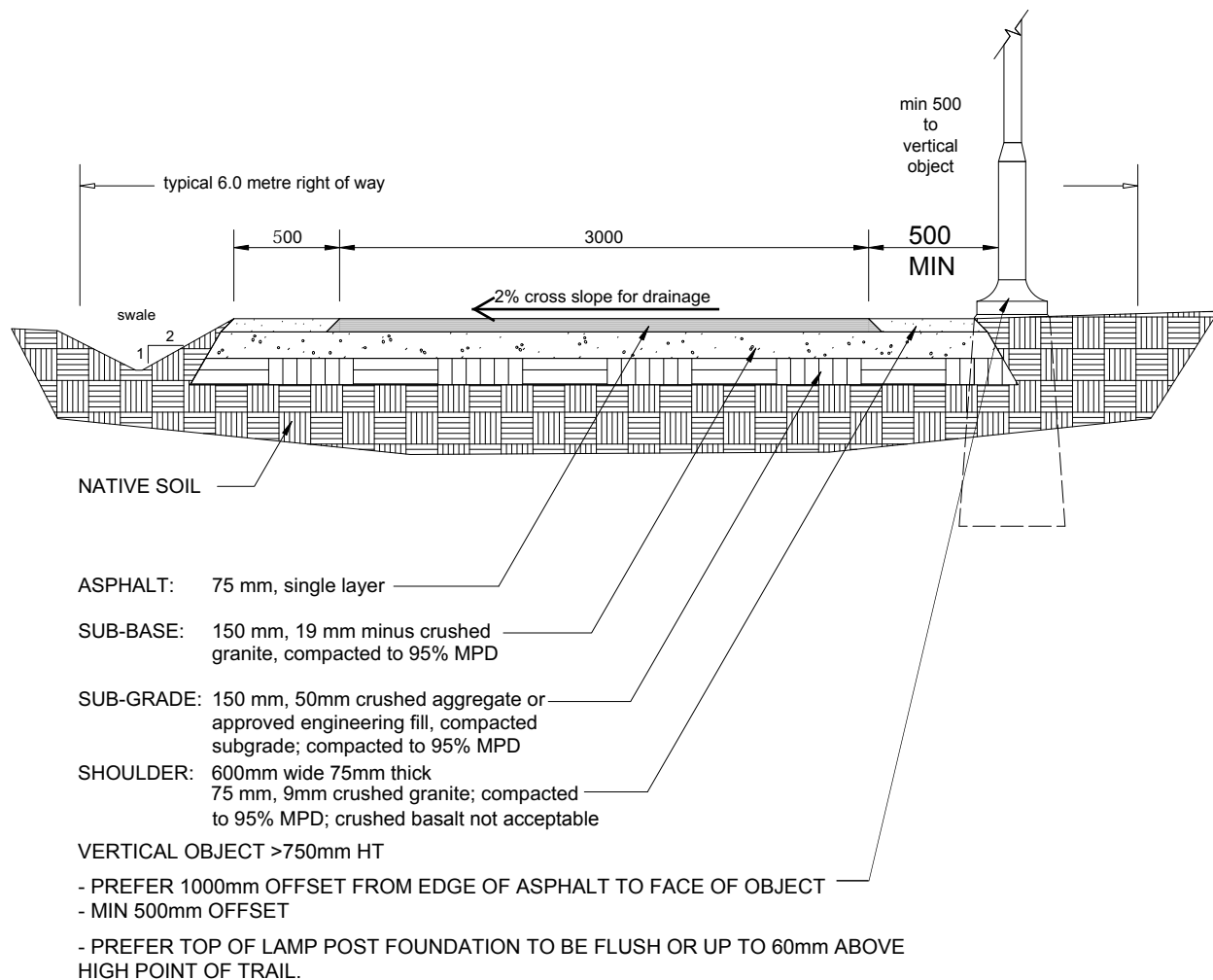


NOTES:

1. ALL DIMENSIONS IN MILLIMETRES (mm), EXCEPT WHERE NOTED.
2. REFER TO SECTION FOR MATERIAL SPECIFICATIONS.
3. ALL SIGNS LOCATED AT NON ROAD SIDE OF VALLEY TRAIL OTHER THAN STOP, YIELD AND CROSSWALK.
4. BOULDERS MAY BE USED TO SHORE UP STEEP SLOPES.
5. ON STEEP CUT BANKS > 2:1 SLOPE A COMBINATION OF HYDRO-SEEDING, STRAW AND NETTING IS TO BE APPLIED TO STABILIZE UNTIL PLANTING ESTABLISHED.
6. THIS DRAWING SUPPLEMENTS THE "VALLEY TRAIL DESIGN GUIDELINES" (2019) AND MAY NOT REPRESENT ALL DESIGN AND CONSTRUCTION DETAILS. REFER TO THE GUIDELINES FOR ALL DETAILS.
7. FOR NORDIC GROOMED VALLEY TRAILS SHOULDER & SWALE CLEARED TO A MIN. 1600mm.



RESORT MUNICIPALITY OF WHISTLER

TYPE 1A - RURAL / FOREST  
MULTI USE RECREATIONAL 'VALLEY TRAIL'

DRAWN BY: KM/MP

DATE: OCTOBER 8, 2020

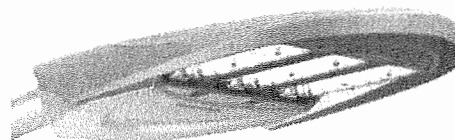
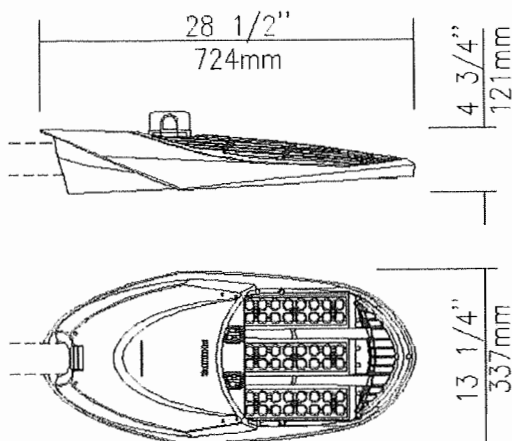
SCALE: N.T.S.

DWG. NO.:

Whistler Valley Trail at Cheakamus Lake Rd (62993)



LEDGINE



APPROVED

JASON FENTIMAN  
OCT. 25, 2018

EPA: 0.65 sq ft / weight: 17 lb (7.7 kg)

Note: 3D image may not represent color or option selected.  
Logos above include link, click to access.

Qty	10	Luminaire	GPLS-16L700NW-G2-R2M-UNV-DMG-RCD-BE2TX
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Description of Components:

**Housing:** The upper grid and lower part of the housing are made of a low copper die cast Aluminum alloy (A360), 0.100" (2.5mm) minimum thickness. Fits on a 1.66" (42mm) O.D. (1.25" NPS), 1.9" (48mm) O.D. (1.5" NPS) or 2 3/8" (60mm) O.D. (2" NPS) by 7 3/4" (197mm) minimum long tenon. Comes with two zinc plated clamps fixed by 4 zinc plated hexagonal bolts 3/8 16 UNC for ease of installation. Provides an easy step adjustment of +/- 5° tilt in 2.5° increments. Includes integral bubble level standard (always included). A quick release, tool less entry, single latch, hinged, removable door opens downward to provide access to electronic components and to a terminal block. Door is secured to prevent accidental dropping or disengagement. Complete with a bird guard protecting against birds and similar intruders. ANSI label to identify wattage and source included in box.

**Light Engine:** Composed of 4 main components: **Heat Sink / LED Module / Optical System / Driver**

Electrical components are RoHS compliant, IP66 sealed light engine. LEDs tested by ISO 17025-2005 accredited lab in accordance with IESNA LM-80 guidelines in compliance with EPA ENERGY STAR, extrapolations in accordance with IESNA TM-21. Metal core board ensures greater heat transfer and longer lifespan.

**Heat Sink:** Built in the housing, designed to ensure high efficacy and superior cooling by natural convection air flow pattern always close to LEDs and driver optimising their efficiency and life. Product does not use any cooling device with moving parts (only passive cooling). Entire luminaire is rated for operation in ambient temperature of -40°C / -40°F up to +40°C / +104°F.

**LED Module:** Composed of 16 high-performance white LEDs. Color temperature as per ANSI/NEMA bin Neutral White, 4000 Kelvin nominal (3985K +/- 275K or 3710K to 4260K), CRI 70 Min. 75 Typical.

**Optical System:** (R2M), IES type II medium (asymmetrical). Composed of high-performance UV stabilized optical grade

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## Whistler Valley Trail at Cheakamus Lake Rd (62993)

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polymer refractor lenses to achieve desired distribution optimized to get maximum spacing, target lumens and a superior lighting uniformity. System is rated IP66. Performance shall be tested per LM-63, LM-79 and TM-15 (IESNA) certifying its photometric performance.0% uplight and U0 per IESNA TM-15.

**Driver:** High power factor of 90% minimum%. Electronic driver, operating range 50/60 Hz. Auto-adjusting universal voltage input from 120 to 277 VAC rated for both application line to line or line to neutral, Class 2, THD of 20% max. **Driver comes with dimming compatible 0-10 volts.**

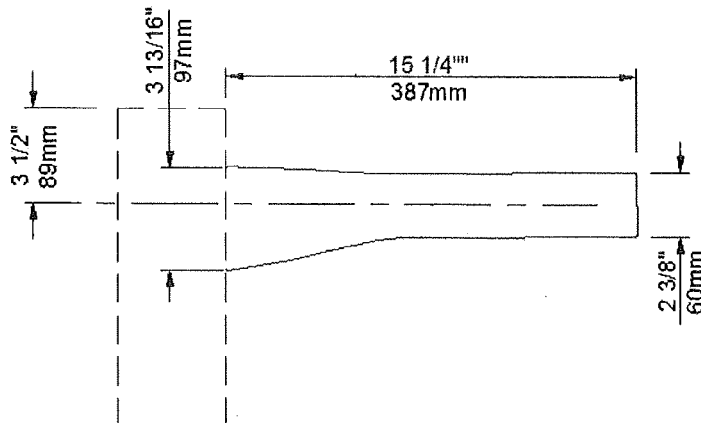
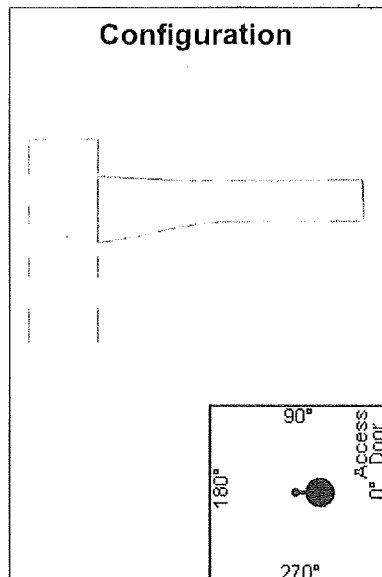
The current supplying the LEDs will be reduced by the driver if the driver experiences internal overheating as a protection to the LEDs and the electrical components. Output is protected from short circuits, voltage overload and current overload. Automatic recovery after correction. Standard built-in driver surge protection of 2.5kV (min).

**Driver Options: (DMG),** Dimming compatible 0-10 volts. For applicable warranty, certification and operation guide see "*Philips Lumec dimmable luminaire specification document for unapproved device installed by other*". To get document, click on this link: [Specification document](http://www.lumec.com/Lumec3DV2/PdfWebLink/Philips%20Lumec%20dimmable%20luminaire%20specification%20document%20for%20unapproved%20device%20installed%20by%20other.pdf) or go on web site on this address: <http://www.lumec.com/Lumec3DV2/PdfWebLink/Philips Lumec dimmable luminaire specification document for unapproved device installed by other.pdf>

**Surge Protector:** Surge protector tested in accordance with ANSI/IEEE C62.45 per ANSI/IEEE C62.41.2 Scenario I Category C High Exposure 10kV/10kA waveforms for Line-Ground, Line-Neutral and Neutral-Ground, and in accordance with U.S. DOE (Department of Energy) MSSLC (Municipal Solid-State Street Lighting Consortium) model specification for LED roadway luminaires electrical immunity requirements for High Test Level 10kV / 10kA.

**Luminaire Options: (RCD),** Receptacle with 5 pins enabling dimming, can be used with a twist-lock control device or photoelectric cell or a shorting cap. Use of photocell or shorting cap is required to ensure proper illumination.

Whistler Valley Trail at Cheakamus Lake Rd (62993)



Qty 10 Bracket RLAR-1A-R5@6-BE2TX

Description of Components:

Arm: (RLAR) Made of cast A356 aluminum, mechanically assembled to the pole.

Bracket Properties (Weight and EPA): 3 lbs (1.4 kg), .25 ft<sup>2</sup>


APPROVED

JASON FENTIMAN

OCT-25, 2018

**Whistler Valley Trail at Cheakamus Lake Rd (62993)**

**APPROVED**

JASON FENTIMAN  
  
OCT. 25, 2018

Qty	10	Accessories	PH8
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**Description of Components:**

**Accessories:** (PH8), Photoelectric Cell, Twist-lock Type. UNV (120-277V)

Miscellaneous
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**Description of Components:**

**Wiring:** The connection of the luminaire is done using a terminal block connector 600V, 85A for use with #2-14 AWG. wires from the primary circuit, located inside the housing. Due to the inrush current that occurs with electronic drivers, recommend using a 10Amp time delay fuse to avoid unwanted fuse blowing (false tripping) that can occur with normal or fast acting fuses.

**Hardware:** All exposed screws shall be complete with Ceramic primer-seal basecoat to reduce seizing of the parts and offers a high resistance to corrosion. All seals and sealing devices are made and/or lined with EPDM and/or silicone and/or rubber.

**Finish:** Color to be **textured dark blue (BE2TX)** and in accordance with the AAMA 2603 standard. Application of polyester powder coat paint (4 mils/100 microns) with  $\pm 1$  mils/24 microns of tolerance. The Thermosetting resins provides a discoloration resistant finish in accordance with the ASTM D2244 standard, as well as luster retention in keeping with the ASTM D523 standard and humidity proof in accordance with the ASTM D2247 standard.

The surface treatment achieves a minimum of 3000 hours for salt spray resistant finish in accordance with testing performed and per ASTM B117 standard.

**Pole Information:** (R5@6), Bracket to be side mounted on a round pole from 5" min. to 6" (127mm min. to 152mm).

**LED products manufacturing standard:** The electronic components sensitive to electrostatic discharge (ESD) such as light emitting diodes (LEDs) are assembled in compliance with IEC61340-5-1 and ANSI/ESD S20.20 standards so as to eliminate ESD events that could decrease the useful life of the product.

**Quality Control:** The manufacturer must provide a written confirmation of its ISO 9001-2008 and ISO 14001-2004 International Quality Standards Certification.

**Certification:** The manufacturer will have to supply a copy of approval products certificate, CSA or UL.

**Vibration Resistance:** The GPLS meets the **ANSI C136.31**, American National Standard for Roadway Luminaire Vibration specifications for Bridge/overpass applications (Tested for 3G over 100 000 cycles).

The GPLS meets the **California Test 611, Testing durability of mast arm mounted luminaires**, specifications (a 2 000 000 cycles test).

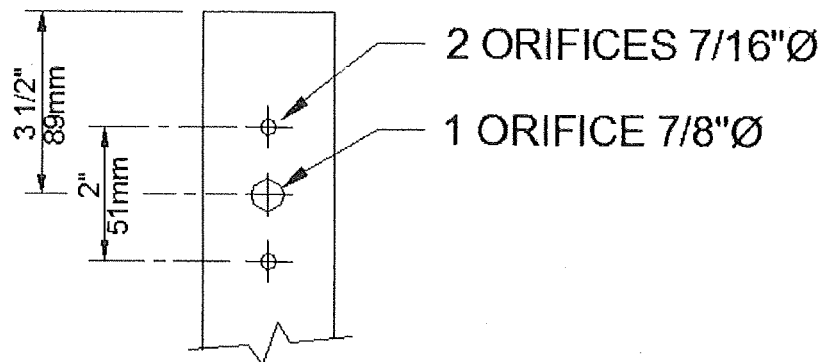
**Web site information details:** Click on any specific information details you need:

[Paint finish](#) / [Warranties](#) / [Installation pictures](#) / [ISO 9001-2008 Certification](#) / [ISO 14001-2004 Certification](#) / [cULus Certification](#)

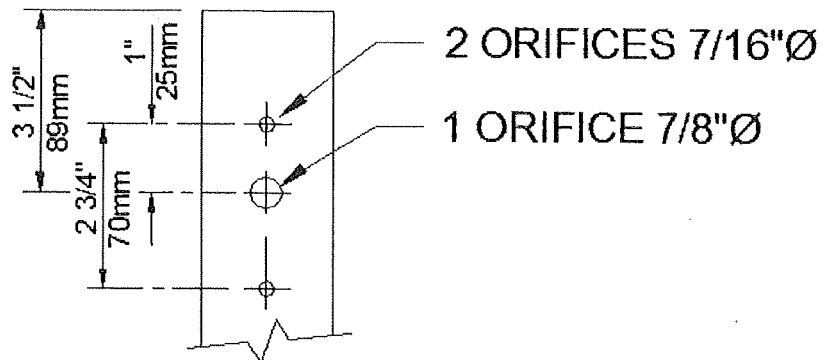
Whistler Valley Trail at Cheakamus Lake Rd (62993)

# Coordination

This bracket can accept both coordinations.  
Cette console est conçue pour accepter ces deux coordinations.



or



Whistler Valley Trail at Cheakamus Lake Rd (62993)

LED light engine technical information for GPLS											
CRI = 70, CCT = 4000K (3985K +/- 275K or 3710K to 4260K)											
System (LED + driver) rated life = 100,000 hrs <sup>1</sup>											
LED Module	Typical delivered lumens	Typical system wattage <sup>2</sup> (W)	Typical current @ 120 V (A)	Typical current @ 208 V (A)	Typical current @ 240 V (A)	Typical current @ 277 V (A)	Typical current @ 347 V (A)	Typical current @ 480 V (A)	LED current (mA)	Luminaire Efficacy Rating (lm/W)	BUG rating
16L530NW-G2-R2M	3033	27	0.23	0.14	0.12	0.11	0.10	0.08	530	111	B1-U0-G1
16L530NW-G2-R2S	3339	27	0.23	0.14	0.12	0.11	0.10	0.08	530	123	B1-U0-G0
16L530NW-G2-R3M	3124	27	0.23	0.14	0.12	0.11	0.10	0.08	530	115	B1-U0-G1
16L530NW-G2-R3S	3089	27	0.23	0.14	0.12	0.11	0.10	0.08	530	113	B1-U0-G1
16L530NW-G2-R3W	3059	27	0.23	0.14	0.12	0.11	0.10	0.08	530	112	B1-U0-G1
16L530NW-G2-4	3165	27	0.23	0.14	0.12	0.11	0.10	0.08	530	116	B1-U0-G1
16L530NW-G2-5	3054	27	0.23	0.14	0.12	0.11	0.10	0.08	530	112	B2-U0-G1
16L700NW-G2-R2M	3816	38	0.32	0.19	0.17	0.15	0.12	0.10	700	100	B1-U0-G1
16L700NW-G2-R2S	4201	38	0.32	0.19	0.17	0.15	0.12	0.10	700	111	B1-U0-G1
16L700NW-G2-R3M	3930	38	0.32	0.19	0.17	0.15	0.12	0.10	700	103	B1-U0-G1
16L700NW-G2-R3S	3886	38	0.32	0.19	0.17	0.15	0.12	0.10	700	102	B1-U0-G1
16L700NW-G2-R3W	3849	38	0.32	0.19	0.17	0.15	0.12	0.10	700	101	B1-U0-G1
16L700NW-G2-4	3982	38	0.32	0.19	0.17	0.15	0.12	0.10	700	105	B1-U0-G1
16L700NW-G2-5	3843	38	0.32	0.19	0.17	0.15	0.12	0.10	700	101	B2-U0-G1
16L1050NW-G2-R2M	5227	55	0.46	0.27	0.23	0.20	0.17	0.13	1050	95	B1-U0-G1
16L1050NW-G2-R2S	5754	55	0.46	0.27	0.23	0.20	0.17	0.13	1050	104	B1-U0-G1
16L1050NW-G2-R3M	5383	55	0.46	0.27	0.23	0.20	0.17	0.13	1050	98	B1-U0-G1
16L1050NW-G2-R3S	5323	55	0.46	0.27	0.23	0.20	0.17	0.13	1050	97	B1-U0-G2
16L1050NW-G2-R3W	5272	55	0.46	0.27	0.23	0.20	0.17	0.13	1050	96	B1-U0-G2
16L1050NW-G2-4	5454	55	0.46	0.27	0.23	0.20	0.17	0.13	1050	99	B1-U0-G2
16L1050NW-G2-5	5264	55	0.46	0.27	0.23	0.20	0.17	0.13	1050	96	B3-U0-G1
32L530NW-G2-R2M	6046	53	0.45	0.27	0.24	0.22	0.17	0.14	530	114	B2-U0-G1
32L530NW-G2-R2S	6656	53	0.45	0.27	0.24	0.22	0.17	0.14	530	126	B2-U0-G1
32L530NW-G2-R3M	6227	53	0.45	0.27	0.24	0.22	0.17	0.14	530	118	B2-U0-G1
32L530NW-G2-R3S	6158	53	0.45	0.27	0.24	0.22	0.17	0.14	530	117	B1-U0-G2
32L530NW-G2-R3W	6099	53	0.45	0.27	0.24	0.22	0.17	0.14	530	115	B1-U0-G2
32L530NW-G2-4	6309	53	0.45	0.27	0.24	0.22	0.17	0.14	530	119	B1-U0-G2
32L530NW-G2-5	6089	53	0.45	0.27	0.24	0.22	0.17	0.14	530	115	B3-U0-G1
32L700NW-G2-R2M	7594	71	0.60	0.34	0.295	0.27	0.23	0.18	700	107	B2-U0-G2

<sup>1</sup> L70 = 100,000 hrs (at ambient temperature = 25°C)

<sup>2</sup> System wattage or total luminaire wattage includes the LED module and the LED driver.

Note that LED files with HS house side shield option are also available – contact the factory.

Note: Due to rapid and continuous advances in LED technology, LED luminaire data is subject to change without notice and at the discretion of Philips.

**Whistler Valley Trail at Cheakamus Lake Rd (62993)**

<b>LED light engine technical information for GPLS</b>											
CRI = 70, CCT = 4000K (3985K +/- 275K or 3710K to 4260K)											
System (LED + driver) rated life = 100,000 hrs <sup>1</sup>											
LED Module	Typical delivered lumens	Typical system wattage <sup>2</sup> (W)	Typical current @ 120 V (A)	Typical current @ 208 V (A)	Typical current @ 240 V (A)	Typical current @ 277 V (A)	Typical current @ 347 V (A)	Typical current @ 480 V (A)	LED current (mA)	Luminaire Efficacy Rating (lm/W)	BUG rating
32L700NW-G2-R2M	7594	71	0.60	0.34	0.295	0.27	0.23	0.18	700	107	B2-U0-G2
32L700NW-G2-R2S	8360	71	0.60	0.34	0.295	0.27	0.23	0.18	700	118	B2-U0-G1
32L700NW-G2-R3M	7822	71	0.60	0.34	0.295	0.27	0.23	0.18	700	110	B2-U0-G2
32L700NW-G2-R3S	7735	71	0.60	0.34	0.30	0.27	0.23	0.18	700	109	B1-U0-G2
32L700NW-G2-R3W	7660	71	0.60	0.34	0.30	0.27	0.23	0.18	700	108	B1-U0-G2
32L700NW-G2-4	7925	71	0.60	0.34	0.30	0.27	0.23	0.18	700	111	B1-U0-G2
32L700NW-G2-5	7648	71	0.60	0.34	0.30	0.27	0.23	0.18	700	106	B2-U0-G2
32L1050NW-G2-R2M	10341	110	0.91	0.53	0.47	0.41	0.32	0.24	1050	94	B2-U0-G2
32L1050NW-G2-R2S	11384	110	0.91	0.53	0.47	0.41	0.32	0.24	1050	104	B2-U0-G2
32L1050NW-G2-R3M	10651	110	0.91	0.53	0.47	0.41	0.32	0.24	1050	97	B2-U0-G2
32L1050NW-G2-R3S	10532	110	0.91	0.53	0.47	0.41	0.32	0.24	1050	96	B1-U0-G2
32L1050NW-G2-R3W	10431	110	0.91	0.53	0.47	0.41	0.32	0.24	1050	95	B2-U0-G2
32L1050NW-G2-4	10791	110	0.91	0.53	0.47	0.41	0.32	0.24	1050	98	B2-U0-G2
32L1050NW-G2-5	10414	110	0.91	0.53	0.47	0.41	0.32	0.24	1050	95	B3-U0-G2
48L530NW-G2-R2M	9037	78	0.66	0.39	0.35	0.31	0.24	0.18	530	116	B2-U0-G2
48L530NW-G2-R2S	9949	78	0.66	0.39	0.35	0.31	0.24	0.18	530	127	B2-U0-G2
48L530NW-G2-R3M	9308	78	0.66	0.39	0.35	0.31	0.24	0.18	530	119	B2-U0-G2
48L530NW-G2-R3S	9204	78	0.66	0.39	0.35	0.31	0.24	0.18	530	118	B1-U0-G2
48L530NW-G2-R3W	9116	78	0.66	0.39	0.35	0.31	0.24	0.18	530	117	B2-U0-G2
48L530NW-G2-4	9431	78	0.66	0.39	0.35	0.31	0.24	0.18	530	121	B2-U0-G2
48L530NW-G2-5	9101	78	0.66	0.39	0.35	0.31	0.24	0.18	530	117	B3-U0-G2
48L700NW-G2-R2M	11327	107	0.89	0.52	0.46	0.39	0.32	0.24	700	106	B2-U0-G2
48L700NW-G2-R2S	12469	107	0.89	0.52	0.46	0.39	0.32	0.24	700	117	B3-U0-G2
48L700NW-G2-R3M	11666	107	0.89	0.52	0.46	0.39	0.32	0.24	700	110	B2-U0-G2
48L700NW-G2-R3S	11536	107	0.89	0.52	0.46	0.39	0.32	0.24	700	108	B2-U0-G2
48L700NW-G2-R3W	11426	107	0.89	0.52	0.46	0.39	0.32	0.24	700	107	B2-U0-G2
48L700NW-G2-4	11820	107	0.89	0.52	0.46	0.39	0.32	0.24	700	111	B2-U0-G2
48L700NW-G2-5	11407	107	0.89	0.52	0.46	0.39	0.32	0.24	700	107	B4-U0-G2
48L1050NW-G2-R2M	15312	161	1.33	0.76	0.67	0.58	0.47	0.34	1050	95	B3-U0-G3
48L1050NW-G2-R2S	16856	161	1.33	0.76	0.67	0.58	0.47	0.34	1050	105	B3-U0-G2
48L1050NW-G2-R3M	15770	161	1.33	0.76	0.67	0.58	0.47	0.34	1050	98	B3-U0-G2
48L1050NW-G2-R3S	15595	159	1.33	0.76	0.67	0.58	0.47	0.34	1050	98	B2-U0-G3
48L1050NW-G2-R3W	15445	162	1.33	0.76	0.67	0.58	0.47	0.34	1050	95	B2-U0-G3
48L1050NW-G2-4	15979	162	1.33	0.76	0.67	0.58	0.47	0.34	1050	99	B2-U0-G3
48L1050NW-G2-5	15420	161	1.33	0.76	0.67	0.58	0.47	0.34	1050	96	B4-U0-G2

1 L70 = 100,000 hrs (at ambient temperature = 25°C).

2 System wattage or total luminaire wattage includes the LED module and the LED driver.

Note that IES files with HS house side shield option are also available – contact the factory.

Note: Due to rapid and continuous advances in LED technology, LED luminaire data is subject to change without notice and at the discretion of Philips.





# 4.30m wide x 9.60m Lg. - CL 625 CONCRETE SLAB BRIDGE

DRAWING LIST		
DRAWING NUMBER	DESCRIPTION	REVISION
1601-085-00-01	SPECIFICATIONS	1
1601-085-00-02	BRIDGE ASSEMBLY	2
1601-085-00-03	PRECAST CONCRETE SLAB EXTERIOR 9.6m CL 625 MK-A	2
1601-085-00-04	PRECAST CONCRETE SLAB INTERIOR 9.6m CL 625 MK-B	1
1601-085-00-05	PRECAST CONCRETE CAP AND BALLAST WALL 895 DEEP	1
1601-085-00-06	PRECAST CONCRETE S1 FOOTING 1800x1800	1



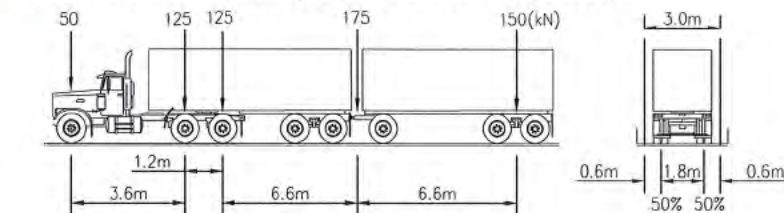
PROJECT NO.: 1601-085-00		DRWN BY: TJB	DATE: 19/04/29
DRAWING SIZE: ANSI "B"		DSND BY: RI	DATE: 19/04/29
SCALE: AS NOTED		APPD BY: WBM	DATE: 19/05/06
DWG. NO.: 1601-085-00-00		REV: 2	
REV	YY/MM/DD	DESCRIPTION	DR APP
2	19/05/06	ISSUED FOR CONSTRUCTION	TJB WBM
1	19/05/02	ISSUED FOR CONSTRUCTION	TJB WBM
0	19/02/06	ISSUED FOR REVIEW	WBM WBM

DESIGN LOADS:

1. DEAD LOAD - UNIT WEIGHTS AND MATERIALS ARE AS FOLLOWS:
- |                                        |                       |
|----------------------------------------|-----------------------|
| CONCRETE (INCLUDING REINFORCING STEEL) | = 24kN/m <sup>3</sup> |
| STRUCTURAL STEEL                       | = 77kN/m <sup>3</sup> |
| SOIL                                   | = 22kN/m <sup>3</sup> |
| TIMBER                                 | = 6kN/m <sup>3</sup>  |

2. LIVE LOAD:

LOADING DIAGRAM CL-625 ON HIGHWAY G.V.W. = 63 500kg;  
DESIGN IN ACCORDANCE WITH CAN/CSA-S6-14 WITH LOADING AS FOLLOWS:



3. CONSTRUCTION LIVE LOAD:  
CONSTRUCTION LIVE LOAD NOT TO EXCEED 36500kg UNTIL SLABS ARE CONNECTED.

4. THERMAL ACTION:  
MAXIMUM DAILY MEAN TEMPERATURE IS 40°C.  
MINIMUM DAILY MEAN TEMPERATURE IS -40°C.

NOTE: ALL DIMENSIONS ON DRAWINGS TAKEN @ 15°C. IF TEMPERATURE DIFFERS AT TIME OF INSTALLATION OF BEARING, COMPENSATION WILL BE REQUIRED BY SITE ENGINEER.

DESIGN SPECIFICATIONS:

1. DESIGN IN ACCORDANCE WITH CAN/CSA-S6-14.
2. FATIGUE CATEGORY: 1,000,000 CYCLES AS PER CAN/CSA-S6-14 (DYNAMIC LOAD ALLOWANCE INCLUDED), ALL MATERIAL SHALL BE NEW.
3. STRUCTURE HAS BEEN DESIGNED FOR FUTURE 50mm ASPHALT OVERLAY.

HANDLING SPECIFICATIONS:

1. THE BRIDGE WILL BE HANDLED, DURING TRANSPORTATION AND ERECTION, IN SUCH A MANNER AS TO NOT CAUSE HARM TO THE BRIDGE OR TO THE COMPONENTS OF THE BRIDGE.

BRIDGE IDENTIFICATION:

1. THE BRIDGE SHALL HAVE LOAD RATING, DATE OF MANUFACTURE, STRUCTURE NUMBER, MANUFACTURER'S NAME CLEARLY STAMPED OR PERMANENTLY MARKED ON ONE SIDE OF THE STRUCTURE. THE HEIGHT OF LETTERING USED SHALL BE MINIMUM 50mm UNLESS NOTED OTHERWISE.

GENERAL NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
2. ROAD DESIGN BY OTHERS.
3. ALL MATERIALS SHALL BE NEW.
4. FOR INSTALLATION BY OTHERS. HMR ENGINEERING ACCEPTS NO RESPONSIBILITY FOR WORK BY OTHERS.

GROUT:

1. GROUT TO BE TARGET TRAFFIC PATCH. GROUT SHALL BE MIXED AND PLACED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND SHALL ACHIEVE A MINIMUM COMPRESSIVE STRENGTH OF 35MPa @ 28 DAY.

TRANSPORTATION AND ERECTION:

1. THE BRIDGE WILL BE HANDLED DURING TRANSPORTATION AND ERECTION, IN SUCH A MANNER AS TO NOT CAUSE HARM TO THE BRIDGE OR TO THE COMPONENTS OF THE BRIDGE.
2. GIRDERS MUST BE SUPPORTED WITHIN 1m OF BEARING LOCATIONS DURING TRANSPORTATION AND STORAGE.
3. ONLY LOW IMPACT LIFTS ARE PERMITTED, ANGLE OF LIFT MUST NOT EXCEED 30° FROM THE VERTICAL.
4. GIRDER IS DESIGNED FOR CANTILEVERED LAUNCH. GIRDER MUST NOT CANTILEVER MORE THAN HALF ITS LENGTH DURING LAUNCHING.

CONCRETE:

1. ALL PRECAST CONCRETE SHALL BE DESIGNED, MIXED, TRANSPORTED, CAST AND CURED ACCORDING TO CSA A23.4-16 "PRECAST CONCRETE - MATERIALS AND CONSTRUCTION".
2. CONCRETE SHALL HAVE THE FOLLOWING SPECIFICATIONS:
- EXPOSURE CLASS C-1
  - 35MPa STRENGTH AT 28 DAYS
  - MAX. AGGREGATE SIZE 20mmØ
  - MIN. ENTRAINED AIR 5% TO 8%
  - MAX. W/C RATIO BY MASS 0.40
  - DECK SURFACE FINISH, ROUGH TRANSVERSE BROOM
3. MINIMUM REINFORCING COVER REQUIREMENTS UNLESS NOTED OTHERWISE:
- TOP = 50mm
  - BOTTOM = 30mm
  - SIDE = 50mm
4. PRECAST COMPONENTS TO BE MADE IN CSA APPROVED SHOP.
5. ALL EXPOSED CORNERS SHALL HAVE A 20mm CHAMFER OF FILLET UNLESS NOTED OTHERWISE.
6. ALL REINFORCING STEEL TO BE DEFORMED BARS CONFORMING TO CSA G30.18-M, GRADE 400. ALL BARS TO BE CONTINUOUS LENGTH.
7. CONCRETE TEST CERTIFICATES TO BE FORWARDED TO THE ENGINEER.
8. ALL LIFTING RECESSES TO BE GROUTED AFTER COMPONENT INSTALLATION.

FOOTINGS:

1. FOOTINGS HAVE BEEN DESIGNED FOR 200kPa MAXIMUM ALLOWABLE BEARING PRESSURE. A MINIMUM THICKNESS OF 300MM OF GRANULAR MATERIAL SHALL BE COMPACTED TO 98% STANDARD PROCTOR DENSITY. BELOW EACH FOOTING, UNDER THE DIRECT SUPERVISION OF THE ENGINEER.

BRIDGE RAIL NOTES:

1. GUARDRAILS HAVE BEEN DESIGNED BY OTHERS

SCHEDULE 2



PROJECT:  
4.30m wide x 9.60m Lg. - CL 625  
CONCRETE SLAB BRIDGE

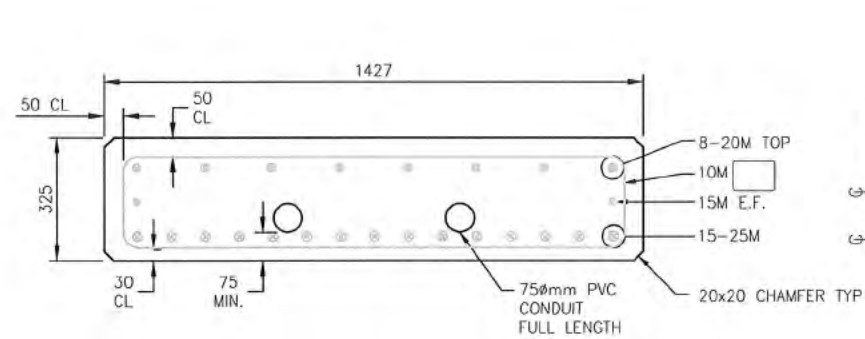
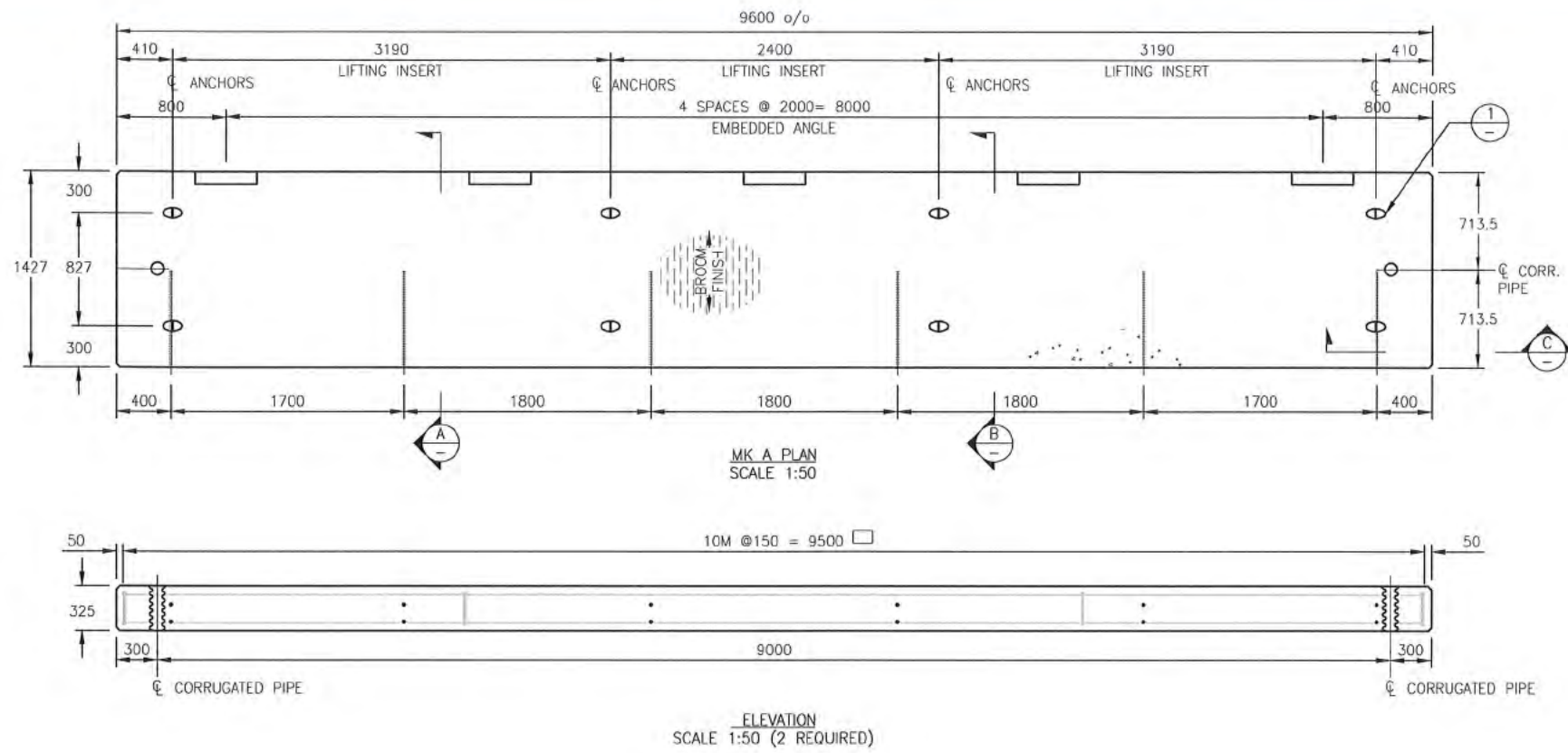
TITLE:  
SPECIFICATIONS

PROJECT NO.:	1601-085-00	DRWN BY:	TJB	DATE:	19/04/29
DRAWING SIZE:	ANSI "B"	DSND BY:	RI	DATE:	19/04/29
SCALE:	AS NOTED	APPD BY:	WBM	DATE:	19/05/02
OWG. NO.:	1601-085-00-01	REV:	1		

1	19/05/02	ISSUED FOR CONSTRUCTION	TJB	WBM
0	19/04/30	ISSUED FOR REVIEW	TJB	WBM
REV	YY/MM/DD	DESCRIPTION	DR	APP

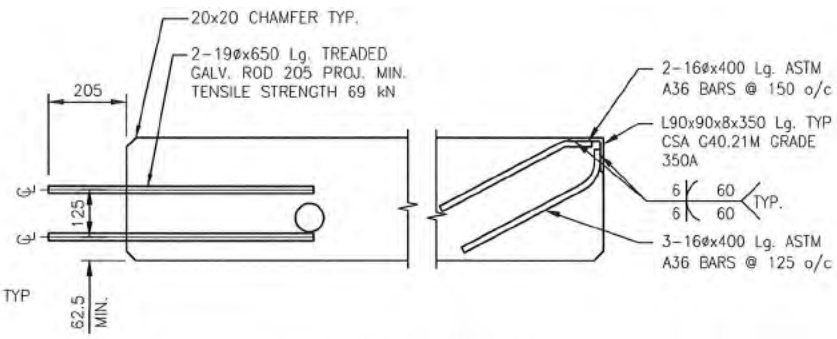






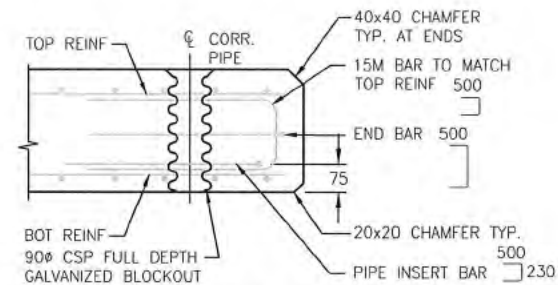
SEE ELEVATION FOR TIE SPACING

SECTION A-A  
SCALE 1:20

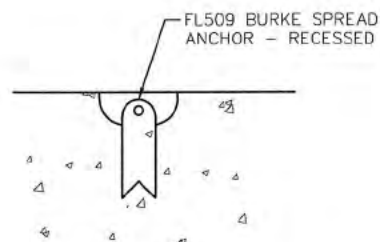


NOTE REBAR NOT SHOWN FOR CLARITY  
POST SUPPORT ANCHOR CL 625 EMBEDDED ANGLE

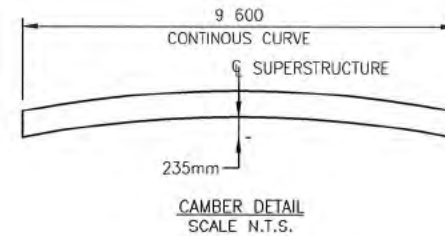
SECTION B-B  
SCALE 1:20



SECTION C-C  
SCALE 1:20



DETAIL - LIFTING INSERT  
SCALE 1:20



SCHEDULE 2



NOTE:

1. ESTIMATED MASS = 10,895Kg.



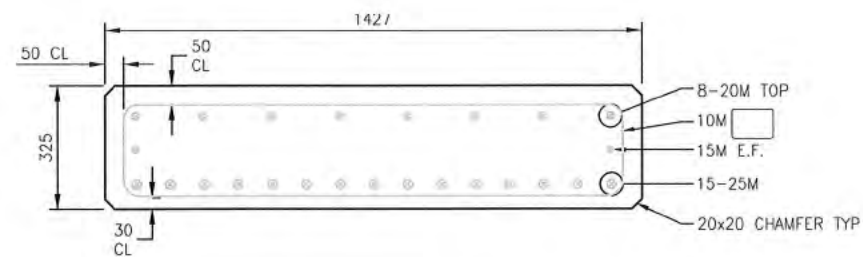
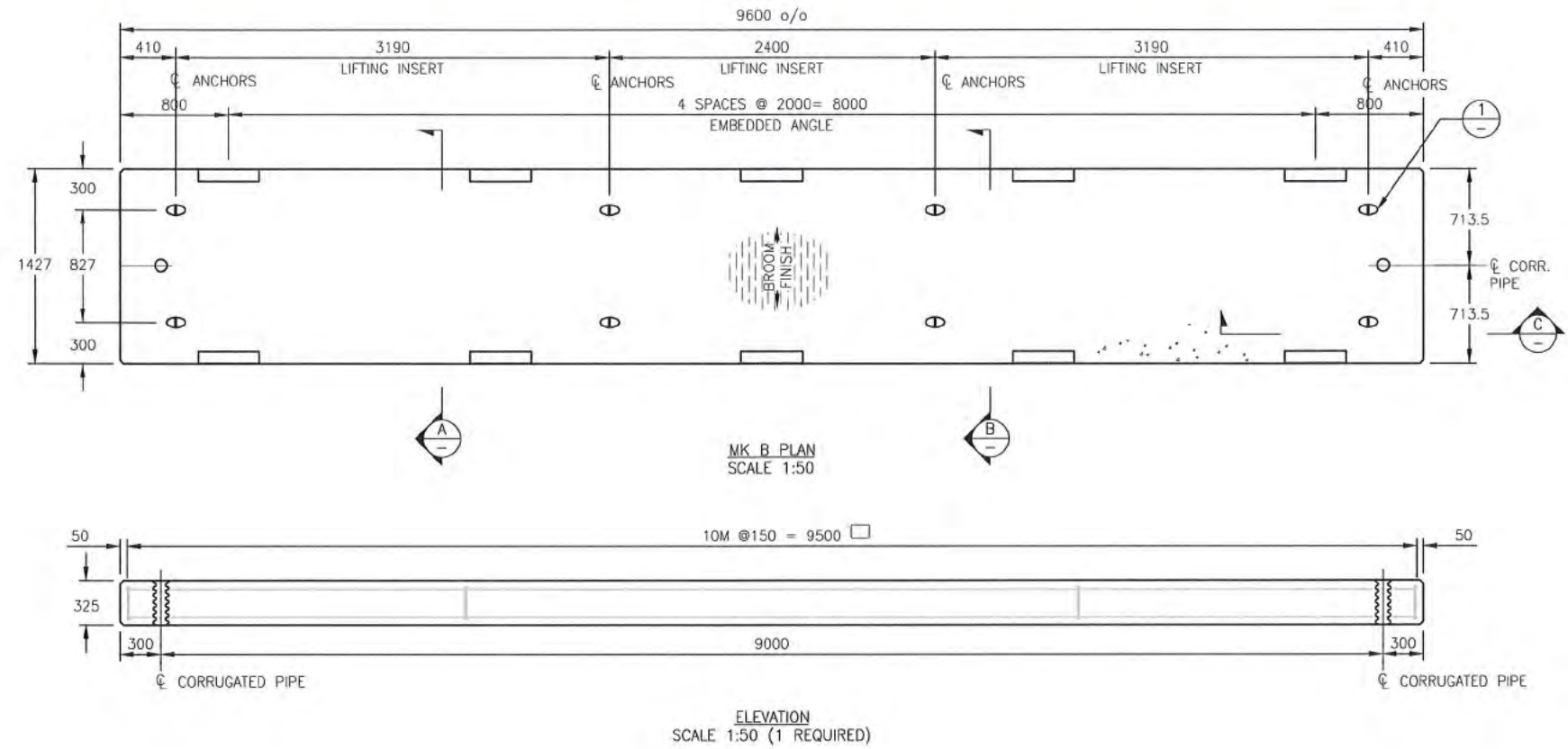
PROJECT: 1601-085-00  
4.30m wide x 9.60m Lg. - CL 625  
CONCRETE SLAB BRIDGE

TITLE: PRECAST CONCRETE SLAB  
EXTERIOR 9.6m CL 625  
MK-A

PROJECT NO.:	1601-085-00	DRWN BY:	TJB	DATE:	19/04/29
DRAWING SIZE:	ANSI "B"	DSND BY:	RI	DATE:	19/04/29
SCALE:	AS NOTED	APPD BY:	WBM	DATE:	19/05/06
DWG. NO.:	1601-085-00-03	REV:	2		

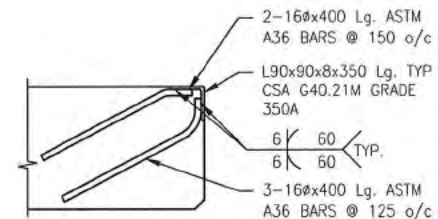
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0	19/04/30	ISSUED FOR REVIEW	TJB	WBM
REV	YY/MM/DD	DESCRIPTION	DR	APP





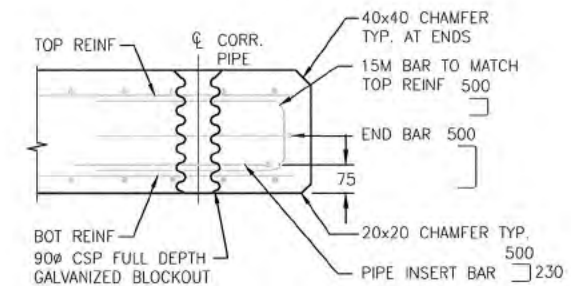
SEE ELEVATION FOR TIE SPACING

**A** SECTION  
SCALE 1:20

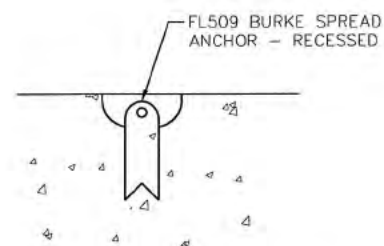


CL 625 EMBEDDED ANGLE

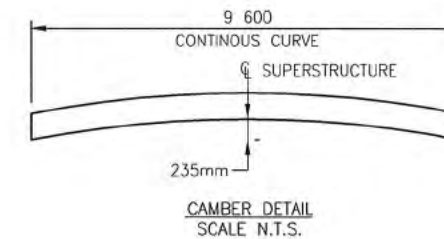
**B** SECTION  
SCALE 1:20



**C** SECTION  
SCALE 1:20



**1** DETAIL - LIFTING INSERT  
SCALE 1:20



1	19/05/02	ISSUED FOR CONSTRUCTION	TJB	WBM
0	19/04/30	ISSUED FOR REVIEW	TJB	WBM
REV	YY/MM/DD	DESCRIPTION	DR	APP

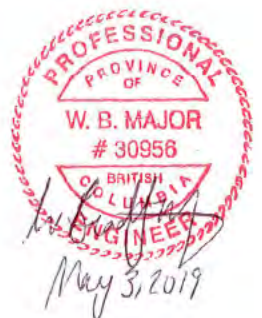
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DWG. NO.:	1601-085-00-04	REV:	1		

SCHEDULE 2



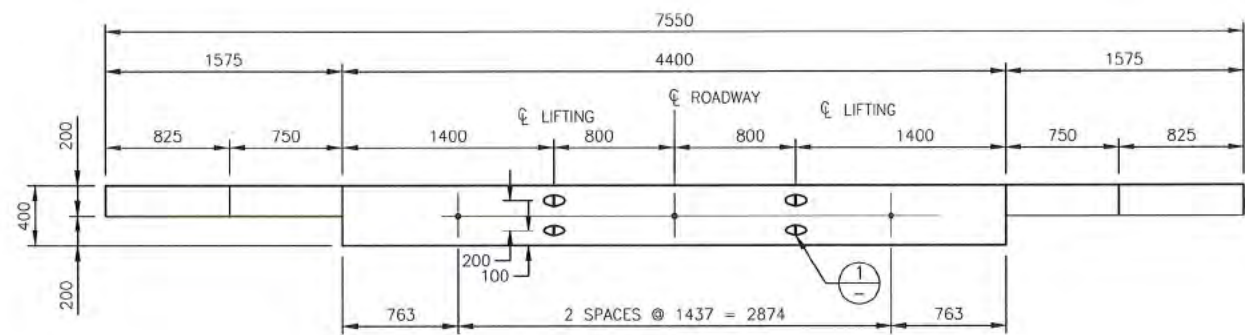
NOTE:

1. ESTIMATED MASS = 10,895Kg.

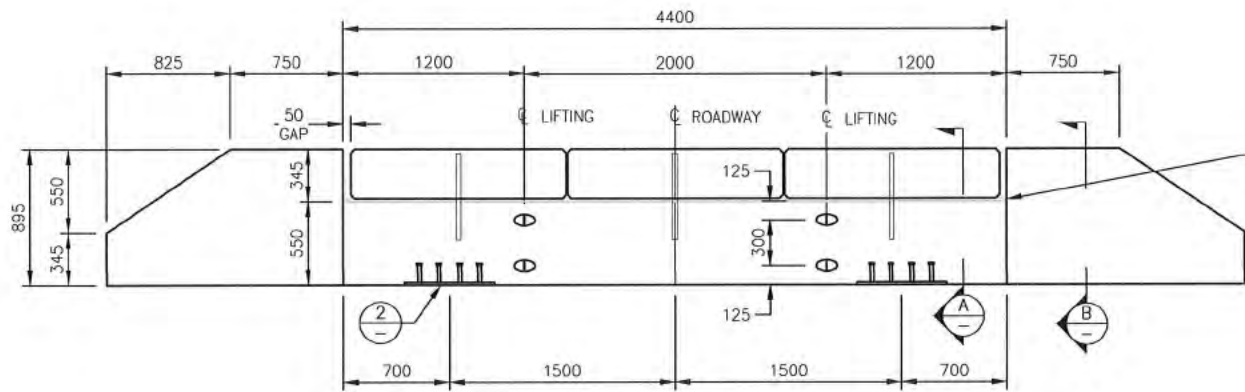


PROJECT:  
4.30m wide x 9.60m Lg. - CL 625  
CONCRETE SLAB BRIDGE

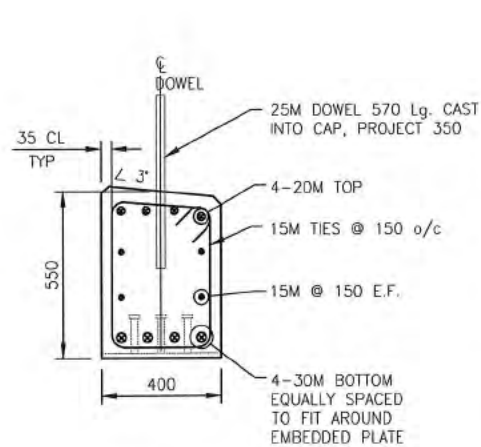
TITLE:  
PRECAST CONCRETE SLAB  
INTERIOR 9.6m CL 625  
MK-B



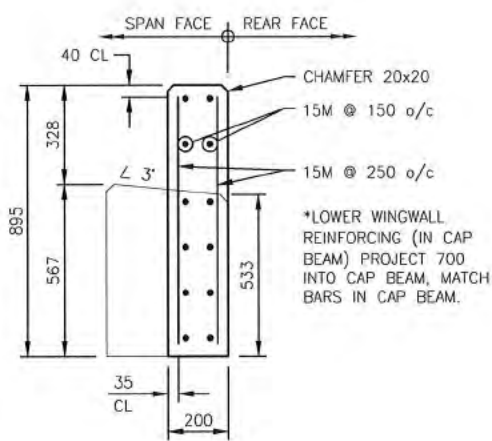
BALLAST WALL PLAN  
SCALE 1:50



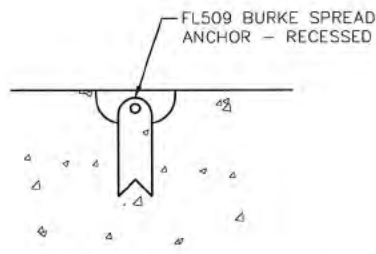
BALLAST WALL ELEVATION  
SCALE 1:50 (2 REQUIRED)



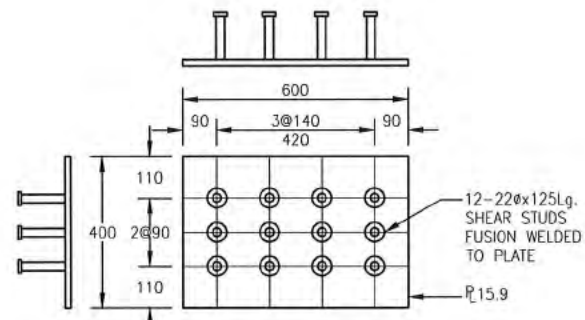
SECTION A  
SCALE 1:25



SECTION B  
SCALE 1:25



DETAIL 1 - LIFTING INSERT  
SCALE 1:20



DETAIL 2  
SCALE 1:20



NOTE:  
1. ESTIMATED MASS = 3527Kg.



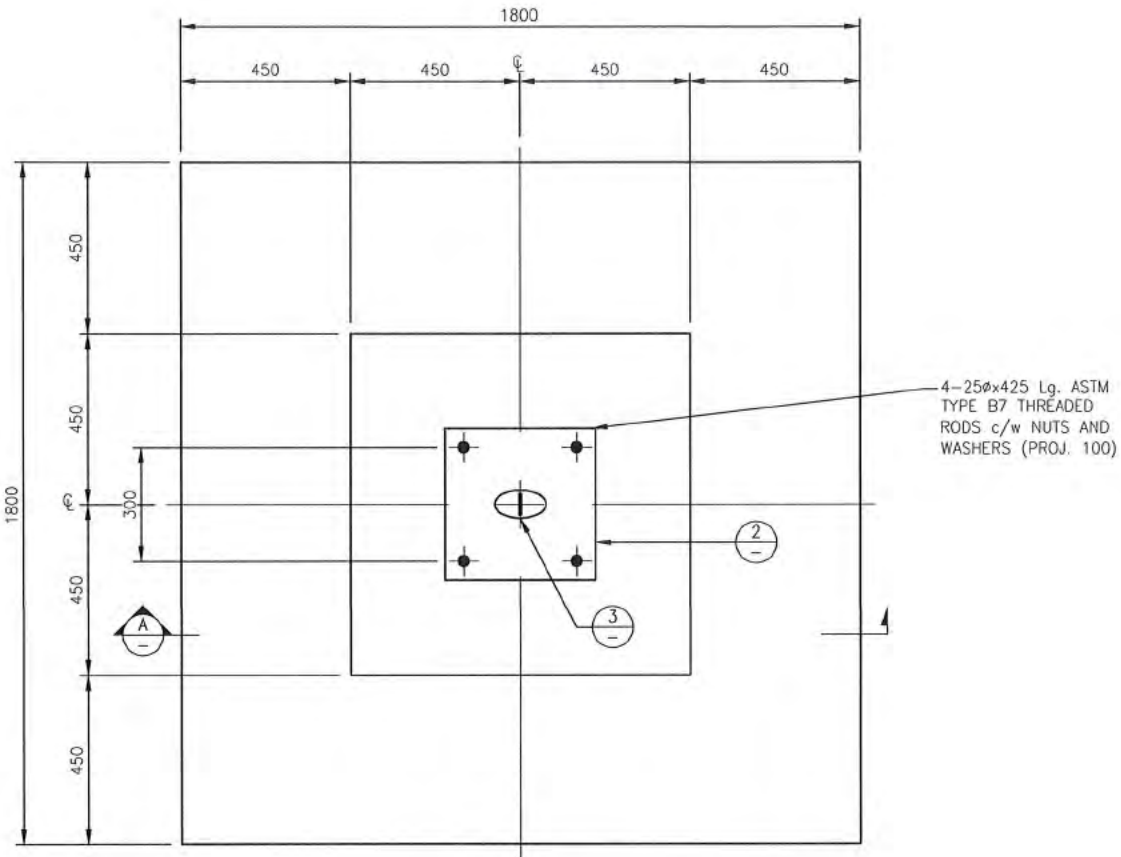
PROJECT:  
4.30m wide x 9.60m Lg. - CL 625  
CONCRETE SLAB BRIDGE

TITLE:  
PRECAST CONCRETE  
CAP AND BALLAST WALL  
895 DEEP

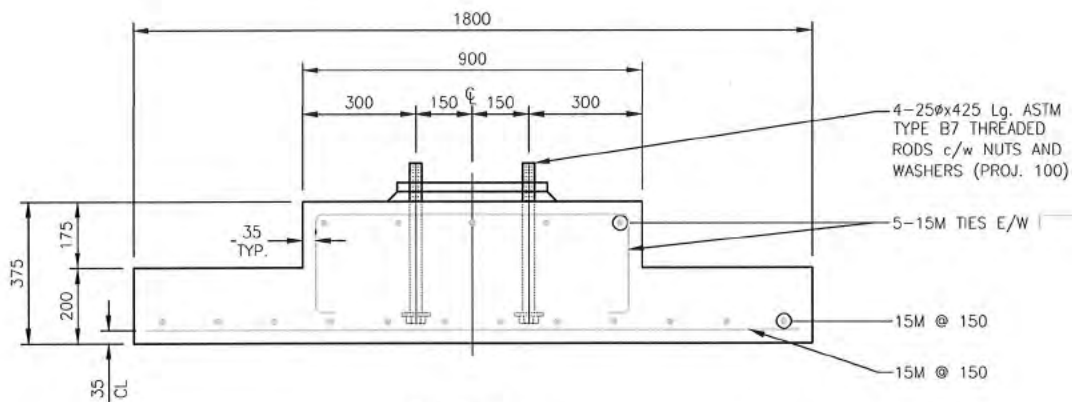
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SCALE:	AS NOTED	APPO BY:	WBM	DATE:	19/05/02
DWG. NO.:	1601-085-00-05	REV:	1		

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0	19/04/30	ISSUED FOR REVIEW	TJB	WBM
REV	YY/MM/DD	DESCRIPTION	DR	APP

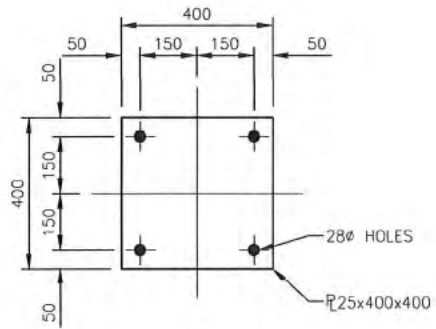




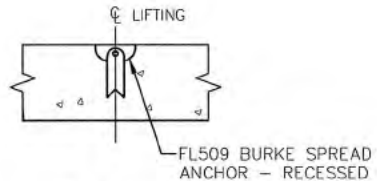
S1 FOOTING PLAN  
SCALE 1:20 (4 REQUIRED)



SECTION A-A  
SCALE 1:20



DETAIL - BASE PLATE  
SCALE 1:20



DETAIL - FL509 BURKE SPREAD ANCHOR - RECESSED  
SCALE 1:20

SCHEDULE 2



NOTE:  
1. ESTIMATED MASS = 1960Kg.



PROJECT:  
4.30m wide x 9.60m Lg. - CL 625  
CONCRETE SLAB BRIDGE

TITLE:  
PRECAST CONCRETE  
S1 FOOTING  
1800x1800

1	19/05/02	ISSUED FOR CONSTRUCTION	TJB	WBM
0	19/04/30	ISSUED FOR REVIEW	TJB	WBM
REV	YY/MM/DD	DESCRIPTION	DR	APP

PROJECT NO.:	1601-085-00	DRWN BY:	TJB	DATE:	19/04/29
DRAWING SIZE:	ANSI "B"	DSND BY:	RI	DATE:	19/04/29
SCALE:	AS NOTED	APPD BY:	WBM	DATE:	19/05/02
DWG. NO.:	1601-085-00-06	REV:	1		