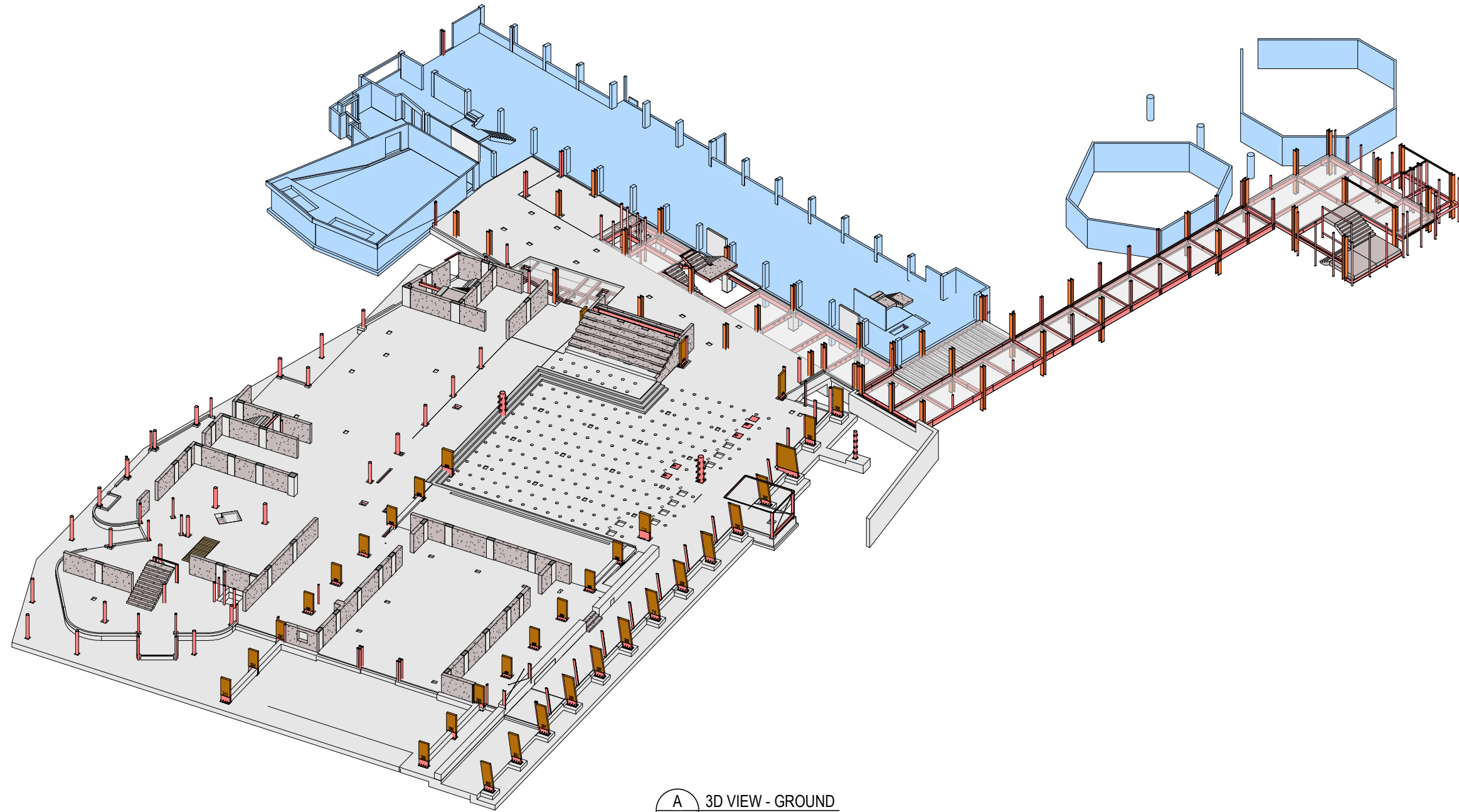
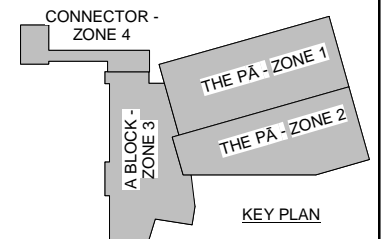
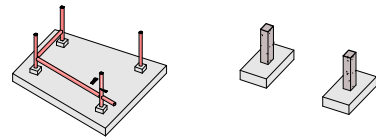


**NOTES:**

- 1.0 GENERAL:
- 1.1 FOR GENERAL NOTES REFER DRG. 'SE-00201'.
- 1.2 FOR PROJECT NOTES REFER DRGS. 'SE-00211' TO 'SE-00213'.
- 1.3 FOR GRID SET OUT DIMENSIONS REFER TO DRG. 'SE-A00901'.



**A** 3D VIEW - GROUND  
- NTS



ORIGINAL DRAWING  
IN COLOUR

FOR CONSTRUCTION

No.	Revision	By	Chk	Appd	Date
1	FOR CONSTRUCTION	GW	SG	MB	17/04/20

Drawing Originator:	Design	M. MULLER	APR 20	Approved for Construction*
	Drawn	P. KENDALL	APR 20	M. BILLINGTON
	Design Verifier	S. KEMP	16/04/20	
	Dwg Check	G. WEBB	16/04/20	Date 17/04/20
	* Refer to Revision 1 for Original Signatures			

Client:	Project:
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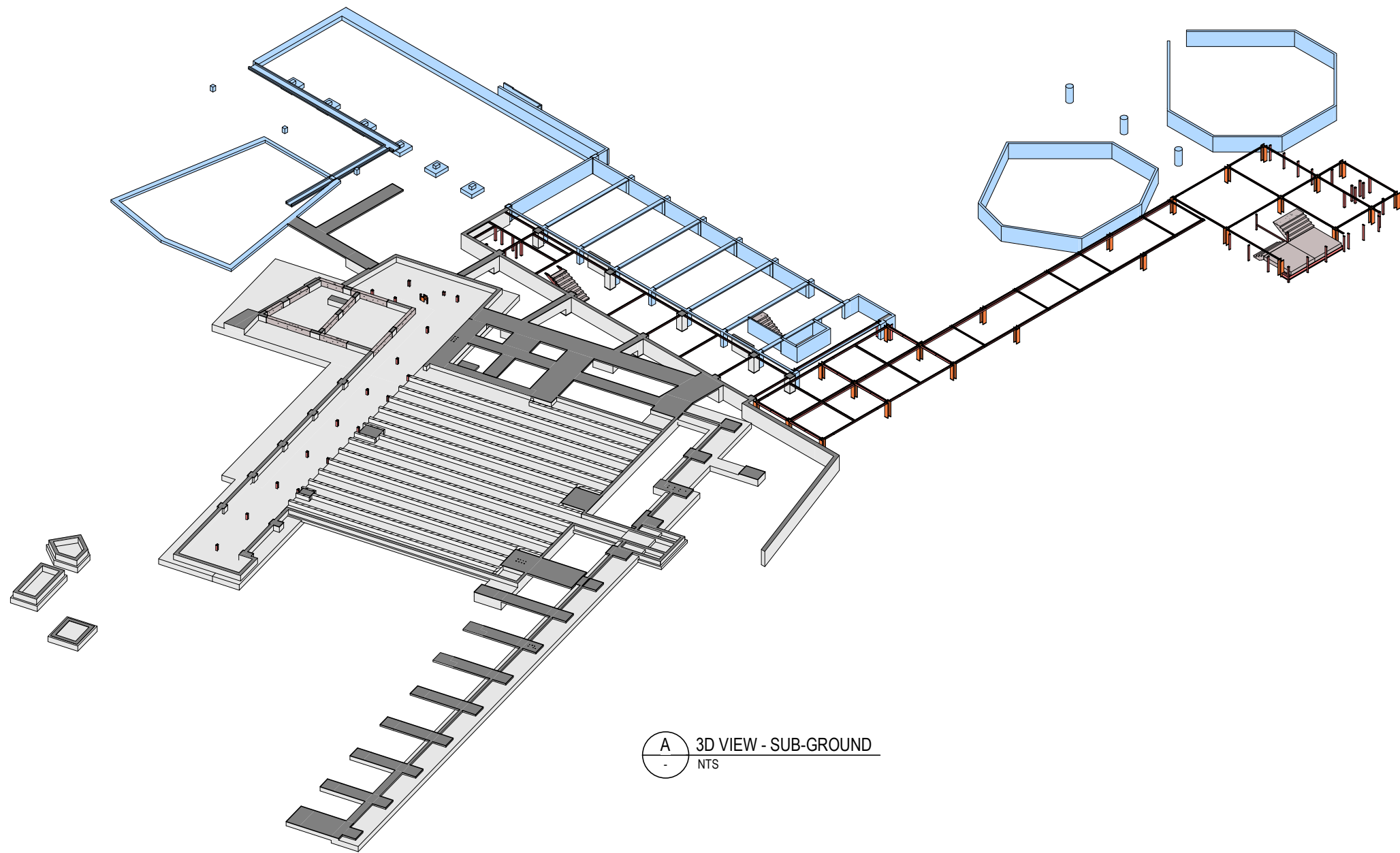
THE UNIVERSITY OF  
WAIKATO - THE Pā  
HILLCREST, HAMILTON 3216

Title: OVERALL GENERAL  
ARRANGEMENT 3D VIEWS -  
SHEET 3

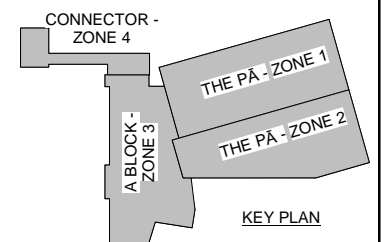
Discipline:	STRUCTURAL
Drawing No.	5493498-SE-00943
Rev.	1

**NOTES:**

- 1.0 **GENERAL:**
- 1.1 FOR GENERAL NOTES REFER DRG. 'SE-00201'.
- 1.2 FOR PROJECT NOTES REFER DRGS. 'SE-00211' TO 'SE-00213'.
- 1.3 FOR GRID SET OUT DIMENSIONS REFER TO DRG. 'SE-A00901'.



**A** 3D VIEW - SUB-GROUND  
- NTS



ORIGINAL DRAWING  
IN COLOUR

FOR CONSTRUCTION

No.	Revision	By	Chk	Appd	Date
1	FOR CONSTRUCTION	GW	SG	MB	17/04/20

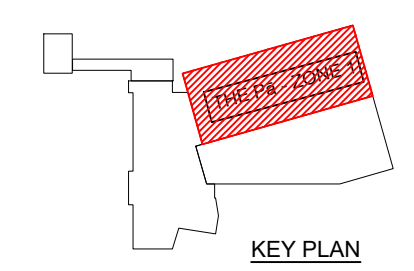
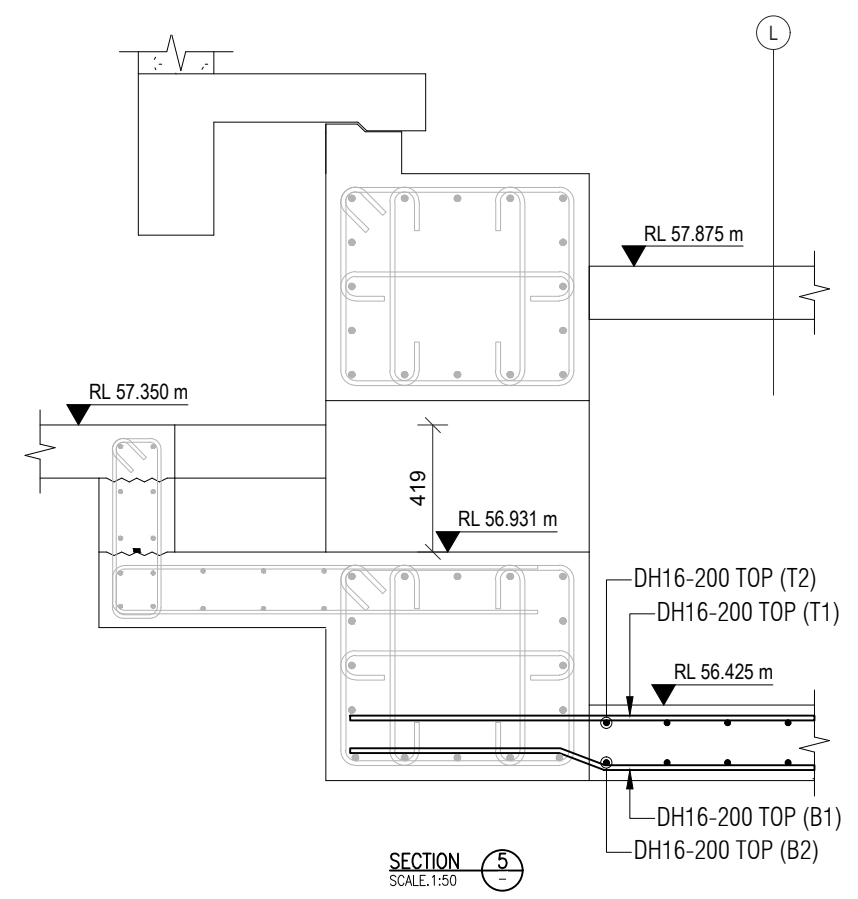
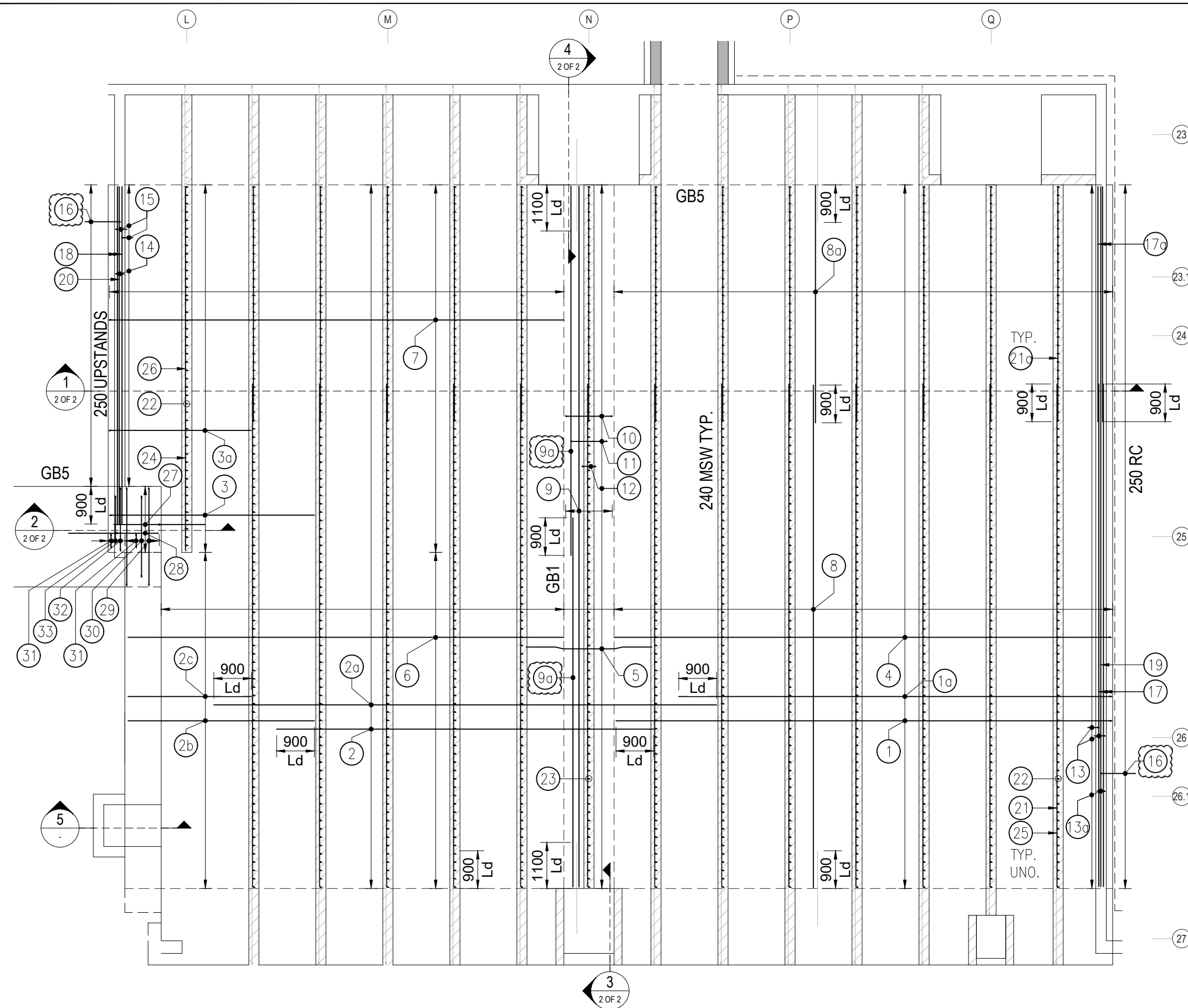
Drawing Originator:					
Original Scale (A1)	Design	M. MULLER	APR 20	Approved for Construction*	
N.T.S.	Drawn	P. KENDALL	APR 20	M. BILLINGTON	
Reduced Scale (A3)	Design Verifier	S. KEMP	16/04/20		
	Dwg Check	G. WEBB	16/04/20	Date	17/04/20

Client:	Project:	THE UNIVERSITY OF WAIKATO - THE Pā HILLCREST, HAMILTON 3216
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Title:	OVERALL GENERAL ARRANGEMENT 3D VIEWS - SHEET 2
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Discipline:	STRUCTURAL
Drawing No.:	5493498-SE-00942
Rev.:	1

Document No.:	BM 362 / Lp W / The Pa 5493498-SE-2019.rvt
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**250 SOG, 250 RC, GB1 & 240 MWS REINFORCEMENT ARRANGEMENT LAYOUT**  
SCALE 1:100

Rev.	Date	Revision Details	By	Ver.	App.
1	07/10/2020	REVISED AS PER COMMENTS			
0	08/09/2020	ISSUED FOR APPROVAL			

REFER REFERENCE DWG. NO.  
SE-A2101, SE-A2302, SE-A3991,  
SE-A4101, SE-A4603, SE-A4604,  
SE-A4605, SE-A6171, SE-A6172,  
SE-A4673, SE-A4674, SE-A4675,



Project Director:	-	Initials:		Date:	
Designed:	-				
Design Review:	-				
Drawn:	JT				
Drafting Check:	HP				

Project:  
**THE UNIVERSITY OF WAIKATO  
THE Pā HILLCREST, HAMILTON**

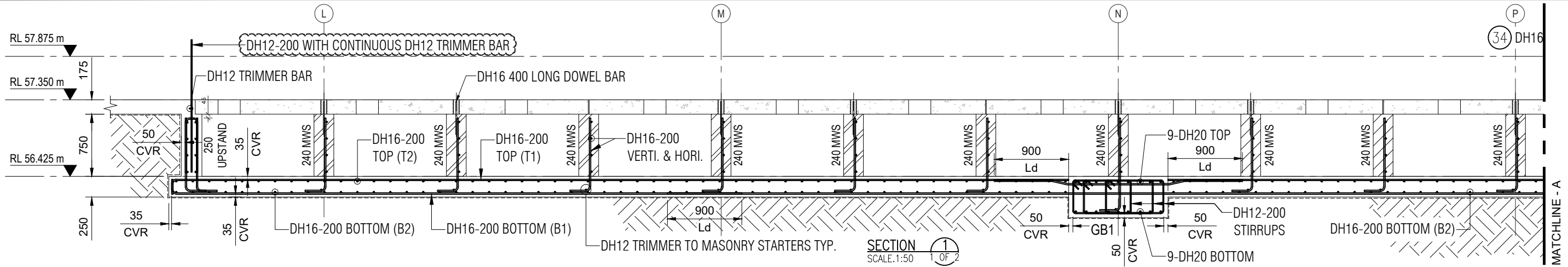
Drawing Title:  
**250 SOG, 250 RC, GB1 & 240 MWS REINFORCEMENT  
ARRANGEMENT LAYOUT FOR ZONE - 1**

Project No.  
**5493498**

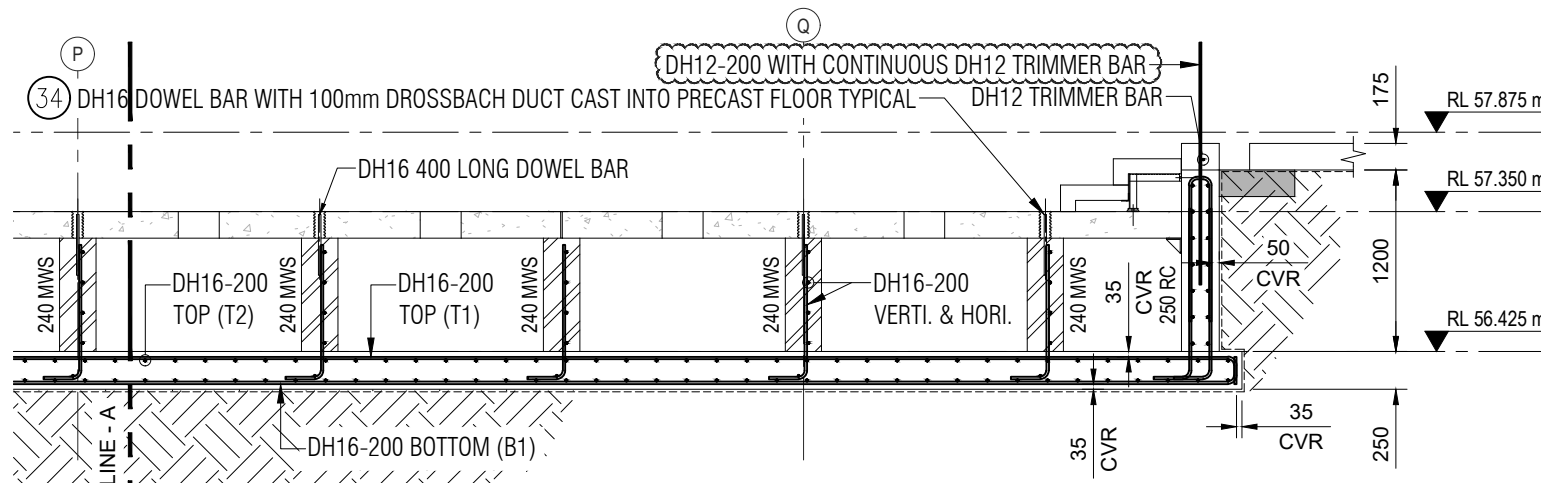
Scale:  
AS SHOWN  
original sheet size A3

Drawing No.  
**ST-Z1-08**

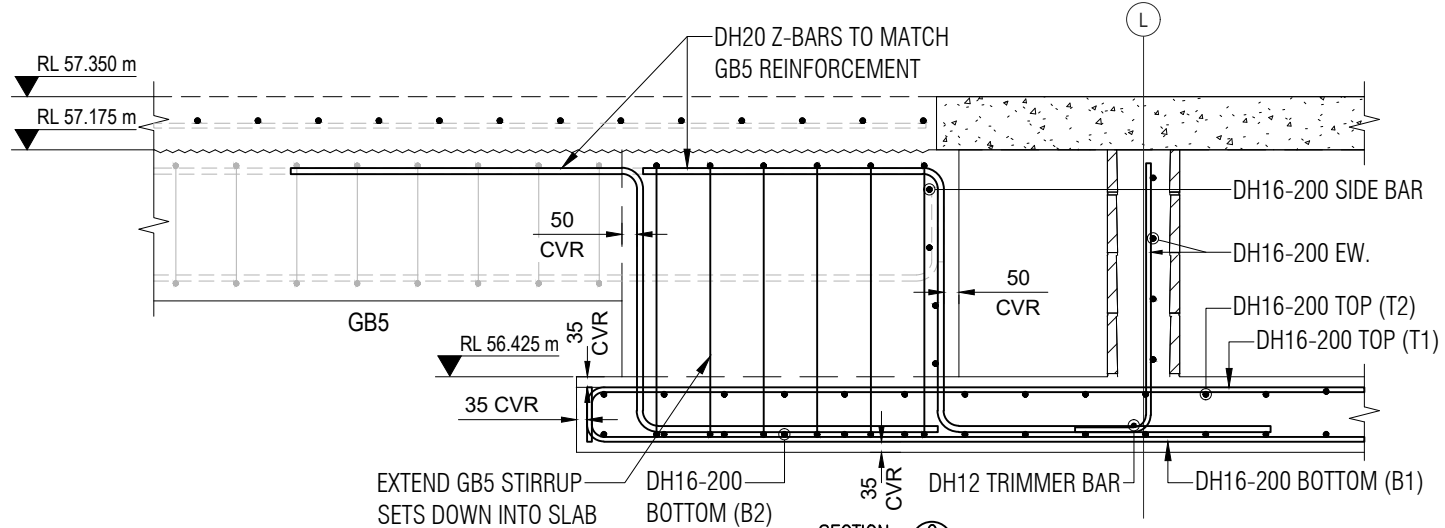
Rev.  
**1**  
(1 OF 2)



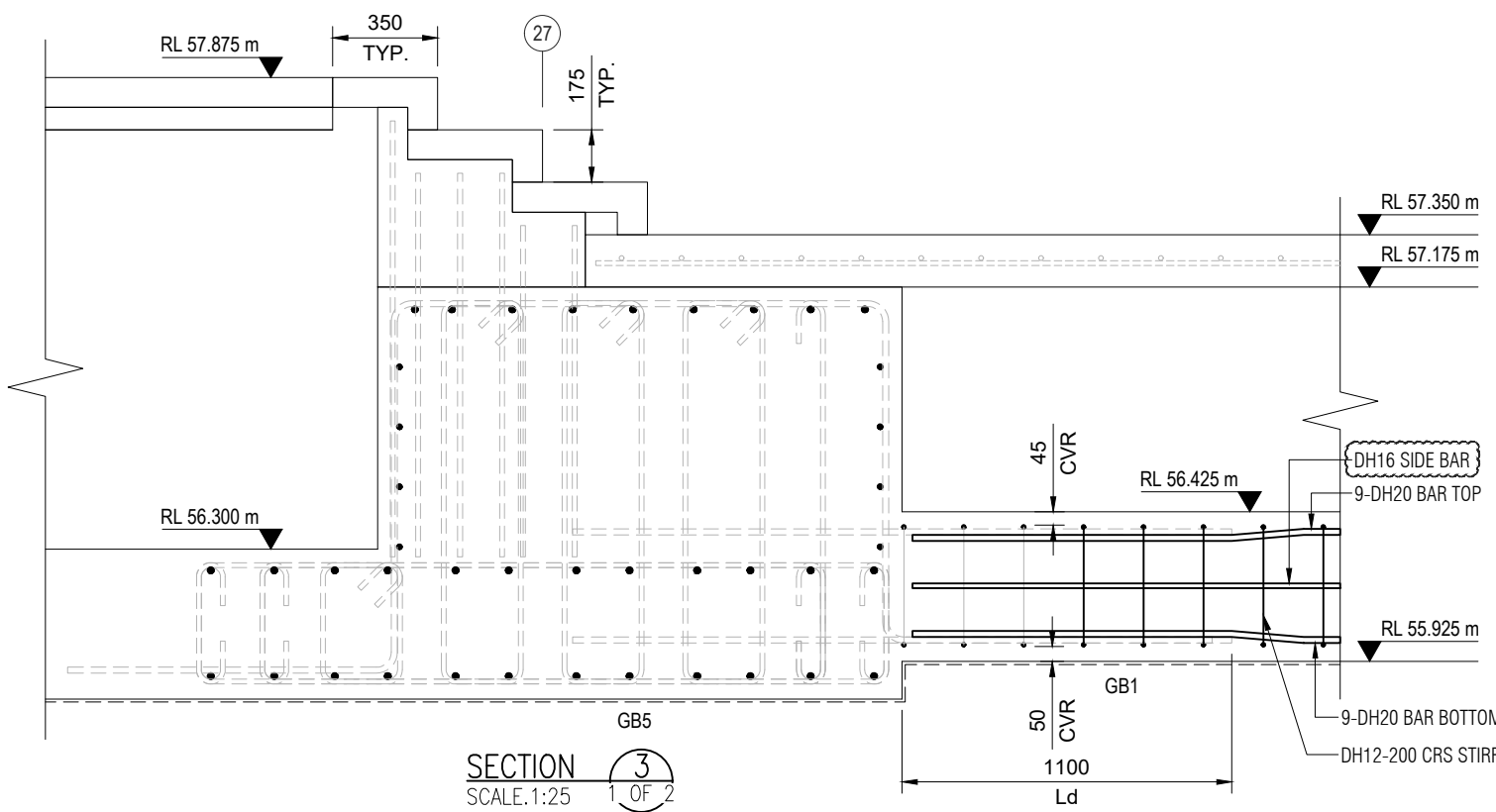
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SCALE: 1:50  
1 OF 2



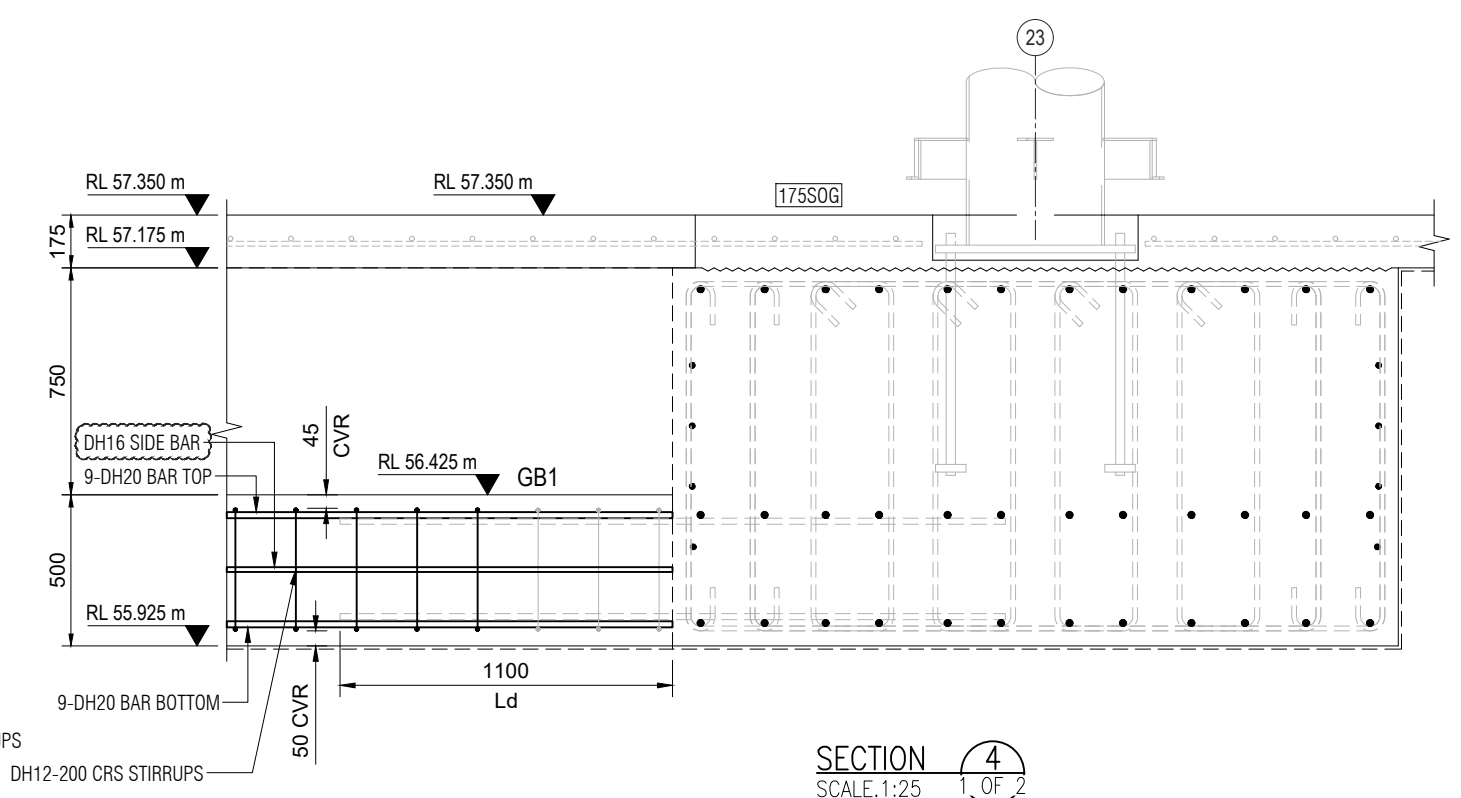
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SCALE: 1:50  
1 OF 2



SECTION 3  
SCALE: 1:50  
1 OF 2



SECTION 4  
SCALE: 1:25  
1 OF 2



SECTION 5  
SCALE: 1:25  
1 OF 2

Rev.	Date	Revision Details	By	Ver.	App.
1	07/10/2020	REVISED AS PER COMMENTS			
0	08/09/2020	ISSUED FOR APPROVAL			

REFER REFERENCE DWG. NO.  
SE-A2101, SE-A2302, SE-A3991,  
SE-A4101, SE-A4603, SE-A4604,  
SE-A4605, SE-A6171, SE-A6172,  
SE-A4673, SE-A4674, SE-A4675,



Project Director:	Initials:	Date:
Designed:		
Design Review:		
Drawn:	JT	
Drafting Check:	HP	

Project:  
THE UNIVERSITY OF WAIKATO  
THE Pā HILLCREST, HAMILTON

Drawing Title:  
250 SOG, 250 RC, GB1 & 240 MWS SECTIONS  
ZONE - 1

Project No.	5493498
Scale:	AS SHOWN original sheet size A3
Drawing No.	ST-Z1-08
Rev.	1

**Zone - 1**

PROJECT:		THE UNIVERSITY OF WAIKATO										Revision:-	00	01	
MATERIAL FOR:		250 SOG, 250 RC, GB1 & 240 MWS GL L-Q , 23-27										Date:-	08-09-2020	07-10-2020	
Bar Mark	Quantity	Bar Size	Shape	Grade	Cut Length	A	B	C	D	E	F	G	H / K	Segment/Area	WEIGHT kg
<b>250 SOG</b>															
1	42	16	L	DH/500	11965	180	11820							DH16-200 BOTTOM (B1) ALT.STAGGERED	792.99
1a	43	16	L	DH/500	10465	180	10320							DH16-200 BOTTOM (B1) ALT.STAGGERED	710.09
2	20	16	S	DH/500	9000	9000								DH16-200 BOTTOM (B1) ALT.STAGGERED	284.04
2a	20	16	S	DH/500	12000	12000								DH16-200 BOTTOM (B1) ALT.STAGGERED	378.72
2b	20	16	HJ	DH/500	4455		690	160	3605				56/150	DH16-200 BOTTOM (B1) ALT.STAGGERED	140.60
2c	20	16	HJ	DH/500	2955		690	160	2105				56/150	DH16-200 BOTTOM (B1) ALT.STAGGERED	93.26
3	42	16	L	DH/500	5015	180	4870							DH16-200 BOTTOM (B1) ALT.STAGGERED	332.37
3a	43	16	L	DH/500	3530	180	3385							DH16-200 BOTTOM (B1) ALT.STAGGERED	239.52
4	85	16	L	DH/500	11995	180	11850							DH16-200 TOP (T1)	1,608.89
5	85	16	99g	DH/500	3010	696	197	1224	197	696			58/192	DH16-200 TOP (T1)	403.73
6	40	16	S	DH/500	10400	10400								DH16-200 TOP (T1)	656.45
7	45	16	L	DH/500	10935	180	10790							DH16-200 TOP (T1)	776.49
8	220	16	S	DH/500	12000	12000								DH16-200 TOP & BOTTOM (T2 & B2)	4,165.92
8a	220	16	S	DH/500	5665	5665								DH16-200 TOP & BOTTOM (T2 & B2)	1,966.66
<b>GB1</b>															
9	18	20	HJ	DH/500	16731		1065	241	15425				40/240	DH20 TOP & BOTTOM BARS GB1	742.66
9a	4	16	S	DH/500	8815	8815								DH16 SIDE BARS GB1	55.64
10	85	12	L1	DH/500	2960	75	1100	405	1100	405		75		DH12 @ 200 crs STIRRUPS	223.42
11	85	12	L1	DH/500	2450	75	845	405	845	405		75		DH12 @ 200 crs STIRRUPS	184.93
12	85	12	L1	DH/500	1380	75	310	405	310	405		75		DH12 @ 200 crs STIRRUPS	104.16

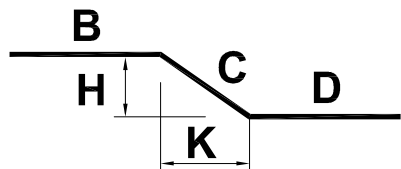
PROJECT:		THE UNIVERSITY OF WAIKATO											Revision:-	00	01
MATERIAL FOR:		250 SOG, 250 RC, GB1 & 240 MWS GL L-Q , 23-27											Date:-	08-09-2020	07-10-2020
Bar Mark	Quantity	Bar Size	Shape	Grade	Cut Length	A	B	C	D	E	F	G	H / K	Segment/Area	WEIGHT
															kg
<b>250 RC</b>															
13	170	16	L	DH/500	1341	251	1125							DH16-200 STARTERS E.F. 250 RC WALL	359.74
13a	85	16	HL	DH/500	1995	955	150					955		DH16-200 U-BAR 250 RC WALL	267.59
14	37	16	HL	DH/500	1405	660	150					660		DH16-200 U-BAR 250 UPSTAND	82.03
15	74	16	L	DH/500	1104	251	888							DH16-200 STARTERS E.F. 250 250 UPSTAND	128.92
16	122	12	S	DH/500	1600	1600								DH12-200 VER. BARS	173.34
17	14	16	S	DH/500	12000	12000								DH16-200 HORIZONTAL E.F. 250 RC WALL	265.10
17a	14	16	S	DH/500	5610	5610								DH16-200 HORIZONTAL E.F. 250 RC WALL	123.94
18	8	16	S	DH/500	8055	8055								DH16-200 HORIZONTAL E.F.	101.69
19	1	12	S	DH/500	16710	16710								DH12 TRIMMER BAR	14.84
20	1	12	S	DH/500	8055	8055								DH12 TRIMMER BAR	7.15
<b>240 MWS</b>															
21	52	16	S	DH/500	12000	12000								DH16-200 HORIZONTAL BAR	984.67
21a	52	16	S	DH/500	5610	5610								DH16-200 HORIZONTAL BAR	460.33
22	1065	16	L	DH/500	1089	251	873							DH16-200 L-BAR VERT.	1,830.14
23	85	16	L	DH/500	1339	251	1123							DH16-200 L-BAR VERT.	179.60
24	4	16	S	DH/500	8685	8685								DH16-200 HORIZONTAL BAR	54.82
25	13	12	S	DH/500	16710	16710								DH12 TRIMMER BAR TO MASONRY STARTERS	192.90
26	1	12	S	DH/500	8685	8685								DH12 TRIMMER BAR TO MASONRY STARTERS	7.71
<b>GB5</b>															
27	8	20	HZ	DH/500	2882	995	867					1100		DH20 Z-BARS TO MATCH WITH GB5 REINF.	56.86
28	8	20	HZ	DH/500	2947	1165	867					995		DH20 Z-BARS TO MATCH WITH GB5 REINF.	58.14

<b>PROJECT:</b>		<b>THE UNIVERSITY OF WAIKATO</b>											<b>Revision:-</b>	<b>00</b>	<b>01</b>	
<b>MATERIAL FOR:</b>		<b>250 SOG, 250 RC, GB1 &amp; 240 MWS GL L-Q , 23-27</b>											<b>Date:-</b>	<b>08-09-2020</b>	<b>07-10-2020</b>	
Bar Mark	Quantity	Bar Size	Shape	Grade	Cut Length	A	B	C	D	E	F	G	H / K	Segment/Area	WEIGHT	
															kg	
29	10	16	L10	DH/500	4202	143	904	2300	904			143		DH16 @ 200 crs TOP & BOTTOM "U" SHAPE REINFORCMENT CLIPPED ONTO TOP & BOTTOM LONGITUDINAL BARS	66.31	
30	10	16	L10	DH/500	3809	143	904	1907	904			143		DH16 @ 200 crs TOP & BOTTOM "U" SHAPE REINFORCMENT CLIPPED ONTO TOP & BOTTOM LONGITUDINAL BARS	60.11	
31	22	16	L1	DH/500	2432	95	297	904	297	904		95		RH16 @200 crs STIRRUPS	84.43	
32	1	16	L10	DH/500	3377	143	904	1475	904			143		DH16 @ 200 crs TOP & BOTTOM "U" SHAPE REINFORCMENT CLIPPED ONTO TOP & BOTTOM LONGITUDINAL BARS	5.33	
33	1	16	L10	DH/500	3004	143	904	1102	904			143		DH16 @ 200 crs TOP & BOTTOM "U" SHAPE REINFORCMENT CLIPPED ONTO TOP & BOTTOM LONGITUDINAL BARS	4.74	
34	155	16	S	DH/500	400	400								DH16 DOWEL BAR WITH 100mm DROSSBACH DUCT CAST INTO PRECAST FLOOR	97.84	
<b>NOTE:-</b>															INPUT DATE:	
1) REQUIRE H10 @ 9000mm x 8 OFF (SETUP BARS)															WEIGHT kg.:	19,528.80
															WEIGHT Tons.:	19.53

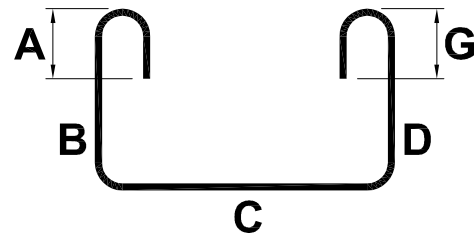
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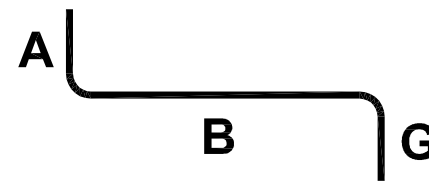
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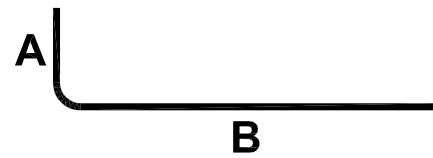
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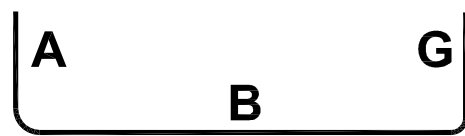
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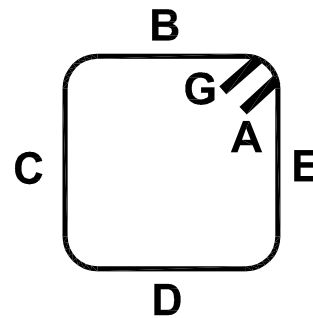
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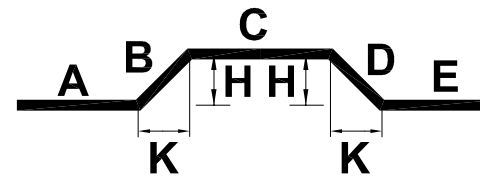
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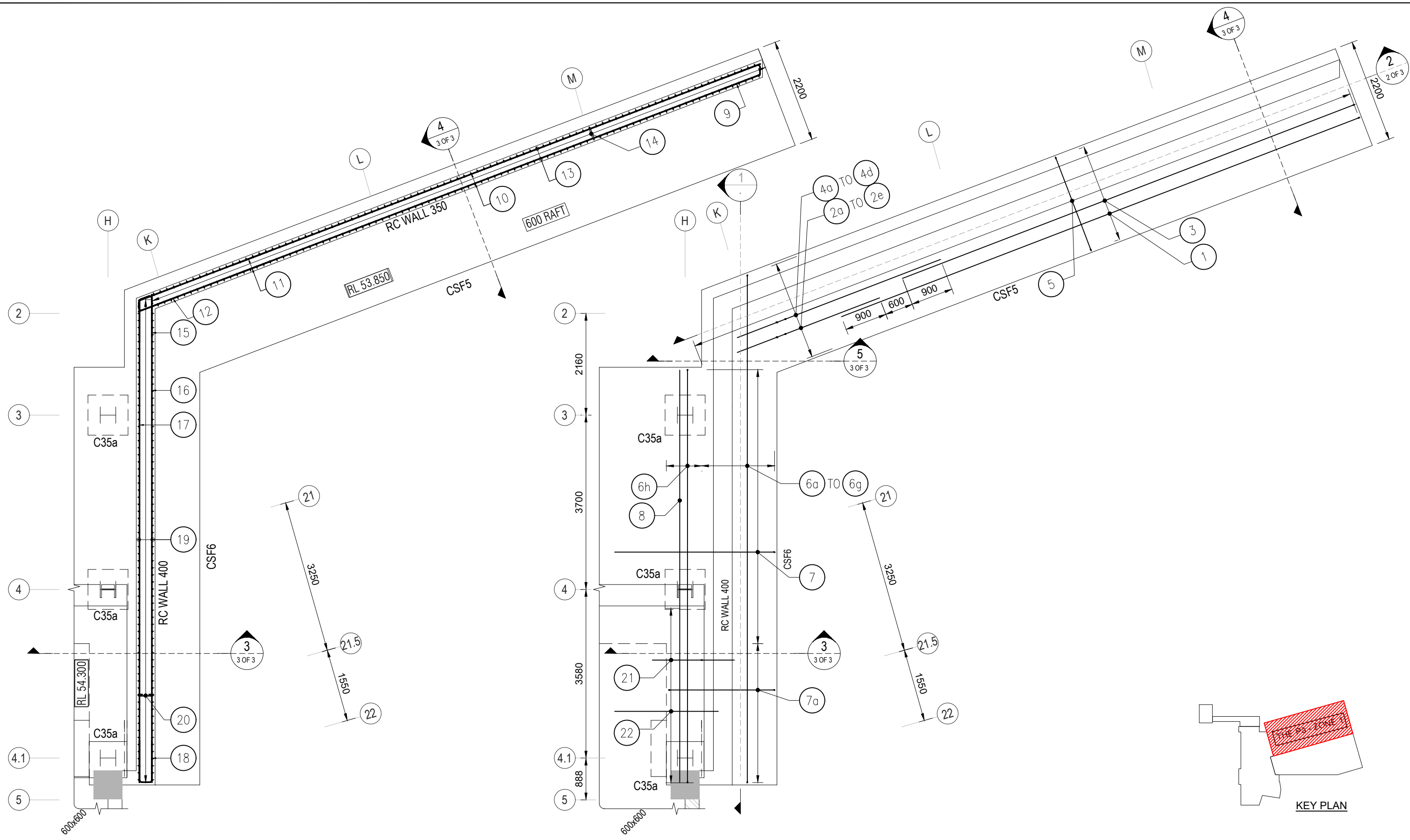
L1



99g







CF5 & CF6 WALL STARTER DETAIL SHEET - 1

CF5 & CF6 FOOTING DETAIL SHEET - 1

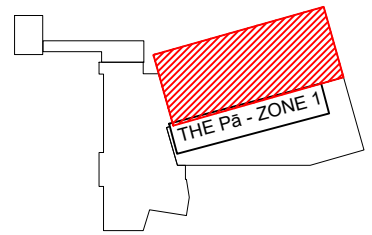
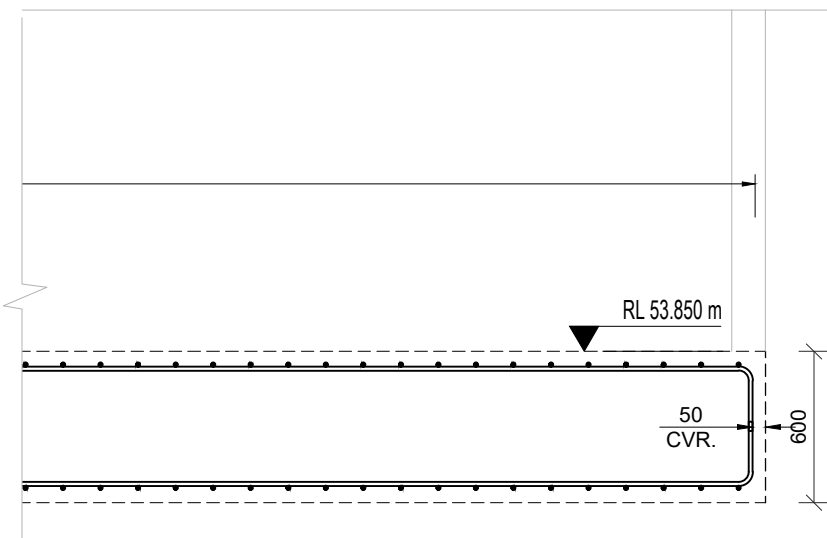
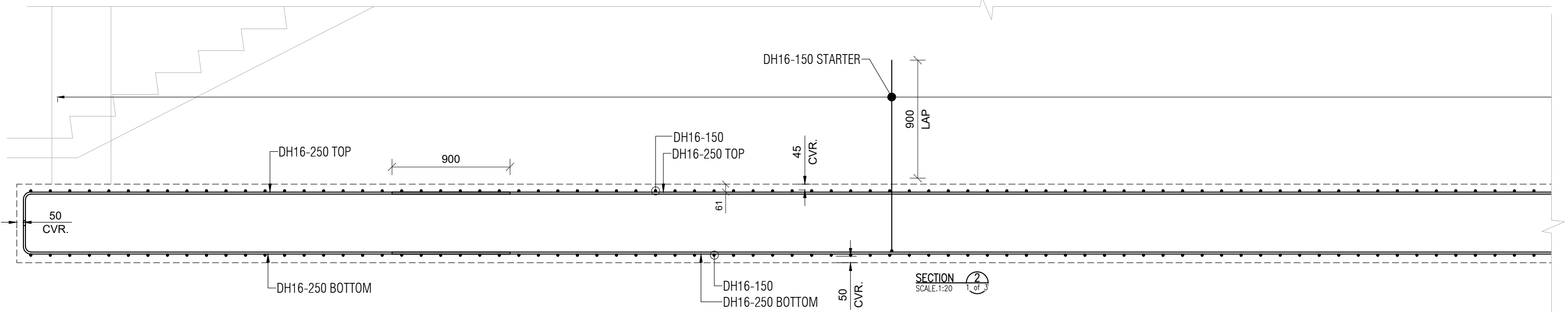
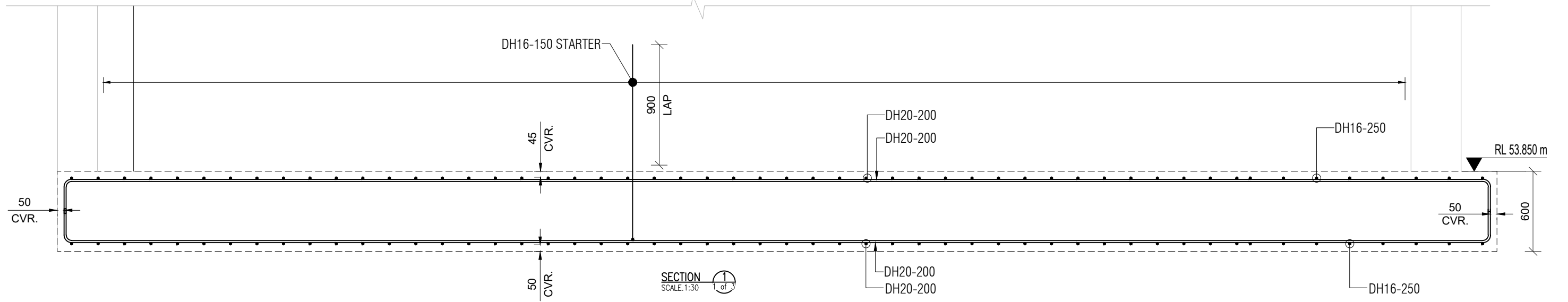
Rev.	Date	Revision Details	By	Ver.	App.
0	18/09/2020	ISSUED FOR APPROVAL			



Project Director:	-	Initials:		Date:	
Designed:	-				
Design Review:	-				
Drawn:	NP				
Drafting Check:	HP				

Project:	THE UNIVERSITY OF WAIKATO THE Pā HILLCREST, HAMILTON
Drawing Title:	CSF-05 & CSF-06 FOOTING & WALL STARTER REINFORCEMENT LAYOUT & DETAIL ZONE - 1

Project No.	5493498
Scale:	AS SHOWN original sheet size A3
Drawing No.	ST-Z1-09
Rev.	0
	(1 OF 3)



KEY PLAN

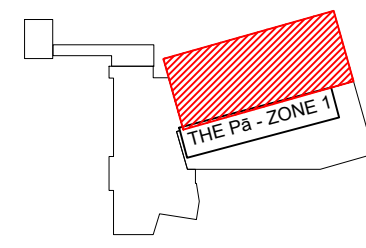
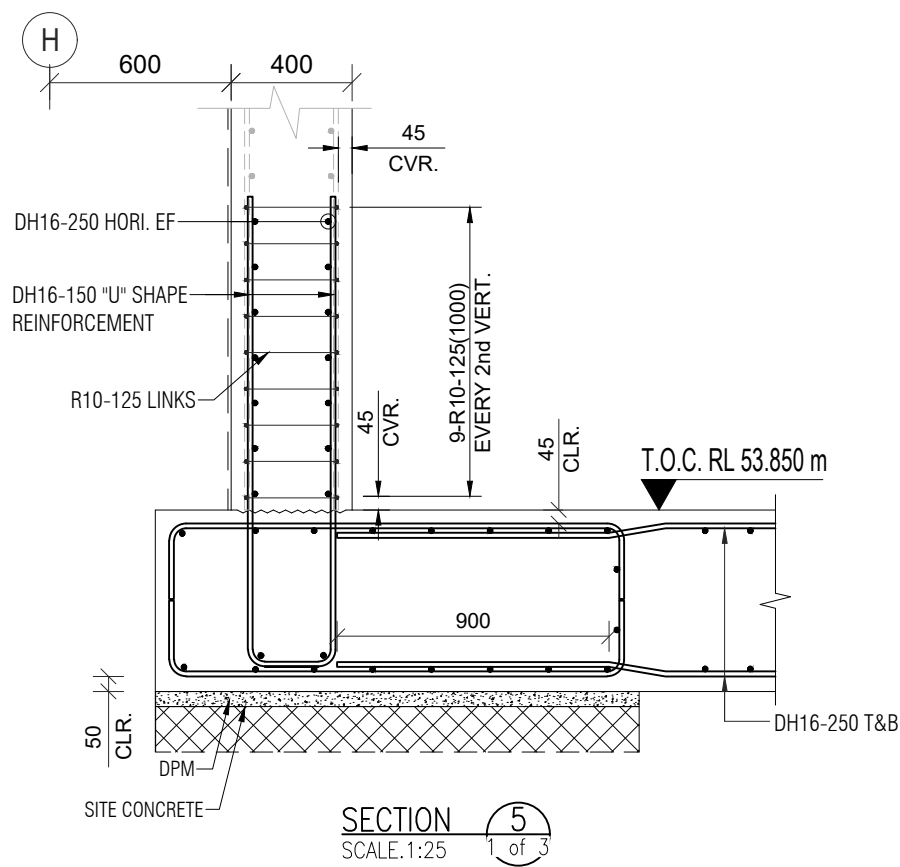
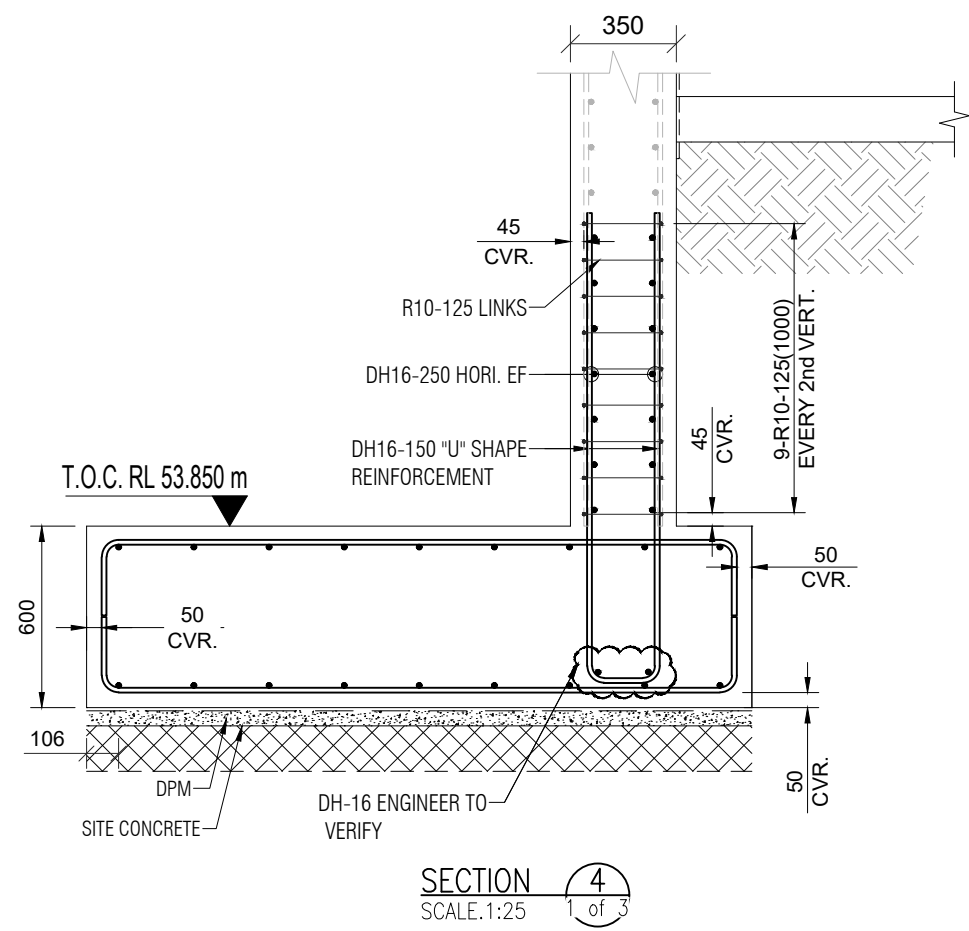
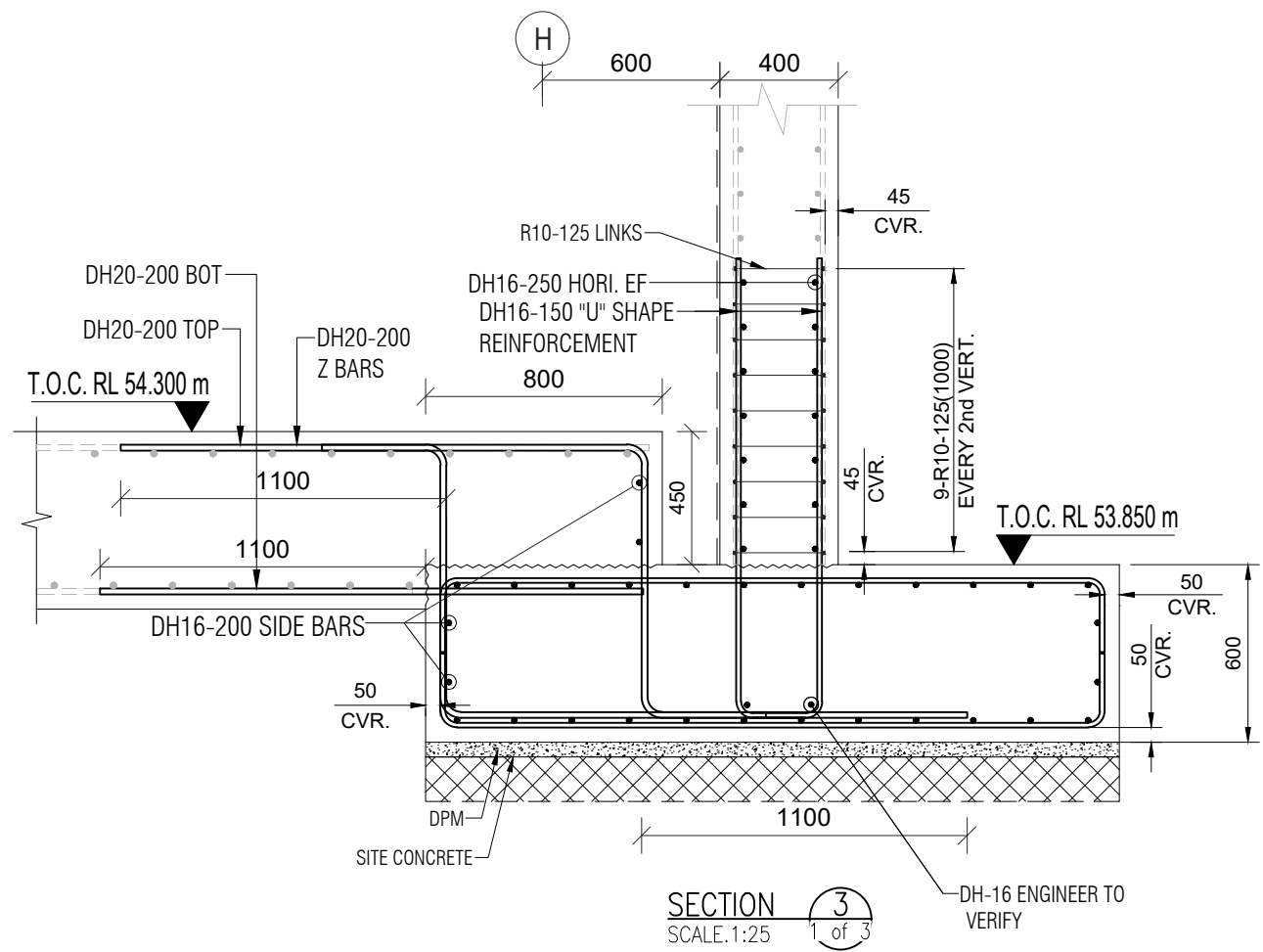
Rev.	Date	Revision Details	By	Ver.	App.
0	18/09/2020	ISSUED FOR APPROVAL	-	-	-



Project Director:	-	Initials:		Date:	
Designed:	-				
Design Review:	-				
Drawn:	NP				
Drafting Check:	HP				

Project:	THE UNIVERSITY OF WAIKATO THE Pa HILLCREST, HAMILTON
Project No.:	5493498
Scale:	AS SHOWN original sheet size A3
Drawing Title:	CSF-05 & CSF-06 FOOTING & WALL STARTER SECTIONS DETAILS ZONE - 1
Drawing No.:	ST-Z1-09
Rev.:	0

Project No.:	5493498
Scale:	AS SHOWN original sheet size A3
Drawing No.:	ST-Z1-09
Rev.:	0



KEY PLAN

Rev.	Date	Revision Details	By	Ver.	App.
0	00/09/2020	ISSUED FOR APPROVAL			



Project Director:	-	Initials:		Date:	
Designed:	-				
Design Review:	-				
Drawn:	NP				
Drafting Check:	HP				

Project:	THE UNIVERSITY OF WAIKATO THE Pa HILLCREST, HAMILTON
Drawing Title:	CSF-05 & CSF-06 WALL STARTER SECTIONS DETAILS ZONE - 1

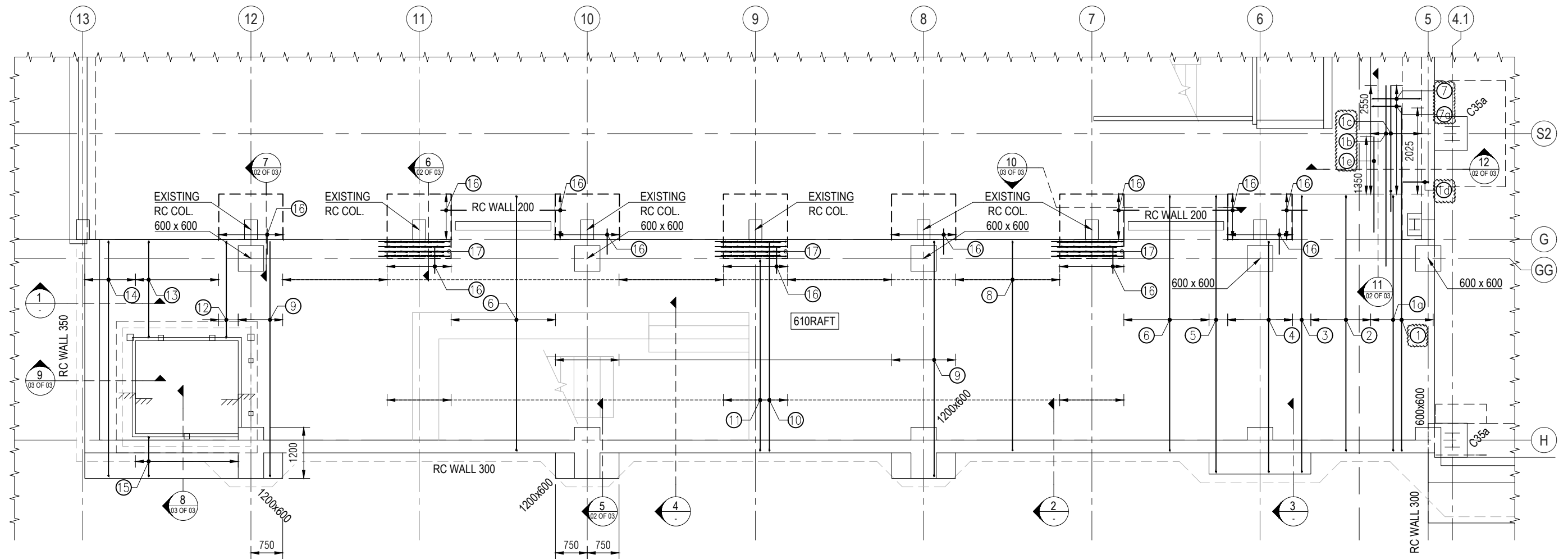
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Drawing No.	ST-Z1-09
Rev.	0

(3 OF 3)

**Zone - 1**

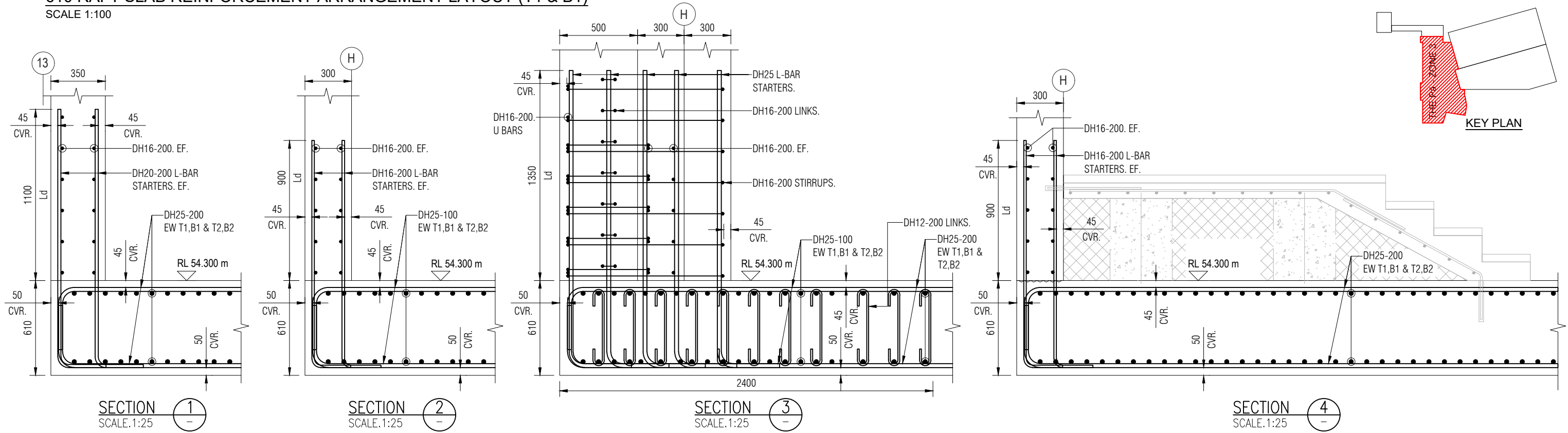
<b>PROJECT:</b>		THE UNIVERSITY OF WAIKATO											<b>Revision:-</b>	00		
<b>MATERIAL FOR:</b>		CSF-5 & CSF-6 GL H / 2-5											<b>Date:-</b>	18-09-2020		
<b>CONTROL No.</b>		SI-A4661-8														
Bar Mark	Quantity	Bar Size	Shape	Grade	Cut Length	A	B	C	D	E	F	G	H / K	Segment/Area		WEIGHT
																kg
<b>CSF-5 (FOOTING)</b>																
1	10	16	L	DH/500	11965	250	11750								DH16-250 TOP & BOTTOM (T2& B2) ALT.STAGGERED	188.81
2a	2	16	HJ	DH/500	2795		900	195	1735				32/192		DH16-250 TOP & BOTTOM (T2& B2) ALT.STAGGERED	8.82
2b	2	16	HJ	DH/500	2985		900	195	1925				32/192		DH16-250 TOP & BOTTOM (T2& B2) ALT.STAGGERED	9.42
2c	2	16	HJ	DH/500	3175		900	195	2115				32/192		DH16-250 TOP & BOTTOM (T2& B2) ALT.STAGGERED	10.02
2d	2	16	HJ	DH/500	3360		900	195	2300				32/192		DH16-250 TOP & BOTTOM (T2& B2) ALT.STAGGERED	10.60
2e	2	16	HJ	DH/500	3550		900	195	2490				32/192		DH16-250 TOP & BOTTOM (T2& B2) ALT.STAGGERED	11.20
3	10	16	L	DH/500	10457	250	10242								DH16-250 TOP & BOTTOM (T2& B2) ALT.STAGGERED	165.01
4a	2	16	HJ	DH/500	3575		90	195	3325				32/192		DH16-250 TOP & BOTTOM (T2& B2) ALT.STAGGERED	11.28
4b	2	16	HJ	DH/500	4575		900	195	3515				32/192		DH16-250 TOP & BOTTOM (T2& B2) ALT.STAGGERED	14.44
4c	2	16	HJ	DH/500	4765		900	195	3705				32/192		DH16-250 TOP & BOTTOM (T2& B2) ALT.STAGGERED	15.04
4d	2	16	HJ	DH/500	4955		900	195	3895				32/192		DH16-250 TOP & BOTTOM (T2& B2) ALT.STAGGERED	15.64
5	98	16	HL	DH/500	2535	250	2100					250			DH16-150 U-BAR (T1 & B1)	392.02
STOOLS	40	12	L27	DH/500	1795		250	455	450	455	250				STOOLS for 600 raft @1000 crs	63.76
<b>CSF-6 (FOOTING)</b>																
6a	2	20	HL	DH/500	11465	310	10910					310			DH20-200 TOP & BOTTOM (T2& B2)	56.55
6b	2	20	HL	DH/500	11390	310	10835					310			DH20-200 TOP & BOTTOM (T2& B2)	56.18
6c	2	20	HL	DH/500	11315	310	10760					310			DH20-200 TOP & BOTTOM (T2& B2)	55.81
6d	2	20	HL	DH/500	11245	310	10690					310			DH20-200 TOP & BOTTOM (T2& B2)	55.46
6e	2	20	HL	DH/500	11170	310	10615					310			DH20-200 TOP & BOTTOM (T2& B2)	55.09
6f	2	20	HL	DH/500	11095	310	10540					310			DH20-200 TOP & BOTTOM (T2& B2)	54.72
6g	2	20	HL	DH/500	11020	310	10465					310			DH20-200 TOP & BOTTOM (T2& B2)	54.35

<b>PROJECT:</b>		<b>THE UNIVERSITY OF WAIKATO</b>											<b>Revision:-</b>	<b>00</b>		
<b>MATERIAL FOR:</b>		<b>CSF-5 &amp; CSF-6 GL H / 2-5</b>											<b>Date:-</b>	<b>18-09-2020</b>		
<b>CONTROL No.</b>		<b>SI-A4661-8</b>														
Bar Mark	Quantity	Bar Size	Shape	Grade	Cut Length	A	B	C	D	E	F	G	H / K	Segment/Area	WEIGHT	
															kg	
6h	2	20	HL	DH/500	10945	310	10390					310		DH20-200 TOP & BOTTOM (T2& B2)	53.98	
6i	8	20	HL	DH/500	9305	310	8750					310		DH20-200 TOP & BOTTOM (T2& B2)	183.57	
7	60	20	L	DH/500	3705	310	3395							DH20-200 TOP & BOTTOM (T1& B1)	548.19	
7a	30	20	HL	DH/500	2830	310	2245					310		DH20-200 U-BAR (T1 & B1)	209.36	
8	6	16	S	DH/500	8765		8765							DH16-200 SIDE BARS	82.99	
STOOLS	30	12	L27	DH/500	1775		300	445	350	445	300			STOOLS for 600 raft @1000 crs	47.29	
<b>CSF-5 (WALL STARTER)</b>																
9	16	16	HU	DH/500	1940	900	205	900						DH16-250 U-BAR (HORIZONTAL)	48.98	
10	16	16	S	DH/500	12000	12000								DH16-250 (HORIZONTAL)	302.98	
11	16	16	S	DH/500	3025	3025								DH16-250 (HORIZONTAL)	76.38	
12	16	16	HU	DH/500	1940	900	205	900						DH16-250 U-BAR (HORIZONTAL)	48.98	
13	92	16	HU	DH/500	3280	1555	235	1555						DH16-150 U-BAR (VERTICAL)	476.18	
14	414	10	L3	R/300	395	100	260					100		9-R10-125(1000) EVERY 2nd VERT.	1,147.98	
<b>CSF-6 (WALL STARTER)</b>																
15	16	16	HU	DH/500	1985	900	250	900						DH16-250 U-BAR (HORIZONTAL)	50.12	
16	16	16	S	DH/500	10360	10360								DH16-250 (HORIZONTAL)	261.57	
17	16	16	S	DH/500	10250	10250								DH16-250 (HORIZONTAL)	258.79	
18	16	16	HU	DH/500	1985	900	250	900						DH16-250 U-BAR (HORIZONTAL)	50.12	
19	67	16	HU	DH/500	3335	1555	290	1555						DH16-150 U-BAR (VERTICAL)	352.60	
20	306	10	L3	R/300	445	100	310					100		9-R10-125(1000) EVERY 2nd VERT.	955.91	
21	38	20	HZ	DH/500	3020	1100	900					1100		DH20-200-Z-BARS .	283.00	
22	19	20	S	DH/500	2200	2200								DH20-200-STARTER BAR FOR RAFT	103.08	
														INPUT DATE:		
														WEIGHT kg.:	6,846.25	
														WEIGHT Tons.:	6.85	



**610 RAFT SLAB REINFORCEMENT ARRANGEMENT LAYOUT (T1 & B1)**

SCALE 1:100



Rev.	Date	Revision Details	By	Ver.	App.
2	23/09/2020	REVISED AS PER COMMENTS			
1	17/09/2020	REVISED AS PER COMMENTS			
0	12/09/2020	ISSUED FOR APPROVAL			

REFER REFERENCE DWG. NO.  
SE-B2221, SE-B4021, SE-B4602,  
SE-B4603, SE-B4604, SE-B4501,  
SE-C8503, SE-B6311, SE-D9311

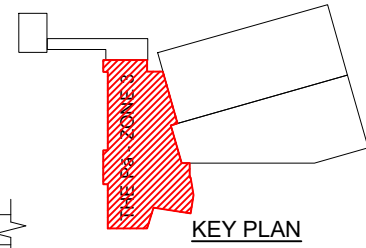
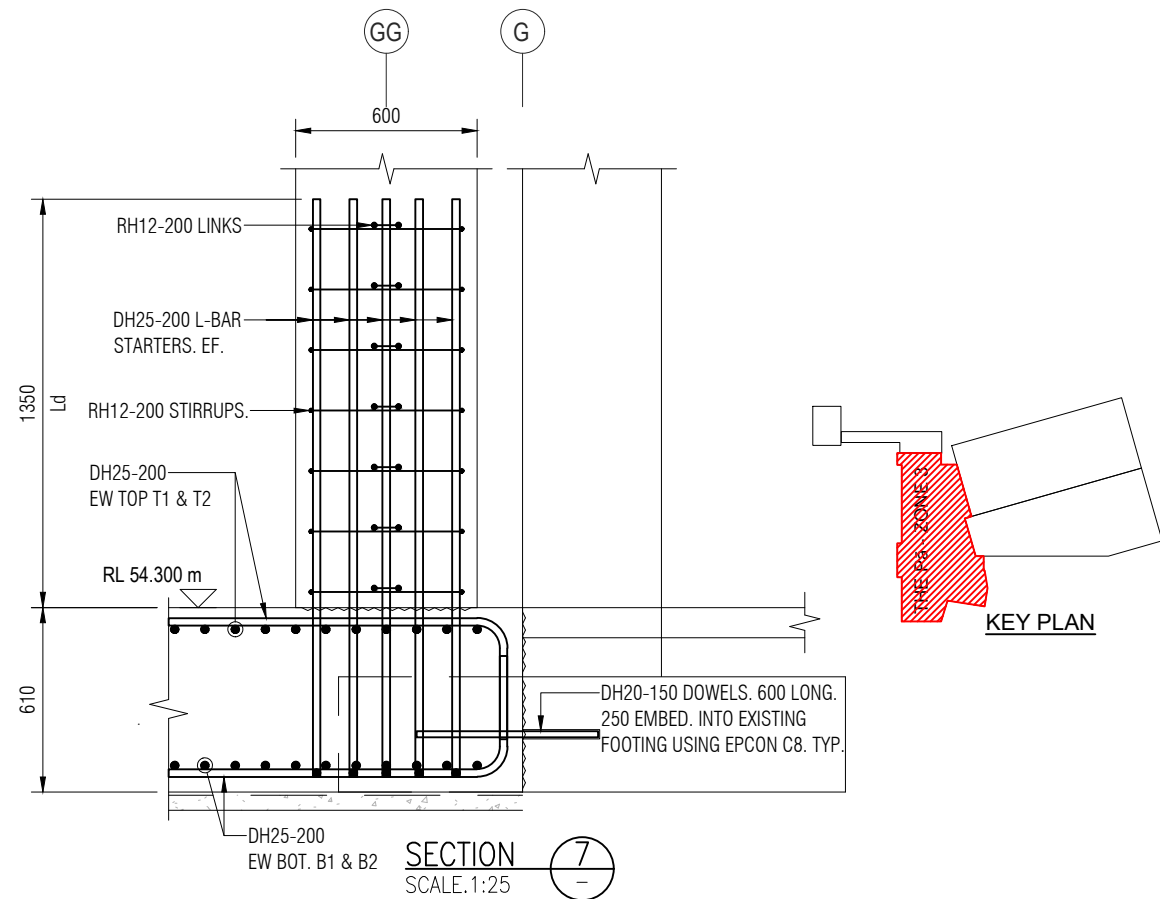
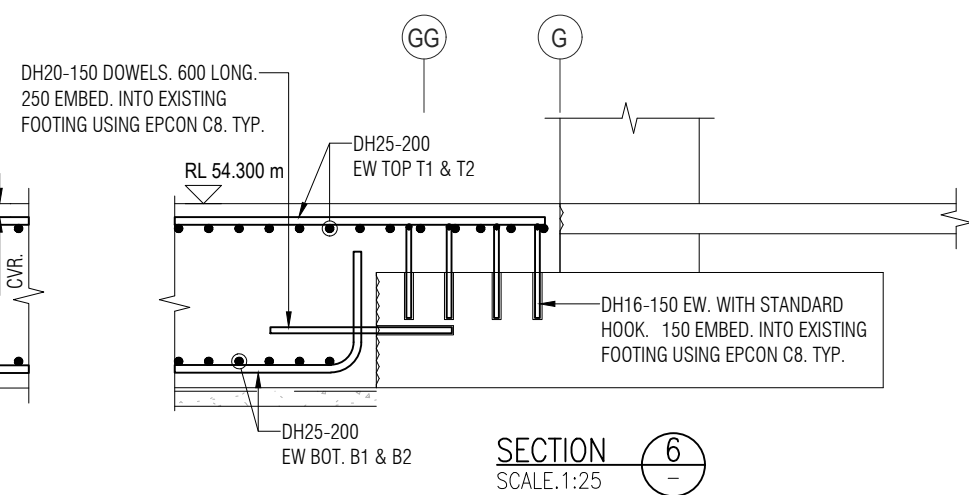
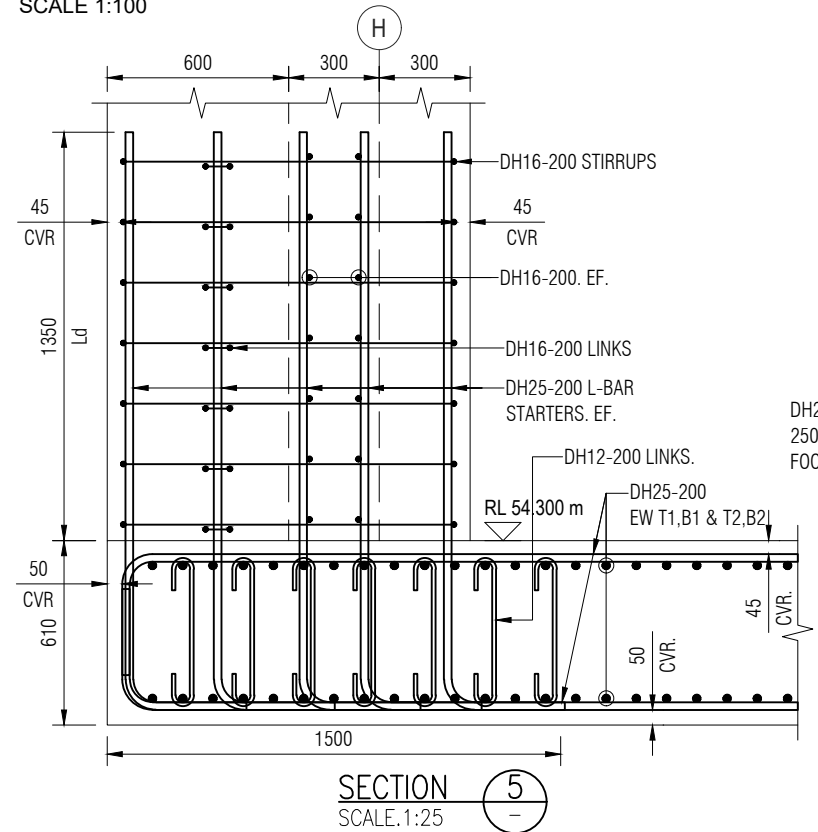
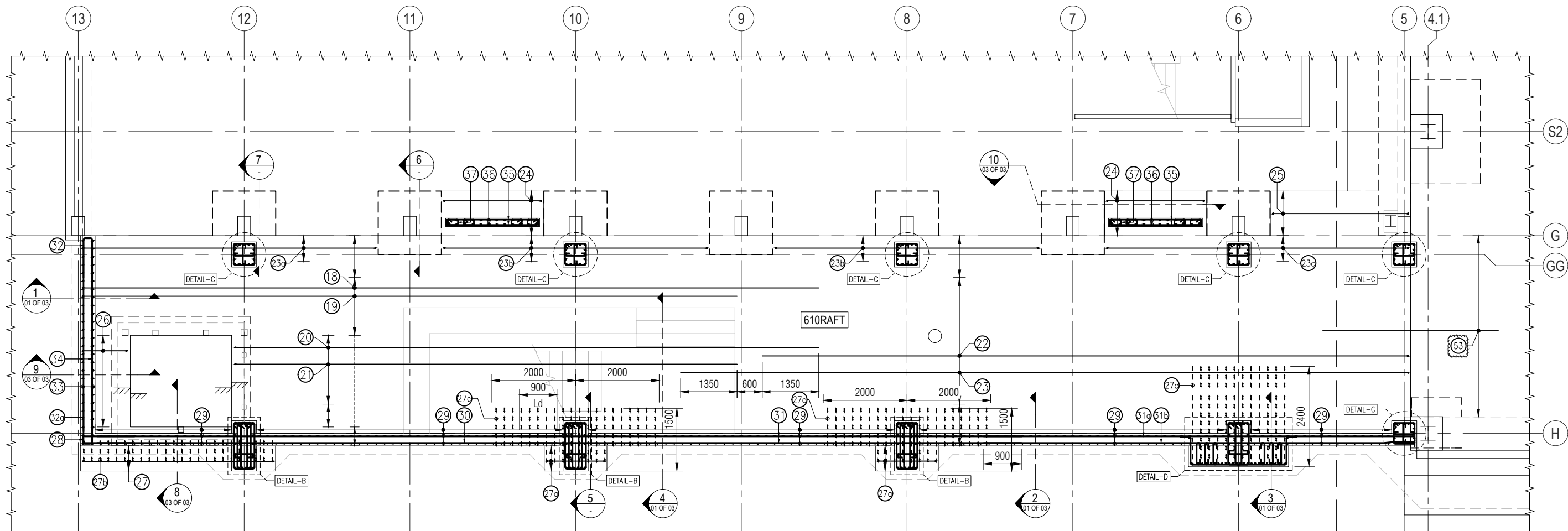


Project Director:	Initials:	Date:
Designed:		
Design Review:		
Drawn:	NG	
Drafting Check:	JT	

Project:  
**THE UNIVERSITY OF WAIKATO**  
THE Pā HILLCREST, HAMILTON

Drawing Title:  
**610 RAFT SLAB REINFORCEMENT ARRANGEMENT**  
TOP T1 & BOTTOM B1 LAYER LAYOUT  
ZONE - 3

Project No.	<b>5493498</b>
Scale:	AS SHOWN original sheet size A3
Drawing No.	ST-Z3-02
Rev.	<b>2</b>
(01 OF 04)	



Rev.	Date	Revision Details	By	Ver.	App.
2	23/09/2020	REVISED AS PER COMMENTS			
1	17/09/2020	REVISED AS PER COMMENTS			
0	12/09/2020	ISSUED FOR APPROVAL			

REFER REFERENCE DWG. NO.  
SE-B2221, SE-B4021, SE-B4602,  
SE-B4603, SE-B4604, SE-B4501,  
SE-C8503, SE-B6311, SE-D9311

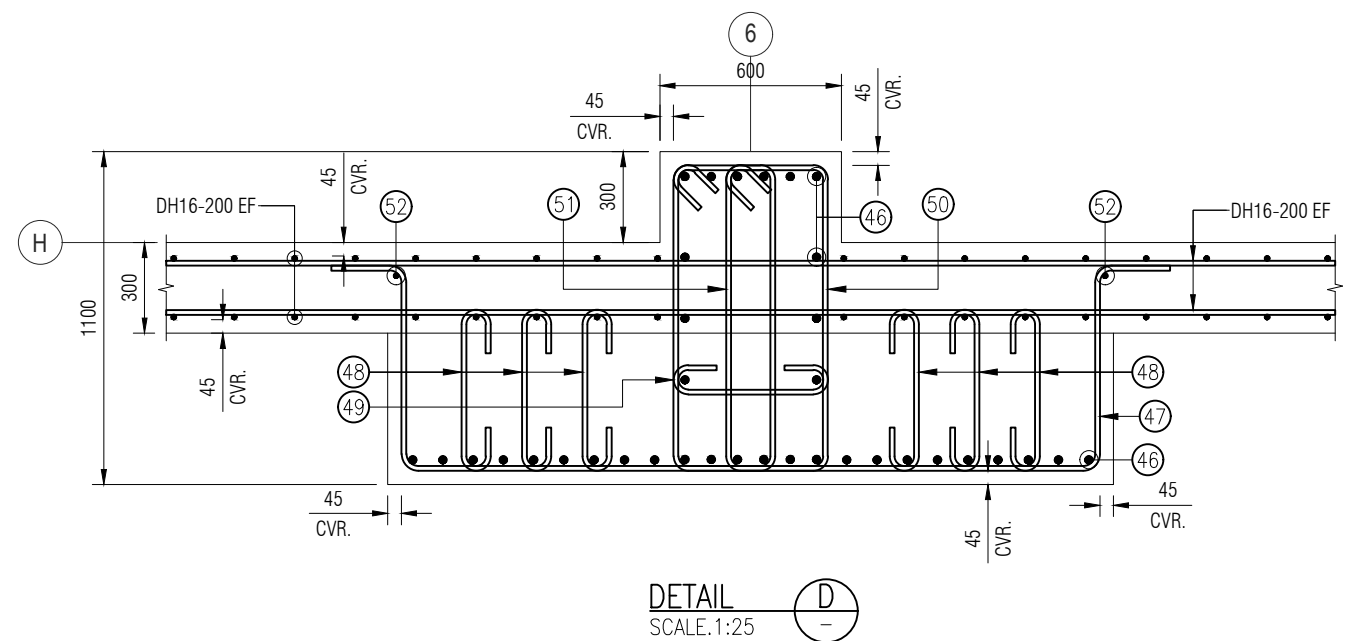
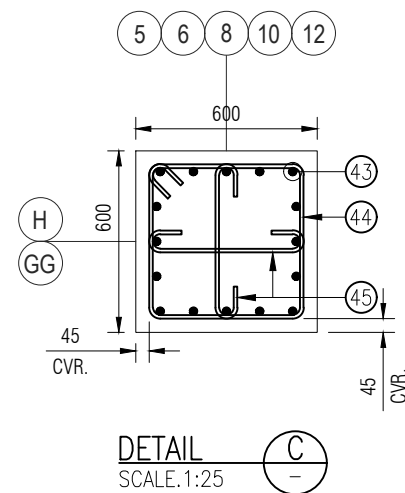
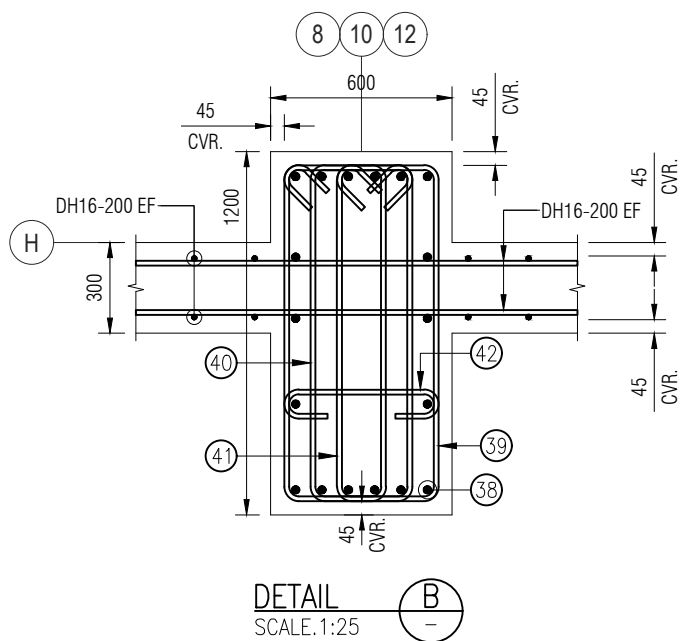
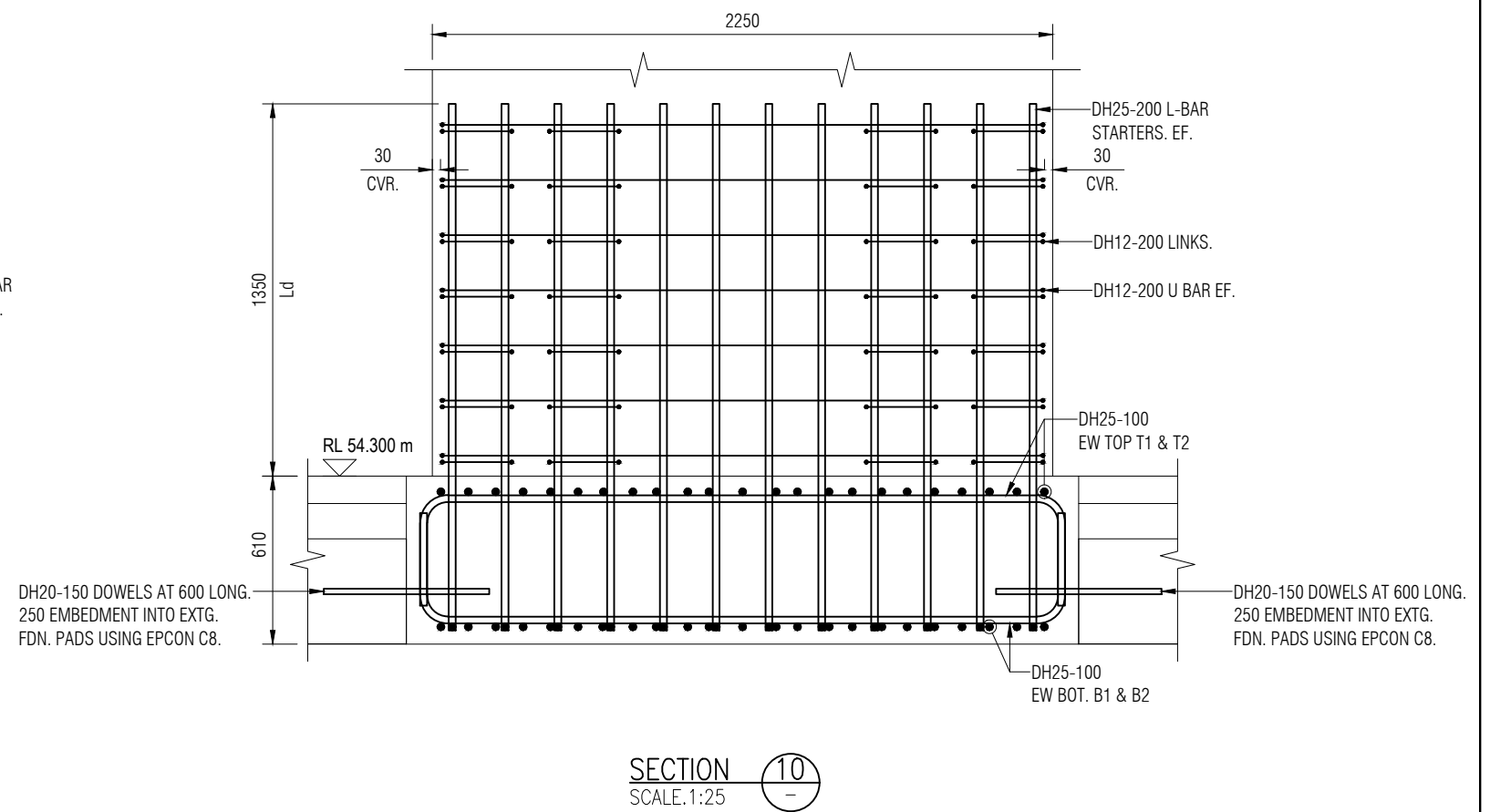
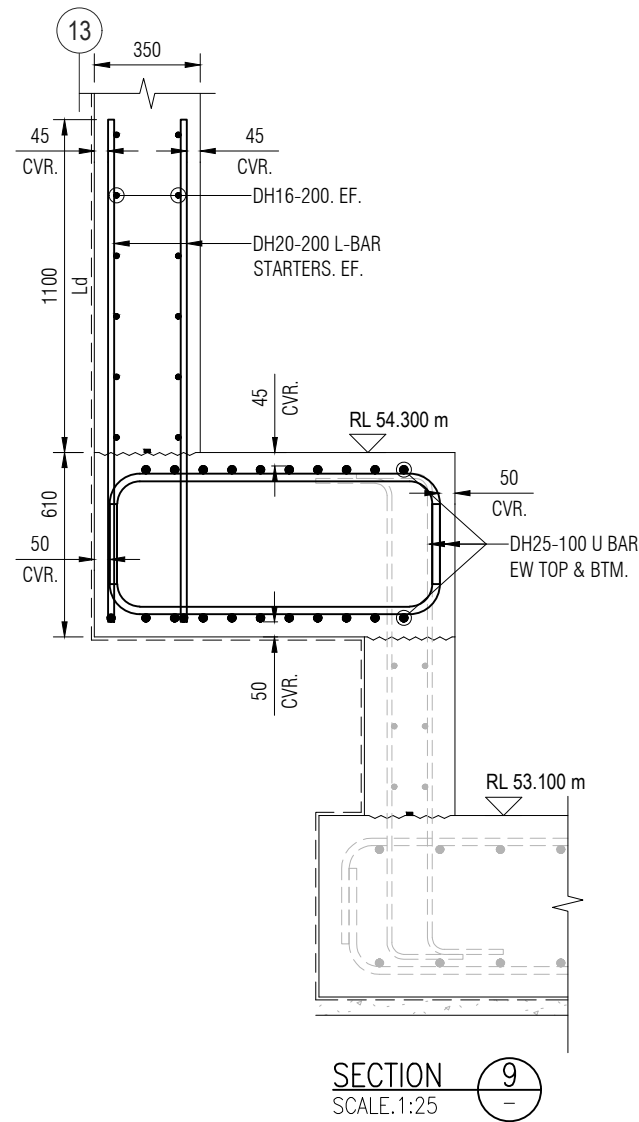
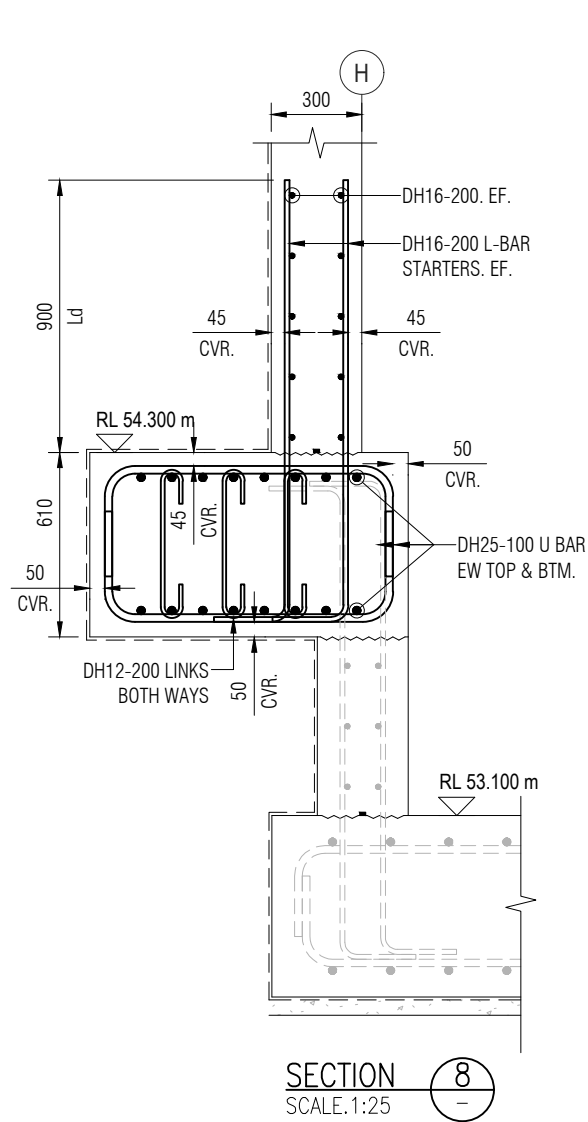


Project Director:	-	Initials:	-	Date:	-
Designed:	-				
Design Review:	-				
Drawn:	NG				
Drafting Check:	JT				

Project:  
**THE UNIVERSITY OF WAIKATO**  
THE Pā HILLCREST, HAMILTON

Drawing Title:  
**610 RAFT SLAB REINFORCEMENT ARRANGEMENT**  
TOP T2 & BOTTOM B2 LAYER LAYOUT  
ZONE - 3

Project No.	<b>5493498</b>
Scale:	AS SHOWN original sheet size A3
Drawing No.	<b>ST-Z3-02</b>
Rev.	<b>2</b>
(02 OF 04)	



Rev.	Date	Revision Details	By	Ver.	App.
1	17/09/2020	REVISED AS PER COMMENTS			
0	12/09/2020	ISSUED FOR APPROVAL			

REFER REFERENCE DWG. NO.  
SE-B2221, SE-B4021, SE-B4602,  
SE-B4603, SE-B4604, SE-B4501,  
SE-C8503, SE-B6311, SE-D9311

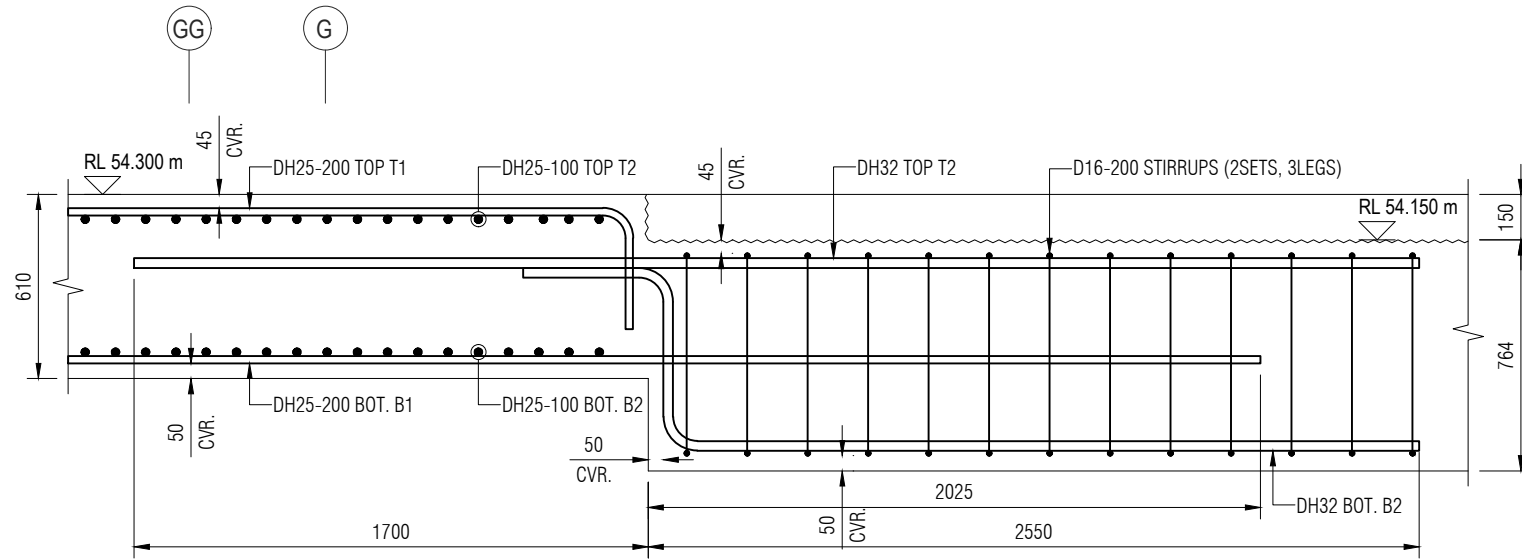


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Designed:	-				
Design Review:	-				
Drawn:	NG				
Drafting Check:	JT				

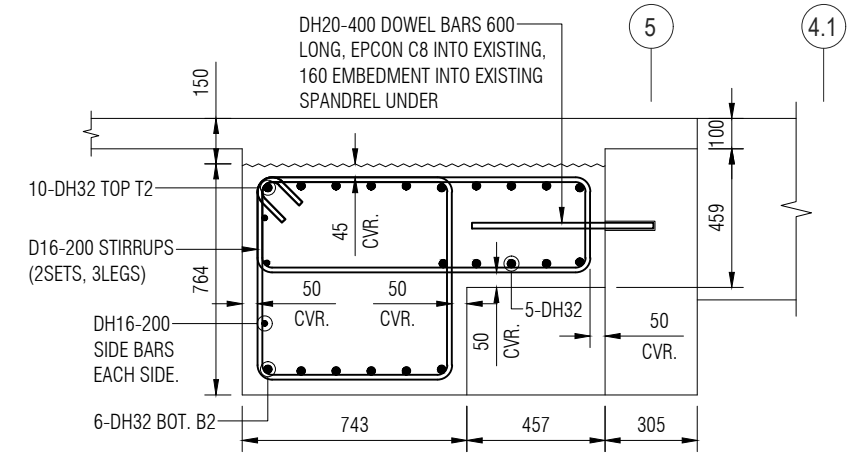
Project:	THE UNIVERSITY OF WAIKATO THE Pā HILLCREST, HAMILTON
Drawing Title:	610 RAFT SLAB REINFORCEMENT SECTION & DETAILS ZONE - 3

Project No.	5493498
Scale:	AS SHOWN original sheet size A3
Drawing No.	ST-Z3-02
Rev.	1
(03 OF 04)	





SECTION 11  
SCALE: 1:25



SECTION 12  
SCALE: 1:25

Rev.	Date	Revision Details	By	Ver.	App.
0	23/09/2020	ISSUED FOR APPROVAL	-	-	-

REFER REFERENCE DWG. NO.  
SE-B2221, SE-B4021, SE-B4602,  
SE-B4603, SE-B4604, SE-B4501,  
SE-C8503, SE-B6311, SE-D9311



Project Director:	-	Initials:		Date:	
Designed:	-				
Design Review:	-				
Drawn:	NG				
Drafting Check:	HP				

Project:	THE UNIVERSITY OF WAIKATO THE Pā HILLCREST, HAMILTON
Drawing Title:	610 RAFT SLAB REINFORCEMENT SECTION & DETAILS ZONE - 3

Project No.	5493498
Scale:	AS SHOWN original sheet size A3
Drawing No.	ST-Z3-02
Rev.	0
(04 OF 04)	

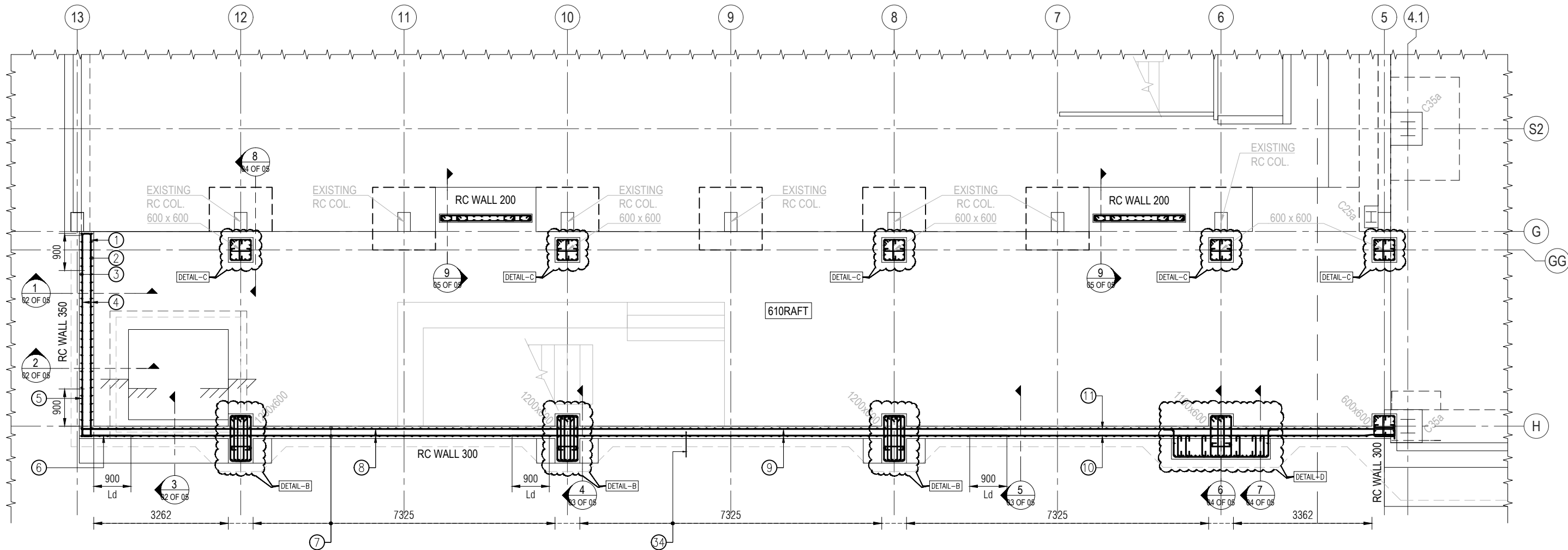
**Zone - 3**

Zone - 3																
<b>PROJECT:</b>		THE UNIVERSITY OF WAIKATO											<b>Revision:-</b>	00	01	02
<b>MATERIAL FOR:</b>		610 RAFT SLAB											<b>Date:-</b>	12-09-2020	17-09-2020	23-09-2020
<b>CONTROL No.</b>		SI-A4661-11														
Bar Mark	Quantity	Bar Size	Shape	Grade	Cut Length	A	B	C	D	E	F	G	H / K	Segment/Area	WEIGHT	
															kg	
<b>610 RAFT SLAB</b>																
1	10	25	L	DH/500	8417	400	8067							DH25-200 BOTTOM (B1)	324.31	
1a	10	25	HL	DH/500	6692	400	5992					400		DH25-200 TOP (T1)	257.84	
1b	15	32	S	DH/500	4250	4250								DH32 TOP STARTER BAR	402.45	
1c	6	32	HZ	DH/500	3473	496	605					2500		DH32 BOTTOM STARTER BAR	131.55	
1d	7	20	S	DH/500	600	600								DH20-400 DOWEL BARS 600 LONG, EPCON C8 INTO EXISTING, 160 EMBEDMENT INTO EXISTING SPANDREL UNDER	10.36	
1e	3	16	S	DH/500	2250	2250								DH16-200 SIDE BARS	10.65	
2	16	25	HL	DH/500	6692	400	5992					400		DH25-200 TOP (T1) & BOTTOM (B1)	412.55	
3	6	25	HL	DH/500	7192	400	6492					400		DH25-200 TOP (T1) & BOTTOM (B1)	166.26	
4	32	25	HL	DH/500	6124	400	5424					400		DH25-100 TOP (T1) & BOTTOM (B1)	755.06	
5	10	25	HL	DH/500	7192	400	6492					400		DH25-100 TOP (T1) & BOTTOM (B1)	277.11	
6	92	25	HL	DH/500	6692	400	5992					400		DH25-100 TOP (T1) & BOTTOM (B1)	2,372.15	
7	13	16	L1	DH/500	2858	95	314	1100	314	1100		95		DH16-200 STIRRUPS	58.63	

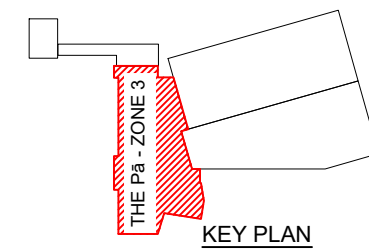
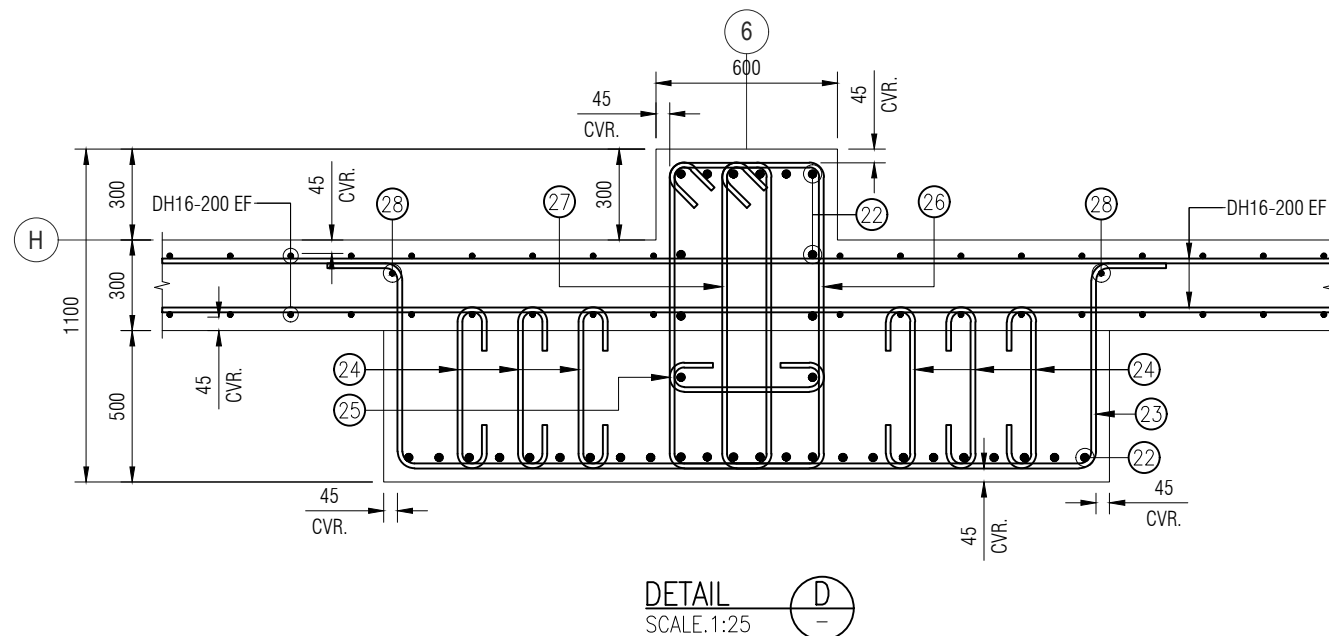
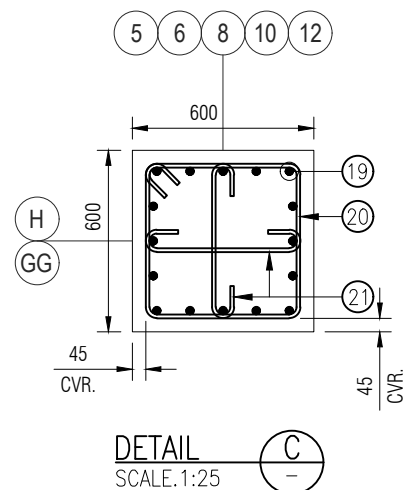
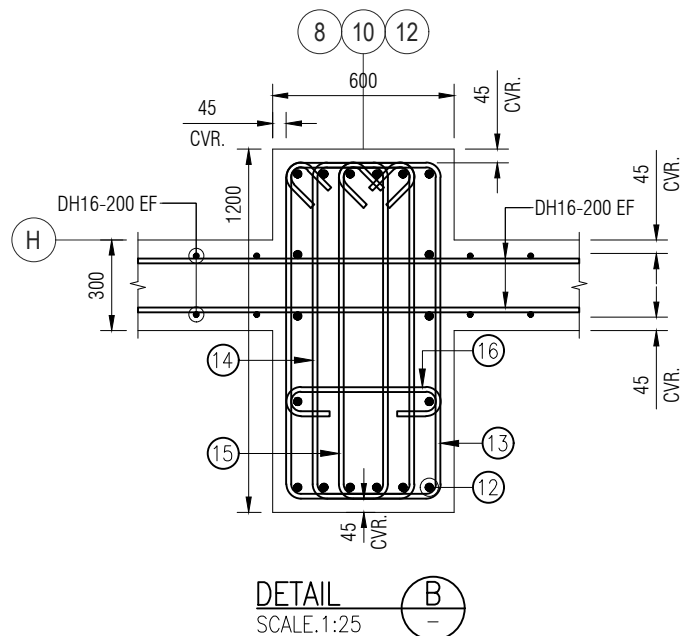
<b>PROJECT:</b>		<b>THE UNIVERSITY OF WAIKATO</b>											<b>Revision:-</b>	<b>00</b>	<b>01</b>	<b>02</b>
<b>MATERIAL FOR:</b>		<b>610 RAFT SLAB</b>											<b>Date:-</b>	<b>12-09-2020</b>	<b>17-09-2020</b>	<b>23-09-2020</b>
<b>CONTROL No.</b>		<b>SI-A4661-11</b>														
Bar Mark	Quantity	Bar Size	Shape	Grade	Cut Length	A	B	C	D	E	F	G	H / K	Segment/Area		WEIGHT
																kg
7a	13	16	L1	DH/500	2654	95	669	643	669	643		95		DH16-200 STIRRUPS		54.44
8	104	25	HL	DH/500	5619	400	4919					400		DH25-200 TOP (T1) & BOTTOM (B1)		2,251.60
9	86	25	HL	DH/500	6219	400	5519					400		DH25-100 TOP (T1) & BOTTOM (B1)		2,060.72
10	32	25	L	DH/500	5269	400	4919							DH25-200 / 100 TOP (T1)		649.65
11	32	25	HL	DH/500	5174	400	4474					400		DH25-200 / 100 BOTTOM (B1)		637.93
12	12	25	HL	DH/500	2951	400	2251					400		DH25-100 TOP (T1) & BOTTOM (B1)		136.44
13	22	25	HL	DH/500	2951	400	2251					400		DH25-200 TOP (T1) & BOTTOM (B1)		250.14
14	14	25	HL	DH/500	6219	400	5519					400		DH25-200 TOP (T1) & BOTTOM (B1)		335.47
15	50	25	HL	DH/500	1628	400	928					400		DH25-100 TOP (T1) & BOTTOM (B1)		313.63
16	117	20	S	DH/500	600	600								DH20-150 DOWELS 250 EMBED. INTO EXISTING FOOTING USING EPCON C8 TYP.		173.11
17	132	16	L	DH/500	526	250	308							DH16-150 EW. WITH STANDARA HOOK. 150 EMBED. INTO EXISTING FOOTING USING EPCON C8. TYP.		109.56
18	22	25	99a	DH/500	17951	400	15950	301	1350				50/300	DH25-100 & 25-200 TOP (T2) & BOTTOM (B2)		1,521.63

<b>PROJECT:</b>		<b>THE UNIVERSITY OF WAIKATO</b>											<b>Revision:-</b>	<b>00</b>	<b>01</b>	<b>02</b>
<b>MATERIAL FOR:</b>		<b>610 RAFT SLAB</b>											<b>Date:-</b>	<b>12-09-2020</b>	<b>17-09-2020</b>	<b>23-09-2020</b>
<b>CONTROL No.</b>		<b>SI-A4661-11</b>														
Bar Mark	Quantity	Bar Size	Shape	Grade	Cut Length	A	B	C	D	E	F	G	H / K	Segment/Area		WEIGHT
																kg
19	22	25	99a	DH/500	16001	400	14000	301	1350				50/300	DH25-100 & 25-200 TOP (T2) & BOTTOM (B2)		1,356.34
20	14	25	99a	DH/500	14314	400	12313	301	1350				50/300	DH25-100 & 25-200 TOP (T2) & BOTTOM (B2)		772.13
21	16	25	99a	DH/500	12364	400	10363	301	1350				50/300	DH25-100 & 25-200 TOP (T2) & BOTTOM (B2)		762.22
22	34	25	L	DH/500	15802	400	15452							DH25-100 & 25-200 TOP (T2) & BOTTOM (B2)		2,070.09
23	35	25	L	DH/500	17752	400	17402							DH25-100 & 25-200 TOP (T2) & BOTTOM (B2)		2,393.95
23a	7	25	HL	DH/500	7713	400	7013					400		DH25-100 BOTTOM (B2)		208.03
23b	14	25	HL	DH/500	7001	400	6301					400		DH25-100 BOTTOM (B2)		377.65
23c	7	25	HL	DH/500	7915	400	7215					400		DH25-100 BOTTOM (B2)		213.48
24	44	25	HL	DH/500	3038	400	2338					400		DH25-100 TOP (T2) & BOTTOM (B2)		515.04

<b>PROJECT:</b>		<b>THE UNIVERSITY OF WAIKATO</b>											<b>Revision:-</b>	<b>00</b>	<b>01</b>	<b>02</b>	
<b>MATERIAL FOR:</b>		<b>610 RAFT SLAB</b>											<b>Date:-</b>	<b>12-09-2020</b>	<b>17-09-2020</b>	<b>23-09-2020</b>	
<b>CONTROL No.</b>		<b>SI-A4661-11</b>															
Bar Mark	Quantity	Bar Size	Shape	Grade	Cut Length	A	B	C	D	E	F	G	H / K	Segment/Area		WEIGHT	
																kg	
															INPUT DATE:		
															WEIGHT kg.:		<b>29,036.13</b>
															WEIGHT Tons.:		<b>29.04</b>



**200, 300 & 350 RC WALL AND RC COLUMN PLINTH**  
SCALE 1:100



Rev.	Date	Revision Details	By	Ver.	App.
0	16/09/2020	ISSUED FOR APPROVAL			

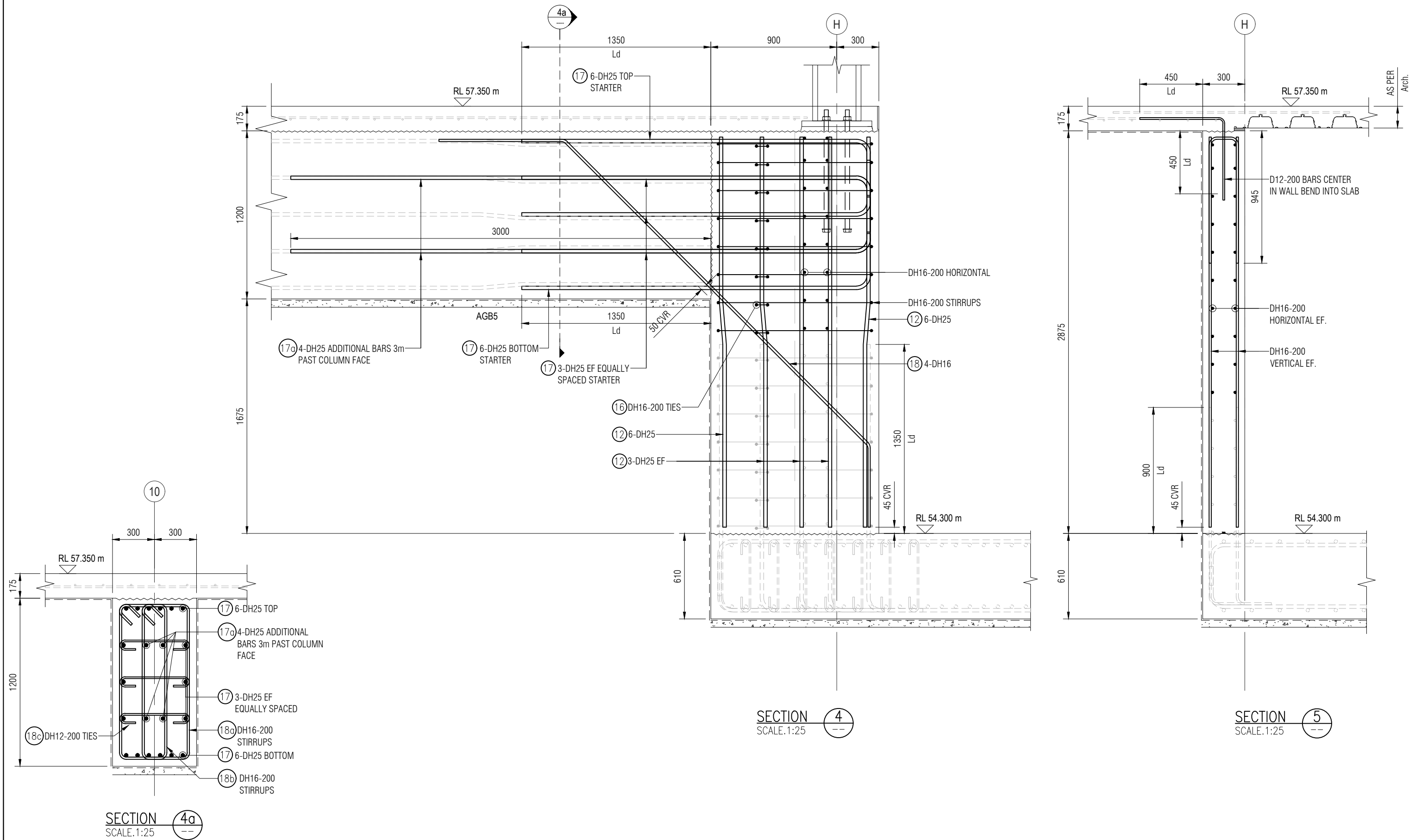
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SE-B2221, SE-B2301, SE-B2302,  
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SE-B4111, SE-B4501, SE-B4601,  
SE-B4602, SE-B4603, SE-B4604,



Project Director:	-	Initials:		Date:	
Designed:	-				
Design Review:	-				
Drawn:	JT				
Drafting Check:	HP				

Project:	THE UNIVERSITY OF WAIKATO THE Pā HILLCREST, HAMILTON
Drawing Title:	200, 300 & 350 RC WALL AND RC COLUMN PLINTH REINFORCEMENT ARRANGEMENT AND DETAIL FOR ZONE - 3

Project No.	5493498
Scale:	AS SHOWN original sheet size A3
Drawing No.	ST-Z3-03
Rev.	0
	(01 OF 05)



SECTION 4a  
SCALE: 1:25

SECTION 4  
SCALE: 1:25

SECTION 5  
SCALE: 1:25

Rev.	Date	Revision Details	By	Ver.	App.
0	16/09/2020	ISSUED FOR APPROVAL			

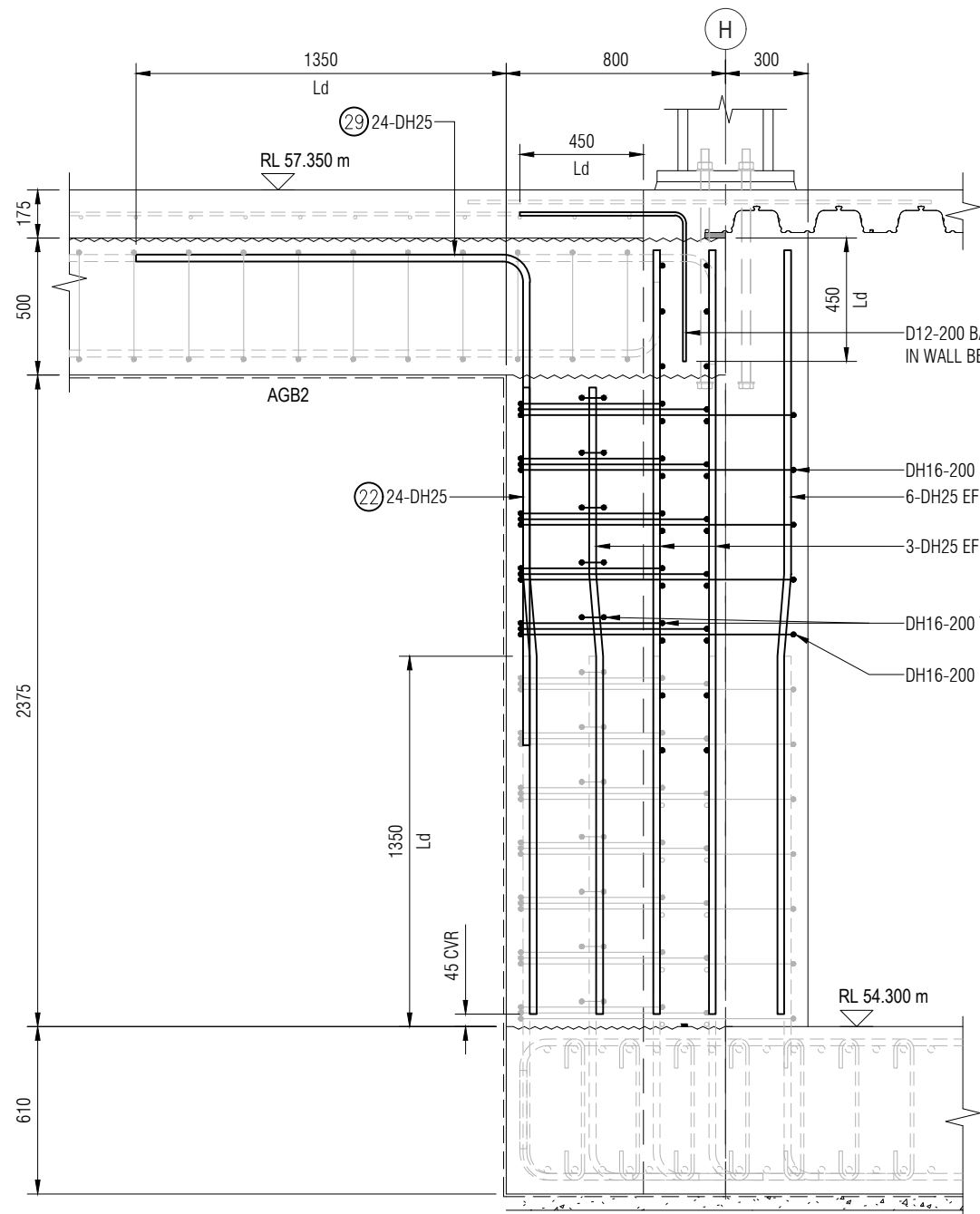
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SE-B4111, SE-B4501, SE-B4601,  
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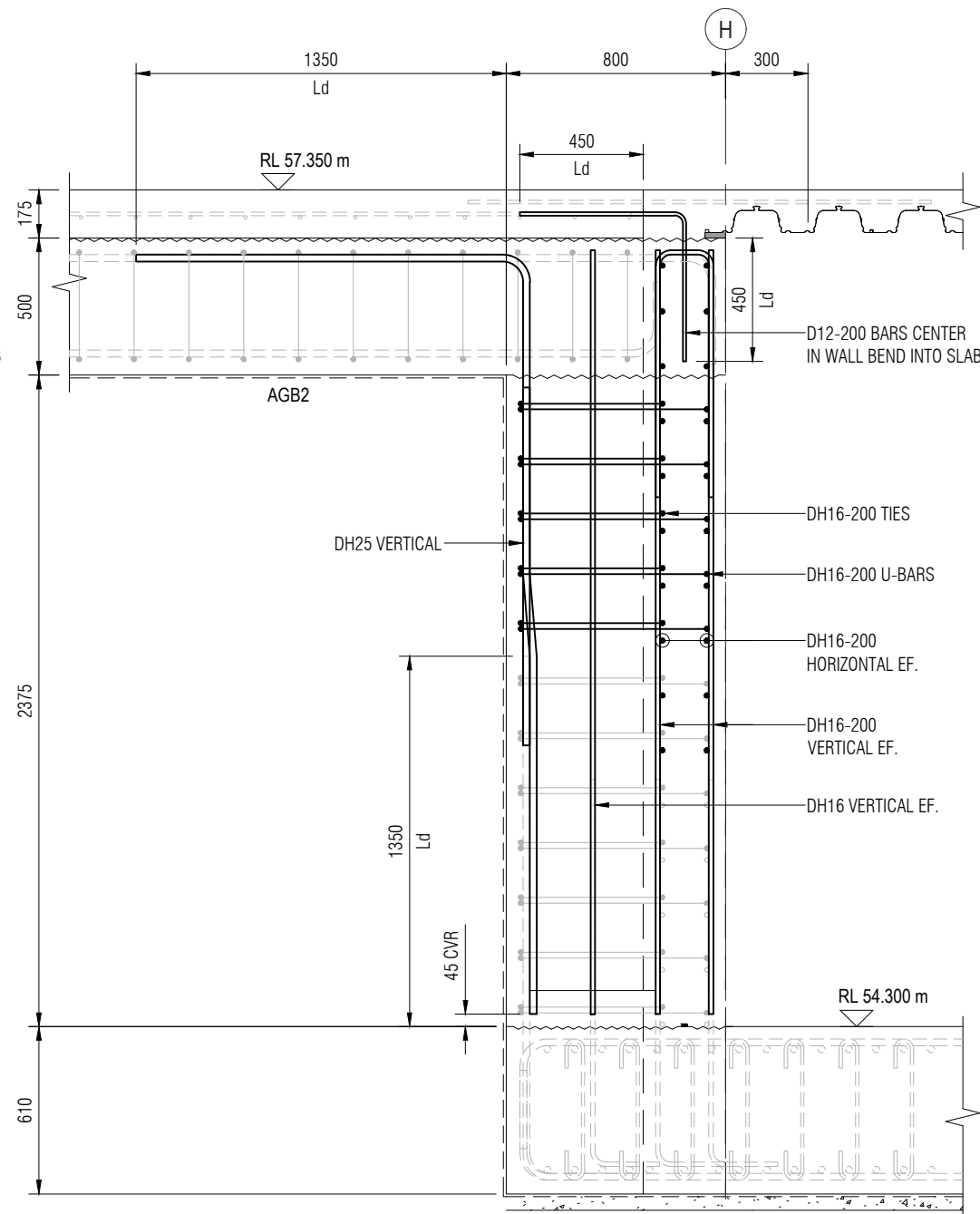
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Designed:	-				
Design Review:	-				
Drawn:	JT				
Drafting Check:	HP				

Project:	THE UNIVERSITY OF WAIKATO THE Pā HILLCREST, HAMILTON
Drawing Title:	TYPICAL SECTION & DETAILS SHEET - 2
ZONE - 3	

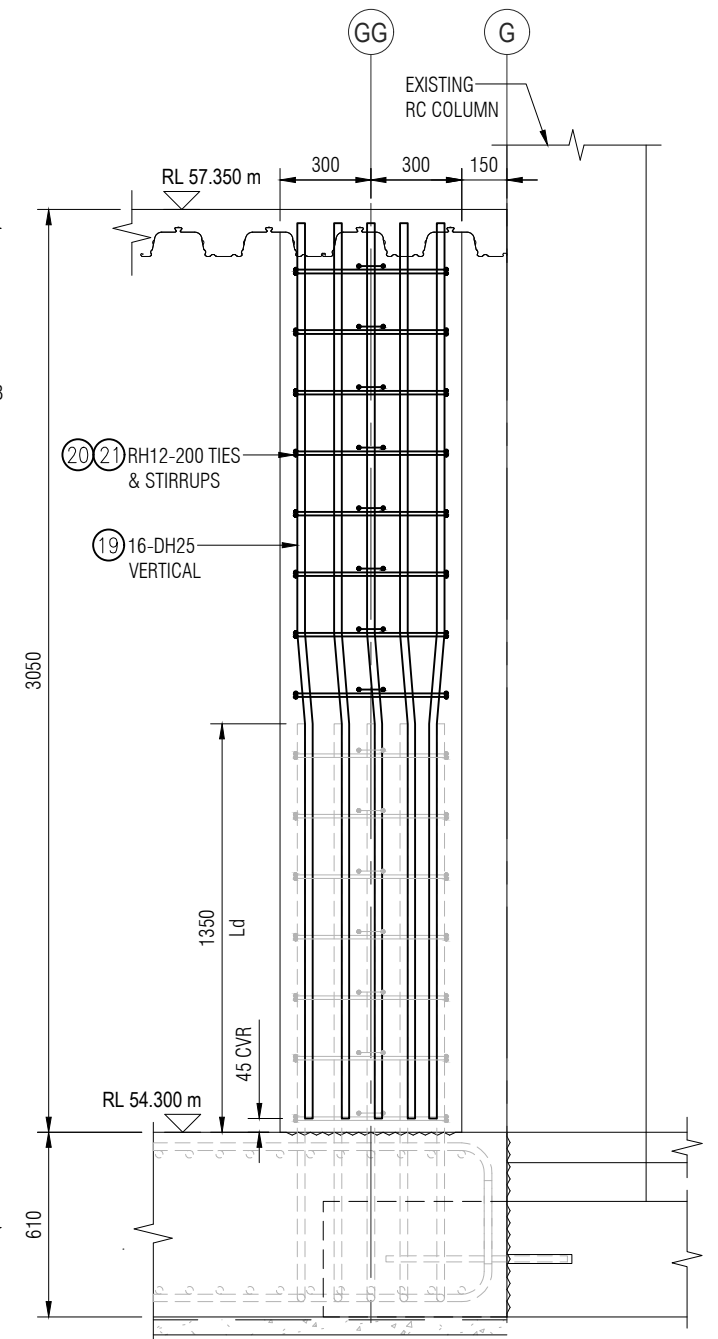
Project No.	5493498
Scale:	AS SHOWN original sheet size A3
Drawing No.	ST-Z3-03
Rev.	0
(03 OF 05)	



SECTION 6  
SCALE: 1:25



SECTION 7  
SCALE: 1:25



SECTION 8  
SCALE: 1:25

Rev.	Date	Revision Details	By	Ver.	App.
0	16/09/2020	ISSUED FOR APPROVAL			

REFER REFERENCE DWG. NO.  
SE-B2221, SE-B2301, SE-B2302,  
SE-B2505, SE-B4021, SE-B4101,  
SE-B4111, SE-B4501, SE-B4601,  
SE-B4602, SE-B4603, SE-B4604,



Project Director:	-	Initials:		Date:	
Designed:	-				
Design Review:	-				
Drawn:	JT				
Drafting Check:	HP				

Project:	THE UNIVERSITY OF WAIKATO THE Pā HILLCREST, HAMILTON
Drawing Title:	TYPICAL SECTION & DETAILS SHEET - 3
ZONE - 3	

Project No.	5493498
Scale:	AS SHOWN original sheet size A3
Drawing No.	ST-Z3-03
Rev.	0
(04 OF 05)	



**Zone - 3**

<b>PROJECT:</b>		THE UNIVERSITY OF WAIKATO											<b>Revision:-</b>	00	01	
<b>MATERIAL FOR:</b>		200, 300 & 350 RC WALL AND RC COLUMN PLINTH											<b>Date:-</b>	16-09-2020	25-09-2020	
<b>CONTROL No.</b>		SI-A4661-12														
Bar Mark	Quantity	Bar Size	Shape	Grade	Cut Length	A	B	C	D	E	F	G	H / K	Segment/Area		WEIGHT
																kg
<b>350 RC WALL</b>																
1	7	16	HL	DH/500	1950	900	215					900		DH16-200 U-BAR HORIZONTAL		21.54
2	26	20	L	DH/500	4333	1405	2960							DH20-200 VERTICAL		277.81
3	26	20	L	DH/500	4053	1165	2920							DH20-200 VERTICAL		259.86
4	14	16	S	DH/500	4930	4930								DH16-200 HORIZONTAL		108.91
5	7	16	HL	DH/500	2460	1155	215					1155		DH16-200 U-BAR HORIZONTAL		27.17
<b>300 RC WALL</b>																
6	10	16	HL	DH/500	2480	1185	175					1185		DH16-200 U-BAR HORIZONTAL		39.13
7	288	16	S	DH/500	2785	2785								DH16-200 VERTICAL EF.		1,265.68
8	20	16	S	DH/500	11350	11350								DH16-200 HORIZONTAL EF.		358.21
9	20	16	S	DH/500	12000	12000								DH16-200 HORIZONTAL EF.		378.72
10	10	16	99e	DH/500	10560	250	555	193	9562				37/192	DH16-200 HORIZONTAL		166.64
11	10	16	L	DH/500	10527	250	10309							DH16-200 HORIZONTAL		166.12
<b>1200 x 600 RC COLUMN (3 NOS.)</b>																

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<b>MATERIAL FOR:</b>		200, 300 & 350 RC WALL AND RC COLUMN PLINTH											<b>Date:-</b>	<b>16-09-2020</b>	<b>25-09-2020</b>		
<b>CONTROL No.</b>		SI-A4661-12															
Bar Mark	Quantity	Bar Size	Shape	Grade	Cut Length	A	B	C	D	E	F	G	H / K	Segment/Area	WEIGHT		
																kg	
12	54	25	HJ	DH/500	2786		1305	301	1180					50/300	DH25 VERTICAL BARS		579.66
13	24	16	L1	DH/500	3270	95	510	1110	510	1110			95		DH16-200 STIRRUPS		123.84
14	24	16	L1	DH/500	2922	95	336	1110	336	1110			95		DH16-200 STIRRUPS		110.66
15	24	16	L1	DH/500	2574	95	162	1110	162	1110			95		DH16-200 STIRRUPS		97.48
16	24	16	L3	DH/500	635	95	510						95		DH16-200 LINKS		24.05
17	54	25	L	DH/500	2840	400	2490								DH25 STARTER BAR FOR AGB5		590.90
17a	12	25	L	DH/500	4489	400	4139								DH25 ADDITIONAL BARS 3m PAST COLUMN FACE		207.55
18	12	16	99h	DH/500	4509	900	3084	590					2180/2180	DH16 DIAGONAL BARS		85.38	
18a	18	16	L1	DH/500	3240	95	500	1105	500	1105			95		RH16-200 STIRRUPS		92.03

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<b>MATERIAL FOR:</b>		200, 300 & 350 RC WALL AND RC COLUMN PLINTH											<b>Date:-</b>	<b>16-09-2020</b>	<b>25-09-2020</b>	
<b>CONTROL No.</b>		SI-A4661-12														
Bar Mark	Quantity	Bar Size	Shape	Grade	Cut Length	A	B	C	D	E	F	G	H / K	Segment/Area		WEIGHT
																kg
18b	18	16	L1	DH/500	2594	95	177	1105	177	1105		95		RH16-200 STIRRUPS		73.68
18c	18	12	L1	DH/500	542	75	492					75		RH12-200 TIES		8.66
<b>RC 600 x 600 COLUMN (6 NOS.)</b>																
19	96	25	HJ	DH/500	2956		1305	301	1350				50/300	DH25 VERTICAL BARS		1,093.39
20	48	12	L1	DH/500	2070	75	510	510	510	510		75		RH12-200 STIRRUPS		88.23
21	96	12	L3	DH/500	610	75	510					75		RH12-200 LINKS		52.00
<b>RC 600 x 1100 COLUMN (DETAIL-D)</b>																
22	36	25	HJ	DH/500	2286		680	301	1305				50/300	DH25 VERTICAL BARS		317.09
23	5	16	HZZ	DH/500	4038	250	678	2310	678			250		DH16-200 U BAR		31.86
24	30	16	L3	DH/500	657	95	532					95		DH16-200 LINKS		31.10

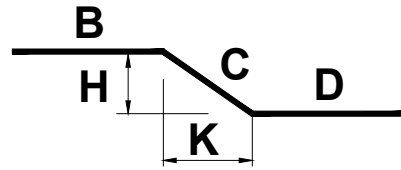
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<b>MATERIAL FOR:</b>		200, 300 & 350 RC WALL AND RC COLUMN PLINTH											<b>Date:-</b>	<b>16-09-2020</b>	<b>25-09-2020</b>	
<b>CONTROL No.</b>		SI-A4661-12														
Bar Mark	Quantity	Bar Size	Shape	Grade	Cut Length	A	B	C	D	E	F	G	H / K	Segment/Area		WEIGHT
																kg
25	5	16	L3	DH/500	635	95	510					95		DH16-200 LINKS		5.01
26	5	16	L1	DH/500	3070	95	510	1010	510	1010		95		DH16-200 STIRRUPS		24.22
27	5	16	L1	DH/500	2374	95	162	1010	162	1010		95		DH16-200 STIRRUPS		18.73
28	2	16	S	DH/500	2785	2785								DH16 VERTICAL		8.79
29	24	25	L	DH/500	3175	1435	1790							DH25 L-BAR FOR AGB2		293.60
<b>RC 200 WALL (2 NOS.)</b>																
30	92	12	HL	DH/500	2420	140	2190					140		DH12-200 EF. HORIZ.		197.70
31	24	25	S	DH/500	4350	4350								DH25-200 EF. VERTICAL		402.25
32	322	12	L1	DH/500	835	75	265	140	265	140		75		DH12-200 STIRRUPS		238.76
33	24	25	S	DH/500	4350	4350								DH25-200 EF. VERTICAL		402.25

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<b>MATERIAL FOR:</b>		200, 300 & 350 RC WALL AND RC COLUMN PLINTH											<b>Date:-</b>	<b>16-09-2020</b>	<b>25-09-2020</b>	
<b>CONTROL No.</b>		SI-A4661-12														
Bar Mark	Quantity	Bar Size	Shape	Grade	Cut Length	A	B	C	D	E	F	G	H / K	Segment/Area		WEIGHT
																kg
<b>175 SOG STARTER</b>																
34	144	12	L	DH/500	1125	605	545							D12-200		143.86
															INPUT DATE:	
															WEIGHT kg.:	8,412.54
															WEIGHT Tons.:	8.41

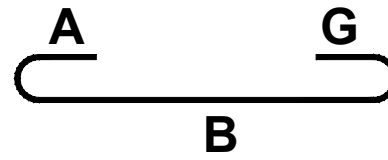
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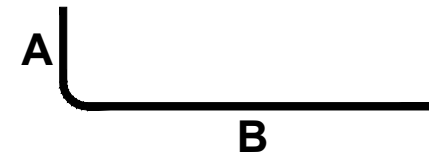
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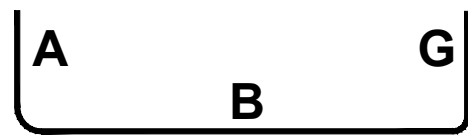
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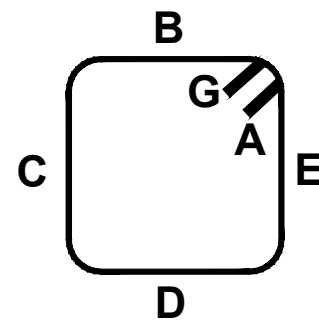
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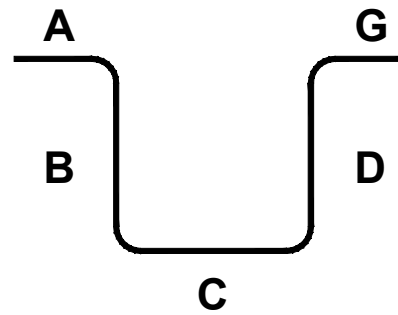
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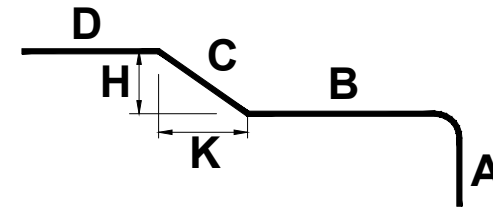
L1



HZZ



99e



99h

