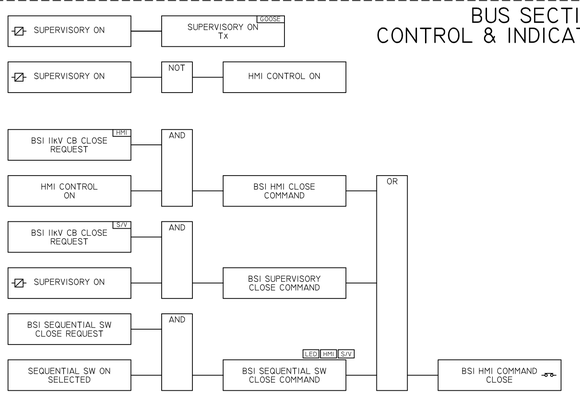
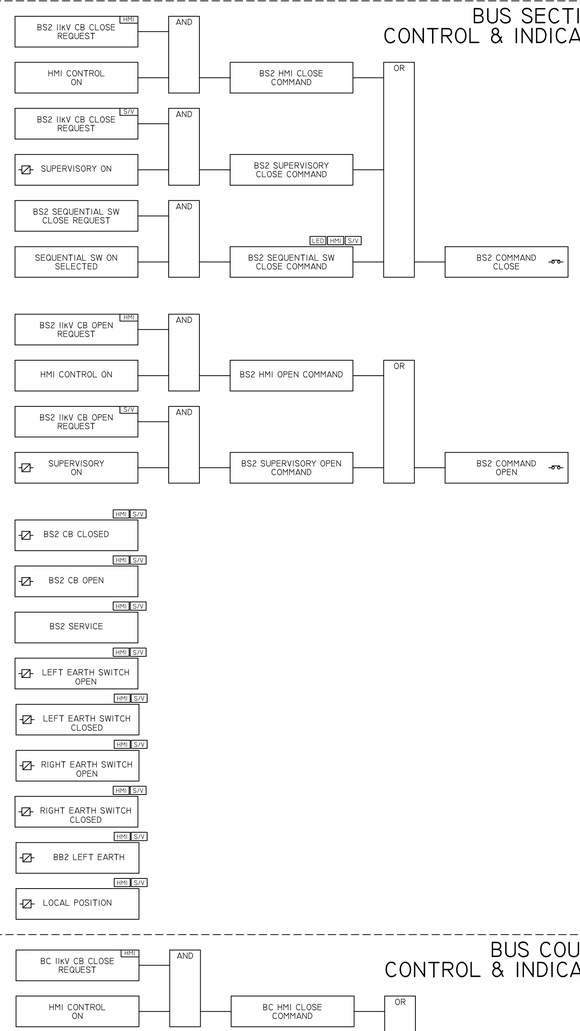
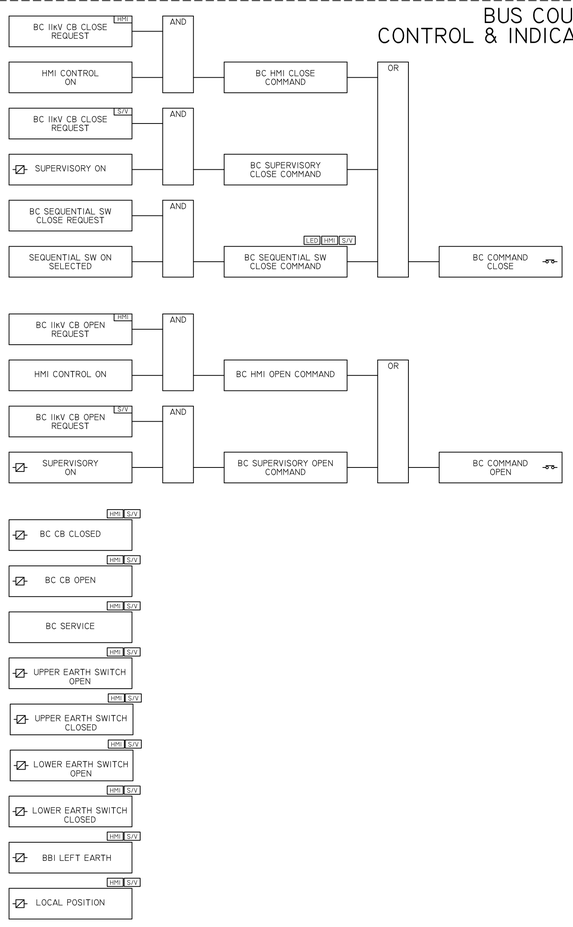
BUS SECTION 1 CONTROL & INDICATION



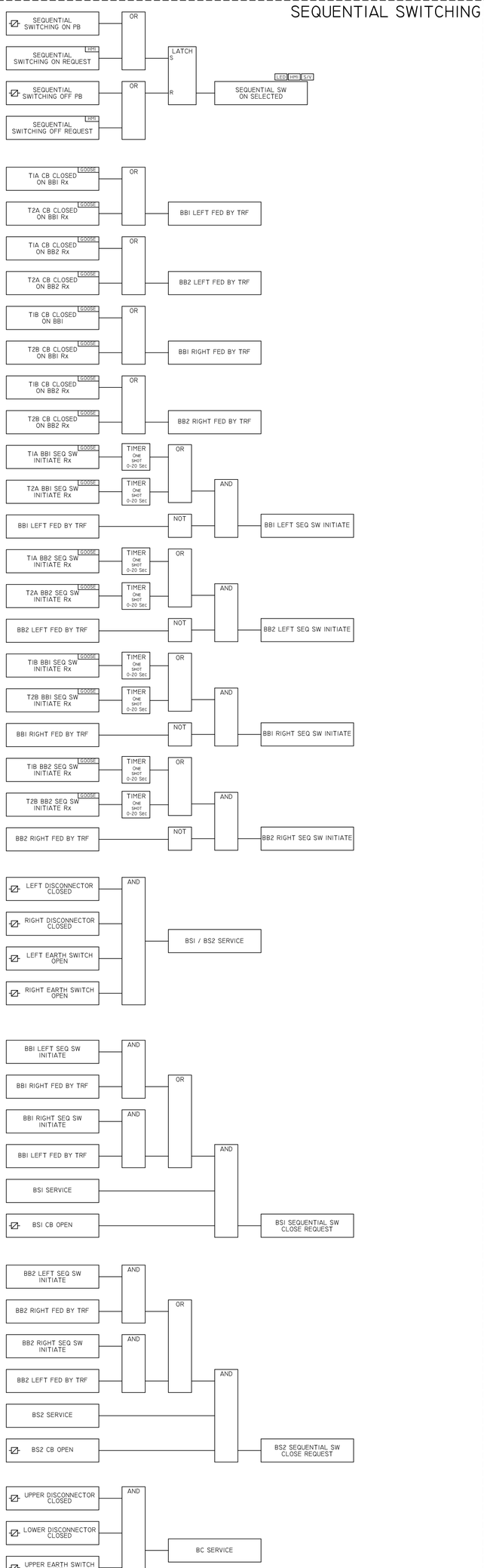
BUS SECTION 2 CONTROL & INDICATION



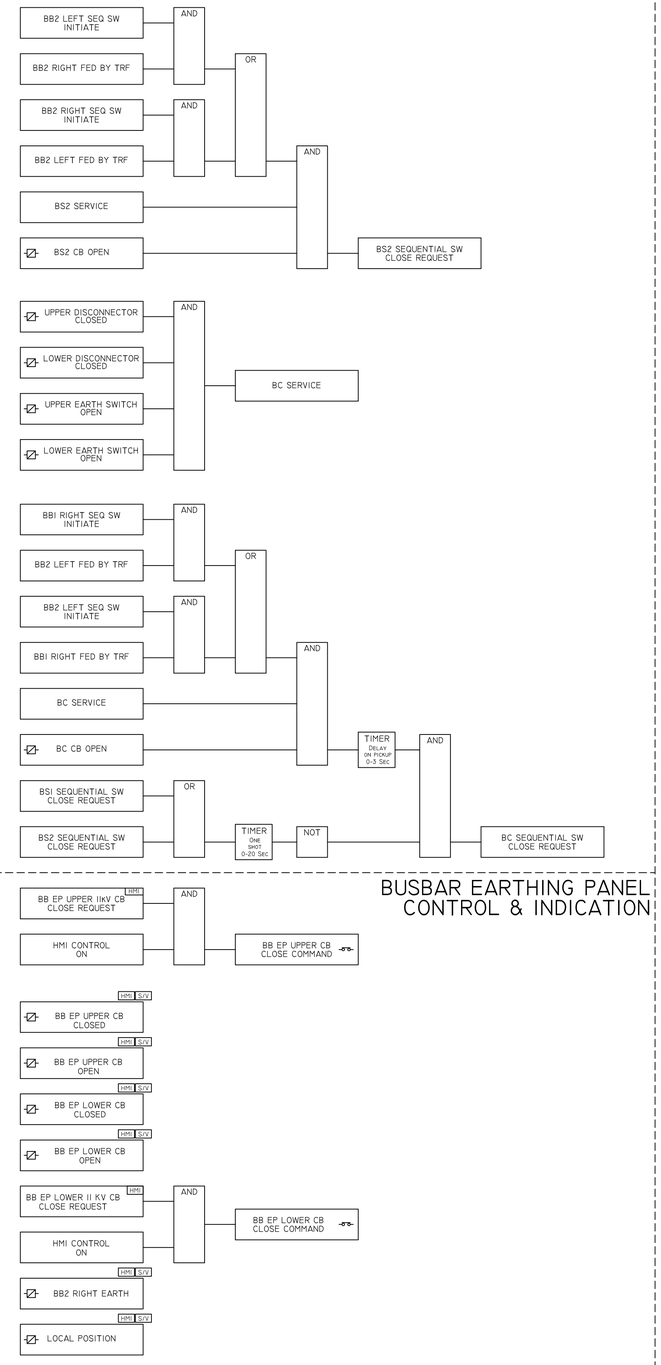
BUS COUPLER CONTROL & INDICATION



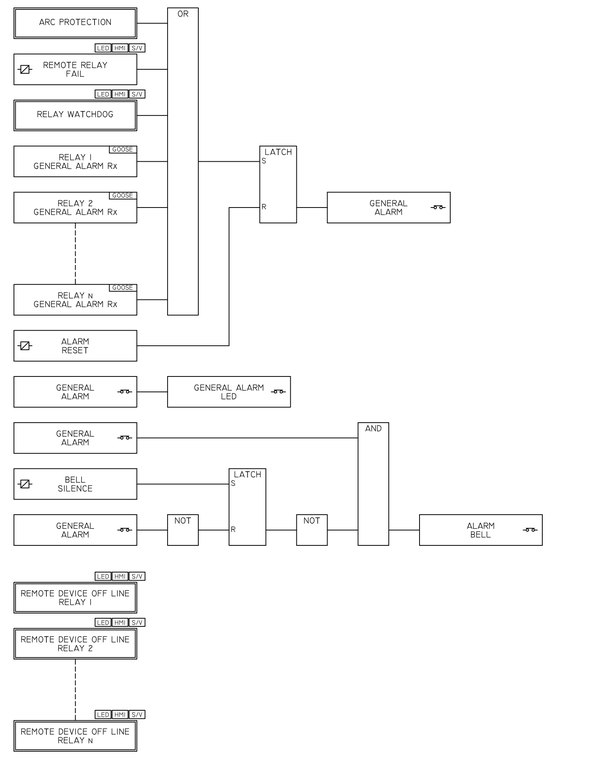
SEQUENTIAL SWITCHING



BUSBAR EARTHING PANEL CONTROL & INDICATION



GENERAL ALARMS



LEGEND

- DIGITAL VARIABLE
- INHERENT FUNCTION OF RELAY
- CONTACT OUTPUT STATE
- DIGITAL INPUT STATE
- TRIP CIRCUIT SUPERVISION
- S/V — DIGITAL VARIABLE CONTROLLED FROM SCADA GATEWAY
- HMI — DIGITAL VARIABLE CONTROLLED FROM HMI
- GOOSE — DIGITAL VARIABLE STATE TRANSMITTED/RECEIVED TO/FROM REMOTE RELAY
- LED — ASSOCIATED VARIABLE COPIED TO LATCHING LED ON FACE OF RELAY
- HMI — ASSOCIATED VARIABLE REPORTED TO HMI FOR MIMIC DISPLAY AND EVENT RECORD
- HMI-E — ASSOCIATED VARIABLE REPORTED TO HMI FOR EVENT RECORD ONLY
- S/V — ASSOCIATED VARIABLE COPIED TO SCADA GATEWAY
- WHERE INHERENT FUNCTIONIS IN NON IEC 61850 RELAY, VARIABLE IS TO BE WIRED TO AN INPUT ON OTHER RELAY

NOTE:
THE PURPOSE OF THIS DRAWING IS TO CLARIFY THE REQUIREMENTS OT THE ASSOCIATED CONTRACT ENQUIRY SPECIFICATION AND THE ISSUE OF THIS WITH THE SPECIFICATION DOES NOT ABSOLVE THE SUCCESSFUL CONTRACTOR FROM HIS NORMAL RESPONSIBILITY TO PROVIDE A SATISFACTORY SCHEME OR SUBMIT DRAWINGS OF SYSTEMS PROPOSED FOR APPROVAL BY THE ENGINEER.

DRAWN	J. LAWRENZ				
DATE	2015-09-11	1	B2 AND SEQUENTIAL SWITCHING AMENDED FOR FIXED PATTERN	ML	2015-09-11
CHIEF DRAUGHTSMAN		REFERENCE DRAWINGS:		REVISIONS: BY:	DATE:
PLANNING OFFICER					
PROTECTION ENGINEER					
PLAN/LANNING ENGINEER					
PROJECTS ENGINEER					
PLAN./PROJ. MANAGER					

ETHEKWINI ELECTRICITY

TYPICAL 132/11kV SUBSTATION

11kV BUS SECTION & BUS COUPLER PROTECTION & CONTROL LOGIC SCHEMATIC

APPROVED R.DHROCHAND DEPUTY HEAD: H.V. OPERATIONS	SCALE: N.T.S.	DRAWING NUMBER: TD 36	REV: 1