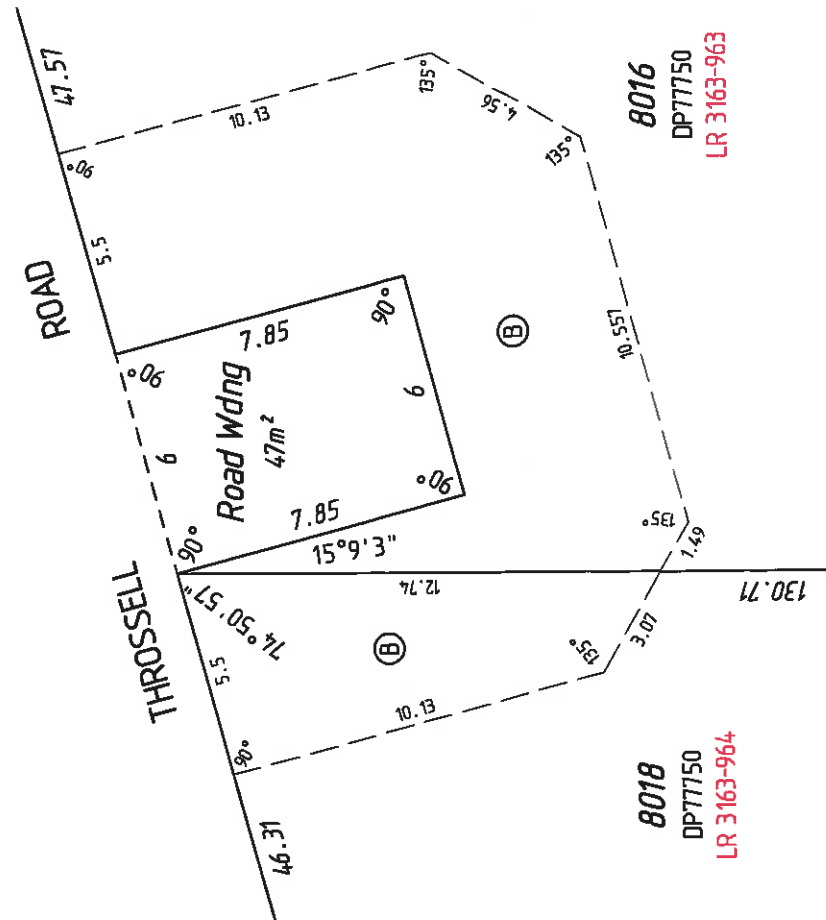


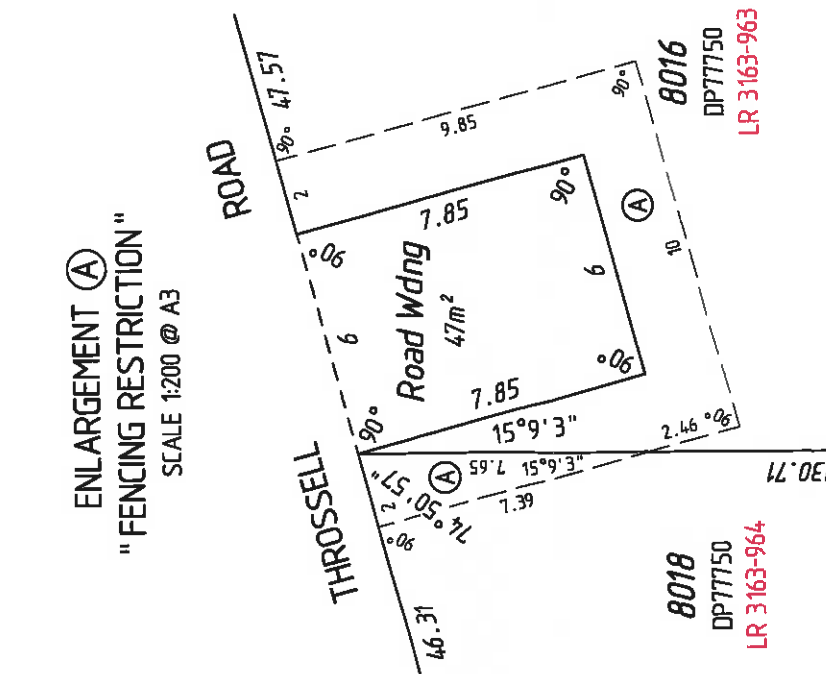
BOULEVARD

MCLARTY



ENLARGEMENT (B)
"BUILDING RESTRICTION"
SCALE 1:200 @ A3

ENLARGEMENT (B)
"BUILDING RESTRICTION"
SCALE 1:200 @ A3



ENLARGEMENT (A)
"FENCING RESTRICTION"
SCALE 1:200 @ A3

Rev.	Description	Drawn	Date	Checked
A	Initial Issue	DTG	26/02/2015	D.T.G.



AS/NZS 4801:2001
ISO 9001
Quality Management
Registration
PS 565311 OSH 591267

Surveyor-
Survey Date-
Project/Case-



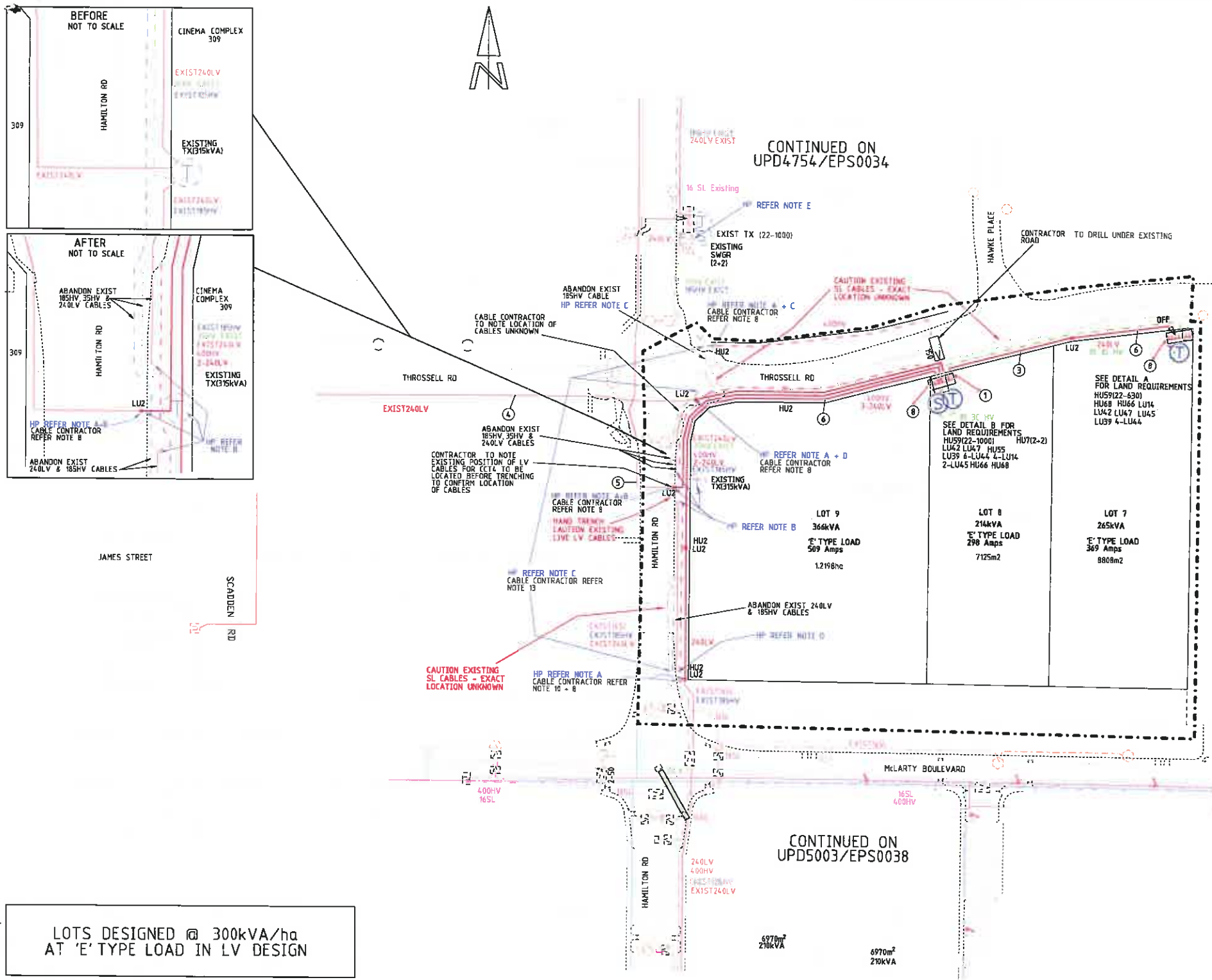
LANDCORP

HORIZON POWER LAND REQUIREMENTS
LOTS 8016 AND 8018 ON DP77750
THROSSSELL ROAD, SOUTH HEDLAND

MCMULLEN NOLAN GROUP
Level 3, 2 Sabre Crescent
Jandakot, W.A. 6164
Australia
V.A. 6164, Australia
Offices in: Broome, Burbury, Kununurra, Newman, Onslow, Port Hedland

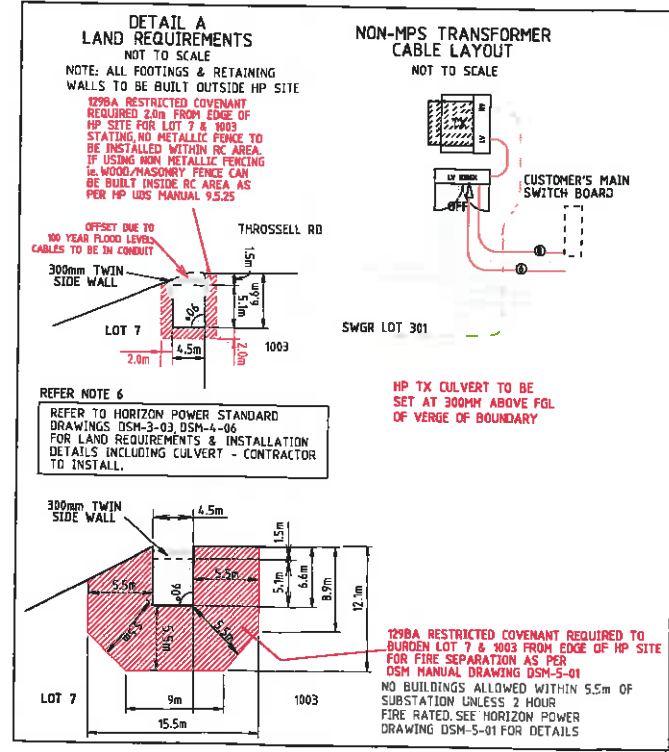
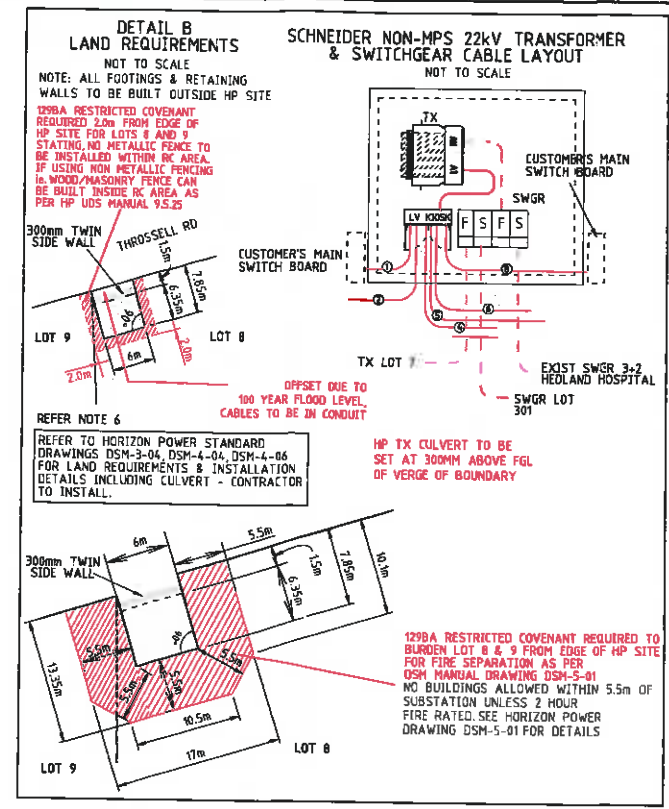
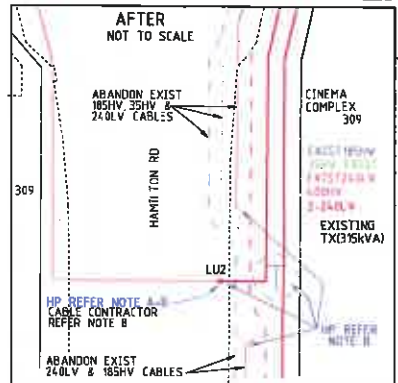
Tel: (08) 6436 1599
Fax: (08) 6436 1500
info@mngsurvey.com.au
www.mngsurvey.com.au
ABN 90 009 363 311

The contents of this plan are current and correct as of the date stated within the revision panel. All consultants and persons wishing to utilize this data should satisfy themselves of this plan currency by contacting McMillen Nolan Group.



CONTINUED ON
UPD4754/EP50034

CONTINUED ON
UPD5003/EP50038



CABLE	CONDUIT SIZE
400mm ² HV	150mm
240mm ² HV	150mm
180mm ² HV	150mm
95mm ² HV	150mm
35mm ² HV	100mm
25mm ² HV	100mm
18mm ² HV	100mm
12mm ² HV	100mm
6mm ² HV	50mm
16mm ² LV	50mm
10mm ² LV	50mm
6mm ² LV	50mm

STREET LIGHTS	EXISTING
42v CFL	70/75w HP
120w HV	150w HP
	250w HP

TRANSFORMERS	SWITCHGEAR
UNIVERSAL	UMS P17
MINI	100AMP CUTOUT
MINI -WORKING END	200AMP CUTOUT
LINK	

SCHEME BOUNDARY	PROPOSED WALLS	EXISTING WALLS	FUTURE WALLS
---	---	---	---

REFER TO LATEST UDS MANUAL & WADCM

- DRAWING & CONSTRUCTION OF THIS PROJECT TO BE READ & BUILT IN CONJUNCTION WITH HORIZON POWER'S LATEST UDS MANUAL & WA DISTRIBUTION CONNECTION MANUAL
- CABLE PROTECTOR SLABING IS REQUIRED WHERE THE CABLES LEAVE THE STANDARD HP ALIGNMENT. TERMINATE AT STREETLIGHT POLE & ENTER ROAD CROSSING CONDUIT. TERMINATE AT CABLE POLE.
 - STREET LIGHTS TO BE INSTALLED CLEAR OF FOOTPATHS AND PRAM RAMP 10m BEHIND BACK OF KERB. FINAL POSITIONS TO BE DETERMINED ON SITE SUBJECT TO HP APPROVAL. CABLE CONTRACTOR TO REFER TO SL18 IN HP DOC MANUAL FOR SL POLE SPECIFICATION AND INSTALLATION PROCEDURE FOR CYCLONIC PRONE AREAS. ALL SL TO BE FITTED WITH ANTI-VANDAL GUARDS.
 - CABLES TO BE INSTALLED IN CONFLUENT CONDUIT ALONG RETAINING WALLS OR FENCES TO AVOID DAMAGE TO CABLES. ONE CABLE PER CONDUIT SIZES TO SUIT. CONDUITS TO BE INSTALLED UNDER/THROUGH ALL WALLS FOR CABLES TO PILLAR AND ADJACENT LOT CONSUMER MAINS. SERVICE CABLES TO BE JOINTED BEFORE RETAINING WALLS COMPLETED. SEE LEGEND ABOVE FOR CONDUIT SIZE. REFER 8.2.13 & 9.2.8.12 OF THE LATEST ISSUE HP UDS MANUAL.
 - IF ACID SOILS ARE PRESENT CLEAN NEUTRAL BACK FILL IS TO BE USED AROUND THE CABLES.
 - CABLE CONTRACTOR TO CONFIRM WITH HP AT TIME OF TENDERING IF BEDDING SAND REQUIRED IN CABLE TRENCH & AROUND CABLES IN HP SITE, TO COMPLY WITH HP UDS MANUAL.
 - HP SITE TO BE INCORPORATED EITHER AS AN EXTENSION OF THE ROAD RESERVE OR PUBLIC OPEN SPACE. NO PIPES, DRAINS OR OTHER SERVICES ARE PERMITTED BENEATH SUBSTATION SITE. IF ANY SUBSTATION LIES WITHIN THE 100 YEAR FLOOD ZONE THE SUBSTATION MUST BE IN ABOVE THE FLOOD ZONE LEVEL. NO METAL FENCES TO BE INSTALLED ADJACENT TO SUBSTATION SITES.
 - CABLE CONTRACTOR TO ARRANGE WITH UPD ONLY TO COMPLETE AS CONSTRUCTED DRAWING FOR ELECTRONIC SUBMISSION TO HP. THIS DRAWING REMAINS THE PROPERTY OF UPD P/L. NO UNAUTHORIZED REVISIONS PERMITTED.
 - CABLE CONTRACTOR TO CARRY OUT CABLE TERMINATION OR JOINTING TO HP ASSET. CABLE CONTRACTOR TO EXCAVATE, REINSTATE & SUPPLY ALL MATERIALS & CARRY OUT VLF TESTING ON HV CABLES.
 - CABLE CONTRACTOR TO OBTAIN RELEVANT PERMIT FROM HP CH AT START UP MEETING PRIOR TO INSTALLING NEW CABLES. MACHINE TRENCH TO DEPTH OF 500mm THEN HAND TRENCH TO CABLE.
 - CABLE CONTRACTOR TO CUT INTO EXISTING 185HV AND 240LV CABLES AND STRAIGHT JOINT TO NEW 400HV & 240LV CABLES RESPECTIVELY AS SHOWN. ABANDON REDUNDANT 185HV & 240LV CABLES.

LOTS DESIGNED @ 300kVA/ha AT 'E' TYPE LOAD IN LV DESIGN

TRANSFORMER SPECIFICATIONS AND LOCATION	FUSEWAY NO.	CIRCUIT NO.	FUSE AMPS	CABLE mm ²	CIRCUIT NAME	VOLT DRDP	AMPS	TOTAL AMPS @300kVA/ha
TX LOT 8 1800kVA/22kV (1312A)	1	1	630A LINKS	LU45	CONTIGUOUS LOT 8	0.26	298	1104A + FUTURE
	2	2	315	240	SPARE	-	-	
	3	3	315	240	TX LOT 7 (OFF) SOLE USE CABLE	-	-	
	4	4	315	240	LOT 1700 JAMES STREET	7.27	97	
	5	5	315	240	UNI LANGUAGE CENTRE	9.71	200	
	6	6	315	240	TX LOT 1005 (OFF)	-	-	
	7	7	315	240	SPARE	-	-	
	8	8	630A LINKS	LU45	CONTIGUOUS LOT 9	0.44	509	

TRANSFORMER SPECIFICATIONS AND LOCATION	FUSEWAY NO.	CIRCUIT NO.	FUSE AMPS	CABLE mm ²	CIRCUIT NAME	VOLT DRDP	AMPS	TOTAL AMPS @300kVA/ha
TX LOT 7 630kVA/22kV 827A	1	1			SPARE	-	-	369 A
	2	2	315	240	SPARE	-	-	
	3	3	315	240	VACANT	-	-	
	4	4	315	240	VACANT	-	-	
	5	5	315	240	VACANT	-	-	
	6	6	315	240	OFF FROM CCT2 TX LOT 8	-	-	
	7	7	315	240	SPARE	-	-	
	8	8	630A LINKS	LU45	CONTIGUOUS LOT 7	0.32	369	

THE HV/LV CABLE AND ALL HV/LV JOINTS WILL REQUIRE TERMITE PROTECTION TO HP APPROVAL

CABLE TYPE	STOCK No.	DESCRIPTION
CABLE - HIGH VOLTAGE	EE2558	35mm 3x1 CORE STRANDED ALUMINIUM XLPE
CABLE - HIGH VOLTAGE	EE2169	400mm 3x1 CORE STRANDED ALUMINIUM XLPE
CABLE - LOW VOLTAGE	EC1377	240mm 3 CORE SOLID SECTOR SHAPE ALUMINIUM XLPE
CABLE - LOW VOLTAGE	EC1104	25mm 3 CORE STRANDED COPPER XLPE
CABLE - STREET LIGHTING	EE2559	16mm 1 CORE STRANDED COPPER XLPE

STOCK NUMBERS SUBJECT TO CHANGE. CABLE CONTRACTOR TO CONFIRM PRIOR TO ORDERING

REV	DESCRIPTION	DATE	DRAWN	CHKD	SENT HP	APPR HP
4	'E' TYPE LOAD ADJUSTED - ISSUED TO HP AS REVISED CR	15-8-14	RF	BE		19-8-14
3	ISSUED TO HP FOR CR	7-8-14	SBE	BE		12-8-14
2	CHANGES TO DESIGN	25-6-14	RF	BE		
1	DRAFT ISSUED TO CLIENT FOR COMMENT	11-6-14	RF	BE		

THIS DRAWING IS THE PROPERTY OF UPD PTY LTD. UNAUTHORIZED USE OR COPYING OF THIS DRAWING IS PROHIBITED.

DIS REFERENCE 20° 24' 38" S, 118° 36' 03" E

HORIZON POWER

20m 0 20 40 60 80 100m

ALL DISTANCES ARE IN METRES

WARNING

REMOVE ALL UNDERGROUND SERVICES

The location of underground services are approximate only and their exact position should be checked on site. Protection is given to all existing cables and services and should be maintained throughout the work. Refer to Worksafe Australia 9.5.25.

WARNING

IF WORKING IN THE VICINITY OF EXISTING OVERHEAD DISTRIBUTION OR TRANSMISSION LINES CONTRACTOR TO COMPLY WITH "WORKSAFE" CLEARANCES DURING CONSTRUCTION.

Underground Power Development

SOUTH HEDLAND WORKS TOWN CENTRE STAGE 4

3 COMMERCIAL LOTS

UNDERGROUND POWER DISTRIBUTION

DESIGNER: BE DRAWN: RF NPER ENGINEER: KS SCALE: 1:1000

Horizon Power Reference No: EPS0046 WAPC No: 147270

Drawing No: UPD5241 Revision: 4

SITE 4
47 HAVELOCK STREET
WEST PERTH WA 6006
PHONE 9212 8777
FAX 9212 8788
EMAIL team@upd.com.au

A.B.N. 55 004 689 087