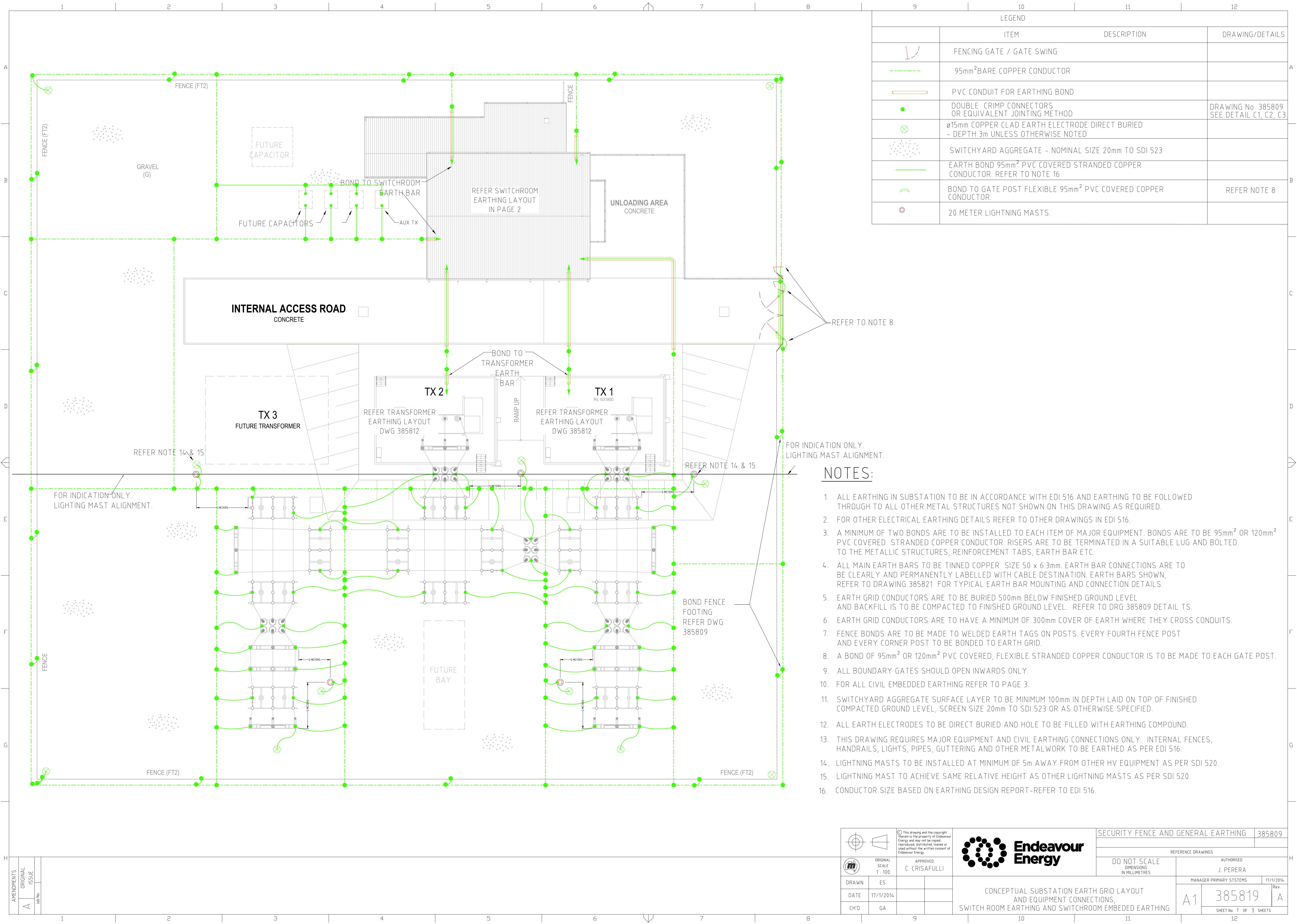




LEGEND		
	ITEM	DESCRIPTION
	FENCING GATE / GATE SWING	
	95mm² BARE COPPER CONDUCTOR	
	PVC CONDUIT FOR EARTHING BOND	
	DOUBLE CRIMP CONNECTORS OR EQUIVALENT JOINTING METHOD	DRAWING No. 385809 SEE DETAIL C1, C2, C3
	Ø15mm COPPER CLAD EARTH ELECTRODE DIRECT BURIED - DEPTH 3m UNLESS OTHERWISE NOTED	
	SWITCHYARD AGGREGATE - NOMINAL SIZE 20mm TO SDI 523	
	EARTH BOND 95mm² PVC COVERED STRANDED COPPER CONDUCTOR. REFER TO NOTE 16	
	BOND TO GATE POST FLEXIBLE 95mm² PVC COVERED COPPER CONDUCTOR.	REFER NOTE 8
	20 METER LIGHTNING MASTS.	

NOTES:

- ALL EARTHING IN SUBSTATION TO BE IN ACCORDANCE WITH EDI 516 AND EARTHING TO BE FOLLOWED THROUGH TO ALL OTHER METAL STRUCTURES NOT SHOWN ON THIS DRAWING AS REQUIRED.
- FOR OTHER ELECTRICAL EARTHING DETAILS REFER TO OTHER DRAWINGS IN EDI 516.
- A MINIMUM OF TWO BONDS ARE TO BE INSTALLED TO EACH ITEM OF MAJOR EQUIPMENT. BONDS ARE TO BE 95mm² OR 120mm² PVC COVERED STRANDED COPPER CONDUCTOR. RISERS ARE TO BE TERMINATED IN A SUITABLE LUG AND BOLTED TO THE METALLIC STRUCTURES, REINFORCEMENT TABS, EARTH BAR ETC.
- ALL MAIN EARTH BARS TO BE TINNED COPPER SIZE 50 x 6.3mm. EARTH BAR CONNECTIONS ARE TO BE CLEARLY AND PERMANENTLY LABELLED WITH CABLE DESTINATION. EARTH BARS SHOWN, REFER TO DRAWING 385821 FOR TYPICAL EARTH BAR MOUNTING AND CONNECTION DETAILS.
- EARTH GRID CONDUCTORS ARE TO BE BURIED 500mm BELOW FINISHED GROUND LEVEL AND BACKFILL IS TO BE COMPACTED TO FINISHED GROUND LEVEL. REFER TO DRG 385809 DETAIL TS.
- EARTH GRID CONDUCTORS ARE TO HAVE A MINIMUM OF 300mm COVER OF EARTH WHERE THEY CROSS CONDUITS.
- FENCE BONDS ARE TO BE MADE TO WELDED EARTH TAGS ON POSTS. EVERY FOURTH FENCE POST AND EVERY CORNER POST TO BE BONDED TO EARTH GRID.
- A BOND OF 95mm² OR 120mm² PVC COVERED, FLEXIBLE STRANDED COPPER CONDUCTOR IS TO BE MADE TO EACH GATE POST.
- ALL BOUNDARY GATES SHOULD OPEN INWARDS ONLY.
- FOR ALL CIVIL EMBEDDED EARTHING REFER TO PAGE 3.
- SWITCHYARD AGGREGATE SURFACE LAYER TO BE MINIMUM 100mm IN DEPTH LAID ON TOP OF FINISHED COMPACTED GROUND LEVEL, SCREEN SIZE 20mm TO SDI 523 OR AS OTHERWISE SPECIFIED.
- ALL EARTH ELECTRODES TO BE DIRECT BURIED AND HOLE TO BE FILLED WITH EARTHING COMPOUND.
- THIS DRAWING REQUIRES MAJOR EQUIPMENT AND CIVIL EARTHING CONNECTIONS ONLY. INTERNAL FENCES, HANDRAILS, LIGHTS, PIPES, GUTTERING AND OTHER METALWORK TO BE EARTHED AS PER EDI 516.
- LIGHTNING MASTS TO BE INSTALLED AT MINIMUM OF 5m AWAY FROM OTHER HV EQUIPMENT AS PER SDI 520.
- LIGHTNING MAST TO ACHIEVE SAME RELATIVE HEIGHT AS OTHER LIGHTNING MASTS AS PER SDI 520.
- CONDUCTOR SIZE BASED ON EARTHING DESIGN REPORT-REFER TO EDI 516.

AMENDMENTS

ORIGINAL	ISSUE
A	

DRAWN	ES
DATE	17/11/2014
CH'D	GA

APPROVED	C. CRISAFULLI
----------	---------------

SECURITY FENCE AND GENERAL EARTHING		385809
REFERENCE DRAWINGS		
DO NOT SCALE DIMENSIONS IN MILLIMETRES	AUTHORISED J. PERERA	
MANAGER PRIMARY SYSTEMS		17/11/2014
A1	385819	Rev A
SHEET No 1 OF 3 SHEETS		

CONCEPTUAL SUBSTATION EARTH GRID LAYOUT AND EQUIPMENT CONNECTIONS. SWITCH ROOM EARTHING AND SWITCHROOM EMBEDDED EARTHING