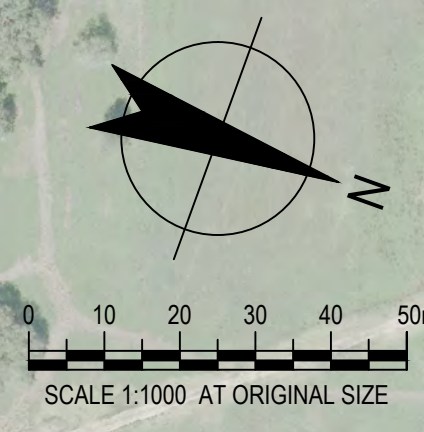


NOVEMBER 2012



SOUTHERN COMPOUND AREA

LOCO MAINTENANCE FACILITY REMOVED

ROAD TURN-AROUND RELOCATED

FUEL FARM RELOCATED

NORTHERN COMPOUND AREA

APRIL 2013

POTENTIAL ACID SULFATE SOILS TREATMENT & STORAGE AREA

TEMPORARY SOIL CONDITIONING PLANT AREA

POTENTIAL ACID SULFATE SOILS STORAGE AREA

ROAD TURN-AROUND RELOCATED

ACCESS ROAD PUSHED WEST

SHUNT NECK RELOCATED

FUEL FARM RELOCATED & CAPACITY INCREASED TO 600kL

TEMPORARY STOCKPILE COMPOUND & BATCH PLANT WITH CONVEYOR & WEIGH BIN

ACCESS ROAD ALTERED

TRACK ALTERED

TRACK ALTERED

ACCESS ROAD ALTERED

WAGON MAINTENANCE BUILDINGS ALTERED

NOTE: EARTHWORKS AND DRAINAGE ITEMS HAVE BEEN EXCLUDED FROM THIS DRAWING FOR CLARITY.

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ISSUE	17/04/2013	Original Issue
DATE		DESCRIPTION (Issue or Revision)
NSW LONG TERM TRAIN SUPPORT FACILITY HEXHAM NSW COMPARISON OF NSW LTTSF DESIGNS NOVEMBER 2012 TO APRIL 2013		
DRG No.	SKETCH 82	Sheet
Rev	A	1
Scale	NTS	Sheet No.
		A1



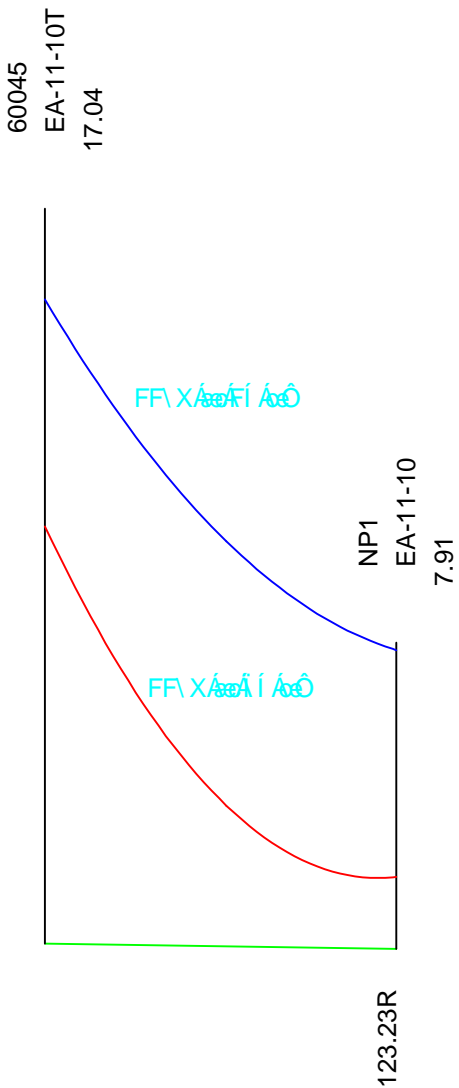
CHECK FOR OTHER SERVICES BEFORE BORING OR EXCAVATING

OVERHEAD CONSTRUCTION WORKS SCHEDULE (LIVEWIRE OVERHEAD DESIGN SOFTWARE)									
REF. IDENTIFIER	POLE NUMBER	SIZE (m)	STRENGTH (kN)	POLE TYPE TIMBER/CONC	DEPTH (m)	FOOTING DETAILS	HV CONSTRUCTION CONST TYPE	ATTACHED (m) FROM HEAD OF POLE	ADDITIONAL CONSTRUCTION DETAIL
-	JS-40045	23m	12kN	TIMBER	3.56m	NATURAL	2-10	2.4m	TERMINATE NEW MERCURY (7/4.50 AAC) 11kV LINE.
NP1	-	11m	12kN	TIMBER	2.89m	NATURAL	2-10	0.2m	INSTALL NEW POLE AS SHOWN. TERMINATE NEW MERCURY (7/4.50 AAC) 11kV LINE FROM JS-40045. INSTALL NEW 3PH 200kVA POLE MOUNTED SUBSTATION AS DETAILED IN ASSOCIATED POLE SUBSTATION DETAILS TABLE

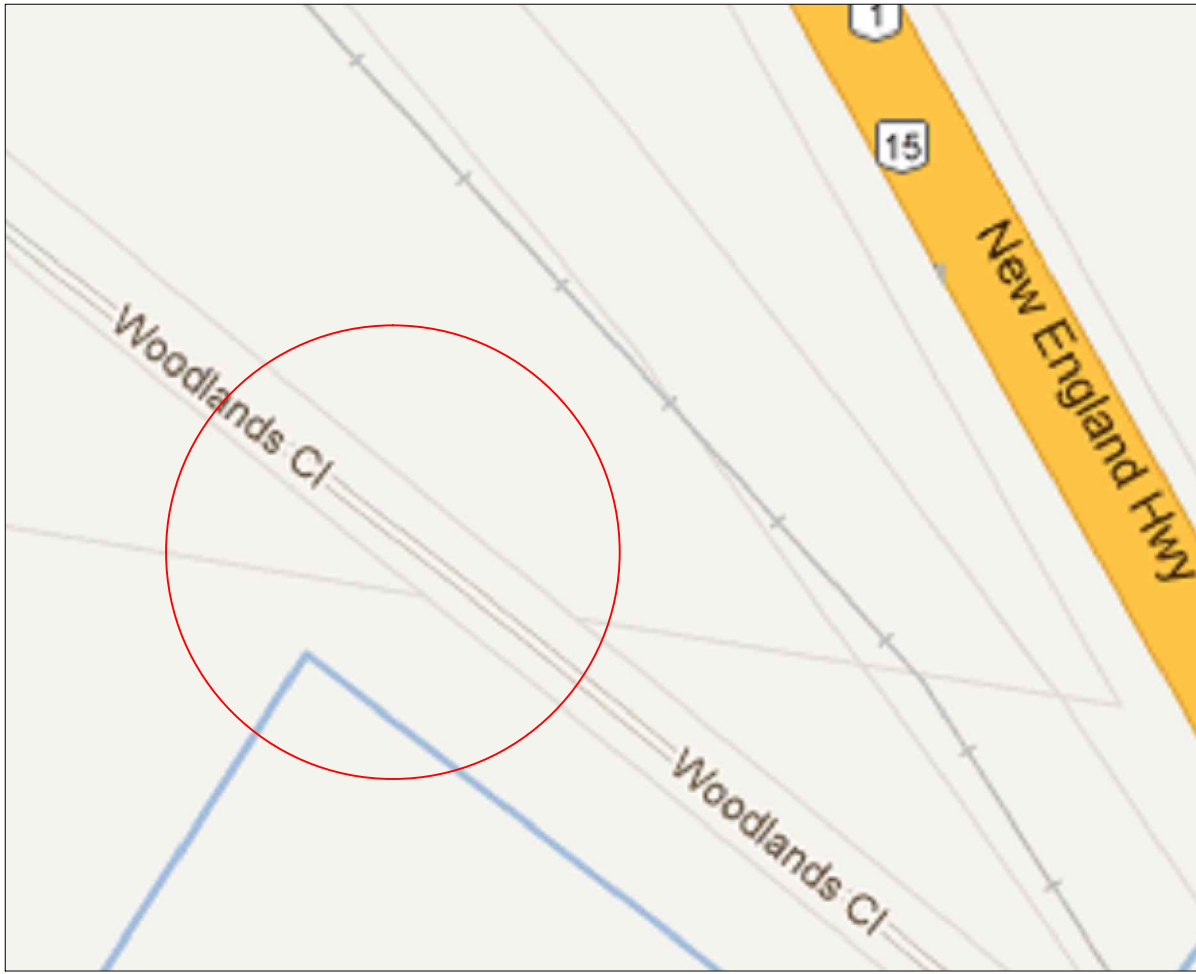
OVERHEAD MAINS CONDUCTOR DETAIL				
REF. IDENTIFIER	CIRCUIT VOLTAGE	No. OF CABLES	CONDUCTOR TYPE	DEAD END SECTION LENGTH (m)
JS-40045 TO NP1	11kV	3	MERCURY 7/4.50 AAC	93

VOLTS:11KV CONDUCTOR:MERCURY TENSION(%): 12 EQUIV. SPAN(m): 92.9 SPAN(m):92.9 (60045 TO NP1)

AMBIENT TEMPERATURE (Deg C)	0	5	10	15	20	25	30	35	40
SAG (m)	1.30	1.41	1.51	1.61	1.71	1.80	1.89	1.98	2.07
TIME FOR 3 RETURN WAVES (Secs)	6.19	6.43	6.66	6.88	7.09	7.28	7.46	7.63	7.80
TENSION (kN)	2.49	2.31	2.15	2.02	1.90	1.80	1.72	1.64	1.57

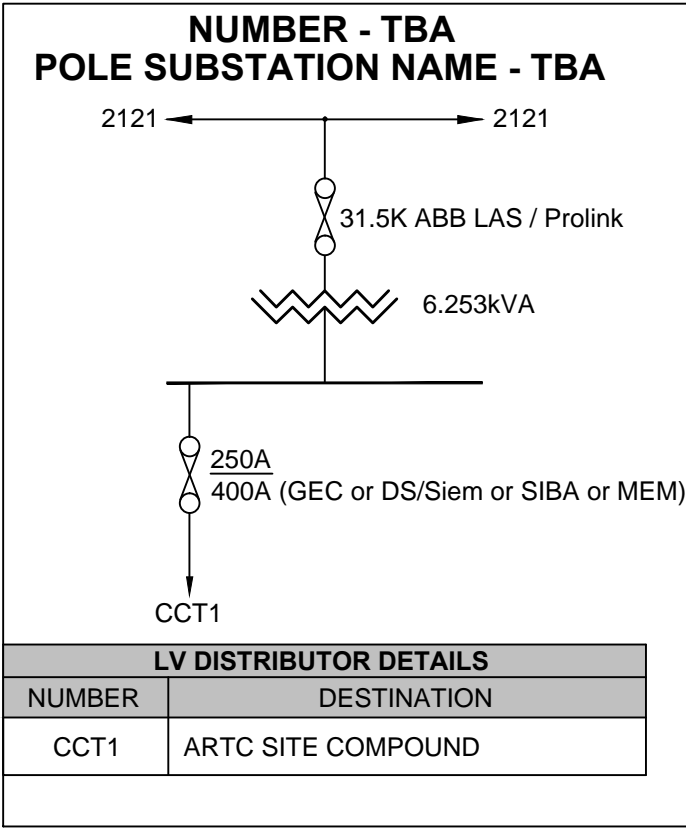


CHAINAGE (m)	0.0	92.9
SPAN (m)		92.9
GROUND CLEARANCE (m)	7.87	
DESIGN CLEARANCE (m)	6.00	



LOCALITY PLAN N.T.S

POLE SUBSTATION DETAILS	
SUBSTATION NAME:	TBA
SUBSTATION NUMBER:	TBA
ADDRESS:	ARTC SITE COMPOUND - WOODLANDS CLOSE
SIZE (kVA):	200kVA
VECTOR GROUP (if 3 phase):	Dyn 11
TAP SETTING:	11000/415
HV FUSE DETAILS:	3Ph 200VA Tx - HV DROPOUT FUSE ELEMENT: 31.5K ABB LAS / PROLINK
LOAD CYCLE:	A: COMMERCIAL / INDUSTRIAL
PHASING DETAIL:	3 PHASE
LV FUSE SIZE:	400amp (GEC or DS/Siem or SIBA or MEM)
MASTER OPTIONS LIST:	1A, 2A, 3A, 4A, 5A, 6A, 7A, 8B, 9A, 10A, 12A, 13A (REFER TO NS122), 14A, 15A
MDI CT RATIO:	11000/433



LV DISTRIBUTOR DETAILS	
NUMBER	DESTINATION
CCT1	ARTC SITE COMPOUND

WARNING

- THIS DESIGN CANNOT BE USED FOR CONSTRUCTION PURPOSES UNTIL THE LOCATION OF ALL EXISTING SERVICES IS VERIFIED.
- THE INFORMATION PROVIDED IN THIS DESIGN MUST BE CHECKED ON SITE AND THE MOST CURRENT INFORMATION ON THE CONFIGURATION OF ALL SERVICES, INCLUDING AUSGRID'S NETWORK, MUST BE VERIFIED IMMEDIATELY BEFORE CONSTRUCTION COMMENCES BY CONTACTING DIAL-BEFORE-YOU-DIG BY TELEPHONE ON 1100 OR AT [www.1100.com.au](http://www.1100.com.au).
- DIAL-BEFORE-YOU-DIG INFORMATION MUST NOT BE OLDER THAN 20 BUSINESS DAYS AT THE TIME OF CONSTRUCTION.

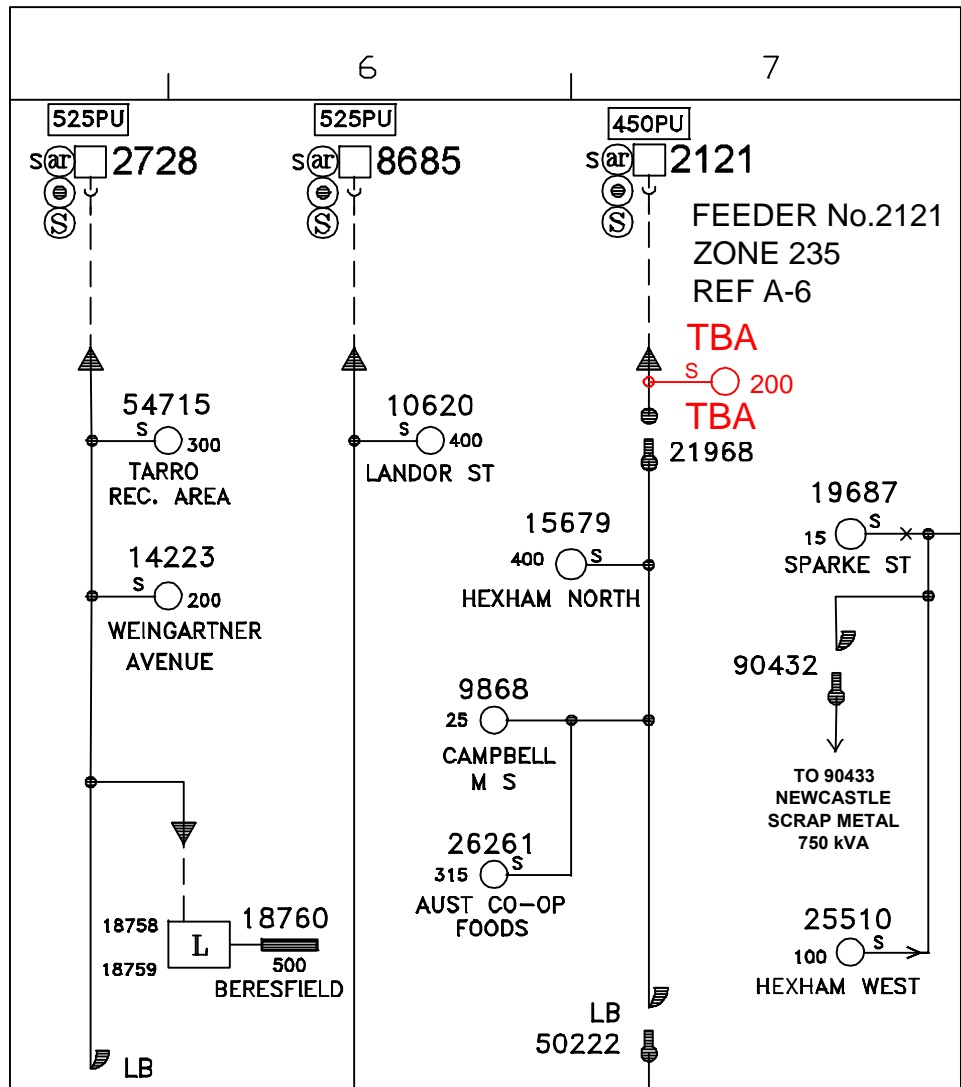
ASP LEVEL 2 WORK

ALL LEVEL 2 ASP WORK DEPICTED ON THIS DRAWING IS SHOWN FOR INFORMATION PURPOSES ONLY AND DOES NOT FORM PART OF THE CERTIFIED DESIGN.

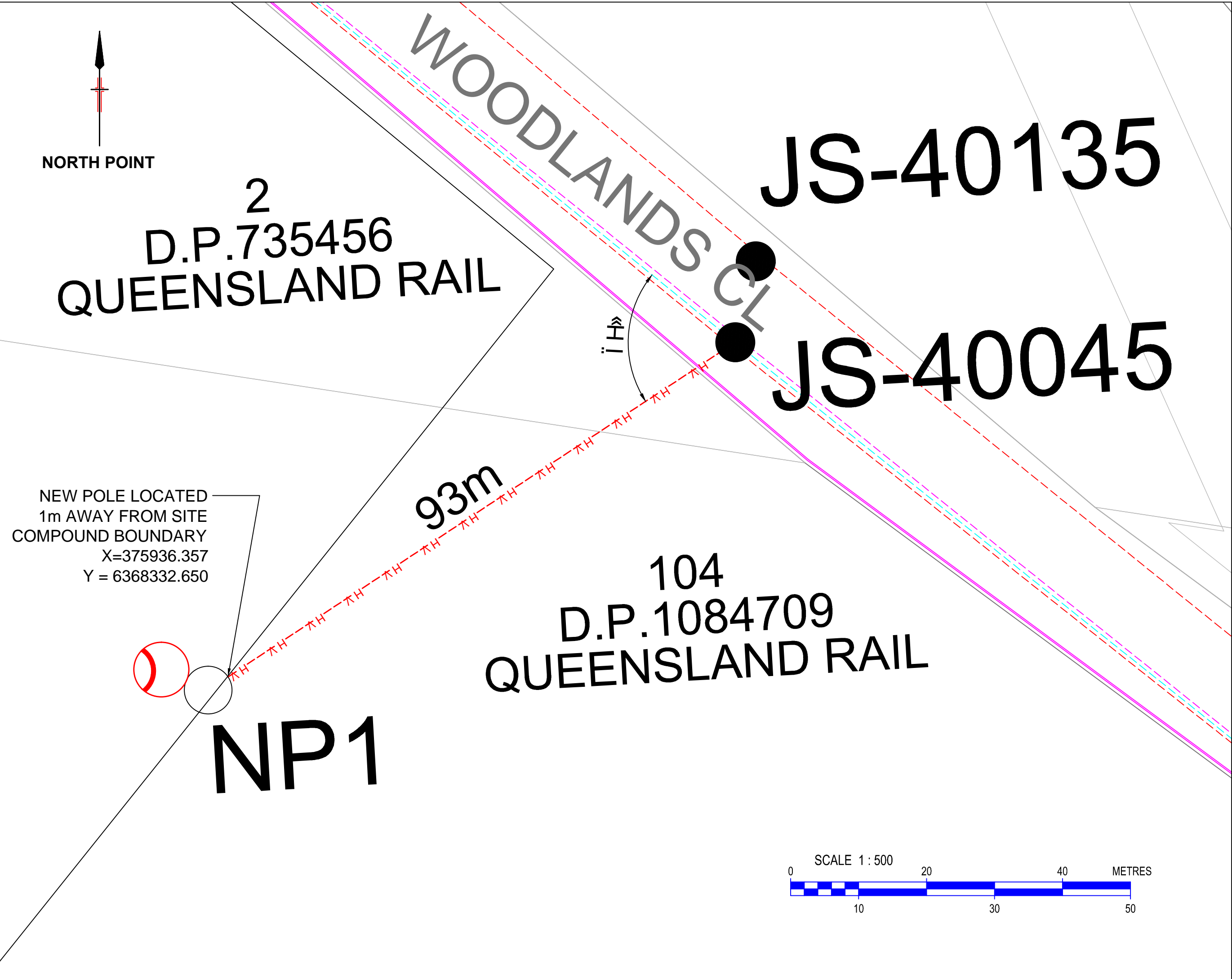
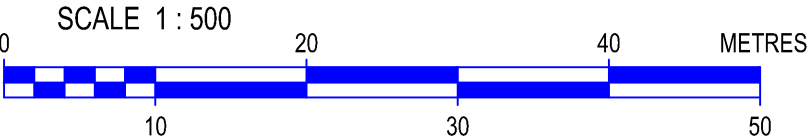
NOTES

- CLAIMS FOR VARIATIONS TO THE COST OF NON-CONTESTABLE WORKS, INCLUDING ROCK EXCAVATION, WILL NOT BE ACCEPTED UNLESS VERIFIED ON SITE BY AUSGRID WHILE THE WORKS ARE IN PROGRESS.
- THE ASP/1 IS RESPONSIBLE FOR UNDERTAKING SATISFACTORY CONSULTATION WITH ALL LOCAL CUSTOMERS WHO MAY POTENTIALLY BE AFFECTED BY THE CONSTRUCTION WORKS INCLUDING ALL ALTERATIONS TO SERVICE MAINS.
- THE ASP/1 MUST MINIMISE THE IMPACT OF THE WORKS ON THE ELECTRICITY SUPPLY TO CUSTOMERS AND INTERRUPTIONS TO SUPPLY MUST BE AVOIDED, WHERE POSSIBLE. UNLESS THE ASP/1 CAN PROVIDE AUSGRID WITH WRITTEN AGREEMENT FROM THE AFFECTED CUSTOMER(S), THEN AUSGRID MAY REQUIRE THE ASP/1 TO PROVIDE A GENERATOR(S) IN ORDER TO MAINTAIN SUPPLY TO CUSTOMERS BEING INTERRUPTED. WHERE INTERRUPTIONS ARE PERMITTED, AT LEAST TWO (2) WORKING DAYS NOTICE MUST BE PROVIDED TO ALL AFFECTED CUSTOMERS PRIOR TO ANY PLANNED INTERRUPTIONS TO THE ELECTRICITY SUPPLY. NOTICE MUST BE IN WRITING IN ACCORDANCE WITH CLAUSE 12 OF THE AUSGRID STANDARD FORM CUSTOMER CONNECTION CONTRACT.
- SPECIFIC PRIOR APPROVAL MUST BE SOUGHT FROM AUSGRID FOR ANY PLANNED ELECTRICITY SUPPLY INTERRUPTIONS WHERE THE PLANNED INTERRUPTION WILL EXCEED ONE (1) HOUR IN DURATION OR THE DURATION WILL BE LESS THAN ONE HOUR, BUT A SUITABLE TIME FOR THE INTERRUPTION CANNOT BE MUTUALLY AGREED TO WITH THE AFFECTED CUSTOMER(S).
- THE ASP/1 IS TO MAINTAIN ADEQUATE PUBLIC LIGHTING LEVELS FOR THE DURATION OF THE WORKS. IF NECESSARY, THE ASP/1 IS TO ARRANGE FOR SUITABLE TEMPORARY STREET LIGHTING TO BE PROVIDED UNTIL PERMANENT LIGHTING IS RE-ESTABLISHED.
- THE ASP/1 IS TO CO-ORDINATE THE COLLECTION, MODIFICATION AND TESTING OF THE REQUIRED CDG RELAY WITH THE AUSGRID TECHNICAL SERVICES GROUP.

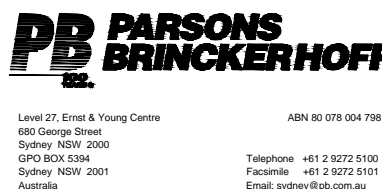
11kV SYSTEM DIAGRAM



LEGEND	EXISTING	NEW
POLE	●	○
OPGW	---	---
33KV OH	---	---
11KV OH	---	---
POLE MOUNTED SUBSTATION	○	○



AUSGRID FUNDED	
FREE ISSUE MATERIAL	
UNDERGROUND CONSTRUCTION	
OVERHEAD CONSTRUCTION	
MISCELLANEOUS	
REIMBURSEMENT FOR NON-CONTESTABLE WORKS INCLUDING GST	



DESIGNED BY	RICHARD SALIBA
DRAWN BY	RICHARD SALIBA
CHECKED BY	VENERA BETOVA
SUBMIT DATE	SUBMITTED 07/06/2013
LGA	NEWCASTLE COUNCIL
MAP REF.	97
AUSGRID REF.	JS43
PRJ/TRAK No.	XCW023223

ARTC SITE COMPOUND  
NEW POLE SUBSTATION  
WOODLANDS CLOSE, HEXHAM  
DESIGN PLAN  
LAYOUT

ASSOCIATED DRAWINGS

CERTIFICATION NUMBER

# # / # #

A1 SC04478

SHEETS 1 of 1

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