S-6-4(1022) Hastings Southeast; C.N. 41086

Highway Commission Meeting Sept. 22, 2023



Mick Syslo, P.E. State Roadway Design Engineer





Purpose and Need

- Replace pavement
- Modernize the highway
- Improve safety along corridor
- Reduce delay and congestion

Project Interest

- Local Business
- City of Hastings
- Local Senators





Public Meeting

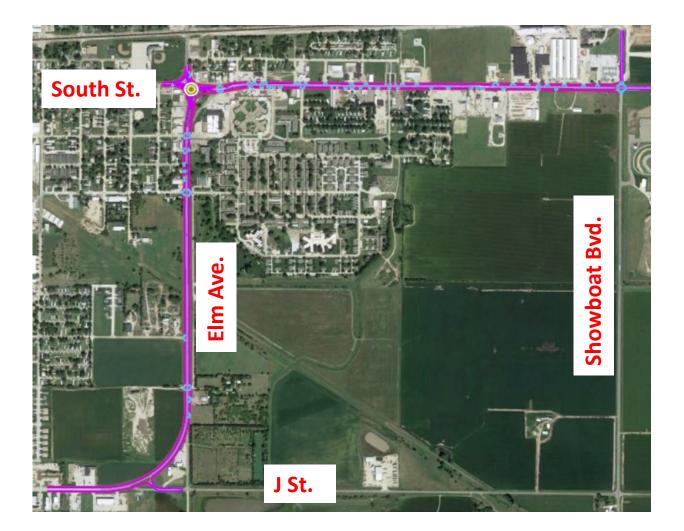
Public Involvement for Public Information Open House Meeting: C.N. 41086, S-6-4(1022) Hastings Southeast

Engagement Statistics

- A public information open house meeting was held Tuesday, July 25, 2023, with approximately 100 people in attendance.
- There were 200 public meeting notifications sent, including property owners adjacent to the project.
- Public Meeting Notices were placed in the Hastings Tribune and Buenos Dias Nebraska.
- Temporary Highway Signs were placed near the project location
- The Hastings Southeast project page on the NDOT website received an increase in traffic to the site during the comment period.
 - June: 67 pageviews
 - July: 292 pageviews
 - August: 76 pageviews
- NDOT Public Involvement received 33 comments during the specified comment period (July 9, 2023 August 9, 2023), outlined below. Note, there were similar themes amongst the comments received regarding project support, pedestrian facilities, roundabout location, and increased truck traffic.

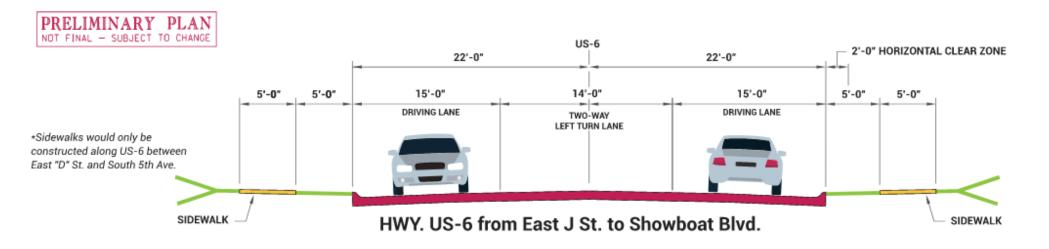
Project Overview

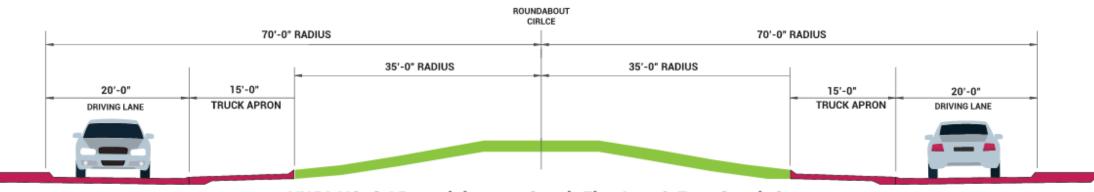
- 3-Lane
 - Converted from 5-Lane to 3-Lane
- 44' BOC to BOC
 - Matches existing pavement width
- Building sidewalk throughout project area
- Upgrade street lighting
- Upgraded storm sewer system
- Improved efficiency throughout corridor
- Build new pavement & add two way left turn lane



S-6-4(1022) Hastings Southeast; C.N. 41086

Typical Sections - US-6





HWY. US-6 / Roundabout at South Elm Ave. & East South St.

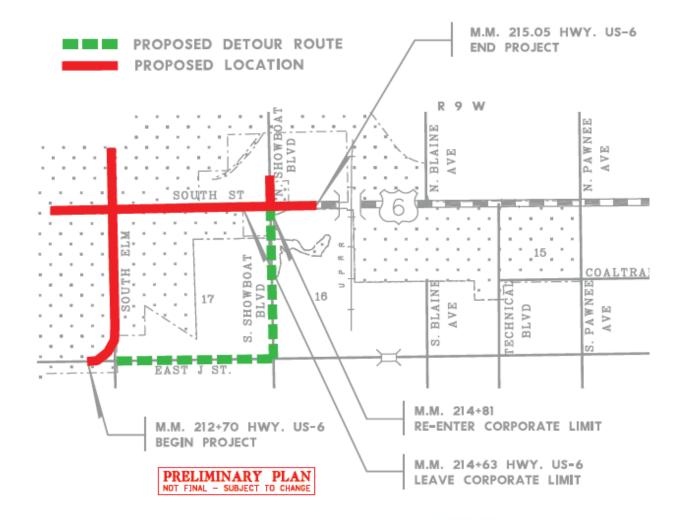
Projected Traffic Volumes

- Traffic volumes are steady
- Truck traffic is projected to more often avoid the intown route
- Pavement & Modernization need still exists



Constructability

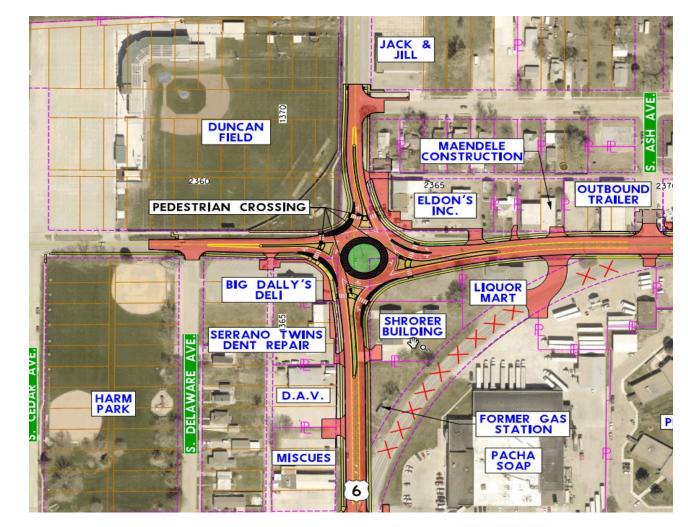
- During construction we will use a detour
 - Vehicles will use the route along East J St. to S. Showboat Boulevard



Key Features of the Project

South St & Elm Avenue

- Propose a roundabout to improve safety and operational efficiency
- Diameter is equivalent to roundabout near Pleasant
 Dale that is functioning well
- Roundabouts provide lower maintenance costs



Roundabout Safety Statistics

<u>Roundabouts in the U.S.</u> – National Cooperative Highway Research Program (NCHRP) Report 572

Before-After Studies at 55 Intersections

- 35% overall decrease in crashes
- 76% decrease in injury crashes
- 81% decrease in fatal/incapacitating crashes for single lane urban roundabouts
- 71% decrease in fatal/incapacitating crashes for single lane **rural** roundabouts



<u>U.S. Roundabout Safety Report</u> – Insurance Institute for Highway Safety

Before and After Studies at 24 Intersections

- 39% overall decrease in crashes
- 76% decrease in injury crashes
- 89% decrease in Fatal/ incapacitating crashes
- Two different reports with almost identical information
 - Roundabouts are proven to be safe!
 - **75%** reduction in traffic delay

- Operational roundabout north of Pleasant Dale
- Directly south of I-80, exit 388
- Carries interstate traffic if I-80 is closed
- 160ft diameter





Pleasant Dale (N-31 & N-36)



Oakland (US-77 & N-32)



Bennington (N-31 & N-36)

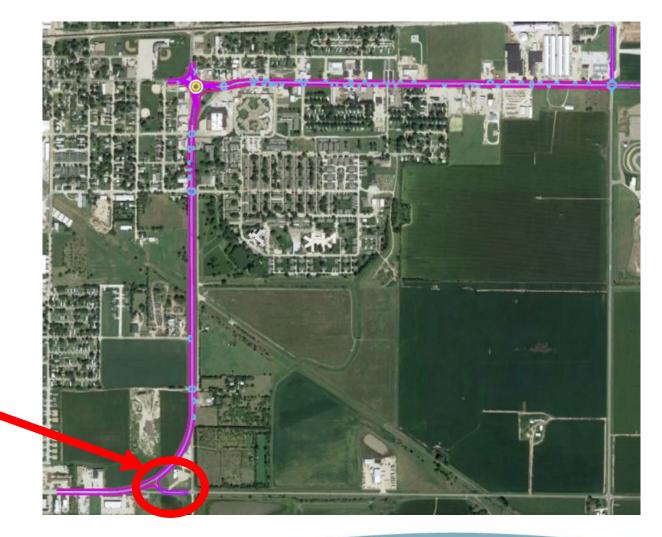
Once roundabouts are installed, total crashes decrease

 Eliminates the most common failure to yield crash at intersections

Location	Year Built	Intersecting Highways		Traffic Volume (vpd)		Total Crashes (3 years)		Injury Crashes (3 years)	
		Major	Minor	Major	Minor	Before	After	Before	After
Blair	2004	US-30	N-133	15200	7800	9	2	2	0
Winnebago	2009	US-77	US-75	6000	3000	2	4*	1	0
Pleasant Dale	2011	US-6	N-103	2400	3700	9	4	4	2
Oakland	NA	US-77	N-32	3490	1710	7	4	4	0
*-After crashes consisted of a a rear end, a deer, a truck hitting a sign, and a driver						dozing off			

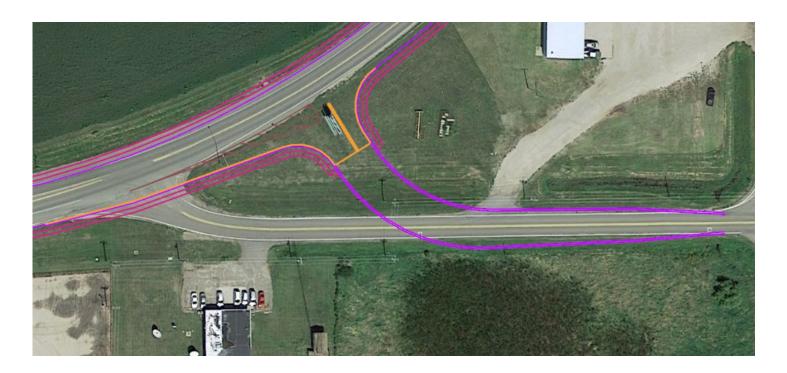
Intersection Improvements at Hwy 6 & J St

Offset right turn lane
 implemented to improve safety
 and allow vehicles easy access to
 J-Street from Hwy 6



Offset Right Turn Lane at Hwy 6 & J St

- Improves safety
- Easy access to East J Street
- Improved sight distance for vehicles entering Highway 6



Conclusion

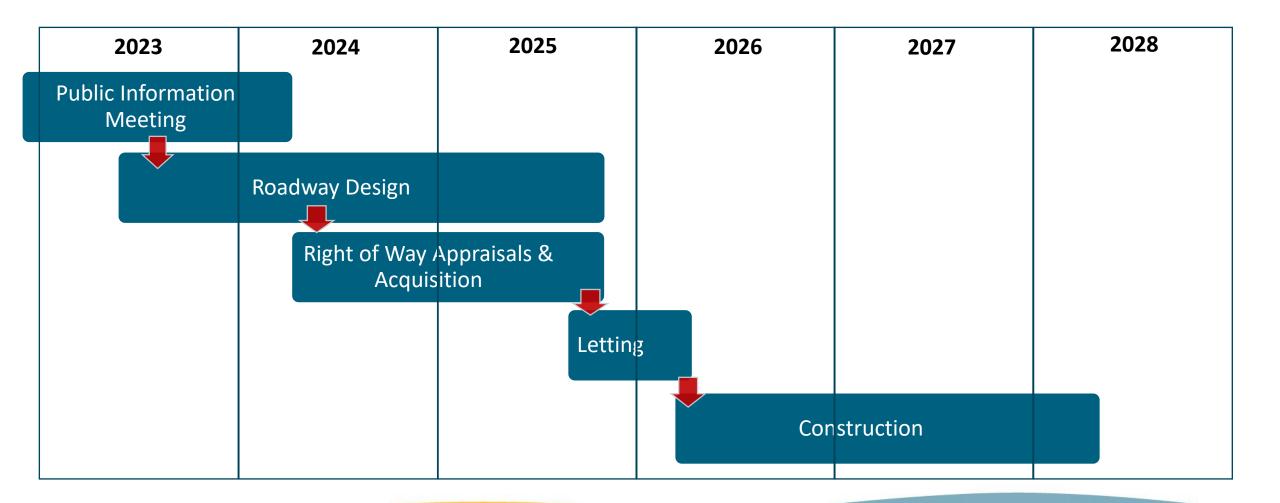
- Implementation of a roundabout will improve safety and efficiency
 Less severe crashes and reduce delays
- Access to truck route will be improved and more accessible with offset right
- Excited for the opportunity to upgrade the corridor



Access Control

DEPARTMENT OF ROADS	Nebraska State Highway Commission Hastings Southeast Resolution No. 2016-4
The Honorable Pete Ricketts Governor of Nebraska State Capitol Bldg. P.O. Box 94848 Lincoln, NE 68509-4848 Dear Governor Ricketts: On January 27, 2017 the Nebraska State Highway Commission, under counsel from the Nebraska Department of Roads (NDOR) Roadway Design Division, voted to recommend approval of the project corridor location and design and access control concept of NDOR project S-6-4(1022); Hastings Southeast; C.N. 41086. This section of U.S. Highway 6 (US-6) is a major route that transverses through the City of Hastings. Your signature authorizing approval to proceed is respectfully requested. Sincerely,	 Introduced on behalf of the Commissioners of the Nebraska State Highway Commission. WHEREAS, U.S. Highway 6 is a major route that transverse through the City of Hastings, resulting in a need to reduce congestion, improve the reliability of the transportation system, and promote the economic development of the City of Hastings; and WHEREAS, the project, referred to as Hastings Southeast, would reconstruct 2.47 miles of US-6, approximately .77 miles east of the junction of US-6 and US-81/US-34, and would extend north on Elm Avenue and then east on South Street, .32 miles east of Showboat Boulevard; THEREFORE, BE IT RESOLVED, the Nebraska State Highway Commission, per Nebraska Revised Statutes, Sections 39-1110(1f), 39-1309(2), and 39-1327, recommends to the Governor of the State of Nebraska the following: Approval of the corridor location and design, Approval of the access control plan.
Kie Schneweis, P.E. Director KS:VK:Z Enclosure I. Pete Ricketts, Governor of the State of Nebraska, affix my signature of approval of the project corridor location and design and access control concept of the stated segment of U.S. Highway 6 (US-6). We Schneweis, P.E., Director Peter Ricketts, Governor Monte of Rades Monte of Rades M	Approved: January 27, 2017 Submitted by: Mary K. Gerdes Edwal J. Multa, Ju. E.J. Militi, Jr. David E. Copple David E. Copple David E. Copple James H. Kindig James H. Kindig Jerome A. Fagerland Kyle Schneweis

Anticipated Project Schedule



Thank You! Questions?