


Don River Valley Historical Mapping Project

An aerial photograph of the Don River Valley in Toronto, overlaid with historical mapping data. The map shows the river's path through the city, with various colored lines (green, purple, blue) representing different historical boundaries or features. Numerous small circles, some colored (purple, green, red) and some black, are scattered across the map, likely representing historical sites or points of interest. The background is a high-resolution aerial view showing buildings, streets, and the river itself.

Jennifer Bonnell
Marcel Fortin
Jordan Hale
University of Toronto
Task Force to Bring Back the Don meeting
September 16, 2009

Agenda

- ◆ GIS Project Description
 - ◆ Geographic Information Systems (GIS) and Geospatial Data
 - ◆ Methodology and Sources
 - ◆ Results of Project
 - ◆ Challenges
 - ◆ Future of Project
- 

Geographic Information Systems (GIS) Project to Map:

- ◆ Historical change of physical features :
 - Don River (1858 - 1918)
 - Lake Ontario shoreline (1858 - 1918)
 - Creeks/Lost rivers (1858 - 1918)
 - Ashbridges Bay (1858 - 1918)
- ◆ Industry (1825) (1858 – 1950)
- ◆ Land Ownership (1860 & 1878)

Geographic Area of Project : Watershed



GIS & Geospatial Data?

Technology
to:

- ◆ Compile
- ◆ Store
- ◆ Manipulate
- ◆ Display
- ◆ Analyze

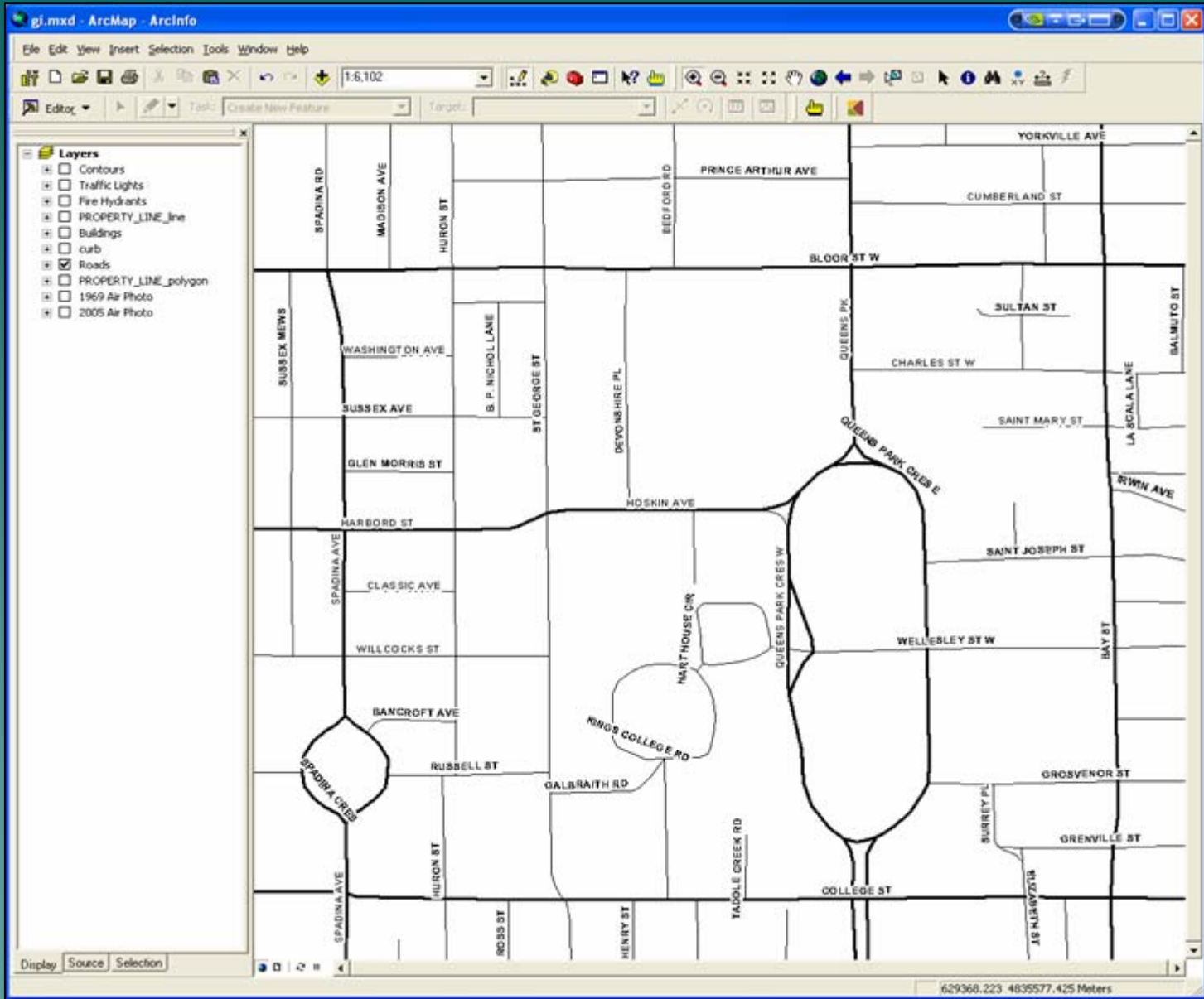
Geospatial Data

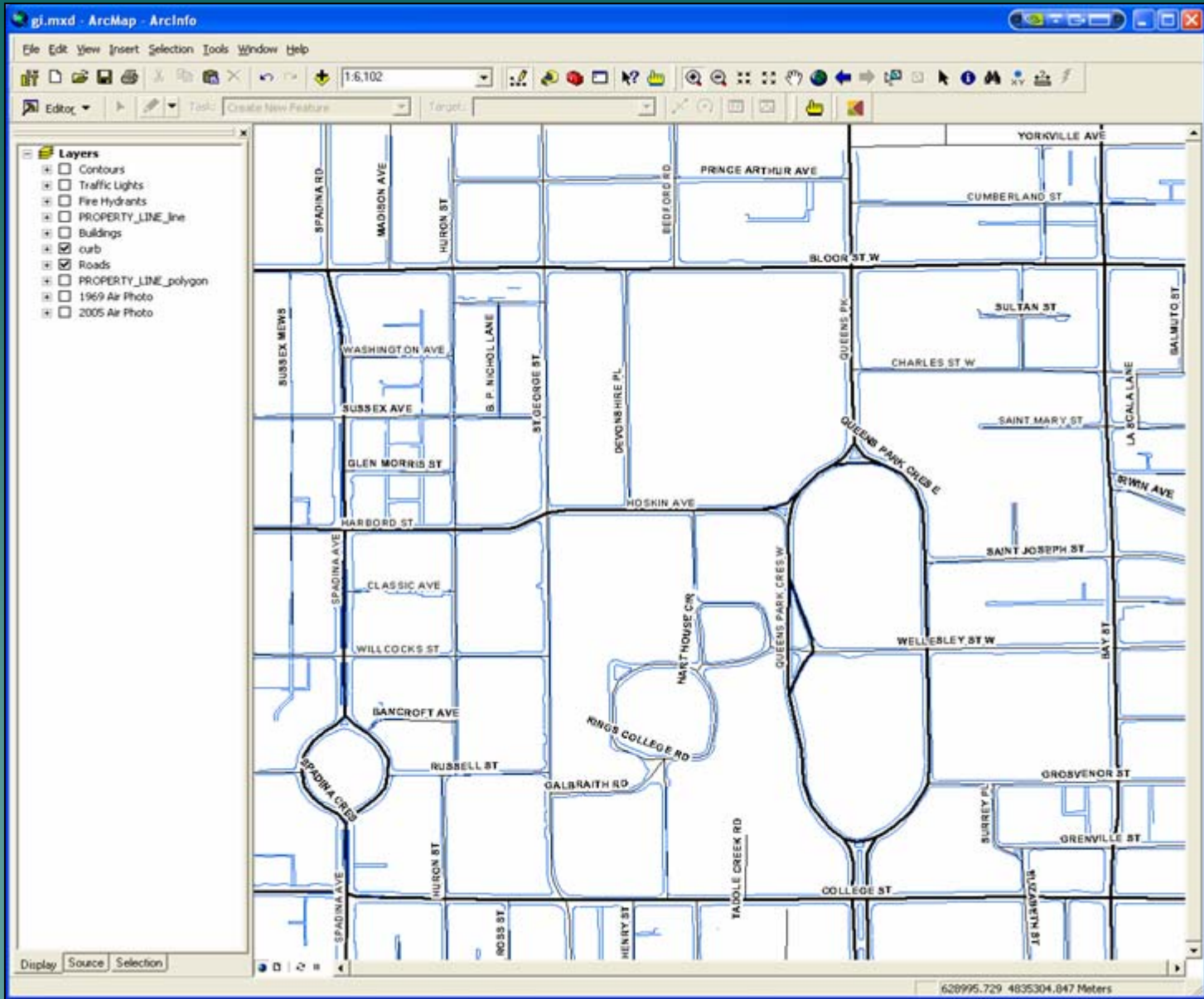


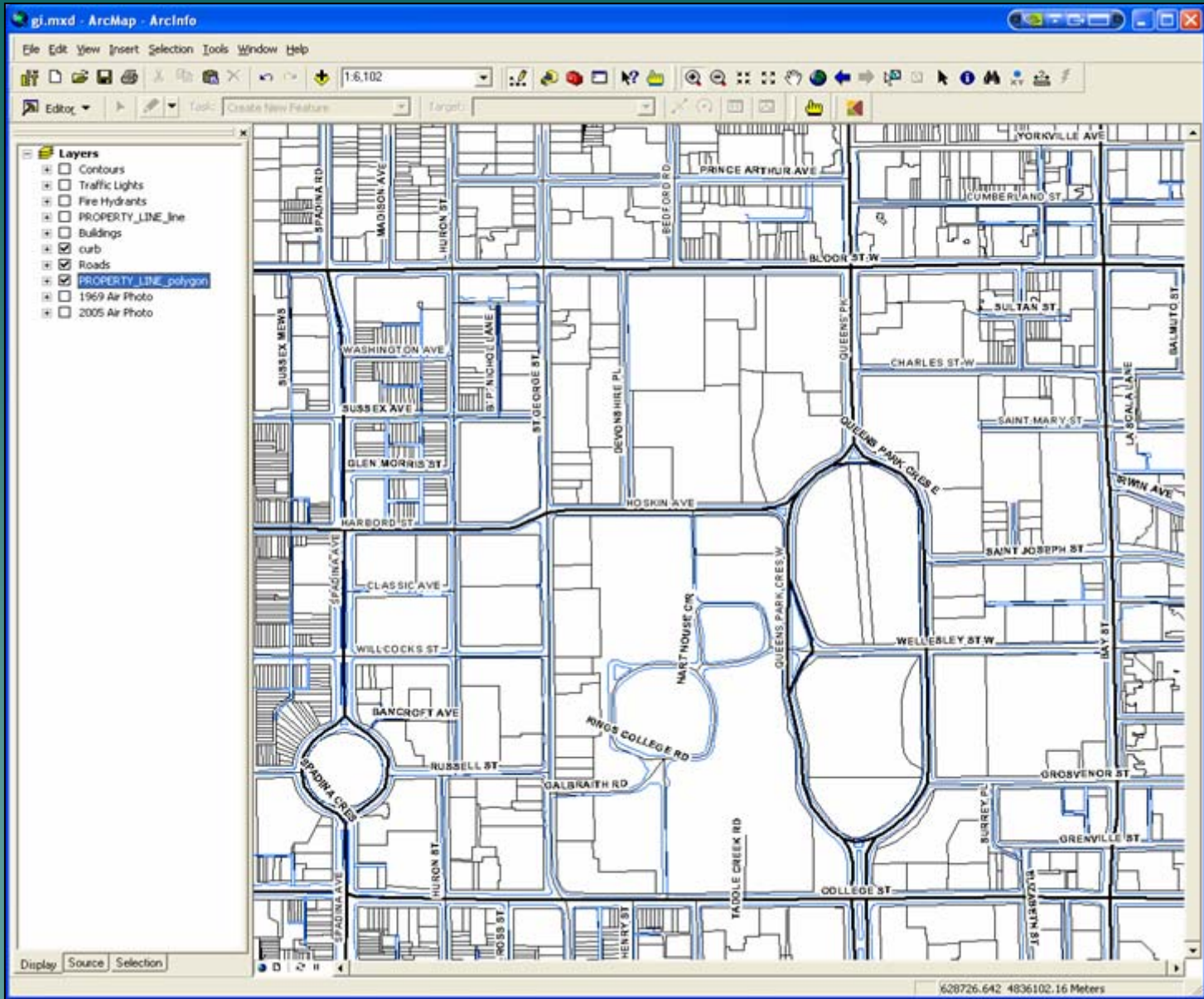
What does GIS data look like?

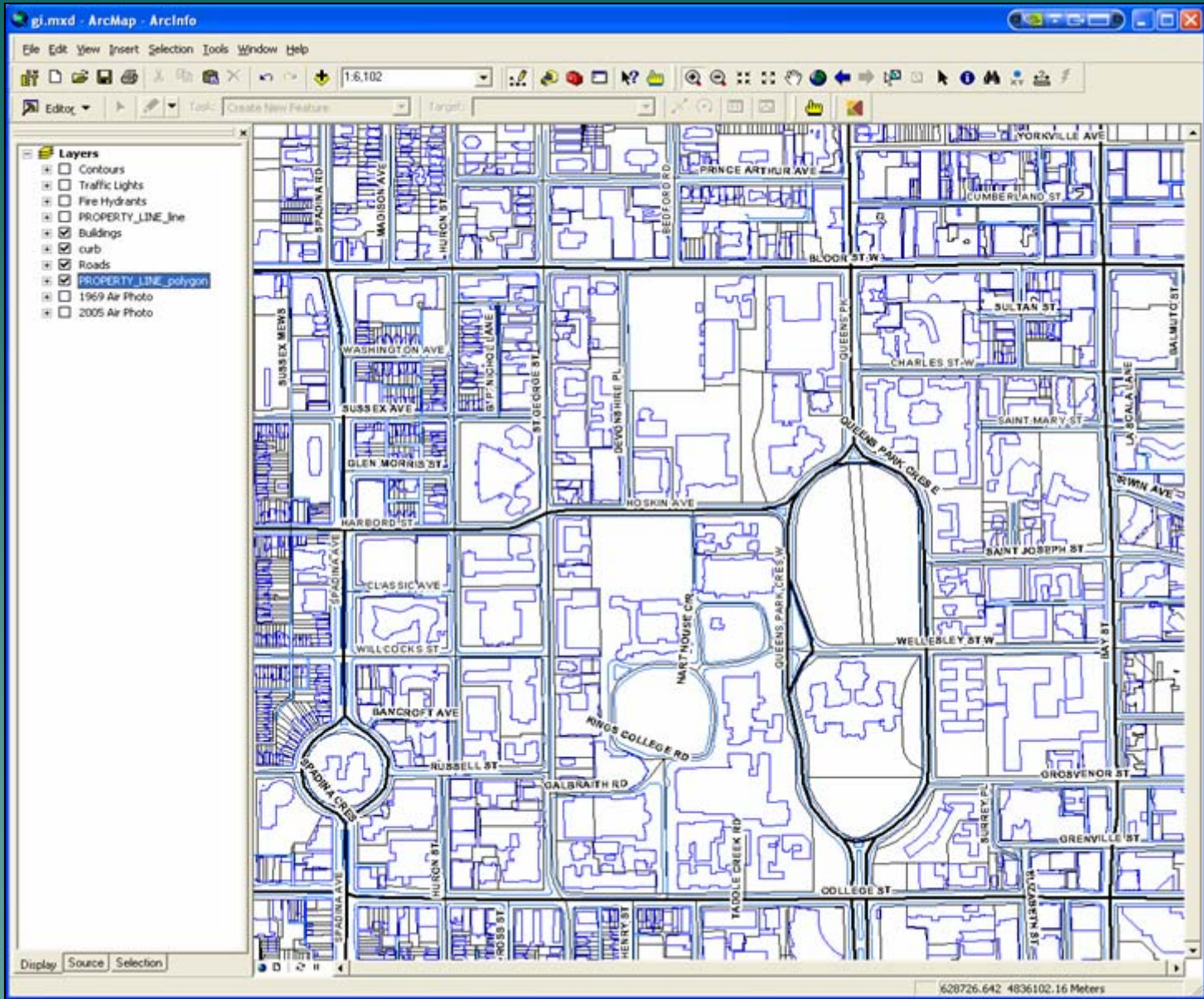
A Look at ArcMap 9.3

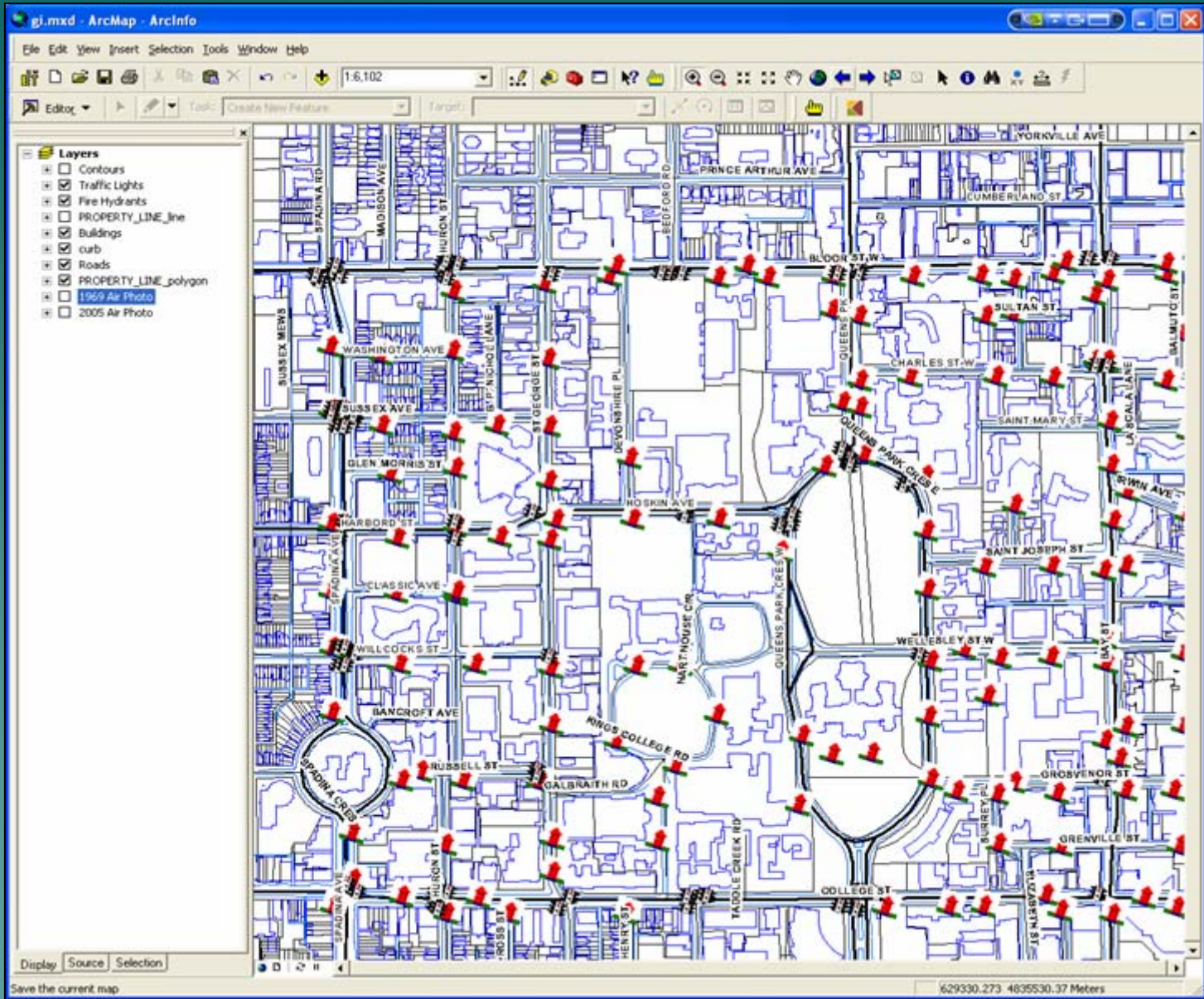


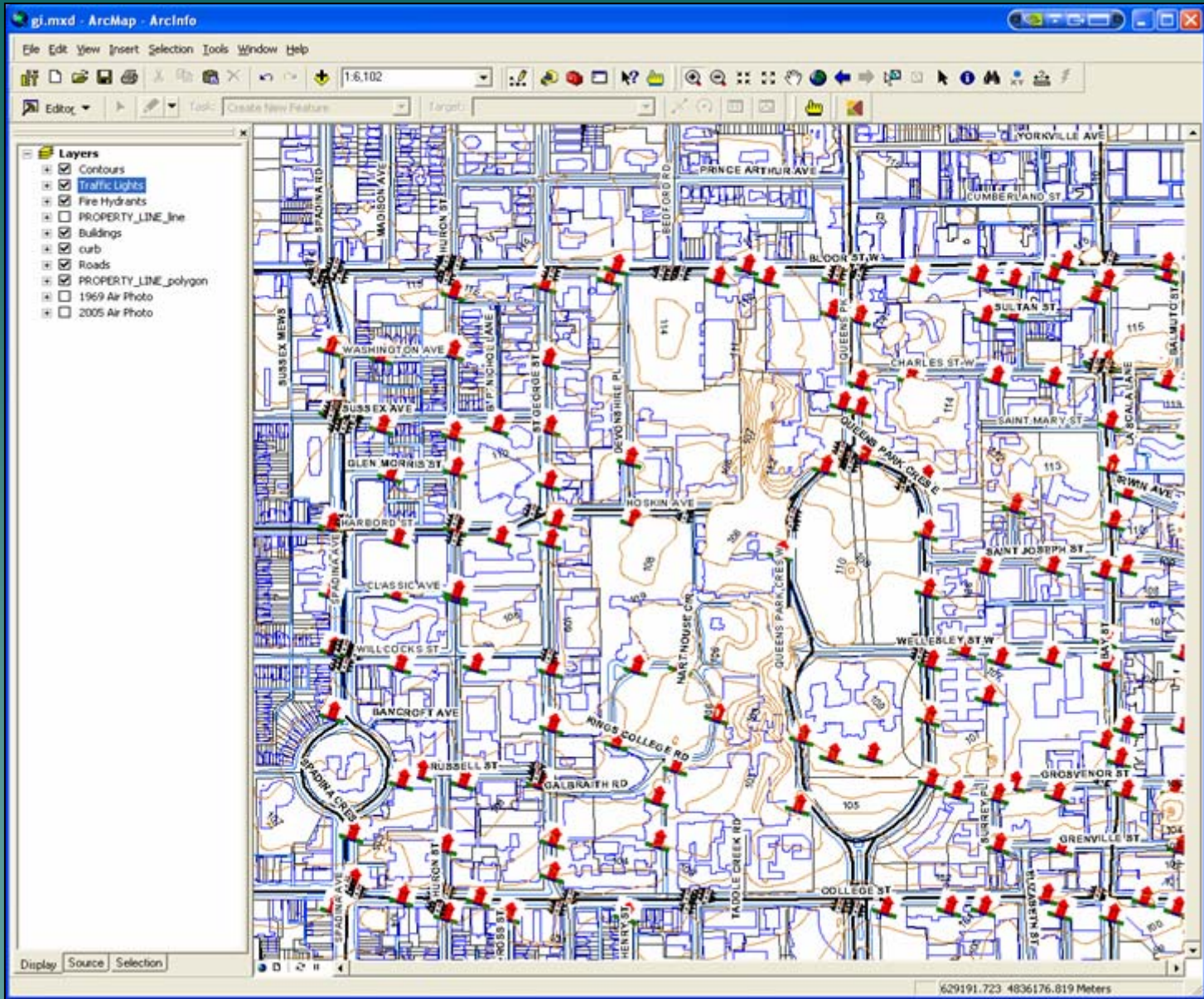




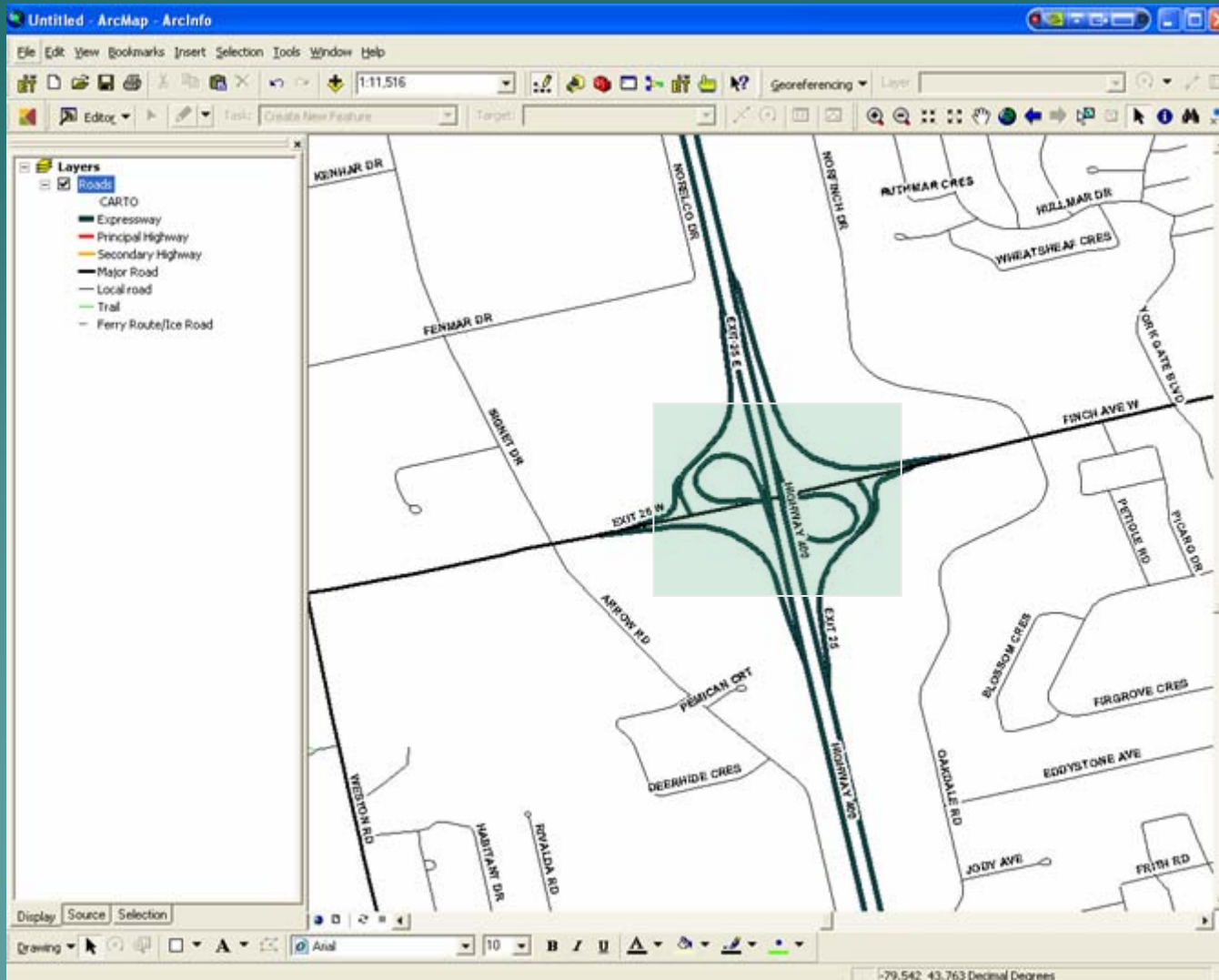




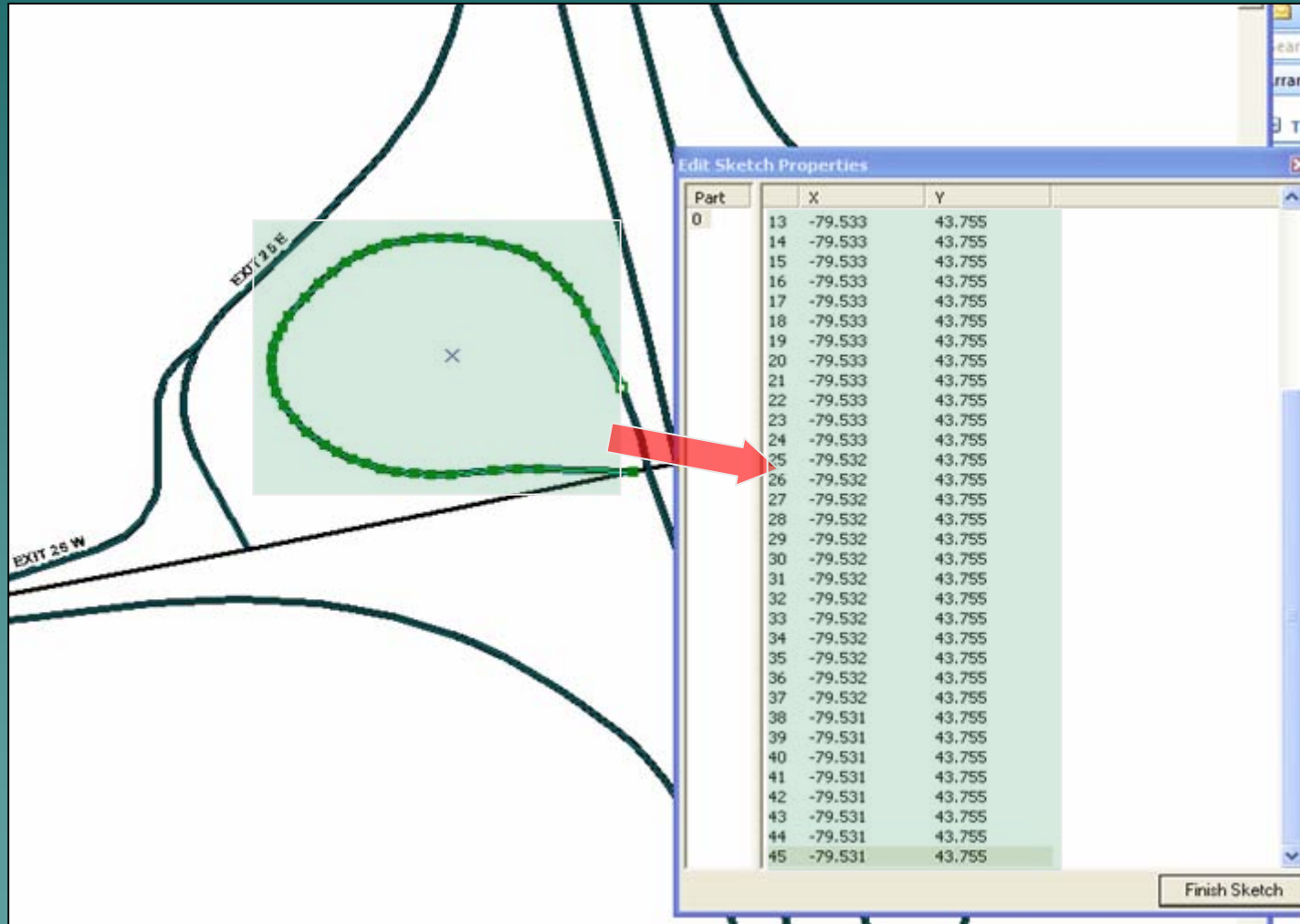




How are geospatial data built?



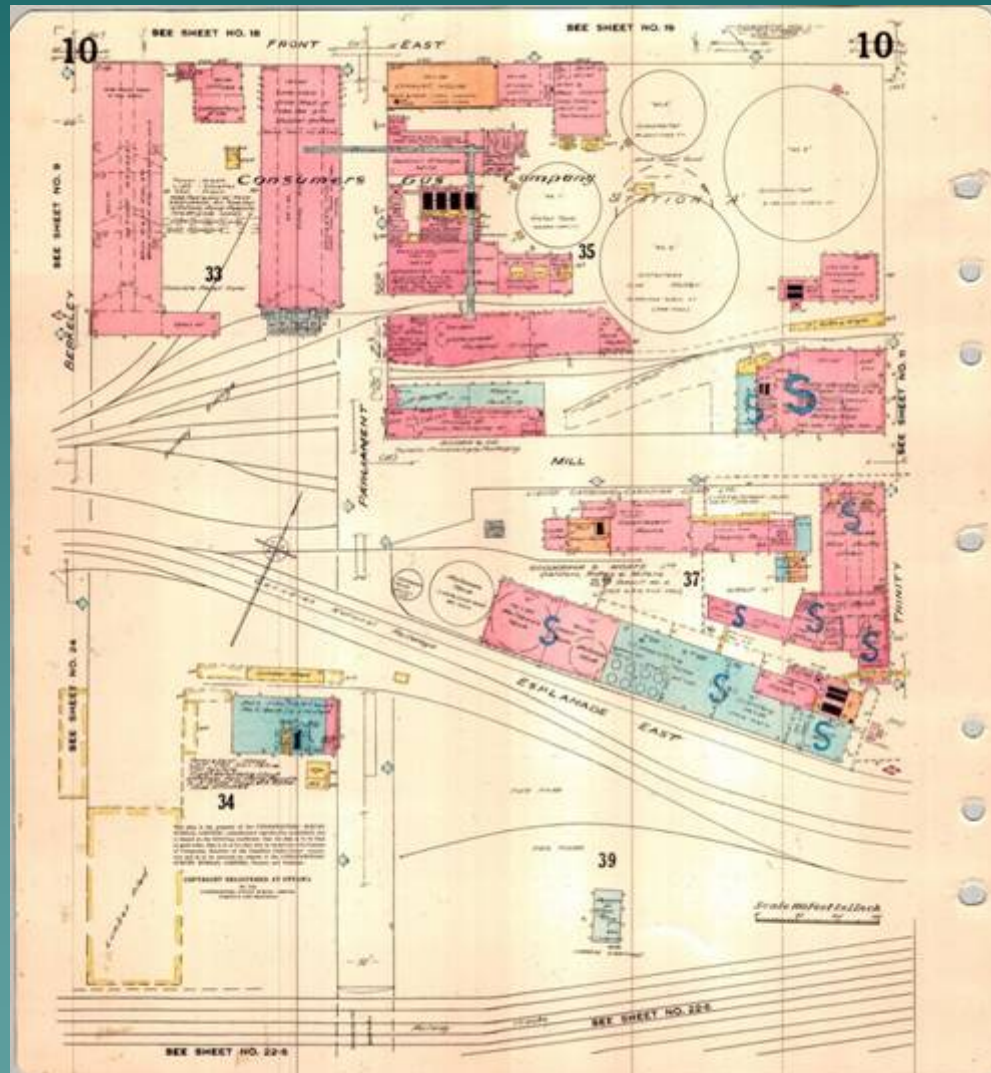
How are geospatial data built?



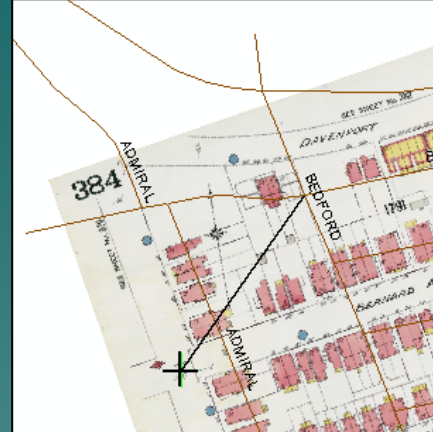
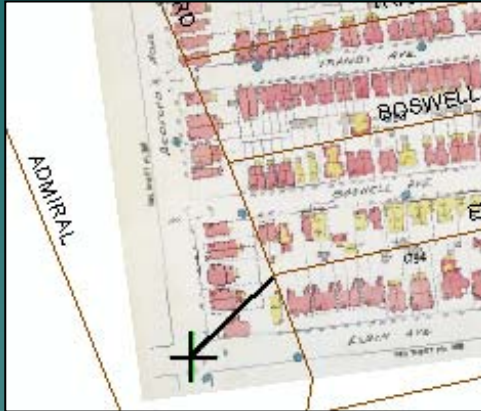
Methodology and Sources



Industry : Fire Insurance Plans



Georeferencing



Industry : City Directories

68

TORONTO BUSINESS DIRECTORY.

Wilson, Thomas, 71 Nelson-street.
Woodall, George, 11 St. Lawrence Arcade.
Woolley, Miss, 293 Yonge-street.
Yeo, Samuel, 116 York-street.
SMITH, W. W., 80 Queen-street west.
Morrison, J., 234 Queen-street west.

Furnaces (Hot-air).

(See also Stove and Tin Dealers.)

Boxall, John, 50 Queen-street west.
Boxall & Brother, 50 Queen-street west.

Furniture Manufacturers and Dealers.

(See also Cabinet Makers and Upholsterers.)

Bond, John, 209 King-street east.
Doyle, Matthew, 97 Yonge-street.
FRANCIS, T., 197 Yonge-street.
Jacques & Hay, Front, cor Bay-street, and King, cor Bay-street.
Hollins, R. T., 187 Yonge street.
HULME, C. L., 194 King-street east.
Krigler, Thos., 240 King-street east.
Miall & Co., 6 and 8 Front-street west.
Matthews, H., 241 Yonge-street.
Moore, D., 299 Yonge-street.
O'CONNOR, CHARLES, 226 Yonge-street.
PHIPPS, GEORGE, 84 King-street west.
Waterson, W., 315 Yonge-street.
West, W., 21 Adelaide-street east.

Furniture Mover.

Sparling, Christopher, 67 Victoria-street.

Figure Maker and Plaster Paris Worker.

CASCI, V., 3 Stanley-street.

Furriers.

(See Hatters and Furriers.)

Gas Company.

Consumers' Gas Company, 19 Toronto-street.

Gas Fitters.

(See Plumbers and Gas Fitters.)

Gilders.

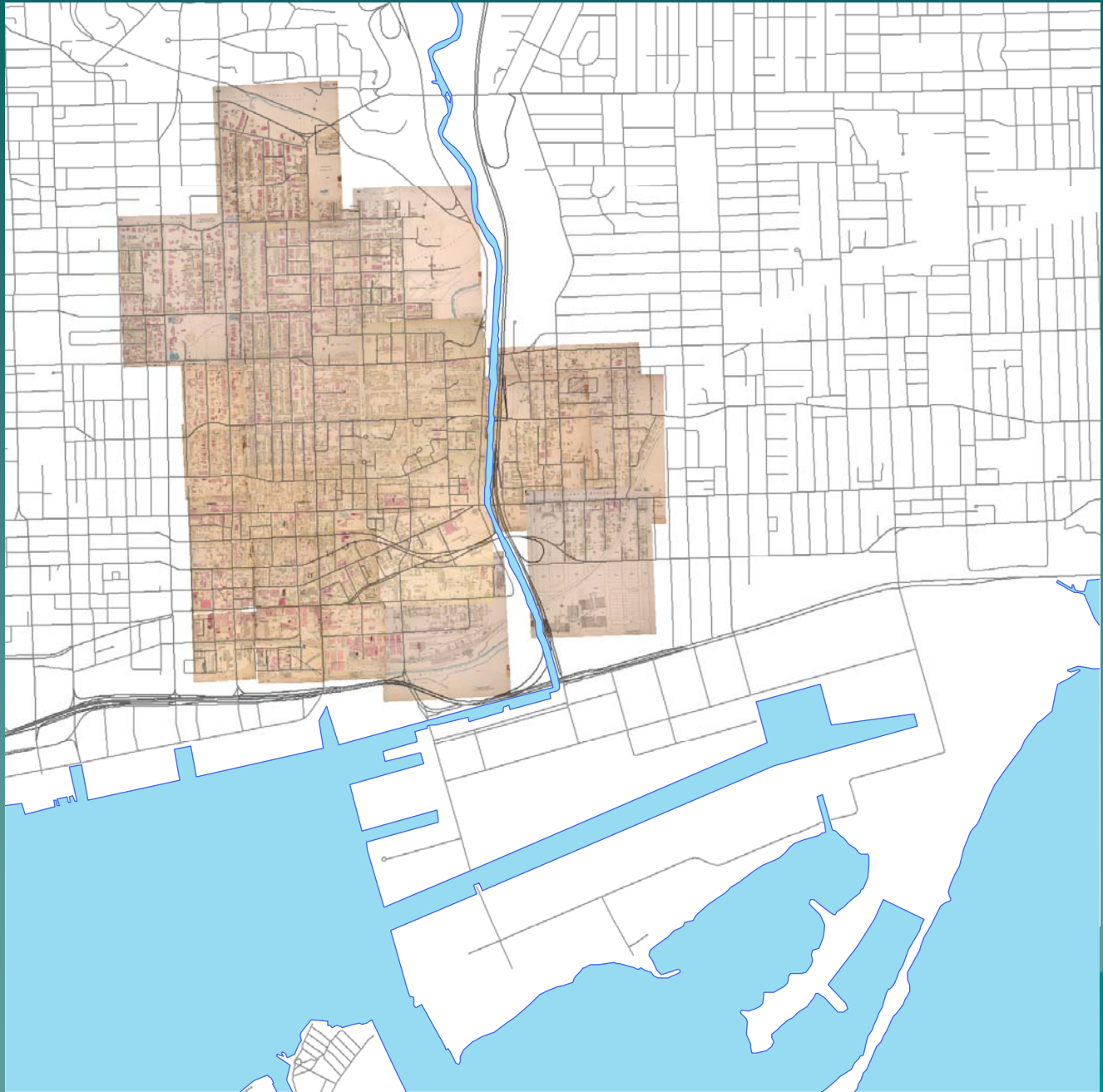
(See Carvers and Picture Frame Makers.)

Glass Stainers.

McCausland & Horwood, 119 Bay-street.

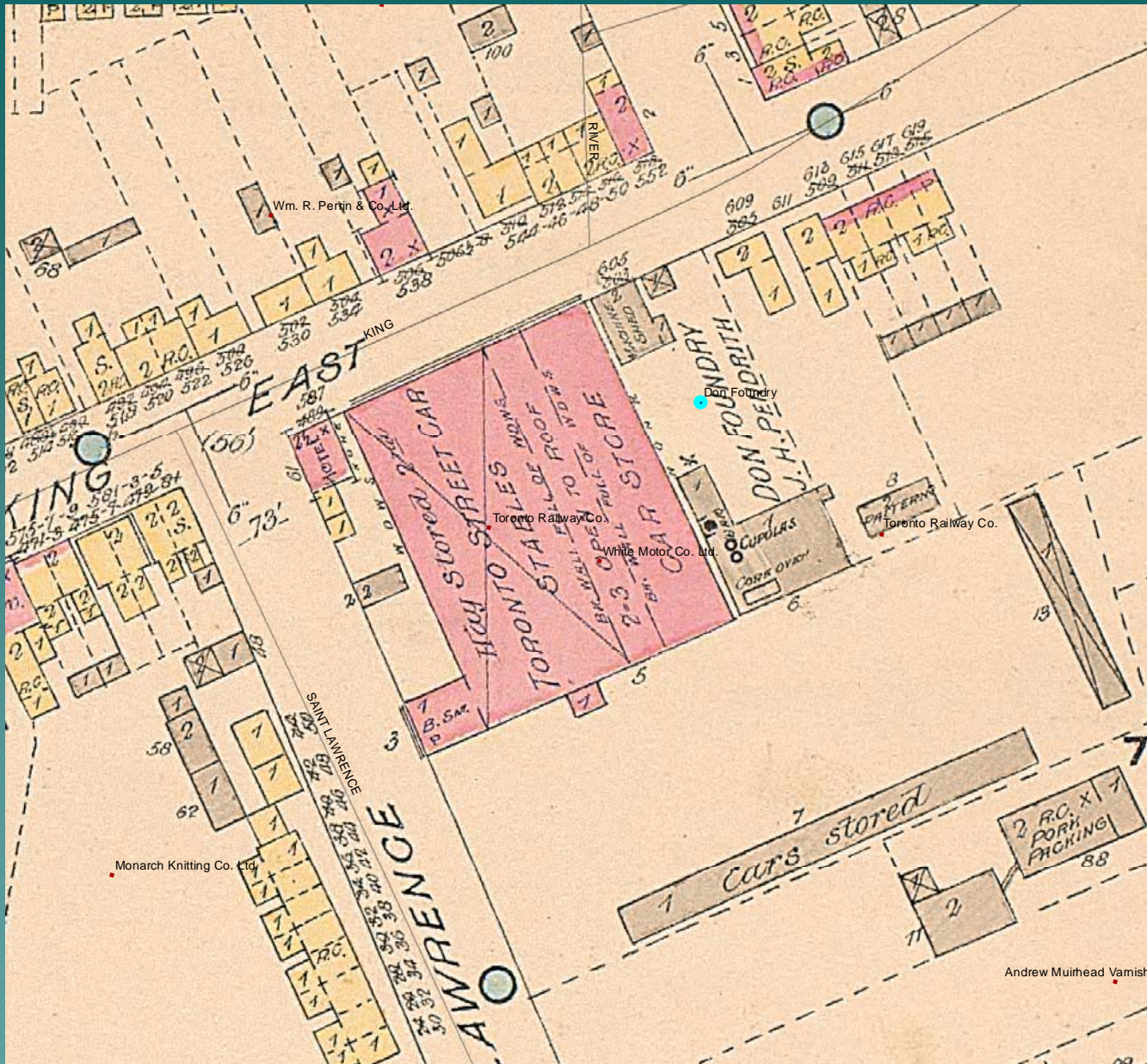
Glue Manufacturers.

Carr, Samuel, Davenport Road, Yorkville.
Lamb, Peter R., near Necropolis.



1892 / 2008





Wm. R. Pertin & Co., Ltd.

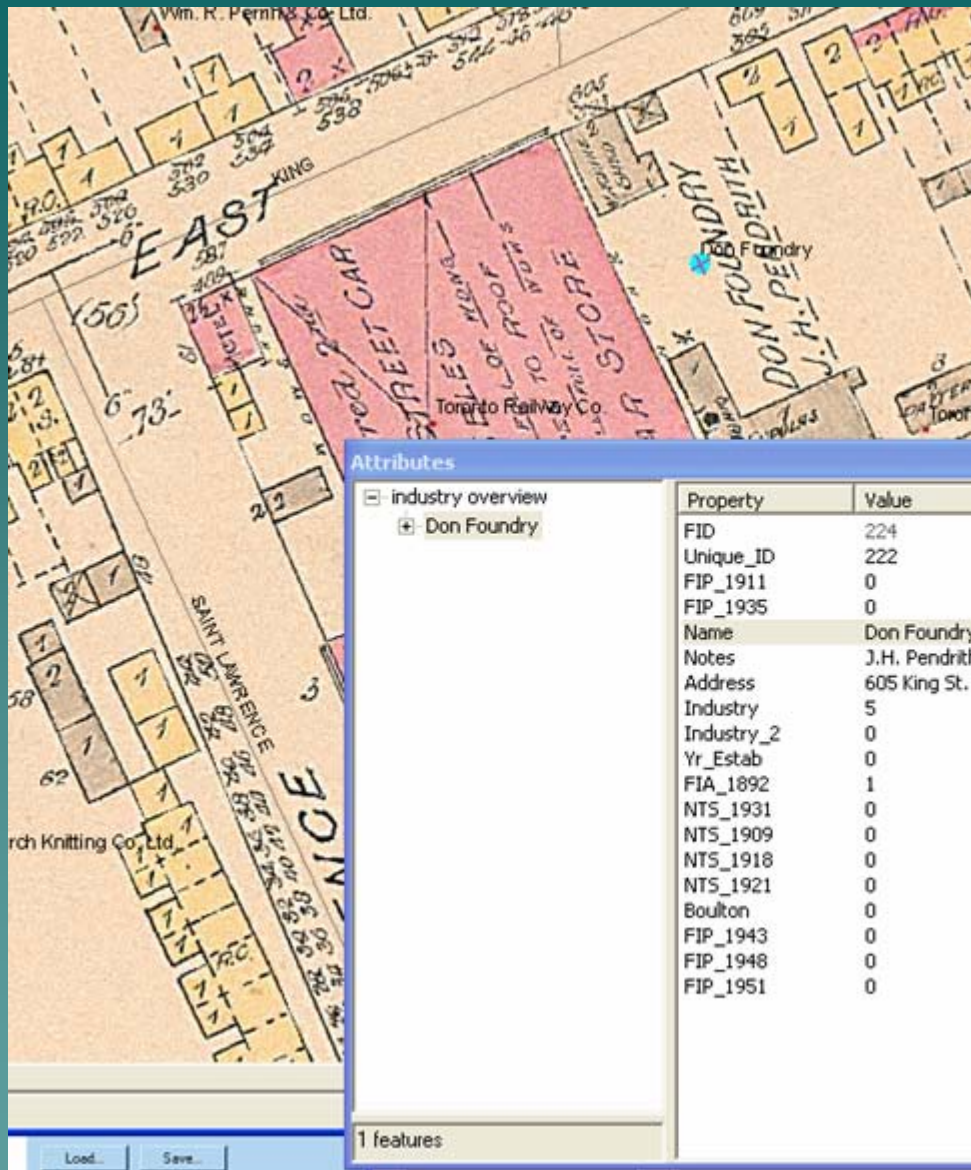
Toronto Railway Co.

White Motor Co. Ltd.

Toronto Railway Co.

Monarch Knitting Co. Ltd.

Andrew Muirhead Vamish



1. Saw mills [heavy manufacturing: raw material to product]
2. Paper mills [heavy manufacturing]
3. Grist mills [heavy manufacturing]
4. Breweries and Distilleries [heavy manufacturing]
5. Foundries and machinists (iron works, engine works, boiler makers, etc) [heavy manufacturing]
6. Animal Processing (abattoirs, rendering plants, tanneries); [heavy manufacturing]
7. Oil Refineries (including producers of oil-based paints and varnishes) [heavy manufacturing]
8. Soap works
9. Textile manufacturers
10. Other Food Production (bakeries, canned and bottled goods, etc)
11. Other Light Manufacturing (describes factories that create finished products from previously prepared materials—*ie* not from raw materials: household appliances, household goods, furniture, equipment (including carriages and ladders), clothing, etc.
12. Fuel Storage (coal and coal oil storage): storage and supply rather than production.
13. Building Materials Producers and Suppliers (lumber, cement, aggregates, glass, marble, granite, etc.). *planing mill would also go here.
14. Agricultural Suppliers (including animal feeds, fencing and wire): storage and supply rather than production.
15. General suppliers and warehousing: storage and supply rather than production.
16. Transportation (rail, shipping, etc)
17. Utilities (Consumer's Gas, etc)
18. Chemical Producers and Suppliers
19. Printing and lithographing

Attributes of industry overview

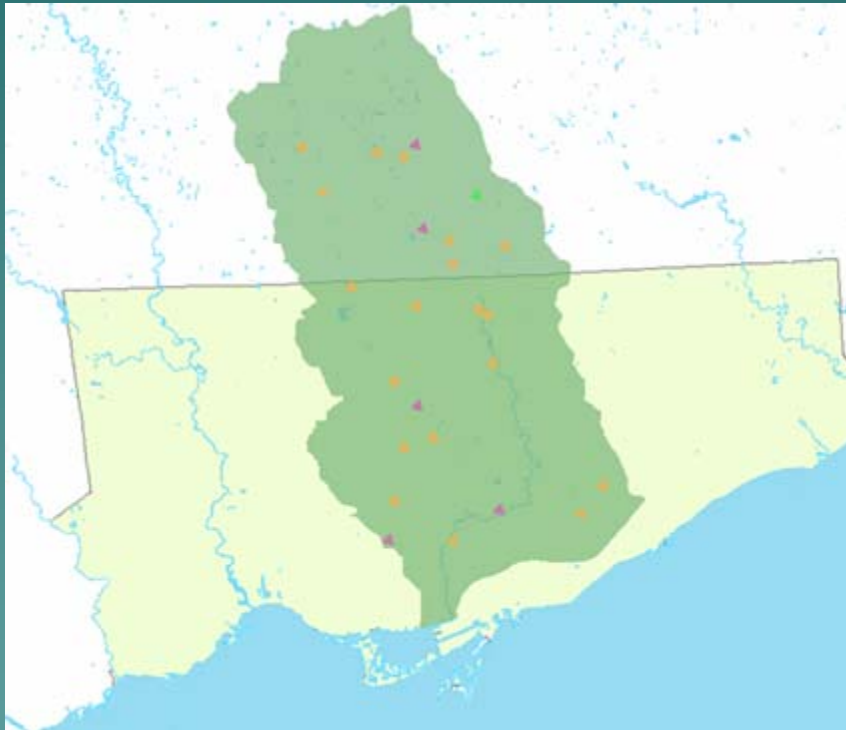
FI	Sh	Uniqu	Name	Address	Notes	Industr	Industry_2	Bouuto	FIA_1892	NTS_1909	FIP_1911	NTS_1918	NTS_1921	NTS_1931
0	Poi	1	National Iron Works Ltd.	324 Cherry St.	later National Iron Corp	5	0	0	0	0	1	0	0	0
1	Poi	2	British American Oil Co. Ltd.	Cherry St. and Keatin		7	0	0	0	0	0	0	0	0
16	Poi	2	British American Oil Co. Ltd.	Keating Ave. (now L		7	12	0	0	0	0	0	0	0
2	Poi	3	Toronto Iron Co.	Cherry St.		5	0	0	0	0	1	0	0	0
3	Poi	4	Standard Fuel Co. Ltd.	Mill St.		12	0	0	0	0	1	0	0	0
4	Poi	5	The Wm. Davies Company Ltd.	521 Front St. E.		6	10	0	1	0	1	0	0	0
81	Poi	5	The Wm. Davies Company Ltd.	55-65 Parliament St.		6	10	0	0	0	1	0	0	0
5	Poi	6	John Taylor & Co. Ltd.	531 Front St. E.	soap and perfume man	8	0	0	0	0	1	0	0	0
7	Poi	7	Wickett & Craig Ltd.	1-37 Cypress St.	tannery, known as Bic	6	0	0	0	0	1	0	0	0
46	Poi	7	Bickell & Wickett Ltd.	1-37 Cypress St.	tannery	6	0	0	1	0	0	0	0	0
6	Poi	8	The Eastern Storage Co.	Eastern Ave. at Over		15	0	0	0	0	1	0	0	0
8	Poi	9	Laidlaws Ltd.	Overend St. at Easter		13	0	0	0	0	1	0	0	0
9	Poi	10	Canadian Northern Transfer Co. Ltd.	Cherry St. at Front St		16	0	0	0	0	1	0	0	0
10	Poi	11	J.M. Purvis	2 Don Esplanade	cotton manufacturing	9	0	0	0	0	1	0	0	0
23	Poi	12	Toronto Railway Co.	92 King St. E.		16	0	0	0	0	1	0	0	0
22	Poi	12	Toronto Railway Co.	591 King St. E.	streetcar stables	16	0	0	1	0	0	0	0	0
11	Poi	13	Gooderham & Worts Ltd.		cattle operations	6	0	0	0	0	1	0	0	0
84	Poi	13	Gooderham & Worts Ltd.	2-16 Trinity St.	distillery	4	0	1	1	0	1	0	0	0
85	Poi	13	Gooderham & Worts Ltd.	63 Trinity St.	cooperage	11	0	0	1	0	1	0	0	0
93	Poi	13	Gooderham & Worts Ltd.	west side of Trinity S	distillery	4	0	1	1	0	1	0	0	0
24	Poi	13	Gooderham & Worts Ltd.	424 Front St. E.	cooperage	5	0	0	1	0	0	0	0	0
12	Poi	14	Sovereign Varnish & Oil Co.	357-359 Eastern Ave	later Samuel Jardine So	7	0	0	0	0	1	0	0	0
35	Poi	15	Martin Pump & Machine Co. Ltd.	47 Davies Ave.		5	0	0	0	0	1	0	0	0
13	Poi	16	Lever Bros. Ltd. Sunlight Soap Works	Eastern Ave. at Don		8	0	0	0	0	1	0	0	0
38	Poi	16	Lever Bros. Ltd.	Don Roadway S.	old Gooderham & Wort	8	0	0	0	0	0	0	0	0
68	Poi	17	Dominion Wheel Foundries Ltd.	Eastern Ave. at Sum		11	0	0	0	0	1	0	0	0
37	Poi	17	Dominion Wheel Foundries Ltd.	north side of Eastern		11	0	0	0	0	0	0	0	0
37	Poi	17	Dominion Wheel Foundries Ltd.	121-179 Eastern Ave	business expansion int	11	0	0	0	0	0	0	0	0
46	Poi	18	Taylor Butler	103 Ontario St.	planing mill	13	0	0	1	0	0	0	0	0
15	Poi	19	Cleansoline Refrigerating Co. Ltd.	Booth Ave.		18	0	0	0	0	1	0	0	0
16	Poi	20	One Minute Manufacturing Co.	Logan Ave.	manufacturing of dome	11	0	0	0	0	1	0	0	0
17	Poi	21	Freyseng Cork Co. Ltd.	61-71 Sumach St.		13	0	0	1	0	1	0	0	0
18	Poi	22	Hamilton Carhartt Manufacturing Ltd.	535 Queen St. E.		11	0	0	0	0	1	0	0	0
19	Poi	23	Wm. R. Perrin & Co. Ltd.	530 King St. E.	packing machinery & pr	5	0	0	0	0	1	0	0	0
20	Poi	24	J.W. Corson & Co.	Sumach St.	coal, wood, coke & car	13	0	0	0	0	1	0	0	0
21	Poi	24	J.W. Corson & Co.	Funston St. secondar	secondary location	13	0	0	0	0	1	0	0	0
46	Poi	25	Treloar, Blashford & Co.	6-8 Berkeley St.	founders & moulders	5	11	0	1	0	0	0	0	0
22	Poi	26	R. Laidlaw & Co. Ltd.	St. Lawrence St.	lumber	13	0	0	0	0	1	0	0	0
24	Poi	27	Dyer Fence & Supplies Co. Ltd.	Don Esplanade W. at		14	0	0	0	0	1	0	0	0
27	Poi	28	Andrew Muirhead Varnish	St. Lawrence St.	varnish factory	7	0	0	0	0	1	0	0	0

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Project Results



Industry 1825 & 1852



Industry 1858 & 1892



Industry 1909-1930's



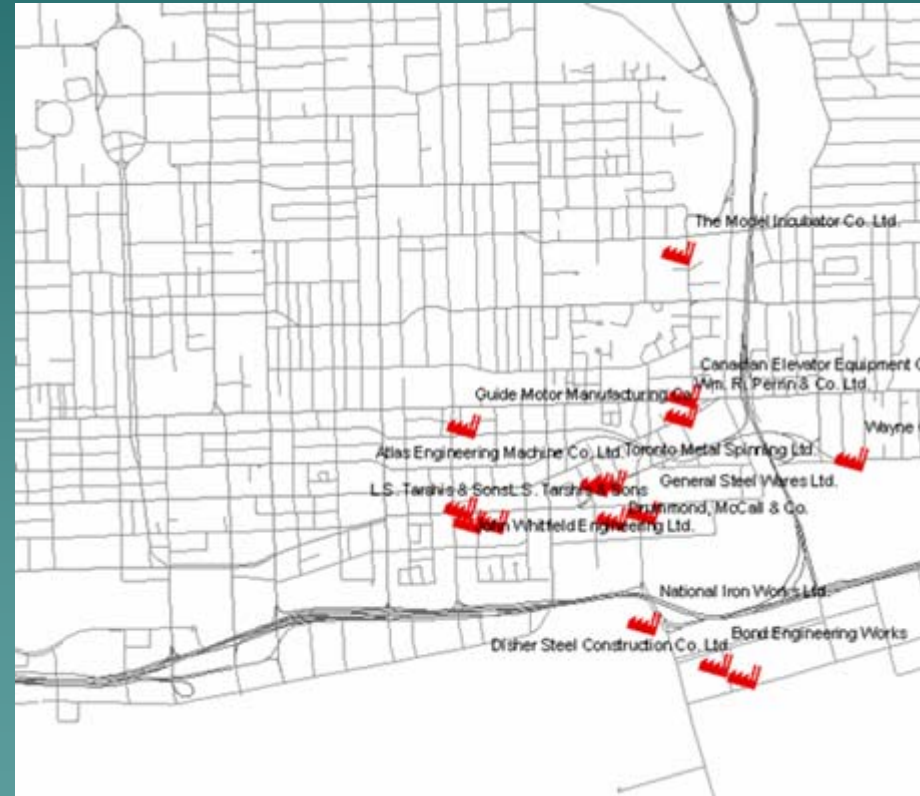
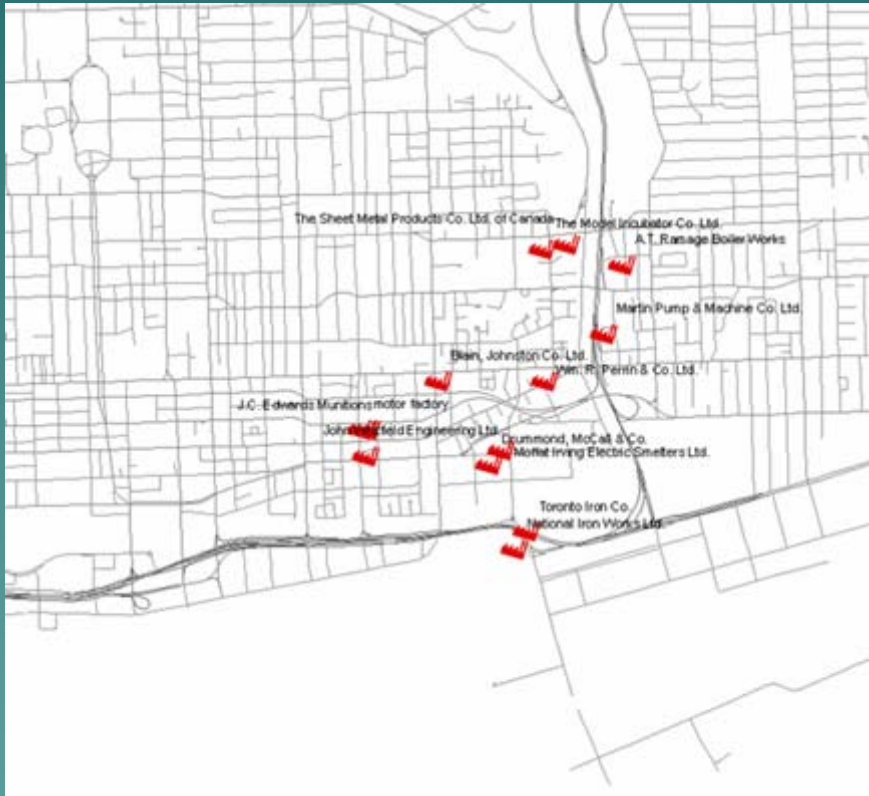
Industry 1935-37



Industry 1940's-1950's



Querying the Data: Foundries in 1911 & 1935



Oil and Gas footprints 1911-51

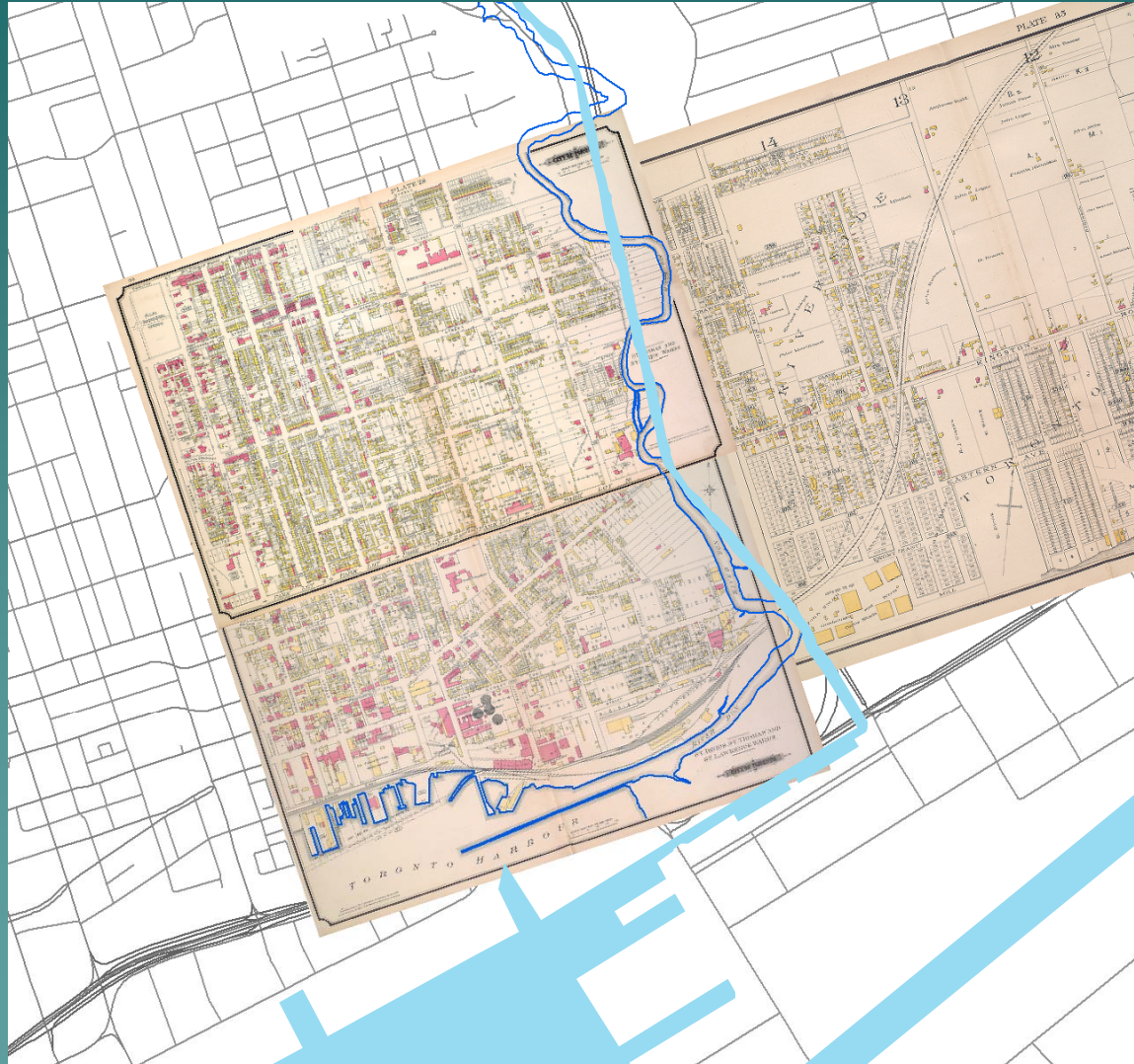


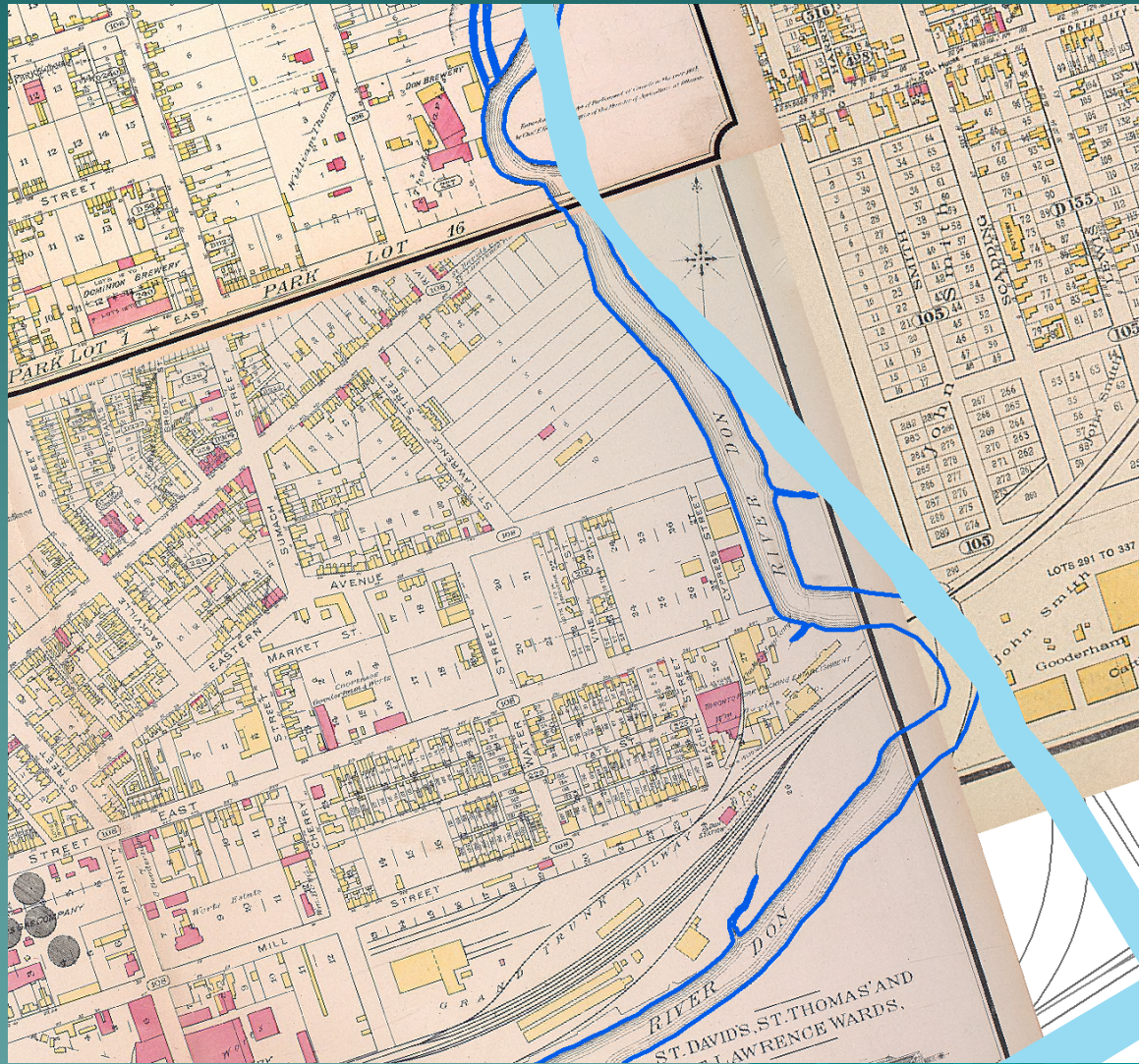
(breweries and animal processing footprints also available)

River, Shoreline, and Ashbridges Bay

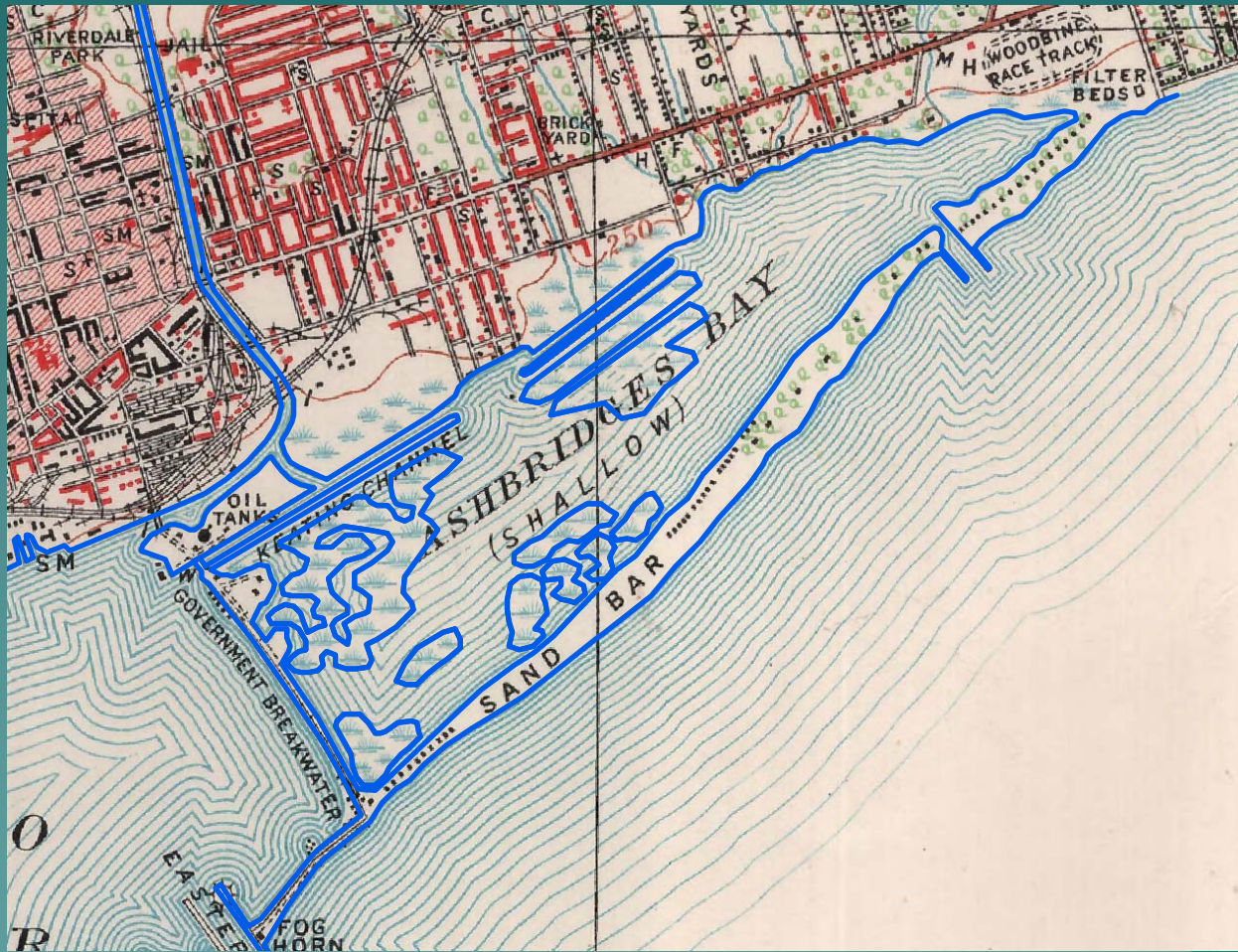


River, Shoreline, and Ashbridges Bay

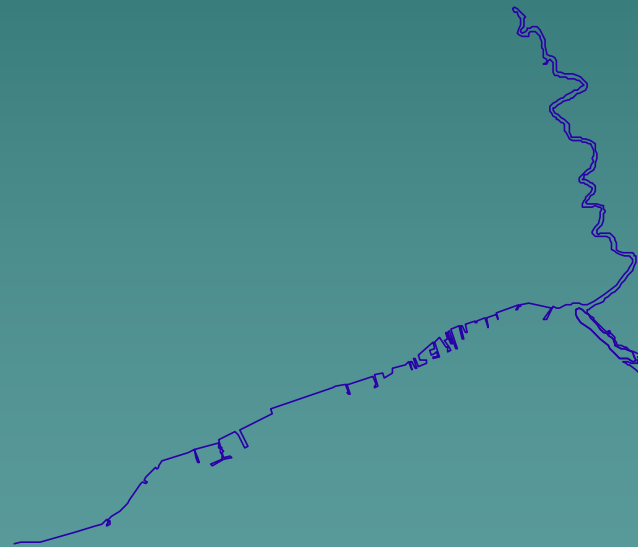




Ashbridges Bay



Don/Shoreline/Ashbridges Bay 1857



Don/Shoreline/Ashbridges Bay 1882



Don/Shoreline/Ashbridges Bay 1891



Don/Shoreline/Ashbridges Bay 1894



Don/Shoreline/Ashbridges Bay 1909



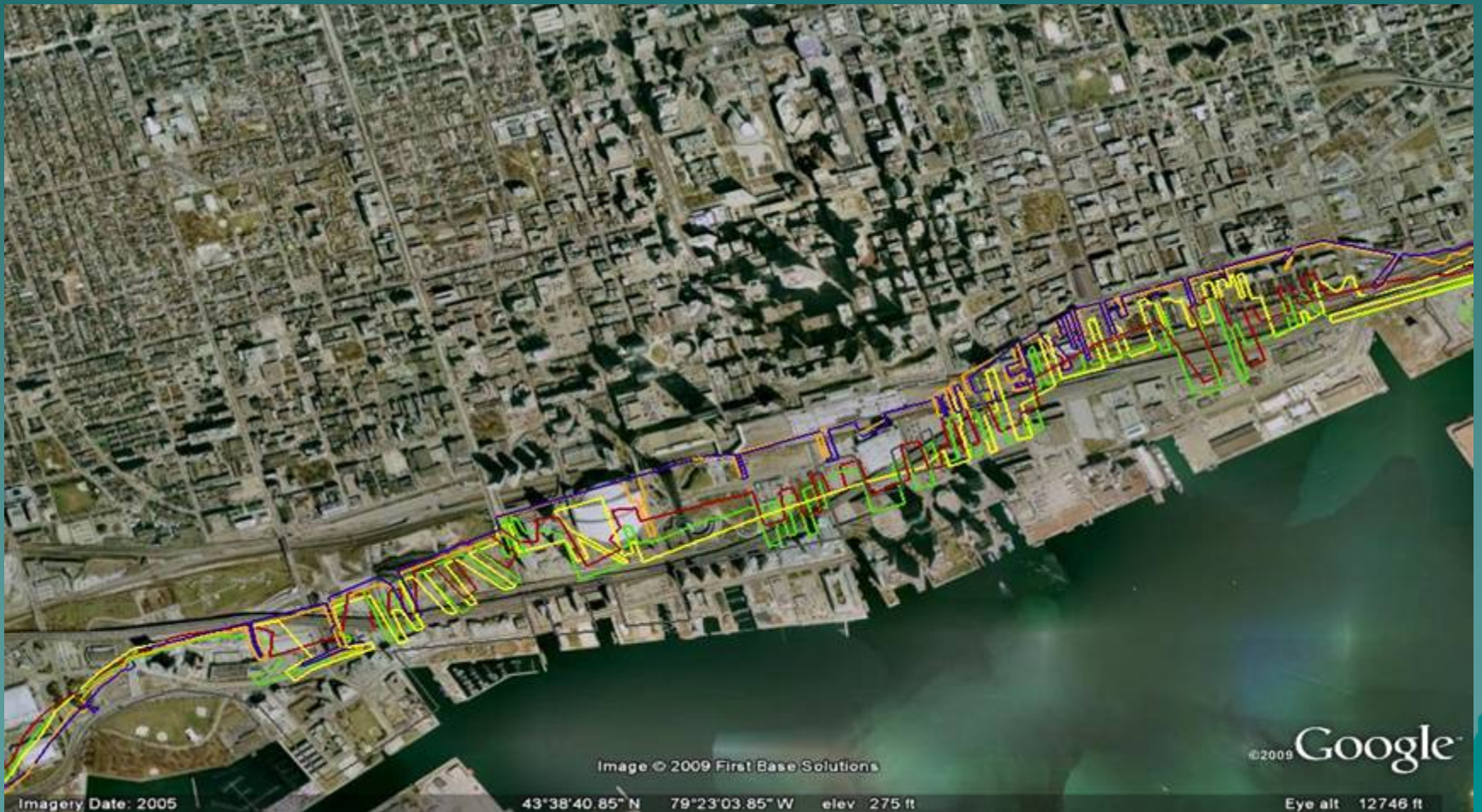
Don/Shoreline/Ashbridges Bay 1918



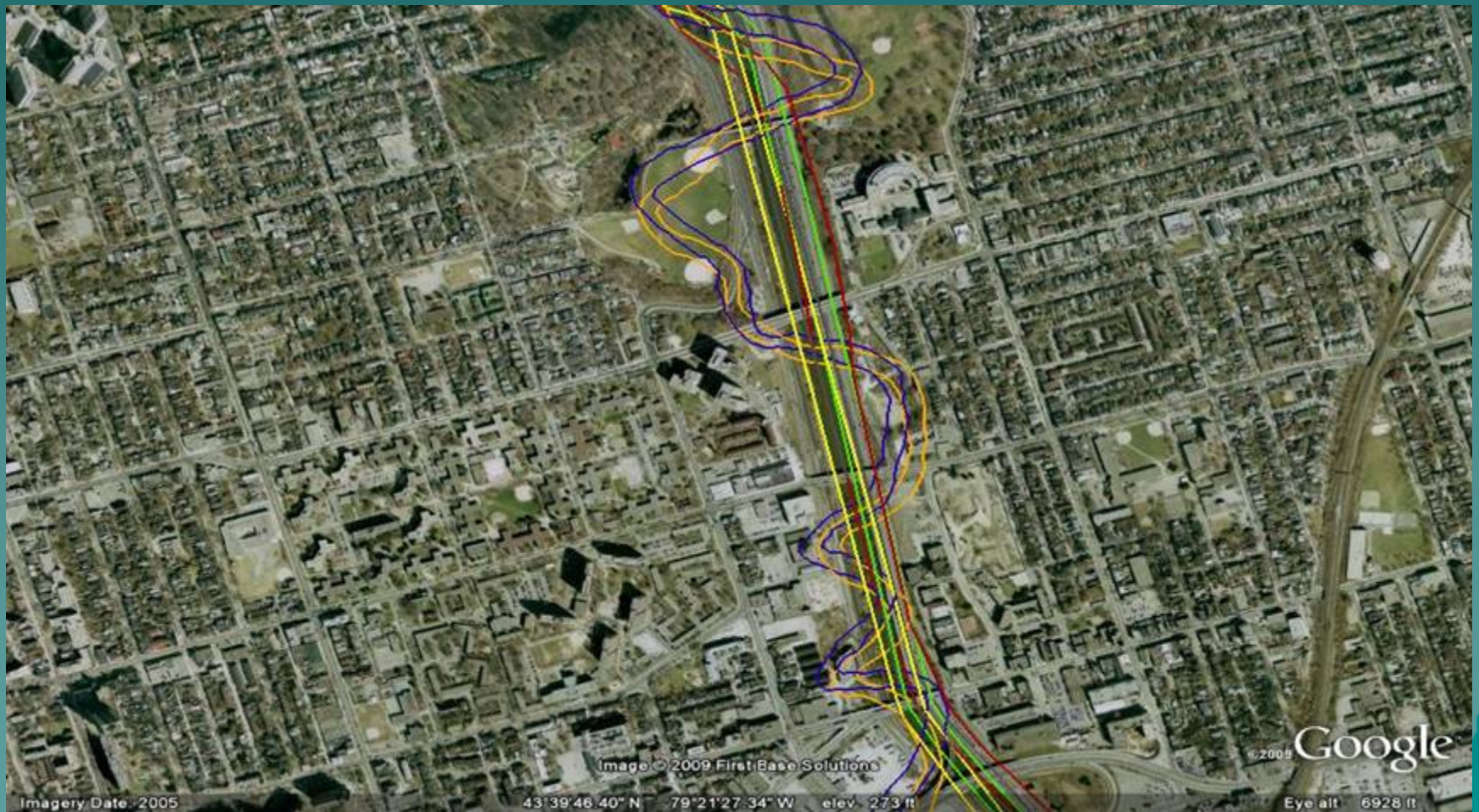
Don/Shoreline/Ashbridges Bay 1857-1918



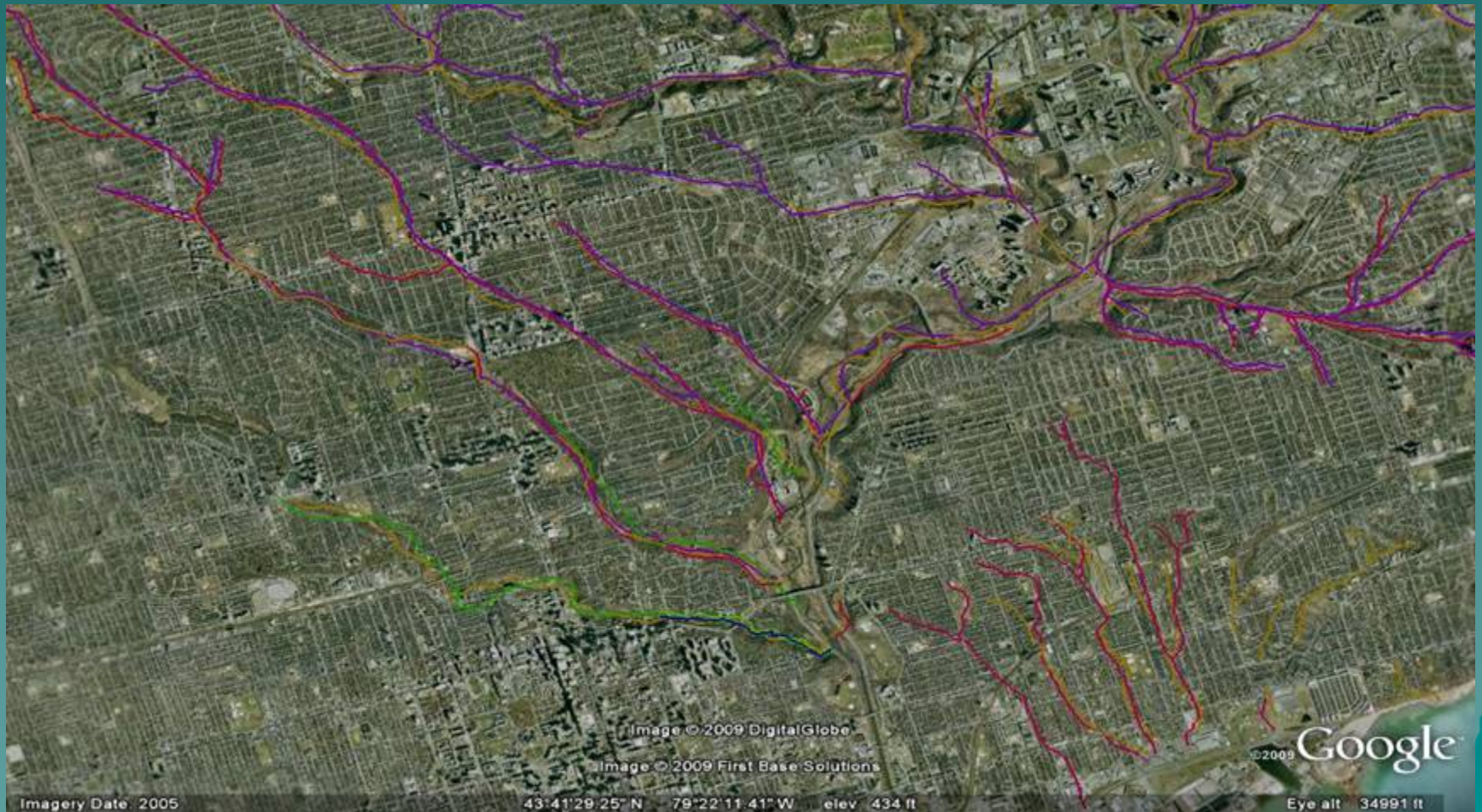
Shoreline on Google Earth



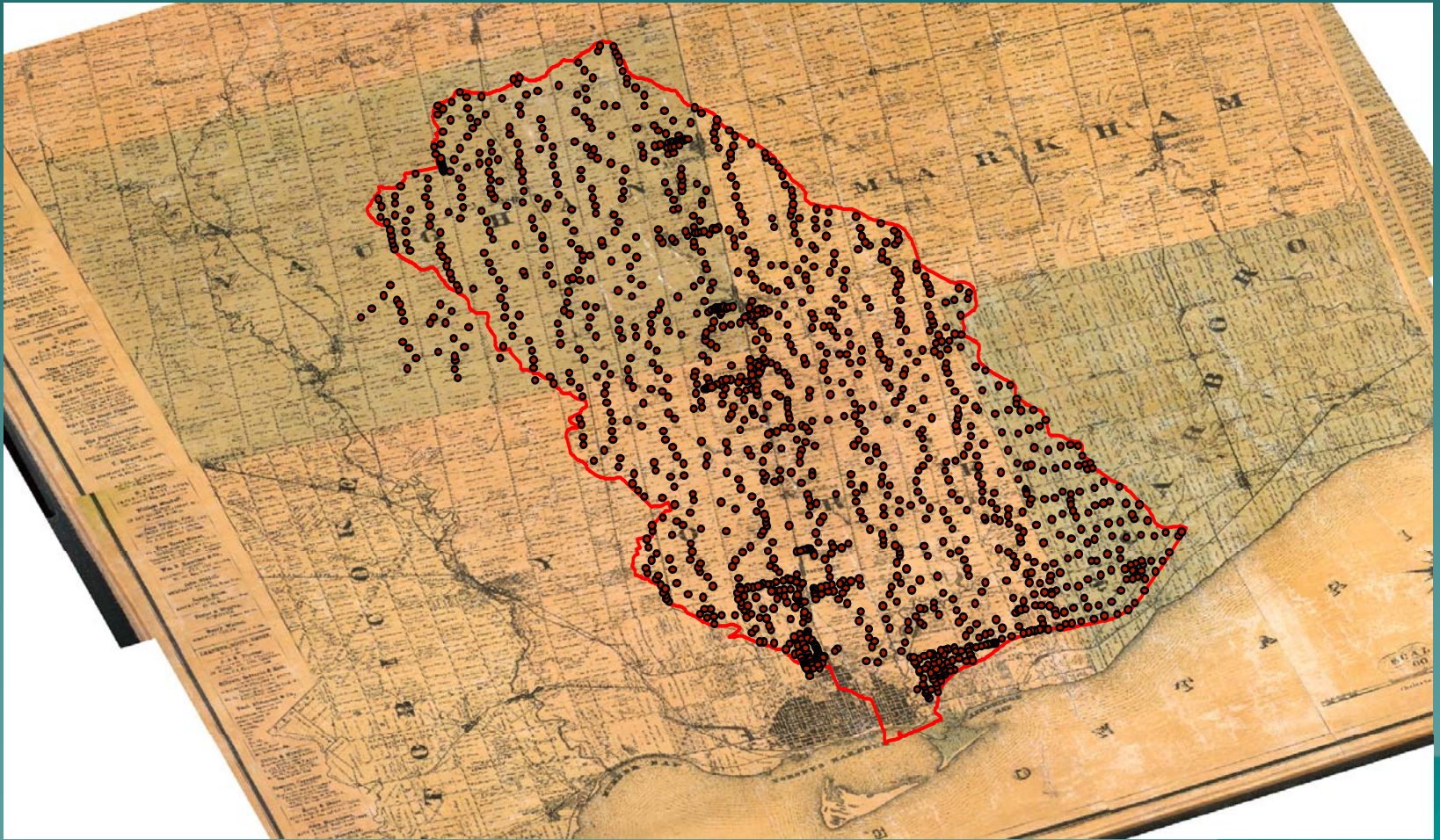
Don River on GE



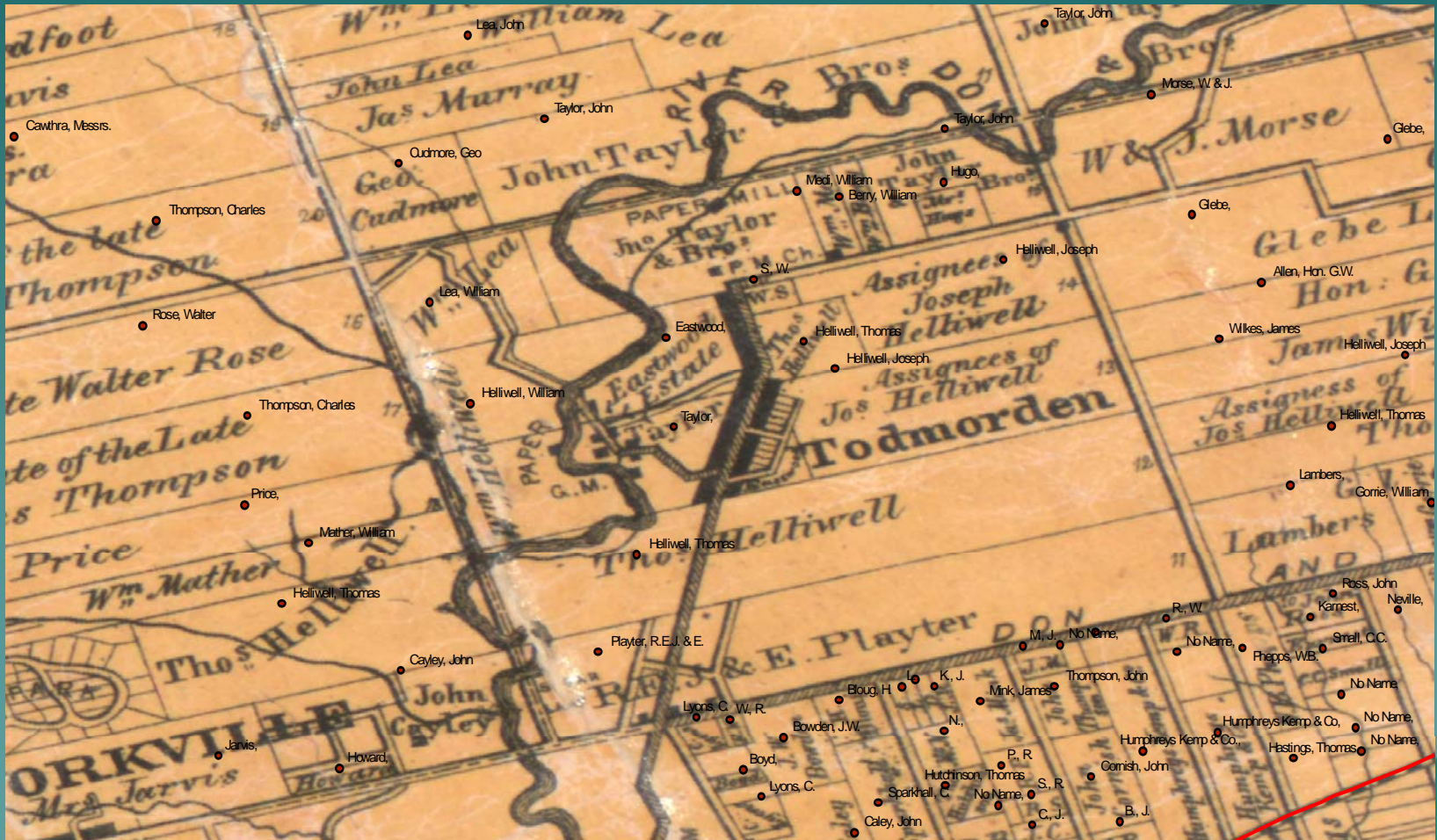
Creeks/Lost Rivers on GE



Land Ownership 1860



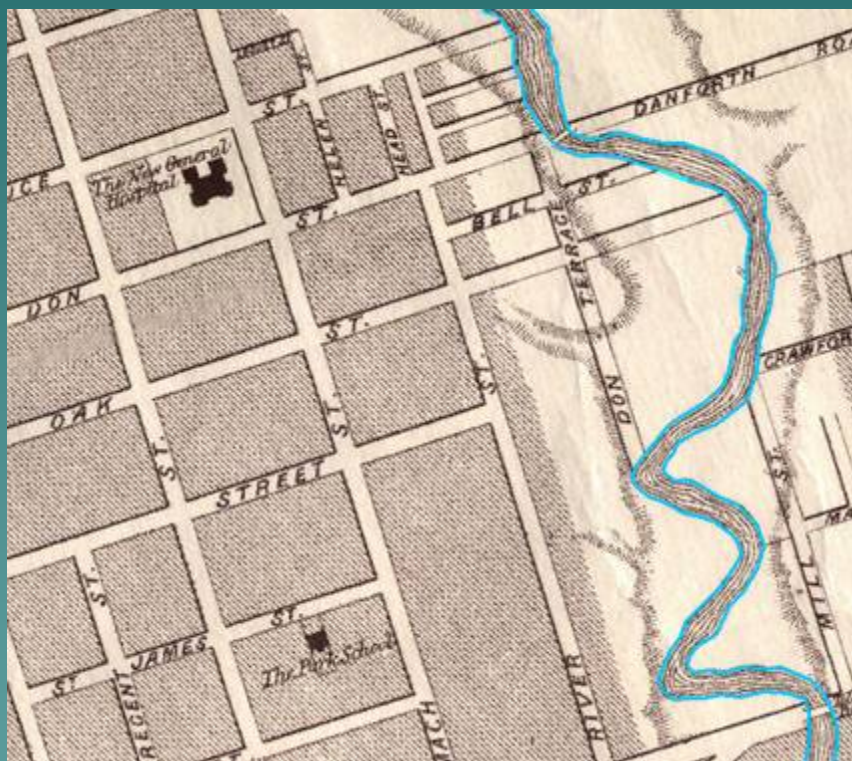
Land Ownership 1860



Land Ownership 1878



Challenges – Accuracy



Toronto, Canada West
G 3524 T61 1857



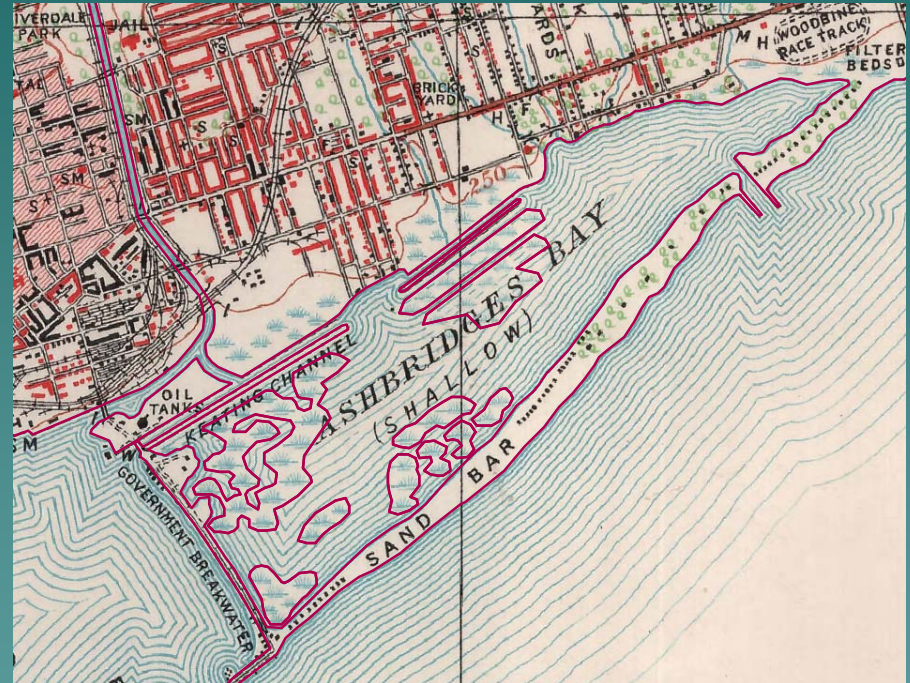
Boulton Atlas
1858

Documentation / Compilation


Attributes of industry overview														
FI	Sh	Uniqu	Name	Address	Notes	Industr	Industry_2	Boult	FIA_1892	NTS_1909	FIP_1911	NTS_1918	NTS_1921	NTS_1931
0	Poi	1	National Iron Works Ltd.	324 Cherry St.	later National Iron Corp	5	0	0	0	0	1	0	0	0
1	Poi	2	British American Oil Co. Ltd.	Cherry St. and Keatin		7	0	0	0	0	0	0	0	0
16	Poi	2	British American Oil Co. Ltd.	Keating Ave. (now L		7	12	0	0	0	0	0	0	0
2	Poi	3	Toronto Iron Co.	Cherry St.		5	0	0	0	0	1	0	0	0
3	Poi	4	Standard Fuel Co. Ltd.	Mill St.		12	0	0	0	0	1	0	0	0
4	Poi	5	The Wm. Davies Company Ltd.	521 Front St. E.		6	10	0	1	0	1	0	0	0
81	Poi	5	The Wm. Davies Company Ltd.	55-65 Parliament St.		6	10	0	0	0	1	0	0	0
5	Poi	6	John Taylor & Co. Ltd.	531 Front St. E.	soap and perfume man	8	0	0	0	0	1	0	0	0
7	Poi	7	Wickett & Craig Ltd.	1-37 Cypress St.	tannery, known as Bic	6	0	0	0	0	1	0	0	0
46	Poi	7	Bickell & Wickett Ltd.	1-37 Cypress St.	tannery	6	0	0	1	0	0	0	0	0
6	Poi	8	The Eastern Storage Co.	Eastern Ave. at Over		15	0	0	0	0	1	0	0	0
8	Poi	9	Laidlaws Ltd.	Overend St. at Easter		13	0	0	0	0	1	0	0	0
9	Poi	10	Canadian Northern Transfer Co. Ltd.	Cherry St. at Front St		16	0	0	0	0	1	0	0	0
10	Poi	11	J.M. Purvis	2 Don Esplanade	cotton manufacturing	9	0	0	0	0	1	0	0	0
23	Poi	12	Toronto Railway Co.	92 King St. E.		16	0	0	0	0	1	0	0	0
22	Poi	12	Toronto Railway Co.	591 King St. E.	streetcar stables	16	0	0	1	0	0	0	0	0
11	Poi	13	Gooderham & Worts Ltd.		cattle operations	6	0	0	0	0	1	0	0	0
84	Poi	13	Gooderham & Worts Ltd.	2-16 Trinity St.	distillery	4	0	0	1	0	1	0	0	0
85	Poi	13	Gooderham & Worts Ltd.	63 Trinity St.	cooperage	11	0	0	1	0	1	0	0	0
93	Poi	13	Gooderham & Worts Ltd.	west side of Trinity S	distillery	4	0	0	1	0	1	0	0	0
24	Poi	13	Gooderham & Worts Ltd.	424 Front St. E.	cooperage	5	0	0	1	0	0	0	0	0
14	Poi	14	Sovereign Varnish & Oil Co.	357-359 Eastern Ave	later Samuel Jardine So	7	0	0	0	0	1	0	0	0
35	Poi	15	Martin Pump & Machine Co. Ltd.	47 Davies Ave.		5	0	0	0	0	1	0	0	0
13	Poi	16	Lever Bros. Ltd. Sunlight Soap Works	Eastern Ave. at Don		8	0	0	0	0	1	0	0	0
38	Poi	16	Lever Bros. Ltd.	Don Roadway S.	old Gooderham & Wort	8	0	0	0	0	0	0	0	0
68	Poi	17	Dominion Wheel Foundries Ltd.	Eastern Ave. at Sum		11	0	0	0	0	1	0	0	0
37	Poi	17	Dominion Wheel Foundries Ltd.	north side of Eastern		11	0	0	0	0	0	0	0	0
37	Poi	17	Dominion Wheel Foundries Ltd.	121-179 Eastern Ave	business expansion int	11	0	0	0	0	0	0	0	0
46	Poi	18	Taylor Butler	103 Ontario St.	planing mill	13	0	0	1	0	0	0	0	0
15	Poi	19	Cleansoline Refrigerating Co. Ltd.	Booth Ave.		18	0	0	0	0	1	0	0	0
16	Poi	20	One Minute Manufacturing Co.	Logan Ave.	manufacturing of dome	11	0	0	0	0	1	0	0	0
17	Poi	21	Freyseng Cork Co. Ltd.	61-71 Sumach St.		13	0	0	1	0	1	0	0	0
18	Poi	22	Hamilton Carhartt Manufacturing Ltd.	535 Queen St. E.		11	0	0	0	0	1	0	0	0
19	Poi	23	Wm. R. Perrin & Co. Ltd.	530 King St. E.	packing machinery & pr	5	0	0	0	0	1	0	0	0
20	Poi	24	J.W. Corson & Co.	Sumach St.	coal, wood, coke & car	13	0	0	0	0	1	0	0	0
21	Poi	24	J.W. Corson & Co.	Funston St. secondar	secondary location	13	0	0	0	0	1	0	0	0
46	Poi	25	Treloar, Blashford & Co.	6-8 Berkeley St.	founders & moulders	5	11	0	1	0	0	0	0	0
22	Poi	26	R. Laidlaw & Co. Ltd.	St. Lawrence St.	lumber	13	0	0	0	0	1	0	0	0
24	Poi	27	Dyer Fence & Supplies Co. Ltd.	Don Esplanade W. at		14	0	0	0	0	1	0	0	0
27	Poi	28	Andrew Muirhead Varnish	St. Lawrence St.	varnish factory	7	0	0	0	0	1	0	0	0

Record: 14 0 Show: All Selected Records (0 out of 471 Selected) Options


Challenges – What's what?



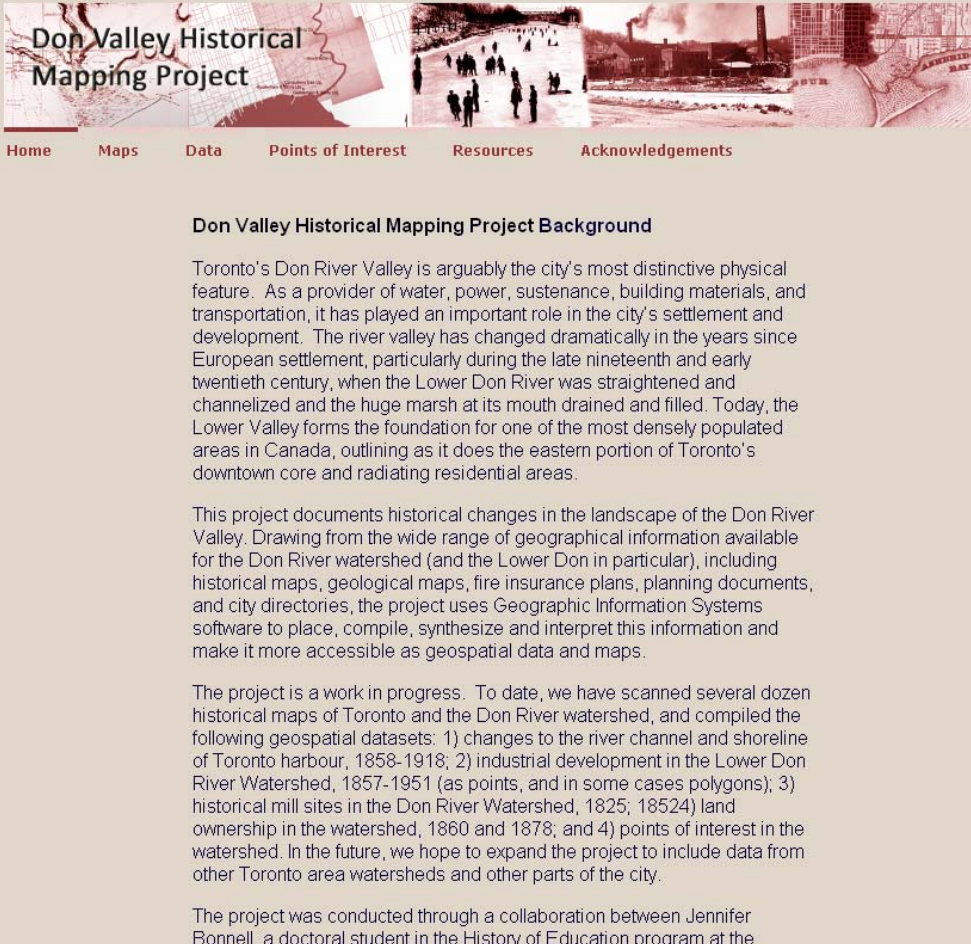
Other Challenges - Sources

- ◆ Historical GIS, is new, it has no guidelines, no rules, and not very many examples
 - ◆ Access to sources
 - ◆ Copyright (Fire Insurance Plans mess in Canada)
 - ◆ Licensing / Restrictions on use
 - ◆ Costs
 - ◆ Original sources vs. Reproduction sources
 - ◆ Preservation (data and images)
 - ◆ Metadata
 - ◆ long and tedious to compile
 - ◆ Standards issues (software restrictions, government issues)
- 

Future

- ◆ Expand Geographically to all of Toronto
 - ◆ Roads
 - ◆ Sewers
 - ◆ Lost Rivers West
 - ◆ Industry beyond the watershed
 - ◆ Rail Lines
 - ◆ Contours
 - ◆ Extend Shoreline to the Bluffs and beyond
 - ◆ Forest Cover
 - ◆ \$\$\$\$
- 

Data Dissemination – Web Pages



Don Valley Historical Mapping Project

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Don Valley Historical Mapping Project Background

Toronto's Don River Valley is arguably the city's most distinctive physical feature. As a provider of water, power, sustenance, building materials, and transportation, it has played an important role in the city's settlement and development. The river valley has changed dramatically in the years since European settlement, particularly during the late nineteenth and early twentieth century, when the Lower Don River was straightened and channelized and the huge marsh at its mouth drained and filled. Today, the Lower Valley forms the foundation for one of the most densely populated areas in Canada, outlining as it does the eastern portion of Toronto's downtown core and radiating residential areas.

This project documents historical changes in the landscape of the Don River Valley. Drawing from the wide range of geographical information available for the Don River watershed (and the Lower Don in particular), including historical maps, geological maps, fire insurance plans, planning documents, and city directories, the project uses Geographic Information Systems software to place, compile, synthesize and interpret this information and make it more accessible as geospatial data and maps.

The project is a work in progress. To date, we have scanned several dozen historical maps of Toronto and the Don River watershed, and compiled the following geospatial datasets: 1) changes to the river channel and shoreline of Toronto harbour, 1858-1918; 2) industrial development in the Lower Don River Watershed, 1857-1951 (as points, and in some cases polygons); 3) historical mill sites in the Don River Watershed, 1825; 18524) land ownership in the watershed, 1860 and 1878; and 4) points of interest in the watershed. In the future, we hope to expand the project to include data from other Toronto area watersheds and other parts of the city.

The project was conducted through a collaboration between Jennifer Bonnell, a doctoral student in the History of Education program at the