

LIGHTING SCHEDULE

- L1 Supply and install new luminaire on new column. (See Luminaire & Column Notes 1 to 9)
 Luminaire: Philips Roadgrace 18W LED luminaire (BRP711 LED23NW 18W DWP) 4000K, Color. Black
 Column: 7.0m MH Standard Decorative Stepped C Column complete with single 1.3m River outreach arm. Color: Black.
 Connection: Connect to U/G SLN
- L2 Supply and install new luminaire on new column. (See Luminaire & Column Notes 1 to 9)
 Luminaire: Philips Roadgrace 20W LED luminaire (BRP711 LED26NW 20W DWP) 4000K, Color. Factory Gray
 Column: 7.4m MH Sectional Octagonal Sub-Divisional column c/w single 1.5m 15° tilt Mitred outreach arm and a 42mm 5° tilt to the horizontal spigot, Color: Galvanized
 Connection: Connect to U/G SLN
- L3 Supply and install new luminaire on new column. (See Luminaire & Column Notes 1 to 9)
 Luminaire: 2 x Philips Roadgrace 68W LED luminaire (BRP712 LED93NW 68W PSU DW1) 4000K, Color. Black
 Dimming: Set to 34W (50%). No action required by the installer or manufacturer.
 Column: 9.0m MH Standard Decorative Stepped B Column complete with double 1.3m River outreach arm. Color: Black
 Connection: Connect to U/G SLN
- L4 Supply and install new luminaire on new column. (See Luminaire & Column Notes 1 to 9)
 Luminaire: Philips Roadgrace 68W LED luminaire (BRP712 LED93NW 68W PSU DW1) 4000K, Color. Black
 Dimming: Set to 34W (50%). No action required by the installer or manufacturer.
 Column: 9.0m MH Standard Decorative Stepped B Column complete with single 1.3m River outreach arm. Color: Black
 Connection: Connect to U/G SLN
- L5 Supply and install new luminaire on new column. (See Luminaire & Column Notes 1 to 9)
 Luminaire: Philips Roadgrace 36W LED luminaire (BRP711 LED40NW 36W PSDD I DWP P1) 4000K, Color. Factory Gray
 Column: 7.4m MH Sectional Octagonal Sub-Divisional column c/w single 1.5m 15° tilt Mitred outreach arm and a 42mm 5° tilt to the horizontal spigot, Color: Galvanized
 Connection: Connect to U/G SLN

MAXIMUM DESIGN SPACING

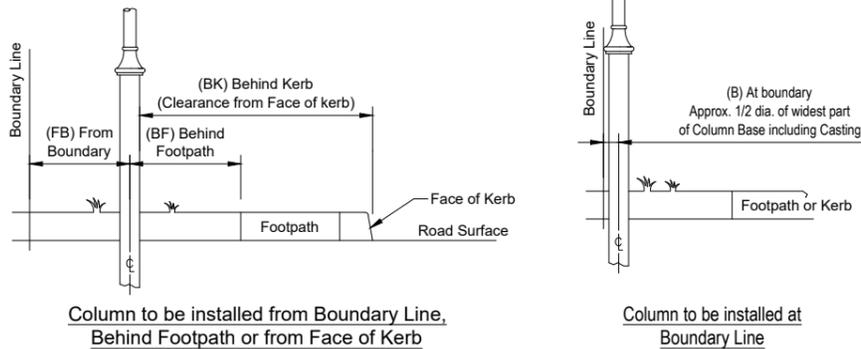
Street Name	Width	Arrangement Type*	Max Spacing
Road 4	16.0m	Single Sided	49.6m
Road 4	16.0m	Staggered	55.8m
Road 2-3	18.0m	Single Sided	59.1m
Road 2-3	18.0m	Staggered	60.0m
Selkirk Place - 20W	20.0m	Single Sided	51.3m
Selkirk Place - 8.2m Offset - 20W	20.0m	Single Sided	63.2m
Selkirk Place - 8.2m Offset - 20W	20.0m	Staggered	63.2m
Selkirk Place - 8.2m Offset - 36W	20.0m	Staggered	73.2m
Road 1 - 68W /D34W (V4)	13.6m	Dual Center	47.0m

* = Arrangement type as per AS/NZS 1158.2:2020 Fig. 5.1

SYMBOLS:

- Lx New column, Single outreach arm and luminaire.
- E Existing column, outreach arm and luminaire to remain.
- Lx New column, double outreach arm and luminaire.

TYPICAL COLUMN POSITION:



SYMBOLS LEGEND:

- LX Lighting Schedule Reference
- XXW Original Luminaire Wattage
- P1 Column Identification
- 0.0m-XX Column offset
- X° Luminaire Tilt from the horizontal (See Adjustment Table)

Offset Descriptions

- BF Behind Footpath
- BK Behind Kerb
- MC Median Center

For Decorative Tubular and Octagonal Column
With Decorative Arms and 0° Spigot*

Value Shown on Plan	Adjustment on Luminaire
10°	10°
5°	5°
0°	0°
-5°	-5°

* As per CCC and SDC Standard Column Requirements

For Sectional Octagonal Column
With Mitred Arms and 5° Spigot*
With Elliptical Arms and 5° Spigot*
With Curved Arms and 5° Spigot*
Subdivisinal with 5° Spigot*

Value Shown on Plan	Adjustment on Luminaire
10°	5°
5°	0°
0°	-5°
-5°	-10°

* As per CCC and SDC Standard Column Requirements

KEY PLAN



LUMINAIRE & COLUMN NOTES:

- Luminaire are to be fitted with mounting bracket to fit 42mm spigot.
- Luminaire to be supplied with an integral TMS compatible dimmable DALI 2 driver suitable for operating at the specified load and a prewired 7 pin Nema Socket and a CCC approved Luminaire Controller (LC).
- LC to have internal GPS capability and be compatible with Strelight Vision software.
- The Contractor is required to provide data that can be uploaded into RAMM and SLV as changes to the network occur. Each LC has a MAC ID which is a unique identifier for that controller. When a LC has been installed the MAC ID shall be captured accurately to enable it to be added to RAMM and SLV. If not captured correctly, a return visit may be required to recapture this information.
- Luminaire to have an IP rating of IP66 unless stated otherwise.
- Luminaire colour temperature to be 4000K
- Luminaire to have Identification label applied at time of installation.
- Dimming will be completed by CCC Agent via CMS System once installed.
- All new columns being installed shall be earthed via a separate earth rod as per (CCC "IDS" Infrastructure Design Specifications – Part 11: Lighting)

NOTES (CCC):

- Road illumination is designed to comply with AS/NZS 1158; subcategory PR4(CCC), V4 and CCC "Infrastructure Design Standards".
- Road lighting works to comply to CCC Construction Standard Specification CSS Parts 1-7; NZTA M30.
- Alternative lighting equipment to that specified in the schedule (columns, outreach arms, luminaires etc) can be provided with the tender or quotation submission, provided all requirements are met and the performance of all alternatives are equal or superior to those indicated on this drawing and within the associated documents.
- Key driver for lighting upgrade was : New Sub-Division
- Consult the designer for any lighting installation works that conflict on site. eg. recorded or unrecorded services.
- On completion documentation, record GPS location of all new Lighting columns.
- All connections part of the lighting installation work carried out, MUST be by an Orion approved contractor.
- All redundant recovered streetlight poles and lanterns shall be removed to the store of the CCC Maintenance Contractor (Connetics Ltd, 11 Islington Avenue, Islington - Contact: Scott Millar).
- New column location to be marked by the main contractor surveyor.
- Existing Services Identified in this design are indicative only and it is the contractor responsibility to locate any existing services by contacting BeforeUdig at <https://www.beforeudig.co.nz> before the start of any underground work.

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Rev	Description	Date	Des	Dn	Chk	Apd	Or Acp	Contractor	Designed	R. St-Denis / Conn	Aug 24
A	Issued to client for comments	08/08/24	RSD	RSD	-	-	-	-	Drawn	R. St-Denis / Conn	Aug 24
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C	Stage Boundaries Amended	11/08/25	RSD	RSD	-	-	-	-	Approved	M. Jones / CCC	18/08/25

STREETLIGHTING LAYOUT

Oakbridge Sub-Division
Stage 7 to 14
Christchurch

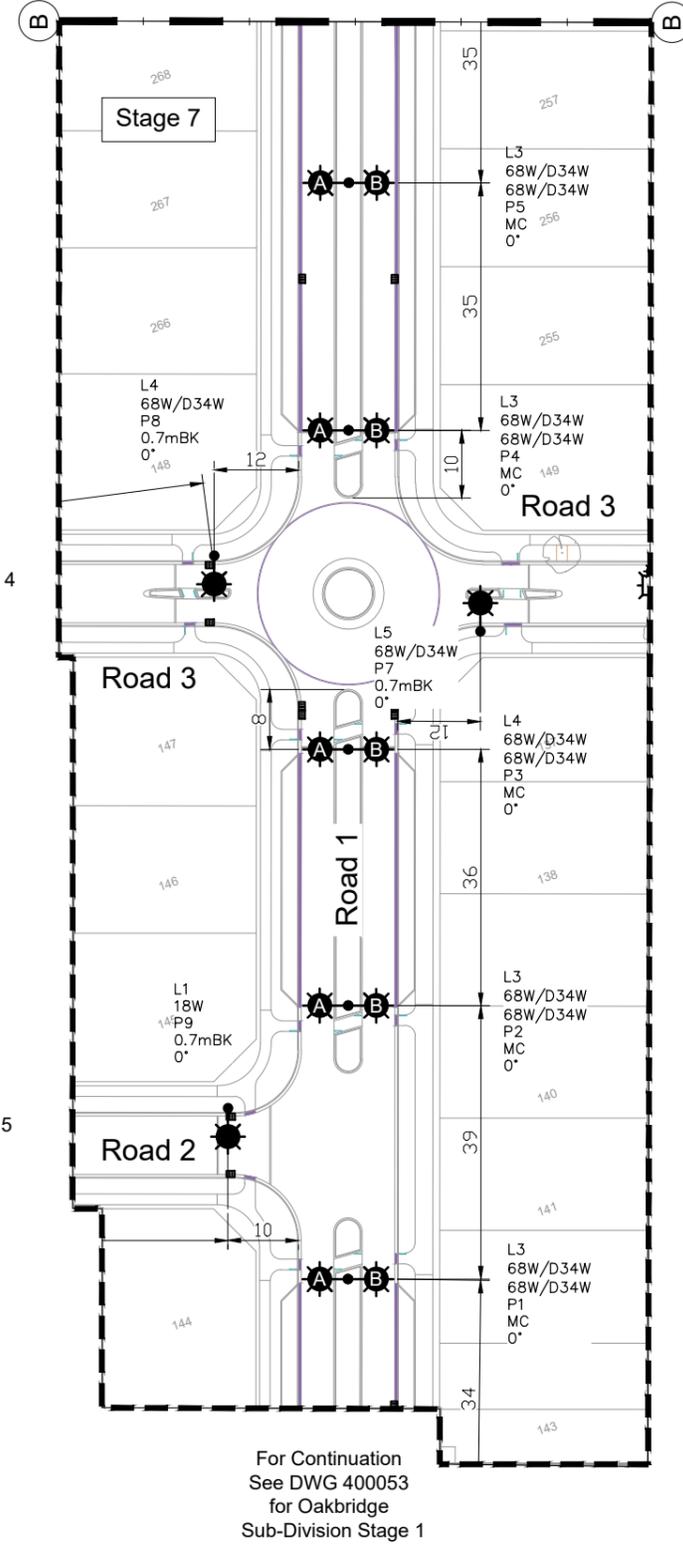
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LIGHTING FURNITURE

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Web: www.windsorurban.co.nz

Size	Drawing Number	Sheet
A3	400335	1/7

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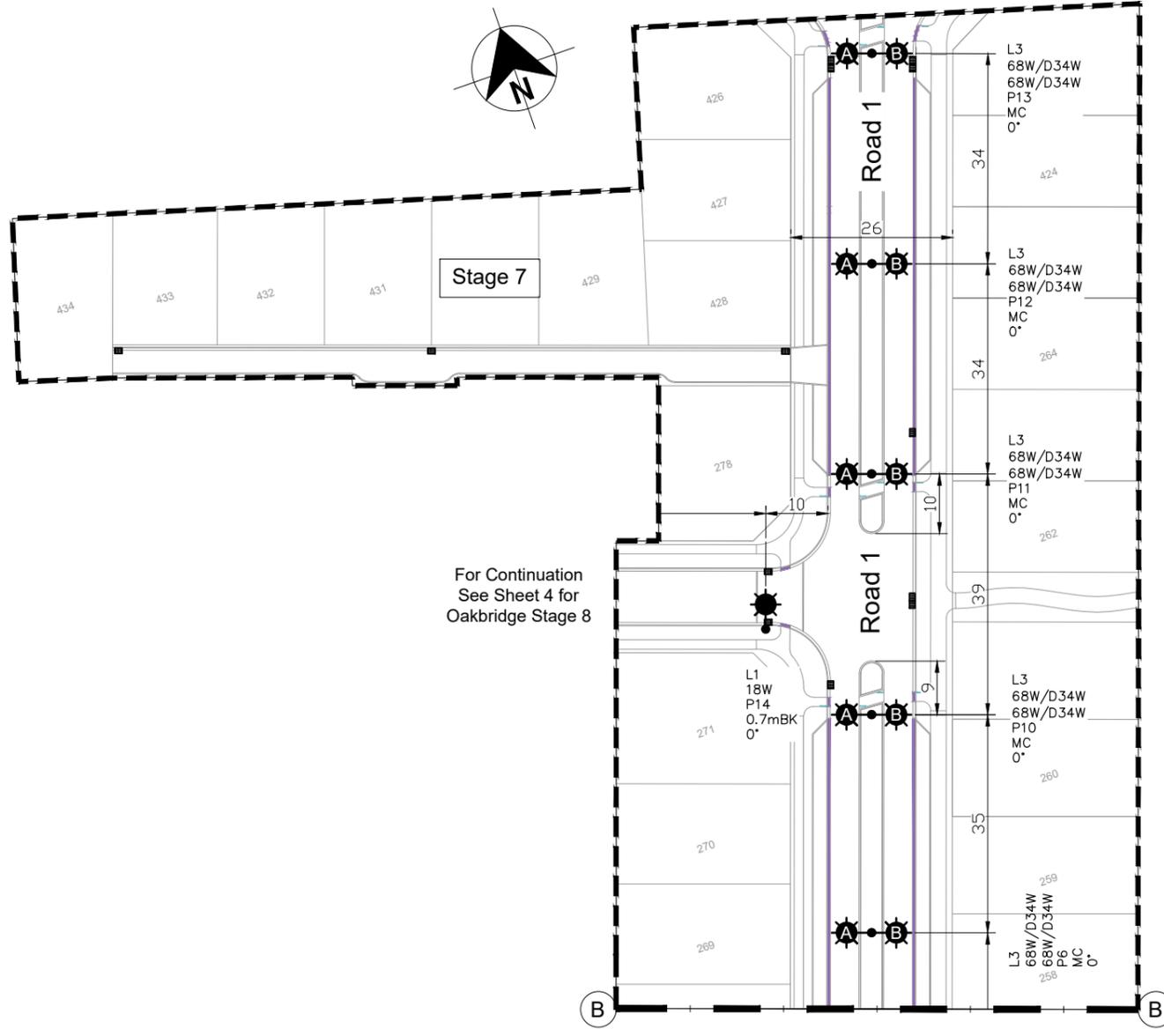


For Continuation See Sheet 4 for Oakbridge Stage 9

For Continuation See Sheet 5 for Oakbridge Stage 10

For Continuation See DWG 400053 for Oakbridge Sub-Division Stage 1

For Continuation See DWG 400202 for Oakbridge Stage 3 Sub-Division



For Continuation See Sheet 4 for Oakbridge Stage 8

For Continuation See Sheet 7 for Stage 13 & 14

NOTES:

1. Refer to Sheet 1 for Luminaire Schedule, Legend and project specific notes.

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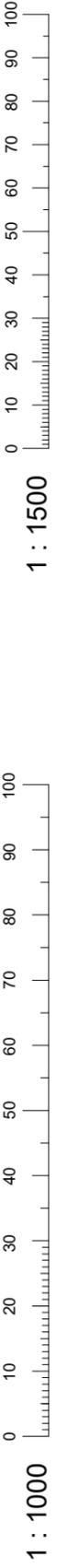
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STREETLIGHTING LAYOUT

Oakbridge Sub-Division
Stage 7
Christchurch



Size	Drawing Number	Sheet
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P4-A	APPLY MAC ID STICKER HERE	P4-B	APPLY MAC ID STICKER HERE	P5-A	APPLY MAC ID STICKER HERE	P5-B	APPLY MAC ID STICKER HERE	P6-A	APPLY MAC ID STICKER HERE	P6-B	APPLY MAC ID STICKER HERE
P7	APPLY MAC ID STICKER HERE	P8	APPLY MAC ID STICKER HERE	P9	APPLY MAC ID STICKER HERE	P10-A	APPLY MAC ID STICKER HERE	P10-B	APPLY MAC ID STICKER HERE	P11-A	APPLY MAC ID STICKER HERE
P11-B	APPLY MAC ID STICKER HERE	P12-A	APPLY MAC ID STICKER HERE	P12-B	APPLY MAC ID STICKER HERE	P13-A	APPLY MAC ID STICKER HERE	P13-B	APPLY MAC ID STICKER HERE	P14	APPLY MAC ID STICKER HERE

NOTES:

1. Refer to Sheet 1 for Luminaire Schedule, Legend and project specific notes.

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STREETLIGHTING LAYOUT

Oakbridge Sub-Division
MAC ID - Stage 7
Christchurch

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Size	Drawing Number	Sheet
A3	400335	3 / 7



For Continuation
See Sheet 6 for
Oakbridge Stage 12

For Continuation
See Sheet 2 for
Oakbridge Stage 7

For Continuation
See Sheet 6 for
Oakbridge Stage 12

For Continuation
See Sheet 2 for
Oakbridge Stage 7

NOTES:

1. Refer to Sheet 1 for Luminaire Schedule, Legend and project specific notes.

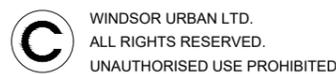
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P18	APPLY MAC ID STICKER HERE	P19	APPLY MAC ID STICKER HERE
P20	APPLY MAC ID STICKER HERE	P21	APPLY MAC ID STICKER HERE
P22	APPLY MAC ID STICKER HERE	P23	APPLY MAC ID STICKER HERE
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STREETLIGHTING LAYOUT

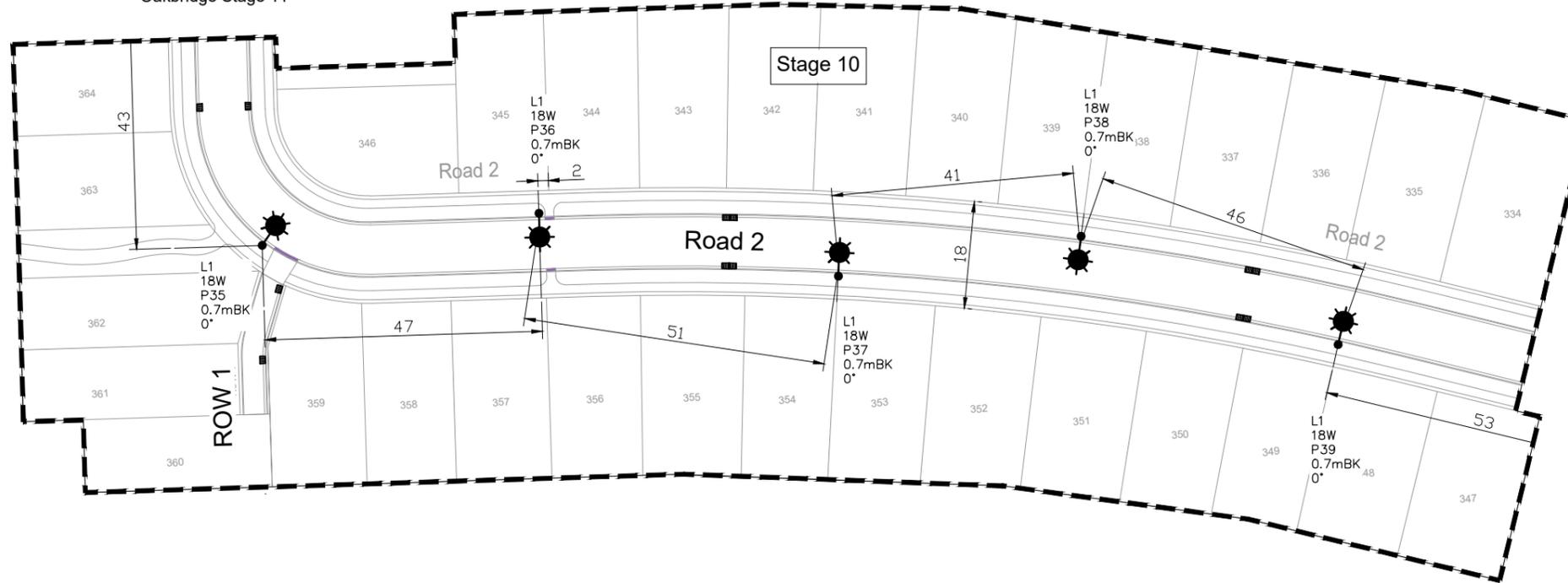
Oakbridge Sub-Division
Stage 8 & 9
Christchurch



Size	Drawing Number	Sheet
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For Continuation
See Sheet 6 for
Oakbridge Stage 11



For Continuation
See Sheet 2 for
Oakbridge Stage 7

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P35	APPLY MAC ID STICKER HERE	P36	APPLY MAC ID STICKER HERE	P37	APPLY MAC ID STICKER HERE
P38	APPLY MAC ID STICKER HERE	P39	APPLY MAC ID STICKER HERE		

NOTES:

1. Refer to Sheet 1 for Luminaire Schedule, Legend and project specific notes.

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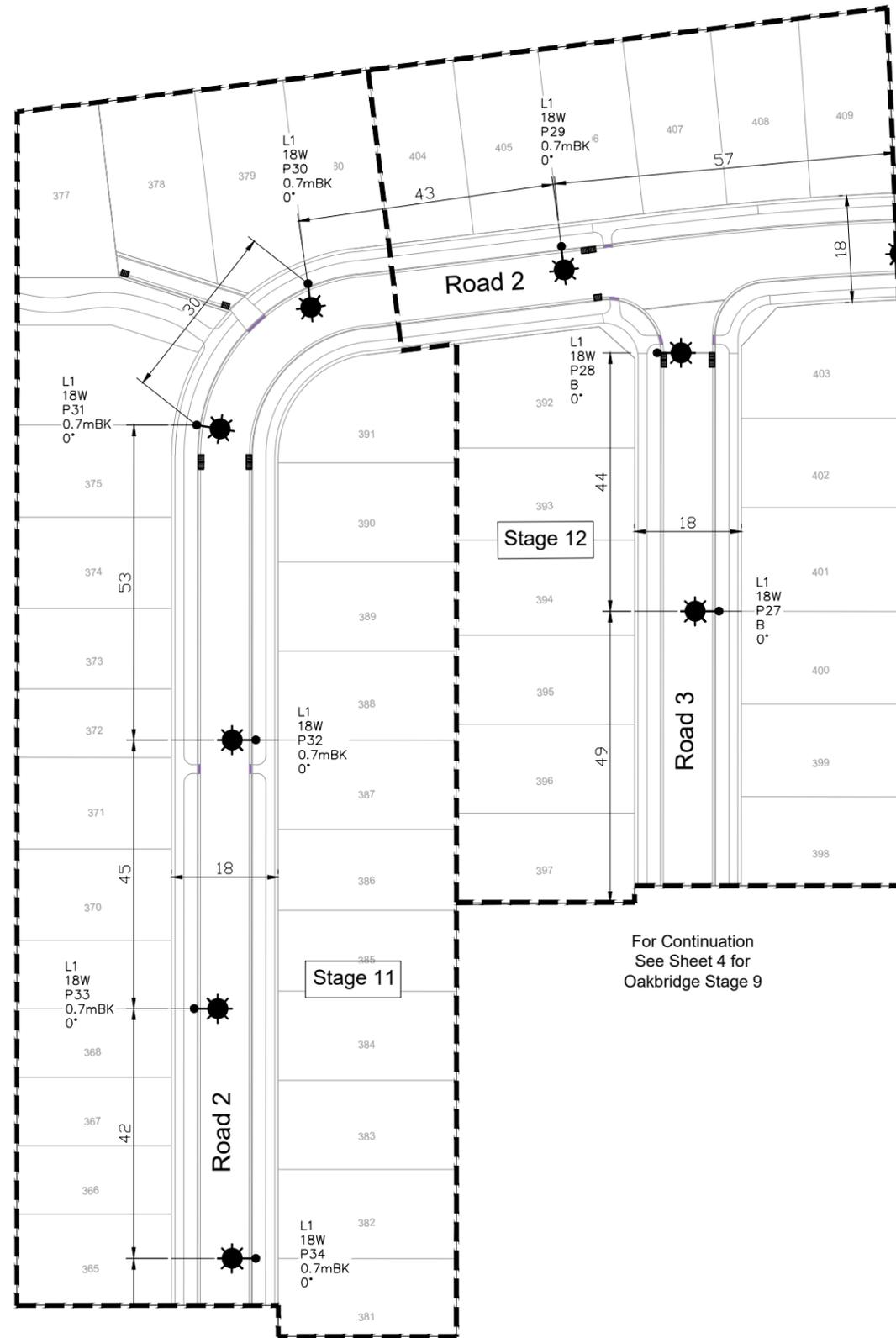
STREETLIGHTING LAYOUT

Oakbridge Sub-Division
Stage 10
Christchurch


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Size	Drawing Number	Sheet
A3	400335	5/7

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For Continuation
See Sheet 4 for
Oakbridge Stage 8

For Continuation
See Sheet 4 for
Oakbridge Stage 9

For Continuation
See Sheet 5 for
Oakbridge Stage 10

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P27	APPLY MAC ID STICKER HERE	P28	APPLY MAC ID STICKER HERE
P29	APPLY MAC ID STICKER HERE	P30	APPLY MAC ID STICKER HERE
P31	APPLY MAC ID STICKER HERE	P32	APPLY MAC ID STICKER HERE
P33	APPLY MAC ID STICKER HERE	P34	APPLY MAC ID STICKER HERE

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NOTES:

1. Refer to Sheet 1 for Luminaire Schedule, Legend and project specific notes.

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STREETLIGHTING LAYOUT

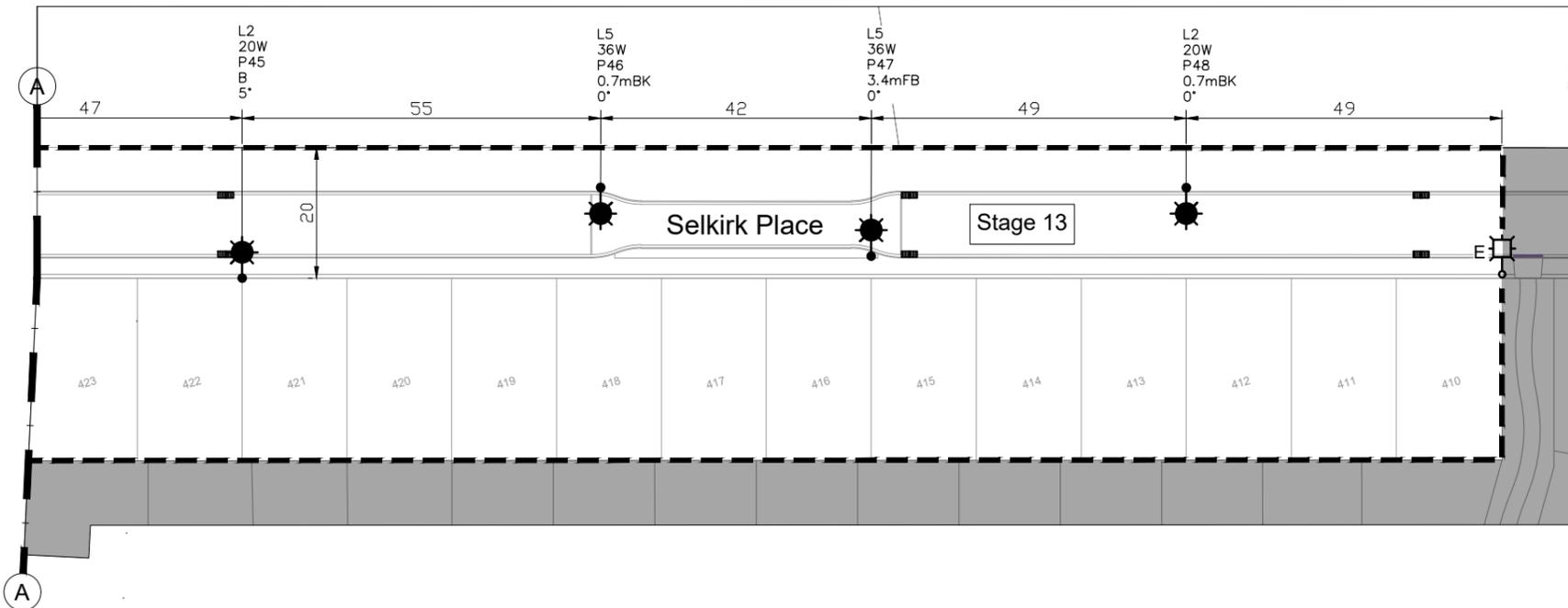
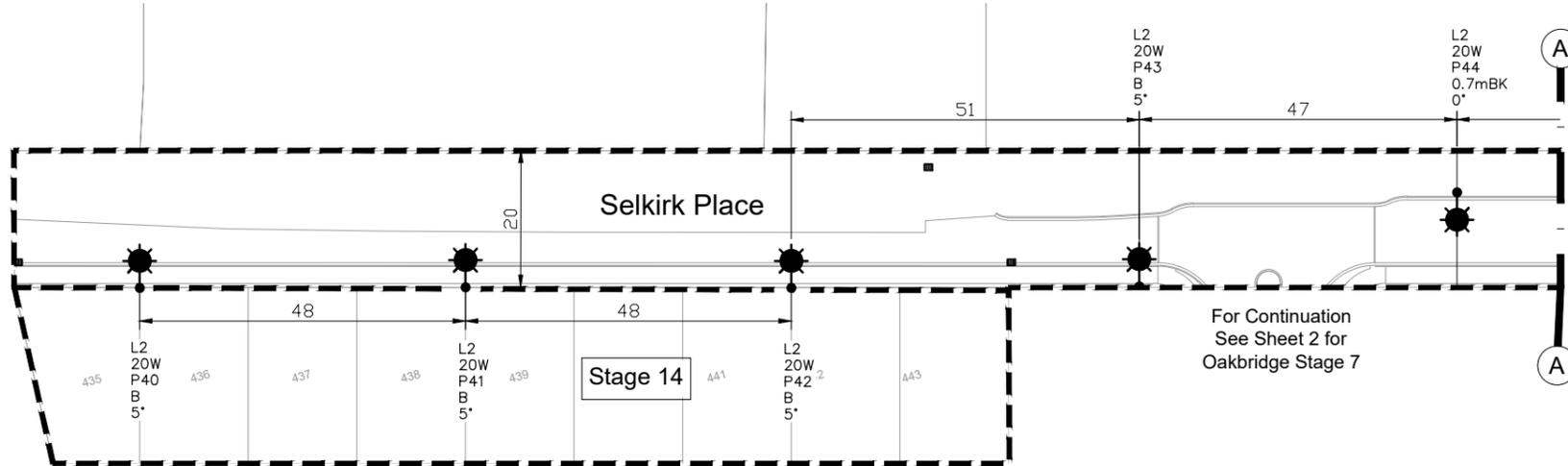
Oakbridge Sub-Division
Stage 11 & 12
Christchurch


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Size	Drawing Number	Sheet
A3	400335	6 / 7

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NOTES:

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P40	APPLY MAC ID STICKER HERE	P41	APPLY MAC ID STICKER HERE
P42	APPLY MAC ID STICKER HERE	P43	APPLY MAC ID STICKER HERE
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P46	APPLY MAC ID STICKER HERE	P47	APPLY MAC ID STICKER HERE
P48	APPLY MAC ID STICKER HERE		

For Continuation
See DWG 400310
for Oakbridge Stage 6
Sub-Division

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STREETLIGHTING LAYOUT

Oakbridge Sub-Division
Stage 13 & 14
Christchurch

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Size	Drawing Number	Sheet
A3	400335	7/7

1 : 1500

1 : 1000



SPECIFICATION FOR ROAD LIGHTING

ROAD LIGHTING DESIGN AT:

Oakbridge Sub-Division - Stage 7 to 14

Christchurch

Christchurch City Council

Connetics Ltd
Design + Engineering
11 Islington Avenue
Islington
Christchurch
(03) 353 7320

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1. PRELIMINARY AND GENERAL

The Principal for this project is Windsor Urban Ltd.

The Engineer's representative for this project is Robert St-Denis, Connetics Ltd., Design and Engineering.

Telephone: 03 353 7230

E-mail: Robert.St-Denis@connetics.co.nz

Facsimile: 353 7201

2. SCOPE OF WORK

A complete and fully functional road lighting system is required and the work shall include:

- Supply, installation, testing and commissioning of new Road Lighting equipment, including new columns, arms, fuse panels, luminaires and cables, etc. as detailed on the drawings and specified herein.
- Liaison with Orion including application for any permissions or approvals, etc. as detailed in Orion's Network Standards.
- Liaison with the Engineer's representative throughout.
- Preparation and supply to the Engineer's representative of Test Certificates for individual road lights and "M" or "EL" Type Certificates of Compliance as detailed in Orion Network Standard NW 21 72 01.
- Preparation and supply to the Engineer's representative of all "As Built" documentation including drawing(s). (see Appendix 1)
- Record GPS location of all new, removed and existing lighting poles / columns.
- Preparation and supply of Road Lighting Valuation schedules for all new and removed equipment. These schedules shall be submitted with all other completion paperwork requirements.
- Preparation and supply of a completed Schedule of Prices using the Asset code summary. This asset code summary shall be submitted with the tender / quotation.
- Preparation and supply of **all** of completed documentation required from the Christchurch City Council (CCC) "**Christchurch City Council Construction Standard Specification – Part 5 – Lights**"

<https://ccc.govt.nz/assets/Documents/Consents-and-Licences/construction-requirements/CSS/Aug2020/2019-CSS-Part-5.pdf>

3. DRAWINGS AND DOCUMENTS

The following drawings and documents form part of this specification:

Connetics Drawings numbered 400335 sheets 1 to 7, Rev-B.

APPENDIX 1: Road Lighting Construction Completion Form

APPENDIX 2: Street Lighting Columns – Earth Test Sheet

APPENDIX 3: Compliance Requirements Check Sheet - Lights

4. STANDARDS, SPECIFICATIONS AND CODES

All parts of the installation shall comply with the following:

- Christchurch City Council (CCC) Infrastructure Design Standards and CCC Construction Standard Specifications (CSS);
- Electricity act, the Electricity Regulations and Codes of Practice (current edition);
- Orion Standard "Connecting Equipment to Orion's Street Lighting Network" - NW21.72.0;
- Health and Safety in Employment Act.
- Code of Practice for Temporary Traffic Management.
- Utility Access Act 2010 (National Code of Practice for Utilities Access to Corridors)

5. COMPETENT PERSONNEL

The specified work is to be undertaken by Orion and/or CCC competent / approved contractors. Any and all Subcontractors employed on this project must work under the supervision of a competent (approved) person.

Works on the Orion Network can only be carried out by or under the direct supervision of Orion's approved personnel.

The contractor is responsible for ALL safety procedures throughout the work site(s) and must use and maintain appropriate safety barriers, warning signs etc. to protect all workers and the public from all hazards and hazardous situations.

An onsite Management Plan and record sheet must be available to all personnel at all times

6. START WORK NOTICES (FOR COUNCIL WORK ONLY)

If required, a Start Work Notice for the intended work shall be distributed to the affected area. An electronic copy of the master Start Work Notice can be requested from the design engineer. This form shall be filled by the Contractor or simply to the successful contractor for them to copy and deliver to ALL residents, business and CCC representatives affected by the new lighting.

The Start Work Notices are to be delivered (by the successful contractor) two weeks prior to the commencement of any work on site

7. REMOVAL OF EXISTING ROAD LIGHTING EQUIPMENT – (IF REQUIRED)

Disconnect and carefully remove from Orion Network; columns, luminaires, outreach arms, mounting hardware, cables, etc. as detailed on the drawings.

All of the disconnected and removed materials and equipment remain the property of the Principal. They must be handled carefully so as to avoid damage, vandalism or contamination.

An inventory of the removed materials and equipment shall be made by using the CCC's standard document - "Road lighting Valuation – Removed equipment" (see Appendix 1).

All of the disconnected and removed materials and equipment shall be temporarily stored at a suitable location at the Contractor's cost pending inspection by the Engineer's representative. An inspection request will require at least 2 working days' notice.

On satisfactory completion of the inspection (to the Engineer's representative's satisfaction) all of the inspected materials and equipment suitable for reuse shall, as soon as practicable, be delivered to the local authority nominated Street Lighting Maintenance Depot.

All transport costs to be allowed for by the Contractor. Materials and equipment shall NOT be delivered to the depot until the Engineer's representative has inspected them.

Materials and equipment not suitable for reuse shall be correctly disposed of at the contractor's cost.

Attention is drawn to various publications (Ministry of Health, etc.) regarding the identification, safe handling and storage of equipment containing polychlorinated biphenyls (PCBs). All removed equipment shall be examined. If any equipment is found that contains (or is suspected of containing) PCBs, the Engineer's representative shall be notified immediately.

All lamp disposals are to be carried out in accordance with CCC and/or NZ Ministry of Health recommendations.

8. NEW ROAD LIGHTING COLUMNS AND OUTREACH ARMS

The columns and outreach arms shall be as specified on the drawings and guaranteed by the columns manufacturer (and/or supplier).

Columns shall be fitted with a standard CCC fuse panel and installed to meet all requirements specified in CSS. (Refer to Appendix 5 for clarification of behind kerb and at boundary).

Base compartment door must face towards the footpath, or any other appropriate direction that allows clear and safe access. Door shall be secured by at least one mushroom head, stainless steel, 6mm Allen Key bolt. The bolt(s) threads shall be coated with a suitable (long life) grease to prevent seizing.

Proposed locations of all columns shall be clearly marked on the ground by the project surveyor. It is the contractor responsibility to contact the project surveyor. Excavations must not be made in the ground, nor columns installed, until the surveyor has approved the proposed location of each column. A minimum of three working days' notice is required for the surveyor to mark new column locations. Column mark out to be completed 2 weeks prior to any construction commencement.

Supply and install all equipment necessary to complete the installation and/or as documented on the drawings.

Columns shall be installed as documented in accordance with the manufacturer's instructions and recommendations. They shall be vertical (**+/- 0.5° from vertical**) after compacting, and shall remain so (except for fair wear and tear) until the end of the defects liability period. The disturbed ground around the

column shall be reinstated to match the (undisturbed) surrounding ground. The ground line identification mark shall be **(+/- 100mm)** from the finished ground level.

The light fitting's optical centre shall be within **400mm** of the vertical location in the group for overhead supply or within **200mm** for underground supply

If any outreach arms being recovered for relocation or identified as suitable for reuse within the works are to be checked and confirmed as being suitable for reuse. The Engineer's representative is to be advised of any item identified for recovery that is not suitable for relocation/reuse.

9. LUMINAIRES AND LAMPS

Road lighting luminaires and lamps/LEDs shall be as specified on the drawings and guaranteed by the luminaire manufacturer's (and/or supplier). All luminaires shall be installed in accordance with the manufacturer's instructions and recommendations. They shall be of an approved type as indicated in NZTA M30 luminaire approved list.

The luminaire label must be permanent, remain on the luminaire throughout its life and identify the type and wattage of lamp used. LEDs should be labelled as per AS/NZS1158 Part 6.

If any luminaire being recovered for relocation or identified as suitable for reuse within the works are to be checked and confirmed as being suitable for reuse. The Engineer's representative is to be advised of any item identified for recovery that is not suitable for relocation/reuse.

10. CONTROL GEAR

New control gear/electronic drivers used shall be supplied and guaranteed by manufacturer (and/or supplier).

The electronic Control Gear/Driver shall be matched to the LEDs to provide reliable and efficient operation (i.e. Driver current, system wattage etc.)

The power factor of each luminaire (when stable operation at a supply voltage of 230V is established) shall be greater than 0.90 lagging.

If any Control Gear being recovered for relocation or identified as suitable for reuse within the works is to be checked and confirmed as being suitable for reuse. The Engineer's representative is to be advised of any item identified for recovery that is not suitable for relocation/reuse.

11. CONDUCTORS, WIRES AND CABLES

A new switchboard is to be installed within the base compartment of every new column.

To maintain the IP rating of all luminaires all internal cabling from the switchboard protection device to the luminaire shall be either a minimum of 1.5mm² circular 3 core TPS cable or a minimum of 1.5mm² 2C neutral screen cable, continuous throughout the entire length.

If flat 1.5mm² 2C+E TPS cable is used from the switchboard to the luminaire, the termination to the luminaire shall occur within a suitable IP65 (or higher) connector within 300mm of entering the luminaire. The IP rating of the luminaire is not to be compromised in any way.

Flat TPS cable is **NOT** to be used for direct connection into an IP rated luminaire unless an IP66 gland suitable for flat TPS cable is used. Particular care shall be taken to ensure that the TPS cable is not damaged as it is drawn into the column or outreach arm.

All terminations in the base compartment shall be in accordance with Orion standard and Christchurch City Council Construction Standards.

12. TEMPORARY LIGHTING – (AS REQUIRED)

Existing lighting levels (at a minimum) must be maintained at all time. If existing luminaires must be disconnected or removed before adjacent new lighting has been commissioned, then temporary lighting shall be provided.

If temporary lighting is required, the Engineer's representative shall approve the temporary lighting proposals. Existing lighting arrangements must not be altered or disconnected until the approval has been obtained, and the temporary lighting is fully operational.

Any temporary lighting is to comply with AS/NZS1158 and any Local Authority lighting requirements.

Temporary asymmetrical floodlights mounted on low height columns attached to mobile trailers are unacceptable.

All costs associated with temporary lighting is to be included within the tender sum.

13. TESTING, COMMISSIONING AND DOCUMENTATION

All equipment shall be tested and the road lighting system commissioned in accordance with Orion Network Standard.

Originals of Test Certificates for Individual Road Lights shall be supplied to the Engineer's representative within 48 hours of commissioning or livening of the road light. All certificates shall be completely filled out (all fields completed) in a legible manner. Copies of certificates will not be accepted. Refer to Orion Network Standard for details of the Test Certificate for Individual Road Lights.

The original of the Certificate of Compliance ("M" or "EL" Type) shall be supplied to the Engineer's representative within 48 hours of commissioning or livening of the last luminaire.

Records of the installation shall be maintained as the work proceeds, and copies of "as built" drawings shall be supplied to the Engineer's representative within 48 hours of commissioning the last of the works. Data shall be recorded in accordance with Orion's standards & CCC's construction standards.

The completed Road Lighting Valuation - New Equipment schedule shall be supplied to the Engineer's representative together with the tender documents at time of tender.

The completion certificate and approval to the Council for all new subdivision lighting is subject to the completion of ALL paperwork and the livening of all lighting.

14. MAINTENANCE AND GUARANTEES

All work, materials and equipment shall be guaranteed against defect or failure of any kind (excepting fair wear and tear) for a period of twelve months starting from the installation is livened. Refer to NZS 3910 for details of liability with respect to defects arising during this period. The maintenance and guarantee liabilities shall be vested in the CCC as owners of the road lighting system for all CCC owned equipment.

15. HEALTH AND SAFETY

- The requirements of Health and Safety in Employment Act plus and amendments shall be met at all times;
- A site safety management plan is to be implemented and a record sheet kept on site at all times
- Any accidents, near miss and remedial actions are to be reported in writing to the Engineer’s representative as soon as possible;
- The Transit NZ Code of Practise for Temporary Traffic Management (COPTTM) are to apply to all activities within the road reserve or adjacent to and affecting the road reserve users;

During the design phase we have assessed the safety levels

16. AS BUILT DRAWING, MAINTENANCE AND WARRANTIES

The contractor shall provide clear marked up drawings of the completed installation along with Test Certificates and Certificates of Compliance for all lights/columns/cable as the installation progresses and is livened.

As more column location are marked by the principal surveyor it is the responsibility of the Surveyor to advise the design engineer if the marking doesn’t reflect the column location shown on the construction drawings.

The contractor shall provide a 12 months warranty on the street lighting installation. Any defects shall be rectified within 1 week of notification. The warranty shall commence on the date the full (or part) installation is connected to the Orion network and commissioned.

Following completion of the installation the contractor shall supply completed as-built information, including marked up drawings, all information required for updating the CCC database and a Lighting Construction Completion Form.

The information required for the database is as follows:

Type	Inventory Data	Location (incl GPS)	Property Address	Other Fields
Streetlight	Wattage, material, surface treatment, supply, type, bulk circuit	Yes	Yes	Height, offset from kerb, date tested, date completed
Column	Type, mount			Owner, purpose

APPENDIX 1: Road Lighting Construction Completion Form

CONSTRUCTION COMPLETION FORM

To: The Engineer's Representative
 Connetics Design & Engineering
 P O Box 2237
 CHRISTCHURCH

Attention: Robert St-Denis

From: _____ (Contractor's Name)
 _____ (Address)

Dear Sir,

Road Lighting Works at: Oakbridge Sub-Division - Stage 7 to 14

has been completed. All work has been carried out in accordance with the Project Specifications

After all the tests were successfully completed, the entire lighting project was commissioned on _____ and the Defects Liability Period should commence from this date.

The following documentation is enclosed:

- Test Certificate for each Lighting Column
- Certificate of Compliance for the complete Installation
- As Built Drawings

Print Name

Signed

Date: _____

APPENDIX 2: Street Lighting Columns – Earth Test Sheet

A “Street Lighting Columns – Earth Test Sheet” shall be completed for “each” new column installation and submitted upon completion and commissioning of the project.

The form can be found in Appendix 1 of Part 5 – Lights of the Christchurch City Council Construction Standard Specification found at the link below.

<https://ccc.govt.nz/assets/Documents/Consents-and-Licences/construction-requirements/CSS/Aug2020/2019-CSS-Part-5.pdf>

Part 5 - Lights

Appendix 1



CHRISTCHURCH CITY COUNCIL
PO BOX 237
CHRISTCHURCH
NEW ZEALAND

EARTH TEST SHEET

LOCATION _____

DRAWING NUMBER _____

COLUMN NUMBER _____

TEST RESULTS (ROD TO LUG) _____ OHMS (<0.5 OHMS)

NAME _____ REGISTRATION NUMBER _____

SIGNED _____ DATE _____

LOCATION DRAWING

SAMPLE

PHOTO OF INSTALLED EARTH ROD

CSS: Part 5
Christchurch City Council Civil Engineering Construction Standard Specification
December 2019



APPENDIX 3: Compliance Requirements Check Sheet - Lights

A "Compliance Requirements Check Sheet" shall be completed and submitted upon completion and commissioning of the project.

The form can be found in Appendix 2 of Part 5 – Lights of the Christchurch City Council Construction Standard Specification found at the link below.

<https://ccc.govt.nz/assets/Documents/Consents-and-Licences/construction-requirements/CSS/Aug2020/2019-CSS-Part-5.pdf>

Part 5 - Lights

Appendix 2

Compliance Requirements Check Sheet - Lights

ITEM	CSS REF	TASK	TEST STD/ DESCRIP	COMPLIANCE REQUIREMENTS	TEST FREQ.	PASS YES/NO	TEST BY	ACTIONS
1		EXCAVATION						
	Pt 5 7.0	Trench Width	manuf reqs	specify				
	Pt 5 7.0	Trench Depth	manuf reqs	specify				
	Pt 5 7.0	Trench formation	inspect	Sawcut edges of excavation prior				
	Pt 5 7.1	Excavation in legal road	inspect	Complies with road opening notice				
2		INSTALLATION						
	Pt 5 10.0	Work standards	inspect	Complies with AS/NZS 3000, and regs				
	Pt 5 10.0	Work standards	inspect	Complies with Network Operator's requirements				
	Pt 5 10.1	Columns	Specify SD	Within 0.1m location, 50mm height, 0.5° vert. painted				
	Pt 5 10.5	Luminaire	inspect	Complies with manufacturer's				