

REV.	NO.	DATE	DESCRIPTION
1	1	11/24/03	FIRST ISSUE
2	1	11/24/03	PERMIT CHANGES

**Tree Preservation Calculations & Plan Description**  
 Ameren's Belleau Substation Expansion  
 of Fallon, Missouri

**Calculations**

The following calculations are based upon requirements of the City of Fallon, Missouri, Tree Preservation Ordinance, Chapter 150 of the Zoning Code. All areas identified as existing tree mass are based upon a survey conducted by Zoller & Associates on September 30, 2003, and are noted to be a varying mix of hardwood trees. A copy of the drawing developed by Zoller for this survey is attached as part of these calculations.

All calculations are based upon identified tree mass prior to the current proposed expansion of Belleau Substation.

Gross site area/Ameren Owned - 81 Acres (±)  
 Cleared Area - 52.3 Acres  
 Forest/Gross Substation - 28.1 Acres  
 Pre-expansion Tree Coverage - 28.1 Acres  
 Trees Lost to Expansion - 2.85 Acres  
 Percentage of Trees Preserved - 89.9% greater than 75% required  
 (28.1 - 2.85) / 28.1 = 0.899

**Tree Preservation Plan**

Ameren has owned the property upon which the existing Belleau Substation (145/138 KV) and Fallon Substation (138/24KV) are sited since 1981. These properties were obtained specifically for development of electrical transmission and distribution facilities. The size of the properties obtained recognized not only the needs of the region and neighboring communities at that time, but also their anticipated growth and development. Continuing growth within the region and neighboring communities now requires that Ameren, working in cooperation with Associated Electric Cooperative, expand the existing Belleau Substation.

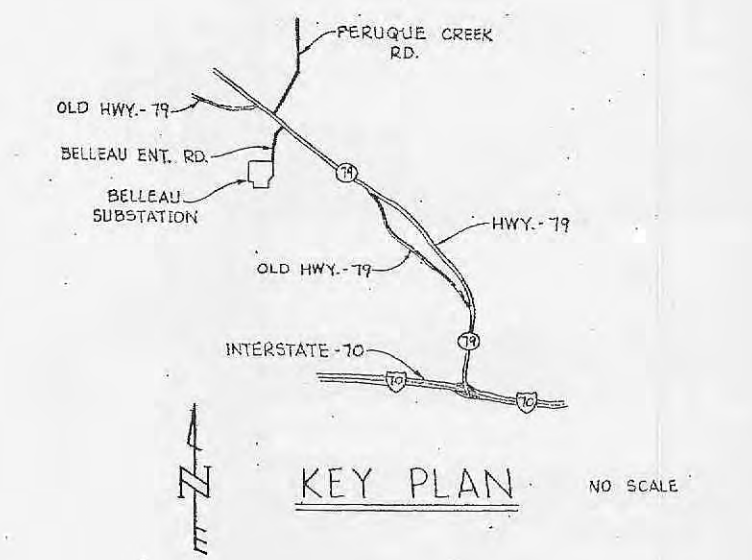
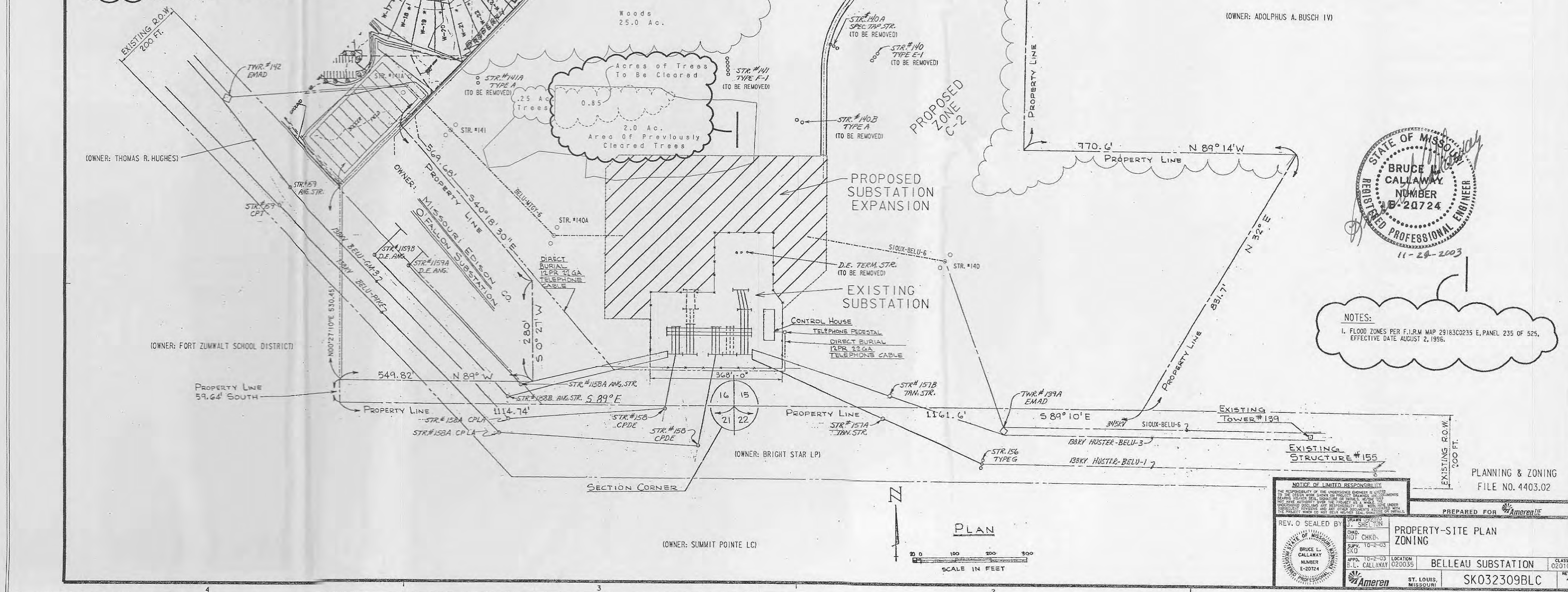
The proposed expansion will be located immediately north of and will adjoin the existing Fallon Belleau Substation development. Almost all Ameren owned property north of the existing Belleau Substation is currently tree covered. The only cleared portions of the northern property are for transmission line right-of-way ROW and access roadways. All other undeveloped land areas are utilized for agricultural production or remain as grasslands.

Ameren proposes to reduce the existing tree cover only as required to construct the expanded substation yard and related structure management system which includes an ordinance required detention pond. The existing trees most to be cleared has been limited by design. All trees which are required to be removed shall be individually marked. The limits of tree removal will be defined utilizing either poles or construction fencing. Tree removal will be conducted using chainsaws and other methods, which will assure that tree removal is limited to the limits shown and required by grading operations.

All trees north of the existing Sioux-Montgomery 345 KV transmission line ROW will be preserved. All trees located to the north and east of the Belleau Sub access road from Highway 79 will be preserved.

Ameren proposes to replace tree mass lost to this expansion at a rate of 15 trees per newly cleared tree-acre. These replacement trees would be installed as part of the proposed landscaping activities along the southern edge of the existing Belleau Substation between the substation and IR Hughes Boulevard and as a replanting of the existing Sioux-Montgomery right-of-way, after these lines have been relocated through the Belleau Substation expansion.

The intent of this work is to minimize tree loss and to more effectively screen the substation expansion from adjoining properties. All tree preservation to be determined as a cooperative effort between Ameren and the Fallon City Staff, keeping in mind that such tree plantings must not impede access to facilities for maintenance, reduce electrical system reliability, or place electrical system components at risk.



**NOTES:**  
 1. FLOOD ZONES PER F.R.M. MAP 291830235 E, PANEL 235 OF 525, EFFECTIVE DATE AUGUST 2, 1999.

PLANNING & ZONING  
 FILE NO. 4403.02

PREPARED FOR: Ameren

PROPERTY-SITE PLAN  
 ZONING

BELLEAU SUBSTATION

SK032309BLC

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SCANNED HYBRID DRAWING