LEGEND

SEL	SCHWEITZER ENGINEERING LABORATORIES
SBEF	STANDBY EARTH FAULT
REF	RESTRICTED EARTH FAULT
J23	TEMPERATURE CONTROL
T99	MASTER TRIP 99
TTR	TRANSFER TRIP RECEIVE
J87	DIFFERENTIAL PROTECTION
J81O	OVERVOLTAGE
J81U	UNDERVOLTAGE
K80	BUCHOLZ TRIP
J87	DIRECTIONAL OVERCURRENT
J59	OVERVOLTAGE
J51V	VOLTAGE RESTRAINT TIME OVERCURRENT
J51/J51G	TIME OVERCURRENT AND RESIDUAL TIME OVERCURRENT
J50/J50G	OVERCURRENT AND RESIDUAL OVERCURRENT
K49	WTI/OTI TRIP
J32	REVERSE POWER
J25	SYNCHRONI– CHECK
J3	CIRCUIT BREAKER FAIL
P1	RELAY METERING
DESIGNATION	FUNCTION

BUSBAR
CT SECONDARY
VT SECONDARY
Bus Zone Trip
TRIP
CB Fail
Arc Sensor
Arc Sensor Unit in Cable Compartment

SEL LOCKOUT
INTERTRIP FROM 33KV
INTERTRIP TO 33KV
T1
33/11kV
Dyn1
INCOMER 1
REF CT CORE IS CONNECTED IN HV SIDE SEL387E
SBEF
1200/800/600:1A CLASS 0.1PX
1200/800/600:1A CLASS 5P10
1200/800/1A CLASS M
SEL351S–7
P1
J3
J87
J50/J50G
J51/J51G
SBEF
DIFF.PROTECTION (SEL 387E) HV SIDE
FREE ISSUE OF SEL 387E
3C40
3C41
3C42
NEMO
CBF_TRIP
BUS–2 VT
1100/√3:110/√3:110/3 CLASS 0.1
11kV BUS 2
BUS–2 VT
CBF–2 TRIP
BUS ZONE–2 TRIP
3J11
3J12
3J10
3G11
3G12
3G10
3E11
3E12
3E10
2000/1200:1A CLASS 0.1PX
2000/1200:1A CLASS 5P10
1200/800/50:1A CLASS 0.25 M
SBEF TRIP FROM T1
SEL LOCKOUT
SEL587Z
J87
J3
3A21
3A24
3A22
3A25
3A20
2000/1200:1A CLASS 0.1PX
2000/1200:1A CLASS 5P10
BLOCK
SBEF TRIP FROM T2
SANA SANA
SPARE
AUX TRANSFORMER
11kV/415V
VAMP 321
SENSOR INPUT
OUTPUT
T2
33/11kV
Dyn1
INCOMER 2
3B40
3B41
3B42
BUS–1 VT
11kV BUS 1
BUS–1 VT
CBF–1 TRIP
BUS ZONE–1 TRIP
3D11
3D12
3D10
3F11
3F12
3F10
3H11
3H12
3H10
1200/600/400:1A CLASS 0.25 M
2000/1200:1A CLASS 0.1PX
2000/1200:1A CLASS 5P10
1200/800/50:1A CLASS 0.25 M
SPARE
NATADOLA
INTERCONTINENTAL HOTEL

							DRAWN	H.CHAN	7/02/17
							CHECKED	R.NARAYAN	7/02/17
							CHIEF DRAUGHTSMAN		
							ENGINEER		
							HOD	R.NARAYAN	7/02/17
0	DRAWN IN AUTOCAD			SM	SM	RN			
No.	REVISION	DATE	BY	CHK	PSD	APP			

FIJI ELECTRICITY AUTHORITY

NATADOLA SUBSTATION
SINGLE LINE DIAGRAM – 11kV PROTECTION SCHEME

DRAWING NUMBER				REVISION
A3	XX	E10	XXX	A

SCALE	CAD FILENAME
N.T.S	–

* DRAWING NUMBERS HAVE BEEN ASSIGNED FOR DESIGN AND CONSTRUCTION PURPOSES ONLY AND ARE SPECIFIC TO THIS PROJECT. UPON COMPLETION OF CONSTRUCTION, ASBUILT DRAWING NUMBERS SHALL BE ASSIGNED IN COORDINATION WITH THE EXISTING DRAWINGS FOR THIS FACILITY, AS PER FEA's DOCUMENTATION STANDARDS & ARCHIVING PROTOCOLS.