

SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT AND SECTION 4(F) EVALUATION

FOR

I-29 Exit 130 (20th Street South) Interchange
EM 0295(45) 130, PCN 020V
And 20th St S and 22nd Ave S Intersection
EM 0295(45) 130, PCN 0A3L

Brookings County
Brookings, South Dakota

Submitted Pursuant to 42 U.S.C. 4332(2) and 49 U.S.C. 303
by the
US Department of Transportation
Federal Highway Administration
and
South Dakota Department of Transportation

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ACRONYMS AND ABBREVIATIONS

ADA	Americans with Disabilities Act	NPDES	National Pollutant Discharge Elimination System
APE	Area of Potential Effect	NRHP	National Register of Historic Places
BMP	Best Management Practice	OHWM	Ordinary High-Water Mark
BUILD	Better Utilizing Investments to Leverage Development	OWUS	Other Waters of the United States
CEQ	Council on Environmental Quality	ROW	Right-Of-Way
CFR	Code of Federal Regulations	SDDANR	South Dakota Department of Agriculture and Natural Resources
EA	Environmental Assessment	SDDOT	South Dakota Department of Transportation
EO	Executive Order	SDGFP	South Dakota Department of Game, Fish, and Parks
FHWA	Federal Highway Administration	SEA	Supplemental Environmental Assessment
FONSI	Finding of No Significant Impact	SHPO	State Historic Preservation Office
I-29	Interstate 29	US 14	U.S. Highway 14
IPaC	Information for Planning and Consultation	USACE	U.S. Army Corps of Engineers
ITC	Interstate Telecommunications Coop	U.S.C.	U.S. Supreme Court
LOS	level of service	USDOT	United States Department of Transportation
LWCF	Land and Water Conservation Fund	USFWS	U.S. Fish and Wildlife Service
NEPA	National Environmental Protection Act		
NLEB	Northern Long-Eared Bat		

1.0 INTRODUCTION

In 2020, an Environmental Assessment (EA) and, in 2021, a Finding of No Significant Impact (FONSI) were signed by the Federal Highway Administration (FHWA) and South Dakota Department of Transportation (SDDOT) to construct the Interstate 29 (I-29) at 20th Street South Interchange. This Supplemental Environmental Assessment (SEA) is to evaluate the expansion of the east-side corners of the 20th Street South and 22nd Avenue South intersection to improve the turning radius for trucks and the right-of-way (ROW) preservation for future widening on the west side of 22nd Avenue South (the Project). The Project is in the City of Brookings (Brookings) in Brookings County, South Dakota.

The east side corners expansion project is identified in the current South Dakota Statewide Transportation Improvement Program (STIP) (2025-2028) as PCN0A3L. The stakeholders for this Project include Brookings, Brookings County, SDDOT, and FHWA. The Project has been coordinated with state and federal agencies, landowners, businesses, and Brookings's Parks, Recreation and Forestry Department.

There is no specific project noted in the Brookings City Improvement Plan (CIP) for the ROW preservation along the west side of 22nd Avenue South. The development plans that were known during the 2020 EA have progressed and coordination between the Brookings and developers has continued. ROW preservation is needed for the future improvements on the west side of the intersection to avoid conflict with the development of these areas. ROW preservation is being completed through match funding from Brookings. Brookings is doing this through their development plan review and approval process.

This SEA was developed in accordance with the National Environmental Policy Act (NEPA) and the Council on Environmental Quality's (CEQ's) Regulations for Implementing the Procedural Provisions of NEPA (40 Code of Federal Regulations [CFR] §1500-1508) and the corresponding regulations and guidelines of the U.S. Department of Transportation (USDOT) and FHWA.

1.1 NEED FOR SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT

In 2020, the construction of the I-29 Interchange at 20th Street South did include the intersection of 20th Street South and 22nd Avenue South, which is directly adjacent to the Edgebrook Golf Course. Edgebrook Golf Course is a property protected under Section 6(f) of the Land and Water Conservation Act. The design and construction at the intersection avoided the need for permanent right-of-way (ROW) from the Edgebrook Golf Course which would have resulted in permanent conversion or the acquired ROW under Section 6(f). A permanent conversion process can take at least a year to coordinate.

The I-29 interchange at 20th Street South had received a FHWA Better Utilizing Investments to Leverage Development (BUILD) grant which had a tight timeline. If the timeline for obligation of funds had not met, the overall project funding would have been lost. Therefore, the Preferred Alternative of the 2021 FONSI avoided ROW impacts to the Edgebrook Golf Course by constructing tight corners at the 20th Street South and 22nd Avenue South intersection. The construction of the interchange and 20th Street South from 22nd Avenue South to 34th Avenue South was completed in 2023. Large trucks have experienced significant difficulty turning at 20th Street South and 22nd Avenue South intersection corners without infringing on adjacent and

opposing direction traffic lanes. The traffic signals at the corners have also been damaged by turning trucks. In addition, the 20th Street South and 22nd Avenue South intersection provides primary truck access to the new interchange.

At the conclusion of the construction of the I-29 interchange at 20th Street South, a portion of the original grant funding was still available. When issues that resulted from the original project were identified, SDDOT, Brookings, and FHWA re-examined this intersection identifying additional improvements that could be made to better meet the Project's Purpose and Needs. FHWA determined that the remaining grant funding could be utilized for the expansion of the intersection corners and extended the grant expiration date to allow for that construction.

The SEA focuses on the proposed improvements considered at 20th Street South and 22nd Avenue South intersection. Proposed improvements include:

- Expand the northeast and southeast corners of the 20th Street South and 22nd Avenue South intersection to allow for large trucks to turn without infringing on adjacent and opposing direction traffic lanes.
- Construct new crossing points for the Allyn Frerichs Trail along the east side of 22nd Avenue South since the intersection corners would be revised. In general, the trail would remain in its existing location, but the grade would be raised to meet Americans with Disabilities (ADA) guidelines. Refer to Figure 2-2.
- Traffic signals on the east side of 22nd Avenue South installed with the 2022/2023 construction project would be moved for the expanded intersection corners.
- The Interstate Telecommunications Coop (ITC) building in the northeast quadrant of the 20th Street South and 22nd Avenue South intersection would be removed and replaced by the utility company to allow for the intersection widening (Figure 3-7).

In addition, ROW preservation on the west side of 20th Street South and 22nd Avenue South is included in this SEA. As noted in the 2020 EA, the existing southbound 22nd Avenue South through lane would become a right-turn lane at 20th Street South. A southbound through lane would be added between Canasta Lane and 20th Street South just to accommodate the two southbound through lanes at the 20th Street South and 22nd Avenue South intersection. An eastbound right-turn lane would be added to 20th Street South on the west side of 22nd Avenue South. Refer to Figure 2-2.

The future improvements were noted in the Interchange Justification Report (IJR) and confirmed within the latest traffic report (Appendix A). The ROW preservation is included within the SEA due to the development that has occurred in the southeast quadrant of the intersection and the planned development on the northeast quadrant of the intersection. Both developments were noted in the 2020 EA and have progressed, therefore ROW preservation is needed. Refer to Sections 3.2 and 3.3 for further discussion of the development within this area.

Within the 2020 EA, improvements were also noted for 34th Avenue Southeast and 20th Street South intersection by 2045. Development has not progressed in this area and the updated traffic study (Appendix A) does not show an increase in traffic that requires improvements at the intersection; therefore, ROW preservation is not warranted at this intersection.

1.2 STUDY AREA AND PROJECT AREA

For the 2020 EA, a Project Area and EA Study Area were defined early in the NEPA process and were used to consider the current transportation system and future transportation needs that may be impacted by the construction of the I-29 Interchange at 20th Street South. For the definition of each area and application within the EA process, please refer to the 2020 EA. A Study Area for the 2020 EA was also defined, refer to Figure 1-1. The 2020 EA Study Area focused on the area where the build alternatives may impact.

For this SEA, a more focused area for the proposed improvements to the 20th Street South and 22nd Avenue South intersection, a Study Area was defined. The Study Area was defined early in the process and defined the area the alternatives may impact. Refer to Figure 1-1 for the Study Area.



Figure 1-1. Project Location, Study Area, and 2020 EA Study Area

1.3 UPDATES TO REGULATIONS SINCE FONSI

The following discusses the changes that have occurred since the 2021 FONSI:

- In 2020, the Council on Environmental Quality (CEQ) issued a final rule to update its regulations for Federal agencies to implement the National Environmental Policy Act (NEPA). The rule is intended to improve interagency coordination in the environmental review process, promote earlier public involvement, increase transparency, and enhance the participation of States, Tribes, and localities.
- In 2022, the CEQ issued this final rule to amend certain provisions of its regulations for implementing the NEPA, addressing the purpose and need of a proposed action, agency NEPA procedures for implementing CEQ's NEPA regulations, and the definition of "effects."
- In 2024, the CEQ was finalizing its "Bipartisan Permitting Reform Implementation Rule" to revise its regulations for implementing the procedural provisions of the NEPA, including the recent amendments to NEPA in the Fiscal Responsibility Act. CEQ is making these revisions to provide for an effective environmental review process; ensure full and fair public engagement; enhance efficiency and regulatory certainty; and promote sound Federal agency decision making that is grounded in science, including consideration of relevant environmental, climate change, and environmental justice effects.
- In 2025, The Council on Environmental Quality (CEQ) issued this interim final rule to remove the existing implementing regulations for the National Environmental Policy Act of 1969, 42 USC 4321 et seq., as amended (NEPA), in response to Executive Order (E.O.) 14154, Unleashing American Energy. Among other things, EO 14154 rescinds EO 11991, Relating to Protection and Enhancement of Environmental Quality, which amended EO 11514, Protection and Enhancement of Environmental Quality, and directed CEQ to promulgate regulations for implementing NEPA and required Federal agencies to comply with those regulations.
- In 2023, the Supreme Court ruled that Clean Water Act protections apply only to wetlands and waters with a "continuous surface connection" to traditional interstate navigable waters, narrowing the scope of federal jurisdiction.
- The following updates to the Endangered Species Act (ESA) are being evaluated with this SEA:
 - The western regal fritillary (*Argynnis idalia occidentalis*) is proposed for listing as threatened species by the USFWS under the ESA and its range overlaps with the Study Area's location.
 - The Topeka shiner (*Notropis topeka*) is listed as an endangered species by the USFWS under the ESA and within the 2021 FONSI was not noted by the U.S. Fish and Wildlife Service's (USFWS) Information for Planning and Consultation (IPaC). Its range has been updated and IPaC does not list the species within the Study Area.
 - The USFWS has proposed ESA protection for the monarch butterfly (*Danaus plexippus*). The proposal is to list the species as threatened with species-specific protections to conserve it under Section 4(d) of the ESA.

- The northern long-eared bat (NLEB) (*Myotis septentrionalis*) was uplisted to endangered status under the ESA on March 31, 2023. Final tools and guidance documents to conserve the NLEB were released on October 23, 2024.
- The poweshiek skipperling (*Oarisma poweshiek*) is an endangered species under the ESA, however, the range for this species has been updated and the species is no longer listed for the Study Area's location. Analysis of this species is not included in this SEA.

1.4 PURPOSE AND NEED FOR THE PROJECT

The purpose for the Project was identified within the 2020 EA and focused on the transportation needs of system linkage and traffic capacity. The purpose and need statement were developed with consideration of public input as well as agency and tribal input. Initial coordination with agencies and tribes occurred through scoping letters. In addition, meetings were held with each potentially affected landowner. Coordination with agencies, tribes, landowners, and the public will continue throughout the Project.

The purpose and need of the project have not changed. A more concise purpose and need are restated in Sections 1.2.1 and 1.2.2, for the full discussion please refer to the 2020 EA¹.

1.4.1 Purpose of the Project

The purpose of the Project for this SEA is unchanged from the 2020 EA and 2021 FONSI. The purpose of the Project is to relieve congestion on major north-south and east-west arterials and to improve transportation connectivity for community access and to facilitate growth of the local economy.

1.4.2 Project Needs

The needs for the Project for this SEA remain unchanged from the 2020 EA. Each is listed below with a discussion of relevancy to the 20th Street South and 22nd Avenue South intersection.

- **System Linkage-** The limited connections across I-29 in the existing roadway system cause longer commuting and travel times, which are expected to increase as future development of the southwest portion of Brookings occurs. For this intersection, the current design of the intersection is causing issues for trucks to turn and utilize both roadways, 20th Street South and 22nd Avenue South, as system links within the overall Brookings transportation system.
- **Traffic Capacity-** Forecasts were developed during the 2020 EA for traffic growth and were updated for this SEA in January 2025 (Appendix A). At the intersections of 22nd Avenue South and 20th Street South, traffic would become congested by planning year 2045. As noted in the 2020 EA, this intersection was improved from a level F to a C for AM and PM peak hour with the construction of the interchange. The improvement of the turning radius and ROW preservation proposed in this SEA would continue to allow the 2045 LOS to be maintained for this intersection.

¹ SDDOT, 2020. Environmental Assessment and Section 4(f) Evaluation for I-29 Exit 130 (20th Street South) Interchange located at [Interstate 29 20th Street South Interchange](#)

One Revised Build Alternative is considered for this SEA. The No Build Alternative is included to satisfy the NEPA requirements and FHWA guidelines and provides a baseline for evaluating impacts. Both are discussed further in Chapter 2.

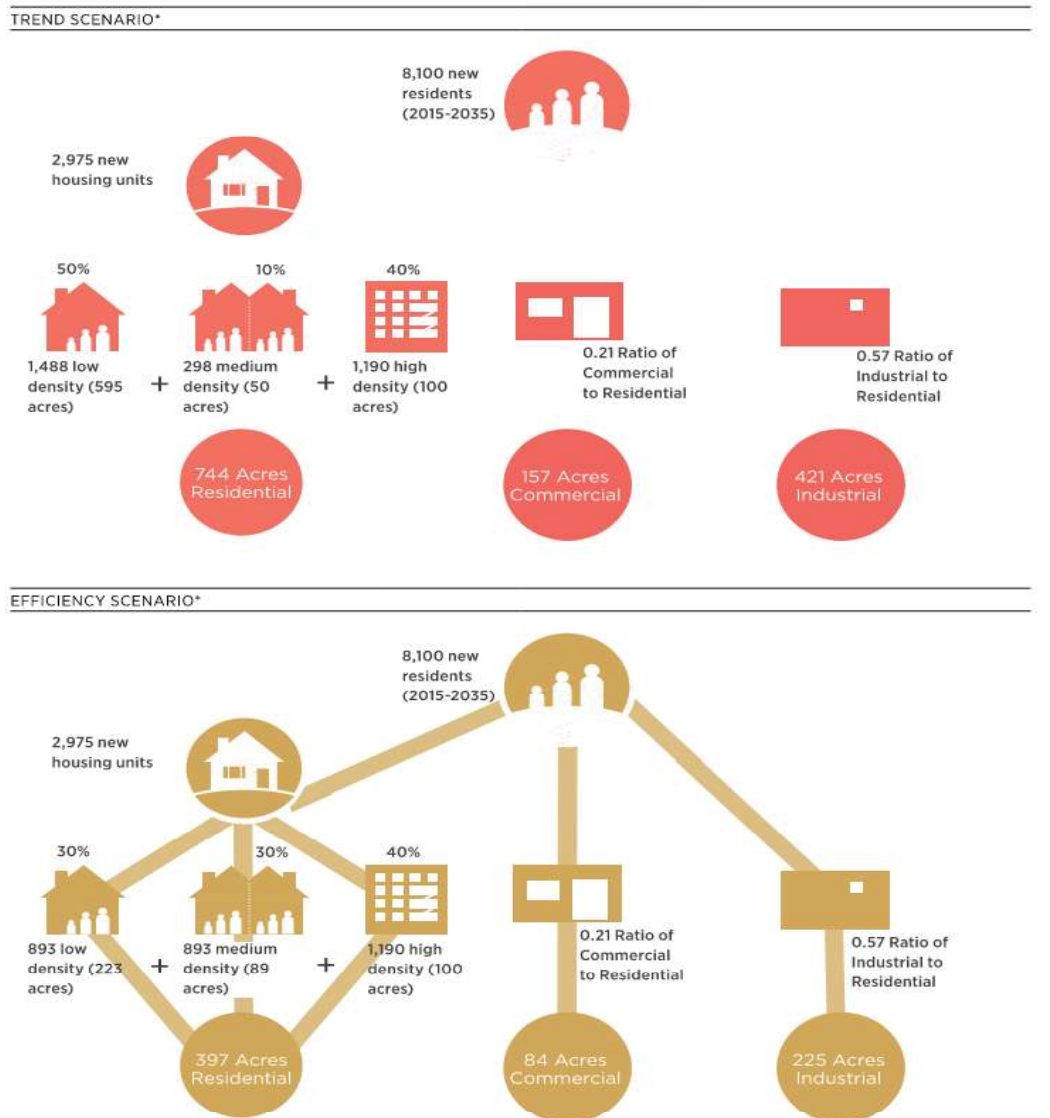
1.4.3 Project Goals

The Project goals remain unchanged from the 2020 EA. Through the scoping process, goals were considered for this Project. While Project goals are not used for screening alternatives, these goals are incorporated into the alternatives, where possible, to meet the concerns of the public and agencies. The goals identified during the public and agency scoping processes, economic development, safety, and multi-modal opportunities- the following discusses each.

1.4.3.1 Economic Development

This Project would contribute to future growth patterns, land development, and new business development. This is shown by the recent development of the southeast quadrant of the 20th Street South and 22nd Avenue South intersection as a Starbucks, and the northeast quadrant as a proposed gas station. The current growth rate of Brookings was reviewed, as were the development (residential, commercial, and industrial areas) needed to continue this growth rate and the ability of the Project to facilitate that development for Brookings to meet its growth rate.

Brookings is the fourth largest community in South Dakota, with a steady growth rate of 2.5 percent per year in population. In 2018, Brookings completed an updated *Brookings South Dakota Comprehensive Plan 2040 (2040 Comprehensive Plan)* that included an in-depth evaluation of population and economic growth trends, land use trends and patterns, and transportation systems. To meet the continued steady growth rate, land use growth would need to occur through development of vacant land. The amount of land required to meet the growth rate was presented in two scenarios, trend and efficiency, in the *2040 Comprehensive Plan*. The trend scenario assumed that Brookings would grow at the same density and patterns that it has in the past, including many single-family detached homes. The efficiency scenario assumed that development will happen in a more compact manner, including a greater variety of housing options on smaller lots, reflecting the national trend in smaller scale retail (City of Brookings 2018). Graphic 1-1 shows the breakdown of acres of land that would be needed for residential, commercial, and industrial uses to meet the current growth rate under the trend and efficiency scenarios.



Graphic 1-1. Land Use Scenarios in the 2040 Comprehensive Plan (City of Brookings 2018)

The *2040 Comprehensive Plan* addressed the future development that will be needed to allow Brookings to continue to grow. The following was noted regarding the economy of Brookings that was relevant to the proposed interchange at 20th Street South (City of Brookings 2018):

- Limited street connectivity to large areas of undeveloped land.
- Prioritization of transportation connectivity to assist in meeting Brookings' growth rates.

In addition to the *2040 Comprehensive Plan*, the following documentation noted the plans to meet the growth areas needed:

- In 2011, Brookings and Brookings County commissioned the *Brookings Area Master Transportation Plan*. Completed in 2013, this study concluded that a new 20th Street South interchange would allow for additional access to the industrial park, allowing for additional

development of the park and the planned development on the east side of I-29 to occur (HDR 2011).

- In 2016, the *Comprehensive Land Use Plan for Brookings County* was completed. This plan noted community growth and the need for future development to accommodate that growth. This plan also noted that the reason planned development areas have not moved forward is because of the lack of existing transportation system infrastructure (Brookings County Planning Commission 2016).
- The BUILD grant application identified previously planned development areas near 20th Street South. These areas would help meet the needed residential, commercial, and industrial opportunities for this growing community.

For the 2020 EA process, Brookings and the Brookings Economic Development Corporation provided the current planned development areas within the Project Area. For this SEA the development was reassessed and within the Study Area includes a recently developed northwest quadrant and current development plans for the southeast and southwest quadrants of the intersection that are moving forward. Each of these developments contributes to this overall economic goal for the Project.

Table 1-1 shows the area needed for residential, commercial, and industrial growth for the entire city, not just the Study Area. The current planned areas in the Study Area are also noted to show the progress toward the Brookings's needed growth area due to the Project and to show that clearly defined development areas are identified. As the planning studies indicated, by creating better connectivity in the roadway system, planned development would proceed. The completed and planned areas in the Study Area are compared to the acreage needed for residential, commercial, and industrial growth for the entire city to demonstrate that this Project would assist Brookings in facilitating economic growth and striving to meet its growth rate.

Table 1-1. Acreage of Residential, Commercial, and Industrial Areas Needed to Maintain Brookings' Current Growth Rate in Comparison to Planned Development Areas

Land Use	Acreage Needed (Trend Scenario)	Acreage Needed (Efficiency Scenario)	Acreage of Development Plans Overlapping with the Study Area (Estimated)
Residential	744	397	4.5
Commercial	157	84	12.5
Industrial	421	225	0

1.4.3.2 Safety

The previous studies analyzed crash records in the Project Area. Recent improvements in the Project Area have improved the roadway concerns for safety. The remaining crashes can mainly be attributed to congestion, which was discussed *Section 1.3.2.3, Traffic Capacity*. As noted, the intersection of 22nd Avenue South and 20th Street South and the intersection of 6th Street and I-29 Southbound would be at an unacceptable LOS with the traffic levels in 2045. The Project's goal is to improve safety by relieving congestion at both intersections.

1.4.3.3 Multi-Modal Transportation

The *2040 Comprehensive Plan* notes that “a transportation system should promote a variety of complementary transportation modes including motorists, bicyclists, pedestrians, and transit riders. At present, Brookings has a strong pedestrian system, an emerging bicycle system, and a well-respected and growing on-demand transit service” (City of Brookings 2018). The Project’s goal is to incorporate a shared use path along 20th Street South from the intersection with 22nd Avenue South to 34th Avenue South.

2.0 ALTERNATIVES

The alternatives discussed within this SEA are limited to include the proposed changes to the 20th Street South and 22nd Avenue South intersection and not the original approved alternatives described in the 2020 EA. This section discusses the details of the No-Build Alternative and Revised Build Alternative.

2.1 NO-BUILD ALTERNATIVE

The No-Build Alternative considers the previously built I-29 20th Street South Interchange that was constructed after the 2020 EA and 2021 FONSI. The No-Build Alternative would not expand to the east-side corners of the intersection of 20th Street South and 22nd Avenue South. The intersection would continue to have tight corners which are difficult for trucks to utilize. The No-Build Alternative would not meet the needs of the Project causing issues with providing a roadway system connectivity for all traffic. Although the No-Build Alternative does not meet the purpose and need for the Project, it will be carried forward as a baseline for comparison of the potential impacts of the Revised Build Alternative. The No-Build Alternative would also not consider the preservation of the ROW needed for the future west-side widening of 22nd Avenue South. The Interchange Justification Report for the I-29 (20th Street South) interchange identified the future lane expansion for the intersection to maintain the LOS of C by 2045.

2.2 REVISED BUILD ALTERNATIVE

Within the 2020 EA, the Build Alternatives considered the improvements needed at the 20th Street South and 22nd Avenue South intersection (Figure 2-1). The improvements at the intersection that were constructed with the interchange avoided permanent impacts to the Edgebrook Golf Course. The traffic study completed during the 2020 EA noted that the improvements at the intersection completed during the construction of the interchange would meet the traffic needs at this location. Also, the traffic study completed during the 2020 EA noted that in the future this intersection would need further improvements to meet the 2045 LOS. An updated traffic study completed for this SEA confirmed that these improvements will be needed (Appendix A). The future improvements were noted as a separate future project from the construction of the interchange and would include turning lanes added to 20th Street South and 22nd Avenue South (Figure 2-1). The updated traffic study also considered specific development-related items such as access locations to minimize conflicts with traffic on 20th Street South.

Widening of the turn radii on the northeast and southeast corners was not considered as part of the Preferred Alternative in the 2021 FONSI since the Preferred Alternative would meet the LOS and avoid the time constraints of the BUILD Grant and Section 6(f) Permanent Conversion. After the construction of the interchange, the issues with trucks turning have confirmed the need for the additional improvements noted in Figure 2-1. Therefore, the Revised Build Alternative includes turning radii improvements and as well as the previously planned ROW preservation for the turning lanes on 20th Street South and 22nd Avenue South.

The Revised Build Alternative proposes the following for 2025 construction:

- Expand the northeast and southeast corners of the 20th Street South and 22nd Avenue South intersection to allow for trucks to turn without infringing on adjacent and opposite direction traffic lanes.

- Construct new crossing points for the Allyn Frerichs Trail along the east side of 22nd Avenue South since the to accommodate revised turning radius. In general, the trail would remain in its existing location, but the grade would be raised to meet ADA guidelines. Refer to Figure 2-2.
- Traffic signals on the east side of 22nd Avenue South installed with the 2022 / 2023 construction project would be moved for the expanded intersection corners.
- The Interstate Telecommunications Coop (ITC) building in the northeast quadrant of the 20th Street South and 22nd Avenue South intersection would be removed and replaced by the utility company to allow for the intersection widening. Refer to Figure 3-7.

Economic growth was noted in the 2020 EA and since this time development has continued to progress at this intersection and contributes to the Project's goal of economic growth. The properties on the west side of 22nd Avenue South either have been developed or will be developed by the time the roadway widening occurs. The ROW preservation for the future west side intersection improvements is included within this SEA due to development's progress at this intersection. Brookings has met and coordinated with the developers since the initial 2020 EA and 2021 FONSI process. Brookings is taking the future roadway ROW needs into account as they review and approve the development plans for the properties. The future roadway ROW is small slivers of parcels with no buildings located within the needed area. The property on the southwest corner of the 20th Street South and 22nd Avenue South intersection has been developed since the 2021 FONSI. Residences at this location were acquired and removed to accommodate the development, and the construction of a portion of the proposed street, Canasta Lane, was completed in support of this development. This occurred separately from the Project and was completed by private developers and Brookings. The completed development in the southwest quadrant is depicted in Figures 2-2 and 3-1.

The Revised Build Alternative would preserve the ROW for future widening of the existing 22nd Avenue South five-lane section north of 20th Street South and add a southbound right-turn lane by 2045 as a future construction project. The Revised Build Alternative does not include the construction of improvements, just the ROW preservation. The existing southbound 22nd Avenue South through lane now becomes a right-turn lane at 20th Street South. A southbound through lane would be added between Canasta Lane and 20th Street South just to accommodate the two southbound through lanes at the 20th Street South and 22nd Avenue South intersection. An eastbound right-turn lane would be added to 20th Street South on the west side of 22nd Avenue South. Refer to Figure 2-2. This SEA considers preservation of the ROW necessary for the future lane additions which would be required to further address increasing capacity needs and provide better connectivity for larger vehicles.

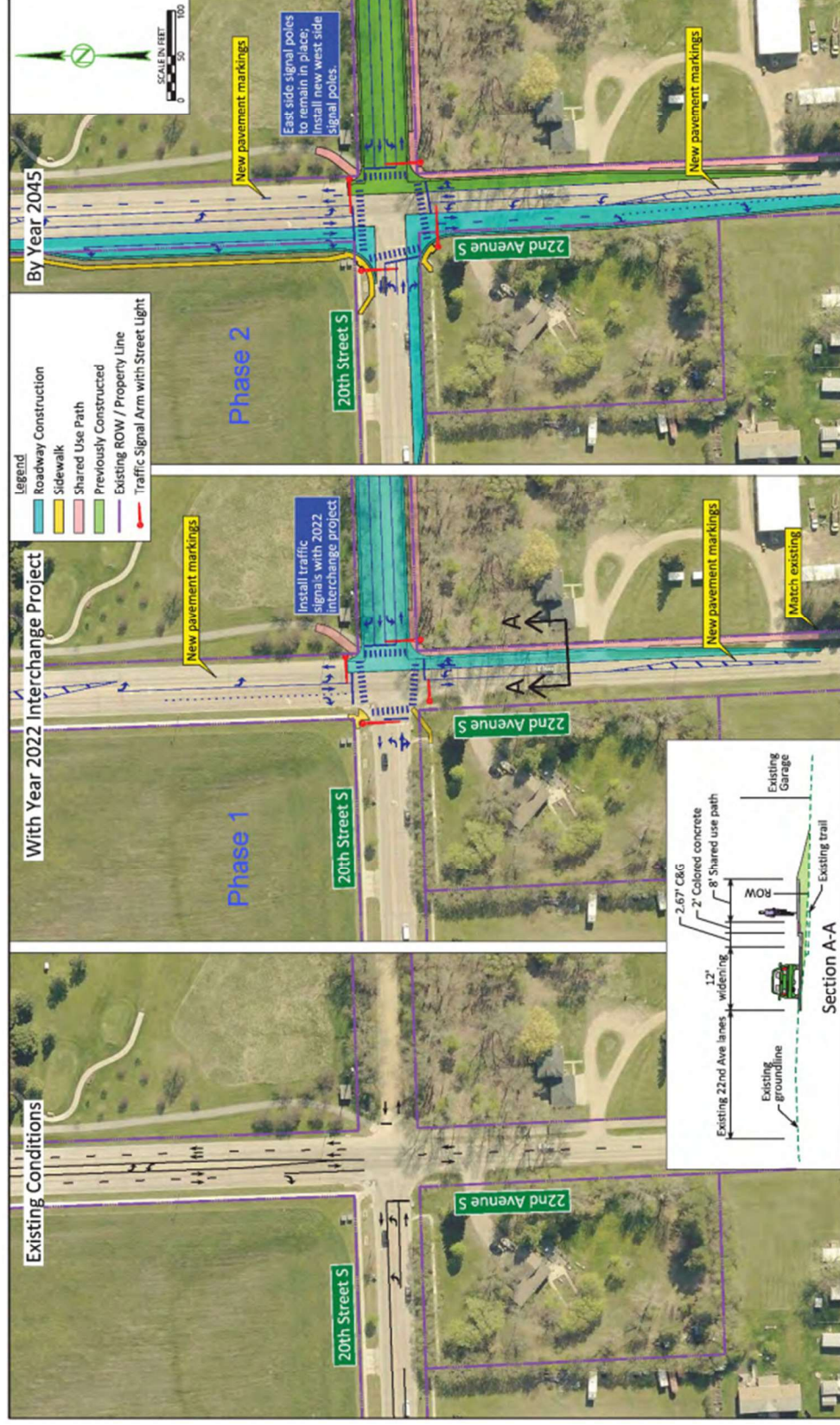


Figure 2-1. Proposed Improvements Discussed in the 2020 EA to the Intersection of 20th Street South and 22nd Avenue South

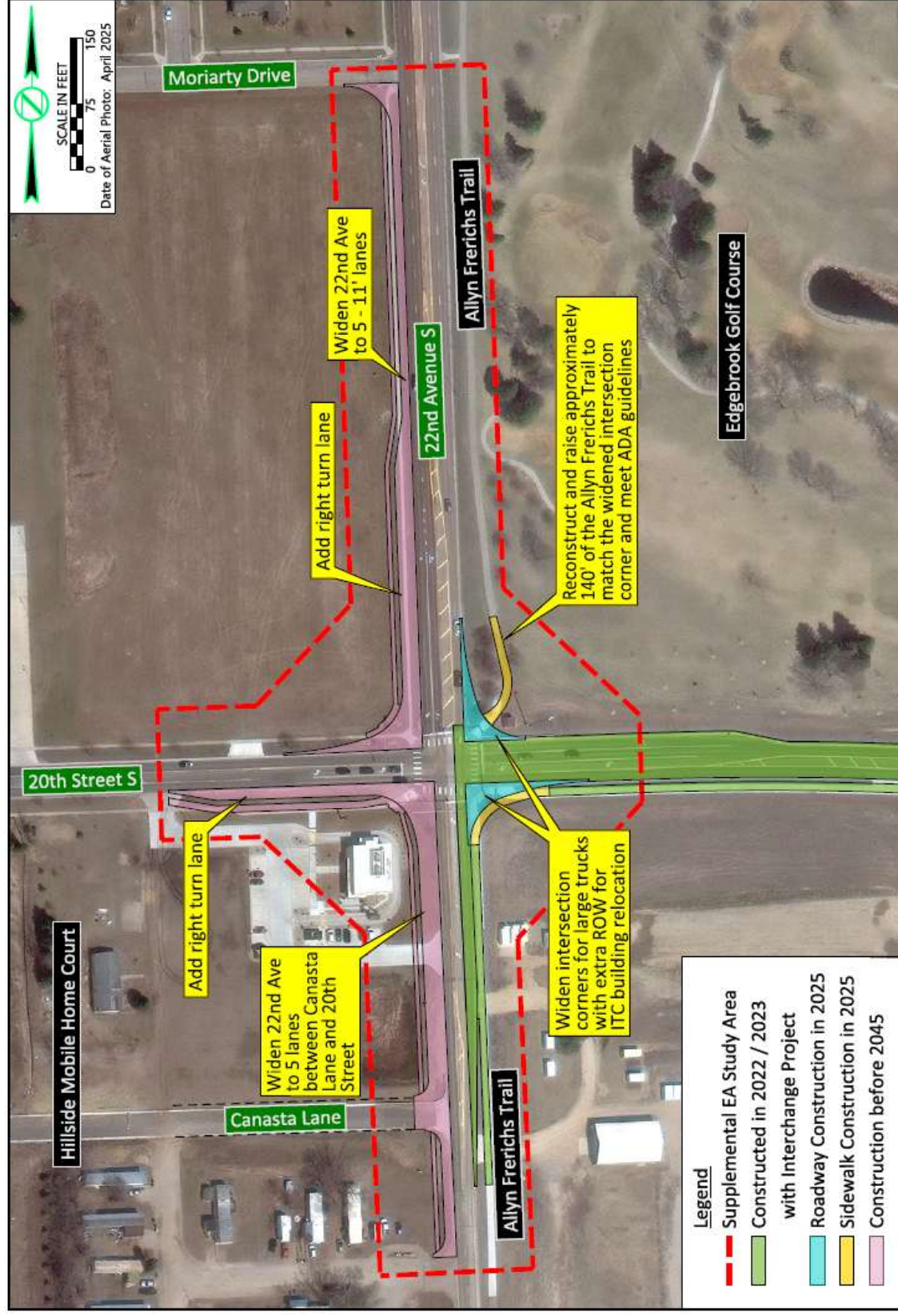


Figure 2-2. Supplemental EA Revised Build Alternative

3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

This chapter includes a discussion of the existing social, economic, and environmental resources within the Study Area in remainder of the document. For this analysis, the Study Area includes an approximately 115-foot to 175-foot-wide corridor along the length of 22nd Avenue South where improvements would take place as part of the Revised Build Alternative. The Study Area is shown on Figure 1-1.

The 2020 EA documented the existing conditions and potential impacts to natural, cultural, and community resources. Table 3-1 lists each resource from the 2020 EA along with a current assessment of whether further review is needed. Resources determined to not be present within the Study Area and were therefore not reviewed in detail within this SEA include wild and scenic rivers, paleontological resources, climate change and equity, and prime and unique farmlands.

Table 3-1. Assessment of Resources Requiring Review

Resource	2020 EA Build Alternative Summary	Revised Build Alternative Summary	Further Review in SEA?
Land Use	Consistent with land use plans. Improved connectivity in the roadway system would facilitate the planned development in the Study Area, allowing Brookings to continue to grow, resulting in a moderate, beneficial effect on land use.	Would be consistent with the transportation and land use plan completed for the Brookings area. Land use within the Project Area has changed.	Yes

Resource	2020 EA Build Alternative Summary	Revised Build Alternative Summary	Further Review in SEA?
Social	Traffic congestion would be reduced, and emergency service response times would be maintained or improved. Rural areas would experience a minor, adverse effect due to conversion of property to urban areas. Traffic delays for residents to their places of employment would be reduced by at least approximately 2,000 miles and 100 hours for a one-way trip to work, resulting in an overall moderate, beneficial effect on the social environment.	Would improve the turning radius for trucks at 20 th Street South and 22 nd Avenue South intersection. Would be consistent with the analysis in 2020 EA so no further discussion or analysis is needed.	No
Economic Resources	Would provide connectivity in the transportation system, allowing planned development to proceed. The development is anticipated to create 300 new jobs, nearly \$6 million in new earnings, and \$1 million in new state and local taxes. Build alternative would have a moderate, beneficial effect on the local economy.	Would provide connectivity for truck traffic by meeting SDDOT truck turning radius guidelines at 20 th Street South and 22 nd Avenue South intersection. Development has changed in the area.	Yes
Acquisitions and Relocations	Would require the acquisition of five single-family residences.	Would not require acquisition of residences. Would require some acquisition of private and public property.	Yes

Resource	2020 EA Build Alternative Summary	Revised Build Alternative Summary	Further Review in SEA?
Pedestrians and Bicyclists	A segment of Allyn Frerichs Trail from the intersection of 20 th Street South and 22 nd Avenue South would be shifted to the east. This would provide a northbound left turn-lane on 22 nd Avenue South. Currently during peak hours, drivers illegally use the trail to go around vehicles turning left onto 20 th Street South. The safety for trail users would be improved. Therefore, the Build Alternative would have a moderate, beneficial effect on pedestrians and bicyclists. For the unavoidable temporary closure of this trail during construction, a feasible and safe detour route will be provided.	A segment of Allyn Frerichs Trail at the 20 th Street South and 22 nd Avenue South intersection would be re-graded for the widened intersection corners. A small segment of 20 th Street South Shared-Use Path would be regraded at the connection to Allyn Frerichs Trail. A temporary detour for trail users would be utilized during construction.	Yes
Air Quality	Would result in a temporary increase in air emissions during construction. Following construction, a decrease in traffic congestion would lead to a decrease in emissions. Therefore, the Build Alternative would have a negligible effect on air quality.	Changes to type and number of vehicles is not anticipated. Would be consistent with the analysis in 2020 EA so no further discussion/analysis is needed. Area remains in attainment.	No

Resource	2020 EA Build Alternative Summary	Revised Build Alternative Summary	Further Review in SEA?
Noise	Six noise-related impacts are predicted because of the Build Alternative. Potential traffic noise abatement measures were determined to be not feasible. The Build Alternative is anticipated to have a minor, adverse effect on noise levels at six receptors along the eastern boundary of Edgebrook Golf Course and on portions of Allyn Frerichs Trail.	The Revised Build Alternative does not qualify as a Type I project and does not require the application of the SDDOT Noise Guidance.	No
Wetlands and Other Waters of the US	Approximately 0.49 acre of U.S. Army Corps of Engineer (USACE) non-jurisdictional wetland. The Build Alternative is anticipated to be permitted under a Section 404 nationwide permit. Overall, the Build Alternative would have a minor, adverse effect to wetlands and OWUS.	A field reconnaissance on April 23, 2025 noted that no wetlands or OWUS were present.	No
Water Quality	Would result in a minor increase in runoff from impervious surfaces due to the additional roadway. Therefore, the Build Alternative would have a minor, adverse effect on water quality.	Would result in a minor increase in runoff from impervious surfaces due to the widened corners at the 20 th Street South and 22 nd Avenue South intersection.	Yes

Resource	2020 EA Build Alternative Summary	Revised Build Alternative Summary	Further Review in SEA?
Vegetation, Fish, and Wildlife	Would have a negligible effect on the vegetation, fish, and wildlife populations in the Study Area. Habitat in the area is disturbed, and similar areas are available throughout the Study Area.	Would have a negligible effect on the vegetation, fish, and wildlife populations in the Study Area. Habitat in the area is disturbed, and similar areas are available throughout the Study Area. Would be consistent with the analysis in 2020 EA so no further discussion or analysis is needed.	No
Floodplain	The rise of the floodplain caused by the Build Alternative would be less than 1 foot. Therefore, it is anticipated that the Build Alternative would have a minor, direct, adverse impact on the floodplain.	There is no floodplain located within the Study Area for the Revised Build Alternative. No impacts to floodplain are expected.	No
Threatened and Endangered Species	Would have no effect to threatened and endangered species.	The Endangered Species listing status for several species and new species listed have occurred since 2020 (see Section 1.3). An updated species evaluation is required for the project.	Yes
Cultural Resources	Would have no effect to cultural resources.	Additional APE was determined, and Level III survey was completed. A determination of no historical properties affected was made for the supplemental area and SHPO concurred on December 18, 2024.	Yes
Regulated Materials	Regulated material sites would not be affected by, nor would they affect, the Build Alternative.	Regulated material sites would not be affected by, nor would they affect, the Revised Build Alternative.	No

Resource	2020 EA Build Alternative Summary	Revised Build Alternative Summary	Further Review in SEA?
Visual Impacts and Aesthetics	Would have a minor, adverse effect on the viewshed from Edgebrook Golf Course.	Minor impacts on the viewshed from Edgebrook Golf Course are anticipated. Most impacts would occur during the construction phase of the Project. Minor amounts of permanent impacts due to roadway widening and pathway realignment within the general area are also anticipated.	No
Section 4(f) and 6(f) Resources	<p>South Dakota Game, Fish, and Parks (SDGFP) concurred with the proposed work within the golf course as part of the Build Alternative be considered a temporary non-conforming use under Section 6(f).</p> <p>A concurrence from Brookings would be requested of the proposed temporary occupancy exemption for the Edgebrook Golf Course and the de minimis use of the Allyn Frerichs Trail.</p>	The Edgebrook Golf Course and the Allyn Frerichs Trail are both resources protected under Section 4(f). The Edgebrook Golf Course is also considered a Section 6(f) property. The Revised Build Alternative may have a use of Section 4(f) properties as well as an impact to a Section 6(f) property. Impacts to these resources will be minimized through the use of a detour for the Allen Frerichs Trail and mitigation for impacts to the Section 6(f) property, the Edgebrook Golf Course.	Yes

Resource	2020 EA Build Alternative Summary	Revised Build Alternative Summary	Further Review in SEA?
Utilities	Would require relocation of utilities, but impacts would be minor temporary adverse impacts. To minimize impacts, coordination has occurred with utility companies and Brookings. This coordination would continue prior to construction.	An existing communication hub building owned by ITC would be removed and replaced by ITC during project construction to allow for expansion of the east-side intersection corners (Figure 3-7). Other temporary impacts to local utilities are anticipated during construction. Coordination with Brookings and utility companies would continue throughout the construction process to minimize impacts.	Yes

3.1 RESOURCE NOT AFFECTED

The resource categories listed in this section were determined not to be impacted by this Project as discussed in Table 3-1. These resources are either not located within the Study Area or the impacts from the Project to the resource were determined to be so minor that a full review of the resource was not warranted in this SEA. Resources that are not detailed further include:

- Wild and scenic rivers
- Paleontological resources
- Climate change and equity
- Prime and unique farmlands
- Wetlands and Other Waters of the US

3.2 LAND USE

Land use and transportation are closely linked. Land use decisions can affect transportation mobility, accessibility, and safety as well as the environment and quality of life. Likewise, transportation decisions can affect land use, the environment, and quality of life as well as mobility, accessibility, and safety (Center for Environmental Excellence by AASHTO 2010). Land use was evaluated by determining the direct and indirect effects of the Project on existing land use (for example, recreation, residential, commercial, and industrial) and by verifying the consistency of the Project with development patterns and land use planning in Brookings.

3.2.1 Land Use Plans

As discussed in the 2020 EA, Brookings is a regional commerce and employment center located at the intersection of I-29 and US 14/6th Street. As the fourth largest community in South Dakota and the second largest community in the I-29 corridor, Brookings is just 58 miles north of Sioux Falls (South Dakota's largest metropolitan community) and 190 miles south of Fargo, North Dakota. Multiple plans have been completed for Brookings and were reviewed within the 2020 EA and the following is relevant to this SEA:

- **Brookings South Dakota Comprehensive Plan 2040 (2018):** The *2040 Comprehensive Plan* included an in-depth evaluation of population and economic growth trends, land use trends and patterns, and transportation systems. This plan noted the area on the east side of I-29 to have potential for future industrial, commercial, and residential development areas, which would address the growth that will occur in Brookings (City of Brookings 2018).
- **Brookings Area Master Transportation Plan (2011):** This plan, completed in 2011, included origin-destination studies, projected future traffic volumes on the collector and arterial street systems, reviewed safety and crash data using the SDDOT Road Safety Inspection Program, conducted traffic counts, and calculated intersection LOS (HDR 2011).
- **Better Utilizing Investments to Leverage Development (BUILD) Grant Application, Bridging the Interstate Divide, 20th Street South Interchange Project (2019):** The BUILD grant application identified previously planned development areas near 20th Street South. These areas would help meet the needed residential, commercial, and industrial opportunities for this growing community. On the east side of I-29, an additional 20 acres of multi-family housing, 20 acres of commercial space, and 65 single-family lakefront properties could be developed. On the west side of I-29, 240 acres of future residential and 160 acres of commercial land could be developed (City of Brookings 2019).

3.2.2 Existing Land Use, Future Land Use and Planned Development

In the 2020 EA, the existing land use, future land use and planned development in the 2020 EA Project Area was identified and included in the analysis. This land use information was reviewed, and the current land use and planned developments were identified and included in the analysis for this SEA.

As noted in the 2020 EA, the land use plans in the area have been progressing since the completion of the 2040 Comprehensive Plan. Some plans have also progressed since the completion of the 2020 EA. Typically, developers create initial layouts for developable land and make Brookings aware of those areas. For the 2020 EA, the developable lands were noted by the developers to the City and Brookings Economic Development Corporation. As the development plans progress, the final development plans then are coordinated with Brookings. The 2020 EA noted residential and commercial development are noted within the Study Area for this SEA.

The following discusses the current existing land use and planned developments by each quadrant of the 20th Street South and 22nd Avenue South intersection (Figure 3-1):

- In the northeast quadrant is the Edgebrook Golf Course, a publicly owned property. This existing land use was noted within the 2020 EA and has not changed.

- In the southeast quadrant is a privately owned manufactured home community owned by Western Estates MHP LLC, a real estate business that provides rentable lots for modular homes. The property owner leases the lots to each manufactured homeowner. The remainder of the area is developable property that is privately owned and is planned for residential and commercial development. The parcel was rezoned in July 2023 from residential to business district. The 2020 EA noted that this area has a future development plan that includes both commercial and residential areas. The development plan is similar to the plan during the 2020 EA. These existing land use and future development plans were noted within the 2020 EA and have not changed.
- The northwest quadrant is a developable land that is vacant. A commercial development plan exists for a future gas station. This area was noted as a planned development area within the 2020 EA.
- The southwest quadrant has been developed and is currently a Starbucks Coffee Company location. The parcel was rezoned in March 2022 from agriculture to business. The developer also constructed Canasta Lane. This area was noted as a planned development area within the 2020 EA.



Figure 3-1. Planned Development Figure from 2020 EA

3.2.3 Environmental Consequences

3.2.3.1 *No-Build Alternative*

Under the No-Build Alternative, the intersection improvements and ROW preservation would not occur. The issues with the turning radius would continue and planning for the future improvements on the west side of the intersection would not be planned. The No-Build Alternative would not be consistent with the land use plan in the area, due to current and future concerns with the intersection.

3.2.3.2 *Revised Build Alternative*

The Build Alternative would improve the intersection, preventing the traveling public from being hindered at this location and would not prevent or inhibit planned development. During this SEA process, the following coordination occurred with the developers. This development occurred to coordinate the proposed ROW required for the proposed intersection improvements.

- For the development proposed in the southeast quadrant, coordination occurred with the landowner on September 9, 2024, and the intersection widening plan was provided. He requested the signal controller cabinet be shifted from the south side of 20th Street to the north side of 20th Street, this request was included in the design. This will reduce the visual obstruction to the development. The landowner has signed preliminary documentation noting the ROW and temporary easement needed for the Build Alternative. Therefore, the Build Alternative would not impact or be inconsistent with the planned development.
- For the proposed development within the northwest quadrant, Brookings reviewed the development plan and prepared H-lot plats for the ROW preservation area needed for the future 22nd Avenue west side widening. This area has been included within the developer's layout for the site. Therefore, the Build Alternative would not impact or be inconsistent with the planned development.
- For the proposed development within the southwest quadrant, Brookings reviewed the development plan and prepared H-lot plats for the ROW preservation area needed for the future west side improvements to the 20th Street and 22nd Avenue intersection and the 22nd Avenue widening. The City approved the final development plan that accounted for the future roadway improvements and purchased the roadway H-lots from the developer. Therefore, the Build Alternative would not impact or be inconsistent with the planned development.

The Build Alternative would be consistent with land use plans and has been coordinated for the ROW needed for the improvements to be incorporated into the development plans.

3.2.4 Mitigation Measures and Commitments

The City and Brookings County would need to coordinate transportation and land use plans to allow for expansion of the roadway system to accommodate future development.

3.3 ECONOMIC RESOURCES

During the completion of the BUILD grant, the economic benefit to Brookings from the construction of an interchange at 20th Street South, beyond the travel economic benefits, was considered. The 2020 EA noted

the Project would contribute to creating another east-west connection across I-29 that would create visibility and opportunity for planned development to proceed. To estimate the economic gain from the development, developers provided to the Brookings Economic Development Corporation their planned development areas in the Project Area which were considered in the 2020 EA Analysis (City of Brookings 2019). The following was noted for this SEA analysis:

- In the southeast quadrant of the intersection, 33 acres are planned for commercial development. This includes a 400,000 square-foot commercial and retail property, 460,000 square feet of residential multi-family above commercial space, and nearly 100,000 square feet of storage space. The current future development plan for this area remains the similar to the plan reviewed for the 2020 EA.
- On the west side of the intersection of 22nd Avenue South and 20th Street South, two additional areas, totaling 9 acres, are identified as planned commercial development. The southwest parcel has been developed as a Starbucks Coffee Company location, construction was completed in 2024. The northwest parcel has a development plan for a convenience store.

3.3.1 Environmental Consequences

3.3.1.1 No-Build Alternative

Under the No-Build Alternative, the intersection would not be improved, and issues would remain. Over time without the improvements on the east side of the intersection and future improvements on the west side of the intersection, development in the area would be affected. Travelers trying to access these commercial businesses would have more difficulty accessing this area.

3.3.1.2 Revised Build Alternative

Design techniques were used to minimize, to the extent possible, impacts on the existing businesses and future development plans during the 2020 EA process and this SEA process. The proposed ROW areas within the planned developments were coordinated with their layout plans, to avoid conflicts. Section 3.2.3.2 discussed the coordination that occurred with each development. The development of the areas would contribute to the overall economic growth of Brookings by providing improvements to the intersection, allowing better connectivity to the commercial and residential areas.

3.3.2 Mitigation Measures and Commitments

Access would be maintained to businesses from a public street during construction. Access signs indicating individual businesses by name would be included in construction signing. Construction would be phased to minimize traffic congestion impacts and overall time of construction in the Project Area.

3.4 ACQUISITIONS AND RELOCATIONS

Acquisition would be the temporary or permanent purchase of property for the construction of a project. Relocation is required when a project is likely to displace people from their homes, businesses, or farms, meaning that the project would need to acquire property which would result in the relocation of individuals or communities. A field survey and aerial photos were used to identify business and residence locations in the Study Area. Refer to Figure 3-2 for additional information and discussions of property acquisition in the Study Area. Utility relocations are discussed in Section 3.10.

Since the completion of the 2020 EA, the properties on the west side of 22nd Avenue South have been or are currently planned for developed. In the southwest quadrant of the intersection, the parcel has been developed by a private owner, separate from this Project. In the northeast quadrant, Brookings is in the process of reviewing the development plan.

On the east side of the intersection, the Edgebrook Golf Course occupies the northeast quadrant and is a Section 6(f) property. As a Section 6(f) property, specific requirements are discussed in Section 3.9. In the southeast quadrant, the buildings previously at this location were removed by the property owner.

3.4.1 Environmental Consequences

3.4.1.1 No-Build Alternative

The No-Build Alternative would not require acquisition of property nor directly change or result in relocation of existing businesses, residences, and structures.

3.4.1.2 Revised Build Alternative

The Revised Build Alternative includes the acquisition of property for the current planned improvements on the east side of the intersection, and preservation of ROW on the west side of the intersection for future widening of 22nd Avenue South. The reconstruction of the east side of the intersection is needed now to address the issues with truck turning. ROW preservation would occur on the west side of the intersection along 22nd Avenue South. ROW preservation is utilized in areas that are being developed and are known areas that need improvements within the planning horizon, in this case 2045, to help reduce the conflict later as the improvements are needed to the roadway. The Revised Build Alternative would require the ROW preservation and ROW acquisition as illustrated in Figure 3-2 and as listed in Table 3-2.

Table 3-2. Anticipated Property Acquisition

Acquisition Type	20 th St S / 22 nd Ave Location	Area (sq. ft.)
ROW preservation	Southwest quadrant private property	3,114
	Northwest quadrant private property	13,035
ROW acquisition	Southeast quadrant private property	621
	Northeast quadrant Edgebrook Golf Course	8,396

The Revised Build Alternative would not require the acquisition and relocation of residences. For discussion of the relocation required for utilities, refer to Section 3.8.

ROW preservation to account for the future (prior to year 2045) widening of the west side of 22nd Avenue South of the roadway ROW while the properties are vacant avoids acquisition of developed property in the future which could negatively impact the function of the property. Brookings is responsible for working with the developers through the platting process and paying owners for the private property that would be needed for the west side widening of 22nd Avenue South. See Section 3.2.3 for a discussion of the coordination that has occurred for each development area. As of April 2025, the property in the southwest quadrant of the intersection has partially been developed into a Starbucks Coffee Shop and Brookings paid for the area that would be needed for future widening of 22nd Avenue South. Brookings is in the development plat review process for the property in the northwest quadrant and negotiating with the landowner on the ROW area.

For the ROW acquisition for the Edgebrook Golf Course, a specific process is required for compliance with Section 6(f). To initiate the process, coordination was completed with the South Dakota Game Fish and Parks (SDGFP) and National Park Service (NPS) to discuss the proposed ROW acquisition, which under Section 6(f) is considered a Conversion of Use. Conversions of Use require the identification of a mitigation area that is equal value to the area that is permanently converted as ROW. Typically, the mitigation area must be adjacent to the existing park, or the park area needs to be replaced at a new location. The ROW acquisition area and proposed mitigation had a yellow book appraisal process to confirm the area is replaced with an equal value area. Refer to Section 3.7 for further discussion of the mitigation area and of the process.

3.4.2 Mitigation Measures and Commitments

Acquisitions would be conducted in conformance with the Uniform Relocation Assistance and Real Property Acquisition Act of 1970, as amended by the Surface Transportation Assistance Act of 1987 and 49 CFR, Part 24, effective April 1989.

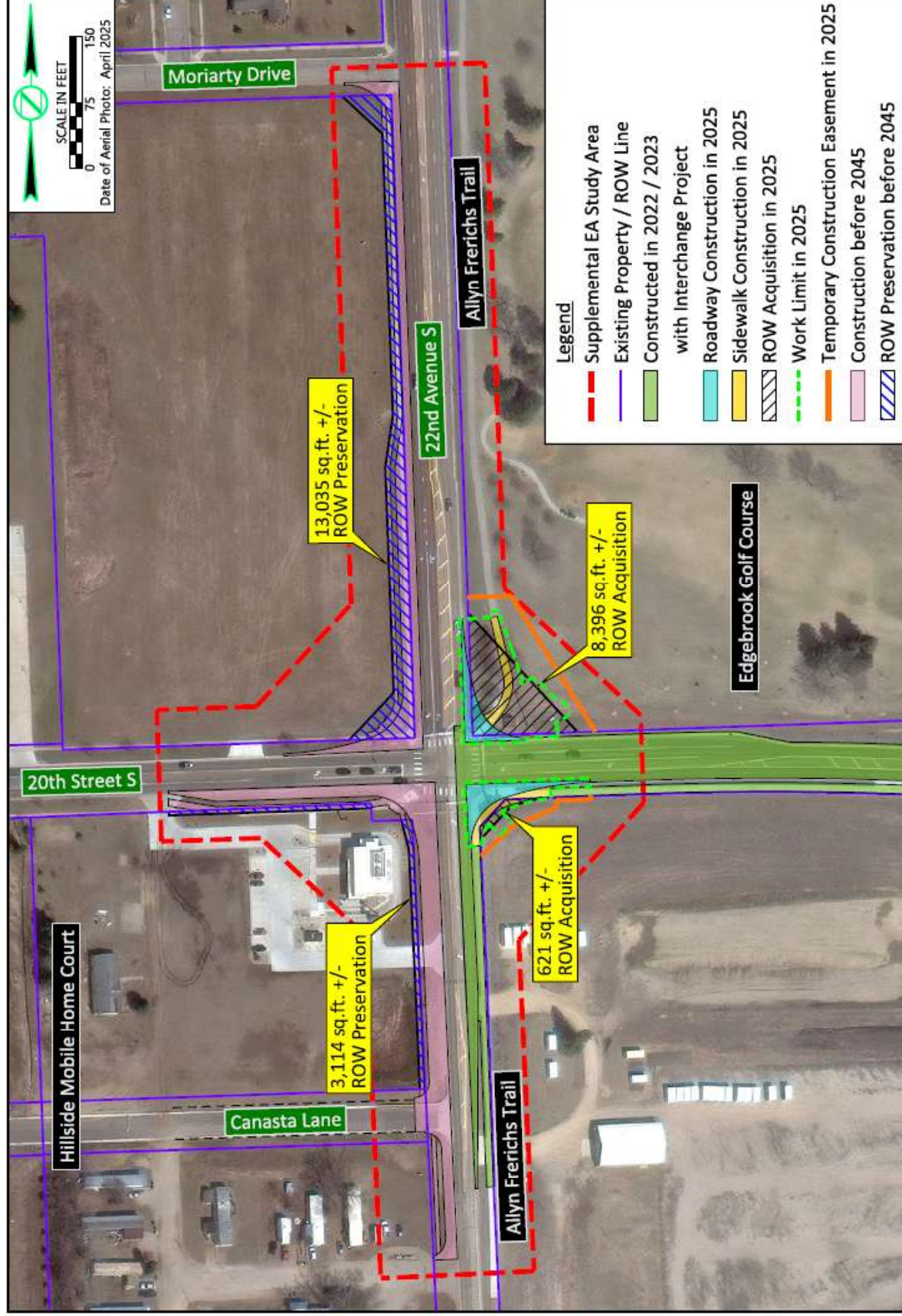


Figure 3-2. Permanent ROW Needs

3.5 PEDESTRIANS AND BICYCLISTS

Brookings has a well-developed system of pedestrian and bicycle trails. The *Brookings Bicycle Master Plan* was developed to make the community more bicycle friendly and includes future routes and facilities (on-street and off-street) to supplement existing bicycle and trail infrastructure (City of Brookings 2017). By 2040, the vision of the plan is to make Brookings a Platinum Bicycle Friendly Community, where safe and comfortable bicycling trips throughout Brookings are made by residents, students, and visitors. Please refer to Figure 3-3 for future and existing trails in vicinity of the Study Area.

The *2040 Comprehensive Plan* notes that “a transportation system should promote a variety of complementary transportation modes, including motorists, bicyclists, pedestrians, and transit riders. At Presently, Brookings has a strong pedestrian system, an emerging bicycle system, and well-respected and growing on-demand transit service. The use of these modes is expected to grow and should be incorporated into development standards and city budgets” (City of Brookings 2018).

The Allyn Frerichs Trail is an existing paved, shared use trail within the Study Area. The trail begins north of Exit 132 and continues south on the east side of I-29. The trail crosses under I-29 at the railroad tracks and then continues south until it reaches Edgebrook Golf Course. The trail turns west and goes along the north side of the golf course and then turns south and goes along the west side of the golf course, on the east side of 22nd Avenue South in the Study Area. Brookings Parks, Recreation, and Forestry Department maintains and manages the Allyn Frerichs Trail.

Brookings also identifies a mixed-use pathway on the south side of 20th Street South, between 22nd Avenue South and I-29 (City of Brookings, 2025). This is referred to in this SEA as the 20th Street South Shared-Use Path, which continues east until the intersection with 34th Avenue South as shown in Figure 3-3. It should be noted that there are no connections to other trails or mixed-use pathways at the 34th Street intersection at this time so the mixed-use pathway on the south side of 20th Street South will essentially be a “dead end” pedestrian pathway until the trail system is further developed. Brookings is constructing this path further from the 20th Street South and 22nd Avenue South intersection to the west along 20th Street South during the Summer 2025.

The *Brookings Bicycle Master Plan* noted potential future shared use trails. The future shared use trails shown in the plan include the Allyn Frerichs Trail becoming part of a potential US Bicycle Route 55 alignment through Brookings. In addition, main arterials US 14 and 6th Street and 22nd Avenue South, were noted as accommodating either shared use paths or separated bike lanes in the future (City of Brookings 2017).

Currently, the undersized turn radius at this intersection causes vehicles (including large trucks) to encroach on the shared use path located on the corner to make the turn into the proper lane. This poses a risk of collision for pedestrians, bicyclists, and motorists.

3.5.1 Environmental Consequences

3.5.1.1 No-Build Alternative

No improvements to the existing identified pedestrian or bicycle facilities would be made as part of the No-Build Alternative. The tight corners of the intersection of 20th Street South and 22nd Avenue South has led to trucks damaging the traffic signal (including the pedestrian indicators) and knocking over pedestrian push button poles. This poses a hazard to pedestrians crossing the intersection. A portion of the existing trail

exceeds ADA longitudinal grade guidelines. The No-Build Alternative would have a continued moderate adverse effect on pedestrians and bicyclists. The No-Build Alternative would have no impact on future shared use pathway construction within or adjacent to the Study Area.

3.5.1.2 Revised Build Alternative

The Revised Build Alternative would improve pedestrians and bicycle facilities. The Revised Build Alternative would create a widened turning radius so trucks can make the turns without damaging signal equipment. Widening of the turn radius would also minimize the risk of trucks driving on the shared use path where pedestrians/bicyclists may be located.

The Allyn Frerichs Trail would be raised to meet ADA guidelines, which meet the Project Goal of multi-modal transportation in this area. The Revised Build Alternative would temporarily impact a small portion of the path and access to the path at the intersection. This Project would not impact future trail planning within the area. Therefore, the Revised Build Alternative would have a beneficial effect on pedestrians and bicyclists. The 20th Street South Shared-Use Path was constructed during the completion of the interchange. However, currently there are no connections to that trail between 22nd Avenue South and 34th Avenue South. There also are no pedestrian facilities along 34th Avenue South or on 20th Street South to the east of 34th Avenue South. So, until the trail system is further developed in the future, the shared-use path along the south side of 20th Street South is essentially a “dead-end” facility.

The Allyn Frerichs Trail is considered a Section 4(f) property since it is an existing recreational pedestrian and bike trail, and the Revised Build Alternative would constitute a use under Section 4(f). Please refer to Section 3.9 for further discussion of Section 4(f). The Revised Build Alternative would have no impact on future shared use pathway construction within or adjacent to the Study Area.

3.5.2 Mitigation Measures and Commitments

The following are the commitments that are required for the Project and will be completed by the Brookings and SDDOT:

- Access to the Allyn Frerichs Trail would be restricted for a period that is anticipated to be less than the time needed for construction.
- A detour would be provided due to the temporary closure of the Allyn Frerichs Trail. Sheet 19 of the construction plans provides a detour layout for the temporary closure of the Allyn Frerichs Trail. The detour is also shown on Figure 3-4. Signage would be provided to direct users around the construction.
- Temporary construction fencing would be installed along proposed construction limits near the Allyn Frerichs Trail.
- Appropriate signage would be installed to alert users of the Allyn Frerichs Trail of construction activities, access restrictions or closures, and to direct users to secondary access points.
- The Contractor would be required to closely coordinate the construction schedule with SDDOT Environmental Manager (605.773.3721) and Brookings Parks, Recreation, and Forestry Director (605.692.2708) at the preconstruction meeting.

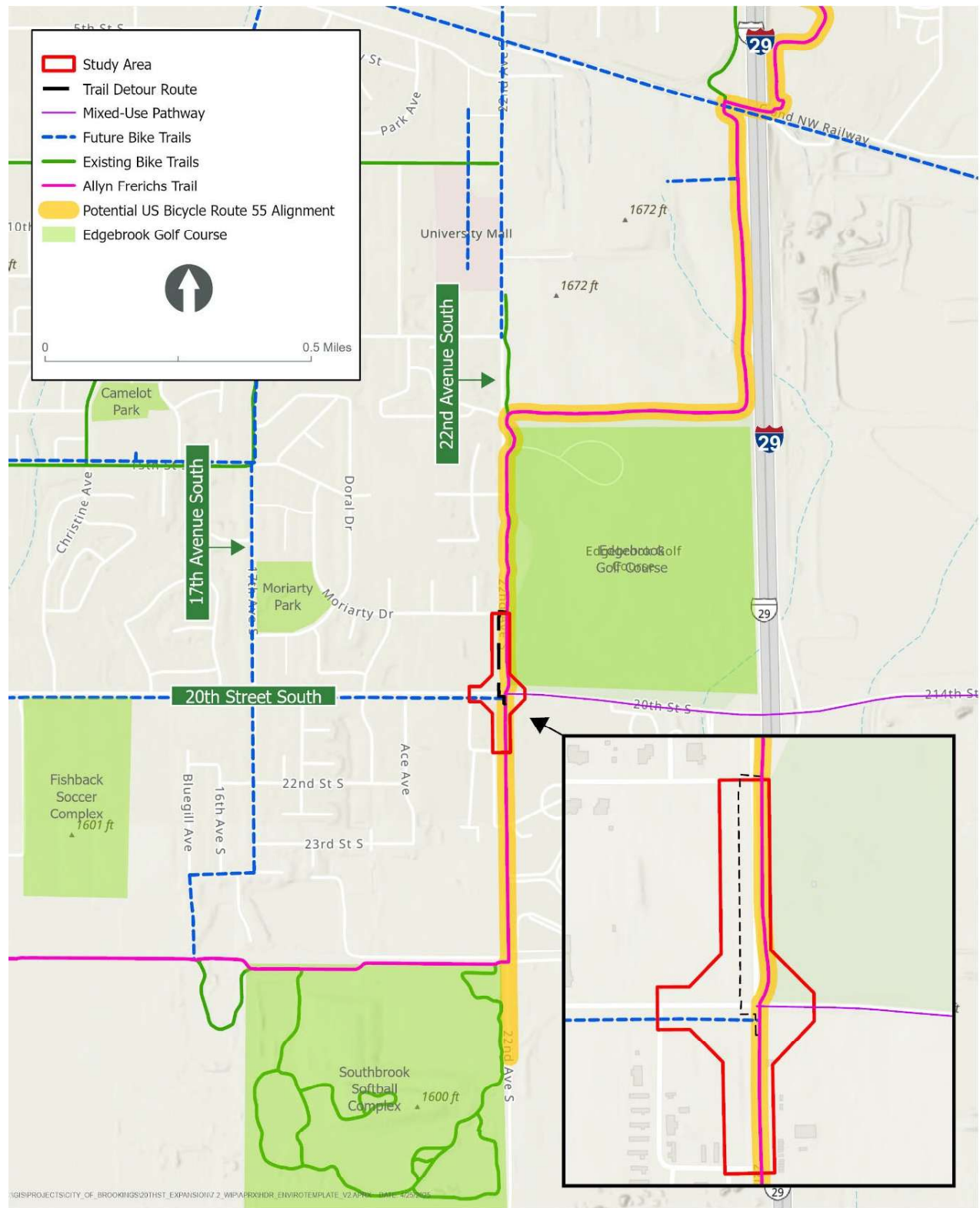


Figure 3-3. Existing Pedestrian and Bicyclist Trails and Proposed Detour



Figure 3-4. Pedestrian Detour Layout

3.6 WATER QUALITY

The Clean Water Act provides for the establishment of water quality standards, control of discharges, development of wastewater treatment management plans and practices, prevention or minimization of the loss or degradation of surface waterbodies and groundwater, and the regulation of other issues concerning water quality. The purpose of this section is to determine if the Project has the potential to exceed water quality standards from the discharge of surface water runoff, cause impact on the groundwater and water supply/drinking water sources or affect wastewater treatment management plans and practices.

The Study Area is located within the Upper Big Sioux Watershed (SDDANR 2024a). One isolated wetland was identified via desktop delineation within the Study Area. No other surface water resources were identified in the Study Area upon desktop review. No impaired waterbodies were identified within the Study Area.

No major aquifers are mapped within the Study Area (SDDANR 2024b). The residences and businesses within the Study Area receive their drinking water through Brookings Municipal Utilities. Brookings receives its water supply from the Big Sioux Aquifer and the wells are located outside of the Study Area. The Big Sioux Aquifer covers an area of approximately 20 square miles, with a drainage area of approximately 100 square miles. The drainage area provides an average recharge of water into the aquifer of 9 billion gallons annually (Brookings Municipal Utilities 2024). No water plants are located within the Study Area.

3.6.1 Environmental Consequences

3.6.1.1 No-Build Alternative

Under the No-Build Alternative, no additional ground disturbances would occur, therefore no surface water or groundwater impacts would be anticipated within the Study Area.

3.6.1.2 Revised Build Alternative

The Revised Build Alternative would increase the existing area of disturbance due to the addition of lanes on 22nd Avenue South and the widened intersection corners. Minor increases in surface water runoff may occur with the increased disturbance areas and changes in land use from vegetated ROW to paved surfaces. This minor increase in surface water runoff is anticipated to cause a minor permanent increase in surface runoff post construction of the Project.

Coordination occurred with SDDANR and their response on November 20, 2024, noted that the Project would not have any adverse environmental effects to drinking water in this area and is unlikely to have adverse effects to groundwater quality (Appendix A B). The Revised Build Alternative is anticipated to have minor, adverse effects on water quality due to the slight increase in impervious area within the Study Area from existing conditions.

Any construction activity that disturbs an area of 1 or more acres of land must have authorization under the National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges Associated with Construction Activities. The permit can be obtained through coordination with SDDANR. The Project would disturb less than 1 acre and therefore does not require the NPDES General Permit.

3.6.2 Mitigation Measures and Commitments

SDDANR in their November 20, 2024, response noted that at a minimum, and regardless of project size, appropriate erosion and sediment control measures must be installed to control the discharge of the pollutants from the construction site (Appendix AB).

Any groundwater wells would be confirmed during physical survey and, if impacted, would be properly capped and sealed. Any impacted wells and connections would be replaced with properties that were not fully acquired.

3.7 THREATENED AND ENDANGERED SPECIES

Section 7 of the ESA, as amended, applies to federal actions and sets forth requirements for consultation to determine if the proposed action may affect a threatened or endangered species. If a threatened or endangered species or its critical habitat may be affected, Section 7(a)(2) of the Endangered Species Act

requires the federal lead agency to consult with USFWS or the National Marine Fisheries Service, as appropriate, to ensure that the project does not jeopardize the continued existence of the affected species. Threatened, endangered, candidate, and proposed federally listed animal and plant species and their habitats that exist in the affected environment must also be considered. Plant or animal species with special status are also included.

A search of the USFWS Information for Planning and Consultation (IPaC) database (Project Code 2025-0023938) indicated that three threatened, two endangered listed species, and two proposed threatened species may be present in the Study Area (USFWS 2024a). The threatened, endangered, and proposed threatened species that may be present in the Study Area include the following:

- **Northern Long-eared Bat (*Myotis septentrionalis*) – endangered status:** The northern long-eared bat is a medium-sized bat that occurs across the central, eastern, and northern portions of the United States and across Canada. The species decline is primarily attributed to white-nose syndrome. The western population of the northern long-eared bat occurs in several states, including South Dakota. The species commonly roost singly or in colonies in the trees of forested areas and, to a lesser extent, in caves, mines, and structures (USFWS 2024b). A field reconnaissance was completed to identify if any suitable habitat is present in the Study Area. Northern long-eared bat habitat is presumed to not be present as the Study Area has a limited number of trees and is within an urban area near a high traffic corridor. No exfoliating bark or snags were present.
- **Rufa Red Knot (*Calidris canutus rufa*) – threatened status:** The rufa red knot is a medium-sized shorebird and makes one of the longest-distance migrations known, migrating up to 19,000 miles annually (USFWS 2024c). The rufa red knot has a large range and can be found during portions of the year as far south as Brazil but often breeds in the central Canadian arctic (USFWS 2024c). While most red knots follow migration routes along the east or west coasts of North America, small numbers of these species follow an inland migration route, which may include stopovers in the Great Plains (USFWS 2024c), including South Dakota. Preferred stopover habitat includes gravelly or sandy beaches, tidal mudflats, salt marshes, shallow coastal impoundments, and peat banks. Stopovers are defined as places where migrant birds stop to rest, drink, and eat during migration or after long flights (USFWS 2024c). There are no suitable sand or gravel bars, tidal mud flats, salt marshes, or peat banks in the Study Area.
- **Topeka Shiner (*Notropis topeka*) – endangered status:** The Topeka shiner is a small minnow species (up to three inches) that lives in low-order streams on the prairies of the Great Plains states. Critical habitat is designated Nebraska, Minnesota, and Iowa but no critical habitat has been designated in South Dakota. The Topeka shiner inhabits moderately clear creeks with bottoms of gravel, sand, bedrock, or rubble. The species spawns in silt-free gravel from May to July and spawns over the nests of green and orange-spotted sunfish (USFWS 2020a, Missouri Department of Conservation 2024). This species can only live in streams and no streams are present in the Study Area. There is no suitable habitat or designated critical habitat in the Study Area.
- **Dakota Skipper (*Hesperia dacotae*) – threatened status:** The Dakota skipper is a small butterfly that relies on healthy native prairie within its current range of North Dakota, South Dakota, Minnesota, Manitoba, and Saskatchewan to complete its life cycle (USFWS 2019). The Dakota skipper overwinters as larvae in shelters at ground level, relying on medium-stature native grasses, such as prairie dropseed (*Sporobolus heterolepis*), little bluestem (*Scizachyrium scoparium*), and sideoats

grama (*Bouteloua curtipendula*) for growth and survival to complete one generation per year. The adult Dakota skipper requires a diversity of flowering forbs as a nectar source during its flight period from late June to early or mid-July. Two preferred adult habitat types have been identified throughout the range of the Dakota skipper, consisting of moist bluestem prairie (Type A) and upland mixed-grass prairie (Type B; USFWS 2024d). There is no designated critical habitat within the Study Area. Because the Project would occur within a previously disturbed road corridor and native moist bluestem prairies or upland mixed-grass prairies are not found within the Study Area, no suitable habitat exists within the Study Area.

- Monarch Butterfly (*Danaus plexippus*) – proposed threatened status:** Monarch butterflies are large butterflies with orange wings bordered by black and two rows of white dots reside within the black. Monarchs require milkweed plants to host their eggs and larvae hatch two to five days later and go through five molting periods over the next couple of weeks feeding on the milkweed. Multiple generations can be produced each breeding season as most adults only live two to five weeks but can also overwinter for up to nine months. Monarchs in temperate climates migrate up to 3,000 km to warmer areas to overwinter and then return in the spring (USFWS 2024e). Threats to habitat include loss of milkweed, grassland conversion for agricultural use, and widespread herbicide use. While not officially listed, it is proposed to be listed as threatened (USFWS 2024e). No designated critical habitat is within the Study Area. Due to the previously disturbed nature of the intersection and road corridor, there is no suitable habitat for the monarch butterfly within the Study Area.
- Western Regal Fritillary (*Argynnis idalia occidentalis*) – proposed threatened status:** The western regal fritillary has a wingspan of three to four inches known for its distinctive rusty orange forewings and black hindwings with white spots across the middle of the wing currently occupies 14 states and historically inhabited a larger area. Caterpillars can be black, yellow, or orange with orange or red stripes and with yellow and black spines (Moorehouse 2022). The species requires areas where large tracts of grasslands are intact, close together, and remain unconverted (USFWS 2024f). Land conversion and agricultural development are the greatest causes of habitat loss. While not officially listed, it is proposed to be listed as threatened. No designated critical habitat is in the Study Area. Due to the previously disturbed and urban nature of the survey area, there is no native grassland and therefore no suitable habitat is within the Study Area.
- Western Prairie Fringed Orchid (*Platanthera praeclara*) – threatened status:** Western prairie fringed orchids occur west of the Mississippi River and currently occur in Iowa, Kansas, Minnesota, Nebraska, North Dakota, and Manitoba, Canada (USFWS 2024g). Preferential habitat includes wet, unplowed tallgrass prairies and meadows; however, western prairie fringed orchids have been found in fields and roadside ditches. Habitat loss and degradation, primarily through conversion to cropland, is the greatest threat to the orchid (USFWS 2021). Because the Project would occur in a highly disturbed area, no native tallgrass prairie habitats or wet meadows suitable for populations of western prairie fringed orchid exist in the survey area.

State threatened or endangered species and species of management concern (designated species that require both control and protection) are regulated under South Dakota Statutes 34A-8 and 34A-8A, respectively. SDGFP maintains a list of species determined to be threatened or endangered in South Dakota. In the SDGFP response dated December 23, 2024, the SDGFP noted no concerns with the Project (Appendix A). During coordination with SDGFP, the agency noted that habitat surveys should be completed for the northern long-eared bat. As noted in the above discussion, these surveys were completed and the species

not believed to inhabit the Study Area (, Phase I Habitat Assessments, Northern Long-Eared Bat Habitat Assessment Data Sheet). SDGFP also noted that any activities impacting streambeds should not be completed during fish spawning periods that take place from April through June. No streams are located within the Study Area.

3.7.1 Environmental Consequences

3.7.1.1 No-Build Alternative

The No-Build Alternative maintains the Study Area as is. The No-Build Alternative would not change the relationship between the existing roads and threatened or endangered species. Therefore, there would be no effects on threatened or endangered species associated with the No-Build Alternative.

3.7.1.2 Revised Build Alternative

As discussed above, no suitable habitat for the above listed and proposed species was identified in the Study Area. Therefore, based on lack of suitable habitat, the Revised Build Alternative is anticipated to have no effect on these species. On January 21, 2025, USFWS replied to the scoping letter sent to their agency, they noted no concerns with the Project (Appendix B).

3.7.2 Mitigation Measures and Commitments

No mitigation measures or commitments are required.

3.8 CULTURAL RESOURCES

Historical, architectural, archaeological, and cultural resources that would be affected by federally funded/licensed undertakings come under the protection of the National Historic Preservation Act of 1966 (16 United States Code 470), as amended. Section 106 of this act requires federal agencies to consider the effects of such undertakings on properties listed, or eligible for listing, in the National Register of Historic Places (NRHP). Regulations related to this process are described in 36 CFR Part 800, Protection of Historic Properties. A broader range of cultural resources comes under the protection of Section 4(f) of the USDOT Act of 1966, which requires projects funded by USDOT to avoid significant historic sites unless there is no “feasible and prudent” alternative. In general, this provision applies to resources that are listed, or eligible for listing, in the NRHP. However, at the discretion of USDOT, Section 4(f) protection may also be extended to properties that do not meet NRHP criteria as long as the responsible jurisdiction advocates Section 4(f) status.

The Area of Potential Effect (APE) is the geographic area or areas within which an undertaking may cause changes in the character or use of historic properties or archaeological sites. A potential effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for listing in the NRHP in a manner that would diminish the integrity of the property’s location, design, setting, materials, workmanship, feeling, or association. Examples of adverse effects include physical damage or alteration of the property, change of the character of the property’s use or of physical features within its setting that contribute to its historical significance, and introduction of visual, atmospheric or audible elements that diminish the integrity of the property’s significant historic features. Therefore, the APE for historic properties is the area that contains a property that would be acquired or physically disturbed to the extent that its current use may be affected, or that would be significantly visually affected by the alternatives

under consideration. For archaeological sites, the APE is the area where the ground could be disturbed as a direct or indirect consequence of the alternatives under consideration.

A Level III Cultural Resources Survey and Report were completed in the APE identified for this SEA in September 2024. A series of shovel tests were excavated in portions of the APE that appeared to be undisturbed from previous development. No archeological sites were identified within the APE (Augustana Archeological Lab 2024).

3.8.1 Environmental Consequences

3.8.1.1 No-Build Alternative

The No-Build Alternative would not impact historic structures or archaeological sites in the Study Area.

3.8.1.2 Revised Build Alternative

No historic properties or archeological sites were identified within the APE. Therefore, a determination of no historic properties affected was recommended in the Level III Cultural Resources Report (Augustana Archeological Lab 2024). A letter from SDDOT was sent to the State Historical Preservation Office (SHPO) on December 13, 2024, recommending an effect determination of no historic properties affected. On December 18, 2024, SHPO responded by concurring with the effect determination of no historic properties effected (Appendix A).

3.8.2 Mitigation Measures and Commitments

If historic properties are discovered, the SDDOT would notify the SHPO and coordinate the next steps.

3.9 SECTION 4(F) AND 6(F) RESOURCES

Section 4(f) of the USDOT Act of 1966 requires determination of whether a US Department of Transportation (USDOT) proposed project would adversely affect or occupy a Section 4(f) resource. Additionally, Section 6(f) of the Land and Water Conservation Act (LWCF) of 1965 (Section 6(f)) requires approval from the NPS for converting land that has been paid for in part or in entirety by LWCF grants to non-park or non-recreation uses.

No historic properties are listed or eligible for listing on the NRHP located within the Study Area. Refer to Section 3.6. There are publicly owned parks and recreation areas that are open to the public as follows and is shown on Figure 3-3. The use of and impact to the Section 4(f) and 6(f) properties by the Revised Build Alternative are discussed in the following sections.

Edgebrook Golf Course

Edgebrook Golf Course is a municipal 18-hole facility with a 9-hole junior/short course located at 1415 22nd Avenue South (Figure 3-5). It is owned and operated by Brookings. Fees are reviewed and set annually by the Brookings Park, Recreation, and Forestry Board and include single rounds of golf and seasonal passes. Section 4(f) applies to the golf course because it is owned, operated, and managed by a public agency for the primary purpose of public recreation. Randy Kittle, the Grants Coordinator with the SDGFP, Division of Parks and Recreation, confirmed that three LWCF grants (46-00166, 46-00304, and 46-01035) were used to develop Edgebrook Golf Course and that the entire boundary of the golf course is protected under Section

6(f) for public outdoor recreation (R. Kittle, personal communication, June 24, 2024). Section 6(f) applies to the property boundary at the time the LWCF grant funds were used for development of the golf course.

Allyn Frerichs Trail

The Allyn Frerichs Trail is an existing paved, shared use trail designated and functioning primarily for recreational use. Brookings Parks, Recreation, and Forestry Department maintains and manages the trail and has confirmed the significance of this trail as part of its recreation system. The trail begins north of Exit 132 and continues south on the east side of I-29. The trail crosses under I-29 at the railroad tracks and then continues south until it reaches Edgebrook Golf Course. The trail turns west and goes along the north side of the golf course and then turns south and goes along the west side of the golf course, on the east side of 22nd Avenue South within the Study Area. The trail continues west through portions of Brookings residential areas and connects to several park trail systems (City of Brookings 2010). The Allyn Frerichs Trail is part of a planned trail loop. The loop, when complete, would provide connections to a larger system of existing and planned shared use paths that have been identified in the Brookings Master Drainage Plan and Master Park Plan (City of Brookings 2017). The trail is also under consideration as part of a potential US Bicycle Route 55 alignment (City of Brookings 2017). For more information on pedestrian and bicyclist accommodation, please refer to Section 3.5. Brookings Parks, Recreation, and Forestry Department has confirmed that this trail is a Section 4(f) property. Section 4(f) applies to the trail because it is a publicly owned, shared use path designated and functioning primarily for recreation (Appendix C). Section 6(f) does not apply because the SDGFP Grants Coordinator confirmed that LWCF grant funds were not used to create the trail (Appendix A).

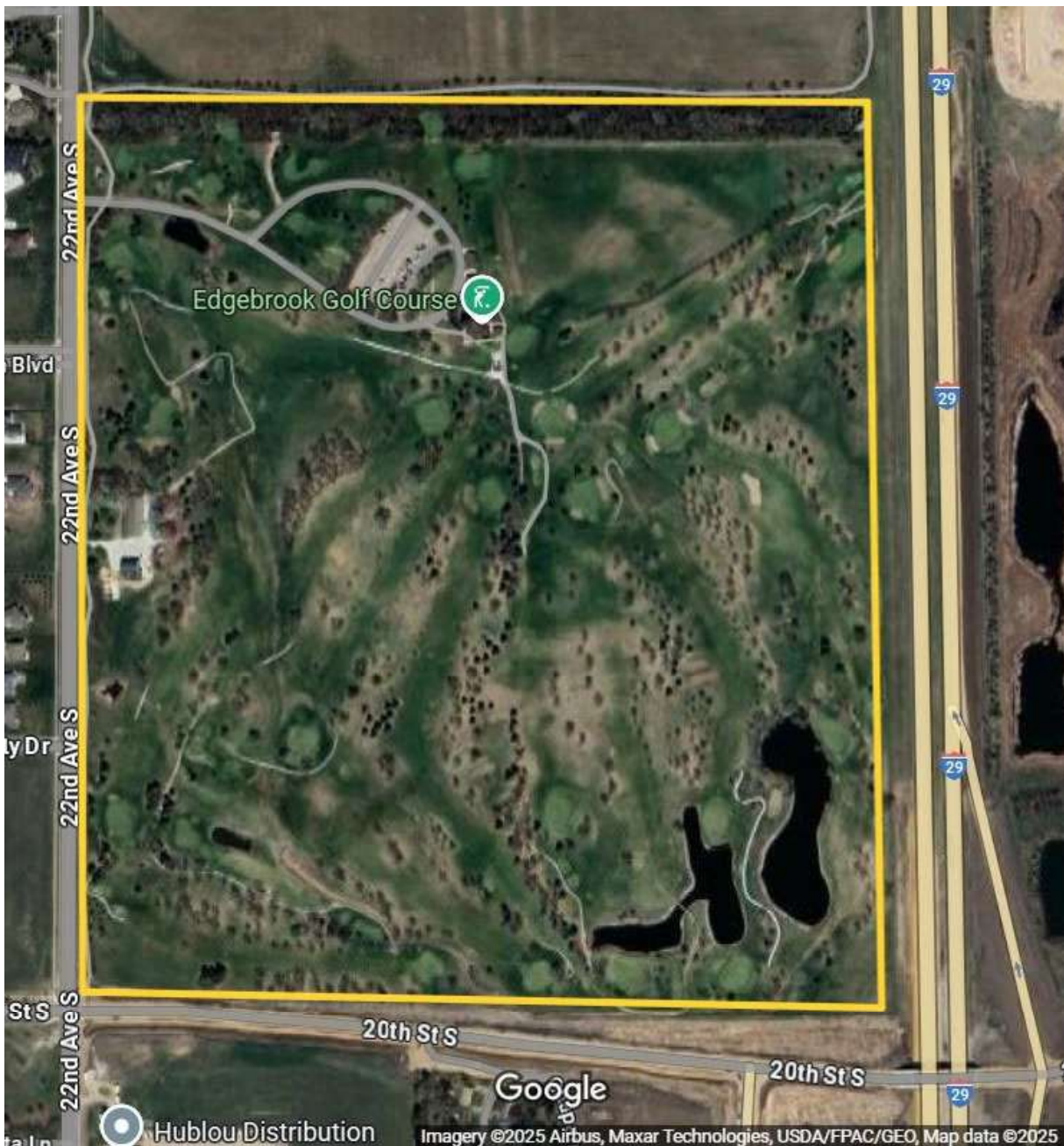


Figure 3-5. Edgebrook Golf Course with Property Boundary

3.9.1 Environmental Consequences

3.9.1.1 No-Build Alternative

Under the No-Build Alternative, the improvements to the intersection of 20th Street South and 22nd Avenue South would not be constructed. There would be no further impacts on any of the identified Section 4(f) and 6(f) properties. Identified safety concerns for pedestrians and bicyclists using the trail would continue to impact the Allyn Frerichs Trail.

3.9.1.2 *Revised Build Alternative*

Edgebrook Golf Course

The Revised Build Alternative would require permanent ROW transfer from the Edgebrook Golf Course. A permanent acquisition would be needed to complete the construction of the Revised Build Alternative along the southeast east corner of the golf course at the intersection of 20th Street South and 22nd Avenue South. Operations of the golf course would not be impacted. A total of 0.19 acre (8,396 square feet) within the golf course property would be permanently impacted and 0.26 acre of temporary easement would be required for construction. The permanently impacted areas are considered a conversion of use of the 6(f) property. The temporary impact area would be grading and reseeded to a similar or better condition once the construction of the area is complete.

Section 6(f) requires that all funded lands be retained and used solely for the purposes of outdoor recreation in perpetuity. Section 6(f) also notes LWCF-funded property converted to non-recreational purposes must have the approval of the NPS. A conversion can be approved by the NPS only if there is a substitution for other recreational properties of at least equal fair market value and of reasonably equivalent usefulness and location. Each state has an identified state agency that is also responsible for compliance and enforcement of Section 6(f); within South Dakota this is SDGFP.

Meetings were held on June 28, 2024, and February 6, 2025, with the SDGFP Grants Manager to discuss the Revised Build Alternative and needed conversion area. The SDGFP Grants Manager then coordinated with the NPS. As part of the early coordination for Section 6(f), a boundary of the Section 6(f) property is identified and for this Project is the parcel boundary of the Edgebrook Golf Course (Appendix C and Figure 3-5). This boundary was utilized to calculate the permanent area needed of 0.19-acre, which was coordinated with SDGFP and Brookings Parks, Recreation, and Forestry Department (Figure 3-6). With the location of the property directly adjacent to the intersection, avoidance of the area is not possible to improve the turning radii.

Due to the unavoidable impact, the NPS determined that the Revised Alternative would result in a Conversion of Use. To mitigate for the Conversion of Use, replacement land was considered and identified to be a 0.54-acre (23,629 square foot) area in the southeast portion of the golf course north of 20th Street South (Figure 3-6). The proposed replacement property is directly adjacent to the golf course and is currently owned by SDDOT. Golf carts currently encroach into the proposed mitigation area and a path was previously built outside the golf course property and purchased by SDDOT as part of the I-29 20th Street South interchange project. The transfer would immediately provide beneficial uses for the Edgebrook Golf Course to preserve this path for Edgebrook Golf Course users.

The mitigation area was part of the 2020 EA Study Area, and the conditions of the area are the same as when considered during the EA process. Refer to Appendix B, 2020 EA Coordination for the following coordination was completed, which included the mitigation area. The following information can be utilized by NPS for their NEPA requirements:

- A wetland delineation was completed for the 2020 EA, and no wetlands or other waters of the US are present within the mitigation area.
- A Northern Long Eared Bat Survey was completed, habitat was present adjacent to the mitigation area within the golf course, and tree removal occurred for the construction of the interchange

and was coordinated during the 2020 EA. An effect determination of may affect, not likely to adversely affect was recommended and USFWS concurred. For this SEA action, the mitigation area would be a conversion of property, no tree removal would occur. No effect would occur to the species from the conversion of the SDDOT ROW to golf property.

- Tribal coordination letters were sent out. Lower Brule Tribe responded no comment.
- Coordination occurred with SDGFP and SDDANR, no construction would occur in this area. The mitigation area would be converted from SDDOT ROW to golf course property, no commitments noted are applicable.
- A cultural resources survey and report, A Level III Cultural Resources Survey of the Proposed Interstate 29 Interchange at 20th Street South, Brookings, Brookings County, South Dakota was completed. SHPO concurred with a No Historic Properties Affected determination.

As part of the Conversion of Use process under Section 6(f), an appraisal of the impacted and mitigation areas was completed on April 3, 2025, as part of the Section 6(f) conversion requirements. A Compliance and Stewardship Form was completed and provided to SDGFP for their coordination with NPS on April 7, 2025. A draft SEA was provided for the NPS to utilize to complete their NEPA requirement. The NPS responded on May 19, 2025, and noted the following. Refer to Appendix C for their full response.

- As far as the Section 6(f) conversion is concerned, it is acceptable if the Project moves into construction before the conversion is approved.
- The NPS will be adopting the NEPA completed by the FHWA through this SEA. Additional coordination occurred to provide the previous tribal coordination for NPS to adopt as well, for both the conversion and mitigation areas.
- The NPS does not see any concerns with the mitigation area and LWCF conversion.

The next step is for SDDOT and Brookings to continue coordination with the SDGFP Section 6(f) Liaison and provide any additional information requested, until the NPS has approved the Conversion of Use. SDDOT and Brookings will then coordinate the transfer of the mitigation area to become part of the Edgebrook Golf Course.

Allyn Frerichs Trail

The widening in the northeast corner of the intersection of 20th Street South and 22nd Avenue South would require reconstruction of a small segment of the Allyn Frerichs Trail (Figure 3-7). The proposed improvements would be minor and shorter in duration than the construction for the added turn lanes on 20th Street South and 22nd Avenue South. The Revised Build Alternative would require the crossing of Allyn Frerichs Trail on the northeast and southeast side of the intersection to be reconstructed. On the northeast side, the grade would be improved. On the southeast side, permanent ROW would be purchased from the adjacent private landowner to accommodate shifting of the trail adjacent to the expanded corner radius. The Revised Build Alternative is not anticipated to impede or cause any impacts to construction or use of the future trail segment.

During construction, a temporary detour of the Allyn Frerichs Trail would be required. The detour would utilize the existing sidewalk. Sheet 19 of the construction plans provides a detour layout for the temporary closure

of the Allyn Frerichs Trail (Appendix D). The detour is also shown on Figure 3-4. Signage would be provided to direct users around the construction.

In accordance with 23 CFR 774.3, the proposed project is anticipated to have a *de minimis* impact to Edgebrook Golf Course and Allyn Frerichs Trail, based upon the following assessment:

- All possible planning to minimize harm has been incorporated into project development.
- The nature and magnitude of changes would not adversely affect the recreational activities, features, or attributes that qualified the property for 4(f) protection.
- Proposed measures to minimize harm and resulting mitigation, regarding protecting the 4(f) property and maintaining access and safety, are reasonable and acceptable.

Based on the scope of the proposed project and type of work for the Revised Build Alternative, there would be no adverse effects to the protected recreational activities, features, or attributes associated with Edgebrook Golf Course and Allyn Frerichs Trail under Section 4(f) consideration. A *de minimis* impact is anticipated for each of the Section 4(f) properties. The Brookings Parks, Recreation, and Forestry Department is the official with jurisdiction (OWJ) under Section 4(f) for all the properties. The Project was consulted with the OWJ on July 30, 2024. A public notice will be posted in the Brookings Register to solicit public comment for the SEA and Section 4(f) uses. After being informed of the public comments and FHWA's intent to make the *de minimis* impact finding, a concurrence from the OWJ would be requested for the *de minimis* impact of the Allyn Frerichs Trail and Edgebrook Golf Course.

3.9.2 Mitigation Measures and Commitments

In accordance with Section 4(f), the Revised Build Alternative is anticipated to have a *de minimis* impact to the Allyn Frerichs Trail and Edgebrook Golf Course based upon the following measures to minimize harm. Brookings and SDDOT will incorporate the following during final design and construction:

- Access to the Allyn Frerichs Trail would be restricted for a period that is anticipated to be less than the time needed for construction.
- A detour would be provided due to the temporary closure of the Allyn Frerichs Trail. Sheet 19 of the construction plans provides a detour layout for the temporary closure of the Allyn Frerichs Trail. The detour is also shown on Figure 3-4. Signage would be provided to direct users around the construction.
- Temporary construction fencing would be installed along proposed construction limits near the Allyn Frerichs Trail.
- Appropriate signage would be installed to alert users of the Allyn Frerichs Trail of construction activities, access restrictions or closures, and to direct users to secondary access points.
- The staging and/or storage of construction equipment or materials would not take place outside proposed construction limits that are within the defined boundaries of the 4(f) property.

- The Contractor would be required to closely coordinate the construction schedule with SDDOT Environmental Manager (605.773.3721) and Brookings Parks, Recreation, and Forestry Director (605.692.2708) at the preconstruction meeting.

For the Section 6(f), conversion of use process, the Brookings and SDDOT will provide any additional information requested from NPS as the agency reviews the Compliance and Stewardship Form, including the appraisal. The Brookings and SDDOT will coordinate with SDGFP and NPS for approval of the conversion of use under Section 6(f). Mitigation for the Section 6(f) process is the 0.54-acre area identified directly adjacent to the Edgebrook Golf Course as shown in Figure 3-6.

The following are the commitments for Section 6(f) to be incorporated into construction:

- SDDOT will install temporary construction fencing along proposed construction limits near the Allyn Frerichs Trail and Edgebrook Golf Course.
- Access to the Edgebrook Golf Course will not be impacted.
- Appropriate signage would be installed to alert users of the Allyn Frerichs Trail and the Edgebrook Golf Course of construction activities, access restrictions or closures, and to direct users to secondary access points prior to the start of construction activities to protect the existing 6(f) property and the public.
- The staging and/or storage of construction equipment or materials would not take place outside proposed construction limits that are within the defined boundaries of the 6(f) property.
- The Contractor would be required to closely coordinate the construction schedule with SDDOT Environmental Manager (605.773.3721) and Brookings Parks, Recreation, and Forestry Director (605.692.2708) prior to the start of construction activities.
- Revegetation and landscaping within the temporary grading area within the Edgebrook Golf Course would occur.

In addition, SDDOT is responsible for completing the Conversion of Use and receiving NPS approval. SDDOT will transfer the identified Section 6(f) mitigation area to Brookings Park, Recreation, and Forestry Director after the approval of the Conversion of Use from the NPS.

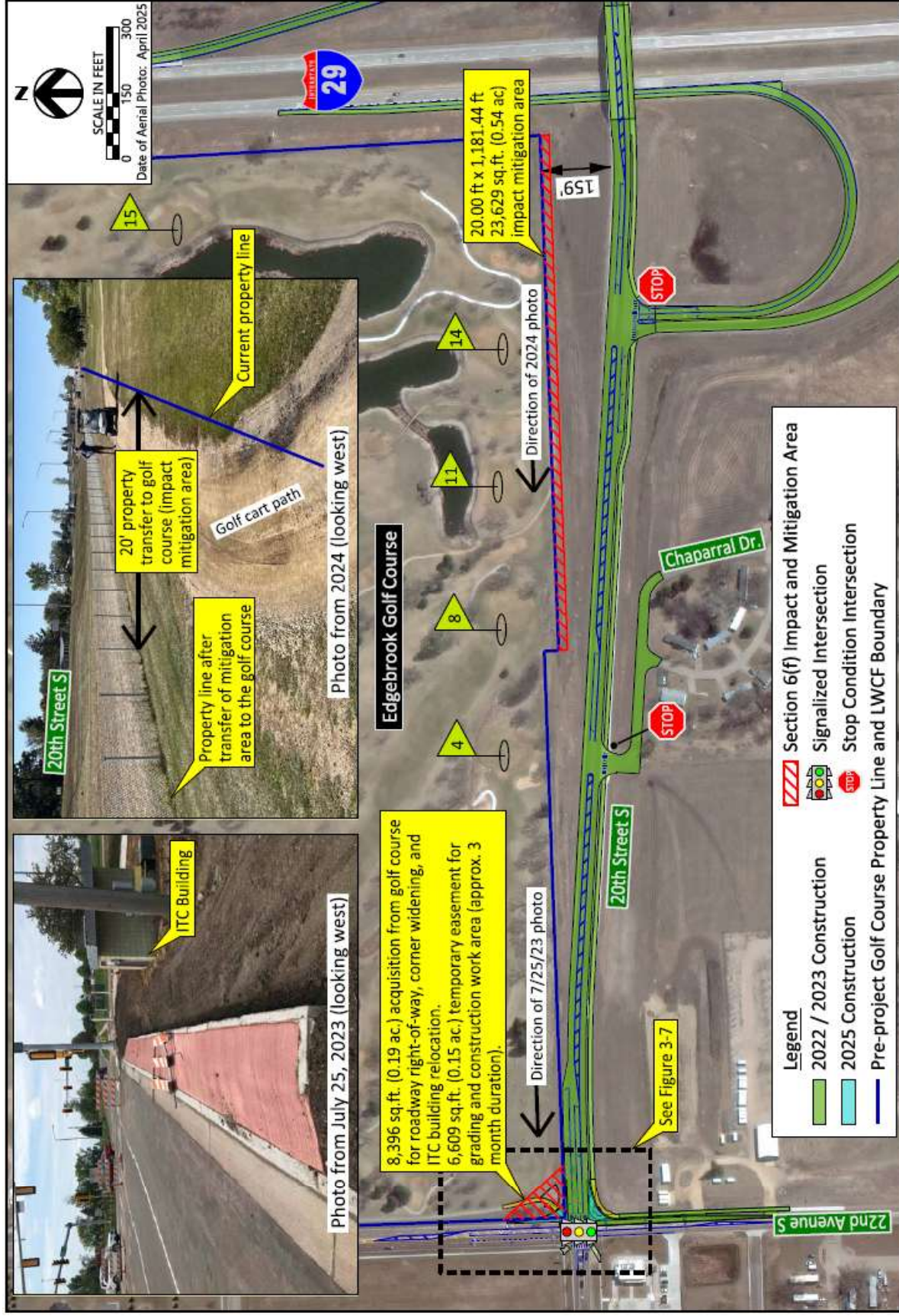


Figure 3-6. Section 6(f) Area Impacted and Proposed Mitigation Area

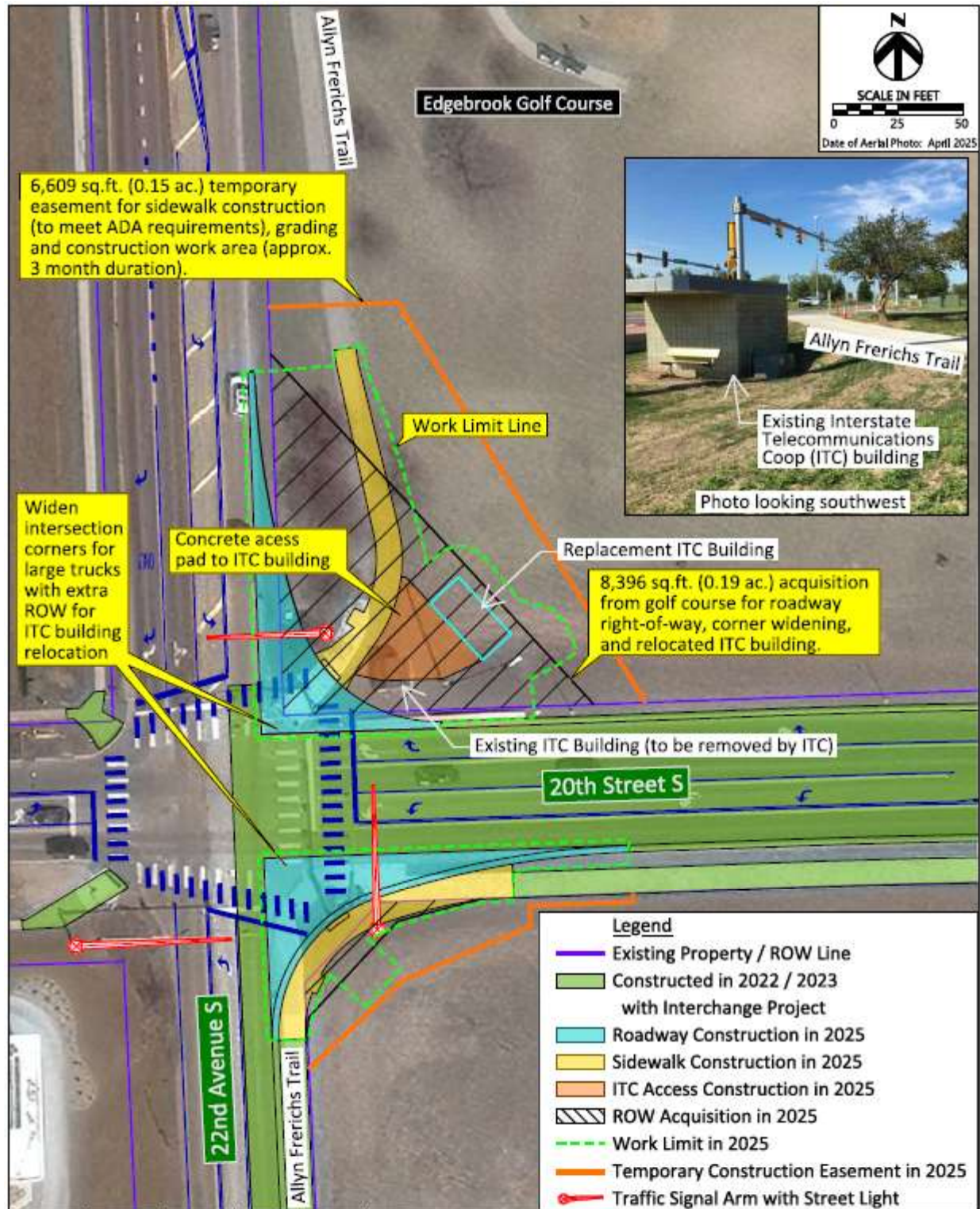


Figure 3-7. ITC Building, Golf Course, and Trail at the 20th St South and 22nd Ave Intersection

3.10 UTILITIES

The following utilities are within the working limits of the Revised Build Alternative:

- **Electrical:** Brookings Municipal Utilities owns an underground electric line under 22nd Avenue South and light poles along 20th Street South and 22nd Avenue South. One light pole will be relocated for the Project. The relocated light pole does not exceed the Federal Aviation Administration (FAA) height limitations.
- **Water:** The Brookings Municipal Utilities Water Department provides Brookings with potable water. Brookings receives its water supply from underground aquifers. A well within the Big Sioux Aquifer, located 2 miles northeast of Brookings, supplies water to the Brookings Municipal Utilities Water Department. A water main runs along the north side of 20th Street South and crosses 22nd Avenue South within the intersection.
- **Sewer:** Wastewater is diverted to the Brookings Wastewater Treatment Plant and flows south along 22nd Avenue South and 34th Avenue South, crossing 20th Street South.
- **Fiber:** Fiber lines for internet are provided through Swiftel Communications, SDN Communications, ITC), and several lines are in the Study Area.
- **ITC Building:** There is an existing ITC building in the northeast quadrant of the 20th Street South / 22nd Avenue South intersection that serves as a hub for several underground communication lines.

3.10.1 Environmental Consequences

3.10.1.1 No-Build Alternative

The No-Build Alternative would not involve Project construction and therefore would not result in temporary or permanent impacts on utilities.

3.10.1.2 Revised Build Alternative

The Revised Build Alternative would have temporary impacts due to the relocation of private and public utilities in the Study Area before or during construction. To minimize potential utility impacts caused by the proposed Project, close coordination occurred with utility companies and Brookings. Coordination would continue throughout final design and into construction of the Revised Build Alternative. The ITC building would be relocated to allow for the expansion of the intersection corner (Figure 3-7). The work would be completed by ITC. SDDOT, Brookings, and ITC are executing a utility agreement in accordance with SDDOT policy to cover the cost of building relocation because ITC has an easement that was executed prior to development of the golf course. Figures 3-6 and 3-7 show photos of the existing ITC building. Intersection expansion cannot take place without removing the existing building as indicated in Figure 3-7. The replacement building would be within the ROW area obtained from the golf course for the east side intersection expansion. Removal of the existing ITC building and construction of the replacement building will take place during the intersection expansion project. Coordination between the roadway contractor and the ITC contractor is called for in the intersection expansion plans.

3.10.2 Mitigation Measures and Commitments

Coordination with utility private utility companies the Brookings Municipal Utilities has been completed. SDDOT, the City of Brookings, and ITC are executing a utility agreement for work associated with the removal of the existing ITC building and a replacement building to be constructed by ITC while intersection expansion construction is occurring. The existing and replacement ITC buildings are within the ROW acquisition/impact area of the golf course; mitigation of the Section 6(f) 8,396 square foot impact area is accomplished with a 23,629 square foot parcel approximately 1,500 feet east of the 20th Street South and 22nd Avenue South intersection along the south side of Edgebrook Golf Course.

4.0 SUMMARY OF IMPACTS, MITIGATION AND COMMITMENTS

Table 4-1 summarizes the anticipated permitting and approvals. Table 4-2 summarizes the environmental impacts associated with No-Build Alternative and Revised Build Alternative. Table 4-3 summarizes the mitigation measures for the Revised Build Alternative. Appendix D includes a draft Section A that would be included within the final design and plan sheets for construction.

Table 4-1. Anticipated Permitting and Approvals

Permit or Approval Name/Type	Permit/Approval Description	Issuing Agency	Permit/Approval Requirements
Section 4(f) <i>De Minimis</i> OWJ Concurrence	A <i>de minimis</i> impact of 4(f) property.	Brookings (OWJ)	Brookings was determined to be the OWJ for the Edgebrook Golf Course and Allyn Frerich Trail. Concurrence with the <i>de minimis</i> impact of the properties for the project are required and will be requested after public availability of this SEA. Minimization measures discussed with Brookings would be used to minimize impacts to the golf course and Allyn Frerich Trail.
Section 6(f) Conversion of Use Approval	Conversion of 6(f) property from specified recreation use to another use.	NPS	A Conversion of Use approval from NPS is required for the project due to use of portion of the 6(f) properties switching from recreation to transportation. Mitigation measures discussed with NPS and SDGFP would be used to satisfactorily replace the property to the Edgebrook Golf Course. SDDOT is responsible for completing the Conversion of Use and receiving NPS approval. SDDOT will transfer the identified Section 6(f) mitigation area to Brookings Park, Recreation, and Forestry Director after the approval of the Conversion of Use from the NPS.

Table 4-2: Impact Summary of the No-Build Alternative and Revised Build Alternative

No-Build Alternative	Revised Build Alternative
Acquisitions and Relocations	
No acquisitions or relocations are required under the No-Build Alternative.	The Revised Build Alternative would require the acquisition from four parcels for a total of approximately 0.58 acres.
Pedestrians and Bicyclists	
The tight corners on the east side of the 20 th Street South and 22 nd Avenue South intersection have resulted in trucks damaging the pedestrian signal equipment. This will continue with the No-Build Alternative.	The Revised Build Alternative would improve the pedestrian and bicycle facilities. The Revised Build Alternative would create a widened turning radius, so trucks are much less likely to damage pedestrian signal equipment where the Allyn Frerichs Trail crosses 20 th Street South. Therefore, the Revised Build Alternative would have a moderate beneficial effect on pedestrians and bicyclists.
Water Quality	
The No-Build Alternative would have no effects on water quality.	In coordination with SDDANR, they noted that the Project would not have any adverse environmental effects to drinking water and is unlikely to have adverse effects to groundwater quality. The Revised Build Alternative would result in a negligible to minor increase in runoff from impervious surfaces due to the additional lanes.
Threatened and Endangered Species	
The No-Build Alternative would have no effects on listed and proposed threatened or endangered species.	The Revised Build Alternative would have no effect to listed and proposed threatened and endangered species.
Cultural Resources	
The No-Build Alternative would have an effect determination of no historic properties affected.	The Revised Build Alternative would have an effect determination of no historic properties affected.

No-Build Alternative	Revised Build Alternative
Section 4(f) and Section 6(f) Resources	
The No-Build Alternative would have no effects on Section 4(f) and Section 6(f) resources.	The proposed work within the golf course as part of the Revised Build Alternative is anticipated to be considered a Conversion of Use under Section 6(f). For Section 4(f) de minimis impact of the Allyn Frerichs Trail and Edgebrook Golf Course would occur.
Utilities	
The No-Build Alternative would have no effects on utilities.	The Revised Build Alternative would require relocation of the ITC building. Relocations of utilities would be necessary with the Revised Build Alternative. To minimize impacts, coordination has occurred with utility companies and Brookings. This coordination would continue prior to construction.

Table 4-3. Mitigation Measures Proposed for Revised Build Alternative

Environmental Commitment	Mitigation Measures
Acquisitions and Relocations	Acquisitions and relocations will be conducted in conformance with the Uniform Relocation Assistance and Real Property Acquisition Act of 1970, as amended by the Surface Transportation Assistance Act of 1987 and 49 CFR, Part 24, effective April 1989.
Pedestrians and Bicyclists	See commitments for Section 4(f) and 6(f).
Water Quality	<p>Due to the relative area (0.37 acre), the SDDOT standard Stormwater Pollution Prevention Plan (SWPPP) is not necessary. However, specific erosion control plans are included in the construction plans in accordance with SDDOT guidelines.</p> <p>SDDOT Standard Commitments A (Water Source) and E (Stormwater) have been incorporated into the plans. The disturbed area (0.37 acre) does not reach the point of requiring a stormwater discharge permit. The plan notes state that construction dewatering will not be required due to the limited subsurface excavation.</p>

Environmental Commitment	Mitigation Measures
Section 4(f) and 6(f) Resources	<p>The following have been incorporated into Section A (Environmental Commitments) of the plans:</p> <p><u>Allyn Frerichs Trail</u></p> <p>Access to the Allyn Frerichs Trail would be restricted for a period that is anticipated to be less than the time needed for construction. Sheet 19 of the construction plans provides a detour layout for the temporary closure of the Allyn Frerichs Trail. The detour is also shown on Figure 3-4. Signage would be provided to direct users around the construction.</p> <p>The Contractor is not permitted to stage equipment or materials within the Allyn Frerichs Trail or the Edgebrook Golf Course.</p> <p>The land being used will be fully restored and returned to a condition which is at least as good as that which existed prior to the project. Revegetation and landscaping within the temporary grading areas will occur.</p> <p>The Contractor will notify the Project Engineer if additional easement is needed to complete the work adjacent to any Section 4(f) property. The Project Engineer will obtain an appropriate course of action from the Environmental Office before proceeding with construction activities that affect any Section 4(f) property.</p> <p>The Contractor would be required to closely coordinate the construction schedule with SDDOT Environmental Manager (605.773.3721) and Brookings Parks, Recreation, and Forestry Director (605.692.2708) at the preconstruction meeting.</p> <p><u>Edgebrook Golf Course</u></p> <p>The impacted area of the Edgebrook Golf Course in the northeast quadrant of the 20th Street South and 22nd Avenue South intersection is being mitigated by replacement property of equal or greater usefulness and value along the south edge of the golf course approximately 1,500 feet east of the intersection.</p> <p>The Contractor is not permitted to stage equipment or materials within the Edgebrook Golf Course.</p> <p>The Contractor will notify the Project Engineer if additional easement is needed to complete the work adjacent to any Section 6(f) property. The Project Engineer will obtain an appropriate course of action from the Environmental Office before proceeding with construction activities that affect any Section 6(f) property.</p>

Environmental Commitment	Mitigation Measures
Utilities	Coordination with utility companies has been completed. SDDOT, the City of Brookings, and ITC are executing a utility agreement for work associated with the removal of the existing ITC building and a replacement building to be constructed by ITC while intersection expansion construction is occurring. The existing and replacement ITC buildings are within the ROW acquisition/impact area of the golf course; mitigation of the Section 6(f) 8,396 square foot impact area is accomplished with a 23,629 square foot parcel approximately 1,500 feet east of the 20 th Street South and 22 nd Avenue South intersection along the south side of Edgebrook Golf Course.

5.0 COORDINATION AND PUBLIC INVOLVEMENT

As indicated in the SEA and supporting documentation, SDDOT coordinated with Federal, State, and local agencies, and Tribes during the development of the SEA.

5.1 PUBLIC INVOLVEMENT

Brookings held a public meeting on April 9, 2025, to discuss the planned construction projects for 2025. The proposed turning radius improvements on the east side of the 20th Street South and 22nd Avenue South intersection was presented via a poster and discussed with attendees at the public meeting. No written comments were submitted regarding this Project.

5.2 AGENCY COORDINATION

Federal, State, and local agencies that were consulted regarding the Project include:

- National Parks Service
- United States Fish and Wildlife Service
- South Dakota State Historic Preservation Office
- South Dakota Department of Agriculture and Natural Resources
- South Dakota Department of Game, Fish and Parks
- Brookings Parks, Recreation, and Forestry Department

Appendix B of the SEA summarizes the agency and local government coordination relevant to the Project.

5.3 TRIBAL COORDINATION

Section 106 of the National Historic Preservation Act of 1966 guides federal agencies to consult tribes that are federally recognized and may have a cultural or religious association to historic resources affected by federal actions. For this Project, SDDOT sent coordination letters on November 4, 2024 and April 23, 2025, to the following tribes that may have an interest in the highway projects in Brookings County. No response was received.

- Bureau of Indian Affairs
- Flandreau Santee Sioux Tribe
- Rosebud Sioux Tribe
- Lower Brule Sioux Tribe
- Crow Creek Sioux Tribe
- Sisseton Wahpeton
- Three Affiliated Nations
- Chippewa Cree Tribe

5.4 FUTURE INVOLVEMENT

Public coordination will occur following the release of this SEA and Section 4(f) evaluation for public comment. Following the 30-day comment period, public and agency comments on the SEA would be summarized, and responses would be provided in the same way that comments on the EA were provided for. Additional actions or changes precipitated by the public or agency's comments but not presented in the SEA, would be specified. If further documentation is necessary, it would be accomplished by revising the SEA or preparing an Environmental Impact Statement, whichever is appropriate. Mitigation presented in the SEA would be committed to and completed by Brookings and SDDOT.

If the environmental review process finds that the Project will not result in any significant environmental impacts, SDDOT will prepare a request for an amended Finding of No Significant Impact (FONSI) and will submit the request to FHWA. SDDOT will also seek concurrence from the Brookings's Parks, Recreation, and Forestry Department for the proposed Section 4(f) determination. If FHWA agrees that an amended FONSI and the Section 4(f) determination is appropriate, it will issue an amended FONSI to conclude the environmental review process and document the decision. If FHWA determines that the Project would result in significant environmental impacts, SDDOT may prepare an Environmental Impact Statement or select the No-Build Alternative as its preferred alternative.

6.0 PREFERRED ALTERNATIVE

Based on the evaluation of potential impacts, the Revised Build Alternative is recommended as the preferred alternative. The Revised Build Alternative would address future traffic capacity issues at the intersection. The Revised Build Alternative would meet SDDOT design criteria for large truck-turning movements at the 20th Street South and 22nd Avenue South intersection, fulfilling the needs of the Project outlined in Section 1.4.2.

Although the drawbacks of the Revised Build Alternative include the permanent conversion of a property protected by Section 6(f), Edgebrook Golf Course, and the de minimis use of 4(f) properties, Edgebrook Golf Course and Allyn Frerichs Trail, the No-Build Alternative is not recommended as the preferred alternative because truck traffic would continue to have issues with the turning movement at this intersection, therefore hindering traffic flows through the area.

The preferred alternative avoids or minimizes impacts on environmental resources to the extent practicable. For those unavoidable impacts, mitigation measures are proposed. Due to meeting the Purpose and Need and considering the potential impacts, the Revised Build Alternative was identified as the preferred alternative. Refer to Figure 2-2.

7.0 SUPPLEMENTAL TECHNICAL REPORTS PREPARED FOR THIS SEA

The following technical reports were prepared for this SEA:

- Augustana Archeological Laboratory 2024. *Level III Cultural Resources Investigation for Proposed Supplemental EA for the I-29, Exit 130 Interchange in Brookings South Dakota*.
- HDR 2025. *20th Street S & 22nd Avenue Intersection Traffic Operations Update*.
- HDR 2025. *Wetland Delineation Memo for Brookings Interchange*.

8.0 REFERENCES

Augustana Archeological Laboratory. 2024. *Level III Cultural Resources Investigation for Proposed Supplemental EA for the I-29, Exit 130 Interchange in Brookings South Dakota*. Augustana University.

Brookings Municipal Utilities. 2024. Water & Wastewater. Accessed September 9, 2024.
[Water & Wastewater | Brookings Municipal Utilities \(brookingsutilities.com\)](https://www.brookingsutilities.com/).

City of Brookings. 2017. *Brookings Bicycle Master Plan*. February.
<https://cityofbrookings.org/DocumentCenter/View/3965/Bicycle-Master-Plan?bidId=>.

City of Brookings. 2018. *Brookings South Dakota Comprehensive Plan 2040*. 288 pp.
<https://cityofbrookings.org/DocumentCenter/View/5045/2040-Comprehensive-Plan?bidId=>.

City of Brookings. 2025. *Parks, Trails, and Facilities Map*. <https://www.cityofbrookings-sd.gov/866/Parks-Trails-and-Facilities-Map>.

HDR. 2020. *I-29 Exit 130 (20th Street South) Interchange*. Noise Study Technical Report. September.

HDR. 2020. *I-29 Exit 130 (20th Street South) Interchange*. Environmental Assessment. September.

HDR. 2020. *I-29 Exit 130 (20th Street South) Interchange*. Noise Study Technical Report. September.

Kittle, Randy. 2024. Personal Communication during Meeting held on June 24, 2024.

Missouri Department of Conservation. 2024. *Topeka Shiner*.
<https://mdc.mo.gov/discover-nature/field-guide/topeka-shiner>.

Moorhouse. 2022. *Illinois Species Status Assessment for Regal Fritillary (*Argynnis idalia occidentalis*)*.

<https://naturalheritage.illinois.gov/content/dam/soi/en/web/naturalheritage/speciesconservation/recovery/documents/regalfritssa-moorehouse-redacted.pdf>.

South Dakota Department of Agriculture and Natural Resources (SDDANR). 2024a. *The 2024 South Dakota Integrated Report for Surface Water Quality Assessment*. [DANR 2024 IR final.pdf](#)

South Dakota Department of Agriculture and Natural Resources (SDDANR). 2024b. Mapped Aquifers Online Map. [Ground Water Quality Monitoring Network](#)

South Dakota Department of Transportation. 2023. *Noise Analysis and Abatement Guidance*. December 5, 2023. [Microsoft Word - SDDOT Noise Analysis and Abatement Guidance 2023.docx](#)

USFWS. 2019. *Draft Recovery Plan for the Dakota Skipper (Hesperis dacotae)*. August 2019. Accessed September 9, 2024. [Microsoft Word - Dakota Skipper Draft Recovery Plan_08012019.docx \(fws.gov\)](#).

USFWS. 2020a. *Federal Register*, Vol. 85, No. 12. *Endangered and Threatened Wildlife and Plants; Draft Recovery Plan for the Topeka Shiner*. January 17. Accessed September 06, 2024. <https://www.govinfo.gov/content/pkg/FR-2020-01-17/pdf/2020-00718.pdf#page=1>.

USFWS. 2021. *Western Prairie Fringed Orchid (Platanthera praeclara) 5 Year Review: Summary and Evaluation*. May 12. Accessed September 9, 2024. https://ecosphere-documents-production-public.s3.amazonaws.com/sams/public_docs/species_nonpublish/964.pdf

USFWS 2023. *Federal Register*, Vol. 88, No. 71. *Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for Rufa Red Knot*. April 13. Accessed September 06, 2024. <https://www.govinfo.gov/content/pkg/FR-2023-04-13/pdf/2023-06619.pdf#page=1>.

USFWS. 2024a. Information for Planning and Consultation (IPaC) database. Project Code2025-0023938. November 25. Accessed November 25, 2024. <https://ipac.ecosphere.fws.gov/publicDocument/L7XJQUBJ3NBLDJHZ4JNMC7BKQA>

USFWS. 2024b. *Northern Long-eared Bat (Myotis Septentrionalis)*. June 13, 2024. Accessed September 9, 2024. [Northern Long-eared Bat \(Myotis septentrionalis\) | U.S. Fish & Wildlife Service \(fws.gov\)](#).

USFWS. 2024c. *Rufa Red Knot (Calidris canutus rufa)*. Northeast Region. September 23. Accessed September 9, 2024. <https://fws.gov/northeast/red-knot/>.

USFWS. 2024d. *2024 Dakota Skipper (Hesperia dacotae) Survey Protocol*. May 15. Accessed September 9, 2024. <https://www.fws.gov/sites/default/files/documents/2024-05/2024-usfws-dakota-skipper-survey-protocol.pdf>

USFWS. 2024e. *Monarch Butterfly (Danaus plexippus)*. Midwest Region. Accessed September 6, 2024. <https://ecos.fws.gov/ecp/species/9743>.

USFWS. 2024f. *Federal Register*, Vol. 89, No. 151. *Threatened Status With section 4(d) Rule for the Western Regal Fritillary*. August 6. Accessed September 6, 2024.
<https://www.govinfo.gov/content/pkg/FR-2024-08-06/pdf/2024-16982.pdf#page=1>.

USFWS. 2024g. *Western Prairie Fringed Orchid (Platanthera praeclara)*. Available at
<https://www.fws.gov/species/western-prairie-fringed-orchid-platanthera-praeclara>.