SUBDIVISION OF SECTIONS

- The surveyor is often called upon to subdivide a section, except in the case of a regular section, the rules of section subdivision can be misunderstood and cause some problems. I will provide some basic considerations with irregular sections. We will deal with the use of lots and their areas as a means for determining the proper location of control corners needed to correctly subdivide unusual sections.
• Before subdividing; establish or reestablish the controlling corners on the section lines.

• Methods for establishing corner positions
  – 1-single proportion
  – 2-double proportion
  – 3-one point control
  – 4-two point control
  – 5-three point control
SINGLE PROPORTION

**WEST BDY.**

<table>
<thead>
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<th>WEST</th>
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<td>19.68</td>
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N.89°52’36”W. 81.70

RESURVEY

COMPUTE POSITIONS FOR THE LOST 1/4, ALSO THE W 1/16, (WHICH WAS NOT SET IN THE ORIGINAL SURVEY).

\[
\frac{\text{RESURVEY}}{\text{RECORD}} = \text{FACTOR} \quad \frac{81.70}{79.68} = 1.02535
\]

20.179 | 20.507 | 41.014

NEW DISTANCE
DOUBLE PROPORTION
TWO SINGLE PROPORTIONS; NORTH-SOUTH & EAST-WEST

EAST-WEST
\[ \frac{160.98}{161.50} = 0.9968 \]

NORTH-SOUTH
\[ \frac{159.50}{160.96} = 0.9909 \]

Cardinal offsets

RECORD

RESURVEY

81.238  79.742
RECORD MEASUREMENTS
ONE POINT, TWO POINT, AND THREE POINT CONTROL

ONE POINT CONTROL

RECORD BEARING AND DISTANCE

TWO POINT CONTROL

RECORD DISTANCE IN LATITUDE

RECORD DISTANCE IN DEPARTURE

CARDINAL OFFSET
EXAMPALE OF A TWO POINT CONTROL

1899 RECORD

N. 89°00' E., 81.21

EAST 81.198 (CARDINAL)

RESURVEY

NORTH= 40.556
EAST = 80.528

N. 63°16'08” E., 90.166

LOST CORNER

EASTING
81.198 - 80.528 = 0.670

NORTHING
41.000 - 40.556 = 0.444

NEW BEARING & DISTANCE
S. 89°41’12”E., 81.200

CARDINAL OFFSET

N.41.000 (CARDINAL)

900.14", W. 00°, 1’ N.
THREE POINT CONTROL

RECORD DISTANCE IN DEPARTURE

CARDINAL OFFSET

SINGLE PROPORTION IN LATITUDE
SOUTH BOUNDARY OF SECTION 6

1874 SURVEY

S. 89°43’ E. 80.18

1890 RESURVEY

NO BEARING 80.18

1890 FIELD NOTES

N. 89°43’ W. 80.18

2002 RESURVEY

N. 82°39.4’ W., 41.126

S. 88°17.4’ W., 41.405

N. 24°45’ W., 5.40 CHAINS
PROTRACTED SW 1/4

1878
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1984 COMPLETION SURVEY
1995 CORRECTIVE RESURVEY
NORTH-SOUTH AND EAST-WEST CENTERLINES;
WEIGHTED MEAN BEARING
3 MILE METHOD
3 MILE METHOD
Extension of lotting in an elongated section.

- On an actual plat an area will be returned for each lot and the section.