

Date: 30 APRIL 2024



# PRODUCER STATEMENT – PS1 DESIGN

BUILDING CODE CLAUSE(S): B1/VM1	<b>JOB NUMBER:</b> 02351-057	
ISSUED BY: BLUE BARN CONSULTING LIMITED		
(Engineering Design Firm)  TO: CUNNINGHAM CONSTRUCTION LIMITED		
(Owner/Developer)		
TO BE SUPPLIED TO: THE STATUTORY AUTHORITY		
(Building Consent Authority)		I
IN RESPECT OF: VARIOUS SCAFFOLDS AT WITT BLOCK A AND BLOCK	В	
(Description of Building Work)		,
AT: WITT NEW PLYMOUTH CAMPUS, 20 BELL STREET, WELBOURN, N	IEW PLYMOUTH 4310	
(Address, Town/City)	,	
LEGAL DESCRIPTION: SECTION 1 SO 10403	N/A[	
We have been engaged by the owner/developer referred to above to ENGINEERING DESIGN SERVICES FOR SCAFFOLDING	provide (Extent of Engagement):	
in respect of the requirements of the Clause(s) of the Building Code sy Schedule, of the proposed building work.	pecified above for Part only , as spe	ecified in the
The design carried out by us has been prepared in accordance with:		
Compliance documents issued by the Ministry of Business	, Innovation & Employment (Verification m	nethod/acceptable
solution) B1/VM1	. , , ,	and/or;
• Alternative solution as per the attached Schedule.		
The proposed building work covered by this producer statement is de with the specification, and other documents set out in the Schedule.	scribed on the drawings specified in the Sc	chedule, together
On behalf of the Engineering Design Firm, and subject to:		1
Site verification of the following design assumptions: REFER		-
<ul> <li>All proprietary products meeting their performance specifical</li> </ul>	ition requirements;	
I believe on reasonable grounds that:		
the building, if constructed in accordance with the drawings,		ided or listed in the
Schedule, will comply with the relevant provisions of the Bui		
<ul> <li>the persons who have undertaken the design have the necess</li> </ul>	sary competency to do so.	
I recommend the CM3 level of <b>construction monitoring</b> .		
I, (Name of Engineering Design Professional) RODRIGO WINKLER	, am:	
CPEng number 1006328		
and hold the following qualifications CMEngNZ, CPEng, IntPE(NZ	)	
The Engineering Design Firm holds a current policy of Professional Inc The Engineering Design Firm is a member of ACE New Zeala	•	
<b>SIGNED BY</b> (Name of Engineering Design Professional): RODRIGO WIN (Signature below):	NKLER	
" " " " " " " " " " " " " " " " " " "		

ON BEHALF OF (Engineering Design Firm): BLUE BARN CONSULTING LIMITED

**Note:** This statement has been prepared solely for the Building Consent Authority named above and shall not be relied upon by any other person or entity. Any liability in relation to this statement accrues to the Engineering Design Firm only. As a condition of reliance on this statement, the Building Consent Authority accepts that the total maximum amount of liability of any kind arising from this statement and all other statements provided to the Building Consent Authority in relation to this building work, whether in tort or otherwise, is limited to the sum of \$200,000.

This form is to accompany Form 2 of the Building (Forms) Regulations 2004 for the application of a Building Consent.

 Job Number
 .02351-057
 Page 1 of 3
 November 2021

### **SCHEDULE to PS1**

Please include an itemised list of all referenced documents, drawings, or other supportin	g materials in relation to this producer
statement below:	

Refer to the following pages.

#### **PS1 SCHEDULE**

Good Practice Guideline "Scaffolding in New Zealand (November 2016)" as an Alternative Solution Compliance Document.

On behalf of Blue Barn Consulting Limited and subject to:

- 1. The site verification of the following design assumptions:
  - a. Scaffold system verified for live and wind loadings only, other effects such as rainwater ponding have been excluded.
  - b. Shrink wrap to be installed by a "competent person" in a good weather window.
  - c. Constant wind monitoring required.
  - d. For Keder roof:
    - i. For gust wind speeds above 80 km/hr, Keder roof to be slung as indicated in red in Figure 1 with minimum 3T SWL sling at each end of the roof per roof bay.
    - ii. For gust wind speeds above 100 km/hr, additional tubulars to be installed as indicated in blue in Figure 1 in addition to 3T SWL sling.
    - iii. For gust wind speeds above 120 km/hr, Keder sheeting on roof to be unrolled. Roof and scaffold system to be inspected by a qualified Chartered Professional Engineer.
  - e. For "link" bridge between Block A and Block B scaffolds (see Figure 2):
    - i. Platform rated for 450 kg per bay.
  - f. For Layher Bridging System (see Figure 4):
    - i. Scaffold rated for 160 kg per bay (2100 kg across Bridging System).
  - g. For scaffold tiebacks to the main building, provide tiebacks as indicated in red in Figure 3. Tiebacks to have a minimum capacity of 1.2T. Tiebacks to be inspected by a qualified Chartered Professional Engineer for gust wind speeds above 120 km/hr.

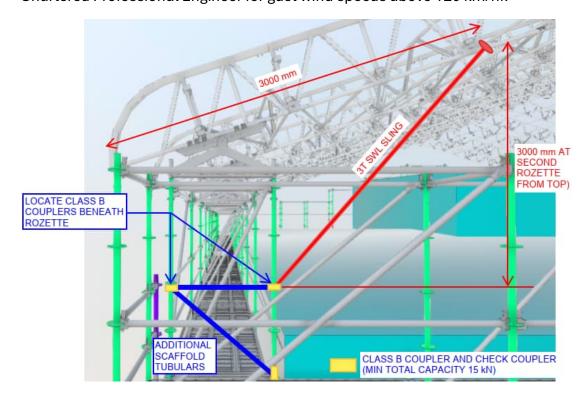


Figure 1. Keder roof hold-down typical detail at each end per roof bay.

PS1 Schedule 1

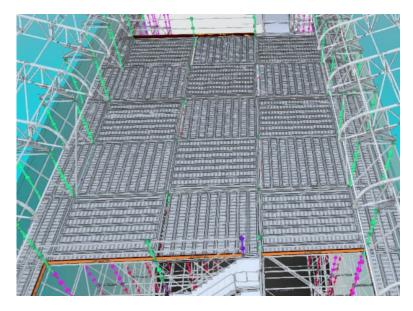
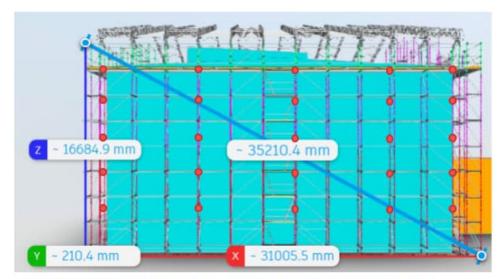


Figure 2. "Link" between Block A and Block B scaffold systems.



PROVIDE TIEBACK OF SCAFFOLD TO MAIN BUILDING AT 5 LOCATIONS PER 1.5 LIFTS AS INDICATED. MINIMUM 25 TIEBACKS REQUIRED PER ELEVATION (NORTH & SOUTH). TIEBACK CAPACITY MINIMUM 1.2T.

Figure 3. Scaffold tieback to main building.

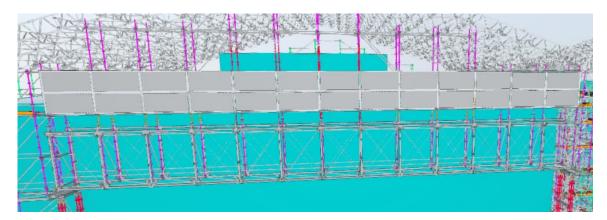


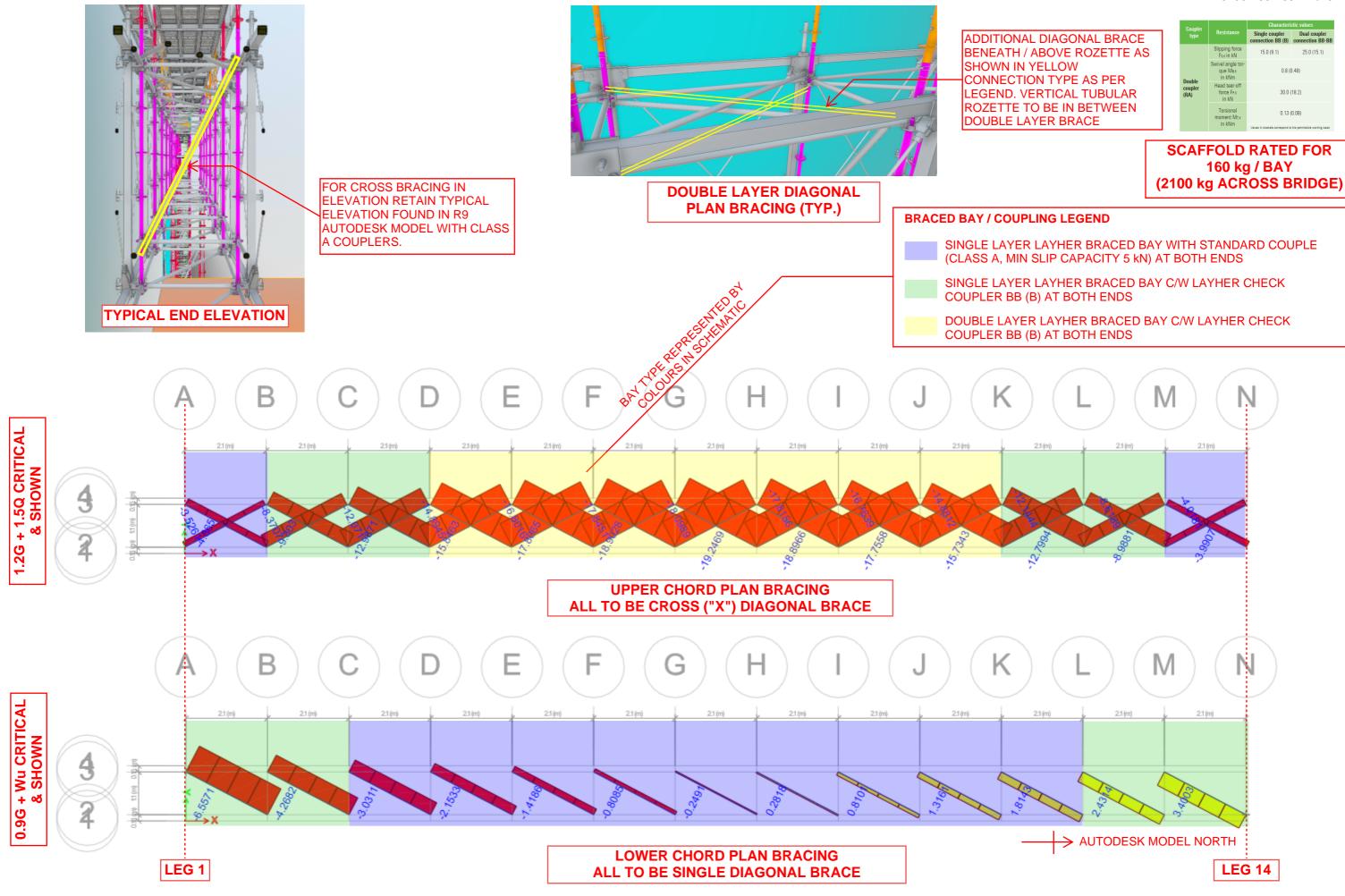
Figure 4. Layher Bridging System.

PS1 Schedule 2

Documents also covered by this PS1 is as tabulated below.

DOCUMENT SCHEDULE								
REFERENCE	TITLE							
BB02351-057-002-Rev0	Modifications to Proposed Scaffold at WITT Block A & B							

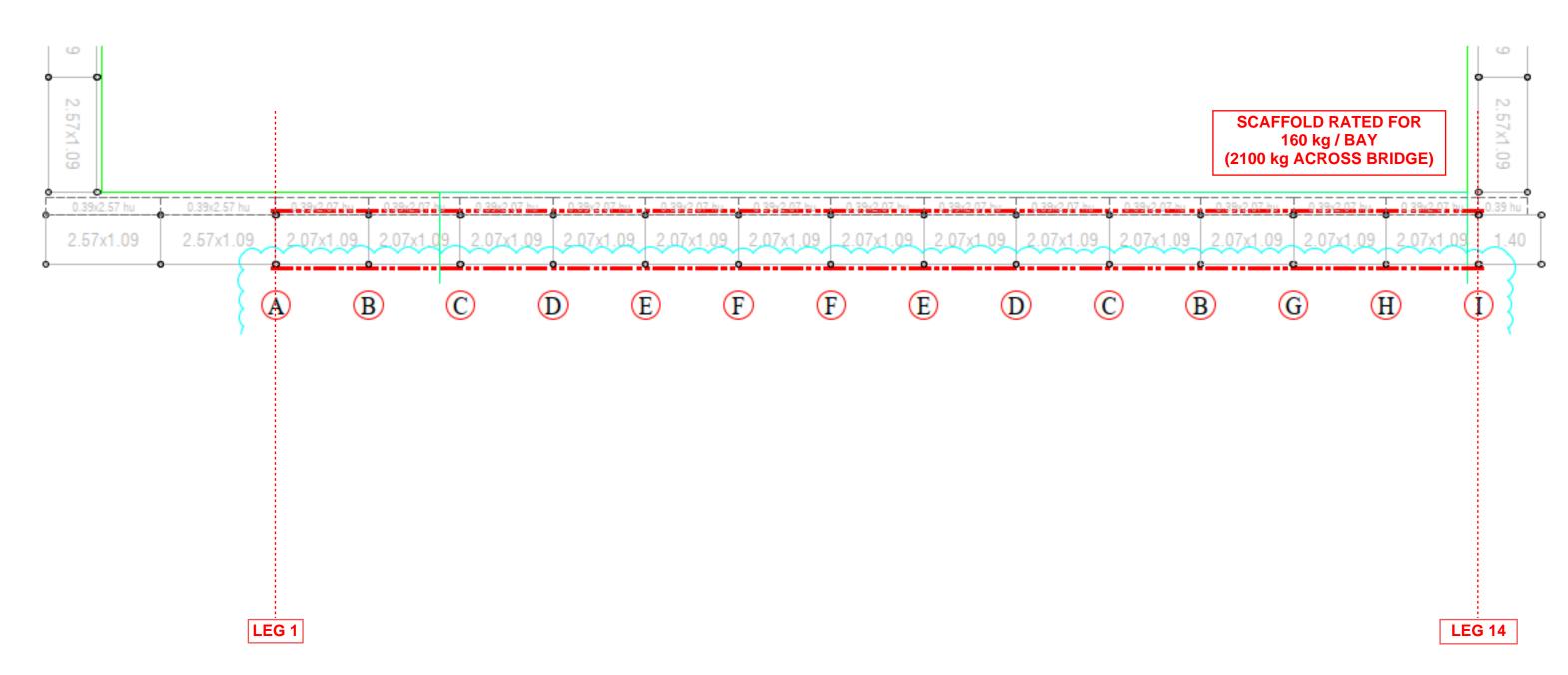
PS1 Schedule 3



19/04/2024

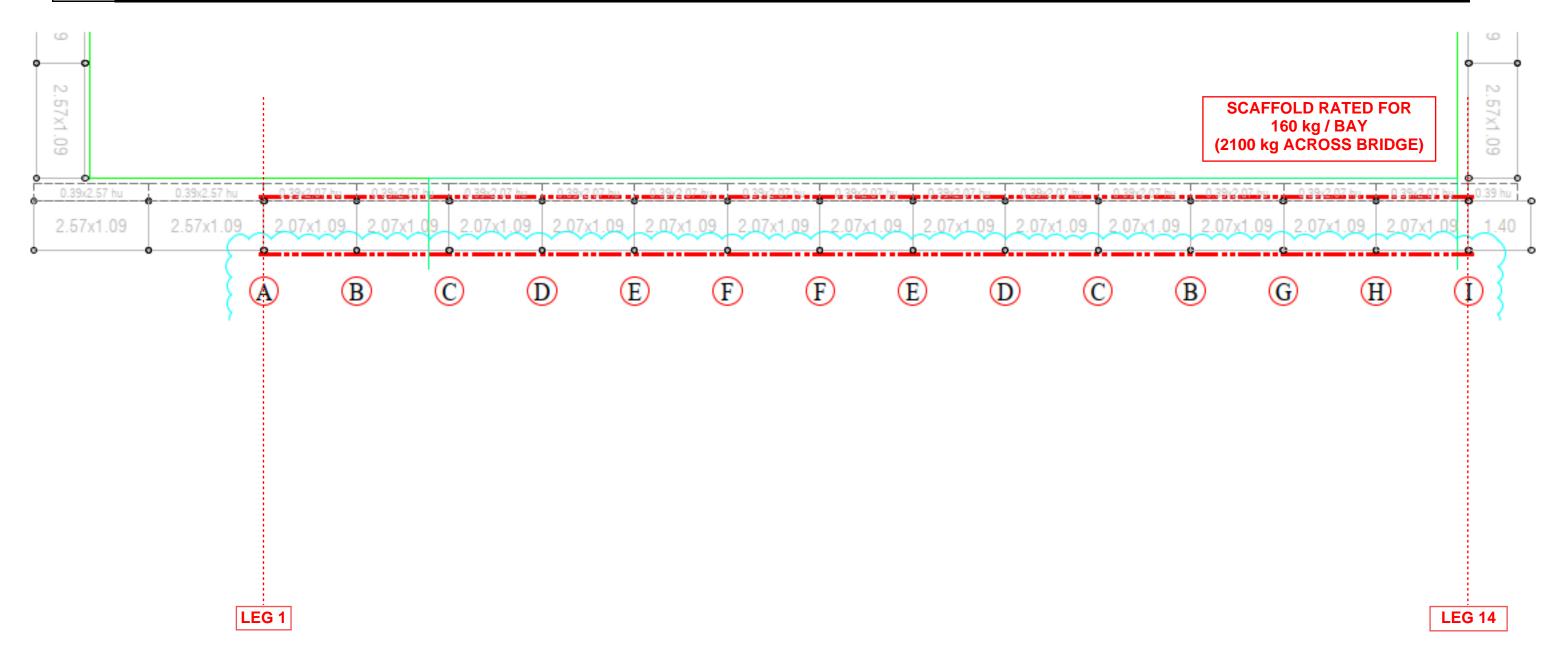
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								1.5Q TWENTYPPI										
				UPPER	CHORD				LOWER CHORD									
LEG	Unique Name	Uz	Unique Name	Uz	Unique Name	Uz	Unique Name	Uz	Unique Name	Uz	AVERAGE							
1	3	-0.46	2	-0.20	1	-0.22	41	-0.49	33	0.00	34	0.00	35	0.00	36	0.00	-0.17	
2	4	-9.79	6	-9.81	5	-9.92	42	-9.92	38	-9.46	39	-9.79	40	-9.68	37	-9.35	-9.71	
3	19	-18.12	21	-18.20	20	-18.33	18	-18.28	15	-17.91	16	-18.21	17	-18.08	14	-17.76	-18.11	
4	32	-25.14	44	-25.25	43	-25.37	31	-25.29	28	-24.99	29	-25.26	30	-25.15	27	-24.86	-25.16	
5	55	-30.59	57	-30.74	56	-30.81	54	-30.69	51	-30.47	52	-30.72	53	-30.65	50	-30.39	-30.63	
6	68	-34.32	70	-34.48	69	-34.48	67	-34.31	64	-34.18	65	-34.40	66	-34.40	63	-34.20	-34.34	
7	81	-36.21	83	-36.39	82	-36.29	80	-36.07	77	-36.02	78	-36.22	79	-36.32	76	-36.16	-36.21	
8	94	-36.22	96	-36.40	95	-36.23	93	-36.00	90	-35.95	91	-36.16	92	-36.33	89	-36.17	-36.18	
9	107	-34.39	109	-34.52	108	-34.28	106	-34.07	103	-33.95	104	-34.20	105	-34.43	102	-34.26	-34.26	
10	120	-30.70	122	-30.78	121	-30.49	119	-30.32	116	-30.12	117	-30.40	118	-30.68	115	-30.48	-30.50	
11	133	-25.27	135	-25.31	134	-25.02	132	-24.87	129	-24.59	130	-24.91	131	-25.20	128	-24.97	-25.02	
12	146	-18.26	148	-18.27	147	-18.01	145	-17.91	142	-17.56	143	-17.90	144	-18.15	141	-17.88	-17.99	
13	159	-9.90	161	-9.88	160	-9.71	158	-9.67	155	-9.25	156	-9.59	157	-9.75	154	-9.45	-9.65	
14	172	-0.49	174	-0.23	173	-0.23	171	-0.45	168	0.00	169	0.00	170	0.00	167	0.00	-0.18	



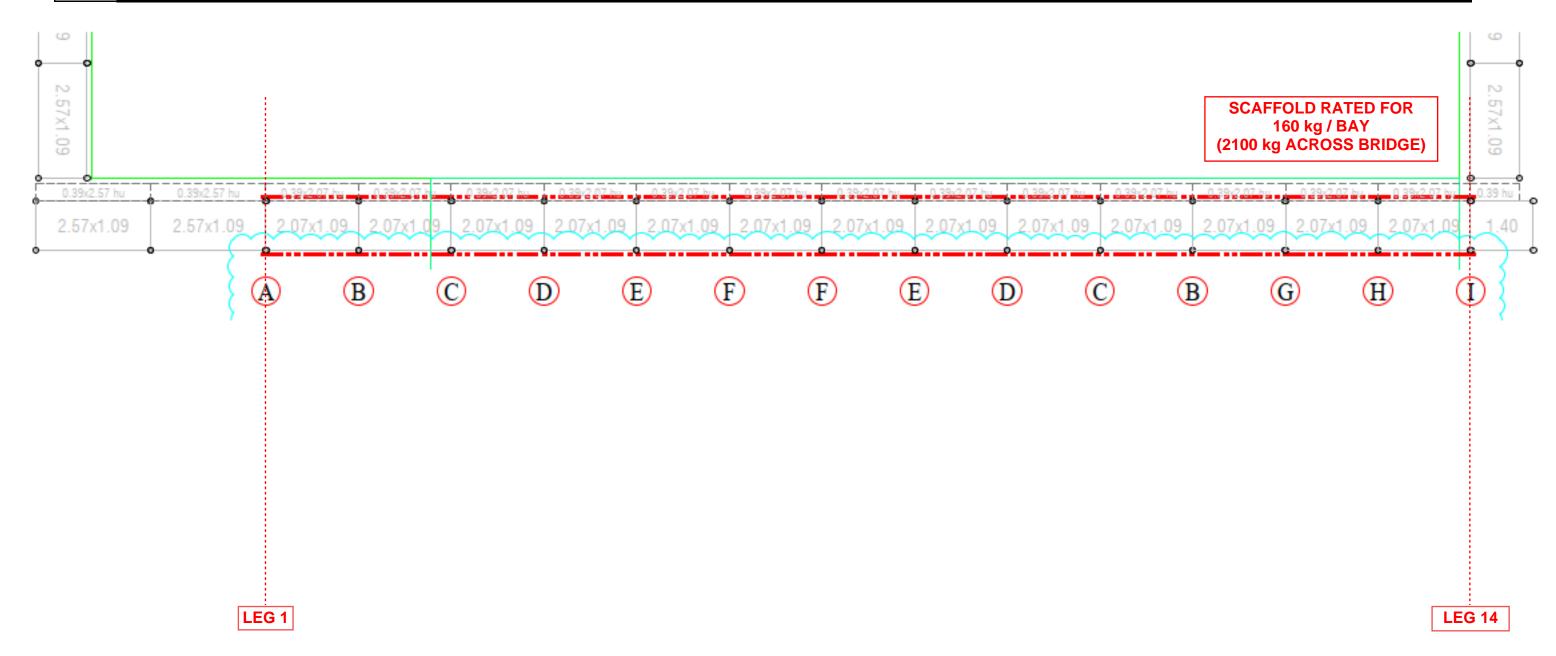
VERTICAL DISPLACEMENTS = Uz

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				UPPER	CHORD			LOWER CHORD									
LEG	Unique Name	Uz	Unique Name	Uz	Unique Name	Uz	Unique Name	Uz	Unique Name	Uz	<b>AVERAGE</b>						
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2	4	-8.18	6	-8.20	5	-8.28	42	-8.29	38	-7.91	39	-8.18	40	-8.09	37	-7.82	-8.12
3	19	-15.14	21	-15.20	20	-15.31	18	-15.28	15	-14.96	16	-15.21	17	-15.11	14	-14.84	-15.13
4	32	-21.00	44	-21.10	43	-21.20	31	-21.13	28	-20.88	29	-21.11	30	-21.01	27	-20.77	-21.02
5	55	-25.56	57	-25.68	56	-25.74	54	-25.64	51	-25.46	52	-25.66	53	-25.61	50	-25.40	-25.59
6	68	-28.67	70	-28.81	69	-28.81	67	-28.67	64	-28.56	65	-28.74	66	-28.74	63	-28.57	-28.70
7	81	-30.25	83	-30.40	82	-30.32	80	-30.14	77	-30.10	78	-30.26	79	-30.35	76	-30.21	-30.25
8	94	-30.27	96	-30.41	95	-30.27	93	-30.08	90	-30.04	91	-30.21	92	-30.35	89	-30.22	-30.23
9	107	-28.74	109	-28.84	108	-28.64	106	-28.47	103	-28.36	104	-28.57	105	-28.77	102	-28.62	-28.63
10	120	-25.65	122	-25.72	121	-25.47	119	-25.33	116	-25.16	117	-25.40	118	-25.64	115	-25.47	-25.48
11	133	-21.11	135	-21.15	134	-20.90	132	-20.78	129	-20.55	130	-20.82	131	-21.06	128	-20.87	-20.90
12	146	-15.26	148	-15.26	147	-15.04	145	-14.97	142	-14.67	143	-14.95	144	-15.16	141	-14.94	-15.03
13	159	-8.28	161	-8.25	160	-8.11	158	-8.08	155	-7.73	156	-8.01	157	-8.14	154	-7.90	-8.06
14	172	-0.41	174	-0.19	173	-0.19	171	-0.38	168	0.00	169	0.00	170	0.00	167	0.00	-0.15



VERTICAL DISPLACEMENTS = Uz

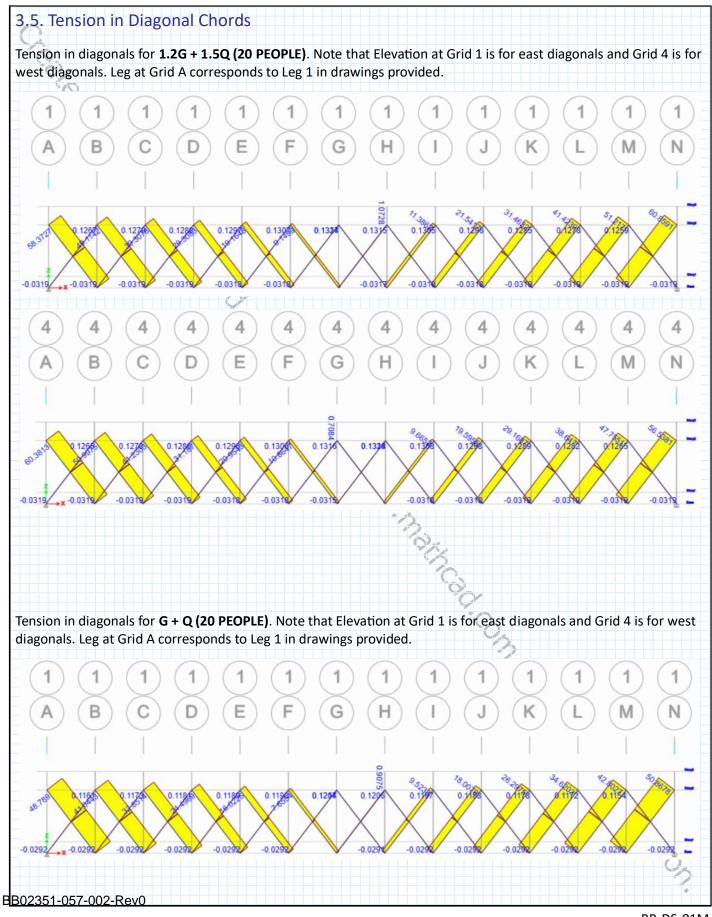
								G AC	TUAL								
				UPPER	CHORD			LOWER CHORD									
LEG	Unique Name	Uz	Unique Name	Uz	Unique Name	Uz	Unique Name	Uz	Unique Name	Uz	<b>AVERAGE</b>						
1	3	-0.34	2	-0.15	1	-0.16	41	-0.36	33	0.00	34	0.00	35	0.00	36	0.00	-0.13
2	4	-7.18	6	-7.19	5	-7.27	42	-7.27	38	-6.94	39	-7.18	40	-7.10	37	-6.86	-7.12
3	19	-13.28	21	-13.34	20	-13.43	18	-13.40	15	-13.13	16	-13.35	17	-13.26	14	-13.02	-13.28
4	32	-18.43	44	-18.51	43	-18.60	31	-18.54	28	-18.32	29	-18.52	30	-18.44	27	-18.22	-18.45
5	55	-22.43	57	-22.54	56	-22.59	54	-22.49	51	-22.34	52	-22.52	53	-22.47	50	-22.28	-22.46
6	68	-25.16	70	-25.28	69	-25.28	67	-25.15	64	-25.05	65	-25.22	66	-25.22	63	-25.07	-25.18
7	81	-26.54	83	-26.67	82	-26.60	80	-26.44	77	-26.40	78	-26.55	79	-26.63	76	-26.51	-26.54
8	94	-26.55	96	-26.68	95	-26.55	93	-26.38	90	-26.35	91	-26.50	92	-26.63	89	-26.51	-26.52
9	107	-25.20	109	-25.30	108	-25.12	106	-24.97	103	-24.88	104	-25.06	105	-25.24	102	-25.10	-25.11
10	120	-22.49	122	-22.55	121	-22.34	119	-22.21	116	-22.06	117	-22.28	118	-22.48	115	-22.33	-22.34
11	133	-18.51	135	-18.54	134	-18.32	132	-18.22	129	-18.02	130	-18.25	131	-18.46	128	-18.29	-18.33
12	146	-13.37	148	-13.38	147	-13.19	145	-13.12	142	-12.86	143	-13.11	144	-13.29	141	-13.10	-13.18
13	159	-7.25	161	-7.23	160	-7.11	158	-7.08	155	-6.77	156	-7.02	157	-7.14	154	-6.92	-7.07
14	172	-0.36	174	-0.17	173	-0.17	171	-0.33	168	0.00	169	0.00	170	0.00	167	0.00	-0.13





## Calculation Sheet

**Cunningham Construction Ltd** 02351-057 CLIENT: JOB No: SHEET: 10 of 21 19 April 2024 WITT Block A & B J. Kueh JOB: CALCS BY: DATE: (PRINT NAME) Scaffold Bridge Displacements R. Winkler 19 April 2024 SUBJECT: **CHECKED BY:** DATE:





## Calculation-Sheet

02351-057 **Cunningham Construction Ltd** CLIENT: JOB No: SHEET: 11 of 21\_ WITT Block A & B J. Kueh 19 April 2024 JOB: CALCS BY: DATE: (PRINT NAME) Scaffold Bridge Displacements R. Winkler 19 April 2024 SUBJECT: **CHECKED BY:** DATE:

