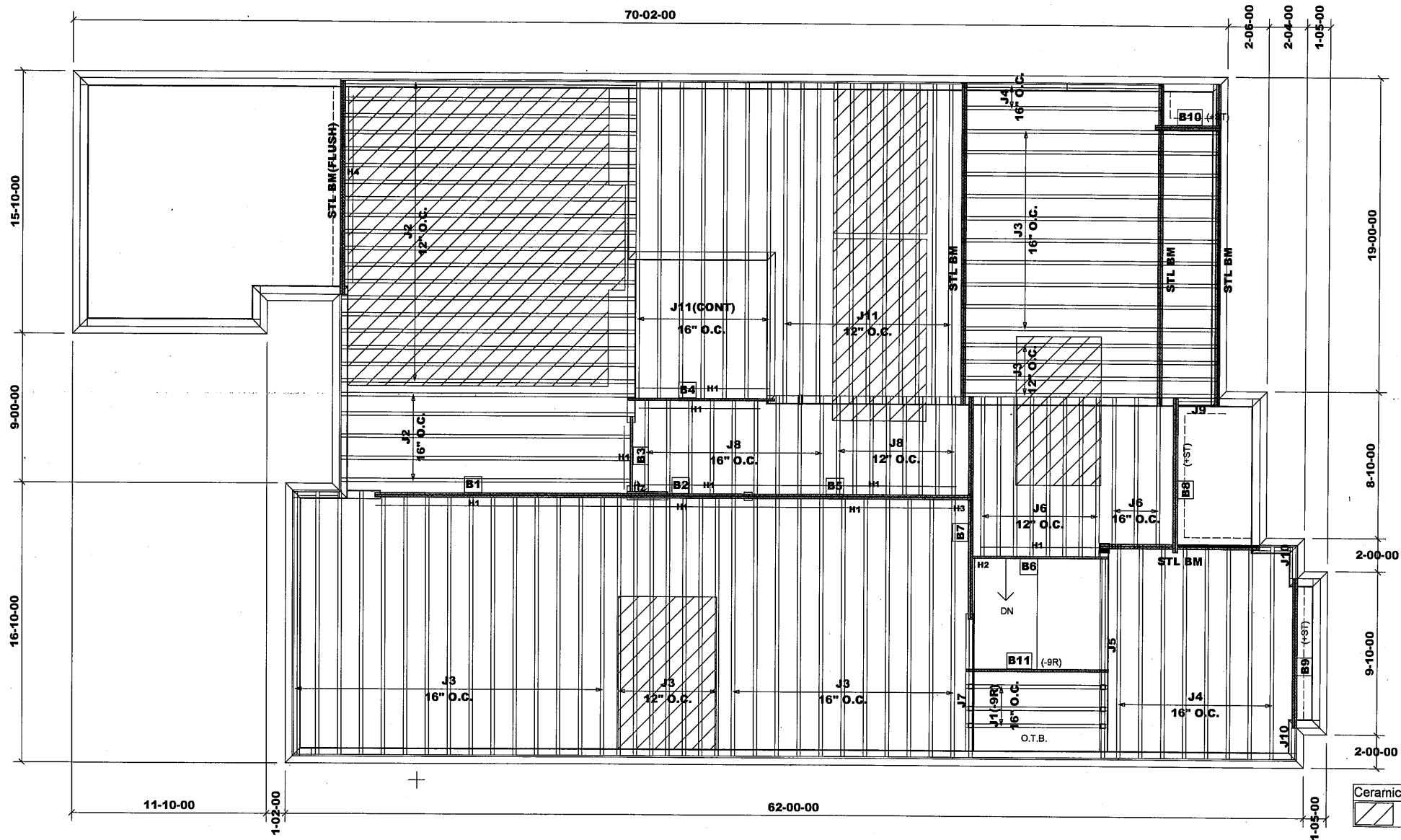




MODEL: UNIT 5005 - EL.A
+ OPT. LOGGIA

Second Floor Framing

Do not scale - refer to architectural plans for dimensions

11 7/8" BLOCKING
TOTAL LENGTH: 8'

Products				
PlotID	Length	Product	Plies	Net Qty
J1	9-00-00	9 1/2" NI-20	1	3
J2	18-00-00	11 7/8" NI-20	1	24
J3	16-00-00	11 7/8" NI-20	1	47
J4	13-00-00	11 7/8" NI-20	1	10
J5	12-00-00	11 7/8" NI-20	1	1
J6	10-00-00	11 7/8" NI-20	1	11
J7	9-00-00	11 7/8" NI-20	1	1
J8	6-00-00	11 7/8" NI-20	1	17
J9	3-00-00	11 7/8" NI-20	1	1
J10	2-00-00	11 7/8" NI-20	1	2
J11	20-00-00	11 7/8" NI-40x	1	18
B1	16-00-00	VERSALAM-12 2.0E	2	2
B5	14-00-00	VERSALAM-12 2.0E	2	2
B7	14-00-00	VERSALAM-12 2.0E	2	2
B8	10-00-00	VERSALAM-12 2.0E	2	2
B11	9-00-00	VERSALAM-10 2.0E	1	1
B4	9-00-00	VERSALAM-12 2.0E	1	1
B6	9-00-00	VERSALAM-12 2.0E	1	1
B9	9-00-00	VERSALAM-12 2.0E	2	2
B2	8-00-00	VERSALAM-12 2.0E	2	2
B3	5-00-00	VERSALAM-12 2.0E	1	1
B10	4-00-00	VERSALAM-12 2.0E	2	2

HANGER SCHEDULE

H1-----LT251188 (TM)
H2-----HUS1.81/10(FM)
H3-----HGUS410(FM)
H4-----LF2511(FM)

NOTE:

TM -----TOP MOUNT HANGERS
FM-----FACE MOUNT HANGERS

RIMBOARD

1- 1/8" X 9 1/2" O.S.B.
1- 1/8" X 11 7/8" O.S.B.

SUBFLOOR - 3/4" NAILED & GLUED

APP - AS PER PLAN
BBO - BEAM BY OTHERS

Ceramic tile application as per O.B.C. 9.30.6

Provide I-Joist Blocking between continuous joists
(along bearing)

1-2X6 SPF#2 Squash Block req'd on one side of each
joist under interior load bearing wall. Multiple Squash
Blocks are req'd under concentrated loads.

95915/Jan. 2, 2018

JT/PL: 45147/94992

LI: 290684

Builder: Gold Park

Project: Pine Valley

Location: Vaughan

Date: November 28, 2017

Designer: NL

Sheet: 1 of 20

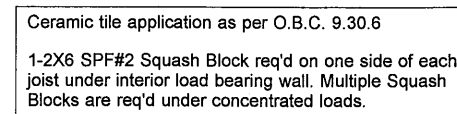
Alpa Roof Trusses Inc.

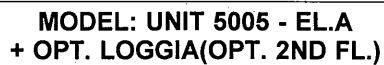
Maple, Ontario

Salesperson: Derek

Home Lumber

S152480-S152507





Do not scale - refer to architectural plans for dimensions

11 7/8" BLOCKING

TOTAL LENGTH: 8'

HANGER SCHEDULE

H1-----	LT251188 (TM)
H2-----	HUS1.81/10(FM)
H3-----	HGUS410(FM)
H4-----	LF2511(FM)

NOTE:

TM-----	TOP MOUNT HANGERS
FM-----	FACE MOUNT HANGERS

RIMBOARD
1- 1/8" X 9 1/2" O.S.B.
1- 1/8" X 11 7/8" O.S.B.
SUBFLOOR - 3/4" NAILED & GLUED
APP - AS PER PLAN
BBO - BEAM BY OTHERS

Ceramic tile application as per O.B.C. 9.30.6

Provide I-Joist Blocking between continuous joists (along bearing)

1-2X6 SPF#2 Squash Block req'd on one side of each joist under interior load bearing wall. Multiple Squash Blocks are req'd under concentrated loads.

JT/PL: 45147/94992
LI: 290684

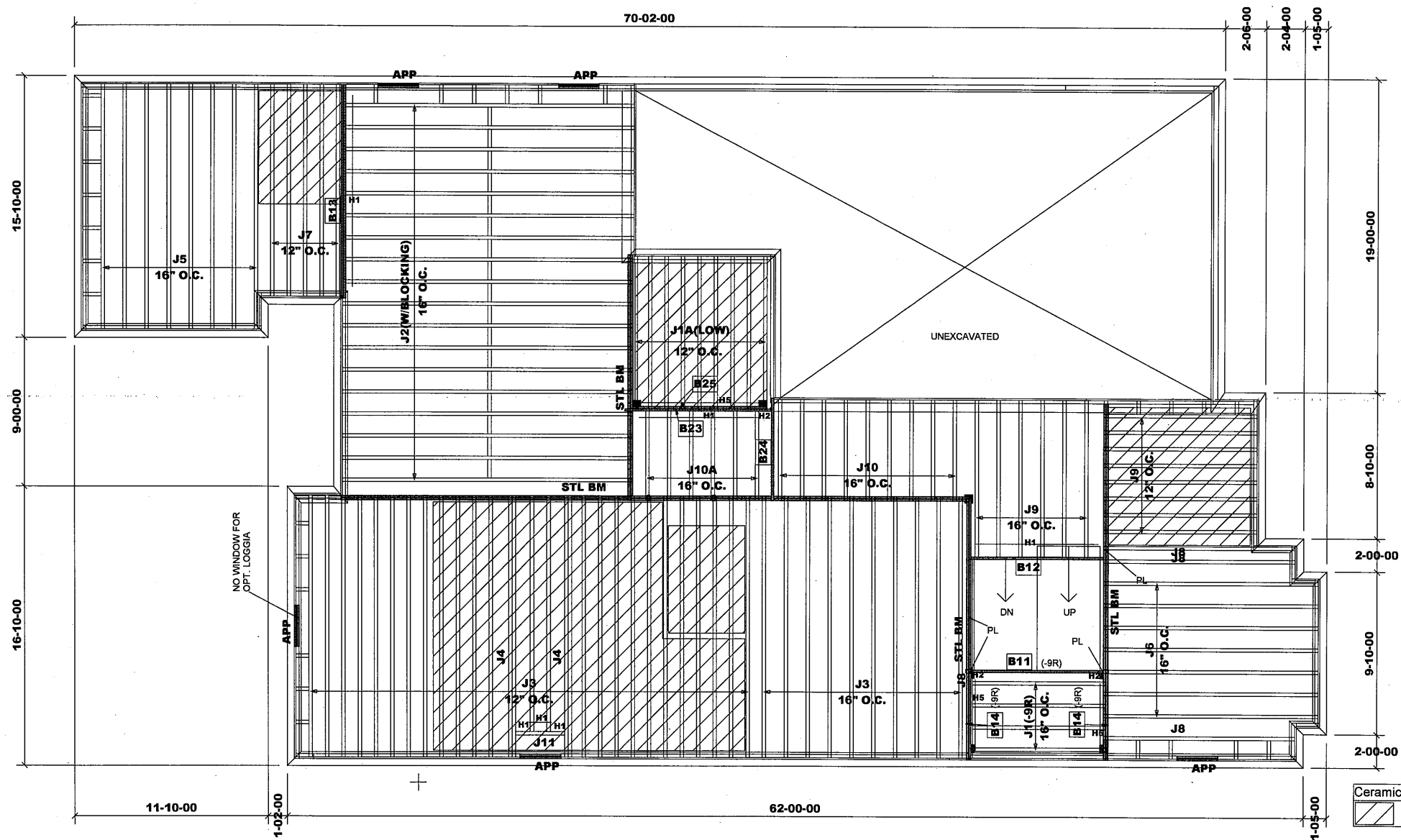
Builder: Gold Park
Project: Pine Valley

Location: Vaughan
Date: November 28, 2017

Designer: NL
Sheet: 3 of 20

Alpa Roof Trusses Inc.
Maple, Ontario

Salesperson: Derek
Home Lumber



Products				
PlotID	Length	Product	Plies	Net Qty
J1A	10'-00"	9 1/2" NI-20	1	9
J1	9'-00"	9 1/2" NI-20	1	4
J2	18'-00"	11 7/8" NI-20	1	18
J3	16'-00"	11 7/8" NI-20	1	35
J4	16'-00"	11 7/8" NI-20	2	4
J5	15'-00"	11 7/8" NI-20	1	8
J6	14'-00"	11 7/8" NI-20	1	7
J7	13'-00"	11 7/8" NI-20	1	5
J8	12'-00"	11 7/8" NI-20	1	4
J9	10'-00"	11 7/8" NI-20	1	14
J10	7'-00"	11 7/8" NI-20	1	9
J10A	6'-00"	11 7/8" NI-20	1	6
J11	3'-00"	11 7/8" NI-20	1	1
B13	13'-00"	VERSALAM-12 2.0E	2	2
B11	9'-00"	VERSALAM-10 2.0E	1	1
B25	9'-00"	VERSALAM-10 2.0E	1	1
B12	9'-00"	VERSALAM-12 2.0E	1	1
B23	9'-00"	VERSALAM-12 2.0E	1	1
B24	7'-00"	VERSALAM-12 2.0E	1	1
B14	5'-00"	VERSALAM-10 2.0E	1	2

HANGER SCHEDULE	
H1-----	LT251188 (TM)
H2-----	HUS1.81/10(FM)
H5-----	LT259(TM)
NOTE:	
TM -----	TOP MOUNT HANGERS
FM-----	FACE MOUNT HANGERS

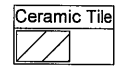
RIMBOARD
1- 1/8" X 9 1/2" O.S.B.
1- 1/8" X 11 7/8" O.S.B.
SUBFLOOR - 3/4" NAILED & GLUED
APP - AS PER PLAN
BBO - BEAM BY OTHERS

Ceramic tile application as per O.B.C. 9.30.6
1-2X6 SPF#2 Squash Block req'd on one side of each joist under interior load bearing wall. Multiple Squash Blocks are req'd under concentrated loads.

REVISION: January 22, 2018
MODEL: UNIT 5005 - EL.A
+ OPT. LOGGIA(W/SUNKEN)

First Floor Framing
Do not scale - refer to architectural plans for dimensions

11 7/8" BLOCKING
TOTAL LENGTH: 80'



JT/PL: 45147/95915
LI: 290684

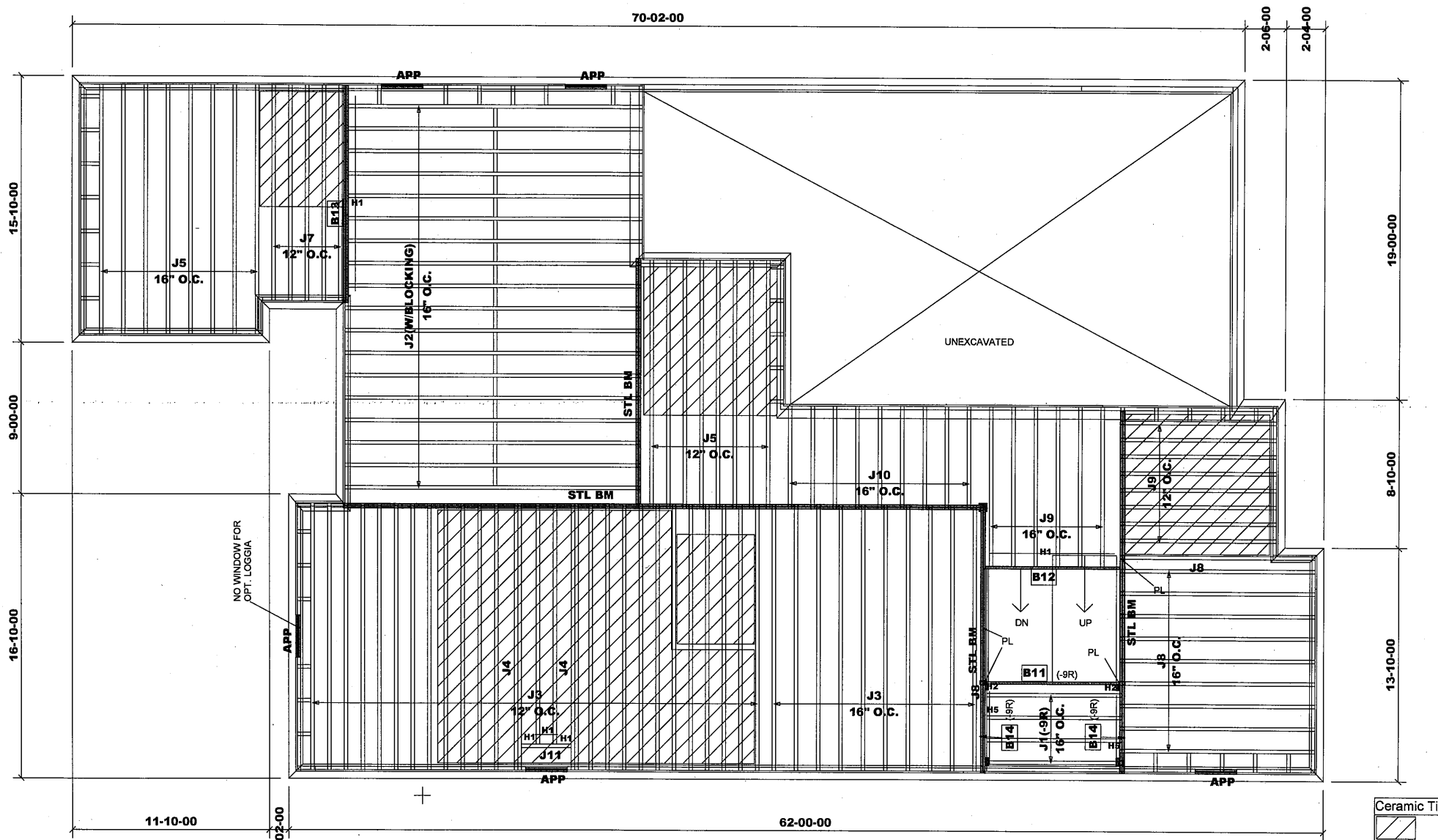
Builder: Gold Park
Project: Pine Valley

Location: Vaughan
Date: November 28, 2017

Designer: NL
Sheet: 4 of 20

Alpa Roof Trusses Inc.
Maple, Ontario

Salesperson: Derek
Home Lumber



Products				
PlotID	Length	Product	Plies	Net Qty
J1	9-00-00	9 1/2" NI-20	1	4
J2	18-00-00	11 7/8" NI-20	1	18
J3	16-00-00	11 7/8" NI-20	1	35
J4	16-00-00	11 7/8" NI-20	2	4
J5	15-00-00	11 7/8" NI-20	1	16
J7	13-00-00	11 7/8" NI-20	1	5
J8	12-00-00	11 7/8" NI-20	1	11
J9	10-00-00	11 7/8" NI-20	1	14
J10	7-00-00	11 7/8" NI-20	1	9
J11	3-00-00	11 7/8" NI-20	1	1
B13	13-00-00	VERSALAM-12 2.0E	2	2
B11	9-00-00	VERSALAM-10 2.0E	1	1
B12	9-00-00	VERSALAM-12 2.0E	1	1
B14	5-00-00	VERSALAM-10 2.0E	1	2

HANGER SCHEDULE

H1-----LT251188 (TM)
H2-----HUS1.81/10(FM)
H5-----LT259(TM)

NOTE:

TM -----TOP MOUNT HANGERS
FM-----FACE MOUNT HANGERS

RIMBOARD

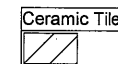
1- 1/8" X 9 1/2" O.S.B.
1- 1/8" X 11 7/8" O.S.B.

SUBFLOOR - 3/4" NAILED & GLUED

APP - AS PER PLAN
BBO - BEAM BY OTHERS

Ceramic tile application as per O.B.C. 9.30.6

1-2X6 SPF#2 Squash Block req'd on one side of each joist under interior load bearing wall. Multiple Squash Blocks are req'd under concentrated loads.



REVISION: January 22, 2018

MODEL: UNIT 5005 - EL.B+C
+ OPT. LOGGIA

First Floor Framing

Do not scale - refer to architectural plans for dimensions

11 7/8" BLOCKING
TOTAL LENGTH: 84'

JT/PL: 45147/95915

LI: 290684

Builder: Gold Park

Project: Pine Valley

Location: Vaughan

Date: November 28, 2017

Designer: NL

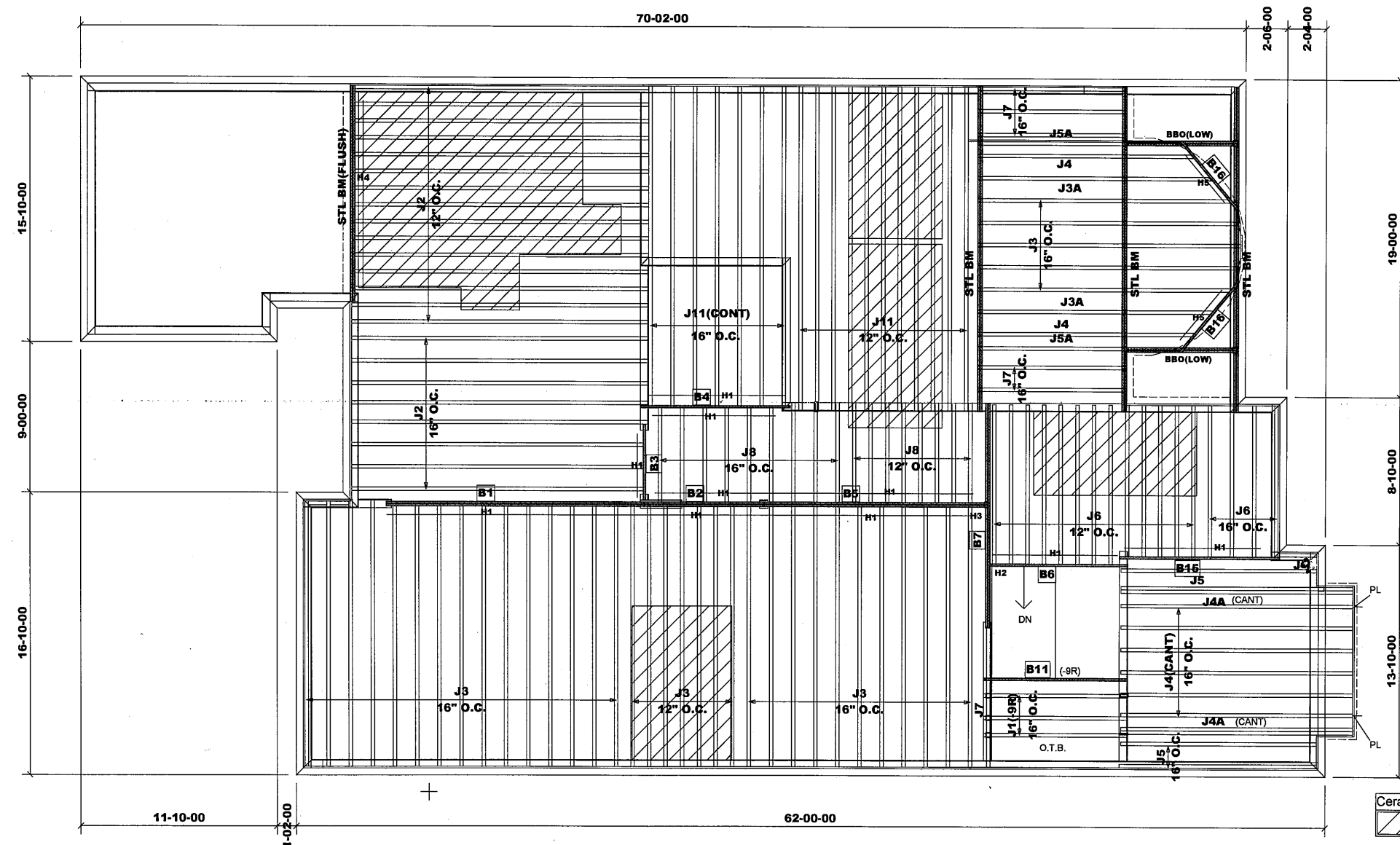
Sheet: 6 of 20

Alpa Roof Trusses Inc.

Maple, Ontario

Salesperson: Derek

Home Lumber



MODEL: UNIT 5005 - EL.B
+ OPT. LOGGIA(OPT. 2ND FL.)

Second Floor Framing

Do not scale - refer to architectural plans for dimensions

Products				
PlotID	Length	Product	Plies	Net Qty
J1	9-00-00	9 1/2" NI-20	1	3
J2	18-00-00	11 7/8" NI-20	1	23
J3	16-00-00	11 7/8" NI-20	1	38
J3A	15-00-00	11 7/8" NI-20	1	2
J4	14-00-00	11 7/8" NI-20	1	8
J4A	14-00-00	11 7/8" NI-20	2	4
J5A	13-00-00	11 7/8" NI-20	1	2
J5	12-00-00	11 7/8" NI-20	1	3
J6	10-00-00	11 7/8" NI-20	1	17
J7	9-00-00	11 7/8" NI-20	1	6
J8	6-00-00	11 7/8" NI-20	1	17
J9	3-00-00	11 7/8" NI-20	1	1
J11	20-00-00	11 7/8" NI-40x	1	18
B1	16-00-00	VERSALAM-12 2.0E	2	2
B5	14-00-00	VERSALAM-12 2.0E	2	2
B7	14-00-00	VERSALAM-12 2.0E	2	2
B15	10-00-00	VERSALAM-12 2.0E	1	1
B11	9-00-00	VERSALAM-10 2.0E	1	1
B4	9-00-00	VERSALAM-12 2.0E	1	1
B6	9-00-00	VERSALAM-12 2.0E	1	1
B2	8-00-00	VERSALAM-12 2.0E	2	2
B16	6-00-00	VERSALAM-12 2.0E	1	2
B3	5-00-00	VERSALAM-12 2.0E	1	1

HANGER SCHEDULE

H1-----LT251188 (TM)
H2-----HUS1.81/10(FM)
H3-----HGUS410(FM)
H4-----LF2511(FM)
H5-----LSSUH310(FM)

NOTE:

TM-----TOP MOUNT HANGERS
FM-----FACE MOUNT HANGERS

RIMBOARD

1- 1/8" X 9 1/2" O.S.B.
1- 1/8" X 11 7/8" O.S.B.

SUBFLOOR - 3/4" NAILED & GLUED

APP - AS PER PLAN
BBO - BEAM BY OTHERS

Ceramic tile application as per O.B.C. 9.30.6

Provide I-Joist Blocking between continuous joists (along bearing)

Provide I-Joist Blocking between cantilevered joists (along bearing) and rimboard closure at ends.

1-2X6 SPF#2 Squash Block req'd on one side of each joist under interior load bearing wall. Multiple Squash Blocks are req'd under concentrated loads.

JT/PL: 45147/94992

Builder: Gold Park

Location: Vaughan

Designer: NL

Alpa Roof Trusses Inc.

Salesperson: Derek

LI: 290684

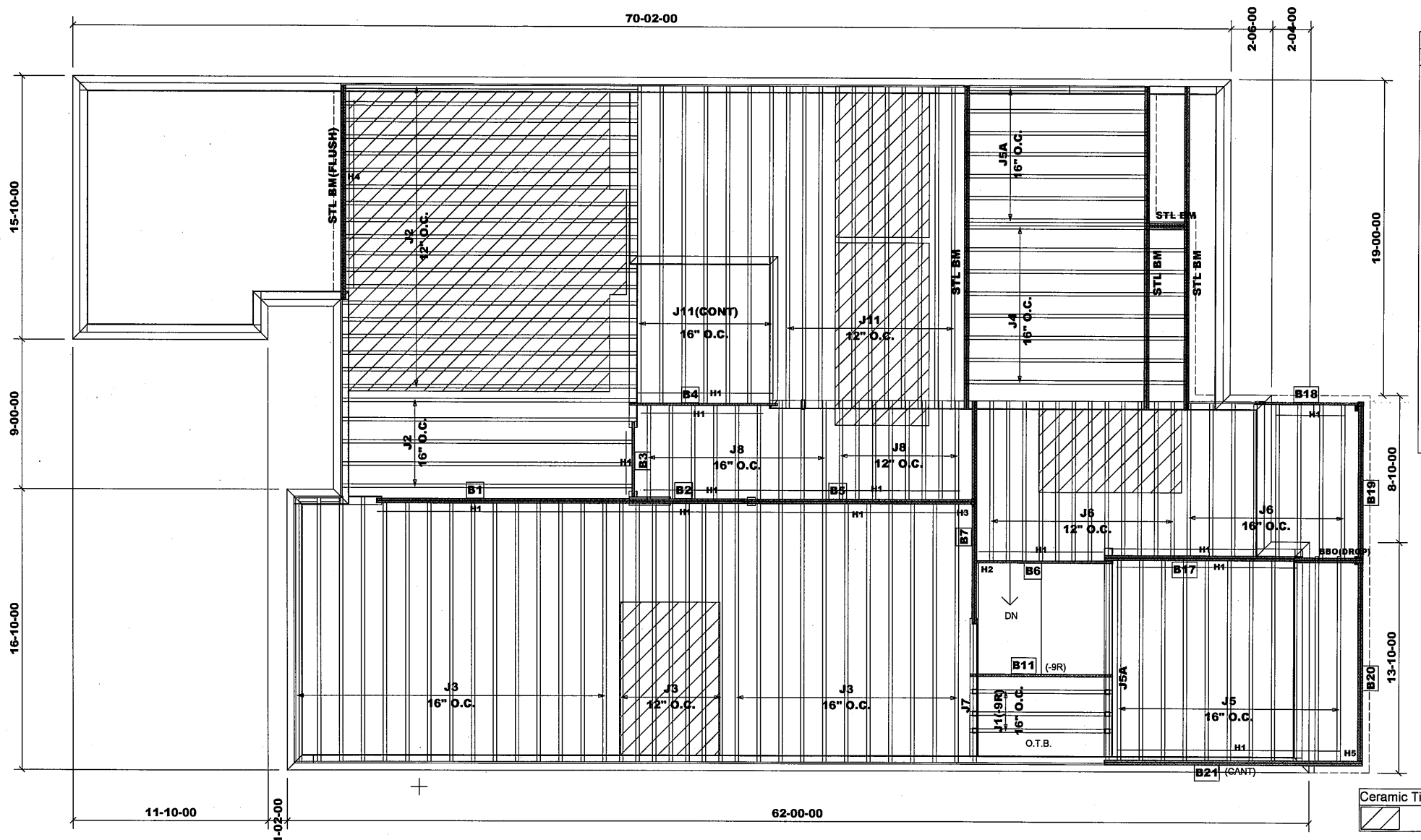
Project: Pine Valley

Date: November 28, 2017

Sheet: 7 of 20

Maple, Ontario

Home Lumber



MODEL: UNIT 5005 - E.L.C
+ OPT. LOGGIA

Second Floor Framing

Do not scale - refer to architectural plans for dimensions

11 7/8" BLOCKING
TOTAL LENGTH: 8'

REVISION: December 15, 2017

Products				
PlotID	Length	Product	Plies	Net Qty
J1	9-00-00	9 1/2" NI-20	1	3
J2	18-00-00	11 7/8" NI-20	1	24
J3	16-00-00	11 7/8" NI-20	1	33
J4	14-00-00	11 7/8" NI-20	1	8
J5	13-00-00	11 7/8" NI-20	1	11
J5A	12-00-00	11 7/8" NI-20	1	8
J6	10-00-00	11 7/8" NI-20	1	20
J7	9-00-00	11 7/8" NI-20	1	1
J8	6-00-00	11 7/8" NI-20	1	17
J11	20-00-00	11 7/8" NI-40x	1	18
B1	16-00-00	VERSALAM-12 2.0E	2	2
B21	16-00-00	VERSALAM-12 2.0E	2	2
B5	14-00-00	VERSALAM-12 2.0E	2	2
B7	14-00-00	VERSALAM-12 2.0E	2	2
B20	13-00-00	VERSALAM-12 2.0E	2	2
B17	12-00-00	VERSALAM-12 2.0E	2	2
B19	10-00-00	VERSALAM-12 2.0E	2	2
B11	9-00-00	VERSALAM-10 2.0E	1	1
B4	9-00-00	VERSALAM-12 2.0E	1	1
B6	9-00-00	VERSALAM-12 2.0E	1	1
B2	8-00-00	VERSALAM-12 2.0E	2	2
B18	7-00-00	VERSALAM-12 2.0E	1	1
B3	5-00-00	VERSALAM-12 2.0E	1	1

HANGER SCHEDULE

H1-----LT251188 (TM)
H2-----HUS1.81/10(FM)
H3-----HGUS410(FM)
H4-----LF2511(FM)
H5-----HUC410(FM)

NOTE:

TM -----TOP MOUNT HANGERS
FM-----FACE MOUNT HANGERS

RIMBOARD

1- 1/8" X 9 1/2" O.S.B.
1- 1/8" X 11 7/8" O.S.B.

SUBFLOOR - 3/4" NAILED & GLUED

APP - AS PER PLAN
BBO - BEAM BY OTHERS

Ceramic tile application as per O.B.C. 9.30.6

Provide I-Joist Blocking between continuous joists (along bearing)

1-2X6 SPF#2 Squash Block req'd on one side of each joist under interior load bearing wall. Multiple Squash Blocks are req'd under concentrated loads.

JT/PL: 45147/94992

LI: 290684

Builder: Gold Park

Project: Pine Valley

Location: Vaughan

Date: November 28, 2017

Designer: NL

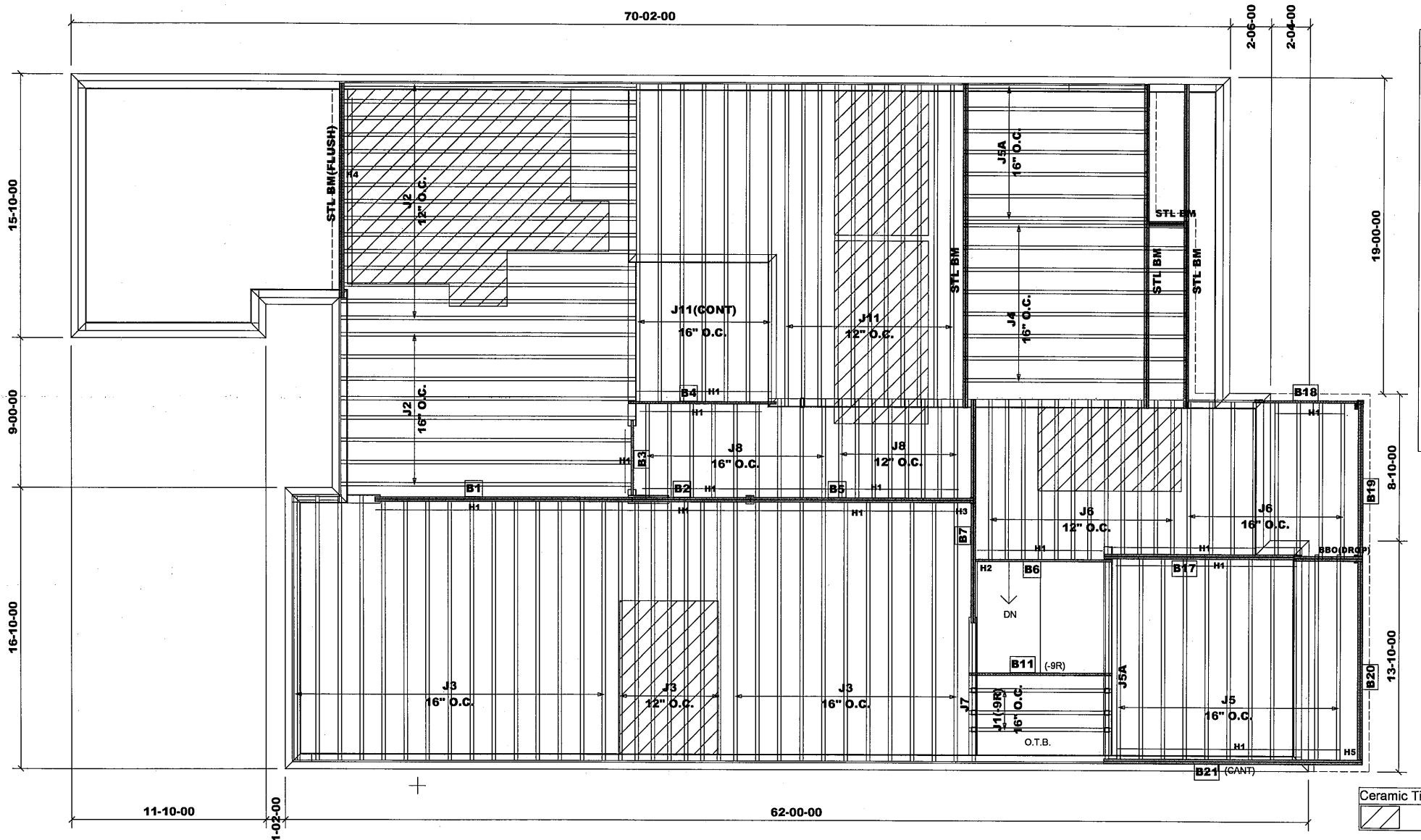
Sheet: 8 of 20

Alpa Roof Trusses Inc.

Maple, Ontario

Salesperson: Derek

Home Lumber



MODEL: UNIT 5005 - EL.C
+ OPT. LOGGIA(OPT. 2ND FL.)

Second Floor Framing

Do not scale - refer to architectural plans for dimensions

11 7/8" BLOCKING
TOTAL LENGTH: 8'

REVISION: December 15, 2017

Products				
PlotID	Length	Product	Plies	Net Qty
J1	9'-00"-00	9 1/2" NI-20	1	3
J2	18'-00"-00	11 7/8" NI-20	1	23
J3	16'-00"-00	11 7/8" NI-20	1	33
J4	14'-00"-00	11 7/8" NI-20	1	8
J5	13'-00"-00	11 7/8" NI-20	1	11
J5A	12'-00"-00	11 7/8" NI-20	1	8
J6	10'-00"-00	11 7/8" NI-20	1	20
J7	9'-00"-00	11 7/8" NI-20	1	1
J8	6'-00"-00	11 7/8" NI-20	1	17
J11	20'-00"-00	11 7/8" NI-40x	1	18
B1	16'-00"-00	VERSALAM-12 2.0E	2	2
B21	16'-00"-00	VERSALAM-12 2.0E	2	2
B5	14'-00"-00	VERSALAM-12 2.0E	2	2
B7	14'-00"-00	VERSALAM-12 2.0E	2	2
B20	13'-00"-00	VERSALAM-12 2.0E	2	2
B17	12'-00"-00	VERSALAM-12 2.0E	2	2
B19	10'-00"-00	VERSALAM-12 2.0E	2	2
B11	9'-00"-00	VERSALAM-10 2.0E	1	1
B4	9'-00"-00	VERSALAM-12 2.0E	1	1
B6	9'-00"-00	VERSALAM-12 2.0E	1	1
B2	8'-00"-00	VERSALAM-12 2.0E	2	2
B18	7'-00"-00	VERSALAM-12 2.0E	1	1
B3	5'-00"-00	VERSALAM-12 2.0E	1	1

HANGER SCHEDULE

H1	LT251188 (TM)
H2	HUS1.81/10(FM)
H3	HGUS410(FM)
H4	LF2511(FM)
H5	HUC410(FM)

NOTE:
TM -----TOP MOUNT HANGERS
FM-----FACE MOUNT HANGERS

RIMBOARD
1- 1/8" X 9 1/2" O.S.B.
1- 1/8" X 11 7/8" O.S.B.
SUBFLOOR - 3/4" NAILED & GLUED

APP - AS PER PLAN
BBO - BEAM BY OTHERS

Ceramic tile application as per O.B.C. 9.30.6

Provide I-Joist Blocking between continuous joists (along bearing)

1-2X6 SPF#2 Squash Block req'd on one side of each joist under interior load bearing wall. Multiple Squash Blocks are req'd under concentrated loads.

95915

JT/PL: 45147/94992
LI: 290684

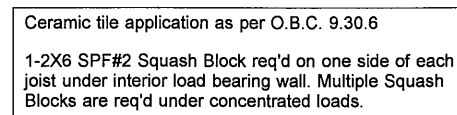
Builder: Gold Park
Project: Pine Valley

Location: Vaughan
Date: November 28, 2017

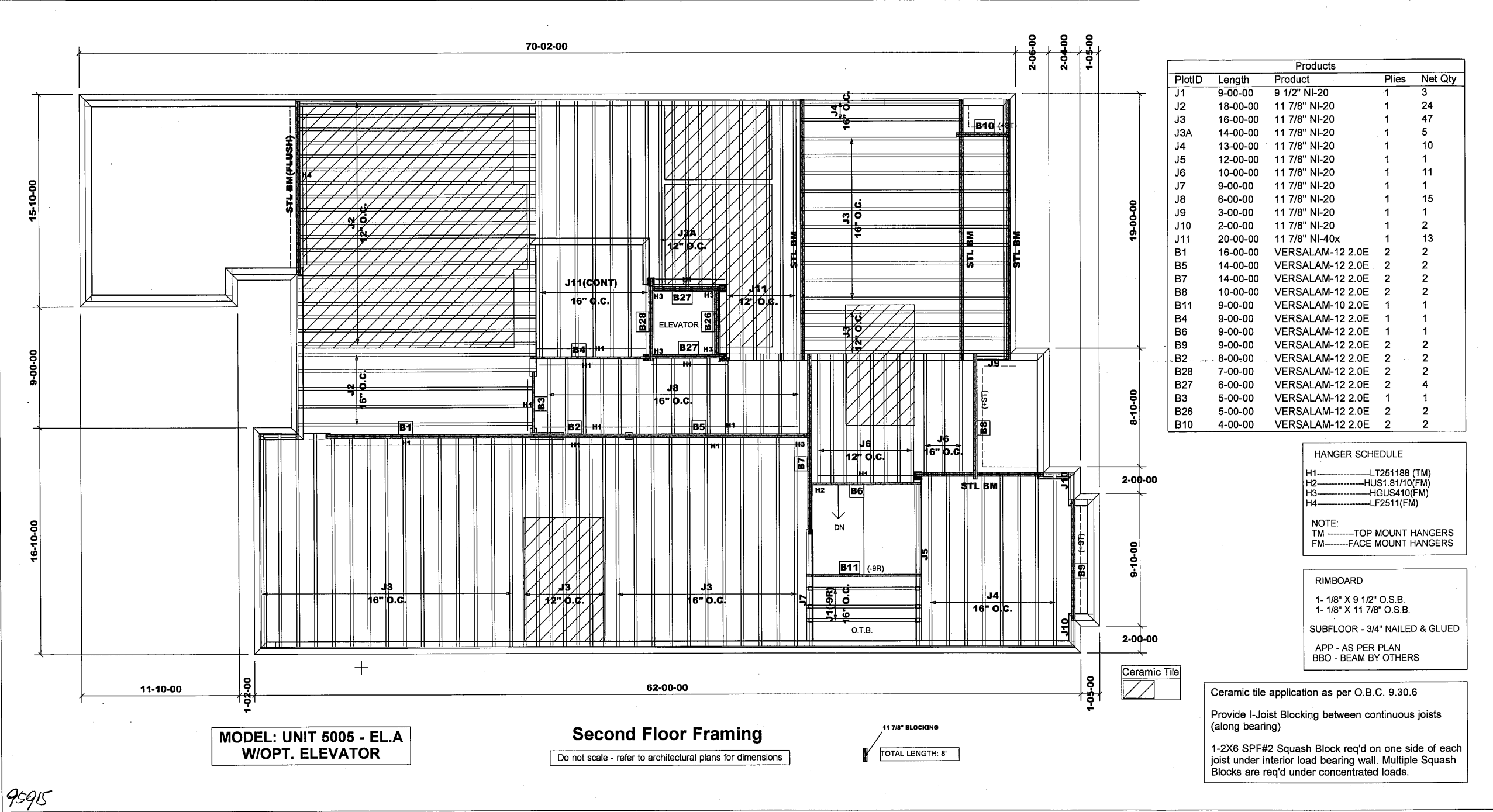
Designer: NL
Sheet: 9 of 20

Alpa Roof Trusses Inc.
Maple, Ontario

Salesperson: Derek
Home Lumber



Salesperson: Derek
Home Lumber



Products				
PlotID	Length	Product	Plies	Net Qty
J1	9-00-00	9 1/2" NI-20	1	3
J2	18-00-00	11 7/8" NI-20	1	24
J3	16-00-00	11 7/8" NI-20	1	47
J3A	14-00-00	11 7/8" NI-20	1	5
J4	13-00-00	11 7/8" NI-20	1	10
J5	12-00-00	11 7/8" NI-20	1	1
J6	10-00-00	11 7/8" NI-20	1	11
J7	9-00-00	11 7/8" NI-20	1	1
J8	6-00-00	11 7/8" NI-20	1	15
J9	3-00-00	11 7/8" NI-20	1	1
J10	2-00-00	11 7/8" NI-20	1	2
J11	20-00-00	11 7/8" NI-40x	1	13
B1	16-00-00	VERSALAM-12 2.0E	2	2
B5	14-00-00	VERSALAM-12 2.0E	2	2
B7	14-00-00	VERSALAM-12 2.0E	2	2
B8	10-00-00	VERSALAM-12 2.0E	2	2
B11	9-00-00	VERSALAM-10 2.0E	1	1
B4	9-00-00	VERSALAM-12 2.0E	1	1
B6	9-00-00	VERSALAM-12 2.0E	1	1
B9	9-00-00	VERSALAM-12 2.0E	2	2
B2	8-00-00	VERSALAM-12 2.0E	2	2
B28	7-00-00	VERSALAM-12 2.0E	2	2
B27	6-00-00	VERSALAM-12 2.0E	2	4
B3	5-00-00	VERSALAM-12 2.0E	1	1
B26	5-00-00	VERSALAM-12 2.0E	2	2
B10	4-00-00	VERSALAM-12 2.0E	2	2

HANGER SCHEDULE

H1-----LT251188 (TM)
H2-----HUS1.81/10(FM)
H3-----HGUS410(FM)
H4-----LF2511(FM)

NOTE:
TM -----TOP MOUNT HANGERS
FM-----FACE MOUNT HANGERS

RIMBOARD

1- 1/8" X 9 1/2" O.S.B.
1- 1/8" X 11 7/8" O.S.B.

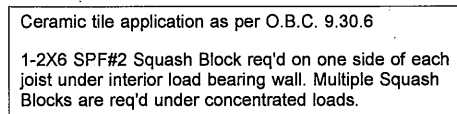
SUBFLOOR - 3/4" NAILED & GLUED

APP - AS PER PLAN
BBO - BEAM BY OTHERS

Ceramic tile application as per O.B.C. 9.30.6

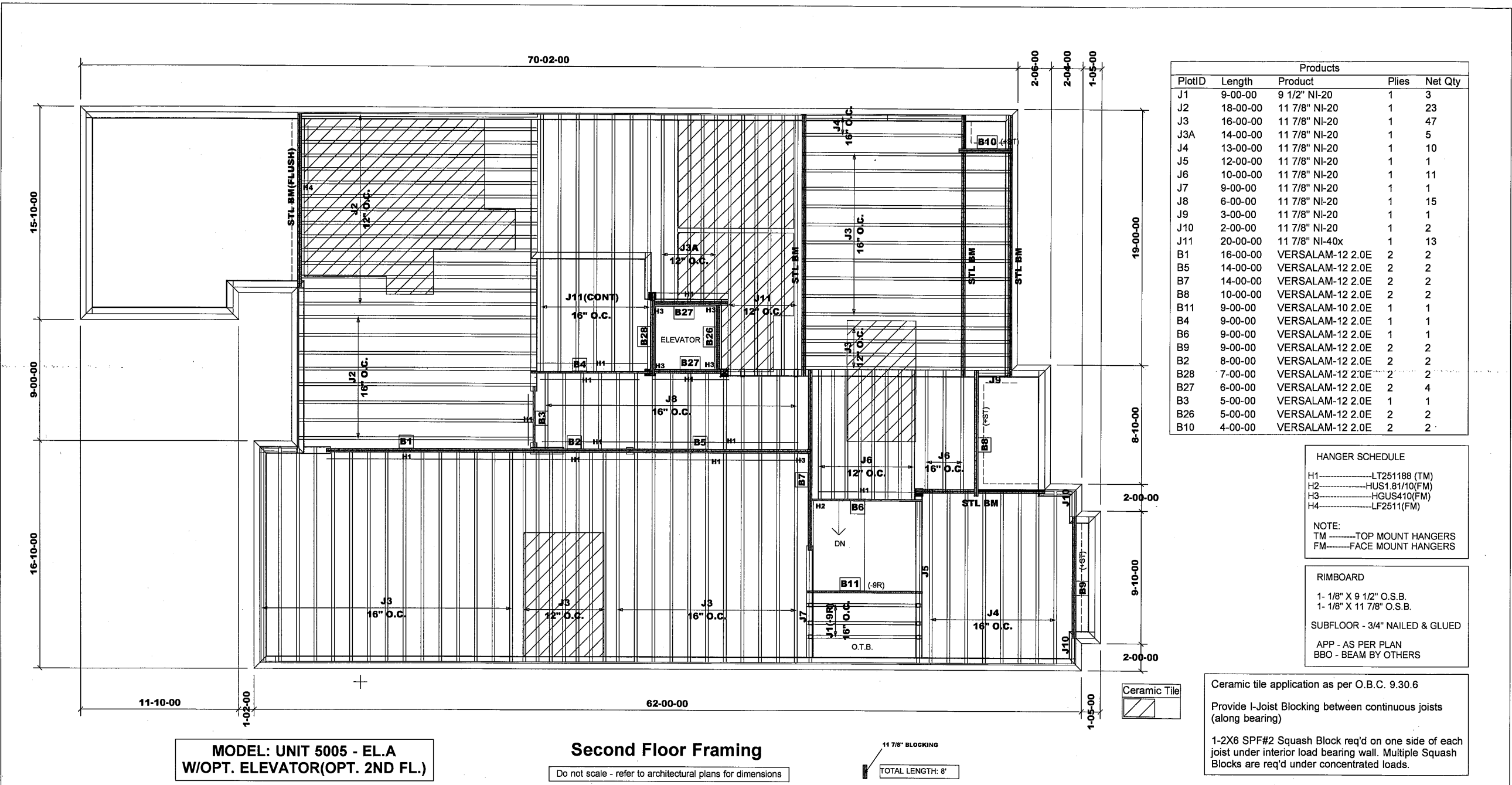
Provide I-Joist Blocking between continuous joists (along bearing)

1-2X6 SPF#2 Squash Block req'd on one side of each joist under interior load bearing wall. Multiple Squash Blocks are req'd under concentrated loads.



Home Lumber

Ceramic Tile



Products				
PlotID	Length	Product	Plies	Net Qty
J1	9-00-00	9 1/2" NI-20	1	3
J2	18-00-00	11 7/8" NI-20	1	23
J3	16-00-00	11 7/8" NI-20	1	47
J3A	14-00-00	11 7/8" NI-20	1	5
J4	13-00-00	11 7/8" NI-20	1	10
J5	12-00-00	11 7/8" NI-20	1	1
J6	10-00-00	11 7/8" NI-20	1	11
J7	9-00-00	11 7/8" NI-20	1	1
J8	6-00-00	11 7/8" NI-20	1	15
J9	3-00-00	11 7/8" NI-20	1	1
J10	2-00-00	11 7/8" NI-20	1	2
J11	20-00-00	11 7/8" NI-40x	1	13
B1	16-00-00	VERSALAM-12 2.0E	2	2
B5	14-00-00	VERSALAM-12 2.0E	2	2
B7	14-00-00	VERSALAM-12 2.0E	2	2
B8	10-00-00	VERSALAM-12 2.0E	2	2
B11	9-00-00	VERSALAM-10 2.0E	1	1
B4	9-00-00	VERSALAM-12 2.0E	1	1
B6	9-00-00	VERSALAM-12 2.0E	1	1
B9	9-00-00	VERSALAM-12 2.0E	2	2
B2	8-00-00	VERSALAM-12 2.0E	2	2
B28	7-00-00	VERSALAM-12 2.0E	2	2
B27	6-00-00	VERSALAM-12 2.0E	2	4
B3	5-00-00	VERSALAM-12 2.0E	1	1
B26	5-00-00	VERSALAM-12 2.0E	2	2
B10	4-00-00	VERSALAM-12 2.0E	2	2

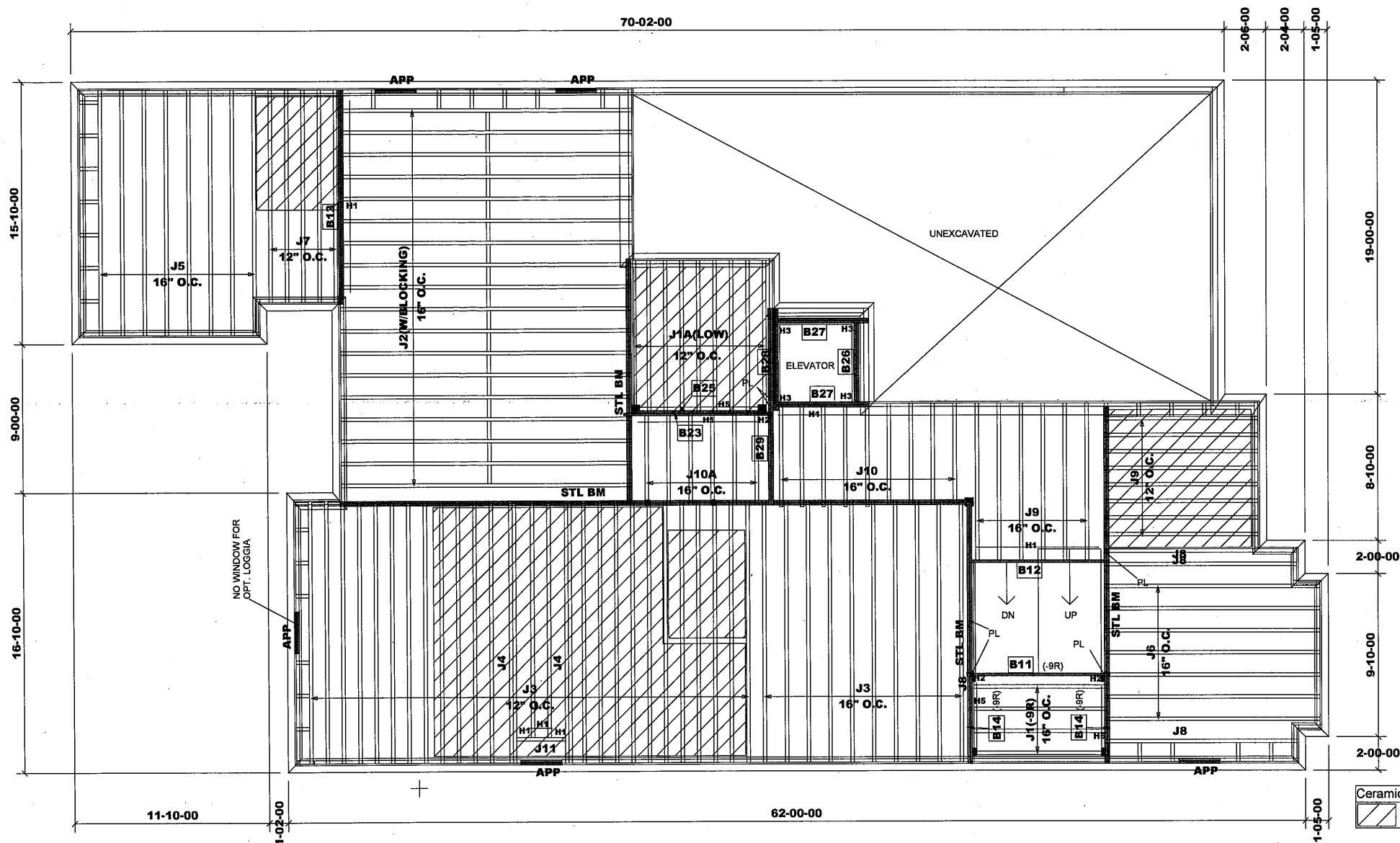
HANGER SCHEDULE	
H1	LT251188 (TM)
H2	HUS1.81/10(FM)
H3	HGUS410(FM)
H4	LF2511(FM)
NOTE:	
TM	TOP MOUNT HANGERS
FM	FACE MOUNT HANGERS

RIMBOARD	
1- 1/8" X 9 1/2" O.S.B.	
1- 1/8" X 11 7/8" O.S.B.	
SUBFLOOR - 3/4" NAILED & GLUED	
APP - AS PER PLAN	
BBO - BEAM BY OTHERS	

Ceramic tile application as per O.B.C. 9.30.6

Provide I-Joist Blocking between continuous joists (along bearing)

1-2X6 SPF#2 Squash Block req'd on one side of each joist under interior load bearing wall. Multiple Squash Blocks are req'd under concentrated loads.



Products				
PlotID	Length	Product	Plies	Net Qty
J1A	10-00-00	9 1/2" NI-20	1	9
J1	9-00-00	9 1/2" NI-20	1	4
J2	18-00-00	11 7/8" NI-20	1	18
J3	16-00-00	11 7/8" NI-20	1	35
J4	16-00-00	11 7/8" NI-20	2	4
J5	15-00-00	11 7/8" NI-20	1	8
J6	14-00-00	11 7/8" NI-20	1	7
J7	13-00-00	11 7/8" NI-20	1	5
J8	12-00-00	11 7/8" NI-20	1	4
J9	10-00-00	11 7/8" NI-20	1	14
J10	7-00-00	11 7/8" NI-20	1	9
J10A	6-00-00	11 7/8" NI-20	1	6
J11	3-00-00	11 7/8" NI-20	1	1
B13	13-00-00	VERSALAM-12 2.0E	2	2
B29	12-00-00	VERSALAM-12 2.0E	2	2
B11	9-00-00	VERSALAM-10 2.0E	1	1
B25	9-00-00	VERSALAM-10 2.0E	1	1
B12	9-00-00	VERSALAM-12 2.0E	1	1
B23	9-00-00	VERSALAM-12 2.0E	1	1
B28	7-00-00	VERSALAM-12 2.0E	2	2
B27	6-00-00	VERSALAM-12 2.0E	2	4
B14	5-00-00	VERSALAM-10 2.0E	1	2
B26	5-00-00	VERSALAM-12 2.0E	2	2

HANGER SCHEDULE	
H1	LT251188 (TM)
H2	HUS1.81/10(FM)
H3	HGUS410(FM)
H5	LT259(TM)
NOTE:	
TM	TOP MOUNT HANGERS
FM	FACE MOUNT HANGERS

RIMBOARD
 1- 1/8" X 9 1/2" O.S.B.
 1- 1/8" X 11 7/8" O.S.B.
SUBFLOOR - 3/4" NAILED & GLUED
 APP - AS PER PLAN
 BBO - BEAM BY OTHERS

Ceramic tile application as per O.B.C. 9.30.6
 1-2X6 SPF#2 Squash Block req'd on one side of each joist under interior load bearing wall. Multiple Squash Blocks are req'd under concentrated loads.

REVISION: January 22, 2018

MODEL: UNIT 5005 - EL.A
 W/OPT. ELEVATOR(SUNKEN)

First Floor Framing

Do not scale - refer to architectural plans for dimensions

11 7/8" BLOCKING
 TOTAL LENGTH: 80'

JT/PL: 45147/94992

LI: 290684

Builder: Gold Park

Project: Pine Valley

Location: Vaughan

Date: November 29, 2017

Designer: NL

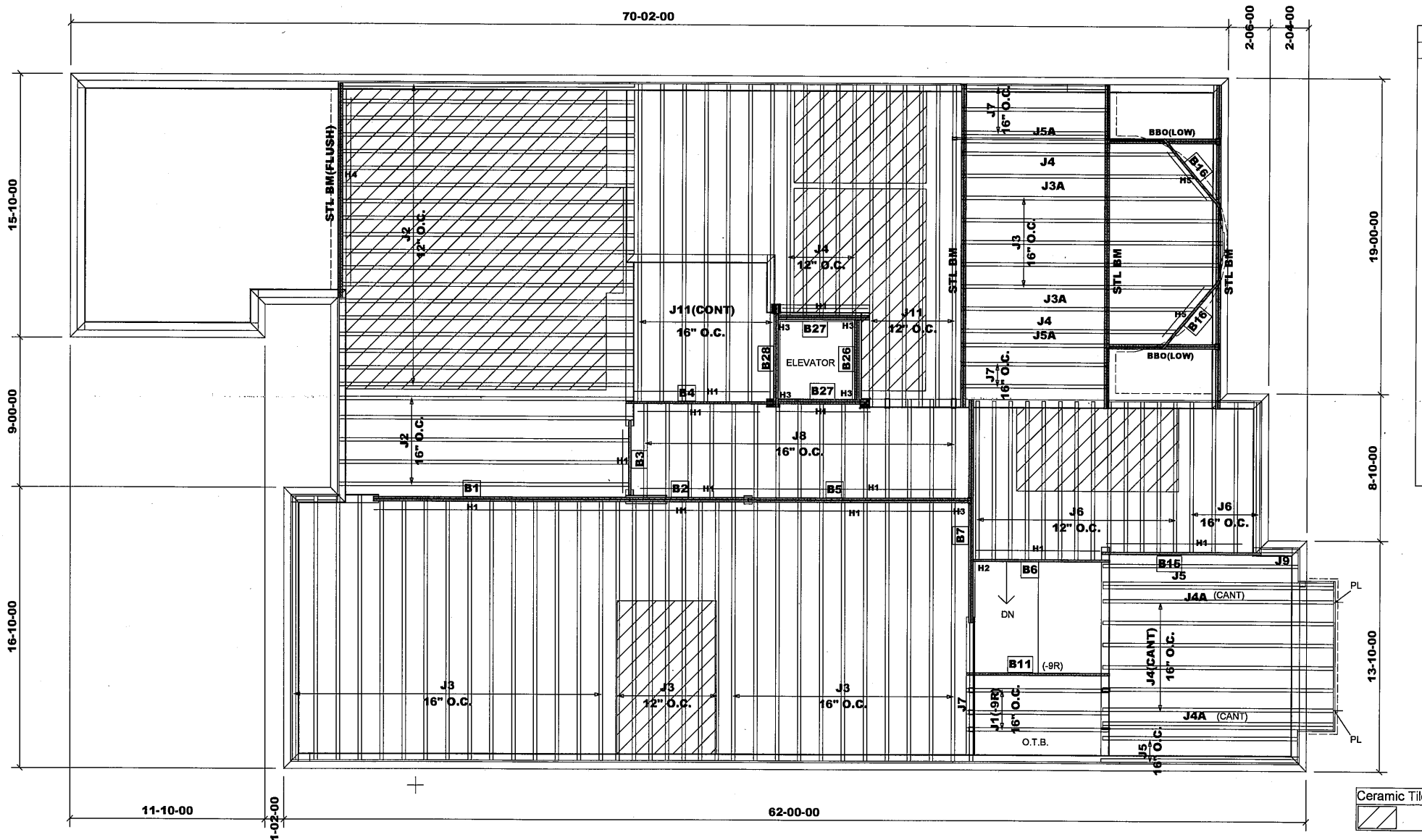
Sheet: 14 of 20

Alpa Roof Trusses Inc.

Maple, Ontario

Salesperson: Derek

Home Lumber



MODEL: UNIT 5005 - EL.B
W/OPT. ELEVATOR

Second Floor Framing

Do not scale - refer to architectural plans for dimensions

11 7/8" BLOCKING
TOTAL LENGTH: 18"

Products				
PlotID	Length	Product	Plies	Net Qty
J1	9'-00"-00	9 1/2" NI-20	1	3
J2	18'-00"-00	11 7/8" NI-20	1	24
J3	16'-00"-00	11 7/8" NI-20	1	38
J3A	15'-00"-00	11 7/8" NI-20	1	2
J4	14'-00"-00	11 7/8" NI-20	1	13
J4A	14'-00"-00	11 7/8" NI-20	2	4
J5A	13'-00"-00	11 7/8" NI-20	1	2
J5	12'-00"-00	11 7/8" NI-20	1	3
J6	10'-00"-00	11 7/8" NI-20	1	17
J7	9'-00"-00	11 7/8" NI-20	1	6
J8	6'-00"-00	11 7/8" NI-20	1	15
J9	3'-00"-00	11 7/8" NI-20	1	1
J11	20'-00"-00	11 7/8" NI-40x	1	13
B1	16'-00"-00	VERSALAM-12 2.0E	2	2
B5	14'-00"-00	VERSALAM-12 2.0E	2	2
B7	14'-00"-00	VERSALAM-12 2.0E	2	2
B15	10'-00"-00	VERSALAM-12 2.0E	1	1
B11	9'-00"-00	VERSALAM-10 2.0E	1	1
B4	9'-00"-00	VERSALAM-12 2.0E	1	1
B6	9'-00"-00	VERSALAM-12 2.0E	1	1
B2	8'-00"-00	VERSALAM-12 2.0E	2	2
B28	7'-00"-00	VERSALAM-12 2.0E	2	2
B16	6'-00"-00	VERSALAM-12 2.0E	1	2
B27	6'-00"-00	VERSALAM-12 2.0E	2	4
B3	5'-00"-00	VERSALAM-12 2.0E	1	1
B26	5'-00"-00	VERSALAM-12 2.0E	2	2

HANGER SCHEDULE

H1-----LT251188 (TM)
H2-----HUS1.81/10(FM)
H3-----HGUS410(FM)
H4-----LF2511(FM)
H5-----LSSUH310(FM)

NOTE:

TM -----TOP MOUNT HANGERS
FM-----FACE MOUNT HANGERS

RIMBOARD

1- 1/8" X 9 1/2" O.S.B.
1- 1/8" X 11 7/8" O.S.B.

SUBFLOOR - 3/4" NAILED & GLUED

APP - AS PER PLAN
BBO - BEAM BY OTHERS

Ceramic tile application as per O.B.C. 9.30.6

Provide I-Joist Blocking between continuous joists (along bearing)

Provide I-Joist Blocking between cantilevered joists (along bearing) and rimboard closure at ends.

1-2X6 SPF#2 Squash Block req'd on one side of each joist under interior load bearing wall. Multiple Squash Blocks are req'd under concentrated loads.

JT/PL: 45147/94992

LI: 290684

Builder: Gold Park

Project: Pine Valley

Location: Vaughan

Date: November 29, 2017

Designer: NL

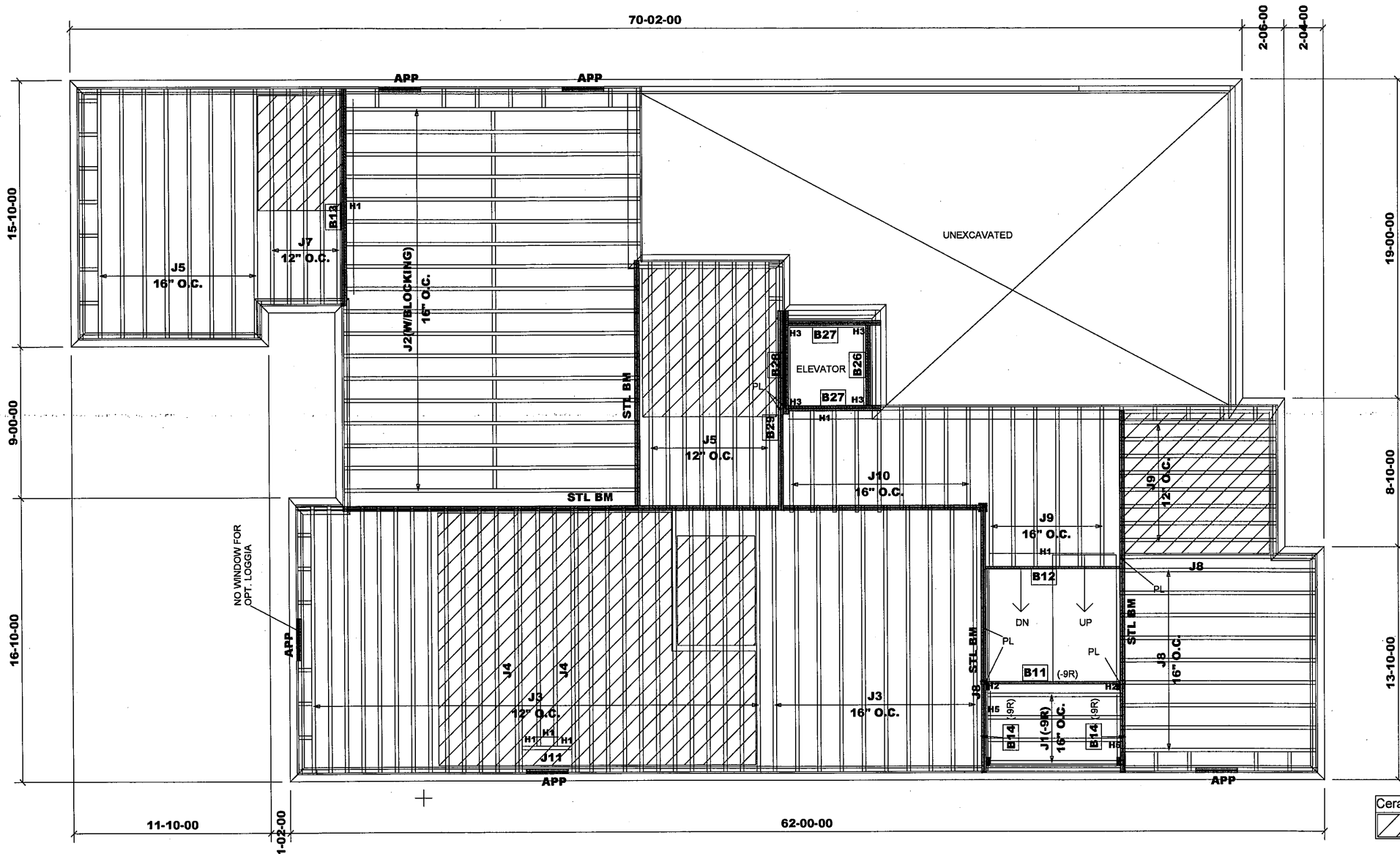
Sheet: 15 of 20

Alpa Roof Trusses Inc.

Maple, Ontario

Salesperson: Derek

Home Lumber



Products				
PlotID	Length	Product	Plies	Net Qty
J1	9-00-00	9 1/2" NI-20	1	4
J2	18-00-00	11 7/8" NI-20	1	18
J3	16-00-00	11 7/8" NI-20	1	35
J4	16-00-00	11 7/8" NI-20	2	4
J5	15-00-00	11 7/8" NI-20	1	16
J7	13-00-00	11 7/8" NI-20	1	5
J8	12-00-00	11 7/8" NI-20	1	11
J9	10-00-00	11 7/8" NI-20	1	14
J10	7-00-00	11 7/8" NI-20	1	9
J11	3-00-00	11 7/8" NI-20	1	1
B13	13-00-00	VERSALAM-12 2.0E	2	2
B29	12-00-00	VERSALAM-12 2.0E	2	2
B11	9-00-00	VERSALAM-10 2.0E	1	1
B12	9-00-00	VERSALAM-12 2.0E	1	1
B28	7-00-00	VERSALAM-12 2.0E	2	2
B27	6-00-00	VERSALAM-12 2.0E	2	4
B14	5-00-00	VERSALAM-10 2.0E	1	2
B26	5-00-00	VERSALAM-12 2.0E	2	2

HANGER SCHEDULE	
H1-----	LT251188 (TM)
H2-----	HUS1.81/10(FM)
H3-----	HGUS410(FM)
H5-----	LT259(TM)
NOTE:	
TM-----	TOP MOUNT HANGERS
FM-----	FACE MOUNT HANGERS

RIMBOARD
1- 1/8" X 9 1/2" O.S.B.
1- 1/8" X 11 7/8" O.S.B.
SUBFLOOR - 3/4" NAILED & GLUED
APP - AS PER PLAN
BBO - BEAM BY OTHERS

Ceramic tile application as per O.B.C. 9.30.6
1-2X6 SPF#2 Squash Block req'd on one side of each joist under interior load bearing wall. Multiple Squash Blocks are req'd under concentrated loads.

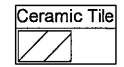
REVISION: January 22, 2018

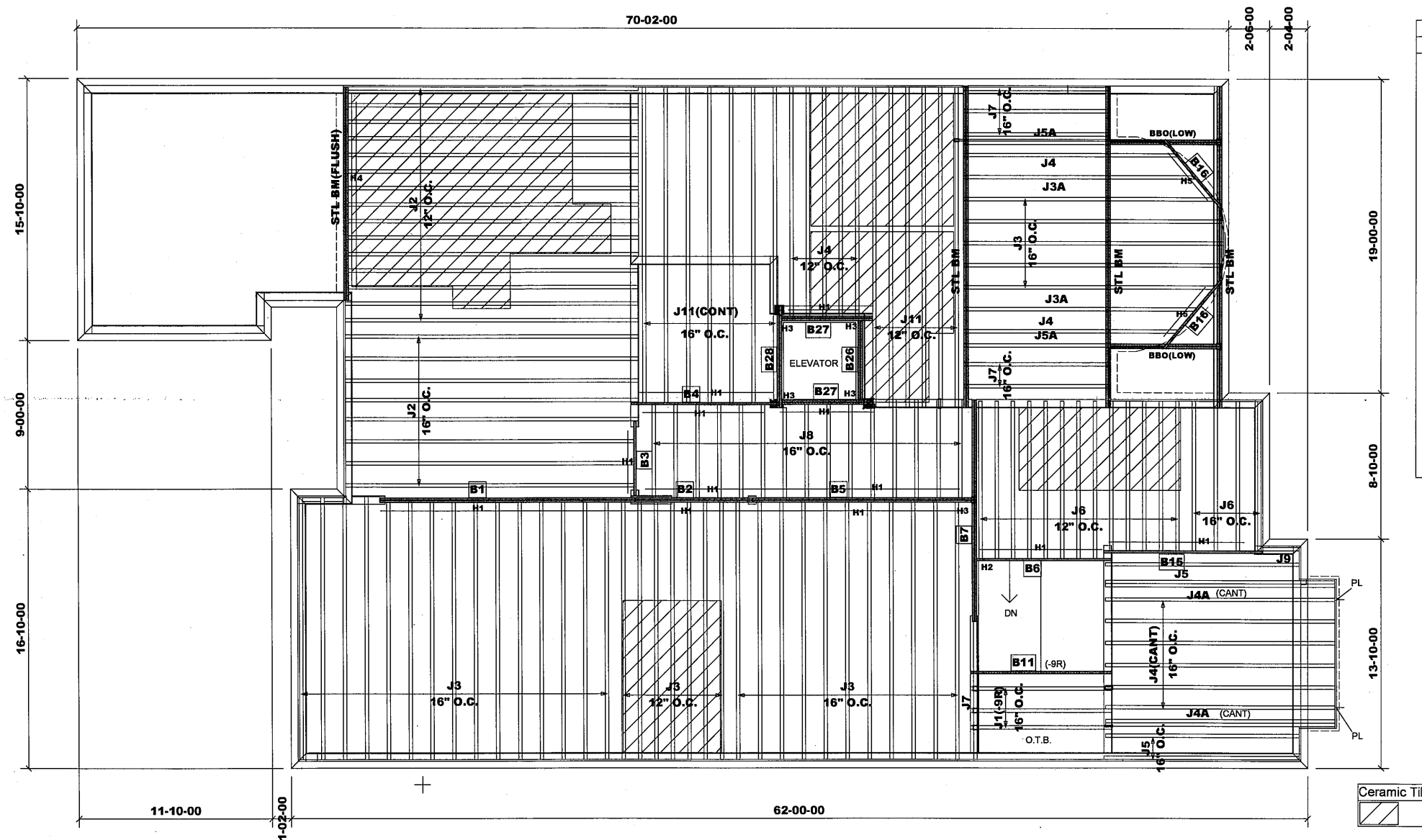
MODEL: UNIT 5005 - EL.B+C
W/OPT. ELEVATOR

First Floor Framing

Do not scale - refer to architectural plans for dimensions

11 7/8" BLOCKING
TOTAL LENGTH: 80'



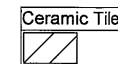


MODEL: UNIT 5005 - EL.B
W/OPT. ELEVATOR(OPT. 2ND FL.)

Second Floor Framing

Do not scale - refer to architectural plans for dimensions

11 7/8" BLOCKING
TOTAL LENGTH: 18"



Products				
PlotID	Length	Product	Plies	Net Qty
J1	9-00-00	9 1/2" NI-20	1	3
J2	18-00-00	11 7/8" NI-20	1	23
J3	16-00-00	11 7/8" NI-20	1	38
J3A	15-00-00	11 7/8" NI-20	1	2
J4	14-00-00	11 7/8" NI-20	1	13
J4A	14-00-00	11 7/8" NI-20	2	4
J5A	13-00-00	11 7/8" NI-20	1	2
J5	12-00-00	11 7/8" NI-20	1	3
J6	10-00-00	11 7/8" NI-20	1	17
J7	9-00-00	11 7/8" NI-20	1	6
J8	6-00-00	11 7/8" NI-20	1	15
J9	3-00-00	11 7/8" NI-20	1	1
J11	20-00-00	11 7/8" NI-40x	1	13
B1	16-00-00	VERSALAM-12 2.0E	2	2
B5	14-00-00	VERSALAM-12 2.0E	2	2
B7	14-00-00	VERSALAM-12 2.0E	2	2
B15	10-00-00	VERSALAM-12 2.0E	1	1
B11	9-00-00	VERSALAM-10 2.0E	1	1
B4	9-00-00	VERSALAM-12 2.0E	1	1
B6	9-00-00	VERSALAM-12 2.0E	1	1
B2	8-00-00	VERSALAM-12 2.0E	2	2
B28	7-00-00	VERSALAM-12 2.0E	2	2
B16	6-00-00	VERSALAM-12 2.0E	1	2
B27	6-00-00	VERSALAM-12 2.0E	2	4
B3	5-00-00	VERSALAM-12 2.0E	1	1
B26	5-00-00	VERSALAM-12 2.0E	2	2

HANGER SCHEDULE

H1-----LT251188 (TM)
H2-----HUS1.81/10(FM)
H3-----HGUS410(FM)
H4-----LF2511(FM)
H5-----LSSUH310(FM)

NOTE:

TM -----TOP MOUNT HANGERS
FM-----FACE MOUNT HANGERS

RIMBOARD

1- 1/8" X 9 1/2" O.S.B.
1- 1/8" X 11 7/8" O.S.B.

SUBFLOOR - 3/4" NAILED & GLUED

APP - AS PER PLAN
BBO - BEAM BY OTHERS

Ceramic tile application as per O.B.C. 9.30.6

Provide I-Joist Blocking between continuous joists (along bearing)

Provide I-Joist Blocking between cantilevered joists (along bearing) and rimboard closure at ends.

1-2X6 SPF#2 Squash Block req'd on one side of each joist under interior load bearing wall. Multiple Squash Blocks are req'd under concentrated loads.

9/5/15

JT/PL: 45147/94992

Builder: Gold Park

Location: Vaughan

Designer: NL

Alpa Roof Trusses Inc.

Salesperson: Derek

LI: 290684

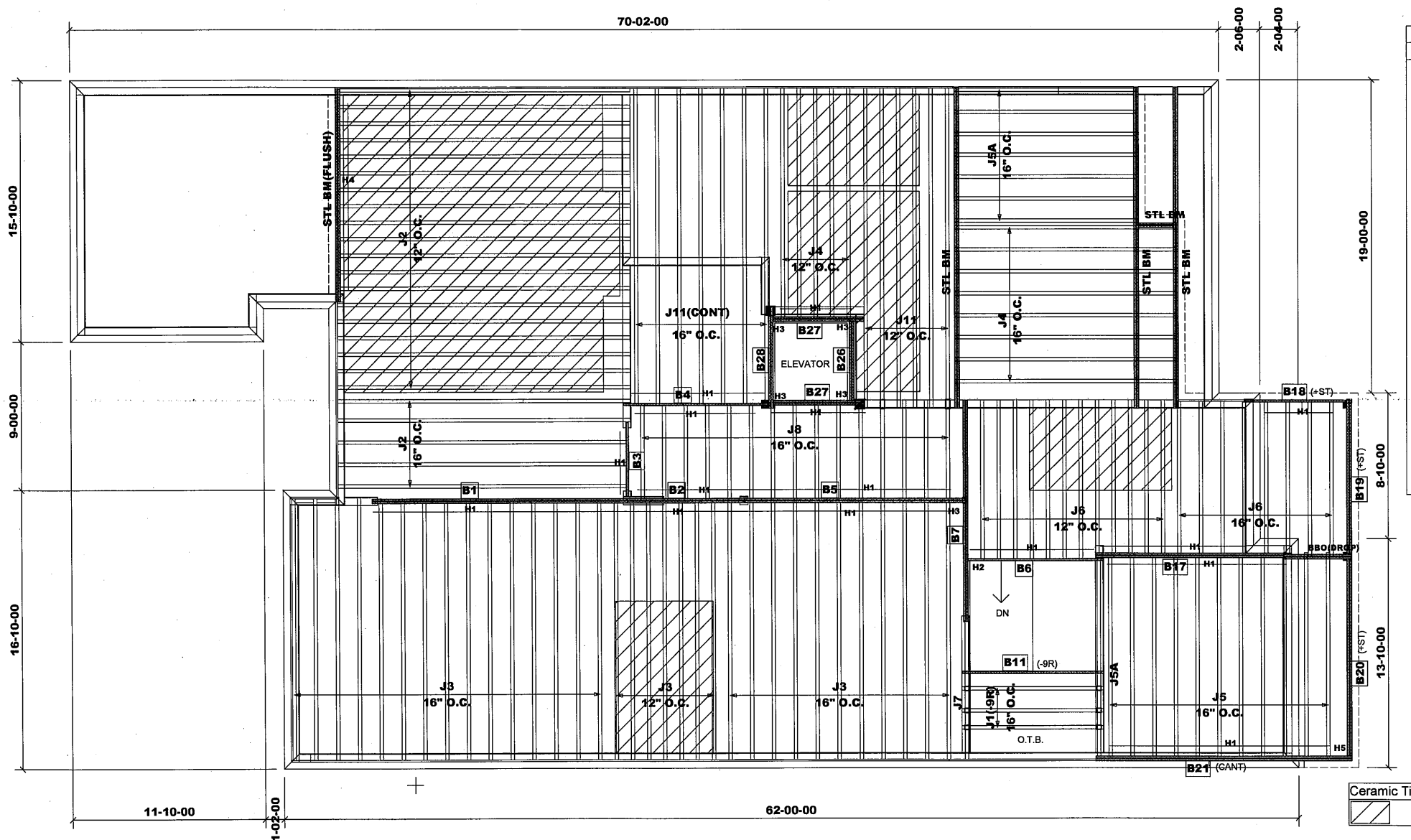
Project: Pine Valley

Date: November 29, 2017

Sheet: 17 of 20

Maple, Ontario

Home Lumber



MODEL: UNIT 5005 - EL.C
W/OPT. ELEVATOR

Second Floor Framing

Do not scale - refer to architectural plans for dimensions

11 7/8" BLOCKING
TOTAL LENGTH: 8'

REVISION: December 15, 2017

Products				
PlotID	Length	Product	Plies	Net Qty
J1	9'-00"-00	9 1/2" NI-20	1	3
J2	18'-00"-00	11 7/8" NI-20	1	24
J3	16'-00"-00	11 7/8" NI-20	1	33
J4	14'-00"-00	11 7/8" NI-20	1	13
J5	13'-00"-00	11 7/8" NI-20	1	11
J5A	12'-00"-00	11 7/8" NI-20	1	8
J6	10'-00"-00	11 7/8" NI-20	1	20
J7	9'-00"-00	11 7/8" NI-20	1	1
J8	6'-00"-00	11 7/8" NI-20	1	15
J11	20'-00"-00	11 7/8" NI-40x	1	13
B1	16'-00"-00	VERSALAM-12 2.0E	2	2
B21	16'-00"-00	VERSALAM-12 2.0E	2	2
B5	14'-00"-00	VERSALAM-12 2.0E	2	2
B7	14'-00"-00	VERSALAM-12 2.0E	2	2
B20	13'-00"-00	VERSALAM-12 2.0E	2	2
B17	12'-00"-00	VERSALAM-12 2.0E	2	2
B19	10'-00"-00	VERSALAM-12 2.0E	2	2
B11	9'-00"-00	VERSALAM-10 2.0E	1	1
B4	9'-00"-00	VERSALAM-12 2.0E	1	1
B6	9'-00"-00	VERSALAM-12 2.0E	1	1
B2	8'-00"-00	VERSALAM-12 2.0E	2	2
B18	7'-00"-00	VERSALAM-12 2.0E	1	1
B28	7'-00"-00	VERSALAM-12 2.0E	2	2
B27	6'-00"-00	VERSALAM-12 2.0E	2	4
B3	5'-00"-00	VERSALAM-12 2.0E	1	1
B26	5'-00"-00	VERSALAM-12 2.0E	2	2

HANGER SCHEDULE	
H1	LT251188 (TM)
H2	HUS1.81/10(FM)
H3	HGUS410(FM)
H4	LF2511(FM)
H5	HUC410(FM)
NOTE:	
TM	TOP MOUNT HANGERS
FM	FACE MOUNT HANGERS

RIMBOARD
1- 1/8" X 9 1/2" O.S.B.
1- 1/8" X 11 7/8" O.S.B.
SUBFLOOR - 3/4" NAILED & GLUED
APP - AS PER PLAN
BBO - BEAM BY OTHERS

Ceramic tile application as per O.B.C. 9.30.6
Provide I-Joist Blocking between continuous joists (along bearing)
1-2X6 SPF#2 Squash Block req'd on one side of each joist under interior load bearing wall. Multiple Squash Blocks are req'd under concentrated loads.

95915

JT/PL: 45147/94992

LI: 290684

Builder: Gold Park

Project: Pine Valley

Location: Vaughan

Date: November 29, 2017

Designer: NL

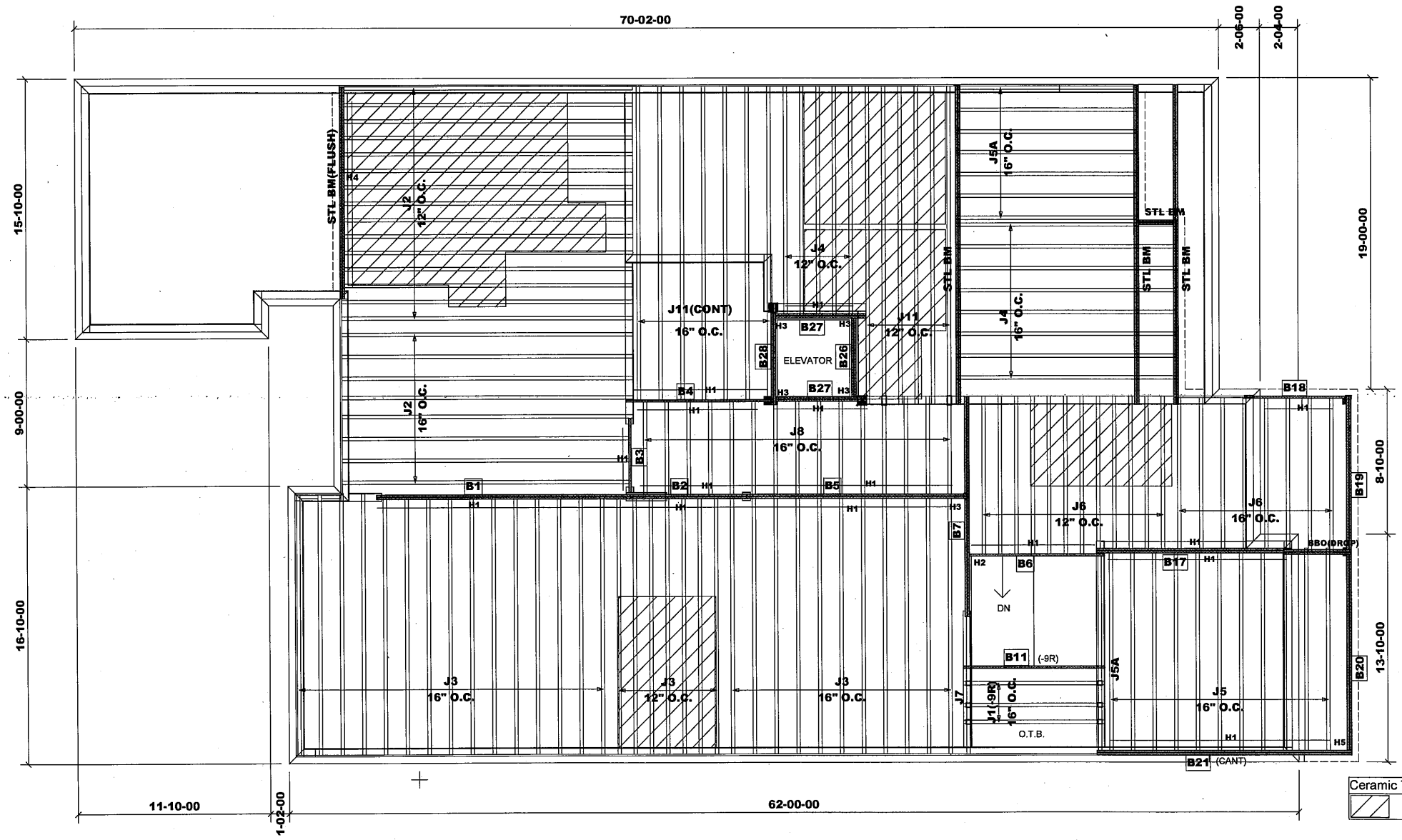
Sheet: 18 of 20

Alpa Roof Trusses Inc.

Maple, Ontario

Salesperson: Derek

Home Lumber



MODEL: UNIT 5005 - EL.C
W/OPT. ELEVATOR(OPT. 2ND FL.)

Second Floor Framing

Do not scale - refer to architectural plans for dimensions

11 7/8" BLOCKING
TOTAL LENGTH: 8'

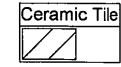
REVISION: December 15, 2017

Products				
PlotID	Length	Product	Plies	Net Qty
J1	9-00-00	9 1/2" NI-20	1	3
J2	18-00-00	11 7/8" NI-20	1	23
J3	16-00-00	11 7/8" NI-20	1	33
J4	14-00-00	11 7/8" NI-20	1	13
J5	13-00-00	11 7/8" NI-20	1	11
J5A	12-00-00	11 7/8" NI-20	1	8
J6	10-00-00	11 7/8" NI-20	1	20
J7	9-00-00	11 7/8" NI-20	1	1
J8	6-00-00	11 7/8" NI-20	1	15
J11	20-00-00	11 7/8" NI-40x	1	13
B1	16-00-00	VERSALAM-12 2.0E	2	2
B21	16-00-00	VERSALAM-12 2.0E	2	2
B5	14-00-00	VERSALAM-12 2.0E	2	2
B7	14-00-00	VERSALAM-12 2.0E	2	2
B20	13-00-00	VERSALAM-12 2.0E	2	2
B17	12-00-00	VERSALAM-12 2.0E	2	2
B19	10-00-00	VERSALAM-12 2.0E	2	2
B11	9-00-00	VERSALAM-10 2.0E	1	1
B4	9-00-00	VERSALAM-12 2.0E	1	1
B6	9-00-00	VERSALAM-12 2.0E	1	1
B2	8-00-00	VERSALAM-12 2.0E	2	2
B18	7-00-00	VERSALAM-12 2.0E	1	1
B28	7-00-00	VERSALAM-12 2.0E	2	2
B27	6-00-00	VERSALAM-12 2.0E	2	4
B3	5-00-00	VERSALAM-12 2.0E	1	1
B26	5-00-00	VERSALAM-12 2.0E	2	2

HANGER SCHEDULE	
H1	LT251188 (TM)
H2	HUS1.81/10(FM)
H3	HGUS410(FM)
H4	LF2511(FM)
H5	HUC410(FM)

NOTE:
TM -----TOP MOUNT HANGERS
FM -----FACE MOUNT HANGERS

RIMBOARD
1- 1/8" X 9 1/2" O.S.B.
1- 1/8" X 11 7/8" O.S.B.
SUBFLOOR - 3/4" NAILED & GLUED
APP - AS PER PLAN
BBO - BEAM BY OTHERS



Ceramic tile application as per O.B.C. 9.30.6
Provide I-Joist Blocking between continuous joists (along bearing)
1-2X6 SPF#2 Squash Block req'd on one side of each joist under interior load bearing wall. Multiple Squash Blocks are req'd under concentrated loads.

95915

JT/PL: 45147/94992
LI: 290684

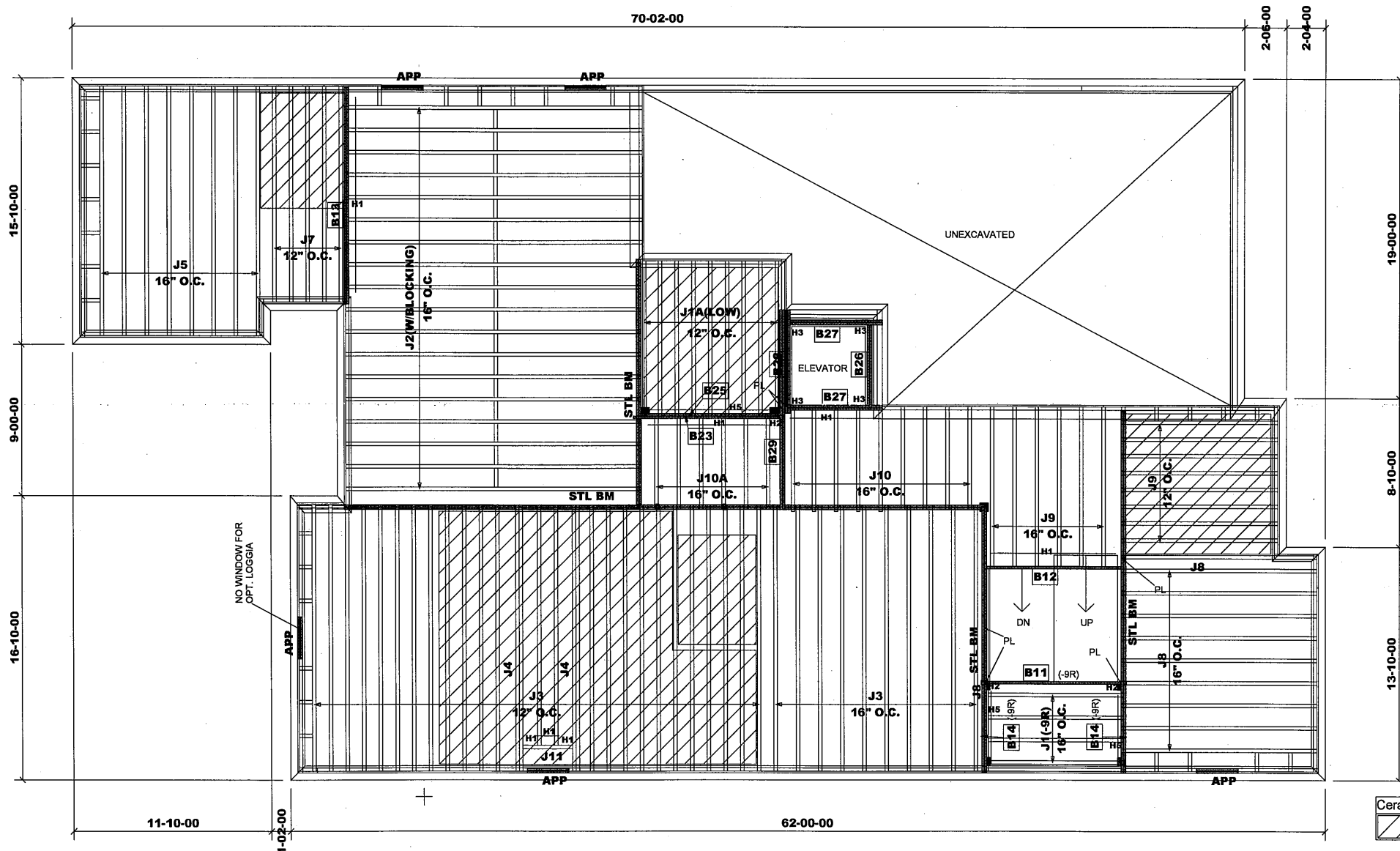
Builder: Gold Park
Project: Pine Valley

Location: Vaughan
Date: November 29, 2017

Designer: NL
Sheet: 19 of 20

Alpa Roof Trusses Inc.
Maple, Ontario

Salesperson: Derek
Home Lumber



Products				
PlotID	Length	Product	Plies	Net Qty
J1A	10-00-00	9 1/2" NI-20	1	9
J1	9-00-00	9 1/2" NI-20	1	4
J2	18-00-00	11 7/8" NI-20	1	18
J3	16-00-00	11 7/8" NI-20	1	35
J4	16-00-00	11 7/8" NI-20	2	4
J5	15-00-00	11 7/8" NI-20	1	8
J7	13-00-00	11 7/8" NI-20	1	5
J8	12-00-00	11 7/8" NI-20	1	11
J9	10-00-00	11 7/8" NI-20	1	14
J10	7-00-00	11 7/8" NI-20	1	9
J10A	6-00-00	11 7/8" NI-20	1	6
J11	3-00-00	11 7/8" NI-20	1	1
B13	13-00-00	VERSALAM-12 2.0E	2	2
B29	12-00-00	VERSALAM-12 2.0E	2	2
B11	9-00-00	VERSALAM-10 2.0E	1	1
B25	9-00-00	VERSALAM-10 2.0E	1	1
B12	9-00-00	VERSALAM-12 2.0E	1	1
B23	9-00-00	VERSALAM-12 2.0E	1	1
B28	7-00-00	VERSALAM-12 2.0E	2	2
B27	6-00-00	VERSALAM-12 2.0E	2	4
B14	5-00-00	VERSALAM-10 2.0E	1	2
B26	5-00-00	VERSALAM-12 2.0E	2	2

HANGER SCHEDULE

H1-----LT251188 (TM)
H2-----HUS1.81/10(FM)
H3-----HGUS410(FM)
H5-----LT259(TM)

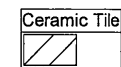
NOTE:
TM -----TOP MOUNT HANGERS
FM-----FACE MOUNT HANGERS

RIMBOARD

1- 1/8" X 9 1/2" O.S.B.
1- 1/8" X 11 7/8" O.S.B.

SUBFLOOR - 3/4" NAILED & GLUED

APP - AS PER PLAN
BBO - BEAM BY OTHERS



Ceramic tile application as per O.B.C. 9.30.6

1-2X6 SPF#2 Squash Block req'd on one side of each joist under interior load bearing wall. Multiple Squash Blocks are req'd under concentrated loads.

REVISION: January 22, 2018

MODEL: UNIT 5005 - EL.B+C
W/OPT. ELEVATOR(SUNKEN)

First Floor Framing

Do not scale - refer to architectural plans for dimensions

11 7/8" BLOCKING
TOTAL LENGTH: 80'



Boise Cascade



Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP

Floor Beam\B01

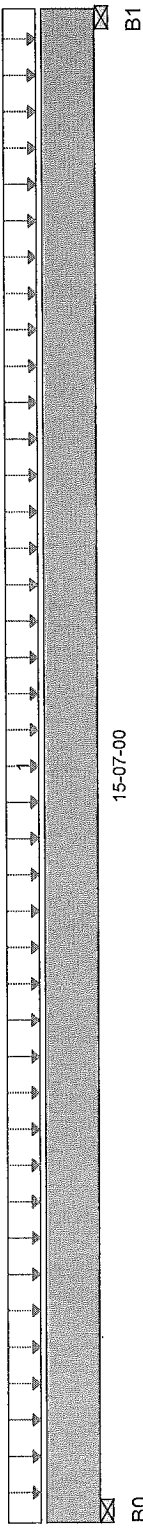
Dry | 1 span | No cantilevers | 0/12 slope (deg)

November 28, 2017 09:14:48

BC CALC® Design Report

Build 6080
Job Name: 45147 (5005)
Address: Pine Valley
City, Province, Postal Code: Vaughan, ON
Customer: Gold Park
Code reports: CCMC 12472-R

File Name: 290684.bcc
Description: Second Floor Framing
Specifier:
Designer: NL
Company: Alpa Roof Trusses
Misc:



Total Horizontal Product Length = 15-07-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0, 3-1/2"	2,708 / 0	1,448 / 0		
B1, 3"	2,694 / 0	1,440 / 0		

Load Summary

Tag Description	Load Type	Ref.	Start	End	Live	Dead	Snow	Wind	Trib.
1	Unf. Area (lb/ft²)	L	00-00-00	15-07-00	40	20			08-08-00

Controls Summary

	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	21,614 ft-lbs	35,392 ft-lbs	61.1%	1	07-09-12
End Shear	4,910 lbs	14,464 lbs	33.9%	1	01-03-06
Total Load Defl.	L/281 (0.648")	0.758"	85.5%	4	07-09-12
Live Load Defl.	L/431 (0.423")	0.506"	83.6%	5	07-09-12
Max Defl.	0.648"	1"	64.8%	4	07-09-12
Span / Depth	15.3	n/a	n/a		00-00-00
Squash Blocks	Valid				

Bearing Supports

	Dim. (L x W)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B0 Wall/Plate	3-1/2" x 3-1/2"	5,873 lbs	77.9%	39.3%	Spruce Pine Fir
B1 Wall/Plate	3" x 3-1/2"	5,841 lbs	90.4%	45.6%	Spruce Pine Fir

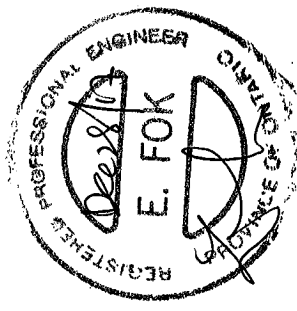
Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets Code minimum (L/360) Live load deflection criteria.
Design meets User specified (1") Maximum Total load deflection criteria.
Calculations assume member is fully braced.
Resistance Factor phi has been applied to all presented results per CSA O86.
BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2010 and CSA O86.

Design based on Dry Service Condition.

Importance Factor : Normal Part code : Part 4

Nail one ply to another with
3 1/2" spiral nails @ 9"
o.c., staggered in 2 rows



S152480



Boise Cascade



Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP

Floor Beam\B02

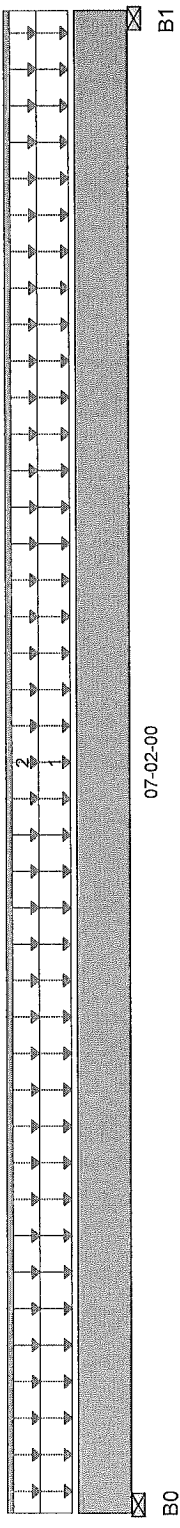
Dry | 1 span | No cantilevers | 0/12 slope (deg)

November 28, 2017 09:15:44

BC CALC® Design Report

Build 6080
Job Name: 45147 (5005)
Address: Pine Valley
City, Province, Postal Code: Vaughan, ON
Customer: Gold Park
Code reports: CCMC 12472-R

File Name: 290684.bcc
Description: Second Floor Framing
Specifier:
Designer: NL
Company: Alpa Roof Trusses
Misc:



Total Horizontal Product Length = 07-02-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0, 3"	1,577 / 0	1,046 / 0		
B1, 3"	1,577 / 0	1,046 / 0		

Load Summary

Tag Description	Load Type	Ref.	Start	End	Live	Dead	Snow	Wind	Trib.
1	Unf. Area (lb/ft²)	L	00-00-00	07-02-00	40	20		1.00 1.15	11-00-00
2	Unf. Lin. (lb/ft)	L	00-00-00	07-02-00	60	60			n/a

Controls Summary

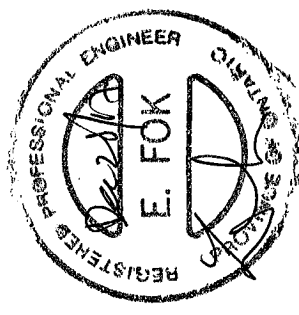
	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	5,910 ft-lbs	35,392 ft-lbs	16.7%	1	03-07-00
End Shear	2,402 lbs	14,464 lbs	16.6%	1	01-02-14
Total Load Defl.	L/999 (0.036")	n/a	n/a	4	03-07-00
Live Load Defl.	L/999 (0.022")	n/a	n/a	5	03-07-00
Max Defl.	0.036"	n/a	n/a	4	03-07-00
Span / Depth	6.9	n/a	n/a		00-00-00
Squash Blocks	Valid				

Bearing Supports

	Dim. (L x W)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B0 Wall/Plate	3" x 3-1/2"	3,673 lbs	56.9%	28.7%	Spruce Pine Fir
B1 Wall/Plate	3" x 3-1/2"	3,673 lbs	56.9%	28.7%	Spruce Pine Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets Code minimum (L/360) Live load deflection criteria.
Design meets User specified (1") Maximum Total load deflection criteria.
Calculations assume member is fully braced.
Resistance Factor phi has been applied to all presented results per CSA O86.
BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2010 and CSA O86.
Design based on Dry Service Condition.
Importance Factor : Normal Part code : Part 4
Nail one ply to another with 3 1/2" spiral nails @ 9"
o.c. staggered in 2 rows



5152481



Boise Cascade

Single 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP

Floor Beam\B03



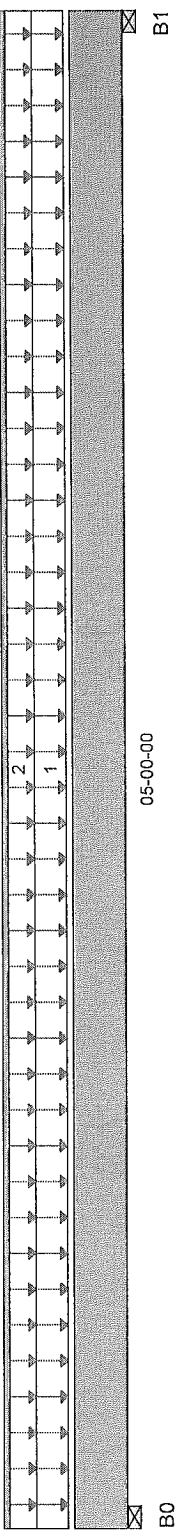
BC CALC® Design Report

Dry | 1 span | No cantilevers | 0/12 slope (deg)

November 28, 2017 09:16:27

Build 6080
Job Name: 45147 (5005)
Address: Pine Valley
City, Province, Postal Code: Vaughan, ON
Customer: Gold Park
Code reports: CCMC 12472-R

File Name: 290684.bcc
Description: Second Floor Framing
Specifier:
Designer: NL
Company: Alpa Roof Trusses
Misc:



Total Horizontal Product Length = 05-00-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Trib.
B0, 3-1/2"	967 / 0	648 / 0			
B1, 3-1/2"	967 / 0	648 / 0			

Load Summary

Tag Description	Load Type	Ref.	Start	End	Live	Dead	Snow	Wind	Trib.
1	Unf. Area (lb/ft²)	L	00-00-00	05-00-00	40	20			09-08-00
2	Unf. Lin. (lb/ft)	L	00-00-00	05-00-00	40	60			n/a

Controls Summary

Pos. Moment	2,331 ft-lbs	17,696 ft-lbs	13.2%	1	02-06-00	be verified by anyone who would rely on output as evidence of suitability for particular application. Output here based on building code-accepted design properties and analysis methods. Installation of Boise Cascade engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide
End Shear	1,102 lbs	7,232 lbs	15.2%	1	01-03-06	
Total Load Defl.	L/999 (0.013")	n/a	n/a	4	02-06-00	
Live Load Defl.	L/999 (0.008")	n/a	n/a	5	02-06-00	
Max Defl.	0.013"	n/a	n/a	4	02-06-00	
Span / Depth	4.6	n/a	n/a		00-00-00	
Squash Blocks	Valid					

Disclosure

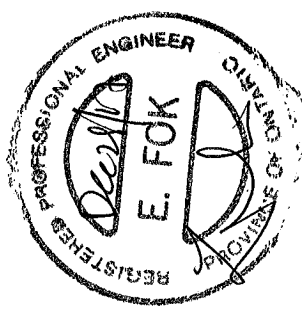
Completeness and accuracy of input must be verified by anyone who would rely on output as evidence of suitability for particular application. Output here based on building code-accepted design properties and analysis methods. Installation of Boise Cascade engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call 1-800-964-6999 before installation.

Bearing Supports

	Dim. (L x W)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B0 Wall/Plate	3-1/2" x 1-3/4"	2,260 lbs	60%	30.3%	Spruce Pine Fir
B1 Wall/Plate	3-1/2" x 1-3/4"	2,260 lbs	60%	30.3%	Spruce Pine Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets Code minimum (L/360) Live load deflection criteria.
Design meets User specified (1") Maximum Total load deflection criteria.
Calculations assume member is fully braced.
Resistance Factor phi has been applied to all presented results per CSA O86.
BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2010 and CSA O86.
Design based on Dry Service Condition.
Importance Factor : Normal Part code : Part 4



S.152482



Boise Cascade

Single 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP

Floor Beam\B04



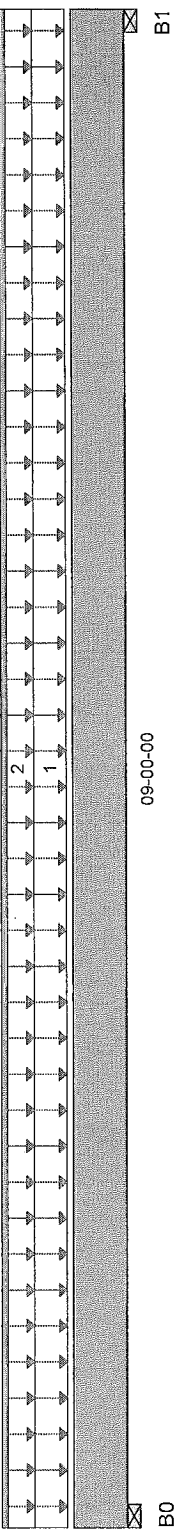
BC CALC® Design Report

Dry | 1 span | No cantilevers | 0/12 slope (deg)

November 28, 2017 16:49:11

Build 6080
Job Name: 45147 (5005)
Address: Pine Valley
City, Province, Postal Code: Vaughan, ON
Customer: Gold Park
Code reports: CCMC 12472-R

File Name: 290684.bcc
Description: Second Floor Framing
Specifier:
Designer: NL
Company: Alpa Roof Trusses
Misc:



Total Horizontal Product Length = 09-00-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0, 3-1/2"	1,350 / 0	803 / 0		
B1, 3-1/2"	1,350 / 0	803 / 0		

Load Summary

Tag Description	Load Type	Ref.	Start	End	Live	Dead	Snow	Wind	Trib.
1	Unf. Area (lb/ft²)	L	00-00-00	09-00-00	40	15			07-06-00
2	Unf. Lin. (lb/ft)	L	00-00-00	09-00-00	00-00-00	60			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	6,139 ft-lbs	17,696 ft-lbs	34.7%	1	04-06-00
End Shear	2,167 lbs	7,232 lbs	30%	1	01-03-06
Total Load Defl.	L/999 (0.117")	n/a	n/a	4	04-06-00
Live Load Defl.	L/999 (0.074")	n/a	n/a	5	04-06-00
Max Defl.	0.117"	n/a	n/a	4	04-06-00
Span / Depth	8.6	n/a	n/a		00-00-00
Squash Blocks	Valid				

Disclosure

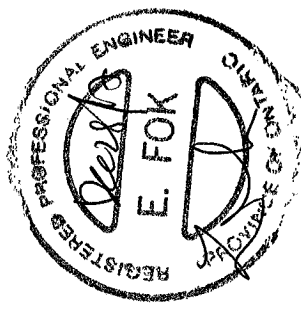
Completeness and accuracy of input must be verified by anyone who would rely on output as evidence of suitability for particular application. Output here based on building code-accepted design properties and analysis methods. Installation of Boise Cascade engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call 1-800-964-6999 before installation.

Bearing Supports

	Dim. (L x W)	Demand	Demand / Resistance Support	Demand / Resistance Member	Material
B0 Wall/Plate	3-1/2" x 1-3/4"	3,029 lbs	80.4%	40.5%	Spruce Pine Fir
B1 Wall/Plate	3-1/2" x 1-3/4"	3,029 lbs	80.4%	40.5%	Spruce Pine Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets Code minimum (L/360) Live load deflection criteria.
Design meets User specified (1") Maximum Total load deflection criteria.
Calculations assume member is fully braced.
Resistance Factor phi has been applied to all presented results per CSA O86.
BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2010 and CSA O86.
Design based on Dry Service Condition.
Importance Factor : Normal Part code : Part 4



S.152483



Boise Cascade

Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP

Floor Beam\B05



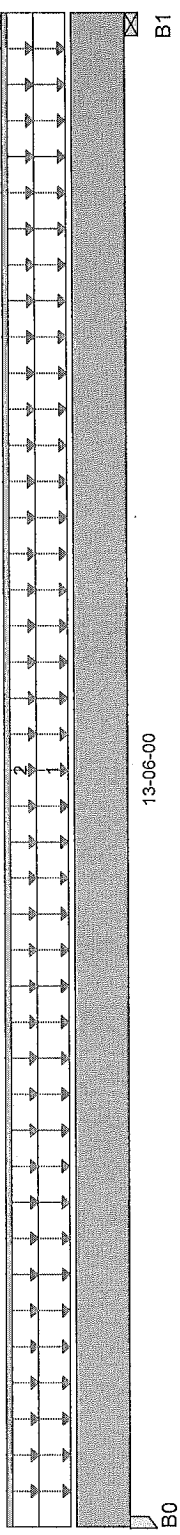
BC CALCO® Design Report

Dry | 1 span | No cantilevers | 0/12 slope (deg)

November 28, 2017 09:17:55

Build 6080
Job Name: 45147 (5005)
Address: Pine Valley
City, Province, Postal Code: Vaughan, ON
Customer: Gold Park
Code reports: CCMC 12472-R

File Name: 290684.bcc
Description: Second Floor Framing
Specifier: NL
Designer: ALPA
Company: Alpa Roof Trusses
Misc:



Total Horizontal Product Length = 13-06-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0, 3"	2,961 / 0	1,965 / 0		
B1, 3-1/2"	2,979 / 0	1,977 / 0		

Load Summary

Tag Description	Load Type	Ref.	Start	End	Live	Dead	Snow	Wind	Trib.
1	Unf. Area (lb/ft²)	L	00-00-00	13-06-00	40	20		1.00 1.15	11-00-00
2	Unf. Lin. (lb/ft)	L	00-00-00	13-06-00		60			n/a

Controls Summary

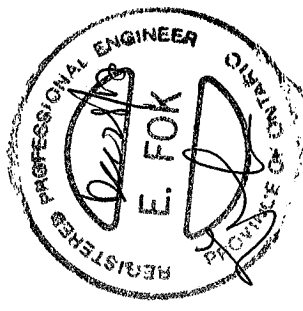
	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	21,933 ft-lbs	35,392 ft-lbs	62%	1	06-08-12
End Shear	5,627 lbs	14,464 lbs	38.9%	1	01-02-14
Total Load Defl.	L/318 (0.494")	0.654"	75.5%	4	06-08-12
Live Load Defl.	L/529 (0.297")	0.436"	68.1%	5	06-08-12
Max Defl.	0.494"	1"	49.4%	4	06-08-12
Span / Depth	13.2	n/a	n/a		00-00-00
Squash Blocks	Valid				

Bearing Supports

	Dim. (L x W)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B0 Post	3" x 3-1/2"	6,898 lbs	37.9%	53.8%	Spruce Pine Fir
B1 Wall/Plate	3-1/2" x 3-1/2"	6,940 lbs	92.1%	46.4%	Spruce Pine Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets Code minimum (L/360) Live load deflection criteria.
Design meets User specified (1") Maximum Total load deflection criteria.
Calculations assume member is fully braced.
Resistance Factor phi has been applied to all presented results per CSA O86.
BC CALCO® analysis is based on Canadian Limit States Design, as per NBCC 2010 and CSA O86.
Design based on Dry Service Condition.
Importance Factor : Normal Part code : Part 4
Nail one ply to another with 3 1/2" spiral nails @ 91)
o.c, staggered in 2 rows



S.152484



BC CALC® Design Report

Dry | 1 span | No cantilevers | 0/12 slope (deg)

November 28, 2017 09:18:40



Build 6080

Job Name: 45147 (5005)

Address: Pine Valley

City, Province, Postal Code: Vaughan, ON

Customer: Gold Park

Code reports: CCMC 12472-R

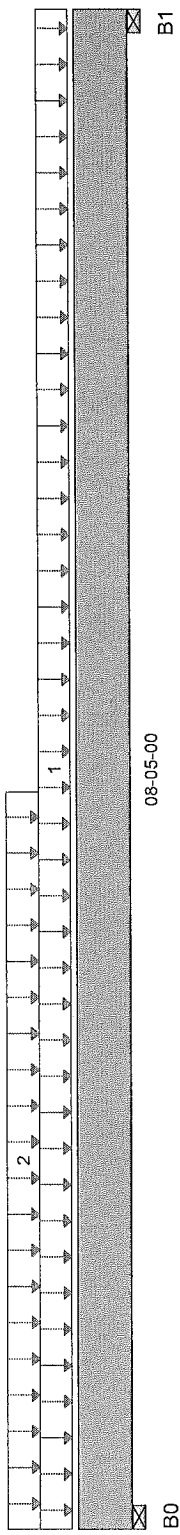
File Name: 290684.bcc

Description: Second Floor Framing

Specifier: NL

Designer: Alpa Roof Trusses

Misc:



Reaction Summary (Down / Uplift) (lbs)					
Bearing	Live	Dead	Snow	Wind	
B0, 3-1/2"	1,346 / 0	635 / 0			
B1, 3-1/2"	991 / 0	502 / 0			

Load Summary					
Tag Description	Load Type	Ref.	Start	End	Live
1	Unf. Area (lb/ft²)	L	00-00-00	08-05-00	40
2	Unf. Area (lb/ft²)	L	00-00-00	04-01-00	40

Controls Summary					
Pos.	Moment	Factored Demand	Factored Resistance	Demand / Resistance	Location
1	End Shear	4,666 ft-lbs	17,696 ft-lbs	26.4%	03-08-13
2	Total Load Defl.	1,855 lbs	7,232 lbs	25.6%	01-03-06
	Live Load Defl.	L/999 (0.076")	n/a	n/a	04-01-00
	Max Defl.	L/999 (0.051")	n/a	n/a	04-01-00
	Span / Depth	0.076"	n/a	n/a	04-01-00
	Squash Blocks	8	n/a	n/a	00-00-00

Bearing Supports			
Dim. (L x W)	Demand	Demand/Resistance Support	Resistance Member
3-1/2" x 1-3/4"	2,813 lbs	74.6%	37.6%
3-1/2" x 1-3/4"	2,114 lbs	56.1%	28.3%

Notes

Design meets Code minimum (L/240) Total load deflection criteria.

Design meets Code minimum (L/360) Live load deflection criteria.

Design meets User specified (1") Maximum Total load deflection criteria.

Calculations assume member is fully braced.

Resistance Factor phi has been applied to all presented results per CSA O86.

BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2010 and CSA O86.

Design based on Dry Service Condition.

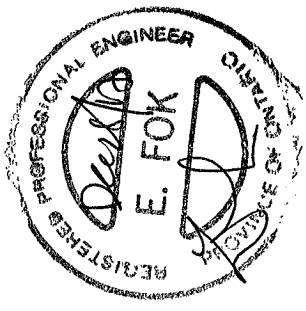
Importance Factor : Normal Part code : Part 4

Disclosure

Completeness and accuracy of input must be verified by anyone who would rely on output as evidence of suitability for particular application. Output here based on building code-accepted design properties and analysis methods.

Installation of Boise Cascade engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call 1-800-964-6999 before installation.

BC CALC®, BC FRAMER®, AUS™, ALLJOIST®, BC RIM BOARD™, BC®, BOISE GLULAM™, SIMPLE FRAMING SYSTEM®, VERSA-LAM®, VERSA-RIM PLUS®, VERSA-RIM®, VERSA-STRAND®, VERSA-STUD® are trademarks of Boise Cascade Wood Products L.L.C.



S.152485



Boise Cascade

Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP

Floor Beam\B07



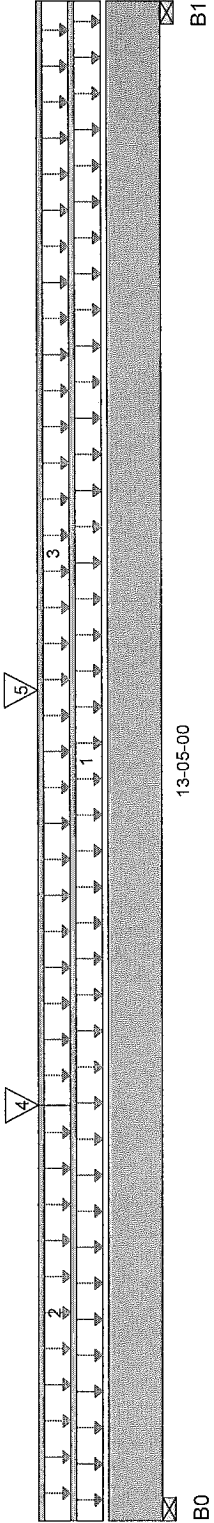
BC CALC® Design Report

Dry | 1 span | No cantilevers | 0/12 slope (deg)

November 28, 2017 09:20:49

Build 6080
Job Name: 45147 (5005)
Address: Pine Valley
City, Province, Postal Code: Vaughan, ON
Customer: Gold Park
Code reports: CCMC 12472-R

File Name: 290684.bcc
Description: Second Floor Framing
Specifier:
Designer: NL
Company: Alpa Roof Trusses
Misc:



Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0, 3-1/2"	2,610 / 0	1,776 / 0		
B1, 3-1/2"	2,340 / 0	1,542 / 0		

Load Summary

Tag Description	Load Type	Ref.	Start	End	Live	Dead	Snow	Wind	Trib.
1	Unf. Lin. (lb/ft)	L	00-00-00	13-05-00	27	14			n/a
2	Unf. Lin. (lb/ft)	L	00-00-00	03-08-00		60			n/a
3	Unf. Lin. (lb/ft)	L	03-08-00	13-05-00	27	14			n/a
4	Conc. Pt. (lbs)	L	03-08-00	03-08-00	1,346	635			n/a
5	Conc. Pt. (lbs)	L	07-04-00	07-04-00	2,979	1,977			n/a

Controls Summary

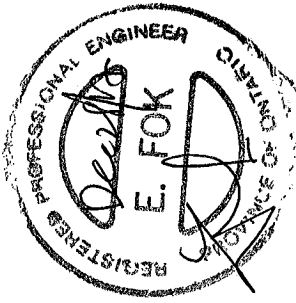
	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	29,413 ft-lbs	35,392 ft-lbs	83.1%	1	07-04-00
End Shear	5,946 lbs	14,464 lbs	41.1%	1	01-03-06
Total Load Defl.	L/273 (0.57")	0.648"	87.9%	4	06-07-12
Live Load Defl.	L/450 (0.346")	0.432"	80%	5	06-07-12
Max Defl.	0.57"	1"	57%	4	06-07-12
Span / Depth	13.1	n/a	n/a		00-00-00
Squash Blocks	Valid				

Bearing Supports

	Dim. (L x W)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B0 Wall/Plate	3-1/2" x 3-1/2"	6,136 lbs	81.4%	41.1%	Spruce Pine Fir
B1 Wall/Plate	3-1/2" x 3-1/2"	5,437 lbs	72.1%	36.4%	Spruce Pine Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets Code minimum (L/360) Live load deflection criteria.
Design meets User specified (1") Maximum Total load deflection criteria.
Calculations assume member is fully braced.
Resistance Factor phi has been applied to all presented results per CSA O86.
BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2010 and CSA O86.
Design based on Dry Service Condition.
Importance Factor : Normal Part code : Part 4
Nail one ply to another with
3 1/2" spiral nails @ 12"
o.c, staggered in 2 rows



S152486



BC CALC® Design Report

Build 6080
Job Name:
Address:
City, Province, Postal Code: Vaughan, ON
Customer:
Code reports:

File Name: 290684.bcc
Description: Second Floor Framing
Specifier:
Designer: NL
Company: Alpa Roof Trusses
Misc:

Dry | 1 span | No cantilevers | 0/12 slope (deg)

[illegible]

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0, 3-1/2"	126 / 0	1,078 / 0	1,400 / 0	
B1, 3-1/2"	126 / 0	1,078 / 0	1,400 / 0	

Load Summary

Tag Description	Load Type	Ref.	Start	End	1.00	0.65	1.00	1.15
1	Unf. Lin. (lb/ft)	L	00-00-00	09-04-00	27	114		n/a
2	Unf. Area (lb/ft^2)	L	00-00-00	09-04-00		11	21	05-00-00
3	Unf. Area (lb/ft^2)	L	00-00-00	09-04-00		20	78	02-06-00

Controls Summary

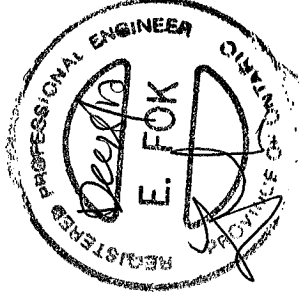
Pos. Moment	7,407 ft-lbs	35,392 ft-lbs	20.9%	5	04-08-00
End Shear	2,547 lbs	14,464 lbs	17.6%	5	01-03-06
Total Load Defl.	L/999 (0.074")	n/a	n/a	13	04-08-00
Live Load Defl.	L/999 (0.041")	n/a	n/a	17	04-08-00
Max Defl.	0.074"	n/a	n/a	13	04-08-00
Span / Depth	9	n/a	n/a		00-00-00
Squash Blocks	Valid				

Bearing Supports

B0	Wall/Plate	3-1/2" x 3-1/2"	3,511 lbs	46.6%	Spruce Pine Fir
B1	Wall/Plate	3-1/2" x 3-1/2"	3,511 lbs	46.6%	Spruce Pine Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria.			
Design meets Code minimum (L/360) Live load deflection criteria.			
Design meets User specified (1") Maximum Total load deflection criteria.			
Calculations assume member is fully braced.			
Resistance Factor phi has been applied to all presented results per CSA O86.			
BC CALC@ analysis is based on Canadian Limit States Design, as per NBCC 2010 and CSA O86.			
Design based on Dry Service Condition.			
Importance Factor : Normal	Part code : Part 4	Nail one ply to another with 3 1/2" spiral nails @ 12" o.c, staggered in 2 rows	



S. 152487



Boise Cascade

Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP

Floor Beam\B09



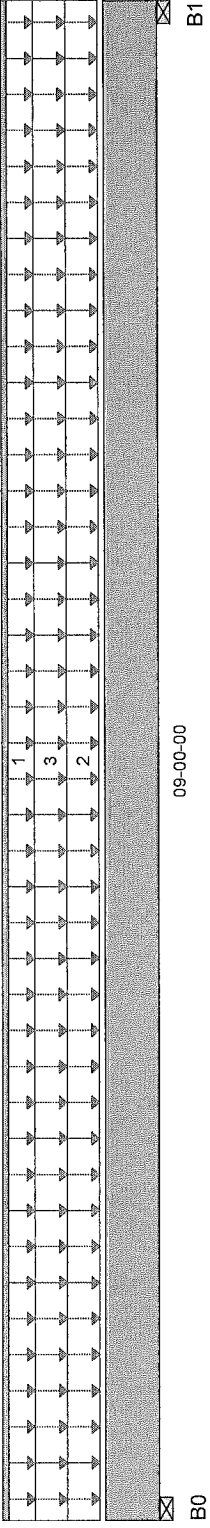
BC CALCO® Design Report

Dry | 1 span | No cantilevers | 0/12 slope (deg)

November 28, 2017 09:21:50

Build 6080
Job Name: 45147 (5005)
Address: Pine Valley
City, Province, Postal Code: Vaughan, ON
Customer: Gold Park
Code reports: CCMC 12472-R

File Name: 290684.bcc
Description: Second Floor Framing
Specifier:
Designer: NL
Company: Alpa Roof Trusses
Misc:



Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0, 3-1/2"	121 / 0	756 / 0	540 / 0	
B1, 3-1/2"	122 / 0	756 / 0	540 / 0	

Load Summary

Tag Description	Load Type	Ref.	Start	End	Live	Dead	Snow	Wind	Trib.
1	Unf. Lin. (lb/ft)	L	00-00-00	09-00-00	27	114			n/a
2	Unf. Area (lb/ft^2)	L	00-00-00	09-00-00		11		21	02-00-00
3	Unf. Area (lb/ft^2)	L	00-00-00	09-00-00		20		78	01-00-00

Controls Summary

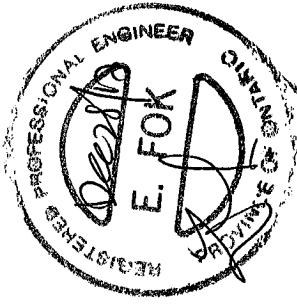
	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	3,680 ft-lbs	35,392 ft-lbs	10.4%	5	04-06-00
End Shear	1,299 lbs	14,464 lbs	9%	5	01-03-06
Total Load Defl.	L/999 (0.036")	n/a	n/a	13	04-06-00
Live Load Defl.	L/999 (0.015")	n/a	n/a	17	04-06-00
Max Defl.	0.036"	n/a	n/a	13	04-06-00
Span / Depth	8.6	n/a	n/a		00-00-00
Squash Blocks	Valid				

Bearing Supports

	Dim. (L x W)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B0 Wall/Plate	3-1/2" x 3-1/2"	1,816 lbs	24.1%	12.2%	Spruce Pine Fir
B1 Wall/Plate	3-1/2" x 3-1/2"	1,816 lbs	24.1%	12.2%	Spruce Pine Fir

Notes

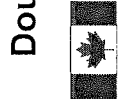
Design meets Code minimum (L/240) Total load deflection criteria.
Design meets Code minimum (L/360) Live load deflection criteria.
Design meets User specified (1") Maximum Total load deflection criteria.
Calculations assume member is fully braced.
Resistance Factor phi has been applied to all presented results per CSA O86.
BC CALCO® analysis is based on Canadian Limit States Design, as per NBCC 2010 and CSA O86.
Design based on Dry Service Condition.
Importance Factor : Normal Part code : Part 4 Nail one ply to another with 3 1/2" spiral nails @ 12" o.c, staggered in 2 rows



S152488



Boise Cascade



Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP

Floor Beam\B10

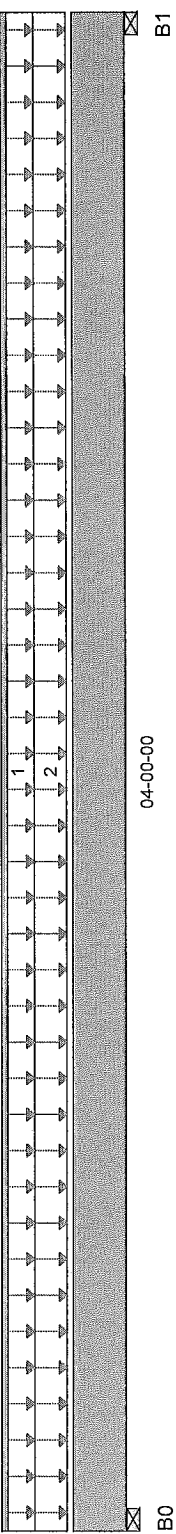
Dry | 1 span | No cantilevers | 0/12 slope (deg)

November 28, 2017 09:22:49

BC CALC® Design Report

Build 6080
Job Name: 45147 (5005)
Address: Pine Valley
City, Province, Postal Code: Vaughan, ON
Customer: Gold Park
Code reports: CCMC 12472-R

File Name: 290684.bcc
Description: Second Floor Framing
Specifier:
Designer: NL
Company: Alpa Roof Trusses
Misc:



04-00-00

B1

Total Horizontal Product Length = 04-00-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0, 3-1/2"	54 / 0	494 / 0	462 / 0	
B1, 3-1/2"	54 / 0	494 / 0	462 / 0	

Load Summary

Tag Description	Load Type	Ref.	Start	End	Live	Dead	Snow	Wind	Trib.
1	Unf. Lin. (lb/ft)	L	00-00-00	04-00-00	27	0.65	1.00	1.15	n/a
2	Unf. Area (lb/ft²)	L	00-00-00	04-00-00	11	114	21		11-00-00

Controls Summary

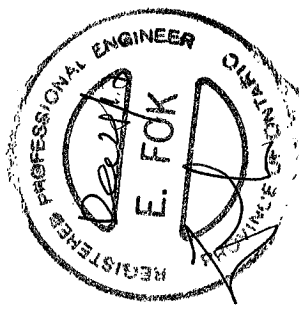
	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	1,049 ft-lbs	35,392 ft-lbs	3%	5	02-00-00
End Shear	481 lbs	14,464 lbs	3.3%	5	01-03-06
Total Load Defl.	L/999 (0.002")	n/a	n/a	13	02-00-00
Live Load Defl.	L/999 (0.001")	n/a	n/a	17	02-00-00
Max Defl.	0.002"	n/a	n/a	13	02-00-00
Span / Depth	3.6	n/a	n/a		00-00-00
Squash Blocks	Valid				

Bearing Supports

	Dim. (L x W)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B0 Wall/Plate	3-1/2" x 3-1/2"	1,338 lbs	17.7%	9%	Spruce Pine Fir
B1 Wall/Plate	3-1/2" x 3-1/2"	1,338 lbs	17.7%	9%	Spruce Pine Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets Code minimum (L/360) Live load deflection criteria.
Design meets User specified (1") Maximum Total load deflection criteria.
Calculations assume member is fully braced.
Resistance Factor phi has been applied to all presented results per CSA O86.
BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2010 and CSA O86.
Design based on Dry Service Condition.
Importance Factor : Normal Part code : Part 4
Nail one ply to another with
3 1/2" spiral nails @ 6"
o.c, staggered in 2 rows





Boise Cascade

Single 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP

Floor Beam\B11



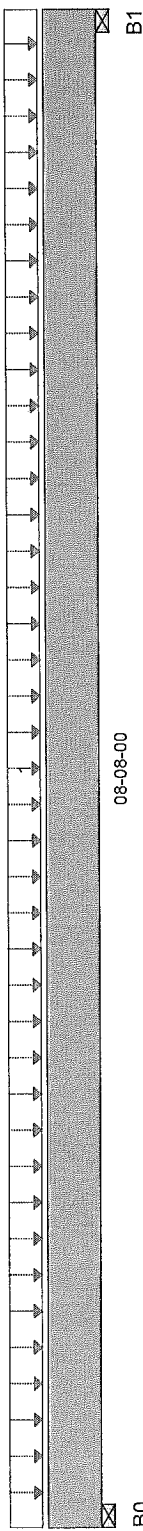
BC CALC® Design Report

Dry | 1 span | No cantilevers | 0/12 slope (deg)

November 28, 2017 10:25:19

Build 6080
Job Name: 45147 (5005)
Address: Pine Valley
City, Province, Postal Code: Vaughan, ON
Customer: Gold Park
Code reports: CCMC 12472-R

File Name: 290684.bcc
Description: Second Floor Framing
Specifier:
Designer: NL
Company: Alpa Roof Trusses
Misc:



Total Horizontal Product Length = 08-08-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0, 3-1/2"	867 / 0	346 / 0		
B1, 3-1/2"	867 / 0	346 / 0		

Load Summary

Tag Description	Load Type	Ref.	Start	End	Live	Dead	Snow	Wind	Trib.
1	Unf. Area (lb/ft²)	L	00-00-00	08-08-00	40	15	1.00	1.15	05-00-00

Controls Summary

Pos.	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Moment	3,367 ft-lbs	11,610 ft-lbs	29%	1	04-04-00
End Shear	1,299 lbs	5,785 lbs	22.5%	1	01-01-00
Total Load Defl.	L/999 (0.114")	n/a	n/a	4	04-04-00
Live Load Defl.	L/999 (0.082")	n/a	n/a	5	04-04-00
Max Defl.	0.114"	n/a	n/a	4	04-04-00
Span / Depth	10.4	n/a	n/a		00-00-00
Squash Blocks	Valid				

Disclosure

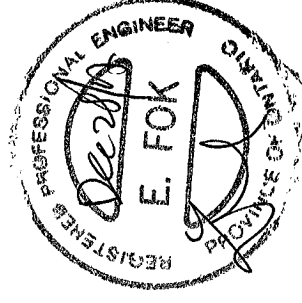
Completeness and accuracy of input must be verified by anyone who would rely on output as evidence of suitability for particular application. Output here based on building code-accepted design properties and analysis methods. Installation of Boise Cascade engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call 1-800-964-6999 before installation.

Bearing Supports

	Dim. (L x W)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B0 Wall/Plate	3-1/2" x 1-3/4"	1,732 lbs	46%	23.2%	Spruce Pine Fir
B1 Wall/Plate	3-1/2" x 1-3/4"	1,732 lbs	46%	23.2%	Spruce Pine Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets Code minimum (L/360) Live load deflection criteria.
Design meets User specified (1") Maximum Total load deflection criteria.
Calculations assume member is fully braced.
Resistance Factor phi has been applied to all presented results per CSA O86.
BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2010 and CSA O86.
Design based on Dry Service Condition.
Importance Factor : Normal Part code : Part 4



BC CALC®, BC FRAMER®, AJS™, ALLJOIST®, BC RIM BOARD™, BC®, BOISE GLULAM™, SIMPLE FRAMING SYSTEM®, VERSA-LAM®, VERSA-RIM PLUS®, VERSA-STRAND®, VERSA-STUD® are trademarks of Boise Cascade Wood Products L.L.C.

5152490



Boise Cascade

Single 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP

Floor Beam\B12



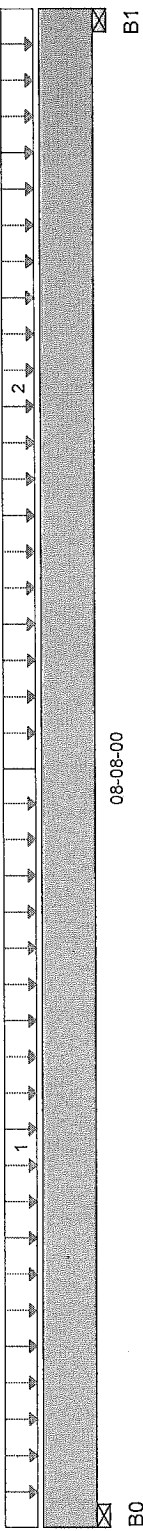
BC CALC® Design Report

Dry | 1 span | No cantilevers | 0/12 slope (deg)

November 28, 2017 10:25:53

Build 6080
Job Name: 45147 (5005)
Address: Pine Valley
City, Province, Postal Code: Vaughan, ON
Customer: Gold Park
Code reports: CCMC 12472-R

File Name: 290684.bcc
Description: First Floor Framing
Specifier:
Designer: NL
Company: Alpa Roof Trusses
Misc:



08-08-00
Total Horizontal Product Length = 08-08-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0, 3-1/2"	1,117 / 0	445 / 0		
B1, 3-1/2"	1,482 / 0	582 / 0		

Load Summary

Tag Description	Load Type	Ref.	Start	End	Live	Dead	Snow	Wind	Trib.
1	Unf. Area (lb/ft^2)	L	00-00-00	04-04-00	40	15		1.00	05-06-00
2	Unf. Area (lb/ft^2)	L	04-04-00	08-08-00	40	15		1.15	09-06-00

Controls Summary

	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	5,106 ft-lbs	17,696 ft-lbs	28.9%	1	04-08-09
End Shear	1,983 lbs	7,232 lbs	27.4%	1	07-04-10
Total Load Defl.	L/999 (0.088")	n/a	n/a	4	04-05-02
Live Load Defl.	L/999 (0.063")	n/a	n/a	5	04-05-02
Max Defl.	0.088"	n/a	n/a	4	04-05-02
Span / Depth	8.3	n/a	n/a		00-00-00
Squash Blocks	Valid				

Disclosure

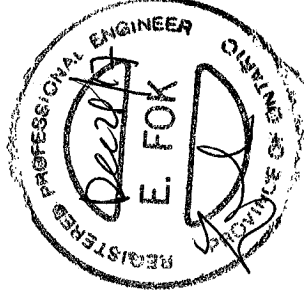
Completeness and accuracy of input must be verified by anyone who would rely on output as evidence of suitability for particular application. Output here based on building code-accepted design properties and analysis methods. Installation of Boise Cascade engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call 1-800-964-6999 before installation.

Bearing Supports

	Dim. (L x W)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B0 Wall/Plate	3-1/2" x 1-3/4"	2,233 lbs	59.3%	29.9%	Spruce Pine Fir
B1 Wall/Plate	3-1/2" x 1-3/4"	2,951 lbs	78.3%	39.5%	Spruce Pine Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets Code minimum (L/360) Live load deflection criteria.
Design meets User specified (1") Maximum Total load deflection criteria.
Calculations assume member is fully braced.
Resistance Factor phi has been applied to all presented results per CSA O86.
BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2010 and CSA O86.
Design based on Dry Service Condition.
Importance Factor : Normal Part code : Part 4



2152491



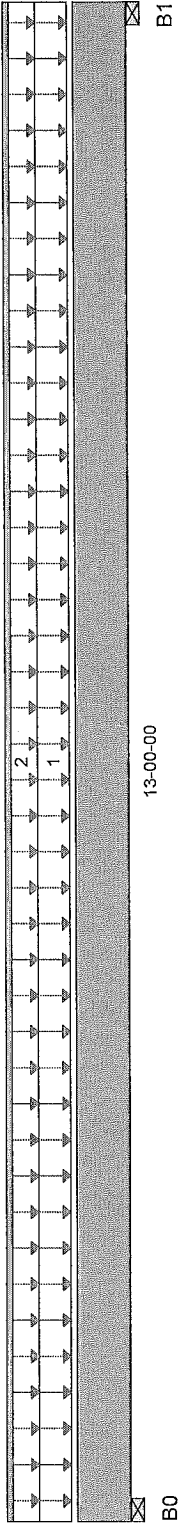
BC CALC@ Design Report

Dry | 1 span | No cantilevers | 0/12 slope (deg)

November 28, 2017 10:26:23

Build 6080
Job Name: 45147 (5005)
Address: Pine Valley
City, Province, Postal Code: Vaughan, ON
Customer: Gold Park
Code reports: CCMC 12472-R

File Name: 290684.bcc
Description: First Floor Framing
Specifier:
Designer: NL
Company: Alpa Roof Trusses
Misc:



Total Horizontal Product Length = 13-00-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0, 3-1/2"	2,513 / 0	1,725 / 0		
B1, 3-1/2"	2,513 / 0	1,725 / 0		

Load Summary

Tag Description	Load Type	Ref.	Start	End	Live	Dead	Snow	Wind	Trib.
1	Unf. Area (lb/ft²)	L	00-00-00	13-00-00	40	20		1.00 1.15	09-08-00
2	Unf. Lin. (lb/ft)	L	00-00-00	13-00-00		60			n/a

Controls Summary

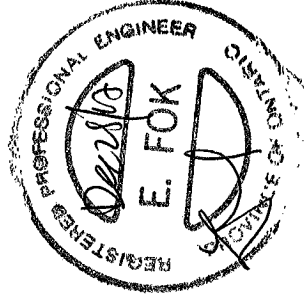
	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	17,926 ft-lbs	35,392 ft-lbs	50.6%	1	06-06-00
End Shear	4,758 lbs	14,464 lbs	32.9%	1	01-03-06
Total Load Defl.	L/405 (0.372")	0.627"	59.3%	4	06-06-00
Live Load Defl.	L/683 (0.22")	0.418"	52.7%	5	06-06-00
Max Defl.	0.372"	1"	37.2%	4	06-06-00
Span / Depth	12.7	n/a	n/a		00-00-00
Squash Blocks	Valid				

Bearing Supports

	Dim. (L x W)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B0 Wall/Plate	3-1/2" x 3-1/2"	5,926 lbs	78.6%	39.7%	Spruce Pine Fir
B1 Wall/Plate	3-1/2" x 3-1/2"	5,926 lbs	78.6%	39.7%	Spruce Pine Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets Code minimum (L/360) Live load deflection criteria.
Design meets User specified (1") Maximum Total load deflection criteria.
Calculations assume member is fully braced.
Resistance Factor phi has been applied to all presented results per CSA O86.
BC CALC@ analysis is based on Canadian Limit States Design, as per NBCC 2010 and CSA O86.
Design based on Dry Service Condition.
Importance Factor : Normal Part code : Part 4
Nail one ply to another with 3 1/2" spiral nails @ 12" o.c, staggered in 2 rows





Boise Cascade

Single 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP

Floor Beam\B14



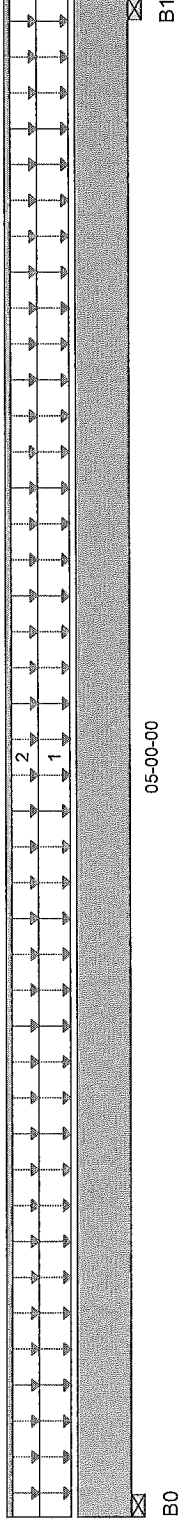
BC CALC® Design Report

Dry | 1 span | No cantilevers | 0/12 slope (deg)

November 28, 2017 11:57:37

Build 6080
Job Name: 45147 (5005)
Address: Pine Valley
City, Province, Postal Code: Vaughan, ON
Customer: Gold Park
Code reports: CCMC 12472-R

File Name: 290684.bcc
Description: First Floor Framing
Specifier:
Designer: NL
Company: Alpa Roof Trusses
Misc:



Total Horizontal Product Length = 05-00-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Trib.
B0, 3-1/2"	867 / 0	637 / 0			
B1, 3-1/2"	867 / 0	637 / 0			

Load Summary

Tag Description	Load Type	Ref.	Start	End	Live	Dead	Snow	Wind	Trib.
1	Unf. Area (lb/ft²)	L	00-00-00	05-00-00	40	15		1.00	1.15
2	Unf. Lin. (lb/ft)	L	00-00-00	05-00-00		120			08-08-00

Controls Summary

Pos.	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Moment	2,162 ft-lbs	11,610 ft-lbs	18.6%	1	02-06-00
End Shear	1,188 lbs	5,785 lbs	20.5%	1	01-01-00
Total Load Defl.	L/999 (0.023")	n/a	n/a	4	02-06-00
Live Load Defl.	L/999 (0.013")	n/a	n/a	5	02-06-00
Max Defl.	0.023"	n/a	n/a	4	02-06-00
Span / Depth	5.7	n/a	n/a		00-00-00
Squash Blocks	Valid				

Disclosure

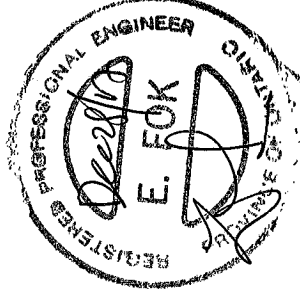
Completeness and accuracy of input must be verified by anyone who would rely on output as evidence of suitability for particular application. Output here based on building code-accepted design properties and analysis methods. Installation of Boise Cascade engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call 1-800-964-6999 before installation.

Bearing Supports

	Dim. (L x W)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B0 Wall/Plate	3-1/2" x 1-3/4"	2,096 lbs	55.6%	28.1%	Spruce Pine Fir
B1 Wall/Plate	3-1/2" x 1-3/4"	2,096 lbs	55.6%	28.1%	Spruce Pine Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets Code minimum (L/360) Live load deflection criteria.
Design meets User specified (1") Maximum Total load deflection criteria.
Calculations assume member is fully braced.
Resistance Factor phi has been applied to all presented results per CSA O86.
BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2010 and CSA O86.
Design based on Dry Service Condition.
Importance Factor : Normal Part code : Part 4



BC CALC®, BC FRAMER®, AUS™, ALLJOIST®, BC RIM BOARD™, BCi®, BOISE GLULAM™, SIMPLE FRAMING SYSTEM®, VERSA-LAM®, VERSA-RIM PLUS®, VERSA-RIM®, VERSA-STRAND®, VERSA-STUD® are trademarks of Boise Cascade Wood Products L.L.C.

5152493



Boise Cascade

Single 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP

Floor Beam\B15



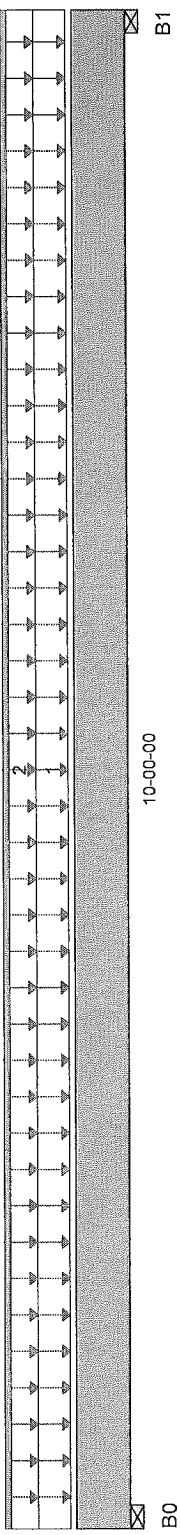
BC CALC® Design Report

Dry | 1 span | No cantilevers | 0/12 slope (deg)

November 28, 2017 13:12:43

Build 6080
Job Name: 45147 (5005)
Address: Pine Valley
City, Province, Postal Code: Vaughan, ON
Customer: Gold Park
Code reports: CCMC 12472-R

File Name: 290684.bcc
Description: Second Floor Framing
Specifier:
Designer: NL
Company: Alpa Roof Trusses
Misc:



Total Horizontal Product Length = 10-00-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0, 3-1/2"	1,067 / 0	730 / 0		
B1, 3-1/2"	1,067 / 0	730 / 0		

Load Summary

Tag Description	Load Type	Ref.	Start	End	Live	Dead	Snow	Wind	Trib.
1	Unf. Area (lb/ft²)	L	00-00-00	10-00-00	40	15			05-04-00
2	Unf. Lin. (lb/ft)	L	00-00-00	10-00-00	40	60			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	5,719 ft-lbs	17,696 ft-lbs	32.3%	1	05-00-00
End Shear	1,869 lbs	7,232 lbs	25.8%	1	01-03-06
Total Load Defl.	L/834 (0.137")	0.477"	28.8%	4	05-00-00
Live Load Defl.	L/999 (0.081")	n/a	n/a	5	05-00-00
Max Defl.	0.137"	1"	13.7%	4	05-00-00
Span / Depth	9.6	n/a	n/a		00-00-00
Squash Blocks	Valid				

Disclosure

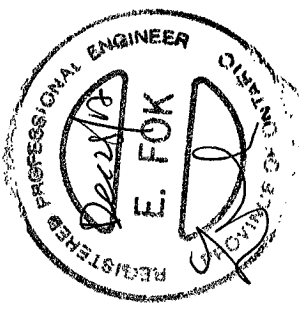
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Bearing Supports

	Dim. (L x W)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B0 Wall/Plate	3-1/2" x 1-3/4"	2,513 lbs	66.7%	33.6%	Spruce Pine Fir
B1 Wall/Plate	3-1/2" x 1-3/4"	2,513 lbs	66.7%	33.6%	Spruce Pine Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets Code minimum (L/360) Live load deflection criteria.
Design meets User specified (1") Maximum Total load deflection criteria.
Calculations assume member is fully braced.
Resistance Factor phi has been applied to all presented results per CSA O86.
BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2010 and CSA O86.
Design based on Dry Service Condition.
Importance Factor : Normal Part code : Part 4



5152494



Boise Cascade

Single 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP

Floor Beam\B16



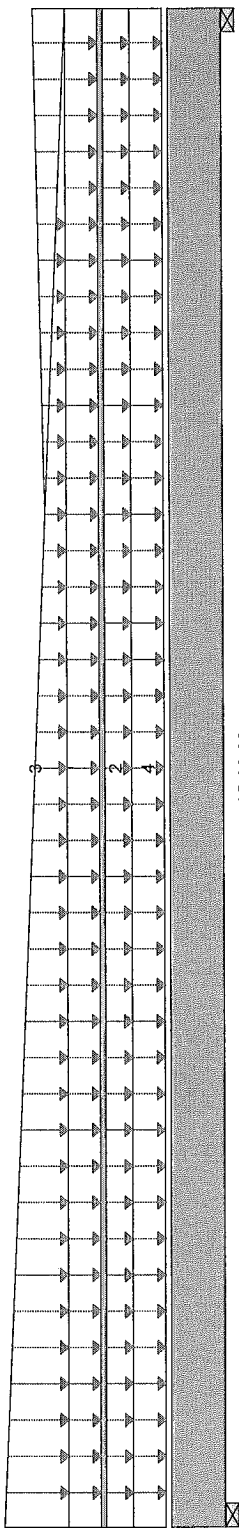
BC CALCO Design Report

Dry | 1 span | No cantilevers | 0/12 slope (deg)

November 28, 2017 13:54:43

Build 6080
Job Name: 45147 (5005)
Address: Pine Valley
City, Province, Postal Code: Vaughan, ON
Customer: Gold Park
Code reports: CCMC 12472-R

File Name: 290684.bcc
Description: Second Floor Framing
Specifier:
Designer: NL
Company: Alpa Roof Trusses
Misc:



05-06-00

B0

B1

Total Horizontal Product Length = 05-06-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0, 3-1/2"	749 / 0	858 / 0	367 / 0	
B1, 3-1/2"	818 / 0	871 / 0	326 / 0	

Load Summary

Tag Description	Load Type	Ref. Start	End	Live	Dead	Snow	Wind	Trib.
1	Trapezoidal (lb/ft)	L 00-00-00		250	125			n/a
2	Unf. Lin. (lb/ft)	L 00-00-00	05-06-00	320	160			n/a
3	Trapezoidal (lb/ft)	L 00-00-00	05-06-00		100			n/a
					22	42		n/a
					0	0		n/a
4	Unf. Area (lb/ft^2)	L 00-00-00	05-06-00	11	11	21	1.00 1.15	05-00-00

Controls Summary

	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	2,808 ft-lbs	17,696 ft-lbs	15.9%	1	02-09-00
End Shear	1,957 lbs	7,232 lbs	27.1%	1	04-02-10
Total Load Defl.	L/999 (0.02")	n/a	n/a	11	02-09-00
Live Load Defl.	L/999 (0.01")	n/a	n/a	15	02-09-00
Max Defl.	0.02"	n/a	n/a	11	02-09-00
Span / Depth	5.1	n/a	n/a		00-00-00
Squash Blocks	Valid				

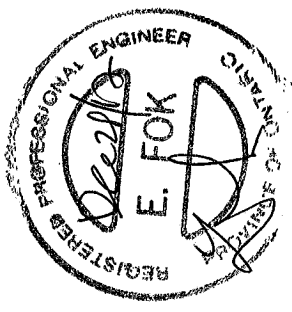
Bearing Supports

	Dim. (L x W)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B0 Wall/Plate	3-1/2" x 1-3/4"	2,380 lbs	63.2%	31.9%	Spruce Pine Fir
B1 Wall/Plate	3-1/2" x 1-3/4"	2,480 lbs	65.8%	33.2%	Spruce Pine Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets Code minimum (L/360) Live load deflection criteria.
Design meets User specified (1") Maximum Total load deflection criteria.
Calculations assume member is fully braced.
Resistance Factor phi has been applied to all presented results per CSA O86.
BC CALCO analysis is based on Canadian Limit States Design, as per NBCC 2010 and CSA O86.

Design based on Dry Service Condition.
Page 2 of 2
Factor : Normal Part code : Part 4



S.152495



Boise Cascade

Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP

Floor Beam\B17



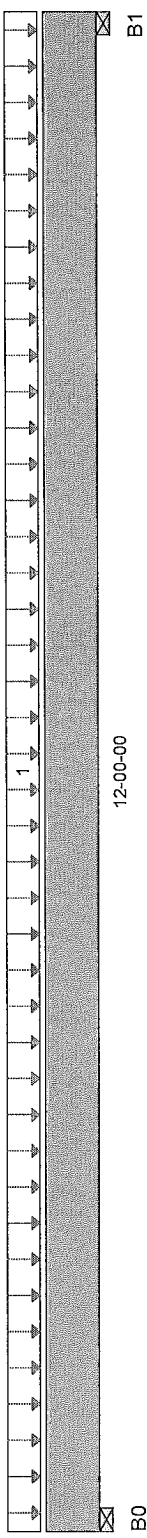
BC CALC® Design Report

Dry | 1 span | No cantilevers | 0/12 slope (deg)

November 28, 2017 14:19:25

Build 6080
Job Name:
Address:
City, Province, Postal Code: Vaughan, ON
Customer:
Code reports:

File Name: 290684.bcc
Description: Second Floor Framing
Specifier:
Designer: NL
Company: Alpa Roof Trusses
Misc:



Total Horizontal Product Length = 12-00-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0, 3-1/2"	2,640 / 0	1,392 / 0		
B1, 3-1/2"	2,640 / 0	1,392 / 0		

Load Summary

Tag Description	Load Type	Ref.	Start	End	Live	Dead	Snow	Wind	Trib.
1	Unf. Area (lb/ft²)	L	00-00-00	12-00-00	40	20		1.00 1.15	11-00-00

Controls Summary

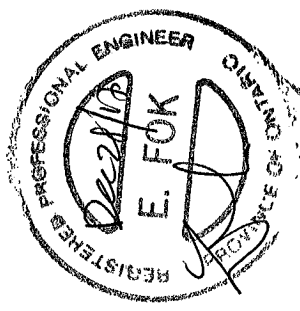
	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	15,819 ft-lbs	35,392 ft-lbs	44.7%	1	06-00-00
End Shear	4,483 lbs	14,464 lbs	31%	1	01-03-06
Total Load Defl.	L/504 (0.275")	0.577"	47.6%	4	06-00-00
Live Load Defl.	L/770 (0.18")	0.385"	46.7%	5	06-00-00
Max Defl.	0.275"	1"	27.5%	4	06-00-00
Span / Depth	11.7	n/a	n/a		00-00-00
Squash Blocks	Valid				

Bearing Supports

	Dim. (L x W)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B0 Wall/Plate	3-1/2" x 3-1/2"	5,700 lbs	75.6%	38.1%	Spruce Pine Fir
B1 Wall/Plate	3-1/2" x 3-1/2"	5,700 lbs	75.6%	38.1%	Spruce Pine Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets Code minimum (L/360) Live load deflection criteria.
Design meets User specified (1") Maximum Total load deflection criteria.
Calculations assume member is fully braced.
Resistance Factor phi has been applied to all presented results per CSA O86.
BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2010 and CSA O86.
Design based on Dry Service Condition.
Importance Factor : Normal Part code : Part 4
Nail one ply to another with 3 1/2" spiral nails @ 12"
o.c, staggered in 2 rows



S.152496



Boise Cascade

Single 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP

Floor Beam\B18



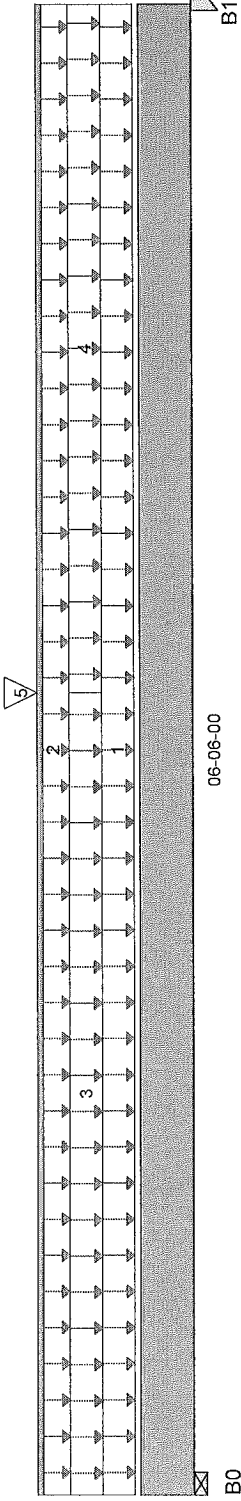
BC CALC® Design Report

Dry | 1 span | No cantilevers | 0/12 slope (deg)

November 28, 2017 14:21:24

Build 6080
Job Name: 45147 (5005)
Address: Pine Valley
City, Province, Postal Code: Vaughan, ON
Customer: Gold Park
Code reports: CCMC 12472-R

File Name: 290684.bcc
Description: Second Floor Framing
Specifier:
Designer: NL
Company: Alpa Roof Trusses
Misc:



Total Horizontal Product Length = 06-06-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0, 3-1/2"	662 / 0	1,064 / 0	666 / 0	
B1, 2"	637 / 0	1,397 / 0	1,099 / 0	

Load Summary

Tag Description	Load Type	Ref.	Start	End	Live	Dead	Snow	Wind	Trib.
1	Unf. Area (lb/ft^2)	L	00-00-00	06-06-00	40	15		1.00 1.15	05-00-00
2	Unf. Lin. (lb/ft)	L	00-00-00	06-06-00		100			n/a
3	Unf. Area (lb/ft^2)	L	00-00-00	03-06-00		11		21	04-00-00
4	Unf. Area (lb/ft^2)	L	03-06-00	06-06-00		20		27	12-06-00
5	Conc. Pt. (lbs)	L	03-06-00	03-06-00		380		458	n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	5,605 ft-lbs	17,696 ft-lbs	31.7%	5	03-06-00
End Shear	2,389 lbs	7,232 lbs	33%	5	05-04-02
Total Load Defl.	L/999 (0.053")	n/a	n/a	13	03-05-03
Live Load Defl.	L/999 (0.026")	n/a	n/a	17	03-05-03
Max Defl.	0.053"	n/a	n/a	13	03-05-03
Span / Depth	6.2	n/a	n/a		00-00-00
Squash Blocks	Valid				

Disclosure

Completeness and accuracy of input must be verified by anyone who would rely on output as evidence of suitability for particular application. Output here based on building code-accepted design properties and analysis methods. Installation of Boise Cascade engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call 1-800-964-6999 before installation.

Bearing Supports

	Dim. (L x W)	Demand	Demand / Resistance Support	Demand / Resistance Member	Material
B0 Wall/Plate	3-1/2" x 1-3/4"	2,660 lbs	70.6%	35.6%	Spruce Pine Fir
B1 Post	2" x 1-3/4"	3,713 lbs	61.2%	87%	Spruce Pine Fir

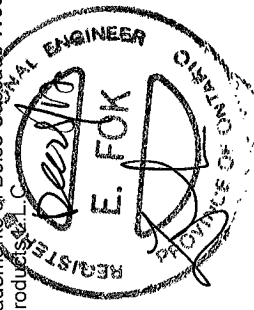
Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets Code minimum (L/360) Live load deflection criteria.
Design meets User specified (1") Maximum Total load deflection criteria.
Calculations assume member is fully braced.
Resistance Factor phi has been applied to all presented results per CSA O86.
BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2010 and CSA O86.

Design based on Dry Service Condition.

Importance Factor : Normal Part code : Part 4

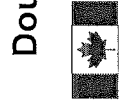
BC CALC®, BC FRAMER®, AJS™, ALLJOIST®, BC RIM BOARD™, BC®, BOISE GLULAM™, SIMPLE FRAMING SYSTEM®, VERSA-LAM®, VERSA-RIM PLUS®, VERSA-RIM®, VERSA-STRAND®, VERSA-STUD® are trademarks of Boise Cascade Wood Products LLC.



5152497



Boise Cascade



Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP

Floor Beam\B19

Dry | 1 span | No cantilevers | 0/12 slope (deg)

November 28, 2017 14:22:05

BC CALCO® Design Report

Build 6080

Job Name:

Address:

City, Province, Postal Code:Vaughan, ON

Customer:

Code reports:

45147 (5005)

Pine Valley

Gold Park

CCMC 12472-R

File Name: 290684.bcc

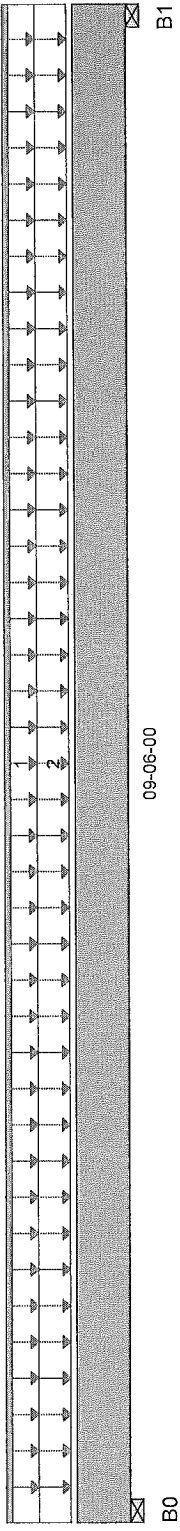
Description: Second Floor Framing

Specifier:

Designer: NL

Company: Alpa Roof Trusses

Misc:



Total Horizontal Product Length = 09-06-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0, 3-1/2"	128 / 0	789 / 0	256 / 0	
B1, 3-1/2"	128 / 0	789 / 0	257 / 0	

Load Summary

Tag Description	Load Type	Ref.	Start	End	Live	Dead	Snow	Wind	Trib.
1	Unf. Lin. (lb/ft)	L	00-00-00	09-06-00	27	114			n/a
2	Unf. Area (lb/ft²)	L	00-00-00	09-06-00	20	20	27	1.00 1.15	02-00-00

Controls Summary

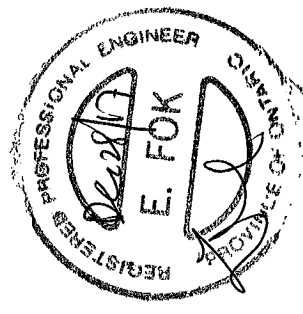
	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	2,375 ft-lbs	23,005 ft-lbs	10.3%	0	04-09-00
End Shear	806 lbs	9,401 lbs	8.6%	0	01-03-06
Total Load Defl.	L/999 (0.035")	n/a	n/a	13	04-09-00
Live Load Defl.	L/999 (0.01")	n/a	n/a	17	04-09-00
Max Defl.	0.035"	n/a	n/a	13	04-09-00
Span / Depth	9.1	n/a	n/a		00-00-00
Squash Blocks	Valid				

Bearing Supports

	Dim. (L x W)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B0 Wall/Plate	3-1/2" x 3-1/2"	1,104 lbs	22.5%	11.4%	Spruce Pine Fir
B1 Wall/Plate	3-1/2" x 3-1/2"	1,104 lbs	22.5%	11.4%	Spruce Pine Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets Code minimum (L/360) Live load deflection criteria.
Design meets User specified (1") Maximum Total load deflection criteria.
Calculations assume member is fully braced.
Resistance Factor phi has been applied to all presented results per CSA O86.
BC CALCO® analysis is based on Canadian Limit States Design, as per NBCC 2010 and CSA O86.
Design based on Dry Service Condition.
Importance Factor : Normal Part code : Part 4 Nail one ply to another with 3 1/2" spiral nails @ 12" o.c, staggered in 2 rows





Boise Cascade

Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP

Floor Beam\B20



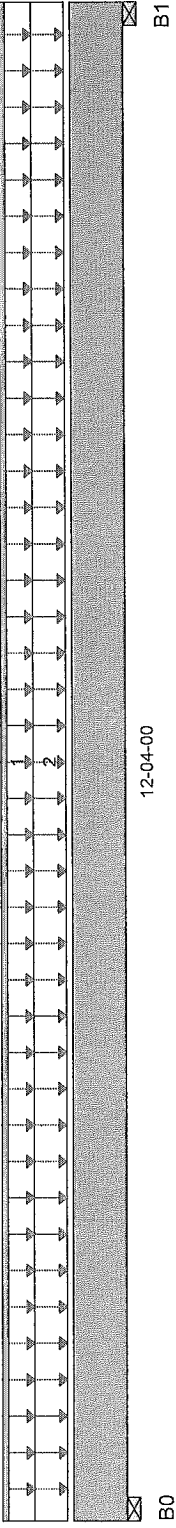
BC CALCO® Design Report

Dry | 1 span | No cantilevers | 0/12 slope (deg)

November 28, 2017 14:23:00

Build 6080
Job Name: 45147 (5005)
Address: Pine Valley
City, Province, Postal Code: Vaughan, ON
Customer: Gold Park
Code reports: CCMC 12472-R

File Name: 290684.bcc
Description: Second Floor Framing
Specifier:
Designer: NL
Company: Alpa Roof Trusses
Misc:



Total Horizontal Product Length = 12-04-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0, 3-1/2"	166 / 0	1,024 / 0	333 / 0	
B1, 3-1/2"	167 / 0	1,024 / 0	333 / 0	

Load Summary

Tag Description	Load Type	Ref.	Start	End	Live	Dead	Snow	Wind	Trib.
1	Unf. Lin. (lb/ft)	L	00-00-00	12-04-00	27	114			n/a
2	Unf. Area (lb/ft²)	L	00-00-00	12-04-00	20				02-00-00

Controls Summary

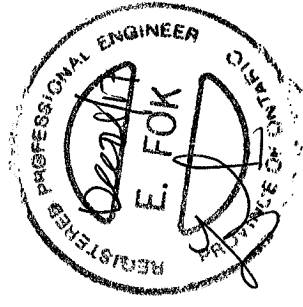
	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	4,097 ft-lbs	23,005 ft-lbs	17.8%	0	06-02-00
End Shear	1,136 lbs	9,401 lbs	12.1%	0	01-03-06
Total Load Defl.	L/999 (0.104")	n/a	n/a	13	06-02-00
Live Load Defl.	L/999 (0.028")	n/a	n/a	17	06-02-00
Max Defl.	0.104"	n/a	n/a	13	06-02-00
Span / Depth	12	n/a	n/a		00-00-00
Squash Blocks	Valid				

Bearing Supports

	Dim. (L x W)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B0 Wall/Plate	3-1/2" x 3-1/2"	1,433 lbs	29.3%	14.8%	Spruce Pine Fir
B1 Wall/Plate	3-1/2" x 3-1/2"	1,433 lbs	29.3%	14.8%	Spruce Pine Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets Code minimum (L/360) Live load deflection criteria.
Design meets User specified (1") Maximum Total load deflection criteria.
Calculations assume member is fully braced.
Resistance Factor phi has been applied to all presented results per CSA O86.
BC CALCO® analysis is based on Canadian Limit States Design, as per NBCC 2010 and CSA O86.
Design based on Dry Service Condition.
Importance Factor : Normal Part code : Part 4 Nail one ply to another with 3 1/2" spiral nails @ (2x) o.c. staggered in 2 rows



S.152499



Boise Cascade



Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP

Floor Beam\B21

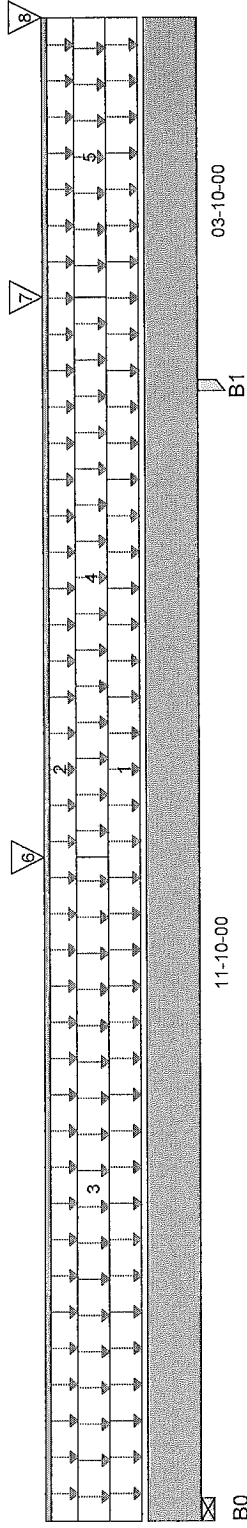
Dry | 2 spans | Right cantilever | 0/12 slope (deg)

November 28, 2017 14:26:08

BC CALC® Design Report

Build 6080
Job Name: 45147 (5005)
Address: Pine Valley
City, Province, Postal Code: Vaughan, ON
Customer: Gold Park
Code reports: CCMC 12472-R

File Name: 290684.bcc
Description: Second Floor Framing
Specifier:
Designer: NL
Company: Alpa Roof Trusses
Misc:



Total Horizontal Product Length = 15-08-00

Reaction Summary (Down / Uplift) (lbs)

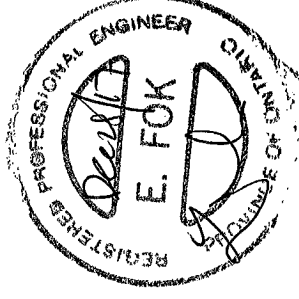
Bearing	Live	Dead	Snow	Wind
B0, 3-1/2"	1,508 / 213	1,637 / 0	1,531 / 0	
B1, 3-1/2"	2,788 / 0	5,759 / 0	3,455 / 0	

Load Summary

Tag Description	Load Type	Ref.	Start	End	Live	Dead	Snow	Wind	Trib.
1	Unf. Area (lb/ft^2)	L	00-00-00	15-08-00	40	20			06-03-00
2	Unf. Lin. (lb/ft)	L	00-00-00	15-08-00		100			n/a
3	Unf. Area (lb/ft^2)	L	00-00-00	06-11-00		11		21	12-06-00
4	Unf. Area (lb/ft^2)	L	06-11-00	12-09-00		11		21	04-00-00
5	Unf. Area (lb/ft^2)	L	12-09-00	15-08-00		20		27	12-06-00
6	Conc. Pt. (lbs)	L	06-11-00	06-11-00		342		729	n/a
7	Conc. Pt. (lbs)	L	12-09-00	12-09-00		380		458	n/a
8	Conc. Pt. (lbs)	L	15-08-00	15-08-00	166	1,024		333	n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	12,071 ft-lbs	35,392 ft-lbs	34.1%	2	05-01-14
Neg. Moment	-17,046 ft-lbs	-35,392 ft-lbs	48.2%	28	11-10-00
End Shear	3,832 lbs	14,464 lbs	26.5%	26	01-03-06
Cont. Shear	6,433 lbs	14,464 lbs	44.5%	30	12-11-10
Total Load Defl.	2xL/438 (0.21")	0.383"	54.8%	58	15-08-00
Live Load Defl.	2xL/679 (-0.136")	-0.256"	53%	78	15-08-00
Total Neg. Defl.	2xL/1,998 (-0.041")	n/a	n/a	54	15-08-00
Max Defl.	0.193"	1"	19.3%	54	05-06-01
Cant. Max Defl.	0.21"	1"	21%	58	15-08-00
Span / Depth	11.7	n/a	n/a		00-00-00
Squash Blocks	Valid				



Bearing Supports

	Dim. (L x W)	Demand	Demand/Resistance Support	Resistance Member	Material
B0 Wall/Plate	3-1/2" x 3-1/2"	5,097 lbs	67.6%	34.1%	Spruce Pine Fir
B1 Post	3-1/2" x 3-1/2"	13,775 lbs	64.8%	92.2%	Spruce Pine Fir

Notes

Nail one ply to another with
3 1/2" spiral nails @ 12"
o.c., staggered in 2 rows

S 152500



Boise Cascade

Single 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP

Floor Beam\B23



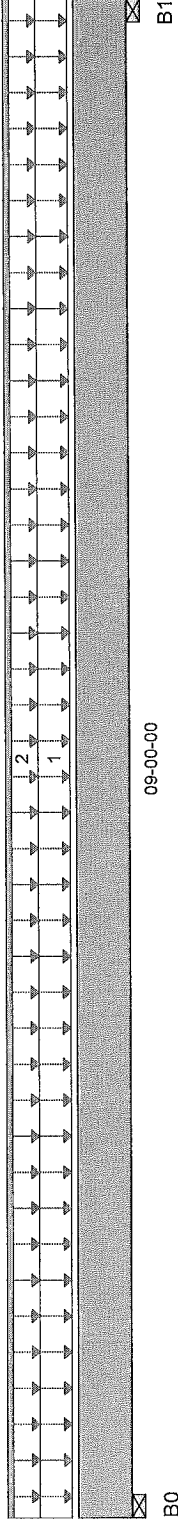
BC CALC® Design Report

Dry | 1 span | No cantilevers | 0/12 slope (deg)

November 28, 2017 14:52:37

Build 6080
Job Name: 45147 (5005)
Address: Pine Valley
City, Province, Postal Code: Vaughan, ON
Customer: Gold Park
Code reports: CCMC 12472-R

File Name: 290684.bcc
Description: First Floor Framing
Specifier:
Designer: NL
Company: Alpa Roof Trusses
Misc:



Total Horizontal Product Length = 09-00-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0, 3-1/2"	540 / 0	500 / 0		
B1, 3-1/2"	540 / 0	500 / 0		

Load Summary

Tag Description	Load Type	Ref.	Start	End	Live	Dead	Snow	Wind	Trib.
1	Unf. Area (lb/ft²)	L	00-00-00	09-00-00	40	0.65	1.00	1.15	03-00-00
2	Unf. Lin. (lb/ft)	L	00-00-00	09-00-00	40	60			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	2,907 ft-lbs	17,696 ft-lbs	16.4%	1	04-06-00
End Shear	1,026 lbs	7,232 lbs	14.2%	1	01-03-06
Total Load Defl.	L/999 (0.057")	n/a	n/a	4	04-06-00
Live Load Defl.	L/999 (0.029")	n/a	n/a	5	04-06-00
Max Defl.	0.057"	n/a	n/a	4	04-06-00
Span / Depth	8.6	n/a	n/a		00-00-00
Squash Blocks	Valid				

Disclosure

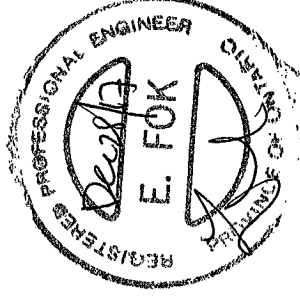
Completeness and accuracy of input must be verified by anyone who would rely on output as evidence of suitability for particular application. Output here based on building code-accepted design properties and analysis methods. Installation of Boise Cascade engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call 1-800-964-6999 before installation.

Bearing Supports

	Dim. (L x W)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B0 Wall/Plate	3-1/2" x 1-3/4"	1,434 lbs	38.1%	19.2%	Spruce Pine Fir
B1 Wall/Plate	3-1/2" x 1-3/4"	1,434 lbs	38.1%	19.2%	Spruce Pine Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets Code minimum (L/360) Live load deflection criteria.
Design meets User specified (1") Maximum Total load deflection criteria.
Calculations assume member is fully braced.
Resistance Factor phi has been applied to all presented results per CSA O86.
BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2010 and CSA O86.
Design based on Dry Service Condition.
Importance Factor : Normal Part code : Part 4



S.152501



Boise Cascade

Single 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP

Floor Beam\B24



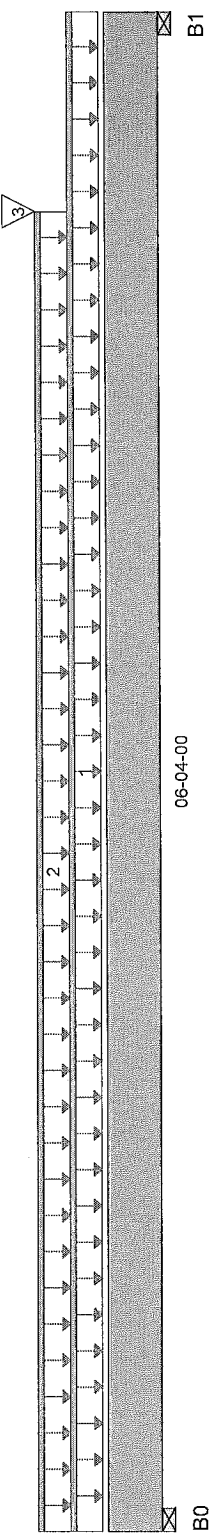
BC CALCO® Design Report

Dry | 1 span | No cantilevers | 0/12 slope (deg)

November 29, 2017 08:25:11

Build 6080
Job Name: 45147 (5005)
Address: Pine Valley
City, Province, Postal Code: Vaughan, ON
Customer: Gold Park
Code reports: CCMC 12472-R

File Name: 290684.bcc
Description: First Floor Framing
Specifier:
Designer: NL
Company: Alpa Roof Trusses
Misc:



Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0, 3-1/2"	226 / 0	349 / 0		
B1, 3-1/2"	634 / 0	735 / 0		

Load Summary

Tag Description	Load Type	Ref.	Start	End	Live	Dead	Snow	Wind	Trib.
1	Unf. Lin. (lb/ft)	L	00-00-00	06-04-00	27	74			n/a
2	Unf. Lin. (lb/ft)	L	00-00-00	05-06-00	27	14			n/a
3	Conc. Pt. (lbs)	L	05-06-00	05-06-00	540	500			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	1,337 ft-lbs	17,696 ft-lbs	7.6%	1	03-10-08
End Shear	1,040 lbs	7,232 lbs	14.4%	1	05-00-10
Total Load Defl.	L/999 (0.013")	n/a	n/a	4	03-04-02
Live Load Defl.	L/999 (0.005")	n/a	n/a	5	03-04-02
Max Defl.	0.013"	n/a	n/a	4	03-04-02
Span / Depth	5.9	n/a	n/a		00-00-00
Squash Blocks	Valid				

Disclosure

Completeness and accuracy of input must be verified by anyone who would rely on output as evidence of suitability for particular application. Output here based on building code-accepted design properties and analysis methods. Installation of Boise Cascade engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call 1-800-964-6999 before installation.

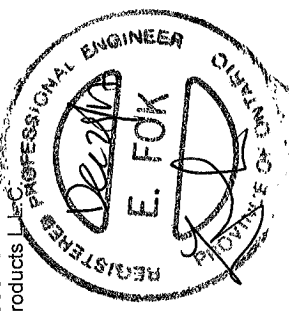
Bearing Supports

	Dim. (L x W)	Demand	Demand / Resistance Support	Resistance Member	Material
B0 Wall/Plate	3-1/2" x 1-3/4"	774 lbs	20.5%	10.4%	Spruce Pine Fir
B1 Wall/Plate	3-1/2" x 1-3/4"	1,870 lbs	49.6%	25%	Spruce Pine Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets Code minimum (L/360) Live load deflection criteria.
Design meets User specified (1") Maximum Total load deflection criteria.
Calculations assume member is fully braced.
Resistance Factor phi has been applied to all presented results per CSA O86.
BC CALCO® analysis is based on Canadian Limit States Design, as per NBCC 2010 and CSA O86.
Design based on Dry Service Condition.
Importance Factor : Normal Part code : Part 4

BC CALCO®, BC FRAMER®, AJS™, ALLJOIST®, BC RIM BOARD™, BC®, BOISE GLULAM™, SIMPLE FRAMING™, SYSTEM®, VERSA-LAM®, VERSA-RIM PLUS®, VERSA-STRAND®, VERSA-STUD® are trademarks of Boise Cascade Wood Products LLC.



S152502



Boise Cascade

Single 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP

Floor Beam\B25



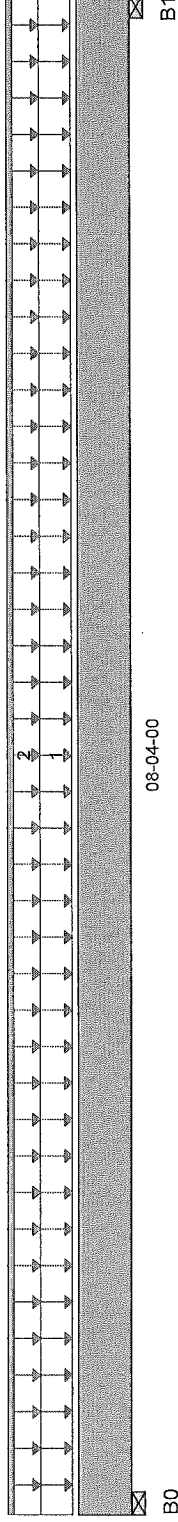
BC CALC® Design Report

Dry | 1 span | No cantilevers | 0/12 slope (deg)

November 28, 2017 15:57:57

Build 6080
Job Name: 45147 (5005)
Address: Pine Valley
City, Province, Postal Code: Vaughan, ON
Customer: Gold Park
Code reports: CCMC 12472-R

File Name: 290684.bcc
Description: First Floor Framing
Specifier:
Designer: NL
Company: Alpa Roof Trusses
Misc:



Total Horizontal Product Length = 08-04-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0, 3-1/2"	792 / 0	666 / 0		
B1, 3-1/2"	792 / 0	666 / 0		

Load Summary

Tag Description	Load Type	Ref.	Start	End	Live	Dead	Snow	Wind	Trib.
1	Unf. Area (lb/ft²)	L	00-00-00	08-04-00	40	20		1.00	1.15
2	Unf. Lin. (lb/ft)	L	00-00-00	08-04-00	60	60			04-09-00 n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	3,758 ft-lbs	11,610 ft-lbs	32.4%	1	04-02-00
End Shear	1,495 lbs	5,785 lbs	25.8%	1	01-01-00
Total Load Defl.	L/999 (0.121")	n/a	n/a	4	04-02-00
Live Load Defl.	L/999 (0.066")	n/a	n/a	5	04-02-00
Max Defl.	0.121"	n/a	n/a	4	04-02-00
Span / Depth	9.9	n/a	n/a		00-00-00
Squash Blocks	Valid				

Disclosure

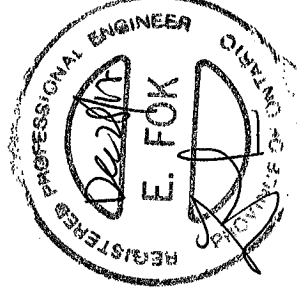
Completeness and accuracy of input must be verified by anyone who would rely on output as evidence of suitability for particular application. Output here based on building code-accepted design properties and analysis methods. Installation of Boise Cascade engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call 1-800-964-6999 before installation.

Bearing Supports

	Dim. (L x W)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B0 Wall/Plate	3-1/2" x 1-3/4"	2,020 lbs	53.6%	27%	Spruce Pine Fir
B1 Wall/Plate	3-1/2" x 1-3/4"	2,020 lbs	53.6%	27%	Spruce Pine Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets Code minimum (L/360) Live load deflection criteria.
Design meets User specified (1") Maximum Total load deflection criteria.
Calculations assume member is fully braced.
Resistance Factor phi has been applied to all presented results per CSA O86.
BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2010 and CSA O86.
Design based on Dry Service Condition.
Importance Factor : Normal Part code : Part 4



152503



November 28, 2017 15:59:20

45147 (5005)

Pine Valley

:Vaughan, ON

Gold Park

CCMC 12472-R

File Name: 290684.bcc

Description: Second Floor Framing

Specifier:

Designer: NL

Company: Alpa Roof Trusses

Misc:



Total Horizontal Product Length = 05-00-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0, 3-1/2"	68 / 0	215 / 0		
B1, 3-1/2"	68 / 0	215 / 0		

Load Summary

Tag Description	Load Type	Ref.	Start	End	1.00	0.65	1.00	1.15
1	Unf. Lin. (lb/ft)	L	00-00-00	05-00-00	27	74		n/a

Controls Summary

	311 ft-lbs	23,005 ft-lbs	1.3%	0	02-06-00
Pos. Moment	147 lbs	9,401 lbs	1.6%	0	01-03-06
End Shear	L/999 (0.001")	n/a	n/a	4	02-06-00
Total Load Defl.	L/999 (0")	n/a	n/a	5	02-06-00
Live Load Defl.	0.001"	n/a	n/a	4	02-06-00
Max Defl.	4.6	n/a	n/a		00-00-00
Span / Depth	Valid				
Squash Blocks					

Bearing Supports

B0	Wall/Plate	3-1/2" x 3-1/2"	301 lbs	6.1%	3.1%	Spruce Pine Fir
B1	Wall/Plate	3-1/2" x 3-1/2"	301 lbs	6.1%	3.1%	Spruce Pine Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria.

Design meets Code minimum (L/360) Live load deflection criteria.

Design meets User specified (1") Maximum Total load deflection criteria.

Calculations assume member is fully braced.

Resistance Factor ϕ has been applied to all presented results per CSA O86.

BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2010 and CSA

086.

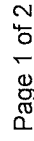
Design based on Dry Service Condition.

Importance Factor : Normal Part code : Part 4

Nail one ply to another with

3 1/2" spiral nails @ 12"

0 c staggered in 2 rows



S. 152504



Boise Cascade



Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP

Floor Beam\B27

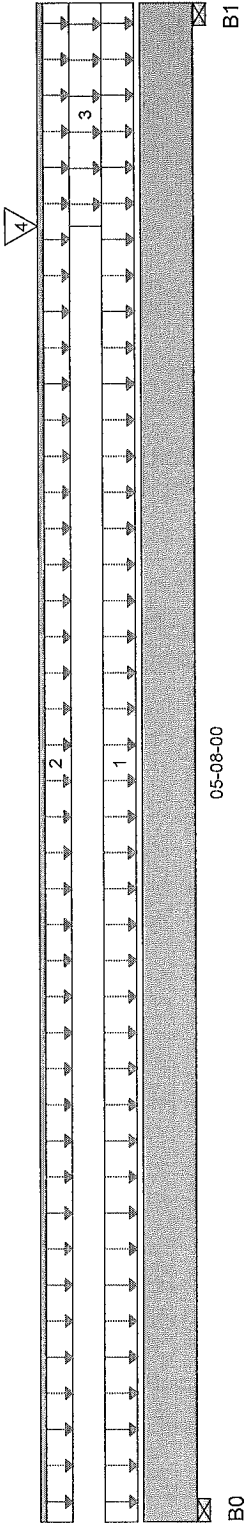
BC CALCO Design Report

Dry | 1 span | No cantilevers | 0/12 slope (deg)

November 28, 2017 16:01:48

Build 6080
Job Name: 45147 (5005)
Address: Pine Valley
City, Province, Postal Code: Vaughan, ON
Customer: Gold Park
Code reports: CCMC 12472-R

File Name: 290684.bcc
Description: Second Floor Framing
Specifier:
Designer: NL
Company: Alpa Roof Trusses
Misc:



Total Horizontal Product Length = 05-08-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0, 3-1/2"	824 / 0	637 / 0		
B1, 3-1/2"	958 / 0	843 / 0		

Load Summary

Tag Description	Load Type	Ref.	Start	End	Live	Dead	Snow	Wind	Trib.
1	Unf. Area (lb/ft^2)	L	00-00-00	05-08-00	40	20		1.00 1.15	07-02-00
2	Unf. Lin. (lb/ft)	L	00-00-00	05-08-00		60			n/a
3	Unf. Area (lb/ft^2)	L	04-10-00	05-08-00	40	20			02-08-00
4	Conc. Pt. (lbs)	L	04-10-00	04-10-00	68	215			n/a

Controls Summary

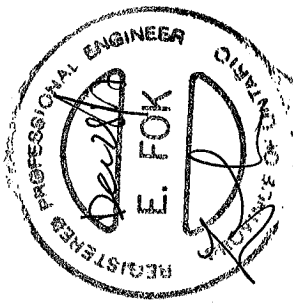
	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	2,506 ft-lbs	35,392 ft-lbs	7.1%	1	02-11-03
End Shear	1,360 lbs	14,464 lbs	9.4%	1	04-04-10
Total Load Defl.	L/999 (0.009")	n/a	n/a	4	02-10-00
Live Load Defl.	L/999 (0.005")	n/a	n/a	5	02-10-00
Max Defl.	0.009"	n/a	n/a	4	02-10-00
Span / Depth	5.3	n/a	n/a		00-00-00
Squash Blocks	Valid				

Bearing Supports

	Dim. (L x W)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B0 Wall/Plate	3-1/2" x 3-1/2"	2,032 lbs	27%	13.6%	Spruce Pine Fir
B1 Wall/Plate	3-1/2" x 3-1/2"	2,490 lbs	33%	16.7%	Spruce Pine Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets Code minimum (L/360) Live load deflection criteria.
Design meets User specified (1") Maximum Total load deflection criteria.
Calculations assume member is fully braced.
Resistance Factor phi has been applied to all presented results per CSA O86.
BC CALCO analysis is based on Canadian Limit States Design, as per NBCC 2010 and CSA O86.
Design based on Dry Service Condition.
Importance Factor : Normal Part code : Part 4
Nail one ply to another with 3 1/2" spiral nails @ 12" o.c, staggered in 2 rows



S152505



Boise Cascade



Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP

Floor Beam\B28

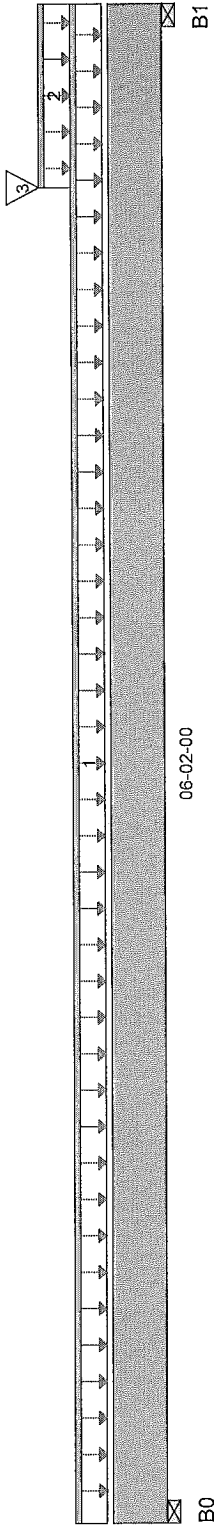
BC CALC® Design Report

Dry | 1 span | No cantilevers | 0/12 slope (deg)

November 28, 2017 16:48:59

Build 6080
Job Name: 45147 (5005)
Address: Pine Valley
City, Province, Postal Code: Vaughan, ON
Customer: Gold Park
Code reports: CCMC 12472-R

File Name: 290684.bcc
Description: Second Floor Framing
Specifier:
Designer: NL
Company: Alpa Roof Trusses
Misc:



Total Horizontal Product Length = 06-02-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0, 3-1/2"	159 / 0	324 / 0		
B1, 3-1/2"	852 / 0	854 / 0		

Load Summary

Tag Description	Load Type	Ref.	Start	End	Live	Dead	Snow	Wind	Trib.
1	Unf. Lin. (lb/ft)	L	00-00-00	06-02-00	27	74			n/a
2	Unf. Lin. (lb/ft)	L	05-05-00	06-02-00	27	14			n/a
3	Conc. Pt. (lbs)	L	05-05-00	05-05-00	824	637			n/a

Controls Summary

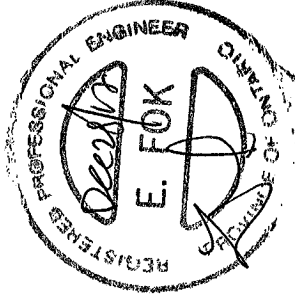
	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	1,255 ft-lbs	35,392 ft-lbs	3.5%	1	04-03-14
End Shear	1,048 lbs	14,464 lbs	7.2%	1	04-10-10
Total Load Defl.	L/999 (0.006")	n/a	n/a	4	03-03-11
Live Load Defl.	L/999 (0.002")	n/a	n/a	5	03-04-06
Max Defl.	0.006"	n/a	n/a	4	03-03-11
Span / Depth	5.8	n/a	n/a		00-00-00
Squash Blocks	Valid				

Bearing Supports

	Dim. (L x W)	Demand	Demand / Resistance Support	Demand / Resistance Member	Material
B0 Wall/Plate	3-1/2" x 3-1/2"	453 lbs	9.3%	4.7%	Spruce Pine Fir
B1 Wall/Plate	3-1/2" x 3-1/2"	2,345 lbs	31.1%	15.7%	Spruce Pine Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets Code minimum (L/360) Live load deflection criteria.
Design meets User specified (1") Maximum Total load deflection criteria.
Calculations assume member is fully braced.
Resistance Factor phi has been applied to all presented results per CSA O86.
BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2010 and CSA O86.
Design based on Dry Service Condition.
Importance Factor : Normal Part code : Part 4 Nail one ply to another with 3 1/2" spiral nails @ 12" o.c, staggered in 2 rows



S 152506



Boise Cascade

Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP

Floor Beam\B29



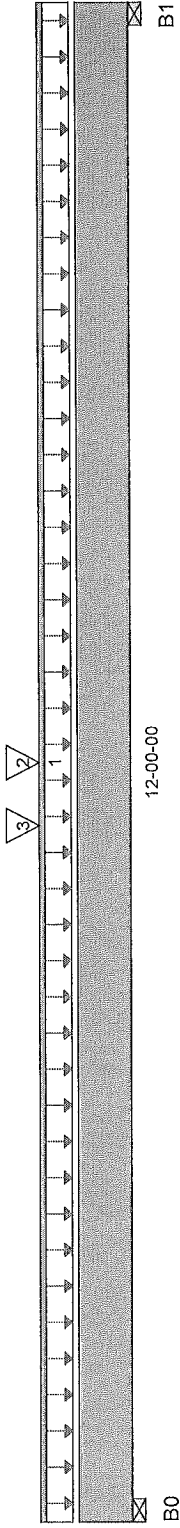
BC CALC® Design Report

Dry | 1 span | No cantilevers | 0/12 slope (deg)

November 29, 2017 08:41:53

Build 6080
Job Name: 45147 (5005)
Address: Pine Valley
City, Province, Postal Code: Vaughan, ON
Customer: Gold Park
Code reports: CCMC 12472-R

File Name: 290684.bcc
Description: First Floor Framing
Specifier:
Designer: NL
Company: Alpa Roof Trusses
Misc:



Total Horizontal Product Length = 12-00-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Trib.
B0, 3-1/2"	1,292 / 0	1,267 / 0			n/a
B1, 3-1/2"	1,246 / 0	1,224 / 0			n/a

Load Summary

Tag Description	Load Type	Ref.	Start	End	Live	Dead	Snow	Wind	Trib.
1	Unf. Lin. (lb/ft)	L	00-00-00	12-00-00	54	87			n/a
2	Conc. Pt. (lbs)	L	06-00-00	06-00-00	1,350	803			n/a
3	Conc. Pt. (lbs)	L	05-06-00	05-06-00	540	500			n/a

Controls Summary

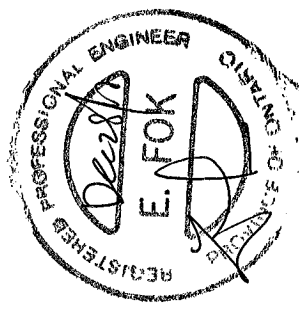
	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	15,932 ft-lbs	35,392 ft-lbs	45%	1	06-00-00
End Shear	3,260 lbs	14,464 lbs	22.5%	1	01-03-06
Total Load Defl.	L/570 (0.243")	0.577"	42.1%	4	06-00-00
Live Load Defl.	L/1,075 (0.129")	0.385"	33.5%	5	06-00-00
Max Defl.	0.243"	1"	24.3%	4	06-00-00
Span / Depth	11.7	n/a	n/a		00-00-00
Squash Blocks	Valid				

Bearing Supports

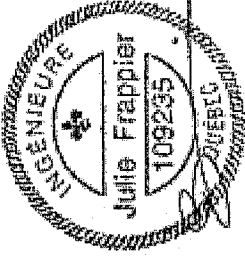
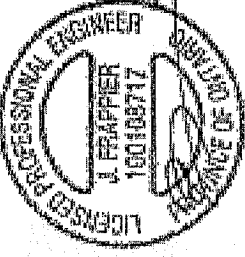
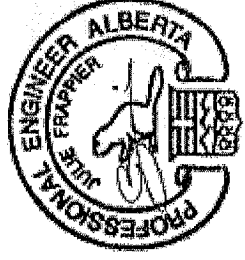
	Dim. (L x W)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B0 Wall/Plate	3-1/2" x 3-1/2"	3,523 lbs	46.7%	23.6%	Spruce Pine Fir
B1 Wall/Plate	3-1/2" x 3-1/2"	3,399 lbs	45.1%	22.7%	Spruce Pine Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets Code minimum (L/360) Live load deflection criteria.
Design meets User specified (1") Maximum Total load deflection criteria.
Calculations assume member is fully braced.
Resistance Factor phi has been applied to all presented results per CSA O86.
BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2010 and CSA O86.
Design based on Dry Service Condition.
Importance Factor : Normal Part code : Part 4 Nail one ply to another with 3 1/2" spiral nails @ 12" o.c. staggered in 2 rows



S.152507



Maximum Floor Spans

Live Load = 40 psf, Dead Load = 15 psf
Simple Spans, $L/360$ Deflection Limit
3/4" OSB G&N Sheathing

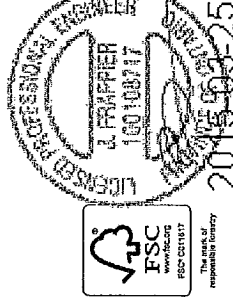
Depth	Series	Bare				1/2" Gypsum Ceiling			
		On Centre Spacing		On Centre Spacing		On Centre Spacing		On Centre Spacing	
		12"	16"	19.2"	24"	12"	16"	19.2"	24"
9-1/2"	NI-20	15'-10"	15'-0"	14'-5"	13'-5"	16'-4"	15'-5"	14'-6"	13'-5"
	NI-40x	17'-0"	16'-0"	15'-5"	14'-9"	17'-5"	16'-5"	15'-10"	15'-2"
	NI-60	17'-2"	16'-2"	15'-7"	14'-11"	17'-6"	16'-7"	15'-11"	15'-3"
	NI-70	18'-0"	16'-11"	16'-3"	15'-7"	18'-5"	17'-3"	16'-7"	15'-11"
	NI-80	18'-3"	17'-1"	16'-5"	15'-9"	18'-8"	17'-5"	16'-9"	16'-1"
11-7/8"	NI-20	17'-10"	16'-10"	16'-2"	15'-6"	18'-6"	17'-4"	16'-9"	16'-1"
	NI-40x	19'-4"	17'-11"	17'-3"	16'-6"	19'-11"	18'-6"	17'-9"	17'-0"
	NI-60	19'-7"	18'-2"	17'-5"	16'-9"	20'-2"	18'-9"	17'-11"	17'-2"
	NI-70	20'-9"	19'-2"	18'-3"	17'-5"	21'-4"	19'-9"	18'-10"	17'-10"
	NI-80	21'-1"	19'-5"	18'-6"	17'-7"	21'-7"	20'-0"	19'-0"	18'-0"
14"	NI-90x	21'-8"	20'-0"	19'-1"	18'-0"	22'-2"	20'-6"	19'-6"	18'-6"
	NI-40x	21'-5"	19'-10"	18'-11"	17'-11"	22'-1"	20'-6"	19'-7"	18'-7"
	NI-60	21'-10"	20'-2"	19'-3"	18'-2"	22'-5"	20'-10"	19'-11"	18'-10"
	NI-70	23'-0"	21'-3"	20'-3"	19'-2"	23'-8"	21'-11"	20'-10"	19'-9"
	NI-80	23'-5"	21'-7"	20'-7"	19'-5"	24'-0"	22'-3"	21'-2"	20'-0"
16"	NI-90x	24'-1"	22'-3"	21'-2"	20'-0"	24'-8"	22'-10"	21'-9"	20'-7"
	NI-60	23'-9"	22'-0"	20'-11"	19'-10"	24'-6"	22'-9"	21'-8"	20'-6"
	NI-70	25'-1"	23'-2"	22'-0"	20'-10"	25'-9"	23'-10"	22'-9"	21'-6"
	NI-80	25'-6"	23'-6"	22'-4"	21'-2"	26'-1"	24'-2"	23'-1"	21'-10"
	NI-90x	26'-4"	24'-3"	23'-1"	21'-10"	26'-11"	24'-11"	23'-8"	22'-5"
Depth	Series	Mid-Span Blocking				Mid-Span Blocking and 1/2" Gypsum Ceiling			
		On Centre Spacing		On Centre Spacing		On Centre Spacing		On Centre Spacing	
		12"	16"	19.2"	24"	12"	16"	19.2"	24"
9-1/2"	NI-20	17'-1"	15'-5"	14'-6"	13'-5"	17'-1"	15'-5"	14'-6"	13'-5"
	NI-40x	18'-8"	17'-6"	16'-7"	15'-3"	19'-2"	17'-8"	16'-7"	15'-3"
	NI-60	18'-11"	17'-8"	16'-10"	15'-7"	19'-4"	18'-0"	16'-10"	15'-7"
	NI-70	20'-0"	18'-7"	17'-9"	17'-0"	20'-5"	19'-0"	18'-2"	17'-0"
	NI-80	20'-3"	18'-10"	17'-11"	17'-2"	20'-8"	19'-3"	18'-4"	17'-5"
11-7/8"	NI-20	20'-2"	18'-8"	17'-6"	16'-2"	20'-7"	18'-8"	17'-6"	16'-2"
	NI-40x	21'-10"	20'-4"	19'-5"	17'-8"	22'-5"	20'-11"	19'-9"	17'-8"
	NI-60	22'-1"	20'-7"	19'-7"	18'-7"	22'-8"	21'-2"	20'-3"	18'-8"
	NI-70	23'-4"	21'-8"	20'-8"	19'-7"	23'-10"	22'-3"	21'-3"	20'-1"
	NI-80	23'-7"	21'-11"	20'-11"	19'-9"	24'-1"	22'-6"	21'-5"	20'-4"
14"	NI-90x	24'-3"	22'-6"	21'-6"	20'-4"	24'-8"	22'-0"	22'-0"	20'-9"
	NI-40x	24'-5"	22'-9"	21'-8"	19'-5"	25'-1"	23'-6"	21'-9"	19'-5"
	NI-60	24'-10"	23'-1"	22'-0"	20'-10"	25'-6"	23'-10"	22'-9"	21'-4"
	NI-70	26'-1"	24'-3"	23'-2"	21'-10"	26'-8"	24'-11"	23'-9"	22'-6"
	NI-80	26'-6"	24'-7"	23'-5"	22'-2"	27'-1"	25'-3"	24'-1"	22'-9"
16"	NI-90x	27'-3"	25'-4"	24'-1"	22'-9"	27'-9"	25'-11"	24'-8"	23'-4"
	NI-60	27'-3"	25'-5"	24'-2"	22'-10"	28'-0"	26'-2"	25'-0"	23'-8"
	NI-70	28'-8"	26'-8"	25'-4"	23'-11"	29'-3"	27'-4"	26'-1"	24'-8"
	NI-80	29'-1"	27'-0"	25'-9"	24'-4"	29'-8"	27'-9"	26'-5"	25'-0"
	NI-90x	29'-11"	27'-10"	26'-6"	25'-0"	30'-6"	28'-5"	27'-2"	25'-8"

- Maximum clear span applicable to simple-span residential floor construction with a design live load of 40 psf and dead load of 15 psf. The ultimate limit states are based on the factored loads of $1.50L + 1.25D$. The serviceability limit states include the consideration for floor vibration, a live load deflection limit of $L/360$ and a total load deflection limit of $L/240$.
- Spans are based on a composite floor with glued-nailed oriented strand board (OSB) sheathing with a minimum thickness of 3/4 inch for a joist spacing of 24 inches or less. The composite floor may include 1/2 inch gypsum ceiling and/or one row of blocking at mid-span with strapping. Strapping shall be minimum 1x4 inch strap applied to underside of joists at blocking line or 1/2 inch gypsum ceiling attached to joists.
- Minimum bearing length shall be 1-3/4 inches for the end bearings.
- Bearing stiffeners are not required when I-joists are used with the spans and spacings given in this table, except as required for hangers.
- This span chart is based on uniform loads. For applications with other than uniformly distributed loads, an engineering analysis may be required based on the use of the design properties. Tables are based on Limit States Design per CSA O86-09, NBC 2010, and OBC 2012.
- Joists shall be laterally supported at supports and continuously along the compression edge. Refer to technical documentation for installation guidelines and construction details. Nordic I-joists are listed in CCMC evaluation report 13032-R and APA Product Report PR-L274C.



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Refer to the Installation Guide for Residential Floors for additional information.
CMC EVALUATION REPORT 13032-R



WEB HOLE SPECIFICATIONS

RULES FOR CUTTING HOLES AND DUCT CHASE OPENINGS:

- The distance between the inside edge of the support and the centerline of any hole or duct chase opening shall be in compliance with the requirements of Table 1 or 2, respectively.
- I-joist top and bottom flanges must NEVER be cut, notched, or otherwise modified.
- Whenever possible, field-cut holes should be centered on the middle of the web.
- The maximum size hole or the maximum depth of a duct chase opening that can be cut into an I-joist web shall equal the clear distance between the flanges of the I-joist minus 1/4 inch. A minimum of 1/8 inch should always be maintained between the top or bottom of the hole or opening and the adjacent I-joist flange.

TABLE 1

LOCATION OF CIRCULAR HOLES IN JOIST WEBS

Simple or Multiple Span for Dead Loads up to 15 psf and Live Loads up to 40 psf

Joist Depth	Joist Series	Minimum Distance from Inside Face of Any Support to Centre of Hole (ft - in.)										
		2	3	4	5	6	6-1/4	7	8	8-5/8	9	10
9-1/2"	NL-20	0-7"	1-6"	2-10"	4-3"	5-8"	6-0"	---	---	---	---	12-3/4"
	NL-40x	0-7"	1-6"	3-0"	4-4"	6-0"	6-4"	---	---	---	---	---
	NL-60	1-3"	2-6"	4-0"	5-4"	7-0"	7-5"	---	---	---	---	---
	NL-80	2-0"	3-4"	4-8"	6-3"	8-0"	8-4"	---	---	---	---	---
	NL-90x	2-3"	3-6"	5-0"	6-6"	8-2"	8-8"	---	---	---	---	---
11-7/8"	NL-20	0-7"	0-8"	1-0"	2-4"	3-8"	4-0"	5-0"	6-6"	7-9"	---	---
	NL-40x	0-7"	0-8"	1-3"	2-8"	4-0"	4-4"	5-5"	7-0"	8-4"	---	---
	NL-60	0-7"	1-3"	2-6"	4-0"	5-4"	5-9"	6-0"	7-3"	8-10"	10-0"	---
	NL-80	1-3"	2-6"	4-0"	5-4"	6-9"	7-3"	8-4"	10-0"	11-2"	---	---
	NL-90	1-6"	2-10"	4-2"	5-6"	7-0"	7-5"	8-6"	10-3"	11-4"	---	---
14"	NL-20	0-7"	0-8"	1-5"	3-2"	4-10"	5-4"	6-9"	8-9"	10-2"	---	---
	NL-40x	0-7"	0-8"	0-9"	2-5"	4-4"	4-9"	6-3"	---	---	---	---
	NL-60	0-7"	0-8"	1-8"	3-0"	4-3"	4-8"	5-8"	7-2"	8-0"	10-2"	---
	NL-80	0-8"	1-10"	3-0"	4-5"	5-10"	6-2"	7-3"	8-9"	9-9"	10-4"	13-5"
	NL-90	0-10"	2-0"	3-4"	4-9"	6-2"	6-5"	7-6"	9-0"	10-0"	10-8"	12-4"
16"	NL-20	0-7"	0-8"	0-8"	2-0"	3-5"	4-2"	5-5"	7-5"	8-8"	9-4"	11-4"
	NL-40x	0-7"	0-8"	0-8"	2-0"	3-5"	4-2"	5-5"	7-5"	8-8"	9-4"	11-4"
	NL-60	0-7"	0-8"	0-8"	1-6"	2-10"	3-2"	4-2"	5-6"	6-4"	8-3"	10-2"
	NL-80	0-7"	1-0"	2-3"	3-6"	4-10"	5-3"	6-3"	7-8"	8-6"	9-2"	10-8"
	NL-90	0-7"	1-3"	2-6"	3-10"	5-3"	5-6"	6-6"	8-0"	9-0"	9-5"	11-0"

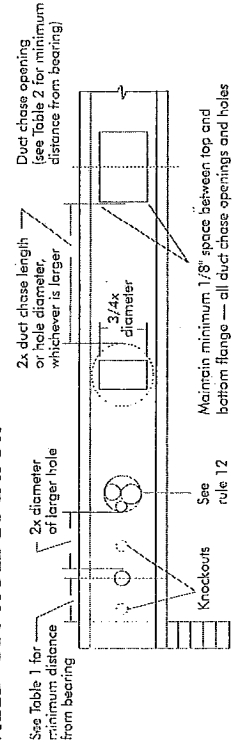
1. Above table may be used for I-joist spacing of 24 inches on centre or less.

2. Hole location distance is measured from inside face of supports to centre of hole.

3. Distances in this chart are based on uniformly loaded joists.

4. The above table is based on the I-joists being used at their maximum spans. The minimum distance as given above may be reduced for shorter spans; contact your local distributor.

FIELD-CUT HOLE LOCATOR



SAFETY AND CONSTRUCTION PRECAUTIONS



Do not walk on I-joists until fully fastened and braced, or serious injuries can result.



Never stack building materials over unfastened I-joists. Once I-joists with concentrated loads from building materials.

WARNING: I-joists are not stable until completely installed, and will not carry any load until fully braced and sheathed.

AVOID ACCIDENTS BY FOLLOWING THESE IMPORTANT GUIDELINES:

- Brace and nail each I-joist as it is installed, using hangers, blocking panels, rim board, and/or cross-bracing at joist ends.
- When I-joists are applied continuous over interior supports and a load-bearing wall is planned at that location, blocking will be required at the interior support.
- When the building is completed, the floor sheathing will provide lateral support for the top flanges of the I-joists. Until this sheathing is applied, temporary bracing, often called struts, or temporary sheathing must be applied to prevent I-joist rollover or buckling.
- Temporary bracing or struts must be 1x4 inch minimum, at least 8 feet long and spaced no more than 8 feet on centre, and must be secured with a minimum of two 2x12" nails fastened to the top flange of each I-joist. Nail the bracing to a lateral restraint at the end of each bay. Lap ends of bracing over at least two I-joists.
- On sheathing (temporary or permanent) can be nailed to the top flange of the first 4 feet of I-joists at the end of the bay.
- For cantilevered I-joists, brace top and bottom flanges, and brace ends with closure panels, rim board, or cross-bracing.
- Install and fully nail permanent sheathing to each I-joist before placing loads on the floor system. Then, stack building materials over beams or walls only.
- Never install a damaged I-joist.

Improper storage or installation, failure to follow applicable building codes, failure to follow span ratings for Nordic I-joists, failure to follow allowable hole sizes and locations, or failure to use web stiffeners when required can result in serious accidents. Follow these installation guidelines carefully.

TABLE 2

DUCT CHASE OPENING SIZES AND LOCATIONS

Simple Span Only

Joist Depth	Joist Series	Minimum distance from inside face of supports to centre of opening (ft - in.)										
		8	10	12	14	16	18	20	22	24	26	28
9-1/2"	NL-20	4-1"	4-5"	4-10"	5-4"	5-8"	6-1"	6-6"	7-1"	7-5"	7-9"	8-3"
	NL-40x	5-3"	5-8"	6-0"	6-5"	6-10"	7-3"	7-8"	8-2"	8-6"	8-9"	9-3"
	NL-60	5-4"	5-9"	6-2"	6-7"	7-1"	7-5"	8-0"	8-4"	8-8"	9-1"	9-5"
	NL-80	5-1"	5-5"	5-10"	6-3"	6-7"	7-1"	7-6"	8-1"	8-5"	8-9"	9-3"
	NL-90x	5-4"	5-8"	6-0"	6-5"	6-10"	7-3"	7-8"	8-2"	8-6"	8-9"	9-3"
11-7/8"	NL-20	5-0"	5-4"	6-2"	7-1"	7-5"	7-9"	8-3"	8-7"	9-1"	9-5"	9-9"
	NL-40x	6-8"	7-2"	7-6"	8-1"	8-6"	9-1"	9-6"	10-1"	10-5"	10-9"	11-3"
	NL-60	7-3"	7-8"	8-0"	8-6"	9-0"	9-3"	9-9"	10-3"	10-7"	11-1"	11-5"
	NL-80	7-1"	7-6"	7-9"	8-3"	8-7"	9-1"	9-5"	10-1"	10-5"	10-9"	11-3"
	NL-90	7-2"	7-7"	8-0"	8-5"	8-10"	9-3"	9-8"	10-2"	10-6"	11-0"	11-4"
14"	NL-20	7-6"	8-1"	8-5"	9-0"	9-4"	9-8"	10-2"	10-6"	11-0"	11-4"	11-8"
	NL-40x	9-4"	9-9"	10-3"	10-7"	11-1"	11-5"	11-9"	12-3"	12-7"	13-1"	13-5"
	NL-60	8-7"	9-1"	9-5"	10-1"	10-5"	10-9"	11-3"	11-7"	12-1"	12-5"	12-9"
	NL-80	8-9"	9-3"	9-7"	10-1"	10-5"	10-9"	11-3"	11-7"	12-1"	12-5"	12-9"
	NL-90	8-7"	9-1"	9-5"	10-1"	10-5"	10-9"	11-3"	11-7"	12-1"	12-5"	12-9"
16"	NL-20	10-3"	10-8"	11-2"	11-6"	12-0"	12-4"	12-8"	13-2"	13-6"	14-0"	14-4"
	NL-40x	10-1"	10-5"	10-9"	11-3"	11-7"	12-1"	12-5"	12-9"	13-3"	13-7"	14-1"
	NL-60	10-4"	10-9"	11-3"	11-7"	12-1"	12-5"	12-9"	13-3"	13-7"	14-1"	14-5"
	NL-80	10-4"	10-9"	11-3"	11-7"	12-1"	12-5"	12-9"	13-3"	13-7"	14-1"	14-5"
	NL-90x	10-9"	11-2"	11-6"	12-0"	12-4"	12-8"	13-2"	13-6"	14-0"	14-4"	14-8"

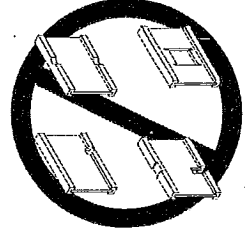
1. Above table may be used for I-joist spacing of 24 inches on centre or less.

2. Duct chase opening location distance is measured from inside face of supports to centre of opening.

3. The above table is based on simple-span joists only. For other applications, contact your local distributor.

4. Distances are based on uniformly loaded floor joists that meet the span requirements for a design live load of 40 psf and dead load of 15 psf, and a live load deflection limit of L/480.

5. The above table is based on the I-joists being used at their maximum spans. The minimum distance as given above may be reduced for shorter spans; contact your local distributor.



Knockouts are pre-cored holes provided for the contractor's convenience to install electrical or small plumbing lines. They are 1-1/2 inches in diameter, and are spaced 15 inches on centre along the length of the I-joist. Where possible, it is preferable to use knockouts instead of field-cut holes.

Never drill, cut or notch the flange, or over-cut the web.

Holes in webs should be cut with a sharp saw.

For rectangular holes, avoid over-cutting the corners, as this can cause unnecessary stress concentrations. Slightly rounding the corners is recommended. Starting the rectangular hole by drilling a 1-inch diameter hole in each of the four corners and then making the cuts between the holes is another good method to minimize damage to the I-joist.



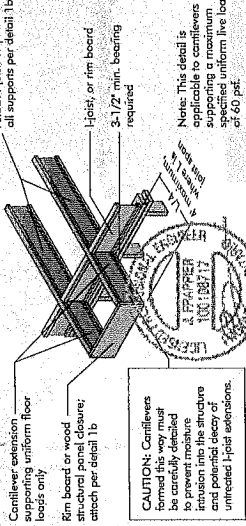
PRODUCT WARRANTY

Chantiers Chibougamau guarantees that, in accordance with our specifications, Nordic products are free from manufacturing defects in material and workmanship.

Furthermore, Chantiers Chibougamau warrants that our products, when utilized in accordance with our handling and installation instructions, will meet or exceed our specifications for the lifetime of the structure.

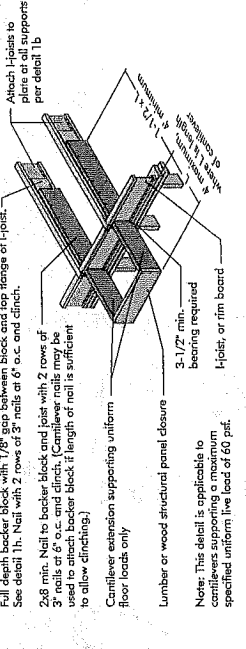
CANTILEVER DETAILS FOR BALCONIES (NO WALL LOAD)

3a L-IJOIST CANTILEVER DETAIL FOR BALCONIES (No Wall Load)



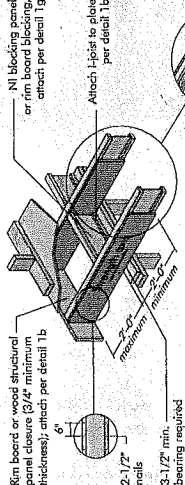
CAUTION: Cantilevers formed this way must be carefully detailed and braced into the structure and protected decay of untreated I-joist extensions.

3b LUMBER CANTILEVER DETAIL FOR BALCONIES (No Wall Load)



CANTILEVER DETAILS FOR VERTICAL BUILDING OFFSET (CONCENTRATED WALL LOAD)

4a Method 1 — SHEATHING REINFORCEMENT ONE SIDE



Method 2 — SHEATHING REINFORCEMENT TWO SIDES

- Use same installation as Method 1 but reinforce both sides of I-joist with sheathing.
- Use nailing pattern shown for Method 1 with opposite face nailing offset by 3".

Notes: Canadian softwood plywood sheathing or equivalent (minimum thickness 3/4") required on sides of plate. Depth shall match the full height of the joist. Nail with 2-1/2" nails at 6" o.c. top and bottom flange. I-joist with face grain horizontal. Attach I-joist to plate at all supports per detail 1b. Verify reinforced I-joist capacity.

4b Alternate Method 2 — DOUBLE I-JOIST

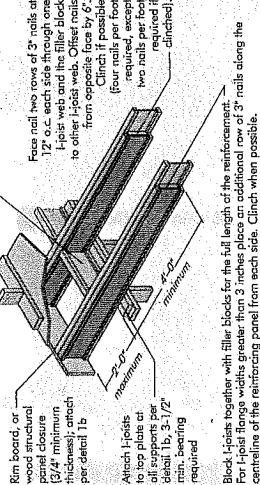


FIGURE 4 (continued)

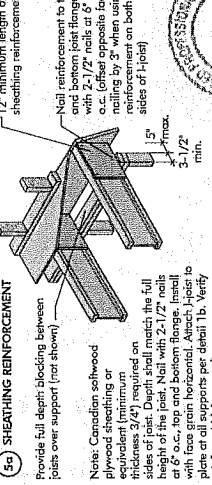
See table below for NI reinforcement requirements at cantilever.

CANTILEVER REINFORCEMENT METHODS ALLOWED

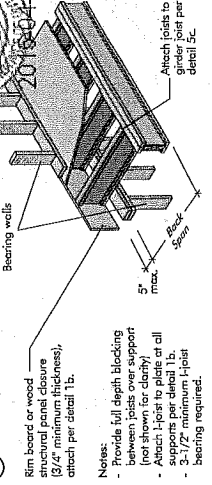
JOIST DEPTH (in.)	ROOF LOADING (UNREINFORCED)									
	1L = 30 psf DL = 15 psf	1L = 40 psf DL = 20 psf	1L = 50 psf DL = 25 psf	1L = 60 psf DL = 30 psf	1L = 70 psf DL = 35 psf	1L = 80 psf DL = 40 psf	1L = 90 psf DL = 45 psf	1L = 100 psf DL = 50 psf	1L = 110 psf DL = 55 psf	1L = 120 psf DL = 60 psf
9-1/2"	N	N	N	N	N	N	N	N	N	N
11-7/8"	N	N	N	N	N	N	N	N	N	N
14"	N	N	N	N	N	N	N	N	N	N
16"	N	N	N	N	N	N	N	N	N	N

- N = No reinforcement required.
- NI = Reinforced with 3/4" wood structural panel on one side only.
- NI = Reinforced with 3/4" wood structural panel on both sides.
- NI = Reinforced with 3/4" wood structural panel on both sides, or double I-joist.
- X = Try a deeper joist or closer spacing.
- Maximum design live load shall be 15 psf roof dead load, 35 psf floor dead load, and 40 psf live load. Maximum design wind load shall be 12 psf o.c. requirements for lesser spacing.
- For larger openings, or multiple 3'-0" width openings spaced less than 6'-0" o.c., additional joists beneath the opening's cripple shall be required.
- Table applies to joists 12" to 24" o.c. that meet the floor span requirements for a design live load of 40 psf and dead load of 15 psf. Use 12" o.c. requirements for lesser spacing.
- For conventional roof construction using a ridge beam, the Roof Truss Span column above is equivalent to the distance between the ridge beam and the supporting wall. When the roof is framed using a ridge board, the Roof Truss Span is equivalent to the distance between the supporting walls as if a cantilevered joist supporting girder trusses or roof beams may require additional reinforcing.

5a SHEATHING REINFORCEMENT



5b SET-BACK DETAIL



5c SET-BACK CONNECTION

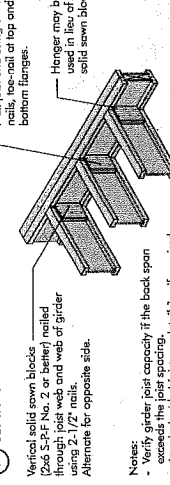


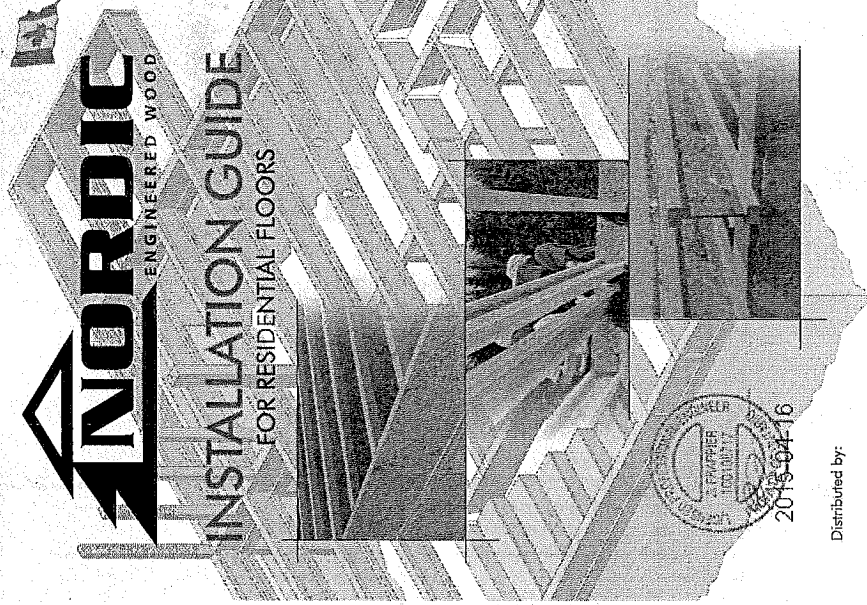
FIGURE 5 (continued)

See table below for NI reinforcement requirements at cantilever.

BRICK CANTILEVER REINFORCEMENT METHODS ALLOWED

JOIST DEPTH (in.)	ROOF LOADING (UNREINFORCED)									
	1L = 30 psf DL = 15 psf	1L = 40 psf DL = 20 psf	1L = 50 psf DL = 25 psf	1L = 60 psf DL = 30 psf	1L = 70 psf DL = 35 psf	1L = 80 psf DL = 40 psf	1L = 90 psf DL = 45 psf	1L = 100 psf DL = 50 psf	1L = 110 psf DL = 55 psf	1L = 120 psf DL = 60 psf
9-1/2"	N	N	N	N	N	N	N	N	N	N
11-7/8"	N	N	N	N	N	N	N	N	N	N
14"	N	N	N	N	N	N	N	N	N	N
16"	N	N	N	N	N	N	N	N	N	N

- N = No reinforcement required.
- NI = Reinforced with 3/4" wood structural panel on one side only.
- NI = Reinforced with 3/4" wood structural panel on both sides, or double I-joist.
- X = Try a deeper joist or closer spacing.
- Maximum design live load shall be 15 psf roof dead load, 35 psf floor dead load, and 40 psf live load. Wall load is based on 3'-0" maximum width window or door opening.
- For larger openings, or multiple 3'-0" width openings spaced less than 6'-0" o.c., additional joists beneath the opening's cripple studs may be required.
- Table applies to joists 12" to 24" o.c. that meet the floor span requirements for a design live load of 40 psf and dead load of 15 psf. Use 12" o.c. requirements for lesser spacing.
- For conventional roof construction using a ridge beam, the Roof Truss Span column above is equivalent to the distance between the supporting wall and the ridge beam. When the roof is framed using a ridge board, the Roof Truss Span is equivalent to the distance between the supporting walls as if a cantilevered joist supporting girder trusses or roof beams may require additional reinforcing.



Distributed by:

N-C301 / November 2014

SAFETY AND CONSTRUCTION PRECAUTIONS



WARNING
I-joists are not stable until completely installed, and will not carry any load until fully braced and sheathed.

Avoid Accidents by Following these Important Guidelines:

1. Brace and nail each I-joist as it is installed, using hangers, blocking panels, rim board, and/or cross-bracing at joint ends. When I-joists are applied continuously over interior supports and a load-bearing wall is planned at that location, blocking will be required at the interior support.
2. When the building is completed, the floor sheathing will provide lateral support for the top flanges of the I-joists. Until this sheathing is applied, temporary bracing or blocking, or temporary sheathing must be applied to prevent I-joist racking or buckling.
- Temporary bracing or sheathing must be 1x4 inch minimum, at least 8 feet long and placed on both sides of the I-joist. If the I-joist is secured with a minimum of two 2-1/2" nails fastened to the top surface of each I-joist. Nail the bracing to a lateral restraint at the end of each bay. Lap ends of adjoining bracing over at least two I-joists.
- Or, sheathing (temporary or permanent) can be nailed to the top flange of the first 4 feet of I-joists at the end of the bay.
3. For cantilevered I-joists, brace top and bottom flanges, and brace ends with closure panels, rim board, or cross-bracing.
4. Install and fully nail permanent sheathing to each I-joist before placing loads on the floor system. Then, stack building materials over beams or walls only.
5. Never install a damaged I-joist.

Do not walk on I-joists until fully fastened and braced, or serious injuries can result.

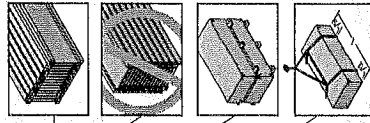


Never stack building materials on I-joists. Once sheathed, do not over-stress I-joist with concentrated loads from building materials.

Improper storage or installation, failure to follow applicable building codes, failure to follow span ratings for Nordic I-joists, failure to follow allowable hole size and locations, or failure to use web stiffeners when required can result in serious accidents. Follow these installation guidelines carefully.

STORAGE AND HANDLING GUIDELINES

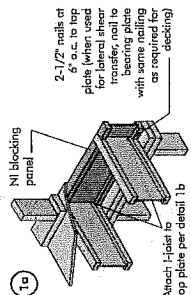
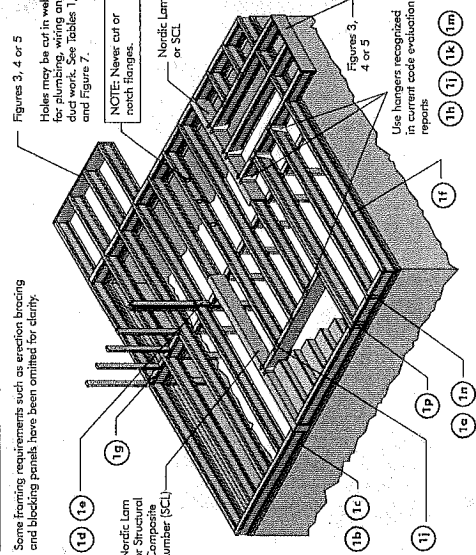
1. Bundle wrap can be slippery when wet. Avoid walking on wrapped bundles.
2. Store, stack, and handle I-joists vertically and level only.
3. Always stack and handle I-joists in the upright position only.
4. Do not store I-joists in direct contact with the ground and/or flatwise.
5. Protect I-joists from weather, and use spacers to separate bundles.
6. Bundled units should be kept intact until time of installation.
7. When handling I-joists with a crane on the job site, take a few simple precautions to prevent damage to the I-joists and injury to your work crew.
 - Pick I-joists in bundles as shipped by the supplier.
 - Orient the bundles so that the webs of the I-joists are vertical.
 - Pick the bundles at the 5th points, using a spreader bar if necessary.
8. Do not handle I-joists in a horizontal orientation.
9. NEVER USE OR TRY TO REPAIR A DAMAGED I-JOIST.



INSTALLING NORDIC I-JOISTS

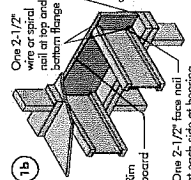
1. Before laying our floor system components, verify that I-joist flange widths match hanger widths. If not, contact your supplier.
2. Except for cutting to length, I-joist flanges should never be cut, drilled, or notched.
3. Install I-joists so that top and bottom flanges are within 1/2 inch of true vertical alignment.
4. I-joists must be anchored securely to supports before floor sheathing is attached, and supports for I-joists must be level.
5. Minimum bearing lengths: 1-3/4 inches for end bearings and 3-1/2 inches for intermediate bearings.
6. When using hangers, seal I-joists firmly in hanger bottoms to minimize settlement.
7. Leave a 1/16-inch gap between the I-joist end and a header.
8. Concentrated loads greater than those that can normally be expected in residential construction should only be applied to the top surface of the top flange. Normal concentrated loads include track lighting fixtures, audio equipment and security cameras. Never suspend unusual or heavy loads from the I-joist's bottom flange. Whenever possible, suspend all concentrated loads from the top of the I-joist. Or, attach the load to blocking that has been securely fastened to the I-joist webs.
9. Never install I-joists where they will be permanently exposed to weather, or where they will remain in direct contact with concrete or masonry.
10. Restrain ends of floor joists to prevent rollover. Use rim board, rim joists or I-joist blocking panels.
11. For I-joists installed over and beneath bearing walls, use full depth blocking panels, rim board, or squish blocks (cripple members) to transfer gravity loads through the floor system to the wall or foundation below.
12. Due to shrinkage, common framing lumber set on edge may never be used as blocking or rim boards. I-joist blocking panels or other engineered wood products — such as rim board — must be cut to fit between the I-joists, and an I-joist-compatible depth attached.
13. Provide permanent lateral support of the bottom flange of all I-joists at interior supports of multiple-span joists. Similarly, support the bottom flange of all cantilevered I-joists at the end support next to the cantilever extension. In the completed floor system, the finished ceiling provides this lateral support. Until the final finished ceiling is applied, temporary bracing or sheathing must be used.
14. If square-edge panels are used, edges must be supported between I-joists with 2x4 blocking. Glue panels to blocking to minimize squeaks. Blocking is not required under structural finish flooring, such as wood strip flooring, or if a separate underlayment layer is installed.
15. Nail spacing: Space nails installed to the flange's top face in accordance with the applicable building code requirements or approved building plans.

FIGURE 1 TYPICAL NORDIC I-JOIST FLOOR FRAMING AND CONSTRUCTION DETAILS



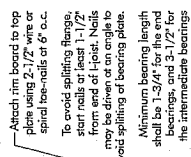
Blocking Panel or Rim Joist	Maximum Factored Uniform Vertical Load* (psf)
NI Joists	3,300

*The uniform vertical load is limited to a joist depth of 16 inches or less and is based on standard term load duration. It shall not be used in the design of a bending member, such as joist, header, or rafter. For concentrated vertical load transfer, see detail 1d.



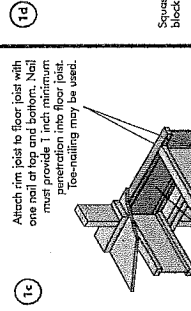
Blocking Panel or Rim Joist	Maximum Factored Uniform Vertical Load* (psf)
1-1/8" Rim Board Plus	8,090

*The uniform vertical load is limited to a rim board depth of 16 inches or less and is based on standard term load duration. It shall not be used in the design of a bending member, such as joist, header, or rafter. For concentrated vertical load transfer, see detail 1d.



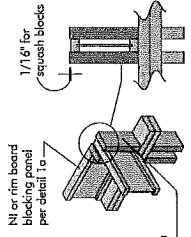
Blocking Panel or Rim Joist	Maximum Factored Uniform Vertical Load* (psf)
1-1/8" Rim Board Plus	8,090

*The uniform vertical load is limited to a rim board depth of 16 inches or less and is based on standard term load duration. It shall not be used in the design of a bending member, such as joist, header, or rafter. For concentrated vertical load transfer, see detail 1d.



Pair of Squash Blocks	Maximum Factored Uniform Vertical Load* (psf)
2x Lumber	5,500
1-1/8" Rim Board Plus	4,300

*Provide lateral bracing per detail 1a, 1b, or 1c.



Pair of Squash Blocks	Maximum Factored Uniform Vertical Load* (psf)
2x Lumber	5,500
1-1/8" Rim Board Plus	4,300

*Provide lateral bracing per detail 1a, 1b, or 1c.

All nails shown in the above details are assumed to be common wire nails unless otherwise noted. 3" (0.125" dia) common spiral nails may be substituted for 2-1/2" (0.125" dia) common wire nails. Framing lumber assumed to be Species-Group No. 2 or better. Individual components not shown to scale for clarity.

