8.12 NOISE

Noise from the proposed construction activity associated with the proposed transmission line and North Clark County Substation would have minor impacts on noise levels in the immediate project impact area. Noise would emanate from chainsaws and machinery used during ROW clearing activities, and from vehicles, machinery and equipment used during the physical construction of the proposed project. A described in Section *8.6 LAND USE & RECREATION*, there are 40 houses within 500 feet of the proposed transmission line route and 13 houses within 2,500 feet of the proposed construction site for the new North Clark Co. Substation. These residences could experience increased noise levels during the construction of the proposed project. However, this increase in noise levels would be short-term and there would be an immediate return to ambient noise levels upon completion of construction activities. Therefore, no significant impact on the noise levels in the proposed project area would be expected. Noise from the construction activity associated with the J.K. Smith 345 CT Yard Substation should not have any impact on the noise levels in the area because the proposed site for this facility is located in the middle of a large industrial area associated with EKPC's existing J.K. Smith Electric Generating Station and there are no houses or public roads located within the vicinity.

8.13 PUBLIC HEALTH & SAFETY

The clearing of vegetation associated with the proposed electric transmission line and North Clark County Substation could have an effect on the health and safety of construction crewmembers, as well as the public in general. One common tool used for manually cutting and clearing vegetation in the electric utility industry is the chainsaw. The chainsaw can be one of the most dangerous hand cutting tools used by ROW management crews and cuts

caused by these tools can be encountered by crewmembers. Other hazards associated with chainsaw use include flying wood chips, sawdust and bar oil causing eye problems for workers. Another hazard associated with chainsaw use could be hearing loss if proper ear protection is not used. However, if the chainsaws are operated in a safe manner adhering to EKPC's safety rules with protective clothing, eye ware, and ear protection, injuries from chainsaws should not present a problem. The clearing of vegetation would not present a risk with the proposed J.K. Smith 345 CT Yard Substation because the proposed site for this facility was filled and graded in association with past construction activity at the existing generating station and the site is currently devoid of vegetation.

Mechanical types of equipment used during construction activities, such as bulldozers, could also pose a hazard to construction workers. This type of equipment could rollover when operated improperly on steep grades injuring the operator and any nearby crewmembers who happen to be in the way. Fire can also potentially be a hazard to ROW crewmembers attempting to refuel hot engines or when leaked oil or flammable debris comes into contact with hot engines.

Emissions from the exhaust of chainsaws and mechanical equipment could result in exposing operators to a number of carcinogens known to be present in the exhaust of internal combustion engines, such as benzene, 1,3-butadiene and numerous polyaromatic hydrocarbons. Exhaust from the engines also expose equipment operators to carbon monoxide and neurotoxic hydrocarbons, as well as irritants, such as, formaldehyde, acrolein and nitrogen oxides. However, the components of exhaust are volatile and would probably move out of the immediate project area within a short period of time.

Hazards to the general public could occur during vegetation clearing activities if individuals were to enter work areas while machinery is operating and the vegetation is being cut. Individuals of the public present on or near the work sites when the cutting operations are occurring could be struck by falling vegetation, flying wood chips, sawdust, etc. Stubble left on the ROW after cutting operations are completed can also present a hazard to the public by individuals tripping over or falling onto cut stumps and stubble causing injury. Since no formal recreational activities take place within the project area (See Section *8.6 LAND USE AND RECREATION*) and the majority of the transmission line route is located in rural areas, the risk to the general public from ROW clearing cutting operations would be negligible. This risk would not be present during the maintenance of the proposed ROW because only minimal, if any, cutting of vegetation on the ROW would be required during each maintenance cycle.

The construction and operation of the proposed new substations should not create a threat to the health or safety of the general public. Shortly after the project site for the North Clark County Substation is graded the substation would be enclosed with a gated seven-foot high security fence topped with three strings of barbed wire one foot in height that would restrict public access to the new facility. The proposed site for the J.K. Smith 345 CT Yard Substation is also located at the existing J.K. Smith Electric Generating Station, which has controlled, gated access.

The proposed use of herbicides for the management of vegetation within the proposed electric transmission line ROW would involve the utilization of herbicides approved for such use by the U.S. Environmental Protection Agency. Such chemicals would also be applied

according to strict label directions by licensed applicators. Therefore, the proposed use of herbicides would not be expected to pose any significant risk to workers or the general public.

Extremely low-frequency electric and magnetic fields (EMFs) surround high-voltage electric transmission lines and transformers, and a good deal of attention has been focused on the possible health effects of EMFs since the 1970's. However, evidence of health effects from EMFs is inconclusive and the available information is not sufficient to establish a cause-effect relationship. Regardless, EMFs surrounding the proposed electric facilities should not be an issue. The strength of EMFs quickly decreases with distance from the source and overhead electric transmission lines produce a magnetic field that peak underneath the electric conductors and falls off rapidly with distance on either side. As a result, no occupied structures would be located close enough to the proposed transmission line to experience increased EMF levels. The proposed new substations would not increase EMF levels outside of the fenced boundary because the strength of EMFs from the electric transformers decreases rapidly with distance. Typically, the EMFs produced by the equipment within a substation are indistinguishable from background levels beyond the substation fence. Additionally, EMF associated with the J.K. Smith 345 CT Yard Substation would not be an issue because the proposed site for this facility is located at an existing electric generating site.

8.14 RADIO, TELEVISION & CELLULAR PHONE INTERFERENCE

The proposed electric transmission line should not have any effect on radio or television reception because electric transmission line equipment by design does not cause radio or television reception interference. However, faulty insulators or loose hardware on a transmission line can cause such interference. Should EKPC receive a reception interference complaint it has a policy of investigating the source of the interference and taking steps to

remedy the situation, such as replacing insulators, tightening hardware, etc., should the source of the problem be determined to be electric equipment associated with one of its electric facilities. Additionally, the proposed electric transmission line would not be expected to cause radio or television reception interference because the majority of the proposed route extends through rural areas and the distance of the occupied structures from the proposed transmission line ROW.

Mobile and automobile radios could lose signal strength directly underneath the proposed electric transmission line, such as a loss of signal strength when traveling underneath the transmission line at a road or highway crossing. Cellular telephones could also loose signal strength directly underneath electric transmission line when located in a fringe area of the cellular service companies. However, these would be temporary, or momentary, losses of signal strength that would not significantly affect the use of mobile or automobile radio, or cellular telephone equipment.

Mobile and automobile radios, as well as cellular phones could lose signal strength within the boundary of the proposed electric substations due to the metal structures present and the concentration of EMFs. Outside of the substation boundary, however, signal strength would be normal and such devices would operate without interference. Radio and television reception should not present a problem outside of the fenced boundary for the substations.

8.15 SOCIOECONOMICS & ENVIRONMENTAL JUSTICE

The proposed new electric transmission line project would not have any effect on the population or the economy of the area. The proposed new project also would not create new jobs or affect the unemployment rate for the area involved. Additionally, the proposed route for the transmission line and the proposed substation sites are not disproportionately located

through or within minority or low-income areas and, as a result, the proposed project would not have any disproportionate effects on populations located in such areas. The proposed project also would not have any impact on, or be influenced by, the civil rights, ethnic origin, sex or social status of people living within the proposed project area.

8.16 AESTHETICS

The construction of the proposed electric transmission project would not have any adverse impacts on the aesthetics of the project area. The proposed new transmission line and substations would not be visible from any recreational areas since none of these types of areas exist within the project area (See Section *7.0 EXISTING ENVIRONMENT*). The proposed new transmission line would also be supported by Corten tubular steel structures that would give the appearance of redwood and which would aid in blending the proposed line into the surrounding background. In addition, the majority of the proposed new line would be located on an existing electric transmission line ROW and would involve rebuilding and replacement of the existing electric transmission line. The existing transmission line that would be replaced is supported by wood pole H-frame structures and the proposed line would be supported by Corten steel H-frame structures, with a few triple pole structures, which as described above, would give the appearance of wood. Therefore, the proposed transmission line would not result in any significant additional aesthetic impact within these areas. The proposed route for the transmission line and the proposed substation sites also are not located in the vicinity of any concentrated residential development and would not be readily visible from such development.

The proposed transmission line would be visible from various road crossings, but due to the topography and vegetation along the majority of the proposed route, the line would

only be visible for short distances and the Corten steel structures would aid in blending the line into the surrounding landscape. The proposed new North Clark Substation would be partially visible from Oldson Road and may be partially visible from Donaldson Road, as well as from a few of the rural residences in the area. However, the proposed site for this new facility is located immediately adjacent to an existing electric transmission line and within proximity to an existing electric distribution substation, which would aid in mitigating the visual impact of the new substation on the surrounding area. The proposed new J.K. Smith 345 CT Yard Substation would not have any aesthetic impact on the project area because the proposed site for this planned new facility is located on a 3,200 acre industrial site associated with the existing J.K. Smith Generating Station. It would not be visible from public roads or any residential development since the closest house is located almost a mile from the proposed construction site.

9.0 MITIGATION

As described in the previous section *8.0 ENVIRONMENTAL CONSEQUENCES*, EKPC would be implementing numerous mitigation measures to aid in minimizing potential environmental impacts that could be caused during the construction and operation of the proposed electric transmission project. The following is a summary of the mitigation measures that EKPC would implement:

- EKPC would incorporate *Best Management Practices* that would employ accepted erosion control practices to aid in preventing non-point source pollution and control stormwater runoff and sedimentation. Such practices would include, but not be limited to, the utilization of silt barriers, the cutting of vegetation requiring removal from the proposed ROW to leave roots intact and minimize soil disturbance, not initiating any land-clearing activities until absolutely necessary to reduce the amount of time bare soils are exposed, removing any vegetation falling into watercourses, and

all disturbed areas would be stabilized and revegetated, as soon as practicable, once construction is completed.

- No transmission line support poles would be placed within streams or river channels, and no construction equipment or vehicles would be permitted to ford such watercourses, or within wetland areas.

- Vegetation removed from the proposed ROW would be cut from the ROW, leaving roots intact to aid in holding soils in place and control erosion.

- Any cut vegetation falling into creek or stream channels would be removed and pulled back from the channels to aid in protecting water quality.

- Herbicides would be applied by trained and licensed applicators, and would be made in accordance with strict label directions and the requirements of the Kentucky Division of Pesticides, using EPA approved herbicides.

- Applicators would monitor weather conditions and would postpone or suspend applications when conditions become unfavorable, as outlined in Section *8.1 AIR QUALITY.*

- No herbicide would be applied within 30 horizontal feet of lakes, ponds, wetlands, perennial or intermittent springs, seeps, or streams.

- No herbicide would be applied within 100 horizontal feet of any public or domestic water source.

- Herbicide mixing, loading, or cleaning areas would not be located within 200 feet of any open water, or public or domestic water source.

- Herbicide applications would not be prohibited during periods of rain or when the threat of rainfall is eminent.

10.0 CONCLUSION

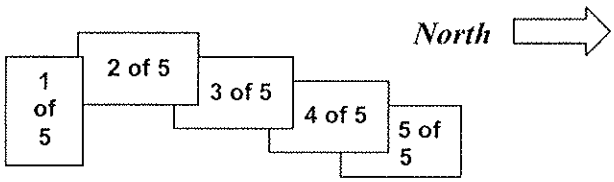
The environmental investigation undertaken for EKPC's proposed Smith to Sideview Electric Transmission Line and associated substations, and documented in this report, did not uncover any significant environmental impacts that would result from the construction of the proposed project. EKPC is also aware of the environmental commitments expressed in this document and is dedicated to following these commitments during the construction and

operation of the proposed project. Therefore, the construction of EKPC's proposed electric transmission project described in this report would not have any significant effects on the quality of the natural or human environment in the project area.

APPENDIX A

PROJECT REFERENCE MAPS

KEY TO PROJECT MAPS



NOTE: The proposed electric transmission line route and substation sites depicted on the maps contained in this appendix is not drawn to exact scale and is intended for location purposes only.

Smith - Sideview

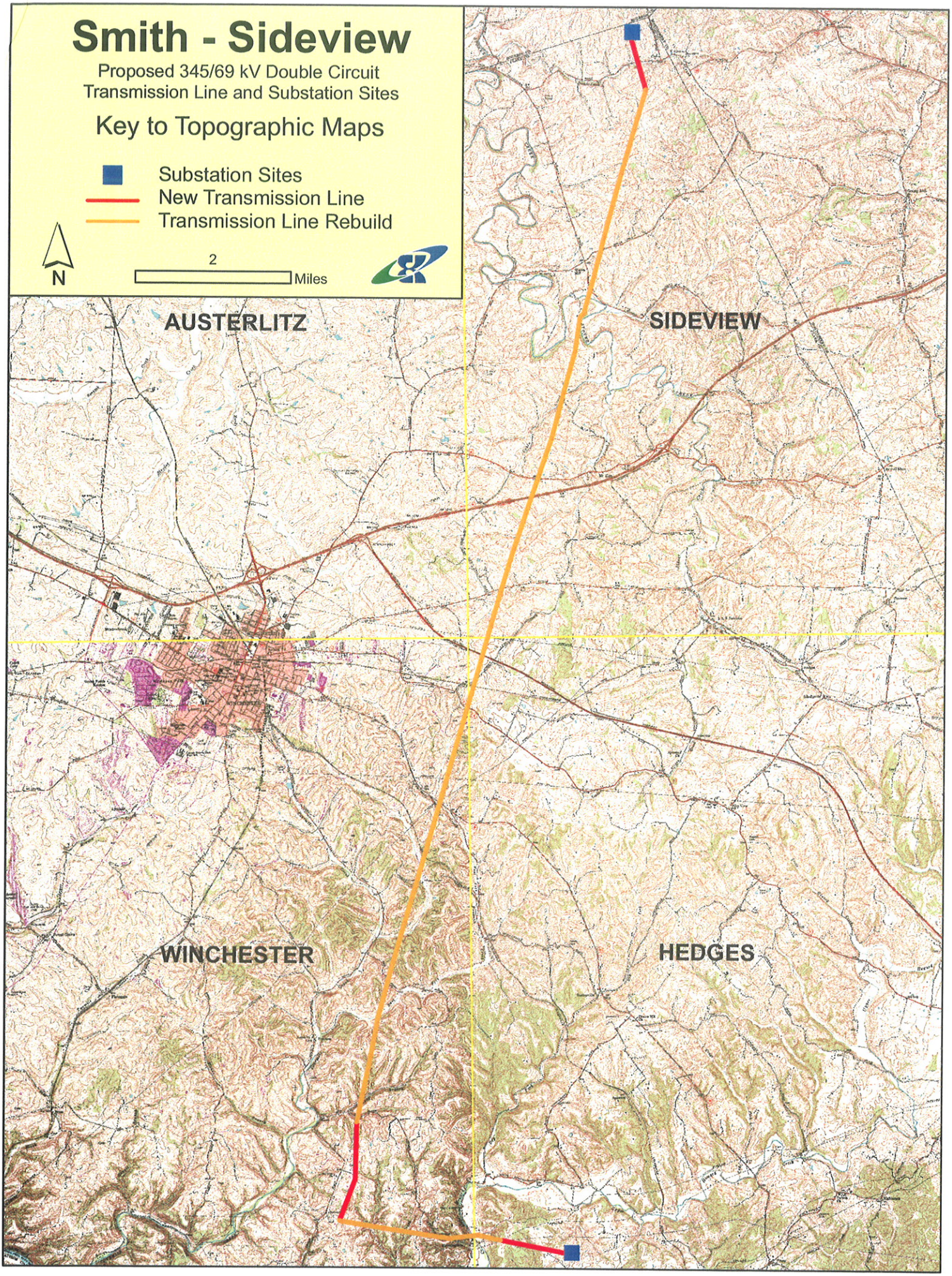
Proposed 345/69 kV Double Circuit
Transmission Line and Substation Sites

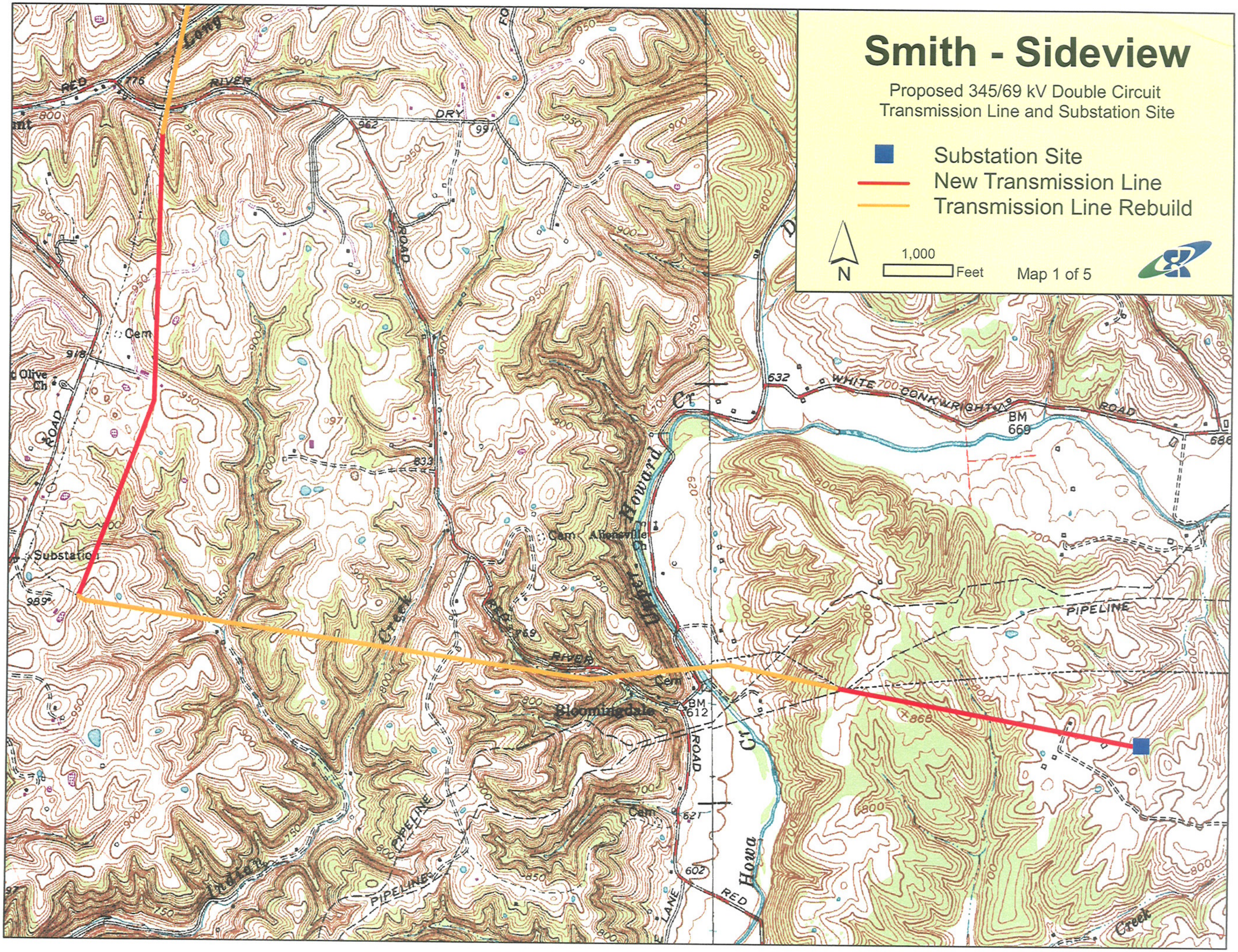
Key to Topographic Maps

- Substation Sites
- New Transmission Line
- Transmission Line Rebuild

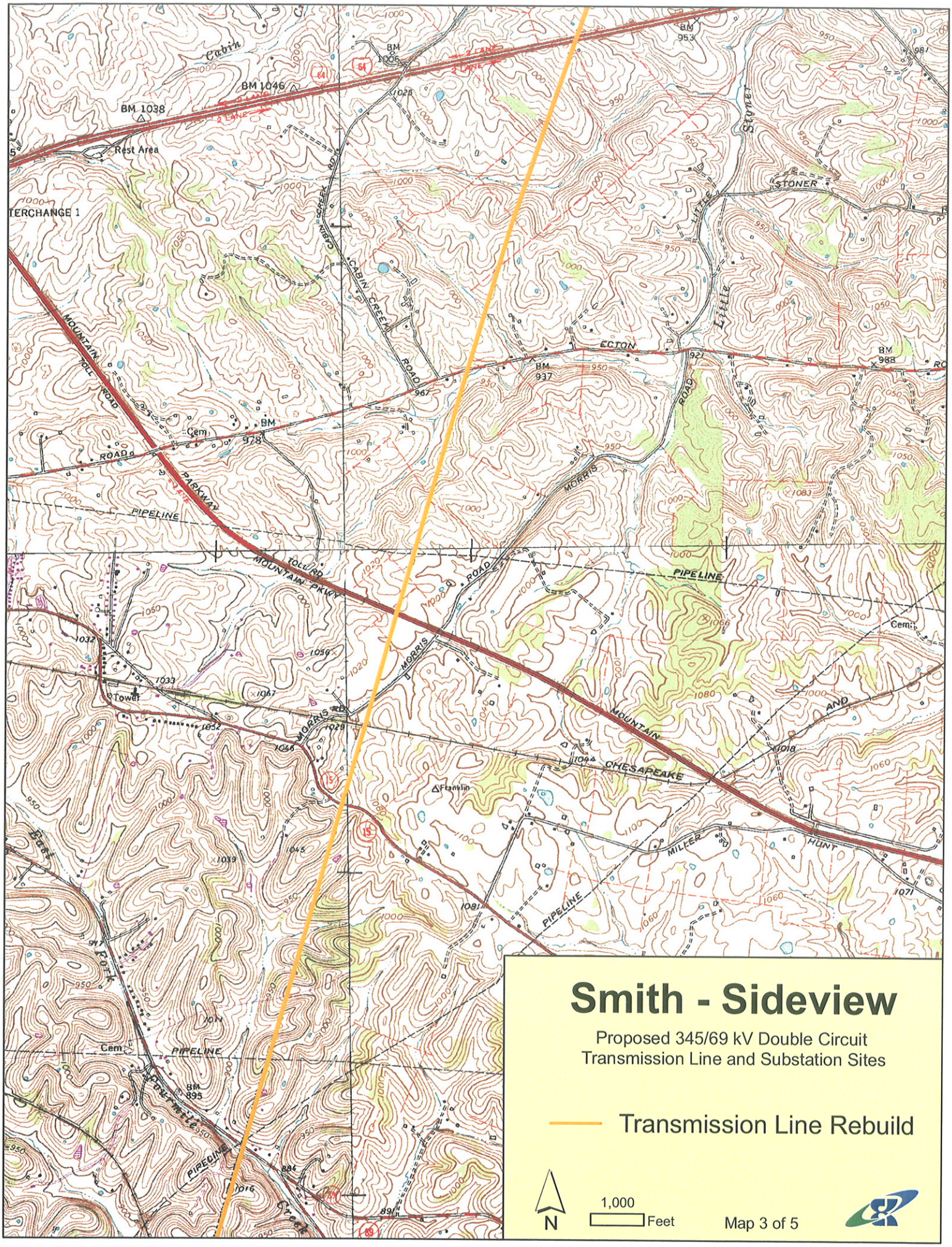
N

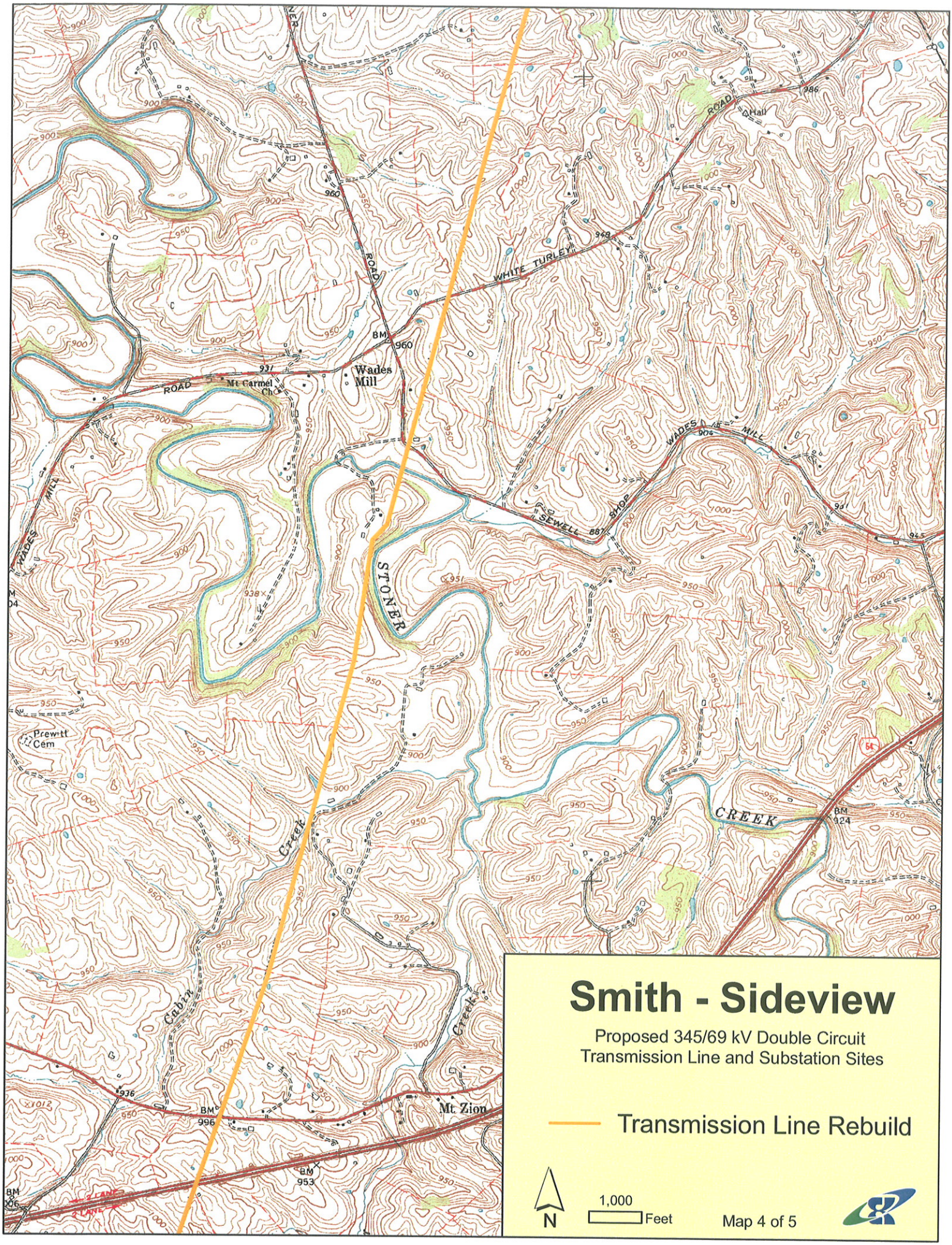
2 Miles




Smith - Sideview
Proposed 345/69 kV Double Circuit
Transmission Line and Substation Site
Substation Site
New Transmission Line
Transmission Line Rebuild
N
1,000
Feet
Map 1 of 5
WHITE CONKWRIGHT ROAD
PIPELINE
Howard Cr
Bloomingdale
Substation
Cem
DRY RIVER ROAD
RED RIVER
Creek


Smith - Sideview
Proposed 345/69 kV Double Circuit
Transmission Line and Substation Sites
New Transmission Line
Transmission Line Rebuild
N
1,000
Feet
Map 2 of 5


Smith - Sideview
Proposed 345/69 kV Double Circuit
Transmission Line and Substation Sites
Transmission Line Rebuild
N
1,000
Feet
Map 3 of 5

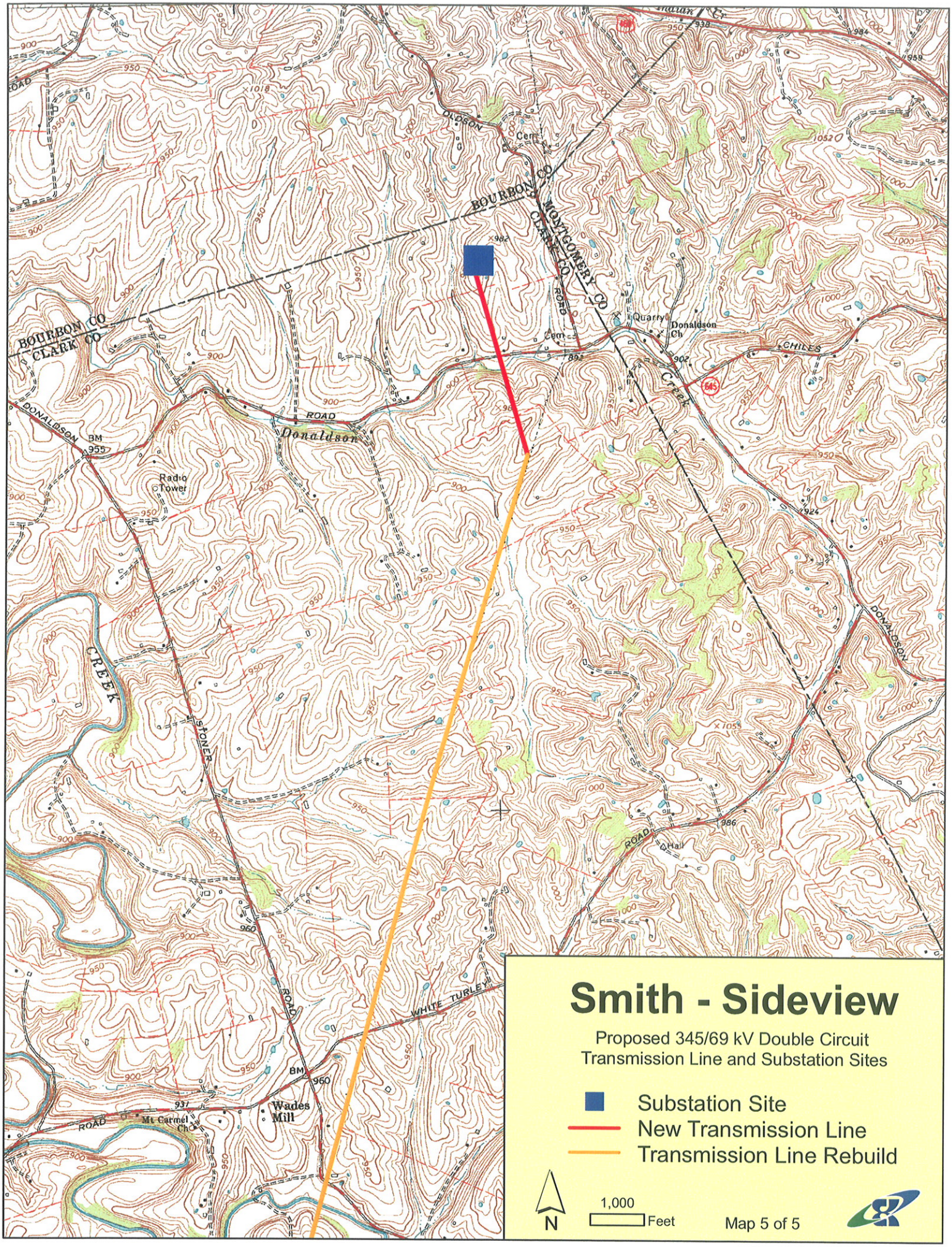


Smith - Sideview

Proposed 345/69 kV Double Circuit
Transmission Line and Substation Sites

Transmission Line Rebuild

Map 4 of 5



Smith - Sideview

Proposed 345/69 kV Double Circuit
Transmission Line and Substation Sites

- Substation Site
- New Transmission Line
- Transmission Line Rebuild

N

1,000 Feet

Map 5 of 5