Acland Park stages 11-16 not 12, new roads between Broadway Parade & Selwyn Rd

On behalf of Nor West Contracting Ltd

173 Res. lots (& capacity for multi lots with 26xUnits & 20 HD units) Ref: DN-2017 Issue A

To:

Links

WORK DESCRIPTION: Acland Park subdivision, Stages 11-16 not 12.

Cable work in compliance with Orion NZ Network Design & Construction Standards.

Street Lights in compliance with manufacturers & Council requirements (Windsor Spec).

- 1) Supply & Install HV reticulation to two new kiosk sites.
- 2) Supply & Install LV reticulation to new lots & lights. NB Allow for two stages of enlivenment.
- 3) Complete 2x kiosk installations.
- 4) Install street lights, delivered to site by developer, to Windsor specifications.

185mm² 3c Al XLP

5) Allow for dig/backfill: at existing kiosks & for HV joint.

	PREPARED BY:	D.A.Wear	CIRCULATION:		
DATE:		28-Oct-21	Contractor:		
	RELATED ORDERS:	ES 462403	Surveyor: Survus Consulting		
	WD-2017 Issue A sheet	s 1-10.	Craig Hurford		
	SIs to Windsor dwg: A3-4	400119 & 400102	Orion: Paul Golding		
	Surveyors Trench section	ns Hazard register.	Telecom Provider: Enable		
	Lay Start Date:	Nov/Dec 2021	Trenching: Nor West Contr. Ltd		

Cable Tre	nching/100	mm RC	ducting by developer	r. Surveyor	r to peg 2 x kiosk title sites: Lot 619 & Lot 695, also mark all SL locations.	
SIZE	FUSE/	REF	CABLE	Tender	HV System Work For new kiosks install new electrodes & leads.	
	LINK		SIZE	Length	Supply HV fuses for each new kiosk MSU.	
	3K1T	Cct.	HV Cables	(mtr)	Jean Batten Ln Lot 619, L3/609 (Install full kiosk, 3k1T MSU with 300kVA). This kiosk enliver	ned first.
Links	Closed	51	185mm ² 3c Al XLP	433	Connect & lay to new kiosk "Finn Ave Lot 695".	
Links	Closed	52	185mm ² 3c Al XLP	267	Connect & lay to ex kiosk "Selwyn Rd Lot 1330".	
Links	Closed	53	185mm ² 3c Al XLP	219	Connect & lay to ex kiosk "Lovelock Ave Lot 575".	
Fuses	Closed	54	25mm ² AL 3x1c XLP	Leads	Install leads to 300kVA transformer (supply & enliven with 25FFLNJ fuses).	
	<u>3k1T</u>				Finn Ave Lot 695, L3/610 (Install full kiosk, 3k1T MSU with 300kVA).	
Links	Closed	51	185mm ² 3c Al XLP	120	Connect & lay to thru jt with HV185Al3c Cd12563 from "Avanda Ave No60" (after removing from Fi	nn Ave No2).
Links	Closed	52	185mm ² 3c Al XLP	150	Connect & lay to ex kiosk "Finn Av No2".	
	Open	53	185mm ² 3c Al XLP		Connect cable from new kiosk "Jean Batten Ln Lot 619"	
Fuses	Closed	54	25mm ² AL 3x1c XLP	Leads	Install leads to 300kVA transformer (supply & enliven with 25FFLNJ fuses).	
					HV Cable connections at existing kiosks	
	<u>2K1T</u>				Lovelock Ave Lot 575, L3/588 (Ex full kiosk, 2k1T MSU with 300kVA).	
Links	Closed	51	185mm ² 3c Al XLP	Ex	Existing cable kiosk "TeKanawa Ln Lot 517".	
	Closed	52	185mm ² 3c Al XLP		Connect cable from new kiosk "Jean Batten Ln Lot 619"	
Fuses	Closed	53	25mm ² AL 3x1c XLP	Leads	Ex leads to 300kVA transformer (25FFLNJ fuses).	
	3K1T				Selwyn Rd Lot 1330, L3/602 (Ex full kiosk, 3k1T MSU with 200kVA).	Accepted
Links	Closed	51	185mm ² 3c Al XLP	Ex	Existing cable kiosk east in Selwyn Rd to OH L3/603 (Sprn 113 feeder).	Orion
Links	Closed	52	185mm ² 3c Al XLP	Ex	Existing cable west to 1/4 kiosk "Selwyn Rd crn Springston Rolleston Rd".	Orton
	Open	53	185mm ² 3c Al XLP		Connect cable from new kiosk "Jean Batten Ln Lot 619"	Myld
Fuses	Closed	54	25mm ² AL 3x1c XLP	Leads	Ex leads to 200kVA transformer (16FFLNJ fuses).	Davi Caldina
					Finn Ave No 2, L3/522 (Ex full kiosk, 3k1T MSU with 200kVA).	Paul Golding 01 12 2021
1.25.15.4	011	-4	40520- ALVID	I	Demove as LIV/405A12a via Cd405C2 9 approach nevy405A1 from kingle "Fine Ave Lat CO5"	1 01 12 2021

Remove ex HV185Al3c xlp Cd12563 & connect new185Al from kiosk "Finn Ave Lot 695". Cable quantities for tender use, with 5mtrs allowed for cable tails at kiosks. Sheet No. Date: 28/10/2021 Developer to complete trenching and install 100mm ducts (Road crossings). refer HV,LV & SL schematics Issue: 1 of 8 Design-Net Ref: DN-2017

Acland Park stages 11-16 not 12, new roads between Broadway Parade & Selwyn Rd

On behalf of Nor West Contracting Ltd					Ref: DN-2017 Issue A		
SIZE	FUSE/	REF	CABLE	Tender	LV System Work (from 2 new kiosks)		
	LINK		SIZE	Length			
		Cct.	LV Cables	(mtr)	Jean Batten Ln Lot 619, L3/609 (Install full kiosk, DIN panel, incomer, 6 circuits). This kiosk e	nlivened first.	
Size 3	Links	PS	185mm ² Cu 4x1c	Leads	Install leads from central incomer (800amp rated) to Transformer.		
Size 3	355amps	1	185mm ² Al 3c+ 1c NS	319	Connect & lay west in Jean Batten Ln to 3way "Jean Batten Lot 501".		
Size 3	355amp	2	300mm ² Al 3c+ 1c NS	168	Connect & lay west in Jean Batten Ln to 3xDBS, at Lot 1002 then 103m LV185Al3cNS to "Dodd Lo	t 686".	
Size 3	500amps	3	300mm ² Al 3c+ 1c NS	110	Connect & lay to 1xDBS then 3way DCM "Finn Lot 618".		
Size 3	355amp	4	185mm ² Al 3c+ 1c NS	370	Connect & lay to 7xDBS then 2way DCM "Finn Lot 709".		
Size 3	Open	5	185mm ² Al 3c+ 1c NS	472	Connect & lay to boxes on Selwyn Rd to kiosk "Selwyn Rd Lot 1330". Also 130m LV120Al3cNS to 2xDBS	ending at 706.	
Size 3	Open	6	185mm ² Al 3c+ 1c NS	235	Connect & lay to 3xDBS to Broadway Pde to kiosk "Lovelock Ave Lot 575".		
					Finn Ave Lot 695, L3/610 (Install full kiosk, DIN panel, incomer, 6 circuits).		
Size 3	Links	PS	185mm ² Cu 4x1c	Leads	Install leads from central incomer (800amp rated) to Transformer.		
Size 3	355amp	1	185mm ² Al 3c+ 1c NS	256	Connect & lay to 5x Boxes then 2way DCM "Avanda Lot 652" Cct2.		
Size 3	Open	2	185mm ² Al 3c+ 1c NS	161	Connect & lay west to kiosk "Finn Ave No2". Also 64m LV120Al3cNS from DBT to DBS 668/669.		
Size 3	355amp	3	185mm ² Al 3c+ 1c NS	195	Connect & lay east to 4xDBS to 2way DCM "Finn Lot 709".		
Size 3	355amp	4	185mm ² Al 3c+ 1c NS	436	Connect & lay east, then nth to boxes to 3way DCM "Avanda Lot 612" Cct1, then to 3way DCM "Finn Lot 618" Cct2.		
Size 3	355amp	5	185mm ² Al 3c+ 1c NS	212	Connect & lay to 3xDBS to 3way DCM "Avanda Lot 612" Cct3.		
Size 3	355amp	6	185mm ² Al 3c+ 1c NS	243	Connect & lay to 3x Boxes then 2way DCM "Avanda Lot 652" Cct1.		
					LV Cable connections & install from existing kiosks		
					Lovelock Ave Lot 575, L3/588 (existing kiosk, DIN panel, incomer, 6 circuits).		
					Ex circuits 1,2, 3 no change.		
Size 3	355amp	4	185mm ² Al 3c+ 1c NS	115	Connect & lay to DBS Cowley Ln Lot 505. This cable from "Cowley Lot 1241" = Cct 2, make open.		
Size 3	355amp	5	185mm ² Al 3c+ 1c NS	334	Connect & lay to 8x DBS Broadway Pde, to ex. DCM "Broadway 74".		
Size 3	355amp	6	185mm ² Al 3c+ 1c NS		Connect cable from new kiosk "Jean Batten Ln Lot 619" Cct 6.		
					Finn Ave No2, L3/522 (existing kiosk, DIN panel, incomer, existing 2 circuits. Equip 2 ccts).		
					Equip ccts 2 & 3		
Size 3	355amp	2	185mm ² Al 3c+ 1c NS		Connect cable from kiosk "Finn Ave Lot 695".	Accepted	
Size 3	355amp	3	185mm ² Al 3c+ 1c NS	230	Connect & lay nth to 3xDBS in Dodd Rd, to DCM "Dodd Lot 686"	Orion	
					Ex circuits 4&5 no change.	Ji toit	
						Myldy	
			2		Selwyn Rd Lot 1330, L3/602 (Ex full kiosk, DIN panel, incomer & 4 ccts).		
Size 3	355amp	2	185mm ² Al 3c+ 1c NS		Connect new cable from kiosk "Jean Batten Ln Lot 619".	Paul Golding	

Cable quantities for tender use, with 3mtrs allowed for each LV tails at DBS.

Developer to complete all trenching and install 100mm ducts (Road crossings).

Sheet No.

refer HV,LV & SL schematics

Tefer HV,LV & SL schematics

Date: 28/10/2021

Issue: A

Design-Net Ref: DN-2017

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Ex circuits 1,3,4 no change.

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Design-Net Ref:

DN-2017

On behall	f of Nor We	st Conti	racting Ltd			Ref: DN-201	7 Issue A	
SIZE	FUSE/	REF	CABLE	Tender	LV System Work			
	LINK		SIZE	Length				
		Cct.	LV Cables	(mtr)	LV Box work for Distribution Cabinets. 8	new cabinets & one excising with a 4th	way added.	
					Broadway 74 (ex 3 way M1 add 4th way 8		<u>).</u>	
Size 3	Open	1	185mm ² Al 3c+ 1c NS		Connect cable from ex kiosk "Lovelock Ave			
Size 3	Links	2	185mm ² Al 3c+ 1c NS	Ex	Re Connect cable from ex kiosk "off Lady Is			
Size 3	Links	3	185mm ² Al 3c+ 1c NS	Ex	Re Connect cable from ex. DCM "Broadway Re Connect cable from new DCM "Jean Ba			
Size 3	Links	4	185mm ² Al 3c+ 1c NS	Ex				
					Jean Batten Lot 501 (replace DBS with 3	way M1, with 1 service fuse position 4a	<u>ı).</u>	
Size 3	Links	1	185mm ² Al 3c+ 1c NS	Ex	Connect cable from DCM "Broadway 74".			
Size 3	Open	2	185mm ² Al 3c+ 1c NS	Ex & 6m	Connect cable from new DCM "Avanda Lot	682". Also allow 6m for cut & swing on this	s cable for DB	S Lot 1247.
Size 3	Open	3	185mm ² AI 3c+ 1c NS		Connect cable from new kiosk "Jean Batten	Ln Lot 619".		
					Finn Lot 618 (install 3 way M1, with 2 ser	vice fuses position 4a).		
Size 3	355amp	1	185mm ² Al 3c+ 1c NS	298	Connect & lay west to 2way DCM "Dodd Lo		631.	
Size 3	Open	2	185mm ² Al 3c+ 1c NS		Connect cable from new kiosk "Finn Ave Lo			
Size 3	Links	3	300mm ² AI 3c+ 1c NS		Connect cable from new kiosk "Jean Batten			
					Avanda Lot 612 (install 3 way M1, with 2	service fuses position 4a)		
Size 3	Open	1	185mm ² Al 3c+ 1c NS		Connect cable from new kiosk "Finn Ave Lo			
Size 3	Links	2	185mm ² Al 3c+ 1c NS	199	Connect & lay to 4xDBS to 2way DCM "Doo			
Size 3	Links	3	185mm ² Al 3c+ 1c NS		Connect cable from new kiosk "Finn Ave Lo			
0 : 0			405 2410 4 110		Finn Lot 709 (install 2 way M1, with 2 ser			
Size 3	Links	1	185mm ² Al 3c+ 1c NS		Connect cable from new kiosk "Jean Batten			Accepted
Size 3	Open	2	185mm ² AI 3c+ 1c NS		Connect cable from new kiosk "Finn Ave Lo	of 695".		Orion
					Dodd Lot 648 (install 2 way M1, with 2 se	ervice fuses positions 4a).		Orton
Size 3	Open	1	185mm ² Al 3c+ 1c NS		Connect cable from new DCM "Finn Lot 616			Myldy
Size 3	Links	2	185mm ² Al 3c+ 1c NS		Connect cable from new DCM "Avanda Lot			
0.20								Paul Golding 01 12 2021
					For new DCMs, service types. Bus mount i	n nacition to for first 2 fuego 9. th for next	Ofuseo/if requi	
					For new DCMs, service fuses= Bus mount i	n position 4a for first 3 luses & 40 for next	Siuses(ii requ	iirea).
Cable qua	antities for t	ender u	se, with 3mtrs allowed	for each L	V tails at DBS. Sheet No.		Date:	28/10/2021
Develope	r to comple	te all tre	enching and install 100	mm ducts	(Road crossings).	refer HV,LV & SL schematics	Issue:	Α
						I .		

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Acland Park stages 11-16 not 12, new roads between Broadway Parade & Selwyn Rd

Ref: DN-2017 Issue A

01 12 2021

On behalf of Nor West Contracting Ltd

On bonan	0. 110. 110.	or oonin	aoting Lta		11011 211 10040 11
SIZE FUSE/ REF CABLE Tender					LV System Work
	LINK		SIZE	Length	
		Cct.	LV Cables	(mtr)	LV Box work for Distribution Cabinets (continued).
				,	
					Avanda Lot 652 (install 2 way M1, with 2 service fuses positions 4a).
Size 3	Open	1	185mm ² Al 3c+ 1c NS		Connect cable from new kiosk "Finn Ave Lot 695" cct 6.
Size 3	Links	2	185mm ² Al 3c+ 1c NS		Connect cable from new kiosk "Finn Ave Lot 695" cct 1.
					Dodd Lot 686(install DBS with 3 way M1, with 6 service fuses position 4a).
Size 3	Links	1	185mm ² Al 3c+ 1c NS	123	Connect & lay west to new 3way "Avanda Lot 682", also 28m LV120Al3cNS across road to DBS 679/680.
Size 3	Links	2	185mm ² Al 3c+ 1c NS		Connect cable from ex. kiosk "Finn Ave No2".
Size 3	Open	3	185mm ² Al 3c+ 1c NS		Connect cable from new kiosk "Jean Batten Ln Lot 619".
	- 1				
					Avanda Lot 682 (replace DBS with 3 way M1, with 1 service fuse position 4a).
Size 3	355amp	1	185mm ² Al 3c+ 1c NS	Ex	Connect cable from 3way "Jean Batten Lot 501".
Size 3	Links	2	185mm ² Al 3c+ 1c NS	Ex & 6m	Connect cable from kiosk "Finn Ave No2". Across road; cut & swing LV to a new DBS for Lot 681 (allow 6m).
Size 3	Open	3	185mm ² Al 3c+ 1c NS		Connect cable from new DCM "Dodd Lot 686".
	- 1				
					For new DCMs, service fuses= Bus mount in position 4a for first 3 fuses & 4b for next 3fuses(if required).
					Accepted
					Onion
					Union
					Myldy
					Paul Golding
			Ī.	1	1 2 4 2 2 2 2 2

Cable quantities for tender use, with 3mtrs allowed for each LV tails at DBS.	Sheet No.		Date:	28/10/2021
Developer to complete all trenching and install 100mm ducts (Road crossings).		refer HV,LV & SL schematics	Issue:	Α
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esign	146	ı Lıa

Design Net Ltd						Ref: DN-2017 Iss	sue A	
Acland Park stage				jor Materials).				
SIZE FUSE/LINK	REF	CABLE SIZE	Tender Qty					
	Cct.		(mtr)					
		LV 16mm ² 1c Cu NS	1,661	Install S/L cables as indi Supply lights from ex rela Some LV16Cu1cNS has Install (qty=67) new grow Windsor Plans A3-400102 For new Lights allow for as	thts marked by surveyor to Windsor dwg cated on working dwg (connecting as shown ay at "off Lady Isaac Dr Lot 400" L3/579 & "S already been laid in Selwyn Rd (to use for 3 bund mount lights, to manufacturers required (in red 1-10 Selwyn Rd). A3-400119 for subd lights sembly, wiring, fuse panel & pole hole digging. In the lights delivered to site ready for assembly.	on SL schematic). elwyn Rd Lot 1330" L3 lights P10,P1&P2 in re irements. ts P1-P57.	ed).	
	Tender							
Material Summary	Qty.	Further Materials		Orion Supplied equipm	<u>nent</u>			
HV cable	mtrs	2x Full Kiosks with acc	essories for	Transformers: 2x300kV/	4			
185mm ² Al 3c xlp	1,189	2x 300kVA Transforme	ers & MSUs.	HV switchgear: Two 3k1	T MSUs			
		800amp DIN Panel, 80	00amp Incomers					
LV cable		500/5 CTs & MDIs						
300mm ² Al 3c+ 1c Cu NS	278	DIN Ccts equipped as	spec. page 2					
185mm ² Al 3c+ 1c Cu NS	4,313	Fuse sets for kiosks as	Fuse sets for kiosks as specified.		g to Sealed Ends for back lots. Coc requir	<u>ed.</u>		
120mm ² Al 3c+ 1c Cu NS	255	MSU HV fuses 2 sets 2	25FDLNJ	Install (2) LV35Cu1cNS	Mains to sealed ends. (Hazard strip at 1/2 tre	ench depth).		
16mm ² 1c Cu NS S/L	1,661	Kiosk Earthing for two	new sites.	Install (15) LV25Cu1cNS Mains to sealed ends. (Hazard strip at 1/2 trench depth).				
		Equip two DIN ccts at	t kiosk L3/522	Install (8) LV16Cu1cNS	via 50mmdia ducts to sealed ends. (Hazard s	strip at 1/2 trench dept	h).	
Internal Kiosk Leads	qty	two sets 355amp fuses	3.					
LV 185mm ² 4x1cCuXLP	2 sets	LV Boxes			uired at several locations:			
HV 25mm ² AI 3x1cXLP	2 sets	5 x new DBT with 2xfu	ses	Ex Kiosks x3 (for new ca	ables)			
		75 x new DBS with fus	es/lots	1xHV thru joint after cable disconnected from kiosk Finn Ave No2, with drawn from duct to jt location.				
HV Terminations & Jt				2xLV cut & swings (Avar	nda Ave & Lady Isaac Dr).			
185mm ² Al 3c xlp MSU	9	Distribution Cabinets						
185mm ² Al 3c xlp Joint	1	Add 1 cct to 4way with					Assented	
HV 25mm ² AI 3x1cXLP end	s 2	standoff terminals requ	uired.	_			Accepted	
Push fit Transformer end				_			Orion	
LV Mains to Sealed Ends	mtrs	5x 3way M1, bus mount service fuses.					10.1 1	
35mm ² Cu 1c NS (2 lots)	96			_			Mylor	
25mm ² Cu 1c NS (15 lots)	491	3x 2way M1, bus mour					Paul Golding	
16mm ² Cu 1c NS (8 lots)	16mm ² Cu 1c NS (8 lots) 80 LV thru joints for 2xcut & swings		_			01 12 2021		
50mm dia ducts rows (8lots	,	2x 185mm ² Al 3c+ 1c Cı		·	n standard foundation dwgs.			
Notes: All cable quantit			n 3m	Sheet No.		Date:	28/10/2021	
allowed for each cable	tail at DBS	S & SL, 5m at kiosk.			refer shts for HV, LV & SL schematics	Issue:	A	
				5 of 8 Design-Ne			DN-2017	



























