

*Street Centerline Address Database  
Working Group*

Business Plan Update

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*A GIS Council Working Group Presentation*

## Who are we

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**Representatives from:**

- **The Public Service Commission**
- **The State Patrol**
- **The Nebraska Department of Roads**
- **The Department of Revenue**
- **The Department of Agriculture**
- **The Department of Health and Human Services**
- **Douglas County**
- **Lancaster County**
- **Sarpy County**
- **USGS**

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## Needs Identified in Strategic Plan

- **Create a Statewide Street Centerline with Addressing**
  - In order to help ensure that geospatial stakeholders have reliable and current data and that they know how to obtain it, we need to facilitate the creation, maintenance, analysis and publishing of quality geospatial data.
- **Allocate Resources to Accomplish the Task**
  - In order to ensure that government data is readily available through mechanisms such as the NebraskaMAP and to help harvest a larger return on its data creation investments, widespread access to data, services and encouraging data sharing, must be provided.
- **Provide Technical Assistance and Education Outreach.**

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## Project Goals and Objectives

### Goal:

**Develop and maintain a seamless street centerline and address referencing system for Nebraska**

### Objectives:

- **Gather needs and requirements for use in the system.**
- **Identify hosting requirements and needs.**
- **Develop methodology and create a statewide street centerline database**
- **Develop methodology and create an address database**
- **Develop maintenance and quality control mechanisms for the system**
- **Communication and Education: Promote data access, sharing, buy-in and investment by stakeholders.**

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## Perceived Benefits and Justification

- **Public Safety – Emergency Responses**
  - To ensure that emergency responders can rapidly and accurately locate and communicate the scene
- **Transportation**
  - To provide basic data for maintenance, planning, routing and accident reporting and to avoid duplication of effort.
- **Public Services Delivery**
  - To allow mapping and analyzing client locations
- **Public Revenues and Fair Taxation**
  - To allow accurate assessment of sales tax rates for catalog and on line purchases
- **Voter Registration**
  - To assist in validating voter registrations and outreach efforts
- **Economic Development and the Private Sector**
  - To provide a statewide, accurate system to fulfill their tasks.

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## Working Group Survey

**Preliminary survey went out to working group members on how they intend to use a street centerline addressing database:**

### **Applications rated by less likely to very important**

Accurate Mail Delivery  
 Locating / Notifying residences and businesses in emergencies (Police, Fire, Ambulance, Rescue)  
 Pinpointing disaster areas, provide relief, and evacuation  
 Locate and protect critical infrastructure  
 Inventory and asset management of intersections, crossings, bridges, and other features intercepting transportation routes.  
 Track medical benefits, disease, births/deaths, vulnerable populations  
 GPS Navigation  
 Route planning  
 Transportation planning and inventory  
 Crash analysis  
 Right of Way notification (coincides with parcel data as well)  
 Property records assessment with parcel data  
 Relating government records for fraud detection  
 Sales tax collection and taxing  
 Verification of existing data: administrative recordkeeping, record matching, following change of address, parcel owner and tenant address comparison at same parcel location.  
 Economic development and labor analysis based on addresses, drive times, accessibility, site selection  
 Location and proximity analysis to protected areas, environmental issues, contamination, air quality  
 Determining Voter Precincts  
 School assignment and bus routing  
 Political and administrative boundary assessment

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## Working Group Survey

**Most all responses were in the very important range.**

### **Majority of Very Important**

- Locating / Notifying residences and businesses in emergencies (Police, Fire, Ambulance, Rescue)
- Pinpointing disaster areas, provide relief, and evacuation
- Locate and protect critical infrastructure

### **Majority of Least Likely**

- Mail delivery
- Sales tax collection and taxing

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## Requirements

### **Current Structure**

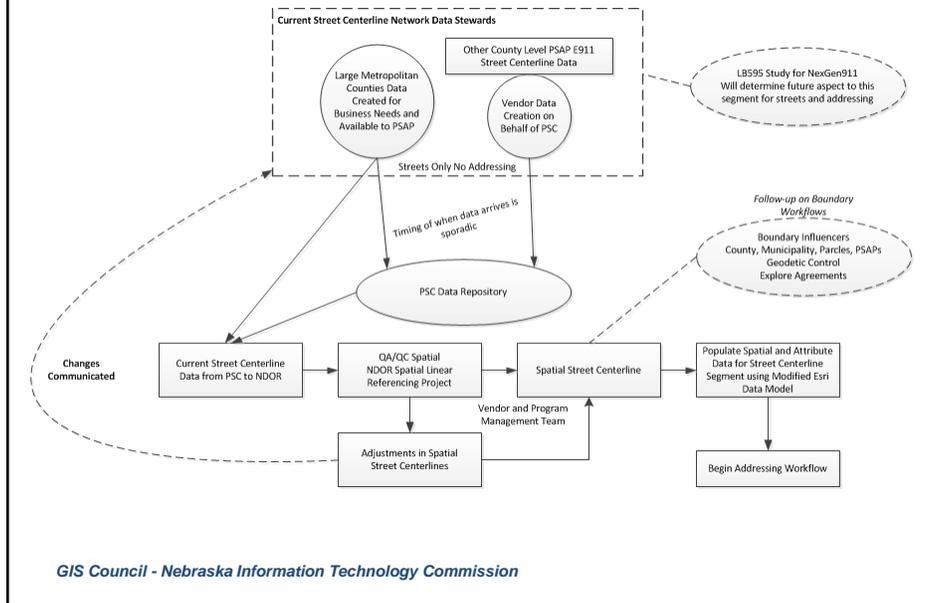
- Local (larger) cities have created street centerlines. Some have addressing.
- Currently the Department of Roads and State Patrol are working on their own local road network.
- The Public Service Commission gives funding to counties to create a local street network - which does not currently include POINT addressing.

### **Planned Structure**

- Douglas and Sarpy counties are using the ESRI data model for street addressing for proof of concept.
- Use the street centerlines the Public Service Commission currently receives.
- Department of Roads provide street centerline QA/QC against their local network (pending pilot project and administration approval)
- Implement addressing data model to populate database
- The Street Centerline and Addressing system would meet FGDC, enhanced E-911 and other Law Enforcement requirements.

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## Street Centerline Workflow



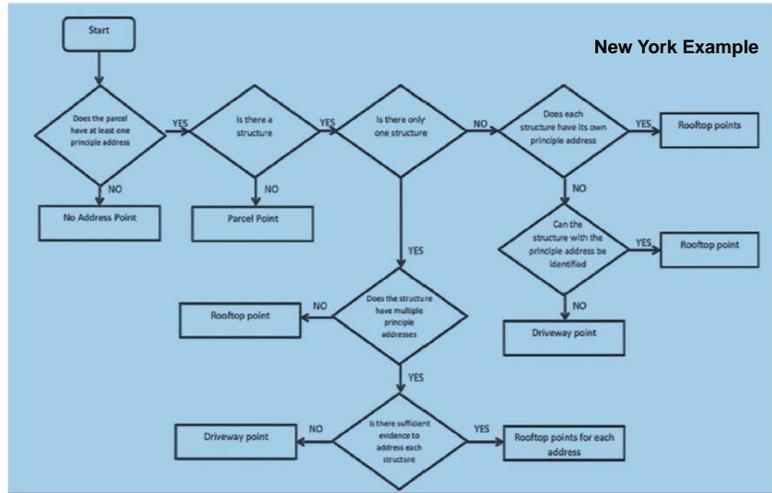
## Implementation Plan

- Review models from other states (example Oregon, Massachusetts, Ohio, New York)
- Work with current seamless street centerline file created in 2010 and updated information from PSAPs available through PSC to conduct pilot project on spatial QA/QC with NDOR linear referencing model.
- Use pilot project to further define workflows, requirements and overall QA/QC plan.
- Various state projects need addressing now. Working with master license agreement to acquire a baseline dataset of geocoded addresses. This data set will be used for QA/QC in our overall addressing process as well as update the NebraskaMAP address geocoding service for state entities.
- Identify other stakeholders and processes with potential linkages to NexGEN 911, FirstNet, and Broadband
- Develop a maintenance system which is on an ongoing basis, works with local governments and other agencies to update this data as streets and addresses change.
- Develop and maintain a formal process thru NebraskaMAP that will ensure that the most current version of this data is readily and reliably available in a format that can be used by all.
- Pool resources from multiple entities to fund the development and on going maintenance and distribution of data.

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## Current Addressing Discussion

Where should the spatial location(s) be?



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## Address Locations

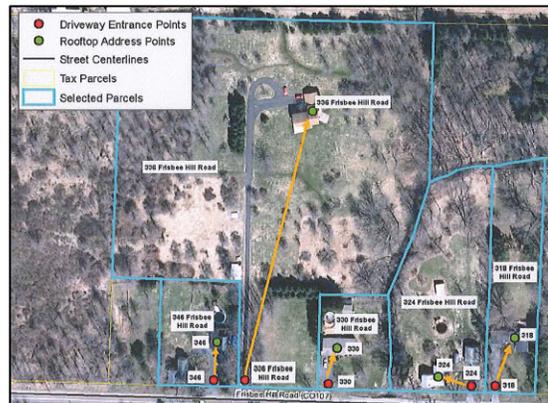
Placement of address points is dependent on application.

### Current considerations

- Residence
- Driveway Entrance (inside parcel boundary)

### What about...

Multiple work locations (buildings) on farms, ranches, and other large parcels?



New York Example

What about accuracy in placement requirements?

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## **Costs, Resource Allocation, and ROI**

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- **Costs have not been determined at this time.**
- **Additional stakeholders are being discovered through addressing needs and requirements (ie, NexGEN 911 and FirstNET)**

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## **Marketing and Communication**

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- **The audience for the street centerline/address database is unlimited and specific needs vary by audiences.**
- **Use of web services to facilitate shared access to data**
- **Communication via the GIS/LIS Association, work with higher education as a resource, NebraskaMAP and the private sector.**

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### **Evaluation – Measuring success and feedback**

- **QA/QC from the Department of Roads will help assure accuracy of the street centerline data.**
- **Monitoring from the Public Service Commission of the data update frequency.**
- **Feedback via NebraskaMAP will be critical to this project.**

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### **Relationships among other Business Plans**

- **The NebraskaMAP project and the Parcel group working together with the street centerline project is critical to the success of the Geospatial Strategic Plan for the State of Nebraska.**

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## **Other Efforts**

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- **The Census Bureau is working on a pilot project. We are working on getting an update.**
- **LB 595 – there was a committee hearing last week. – no action was taken. This bill would provide money to conduct a study for NexGEN 911.**
- **There will be a hearing on March 20 on whether the Public Service Commission will provide funding for point addressing to the current street centerlines.**

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## **Questions for Discussion**

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- **Do we need a Program Management Team to guide the steps of the business plan?**
- **Have we discovered all of the major players in this endeavor?**

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