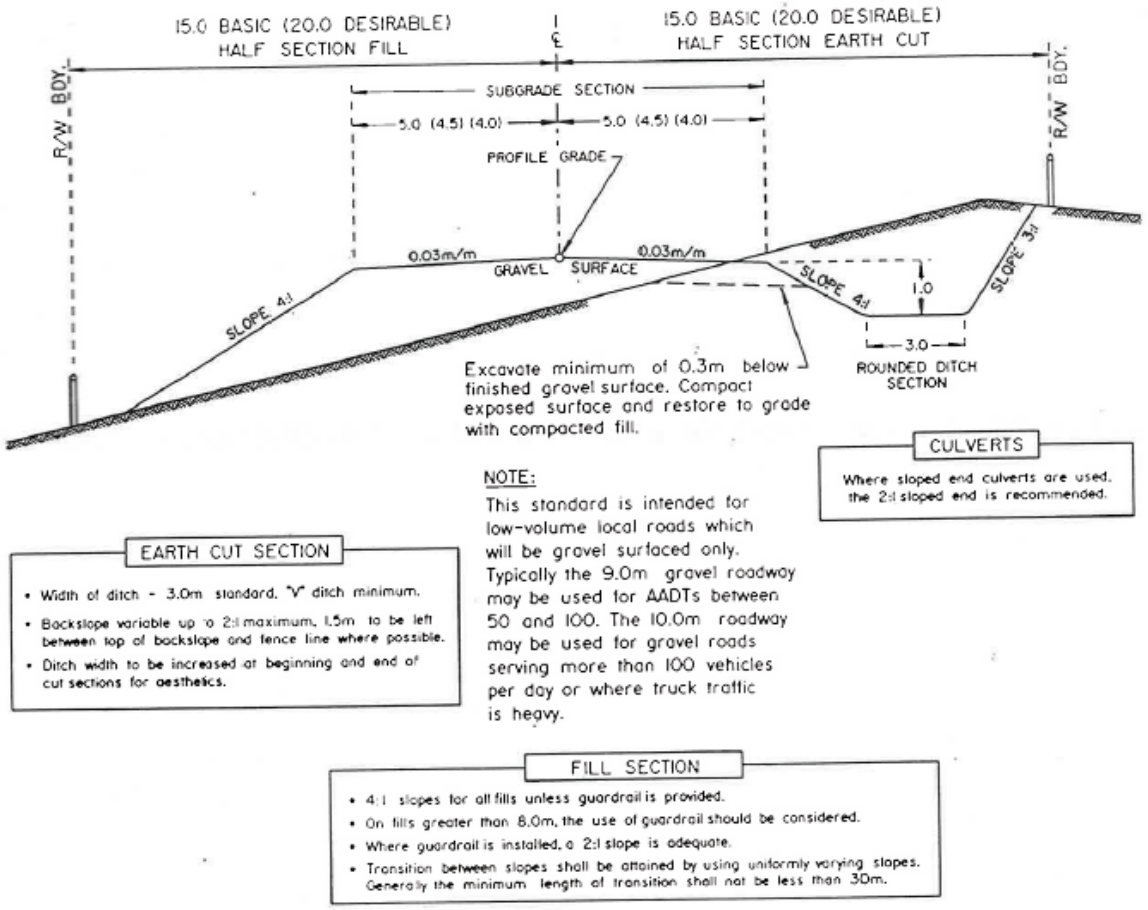
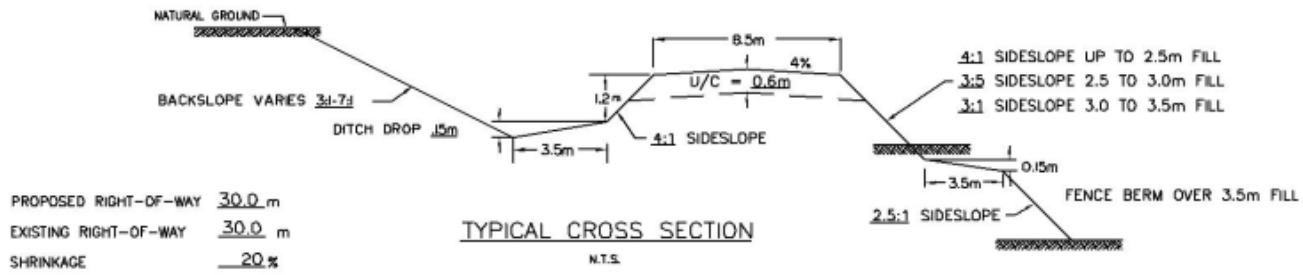


FIGURE H-4.1a STANDARD CROSS-SECTION FOR LOCAL ROAD
RLU-210G-90 (RLU-209G-90)(RLU-208G-90)

FIGURE 11: ROAD CROSS-SECTION 2



6 PHASING & IMPLEMENTATION

6.1 PHASING OVERVIEW

The Area Structure Plan will be phased from south to north in accordance with **FIGURE 12: DEVELOPMENT PHASING PLAN**; however it is recognized that future development may not exactly follow phasing policies.

Policy 6.2.1 Development should proceed based on logical and cost-effective extension of infrastructure guided by **FIGURE 7 | WATER SERVICING STRATEGY**, **FIGURE 8 | STORMWATER PLAN,** and **FIGURE 9 | TRANSPORTATION PLAN**.

Policy 6.2.2 Development phasing should be guided by **FIGURE 12: DEVELOPMENT PHASING PLAN**.

Policy 6.2.3 Where a development is required to extend infrastructure (roads, water, sanitary or storm water services) across undeveloped parcels of land in the ASP, the proponent of the development and SAB may enter into an Endeavour to Assist Agreement, also known as a "latecomers agreement".

6.2 IMPLEMENTATION POLICIES

Policy 6.3.1 This ASP is intended to guide future subdivision and development applications within the ASP lands. Future redesignation, subdivision and development applications in the Plan Area are not required to create a subsequent ASP or conceptual scheme if they are in compliance with this ASP.

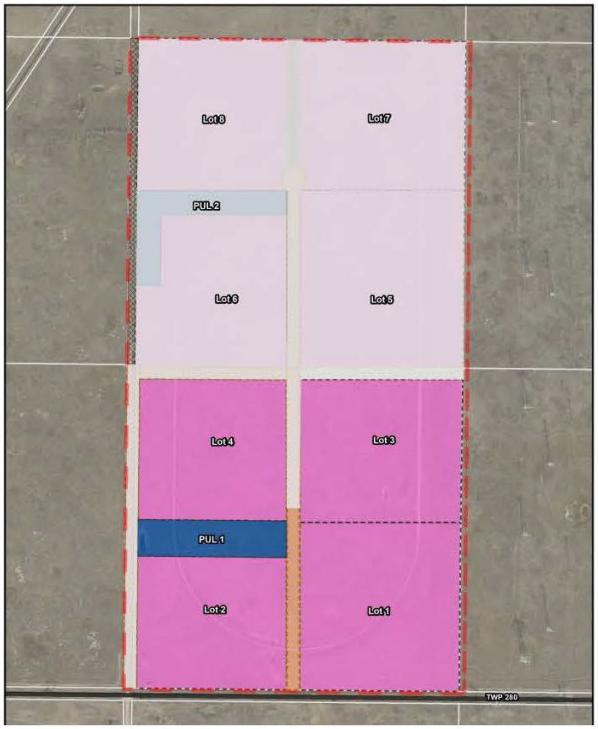
Policy 6.3.2 Where a proposed redesignation, subdivision or development application does not comply with this ASP the applicant shall be required to submit an application to amend this ASP and undertake the statutory plan amendment process in accordance with the Municipal Government Act.

Policy 6.3.3 All planning, subdivision and development applications, and any associated infrastructure construction shall comply with this Plan, and shall comply with the Special Areas Board Municipal Development, Land Use Order, other Board policy, and provincial and federal requirements.

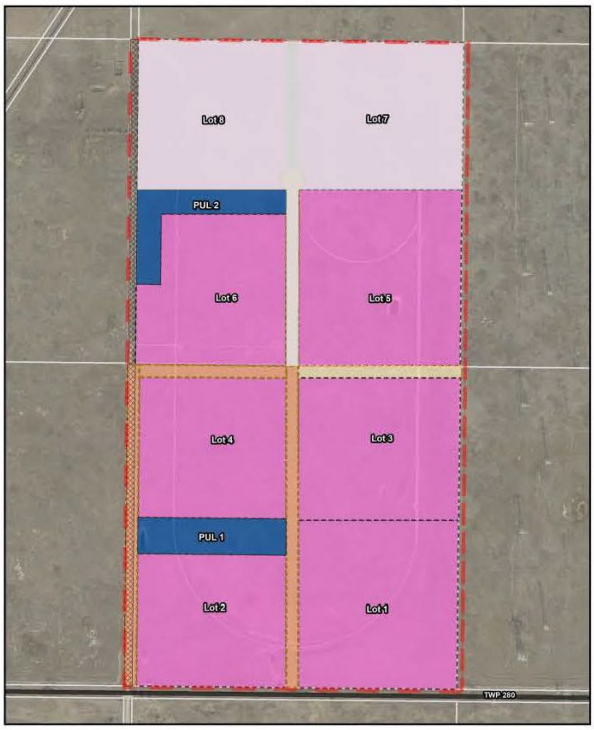
Policy 6.3.4 Special Areas Board should consider review of this Area Structure Plan every five (5) years to determine if any updates are required

FIGURE 12: DEVELOPMENT PHASING PLAN

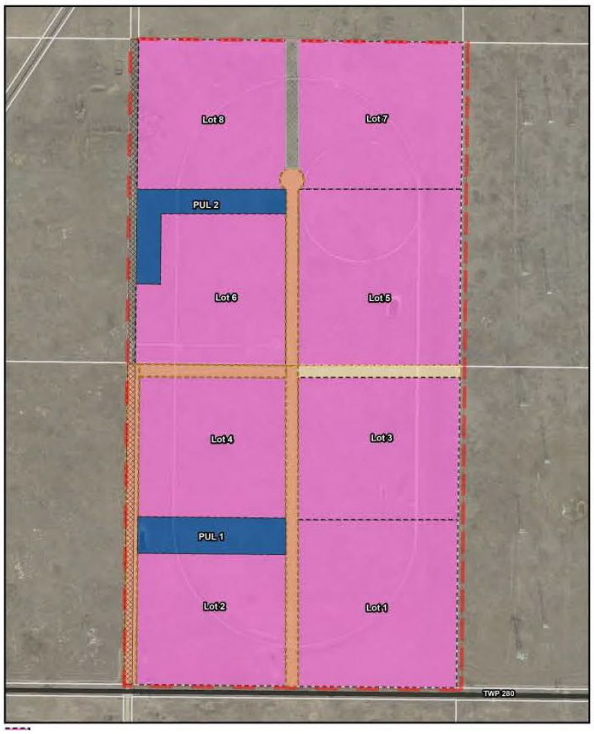
Phase 1: Lots 1-4 & PUL



Phase 2: Lots 5-6 & PUL 2



Phase 3: Lots 7-8



Land Use	Area (acres)	Area (ha)	% of ASP
Industrial Lots			
Lot 1	40.64	16.45	12.40%
Lot 2	29.89	12.09	9.13%
Lot 3	34.96	14.15	10.68%
Lot 4	31.61	12.79	9.65%
Lot 5	43.60	17.64	13.32%
Lot 6	31.94	12.93	9.76%
Lot 7	36.83	14.91	11.25%
Lot 8	33.68	13.63	10.29%
Total - Proposed Lots (8)	283.15	114.59	**86.46%**
PUL 1	8.19	3.32	**2.50%**
PUL 2	8.08	3.27	**2.47%**
Public Utilities	16.06	6.50	4.91%
Roads / Right-of-ways			
Existing Road	4.55	1.84	1.39%
Future Roads/ROWs	23.83	9.64	7.28%
Total	**28.38**	**11.48**	**8.67%**
Grand Total – All land uses	**327.80**	**132.57**	**100%**

FIGURE 13: DEVELOPMENT PHASING PLAN – 3D

Phase 1: Lots 1-4 & PUL 1

Phase 2: Lots 5-6 & PUL 2

Phase 3: Lots 7-8

Development Phasing

Legend

- ASP Boundary
- Legal Parcel
- Public Utility Lots
- Heavy Industrial
- Medium - Heavy Industrial
- Suspended Well

7 DEFINITIONS & ACRONYMS

7.1 DEFINITIONS

The following definitions apply to this Plan, referred to as the Sheerness Industrial Area Structure Plan.

Area Structure Plan (ASP)	Means an Area Structure Plan as defined in the Municipal Government Act (MGA).
Emergency Management Plan	A plan prepared by a site operator, developer, landowner, or government body addressing disasters caused by a malfunction of a site operation, natural / environmental hazards or other emergency or hazard situations. The plan covers hazard mitigation, emergency preparedness, and emergency response.
Endeavour to Assist Agreement	Means an Agreement that addresses the methods by which an initial developer can recoup a proportion of the costs relating to the oversizing and/or extension of infrastructure to future benefitting lands that are located outside the initial development lands.
Hazard Risk Assessment	A professional report outlining the risk to human life and property from a potential hazard or catastrophic event at an industrial operation conducted by a professional engineer or similarly qualified professional.
Interface Strategy	Means a report or memo composed of text and images identifying how a proposed development will address compatibility with adjacent land uses and shall include details on landscaping/screening, building location and site design.
Intermunicipal Development Plan (IDP)	Means an Intermunicipal Development Plan as described and defined in the MGA.
Municipal Development Plan (MDP)	Means a Municipal Development Plan as described and defined in the MGA.
Municipal Government Act (MGA)	Means the current version of the *Municipal Government Act, Revised Statutes of Alberta 2000, Chapter M-26*.
Plan / the Plan	Means the Sheerness Industrial Area Structure Plan
Plan Area	Means the Sheerness Industrial ASP lands as identified on FIGURE 3 | LEGAL PARCELS.
Special Areas	Means the municipality of the Special Areas Board composed of Special Area 2, 3 and 4.
Transportation Impact Assessment	Means a study completed by a qualified professional engineer or similarly qualified professional to assess the potential effects of proposed development on the transportation network. The Assessment identifies infrastructure needs to ensure the transportation network will remain at acceptable levels of service and safe for all modes of travel and support the long-term needs of the community.
Transportation Study	Means a report or memo similar to a Transportation Impact Assessment (TIA), completed by a professional engineer or similarly qualified professional, but with more limited analysis and smaller scope than a TIA.

7.2 ACRONYMS

The following definitions apply to this Plan, referred to as the Sheerness Industrial Area Structure Plan.

ASP	Area Structure Plan
IDP	Intermunicipal Development Plan
MDP	Municipal Development Plan
MGA	Municipal Government Act
MR	Municipal Reserve
TIA	Transportation Impact Assessment