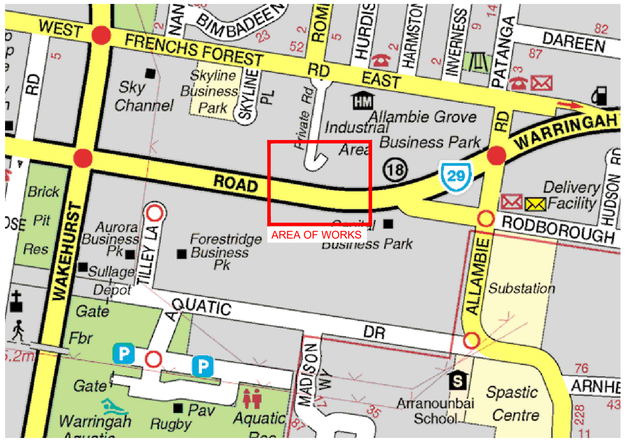


GEOGRAPHICAL LOCATION

NOT TO SCALE

UBD MAP: 176-Q6

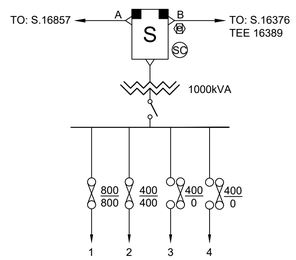
NOTES:

- ALL WORKS TO BE IN ACCORDANCE WITH LATEST AUSGRID NETWORK STANDARDS & AUSGRID STANDARD DRAWINGS.
- 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 ASP1 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 WHEREVER POSSIBLE. AT LEAST FOUR (4) CLEAR BUSINESS 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 90 OF THE NATIONAL ENERGY RETAIL RULES.
- 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 ASP1 IS REQUIRED TO COMPLY WITH THE CORRECT PROCEDURE(S) FOR WORKING WITH AND/OR NEAR ASBESTOS MATERIAL (REFER TO AUSGRID NUS 211 - WORKING WITH ASBESTOS PRODUCTS).
- FOR IDENTIFICATION AND JOINTING PURPOSES, ALL CABLE ENDS SHALL BE LABELLED AT THE TERMINATIONS AND IN JOINT BAYS DURING CABLE INSTALLATION. THE CABLES MUST BE LABELED AS PER THE CERTIFIED DESIGN DRAWING.
- ALL FOOTWAYS, ROADWAYS AND NATURE STRIPS TO BE REINSTATED IN ACCORDANCE WITH LOCAL COUNCIL REQUIREMENTS AND NS130.
- BACKFILL MATERIAL TO BE INSTALLED IN ACCORDANCE WITH NS130.
- UNDERGROUND SERVICES CHECK MUST BE CARRIED OUT PRIOR TO EXCAVATION.
- PROVIDE PEDESTRIAN AND VEHICLE ACCESS AS PER COUNCIL REQUIREMENTS FOR THE DURATION OF CONSTRUCTION.
- ASP/1 TO ADHERE TO REQUIRED CONDITIONS BY ALL 3rd PARTY ASSETS OWNERS.
- THIS INFORMATION INCLUDES DATA FROM THE NSW DIGITAL CADASTRAL DATABASE BY LAND & PROPERTY INFORMATION ©2016. USED UNDER CREATIVE COMMONS LICENSE VERSION 4.0
- ALL REDUNDANT EQUIPMENT TO BE REMOVED FROM SERVICE AND RETURNED TO AUSGRID'S NEAREST DEPOT.
- DO NOT PLACE ANY RELIANCE ON ANY QUANTITIES OR DIMENSIONS GIVEN IN THESE DRAWINGS. QUANTITY & DIMENSIONS ARE BASED ON DESIGN INFORMATION & SITE CONDITIONS AT THE TIME OF THE DESIGN. AS QUANTITIES & DIMENSIONS ARE SUBJECT TO CHANGE, THE BUILDER OF THIS PROJECT MUST CHECK ALL QUANTITIES & DIMENSIONS ON SITE PRIOR TO TENDERING & CONSTRUCTION.

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.
- DIAL-BEFORE-YOU-DIG INFORMATION MUST NOT BE OLDER THAN 20 BUSINESS DAYS AT THE TIME OF CONSTRUCTION.
- DUE CONSIDERATION OF EXISTING SERVICES HAS BEEN CARRIED OUT IN DESIGN. HOWEVER, THE PROJECT CONSTRUCTOR IS WHOLLY RESPONSIBLE FOR VERIFYING THE EXACT LOCATION OF EXISTING SERVICES & SURVEY WORKS BEFORE CONSTRUCTION. NO RESPONSIBILITY OR LIABILITY WILL BE ACCEPTABLE OF INFORMATION GIVEN OR DAMAGE TO EXISTING SERVICES IN THE VICINITY OF THE WORKS.

S.33034
FRENCHS HURDIS NO1



LV DISTRIBUTOR DETAILS	
DIST	DESTINATION
1	49 FRENCHS FOREST RD LOT 7
2	49 FRENCHS FOREST RD LOT 1 & 2
3	INTERCONNECTOR S16857 & S16389 (N/O)
4	WDNO(0/400A)

KIOSK SUBSTATION DETAILS	
SUBSTATION NAME:	FRENCHS HURDIS NO1
SUBSTATION NUMBER:	S.33034
ADDRESS:	49 FRENCHS FOREST RD
SUBSTATION TYPE:	KL
SIZE (kVA):	1000kVA
VECTOR GROUP:	Dyn1
TAP SETTING:	10505/433 TAP7
HV SWITCHGEAR:	SCHNEIDER ELECTRIC RMI
HV FUSE DETAILS:	100amp SIBA 300.20.93.100
LOAD CYCLE:	COMMERCIAL
PHASING DETAIL:	TO BE VERIFIED ON SITE BY THE ASP1 PRIOR TO COMMISSIONING.
LOW VOLTAGE BOARD:	800/400/400/400
CCT1 LV FUSE SIZE (Amps):	800A
CCT2 LV FUSE SIZE (Amps):	400A
CCT3 LV FUSE SIZE (Amps):	400A
CCT4 LV FUSE SIZE (Amps):	400A
CONFIGURE AS Dyn11:	NO
EARTHING REQUIREMENTS:	AS PER NS116
SUBSTATION PIERING:	AS PER NS141 & DWG 151572
EASEMENT PLAN DETAIL:	STANDARD SINGLE KIOSK ARRANGEMENT

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.

CHECK FOR OTHER SERVICES BEFORE BORING OR EXCAVATING

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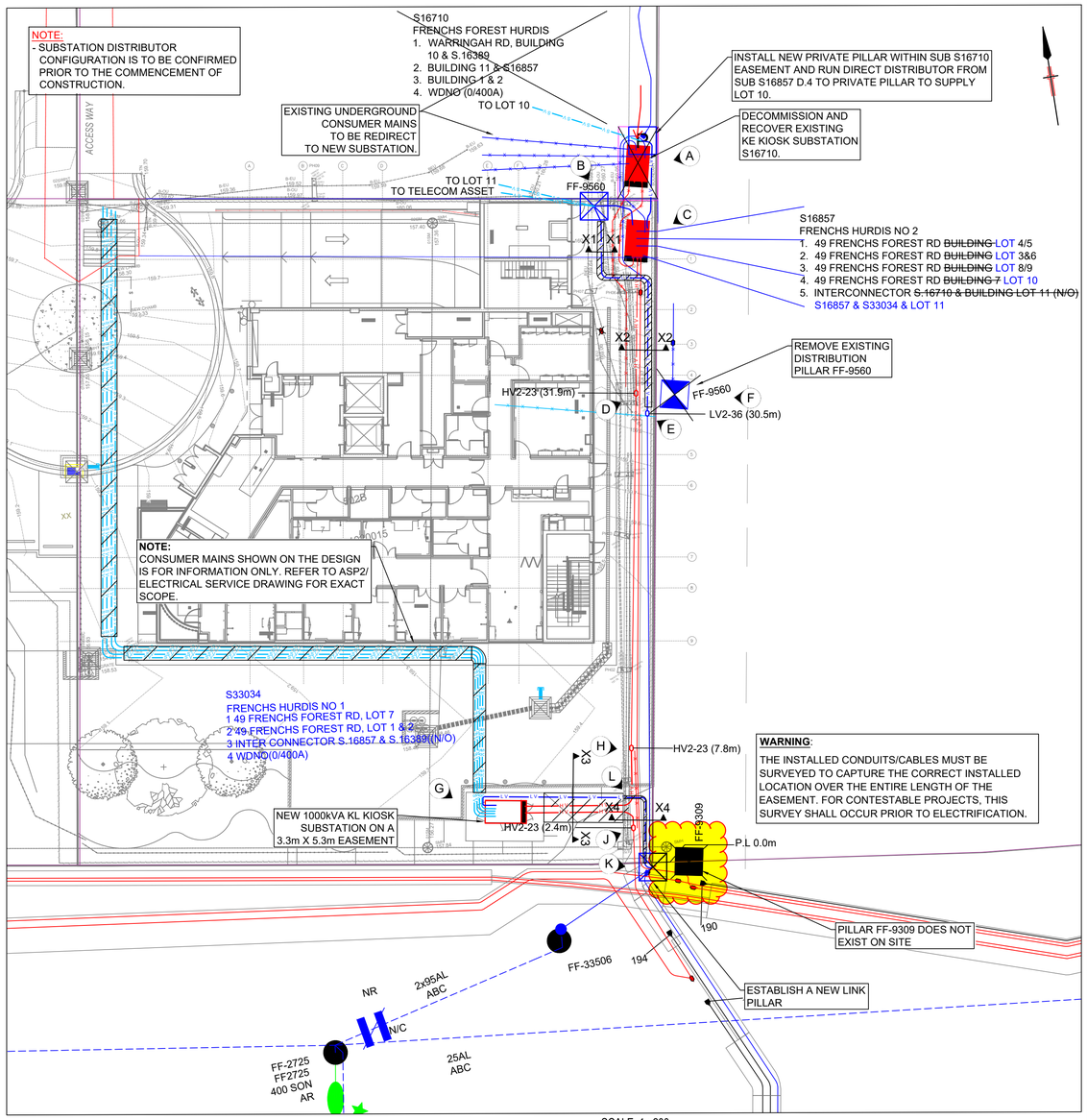

CONSTRUCTION PLAN

SCALE 1:200

SCALE 1 : 200

0 5 10 15 20 METRES

NEW CONSUMER MAINS FROM NEW SUBSTATION S33034 TO EXISTING TURRETS

Cable Reference	From	To	Manufacturer	Cable Code	Cable Configuration	Cores	Cable Size (mm²)	Conductor (Active)	Insulation	Sheath	Cable Capacity (A)	Neutral Size (mm²)	Earth Size (mm²)	Conductor (Earth)	Cable Length (m)	Voltage (Vac)	Voltage Drop (%)	Voltage Drop (Volts)	Target Voltage Drop (%)	Accum. Voltage Drop % (Incl. FSC)	Accum. Voltage Drop % (Excl. FSC)
1	Distributor 1	Genesis Care (Lot 7)	tricab-Flexible Rubber 125°C - CC Series	16	12	Flex S.D.I.	6×185	Cu	LSFLEX® X-125	LSFLEX® S-40	808	2×185	120	Cu	60	400	1.5	6	5.44352	3.06	1.56
2	Distributor 2	Existing Lot 1 & Lot 2	tricab-Flexible Rubber 125°C - CC Series	16	12	Flex S.D.I.	240	Cu	LSFLEX® X-125	LSFLEX® S-40	481	240	95	Cu	250	400	4.46	17.83	5.44352	6.01	4.51
3	Distributor 3	LV mains interconnecting S16857 & S16389	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
4	Distributor 4	WDNO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

CAD DRAWING
AMENDMENTS

ASSET REMOVED		PROPOSED	EXISTING		PROPOSED	EXISTING		PROPOSED		EXISTING	
Pole - to be removed	Pole			USL			UGOH	Pot End	UGOH	Pot End	
Column - to be removed	SL Standard			ABS			Joint	Sealed End	Joint	Sealed End	
SL - to be removed	Pillar Standard			IDT			Conduit		Conduit		
OH Mains - to be removed	LV Pillar			Kiosk Sub			OH Lines	UG Cables	OH Lines	UG Cables	
UG Mains - to be removed	LV Link Pillar			Chamber Sub							
USL - to be removed	Streetlight			Pole Sub							
Pole Sub - to be removed	Streetlight - PEC			Two Pole Sub							
Joint - to be removed	Streetlight - Replace										

ASSOCIATED DRAWINGS

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+61 (02) 9437 1000
general@jhaengineers.com.au
www.jhaservices.com
ASP / 3 # 3342

ASP REF. 210066

DESIGNED BY	BRENTON BURROWS
AUTH NO.	3342/04
SUBMIT DATE	09/05/2022
LGA	Northern Beaches
MAP REF.	UBD 176Q6
AUSGRID REF.	FF51
PRJTRAK No.	XCY012798

CERTIFICATION NUMBER 6036196/20220510

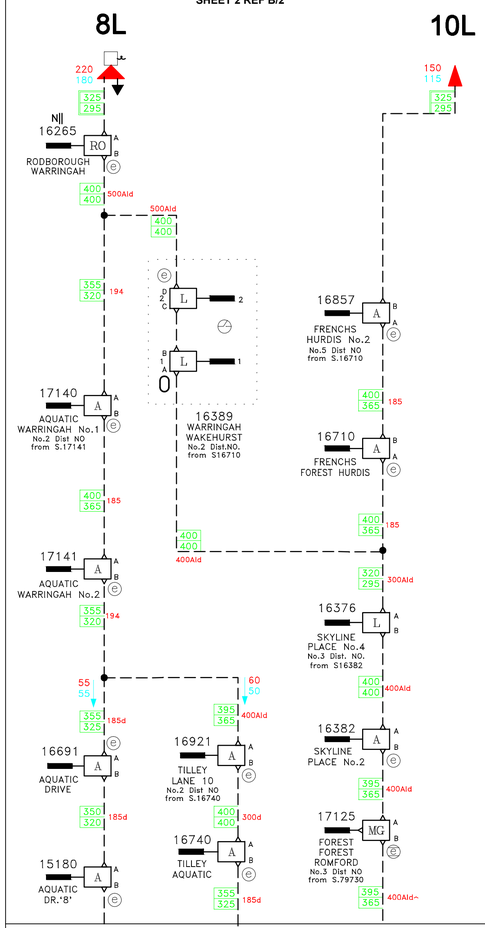
DECOMMISSION EXISTING AND ESTABLISH NEW KIOSK SUBSTATION AT LOT 7 DP1020015 WARRINGAH RD, FRENCHS FOREST

SIZE A1 | AUSGRID PROJECT No. AN-22489 | SHEETS 1 of 7 | AMD 0

20160817

BEACON HILL ZONE NO.152

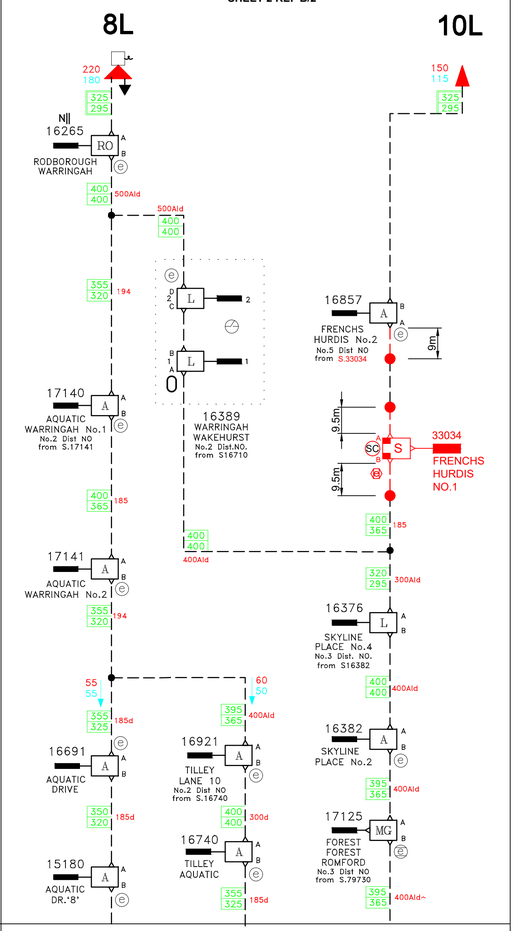
SHEET 2 REF B/2



EXISTING HV DIAGRAM

BEACON HILL ZONE NO.152

SHEET 2 REF B/2



PROPOSED HV DIAGRAM

UNDERGROUND CONSTRUCTION WORKS SCHEDULE *(DUCT PULL V1.1)*

REF. IDENTIFIER	ROUTE DISTANCE (m)	CIRCUIT VOLTAGE	CONDUCTOR OR ASSET DETAIL	CONDUCTOR CODE / STOCK CODE	MIN. INTERNAL BENDING RADIUS (mm) DURING INSTALLATION	MIN. INTERNAL BENDING RADIUS (mm) AFTER INSTALLATION	CALCULATED MAX. PULLING TENSION (kN) DURING INSTALLATION	CONSTRUCTION DETAIL
A	-	11kV	KIOSK SUBSTATION S16710 FRENCHS FOREST HURDIS	-	-	-	-	DECOMMISSION EXISTING SUBSTATION AND ITS ASSOCIATED EQUIPMENT.
	-	LV	PRIVATE PILLAR	-	-	-	-	INSTALL PRIVATE PILLAR WITHIN EXISTING SUBSTATION EASEMENT AND RUN DIRECT DISTRIBUTOR FROM SUB S.16857 D.4 TO PRIVATE PILLAR.
B	-	LV	NEW DOUBLE LINK PILLAR FF-9560 (LV1-60)	-	-	-	-	INSTALL NEW PILLAR TO REPLACE EXISTING PILLAR AT REF'B', AND TERMINATE NEW LV CABLE INTO NEW PILLAR.
B - C	13m	LV	4 x 415V 185 CU1 XQZ CABLES	151183	270mm	180mm	N/A	DIRECT BURY NEW LV CABLE. ALLOW SUFFICIENT CABLE FOR TERMINATION AT SUBSTATION AND PILLAR.
A - C	10m	LV	4 x 415V 185 CU1 XQZ CABLES	151183	270mm	180mm	N/A	DIRECT BURY NEW LV CABLE. ALLOW SUFFICIENT CABLE FOR TERMINATION AT SUBSTATION AND PILLAR.
B - E	14m	-	2 X 150mm CONDUIT	N/A	N/A	N/A	N/A	EXCAVATE CABLE TRENCH AND LAY DUCTS IN ROADWAY AS PER SECTION B-B AND SECTION C-C
C	-	11kV	KIOSK SUBSTATION S16857 FRENCHS HURDIS NO 2 (TERMINATION HV1-50)	-	-	-	-	- DISCONNECT EXISTING LV AND HV CABLE FROM SUBSTATION S16710. - TERMINATE PROPOSED LV AND HV CABLE INTO SUBSTATION.
D	-	HV	STJ (HV2-23)	N/A	N/A	N/A	N/A	EXCAVATE JOINT HOLE. INSTALL NEW HV JOINT TO CONNECT EXISTING 185 CU1 AND PROPOSED 300 CU1 CABLES.
A - D	20m	11kV	3 x 185 CU1 EPR CU(WS) YQ / 70DEG	-	-	-	-	RECOVER EXISTING HV CABLE.
C - D	19m	11kV	11KV 300 CU1 TRXQ 70 CU(WS) Z YQ / TX	1129	1275 (BUNDLED) 960 (PHASE)	850 (BUNDLED) 575 (PHASE)	0.36kN/17.2kN MAX	INSTALL NEW HV CABLE IN NEW CONDUITS AND BURIED DIRECT AS PER CROSS SECTIONS. ALLOW SUFFICIENT CABLE FOR TERMINATION AT SUBSTATIONS.
E	-	LV	FOUR-TO-ONE HEATSHRINK JOINT (LV2-36)	-	-	-	-	EXCAVATE JOINT HOLE. INSTALL NEW LV JOINT TO CONNECT EXISTING 240 AL4 AND PROPOSED 185 CU1 CABLES.
B-E	21m	LV	4 x 415V 185 CU1 XQZ CABLES	151183	270mm	180mm	1.82kN/7.36kN MAX	INSTALL NEW LV CABLE IN NEW CONDUITS AND BURIED DIRECT AS PER CROSS SECTIONS. ALLOW SUFFICIENT CABLE FOR TERMINATION AT JOINT AND PILLAR.
F	-	LV	EXISTING LINK PILLAR FF-9560	-	-	-	-	REMOVE EXISTING PILLAR.
G	-	11kV	1 x 1000kVA 'KL' TYPE KIOSK SUBSTATION S33034 FRENCHS HURDIS NO.01 (TERMINATION HV1-52)	-	-	-	-	ESTABLISH 1000kVA 'KL' TYPE KIOSK SUBSTATION S33034 FRENCHS HURDIS NO.01
H	-	11kV	THREE-TO-ONE JOINT (HV2-23)	-	-	-	-	EXCAVATE JOINT HOLE. INSTALL NEW HV JOINT TO CONNECT EXISTING 400 AL3 AND PROPOSED 300 CU1 CABLES.
J	-	11kV	THREE-TO-ONE JOINT (HV2-23)	-	-	-	-	EXCAVATE JOINT HOLE. INSTALL NEW HV JOINT TO CONNECT EXISTING 400 AL3 AND PROPOSED 300 CU1 CABLES.
G - L	5.3m	-	6 X 150mm CONDUIT	N/A	N/A	N/A	N/A	EXCAVATE CABLE TRENCH AND LAY DUCTS IN ROADWAY AS PER SECTION D-D
G - H	19m	11kV	11KV 300 CU1 TRXQ 70 CU(WS) Z YQ / TX	1129	1275 (BUNDLED) 960 (PHASE)	850 (BUNDLED) 575 (PHASE)	N/A	DIRECT BURY NEW HV CABLES. ALLOW SUFFICIENT CABLE FOR TERMINATION AT SUBSTATION AND JOINT.
G-L-J	19m	11kV	11KV 300 CU1 TRXQ 70 CU(WS) Z YQ / TX	1129	1275 (BUNDLED) 960 (PHASE)	850 (BUNDLED) 575 (PHASE)	0.42kN/17.2kN MAX 0.22kN/17.2kN MAX	INSTALL NEW HV CABLE IN NEW CONDUITS AND BURIED DIRECT AS PER CROSS SECTIONS. ALLOW SUFFICIENT CABLE FOR TERMINATION AT SUBSTATION AND JOINT.
L - K	5.5m		2 X 150mm CONDUIT	N/A	N/A	N/A	N/A	EXCAVATE CABLE TRENCH AND LAY DUCTS IN ROADWAY AS PER SECTION E-E
G-L-K	26m	LV	4 x 415V 185 CU1 XQZ CABLES	151183	270mm	180mm	1.0kN/7.36kN MAX	INSTALL NEW LV CABLE IN NEW CONDUITS AND BURIED DIRECT AS PER CROSS SECTIONS. ALLOW SUFFICIENT CABLE FOR TERMINATION AT SUBSTATION AND PILLAR.
K	-	LV	DOUBLE LINK PILLAR (LV1-60) FF-9309	-	-	-	-	- ESTABLISH A NEW DOUBLE LINK PILLAR. - TERMINATE EXISTING AND PROPOSED LV CABLE INTO THE NEW PILLAR.

WARNING:

THE INSTALLED CONDUITS/CABLES MUST BE SURVEYED TO CAPTURE THE CORRECT INSTALLED LOCATION OVER THE ENTIRE LENGTH OF THE EASEMENT. FOR CONTESTABLE PROJECTS, THIS SURVEY SHALL OCCUR PRIOR TO ELECTRIFICATION.

ASP LEVEL 2 WORK

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WARNING

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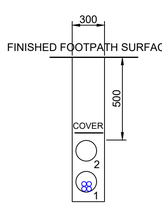
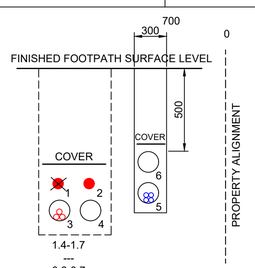


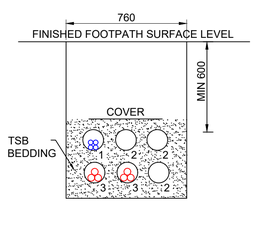
SECTION X1-X1

1 - PROPOSED LV 185 CU1 CABLE IN PROPOSED 150mm PVC CONDUIT
2 - PROPOSED SPARE 150mm PVC CONDUIT



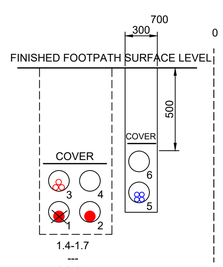
SECTION X2-X2

1. REMOVE HV CABLES
2. EXISTING HV CABLE DIRECT BURIED
3. INSTALL NEW HV CABLE IN PROPOSED 150mm PVC CONDUIT
4. PROPOSED SPARE 150mm PVC CONDUIT
5. PROPOSED LV 185 CU1 CABLE IN PROPOSED 150mm PVC CONDUIT
6. PROPOSED SPARE 150mm PVC CONDUIT



SECTION X3-X3

1 - PROPOSED LV 185 CU1 CABLE IN PROPOSED 150mm PVC CONDUIT
2 - PROPOSED SPARE 150mm PVC CONDUIT
3 - PROPOSED 11kV 300CU1 CABLE IN PROPOSED 150mm PVC CONDUIT



SECTION X4-X4

1. REMOVE HV CABLES FROM EXISTING 125mm PVC CONDUIT
2. EXISTING HV CABLE IN EXISTING 125mm PVC CONDUIT
3. INSTALL NEW HV CABLE IN EXISTING 125mm PVC CONDUIT
4. EXISTING SPARE 125mm PVC CONDUIT
5. PROPOSED LV 185 CU1 CABLE IN PROPOSED 150mm PVC CONDUIT
6. PROPOSED SPARE 150mm PVC CONDUIT

CROSS SECTIONS

NTS

CAD DRAWING
AMENDMENTS

ASSOCIATED DRAWINGS

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ASP / 3 # 3342

DESIGNED BY	BRENTON BURROWS
AUTH NO.	3342/04
SUBMIT DATE	09/05/2022
LGA	Northern Beaches
MAP REF.	UBD 176Q6
AUSGRID REF.	FF51
PRJTRAK No.	XCY012798
ASP REF.	210066
CERTIFICATION NUMBER	6036196/20220510

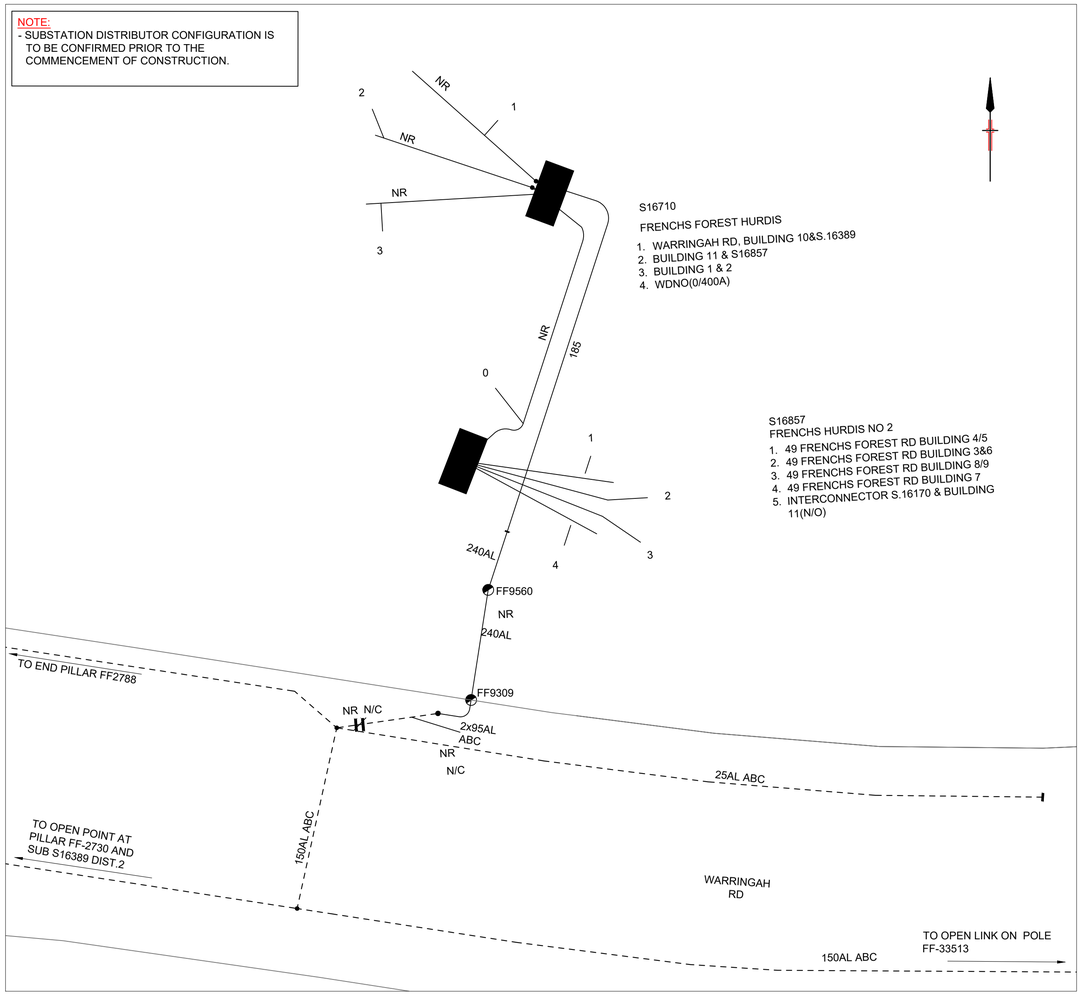
DECOMMISSION EXISTING AND ESTABLISH NEW KIOSK SUBSTATION AT LOT 7 DP1020015 WARRINGAH RD, FRENCHS FOREST

SIZE A1 | AUSGRID PROJECT No. AN-22489 | SHEETS 2 of 7 | AMD. 0

20160817

©

NOTE:
- SUBSTATION DISTRIBUTOR CONFIGURATION IS TO BE CONFIRMED PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.



EXISTING LV SCHEMATIC

NTS

NOTE:
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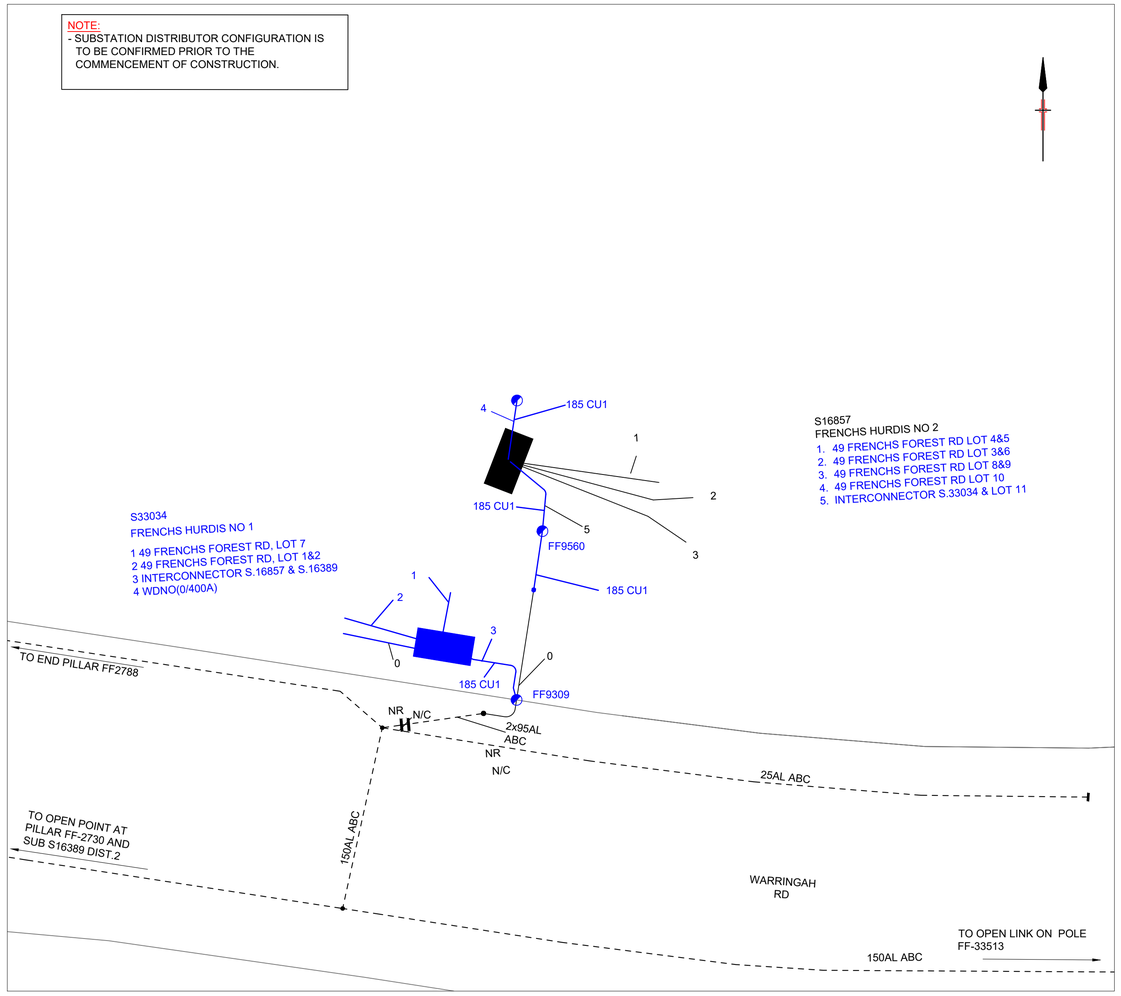
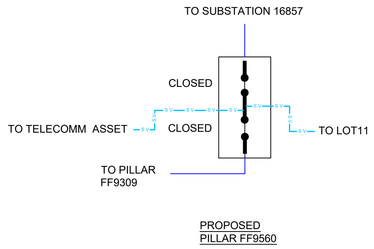


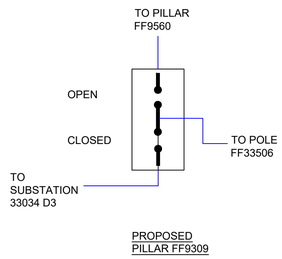
PROPOSED LV SCHEMATIC

NTS

LV GEOSCHEMATIC EXISTING					
LV UG Cable		Shackle Point		Kiosk Substation	
LV OH Cable		Fuse		Chamber Substation	
UG Cable Joint		Link		Pole Mounted Substation	
Tee		Open Point	0		
UGOH		UG Link Box		Link Box Internals	
Termination		LV Pillar			
Main Section		LV Link/Switch Pillar			
IDT		switch_number			

LV GEOSCHEMATIC PROPOSED					
LV UG Cable		Shackle Point		Kiosk Substation	
LV OH Cable		Fuse		Chamber Substation	
UG Cable Joint		Link		Pole Mounted Substation	
Tee		Open Point	0		
UGOH		UG Link Box		Link Box Internals	
Termination		LV Pillar			
Main Section		LV Link/Switch Pillar			
IDT		switch_number			





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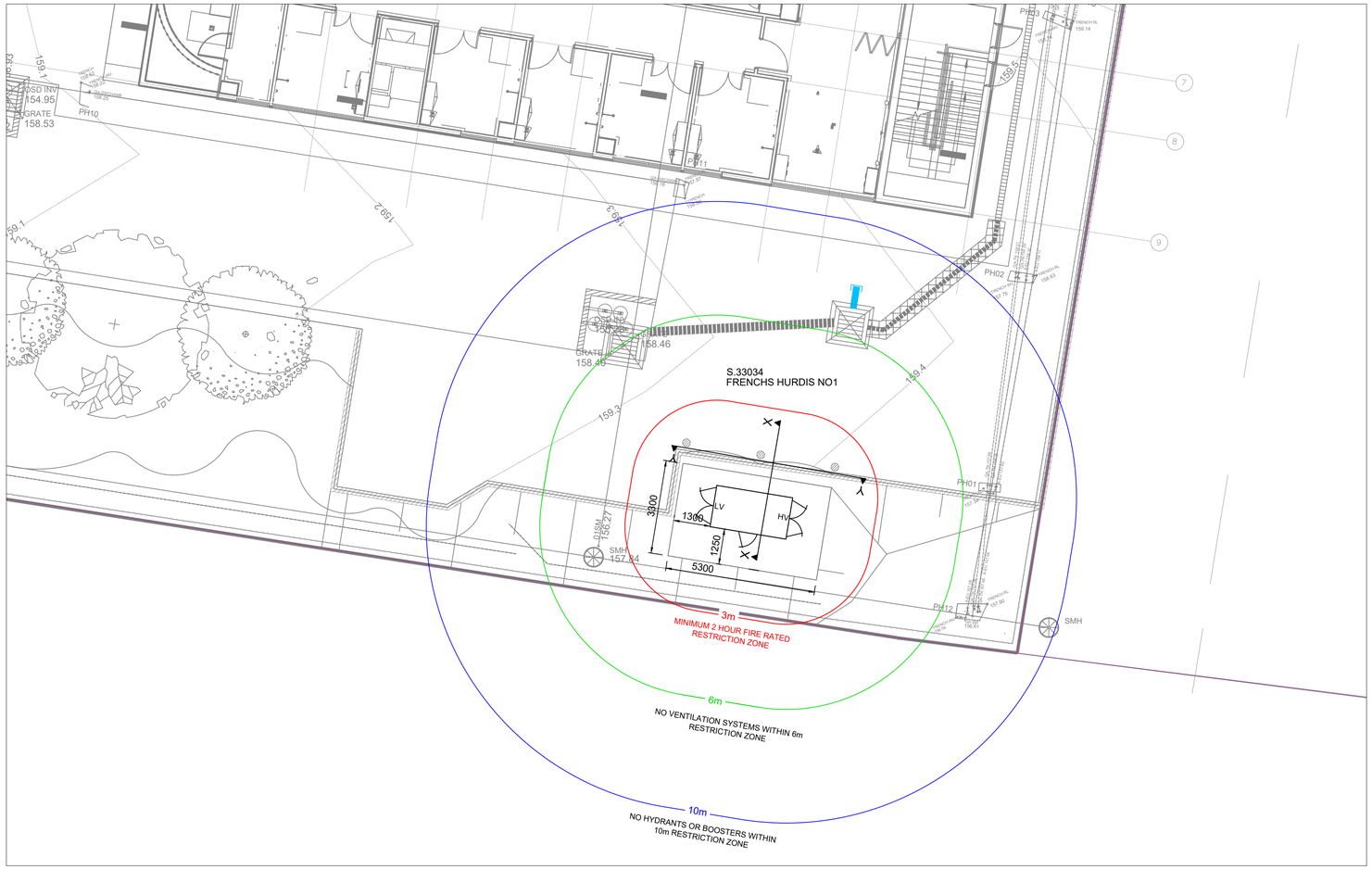
MAP REF.	UBD 176Q6
AUSGRID REF.	FF51
PRJTRAK No.	XCY012798
ASP REF.	210066

CERTIFICATION NUMBER 6036196/20220510

DECOMMISSION EXISTING AND ESTABLISH NEW KIOSK SUBSTATION AT LOT 7 DP1020015 WARRINGAH RD, FRENCHS FOREST

SIZE	AUSGRID PROJECT No.	SHEETS	AMD.
A1	AN-22489	3 of 7	0

20160817



PROPOSED SUBSTATION S33034 PLAN

SCALE 1:100

SCALE 1 : 100

0 2 4 6 8 10 METRES

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.

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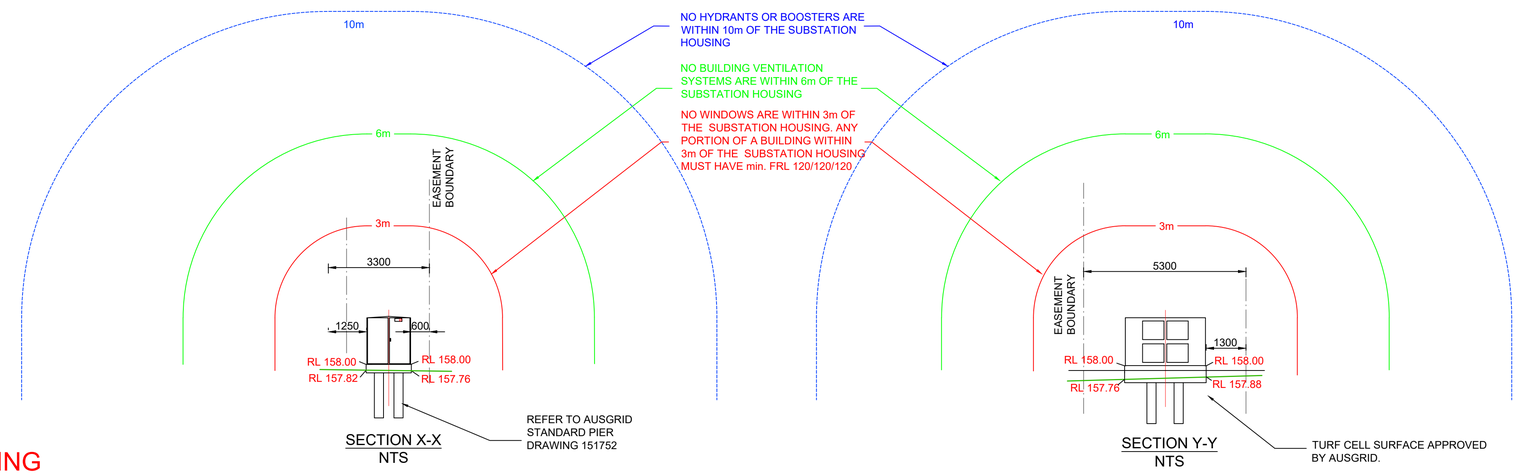
ALL WORKS TO BE UNDERTAKEN WITH AUSGRID'S NETWORK STANDARDS



SECTION X-X
NTS

SECTION Y-Y
NTS

CHECK FOR OTHER SERVICES BEFORE BORING OR EXCAVATING

CAD DRAWING
AMENDMENTS

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DESIGNED BY	BRENTON BURROWS
AUTH NO.	3342/04
SUBMIT DATE	09/05/2022
LGA	Northern Beaches
MAP REF.	UBD 176Q6
AUSGRID REF.	FF51
PRJTRAK No.	XCY012798
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DECOMMISSION EXISTING AND ESTABLISH NEW KIOSK SUBSTATION AT LOT 7 DP1020015 WARRINGAH RD, FRENCHS FOREST

SIZE A1 | AUSGRID PROJECT No. AN-22489 | SHEETS 4 of 7 | AMD. 0

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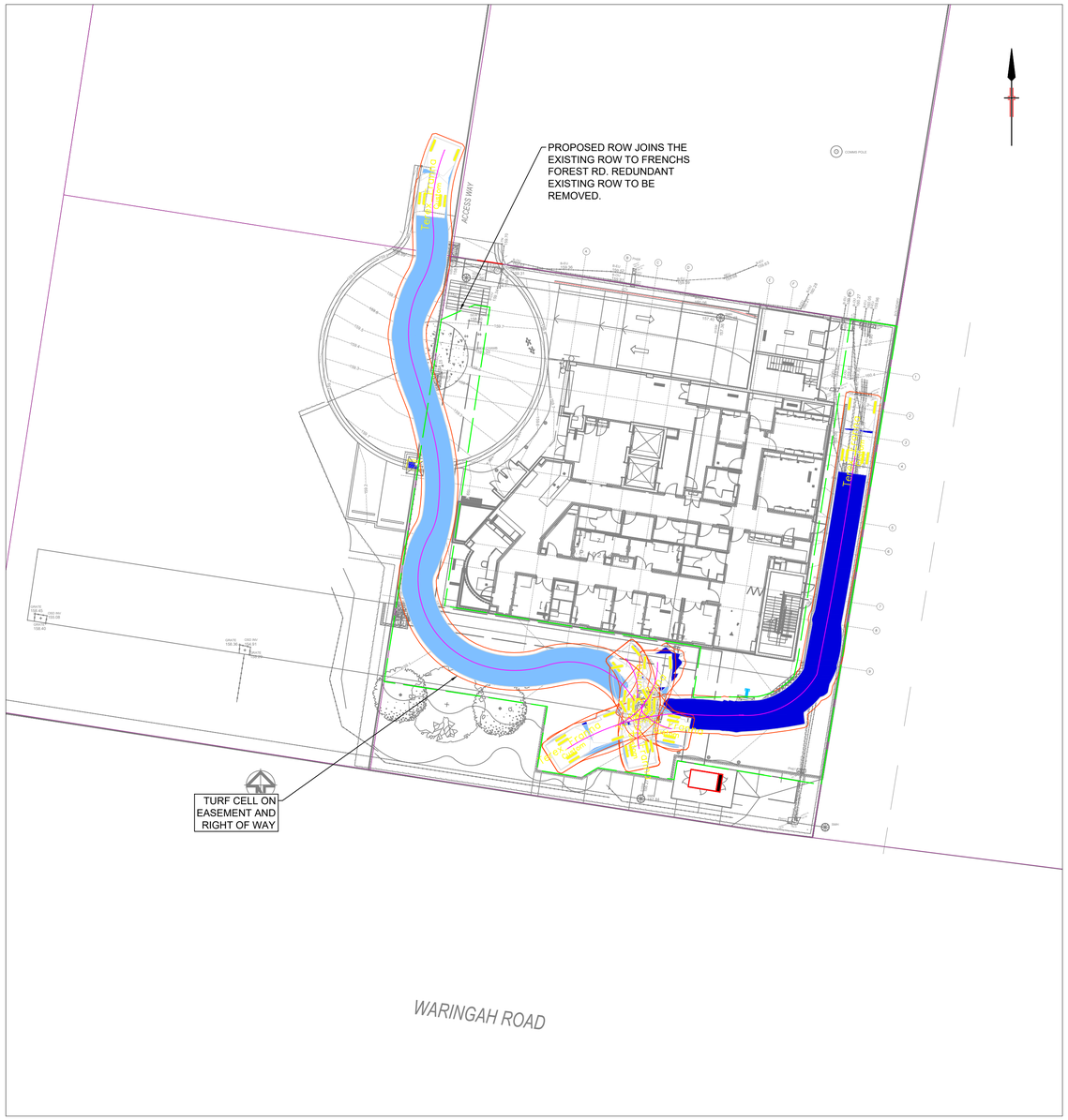
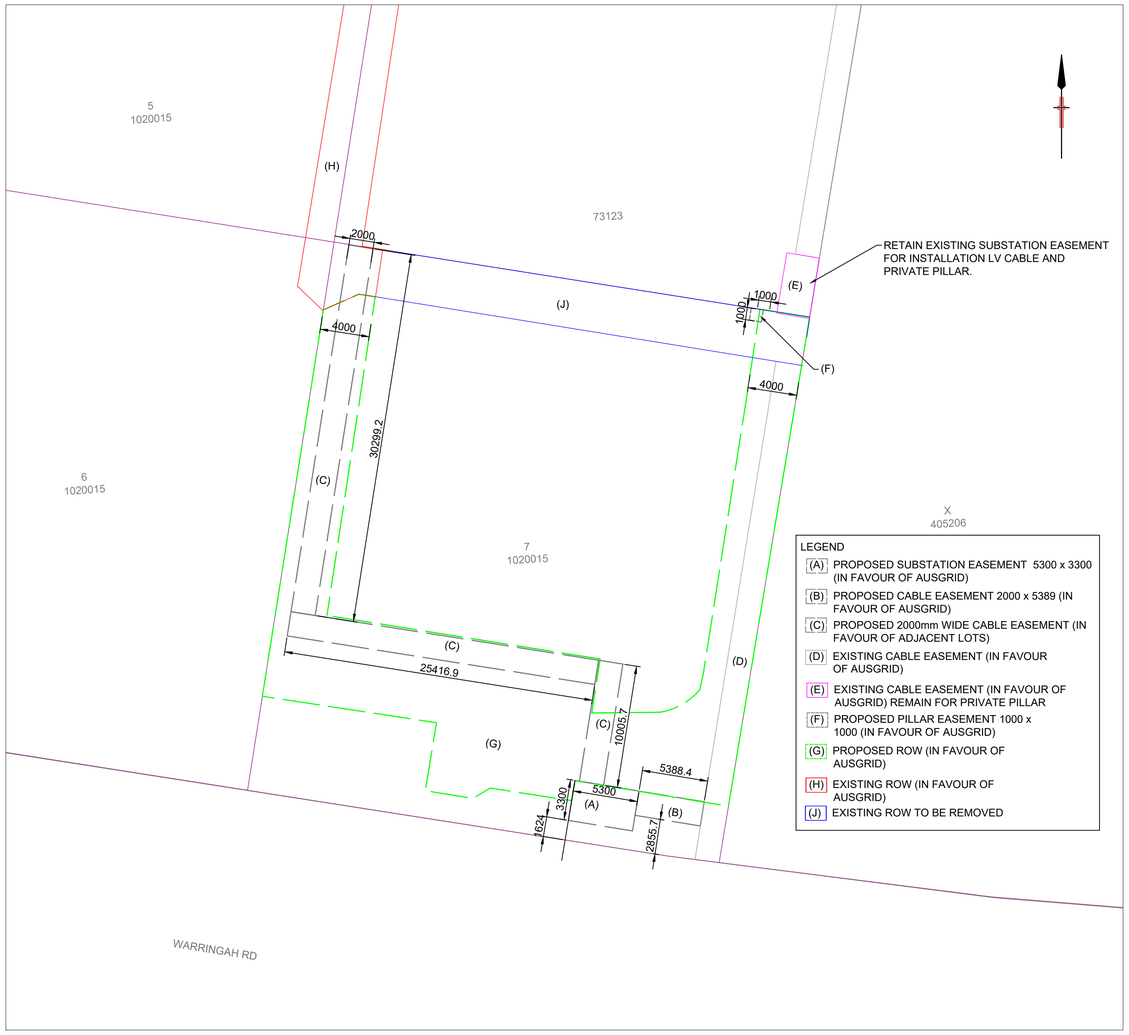


TRUCK ACCESS PLAN & RIGHT OF WAY

SCALE 1:250

SCALE 1 : 250

0 5 10 15 20 METRES 25



EASEMENT PLAN

SCALE 1:250

SCALE 1 : 250

0 5 10 15 20 METRES 25

ASP LEVEL 2 WORK

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ASP REF. 210066

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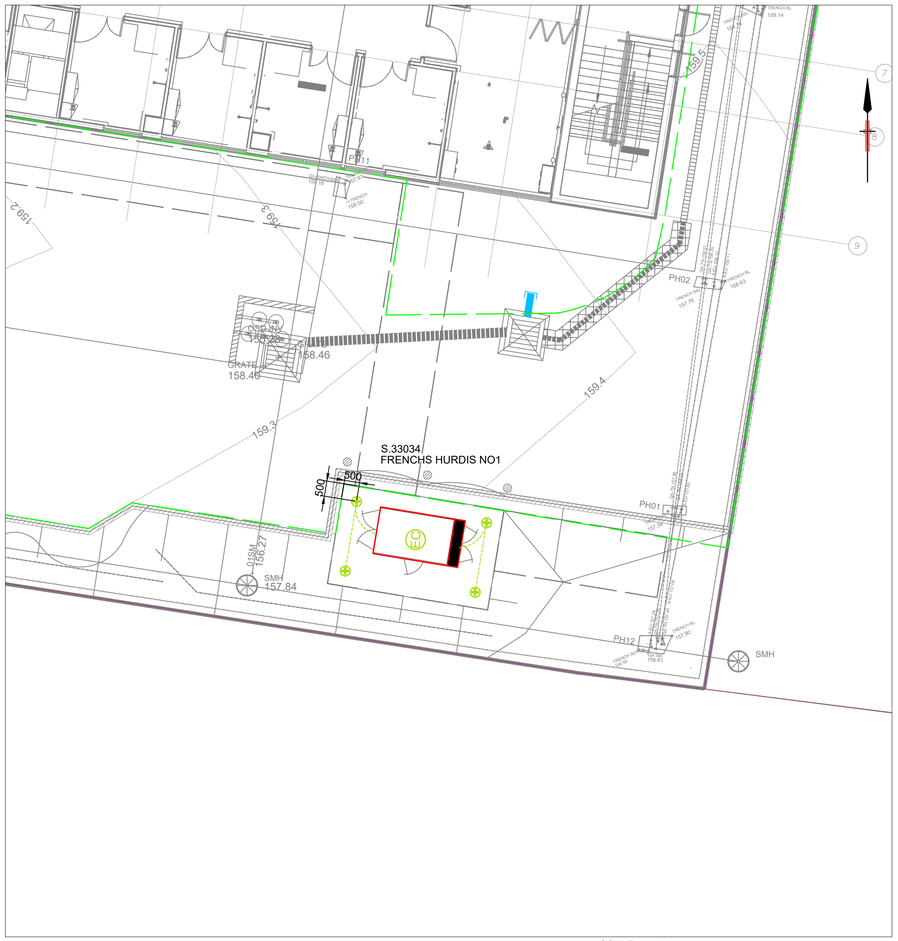
DECOMMISSION EXISTING AND ESTABLISH NEW KIOSK SUBSTATION AT LOT 7 DP1020015 WARRINGAH RD, FRENCHS FOREST

SIZE A1 | AUSGRID PROJECT No. AN-22489 | SHEETS 5 of 7 | AMD. 0

20160817



PROPOSED SUBSTATION S.33034 EARTHING DIAGRAM

SCALE 1:100

SCALE 1 : 100

0 2 4 6 8 10 METRES

EARTHING SPECIFICATION S.33034			
HV ELECTRODES		LV ELECTRODES	
NUMBER OF ELECTRODES	2	NUMBER OF ELECTRODES	2
DEPTH OF EACH ELECTRODE	5.4m	DEPTH OF EACH ELECTRODE	5.4m
SPACING BETWEEN EACH ELECTRODE	2.3m	SPACING BETWEEN EACH ELECTRODE	2.3m
MAX RESISTANCE - NORMAL	33.85Ω	MAX RESISTANCE - NORMAL	33.85Ω
MAX RESISTANCE - DROUGHT	51Ω	MAX RESISTANCE - DROUGHT	51Ω
COMBINED RESISTANCE			29.77Ω
MINIMUM SEPARATION FROM TELCO ASSETS			1.2m
MINIMUM SEPARATION BETWEEN HV AND LV ELECTRODES			4.3m
EARTHING CONFIGURATION			COMBINED
DESIGN CURVE			ENA-TDMEN
ELECTRODES INSTALLATION			DRIVEN

LEGENDS FOR EARTHING DIAGRAM:

- 70sqmm STRANDED COPPER BLACK PVC POLYETHYLENE INSULATED CABLES ON NATURAL GROUND
- EARTH ELECTRODE 5.4m DEEP ON NATURAL GROUND.
- EC — HV & LV EARTHING

ASP LEVEL 2 WORK

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LGA	Northern Beaches
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DECOMMISSION EXISTING AND ESTABLISH NEW KIOSK SUBSTATION AT LOT 7 DP1020015 WARRINGAH RD, FRENCHS FOREST

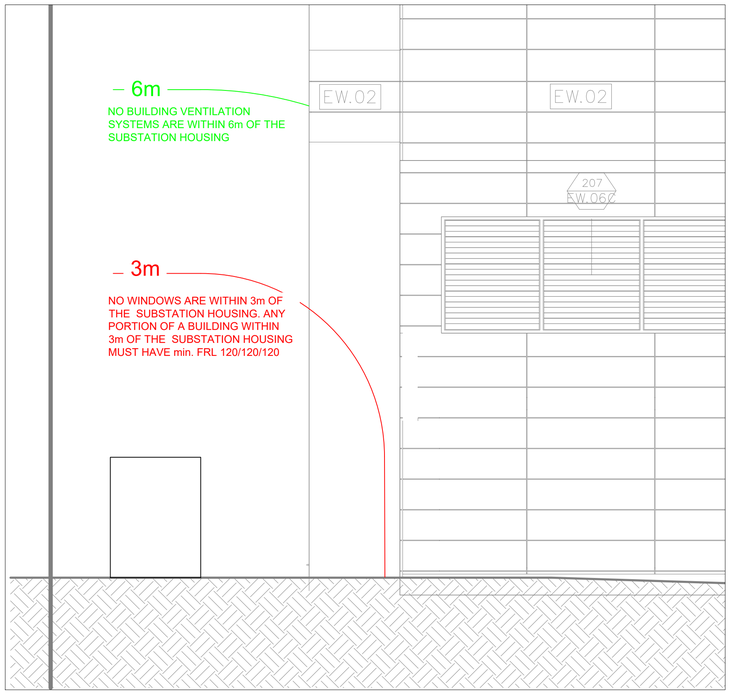
SIZE A1 | AUSGRID PROJECT No. AN-22489 | SHEETS 6 of 7 | AMD. 0

20160817

EXISTING SUBSTATION S16857 PLAN

SCALE 1:100

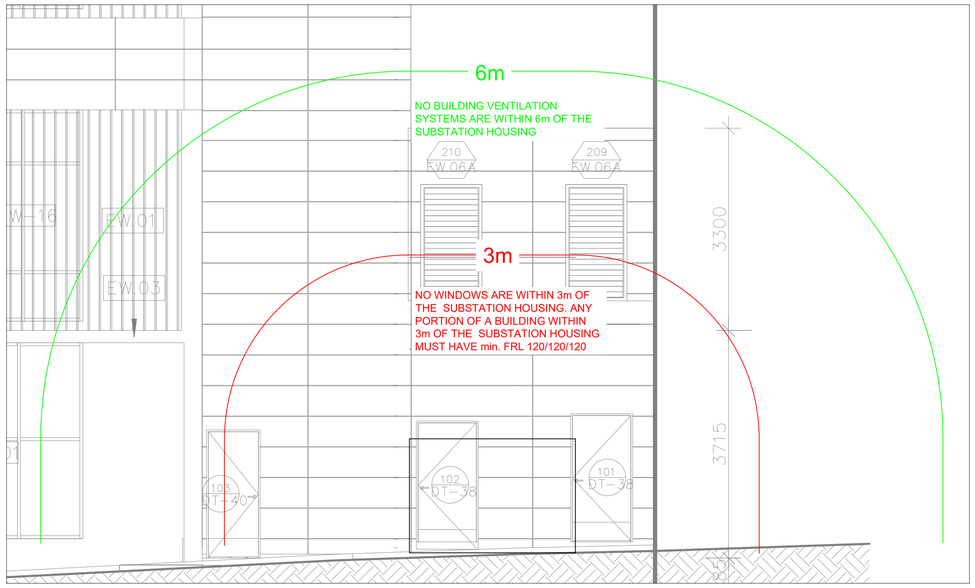
SCALE 1 : 100 — 0, 2, 4, 6, 8, 10 METRES



SUBSTATION S16857 SCETION X-X

SCALE 1:50

SCALE 1 : 50 — 0, 1, 2, 3, 4, 5 METRES



SUBSTATION S16857 SCETION Y-Y

SCALE 1:50

SCALE 1 : 50 — 0, 1, 2, 3, 4, 5 METRES

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SIZE	AUSGRID PROJECT No.	SHEETS	AMD.
A1	AN-22489	7 of 7	0

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