

LEGEND

- Roads
- ▭ Study Area
- Existing Pedestrian Bridge Removed Prior to Temporary Bridge Construction
- New Bridge on Existing Alignment
- Grated Two-Lane Temporary Bridge Removed after New Bridge Construction

C-1A

DESCRIPTION

- New bridge on existing alignment.
- A grated two-lane temporary bridge will be built prior to construction of the new bridge and will be removed after the new bridge is constructed.
- Existing pedestrian bridge to be removed prior to temporary bridge construction.
- Pedestrians will be accommodated on the new bridge.

SITE VICINITY



ADVANTAGES

- Matches location of existing bridge.
- Less permanent roadway work.
- Uses a two-lane temporary bridge during construction

DISADVANTAGES

- Additional cost for temporary bridge.
- Utilities on the existing pedestrian bridge must be relocated.
- Longer construction period.
- Extensive formwork in the channel.



C-1B

DESCRIPTION

- New bridge on existing alignment.
- A grated two-lane temporary bridge will be built prior to construction of the new bridge and will be removed after the new bridge is constructed.
- Existing pedestrian bridge retained but not accessible during new bridge construction.

SITE VICINITY



ADVANTAGES

- Matches location of existing bridge.
- Less permanent roadway work.
- Uses a two-lane temporary bridge during construction.
- Utilities remain on existing pedestrian bridge.

DISADVANTAGES

- Additional cost for temporary bridge.
- Longer construction period.
- Extensive formwork in the channel.



C-2A

DESCRIPTION

- New bridge on existing alignment.
- A grated one-lane temporary bridge will be built prior to construction of the new bridge and will be removed after the new bridge is constructed.
- Existing pedestrian bridge to be removed prior to temporary bridge construction.
- Pedestrians will be accommodated on the new bridge.

SITE VICINITY

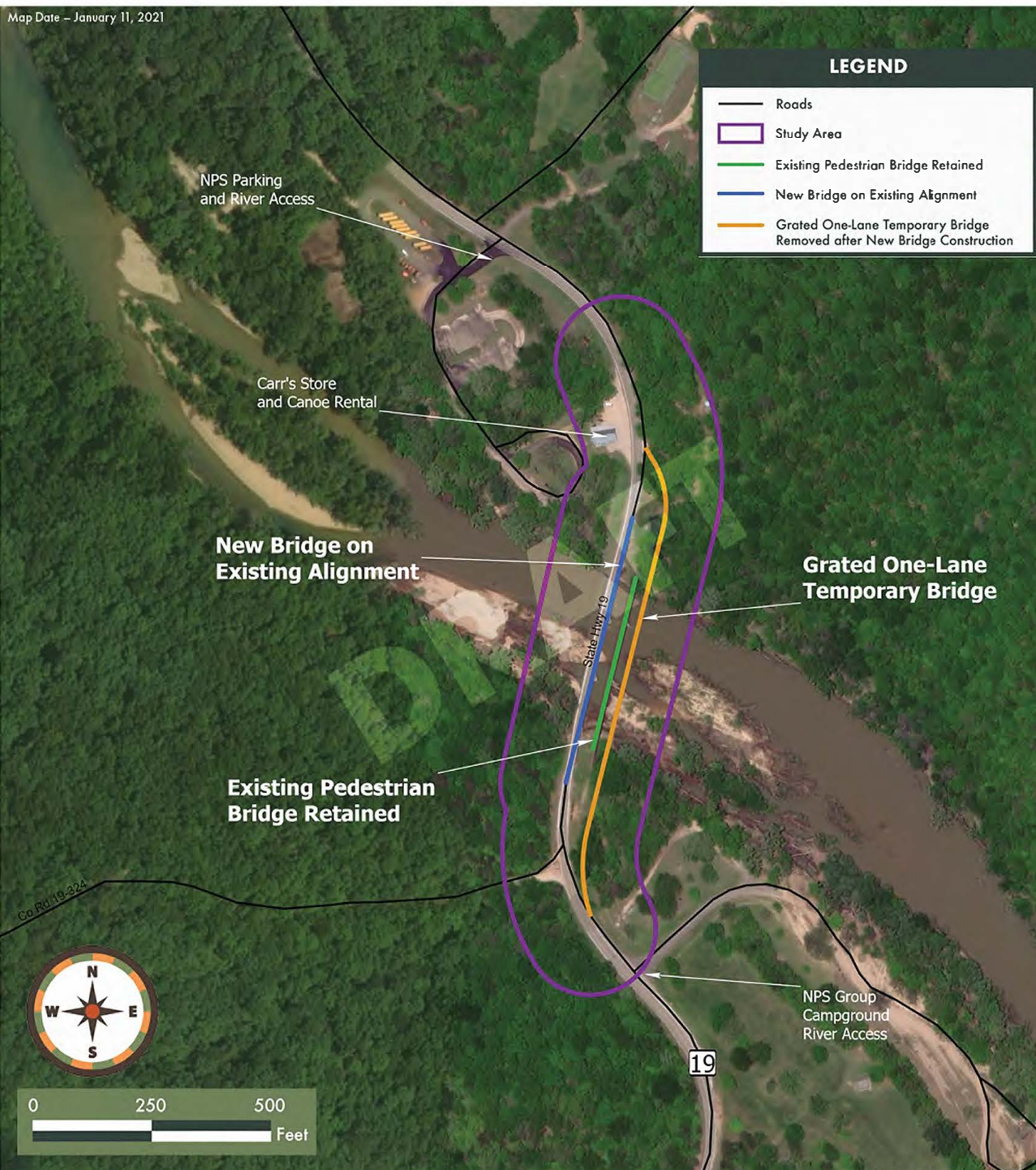


ADVANTAGES

- Matches location of existing bridge.
- Less permanent roadway work.

DISADVANTAGES

- Utilities on the existing pedestrian bridge must be relocated.
- Uses a one-lane temporary bridge during construction.
- Additional cost for temporary bridge.
- Longer construction period.
- Extensive formwork in the channel.



C-2B

DESCRIPTION

- New bridge on existing alignment.
- A grated one-lane temporary bridge will be built prior to construction of the new bridge and will be removed after the new bridge is constructed.
- Existing pedestrian bridge retained but not accessible during new bridge construction.

SITE VICINITY

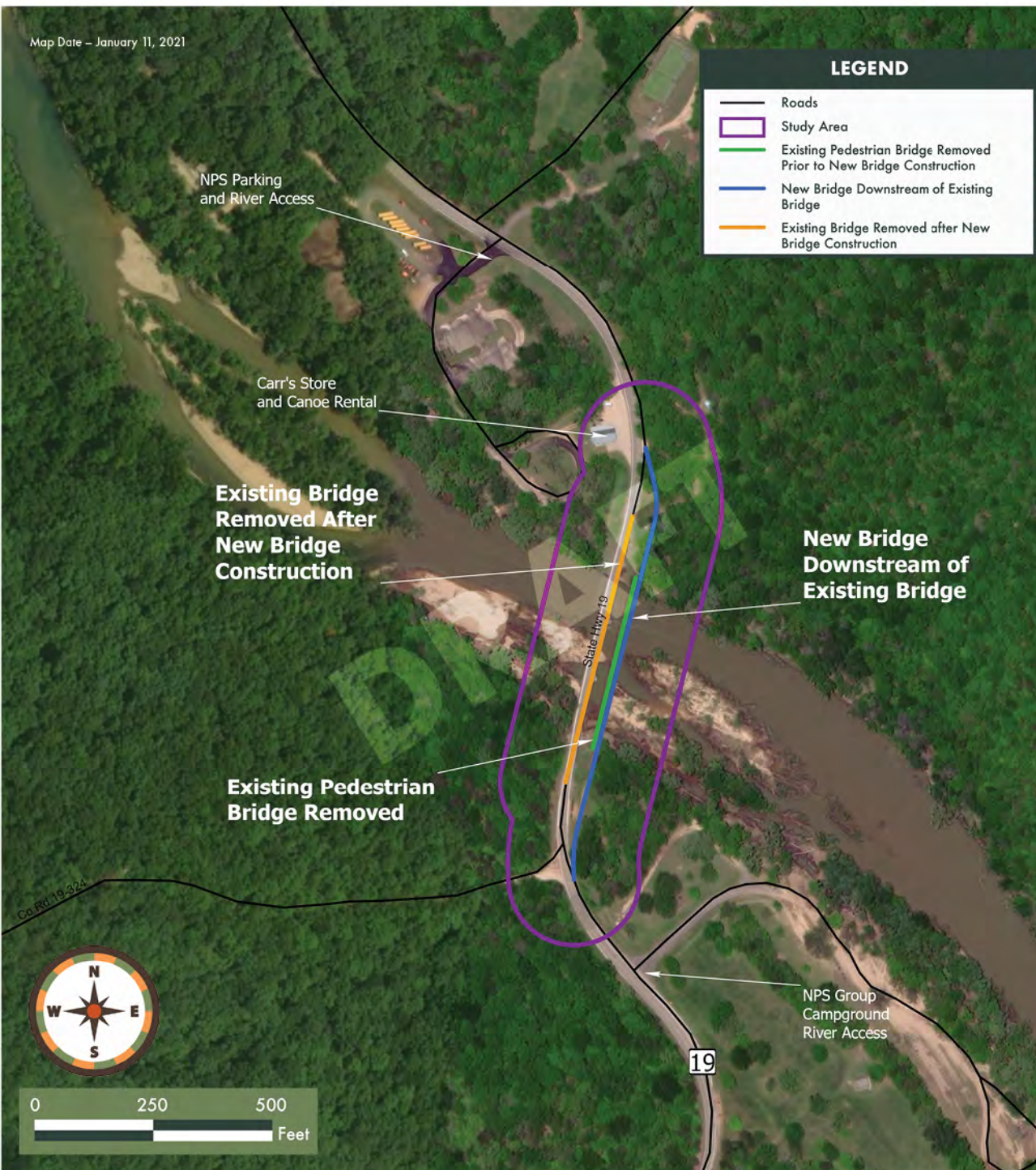


ADVANTAGES

- Matches location of existing bridge.
- Less permanent roadway work.
- Utilities remain on existing pedestrian bridge.

DISADVANTAGES

- Uses a one-lane temporary bridge during construction.
- Additional cost for temporary bridge.
- Longer construction period.
- Extensive formwork in the channel.



C-3A

DESCRIPTION

- New bridge downstream (east) of existing bridge.
- No temporary bridge required.
- Existing pedestrian bridge to be removed prior to new bridge construction.
- Pedestrians will be accommodated on the new bridge.

SITE VICINITY



ADVANTAGES

- No temporary bridge required; cost savings.
- Shorter construction period.

DISADVANTAGES

- Utilities on the existing pedestrian bridge must be relocated.
- More permanent roadway work.
- Uses the existing one-lane bridge during construction.



C-3B

DESCRIPTION

- New bridge downstream (east) of existing bridge.
- No temporary bridge required.
- Existing pedestrian bridge retained but not accessible during new bridge construction.

SITE VICINITY

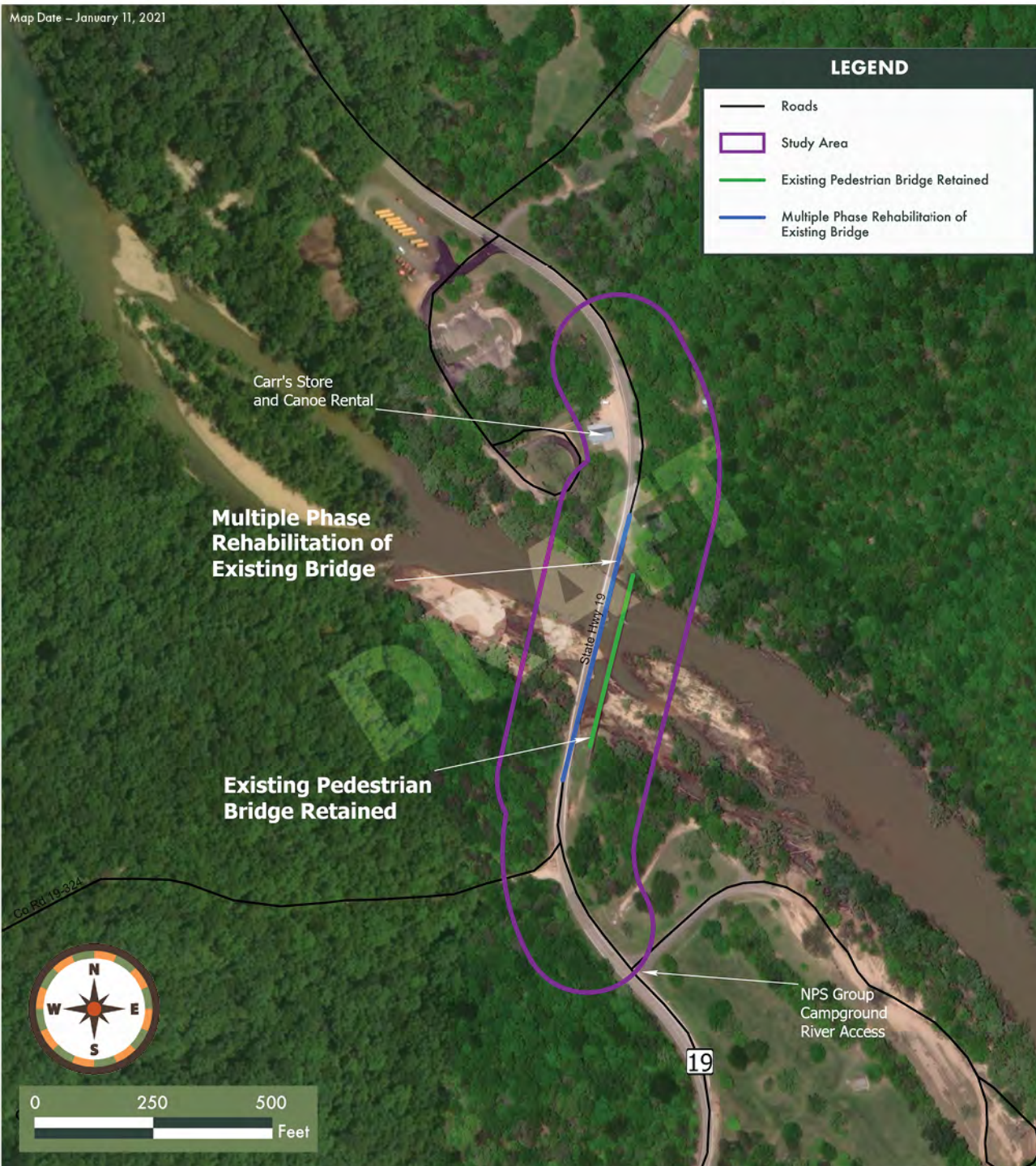


ADVANTAGES

- No temporary bridge required; cost savings.
- Shorter construction period.
- Utilities remain on existing pedestrian bridge.

DISADVANTAGES

- More permanent roadway work.
- Uses the existing one-lane bridge during construction.



C-4

DESCRIPTION

- Multiple phase rehabilitation of the existing bridge.
- No temporary bridge.
- Existing pedestrian bridge retained and accessible during non-construction hours.

SITE VICINITY

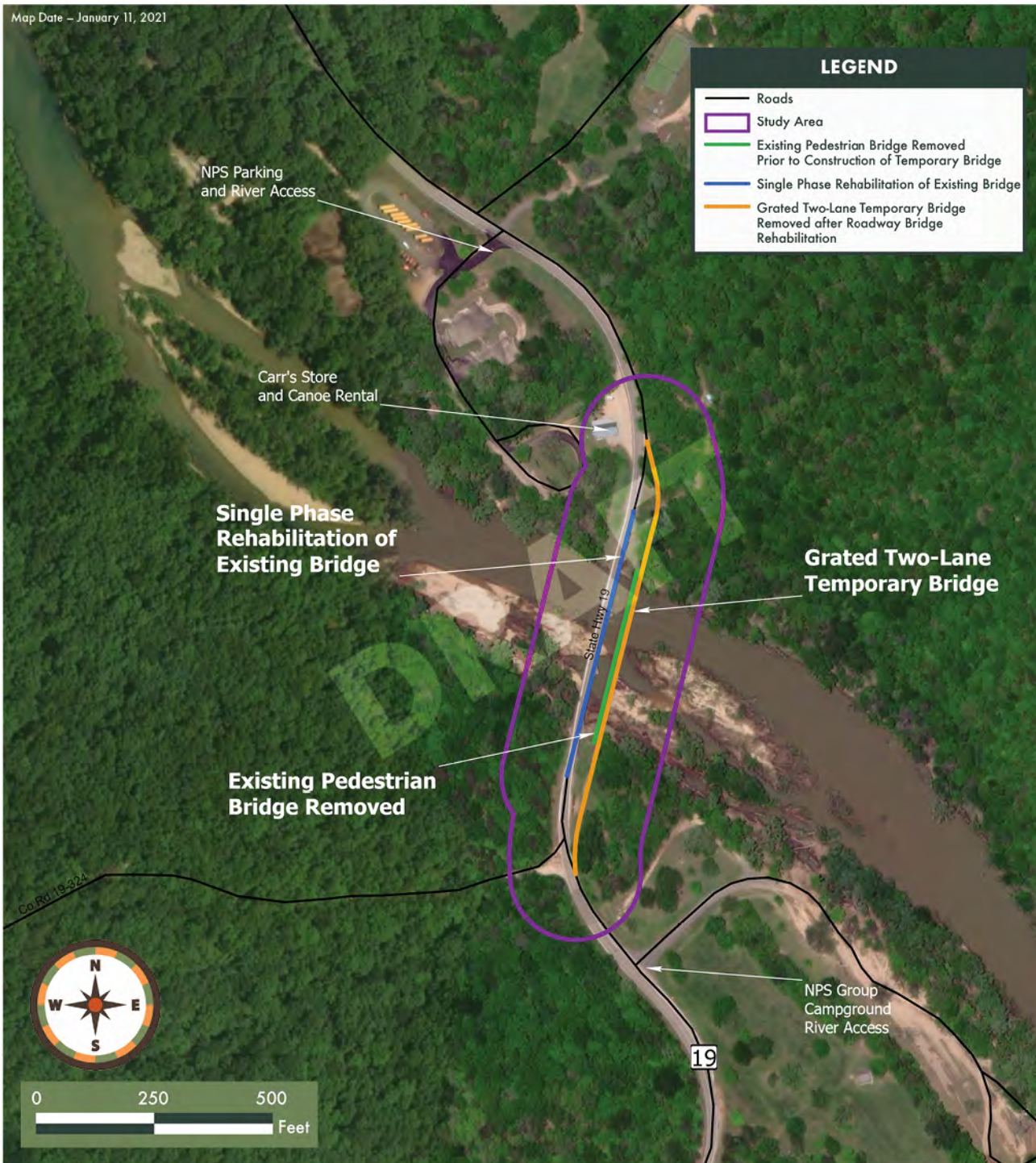


ADVANTAGES

- Matches location of existing bridge.
- No temporary bridge required; cost savings.
- Less permanent roadway work.
- Utilities remain on the existing pedestrian bridge.

DISADVANTAGES

- Uses the existing one-lane bridge during construction.
- Longer construction period.
- Remediated concrete of the existing bridge is buried in the structure, possibly requiring further rehabilitation in the future.
- Shorter life expectancy compared to a new bridge.



C-5A

DESCRIPTION

- Single-phase rehabilitation of the existing bridge.
- A grated two-lane temporary bridge will be built and will be removed after the rehabilitation of the existing bridge is complete.
- Existing pedestrian bridge to be removed prior to temporary bridge construction.
- Pedestrians will be accommodated on the rehabilitated bridge.

SITE VICINITY



ADVANTAGES

- Matches location of existing bridge.
- Less permanent roadway work.
- Uses a two-lane temporary bridge during construction.

DISADVANTAGES

- Additional cost for temporary bridge.
- Remediated concrete of the existing bridge is buried in the structure, possibly requiring further rehabilitation in the future.
- Shorter life expectancy compared to a new bridge.
- Utilities on the existing pedestrian bridge must be relocated.
- Extensive formwork in the channel.



LEGEND

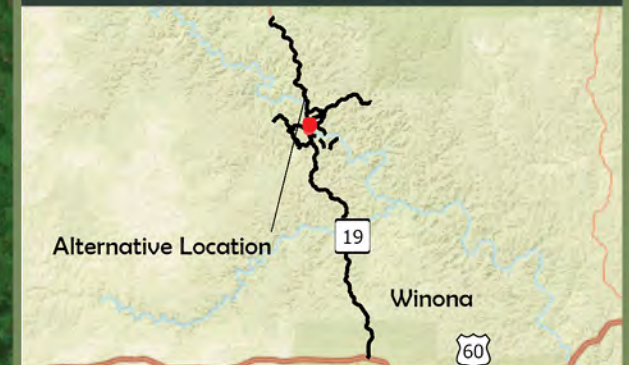
- Roads
- Study Area
- Existing Pedestrian Bridge Retained
- Single Phase Rehabilitation of Existing Bridge
- Grated Two-Lane Temporary Bridge Removed after Roadway Bridge Rehabilitation

C-5B

DESCRIPTION

- Single-phase rehabilitation of the existing bridge.
- A grated two-lane temporary bridge will be built and will be removed after the rehabilitation of the existing bridge is complete.
- Existing pedestrian bridge retained but not accessible during bridge rehabilitation.

SITE VICINITY



ADVANTAGES

- Matches location of existing bridge.
- Less permanent roadway work.
- Uses a two-lane temporary bridge during construction.
- Utilities remain on existing pedestrian bridge.

DISADVANTAGES

- Additional cost for temporary bridge.
- Remediated concrete of the existing bridge is buried in the structure, possibly requiring further rehabilitation in the future.
- Shorter life expectancy compared to a new bridge.
- Extensive formwork in the channel.