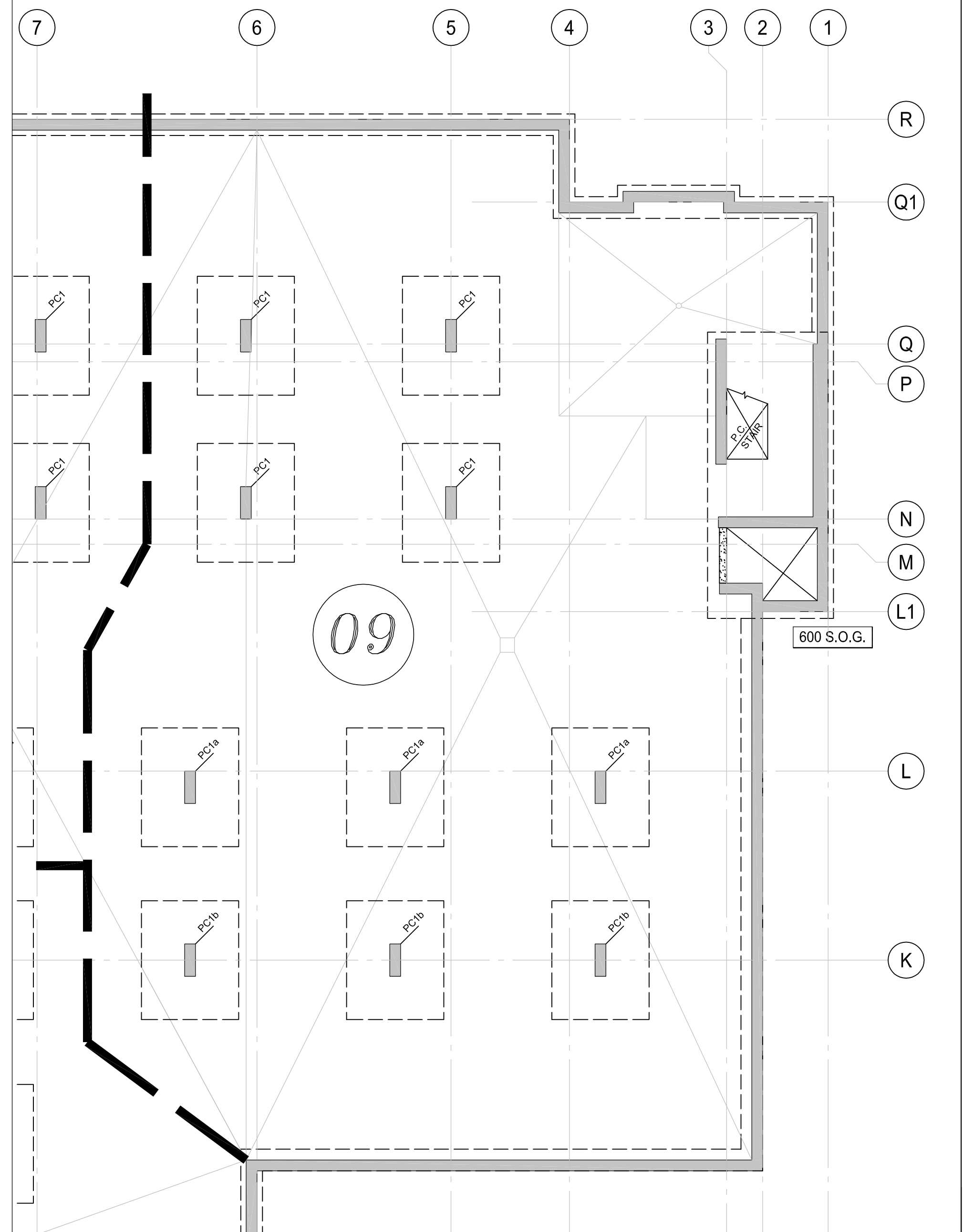
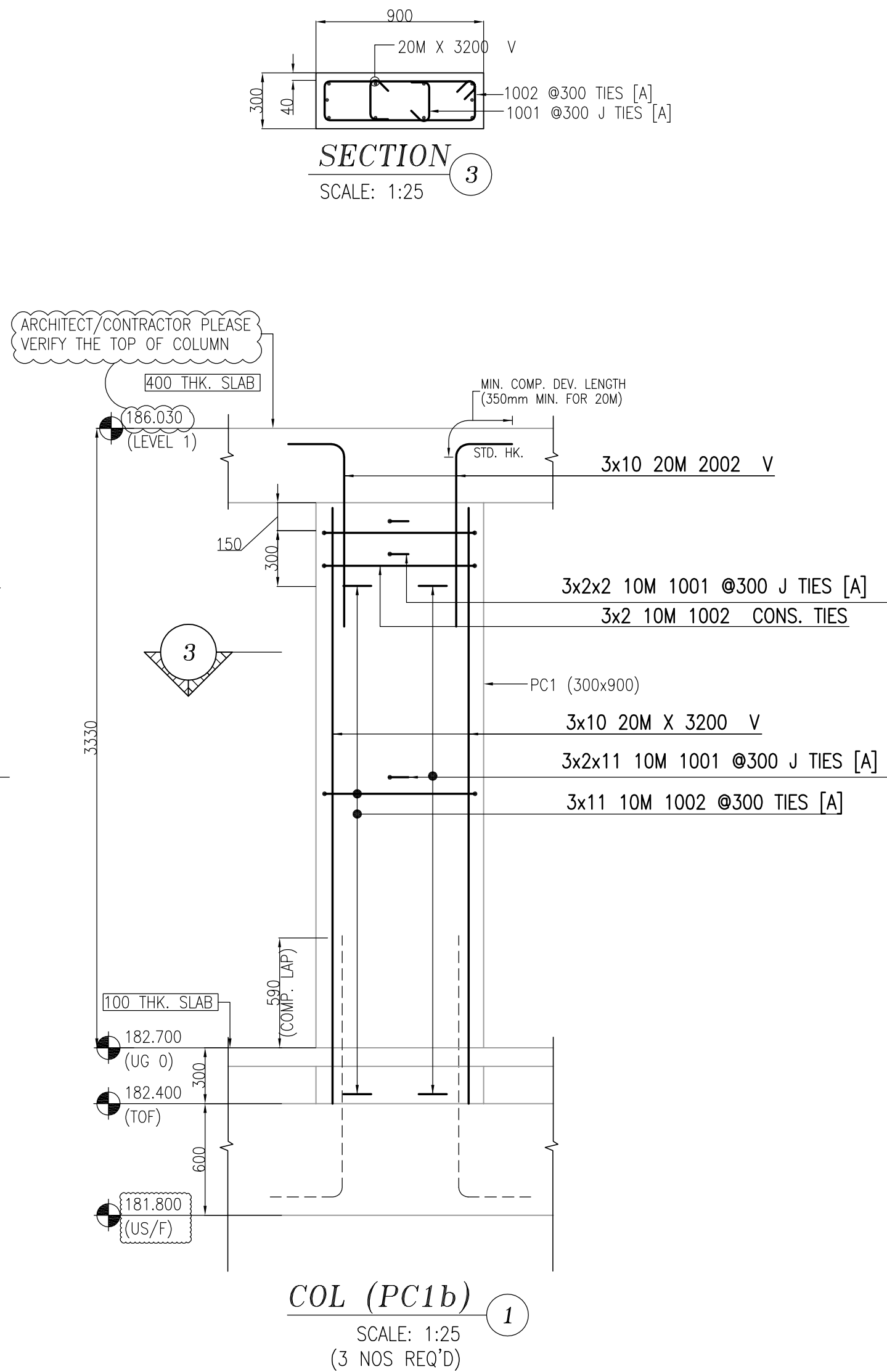
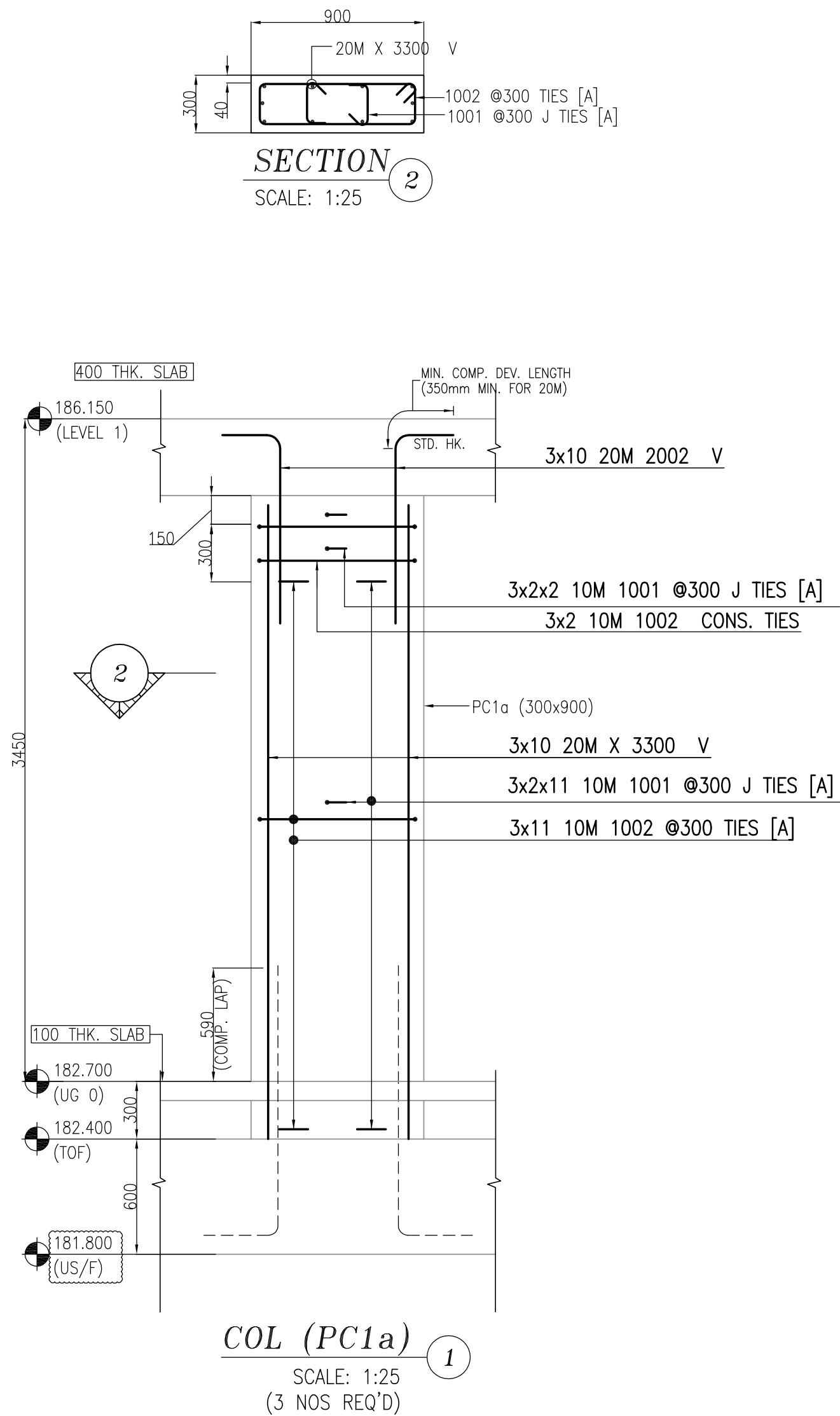
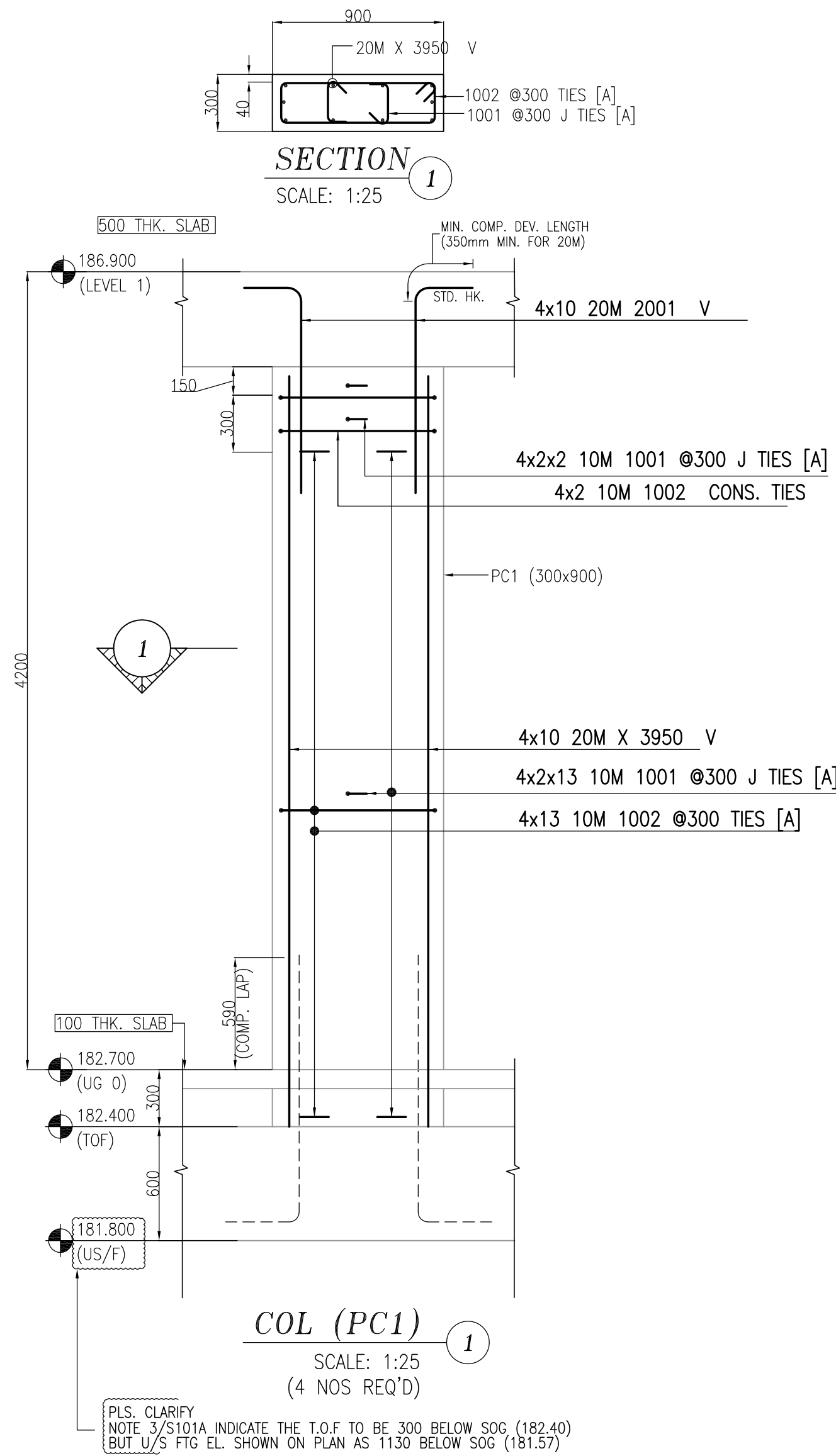
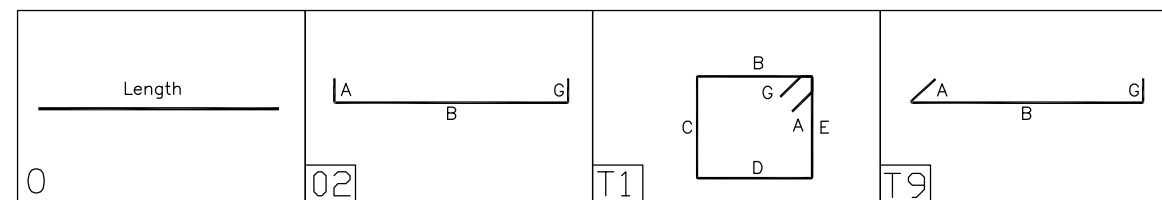




Release Code: R3.8 COL F-GF P#9 BENDING DETAILS.													
Bar Mark	Qty	Size	Total length	Type	A'	B'	C'	D'	E'	F'	G'	H'	I'
	44	20M	3950			3950							
	30	20M	3300			3300							
	30	20M	3200			3200							
1001	276	10M	420	T9	100	220					100		
1002	136	10M	2280	T1	100	820	220	820	220		100		
2001	44	20M	1400	2	310	1090							
2002	60	20M	1300	2	310	990							



NOTES

1. ALL STEEL TO BE GRADE 400W
2. STRENGTH OF CONCRETE
35MPa - INTERIOR COLUMNS & WALLS

3. CONCRETE COVER:
TIES --- 40mm

4. COMPRESSION LAP SPICE

BAR SIZE	STANDARD LAP (mm)
10M	300
15M	440
20M	590
25M	730
30M	880
35M	1030

5. TENSION LAP SPICE (L.S.) & DEVELOPMENT LENGTH (Ld) (FOR WALL OR COL & Ld IN CAP OR FTG.)

BAR SIZE	fc=25		fc=30		fc=35	
	L.S	L.d	L.S	L.d	L.S	L.d
10M	490	380	450	350	420	320
15M	740	570	670	520	620	480
20M	980	750	890	690	830	640
25M	1530	1170	1390	1070	1290	990
30M	1830	1410	1670	1290	1550	1190
35M	2130	1640	1950	1500	1800	1390

DRAWING REVIEW

This review of this drawing does not in any way relieve the contractor of responsibility for its accuracy or for compliance with the contract documents.

☒ No comment	☐ See comment
☐ Amend & Resubmit	☐ Rejected See Remarks

Submission No. _____
Project No. 19066
By: AJ
Date: 06 May 2021
JABLONSKY, AST AND PARTNERS
Consulting Engineers
9 Concorde Gate, North York, ON M3C 4H9

- * ELEVATIONS AND DIMENSIONS SHOWN ARE FOR VERIFICATION PURPOSES ONLY AND ARE NOT TO BE USED FOR CONSTRUCTION
- * ALL CONFIRMS/VERIFIES WILL BE ASSUMED CORRECT AND APPROVED AS IS UNLESS COMMENTED ON THE APPROVAL DRWG

LEGEND		
ALT = ALTERNATE	FF = FAR FACE	OF = OUTSIDE FACE
BOT = BOTTOM	FS = FORM SAVER	SC = SAW CUT END
BIS = BEND INTO SLAB	GID = GROUT 'N DOWELS	STG = STAGGER
CB = CORNER BAR	H = HORIZONTAL	STR = STRIPS
CJ = CONTROL JOINT	IF = INSIDE FACE	T = TOP
CUT = CUT TO SUIT SITE COND.	LL = LOWER LAYER	THR/1 = THREAD LEND
DWL = DOWELS	MD = MIDDLE	THR/2 = THREAD JEND
EE = EACH END	MIN = MINIMUM	UL = UPPER LAYER
EF = EACH FACE	NF = NEAR FACE	UNLESS NOTED
EJ = EXPANSION JOINT	OC = ON CENTER	V = VERTICAL
ES = EACH SIDE	QC = QUARTER	TT = TIE
FW = EACH WAY		

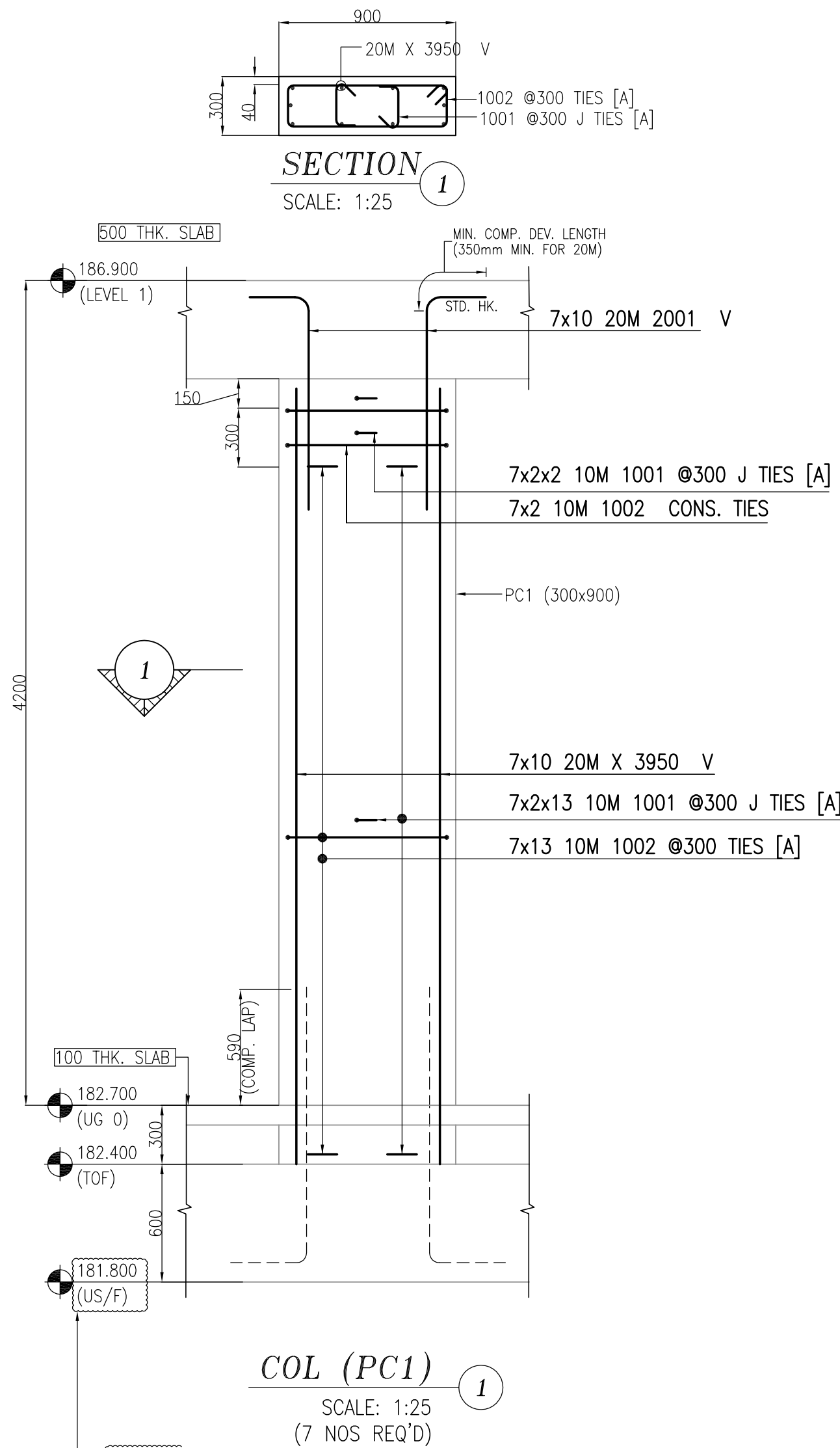
STRAIGHT BARS LABEL FORMAT		BENT BARS LABEL FORMAT		GRADES OF STEEL	
7 B15M X 3600	GRADE QUANTITY	7 B15M B1501	SIZE L-BAR MARK QUANTITY	B = GRADE 400W	CR = CRACK COATED
				C = GRADE 500W	CP = CRACK COATED
				S = STAINLESS	W = WELDABLE

FOR APPROVAL	MAY/03/21	JJ
ISSUE	REMARKS	DATE BY

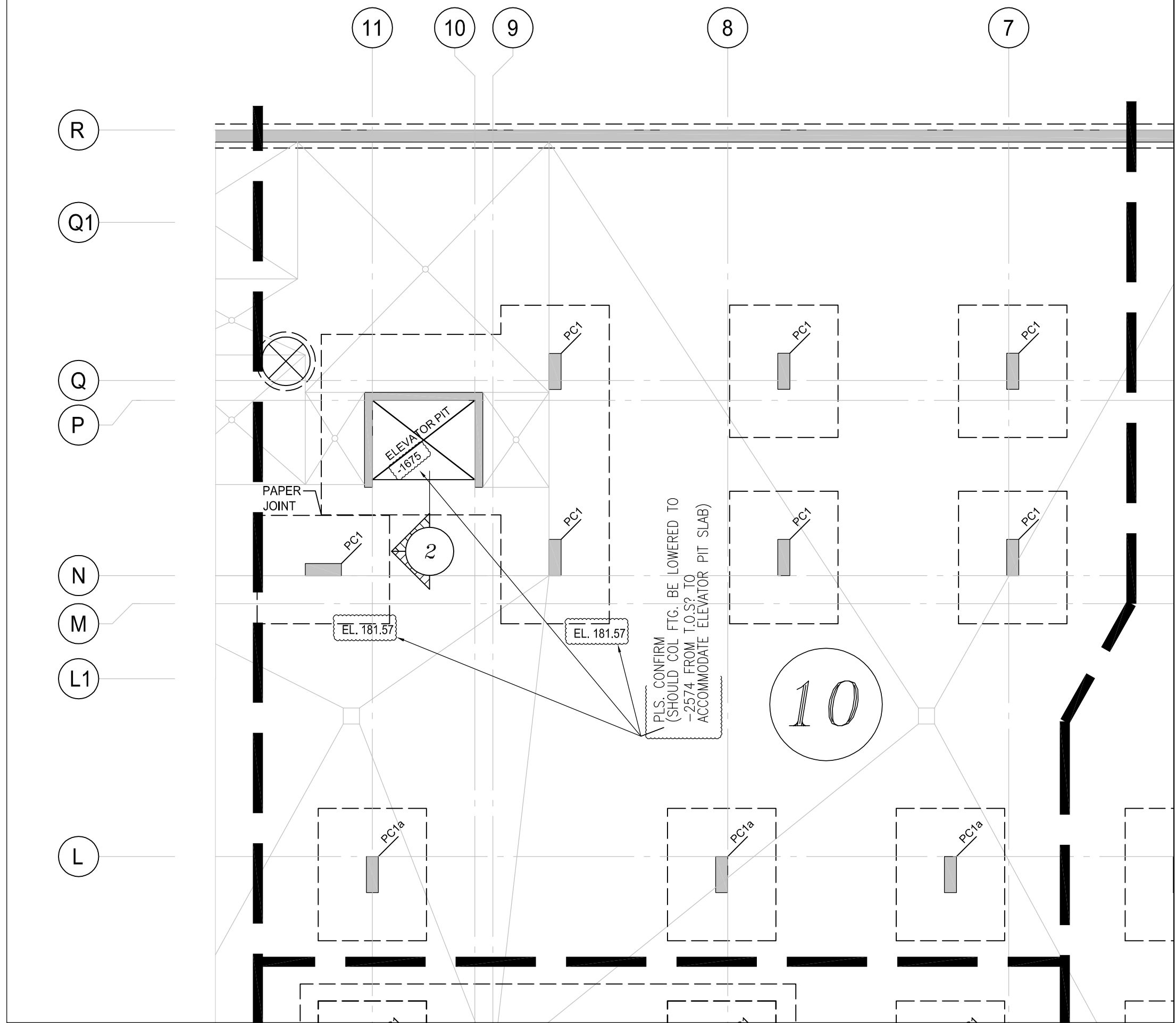
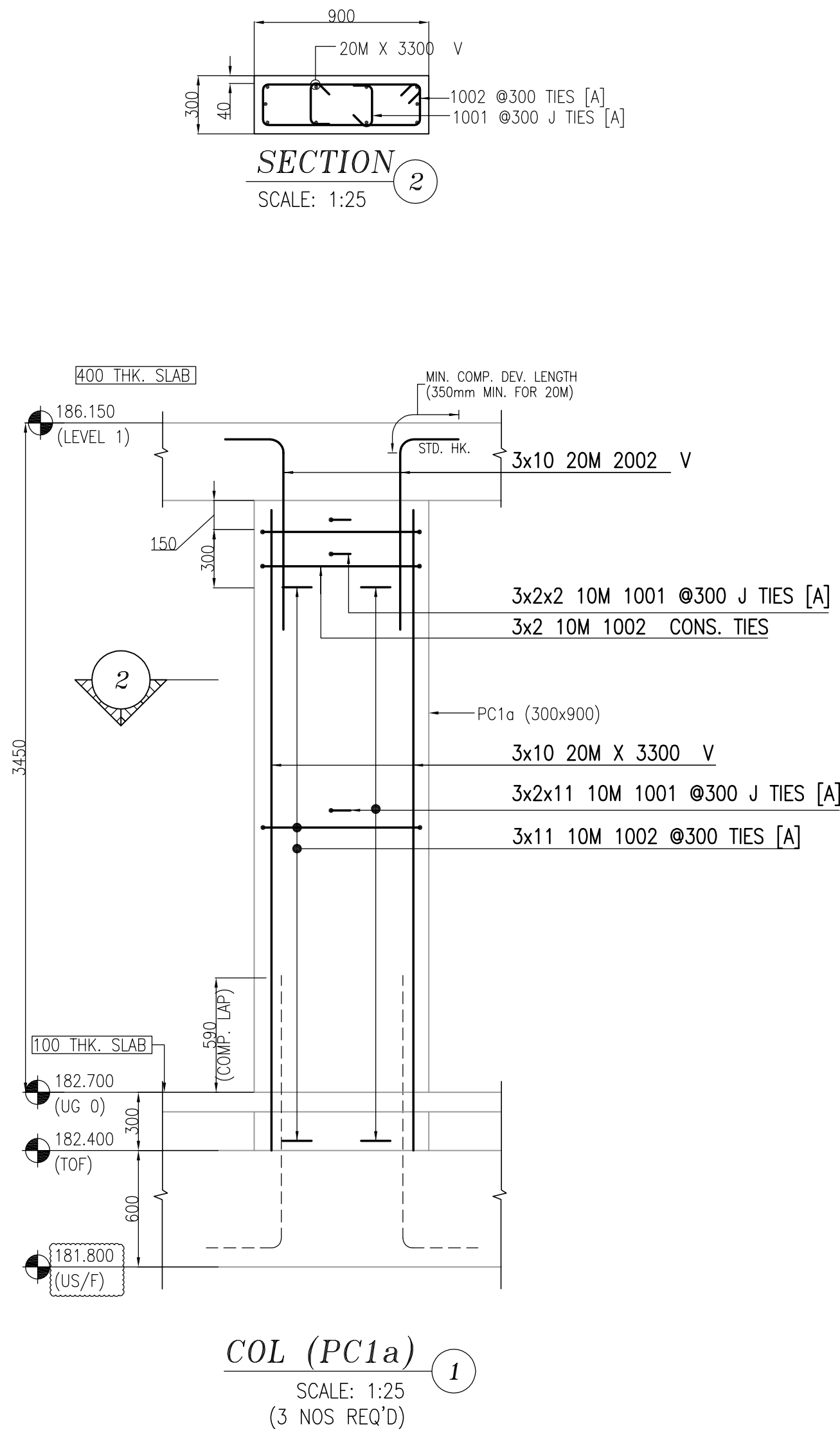
MANSTEEL	MANSTEEL REBAR
105 Industrial Road, Richmond Hill, Ontario L4C 2Y4 Canada Phone: 905-737-9797 Fax: 905-737-9704 Email: info@mansteelrebar.com	

PROJECT	FORESTSIDE TOWNHOUSES -BRAMPTON, ON
PART OF STRUCTURE	COLUMNS FTG-GF -P#9

CUSTOMER :	ROYAL PINE HOMES	Project no. 2177
DETAILED BY: JJ	BAR LIST No.	SCALE: AS SHOWN
CHECKED BY:		DRAWING No. R3.8

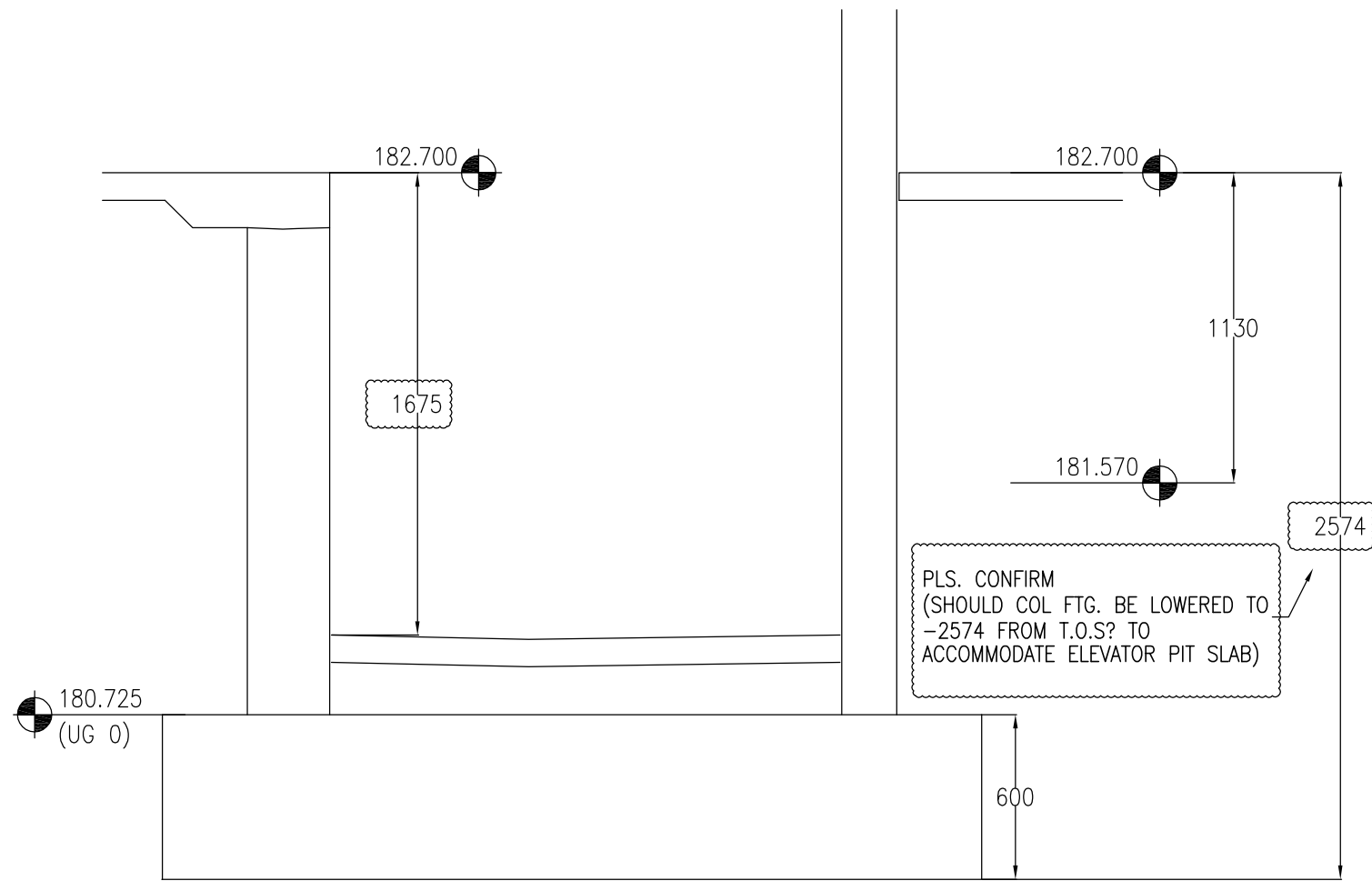
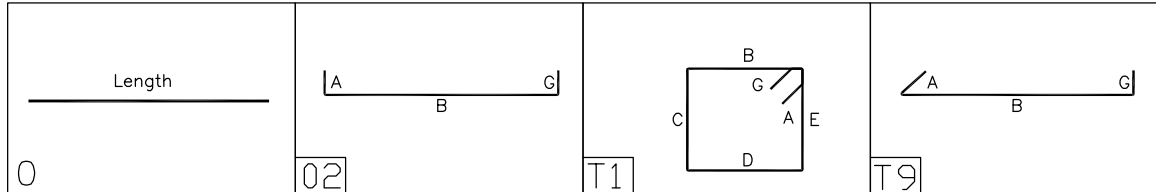


PLS. CLARIFY
NOTE 3/S101A INDICATE THE T.O.F TO BE 300 BELOW SOG (182.40)
BUT U/S FTG EL. SHOWN ON PLAN AS 1130 BELOW SOG (181.57)



Release Code: R3.8 COL F-GF P#10 BENDING DETAILS.

Bar Mark	Qty	Size	Total length	Type	K	B	C	D	E	F	G	H	J	K	U	V
	30	20M	3300			3300										
	70	20M	3950			3950										
1002	144	10M	2280	T1	100	820	220	820	220			100				
1001	288	10M	420	T9	100	220						100				
2002	30	20M	1300	2	310	990										
2001	70	20M	1400	2	310	1090										



DRAWING REVIEW

This review of this drawing does not in any way relieve the contractor of responsibility for its accuracy or for compliance with the contract documents.

☒ No comment	☐ See comment
☐ Amend & Resubmit	☐ Rejected See Remarks

Submission No. 19066
Project No. AF
By AF
Date 06 May 2021
JABLONSKY, AST AND PARTNERS
Consulting Engineers
3 Concordia Gate, North York, ON M3C 4H6

* ELEVATIONS AND DIMENSIONS SHOWN ARE FOR VERIFICATION PURPOSES ONLY AND ARE NOT TO BE USED FOR CONSTRUCTION
* ALL CONFIRMS/VERIFIES WILL BE ASSUMED CORRECT AND APPROVED AS IS UNLESS COMMENTED ON THE APPROVAL DRWGS

LEGEND

ALT = ALTERNATE	FF = FAR FACE	OF = OUTSIDE FACE
BOT = BOTTOM	FS = FORM SAWER	SC = SAW CUT END
BIS = BEND INTO SLAB	GID = GROUT IN DOWELS	STG = STAGGER
CB = CORNER BAR	H = HORIZONTAL	STR = STIRRUPS
CJ = CONTROL JOINT	IF = INSIDE FACE	T = TOP
CUT = CUT TO SUIT SITE COND.	LL = LOWER LAYER	THR/1 = THREAD LEND
DWL = DOWELS	MID = MIDDLE	THR/2 = THREAD ZENOS
EE = EACH END	MIN = MINIMUM	UL = UPPER LAYER
EF = EACH FACE	NF = NEAR FACE	U/N = UNLESS NOTED
EJ = EXPANSION JOINT	OC = ON CENTER	V = VERTICAL
ES = EACH SIDE	TT = TEMP. TIES	
EW = EACH WAY		

STRAIGHT BARS LABEL FORMAT
7 B15M X 3600
GRADE QUANTITY LENGTH

BENT BARS LABEL FORMAT
7 B15M B1501
GRADE QUANTITY LENGTH SIZE L-BAR MARK

GRADES OF STEEL
B = GRADE 400W
C = GRADE 500W COATED
F = GRADE 600W
S = GALVANIZED
W = WELDABLE

FOR APPROVAL	APR/21/21	JU
ISSUE	REMARKS	DATE BY

MANSTEEL REBAR

105 Industrial Road, Richmond Hill, Ontario L4C 2Y4 Canada
Phone: 905-737-9797
Fax: 905-737-9704
Email: info@mansteelrebar.com

PROJECT
FORESTSIDE TOWNHOUSES
-BRAMPTON, ON

PART OF STRUCTURE
COLUMNS FTG-GF -P#10

CUSTOMER : MAY/03/21

Project no. 2177
SCALE AS SHOWN
DRAWING No. R3.9

DETAILED BY: JU
CHECKED BY:

BAR LIST No.

NOTES

1. ALL STEEL TO BE GRADE 400W
2. STRENGTH OF CONCRETE
35MPa - INTERIOR COLUMNS & WALLS

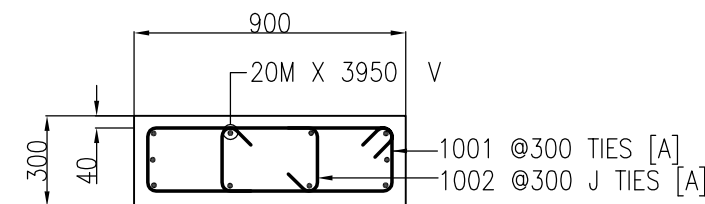
3. CONCRETE COVER:
TIES --- 40mm

4. COMPRESSION LAP SPLICE

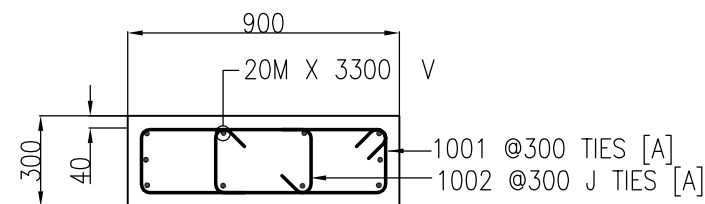
BAR SIZE	STANDARD LAP (mm)
10M	300
15M	440
20M	590
25M	730
30M	880
35M	1030

5. TENSION LAP SPLICE (Ls) & DEVELOPMENT LENGTH (Ld)
(FOR WALL OR COL & Ld IN CAP OR FTG.)

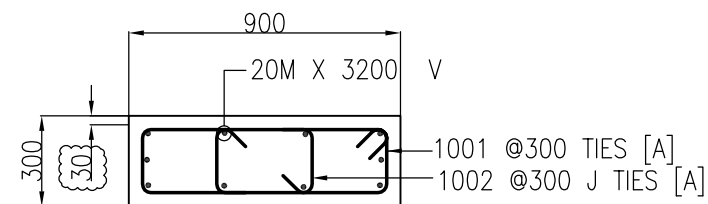
BAR SIZE	fc=25		fc=30		fc=35	
	L.S	L.d	L.S	L.d	L.S	L.d
10M	490	380	450	350	420	320
15M	740	570	670	520	620	480
20M	980	750	890	690	830	640
25M	1530	1170	1390	1070	1290	990
30M	1830	1410	1670	1290	1550	1190
35M	2130	1640	1950	1500	1800	1390



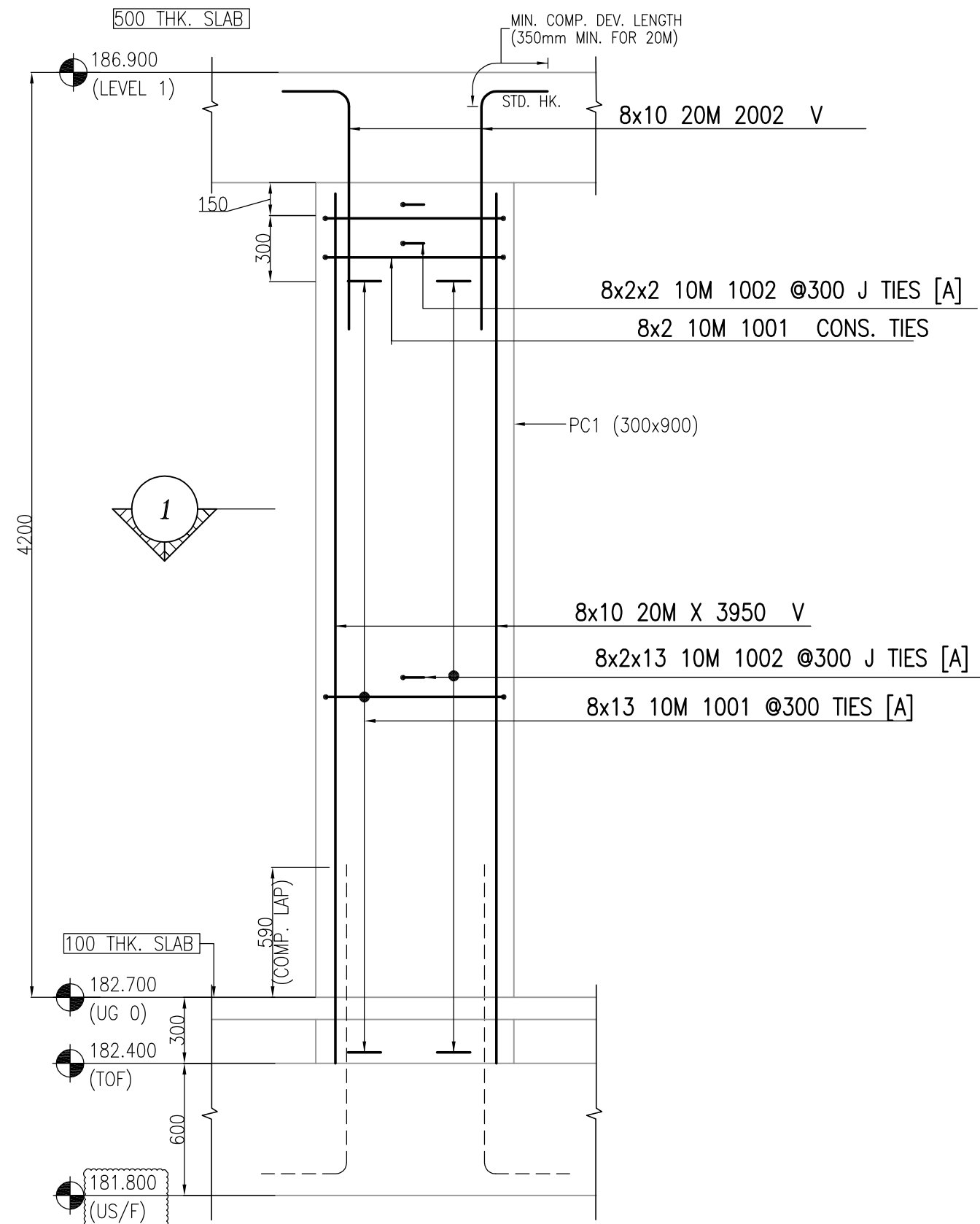
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SCALE: 1:25



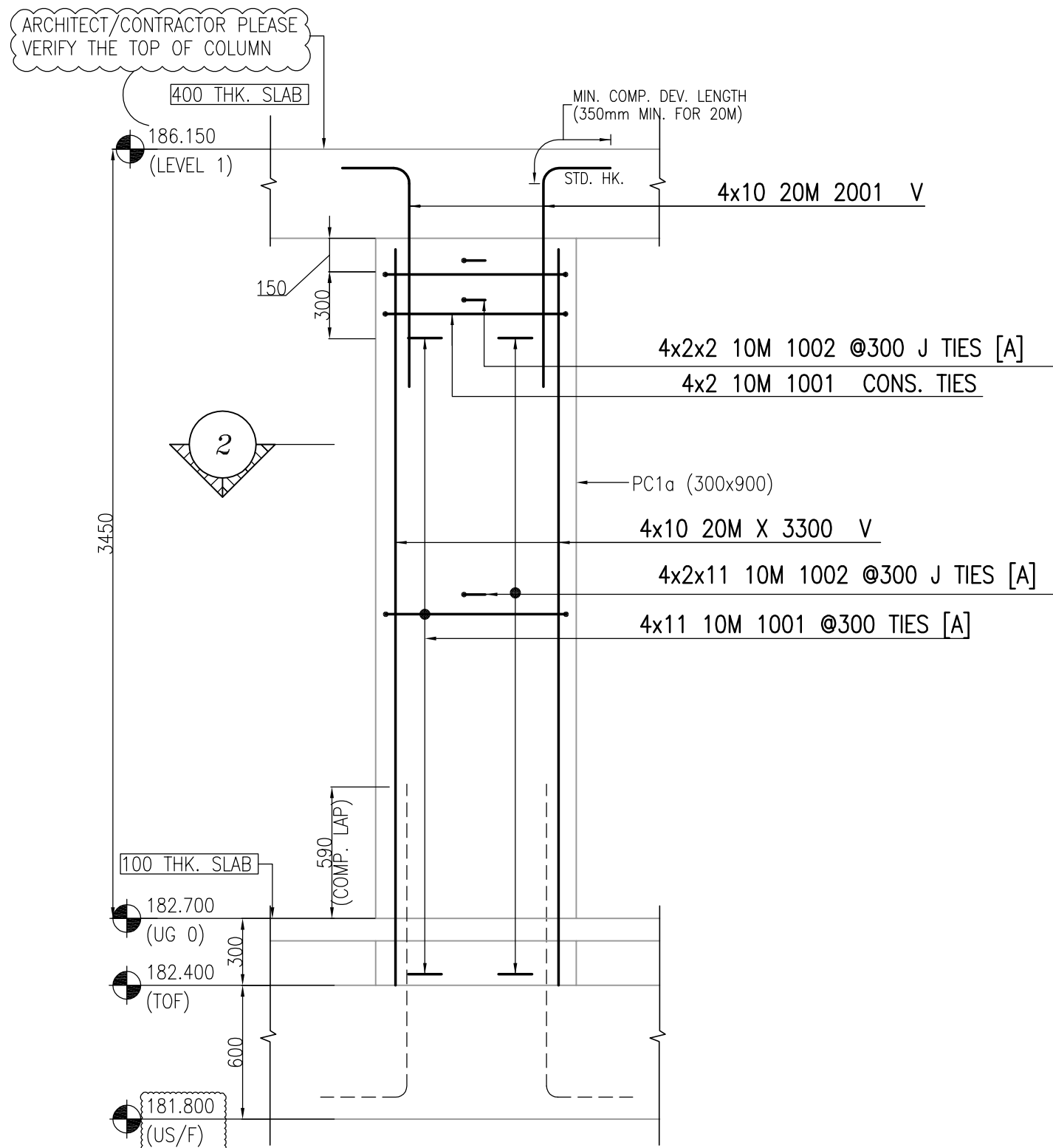
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SCALE: 1:25



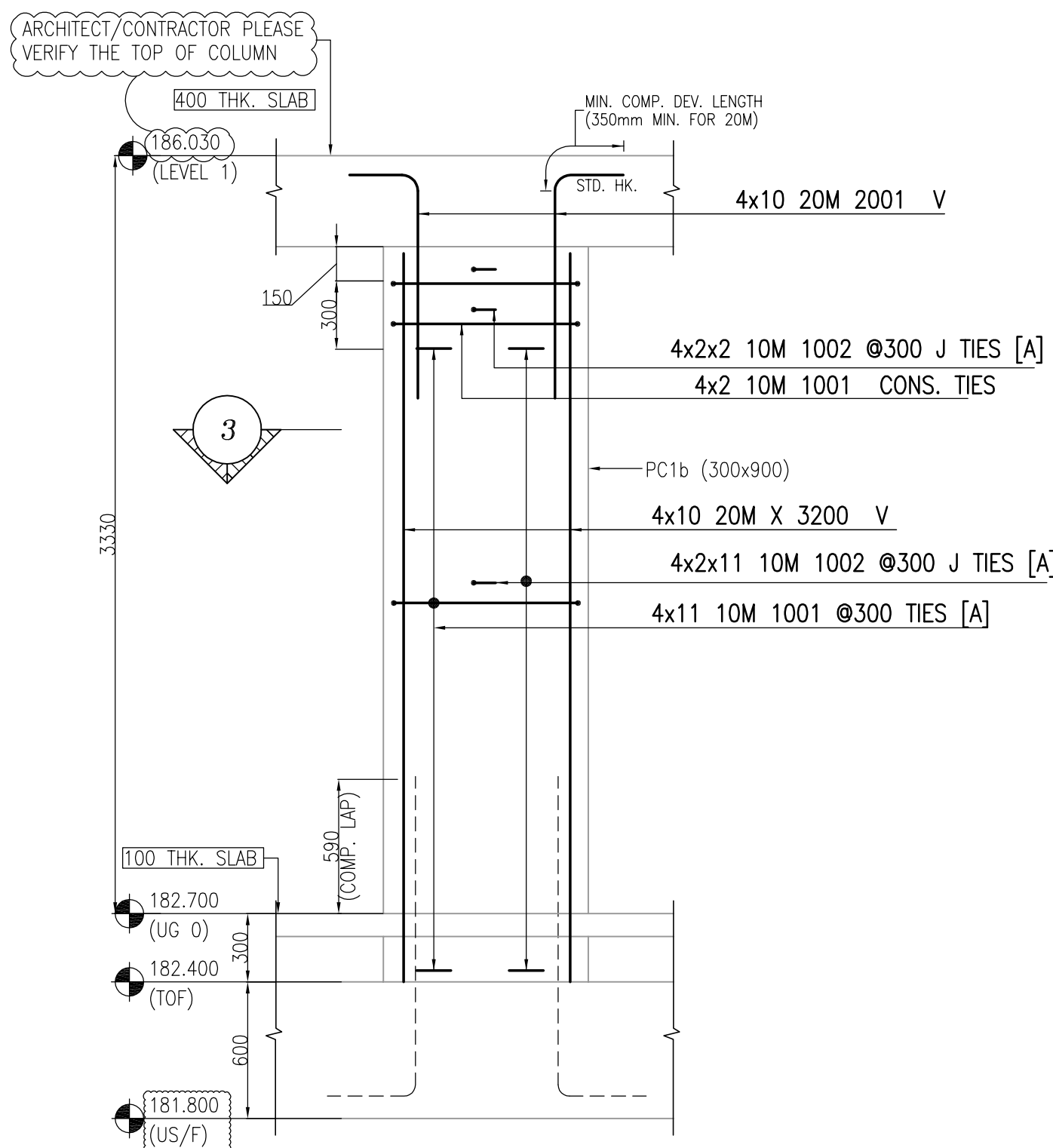
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SCALE: 1:25



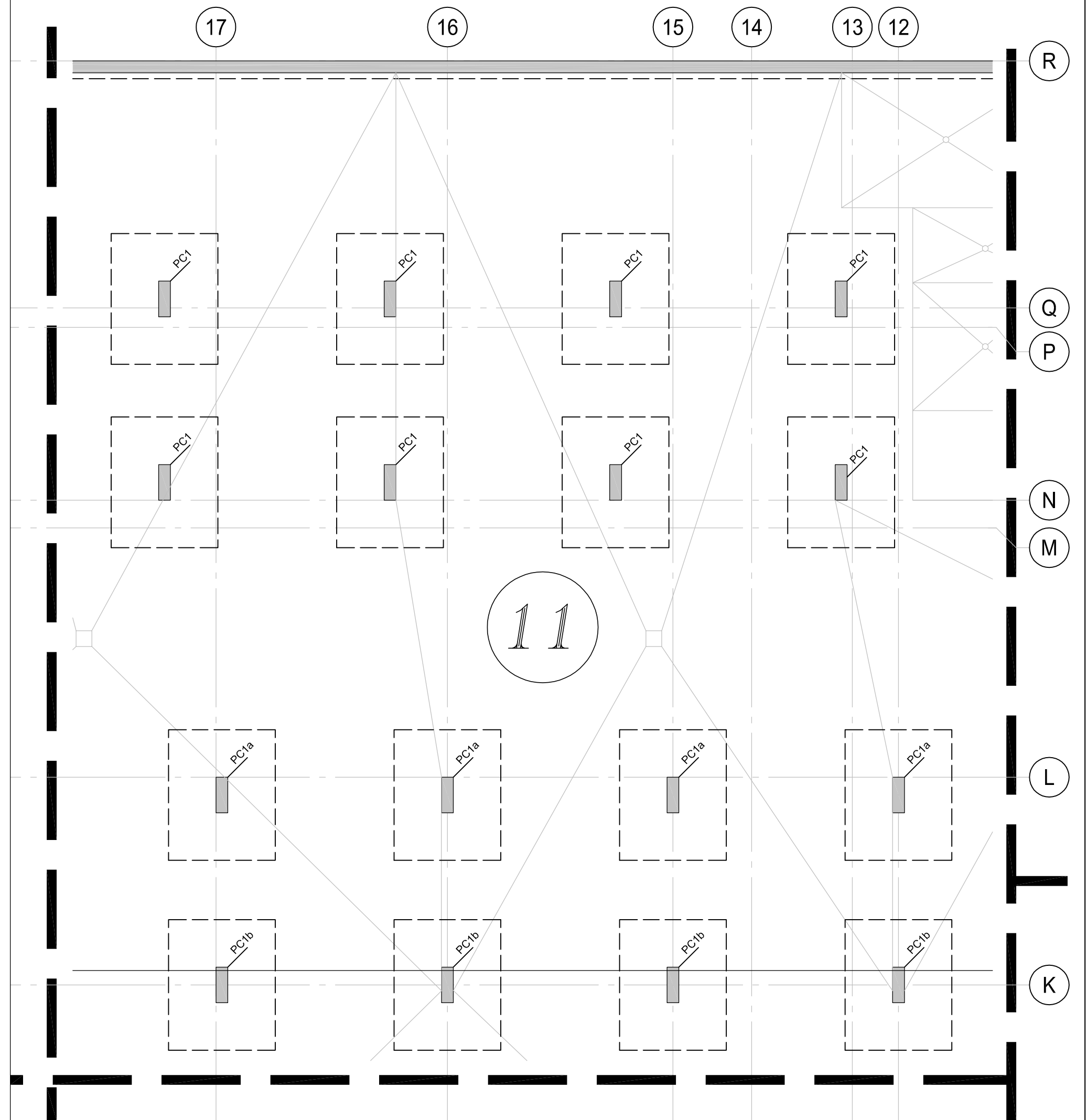
COL (PC1) 1
SCALE: 1:25
(8 NOS REQ'D)



COL (PC1a) 1
SCALE: 1:25
(4 NOS REQ'D)

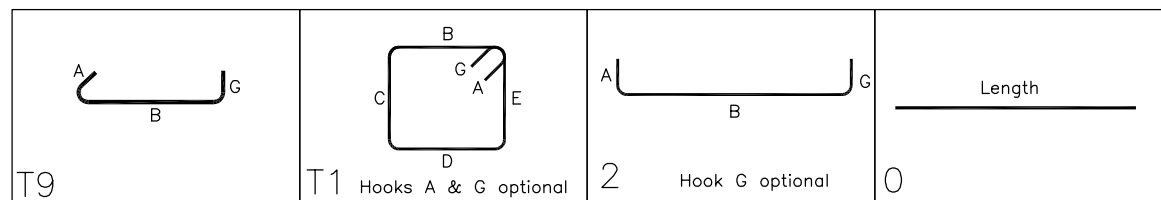


COL (PC1b) 1
SCALE: 1:25
(4 NOS REQ'D)



FOUNDATION PLAN
SCALE: 1:100

Release Code: R3.10 COL F-GF P#11 BENDING DETAILS.												
Bar Mark	Qty	Size	Total length	Type	A'	B'	C'	D'	E'	F'	G'	H'
40 20M	3200		3200									
40 20M	3300		3300									
40 20M	3950		3950									
1001	224	10M	2280	11	100	820	220	820	220		100	
1002	448	10M	420	19	100						100	
2001	80	20M	1360	2	310							
2002	80	20M	1400	2	310							



NOTES

1. ALL STEEL TO BE GRADE 400W
2. STRENGTH OF CONCRETE
35MPa - INTERIOR COLUMNS & WALLS
3. CONCRETE COVER:
TIES --- 40mm

4. COMPRESSION LAP SPICE

BAR SIZE	STANDARD LAP (mm)
10M	300
15M	440
20M	590
25M	730
30M	880
35M	1030

5. TENSION LAP SPICE (L.S.) & DEVELOPMENT LENGTH (Ld)
(FOR WALL OR COL & Ld IN CAP OR FTG.)

BAR SIZE	fc=25		fc=30		fc=35	
	L.S	L.d	L.S	L.d	L.S	L.d
10M	490	380	450	350	420	320
15M	740	570	670	520	620	480
20M	980	750	890	690	830	640
25M	1530	1170	1390	1070	1290	990
30M	1830	1410	1670	1290	1550	1190
35M	2130	1640	1950	1500	1800	1390

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LEGEND		
ALT = ALTERNATE	FF = FAR FACE	OF = OUTSIDE FACE
BOT = BOTTOM	FS = FORM SAVER	SC = SAW CUT END
BIS = BEND INTO SLAB	GID = GROUT IN DOWELS	STG = STAGGER
CB = CORNER BAR	H = HORIZONTAL	STR = STRIPS
CJS = CONTROL JOINT	IF = INSIDE FACE	T = TOP
CUT = CUT TO SUIT SITE COND.	LL = LOWER LAYER	THR/1 = THREAD LEND
DWL = DOWELS	MD = MIDDLE	THR/2 = THREAD ZEND
EE = EACH END	MIN = MINIMUM	UL = UPPER LAYER
EF = EACH FACE	NF = NEAR FACE	V = VERTICAL
EJ = EXPANSION JOINT	OC = ON CENTER	TT = TEMPL. TIES
ES = EACH SIDE		
EW = EACH WAY		

STRAIGHT BARS LABEL FORMAT		BENT BARS LABEL FORMAT		GRADES OF STEEL	
7 B15M X 3600	GRADE LENGTH QUANTITY	7 B15M B1501	GRADE LENGTH QUANTITY	B = GRADE 400W	COATED
				C = GRADE 500W	COATED
				S = STAINLESS	WELDABLE

FOR APPROVAL	MAY/03/21	JU
ISSUE	REMARKS	DATE BY

MANSTEEL REBAR	MANSTEEL REBAR 105 Industrial Road, Richmond Hill, Ontario L4C 2Y4 Canada Phone: 905-737-9797 Fax: 905-737-9704 Email: info@mansteelrebar.com
-------------------	--

PROJECT

FORESTSIDE TOWNHOUSES
-BRAMPTON, ON

PART OF STRUCTURE

COLUMNS FTG-GF -P#11

CUSTOMER :

ROYAL PINE HOMES

DETAILED BY: JU

CHECKED BY:

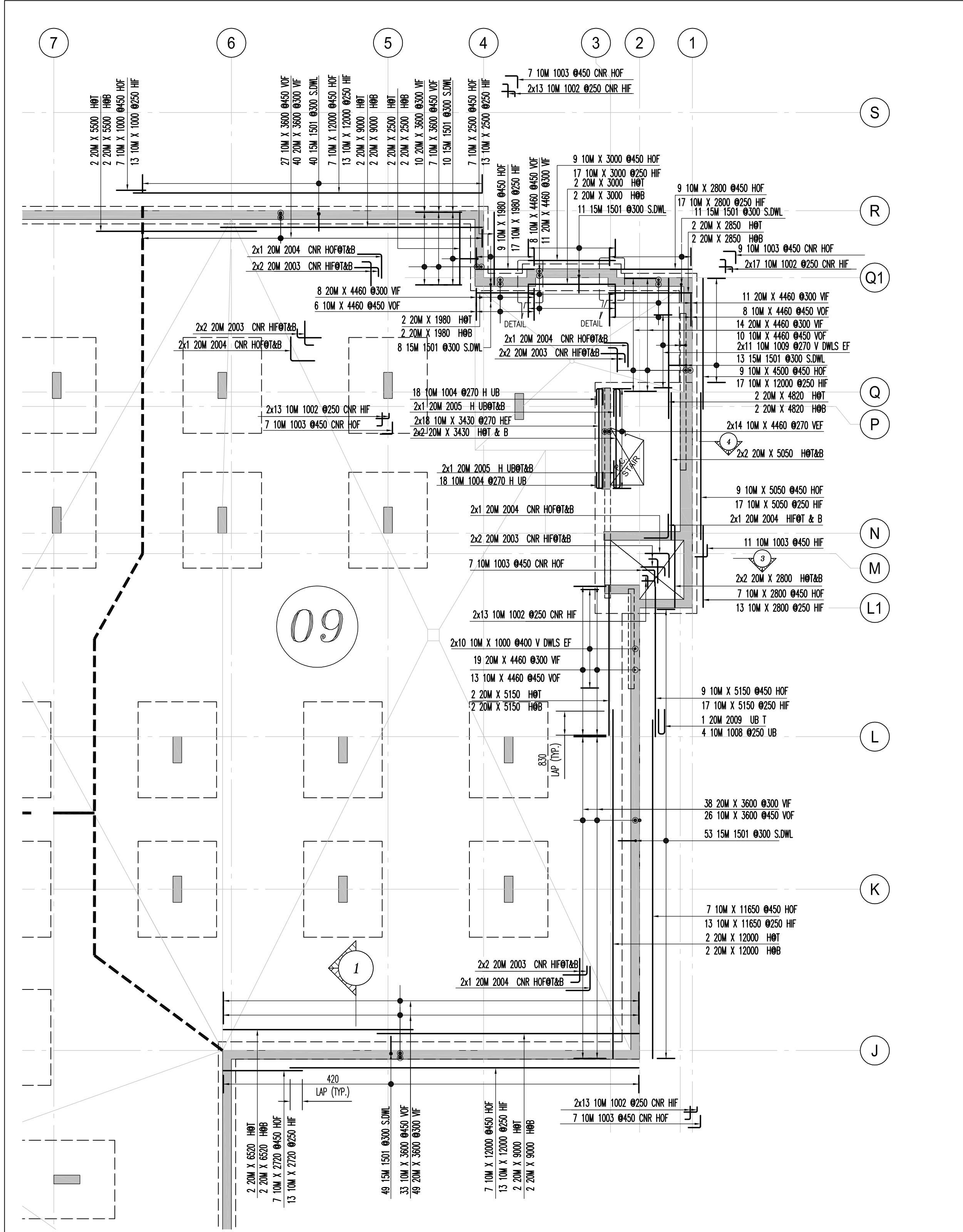
Project no. 2177

SCALE AS SHOWN

DRAWING No.

R3.10

TENSION LAP SPlice (L.S.) & DEVELOPMENT					LENGTH (Ld)	
BAR SIZE	FOR WALL OR COL. & Ld IN CAP OR FTG.)					
	fc=25		fc=30		fc=35	
	L.S	L.d	L.S	L.d	L.S	L.d
10M	490	380	450	350	420	320
15M	740	570	670	520	620	480
20M	980	750	890	690	830	640
25M	1530	1170	1390	1070	1290	990
30M	1830	1410	1670	1290	1550	1190
35M	2130	1640	1950	1500	1800	1390



EXTERNAL WALL PLAN
SCALE: 1:100 (POUR-9)

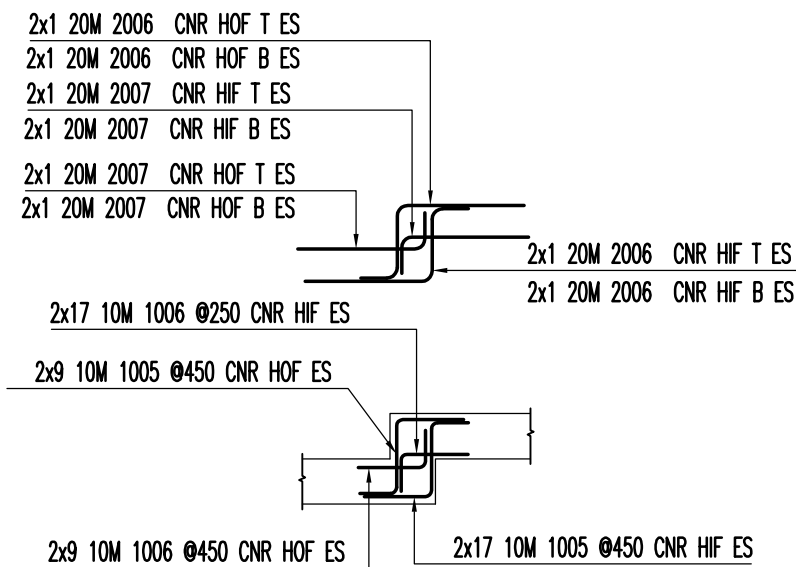
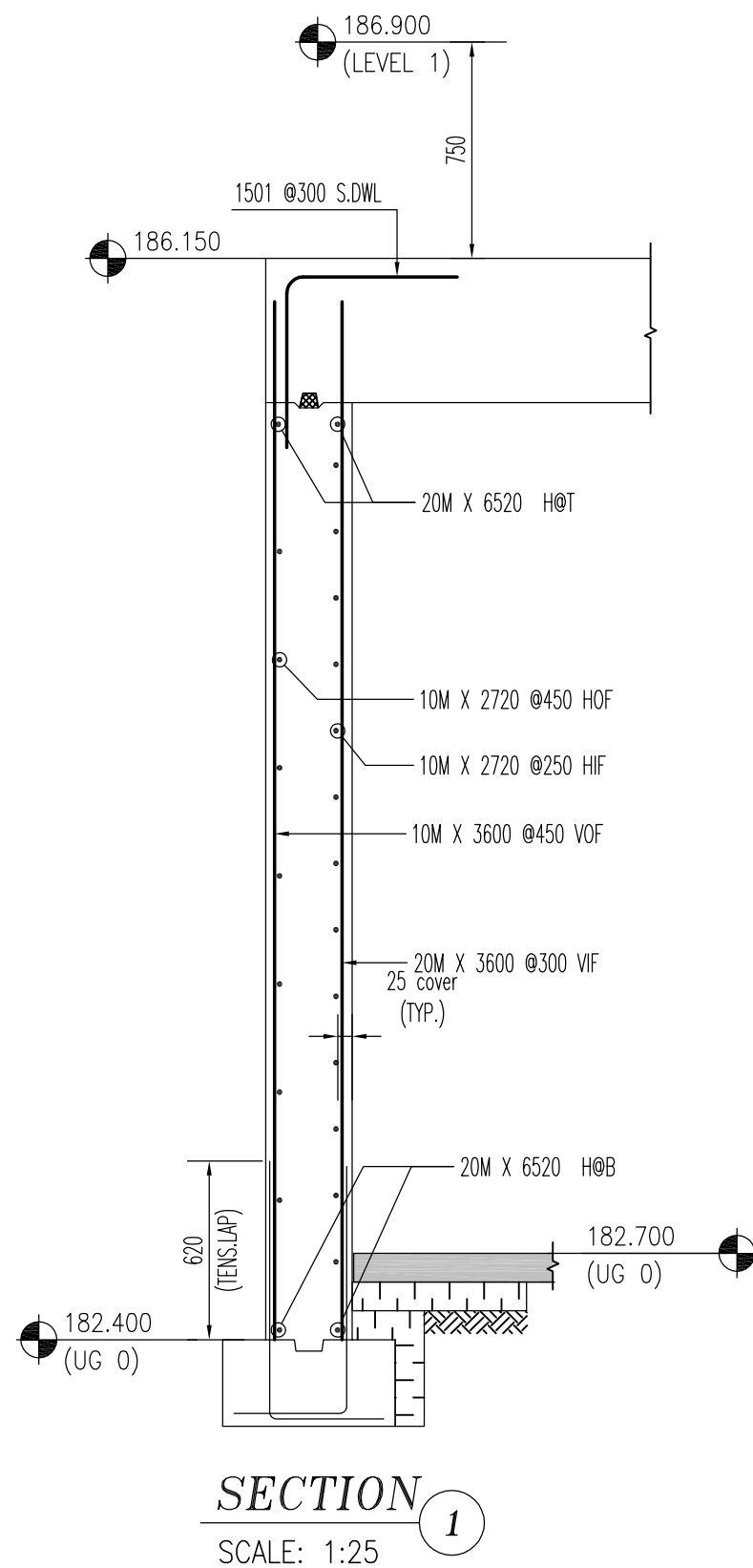
- NOTES**
1. ALL STEEL TO BE GRADE 400W
 2. STRENGTH OF CONCRETE
35MPa - INTERIOR COLUMNS & WALLS
 3. CONCRETE COVER:
VERTICALS

4. COMPRESSION LAP SPICE

BAR SIZE	STANDARD LAP (mm)
10M	300
15M	440
20M	590
25M	730
30M	880
35M	1030

5. TENSION LAP SPICE (L.S.) & DEVELOPMENT LENGTH (Ld)
(FOR WALL OR COIL & Ld IN CAP OR FTG.)

BAR SIZE	fc=25		fc=30		fc=35	
	L.S	L.d	L.S	L.d	L.S	L.d
10M	490	380	450	350	420	320
15M	740	570	670	520	620	480
20M	980	750	890	690	830	640
25M	1530	1170	1390	1070	1290	990
30M	1830	1410	1670	1290	1550	1190
35M	2130	1640	1950	1500	1800	1390



DETAIL
SCALE: 1:50 (POUR-9)
(2 NOS REQ'D)

DRAWING REVIEW	
This review of this drawing does not in any way relieve the contractor of responsibility for its accuracy or for compliance with the contract documents.	
☒ No comment	☐ See comment
☐ Amend & Resubmit	☐ Rejected See Remarks
Submission No. _____	
Project No. 19066	
By AF	
Date 06 May 2021	
JABLONSKY, AST AND PARTNERS Consulting Engineers 3 Concorde Gate, North York, ON M3C 4H9	

Release Code: R4.3 EXT. WALLS F-GF P#9 BENDING DETAILS.													
Bar Mark	Qty	Size	Total length	Type	'a'	'b'	'c'	'd'	'e'	'f'	'g'	'h'	'i'
36 10M	3430		3430										
4 20M	3430		3430										
28 10M	4460		4460										
57 10M	12000		12000										
8 20M	9000		9000										
7 10M	2720		2720										
13 10M	2720		2720										
2 20M	6520		6520										
2 20M	6520		6520										
137 10M	3600		3600										
93 10M	3600		3600										
20 10M	11650		11650										
4 20M	12000		12000										
26 10M	5150		5150										
2 20M	5150		5150										
2 20M	5150		5150										
63 20M	4460		4460										
45 10M	4460		4460										
26 10M	5050		5050										
46 10M	2800		2800										
9 10M	4500		4500										
4 20M	4820		4820										
4 20M	5050		5050										
4 20M	2800		2800										
2 20M	2850		2850										
2 20M	2850		2850										
26 10M	1980		1980										
4 20M	1980		1980										
9 10M	3000		3000										
17 10M	3000		3000										
2 20M	3000		3000										
2 20M	3000		3000										
20 10M	2500		2500										
4 20M	2500		2500										
40 10M	1000		1000										
2 20M	5500		5500										
2 20M	5500		5500										
1003	48 10M	840 17			420								
1002	138 10M	630 2	180		450								
1004	36 10M	1330 17			550	230	550						
1005	52 10M	1200 20			450	500	250						
1006	52 10M	700 17			450	250							
1008	4 10M	1120 17			450	220	450						
1009	22 10M	1080 2	180		900								
2004	12 20M	1660 17			830	830							
2002	20 20M	1140 2	310		830								
2006	8 20M	1600 20			850	500	250						
2007	8 20M	1000 17			850	250							
2005	4 20M	2130 17			950	230	950						
1501	195 15M	1200 17			600	600							
2009	1 20M	1920 17			850	220	850						

- * ELEVATIONS AND DIMENSIONS SHOWN ARE FOR VERIFICATION PURPOSES ONLY AND ARE NOT TO BE USED FOR CONSTRUCTION
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LEGEND		
ALT = ALTERNATE	FF = FAR FACE	OF = OUTSIDE FACE
BOT = BOTTOM	FS = FORM SAVER	SC = SAW CUT END
BIS = BEND INTO SLAB	GID = GROUT 'N DOWELS	STG = STAGGER
CB = CORNER BAR	H = HORIZONTAL	STR = STRIPS
CJS = CONTROL JOINT	IF = INSIDE FACE	T = TOP
CUT = CUT TO SUIT SITE COND.	LL = LOWER LAYER	THR/1 = THREAD LEND
DWL = DOWELS	LL = LOWER LAYER	THR/2 = THREAD ZENDS
EE = EACH END	MID = MIDDLE	UL = UPPER LAYER
EF = EACH FACE	MIN = MINIMUM	UN = UNLESS NOTED
EJ = EXPANSION JOINT	NF = NEAR FACE	V = VERTICAL
ES = EACH SIDE	OC = ON CENTER	TT = TEMPL. TIES
EW = EACH WAY		

STRAIGHT BARS LABEL FORMAT		
7 B15M X 3600	QUANTITY	SPACE LENGTH

BENT BARS LABEL FORMAT		
7 B15M B1501	QUANTITY	SPACE LENGTH

GRADES OF STEEL		
B = GRADE 400W		
C = COATED		
D = DFR8		
S = GALVANIZED		
W = WELDABLE		

FOR APPROVAL
ISSUE
REMARKS
DATE
BY

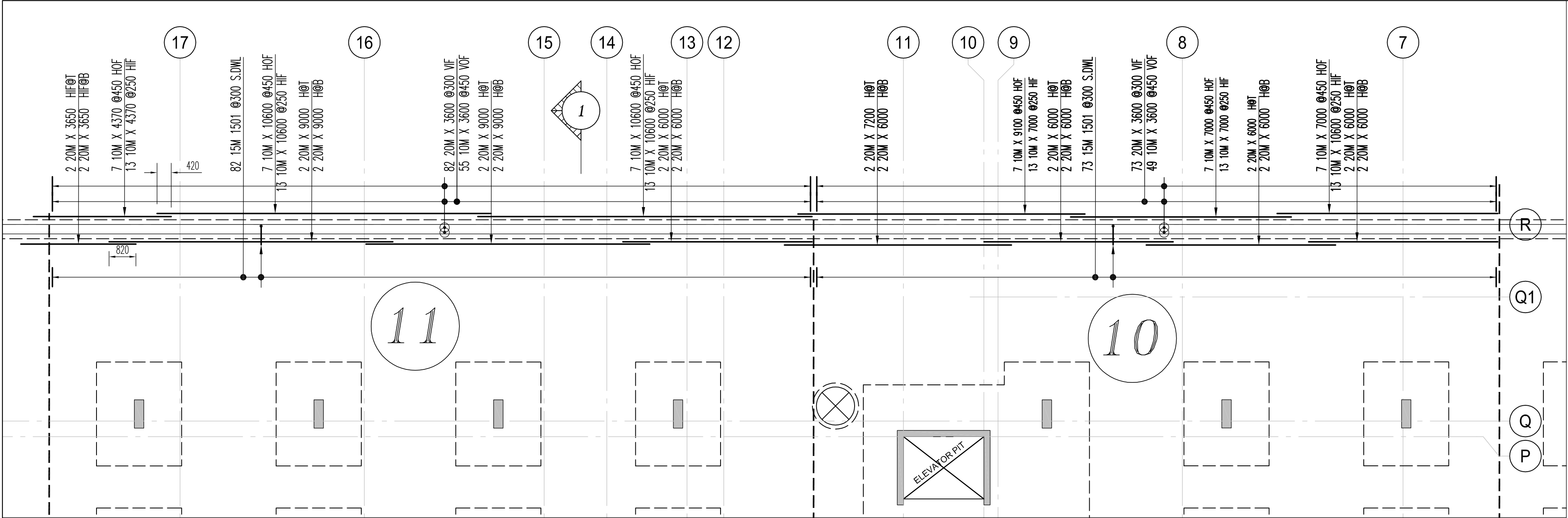
MANSTEEL REBAR
105 Industrial Road, Richmond Hill, Ontario L4C 2Y4 Canada
Phone: 905-737-9797
Fax: 905-737-9704
Email: info@mansteelrebar.com

FORESTSIDE TOWNHOUSES
-BRAMPTON, ON

EXTERIOR WALLS -FTG-GF P#9

CUSTOMER : ROYAL PINE HOMES
Project no. 2177
SCALE AS SHOWN
DRAWING No.

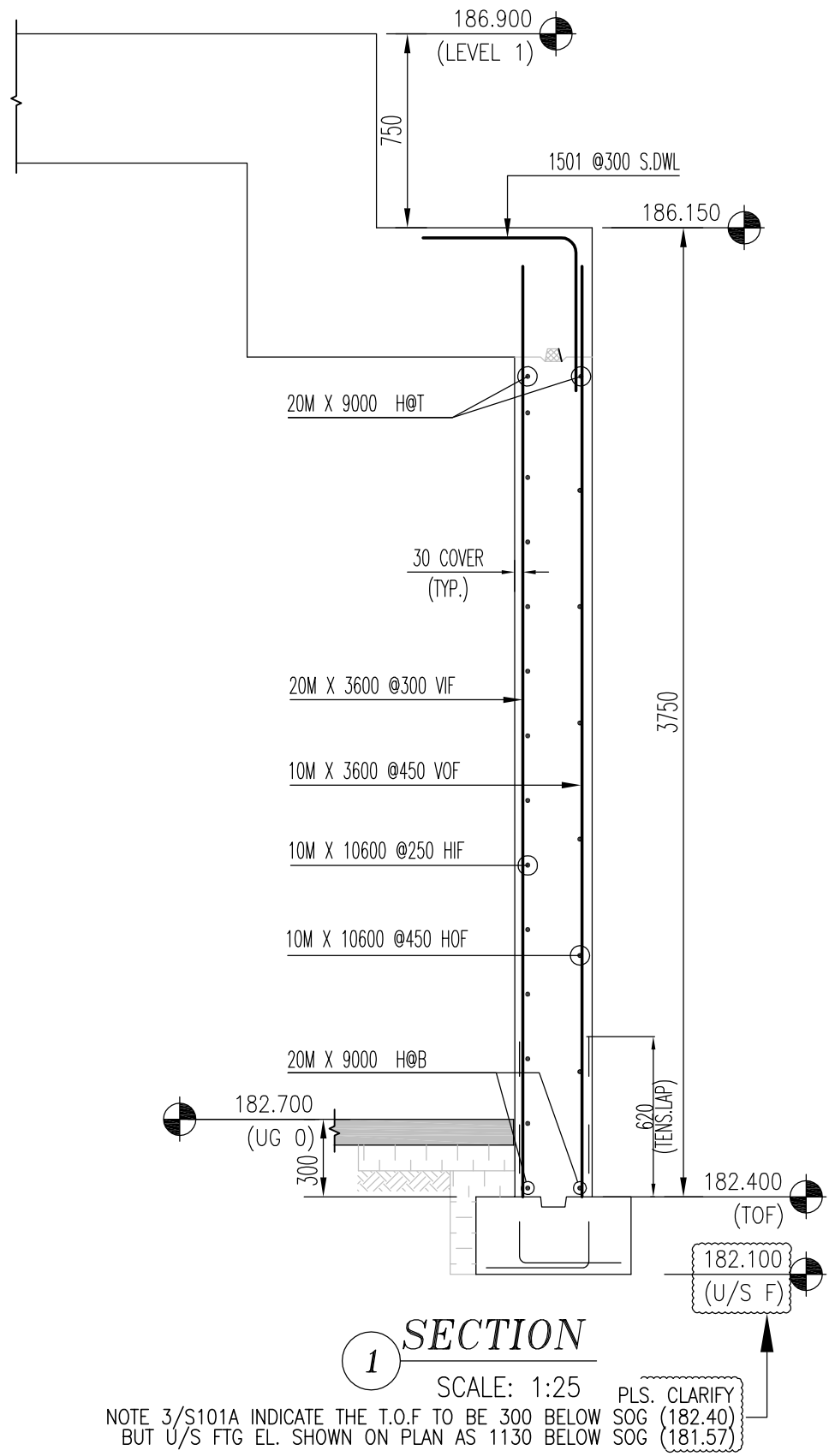
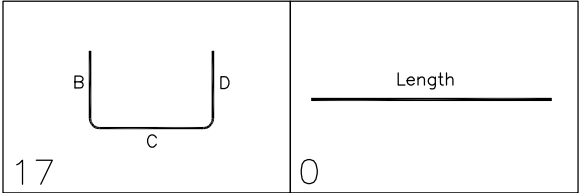
DETAILED BY: JU
CHECKED BY:
R4.3



EXTERNAL WALL PLAN
SCALE: 1:100

Release Code: R4.4 EXT WALLS F-GF P##BENDING DETAILS.														
Bar Mark	Qty	Size	Total length	Type	'A'	'B'	'C'	'D'	'E'	'F'	'G'	'H'	'J'	'K'
14	20M	6000				6000								
40	10M	7000				7000								
13	10M	10600				10600								
7	10M	9000				9000								
2	20M	7200				7200								
73	20M	3600				3600								
49	10M	3600				3600								
1501	73	15M	1200	17		600	600							

Release Code: R4.4 EXT WALLS F-GF P##BENDING DETAILS.														
Bar Mark	Qty	Size	Total length	Type	'A'	'B'	'C'	'D'	'E'	'F'	'G'	'H'	'J'	'K'
4	20M	6000				6000								
40	10M	10600				10600								
8	20M	9000				9000								
20	10M	4370				4370								
4	20M	3650				3650								
82	20M	3600				3600								
55	10M	3600				3600								
1501	82	15M	1200	17		600	600							



NOTE 3/S101A INDICATE THE T.O.F TO BE 300 BELOW SOG (182.40) BUT U/S FTG EL. SHOWN ON PLAN AS 1130 BELOW SOG (181.57)

- NOTES**
1. ALL STEEL TO BE GRADE 400W
 2. STRENGTH OF CONCRETE
35MPa - INTERIOR COLUMNS & WALLS

3. CONCRETE COVER:
TIES --- 30mm

4. COMPRESSION LAP SPLICE

BAR SIZE	STANDARD LAP (mm)
10M	300
15M	440
20M	590
25M	730
30M	880
35M	1030

5. TENSION LAP SPLICE (Ls) & DEVELOPMENT LENGTH (Ld)
(FOR WALL OR COL & Ld IN CAP OR FTG.)

BAR SIZE	fc=25		fc=30		fc=35	
	L.S	L.d	L.S	L.d	L.S	L.d
10M	490	380	450	350	420	320
15M	740	570	670	520	620	480
20M	980	750	890	690	830	640
25M	1530	1170	1390	1070	1290	990
30M	1830	1410	1670	1290	1550	1190
35M	2130	1640	1950	1500	1800	1390

DRAWING REVIEW

This review of this drawing does not in any way relieve the contractor of responsibility for its accuracy or for compliance with the contract documents.

☒ No comment	☐ See comment
☐ Amend & Resubmit	☐ Rejected See Remarks

Submission No. _____
Project No. **19066**
By **AF**
Date **06 May 2021**

JABLONSKY, AST AND PARTNERS
Consulting Engineers
3 Concorde Gate, North York, ON M3C 4H8

- * ELEVATIONS AND DIMENSIONS SHOWN ARE FOR VERIFICATION PURPOSES ONLY AND ARE NOT TO BE USED FOR CONSTRUCTION
- * ALL CONFIRMS/VERIFIES WILL BE ASSUMED CORRECT AND APPROVED AS IS UNLESS COMMENTED ON THE APPROVAL DRWGS

LEGEND		
ALT = ALTERNATE	FF = FAR FACE	OF = OUTSIDE FACE
BOT = BOTTOM	FS = FORM SAVER	SC = SAW CUT END
BIS = BEND INTO SLAB	GID = GROUT IN DOWELS	STG = STAGGER
CB = CORNER BAR	H = HORIZONTAL	STR = STRIPS
CJS = CONTROL JOINT	IF = INSIDE FACE	T = TOP
CUS = CUT TO SUIT SITE COND.	LL = LOWER LAYER	THR/2 = THREAD LEND
DWL = DOWELS	MD = MIDDLE	THR/2 = THREAD ZENDS
EE = EACH END	MIN = MINIMUM	UL = UPPER LAYER
EF = EACH FACE	NF = NEAR FACE	UNLESS NOTED
EJ = EXPANSION JOINT	OC = ON CENTER	V = VERTICAL
ES = EACH SIDE	TT = TIE	TT = TIE
EW = EACH WAY		

STRAIGHT BARS LABEL FORMAT	BENT BARS LABEL FORMAT	GRADES OF STEEL
7 B15M X 3600 QUANTITY SPACE LENGTH	7 B15M B1501 QUANTITY SPACE LENGTH BEND WORK	B = GRADE 400W C = GRADE 500W E = GRADE 600W S = STAINLESS W = WELDABLE

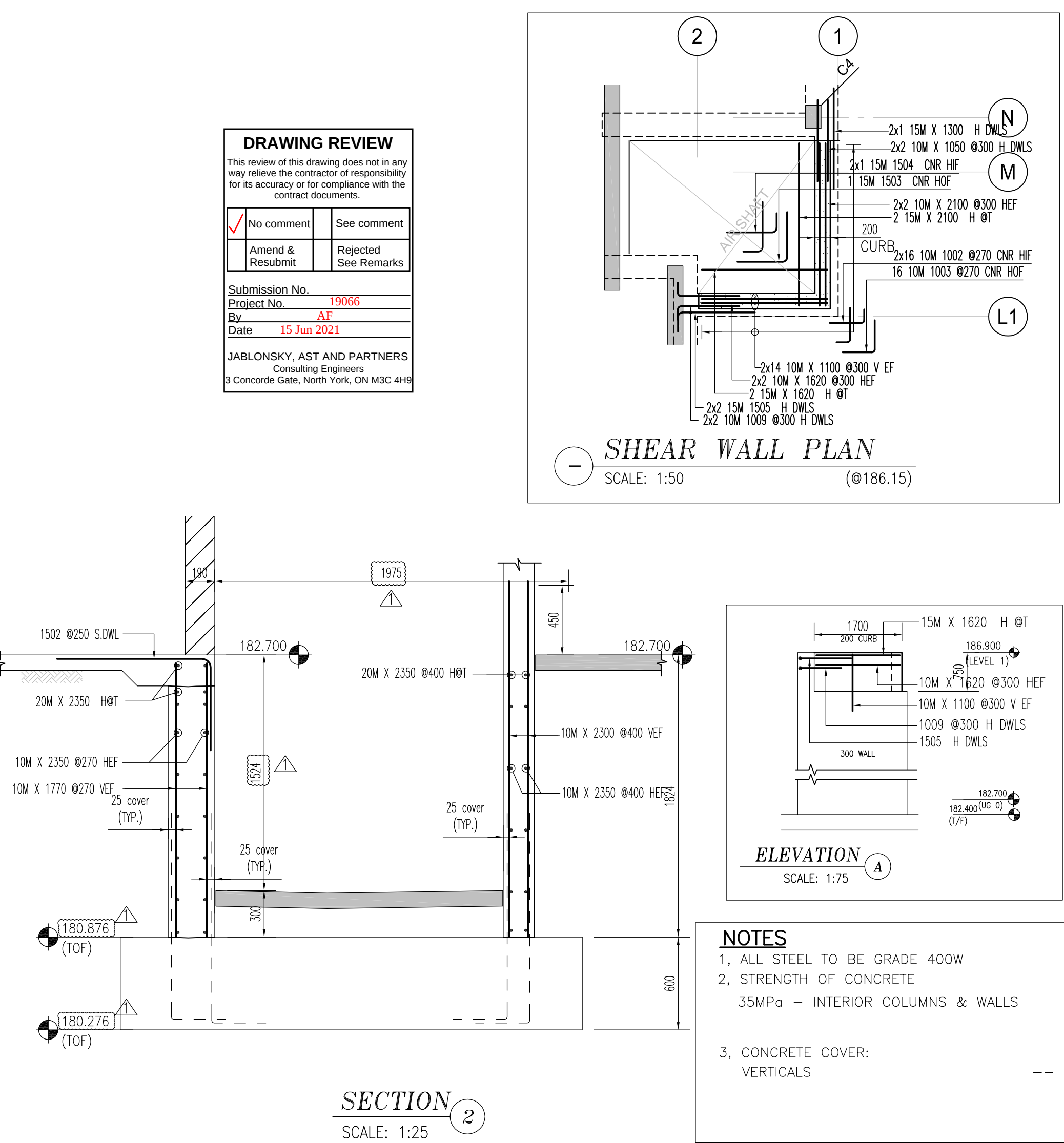
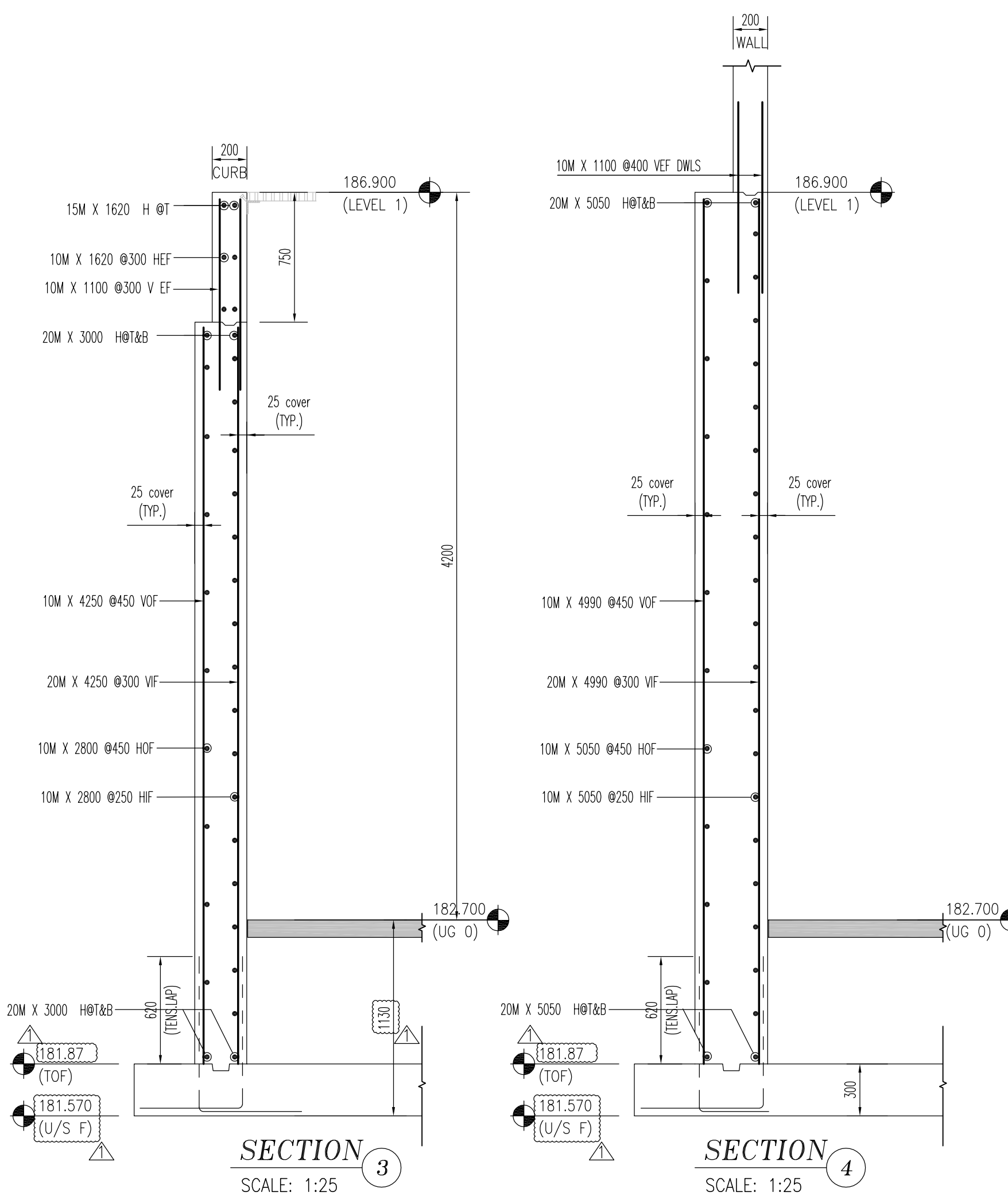
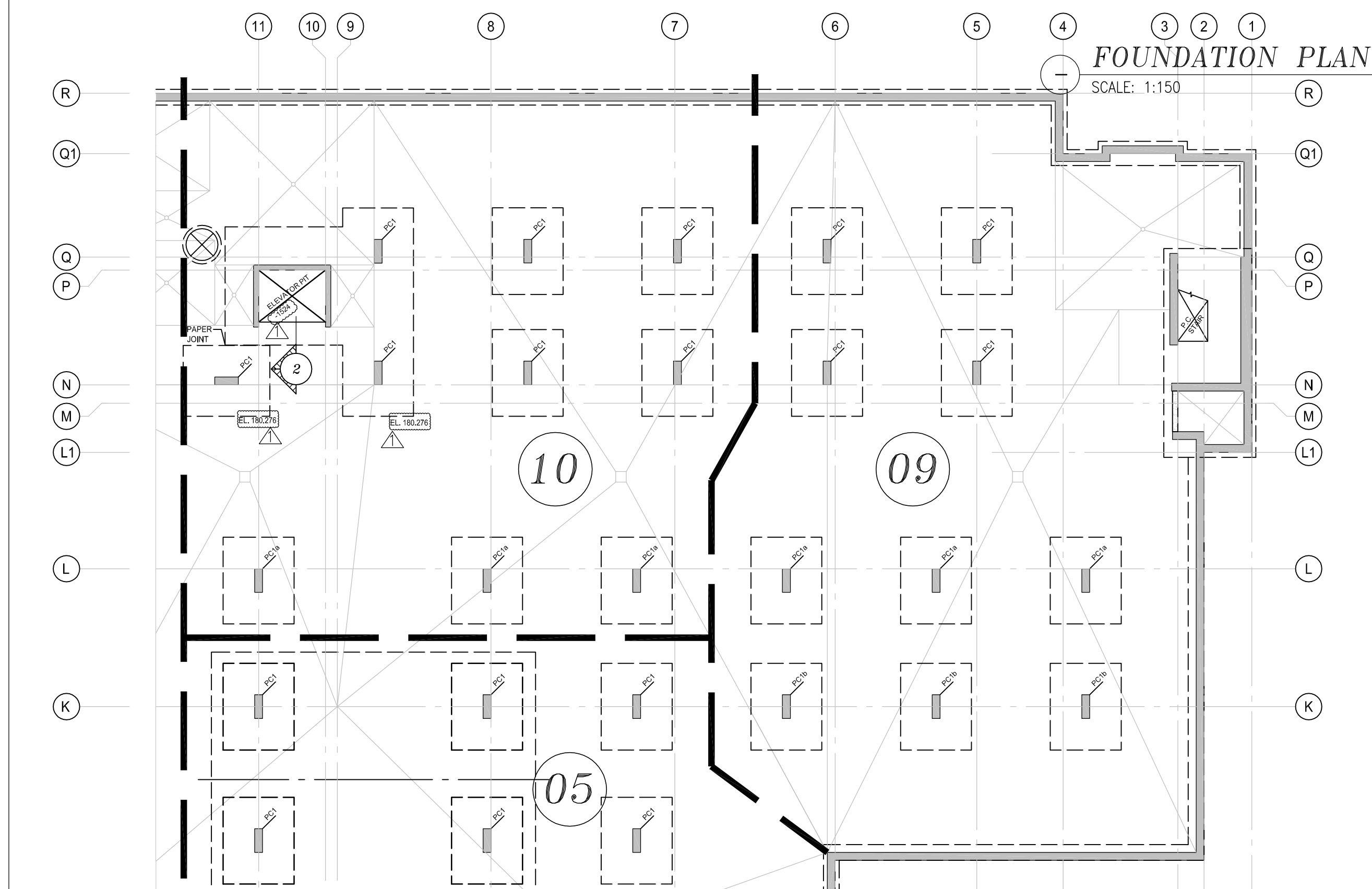
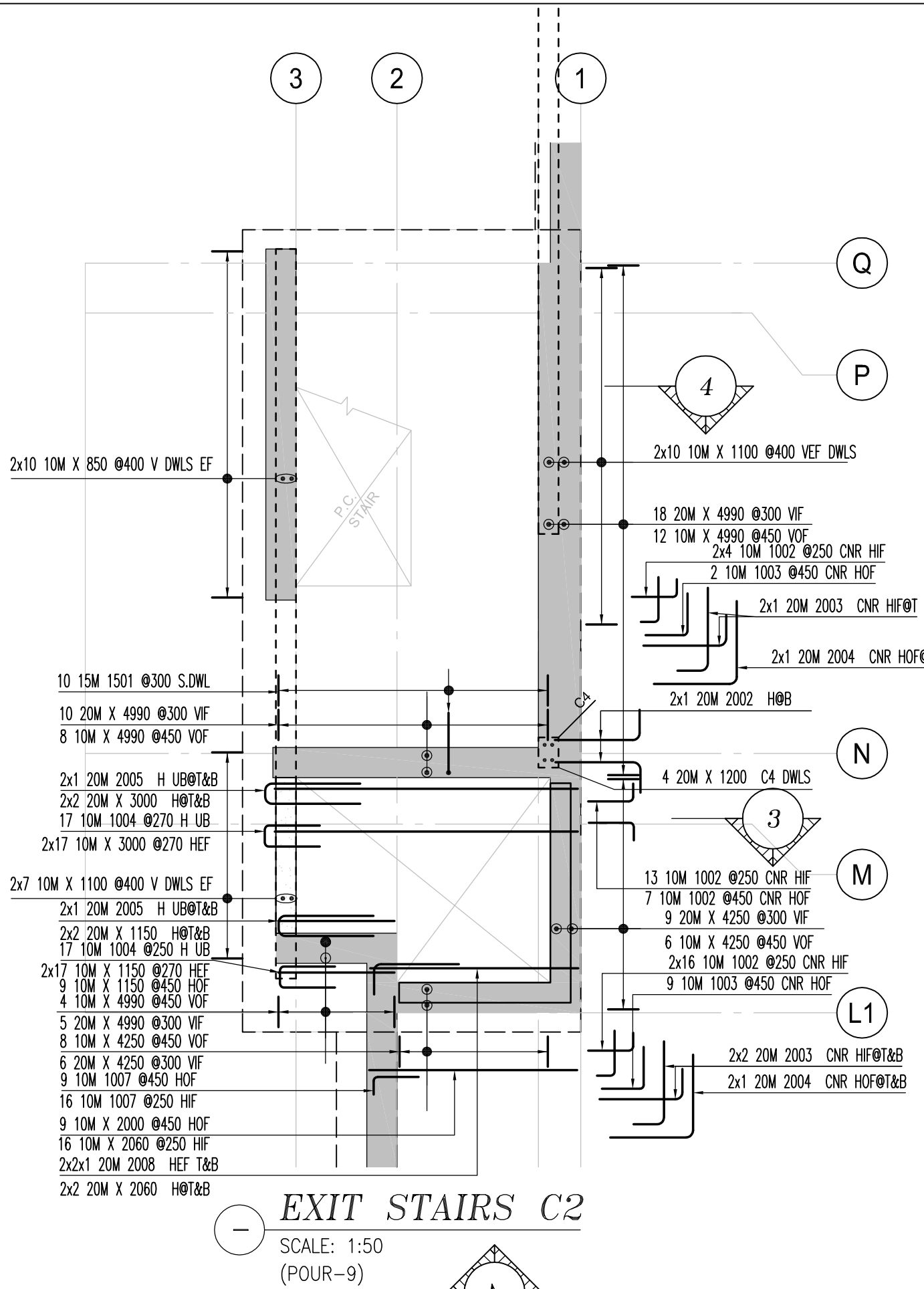
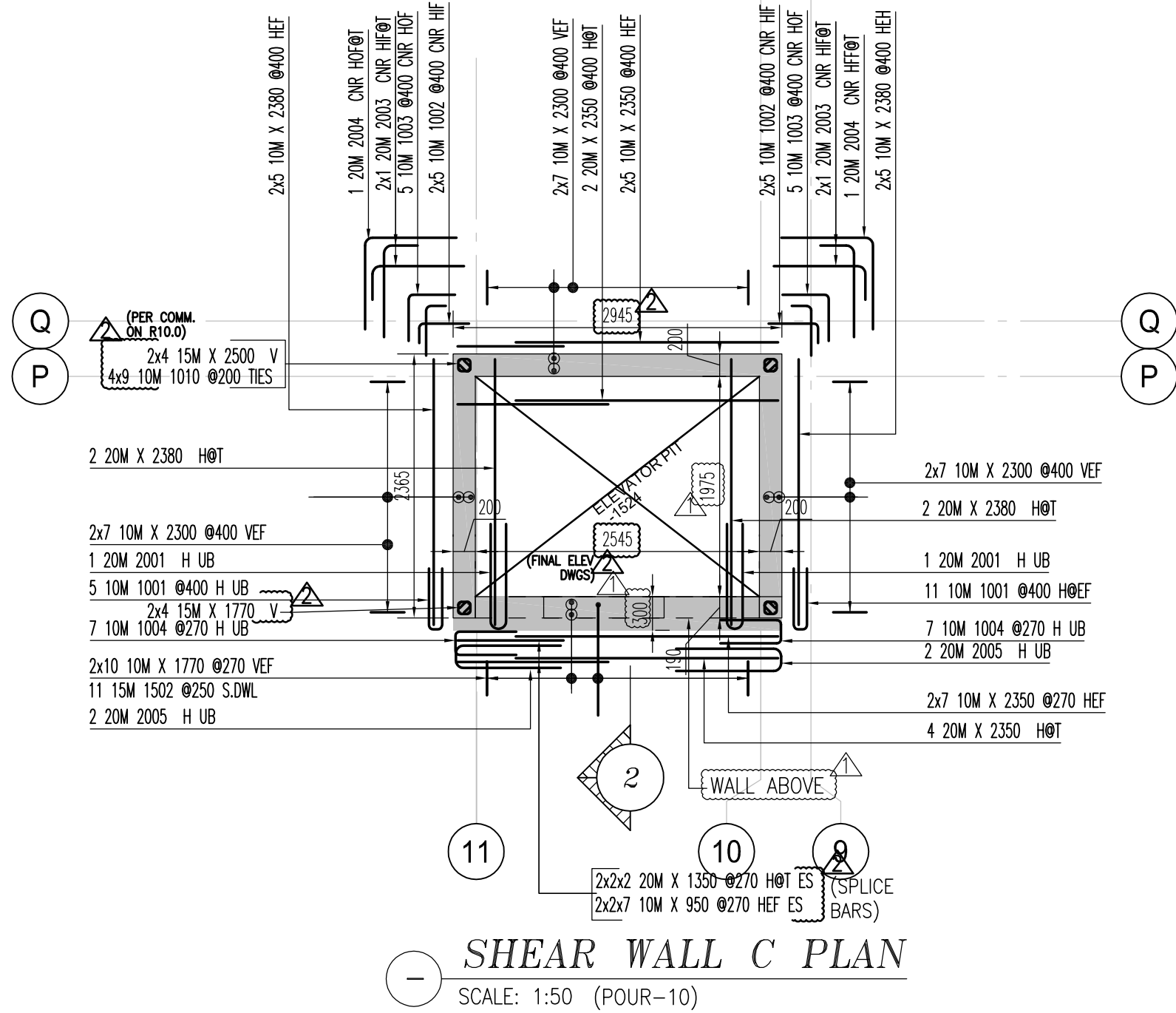
FOR APPROVAL	MAY/03/21	JU
ISSUE	REMARKS	DATE
		BY

MANSTEEL REBAR	MANSTEEL REBAR 105 Industrial Road, Richmond Hill, Ontario L4C 2Y4 Canada Phone: 905-737-9797 Fax: 905-737-9704 Email: info@mansteelrebar.com
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PROJECT
FORESTSIDE TOWNHOUSES
-BRAMPTON, ON

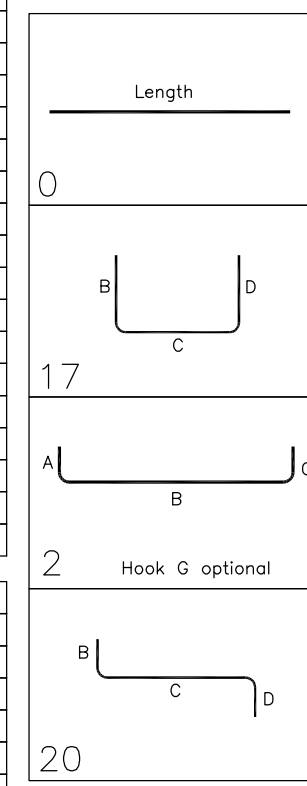
EXTERIOR WALLS -FTG-GF P#10,11

CUSTOMER :	Project no. 2177
ROYAL PINE HOMES	SCALE AS SHOWN
DETAILED BY: JU	DRAWING No.
CHECKED BY:	R4.4



Release Code: R5.2 SW F-GF P#9										BENDING DETAILS.																				
Bar Mark	Qty	Size	Total length	Type	X	Y	Z	W	V	U	T	S	R	Q	P	O	N	M	L	K	J	I	H	G	F	E	D	C	B	A
	33	20M	4990																											
	15	20M	4250																											
	16	10M	2660																											
	34	10M	3000																											
	4	20M	3000																											
	4	20M	2660																											
	16	10M	4250																											
	24	10M	4990																											
	43	10M	1550																											
	4	20M	1550																											
	20	10M	850																											
	9	10M	2000																											
	62	10M	1000																											
	4	10M	1550																											
	4	10M	1520																											
	4	10M	2100																											
	2	15M	1520																											
	2	15M	2100																											
	4	20M	1200																											
	2	15M	1200																											
1007	25	10M	630	17																										
1002	92	10M	630	2	100																									
1003	27	10M	840	17																										
1009	4	10M	980	2	100																									
1004	34	10M	1320	17																										
1004	4	20M	1660	17																										
1003	6	20M	1140	2	310																									
1005	4	20M	2100	17																										
1503	1	15M	1500	17																										
1504	2	15M	150	7	260																									
2008	4	20M	1160	17																										
2002	2	20M	1160	2	310																									
1505	4	15M	1260	2	260																									
1501	10	15M	1200	17																										

Release Code: R5.2 SW F-GF P#10										BENDING DETAILS.																				
Bar Mark	Qty	Size	Total length	Type	X	Y	Z	W	V	U	T	S	R	Q	P	O	N	M	L	K	J	I	H	G	F	E	D	C	B	A
	8	15M	770																											
	8	15M	250																											
	8	20M	1350																											
	20	10M	950																											
1010	36	10M	680	11	100																									



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LEGEND

ALT = ALTERNATE	FF = FAR FACE	OF = OUTSIDE FACE
BOT = BOTTOM	FS = FORM SAKER	SC = SAW CUT END
BIS = BEND INTO SLAB	GID = GROUT IN DOWELS	STG = STAGGER
CB = CORNER BAR	H = HORIZONTAL	STR = STRIPPS
CU = CONTROL JOINT	IF = INSIDE FACE	T = TOP
GUT = GUT TO GUT SITE COND.	LR = LOWER LAYER	THR/2 = THREAD LENG
DWL = DOWELS	MD = MIDDLE	THR/2 = THREAD LENG
EE = EACH END	MIN = MINIMUM	UL = UPPER LAYER
EF = EACH FACE	NF = NEAR FACE	V = VERTICAL
EJ = EXPANSION JOINT	OC = ON CENTER	TT = TIE
ES = EACH SIDE		
EW = EACH WAY		

STRAIGHT BARS LABEL FORMAT

7 B15M X 3600

BENT BARS LABEL FORMAT

7 B15M B1501

GRADES OF STEEL

B = GRADE 400W
C = COATED
F = F660
S = STAINLESS
W = WELDABLE

ISSUE	REMARKS	DATE	BY
2	REV PER FINAL ELEVATOR DWG'S & ADDED ZONE BARS	JUN/09/21	JU
1	REV PER COMM. -FOR_FAB.	MAY/10/21	JU
0	FOR APPROVAL	MAY/03/21	JU

MANSTEEL REBAR

105 Industrial Road, Richmond Hill, Ontario L4C 2Y4 Canada
Phone: 905-737-9797
Fax: 905-737-9704
Email: info@mansteelrebar.com

FORESTSIDE TOWNHOUSES -BRAMPTON, ON

SHEAR WALLS FTG-GF -P#9,10

CUSTOMER : ROYAL PINE HOMES

Project no. 2177

SCALE: AS SHOWN

DETAILED BY: JU

BAR LIST No.

CHANGED BY:

DRAWING No. R5.2

NOTES

1. ALL STEEL TO BE GRADE 400W
2. STRENGTH OF CONCRETE 35MPa - INTERIOR COLUMNS & WALLS

3. CONCRETE COVER: VERTICALS

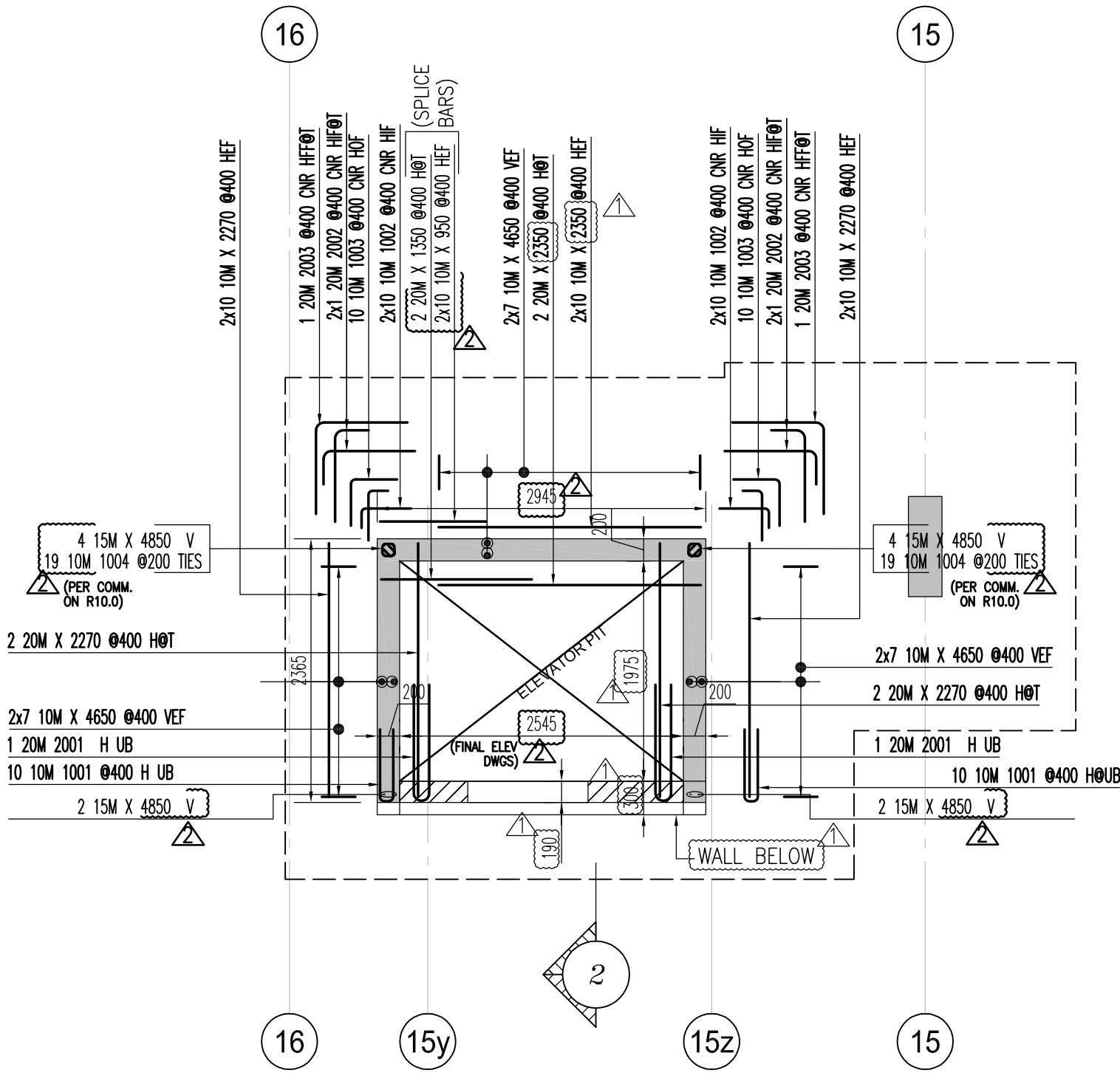
-- 30mm

4. COMPRESSION LAP SPLICE

BAR SIZE	STANDARD LAP (mm)
10M	300
15M	440
20M	590
25M	730
30M	880
35M	1030

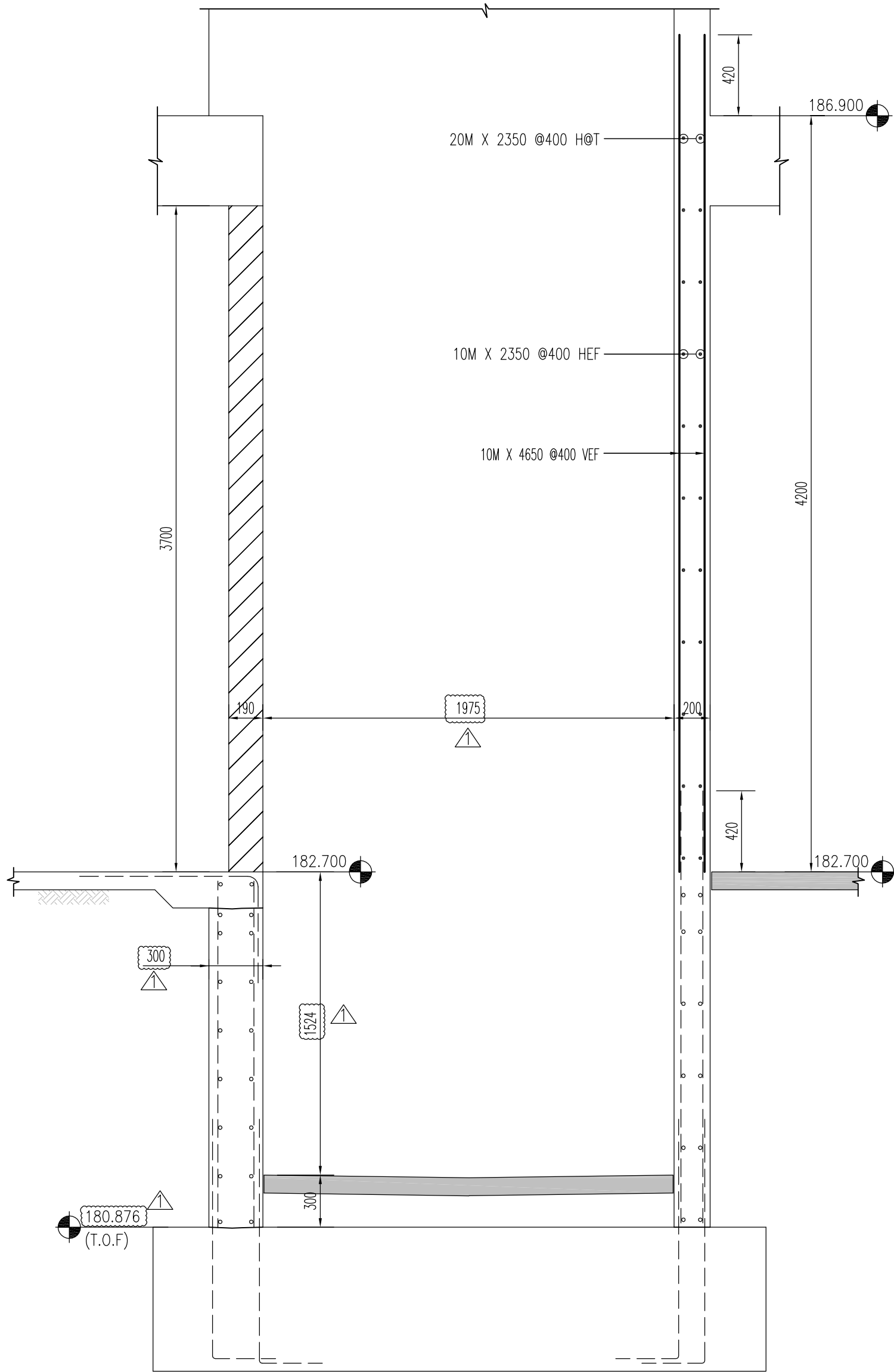
5. TENSION LAP SPLICE (Ls) & DEVELOPMENT LENGTH (Ld) (FOR WALL OR COL & Ld IN CAP OR FTG.)

BAR SIZE	fc=25		fc=30		fc=35	
	L.S	L.d	L.S	L.d	L.S	L.d
10M	490	380	450	350	420	320
15M	740	570	670	520	620	480
20M	980	750	890	690	830	640
25M	1530	1170	1390	1070	1290	990
30M	1830	1410	1670	1290	1550	1190
35M	2130	1640	1950	1500	1800	1390



SHEAR WALL A PLAN

SCALE: 1:50
ABOVE 182.700 LEVEL

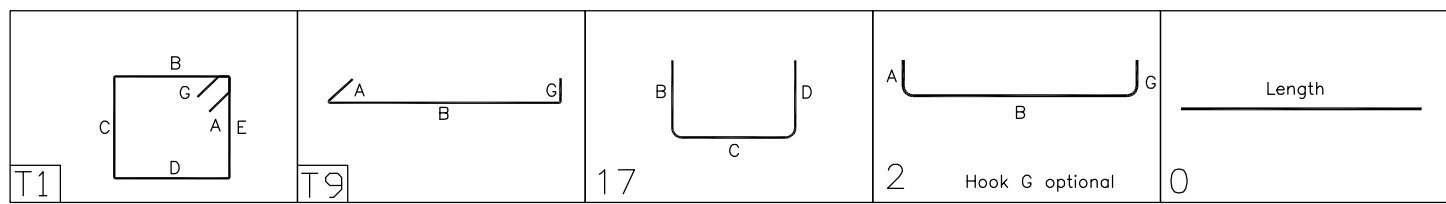


SECTION 2

SCALE: 1:25

Release Code: R5.3 ELEV SW UG-GF P#2 BENDING DETAILS.													
Bar Mark	Qty	Size	Total length	Type	A'	B'	C'	D'	E'	F'	G'	H'	I'
42	10M	4650				4650							
20	10M	2350				2350							
40	10M	2270				2270							
4	20M	2270				2270							
2	20M	2350				2350							
1001	20	10M	1630	T		650	130	650					
1002	20	10M	840	T		420	420						
1002	40	10M	630	2	180	450							
2002	4	20M	1140	2	300	830							
2003	2	20M	1660	T		830	830						
2001	2	20M	2260	T		1050	160	1050					

Release Code: R5.3 ELEV UG-GF P#2 P BENDING DETAILS.													
Bar Mark	Qty	Size	Total length	Type	A'	B'	C'	D'	E'	F'	G'	H'	I'
20	10M	950				950							
2	20M	1350				1350							
12	15M	4850				4850							
1004	38	10M	680	T	100	120	120	120	120		100	70	



NOTES

1. ALL STEEL TO BE GRADE 400W
2. STRENGTH OF CONCRETE
35MPa - INTERIOR COLUMNS & WALLS

3. CONCRETE COVER:
VERTICALS

-- 30mm

4. COMPRESSION LAP SPLICE

BAR SIZE	STANDARD LAP (mm)
10M	300
15M	440
20M	590
25M	730
30M	880
35M	1030

5. TENSION LAP SPLICE (L.S.) & DEVELOPMENT LENGTH (Ld)
(FOR WALL OR COL & Ld IN CAP OR FTG.)

BAR SIZE	fc=25		fc=30		fc=35	
	L.S	L.d	L.S	L.d	L.S	L.d
10M	490	380	450	350	420	320
15M	740	570	670	520	620	480
20M	980	750	890	690	830	640
25M	1530	1170	1390	1070	1290	990
30M	1830	1410	1670	1290	1550	1190
35M	2130	1640	1950	1500	1800	1390

DRAWING REVIEW

This review of this drawing does not in any way relieve the contractor of responsibility for its accuracy or for compliance with the contract documents.

☒ No comment	☐ See comment
☐ Amend & Resubmit	☐ Rejected See Remarks

Submission No. _____
Project No. 19066
By AF
Date 15 Jun 2021

JABLONSKY, AST AND PARTNERS
Consulting Engineers
3 Concorde Gate, North York, ON M3C 4H9

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LEGEND		
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BIS = BEND INTO SLAB	GID = GROUT IN DOWELS	STG = STAGGER
CB = CORNER BAR	H = HORIZONTAL	STR = STRIPS
CJS = CONTROL JOINT	IF = INSIDE FACE	T = TOP
CUT = CUT TO SUIT SITE COND.	LL = LOWER LAYER	THR/2 = THREAD LEND
DWL = DOWELS	MD = MIDDLE	THR/2 = THREAD ZENDS
EE = EACH END	MIN = MINIMUM	UL = UPPER LAYER
EF = EACH FACE	NF = NEAR FACE	V = VERTICAL
EJ = EXPANSION JOINT	OC = ON CENTER	TT = TIE
ES = EACH SIDE		
EW = EACH WAY		

STRAIGHT BARS LABEL FORMAT		
7 B15M X 3600	7 B15M B1501	GRADES OF STEEL
QUANTITY	QUANTITY	B = GRADE 400W
SIZE	SIZE	C = EPOXY COATED
LENGTH	LENGTH	F = FR60
		G = GALVANIZED
		S = STAINLESS
		W = WELDABLE

1			
2	REV PER FINAL ELEVATOR DWG'S & ADDED ZONE BARS	JUN/09/21	JU
1	FOR FAB.	MAY/05/21	JU
0	FOR APPROVAL	MAY/04/21	JU
ISSUE	REMARKS	DATE	BY

MANSTEEL REBAR	MANSTEEL REBAR 105 Industrial Road, Richmond Hill, Ontario L4C 2Y4 Canada Phone: 905-737-9797 Fax: 905-737-9704 Email: info@mansteelrebar.com
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PROJECT
FORESTSIDE TOWNHOUSES
-BRAMPTON, ON

PART OF STRUCTURE
ELEVATOR A SHEAR WALLS UG-GF -P#2

CUSTOMER :	Project no. 2177
ROYAL PINE HOMES	SCALE AS SHOWN
DETAILED BY: JU	DRAWING No.
CHECKED BY:	R5.3