

Addressing Workshop



April 15, 2010

Alberta Mapping Data Model



**Spatial Data
Warehouse Ltd.**

A non-profit mapping private/public partnership formed in 1996.
Role is to preserve and enhance Alberta's base mapping information infrastructure after taking over operations from the Alberta Government.

Governance

Alberta Government
AAMD&C
AUMA
ATCO ELECTRIC
ATCO GAS
TELUS
FORTISALBERTA
AFPA
CAPP

Recently Invited Members
Alta One Call
Alberta Chamber of Resources



Joint Venture partner for SDW tasked with reengineering, development and daily operations:

- updating, storage, delivery, licensing & business development.



Purpose of SDW

The core purpose of SDW is to maintain and promote the **broadest possible distribution** of provincial digital mapping, that meets the immediate **needs of the Alberta market place**, and **preserves the mapping data** for the long-term benefit of all Albertans.



SDW Principles

- Data supplier of choice or **authoritative data source** for provincial data
- Reduce redundancy of data collection & **maintenance**
- Services supported by a **business case**
- Support **regulatory requirements**
- Add value to or **leverage existing data** across industry & government



SDW Priorities

- Investigate adding Addressing attribute(s) to Titles Mapping data set.
- Investigate addition of intelligent road centerline network data set.
- Investigate the standardization of hydrographic metadata to meet industry & government needs.
- Investigate NRCan request for provincial data layers.



Today's Objectives

- Gather input regarding the development of a province-wide, central repository of Municipally approved addresses
- Identify Municipal addressing interest and concerns
- Explore needs and uses for Province-wide addressing
- Gather potential benefits
- Establish next steps



Workshop is not to:

- Sell any products, services or solutions
- Pressure participants to endorse addressing solutions



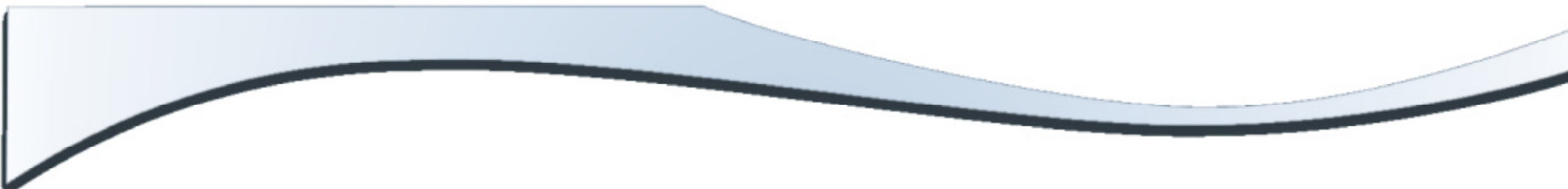
Agenda

- Addressing initiative background
- Province-wide addressing perspectives
 - Alberta One Call
 - Alberta Health Services
 - Municipal District of Taber
 - City of Calgary
 - County of Strathcona
 - Questionnaire results
- Lunch
- Brainstorming
 - Municipal concerns
 - Addressing uses and benefits
 - Other stakeholder Issues
 - Open topics
- Next steps



Background

- Alberta One Call and utility companies have been trying (for many years) to collect parcel addresses as a means to identify service and asset locations; very time consuming, difficult, expensive, not complete
- Addresses required for health and safety issues and also for providing services

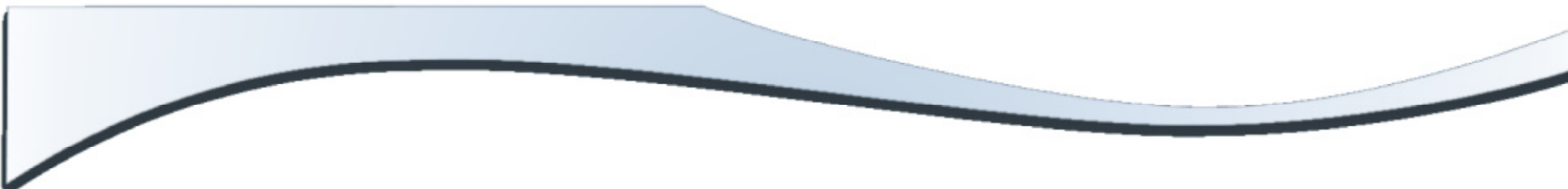


The Municipal Government Act gives Municipalities authority to “assign a number or other means of identification to buildings or parcels of land”.

Municipal authorities are responsible for:

- Assigning addresses (parcel, building, building suite, and entryway addresses)
- Approving changes to existing addresses

Mailing addresses for the owner and the occupant of a property are required for municipal assessment purposes.

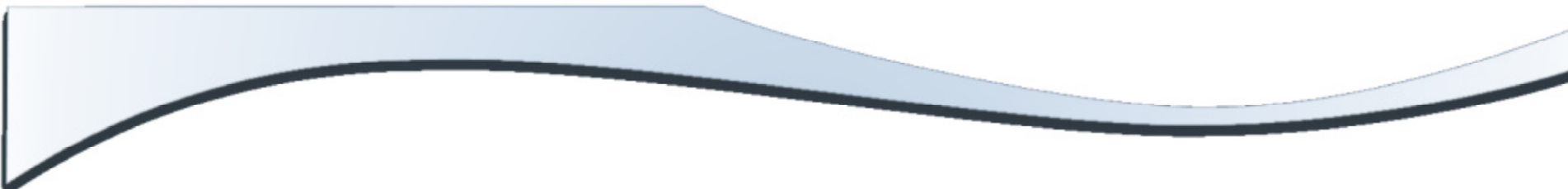


In 2004, AAMD&C conducted a survey and found that “the majority of rural municipalities did not have a municipal addressing system in place”.



Reasons:

- Cost – expensive; especially with signage.
- Most difficult in rural areas: P.O. & Box numbers have no relationship to spatial location.
- Staff – many did not have staff with the technical background to design and build an address system.
- Low priority (relative to cost and other issues) for taxpayers and council
- **Lack of provincial standards**



Addressing Guidelines were developed in conjunction with Alberta Municipal Affairs, the AUMA, AAMD&C, SDW / AltaLIS and Canada Post.

These guidelines and the free address mapping template from SDW / AltaLIS have been used by numerous municipalities since 2005 to aid in developing their addressing program.



(Rural) Addressing Guidelines Overview

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TOWNSHIP & RANGE ROADS

VIRTUAL TWP RD 75

25003 TWP RD 74

TWP RD 74

VIRTUAL TWP RD 73

TWP 7 RGE 2 W4

TWP RD 72

RGE RD 25

RGE RD 24

RGE RD 23

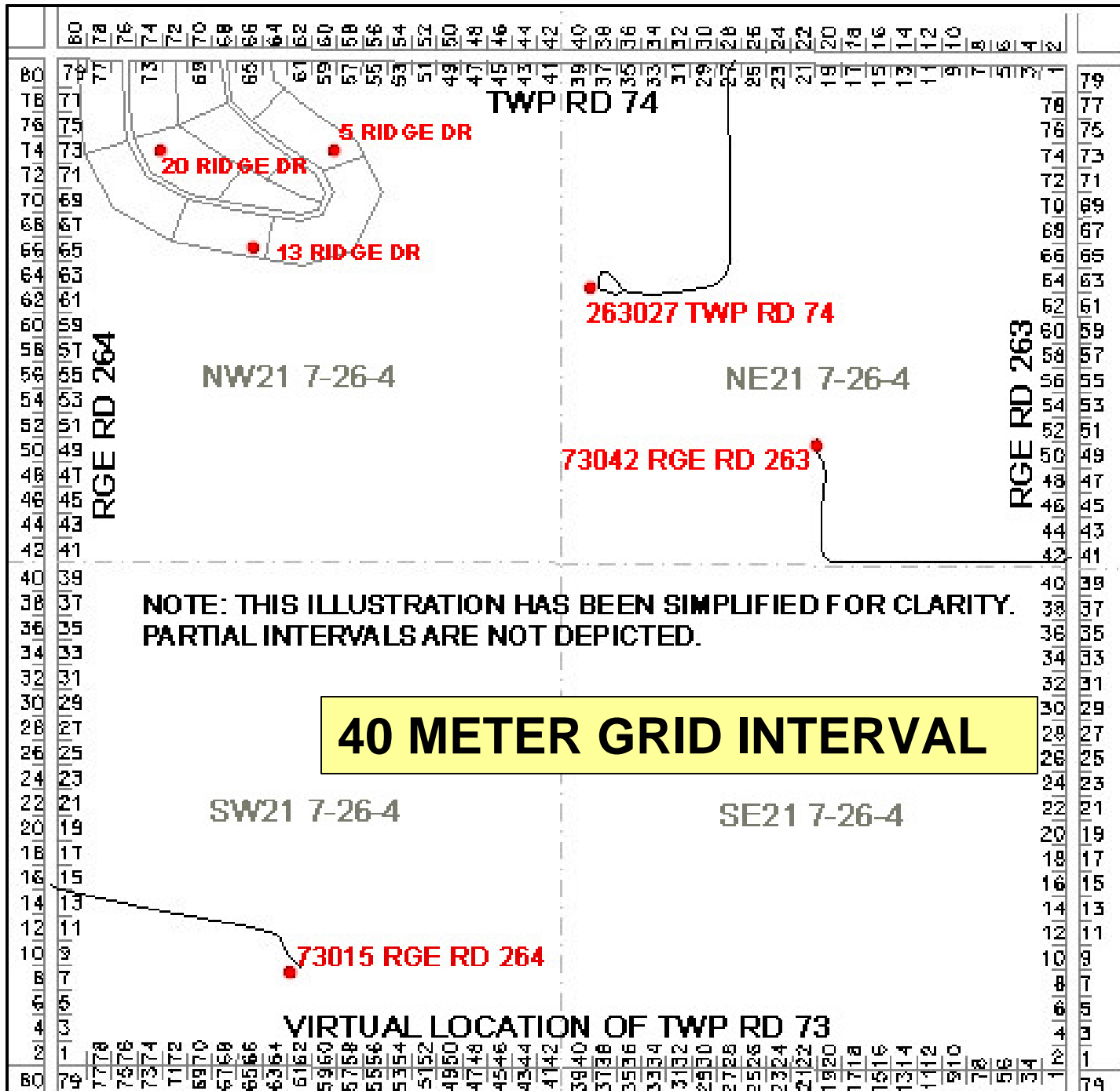
RGE RD 22

VIRTUAL TWP RD 71

RGE RD 21

RGE RD 20

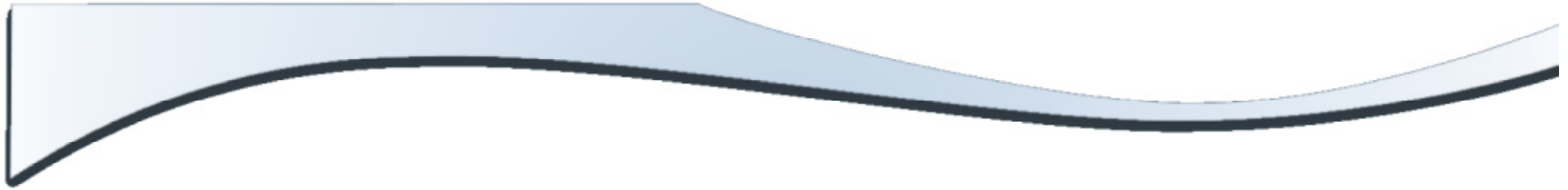
TWP RD 70





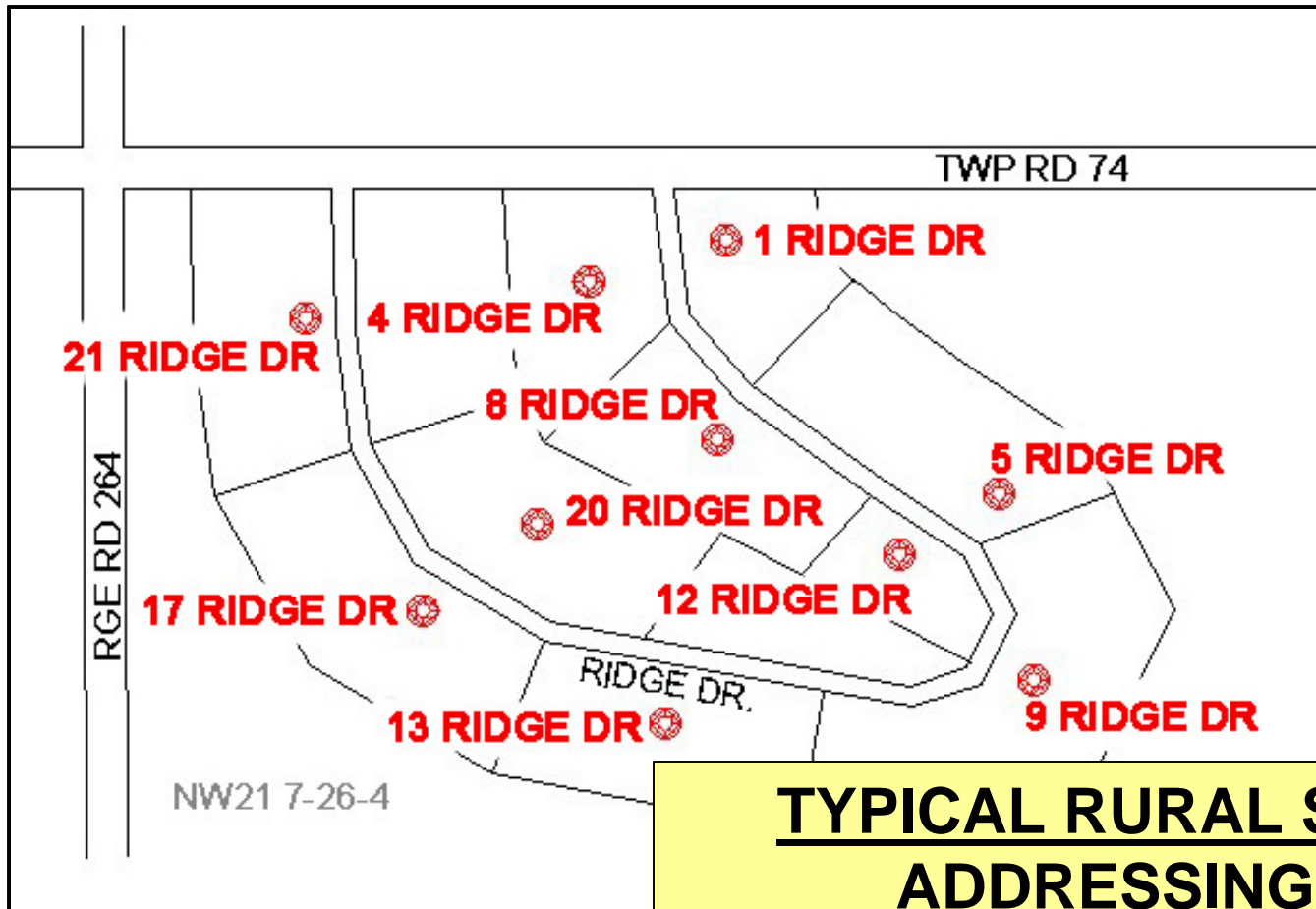
Address Number

- Maximum 6 digits (Canada Post)
- Right 3 digits represent the interval number
- Left 2 or 3 digits represent the township or range reference road



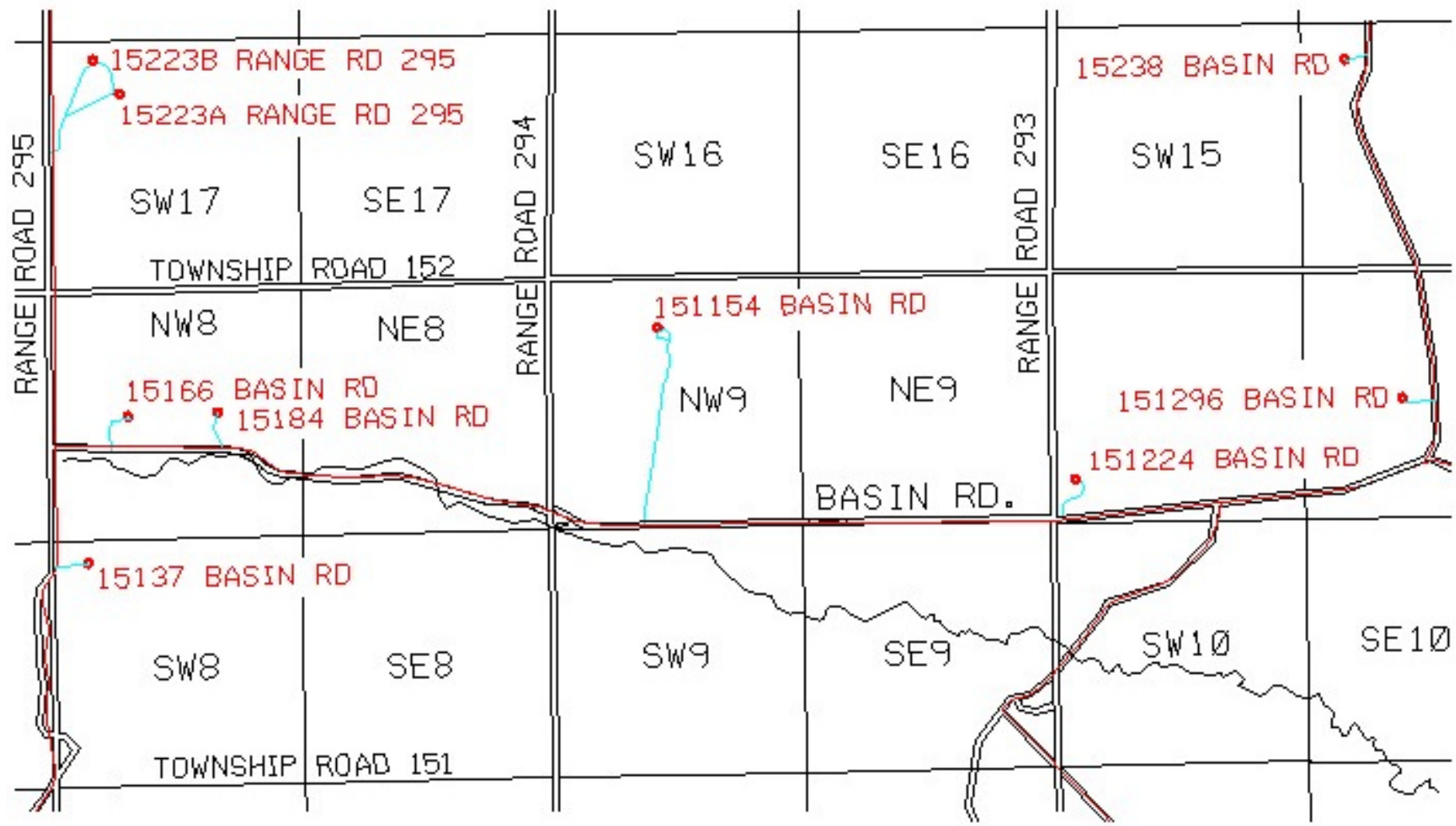
Rural Subdivisions

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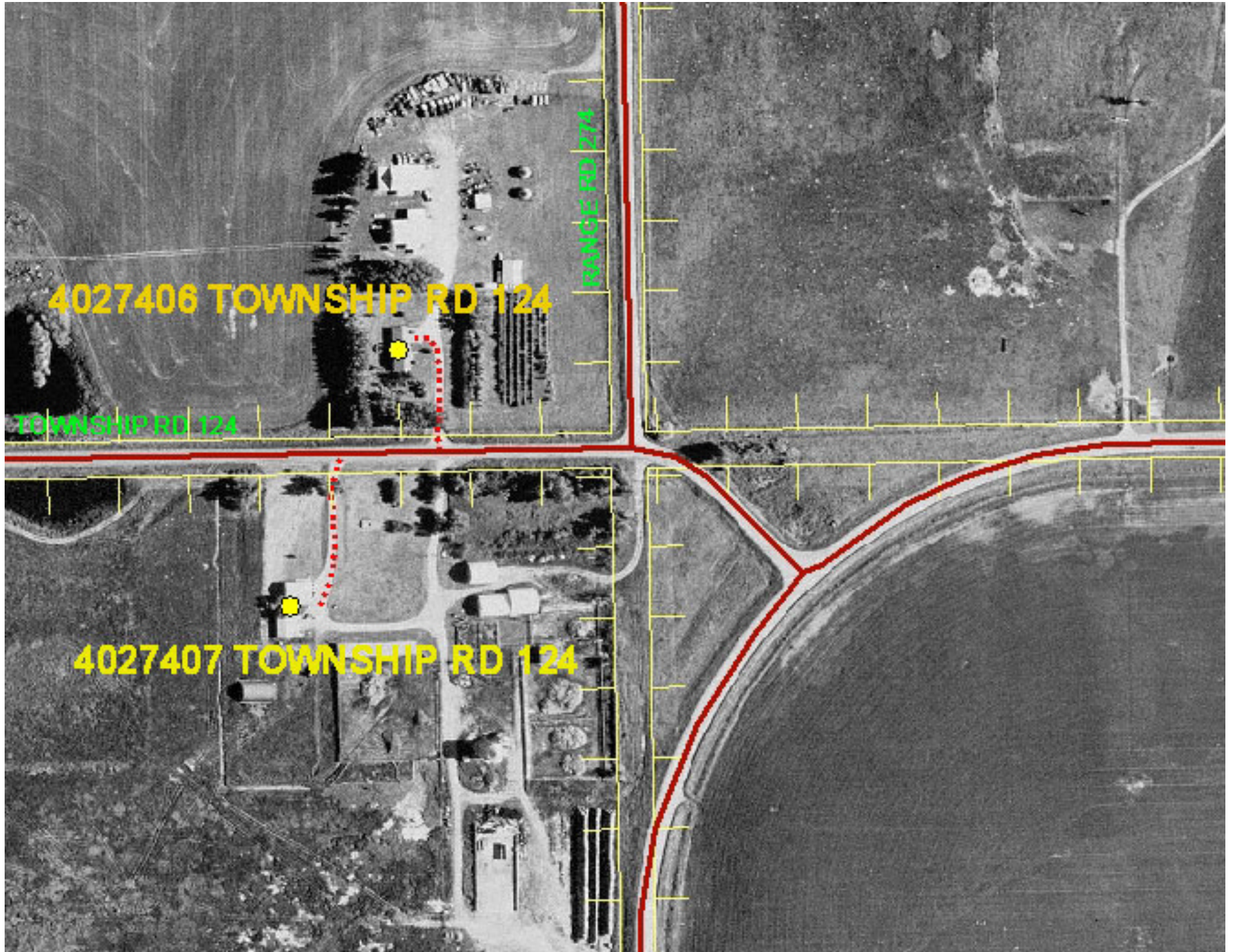


TYPICAL RURAL SUBDIVISION **ADDRESSING LAYOUT**

- ADDRESSES INCREASE IN A CLOCKWISE DIRECTION
- ODD ADDRESSES ARE ON THE SOUTH AND EAST
- EVEN ADDRESSES ARE ON THE NORTH AND WEST



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4027406 TOWNSHIP RD 124

FRANSE RD 274

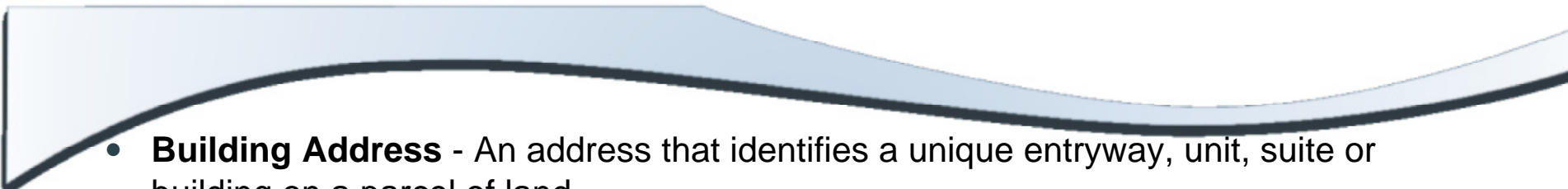
TOWNSHIP RD 124

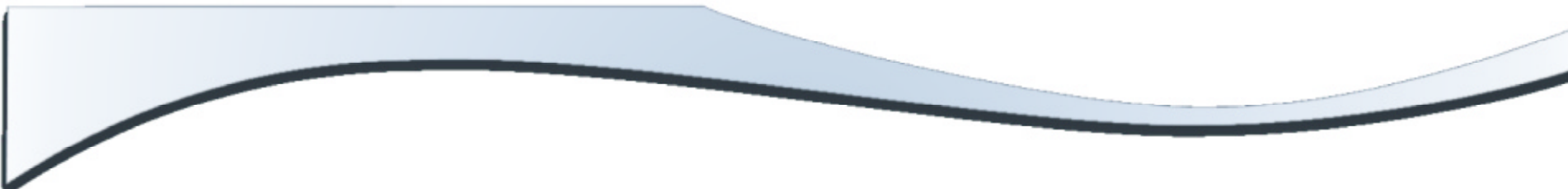
4027407 TOWNSHIP RD 124



Many different “flavours” of addressing exist, including:

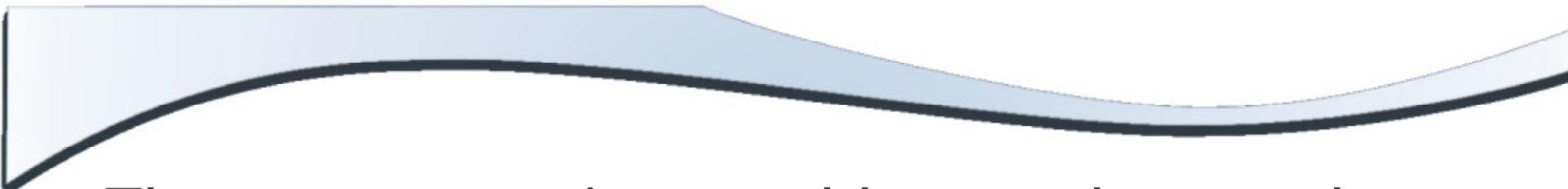
- Building Address
- Service Address
- Entrance Address
- Mailing Address
- Municipal Address
- Parcel Address
- Titled Parcel Address

- 
- **Building Address** - An address that identifies a unique entryway, unit, suite or building on a parcel of land.
 - **Service Address** - An address that identifies the location of a unit, suite or building for which services are provided by a utility company; this address may or may not be the same as a building address or a parcel address. Utility companies may have variations and unique abbreviations to an urban or rural address. In some instances, a rural address may be a Box number or a legal description.
 - **Entrance Address** – An entrance address identifies a grade level entrance to a building where the entrance address is not necessarily the same as the building address. A building may possess more than one addressed entrance (i.e. a strip mall).
 - **Mailing Address** - A mailing address may be a parcel or building address but could also be a postal box, super mailbox, and/or rural route description. It also may include building names (i.e. Commerce Place) and usually has an associated postal code.
 - **Municipal Address** - A municipal address identifies a unit, suite or bay in a building with a separate entrance or a separate building on a parcel of land; may also be referred to as building address, entryway address and parcel address.
 - **Parcel Address** – An official address created by the Municipality and approved for use in a land subdivision of commercial or residential space or multi-unit commercial or residential complexes.
 - **Titled Parcel Address** - A parcel address assigned by a Municipality that identifies an area of land as described on a "certificate of title".



Mailing Address ? municipal address

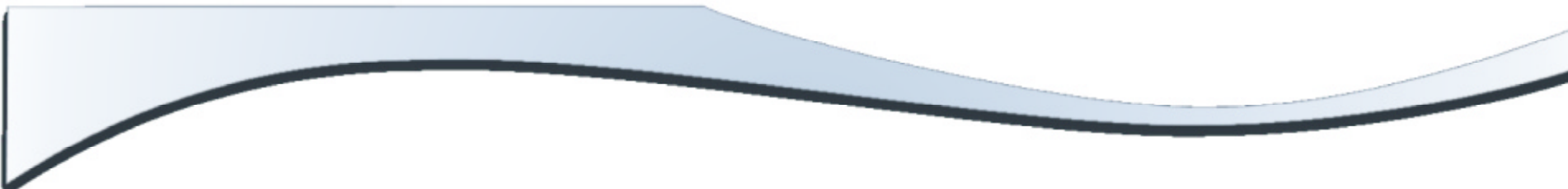
- Owner's mailing address
- Issues of centralized mail delivery; super mailboxes, post office boxes, etc.



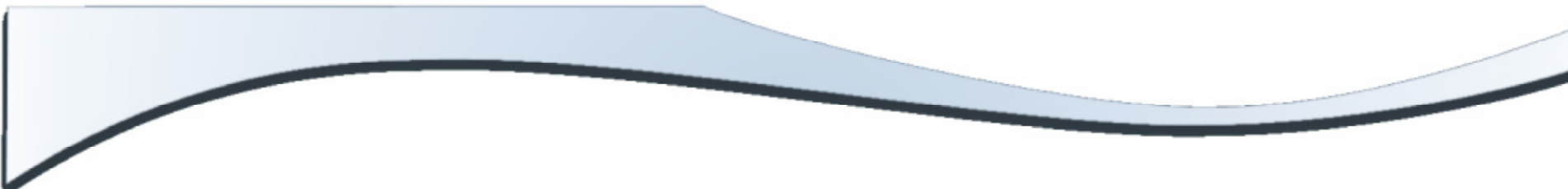
There are two primary addresses that need to be associated with a parcel:

- a **municipally-assigned parcel address** that can be geo-coded (geo-coded attribute) and
- a **mailing address** which is required for LTO* and municipal taxation purposes.

*LTO has agreements with municipalities for parcel addresses – in exchange for updated title information.



Addressing has evolved over the past few years, from a location for postal delivery to a geocoded location for emergency response services and other location-based services.



With the development of mapping systems, GIS technology, and in conjunction with evolving GPS technology, there is now a greater need to have municipal-wide addresses with geo-codes.

Addresses with geo-codes (knowing where people live) are fundamental to an effective Emergency Response System.

Addresses are the preferred manner for accessing spatial data.



AddressBC: A Common Point Address Database for BC

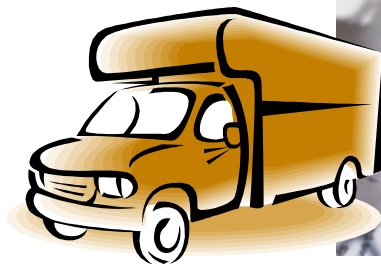
Steven Garner
Manager, AddressBC
ICIS
sgarner@icisociety.ca

ESRI User Conference - May 2009

April 15, 2010

Why Addresses Matter

- First Responders
- Postal Service
- Service Delivery
- Taxation
- Geographic Context
- Others



Location & Address

- Rural locations

- Buildings may not always be visible from a road
- May not be an address sign present on a parcel
- Natural resource operations maybe remote and not have an address associated with the location



- Urban locations

- Well developed addressing scheme
- Buildings generally have a highly visible address
- Strata property representation

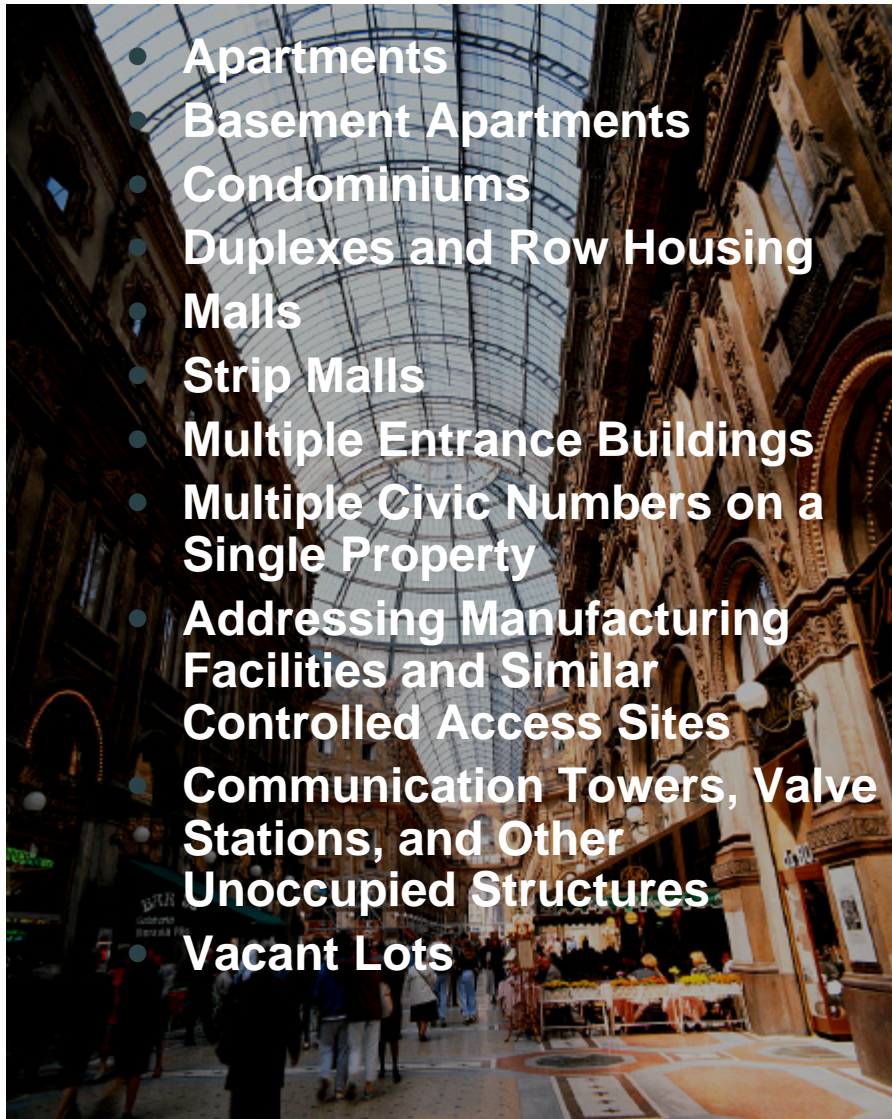


What is AddressBC?

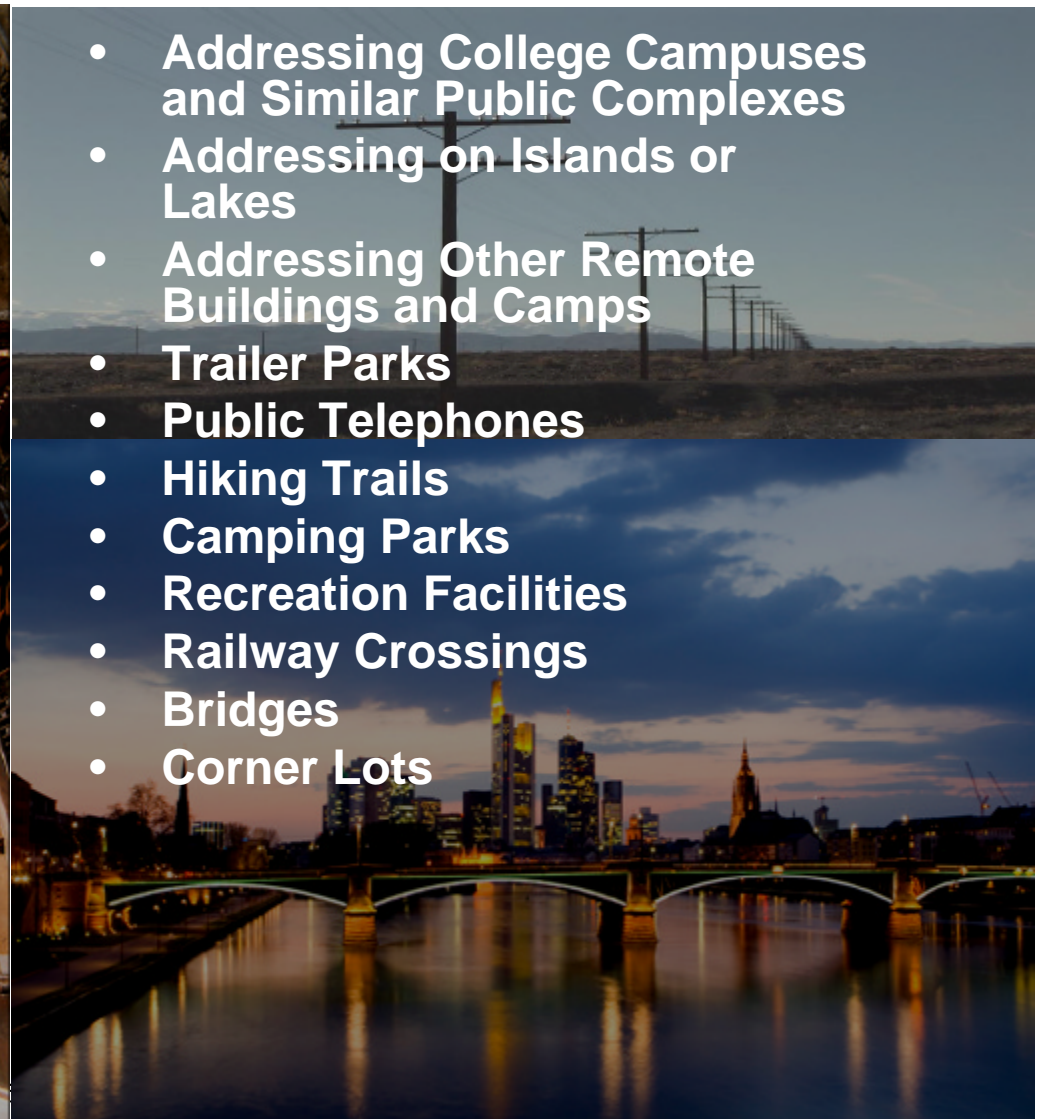
- Central, single-source point address database for BC
- Triple '**A**': **A**ccurate, **A**ccessible, **A**uthoritative
- Decentralized administration in cooperation with BC local government through ICIS
- Designed to aid emergency planning



Address: Special Cases



- Apartments
- Basement Apartments
- Condominiums
- Duplexes and Row Housing
- Malls
- Strip Malls
- Multiple Entrance Buildings
- Multiple Civic Numbers on a Single Property
- Addressing Manufacturing Facilities and Similar Controlled Access Sites
- Communication Towers, Valve Stations, and Other Unoccupied Structures
- Vacant Lots



- Addressing College Campuses and Similar Public Complexes
- Addressing on Islands or Lakes
- Addressing Other Remote Buildings and Camps
- Trailer Parks
- Public Telephones
- Hiking Trails
- Camping Parks
- Recreation Facilities
- Railway Crossings
- Bridges
- Corner Lots

Challenges

- Local Government Participation
 - Action: Communication Implementation Strategy
- Receipt of Structured Data
 - Action: Minimum Input Standards
- Hosting Options
 - Action: RFP for Hosting





Addressing Perspectives



Addressing Perspectives

- Alberta One Call - **Laraine Lawson**; Operations Manager
- Alberta Health Services – **Graham Vanderwater**; System Status Manager, EMS Dispatch
- MD of Taber – **Bryce Surina**; Director of GIS & IT
- City of Calgary – **Nancy Merrit**; Geospacial Consultant, Land Information & Mapping Business Unit
- Strathcona County – **Linette Capcara**; Coordinator, Customer & Technical Services, Planning & Development Services



Addressing Questionnaire results based on 35 responders:

- 100% willing to participate in Province Wide Addressing Central Repository
- 100% would share their data with essential services like Emergency Response
- 46% have scrubbed and validated their data
- 43% used the Addressing Guidelines
- 66% have geo-codes or coordinates associated with parcel address
- 77% have parcel addresses associated with their property assessment data
- 93% do not have single line road centerline with address ranges



Workshop Questionnaire Results based on 54 responders:

- 100 % found the workshop to be worthwhile
- 44 % would be willing to participate on a working committee to further develop terms of reference
- 80% would attend a Fall Addressing Workshop in Calgary



Group Brainstorming



April 15, 2010





Afternoon Brainstorming Agenda

- Capture municipal concerns
- Gather addressing uses and benefits
- Identify other stakeholder issues
- Review open topics
- Next steps
- Wrap-up



Brainstorming Participation & Input

- Group discussion
- Solicit your ideas and input
- Focus on understanding uses, benefits, issues
- Capture results



Municipal Concerns?

- What concerns or roadblocks are holding back province-wide addressing?
 - Municipalities who have completed addressing data set
 - Issues experienced
 - Remaining concerns
 - Municipalities who have not completed addressing

Municipal Concerns & Comments from the floor:

Addressing Completed Challenges faced:

Poor Accuracy of Road network, forced roads were a challenge to address

Difficult process to match addresses with Tax records

It was difficult to find driveway access and identifying other features from imagery

When using a grid and assigning addresses, it is difficult to assign addresses when future subdivisions are created, usually a letter would be added to the address such as an A, B or C, etc.

Street name changes not being sent to AltaLIS so the cadastral base can be updated. Note: AltaLIS will update street names if municipalities request name changes.

Crown Land, tax recovery land, lease lands, should they be addressed?

Input address errors, typos, data not consistent

Municipal Concerns & Comments from the floor Cont:

Proper training and education required by Municipal staff to create and maintain an addressing scheme.

There is a cost to do addressing; 1 or 2 people are dedicated to addressing in some municipalities, adequate resources must be made available.

It would be nice to use addressing as a link to access to other municipal data

Restrictions and distribution rules are required for any addressing system

Who will pay for addressing; i.e. to build and maintain a central repository?

Should every rural parcel have an address - even if the land is not occupied or developed?

Occupants sometimes move approaches & driveway accesses without proper approval from Municipalities. Approval processes must be enforced.

Find balance between urban and rural addressing requirements

Municipal Concerns & Comments from the floor Cont:

- 1) A clearly defined scope for province-wide addressing is required;
- 2) look at a broader scope, more than just address, maybe location, points of interest, should also be included

If the scope is too broad then there may be issues regarding maintenance and security

Municipal Affairs and LTO have addressing data; should be part of initiative.

Should points of interest, energy leases (dispositions), well site locations and leased road accesses, etc. be addressed?

Some municipalities may not want their to sell their address data; some want to make it available for free online.

Would this data be available to schools, universities and research agencies?

Data ownership and steward contact information are required for each municipality so that all the players would be identified

Addressing data should be made available for free for emergency response; all other entities should have to pay for the data

Municipal Concerns & Comments from the floor Cont:

Update frequency of data should be standardized and published

Ensure address repository and distribution adheres to all FOIP policies

Discussions should take place with Canada Post; they are currently involved in a project to tie parcel and mailing addresses together

A robust data model is required to support existing and future initiatives

Identify what benefits municipalities would get in return for participating in this initiative

A clearly defined scope needs to be developed so this initiative can be sold to the decision makers in each municipality

Municipal Benefits

Municipalities get a cleaned, scrubbed, consistent dataset in return for participating

Municipal resources can be freed up to work on new addresses rather than maintenance on existing addressing

This initiative would provide consistent addressing data that can be shared between different municipalities

Licensing and distribution could be performed by SDW / AltaLIS



Additional Uses and Benefits

- What are additional uses of province-wide addressing?
 - Rural
 - Urban
 - Provincial Agencies
 - Industry
 - Any Others?
- What are the possible benefits?

Additional Uses and Benefits

Tie rural census data to addressing data to assist in disaster services notification (subject to FOIP).

More timely response for emergencies, i.e. grass fires, if authorities are accessing and sharing County maps and addresses in a timely manner; including sharing data with other Provinces

Canada post could benefit from this data

Address information would be a huge benefit to vehicle and navigation applications and companies

Single-line road network linked to addresses could improve road / street routing capabilities regarding oversize, overweight routing



Other Stakeholder Issues

- What issues need to be resolved by stakeholders to achieve Province-wide addressing?
 - Provincial Agencies
 - Industry
 - Vendors
 - Any others?

Stakeholder Issues: Provincial Agencies

Opportunity to get all citizens in the province involved

The address data for a central repository must be current; update frequency must be identified

FOIP: understand rules and implications

Should the repository include Condo parcels, suites, building entrances; include multiple references and aliases?

Link Canada Post Mailing address as an alias to the parcel address?



Next Steps & Wrap Up



Next Steps

- Workshop results to be compiled and distributed to attendees (May 2010)
- SDW / AltaLIS to select participants for a working group (June 2010)
- Working group to develop initial terms of reference (by September 2010)
 - Clarify initiative scope, timelines
 - Define approach to engage stakeholders
 - Develop implementation strategy
- Reconvene next workshop in fall - October 2010



Thanks!



April 15, 2010

