CONSTRUCTION NOTES:
1. This drawing is to be read in conjunction with specific Substation General Arrangement Drawing.
3. Footings to be formed in sound material with minimum safe bearing capacity > 100 kPa.

CONDUITS, OF REINFORCED:
1. All conduits to be (40mm) diameter PVC electrical in accordance with AS 2058.
2. Unless otherwise specified all conduits to be filled with one (1) 0.15mm diameter strands of steel.
3. All conduits to be sealed/fitted with caps before concrete pours.
4. All conduits to have 50mm max projection above flange of concrete.
5. All conduits to be centred at 75mm centres.
6. Conduit to be exposed as shown on footing layout drawing
7. Conduit will be rammed on opposite side of footing if site layout requires.

CONCRETE:
1. Supply & lay concrete in accordance with AS 3600.
2. Supply & lay uniform binder in accordance with AS 2305 to continuously underlay the footing.
3. Footings to be cast without construction joints unless otherwise indicated.
4. Concrete strength to be at least M20.
5. Finish all exposed edges 20 x 2mm.
6. Concrete finishing in accordance with AS 3600, exposed concrete surfaces to be Class 3 (Toluene Free Surfaces & Imperfections).
7. Exposed concrete surfaces to be cured in accordance with AS 3600.
8. Supply & lay reinforcement in accordance with AS 3600.
9. Maintain 28 days concrete 28 days to reinforcement.
10. Maintain 30 days concrete 30 days to reinforcement.
11. Footing supported by 300mm 2/3 or 5/3 shaped steel cages.
12. Provide laser beam finish to footings.

N.D. BOLTS:
1. Hit of guarantee all bolts to AS 1214 and bolt cages to AS 4088, assemble after gaundering.
2. Bolt projection above flange of concrete to be 12mm.
3. Bolt shear to be confirmed with an approved three fixing frictional grip bolt to be used & nuts fitted after clamping.

ERGON ENERGY SUBSTATION STANDARD
CIVIL WORKS - FOOTINGS
66kV ISOLATOR/EARTH SWITCH SUPPORT PLANS, SECTIONS AND DETAILS

REVISION CONTROL
ORIGINAL DOCUMENTATION TAKEN FROM SHEET 1016537-04.
ORIGINAL CERTIFICATION ISSUED FOR SHEET 1016537-04.
CHANGED FOR CHANGES CLOUDED 2010/032/T.
01/06/2012 A.BRIAN CONTRACT NUMBER
MINOR DRAFTING REFERENCES AMENDED.
AUSTRALIAN STANDARDS 10-07-2012 R.LAWRENCE AMMENDMENTS.
CONSTRUCTION NOTES:
1. THE DRAWING IS TO BE READ IN CONJUNCTION WITH SPECIFIC SUBSTATION SITE GENERAL MANAGEMENT DRAWINGS.
2. FAS DRAWINGS IN CONJUNCTION WITH SPECIFIC CIVIL WORKS SPECIFICATION, TENDER INFORMATION FOR CONCRETE AND STANDARD SPECIFICATION FOR EXCAVATION.
3. FOOTINGS TO BE FOUND IN SOIL MATERIAL WITH MINIMUM SHEARING RESISTANCE = 120kPa.

CONTRACTS (IF APPLICABLE)
2. UNLESS OTHERWISE SPECIFIED ALL CONCRETE TO BE FLOWED WITH ONE (1) 32MM DIAMETER SMOOTH ROD.
3. ALL CONCRETE TO BE CAST/WETTED WITH OATS BEFORE CONCRETE POURED.
4. ALL CONCRETE TO MAKE 28-DAY PRODUCTION AND PILE FIG OF CONCRETE CURED.
5. ALL HOLES ARE CONCRETE HOLES TO BE 500MM WIDE.
6. CONCRETE TO BE LOADED AS DETERMINED ON FOUNDATION DRAWING.
7. CONCRETE MAY BE MIXED ON OFFICE SIDE OF FOOTING IF SITE LF AS REQUIRED.

CONCRETE:
2. SUPPLY & LAY SMOOTH RODS IN ACCORDANCE WITH AS 3075-1986 TO CONTINUE THROUGHOUT THE FOOTING.
3. FOOTINGS TO BE CAST WITHOUT CONSTRUCTION JOINTS UNLESS OTHERWISE INSTRUCTED.
4. CONCRETE CURED TO 28-DAY.
5. CLEAR ALL EXPOSED EDGES 50 X 100MM.
6. CONCRETE FABRICATION IN ACCORDANCE WITH AS 3600-2012, EXPOSED CONCRETE SURFACES TO BE FINISHED, SMOOTH & FREE OF TEMPLATES & MACHINES.
7. EXPOSED CONCRETE SURFACES TO BE CURVED IN ACCORDANCE WITH AS 3305-2001.
9. ROUND SHAPED CONCRETE COVER TO REINFORCEMENT.
10. WIND LOADS CONCRETE COVER TO REINFORCEMENT AT PROJECTION OF CONCRETE ABOVE FIG. OF CONCRETE.
11. CONCRETE SUPPORTED BY 150MM DEEP TAG-ON TAPS.
12. PROVIDE EARLDON FLOOR ALLOY TO FOOTINGS.

H.D. BOLTS:
1. BOLT OF 16MM ALL BOLTS TO AS 2141-183 AND BOLT GADES TO AS 4091-2006.
2. BOLT PROJECT ABOVE FIG. OF CONCRETE TO BE 125MM.
3. BOLT THREADING TO BE CONFORMED WITH AN APPROVED TYPE OF BOLT THREADING.

PLAN VIEW
DETAIL '1'. SCALE 1:100
NOTE: EXTRUDED FULL HEIGHT OF POCKET.
CONSTRUCTION NOTES

1. DRAWING IN CONJUNCTION WITH SPECIFIC CIVIL WORKS SPECIFICATION, STANDARD SPECIFICATION FOR CONCRETE AND STANDARD SPECIFICATION FOR EXCAVATION.

2. FOUNDATION HAS BEEN DESIGNED FOR FOUNDATION MATERIAL TO HAVE AN AVERAGE BASE BEARING CAPACITY OF 200MPA, ASSUMPTION TO BE CONFIRMED WITH A GEOTECHNICAL INVESTIGATION PRIOR TO CONSTRUCTION.

CONDUITS

2. ALL CONDUITS TO BE FITTED WITH ONE 16MM DIAMETER SYNTHETIC DRAW HOOK.
3. ALL CONDUITS TO BE SEALED/FITTED WITH CAPS BEFORE CONCRETE POUR.
4. ALL CONDUITS TO HAVE 50MM MIN. PROJECTION ABOVE PSL OF CONCRETE.
5. ALL RADIUS OF CORE HOLE TO BE 500MM MIN. FORlag = 5000MM MIN. UNLESS OTHERWISE INDICATED.

CONCRETE

2. ALL FOUNDATIONS TO BE CAST AGAINST PARENT MATERIAL U/LD. FOUNDATIONS TO BE CAST WITHOUT CONSTRUCTION JOINTS UNLESS OTHERWISE INDICATED.
3. CONCRETE STRENGTH TO NO.3 MIN.
4. ARIES ALL EXPOSED EDGES 20 X 20MM.
5. CONCRETE CORE WORK IN ACCORDANCE WITH AS 3600-2001. EXPOSED CONCRETE SURFACES TO BE CLASS 1 PLAIN & FREE OF BLEMISHES & IMPERFECTIONS.
8. MAINTAIN 75MM CONCRETE COVER TO REINFORCEMENT AT PROJECTION OF CONDUIT ABOVE PSL OF CONCRETE.

M.D. BOLTS

1. H/D. BOLTS TO BE HOT DIP GALVANISED ALL BOLTS TO AS 1241-983 AND BOLT TAKES TO AS 4440-799.
2. BOLT PROJECTION ABOVE PSL OF CONCRETE TO BE 150MM.
3. BOLT THREAD TO BE COVERED WITH AN APPROVED TAPE BEFORE PLACEMENT OF CONCRETE.
4. SUPPLY EACH MD. BOLT WITH 3 x NUTS & 2 x WASHERS GALVANISED IN ACCORDANCE WITH AS 1241-983.

FOOTING.

1. CAST HEAD SQUARE TO 100MM BELOW GROUND.
2. 500 X 500 MM SQUARE CONCRETE FOOTING TO BE POLISHED TO 100MM CRUSHED ROCK WILL PROVIDE PLAN VIEW.}

PLAN VIEW.

1. NO. 6/6 M.D. GALV. BOLTS, 900MM LONG, WITH HEAD SQUARE EMBEDMENT 875MM.
2. PROVIDE 2 X SQUARE WASHER WITH NUT FOR EVERY BOLT, PROVIDE 8 X SQUARE WASHER WITH NUT FOR EVERY BOLT, PROVIDE 12 X SQUARE WASHER WITH NUT FOR EVERY BOLT.
3. REFLECTORS TO BE EMBEDDED CONCRETE LEVEL.
4. PROVIDE 3 X SQUARE WASHER WITH NUT FOR EVERY BOLT, PROVIDE 6 X SQUARE WASHER WITH NUT FOR EVERY BOLT, PROVIDE 9 X SQUARE WASHER WITH NUT FOR EVERY BOLT.
5. PROVIDE 1 X SQUARE WASHER WITH NUT FOR EVERY BOLT, PROVIDE 2 X SQUARE WASHER WITH NUT FOR EVERY BOLT, PROVIDE 3 X SQUARE WASHER WITH NUT FOR EVERY BOLT.
6. PROVIDE 4 X SQUARE WASHER WITH NUT FOR EVERY BOLT, PROVIDE 8 X SQUARE WASHER WITH NUT FOR EVERY BOLT, PROVIDE 12 X SQUARE WASHER WITH NUT FOR EVERY BOLT.

REINFORCED CONCRETE PIER.

1. REINFORCED CONCRETE PIER TO BE 500PCD. casting head square to 100mm below ground.
2. PROVIDE 75MM SQUARE WASHER WITH NUT FOR EVERY BOLT, PROVIDE 150MM SQUARE WASHER WITH NUT FOR EVERY BOLT, PROVIDE 225MM SQUARE WASHER WITH NUT FOR EVERY BOLT.
3. PROVIDE 375MM SQUARE WASHER WITH NUT FOR EVERY BOLT, PROVIDE 750MM SQUARE WASHER WITH NUT FOR EVERY BOLT, PROVIDE 1250MM SQUARE WASHER WITH NUT FOR EVERY BOLT.
4. PROVIDE 2250MM SQUARE WASHER WITH NUT FOR EVERY BOLT, PROVIDE 4500MM SQUARE WASHER WITH NUT FOR EVERY BOLT, PROVIDE 7500MM SQUARE WASHER WITH NUT FOR EVERY BOLT.
5. PROVIDE 15000MM SQUARE WASHER WITH NUT FOR EVERY BOLT, PROVIDE 30000MM SQUARE WASHER WITH NUT FOR EVERY BOLT, PROVIDE 50000MM SQUARE WASHER WITH NUT FOR EVERY BOLT.

FOOTING. PLAN VIEW.

1. 8/8 M.D. GALV. BOLTS, 900MM LONG, WITH HEAD SQUARE EMBEDMENT 875MM.
2. PROVIDE 2 X SQUARE WASHER WITH NUT FOR EVERY BOLT, PROVIDE 8 X SQUARE WASHER WITH NUT FOR EVERY BOLT, PROVIDE 12 X SQUARE WASHER WITH NUT FOR EVERY BOLT.
3. REFLECTORS TO BE EMBEDDED CONCRETE LEVEL.
4. PROVIDE 3 X SQUARE WASHER WITH NUT FOR EVERY BOLT, PROVIDE 6 X SQUARE WASHER WITH NUT FOR EVERY BOLT, PROVIDE 9 X SQUARE WASHER WITH NUT FOR EVERY BOLT.
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FOOTING. PLAN VIEW.

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