PANEL A, CIRCUIT 1, FIXTURE NUMBER 1

DISCONNECT SWITCH

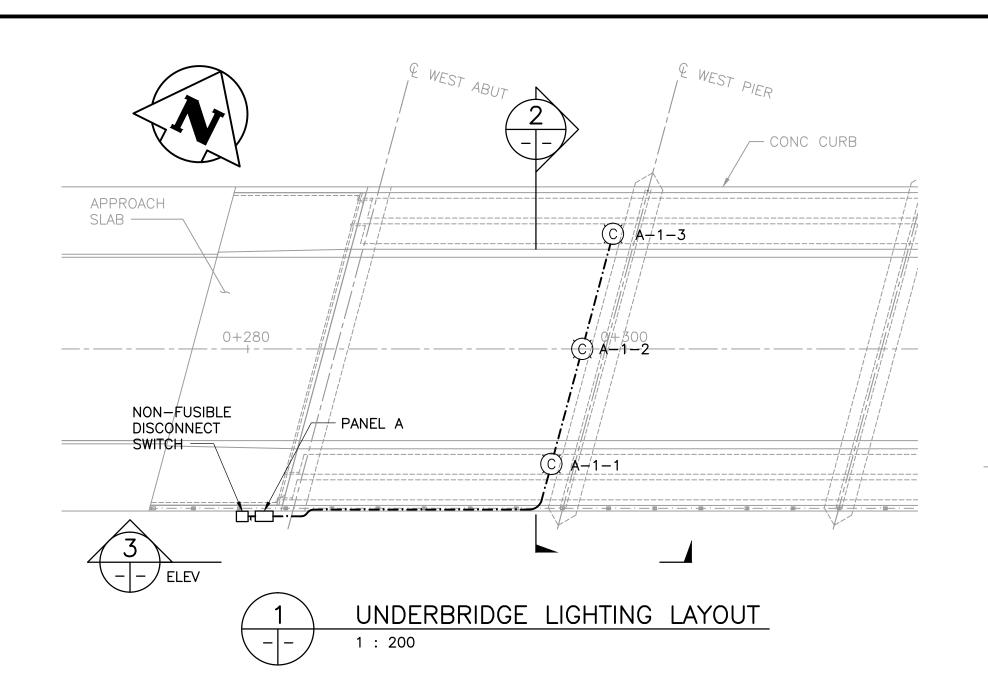
LOW VOLTAGE CIRCUIT

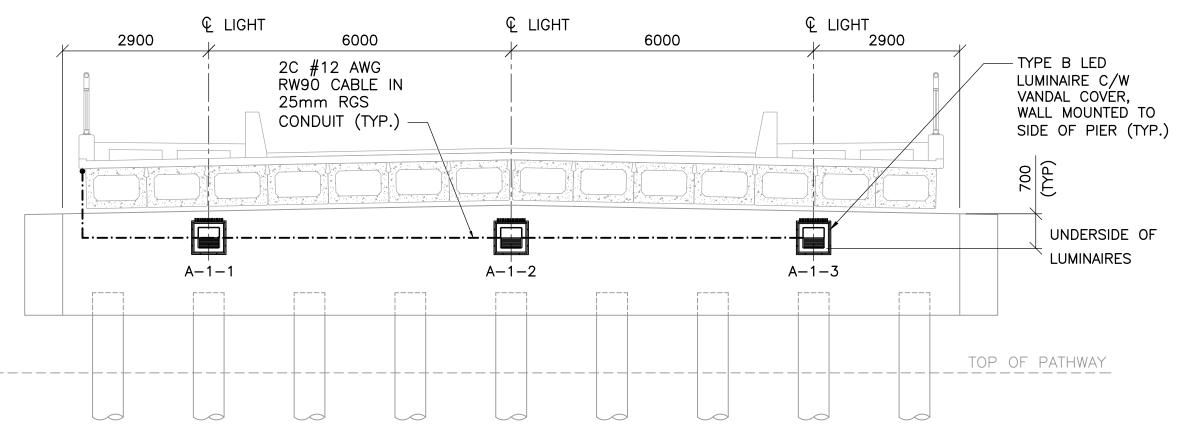
PANEL CIRCUIT BOARD

WALL PACK LUMINAIRE

LUMINAIRE

BREAKER





SECTION - UNDERBRIDGE LIGHTING 1 : 75

## SYMBOL LEGENDS:

1. ALL ELECTRICAL WORK, MATERIALS AND EQUIPMENT SHALL CONFORM WITH THE REQUIREMENTS OF THE CANADIAN ELECTRICAL CODE, UNDERWRITERS LABORATORIES, NEMA, STANDARDS AND ALL AUTHORITIES HAVING JURISDICTION.

**ELECTRICAL NOTES:** 

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE CAUSED TO STRUCTURE AS A RESULT OF THEIR ACTIVITIES.

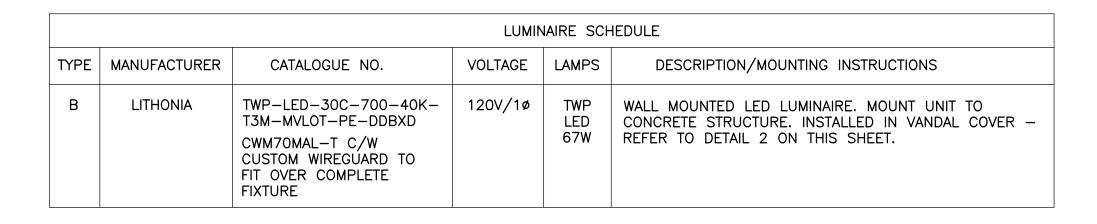
3. WIRE AND CABLE SHALL BE COPPER OF STANDARD AWG SIZES RATED 600V AND INSULATION TEMPERATURE 90°C. INSULATION SHALL BE X-LINK POLYETHYLENE UNLESS OTHERWISE NOTED ON DRAWINGS OR PROHIBITED BY REGULATIONS. ALUMINUM CONDUCTORS WILL NOT BE ACCEPTED. MINIMUM WIRE SIZE FOR LIGHTING PANEL SHALL BE #12

4. EXPANSION JOINT SHALL BE ACCORDING TO CSA STANDARD RULES 12-1012, 12-1118 AND 12-1214.

5. SUPPLY AND INSTALL 41 MM(1-1/2) DIAMETER RGS CONDUIT AND 3-1C #4 CONDUCTOR FROM NEW NON FUSIBLE DISCONNECT SWITCH ON THE SOUTHWEST (SW) CONCRETE ABUTMENT WINGWALL TO DAVIT STREET LIGHTING POLE 100M WEST OF THE BRIDGE AT SCHOOL ROAD. SUPPLY AND INSTALL RIGID GALVANIZED STEEL CONDUIT ON DAVIT TO ONE METER BELOW MANITOBA HYDRO SECONDARY CONDUCTORS.

6. CONTRACTOR IS RESPONSIBLE FOR COORDINATION WITH MANITOBA HYDRO FOR CONNECTION.

7. UNDERBRIDGE LED LIGHTING FIXTURE SHALL BE CONTROLLED BY THE STREET LIGHT PHOTOCELL. TYPE B LUMINAIRES ARE EQUIPPED WITH INTERNAL PHOTO CELL IN THE EVENT THEY FUNCTION INDEPENDENTLY OF THE STREET LIGHTS IN THE FUTURE.

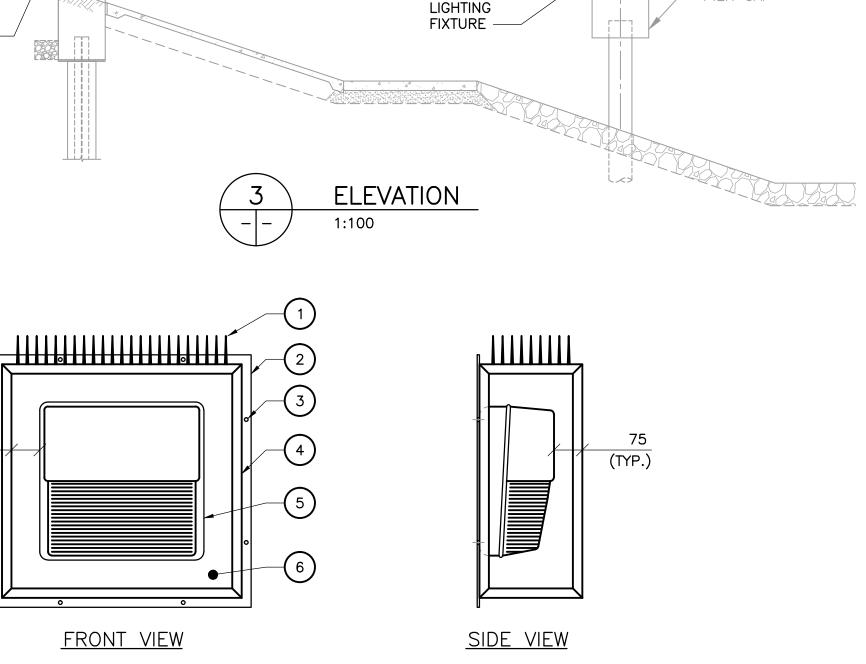


|                 |   |  |             | PAN                     | EL S        | CHED          | JLE    |          |                     |       |             |     |
|-----------------|---|--|-------------|-------------------------|-------------|---------------|--------|----------|---------------------|-------|-------------|-----|
| LIGHTI<br>PANEL |   | VOLTAGE: 240/120V 1-PHASE<br>MAIN DISCONNECT: ⊠ BREAKER 60AMPS<br>MAIN BUS RATING: 100AMPS |             | -WIRE<br>WITCH<br>OPPER | : NE<br>BUS | MA 4          | X EI   | NCLOSURE | ☐ TOP ☑ BOTTOM      | ☐ LUG | ;<br>IMINUM | BUS |
| PHASE AMPS      |   | CIRCUIT DESCRIPTION  | ⊢           | አ<br>ር                  |             | 지다.           | .   _: |          | CIRCUIT DESCRIPTION | J     | PHASE       | AMP |
| Α               | В | CINCOTT BESONII HON  | CCT         | BRK<br>AMP              | ΑВ          | BRK<br>AMP    | CCT.   |          | OINOON DESCRIPTION  | •     | Α           | В   |
| 1.7             |   | UNDERBRIDGE LIGHTING   | 1           | 15                      | +           | 15            | 2      | SPARE    |                     |       |             |     |
|                 |   | SPARE  | 3           | 15                      |             | 15            | 4      | SPARE    |                     |       |             |     |
|                 |   | SPACE  | 5           |                         | 🖊           |               | 6      | SPACE    |                     |       |             |     |
|                 |   | SPACE  | 7           |                         |             |               | 8      | SPACE    |                     |       |             |     |
|                 |   | SPACE  | 9           |                         | 🛉           |               | 10     | SPACE    |                     |       |             |     |
|                 |   | SPACE  | 11          |                         |             |               | 12     | SPACE    |                     |       |             |     |
| 1.7             |   | SUB TOTAL LEFT PER PHASE   | BRE<br>10k/ | AKERS<br>A RMS          | lsc<br>SYM  | SHAL<br>. MIN | L BE   | SUB TO   | TAL RIGHT PER PHAS  | E     |             |     |

|         | CABLE SCHEDULE: LIGHTING PANEL-A |               |  |  |  |  |  |  |  |
|---------|----------------------------------|---------------|--|--|--|--|--|--|--|
| CIRCUIT | CABLE                            |               |  |  |  |  |  |  |  |
| NO.     | TYPE                             | SIZE          |  |  |  |  |  |  |  |
| A-1     | RW90                             | 1-2/C #12 AWG |  |  |  |  |  |  |  |

| ELECTRICAL EQUIPMENT |     |  |   |  |  |  |  |
|----------------------|-----|--|---|--|--|--|--|
| ITEM                 | QTY | DESCRIPTION  | MANUFACTURER  | NOTE                                       |  |  |  |
| 1                    | 1   | 60A NON-FUSIBLE DISCONNECT<br>SWITCH WITH PADLOCKABLE<br>NEMA 4X STAINLESS STEEL<br>ENCLOSURE.   | SIMILAR TO SQUARE D TYPE 1<br>DISCONNECT SWITCH #CD222N<br>OR EQUVALENT               | FOR MANITOBA HYDRO<br>SERVICE TERMINATION. |  |  |  |
| 2                    | 1   | 240/120V LIGHTING PANELBOARD WITH PADLOCKABLE NEMA 4X STAINLESS STEEL ENCLOSURE. 100A BUS, 60A MAIN BREAKER, 2-WIRE AND 12 CIRCUIT C/W 4 15A CIRCUIT BREAKERS. | SIMILAR TO SQUARE D TYPE 1 PANELBOARD #Q0112M100C60, 15A BREAKER #Q0115, OR EQUVALENT |  |  |  |  |
| 3                    | 3   | WALL MOUNTED LED LUMINAIRE   | LITHONIA  | SEE LUMINAIRE SCHEDUL FOR DETAIL.          |  |  |  |
| 4                    | 3   | UNDERBRIDGE LIGHTING VANDAL COVER FOR LED LUMINAIRES   | сиѕтом  | SEE DETAIL 4 FOR CONSTRUCTION DETAILS.     |  |  |  |

NO. REVISIONS



2C #12 AWG RW90

RGS CONDUIT (TYP.)

CABLE IN 25mm

**EAST** 

Q WEST PIER

- PIER CAP

## UNDERBRIDGE LIGHTING VANDAL COVER DETAIL

**Q** WEST ABUT

PANEL-A

WEST

WINDWALL:

NON-FUSIBLE

DISCONNECT

SWITCH

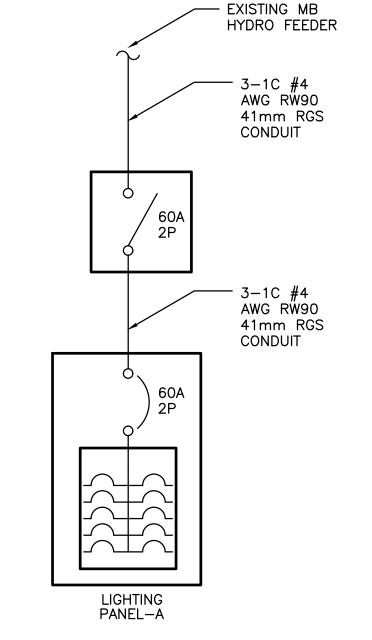
WINDWALL FINISHED

GRADE -

75 (TYP.)

- (1) GALVANIZED STEEL SPIKES TO DETER BIRDS AND HUMAN CLIMBING SUPPORT. MOUNTED TO PERFORATED, GALVANIZED STEEL TOP. (2) GALVANIZED STEEL MOUNTING FRAME C/W STAINLESS FULL LENGTH PIANO HINGE AND STAINLESS STEEL HASP FOR VANDAL COVER. THE CITY OF WINNIPEG WILL PROVIDE A PADLOCK LOCK FOR EACH VANDAL COVER.
- MOUNTING POINTS IN FRAME FOR MOUNTING TO EXISTING PIER CONCRETE SURFACE. USE STAINLESS STEEL ANCHORS TO INSTALL FRAME. SILICONE ENTIRE MOUNTING FRAME SURFACE BETWEEN FRAME AND CONCRETE.
- (4) WELDED 25mm x 4mm THICK STEEL ANGLE IRON VANDAL COVER FRAME C/W GALVANIZED FINISH HINGED TO MOUNTING FRAME. (5) FIXTURE TYPE 'B' AS PER LUMINAIRE SCHEDULE ON THIS SHEET.
- (6) 4mm THICK MIN. LEXAN SHEETS FOR FRONT, SIDES AND BOTTOM OF VANDAL COVER, SILICONE SEALED TO ANGLE IRON FRAME INTERIOR. DRILL 2x6mmø DRAINAGE HOLES THROUGH BOTTOM COVER.

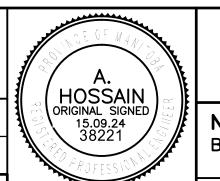
| 4 | UNDERBRIDGE | LIGHTING | VANDAL | COVER | DETAIL |
|---|-------------|----------|--------|-------|--------|
|   | NTS         |          |        |       |        |





|                               | ELEV. |                   |         | TETRA TECL |                     |   |  |
|-------------------------------|-------|-------------------|---------|------------|---------------------|---|--|
|                               |       |                   |         |            |                     | RA TECH                                     |  |
|                               |       |                   |         |            |                     |   |  |
|                               |       |                   |         |            | DESIGNED A 11       | CHECKED                                     |  |
|                               |       |                   |         |            | BY A.H.             | BY A.H.                                     |  |
| Certificate of Authorization  |       |                   |         |            | DRAWN D.W./T.L.     | APPROVED E.F.S.                             |  |
| TETRA TECH WEI Inc.           |       |                   |         |            | HOR. SCALE:         | ACCEPTED BY                                 |  |
| No. 5313 Date: April 30, 2016 | 0     | ISSUED FOR TENDER | 15.09.2 | 4 A.H.     | VERTICAL:  AS NOTED | ORIGINAL DRAWING<br>SIGNED BY: D.N. BURMEY, |  |

DATE BY DATE 15.09.24



CONSULTANT DRAWING NO.

1400070800-DWG-E0001

ORIGINAL DRAWING 15 SIGNED BY: D.N. BURMEY, P.ENG.

D.N. BURMEY, P.ENG. BRIDGE PROJECTS ENGINEER

15.09.24

## THE CITY OF WINNIPEG PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

NESS AVENUE AT STURGEON CREEK B243-15-044 BRIDGE CONSTRUCTION 44 OF 64 UNDERBRIDGE LIGHTING 44