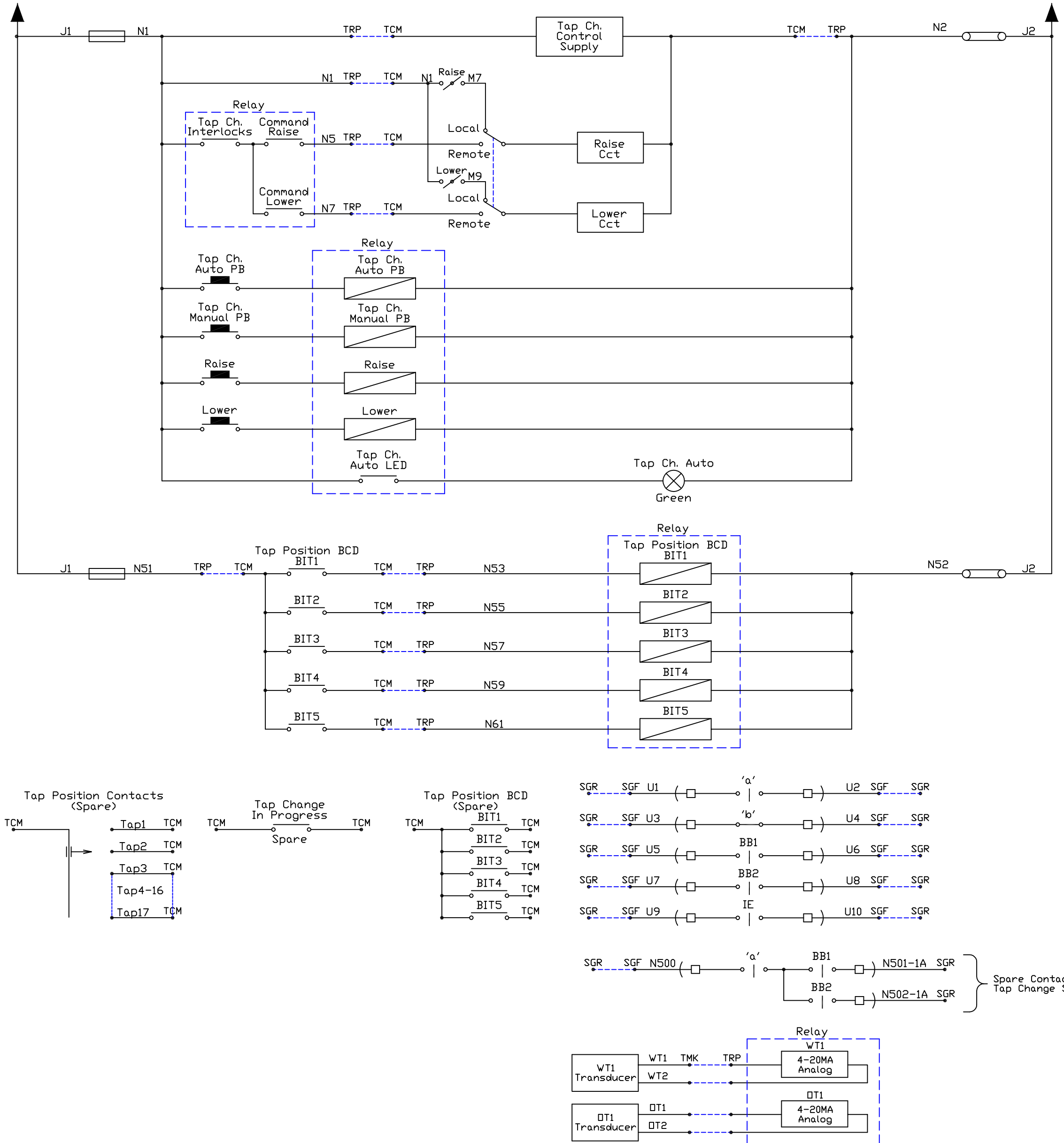


CONTINUED FROM BELOW LEFT



NOTES:

1. The purpose of this drawing is to clarify the requirements of the associated contract/enquiry specification. The issue of this with the specification does not absolve the successful contractor from his normal responsibility to provide a satisfactory scheme nor to submit drawings of systems proposed for approval by the engineer.

2. All relays have been shown de-energised with switches open.

3. This drawing will enable the different contractors to co-ordinate their respective systems with associated equipment. For this reason ferrule numbers of interconnecting points must be strictly adhered to. Where absolutely necessary ferrule numbers of connectors not associated with equipment on other contract may be added or altered.

4. Test blocks have been shown schematically. The actual wiring must be from the left, 'RED' 'WHITE' and 'BLUE' as viewed from the front of the test block.

5. Circuitry marked * is only required if differential relay make & model has been specified to match remote end and is not IEC 61850 compliant.

6. Contacts and inputs marked # must all be contained in the same relay.

<u>LEGEND</u>	
TRP	Transformer Relay Panel
TMK	Transformer Marshalling Kiosk
YMK	Yard Marshalling Kiosk
TCM	Tap Change Mechanism
ISDL	Isolator
ES	Earth Switch
SGF	Terminal in Switchgear Front Relay Panel
SGR	Terminal in Switchgear Rear Secondary Cable Box
CB	Circuit Breaker
BB1	Busbar 1
BB2	Busbar 2
IE	Incomer Earth
TCS	Tripp Circuit Supervision
PB	Push Button
PTB	Pilot Board
D/S	Out Station
J1	DC +ve Busline
J2	DC -ve Busline
RFI & RFE	Relay Fail Buswire
ARC	Auto Release
	Contact which is Closed when Contact is Closed
	Contact which is Closed when Contact is Open
	Fuse
	Link
	Control Switch
	Push Button
	Relay Digital Input
	Relay Analog Input
	Normally Open Contact
	Normally Closed Contact
	Current Transformer

						SHEET 1 OF 2	
DRAWN	J.LAWRENZ						
CHECKED							
DATE	2015-08-19						
DESIGN OFFICE PERSON							
		REFERENCE DRAWINGS:	REVISIONS:	BY:	DATE:		
ETHEKWIN ELECTRICITY							
PROPOSED 132kV SUBSTATION WITH SEPERATED 132KV FEEDERS & TRANSFORMER FEEDERS							
PLANNING ENGINEER							
PREDICTION ENGINEER							
WORKING ENGINEER							
PROJECT ENGINEER							
JUAN PABLO MANAGER							
AC & DC SCHEMATIC FOR 132/11kV TRANSFORMER (FIXED PATTERN)							
APPROVED		SCALE	DRAWING NUMBER			REV.	
DEPUTY HEAD V. OPERATIONS		NTS	TD 60.1 (1 OF 2)				