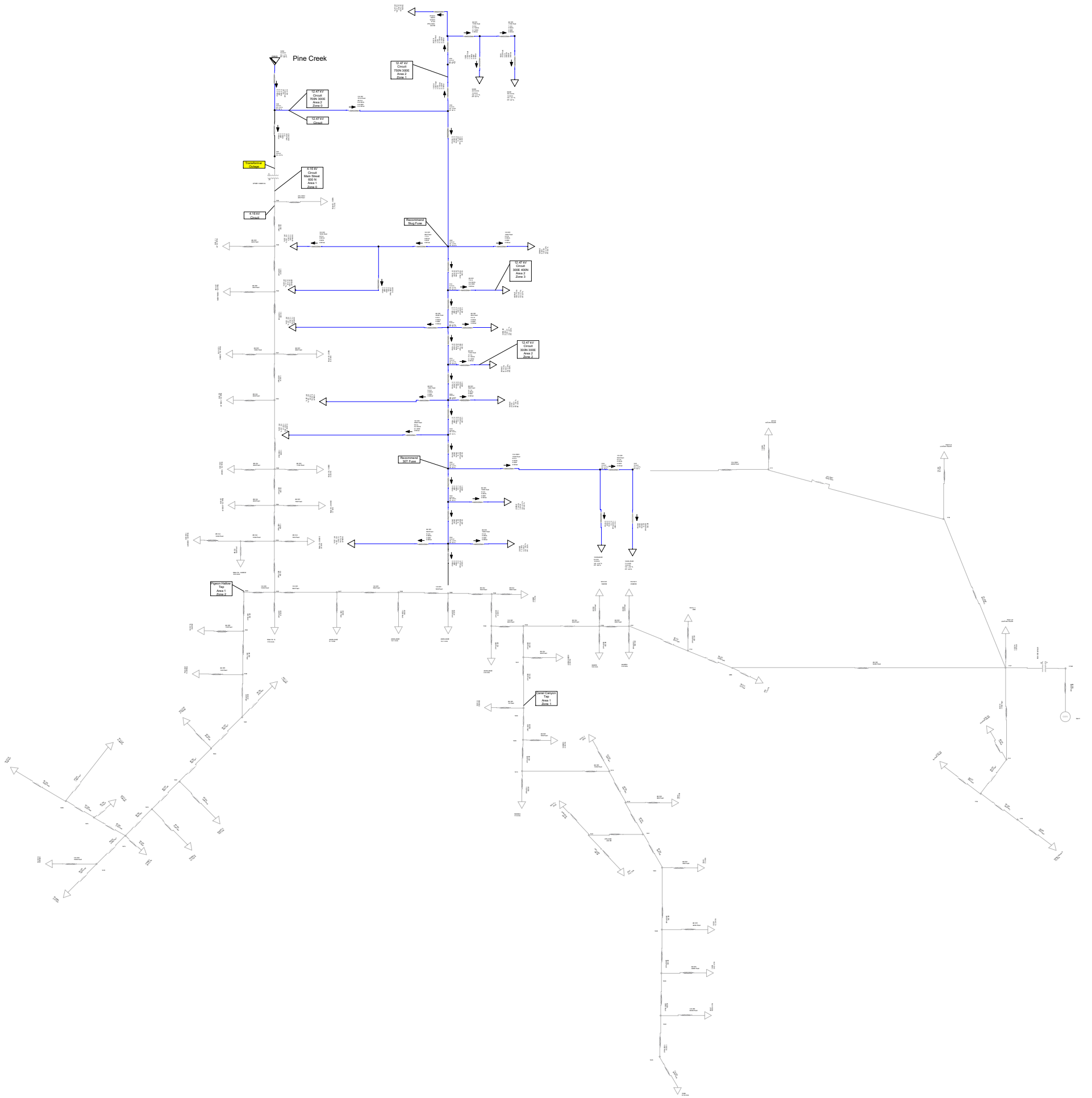


2020

Loss of transformer for 4.16 kV circuit

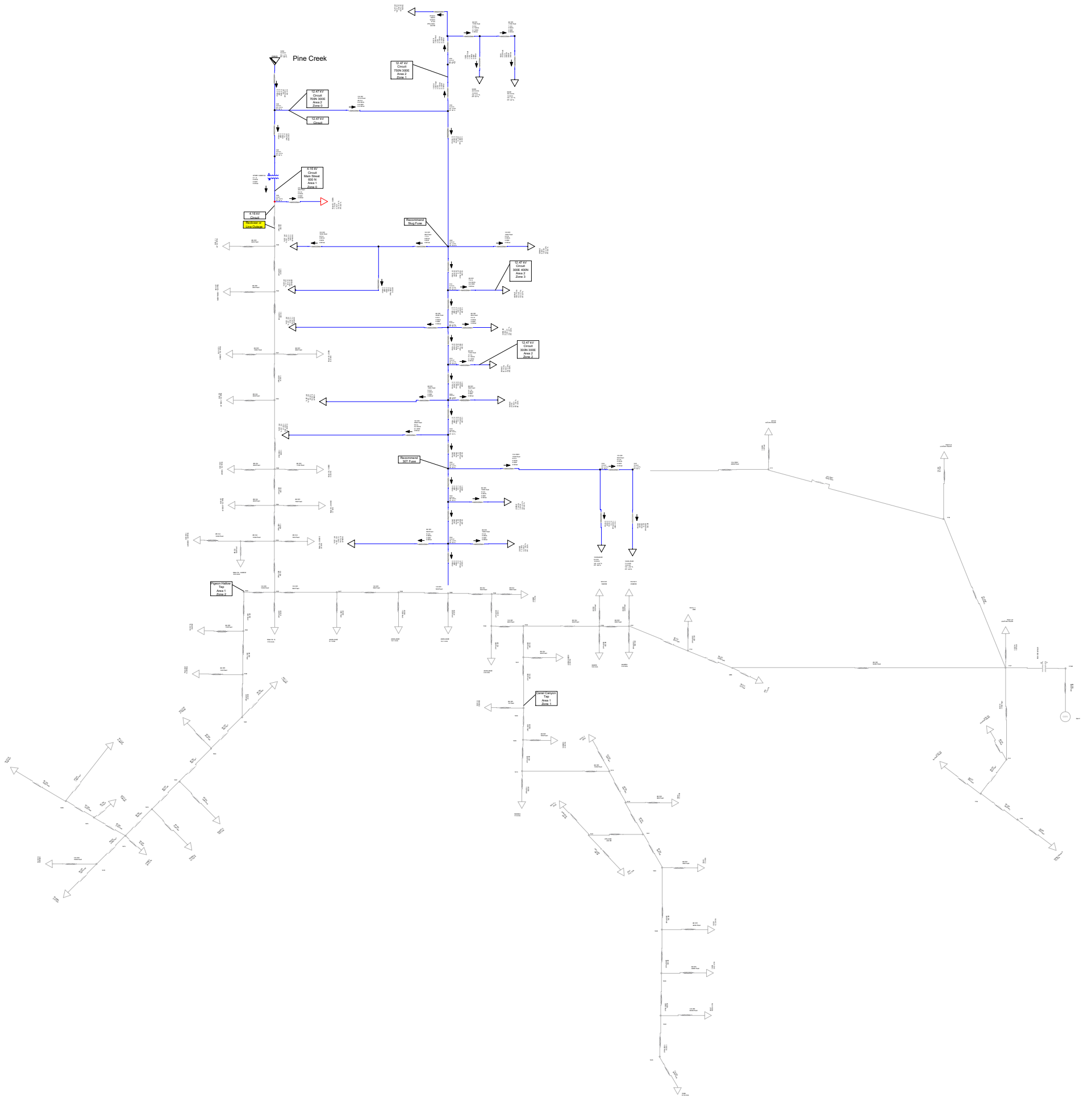
1. Spring City has an extra transformer that can be used to replace the transformer. The 4.16 kV circuit will be out of service until the backup transformer is put into service.

2. The 4.16 kV circuit is in the process of being upgraded to 12.47 kV. Once the conversion is completed, the circuit will be able to be fed from more than one direction.



2020  
Loss of 4.16 kV Circuit Recloser or Main Line

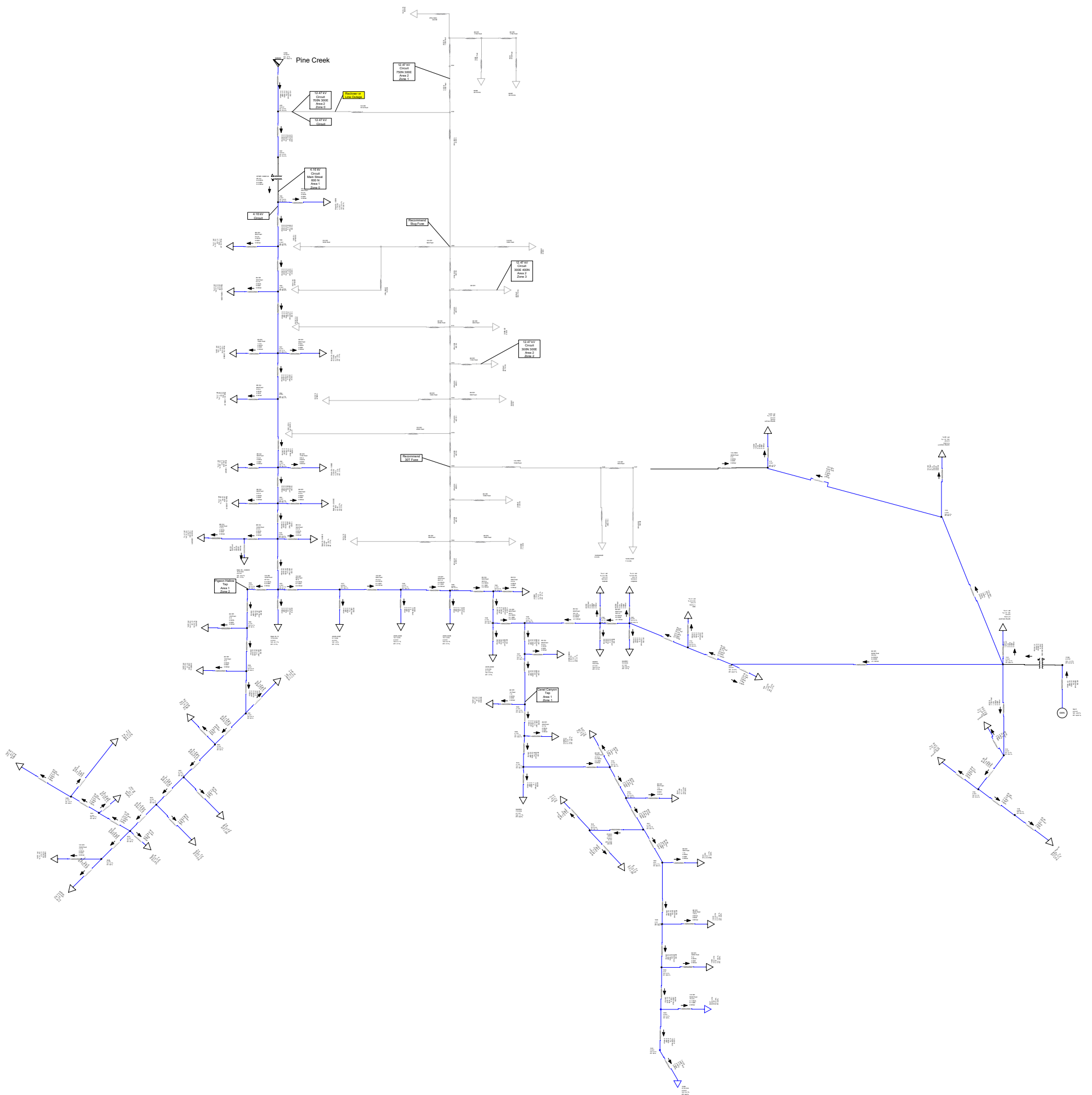
1. The circuit will be out of service until the recloser or line is fixed.
2. The 4.16 kV circuit is in the process of being converted to 12.47 kV. Once the conversion is complete, the circuit will be able to be fed from more than one direction.



2020

### Loss of 12.47 kV Circuit Recloser or Main Line

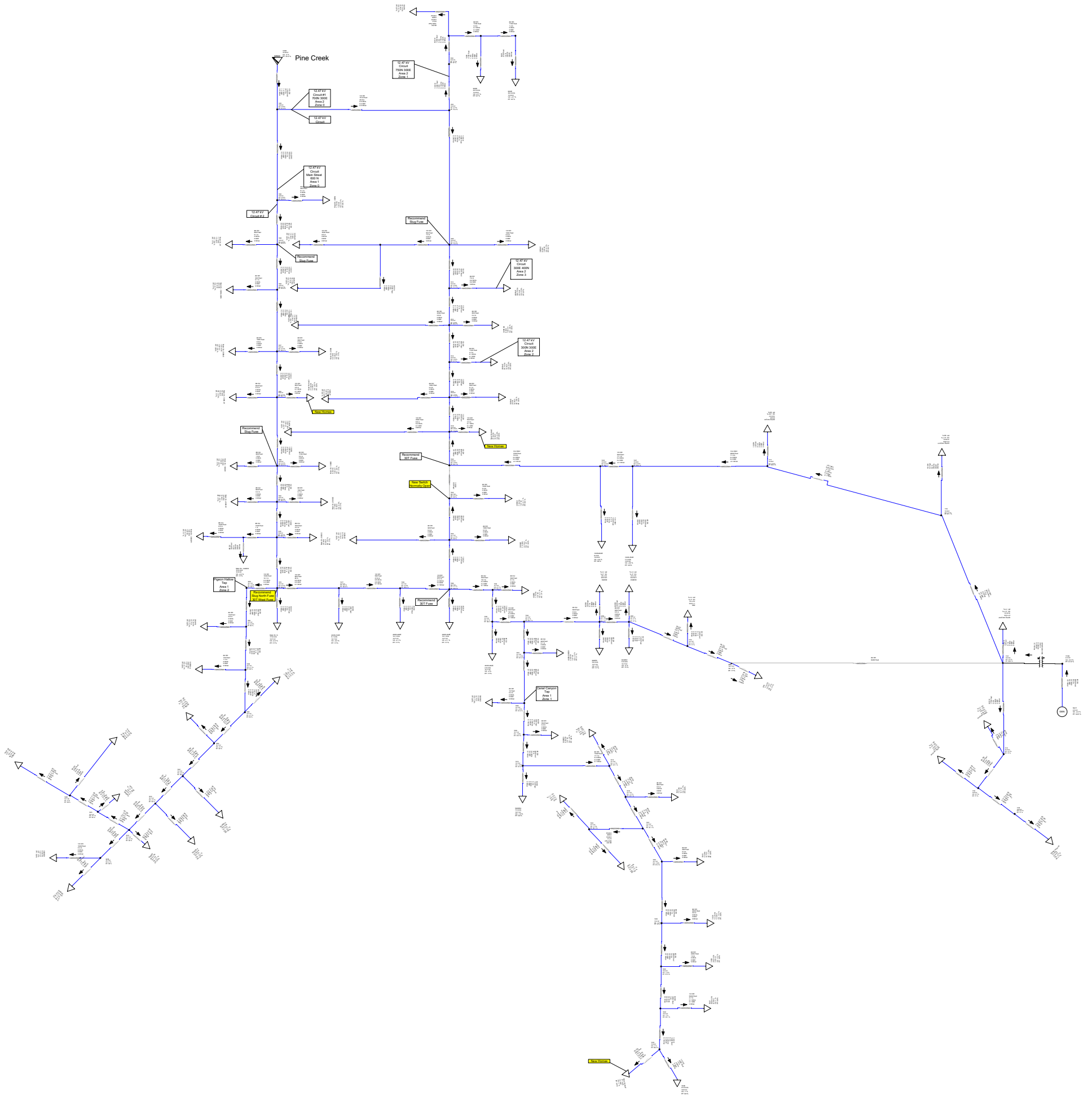
1. The circuit will be out of service until the recloser or line is fixed.
2. The 4.16 kV circuit is in the process of being converted to 12.47 kV. Once the conversion is complete, the circuit will be able to be fed from more than one direction.



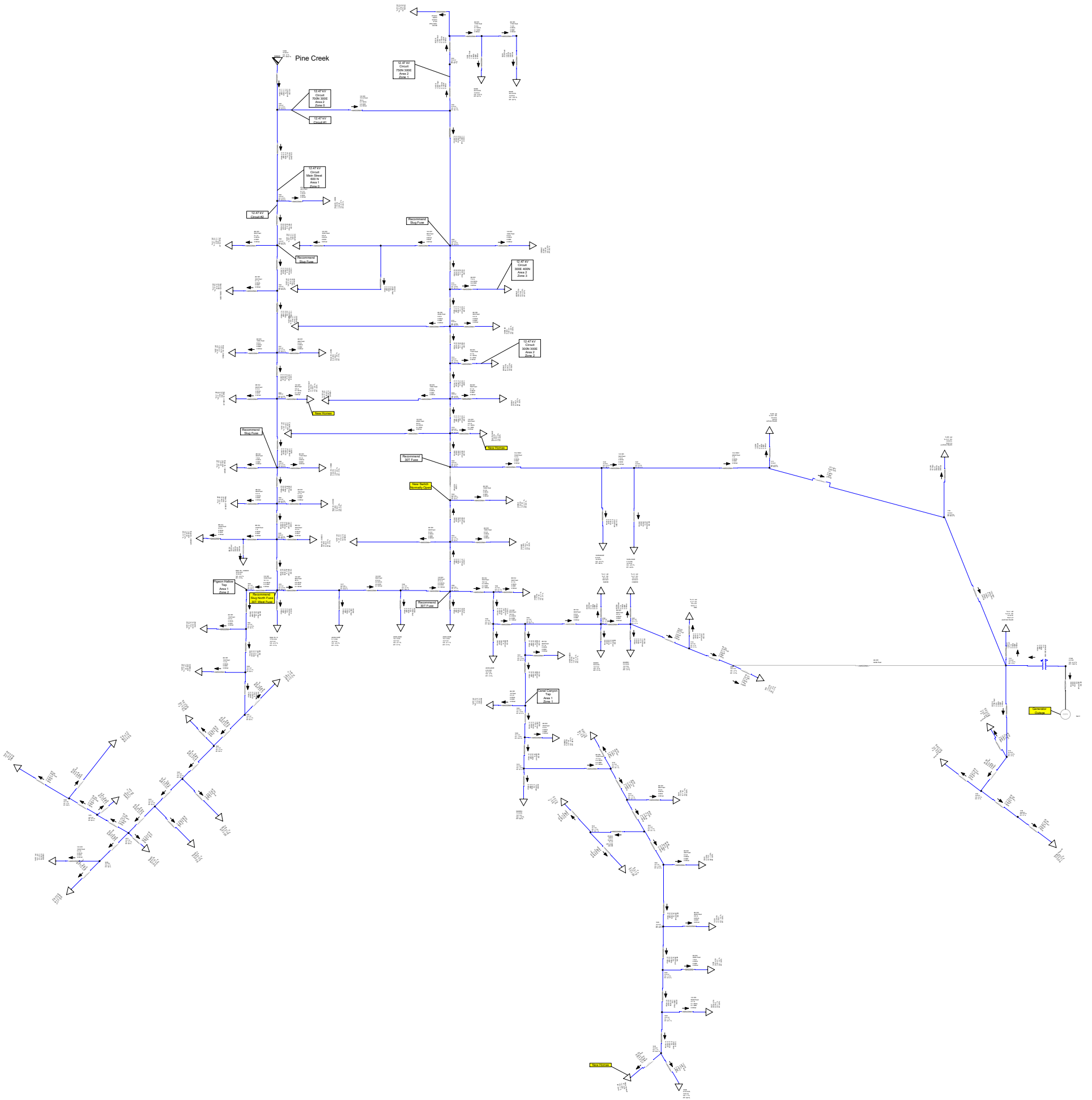
2025  
Base Case

Load flows assume the following upgrades have occurred.

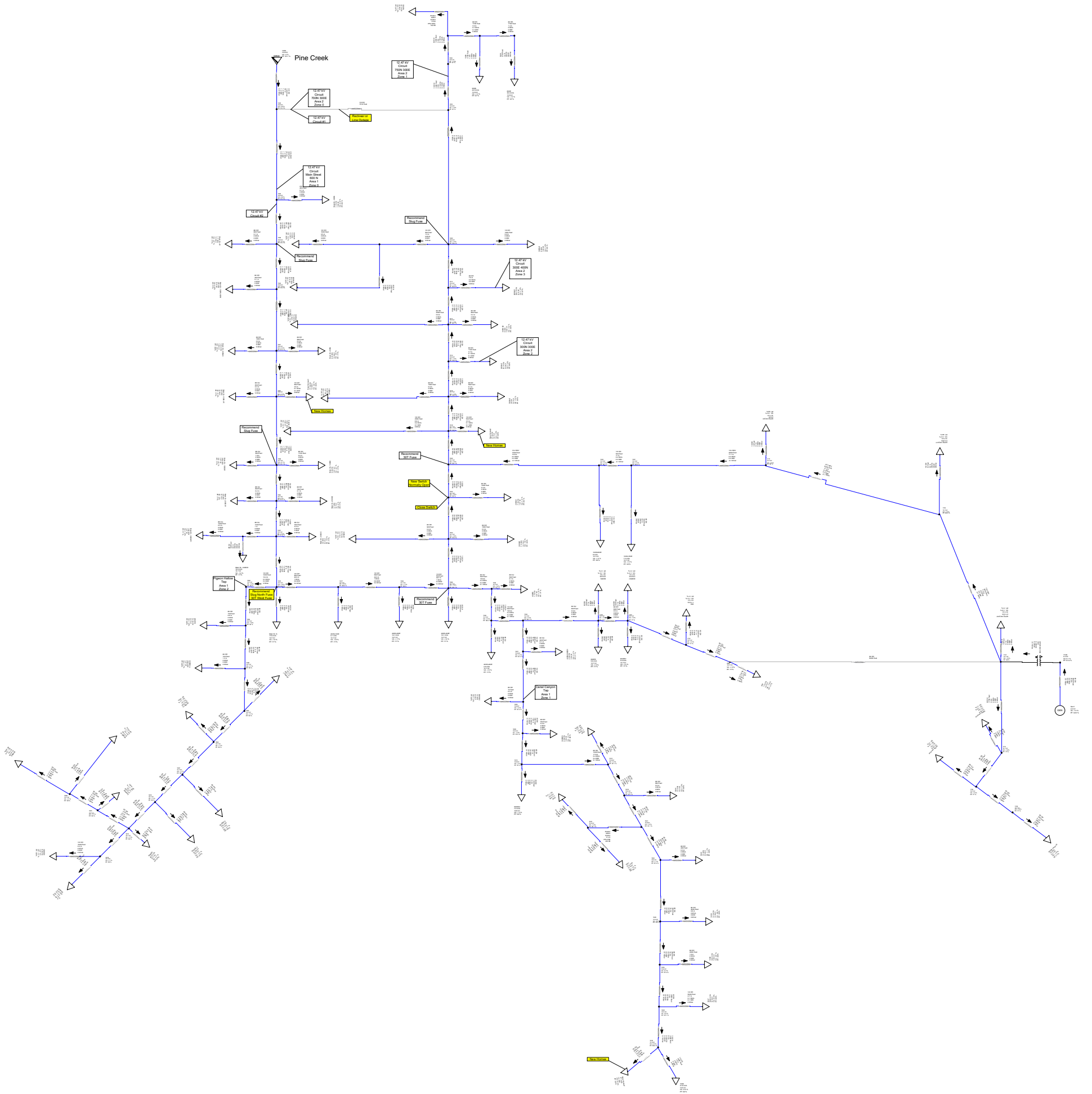
1. The 4.16 kV circuit has been converted to 12.47 kV.
2. The 4.16 kv recloser has been replaced with a 12.47 kV recloser.
3. A new switch has been installed at 150 South 300 East. This switch is the new normally open point between the circuits.



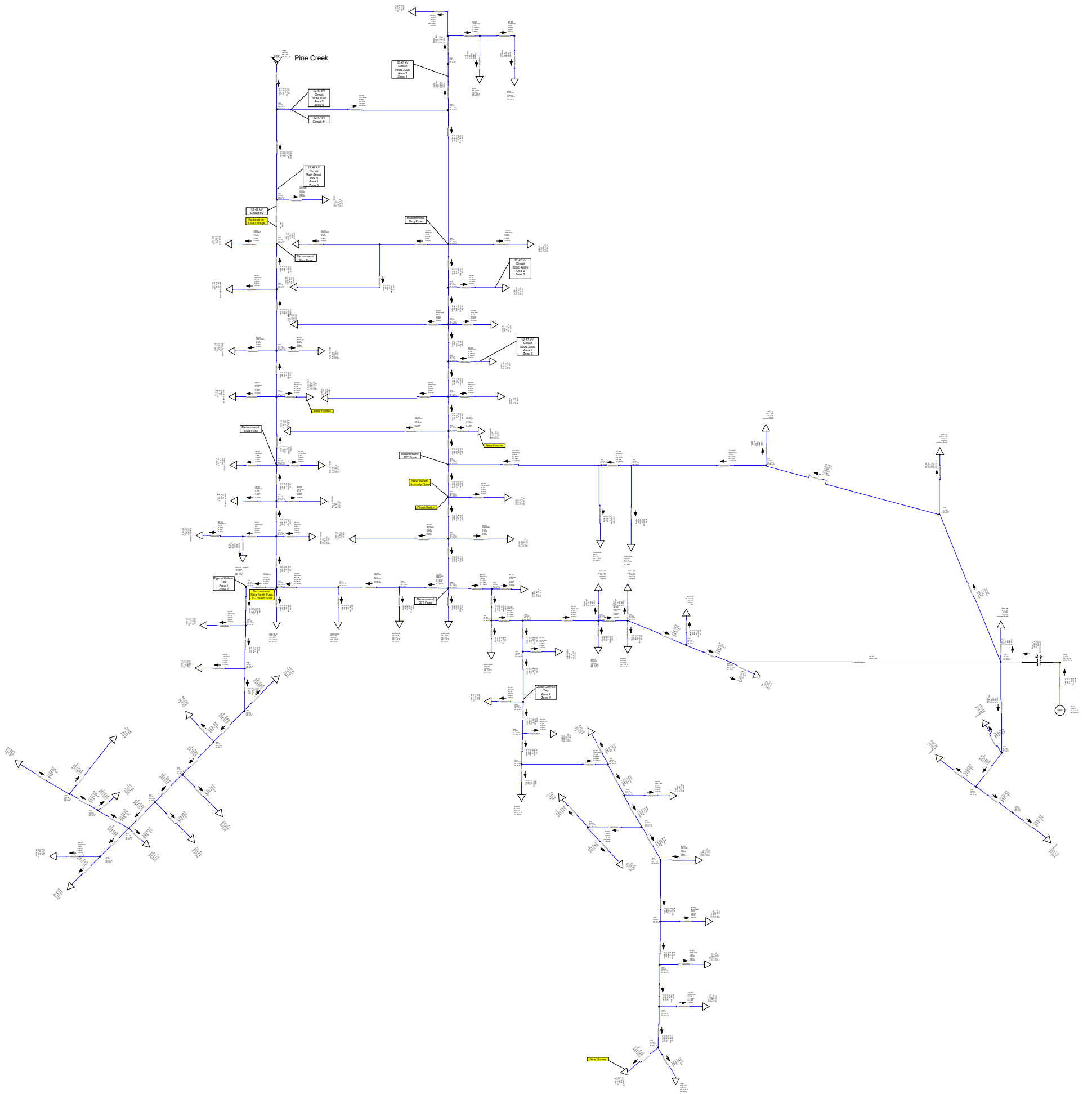
1. No issues. The load can all be fed from RMP.



1. Circuit 1 can be fed by Circuit 2.



1. Circuit 2 can be fed by Circuit 1.



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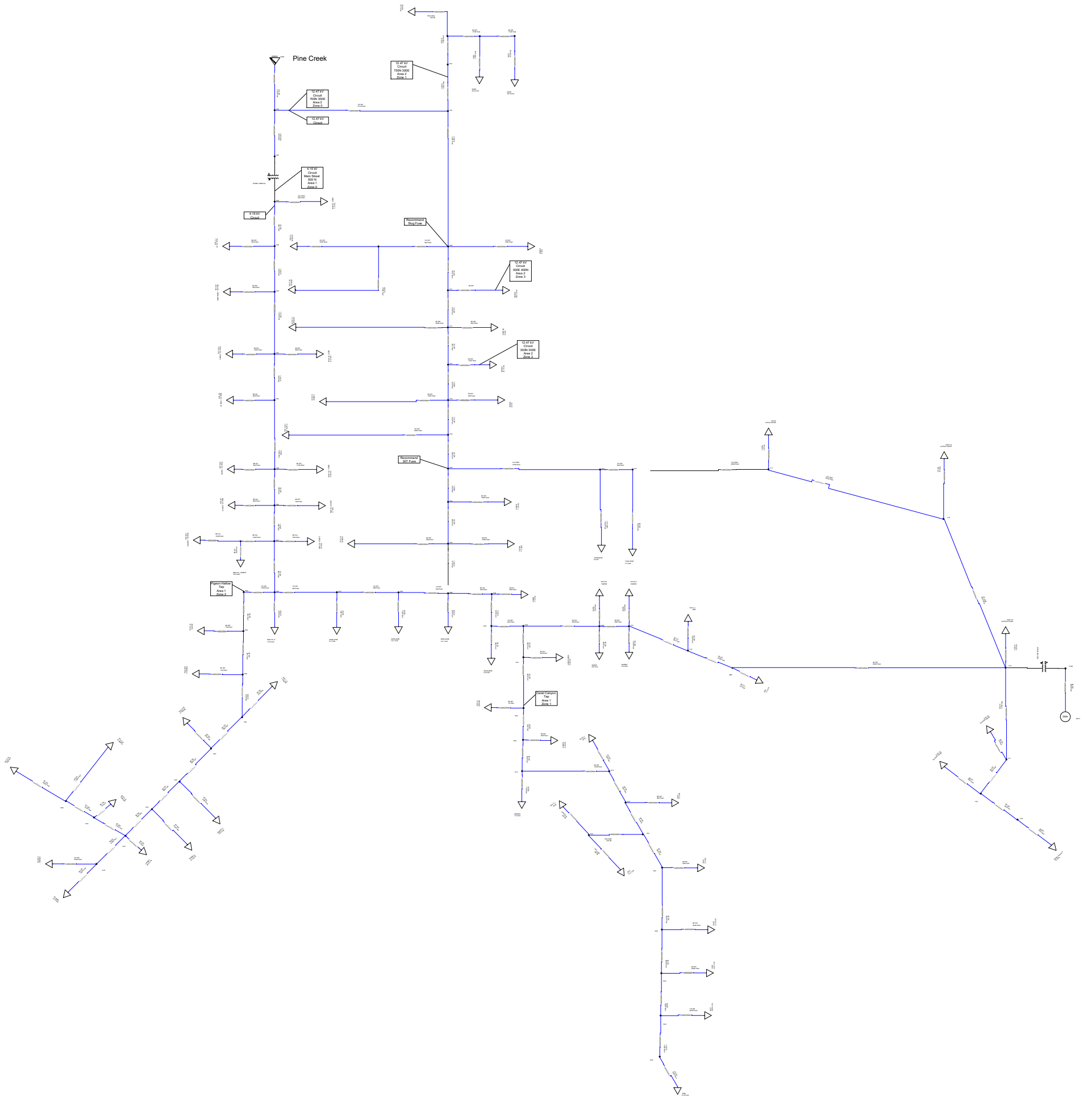
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## APPENDIX 4 – MODEL INPUT DATA

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Project No. : Page : 1  
Project Name: Spring City Date : 06/17/2020  
Title : Time : 01:24:54 pm  
Drawing No. : Company : ICPE  
Revision No.: Engineer: MTF  
Jobfile Name: Spring City 2020 Input Data Check by:  
Scenario : 1 : Date :

-----  
Spring City System Study

-----  
System Summary  
-----

Base MVA : 100.000  
System Frequency(Hz) : 60  
# of Total Buses : 149  
# of Active Buses : 148  
# of Total Branches : 147  
# of Active Sources : 2  
# of Active Motors : 0  
# of Active Shunts : 74  
# of Transformers : 2  
Reference Temperature(°C) : 20.0  
Impedance Displaying Temperature(°C) : 25.0

-----  
Calculation Options  
-----

Calculating Single Bus Fault with Fault Z = 0.00000 + j 0.00000 Ohms

Fault Phases:  
Phase A for Line-Ground Fault  
Phase B,C for Line-Line or Line-Line-Ground Fault

Classical Calculation:  
Complex Z for X/R and Fault Current

Transformer Phase Shift is considered.  
Generator and Motor X/R is constant.  
Base Voltages : Adjusted by Tap/Turn Ratio  
Prefault Voltages : Use System Voltages

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Input Data Report  
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