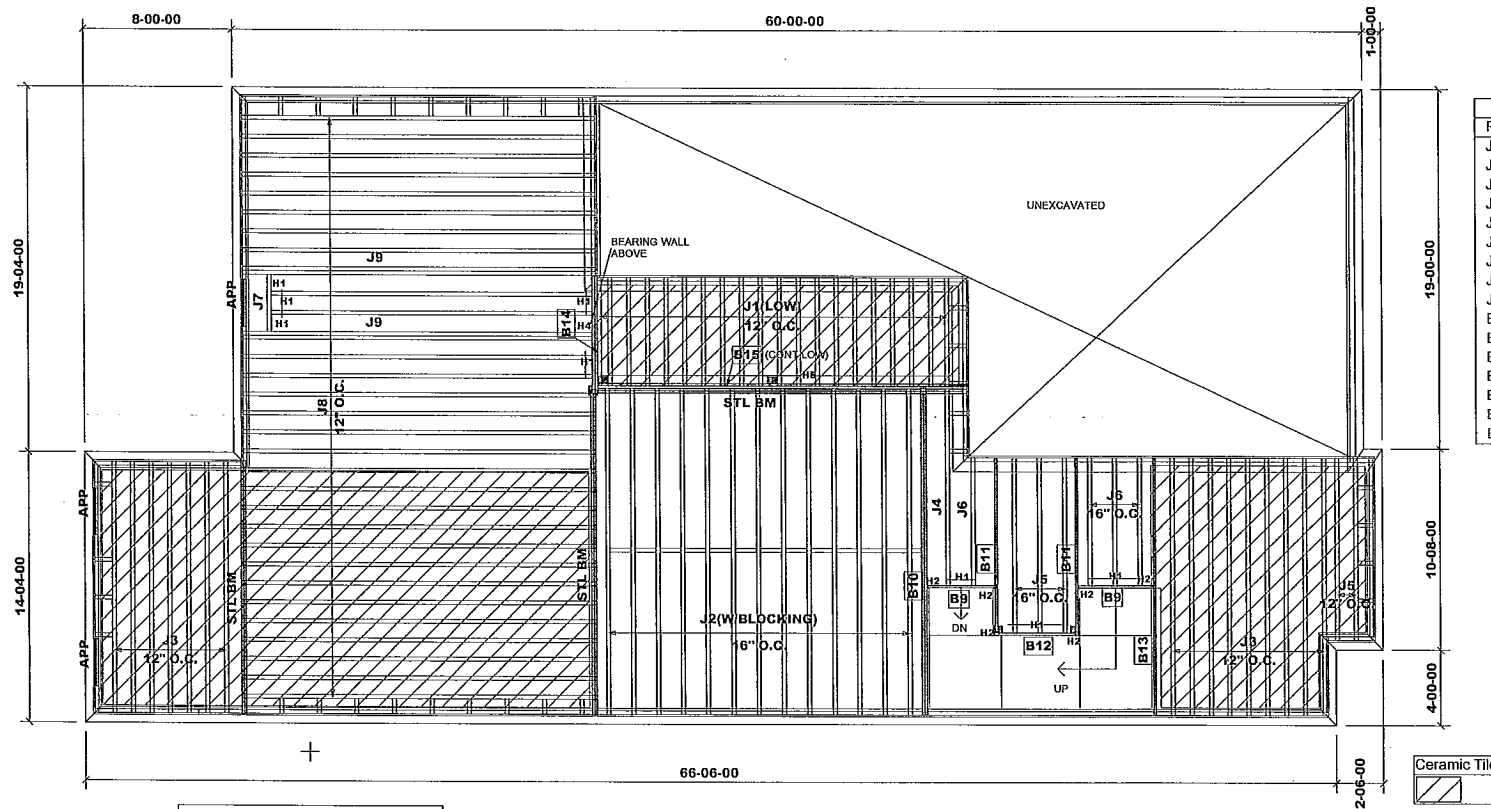




Products				
PlotID	Length	Product	Plies	Net Qty
J1	6'-0"	9 1/2" NI-20	1	20
J2	18'-0"	11 7/8" NI-20	1	13
J3	14'-0"	11 7/8" NI-20	1	16
J4	11'-0"	11 7/8" NI-20	1	1
J5	10'-0"	11 7/8" NI-20	1	5
J6	7'-0"	11 7/8" NI-20	1	4
J7	3'-0"	11 7/8" NI-20	1	1
J8	19'-0"	11 7/8" NI-40x	1	29
J9	19'-0"	11 7/8" NI-40x	2	4
B15	20'-0"	VERSALAM-10 2.0E	1	1
B10	18'-0"	VERSALAM-12 2.0E	2	2
B13	14'-0"	VERSALAM-12 2.0E	1	1
B11	10'-0"	VERSALAM-12 2.0E	1	2
B14	7'-0"	VERSALAM-12 2.0E	2	2
B12	5'-0"	VERSALAM-12 2.0E	1	1
B9	4'-0"	VERSALAM-12 2.0E	1	2

HANGER SCHEDULE

H1	LT251188 (TM)
H2	HUS1.81/10(FM)
H4	MIT311.88-2(TM)
H5	LT259(TM)

NOTE:

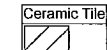
TM — TOP MOUNT HANGERS
FM — FACE MOUNT HANGERS

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
B80 - 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.

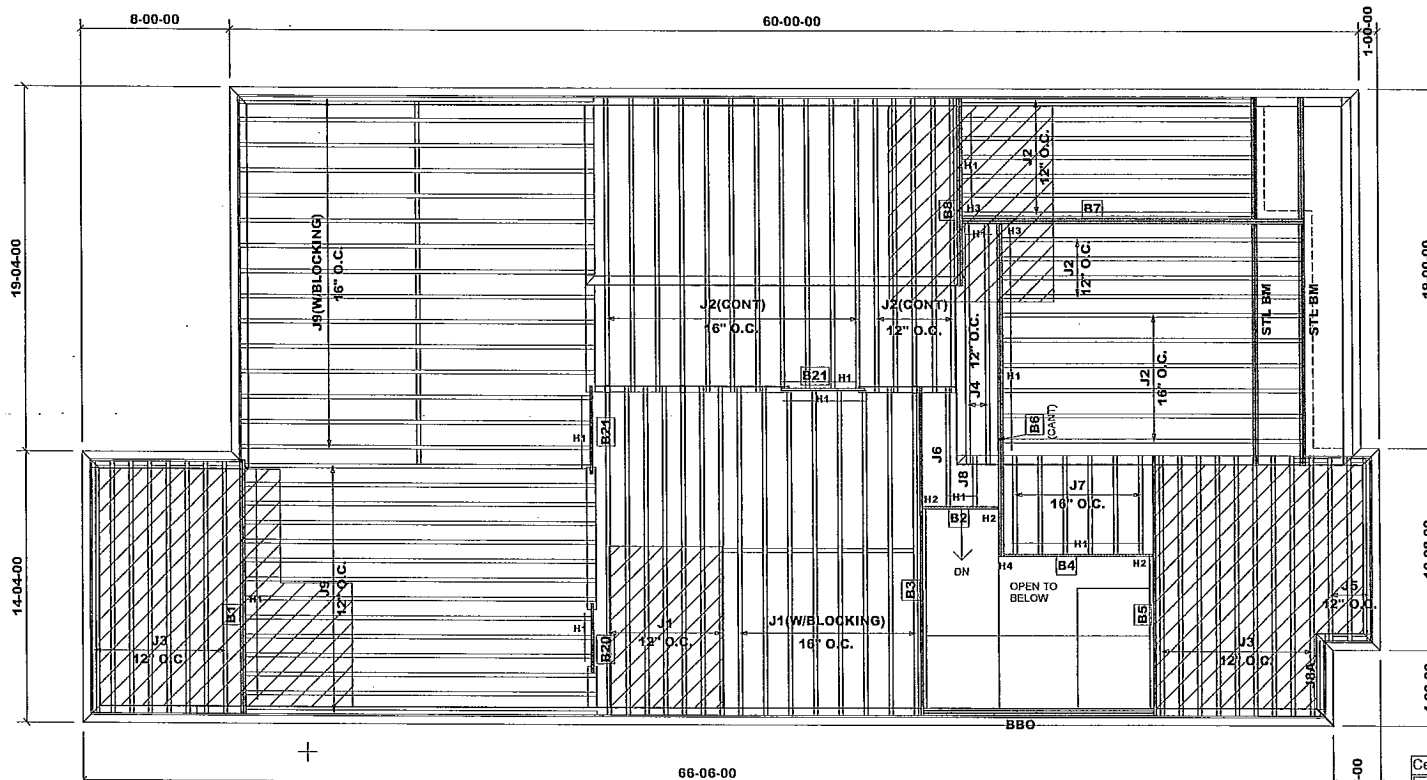
REVISION: December 18, 2017
MODEL: UNIT 4202 - EL.A

First Floor Framing

Do not scale - refer to architectural plans for dimensions

11 7/8" BLOCKING
TOTAL LENGTH: 56'

JT/PL: 45147/94992	Builder: Gold Park	Location: Vaughan	Designer: NL	Alpa Roof Trusses Inc.	Salesperson: Derek
LI: 290679	Project: Pine Valley	Date: November 21, 2017	Sheet: 2 of 21	Maple, Ontario	Home Lumber



Products				
PlotID	Length	Product	Piles	Net Qty
J1	18-00-00	11 7/8" NI-20	1	15
J2	16-00-00	11 7/8" NI-20	1	33
J3	14-00-00	11 7/8" NI-20	1	17
J4	13-00-00	11 7/8" NI-20	1	2
J5	10-00-00	11 7/8" NI-20	1	3
J6	7-00-00	11 7/8" NI-20	1	1
J7	6-00-00	11 7/8" NI-20	1	6
J8A	4-00-00	11 7/8" NI-20	1	1
J8	3-00-00	11 7/8" NI-20	1	1
J9	19-00-00	11 7/8" NI-40x	1	29
B7	19-00-00	VERSALAM-12 2.0E	2	2
B3	18-00-00	VERSALAM-12 2.0E	1	1
B6	18-00-00	VERSALAM-12 2.0E	2	2
B5	14-00-00	VERSALAM-12 2.0E	1	1
B1	14-00-00	VERSALAM-12 2.0E	2	2
B8	10-00-00	VERSALAM-12 2.0E	2	2
B4	8-00-00	VERSALAM-12 2.0E	1	1
B21	5-00-00	VERSALAM-12 2.0E	1	2
B2	4-00-00	VERSALAM-12 2.0E	1	1
B20	4-00-00	VERSALAM-12 2.0E	1	1

HANGER SCHEDULE	
H1	LT251188 (TM)
H2	HUS1.B1/10(FM)
H3	HGUS410(FM)
H4	HUS9(FM)
NOTE:	
TM	TOP MOUNT HANGERS
FM	FACE MOUNT HANGERS

RIMBOARD	
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.

Second Floor Framing

Do not scale - refer to architectural plans for dimensions

11 7/8" BLOCKING
TOTAL LENGTH: 50'

JT/PL: 45147/94992
LI: 290679

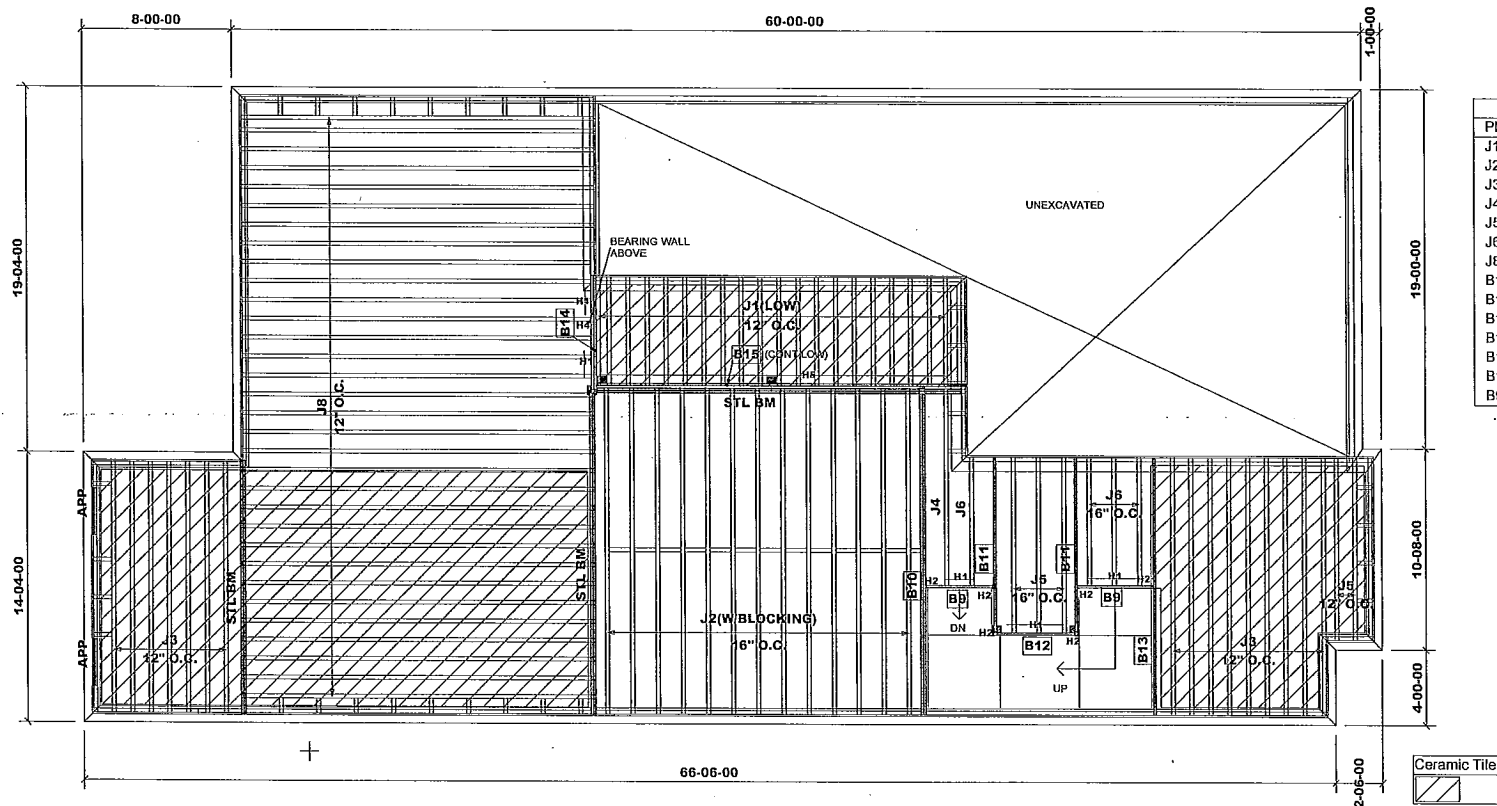
Builder: Gold Park
Project: Pine Valley

Location: Vaughan
Date: November 21, 2017

Designer: NL
Sheet: 3 of 21

Alpa Roof Trusses Inc.
Maple, Ontario

Salesperson: Derek
Home Lumber



MODEL: UNIT 4202 - EL.A
- OPT. LOGGIA

First Floor Framing

Do not scale - refer to architectural plans for dimensions

11 7/8" BLOCKING

TOTAL LENGTH: 56'

Products				
PlotID	Length	Product	Plies	Net Qty
J1	6'-00"-00	9 1/2" NI-20	1	20
J2	18'-00"-00	11 7/8" NI-20	1	13
J3	14'-00"-00	11 7/8" NI-20	1	16
J4	11'-00"-00	11 7/8" NI-20	1	1
J5	10'-00"-00	11 7/8" NI-20	1	5
J6	7'-00"-00	11 7/8" NI-20	1	4
J8	19'-00"-00	11 7/8" NI-40x	1	32
B15	20'-00"-00	VERSALAM-10 2.0E	1	1
B10	18'-00"-00	VERSALAM-12 2.0E	2	2
B13	14'-00"-00	VERSALAM-12 2.0E	1	1
B11	10'-00"-00	VERSALAM-12 2.0E	1	2
B14	7'-00"-00	VERSALAM-12 2.0E	2	2
B12	5'-00"-00	VERSALAM-12 2.0E	1	1
B9	4'-00"-00	VERSALAM-12 2.0E	1	2

HANGER SCHEDULE

H1-----LT251188 (TM)
H2-----HUS1.81/10(FM)
H4-----MIT311.88-2(TM)
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.

JT/PL: 45147/94992

Builder: Gold Park

Location: Vaughan

Designer: NL

Alpa Roof Trusses Inc.

Salesperson: Derek

LI: 290679

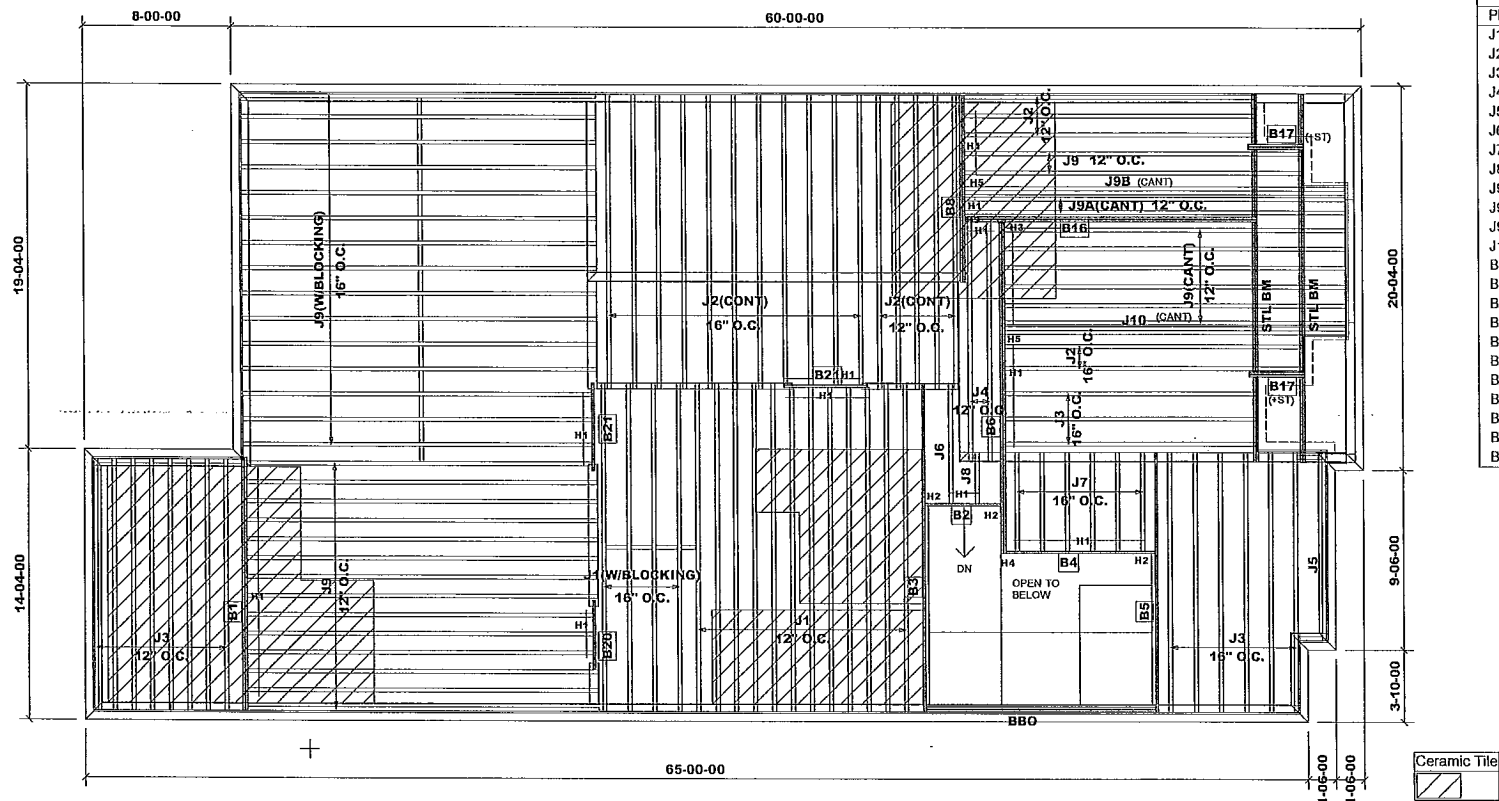
Project: Pine Valley

Date: December 18 ,2017

Sheet: 3a of 21

Maple, Ontario

Home Lumber



REVISION: December 18, 2017

MODEL: UNIT 4202 - EL.B
+ OPT. LOGGIA

Second Floor Framing

Do not scale - refer to architectural plans for dimensions

11 7/8\"/>

TOTAL LENGTH: 53'



Products				
PlotID	Length	Product	Plies	Net Qty
J1	18-00-00	11 7/8" NI-20	1	16
J2	16-00-00	11 7/8" NI-20	1	21
J3	14-00-00	11 7/8" NI-20	1	17
J4	13-00-00	11 7/8" NI-20	1	2
J5	10-00-00	11 7/8" NI-20	1	1
J6	7-00-00	11 7/8" NI-20	1	1
J7	6-00-00	11 7/8" NI-20	1	6
J8	3-00-00	11 7/8" NI-20	1	1
J9A	21-00-00	11 7/8" NI-40x	1	2
J9B	21-00-00	11 7/8" NI-40x	2	2
J9	19-00-00	11 7/8" NI-40x	1	37
J10	19-00-00	11 7/8" NI-40x	2	2
B3	18-00-00	VERSALAM-12.2.0E	1	1
B6	18-00-00	VERSALAM-12.2.0E	2	2
B16	16-00-00	VERSALAM-12.2.0E	2	2
B5	14-00-00	VERSALAM-12.2.0E	1	1
B1	14-00-00	VERSALAM-12.2.0E	2	2
B8	10-00-00	VERSALAM-12.2.0E	2	2
B4	8-00-00	VERSALAM-12.2.0E	1	1
B21	5-00-00	VERSALAM-12.2.0E	1	2
B2	4-00-00	VERSALAM-12.2.0E	1	1
B20	4-00-00	VERSALAM-12.2.0E	1	1
B17	3-00-00	VERSALAM-12.2.0E	2	4

HANGER SCHEDULE

H1-----LT251188 (TM)
H2-----HUS1.81/10(FM)
H3-----HGUS410(FM)
H4-----HU9X(FM)
H5-----MIT311.88-2(TM)

NOTE:

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

RIMBOARD

1- 1/8\"/>

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: 290679

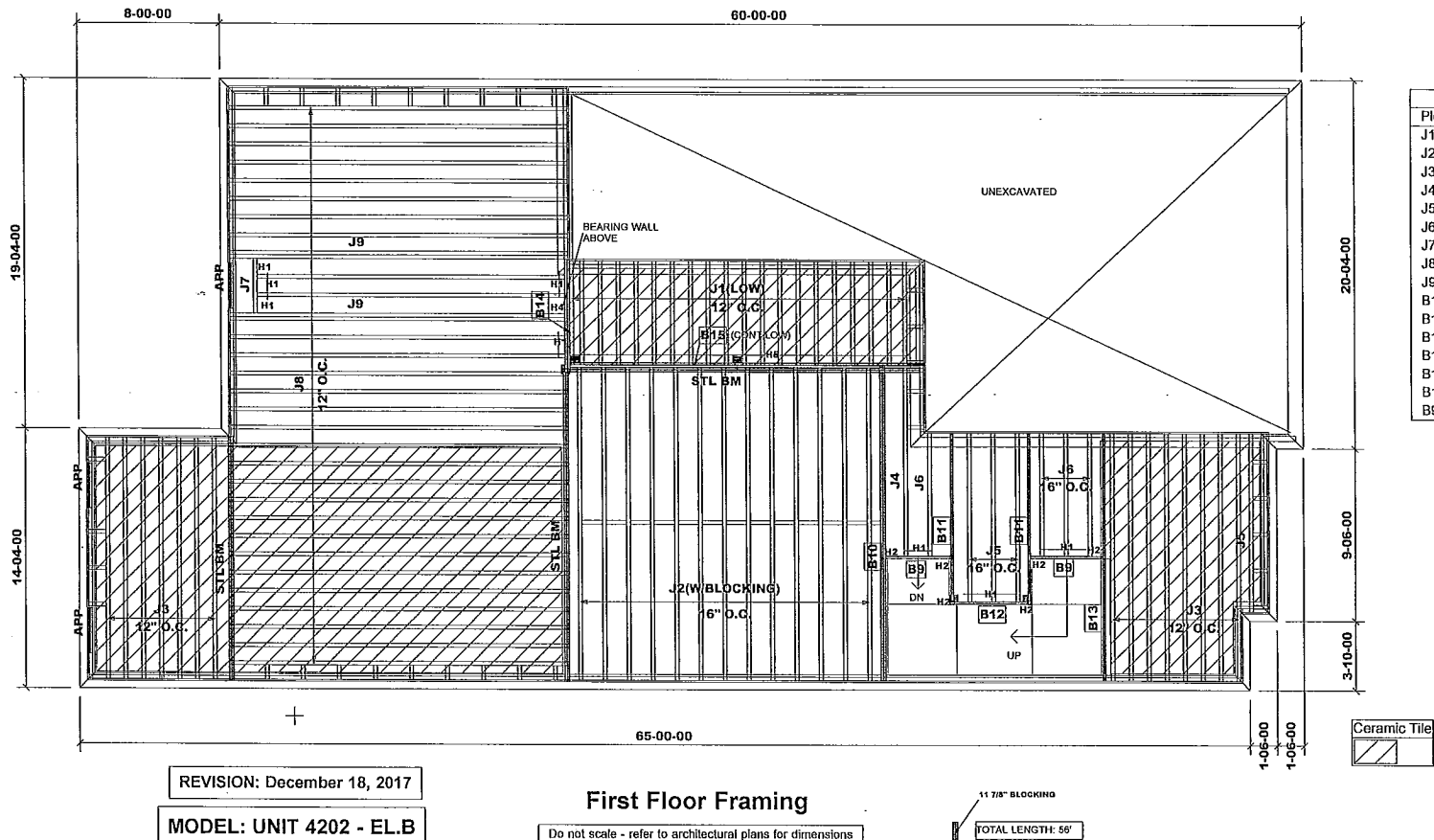
Project: Pine Valley

Date: November 21, 2017

Sheet: 4 of 21

Maple, Ontario

Home Lumber



Products				
PlotID	Length	Product	Plies	Net Qty
J1	6'-00-00	9 1/2" NI-20	1	20
J2	18'-00-00	11 7/8" NI-20	1	13
J3	14'-00-00	11 7/8" NI-20	1	15
J4	11'-00-00	11 7/8" NI-20	1	1
J5	10'-00-00	11 7/8" NI-20	1	4
J6	7'-00-00	11 7/8" NI-20	1	4
J7	3'-00-00	11 7/8" NI-20	1	1
J8	19'-00-00	11 7/8" NI-40x	1	29
J9	19'-00-00	11 7/8" NI-40x	2	4
B15	20'-00-00	VERSALAM-10 2.0E	1	1
B10	18'-00-00	VERSALAM-12 2.0E	2	2
B13	14'-00-00	VERSALAM-12 2.0E	1	1
B11	10'-00-00	VERSALAM-12 2.0E	1	2
B14	7'-00-00	VERSALAM-12 2.0E	2	2
B12	5'-00-00	VERSALAM-12 2.0E	1	1
B9	4'-00-00	VERSALAM-12 2.0E	1	2

HANGER SCHEDULE	
H1	LT251188 (TM)
H2	HUS1.81/10(FM)
H4	MIT311.88-2(TM)
H5	LT259(TM)

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

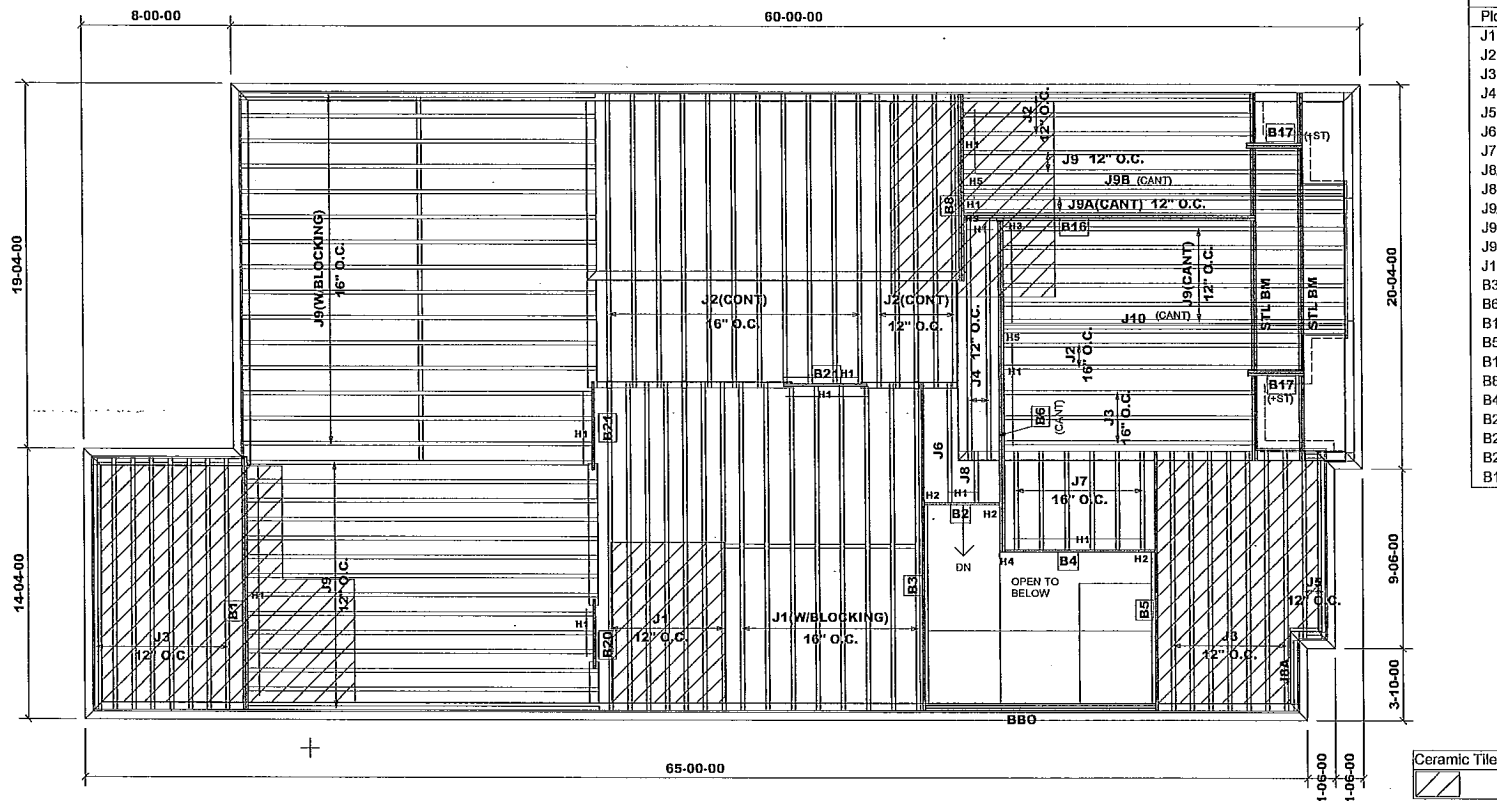
RIMBOARD	
1- 1/8" X 9 1/2" O.S.B.	
1- 1/8" X 11 7/8" O.S.B.	

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: December 18, 2017

MODEL: UNIT 4202 - EL.B
W/(OPT. 2ND FL.(+ OPT. LOGGIA))

Second Floor Framing

Do not scale - refer to architectural plans for dimensions

11 7/8" BLOCKING

TOTAL LENGTH: 58'

Products				
PlotID	Length	Product	Piles	Net Qty
J1	18-00-00	11 7/8" NI-20	1	15
J2	16-00-00	11 7/8" NI-20	1	21
J3	14-00-00	11 7/8" NI-20	1	18
J4	13-00-00	11 7/8" NI-20	1	2
J5	10-00-00	11 7/8" NI-20	1	2
J6	7-00-00	11 7/8" NI-20	1	1
J7	6-00-00	11 7/8" NI-20	1	6
J8A	4-00-00	11 7/8" NI-20	1	1
J8	3-00-00	11 7/8" NI-20	1	1
J9A	21-00-00	11 7/8" NI-40x	1	2
J9B	21-00-00	11 7/8" NI-40x	2	2
J9	19-00-00	11 7/8" NI-40x	1	37
J10	19-00-00	11 7/8" NI-40x	2	2
B3	18-00-00	VERSALAM-12 2.0E	1	1
B6	18-00-00	VERSALAM-12 2.0E	2	2
B16	16-00-00	VERSALAM-12 2.0E	2	2
B5	14-00-00	VERSALAM-12 2.0E	1	1
B1	14-00-00	VERSALAM-12 2.0E	2	2
B8	10-00-00	VERSALAM-12 2.0E	2	2
B4	8-00-00	VERSALAM-12 2.0E	1	1
B21	5-00-00	VERSALAM-12 2.0E	1	2
B2	4-00-00	VERSALAM-12 2.0E	1	1
B20	4-00-00	VERSALAM-12 2.0E	1	1
B17	3-00-00	VERSALAM-12 2.0E	2	4

HANGER SCHEDULE

H1-----LT251188 (TM)
H2-----HUS1 81/10(FM)
H3-----HGUS410(FM)
H4-----HUS9X(FM)
H5-----MIT311.88-2(TM)

NOTE:

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

RIMBOARD

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

Provide 1-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

Builder: Gold Park

Location: Vaughan

Designer: NL

Alpa Roof Trusses Inc.

Salesperson: Derek

LI: 290679

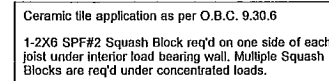
Project: Pine Valley

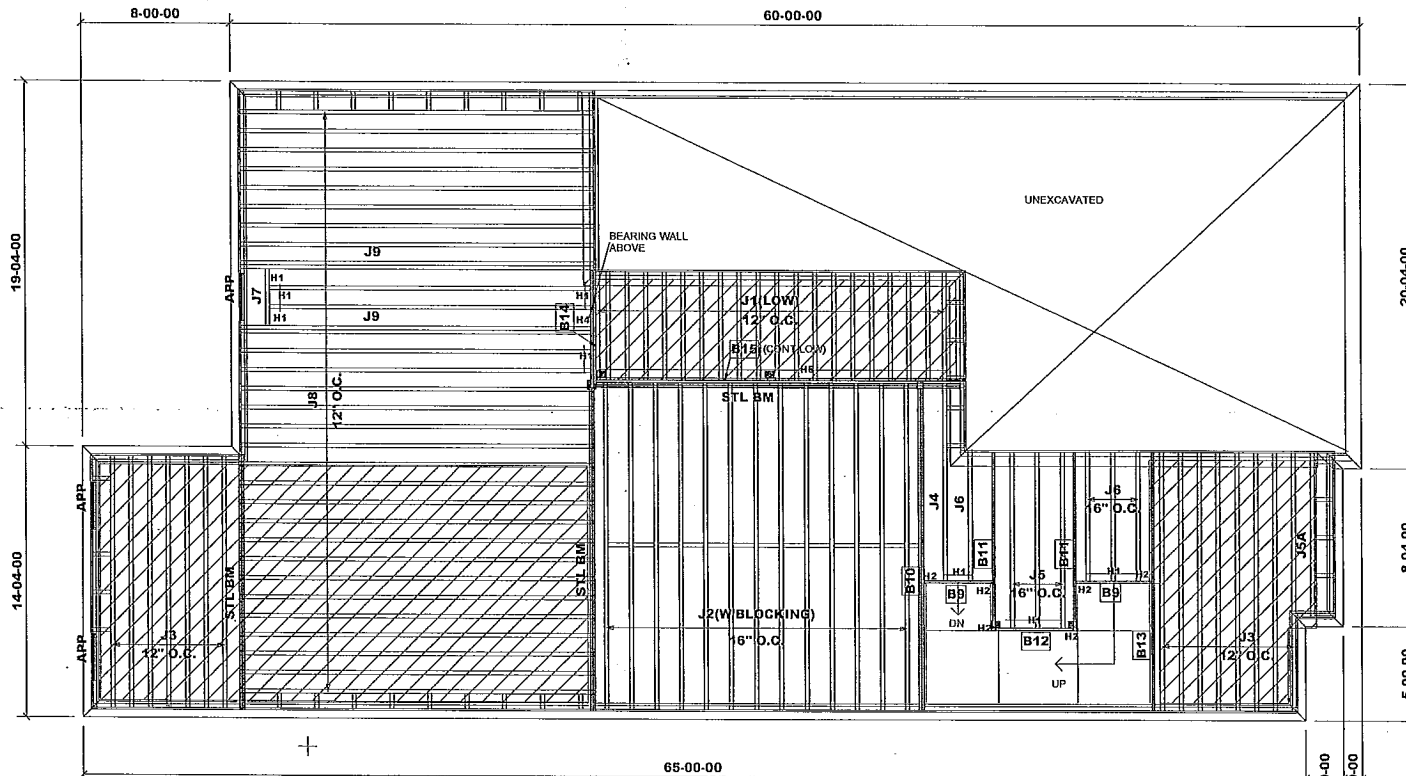
Date: November 21, 2017

Sheet: 6 of 21

Maple, Ontario

Home Lumber





Products				
PlotID	Length	Product	Plies	Net Qty
J1	6'-0"	9 1/2" NI-20	1	20
J2	18'-0"	11 7/8" NI-20	1	13
J3	14'-0"	11 7/8" NI-20	1	15
J4	11'-0"	11 7/8" NI-20	1	1
J5	10'-0"	11 7/8" NI-20	1	3
J5A	9'-0"	11 7/8" NI-20	1	1
J6	7'-0"	11 7/8" NI-20	1	4
J7	3'-0"	11 7/8" NI-20	1	1
J8	19'-0"	11 7/8" NI-40x	1	29
J9	19'-0"	11 7/8" NI-40x	2	4
B15	20'-0"	VERSALAM-10 2.0E	1	1
B10	18'-0"	VERSALAM-12 2.0E	2	2
B13	14'-0"	VERSALAM-12 2.0E	1	1
B11	10'-0"	VERSALAM-12 2.0E	1	2
B14	7'-0"	VERSALAM-12 2.0E	2	2
B12	5'-0"	VERSALAM-12 2.0E	1	1
B9	4'-0"	VERSALAM-12 2.0E	1	2

HANGER SCHEDULE

H1 ——— LT251188 (TM)
H2 ——— HUS1.81/10(FM)
H4 ——— MIT311.88-2(TM)
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: December 18, 2017

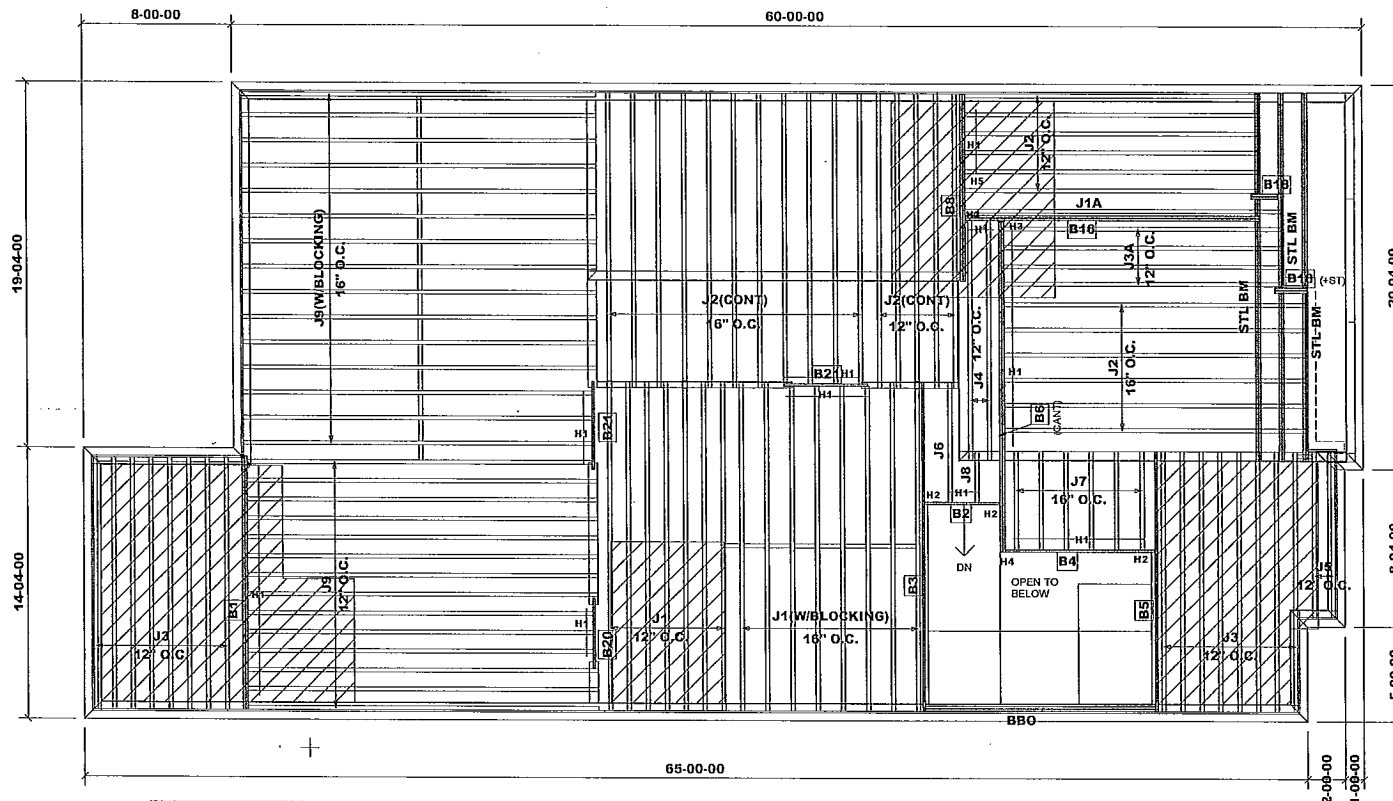
MODEL: UNIT 4202 - E.L.C

First Floor Framing

Do not scale - refer to architectural plans for dimensions

11 7/8" BLOCKING

TOTAL LENGTH: 56'



REVISION: December 18, 2017

MODEL: UNIT 4202 - EL.C
W/(OPT. 2ND FL.(+ OPT. LOGGIA))

Second Floor Framing

Do not scale - refer to architectural plans for dimensions

11 7/8" BLOCKING

TOTAL LENGTH: 50'

Products				
PlotID	Length	Product	Plies	Net Qty
J1	18-00-00	11 7/8" NI-20	1	15
J1A	17-00-00	11 7/8" NI-20	1	1
J2	16-00-00	11 7/8" NI-20	1	28
J3A	15-00-00	11 7/8" NI-20	1	4
J3	14-00-00	11 7/8" NI-20	1	16
J4	13-00-00	11 7/8" NI-20	1	2
J5	9-00-00	11 7/8" NI-20	1	2
J6	7-00-00	11 7/8" NI-20	1	1
J7	6-00-00	11 7/8" NI-20	1	6
J8	3-00-00	11 7/8" NI-20	1	1
J9	19-00-00	11 7/8" NI-40x	1	29
B3	18-00-00	VERSALAM-12 2.0E	1	1
B6	18-00-00	VERSALAM-12 2.0E	2	2
B16	16-00-00	VERSALAM-12 2.0E	2	2
B5	14-00-00	VERSALAM-12 2.0E	1	1
B1	14-00-00	VERSALAM-12 2.0E	2	2
B8	10-00-00	VERSALAM-12 2.0E	2	2
B4	8-00-00	VERSALAM-12 2.0E	1	1
B21	5-00-00	VERSALAM-12 2.0E	1	2
B2	4-00-00	VERSALAM-12 2.0E	1	1
B20	4-00-00	VERSALAM-12 2.0E	1	1
B18	2-00-00	VERSALAM-12 2.0E	2	4

HANGER SCHEDULE

H1-----LT251188 (TM)
H2-----HUS18110(FM)
H3-----HGUS410(FM)
H4-----HUX9X(FM)

NOTE:

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

RIMBOARD

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

Builder: Gold Park

Location: Vaughan

Designer: NL

Alpa Roof Trusses Inc.

Salesperson: Derek

LI: 290679

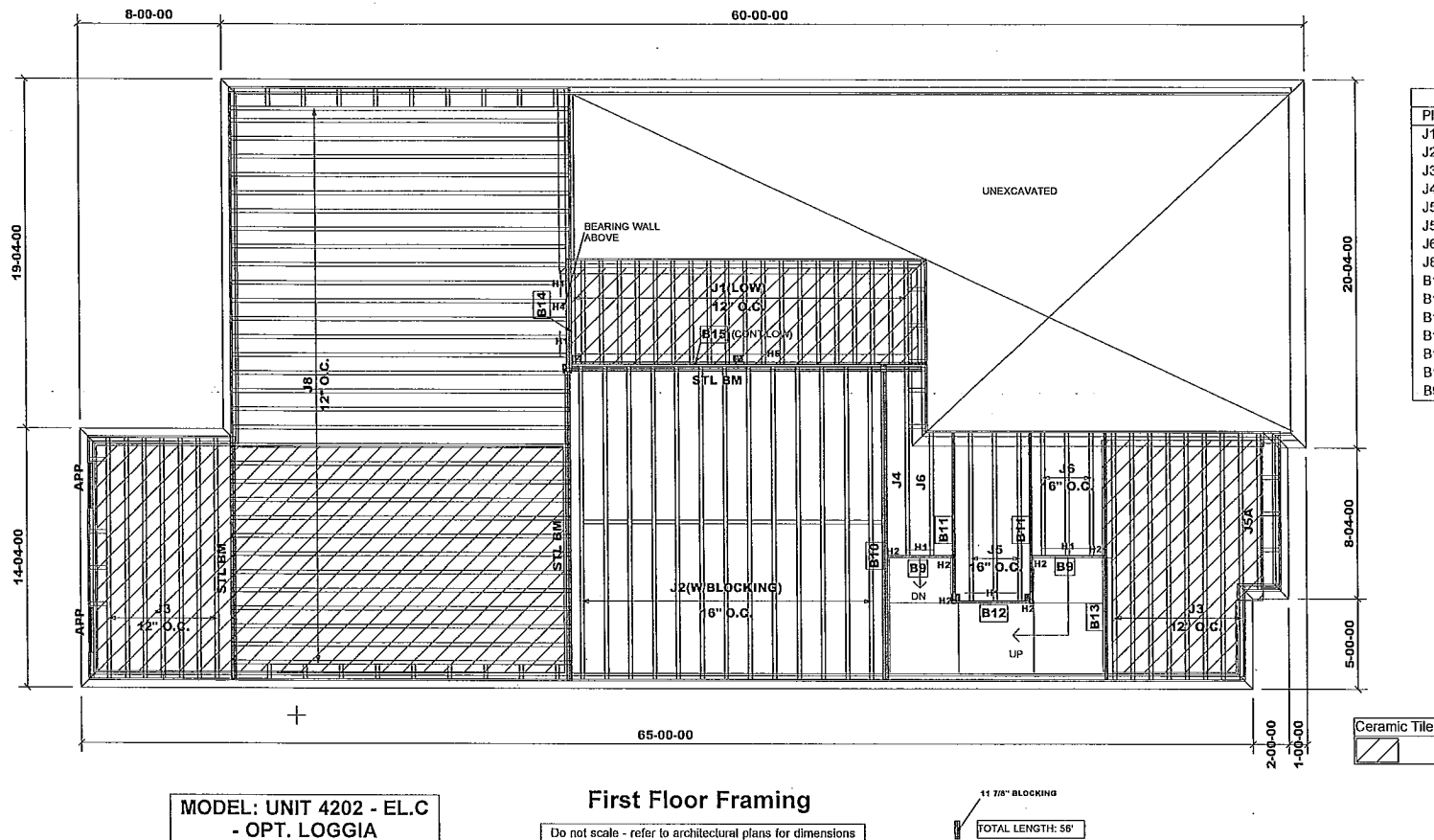
Project: Pine Valley

Date: November 21, 2017

Sheet: 9 of 21

Maple, Ontario

Home Lumber



Products				
PlotID	Length	Product	Piles	Net Qty
J1	6-00-00	9 1/2" NI-20	1	20
J2	18-00-00	11 7/8" NI-20	1	13
J3	14-00-00	11 7/8" NI-20	1	15
J4	11-00-00	11 7/8" NI-20	1	1
J5	10-00-00	11 7/8" NI-20	1	3
J5A	9-00-00	11 7/8" NI-20	1	1
J6	7-00-00	11 7/8" NI-20	1	4
J8	19-00-00	11 7/8" NI-40x	1	32
B15	20-00-00	VERSALAM-10 2.0E	1	1
B10	18-00-00	VERSALAM-12 2.0E	2	2
B13	14-00-00	VERSALAM-12 2.0E	1	1
B11	10-00-00	VERSALAM-12 2.0E	1	2
B14	7-00-00	VERSALAM-12 2.0E	2	2
B12	5-00-00	VERSALAM-12 2.0E	1	1
B9	4-00-00	VERSALAM-12 2.0E	1	2

HANGER SCHEDULE	
H1	LT251188 (TM)
H2	HUS1.81/10(FM)
H4	MIT311.88-2(TM)
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.

JT/PL: 45147/94992
 LI: 290679

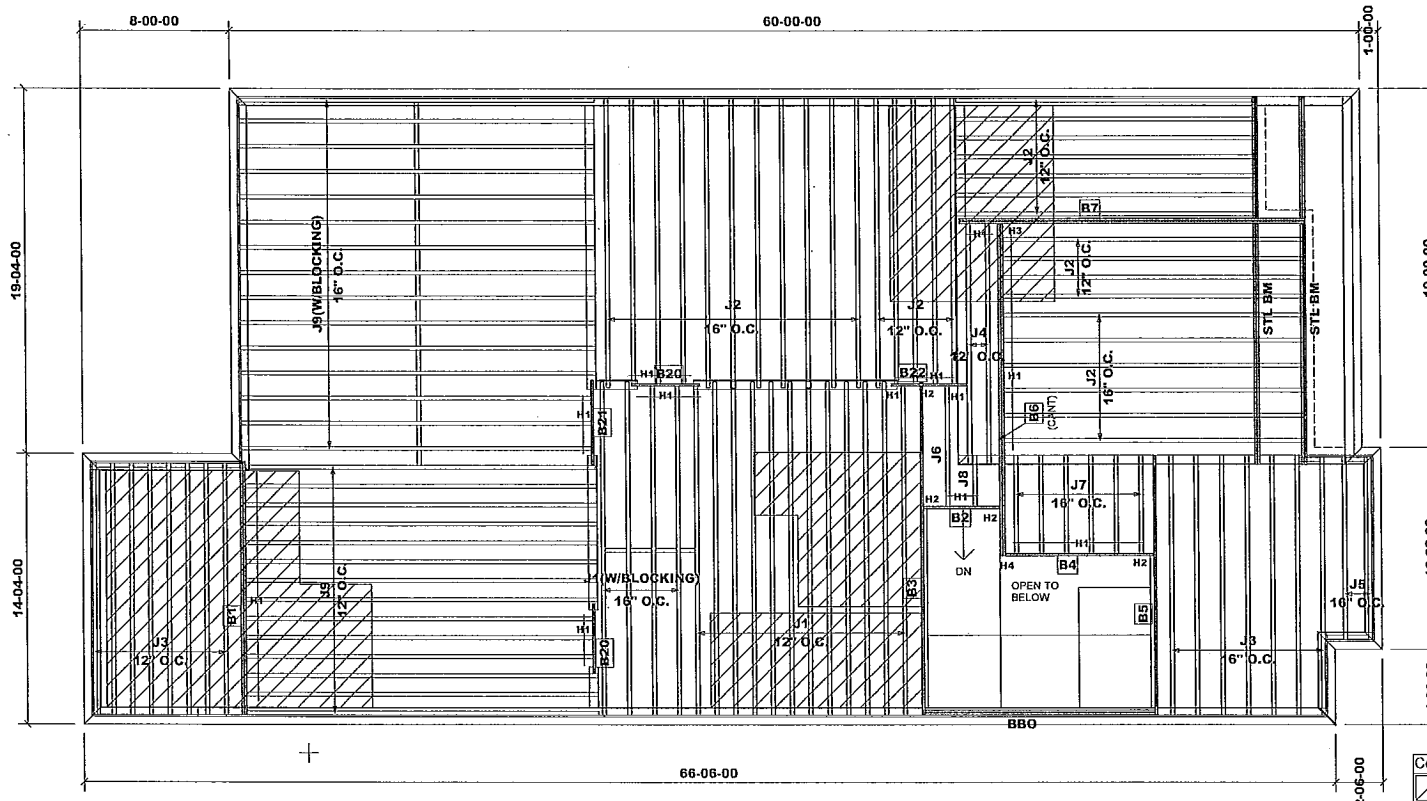
Builder: Gold Park
 Project: Pine Valley

Location: Vaughan
 Date: December 18 ,2017

Designer: NL
 Sheet: 9a of 21

Alpa Roof Trusses Inc.
 Maple, Ontario

Salesperson: Derek
 Home Lumber



Products				
PlotID	Length	Product	Plies	Net Qty
J1	18-00-00	11 7/8" NI-20	1	16
J2	18-00-00	11 7/8" NI-20	1	33
J3	14-00-00	11 7/8" NI-20	1	15
J4	13-00-00	11 7/8" NI-20	1	2
J5	10-00-00	11 7/8" NI-20	1	2
J6	7-00-00	11 7/8" NI-20	1	1
J7	6-00-00	11 7/8" NI-20	1	6
J8	3-00-00	11 7/8" NI-20	1	1
J9	19-00-00	11 7/8" NI-40x	1	29
B7	19-00-00	VERSALAM-12 2.0E	2	2
B3	18-00-00	VERSALAM-12 2.0E	1	1
B6	18-00-00	VERSALAM-12 2.0E	2	2
B5	14-00-00	VERSALAM-12 2.0E	1	1
B1	14-00-00	VERSALAM-12 2.0E	2	2
B4	8-00-00	VERSALAM-12 2.0E	1	1
B21	5-00-00	VERSALAM-12 2.0E	1	1
B2	4-00-00	VERSALAM-12 2.0E	1	1
B20	4-00-00	VERSALAM-12 2.0E	1	2
B22	4-00-00	VERSALAM-12 2.0E	1	1

HANGER SCHEDULE

H1	LT251188 (TM)
H2	HUS1.81/10(FM)
H3	HGUS410(FM)
H4	HU9X(FM)

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

RIMBOARD
 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.

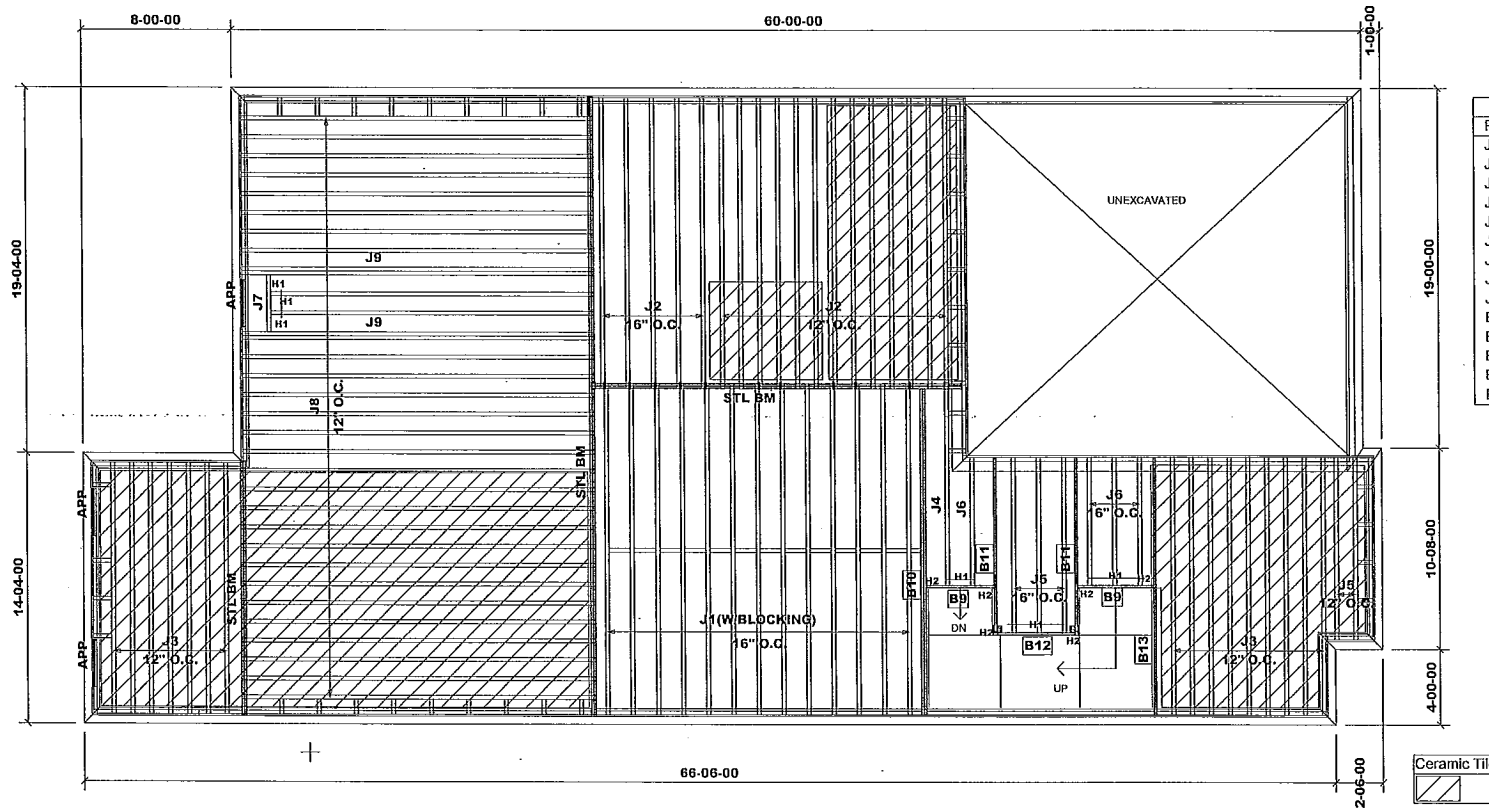
REVISION: December 18, 2017

MODEL: UNIT 4202 - EL.A
 W/OPT. 1ST FL.(+OPT. LOGGIA)

Second Floor Framing

Do not scale - refer to architectural plans for dimensions

11 7/8" BLOCKING
 TOTAL LENGTH: 27'



Products				
PlotID	Length	Product	Plies	Net Qty
J1	18-00-00	11 7/8" NI-20	1	13
J2	16-00-00	11 7/8" NI-20	1	18
J3	14-00-00	11 7/8" NI-20	1	16
J4	11-00-00	11 7/8" NI-20	1	1
J5	10-00-00	11 7/8" NI-20	1	5
J6	7-00-00	11 7/8" NI-20	1	4
J7	3-00-00	11 7/8" NI-20	1	1
J8	19-00-00	11 7/8" NI-40x	1	29
J9	19-00-00	11 7/8" NI-40x	2	4
B10	18-00-00	VERSALAM-12 2.0E	2	2
B13	14-00-00	VERSALAM-12 2.0E	1	1
B11	10-00-00	VERSALAM-12 2.0E	1	2
B12	5-00-00	VERSALAM-12 2.0E	1	1
B9	4-00-00	VERSALAM-12 2.0E	1	2

HANGER SCHEDULE

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

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

RIMBOARD

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: December 18, 2017

MODEL: UNIT 4202 - ELA
W/OPT. 1ST FLOOR

First Floor Framing

Do not scale - refer to architectural plans for dimensions

11 7/8" BLOCKING
TOTAL LENGTH: 60'

JT/PL: 45147/94992
LI: 290679

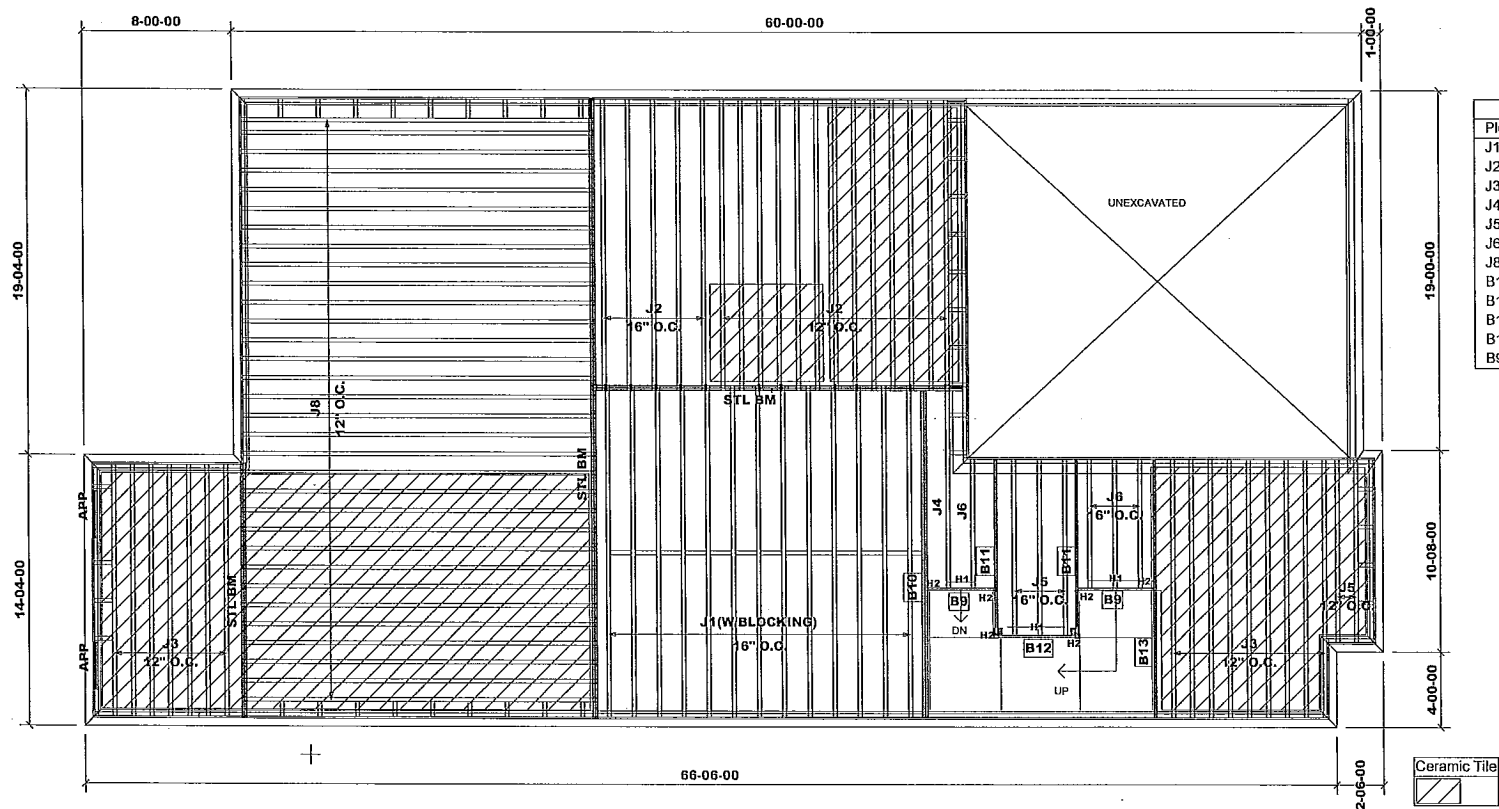
Builder: Gold Park
Project: Pine Valley

Location: Vaughan
Date: November 22, 2017

Designer: NL
Sheet: 11 of 21

Alpa Roof Trusses Inc.
Maple, Ontario

Salesperson: Derek
Home Lumber



Products				
PlotID	Length	Product	Plies	Net Qty
J1	18-00-00	11 7/8" NI-20	1	13
J2	18-00-00	11 7/8" NI-20	1	18
J3	14-00-00	11 7/8" NI-20	1	18
J4	11-00-00	11 7/8" NI-20	1	1
J5	10-00-00	11 7/8" NI-20	1	5
J6	7-00-00	11 7/8" NI-20	1	4
J8	19-00-00	11 7/8" NI-40x	1	32
B10	18-00-00	VERSALAM-12 2.0E	2	2
B13	14-00-00	VERSALAM-12 2.0E	1	1
B11	10-00-00	VERSALAM-12 2.0E	1	2
B12	5-00-00	VERSALAM-12 2.0E	1	1
B9	4-00-00	VERSALAM-12 2.0E	1	2

HANGER SCHEDULE

H1 ——— LT251188 (TM)
H2 ——— HUS1.81/10(FM)

NOTE:

TM ——— TOP MOUNT HANGERS
FM ——— FACE MOUNT HANGERS

RIMBOARD

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

SUBFLOOR - 3/4" NAILLED & 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.

MODEL: UNIT 4202 - EL.A
W/OPT. 1ST FL.(+OPT. LOGGIA)

First Floor Framing

Do not scale - refer to architectural plans for dimensions

11 7/8" BLOCKING
TOTAL LENGTH: 80"

JT/PL: 45147/94992
LI: 290679

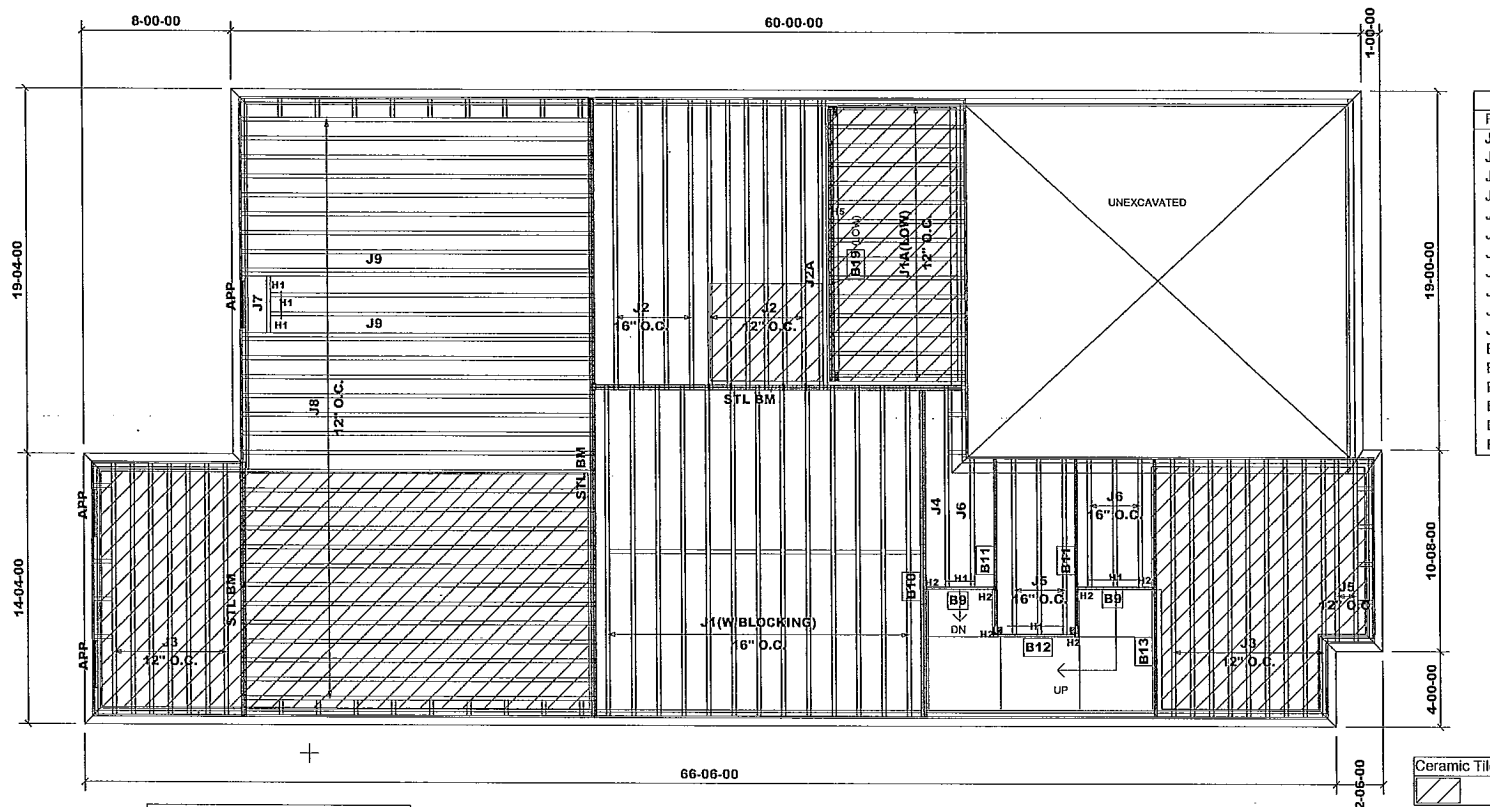
Builder: Gold Park
Project: Pine Valley

Location: Vaughan
Date: December 18, 2017

Designer: NL
Sheet: 11a of 21

Alpa Roof Trusses Inc.
Maple, Ontario

Salesperson: Derek
Home Lumber



Products				
PlotID	Length	Product	Piles	Net Qty
J1A	8-00-00	9 1/2" NI-20	1	16
J1	18-00-00	11 7/8" NI-20	1	13
J2	16-00-00	11 7/8" NI-20	1	10
J2A	16-00-00	11 7/8" NI-20	2	2
J3	14-00-00	11 7/8" NI-20	1	16
J4	11-00-00	11 7/8" NI-20	1	1
J5	10-00-00	11 7/8" NI-20	1	5
J6	7-00-00	11 7/8" NI-20	1	4
J7	3-00-00	11 7/8" NI-20	1	1
J8	19-00-00	11 7/8" NI-40x	1	29
J9	19-00-00	11 7/8" NI-40x	2	4
B10	18-00-00	VERSALAM-12 2.0E	2	2
B19	15-00-00	VERSALAM-10 2.0E	2	2
B13	14-00-00	VERSALAM-12 2.0E	1	1
B11	10-00-00	VERSALAM-12 2.0E	1	2
B12	5-00-00	VERSALAM-12 2.0E	1	1
B9	4-00-00	VERSALAM-12 2.0E	1	2

HANGER SCHEDULE

H1-----LT251189 (TM)
H2-----HUS1.81/10(FM)
H5-----LT2599(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: December 18, 2017

MODEL: UNIT 4202 - EL.A
W/OPT. 1ST FL.(W/SUNKEN)

First Floor Framing

Do not scale - refer to architectural plans for dimensions

11 7/8" BLOCKING

TOTAL LENGTH: 53'

JT/PL: 45147/94992

Builder: Gold Park

Location: Vaughan

Designer: NL

Alpa Roof Trusses Inc.

Salesperson: Derek

LI: 290679

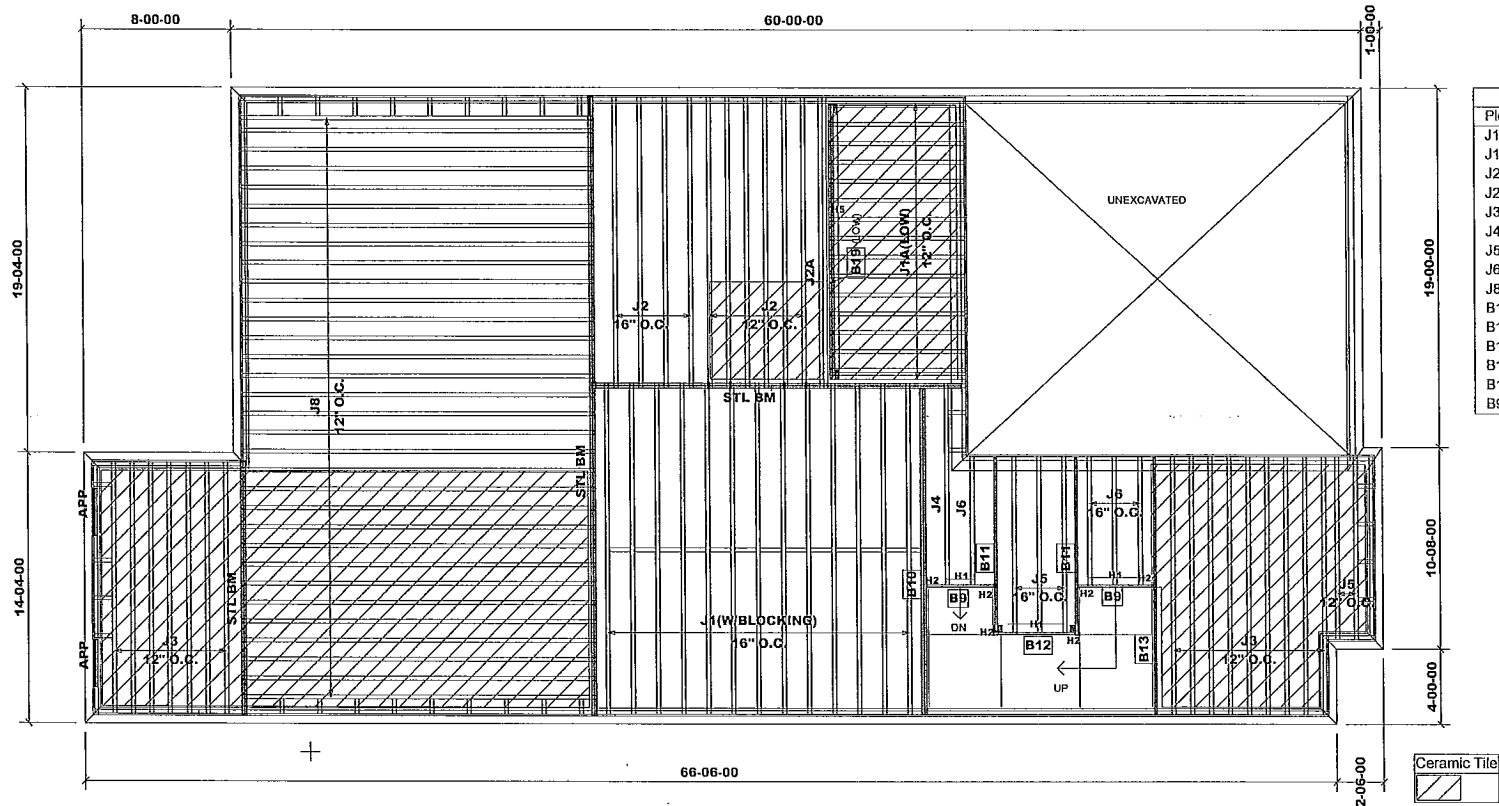
Project: Pine Valley

Date: November 22, 2017

Sheet: 13 of 21

Maple, Ontario

Home Lumber



MODEL: UNIT 4202 - EL.A
-OPT. 1ST FL.(W/SUNKEN)
(+OPT. LOGGIA)

First Floor Framing

Do not scale - refer to architectural plans for dimensions

11 7/8" BLOCKING

TOTAL LENGTH: 53'

Products				
PlotID	Length	Product	Piles	Net Qty
J1A	8-00-00	9 1/2" NI-20	1	16
J1	18-00-00	11 7/8" NI-20	1	13
J2	16-00-00	11 7/8" NI-20	1	10
J2A	16-00-00	11 7/8" NI-20	2	2
J3	14-00-00	11 7/8" NI-20	1	16
J4	11-00-00	11 7/8" NI-20	1	1
J5	10-00-00	11 7/8" NI-20	1	5
J6	7-00-00	11 7/8" NI-20	1	4
J8	19-00-00	11 7/8" NI-40x	1	32
B10	18-00-00	VERSALAM-12 2.0E	2	2
B19	15-00-00	VERSALAM-10 2.0E	2	2
B13	14-00-00	VERSALAM-12 2.0E	1	1
B11	10-00-00	VERSALAM-12 2.0E	1	2
B12	5-00-00	VERSALAM-12 2.0E	1	1
B9	4-00-00	VERSALAM-12 2.0E	1	2

HANGER SCHEDULE

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

NOTE:

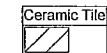
TM-----TOP MOUNT HANGERS
FM-----FACE MOUNT HANGERS

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.

JT/PL: 45147/94992

Builder: Gold Park

Location: Vaughan

Designer: NL

Alpa Roof Trusses Inc.

Salesperson: Derek

LI: 290679

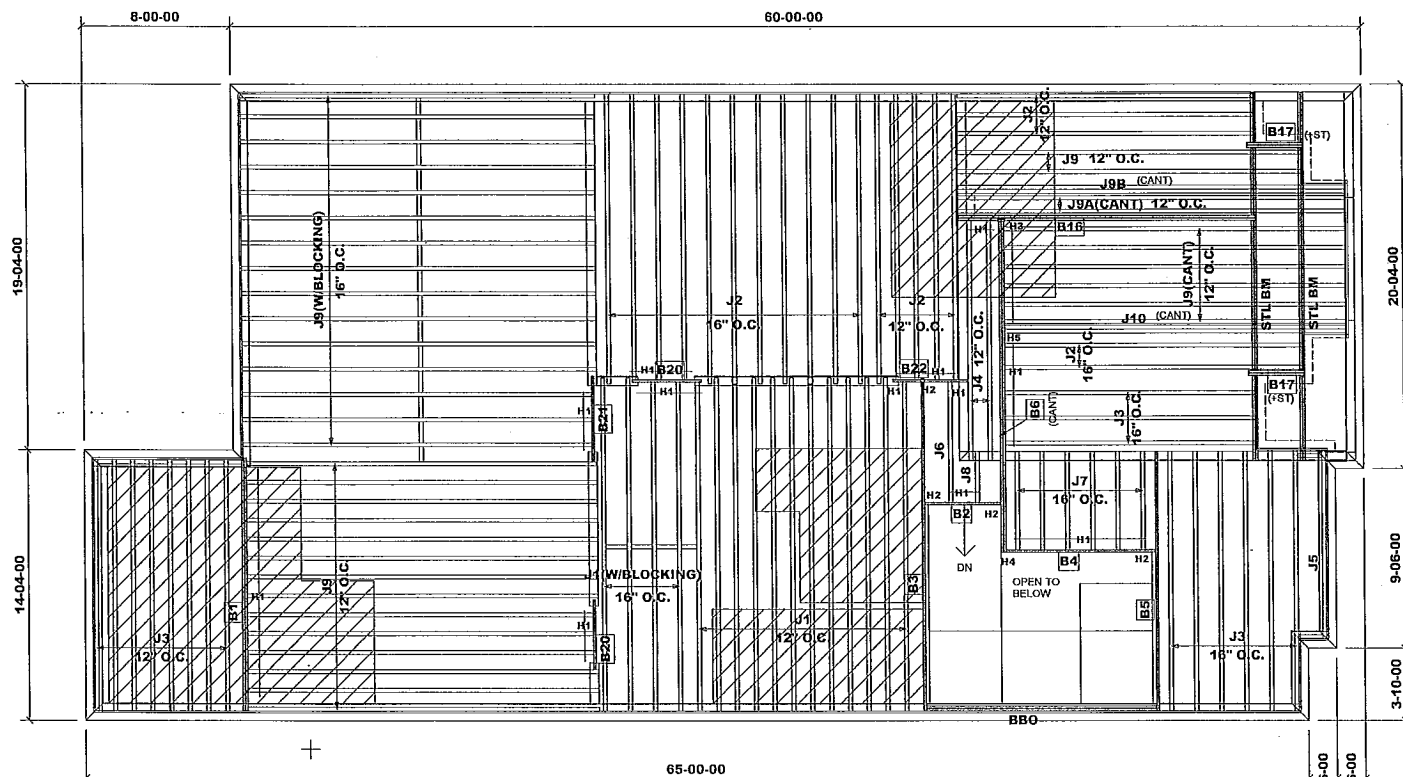
Project: Pine Valley

Date: December 18, 2017

Sheet: 13a of 21

Maple, Ontario

Home Lumber



REVISION: December 18, 2017

MODEL: UNIT 4202 - EL.B
W/OPT. 1ST FL.(+OPT. LOGGIA)

Second Floor Framing

Do not scale - refer to architectural plans for dimensions

11 7/8" BLOCKING

TOTAL LENGTH: 35'

Products				
PlotID	Length	Product	Piles	Net Qty
J1	18-00-00	11 7/8" NI-20	1	16
J2	16-00-00	11 7/8" NI-20	1	21
J3	14-00-00	11 7/8" NI-20	1	17
J4	13-00-00	11 7/8" NI-20	1	2
J5	10-00-00	11 7/8" NI-20	1	1
J6	7-00-00	11 7/8" NI-20	1	1
J7	6-00-00	11 7/8" NI-20	1	6
J8	3-00-00	11 7/8" NI-20	1	1
J9A	21-00-00	11 7/8" NI-40x	1	2
J9B	21-00-00	11 7/8" NI-40x	2	2
J9	19-00-00	11 7/8" NI-40x	1	37
J10	19-00-00	11 7/8" NI-40x	2	2
B3	18-00-00	VERSALAM-12 2.0E	1	1
B6	18-00-00	VERSALAM-12 2.0E	2	2
B16	16-00-00	VERSALAM-12 2.0E	2	2
B5	14-00-00	VERSALAM-12 2.0E	1	1
B1	14-00-00	VERSALAM-12 2.0E	2	2
B4	8-00-00	VERSALAM-12 2.0E	1	1
B21	5-00-00	VERSALAM-12 2.0E	1	1
B2	4-00-00	VERSALAM-12 2.0E	1	1
B20	4-00-00	VERSALAM-12 2.0E	1	2
B22	4-00-00	VERSALAM-12 2.0E	1	1
B17	3-00-00	VERSALAM-12 2.0E	2	4

HANGER SCHEDULE

H1-----LT251188 (TM)
H2-----HUS1 81/10(FM)
H3-----HUS410(FM)
H4-----HUS9X(FM)
H5-----MIT311.88-2(TM)

NOTE:

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

RIMBOARD

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 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: 290679

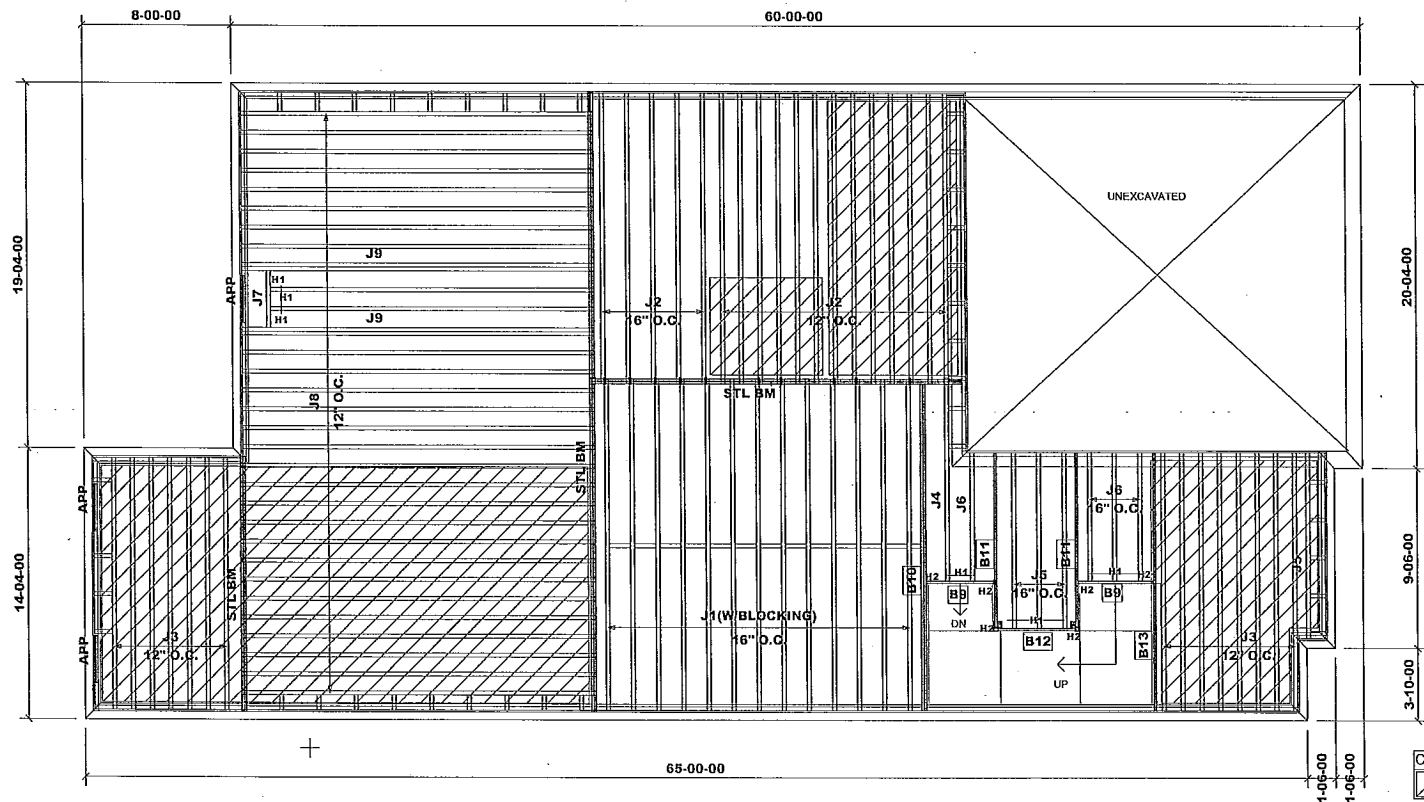
Builder: Gold Park
Project: Pine Valley

Location: Vaughan
Date: November 22, 2017

Designer: NL
Sheet: 14 of 21

Alpa Roof Trusses Inc.
Maple, Ontario

Salesperson: Derek
Home Lumber



Products				
PlotID	Length	Product	Plies	Net Qty
J1	18-00-00	11 7/8" NI-20	1	13
J2	16-00-00	11 7/8" NI-20	1	18
J3	14-00-00	11 7/8" NI-20	1	15
J4	11-00-00	11 7/8" NI-20	1	1
J5	10-00-00	11 7/8" NI-20	1	4
J6	7-00-00	11 7/8" NI-20	1	4
J7	3-00-00	11 7/8" NI-20	1	1
J8	19-00-00	11 7/8" NI-40x	1	29
J9	19-00-00	11 7/8" NI-40x	2	4
B10	18-00-00	VERSALAM-12 2.0E	2	2
B13	14-00-00	VERSALAM-12 2.0E	1	1
B11	10-00-00	VERSALAM-12 2.0E	1	2
B12	5-00-00	VERSALAM-12 2.0E	1	1
B9	4-00-00	VERSALAM-12 2.0E	1	2

HANGER SCHEDULE

H1 ———— LT251188 (TM)
H2 ———— HUS1.81/10(FM)

NOTE:

TM ———— TOP MOUNT HANGERS
FM ———— FACE MOUNT HANGERS

RIMBOARD

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

SUBFLOOR - 3/4" NAILLED & 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: December 18, 2017

MODEL: UNIT 4202 - EL.B
W/OPT. 1ST FLOOR

First Floor Framing

Do not scale - refer to architectural plans for dimensions

11 7/8" BLOCKING

TOTAL LENGTH: 61'

JT/PL: 45147/94992

Builder: Gold Park

Location: Vaughan

Designer: NL

Alpa Roof Trusses Inc.

Salesperson: Derek

LI: 290679

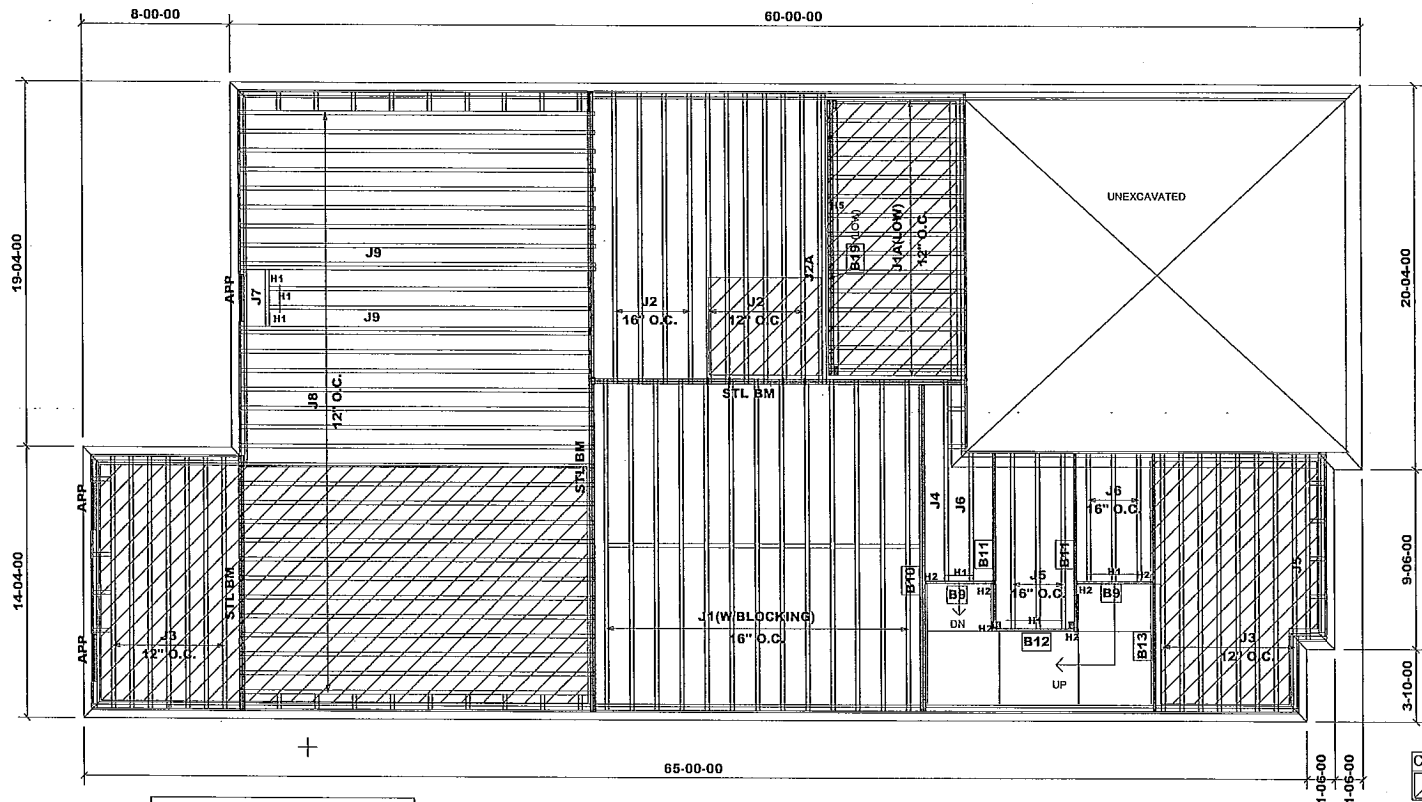
Project: Pine Valley

Date: November 22, 2017

Sheet: 15 of 21

Maple, Ontario

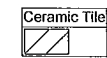
Home Lumber



Products				
PlotID	Length	Product	Piles	Net Qty
J1A	8-00-00	9 1/2" NI-20	1	16
J1	18-00-00	11 7/8" NI-20	1	13
J2	16-00-00	11 7/8" NI-20	1	10
J2A	16-00-00	11 7/8" NI-20	2	2
J3	14-00-00	11 7/8" NI-20	1	15
J4	11-00-00	11 7/8" NI-20	1	1
J5	10-00-00	11 7/8" NI-20	1	4
J6	7-00-00	11 7/8" NI-20	1	4
J7	3-00-00	11 7/8" NI-20	1	1
J8	19-00-00	11 7/8" NI-40x	1	29
J9	19-00-00	11 7/8" NI-40x	2	4
B10	18-00-00	VERSALAM-12 2.0E	2	2
B19	15-00-00	VERSALAM-10 2.0E	2	2
B13	14-00-00	VERSALAM-12 2.0E	1	1
B11	10-00-00	VERSALAM-12 2.0E	1	2
B12	5-00-00	VERSALAM-12 2.0E	1	1
B9	4-00-00	VERSALAM-12 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: December 18, 2017

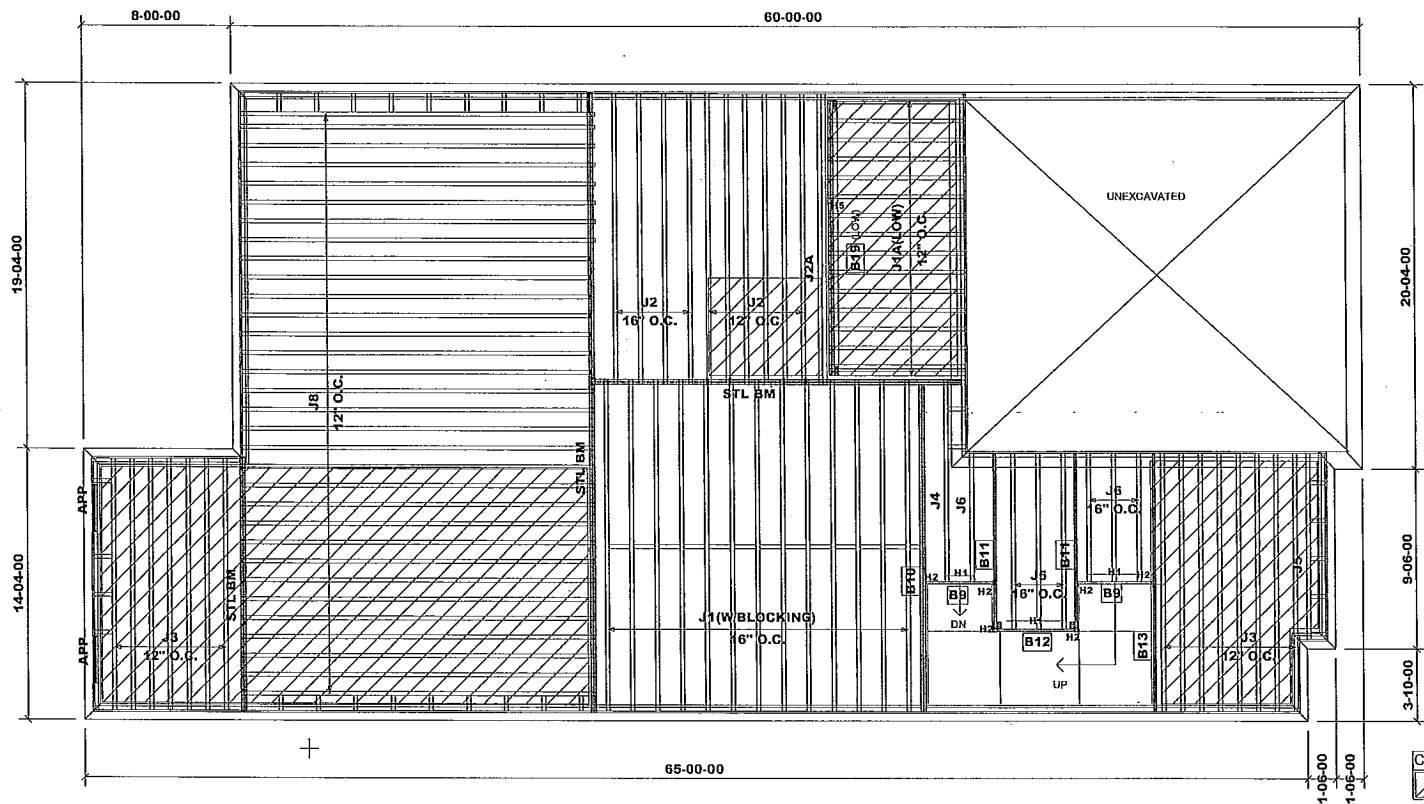
MODEL: UNIT 4202 - EL.B
 W/OPT. 1ST FL.(W/SUNKEN)

First Floor Framing

Do not scale - refer to architectural plans for dimensions

11 7/8" BLOCKING
 TOTAL LENGTH: 53'

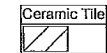
JT/PL: 45147/94992	Builder: Gold Park	Location: Vaughan	Designer: NL	Alpa Roof Trusses Inc.	Salesperson: Derek
LI: 290679	Project: Pine Valley	Date: November 22, 2017	Sheet: 17 of 21	Maple, Ontario	Home Lumber



Products				
PlotID	Length	Product	Plies	Net Qty
J1A	8-00-00	9 1/2" NI-20	1	16
J1	18-00-00	11 7/8" NI-20	1	13
J2	16-00-00	11 7/8" NI-20	1	10
J2A	16-00-00	11 7/8" NI-20	2	2
J3	14-00-00	11 7/8" NI-20	1	15
J4	11-00-00	11 7/8" NI-20	1	1
J5	10-00-00	11 7/8" NI-20	1	4
J6	7-00-00	11 7/8" NI-20	1	4
J8	19-00-00	11 7/8" NI-40x	1	32
B10	18-00-00	VERSALAM-12 2.0E	2	2
B19	15-00-00	VERSALAM-10 2.0E	2	2
B13	14-00-00	VERSALAM-12 2.0E	1	1
B11	10-00-00	VERSALAM-12 2.0E	1	2
B12	5-00-00	VERSALAM-12 2.0E	1	1
B9	4-00-00	VERSALAM-12 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.

MODEL: UNIT 4202 - EL.B
 -OPT. 1ST FL.(W/SUNKEN)
 (+OPT. LOGGIA)

First Floor Framing

Do not scale - refer to architectural plans for dimensions

11 7/8" BLOCKING
 TOTAL LENGTH: 53'

JT/PL: 45147/94992

Builder: Gold Park

Location: Vaughan

Designer: NL

Alpa Roof Trusses Inc.

Salesperson: Derek

LI: 290679

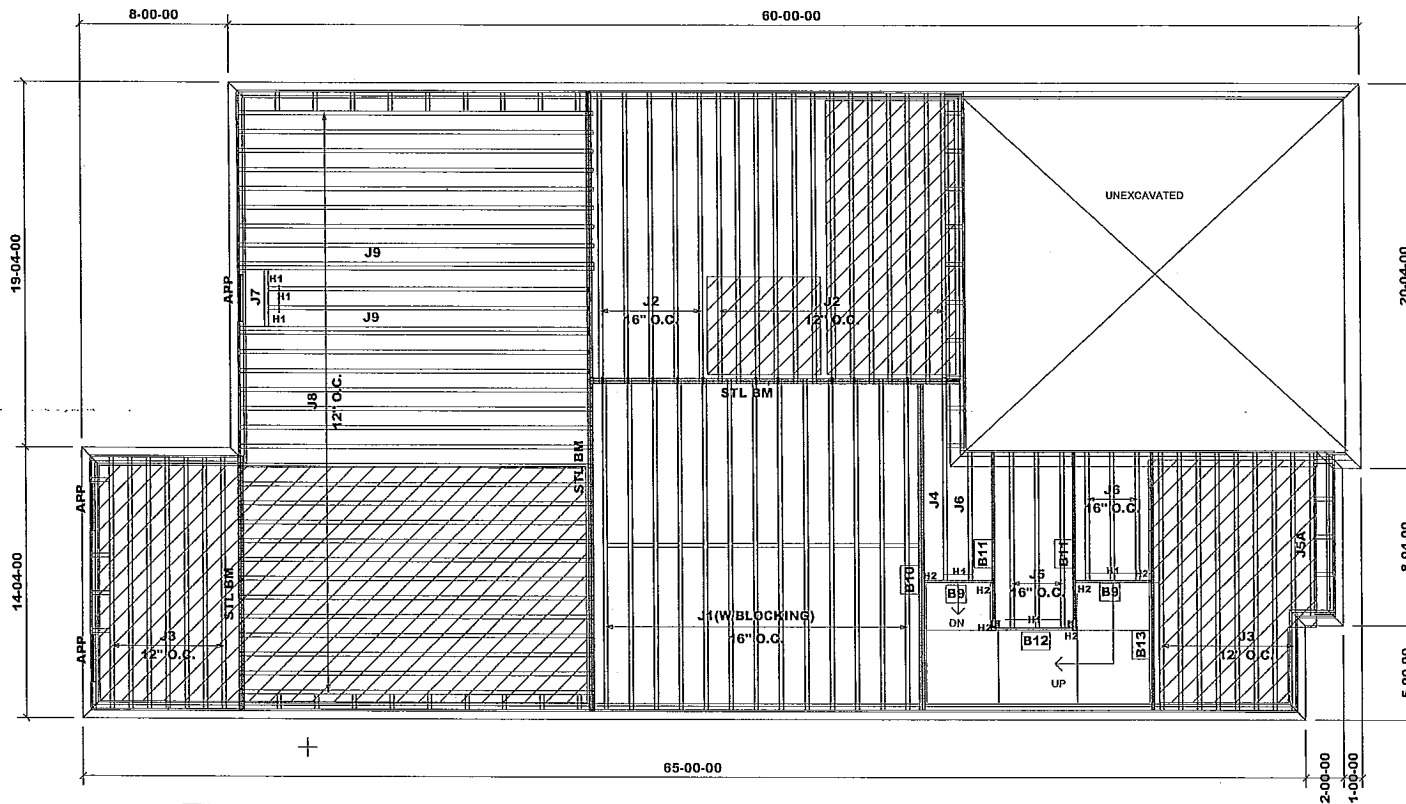
Project: Pine Valley

Date: December 18, 2017

Sheet: 17a of 21

Maple, Ontario

Home Lumber



Products				
PlotID	Length	Product	Plies	Net Qty
J1	18-00-00	11 7/8" NI-20	1	13
J2	16-00-00	11 7/8" NI-20	1	18
J3	14-00-00	11 7/8" NI-20	1	15
J4	11-00-00	11 7/8" NI-20	1	1
J5	10-00-00	11 7/8" NI-20	1	3
J5A	9-00-00	11 7/8" NI-20	1	1
J6	7-00-00	11 7/8" NI-20	1	4
J7	3-00-00	11 7/8" NI-20	1	1
J8	19-00-00	11 7/8" NI-40x	1	29
J9	19-00-00	11 7/8" NI-40x	2	4
B10	18-00-00	VERSALAM-12 2.0E	2	2
B13	14-00-00	VERSALAM-12 2.0E	1	1
B11	10-00-00	VERSALAM-12 2.0E	1	2
B12	5-00-00	VERSALAM-12 2.0E	1	1
B9	4-00-00	VERSALAM-12 2.0E	1	2

HANGER SCHEDULE

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

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

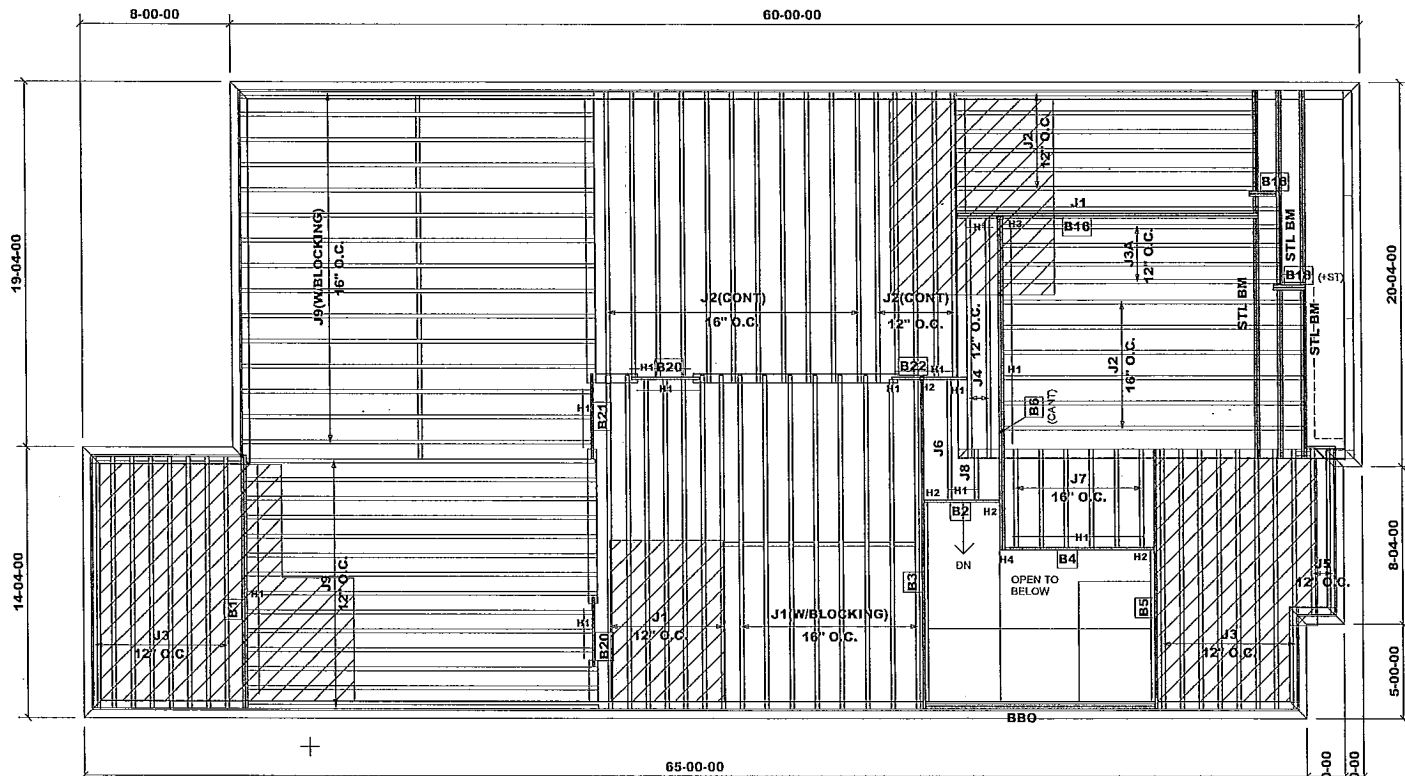
RIMBOARD
1- 1/8" X 11 7/8" O.S.B.
SUBFLOOR - 3/4" NAILED & GLUED
APP - AS PER PLAN
BBO - BEAM BY OTHERS

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: December 18, 2017
MODEL: UNIT 4202 - EL.C
W/OPT. 1ST FLOOR

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

11 7/8" BLOCKING
TOTAL LENGTH: 56'



REVISION: December 18, 2017

MODEL: UNIT 4202 - EL.C
W/OPT. 1ST FL.(OPT. 2ND FL.)
+ OPT. LOGGIA

Second Floor Framing

Do not scale - refer to architectural plans for dimensions

Products				
PlotID	Length	Product	Plies	Net Qty
J1	18-00-00	11 7/8" NI-20	1	16
J2	16-00-00	11 7/8" NI-20	1	28
J3A	15-00-00	11 7/8" NI-20	1	4
J3	14-00-00	11 7/8" NI-20	1	16
J4	13-00-00	11 7/8" NI-20	1	2
J5	9-00-00	11 7/8" NI-20	1	2
J6	7-00-00	11 7/8" NI-20	1	1
J7	6-00-00	11 7/8" NI-20	1	6
J8	3-00-00	11 7/8" NI-20	1	1
J9	19-00-00	11 7/8" NI-40x	1	29
B3	18-00-00	VERSALAM-12 2.0E	1	1
B6	18-00-00	VERSALAM-12 2.0E	2	2
B16	16-00-00	VERSALAM-12 2.0E	2	2
B5	14-00-00	VERSALAM-12 2.0E	1	1
B1	14-00-00	VERSALAM-12 2.0E	2	2
B4	8-00-00	VERSALAM-12 2.0E	1	1
B21	5-00-00	VERSALAM-12 2.0E	1	1
B2	4-00-00	VERSALAM-12 2.0E	1	1
B20	4-00-00	VERSALAM-12 2.0E	1	2
B22	4-00-00	VERSALAM-12 2.0E	1	1
B18	2-00-00	VERSALAM-12 2.0E	2	4

HANGER SCHEDULE

H1-----LT251188 (TM)
H2-----HUS1.81/10(FM)
H3-----HUS410(FM)
H4-----HUSX(FM)

NOTE:

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

RIMBOARD

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.

JT/PL: 45147/94992

Builder: Gold Park

Location: Vaughan

Designer: NL

Alpa Roof Trusses Inc.

Salesperson: Derek

LI: 290679

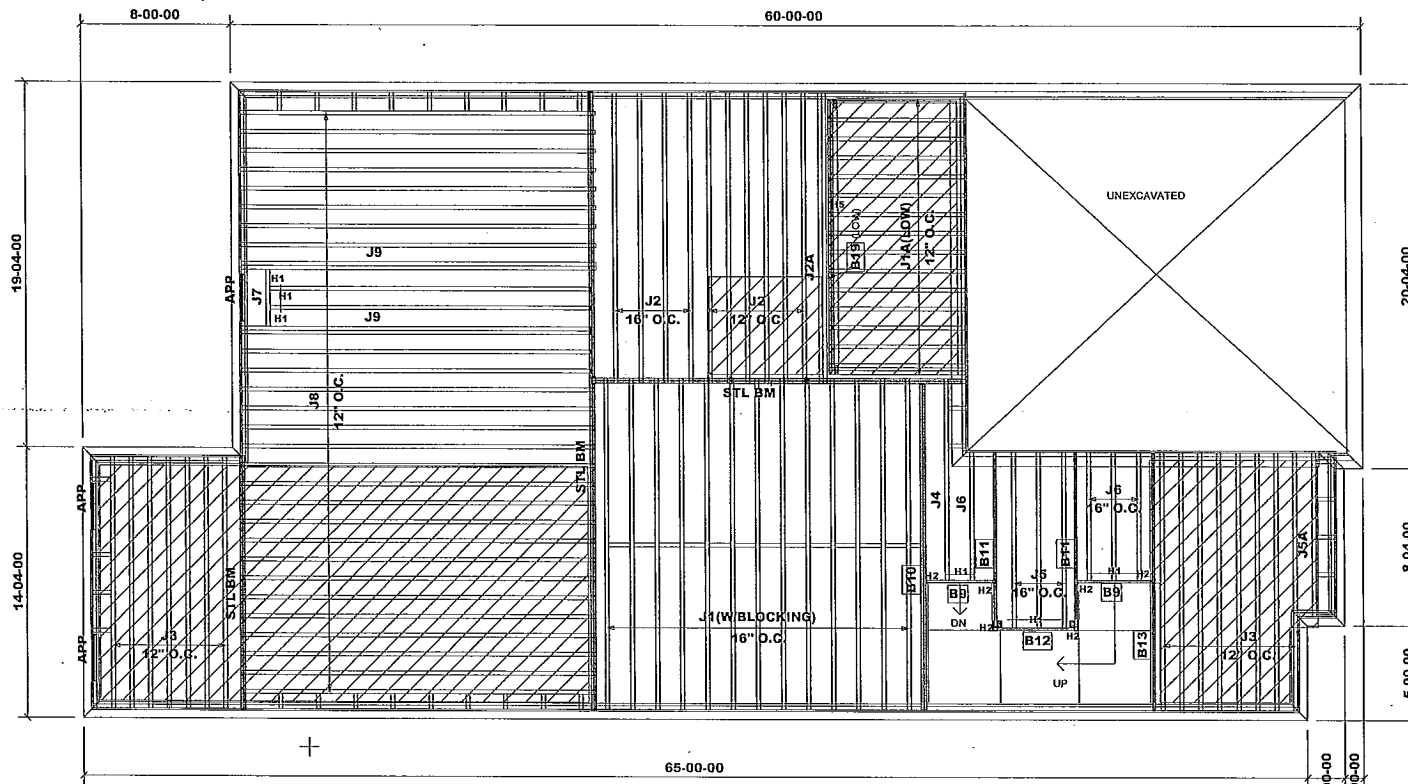
Project: Pine Valley

Date: November 22, 2017

Sheet: 20 of 21

Maple, Ontario

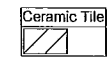
Home Lumber



Products				
PlotID	Length	Product	Plies	Net Qty
J1A	8-00-00	9 1/2" NI-20	1	16
J1	18-00-00	11 7/8" NI-20	1	13
J2	16-00-00	11 7/8" NI-20	1	10
J2A	16-00-00	11 7/8" NI-20	2	2
J3	14-00-00	11 7/8" NI-20	1	15
J4	11-00-00	11 7/8" NI-20	1	1
J5	10-00-00	11 7/8" NI-20	1	3
J5A	9-00-00	11 7/8" NI-20	1	1
J6	7-00-00	11 7/8" NI-20	1	4
J7	3-00-00	11 7/8" NI-20	1	1
J8	19-00-00	11 7/8" NI-40x	1	29
J9	19-00-00	11 7/8" NI-40x	2	4
B10	18-00-00	VERSALAM-12 2.0E	2	2
B19	15-00-00	VERSALAM-10 2.0E	2	2
B13	14-00-00	VERSALAM-12 2.0E	1	1
B11	10-00-00	VERSALAM-12 2.0E	1	2
B12	5-00-00	VERSALAM-12 2.0E	1	1
B9	4-00-00	VERSALAM-12 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: December 18, 2017

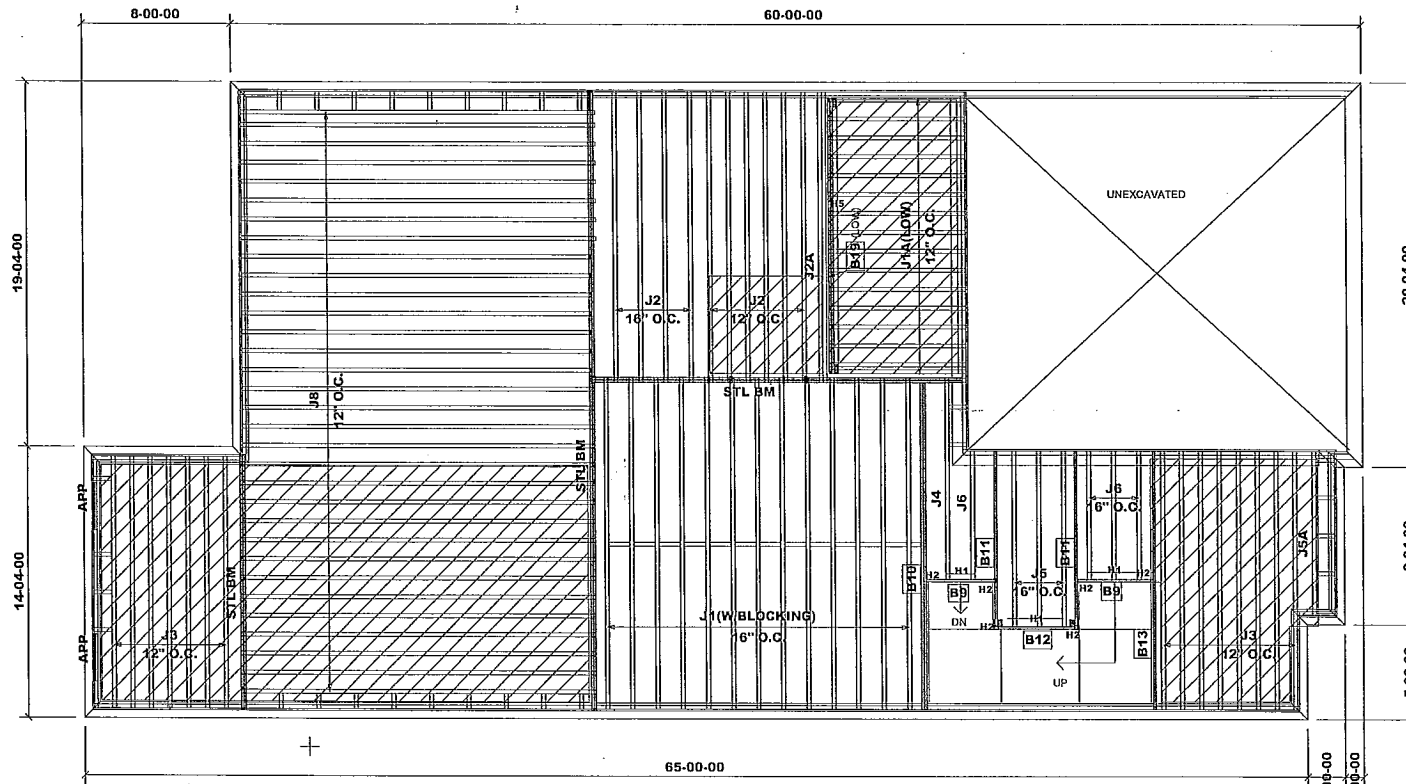
MODEL: UNIT 4202 - E.L.C
 W/OPT. 1ST FL.(W/SUNKEN)

First Floor Framing

Do not scale - refer to architectural plans for dimensions

11 7/8" BLOCKING
 TOTAL LENGTH: 53'

JT/PL: 45147/94992	Builder: Gold Park	Location: Vaughan	Designer: NL	Alpa Roof Trusses Inc.	Salesperson: Derek
LI: 290679	Project: Pine Valley	Date: November 22, 2017	Sheet: 21 of 21	Maple, Ontario	Home Lumber



Products				
PlotID	Length	Product	Piles	Net Qty
J1A	8-00-00	9 1/2" NI-20	1	16
J1	18-00-00	11 7/8" NI-20	1	13
J2	16-00-00	11 7/8" NI-20	1	10
J2A	16-00-00	11 7/8" NI-20	2	2
J3	14-00-00	11 7/8" NI-20	1	15
J4	11-00-00	11 7/8" NI-20	1	1
J5	10-00-00	11 7/8" NI-20	1	3
J5A	9-00-00	11 7/8" NI-20	1	1
J6	7-00-00	11 7/8" NI-20	1	4
J8	19-00-00	11 7/8" NI-40x	1	32
B10	18-00-00	VERSALAM-12 2.0E	2	2
B19	15-00-00	VERSALAM-10 2.0E	2	2
B13	14-00-00	VERSALAM-12 2.0E	1	1
B11	10-00-00	VERSALAM-12 2.0E	1	2
B12	5-00-00	VERSALAM-12 2.0E	1	1
B9	4-00-00	VERSALAM-12 2.0E	1	2

HANGER SCHEDULE

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

NOTE:

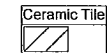
TM — TOP MOUNT HANGERS
FM — FACE MOUNT HANGERS

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.

MODEL: UNIT 4202 - EL.C
-OPT. 1ST FL.(W/SUNKEN)
(+OPT. LOGGIA)

First Floor Framing

Do not scale - refer to architectural plans for dimensions

11 7/8" BLOCKING
TOTAL LENGTH 53'

JT/PL: 45147/94992

Builder: Gold Park

Location: Vaughan

Designer: NL

Alpa Roof Trusses Inc.

Salesperson: Derek

LI: 290679

Project: Pine Valley

Date: December 18, 2017

Sheet: 21a of 21

Maple, Ontario

Home Lumber



Boise Cascade

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

Floor Beam\B01



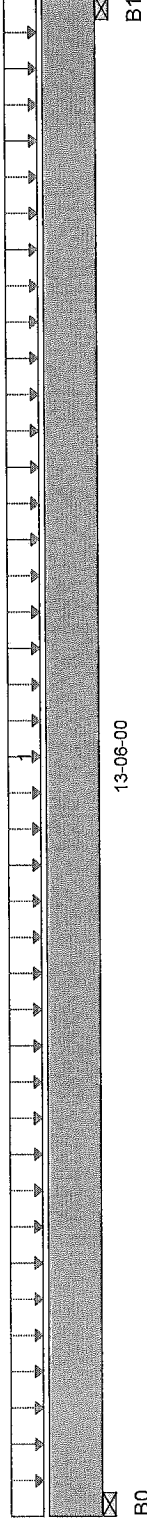
BC CALC® Design Report

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

November 21, 2017 14:40:32

Build 6080
Job Name: 45147 (4202)
Address: Pine Valley
City, Province, Postal Code: Vaughan, ON
Customer: Gold Park
Code reports: CCMC 12472-R

File Name: 290679.bcc
Description: Second Floor Framing
Specifier:
Designer: NL
Company: Alpa Roof Trusses
Misc:



Total Horizontal Product Length = 13-06-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Trib.
B0, 3-1/2"	2,700 / 0	1,431 / 0			
B1, 3-1/2"	2,700 / 0	1,431 / 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			10-00-00

Controls Summary

Pos.	Moment	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
End Shear	4,731 lbs	14,464 lbs	32.7%	1	06-09-00	01-03-06
Total Load Defl.	L/384 (0.408")	0.652"	62.5%	4	06-09-00	06-09-00
Live Load Defl.	L/587 (0.267")	0.435"	61.3%	5	06-09-00	06-09-00
Max Defl.	0.408"	1"	40.8%	4	06-09-00	06-09-00
Span / Depth	13.2	n/a	n/a		00-00-00	
Squash Blocks	Valid					

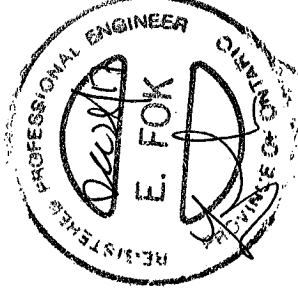
Bearing Supports

	Dim. (L x W)	Demand	Demand / Resistance Support	Demand / Resistance Member	Material
B0 Wall/Plate	3-1/2" x 3-1/2"	5,839 lbs	77.5%	39.1%	Spruce Pine Fir
B1 Wall/Plate	3-1/2" x 3-1/2"	5,839 lbs	77.5%	39.1%	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 @ 6" o.c., staggered in 2 rows



S152408



Boise Cascade

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

Floor Beam\B02



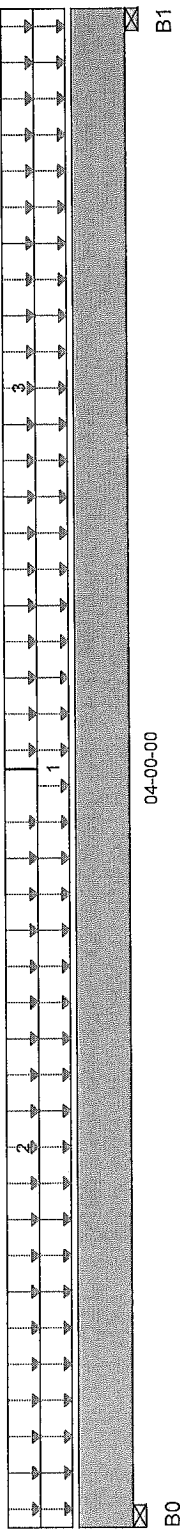
BC CALC® Design Report

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

November 21, 2017 09:29:22

Build 6080
Job Name: 45147 (4202)
Address: Pine Valley
City, Province, Postal Code: Vaughan, ON
Customer: Gold Park
Code reports: CCMC 12472-R

File Name: 290679.bcc
Description: Second Floor Framing
Specifier:
Designer: NL
Company: Alpa Roof Trusses
Misc:



Total Horizontal Product Length = 04-00-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0, 3-1/2"	549 / 0	218 / 0		
B1, 3-1/2"	471 / 0	189 / 0		

Load Summary

Tag Description	Load Type	Ref.	Start	End	Live	Dead	Snow	Wind	Trib.
1	Unf. Area (lb/ft²)	L	00-00-00	04-00-00	40	15			04-00-00
2	Unf. Area (lb/ft²)	L	00-00-00	02-00-00	40	15			03-03-00
3	Unf. Area (lb/ft²)	L	02-00-00	04-00-00	40	15			01-06-00

Controls Summary

Pos.	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	802 ft-lbs	17,696 ft-lbs	4.5%	1	01-10-15
End Shear	378 lbs	7,232 lbs	5.2%	1	02-08-10
Total Load Defl.	L/999 (0.003")	n/a	n/a	4	02-00-00
Live Load Defl.	L/999 (0.002")	n/a	n/a	5	02-00-00
Max Defl.	0.003"	n/a	n/a	4	02-00-00
Span / Depth	3.6	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.

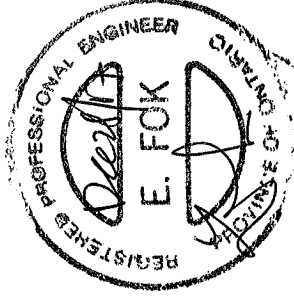
BC CALC®, BC FRAMER®, AUS™, ALLJOIST®, BC RIM BOARD™, BCIO®, BOISE GLULAM™, SIMPLE FRAMING SYSTEM®, VERSA-LAM®, VERSA-RIM PLUS®, VERSA-RIM®, VERSA-STRAND®, VERSA-STUD® are trademarks of Boise Cascade Wood Products L.L.C.

Bearing Supports

	Dim. (L x W)	Demand	Demand / Resistance Support	Resistance Member	Material
B0 Wall/Plate	3-1/2" x 1-3/4"	1,096 lbs	29.1%	14.7%	Spruce Pine Fir
B1 Wall/Plate	3-1/2" x 1-3/4"	942 lbs	25%	12.6%	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



S.152409



Boise Cascade

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

Floor Beam\B03



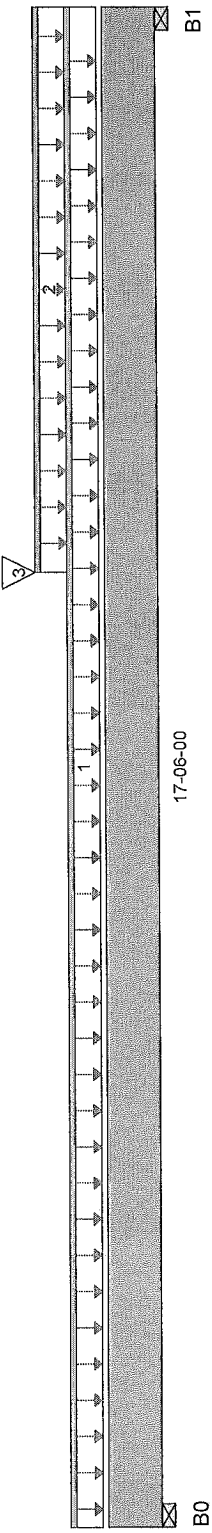
BC CALC® Design Report

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

November 21, 2017 09:33:09

Build 6080
Job Name: 45147 (4202)
Address: Pine Valley
City, Province, Postal Code: Vaughan, ON
Customer: Gold Park
Code reports: CCMC 12472-R

File Name: 290679.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"	469 / 0	797 / 0		
B1, 3-1/2"	728 / 0	913 / 0		

Load Summary

Tag Description	Load Type	Ref.	Start	End	Live	Dead	Snow	Wind	Trib.
1	Unf. Lin. (lb/ft)	L	00-00-00	17-06-00	27	74			n/a
2	Unf. Lin. (lb/ft)	L	11-00-00	17-06-00	27	14			n/a
3	Conc. Pt. (lbs)	L	11-00-00	11-00-00	549	218			n/a

Controls Summary

Pos. Moment	9,810 ft-lbs	17,696 ft-lbs	55.4%	1	11-00-00	be verified by anyone who would rely on output as evidence of suitability for
End Shear	1,978 lbs	7,232 lbs	27.4%	1	16-02-10	particular application. Output here based
Total Load Defl.	L/285 (0.717")	0.852"	84.2%	4	09-00-05	on building code-accepted design
Live Load Defl.	L/643 (0.318")	0.568"	56%	5	09-02-02	properties and analysis methods.
Max Defl.	0.717"	1"	71.7%	4	09-00-05	Installation of Boise Cascade engineered
Span / Depth	17.2	n/a	n/a		00-00-00	wood products must be in accordance with
Squash Blocks	Valid					current Installation Guide and applicable building codes. To obtain Installation Guide

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.

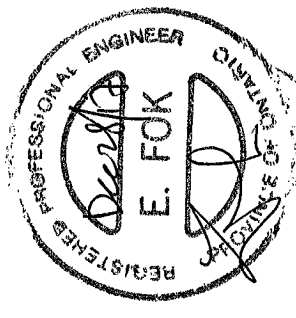
BC CALC®, BC FRAMER®, AUS™, ALLJOIST®, BC RIM BOARD™, BCi®, BOISE GLULAM™, SIMPLE FRAMING SYSTEM®, VERSA-LAM®, VERSA-RIM PLUS®, VERSA-RIM®, VERSA-STRAND®, VERSA-STUD® are trademarks of Boise Cascade Wood Products L.L.C.

Bearing Supports

	Dim. (L x W)	Demand	Demand / Resistance Support	Resistance Member	Material
B0 Wall/Plate	3-1/2" x 1-3/4"	1,115 lbs	45.5%	23%	Spruce Pine Fir
B1 Wall/Plate	3-1/2" x 1-3/4"	2,232 lbs	59.2%	29.9%	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



S.152410



Boise Cascade

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

Floor Beam\B04



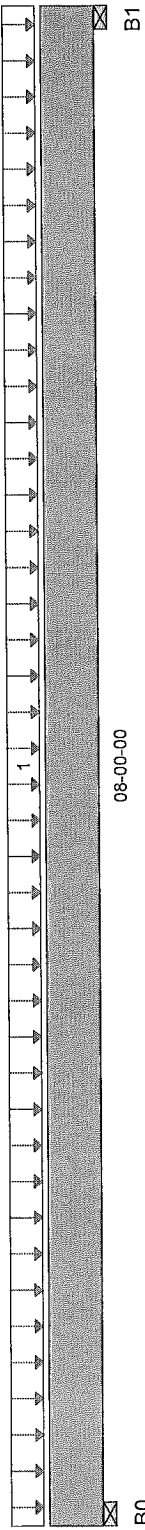
BC CALC® Design Report

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

November 21, 2017 09:30:48

Build 6080
Job Name: 45147 (4202)
Address: Pine Valley
City, Province, Postal Code: Vaughan, ON
Customer: Gold Park
Code reports: CCMC 12472-R

File Name: 290679.bcc
Description: Second Floor Framing
Specifier:
Designer: NL
Company: Alpa Roof Trusses
Misc:



Total Horizontal Product Length = 08-00-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Trib.
B0, 3-1/2"	440 / 0	189 / 0			
B1, 3-1/2"	440 / 0	189 / 0			
Load Summary	Live	Dead	Snow	Wind	Trib.
Tag Description	Unf. Area (lb/ft^2)	Ref. Start	End	Live	Dead
1	00-00-00	08-00-00	40	1.00	1.15
					02-09-00

Controls Summary

Pos.	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	1,593 ft-lbs	17,696 ft-lbs	9%	1	04-00-00
End Shear	609 lbs	7,232 lbs	8.4%	1	01-03-06
Total Load Defl.	L/999 (0.023")	n/a	n/a	4	04-00-00
Live Load Defl.	L/999 (0.016")	n/a	n/a	5	04-00-00
Max Defl.	0.023"	n/a	n/a	4	04-00-00
Span / Depth	7.6	n/a	n/a		00-00-00
Squash Blocks	Valid				

Disclosure

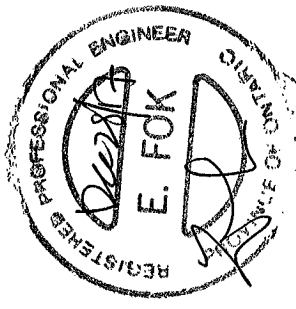
Completeness and accuracy of input must be verified by anyone who would rely on output as evidence of suitability for particular application. Output here based on building code-accepted design properties and analysis methods. Installation of Boise Cascade engineered wood products must be in accordance 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	Resistance Member	Material
B0 Wall/Plate	3-1/2" x 1-3/4"	896 lbs	23.8%	12%	Spruce Pine Fir
B1 Wall/Plate	3-1/2" x 1-3/4"	896 lbs	23.8%	12%	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.152411



Boise Cascade

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

Floor Beam\B05



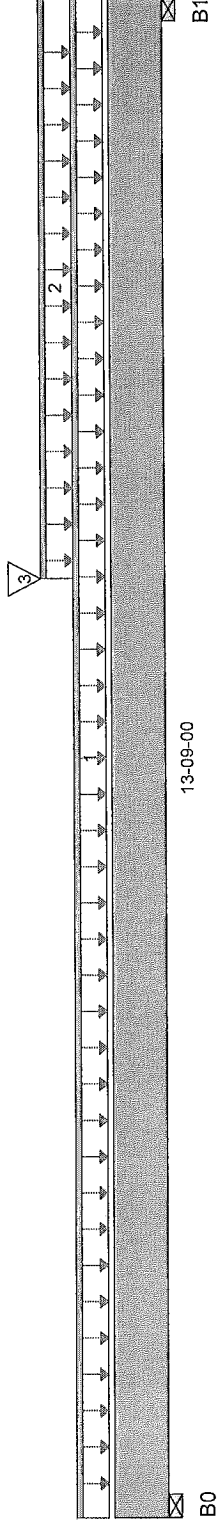
BC CALC® Design Report

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

November 22, 2017 08:44:34

Build 6080
Job Name: 45147 (4202)
Address: Pine Valley
City, Province, Postal Code: Vaughan, ON
Customer: Gold Park
Code reports: CCMC 12472-R

File Name: 290679.bcc
Description: Second Floor Framing
Specifier:
Designer: NL
Company: Alpa Roof Trusses
Misc:



Total Horizontal Product Length = 13-09-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0, 3-1/2"	377 / 0	635 / 0		
B1, 3-1/2"	576 / 0	728 / 0		

Load Summary

Tag Description	Load Type	Ref.	Start	End	Live	Dead	Snow	Wind	Trib.
1	Unf. Lin. (lb/ft)	L	00-00-00	13-09-00	27	74			n/a
2	Unf. Lin. (lb/ft)	L	08-06-00	13-09-00	27	14			n/a
3	Conc. Pt. (lbs)	L	08-06-00	08-06-00	440	189			n/a

Controls Summary

Pos.	Moment	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
1	6,173 ft-lbs	17,696 ft-lbs	34.9%	1	08-06-00	
End Shear	1,519 lbs	7,232 lbs	21%	1	12-05-10	
Total Load Defl.	L/586 (0.272")	0.665"	41%	4	07-01-12	
Live Load Defl.	L/999 (0.121")	n/a	n/a	5	07-03-02	
Max Defl.	0.272"	1"	27.2%	4	07-01-12	
Span / Depth	13.4	n/a	n/a		00-00-00	
Squash Blocks	Valid					

Disclosure

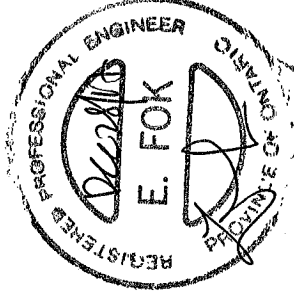
Completeness and accuracy of input must be verified by anyone who would rely on output as evidence of suitability for particular application. Output here based on building code-accepted design properties and analysis methods. Installation of Boise Cascade engineered wood products must be in accordance 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	Resistance Member	Material
B0 Wall/Plate	3-1/2" x 1-3/4"	889 lbs	36.3%	18.3%	Spruce Pine Fir
B1 Wall/Plate	3-1/2" x 1-3/4"	1,773 lbs	47.1%	23.7%	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



S.152412



Boise Cascade

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

Floor Beam\B06

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

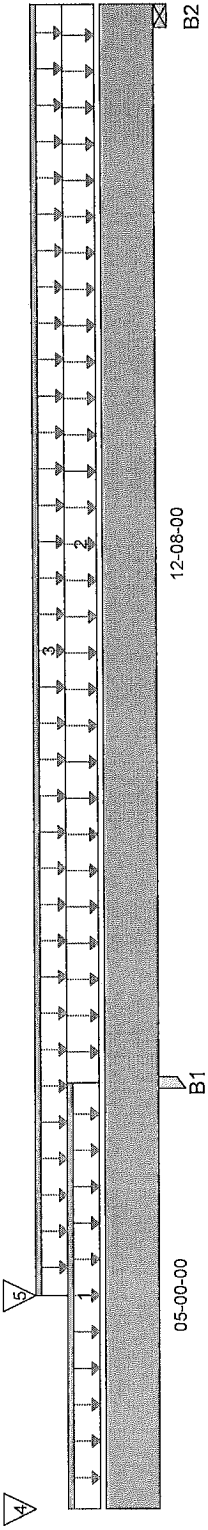
November 21, 2017 15:22:59



BC CALC® Design Report

Build 6080
Job Name: 45147 (4202)
Address: Pine Valley
City, Province, Postal Code: Vaughan, ON
Customer: Gold Park
Code reports: CCMC 12472-R

File Name: 290679.bcc
Description: Second Floor Framing
Specifier:
Designer: NL
Company: Alpa Roof Trusses
Misc:



Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 3-1/2"	3,598 / 0	1,854 / 0		
B2, 3-1/2"	2,259 / 305	1,067 / 0		

Load Summary

Tag Description	Load Type	Ref.	Start	End	Live	Dead	Snow	Wind	Trib.
1	Unf. Lin. (lb/ft)	L	00-00-00	05-00-00	27	14			n/a
2	Unf. Area (lb/ft^2)	L	05-00-00	17-08-00	40	20			08-01-00
3	Unf. Lin. (lb/ft)	L	02-06-00	17-08-00	27	14			n/a
4	Conc. Pt. (lbs)	L	00-00-00	00-00-00	440	189			n/a
5	Conc. Pt. (lbs)	L	02-06-00	02-06-00	471	189			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	13,602 ft-lbs	35,392 ft-lbs	38.4%	3	11-05-01
Neg. Moment	-7,932 ft-lbs	-35,392 ft-lbs	22.4%	2	05-00-00
End Shear	3,748 lbs	14,464 lbs	25.9%	3	16-04-10
Cont. Shear	4,502 lbs	14,464 lbs	31.1%	1	06-01-10
Total Load Defl.	L/561 (0.266")	0.622"	42.8%	10	11-03-02
Live Load Defl.	2xL/483 (-0.248")	-0.333"	74.5%	13	00-00-00
Total Neg. Defl.	2xL/408 (-0.294")	-0.5"	58.8%	10	00-00-00
Max Defl.	0.266"	1"	26.6%	10	11-03-02
Cant. Max Defl.	-0.294"	-1"	29.4%	10	00-00-00
Span / Depth	12.6	n/a	n/a		00-00-00
Squash Blocks	Valid				

Bearing Supports

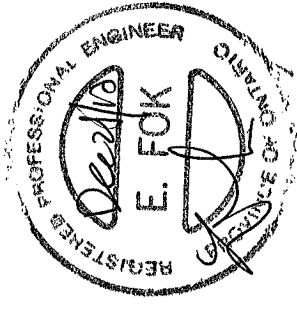
	Dim. (L x W)	Demand	Demand / Resistance Support	Demand / Resistance Member	Material
B1 Post	3-1/2" x 3-1/2"	7,714 lbs	36.3%	51.6%	Spruce Pine Fir
B2 Wall/Plate	3-1/2" x 3-1/2"	4,722 lbs	62.7%	31.6%	Spruce Pine Fir

Cautions

Long Cantilever: Sheathing required on bottom flange and adjacent back span or bracing designed by the design professional of record. Design professional of record must address uplift at supports.

Notes

Nail one ply to another with
3 1/2" spiral nails @ 10"
o.c., staggered in 2 rows



S-152413



Boise Cascade

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

Floor Beam\B07

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

November 21, 2017 09:37:13



BC CALC® Design Report

Build 6080

Job Name:

Address:

City, Province, Postal Code: Vaughan, ON

Customer: Gold Park

Code reports: CCMC 12472-R

File Name: 290679.bcc

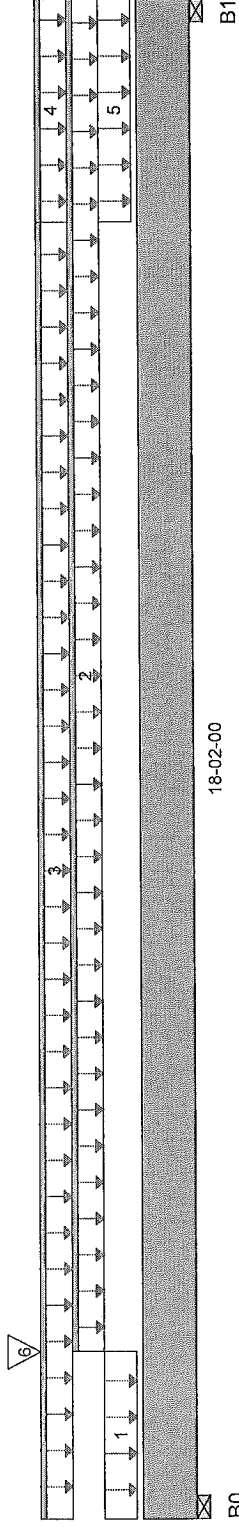
Description: Second Floor Framing

Specifier:

Designer: NL

Company: Alpa Roof Trusses

Misc:



Total Horizontal Product Length = 18-02-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0, 3-1/2"	2,965 / 0	1,586 / 0	49 / 0	
B1, 3-1/2"	670 / 0	1,080 / 0	734 / 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	02-00-00	40	20			06-06-00
2	Unf. Lin. (lb/ft)	L	02-00-00	18-02-00	27	14			n/a
3	Unf. Lin. (lb/ft)	L	00-00-00	15-06-00	27	14			n/a
4	Unf. Lin. (lb/ft)	L	15-06-00	18-02-00		100			n/a
5	Unf. Area (lb/ft^2)	L	15-06-00	18-02-00		11	21		14-00-00
6	Conc. Pt. (lbs)	L	02-00-00	02-00-00	2,259	1,067			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	11,077 ft-lbs	35,392 ft-lbs	31.3%	1	05-07-01
End Shear	5,652 lbs	14,464 lbs	39.1%	1	01-03-06
Total Load Defl.	L/452 (0.47")	0.885"	53.1%	11	08-06-08
Live Load Defl.	L/748 (0.284")	0.59"	48.1%	15	08-06-08
Max Defl.	0.47"	1"	47%	11	08-06-08
Span / Depth	17.9	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	3-1/2" x 3-1/2"	6,454 lbs	85.6%	43.2%	Spruce Pine Fir
B1 Wall/Plate	3-1/2" x 3-1/2"	2,786 lbs	37%	18.6%	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.

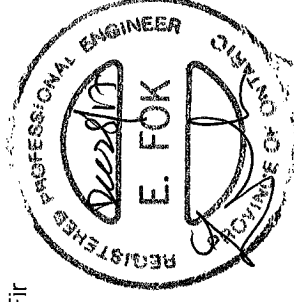
Design based on Dry Service Condition.

Importance Factor : Normal Part code : Part 4

Nail one ply to another with

3 1/2" spiral nails @ 10"

o.c, staggered in 2 rows





Boise Cascade

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

Floor Beam\B08



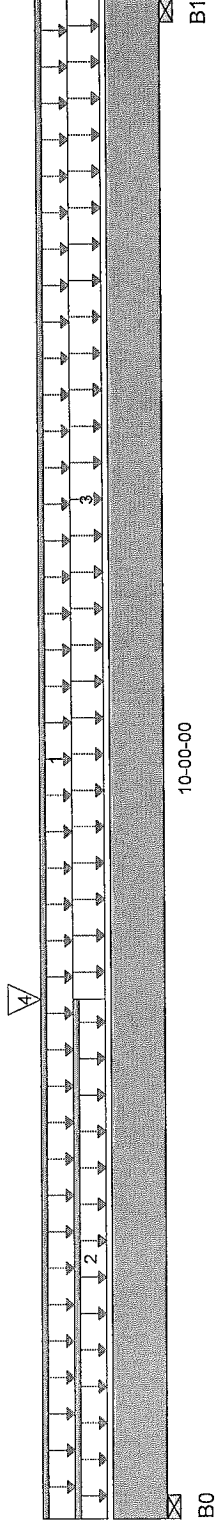
BC CALC® Design Report

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

November 21, 2017 14:42:23

Build 6080
Job Name: 45147 (4202)
Address: Pine Valley
City, Province, Postal Code: Vaughan, ON
Customer: Gold Park
Code reports: CCMC 12472-R

File Name: 290679.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"	2,864 / 0	1,565 / 0	33 / 0	
B1, 3-1/2"	2,570 / 0	1,382 / 0	16 / 0	

Load Summary

Tag Description	Load Type	Ref.	Start	End	Live	Dead	Snow	Wind	Trib.
1	Unf. Lin. (lb/ft)	L	00-00-00	10-00-00	27	14			n/a
2	Unf. Lin. (lb/ft)	L	00-00-00	03-05-00	27	14			n/a
3	Unf. Area (lb/ft²)	L	03-05-00	10-00-00	40	20			08-00-00
4	Conc. Pt. (lbs)	L	03-05-00	03-05-00	2,965	1,586	49		n/a

Controls Summary

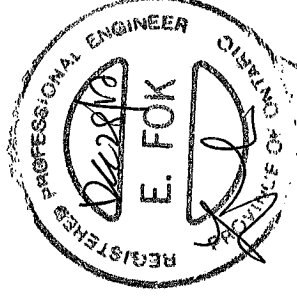
	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	19,224 ft-lbs	35,392 ft-lbs	54.3%	1	03-05-00
End Shear	6,100 lbs	14,464 lbs	42.2%	1	01-03-06
Total Load Defl.	L/555 (0.206")	0.477"	43.3%	11	04-09-15
Live Load Defl.	L/853 (0.134")	0.318"	42.2%	15	04-09-15
Max Defl.	0.206"	1"	20.6%	11	04-09-15
Span / Depth	9.6	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"	6,268 lbs	83.2%	41.9%	Spruce Pine Fir
B1 Wall/Plate	3-1/2" x 3-1/2"	5,591 lbs	74.2%	37.4%	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 @ 10" o.c, staggered in 2 rows



8152415



Boise Cascade

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

Floor Beam\B09



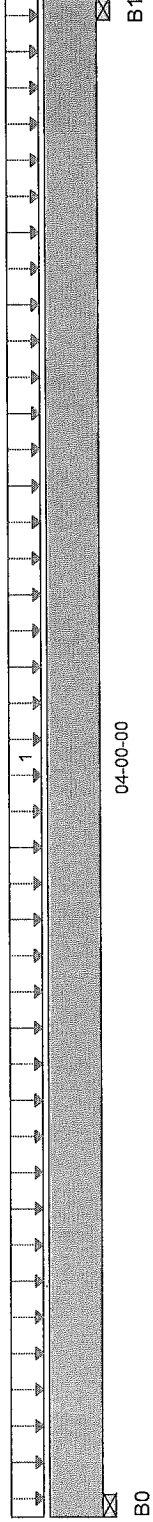
BC CALC® Design Report

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

November 21, 2017 10:36:24

Build 6080
Job Name: 45147 (4202)
Address: Pine Valley
City, Province, Postal Code: Vaughan, ON
Customer: Gold Park
Code reports: CCMC 12472-R

File Name: 290679.bcc
Description: First Floor Framing
Specifier:
Designer: NL
Company: Alpa Roof Trusses
Misc:



Total Horizontal Product Length = 04-00-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Ref.	Start	End	Live	Dead	Snow	Wind	Trib.
B0, 3-1/2"	480 / 0	192 / 0								
B1, 3-1/2"	480 / 0	192 / 0								

Load Summary

Tag Description	Load Type	Ref.	Start	End	Live	Dead	Snow	Wind	Trib.
1	Unf. Area (lb/ft²)	L	00-00-00	04-00-00	40	15			

Controls Summary

Controls Summary		Demand	Resistance	Resistance	Case	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
Pos. Moment		753 ft-lbs	17,696 ft-lbs	4.3%	1	
End Shear		345 lbs	7,232 lbs	4.8%	1	
Total Load Defl.		L/999 (0.002")	n/a	n/a	4	
Live Load Defl.		L/999 (0.002")	n/a	n/a	5	
Max Defl.		0.002"	n/a	n/a	4	
Span / Depth		3.6	n/a	n/a		
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.

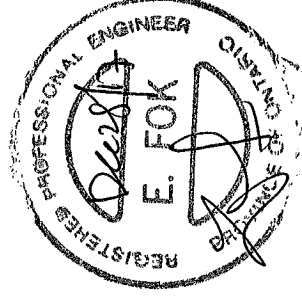
Bearing Supports

	Dim. (L x W)	Demand	Demand / Resistance Support	Resistance Member	Material
B0 Wall/Plate	3-1/2" x 1-3/4"	960 lbs	25.5%	12.8%	Spruce Pine Fir
B1 Wall/Plate	3-1/2" x 1-3/4"	960 lbs	25.5%	12.8%	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 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



5.152416



Boise Cascade

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

Floor Beam\B10



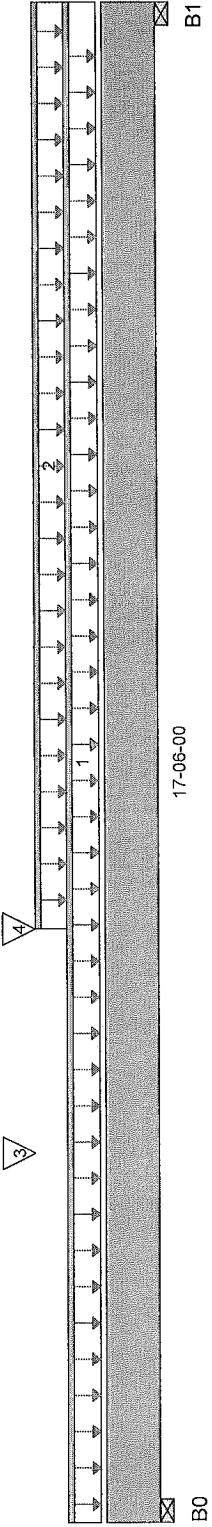
BC CALC® Design Report

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

November 22, 2017 11:00:08

Build 6080
Job Name: 45147 (4202)
Address: Pine Valley
City, Province, Postal Code: Vaughan, ON
Customer: Gold Park
Code reports: CCMC 12472-R

File Name: 290679.bcc
Description: First Floor Framing
Specifier:
Designer: NL
Company: Alpa Roof Trusses
Misc:



Total Horizontal Product Length = 17-06-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0, 3-1/2"	922 / 0	1,030 / 0		
B1, 3-1/2"	718 / 0	967 / 0		

Load Summary

Tag Description	Load Type	Ref.	Start	End	Live	Dead	Snow	Wind	Trib.
1	Unf. Lin. (lb/ft)	L	00-00-00	17-06-00	27	74			n/a
2	Unf. Lin. (lb/ft)	L	06-10-00	17-06-00	27	14			n/a
3	Conc. Pt. (lbs)	L	04-03-00	04-03-00	400	150			n/a
4	Conc. Pt. (lbs)	L	06-10-00	06-10-00	480	192			n/a

Controls Summary

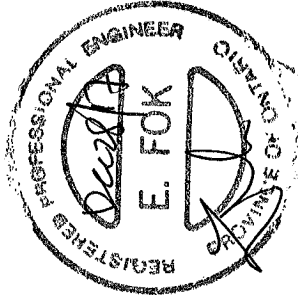
Pos.	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Moment	12,150 ft-lbs	35,392 ft-lbs	34.3%	1	06-10-00
End Shear	2,481 lbs	14,464 lbs	17.2%	1	01-03-06
Total Load Defl.	L/451 (0.454")	0.852"	53.2%	4	08-05-06
Live Load Defl.	L/940 (0.218")	0.568"	38.3%	5	08-05-06
Max Defl.	0.454"	1"	45.4%	4	08-05-06
Span / Depth	17.2	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 Wall/Plate	3-1/2" x 3-1/2"	2,670 lbs	35.4%	17.9%	Spruce Pine Fir
B1 Wall/Plate	3-1/2" x 3-1/2"	2,287 lbs	30.3%	15.3%	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
Nail one ply to another with
3 1/2" spiral nails @ 12"
o.c, staggered in 2 rows



S.152417



Boise Cascade

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

Floor Beam\B11



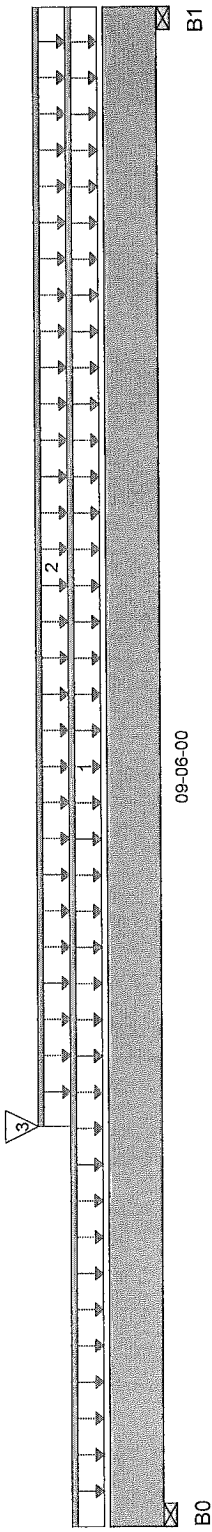
BC CALC® Design Report

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

November 21, 2017 10:37:52

Build 6080
Job Name: 45147 (4202)
Address: Pine Valley
City, Province, Postal Code: Vaughan, ON
Customer: Gold Park
Code reports: CCMC 12472-R

File Name: 290679.bcc
Description: First 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"	556 / 0	274 / 0		
B1, 3-1/2"	369 / 0	206 / 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	14			n/a
2	Unf. Lin. (lb/ft)	L	02-06-00	09-06-00	27	14			n/a
3	Conc. Pt. (lbs)	L	02-06-00	02-06-00	480	192			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	2,481 ft-lbs	17,696 ft-lbs	14%	1	02-11-06
End Shear	1,093 lbs	7,232 lbs	15.1%	1	01-03-06
Total Load Defl.	L/999 (0.051")	n/a	n/a	4	04-05-09
Live Load Defl.	L/999 (0.034")	n/a	n/a	5	04-05-09
Max Defl.	0.051"	n/a	n/a	4	04-05-09
Span / Depth	9.1	n/a	n/a		00-00-00
Squash Blocks	Valid				

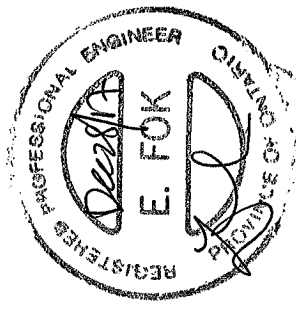
Disclosure

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"	1,177 lbs	31.2%	15.8%	Spruce Pine Fir
B1 Wall/Plate	3-1/2" x 1-3/4"	811 lbs	21.5%	10.9%	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



S.152418



Boise Cascade

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

Floor Beam\B12

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

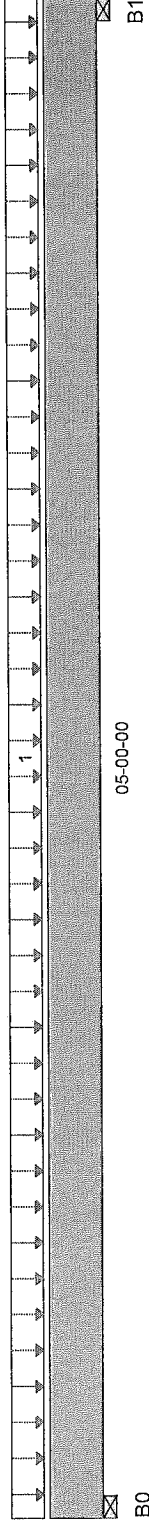
November 21, 2017 10:38:18



BC CALC® Design Report

Build 6080
Job Name: 45147 (4202)
Address: Pine Valley
City, Province, Postal Code: Vaughan, ON
Customer: Gold Park
Code reports: CCMC 12472-R

File Name: 290679.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
B0, 3-1/2"	500 / 0	203 / 0		
B1, 3-1/2"	500 / 0	203 / 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			05-00-00

Controls Summary

Pos.	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	1,035 ft-lbs	17,696 ft-lbs	5.8%	1	02-06-00
End Shear	489 lbs	7,232 lbs	6.8%	1	01-03-06
Total Load Defl.	L/999 (0.006")	n/a	n/a	4	02-06-00
Live Load Defl.	L/999 (0.004")	n/a	n/a	5	02-06-00
Max Defl.	0.006"	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.

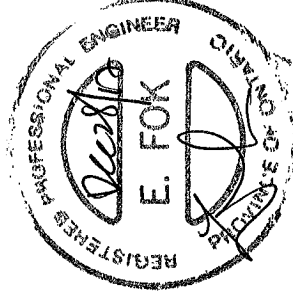
Bearing Supports

	Dim. (L x W)	Demand	Demand / Resistance Support	Resistance Member	Material
B0 Wall/Plate	3-1/2" x 1-3/4"	1,003 lbs	26.6%	13.4%	Spruce Pine Fir
B1 Wall/Plate	3-1/2" x 1-3/4"	1,003 lbs	26.6%	13.4%	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



BC CALC®, BC FRAMER®, AJS™, 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.

S.152419



Boise Cascade

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

Floor Beam\B13



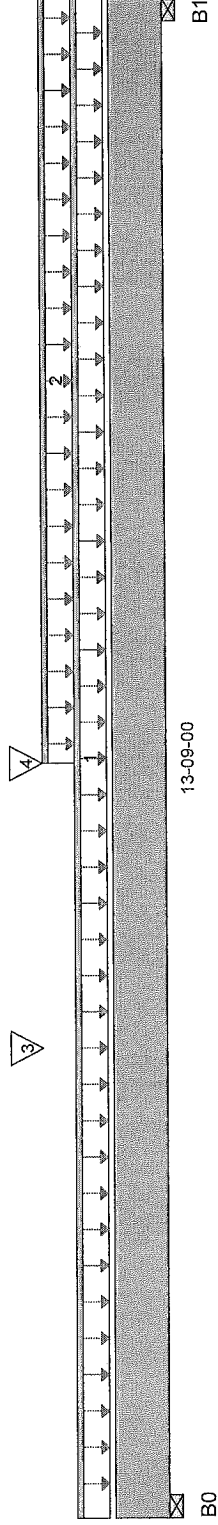
BC CALC® Design Report

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

November 21, 2017 10:39:08

Build 6080
Job Name: 45147 (4202)
Address: Pine Valley
City, Province, Postal Code: Vaughan, ON
Customer: Gold Park
Code reports: CCMC 12472-R

File Name: 290679.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"	751 / 0	775 / 0		
B1, 3-1/2"	686 / 0	764 / 0		

Load Summary

Tag Description	Load Type	Ref.	Start	End	Live	Dead	Snow	Wind	Trib.
1	Unf. Lin. (lb/ft)	L	00-00-00	13-09-00	27	74			n/a
2	Unf. Lin. (lb/ft)	L	06-10-00	13-09-00	27	14			n/a
3	Conc. Pt. (lbs)	L	04-03-00	04-03-00	400	150			n/a
4	Conc. Pt. (lbs)	L	06-10-00	06-10-00	480	192			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	8,531 ft-lbs	17,696 ft-lbs	48.2%	1	06-10-00
End Shear	1,916 lbs	7,232 lbs	26.5%	1	01-03-06
Total Load Defl.	L/424 (0.376")	0.665"	56.6%	4	06-10-00
Live Load Defl.	L/811 (0.197")	0.443"	44.4%	5	06-08-01
Max Defl.	0.376"	1"	37.6%	4	06-10-00
Span / Depth	13.4	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.

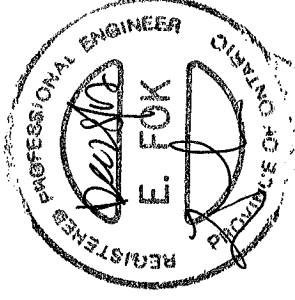
Bearing Supports

	Dim. (L x W)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B0 Wall/Plate	3-1/2" x 1-3/4"	2,096 lbs	55.6%	28%	Spruce Pine Fir
B1 Wall/Plate	3-1/2" x 1-3/4"	1,985 lbs	52.7%	26.6%	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

BC CALC®, BC FRAMER®, AJS™, 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.



S.152420



Boise Cascade

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

Floor Beam\B14



BC CALC® Design Report

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

November 21, 2017 10:40:12

Build 6080

Job Name: 45147 (4202)

Address: Pine Valley

City, Province, Postal Code: Vaughan, ON

Customer: Gold Park

Code reports: CCMC 12472-R

File Name: 290679.bcc

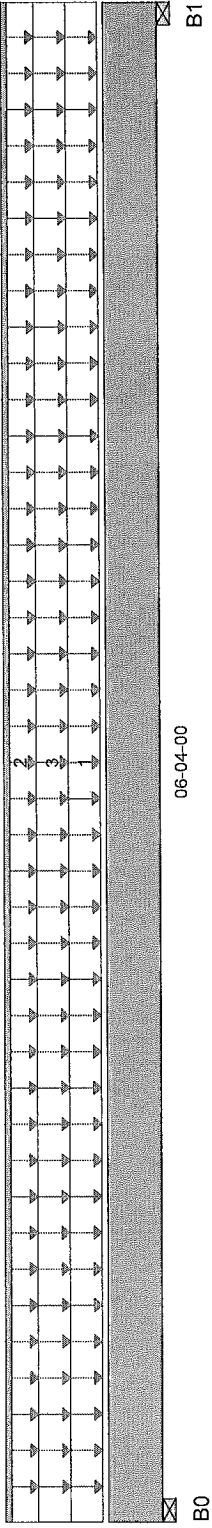
Description: First Floor Framing

Specifier:

Designer: NL

Company: Alpa Roof Trusses

Misc:



Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0, 3-1/2"	2,491 / 0	1,313 / 0		
B1, 3-1/2"	2,491 / 0	1,313 / 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	06-04-00	40	20	0.65	1.15	09-06-00
2	Unf. Lin. (lb/ft)	L	00-00-00	06-04-00		60			n/a
3	Unf. Area (lb/ft ²)	L	00-00-00	06-04-00	40	15			10-02-00

Controls Summary

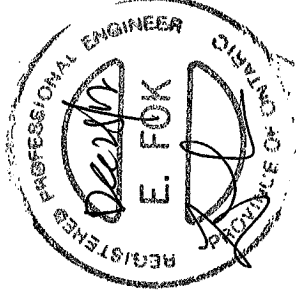
Pos.	Moment	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
1	7,327 ft-lbs	35,392 ft-lbs	20.7%	1	03-02-00	
End Shear	3,202 lbs	14,464 lbs	22.1%	1	01-03-06	
Total Load Defl.	L/999 (0.033")	n/a	n/a	4	03-02-00	
Live Load Defl.	L/999 (0.022")	n/a	n/a	5	03-02-00	
Max Defl.	0.033"	n/a	n/a	4	03-02-00	
Span / Depth	5.9	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	3-1/2" x 3-1/2"	5,378 lbs	71.4%	36%	Spruce Pine Fir
B1 Wall/Plate	3-1/2" x 3-1/2"	5,378 lbs	71.4%	36%	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 @ 16" o.c. staggered in 2 rows



S.152421



Boise Cascade

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

Floor Beam\B15



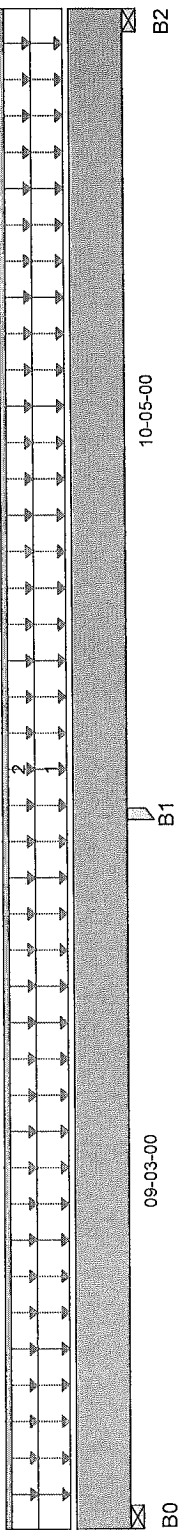
BC CALC® Design Report

Dry | 2 spans | No cantilevers | 0/12 slope (deg)

November 22, 2017 11:00:16

Build 6080
Job Name: 45147 (4202)
Address: Pine Valley
City, Province, Postal Code: Vaughan, ON
Customer: Gold Park
Code reports: CCMC 12472-R

File Name: 290679.bcc
Description: First Floor Framing
Specifier:
Designer: NL
Company: Alpa Roof Trusses
Misc:



Total Horizontal Product Length = 19'-08"-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0, 3-1/2"	505 / 92	430 / 0		
B1, 3-1/2"	1,445 / 0	1,503 / 0		
B2, 3-1/2"	558 / 56	522 / 0		

Load Summary

Tag Description	Load Type	Ref.	Start	End	Live	Dead	Snow	Wind	Trib.
1	Unf. Area (lb/ft²)	L	00-00-00	19-08-00	40	20			03-00-00
2	Unf. Lin. (lb/ft)	L	00-00-00	19-08-00		60			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	2,964 ft-lbs	11,610 ft-lbs	25.5%	3	15-02-01
Neg. Moment	-3,917 ft-lbs	-11,610 ft-lbs	33.7%	1	09-03-00
End Shear	1,124 lbs	5,785 lbs	19.4%	3	18-07-00
Cont. Shear	1,781 lbs	5,785 lbs	30.8%	1	10-02-04
Total Load Defl.	L/895 (0.137")	0.509"	26.8%	10	14-09-06
Live Load Defl.	L/999 (0.08")	n/a	n/a	13	14-07-12
Total Neg. Defl.	L/999 (-0.017")	n/a	n/a	10	07-03-09
Max Defl.	0.137"	1"	13.7%	10	14-09-06
Span / Depth	12.9	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.

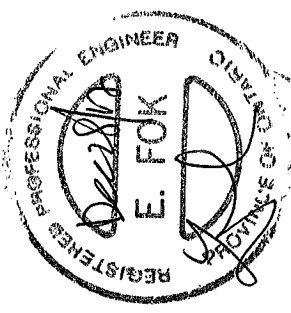
BC CALC®, BC FRAMER®, AJS™, ALLJOIST®, BC RIM BOARD™, BCI®, BOISE GLULAM™, SIMPLE FRAMING SYSTEM®, VERSA-LAM®, VERSA-RIM PLUS®, VERSA-RIM®, VERSA-STRAND®, VERSA-STUD® are trademarks of Boise Cascade Wood Products L.L.C.

Bearing Supports

	Dim. (L x W)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B0 Wall/Plate	3-1/2" x 1-3/4"	1,296 lbs	34.4%	17.3%	Spruce Pine Fir
B1 Post	3-1/2" x 1-3/4"	4,046 lbs	38.1%	54.1%	Spruce Pine Fir
B2 Wall/Plate	3-1/2" x 1-3/4"	1,488 lbs	39.5%	19.9%	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



S.152422



Boise Cascade

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

Floor Beam\B16

November 22, 2017 10:12:04

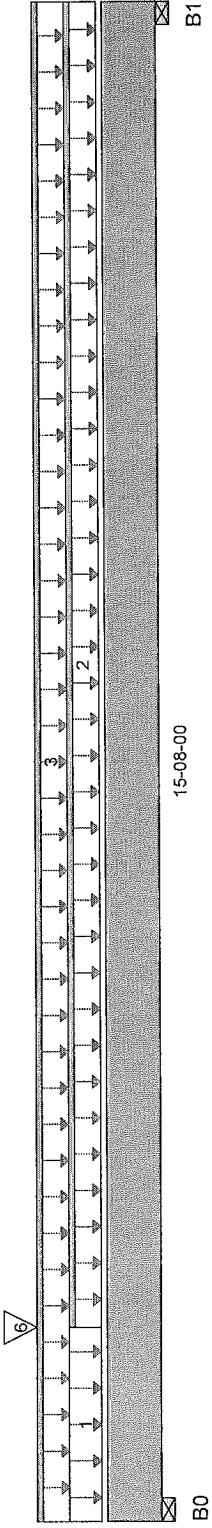
BC CALCO® Design Report

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



Build 6080
Job Name: 45147 (4202)
Address: Pine Valley
City, Province, Postal Code: Vaughan, ON
Customer: Gold Park
Code reports: CCMC 12472-R

File Name: 290679.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"	2,861 / 0	1,476 / 0		
B1, 3-1/2"	710 / 0	450 / 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	02-00-00	40	20			06-06-00
2	Unf. Lin. (lb/ft)	L	02-00-00	15-08-00	27	14			n/a
3	Unf. Lin. (lb/ft)	L	00-00-00	15-08-00	27	14			n/a
6	Conc. Pt. (lbs)	L	02-00-00	02-00-00	2,259	1,067			n/a

Controls Summary

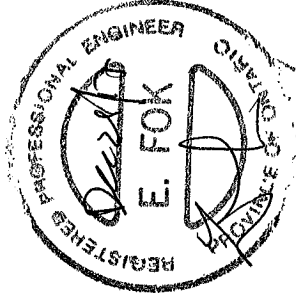
Pos.	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
1	9,738 ft-lbs	35,392 ft-lbs	27.5%	1	03-01-15
End Shear	5,336 lbs	14,464 lbs	36.9%	1	01-03-06
Total Load Defl.	L/652 (0.28")	0.76"	36.8%	4	07-02-11
Live Load Defl.	L/1,026 (0.178")	0.507"	35.1%	5	07-01-09
Max Defl.	0.28"	1"	28%	4	07-02-11
Span / Depth	15.4	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"	6,137 lbs	81.4%	41.1%	Spruce Pine Fir
B1 Wall/Plate	3-1/2" x 3-1/2"	1,628 lbs	21.6%	10.9%	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 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



S.152423



Boise Cascade

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

Floor Beam\B17



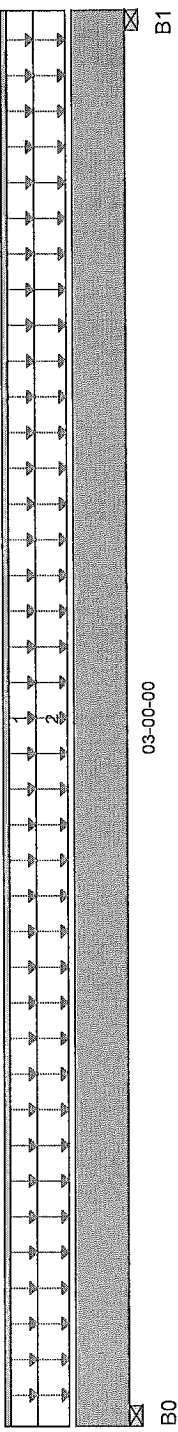
BC CALC® Design Report

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

November 21, 2017 15:23:04

Build 6080
Job Name: 45147 (4202)
Address: Pine Valley
City, Province, Postal Code: Vaughan, ON
Customer: Gold Park
Code reports: CCMC 12472-R

File Name: 290679.bcc
Description: Second Floor Framing
Specifier:
Designer: NL
Company: Alpa Roof Trusses
Misc:



Total Horizontal Product Length = 03-00-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Trib.
B0, 3-1/2"	40 / 0	338 / 0	283 / 0		
B1, 3-1/2"	41 / 0	338 / 0	283 / 0		

Load Summary

Tag Description	Load Type	Ref.	Start	End	Live	Dead	Snow	Wind	Trib.
1	Unf. Lin. (lb/ft)	L	00-00-00	03-00-00	27	114		1.00 1.15	n/a
2	Unf. Area (lb/ft²)	L	00-00-00	03-00-00	11			21	09-00-00

Controls Summary

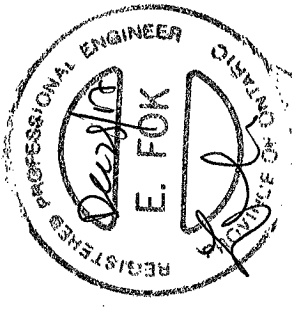
Pos.	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
1	467 ft-lbs	35,392 ft-lbs	1.3%	5	01-06-00
2	127 lbs	14,464 lbs	0.9%	5	01-03-06
3	L/999 (0")	n/a	n/a	13	01-06-00
4	L/999 (0")	n/a	n/a	17	01-06-00
5	0"	n/a	n/a	13	01-06-00
6	2.6	n/a	n/a		00-00-00
7	Valid				

Bearing Supports

	Dim. (L x W)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B0 Wall/Plate	3-1/2" x 3-1/2"	867 lbs	11.5%	5.8%	Spruce Pine Fir
B1 Wall/Plate	3-1/2" x 3-1/2"	867 lbs	11.5%	5.8%	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 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



S152424



Boise Cascade

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

Floor Beam\B18

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

November 21, 2017 16:13:35



BC CALC® Design Report

Build 6080

Job Name:

45147 (4202)

Address:

Pine Valley

City, Province, Postal Code: Vaughan, ON

Customer:

Gold Park

Code reports:

CCMC 12472-R

File Name: 290679.bcc

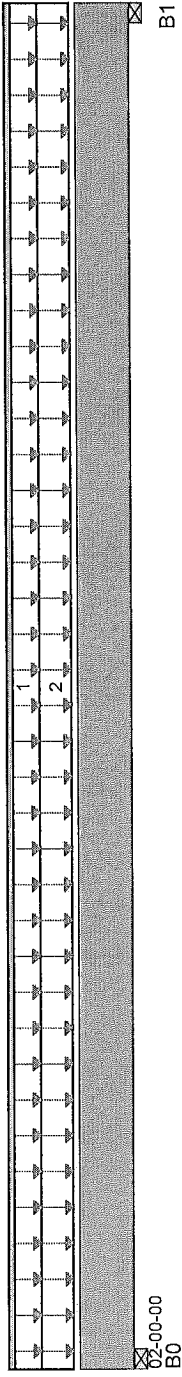
Description: Second Floor Framing

Specifier:

Designer: NL

Company: Alpa Roof Trusses

Misc:



Total Horizontal Product Length = 02-00-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Trib.
B0, 3-1/2"	27 / 0	275 / 0	283 / 0		
B1, 3-1/2"	27 / 0	275 / 0	283 / 0		

Load Summary

Tag Description	Load Type	Ref.	Start	End	Live	Dead	Snow	Wind	Trib.
1	Unf. Lin. (lb/ft)	L	00-00-00	02-00-00	27	114			n/a
2	Unf. Area (lb/ft²)	L	00-00-00	02-00-00	11	11	21	1.00 1.15	13-06-00

Controls Summary

Pos.	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	232 ft-lbs	35,392 ft-lbs	0.7%	5	01-00-00
End Shear	220 lbs	14,464 lbs	1.5%	5	01-03-06
Total Load Defl.	L/999 (0")	n/a	n/a	13	01-00-00
Max Defl.	0"	n/a	n/a	13	01-00-00
Span / Depth	1.6	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"	782 lbs	10.4%	5.2%	Spruce Pine Fir
B1 Wall/Plate	3-1/2" x 3-1/2"	782 lbs	10.4%	5.2%	Spruce Pine Fir

Notes

Design meets Code minimum (L/240) Total 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.

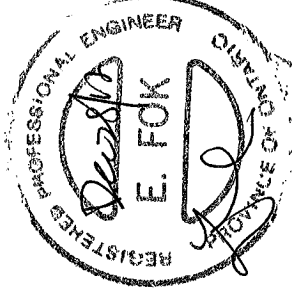
Design based on Dry Service Condition.

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



S.152425



Boise Cascade

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

Floor Beam\B19

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

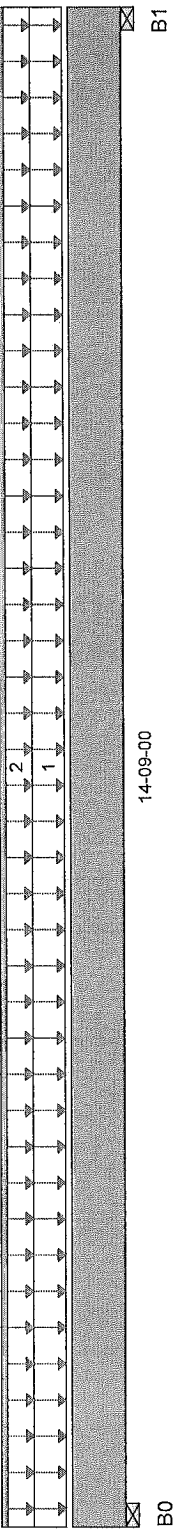
November 22, 2017 10:44:29

BC CALC® Design Report



Build 6080
Job Name: 45147 (4202)
Address: Pine Valley
City, Province, Postal Code: Vaughan, ON
Customer: Gold Park
Code reports: CCMC 12472-R

File Name: 290679.bcc
Description: First Floor Framing
Specifier:
Designer: NL
Company: Alpa Roof Trusses
Misc:



Total Horizontal Product Length = 14-09-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Trib.
B0, 3-1/2"	1,106 / 0	1,067 / 0			
B1, 3-1/2"	1,106 / 0	1,067 / 0			

Load Summary

Tag Description	Load Type	Ref.	Start	End	Live	Dead	Snow	Wind	Trib.
1	Unf. Area (lb/ft²)	L	00-00-00	14-09-00	40	20			03-09-00
2	Unf. Lin. (lb/ft)	L	00-00-00	14-09-00		60			n/a

Controls Summary

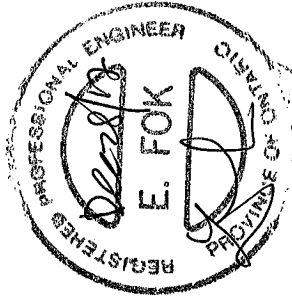
Pos.	Moment	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
1	10,360 ft-lbs	23,220 ft-lbs	44.6%	1	07-04-08	
End Shear	2,553 lbs	11,571 lbs	22.1%	1	01-01-00	
Total Load Defl.	L/310 (0.553")	0.715"	77.4%	4	07-04-08	
Live Load Defl.	L/609 (0.282")	0.476"	59.1%	5	07-04-08	
Max Defl.	0.553"	1"	55.3%	4	07-04-08	
Span / Depth	18.1	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"	2,993 lbs	39.7%	20%	Spruce Pine Fir
B1 Wall/Plate	3-1/2" x 3-1/2"	2,993 lbs	39.7%	20%	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



S152426



Boise Cascade

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

Floor Beam\B20



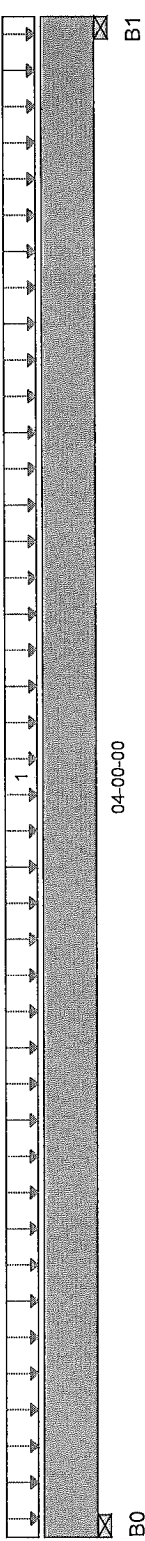
BC CALC® Design Report

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

November 23, 2017 11:44:58

Build 6080
Job Name: 45147 (4202)
Address: Pine Valley
City, Province, Postal Code: Vaughan, ON
Customer: Gold Park
Code reports: CCMC 12472-R

File Name: 290679.bcc
Description: Second Floor Framing
Specifier:
Designer: NL
Company: Alpa Roof Trusses
Misc:



Total Horizontal Product Length = 04-00-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0, 3-1/2"	1,307 / 0	665 / 0		
B1, 3-1/2"	1,307 / 0	665 / 0		

Load Summary

Tag Description	Load Type	Ref.	Start	End	Live	Dead	Snow	Wind	Trib.
1	Unf. Area (lb/ft²)	L	00-00-00	04-00-00	40	20	1.00	1.15	16-04-00

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.

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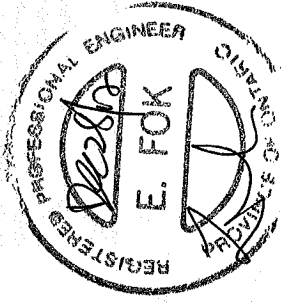
Bearing Supports

	Dim. (L x W)	Demand	Demand / Resistance Support	Resistance Member	Material
B0 Wall/Plate	3-1/2" x 1-3/4"	2,792 lbs	74.1%	37.4%	Spruce Pine Fir
B1 Wall/Plate	3-1/2" x 1-3/4"	2,792 lbs	74.1%	37.4%	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



S-152427



Boise Cascade

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

Floor Beam\B21



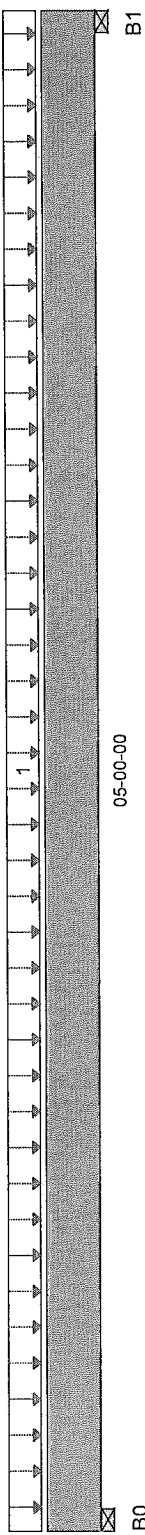
BC CALC® Design Report

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

November 23, 2017 11:31:52

Build 6080
Job Name: 45147 (4202)
Address: Pine Valley
City, Province, Postal Code: Vaughan, ON
Customer: Gold Park
Code reports: CCMC 12472-R

File Name: 290679.bcc
Description: Second Floor Framing
Specifier:
Designer: NL
Company: Alpa Roof Trusses
Misc:



B0
B1
Total Horizontal Product Length = 05-00-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Trib.
B0, 3-1/2"	1,167 / 0	598 / 0			
B1, 3-1/2"	1,167 / 0	598 / 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		1.00 1.15	11-08-00

Controls Summary

Pos.	Moment	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
1	2,576 ft-lbs	17,696 ft-lbs	14.6%	1	02-06-00	
End Shear	1,218 lbs	7,232 lbs	16.8%	1	01-03-06	
Total Load Defl.	L/999 (0.014")	n/a	n/a	4	02-06-00	
Live Load Defl.	L/999 (0.009")	n/a	n/a	5	02-06-00	
Max Defl.	0.014"	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.

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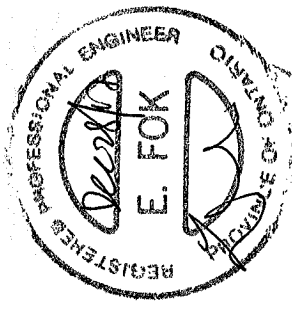
Bearing Supports

	Dim. (L x W)	Demand	Demand / Resistance Support	Resistance Member	Material
B0 Wall/Plate	3-1/2" x 1-3/4"	2,498 lbs	66.3%	33.4%	Spruce Pine Fir
B1 Wall/Plate	3-1/2" x 1-3/4"	2,498 lbs	66.3%	33.4%	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



5152428



Boise Cascade

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

Floor Beam\B22



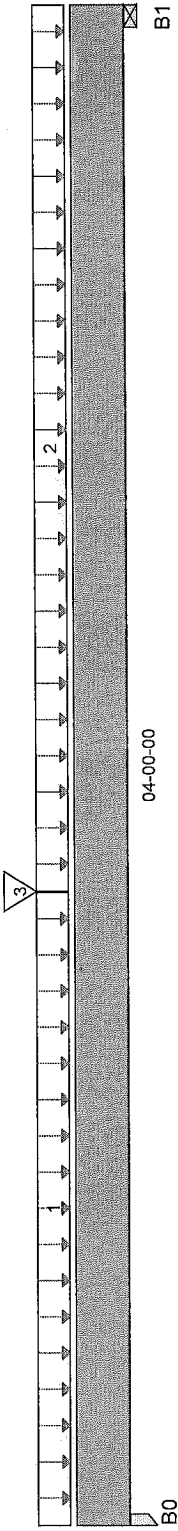
BC CALC® Design Report

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

November 23, 2017 11:47:53

Build 6080
Job Name: 45147 (4202)
Address: Pine Valley
City, Province, Postal Code: Vaughan, ON
Customer: Gold Park
Code reports: CCMC 12472-R

File Name: 290679.bcc
Description: Second Floor Framing
Specifier:
Designer: NL
Company: Alpa Roof Trusses
Misc:



Total Horizontal Product Length = 04-00-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B0, 3-1/2"	1,606 / 0	1,141 / 0		
B1, 3-1/2"	1,238 / 0	854 / 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	01-08-00	40	20			16-04-00
2	Unf. Area (lb/ft ²)	L	01-08-00	04-00-00	40	20			11-00-00
3	Conc. Pt. (lbs)	L	01-08-00	01-08-00	728	913			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand / Resistance	Load Case	Location
Pos. Moment	3,611 ft-lbs	17,696 ft-lbs	20.4%	1	01-08-00
End Shear	2,047 lbs	7,232 lbs	28.3%	1	01-03-06
Total Load Defl.	L/999 (0.011")	n/a	n/a	4	01-11-03
Live Load Defl.	L/999 (0.006")	n/a	n/a	5	01-11-03
Max Defl.	0.011"	n/a	n/a	4	01-11-03
Span / Depth	3.6	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.

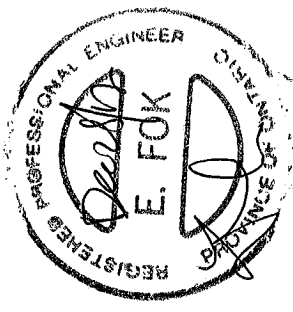
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Bearing Supports

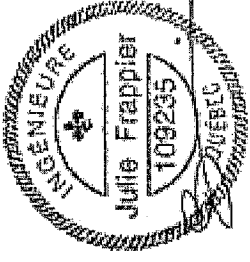
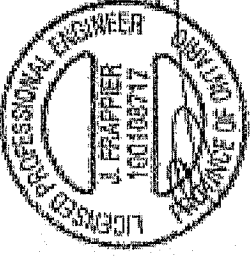
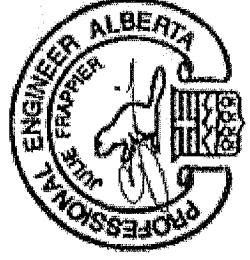
	Dim. (L x W)	Demand	Demand / Resistance Support	Resistance Member	Material
B0 Post	3-1/2" x 1-3/4"	3,835 lbs	36.1%	51.3%	Spruce Pine Fir
B1 Wall/Plate	3-1/2" x 1-3/4"	2,923 lbs	77.6%	39.1%	Spruce Pine Fir

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



S.152429



Maximum Floor Spans

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

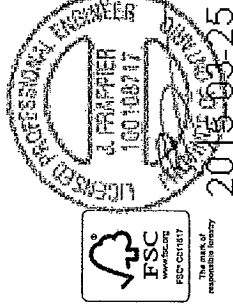
Depth	Series	Bare			1/2" Gypsum Ceiling		
		On Centre Spacing			On Centre Spacing		
9-1/2"	NI-20	12"	15'-10"	16"	12"	15'-10"	16"
	NI-40x	17'-0"	15'-0"	14'-5"	16'-4"	15'-5"	14'-6"
	NI-60	17'-2"	16'-0"	15'-5"	17'-5"	16'-5"	15'-10"
	NI-70	18'-0"	16'-2"	15'-7"	17'-6"	16'-7"	15'-11"
	NI-80	18'-3"	16'-11"	16'-3"	18'-5"	17'-3"	16'-7"
11-7/8"	NI-20	12"	15'-10"	16"	12"	15'-10"	16"
	NI-40x	17'-0"	15'-0"	14'-5"	16'-4"	15'-5"	14'-6"
	NI-60	17'-2"	16'-0"	15'-5"	17'-5"	16'-5"	15'-10"
	NI-70	18'-0"	16'-2"	15'-7"	17'-6"	16'-7"	15'-11"
	NI-80	18'-3"	16'-11"	16'-3"	18'-5"	17'-3"	16'-7"
14"	NI-20	12"	15'-10"	16"	12"	15'-10"	16"
	NI-40x	17'-0"	15'-0"	14'-5"	16'-4"	15'-5"	14'-6"
	NI-60	17'-2"	16'-0"	15'-5"	17'-5"	16'-5"	15'-10"
	NI-70	18'-0"	16'-2"	15'-7"	17'-6"	16'-7"	15'-11"
	NI-80	18'-3"	16'-11"	16'-3"	18'-5"	17'-3"	16'-7"
16"	NI-20	12"	15'-10"	16"	12"	15'-10"	16"
	NI-40x	17'-0"	15'-0"	14'-5"	16'-4"	15'-5"	14'-6"
	NI-60	17'-2"	16'-0"	15'-5"	17'-5"	16'-5"	15'-10"
	NI-70	18'-0"	16'-2"	15'-7"	17'-6"	16'-7"	15'-11"
	NI-80	18'-3"	16'-11"	16'-3"	18'-5"	17'-3"	16'-7"

- 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.



www.nordicewp.com

Refer to the Installation Guide for Residential Floors for additional information.
:CMAC 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 centreline 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 centred 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	10-3/4
9-1/2"	NI-20	0-7"	1-6"	2-10"	4-3"	9-8"	6-0"	---	---	---	---	---	12-3/4
	NI-40x	0-7"	1-6"	3-0"	4-4"	7-0"	7-5"	---	---	---	---	---	---
	NI-60	1-3"	2-6"	4-0"	5-4"	7-0"	7-5"	---	---	---	---	---	---
	NI-80	2-0"	3-4"	5-0"	6-3"	8-0"	8-4"	---	---	---	---	---	---
11-7/8"	NI-20	0-7"	0-8"	1-0"	2-4"	3-8"	4-0"	5-0"	6-6"	7-9"	---	---	---
	NI-40x	0-7"	0-8"	1-3"	2-8"	4-0"	4-4"	5-5"	7-0"	8-4"	---	---	---
	NI-60	1-3"	1-8"	3-0"	4-3"	5-9"	6-0"	7-3"	8-10"	10-0"	---	---	---
	NI-80	1-3"	2-6"	4-0"	5-4"	6-9"	7-2"	8-4"	10-0"	11-2"	---	---	---
14"	NI-60	1-6"	2-10"	4-2"	5-6"	7-0"	7-5"	8-6"	10-3"	11-4"	---	---	---
	NI-80	0-7"	0-8"	1-5"	3-2"	4-10"	5-4"	6-9"	8-9"	10-2"	---	---	---
	NI-90x	0-7"	0-8"	0-9"	2-5"	4-4"	4-9"	6-3"	---	---	---	---	---
	NI-40x	0-7"	0-8"	1-0"	2-4"	3-8"	4-0"	5-0"	6-6"	8-3"	10-2"	---	---
16"	NI-60	0-7"	0-8"	1-8"	3-0"	4-3"	4-9"	5-9"	7-2"	8-0"	11-9"	---	---
	NI-80	0-7"	0-8"	1-10"	3-0"	4-5"	5-10"	6-2"	7-3"	8-9"	10-4"	13-5"	---
	NI-90	0-10"	2-0"	3-4"	4-9"	6-2"	6-5"	7-6"	8-9"	10-0"	10-8"	12-4"	13-9"
	NI-90x	0-7"	0-8"	0-10"	2-5"	4-0"	4-5"	5-9"	7-3"	8-8"	9-4"	11-4"	12-11"
18"	NI-60	0-7"	0-8"	0-8"	2-0"	3-9"	4-2"	5-5"	7-3"	8-5"	9-2"	---	---
	NI-80	0-7"	0-8"	1-6"	3-0"	4-2"	4-2"	5-6"	6-4"	7-0"	8-5"	9-8"	10-2"
	NI-90	0-7"	1-0"	2-3"	3-6"	4-10"	5-3"	6-3"	7-8"	8-6"	9-2"	10-8"	12-0"
	NI-90x	0-7"	1-3"	2-6"	3-10"	5-3"	5-6"	6-6"	8-0"	9-0"	9-5"	11-0"	12-3"
20"	NI-60	0-7"	0-8"	0-9"	2-0"	3-6"	4-0"	5-0"	6-9"	7-9"	---	---	---
	NI-80	0-7"	0-8"	0-9"	2-0"	3-6"	4-0"	5-0"	6-9"	7-9"	---	---	---
	NI-90	0-7"	0-8"	0-9"	2-0"	3-6"	4-0"	5-0"	6-9"	7-9"	---	---	---
	NI-90x	0-7"	0-8"	0-9"	2-0"	3-6"	4-0"	5-0"	6-9"	7-9"	---	---	---

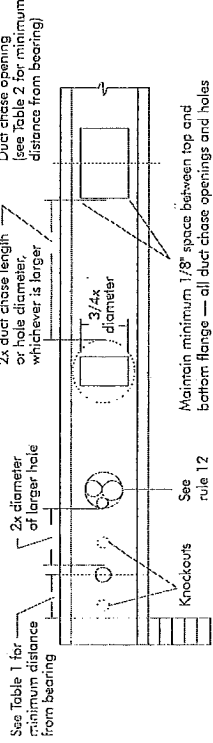
1. Above table may be used for I-joist spacing of 24 inches on centre or less.

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 unsupported I-joists. Once sheathed, do not over-stress 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 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.
- 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 top flanges and brace ends before placing loads on the floor system. Then, stack building materials over damaged I-joist.
- 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	30
9-1/2"	NI-20	4-1"	4-5"	4-10"	5-4"	5-8"	6-1"	6-6"	7-1"	7-5"	---	---	---
	NI-40x	5-3"	5-8"	6-0"	6-5"	6-10"	7-3"	7-8"	8-2"	8-6"	---	---	---
	NI-60	5-4"	5-9"	6-2"	6-7"	7-1"	7-5"	8-0"	8-5"	8-9"	---	---	---
	NI-80	5-1"	5-5"	5-10"	6-3"	6-7"	7-1"	7-6"	8-1"	8-4"	---	---	---
11-7/8"	NI-20	5-0"	6-2"	6-6"	7-1"	7-5"	7-9"	8-3"	8-9"	9-4"	---	---	---
	NI-40x	6-8"	7-2"	7-6"	8-1"	8-6"	9-1"	9-6"	10-1"	10-9"	---	---	---
	NI-60	7-3"	7-8"	8-0"	8-6"	9-0"	9-3"	9-9"	10-3"	11-0"	---	---	---
	NI-80	7-1"	7-4"	7-9"	8-3"	8-7"	9-1"	9-6"	10-1"	10-4"	---	---	---
14"	NI-60	7-2"	7-7"	8-0"	8-5"	8-10"	9-3"	9-8"	10-2"	10-11"	---	---	---
	NI-80	7-6"	7-11"	8-4"	8-9"	9-2"	9-7"	10-1"	10-7"	10-11"	---	---	---
	NI-90x	8-1"	8-7"	8-5"	8-10"	9-4"	9-8"	10-2"	10-7"	10-11"	---	---	---
	NI-40x	7-7"	8-1"	9-0"	9-6"	10-1"	10-7"	11-2"	12-0"	12-8"	---	---	---
16"	NI-60	8-9"	9-3"	9-8"	10-1"	10-6"	11-1"	11-6"	12-3"	13-0"	---	---	---
	NI-80	8-7"	9-1"	9-5"	9-10"	10-4"	10-8"	11-2"	11-7"	12-3"	---	---	---
	NI-90	9-0"	9-3"	9-9"	10-1"	10-7"	11-1"	11-6"	12-1"	12-6"	---	---	---
	NI-90x	9-2"	9-8"	10-0"	10-6"	10-11"	11-5"	11-9"	12-4"	12-11"	---	---	---
18"	NI-60	10-3"	10-8"	11-2"	11-6"	12-1"	12-6"	13-2"	14-1"	14-10"	---	---	---
	NI-80	10-1"	10-5"	11-0"	11-4"	11-10"	12-3"	12-8"	13-3"	14-0"	---	---	---
	NI-90	10-4"	10-9"	11-3"	11-9"	12-1"	12-7"	13-1"	13-8"	14-4"	---	---	---
	NI-90x	10-9"	11-2"	11-8"	12-0"	12-6"	13-0"	13-6"	14-2"	14-10"	---	---	---

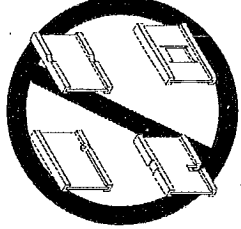
1. Above table may be used for I-joist spacing of 24 inches on centre or less.

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.



Duct chase opening (see Table 2 for minimum distance from bearing)

2x duct chase length or hole diameter, whichever is larger

See rule 12

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.



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



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



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.

1a

Attach I-joint to top plate per detail 1b

*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.

One 2-1/2" nails at face nail at each side at bearing

2-1/2" nails at 6" o.c. to top plate (when used for lateral shear transfer, nail to bearing plate with same nailing as required for decking)

1d

NI or rim board blocking panel per detail 1a

Pair of Squash Blocks

Maximum Factored Vertical Load per Pair of Squash Blocks (lbs)

5-1/2" wide

5,500

6,500

2x Lumber

1-1/8" Rim Board Plus

4,300

6,600

Provide lateral bracing per detail 1a or 1b

1h

Backer block (use if hanger load exceeds 360 lbs). Before installing a backer block to a double I-joint, drive three additional 3" nails through the webs and filler block where the backer block will fit. Clinch. Install backer right to top flange. Use twelve 3" nails, clinched when possible. Maximum factored resistance for hanger for this detail = 1,620 lbs.

BACKER BLOCKS (Blocks must be long enough to permit required nailing without splitting)

Flange Width	Material Thickness Required*	Minimum Depth**
3-1/2"	1"	5-1/2"
3-1/2"	1-1/2"	7-1/4"

* Minimum grade for backer block material shall be S-P-F No. 2 or better for solid sawn lumber and wood structural panels conforming to CAN/CSA-Q325 or CAN/CSA-Q37 Standard.

** For face-mount hangers use net joist depth minus 3-1/4" for joists with 1-1/2" thick flanges. For 2" thick flanges use net depth minus 4-1/4".

1k

2x plate flush with inside face of wall or beam. 1/8" overhang allowed past inside face of wall or beam.

NOTE: Unless hanger sides laterally support the top flange, bearing stiffeners shall be used.

Top-mount hanger installed per manufacturer's recommendations

1m

Multiple I-joint header with full depth filler block shown. Nordic Lam or SCL headers may also be used. Verify double I-joint capacity to support concentrated loads.

Backer block attached per detail 1h. Nail with twelve 3" nails, clinch when possible.

Install hanger per manufacturer's recommendations

Maximum support capacity = 1,620 lbs.

1n

Do not bevel-cut joint beyond inside face of wall

Attach I-joint per detail 1b

NOTE: Blocking required at bearing for lateral support, not shown for clarity.

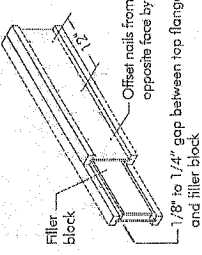
1r

Lumber 2x4 min., extend block to face of adjacent web. Two 2-1/2" spiral nails from each web to lumber piece, alternate on opposite sides.

NI blocking panel

NOTE: Unless hanger sides laterally support the top flange, bearing stiffeners shall be used.

1p FILLER BLOCK REQUIREMENTS FOR DOUBLE I-JOIST CONSTRUCTION



- NOTES:**
- Support back of I-joint web during nailing to prevent damage to web/flange connection.
 - Leave a 1/8 to 1/4-inch gap between top of filler block and bottom of top I-joint flange.
 - Filler block is required between joists for full length of span.
 - Nail joists together with two rows of 3" nails at 12 inches o.c. (clinched when possible) on each side of the double I-joint. Total of four nails per foot required. If nails can be clinched, only two nails per foot are required.
 - The maximum factored load that may be applied to one side of the double I-joint using this detail is 860 lb/ft. Verify double I-joint capacity.

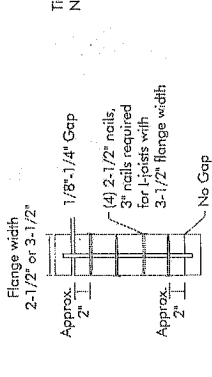
Flange Size	Net Depth	Filler Block Size
9-1/2"	2-1/2" x 6"	2-1/8" x 6"
2-1/2" x 1-1/2"	11-7/8" x 14"	2-1/8" x 8"
1-1/2"	16"	2-1/8" x 10"
3-1/2" x 1-1/2"	11-7/8" x 14"	2-1/8" x 12"
1-1/2"	16"	3" x 6"
3-1/2" x 1-1/2"	11-7/8" x 14"	3" x 8"
1-1/2"	16"	3" x 10"
3-1/2" x 1-1/2"	11-7/8" x 14"	3" x 12"
1-1/2"	16"	3" x 7"
3-1/2" x 1-1/2"	11-7/8" x 14"	3" x 9"
1-1/2"	16"	3" x 11"

WEB STIFFENERS

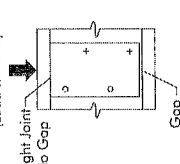
RECOMMENDATIONS:

- A bearing stiffener is required in all engineered applications with factored reactions greater than shown in the I-joint properties table found in the I-joint Construction Guide (C101). The gap between the stiffener and the flange is at the top.
- A bearing stiffener is required when the I-joint is supported in a hanger and the sides of the hanger do not extend up to, and support, the top flange. The gap between the stiffener and flange is at the top.
- A load stiffener is required at locations where a factored concentrated load greater than 2,370 lbs is applied to the top flange between supports, or in the case of a cantilever, anywhere between the cantilever tip and the support. These values are for standard term load duration, and may be adjusted for other load durations as permitted by the code. The gap between the stiffener and the flange is at the bottom.

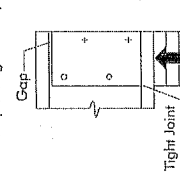
FIGURE 2 WEB STIFFENER INSTALLATION DETAILS



CONCENTRATED LOAD



END BEARING

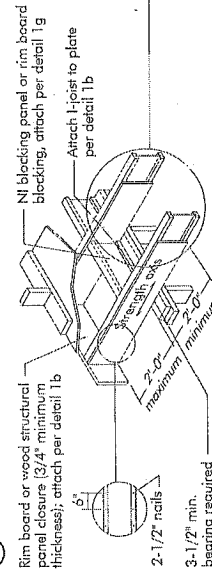


STIFFENER SIZE REQUIREMENTS

Flange Width	Web Stiffener Size Each Side of Web
2-1/2"	1" x 2-5/16" minimum width
3-1/2"	1-1/2" x 2-5/16" minimum width

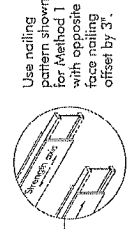
CANTILEVER DETAILS FOR VERTICAL BUILDING OFFSET

Method 1 — SHEATHING REINFORCEMENT ONE SIDE



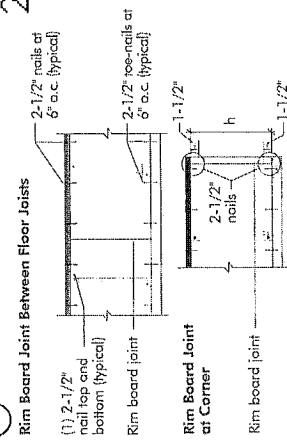
Method 2 — SHEATHING REINFORCEMENT TWO SIDES

Use same installation as Method 1 but reinforce both sides of I-joint with sheathing.



RIM BOARD INSTALLATION DETAILS

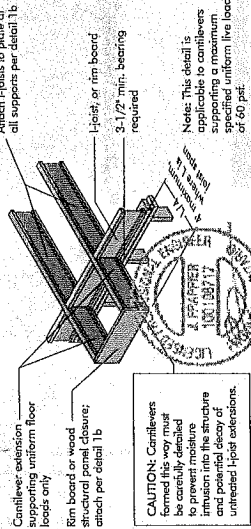
8a ATTACHMENT DETAILS WHERE RIM BOARDS ABUT



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

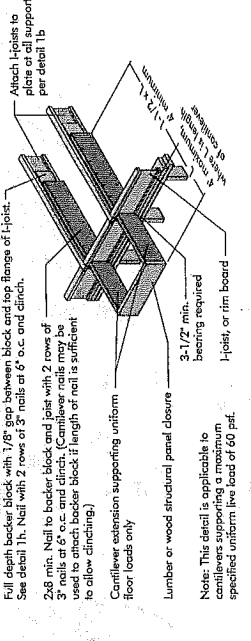
CANTILEVER DETAILS FOR BALCONIES (NO WALL LOAD)

36) L-JOIST CANTILEVER DETAIL FOR BALCONIES (NO WALL LOAD)



CAUTION: Cantilevers formed this way must be carefully detailed to prevent inflexion into the structure and potential decay of untreated I-joist extensions.

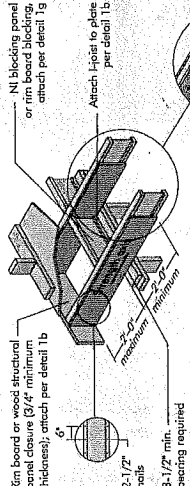
36) LUMBER CANTILEVER DETAIL FOR BALCONIES (NO WALL LOAD)



Note: This detail is applicable to cantilevers supporting a maximum specified uniform live load of 60 psf.

CANTILEVER DETAILS FOR VERTICAL BUILDING OFFSET (CONCENTRATED WALL LOAD)

42a) Method 1 — SHEATHING REINFORCEMENT ONE SIDE

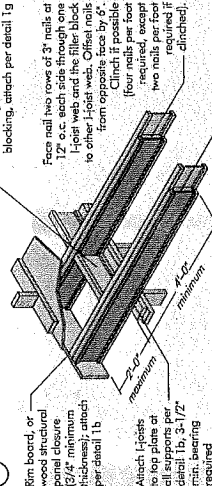


Method 2 — SHEATHING REINFORCEMENT TWO SIDES

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

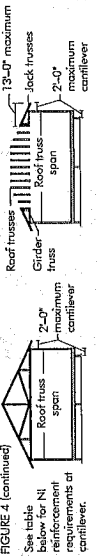
Note: Canadian advanced sheathed sheathing or equivalent (minimum thickness 3/4\") required on sides of joist. Depth shall match the full height of the joist. Nail with 2-1/2\" nailing offset by 3\".

42b) Alternate Method 2 — DOUBLE I-JOIST



Block I-joists together with filler blocks for the full length of the reinforcement. For I-joist flange widths greater than 3 inches place an additional row of 3\" nailing along the cantinative of the reinforcing panel from each side. Clinch when possible.

FIGURE 4 (continued)



For hip roofs with the jack trusses running parallel to the cantilevered floor joists, the I-joist reinforcement requirements for a span of 26 ft. shall be permitted to be used.

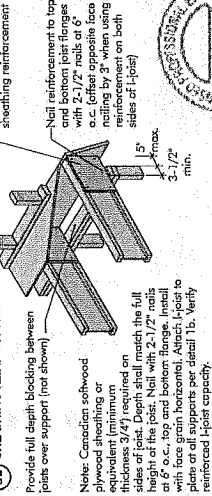
CANTILEVER REINFORCEMENT METHODS ALLOWED

ROOF TRUSS SPAN (ft.)		ROOF LOADING (UNFACTORED)														
		LL = 30 psf DL = 15 psf					LL = 40 psf DL = 15 psf					LL = 50 psf DL = 15 psf				
JOIST DEPTH (in.)		JOIST SPACING (in.)					JOIST SPACING (in.)					JOIST SPACING (in.)				
		12	16	19.2	24	24	12	16	19.2	24	24	12	16	19.2	24	
9 1/2"	26	N					N					N				
	28	N					N					N				
	30	N					N					N				
	34	N					N					N				
	36	N					N					N				
11 7/8"	26	N					N					N				
	28	N					N					N				
	30	N					N					N				
	34	N					N					N				
	36	N					N					N				
14"	26	N					N					N				
	28	N					N					N				
	30	N					N					N				
	34	N					N					N				
	36	N					N					N				
16"	26	N					N					N				
	28	N					N					N				
	30	N					N					N				
	34	N					N					N				
	36	N					N					N				

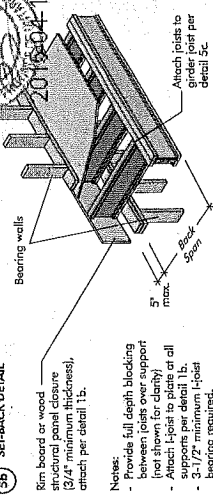
1. N = No reinforcement required.
- 2 = N reinforced with 3/4\" wood structural panel on one side only.
- 3 = N reinforced with 3/4\" wood structural panel on both sides of cantilevered joist.
4. For conventional roof construction using a ridge beam, the Roof Truss Span column above is equivalent to the ridge beam. When the roof is framed using a ridge board, the Roof Truss Span is equivalent to the live load of 40 psf and dead load of 15 psf roof dead load. 33 psf floor load and 50 psf roof load. 12\" requirements for lesser spacing.
5. Cantilevered joists supporting glider trusses or roof beams may require additional nailing.

BRICK CANTILEVER DETAILS FOR VERTICAL BUILDING OFFSET (CONCENTRATED WALL LOAD)

55) SHEATHING REINFORCEMENT



55b) SET-BACK DETAIL



55c) SET-BACK CONNECTION

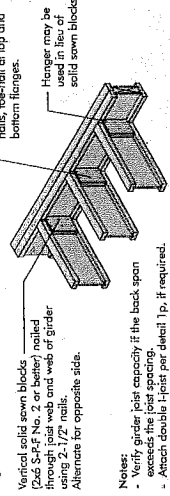
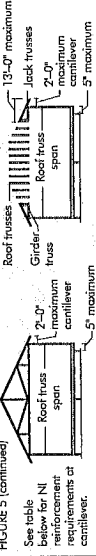


FIGURE 5 (continued)

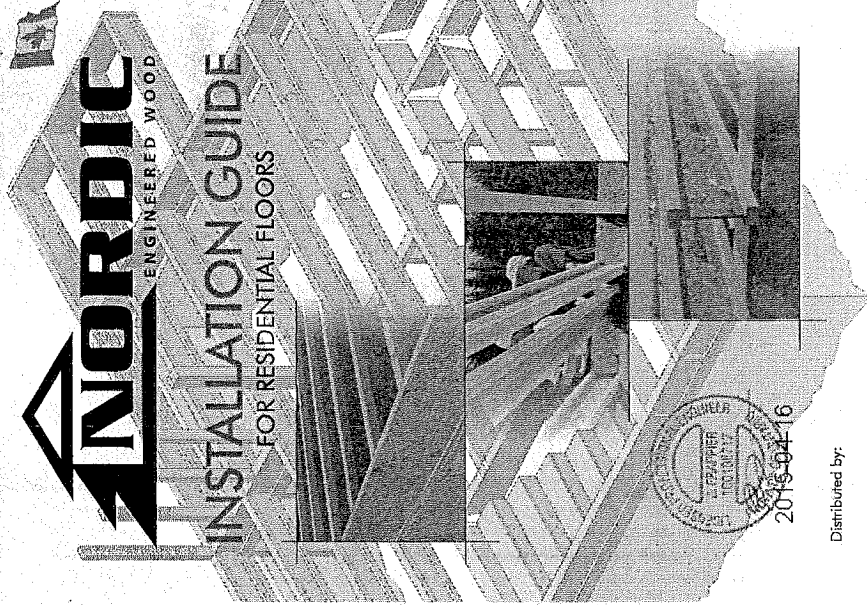


For hip roofs with the jack trusses running parallel to the cantilevered floor joists, the I-joist reinforcement requirements for a span of 26 ft. shall be permitted to be used.

BRICK CANTILEVER REINFORCEMENT METHODS ALLOWED

JOIST DEPTH (in.)		ROOF TRUSS SPAN (ft.)	ROOF LOADING UNFACTORED														
			LL = 30 psf, DL = 15 psf					LL = 40 psf, DL = 15 psf					LL = 50 psf, DL = 15 psf				
			JOIST SPACING (in.)					JOIST SPACING (in.)					JOIST SPACING (in.)				
			24	36	48	60	72	24	36	48	60	72	24	36	48	60	72
9-1/2"	26																
	28																
	30																
	32																
11-7/8"	26																
	28																
	30																
	32																
14"	26																
	28																
	30																
	32																
16"	26																
	28																
	30																
	32																
	34																
	36																
	38																
	40																

1. N = No reinforcement required.
- 1 = N reinforced with 3/4\" wood structural panel on one side only.
- 2 = N reinforced with 3/4\" wood structural panel on both sides of cantilevered joist.
3. 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 roof dead load. 33 psf floor load and 50 psf roof load. 12\" requirements for lesser spacing.
5. Cantilevered joists supporting glider trusses or roof beams may require additional nailing.



SAFETY AND CONSTRUCTION PRECAUTIONS



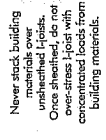
WARNING
I-joists are not stable until completely installed, and will not carry any load until fully braced and sheathed.

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-briding at joist 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 I-joists. Until this sheathing is applied, temporary blocking should be installed at temporary sheathing must be applied to prevent I-joist rollover or buckling.



- Temporary bracing or staking must be 1-4 inch minimum, at least 8 feet long and spaced no more than 8 feet on center, and must be 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-briding.
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.

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

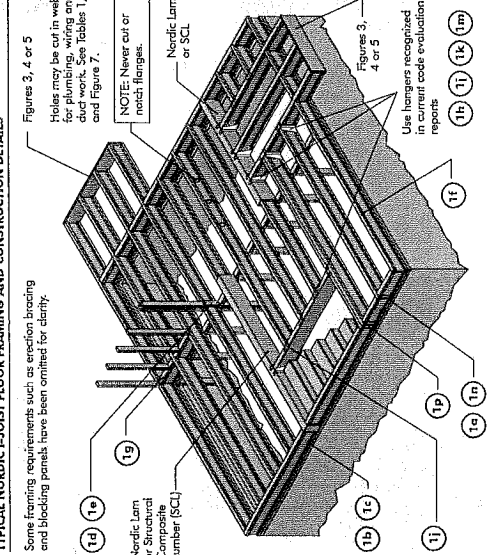
STORAGE AND HANDLING GUIDELINES

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 flammable.
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.

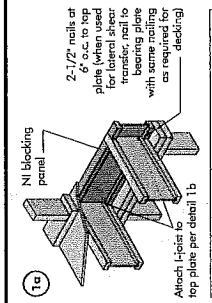
INSTALLING NORDIC I-JOISTS

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 to be level.
5. Minimum bearing lengths: 1-3/4 inches for end bearings and 3-1/2 inches for intermediate settlement.
6. When using hangers, seat I-joists firmly in hanger bottoms to minimize settlement.
7. Leave a 1/16-inch gap between the I-joist and end 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 boards, or squench 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 staking 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.

TYPICAL NORDIC I-JOIST FRAMING AND CONSTRUCTION DETAILS

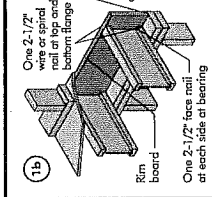


All nails shown in the above details are assumed to be common wire nails unless otherwise noted. 3" (0.125" dia) common spiral nails may be substituted for 2-1/2" (0.125" dia) common wire nails. Framing number assigned to be spaced per Fig. No. 2 or better. Individual components not shown to scale for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



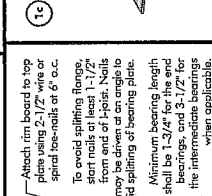
Blocking Panel or Rim Joist	Maximum Spaced Uniform Vertical Load* (plf)
NI Joists	3,300

*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 banding member, such as joist, header, or rafter. For concentrated vertical load transfer, see detail 1d.



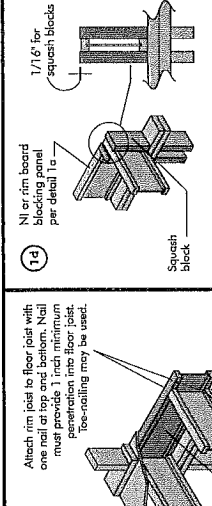
Blocking Panel or Rim Joist	Maximum Spaced Uniform Vertical Load* (plf)
1-1/8" Rim Board Plus	8,090

*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 banding member, such as joist, header, or rafter. For concentrated vertical load transfer, see detail 1d.



Blocking Panel or Rim Joist	Maximum Spaced Uniform Vertical Load* (plf)
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 banding member, such as joist, header, or rafter. For concentrated vertical load transfer, see detail 1d.



Pair of Squench Blocks (16"	Maximum Spaced Uniform Vertical Load* (plf)
2x Lumber	5,500
1-1/8" Rim Board Plus	4,300

*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 banding member, such as joist, header, or rafter. For concentrated vertical load transfer, see detail 1d.

MAXIMUM FLOOR SPANS

MAXIMUM FLOOR SPANS FOR NORDIC I-JOISTS SIMPLE AND MULTIPLE SPANS

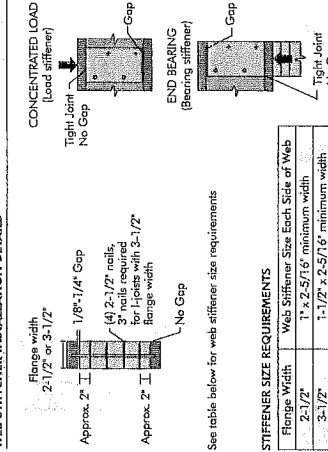
Joist Depth	Simple Span			Multiple Span		
	Joist Spacing	Span	Deflection	Joist Spacing	Span	Deflection
9 1/2"	N-20	12'-0"	1/8"	N-20	12'-0"	1/8"
	N-40	16'-1"	1/8"	N-40	16'-1"	1/8"
	N-60	18'-1"	1/8"	N-60	18'-1"	1/8"
	N-80	20'-1"	1/8"	N-80	20'-1"	1/8"
11 7/8"	N-20	12'-0"	1/8"	N-20	12'-0"	1/8"
	N-40	16'-1"	1/8"	N-40	16'-1"	1/8"
	N-60	18'-1"	1/8"	N-60	18'-1"	1/8"
	N-80	20'-1"	1/8"	N-80	20'-1"	1/8"
16"	N-20	12'-0"	1/8"	N-20	12'-0"	1/8"
	N-40	16'-1"	1/8"	N-40	16'-1"	1/8"
	N-60	18'-1"	1/8"	N-60	18'-1"	1/8"
	N-80	20'-1"	1/8"	N-80	20'-1"	1/8"

- Maximum clear spans applicable to simple-span or multiple-span residential floor construction with a design live load of 40 psf and dead load of 15 psf and not more than 1 inch of SCL.
- Spans are based on a composite floor with glued-nailed oriented strand board (OSB) sheathing with a minimum thickness of 5/8 inch for a joist spacing of 19.2 inches or less, or 3/4 inch for joist spacing of 24 inches. Adhesive is not required for spans up to 16 feet. For spans greater than 16 feet, adhesive is required for the entire span.
- Spans are based on a composite floor with glued-nailed oriented strand board (OSB) sheathing with a minimum thickness of 5/8 inch for a joist spacing of 19.2 inches or less, or 3/4 inch for joist spacing of 24 inches. Adhesive is not required for spans up to 16 feet. For spans greater than 16 feet, adhesive is required for the entire span.
- Minimum bearing length shall be 1-3/4 inches for the end bearings, and 3-1/2 inches for the intermediate bearings.
- Bearing stiffeners are not required when I-joists are used with the spans and loadings given in this table, except as required for hangers.
- This span chart is based on uniform loads. For applications with other than uniform loads, an engineering analysis may be required based on the use of the design properties.
- Tables are based on Limit States Design per CAN/CSA C084-09 Standard, and NRC 2010.
- SI units conversion: 1 inch = 25.4 mm
1 foot = 0.305 m

WEB STIFFENERS

- RECOMMENDATIONS:**
- A bearing stiffener is required in all engineered applications with factored reactions greater than shown in the Construction Guide (C101). The gap between the stiffener and the flange is at the top.
 - A bearing stiffener is required when the I-joist is supported in a hanger and the sides of the hanger do not extend up to, and support, the top flange. The gap between the stiffener and flange is at the top.
 - A load stiffener is required at locations where a factored concentrated load greater than 2,370 lbs is applied to the top flange between supports, or in the case of a cantilever, anywhere between the cantilever tip and the support. These values are to be adjusted for other load durations as permitted by the Code. The gap between the stiffener and the flange is at the bottom.
- SI units conversion: 1 inch = 25.4 mm

FIGURE 2
WEB STIFFENER INSTALLATION DETAILS



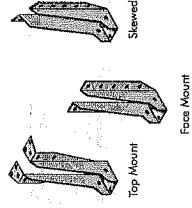
STIFFENER SIZE REQUIREMENTS

Flange Width	Web Stiffener Size Each Side of Web
2-1/2"	1" x 2-5/16" minimum width
3-1/2"	1-1/2" x 2-5/16" minimum width

See table below for web stiffener size requirements

I-JOIST HANGERS

- Hangers shown illustrate the three most commonly used metal hangers to support I-joists.
- All nailing must meet the hanger manufacturer's recommendations.
- Hangers should be selected based on the load depth, flange width and load capacity based on the maximum spans.
- Web stiffeners are required when the sides of the hangers do not laterally brace the top flange of the I-joist.



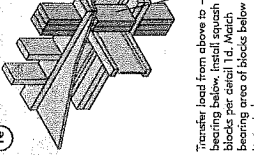
NORDIC I-JOIST SERIES

Series	23 places per unit	23 places per unit	23 places per unit
N-20	12'-0"	12'-0"	12'-0"
N-40	16'-1"	16'-1"	16'-1"
N-60	18'-1"	18'-1"	18'-1"
N-80	20'-1"	20'-1"	20'-1"

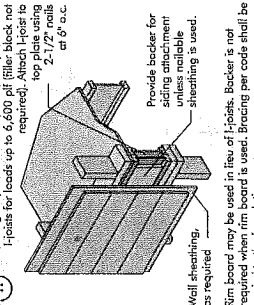
Chomiers Chiborgemay Ltd. harvests its own trees, which enables Nordic products to adhere to strict quality control procedures through the entire manufacturing process. Every phase of the operation, from the selection of the finished product, reflects our commitment to quality.

Nordic Engineered Wood I-joists use only finger-jointed solid wood. Superior lumber in their flanges, ensuring consistent quality, superior stability and longer span carrying capacity.

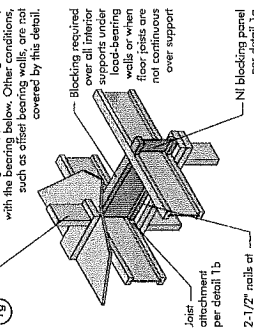
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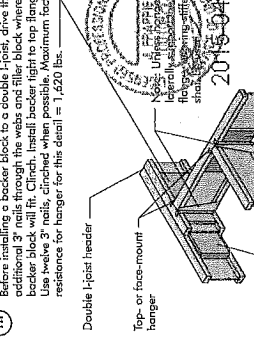
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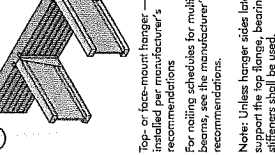
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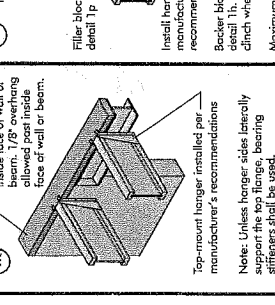
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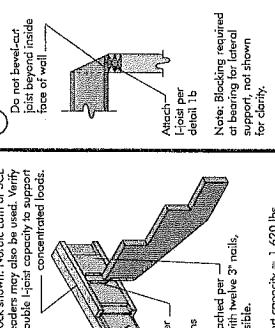
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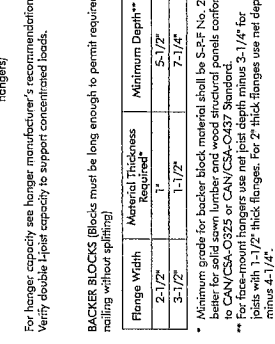
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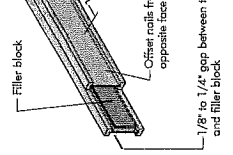
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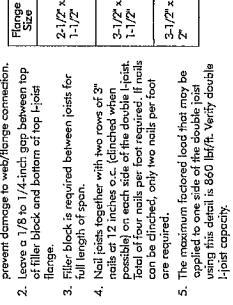
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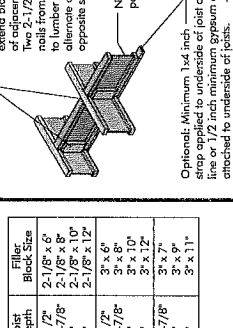
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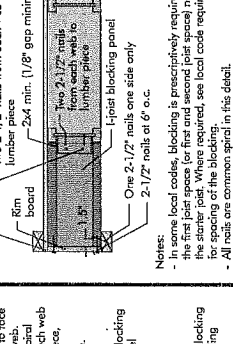
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1r



1s



Notes:

- One 2-1/2" nails at top and bottom flange
- Two 2-1/2" nails from each web to lumber piece
- 2x4 min. (1/8" gap minimum)
- Two 2-1/2" nails from each web to lumber piece
- LI-joist blocking panel
- One 2-1/2" nails one side only
- 2-1/2" nails at 6" o.c.

Notes:

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