

NEBRASKA

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DEPARTMENT OF TRANSPORTATION

#### PLANNING COMPLETED RESEARCH PROJECT

PROJECT NAME: PREPARING FOR A DRIVERLESS FUTURE PROJECT NUMBER: SPR-P1(20) M050

### RESEARCHERS

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### **FINAL REPORT**

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# NDOT RECOMMENDATIONS BASED OFF RESEARCH

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## **PROJECT ABSTRACT**

"Autonomous vehicles (AVs) are widely considered to be the future of surface transportation in the United States, but little is

understood about how people will interact with these vehicles, what they will use them for, and how they will impact our roads. However, farmers have been interacting with some degree of AV technology, primarily autoguidance, in Nebraska for at least the last 10 years.

The research in Section 1 first utilizes in-depth qualitative interviews to understand farmers' experiences with using highly automated technology in order to inform adoption and diffusion patterns of AVs. The findings in Section 1 lead to a discussion of the implications for on-road AVs for technology adoption, infrastructure, AV users, and public policy which each hold relevance for engineers, planners and policy-makers seeking to be proactive in preparing for AVs.

Section 2 applies concepts revealed through the interviews with farmers to inform a statewide survey of Nebraskans. Section 2 focuses on understanding what issues related to access and mobility currently exist in Nebraska and how AVs might address those needs. By examining areas of need as well as Nebraskans' perceptions of AVs, Section 2 explores both the challenges and opportunities AVs present for Nebraska. Together, the interviews and statewide survey of Nebraskans detailed in this report offer illustrative insights for the planning and preparation of AVs.

While much of the existing research on AVs focuses on the benefits for tech-savvy urbanites, this research focuses on the needs of Nebraskans in urban and rural areas. The findings of this report reveal that driverless vehicles offer potential benefits, particularly for rural Nebraskans (most notably older individuals) who live far from vital services and resources. The implications from this research will help decision-makers in Nebraska be best prepared to proactively prepare for AVs and become a national leader in driverless vehicle technology and implementation."

As quoted by P.I. Daniel P. Piatkowski, in the December 2020 final report abstract –



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