



The Parcel Fabric: A New Approach to Horizontal Spatial Adjustment



ArcGIS Server

Web User (Surveyor)



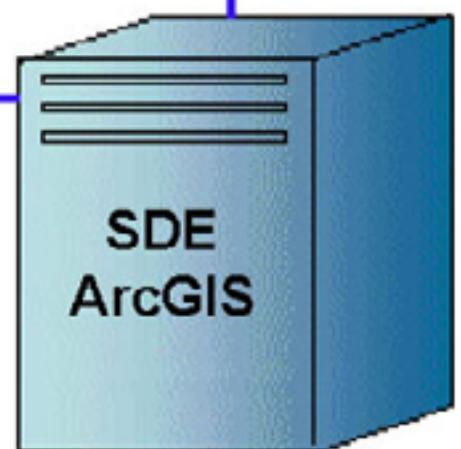
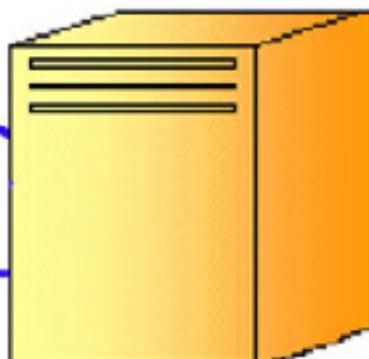
Desktop



WEB SERVER

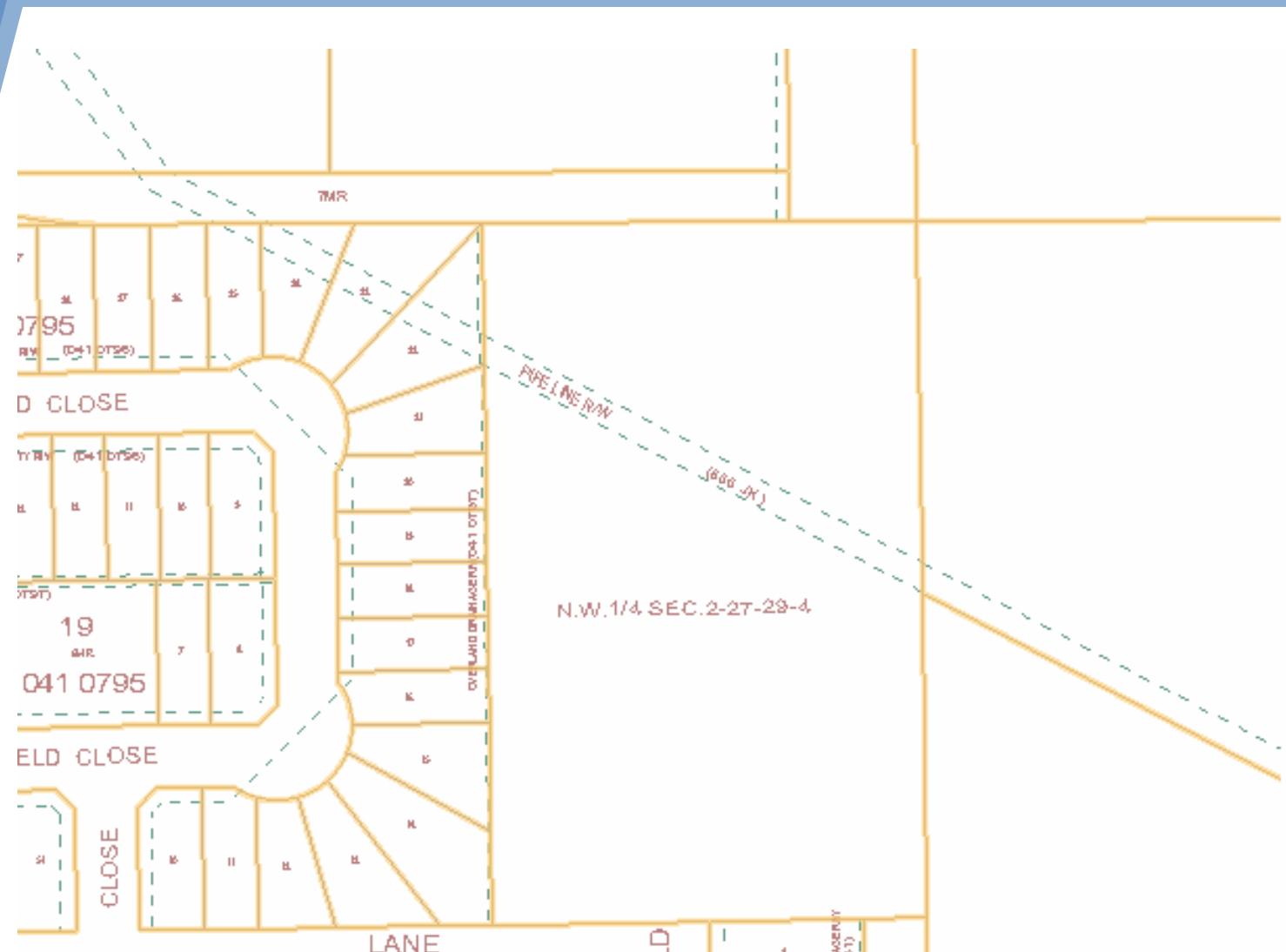


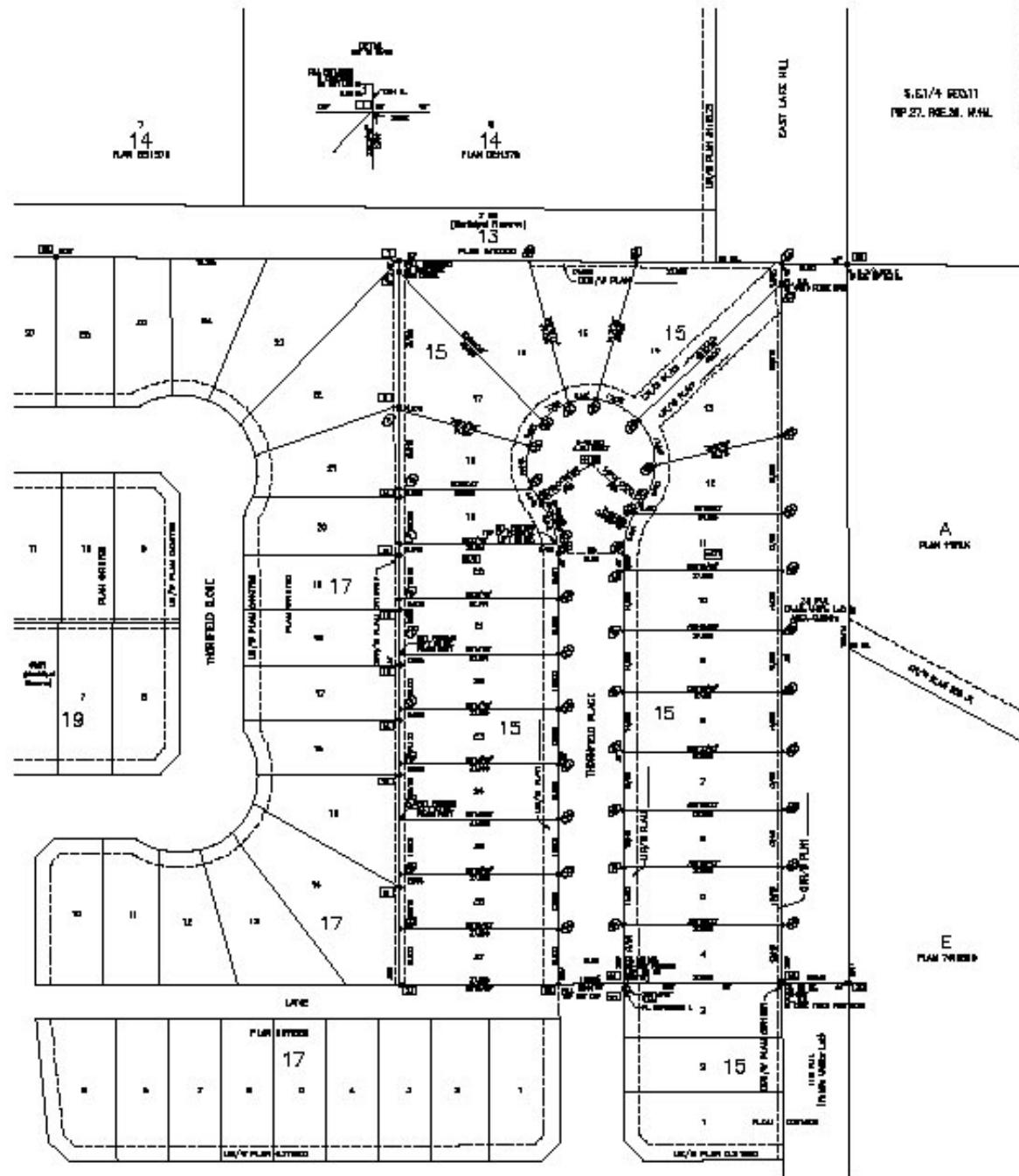
Desktop





ArcGIS Server





CERTIFICATE: SECTION 43, SURVEYS ACT	
REGISTERED ON	
AB NUMBER	
Certifying that all Statutory Surveys were present at the time of survey and were of _____ and were performed in accordance with instructions given in the place or in the course of my professional occupa- tion as a surveyor.	

REGISTRATION

PHASE 14
THORBURN ESTATES
AIRDRIE, ALBERTA

PLAN SHOWING SUBDIVISION
OF PART OF THE

N.W.1/4 SEC.2, TWP.27, RGE.29, W.4M

SCALE 1:300 2004 B.R. METTER, A.I.D.

NOTES:

1. Shallowly Torn serape part found shown later _____
2. Shallowly Torn serape part, unripped ends, placed above this _____
3. Drill hole placed in these lines _____
4. Drill hole placed in these lines _____
5. All specimens are in condition of moderate damage and are around 40 hours using computer in Auto CAD 2000.
6. Condition of all serapes is fair to poor.
7. The plan is to construct 300 holes including 1 Multi Utility Lab.
8. Areas not disturbed are marked with this _____
9. Areas disturbed are marked with this _____ 1300-1400-1500-1600-1700-1800
10. Drawings are copied and are dated from 10/10/00-10/14/00 and 10/19/00.
11. October 10th, 2000, I am the Director of the University Museum of Anthropology and Ethnology at the University of Alberta, Alberta, Canada. My address is 147 3rd Street, Edmonton, Alberta, T6G 2P5, Canada.
12. The specimen whose photo was used for this document, purchased by the University of Alberta, is a collection item of the University of Alberta.
13. Correspondence and use for problems of the University Museum, Faculty of Arts, or a based by letter to me may be sent to me at my address, University of Alberta, 147 3rd Street, Edmonton, Alberta, T6G 2P5, Canada. All correspondence to me please in correspondence with reference to the University of Alberta, Faculty of Arts is referred to as a "Letter to the Director of the University Museum of Anthropology and Ethnology at the University of Alberta".

L.F.-[6]

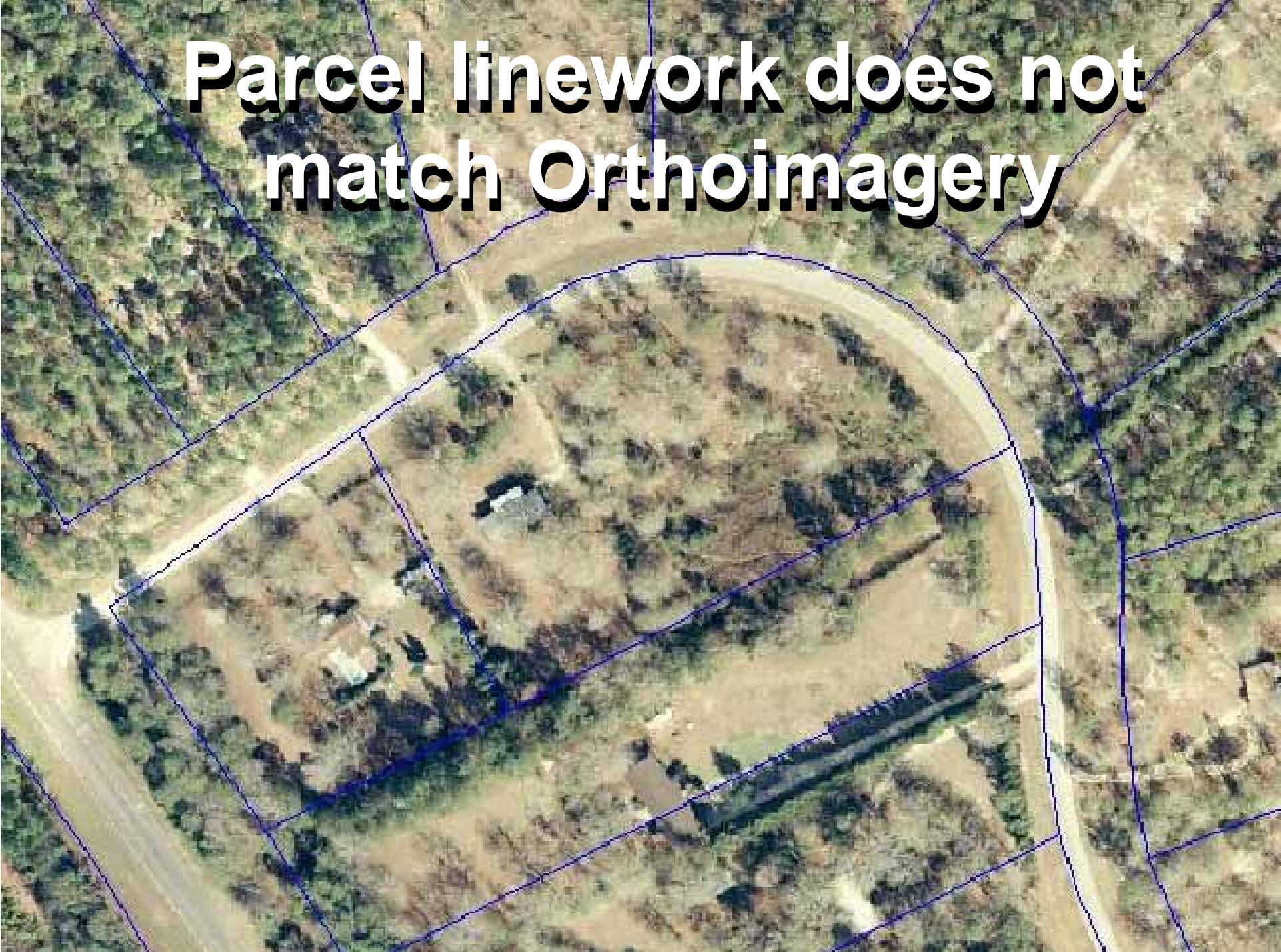
DS-6	Barber	RD	Farol
TWR	Township		Malibury Inn Inn
RR#2	Range	R	North
RR#3	Range	R	South
RD#1	Block of the 1st, Section	R	West
RD#2	Block of the 2nd, Section	R	East
RD#3	Block of the 3rd, Section	R	North
RD#4	Block of the 4th, Section	R	South
RD#5	Block of the 5th, Section	R	West
RD#6	Block of the 6th, Section	R	East
RD#7	Block of the 7th, Section	R	North
RD#8	Block of the 8th, Section	R	South
RD#9	Block of the 9th, Section	R	West
RD#10	Block of the 10th, Section	R	East
RD#11	Block of the 11th, Section	R	North
RD#12	Block of the 12th, Section	R	South
RD#13	Block of the 13th, Section	R	West
RD#14	Block of the 14th, Section	R	East
RD#15	Block of the 15th, Section	R	North
RD#16	Block of the 16th, Section	R	South
RD#17	Block of the 17th, Section	R	West
RD#18	Block of the 18th, Section	R	East
RD#19	Block of the 19th, Section	R	North
RD#20	Block of the 20th, Section	R	South
RD#21	Block of the 21st, Section	R	West
RD#22	Block of the 22nd, Section	R	East
RD#23	Block of the 23rd, Section	R	North
RD#24	Block of the 24th, Section	R	South
RD#25	Block of the 25th, Section	R	West
RD#26	Block of the 26th, Section	R	East
RD#27	Block of the 27th, Section	R	North
RD#28	Block of the 28th, Section	R	South
RD#29	Block of the 29th, Section	R	West
RD#30	Block of the 30th, Section	R	East
RD#31	Block of the 31st, Section	R	North
RD#32	Block of the 32nd, Section	R	South
RD#33	Block of the 33rd, Section	R	West
RD#34	Block of the 34th, Section	R	East
RD#35	Block of the 35th, Section	R	North
RD#36	Block of the 36th, Section	R	South
RD#37	Block of the 37th, Section	R	West
RD#38	Block of the 38th, Section	R	East
RD#39	Block of the 39th, Section	R	North
RD#40	Block of the 40th, Section	R	South
RD#41	Block of the 41st, Section	R	West
RD#42	Block of the 42nd, Section	R	East
RD#43	Block of the 43rd, Section	R	North
RD#44	Block of the 44th, Section	R	South
RD#45	Block of the 45th, Section	R	West
RD#46	Block of the 46th, Section	R	East
RD#47	Block of the 47th, Section	R	North
RD#48	Block of the 48th, Section	R	South
RD#49	Block of the 49th, Section	R	West
RD#50	Block of the 50th, Section	R	East
RD#51	Block of the 51st, Section	R	North
RD#52	Block of the 52nd, Section	R	South
RD#53	Block of the 53rd, Section	R	West
RD#54	Block of the 54th, Section	R	East
RD#55	Block of the 55th, Section	R	North
RD#56	Block of the 56th, Section	R	South
RD#57	Block of the 57th, Section	R	West
RD#58	Block of the 58th, Section	R	East
RD#59	Block of the 59th, Section	R	North
RD#60	Block of the 60th, Section	R	South
RD#61	Block of the 61st, Section	R	West
RD#62	Block of the 62nd, Section	R	East
RD#63	Block of the 63rd, Section	R	North
RD#64	Block of the 64th, Section	R	South
RD#65	Block of the 65th, Section	R	West
RD#66	Block of the 66th, Section	R	East
RD#67	Block of the 67th, Section	R	North
RD#68	Block of the 68th, Section	R	South
RD#69	Block of the 69th, Section	R	West
RD#70	Block of the 70th, Section	R	East
RD#71	Block of the 71st, Section	R	North
RD#72	Block of the 72nd, Section	R	South
RD#73	Block of the 73rd, Section	R	West
RD#74	Block of the 74th, Section	R	East
RD#75	Block of the 75th, Section	R	North
RD#76	Block of the 76th, Section	R	South
RD#77	Block of the 77th, Section	R	West
RD#78	Block of the 78th, Section	R	East
RD#79	Block of the 79th, Section	R	North
RD#80	Block of the 80th, Section	R	South
RD#81	Block of the 81st, Section	R	West
RD#82	Block of the 82nd, Section	R	East
RD#83	Block of the 83rd, Section	R	North
RD#84	Block of the 84th, Section	R	South
RD#85	Block of the 85th, Section	R	West
RD#86	Block of the 86th, Section	R	East
RD#87	Block of the 87th, Section	R	North
RD#88	Block of the 88th, Section	R	South
RD#89	Block of the 89th, Section	R	West
RD#90	Block of the 90th, Section	R	East
RD#91	Block of the 91st, Section	R	North
RD#92	Block of the 92nd, Section	R	South
RD#93	Block of the 93rd, Section	R	West
RD#94	Block of the 94th, Section	R	East
RD#95	Block of the 95th, Section	R	North
RD#96	Block of the 96th, Section	R	South
RD#97	Block of the 97th, Section	R	West
RD#98	Block of the 98th, Section	R	East
RD#99	Block of the 99th, Section	R	North
RD#100	Block of the 100th, Section	R	South

SUPERVISOR
MANOLO IRIBAR, AIA
DATER OF EXAMINATION between the dates of April 11, 2008
and April 12, 2008
P225

REDACTED BY MGRS
QUACO DEVELOPMENT LTD.
VERB CONSTRUCTION LTD.

SUBMISSION AUTHORITY

NAME: THE CITY OF ALEXANDRIA
FILE NO: 100-28-05 OWNED BY: NO. 100-100



Parcel linework does not
match Orthoimagery



Mapping Requirements

Expectations for a more complete product have been raised!

**Accuracy
Timeliness**

Traditional Mapping Maintenance:

- Digitizing
- Precision Input Routine - COGO





“The surveyor’s plan is the best representation of the (surveyors’) observations to the defining monument in the ground.”



Over 10 years of experience in Alberta, British Columbia and Florida has proven that Surveyors' digital files can:

- maintain the mapping bases on a *near real time* basis
- *reduce mapping costs* significantly
- improve the *accuracy*

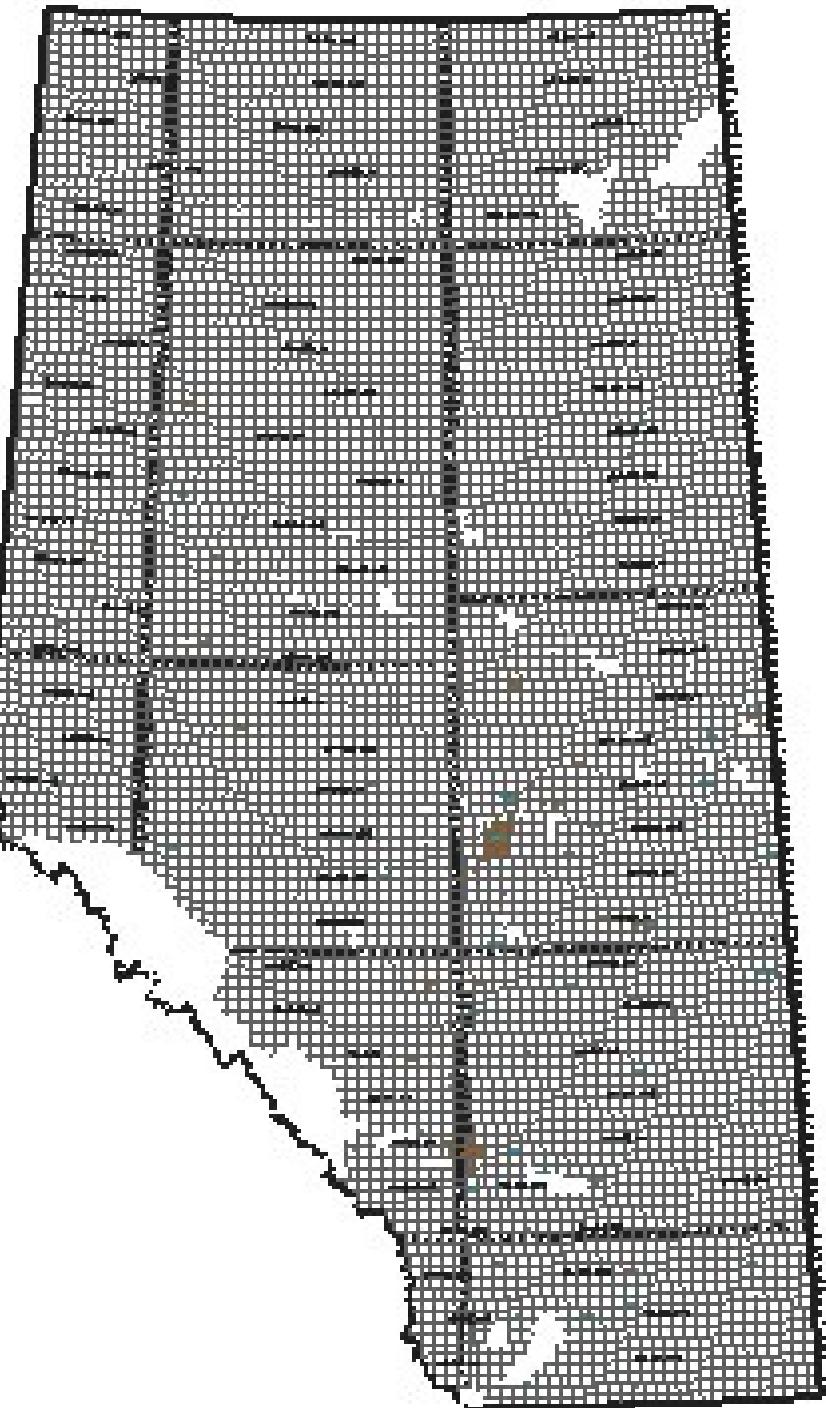
**Province-wide Coverage
Wall-to-Wall Mapping
Every survey &
ownership title
registered in the Land
Registry Offices**



1.7 million parcels



**Maintained by a Public –
Private Partnership**

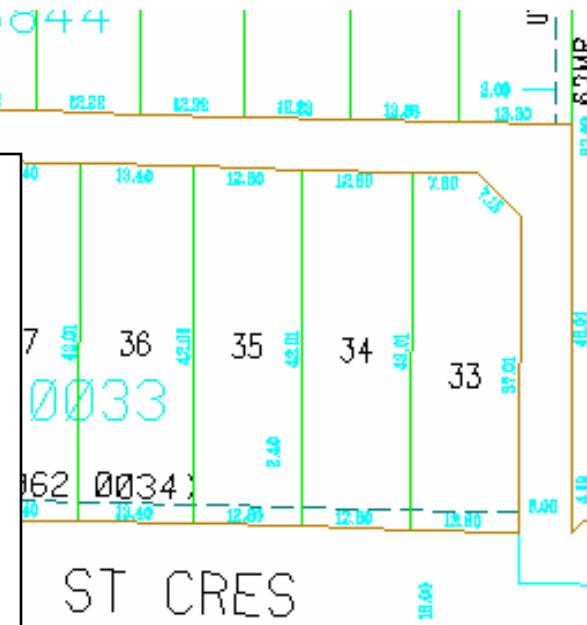
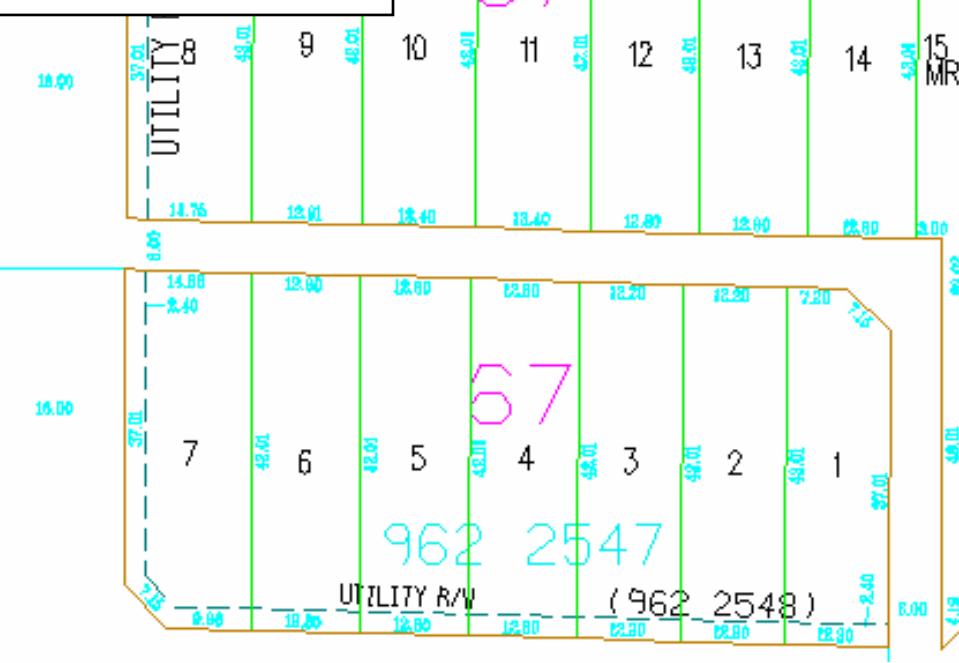
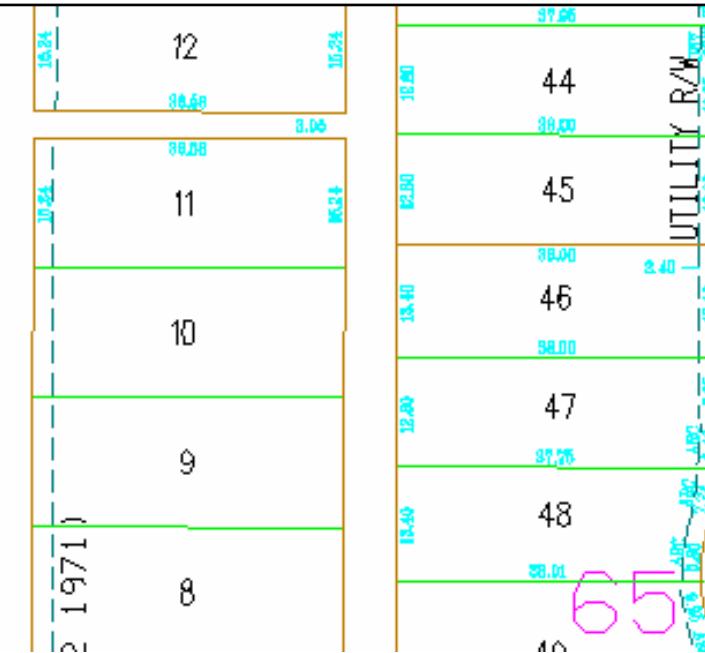


ACCURACY:

Urban ± 0.15 m (6")

Rural ± 1 to 3 m (3-9 ft)

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Accomplished with digital surveys and only 5 staff!

Maintenance of the primary datasets for the Province of Alberta:

- Approximately 1,000 surveys are integrated monthly
- Approximately 300 surveyors submit digital plans
- One of the most accurate survey bases in North America.
- Over 80,000 digital plans have been integrated.



Cadastral / parcel bases are maintained on a “near real-time” basis; over 85% of surveys are integrated within 24 hours of registration.

Mapping costs for parcel maintenance have been reduced by over 50%.

The accuracy of the mapping base has been improved!



Digital Submissions

Eliminated the “digital-paper-digital” process



Typically, approximately 50% of data entry time for parcel mapping was spent on text and attribute entry.

SADDLE CREEK MANOR

A REPLAT OF A PORTION OF LOT 3, SADDLEBROOK CORPORATE
CENTER PHASE 1-A, AS RECORDED IN PLAT BOOK 28, PAGES 34 THROUGH 44,
SECTION 12, TOWNSHIP 26 SOUTH, RANGE 19 EAST
PASCO COUNTY, FLORIDA

PLAT
BOOK

PAGE

SHEET 3 OF 6



CURVE TABLE THIS SHEET ONLY				
Curve No.	Curve Length	Radius	Deflection Angle	Curve Type
100000	500.00'	400.00'	1.57080°	ASCE 7-16
200000	500.00'	400.00'	3.14159°	ASCE 7-16
300000	500.00'	400.00'	4.71239°	ASCE 7-16
400000	500.00'	400.00'	6.28319°	ASCE 7-16
500000	500.00'	400.00'	7.85398°	ASCE 7-16
600000	500.00'	400.00'	9.42477°	ASCE 7-16
700000	500.00'	400.00'	10.99557°	ASCE 7-16
800000	500.00'	400.00'	12.56636°	ASCE 7-16
900000	500.00'	400.00'	14.13715°	ASCE 7-16
1000000	500.00'	400.00'	15.70795°	ASCE 7-16
1100000	500.00'	400.00'	17.27874°	ASCE 7-16
1200000	500.00'	400.00'	18.84953°	ASCE 7-16
1300000	500.00'	400.00'	20.42032°	ASCE 7-16
1400000	500.00'	400.00'	21.99111°	ASCE 7-16
1500000	500.00'	400.00'	23.56190°	ASCE 7-16
1600000	500.00'	400.00'	25.13269°	ASCE 7-16
1700000	500.00'	400.00'	26.70348°	ASCE 7-16
1800000	500.00'	400.00'	28.27427°	ASCE 7-16
1900000	500.00'	400.00'	29.84506°	ASCE 7-16
2000000	500.00'	400.00'	31.41585°	ASCE 7-16
2100000	500.00'	400.00'	32.98664°	ASCE 7-16
2200000	500.00'	400.00'	34.55743°	ASCE 7-16
2300000	500.00'	400.00'	36.12822°	ASCE 7-16
2400000	500.00'	400.00'	37.69901°	ASCE 7-16
2500000	500.00'	400.00'	39.26980°	ASCE 7-16
2600000	500.00'	400.00'	40.84059°	ASCE 7-16
2700000	500.00'	400.00'	42.41138°	ASCE 7-16
2800000	500.00'	400.00'	43.98217°	ASCE 7-16
2900000	500.00'	400.00'	45.55296°	ASCE 7-16
3000000	500.00'	400.00'	47.12375°	ASCE 7-16
3100000	500.00'	400.00'	48.69454°	ASCE 7-16
3200000	500.00'	400.00'	50.26533°	ASCE 7-16
3300000	500.00'	400.00'	51.83612°	ASCE 7-16
3400000	500.00'	400.00'	53.40691°	ASCE 7-16
3500000	500.00'	400.00'	54.97770°	ASCE 7-16
3600000	500.00'	400.00'	56.54849°	ASCE 7-16
3700000	500.00'	400.00'	58.11928°	ASCE 7-16
3800000	500.00'	400.00'	59.68907°	ASCE 7-16
3900000	500.00'	400.00'	61.25986°	ASCE 7-16
4000000	500.00'	400.00'	62.83065°	ASCE 7-16
4100000	500.00'	400.00'	64.40144°	ASCE 7-16
4200000	500.00'	400.00'	65.97223°	ASCE 7-16
4300000	500.00'	400.00'	67.54302°	ASCE 7-16
4400000	500.00'	400.00'	69.11381°	ASCE 7-16
4500000	500.00'	400.00'	70.68460°	ASCE 7-16
4600000	500.00'	400.00'	72.25539°	ASCE 7-16
4700000	500.00'	400.00'	73.82618°	ASCE 7-16
4800000	500.00'	400.00'	75.39697°	ASCE 7-16
4900000	500.00'	400.00'	76.96776°	ASCE 7-16
5000000	500.00'	400.00'	78.53855°	ASCE 7-16
5100000	500.00'	400.00'	80.10934°	ASCE 7-16
5200000	500.00'	400.00'	81.68013°	ASCE 7-16
5300000	500.00'	400.00'	83.25092°	ASCE 7-16
5400000	500.00'	400.00'	84.82171°	ASCE 7-16
5500000	500.00'	400.00'	86.39250°	ASCE 7-16
5600000	500.00'	400.00'	87.96329°	ASCE 7-16
5700000	500.00'	400.00'	89.53408°	ASCE 7-16
5800000	500.00'	400.00'	91.10487°	ASCE 7-16
5900000	500.00'	400.00'	92.67566°	ASCE 7-16
6000000	500.00'	400.00'	94.24645°	ASCE 7-16
6100000	500.00'	400.00'	95.81724°	ASCE 7-16
6200000	500.00'	400.00'	97.38803°	ASCE 7-16
6300000	500.00'	400.00'	98.95882°	ASCE 7-16
6400000	500.00'	400.00'	100.52961°	ASCE 7-16
6500000	500.00'	400.00'	102.09040°	ASCE 7-16
6600000	500.00'	400.00'	103.66119°	ASCE 7-16
6700000	500.00'	400.00'	105.23198°	ASCE 7-16
6800000	500.00'	400.00'	106.80277°	ASCE 7-16
6900000	500.00'	400.00'	108.37356°	ASCE 7-16
7000000	500.00'	400.00'	109.94435°	ASCE 7-16
7100000	500.00'	400.00'	111.51514°	ASCE 7-16
7200000	500.00'	400.00'	113.08593°	ASCE 7-16
7300000	500.00'	400.00'	114.65672°	ASCE 7-16
7400000	500.00'	400.00'	116.22751°	ASCE 7-16
7500000	500.00'	400.00'	117.79830°	ASCE 7-16
7600000	500.00'	400.00'	119.36909°	ASCE 7-16
7700000	500.00'	400.00'	120.93988°	ASCE 7-16
7800000	500.00'	400.00'	122.51067°	ASCE 7-16
7900000	500.00'	400.00'	124.08146°	ASCE 7-16
8000000	500.00'	400.00'	125.65225°	ASCE 7-16
8100000	500.00'	400.00'	127.22304°	ASCE 7-16
8200000	500.00'	400.00'	128.79383°	ASCE 7-16
8300000	500.00'	400.00'	130.36462°	ASCE 7-16
8400000	500.00'	400.00'	131.93541°	ASCE 7-16
8500000	500.00'	400.00'	133.50620°	ASCE 7-16
8600000	500.00'	400.00'	135.07699°	ASCE 7-16
8700000	500.00'	400.00'	136.64778°	ASCE 7-16
8800000	500.00'	400.00'	138.21857°	ASCE 7-16
8900000	500.00'	400.00'	139.78936°	ASCE 7-16
9000000	500.00'	400.00'	141.36015°	ASCE 7-16
9100000	500.00'	400.00'	142.93094°	ASCE 7-16
9200000	500.00'	400.00'	144.50173°	ASCE 7-16
9300000	500.00'	400.00'	146.07252°	ASCE 7-16
9400000	500.00'	400.00'	147.64331°	ASCE 7-16
9500000	500.00'	400.00'	149.21410°	ASCE 7-16
9600000	500.00'	400.00'	150.78489°	ASCE 7-16
9700000	500.00'	400.00'	152.35568°	ASCE 7-16
9800000	500.00'	400.00'	153.92647°	ASCE 7-16
9900000	500.00'	400.00'	155.49726°	ASCE 7-16
10000000	500.00'	400.00'	157.06805°	ASCE 7-16



Typical process - redraw using COGO routines to capture attribution

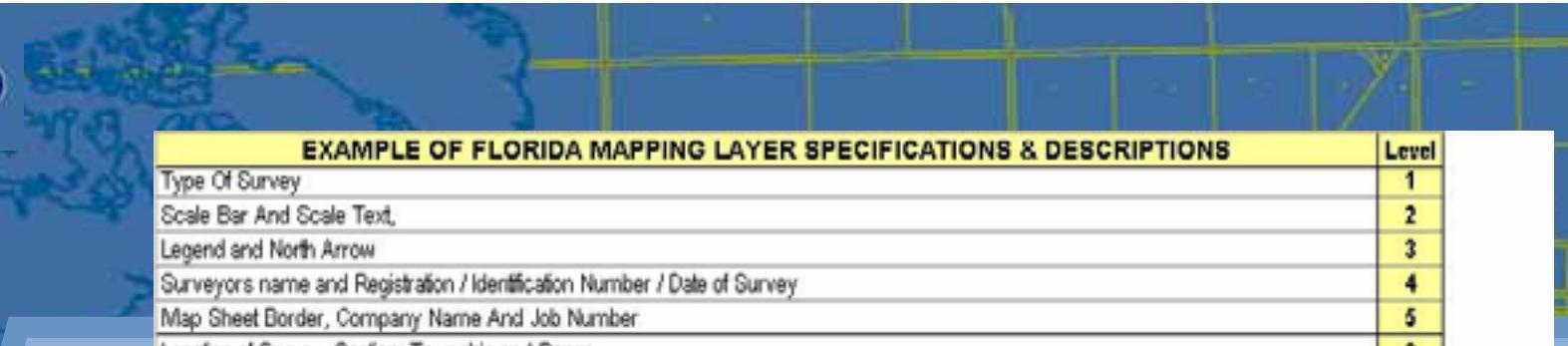
New process - tools capture COGO attributes from original survey line work





Key Issues for Success:

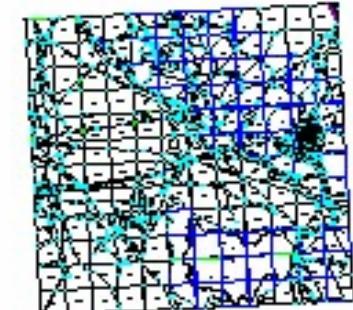
1. Standardized Layers
2. Spatial Plans
3. Cleaning Tools
4. CAD Integration Engine



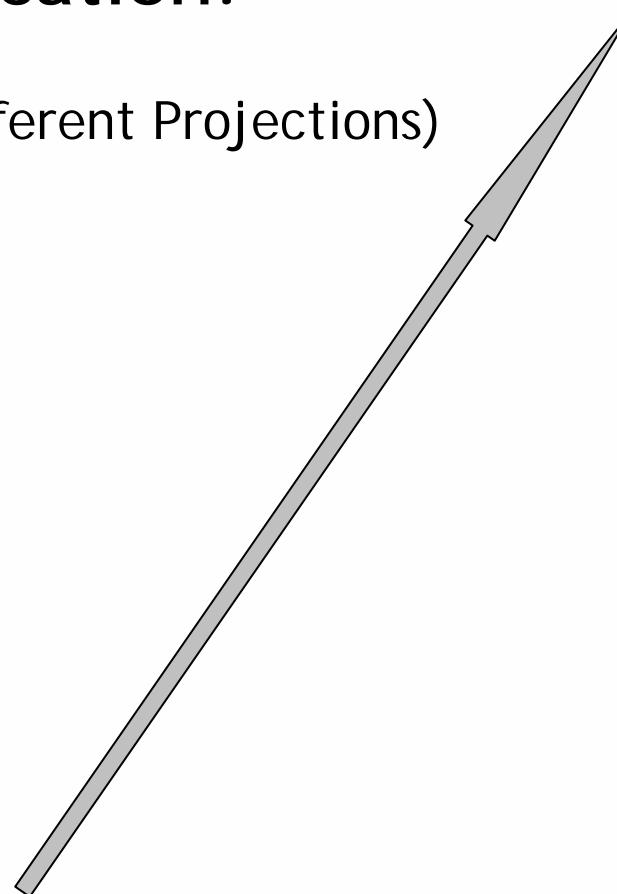
EXAMPLE OF FLORIDA MAPPING LAYER SPECIFICATIONS & DESCRIPTIONS		Level
Type Of Survey		1
Scale Bar And Scale Text,		2
Legend and North Arrow		3
Surveyors name and Registration / Identification Number / Date of Survey		4
Map Sheet Border, Company Name And Job Number		5
Location of Survey, Section, Township and Range,		6
Location of Survey Lot, Block, Subdivision, Unit Number and Section if applicable		7
Location of Survey, City/Town, County, Plat Book and Page		8
Deed number, plan number, PID, Job Number (to be unique identifier of survey)		9
Linework to Outline Area Of Interest (unbroken, continuous, coincident with block linework)		10
Property And URW Linework Outside Area Of Interest		11
Text for Linework Outside Area Of Interest (bearings distances, lot and block numbers, etc.)		12
Phantomized Linework and Text For Superceded Plans		13
Reference Monuments/Control Points text and symbols, lie linework and text (lines may be broken for plot purpose, not to scale)		14
Survey Control Symbols and Text Identifier at true coordinates or to scale		15
Symbols (Iron Rods, Drill Holes, etc.) and associated text		16
Section, Block Lines, Unbroken Within Area Of Interest		17
Block Numbers Within Area Of Interest		18
Lot Lines Unbroken Within Area Of Interest		19
Lot/Condo Unit Numbers Within Area Of Interest		20
Street Name, Lane, Road Allowance and Walkway Text Within Area Of Interest		21
Right-Of-Ways, Easements (dashed) and text descriptors - include assoc. lead lines, arrowheads and dimension linework Within Area of Interest		22
Distances, Lot Dimensions Within Area of Interest		23
Dimension Arrows and Lines (may not be required if used with associated text on other layers)		24
Arc, Radius, Chord Info B And E Of Curve, Delta (Text) Within Area of Interest and associated arrowheads and dimension leads		25
Bearings, lead lines, arrow heads, dimension linework Within Area Of Interest		26
Street And Lane Widths Within Area Of Interest		27
Hydrographic Features Linework and Feature Name Text		28
Traverses; linework and text		29
Metes & Bounds Linework		30
Improvements		
Building & Eave outline and corresponding dimensions and text		31
Edge of Road / Pavement; fences; poles etc. and corresponding dimensions and text		32
Linework and Text for Local Authority Approvals / Registration / Public Records		33
Misc. Information		34

Survey must be moved (if not already geo-referenced) to correct spatial location.

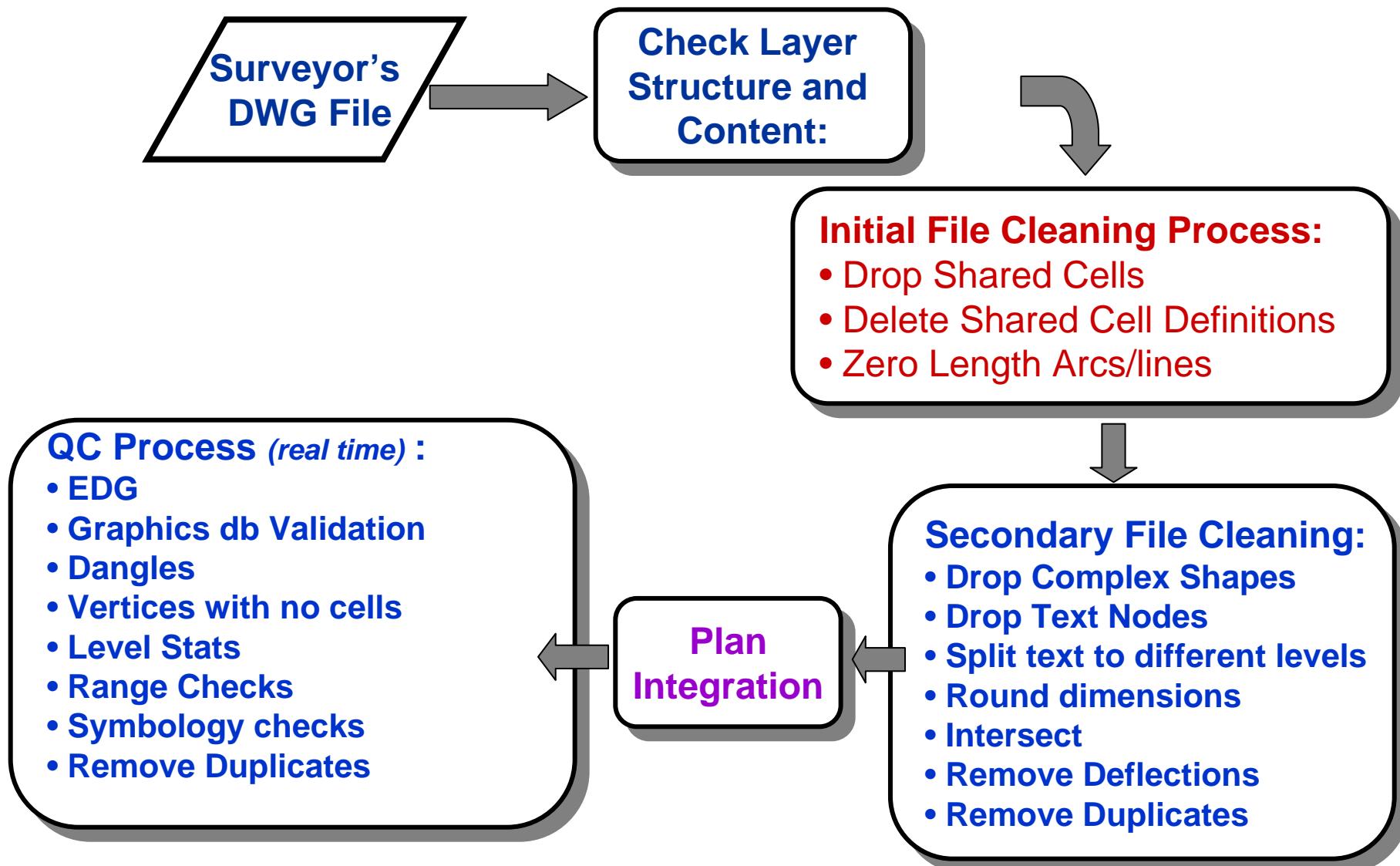
(Local Coordinates, Different Projections)

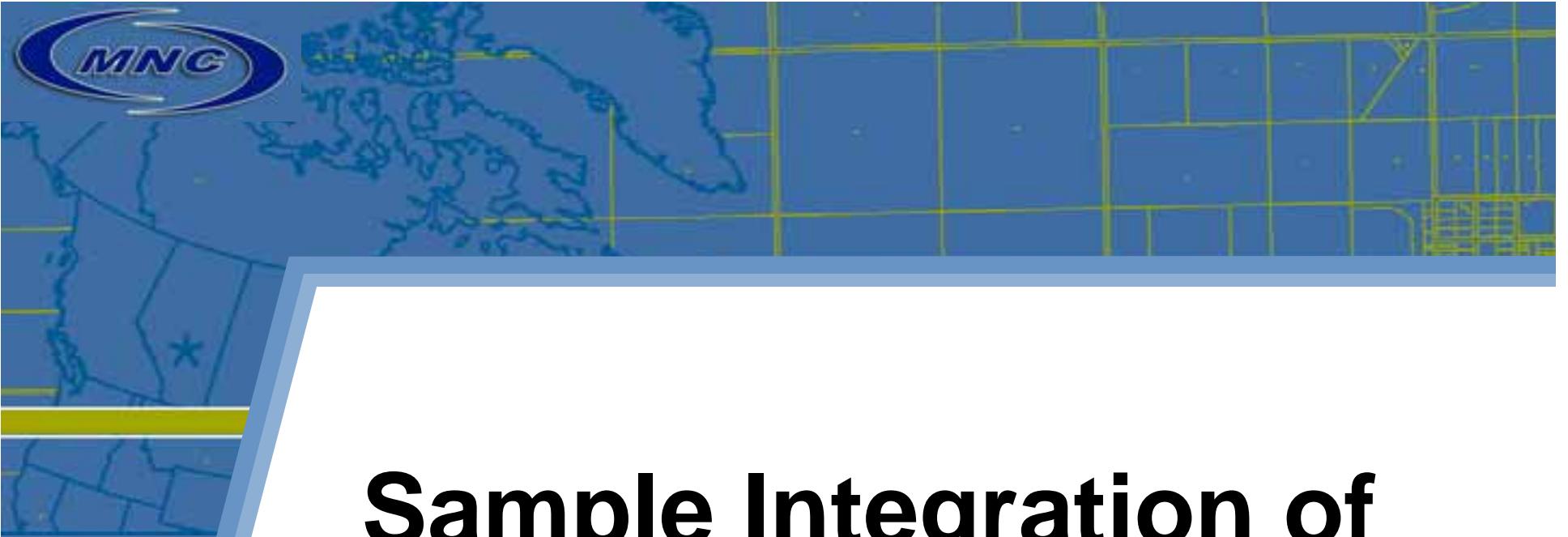


Base



Automated CAD File Checking & Cleaning:





Sample Integration of Subdivision Survey



Integration Process:

- Interactive process
- Weighted “least-squares”
- Integrates new plan
- Re-adjusts surrounding fabric to maintain relative accuracy, improves absolute accuracy and eliminates “benches”



ORIGINAL ROAD ALLOWANCE

N.W. 1/4 SEC.36-26-1-5

Block 1

AIRDRIE, ALBERTA

COOPER'S CROSSING - PHASE 3B

PLAN SHOWING SURVEY OF

SUBDIVISION

AFFECTING PORTION OF

BLOCK 1, PLAN 951 0863

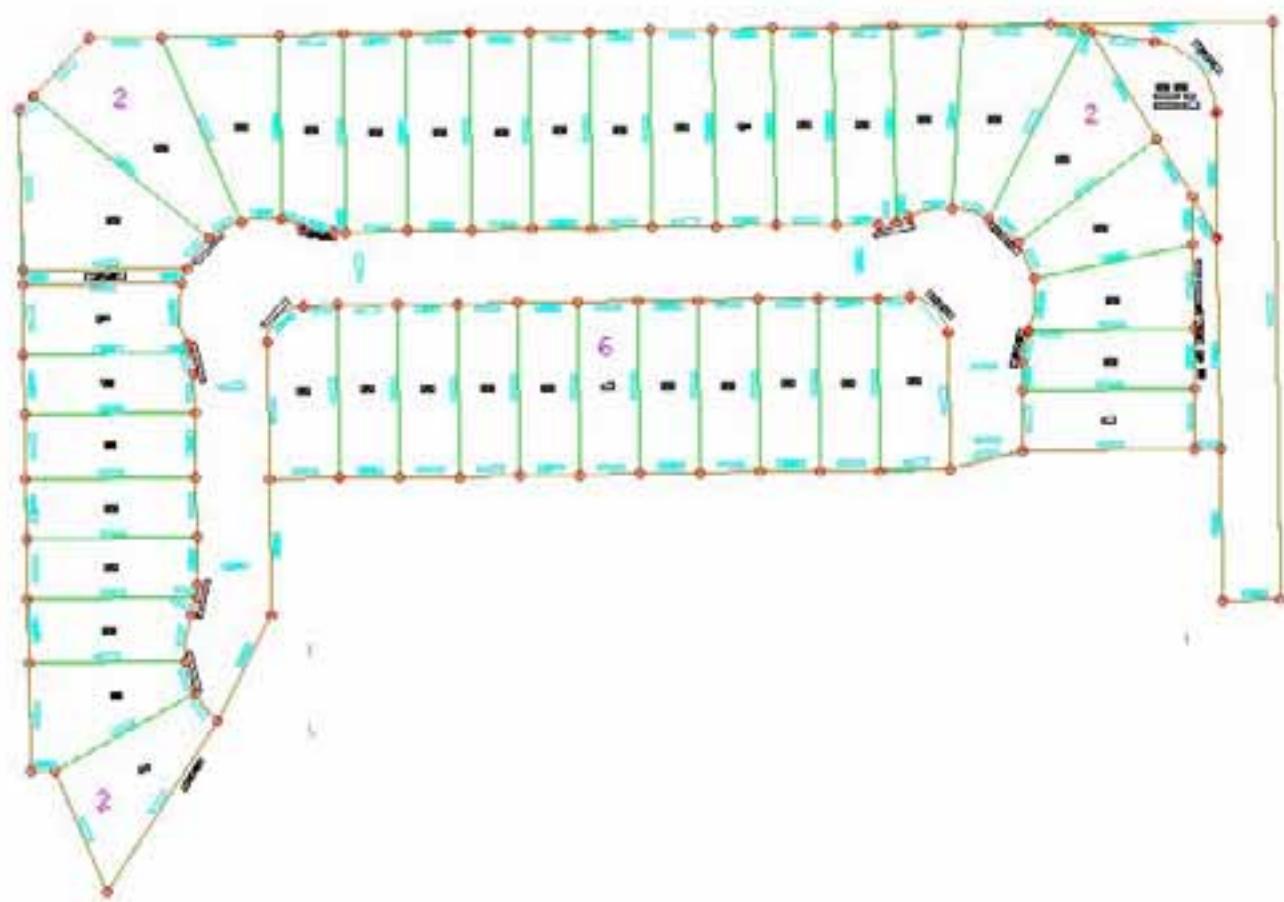
ALL WITHIN

N.W. 1/4 SEC.36, TWP.26, RGE.1, W.5M

SCALE: 1:800

J. T. MATIMENT, A. L. S. 2002





ROADWAY

951 0863

PARENT POLYGON

1
951 0863

COOPER'S CLOSE

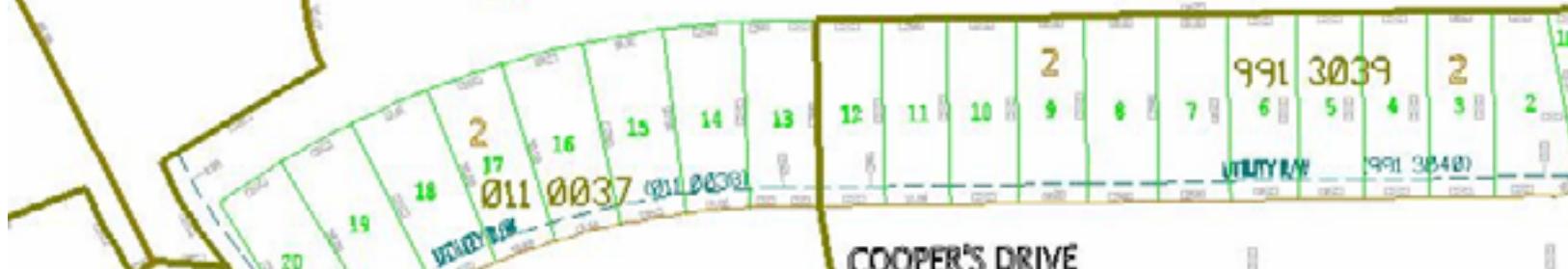


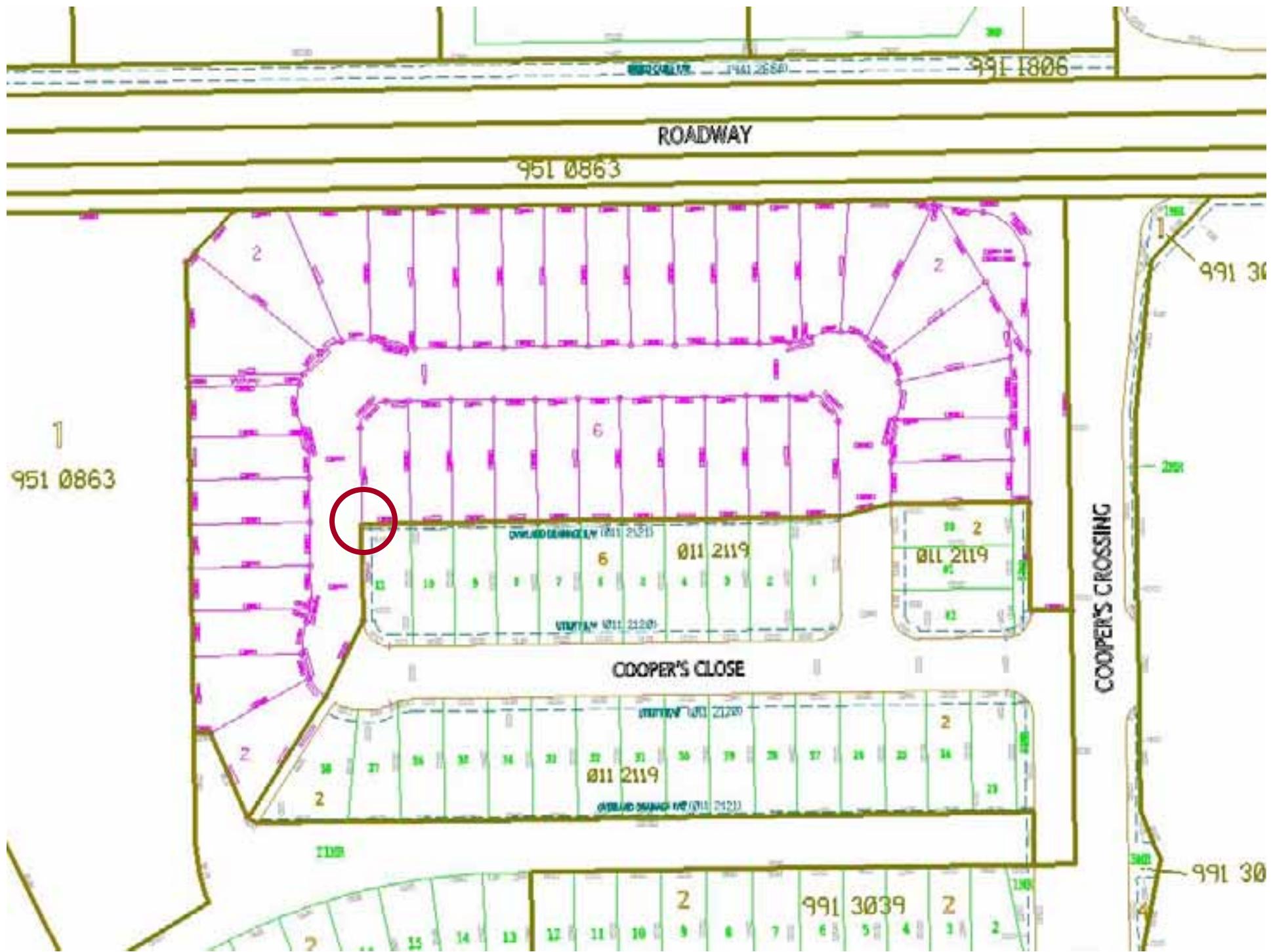
COOPER'S CROSSING

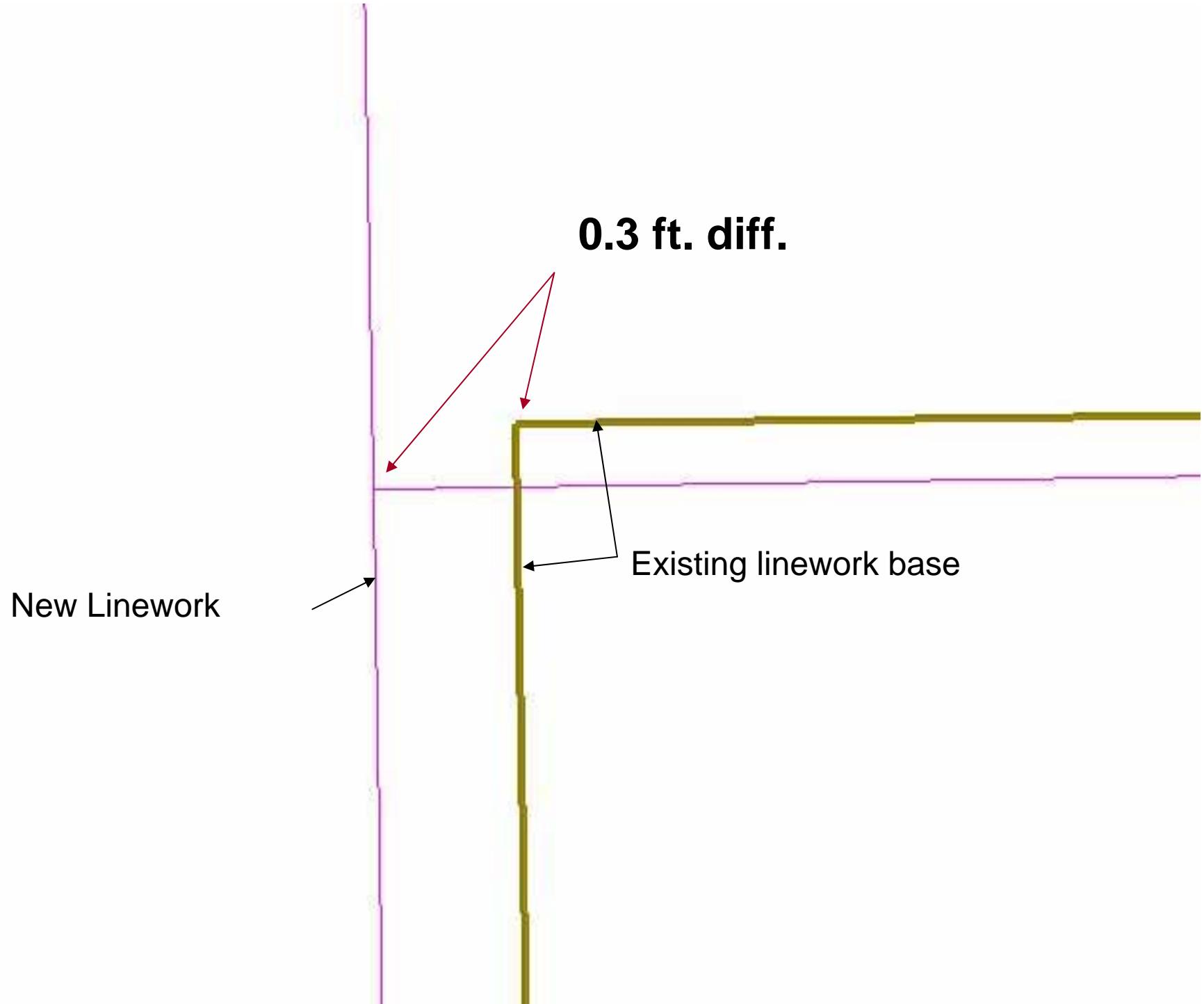


2MR

COOPER'S DRIVE





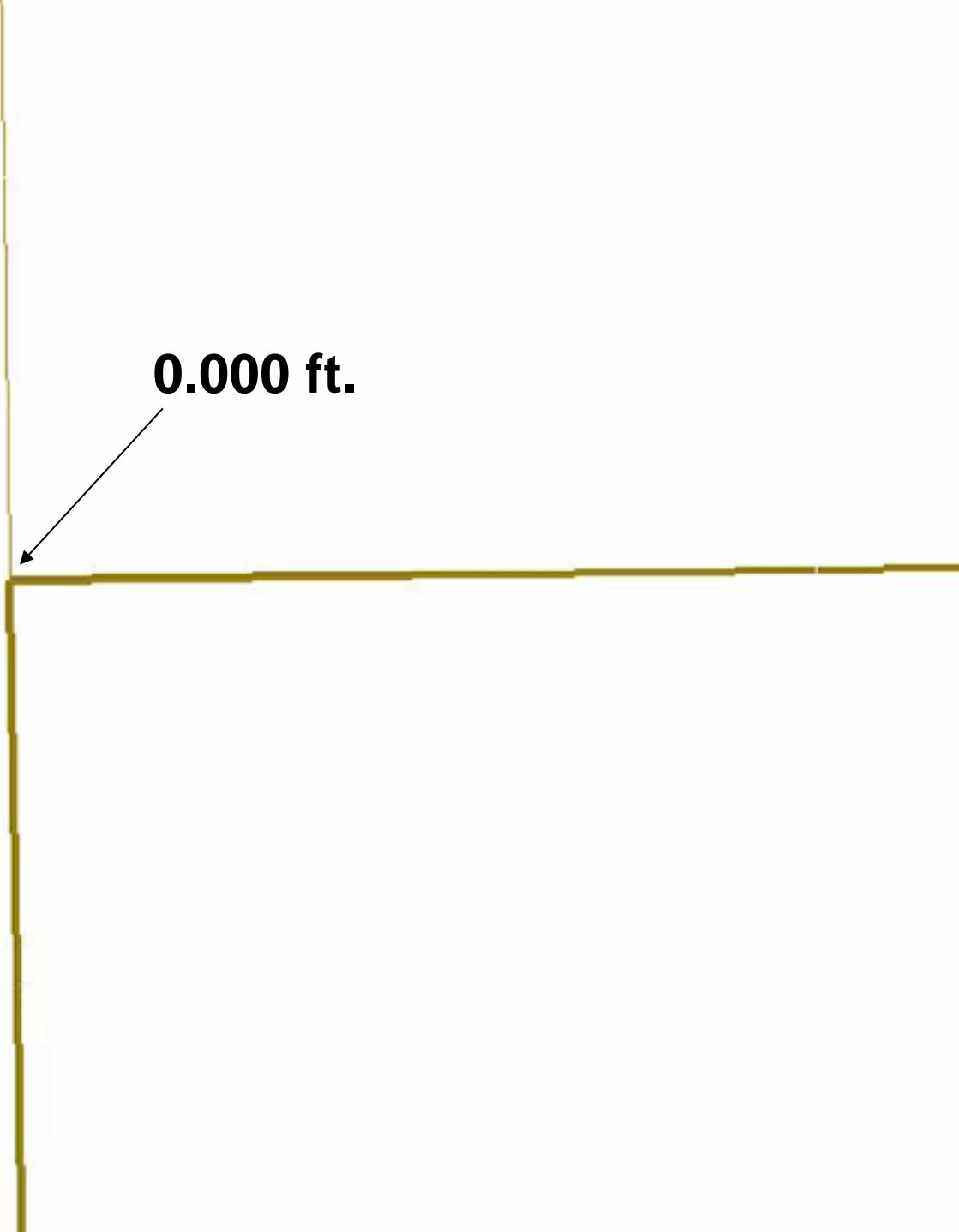


ROADWAY

951 0863

1
951 0863



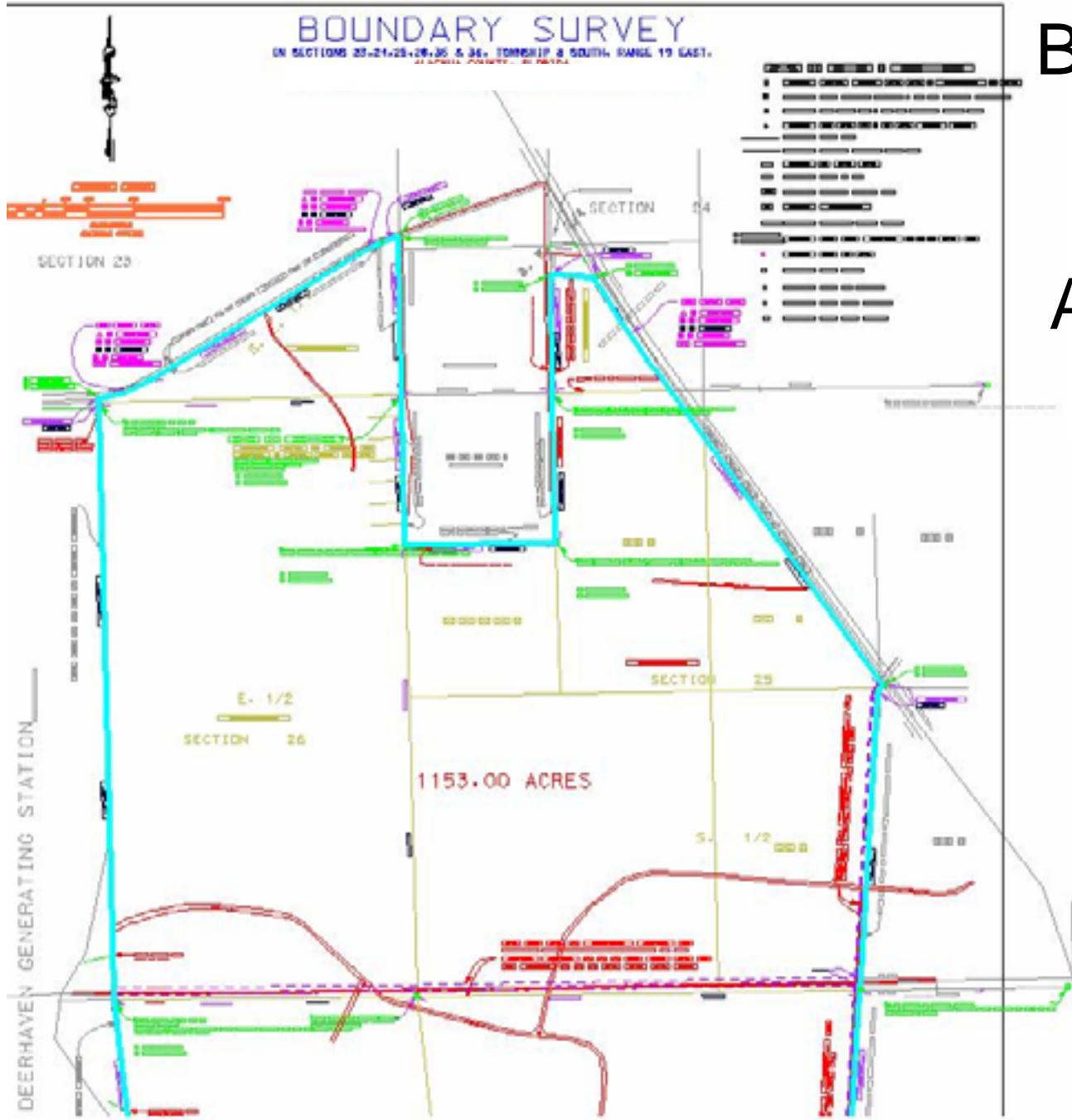


0.000 ft.



Sample Integration of Boundary Survey:

Accuracy Improvement



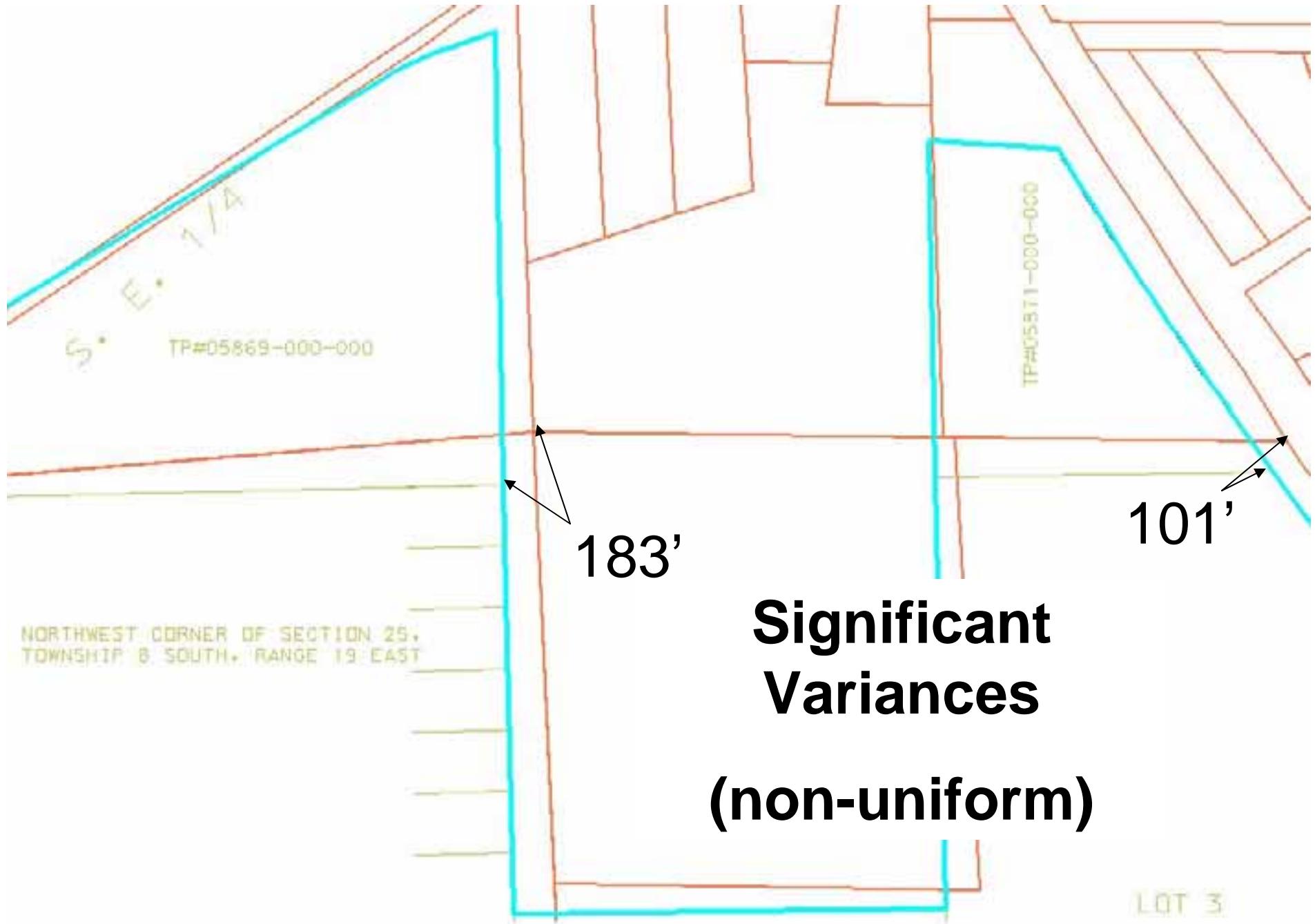
Boundary Survey
provided by
Surveyor in
AutoCAD format

Boundary Survey – geo-referenced & ready for Integration





Boundary
Survey
referenced
to base



**Significant
Variances**

(non-uniform)

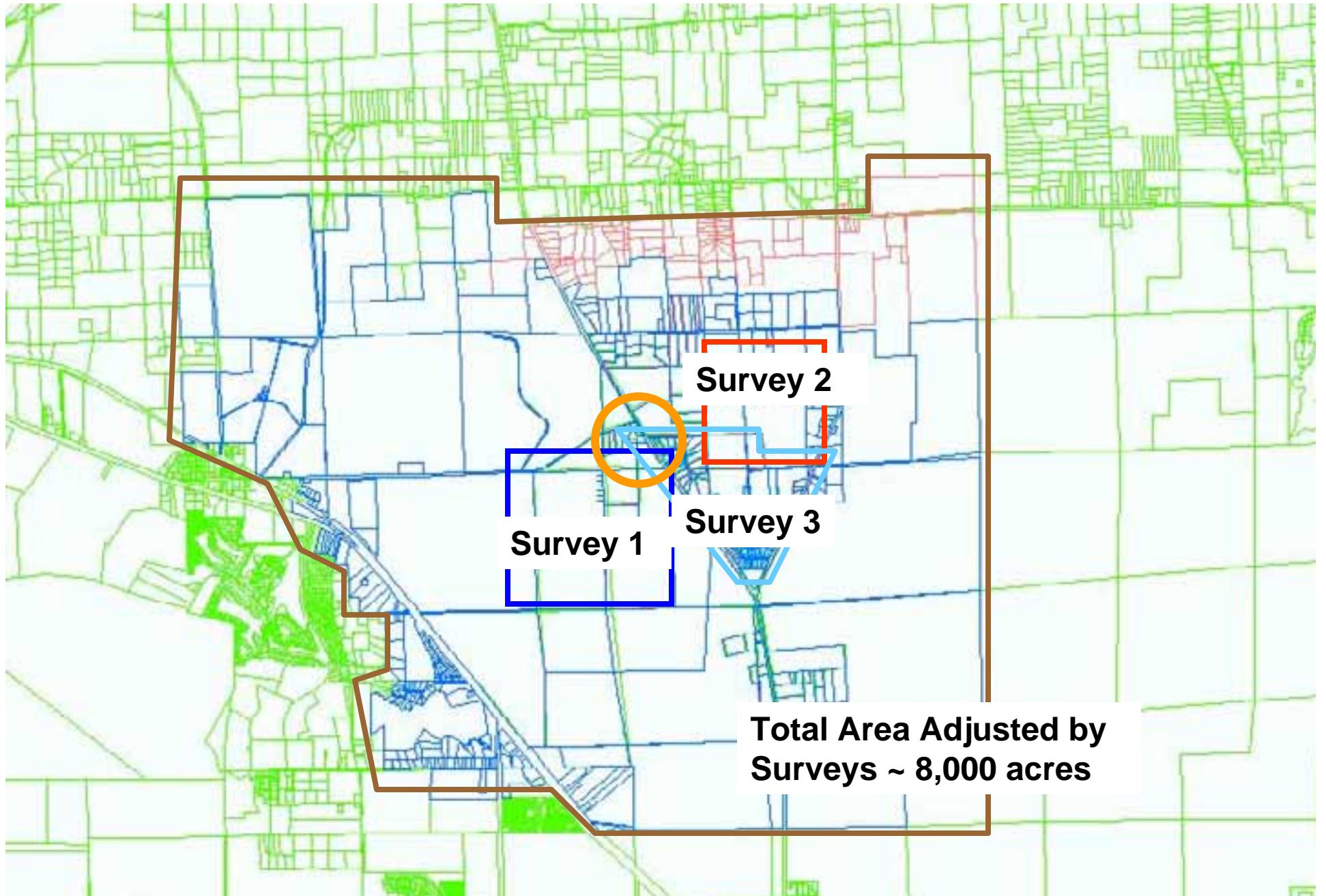


Base after integration (shown in green)



Updated base (green) shown with original base (orange)

Note ripple effect.









With CAD files, the quality of the mapping base *improves most rapidly* in areas of *highest activity*.



How Do You Start?

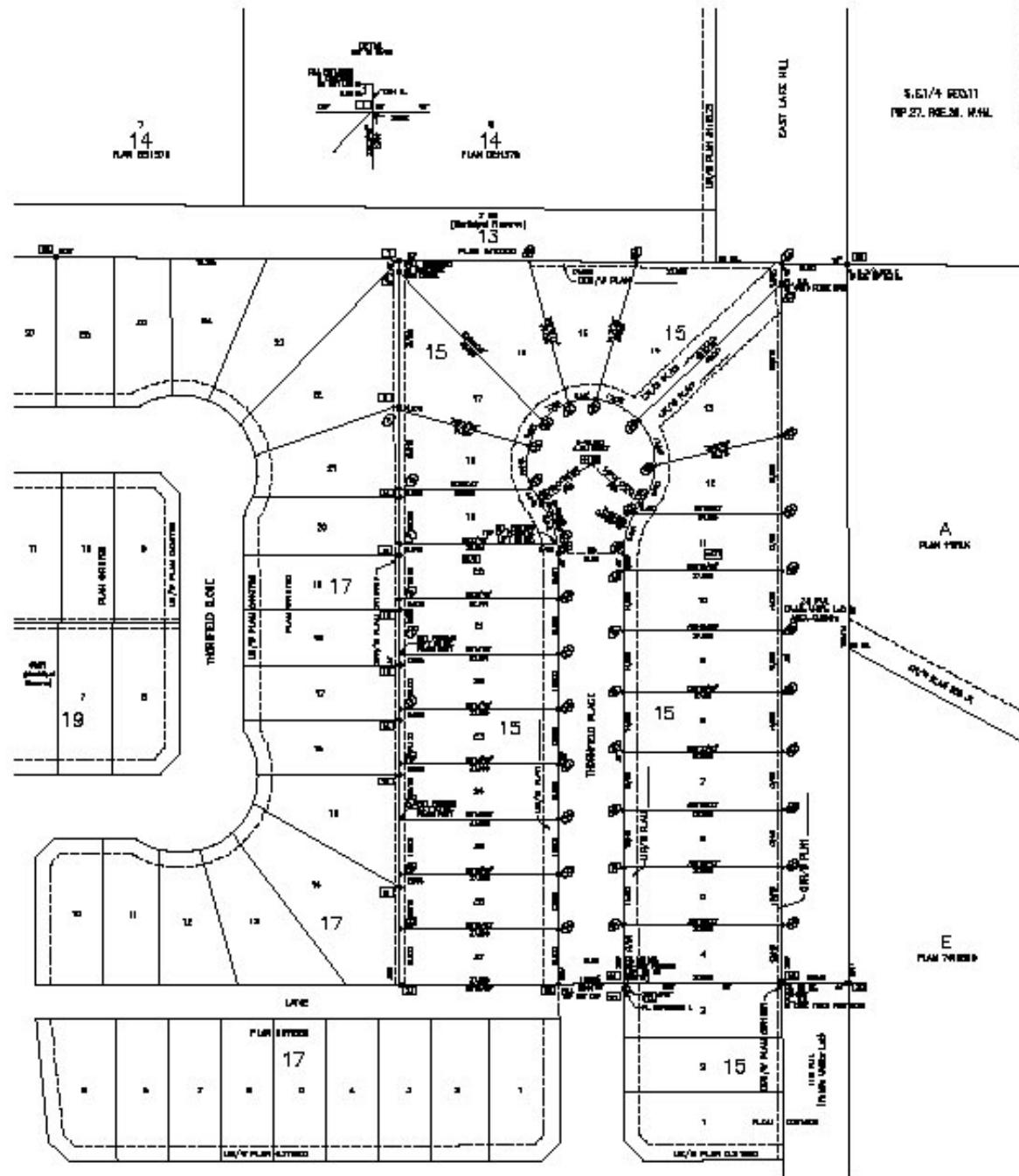
- Standardize digital file specifications
- Improve accuracy of base
 - **Adjust base (as a whole or incrementally as areas are updated with new surveys)**
 - **Collect additional ties to survey fabric**



Where can we go?

On-Line Digital Plan Submissions

- Metadata
- QC layer structure
- QC Geo-referencing
- Review against the existing fabric
- Move, Scale and Rotate plan into place



CERTIFICATE: SECTION 43, SURVEYS ACT	
REGISTERED ON	
AB NUMBER	
Certifying that all Statutory Surveys were present at the time of survey and were of _____ and were performed in accordance with instructions given in the place or in the course of my professional occupa- tion as a surveyor.	

REGISTRATION

PHASE 14
THORBURN ESTATES
AIRDRIE, ALBERTA

PLAN SHOWING SUBDIVISION
OF PART OF THE

N.W.1/4 SEC.2, TWP.27, RGE.29, W.4M

SCALE 1:300 2004 BAR. METTER, ALB.

L-2-1

SUPERVISOR
MANO D. IRVING R. BETTER, AIA
DATED OF SWORN to before the date of April 18, 2008
and April 18, 2008
P223

RECONSIDER DIMERS
QUACO DEVELOPMENT INC.
VIA DODGE CONSTRUCTION LTD.

SUBMISSION AUTHORITY

NAME: THE CITY OF ALEXANDRIA
FILE NO. 100-29-05 OWNED BY NO. 100-10

CAD File Submission

MNC Surveys

CAD File Upload

CAD File Name:

PDF File Name::

User Name:

Survey Type:

Disposition

Projection:

10TM

Legal Description

Qtr.

Sec.

Twp.

1

Rgo.

1

Mer.

4

Place CAD at Legal Land Description

Sections Pertaining
to Plan:

FileUpload - Microsoft Internet Explorer

Select a CAD file:

Z:\MNOOffice\Marketing\SERUG_2

Select the associated PDF file:

Z:\MNOOffice\Marketing\SERUG_2



CAD Submission



CAD Query Edit Image

- Move CAD File
- Rotate CAD File
- Show Full CAD
- Show Submission only
- Locate CAD File
- Commit CAD

CAD Move/Rotate Values

Twp: 1 **Rge:** 1 **Mer:** 4

MNC Surveys

USER: Wendy Amy
CAD: Thorburn_27-29-4.m.DGN

PDF: [Thorburn.PDF](#)

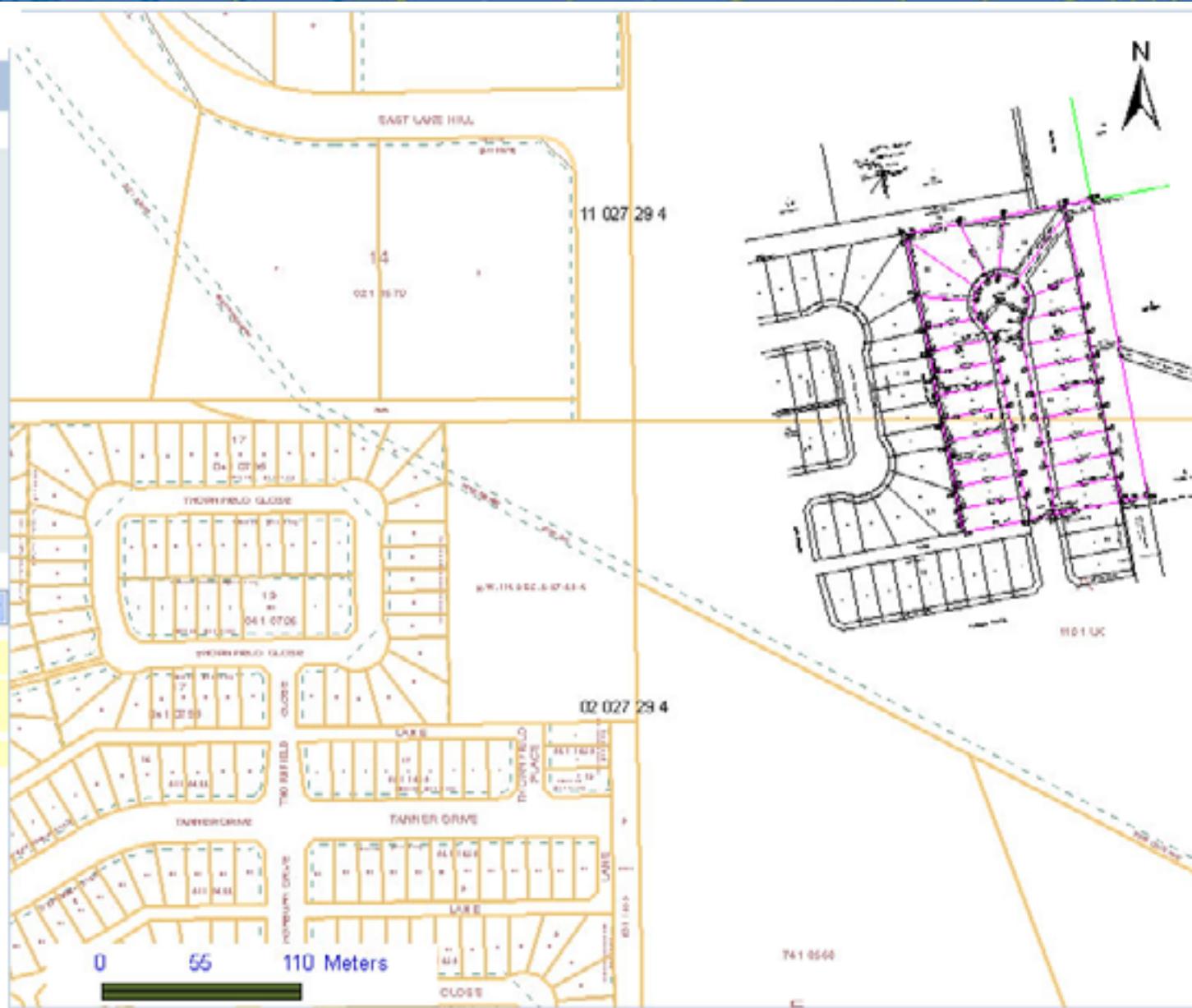
Region check passed

Layer40 text in: NE2 27-29-4

Layer #9: 247 Line and Text Elements
Layer #10: 443 Text Elements
Layer #17: 5 Line Elements
Layer #28: 120 Line Elements
Layer #40: 1 Text Elements

Log Out

New CAD Upload





CAD Submission



CAD Query Edit Image

- Move CAD File
- Rotate CAD File
- Show Full CAD
- Show Submission only
- Locate CAD File
- Commit CAD

CAD Move/Rotate Values

→ Twp: 1 Rge: 1 Mer: 4

MNC Surveys

USER: Wendy Amy
CAD: Thorburn_27-29-4_m.DGN

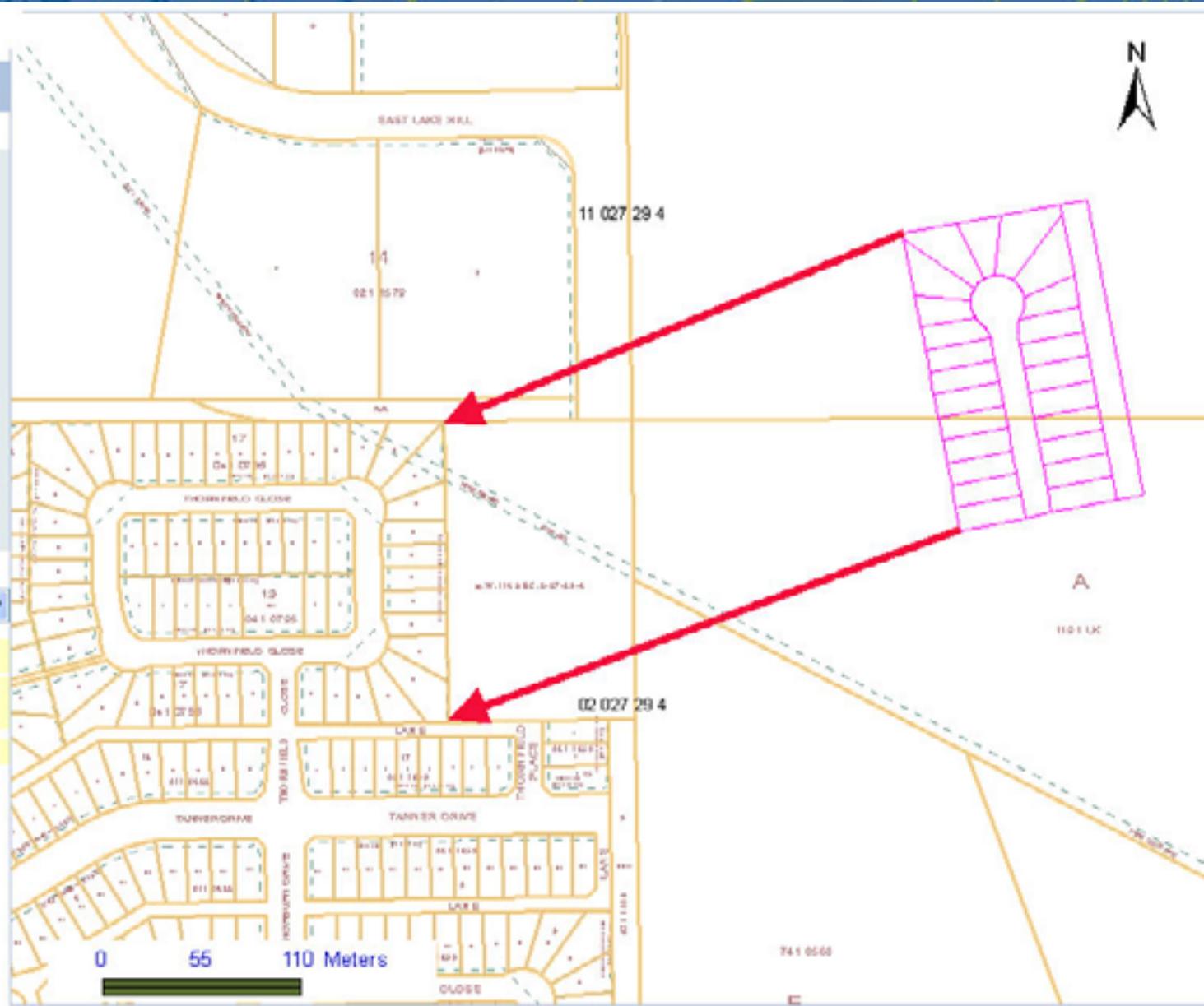
PDF: [Thorburn.PDF](#)

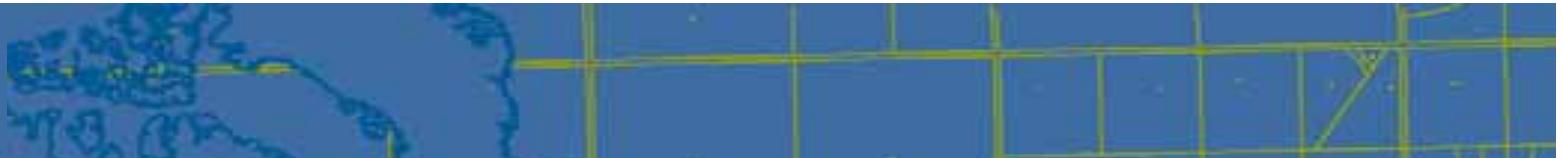
Region check passed
Layer40 text in: NE2 27-29-4

Layer #9: 247 Line and Text Elements
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[Log Out](#)

[New CAD Upload](#)





CAD Submission



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CAD Move/Rotate Values

Twp: 1 Rge: 1 Mer: 4

MNC Surveys

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PDF: [Thorburn.PDF](#)

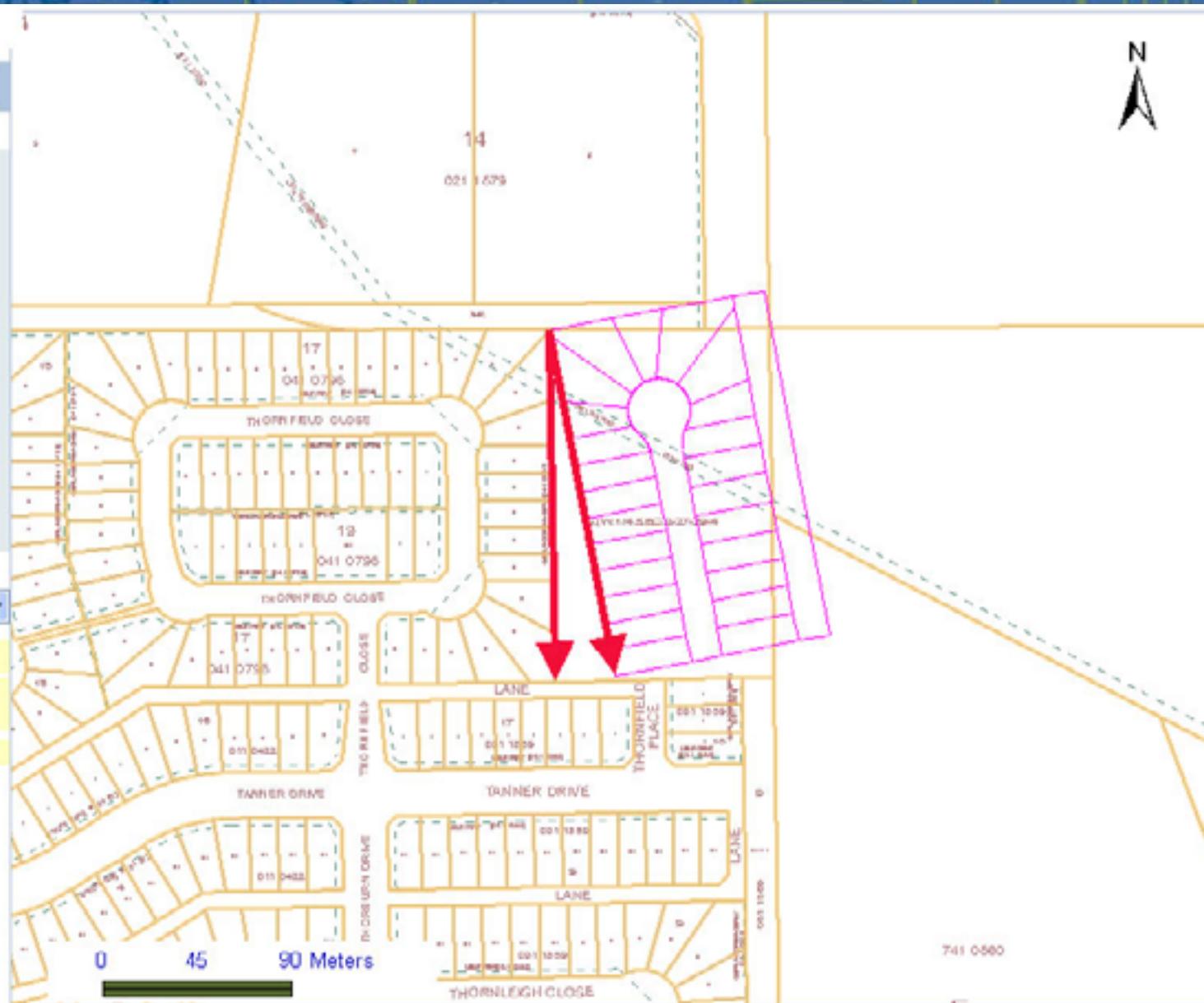
Region check passed

Layer40 text in: NE2 27-29-4

Layer #9: 247 Line and Text Elements
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Layer #40: 1 Text Elements

[Log Out](#)

[New CAD Upload](#)





CAD Submission



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- Show Submission only
- Locate CAD File
- Commit CAD

CAD Move/Rotate Values

Twp: 1 Rge: 1 Mer: 4

MNC Surveys

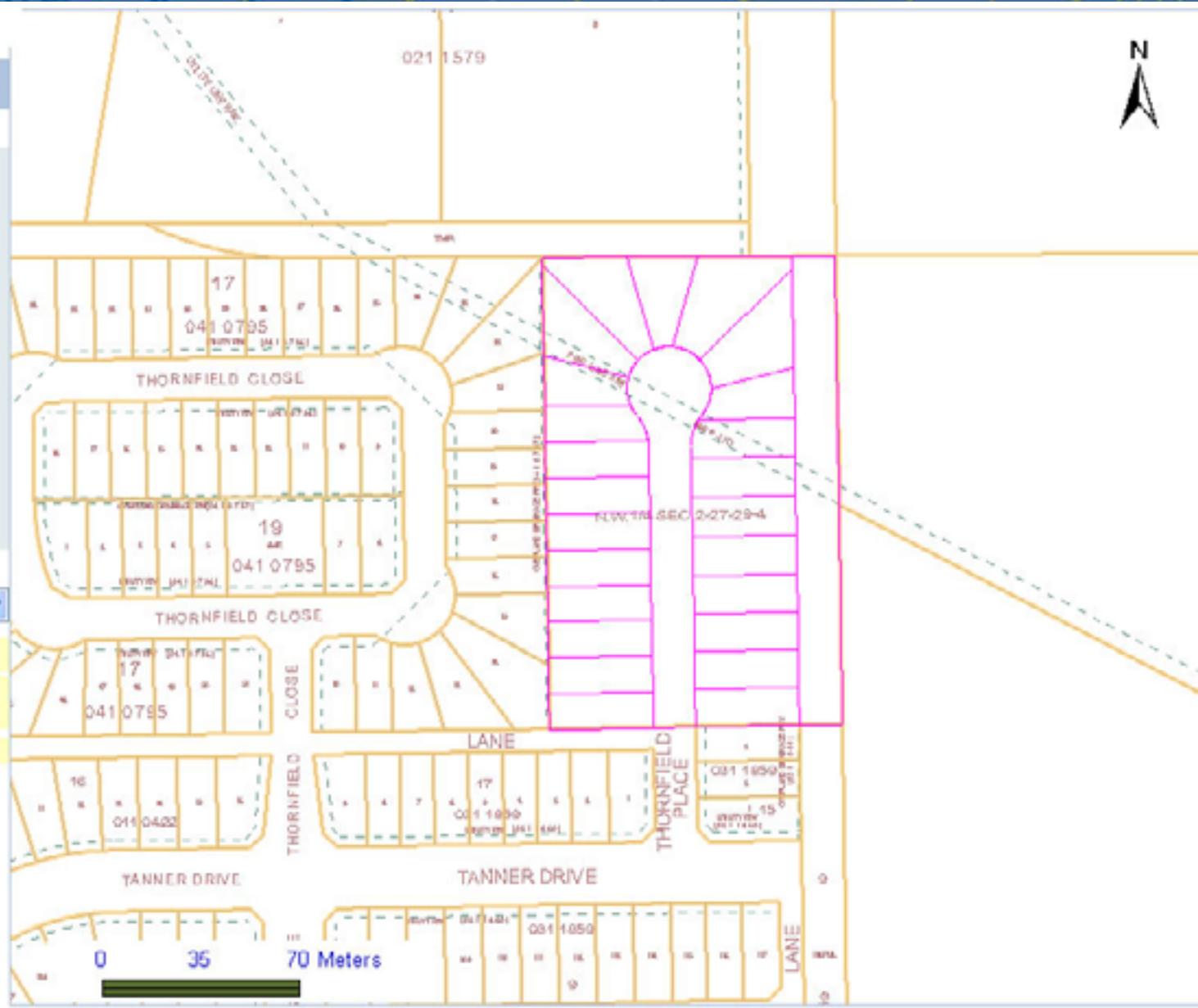
USER: Wendy Amy
CAD: Thorburn_27-29-4.DGN

PDF: [Thorburn.PDF](#)

Region check passed

Layer 40 text in: NW2 27-29-4

Layer #9: 247 Line and Text Elements
Layer #10: 443 Text Elements
Layer #17: 5 Line Elements
Layer #28: 120 Line Elements
Layer #40: 1 Text Elements





Where does that bring us?

- CAD Submissions
- Collecting Metadata
- QA checks—layers and spatial
- Ability to move non-geo-referenced plans into place
- **BUT** manual effort still required to integrate



Coming soon.....
On-line Integration



Message?

- There is a proven, more efficient and cost effective way to maintain mapping and GIS datasets:
 - CAD files
 - Harness the technology to facilitate the submission of the CAD files and metadata



Questions?

Wendy Amy
wendy@martinnewby.com

