

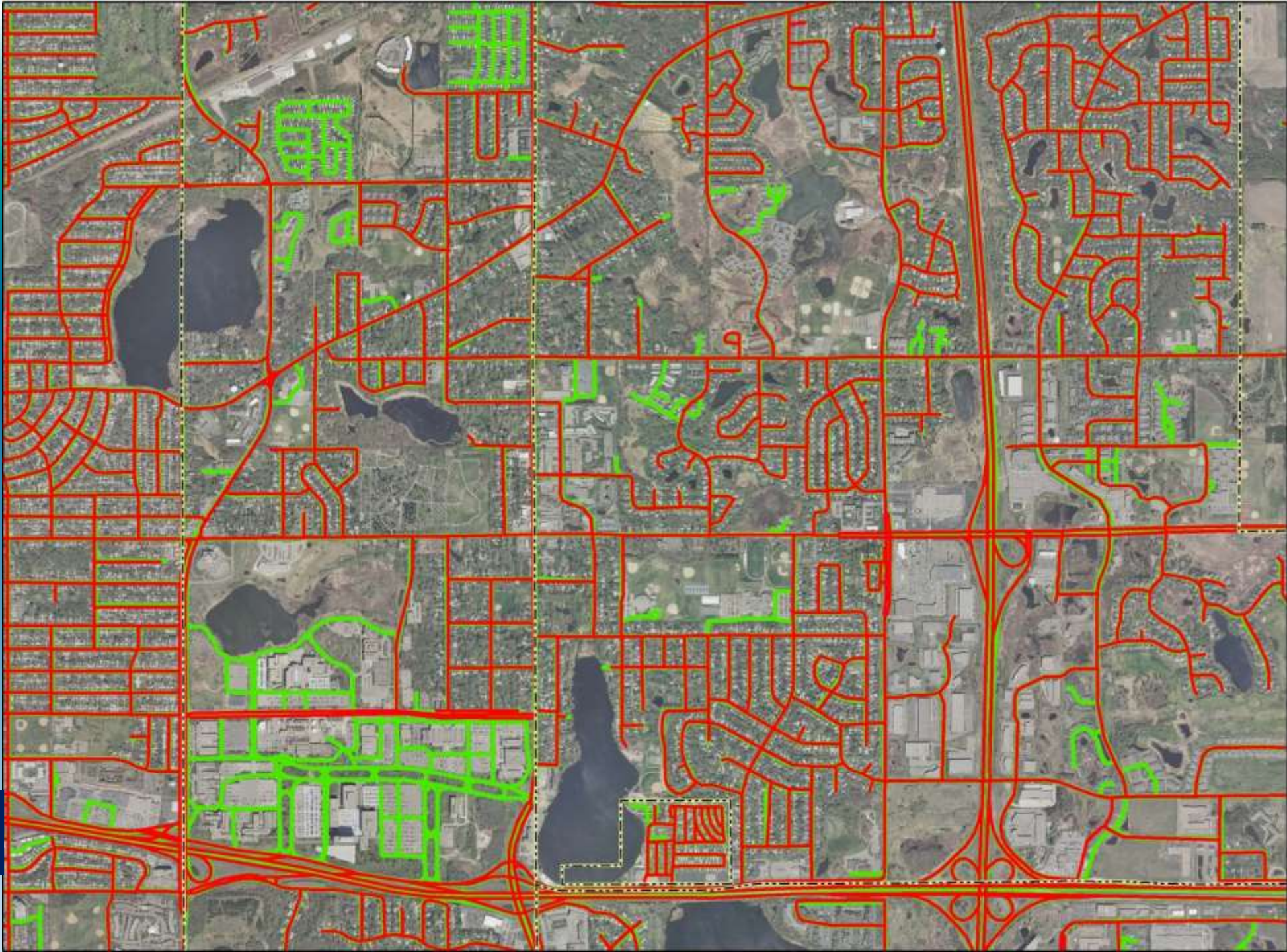


Metro Regional Centerlines Collaborative (MRCC)

Local Centerline Model and Dataset Project

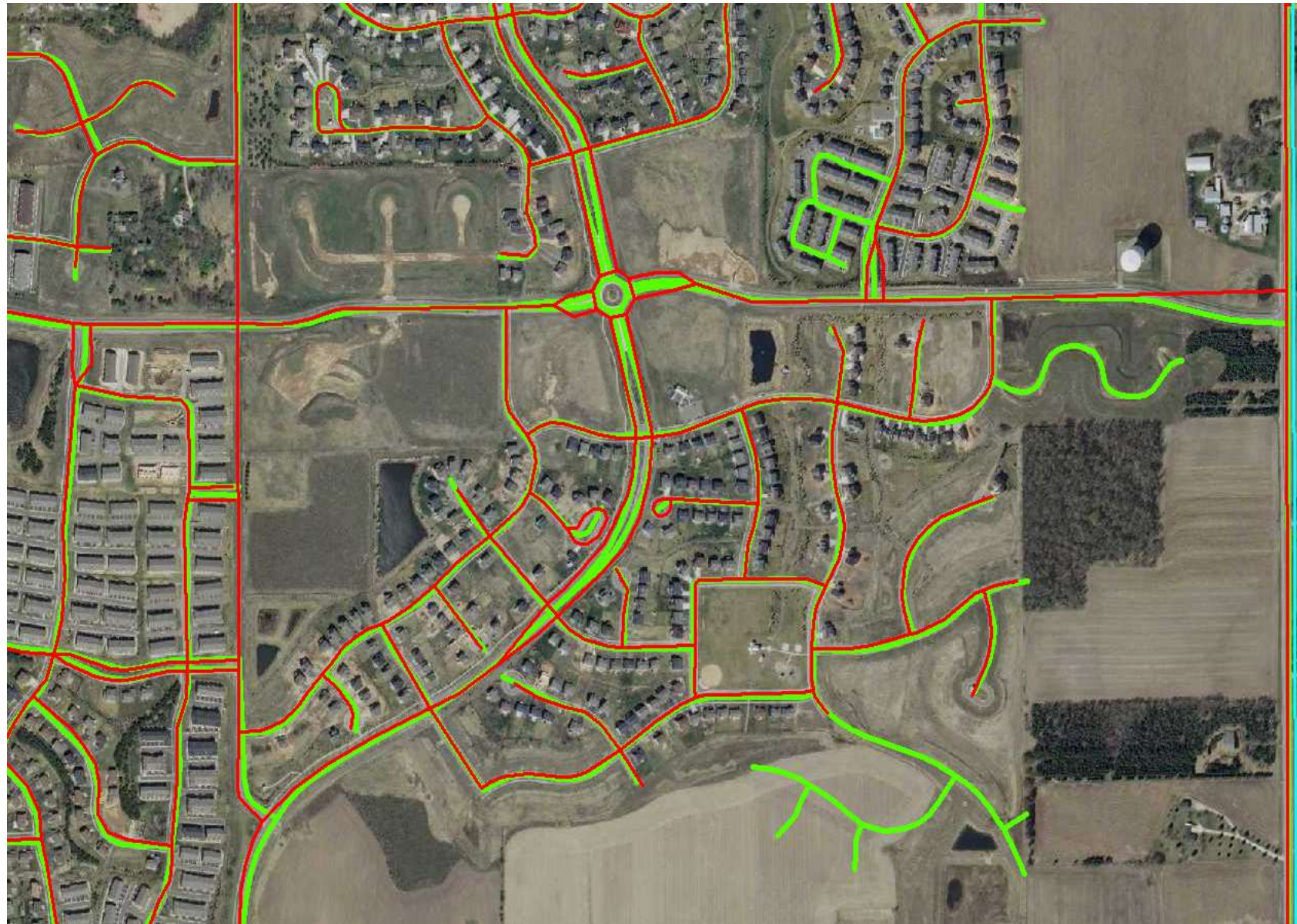


Geoff Maas, MetroGIS Coordinator
MRCC Project Communications





Challenges with road data





What is the project?

To develop a road centerline data model/dataset to meet **core business needs of its stakeholders**

County Partners:

Anoka County

Ramsey County

Washington County

Carver County

Hennepin County

Dakota County

Scott County

Regional Partners:

Metropolitan Council

Metropolitan Emergency Services Board

State Partners:

Minnesota Department of Transportation

Minnesota Geospatial Information Office





Purpose

No dataset that is

- > multi-purpose***
- > authoritatively-sourced***
- > publicly-available***

*...which meets the **core business needs** of local, regional and state agencies;*

Example:

Metropolitan Council

Currently maintaining a private vendor contract





Key Principles

The local jurisdictions produce:

- > the most **current** data;
- > the most **accurate** data;
- > the **authoritative** data;

An inter-jurisdictional standardized dataset:

- > Saves **time and money**;
- > Reduces **duplication of effort**;
- > **Facilitates emergency services**



Project Process: Overview

Driven by the **Seven Metropolitan Counties**

County staff:

Leadership, management and technical expertise;

Project Management:

Hennepin County provided a Project Manager;

Regional and State Partners:

**Resources as needed;
*(Research, facilitation, communications)***



Project Process

Meetings (as needed + conference calls)

Core Team (County Leadership):

Decision making

Build Team:

Technical expertise & data

State and Regional partners:

Support Role





Project Process

Kicked off in May 2014

2014

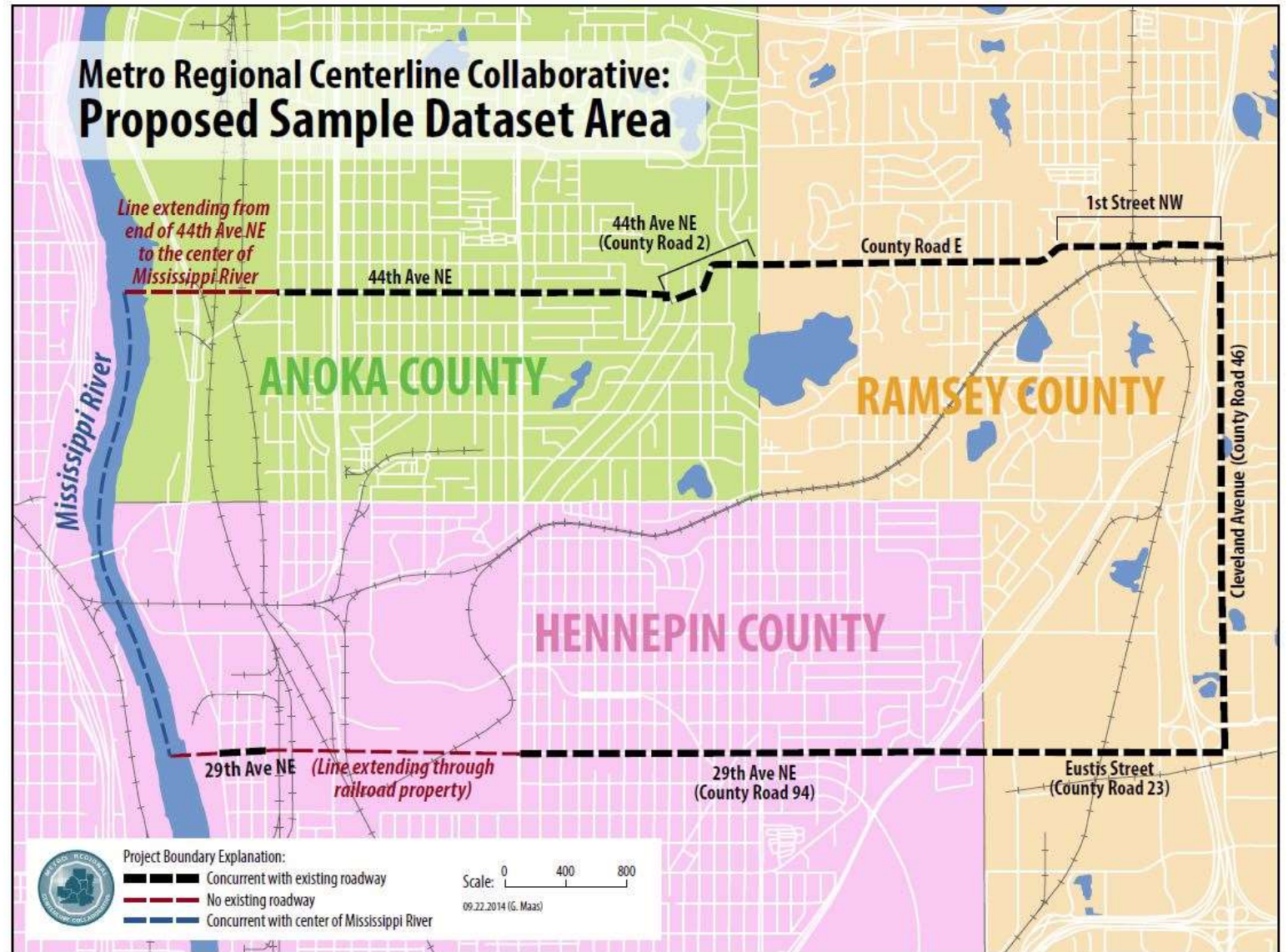
- > Developed a **project charter and project plan**
- > **Documented the stakeholder business needs**
- > Determined the **needed data attributes**
- > Created draft data model to **meet the business needs**
- > Project documentation (on-going)
- > Website resource (a page ***metrogis.org***)



Project Process

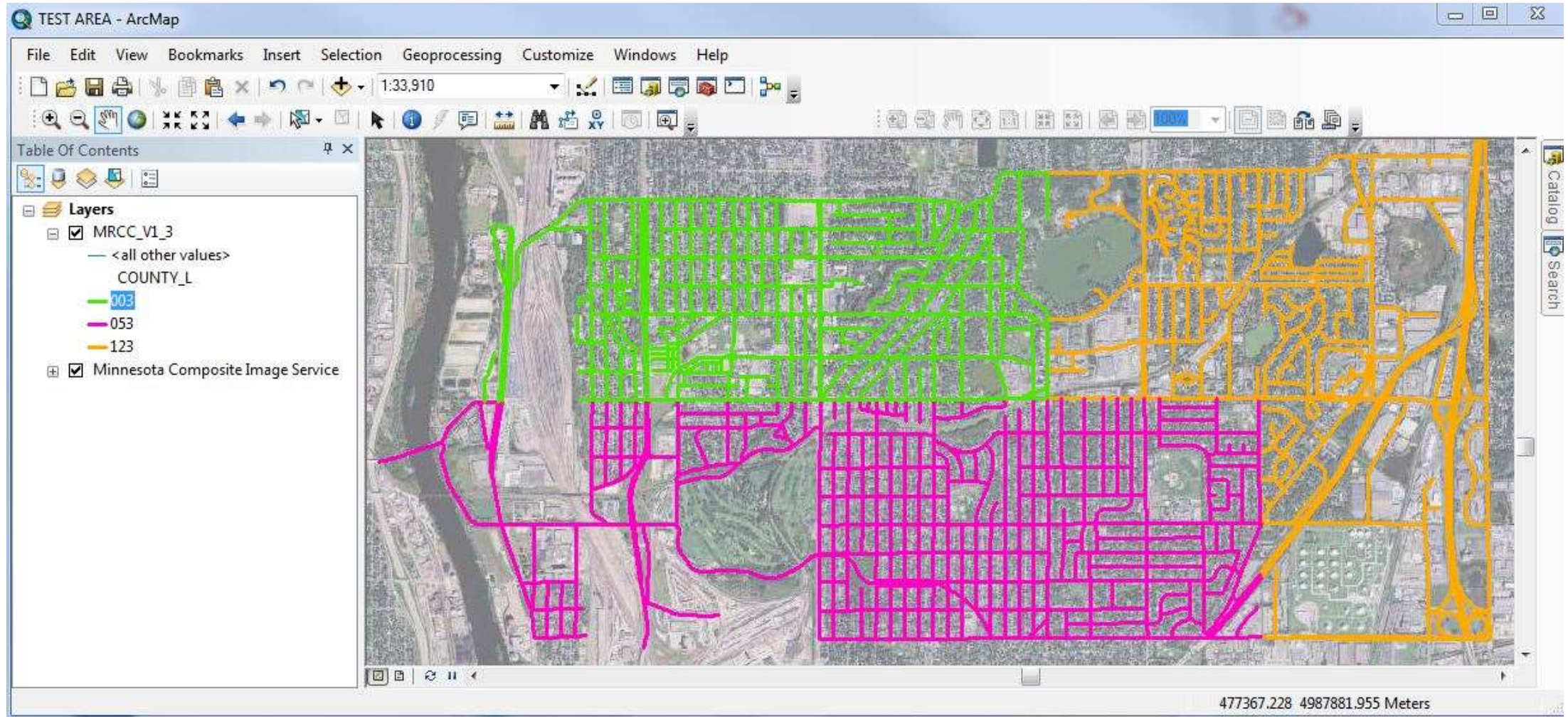
Early 2015

Create + publish
sample dataset





Project Process

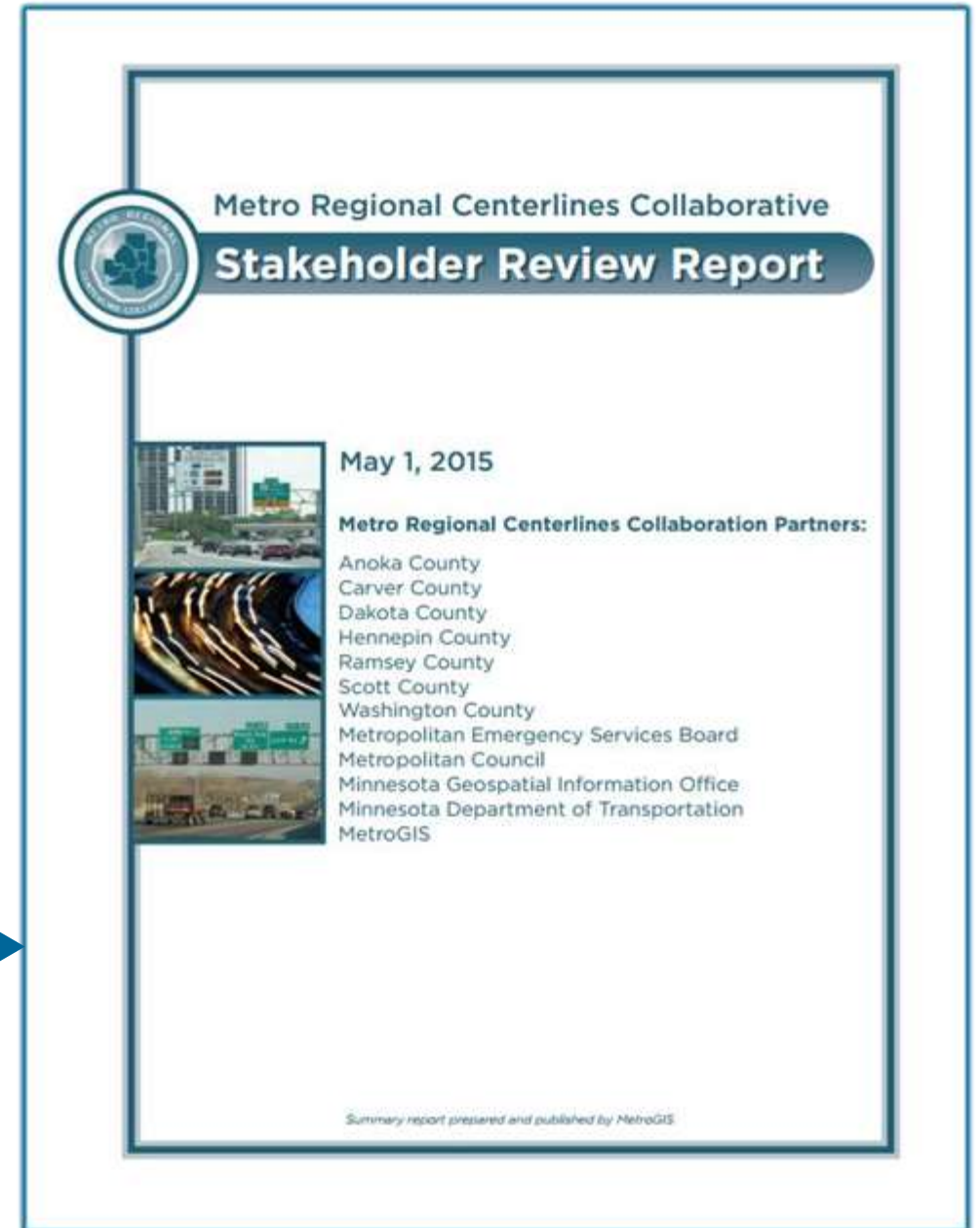




Project Process

Early 2015

- > Published the **sample dataset**
- > Period of **statewide peer review** (*Feb-April 2015*)
- > Collected/reviewed **peer feedback**
- > Published **peer feedback** →
- > Adjusted model to **peer feedback**





Project Resources

metrogis.org
> Projects
>> Metro Centerlines

Downloads and resources

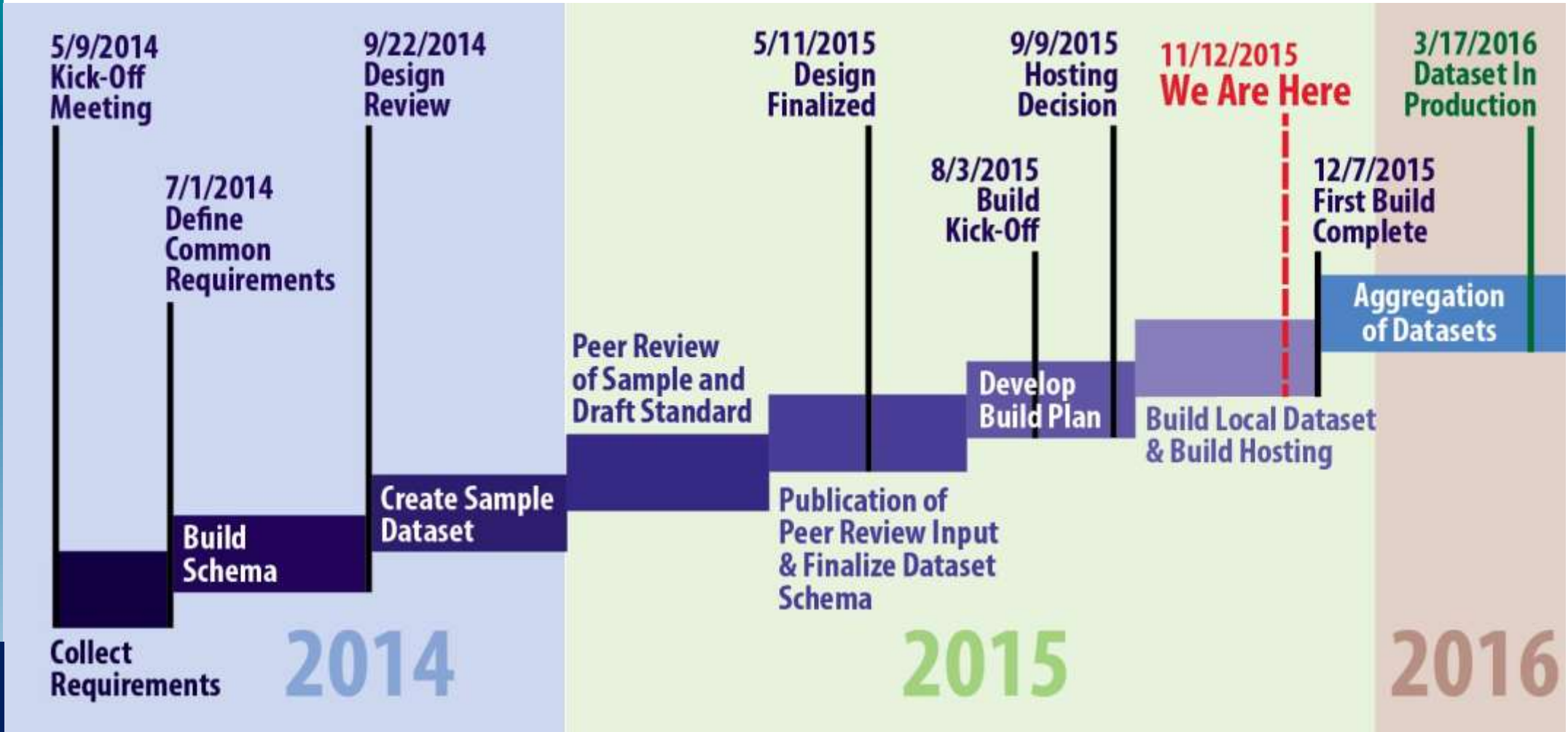
The screenshot shows the MetroGIS website interface. At the top right, there are links for "Publications", "Contact", and "Calendar". The main header features the MetroGIS logo with the tagline "Sharing Information Across Boundaries". Below the header is a search bar and a vertical navigation menu with items like "About MetroGIS", "Get Data", "How Do I Get...?", "Projects", "Project Template", "Work Plan + Budget", "Metro Centerlines", "Free + Open Data", "Address Point Aggregation", "Address Point Editor", "Public-Private Data Sharing", "Stormwater Dataset", "Teams + Governance", "Why MetroGIS Matters", "Affiliations", and "Archives".

The main content area is titled "Metro Regional Centerline Collaborative" and includes an "Overview" section, a "Goal of the Project" section, a "Need for Project" section, and a "What are the core uses of this dataset?" section. A red arrow points from the "Downloads and resources" text to the "Downloads & Survey" section on the right.

The "Downloads & Survey" section is titled "Downloads & Survey" and contains a "Thanks for your input!" message, a report link, and a "Get the Sample Dataset" button. Below this are several resource links, including "MRCC 'First Build' Project Charter", "MRCC Project Summary Document - Version 2.0", "MRCC Data Model Document - Version 1.3", "MRCC 'Specification Sheet' - Version 1.3", and "MRCC Planarization & Routing Guide - Version 1.0".



Full Project Timeline





Core Business Needs: Uses of Dataset

The final completed dataset intended to support:

- > Address Geocoding;**
- > Vehicular Routing;**
- > NextGen 9-1-1 Call Routing & Location Validation;**
- > Emergency Services Dispatch;**
- > Cartographic Representation;**
- > Linear Reference System support;**



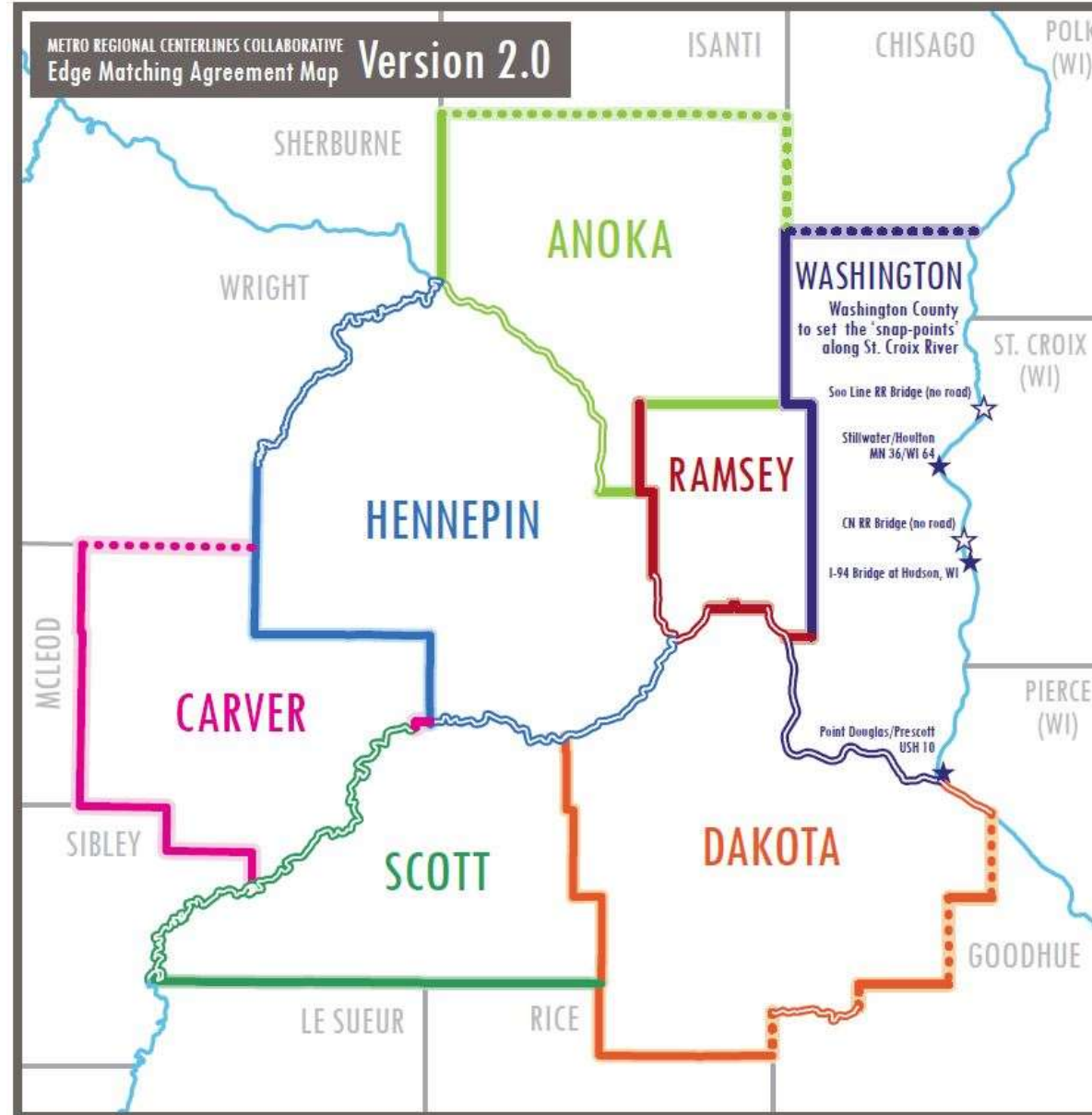
Data Model: Attributes

Data Model Version 1.3: *Nine Elements (61 total attributes)*

1 – Identification Elements	(3 attributes)
2 – Linear Reference Elements	(5 attributes)
3 – Geocoding	(11 attributes)
4 – Geocoding Side Elements	(20 attributes)
5 – Routing Elements	(6 attributes)
6 – Cartography Elements	(2 attributes)
7 – NextGen9-1-1Elements	(6 attributes)
8 – Maintenance Elements	(6 attributes)
9 – Business Elements	(2 attributes)

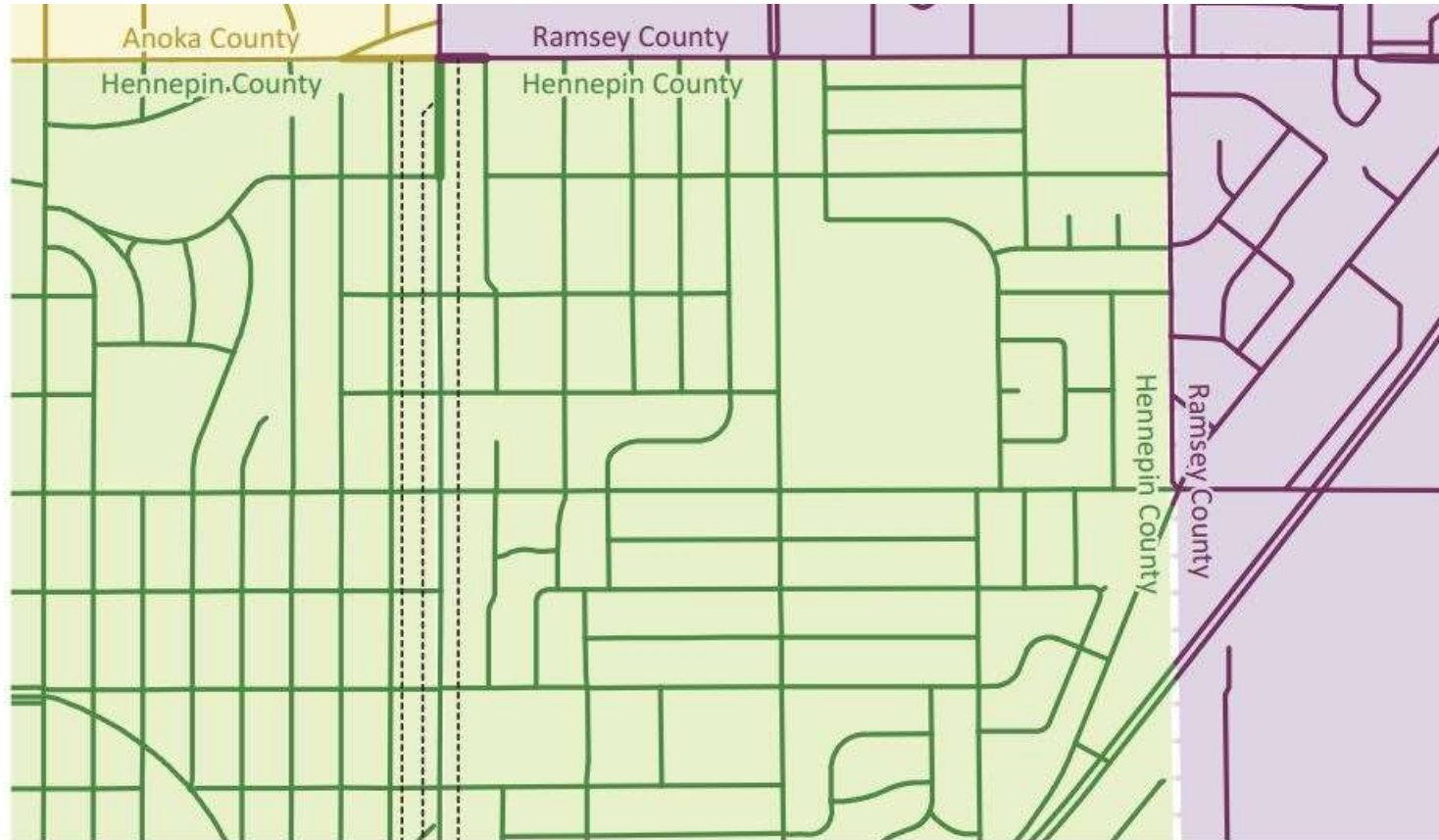


Edge Matching





Data Model: Unique IDs



Metropolitan Counties GNIS IDs

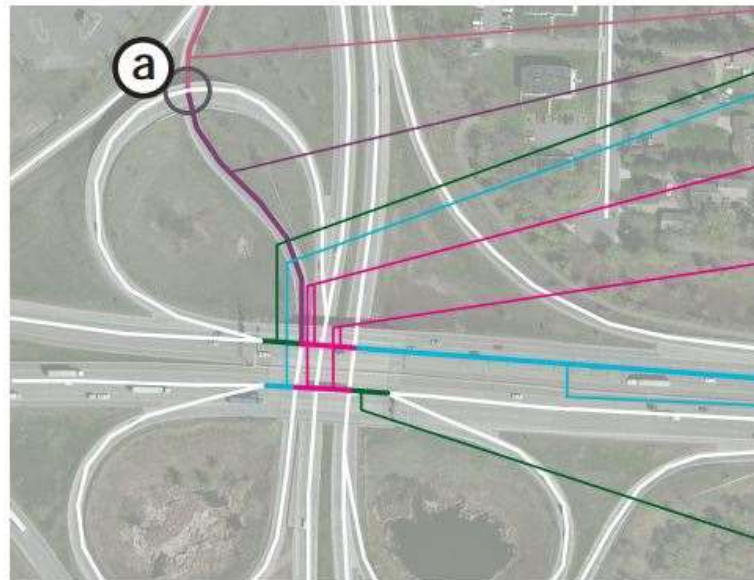
Anoka County:	659447
Carver County:	659455
Dakota County:	659464
Hennepin County:	659472
Ramsey County:	659507
Scott County:	659514
Washington County:	659526

UNIQUE_ID
659507-48A62E61-E8F4-48A2-855D-BEB0037G9270
659472-70BBD6BE-ED52-4768-AE24-7DEA178K1017
659447-7FD1FFCA-4EDE-4F7D-BDAF-EA5257BR4029

First six digits (plus a dash) are the County GNIS ID *Remaining digits are the local-assigned 36 character GUID*
Entire UNIQUE_ID has a maximum size of 43 characters



Planarization and Routing



ELEV_FROM	ELEV_TO
0	-1

ELEV_FROM	ELEV_TO
-1	0

Westbound

ELEV_FROM	ELEV_TO
1	0

Eastbound

ELEV_FROM	ELEV_TO
0	1

ELEV_FROM	ELEV_TO
1	1

ELEV_FROM	ELEV_TO
1	1

Westbound

ELEV_FROM	ELEV_TO
0	1

Eastbound

ELEV_FROM	ELEV_TO
1	0



Next Steps

December 7, 2015:

“First Build” of full metro area will be assembled

Aggregated and published for stakeholder use and review;

Minnesota Geospatial Information Office:
Data Hosting and Publishing



Subsequent Versions into 2016

Move toward **“maintenance mode”**;
Review model as needed;
Make modifications as **business needs arise**;





Inter-agency Success

Example of how governments at various levels can ***work together*** to create ***public value***;





Questions and Comments

Thank you!



MetroGISSM

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