

McLean's Mountain Wind Limited Partnership

Exhibit E

Tab 1

Schedule 3

DESIGN SPECIFICATIONS AND OPERATIONAL DATA: ELECTRICAL DRAWINGS
OF TRANSMISSION FACILITIES



EPTCON LTD. ELECTRICAL POWER &
TRANSMISSION CONSTRUCTION

380 SHELDON DRIVE, UNIT #1, CAMBRIDGE, ONTARIO N1T 2C2
TEL: (519) 620-4414 FAX: (519) 620-4413

CLIENT DWG. NO.	
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CADD FILE ADDRESS	1
Q1010E101-B	

STAMP/SEAL

PROPRIETARY INFORMATION:
THIS DRAWING IS THE PROPERTY OF CHIMAX INC.
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DSN.	K.WONG	29/04/1
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McLEANS MOUNTAIN
115kV-34.5kV SUBSTATION
PLAN VIEW

[illegible]

[illegible]

NOTES:

1. CIRCUIT BREAKER RATINGS: 145kV, 1200A, 650kV BL, 50kA I.C., 3 CYCLE INTERRUPTING.
2. DISCONNECT SWITCH RATINGS: 1200A, 145kV, 105kV BL.
3. GROUND SWITCH INTERLOCKED WITH LINE SWITCH.
4. EQUIPMENT LOCATED IN SUBSTATION CONTROL BUILDING.
5. PROTECTION SCHEME AND RELAY SELECTION TO BE CONFIRMED BY HONI.
6. TELEPROTECTION SCHEME AND ASSOCIATED EQUIPMENT TO BE CONFIRMED BY HONI.
7. METRING UNITS AND INSTRUMENT TRANSFORMERS TO BE PROVIDED BY THE PROJECT ESO CERTIFIED MSP.
8. REQUIRED ONLY IF OPERATING WIND FARM CONNECTED TO ALCONIA TS.
9. THE LOCAL UTILITY SUPPLY IF AVAILABLE IS SHOWN AS AN OPTION. IF THE LOCAL SUPPLY IS USED, SSTI WILL NOT BE REQUIRED.

LEGEND:

- 21 - DISTANCE PROTECTION
- 27 - UNDERVOLTAGE RELAY
- 50 - OVERCURRENT RELAY - INSTANTANEOUS
- 50BP - BREAKER FAIL PROTECTION
- 51 - OVERCURRENT RELAY - INVERSE TIME PHASE, NEGATIVE GROUND
- 52 - AC CIRCUIT BREAKER
- 59 - OVERVOLTAGE RELAY
- 87L - LINE DIFFERENTIAL PROTECTION
- 89 - DISCONNECT SWITCH
- COMMUNICATION CHANNEL

REV.	DATE	DESCRIPTION	CHK'D	APP'D
E	30/09/11	GENERAL UPDATE		RDC
D	12/09/11	ADDED PQ SENSOR		PRP
C	24/08/11	CHG RELAYS, ADDED REVENUE METER		TS
B	30/04/10	REV'D TO INCLUDE 52B LINE PROT. EQ.		TS
A	17/09/09	ISSUED WITH PROPOSAL		EAM
REVISIONS				

OneLine

Engineering Inc. - Electrical Power Specialists

Tel (905) 688-6857 Fax (905) 688-6926

www.onelineeeng.com

EPTCON LTD.

246 WESTON DRIVE CAMBRIDGE, ONTARIO N1T 2C2

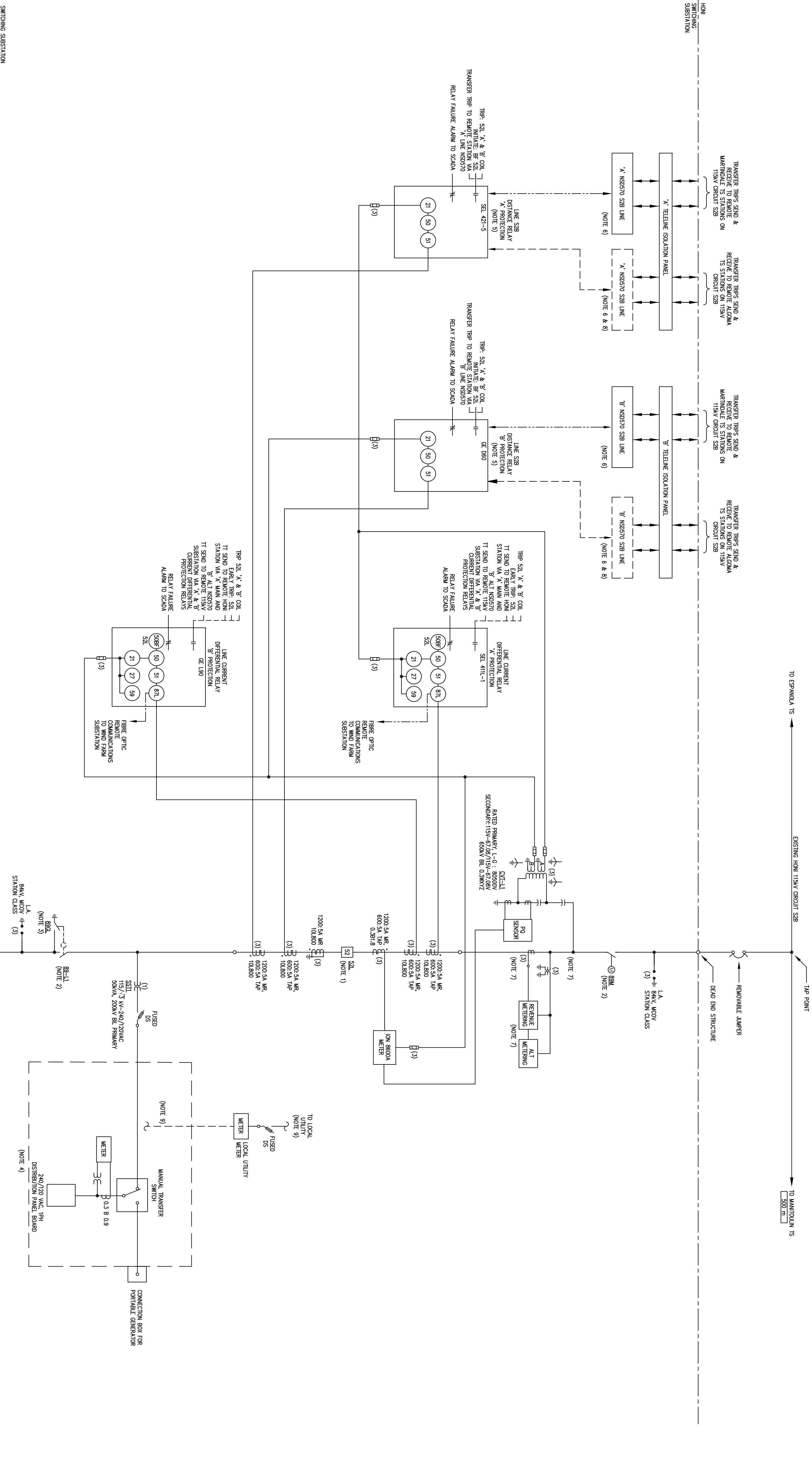
TEL: (519) 885-4444 FAX: (519) 885-4443

CLIENT: McLEANS MOUNTAIN 60MW WIND FARM PROJECT

EPTCON PROJECT 11XX

TITLE: 115kV SWITCHING SUBSTATION RELAY PROTECTION SINGLE LINE DIAGRAM

DRAWN BY: J. RAMSEY	CHECKED BY: R. CRESSMAN	APPROVED BY:	SHEET No. 1
SCALE: NTS	DATE: 11/11/09	DWG. No. P09052-EPT-D1-100	REV. E



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246 WESTON DRIVE CAMBRIDGE, ONTARIO N1T 2C2

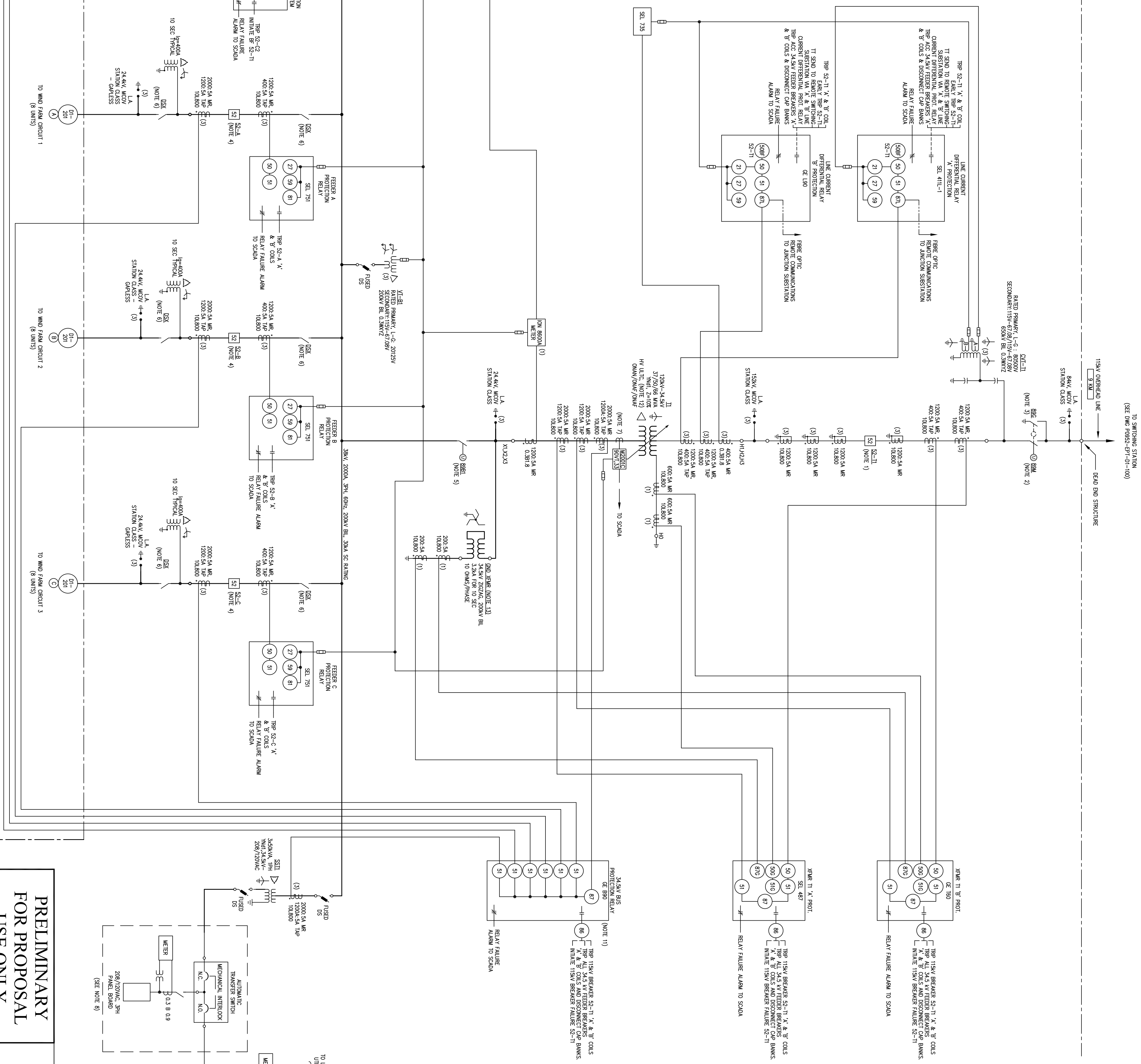
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- NOTES:**
1. GROUND BREAKER RATINGS: 145kV / 1200A, 650kV BL, 250kV IC, 3 COLE INTERFERRING.
 2. TITAN DISCONNECT SWITCH RATINGS: 1200A, 145kV, 650kV BL.
 3. GROUND SWITCH INTERLOCKED WITH LINE SWITCH.
 4. CIRCUIT BREAKER RATINGS: 25kV, 1200A, 2000kV BL, 25kV IC.
 5. 345kV DISCONNECT SWITCH RATING (MAIN BUS): 2000A, 35kV, 200kV BL, 44kV IC.
 6. 345kV DISCONNECT SWITCH RATING (FEEDERS): 1200A, 35kV, 200kV BL, 35kV IC.
 7. CT RATIO AND ACCURACY TO BE DETERMINED BY TRANSFORMER MANUFACTURER.
 8. EQUIPMENT LOCATED IN SUBSTATION CONTROL BUILDING.
 9. 8 WIRE IN TWO SETS OF FOUR INTERNALLY USED OPERATORS.
 10. GROUNDING TRANSFORMER FINAL SIZE TO BE DETERMINED.
 11. GE BRD HAS BEEN USED TO ACCOMMODATE THE NUMBER OF INPUTS NOT CURRENTLY AVAILABLE WITH SEL.
 12. TRANSFORMER ULTC RANGE TO BE DETERMINED.
 13. FINAL SIZE TO BE DETERMINED.
- DE-TUNING TOOLS MAY BE REQUIRED UPON STUDY RESULTS.

LEGEND:

- | | |
|-----|--|
| 21 | - OSTRAND PROTECTION |
| 25 | - SYNCHRONOUS OVER FENCE |
| 27 | - UNBALANCED RELAY |
| 32 | - POWER FACTOR CONTROL RELAY |
| 46P | - PHASE BALANCE RELAY |
| 50 | - OVERCURRENT RELAY - INSTANTANEOUS |
| 50B | - BREAKER FAIL PROTECTION |
| 51 | - OVERCURRENT RELAY - INVERSE TIME, PHASE, NEGATIVE GROUND |
| 52 | - AC CIRCUIT BREAKER |
| 60N | - NEUTRAL CURRENT BALANCE RELAY |
| 69 | - OVERVOLTAGE RELAY |
| 81 | - FREQUENCY RELAY |
| 86 | - LOCK OUT RELAY |
| 87 | - DIFFERENTIAL PROTECTION |
| 87S | - RESTRICTED GROUND FAULT PROTECTION |
| 89 | - DISCONNECT SWITCH |
| -- | - COMMUNICATION CHANNEL |

REV.	DATE	DESCRIPTION	CHK'D	APP'D
E	30/09/11	GENERAL REVISION	ROC	
D	24/08/11	CHANGED RELAYS AND MOVED VT LOCATIONS	TS/PP	
C	03/06/10	REMOVED 52-D & 521T-LV REVISED TRANSFORMER RATING	TS	
B	30/04/10	REPLACED 3 WINDING XFMR WITH 2 WINDING WITH A GROUNDING XFMR	TS	
A	12/11/09	ISSUED WITH PROPOSAL	TS	EAM

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McLEAN'S MOUNTAIN 60MW WIND FARM PROJECT
EPTCON PROJECT 11XX

TITLE-

115kV – 34.5kV SUBSTATION
RELAY PROTECTION
SINGLE LINE DIAGRAM

PRELIMINARY
FOR PROPOSAL
USE ONLY

DRAWN BY:	CHECKED BY:	APPROVED BY:	SHEET No.
J. RAMSEY	R. CRESSMAN		1

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SCALE:	DATE:	DWG. No.	REV.
NTS	11/11/09	P09052-EPT-D1-200	E