

DOMINION LAND SURVEY

COMPOSED AND PRODUCED BY :

Chris Rule

Permission is granted for use by acknowledging the author's name.

DOMINION LAND SURVEY

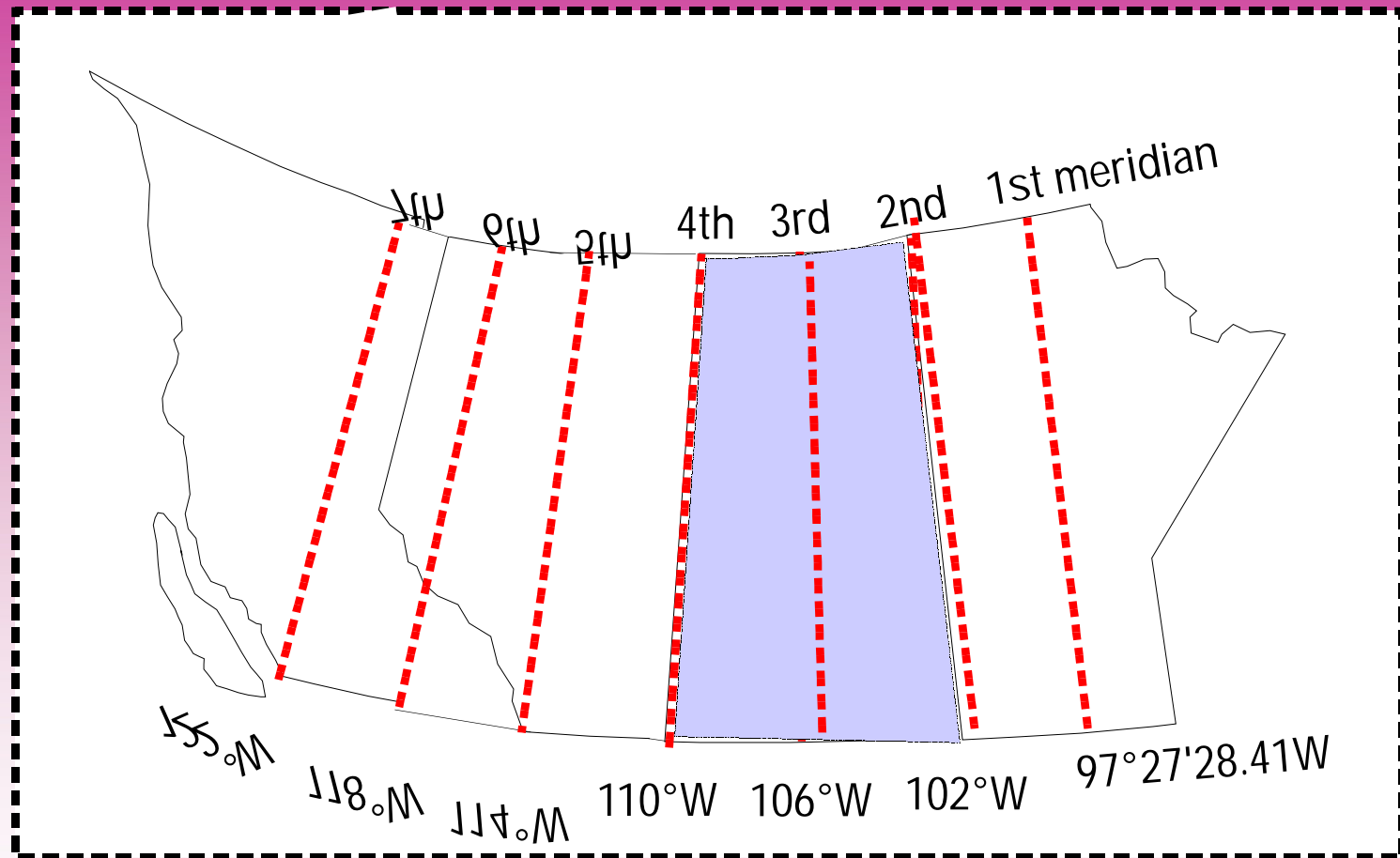
The Dominion Land Survey System was initiated by the Canadian Government in 1869 for settlement purposes. This system with variations are used in various areas throughout the world and in the United States. In Western Canada the survey extends from the First Meridian ($97^{\circ} 27' 28.41''$ W) in Manitoba to the Seventh Meridian ($122^{\circ} 00' 00''$ W) in British Columbia.

DOMINION LAND SURVEY



The Area of the Western Canada Survey

DOMINION LAND SURVEY



A closer look of the 7 meridians

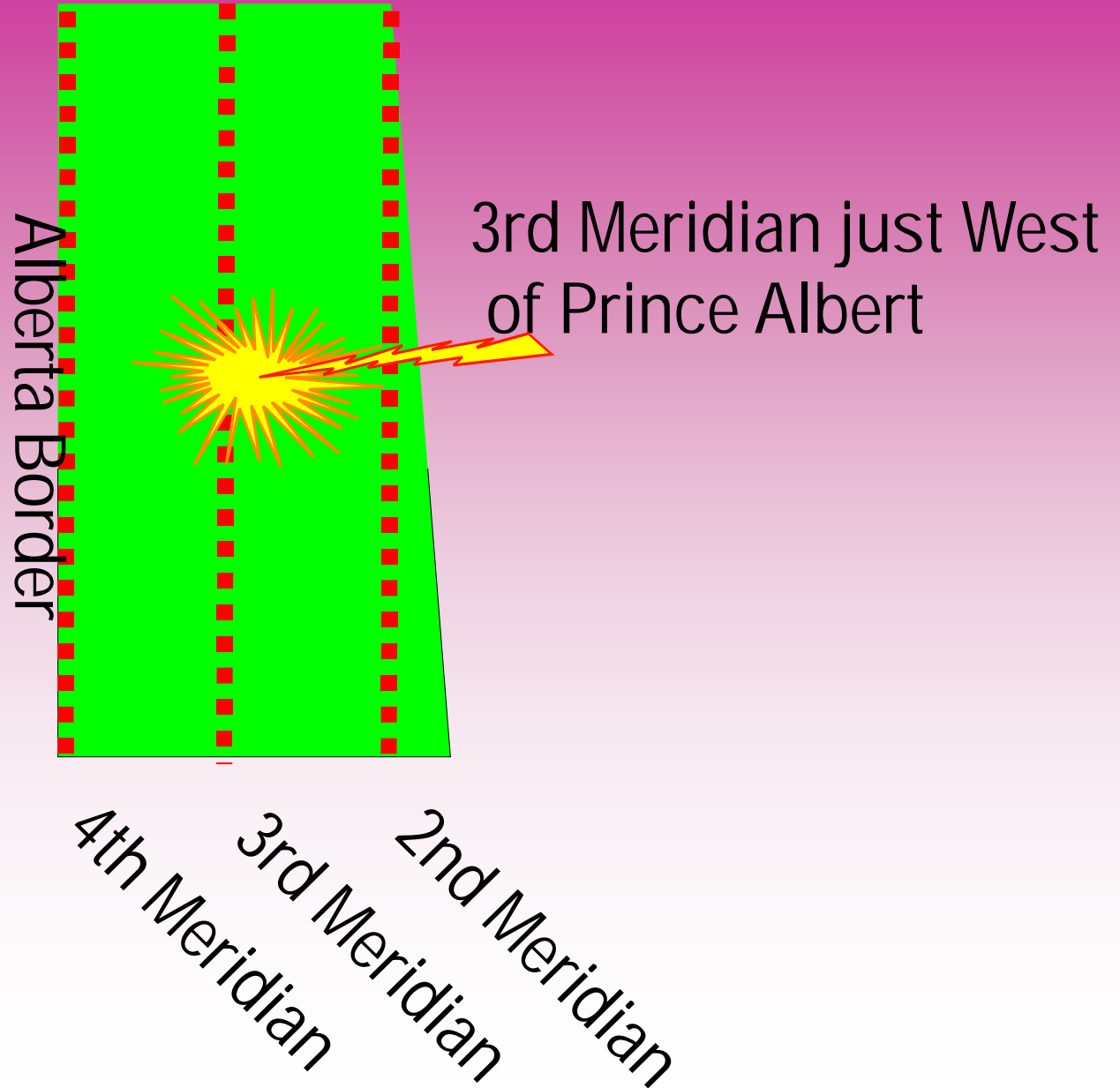
DOMINION LAND SURVEY

Why was $97^{\circ} 27' 28.41''$ chosen as the beginning of the survey , you ask?

Observations were taken near Pemberton, Manitoba in 1869 to determine the 49th parallel for the Canada-US border. The starting point for the First Meridian was begun 10 miles west of Pemberton to avoid already settled properties. The Second Meridian was established on the 102°W Longitude, just inside the Saskatchewan border, and then every 4°W thereafter.

DOMINION LAND SURVEY

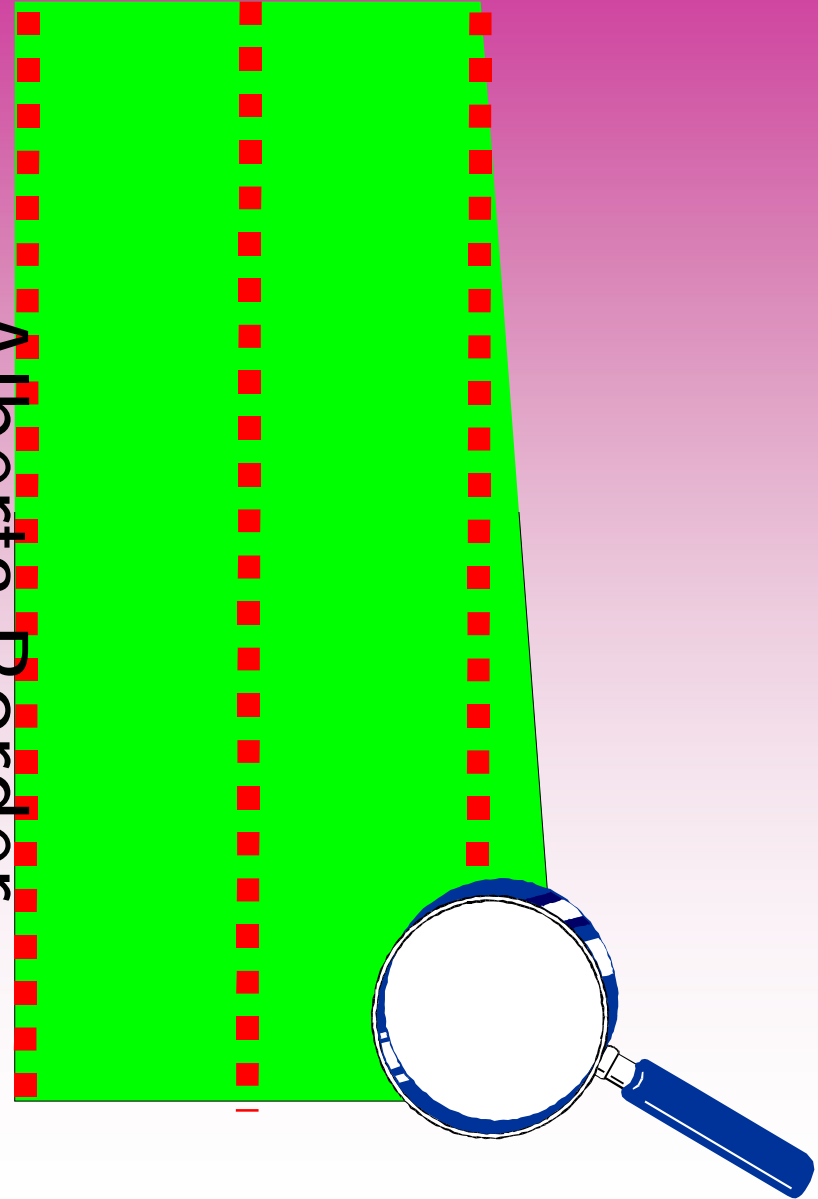
Let's
look at
SASK.



DOMINION LAND SURVEY

Now for a
closer look
into how
Townships,
Ranges and
Sections
work.....

Alberta Border



DOMINION LAND SURVEY

Starting at the US border

Township lines run parallel across
Saskatchewan every 6 miles apart.

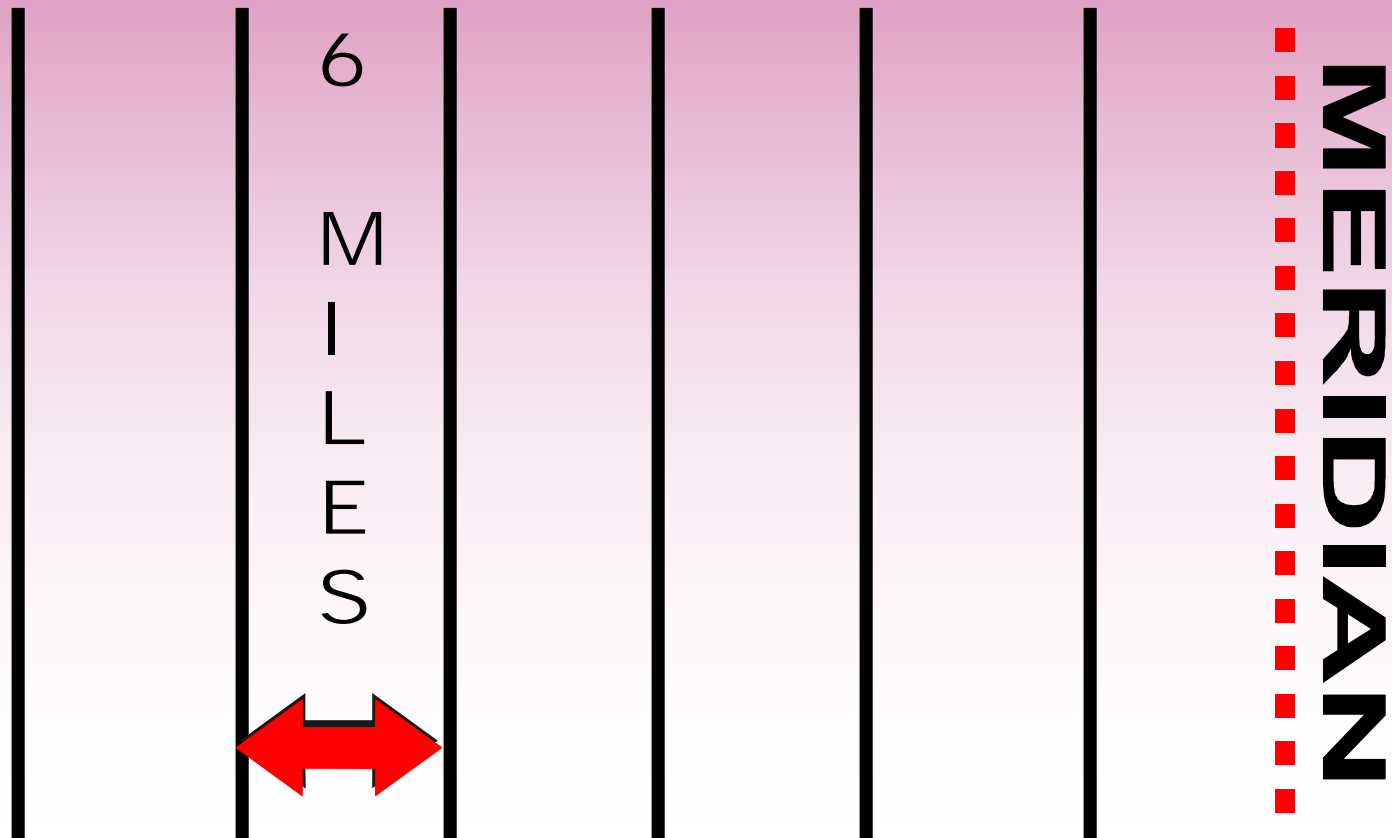
6 miles between each Township line



US Border - 49th Parallel

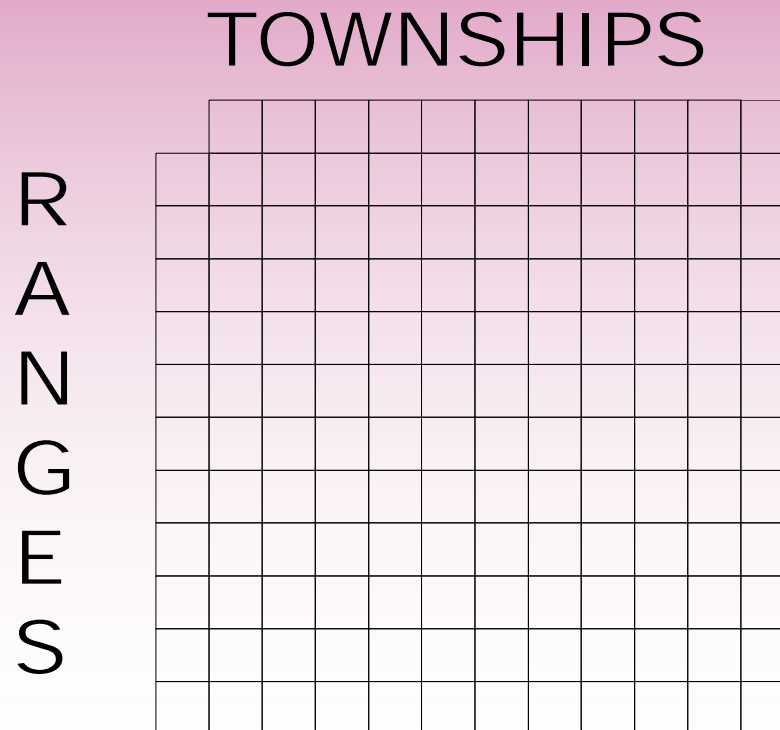
DOMINION LAND SURVEY

Starting at the 2nd Meridian
Range lines run parallel (up and down)
across Saskatchewan to the Alberta Border
every 6 miles apart.



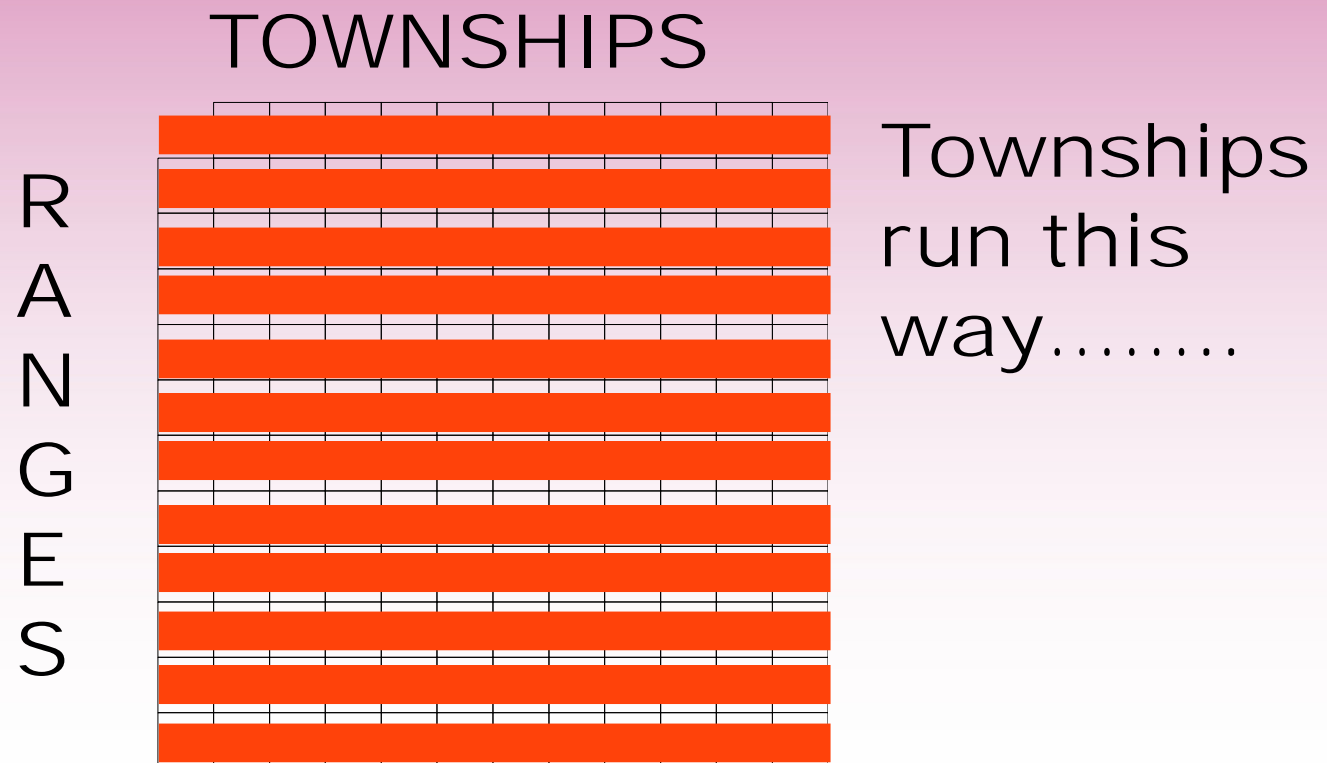
DOMINION LAND SURVEY

Now you have a grid made up of squares each square 6 miles by 6 miles which looks like this...



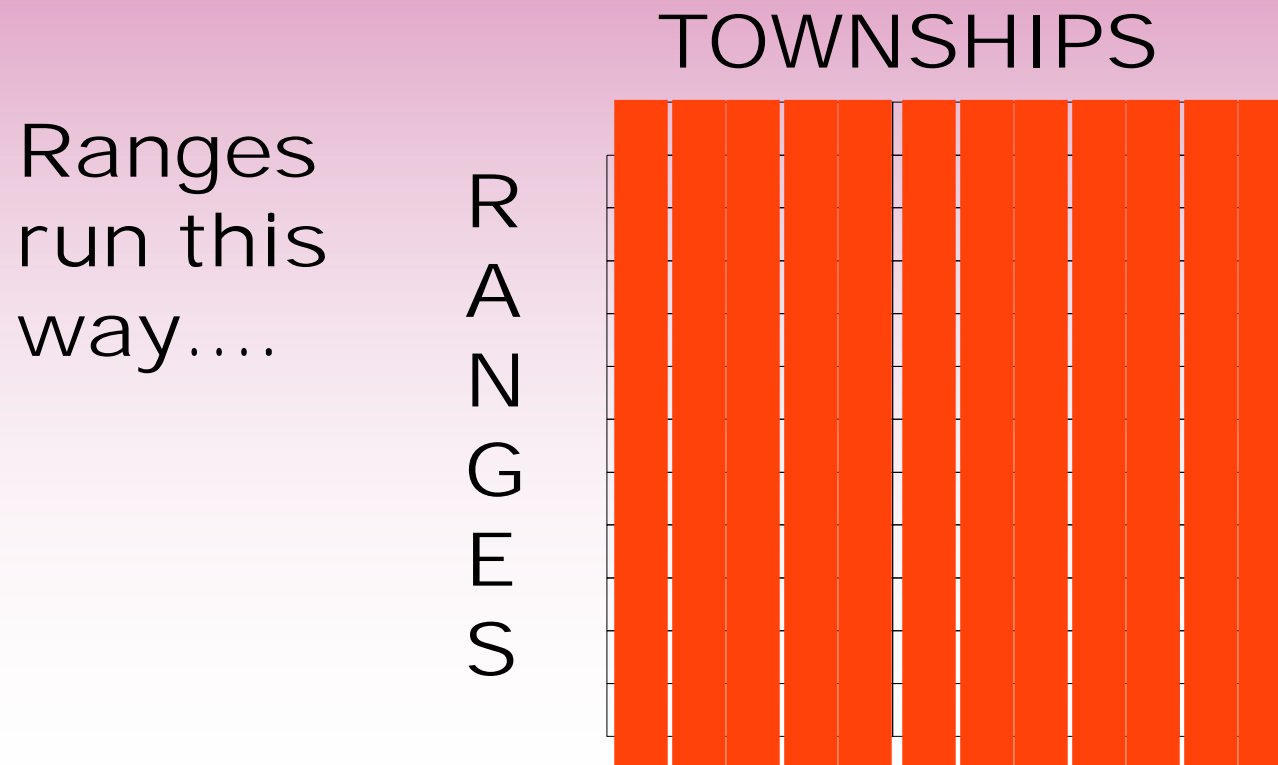
DOMINION LAND SURVEY

Now you have a grid made up of squares each square 6 miles by 6 miles which looks like this...



DOMINION LAND SURVEY

Now you have a grid made up of squares each square 6 miles by 6 miles which looks like this...



DOMINION LAND SURVEY

Each 6 mile X 6 mile square is of course made of 36 square miles or "SECTIONS"

The sections in a Township are numbered like this...

Each section is 1 mile by 1 mile square.

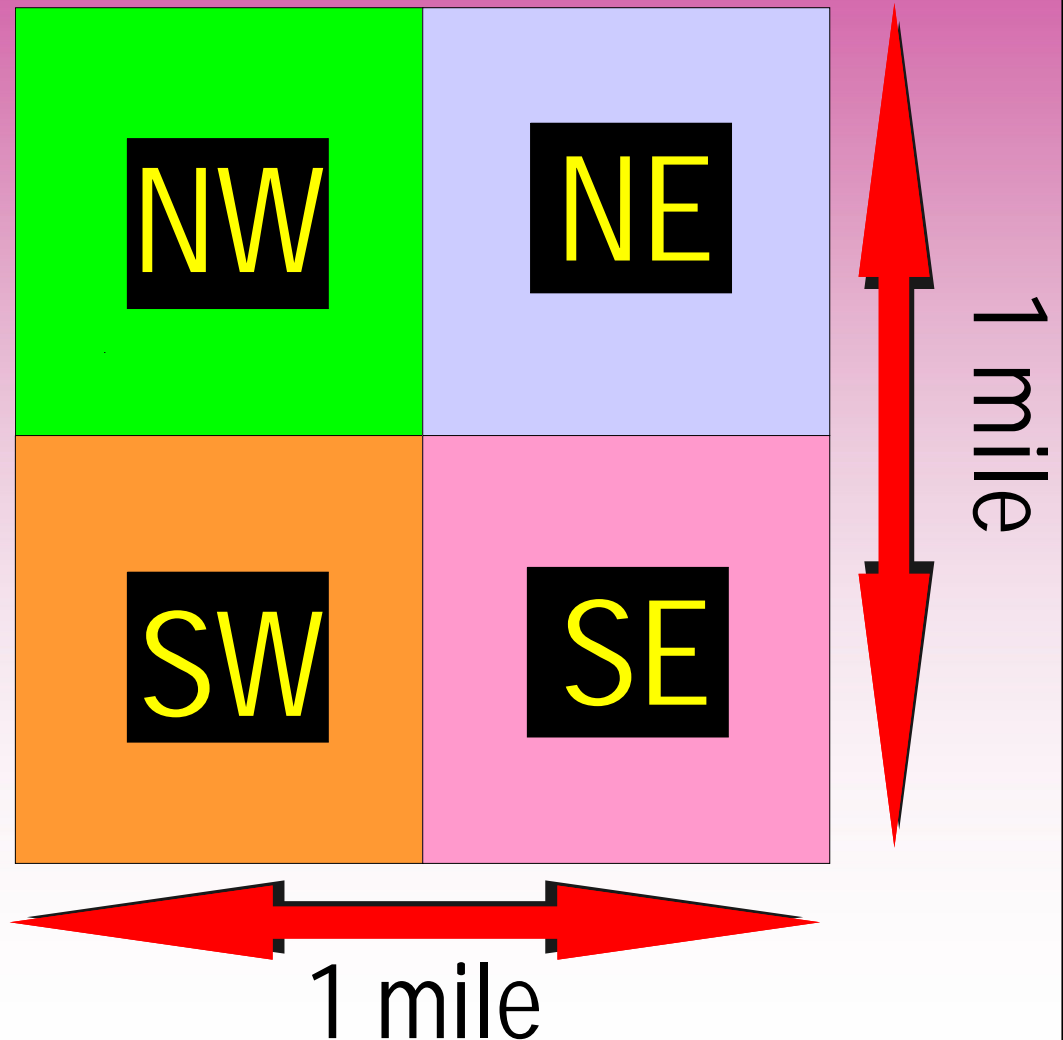
| | | | | | |
|-----------|-----------|-----------|-----------|-----------|-----------|
| 31 | 32 | 33 | 34 | 35 | 36 |
| 30 | 29 | 28 | 27 | 26 | 25 |
| 19 | 20 | 21 | 22 | 23 | 24 |
| 18 | 17 | 16 | 15 | 14 | 13 |
| | 8 | 9 | 10 | 11 | 12 |
| 6 | 5 | 4 | 3 | 2 | 1 |

DOMINION LAND SURVEY

Let's look at a "Section" 1mi. X 1 mi.

Each section
is divided into
4 quarters
designated

NorthWeast
NorthEast
SouthWest
SouthEast



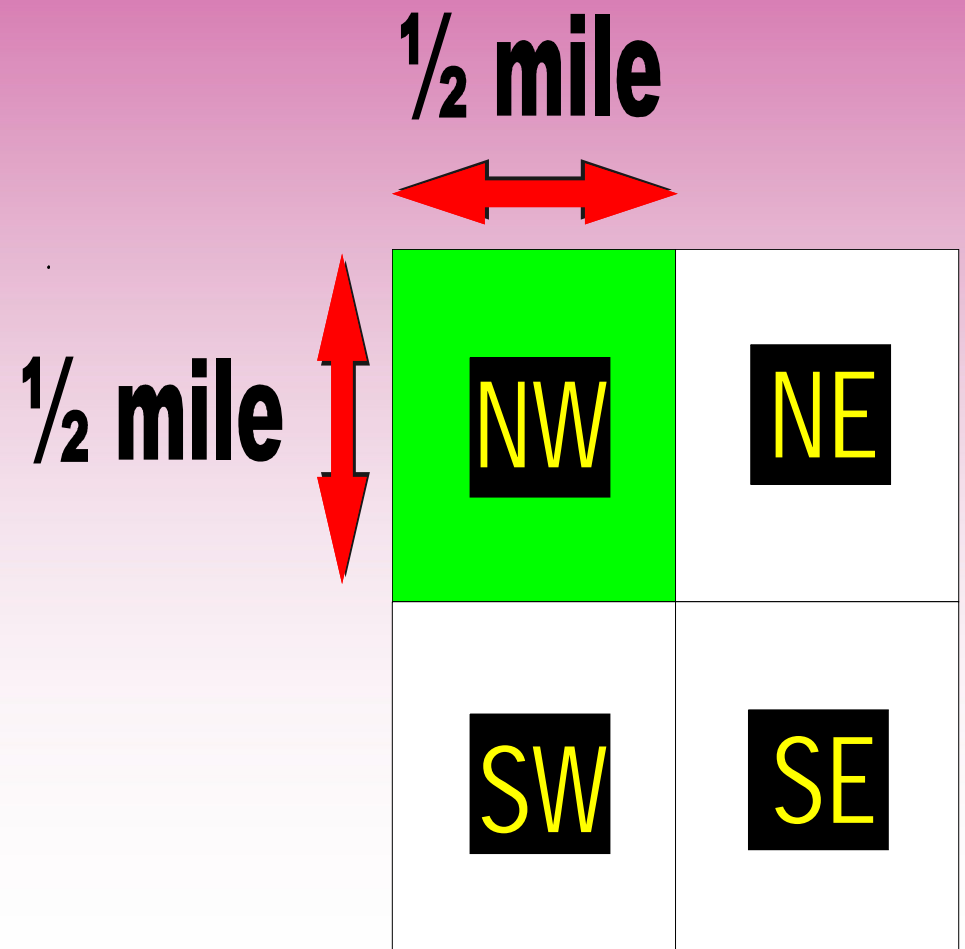
DOMINION LAND SURVEY

Let's look at a "Quarter Section"
which is $\frac{1}{2}$ mile X $\frac{1}{2}$ mile in size.



A Section is
640 acres

A Quarter is
160 acres



DOMINION LAND SURVEY

Let's look at another way of dividing up a Section – using “LSD's” or Legal Sub Divisions

Section = 640 acres

16 LSD's in a Section

Each LSD is 40 acres

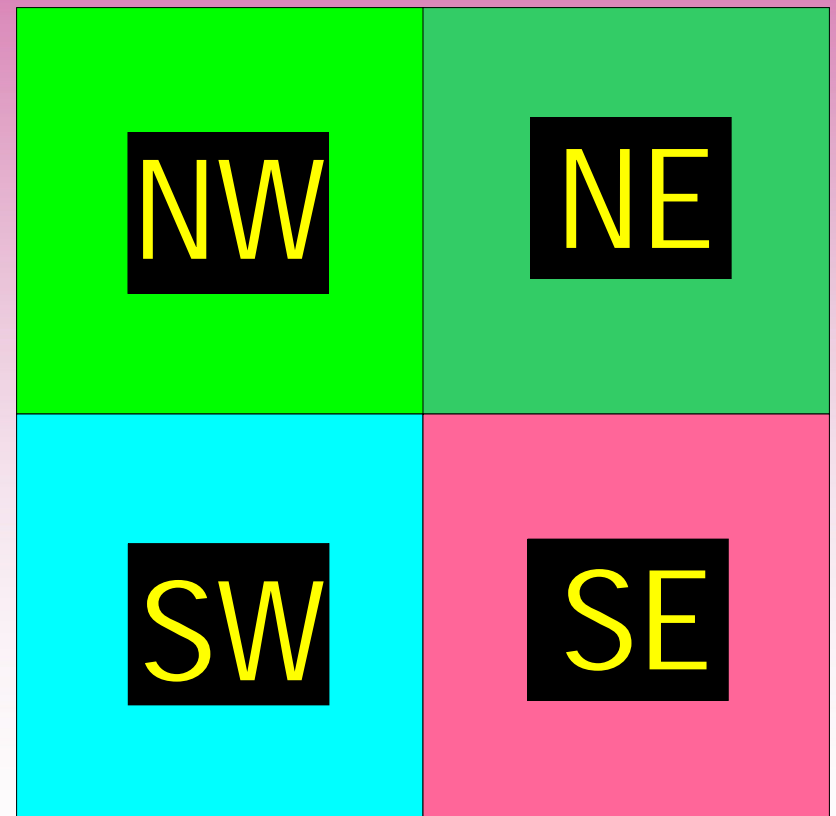
| | | | |
|----|----|----|----|
| 13 | 14 | 15 | 16 |
| 12 | 11 | 10 | 9 |
| | 6 | 7 | 8 |
| 4 | 3 | 2 | 1 |

DOMINION LAND SURVEY

Legal Sub Divisions can also be divided up into Quarters of an LSD.

Each quarter can be identified as shown.

Each $\frac{1}{4}$ LSD is
10 acres



DOMINION LAND SURVEY

Let's review... the following location

SW (1/4) LSD 4, Sec. 31,
Twp 63, Rge 27, W 3rd

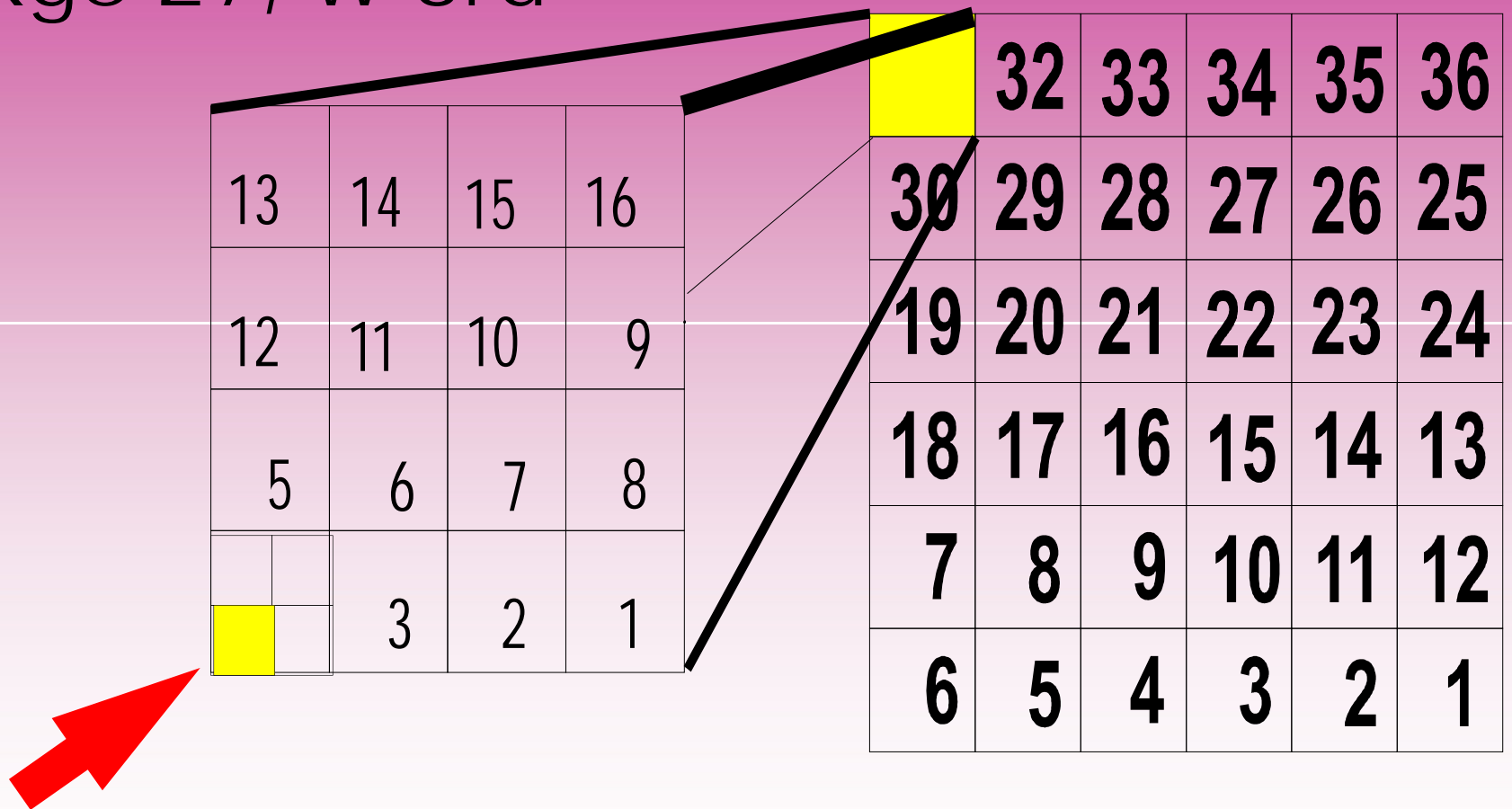
SW (1/4)
LSD 4



| | | | |
|---|----|----|----|
| 13 | 14 | 15 | 16 |
| 12 | 11 | 10 | 9 |
| 5 | 6 | 7 | 8 |
|  | | 3 | 2 |
| | | | 1 |

DOMINION LAND SURVEY

SW (1/4) LSD 4, NW 31, Twp 63,
Rge 27, W 3rd

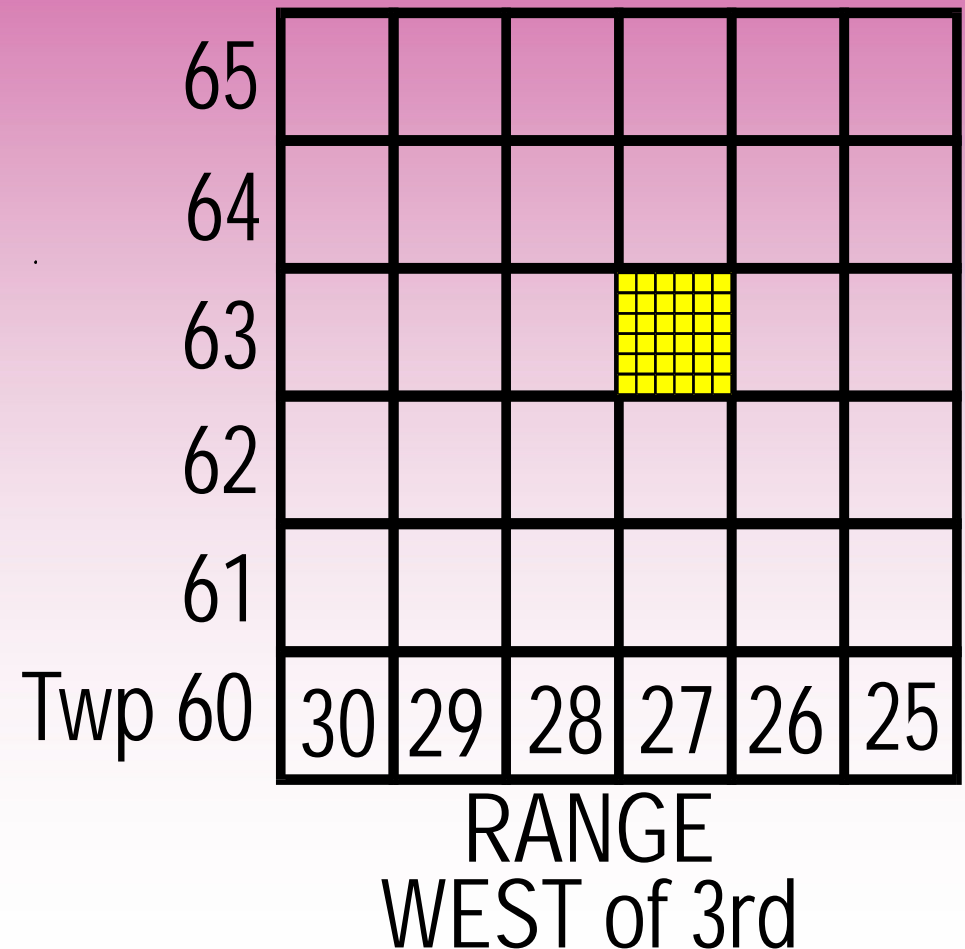


SW (1/4) LSD 4, Sec. 31

DOMINION LAND SURVEY

SW (1/4) LSD 4, Sec. 31, Twp 63,
Rge 27, W 3rd

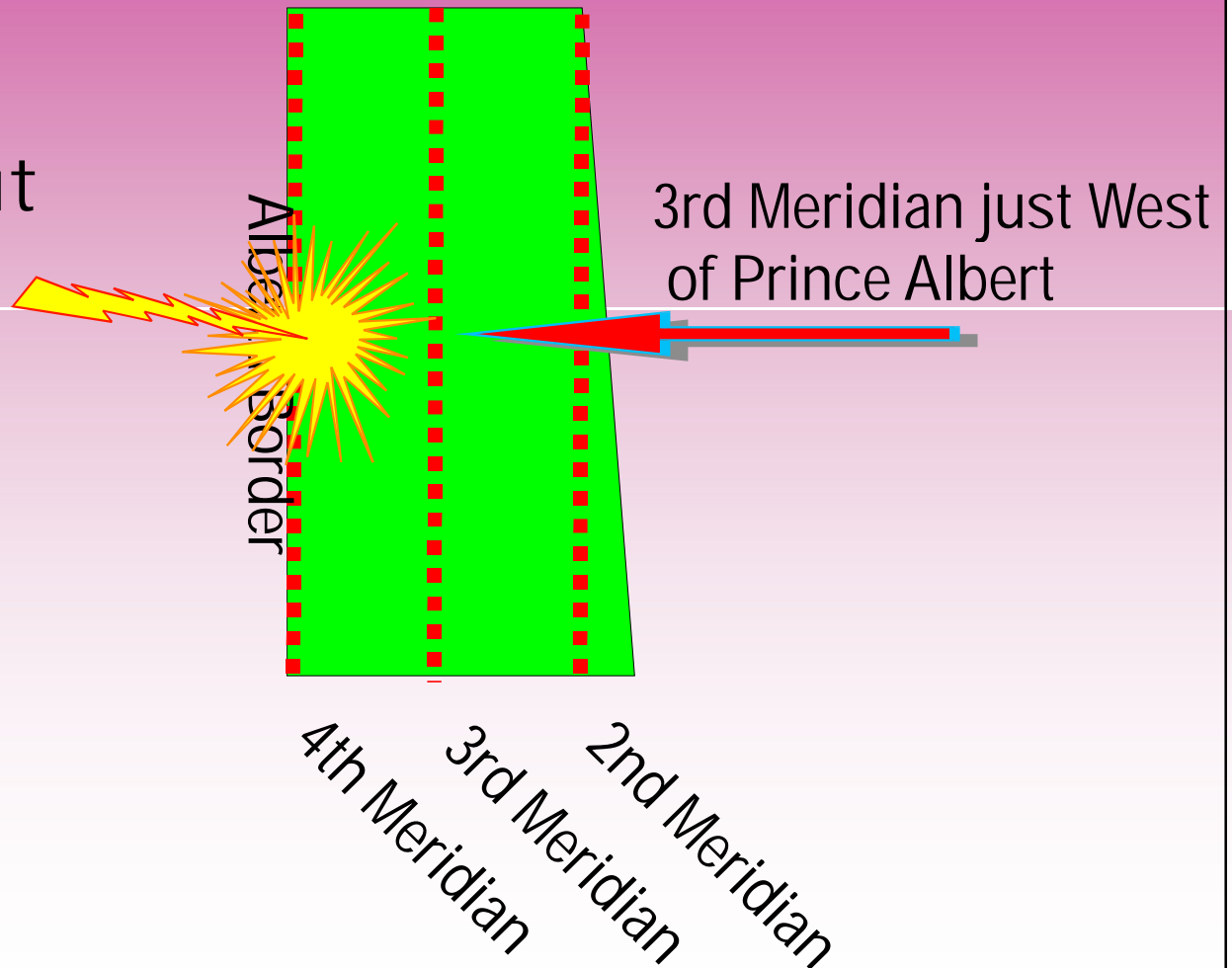
This location is
27 ranges X 6
miles wide =
162 miles west
of the 3rd
Meridian (PA)



DOMINION LAND SURVEY

SW (1/4) LSD 4, Sec. 31, Twp. 63,
Rge. 27, W. 3rd

Which is about
here in Sask.



DOMINION LAND SURVEY

Now for some odd things to know
about the Dominion Land Survey

Correction lines

Road allowances

Corner mounds

Things to Know

DOMINION LAND SURVEY

CORRECTION LINES

What are Correction Lines ?

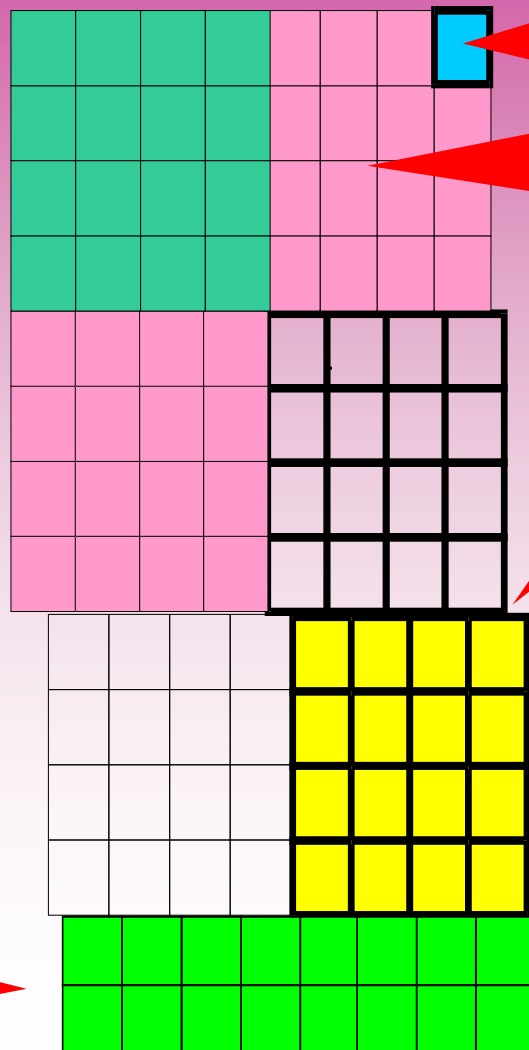
They are the off-set of Range lines on the sides of a block of 16 townships. In order to get the square grid to work on a round world, 16 Township blocks are shifted East and West to make the correction.

DOMINION LAND SURVEY

CORRECTION LINES

Correction
Lines occur
every 4
townships
going North
(24 miles)

Except at US
border
2 Twps
(12miles)



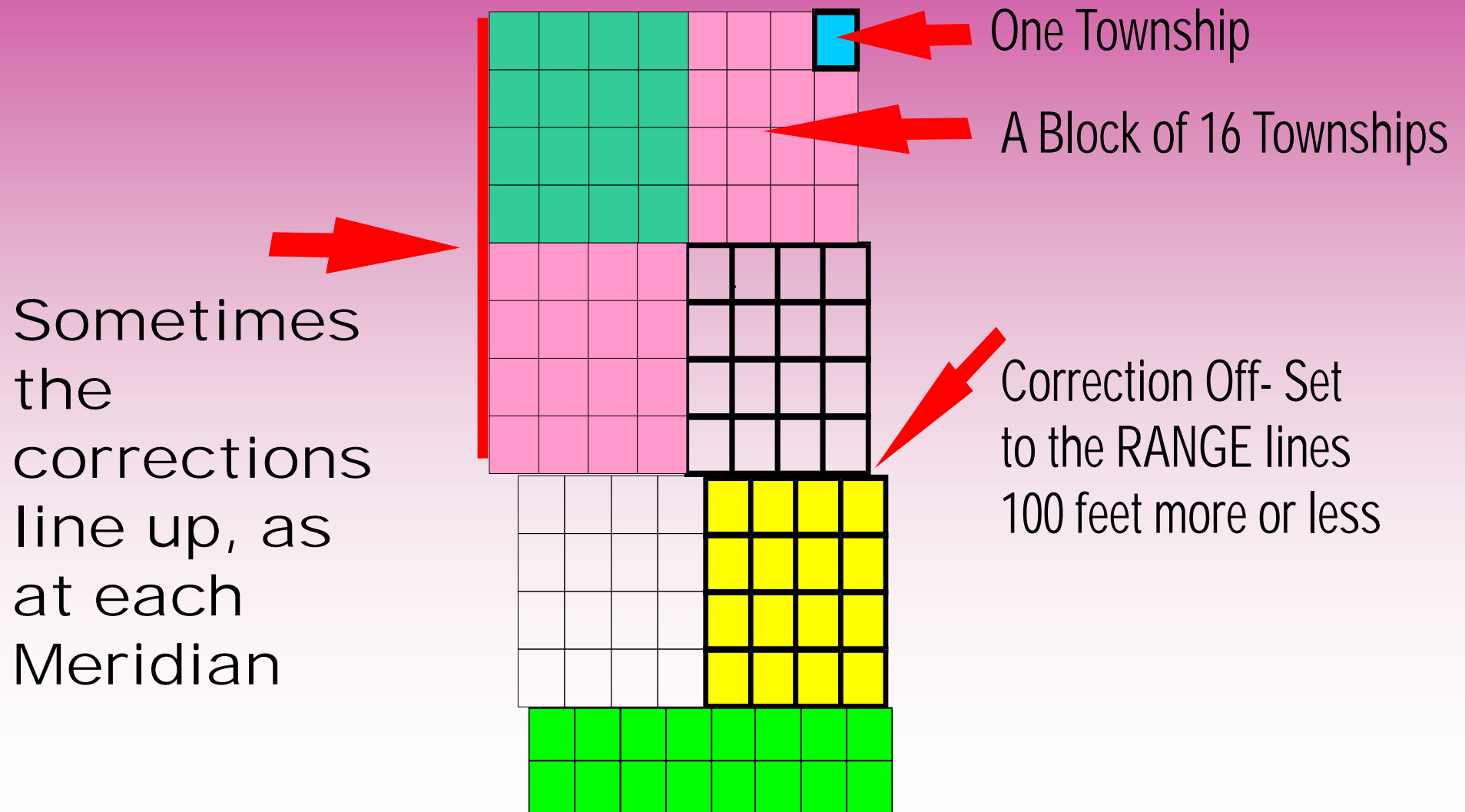
One Township

A Block of 16 Townships

Correction Off- Set
to the RANGE lines
100 feet more or less

DOMINION LAND SURVEY

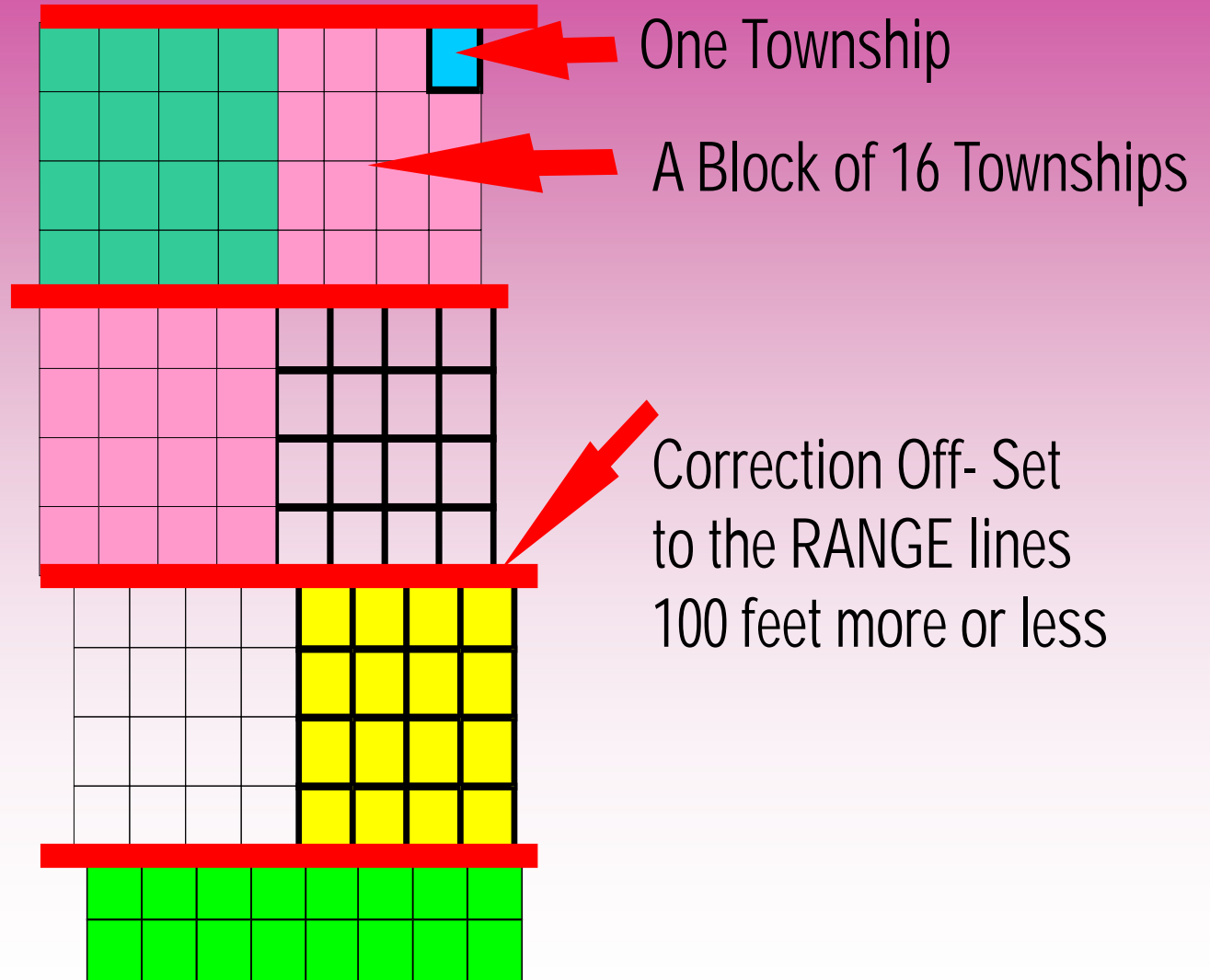
CORRECTION LINES



DOMINION LAND SURVEY

CORRECTION LINES

There is no adjustment North and South as the lines follow lines of Latitude and are parallel

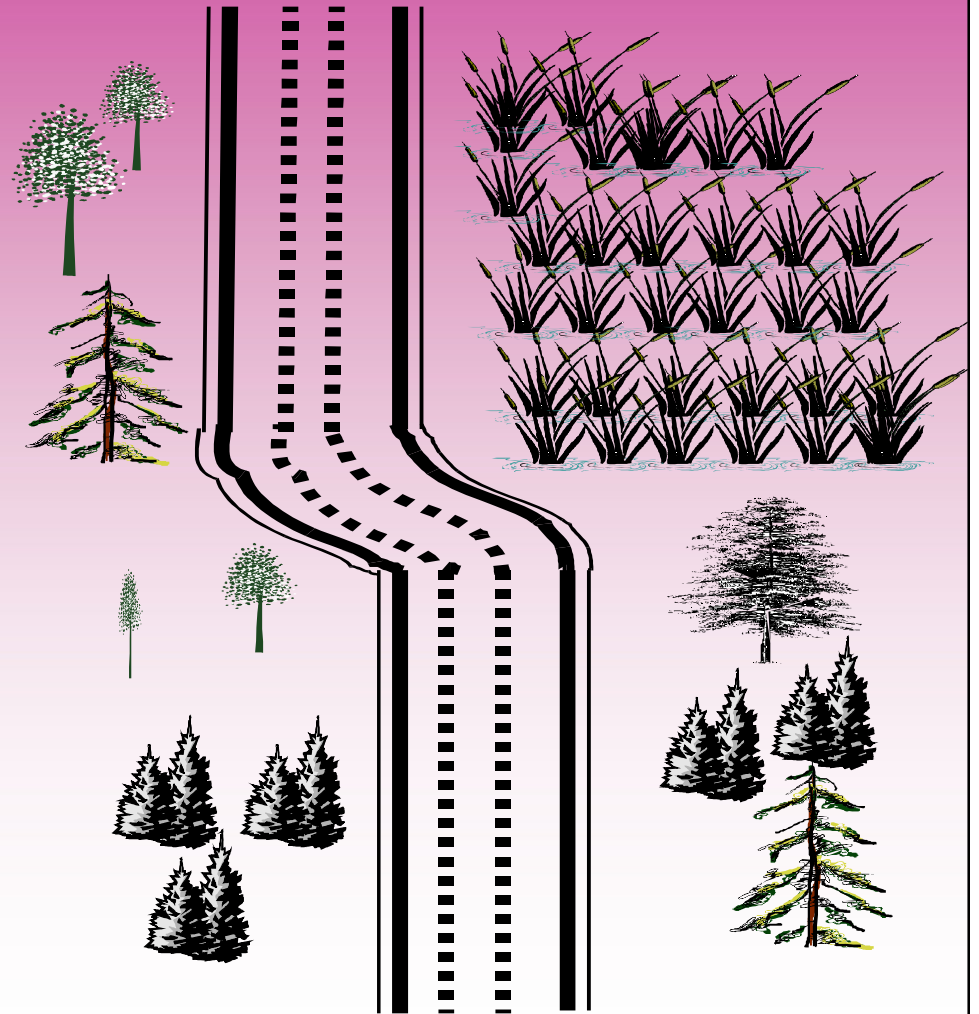


DOMINION LAND SURVEY

CORRECTION LINES

Have you ever driven on a straight road which suddenly jogged over 100 feet or so and then continued on straight?

This may have been a Correction Line!

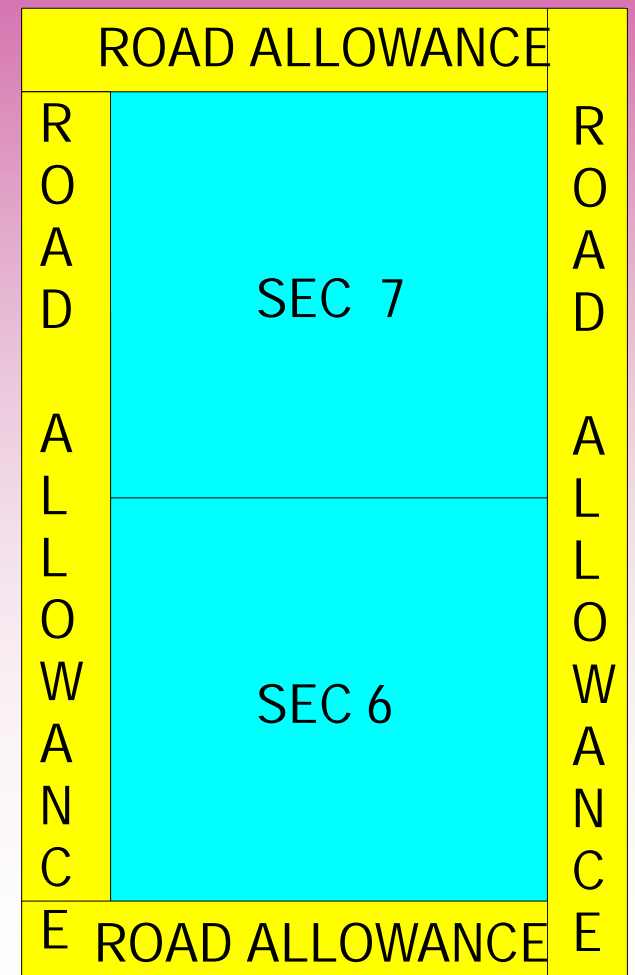


DOMINION LAND SURVEY

ROAD ALLOWANCES

To allow access to land
Road allowances were
surveyed every second
Township line going
North...

And every mile going West

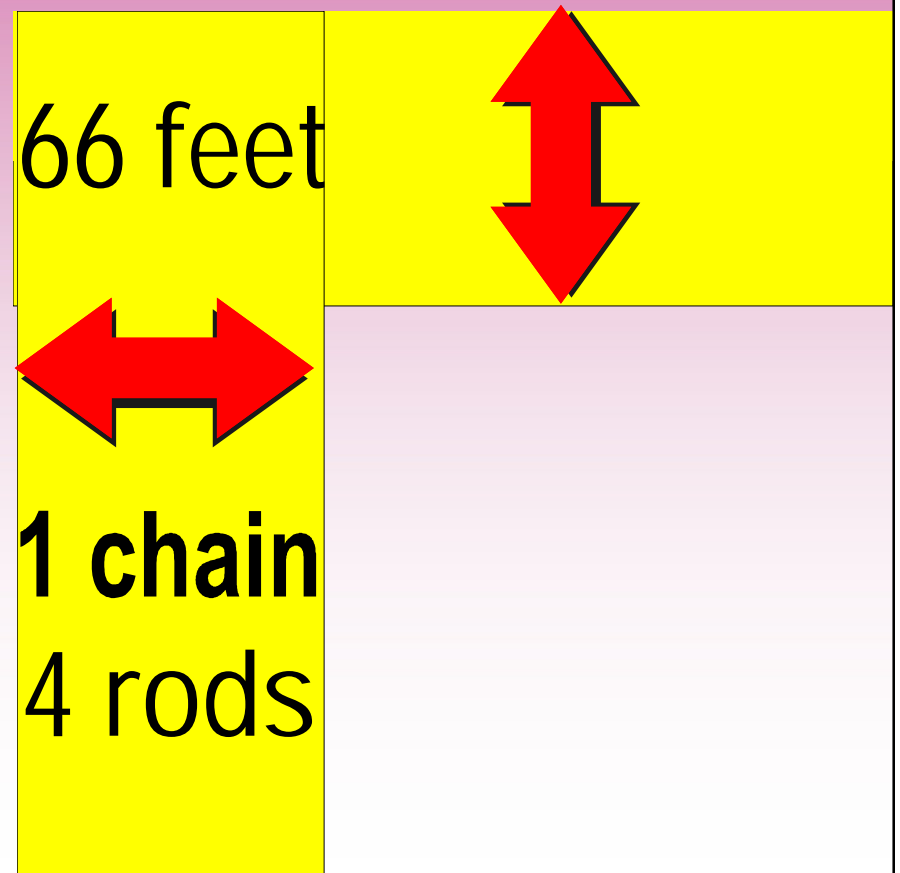


DOMINION LAND SURVEY

ROAD ALLOWANCES

In Saskatchewan Road Allowances are normally 66 feet wide – 1 chain.

There are some exceptions, a block near Prince Albert and South Eastern Saskatchewan where they are 99 feet wide or 1 1/2 chains.

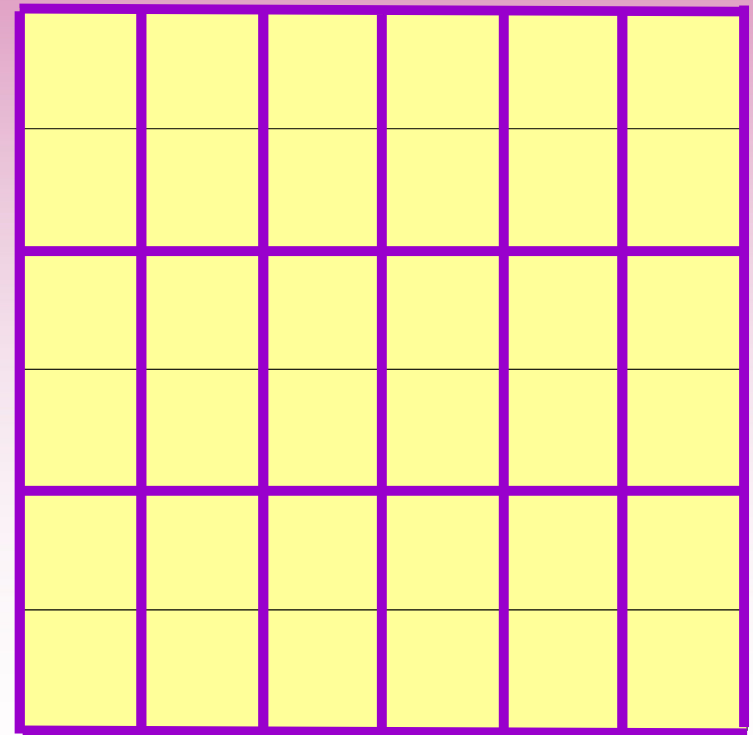


DOMINION LAND SURVEY

ROAD ALLOWANCES

The Road Allowance pattern for a Township looks like this....

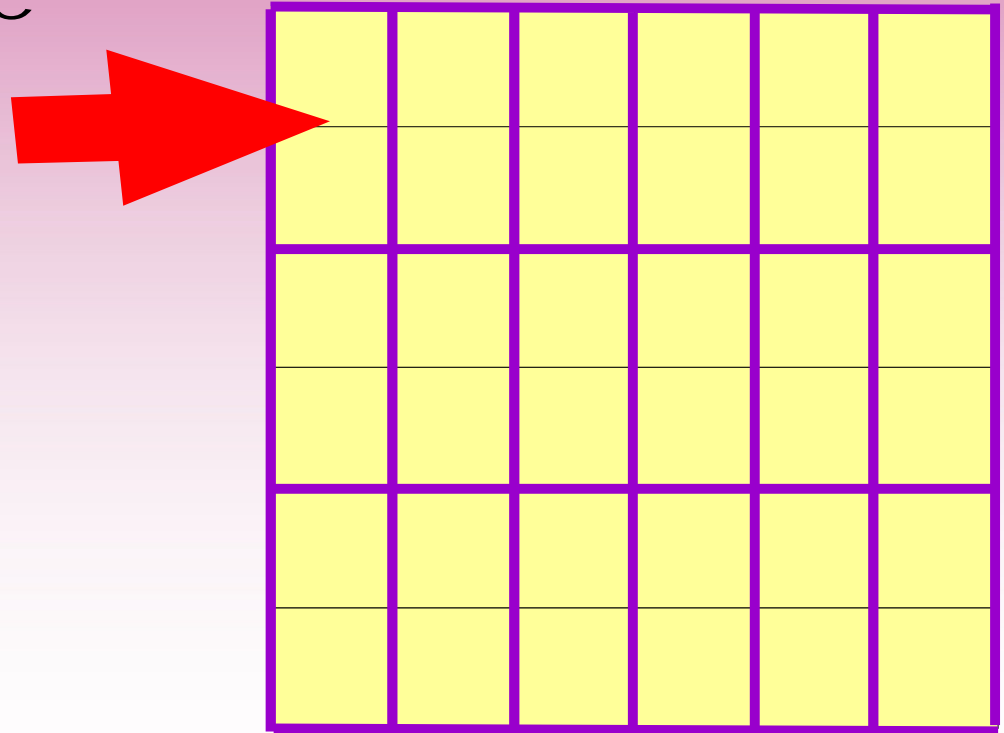
Road Allowances are not part of the section. This is why Certificate of Title describes a Quarter Section as "comprising 160 acres more or less"



DOMINION LAND SURVEY

ROAD ALLOWANCES

A Section line with
no Road Allowance is
called a "Blind Line"



DOMINION LAND SURVEY

CORNER MOUNDS

Corner Mounds mark the intersection of the Section Lines. In each mound was driven a steel "Survey Pin" or "Stake"

The end of the pin was squared so Roman Numerals could be filed or later stamped on the side.

Survey pins were often "borrowed" by early settlers.

DOMINION LAND SURVEY

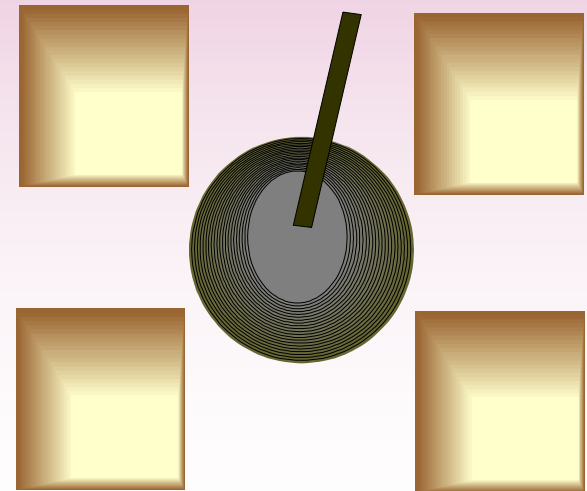
CORNER MOUNDS

Each pit is on a different Quarter Sec.

The exact location is centre of mound – not the stake.

Survey Stake
approx. 2' long

**4 pits dug to make
"mound" approx.
2 ft sq. X 1 1/2' deep**



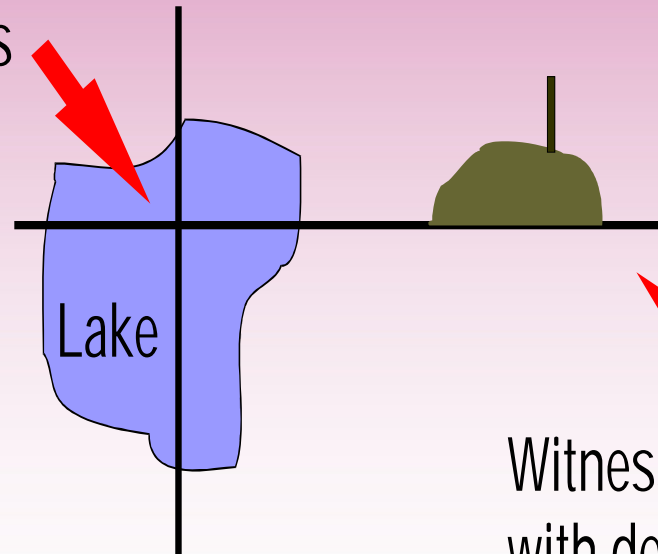
DOMINION LAND SURVEY

CORNER MOUNDS

What happened when the mound was situated in a lake?

A "Witness Mound" is located along one of the Section Lines. Witness mounds are identical to Corner Mounds.

Actual corners



Witness Mound
with description
of actual location

DOMINION LAND SURVEY

THINGS TO KNOW

What happens if you have to find a location using Township Range system for areas that have not been surveyed yet ?

If using a map, simply extend the survey lines or grid on the map. A plastic overlay is helpful for this.

| | | | | | |
|----|----|----|----|----|----|
| 31 | 32 | 33 | 34 | 35 | 36 |
| 30 | 29 | 28 | 27 | 26 | 25 |
| 19 | 20 | 21 | 22 | 23 | 24 |
| 18 | 17 | 16 | 15 | 14 | 13 |
| 7 | 8 | 9 | 10 | 11 | 12 |
| 6 | 5 | 4 | 3 | 2 | 1 |
| 31 | 32 | 33 | 34 | 35 | 36 |
| 30 | 29 | 28 | 27 | 26 | 25 |
| 19 | 20 | 21 | 22 | 23 | 24 |
| 18 | 17 | 16 | 15 | 14 | 13 |
| 7 | 8 | 9 | 10 | 11 | 12 |
| 6 | 5 | 4 | 3 | 2 | 1 |

DOMINION LAND SURVEY

THINGS TO KNOW

Surveying land in Saskatchewan has been done over the years since 1875. Different principals were applied over the years to make corrections for various errors. For general applications the Township/Range lines can be considered as accurate.

Even to this day, the city of Prince Albert still has to contend with the old "River Lot System" an early French Canadian System.

DOMINION LAND SURVEY REVIEW

A quick review...

Most of Saskatchewan is "West of the 2nd or 3rd Meridian except the South East corner.

Townships (36 Sections) are made by Township lines and Range Lines which are 6 miles apart.

A Section is 1 mi. X 1mi. Or 640 acres.

DOMINION LAND SURVEY REVIEW

A Section is made up of 4 Quarters
NW-NE-SW-SE.

A Quarter is $\frac{1}{2}$ mi. X $\frac{1}{2}$ mile or 160 acres.

A Section is also made up of 16
Legal Subdivision or "LSD's"

An LSD is 40 acres

A Quarter of an LSD is 10 acres.

DOMINION LAND SURVEY REVIEW

Correction lines occur every 24 miles when traveling North or South

There are no adjustments when traveling East or West

Road Allowances - 66 feet wide - are every 2 miles going North/South and every mile going East/West

DOMINION LAND SURVEY REVIEW

Road Allowances are not part of a Section.

Corner Mounds mark the corners where 4 Sections come together.

Witness Mounds indicate where the real mound should be.

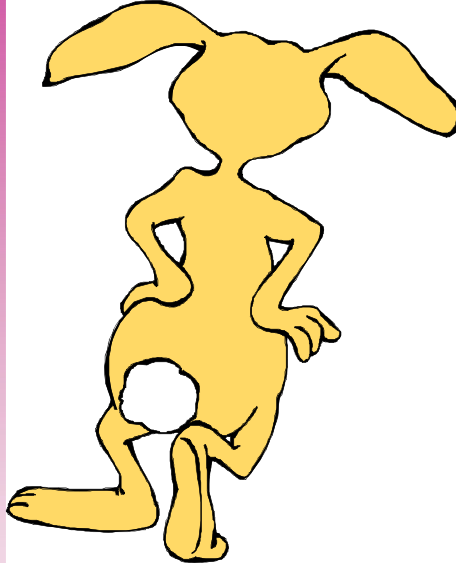
DOMINION LAND SURVEY

We have covered some of the fundamentals of the Dominion Land Survey System.

Now you can go out and explore and learn more about mapping.



DOMINION LAND SURVEY



**THE
END**