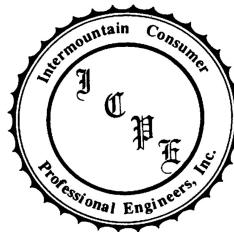


Heber Light & Power

12.47 kV Load Flow Study

March 2019



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SYSTEM STUDY

System Study Overview

This electrical system study report addresses study methods and results of load flow analysis of the Heber Light & Power 12.47 kV distribution system. The 46 kV portion of the system is not covered in this report, but was studied as part of a separate report. Substations include Midway Substation, Provo River Substation, Heber Substation, Cloyes Substation, Jailhouse Substation and College Substation. Generators are located at Snake Creek Hydro, Lake Creek Hydro, Jordanelle Hydro and the Heber Plant. A total of seventeen circuits were modeled.

The primary goal of the load flow was to study system loading including during N-1 outage conditions to help the Company to plan for future growth requirements including substation upgrades and 12.47 kV line upgrades. Recommendations for system improvements have been provided.

System Models and Assumptions

To perform load flow analysis a system computer model was developed. Model development is discussed in the System Modeling section of this report. System model development and analysis were performed on Paladin DesignBase 4.0 software.

System modeling data was developed from Heber Light & Power provided system data. Circuit models are based on the assumption that provided circuit maps and data (conductor sizes, circuit configurations, line lengths, etc.) are reflective of actual field conditions.

Summary

The system load flow provides insight on substation transformer loading, line loading, and system voltage drop. The study includes analyzing N-1 outage conditions. An N-1 outage condition is the loss of a major system component such as a section of 12.47 kV line. Results and recommendations are discussed in the System Load Flow Analysis and Results section of this report.

SYSTEM LOAD FLOW ANALYSIS AND RESULTS

System load flow studies were performed for years 2018 and 2022. Overall system load projections are based on load projections done in 2018 by Utility Financial Solutions LLC. The load flow studies were utilized to assess line and transformer loading conditions and system voltage conditions. Tables shown below contain projected Heber Light & Power system load and projected circuit loads for years that were analyzed. The 2018 circuit and transformer load levels shown below are based on current circuit configuration.

Heber Light & Power—Projected System Peak Load				
Year	Heber Light & Power Load			
	MW	MVA		
2018	44.63 MW		46.0 MVA	
2022	48.86 WM		49.4 MVA	

Substation Transformer	Recloser	2018		2022	
		Amps	kVA	Amps	kVA
Midway Transformer 10/12.5/14 MVA 46 kV – 12.47 kV	MW101	87	1,885	91	1,966
	MW102	215	4,644	219	4,726
	MW104	38	827	42	913
	Sub Total	341	7,355	352	7,605
Provo River 5 MVA (with fans) 46 kV – 12.47 kV	PR201	233	5,036	237	5,117
	PR202	26	556	30	638
	Sub Total	259	5,591	266	5,755
	HB302	275	5,930	298	6,435
Heber T1 12/16/20 MVA 46 kV – 12.47 kV	HB303	114	2,462	137	2,957
	Sub Total	389	8,392	435	9,392
	HB304	178	3,848	201	4,343
	HB305	79	1,710	83	1,792
Heber T2 12/16/20 MVA 46 kV – 12.47 kV	Sub Total	257	5,558	284	6,135
	CL401	34	737	38	829
	CL402	108	2,338	112	2,422
	CL403	-	-	-	-
Cloyes 7.5/9.375 MVA 46 kV – 4.16 kV	Sub Total	142	3,075	151	3,251
	JH501	172	3,706	175	3,787
	JH503	44	954	48	1,036
	JH505	6	134	30	649
Jailhouse T1 10/12.5/14 MVA 46 kV – 12.47 kV	Sub Total	216	4,659	223	4,823
	JH502	382	8,252	405	8,752
	JH504	145	3,136	170	3,663
	JH506	6	124	30	649
Jailhouse T2 12/16/20 MVA 46 kV – 12.47 kV	Sub Total	527	11,389	575	12,415
	CO Circuits	-	-	-	-
	-	-	-	-	-
	Sub Total	-	-	-	-
Total	Amps	2,131	-	2,286	-
	kVA	-	46,019	-	49,376

The following table shows approximate transformer loading. The College Substation transformers are not included in the Total City numbers due to College Substation currently being out of service. When College Substation will be put back into service is unknown at this time. Loading on most transformers is at an acceptable level. It is not anticipated that new substations will be required over the next five years.

The Provo River transformer is out of capacity according to nameplate rating during peak load when Snake Creek Hydro generation is off. Transformer fans have been added that are not reflected on the nameplate which increases the transformer capacity, but it is unknown by how much. The Provo River transformer will need to be upgraded to a larger transformer. Until this can happen, Heber Light & Power may be able to decrease the load on the Provo River transformer by moving load to Midway circuits. This would only be a temporary solution.

Substation Transformer	2018		2022	
	%Base	%Total	%Base	%Total
Midway Transformer 10/12.5/14 MVA 46 kV – 12.47 kV	74%	53%	76%	54%
Provo River 5 MVA (with fans) 46 kV – 12.47 kV	112%	112%	115%	115%
Heber T1 12/16/20 MVA 46 kV – 12.47 kV	70%	42%	78%	47%
Heber T2 12/16/20 MVA 46 kV – 12.47 kV	46%	28%	51%	31%
Cloyes 7.5 MVA 46 kV – 4.16 kV	41%	33%	43%	35%
Jailhouse T1 10 MVA 46 kV – 12.47 kV	47%	33%	48%	34%
Jailhouse T2 10/12.5/14 MVA 46 kV – 12.47 kV	95%	57%	103%	62%
College (2) 12/16/120 MVA 46 kV – 12.47 kV	0%	0%	0%	0%
Total City (Not Counting College)	70%	47%	75%	50%

Proposed Improvements

Proposed system improvements are summarized by year in the following tables. A brief description and explanation of each improvement are given. A system map showing proposed improvements is in the appendix. For a more detailed explanation of load flow results see the Load Flow – Outage Cases section of the report.

Proposed System Improvements		
Proposed Improvement	Reason/Explanation	Approximate Cost
1. Install a larger 12/16/20 MVA transformer at Provo River substation.	<p>Provo River transformer is out of capacity according to nameplate rating during peak load when Snake Creek Hydro generation is off. Transformer fans have been added that are not reflected on the nameplate which increases the transformer capacity, but it is unknown by how much.</p> <p>During an outage of Midway transformer the Provo River transformer needs to have more capacity in order to be able to restore power to MW101 and MW102 circuits.</p> <p>It is proposed to replace the transformer with a larger 12/16/20 MVA transformer.</p>	\$2,717,516
2. Rebuild part of PR201 circuit with 477 ACSR conductor to improve capacity and help reduce voltage drop.	<p>During an outage of Midway transformer upgrades to PR201 circuit are needed to be able to restore power to MW101 and MW102 circuits. This upgrade will improve capacity and help reduce voltage drop.</p> <p>It is proposed to upgrade PR201 from Provo River substation to approximately 600 East Main Street. Existing conductor is 4/0 ACSR and it is proposed to upgrade to 477 ACSR.</p>	\$126,679
3. Rebuild part of PR201 circuit with 477 ACSR conductor to improve capacity and help reduce voltage drop.	<p>When Snake Creek Hydro generation is off, part of the PR201 main truck line is overloaded during peak load.</p> <p>During an outage of Midway transformer upgrades to PR201 circuit are needed to be able to restore power to MW101 and MW102 circuits. This upgrade will improve capacity and help reduce voltage drop.</p> <p>It is proposed to upgrade PR201 along River Road from Main Street to Burgi Lane. Existing conductor is #2 ACSR and it is proposed to upgrade to 477 ACSR.</p>	\$184,357
4. Rebuild part of CL402 circuit with 477 ACSR conductor to improve capacity and help reduce voltage drop.	<p>During an outage of Midway transformer upgrades to circuit CL402 are needed so that circuit CL402 can be used to restore power to circuit MW104.</p> <p>During an outage of Cloyes transformer upgrades to circuit CL402 are needed so that circuit HB303 can be used to restore power to circuit CL402.</p> <p>It is proposed to upgrade CL402 from Cloyes substation to Tate Lane Hwy 113, from 1900 South Casperville Road to 2400 South 2650 West and from 600 West 800 South to 600 West 1000 South. Existing conductor is #2 ACSR and it is proposed to upgrade to 477 ACSR.</p>	\$544,036

Proposed System Improvements		
Proposed Improvement	Reason/Explanation	Approximate Cost
5. Rebuild part of MW101 and MW102 circuits with 477 ACSR conductor to improve capacity and help reduce voltage drop.	<p>During an outage of Provo River transformer upgrades to circuit MW101 are needed so that circuit MW101 can be used to restore power to circuit PR201.</p> <p>It is proposed to upgrade MW101 from Midway substation to Main Street Center Street. Existing conductor is 4/0 ACSR and it is proposed to upgrade to 477 ACSR.</p> <p>It is proposed to upgrade MW101 and MW102 circuits from 220 W Main Street to 300 East Main Street. Existing conductor is 4/0 ACSR and it is proposed to upgrade to 477 ACSR.</p> <p>It is proposed to upgrade MW102 circuit from 300 W Main Street to 200 N 300 W. Existing conductor is 4/0 ACSR and it is proposed to upgrade to 477 ACSR.</p>	\$348,874
6. Install line voltage regulators on JH502 circuit	<p>Model shows voltage issues at the end of JH502 circuit during peak load (4% drop).</p> <p>Propose to install line voltage regulators on JH502 at approximately 8000 East Lake Creek Road.</p>	\$94,600
7. Rebuild part of HB305 circuit with 477 ACSR conductor to improve capacity.	<p>During an outage of Heber T1 transformer upgrades to circuit HB305 are needed so that circuit HB305 can be used to restore power to circuit HB303.</p> <p>It is proposed to upgrade HB305 circuit from 600 W 200 S to 600 W 300 S. Existing conductor is #2 ACSR and it is proposed to upgrade to 477 ACSR.</p>	\$23,058
8. Rebuild part of JH501 circuit with 1100 kcmil underground cable to improve capacity.	<p>During an outage of Jailhouse T2 transformer upgrades to circuit JH501 are needed so that circuit JH501 can be used to restore power to circuit JH504.</p> <p>It is proposed to upgrade JH501 circuit from 1500 S Providence Drive to 450 E 1500 S. Existing conductor is 4/0 underground cable and it is proposed to upgrade to 1100 kcmil underground cable.</p>	\$72,245
9. Rebuild part of JH502 and JH503 circuits with 1100 kcmil underground cable to improve capacity.	<p>During an outage of Jailhouse T2 transformer upgrades to circuits JH502 and JH503 are needed so that circuit JH503 can be used to restore power to half of circuit JH502. Power to the other half of JH502 circuit can be restored by circuit HB304.</p> <p>It is proposed to upgrade JH502 and JH503 circuits from 800 South Old Mill Drive to 2200 South Old Mill Drive Mill Drive. Existing conductor is #2 underground cable and it is proposed to upgrade to 1100 kcmil underground cable.</p>	\$299,189
	Total	\$4,410,554

Potential New Substation

This study covers the next five years. Looking past that another 5 years shows that it may be necessary to add an additional substation to the east of Jailhouse substation within the next 10 years. The need for the additional new substation is beyond the five years considered in this study so specific details of what would be required have not been determined. It should be noted that locations for a potential new substation and 46 kV line routes to feed it should be considered well in advance of its need. This will allow Heber time to purchase substation land, obtain necessary line easements, and plan financially. Also substation and transmission line projects can take significant time from start to finish due to material lead times and permitting requirements.

System Power Factor

Heber Light & Power power factor for each circuit is shown below. Keeping a high power factor helps support voltage during system peak loading and during outage conditions. The need for power factor correction becomes more important as transformer and line loading levels increase. Improving power factor also reduces system losses. Heber Light & Power power factor is currently at acceptable levels.

Substation Transformer	Recloser	Power Factor
Midway Transformer	MW101	0.98
	MW102	0.97
	MW104	0.93
Provo River	PR201	0.98
	PR202	0.98
Heber T1	HB302	0.74 (Assumed 0.95 without generation)
	HB303	0.95
Heber T2	HB304	0.99
	HB305	0.98
Cloyes	CL401	0.87
	CL402	0.95
	CL403	-
Jailhouse T1	JH501	0.98
	JH503	0.97
	JH505	Assumed 0.97
Jailhouse T2	JH502	0.96
	JH504	0.95
	JH506	Assumed 0.97
College	CO Circuits	-

Load Flow – Outage Cases

Loss of substation transformers and reclosers was considered. Load flows were ran with substation transformers taken out of service one at a time. Loads from the transformer that was out of service were transferred to adjacent transformers or substations. Doing this also covered the case of a failed recloser since similar load switching would be required. Loss of important distribution lines was also considered. In a few outage cases, it became apparent that system improvements were necessary. The table below lists the results and discusses required system improvements. Results are based on projected peak (summer) load levels. During winter load levels the outages would not have as great of an effect.

Failures of a 46 kV transmission line or loss of Heber Light & Power generation was considered in a separate report.

The Comments/Results column of the following tables lists ways to restore load during a line or transformer outage. It also discusses proposed solutions if the outage creates problems. In some cases more than one option of restoring load could be possible. Heber may have developed load transfer schemes that differ from the ones shown.

2018 Outage Cases	Comments/Results
Midway Outage Conditions	<p>Midway transformer out of service:</p> <p>MW104 circuit can be picked up by CL402 circuit. Line is nearing ampacity. There are voltage issues at the end of the line (almost 6% drop).</p> <p>Power cannot be restored to MW101 and MW102 circuits. MW101 and MW102 connect to PR201, but Provo River transformer and PR201 lines would be overloaded. MW101 connects to CL402, but CL402 lines would be overloaded.</p>
Midway Proposed Solutions	<p>It is proposed to replace the Provo River transformer with a larger 12/16/20 MVA transformer.</p> <p>It is proposed to upgrade PR201 circuit from Provo River substation to approximately 600 East Main Street. Existing conductor is 4/0 ACSR and it is proposed to upgrade to 477 ACSR.</p> <p>It is proposed to upgrade PR201 circuit along River Road from Main Street to Burgi Lane. Existing conductor is #2 ACSR and it is proposed to upgrade to 477 ACSR.</p> <p>It is proposed to upgrade CL402 from Cloyes substation to Tate Lane Hwy 113. Existing conductor is #2 ACSR and it is proposed to upgrade to 477 ACSR.</p> <p>It is proposed to upgrade MW101 and MW102 circuits from 220 West Main Street to 300 East Main Street. Existing conductor is 4/0 ACSR and it is proposed to upgrade to 477 ACSR.</p> <p>It is proposed to upgrade MW102 circuit from 300 West Main Street to 200 North 300 West. Existing conductor is 4/0 ACSR and it is proposed to upgrade to 477 ACSR.</p>

2018 Outage Cases	Comments/Results
Provo River Outage Conditions	<p>Provo River transformer is out of capacity according to nameplate rating during peak load when Snake Creek Hydro generation is off. Transformer fans have been added that are not reflected on the nameplate which increases the transformer capacity, but it is unknown by how much.</p> <p>When Snake Creek Hydro generation is off, part of the PR201 main truck line is overloaded during peak load.</p> <p>Model shows voltage issues at the end of PR201 circuit (almost 7% drop) when Snake Creek generation is off. When generation is on the voltage is better, but there are still issues.</p> <p>Provo River transformer out of service:</p> <p>PR201 circuit can be picked up by MW101 circuit. Line is nearing ampacity. There are voltage issues at the end of the line (almost 7% drop).</p> <p>PR201 also connects to MW102, but it would overload lines and have voltage issues (over 5%).</p> <p>PR202 circuit can be picked up by MW101 circuit.</p>
Provo River Proposed Solutions	<p>Provo River transformer will need to be replaced. It is proposed to replace the transformer with a larger 12/16/20 MVA transformer.</p> <p>Until the transformer can be replaced, Heber Light & Power may be able to move some load to Midway circuits to help reduce the load on the Provo River transformer. This is only a temporary solution.</p> <p>It is proposed to upgrade PR201 circuit along River Road from Main Street to Burgi Lane. Existing conductor is #2 ACSR and it is proposed to upgrade to 477 ACSR.</p> <p>It is proposed to upgrade MW101 circuit from Midway substation to 300 East Main Street. Existing conductor is 4/0 ACSR and it is proposed to upgrade to 477 ACSR.</p>
Heber T1 Outage Conditions	<p>Heber T1 transformer out of service:</p> <p>HB302 circuit can be picked up by HB304 circuit.</p> <p>HB303 circuit can be picked up by HB305 circuit. One line section of #2 ACSR is approximately at capacity. By 2022 it will be over capacity.</p>
Heber T1 Proposed Solutions	<p>It is proposed to upgrade HB305 circuit from 600 West 200 South to 600 West 300 South. Existing conductor is #2 ACSR and it is proposed to upgrade to 477 ACSR.</p>
Heber T2 Outage Conditions	<p>Heber T2 transformer out of service:</p> <p>HB304 circuit can be picked up by HB303.</p> <p>HB305 circuit can be picked up by CL403 circuit.</p>
Heber T2 Proposed Solutions	None

2018 Outage Cases	Comments/Results
Cloyes Outage Conditions	<p>Cloyes transformer out of service:</p> <p>CL401 circuit can be picked up by HB304.</p> <p>CL402 circuit can be picked up by HB303. There are voltage issues at the end of the line (5% drop).</p>
Cloyes Proposed Solutions	<p>It is proposed to upgrade CL402 circuit from Cloyes substation to 2400 South 2650 West. Existing conductor is #2 ACSR and it is proposed to upgrade to 477 ACSR.</p> <p>It is proposed to upgrade CL402 circuit from 600 West 800 South to 600 West 1000 South. Existing conductor is #2 ACSR and it is proposed to upgrade to 477 ACSR.</p>
Jailhouse T1 Outage Conditions	<p>Jailhouse T1 transformer out of service:</p> <p>JH501 circuit can be picked up by HB303.</p> <p>JH503 circuit can be picked up by CL401.</p>
Jailhouse T1 Proposed Solutions	None
Jailhouse T2 Outage Conditions	<p>Model shows voltage issues at the end of JH502 circuit during peak load (4% drop).</p> <p>JH502 load is approximately 382 amps when Lake Creek generation is off. Consider moving some load to another circuit. Possibly some load could be moved to a new JH505 or JH506 circuit. At some point in the future a new substation to the west of Jailhouse will probably be required. Much of the area currently fed by JH502 could then be fed from the new substation.</p> <p>About half of the JH502 circuit can only be fed from one direction. Loss of a line in that part of the circuit would result in loss of power that cannot be quickly restored.</p> <p>Jailhouse T2 transformer out of service:</p> <p>The top half of JH502 circuit can be picked up by HB304. The bottom half can be picked up by JH503. No single circuit can pick up the entire JH502 circuit. Part of JH502 and JH503 circuits will be overloaded. The bottom half of JH502 circuit picked up by JH503 circuit has voltage issues unless line voltage regulators are installed.</p> <p>JH504 circuit can be picked up by JH501. A portion of the line is at ampacity and will be overloaded by 2022.</p>
Jailhouse T2 Proposed Solutions	<p>Propose to install line voltage regulators on JH502 at approximately 8000 East Lake Creek Road.</p> <p>It is proposed to upgrade JH502 and JH503 circuits from 800 South Old Mill Drive to 2200 South Old Mill Drive. Existing conductor is #2 underground cable and it is proposed to upgrade to 1100 kcmil underground cable.</p> <p>It is proposed to upgrade JH501 circuit from 1500 South Providence Drive to 450 East 1500 South. Existing conductor is 4/0 underground cable and it is proposed to upgrade to 1100 kcmil underground cable.</p>
College Outage Conditions	College Substation is currently not in service. In the future a portion of HB302 circuit may be able to be fed from College substation.

2018 Outage Cases	Comments/Results
College Proposed Solutions	None

2022 Outage Cases (After Upgrades)	Comments/Results
Midway Outage Conditions	Midway transformer out of service: MW104 circuit can be picked up by CL402 circuit. MW101 and MW102 circuits can be picked up by PR201.
Midway Proposed Solutions	None
Provo River Outage Conditions	Provo River transformer out of service: PR201 circuit can be picked up by MW101 circuit. PR202 circuit can be picked up by MW101 circuit.
Provo River Proposed Solutions	None
Heber T1 Outage Conditions	Heber T1 transformer out of service: HB302 circuit can be picked up by HB304 circuit. HB303 circuit can be picked up by HB305 circuit.
Heber T1 Proposed Solutions	None
Heber T2 Outage Conditions	Heber T2 transformer out of service: HB304 circuit can be picked up by HB303. HB305 circuit can be picked up by CL403 circuit.
Heber T2 Proposed Solutions	None
Cloyes Outage Conditions	Cloyes transformer out of service: CL401 circuit can be picked up by HB304. CL402 circuit can be picked up by HB303.
Cloyes Proposed Solutions	None
Jailhouse T1 Outage Conditions	Jailhouse T1 transformer out of service: JH501 circuit can be picked up by HB303. JH503 circuit can be picked up by CL401. It is assumed that JH505 circuit will tie into the rest of the system and be able to be backed up, but details are not known at this time.
Jailhouse T1 Proposed Solutions	None

2022 Outage Cases (After Upgrades)	Comments/Results
Jailhouse T2 Outage Conditions	<p>JH502 load is approximately 405 amps when Lake Creek generation is off. Consider moving some load to another circuit. Possibly some load could be moved to a new JH505 or JH506 circuit. At some point in the future a new substation to the west of Jailhouse will probably be required. Much of the area currently fed by JH502 could then be fed from the new substation.</p> <p>About half of the JH502 circuit can only be fed from one direction. Loss of a line in that part of the circuit would result in loss of power that cannot be quickly restored.</p> <p>Jailhouse T2 transformer out of service:</p> <p>The top half of JH502 circuit can be picked up by HB304. The bottom half can be picked up by JH503. No single circuit can pick up the entire JH502 circuit.</p> <p>JH504 circuit can be picked up by JH501.</p> <p>It is assumed that JH506 circuit will tie into the rest of the system and be able to be backed up, but details are not known at this time.</p>
Jailhouse T2 Proposed Solutions	None
College Outage Conditions	College Substation is currently not in service. In the future a portion of HB302 circuit may be able to be fed from College substation.
College Proposed Solutions	None

SYSTEM MODELING

To perform a comprehensive load flow, fault analysis, and protective device coordination study, system computer modeling is necessary. System modeling data was developed from Heber Light & Power provided system data. The model is based on the assumption that provided transformer data, generator data, system maps and data (conductor sizes, system configurations, line lengths, etc.) are reflective of actual field conditions.

Overhead and underground distribution circuit impedance values as developed for this study are presented in tables shown below. Transformer and generator data is also shown below. Detailed model input data is shown in the appendix.

Heber Light & Power - 12.47 kV Overhead						
Conductor Size	Ampacity (Amps)	Z(+) Ohms/1000'		Z(0) Ohms/1000'		1/2 Bpu mmho/1000'
		R	X	R	X	
#8 CU	90	0.71972	0.15564	0.83921	0.56057	0.00000
#6 CU	130	0.41860	0.14619	0.55504	0.50731	0.00000
#4 CU	180	0.26297	0.16106	0.39011	0.47674	0.00000
#4	140	0.42430	0.14280	0.56133	0.50536	0.00000
#2 CU	230	0.16695	0.13922	0.28220	0.41123	0.00000
#2	180	0.26712	0.13784	0.40331	0.45241	0.00000
4/0	340	0.08369	0.12443	0.16195	0.35568	0.00000
477 AAC	646	0.03756	0.15419	0.07778	0.39644	0.00000

Heber Light & Power - 12.47 kV Underground						
Conductor Size	Ampacity (Amps)	Z(+) Ohms/1000'		Z(0) Ohms/1000'		1/2 Bpu mmho/1000'
		R	X	R	X	
#2	130	0.35100	0.05700	0.66900	0.22000	0.00841
4/0	255	0.11000	0.04700	0.32400	0.09600	0.01271
500	415	0.04700	0.04400	0.14900	0.03700	0.01634
750	510	0.03010	0.04090	0.19400	0.06000	0.02541
1000	585	0.02270	0.03700	0.15000	0.04000	0.02600
1100	620	0.02280	0.03880	0.11400	0.03000	0.02782

Heber Light & Power – Substation Transformer Data			
Transformer	MVA Rating	Voltage Rating	%Z @ Nominal
Midway	10/12.5/14 MVA	46-12.47 kV Delta-Gnd-Y	Z1 = 7.91%
Provo River	5 MVA (with fans)	46-12.47 kV Delta-Gnd-Y	Z1 = 6.55%
Heber T1	12/16/20 MVA	46-12.47 kV Delta-Gnd-Y	Z1 = 7.7%
Heber T2	12/16/20 MVA	46-12.47 kV Delta-Gnd-Y	Z1 = 7.05%
Cloyes	7.5/9.375 MVA	46-12.47 kV Delta-Gnd-Y	Z1 = 7.7%
Jailhouse T1	10/12.5/14 MVA	46-12.47 kV Delta-Gnd-Y	Z1 = 8.15%
Jailhouse T2	12/16/20 MVA	46-12.47 kV Delta-Gnd-Y	Z1 = 8.12%
College T1	12/16/20 MVA	46-12.47 kV Delta-Gnd-Y	Z1 = 7.67%
College T2	12/16/20 MVA	46-12.47 kV Delta-Gnd-Y	Z1 = 7.67%

Generator	Generator Rating	System Connection
Snake Creek Hydro	1.98 MW	To circuit PR201 at 12.47 kV
Lake Creek Hydro	1.5 MW	To Circuit JH502 at 12.47 kV
Jordanelle Hydro	13 MW	To Circuit HB302 at 12.47 kV
Heber Plant	13.756 MW	To 46 kV System

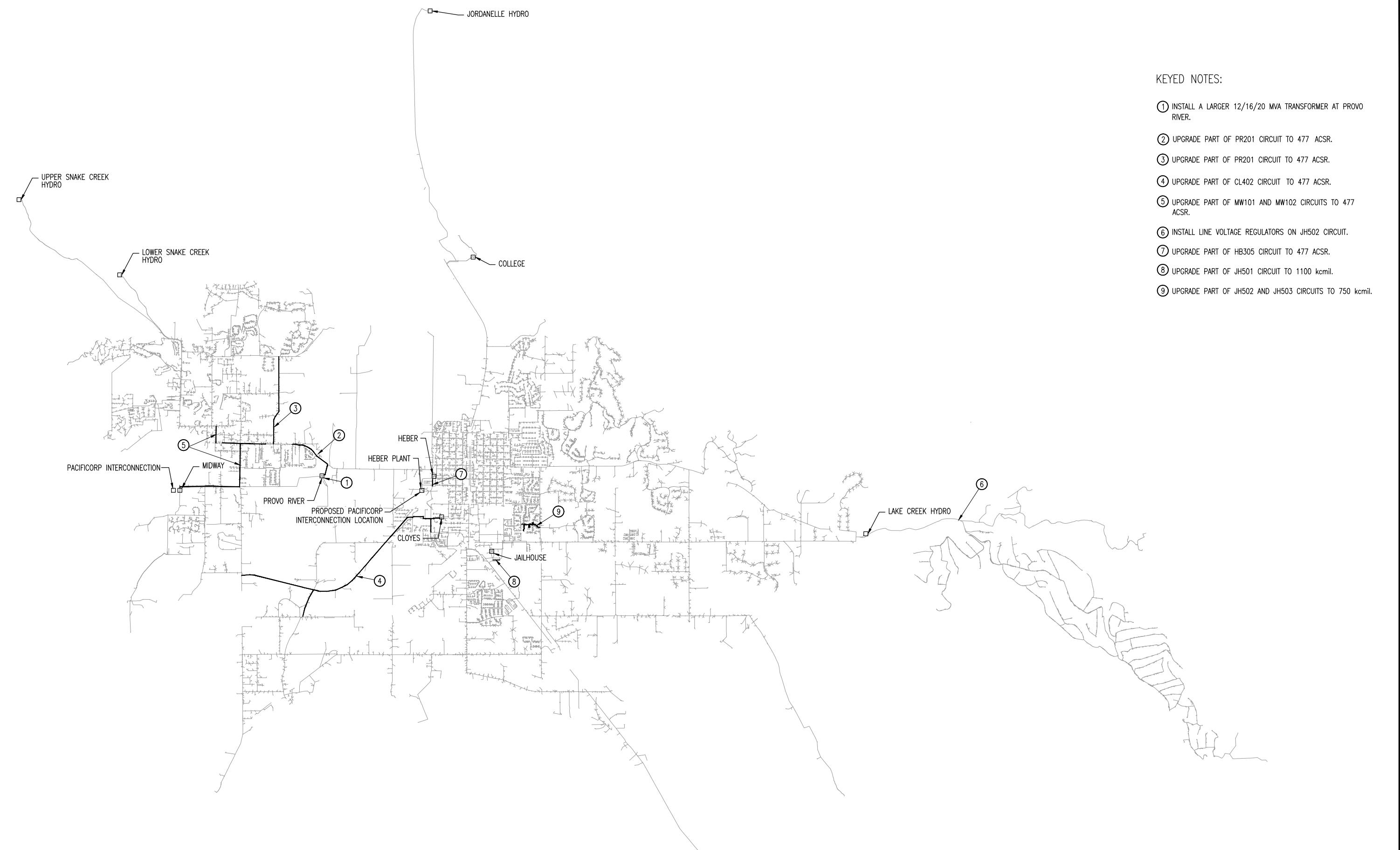
APPENDICES

1. System Map
2. Cost Estimates
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APPENDIX 1 – SYSTEM MAP

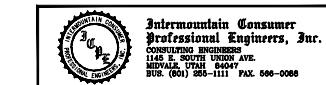


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KEYED NOTES:

- ① INSTALL A LARGER 12/16/20 MVA TRANSFORMER AT PROVO RIVER.
- ② UPGRADE PART OF PR201 CIRCUIT TO 477 ACSR.
- ③ UPGRADE PART OF PR201 CIRCUIT TO 477 ACSR.
- ④ UPGRADE PART OF CL402 CIRCUIT TO 477 ACSR.
- ⑤ UPGRADE PART OF MW101 AND MW102 CIRCUITS TO 477 ACSR.
- ⑥ INSTALL LINE VOLTAGE REGULATORS ON JH502 CIRCUIT.
- ⑦ UPGRADE PART OF HB305 CIRCUIT TO 477 ACSR.
- ⑧ UPGRADE PART OF JH501 CIRCUIT TO 1100 kcmil.
- ⑨ UPGRADE PART OF JH502 AND JH503 CIRCUITS TO 750 kcmil.

Title: **HEBER LIGHT & POWER**
ELECTRICAL
12.47kV SYSTEM STUDY
PROPOSED IMPROVEMENTS

No.	A PROPOSED IMPROVEMENTS	RF	09/13/18	CBM	Dwn.	RF	Date 09/13/18	Engr.	MTF	Date 09/13/18	Drawing No.	Rev.
	Description	By	Date	App.	Chk.	MTF	Date 09/13/18	App.	CBM	Date 09/13/18	E110	A
REVISIONS											Proj. No.: 034-031	Scale: NONE

APPENDIX 2 – COST ESTIMATES

COST ESTIMATE							DATE PREPARED: 1/31/2019
PROJECT: Provo River Substation - Map ID 1							BASIS FOR ESTIMATE
DESCRIPTION:							CODE A (Schematic Design)
ENGINEER : ICPE							CODE B (Preliminary Design)
							CODE C (Final Design) 100%
							OTHER--Conceptual Configuration
DESCRIPTION	ESTIMATOR: Mac Fillingim			CHECKED: Craig Michaelis			
	QUANTITY	Avg. Labor Rate:	\$100.00	MATERIAL (\$)			
Major Equipment	NO. UNITS	UNIT MEAS	LABOR			PER UNIT	TOTAL MATERIAL
			PER UNIT	TOTAL Man Hr.	TOTAL LABOR (\$)		TOTAL ESTIMATE
46 kV - 12.47kV Transformer 20/26.67/33.33 MVA w/LTC	1	EA	80	80.00	\$8,000.00	\$700,000.00	\$708,000.00
46 kV Breaker	1	EA	45	45.00	\$4,500.00	\$55,500.00	\$60,000.00
46 kV Group Operated Switch	1	EA	60	60.00	\$6,000.00	\$12,000.00	\$18,000.00
46 kV Disconnect Switch	6	EA	12	72.00	\$7,200.00	\$2,500.00	\$15,000.00
15 kV Reclosers	3	EA	32	96.00	\$9,600.00	\$25,000.00	\$84,600.00
15 kV Group Operated Switch	1	EA	40	40.00	\$4,000.00	\$7,500.00	\$11,500.00
						Total	\$904,300.00
Metering / Relaying / SCADA							
15 kV Metering (PTs & CTs)	1	LS	40	40.00	\$4,000.00	\$18,000.00	\$22,000.00
Relay Panel - Transformer Diff (Installation & Wire Terminations)	1	LS	80	80.00	\$8,000.00	\$35,000.00	\$43,000.00
Relay Panel - Recloser Control (Installation & Wire Terminations)	2	LS	100	200.00	\$20,000.00	\$30,000.00	\$80,000.00
Relay Panel - Meter Panel (Installation & Wire Terminations)	1	LS	40	40.00	\$4,000.00	\$20,000.00	\$24,000.00
SCADA Equipment & Programming	1	LS	200	200.00	\$20,000.00	\$75,000.00	\$95,000.00
						Total	\$264,000.00
Steel Structures							
46 kV Deadend Structure	1	EA	40.00	40.00	\$4,000.00	\$29,700.00	\$29,700.00
46 kV Switch Structure	1	EA	16.00	16.00	\$1,600.00	\$12,375.00	\$13,975.00
15 kV Metering Structure	1	EA	16.00	16.00	\$1,600.00	\$8,250.00	\$9,850.00
15 kV Switch Structure	1	EA	16.00	16.00	\$1,600.00	\$4,193.75	\$5,793.75
15 kV Recloser Structure	3	EA	16.00	48.00	\$4,800.00	\$4,950.00	\$14,850.00
Static Wire Pole	1	EA	8.00	8.00	\$800.00	\$7,975.00	\$8,775.00
Switch Platform	2	EA	4.00	8.00	\$800.00	\$1,100.00	\$2,200.00
						Total	\$94,743.75
Concrete Foundations							
46 kV Deadend Structure	2	EA	16	32.00	\$3,200.00	\$6,270.00	\$12,540.00
15 kV Switch Structure	2	EA	8	16.00	\$1,600.00	\$2,640.00	\$5,280.00
15 kV Recloser Structure	3	EA	8	24.00	\$2,400.00	\$2,860.00	\$10,980.00
Static Wire Pole	1	EA	4	4.00	\$400.00	\$4,730.00	\$5,130.00
Transformer Containment	1	EA	80	80.00	\$8,000.00	\$99,400.00	\$107,400.00
46 kV Breaker Pad	1	EA	8	8.00	\$800.00	\$4,200.00	\$5,000.00
Control Building	1	EA	24	24.00	\$2,400.00	\$14,000.00	\$16,400.00
						Total	\$167,530.00
Control Building							
Prefabricated Control Building	1	EA	80	80.00	\$8,000.00	\$67,200.00	\$67,200.00
Control Building Equipment	1	LS	16	16.00	\$1,600.00	\$12,500.00	\$14,100.00
125 VDC Battery System	1	EA	32	32.00	\$3,200.00	\$18,000.00	\$21,200.00
Control Building AC Systems	1	LS	80	80.00	\$8,000.00	\$11,750.00	\$19,750.00
						Total	\$130,250.00
Substation Bus & Material							
46 kV Bus & Fittings	1	LS	80	80.00	\$8,000.00	\$25,000.00	\$33,000.00
15 kV Bus & Fittings	1	LS	240	240.00	\$24,000.00	\$50,000.00	\$74,000.00
Recloser Bypass Switches	18	EA	4	72.00	\$7,200.00	\$800.00	\$14,400.00
Recloser Fused Switches	9	EA	4	36.00	\$3,600.00	\$2,100.00	\$18,900.00
Station Lightning Protection	1	LS	32	32.00	\$3,200.00	\$2,500.00	\$2,500.00
46 kV Lightning Arresters	3	EA	4	12.00	\$1,200.00	\$1,500.00	\$4,500.00
9 kV Lightning Arresters	9	EA	1	9.00	\$900.00	\$500.00	\$4,500.00
						Total	\$167,900.00
Substation Conduit & Cable							
600 Volt Conduit & Cable	1	LS	240	240.00	\$24,000.00	\$32,500.00	\$56,500.00
15 kV 6" Conduit (15 kV cable not included)	1	LS	120	160.00	\$16,000.00	\$17,750.00	\$33,750.00
Station Service (Transformer, Disconnect, Conduit/Cable)	1	LS	60	60.00	\$6,000.00	\$17,500.00	\$23,500.00
						Total	\$113,750.00
Substation Grounding							
Station Ground Grid	1	LS	320	320.00	\$32,000.00	\$50,000.00	\$82,000.00
						Total	\$82,000.00
Substation Site Work							
Site Grubbing & Fill	1	LS	80	80.00	\$8,000.00	\$25,000.00	\$33,000.00
Site Surface gravel	1	LS	80	80.00	\$8,000.00	\$15,000.00	\$23,000.00
Site Roads	1	LS	40	40.00	\$4,000.00	\$12,000.00	\$16,000.00
Substation Fence (Chain Link)	1	LS	80	80.00	\$8,000.00	\$30,000.00	\$38,000.00
Substation Land	0	LS	0	0.00	\$0.00	\$0.00	\$0.00
						Total	\$110,000.00
Demolition							
Demolition and Removal of existing equipment	1	LS	450	450.00	\$45,000.00	\$0.00	\$0.00
						Total	\$45,000.00
Miscellaneous							
Contractor Mobilization	1	LS	0	0.00	\$0.00	\$10,000.00	\$10,000.00
Contractor Bonding	1	LS	0	0.00	\$0.00	\$7,000.00	\$7,000.00
Substation Testing & Commissioning	1	LS	0	0.00	\$0.00	\$55,000.00	\$55,000.00
						Total	\$72,000.00
	Subtotals			3,492.0	\$349,200.00	\$1,802,273.75	
Subtotal Labor + Material							\$2,151,473.75
Equipment				698.4		70	\$48,888.00
Contingency (10%)							\$220,036.18
Engineering							\$125,000.00
Tax (8%)							\$172,117.90
TOTAL ESTIMATE							\$2,717,515.83

Notes:

1 - Foundation estimate is based on the site having good soil conditions without water.

2 - Incoming 46 KV Line & 15KV Distribution Circuits are not included.

3 - Costs shown are as of 1/31/19. Market conditions are volatile and can have a significant impact on actual costs at the time on construction.

4 - Estimate assumes the substation land is owned by the City and initial site grading has been completed.

COST ESTIMATE					DATE PREPARED: 1/31/2019			
PROJECT: Upgrade PR201 Circuit - Map ID 2					BASIS OF ESTIMATE:			
DESCRIPTION: Cost Estimate Summary					CODE A - (Schematic Design) CODE B - (Preliminary Design) CODE C - (Final Design) 100%			
ENGINEER: Mac Fillingim					OTHER - Conceptual Configuration			
	ESTIMATOR: Mac Fillingim				CHECKED: Craig Michaelis			
DESCRIPTION	QUANTITY		LABOR		MATERIAL \$		TOTAL COST (\$)	
	QTY	UNIT	UNIT MH ^(5.)	TOTAL MH	TOTAL LABOR \$	PER UNIT		TOTAL MATERIAL
477 ACSR Dist Phase	12,645	Ft.	0.025	316.13	\$31,612.50	\$0.95	\$12,012.75	\$43,625.25
4/0 ACSR Dist Neut	4,215	Ft.	0.020	84.30	\$8,430.00	\$0.65	\$2,739.75	\$11,169.75
Set Out Exist Dist Cond	22	EA	5.0	110.00	\$11,000.00	\$0.00	\$0.00	\$11,000.00
Remove Exist Dist Cond	4,215	Ft.	0.020	84.30	\$8,430.00	\$0.00	\$0.00	\$8,430.00
Labor Rate			\$100					
Subtotal Labor Hours/\$				594.73	\$59,472.50			\$59,472.50
Subtotal Material								\$14,752.50
Sales and Use Tax (8%)								\$5,938.00
TOTAL ESTIMATED CONSTRUCTION COST								\$80,163.00
Engineering	1	LS						\$35,000.00
CONTINGENCY	10	%						\$11,516.30
TOTAL COST ESTIMATE								\$126,679

Notes & Comments:

- 1 - The above estimate is based on preliminary information.
- 2 - No engineering has been conducted.
- 3 - Costs shown are as of 1/31/19. Market conditions are volatile and can have a significant impact on actual costs at the time on construction.
- 4 - Right of way costs are not included in cost estimate.
- 5 - Cost estimate assumes that existing wood poles are adequate for new conductor and can be reused.

COST ESTIMATE					DATE PREPARED: 1/31/2019			
PROJECT: Upgrade PR201 Circuit - Map ID 3					BASIS OF ESTIMATE:			
DESCRIPTION: Cost Estimate Summary					CODE A - (Schematic Design) CODE B - (Preliminary Design) CODE C - (Final Design) 100%			
ENGINEER: Mac Fillingim					OTHER - Conceptual Configuration			
	ESTIMATOR: Mac Fillingim				CHECKED: Craig Michaelis			
DESCRIPTION	QUANTITY		LABOR		MATERIAL \$		TOTAL COST (\$)	
	QTY	UNIT	UNIT MH ^(5.)	TOTAL MH	TOTAL LABOR \$	PER UNIT		TOTAL MATERIAL
477 ACSR Dist Phase	20,955	Ft.	0.025	523.88	\$52,387.50	\$0.95	\$19,907.25	\$72,294.75
4/0 ACSR Dist Neut	6,985	Ft.	0.020	139.70	\$13,970.00	\$0.65	\$4,540.25	\$18,510.25
Set Out Exist Dist Cond	36	EA	5.0	180.00	\$18,000.00	\$0.00	\$0.00	\$18,000.00
Remove Exist Dist Cond	6,985	Ft.	0.020	139.70	\$13,970.00	\$0.00	\$0.00	\$13,970.00
Labor Rate			\$100					
Subtotal Labor Hours/\$				983.28	\$98,327.50			\$98,327.50
Subtotal Material								\$24,447.50
Sales and Use Tax (8%)								\$9,822.00
TOTAL ESTIMATED CONSTRUCTION COST								\$132,597.00
Engineering	1	LS						\$35,000.00
CONTINGENCY	10	%						\$16,759.70
TOTAL COST ESTIMATE								\$184,357

Notes & Comments:

- 1 - The above estimate is based on preliminary information.
- 2 - No engineering has been conducted.
- 3 - Costs shown are as of 1/31/19. Market conditions are volatile and can have a significant impact on actual costs at the time on construction.
- 4 - Right of way costs are not included in cost estimate.
- 5 - Cost estimate assumes that existing wood poles are adequate for new conductor and can be reused.

COST ESTIMATE					DATE PREPARED: 1/31/2019			
PROJECT: Upgrade CL402 Circuit - Map ID 4					BASIS OF ESTIMATE:			
DESCRIPTION: Cost Estimate Summary					CODE A - (Schematic Design) CODE B - (Preliminary Design) CODE C - (Final Design) 100%			
ENGINEER: Mac Fillingim					OTHER - Conceptual Configuration			
	ESTIMATOR: Mac Fillingim				CHECKED: Craig Michaelis			
DESCRIPTION	QUANTITY		LABOR		MATERIAL \$		TOTAL COST (\$)	
	QTY	UNIT	UNIT MH^(5.)	TOTAL MH	TOTAL LABOR \$	PER UNIT		TOTAL MATERIAL
477 ACSR Dist Phase	65,070	Ft.	0.025	1,626.75	\$162,675.00	\$0.95	\$61,816.50	\$224,491.50
4/0 ACSR Dist Neut	21,690	Ft.	0.020	433.80	\$43,380.00	\$0.65	\$14,098.50	\$57,478.50
Set Out Exist Dist Cond	80	EA	5.0	400.00	\$40,000.00	\$0.00	\$0.00	\$40,000.00
Remove Exist Dist Cond	21,690	Ft.	0.020	433.80	\$43,380.00	\$0.00	\$0.00	\$43,380.00
Labor Rate			\$100					
Subtotal Labor Hours/\$				2,894.35	\$289,435.00			\$289,435.00
Subtotal Material								\$75,915.00
Sales and Use Tax (8%)								\$29,228.00
TOTAL ESTIMATED CONSTRUCTION COST								\$394,578.00
Engineering	1	LS						\$100,000.00
CONTINGENCY	10	%						\$49,457.80
TOTAL COST ESTIMATE								\$544,036

Notes & Comments:

- 1 - The above estimate is based on preliminary information.
- 2 - No engineering has been conducted.
- 3 - Costs shown are as of 1/31/19. Market conditions are volatile and can have a significant impact on actual costs at the time on construction.
- 4 - Right of way costs are not included in cost estimate.
- 5 - Cost estimate assumes that existing wood poles are adequate for new conductor and can be reused.

COST ESTIMATE					DATE PREPARED: 1/31/2019			
PROJECT: Upgrade MW101 & MW102 Circuit - Map ID 5					BASIS OF ESTIMATE:			
DESCRIPTION: Cost Estimate Summary					CODE A - (Schematic Design) CODE B - (Preliminary Design) CODE C - (Final Design) 100%			
ENGINEER: Mac Fillingim					OTHER - Conceptual Configuration			
	ESTIMATOR: Mac Fillingim				CHECKED: Craig Michaelis			
DESCRIPTION	QUANTITY		LABOR		MATERIAL \$		TOTAL COST (\$)	
	QTY	UNIT	UNIT MH^(5.)	TOTAL MH	TOTAL LABOR \$	PER UNIT		TOTAL MATERIAL
477 ACSR Dist Phase	39,270	Ft.	0.025	981.75	\$98,175.00	\$0.95	\$37,306.50	\$135,481.50
4/0 ACSR Dist Neut	13,090	Ft.	0.020	261.80	\$26,180.00	\$0.65	\$8,508.50	\$34,688.50
Set Out Exist Dist Cond	65	EA	5.0	325.00	\$32,500.00	\$0.00	\$0.00	\$32,500.00
Remove Exist Dist Cond	13,090	Ft.	0.020	261.80	\$26,180.00	\$0.00	\$0.00	\$26,180.00
Labor Rate			\$100					
Subtotal Labor Hours/\$				1,830.35	\$183,035.00			\$183,035.00
Subtotal Material								\$45,815.00
Sales and Use Tax (8%)								\$18,308.00
TOTAL ESTIMATED CONSTRUCTION COST								\$247,158.00
Engineering	1	LS						\$70,000.00
CONTINGENCY	10	%						\$31,715.80
TOTAL COST ESTIMATE								\$348,874

Notes & Comments:

- 1 - The above estimate is based on preliminary information.
- 2 - No engineering has been conducted.
- 3 - Costs shown are as of 1/31/19. Market conditions are volatile and can have a significant impact on actual costs at the time on construction.
- 4 - Right of way costs are not included in cost estimate.
- 5 - Cost estimate assumes that existing wood poles are adequate for new conductor and can be reused.

COST ESTIMATE					DATE PREPARED: 1/31/2019			
PROJECT: Voltage Regulators on JH502 Circuit - Map ID 6					BASIS OF ESTIMATE:			
DESCRIPTION: Cost Estimate Summary					CODE A - (Schematic Design) CODE B - (Preliminary Design) CODE C - (Final Design) 100%			
ENGINEER: Mac Fillingim					OTHER - Conceptual Configuration			
	ESTIMATOR: Mac Fillingim				CHECKED: Craig Michaelis			
DESCRIPTION	QUANTITY		LABOR			MATERIAL \$		TOTAL COST (\$)
	QTY	UNIT	UNIT MH ^(5.)	TOTAL MH	TOTAL LABOR \$	PER UNIT	TOTAL MATERIAL	
Regulators	3	EA	10.0	30.00	\$3,000.00	\$21,000.00	\$63,000.00	\$66,000.00
Structure & Switches	1	EA	20.0	20.00	\$2,000.00	\$7,000.00	\$7,000.00	\$9,000.00
Labor Rate			\$100					
Subtotal Labor Hours/\$				50.00	\$5,000.00			\$5,000.00
Subtotal Material								\$70,000.00
Sales and Use Tax (8%)								\$6,000.00
TOTAL ESTIMATED CONSTRUCTION COST								\$81,000.00
Engineering	1	LS						\$5,000.00
CONTINGENCY	10	%						\$8,600.00
TOTAL COST ESTIMATE								\$94,600

Notes & Comments:

- 1 - The above estimate is based on preliminary information.
- 2 - No engineering has been conducted.
- 3 - Costs shown are as of 1/31/19. Market conditions are volatile and can have a significant impact on actual costs at the time on construction.

COST ESTIMATE					DATE PREPARED: 1/31/2019			
PROJECT: Upgrade HB305 Circuit - Map ID 7					BASIS OF ESTIMATE:			
DESCRIPTION: Cost Estimate Summary					CODE A - (Schematic Design) CODE B - (Preliminary Design) CODE C - (Final Design) 100%			
ENGINEER: Mac Fillingim					OTHER - Conceptual Configuration			
	ESTIMATOR: Mac Fillingim				CHECKED: Craig Michaelis			
DESCRIPTION	QUANTITY		LABOR		MATERIAL \$		TOTAL COST (\$)	
	QTY	UNIT	UNIT MH ^(5.)	TOTAL MH	TOTAL LABOR \$	PER UNIT		TOTAL MATERIAL
477 ACSR Dist Phase	1,530	Ft.	0.025	38.25	\$3,825.00	\$0.95	\$1,453.50	\$5,278.50
4/0 ACSR Dist Neut	510	Ft.	0.020	10.20	\$1,020.00	\$0.65	\$331.50	\$1,351.50
Set Out Exist Dist Cond	5	EA	5.0	25.00	\$2,500.00	\$0.00	\$0.00	\$2,500.00
Remove Exist Dist Cond	510	Ft.	0.020	10.20	\$1,020.00	\$0.00	\$0.00	\$1,020.00
Labor Rate			\$100					
Subtotal Labor Hours/\$				83.65	\$8,365.00			\$8,365.00
Subtotal Material								\$1,785.00
Sales and Use Tax (8%)								\$812.00
TOTAL ESTIMATED CONSTRUCTION COST								\$10,962.00
Engineering	1	LS						\$10,000.00
CONTINGENCY	10	%						\$2,096.20
TOTAL COST ESTIMATE								\$23,058

Notes & Comments:

- 1 - The above estimate is based on preliminary information.
- 2 - No engineering has been conducted.
- 3 - Costs shown are as of 1/31/19. Market conditions are volatile and can have a significant impact on actual costs at the time on construction.
- 4 - Right of way costs are not included in cost estimate.
- 5 - Cost estimate assumes that existing wood poles are adequate for new conductor and can be reused.

COST ESTIMATE				DATE PREPARED: 1/31/19			SHEET 1 of 1				
PROJECT: Upgrade JH501 Circuit - Map ID 8								BASIS FOR ESTIMATE:			
DESCRIPTION: Cost Estimate Summary								CODE A (Schematic Design)			
ENGINEER : Mac Fillingim								CODE B (Preliminary Design)			
								CODE C (Final Design) 100%			
								OTHER (NO DESIGN)			
				CHECKED BY: Craig Michaelis							
DESCRIPTION	QUANTITY			LABOR		\$100.00	MATERIAL (\$)				
	NO. UNITS	UNIT MEAS	PER UNIT	TOTAL MH	Labor (\$)		PER UNIT	TOTAL COST			
INSTALLATIONS											
UNDERGROUND											
Underground Primary											
600 amp Sectionalizer with (6) 1100 kcmil AL Terminations	2	EA	24.00	48.00	4,800.00	4,650.00	9,300.00	14,100.00			
(2) - 6 inch PVC Conduit Ductbank	585	FT	0.03	17.55	1,755.00	9.00	5,265.00	7,020.00			
Conduit Elbows & Fittings	1	LS	20.00	20.00	2,000.00	5,500.00	5,500.00	7,500.00			
(3) 1100 kcmil AL Cables / Circuit	585	FT	0.03	17.55	1,755.00	27.00	15,795.00	17,550.00			
Bore 6" conduit	585	FT	0.00	0.00	0.00	15.00	8,775.00	8,775.00			
Remove 200 Amp Equipment	1	LS	20.00	20.00	2,000.00	0.00	0.00	2,000.00			
Subtotal				123.10	12,310.00		44,635.00				
Avg. Labor Rate			100.00								
Subtotal Labor					\$12,310.00			\$12,310.00			
Subtotal Material							\$44,635.00	\$44,635.00			
Sales Tax Material			8.00%					\$3,570.80			
Subtotal Labor, Material & Tax								\$60,515.80			
Equipment & Trucks			41.03								
Contingency			10.00%				\$ 125.00				
TOTAL ESTIMATE								\$5,129.17			
								\$6,600.00			
								\$72,244.97			

Notes & Comments:

- 1 - The above estimate is based on preliminary information.
- 2 - No engineering has been conducted.
- 3 - Costs shown are as of 1/31/19. Market conditions are volatile and can have a significant impact on actual costs at the time on construction.
- 4 - Right of way costs are not included in cost estimate.

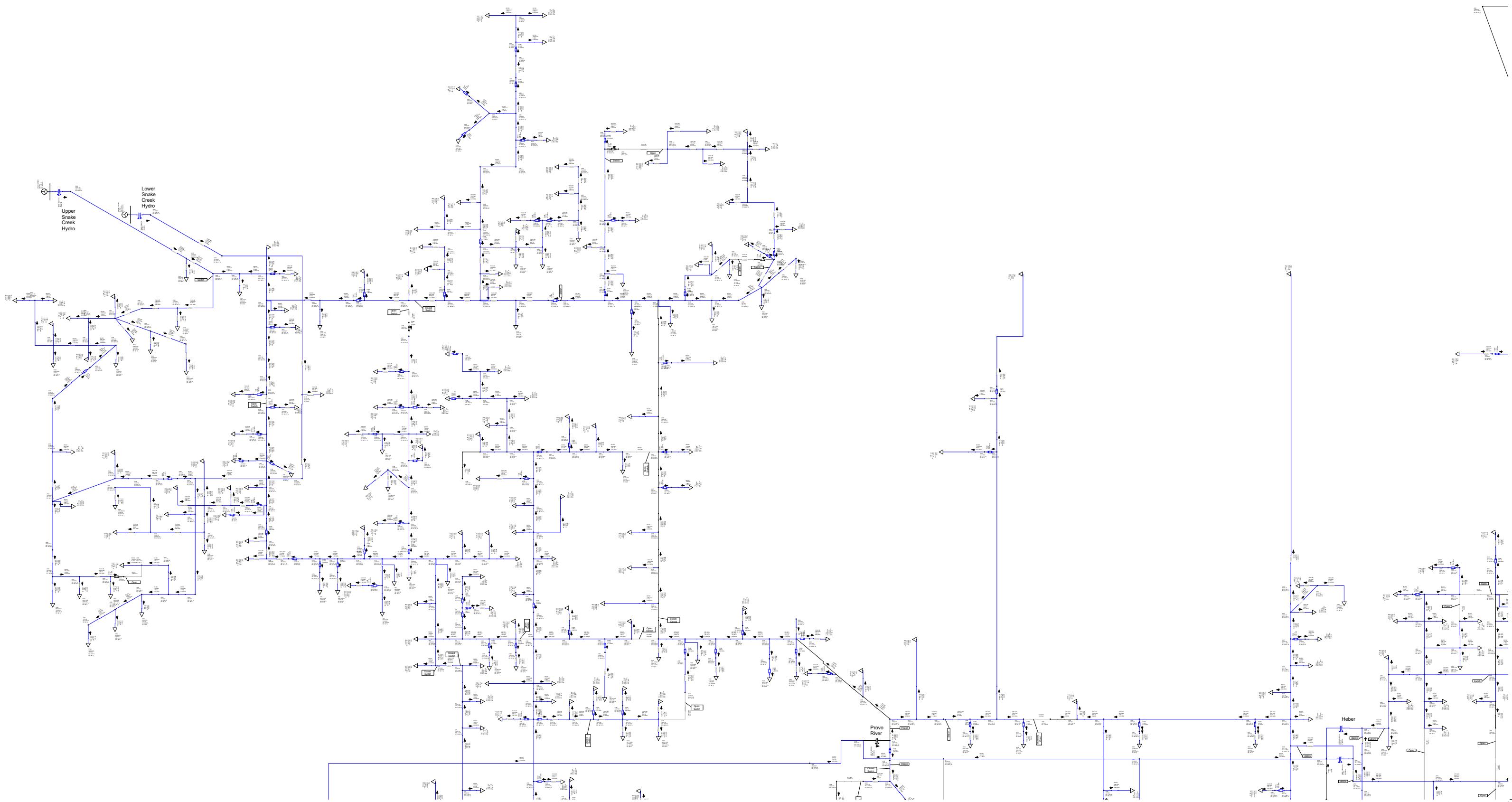
COST ESTIMATE				DATE PREPARED: 1/31/19			SHEET 1 of 1			
PROJECT: Upgrade JH502 & JH503 Circuit - Map ID 9				BASIS FOR ESTIMATE:						
DESCRIPTION: Cost Estimate Summary				CODE A (Schematic Design) CODE B (Preliminary Design) CODE C (Final Design) 100% OTHER (NO DESIGN)						
ENGINEER : Mac Fillingim				CHECKED BY: Craig Michaelis						
DESCRIPTION				QUANTITY	LABOR	\$100.00	MATERIAL (\$)			
				NO. UNITS	PER UNIT	TOTAL MH	Labor (\$)	PER UNIT TOTAL		
INSTALLATIONS				UNDERGROUND						
Underground Primary										
600 amp Sectionalizer with (6) 1100 kcmil AL Terminations				7 2940	EA FT	24.00 0.03	168.00 88.20	16,800.00 8,820.00		
(2) - 6 inch PVC Conduit Ductbank				1 2940	LS FT	50.00 0.03	50.00 88.20	5,000.00 8,820.00		
Conduit Elbows & Fittings				2940	FT	0.03	27.00	4,500.00 79,380.00		
(3) 1100 kcmil AL Cables / Circuit				2940	FT	0.00	0.00	15.00 44,100.00		
Bore 6" conduit				1	LS	100.00	100.00	0.00 0.00		
Remove 200 Amp Equipment								10,000.00		
Subtotal						494.40	49,440.00			
Avg. Labor Rate				100.00				186,990.00		
Subtotal Labor										
Subtotal Material										
Sales Tax Material				8.00%						
Subtotal Labor, Material & Tax										
Equipment & Trucks				164.80						
Contingency				10.00%						
TOTAL ESTIMATE								\$299,189.20		

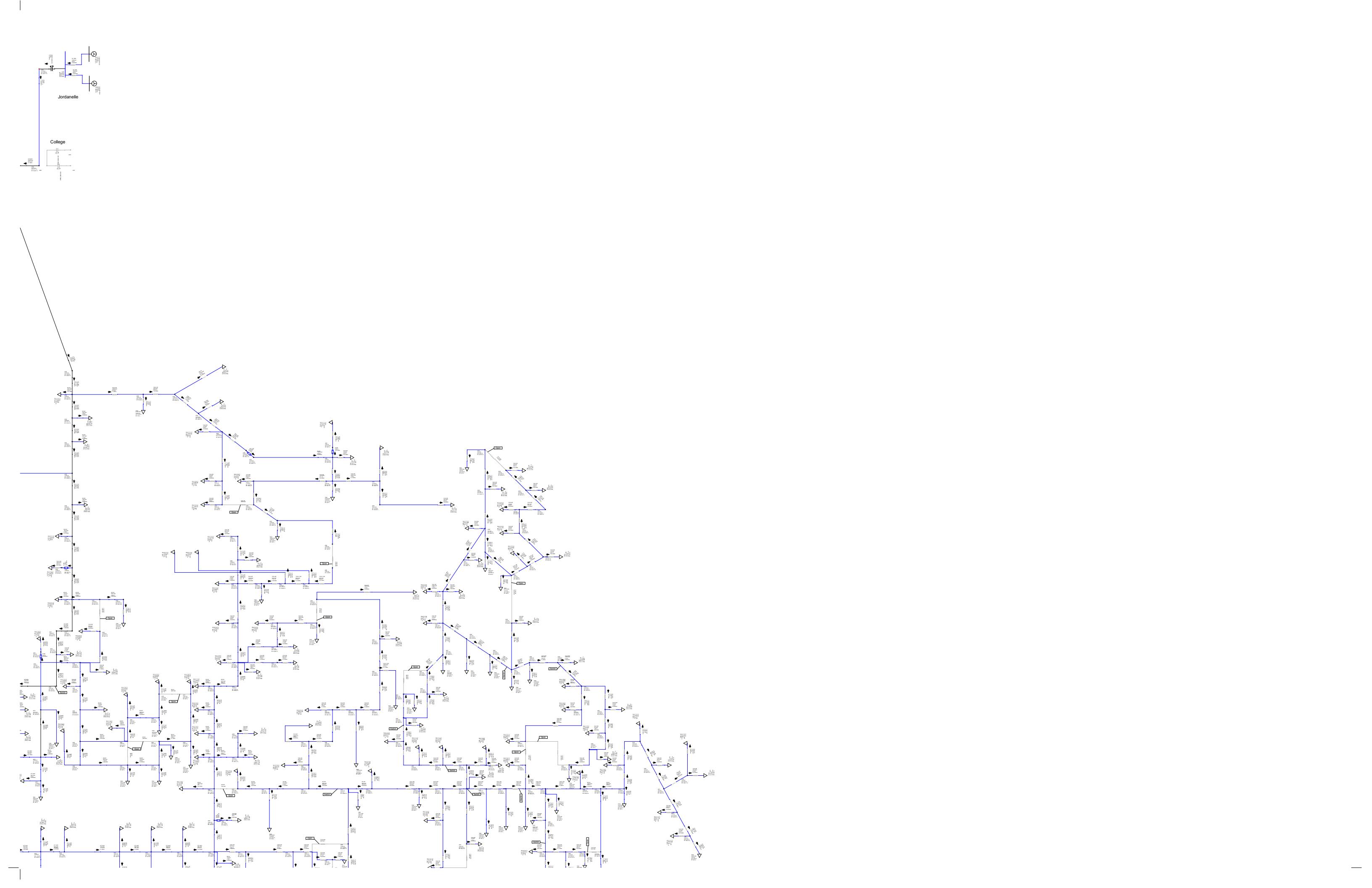
Notes & Comments:

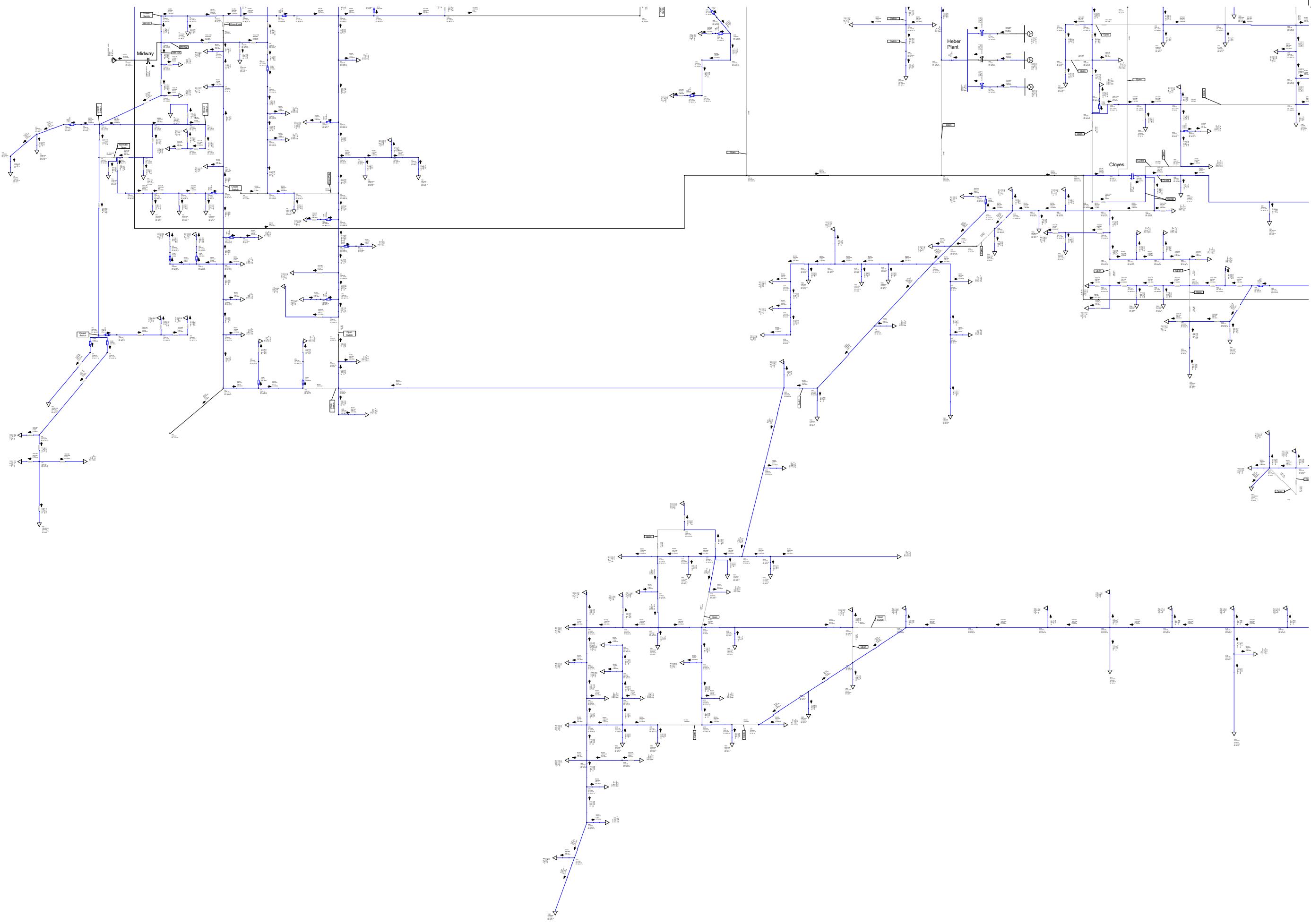
- 1 - The above estimate is based on preliminary information.
- 2 - No engineering has been conducted.
- 3 - Costs shown are as of 1/31/19. Market conditions are volatile and can have a significant impact on actual costs at the time on construction.
- 4 - Right of way costs are not included in cost estimate.

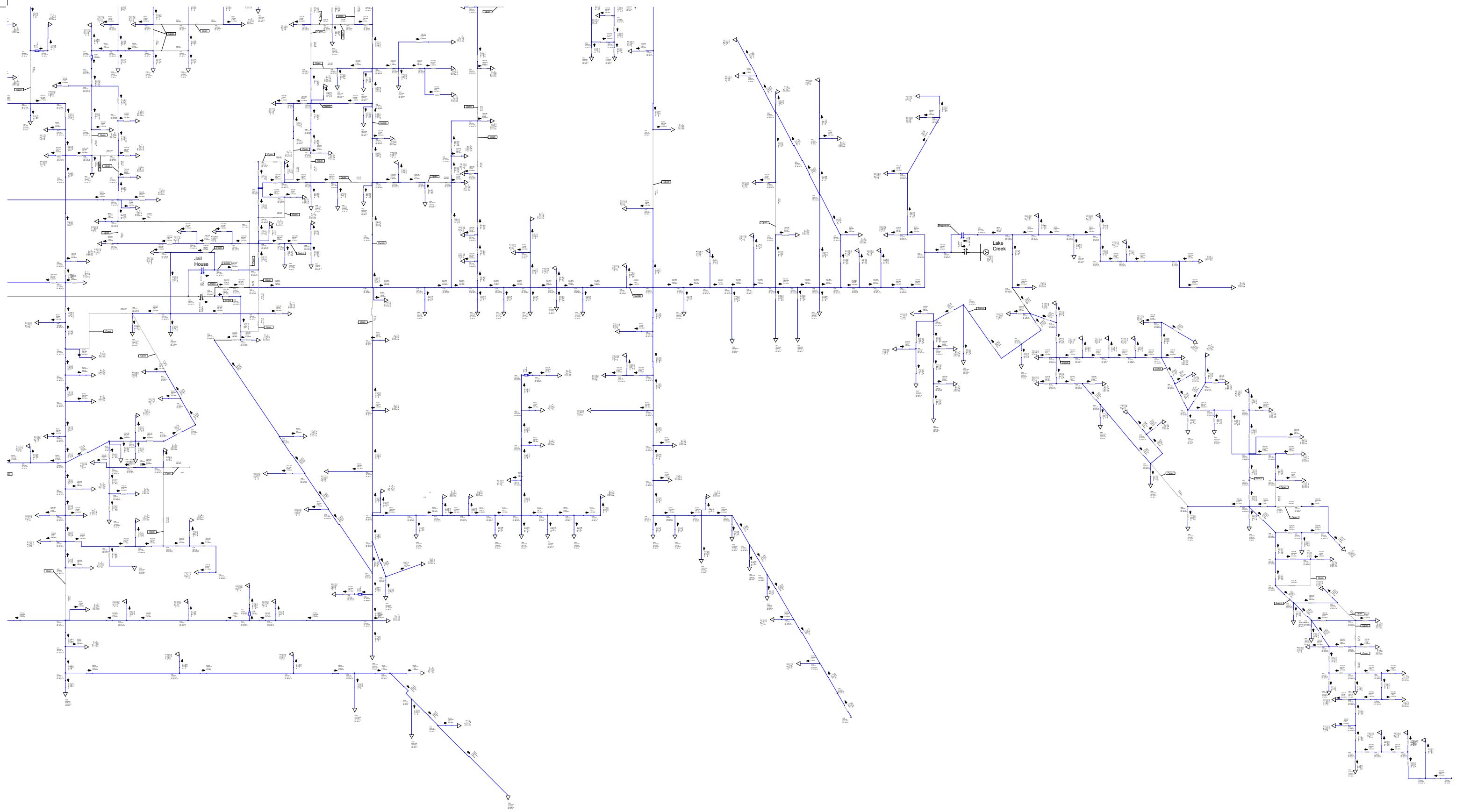
APPENDIX 3 – LOAD FLOW STUDIES

2018
Base Case







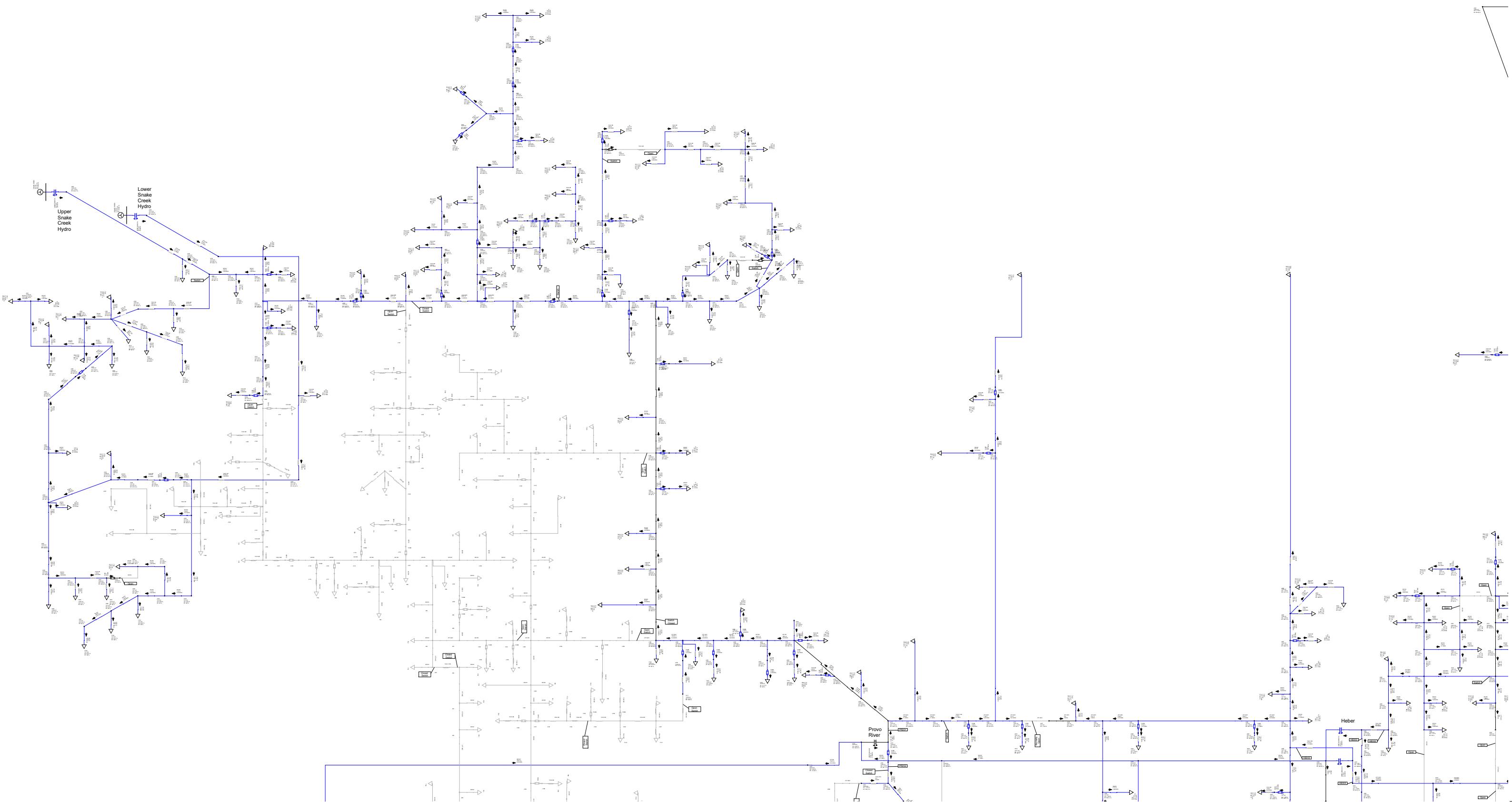


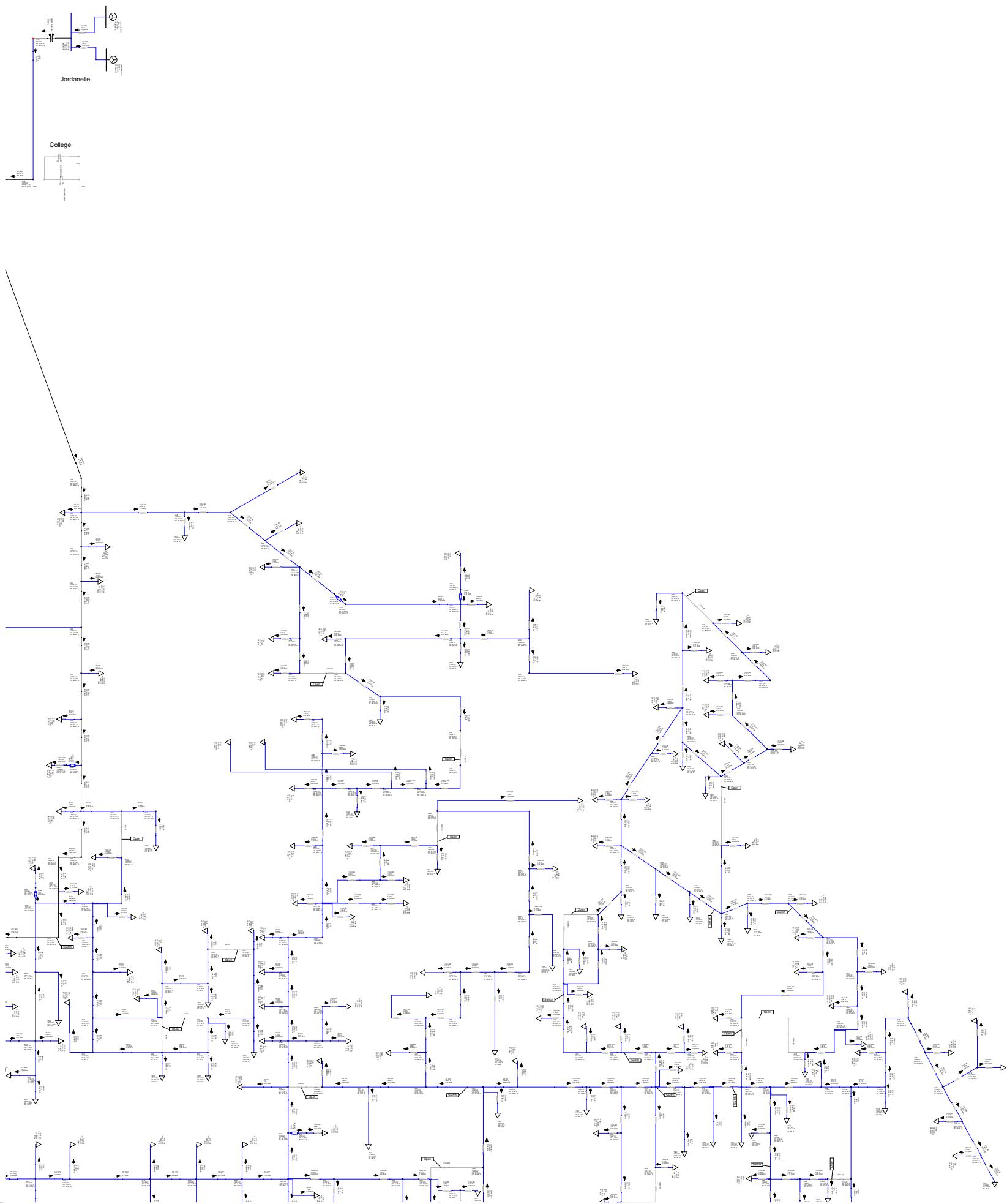
Heber 12.47 kV

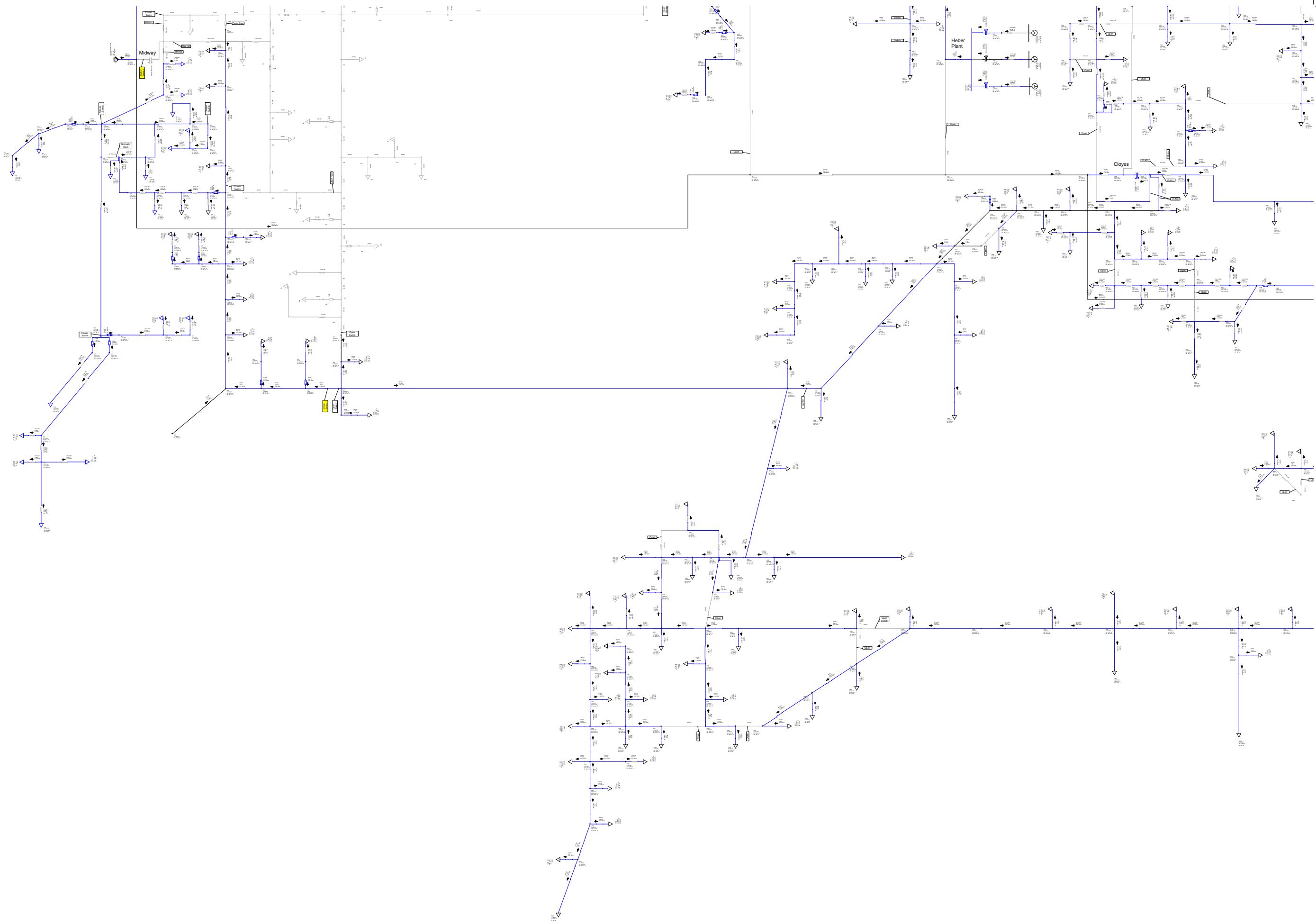
2018 - Loss of Midway transformer

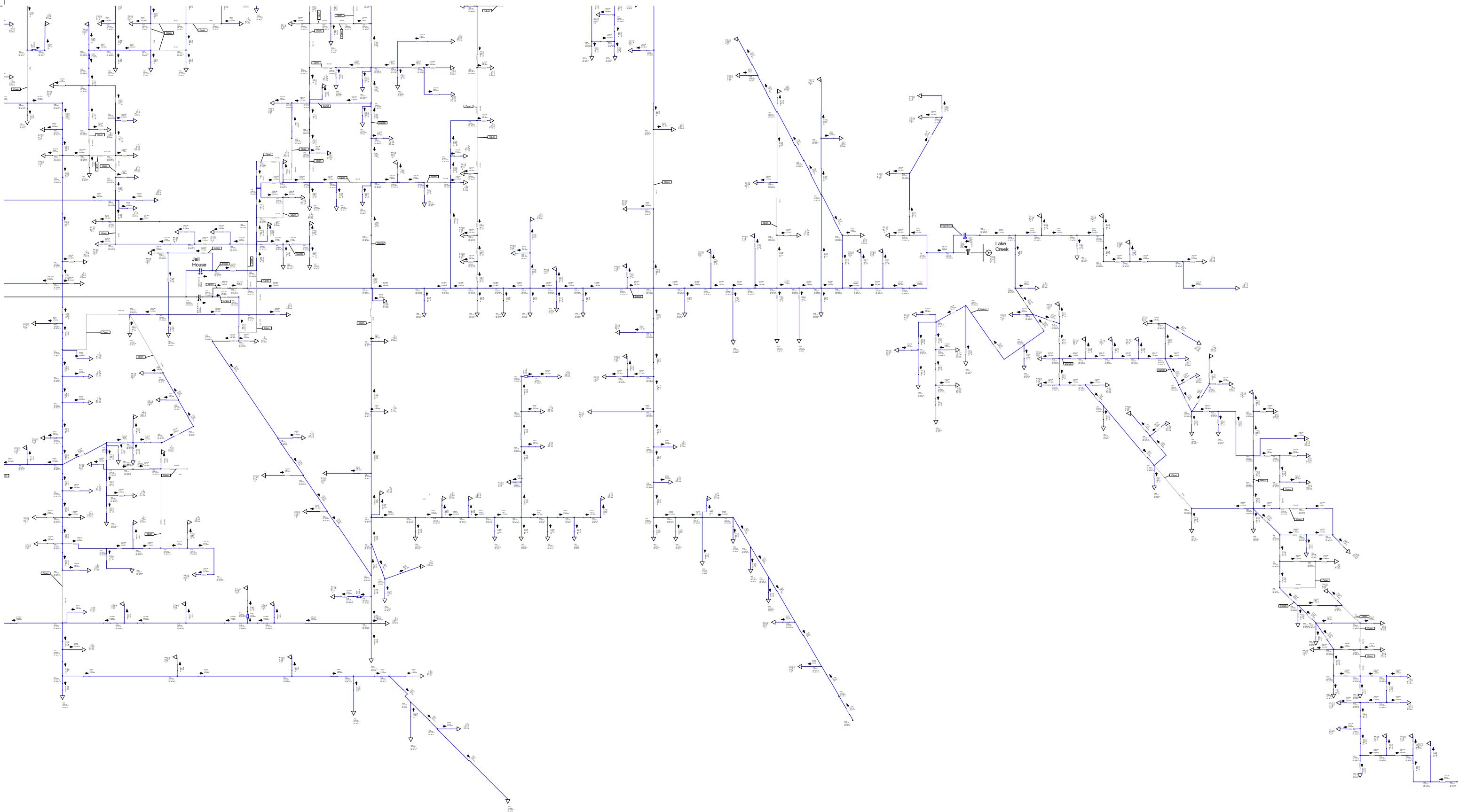
1. MW104 circuit can be picked up by CL402 circuit. Line will be nearing ampacity and there are voltage issues (almost 6% drop).

2. Power cannot be restored to MW101 and MW102 circuits.



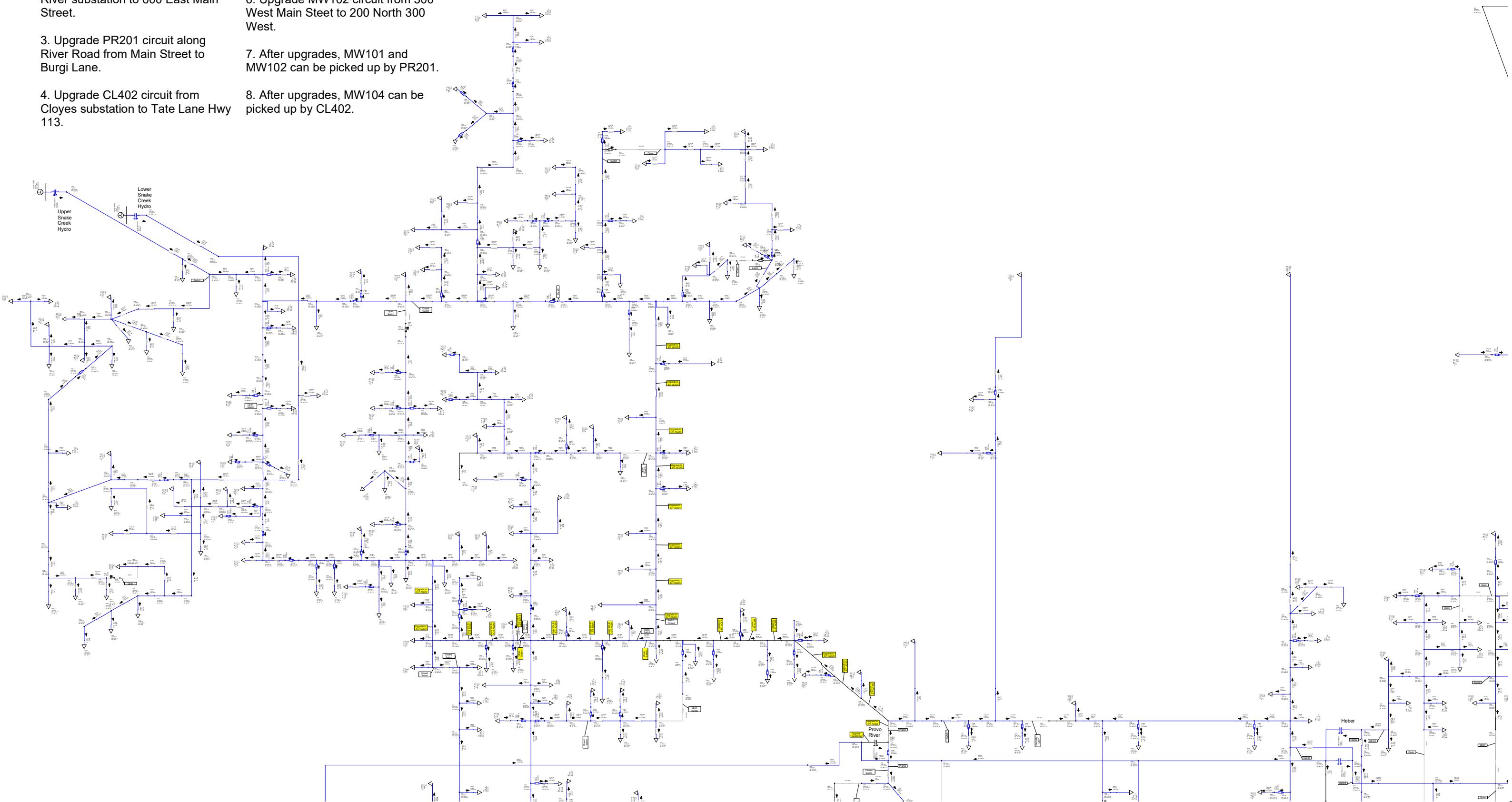


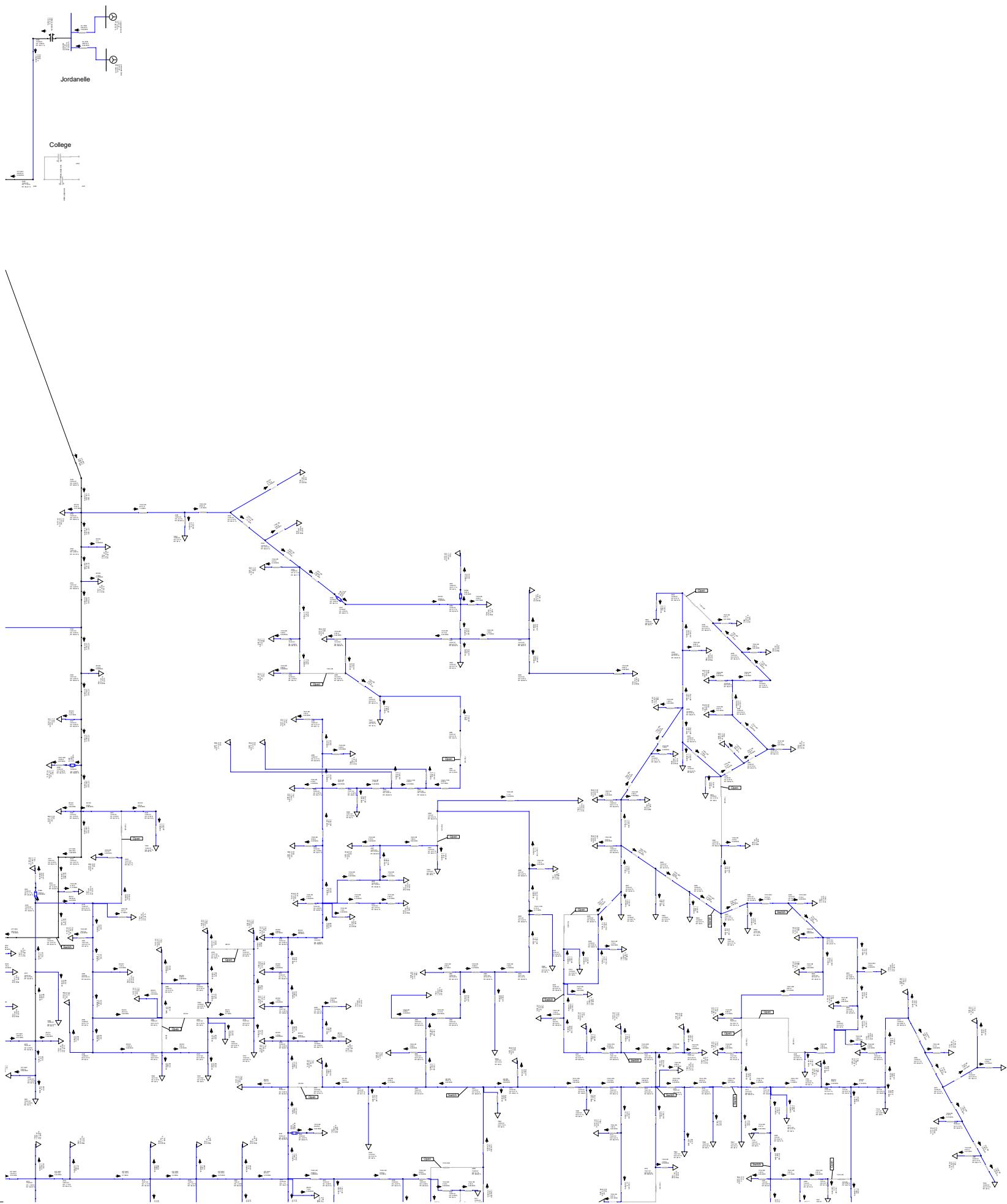


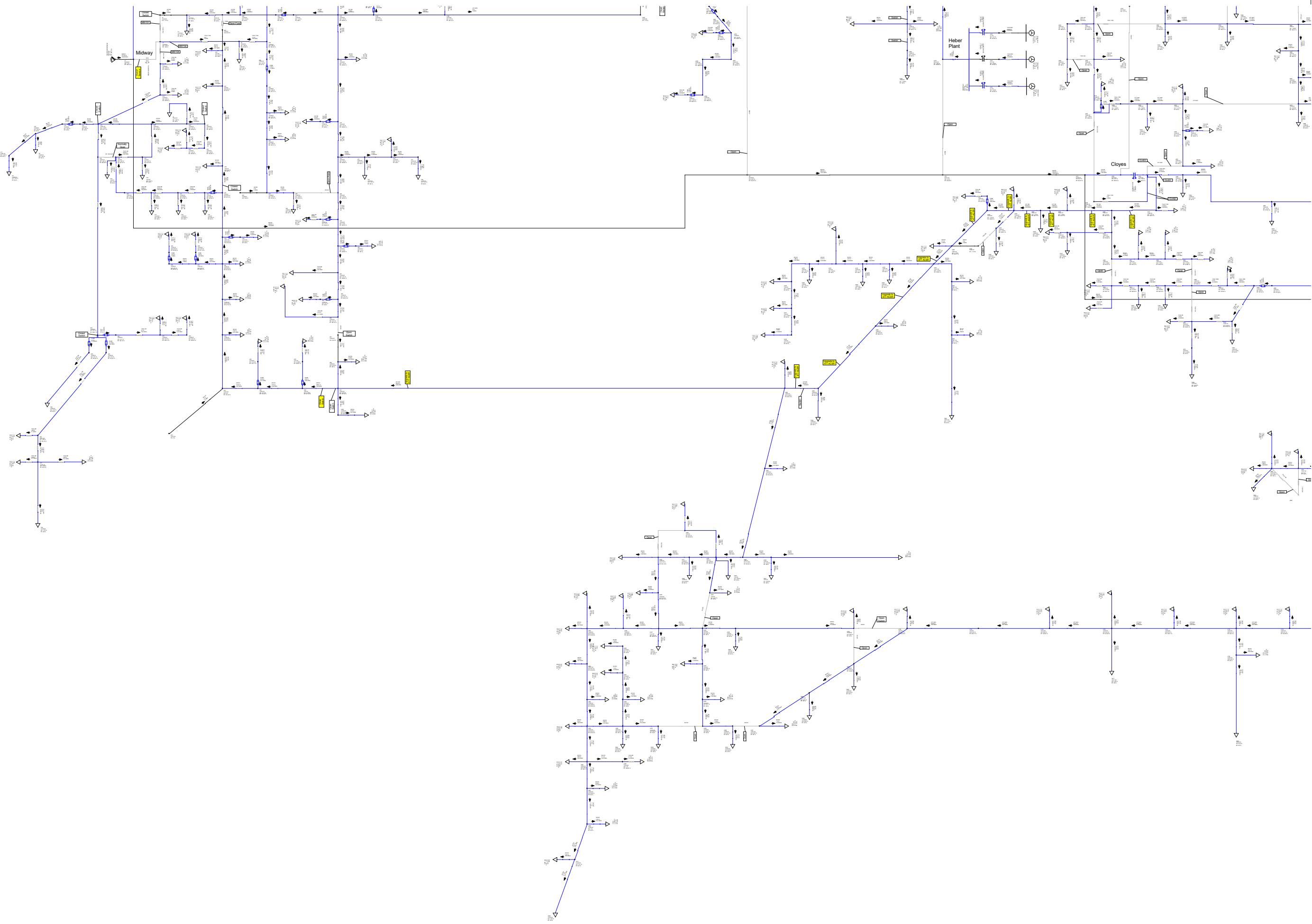


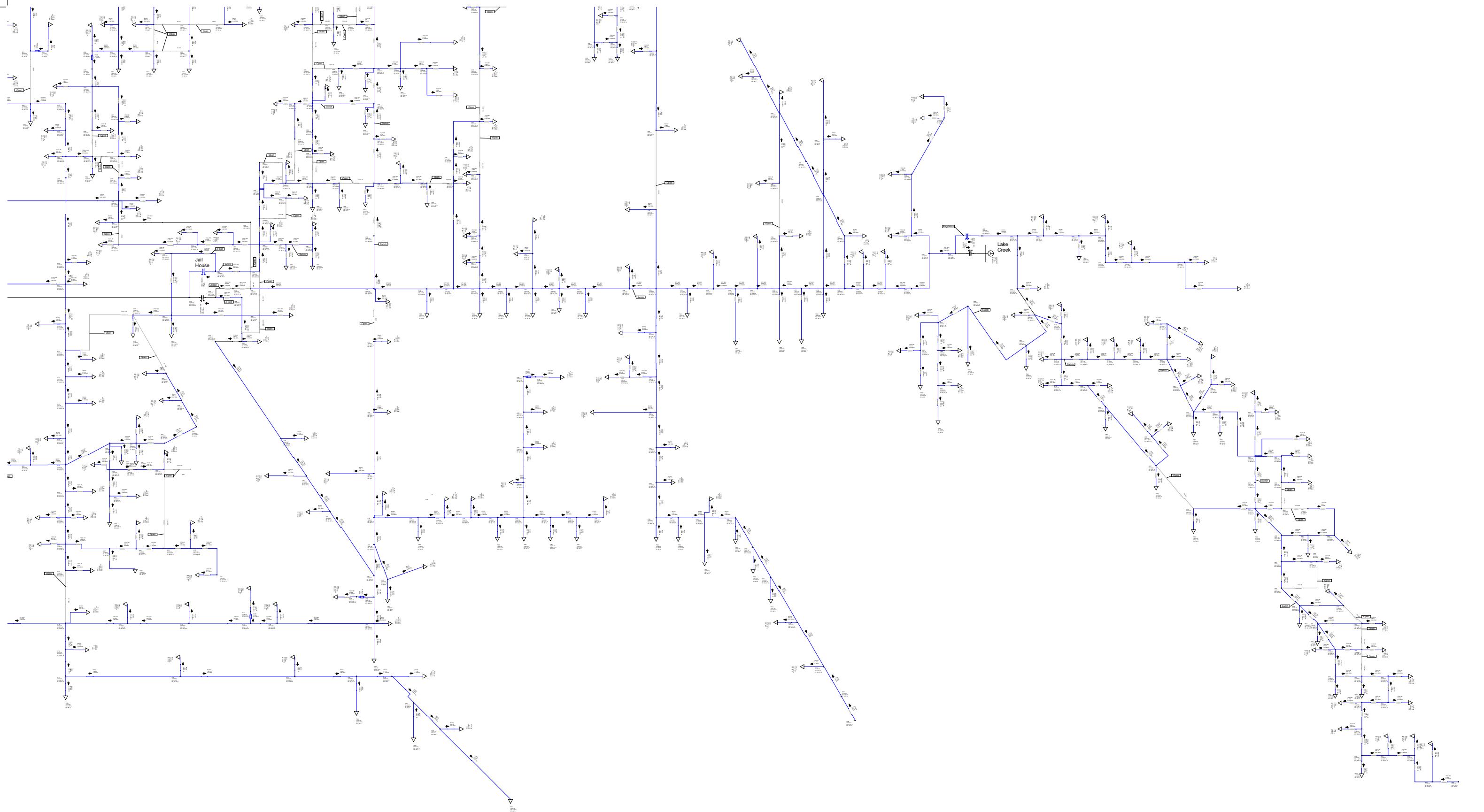
Heber 12.47 kV
 2018 - Loss of Midway transformer
 (After Upgrades)

1. Upgrade Provo River transformer to larger 12/16/20 MVA transformer.
2. Upgrade PR201 circuit from Provo River substation to 600 East Main Street.
3. Upgrade PR201 circuit along River Road from Main Street to Burgi Lane.
4. Upgrade CL402 circuit from Cloyes substation to Tate Lane Hwy 113.
5. Upgrade MW101 and MW102 circuits from 220 West Main Street to 300 East Main Street.
6. Upgrade MW102 circuit from 300 West Main Street to 200 North 300 West.
7. After upgrades, MW101 and MW102 can be picked up by PR201.
8. After upgrades, MW104 can be picked up by CL402.









Heber 12.47 kV

2018 - Loss of Provo River

transformer

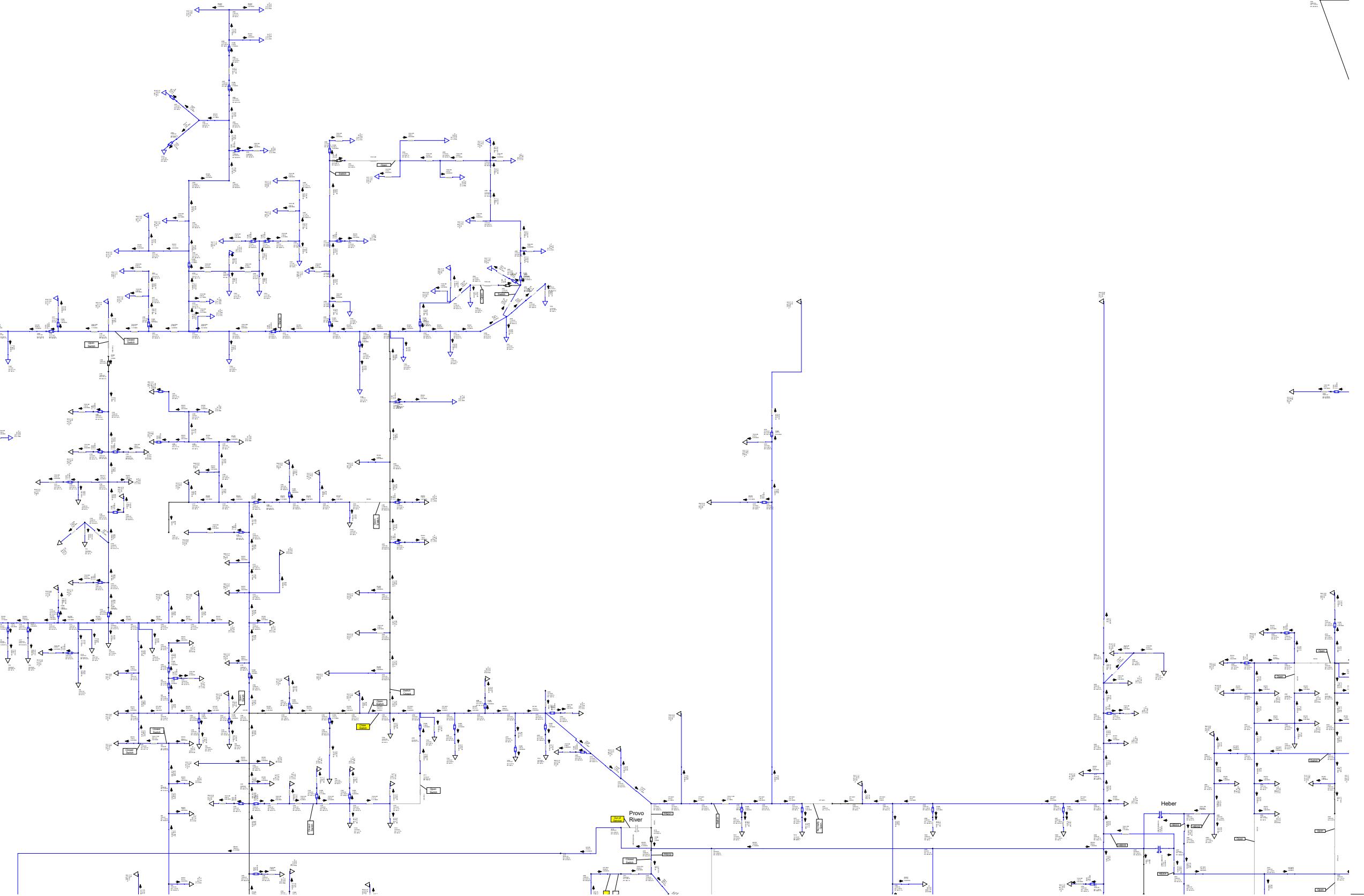
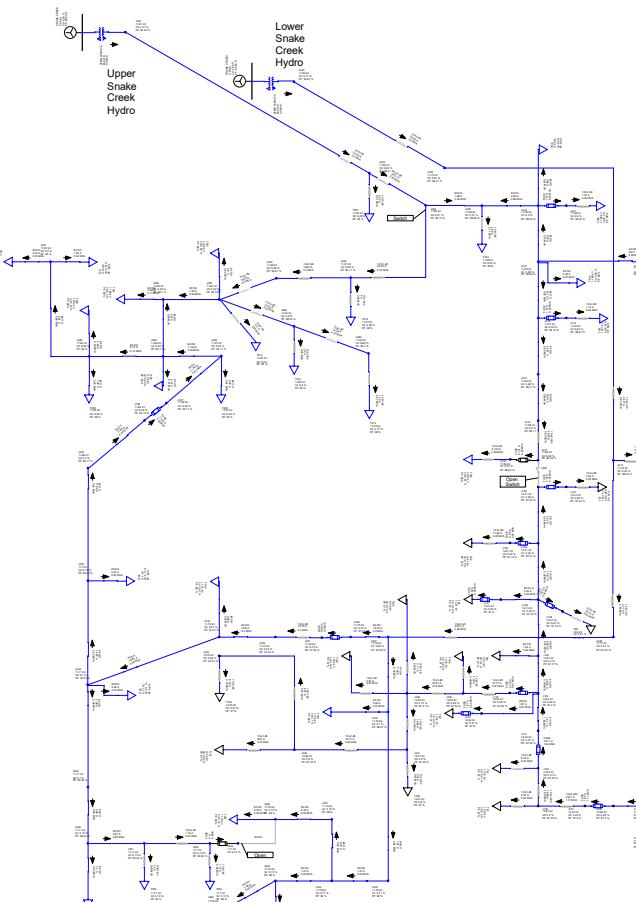
1. Provo River transformer is out of capacity during peak load when Snake Creek generation off.

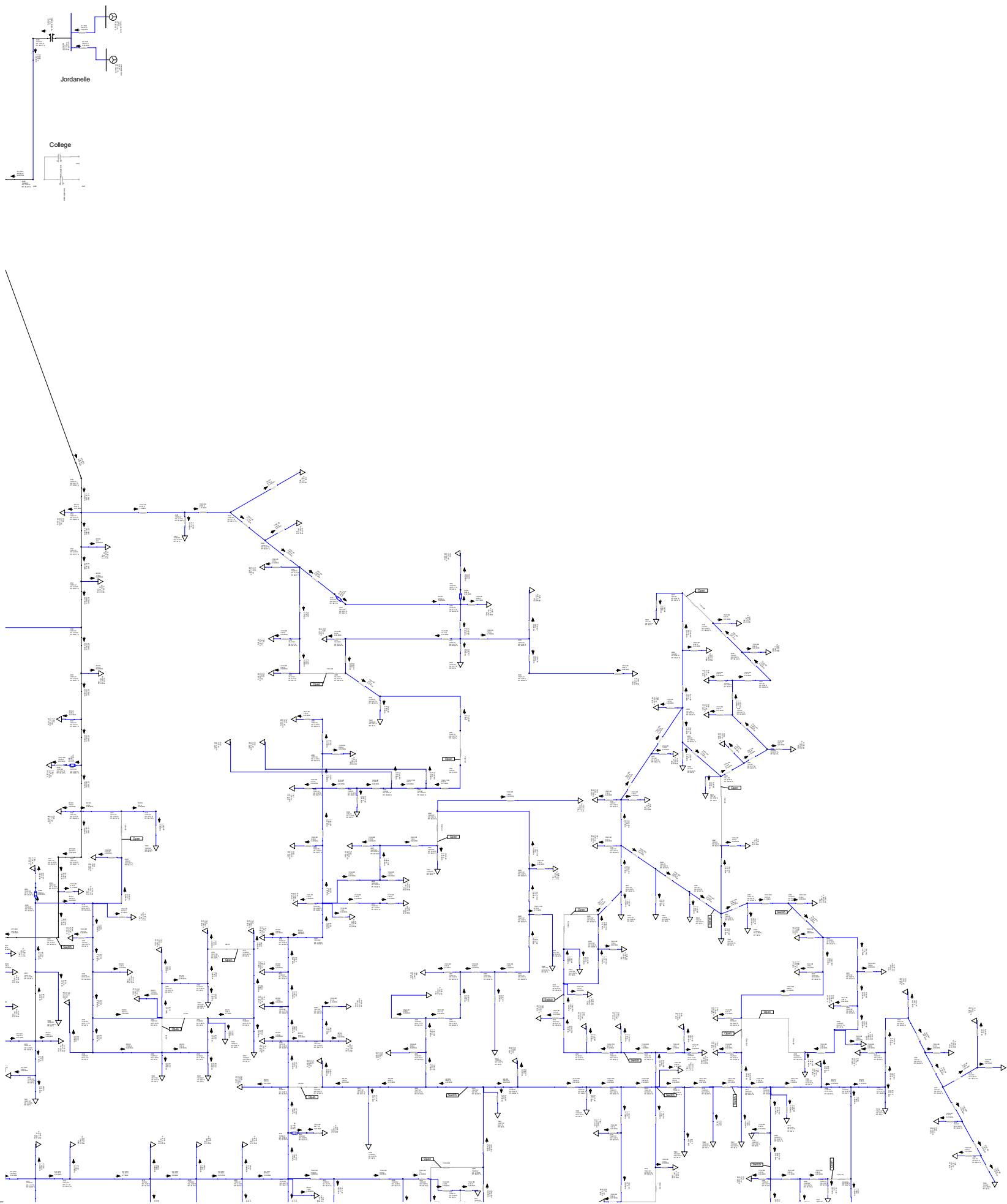
2. Part of PR201 circuit is overloaded when Snake Creek generation is off.

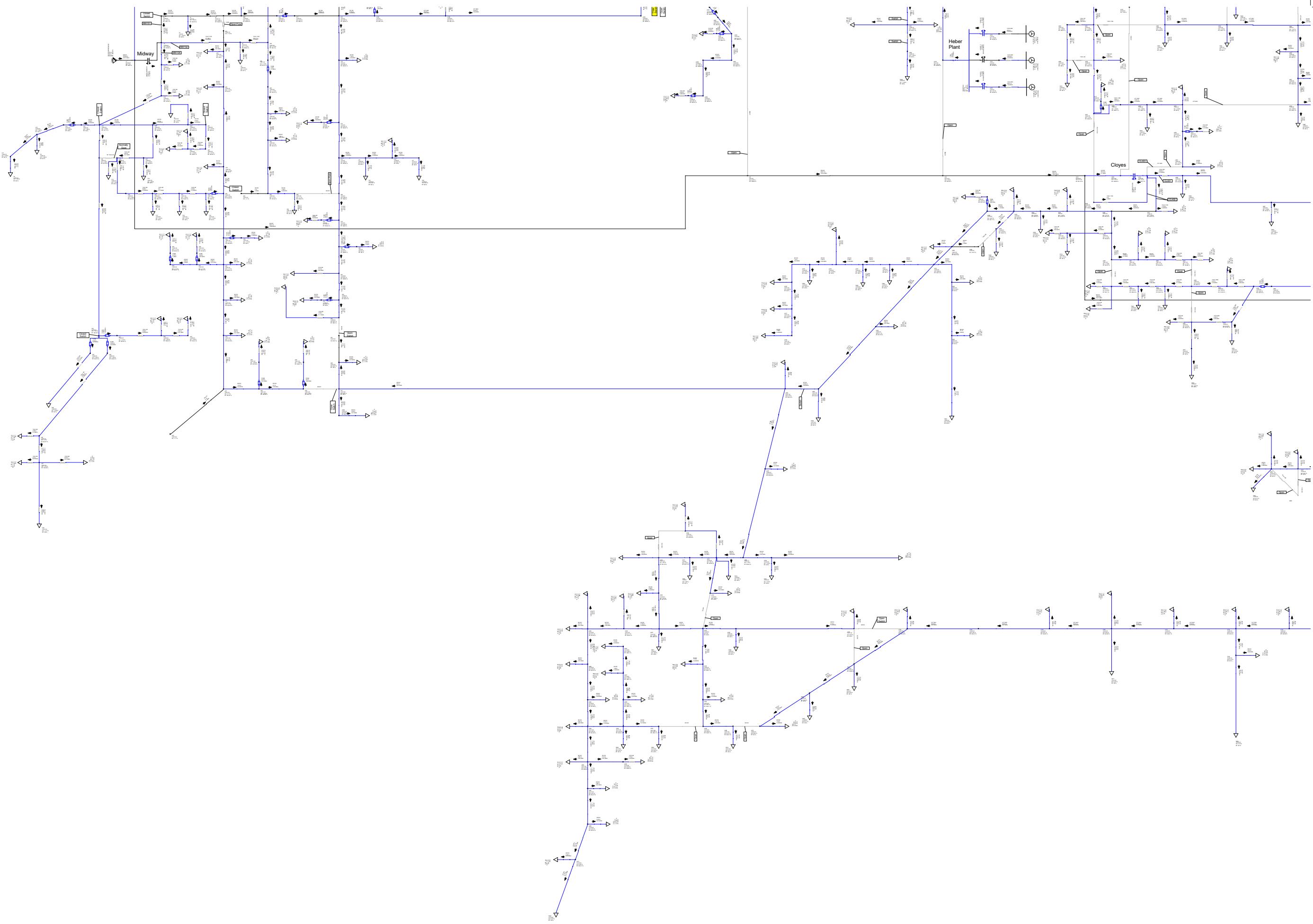
3. PR201 circuit can be picked up by MW101. Line is nearing ampacity and there are voltage issues at the end of the line (almost 7% drop).

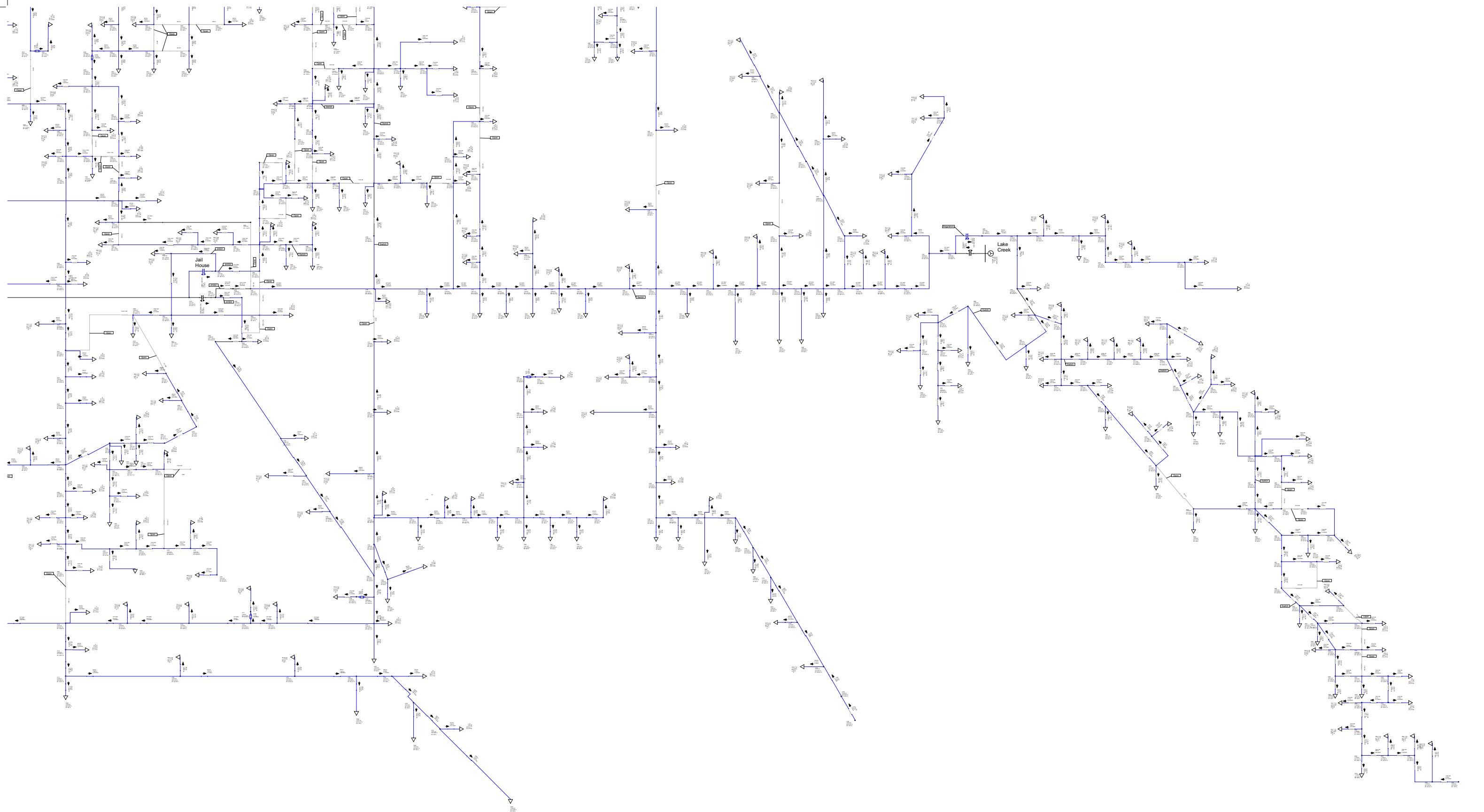
PR201 cannot be picked up by MW102 due to line overloads and voltage issues.

4. PR201 can be picked up by MW01.









Heber 12.47 kV

2018 - Loss of Provo River transformer
(After Upgrades)

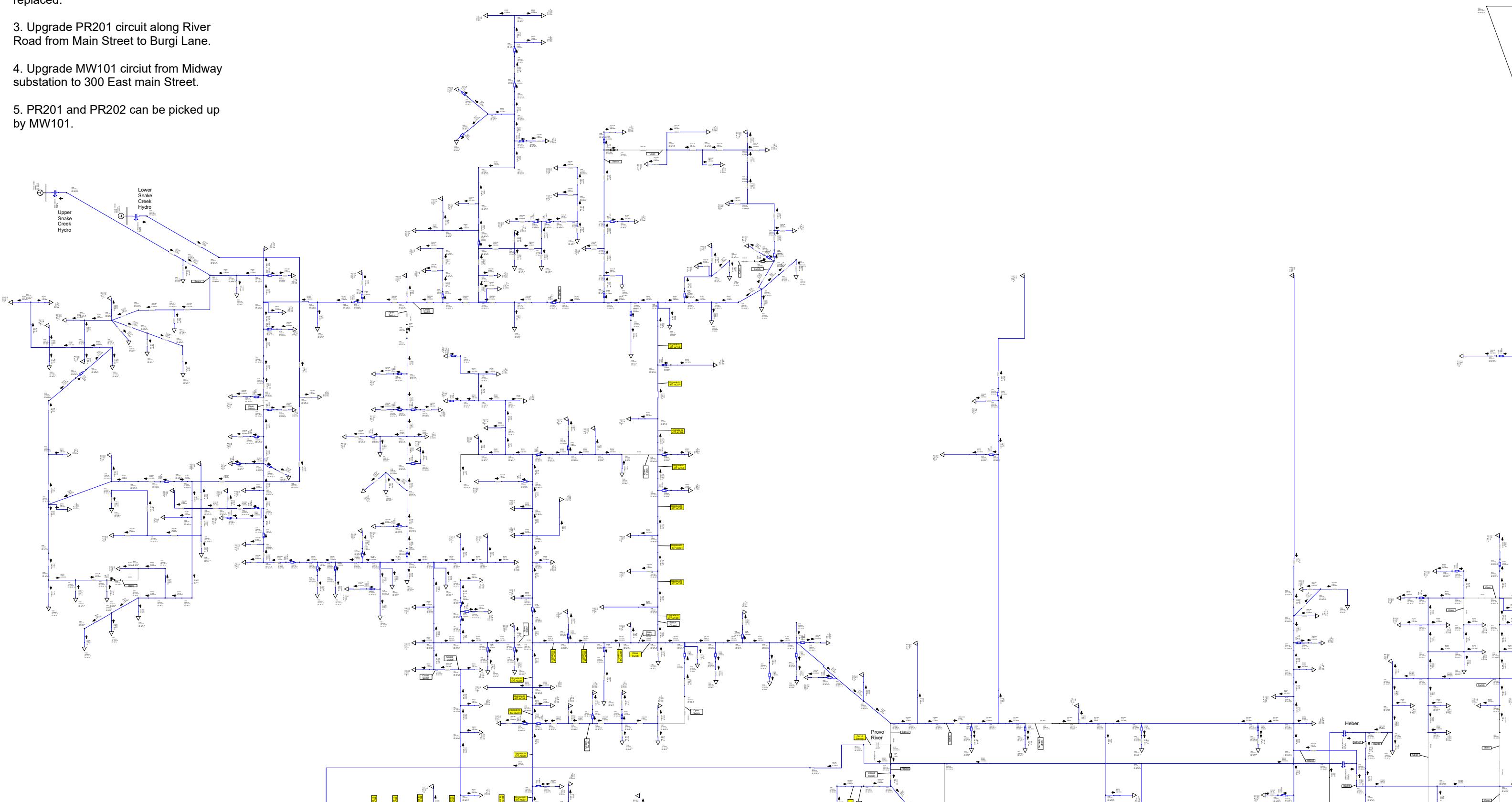
1. Upgrade Provo River transformer with
a larger 12/16/20 MVA transformer.

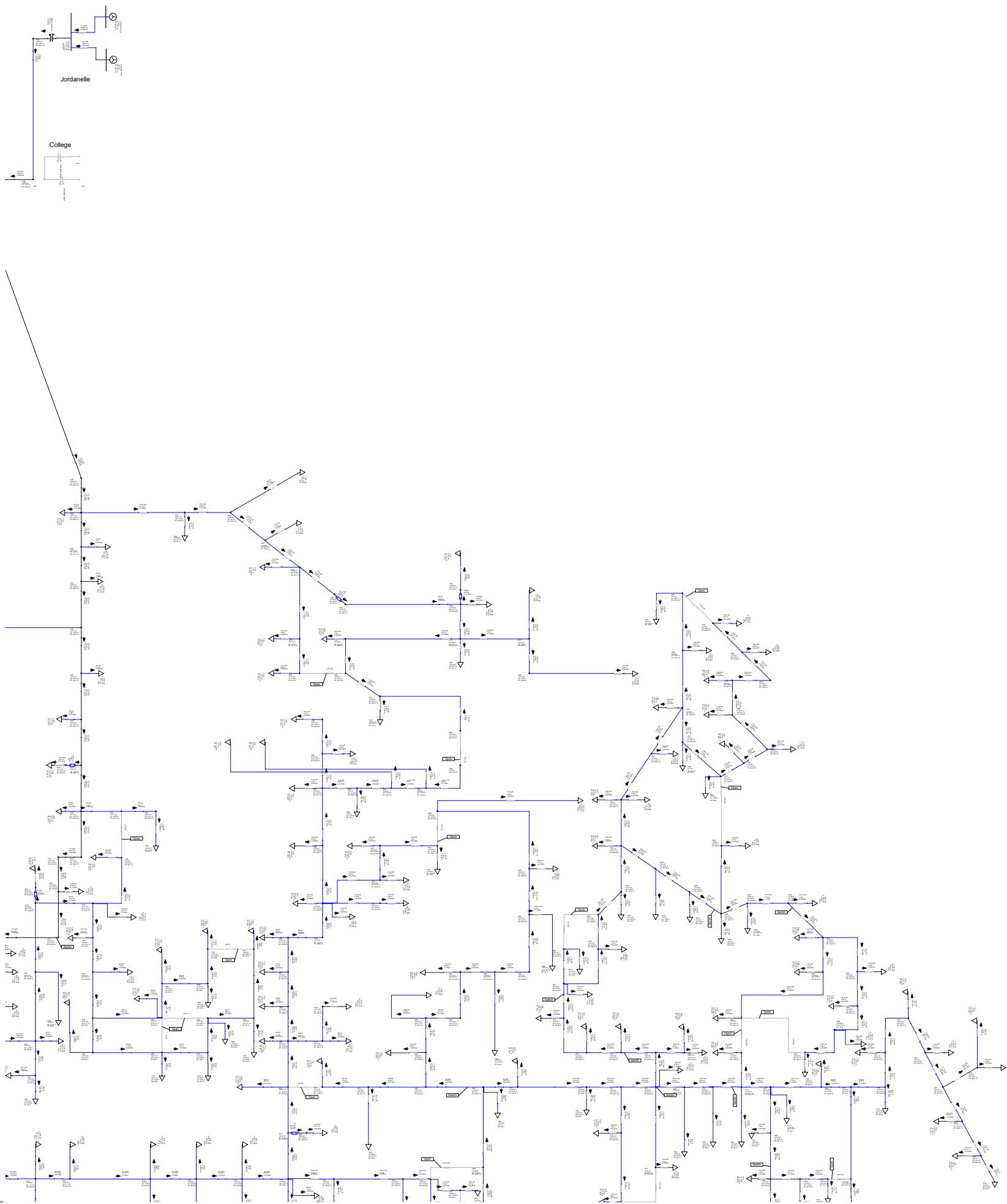
2. Some load may be able to be moved
from PR201 to Midway substation until
Provo River transformer can be
replaced.

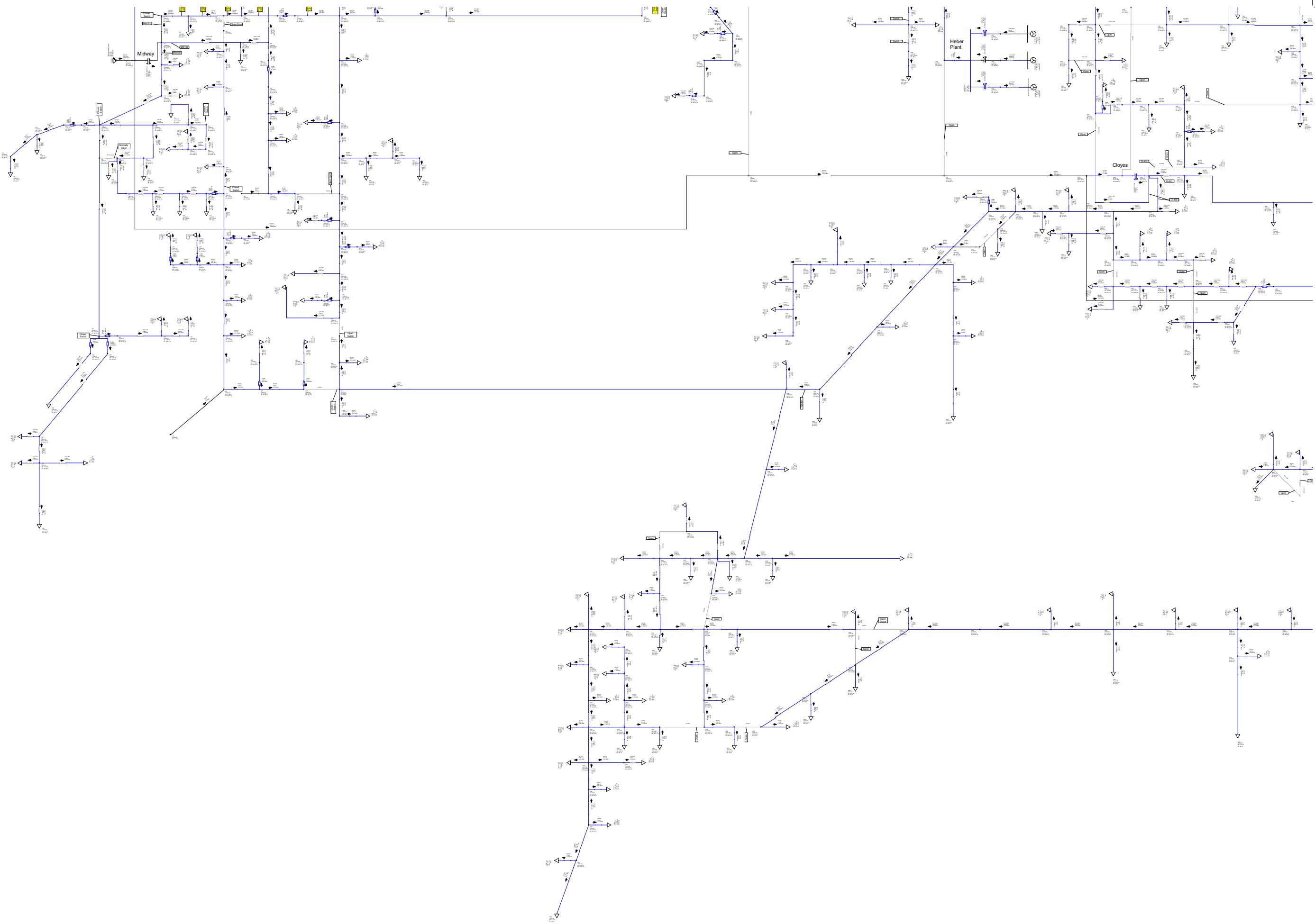
3. Upgrade PR201 circuit along River
Road from Main Street to Burgi Lane.

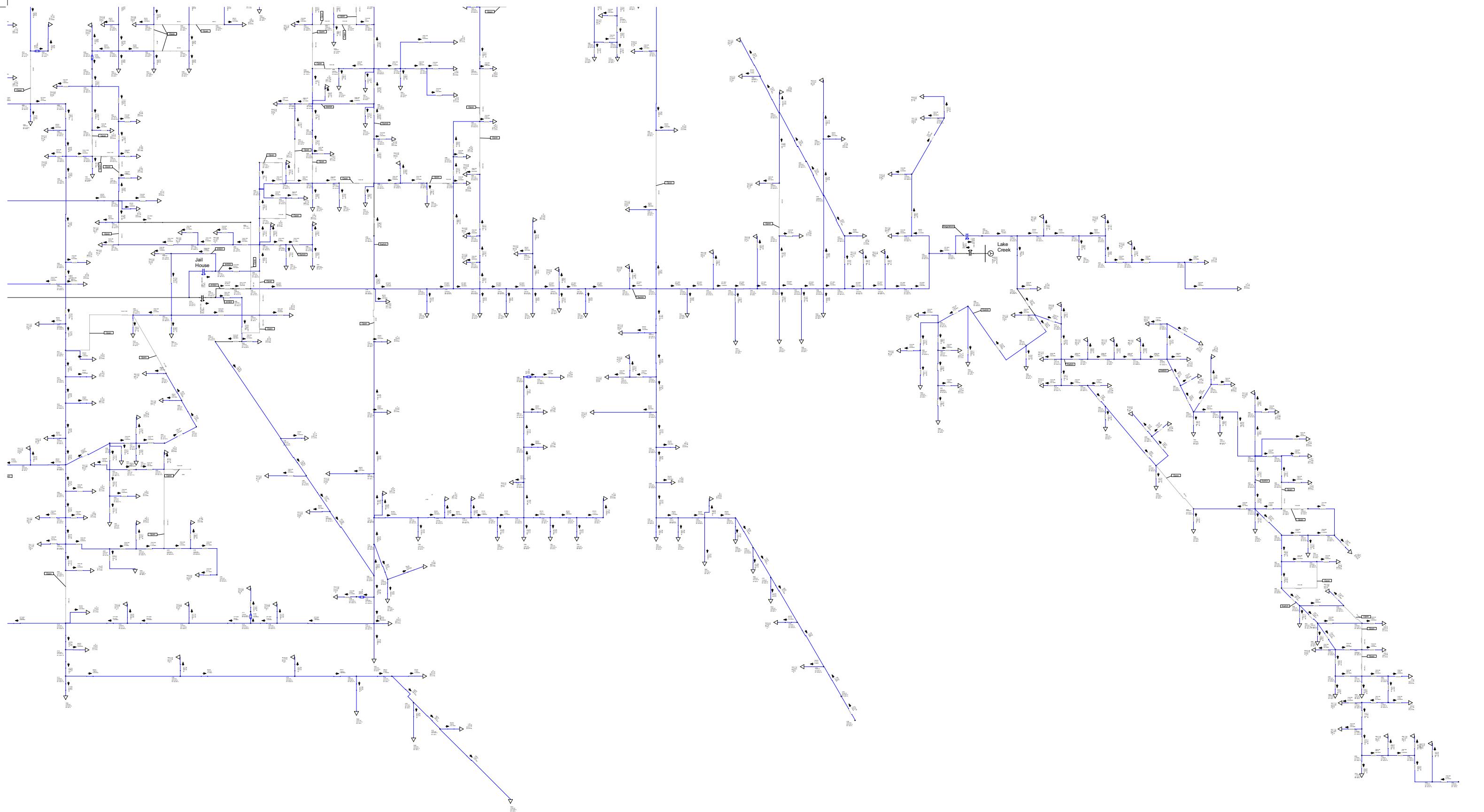
4. Upgrade MW101 circuit from Midway
substation to 300 East main Street.

5. PR201 and PR202 can be picked up
by MW101.





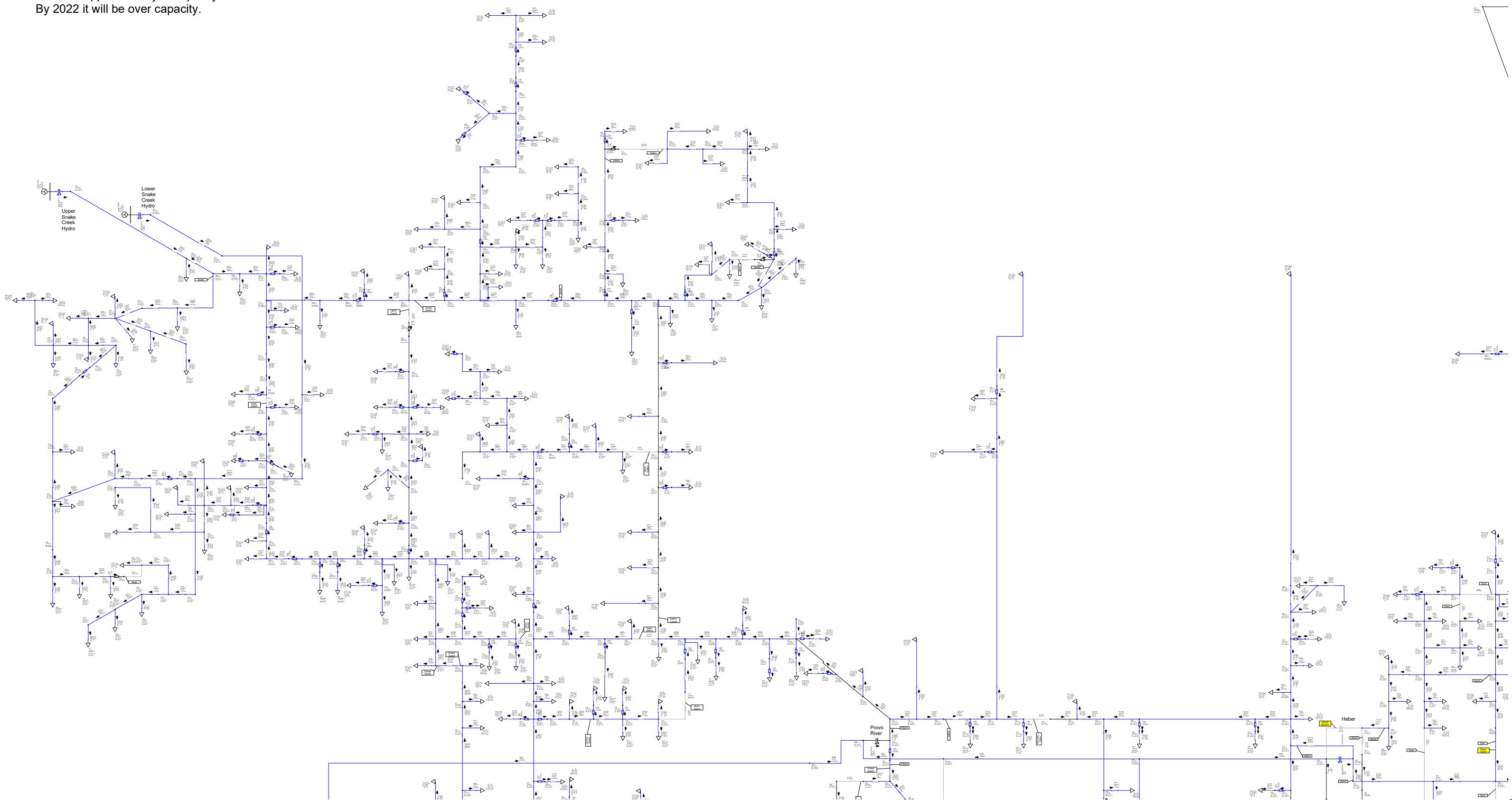


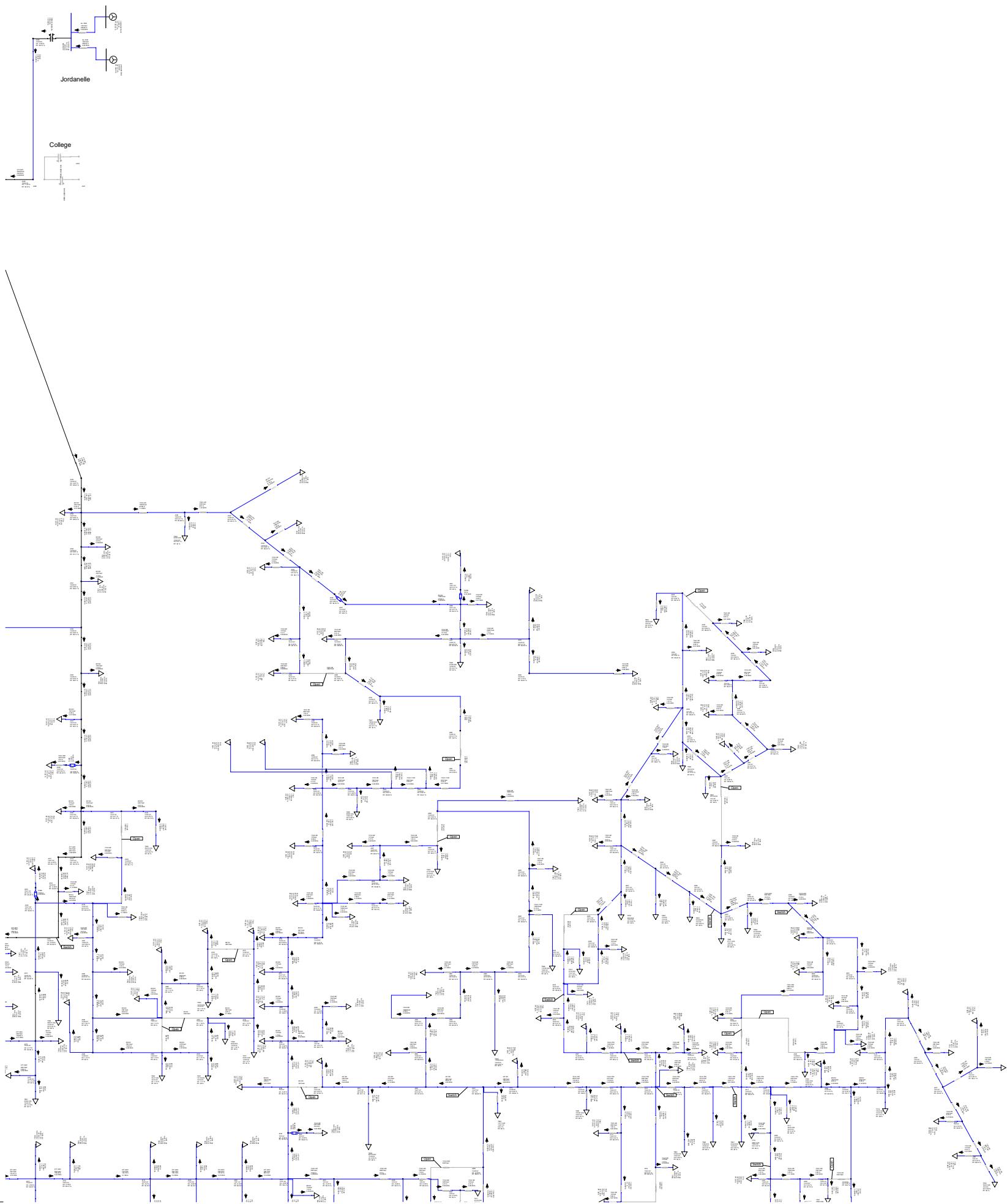


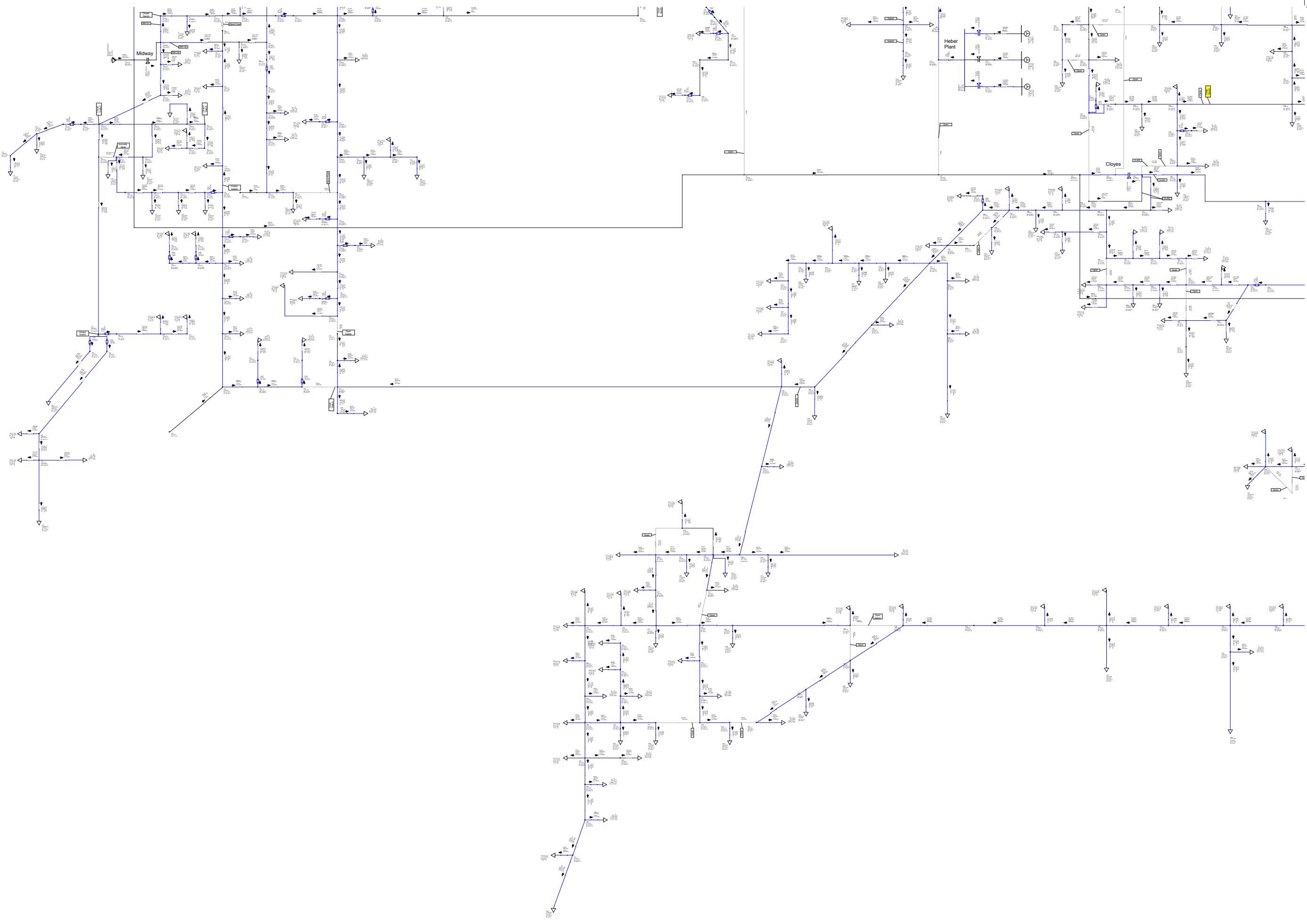
Heber 12.47 kV
2018 - Loss of Heber T1
transformer

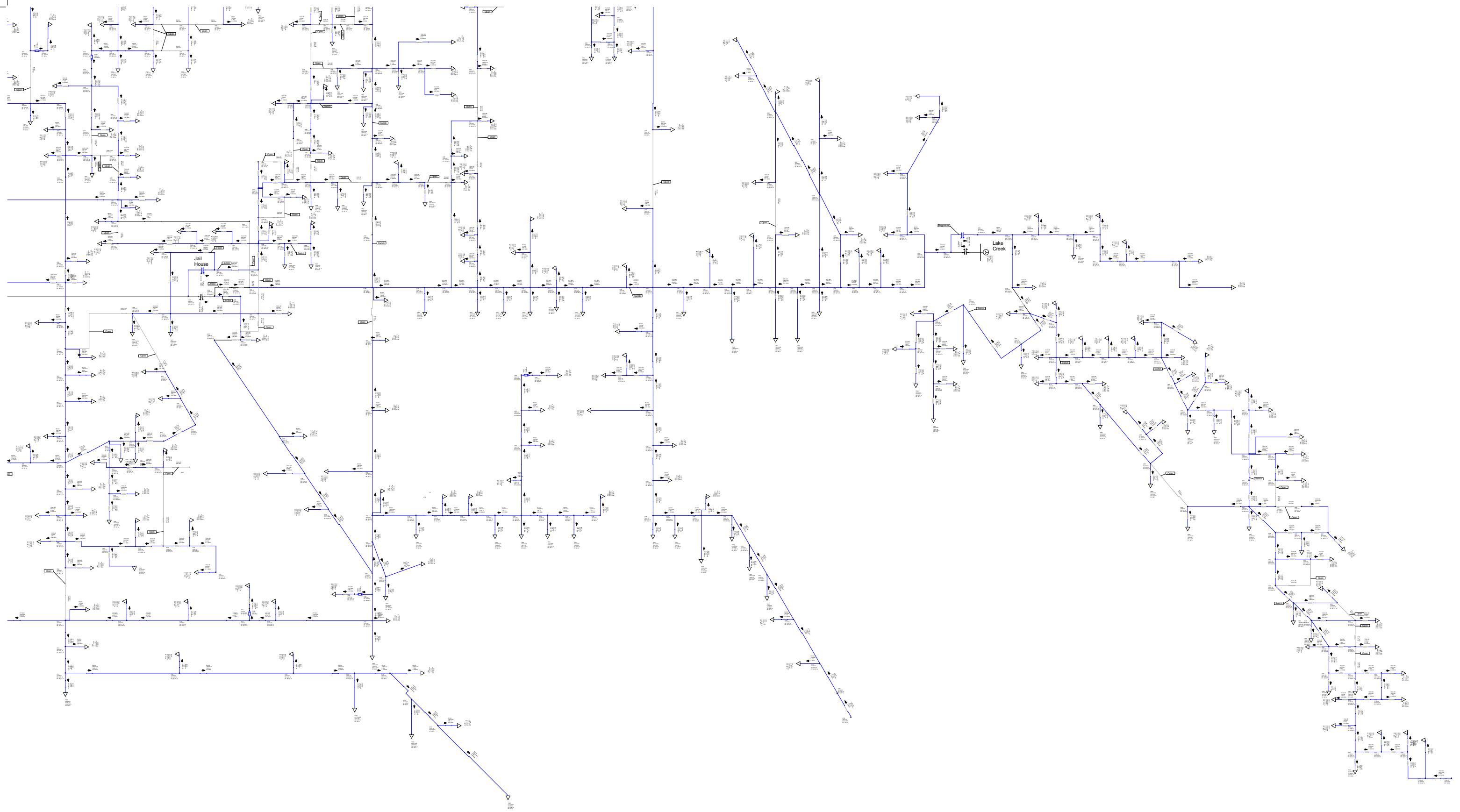
1. HB302 circuit can be picked up by
HB304 circuit.

2. HB303 circuit can be picked up by
HB305 circuit. One line section of #2
ACSR is approximately at capacity.
By 2022 it will be over capacity.







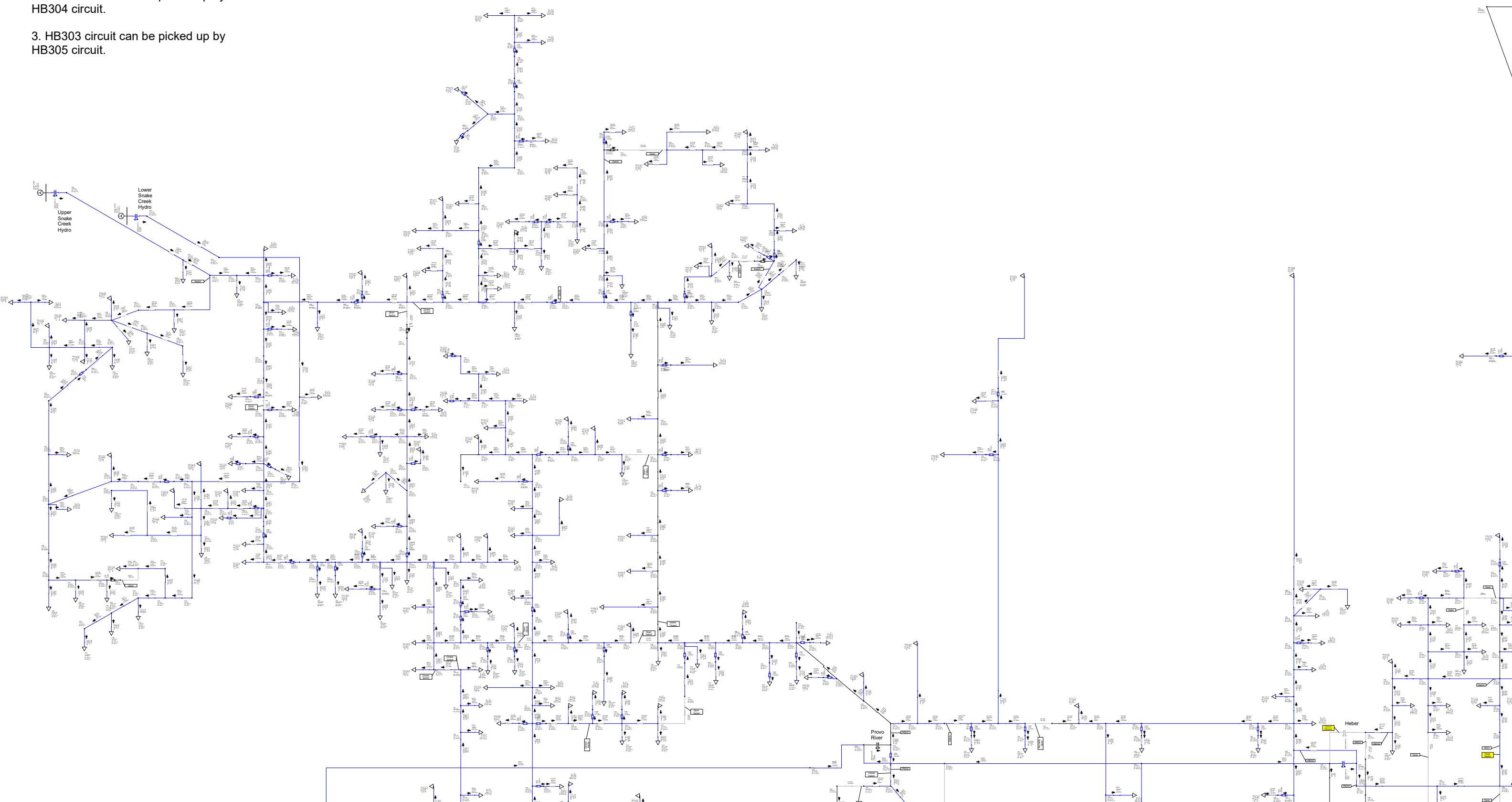


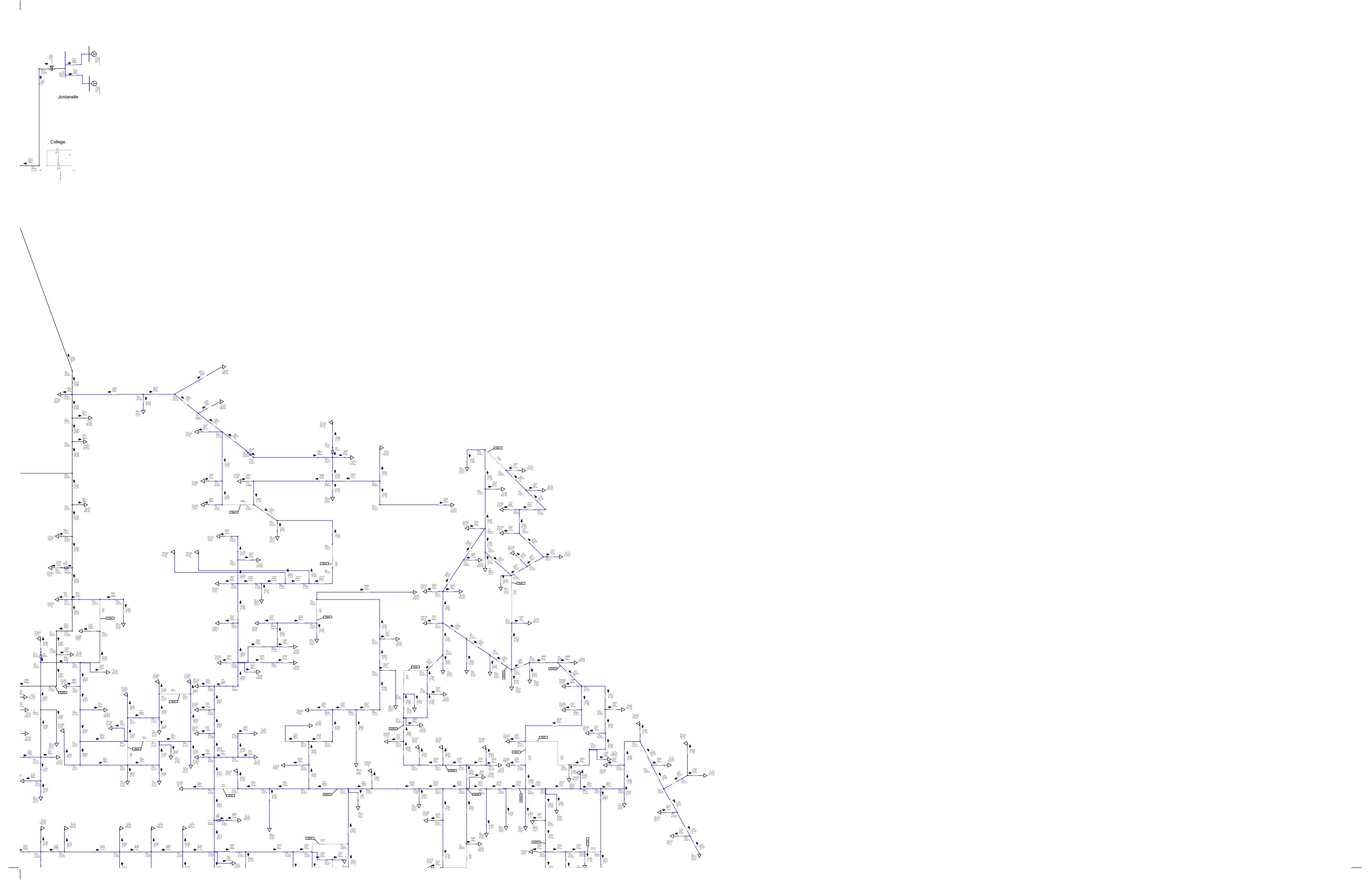
Heber 12.47 kV
2018 - Loss of Heber T1
transformer
(After Upgrades)

1. Upgrade HB305 circuit from 600
West 200 South to 600 West 300
South.

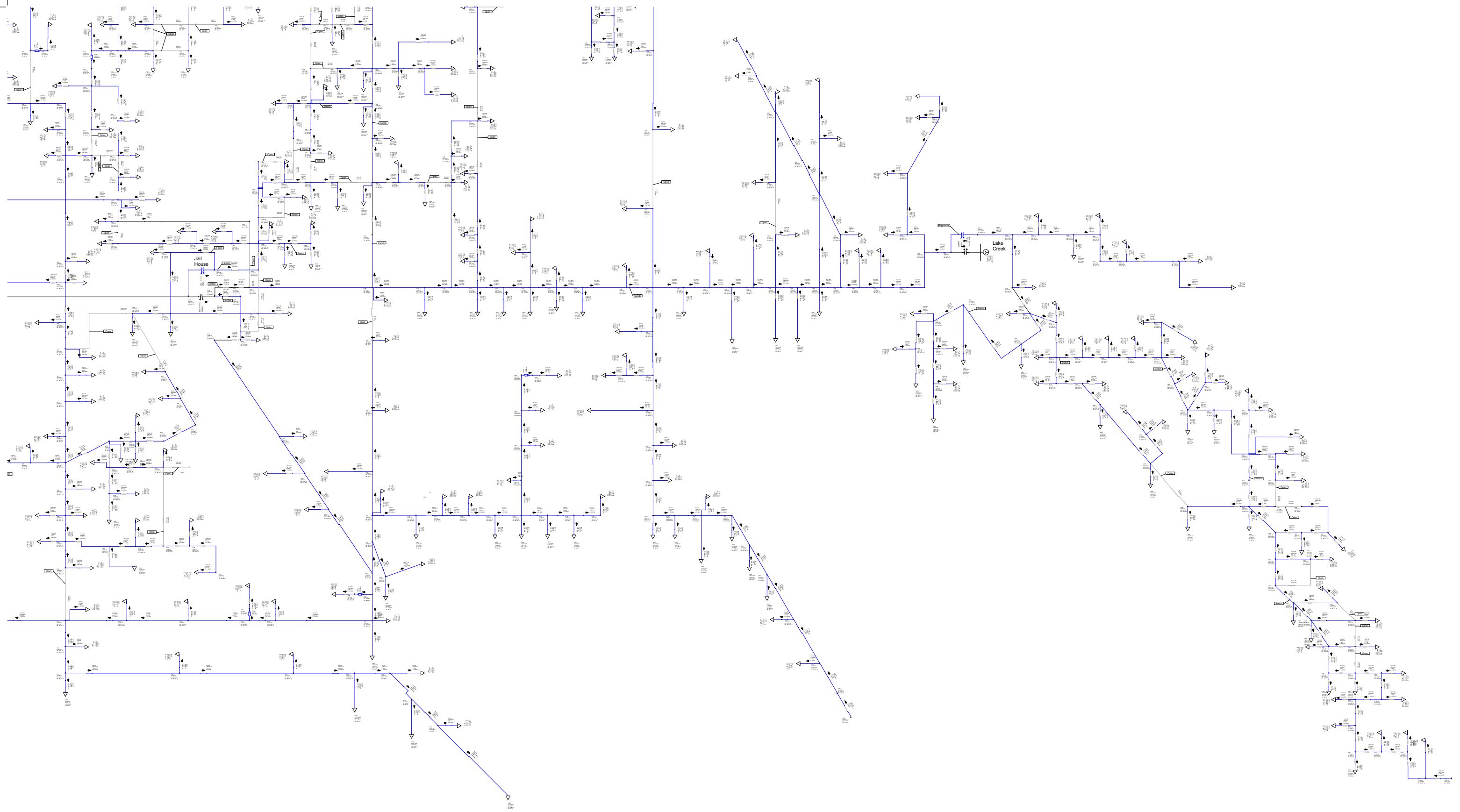
2. HB302 circuit can be picked up by
HB304 circuit.

3. HB303 circuit can be picked up by
HB305 circuit.





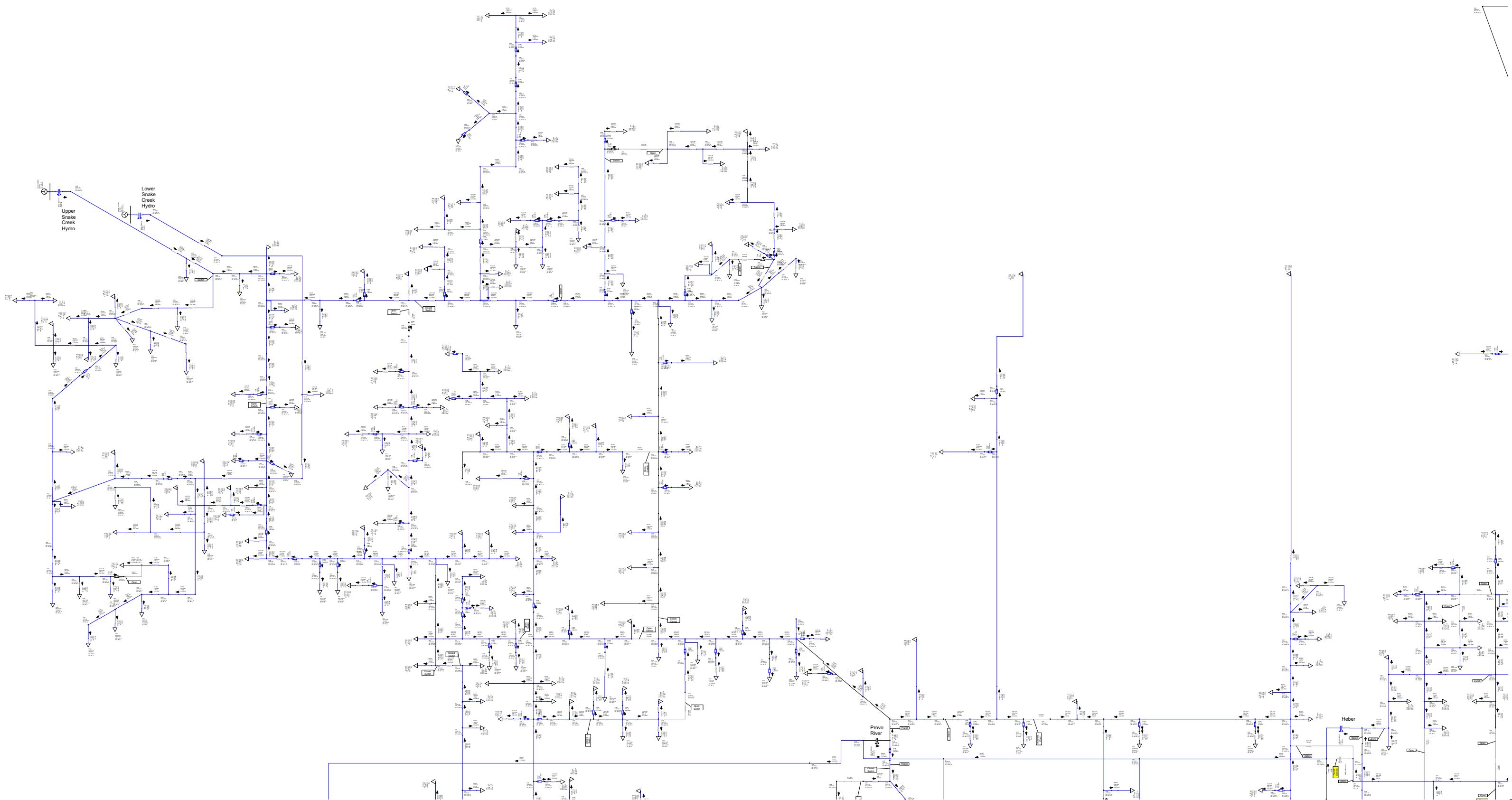


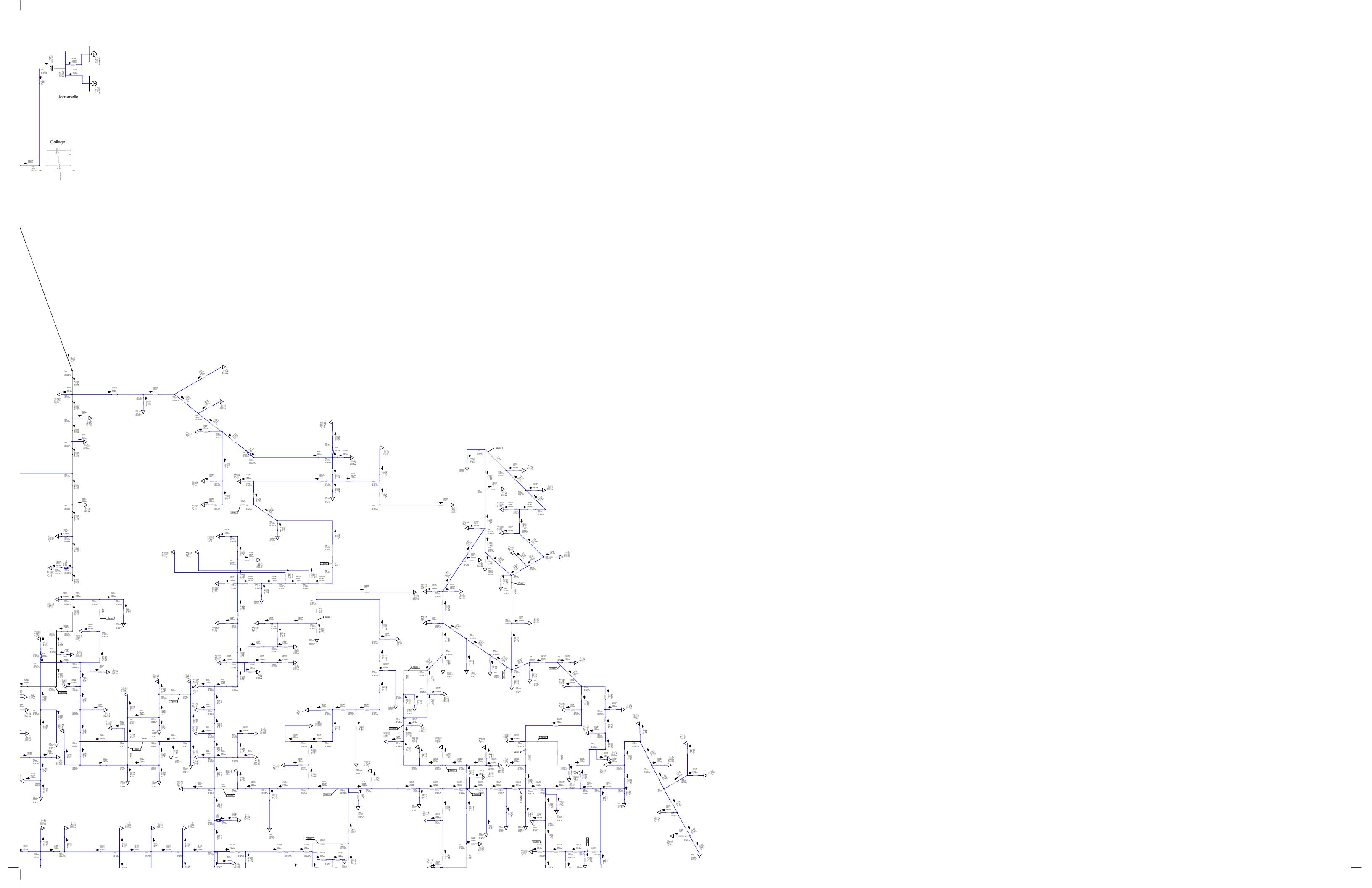


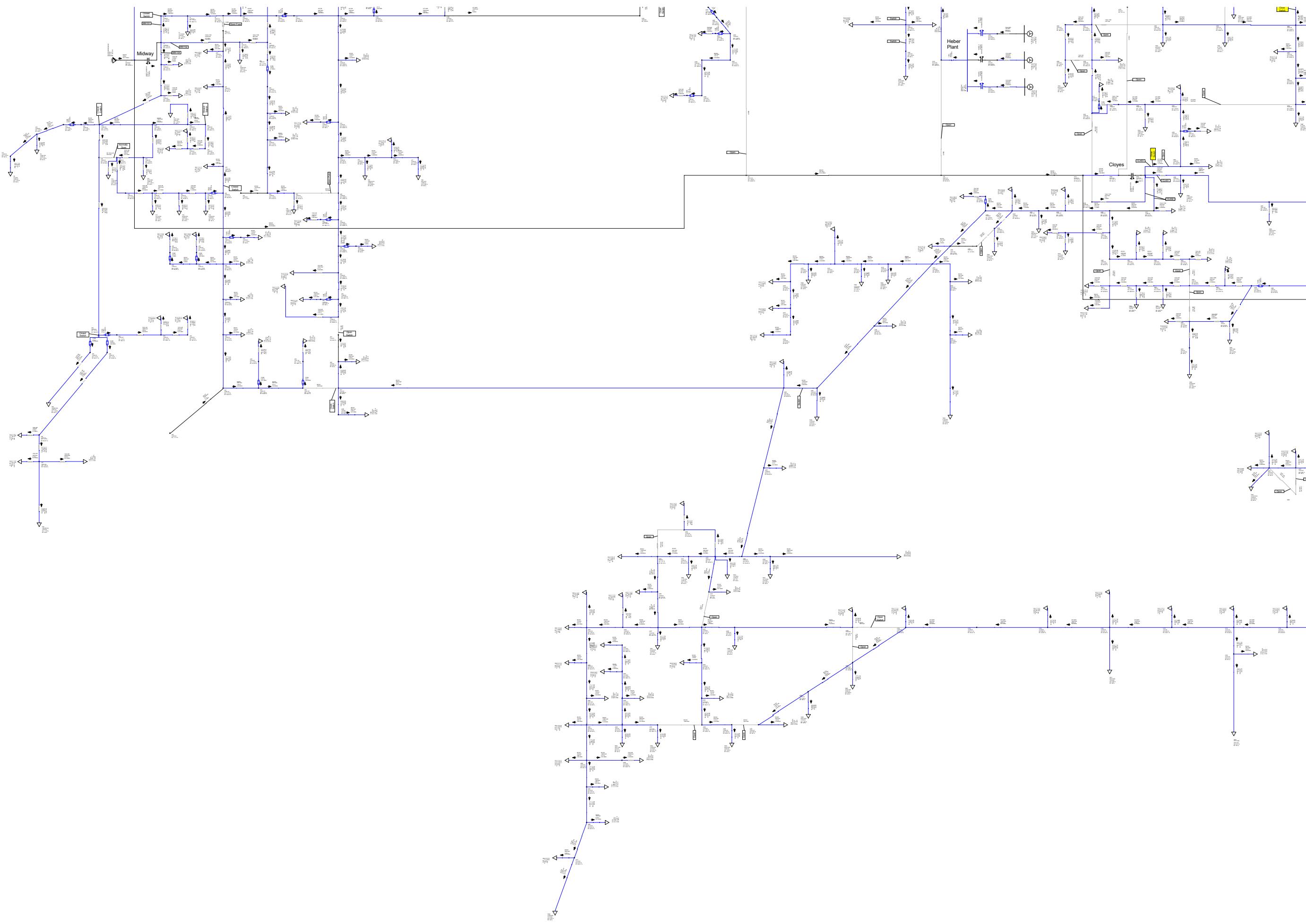
Heber 12.47 kV
2018 - Loss of Heber T2 Transformer

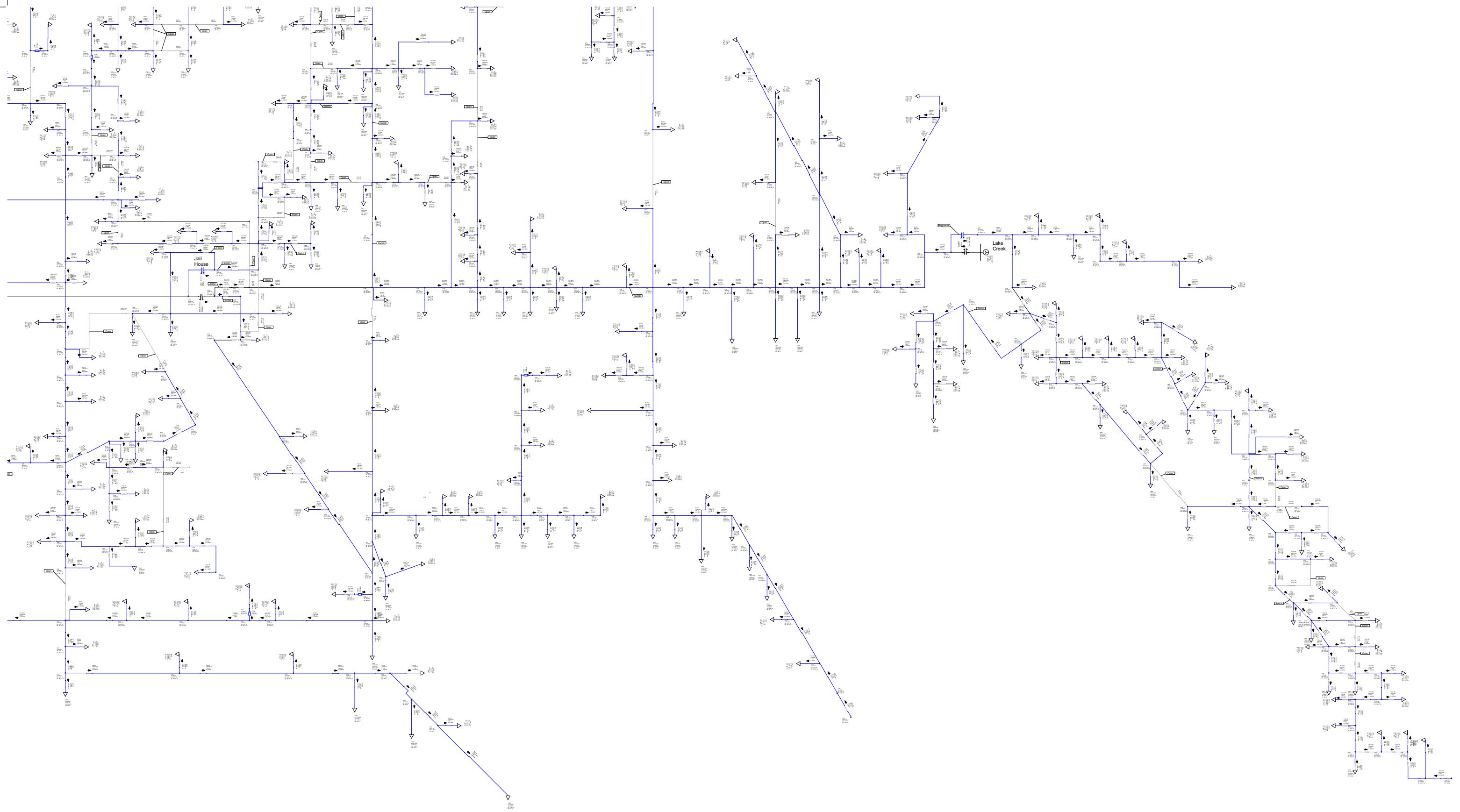
1. HB304 circuit can be picked up by HB303.

2. HB305 circuit can be picked up by CL403.





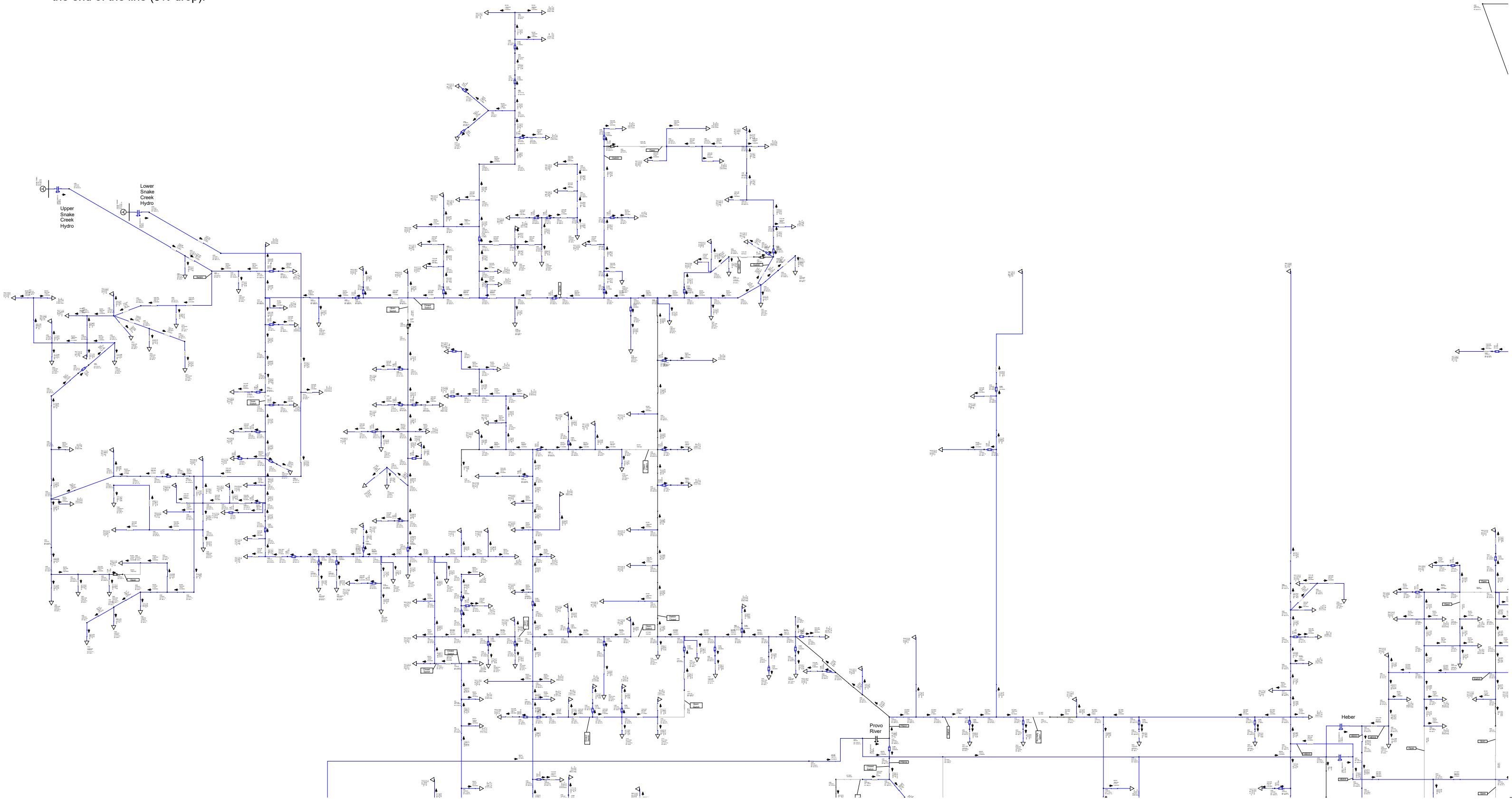


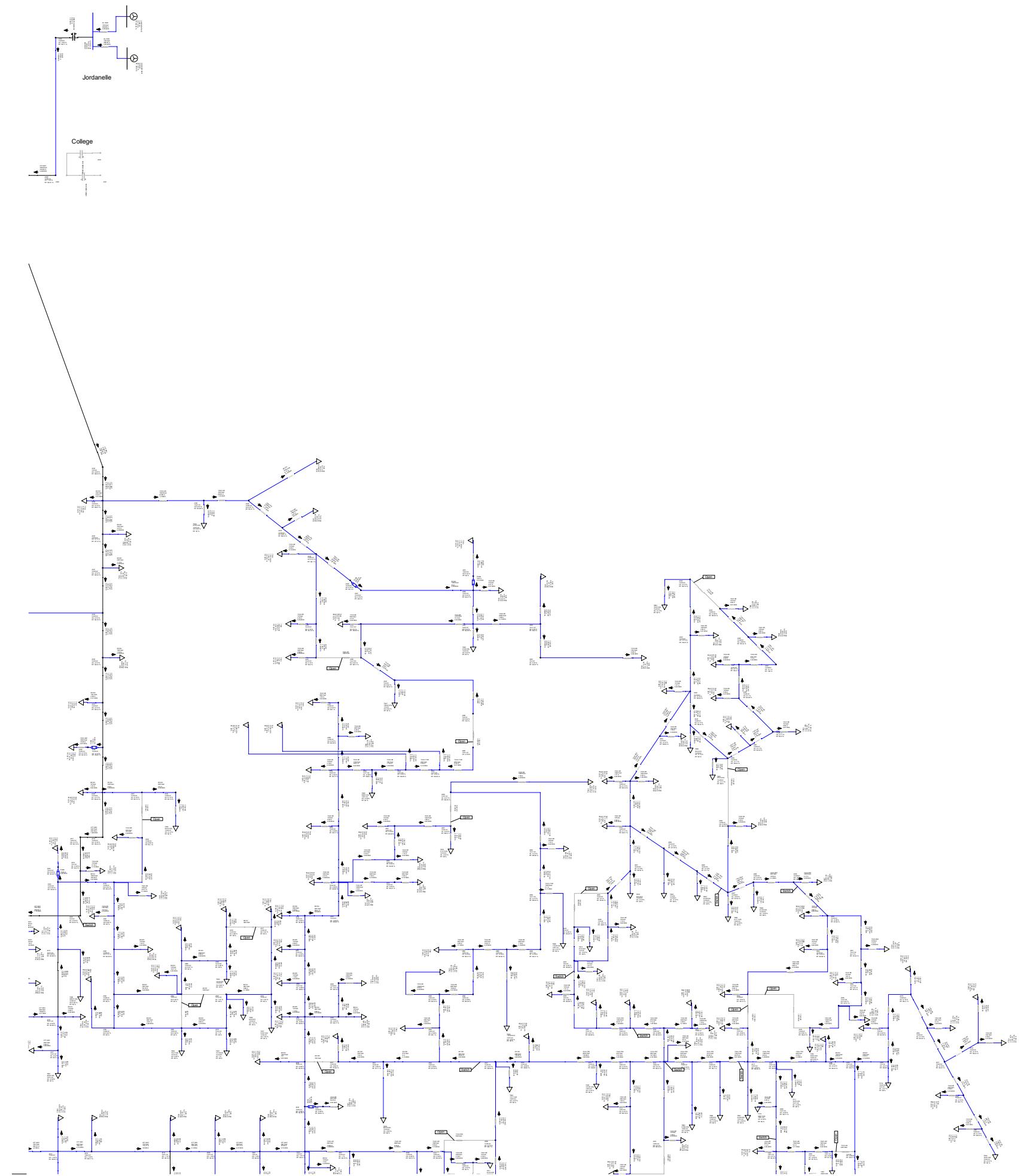


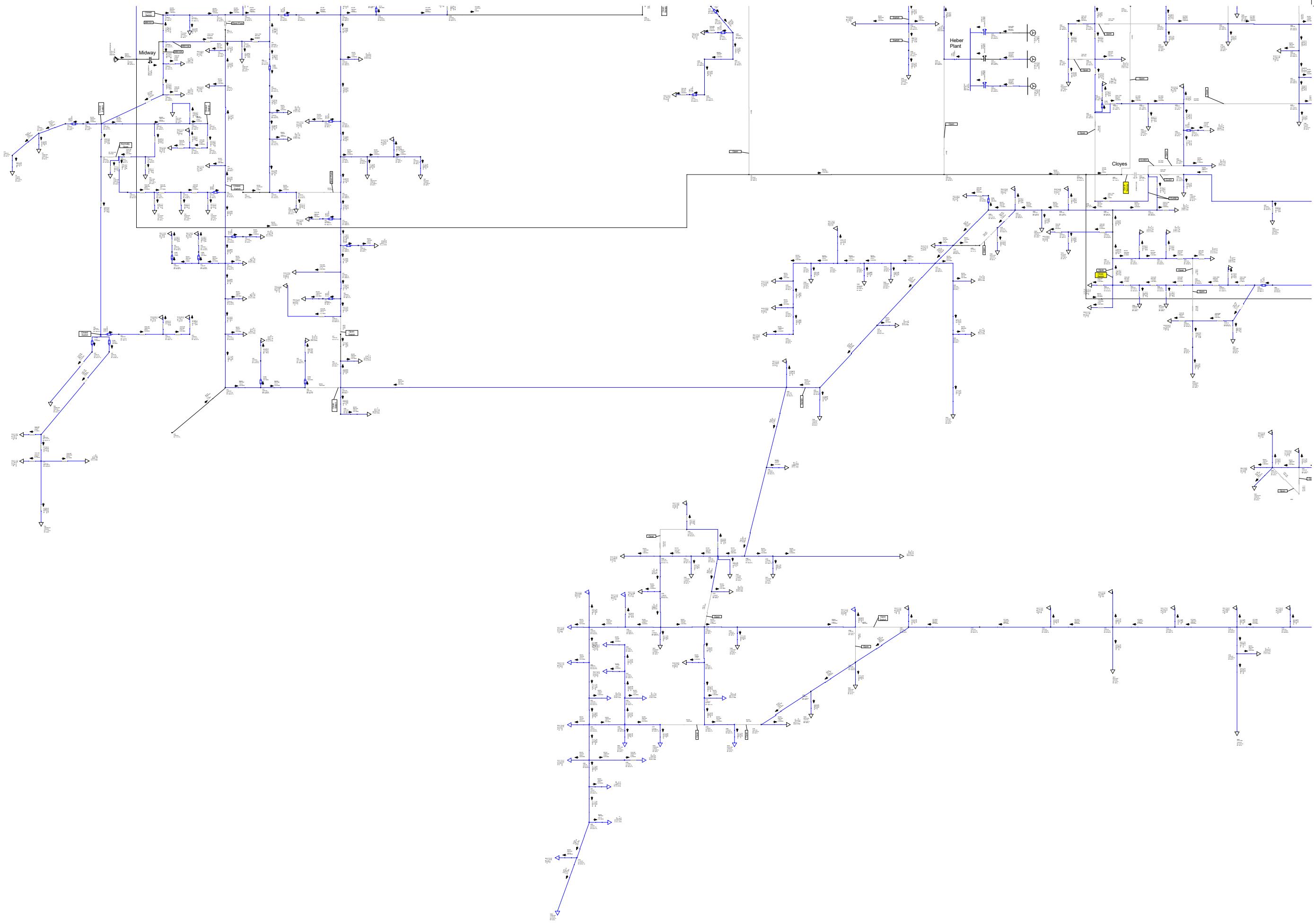
Heber 12.47 kV
2018 - Loss of Cloyes transformer

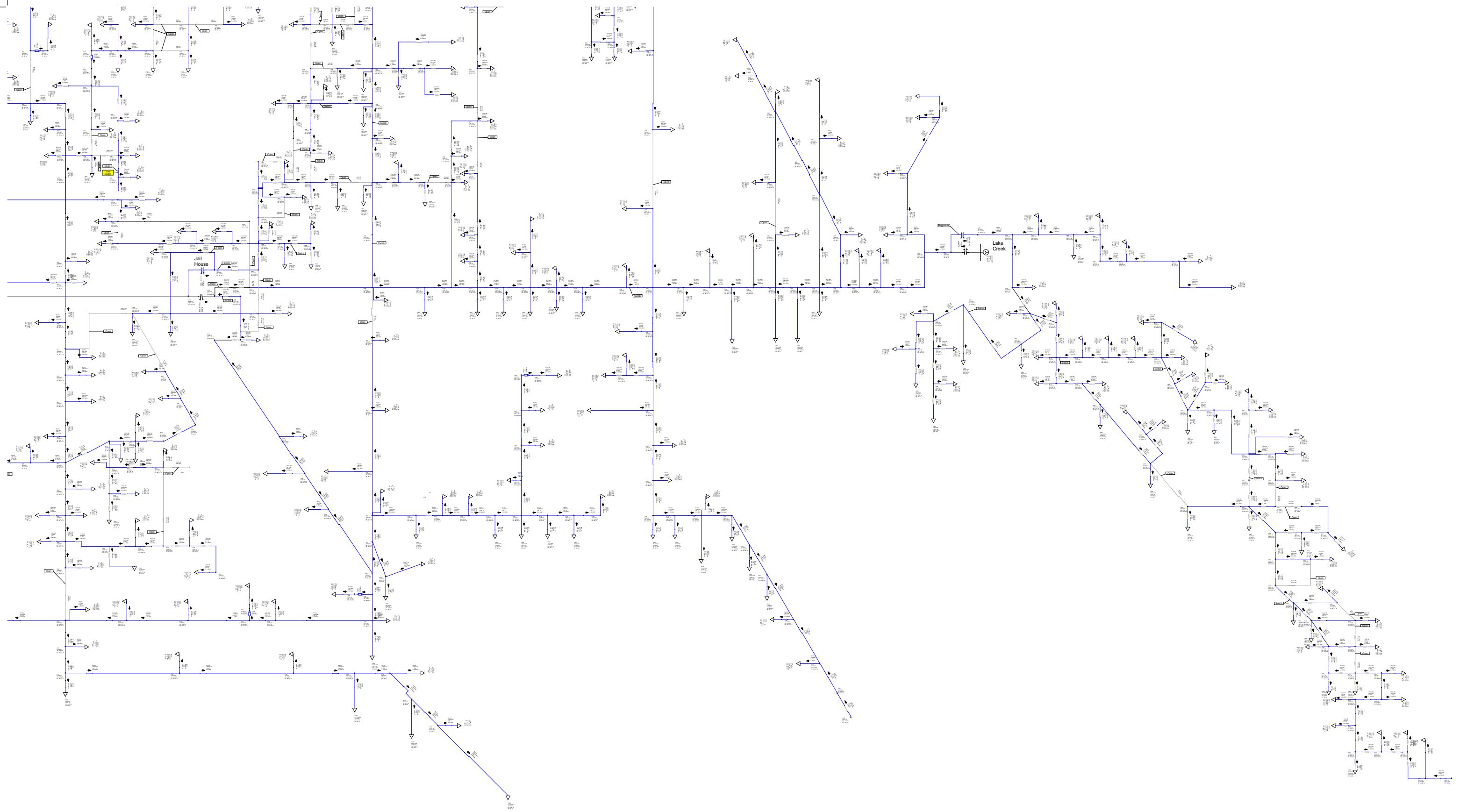
1. CL401 can be picked up by
HB304.

2. CL402 can be picked up by
HB303. There are voltage issues at
the end of the line (5% drop).









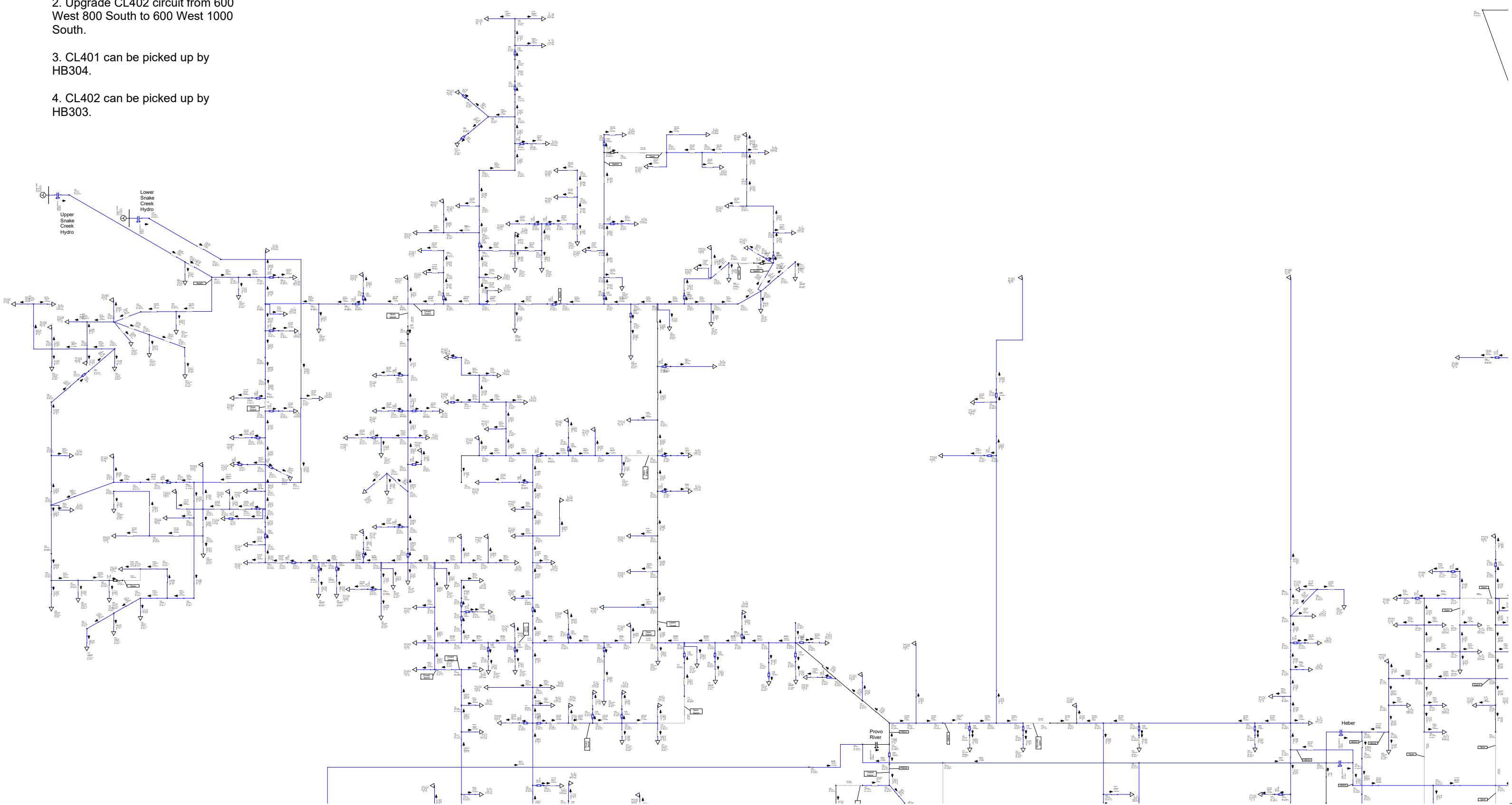
Heber 12.47 kV
2018 - Loss of Cloyes transformer
(After Upgrades)

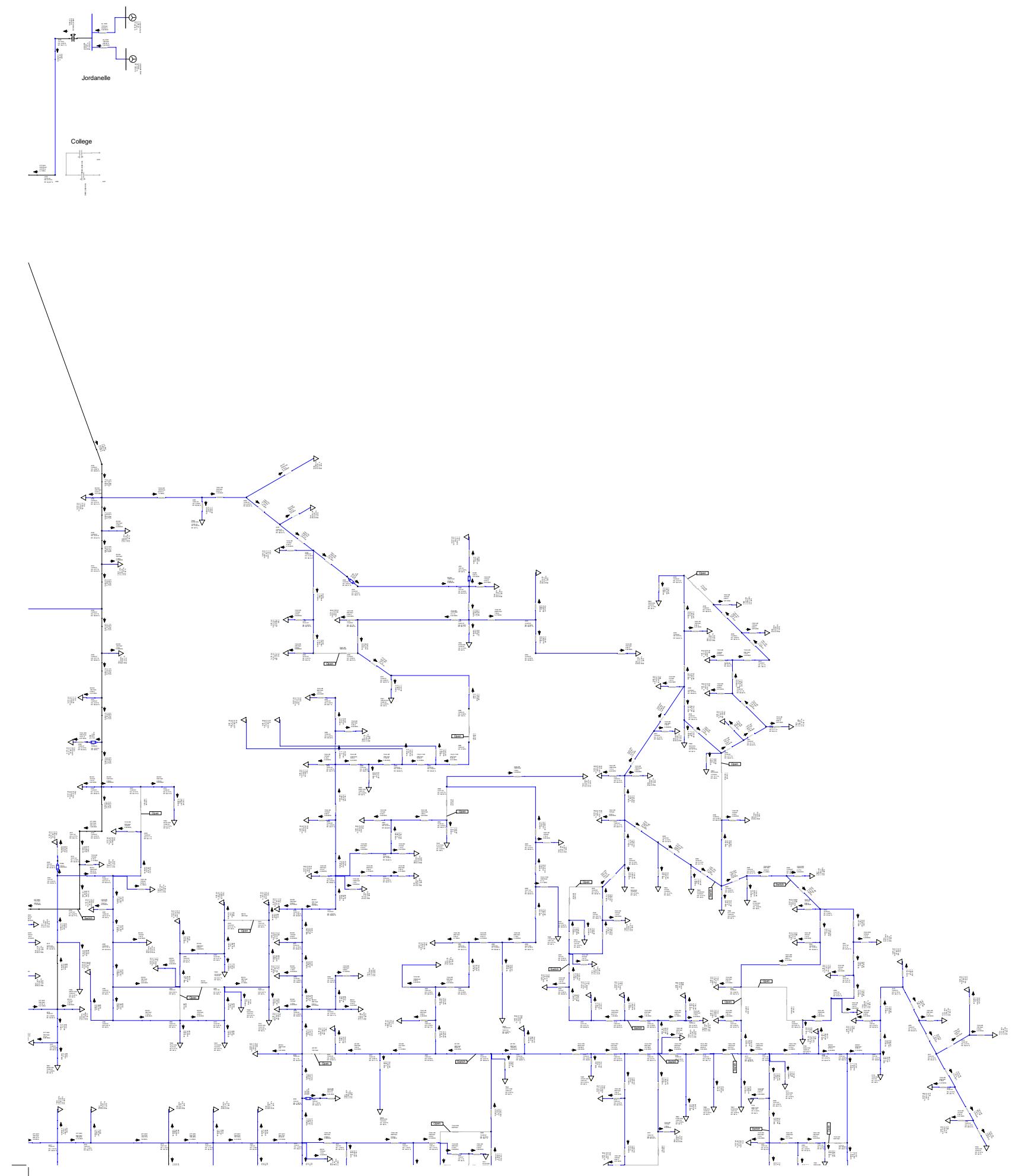
1. Upgrade CL402 circuit from
Cloyes substation to 2400 South
2650 West.

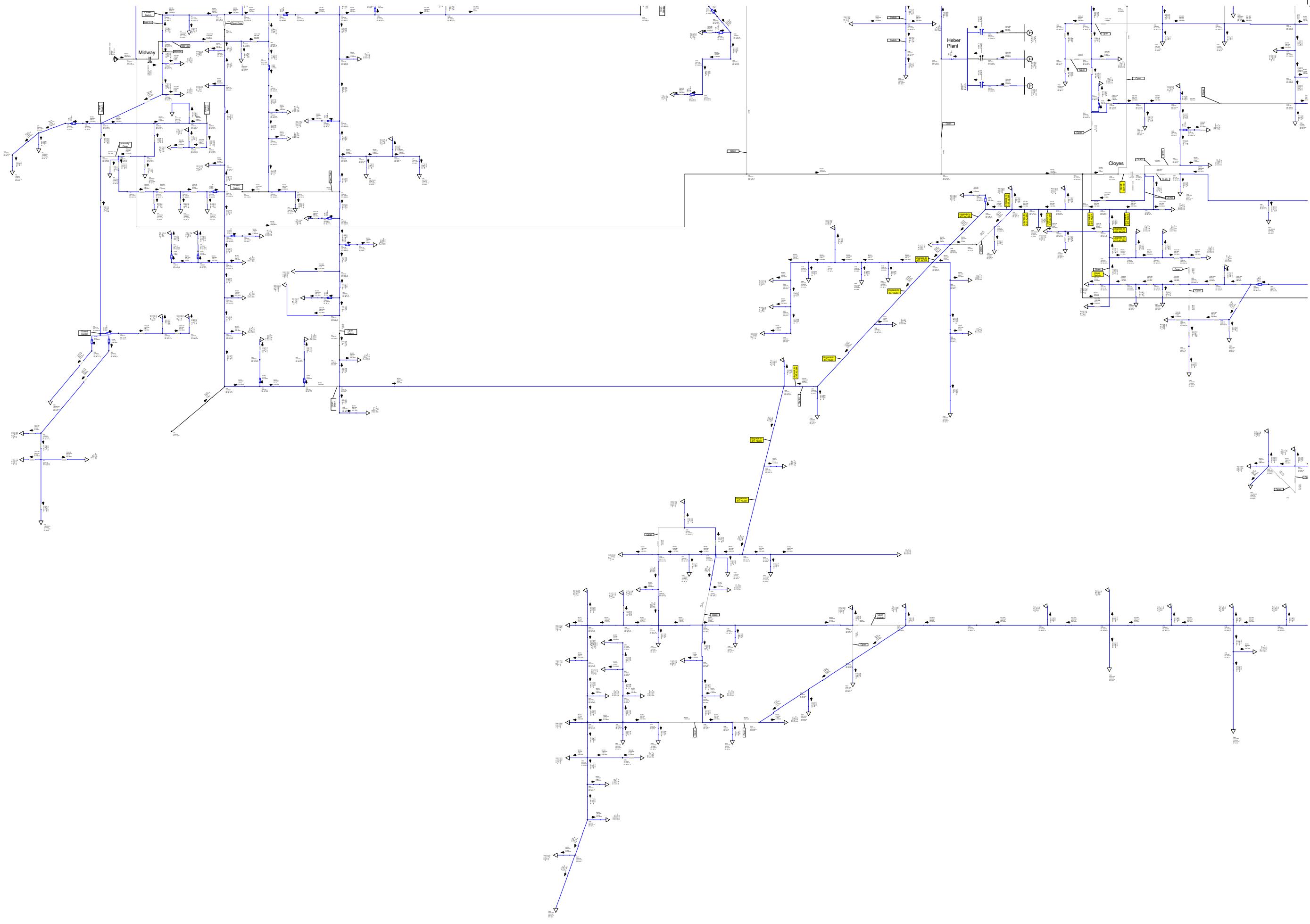
2. Upgrade CL402 circuit from 600
West 800 South to 600 West 1000
South.

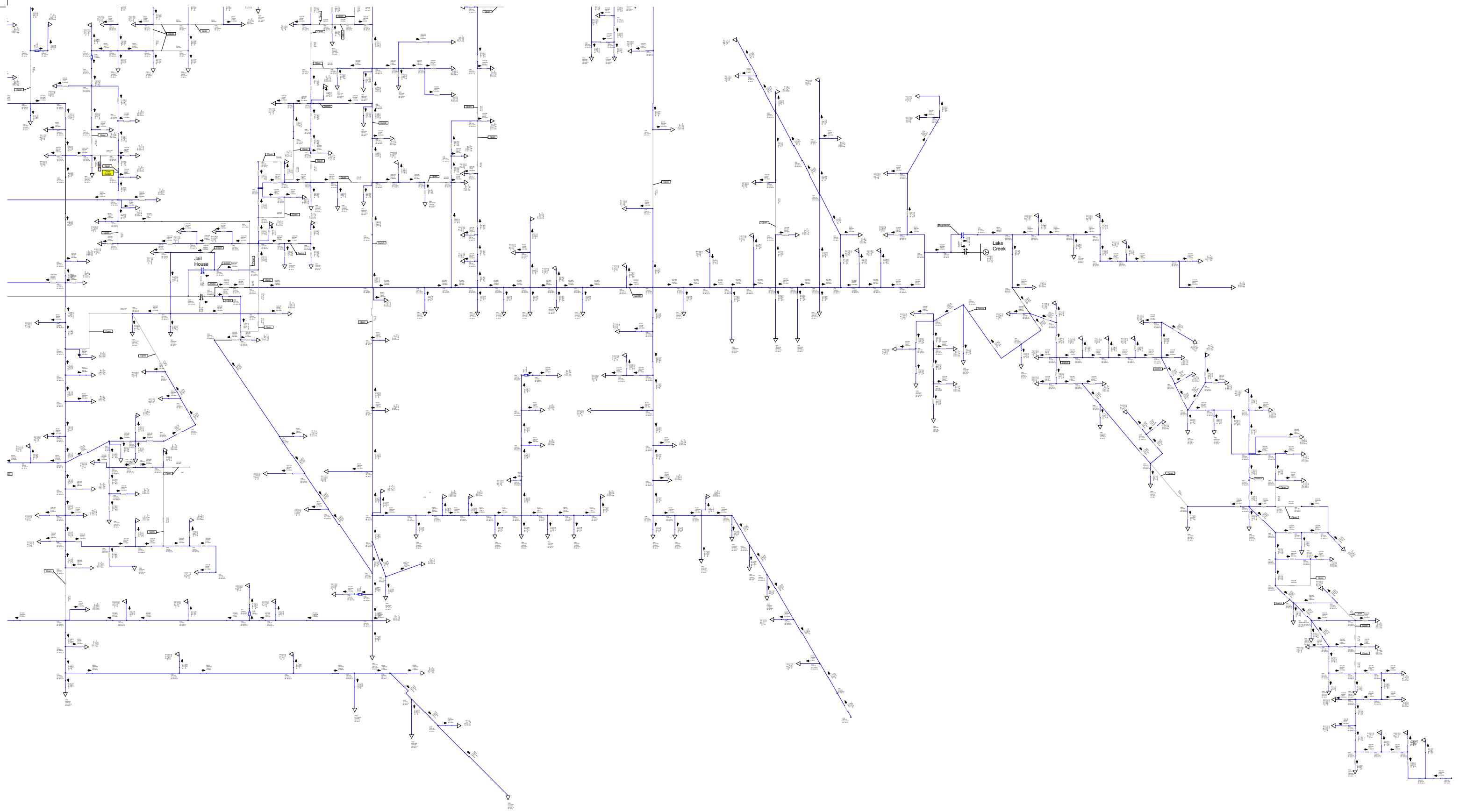
3. CL401 can be picked up by
HB304.

4. CL402 can be picked up by
HB303.





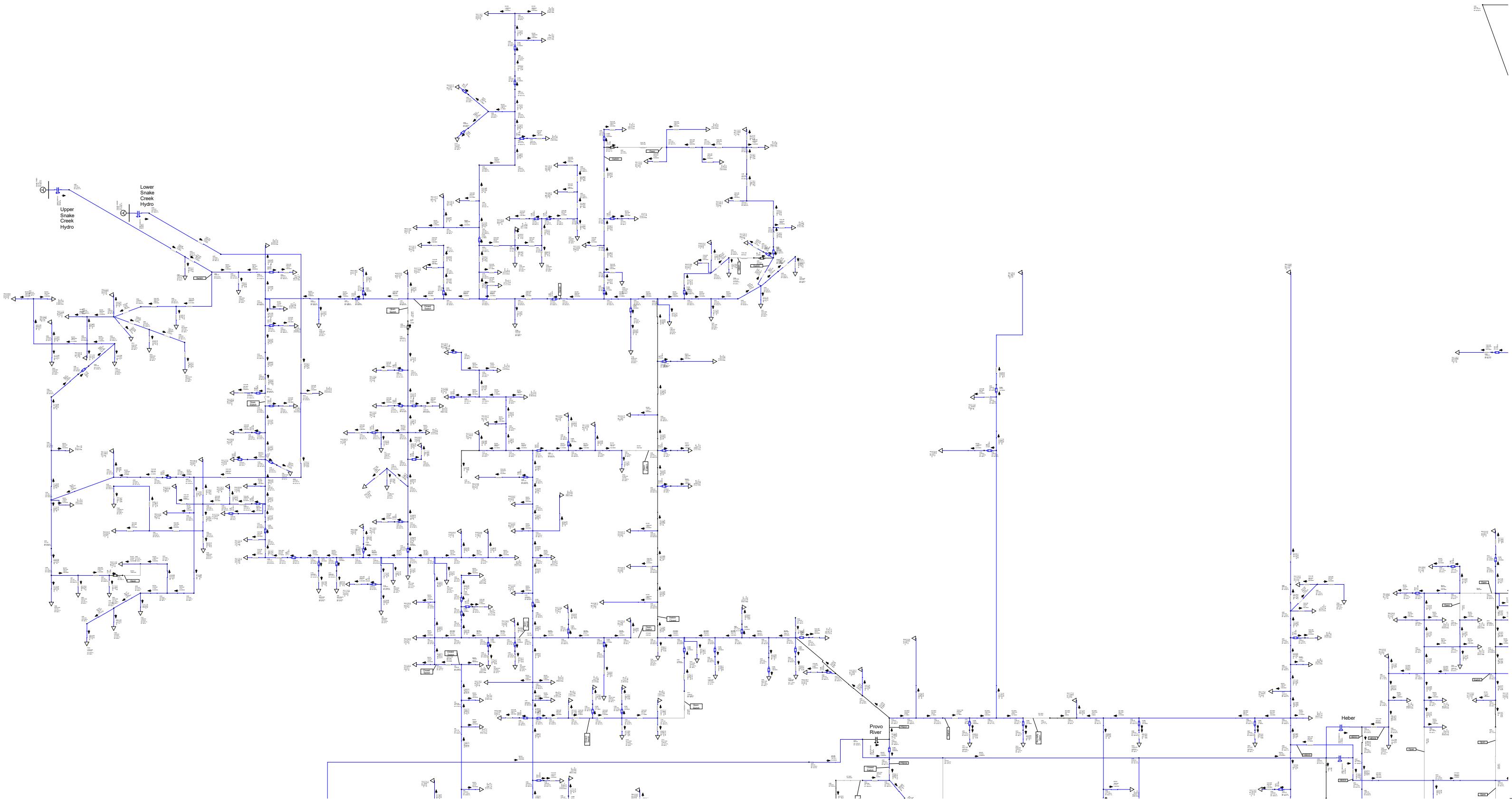


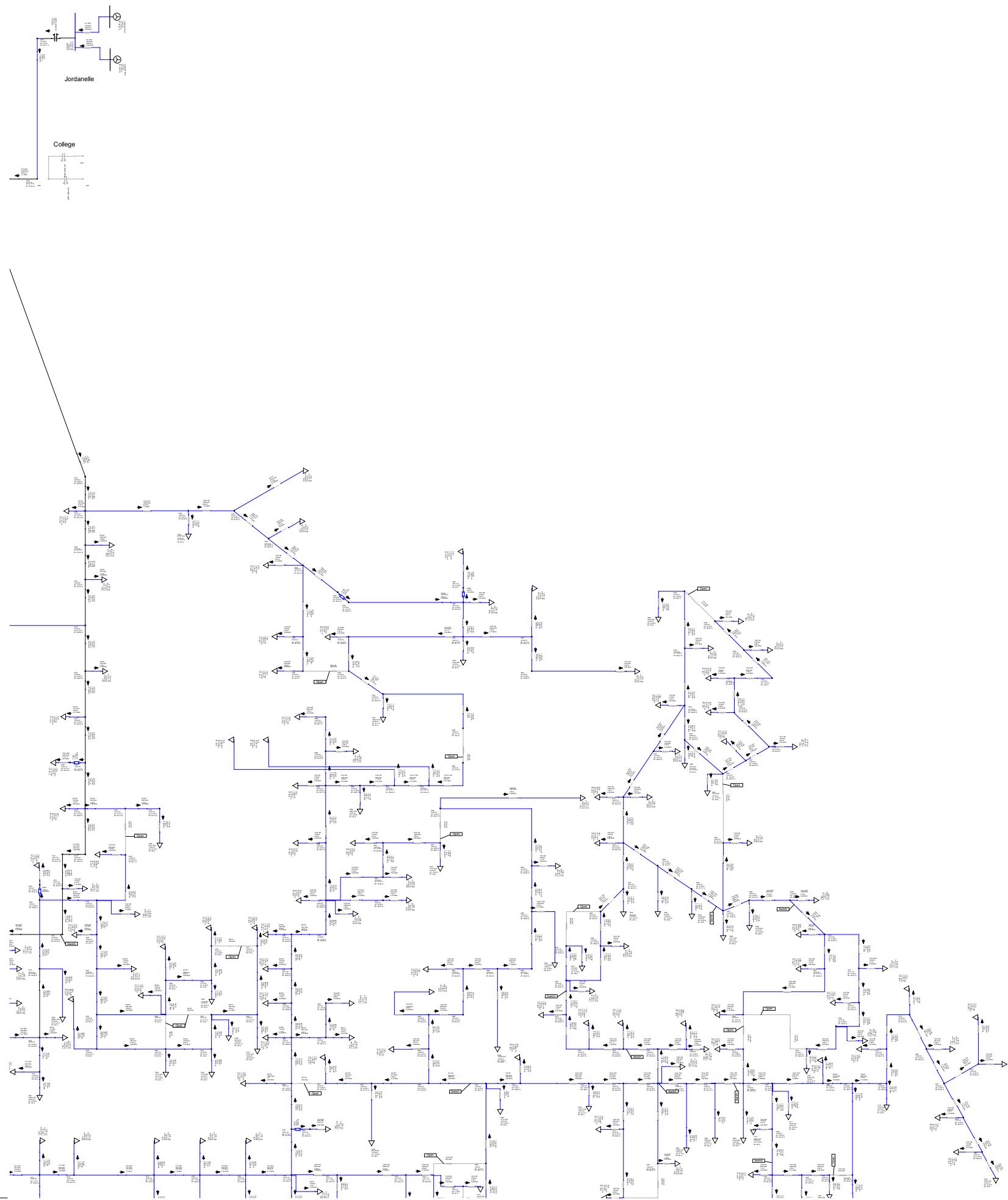


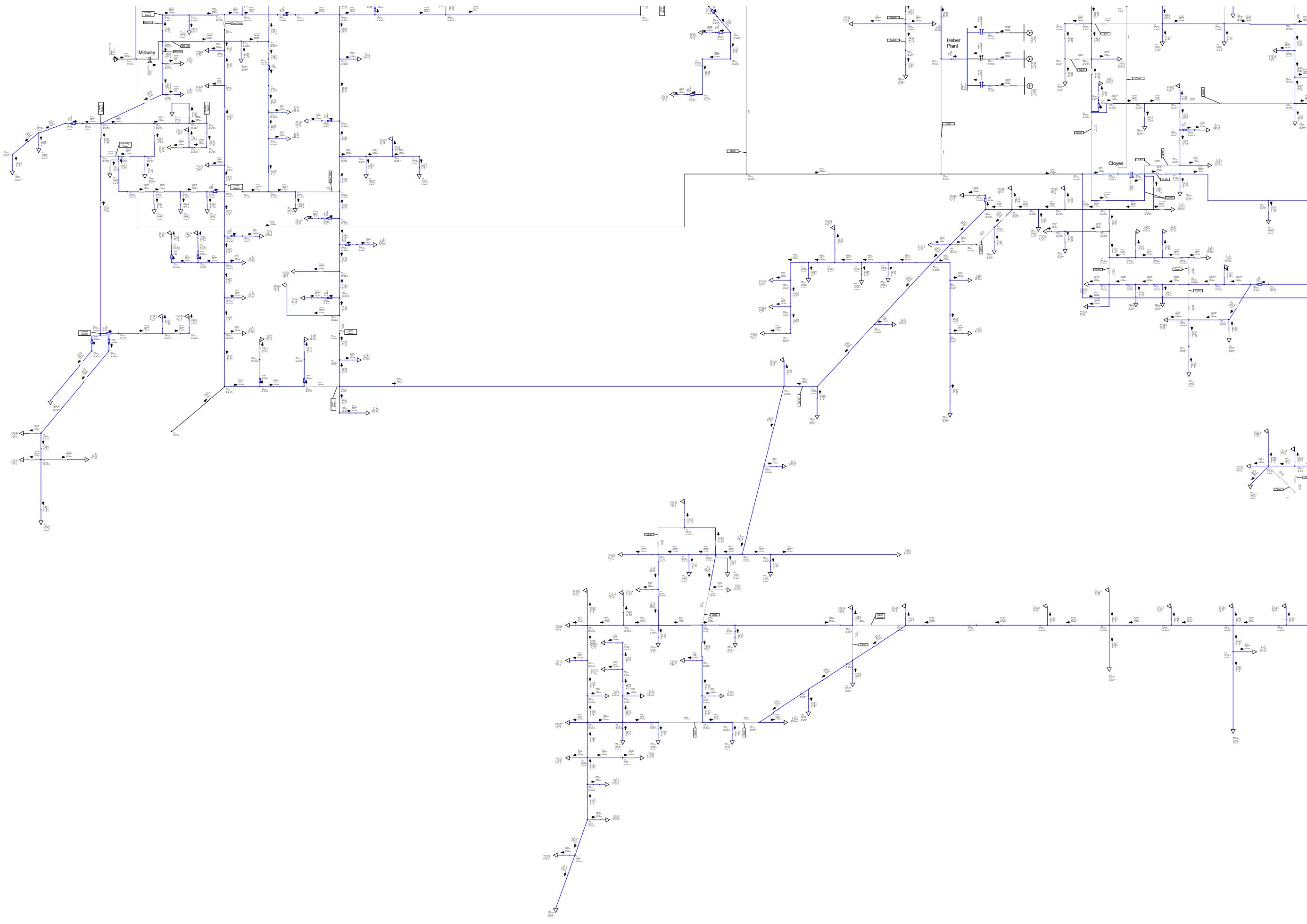
Heber 12.47 kV
2018 - Loss of Jailhouse T1 transformer

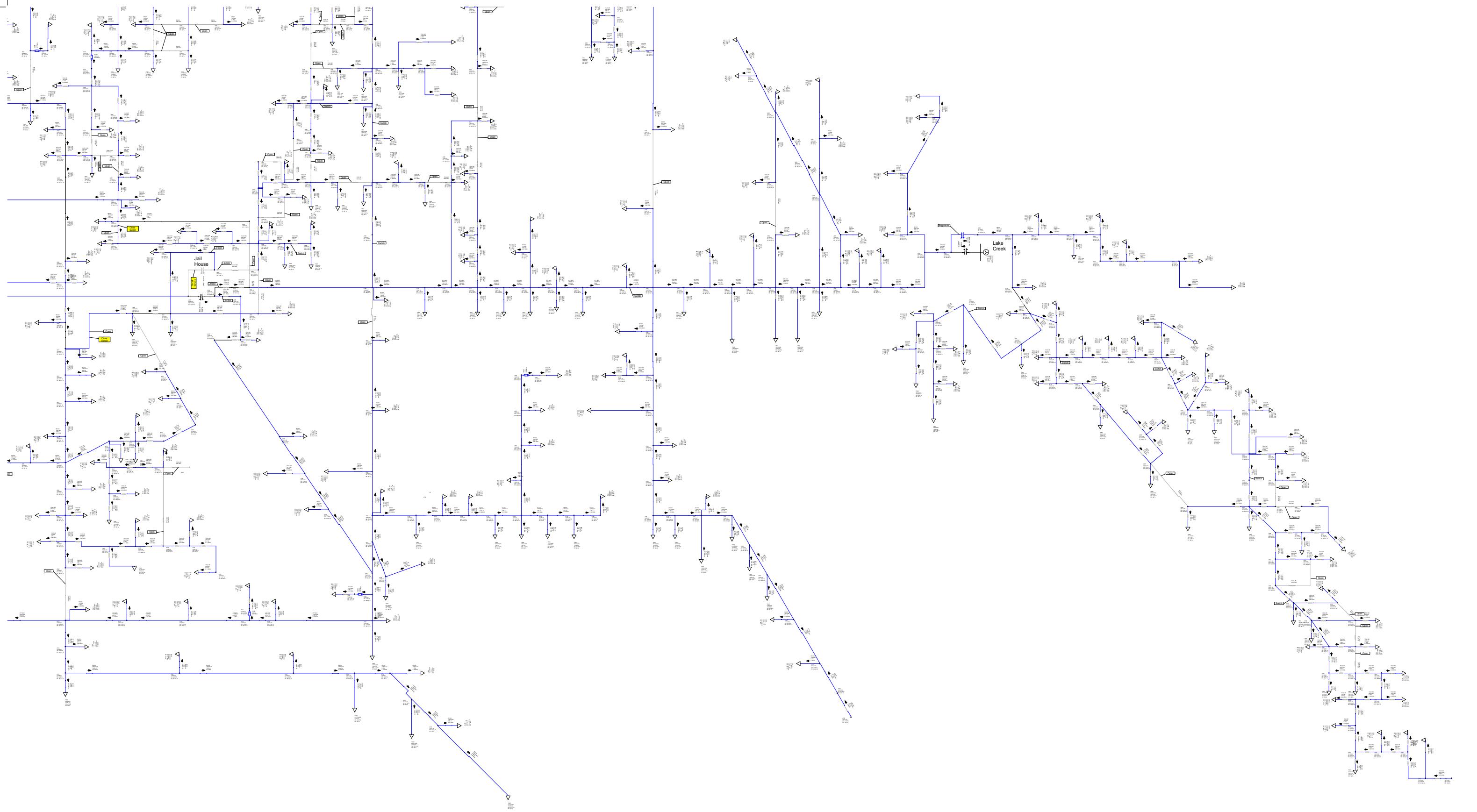
1. JH501 circuit can be picked up by
HB303.

2. JH503 circuit can be picked up by
CL401.









Heber 12.47 kV

2018 - Loss of Jailhouse T2 transformer

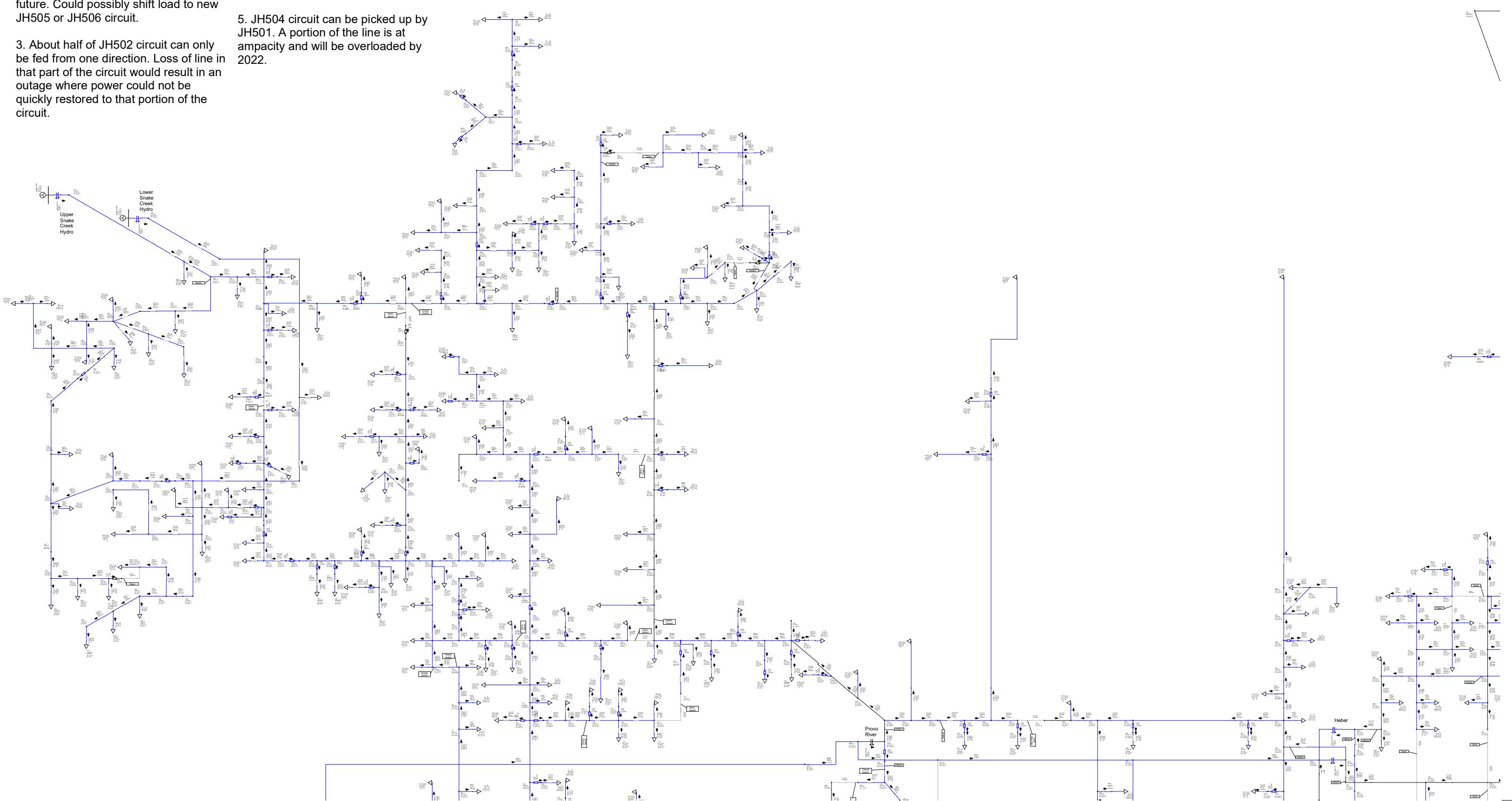
1. Model shows voltage issues on JH502 during peak load (4% drop).

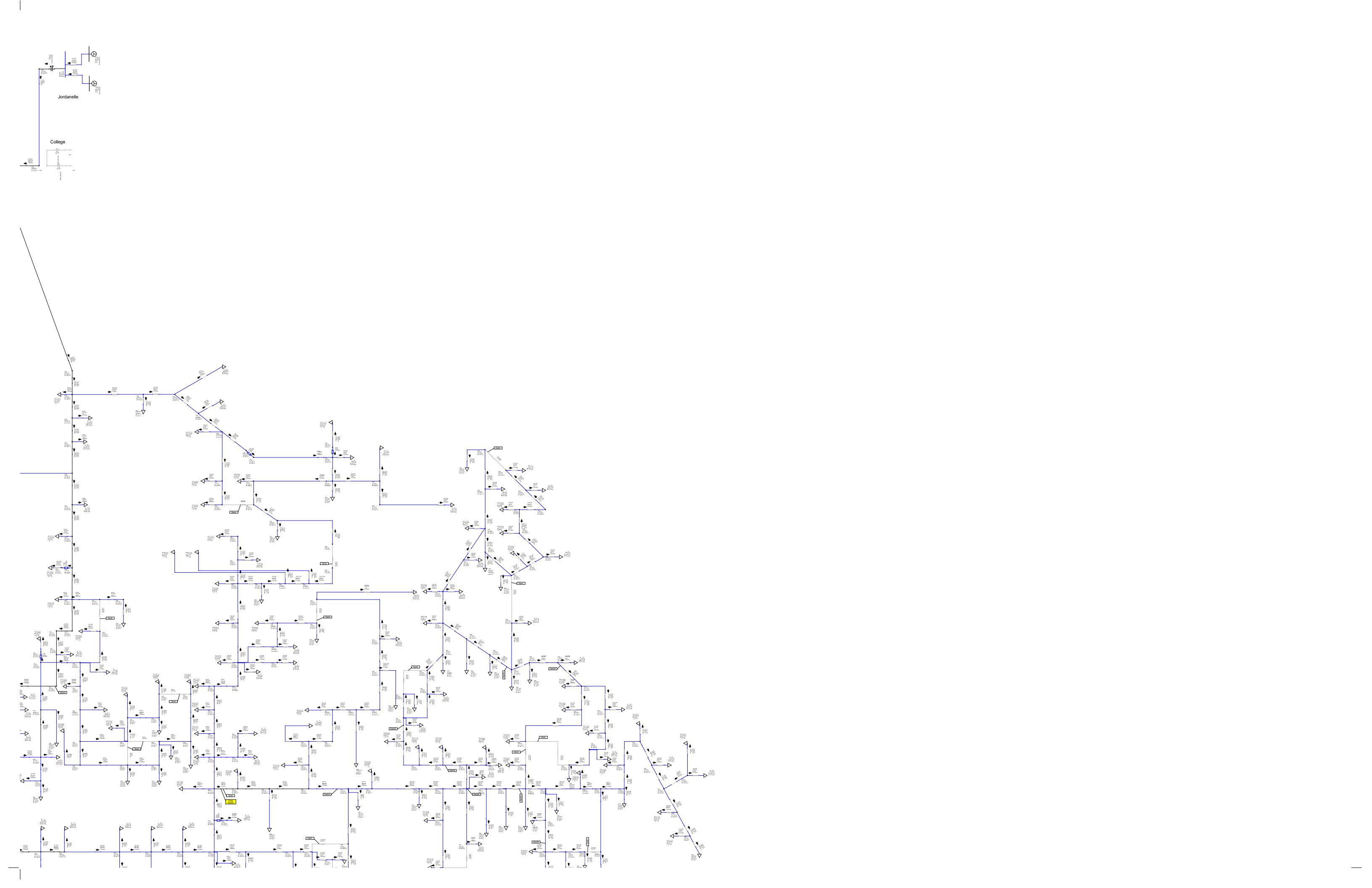
2. JH502 load is approximately 382 amps when Lake Creek generation is off. A new substation to the West of Jailhouse is probably necessary in the future. Could possibly shift load to new JH505 or JH506 circuit.

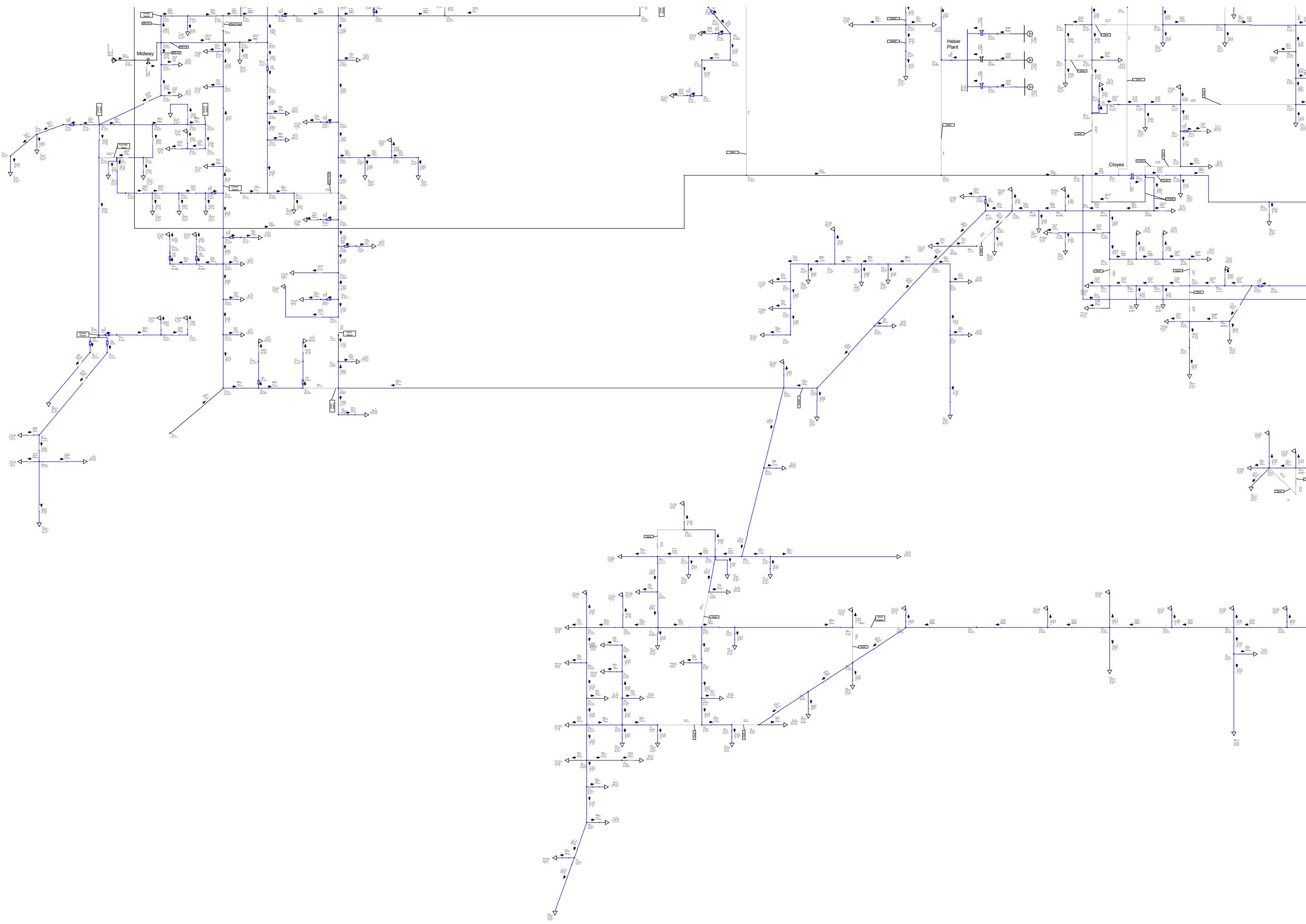
3. About half of JH502 circuit can only be fed from one direction. Loss of line in that part of the circuit would result in an outage where power could not be quickly restored to that portion of the circuit.

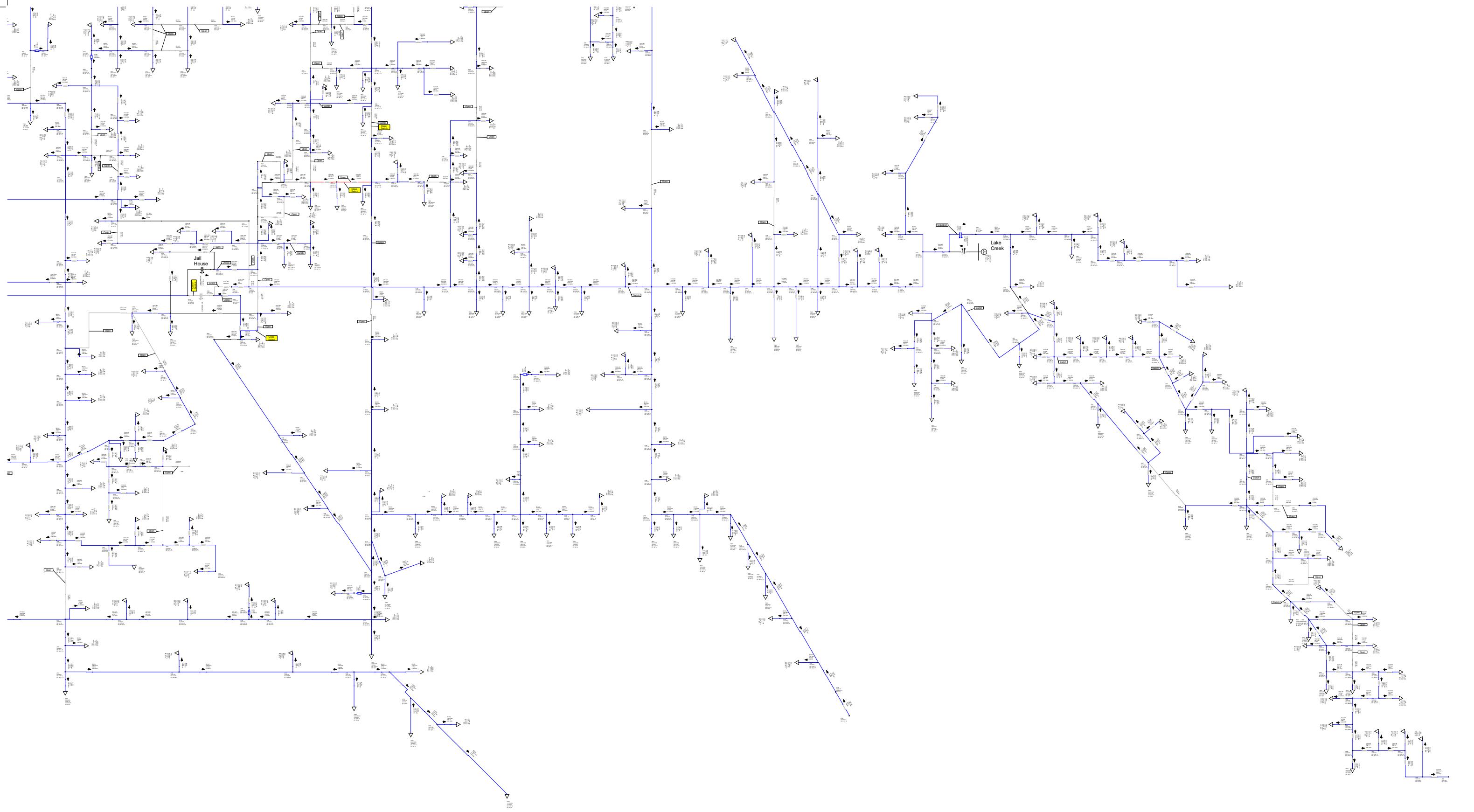
4. The top half of JH502 circuit can be picked up by HB304. The bottom half can be picked up by JH503. No single circuit can pick up the entire JH502 circuit. Part of JH502 and JH503 circuits would be overloaded. There are voltage issues at the end of the line.

5. JH504 circuit can be picked up by JH501. A portion of the line is at ampacity and will be overloaded by 2022.









Heber 12.47 kV

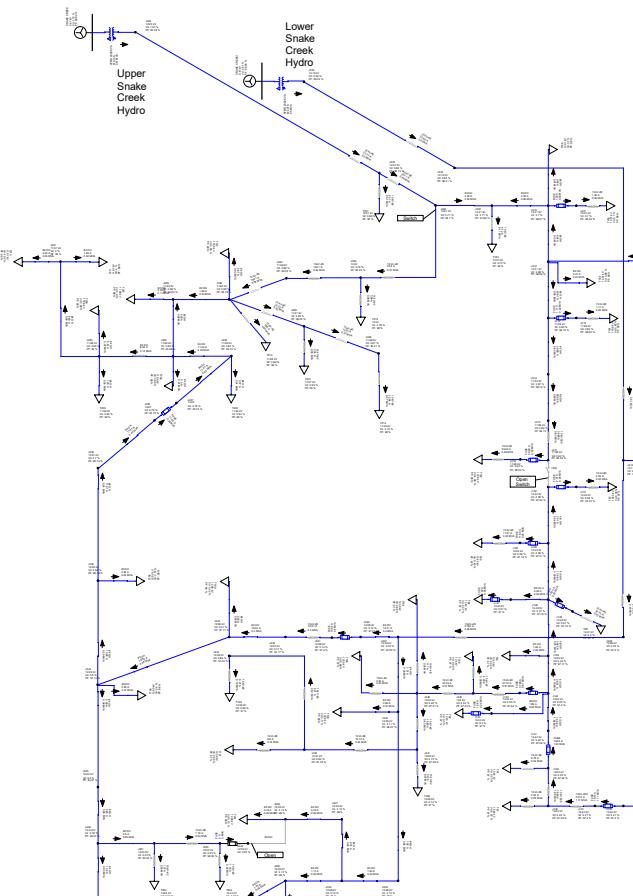
2018 - Loss of Jailhouse T2 transformer
(After Upgrades)

1. Install voltage regulators on JH502 at approximately 8000 East Lake Creek Road.

2. Upgrade JH502 and JH503 circuits from 800 South Old Mill Drive to 2200 South Old Mill Drive.

3. Upgrade JH501 circuit from 1500 South Providence Drive to 450 East 1500 South.

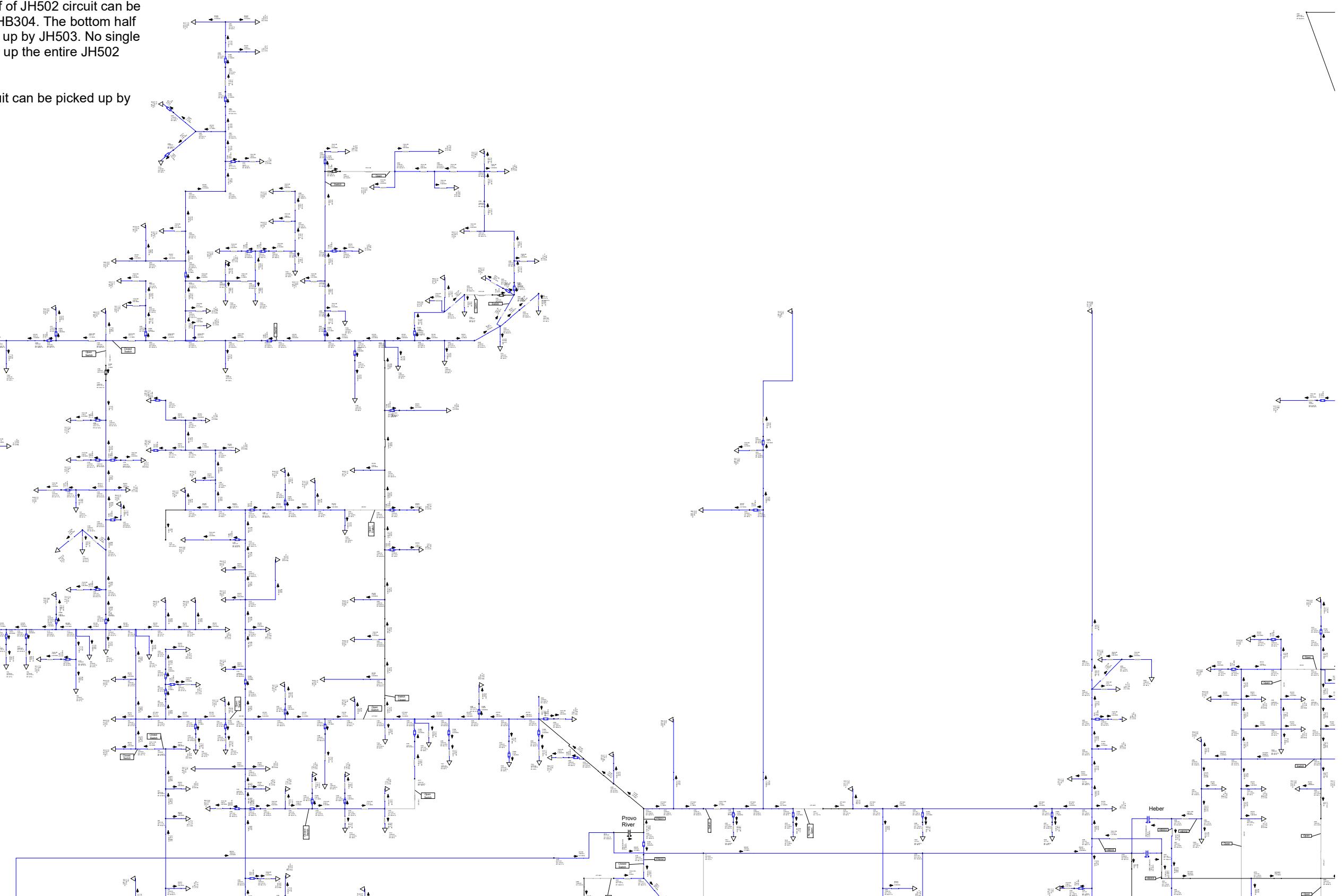
4. JH502 load is approximately 382 amps when Lake Creek generation is off. A new substation to the West of Jailhouse is probably necessary in the future. Could possibly shift load to new JH505 or JH506 circuit.

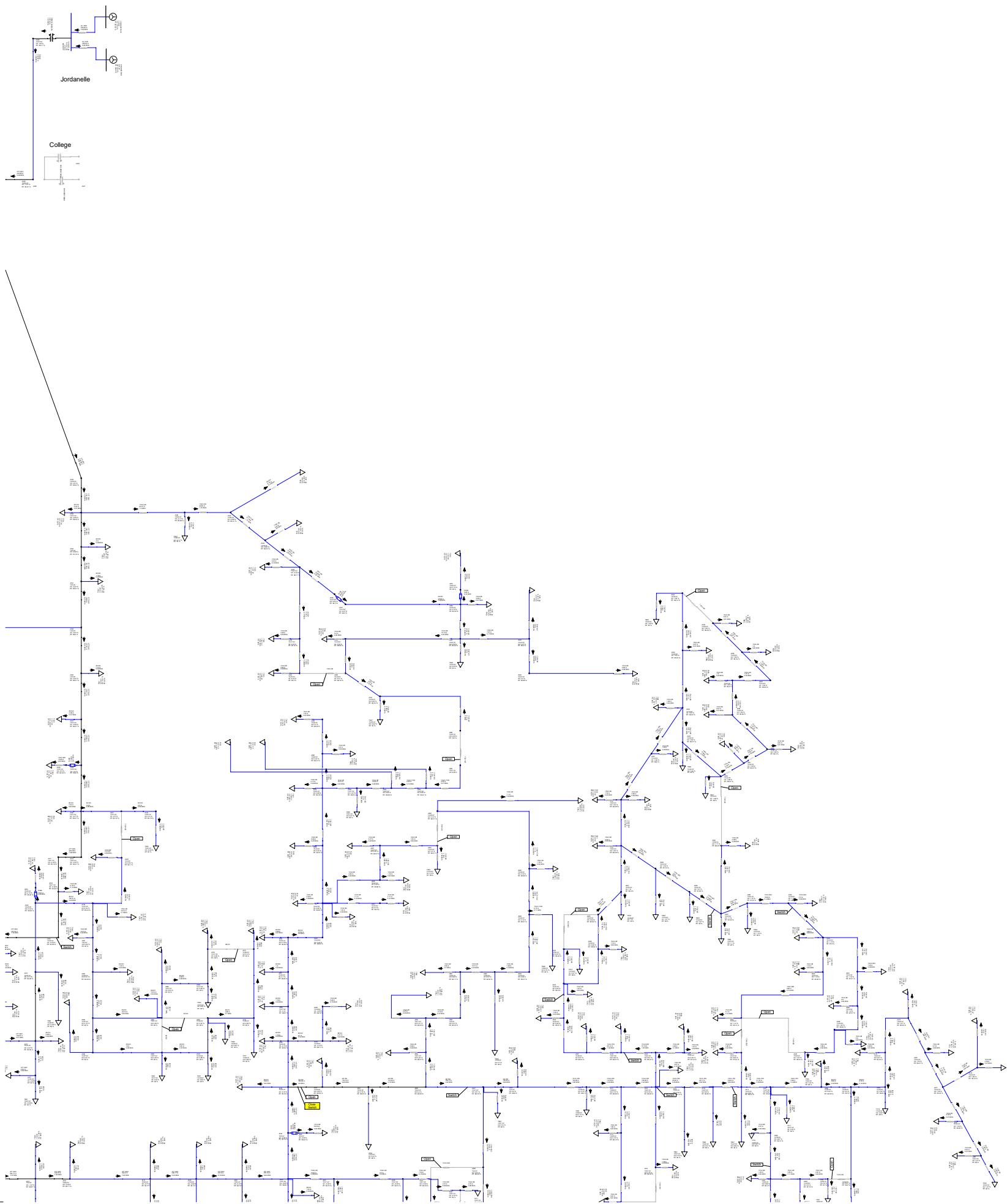


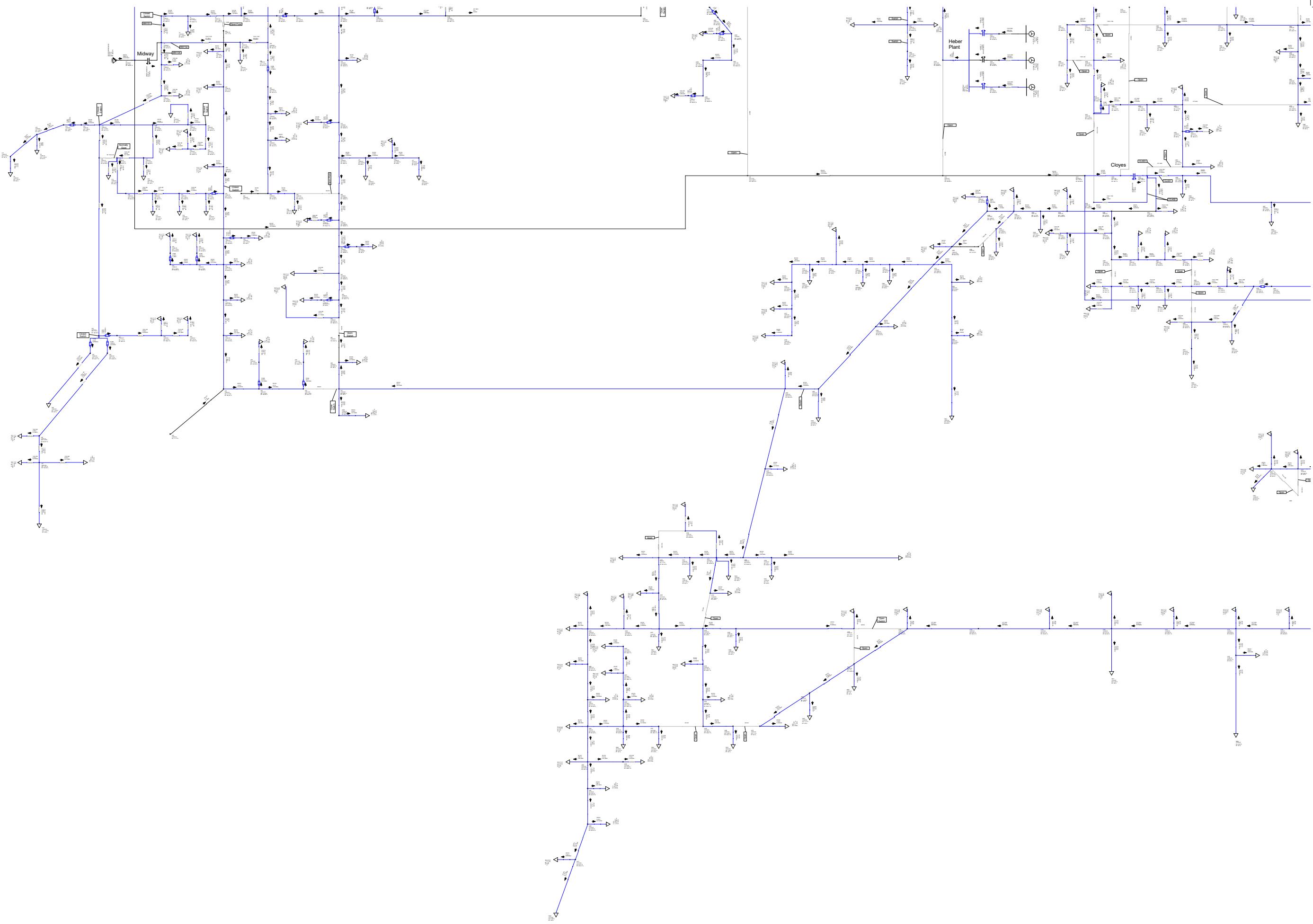
5. About half of JH502 circuit can only be fed from one direction. Loss of a line in that part of the circuit would result in an outage where power could not be quickly restored.

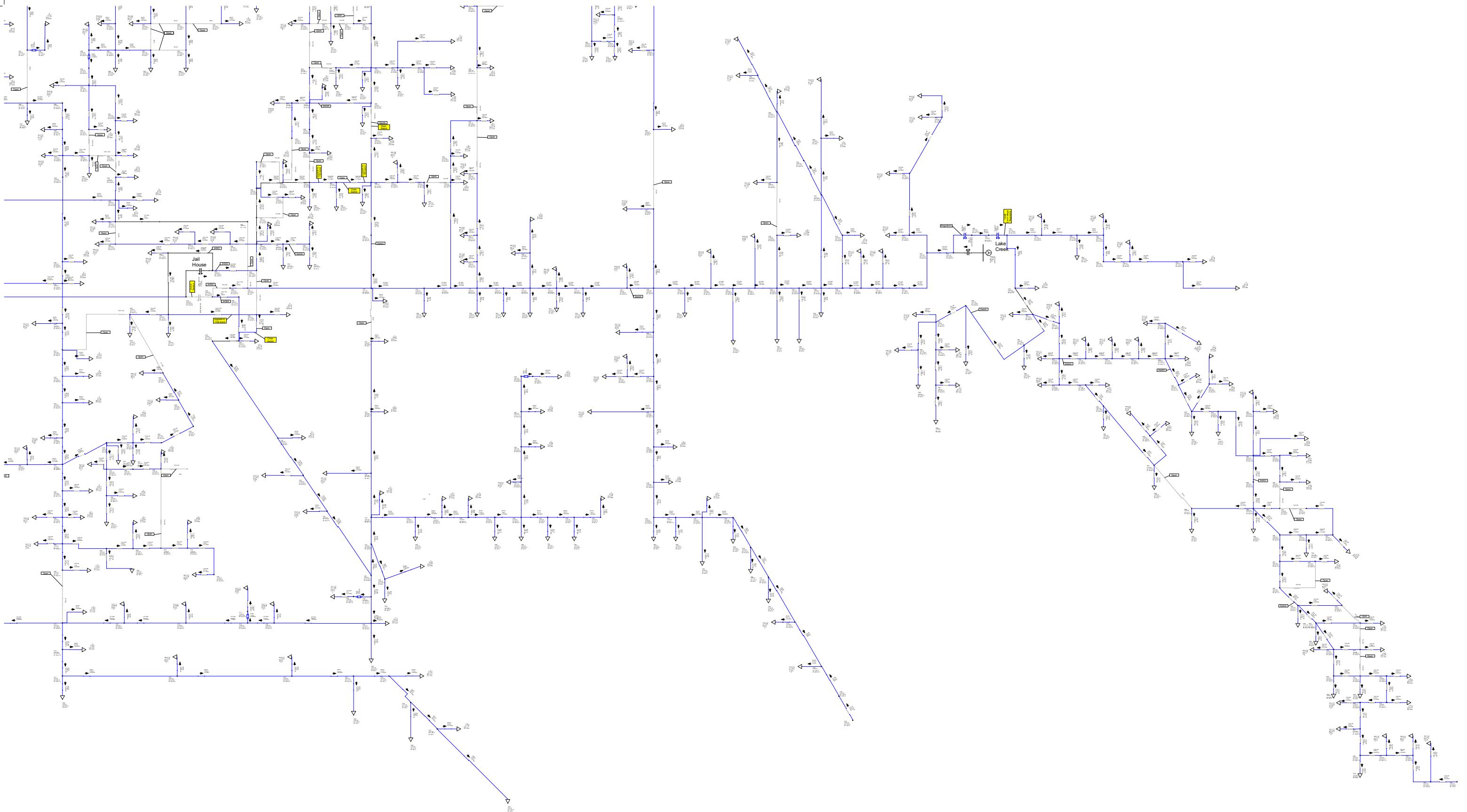
6. The top half of JH502 circuit can be picked up by HB304. The bottom half can be picked up by JH503. No single circuit can pick up the entire JH502 circuit.

7. JH504 circuit can be picked up by JH501.



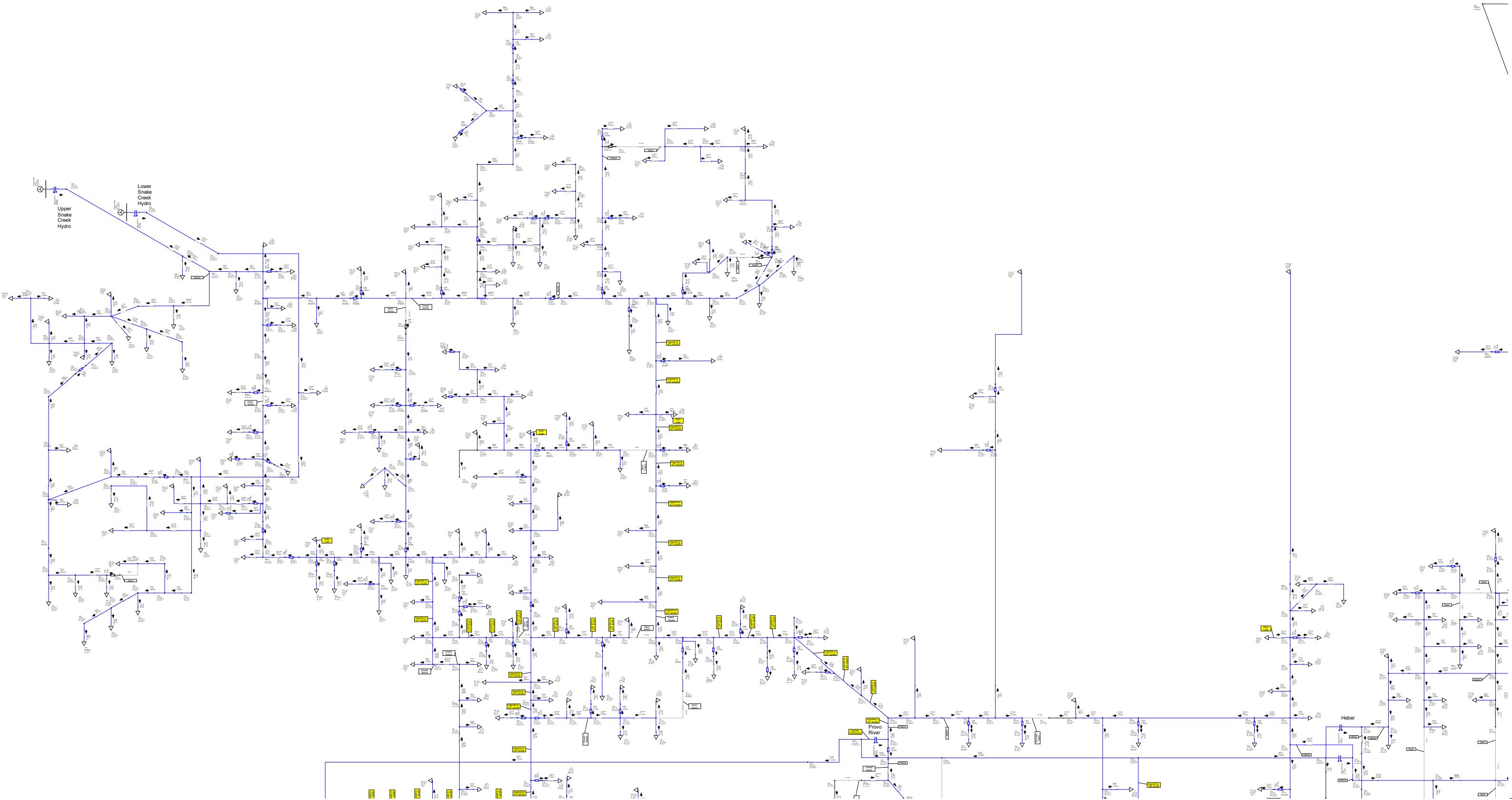


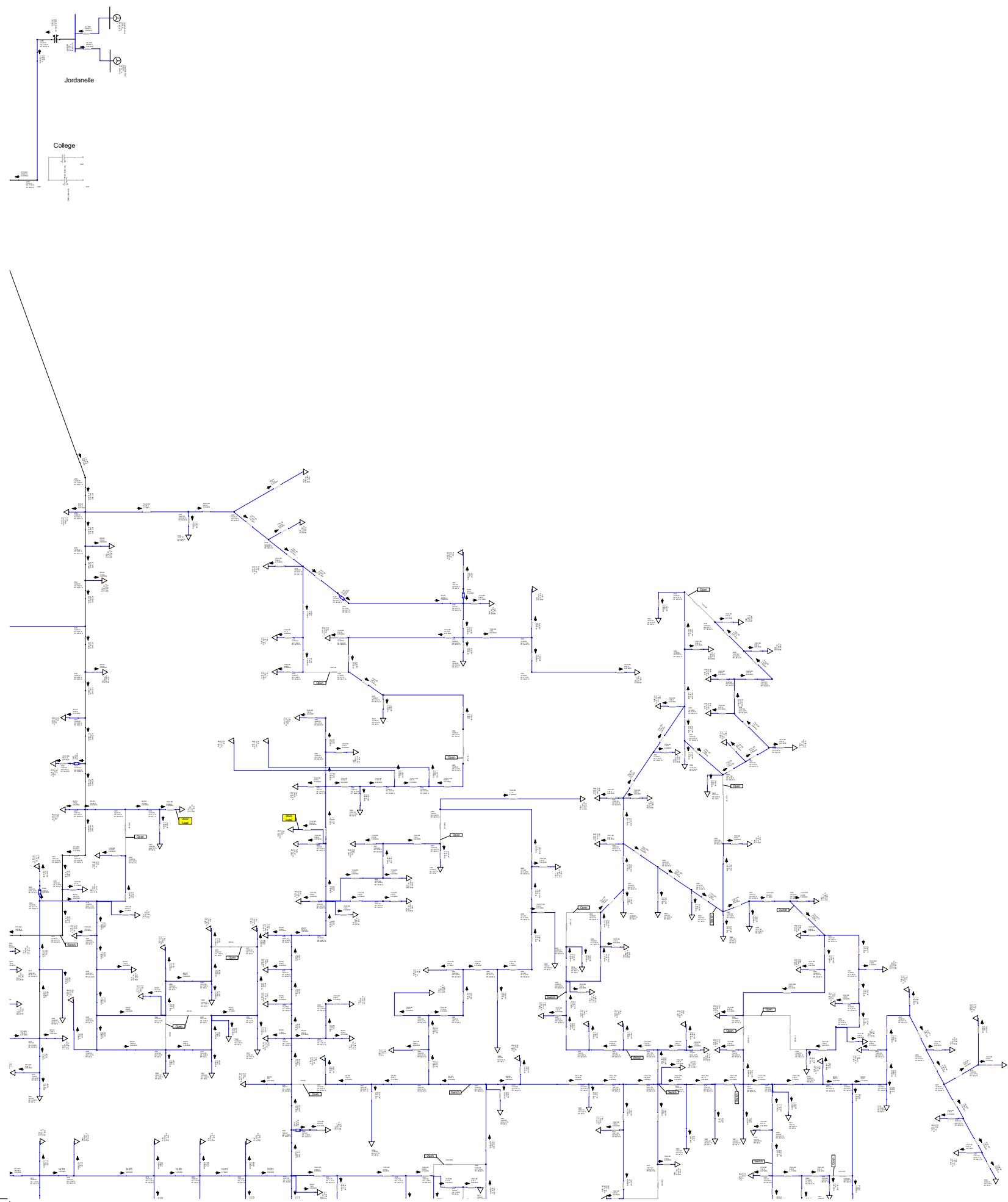


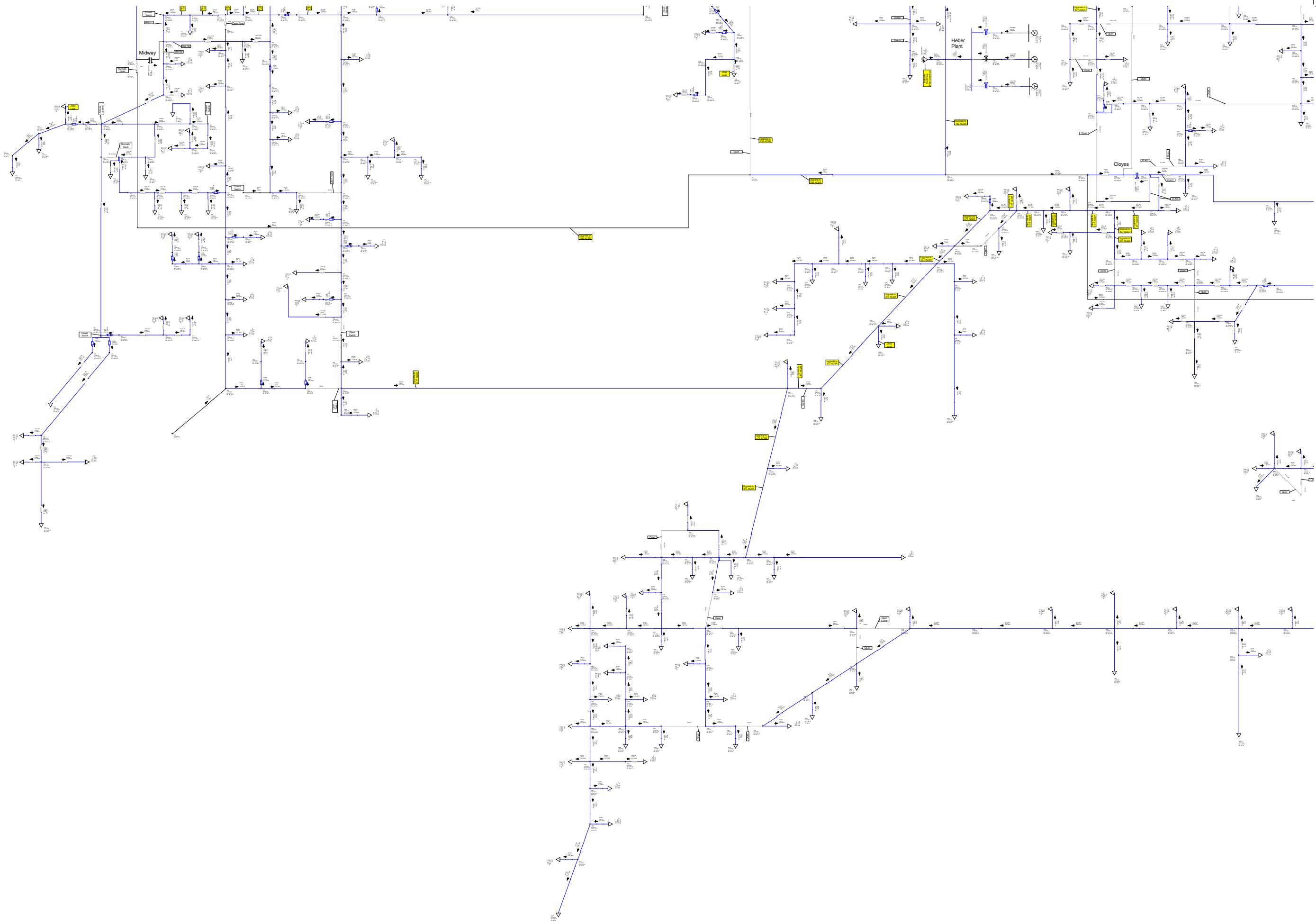


Heber 12.47 kV
2022 - Base

1. Includes all upgrades proposed in
2018 load flow runs.





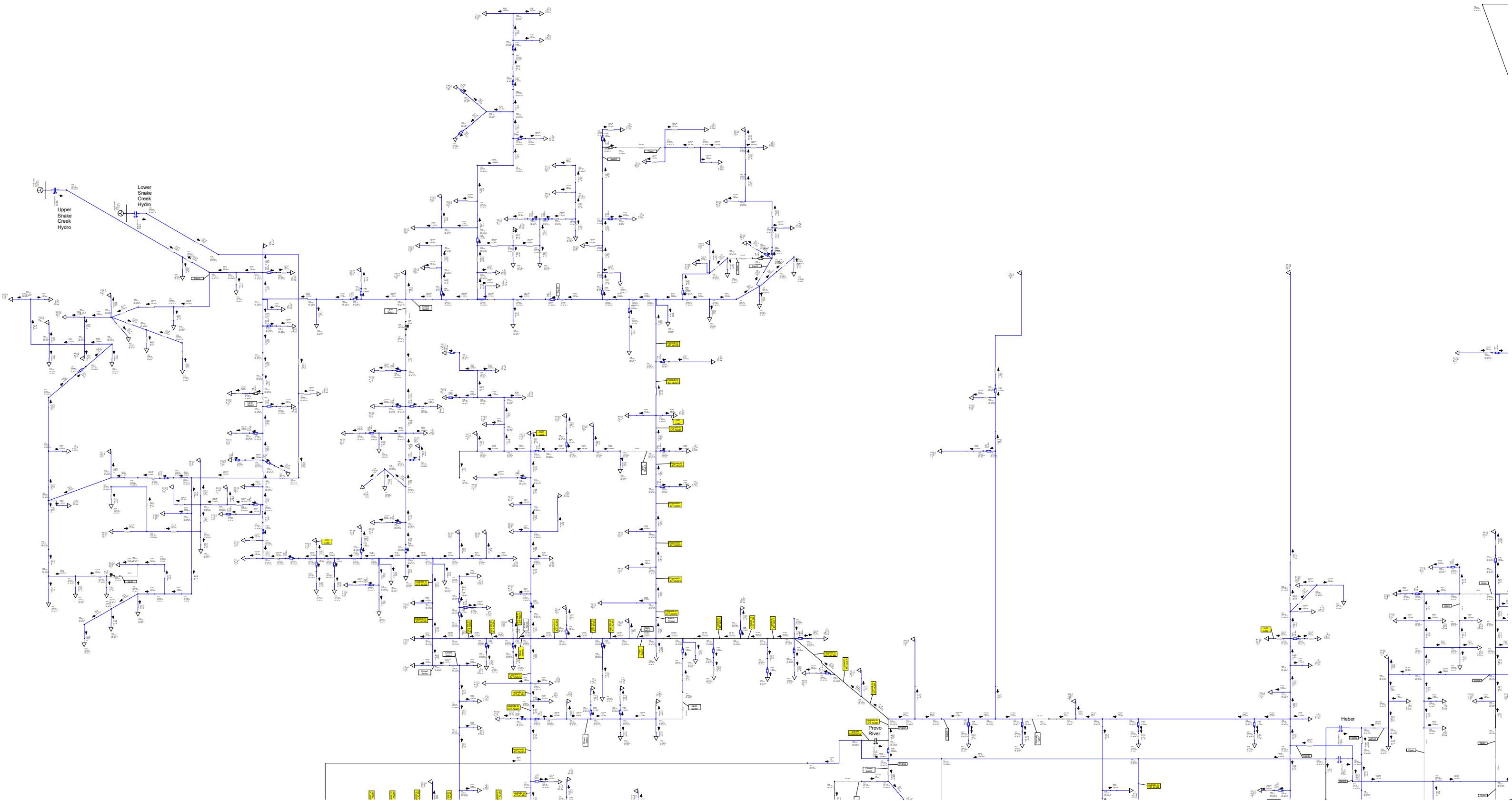


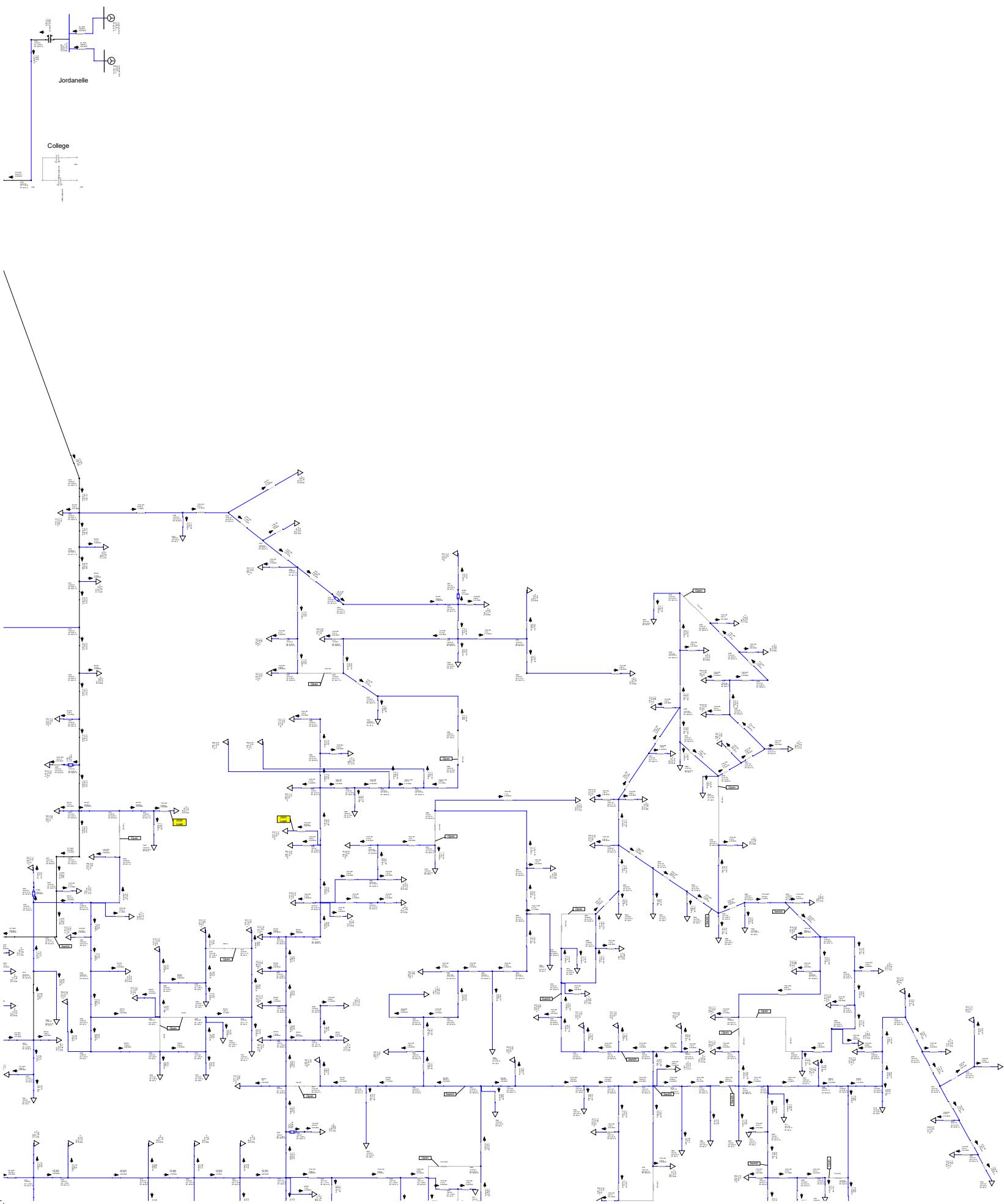


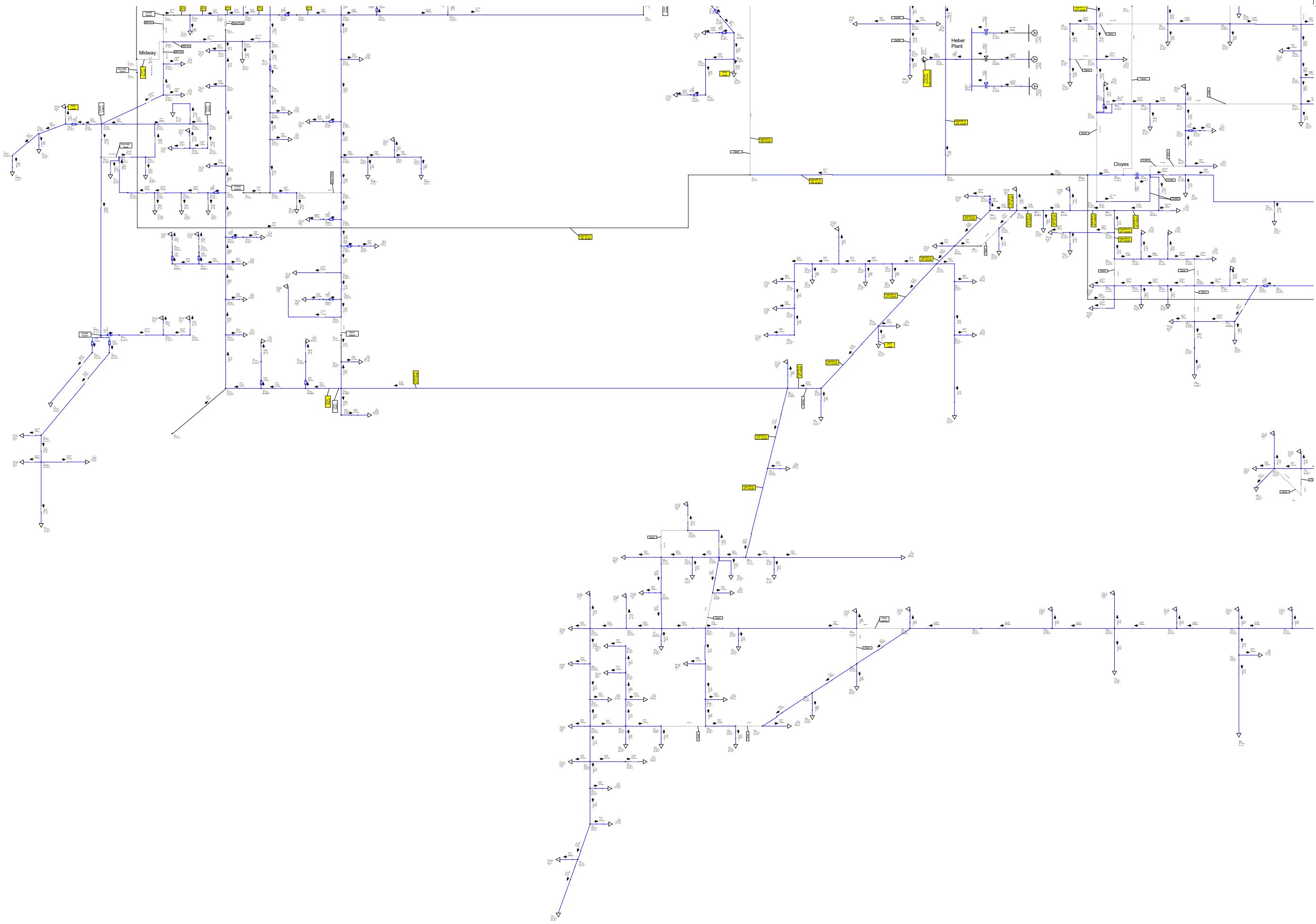
Heber 12.47 kV
2022 - Loss of Midway transformer
(After Upgrades)

1. MW101 and MW102 circuits can
be picked up by PR201.

2. MW104 can be picked up by
CL402.







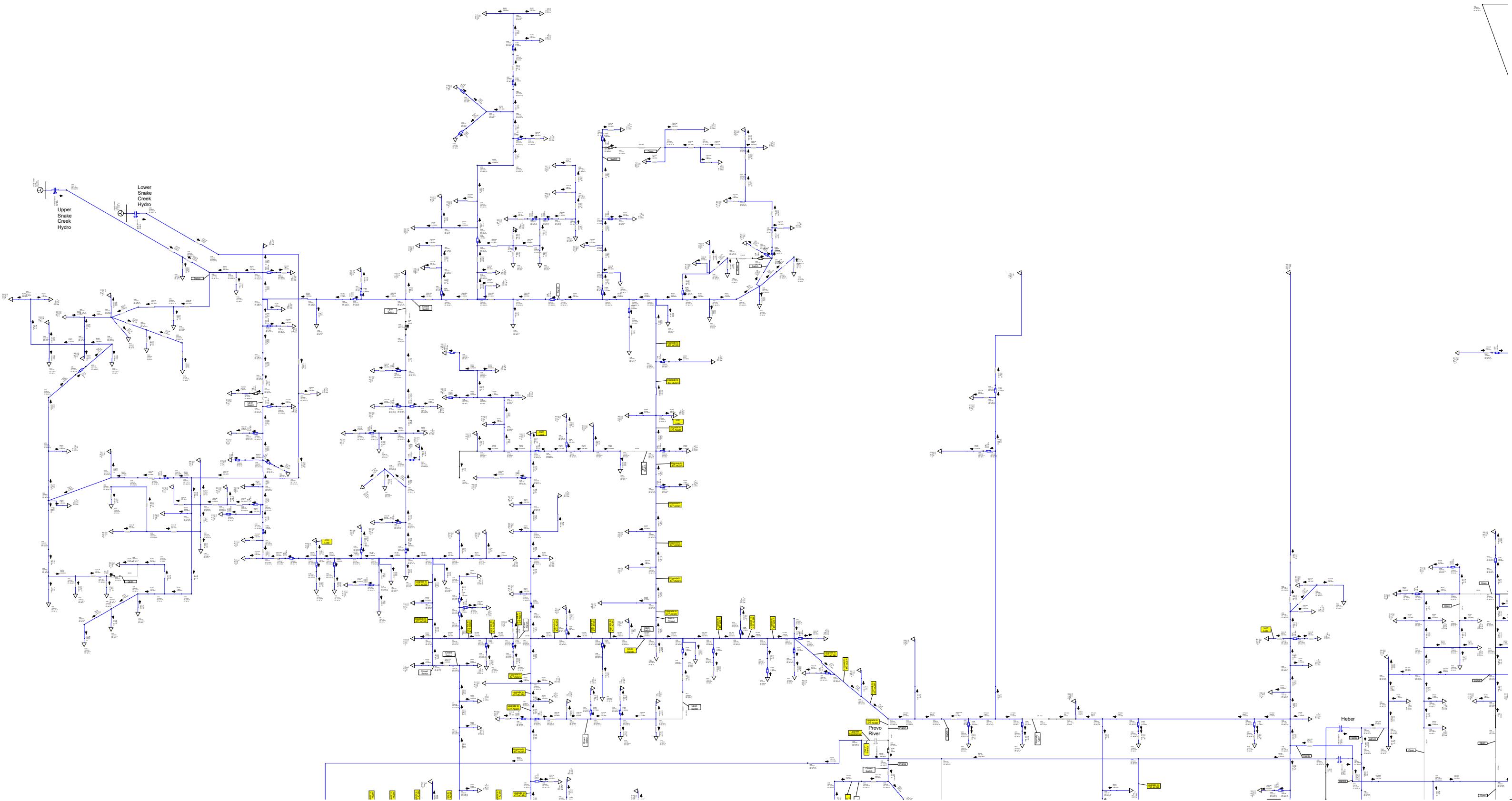


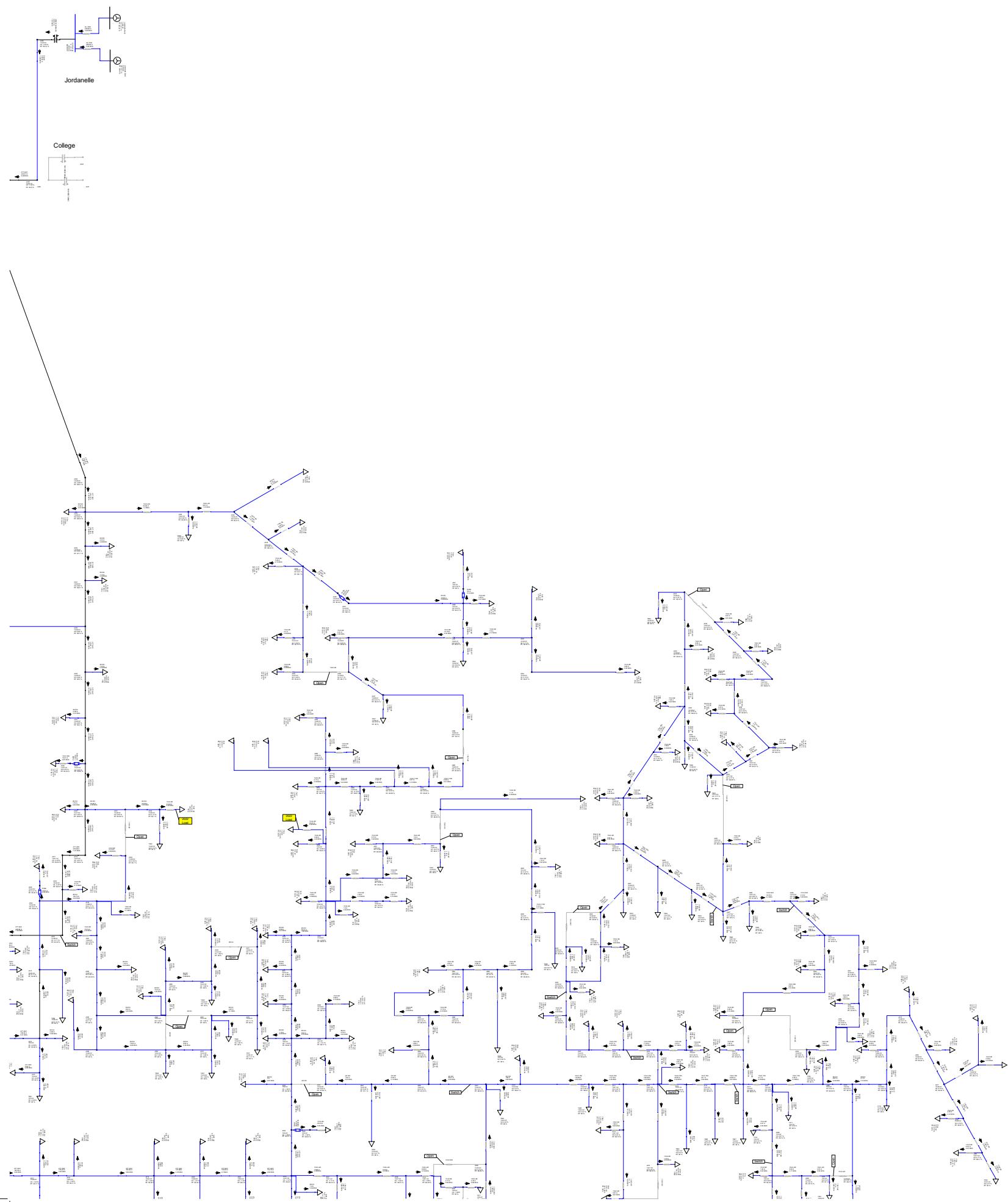
Heber 12.47 kV

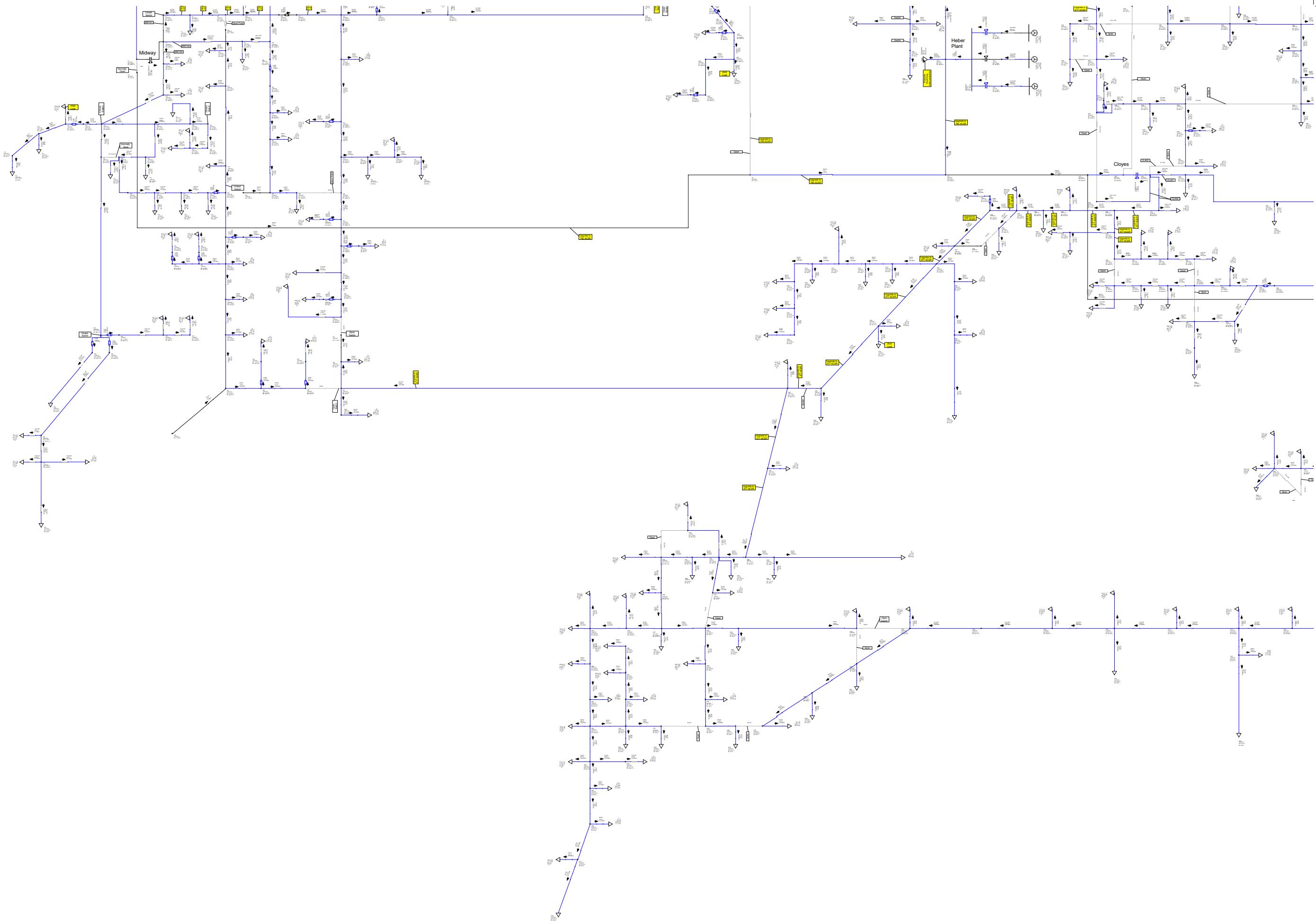
2022 - Loss of Provo River transformer

1. PR201 can be picked up by MW101.

2. PR202 can be picked up by MW101.





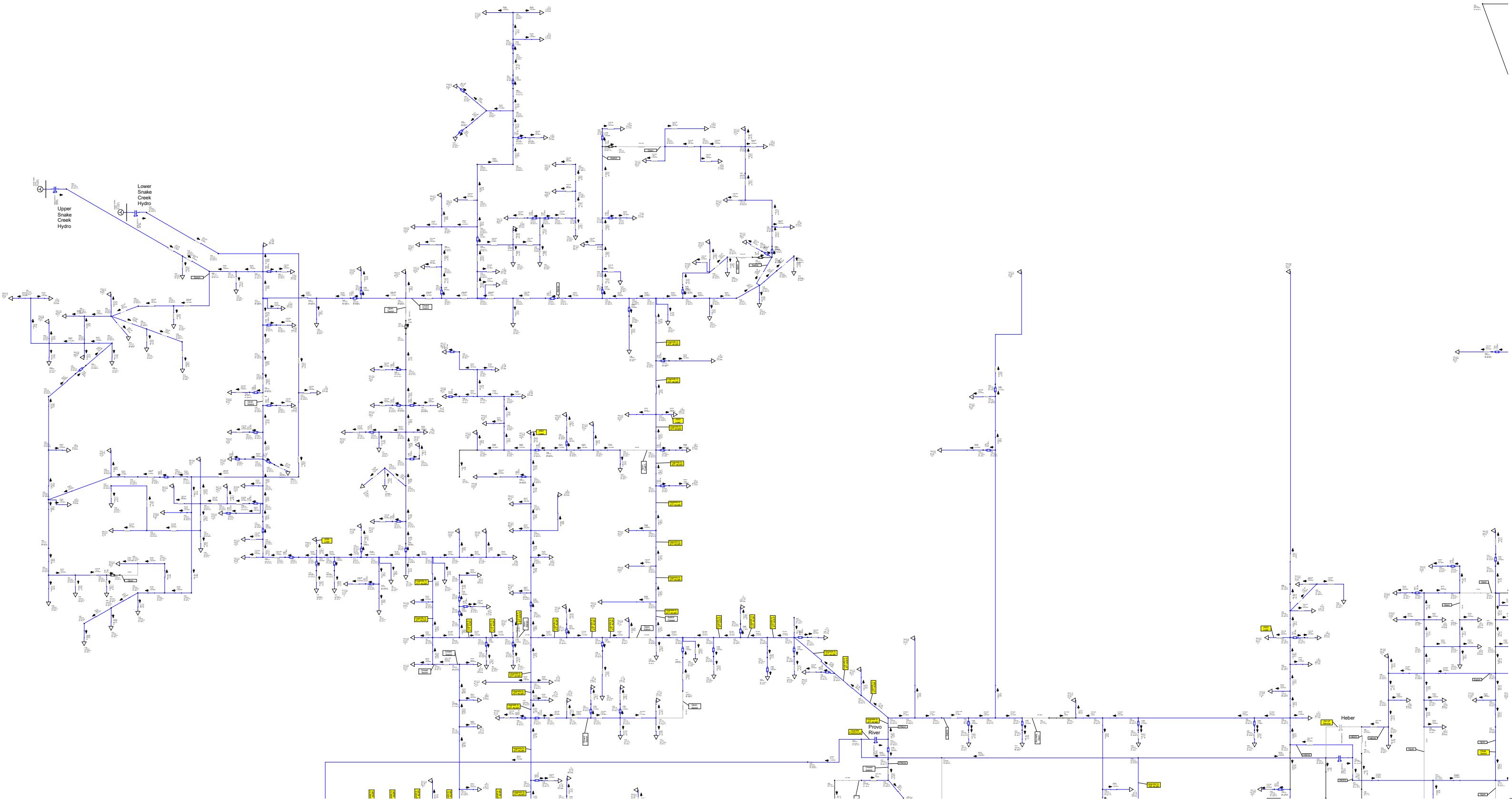


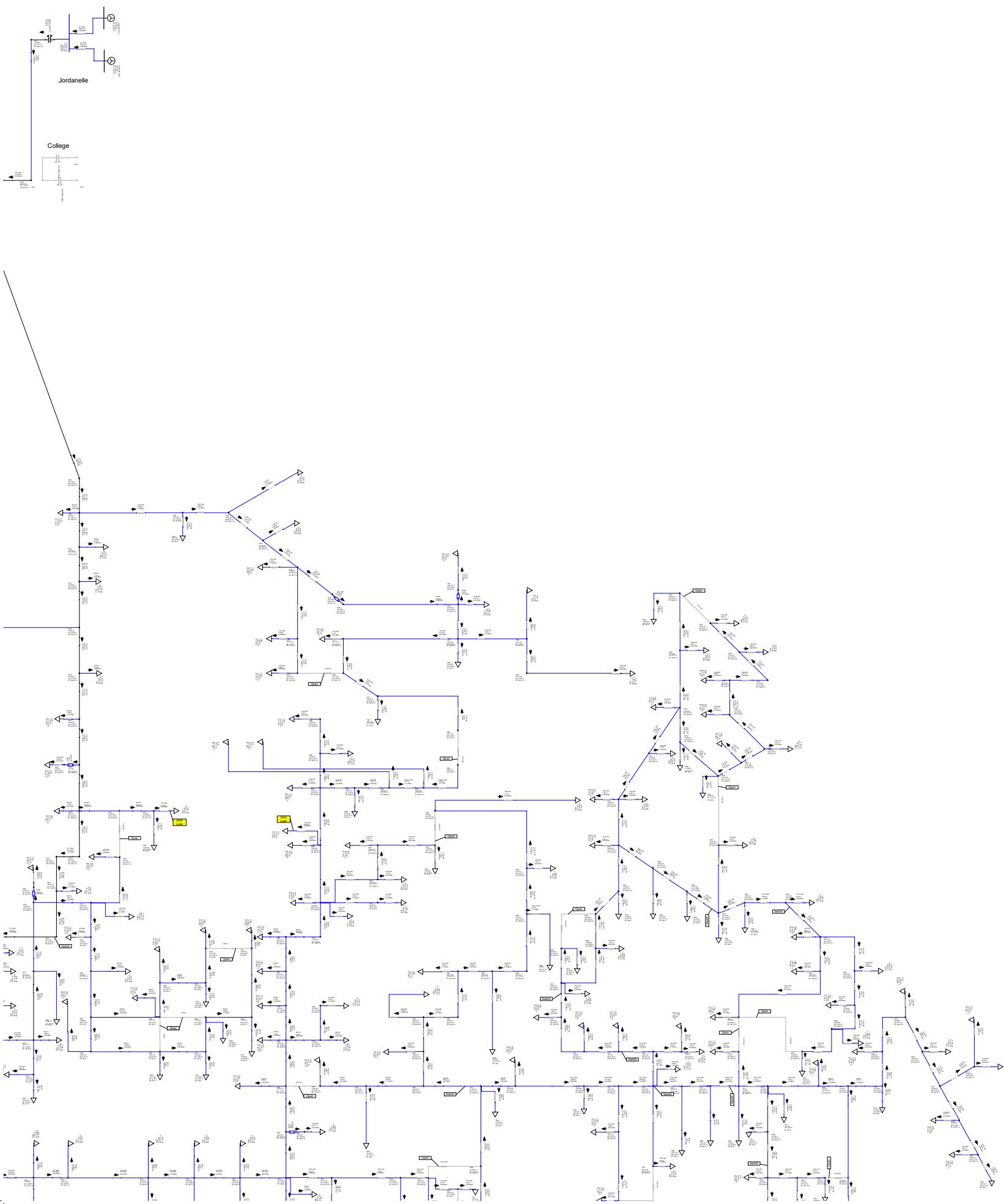


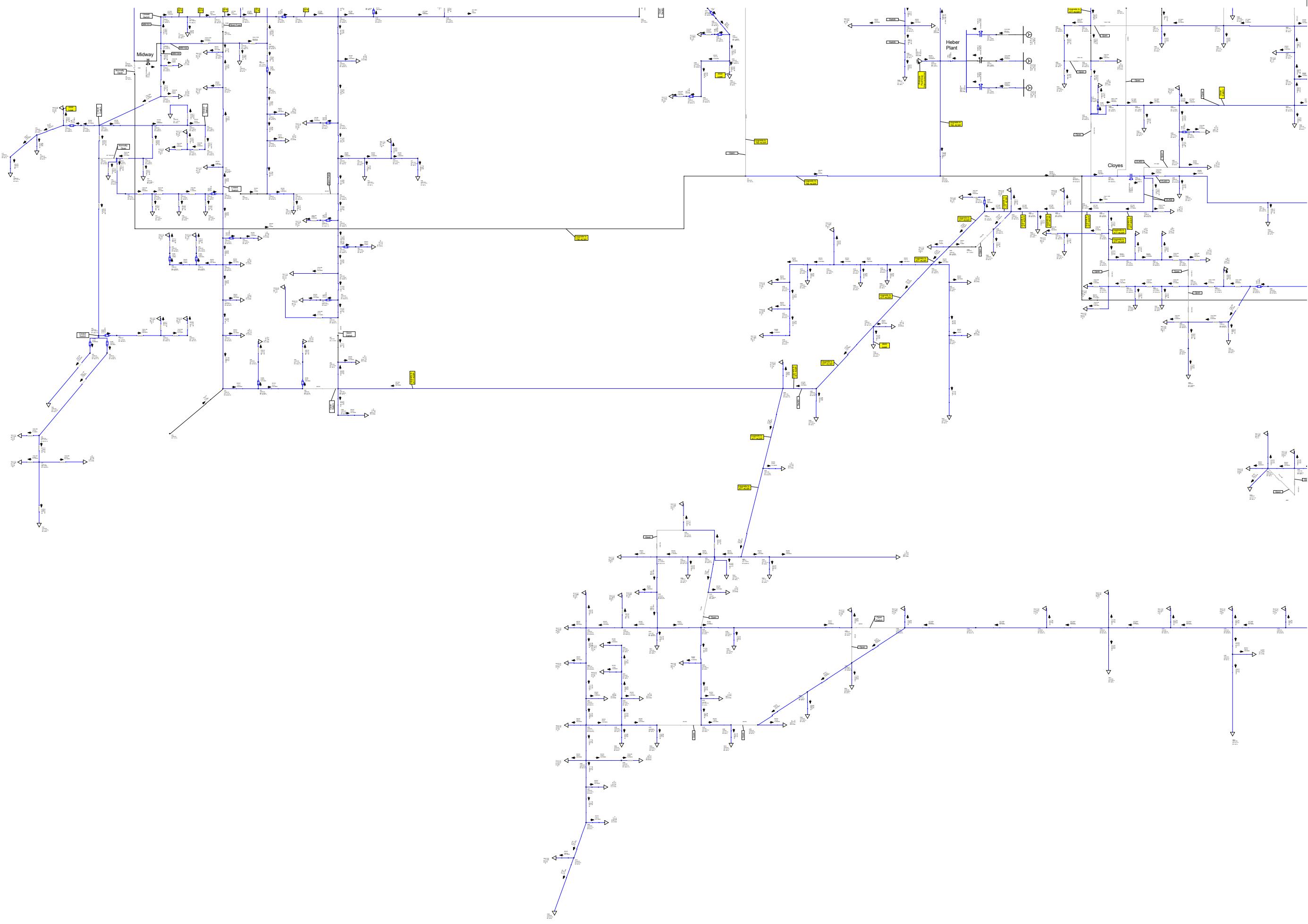
Heber 12.47 kV
2022 - Loss of Heber T1
transformer

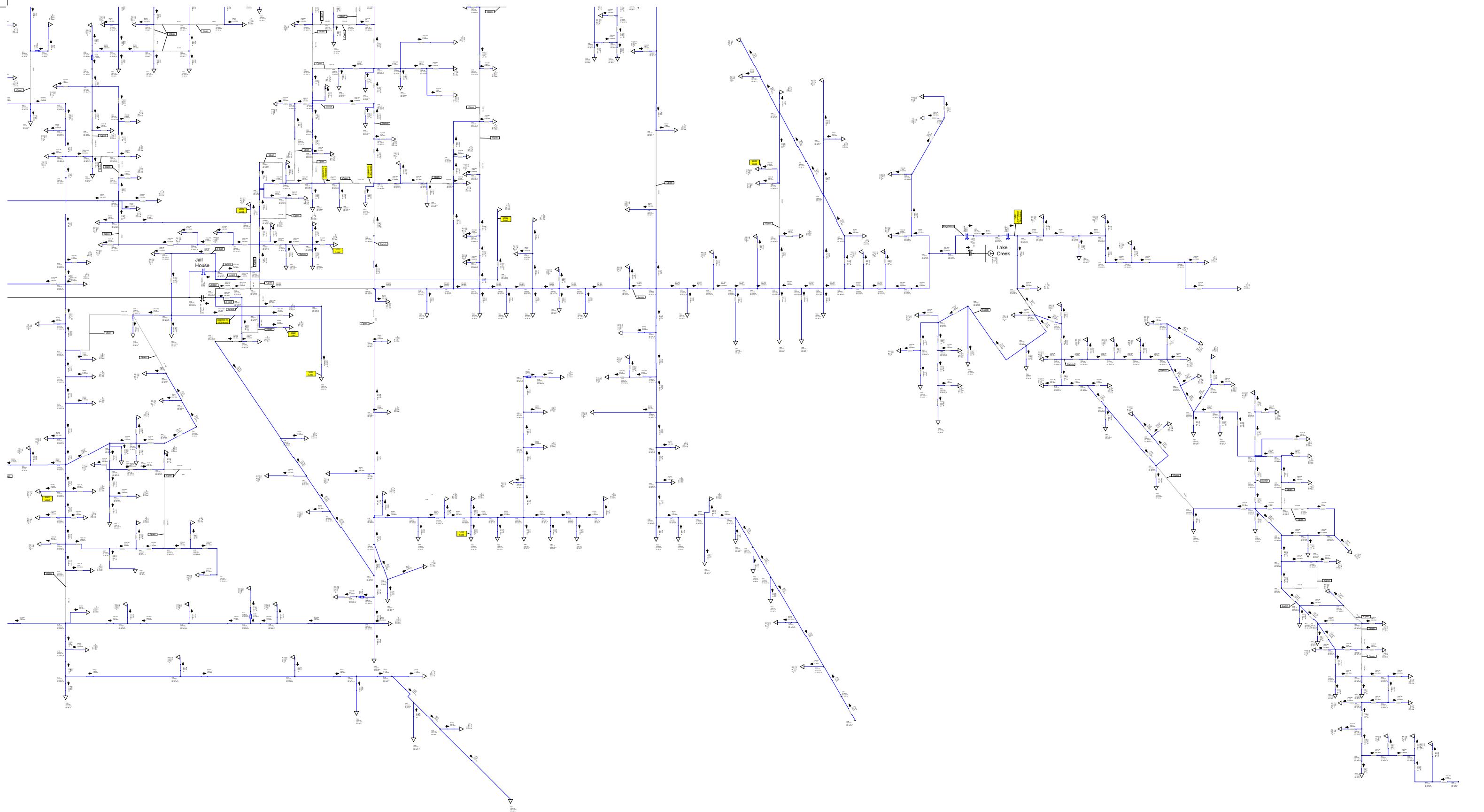
1. HB302 can be picked up by
HB304.

2. HB303 can be picked up by
HB305.





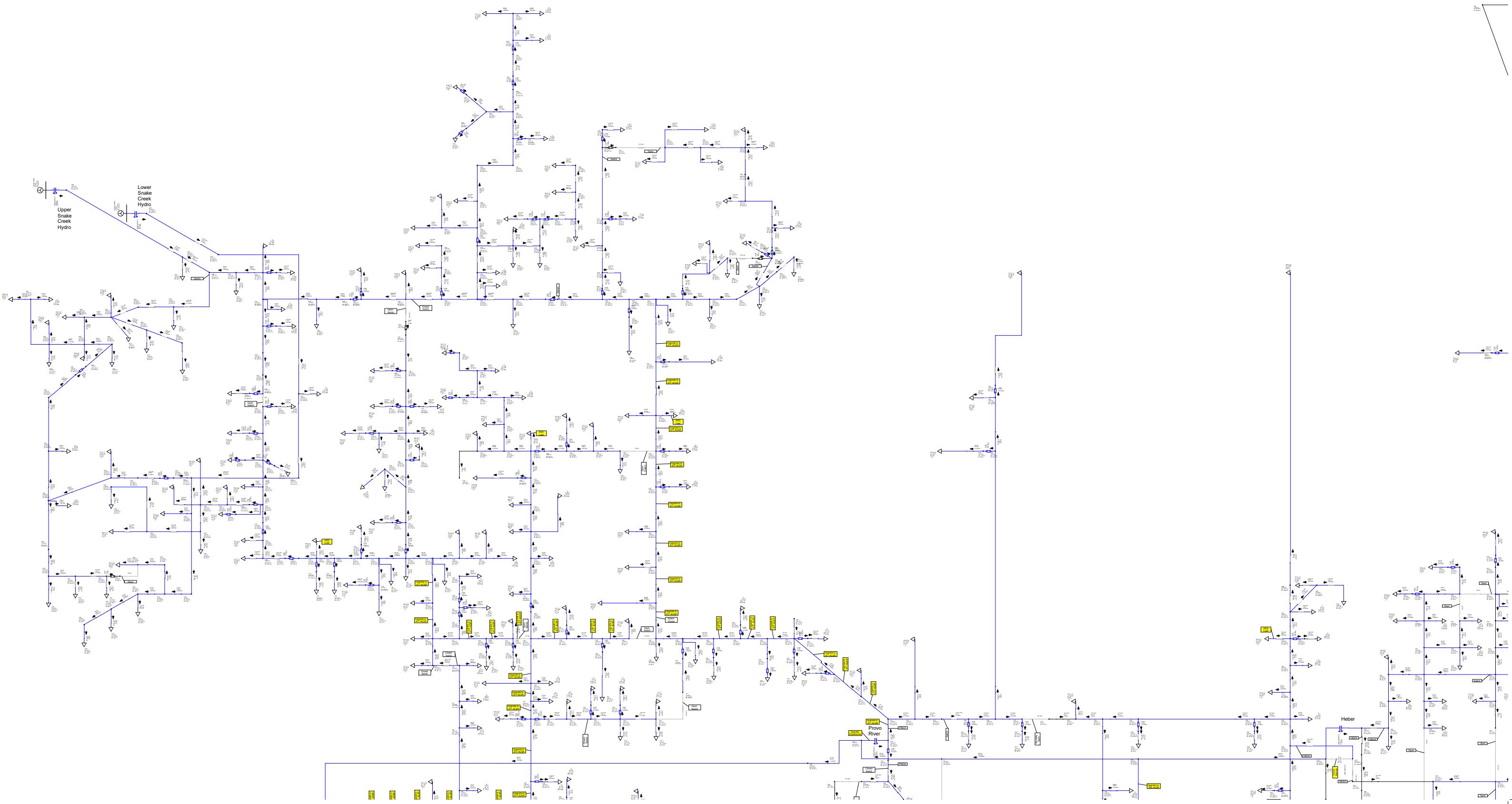


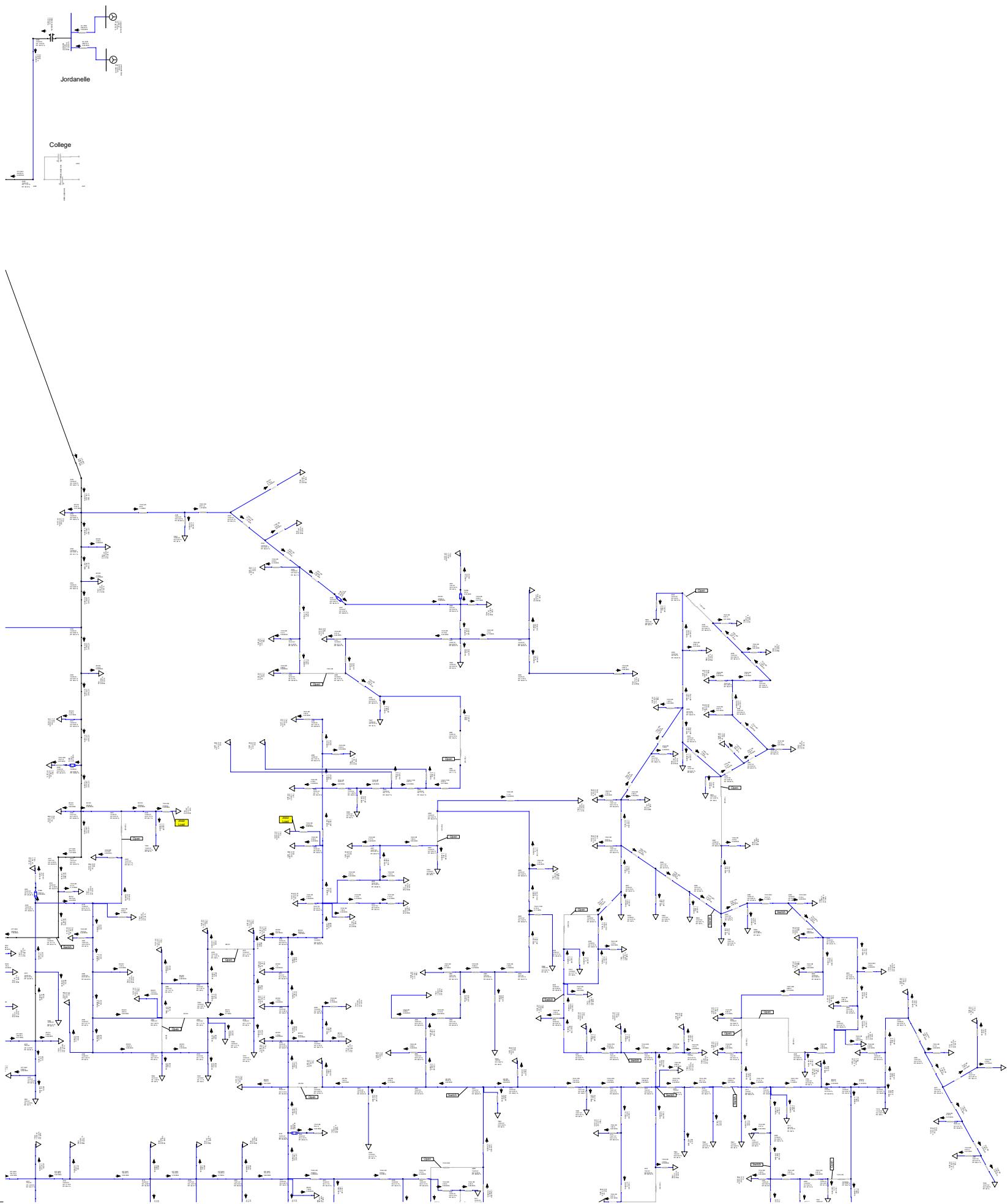


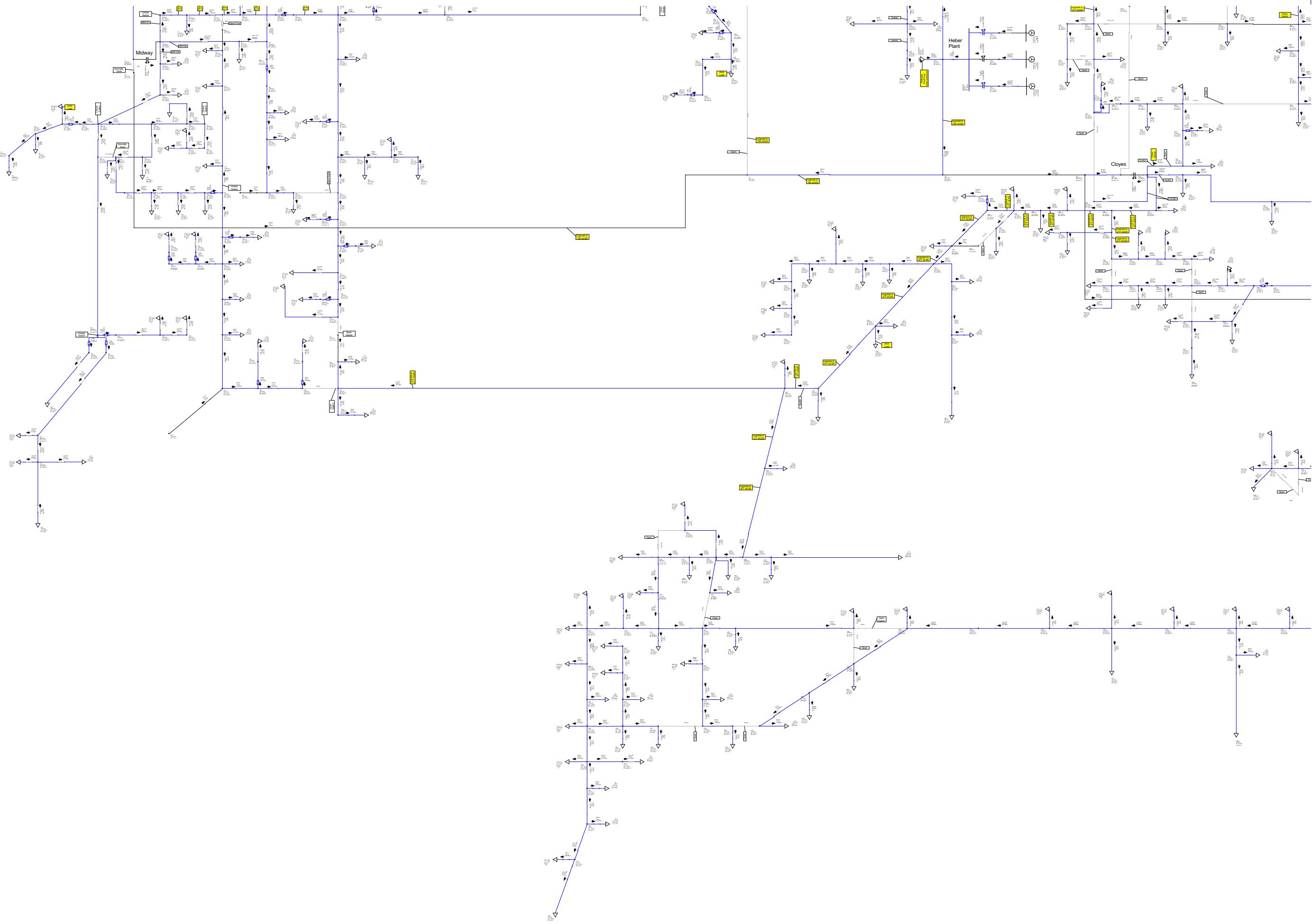
Heber 12.47 kV
2018 - Loss of Heber T2 Transformer

1. HB304 circuit can be picked up by
HB303.

2. HB305 circuit can be picked up by
CL403.







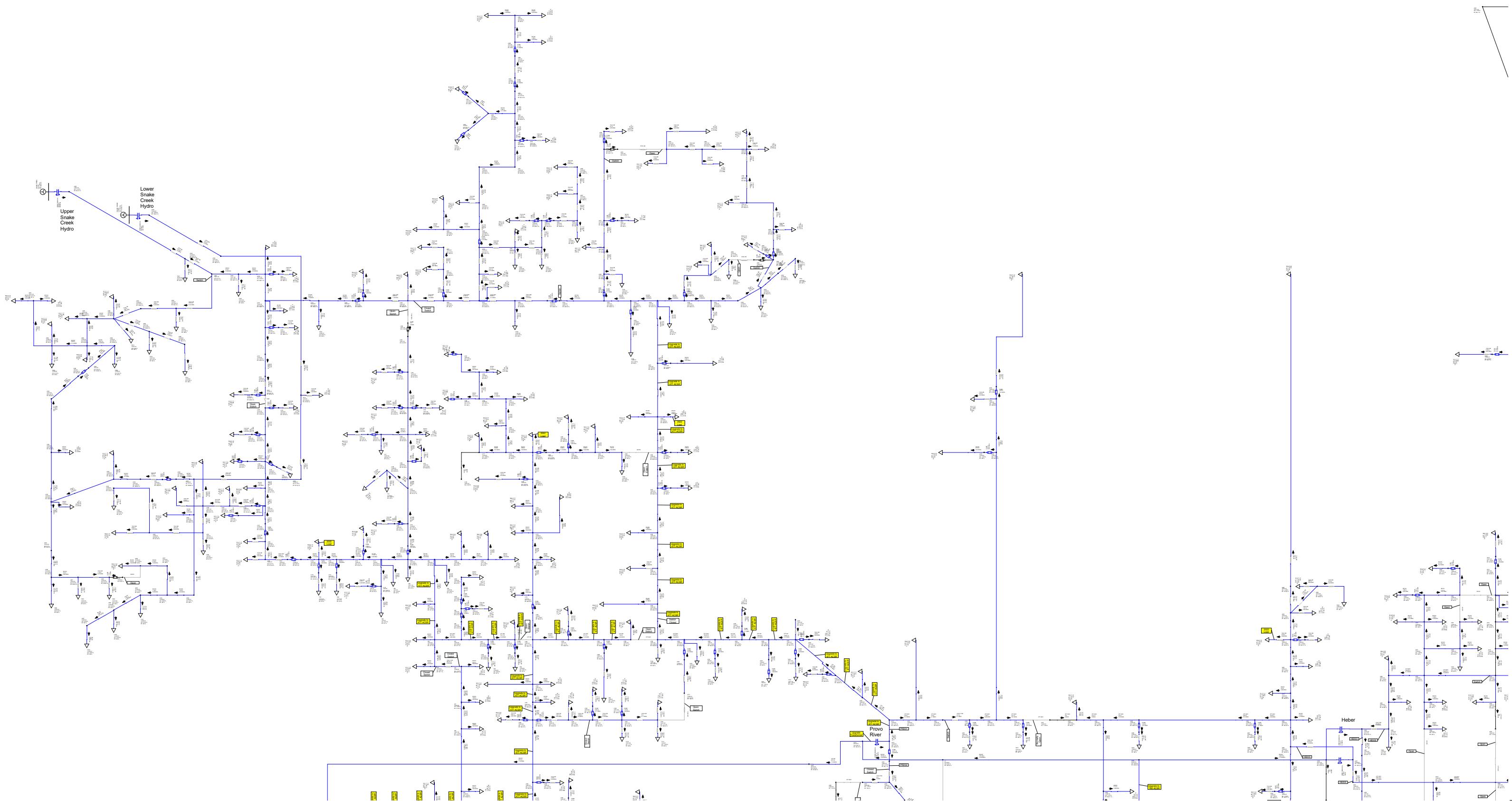


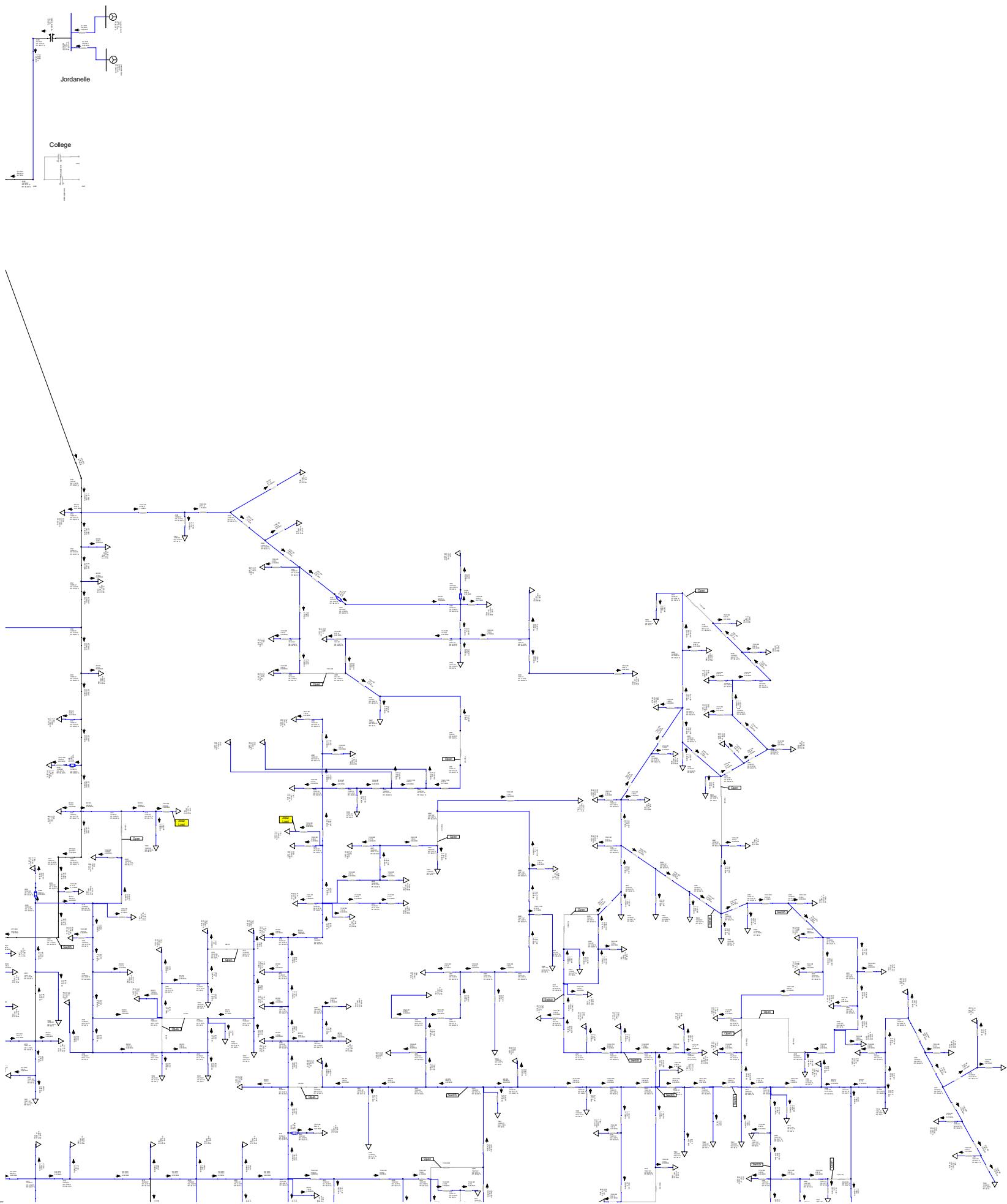
Heber 12.47 kV

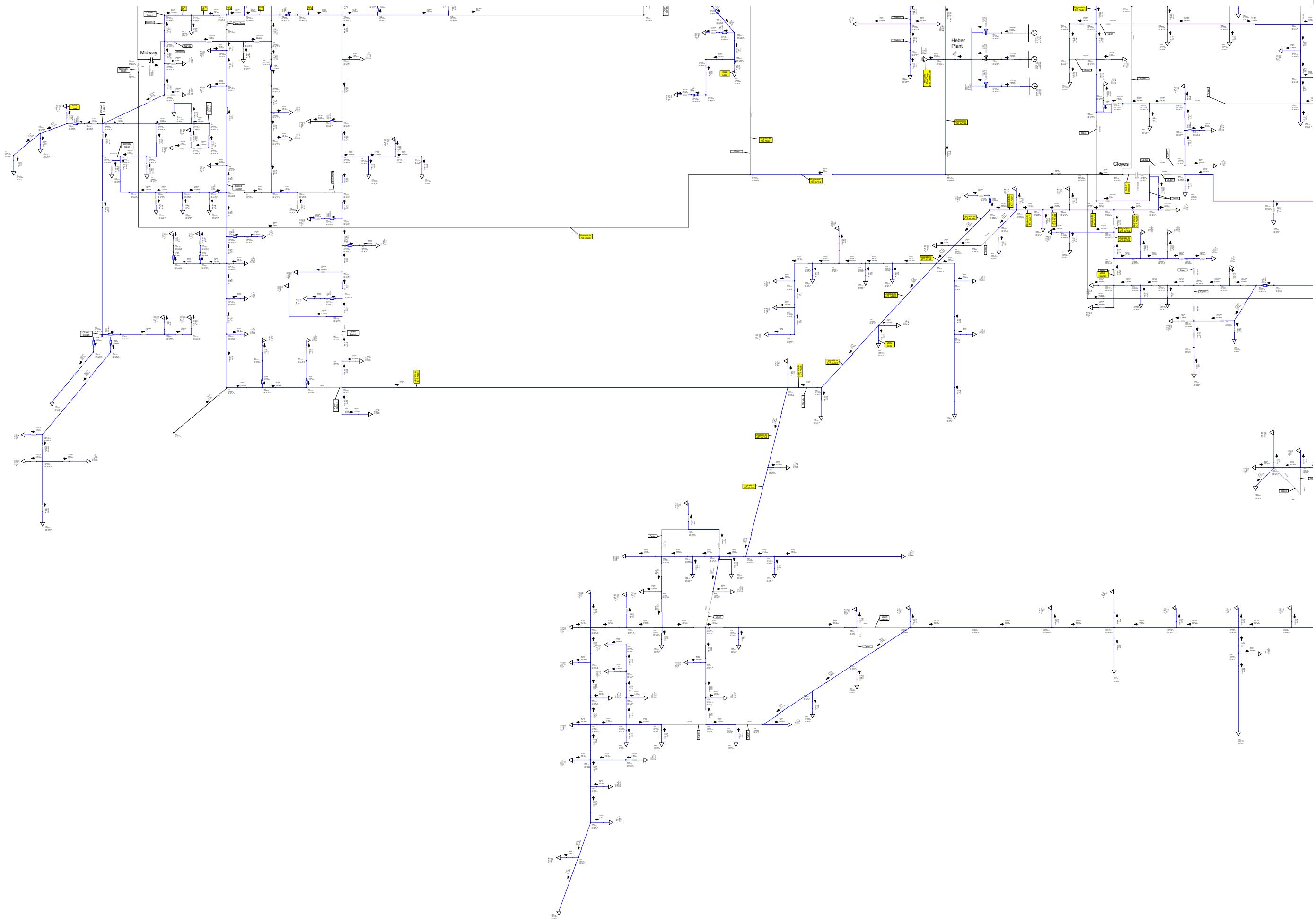
2022 - Loss of Cloyes transformer

1. CL401 circuit can be picked up by
HB304.

2. CL402 circuit can be picked up by
HB303.







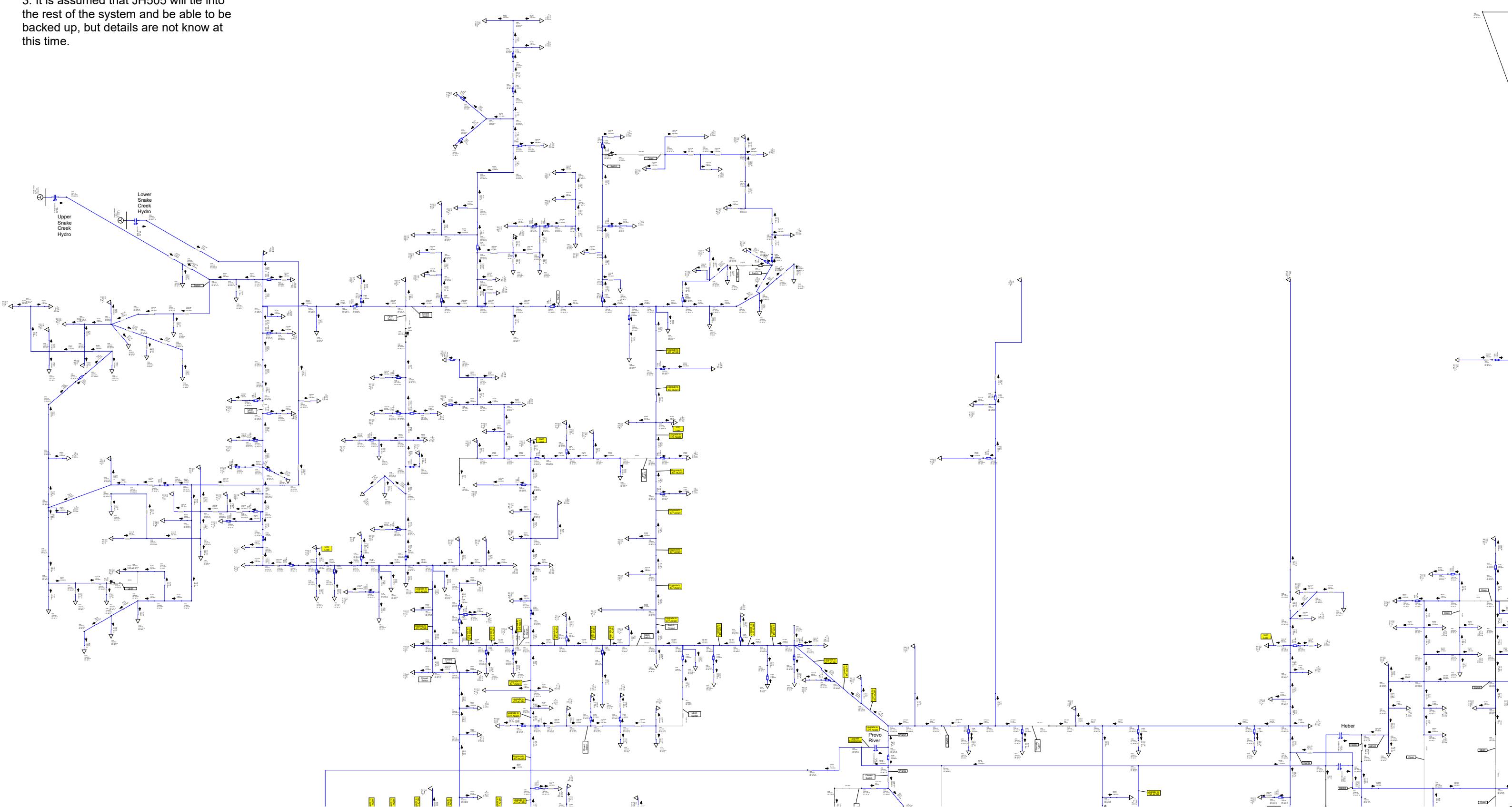


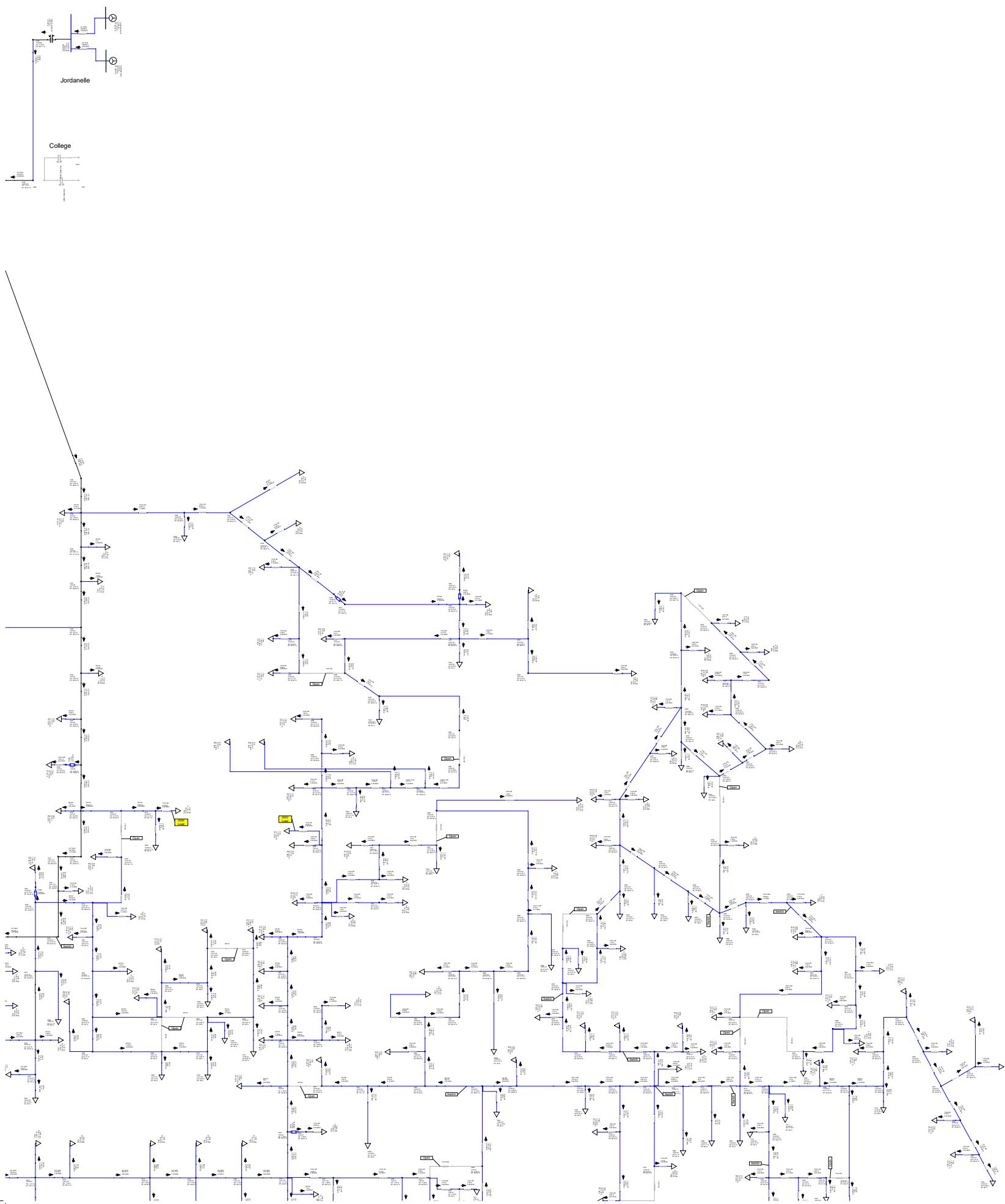
Heber 12.47 kV
2022 - Loss of Jailhouse T1 transformer

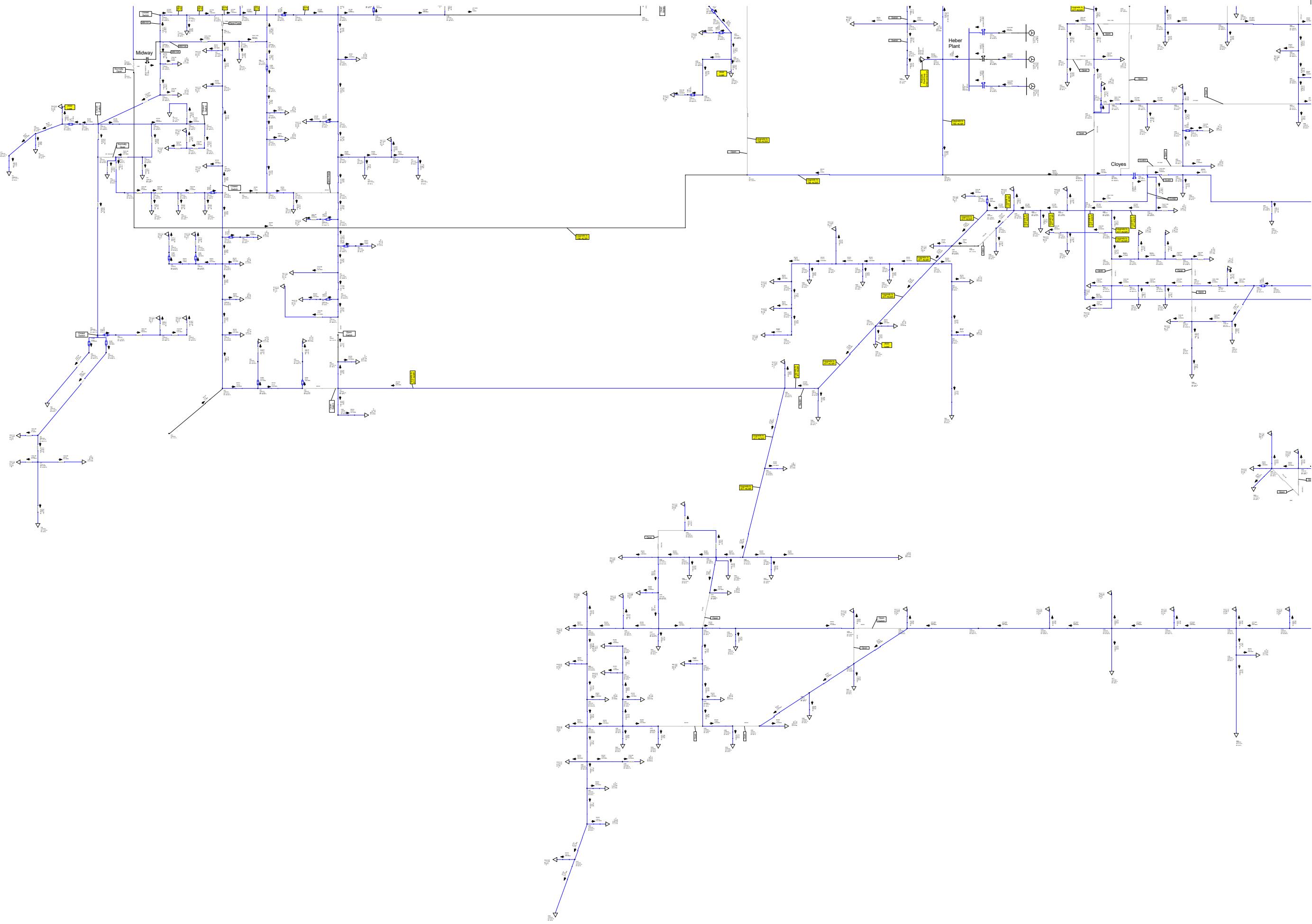
1. JH501 circuit can be picked up by HB303.

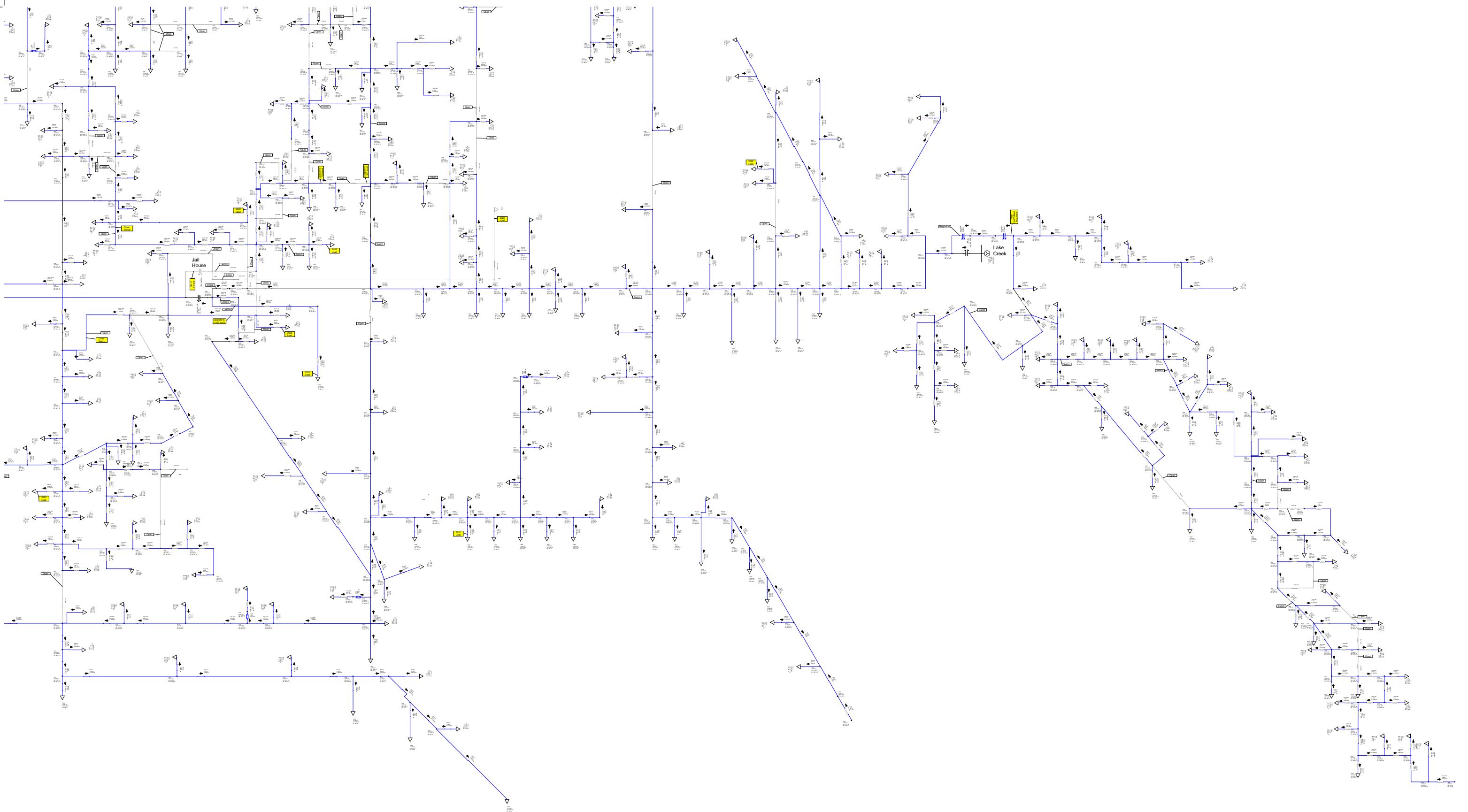
2. JH503 circuit can be picked up by CL401.

3. It is assumed that JH505 will tie into the rest of the system and be able to be backed up, but details are not known at this time.







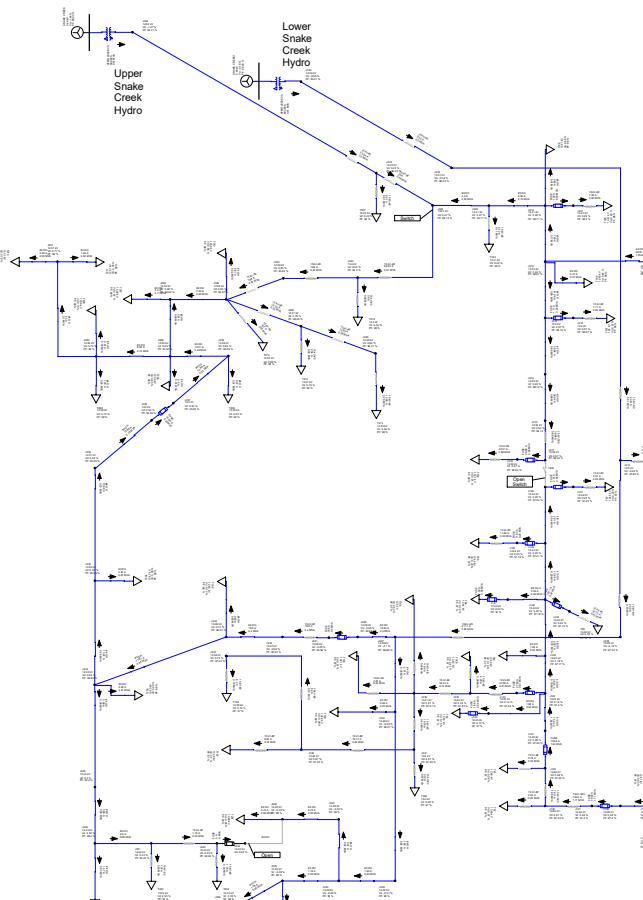


Heber 12.47 kV
2022 - Loss of Jailhouse T2 transformer

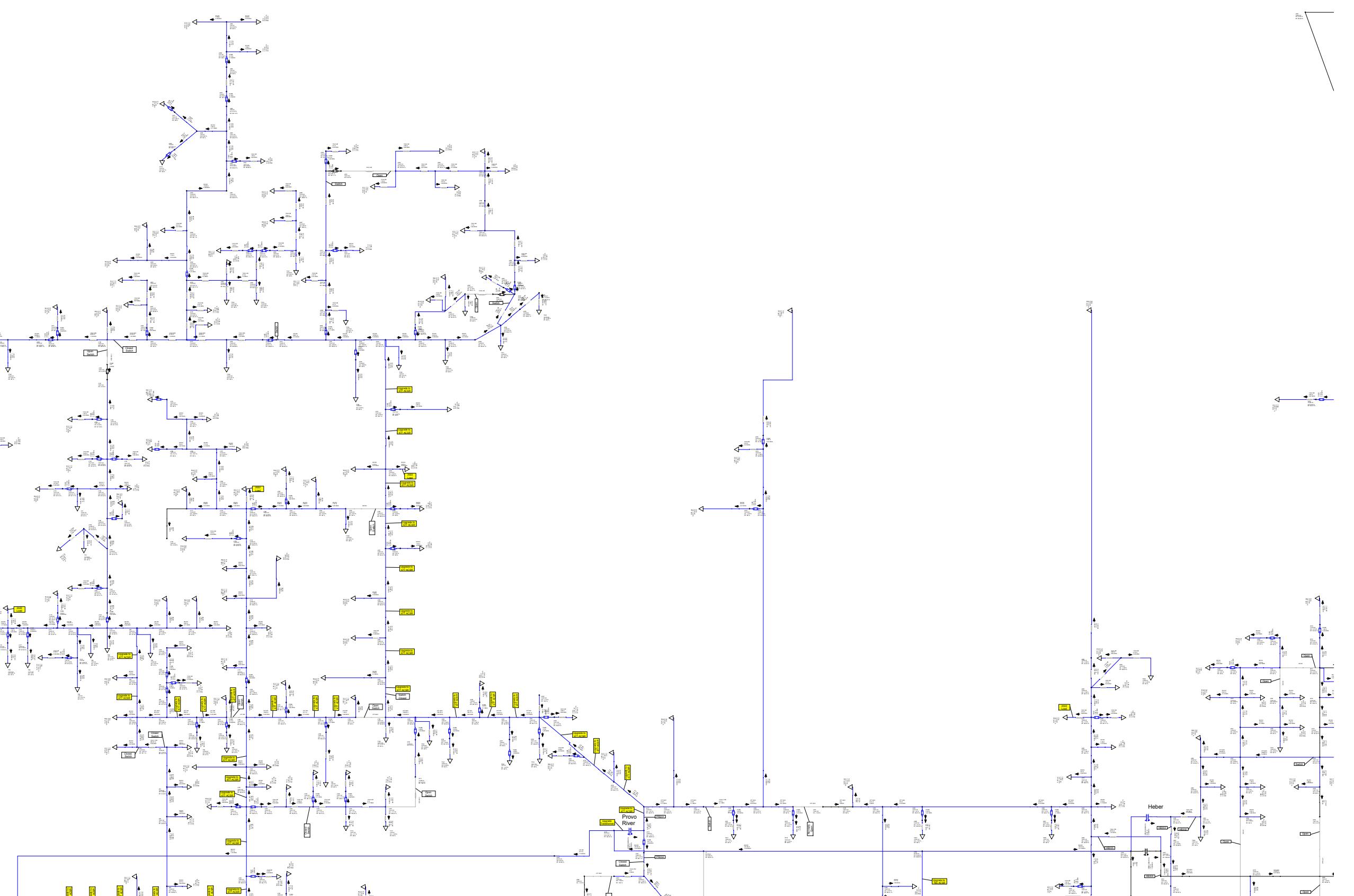
1. JH502 load is approximately 405 amps when Lake Creek generation is off. Consider moving some load to another circuit. As some point in the future a new substation to the West of Jailhouse will probably be required. Much of the area fed by JH502 could then be fed from the new substation.

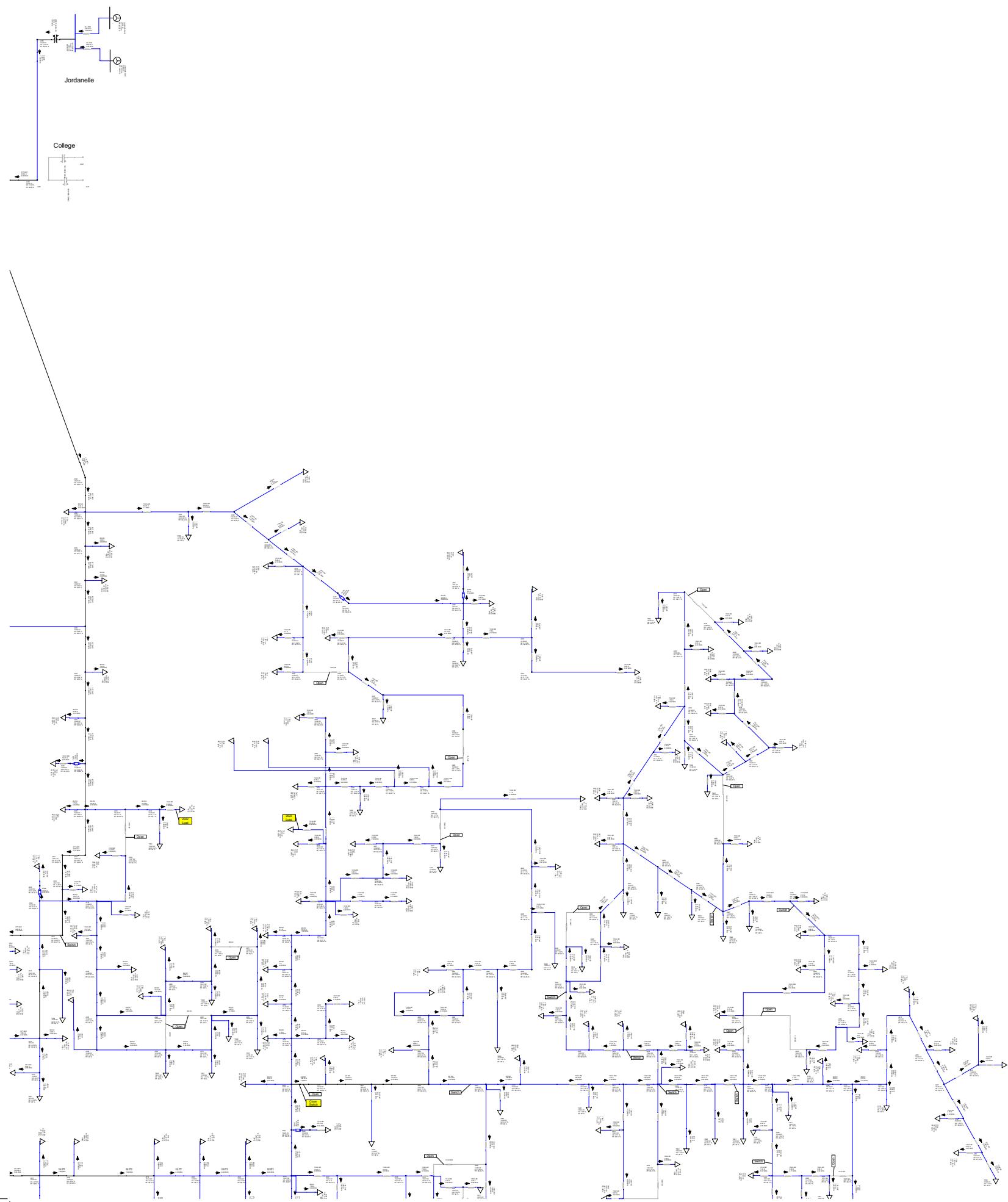
2. About half of JH502 circuit can only be fed from one direction. Loss of a line in that part of the circuit would result in loss of power that cannot be quickly restored.

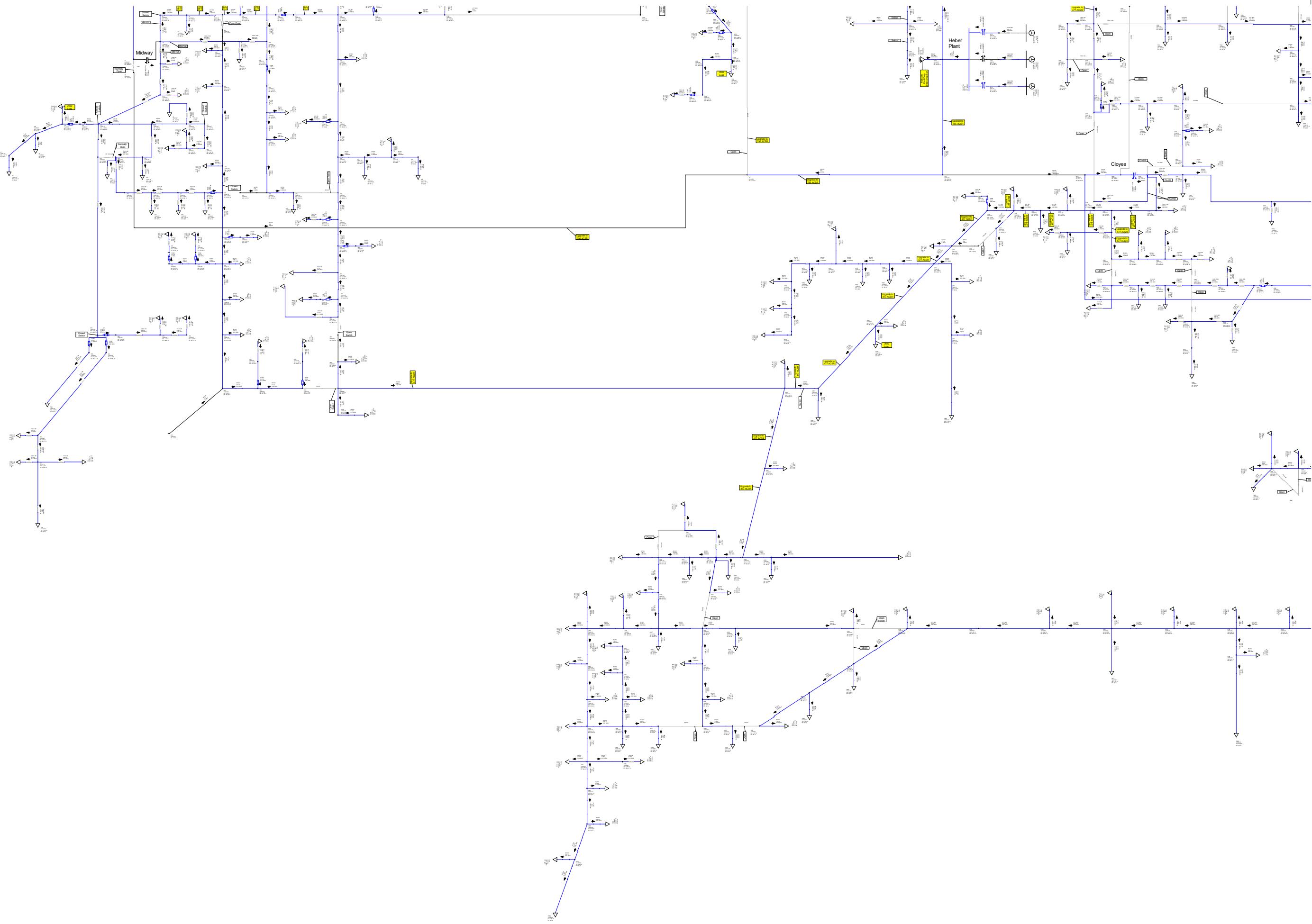
3. The top half of JH502 circuit can be picked up by HB304. The bottom half can be picked up by JH503. No single circuit can pick up the entire JH502 circuit.

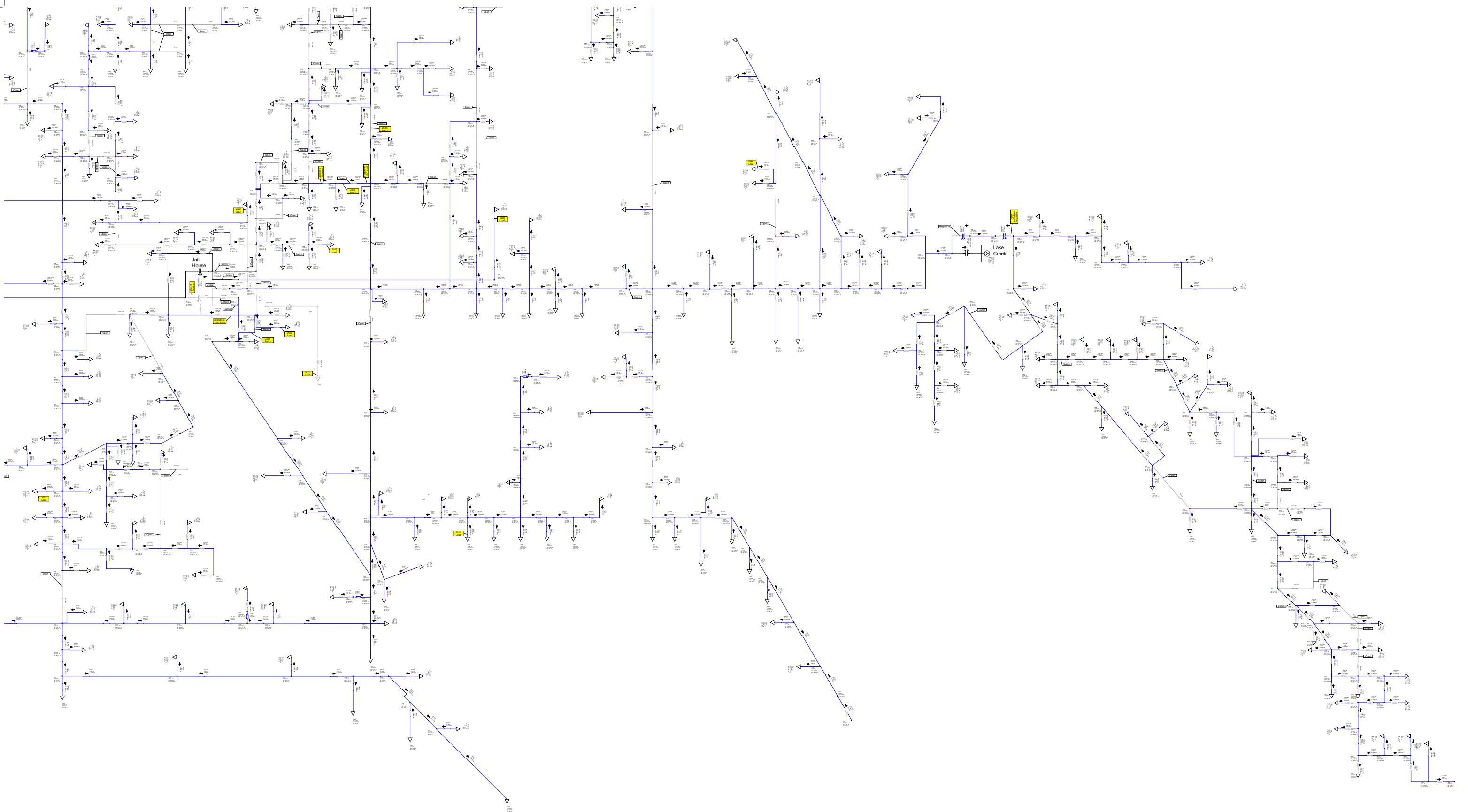


- 4. JH504 can be picked up by JH501.
- 5. It is assumed that JH506 circuit will tie into the rest of the system and be able to be backed up, but details are not known at this time.

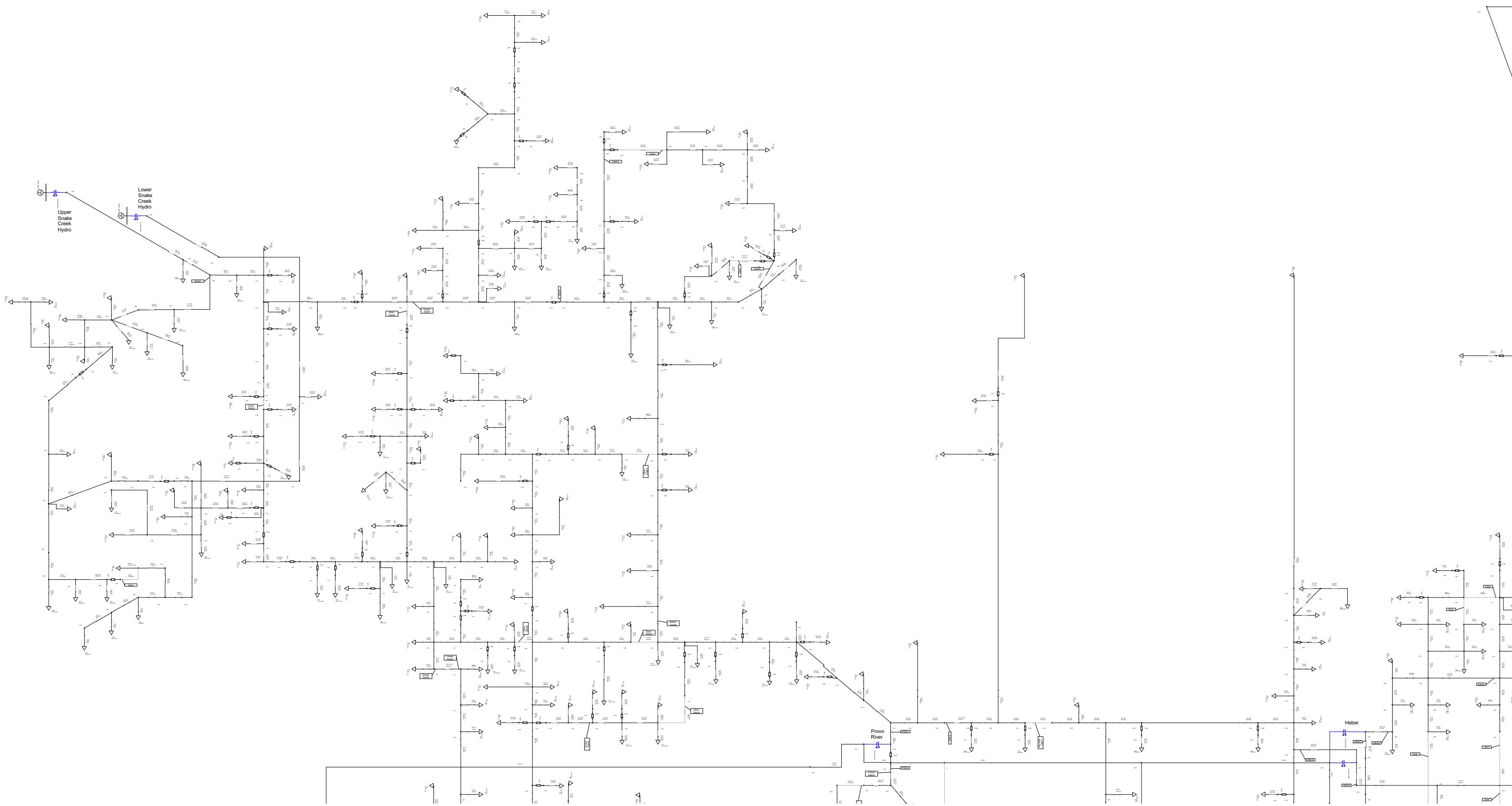


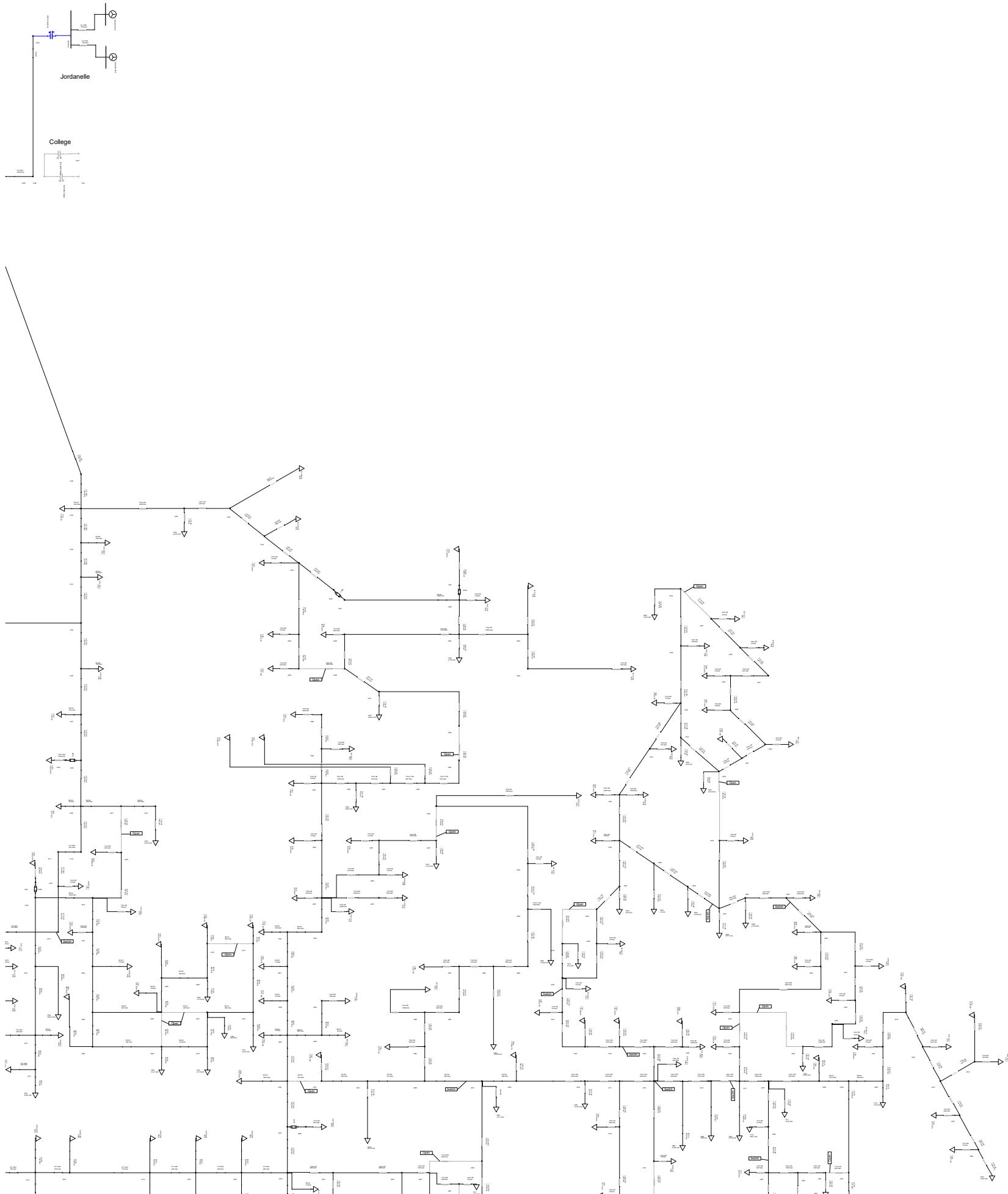


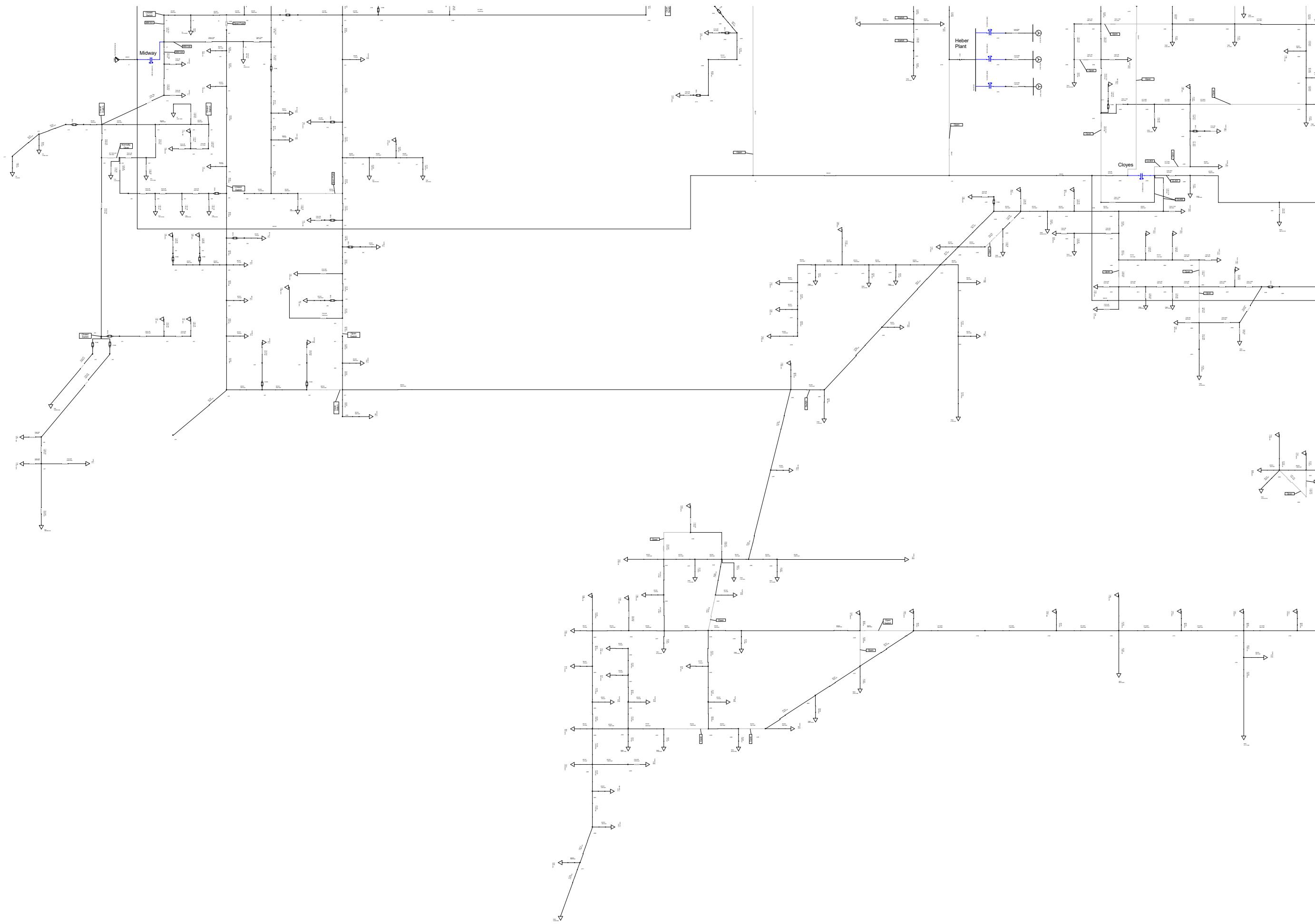




APPENDIX 4 – MODEL INPUT DATA









3-Phase Short Circuit v6.70.00

Project No. : Page : 1
Project Name: Heber City Date : 01/15/2019
Title : Time : 10:25:37 am
Drawing No. : Company : ICPE
Revision No.: Engineer: MTF
Jobfile Name: Heber_2018_Input_Data Check by:
Scenario : 1 : Date :

System Summary

Base MVA : 100.000
System Frequency(Hz) : 60

of Total Buses : 1733
of Active Buses : 1722
of Total Branches : 1727

of Active Sources : 9
of Active Motors : 0
of Active Shunts : 736
of Transformers : 17
Reference Temperature(°C) : 20.0
Impedance Displaying Temperature(°C) : 25.0

Calculation Options

Calculating All or Mult-Buses 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 not considered.

Generator and Motor X/R is constant.

Base Voltages : Adjusted by Tap/Turn Ratio

Prefault Voltages : Use System Voltages

Input Data Report

Utility/Power Company Data

Bus Name	System				
	V	Cd	SCkVA	X"/R	Ground
PACIFICORP MIDWAY	46000	PC	889825.3-3P	19.901(+)	Solid
Actual V.->	46000		770965.6-LL	19.433(-)	
			1154882-LG	8.7569(0)	

Generator Data

Bus Name	System					Ground Ohms
	V	Cd	kVA	%X	X/R	
Heber Gen1	4160	GS	6082.0	13.00	29.00	(+)" Solid
	Actual V.->	4160		21.10	29.00	(+)'
				267.0	29.00	(+)
				12.50	29.00	(-)
				2.600	29.00	(0)
Heber Gen2	4160	GS	4486.0	13.00	29.00	(+)" Solid
	Actual V.->	4160		21.10	29.00	(+)'
				267.0	29.00	(+)
				12.50	29.00	(-)
				2.600	29.00	(0)
Heber Gen3	4160	GS	3189.0	13.00	29.00	(+)" Solid
	Actual V.->	4160		21.10	29.00	(+)'
				267.0	29.00	(+)
				12.50	29.00	(-)
				2.600	29.00	(0)
Jordanelle Gen3	12470	GS	7222.0	22.30	29.00	(+)" R 713
	Actual V.->	12470		32.80	29.00	(+) X 0
				108.5	29.00	(+)
				24.80	29.00	(-)
				20.90	29.00	(0)
Jordanelle Gen4	12470	GS	7222.0	22.30	29.00	(+)" R 713
	Actual V.->	12470		32.80	29.00	(+) X 0
				108.5	29.00	(+)
				24.80	29.00	(-)
				20.90	29.00	(0)
LAKE PLANT	480	GS	1500.0	22.30	29.00	(+)" R 713
	Actual V.->	480		32.80	29.00	(+) X 0
				108.5	29.00	(+)
				24.80	29.00	(-)
				20.90	29.00	(0)
SNAKE CREEK	480	GS	1180.0	22.30	29.00	(+)" Solid
	Actual V.->	480		32.80	29.00	(+)'
				108.5	29.00	(+)
				24.80	29.00	(-)
				20.90	29.00	(0)
SNAKE CREEK1	480	GS	800.00	22.30	29.00	(+)" Solid
	Actual V.->	480		32.80	29.00	(+)'
				108.5	29.00	(+)
				24.80	29.00	(-)
				20.90	29.00	(0)

Transformers Data

Branch Name	Cd	Device Type	kVA	%R	%X	Name	plt	Ground
						V		Ohms
CLOYES		TR XFMR 9375 KVA	9375.0	0	9.99 (+)	46000	Delta	
				0	9.99 (0)	12470	Y-Solid	
				%Z = 9.99	X/R = - (+)			
Heber Xfmr1		TR XFMR 14000 KVA	14000	0	9.100 (+)	4160	Delta	
				0	9.100 (0)	46000	Y-Solid	
				%Z = 9.100	X/R = - (+)			
Heber Xfmr2		TR XFMR 7500 KVA	5000.0	0	6.400 (+)	4160	Delta	
				0	6.400 (0)	46000	Y-Solid	
				%Z = 6.400	X/R = - (+)			
Heber Xfmr3		TR XFMR 5000 KVA	5000.0	0	6.400 (+)	4160	Delta	
				0	6.400 (0)	46000	Y-Solid	
				%Z = 6.400	X/R = - (+)			
Heber Xfmr4		TR XFMR 2000 KVA	2000.0	0	5.320 (+)	480	Delta	
				0	5.320 (0)	12470	Y-Solid	
				%Z = 5.320	X/R = - (+)			
Heber Xfmr5		TR XFMR 2000 KVA	2000.0	0	5.320 (+)	480	Delta	
				0	5.320 (0)	12470	Y-Solid	
				%Z = 5.320	X/R = - (+)			
Heber Xfmr6		TR XFMR 2000 KVA	2000.0	0	5.320 (+)	480	Delta	
				0	5.320 (0)	12470	Y-Solid	
				%Z = 5.320	X/R = - (+)			
Heber Xfmr7		TR Regulators	10000	0	1.000 (+)	12470	Y-Solid	
				0	1.000 (0)	12470	Y-Solid	
				%Z = 1.000	X/R = - (+)			
HEBER1		TR XFMR 20000 KVA	20000	0	12.83 (+)	46000	Delta	
				0	12.83 (0)	12470	Y-Solid	
				%Z = 12.83	X/R = - (+)			
HEBER2		TR XFMR 20000 KVA	20000	0	11.75 (+)	46000	Delta	
				0	11.75 (0)	12470	Y-Solid	
				%Z = 11.75	X/R = - (+)			
JAIL HOUSE1		TR XFMR 14000 KVA	14000	0	11.41 (+)	46000	Delta	
				0	11.41 (0)	12470	Y-Solid	
				%Z = 11.41	X/R = - (+)			
JAIL HOUSE2		TR XFMR 20000 KVA	20000	0	13.53 (+)	46000	Delta	
				0	13.53 (0)	12470	Y-Solid	
				%Z = 13.53	X/R = - (+)			
Jordanelle Xfmr		TR XFMR 14000 KVA	14000	0	9.400 (+)	12470	Delta	
				0	9.400 (0)	12470	Y-Solid	
				%Z = 9.400	X/R = - (+)			
MIDWAY		TR XFMR 14000 KVA	14000	0	11.07 (+)	46000	Delta	
				0	11.07 (0)	12470	Y-Solid	
				%Z = 11.07	X/R = - (+)			
PROVO RIVER		TR XFMR 5000 KVA	5000.0	0	6.550 (+)	46000	Delta	
				0	6.550 (0)	12470	Y-Solid	
				%Z = 6.550	X/R = - (+)			

Feeders/Cables Data

Resistance Displayed in Editor is at 25.0 °C.

Branch Name	#C Device Type	Length Feet	R Ohms/K	X Ohms/K	1/2 Cap mMhos/K	Temp °C
OH1	EQUIV	1000	0.0002	0.0002 (+)		20.0
			0.0002	0.0002 (0)		
OH10	EQUIV	1000	0.6857	0.9552 (+)		20.0
			1.1773	3.2210 (0)		
OH100	#2 OH	330	0.2618	0.1378 (+)		20.0
			0.3953	0.4524 (0)		
OH101	4/0 OH	310	0.0820	0.1244 (+)		20.0
			0.1588	0.3557 (0)		
OH102	#2 OH	350	0.2618	0.1378 (+)		20.0
			0.3953	0.4524 (0)		
OH103	#2 OH	820	0.2618	0.1378 (+)		20.0
			0.3953	0.4524 (0)		
OH104	#2 OH	10	0.2618	0.1378 (+)		20.0
			0.3953	0.4524 (0)		
OH105	4/0 OH	680	0.0820	0.1244 (+)		20.0
			0.1588	0.3557 (0)		
OH106	4/0 OH	220	0.0820	0.1244 (+)		20.0
			0.1588	0.3557 (0)		
OH107	4/0 OH	690	0.0820	0.1244 (+)		20.0
			0.1588	0.3557 (0)		
OH108	4/0 OH	250	0.0820	0.1244 (+)		20.0
			0.1588	0.3557 (0)		
OH109	#2 CU	780	0.1637	0.1392 (+)		20.0
			0.2768	0.4112 (0)		
OH11	#2 OH	1400	0.2618	0.1378 (+)		20.0
			0.3953	0.4524 (0)		
OH110	#2 CU	600	0.1637	0.1392 (+)		20.0
			0.2768	0.4112 (0)		
OH111	#2 CU	210	0.1637	0.1392 (+)		20.0
			0.2768	0.4112 (0)		
OH112	#2 CU	1200	0.1637	0.1392 (+)		20.0
			0.2768	0.4112 (0)		
OH113	#2 OH	10	0.2618	0.1378 (+)		20.0
			0.3953	0.4524 (0)		
OH114	#4 CU-1	710	0.2579	0.1611 (+)		20.0
			0.3826	0.4767 (0)		
OH115	#2 OH	10	0.2618	0.1378 (+)		20.0
			0.3953	0.4524 (0)		
OH116	#2 CU	450	0.1637	0.1392 (+)		20.0
			0.2768	0.4112 (0)		
OH117	#2 CU	1150	0.1637	0.1392 (+)		20.0
			0.2768	0.4112 (0)		
OH118	#2 CU	370	0.1637	0.1392 (+)		20.0
			0.2768	0.4112 (0)		
OH119	4/0 OH	450	0.0820	0.1244 (+)		20.0
			0.1588	0.3557 (0)		

Feeders/Cables Data

Resistance Displayed in Editor is at 25.0 °C.

Branch Name	#C Device Type	Length Feet	R Ohms/K	X Ohms/K	1/2 Cap mMhos/K	Temp °C
OH12	#2 OH	1400	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH120	#4 OH	860	0.4159 0.5502	0.1428 0.5054	(+) (0)	20.0
OH121	4/0 OH	660	0.0820 0.1588	0.1244 0.3557	(+) (0)	20.0
OH122	#2 OH	10	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH123	4/0 OH	730	0.0820 0.1588	0.1244 0.3557	(+) (0)	20.0
OH124	#6 CU-2	360	0.4105 0.5443	0.1462 0.5073	(+) (0)	20.0
OH125	4/0 OH	560	0.0820 0.1588	0.1244 0.3557	(+) (0)	20.0
OH126	4/0 OH	370	0.0820 0.1588	0.1244 0.3557	(+) (0)	20.0
OH127	4/0 OH	760	0.0820 0.1588	0.1244 0.3557	(+) (0)	20.0
OH128	#2 OH	10	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH129	4/0 OH	500	0.0820 0.1588	0.1244 0.3557	(+) (0)	20.0
OH13	#2 OH	10	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH130	4/0 OH	880	0.0820 0.1588	0.1244 0.3557	(+) (0)	20.0
OH132	4/0 OH	500	0.0820 0.1588	0.1244 0.3557	(+) (0)	20.0
OH133	4/0 OH	660	0.0820 0.1588	0.1244 0.3557	(+) (0)	20.0
OH134	4/0 OH	540	0.0820 0.1588	0.1244 0.3557	(+) (0)	20.0
OH135	#2 OH	10	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH136	#2 OH	530	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH137	#2 OH	1150	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH138	4/0 OH	850	0.0820 0.1588	0.1244 0.3557	(+) (0)	20.0
OH139	4/0 OH	560	0.0820 0.1588	0.1244 0.3557	(+) (0)	20.0
OH14	#2 OH	10	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH140	4/0 OH	415	0.0820 0.1588	0.1244 0.3557	(+) (0)	20.0

Feeders/Cables Data

Resistance Displayed in Editor is at 25.0 °C.

Branch Name	#C Device Type	Length Feet	R Ohms/K	X Ohms/K	1/2 Cap mMhos/K	Temp °C
OH142	#2 OH	50	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH143	#2 OH	420	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH144	#4 OH	750	0.4159 0.5502	0.1428 0.5054 (+) (0)		20.0
OH145	#2 OH	50	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH146	#4 OH	50	0.4159 0.5502	0.1428 0.5054 (+) (0)		20.0
OH147	#4 OH	420	0.4159 0.5502	0.1428 0.5054 (+) (0)		20.0
OH148	#4 OH	450	0.4159 0.5502	0.1428 0.5054 (+) (0)		20.0
OH149	#4 OH	1200	0.4159 0.5502	0.1428 0.5054 (+) (0)		20.0
OH15	4/0 OH	650	0.0820 0.1588	0.1244 0.3557 (+) (0)		20.0
OH150	#4 OH	290	0.4159 0.5502	0.1428 0.5054 (+) (0)		20.0
OH151	#4 OH	100	0.4159 0.5502	0.1428 0.5054 (+) (0)		20.0
OH152	#4 OH	50	0.4159 0.5502	0.1428 0.5054 (+) (0)		20.0
OH153	#4 OH	50	0.4159 0.5502	0.1428 0.5054 (+) (0)		20.0
OH154	#2 OH	310	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH155	#2 OH	650	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH156	#2 OH	1480	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH157	#2 OH	390	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH158	#2 OH	570	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH159	#2 OH	800	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH16	4/0 OH	1060	0.0820 0.1588	0.1244 0.3557 (+) (0)		20.0
OH160	#2 OH	680	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH162	#2 OH	200	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH163	#2 OH	10	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0

Feeders/Cables Data

Resistance Displayed in Editor is at 25.0 °C.

Branch Name	#C	Device Type	Length Feet	R Ohms/K	X Ohms/K	1/2 Cap mMhos/K	Temp °C
OH164		#2 OH	860	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH165		#2 OH	510	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH166		#2 OH	300	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH167		#4 OH	370	0.4159 0.5502	0.1428 0.5054 (+) (0)		20.0
OH168		#4 OH	300	0.4159 0.5502	0.1428 0.5054 (+) (0)		20.0
OH169		#2 OH	670	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH17		4/0 OH	350	0.0820 0.1588	0.1244 0.3557 (+) (0)		20.0
OH170		#2 OH	650	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH171		#2 OH	10	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH172		#2 OH	700	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH173		477 AAC	2000	0.0368 0.0762	0.1542 0.3964 (+) (0)		20.0
OH174		477 AAC	1230	0.0368 0.0762	0.1542 0.3964 (+) (0)		20.0
OH175		477 AAC	630	0.0368 0.0762	0.1542 0.3964 (+) (0)		20.0
OH177		#2 OH	350	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH178		#2 OH	350	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH179		#2 OH	1420	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH18		#2 OH	1060	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH180		#2 OH	750	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH181		#2 OH	1330	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH182		4/0 OH	1080	0.0820 0.1588	0.1244 0.3557 (+) (0)		20.0
OH183		4/0 OH	720	0.0820 0.1588	0.1244 0.3557 (+) (0)		20.0
OH184		EQUIV	1000	0.0002 0.0002	0.0002 0.0002 (+) (0)		20.0
OH185		#2 OH	150	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0

Feeders/Cables Data

Resistance Displayed in Editor is at 25.0 °C.

Branch Name	#C	Device Type	Length Feet	R Ohms/K	X Ohms/K	1/2 Cap mMhos/K	Temp °C
OH186		4/0 OH	240	0.0820	0.1244 (+)		20.0
				0.1588	0.3557 (0)		
OH187		4/0 OH	240	0.0820	0.1244 (+)		20.0
				0.1588	0.3557 (0)		
OH188		4/0 OH	360	0.0820	0.1244 (+)		20.0
				0.1588	0.3557 (0)		
OH189		4/0 OH	310	0.0820	0.1244 (+)		20.0
				0.1588	0.3557 (0)		
OH19		#2 OH	530	0.2618	0.1378 (+)		20.0
				0.3953	0.4524 (0)		
OH190		#4 OH	1500	0.4159	0.1428 (+)		20.0
				0.5502	0.5054 (0)		
OH191		4/0 OH	200	0.0820	0.1244 (+)		20.0
				0.1588	0.3557 (0)		
OH192		477 AAC	230	0.0368	0.1542 (+)		20.0
				0.0762	0.3964 (0)		
OH193		#2 OH	3050	0.2618	0.1378 (+)		20.0
				0.3953	0.4524 (0)		
OH194		477 AAC	850	0.0368	0.1542 (+)		20.0
				0.0762	0.3964 (0)		
OH195		477 AAC	510	0.0368	0.1542 (+)		20.0
				0.0762	0.3964 (0)		
OH196		#2 OH	620	0.2618	0.1378 (+)		20.0
				0.3953	0.4524 (0)		
OH197		#4 OH	1160	0.4159	0.1428 (+)		20.0
				0.5502	0.5054 (0)		
OH198		#2 OH	530	0.2618	0.1378 (+)		20.0
				0.3953	0.4524 (0)		
OH199		#2 OH	850	0.2618	0.1378 (+)		20.0
				0.3953	0.4524 (0)		
OH2		4/0 OH	850	0.0820	0.1244 (+)		20.0
				0.1588	0.3557 (0)		
OH20		#2 OH	500	0.2618	0.1378 (+)		20.0
				0.3953	0.4524 (0)		
OH200		#2 OH	1000	0.2618	0.1378 (+)		20.0
				0.3953	0.4524 (0)		
OH201		#4 OH	1130	0.4159	0.1428 (+)		20.0
				0.5502	0.5054 (0)		
OH202		#2 OH	10	0.2618	0.1378 (+)		20.0
				0.3953	0.4524 (0)		
OH203		#2 OH	710	0.2618	0.1378 (+)		20.0
				0.3953	0.4524 (0)		
OH204		#2 OH	10	0.2618	0.1378 (+)		20.0
				0.3953	0.4524 (0)		
OH205		#2 OH	530	0.2618	0.1378 (+)		20.0
				0.3953	0.4524 (0)		

Feeders/Cables Data

Resistance Displayed in Editor is at 25.0 °C.

Branch Name	#C	Device Type	Length Feet	R Ohms/K	X Ohms/K	1/2 Cap mMhos/K	Temp °C
OH206		#2 OH	100	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH207		#2 OH	750	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH208		#2 OH	1800	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH209		#2 OH	750	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH21		#2 OH	10	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH210		4/0 OH	760	0.0820 0.1588	0.1244 0.3557	(+) (0)	20.0
OH211		#2 OH	1900	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH212		#2 OH	250	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH213		#2 OH	670	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH214		#2 OH	270	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH215		#2 OH	10	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH216		#6 CU	150	0.4105 0.5443	0.1462 0.5073	(+) (0)	20.0
OH217		#2 OH	570	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH218		#2 OH	10	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH219		#2 OH	1620	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH22		#2 OH	440	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH220		4/0 OH	440	0.0820 0.1588	0.1244 0.3557	(+) (0)	20.0
OH221		#2 OH	370	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH222		4/0 OH	830	0.0820 0.1588	0.1244 0.3557	(+) (0)	20.0
OH223		#2 OH	100	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH224		#4 OH	510	0.4159 0.5502	0.1428 0.5054	(+) (0)	20.0
OH225		#4 OH	1000	0.4159 0.5502	0.1428 0.5054	(+) (0)	20.0
OH226		#4 OH	340	0.4159 0.5502	0.1428 0.5054	(+) (0)	20.0

Feeders/Cables Data

Resistance Displayed in Editor is at 25.0 °C.

Branch Name	#C	Device Type	Length Feet	R Ohms/K	X Ohms/K	1/2 Cap mMhos/K	Temp °C
OH227		#4 OH	690	0.4159 0.5502	0.1428 0.5054	(+) (0)	20.0
OH228		#4 OH	490	0.4159 0.5502	0.1428 0.5054	(+) (0)	20.0
OH229		#4 OH	210	0.4159 0.5502	0.1428 0.5054	(+) (0)	20.0
OH23		#2 OH	170	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH230		#4 OH	220	0.4159 0.5502	0.1428 0.5054	(+) (0)	20.0
OH231		#4 OH	1100	0.4159 0.5502	0.1428 0.5054	(+) (0)	20.0
OH232		#4 OH	950	0.4159 0.5502	0.1428 0.5054	(+) (0)	20.0
OH233		#4 OH	1600	0.4159 0.5502	0.1428 0.5054	(+) (0)	20.0
OH234		#4 OH	1090	0.4159 0.5502	0.1428 0.5054	(+) (0)	20.0
OH235		#4 OH	1400	0.4159 0.5502	0.1428 0.5054	(+) (0)	20.0
OH236		#4 OH	1350	0.4159 0.5502	0.1428 0.5054	(+) (0)	20.0
OH237		#4 OH	1200	0.4159 0.5502	0.1428 0.5054	(+) (0)	20.0
OH238		#4 OH	730	0.4159 0.5502	0.1428 0.5054	(+) (0)	20.0
OH239		#4 OH	200	0.4159 0.5502	0.1428 0.5054	(+) (0)	20.0
OH24		#2 OH	10	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH240		4/0 OH	450	0.0820 0.1588	0.1244 0.3557	(+) (0)	20.0
OH241		4/0 OH	1600	0.0820 0.1588	0.1244 0.3557	(+) (0)	20.0
OH242		#2 OH	400	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH243		4/0 OH	300	0.0820 0.1588	0.1244 0.3557	(+) (0)	20.0
OH244		#2 OH	770	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH245		#2 OH	340	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH246		#2 OH	810	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH247		#2 OH	480	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0

Feeders/Cables Data

Resistance Displayed in Editor is at 25.0 °C.

Branch Name	#C Device Type	Length Feet	R Ohms/K	X Ohms/K	1/2 Cap mMhos/K	Temp °C
OH248	#2 OH	10	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH249	#2 OH	1200	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH25	#2 OH	570	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH250	#2 OH	430	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH251	#4 OH	870	0.4159 0.5502	0.1428 0.5054 (+) (0)		20.0
OH252	#4 OH	10	0.4159 0.5502	0.1428 0.5054 (+) (0)		20.0
OH253	#4 OH	1080	0.4159 0.5502	0.1428 0.5054 (+) (0)		20.0
OH254	#4 OH	330	0.4159 0.5502	0.1428 0.5054 (+) (0)		20.0
OH255	#4 OH	410	0.4159 0.5502	0.1428 0.5054 (+) (0)		20.0
OH256	#4 OH	10	0.4159 0.5502	0.1428 0.5054 (+) (0)		20.0
OH257	#4 OH	950	0.4159 0.5502	0.1428 0.5054 (+) (0)		20.0
OH258	#4 OH	950	0.4159 0.5502	0.1428 0.5054 (+) (0)		20.0
OH259	#4 OH	10	0.4159 0.5502	0.1428 0.5054 (+) (0)		20.0
OH26	#2 OH	640	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH260	#4 OH	10	0.4159 0.5502	0.1428 0.5054 (+) (0)		20.0
OH261	#4 OH	400	0.4159 0.5502	0.1428 0.5054 (+) (0)		20.0
OH262	#4 OH	1160	0.4159 0.5502	0.1428 0.5054 (+) (0)		20.0
OH263	#4 OH	1130	0.4159 0.5502	0.1428 0.5054 (+) (0)		20.0
OH264	#4 OH	700	0.4159 0.5502	0.1428 0.5054 (+) (0)		20.0
OH265	#4 OH	1530	0.4159 0.5502	0.1428 0.5054 (+) (0)		20.0
OH266	#4 OH	230	0.4159 0.5502	0.1428 0.5054 (+) (0)		20.0
OH267	#4 OH	850	0.4159 0.5502	0.1428 0.5054 (+) (0)		20.0
OH268	#4 OH	900	0.4159 0.5502	0.1428 0.5054 (+) (0)		20.0

Feeders/Cables Data

Resistance Displayed in Editor is at 25.0 °C.

Branch Name	#C	Device Type	Length Feet	R Ohms/K	X Ohms/K	1/2 Cap mMhos/K	Temp °C
OH269		#4 OH	830	0.4159 0.5502	0.1428 0.5054 (+)	(0)	20.0
OH27		#2 OH	10	0.2618 0.3953	0.1378 0.4524 (+)	(0)	20.0
OH270		#4 OH	10	0.4159 0.5502	0.1428 0.5054 (+)	(0)	20.0
OH272		#4 OH	370	0.4159 0.5502	0.1428 0.5054 (+)	(0)	20.0
OH273		#4 OH	630	0.4159 0.5502	0.1428 0.5054 (+)	(0)	20.0
OH274		#4 OH	840	0.4159 0.5502	0.1428 0.5054 (+)	(0)	20.0
OH275		#4 OH	1880	0.4159 0.5502	0.1428 0.5054 (+)	(0)	20.0
OH276		4/0 OH	50	0.0820 0.1588	0.1244 0.3557 (+)	(0)	20.0
OH277		#4 OH	800	0.4159 0.5502	0.1428 0.5054 (+)	(0)	20.0
OH278		#4 OH	1090	0.4159 0.5502	0.1428 0.5054 (+)	(0)	20.0
OH279		#4 OH	480	0.4159 0.5502	0.1428 0.5054 (+)	(0)	20.0
OH28		#2 OH	10	0.2618 0.3953	0.1378 0.4524 (+)	(0)	20.0
OH280		#2 OH	380	0.2618 0.3953	0.1378 0.4524 (+)	(0)	20.0
OH281		#4 OH	1800	0.4159 0.5502	0.1428 0.5054 (+)	(0)	20.0
OH282		#4 OH	10	0.4159 0.5502	0.1428 0.5054 (+)	(0)	20.0
OH283		#4 OH	10	0.4159 0.5502	0.1428 0.5054 (+)	(0)	20.0
OH284		#2 OH	600	0.2618 0.3953	0.1378 0.4524 (+)	(0)	20.0
OH285		#4 OH	10	0.4159 0.5502	0.1428 0.5054 (+)	(0)	20.0
OH286		#4 OH	800	0.4159 0.5502	0.1428 0.5054 (+)	(0)	20.0
OH287		#4 OH	1400	0.4159 0.5502	0.1428 0.5054 (+)	(0)	20.0
OH288		#4 OH	1300	0.4159 0.5502	0.1428 0.5054 (+)	(0)	20.0
OH289		#4 OH	600	0.4159 0.5502	0.1428 0.5054 (+)	(0)	20.0
OH29		#4 OH	900	0.4159 0.5502	0.1428 0.5054 (+)	(0)	20.0

Feeders/Cables Data

Resistance Displayed in Editor is at 25.0 °C.

Branch Name	#C	Device Type	Length Feet	R Ohms/K	X Ohms/K	1/2 Cap mMhos/K	Temp °C
OH290		#2 OH	550	0.2618 0.3953	0.1378 0.4524 (+)	(+)	20.0
OH291		#4 OH	400	0.4159 0.5502	0.1428 0.5054 (+)	(0)	20.0
OH292		477 AAC	200	0.0368 0.0762	0.1542 0.3964 (+)	(0)	20.0
OH293		477 AAC	1530	0.0368 0.0762	0.1542 0.3964 (+)	(0)	20.0
OH294		477 AAC	1250	0.0368 0.0762	0.1542 0.3964 (+)	(0)	20.0
OH295		#2 OH	400	0.2618 0.3953	0.1378 0.4524 (+)	(0)	20.0
OH296		#2 OH	5440	0.2618 0.3953	0.1378 0.4524 (+)	(0)	20.0
OH297		#2 OH	1140	0.2618 0.3953	0.1378 0.4524 (+)	(0)	20.0
OH298		#2 OH	1390	0.2618 0.3953	0.1378 0.4524 (+)	(0)	20.0
OH3		4/0 OH	890	0.0820 0.1588	0.1244 0.3557 (+)	(0)	20.0
OH30		#4 OH	690	0.4159 0.5502	0.1428 0.5054 (+)	(0)	20.0
OH300		477 AAC	400	0.0368 0.0762	0.1542 0.3964 (+)	(0)	20.0
OH301		#2 OH	560	0.2618 0.3953	0.1378 0.4524 (+)	(0)	20.0
OH302		477 AAC	1050	0.0368 0.0762	0.1542 0.3964 (+)	(0)	20.0
OH303		4/0 OH	2050	0.0820 0.1588	0.1244 0.3557 (+)	(0)	20.0
OH304		#2 OH	100	0.2618 0.3953	0.1378 0.4524 (+)	(0)	20.0
OH305		4/0 OH	940	0.0820 0.1588	0.1244 0.3557 (+)	(0)	20.0
OH306		#2 OH	2200	0.2618 0.3953	0.1378 0.4524 (+)	(0)	20.0
OH307		#2 OH	360	0.2618 0.3953	0.1378 0.4524 (+)	(0)	20.0
OH308		#2 OH	700	0.2618 0.3953	0.1378 0.4524 (+)	(0)	20.0
OH309		477 AAC	950	0.0368 0.0762	0.1542 0.3964 (+)	(0)	20.0
OH31		#2 OH	1050	0.2618 0.3953	0.1378 0.4524 (+)	(0)	20.0
OH310		477 AAC	980	0.0368 0.0762	0.1542 0.3964 (+)	(0)	20.0

Feeders/Cables Data

Resistance Displayed in Editor is at 25.0 °C.

Branch Name	#C	Device Type	Length Feet	R Ohms/K	X Ohms/K	1/2 Cap mMhos/K	Temp °C
OH311	477	AAC	840	0.0368 0.0762	0.1542 0.3964	(+) (0)	20.0
OH312	4/0	OH	460	0.0820 0.1588	0.1244 0.3557	(+) (0)	20.0
OH313	4/0	OH	410	0.0820 0.1588	0.1244 0.3557	(+) (0)	20.0
OH314	#2	OH	290	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH315	477	AAC	580	0.0368 0.0762	0.1542 0.3964	(+) (0)	20.0
OH316	477	AAC	420	0.0368 0.0762	0.1542 0.3964	(+) (0)	20.0
OH317	477	AAC	350	0.0368 0.0762	0.1542 0.3964	(+) (0)	20.0
OH318	477	AAC	530	0.0368 0.0762	0.1542 0.3964	(+) (0)	20.0
OH32	#2	OH	640	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH320	EQUIV		1000	0.0409 0.1894	0.2476 0.9310	(+) (0)	20.0
OH321	4/0	OH	50	0.0820 0.1588	0.1244 0.3557	(+) (0)	20.0
OH323	EQUIV		1000	0.2744 0.4711	0.3821 1.2889	(+) (0)	20.0
OH324	4/0	OH	50	0.0820 0.1588	0.1244 0.3557	(+) (0)	20.0
OH325	EQUIV		1000	0.6816 1.1705	0.9497 3.2019	(+) (0)	20.0
OH326	#4	OH	600	0.4159 0.5502	0.1428 0.5054	(+) (0)	20.0
OH328	#2	OH	10	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH329	#2	OH	690	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH33	#2	OH	470	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH330	#2	OH	400	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH331	#2	OH	520	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH332	#2	OH	500	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH333	#2	OH	200	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH334	#2	OH	570	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0

Feeders/Cables Data

Resistance Displayed in Editor is at 25.0 °C.

Branch Name	#C	Device Type	Length Feet	R Ohms/K	X Ohms/K	1/2 Cap mMhos/K	Temp °C
OH335		#2 OH	500	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH336		#2 OH	500	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH337		#2 OH	210	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH338		#2 OH	530	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH339		#2 OH	600	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH34		#2 OH	10	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH340		#2 OH	890	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH341		#2 OH	1330	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH342		#2 OH	2210	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH343		#2 OH	200	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH344		#2 OH	200	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH345		#2 OH	2910	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH346		#2 OH	10	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH347		#2 OH	2090	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH348		#2 OH	1570	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH349		#2 OH	500	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH35		#2 OH	10	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH350		#2 OH	560	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH351		#2 OH	700	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH352		#2 OH	10	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH353		#2 OH	1430	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH354		#4 OH	650	0.4159 0.5502	0.1428 0.5054 (+) (0)		20.0
OH355		#4 OH	10	0.4159 0.5502	0.1428 0.5054 (+) (0)		20.0

Feeders/Cables Data

Resistance Displayed in Editor is at 25.0 °C.

Branch Name	#C	Device Type	Length Feet	R Ohms/K	X Ohms/K	1/2 Cap mMhos/K	Temp °C
OH356		#4 OH	3050	0.4159	0.1428 (+)		20.0
				0.5502	0.5054 (0)		
OH357		#4 OH	150	0.4159	0.1428 (+)		20.0
				0.5502	0.5054 (0)		
OH358		#4 OH	680	0.4159	0.1428 (+)		20.0
				0.5502	0.5054 (0)		
OH359		#4 OH	840	0.4159	0.1428 (+)		20.0
				0.5502	0.5054 (0)		
OH36		#2 OH	2430	0.2618	0.1378 (+)		20.0
				0.3953	0.4524 (0)		
OH360		#4 OH	10	0.4159	0.1428 (+)		20.0
				0.5502	0.5054 (0)		
OH361		#4 OH	10	0.4159	0.1428 (+)		20.0
				0.5502	0.5054 (0)		
OH362		#4 OH	1100	0.4159	0.1428 (+)		20.0
				0.5502	0.5054 (0)		
OH363		#2 OH	1360	0.2618	0.1378 (+)		20.0
				0.3953	0.4524 (0)		
OH364		#2 OH	10	0.2618	0.1378 (+)		20.0
				0.3953	0.4524 (0)		
OH366		#2 OH	1140	0.2618	0.1378 (+)		20.0
				0.3953	0.4524 (0)		
OH367		#2 OH	1500	0.2618	0.1378 (+)		20.0
				0.3953	0.4524 (0)		
OH368		#2 OH	380	0.2618	0.1378 (+)		20.0
				0.3953	0.4524 (0)		
OH369		#2 OH	400	0.2618	0.1378 (+)		20.0
				0.3953	0.4524 (0)		
OH37		#2 OH	900	0.2618	0.1378 (+)		20.0
				0.3953	0.4524 (0)		
OH370		#2 OH	2420	0.2618	0.1378 (+)		20.0
				0.3953	0.4524 (0)		
OH371		#2 OH	10	0.2618	0.1378 (+)		20.0
				0.3953	0.4524 (0)		
OH374		#2 OH	800	0.2618	0.1378 (+)		20.0
				0.3953	0.4524 (0)		
OH375		#2 OH	1300	0.2618	0.1378 (+)		20.0
				0.3953	0.4524 (0)		
OH376		#2 OH	1360	0.2618	0.1378 (+)		20.0
				0.3953	0.4524 (0)		
OH377		#2 OH	10	0.2618	0.1378 (+)		20.0
				0.3953	0.4524 (0)		
OH378		#2 OH	10	0.2618	0.1378 (+)		20.0
				0.3953	0.4524 (0)		
OH379		#2 OH	10	0.2618	0.1378 (+)		20.0
				0.3953	0.4524 (0)		

Feeders/Cables Data

Resistance Displayed in Editor is at 25.0 °C.

Branch Name	#C	Device Type	Length Feet	R Ohms/K	X Ohms/K	1/2 Cap mMhos/K	Temp °C
OH38		#2 OH	850	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH380		#2 OH	1460	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH381		#6 CU	950	0.4105 0.5443	0.1462 0.5073 (+) (0)		20.0
OH382		#4 OH	1240	0.4159 0.5502	0.1428 0.5054 (+) (0)		20.0
OH383		#4 OH	530	0.4159 0.5502	0.1428 0.5054 (+) (0)		20.0
OH384		#4 OH	10	0.4159 0.5502	0.1428 0.5054 (+) (0)		20.0
OH385		#4 OH	10	0.4159 0.5502	0.1428 0.5054 (+) (0)		20.0
OH387		#4 OH	800	0.4159 0.5502	0.1428 0.5054 (+) (0)		20.0
OH388		#4 OH	1030	0.4159 0.5502	0.1428 0.5054 (+) (0)		20.0
OH389		#4 OH	10	0.4159 0.5502	0.1428 0.5054 (+) (0)		20.0
OH390		#4 OH	10	0.4159 0.5502	0.1428 0.5054 (+) (0)		20.0
OH391		#4 OH	10	0.4159 0.5502	0.1428 0.5054 (+) (0)		20.0
OH392		#4 OH	510	0.4159 0.5502	0.1428 0.5054 (+) (0)		20.0
OH393		#4 OH	980	0.4159 0.5502	0.1428 0.5054 (+) (0)		20.0
OH394		#4 OH	540	0.4159 0.5502	0.1428 0.5054 (+) (0)		20.0
OH395		#4 OH	10	0.4159 0.5502	0.1428 0.5054 (+) (0)		20.0
OH396		#4 OH	10	0.4159 0.5502	0.1428 0.5054 (+) (0)		20.0
OH397		#4 OH	10	0.4159 0.5502	0.1428 0.5054 (+) (0)		20.0
OH398		#6 CU	550	0.4105 0.5443	0.1462 0.5073 (+) (0)		20.0
OH399		#2 OH	1110	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH4		#2 OH	10	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH40		#2 OH	610	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH400		#2 OH	980	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0

Feeders/Cables Data

Resistance Displayed in Editor is at 25.0 °C.

Branch Name	#C	Device Type	Length Feet	R Ohms/K	X Ohms/K	1/2 Cap mMhos/K	Temp °C
OH401		#2 OH	10	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH402		#2 OH	10	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH403		#4 OH	1380	0.4159 0.5502	0.1428 0.5054 (+) (0)		20.0
OH404		#2 OH	1280	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH405		#4 OH	10	0.4159 0.5502	0.1428 0.5054 (+) (0)		20.0
OH406		#4 OH	550	0.4159 0.5502	0.1428 0.5054 (+) (0)		20.0
OH407		#4 OH	1100	0.4159 0.5502	0.1428 0.5054 (+) (0)		20.0
OH408		#4 OH	100	0.4159 0.5502	0.1428 0.5054 (+) (0)		20.0
OH409		#4 OH	100	0.4159 0.5502	0.1428 0.5054 (+) (0)		20.0
OH41		#2 OH	590	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH410		#4 OH	870	0.4159 0.5502	0.1428 0.5054 (+) (0)		20.0
OH412		#4 OH	300	0.4159 0.5502	0.1428 0.5054 (+) (0)		20.0
OH413		#4 OH	1530	0.4159 0.5502	0.1428 0.5054 (+) (0)		20.0
OH414		#4 OH	2250	0.4159 0.5502	0.1428 0.5054 (+) (0)		20.0
OH415		#4 OH	660	0.4159 0.5502	0.1428 0.5054 (+) (0)		20.0
OH416		#2 OH	2000	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH417		#2 OH	720	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH418		#2 OH	650	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH419		#2 OH	10	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH42		#2 OH	1330	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH420		#2 OH	1330	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH421		#2 OH	940	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH422		#2 OH	1120	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0

Feeders/Cables Data

Resistance Displayed in Editor is at 25.0 °C.

Branch Name	#C Device Type	Length Feet	R Ohms/K	X Ohms/K	1/2 Cap mMhos/K	Temp °C
OH423	#2 OH	970	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH424	#2 OH	850	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH425	#2 OH	980	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH426	#2 OH	1150	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH427	#2 OH	10	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH428	#2 OH	10	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH429	#2 OH	10	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH43	#2 OH	1010	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH430	#2 OH	5250	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH431	#2 OH	650	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH432	4/0 OH	530	0.0820 0.1588	0.1244 0.3557	(+) (0)	20.0
OH433	#2 OH	890	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH434	4/0 OH	530	0.0820 0.1588	0.1244 0.3557	(+) (0)	20.0
OH435	#2 OH	1070	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH436	#2 OH	840	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH437	#2 OH	10	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH438	#2 OH	100	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH439	#2 OH	10	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH44	#2 OH	10	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH440	#2 OH	480	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH441	4/0 OH	1840	0.0820 0.1588	0.1244 0.3557	(+) (0)	20.0
OH442	4/0 OH	1220	0.0820 0.1588	0.1244 0.3557	(+) (0)	20.0
OH443	#2 OH	10	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0

Feeders/Cables Data

Resistance Displayed in Editor is at 25.0 °C.

Branch Name	#C	Device Type	Length Feet	R Ohms/K	X Ohms/K	1/2 Cap mMhos/K	Temp °C
OH444		4/0 OH	370	0.0820 0.1588	0.1244 0.3557	(+) (0)	20.0
OH445		#2 OH	10	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH446		4/0 OH	660	0.0820 0.1588	0.1244 0.3557	(+) (0)	20.0
OH448		#2 OH	450	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH449		477 AAC	2510	0.0368 0.0762	0.1542 0.3964	(+) (0)	20.0
OH45		#2 OH	10	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH450		477 AAC	790	0.0368 0.0762	0.1542 0.3964	(+) (0)	20.0
OH451		477 AAC	480	0.0368 0.0762	0.1542 0.3964	(+) (0)	20.0
OH452		#2 OH	10	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH453		#2 OH	10	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH454		477 AAC	420	0.0368 0.0762	0.1542 0.3964	(+) (0)	20.0
OH455		#2 OH	10	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH456		#4 CU	600	0.2579 0.3826	0.1611 0.4767	(+) (0)	20.0
OH457		#2 OH	710	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH459		#2 OH	10	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH46		#2 OH	680	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH460		#2 OH	10	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH461		#4 CU	490	0.2579 0.3826	0.1611 0.4767	(+) (0)	20.0
OH462		#4 CU	410	0.2579 0.3826	0.1611 0.4767	(+) (0)	20.0
OH463		#4 OH	410	0.4159 0.5502	0.1428 0.5054	(+) (0)	20.0
OH464		#4 OH	480	0.4159 0.5502	0.1428 0.5054	(+) (0)	20.0
OH465		#4 OH	600	0.4159 0.5502	0.1428 0.5054	(+) (0)	20.0
OH467		477 AAC	960	0.0368 0.0762	0.1542 0.3964	(+) (0)	20.0

Feeders/Cables Data

Resistance Displayed in Editor is at 25.0 °C.

Branch Name	#C	Device Type	Length Feet	R Ohms/K	X Ohms/K	1/2 Cap mMhos/K	Temp °C
OH468		#4 OH	200	0.4159 0.5502	0.1428 0.5054	(+) (0)	20.0
OH469		#4 OH	10	0.4159 0.5502	0.1428 0.5054	(+) (0)	20.0
OH470		#4 CU	610	0.2579 0.3826	0.1611 0.4767	(+) (0)	20.0
OH471		#4 CU	420	0.2579 0.3826	0.1611 0.4767	(+) (0)	20.0
OH472		#4 OH	380	0.4159 0.5502	0.1428 0.5054	(+) (0)	20.0
OH473		#4 OH	10	0.4159 0.5502	0.1428 0.5054	(+) (0)	20.0
OH474		#2 OH	10	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH475		#2 OH	10	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH476		#4 OH	480	0.4159 0.5502	0.1428 0.5054	(+) (0)	20.0
OH478		477 AAC	480	0.0368 0.0762	0.1542 0.3964	(+) (0)	20.0
OH479		477 AAC	490	0.0368 0.0762	0.1542 0.3964	(+) (0)	20.0
OH48		4/0 OH	320	0.0820 0.1588	0.1244 0.3557	(+) (0)	20.0
OH480		#2 OH	270	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH481		477 AAC	750	0.0368 0.0762	0.1542 0.3964	(+) (0)	20.0
OH482		#2 OH	10	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH483		#2 OH	10	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH484		#2 OH	10	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH485		477 AAC	520	0.0368 0.0762	0.1542 0.3964	(+) (0)	20.0
OH486		477 AAC	370	0.0368 0.0762	0.1542 0.3964	(+) (0)	20.0
OH487		#2 CU	1000	0.1637 0.2768	0.1392 0.4112	(+) (0)	20.0
OH488		477 AAC	320	0.0368 0.0762	0.1542 0.3964	(+) (0)	20.0
OH489		477 AAC	430	0.0368 0.0762	0.1542 0.3964	(+) (0)	20.0
OH49		#2 OH	960	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0

Feeders/Cables Data

Resistance Displayed in Editor is at 25.0 °C.

Branch Name	#C	Device Type	Length Feet	R Ohms/K	X Ohms/K	1/2 Cap mMhos/K	Temp °C
OH490		#2 OH	540	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH491		#2 OH	620	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH492		#2 OH	10	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH493		477 AAC	300	0.0368 0.0762	0.1542 0.3964 (+) (0)		20.0
OH494		477 AAC	860	0.0368 0.0762	0.1542 0.3964 (+) (0)		20.0
OH495		#2 OH	100	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH496		477 AAC	770	0.0368 0.0762	0.1542 0.3964 (+) (0)		20.0
OH497		477 AAC	730	0.0368 0.0762	0.1542 0.3964 (+) (0)		20.0
OH498		#2 OH	100	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH499		477 AAC	460	0.0368 0.0762	0.1542 0.3964 (+) (0)		20.0
OH5		#2 OH	550	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH50		4/0 OH	1560	0.0820 0.1588	0.1244 0.3557 (+) (0)		20.0
OH500		477 AAC	570	0.0368 0.0762	0.1542 0.3964 (+) (0)		20.0
OH501		477 AAC	930	0.0368 0.0762	0.1542 0.3964 (+) (0)		20.0
OH502		#2 OH	400	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH503		#2 OH	300	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH504		477 AAC	1050	0.0368 0.0762	0.1542 0.3964 (+) (0)		20.0
OH505		477 AAC	6760	0.0368 0.0762	0.1542 0.3964 (+) (0)		20.0
OH506		477 AAC	2000	0.0368 0.0762	0.1542 0.3964 (+) (0)		20.0
OH507		EQUIV	1000	0.4536 1.0851	2.3047 6.4425 (+) (0)		20.0
OH508		#2 OH	1250	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH509		#2 OH	200	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH51		4/0 OH	640	0.0820 0.1588	0.1244 0.3557 (+) (0)		20.0

Feeders/Cables Data

Resistance Displayed in Editor is at 25.0 °C.

Branch Name	#C Device Type	Length Feet	R Ohms/K	X Ohms/K	1/2 Cap mMhos/K	Temp °C
OH510	#2 OH	300	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH511	#2 OH	860	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH512	#2 OH	10	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH513	#2 OH	490	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH515	#2 OH	490	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH516	#2 OH	290	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH517	#2 OH	650	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH519	#4 CU	580	0.2579 0.3826	0.1611 0.4767	(+) (0)	20.0
OH52	4/0 OH	530	0.0820 0.1588	0.1244 0.3557	(+) (0)	20.0
OH520	#4 CU	460	0.2579 0.3826	0.1611 0.4767	(+) (0)	20.0
OH521	#2 OH	10	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH522	#2 OH	480	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH523	#2 OH	480	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH525	#6 CU	960	0.4105 0.5443	0.1462 0.5073	(+) (0)	20.0
OH526	#4 CU	480	0.2579 0.3826	0.1611 0.4767	(+) (0)	20.0
OH527	#2 OH	10	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH528	#6 CU	10	0.4105 0.5443	0.1462 0.5073	(+) (0)	20.0
OH529	#6 CU	10	0.4105 0.5443	0.1462 0.5073	(+) (0)	20.0
OH53	4/0 OH	820	0.0820 0.1588	0.1244 0.3557	(+) (0)	20.0
OH530	#2 OH	270	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH531	#4 OH	470	0.4159 0.5502	0.1428 0.5054	(+) (0)	20.0
OH532	#4 CU	340	0.2579 0.3826	0.1611 0.4767	(+) (0)	20.0
OH533	#2 OH	50	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0

Feeders/Cables Data

Resistance Displayed in Editor is at 25.0 °C.

Branch Name	#C	Device Type	Length Feet	R Ohms/K	X Ohms/K	1/2 Cap mMhos/K	Temp °C
OH534		#2 OH	10	0.2618 0.3953	0.1378 0.4524 (+)	(+)	20.0
OH535		#2 CU	900	0.1637 0.2768	0.1392 0.4112 (+)	(+)	20.0
OH536		#2 CU	950	0.1637 0.2768	0.1392 0.4112 (+)	(+)	20.0
OH537		#4 CU	600	0.2579 0.3826	0.1611 0.4767 (0)	(+)	20.0
OH538		#2 CU	10	0.1637 0.2768	0.1392 0.4112 (+)	(+)	20.0
OH539		477 AAC	490	0.0368 0.0762	0.1542 0.3964 (0)	(+)	20.0
OH54		4/0 OH	560	0.0820 0.1588	0.1244 0.3557 (0)	(+)	20.0
OH540		477 AAC	950	0.0368 0.0762	0.1542 0.3964 (+)	(+)	20.0
OH541		#2 CU	740	0.1637 0.2768	0.1392 0.4112 (0)	(+)	20.0
OH542		#2 CU	10	0.1637 0.2768	0.1392 0.4112 (+)	(+)	20.0
OH543		477 AAC	580	0.0368 0.0762	0.1542 0.3964 (0)	(+)	20.0
OH544		477 AAC	480	0.0368 0.0762	0.1542 0.3964 (0)	(+)	20.0
OH545		#2 OH	10	0.2618 0.3953	0.1378 0.4524 (0)	(+)	20.0
OH546		477 AAC	610	0.0368 0.0762	0.1542 0.3964 (0)	(+)	20.0
OH547		#6 CU	590	0.4105 0.5443	0.1462 0.5073 (0)	(+)	20.0
OH548		477 AAC	610	0.0368 0.0762	0.1542 0.3964 (0)	(+)	20.0
OH549		477 AAC	60	0.0368 0.0762	0.1542 0.3964 (0)	(+)	20.0
OH55		#2 OH	10	0.2618 0.3953	0.1378 0.4524 (0)	(+)	20.0
OH550		477 AAC	480	0.0368 0.0762	0.1542 0.3964 (0)	(+)	20.0
OH551		477 AAC	960	0.0368 0.0762	0.1542 0.3964 (0)	(+)	20.0
OH552		#2 OH	10	0.2618 0.3953	0.1378 0.4524 (0)	(+)	20.0
OH553		#2 OH	10	0.2618 0.3953	0.1378 0.4524 (0)	(+)	20.0
OH556		477 AAC	410	0.0368 0.0762	0.1542 0.3964 (0)	(+)	20.0

Feeders/Cables Data

Resistance Displayed in Editor is at 25.0 °C.

Branch Name	#C	Device Type	Length Feet	R Ohms/K	X Ohms/K	1/2 Cap mMhos/K	Temp °C
OH557		#4 OH	480	0.4159 0.5502	0.1428 0.5054	(+) (0)	20.0
OH558		#2 OH	10	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH559		477 AAC	410	0.0368 0.0762	0.1542 0.3964	(+) (0)	20.0
OH56		4/0 OH	410	0.0820 0.1588	0.1244 0.3557	(+) (0)	20.0
OH560		477 AAC	500	0.0368 0.0762	0.1542 0.3964	(+) (0)	20.0
OH561		477 AAC	490	0.0368 0.0762	0.1542 0.3964	(+) (0)	20.0
OH562		477 AAC	450	0.0368 0.0762	0.1542 0.3964	(+) (0)	20.0
OH563		#2 OH	10	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH564		#2 OH	10	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH565		#2 OH	10	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH566		4/0 OH	360	0.0820 0.1588	0.1244 0.3557	(+) (0)	20.0
OH567		#2 OH	10	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH568		4/0 OH	460	0.0820 0.1588	0.1244 0.3557	(+) (0)	20.0
OH569		4/0 OH	790	0.0820 0.1588	0.1244 0.3557	(+) (0)	20.0
OH57		4/0 OH	720	0.0820 0.1588	0.1244 0.3557	(+) (0)	20.0
OH570		4/0 OH	490	0.0820 0.1588	0.1244 0.3557	(+) (0)	20.0
OH571		#2 OH	450	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH572		#2 OH	270	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH573		#2 OH	570	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH574		#2 OH	10	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH575		#2 OH	1760	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH576		477 AAC	800	0.0368 0.0762	0.1542 0.3964	(+) (0)	20.0
OH577		477 AAC	800	0.0368 0.0762	0.1542 0.3964	(+) (0)	20.0

Feeders/Cables Data

Resistance Displayed in Editor is at 25.0 °C.

Branch Name	#C	Device Type	Length Feet	R Ohms/K	X Ohms/K	1/2 Cap mMhos/K	Temp °C
OH578	477	AAC	750	0.0368	0.1542 (+)		20.0
				0.0762	0.3964 (0)		
OH579	#2	OH	10	0.2618	0.1378 (+)		20.0
				0.3953	0.4524 (0)		
OH58	#2	OH	580	0.2618	0.1378 (+)		20.0
				0.3953	0.4524 (0)		
OH580	#2	OH	1300	0.2618	0.1378 (+)		20.0
				0.3953	0.4524 (0)		
OH581	#2	OH	520	0.2618	0.1378 (+)		20.0
				0.3953	0.4524 (0)		
OH583	#2	OH	700	0.2618	0.1378 (+)		20.0
				0.3953	0.4524 (0)		
OH584	477	AAC	500	0.0368	0.1542 (+)		20.0
				0.0762	0.3964 (0)		
OH585	#4	CU	700	0.2579	0.1611 (+)		20.0
				0.3826	0.4767 (0)		
OH586	477	AAC	710	0.0368	0.1542 (+)		20.0
				0.0762	0.3964 (0)		
OH587	477	AAC	480	0.0368	0.1542 (+)		20.0
				0.0762	0.3964 (0)		
OH588	#6	CU	480	0.4105	0.1462 (+)		20.0
				0.5443	0.5073 (0)		
OH589	#6	CU	900	0.4105	0.1462 (+)		20.0
				0.5443	0.5073 (0)		
OH59	#2	OH	470	0.2618	0.1378 (+)		20.0
				0.3953	0.4524 (0)		
OH590	477	AAC	480	0.0368	0.1542 (+)		20.0
				0.0762	0.3964 (0)		
OH591	477	AAC	490	0.0368	0.1542 (+)		20.0
				0.0762	0.3964 (0)		
OH592	#6	CU	10	0.4105	0.1462 (+)		20.0
				0.5443	0.5073 (0)		
OH593	#4	OH	500	0.4159	0.1428 (+)		20.0
				0.5502	0.5054 (0)		
OH594	#6	CU	830	0.4105	0.1462 (+)		20.0
				0.5443	0.5073 (0)		
OH595	#6	CU	10	0.4105	0.1462 (+)		20.0
				0.5443	0.5073 (0)		
OH596	#2	OH	800	0.2618	0.1378 (+)		20.0
				0.3953	0.4524 (0)		
OH597	#2	OH	480	0.2618	0.1378 (+)		20.0
				0.3953	0.4524 (0)		
OH598	#2	OH	480	0.2618	0.1378 (+)		20.0
				0.3953	0.4524 (0)		
OH6	EQUIV		1000	1.4389	2.0043 (+)		20.0
				2.4702	6.7581 (0)		

Feeders/Cables Data

Resistance Displayed in Editor is at 25.0 °C.

Branch Name	#C	Device Type	Length Feet	R Ohms/K	X Ohms/K	1/2 Cap mMhos/K	Temp °C
OH60		#2 OH	270	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH602		#6 CU	1300	0.4105 0.5443	0.1462 0.5073 (+) (0)		20.0
OH603		#2 OH	10	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH604		#2 OH	10	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH605		#2 OH	10	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH606		#6 CU	10	0.4105 0.5443	0.1462 0.5073 (+) (0)		20.0
OH607		#4 OH	420	0.4159 0.5502	0.1428 0.5054 (+) (0)		20.0
OH608		#4 OH	1300	0.4159 0.5502	0.1428 0.5054 (+) (0)		20.0
OH61		#2 OH	590	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH610		#4 OH	1300	0.4159 0.5502	0.1428 0.5054 (+) (0)		20.0
OH611		#6 CU	10	0.4105 0.5443	0.1462 0.5073 (+) (0)		20.0
OH612		#6 CU	10	0.4105 0.5443	0.1462 0.5073 (+) (0)		20.0
OH613		477 AAC	460	0.0368 0.0762	0.1542 0.3964 (+) (0)		20.0
OH614		477 AAC	500	0.0368 0.0762	0.1542 0.3964 (+) (0)		20.0
OH615		477 AAC	470	0.0368 0.0762	0.1542 0.3964 (+) (0)		20.0
OH616		#2 OH	1000	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH618		#2 OH	480	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH619		#6 CU	650	0.4105 0.5443	0.1462 0.5073 (+) (0)		20.0
OH62		#2 OH	350	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH620		#6 CU	10	0.4105 0.5443	0.1462 0.5073 (+) (0)		20.0
OH621		#2 OH	10	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH622		#2 OH	780	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH623		#2 OH	660	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0

Feeders/Cables Data

Resistance Displayed in Editor is at 25.0 °C.

Branch Name	#C	Device Type	Length Feet	R Ohms/K	X Ohms/K	1/2 Cap mMhos/K	Temp °C
OH624		#2 OH	480	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH625		#2 OH	10	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH626		#2 OH	10	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH627		#2 OH	320	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH628		#2 OH	200	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH629		#2 OH	230	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH63		#2 OH	560	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH630		#2 OH	830	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH631		#2 OH	800	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH632		#2 OH	400	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH633		4/0 OH	960	0.0820 0.1588	0.1244 0.3557 (+) (0)		20.0
OH634		4/0 OH	770	0.0820 0.1588	0.1244 0.3557 (+) (0)		20.0
OH635		#6 CU	1300	0.4105 0.5443	0.1462 0.5073 (+) (0)		20.0
OH636		#2 OH	1000	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH637		4/0 OH	620	0.0820 0.1588	0.1244 0.3557 (+) (0)		20.0
OH638		4/0 OH	440	0.0820 0.1588	0.1244 0.3557 (+) (0)		20.0
OH639		#2 OH	100	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH64		4/0 OH	270	0.0820 0.1588	0.1244 0.3557 (+) (0)		20.0
OH640		#2 OH	980	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH641		#2 OH	680	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH642		#2 OH	300	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH643		#2 OH	1280	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH644		#2 OH	10	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0

Feeders/Cables Data

Resistance Displayed in Editor is at 25.0 °C.

Branch Name	#C	Device Type	Length Feet	R Ohms/K	X Ohms/K	1/2 Cap mMhos/K	Temp °C
OH645		#2 OH	660	0.2618 0.3953	0.1378 0.4524 (+)	(+)	20.0
OH646		#2 OH	2000	0.2618 0.3953	0.1378 0.4524 (+)	(0)	20.0
OH647		#2 OH	100	0.2618 0.3953	0.1378 0.4524 (+)	(0)	20.0
OH648		4/0 OH	370	0.0820 0.1588	0.1244 0.3557 (+)	(0)	20.0
OH649		4/0 OH	490	0.0820 0.1588	0.1244 0.3557 (+)	(0)	20.0
OH65		4/0 OH	550	0.0820 0.1588	0.1244 0.3557 (+)	(0)	20.0
OH650		#2 OH	410	0.2618 0.3953	0.1378 0.4524 (+)	(0)	20.0
OH651		#2 OH	760	0.2618 0.3953	0.1378 0.4524 (+)	(0)	20.0
OH653		#2 OH	10	0.2618 0.3953	0.1378 0.4524 (+)	(0)	20.0
OH654		#2 OH	200	0.2618 0.3953	0.1378 0.4524 (+)	(0)	20.0
OH655		477 AAC	1040	0.0368 0.0762	0.1542 0.3964 (+)	(0)	20.0
OH656		477 AAC	1160	0.0368 0.0762	0.1542 0.3964 (+)	(0)	20.0
OH658		477 AAC	2180	0.0368 0.0762	0.1542 0.3964 (+)	(0)	20.0
OH659		477 AAC	960	0.0368 0.0762	0.1542 0.3964 (+)	(0)	20.0
OH66		4/0 OH	480	0.0820 0.1588	0.1244 0.3557 (+)	(0)	20.0
OH660		#2 OH	100	0.2618 0.3953	0.1378 0.4524 (+)	(0)	20.0
OH661		477 AAC	900	0.0368 0.0762	0.1542 0.3964 (+)	(0)	20.0
OH662		477 AAC	1990	0.0368 0.0762	0.1542 0.3964 (+)	(0)	20.0
OH663		#2 OH	100	0.2618 0.3953	0.1378 0.4524 (+)	(0)	20.0
OH664		477 AAC	650	0.0368 0.0762	0.1542 0.3964 (+)	(0)	20.0
OH665		477 AAC	1030	0.0368 0.0762	0.1542 0.3964 (+)	(0)	20.0
OH666		477 AAC	1180	0.0368 0.0762	0.1542 0.3964 (+)	(0)	20.0
OH667		477 AAC	720	0.0368 0.0762	0.1542 0.3964 (+)	(0)	20.0

Feeders/Cables Data

Resistance Displayed in Editor is at 25.0 °C.

Branch Name	#C	Device Type	Length Feet	R Ohms/K	X Ohms/K	1/2 Cap mMhos/K	Temp °C
OH668	477	AAC	1130	0.0368	0.1542 (+)		20.0
				0.0762	0.3964 (0)		
OH669	477	AAC	980	0.0368	0.1542 (+)		20.0
				0.0762	0.3964 (0)		
OH67	4/0	OH	330	0.0820	0.1244 (+)		20.0
				0.1588	0.3557 (0)		
OH670	477	AAC	1320	0.0368	0.1542 (+)		20.0
				0.0762	0.3964 (0)		
OH671	#2	OH	10	0.2618	0.1378 (+)		20.0
				0.3953	0.4524 (0)		
OH672	#2	OH	10	0.2618	0.1378 (+)		20.0
				0.3953	0.4524 (0)		
OH673	#2	OH	10	0.2618	0.1378 (+)		20.0
				0.3953	0.4524 (0)		
OH674	#2	OH	10	0.2618	0.1378 (+)		20.0
				0.3953	0.4524 (0)		
OH675	#4	OH	780	0.4159	0.1428 (+)		20.0
				0.5502	0.5054 (0)		
OH676	#4	OH	400	0.4159	0.1428 (+)		20.0
				0.5502	0.5054 (0)		
OH677	477	AAC	610	0.0368	0.1542 (+)		20.0
				0.0762	0.3964 (0)		
OH678	#4	CU	690	0.2579	0.1611 (+)		20.0
				0.3826	0.4767 (0)		
OH679	#2	OH	10	0.2618	0.1378 (+)		20.0
				0.3953	0.4524 (0)		
OH68	4/0	OH	210	0.0820	0.1244 (+)		20.0
				0.1588	0.3557 (0)		
OH680	#2	OH	10	0.2618	0.1378 (+)		20.0
				0.3953	0.4524 (0)		
OH681	477	AAC	1600	0.0368	0.1542 (+)		20.0
				0.0762	0.3964 (0)		
OH682	477	AAC	900	0.0368	0.1542 (+)		20.0
				0.0762	0.3964 (0)		
OH683	#2	OH	600	0.2618	0.1378 (+)		20.0
				0.3953	0.4524 (0)		
OH684	#2	OH	1160	0.2618	0.1378 (+)		20.0
				0.3953	0.4524 (0)		
OH685	#2	OH	600	0.2618	0.1378 (+)		20.0
				0.3953	0.4524 (0)		
OH686	#2	OH	200	0.2618	0.1378 (+)		20.0
				0.3953	0.4524 (0)		
OH687	477	AAC	1280	0.0368	0.1542 (+)		20.0
				0.0762	0.3964 (0)		
OH688	477	AAC	1530	0.0368	0.1542 (+)		20.0
				0.0762	0.3964 (0)		

Feeders/Cables Data

Resistance Displayed in Editor is at 25.0 °C.

Branch Name	#C	Device Type	Length Feet	R Ohms/K	X Ohms/K	1/2 Cap mMhos/K	Temp °C
OH689		#2 OH	600	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH69		#4 OH	130	0.4159 0.5502	0.1428 0.5054	(+) (0)	20.0
OH690		#2 OH	1300	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH691		#4 OH	1320	0.4159 0.5502	0.1428 0.5054	(+) (0)	20.0
OH692		477 AAC	1630	0.0368 0.0762	0.1542 0.3964	(+) (0)	20.0
OH693		#2 OH	10	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH694		477 AAC	1400	0.0368 0.0762	0.1542 0.3964	(+) (0)	20.0
OH695		477 AAC	900	0.0368 0.0762	0.1542 0.3964	(+) (0)	20.0
OH696		#2 OH	1440	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH697		#2 OH	10	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH698		#2 OH	930	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH699		#2 OH	1790	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH7		EQUIV	1000	0.2501 1.1586	1.5144 5.6946	(+) (0)	20.0
OH70		#2 OH	1400	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH700		#2 OH	900	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH701		#2 OH	10	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH702		#2 OH	2400	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH703		#4 CU	2690	0.2579 0.3826	0.1611 0.4767	(+) (0)	20.0
OH704		#4 CU	10	0.2579 0.3826	0.1611 0.4767	(+) (0)	20.0
OH705		#4 CU	1800	0.2579 0.3826	0.1611 0.4767	(+) (0)	20.0
OH706		#4 CU	2350	0.2579 0.3826	0.1611 0.4767	(+) (0)	20.0
OH707		#4 OH	10	0.4159 0.5502	0.1428 0.5054	(+) (0)	20.0
OH708		#8 CU	1960	0.7059 0.8230	0.1556 0.5606	(+) (0)	20.0

Feeders/Cables Data

Resistance Displayed in Editor is at 25.0 °C.

Branch Name	#C Device Type	Length Feet	R Ohms/K	X Ohms/K	1/2 Cap mMhos/K	Temp °C
OH709	#4 OH	1600	0.4159	0.1428 (+)		20.0
			0.5502	0.5054 (0)		
OH710	#4 OH	1200	0.4159	0.1428 (+)		20.0
			0.5502	0.5054 (0)		
OH711	#4 OH	1040	0.4159	0.1428 (+)		20.0
			0.5502	0.5054 (0)		
OH712	#4 OH	1700	0.4159	0.1428 (+)		20.0
			0.5502	0.5054 (0)		
OH713	#4 OH	1520	0.4159	0.1428 (+)		20.0
			0.5502	0.5054 (0)		
OH714	#2 OH	1200	0.2618	0.1378 (+)		20.0
			0.3953	0.4524 (0)		
OH715	#4 OH	12200	0.4159	0.1428 (+)		20.0
			0.5502	0.5054 (0)		
OH716	#2 OH	560	0.2618	0.1378 (+)		20.0
			0.3953	0.4524 (0)		
OH717	#2 OH	460	0.2618	0.1378 (+)		20.0
			0.3953	0.4524 (0)		
OH718	#2 OH	1600	0.2618	0.1378 (+)		20.0
			0.3953	0.4524 (0)		
OH719	#2 OH	10	0.2618	0.1378 (+)		20.0
			0.3953	0.4524 (0)		
OH72	4/0 OH	890	0.0820	0.1244 (+)		20.0
			0.1588	0.3557 (0)		
OH720	#4 OH	1700	0.4159	0.1428 (+)		20.0
			0.5502	0.5054 (0)		
OH721	#2 OH	1030	0.2618	0.1378 (+)		20.0
			0.3953	0.4524 (0)		
OH722	#4 OH	960	0.4159	0.1428 (+)		20.0
			0.5502	0.5054 (0)		
OH723	#2 OH	1120	0.2618	0.1378 (+)		20.0
			0.3953	0.4524 (0)		
OH724	#2 OH	1110	0.2618	0.1378 (+)		20.0
			0.3953	0.4524 (0)		
OH725	#2 OH	780	0.2618	0.1378 (+)		20.0
			0.3953	0.4524 (0)		
OH726	#2 OH	1340	0.2618	0.1378 (+)		20.0
			0.3953	0.4524 (0)		
OH727	#4 OH	200	0.4159	0.1428 (+)		20.0
			0.5502	0.5054 (0)		
OH728	#2 OH	1150	0.2618	0.1378 (+)		20.0
			0.3953	0.4524 (0)		
OH729	#2 OH	10	0.2618	0.1378 (+)		20.0
			0.3953	0.4524 (0)		
OH73	4/0 OH	690	0.0820	0.1244 (+)		20.0
			0.1588	0.3557 (0)		

Feeders/Cables Data

Resistance Displayed in Editor is at 25.0 °C.

Branch Name	#C Device Type	Length Feet	R Ohms/K	X Ohms/K	1/2 Cap mMhos/K	Temp °C
OH730	#2 OH	1000	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH731	#2 OH	500	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH732	#2 OH	1610	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH733	#2 OH	1300	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH734	#2 OH	1200	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH735	#2 OH	890	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH736	#2 OH	1240	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH738	#2 OH	10	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH739	#2 OH	200	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH74	477 AAC	440	0.0368 0.0762	0.1542 0.3964	(+) (0)	20.0
OH740	#2 OH	500	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH741	#2 OH	870	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH742	#2 OH	200	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH743	#2 OH	1510	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH744	#2 OH	200	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH745	#2 OH	1120	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH746	#2 OH	1830	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH747	#2 OH	1450	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH748	#2 OH	10	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH749	#2 OH	780	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH75	477 AAC	1220	0.0368 0.0762	0.1542 0.3964	(+) (0)	20.0
OH750	#2 OH	1300	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH751	#2 OH	5460	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0

Feeders/Cables Data

Resistance Displayed in Editor is at 25.0 °C.

Branch Name	#C Device Type	Length Feet	R Ohms/K	X Ohms/K	1/2 Cap mMhos/K	Temp °C
OH752	#2 OH	600	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH753	#2 OH	10	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH754	#2 OH	10	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH755	#2 OH	100	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH756	#2 OH	4460	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH757	#2 OH	100	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH758	#2 OH	1770	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH759	#2 OH	550	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH76	477 AAC	670	0.0368 0.0762	0.1542 0.3964	(+) (0)	20.0
OH760	#2 OH	10	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH761	#2 OH	200	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH762	#2 OH	780	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH763	#2 OH	630	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH764	#2 OH	10	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH765	#2 OH	1120	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH766	#2 OH	10	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH767	#2 OH	400	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH768	#2 OH	630	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH769	#2 OH	500	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH77	#2 OH	10	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH770	#2 OH	600	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH771	#2 OH	1360	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
OH772	#2 OH	750	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0

Feeders/Cables Data

Resistance Displayed in Editor is at 25.0 °C.

Branch Name	#C	Device Type	Length Feet	R Ohms/K	X Ohms/K	1/2 Cap mMhos/K	Temp °C
OH773		477 AAC	950	0.0368 0.0762	0.1542 0.3964 (+)	(+)	20.0
OH774		#2 OH	10	0.2618 0.3953	0.1378 0.4524 (+)	(0)	20.0
OH775		477 AAC	1960	0.0368 0.0762	0.1542 0.3964 (+)	(0)	20.0
OH776		477 AAC	520	0.0368 0.0762	0.1542 0.3964 (+)	(0)	20.0
OH777		#2 OH	100	0.2618 0.3953	0.1378 0.4524 (+)	(0)	20.0
OH778		#2 OH	1620	0.2618 0.3953	0.1378 0.4524 (+)	(0)	20.0
OH779		#2 OH	2180	0.2618 0.3953	0.1378 0.4524 (+)	(0)	20.0
OH78		#2 OH	10	0.2618 0.3953	0.1378 0.4524 (+)	(0)	20.0
OH781		#2 OH	10	0.2618 0.3953	0.1378 0.4524 (+)	(0)	20.0
OH782		#2 OH	500	0.2618 0.3953	0.1378 0.4524 (+)	(0)	20.0
OH783		#2 OH	10	0.2618 0.3953	0.1378 0.4524 (+)	(0)	20.0
OH784		477 AAC	1840	0.0368 0.0762	0.1542 0.3964 (+)	(0)	20.0
OH785		477 AAC	850	0.0368 0.0762	0.1542 0.3964 (+)	(0)	20.0
OH786		477 AAC	1280	0.0368 0.0762	0.1542 0.3964 (+)	(0)	20.0
OH787		#2 OH	300	0.2618 0.3953	0.1378 0.4524 (+)	(0)	20.0
OH788		#2 OH	10	0.2618 0.3953	0.1378 0.4524 (+)	(0)	20.0
OH789		477 AAC	610	0.0368 0.0762	0.1542 0.3964 (+)	(0)	20.0
OH79		#2 OH	10	0.2618 0.3953	0.1378 0.4524 (+)	(0)	20.0
OH790		477 AAC	750	0.0368 0.0762	0.1542 0.3964 (+)	(0)	20.0
OH791		#2 OH	200	0.2618 0.3953	0.1378 0.4524 (+)	(0)	20.0
OH792		#2 OH	200	0.2618 0.3953	0.1378 0.4524 (+)	(0)	20.0
OH793		477 AAC	930	0.0368 0.0762	0.1542 0.3964 (+)	(0)	20.0
OH794		#2 OH	1080	0.2618 0.3953	0.1378 0.4524 (+)	(0)	20.0

Feeders/Cables Data

Resistance Displayed in Editor is at 25.0 °C.

Branch Name	#C	Device Type	Length Feet	R Ohms/K	X Ohms/K	1/2 Cap mMhos/K	Temp °C
OH795		#2 OH	1700	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH796		#2 OH	10	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH797		477 AAC	1540	0.0368 0.0762	0.1542 0.3964 (+) (0)		20.0
OH798		477 AAC	1450	0.0368 0.0762	0.1542 0.3964 (+) (0)		20.0
OH799		#2 OH	200	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH80		#2 OH	10	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH800		#2 OH	750	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH801		#2 OH	10	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH802		477 AAC	780	0.0368 0.0762	0.1542 0.3964 (+) (0)		20.0
OH803		477 AAC	1050	0.0368 0.0762	0.1542 0.3964 (+) (0)		20.0
OH804		#2 OH	10	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH805		477 AAC	820	0.0368 0.0762	0.1542 0.3964 (+) (0)		20.0
OH806		477 AAC	1550	0.0368 0.0762	0.1542 0.3964 (+) (0)		20.0
OH807		477 AAC	1090	0.0368 0.0762	0.1542 0.3964 (+) (0)		20.0
OH808		#2 OH	1220	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH809		477 AAC	1250	0.0368 0.0762	0.1542 0.3964 (+) (0)		20.0
OH81		477 AAC	540	0.0368 0.0762	0.1542 0.3964 (+) (0)		20.0
OH810		477 AAC	1220	0.0368 0.0762	0.1542 0.3964 (+) (0)		20.0
OH811		#2 OH	800	0.2618 0.3953	0.1378 0.4524 (+) (0)		20.0
OH812		477 AAC	1290	0.0368 0.0762	0.1542 0.3964 (+) (0)		20.0
OH813		477 AAC	610	0.0368 0.0762	0.1542 0.3964 (+) (0)		20.0
OH814		477 AAC	1190	0.0368 0.0762	0.1542 0.3964 (+) (0)		20.0
OH815		477 AAC	890	0.0368 0.0762	0.1542 0.3964 (+) (0)		20.0

Feeders/Cables Data

Resistance Displayed in Editor is at 25.0 °C.

Branch Name	#C	Device Type	Length Feet	R Ohms/K	X Ohms/K	1/2 Cap mMhos/K	Temp °C
OH816		477 AAC	650	0.0368 0.0762	0.1542 0.3964 (+)	(+)	20.0
OH817		#2 OH	940	0.2618 0.3953	0.1378 0.4524 (+)	(0)	20.0
OH818		477 AAC	250	0.0368 0.0762	0.1542 0.3964 (+)	(0)	20.0
OH819		#2 OH	7580	0.2618 0.3953	0.1378 0.4524 (+)	(0)	20.0
OH82		4/0 OH	590	0.0820 0.1588	0.1244 0.3557 (+)	(0)	20.0
OH820		#2 OH	760	0.2618 0.3953	0.1378 0.4524 (+)	(0)	20.0
OH821		#2 OH	1400	0.2618 0.3953	0.1378 0.4524 (+)	(0)	20.0
OH822		#2 OH	2240	0.2618 0.3953	0.1378 0.4524 (+)	(0)	20.0
OH823		#2 OH	1320	0.2618 0.3953	0.1378 0.4524 (+)	(0)	20.0
OH824		#2 OH	1800	0.2618 0.3953	0.1378 0.4524 (+)	(0)	20.0
OH825		4/0 OH	520	0.0820 0.1588	0.1244 0.3557 (+)	(0)	20.0
OH826		4/0 OH	810	0.0820 0.1588	0.1244 0.3557 (+)	(0)	20.0
OH827		4/0 OH	480	0.0820 0.1588	0.1244 0.3557 (+)	(0)	20.0
OH828		4/0 OH	480	0.0820 0.1588	0.1244 0.3557 (+)	(0)	20.0
OH829		#2 OH	900	0.2618 0.3953	0.1378 0.4524 (+)	(0)	20.0
OH83		4/0 OH	630	0.0820 0.1588	0.1244 0.3557 (+)	(0)	20.0
OH830		#2 OH	670	0.2618 0.3953	0.1378 0.4524 (+)	(0)	20.0
OH831		#2 OH	1000	0.2618 0.3953	0.1378 0.4524 (+)	(0)	20.0
OH832		#2 OH	1570	0.2618 0.3953	0.1378 0.4524 (+)	(0)	20.0
OH833		#2 OH	830	0.2618 0.3953	0.1378 0.4524 (+)	(0)	20.0
OH834		#2 OH	600	0.2618 0.3953	0.1378 0.4524 (+)	(0)	20.0
OH835		#2 OH	1230	0.2618 0.3953	0.1378 0.4524 (+)	(0)	20.0
OH836		#2 OH	910	0.2618 0.3953	0.1378 0.4524 (+)	(0)	20.0

Feeders/Cables Data

Resistance Displayed in Editor is at 25.0 °C.

Branch Name	#C	Device Type	Length Feet	R Ohms/K	X Ohms/K	1/2 Cap mMhos/K	Temp °C
OH839		#2 OH	600	0.2618 0.3953	0.1378 0.4524 (+)	(0)	20.0
OH84		477 AAC	570	0.0368 0.0762	0.1542 0.3964 (+)	(0)	20.0
OH840		#2 OH	1630	0.2618 0.3953	0.1378 0.4524 (+)	(0)	20.0
OH841		#2 OH	1420	0.2618 0.3953	0.1378 0.4524 (+)	(0)	20.0
OH842		#2 OH	1100	0.2618 0.3953	0.1378 0.4524 (+)	(0)	20.0
OH843		#2 OH	400	0.2618 0.3953	0.1378 0.4524 (+)	(0)	20.0
OH844		#2 OH	10	0.2618 0.3953	0.1378 0.4524 (+)	(0)	20.0
OH846		#2 OH	470	0.2618 0.3953	0.1378 0.4524 (+)	(0)	20.0
OH847		#2 OH	10	0.2618 0.3953	0.1378 0.4524 (+)	(0)	20.0
OH848		#2 OH	750	0.2618 0.3953	0.1378 0.4524 (+)	(0)	20.0
OH849		#2 OH	2170	0.2618 0.3953	0.1378 0.4524 (+)	(0)	20.0
OH85		#2 OH	410	0.2618 0.3953	0.1378 0.4524 (+)	(0)	20.0
OH850		#2 OH	490	0.2618 0.3953	0.1378 0.4524 (+)	(0)	20.0
OH851		#2 OH	10	0.2618 0.3953	0.1378 0.4524 (+)	(0)	20.0
OH852		#2 OH	1900	0.2618 0.3953	0.1378 0.4524 (+)	(0)	20.0
OH853		#2 OH	10	0.2618 0.3953	0.1378 0.4524 (+)	(0)	20.0
OH854		#2 OH	1020	0.2618 0.3953	0.1378 0.4524 (+)	(0)	20.0
OH855		#2 OH	1450	0.2618 0.3953	0.1378 0.4524 (+)	(0)	20.0
OH856		#2 OH	400	0.2618 0.3953	0.1378 0.4524 (+)	(0)	20.0
OH857		#4 OH	10	0.4159 0.5502	0.1428 0.5054 (+)	(0)	20.0
OH858		EQUIV	1000	0.0440 0.2041	0.2668 1.0034 (+)	(0)	20.0
OH86		#2 OH	200	0.2618 0.3953	0.1378 0.4524 (+)	(0)	20.0
OH87		#2 OH	10	0.2618 0.3953	0.1378 0.4524 (+)	(0)	20.0

Feeders/Cables Data

Resistance Displayed in Editor is at 25.0 °C.

Branch Name	#C	Device Type	Length Feet	R Ohms/K	X Ohms/K	1/2 Cap mMhos/K	Temp °C
OH88		#2 OH	10	0.2618 0.3953	0.1378 0.4524	(+)	20.0
OH89		#2 OH	10	0.2618 0.3953	0.1378 0.4524	(+)	20.0
OH9		EQUIV	1000	0.1435 0.6646	8.6862 3.2665	(+)	20.0
OH90		4/0 OH	700	0.0820 0.1588	0.1244 0.3557	(+)	20.0
OH91		4/0 OH	700	0.0820 0.1588	0.1244 0.3557	(+)	20.0
OH92		4/0 OH	325	0.0820 0.1588	0.1244 0.3557	(+)	20.0
OH93		#2 OH	10	0.2618 0.3953	0.1378 0.4524	(+)	20.0
OH94		#2 OH	200	0.2618 0.3953	0.1378 0.4524	(+)	20.0
OH95		4/0 OH	410	0.0820 0.1588	0.1244 0.3557	(+)	20.0
OH96		#2 OH	460	0.2618 0.3953	0.1378 0.4524	(+)	20.0
OH97		#4 OH	800	0.4159 0.5502	0.1428 0.5054	(+)	20.0
OH98		#2 OH	10	0.2618 0.3953	0.1378 0.4524	(+)	20.0
OH99		#2 OH	10	0.2618 0.3953	0.1378 0.4524	(+)	20.0
UG1	15	kV-750	160	0.0295 0.1902	0.0409 0.0600	(+)	0.02541 20.0
UG10	15	kV-#2	750	0.3441 0.6558	0.0570 0.2200	(+)	0.00841 20.0
UG100	15	kV-#2	1840	0.3441 0.6558	0.0570 0.2200	(+)	0.00841 20.0
UG101	15	kV-#2	1400	0.3441 0.6558	0.0570 0.2200	(+)	0.00841 20.0
UG102	15	kV-#2	300	0.3441 0.6558	0.0570 0.2200	(+)	0.00841 20.0
UG103	15	kV-#2	2000	0.3441 0.6558	0.0570 0.2200	(+)	0.00841 20.0
UG104	15	kV-4/0	1200	0.1059 0.3156	0.0463 0.0950	(+)	0.01517 20.0
UG105	15	kV-#2	390	0.3441 0.6558	0.0570 0.2200	(+)	0.00841 20.0
UG106	15	kV-#2	1000	0.3441 0.6558	0.0570 0.2200	(+)	0.00841 20.0
UG107	15	kV-#2	1600	0.3441 0.6558	0.0570 0.2200	(+)	0.00841 20.0

Feeders/Cables Data

Resistance Displayed in Editor is at 25.0 °C.

Branch Name	#C	Device Type	Length Feet	R Ohms/K	X Ohms/K	1/2 Cap mMhos/K	Temp °C
UG108	15	kV-#2	1130	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG109	15	kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG11	15	kV-500	800	0.0461 0.1461	0.0440 0.0370	(+) (0)	0.01634 20.0
UG110	15	kV-4/0	1220	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG111	15	kV-4/0	1150	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG112	15	kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG113	15	kV-4/0	1940	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG114	15	kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG115	15	kV-4/0	1300	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG116	15	kV-4/0	1400	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG117	15	kV-4/0	900	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG118	15	kV-4/0	870	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG119	15	kV-#2	100	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG12	15	kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG120	15	kV-#2	200	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG121	15	kV-4/0	830	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG123	15	kV-#2	360	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG124	15	kV-#2	830	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG125	15	kV-4/0	1060	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG126	15	kV-4/0	730	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG127	15	kV-#2	100	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG128	15	kV-#2	500	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG129	15	kV-#2	1400	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0

Feeders/Cables Data

Resistance Displayed in Editor is at 25.0 °C.

Branch Name	#C	Device Type	Length Feet	R Ohms/K	X Ohms/K	1/2 Cap mMhos/K	Temp °C
UG13	15	kV-#2	1400	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG131	15	kV-#2	900	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG132	15	kV-#2	1300	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG133	15	kV-#2	570	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG134	15	kV-#2	1200	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG135	15	kV-4/0	640	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG136	15	kV-4/0	540	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG137	15	kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG138	15	kV-#2	2140	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG139	15	kV-500	640	0.0461 0.1461	0.0440 0.0370	(+) (0)	0.01634 20.0
UG14	15	kV-#2	610	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG140	15	kV-500	640	0.0461 0.1461	0.0440 0.0370	(+) (0)	0.01634 20.0
UG141	15	kV-#2	950	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG142	15	kV-4/0	1000	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG143	15	kV-#2	1200	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG144	15	kV-4/0	370	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG145	15	kV-4/0	290	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG146	15	kV-4/0	800	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG147	15	kV-4/0	730	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG148	15	kV-#2	100	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG149	15	kV-#2	100	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG15	15	kV-4/0	940	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG150	15	kV-4/0	740	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0

Feeders/Cables Data

Resistance Displayed in Editor is at 25.0 °C.

Branch Name	#C	Device Type	Length Feet	R Ohms/K	X Ohms/K	1/2 Cap mMhos/K	Temp °C
UG151		15 kV-4/0	900	0.1059 0.0463 (+)	0.3156 0.0950 (0)	0.01517	20.0
UG152		15 kV-#2	890	0.3441 0.0570 (+)	0.6558 0.2200 (0)	0.00841	20.0
UG153		15 kV-#2	800	0.3441 0.0570 (+)	0.6558 0.2200 (0)	0.00841	20.0
UG154		15 kV-#2	260	0.3441 0.0570 (+)	0.6558 0.2200 (0)	0.00841	20.0
UG155		15 kV-#2	1260	0.3441 0.0570 (+)	0.6558 0.2200 (0)	0.00841	20.0
UG156		15 kV-#2	100	0.3441 0.0570 (+)	0.6558 0.2200 (0)	0.00841	20.0
UG157		15 kV-#2	10	0.3441 0.0570 (+)	0.6558 0.2200 (0)	0.00841	20.0
UG158		15 kV-#2	50	0.3441 0.0570 (+)	0.6558 0.2200 (0)	0.00841	20.0
UG159		15 kV-#2	350	0.3441 0.0570 (+)	0.6558 0.2200 (0)	0.00841	20.0
UG16		15 kV-4/0	530	0.1059 0.0463 (+)	0.3156 0.0950 (0)	0.01517	20.0
UG160		15 kV-#2	200	0.3441 0.0570 (+)	0.6558 0.2200 (0)	0.00841	20.0
UG161		15 kV-500	620	0.0461 0.0440 (+)	0.1461 0.0370 (0)	0.01634	20.0
UG162		15 kV-500	900	0.0461 0.0440 (+)	0.1461 0.0370 (0)	0.01634	20.0
UG163		15 kV-4/0	760	0.1059 0.0463 (+)	0.3156 0.0950 (0)	0.01517	20.0
UG164		15 kV-4/0	730	0.1059 0.0463 (+)	0.3156 0.0950 (0)	0.01517	20.0
UG165		15 kV-4/0	950	0.1059 0.0463 (+)	0.3156 0.0950 (0)	0.01517	20.0
UG166		#2 OH	820	0.2618 0.1378 (+)	0.3953 0.4524 (0)		20.0
UG167		15 kV-500	520	0.0461 0.0440 (+)	0.1461 0.0370 (0)	0.01634	20.0
UG168		#2 OH	1200	0.2618 0.1378 (+)	0.3953 0.4524 (0)		20.0
UG169		15 kV-500	750	0.0461 0.0440 (+)	0.1461 0.0370 (0)	0.01634	20.0
UG170		15 kV-#2	350	0.3441 0.0570 (+)	0.6558 0.2200 (0)	0.00841	20.0
UG171		15 kV-#2	700	0.3441 0.0570 (+)	0.6558 0.2200 (0)	0.00841	20.0
UG172		15 kV-#2	700	0.3441 0.0570 (+)	0.6558 0.2200 (0)	0.00841	20.0

Feeders/Cables Data

Resistance Displayed in Editor is at 25.0 °C.

Branch Name	#C	Device Type	Length Feet	R Ohms/K	X Ohms/K	1/2 Cap mhos/K	Temp °C
UG173		15 kV-#2	300	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG174		15 kV-#2	350	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG175		15 kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG176		15 kV-#2	14000	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG177		15 kV-#2	1300	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG178		15 kV-#2	570	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG179		15 kV-#2	700	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG18		15 kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG180		15 kV-#2	100	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG181		15 kV-4/0	1900	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG182		15 kV-4/0	2540	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG183		15 kV-4/0	6190	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG184		15 kV-#2	950	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG185		15 kV-#2	660	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG186		15 kV-4/0	930	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG187		15 kV-#2	280	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG188		15 kV-#2	650	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG189		15 kV-#2	1150	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG19		15 kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG190		15 kV-#2	1480	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG191		15 kV-#2	500	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG192		15 kV-#2	100	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG193		15 kV-#2	2950	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0

Feeders/Cables Data

Resistance Displayed in Editor is at 25.0 °C.

Branch Name	#C	Device Type	Length Feet	R Ohms/K	X Ohms/K	1/2 Cap mMhos/K	Temp °C
UG194		15 kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG195		15 kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG196		15 kV-#2	1000	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG197		15 kV-#2	51	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG198		15 kV-#2	1000	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG199		15 kV-4/0	1950	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG2		15 kV-1100	2790	0.0223 0.1117	0.0388 0.0300	(+) (0)	0.02782 20.0
UG20		15 kV-#2	1200	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG200		15 kV-#2	1370	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG201		15 kV-#2	1200	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG202		15 kV-#2	1200	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG203		15 kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG204		15 kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG205		15 kV-1100	240	0.0223 0.1117	0.0388 0.0300	(+) (0)	0.02782 20.0
UG206		15 kV-#2	250	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG207		15 kV-#2	800	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG208		15 kV-#2	3970	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG209		15 kV-#2	470	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG21		15 kV-#2	1350	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG210		15 kV-#2	400	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG211		15 kV-#2	100	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG212		15 kV-750	100	0.0295 0.1902	0.0409 0.0600	(+) (0)	0.02541 20.0
UG213		15 kV-#2	380	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0

Feeders/Cables Data

Resistance Displayed in Editor is at 25.0 °C.

Branch Name	#C	Device Type	Length Feet	R Ohms/K	X Ohms/K	1/2 Cap mMhos/K	Temp °C
UG215		15 kV-4/0	820	0.1059	0.0463 (+)	0.01517	20.0
				0.3156	0.0950 (0)		
UG216		15 kV-4/0	280	0.1059	0.0463 (+)	0.01517	20.0
				0.3156	0.0950 (0)		
UG218		15 kV-4/0	400	0.1059	0.0463 (+)	0.01517	20.0
				0.3156	0.0950 (0)		
UG219		15 kV-#2	470	0.3441	0.0570 (+)	0.00841	20.0
				0.6558	0.2200 (0)		
UG22		15 kV-#2	1800	0.3441	0.0570 (+)	0.00841	20.0
				0.6558	0.2200 (0)		
UG220		4/0 OH	10	0.0820	0.1244 (+)		20.0
				0.1588	0.3557 (0)		
UG221		15 kV-1100	1470	0.0223	0.0388 (+)	0.02782	20.0
				0.1117	0.0300 (0)		
UG223		15 kV-1100	540	0.0223	0.0388 (+)	0.02782	20.0
				0.1117	0.0300 (0)		
UG224	2	15 kV-500	125	0.0230	0.0220 (+)	0.00817	20.0
				0.0730	0.0185 (0)		
UG225	2	15 kV-500	125	0.0230	0.0220 (+)	0.00817	20.0
				0.0730	0.0185 (0)		
UG226	2	15 kV-500	125	0.0230	0.0220 (+)	0.00817	20.0
				0.0730	0.0185 (0)		
UG227		15 kV-#2	380	0.3441	0.0570 (+)	0.00841	20.0
				0.6558	0.2200 (0)		
UG228		15 kV-#2	100	0.3441	0.0570 (+)	0.00841	20.0
				0.6558	0.2200 (0)		
UG229		15 kV-#2	10	0.3441	0.0570 (+)	0.00841	20.0
				0.6558	0.2200 (0)		
UG23		15 kV-#2	800	0.3441	0.0570 (+)	0.00841	20.0
				0.6558	0.2200 (0)		
UG230		15 kV-1100	810	0.0223	0.0388 (+)	0.02782	20.0
				0.1117	0.0300 (0)		
UG231		15 kV-1100	160	0.0223	0.0388 (+)	0.02782	20.0
				0.1117	0.0300 (0)		
UG232		15 kV-1100	400	0.0223	0.0388 (+)	0.02782	20.0
				0.1117	0.0300 (0)		
UG233		15 kV-#2	800	0.3441	0.0570 (+)	0.00841	20.0
				0.6558	0.2200 (0)		
UG234		15 kV-#2	670	0.3441	0.0570 (+)	0.00841	20.0
				0.6558	0.2200 (0)		
UG235		15 kV-#2	600	0.3441	0.0570 (+)	0.00841	20.0
				0.6558	0.2200 (0)		
UG237		15 kV-#2	1360	0.3441	0.0570 (+)	0.00841	20.0
				0.6558	0.2200 (0)		
UG238		15 kV-#2	10	0.3441	0.0570 (+)	0.00841	20.0
				0.6558	0.2200 (0)		

Feeders/Cables Data

Resistance Displayed in Editor is at 25.0 °C.

Branch Name	#C	Device Type	Length Feet	R Ohms/K	X Ohms/K	1/2 Cap mMhos/K	Temp °C
UG239	15	kV-#2	1580	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG24	15	kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG241	15	kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG242	15	kV-#2	300	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG243	15	kV-#2	1200	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG244	15	kV-#2	1600	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG245	15	kV-#2	960	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
				0 0	0.0000 0.0000	(+) (0)	25.0
UG247	15	kV-#2	540	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG248	15	kV-#2	100	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG249	15	kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG25	15	kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG250	15	kV-#2	6140	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG251	15	kV-500	165	0.0461 0.1461	0.0440 0.0370	(+) (0)	0.01634 20.0
UG252	15	kV-#2	400	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG254	15	kV-#2	50	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG255	15	kV-#2	1350	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG256	15	kV-750	120	0.0295 0.1902	0.0409 0.0600	(+) (0)	0.02541 20.0
UG257	15	kV-#2	1000	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG258	15	kV-#2	540	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG26	15	kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG260	15	kV-#2	730	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG261	15	kV-#2	650	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0

Feeders/Cables Data

Resistance Displayed in Editor is at 25.0 °C.

Branch Name	#C	Device Type	Length Feet	R Ohms/K	X Ohms/K	1/2 Cap mMhos/K	Temp °C
UG262		15 kV-#2	300	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG263		15 kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG264		15 kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG265		15 kV-500	1000	0.0461 0.1461	0.0440 0.0370	(+) (0)	0.01634 20.0
UG266		15 kV-#2	1300	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG267		15 kV-4/0	1600	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG268		AL-1000	125	0.0202 0.0725	0.0263 0.0530	(+) (0)	20.0
UG269		AL-1000	125	0.0202 0.0725	0.0263 0.0530	(+) (0)	20.0
UG27		15 kV-#2	630	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG270		15 kV-4/0	320	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG271		15 kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG272		#2 OH	3570	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
UG273		15 kV-4/0	250	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG274		15 kV-4/0	460	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG275		15 kV-#2	1000	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG276		15 kV-4/0	1190	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG277		#2 OH	1580	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
UG278		#2 OH	840	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
UG279		15 kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG28		15 kV-#2	640	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG280		#2 OH	1500	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
UG281		15 kV-#2	960	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG282		15 kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0

Feeders/Cables Data

Resistance Displayed in Editor is at 25.0 °C.

Branch Name	#C	Device Type	Length Feet	R Ohms/K	X Ohms/K	1/2 Cap mMhos/K	Temp °C
UG283	15	kV-#2	2020	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG284	15	kV-#2	1500	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG285	15	kV-#2	1650	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG286	15	kV-#2	700	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG287	15	kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG288	15	kV-#2	1270	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG289	15	kV-#2	800	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG29	15	kV-#2	620	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG290	15	kV-#2	410	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG292	15	kV-#2	400	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG293	15	kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG294	15	kV-#2	630	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG295	15	kV-#2	1370	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG296	15	kV-750	90	0.0295 0.1902	0.0409 0.0600	(+) (0)	0.02541 20.0
UG298	15	kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG299	15	kV-#2	100	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG3	15	kV-#2	340	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG30	15	kV-#2	570	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG300	15	kV-750	100	0.0295 0.1902	0.0409 0.0600	(+) (0)	0.02541 20.0
UG301	15	kV-1100	310	0.0223 0.1117	0.0388 0.0300	(+) (0)	0.02782 20.0
UG302	15	kV-1100	140	0.0223 0.1117	0.0388 0.0300	(+) (0)	0.02782 20.0
UG303	15	kV-#2	300	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG306	15	kV-1000	420	0.0223 0.1470	0.0370 0.0400	(+) (0)	0.02600 20.0

Feeders/Cables Data

Resistance Displayed in Editor is at 25.0 °C.

Branch Name	#C	Device Type	Length Feet	R Ohms/K	X Ohms/K	1/2 Cap mMhos/K	Temp °C
UG307		15 kV-1000	300	0.0223	0.0370 (+)	0.02600	20.0
				0.1470	0.0400 (0)		
UG308		15 kV-1000	560	0.0223	0.0370 (+)	0.02600	20.0
				0.1470	0.0400 (0)		
UG309		15 kV-4/0	500	0.1059	0.0463 (+)	0.01517	20.0
				0.3156	0.0950 (0)		
UG31		15 kV-500	1570	0.0461	0.0440 (+)	0.01634	20.0
				0.1461	0.0370 (0)		
UG310		15 kV-#2	330	0.3441	0.0570 (+)	0.00841	20.0
				0.6558	0.2200 (0)		
UG311		15 kV-#2	150	0.3441	0.0570 (+)	0.00841	20.0
				0.6558	0.2200 (0)		
UG312		15 kV-#2	680	0.3441	0.0570 (+)	0.00841	20.0
				0.6558	0.2200 (0)		
UG313		15 kV-#2	1200	0.3441	0.0570 (+)	0.00841	20.0
				0.6558	0.2200 (0)		
UG314		15 kV-#2	10	0.3441	0.0570 (+)	0.00841	20.0
				0.6558	0.2200 (0)		
UG315		15 kV-#2	850	0.3441	0.0570 (+)	0.00841	20.0
				0.6558	0.2200 (0)		
UG317		15 kV-1000	450	0.0223	0.0370 (+)	0.02600	20.0
				0.1470	0.0400 (0)		
UG318		15 kV-1000	840	0.0223	0.0370 (+)	0.02600	20.0
				0.1470	0.0400 (0)		
UG319		15 kV-#2	100	0.3441	0.0570 (+)	0.00841	20.0
				0.6558	0.2200 (0)		
UG32		15 kV-4/0	1280	0.1059	0.0463 (+)	0.01517	20.0
				0.3156	0.0950 (0)		
UG320		15 kV-500	600	0.0461	0.0440 (+)	0.01634	20.0
				0.1461	0.0370 (0)		
UG321		15 kV-500	600	0.0461	0.0440 (+)	0.01634	20.0
				0.1461	0.0370 (0)		
UG322		15 kV-#2	10	0.3441	0.0570 (+)	0.00841	20.0
				0.6558	0.2200 (0)		
UG324		15 kV-4/0	570	0.1059	0.0463 (+)	0.01517	20.0
				0.3156	0.0950 (0)		
UG325		15 kV-4/0	850	0.1059	0.0463 (+)	0.01517	20.0
				0.3156	0.0950 (0)		
UG326		15 kV-#2	800	0.3441	0.0570 (+)	0.00841	20.0
				0.6558	0.2200 (0)		
UG327		15 kV-#2	400	0.3441	0.0570 (+)	0.00841	20.0
				0.6558	0.2200 (0)		
UG328		15 kV-4/0	400	0.1059	0.0463 (+)	0.01517	20.0
				0.3156	0.0950 (0)		
UG329		15 kV-4/0	300	0.1059	0.0463 (+)	0.01517	20.0
				0.3156	0.0950 (0)		

Feeders/Cables Data

Resistance Displayed in Editor is at 25.0 °C.

Branch Name	#C	Device Type	Length Feet	R Ohms/K	X Ohms/K	1/2 Cap mMhos/K	Temp °C
UG33		15 kV-4/0	500	0.1059	0.0463 (+)	0.01517	20.0
				0.3156	0.0950 (0)		
UG331		15 kV-4/0	920	0.1059	0.0463 (+)	0.01517	20.0
				0.3156	0.0950 (0)		
UG332		15 kV-4/0	1100	0.1059	0.0463 (+)	0.01517	20.0
				0.3156	0.0950 (0)		
UG333		15 kV-500	1220	0.0461	0.0440 (+)	0.01634	20.0
				0.1461	0.0370 (0)		
UG334		15 kV-1000	190	0.0223	0.0370 (+)	0.02600	20.0
				0.1470	0.0400 (0)		
UG335		15 kV-1100	640	0.0223	0.0388 (+)	0.02782	20.0
				0.1117	0.0300 (0)		
UG336		15 kV-1100	490	0.0223	0.0388 (+)	0.02782	20.0
				0.1117	0.0300 (0)		
UG337		15 kV-1100	380	0.0223	0.0388 (+)	0.02782	20.0
				0.1117	0.0300 (0)		
UG338		15 kV-#2	450	0.3441	0.0570 (+)	0.00841	20.0
				0.6558	0.2200 (0)		
UG339		15 kV-#2	100	0.3441	0.0570 (+)	0.00841	20.0
				0.6558	0.2200 (0)		
UG34		15 kV-#2	320	0.3441	0.0570 (+)	0.00841	20.0
				0.6558	0.2200 (0)		
UG340		15 kV-#2	10	0.3441	0.0570 (+)	0.00841	20.0
				0.6558	0.2200 (0)		
UG341		15 kV-#2	10	0.3441	0.0570 (+)	0.00841	20.0
				0.6558	0.2200 (0)		
UG342		15 kV-#2	100	0.3441	0.0570 (+)	0.00841	20.0
				0.6558	0.2200 (0)		
UG343		15 kV-1100	100	0.0223	0.0388 (+)	0.02782	20.0
				0.1117	0.0300 (0)		
UG344		15 kV-#2	630	0.3441	0.0570 (+)	0.00841	20.0
				0.6558	0.2200 (0)		
UG345		15 kV-4/0	560	0.1059	0.0463 (+)	0.01517	20.0
				0.3156	0.0950 (0)		
UG346		15 kV-#2	500	0.3441	0.0570 (+)	0.00841	20.0
				0.6558	0.2200 (0)		
UG347		15 kV-4/0	880	0.1059	0.0463 (+)	0.01517	20.0
				0.3156	0.0950 (0)		
UG348		15 kV-4/0	760	0.1059	0.0463 (+)	0.01517	20.0
				0.3156	0.0950 (0)		
UG349		15 kV-#2	400	0.3441	0.0570 (+)	0.00841	20.0
				0.6558	0.2200 (0)		
UG35		15 kV-#2	900	0.3441	0.0570 (+)	0.00841	20.0
				0.6558	0.2200 (0)		
UG351		15 kV-4/0	1220	0.1059	0.0463 (+)	0.01517	20.0
				0.3156	0.0950 (0)		

Feeders/Cables Data

Resistance Displayed in Editor is at 25.0 °C.

Branch Name	#C	Device Type	Length Feet	R Ohms/K	X Ohms/K	1/2 Cap mMhos/K	Temp °C
UG352	15	kV-#2	1200	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG354	15	kV-#2	560	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG358	15	kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG359	15	kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG36	15	kV-4/0	3820	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG360	15	kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG361	15	kV-#2	700	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG362	15	kV-#2	250	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG363	15	kV-#2	960	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG364	15	kV-#2	900	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG365	15	kV-#2	1000	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG366	15	kV-#2	810	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG367	15	kV-#2	610	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG368	15	kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG369	15	kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG37	15	kV-4/0	4430	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG370	15	kV-#2	510	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG371	15	kV-#2	1100	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG372	15	kV-#2	1340	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG374	15	kV-#2	180	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG375	15	kV-1100	650	0.0223 0.1117	0.0388 0.0300	(+) (0)	0.02782 20.0
UG376	15	kV-1100	870	0.0223 0.1117	0.0388 0.0300	(+) (0)	0.02782 20.0
UG377	15	kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0

Feeders/Cables Data

Resistance Displayed in Editor is at 25.0 °C.

Branch Name	#C	Device Type	Length Feet	R Ohms/K	X Ohms/K	1/2 Cap mMhos/K	Temp °C
UG378		15 kV-#2	200	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG379		15 kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG38		15 kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG380		15 kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG381		15 kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG382		#2 OH	770	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
UG383		#2 OH	570	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
UG384		15 kV-#2	800	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG385		15 kV-#2	200	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG386		15 kV-4/0	1000	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG387		15 kV-4/0	1500	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG388		15 kV-1000	90	0.0223 0.1470	0.0370 0.0400	(+) (0)	0.02600 20.0
UG389		15 kV-#2	180	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG39		15 kV-4/0	300	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG390		15 kV-4/0	1000	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG391		15 kV-4/0	1190	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG392		15 kV-4/0	610	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG393		15 kV-4/0	300	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG394		15 kV-4/0	860	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG395		15 kV-#2	500	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG398		15 kV-4/0	700	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG399		15 kV-#2	1500	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG4		15 kV-500	10	0.0461 0.1461	0.0440 0.0370	(+) (0)	0.01634 20.0

Feeders/Cables Data

Resistance Displayed in Editor is at 25.0 °C.

Branch Name	#C	Device Type	Length Feet	R Ohms/K	X Ohms/K	1/2 Cap mMhos/K	Temp °C
UG40	15	kV-#2	300	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG400	15	kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG401	15	kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG402	15	kV-#2	900	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG403	15	kV-4/0	740	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG404	15	kV-#2	1010	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG405	15	kV-4/0	660	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG406	15	kV-4/0	740	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG407	15	kV-#2	500	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG409	15	kV-4/0	580	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG41	15	kV-#2	2000	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG410	15	kV-4/0	940	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG411	15	kV-#2	2300	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG412	15	kV-#2	300	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG413	15	kV-4/0	930	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG414	15	kV-4/0	930	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG415	15	kV-4/0	870	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG417	15	kV-#2	1200	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG418	15	kV-#2	1500	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG419	15	kV-#2	700	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG42	15	kV-#2	2240	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG420	15	kV-4/0	370	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG421	15	kV-#2	480	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0

Feeders/Cables Data

Resistance Displayed in Editor is at 25.0 °C.

Branch Name	#C	Device Type	Length Feet	R Ohms/K	X Ohms/K	1/2 Cap mMhos/K	Temp °C
UG422	15	kV-4/0	770	0.1059 0.0463 (+)	0.3156 0.0950 (0)	0.01517	20.0
UG423	15	kV-#2	50	0.3441 0.0570 (+)	0.6558 0.2200 (0)	0.00841	20.0
UG424	15	kV-4/0	700	0.1059 0.0463 (+)	0.3156 0.0950 (0)	0.01517	20.0
UG425	15	kV-#2	2300	0.3441 0.0570 (+)	0.6558 0.2200 (0)	0.00841	20.0
UG426	15	kV-#2	1500	0.3441 0.0570 (+)	0.6558 0.2200 (0)	0.00841	20.0
UG427	15	kV-#2	1600	0.3441 0.0570 (+)	0.6558 0.2200 (0)	0.00841	20.0
UG428	15	kV-#2	1000	0.3441 0.0570 (+)	0.6558 0.2200 (0)	0.00841	20.0
UG429	15	kV-4/0	1400	0.1059 0.0463 (+)	0.3156 0.0950 (0)	0.01517	20.0
UG43	15	kV-1100	360	0.0223 0.0388 (+)	0.1117 0.0300 (0)	0.02782	20.0
UG430	15	kV-4/0	1100	0.1059 0.0463 (+)	0.3156 0.0950 (0)	0.01517	20.0
UG431	15	kV-#2	800	0.3441 0.0570 (+)	0.6558 0.2200 (0)	0.00841	20.0
UG432	15	kV-750	1400	0.0295 0.0409 (+)	0.1902 0.0600 (0)	0.02541	20.0
UG433	15	kV-1100	760	0.0223 0.0388 (+)	0.1117 0.0300 (0)	0.02782	20.0
UG434	15	kV-#2	100	0.3441 0.0570 (+)	0.6558 0.2200 (0)	0.00841	20.0
UG435	15	kV-#2	100	0.3441 0.0570 (+)	0.6558 0.2200 (0)	0.00841	20.0
UG436	15	kV-#2	800	0.3441 0.0570 (+)	0.6558 0.2200 (0)	0.00841	20.0
UG437	15	kV-#2	800	0.3441 0.0570 (+)	0.6558 0.2200 (0)	0.00841	20.0
UG438	15	kV-#2	400	0.3441 0.0570 (+)	0.6558 0.2200 (0)	0.00841	20.0
UG439	15	kV-4/0	900	0.1059 0.0463 (+)	0.3156 0.0950 (0)	0.01517	20.0
UG44	15	kV-4/0	110	0.1059 0.0463 (+)	0.3156 0.0950 (0)	0.01517	20.0
UG440	15	kV-#2	3600	0.3441 0.0570 (+)	0.6558 0.2200 (0)	0.00841	20.0
UG441	15	kV-4/0	1900	0.1059 0.0463 (+)	0.3156 0.0950 (0)	0.01517	20.0
UG442	15	kV-#2	2210	0.3441 0.0570 (+)	0.6558 0.2200 (0)	0.00841	20.0

Feeders/Cables Data

Resistance Displayed in Editor is at 25.0 °C.

Branch Name	#C	Device Type	Length Feet	R Ohms/K	X Ohms/K	1/2 Cap mMhos/K	Temp °C
UG443	15	kV-#2	2260	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG444	15	kV-#2	410	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG445	15	kV-#2	380	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG446	15	kV-#2	100	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG447	15	kV-#2	1960	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG448	15	kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG449	15	kV-#2	2400	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG45	15	kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG450	15	kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG451	15	kV-#2	1200	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG452	15	kV-#2	530	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG453	15	kV-#2	2000	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG454	15	kV-#2	1400	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG455	15	kV-#2	100	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG456	15	kV-#2	300	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG457	15	kV-#2	2850	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG458	15	kV-#2	1000	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG459	15	kV-#2	560	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG46	15	kV-#2	150	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG460	15	kV-#2	2150	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG461	15	kV-#2	1700	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG462	15	kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG463	15	kV-#2	400	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0

Feeders/Cables Data

Resistance Displayed in Editor is at 25.0 °C.

Branch Name	#C	Device Type	Length Feet	R Ohms/K	X Ohms/K	1/2 Cap mMhos/K	Temp °C
UG464	15	kV-#2	1200	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG465	15	kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG466	15	kV-#2	2230	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG467	15	kV-#2	400	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG468	15	kV-#2	1800	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG469	15	kV-#2	1660	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG47	15	kV-#2	1200	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG470	15	kV-#2	500	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG471	15	kV-#2	1000	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG472	15	kV-#2	720	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG473	15	kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG474	15	kV-#2	3720	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG475	15	kV-#2	2230	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG476	15	kV-#2	4200	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG477	15	kV-4/0	1720	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG478	15	kV-4/0	2100	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG479	15	kV-4/0	1310	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG48	15	kV-#2	1900	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG480	15	kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG481	15	kV-#2	1100	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG482	15	kV-4/0	730	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG483	15	kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG484	15	kV-4/0	1110	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0

Feeders/Cables Data

Resistance Displayed in Editor is at 25.0 °C.

Branch Name	#C	Device Type	Length Feet	R Ohms/K	X Ohms/K	1/2 Cap mMhos/K	Temp °C
UG485		15 kV-4/0	1340	0.1059 0.0463 (+)	0.3156 0.0950 (0)	0.01517	20.0
UG486		15 kV-#2	1610	0.3441 0.0570 (+)	0.6558 0.2200 (0)	0.00841	20.0
UG487		15 kV-#2	1000	0.3441 0.0570 (+)	0.6558 0.2200 (0)	0.00841	20.0
UG488		15 kV-#2	100	0.3441 0.0570 (+)	0.6558 0.2200 (0)	0.00841	20.0
UG489		15 kV-#2	1000	0.3441 0.0570 (+)	0.6558 0.2200 (0)	0.00841	20.0
UG49		15 kV-1100	160	0.0223 0.0388 (+)	0.1117 0.0300 (0)	0.02782	20.0
UG490		15 kV-#2	900	0.3441 0.0570 (+)	0.6558 0.2200 (0)	0.00841	20.0
UG491		15 kV-#2	10	0.3441 0.0570 (+)	0.6558 0.2200 (0)	0.00841	20.0
UG492		15 kV-#2	10	0.3441 0.0570 (+)	0.6558 0.2200 (0)	0.00841	20.0
UG493		#2 OH	2260	0.2618 0.1378 (+)	0.3953 0.4524 (0)		20.0
UG494		15 kV-#2	10	0.3441 0.0570 (+)	0.6558 0.2200 (0)	0.00841	20.0
UG495		15 kV-#2	2100	0.3441 0.0570 (+)	0.6558 0.2200 (0)	0.00841	20.0
UG496		#2 OH	1900	0.2618 0.1378 (+)	0.3953 0.4524 (0)		20.0
UG497		#2 OH	1290	0.2618 0.1378 (+)	0.3953 0.4524 (0)		20.0
UG498		#2 OH	1200	0.2618 0.1378 (+)	0.3953 0.4524 (0)		20.0
UG499		15 kV-#2	200	0.3441 0.0570 (+)	0.6558 0.2200 (0)	0.00841	20.0
UG5		15 kV-#2	10	0.3441 0.0570 (+)	0.6558 0.2200 (0)	0.00841	20.0
UG50		15 kV-1100	480	0.0223 0.0388 (+)	0.1117 0.0300 (0)	0.02782	20.0
UG500		#2 OH	1140	0.2618 0.1378 (+)	0.3953 0.4524 (0)		20.0
UG501		15 kV-#2	10	0.3441 0.0570 (+)	0.6558 0.2200 (0)	0.00841	20.0
UG502		15 kV-#2	10	0.3441 0.0570 (+)	0.6558 0.2200 (0)	0.00841	20.0
UG503		15 kV-4/0	960	0.1059 0.0463 (+)	0.3156 0.0950 (0)	0.01517	20.0
UG504		15 kV-#2	1700	0.3441 0.0570 (+)	0.6558 0.2200 (0)	0.00841	20.0

Feeders/Cables Data

Resistance Displayed in Editor is at 25.0 °C.

Branch Name	#C	Device Type	Length Feet	R Ohms/K	X Ohms/K	1/2 Cap mMhos/K	Temp °C
UG505		#2 OH	2360	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
UG506		#2 OH	3570	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
UG507		#2 OH	1940	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
UG508		#2 OH	1750	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
UG509		15 kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG51		15 kV-#2	380	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG510		15 kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG511		15 kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG512		15 kV-4/0	3380	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG513		15 kV-#2	2300	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG514		#2 OH	2350	0.2618 0.3953	0.1378 0.4524	(+) (0)	20.0
UG515		15 kV-#2	1900	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG516		15 kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG517		15 kV-#2	1040	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG518		15 kV-#2	690	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG519		15 kV-#2	1800	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG52		15 kV-#2	100	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG520		15 kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG521		15 kV-4/0	1090	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG522		15 kV-4/0	450	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG523		15 kV-#2	1140	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG526		15 kV-#2	2740	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG527		15 kV-4/0	570	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0

Feeders/Cables Data

Resistance Displayed in Editor is at 25.0 °C.

Branch Name	#C	Device Type	Length Feet	R Ohms/K	X Ohms/K	1/2 Cap mMhos/K	Temp °C
UG528	15	kV-#2	1860	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG529	15	kV-#2	1290	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG53	15	kV-#2	100	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG530	15	kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG531	15	kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG532	15	kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG533	15	kV-#2	1100	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG535	15	kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG536	15	kV-4/0	690	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG537	15	kV-4/0	740	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG538	15	kV-#2	2400	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG54	15	kV-#2	510	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG540	15	kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG541	15	kV-4/0	880	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG542	15	kV-4/0	600	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG543	15	kV-#2	1850	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG544	15	kV-#2	1790	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG546	15	kV-#2	600	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG547	15	kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG548	15	kV-4/0	420	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG549	15	kV-4/0	1160	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG55	15	kV-#2	350	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG550	15	kV-#2	1260	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0

Feeders/Cables Data

Resistance Displayed in Editor is at 25.0 °C.

Branch Name	#C	Device Type	Length Feet	R Ohms/K	X Ohms/K	1/2 Cap mMhos/K	Temp °C
UG553		15 kV-#2	830	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG554		15 kV-#2	1270	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG555		15 kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG556		15 kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG557		15 kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG558		15 kV-#2	400	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG559		15 kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG56		15 kV-500	170	0.0461 0.1461	0.0440 0.0370	(+) (0)	0.01634 20.0
UG560		15 kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG561		15 kV-#2	1290	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG562		15 kV-#2	200	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG563		15 kV-#2	800	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG564		15 kV-#2	2110	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG565		15 kV-#2	800	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG566		15 kV-#2	100	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG567		15 kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG568		15 kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG569		15 kV-#2	850	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG57		15 kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG570		15 kV-#2	615	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG571		15 kV-#2	300	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG572		15 kV-#2	400	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG573		15 kV-#2	400	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0

Feeders/Cables Data

Resistance Displayed in Editor is at 25.0 °C.

Branch Name	#C	Device Type	Length Feet	R Ohms/K	X Ohms/K	1/2 Cap mMhos/K	Temp °C
UG574	15	kV-#2	2100	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG575	15	kV-#2	1670	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG576	15	kV-#2	2970	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG577	15	kV-750	120	0.0295 0.1902	0.0409 0.0600	(+) (0)	0.02541 20.0
UG578	15	kV-750	410	0.0295 0.1902	0.0409 0.0600	(+) (0)	0.02541 20.0
UG579	15	kV-#2	250	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG58	15	kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG580	15	kV-4/0	490	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG581	15	kV-4/0	490	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG583	15	kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG584	15	kV-4/0	10	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG585	15	kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG586	15	kV-500	850	0.0461 0.1461	0.0440 0.0370	(+) (0)	0.01634 20.0
UG588	15	kV-500	510	0.0461 0.1461	0.0440 0.0370	(+) (0)	0.01634 20.0
UG589	15	kV-750	340	0.0295 0.1902	0.0409 0.0600	(+) (0)	0.02541 20.0
UG59	15	kV-#2	440	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG590	15	kV-750	470	0.0295 0.1902	0.0409 0.0600	(+) (0)	0.02541 20.0
UG591	15	kV-750	1020	0.0295 0.1902	0.0409 0.0600	(+) (0)	0.02541 20.0
UG592	15	kV-#2	200	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG593	15	kV-#2	700	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG594	15	kV-4/0	700	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG595	15	kV-750	690	0.0295 0.1902	0.0409 0.0600	(+) (0)	0.02541 20.0
UG596	15	kV-750	530	0.0295 0.1902	0.0409 0.0600	(+) (0)	0.02541 20.0

Feeders/Cables Data

Resistance Displayed in Editor is at 25.0 °C.

Branch Name	#C	Device Type	Length Feet	R Ohms/K	X Ohms/K	1/2 Cap mMhos/K	Temp °C
UG597		15 kV-1100	1000	0.0223 0.1117	0.0388 0.0300	(+) (0)	0.02782 20.0
UG598		15 kV-4/0	1000	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG599		15 kV-#2	200	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG6		15 kV-500	1190	0.0461 0.1461	0.0440 0.0370	(+) (0)	0.01634 20.0
UG60		15 kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG600		15 kV-#2	200	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG601		15 kV-4/0	500	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG602		15 kV-4/0	700	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG603		15 kV-4/0	425	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG604		15 kV-#2	1260	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG606		15 kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG607		15 kV-4/0	560	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG609		15 kV-4/0	750	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG61		15 kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG612		15 kV-#2	1640	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG613		15 kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG614		15 kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG615		15 kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG616		15 kV-500	560	0.0461 0.1461	0.0440 0.0370	(+) (0)	0.01634 20.0
UG618		15 kV-500	960	0.0461 0.1461	0.0440 0.0370	(+) (0)	0.01634 20.0
UG619		15 kV-500	640	0.0461 0.1461	0.0440 0.0370	(+) (0)	0.01634 20.0
UG62		15 kV-#2	1300	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG620		15 kV-500	900	0.0461 0.1461	0.0440 0.0370	(+) (0)	0.01634 20.0

Feeders/Cables Data

Resistance Displayed in Editor is at 25.0 °C.

Branch Name	#C	Device Type	Length Feet	R Ohms/K	X Ohms/K	1/2 Cap mMhos/K	Temp °C
UG621	15	kV-4/0	850	0.1059	0.0463 (+)	0.01517	20.0
				0.3156	0.0950 (0)		
UG622	15	kV-4/0	810	0.1059	0.0463 (+)	0.01517	20.0
				0.3156	0.0950 (0)		
UG623	15	kV-4/0	650	0.1059	0.0463 (+)	0.01517	20.0
				0.3156	0.0950 (0)		
UG624	15	kV-4/0	340	0.1059	0.0463 (+)	0.01517	20.0
				0.3156	0.0950 (0)		
UG625	15	kV-4/0	1070	0.1059	0.0463 (+)	0.01517	20.0
				0.3156	0.0950 (0)		
UG626	15	kV-#2	10	0.3441	0.0570 (+)	0.00841	20.0
				0.6558	0.2200 (0)		
UG627	15	kV-4/0	670	0.1059	0.0463 (+)	0.01517	20.0
				0.3156	0.0950 (0)		
UG628	15	kV-4/0	1220	0.1059	0.0463 (+)	0.01517	20.0
				0.3156	0.0950 (0)		
UG63	15	kV-#2	1080	0.3441	0.0570 (+)	0.00841	20.0
				0.6558	0.2200 (0)		
UG630	15	kV-4/0	1230	0.1059	0.0463 (+)	0.01517	20.0
				0.3156	0.0950 (0)		
UG631	15	kV-#2	300	0.3441	0.0570 (+)	0.00841	20.0
				0.6558	0.2200 (0)		
UG632	15	kV-4/0	200	0.1059	0.0463 (+)	0.01517	20.0
				0.3156	0.0950 (0)		
UG633	15	kV-#2	400	0.3441	0.0570 (+)	0.00841	20.0
				0.6558	0.2200 (0)		
UG634	15	kV-#2	10	0.3441	0.0570 (+)	0.00841	20.0
				0.6558	0.2200 (0)		
UG635	15	kV-#2	500	0.3441	0.0570 (+)	0.00841	20.0
				0.6558	0.2200 (0)		
UG636	15	kV-4/0	920	0.1059	0.0463 (+)	0.01517	20.0
				0.3156	0.0950 (0)		
UG637	15	kV-#2	500	0.3441	0.0570 (+)	0.00841	20.0
				0.6558	0.2200 (0)		
UG638	15	kV-4/0	1160	0.1059	0.0463 (+)	0.01517	20.0
				0.3156	0.0950 (0)		
UG64	15	kV-#2	1200	0.3441	0.0570 (+)	0.00841	20.0
				0.6558	0.2200 (0)		
UG640	15	kV-#2	880	0.3441	0.0570 (+)	0.00841	20.0
				0.6558	0.2200 (0)		
UG641	15	kV-#2	10	0.3441	0.0570 (+)	0.00841	20.0
				0.6558	0.2200 (0)		
UG642	15	kV-#2	800	0.3441	0.0570 (+)	0.00841	20.0
				0.6558	0.2200 (0)		
UG643	15	kV-#2	200	0.3441	0.0570 (+)	0.00841	20.0
				0.6558	0.2200 (0)		

Feeders/Cables Data

Resistance Displayed in Editor is at 25.0 °C.

Branch Name	#C	Device Type	Length Feet	R Ohms/K	X Ohms/K	1/2 Cap mMhos/K	Temp °C
UG644		15 kV-500	170	0.0461 0.1461	0.0440 0.0370	(+) (0)	0.01634 20.0
UG645		15 kV-500	1370	0.0461 0.1461	0.0440 0.0370	(+) (0)	0.01634 20.0
UG646		15 kV-500	670	0.0461 0.1461	0.0440 0.0370	(+) (0)	0.01634 20.0
UG647		15 kV-#2	400	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG648		15 kV-#2	1100	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG649		15 kV-#2	440	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG65		15 kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG650		15 kV-#2	1100	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG651		15 kV-#2	510	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG652		15 kV-#2	660	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG653		15 kV-#2	610	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG654		15 kV-#2	500	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG655		15 kV-#2	1500	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG656		15 kV-#2	720	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG657		15 kV-#2	1000	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG658		15 kV-#2	600	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG659		15 kV-#2	660	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG66		15 kV-#2	520	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG660		15 kV-#2	1000	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG661		15 kV-#2	1220	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG662		15 kV-1100	970	0.0223 0.1117	0.0388 0.0300	(+) (0)	0.02782 20.0
UG663		15 kV-1100	450	0.0223 0.1117	0.0388 0.0300	(+) (0)	0.02782 20.0
UG664		15 kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0

Feeders/Cables Data

Resistance Displayed in Editor is at 25.0 °C.

Branch Name	#C	Device Type	Length Feet	R Ohms/K	X Ohms/K	1/2 Cap mMhos/K	Temp °C
UG665	15	kV-1100	1000	0.0223	0.0388 (+)	0.02782	20.0
				0.1117	0.0300 (0)		
UG666	15	kV-#2	1500	0.3441	0.0570 (+)	0.00841	20.0
				0.6558	0.2200 (0)		
UG667	15	kV-4/0	470	0.1059	0.0463 (+)	0.01517	20.0
				0.3156	0.0950 (0)		
UG668	15	kV-#2	800	0.3441	0.0570 (+)	0.00841	20.0
				0.6558	0.2200 (0)		
UG669	15	kV-4/0	450	0.1059	0.0463 (+)	0.01517	20.0
				0.3156	0.0950 (0)		
UG67	15	kV-#2	520	0.3441	0.0570 (+)	0.00841	20.0
				0.6558	0.2200 (0)		
UG670	15	kV-#2	800	0.3441	0.0570 (+)	0.00841	20.0
				0.6558	0.2200 (0)		
UG671	15	kV-4/0	1070	0.1059	0.0463 (+)	0.01517	20.0
				0.3156	0.0950 (0)		
UG672	15	kV-#2	300	0.3441	0.0570 (+)	0.00841	20.0
				0.6558	0.2200 (0)		
UG674	15	kV-4/0	700	0.1059	0.0463 (+)	0.01517	20.0
				0.3156	0.0950 (0)		
UG675	15	kV-#2	300	0.3441	0.0570 (+)	0.00841	20.0
				0.6558	0.2200 (0)		
UG676	15	kV-#2	10	0.3441	0.0570 (+)	0.00841	20.0
				0.6558	0.2200 (0)		
UG677	15	kV-4/0	500	0.1059	0.0463 (+)	0.01517	20.0
				0.3156	0.0950 (0)		
UG678	15	kV-#2	10	0.3441	0.0570 (+)	0.00841	20.0
				0.6558	0.2200 (0)		
UG68	15	kV-#2	950	0.3441	0.0570 (+)	0.00841	20.0
				0.6558	0.2200 (0)		
UG680	15	kV-4/0	1610	0.1059	0.0463 (+)	0.01517	20.0
				0.3156	0.0950 (0)		
UG681	15	kV-#2	1300	0.3441	0.0570 (+)	0.00841	20.0
				0.6558	0.2200 (0)		
UG682	15	kV-#2	10	0.3441	0.0570 (+)	0.00841	20.0
				0.6558	0.2200 (0)		
UG683	15	kV-4/0	930	0.1059	0.0463 (+)	0.01517	20.0
				0.3156	0.0950 (0)		
UG684	15	kV-4/0	320	0.1059	0.0463 (+)	0.01517	20.0
				0.3156	0.0950 (0)		
UG685	15	kV-750	370	0.0295	0.0409 (+)	0.02541	20.0
				0.1902	0.0600 (0)		
UG686	15	kV-750	2030	0.0295	0.0409 (+)	0.02541	20.0
				0.1902	0.0600 (0)		
UG687	15	kV-#2	720	0.3441	0.0570 (+)	0.00841	20.0
				0.6558	0.2200 (0)		

Feeders/Cables Data

Resistance Displayed in Editor is at 25.0 °C.

Branch Name	#C Device Type	Length Feet	R Ohms/K	X Ohms/K	1/2 Cap mMhos/K	Temp °C
UG688	15 kV-#2	10	0.3441 0.6558	0.0570 0.2200 0 0	(+) (0) (+) (0)	0.00841 20.0 25.0
UG69	15 kV-#2	100	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG690	15 kV-#2	600	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG691	15 kV-#2	1100	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG692	15 kV-750	580	0.0295 0.1902	0.0409 0.0600	(+) (0)	0.02541 20.0
UG693	15 kV-#2	200	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG695	15 kV-4/0	1000	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG696	15 kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG697	15 kV-750	540	0.0295 0.1902	0.0409 0.0600	(+) (0)	0.02541 20.0
UG698	15 kV-750	1310	0.0295 0.1902	0.0409 0.0600	(+) (0)	0.02541 20.0
UG699	15 kV-750	1750	0.0295 0.1902	0.0409 0.0600	(+) (0)	0.02541 20.0
UG7	15 kV-#2	410	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG700	15 kV-#2	300	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG701	15 kV-500	400	0.0461 0.1461	0.0440 0.0370	(+) (0)	0.01634 20.0
UG702	15 kV-500	270	0.0461 0.1461	0.0440 0.0370	(+) (0)	0.01634 20.0
UG703	15 kV-#2	640	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG704	15 kV-#2	400	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG705	15 kV-#2	1200	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG706	15 kV-750	1450	0.0295 0.1902	0.0409 0.0600	(+) (0)	0.02541 20.0
UG707	15 kV-4/0	1000	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG708	15 kV-#2	570	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG709	15 kV-750	1670	0.0295 0.1902	0.0409 0.0600	(+) (0)	0.02541 20.0

Feeders/Cables Data

Resistance Displayed in Editor is at 25.0 °C.

Branch Name	#C	Device Type	Length Feet	R Ohms/K	X Ohms/K	1/2 Cap mhos/K	Temp °C
UG71		15 kV-500	170	0.0461 0.1461	0.0440 0.0370	(+)	0.01634 20.0
UG710		15 kV-750	490	0.0295 0.1902	0.0409 0.0600	(+)	0.02541 20.0
UG711		15 kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+)	0.00841 20.0
UG712		15 kV-#2	1830	0.3441 0.6558	0.0570 0.2200	(+)	0.00841 20.0
UG714		15 kV-750	1220	0.0295 0.1902	0.0409 0.0600	(+)	0.02541 20.0
UG715		15 kV-750	560	0.0295 0.1902	0.0409 0.0600	(+)	0.02541 20.0
UG716		15 kV-750	310	0.0295 0.1902	0.0409 0.0600	(+)	0.02541 20.0
UG717		15 kV-750	760	0.0295 0.1902	0.0409 0.0600	(+)	0.02541 20.0
UG718		15 kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+)	0.00841 20.0
UG719		15 kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+)	0.00841 20.0
UG72		15 kV-#2	100	0.3441 0.6558	0.0570 0.2200	(+)	0.00841 20.0
UG720		15 kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+)	0.00841 20.0
UG721		15 kV-#2	400	0.3441 0.6558	0.0570 0.2200	(+)	0.00841 20.0
UG722		15 kV-500	950	0.0461 0.1461	0.0440 0.0370	(+)	0.01634 20.0
UG723		15 kV-500	1350	0.0461 0.1461	0.0440 0.0370	(+)	0.01634 20.0
UG724		15 kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+)	0.00841 20.0
UG725		15 kV-#2	1200	0.3441 0.6558	0.0570 0.2200	(+)	0.00841 20.0
UG726		15 kV-#2	1000	0.3441 0.6558	0.0570 0.2200	(+)	0.00841 20.0
UG727		15 kV-500	510	0.0461 0.1461	0.0440 0.0370	(+)	0.01634 20.0
UG728		15 kV-500	910	0.0461 0.1461	0.0440 0.0370	(+)	0.01634 20.0
UG729		15 kV-#2	100	0.3441 0.6558	0.0570 0.2200	(+)	0.00841 20.0
UG73		15 kV-#2	1280	0.3441 0.6558	0.0570 0.2200	(+)	0.00841 20.0
UG730		15 kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+)	0.00841 20.0

Feeders/Cables Data

Resistance Displayed in Editor is at 25.0 °C.

Branch Name	#C	Device Type	Length Feet	R Ohms/K	X Ohms/K	1/2 Cap mMhos/K	Temp °C
UG731		15 kV-4/0	1350	0.1059 0.0463 (+)	0.3156 0.0950 (0)	0.01517	20.0
UG732		15 kV-#2	100	0.3441 0.0570 (+)	0.6558 0.2200 (0)	0.00841	20.0
UG733		15 kV-4/0	1090	0.1059 0.0463 (+)	0.3156 0.0950 (0)	0.01517	20.0
UG734		15 kV-#2	900	0.3441 0.0570 (+)	0.6558 0.2200 (0)	0.00841	20.0
UG736		15 kV-4/0	900	0.1059 0.0463 (+)	0.3156 0.0950 (0)	0.01517	20.0
UG737		15 kV-#2	10	0.3441 0.0570 (+)	0.6558 0.2200 (0)	0.00841	20.0
UG738		15 kV-4/0	1010	0.1059 0.0463 (+)	0.3156 0.0950 (0)	0.01517	20.0
UG739		15 kV-#2	10	0.3441 0.0570 (+)	0.6558 0.2200 (0)	0.00841	20.0
UG74		15 kV-#2	760	0.3441 0.0570 (+)	0.6558 0.2200 (0)	0.00841	20.0
UG740		15 kV-4/0	900	0.1059 0.0463 (+)	0.3156 0.0950 (0)	0.01517	20.0
UG741		15 kV-4/0	1020	0.1059 0.0463 (+)	0.3156 0.0950 (0)	0.01517	20.0
UG742		15 kV-4/0	470	0.1059 0.0463 (+)	0.3156 0.0950 (0)	0.01517	20.0
UG743		15 kV-#2	10	0.3441 0.0570 (+)	0.6558 0.2200 (0)	0.00841	20.0
UG744		15 kV-#2	10	0.3441 0.0570 (+)	0.6558 0.2200 (0)	0.00841	20.0
UG745		15 kV-4/0	500	0.1059 0.0463 (+)	0.3156 0.0950 (0)	0.01517	20.0
UG746		15 kV-4/0	510	0.1059 0.0463 (+)	0.3156 0.0950 (0)	0.01517	20.0
UG747		15 kV-#2	580	0.3441 0.0570 (+)	0.6558 0.2200 (0)	0.00841	20.0
UG748		15 kV-#2	10	0.3441 0.0570 (+)	0.6558 0.2200 (0)	0.00841	20.0
UG749		15 kV-4/0	650	0.1059 0.0463 (+)	0.3156 0.0950 (0)	0.01517	20.0
UG75		15 kV-#2	250	0.3441 0.0570 (+)	0.6558 0.2200 (0)	0.00841	20.0
UG750		15 kV-4/0	1350	0.1059 0.0463 (+)	0.3156 0.0950 (0)	0.01517	20.0
UG752		15 kV-#2	1380	0.3441 0.0570 (+)	0.6558 0.2200 (0)	0.00841	20.0
UG753		15 kV-#2	10	0.3441 0.0570 (+)	0.6558 0.2200 (0)	0.00841	20.0

Feeders/Cables Data

Resistance Displayed in Editor is at 25.0 °C.

Branch Name	#C	Device Type	Length Feet	R Ohms/K	X Ohms/K	1/2 Cap mMhos/K	Temp °C
UG754		15 kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG755		15 kV-500	830	0.0461 0.1461	0.0440 0.0370	(+) (0)	0.01634 20.0
UG756		15 kV-500	1340	0.0461 0.1461	0.0440 0.0370	(+) (0)	0.01634 20.0
UG757		15 kV-#2	1500	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG758		15 kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG759		15 kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG76		15 kV-#2	100	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG760		15 kV-500	1200	0.0461 0.1461	0.0440 0.0370	(+) (0)	0.01634 20.0
UG761		15 kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG762		15 kV-#2	600	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG763		15 kV-500	580	0.0461 0.1461	0.0440 0.0370	(+) (0)	0.01634 20.0
UG764		15 kV-500	1800	0.0461 0.1461	0.0440 0.0370	(+) (0)	0.01634 20.0
UG765		15 kV-500	470	0.0461 0.1461	0.0440 0.0370	(+) (0)	0.01634 20.0
UG766		15 kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG767		15 kV-500	1370	0.0461 0.1461	0.0440 0.0370	(+) (0)	0.01634 20.0
UG768		15 kV-#2	1580	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG769		15 kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG77		15 kV-#2	1020	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG770		15 kV-#2	420	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG771		15 kV-500	10	0.0461 0.1461	0.0440 0.0370	(+) (0)	0.01634 20.0
UG772		15 kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG773		15 kV-500	550	0.0461 0.1461	0.0440 0.0370	(+) (0)	0.01634 20.0
UG775		15 kV-#2	200	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0

Feeders/Cables Data

Resistance Displayed in Editor is at 25.0 °C.

Branch Name	#C	Device Type	Length Feet	R Ohms/K	X Ohms/K	1/2 Cap mMhos/K	Temp °C
UG776		15 kV-#2	900	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG777		15 kV-500	1000	0.0461 0.1461	0.0440 0.0370	(+) (0)	0.01634 20.0
UG779		15 kV-#2	1230	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG78		15 kV-#2	100	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG780		15 kV-#2	1230	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG781		15 kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG782		15 kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG783		15 kV-750	1340	0.0295 0.1902	0.0409 0.0600	(+) (0)	0.02541 20.0
UG784		15 kV-750	840	0.0295 0.1902	0.0409 0.0600	(+) (0)	0.02541 20.0
UG785		15 kV-4/0	740	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG787		15 kV-4/0	1780	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG788		15 kV-#2	800	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG789		15 kV-#2	100	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG79		15 kV-#2	1500	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG790		15 kV-4/0	1570	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG791		15 kV-4/0	920	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG792		15 kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG793		15 kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG794		15 kV-#2	800	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG795		15 kV-#2	1740	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG796		15 kV-#2	911	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG797		15 kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG798		15 kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0

Feeders/Cables Data

Resistance Displayed in Editor is at 25.0 °C.

Branch Name	#C	Device Type	Length Feet	R Ohms/K	X Ohms/K	1/2 Cap mMhos/K	Temp °C
UG799		15 kV-4/0	720	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG8		15 kV-500	500	0.0461 0.1461	0.0440 0.0370	(+) (0)	0.01634 20.0
UG80		15 kV-4/0	1570	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG800		15 kV-4/0	1250	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG801		15 kV-#2	500	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG802		15 kV-#2	1120	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG803		15 kV-#2	1450	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG804		15 kV-#2	1530	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG805		15 kV-#2	1480	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG806		15 kV-#2	730	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG807		15 kV-#2	570	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG808		15 kV-#2	640	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG809		15 kV-#2	1540	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG81		15 kV-#2	100	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG810		15 kV-#2	700	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG811		15 kV-#2	250	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG812		15 kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG813		15 kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG814		15 kV-#2	400	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG815		15 kV-#2	600	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG816		15 kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG817		15 kV-#2	1000	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG818		15 kV-#2	410	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0

Feeders/Cables Data

Resistance Displayed in Editor is at 25.0 °C.

Branch Name	#C	Device Type	Length Feet	R Ohms/K	X Ohms/K	1/2 Cap mMhos/K	Temp °C
UG819		15 kV-#2	10	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG82		15 kV-#2	340	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG820		15 kV-4/0	2230	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG821		15 kV-#2	500	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG83		15 kV-#2	640	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG84		15 kV-4/0	660	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG85		15 kV-#2	290	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG86		15 kV-4/0	840	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG87		15 kV-#2	400	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG88		15 kV-4/0	800	0.1059 0.3156	0.0463 0.0950	(+) (0)	0.01517 20.0
UG89		15 kV-#2	1080	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG9		15 kV-500	1620	0.0461 0.1461	0.0440 0.0370	(+) (0)	0.01634 20.0
UG90		15 kV-#2	1800	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG91		15 kV-#2	1500	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG92		15 kV-#2	950	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG93		15 kV-750	160	0.0295 0.1902	0.0409 0.0600	(+) (0)	0.02541 20.0
UG94		15 kV-#2	100	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG95		15 kV-#2	225	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG97		15 kV-750	150	0.0295 0.1902	0.0409 0.0600	(+) (0)	0.02541 20.0
UG98		15 kV-#2	1110	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0
UG99		15 kV-#2	650	0.3441 0.6558	0.0570 0.2200	(+) (0)	0.00841 20.0

Control Devices Data

Branch Name	Cd Device Type	R(Ohms)	X(Ohms)
S8	SW 1000	0.00010	0.00007
F1	FU FUSE	0.00010	0.00080
F10	FU FUSE	0.00010	0.00080
F100	FU FUSE	0.00010	0.00080
F101	FU FUSE	0.00010	0.00080
F102	FU FUSE	0.00010	0.00080
F103	FU FUSE	0.00010	0.00080
F104	FU FUSE	0.00010	0.00080
F105	FU FUSE	0.00010	0.00080
F106	FU FUSE	0.00010	0.00080
F107	FU FUSE	0.00010	0.00080
F108	FU FUSE	0.00010	0.00080
F109	FU FUSE	0.00010	0.00080
F11	FU FUSE	0.00010	0.00080
F110	FU FUSE	0.00010	0.00080
F111	FU FUSE	0.00010	0.00080
F112	FU FUSE	0.00010	0.00080
F113	FU FUSE	0.00010	0.00080
F114	FU FUSE	0.00010	0.00080
F115	FU FUSE	0.00010	0.00080
F116	FU FUSE	0.00010	0.00080
F117	FU FUSE	0.00010	0.00080
F118	FU FUSE	0.00010	0.00080
F119	FU FUSE	0.00010	0.00080
F120	FU FUSE	0.00010	0.00080
F121	FU FUSE	0.00010	0.00080
F122	FU FUSE	0.00010	0.00080
F123	FU FUSE	0.00010	0.00080
F13	FU FUSE	0.00010	0.00080
F14	FU FUSE	0.00010	0.00080
F15	FU FUSE	0.00010	0.00080
F16	FU FUSE	0.00010	0.00080
F17	FU FUSE	0.00010	0.00080
F18	FU FUSE	0.00010	0.00080
F19	FU FUSE	0.00010	0.00080
F2	FU FUSE	0.00010	0.00080
F20	FU FUSE	0.00010	0.00080
F21	FU FUSE	0.00010	0.00080
F22	FU FUSE	0.00010	0.00080
F23	FU FUSE	0.00010	0.00080
F24	FU FUSE	0.00010	0.00080
F25	FU FUSE	0.00010	0.00080
F26	FU FUSE	0.00010	0.00080
F27	FU FUSE	0.00010	0.00080
F28	FU FUSE	0.00010	0.00080
F29	FU FUSE	0.00010	0.00080
F3	FU FUSE	0.00010	0.00080
F30	FU FUSE	0.00010	0.00080

Control Devices Data

Branch Name	Cd Device Type	R(Ohms)	X(Ohms)
F31	FU FUSE	0.00010	0.00080
F32	FU FUSE	0.00010	0.00080
F33	FU FUSE	0.00010	0.00080
F34	FU FUSE	0.00010	0.00080
F35	FU FUSE	0.00010	0.00080
F36	FU FUSE	0.00010	0.00080
F37	FU FUSE	0.00010	0.00080
F38	FU FUSE	0.00010	0.00080
F39	FU FUSE	0.00010	0.00080
F4	FU FUSE	0.00010	0.00080
F40	FU FUSE	0.00010	0.00080
F41	FU FUSE	0.00010	0.00080
F42	FU FUSE	0.00010	0.00080
F43	FU FUSE	0.00010	0.00080
F44	FU FUSE	0.00010	0.00080
F45	FU FUSE	0.00010	0.00080
F46	FU FUSE	0.00010	0.00080
F47	FU FUSE	0.00010	0.00080
F48	FU FUSE	0.00010	0.00080
F49	FU FUSE	0.00010	0.00080
F5	FU FUSE	0.00010	0.00080
F50	FU FUSE	0.00010	0.00080
F51	FU FUSE	0.00010	0.00080
F52	FU FUSE	0.00010	0.00080
F53	FU FUSE	0.00010	0.00080
F54	FU FUSE	0.00010	0.00080
F55	FU FUSE	0.00010	0.00080
F56	FU FUSE	0.00010	0.00080
F57	FU FUSE	0.00010	0.00080
F58	FU FUSE	0.00010	0.00080
F59	FU FUSE	0.00010	0.00080
F6	FU FUSE	0.00010	0.00080
F60	FU FUSE	0.00010	0.00080
F61	FU FUSE	0.00010	0.00080
F62	FU FUSE	0.00010	0.00080
F63	FU FUSE	0.00010	0.00080
F64	FU FUSE	0.00010	0.00080
F65	FU FUSE	0.00010	0.00080
F66	FU FUSE	0.00010	0.00080
F67	FU FUSE	0.00010	0.00080
F68	FU FUSE	0.00010	0.00080
F69	FU FUSE	0.00010	0.00080
F7	FU FUSE	0.00010	0.00080
F70	FU FUSE	0.00010	0.00080
F71	FU FUSE	0.00010	0.00080
F72	FU FUSE	0.00010	0.00080
F73	FU FUSE	0.00010	0.00080
F74	FU FUSE	0.00010	0.00080

Control Devices Data

Branch Name	Cd	Device Type	R(Ohms)	X(Ohms)
F75		FU FUSE	0.00010	0.00080
F76		FU FUSE	0.00010	0.00080
F77		FU FUSE	0.00010	0.00080
F78		FU FUSE	0.00010	0.00080
F79		FU FUSE	0.00010	0.00080
F8		FU FUSE	0.00010	0.00080
F80		FU FUSE	0.00010	0.00080
F81		FU FUSE	0.00010	0.00080
F82		FU FUSE	0.00010	0.00080
F83		FU FUSE	0.00010	0.00080
F84		FU FUSE	0.00010	0.00080
F85		FU FUSE	0.00010	0.00080
F86		FU FUSE	0.00010	0.00080
F87		FU FUSE	0.00010	0.00080
F88		FU FUSE	0.00010	0.00080
F89		FU FUSE	0.00010	0.00080
F9		FU FUSE	0.00010	0.00080
F90		FU FUSE	0.00010	0.00080
F91		FU FUSE	0.00010	0.00080
F92		FU FUSE	0.00010	0.00080
F93		FU FUSE	0.00010	0.00080
F94		FU FUSE	0.00010	0.00080
F95		FU FUSE	0.00010	0.00080
F96		FU FUSE	0.00010	0.00080
F97		FU FUSE	0.00010	0.00080
F98		FU FUSE	0.00010	0.00080
F99		FU FUSE	0.00010	0.00080