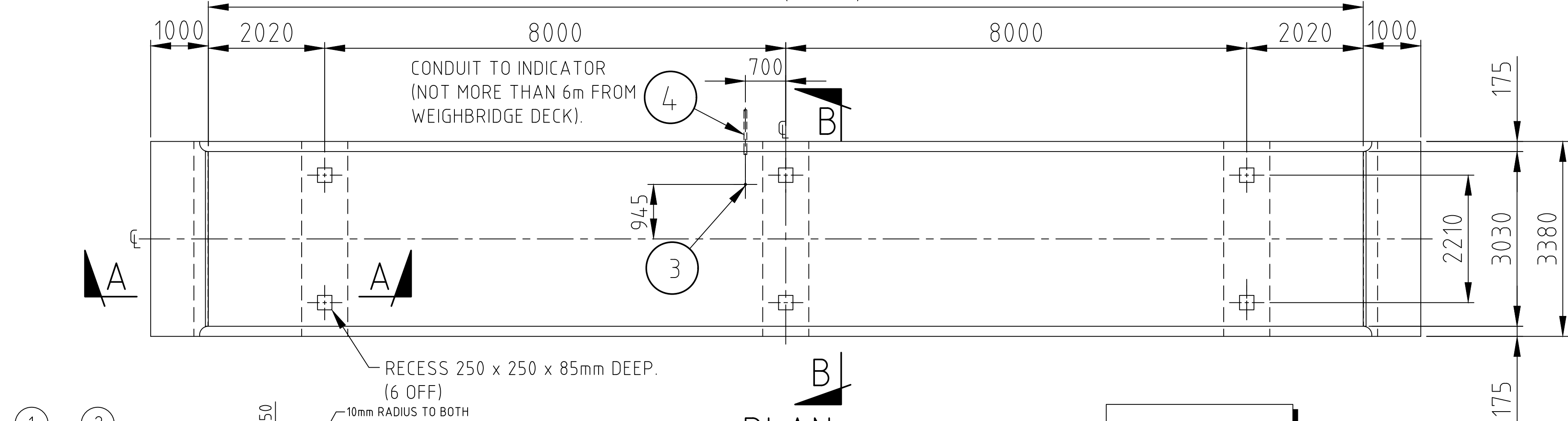


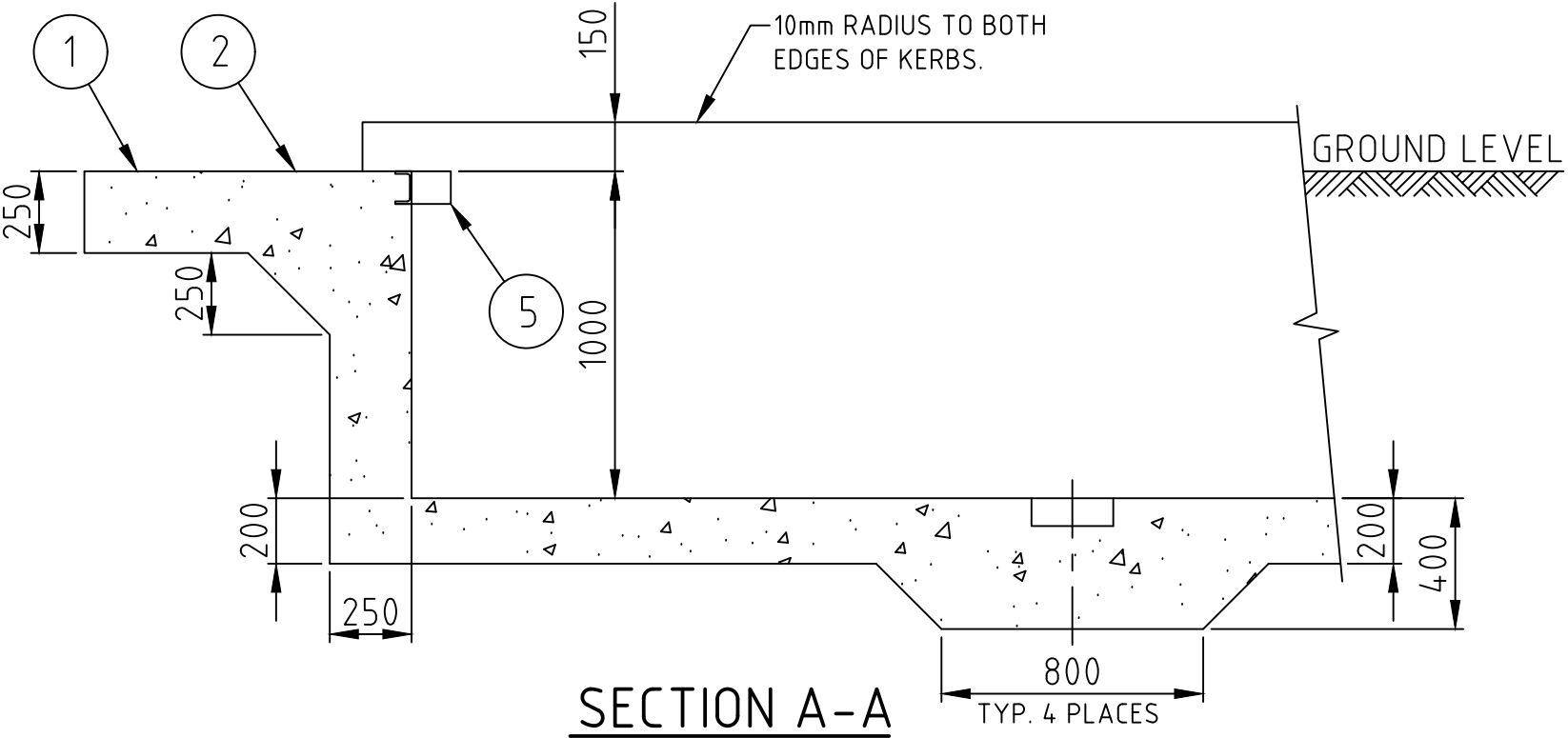
THIS DRAWING SHOULD NOT BE SCALED - IF IN DOUBT ASK.  
20040(±5mm)



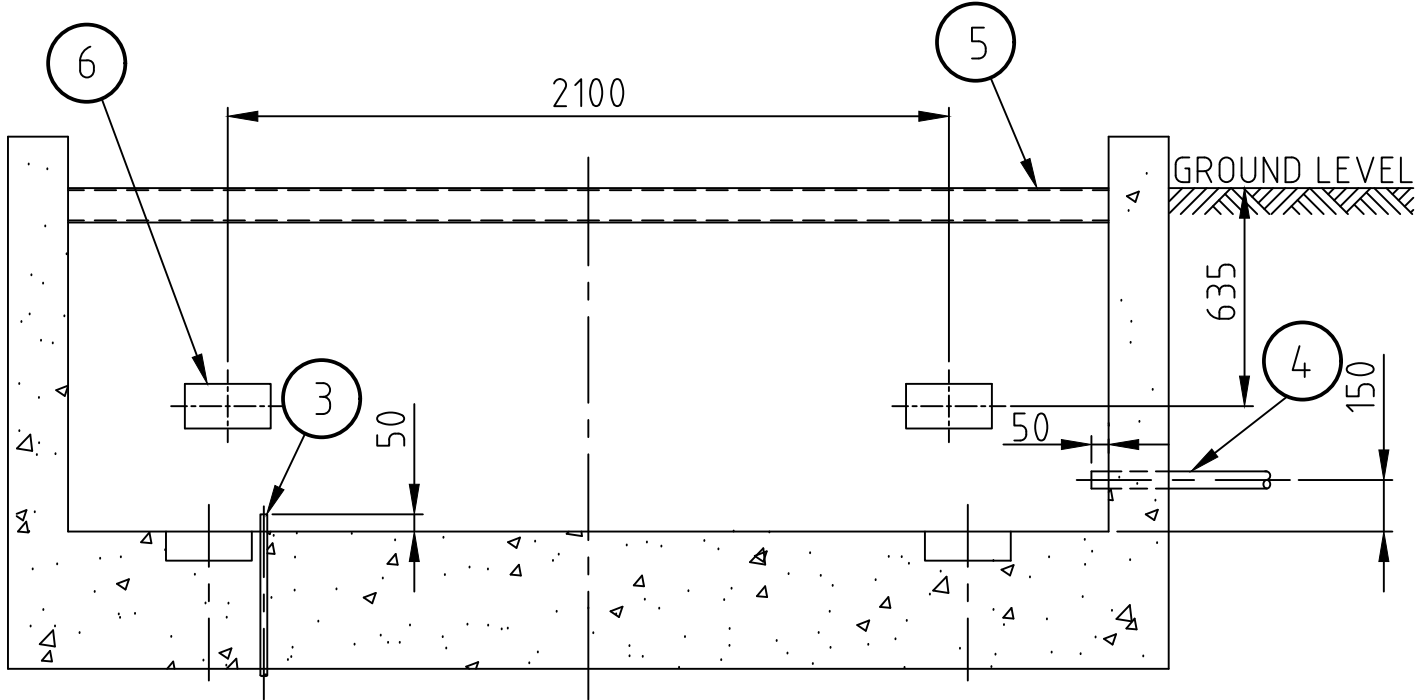
**PLAN**

ISSUED FOR  
CONSTRUCTION

- NOTES:
1. LOCATION AND SITE WORK TO BE APPROVED BY CLIENT'S ENGINEER.
  2. MINIMUM SOIL BEARING CAPACITY - 160kPa.
  3. FOR TRADE WEIGHING; LOCATION, APPROACHES, AND CLEARANCES ARE TO CONFORM TO THE REQUIREMENTS OF "TRADE MEASUREMENT REGULATIONS".
  4. (a) END WALLS TO BE SQUARE WITH SIDE WALLS. CHECK BY MEASURING OUT TRIANGLE SIDES: 3030mm, 3030mm, 4285mm.  
(b) DIAGONALS OF PIT TO BE EQUAL TO WITHIN ±3mm.
  5. FLOOR OF PIT IS TO BE GRADED TO A DRAIN OR SUMP FITTED WITH A PUMP.
  6. END APPROACH SLABS AND TOPS OF SIDE WALLS ARE TO BE LEVEL WITHIN ±3mm.
  7. GROUND ROD MUST BE LOCATED AS SHOWN IN PLAN. INSTALL ROD 1.75m INTO MOIST EARTH MAKING SURE IT PROTRUDES 50mm ABOVE FOUNDATION SLAB.



**SECTION A-A**



**SECTION B-B**

CAL.0115.05

| ITEMS SUPPLIED BY PIT CONTRACTOR |                  |                                                          |           |
|----------------------------------|------------------|----------------------------------------------------------|-----------|
| 6                                | 4                | BUMPER PLATE                                             | 4425-1    |
| 5                                | 2                | PIT WALL CAPPING.                                        | 4478/3.0m |
| 4                                | AS REQ'D         | Ø50mm CONDUIT, SWEEP BENDS, DRAW WIRE & CAPS.            | -         |
| 3                                | 1                | COPPER CLAD GROUND ROD x 1.8m LONG (MIN.)                | -         |
| 2                                | AS REQ'D         | REINFORCEMENT. REFER DRG. A3-4456/20x3.0m (SHEET 2 OF 2) | -         |
| 1                                | 27m <sup>3</sup> | APPROXIMATE OF CONCRETE. F <sub>c</sub> = 32MPa.         | -         |
| ITEM                             | REQ'D            | DESCRIPTION/MATERIAL                                     | PART NO.  |

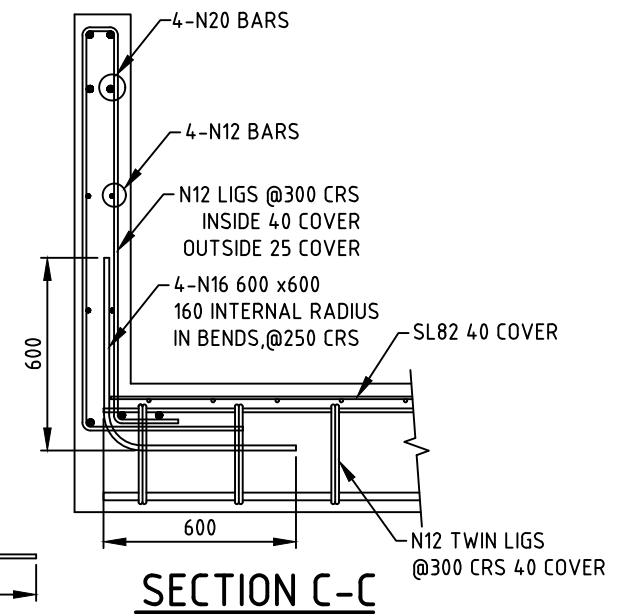
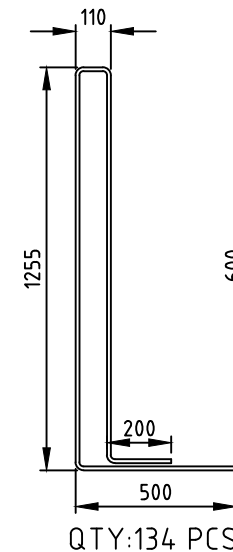
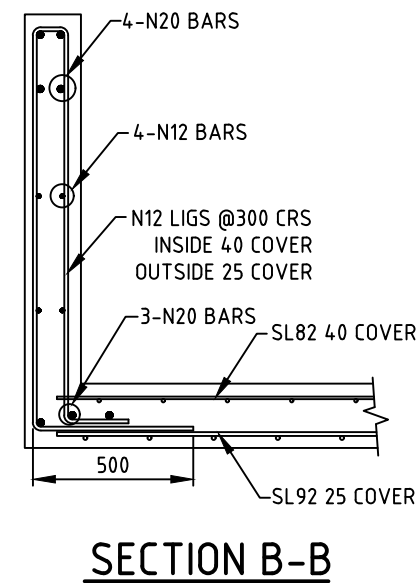
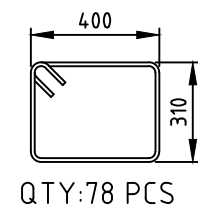
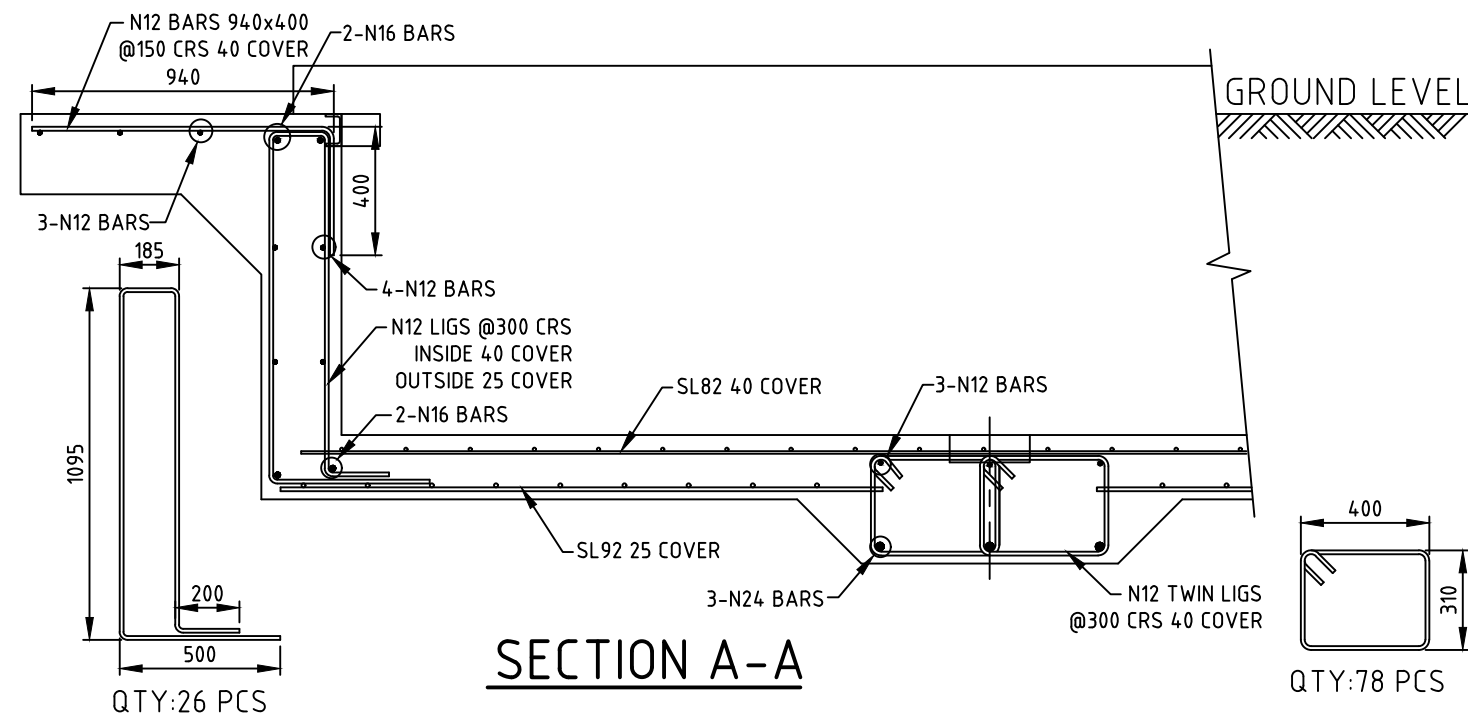
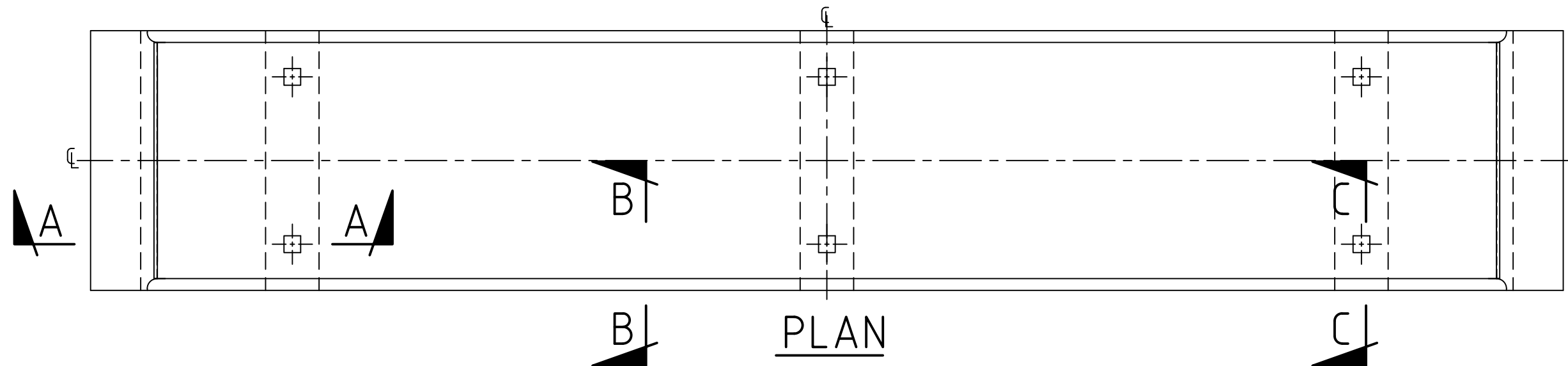
|                    |                  |                                                                                                                              |                                                       |
|--------------------|------------------|------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|
| DR. BY: AR         | DATE: 31.10.2001 | TITLE:<br><div>20m x 3.0m</div> <div>INGROUND FULL PIT</div> <div>ELECTRONIC WEIGHBRIDGE</div> <div>FOUNDATION DETAILS</div> | DRAWING No.<br><div>A3-4456</div> <div>20mx3.0m</div> |
| CH. BY: SK         | DATE: 11.01.2016 |                                                                                                                              |                                                       |
| APP. BY: SK        | DATE: 11.01.2016 |                                                                                                                              | REV. No. E                                            |
| SCALE: 1:100, 1:25 |                  |                                                                                                                              | SHEET 1 OF 2                                          |

| REV. | DESCRIPTION                                             | DATE     | APP.  |
|------|---------------------------------------------------------|----------|-------|
| E    | MODIFIED POSITION OF CONDUIT                            | 10.10.18 | A.NGO |
| D    | BUMPER PLATE ADDED & VIEW REVISED                       | 11.01.16 | SIMON |
| C    | REDESIGN AS PER NEW CALCS.0115.05                       | 03.06.15 | SIMON |
| B    | PIT DEPTH 870 CHANGE TO 1000                            | 18.09.08 | SIMON |
| A    | REDRAWN, ITEM 6 WAS 6 OFF, RECESS WAS 350x350x110 DEEP. | 31.10.01 | AR    |

**ULTRAHAWKE**  
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CONSTRUCTION

NOTES:

1. ALL CONCRETE WORK TO BE IN ACCORDANCE WITH AS3600.
2. CONCRETE STRENGTH : 32MPa AT 28 DAYS.
3. COVER TO REINFORCEMENT : 40 mm THROUGHOUT.
4. BACKFILL COMPACTION SHALL NOT BE CARRIED OUT BEFORE SUFFICIENT STRENGTH OF CONCRETE IS ACHIEVED.

CAL.0115.05

|      |                                   |          |       |
|------|-----------------------------------|----------|-------|
| C    | REDESIGN AS PER NEW CALCS.0115.05 | 02.06.15 | SIMON |
| B    | REDRAWN & GENERAL REVISION        | 15.09.08 | SIMON |
| A    | REDRAWN TO CAD                    | 8.10.03  | AR    |
| REV. | DESCRIPTION                       | DATE     | APP.  |

**ULTRAHAWKE**

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|          |             |       |            |
|----------|-------------|-------|------------|
| DR. BY:  | AR          | DATE: | 08.10.2003 |
| CH. BY:  | SK          | DATE: | 02.06.2015 |
| APP. BY: | SK          | DATE: | 02.06.2015 |
| SCALE:   | 1:100, 1:20 |       |            |

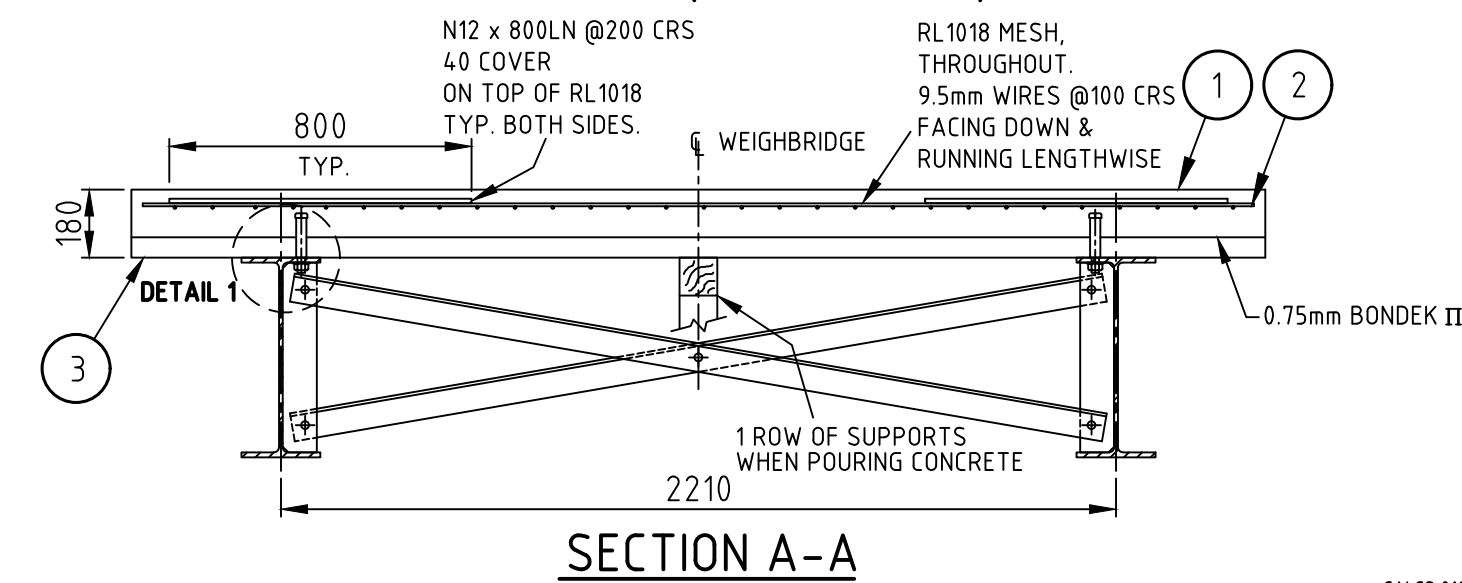
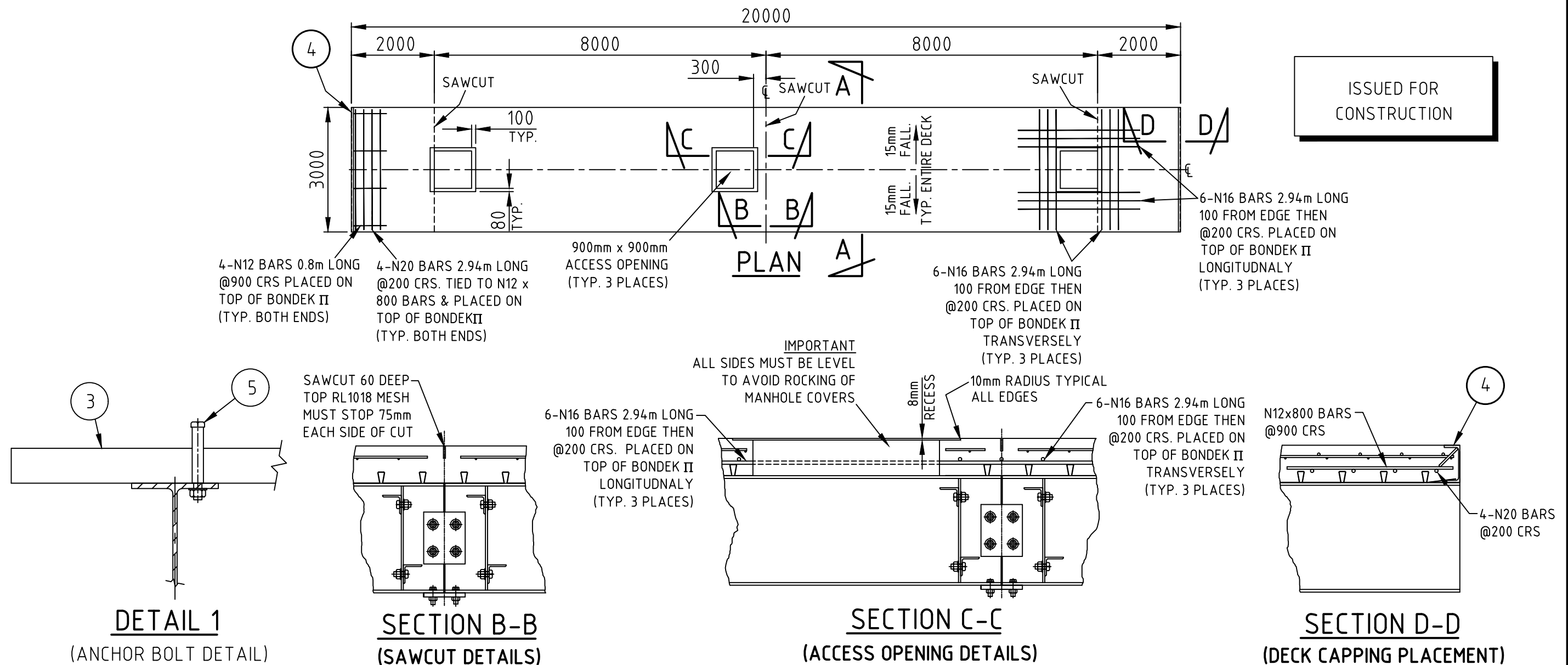
TITLE:

**20m x 3.5m  
INGROUND FULL PIT  
ELECTRONIC WEIGHBRIDGE**

**FOUNDATION REINFORCEMENT&PLACEMENT**

|             |                            |
|-------------|----------------------------|
| DRAWING No. | <b>A3-4456</b><br>20mx3.5m |
| REV. No.    | C                          |
| SHEET       | 2 OF 2                     |

THIS DRAWING SHOULD NOT BE SCALED - IF IN DOUBT ASK.



NOTES:

1. ALL CONCRETE WORK TO BE IN ACCORDANCE WITH AS3600.
2. CONCRETE STRENGTH : 32MPa.
3. COVER TO REINFORCEMENT : 40mm.

| ITEMS SUPPLIED BY PIT CONTRACTOR |                  |                                                  |           |
|----------------------------------|------------------|--------------------------------------------------|-----------|
| 5                                | 32               | ANCHOR BOLT (SCALE COMPANY SUPPLY)               | 4463      |
| 4                                | 2                | DECK END CAPPING (SCALE COMPANY SUPPLY)          | 4477/3.0m |
| 3                                | 60m <sup>2</sup> | 0.75mm BONDEK II (OR EQUIVALENT)                 | -         |
| 2                                | AS REQ'D         | REINFORCEMENT                                    | -         |
| 1                                | 11m <sup>3</sup> | APPROXIMATE OF CONCRETE. F <sub>c</sub> = 32MPa. | -         |
| ITEM                             | REQ'D            | DESCRIPTION/MATERIAL                             | PART NO.  |

| REV. | DESCRIPTION                      | DATE     | APP.  |
|------|----------------------------------|----------|-------|
| F    | NOTES REVISED & GENERAL REVISION | 14.06.14 | SIMON |
| E    | REVISED AS PER CALCS 0112.19     | 17.01.13 | SIMON |
| D    | GENERAL REVISION                 | 20.11.12 | SIMON |
| C    | REDRAWN & GENERAL REVISION       | 18.09.08 | SIMON |

**ULTRAHAWKE**  
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|                          |                  |
|--------------------------|------------------|
| DR. BY: SIMON            | DATE: 18.09.2008 |
| CH. BY: SK               | DATE: 14.06.2014 |
| APP. BY: SK              | DATE: 14.06.2014 |
| SCALE: 1:100, 1:20, 1:10 |                  |

TITLE:  
**20m x 3.0m  
INGROUND FULL PIT  
ELECTRONIC WEIGHBRIDGE  
CONCRETE DECK DETAILS**

|                                           |
|-------------------------------------------|
| DRAWING No.<br><b>A3-4458</b><br>20mx3.0m |
| REV. No. F                                |
| SHEET 1 OF 1                              |



**Ultrahawke Pty Ltd** ABN 97 004 659 358  
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## 6B/O ANALYSIS REPORT - Full Loadcell, Single Interval W/B

Carried out on (enter the date thus:year in 4 digits month in 2 digits day in 2 digits)

20190716

Organisation carrying out analysis  
6B/O conversion/manufacture certificate  
Report reference number

ULTRAHAWKE PTY LTD'  
NSC No. 6B/222  
US18/012

### Instrument Specification

NMI number 6/10B/44D  
Model type 9630  
Type of construction Weighbridge  
Instrument maximum capacity in kg. 60000  
Value of verification scale interval (VSI) e in kg. 20 from 0 to 60000  
Platform length in m. 20  
Platform width in m. 3  
Dead load in kg/m of platform length 1800/3.0mW, 2100/3.5mW - A. GR. 1360  
1360/3.0mW, 1590/3.5mW -IN GR.  
Number of load cells 6  
H/J ratio (for 4 load cells enter 1) 1.2  
Load cell Flintec, Model RC3-30t-C3. NSC no. S368  
Indicator GEDGE 600 NSC no. S621

### Results of Calculations

Dead load..... ACCEPTABLE  
Lodaed capacity of load cell(s)..... ACCEPTABLE  
Number of verification scale intervals for the instrument..... ACCEPTABLE  
Minimum value of verification scale intervals for the load cell(s)..... ACCEPTABLE  
Minimum sensitivity of the indicator..... ACCEPTABLE  
Load cell impedance..... ACCEPTABLE  
Indicator output current..... ACCEPTABLE

### Expiry Dates

Instrument..... CURRENT ACCEPTABLE  
Load cell..... CURRENT ACCEPTABLE  
Indicator..... CURRENT ACCEPTABLE

*Slavko Kramberger*  
(signature)

Slavko Kramberger

ULTRAHAWKE PTY LTD

Date..... 16/07/2019

Sheet 1of 2

## 6B/O ANALYSIS CALCULATIONS

These calculations are issued in support of Analysis Report No. US18/012

## DATA

### Instrument data

|                                       |                           |                 |
|---------------------------------------|---------------------------|-----------------|
| Certificate of approval issued by NMI | 6/10B/44D                 |                 |
| Manufacturer and model                | Ultrahawke Pty Ltd, Model | 9630            |
| Certificate expiry date               | CURRENT                   |                 |
| Maximum capacity in kg                | 60000                     |                 |
| VSI e in kg                           | 20                        | from 0 to 60000 |
| Number of e                           | 3000                      |                 |
| Number of load cells N                | 6                         |                 |
| H/J Ratio                             | 1.2                       |                 |
| Dead Load in kg/m length of platform  | 1360                      |                 |
| Length of platform in m.              | 20                        |                 |
| Width of platform in m.               | 3                         |                 |

### Load Cell Data

|                                                     |                            |       |
|-----------------------------------------------------|----------------------------|-------|
| Certificate of approval issued by NMI               | S368                       |       |
| Manufacturer and model                              | Flintec, Model RC3-30t-C3. |       |
| Certificate expiry date                             | CURRENT                    |       |
| Maximum capacity in kg.                             | 30000                      |       |
| Maximum number of verification scale intervals      | 3000                       |       |
| Minimum value of verification scale interval in kg. | 2.3                        |       |
| Minimum dead load output return value in kg.        | 2.3                        |       |
| Output rating in mV/V.                              | 2                          |       |
| Input impedance in ohms                             | 1106                       |       |
| Supply voltage in V.                                | 5                          | to 15 |

### Indicator Data

|                                                      |           |  |
|------------------------------------------------------|-----------|--|
| Certificate of approval issued by NMI                | S621      |  |
| Manufacturer and model                               | GEDGE 600 |  |
| Certificate expiry date                              | CURRENT   |  |
| Maximum number of verification scale intervals (VSI) | 6000      |  |
| Minimum sensitivity in mV/scale interval             | 0.0008    |  |
| Excitation voltage in V dc                           | 10        |  |
| Minimum load impedance in ohms                       | 43        |  |
| Maximum excitation current in mA                     | 230       |  |

Sheet 2 of 2

## CALCULATIONS

|                |                |                                         |
|----------------|----------------|-----------------------------------------|
| <b>Legend:</b> | >=             | means greater or equal to               |
|                | >              | means greater than                      |
|                | <=             | means smaller or equal to               |
|                | <              | means smaller than                      |
|                | ACCEPTABLE     | means that it complies with 6B/0        |
|                | NOT ACCEPTABLE | means that it does not comply with 6B/0 |

### 6.1 Dead Load

Dead load per load cell in kg.

$$\begin{aligned} & \frac{1360}{30000} \times 0.01 = 4533.333 \\ & \text{Since } 4533.333 > 300 \text{ therefore ACCEPTABLE} \end{aligned}$$

### 6.2 Loaded Capacity of the Load Cell(s)

Maximum load cell capacity in kg. = 30000

$K=(N-2) \times (H/J)$  for  $N > 4$  and  $K=N$  for  $N \leq 4$  4.8

Maximum load on load cell in kg =

$$\begin{aligned} & \left( \frac{60000}{30000} + 20 \right) \times 1360 \div 4.8 = 18167 \\ & \text{Since } 30000 > 18167 \text{ therefore ACCEPTABLE} \end{aligned}$$

### 6.3 Number of Verification Scale Intervals (VSI) for the Instrument

e is: 3000

Number of e  $\leq$  max. number of VSI for l.cell = 3000 therefore ACCEPTABLE

Number of e  $\leq$  max. no. of VSI for Indicator = 6000 therefore ACCEPTABLE

For Class III (Table 3 of NMI P 100 Doc.), the number of e is to be between 500 and 10000.

therefore ACCEPTABLE

### 6.4 Minimum Value of Verification Scale Interval for the Load Cell

Minimum value of VSI for the load cell = 2.3 kg

$$\begin{aligned} & \frac{20}{2.3} \div \left( \text{sq. root } 6 \right) = 8.16 \\ & \text{Since } 2.3 < 8.16 \text{ therefore ACCEPTABLE} \end{aligned}$$

### 6.5 Minimum Sensitivity of the Digital Indicator

Minimum sensitivity = 0.0008 mV/scale interval.

$$\begin{aligned} & \frac{10}{30000} \times \frac{2}{0.0008} \times \frac{60000}{0.002} \times \frac{6}{3000} = 0.002 \\ & \text{Since } 0.0008 < 0.002 \text{ therefore ACCEPTABLE} \end{aligned}$$

### 6.6 Load Cell Impedance

Load cell impedance = 1106 ohms

$$\begin{aligned} & \frac{10}{1106} \times \frac{6}{0.23} = 261 \text{ ohms} \\ & \text{Since } 1106 > 261 \text{ therefore ACCEPTABLE} \end{aligned}$$