

# BENTLEY-LACOMBE COUNTY JOINT DEVELOPMENT INITIATIVE

## Welcome to Our Open House!

The Town of Bentley and Lacombe County are working together to encourage commercial and industrial growth opportunities in Section 23-40-1-W5M. The aim is to prepare lands for future development by providing critical information needed by potential investors who may be interested in establishing a business in the area near Bentley. This includes:

- Detailed plans for the types of land use that may be possible;
- Patterns of land use and future road connections; and
- Opportunities to access to municipal water and wastewater services.

The Project will create an area structure plan for Section 23. The process to prepare lands for investment also involves adjusting the Town boundaries to add commercial and industrial lands to the Town and cost and revenue sharing arrangements between the Town and County.

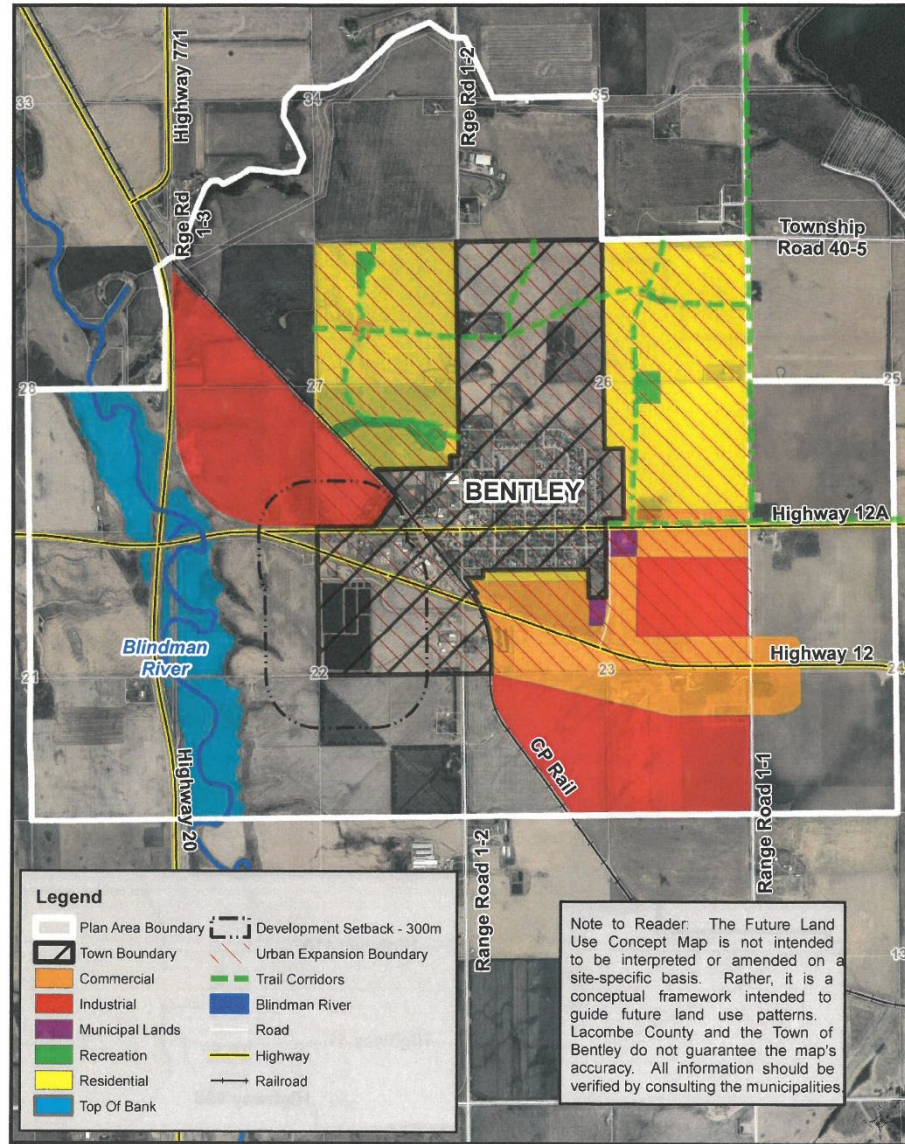
On the boards that follow you will find:

- Information about the background studies and materials that have been completed; and
- A draft land use concept and servicing concepts.

## Background and Purpose of Project

In 2018, the Town and County adopted the Town of Bentley/Lacombe County Intermunicipal Development Plan (IDP). The IDP coordinates long term land use planning between the Town and County and covers expected land use patterns and future expansion/annexation by the Town. The IDP speaks to preparing for joint and cooperative development between the Town and County.

The IDP was followed by the creation of the Town of Bentley and Lacombe County Intermunicipal Collaboration Framework (ICF) in 2021. The ICF sets the stage for various sub-agreements between the Town and County to foster mutually beneficial development and delivery of services.



Future Land Use Concept from IDP

This Project builds on the work of both the IDP and the ICF. It seeks to create an overall development concept for the Plan Area that can be used to inform key decisions around:

- Lands that should be added to the Town prior to development or developed in the County;
- Opportunity to extend municipal water and wastewater services to all or parts of the Plan Area;
- Coordination of shared infrastructure such as the road network and storm water drainage systems; and

- Arrangements between the Town and County for the sharing of costs and revenues as development occurs in the Plan Area.

## Becoming Investment Ready

The intent of the Project is to foster economic growth and development opportunities for the Town of Bentley and Lacombe County. This means becoming “investment ready” to the greatest degree possible recognizing that development will occur over many years and will involve many different development proposals.

Prospective investors may be looking at several possible locations to set up their business. Being able to answer questions such as which municipality is the approving authority, what process steps are needed to construct buildings, and how services like water, wastewater and road access can be provided helps the investor make a decision. Communities that are not able to answer these key questions are easily struck off the prospective investor’s list of possible locations.

## Next Steps in Process

We would appreciate your feedback on the overall direction of the Project and the concepts created thus far. Your input will be used by the Town and County to prepare more detailed materials over the course of the next few months.

The Draft ASP and other materials will be available for further public review in 2023. Dates for this part of the process have not been set. Further announcements on key dates and updated materials will be posted on the Town and County webpages.

If you wish to make comments on the Project or the draft materials please fill out a comment form and leave it with us or send in your comments **on or before Monday, November 28, 2022.**

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## What lands are being planned?

The term "Plan Area" refers to the area that is the main focus of the Project.

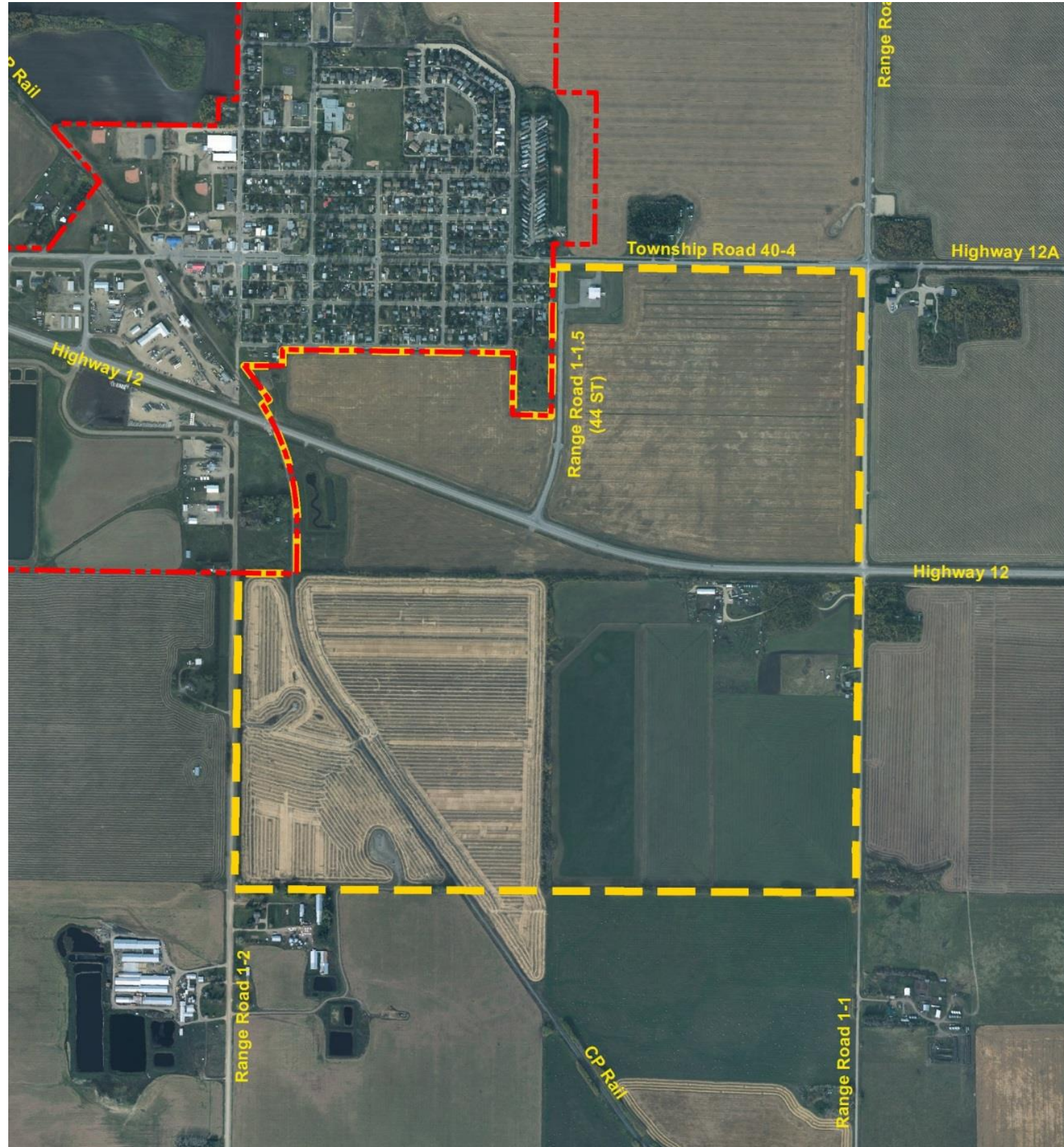
It consists of approximately 232.29 hectares of land southeast of the Town of Bentley and encompasses all or part of the following quarter sections:

NW 23-40-1-W5M

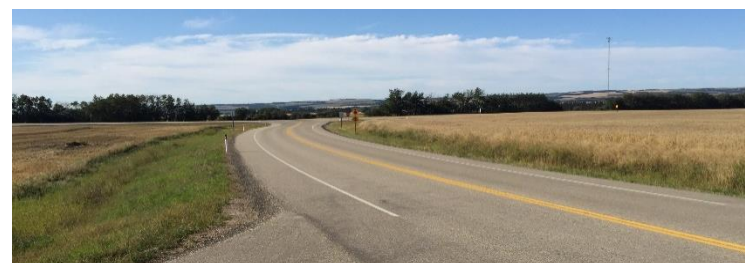
NE 23-40-1-W5M

SW 23-40-1-W5M

SE 23-40-1-W5M



View across NW 23 from Range Road 1-1.5



View looking south on Range Road 1-1.5



View of NE 23 from Range Road 1-1.5



View of NE 23 from Range Road 1-1



View of SE 23 from Range Road 1-1



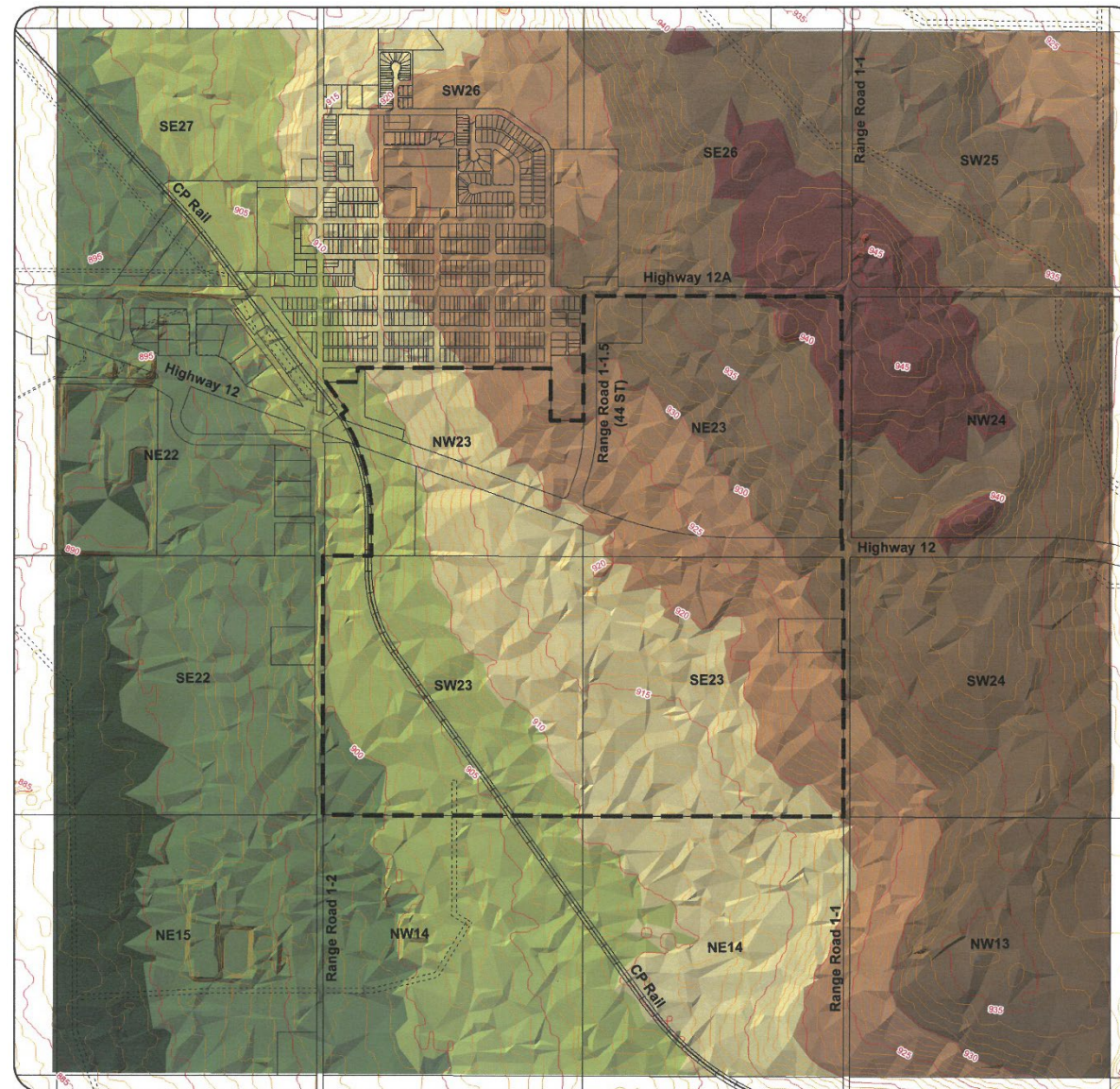
View of SW 23 from Range Road 1-2

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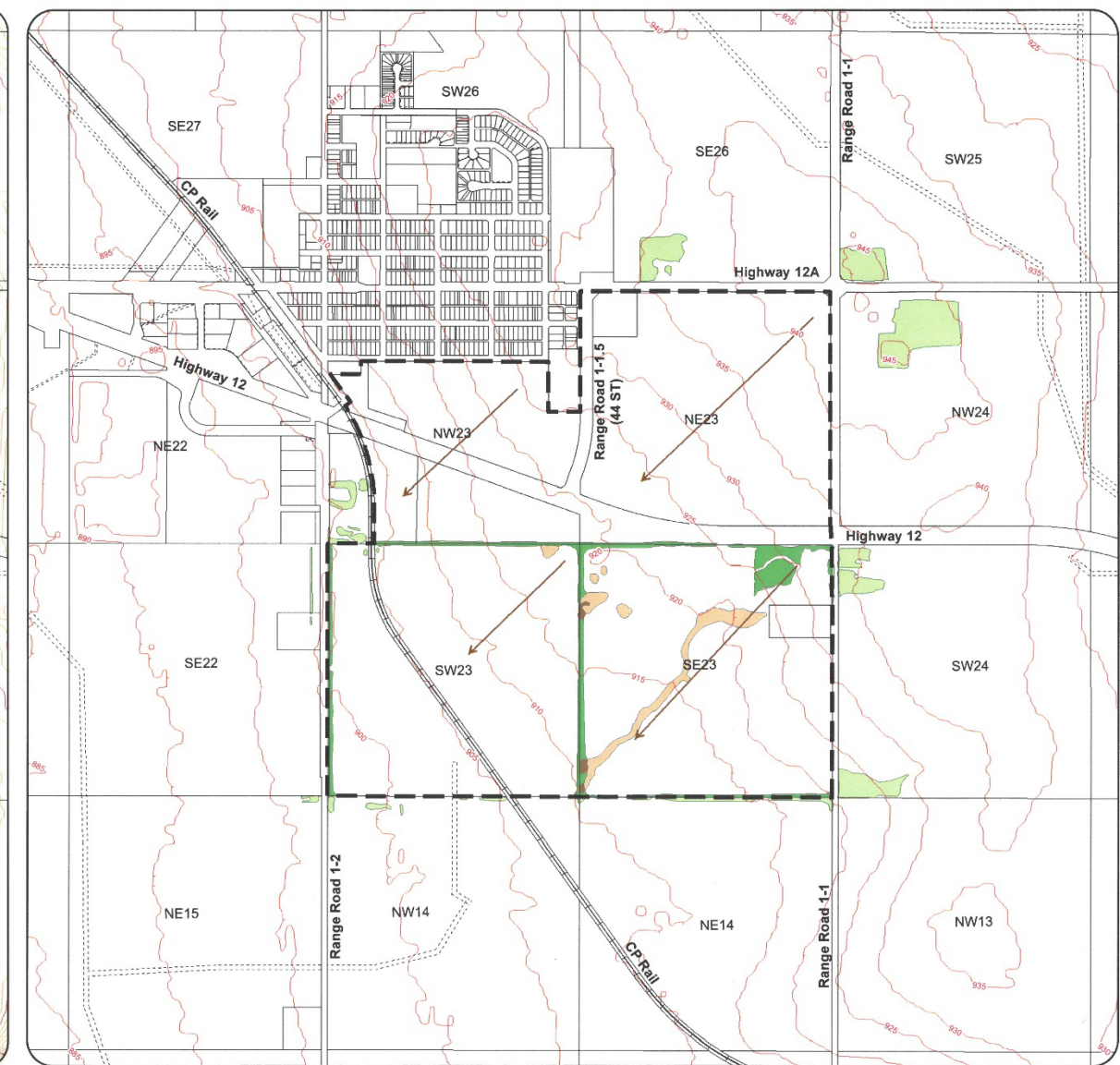
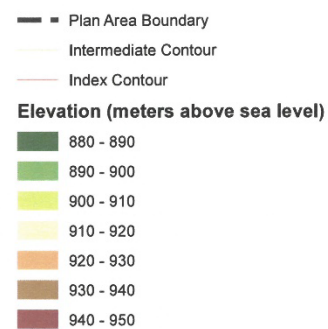
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## What is the plan area like?

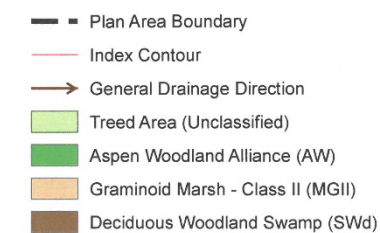
- Majority of the land is currently used for agricultural purposes and consists of cultivated crop land.
- Terrain is gently sloping from the northeast corner (high point) of the Plan Area to the southwest corner (low point). The change in elevation is approximately 45 metres from 898 metres above sea level to 943 metres above sea level.
- The Biophysical and Wetland Assessment completed by Paragon Soil and Environmental Consulting Inc. indicates wetlands spread across the SE 23 and the SW 23.
- The wetlands are considered temporary marsh wetlands classified as Class II wetlands. They typically flood for a short period of time after snowmelt or heavy rain events. During dry years, these wetlands can be difficult to spot. Crown claim of ownership is not expected.
- Tree cover is mainly in the form of shelter belts or small treed pockets. Mature shelter belts can be found along the quarter section boundaries. There are several pockets of treed areas within proximity of the northern and western boundaries of the Plan Area.



MAP 2: TOPOGRAPHY



MAP 3A: NATURAL FEATURES

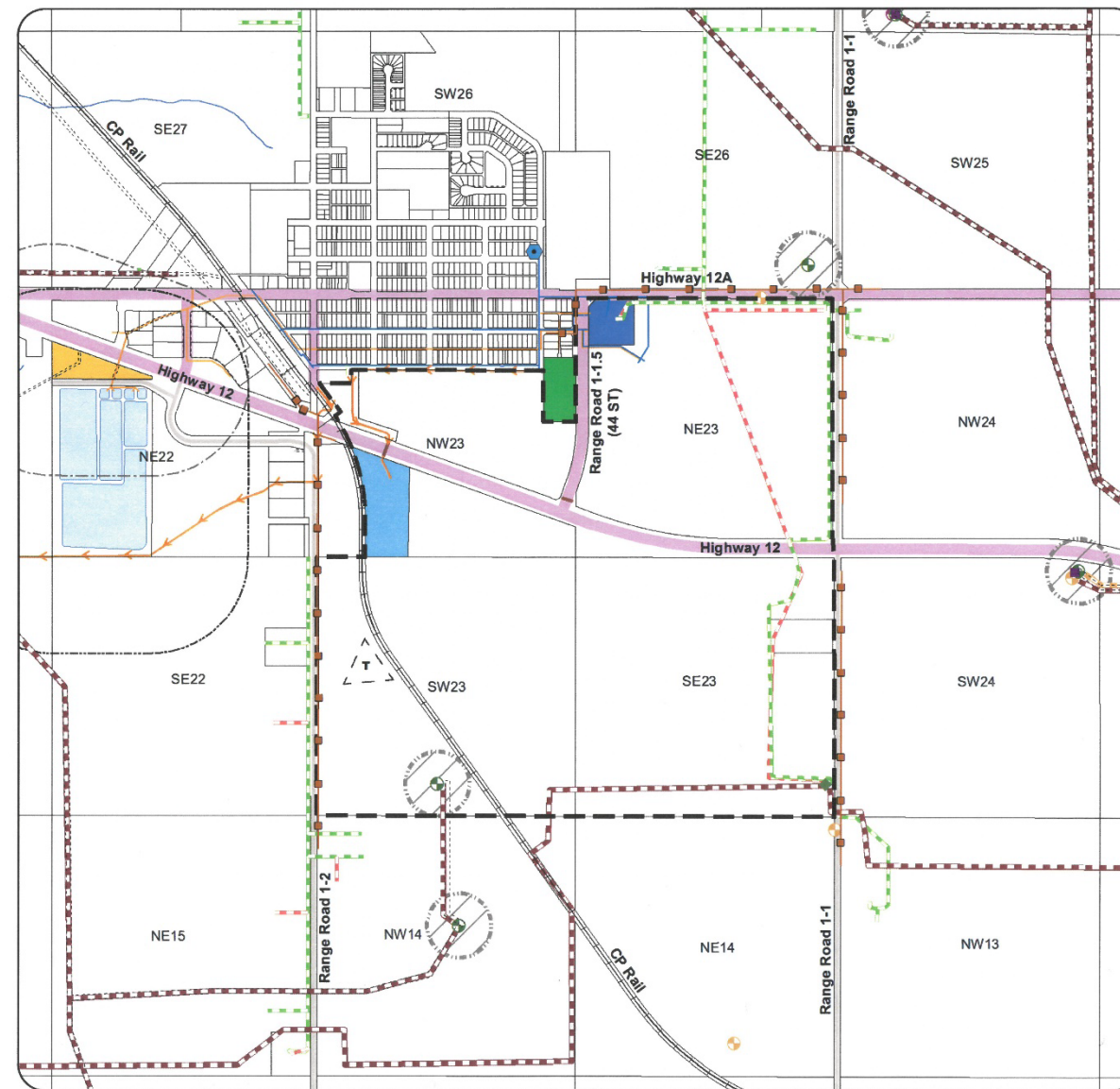


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# BENTLEY-LACOMBE COUNTY JOINT DEVELOPMENT INITIATIVE

## What features are found in and around the plan area?

- Bentley cemetery located in the NW 23 along Range Road 1-1.5.
- Canadian Pacific Railway line crosses diagonally through the SW 23. It is mostly straight and there are seven existing culverts under the railway tracks that allow drainage flow from east to west.
- Bentley District Fire Department is located within the northwest corner of the NE 23.
- A Town storm pond is located on the south side of Highway 12 in the NW 23.
- Highway 12A borders the NE 23 and provides direct access to the Fire Department site.
- Highway 12 crosses east-west through the northern and central portion of the Plan Area and connects to Highway 20, which is located approximately 1.7 kilometres west. It is presently a two lane highway and maintains a speed of 100 km/h throughout the stretch through the Plan Area.
- The SW 23 contains a telecommunication tower within its northwest quadrant, west of the CP railway.
- An active oil/gas well is located in the SW 23, west of the CP rail, just north of the southern boundary. This comes with a 100m setback that poses few issues for most commercial and industrial uses.
- Two high pressure mains run through the SE 23 and SW 23. One high pressure main enters the SW 23 in its southeast corner and then runs east in to the SE 23 to a regulator station that is located to the west of Range Road 1-1. The other enters the SW 23 perpendicular to its southern boundary and connects to the oil/gas well in the SW 23.
- The Town's sewage lagoon is located approximate 600m west of the Plan Area.
- The Lacombe Regional Solid Waste Transfer Station is north of the sewage lagoon.



MAP 3B: BUILT FEATURES

- Plan Area Boundary
- Cemetery
- Fire Department
- Storm Pond
- Sewage Lagoon
- Lacombe Regional Solid Waste Transfer Station
- ▲ Telecommunications Tower and Anchors
- Water Pump House
- Oil/Gas Battery Location
- ◆ Oil/Gas Regulator Station
- Active Oil/Gas Well
- Cancelled Well Location
- Abandoned Oil/Gas Well
- Active Oil/Gas Pipeline
- - - Abandoned Oil/Gas Pipeline
- - - Active ATCO/Co-op Low Pressure Oil/Gas Pipeline
- - - Abandoned ATCO/Co-op Low Pressure Oil/Gas Pipeline
- Overhead Power Lines
- Water Pressure Main
- Sanitary Gravity Main
- Drainage Swale
- Culvert
- Paved Road
- Gravel Road
- Oil/Gas Well Setback (100m)
- - - Lagoon Setback (300m)
- - - Regional Solid Waste Transfer Station (300m Setback)



View of Town storm pond in foreground and telecommunication tower in SW 23 in background

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# BENTLEY-LACOMBE COUNTY JOINT DEVELOPMENT INITIATIVE

## What types of land use are planned?

- Map 4 shows the future land use concept that has been created thus far. It builds on the higher level planning for the Plan Area shown in the *Town of Bentley/Lacombe County Intermunicipal Development Plan*, which was last updated in 2018, and the *Town of Bentley Municipal Development Plan* that was updated in 2016.
- The area structure plan and servicing assessments provide more detail than what was considered in 2018 and is an opportunity for some refinement or more detailed planning.

### Highway Commercial

- Areas are visible and accessible along Highway 12 and Range Road 1-1.5 to cater to area residents and passing travellers. Examples of commercial use include restaurants with drive through facilities, hotels, retail strip plazas, gas stations, and commercial entertainment.
- Expected to be vehicle oriented and require larger size parcels. Some parcels may develop as stand alone businesses and some may develop as small scale plazas with two or more buildings.



### Light and General Industrial

- Combined light and general industrial represent the majority of the land use categories shown on Map 4. Both are meant to accommodate a wide variety of industrial uses. Light industrial occupies the most visible locations as these uses may be more visually appealing. General industrial is oriented to the interior.
- The types of industrial uses possible include warehousing and distribution centres (light) ranging to food processing and fabrication businesses (general). A wide range of parcel sizes is meant to accommodate from 2 acre parcels to 20+ acre parcels.



### Municipal Reserve (Park Space)

- Limited areas are identified as municipal reserve or park space given the planned commercial and industrial nature of the area.
- Lands shown as municipal reserve on Map 4 are meant to provide for trails along the edge of the area or into the commercial area. Some of these spaces are meant for landscaped buffers where residential is near the future commercial or industrial.

### Public Utility Lot

- Map 4 shows each future storm pond location as a public utility lot and provides some areas for drainage routes into/out of the ponds.
- The large storm pond location in the centre of the Plan Area may also serve as a public open space features a trail and entranceway signage.



### Public Institutional

- The sites identified as public institutional use account for existing public facilities like the fire hall and the cemetery. This category also includes space for future expansion of the cemetery and the creation of a new water treatment plant and reservoir.



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# BENTLEY-LACOMBE COUNTY JOINT DEVELOPMENT INITIATIVE



## SOUTHEAST BENTLEY AREA STRUCTURE PLAN

### MAP 4: FUTURE LAND USE CONCEPT

- Plan Area Boundary
- Highway Commercial
- Light Industrial
- General Industrial
- Public Institutional
- Municipal Reserve
- Public Utility Lot
- Highway and Local Roads
- Possible Road Connection
- Existing Railway Right-of-way
- Highway ROW To Be Re-allocated
- Wetland Features
- Trail/Pedestrian Route
- Cemetery
- Cemetery Expansion
- Fire Department
- Future Water Treatment Plant and Reservoir
- Storm Water Management Pond
- Telecommunications Tower and Anchors
- Potential Right-In Right-Out
- Future Controlled Railway Crossing
- Oil/Gas Well
- Tentative Property Line
- Expected Setback From Highway 12 (10m)
- Easement for Drainage System
- Oil/Gas Well Setback (100m)



NOTE: THIS DRAWING IS NOT INTENDED FOR DETAILED SUBDIVISION AND ENGINEERING DESIGN. BOUNDARIES BETWEEN LAND USES AND LOCATION OF FEATURES ARE APPROXIMATE. VERIFICATION AT TIME OF SUBDIVISION AND/OR DEVELOPMENT IS REQUIRED.



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## What is involved in servicing development in the plan area?

- Stantec Consulting Ltd. prepared a series of servicing assessments and concept plans based on the draft land use concept.
- Assessments included available water supply, capacity and ability to expand the municipal water and wastewater systems, and means of addressing stormwater management.

### Water Supply (Hydrogeology)

- Town water supply currently comes from three groundwater wells which have capacity to supply 3% annual growth in water demand for the next 21-25 years. After 21 years a fourth well may be need.
- Groundwater in and around Bentley is abundant. Expanded Town use can occur without negatively impacting other groundwater users.
- Large industrial water users could provide their own groundwater well independently of the Town water system.

### Town Water Servicing (See Map 5A)

- Town has a water treatment plant and three storage reservoirs with capacity to treat and store 1,671 m<sup>3</sup> of water. Approximately 400 m<sup>3</sup> of this capacity is available for future growth for residential, commercial and industrial uses.
- Water system capacity may last 30 years based on 3% annual growth in current water usage. Actual use of capacity depends on the water needs of the areas and uses developing first.
- Development of the Town and the Plan Area will require a capacity to treat and store 2,183 m<sup>3</sup>. Expansion of water treatment and storage capacity should be a new treatment plant and reservoir located to the east of the Fire Hall in the NE 23.

- Future development in the Plan Area will require extension of 200 mm to 300 mm diameter water mains (shown conceptually on Map 5A) to deliver 0.05 liters/sec/hectare water flow for daily use and a minimum fire flow of 150 liters/sec.
- A new pressure zone boundary will need to be created, generally following the CP Railway, to create a high pressure zone and a lower pressure zone.

### Town Wastewater Servicing (See Map 5A)

- The existing storage cells at the Town's sewage lagoon have a total storage capacity of 217,036 m<sup>3</sup>. There is capacity for the next 20 years based on 3% annual growth in current wastewater flow rate of 331 m<sup>3</sup>/day.
- Development of the Town and the Plan Area, assuming a flow rate of 0.05 liters/sec/hectare for the Plan Area, will require expansion of the sewage lagoon to accommodate 666,125 m<sup>3</sup>. This needs about 28 hectares of land – likely to the west of the existing lagoon.
- New wastewater mains will be needed to service the Plan Area (shown conceptually on Map 5A). A 450 mm main would extend from the sewage lagoon to Range Road 1-2. Two mains would then branch off – a 250 mm main for the area north of Highway 12 and a 300 mm main for the area to the south.

### Stormwater Servicing (See Map 5B)

- Stormwater run-off from the Plan Area needs to address the volume of water released (avoid downstream flooding) and the quality of the water (avoid contamination) going into the Blindman River.
- Alberta Environment and Parks has set the pre-development release rate at 4.0 liters/sec/hectare which is a key variable in the size of each stormwater pond.
- Each quarter section has been designed to have one or more stormwater ponds (shown conceptually on Map 5B) to control run-off from the quarter section. The location of the ponds is based on the low spots in each quarter section to avoid excessive grading.
- Each pond is envisioned to be a wet pond which contains water on a permanent basis and uses riparian vegetation to help manage contaminants.
- Upstream ponds release into downstream drainage ditches and/or pipes to eventually reach the Blindman River. Drainage easements are recommended for each outfall route crossing private lands to reach the river.

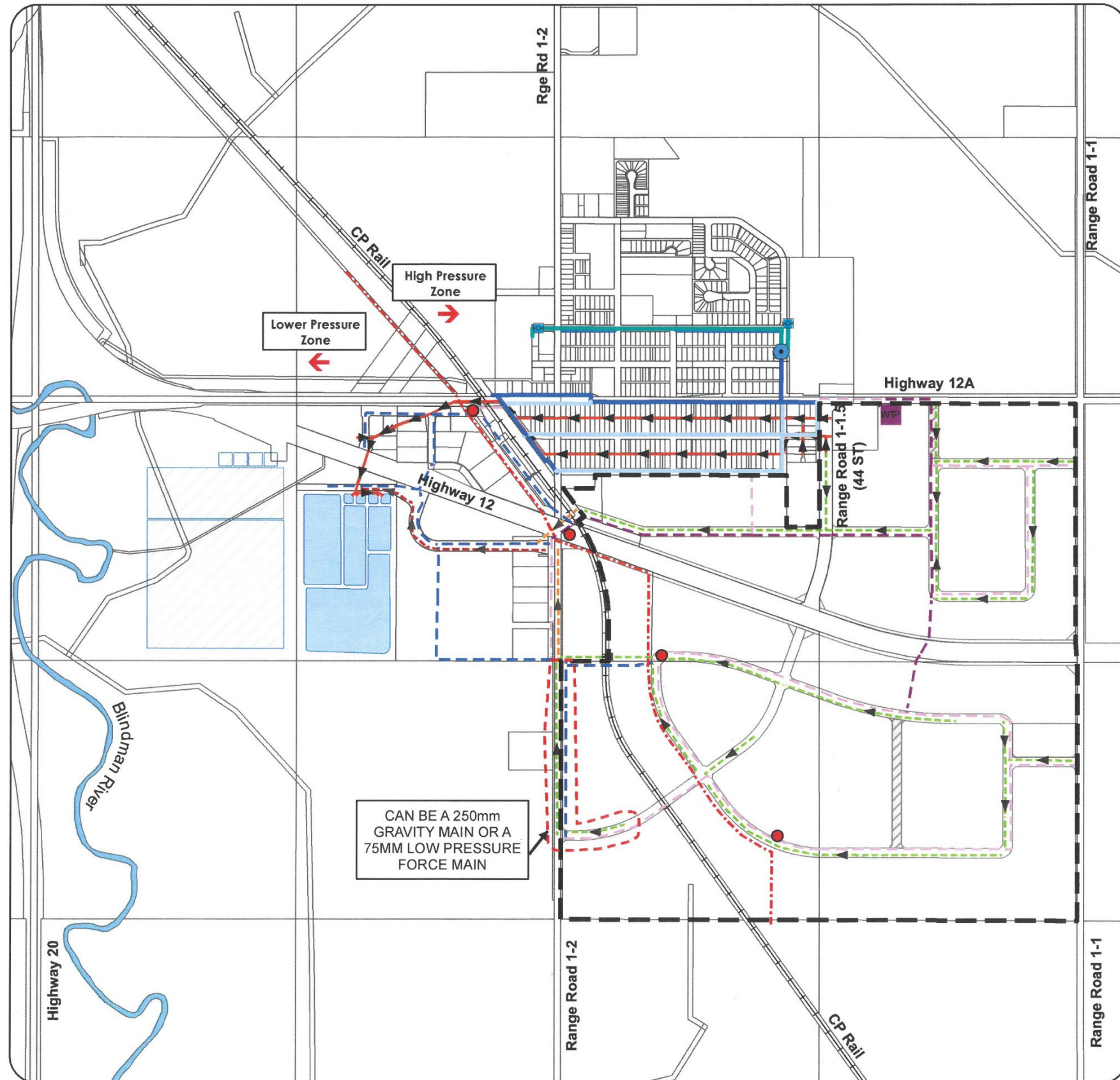


View of Town sewage lagoon

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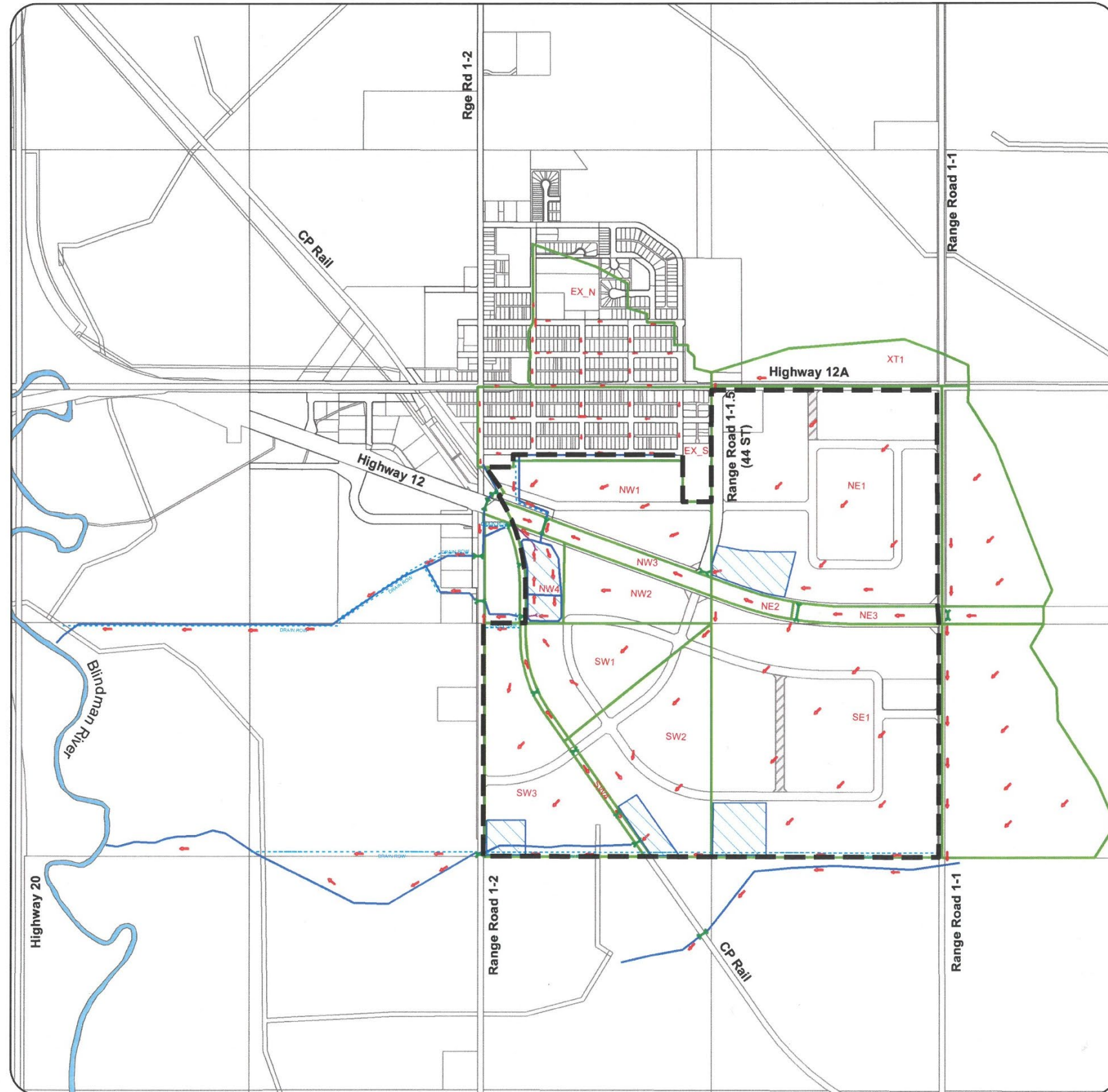


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## SOUTHEAST BENTLEY AREA STRUCTURE PLAN MAP 5B: STORMWATER SERVICING CONCEPT

- Plan Area Boundary
- Storm Sub-Catchment Boundary
- Existing Drainage Route
- Proposed Drainage ROW
- Pond Outlet Piping
- NW1** Storm Sub-catchment ID
- Drainage Pattern
- Existing Culvert
- Proposed Storm Pond



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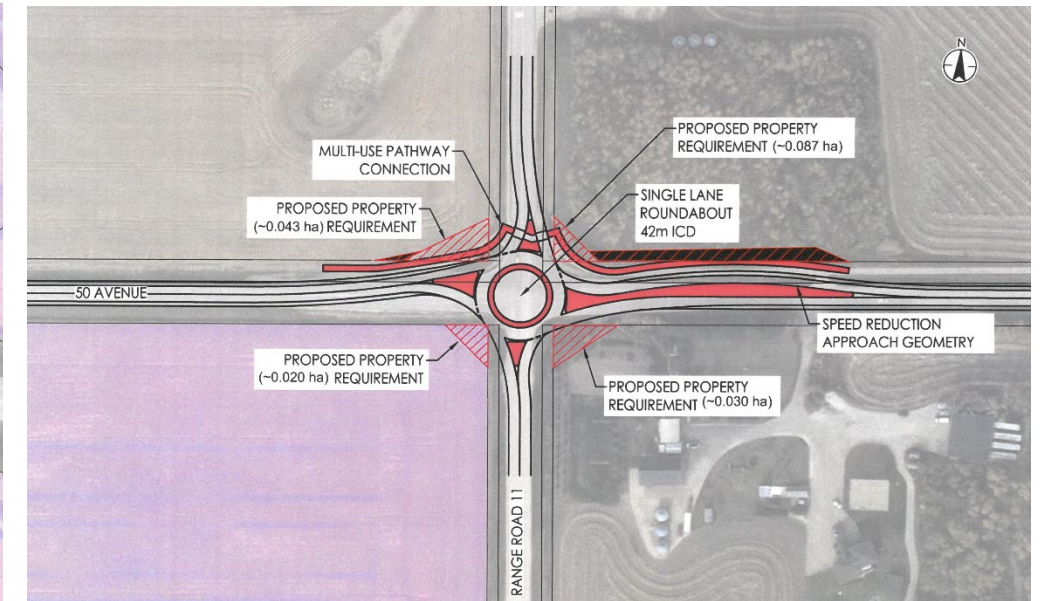
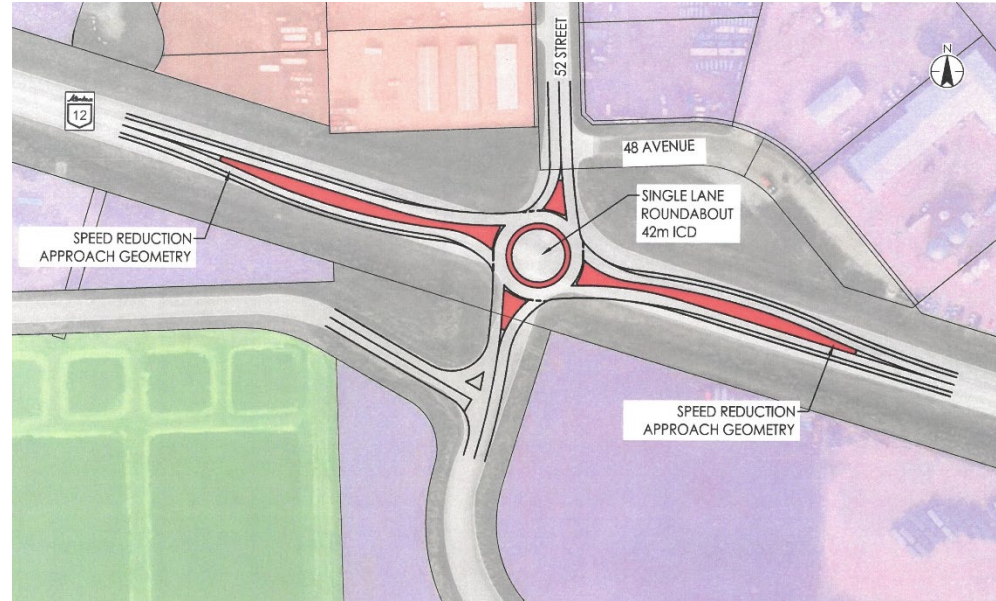
## What road improvements are needed?

- In addition to land uses, Map 4 shows a network of future local roads connecting to the existing Highways and Range Roads. Land area has also been identified for the future widening of Highway 12 to become a four-lane highway.
- To understand the improvements needed at key intersections, Stantec Consulting Ltd. undertook a transportation impact assessment (TIA). The TIA looks at existing traffic patterns and then projects the additional traffic from development in the Plan Area based on the land uses shown on Map 4. It then identifies the improvements to each intersection over the long term.

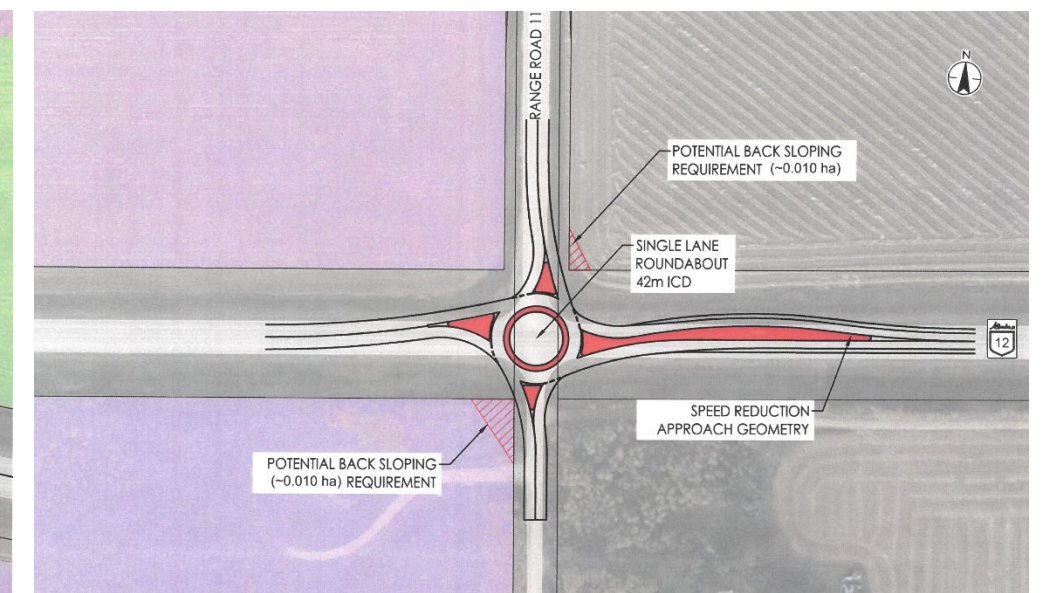
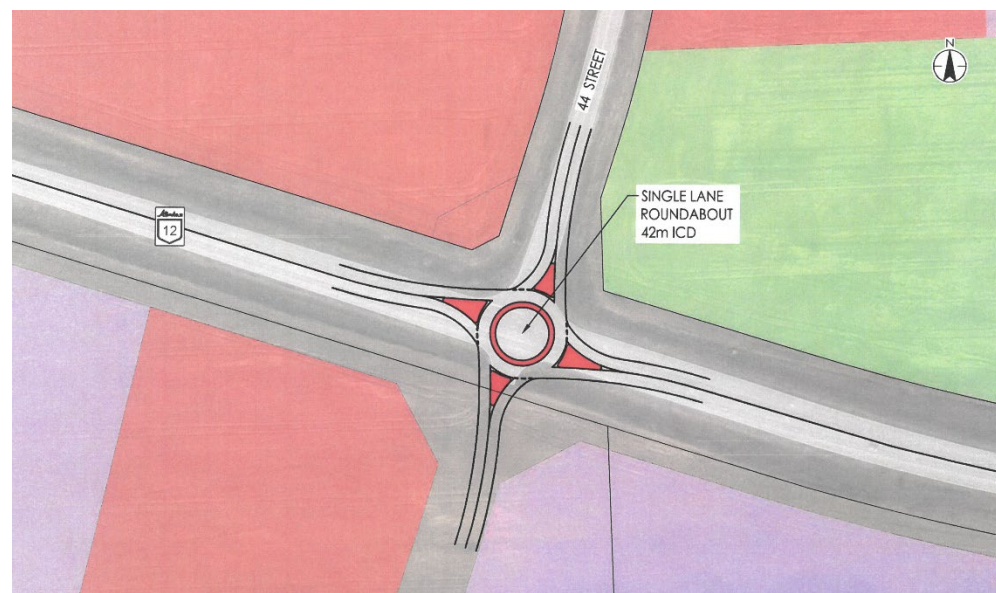
Figure 1.2 – Road Network and Study Intersections



- The conclusions of the TIA are shown in the table and concept drawings for four intersections that may become future roundabouts.
- Only one intersection – Highway 12 and Range Road 1-1.5/44 Street is not proposed to be developed as a roundabout.



Scenario	ASP Staging	Recommended Infrastructure Adjustments				
		Hwy 12 & 44 Street	Hwy 12 & Range Road 1-1	Hwy 12 & 52 St	Hwy 12A & 44 Street	Hwy 12A & Range Road 1-1
Existing Conditions	0%	No change	No change	No change	No change	No change
2037 15-Year Horizon	50%	Signalized intersection with turn lanes on Highway 12 or a single lane roundabout	Signalized intersection with turn lanes on Highway 12 or a single lane roundabout	No change	Upgrade to Type IIa with an eastbound right turn lane	Signalized intersection or a single lane roundabout
2052 30-Year Horizon	100%	No additional improvements required	No additional improvements required	Signalized intersection or a single lane roundabout	No additional improvements required	No additional improvements required



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