

KEY PLAN

REV. NO.	DESCRIPTION	DATE	BY	APPD.

THIS DRAWING IS ON LOAN ONLY, NOT TO BE COPIED OR DUPLICATED IN ANY WAY WITHOUT WRITTEN CONSENT FROM MCINTOSH PERRY.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS ON SITE.

ANY DISCREPANCIES ARE TO BE REPORTED TO MCINTOSH PERRY

THIS DRAWING SHALL NOT BE SCALED.

THIS DRAWING IS NOT TO BE USED FOR CONSTRUCTION UNTIL APPROVED.

THE CLIENT EXPRESSLY AGREES THAT IT HAS ENTERED INTO THIS AGREEMENT WITH MCINTOSH PERRY, BOTH ON ITS OWN BEHALF AND AS AGENT ON BEHALF OF ITS EMPLOYEES AND PRINCIPALS. THE CLIENT EXPRESSLY AGREES THAT MCINTOSH PERRY'S EMPLOYEES AND PRINCIPALS SHALL HAVE NO PERSONAL LIABILITY TO THE CLIENT IN RESPECT OF A CLAIM, WHETHER IN CONTRACT, TORT AND/OR ANY OTHER CAUSE OF ACTION IN LAW. ACCORDINGLY, THE CLIENT EXPRESSLY AGREES THAT IT WILL BRING NO PROCEEDINGS AND TAKE NO ACTION IN ANY COURT OF LAW AGAINST ANY OF MCINTOSH PERRY EMPLOYEES OR PRINCIPALS IN THEIR PERSONAL CAPACITY.

IMPORTANT

- ☐ PRELIMINARY : NOT TO BE USED FOR CONSTRUCTION OR FABRICATION.
- ☐ APPROVED : FOR CONSTRUCTION OR FABRICATION.
- ☐ FINAL : SUBJECT TO LOCAL APPROVAL.
- ☐ REVISED : DESTROY ALL PREVIOUS COPIES.

APPROVED

J. LEE  
100203648  
Aug 4, 2021  
PROVINCE OF ONTARIO

DATE

CLIENT  
IRONSTONE FORMING LTD.  
16 GRIGGSDEN AVE.  
ETOBICOKE, ONT., M9P2Z7.

PROJECT  
ROYAL PINE HOMES  
FORESTSIDE TOWNHOUSES PH.3  
ATTMAR DR. & THE GORE RD  
BRAMPTON, ONTARIO

TITLE  
SHORING TO PART PLAN.  
GROUND FL.

SCALE AS NOTED	DATE AUG, 2021
DRAWN N.B.	CHECKED

**McINTOSH PERRY**  
2640 HIGHWAY 7, SUITE 200 VAUGHAN, ON L4K 1V9  
Tel: 905.856.5200 Fax: 905.695.0221  
Toll Free: 1.888.348.8991 www.mcintoshperry.com

DRAWING NUMBER	4-G-212858-06	REV. 
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(FOR CONTINUATION, REFER TO DRAWING 4-G-212858-04)

(FOR CONTINUATION, REFER TO DRAWING 4-G-212858-07)

FOR GENERAL NOTES REFER TO  
DRAWING 4-G-212858-05

REVIEW OF RESHORING SHOP DRAWINGS.  
1. THE REVIEW OF THIS DRAWING IS FOR GENERAL CONFORMANCE WITH THE TENDER DOCUMENTS.  
2. THE RESPONSIBILITY FOR THE ADEQUACY AND ACCURACY OF THIS DRAWING REMAINS WITH THE FORMWORK CONTRACTOR AND HIS ENGINEER WHOSE SEAL APPEARS ON THIS DRAWING.

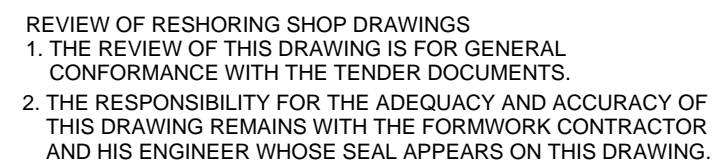
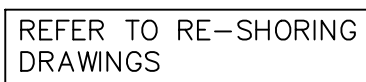
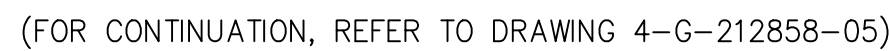
JABLONSKY, AST AND PARTNERS  
CONSULTING ENGINEERS  
SIGNED: MB  
DATED: 16 Aug 2021

DESIGN NOTES  
UNDER 200 SLAB.....ALUMA BEAM JOIST @488mm(19.2") c/c MAX.  
UNDER 400 DROP.....ALUMA BEAM JOIST @305mm(12") c/c MAX.  
UNDER 500 DROP.....ALUMA BEAM JOIST @305mm(12") c/c MAX.  
UNDER 1250 BEAM.....ALUMA BEAM JOIST @254mm(10") c/c MAX.

PLAN:SHORING TO PART PLAN OF GROUND FL.  
SCALE 1:100  
( THE STRUCTURAL PLAN OF THE SHORING LAYOUT WAS DRAWN FROM STRUCTURAL DWG. No. S-102B  
DATED MAR 25TH, 2021 ISSUED NO.10 PREPARED BY JABLONSKY, AST AND PARTNERS INC. )



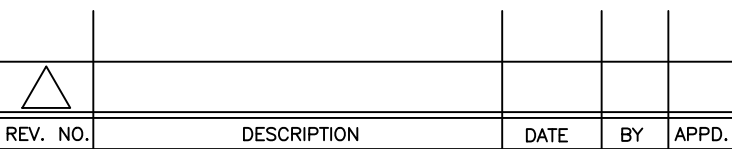
(FOR CONTINUATION, REFER TO DRAWING 4-G-212858-06)



JABLONSKY, AST AND PARTNERS  
CONSULTING ENGINEERS  
SIGNED \_\_\_\_\_ MB  
DATED 16 Aug 2021

SCALE 1:100

( THE STRUCTURAL PLAN OF THE SHORING LAYOUT WAS DRAWN FROM STRUCTURAL DWG. NO. S-102B  
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DATE \_\_\_\_\_  
CLIENT \_\_\_\_\_  
IRONSTONE FORMING LTD.  
16 GRIGGS DEN AVE.  
ETOBICOKE, ONT., M9P2Z7.

PROJECT ROYAL PINE HOMES  
FORESTSIDE TOWNHOUSES PH.3  
ATTMAR DR. & THE GORE RD  
BRAMPTON, ONTARIO

TITLE

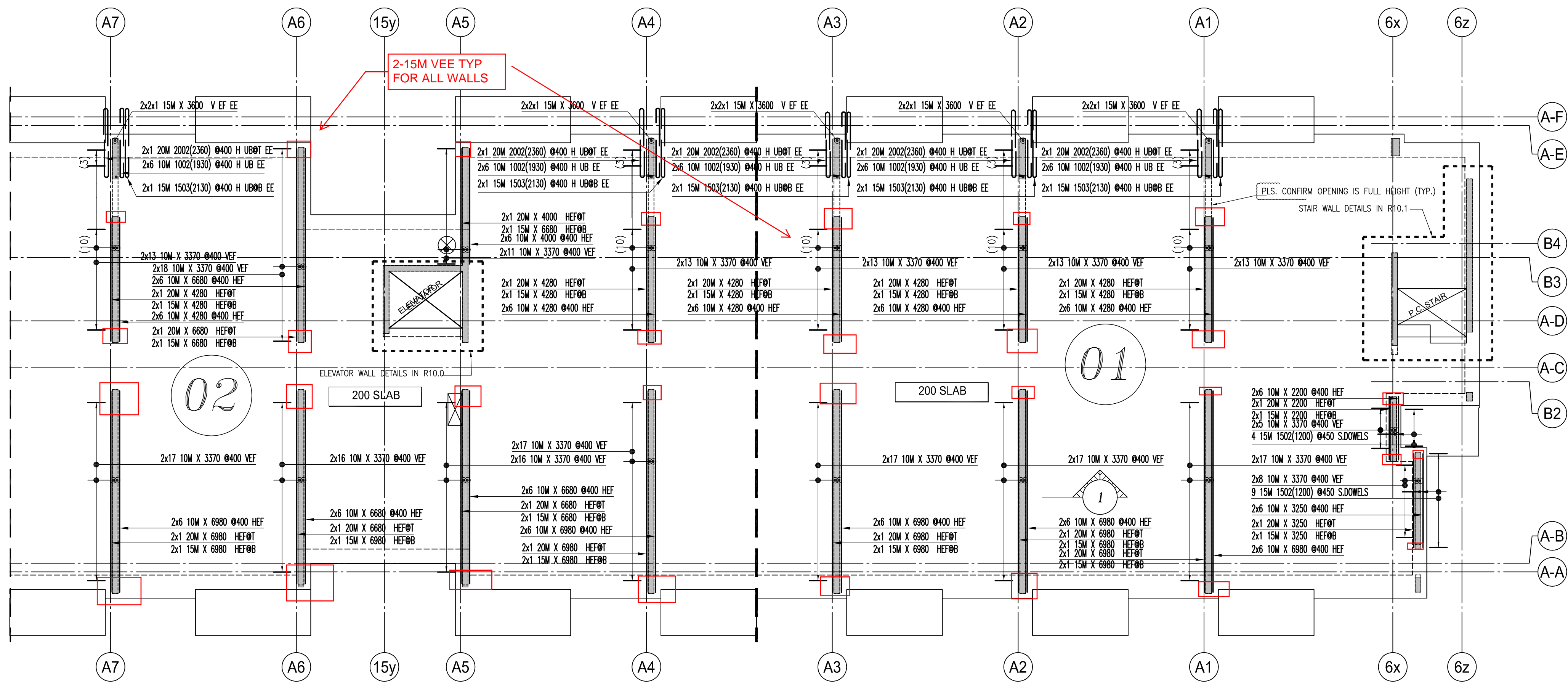
SHORING TO PART PLAN.  
GROUND FL.

SCALE AS NOTED	DATE AUG, 2021
DRAWN N.B.	CHECKED

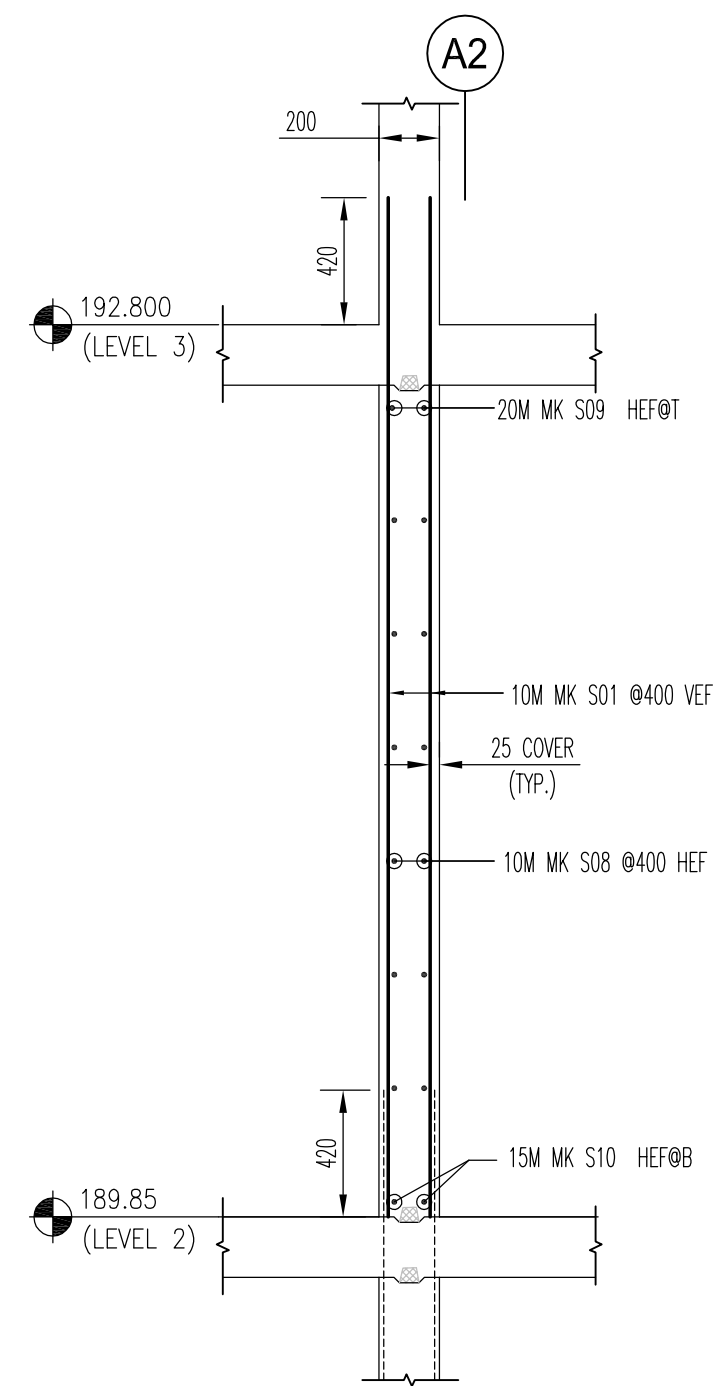
**McINTOSH PERRY**  
2640 HIGHWAY 7, SUITE 200 VAUGHAN, ON L4K 1V9  
Tel: 905.856.5200 Fax: 905.695.0221  
Toll Free: 1.888.348.8991 [www.mcintoshperry.com](http://www.mcintoshperry.com)

DRAWING NUMBER	4-G-212858-07	REV. A
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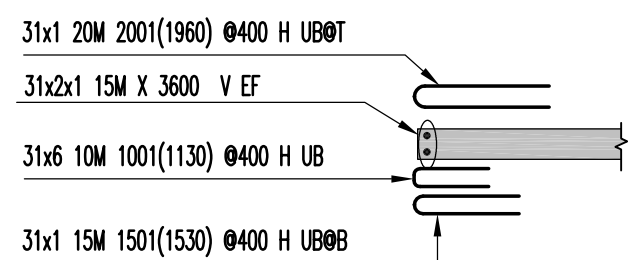




**BUILDING-A WALL PLAN**  
SCALE: 1:100  
(POUR-1 & 2)

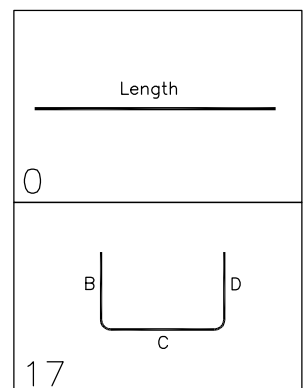


**SECTION**  
SCALE: 1:25



**TYPICAL WALL END DETAIL**  
SCALE: 1:50  
(32 NO'S REQUIRED) (POUR-1&2)

Release Code: R10.2 SW L2-L3 P#1&2 BENDING DETAILS.													
Bar Mark	Qty	Size	Total length	Type	'A'	'B'	'C'	'D'	'E'	'F'	'G'	'H'	'I'
215M	3750		3750										
1210M	3750		3750										
2120M	3750		3750										
44610M	3370		3370										
215M	2200		2200										
1210M	2200		2200										
2120M	2200		2200										
6010M	4280		4280										
10120M	4280		4280										
1015M	4280		4280										
6010M	6980		6980										
10120M	6980		6980										
1215M	6980		6980										
3610M	6680		6680										
6120M	6680		6680										
615M	6680		6680										
1210M	4000		4000										
2120M	4000		4000										
8215M	3600		3600										
1001	18610M	1130	11		500	130	500						
1002	6010M	9930	11		500	130	1300						
2002	10120M	2360	11		900	160	1300						
1503	1015M	2130	11		700	130	1300						
1501	3115M	1530	11		700	130	700						
2001	3120M	1960	11		900	160	900						
1502	1315M	1200	11		600	600							



**NOTES**

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

- CONCRETE COVER:  
VERTICALS

-- 25mm

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 (L<sub>d</sub>)

BAR SIZE	f <sub>c</sub> =25		f <sub>c</sub> =30		f <sub>c</sub> =35	
	L.S	L <sub>d</sub>	L.S	L <sub>d</sub>	L.S	L <sub>d</sub>
10M	380	330	350	300	320	300
15M	570	490	520	400	480	370
20M	750	650	690	530	640	490
25M	1170	1010	1070	830	990	770
30M	1410	1210	1290	990	1190	920
35M	1640	1410	1500	1160	1390	1070

- 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 DRWS

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 = STIRRUPS
CTS = CUT TO SUIT SITE COND.	IF = INSIDE FACE	T = TOP
DWL = DOWELS	LL = LOWER LAYER	THR/2 = THREAD END
EE = EACH END	MD = MIDDLE	THR/2 = THREAD ZENOS
EF = EACH FACE	MIN = MINIMUM	UL = UPPER LAYER
EJ = EXPANSION JOINT	NF = NEAR FACE	U/N = UNLESS NOTED
ES = EACH SIDE	OC = ON CENTER	V = VERTICAL
EW = EACH WAY	TT = TEMP. TIES	

STRAIGHT BARS LABEL FORMAT	BENT BARS LABEL FORMAT	GRADES OF STEEL
7 B15M X 3600 QUANTITY LENGTH	7 B15M B1501 QUANTITY SIZE - BR MARK	B = GRADE 400W C = GRADE 500W S = GRADE 600W W = WELDABLE

FOR APPROVAL	DATE	BY
ISSUE	REMARKS	

**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

**FORESTSIDE TOWNHOUSES**  
-BRAMPTON, ON

**SHEAR WALLS L2-L3 P#1&2**

CUSTOMER: ROYAL PINE HOMES

DETAILED BY: JU

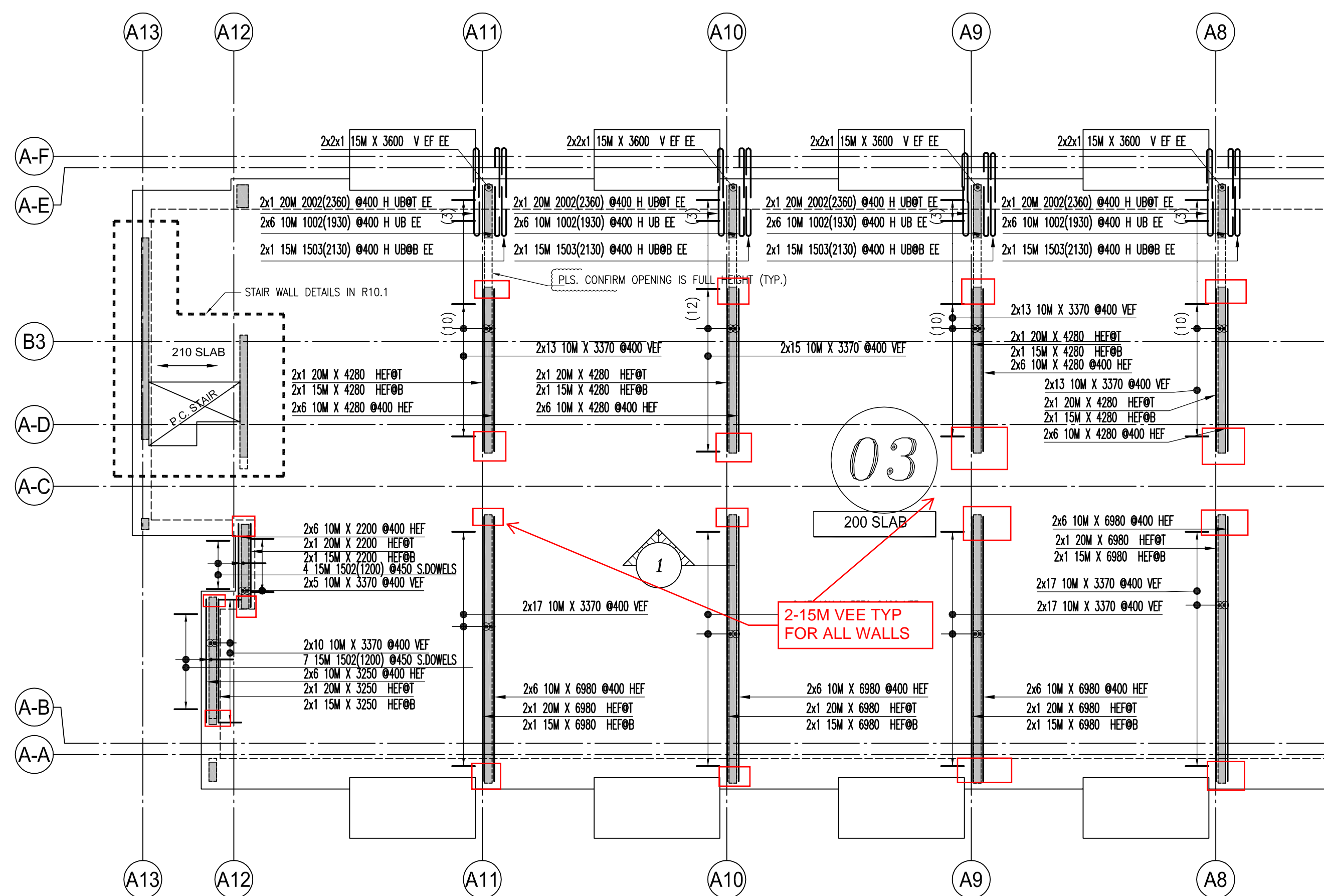
CHECKED BY:

Project no. 2177

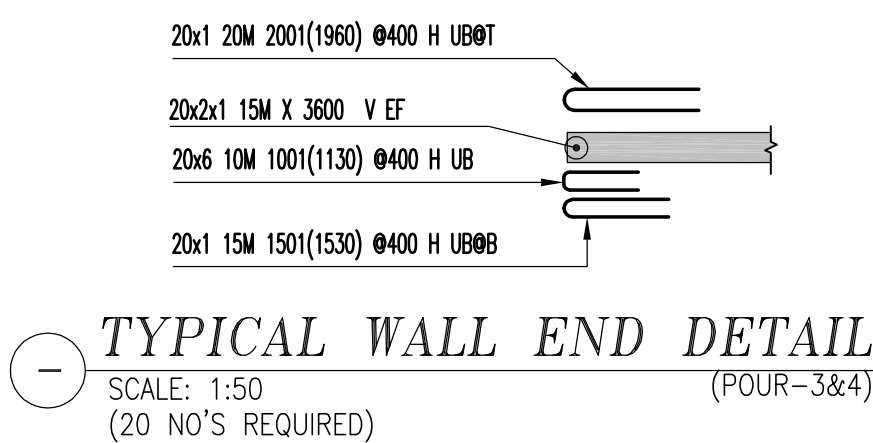
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DRAWING No.

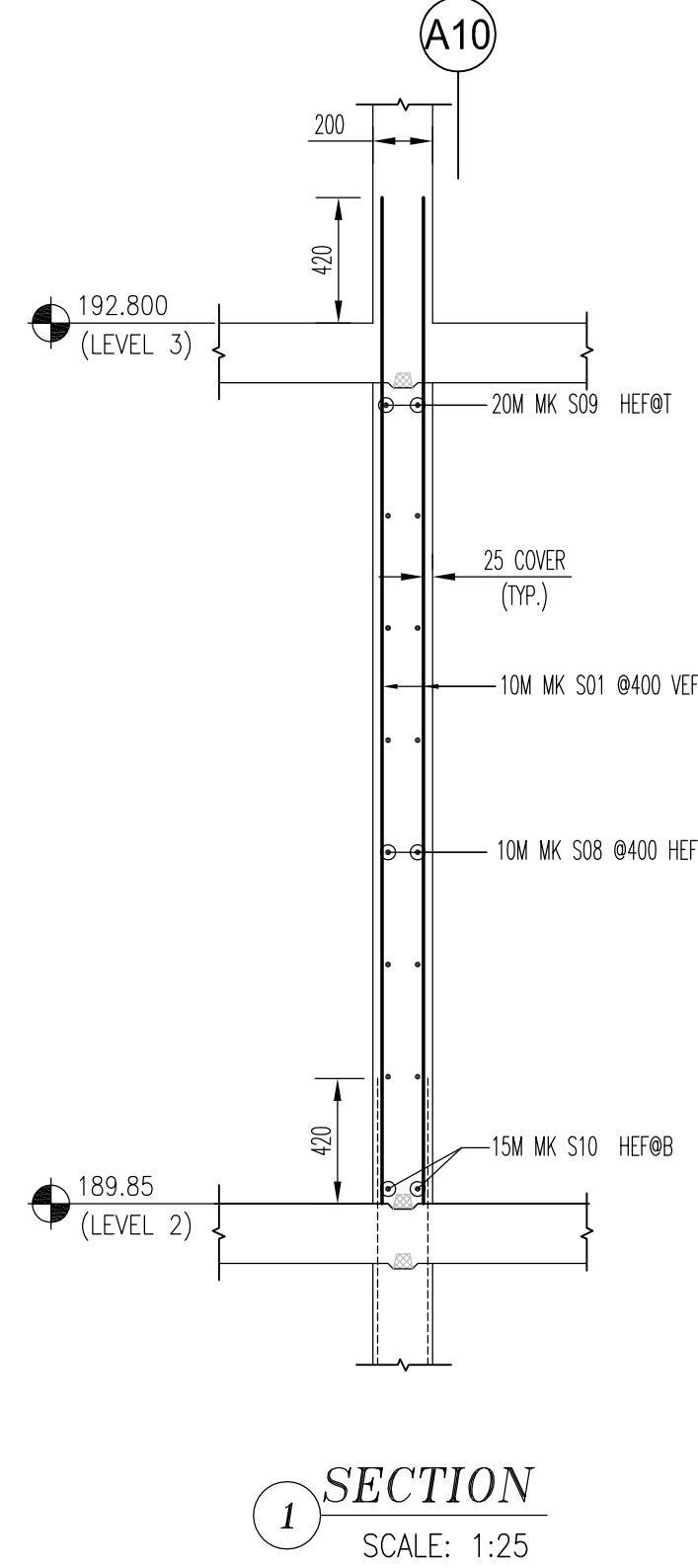
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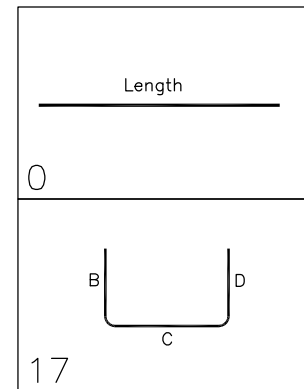
BUILDING-A WALL PLAN  
SCALE: 1:100  
(POUR-3 & 4)



TYPICAL WALL END DETAIL  
SCALE: 1:50  
(20 NO'S REQUIRED)



Release Code: R10.3 SW L2-L3 P#3&4 BENDING DETAILS.														
Bar Mark	Qty	Size	Total length	Type	'A'	'B'	'C'	'D'	'E'	'F'	'G'	'H'	'J'	'K'
8/15M	6980				6980									
48/10M	6980				6980									
8/20M	6980				6980									
274/10M	3370				3370									
48/10M	4280				4280									
8/20M	4280				4280									
8/15M	4280				4280									
56/15M	3600				3600									
2/15M	2200				2200									
12/10M	2200				2200									
2/20M	2200				2200									
2/15M	3250				3250									
12/10M	3250				3250									
2/20M	3250				3250									
1002	48/10M	1930	17		500	130	1300							
1001	120/10M	1120	17		500	130	500							
2002	8/20M	2360	17		900	160	1500							
1502	11/15M	1200	17		600	600								
1503	8/15M	2130	17		700	130	1300							
1501	20/15M	1530	17		700	130	700							
2001	20/20M	1960	17		900	160	900							



NOTES

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

3. CONCRETE COVER:  
VERTICALS

-- 25mm

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)

BAR SIZE	fc=25		fc=30		fc=35	
	L.S	L.d	L.S	L.d	L.S	L.d
10M	380	330	350	300	320	300
15M	570	490	520	400	480	370
20M	750	650	690	530	640	490
25M	1170	1010	1070	830	990	770
30M	1410	1210	1290	990	1190	920
35M	1640	1410	1500	1160	1390	1070

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. 19066  
By AT  
Date 01 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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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 = STIRRUPS
CTS = CUT TO SUIT SITE COND.	IF = INSIDE FACE	T = TOP
DWL = DOWELS	LL = LOWER LAYER	THR/2 = THREAD ZENDS
EE = EACH END	MD = MIDDLE	THR/2 = THREAD ZENDS
EF = EACH FACE	MIN = MINIMUM	UL = UPPER LAYER
EJ = EXPANSION JOINT	NF = NEAR FACE	U/n = UNLESS NOTED
ES = EACH SIDE	OC = ON CENTER	V = VERTICAL
EW = EACH WAY	TT = TIE	TT = TIE

STRAIGHT BARS LABEL FORMAT	BENT BARS LABEL FORMAT	GRADES OF STEEL
7 B15M X 3600 QUANTITY LENGTH	7 B15M B1501 QUANTITY LENGTH SIZE BR WAX	B = GRADE 400W C = GRADE 500W S = GRADE 500W W = GRADE 500W

FOR APPROVAL	MAY/27/21	JU
ISSUE	REMARKS	DATE
MANSTEEL REBAR	MANSTEEL REBAR	DATE

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

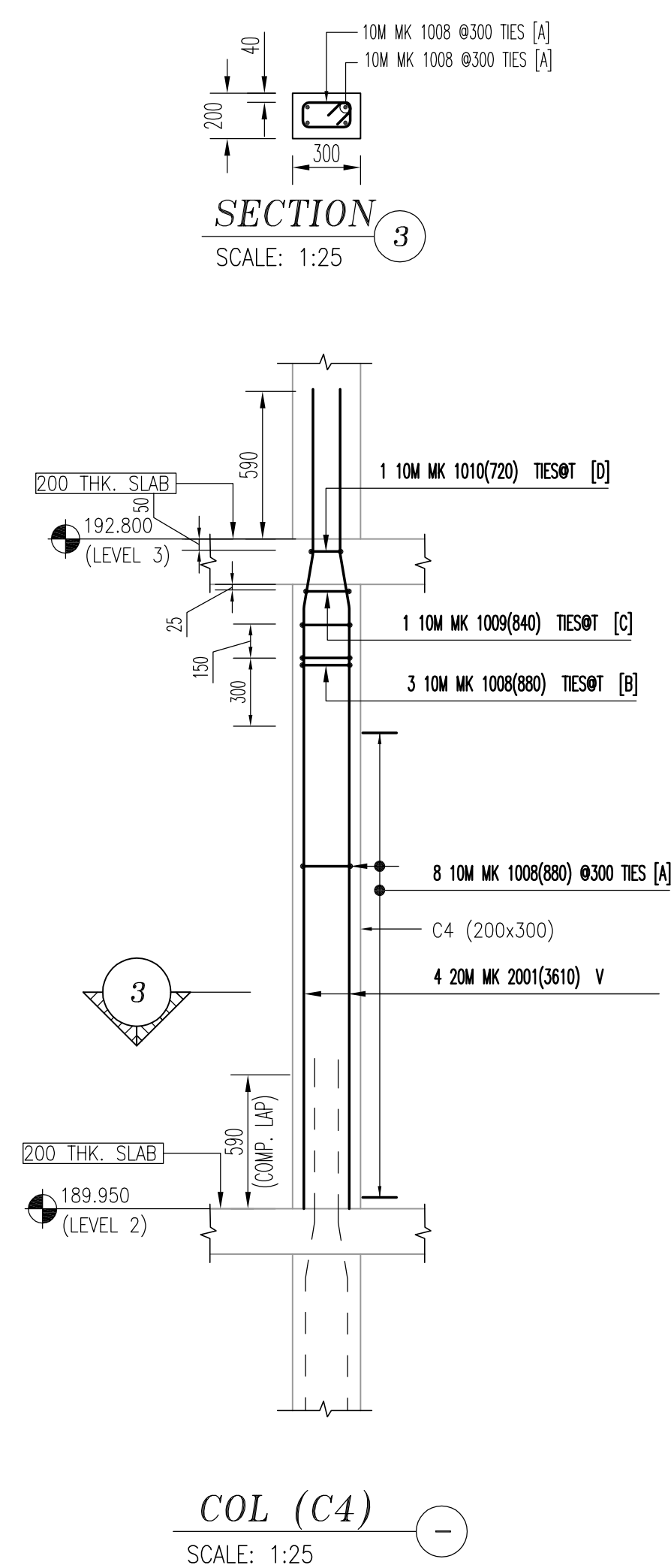
PROJECT  
FORESTSIDE TOWNHOUSES  
-BRAMPTON, ON

PART OF STRUCTURE  
SHEAR WALLS L2-L3 P#3

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

DETAILED BY: JU  
BAR LIST No.  
DRAWING No.  
R10.3





T1

Diagram T1 shows a square frame with vertices A, B, C, and D. A diagonal member connects vertex B to a point G on the vertical member CD. A horizontal member extends from G to vertex E. Dimensions are indicated: K is the horizontal distance from A to C and from B to G; H is the vertical distance from C to G. The total width is O, and the total height is O.

3 Hooks A & G optional


Diagram 3 shows a U-shaped frame with vertices A, B, C, D, E, F, and G. Dimensions are indicated: K is the horizontal distance from A to C and from F to G; H is the vertical distance from C to D and from E to F. The total width is O, and the total height is O.

T9

Diagram T9 shows a U-shaped frame with vertices A and G. The bottom horizontal member is labeled B. The frame is symmetric and has a constant cross-section.

-- 40mm

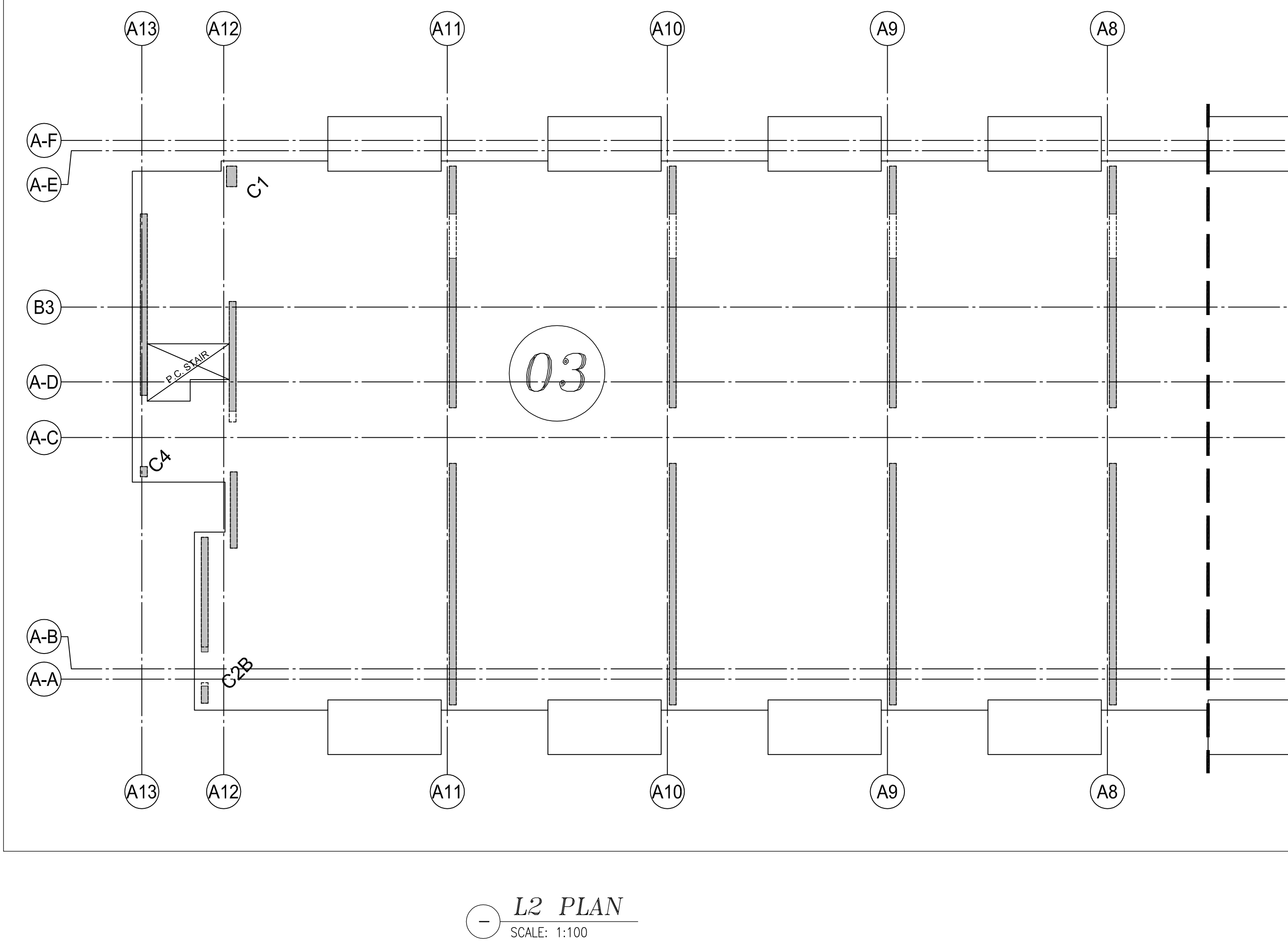
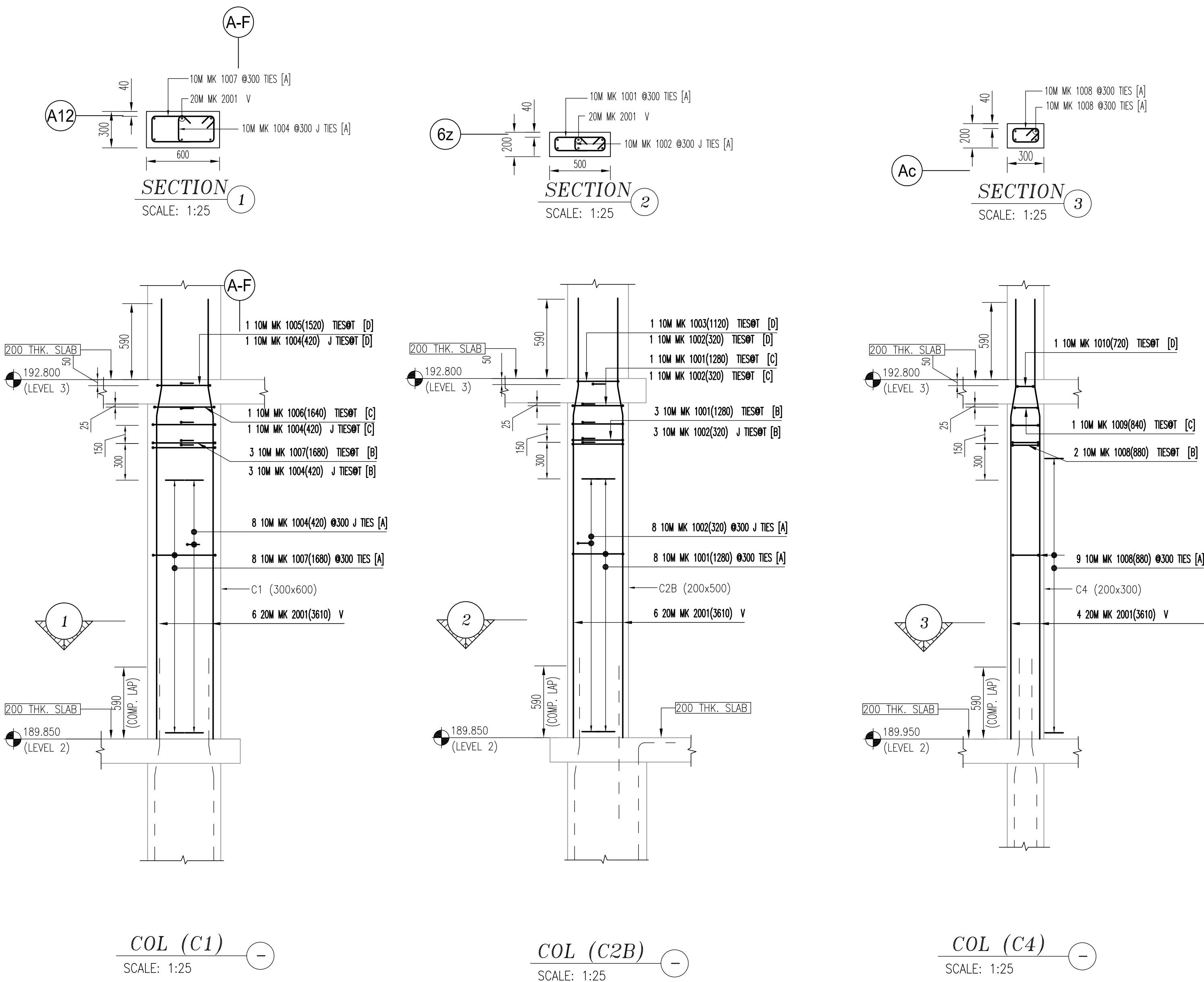
BAR SIZE	fc=25		fc=30		fc=35	
	L.S.	L <sub>d</sub>	L.S.	L <sub>d</sub>	L.S.	L <sub>d</sub>
10M	380	330	350	300	320	300
15M	570	490	520	400	480	370
20M	750	650	690	530	640	490
25M	1170	1010	1070	830	990	770
30M	1410	1210	1290	990	1190	920
35M	1640	1410	1500	1160	1390	1070

PROJECT		FORESTSIDE TOWNHOUSES -BRAMPTON, ON	
PART OF STRUCTURE		COLUMNS L2-L3 -P#1	
CUSTOMER :		Project no.    2177	
ROYAL PINE HOMES		SCALE:    AS SHOWN	
		DRAWING No.	
DETAILED BY:    JU	BAR LIST No.	R11.0 	
CHECKED BY:			

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.

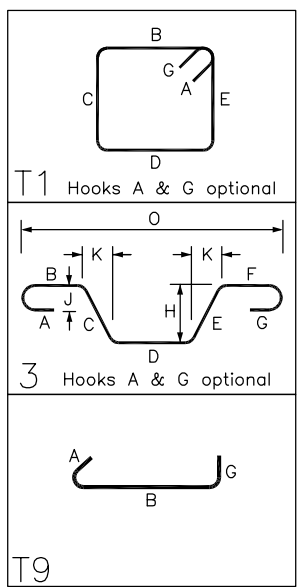
Submission No. \_\_\_\_\_  
Project No. **19066**  
By **AF**  
Date **01 Jun 2021**

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



Release Code: R-11.1 COL L2-L3 P#3 BENDING DETAILS.

Bar Mark	Qty	Size	Total length	Type	A'	B'	C'	D'	E'	F'	G'	H'	I'	J'	K'	L'	M'
1001	12	10M	1280	T1	100	420	120	420	120		100						
1002	13	10M	320	T9	100	120					100						
1003	1	10M	1120	T1	100	340	120	340	120		100						
1004	13	10M	420	T9	100	220					100						
1005	1	10M	1520	T1	100	440	220	440	220		100						
1006	1	10M	1640	T1	100	500	220	500	220		100						
1007	11	10M	1680	T1	100	520	220	520	220		100						
1008	11	10M	880	T1	100	220	120	220	120		100						
1009	1	10M	840	T1	100	200	120	200	120		100						
1010	1	10M	720	T1	100	140	120	140	120		100						
2001	16	20M	3610	J		725	240	2650						60		235	3610



**DRAWING REVIEW**

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<input checked="" type="checkbox"/> No comment	<input type="checkbox"/> See comment
<input type="checkbox"/> Amend & Resubmit	<input type="checkbox"/> Rejected See Remarks

Submission No. 19066  
Project No. AF  
By 01 Jun 2021  
Date

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

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 (L.S) & DEVELOPMENT LENGTH (Ld)

BAR SIZE	fc=25		fc=30		fc=35	
	L.S	L.d	L.S	L.d	L.S	L.d
10M						
15M	380	330	350	300	320	300
20M	570	490	520	400	480	370
25M	750	650	690	530	640	490
30M	1170	1010	1070	830	990	770
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CB = CORNER BAR	H = HORIZONTAL	STR = STIRRUPS
CTS = CUT TO SUIT SITE COND.	IF = INSIDE FACE	T = TOP
DWL = DOWELS	LL = LOWER LAYER	THR/2 = THREAD ZENDS
EE = EACH END	MD = MIDDLE	UL = UPPER LAYER
ET = EACH FACE	MIN = MINIMUM	W/n = UNLESS NOTED
EJ = EXPANSION JOINT	NF = NEAR FACE	V = VERTICAL
ES = EACH SIDE	OC = ON CENTER	TT = TOP TIES
EW = EACH WAY		

STRAIGHT BARS LABEL FORMAT	BENT BARS LABEL FORMAT	GRADES OF STEEL
7 B15M X 3600 QUANTITY LENGTH	7 B15M B1501 QUANTITY SIZE - BR MARK	B = GRADE 400W C = GRADE 500W S = GRADE 600W 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

COLUMNS L2-L3 -P#3

CUSTOMER: ROYAL PINE HOMES

DETAILED BY: JU

CHECKED BY:

Project no. 2177

SCALE: AS SHOWN

DRAWING No.

R11.1

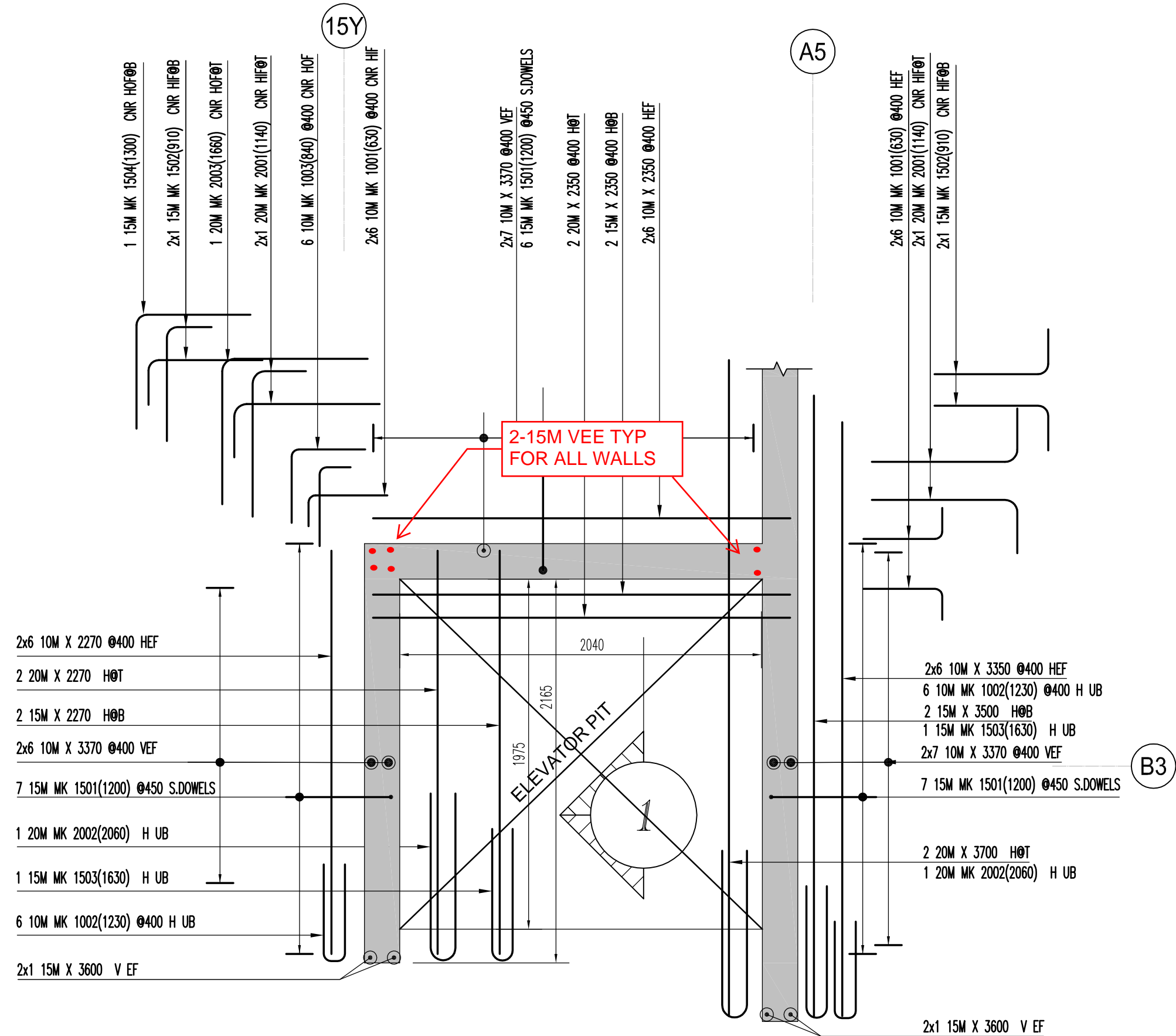


## DRAWING REVIEW

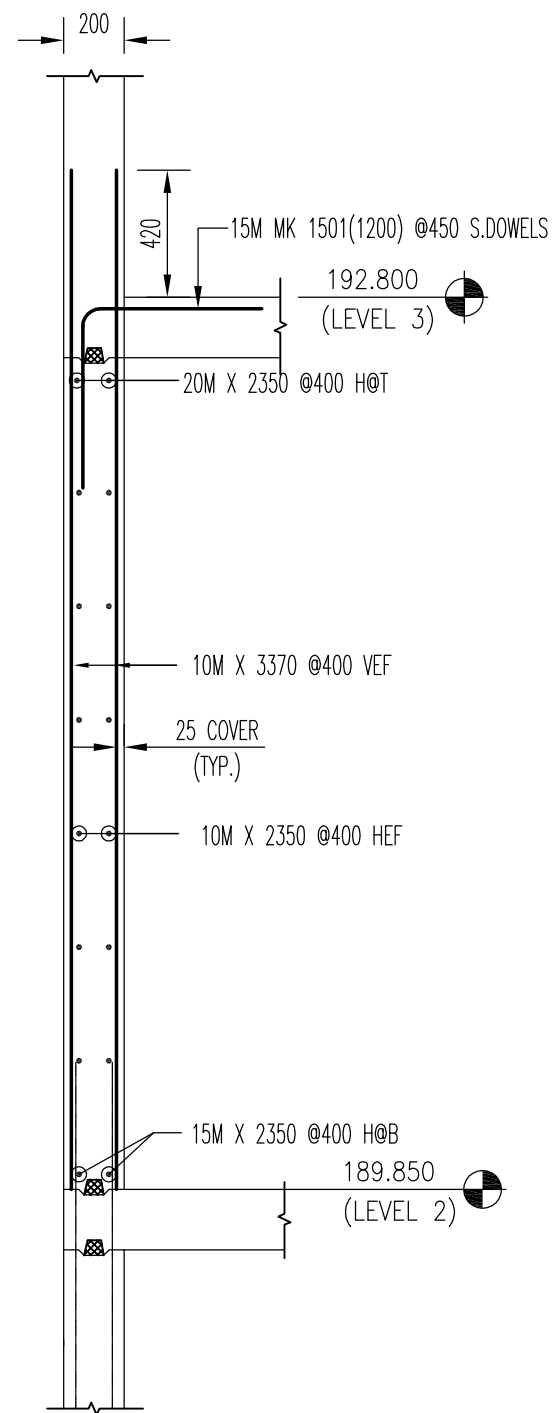
This review of this drawing does not in any way relieve the contractor of responsibility for its accuracy or for compliance with the contract documents.

No comment	✓ See comment
Amend & Resubmit	Rejected See Remarks

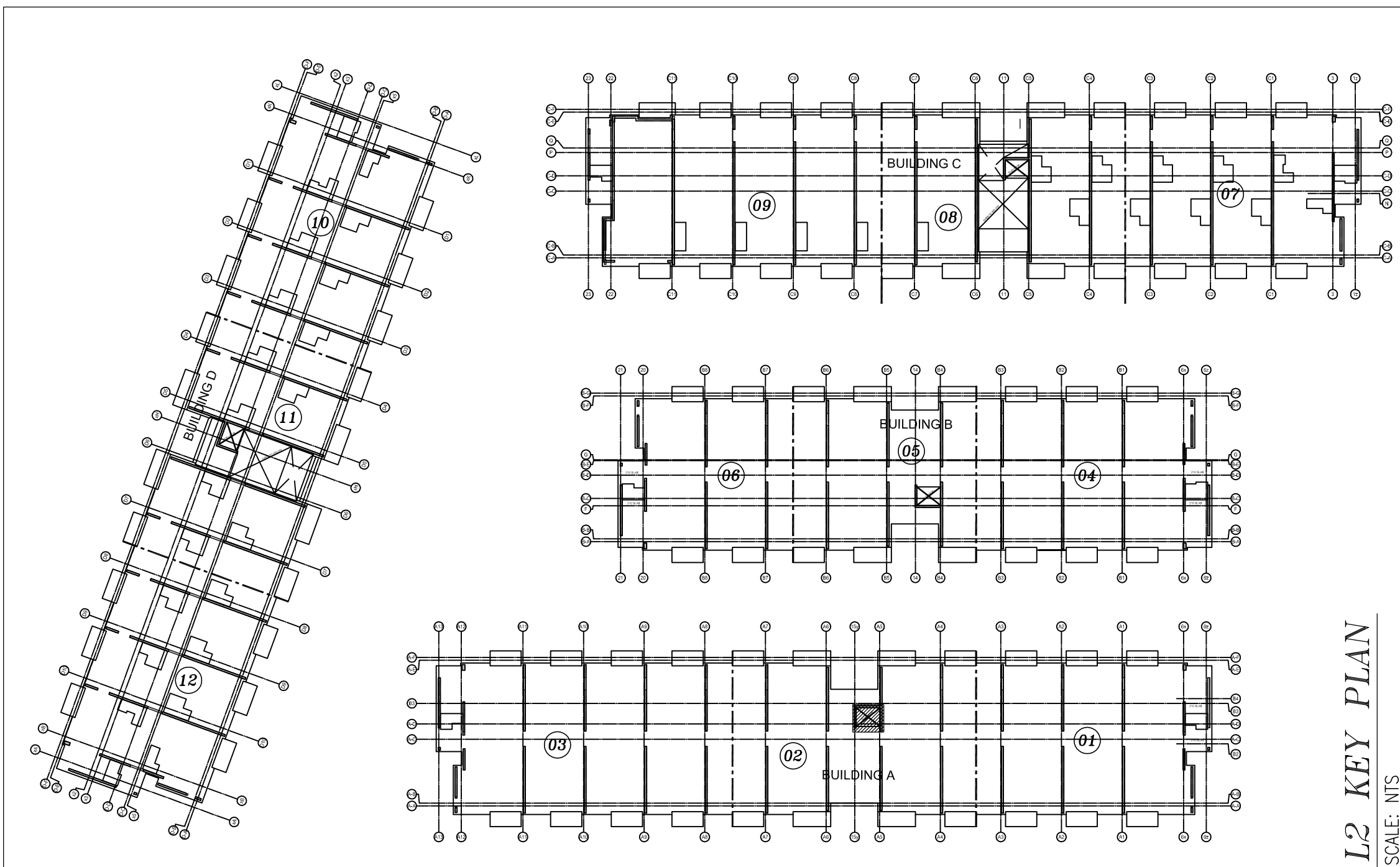
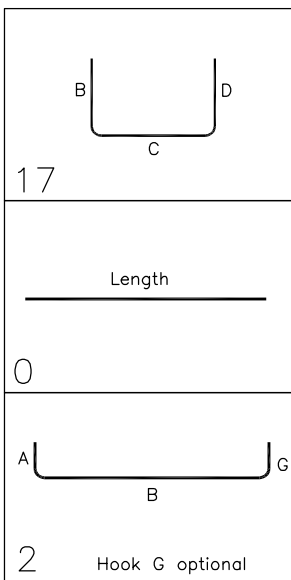
Submission No. 15006  
Project No. 15006  
By: AL  
Date: 01 Jun 2021  
JABLONSKY, AST AND PARTNERS  
Consulting Engineers  
9 Concorde Gate, North York, ON M3C 4H5



BUILDING-A  
ELEVATOR WALL PLAN L2-L3  
SCALE: 1:25  
(POUR-2)



Bar Mark	Qty	Size	Total length	Type	A'	B'	C'	D'	E'	F'	G'	H'	I'	J'	K'	L'	M'
1001	24	10M	630	2	180	450											
1003	6	10M	840	17		420	420										
1002	12	10M	1230	17		550	130	550									
1501	20	15M	1200	17		600	600										
1503	2	15M	1630	17		750	130	750									
2002	2	20M	2060	17		950	160	950									
1502	4	15M	990	2	260	650											
1504	1	15M	1300	17		650	650										
2001	4	20M	1140	2	310	830											
2003	1	20M	1660	17		830	830										



## NOTES

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

- CONCRETE COVER: VERTICALS

-- 25mm

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

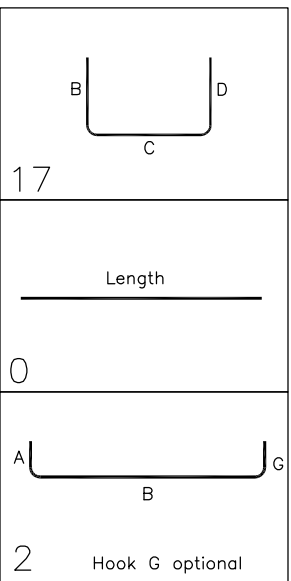
BAR SIZE	fc=25		fc=30		fc=35	
	L.S	L.d	L.S	L.d	L.S	L.d
10M	380	330	350	300	320	300
15M	570	490	520	400	480	370
20M	750	650	690	530	640	490
25M	1170	1010	1070	830	990	770
30M	1410	1210	1290	990	1190	920
35M	1640	1410	1500	1160	1390	1070

- 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 DRWS

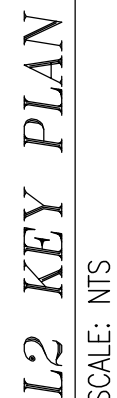
LEGEND	STRAIGHT BARS LABEL FORMAT	BENT BARS LABEL FORMAT	GRADES OF STEEL
ALT = ALTERNATE BOT = BOTTOM BIS = BEND INTO SLAB CB = CORNER BAR CTS = CUT TO SUIT SITE COND. DWL = DOWELS EE = EACH END EF = EACH FACE EJ = EXPANSION JOINT ES = EACH SIDE EW = EACH WAY	7 B15M X 3600 QUANTITY TYPE LENGTH	7 B15M Ø1501 QUANTITY SIZE BENT MARK	GRADE 400W GRADE 500W GRADE 600W GRADE 700W GRADE 800W GRADE 900W GRADE 1000W GRADE 1100W GRADE 1200W GRADE 1300W GRADE 1400W GRADE 1500W GRADE 1600W GRADE 1700W GRADE 1800W GRADE 1900W GRADE 2000W GRADE 2100W GRADE 2200W GRADE 2300W GRADE 2400W GRADE 2500W GRADE 2600W GRADE 2700W GRADE 2800W GRADE 2900W GRADE 3000W GRADE 3100W GRADE 3200W GRADE 3300W GRADE 3400W GRADE 3500W GRADE 3600W GRADE 3700W GRADE 3800W GRADE 3900W GRADE 4000W GRADE 4100W GRADE 4200W GRADE 4300W GRADE 4400W GRADE 4500W GRADE 4600W GRADE 4700W GRADE 4800W GRADE 4900W GRADE 5000W GRADE 5100W GRADE 5200W GRADE 5300W GRADE 5400W GRADE 5500W GRADE 5600W GRADE 5700W GRADE 5800W GRADE 5900W GRADE 6000W GRADE 6100W GRADE 6200W GRADE 6300W GRADE 6400W GRADE 6500W GRADE 6600W GRADE 6700W GRADE 6800W GRADE 6900W GRADE 7000W GRADE 7100W GRADE 7200W GRADE 7300W GRADE 7400W GRADE 7500W GRADE 7600W GRADE 7700W GRADE 7800W GRADE 7900W GRADE 8000W GRADE 8100W GRADE 8200W GRADE 8300W GRADE 8400W GRADE 8500W GRADE 8600W GRADE 8700W GRADE 8800W GRADE 8900W GRADE 9000W GRADE 9100W GRADE 9200W GRADE 9300W GRADE 9400W GRADE 9500W GRADE 9600W GRADE 9700W GRADE 9800W GRADE 9900W GRADE 10000W GRADE 10100W GRADE 10200W GRADE 10300W GRADE 10400W GRADE 10500W GRADE 10600W GRADE 10700W GRADE 10800W GRADE 10900W GRADE 11000W GRADE 11100W GRADE 11200W GRADE 11300W GRADE 11400W GRADE 11500W GRADE 11600W GRADE 11700W GRADE 11800W GRADE 11900W GRADE 12000W GRADE 12100W GRADE 12200W GRADE 12300W GRADE 12400W GRADE 12500W GRADE 12600W GRADE 12700W GRADE 12800W GRADE 12900W GRADE 13000W GRADE 13100W GRADE 13200W GRADE 13300W GRADE 13400W GRADE 13500W GRADE 13600W GRADE 13700W GRADE 13800W GRADE 13900W GRADE 14000W GRADE 14100W GRADE 14200W GRADE 14300W GRADE 14400W GRADE 14500W GRADE 14600W GRADE 14700W GRADE 14800W GRADE 14900W GRADE 15000W GRADE 15100W GRADE 15200W GRADE 15300W GRADE 15400W GRADE 15500W GRADE 15600W GRADE 15700W GRADE 15800W GRADE 15900W GRADE 16000W GRADE 16100W GRADE 16200W GRADE 16300W GRADE 16400W GRADE 16500W GRADE 16600W GRADE 16700W GRADE 16800W GRADE 16900W GRADE 17000W GRADE 17100W GRADE 17200W GRADE 17300W GRADE 17400W GRADE 17500W GRADE 17600W GRADE 17700W GRADE 17800W GRADE 17900W GRADE 18000W GRADE 18100W GRADE 18200W GRADE 18300W GRADE 18400W GRADE 18500W GRADE 18600W GRADE 18700W GRADE 18800W GRADE 18900W GRADE 19000W GRADE 19100W GRADE 19200W GRADE 19300W GRADE 19400W GRADE 19500W GRADE 19600W GRADE 19700W GRADE 19800W GRADE 19900W GRADE 20000W GRADE 20100W GRADE 20200W GRADE 20300W GRADE 20400W GRADE 20500W GRADE 20600W GRADE 20700W GRADE 20800W GRADE 20900W GRADE 21000W GRADE 21100W GRADE 21200W GRADE 21300W GRADE 21400W GRADE 21500W GRADE 21600W GRADE 21700W GRADE 21800W GRADE 21900W GRADE 22000W GRADE 22100W GRADE 22200W GRADE 22300W GRADE 22400W GRADE 22500W GRADE 22600W GRADE 22700W GRADE 22800W GRADE 22900W GRADE 23000W GRADE 23100W GRADE 23200W GRADE 23300W GRADE 23400W GRADE 23500W GRADE 23600W GRADE 23700W GRADE 23800W GRADE 23900W GRADE 24000W GRADE 24100W GRADE 24200W GRADE 24300W GRADE 24400W GRADE 24500W GRADE 24600W GRADE 24700W GRADE 24800W GRADE 24900W GRADE 25000W GRADE 25100W GRADE 25200W GRADE 25300W GRADE 25400W GRADE 25500W GRADE 25600W GRADE 25700W GRADE 25800W GRADE 25900W GRADE 26000W GRADE 26100W GRADE 26200W GRADE 26300W GRADE 26400W GRADE 26500W GRADE 26600W GRADE 26700W GRADE 26800W GRADE 26900W GRADE 27000W GRADE 27100W GRADE 27200W GRADE 27300W GRADE 27400W GRADE 27500W GRADE 27600W GRADE 27700W GRADE 27800W GRADE 27900W GRADE 28000W GRADE 28100W GRADE 28200W GRADE 28300W GRADE 28400W GRADE 28500W GRADE 28600W GRADE 28700W GRADE 28800W GRADE 28900W GRADE 29000W GRADE 29100W GRADE 29200W GRADE 29300W GRADE 29400W GRADE 29500W GRADE 29600W GRADE 29700W GRADE 29800W GRADE 29900W GRADE 30000W GRADE 30100W GRADE 30200W GRADE 30300W GRADE 30400W GRADE 30500W GRADE 30600W GRADE 30700W GRADE 30800W GRADE 30900W GRADE 31000W GRADE 31100W GRADE 31200W GRADE 31300W GRADE 31400W GRADE 31500W GRADE 31600W GRADE 31700W GRADE 31800W GRADE 31900W GRADE 32000W GRADE 32100W GRADE 32200W GRADE 32300W GRADE 32400W GRADE 32500W GRADE 32600W GRADE 32700W GRADE 32800W GRADE 32900W GRADE 33000W GRADE 33100W GRADE 33200W GRADE 33300W GRADE 33400W GRADE 33500W GRADE 33600W GRADE 33700W GRADE 33800W GRADE 33900W GRADE 34000W GRADE 34100W GRADE 34200W GRADE 34300W GRADE 34400W GRADE 34500W GRADE 34600W GRADE 34700W GRADE 34800W GRADE 34900W GRADE 35000W GRADE 35100W GRADE 35200W GRADE 35300W GRADE 35400W GRADE 35500W GRADE 35600W GRADE 35700W GRADE 35800W GRADE 35900W GRADE 36000W GRADE 36100W GRADE 36200W GRADE 36300W GRADE 36400W GRADE 36500W GRADE 36600W GRADE 36700W GRADE 36800W GRADE 36900W GRADE 37000W GRADE 37100W GRADE 37200W GRADE 37300W GRADE 37400W GRADE 37500W GRADE 37600W GRADE 37700W GRADE 37800W GRADE 37900W GRADE 38000W GRADE 38100W GRADE 38200W GRADE 38300W GRADE 38400W GRADE 38500W GRADE 38600W GRADE 38700W GRADE 38800W GRADE 38900W GRADE 39000W GRADE 39100W GRADE 39200W GRADE 39300W GRADE 39400W GRADE 39500W GRADE 39600W GRADE 39700W GRADE 39800W GRADE 39900W GRADE 40000W GRADE 40100W GRADE 40200W GRADE 40300W GRADE 40400W GRADE 40500W GRADE 40600W GRADE 40700W GRADE 40800W GRADE 40900W GRADE 41000W GRADE 41100W GRADE 41200W GRADE 41300W GRADE 41400W GRADE 41500W GRADE 41600W GRADE 41700W GRADE 41800W GRADE 41900W GRADE 42000W GRADE 42100W GRADE 42200W GRADE 42300W GRADE 42400W GRADE 42500W GRADE 42600W GRADE 42700W GRADE 42800W GRADE 42900W GRADE 43000W GRADE 43100W GRADE 43200W GRADE 43300W GRADE 43400W GRADE 43500W GRADE 43600W GRADE 43700W GRADE 43800W GRADE 43900W GRADE 44000W GRADE 44100W GRADE 44200W GRADE 44300W GRADE 44400W GRADE 44500W GRADE 44600W GRADE 44700W GRADE 44800W GRADE 44900W GRADE 45000W GRADE 45100W GRADE 45200W GRADE 45300W GRADE 45400W GRADE 45500W GRADE 45600W GRADE 45700W GRADE 45800W GRADE 45900W GRADE 46000W GRADE 46100W GRADE 46200W GRADE 46300W GRADE 46400W GRADE 46500W GRADE 46600W GRADE 46700W GRADE 46800W GRADE 46900W GRADE 47000W GRADE 47100W GRADE 47200W GRADE 47300W GRADE 47400W GRADE 47500W GRADE 47600W GRADE 47700W GRADE 47800W GRADE 47900W GRADE 48000W GRADE 48100W GRADE 48200W GRADE 48300W GRADE 48400W GRADE 48500W GRADE 48600W GRADE 48700W GRADE 48800W GRADE 48900W GRADE 49000W GRADE 49100W GRADE 49200W GRADE 49300W GRADE 49400W GRADE 49500W GRADE 49600W GRADE 49700W GRADE 49800W GRADE 49900W GRADE 50000W GRADE 50100W GRADE 50200W GRADE 50300W GRADE 50400W GRADE 50500W GRADE 50600W GRADE 50700W GRADE 50800W GRADE 50900W GRADE 51000W GRADE 51100W GRADE 51200W GRADE 51300W GRADE 51400W GRADE 51500W GRADE 51600W GRADE 51700W GRADE 51800W GRADE 51900W GRADE 52000W GRADE 52100W GRADE 52200W GRADE 52300W GRADE 52400W GRADE 52500W GRADE 52600W GRADE 52700W GRADE 52800W GRADE 52900W GRADE 53000W GRADE 53100W GRADE 53200W GRADE 53300W GRADE 53400W GRADE 53500W GRADE 53600W GRADE 53700W 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GRADE 61500W GRADE 61600W GRADE 61700W GRADE 61800W GRADE 61900W GRADE 62000W GRADE 62100W GRADE 62200W GRADE 62300W GRADE 62400W GRADE 62500W GRADE 62600W GRADE 62700W GRADE 62800W GRADE 62900W GRADE 63000W GRADE 63100W GRADE 63200W GRADE 63300W GRADE 63400W GRADE 63500W GRADE 63600W GRADE 63700W GRADE 63800W GRADE 63900W GRADE 64000W GRADE 64100W GRADE 64200W GRADE 64300W GRADE 64400W GRADE 64500W GRADE 64600W GRADE 64700W GRADE 64800W GRADE 64900W GRADE 65000W GRADE 65100W GRADE 65200W GRADE 65300W GRADE 65400W GRADE 65500W GRADE 65600W GRADE 65700W GRADE 65800W GRADE 65900W GRADE 66000W GRADE 66100W GRADE 66200W GRADE 66300W GRADE 66400W GRADE 66500W GRADE 66600W GRADE 66700W GRADE 66800W GRADE 66900W GRADE 67000W GRADE 67100W GRADE 67200W GRADE 67300W GRADE 67400W GRADE 67500W GRADE 67600W GRADE 67700W GRADE 67800W GRADE 67900W GRADE 68000W GRADE 68100W GRADE 68200W GRADE 68300W GRADE 68400W GRADE 68500W GRADE 68600W GRADE 68700W GRADE 68800W GRADE 68900W GRADE 69000W GRADE 69100W GRADE 69200W GRADE 69300W GRADE 69400W GRADE 69500W GRADE 69600W GRADE 69700W GRADE 69800W GRADE 69900W GRADE 70000W GRADE 70100W GRADE 70200W GRADE 70300W GRADE 70400W GRADE 70500W GRADE 70600W GRADE 70700W GRADE 70800W GRADE 70900W GRADE 71000W GRADE 71100W GRADE 71200W GRADE 71300W GRADE 71400W GRADE 71500W GRADE 71600W GRADE 71700W GRADE 71800W GRADE 71900W GRADE 72000W GRADE 72100W GRADE 72200W GRADE 72300W GRADE 72400W GRADE 72500W GRADE 72600W GRADE 72700W GRADE 72800W GRADE 72900W GRADE 73000W GRADE 73100W GRADE 73200W GRADE 73300W GRADE 73400W GRADE 73500W GRADE 73600W GRADE 73700W GRADE 73800W GRADE 73900W GRADE 74000W GRADE 74100W GRADE 74200W GRADE 74300W GRADE 74400W GRADE 74500W GRADE 74600W GRADE 74700W GRADE 74800W GRADE 74900W GRADE 75000W GRADE 75100W GRADE 75200W GRADE 75300W GRADE 75400W GRADE 75500W GRADE 75600W GRADE 75700W GRADE 75800W GRADE 75900W GRADE 76000W GRADE 76100W GRADE 76200W GRADE 76300W GRADE 76400W GRADE 76500W GRADE 76600W GRADE 76700W GRADE 76800W 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GRADE 84600W GRADE 84700W GRADE 84800W GRADE 84900W GRADE 85000W GRADE 85100W GRADE 85200W GRADE 85300W GRADE 85400W GRADE 85500W GRADE 85600W GRADE 85700W GRADE 85800W GRADE 85900W GRADE 86000W GRADE 86100W GRADE 86200W GRADE 86300W GRADE 86400W GRADE 86500W GRADE 86600W GRADE 86700W GRADE 86800W GRADE 86900W GRADE 87000W GRADE 87100W GRADE 87200W GRADE 87300W GRADE 87400W GRADE 87500W GRADE 87600W GRADE 87700W GRADE 878



Release Code: R10.1 STR SW L2-L3 P18ENDING DETAILS.																	
Bar Mark	Qty	Size	total length	type	'A'	'B'	'C'	'D'	'E'	'F'	'G'	'H'	'I'	'J'	'K'	'O'	'R'
	80	10M	3370			3370											
	24	10M	3140				3140										
	24	10M	5210				5210										
	4	20M	5200				5200										
	4	15M	5200				5200										
	4	20M	3150			3150											
	4	15M	3150			3150											
	16	15M	3600			3600											
1004	36	10M	1000	17			500	500									
1002	48	10M	1230	17			550	130	550								
1505	4	15M	1060	2	260		800										
1503	8	15M	1630	17			750	130	750								
1501	8	15M	1200	17			600	600									
2002	8	20M	2060	17			950	160	950								



DRAWING REVIEW	
<p>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.</p>	
<input checked="" type="checkbox"/> No comment	<input type="checkbox"/> See comment
<input type="checkbox"/> Amend & Resubmit	<input type="checkbox"/> Rejected <input type="checkbox"/> See Remarks
<b>Submission No.</b> <b>Project No.</b> 19066 <b>By</b> AF <b>Date</b> 01 Jun 2021	
<b>JABLONSKY, AST AND PARTNERS</b> Consulting Engineers 3 Concord 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 DRWGS

<b>LEGEND</b>					
ALT =	ALTERNATE	FF =	FAR FACE	OF =	OUTSIDE FACE
BOT =	BOTTOM	FS =	FORM SAYER	SC =	SAW CUT END
BS =	BEND INTO SLAB	GID =	GROUT IN DOWELS	STG =	STAGGER
CB =	CORNER BAR	H =	HORIZONTAL	STIR =	STIRRUPS
CJ =	CONTROL JOINT	IF =	INSIDE FACE	T =	TOP
CTS =	CUT TO SUIT SITE COND.	LL =	LOWER LAYER	THR/1R =	THREAD 1END
DOW =	DOWELS	MID =	MIDDLE	THR/2R =	THREAD 2ENDS
EE =	EACH END	MIN =	MINIMUM	UL =	UPPER LAYER
EF =	EACH FACE	NF =	NEAR FACE	u/v =	UNLESS NOTED V
ES =	EACH SIDE	OC =	ON CENTER	V =	VERTICAL
EW =	EACH WAY			TT =	TEMP. TIES

TRAIGHT BARS LABEL FORMAT	BENT BARS LABEL FORMAT	GRADES OF STEEL
<p>7 B15M X 3600</p> <p>QUANTITY      GRADE      LENGTH</p>	<p>7 B15M B1501</p> <p>QUANTITY      GRADE      SIZE      BAR MARK</p>	<p>B = GRADE 40R            E = EPOXY COATED            C = CRP            Z = GALVANIZED            S = STAINLESS            W = WELDABLE</p>

0	FOR APPROVAL	MAY/27/21	JJ
ISSUE	REMARKS	DATE	BY

**MANSTEEL**



**R E B A R**


**MANSTEEL REBAR**

105 Industrial Road, Richmond Hill,  
Ontario L4C 2Y4 Canada

Phone: 905-737-9797

Fax: 905-737-9704

Email: [info@mansteelrebar.com](mailto:info@mansteelrebar.com)

PROJECT <h1 style="margin: 0;">FORESTSIDE TOWNHOUSES</h1> <h2 style="margin: 0;">-BRAMPTON, ON</h2>	
PART OF STRUCTURE <h3 style="margin: 0;">STAIR SHEAR WALLS L2-L3 P#1&amp;3</h3>	
CUSTOMER :  ROYAL PINE HOMES	Project no. <b>2177</b>  SCALE: <b>AS SHOWN</b>  DRAWING No.  <div style="font-size: 2em; font-weight: bold; text-align: center;">R10.1</div> <div style="text-align: right; margin-top: -10px;">  </div>
DETAILED BY: <b>JU</b>  CHECKED BY:	BAR LIST No.

## NOTES

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

3. CONCRETE COVER:  
VERTICALS

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

#### 4. COMPRESSION LAP SPLICE

TENSION LAP SPLICE (L.S) & DEVELOPMENT LENGTH (Ld)						
BAR SIZE	fc=25		fc=30		fc=35	
	L.S	L.d	L.S	L.d	L.S	L.d
10M	380	330	350	300	320	300
15M	570	490	520	400	480	370
20M	750	650	690	530	640	490
25M	1170	1010	1070	830	990	770
30M	1410	1210	1290	990	1190	920
35M	1640	1410	1500	1160	1390	1070

5, TENSION LAP SPLICE (L.S) & DEVELOPMENT LENGTH ( $L_d$ )

PROJECT  
FORESTSIDE TOWNHOUSES  
-BRAMPTON, ON

PART OF STRUCTURE  
STAIR SHEAR WALLS L2-L3 P#1&3

CUSTOMER :

ROYAL PINE HOMES

ETAILED BY:

Project no. 2177

SCALE: AS SHOWN

DRAWING No.

D 14