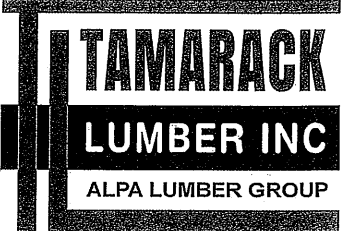


Products				
PlotID	Length	Product	Plies	Net Qty
J1	18-00-00	11 7/8" NI-40x	1	20
J1DJ	18-00-00	11 7/8" NI-40x	2	8
J2	16-00-00	11 7/8" NI-40x	1	16
J2DJ	16-00-00	11 7/8" NI-40x	2	8
J3	14-00-00	11 7/8" NI-40x	1	4
J4	8-00-00	11 7/8" NI-40x	1	15
J5	4-00-00	11 7/8" NI-40x	1	4
J6	2-00-00	11 7/8" NI-40x	1	2
B1 H	14-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B2 H	8-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B3 H	8-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B10 E	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1
B11 E	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1
B6	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2

Connector Summary		
Qty	Manuf	Product
5	H1	IUS2.56/11.88
8	H1	IUS2.56/11.88
10	H1	IUS2.56/11.88
2	H3	HUS1.81/10
1	H4	HGUS410



FROM PLAN DATED: MAR 2021

BUILDER: ROYAL PINE HOMES

SITE: CENTERFIELD - WEST GORMLEY

MODEL: 4501

ELEVATION: A

LOT:

CITY: RICHMOND HILL

SALESMAN: WILL GARCIA

DESIGNER: L.D.

REVISION: lbv

NOTES:
REFER TO THE **NORDIC INSTALLATION** GUIDE FOR PROPER STORAGE AND INSTALLATION.
SQUASH BLOCKS OF 2x4, 2x6, 2x8 #2 S.P.F REQ'D UNDER INTERIOR UNIFORM LOAD BEARING WALLS. **MULTIPLE SQUASH BLOCKS** REQ'D UNDER CONCENTRATED LOADS. SEE FIGURE 1. **CANTILEVERED JOISTS** INCLUDING **CANT' OVER BRICK** RE I-JOIST BLOCKING ALONG BEARING AND RIMBOARD CLOSURE AT ENDS. SEE FIGURES 4 & 5 FOR REINFORCEMENT REQUIREMENTS. FOR **HOLES** INCLUDING **DUCT CHASE** AND **FIELD CUT OPENINGS** SEE FIGURE 7, TABLES 1 & 2. **CERAMIC TILE** APPLICATION AS PER O.B.C 9.30.6.

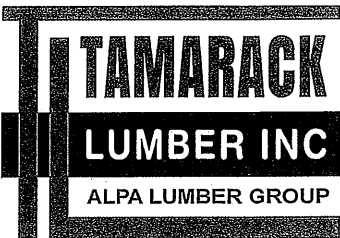
LOADING:
DESIGN LOADS: L/480.000
LIVE LOAD: 40.0 lb/ft²
DEAD LOAD: 15.0 lb/ft²
TILE LOAD: 20.0 lb/ft²

SUBFLOOR: 3/4" GLUED AND NAILED

DATE: 2021-05-17

1st FLOOR

STANDARD



FROM PLAN DATED: MAR 2021

BUILDER: ROYAL PINE HOMES

SITE: CENTERFIELD - WEST GORMLEY

MODEL: 4501

ELEVATION: A

LOT:

CITY: RICHMOND HILL

SALESMAN: WILL GARCIA

DESIGNER: L.D.

REVISION: lbv

NOTES:
REFER TO THE NORDIC **INSTALLATION GUIDE** FOR PROPER STORAGE AND INSTALLATION. **SQUASH BLOCKS** OF 2x4, 2x6, 2x8 #2 S.P.F. REQ'D UNDER INTERIOR UNIFORM LOAD BEARING WALLS. **MULTIPLE SQUASH BLOCKS** REQ'D UNDER CONCENTRATED LOADS. SEE FIGURE 1. **CANTILEVERED JOISTS** INCLUDING **CANT OVER BRICK** REQ. I-JOIST BLOCKING ALC BEARING AND RIMBOARD CLOSURE AT ENDS. SEE FIGURE 7 TABLES 4 & 5 FOR REINFORCEMENT REQUIREMENTS. FOR **HOLES** INCLUDING **DUCT CHASE** AND **FIRE CUT OPENINGS** SEE FIGURE 7 TABLES 1 OF THE INSTALLATION GUIDE. **CERAMIC** APPLICATION AS PER O.B.C. 9.30.6

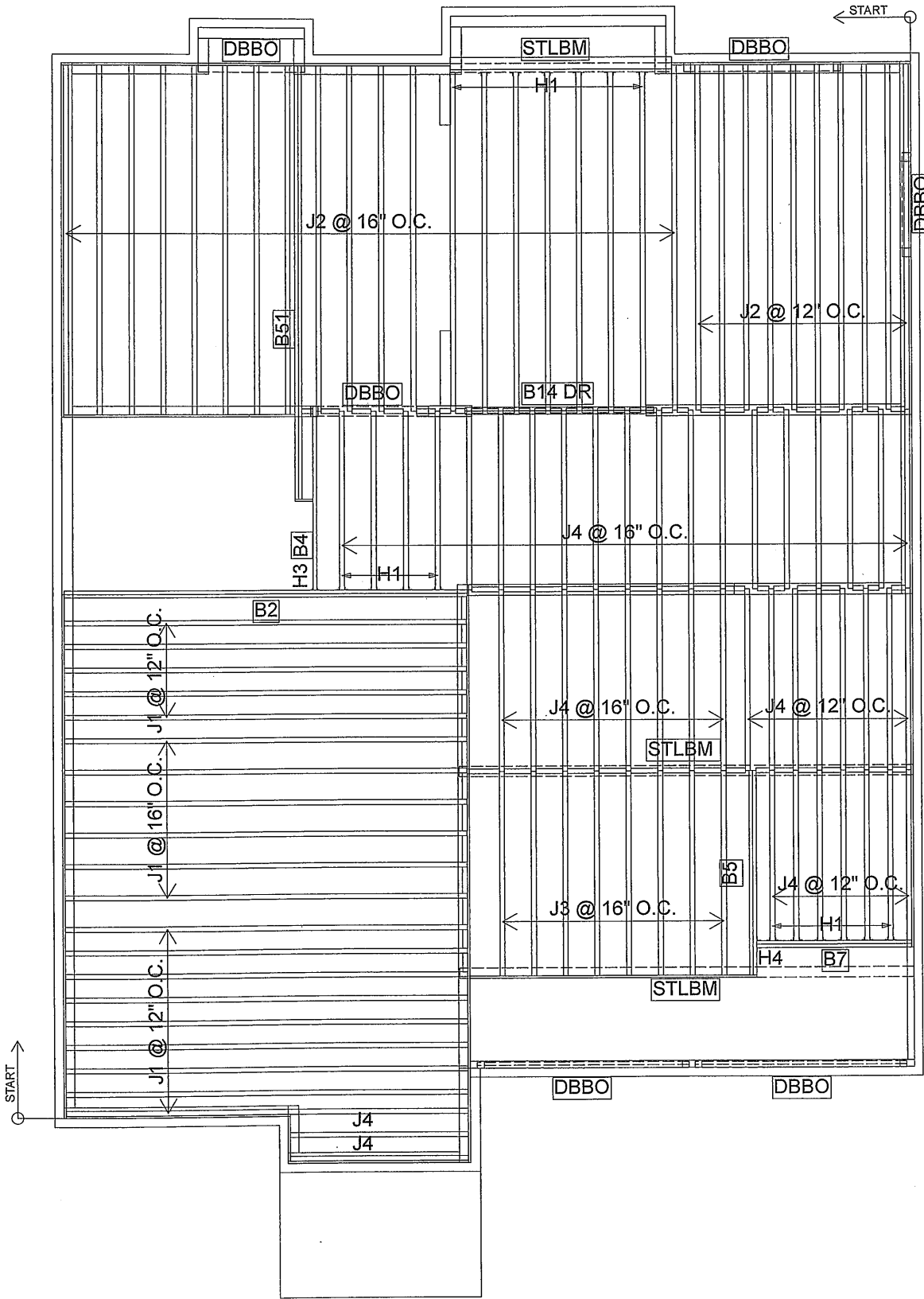
LOADING:
DESIGN LOADS: L/480.000
LIVE LOAD: 40.0 lb/ft²
DEAD LOAD: 15.0 lb/ft²
TILE LOAD: 20.0 lb/ft²

SUBFLOOR: 5/8" GLUED AND NAILED

DATE: 2021-05-17

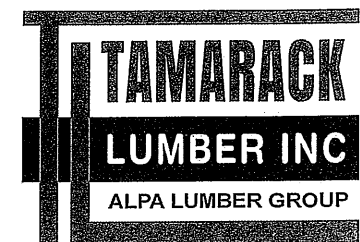
2nd FLOOR

4 BEDROOM



Products				
PlotID	Length	Product	Plies	Net Qty
J1	18-00-00	11 7/8" NI-40x	1	20
J2	16-00-00	11 7/8" NI-40x	1	30
J3	10-00-00	11 7/8" NI-40x	1	8
J4	8-00-00	11 7/8" NI-40x	1	44
B14 DR	8-00-00	1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP	2	2
B51	20-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B2	18-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B5	10-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B4	8-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1
B7	8-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2

Connector Summary		
Qty	Manuf	Product
10	H1	IUS2.56/11.88
7	H1	IUS2.56/11.88
1	H3	HUS1.81/10
1	H4	HGUS410



FROM PLAN DATED: MAR 2021

BUILDER: ROYAL PINE HOMES

SITE: CENTERFIELD - WEST GORMLEY

MODEL: 4501

ELEVATION: B

LOT:

CITY: RICHMOND HILL

SALESMAN: WILL GARCIA

DESIGNER: L.D.

REVISION: lbv

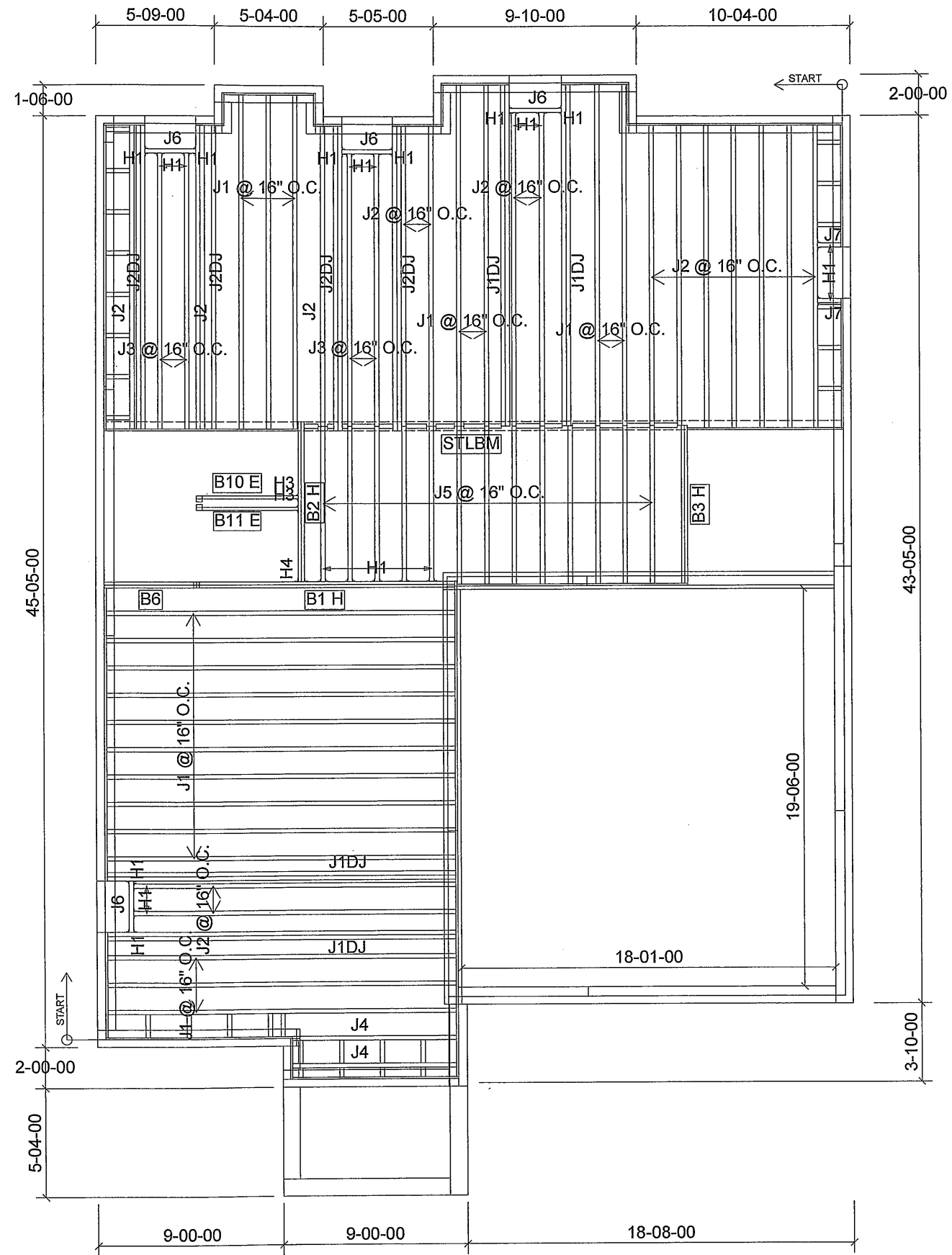
NOTES:
REFER TO THE **NORDIC INSTALLATION**
GUIDE FOR PROPER STORAGE AND
INSTALLATION.
SQUASH BLOCKS OF 2x4, 2x6, 2x8 #2 S.P.
REQ'D UNDER INTERIOR UNIFORM LOAD
BEARING WALLS. **MULTIPLE SQUASH**
BLOCKS REQ'D UNDER CONCENTRATED
LOADS. SEE FIGURE 1. **CANTILEVERED**
JOISTS INCLUDING **CANT' OVER BRICK** RE
I-JOIST BLOCKING ALONG BEARING AND
RIMBOARD CLOSURE AT ENDS. SEE
FIGURES 4 & 5 FOR REINFORCEMENT
REQUIREMENTS. FOR **HOLES** INCLUDING
DUCT CHASE AND **FIELD CUT OPENINGS**
SEE FIGURE 7, TABLES 1 & 2. **CERAMIC T**
APPLICATION AS PER O.B.C 9.30.6.

LOADING:
DESIGN LOADS: L/480.000
LIVE LOAD: 40.0 lb/ft²
DEAD LOAD: 15.0 lb/ft²
TILE LOAD: 20.0 lb/ft²

SUBFLOOR: 3/4" GLUED AND NAILED

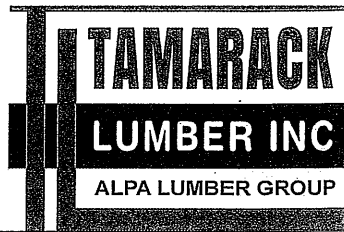
DATE: 2021-05-17

1st FLOOR



Products				
PlotID	Length	Product	Plies	Net Qty
J1	18-00-00	11 7/8" NI-40x	1	20
J1DJ	18-00-00	11 7/8" NI-40x	2	8
J2	16-00-00	11 7/8" NI-40x	1	16
J2DJ	16-00-00	11 7/8" NI-40x	2	8
J3	14-00-00	11 7/8" NI-40x	1	4
J4	10-00-00	11 7/8" NI-40x	1	2
J5	8-00-00	11 7/8" NI-40x	1	13
J6	4-00-00	11 7/8" NI-40x	1	4
J7	2-00-00	11 7/8" NI-40x	1	2
B1 H	14-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B2 H	8-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B3 H	8-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B10 E	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1
B11 E	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1
B6	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2

Connector Summary		
Qty	Manuf	Product
5	H1	IUS2.56/11.88
8	H1	IUS2.56/11.88
10	H1	IUS2.56/11.88
2	H3	HUS1.81/10
1	H4	HGUS410



FROM PLAN DATED: MAR 2021

BUILDER: ROYAL PINE HOMES

SITE: CENTERFIELD - WEST GORMLEY

MODEL: 4501

ELEVATION: B

LOT:

CITY: RICHMOND HILL

SALESMAN: WILL GARCIA

DESIGNER: L.D.

REVISION: lbv

NOTES:
REFER TO THE NORDIC **INSTALLATION GUIDE** FOR PROPER STORAGE AND INSTALLATION. **SQUASH BLOCKS** OF 2x4, 2x6, 2x8 #2 S.P.F. REQ'D UNDER INTERIOR UNIFORM LOAD BEARING WALLS. **MULTIPLE SQUASH BLOCKS** REQ'D UNDER CONCENTRATED LOADS. SEE FIGURE 1. **CANTILEVERED JOISTS** INCLUDING **CANT OVER BRICK** REQ. I-JOIST BLOCKING ALC BEARING AND RIMBOARD CLOSURE AT ENDS. SEE FIGURE 7 TABLES 4 & 5 FOR REINFORCEMENT REQUIREMENTS. FOR **HOLES** INCLUDING **DUCT CHASE** AND **FIRE CUT OPENINGS** SEE FIGURE 7 TABLES 1 OF THE INSTALLATION GUIDE. **CERAMIC TILE** APPLICATION AS PER O.B.C. 9.30.6

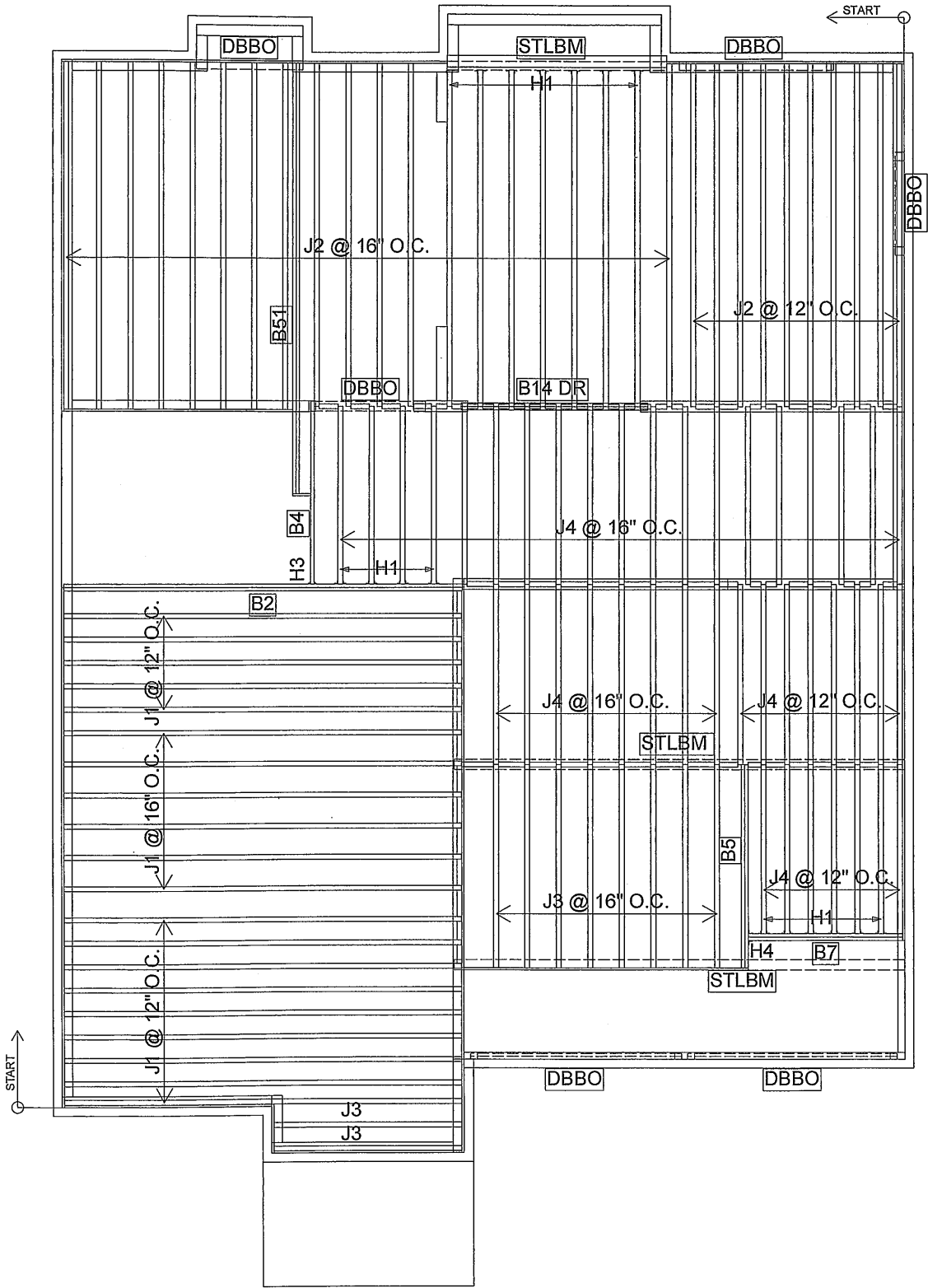
LOADING:
DESIGN LOADS: L/480.000
LIVE LOAD: 40.0 lb/ft²
DEAD LOAD: 15.0 lb/ft²
TILE LOAD: 20.0 lb/ft²

SUBFLOOR: 5/8" GLUED AND NAILED

DATE: 2021-05-17

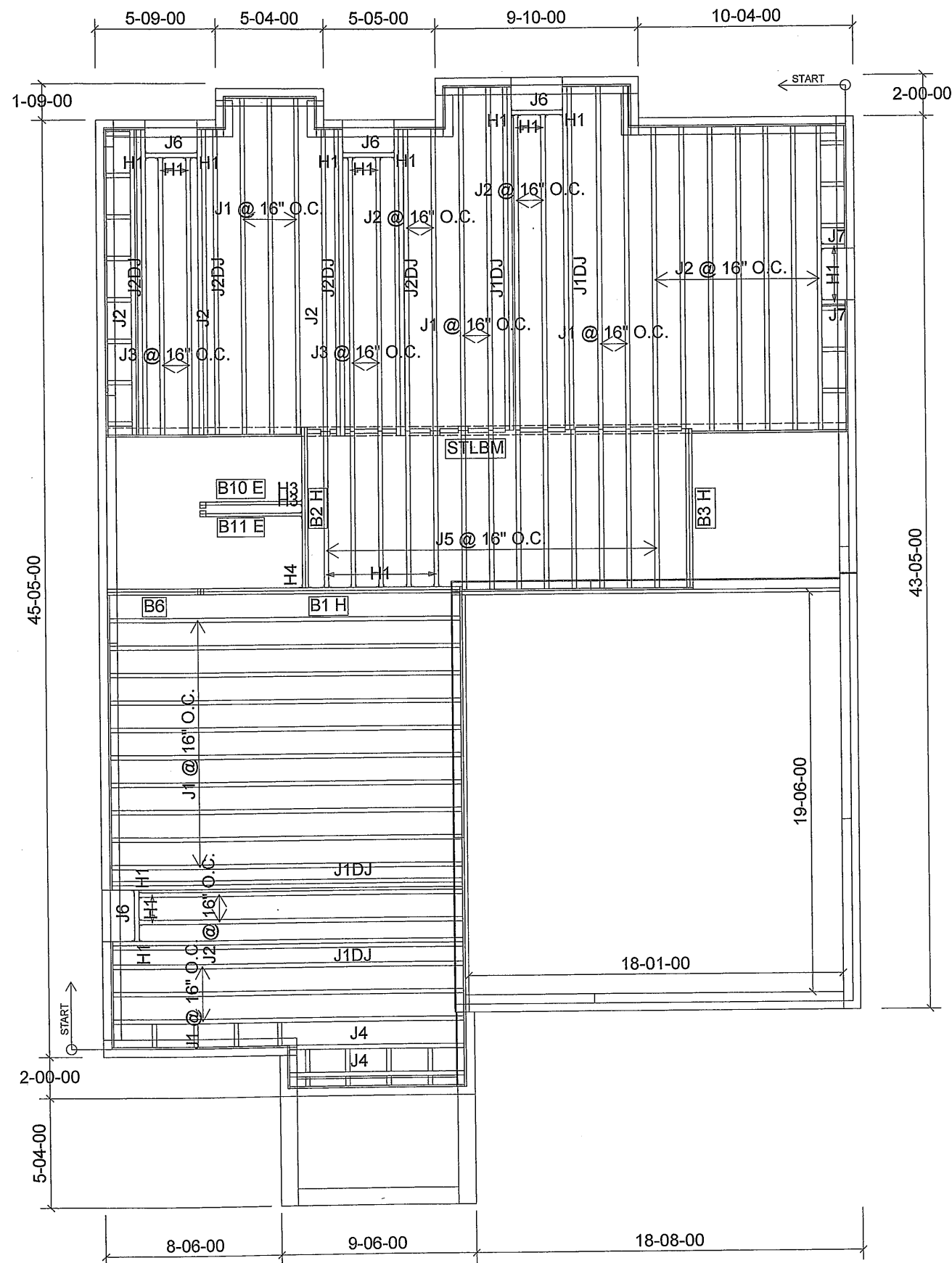
2nd FLOOR

4 BEDROOM



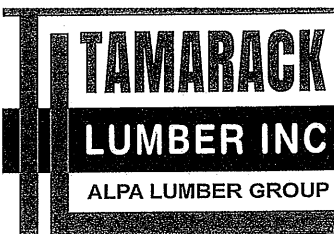
Products				
PlotID	Length	Product	Plies	Net Qty
J1	18-00-00	11 7/8" NI-40x	1	20
J2	16-00-00	11 7/8" NI-40x	1	30
J3	10-00-00	11 7/8" NI-40x	1	10
J4	8-00-00	11 7/8" NI-40x	1	42
B14 DR	8-00-00	1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP	2	2
B51	20-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B2	18-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B5	10-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B4	8-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1
B7	8-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2

Connector Summary		
Qty	Manuf	Product
10	H1	IUS2.56/11.88
7	H1	IUS2.56/11.88
1	H3	HUS1.81/10
1	H4	HGUS410



Products				
PlotID	Length	Product	Plies	Net Qty
J1	18-00-00	11 7/8" NI-40x	1	20
J1DJ	18-00-00	11 7/8" NI-40x	2	8
J2	16-00-00	11 7/8" NI-40x	1	16
J2DJ	16-00-00	11 7/8" NI-40x	2	8
J3	14-00-00	11 7/8" NI-40x	1	4
J4	10-00-00	11 7/8" NI-40x	1	2
J5	8-00-00	11 7/8" NI-40x	1	13
J6	4-00-00	11 7/8" NI-40x	1	4
J7	2-00-00	11 7/8" NI-40x	1	2
B1 H	14-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B2 H	8-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B3 H	8-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B10 E	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1
B11 E	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1
B6	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2

Connector Summary		
Qty	Manuf	Product
5	H1	IUS2.56/11.88
8	H1	IUS2.56/11.88
10	H1	IUS2.56/11.88
2	H3	HUS1.81/10
1	H4	HGUS410



FROM PLAN DATED: MAR 2021

BUILDER: ROYAL PINE HOMES

SITE: CENTERFIELD - WEST GORMLEY

MODEL: 4501

ELEVATION: C

LOT:

CITY: RICHMOND HILL

SALESMAN: WILL GARCIA

DESIGNER: L.D.

REVISION: lbv

NOTES:
REFER TO THE **NORDIC INSTALLATION**
GUIDE FOR PROPER STORAGE AND
INSTALLATION.
SQUASH BLOCKS OF 2x4, 2x6, 2x8 #2 S.F
REQ'D UNDER INTERIOR UNIFORM LOAD
BEARING WALLS. **MULTIPLE SQUASH**
BLOCKS REQ'D UNDER CONCENTRATED
LOADS. SEE FIGURE 1. **CANTILEVERED**
JOISTS INCLUDING **CANT' OVER BRICK F**
I-JOIST BLOCKING ALONG BEARING AND
RIMBOARD CLOSURE AT ENDS. SEE
FIGURES 4 & 5 FOR REINFORCEMENT
REQUIREMENTS. FOR **HOLES** INCLUDING
DUCT CHASE AND **FIELD CUT OPENINGS**
SEE FIGURE 7, TABLES 1 & 2. **CERAMIC**
APPLICATION AS PER O.B.C 9.30.6.

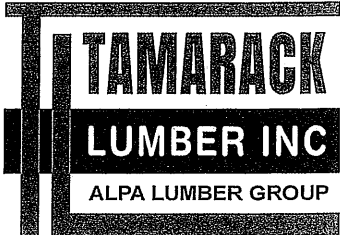
LOADING:
DESIGN LOADS: L/480.000
LIVE LOAD: 40.0 lb/ft²
DEAD LOAD: 15.0 lb/ft²
TILE LOAD: 20.0 lb/ft²

SUBFLOOR: 3/4" GLUED AND NAILED

DATE: 2021-05-17

1st FLOOR

STANDARD



FROM PLAN DATED: MAR 2021

BUILDER: ROYAL PINE HOMES

SITE: CENTERFIELD - WEST GORMLEY

MODEL: 4501

ELEVATION: C

LOT:

CITY: RICHMOND HILL

SALESMAN: WILL GARCIA

DESIGNER: L.D.

REVISION: lbv

NOTES:
REFER TO THE NORDIC **INSTALLATION GUIDE** FOR PROPER STORAGE AND INSTALLATION. **SQUASH BLOCKS** OF 2x4, 2x6, 2x8 #2 S.P.F. REQ'D UNDER INTERIOF UNIFORM LOAD BEARING WALLS. **MULTIP SQUASH BLOCKS** REQ'D UNDER CONCENTRATED LOADS. SEE FIGURE 1. **CANTILEVERED JOISTS** INCLUDING **CANT' OVER BRICK** REQ. I-JOIST BLOCKING ALO BEARING AND RIMBOARD CLOSURE AT ENDS. SEE FIGURE 7 TABLES 4 & 5 FOR REINFORCEMENT REQUIREMENTS. FOR **HOLES** INCLUDING **DUCT CHASE** AND **FIE CUT OPENINGS** SEE FIGURE 7 TABLES 1 . OF THE INSTALLATION GUIDE. **CERAMIC 1** APPLICATION AS PER O.B.C. 9.30.6

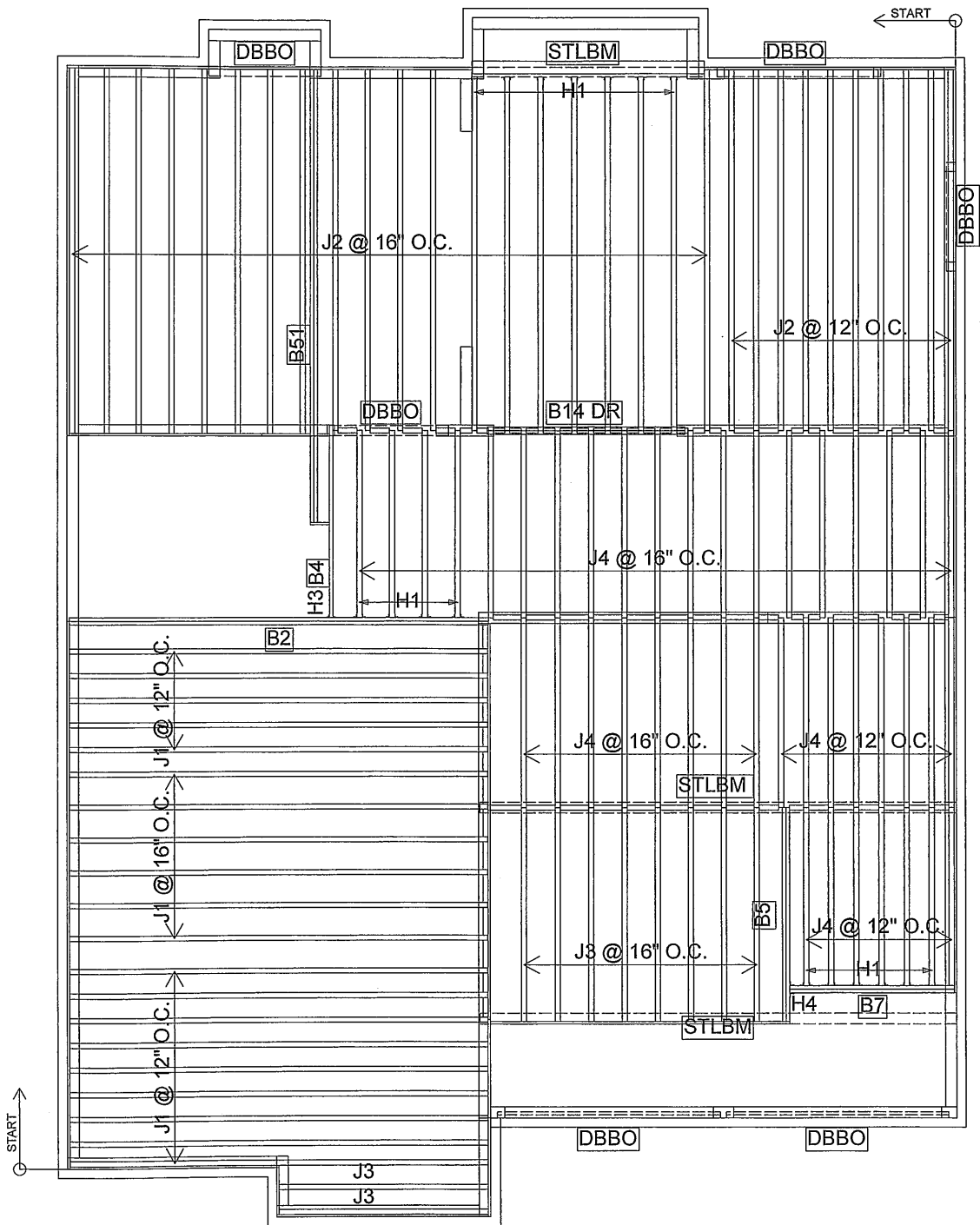
LOADING:
DESIGN LOADS: L/480.000
LIVE LOAD: 40.0 lb/ft²
DEAD LOAD: 15.0 lb/ft²
TILE LOAD: 20.0 lb/ft²

SUBFLOOR: 5/8" GLUED AND NAILED

DATE: 2021-05-17

2nd FLOOR

4 BEDROOM



Products				
PlotID	Length	Product	Plies	Net Qty
J1	18-00-00	11 7/8" NI-40x	1	20
J2	16-00-00	11 7/8" NI-40x	1	30
J3	10-00-00	11 7/8" NI-40x	1	10
J4	8-00-00	11 7/8" NI-40x	1	42
B14 DR	8-00-00	1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP	2	2
B51	20-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B2	18-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B5	10-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B4	8-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1
B7	8-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2

Connector Summary		
Qty	Manuf	Product
10	H1	IUS2.56/11.88
7	H1	IUS2.56/11.88
1	H3	HUS1.81/10
1	H4	HGUS410

FROM PLAN DATED: MAR 2021

BUILDER: ROYAL PINE HOMES

SITE: CENTERFIELD - WEST GORMLEY

MODEL: 4501

ELEVATION: A

LOT:

CITY: RICHMOND HILL

SALESMAN: WILL GARCIA

DESIGNER: L.D.

REVISION: lby

NOTES:
REFER TO THE **NORDIC INSTALLATION**
GUIDE FOR PROPER STORAGE AND
INSTALLATION.
SQUASH BLOCKS OF 2x4, 2x6, 2x8 #2 S.P
REQ'D UNDER INTERIOR UNIFORM LOAD
BEARING WALLS. **MULTIPLE SQUASH**
BLOCKS REQ'D UNDER CONCENTRATED
LOADS. SEE FIGURE 1. **CANTILEVERED**
JOISTS INCLUDING **CANT' OVER BRICK** RI
I-JOIST BLOCKING ALONG BEARING AND
RIMBOARD CLOSURE AT ENDS. SEE
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DUCT CHASE AND **FIELD CUT OPENINGS**
SEE FIGURE 7, TABLES 1 & 2. **CERAMIC T**
APPLICATION AS PER O.B.C 9.30.6.

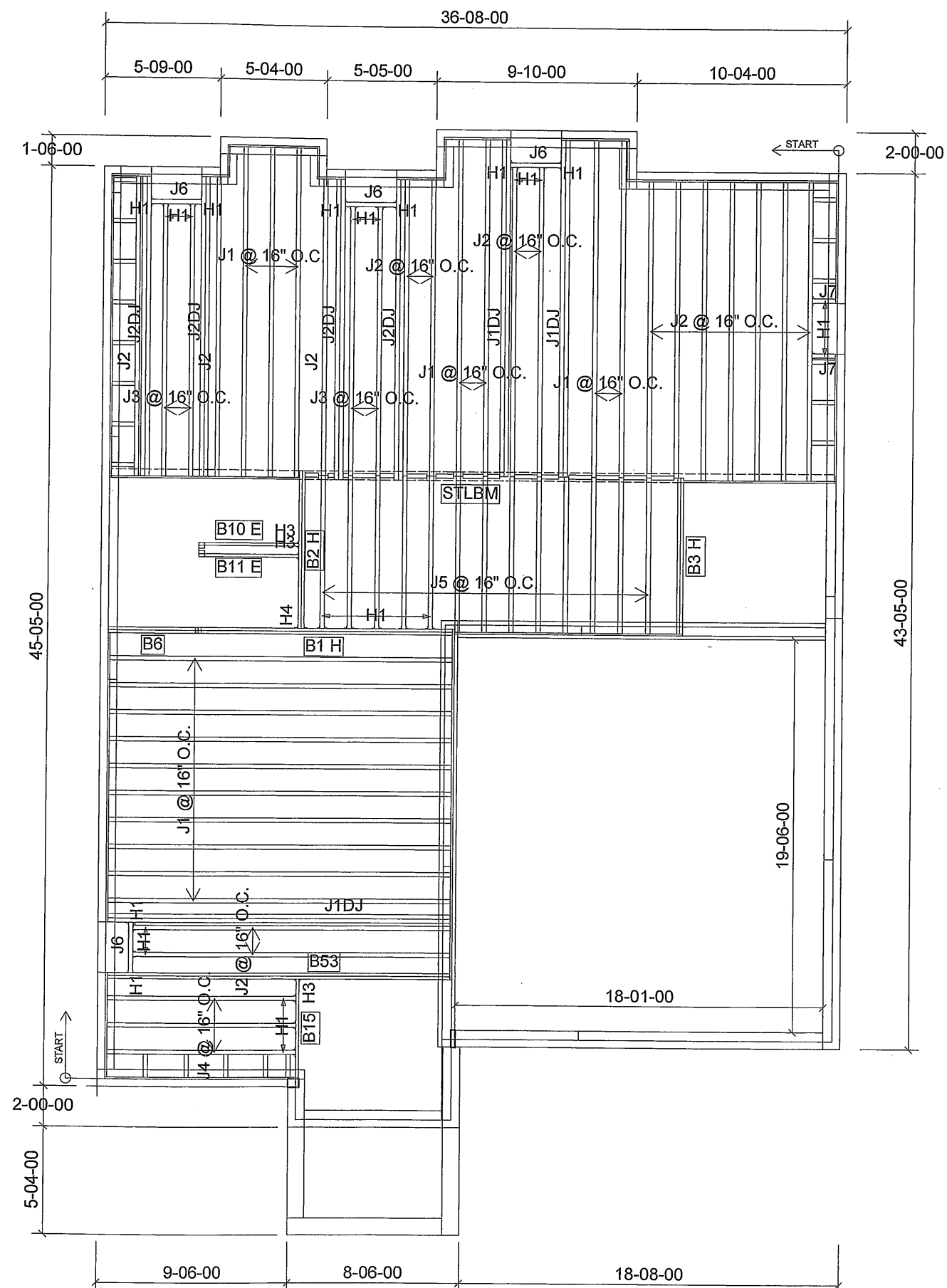
LOADING:
DESIGN LOADS: L/480.000
LIVE LOAD: 40.0 lb/ft²
DEAD LOAD: 15.0 lb/ft²
TILE LOAD: 20.0 lb/ft²

SUBFLOOR: 3/4" GLUED AND NAILED

DATE: 2021-05-17

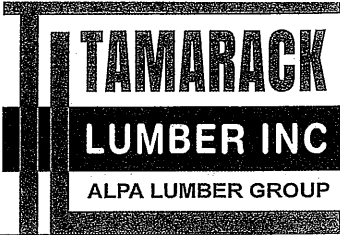
1st FLOOR

SUNKEN FOYER



Products				
PlotID	Length	Product	Plies	Net Qty
J1	18-00-00	11 7/8" NI-40x	1	17
J1DJ	18-00-00	11 7/8" NI-40x	2	6
J2	16-00-00	11 7/8" NI-40x	1	16
J2DJ	16-00-00	11 7/8" NI-40x	2	8
J3	14-00-00	11 7/8" NI-40x	1	4
J4	10-00-00	11 7/8" NI-40x	1	3
J5	8-00-00	11 7/8" NI-40x	1	13
J6	4-00-00	11 7/8" NI-40x	1	4
J7	2-00-00	11 7/8" NI-40x	1	2
B53	18-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B1 H	14-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B2 H	8-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B3 H	8-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B10 E	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1
B11 E	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1
B15	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1
B6	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2

Connector Summary		
Qty	Manuf	Product
3	H1	IUS2.56/11.88
6	H1	IUS2.56/11.88
7	H1	IUS2.56/11.88
10	H1	IUS2.56/11.88
3	H3	HUS1.81/10
1	H4	HGUS410



FROM PLAN DATED: MAR 2021

BUILDER: ROYAL PINE HOMES

SITE: CENTERFIELD - WEST GORMLEY

MODEL: 4501

ELEVATION: A

LOT:

CITY: RICHMOND HILL

SALESMAN: WILL GARCIA

DESIGNER: L.D.

REVISION: lbv

NOTES:
REFER TO THE NORDIC **INSTALLATION GUIDE** FOR PROPER STORAGE AND INSTALLATION. **SQUASH BLOCKS** OF 2x4, 2x6, 2x8 #2 S.P.F. REQ'D UNDER INTERIOR UNIFORM LOAD BEARING WALLS. **MULTIF SQUASH BLOCKS** REQ'D UNDER CONCENTRATED LOADS. SEE FIGURE 1. **CANTILEVERED JOISTS** INCLUDING **CANT OVER BRICK** REQ. I-JOIST BLOCKING ALONG BEARING AND RIMBOARD CLOSURE AT ENDS. SEE FIGURE 7 TABLES 4 & 5 FOR REINFORCEMENT REQUIREMENTS. FOR **HOLES** INCLUDING **DUCT CHASE** AND **FIE CUT OPENINGS** SEE FIGURE 7 TABLES 1 OF THE INSTALLATION GUIDE. **CERAMIC** APPLICATION AS PER O.B.C. 9.30.6

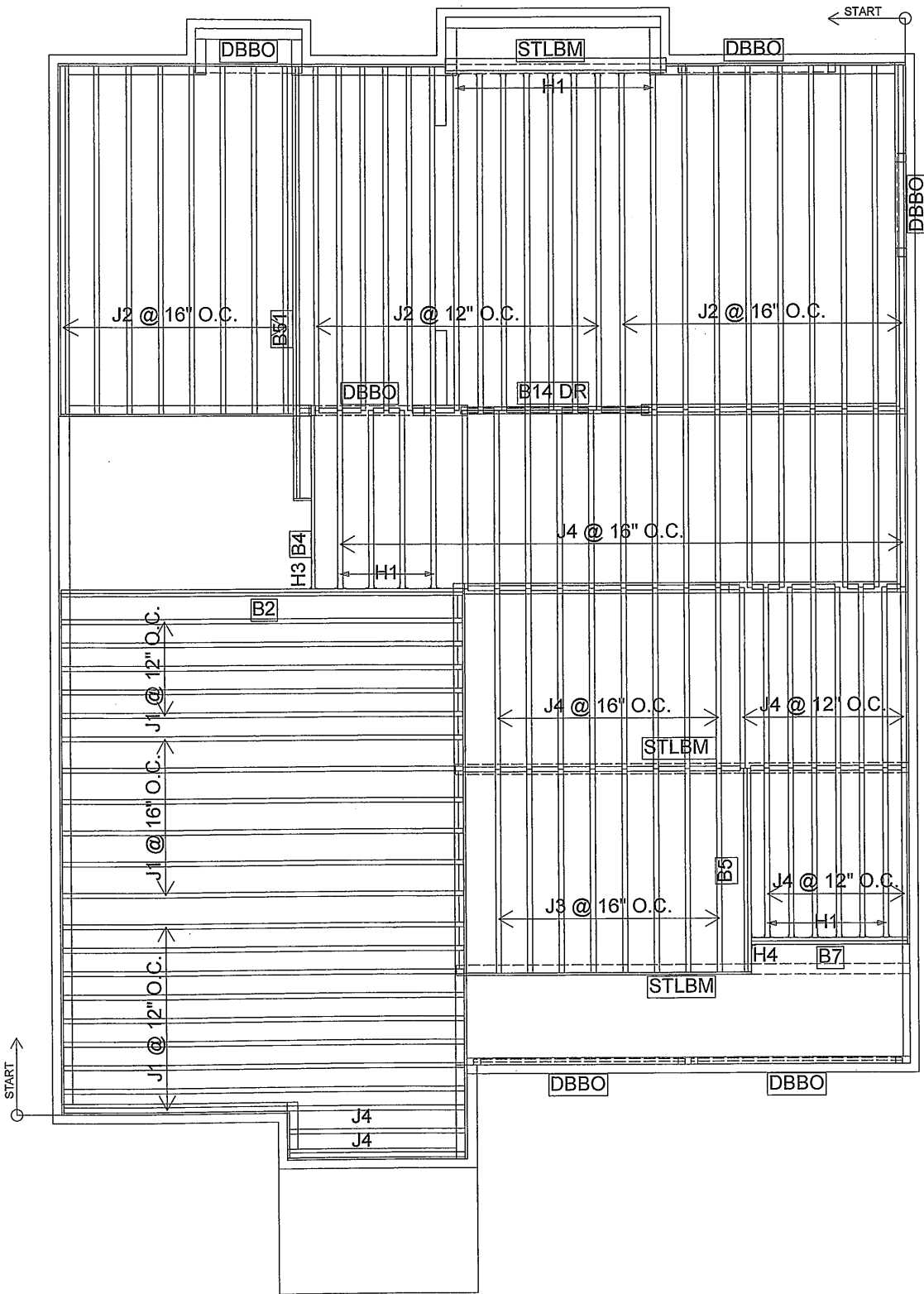
LOADING:
DESIGN LOADS: L/480.000
LIVE LOAD: 40.0 lb/ft²
DEAD LOAD: 15.0 lb/ft²
TILE LOAD: 20.0 lb/ft²

SUBFLOOR: 5/8" GLUED AND NAILED

DATE: 2021-05-17

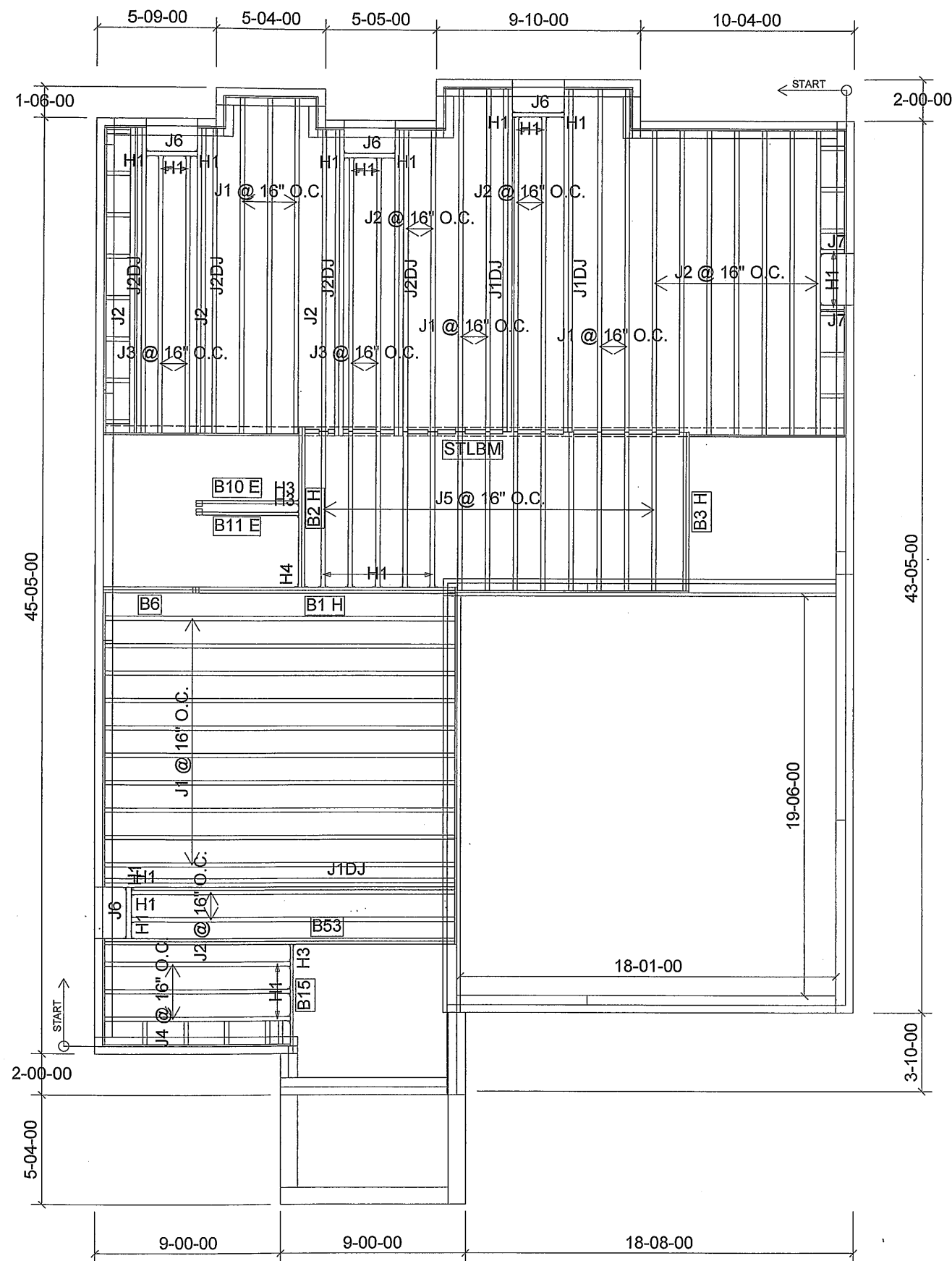
2nd FLOOR

5 BEDROOM



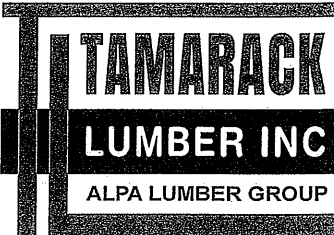
Products				
PlotID	Length	Product	Plies	Net Qty
J1	18-00-00	11 7/8" NI-40x	1	20
J2	16-00-00	11 7/8" NI-40x	1	31
J3	10-00-00	11 7/8" NI-40x	1	8
J4	8-00-00	11 7/8" NI-40x	1	44
B14 DR	8-00-00	1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP	2	2
B51	20-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B2	18-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B5	10-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B4	8-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1
B7	8-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2

Connector Summary		
Qty	Manuf	Product
10	H1	IUS2.56/11.88
9	H1	IUS2.56/11.88
1	H3	HUS1.81/10
1	H4	HGUS410



Products				
PlotID	Length	Product	Plies	Net Qty
J1	18-00-00	11 7/8" NI-40x	1	17
J1DJ	18-00-00	11 7/8" NI-40x	2	6
J2	16-00-00	11 7/8" NI-40x	1	16
J2DJ	16-00-00	11 7/8" NI-40x	2	8
J3	14-00-00	11 7/8" NI-40x	1	4
J4	10-00-00	11 7/8" NI-40x	1	3
J5	8-00-00	11 7/8" NI-40x	1	13
J6	4-00-00	11 7/8" NI-40x	1	4
J7	2-00-00	11 7/8" NI-40x	1	2
B53	18-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B1 H	14-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B2 H	8-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B3 H	8-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B10 E	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1
B11 E	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1
B15	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1
B6	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2

Connector Summary		
Qty	Manuf	Product
3	H1	IUS2.56/11.88
6	H1	IUS2.56/11.88
7	H1	IUS2.56/11.88
10	H1	IUS2.56/11.88
3	H3	HUS1.81/10
1	H4	HGUS410



FROM PLAN DATED: MAR 2021

BUILDER: ROYAL PINE HOMES

SITE: CENTERFIELD - WEST GORMLEY

MODEL: 4501

ELEVATION: B

LOT:

CITY: RICHMOND HILL

SALESMAN: WILL GARCIA

DESIGNER: L.D.

REVISION: lbv

NOTES:
REFER TO THE **NORDIC INSTALLATION** GUIDE FOR PROPER STORAGE AND INSTALLATION.
SQUASH BLOCKS OF 2x4, 2x6, 2x8 #2 S.P REQ'D UNDER INTERIOR UNIFORM LOAD BEARING WALLS. **MULTIPLE SQUASH BLOCKS** REQ'D UNDER CONCENTRATED LOADS. SEE FIGURE 1. **CANTILEVERED**. **JOISTS** INCLUDING **CANT' OVER BRICK RI** I-JOIST BLOCKING ALONG BEARING AND RIMBOARD CLOSURE AT ENDS. SEE FIGURES 4 & 5 FOR REINFORCEMENT REQUIREMENTS. FOR **HOLES** INCLUDING **DUCT CHASE** AND **FIELD CUT OPENINGS** SEE FIGURE 7, TABLES 1 & 2. **CERAMIC T** APPLICATION AS PER O.B.C 9.30.6.

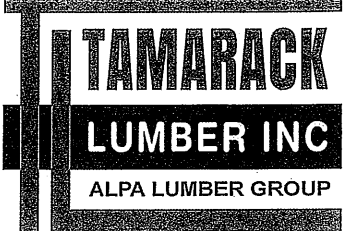
LOADING:
DESIGN LOADS: L/480.000
LIVE LOAD: 40.0 lb/ft²
DEAD LOAD: 15.0 lb/ft²
TILE LOAD: 20.0 lb/ft²

SUBFLOOR: 3/4" GLUED AND NAILED

DATE: 2021-05-17

1st FLOOR

SUNKEN FOYER



FROM PLAN DATED: MAR 2021

BUILDER: ROYAL PINE HOMES

SITE: CENTERFIELD - WEST GORMLEY

MODEL: 4501

ELEVATION: B

LOT:

CITY: RICHMOND HILL

SALESMAN: WILL GARCIA

DESIGNER: L.D.

REVISION: lbv

NOTES:
REFER TO THE NORDIC **INSTALLATION GUIDE** FOR PROPER STORAGE AND INSTALLATION. **SQUASH BLOCKS** OF 2x4, 2x6, 2x8 #2 S.P.F. REQ'D UNDER INTERIOR UNIFORM LOAD BEARING WALLS. **MULTIF SQUASH BLOCKS** REQ'D UNDER CONCENTRATED LOADS. SEE FIGURE 1. **CANTILEVERED JOISTS** INCLUDING **CANT OVER BRICK** REQ. I-JOIST BLOCKING ALC BEARING AND RIMBOARD CLOSURE AT ENDS. SEE FIGURE 7 TABLES 4 & 5 FOR REINFORCEMENT REQUIREMENTS. FOR **HOLES** INCLUDING **DUCT CHASE** AND **FILE CUT OPENINGS** SEE FIGURE 7 TABLES 1 OF THE INSTALLATION GUIDE. **CERAMIC** APPLICATION AS PER O.B.C. 9.30.6

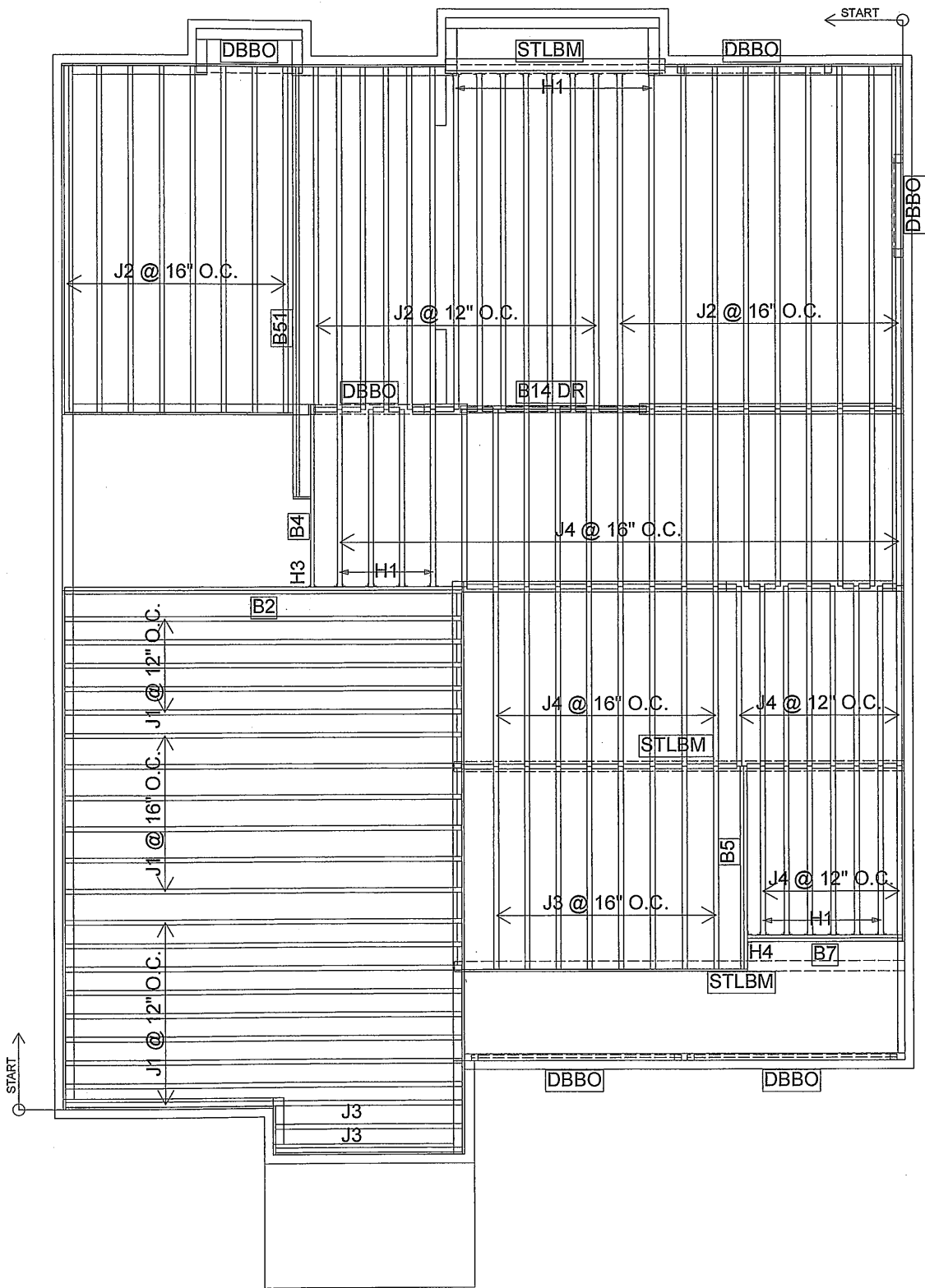
LOADING:
DESIGN LOADS: L/480.000
LIVE LOAD: 40.0 lb/ft²
DEAD LOAD: 15.0 lb/ft²
TILE LOAD: 20.0 lb/ft²

SUBFLOOR: 5/8" GLUED AND NAILED

DATE: 2021-05-17

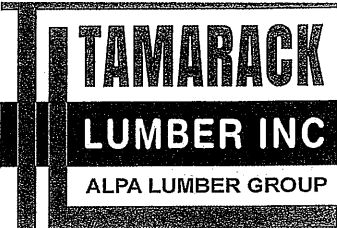
2nd FLOOR

5 BEDROOM



Products				
PlotID	Length	Product	Plies	Net Qty
J1	18-00-00	11 7/8" NI-40x	1	20
J2	16-00-00	11 7/8" NI-40x	1	31
J3	10-00-00	11 7/8" NI-40x	1	10
J4	8-00-00	11 7/8" NI-40x	1	42
B14 DR	8-00-00	1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP	2	2
B51	20-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B2	18-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B5	10-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B4	8-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1
B7	8-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2

Connector Summary		
Qty	Manuf	Product
10	H1	IUS2.56/11.88
9	H1	IUS2.56/11.88
1	H3	HUS1.81/10
1	H4	HGUS410



FROM PLAN DATED: MAR 2021

BUILDER: ROYAL PINE HOMES

SITE: CENTERFIELD - WEST GORMLEY

MODEL: 4501

ELEVATION: C

LOT:

CITY: RICHMOND HILL

SALESMAN: WILL GARCIA

DESIGNER: L.D.

REVISION: lbv

NOTES:
REFER TO THE **NORDIC INSTALLATION**
GUIDE FOR PROPER STORAGE AND
INSTALLATION.
SQUASH BLOCKS OF 2x4, 2x6, 2x8 #2 S.P
REQ'D UNDER INTERIOR UNIFORM LOAD
BEARING WALLS. **MULTIPLE SQUASH**
BLOCKS REQ'D UNDER CONCENTRATED
LOADS. SEE FIGURE 1. **CANTILEVERED**
JOISTS INCLUDING CANT' OVER BRICK R
I-JOIST BLOCKING ALONG BEARING AND
RIMBOARD CLOSURE AT ENDS. SEE
FIGURES 4 & 5 FOR REINFORCEMENT
REQUIREMENTS. FOR **HOLES** INCLUDING
DUCT CHASE AND **FIELD CUT OPENINGS**
SEE FIGURE 7, TABLES 1 & 2. **CERAMIC** 1
APPLICATION AS PER O.B.C 9.30.6.

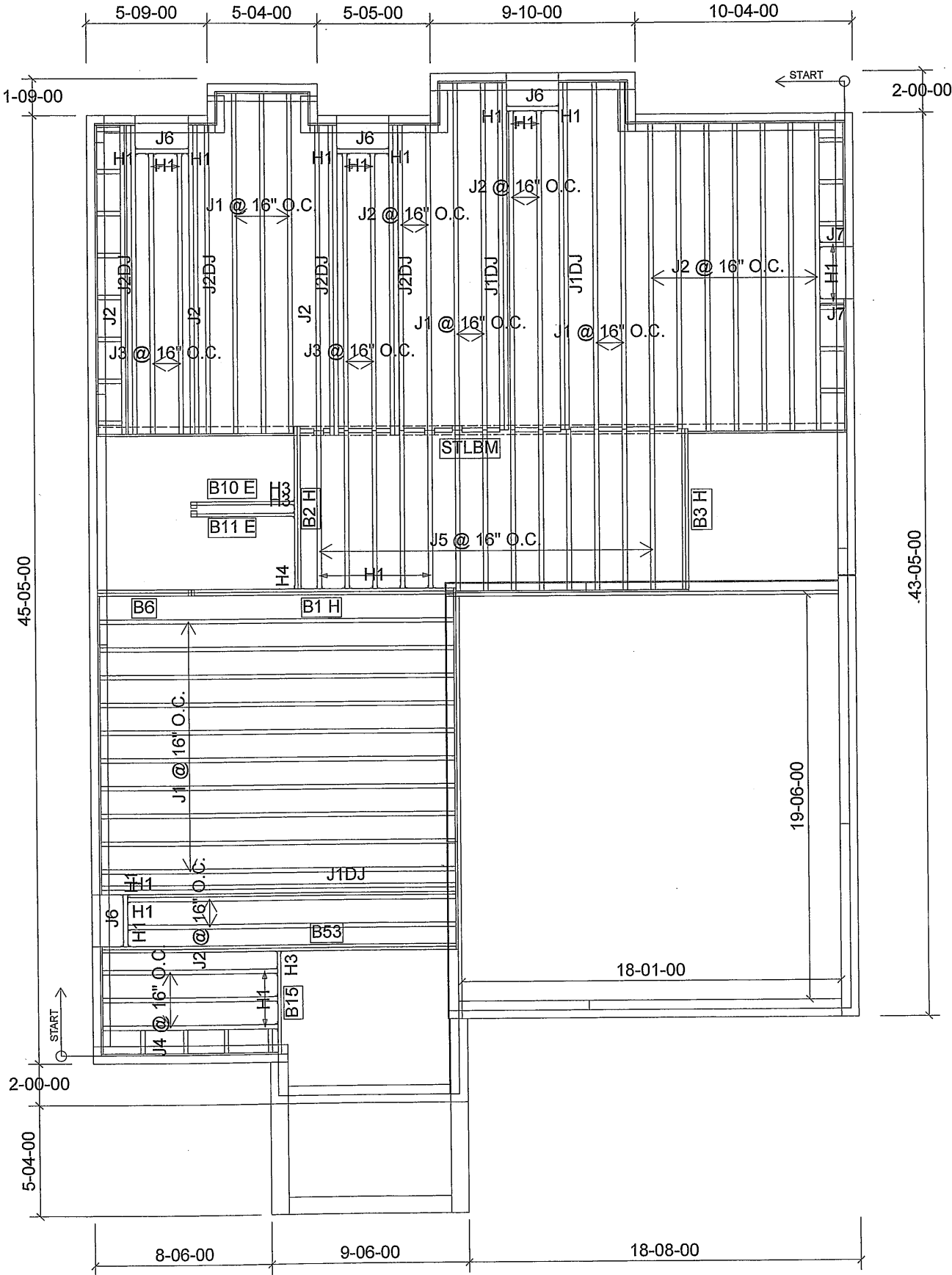
LOADING:
DESIGN LOADS: L/480.000
LIVE LOAD: 40.0 lb/ft²
DEAD LOAD: 15.0 lb/ft²
TILE LOAD: 20.0 lb/ft²

SUBFLOOR: 3/4" GLUED AND NAILED

DATE: 2021-05-17

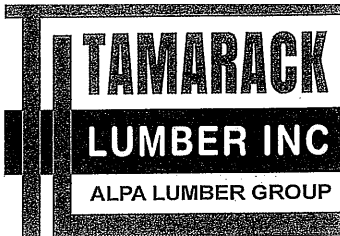
1st FLOOR

SUNKEN FOYER



Products				
PlotID	Length	Product	Plies	Net Qty
J1	18-00-00	11 7/8" NI-40x	1	17
J1DJ	18-00-00	11 7/8" NI-40x	2	6
J2	16-00-00	11 7/8" NI-40x	1	16
J2DJ	16-00-00	11 7/8" NI-40x	2	8
J3	14-00-00	11 7/8" NI-40x	1	4
J4	10-00-00	11 7/8" NI-40x	1	3
J5	8-00-00	11 7/8" NI-40x	1	13
J6	4-00-00	11 7/8" NI-40x	1	4
J7	2-00-00	11 7/8" NI-40x	1	2
B53	18-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B1 H	14-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B2 H	8-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B3 H	8-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B10 E	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1
B11 E	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1
B15	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1
B6	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2

Connector Summary		
Qty	Manuf	Product
3	H1	IUS2.56/11.88
6	H1	IUS2.56/11.88
7	H1	IUS2.56/11.88
10	H1	IUS2.56/11.88
3	H3	HUS1.81/10
1	H4	HGUS410



FROM PLAN DATED: MAR 2021

BUILDER: ROYAL PINE HOMES

SITE: CENTERFIELD - WEST GORMLEY

MODEL: 4501

ELEVATION: C

LOT:

CITY: RICHMOND HILL

SALESMAN: WILL GARCIA

DESIGNER: L.D.

REVISION: lbv

NOTES:
REFER TO THE NORDIC **INSTALLATION GUIDE** FOR PROPER STORAGE AND INSTALLATION. **SQUASH BLOCKS** OF 2x4, 2x6, 2x8 #2 S.P.F. REQ'D UNDER INTERIOR UNIFORM LOAD BEARING WALLS. **MULTIF SQUASH BLOCKS** REQ'D UNDER CONCENTRATED LOADS. SEE FIGURE 1. **CANTILEVERED JOISTS** INCLUDING **CANT OVER BRICK** REQ. I-JOIST BLOCKING ALC BEARING AND RIMBOARD CLOSURE AT ENDS. SEE FIGURE 7 TABLES 4 & 5 FOR REINFORCEMENT REQUIREMENTS. FOR **HOLES** INCLUDING **DUCT CHASE** AND **FILE CUT OPENINGS** SEE FIGURE 7 TABLES 1 OF THE INSTALLATION GUIDE. **CERAMIC** APPLICATION AS PER O.B.C. 9.30.6

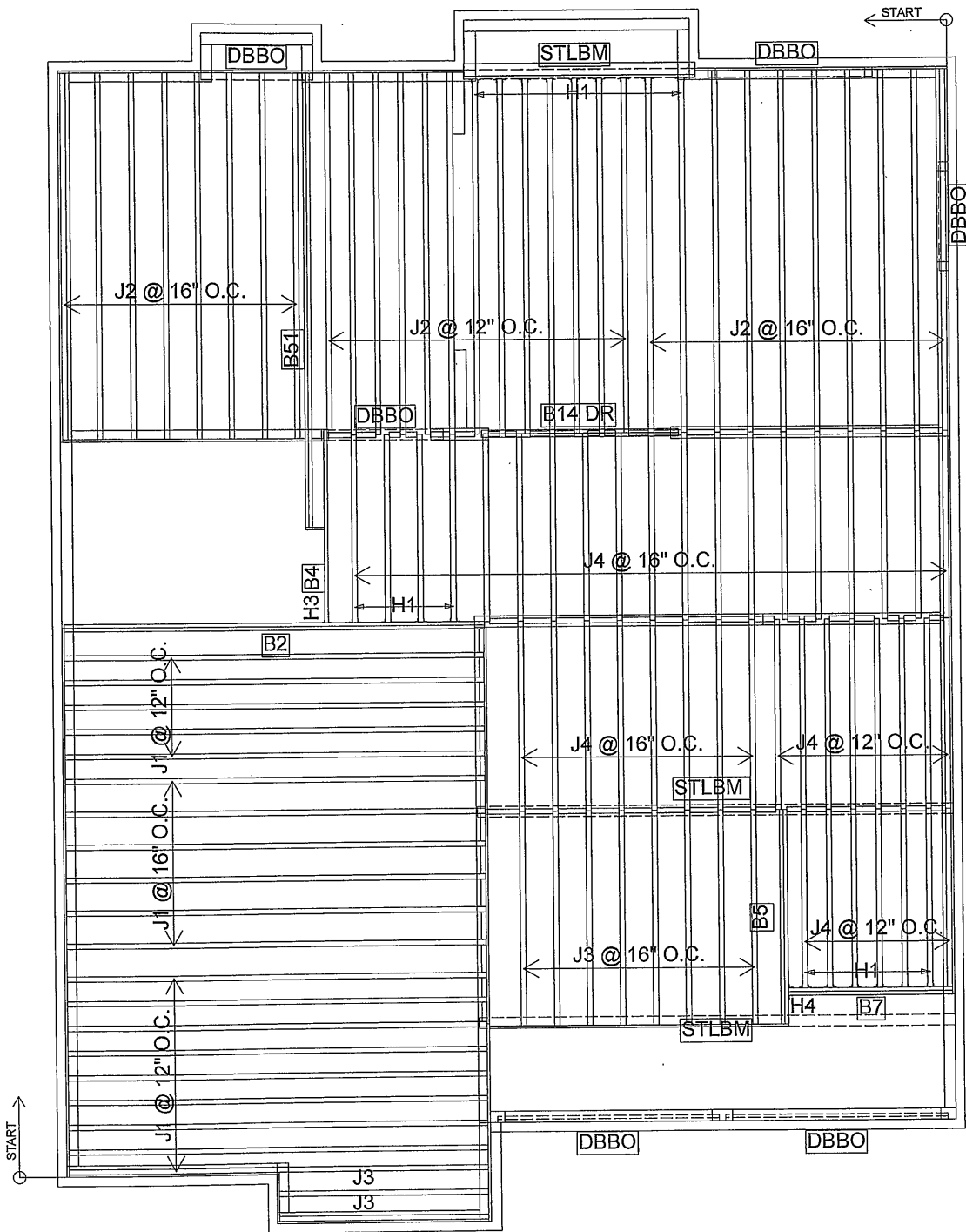
LOADING:
DESIGN LOADS: L/480.000
LIVE LOAD: 40.0 lb/ft²
DEAD LOAD: 15.0 lb/ft²
TILE LOAD: 20.0 lb/ft²

SUBFLOOR: 5/8" GLUED AND NAILED

DATE: 2021-05-17

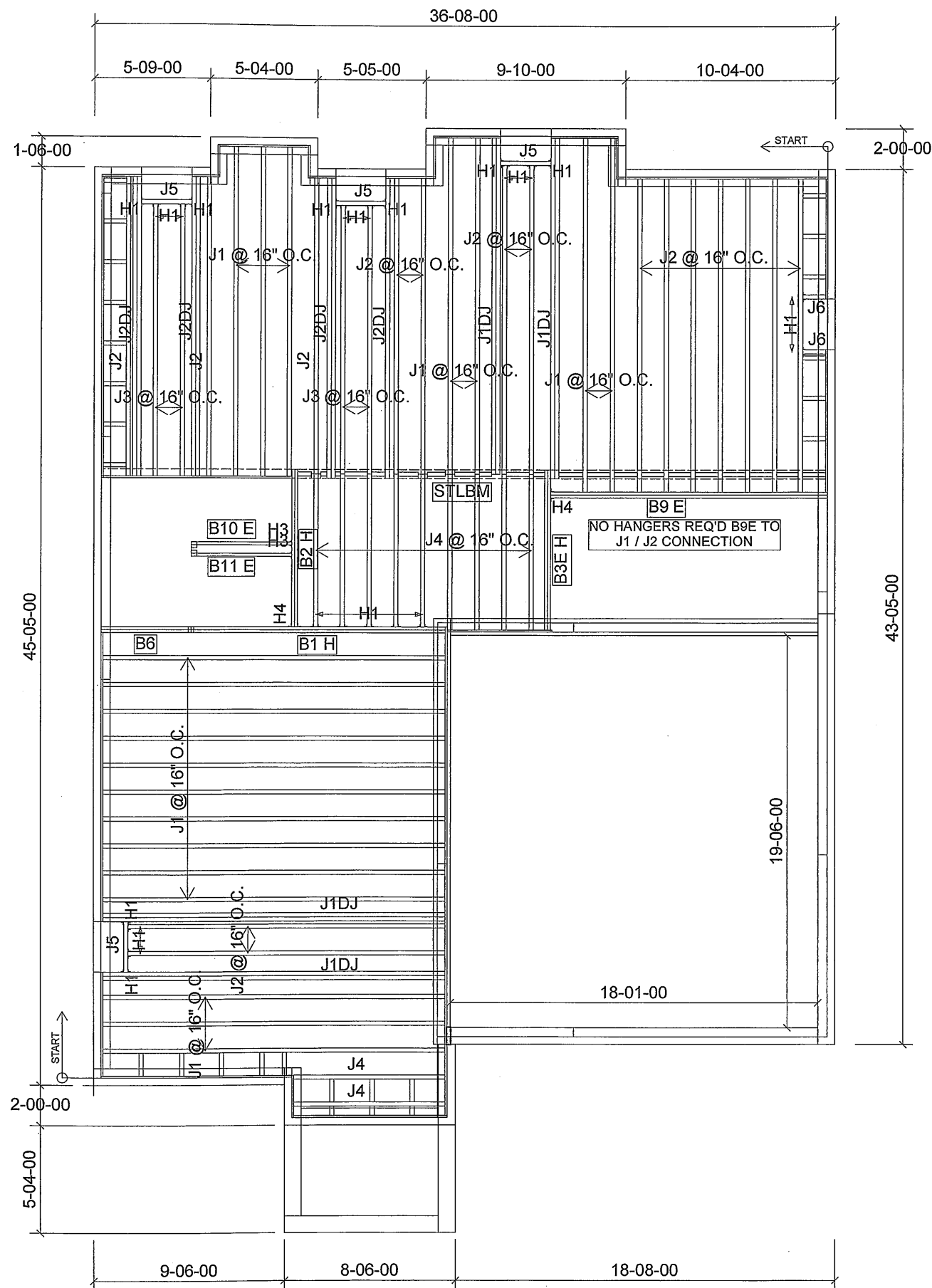
2nd FLOOR

5 BEDROOM



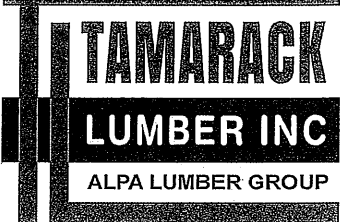
Products				
PlotID	Length	Product	Plies	Net Qty
J1	18-00-00	11 7/8" NI-40x	1	20
J2	16-00-00	11 7/8" NI-40x	1	31
J3	10-00-00	11 7/8" NI-40x	1	10
J4	8-00-00	11 7/8" NI-40x	1	42
B14 DR	8-00-00	1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP	2	2
B51	20-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B2	18-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B5	10-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B4	8-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1
B7	8-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2

Connector Summary		
Qty	Manuf	Product
10	H1	IUS2.56/11.88
9	H1	IUS2.56/11.88
1	H3	HUS1.81/10
1	H4	HGUS410



Products				
PlotID	Length	Product	Plies	Net Qty
J1	18-00-00	11 7/8" NI-40x	1	20
J1DJ	18-00-00	11 7/8" NI-40x	2	8
J2	16-00-00	11 7/8" NI-40x	1	16
J2DJ	16-00-00	11 7/8" NI-40x	2	8
J3	14-00-00	11 7/8" NI-40x	1	4
J4	8-00-00	11 7/8" NI-40x	1	11
J5	4-00-00	11 7/8" NI-40x	1	4
J6	2-00-00	11 7/8" NI-40x	1	2
B1 H	14-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B9 E	14-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B2 H	8-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B3E H	8-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B10 E	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1
B11 E	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1
B6	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2

Connector Summary		
Qty	Manuf	Product
5	H1	IUS2.56/11.88
8	H1	IUS2.56/11.88
10	H1	IUS2.56/11.88
2	H3	HUS1.81/10
2	H4	HGUS410



FROM PLAN DATED: MAR 2021

BUILDER: ROYAL PINE HOMES

SITE: CENTERFIELD - WEST GORMLEY

MODEL: 4501

ELEVATION: A

LOT:

CITY: RICHMOND HILL

SALESMAN: WILL GARCIA

DESIGNER: L.D.

REVISION: lbv

NOTES:
REFER TO THE **NORDIC INSTALLATION** GUIDE FOR PROPER STORAGE AND INSTALLATION.
SQUASH BLOCKS OF 2x4, 2x6, 2x8 #2 S.P REQ'D UNDER INTERIOR UNIFORM LOAD BEARING WALLS. **MULTIPLE SQUASH BLOCKS** REQ'D UNDER CONCENTRATED LOADS. SEE FIGURE 1. **CANTILEVERED JOISTS** INCLUDING **CANT' OVER BRICK R** I-JOIST BLOCKING ALONG BEARING AND RIMBOARD CLOSURE AT ENDS. SEE FIGURES 4 & 5 FOR REINFORCEMENT REQUIREMENTS. FOR **HOLES** INCLUDING **DUCT CHASE** AND **FIELD CUT OPENINGS** SEE FIGURE 7, TABLES 1 & 2. **CERAMIC T** APPLICATION AS PER O.B.C 9.30.6.

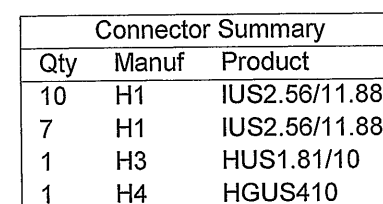
LOADING:
DESIGN LOADS: L/480.000
LIVE LOAD: 40.0 lb/ft²
DEAD LOAD: 15.0 lb/ft²
TILE LOAD: 20.0 lb/ft²

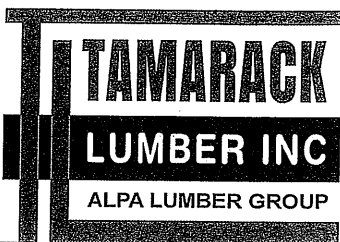
SUBFLOOR: 3/4" GLUED AND NAILED

DATE: 2021-05-17

1st FLOOR

MUDROOM / KITCHEN OPTION





FROM PLAN DATED: MAR 2021

BUILDER: ROYAL PINE HOMES

SITE: CENTERFIELD - WEST GORMLEY

MODEL: 4501

ELEVATION: B

LOT:

CITY: RICHMOND HILL

SALESMAN: WILL GARCIA

DESIGNER: L.D.

REVISION: lbv

NOTES:
REFER TO THE **NORDIC INSTALLATION** GUIDE FOR PROPER STORAGE AND INSTALLATION.
SQUASH BLOCKS OF 2x4, 2x6, 2x8 #2 S.P. REQ'D UNDER INTERIOR UNIFORM LOAD BEARING WALLS. **MULTIPLE SQUASH BLOCKS** REQ'D UNDER CONCENTRATED LOADS. SEE FIGURE 1. **CANTILEVERED JOISTS** INCLUDING **CANT' OVER BRICK** RE I-JOIST BLOCKING ALONG BEARING AND RIMBOARD CLOSURE AT ENDS. SEE FIGURES 4 & 5 FOR REINFORCEMENT REQUIREMENTS. FOR **HOLES** INCLUDING **DUCT CHASE** AND **FIELD CUT OPENINGS** SEE FIGURE 7, TABLES 1 & 2. **CERAMIC TI** APPLICATION AS PER O.B.C 9.30.6.

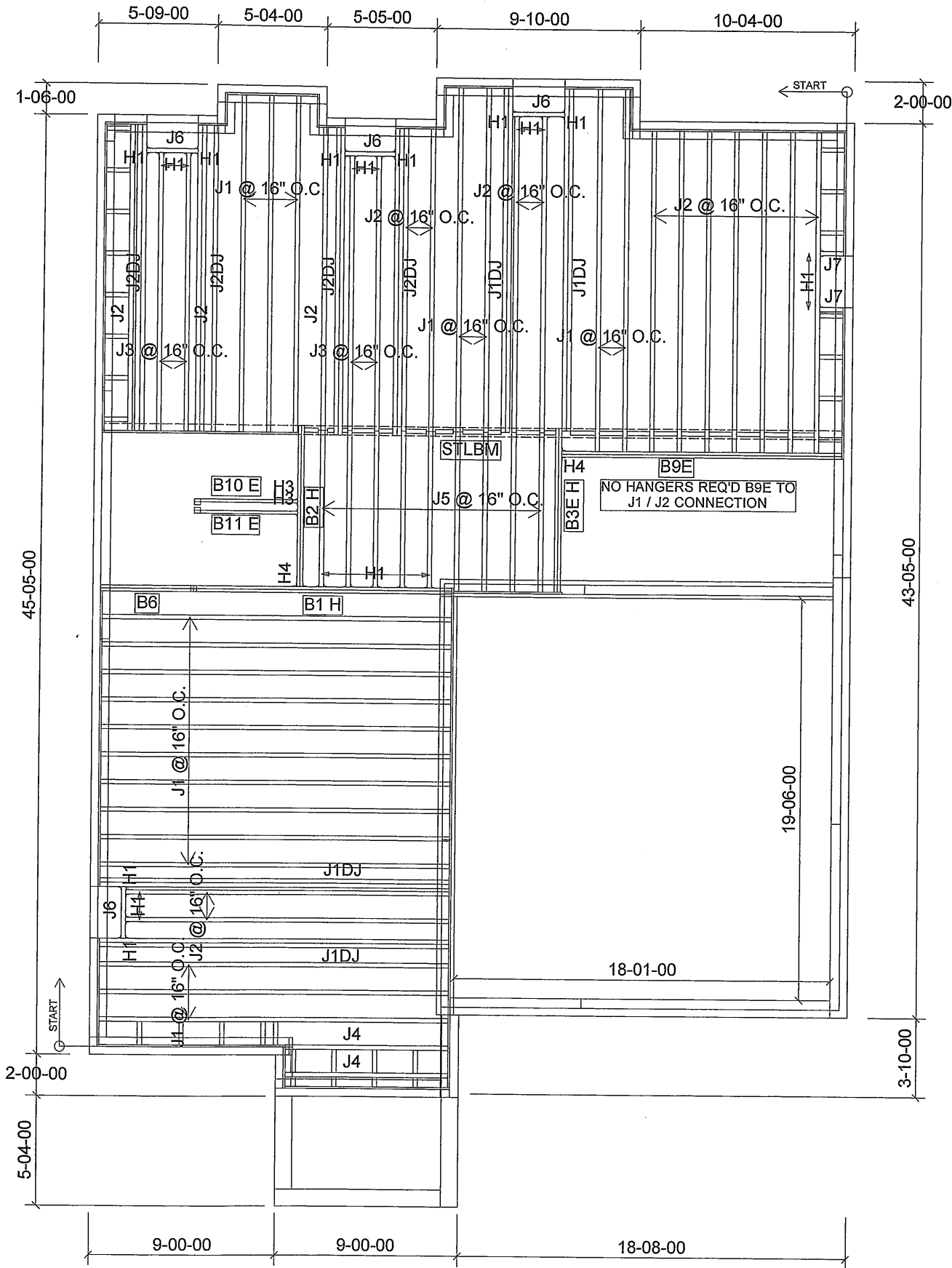
LOADING:
DESIGN LOADS: L/480.000
LIVE LOAD: 40.0 lb/ft²
DEAD LOAD: 15.0 lb/ft²
TILE LOAD: 20.0 lb/ft²

SUBFLOOR: 3/4" GLUED AND NAILED

DATE: 2021-05-17

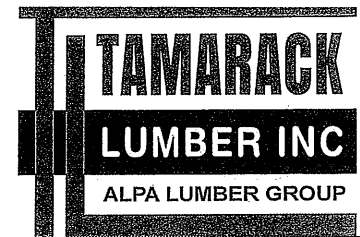
1st FLOOR

MUDROOM / KITCHEN OPTION



Products				
PlotID	Length	Product	Plies	Net Qty
J1	18-00-00	11 7/8" NI-40x	1	20
J1DJ	18-00-00	11 7/8" NI-40x	2	8
J2	16-00-00	11 7/8" NI-40x	1	16
J2DJ	16-00-00	11 7/8" NI-40x	2	8
J3	14-00-00	11 7/8" NI-40x	1	4
J4	10-00-00	11 7/8" NI-40x	1	2
J5	8-00-00	11 7/8" NI-40x	1	9
J6	4-00-00	11 7/8" NI-40x	1	4
J7	2-00-00	11 7/8" NI-40x	1	2
B1 H	14-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B9E	14-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B2 H	8-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B3E H	8-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B10 E	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1
B11 E	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1
B6	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2

Connector Summary		
Qty	Manuf	Product
5	H1	IUS2.56/11.88
8	H1	IUS2.56/11.88
10	H1	IUS2.56/11.88
2	H3	HUS1.81/10
2	H4	HGUS410



FROM PLAN DATED: MAR 2021

BUILDER: ROYAL PINE HOMES

SITE: CENTERFIELD - WEST GORMLEY

MODEL: 4501

ELEVATION: B

LOT:

CITY: RICHMOND HILL

SALESMAN: WILL GARCIA

DESIGNER: L.D.

REVISION: lbv

NOTES:

REFER TO THE NORDIC **INSTALLATION GUIDE** FOR PROPER STORAGE AND INSTALLATION. **SQUASH BLOCKS** OF 2x4, 2x6, 2x8 #2 S.P.F. REQ'D UNDER INTERIOF UNIFORM LOAD BEARING WALLS. **MULTIPI SQUASH BLOCKS** REQ'D UNDER CONCENTRATED LOADS. SEE FIGURE 1. **CANTILEVERED JOISTS** INCLUDING **CANT' OVER BRICK** REQ. I-JOIST BLOCKING ALO BEARING AND RIMBOARD CLOSURE AT ENDS. SEE FIGURE 7 TABLES 4 & 5 FOR REINFORCEMENT REQUIREMENTS. FOR **HOLES** INCLUDING **DUCT CHASE** AND **FIE CUT OPENINGS** SEE FIGURE 7 TABLES 1 , OF THE INSTALLATION GUIDE. **CERAMIC 1** APPLICATION AS PER O.B.C. 9.30.6

LOADING:

DESIGN LOADS: L/480.000

LIVE LOAD: 40.0 lb/ft²

DEAD LOAD: 15.0 lb/ft²

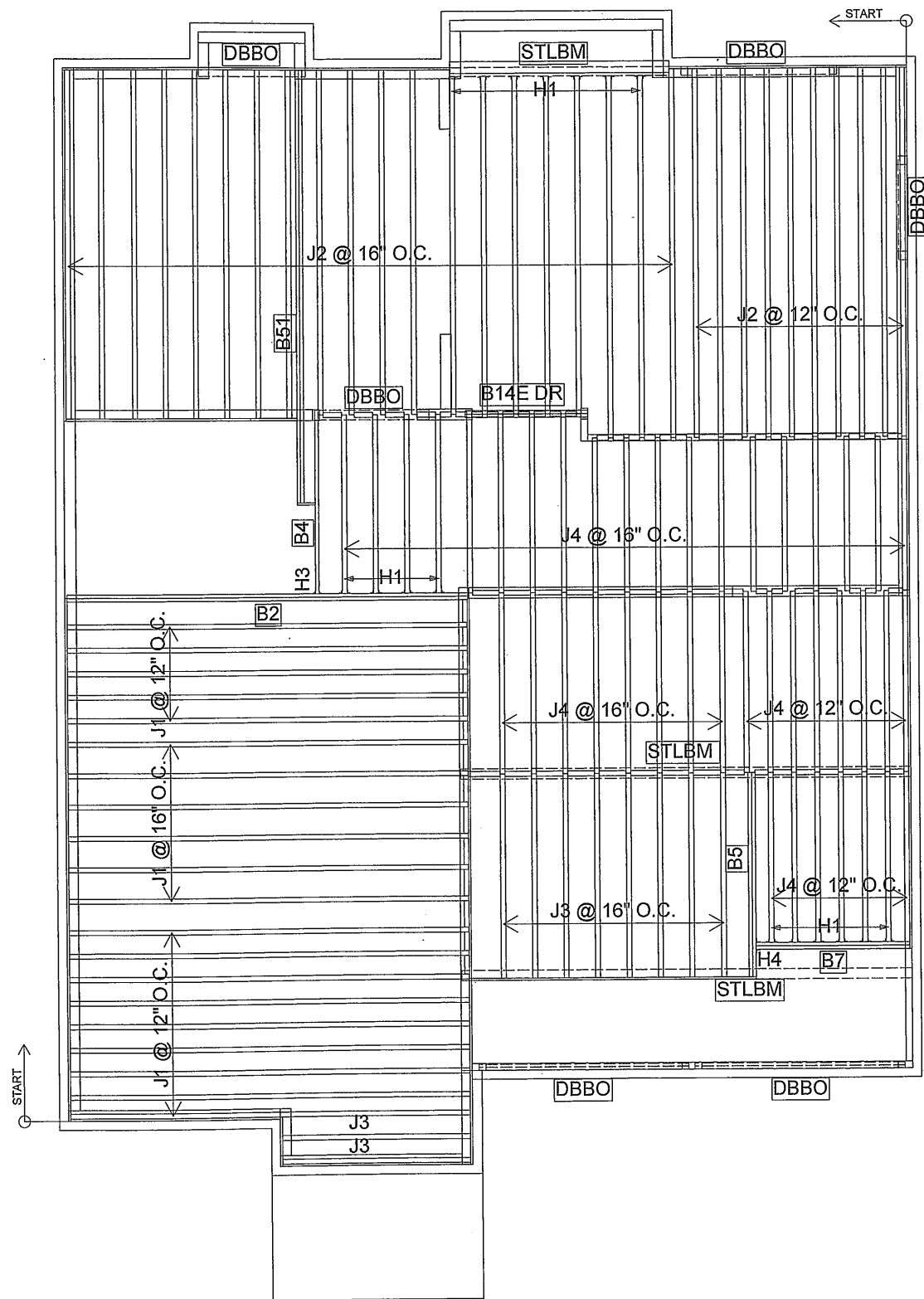
TILE LOAD: 20.0 lb/ft²

SUBFLOOR: 5/8" GLUED AND NAILED

DATE: 2021-05-17

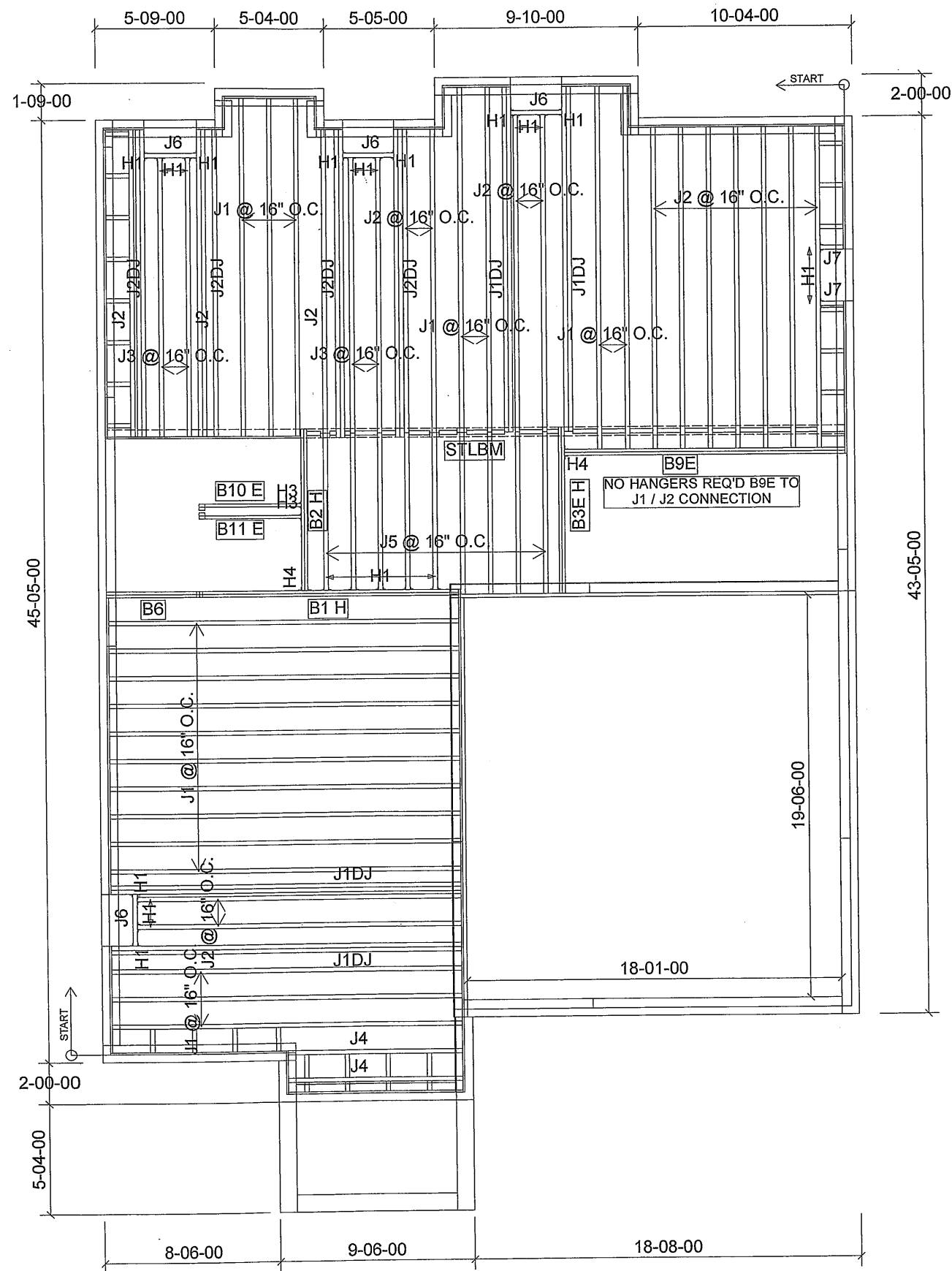
2nd FLOOR

MUDROOM / KITCHEN OPTION



Products				
PlotID	Length	Product	Plies	Net Qty
J1	18-00-00	11 7/8" NI-40x	1	20
J2	16-00-00	11 7/8" NI-40x	1	30
J3	10-00-00	11 7/8" NI-40x	1	10
J4	8-00-00	11 7/8" NI-40x	1	42
B14E DR	6-00-00	1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP	2	2
B51	20-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B2	18-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B5	10-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B4	8-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1
B7	8-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2

Connector Summary		
Qty	Manuf	Product
10	H1	IUS2.56/11.88
7	H1	IUS2.56/11.88
1	H3	HUS1.81/10
1	H4	HGUS410



Products				
PlotID	Length	Product	Plies	Net Qty
J1	18-00-00	11 7/8" NI-40x	1	20
J1DJ	18-00-00	11 7/8" NI-40x	2	8
J2	16-00-00	11 7/8" NI-40x	1	16
J2DJ	16-00-00	11 7/8" NI-40x	2	8
J3	14-00-00	11 7/8" NI-40x	1	4
J4	10-00-00	11 7/8" NI-40x	1	2
J5	8-00-00	11 7/8" NI-40x	1	9
J6	4-00-00	11 7/8" NI-40x	1	4
J7	2-00-00	11 7/8" NI-40x	1	2
B1 H	14-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B9E	14-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B3E H	10-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B2 H	8-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B10 E	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1
B11 E	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1
B6	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2

Connector Summary		
Qty	Manuf	Product
5	H1	IUS2.56/11.88
8	H1	IUS2.56/11.88
10	H1	IUS2.56/11.88
2	H3	HUS1.81/10
2	H4	HGUS410

FROM PLAN DATED: MAR 2021

BUILDER: ROYAL PINE HOMES

SITE: CENTERFIELD - WEST GORMLEY

MODEL: 4501

ELEVATION: C

LOT:

CITY: RICHMOND HILL

SALESMAN: WILL GARCIA

DESIGNER: L.D.

REVISION: lbv

NOTES:

REFER TO THE **NORDIC INSTALLATION** GUIDE FOR PROPER STORAGE AND INSTALLATION.
SQUASH BLOCKS OF 2x4, 2x6, 2x8 #2 S.P. REQ'D UNDER INTERIOR UNIFORM LOAD BEARING WALLS. **MULTIPLE SQUASH BLOCKS** REQ'D UNDER CONCENTRATED LOADS. SEE FIGURE 1. **CANTILEVERED JOISTS** INCLUDING CANT' OVER BRICK RI I-JOIST BLOCKING ALONG BEARING AND RIMBOARD CLOSURE AT ENDS. SEE FIGURES 4 & 5 FOR REINFORCEMENT REQUIREMENTS. FOR **HOLES** INCLUDING **DUCT CHASE** AND **FIELD CUT OPENINGS** SEE FIGURE 7, TABLES 1 & 2. **CERAMIC T** APPLICATION AS PER O.B.C 9.30.6.

LOADING:

DESIGN LOADS: L/480.000
LIVE LOAD: 40.0 lb/ft²
DEAD LOAD: 15.0 lb/ft²
TILE LOAD: 20.0 lb/ft²

SUBFLOOR: 3/4" GLUED AND NAILED

DATE: 2021-05-17

1st FLOOR

MUDROOM / KITCHEN OPTION

FROM PLAN DATED: MAR 2021

BUILDER: ROYAL PINE HOMES

SITE: CENTERFIELD - WEST GORMLEY

MODEL: 4501

ELEVATION: C

LOT:

CITY: RICHMOND HILL

SALESMAN: WILL GARCIA

DESIGNER: L.D.

REVISION: lbv

NOTES:

REFER TO THE NORDIC **INSTALLATION GUIDE** FOR PROPER STORAGE AND INSTALLATION. **SQUASH BLOCKS** OF 2x4, 2x6, 2x8 #2 S.P.F. REQ'D UNDER INTERIOF UNIFORM LOAD BEARING WALLS. **MULTIP SQUASH BLOCKS** REQ'D UNDER CONCENTRATED LOADS. SEE FIGURE 1. **CANTILEVERED JOISTS** INCLUDING **CANT OVER BRICK** REQ. I-JOIST BLOCKING ALC BEARING AND RIMBOARD CLOSURE AT ENDS. SEE FIGURE 7 TABLES 4 & 5 FOR REINFORCEMENT REQUIREMENTS. FOR **HOLES** INCLUDING **DUCT CHASE** AND **FILE CUT OPENINGS** SEE FIGURE 7 TABLES 1 OF THE INSTALLATION GUIDE. **CERAMIC** APPLICATION AS PER O.B.C. 9.30.6

LOADING:

DESIGN LOADS: L/480.000

LIVE LOAD: 40.0 lb/ft²

DEAD LOAD: 15.0 lb/ft²

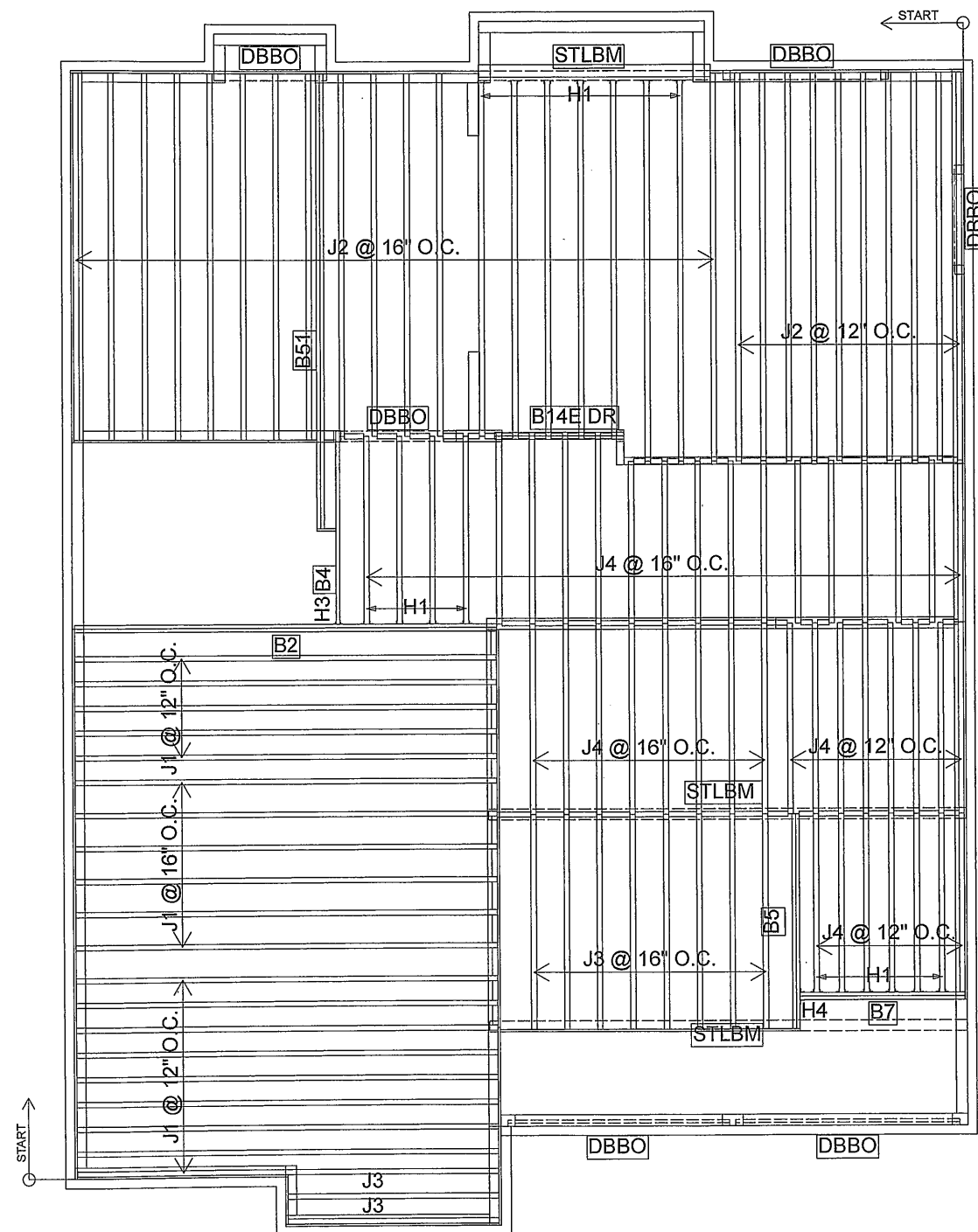
TILE LOAD: 20.0 lb/ft²

SUBFLOOR: 5/8" GLUED AND NAILED

DATE: 2021-05-17

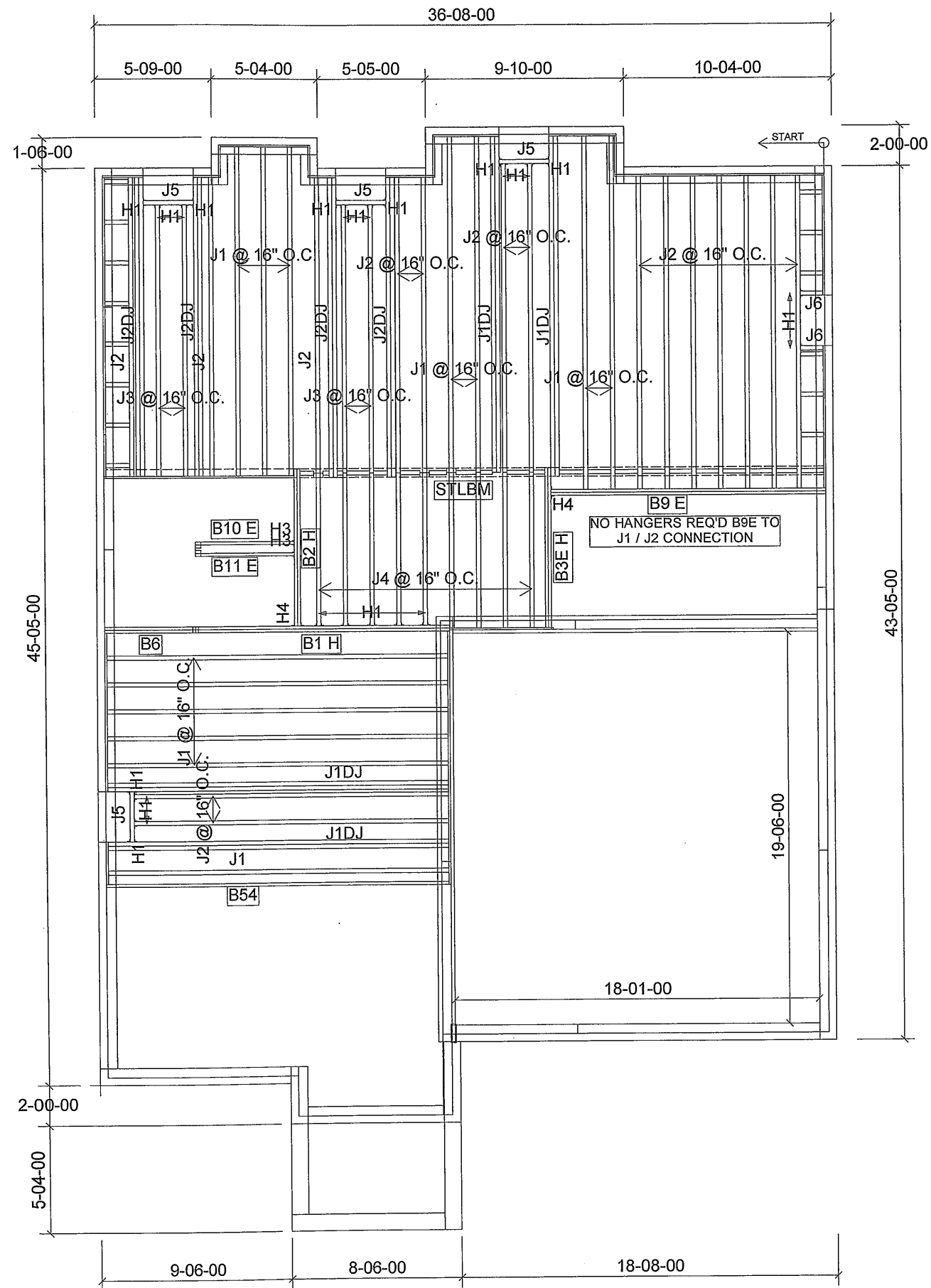
2nd FLOOR

MUDROOM / KITCHEN OPTION



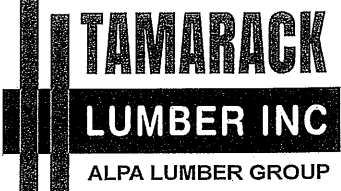
Products				
PlotID	Length	Product	Plies	Net Qty
J1	18-00-00	11 7/8" NI-40x	1	20
J2	16-00-00	11 7/8" NI-40x	1	30
J3	10-00-00	11 7/8" NI-40x	1	10
J4	8-00-00	11 7/8" NI-40x	1	42
B14E DR	6-00-00	1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP	2	2
B51	20-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B2	18-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B5	10-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B4	8-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1
B7	8-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2

Connector Summary		
Qty	Manuf	Product
10	H1	IUS2.56/11.88
7	H1	IUS2.56/11.88
1	H3	HUS1.81/10
1	H4	HGUS410



Products				
PlotID	Length	Product	Plies	Net Qty
J1	18-00-00	11 7/8" NI-40x	1	13
J1DJ	18-00-00	11 7/8" NI-40x	2	8
J2	16-00-00	11 7/8" NI-40x	1	16
J2DJ	16-00-00	11 7/8" NI-40x	2	8
J3	14-00-00	11 7/8" NI-40x	1	4
J4	8-00-00	11 7/8" NI-40x	1	9
J5	4-00-00	11 7/8" NI-40x	1	4
J6	2-00-00	11 7/8" NI-40x	1	2
B54	18-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1
B1 H	14-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B9 E	14-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B2 H	8-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B3E H	8-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B10 E	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1
B11 E	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1
B6	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2

Connector Summary		
Qty	Manuf	Product
5	H1	IUS2.56/11.88
8	H1	IUS2.56/11.88
10	H1	IUS2.56/11.88
2	H3	HUS1.81/10
2	H4	HGUS410



FROM PLAN DATED: MAR 2021

BUILDER: ROYAL PINE HOMES

SITE: CENTERFIELD - WEST GORMLEY

MODEL: 4501

ELEVATION: A

LOT:

CITY: RICHMOND HILL

SALESMAN: WILL GARCIA

DESIGNER: L.D.

REVISION: lbv

NOTES:

REFER TO THE **NORDIC INSTALLATION** GUIDE FOR PROPER STORAGE AND INSTALLATION.

SQUASH BLOCKS OF 2x4, 2x6, 2x8 #2 S.P. REQ'D UNDER INTERIOR UNIFORM LOAD BEARING WALLS. **MULTIPLE SQUASH BLOCKS** REQ'D UNDER CONCENTRATED LOADS. SEE FIGURE 1. **CANTILEVERED JOISTS** INCLUDING **CANT' OVER BRICK RI** I-JOIST BLOCKING ALONG BEARING AND RIMBOARD CLOSURE AT ENDS. SEE FIGURES 4 & 5 FOR REINFORCEMENT REQUIREMENTS. FOR **HOLES** INCLUDING **DUCT CHASE** AND **FIELD CUT OPENINGS** SEE FIGURE 7, TABLES 1 & 2. **CERAMIC T** APPLICATION AS PER O.B.C 9.30.6.

LOADING:

DESIGN LOADS: L/480.000

LIVE LOAD: 40.0 lb/ft²

DEAD LOAD: 15.0 lb/ft²

TILE LOAD: 20.0 lb/ft²

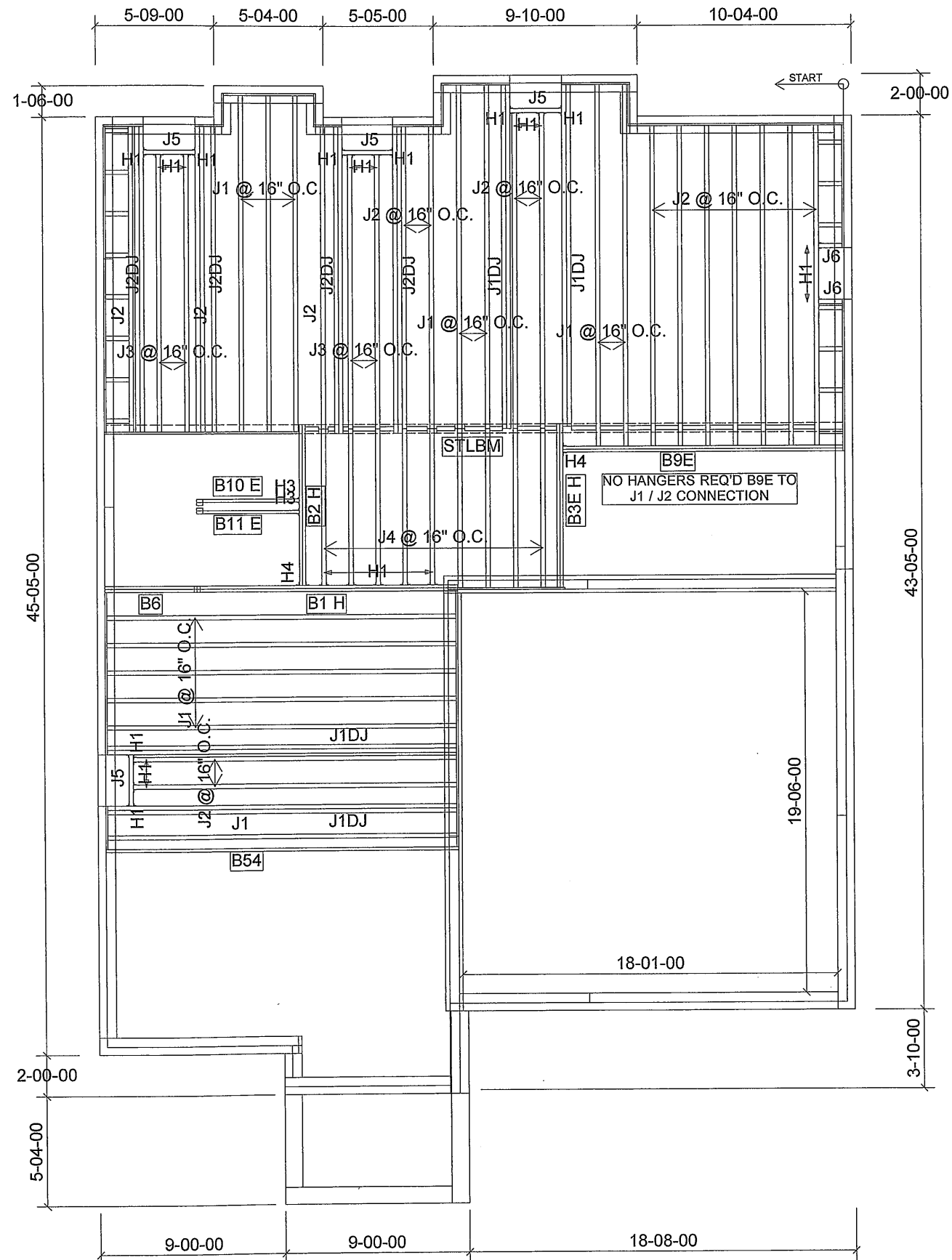
SUBFLOOR: 3/4" GLUED AND NAILED

DATE: 2021-05-17

1st FLOOR

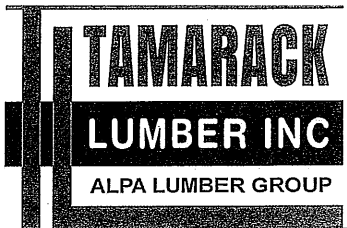
MUDROOM / KITCHEN OPTION

SUNKEN DEN



Products				
PlotID	Length	Product	Plies	Net Qty
J1	18-00-00	11 7/8" NI-40x	1	13
J1DJ	18-00-00	11 7/8" NI-40x	2	8
J2	16-00-00	11 7/8" NI-40x	1	16
J2DJ	16-00-00	11 7/8" NI-40x	2	8
J3	14-00-00	11 7/8" NI-40x	1	4
J4	8-00-00	11 7/8" NI-40x	1	9
J5	4-00-00	11 7/8" NI-40x	1	4
J6	2-00-00	11 7/8" NI-40x	1	2
B54	18-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1
B1 H	14-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B9E	14-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B2 H	8-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B3E H	8-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B10 E	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1
B11 E	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1
B6	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2

Connector Summary		
Qty	Manuf	Product
5	H1	IUS2.56/11.88
8	H1	IUS2.56/11.88
10	H1	IUS2.56/11.88
2	H3	HUS1.81/10
2	H4	HGUS410



FROM PLAN DATED: MAR 2021

BUILDER: ROYAL PINE HOMES

SITE: CENTERFIELD - WEST GORMLEY

MODEL: 4501

ELEVATION: B

LOT:

CITY: RICHMOND HILL

SALESMAN: WILL GARCIA

DESIGNER: L.D.

REVISION: lbv

NOTES:
REFER TO THE **NORDIC INSTALLATION** GUIDE FOR PROPER STORAGE AND INSTALLATION.
SQUASH BLOCKS OF 2x4, 2x6, 2x8 #2 S.F REQ'D UNDER INTERIOR UNIFORM LOAD BEARING WALLS. **MULTIPLE SQUASH BLOCKS** REQ'D UNDER CONCENTRATED LOADS. SEE FIGURE 1. **CANTILEVERED JOISTS** INCLUDING **CANT' OVER BRICK R** I-JOIST BLOCKING ALONG BEARING AND RIMBOARD CLOSURE AT ENDS. SEE FIGURES 4 & 5 FOR REINFORCEMENT REQUIREMENTS. FOR **HOLES** INCLUDING **DUCT CHASE** AND **FIELD CUT OPENINGS** SEE FIGURE 7, TABLES 1 & 2. **CERAMIC 1** APPLICATION AS PER O.B.C 9.30.6.

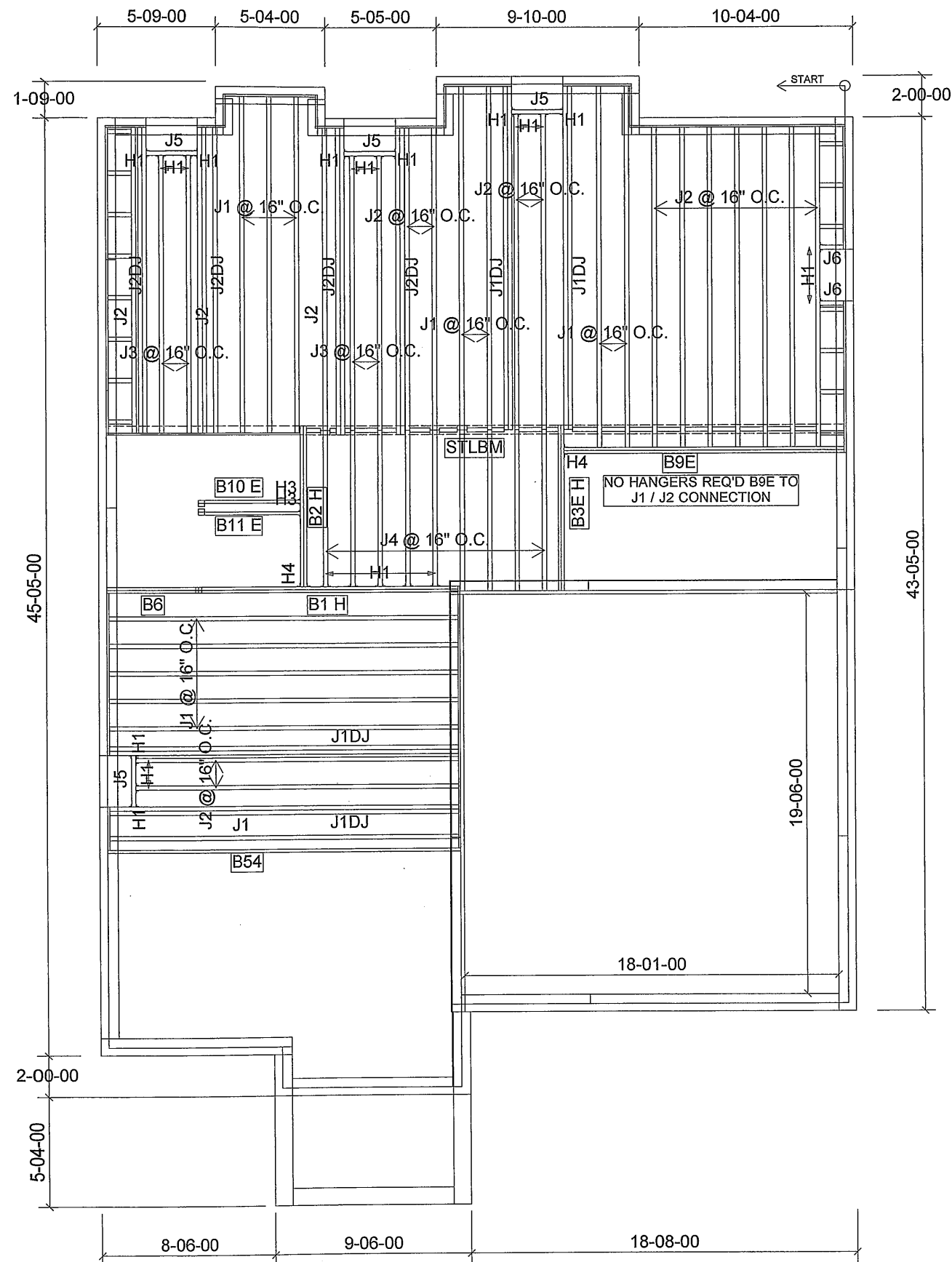
LOADING:
DESIGN LOADS: L/480.000
LIVE LOAD: 40.0 lb/ft²
DEAD LOAD: 15.0 lb/ft²
TILE LOAD: 20.0 lb/ft²

SUBFLOOR: 3/4" GLUED AND NAILED

DATE: 2021-05-17

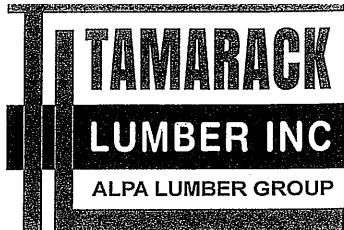
1st FLOOR

MUDROOM / KITCHEN OPTION
SUNKEN DEN



Products				
PlotID	Length	Product	Plies	Net Qty
J1	18-00-00	11 7/8" NI-40x	1	13
J1DJ	18-00-00	11 7/8" NI-40x	2	8
J2	16-00-00	11 7/8" NI-40x	1	16
J2DJ	16-00-00	11 7/8" NI-40x	2	8
J3	14-00-00	11 7/8" NI-40x	1	4
J4	8-00-00	11 7/8" NI-40x	1	9
J5	4-00-00	11 7/8" NI-40x	1	4
J6	2-00-00	11 7/8" NI-40x	1	2
B54	18-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1
B1 H	14-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B9E	14-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B3E H	10-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B2 H	8-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B10 E	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1
B11 E	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1
B6	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2

Connector Summary		
Qty	Manuf	Product
5	H1	IUS2.56/11.88
8	H1	IUS2.56/11.88
10	H1	IUS2.56/11.88
2	H3	HUS1.81/10
2	H4	HGUS410



FROM PLAN DATED: MAR 2021

BUILDER: ROYAL PINE HOMES

SITE: CENTERFIELD - WEST GORMLEY

MODEL: 4501

ELEVATION: C

LOT:

CITY: RICHMOND HILL

SALESMAN: WILL GARCIA

DESIGNER: L.D.

REVISION: lbv

NOTES:
REFER TO THE **NORDIC INSTALLATION** GUIDE FOR PROPER STORAGE AND INSTALLATION.
SQUASH BLOCKS OF 2x4, 2x6, 2x8 #2 S.P. REQ'D UNDER INTERIOR UNIFORM LOAD BEARING WALLS. **MULTIPLE SQUASH BLOCKS** REQ'D UNDER CONCENTRATED LOADS. SEE FIGURE 1. **CANTILEVERED JOISTS** INCLUDING **CANT' OVER BRICK** RE I-JOIST BLOCKING ALONG BEARING AND RIMBOARD CLOSURE AT ENDS. SEE FIGURES 4 & 5 FOR REINFORCEMENT REQUIREMENTS. FOR **HOLES** INCLUDING **DUCT CHASE** AND **FIELD CUT OPENINGS** SEE FIGURE 7, TABLES 1 & 2. **CERAMIC TI** APPLICATION AS PER O.B.C 9.30.6.

LOADING:
DESIGN LOADS: L/480.000
LIVE LOAD: 40.0 lb/ft²
DEAD LOAD: 15.0 lb/ft²
TILE LOAD: 20.0 lb/ft²

SUBFLOOR: 3/4" GLUED AND NAILED

DATE: 2021-05-17

1st FLOOR

MUDROOM / KITCHEN OPTION
SUNKEN DEN

**Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP****PASSED****1ST FLR FRAMING\Flush Beams\B1 H(i25546) (Flush Beam)**

Dry | 1 span | No cant.

August 10, 2020 08:16:17

BC CALC® Member Report

Build 7493

Job name:

File name: 4501 - EL A.mmdl

Address:

Description: 1ST FLR FRAMING\Flush Beams\B1 H(i25546)

City, Province, Postal Code: RICHMOND HILL

Specifier:

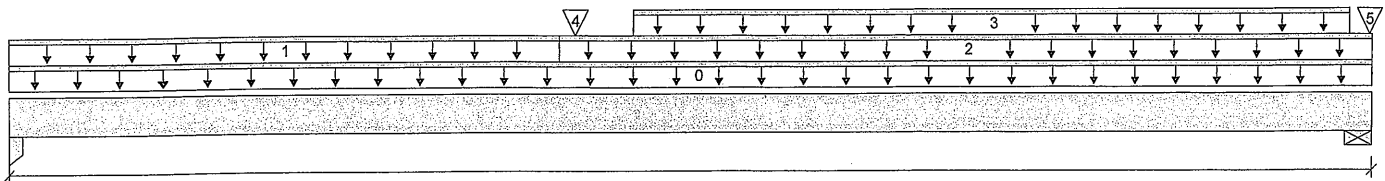
Customer:

Designer: L.D.

Code reports:

CCMC 12472-R

Company:



B1

Total Horizontal Product Length = 12-06-08

B2

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 1-3/4"	906 / 0	561 / 0		
B2, 5-1/2"	2616 / 0	1551 / 0		

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 1.00	Dead 0.65	Snow 1.00	Wind 1.15	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	12-06-08	Top		12			00-00-00
1	FC1 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	05-00-00	Top	31	15			n/a
2	FC1 Floor Material	Unf. Lin. (lb/ft)	L	05-00-00	12-06-08	Top	28	14			n/a
3	Smoothed Load	Unf. Lin. (lb/ft)	L	05-08-00	12-04-00	Top	154	77			n/a
4	B2 H(i23231)	Conc. Pt. (lbs)	L	05-01-12	05-01-12	Top	782	450			n/a
5	2(i274)	Conc. Pt. (lbs)	L	12-06-04	12-06-04	Top	1340	812			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	9367 ft-lbs	35392 ft-lbs	26.5%	1	05-01-12
End Shear	2476 lbs	14464 lbs	17.1%	1	11-01-02
Total Load Deflection	L/864 (0.168")	n/a	27.8%	4	06-02-03
Live Load Deflection	L/999 (0.105")	n/a	n/a	5	06-02-03
Max Defl.	0.168"	n/a	n/a	4	06-02-03
Span / Depth	12.2				

Bearing Supports	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1	Column 1-3/4" x 3-1/2"	2060 lbs	41.4%	27.6%	Unspecified
B2	Wall/Plate 5-1/2" x 3-1/2"	5863 lbs	49.5%	25.0%	Spruce-Pine-Fir

Notes

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

Design meets Code minimum (L/360) Live 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 2015 and CSA O86.

Design based on Dry Service Condition.

Importance Factor : Normal Part code : Part 9

CONFORMS TO OBC 2012

AMENDED 2020



OWG NO. 7493 874 -21
STRUCTURAL
COMPONENT ONLY



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

PASSED

1ST FLR FRAMING\Flush Beams\B1 H(i25546) (Flush Beam)

Dry | 1 span | No cant.

August 10, 2020 08:16:17

BC CALC® Member Report

Build 7493

Job name:

Address:

City, Province, Postal Code: RICHMOND HILL

Customer:

Code reports: CCMC 12472-R

File name: 4501 - EL A.mmdl

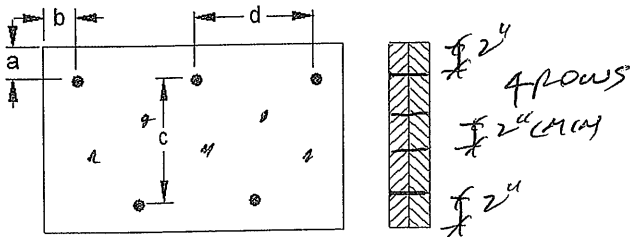
Description: 1ST FLR FRAMING\Flush Beams\B1 H(i25546)

Specifier:

Designer: L.D.

Company:

Connection Diagram: Full Length of Member



a minimum = 2"

b minimum = 3"

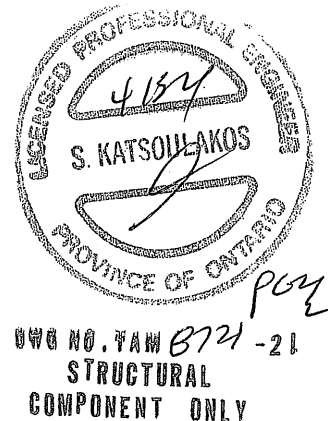
c = 7-7/8"

d = 8"

Calculated Side Load = 1081.6 lb/ft

Connectors are: 1, Nails

3 1/2" ARDOX SPIRAL



Disclosure

Use of the Boise Cascade Software is subject to the terms of the End User License Agreement (EULA). Completeness and accuracy of input must be reviewed and verified by a qualified engineer or other appropriate expert to assure its adequacy, prior to anyone relying on such output as evidence of suitability for a particular application. The output here is 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 (800)232-0788 before installation.

BC CALC®, BC FRAMER®, AJS™, ALLJOIST®, BC RIM BOARD™, BCI®, BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,



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

PASSED

1ST FLR FRAMING\Flush Beams\B10 E(i22986) (Flush Beam)

Dry | 1 span | No cant.

August 10, 2020 08:16:17

BC CALC® Member Report

Build 7493

Job name:

File name: 4501 - EL A.mmdl

Address:

Description: 1ST FLR FRAMING\Flush Beams\B10 E(i22986)

City, Province, Postal Code: RICHMOND HILL

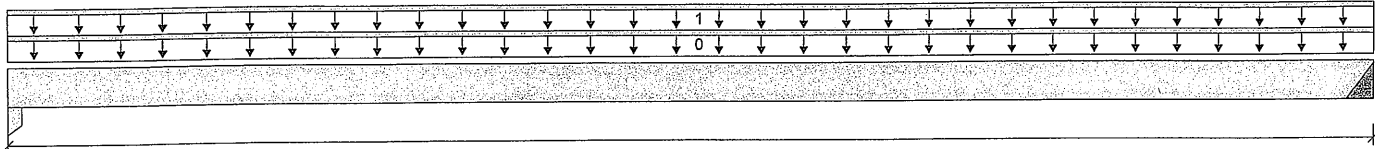
Specifier:

Customer:

Designer: L.D.

Code reports: CCMC 12472-R

Company:



B1

05-00-00

B2

Total Horizontal Product Length = 05-00-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 3-1/2"	36 / 0	33 / 0		
B2, 3"	35 / 0	32 / 0		

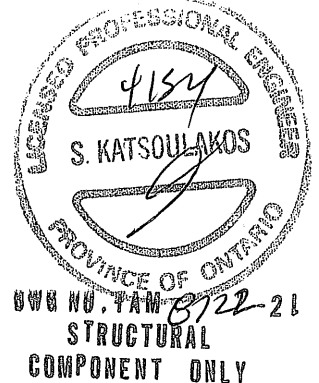
Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live	Dead	Snow	Wind	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	05-00-00	Top	1.00	0.65	1.00	1.15	00-00-00
1	FC1 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	05-00-00	Top	14	7			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	99 ft-lbs	17696 ft-lbs	0.6%	1	02-06-04
End Shear	47 lbs	7232 lbs	0.6%	1	01-03-06
Total Load Deflection	L/999 (0.001")	n/a	n/a	4	02-06-04
Live Load Deflection	L/999 (0")	n/a	n/a	5	02-06-04
Max Defl.	0.001"	n/a	n/a	4	02-06-04
Span / Depth	4.6				

Bearing Supports	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1 Column	3-1/2" x 1-3/4"	95 lbs	1.9%	1.3%	Unspecified
B2 Hanger	3" x 1-3/4"	93 lbs	n/a	1.5%	HUS1.81/10



Cautions

Header for the hanger HUS1.81/10 is a Double 1-3/4" x 11-7/8" LVL Beam.

Hanger model HUS1.81/10 and seat length were input by the user. Hanger has not been analyzed for adequate capacity.

Notes

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

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

Calculations assume member is fully braced.

Hanger Manufacturer: Unassigned

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 2015 and CSA O86.

Design based on Dry Service Condition.

Importance Factor : Normal Part code : Part 9

CONFORMS TO OBC 2012

AMENDED 2020

Disclosure

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BC CALC®, BC FRAMER®, AJS™, ALLJOIST®, BC RIM BOARD™, BCI®, BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,



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

1ST FLR FRAMING\Flush Beams\B11 E(i22986) (Flush Beam)

PASSED

BC CALC® Member Report

Dry | 1 span | No cant.

August 10, 2020 08:16:17

Build 7493

Job name:

File name: 4501 - EL A.mmdl

Address:

Description: 1ST FLR FRAMING\Flush Beams\B11 E(i22986)

City, Province, Postal Code: RICHMOND HILL

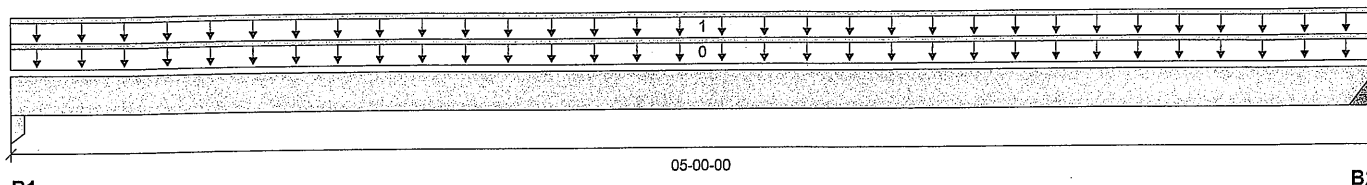
Specifier:

Customer:

Designer: L.D.

Code reports: CCMC 12472-R

Company:



B1

05-00-00

B2

Total Horizontal Product Length = 05-00-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 3-1/2"	36 / 0	33 / 0		
B2, 3"	35 / 0	32 / 0		

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live	Dead	Snow	Wind	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	05-00-00	Top	1.00	0.65	1.00	1.15	00-00-00
1	FC1 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	05-00-00	Top	14	7			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	99 ft-lbs	17696 ft-lbs	0.6%	1	02-06-04
End Shear	47 lbs	7232 lbs	0.6%	1	01-03-06
Total Load Deflection	L/999 (0.001")	n/a	n/a	4	02-06-04
Live Load Deflection	L/999 (0")	n/a	n/a	5	02-06-04
Max Defl.	0.001"	n/a	n/a	4	02-06-04
Span / Depth	4.6				

Bearing Supports	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1 Column	3-1/2" x 1-3/4"	95 lbs	1.9%	1.3%	Unspecified
B2 Hanger	3" x 1-3/4"	93 lbs	n/a	1.5%	HUS1.81/10

Cautions

Header for the hanger HUS1.81/10 is a Double 1-3/4" x 11-7/8" LVL Beam.

Hanger model HUS1.81/10 and seat length were input by the user. Hanger has not been analyzed for adequate capacity.

Notes

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

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

Calculations assume member is fully braced.

Hanger Manufacturer: Unassigned

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

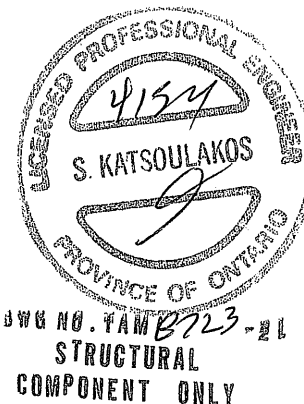
BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA O86.

Design based on Dry Service Condition.

Importance Factor : Normal Part code : Part 9

CONFORMS TO OBC 2012

AMENDED 2020



Disclosure

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BC CALC®, BC FRAMER®, AJS™, ALLJOIST®, BC RIM BOARD™, BCI®, BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,

Build 7493

Job name:

File name: 4501 - EL A.mmdl

Address:

Description: 1ST FLR FRAMING\Flush Beams\B2 H(i23231)

City, Province, Postal Code: RICHMOND HILL

Specifier:

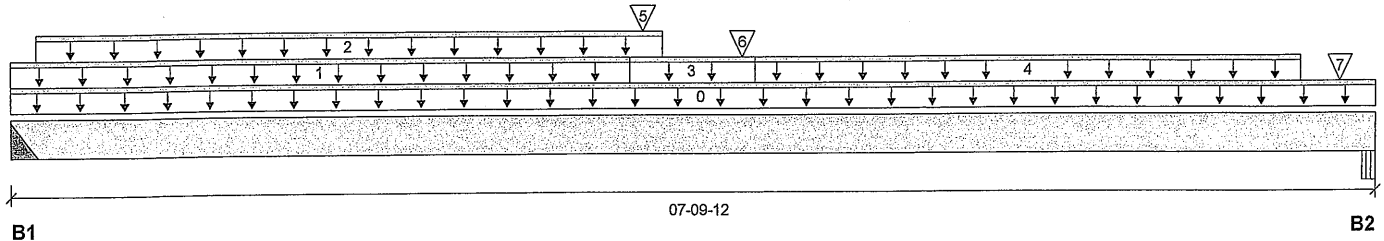
Customer:

Designer: L.D.

Code reports:

CCMC 12472-R

Company:


Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 4"	792 / 0	456 / 0		
B2, 5-1/4"	416 / 0	294 / 0		

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 1.00	Dead 0.65	Snow 1.00	Wind 1.15	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	07-09-12	Top		12			00-00-00
1	FC1 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	03-06-00	Top	27	13			n/a
2	STAIRS	Unf. Lin. (lb/ft)	L	00-01-12	03-08-03	Top	240	120			n/a
3	FC1 Floor Material	Unf. Lin. (lb/ft)	L	03-06-00	04-02-08	Top	30	15			n/a
4	FC1 Floor Material	Unf. Lin. (lb/ft)	L	04-02-08	07-04-08	Top	27	13			n/a
5	B11 E(i23268)	Conc. Pt. (lbs)	L	03-06-14	03-06-14	Top	34	31			n/a
6	B10 E(i22986)	Conc. Pt. (lbs)	L	04-01-10	04-01-10	Top	34	31			n/a
7	3(i288)	Conc. Pt. (lbs)	L	07-07-04	07-07-04	Top	91	70			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	2411 ft-lbs	35392 ft-lbs	6.8%	1	03-01-15
End Shear	1063 lbs	14464 lbs	7.3%	1	01-03-14
Total Load Deflection	L/999 (0.015")	n/a	n/a	4	03-08-03
Live Load Deflection	L/999 (0.009")	n/a	n/a	5	03-06-14
Max Defl.	0.015"	n/a	n/a	4	03-08-03
Span / Depth	7.2				

Bearing Supports	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1 Hanger	4" x 3-1/2"	1758 lbs	n/a	10.3%	HGUS410
B2 Beam	5-1/4" x 3-1/2"	992 lbs	10.1%	4.4%	Unspecified

Cautions

Header for the hanger HGUS410 is a Double 1-3/4" x 11-7/8" LVL Beam.

Hanger model HGUS410 and seat length were input by the user. Hanger has not been analyzed for adequate capacity.


OWB NO. YAM8724 -21
**STRUCTURAL
COMPONENT ONLY**



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

PASSED

1ST FLR FRAMING\Flush Beams\B2 H(i23231) (Flush Beam)

Dry | 1 span | No cant.

August 10, 2020 08:16:17

BC CALC® Member Report

Build 7493

Job name:

File name: 4501 - EL A.mmdl

Address:

Description: 1ST FLR FRAMING\Flush Beams\B2 H(i23231)

City, Province, Postal Code: RICHMOND HILL

Specifier:

Customer:

Designer: L.D.

Code reports: CCMC 12472-R

Company:

Notes

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

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

Calculations assume member is fully braced.

Hanger Manufacturer: Unassigned

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 2015 and CSA O86.

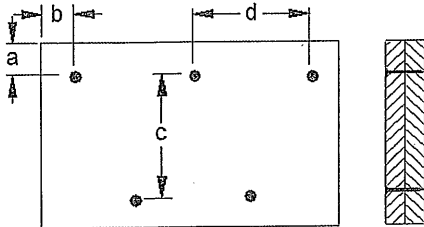
Design based on Dry Service Condition.

Importance Factor : Normal Part code : Part 9

CONFORMS TO OBC 2012

AMENDED 2020

Connection Diagram: Full Length of Member



a minimum = 2"

c = 7-7/8"

b minimum = 3"

d = 3"

Connectors are: 1 Nails

3 1/2" ARDOX SPIRAL

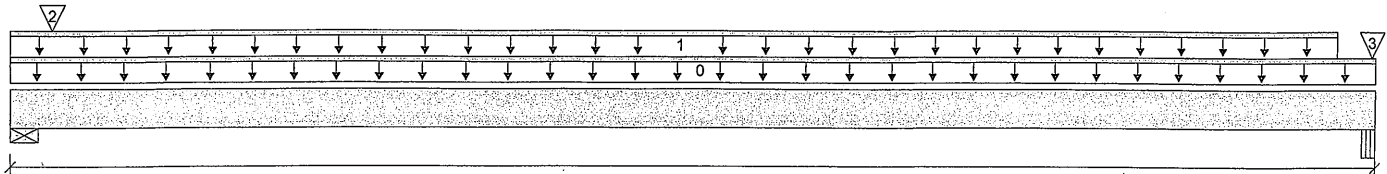


DWG NO. YAM 0714-21
STRUCTURAL
COMPONENT ONLY

Disclosure

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BC CALC®, BC FRAMER®, AJST™, ALLJOIST®, BC RIM BOARD™, BCI®, BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,



B1

Total Horizontal Product Length = 07-07-00

B2

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 5-1/2"	222 / 0	181 / 0		
B2, 2-5/8"	249 / 0	193 / 0		

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 1.00	Dead 0.65	Snow 1.00	Wind 1.15	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	07-07-00	Top		12			00-00-00
1	FC1 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	07-04-06	Top	32	16			n/a
2	16(i6781)	Conc. Pt. (lbs)	L	00-02-12	00-02-12	Top	98	72			n/a
3	14(i21170)	Conc. Pt. (lbs)	L	07-06-12	07-06-12	Top	136	92			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	509 ft-lbs	35392 ft-lbs	1.4%	1	03-10-15
End Shear	203 lbs	14464 lbs	1.4%	1	01-05-06
Total Load Deflection	L/999 (0.003")	n/a	n/a	4	03-10-15
Live Load Deflection	L/999 (0.002")	n/a	n/a	5	03-10-15
Max Defl.	0.003"	n/a	n/a	4	03-10-15
Span / Depth	7.1				

Bearing Supports

	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1	Wall/Plate 5-1/2" x 3-1/2"	559 lbs	4.7%	2.4%	Spruce-Pine-Fir
B2	Beam 2-5/8" x 3-1/2"	614 lbs	12.5%	5.5%	Unspecified

Notes

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

Design meets Code minimum (L/360) Live 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 2015 and CSA O86.

Design based on Dry Service Condition.

Importance Factor : Normal Part code : Part 9

CONFORMS TO OBC 2012

AMENDED 2020


OWG NO. YAMB725 -21
STRUCTURAL
COMPONENT ONLY



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

1ST FLR FRAMING\Flush Beams\B3 H(i22718) (Flush Beam)

PASSED

BC CALC® Member Report

Dry | 1 span | No cant.

August 10, 2020 08:16:17

Build 7493

Job name:

File name: 4501 - EL A.mmdl

Address:

Description: 1ST FLR FRAMING\Flush Beams\B3 H(i22718)

City, Province, Postal Code: RICHMOND HILL

Specifier:

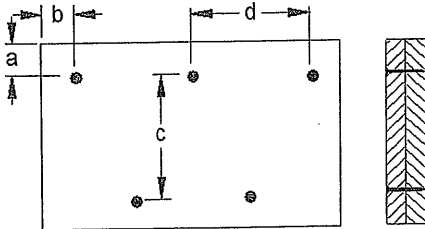
Customer:

Designer: L.D.

Code reports: CCMC 12472-R

Company:

Connection Diagram: Full Length of Member



a minimum = 2"
b minimum = 3"

c = 7-7/8"
d = 3"

Connectors are: 1" Nails
3 1/2" ARDOX SPIRAL



DWG NO. TAM B725-21
STRUCTURAL
COMPONENT ONLY

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BC CALC®, BC FRAMER®, AJS™, ALLJOIST®, BC RIM BOARD™, BCI®, BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,

BC CALC® Member Report

Build 7493

Job name:

File name: 4501 - EL A.mmdl

Address:

Description: 1ST FLR FRAMING\Flush Beams\B6(i25545)

City, Province, Postal Code: RICHMOND HILL

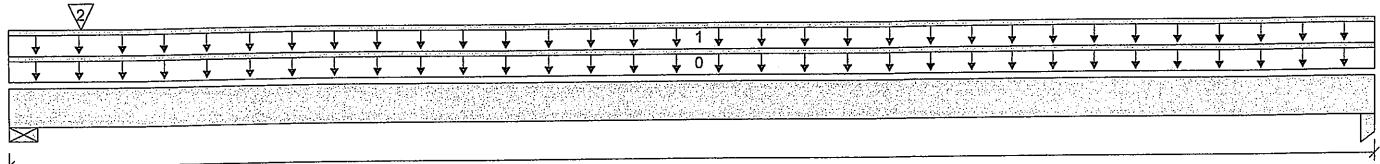
Specifier:

Customer:

Designer: L.D.

Code reports: CCMC 12472-R

Company:



B1

Total Horizontal Product Length = 04-05-08

B2

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 3-1/2"	449 / 0	847 / 0		
B2, 1-3/4"	66 / 0	59 / 0		

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live	Dead	Snow	Wind	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	04-05-08	Top	1.00	0.65	1.00	1.15	00-00-00
1	FC1 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	04-05-08	Top	31	15			n/a
2	E14(i29)	Conc. Pt. (lbs)	L	00-02-12	00-02-12	Top	378	784			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	172 ft-lbs	35392 ft-lbs	0.5%	1	02-03-10
End Shear	82 lbs	14464 lbs	0.6%	1	01-03-06
Total Load Deflection	L/999 (0")	n/a	n/a	4	02-03-10
Live Load Deflection	L/999 (0")	n/a	n/a	5	02-03-10
Max Defl.	0"	n/a	n/a	4	02-03-10
Span / Depth	4.2				

Bearing Supports

	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1	Wall/Plate 3-1/2" x 3-1/2"	1186 lbs	24.2%	12.2%	Spruce-Pine-Fir
B2	Column 1-3/4" x 3-1/2"	173 lbs	3.5%	2.3%	Unspecified

Notes

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

Design meets Code minimum (L/360) Live 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 2015 and CSA O86.

Design based on Dry Service Condition.

Importance Factor : Normal Part code : Part 9

CONFORMS TO OBC 2012

AMENDED 2020


OWG NO. TAM 0726-21
**STRUCTURAL
COMPONENT ONLY**

BC CALC® Member Report

Build 7493

Job name:

Address:

City, Province, Postal Code: RICHMOND HILL

Customer:

Code reports: CCMC 12472-R

Dry | 1 span | No cant.

August 10, 2020 08:16:17

File name: 4501 - EL A.mmdl

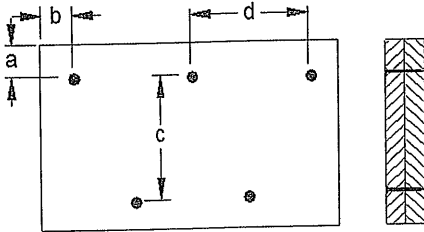
Description: 1ST FLR FRAMING\Flush Beams\B6(i25545)

Specifier:

Designer: L.D.

Company:

Connection Diagram: Full Length of Member



a minimum = 2"

b minimum = 3"

c = 7-7/8"

d = 8

Connectors are: Nails

3 1/2" ARDOX SPINAL



44-38861-21

STRUCTURAL

COMPONENT ONLY

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BC CALC®, BC FRAMER®, AJS™,
ALLJOIST®, BC RIM BOARD™, BCI®,
BOISE GLULAM™, BC FloorValue®,
VERSA-LAM®, VERSA-RIM PLUS®,

BC CALC® Member Report

Build 7493

Job name:

Address:

City, Province, Postal Code: RICHMOND HILL

Customer:

Code reports: CCMC 12472-R

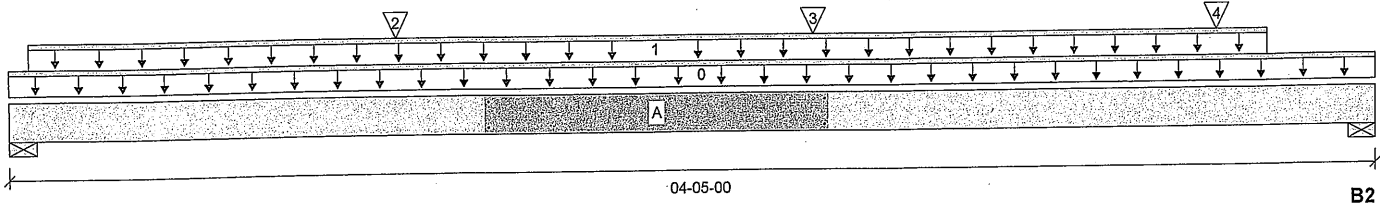
File name: 4501 - EL A - 5 BED O...ION GROUND FLOOR.mmdl

Description: 2ND FLR FRAMING\Flush Beams\B8 E(i30647)

Specifier:

Designer: L.D.

Company:



Total Horizontal Product Length = 04-05-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 3-1/4"	843 / 0	448 / 0		
B2, 4-1/4"	896 / 0	475 / 0		

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live	Dead	Snow	Wind	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	04-05-00	Top	1.00	0.65	1.00	1.15	00-00-00
1	Smoothed Load	Unf. Lin. (lb/ft)	L	00-00-12	04-00-12	Top	289	145			n/a
2	J4(i31811)	Conc. Pt. (lbs)	L	01-02-12	01-02-12	Top	196	98			n/a
3	J4(i31837)	Conc. Pt. (lbs)	L	02-06-12	02-06-12	Top	196	98			n/a
4	J4(i31824)	Conc. Pt. (lbs)	L	03-10-12	03-10-12	Top	185	92			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	1847 ft-lbs	35392 ft-lbs	5.2%	1	02-06-12
End Shear	1359 lbs	14464 lbs	9.4%	1	01-03-02
Total Load Deflection	L/999 (0.004")	n/a	n/a	4	02-02-04
Live Load Deflection	L/999 (0.002")	n/a	n/a	5	02-02-04
Max Defl.	0.004"	n/a	n/a	4	02-02-04
Span / Depth	4.0				

Bearing Supports

	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1	Wall/Plate 3-1/4" x 3-1/2"	1824 lbs	26.1%	13.1%	Spruce-Pine-Fir
B2	Wall/Plate 4-1/4" x 3-1/2"	1937 lbs	21.2%	10.7%	Spruce-Pine-Fir

Notes

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

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

Calculations assume unbraced length of Top: 00-00-00, Bottom: 00-00-00.

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 2015 and CSA O86.

Design based on Dry Service Condition.

Importance Factor : Normal Part code : Part 9

CONFORMS TO OBC 2012

AMENDED 2020



OWNED BY: TAM B727-21
STRUCTURAL
COMPONENT ONLY



Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP
2ND FLR FRAMING\Flush Beams\B8 E(i30647) (Flush Beam)

PASSED

BC CALC® Member Report
Build 7493

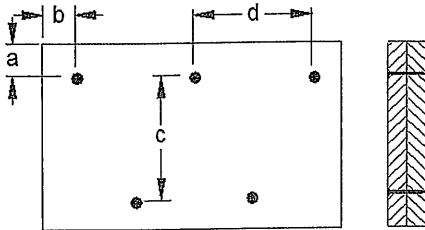
Dry | 1 span | No cant.

August 10, 2020 09:12:56

Job name:
Address:
City, Province, Postal Code: RICHMOND HILL
Customer:
Code reports: CCMC 12472-R

File name: 4501 - EL A - 5 BED O...ION GROUND FLOOR.mmdl
Description: 2ND FLR FRAMING\Flush Beams\B8 E(i30647)
Specifier:
Designer: L.D.
Company:

Connection Diagram: Full Length of Member



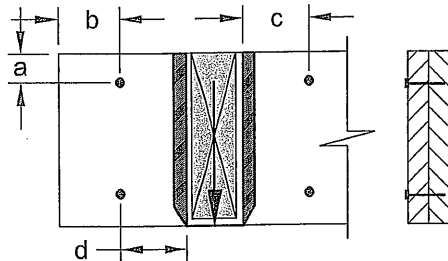
a minimum = 2"
b minimum = 3"
c = 7-7/8"
d = 6"

Calculated Side Load = 307.4 lb/ft

Connectors are: 16d x 1 Nails
3 1/2" ARDOX SPIRAL

Connection Diagrams: Concentrated Side Loads

Connection Tag: A Applies to load tag(s): 3+5+4



a minimum = 2"
b minimum = 4"
c minimum = 4"
d maximum = 12"
Connectors are: 16d x 1 Nails

3 1/2" ARDOX SPIRAL



OWN NO. 7AM B724-21
**STRUCTURAL
COMPONENT ONLY**

Disclosure

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BC CALC®, BC FRAMER®, AJS™, ALLJOIST®, BC RIM BOARD™, BCI®, BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,



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

1ST FLR FRAMING\Flush Beams\B15(i27426) (Flush Beam)

PASSED

BC CALC® Member Report

Dry | 1 span | No cant.

May 17, 2021 17:18:05

Build 7773

Job name:

File name: 4501 - SUNKEN FOYER.mmdl

Address:

Description: 1ST FLR FRAMING\Flush Beams\B15(i27426)

City, Province, Postal Code: RICHMOND HILL

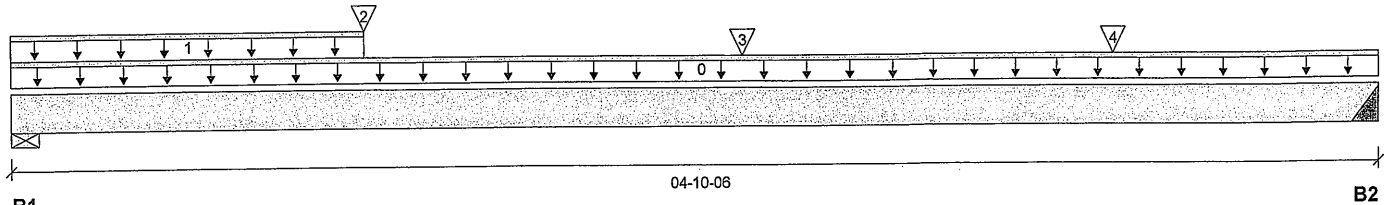
Specifier:

Customer:

Designer: L.D.

Code reports: CCMC 12472-R

Company:



Total Horizontal Product Length = 04-10-06

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 4-3/8"	357 / 0	193 / 0		
B2, 3"	370 / 0	200 / 0		

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 1.00	Dead 0.65	Snow 1.00	Wind 1.15	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	04-10-06	Top		6			00-00-00
1	FC1 Floor Decking (Plan View Fill)	Unf. Lin. (lb/ft)	L	00-00-00	01-02-14	Top	10	5			n/a
2	J4(i27079)	Conc. Pt. (lbs)	L	01-02-14	01-02-14	Top	235	117			n/a
3	J4(i27104)	Conc. Pt. (lbs)	L	02-06-14	02-06-14	Top	251	125			n/a
4	J4(i27119)	Conc. Pt. (lbs)	L	03-10-14	03-10-14	Top	229	115			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	1024 ft-lbs	17696 ft-lbs	5.8%	1	02-06-14
End Shear	702 lbs	7232 lbs	9.7%	1	01-04-04
Total Load Deflection	L/999 (0.005")	n/a	n/a	4	02-05-15
Live Load Deflection	L/999 (0.003")	n/a	n/a	5	02-05-15
Max Defl.	0.005"	n/a	n/a	4	02-05-15
Span / Depth	4.4				

Bearing Supports

	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1	Wall/Plate 4-3/8" x 1-3/4"	778 lbs	16.5%	8.3%	Spruce-Pine-Fir
B2	Hanger 3" x 1-3/4"	805 lbs	n/a	12.6%	HUS1.81/10

Cautions

Header for the hanger HUS1.81/10 is a Double 1-3/4" x 11-7/8" LVL Beam.

Hanger model HUS1.81/10 and seat length were input by the user. Hanger has not been analyzed for adequate capacity.

Notes

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

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

Hanger Manufacturer: Unassigned

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 2015 and CSA O86.

Design based on Dry Service Condition.

Importance Factor : Normal Part code : Part 9

Calculations assume unbraced length of Top: 00-00-00, Bottom: 01-01-08.

CONFORMS TO OBC 2012

AMENDED 2020



DWD NO. TAN/0664-21

STRUCTURAL

COMPONENT ONLY

Disclosure

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BC CALC®, BC FRAMER®, AJS™, ALLJOIST®, BC RIM BOARD™, BCI®, BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,

BC CALC® Member Report

Build 7773

Job name:

Address:

City, Province, Postal Code: RICHMOND HILL

Customer:

Code reports: CCMC 12472-R

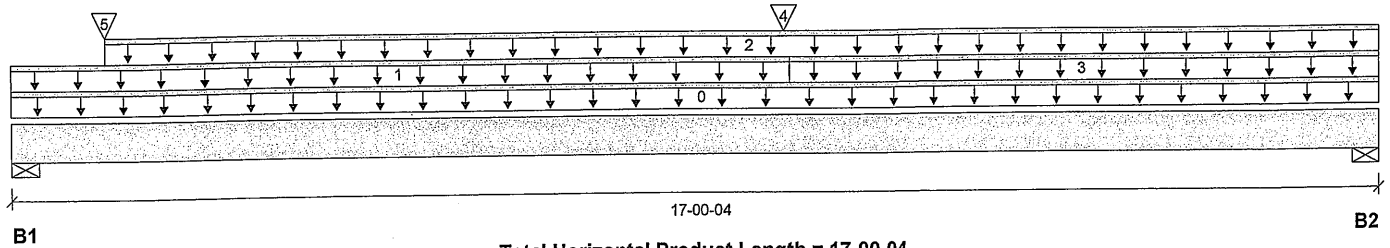
File name: 4501 - SUNKEN FOYER.mmdl

Description: 1ST FLR FRAMING\Flush Beams\B53(i27430)

Specifier:

Designer: L.D.

Company:



Total Horizontal Product Length = 17-00-04

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 4-3/8"	768 / 0	492 / 0		
B2, 4-3/8"	487 / 0	354 / 0		

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 1.00	Dead 0.65	Snow 1.00	Wind 1.15	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	17-00-04	Top	12				00-00-00
1	FC1 Floor Decking (Plan View Fill)	Unf. Lin. (lb/ft)	L	00-00-00	09-06-10	Top	22	11			n/a
2	FC1 Floor Decking (Plan View Fill)	Unf. Lin. (lb/ft)	L	01-01-12	17-00-04	Top	21	11			n/a
3	FC1 Floor Decking (Plan View Fill)	Unf. Lin. (lb/ft)	L	09-06-10	17-00-04	Top	6	3			n/a
4	B15(i27426)	Conc. Pt. (lbs)	L	09-05-12	09-05-12	Top	357	192			n/a
5	J6(i27120)	Conc. Pt. (lbs)	L	01-01-12	01-01-12	Top	300	150			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	6433 ft-lbs	35392 ft-lbs	18.2%	1	09-05-12
End Shear	1545 lbs	14464 lbs	10.7%	1	01-04-04
Total Load Deflection	L/932 (0.211")	n/a	25.7%	4	08-05-09
Live Load Deflection	L/1563 (0.126")	n/a	23.0%	5	08-05-09
Max Defl.	0.211"	n/a	n/a	4	08-05-09
Span / Depth	16.6				

Bearing Supports

	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1	Wall/Plate 4-3/8" x 3-1/2"	1768 lbs	18.8%	9.5%	Spruce-Pine-Fir
B2	Wall/Plate 4-3/8" x 3-1/2"	1173 lbs	12.5%	6.3%	Spruce-Pine-Fir

Notes

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

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

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 2015 and CSA O86.

Design based on Dry Service Condition.

Importance Factor : Normal Part code : Part 9

Calculations assume unbraced length of Top: 00-00-00, Bottom: 08-01-14.

CONFORMS TO OBC 2012

AMENDED 2020





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

PASSED

1ST FLR FRAMING\Flush Beams\B53(i27430) (Flush Beam)

Dry | 1 span | No cant.

May 17, 2021 17:18:05

BC CALC® Member Report

Build 7773

Job name:

File name: 4501 - SUNKEN FOYER.mmdl

Address:

Description: 1ST FLR FRAMING\Flush Beams\B53(i27430)

City, Province, Postal Code: RICHMOND HILL

Specifier:

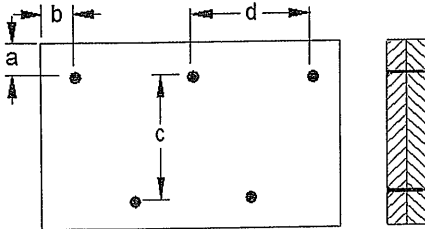
Customer:

Designer: L.D.

Code reports: CCMC 12472-R

Company:

Connection Diagram: Full Length of Member



a minimum = 2"

c = 7-7/8"

b minimum = 3"

d = 8"

Calculated Side Load = 387.8 lb/ft

Connectors are: 16d Nails

3 1/2" ARDOX SPIRAL



DWG NO. TAM 10665-21

STRUCTURAL
COMPONENT ONLY

Disclosure

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BC CALC®, BC FRAMER®, AJS™, ALLJOIST®, BC RIM BOARD™, BCI®, BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,



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

PASSED

1ST FLR FRAMING\Flush Beams\B54(i28304) (Flush Beam)

Dry | 1 span | No cant.

May 17, 2021 17:21:55

BC CALC® Member Report

Build 7773

Job name:

File name: 4501 - SUNKEN DEN.mmdl

Address:

Description: 1ST FLR FRAMING\Flush Beams\B54(i28304)

City, Province, Postal Code: RICHMOND HILL

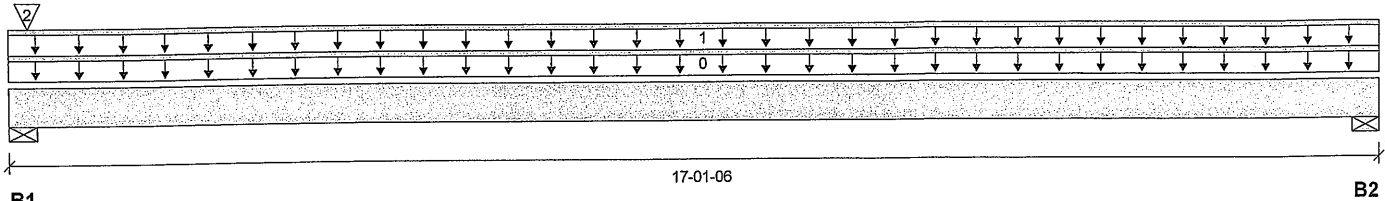
Specifier:

Customer:

Designer: L.D.

Code reports: CCMC 12472-R

Company:



B1

B2

Total Horizontal Product Length = 17-01-06

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 5-1/2"	122 / 0	137 / 0		
B2, 4-3/8"	121 / 0	111 / 0		

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live	Dead	Snow	Wind	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	17-01-06	Top	1.00	0.65	1.00	1.15	00-00-00
1	FC1 Floor Decking (Plan View Fill)	Unf. Lin. (lb/ft)	L	00-00-00	17-01-06	Top	14	7			n/a
2	E85(i28426)	Conc. Pt. (lbs)	L	00-02-12	00-02-12	Top		24			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	1268 ft-lbs	17696 ft-lbs	7.2%	1	08-07-04
End Shear	269 lbs	7232 lbs	3.7%	1	01-05-06
Total Load Deflection	L/999 (0.091")	n/a	n/a	4	08-07-04
Live Load Deflection	L/999 (0.047")	n/a	n/a	5	08-07-04
Max Defl.	0.091"	n/a	n/a	4	08-07-04
Span / Depth	16.6				

Bearing Supports	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1	Wall/Plate 5-1/2" x 1-3/4"	354 lbs	6.0%	3.0%	Spruce-Pine-Fir
B2	Wall/Plate 4-3/8" x 1-3/4"	320 lbs	6.8%	3.4%	Spruce-Pine-Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
 Design meets Code minimum (L/360) Live load deflection criteria.
 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 2015 and CSA O86.
 Design based on Dry Service Condition.
 Importance Factor : Normal Part code : Part 9
 Calculations assume unbraced length of Top: 00-00-00, Bottom: 16-03-08.

CONFORMS TO OBC 2012

AMENDED 2020



DWG NO. TAM/0666-21

STRUCTURAL

COMPONENT ONLY

Disclosure

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 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 (800)232-0788 before installation.

BC CALC®, BC FRAMER®, AJS™,
 ALLJOIST®, BC RIM BOARD™, BCI®,
 BOISE GLULAM™, BC FloorValue®,
 VERSA-LAM®, VERSA-RIM PLUS®



Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP
1ST FLR FRAMING\Flush Beams\B3E H(i28181) (Flush Beam)

PASSED

BC CALC® Member Report

Dry | 1 span | No cant.

May 17, 2021 17:19:47

Build 7773

Job name:

File name: 4501 - KITCHEN & MUD RM OPTION.mmdl

Address:

Description: 1ST FLR FRAMING\Flush Beams\B3E H(i28181)

City, Province, Postal Code: RICHMOND HILL

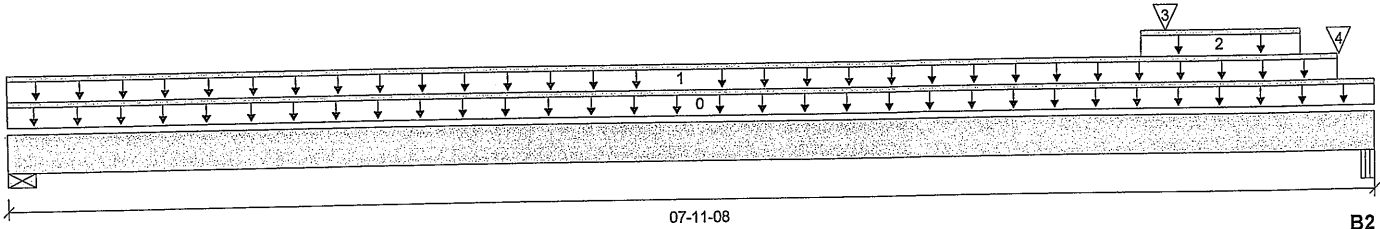
Specifier:

Customer:

Designer: L.D.

Code reports: CCMC 12472-R

Company:



B1

Total Horizontal Product Length = 07-11-08

B2

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 4-3/8"	444 / 0	334 / 0		
B2, 5-1/4"	3960 / 0	2572 / 0		

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 1.00	Dead 0.65	Snow 1.00	Wind 1.15	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	07-11-08	Top		12			00-00-00
1	FC1 Floor Decking (Plan View Fill)	Unf. Lin. (lb/ft)	L	00-00-00	07-08-14	Top	22	11			n/a
2	18(i27631)	Unf. Lin. (lb/ft)	L	06-06-14	07-06-04	Top		65			n/a
3	B9 E(i28161)	Conc. Pt. (lbs)	L	06-08-10	06-08-10	Top	3010	2009			n/a
4	14(i21170)	Conc. Pt. (lbs)	L	07-09-00	07-09-00	Top	1223	654			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	5557 ft-lbs	35392 ft-lbs	15.7%	1	06-08-10
End Shear	5105 lbs	14464 lbs	35.3%	1	06-06-06
Total Load Deflection	L/999 (0.029")	n/a	n/a	4	04-05-02
Live Load Deflection	L/999 (0.017")	n/a	n/a	5	04-05-02
Max Defl.	0.029"	n/a	n/a	4	04-05-02
Span / Depth	7.4				

Bearing Supports

	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1	Wall/Plate 4-3/8" x 3-1/2"	1084 lbs	11.5%	5.8%	Spruce-Pine-Fir
B2	Beam 5-1/4" x 3-1/2"	9154 lbs	93.3%	40.8%	Unspecified

Cautions

Concentrated side load(s) 5 are closer than 18" from end of member. Please consult a technical representative or Professional of Record.

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets Code minimum (L/360) Live load deflection criteria.
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 2015 and CSA O86.
Design based on Dry Service Condition.
Importance Factor : Normal Part code : Part 9
Calculations assume unbraced length of Top: 00-00-00, Bottom: 06-02-08.

CONFORMS TO OBC 2012

AMENDED 2020



OWN NO. TAM 10667-21
STRUCTURAL
COMPONENT ONLY



Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP
1ST FLR FRAMING\Flush Beams\B3E H(i28181) (Flush Beam)

PASSED

BC CALC® Member Report

Dry | 1 span | No cant.

May 17, 2021 17:19:47

Build 7773

Job name:

File name: 4501 - KITCHEN & MUD RM OPTION.mmdl

Address:

Description: 1ST FLR FRAMING\Flush Beams\B3E H(i28181)

City, Province, Postal Code: RICHMOND HILL

Specifier:

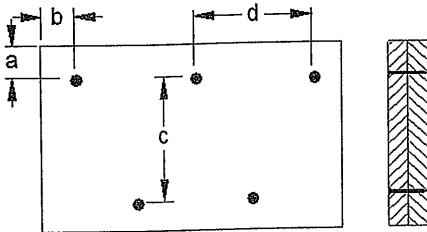
Customer:

Designer: L.D.

Code reports: CCMC 12472-R

Company:

Connection Diagram: Full Length of Member



a minimum = 2"

c = 7-7/8"

b minimum = 3"

d = 3"

Connectors are: 1 Nails

3 1/2" ARDOX SPIRAL



DWG NO. YAM10667-21
STRUCTURAL
COMPONENT ONLY

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BC CALC®, BC FRAMER®, AJS™, ALLJOIST®, BC RIM BOARD™, BCI®, BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,



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

1ST FLR FRAMING\Flush Beams\B9 E(i28161) (Flush Beam)

PASSED

BC CALC® Member Report

Build 7773

Job name:

Address:

City, Province, Postal Code: RICHMOND HILL

Customer:

Code reports: CCMC 12472-R

Dry | 1 span | No cant.

May 17, 2021 17:19:47

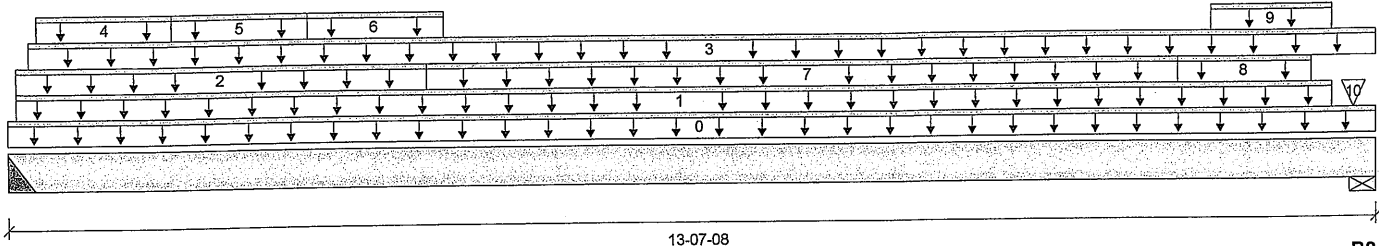
File name: 4501 - KITCHEN & MUD RM OPTION.mmdl

Description: 1ST FLR FRAMING\Flush Beams\B9 E(i28161)

Specifier:

Designer: L.D.

Company:



B1

Total Horizontal Product Length = 13-07-08

B2

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 4"	3066 / 0	2045 / 0		
B2, 5-1/2"	2900 / 0	1998 / 0		

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 1.00	Dead 0.65	Snow 1.00	Wind 1.15	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	13-07-08	Top		12			00-00-00
1	17(i27578)	Unf. Lin. (lb/ft)	L	00-01-00	13-02-00	Top		65			n/a
2	17(i27578)	Unf. Lin. (lb/ft)	L	00-01-00	04-01-08	Top	128	64			n/a
3	FC1 Floor Decking (Plan View Fill)	Unf. Lin. (lb/ft)	L	00-02-08	13-07-08	Top	23	12			n/a
4	17(i27578)	Unf. Lin. (lb/ft)	L	00-03-08	01-07-08	Top	287	144			n/a
5	17(i27578)	Unf. Lin. (lb/ft)	L	01-07-08	02-11-08	Top	308	154			n/a
6	17(i27578)	Unf. Lin. (lb/ft)	L	02-11-08	04-03-08	Top	269	135			n/a
7	17(i27578)	Unf. Lin. (lb/ft)	L	04-01-08	11-07-08	Top	468	234			n/a
8	17(i27578)	Unf. Lin. (lb/ft)	L	11-07-08	12-11-08	Top	120	60			n/a
9	17(i27578)	Unf. Lin. (lb/ft)	L	11-11-08	13-02-00	Top	229	115			n/a
10	E7(i125)	Conc. Pt. (lbs)	L	13-04-12	13-04-12	Top		56			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	23421 ft-lbs	35392 ft-lbs	66.2%	1	06-06-04
End Shear	6092 lbs	14464 lbs	42.1%	1	12-02-02
Total Load Deflection	L/302 (0.515")	n/a	79.5%	4	06-06-04
Live Load Deflection	L/501 (0.31")	n/a	71.9%	5	06-06-04
Max Defl.	0.515"	n/a	n/a	4	06-06-04
Span / Depth	13.1				

Bearing Supports	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1	Hanger 4" x 3-1/2"	7155 lbs	n/a	41.9%	HGUS410
B2	Wall/Plate 5-1/2" x 3-1/2"	6847 lbs	57.8%	29.2%	Spruce-Pine-Fir

Cautions

Header for the hanger HGUS410 is a Double 1-3/4" x 11-7/8" LVL Beam.

Hanger model HGUS410 and seat length were input by the user. Hanger has not been analyzed for adequate capacity.



OWG NO. TAM 1066821
STRUCTURAL
COMPONENT ONLY



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

1ST FLR FRAMING\Flush Beams\B9 E(i28161) (Flush Beam)

PASSED

BC CALC® Member Report
Build 7773

Dry | 1 span | No cant.

May 17, 2021 17:19:47

Job name:
Address:
City, Province, Postal Code: RICHMOND HILL
Customer:
Code reports: CCMC 12472-R

File name: 4501 - KITCHEN & MUD RM OPTION.mmdl
Description: 1ST FLR FRAMING\Flush Beams\B9 E(i28161)
Specifier:
Designer: L.D.
Company:

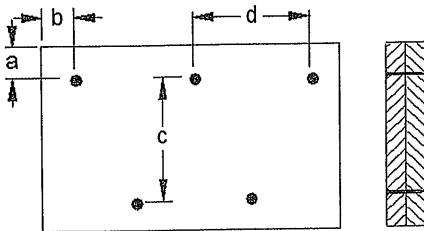
Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets Code minimum (L/360) Live load deflection criteria.
Hanger Manufacturer: Unassigned
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 2015 and CSA O86.
Design based on Dry Service Condition.
Importance Factor : Normal Part code : Part 9
Calculations assume unbraced length of Top: 00-00-00, Bottom: 01-07-04.

CONFORMS TO OBC 2012

AMENDED 2020

Connection Diagram: Full Length of Member



a minimum = 2"
b minimum = 3"

c = 7-7/8"
d = 8"

Connectors are: 1 Nails

3 1/2" ARDOX SPIRAL



DWG NO. TAM/0668-21
STRUCTURAL
COMPONENT ONLY

Disclosure

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BC CALC®, BC FRAMER®, AJS™, ALLJOIST®, BC RIM BOARD™, BCI®, BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,

**Double 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP****PASSED****2ND FLR FRAMING\Dropped Beams\B14 DR(i22948) (Dropped Beam)**

BC CALC® Member Report

Dry | 1 span | No cant.

August 10, 2020 08:16:17

Build 7493

Job name:

File name: 4501 - EL A.mmdl

Address:

Description: 2ND FLR FRAMING\Dropped Beams\B14 DR(i22948)

City, Province, Postal Code: RICHMOND HILL

Specifier:

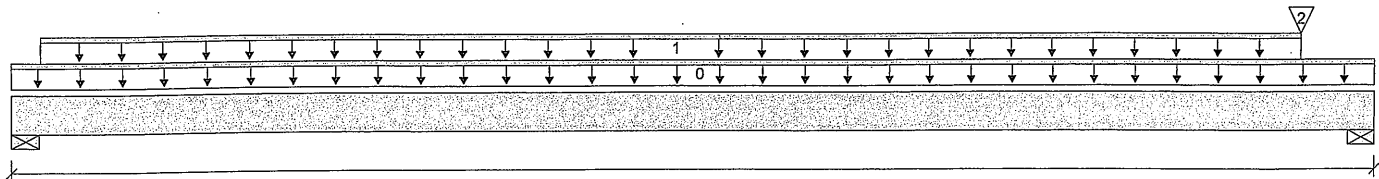
Customer:

Designer: L.D.

Code reports:

CCMC 12472-R

Company:



B1

B2

Total Horizontal Product Length = 07-11-04

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 3-1/2"	1735 / 0	905 / 0		
B2, 3-3/4"	1728 / 0	903 / 0		

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live	Dead	Snow	Wind	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	07-11-04	Top	1.00	0.65	1.00	1.15	00-00-00
1	Smoothed Load	Unf. Lin. (lb/ft)	L	00-02-00	07-06-00	Top	420	210			n/a
2	J2(i24590)	Conc. Pt. (lbs)	L	07-06-00	07-06-00	Top	384	192			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	6471 ft-lbs	23220 ft-lbs	27.9%	1	04-02-00
End Shear	3061 lbs	11571 lbs	26.5%	1	01-01-00
Total Load Deflection	L/999 (0.092")	n/a	n/a	4	03-11-00
Live Load Deflection	L/999 (0.06")	n/a	n/a	5	03-11-00
Max Defl.	0.092"	n/a	n/a	4	03-11-00
Span / Depth	9.4				

Bearing Supports

	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1	Wall/Plate 3-1/2" x 3-1/2"	3733 lbs	22.8%	25.0%	Spruce-Pine-Fir
B2	Wall/Plate 3-3/4" x 3-1/2"	3721 lbs	21.2%	23.2%	Spruce-Pine-Fir

Notes

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

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

Calculations assume unbraced length of Top: 00-06-12, Bottom: 00-06-12.

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

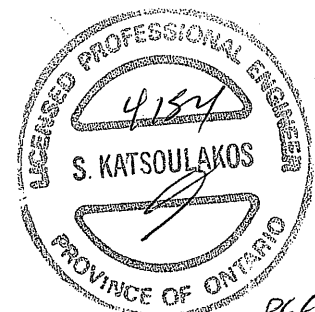
BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA O86.

Design based on Dry Service Condition.

Importance Factor : Normal Part code : Part 9

CONFORMS TO OBC 2012

AMENDED 2020



OWB NO. TAM 8716 -21
STRUCTURAL
COMPONENT ONLY



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

PASSED

2ND FLR FRAMING\Dropped Beams\B14 DR(i22948) (Dropped Beam)

BC CALC® Member Report

Dry | 1 span | No cant.

August 10, 2020 08:16:17

Build 7493

Job name:

File name: 4501 - EL A.mmdl

Address:

Description: 2ND FLR FRAMING\Dropped Beams\B14 DR(i22948)

City, Province, Postal Code: RICHMOND HILL

Specifier:

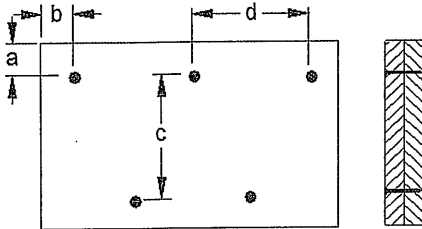
Customer:

Designer: L.D.

Code reports: CCMC 12472-R

Company:

Connection Diagram: Full Length of Member



a minimum = 2"
b minimum = 3"

c = 5-1/2"
d = 8"

Connectors are: 1 Nails
3 1/2" ARDOX SPIRAL



DWG NO. TAM 0716 -21
STRUCTURAL
COMPONENT ONLY

Disclosure

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BC CALC® Member Report

Build 7493

Job name:

File name: 4501 - EL A.mmdl

Address:

Description: 2ND FLR FRAMING\Flush Beams\B5(i22835)

City, Province, Postal Code: RICHMOND HILL

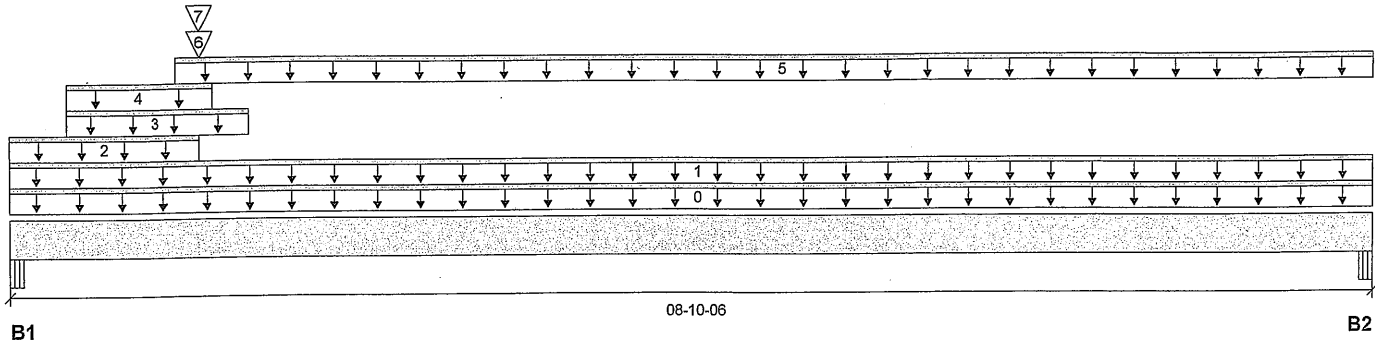
Specifier:

Customer:

Designer: L.D.

Code reports: CCMC 12472-R

Company:



Total Horizontal Product Length = 08-10-06

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 4-1/8"	576 / 0	980 / 0	712 / 0	
B2, 2-5/8"	225 / 0	236 / 0	78 / 0	

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 1.00	Dead 0.65	Snow 1.00	Wind 1.15	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	08-10-06	Top		12			00-00-00
1	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	08-10-06	Top	24	12			n/a
2	ROOF	Unf. Lin. (lb/ft)	L	00-00-00	01-02-10	Top		45	78		n/a
3	E60(i9375)	Unf. Lin. (lb/ft)	L	00-04-06	01-06-06	Top		81			n/a
4	E60(i9375)	Unf. Lin. (lb/ft)	L	00-04-06	01-03-10	Top		45	78		n/a
5	FC2 Floor Material	Unf. Lin. (lb/ft)	L	01-00-14	08-10-06	Top	16	8			n/a
6	-	Conc. Pt. (lbs)	L	01-02-10	01-02-10	Top	458	743	614		n/a
7	J4 C	Conc. Pt. (lbs)	L	01-02-10	01-02-10	Top			8		n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	2430 ft-lbs	35392 ft-lbs	6.9%	13	01-03-10
End Shear	2471 lbs	14464 lbs	17.1%	13	01-04-00
Total Load Deflection	L/999 (0.023")	n/a	n/a	35	04-01-06
Live Load Deflection	L/999 (0.013")	n/a	n/a	51	04-01-06
Max Defl.	0.023"	n/a	n/a	35	04-01-06
Span / Depth	8.5				

Bearing Supports

	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1	Beam 4-1/8" x 3-1/2"	2869 lbs	37.2%	16.3%	Unspecified
B2	Beam 2-5/8" x 3-1/2"	711 lbs	14.5%	6.3%	Unspecified

Cautions

Concentrated side load(s) 15 are closer than 18" from end of member. Please consult a technical representative or Professional of Record.



040 NO. 7AM B719 -21
STRUCTURAL
COMPONENT ONLY



Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP
2ND FLR FRAMING\Flush Beams\B5(i22835) (Flush Beam)

PASSED

BC CALC® Member Report

Dry | 1 span | No cant.

August 10, 2020 08:16:17

Build 7493

Job name:

Address:

City, Province, Postal Code: RICHMOND HILL

Customer:

Code reports: CCMC 12472-R

File name: 4501 - EL A.mmdl

Description: 2ND FLR FRAMING\Flush Beams\B5(i22835)

Specifier:

Designer: L.D.

Company:

Notes

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

Design meets Code minimum (L/360) Live 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 2015 and CSA O86.

Unbalanced snow loads determined from building geometry were used in selected product's verification.

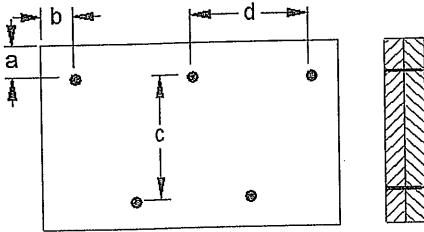
Design based on Dry Service Condition.

Importance Factor : Normal Part code : Part 9

CONFORMS TO OBC 2012

AMENDED 2020

Connection Diagram: Full Length of Member



a minimum = 2"
b minimum = 3"

c = 7-7/8"
d = 8"

Calculated Side Load = 438.8 lb/ft
Connectors are: 16d Nails

3 1/2" ARDOX SPIRAL



UWB NO. TAM 8719-21
**STRUCTURAL
COMPONENT ONLY**

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BC CALC® Member Report

Dry | 1 span | No cant.

August 10, 2020 08:16:17

Build 7493

Job name:

File name: 4501 - EL A.mmdl

Address:

Description: 2ND FLR FRAMING\Flush Beams\B7(i22962)

City, Province, Postal Code: RICHMOND HILL

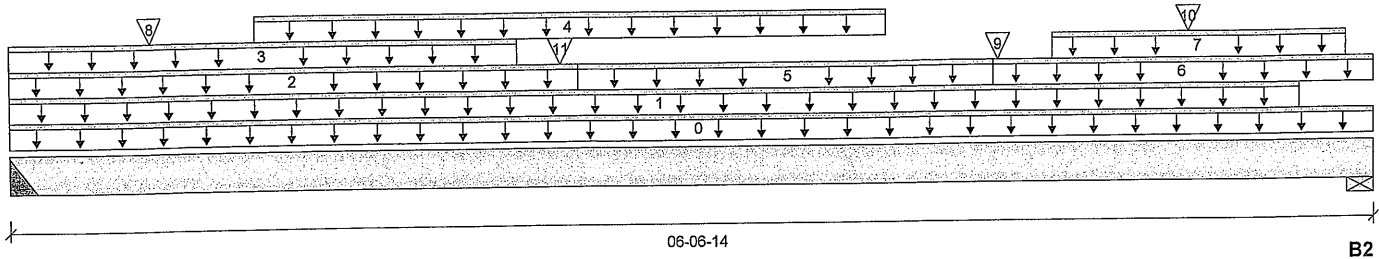
Specifier:

Customer:

Designer: L.D.

Code reports: CCMC 12472-R

Company:



Total Horizontal Product Length = 06-06-14

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 4"	478 / 0	761 / 0	610 / 0	
B2, 4-3/8"	445 / 0	729 / 0	575 / 0	

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 1.00	Dead 0.65	Snow 1.00	Wind 1.15	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	06-06-14	Top		12			00-00-00
1	J4 C	Unf. Lin. (lb/ft)	L	00-00-00	06-02-08	Top		16	58		n/a
2	E63(i16246)	Unf. Lin. (lb/ft)	L	00-00-00	02-08-08	Top		81			n/a
3	E63(i16246)	Unf. Lin. (lb/ft)	L	00-00-00	02-05-00	Top		56	128		n/a
4	Smoothed Load	Unf. Lin. (lb/ft)	L	01-02-00	04-02-00	Top	159	79			n/a
5	E62(i16204)	Unf. Lin. (lb/ft)	L	02-08-08	04-08-08	Top		41			n/a
6	E25(i197)	Unf. Lin. (lb/ft)	L	04-08-08	06-06-14	Top		81			n/a
7	E25(i197)	Unf. Lin. (lb/ft)	L	05-00-00	06-05-04	Top		56	128		n/a
8	J4(i24453)	Conc. Pt. (lbs)	L	00-08-00	00-08-00	Top	144	72			n/a
9	-	Conc. Pt. (lbs)	L	04-08-12	04-08-12	Top	159	169	162		n/a
10	J4(i23998)	Conc. Pt. (lbs)	L	05-08-00	05-08-00	Top	143	72			n/a
11	E63(i16246)	Conc. Pt. (lbs)	L	02-07-08	02-07-08	Top		93	170		n/a

Controls Summary

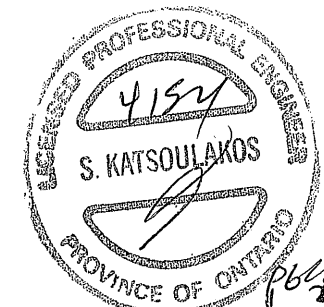
	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	3174 ft-lbs	35392 ft-lbs	9.0%	13	02-08-00
End Shear	1556 lbs	14464 lbs	10.8%	1	01-03-14
Total Load Deflection	L/999 (0.017")	n/a	n/a	35	03-03-11
Live Load Deflection	L/999 (0.01")	n/a	n/a	51	03-03-11
Max Defl.	0.017"	n/a	n/a	35	03-03-11
Span / Depth	6.1				

Bearing Supports

	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1	Hanger 4" x 3-1/2"	2344 lbs	n/a	13.7%	HGUS410
B2	Wall/Plate 4-3/8" x 3-1/2"	2219 lbs	23.6%	11.9%	Spruce-Pine-Fir

Cautions

Header for the hanger HGUS410 is a Double 1-3/4" x 11-7/8" LVL Beam.
Hanger model HGUS410 and seat length were input by the user. Hanger has not been analyzed for adequate capacity.



OWNED BY: TAMBORNO -21
STRUCTURAL
COMPONENT ONLY



Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP
2ND FLR FRAMING\Flush Beams\B7(i22962) (Flush Beam)

PASSED

BC CALC® Member Report

Dry | 1 span | No cant.

August 10, 2020 08:16:17

Build 7493

Job name:

File name: 4501 - EL A.mmdl

Address:

Description: 2ND FLR FRAMING\Flush Beams\B7(i22962)

City, Province, Postal Code: RICHMOND HILL

Specifier:

Customer:

Designer: L.D.

Code reports: CCMC 12472-R

Company:

Notes

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

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

Calculations assume member is fully braced.

CONFORMS TO OBC 2012

Hanger Manufacturer: Unassigned

AMENDED 2020

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

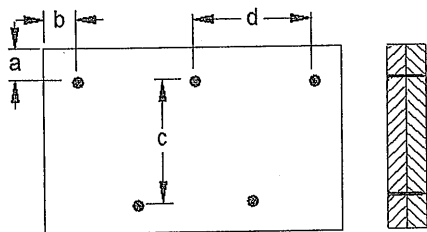
BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA O86.

Unbalanced snow loads determined from building geometry were used in selected product's verification.

Design based on Dry Service Condition.

Importance Factor : Normal Part code : Part 9

Connection Diagram: Full Length of Member



a minimum = 2"

c = 7-7/8"

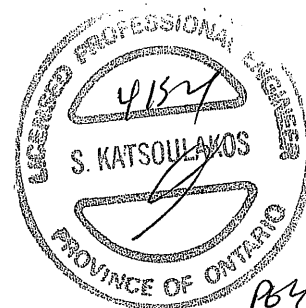
b minimum = 3"

d = 8"

Calculated Side Load = 337.3 lb/ft

Connectors are: 16d Nails

3 1/2" ARDOX SPIRAL



DWG NO. TAM B720-21
STRUCTURAL
COMPONENT ONLY

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

2ND FLR FRAMING\Flush Beams\B51(i26540) (Flush Beam)

PASSED

BC CALC® Member Report

Dry | 2 spans | L cant.

May 17, 2021 17:22:55

Build 7773

Job name:

File name: 4501 - STANDARD.mmdl

Address:

Description: 2ND FLR FRAMING\Flush Beams\B51(i26540)

City, Province, Postal Code: RICHMOND HILL

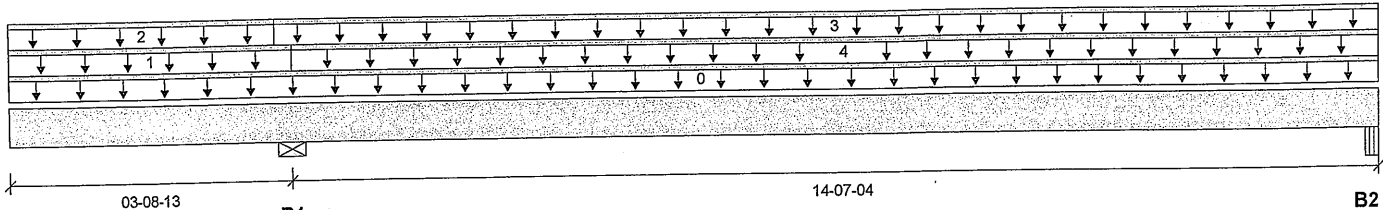
Specifier:

Customer:

Designer: L.D.

Code reports: CCMC 12472-R

Company:



Total Horizontal Product Length = 18-04-01

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 5-1/2"	276 / 0	275 / 0		
B2, 3-3/8"	198 / 10	177 / 0		

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 1.00	Dead 0.65	Snow 1.00	Wind 1.15	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	18-04-01	Top		12			00-00-00
1	FC2 Floor Decking (Plan View Fill)	Unf. Lin. (lb/ft)	L	00-00-00	03-08-13	Top	14	7			n/a
2	FC2 Floor Decking (Plan View Fill)	Unf. Lin. (lb/ft)	L	00-00-00	03-06-01	Top	6	3			n/a
3	FC2 Floor Decking (Plan View Fill)	Unf. Lin. (lb/ft)	L	03-06-01	18-04-01	Top	9	5			n/a
4	FC2 Floor Decking (Plan View Fill)	Unf. Lin. (lb/ft)	L	03-08-13	18-04-01	Top	18	9			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	1760 ft-lbs	35392 ft-lbs	5.0%	3	11-02-06
Neg. Moment	-398 ft-lbs	-14206 ft-lbs	2.8%	1	03-08-13
End Shear	427 lbs	14464 lbs	3.0%	3	17-00-13
Cont. Shear	456 lbs	14464 lbs	3.2%	1	04-11-07
Total Load Deflection	L/999 (0.048")	n/a	n/a	10	11-00-02
Live Load Deflection	L/999 (0.026")	n/a	n/a	13	11-00-02
Total Neg. Defl.	2xL/1998 (-0.037")	n/a	n/a	10	00-00-00
Max Defl.	0.048"	n/a	n/a	10	11-00-02
Span / Depth	14.5				

Bearing Supports	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1	Wall/Plate 5-1/2" x 3-1/2"	758 lbs	6.4%	3.2%	Spruce-Pine-Fir
B2	Beam 3-3/8" x 3-1/2"	518 lbs	10.3%	3.6%	Unspecified

Notes

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

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

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 2015 and CSA O86.

Design based on Dry Service Condition.

Importance Factor : Normal Part code : Part 9

Cantilevers require sheathed bottom flanges, blocking at cantilever support and closure at ends.

Calculations assume unbraced length of Top: 00-00-00, Bottom: 14-00-02.

CONFORMS TO OBC 2012

AMENDED 2020



OWG NO. TAM 10669-21
STRUCTURAL
COMPONENT ONLY



BC CALC® Member Report

Build 7773

Job name:

File name: 4501 - STANDARD.mmdl

Address:

Description: 2ND FLR FRAMING\Flush Beams\B51(i26540)

City, Province, Postal Code: RICHMOND HILL

Specifier:

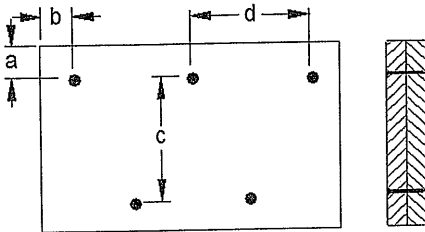
Customer:

Designer: L.D.

Code reports: CCMC 12472-R

Company:

Connection Diagram: Full Length of Member



a minimum = 2"
b minimum = 3"

c = 7-7/8"
d = 8"

Connectors are: 1 Nails
3 1/2" ARDOX SPIRAL



DWG NO. FAN 10669-21
STRUCTURAL
COMPONENT ONLY

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BC CALC®, BC FRAMER®, AJS™, ALLJOIST®, BC RIM BOARD™, BCI®, BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,



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

2ND FLR FRAMING\Flush Beams\B4(i26441) (Flush Beam)

PASSED

BC CALC® Member Report

Build 7773

Job name:

Address:

City, Province, Postal Code: RICHMOND HILL

Customer:

Code reports: CCMC 12472-R

Dry | 1 span | No cant.

May 17, 2021 17:22:55

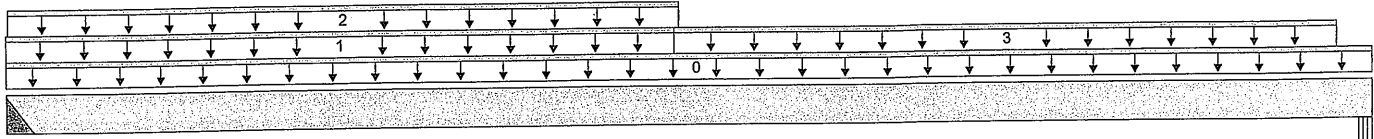
File name: 4501 - STANDARD.mmdl

Description: 2ND FLR FRAMING\Flush Beams\B4(i26441)

Specifier:

Designer: L.D.

Company:



B1 07-09-12 B2
Total Horizontal Product Length = 07-09-12

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 3"	802 / 0	424 / 0		
B2, 5"	346 / 0	197 / 0		

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 1.00	Dead 0.65	Snow 1.00	Wind 1.15	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	07-09-12	Top	6				00-00-00
1	FC2 Floor Decking (Plan View Fill)	Unf. Lin. (lb/ft)	L	00-00-00	03-09-05	Top	25	13			n/a
2	STAIRS	Unf. Lin. (lb/ft)	L	00-00-02	03-09-10	Top	240	120			n/a
3	FC2 Floor Decking (Plan View Fill)	Unf. Lin. (lb/ft)	L	03-09-05	07-07-04	Top	38	19			n/a

Controls Summary	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	2330 ft-lbs	17696 ft-lbs	13.2%	1	03-00-12
End Shear	1030 lbs	7232 lbs	14.2%	1	01-02-14
Total Load Deflection	L/999 (0.03")	n/a	n/a	4	03-07-06
Live Load Deflection	L/999 (0.019")	n/a	n/a	5	03-07-06
Max Defl.	0.03"	n/a	n/a	4	03-07-06
Span / Depth	7.3				

Bearing Supports	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1 Hanger	3" x 1-3/4"	1732 lbs	n/a	27.0%	HUS1.81/10
B2 Beam	5" x 1-3/4"	766 lbs	20.5%	7.2%	Unspecified

Cautions

Header for the hanger HUS1.81/10 is a Double 1-3/4" x 11-7/8" LVL Beam.
Hanger model HUS1.81/10 and seat length were input by the user. Hanger has not been analyzed for adequate capacity.

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets Code minimum (L/360) Live load deflection criteria.
Hanger Manufacturer: Unassigned
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 2015 and CSA O86.
Design based on Dry Service Condition.
Importance Factor : Normal Part code : Part 9
Calculations assume unbraced length of Top: 00-00-00, Bottom: 03-09-05.

CONFORMS TO OBC 2012

AMENDED 2020



OWB NO. TAM 10670-20
STRUCTURAL
COMPONENT ONLY

Disclosure

Use of the Boise Cascade Software is subject to the terms of the End User License Agreement (EULA). Completeness and accuracy of input must be reviewed and verified by a qualified engineer or other appropriate expert to assure its adequacy, prior to anyone relying on such output as evidence of suitability for a particular application. The output here is 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 (800)232-0788 before installation.

BC CALC®, BC FRAMER®, AJS™, ALLJOIST®, BC RIM BOARD™, BCI®, BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,



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

2ND FLR FRAMING\Flush Beams\B2(i26391) (Flush Beam)

PASSED

BC CALC® Member Report

Dry | 1 span | No cant.

May 17, 2021 17:29:30

Build 7773

Job name:

File name: 4501 - STANDARD.mrdl

Address:

Description: 2ND FLR FRAMING\Flush Beams\B2(i26391)

City, Province, Postal Code: RICHMOND HILL

Specifier:

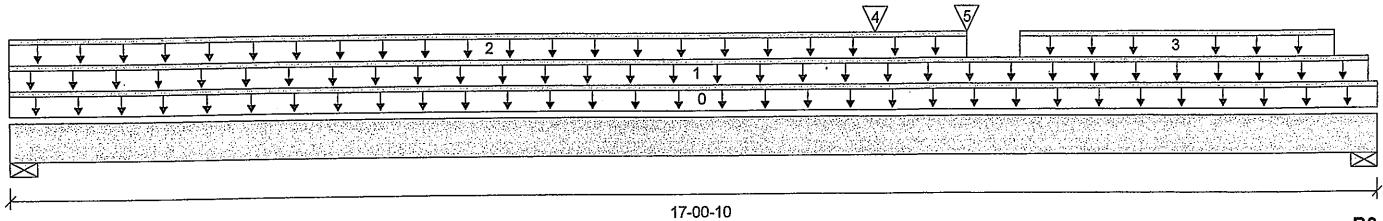
Customer:

Designer: L.D.

Code reports:

CCMC 12472-R

Company:



B1

Total Horizontal Product Length = 17'-00-10

B2

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 4-3/8"	687 / 0	454 / 0		
B2, 4-3/4"	1402 / 0	818 / 0		

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 1.00	Dead 0.65	Snow 1.00	Wind 1.15	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	17-00-10	Top		12			00-00-00
1	FC2 Floor Decking (Plan View Fill)	Unf. Lin. (lb/ft)	L	00-00-00	16-11-02	Top	24	12			n/a
2	FC2 Floor Decking (Plan View Fill)	Unf. Lin. (lb/ft)	L	00-00-00	11-09-14	Top	6	3			n/a
3	Smoothed Load	Unf. Lin. (lb/ft)	L	12-05-14	16-05-14	Top	154	77			n/a
4	B4(i26441)	Conc. Pt. (lbs)	L	10-07-12	10-07-12	Top	787	416			n/a
5	J4(i26512)	Conc. Pt. (lbs)	L	11-09-14	11-09-14	Top	196	98			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	12040 ft-lbs	35392 ft-lbs	34.0%	1	10-07-12
End Shear	2968 lbs	14464 lbs	20.5%	1	15-08-00
Total Load Deflection	L/532 (0.37")	n/a	45.1%	4	09-01-09
Live Load Deflection	L/853 (0.231")	n/a	42.2%	5	09-01-09
Max Defl.	0.37"	n/a	n/a	4	09-01-09
Span / Depth	16.6				

Bearing Supports

	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1	Wall/Plate 4-3/8" x 3-1/2"	1598 lbs	17.0%	8.6%	Spruce-Pine-Fir
B2	Wall/Plate 4-3/4" x 3-1/2"	3126 lbs	30.6%	15.4%	Spruce-Pine-Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
 Design meets Code minimum (L/360) Live load deflection criteria.
 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 2015 and CSA O86.
 Design based on Dry Service Condition.
 Importance Factor : Normal Part code : Part 9
 Calculations assume unbraced length of Top: 00-00-00, Bottom: 10-02-08.

CONFORMS TO OBC 2012

AMENDED 2020



OWN NO. TAM 10671-21
STRUCTURAL COMPONENT ONLY



Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP
2ND FLR FRAMING\Flush Beams\B2(i26391) (Flush Beam)

PASSED

BC CALC® Member Report
Build 7773

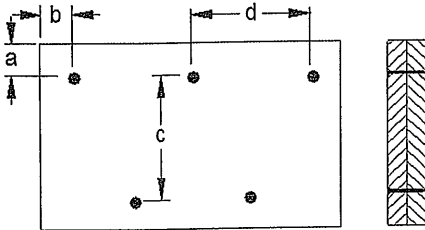
Dry | 1 span | No cant.

May 17, 2021 17:29:30

Job name:
Address:
City, Province, Postal Code: RICHMOND HILL
Customer:
Code reports: CCMC 12472-R

File name: 4501 - STANDARD.mmdl
Description: 2ND FLR FRAMING\Flush Beams\B2(i26391)
Specifier:
Designer: L.D.
Company:

Connection Diagram: Full Length of Member



a minimum = 2" c = 7-7/8"
b minimum = 3" d = 6"

Calculated Side Load = 1058.5 lb/ft

Connectors are: Nails

3 1/2" ARDOX SPIRAL



DWG NO. TAM 10671-21
**STRUCTURAL
COMPONENT ONLY**

Disclosure

Use of the Boise Cascade Software is subject to the terms of the End User License Agreement (EULA). Completeness and accuracy of input must be reviewed and verified by a qualified engineer or other appropriate expert to assure its adequacy, prior to anyone relying on such output as evidence of suitability for a particular application. The output here is 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 (800)232-0788 before installation.

BC CALC®, BC FRAMER®, AJST™, ALLJOIST®, BC RIM BOARD™, BCI®, BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,



Double 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP 2ND FLR FRAMING/Dropped Beams\B14E DR(i27433) (Dropped Beam)

PASSED

BC CALC® Member Report

Dry | 1 span | No cant.

May 17, 2021 17:28:50

Build 7773

Job name:

File name: 4501 - KITCHEN & MUD RM OPTION.mmdl

Address:

Description: 2ND FLR FRAMING/Dropp...Beams\B14E DR(i27433)

City, Province, Postal Code: RICHMOND HILL

Specifier:

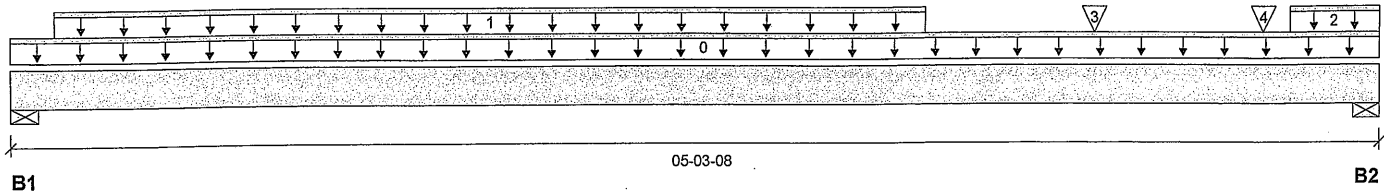
Customer:

Designer: L.D.

Code reports:

CCMC 12472-R

Company:



Total Horizontal Product Length = 05-03-08

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 3-1/2"	1181 / 0	616 / 0		
B2, 3-1/2"	1212 / 0	631 / 0		

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live	Dead	Snow	Wind	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	05-03-08	Top	1.00	0.65	1.00	1.15	00-00-00
1	Smoothed Load	Unf. Lin. (lb/ft)	L	00-02-00	03-06-00	Top	526	263			n/a
2	Bk1(i27693)	Unf. Lin. (lb/ft)	L	04-11-04	05-03-08	Top	176	88			n/a
3	J4(i27512)	Conc. Pt. (lbs)	L	04-02-00	04-02-00	Top	176	88			n/a
4	J2(i27471)	Conc. Pt. (lbs)	L	04-10-00	04-10-00	Top	384	192			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	2724 ft-lbs	23219 ft-lbs	11.7%	1	02-10-00
End Shear	1848 lbs	11571 lbs	16.0%	1	01-01-00
Total Load Deflection	L/999 (0.016")	n/a	n/a	4	02-07-08
Live Load Deflection	L/999 (0.011")	n/a	n/a	5	02-07-08
Max Defl.	0.016"	n/a	n/a	4	02-07-08
Span / Depth	6.1				

Bearing Supports	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1	Wall/Plate 3-1/2" x 3-1/2"	2542 lbs	15.5%	17.0%	Spruce-Pine-Fir
B2	Wall/Plate 3-1/2" x 3-1/2"	2607 lbs	32.8%	17.4%	Unspecified

Notes

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

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

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 2015 and CSA O86.

Design based on Dry Service Condition.

Importance Factor : Normal Part code : Part 9

Calculations assume unbraced length of Top: 00-06-12, Bottom: 05-03-08.

CONFORMS TO OBC 2012

AMENDED 2020


 DWG NO. TAM20672-21
 STRUCTURAL
 COMPONENT ONLY



Double 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP
2ND FLR FRAMING\Dropped Beams\B14E DR(i27433) (Dropped Beam)

PASSED

BC CALC® Member Report
Build 7773

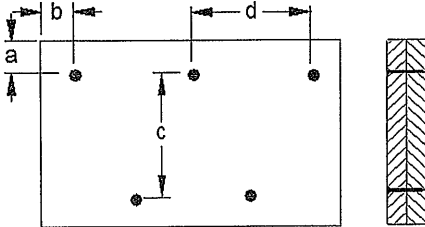
Dry | 1 span | No cant.

May 17, 2021 17:28:50

Job name:
Address:
City, Province, Postal Code: RICHMOND HILL
Customer:
Code reports: CCMC 12472-R

File name: 4501 - KITCHEN & MUD RM OPTION.mmdl
Description: 2ND FLR FRAMING\Dropp...Beams\B14E DR(i27433)
Specifier:
Designer: L.D.
Company:

Connection Diagram: Full Length of Member



a minimum = 2"
b minimum = 3"

c = 5-1/2"
d = 8"

Connectors are: 1 - 3 1/2" ARDOX SPIRAL Nails



DWG NO. TAM 10672-21
STRUCTURAL
COMPONENT ONLY

Disclosure

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BC CALC®, BC FRAMER®, AJST™, ALLJOIST®, BC RIM BOARD™, BCI®, BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,

NORDIC STRUCTURES

COMPANY
Aug. 7, 2020 17:12

PROJECT
J1 - 1ST FLOOR.wwb

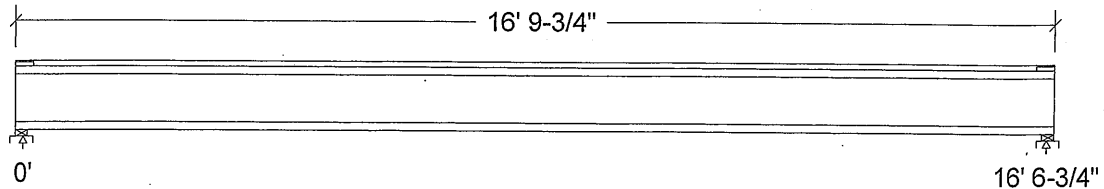
Design Check Calculation Sheet

Nordic Sizer – Canada 7.2

Loads:

Load	Type	Distribution	Pat-tern	Location [ft] Start End	Magnitude Start End	Unit
Load1	Dead	Full Area			20.00	psf
Load2	Live	Full Area			40.00	psf

Maximum Reactions (lbs) and Support Bearing (in):



Unfactored:			
Dead	221		221
Live	442		442
Factored:			
Total	939		939
Bearing:			
Capacity			
Joist	2102		2102
Support	3981		3981
Des ratio			
Joist	0.45		0.45
Support	0.24		0.24
Load case	#2		#2
Length	2-3/8		2-3/8
Min req'd	1-3/4		1-3/4
Stiffener	No		No
KD	1.00		1.00
KB support	1.00		1.00
fcg sup	769		769
Kzcp sup	1.09		1.09

Nordic 11-7/8" NI-40x Floor joist @ 16" o.c.

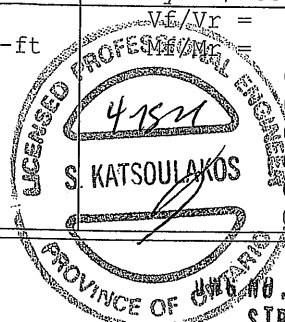
Supports: All - Lumber Sill plate, No.1/No.2

Total length: 16' 9-3/4"; Clear span: 16' 5"; 3/4" nailed and glued OSB sheathing

This section PASSES the design code check.

Limit States Design using CSA O86-14 and Vibration Criterion:

Criterion	Analysis Value	Design Value	Unit	Analysis/Design
Shear	Vf = 939	Vr = 2336	lbs	Vf/Vr = 0.40
Moment (+)	Mf = 3886	Mr = 6255	lbs-ft	Mf/Mr = 0.62
Perm. Defl'n	0.11 = < L/999	0.55 = L/360	in	0.20
Live Defl'n	0.22 = L/884	0.41 = L/480	in	0.54
Total Defl'n	0.34 = L/589	0.83 = L/240	in	0.41
Bare Defl'n	0.27 = L/731	0.55 = L/360	in	0.49
Vibration	Lmax = 16'-6.8	Lv = 18'-1.3	ft	0.91
Defl'n	= 0.029	= 0.038	in	0.76



NO. 41524
STRUCTURAL
COMPONENT ONLY

Additional Data:

FACTORS:	f/E	KD	KH	KZ	KL	KT	KS	KN	LC#
Vr	2336	1.00	1.00	-	-	-	-	-	#2
Mr+	6255	1.00	1.00	-	1.000	-	-	-	#2
EI	371.1 million	-	-	-	-	-	-	-	#2

CRITICAL LOAD COMBINATIONS:

Shear : LC #2 = 1.25D + 1.5L

Moment(+) : LC #2 = 1.25D + 1.5L

Deflection: LC #1 = 1.0D (permanent)

LC #2 = 1.0D + 1.0L (live)

LC #2 = 1.0D + 1.0L (total)

LC #2 = 1.0D + 1.0L (bare joist)

Bearing : Support 1 - LC #2 = 1.25D + 1.5L

Support 2 - LC #2 = 1.25D + 1.5L

Load Types: D=dead W=wind S=snow H=earth,groundwater E=earthquake

L=live(use,occupancy) Ls=live(storage,equipment) f=fire

Load Patterns: s=S/2 L=L+Ls _=no pattern load in this span

All Load Combinations (LCs) are listed in the Analysis output

CALCULATIONS:EI_{eff} = 459.76 lb-in² K= 6.18e06 lbs

"Live" deflection is due to all non-dead loads (live, wind, snow...)

CONFORMS TO OBC 2012

AMENDED 2020

Design Notes:

1. WoodWorks analysis and design are in accordance with the 2015 National Building Code of Canada (NBC), Division B, Part 4, and the CSA O86-14 Engineering Design in Wood standard, Update No. 2 (June 2017).
2. Please verify that the default deflection limits are appropriate for your application.
3. Refer to Nordic Structures technical documentation for installation guidelines and construction details.
4. Nordic I-joists are listed in CCMC evaluation report 13032-R.
5. Joists shall be laterally supported at supports and continuously along the compression edge.
6. The design assumptions and specifications have been provided by the client. Any damages resulting from faulty or incorrect information, specifications, and/or designs furnished, and the correctness or accuracy of this information is their responsibility. This analysis does not constitute a record of the structural integrity of the building nor suitability of the design assumptions made. Nordic Structures is responsible only for the structural adequacy of this component based on the design criteria and loadings shown.



DWG NO. TAM 8714 -21
STRUCTURAL
COMPONENT ONLY

NORDIC STRUCTURES

COMPANY
Aug. 7, 2020 17:14

PROJECT
J1 - 2ND FLOOR.wwb

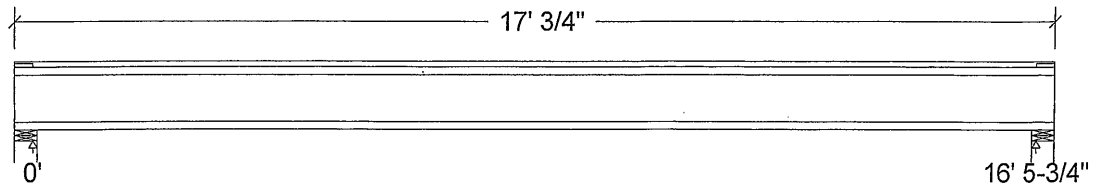
Design Check Calculation Sheet

Nordic Sizer – Canada 7.2

Loads:

Load	Type	Distribution	Pat- tern	Location [ft] Start End	Magnitude Start End	Unit
Load1	Dead	Full Area			20.00	psf
Load2	Live	Full Area			40.00	psf

Maximum Reactions (lbs) and Support Bearing (in):



Unfactored:			
Dead	220		220
Live	439		439
Factored:			
Total	934		934
Bearing:			
Capacity			
Joist	2336		2336
Support	7744		7744
Des ratio			
Joist	0.40		0.40
Support	0.12		0.12
Load case	#2		#2
Length	4-3/8		4-3/8
Min req'd	1-3/4		1-3/4
Stiffener	No		No
KD	1.00		1.00
KB support	-		-
fcp sup	769		769
Kzcp sup	-		-

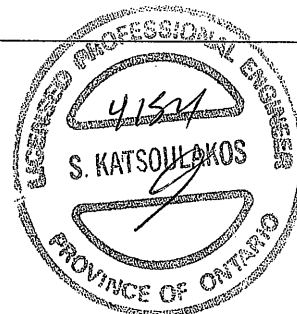
Bearing for wall supports is perpendicular-to-grain bearing on top plate. No stud design included.

Nordic 11-7/8" NI-40x Floor joist @ 16" o.c.

Supports: All - Lumber Wall, No.1/No.2

Total length: 17' 3/4"; Clear span: 16' 4"; 5/8" nailed and glued OSB sheathing with 1/2" gypsum ceiling

This section PASSES the design code check.



P64
OWN NO. TAM BT15-21
STRUCTURAL
COMPONENT ONLY

Limit States Design using CSA O86-14 and Vibration Criterion:

Criterion	Analysis Value	Design Value	Unit	Analysis/Design
Shear	$V_f = 934$	$V_r = 2336$	lbs	$V_f/V_r = 0.40$
Moment(+)	$M_f = 3847$	$M_r = 6255$	lbs-ft	$M_f/M_r = 0.62$
Perm. Defl'n	$0.11 = < L/999$	$0.55 = L/360$	in	0.21
Live Defl'n	$0.23 = L/875$	$0.41 = L/480$	in	0.55
Total Defl'n	$0.34 = L/583$	$0.82 = L/240$	in	0.41
Bare Defl'n	$0.27 = L/741$	$0.55 = L/360$	in	0.49
Vibration	$L_{max} = 16'-5.8$	$L_v = 17'-8.1$	ft	0.93
Defl'n	$= 0.031$	$= 0.039$	in	0.80

Additional Data:

FACTORS:	f/E	KD	KH	KZ	KL	KT	KS	KN	LC#
V_r	2336	1.00	1.00	-	-	-	-	-	#2
M_r	6255	1.00	1.00	-	1.000	-	-	-	#2
EI	371.1 million	-	-	-	-	-	-	-	#2

CRITICAL LOAD COMBINATIONS:

Shear : LC #2 = 1.25D + 1.5L
 Moment(+) : LC #2 = 1.25D + 1.5L
 Deflection: LC #1 = 1.0D (permanent)
 LC #2 = 1.0D + 1.0L (live)
 LC #2 = 1.0D + 1.0L (total)
 LC #2 = 1.0D + 1.0L (bare joist)

Bearing : Support 1 - LC #2 = 1.25D + 1.5L
 Support 2 - LC #2 = 1.25D + 1.5L

Load Types: D=dead W=wind S=snow H=earth, groundwater E=earthquake
 L=live(use, occupancy) Ls=live(storage, equipment) f=fire

Load Patterns: s=S/2 L=L+Ls _=no pattern load in this span
 All Load Combinations (LCs) are listed in the Analysis output

CALCULATIONS:

$EI_{eff} = 447.63 \text{ lb-in}^2$ $K = 6.18e06 \text{ lbs}$

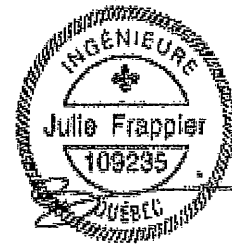
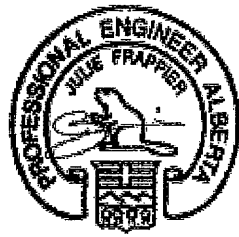
"Live" deflection is due to all non-dead loads (live, wind, snow...) **CONFORMS TO OBC 2012**

AMENDED 2020**Design Notes:**

1. WoodWorks analysis and design are in accordance with the 2015 National Building Code of Canada (NBC), Division B, Part 4, and the CSA O86-14 Engineering Design in Wood standard, Update No. 2 (June 2017).
2. Please verify that the default deflection limits are appropriate for your application.
3. Refer to Nordic Structures technical documentation for installation guidelines and construction details.
4. Nordic I-joists are listed in CCMC evaluation report 13032-R.
5. Joists shall be laterally supported at supports and continuously along the compression edge.
6. The design assumptions and specifications have been provided by the client. Any damages resulting from faulty or incorrect information, specifications, and/or designs furnished, and the correctness or accuracy of this information is their responsibility. This analysis does not constitute a record of the structural integrity of the building nor suitability of the design assumptions made. Nordic Structures is responsible only for the structural adequacy of this component based on the design criteria and loadings shown.



OWB NO. FAM8715 -21
**STRUCTURAL
 COMPONENT ONLY**



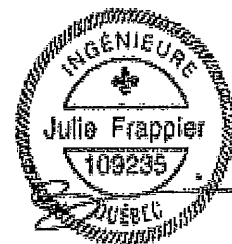
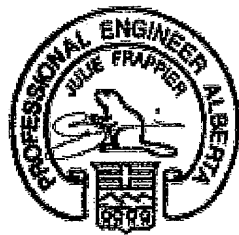
Maximum Floor Spans

Live Load = 40 psf, Dead Load = 15 psf
Simple Spans, L/480 Deflection Limit
5/8" OSB G&N Sheathing

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

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

- 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/480 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 5/8 inch for a joist spacing of 19.2 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.



Maximum Floor Spans

Live Load = 40 psf, Dead Load = 15 psf
Simple Spans, L/480 Deflection Limit
3/4" OSB G&N Sheathing

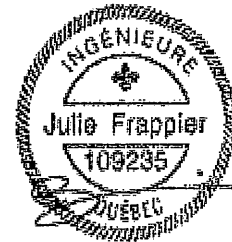
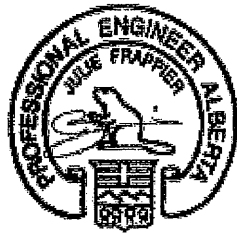
Depth	Series	Bare				1/2" Gypsum Ceiling			
		On Centre Spacing				On Centre Spacing			
		12"	16"	19.2"	24"	12"	16"	19.2"	24"
9-1/2"	NI-20	15'-10"	15'-0"	14'-5"	13'-5"	16'-4"	15'-5"	14'-6"	13'-5"
	NI-40x	17'-0"	16'-0"	15'-5"	14'-9"	17'-5"	16'-5"	15'-10"	15'-2"
	NI-60	17'-2"	16'-2"	15'-7"	14'-11"	17'-6"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

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

- Maximum clear span applicable to simple-span residential floor construction with a design live load of 40 psf and dead load of 15 psf. The ultimate limit states are based on the factored loads of 1.50L + 1.25D. The serviceability limit states include the consideration for floor vibration, a live load deflection limit of L/480 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.

Maximum Floor Spans

Live Load = 40 psf, Dead Load = 30 psf
Simple Spans, L/480 Deflection Limit
5/8" OSB G&N Sheathing



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

1. Maximum clear span applicable to simple-span residential floor construction with a design live load of 40 psf and dead load of 30 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/480 and a total load deflection limit of L/240.

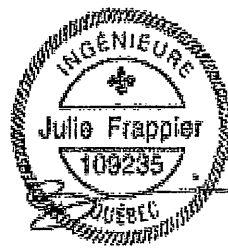
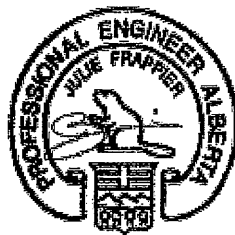
2. Spans are based on a composite floor with glued-nailed oriented strand board (OSB) sheathing with a minimum thickness of 5/8 inch for a joist spacing of 19.2 inches or less. The composite floor may include 1/2 inch gypsum ceiling and/or one row of blocking at mid-span with strapping. Strapping shall be minimum 1x4 inch strap applied to underside of joists at blocking line or 1/2 inch gypsum ceiling attached to joists.

3. Minimum bearing length shall be 1-3/4 inches for the end bearings.

4. Bearing stiffeners are not required when I-joists are used with the spans and spacings given in this table, except as required for hangers.

5. 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.

6. 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.



Maximum Floor Spans

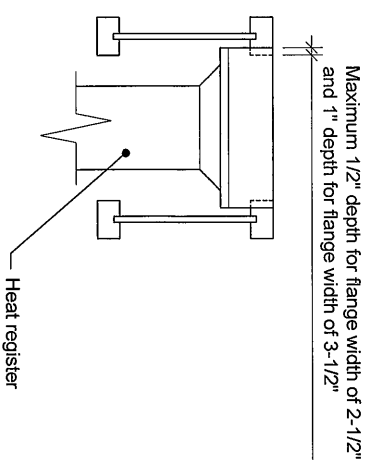
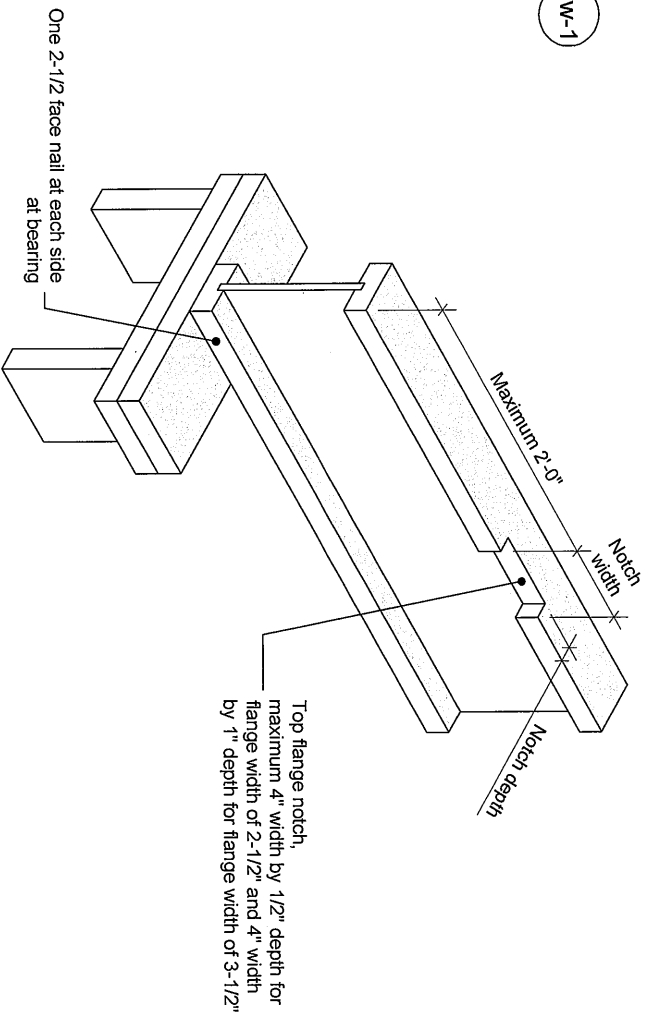
Live Load = 40 psf, Dead Load = 30 psf
Simple Spans, L/480 Deflection Limit
3/4" OSB G&N Sheathing

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

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

- Maximum clear span applicable to simple-span residential floor construction with a design live load of 40 psf and dead load of 30 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/480 and a total load deflection limit of L/240.
- Spans are based on a composite floor with glued-nailed oriented strand board (OSB) sheathing with a minimum thickness of 3/4 inch for a joist spacing of 24 inches or less. The composite floor may include 1/2 inch gypsum ceiling and/or one row of blocking at mid-span with strapping. Strapping shall be minimum 1x4 inch strap applied to underside of joists at blocking line or 1/2 inch gypsum ceiling attached to joists.
- Minimum bearing length shall be 1-3/4 inches for the end bearings.
- Bearing stiffeners are not required when I-joists are used with the spans and spacings given in this table, except as required for hangers.
- This span chart is based on uniform loads. For applications with other than uniformly distributed loads, an engineering analysis may be required based on the use of the design properties. Tables are based on Limit States Design per CSA O86-09, NBC 2010, and OBC 2012.
- Joists shall be laterally supported at supports and continuously along the compression edge. Refer to technical documentation for installation guidelines and construction details. Nordic I-joists are listed in CCMC evaluation report 13032-R and APA Product Report PR-L274C.

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- Notes:**
1. Blocking required at bearing for lateral support, not shown for clarity.
 2. The maximum dimensions for a notch on the side of the top flange are 4-inch width by 1/2-inch depth for flange width of 2-1/2 inches, and 4-inch width by 1-inch depth for flange width of 3-1/2 inches.
 3. This detail applies to simple-span joists and multiple-span joists where the notch is located at the end half-span.
 4. For other applications, contact Nordic Structures.

This document supersedes all previous versions. If the document has been in effect for more than one year, consult nordic.ca or contact Nordic Structures.

All nails shown in the details are assumed to be common nails unless otherwise noted. Nails shall have a diameter not less than 0.128 inch for 2-1/2-inch nails, or 0.144 inch for 3-inch nails. Individual components not shown to scale for clarity.

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TITLE
Notch in I-joist for Heat Register

CATEGORY
I-joist - Typical Floor Framing and Construction Details

DOCUMENT

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DATE

2018-04-10

NUMBER

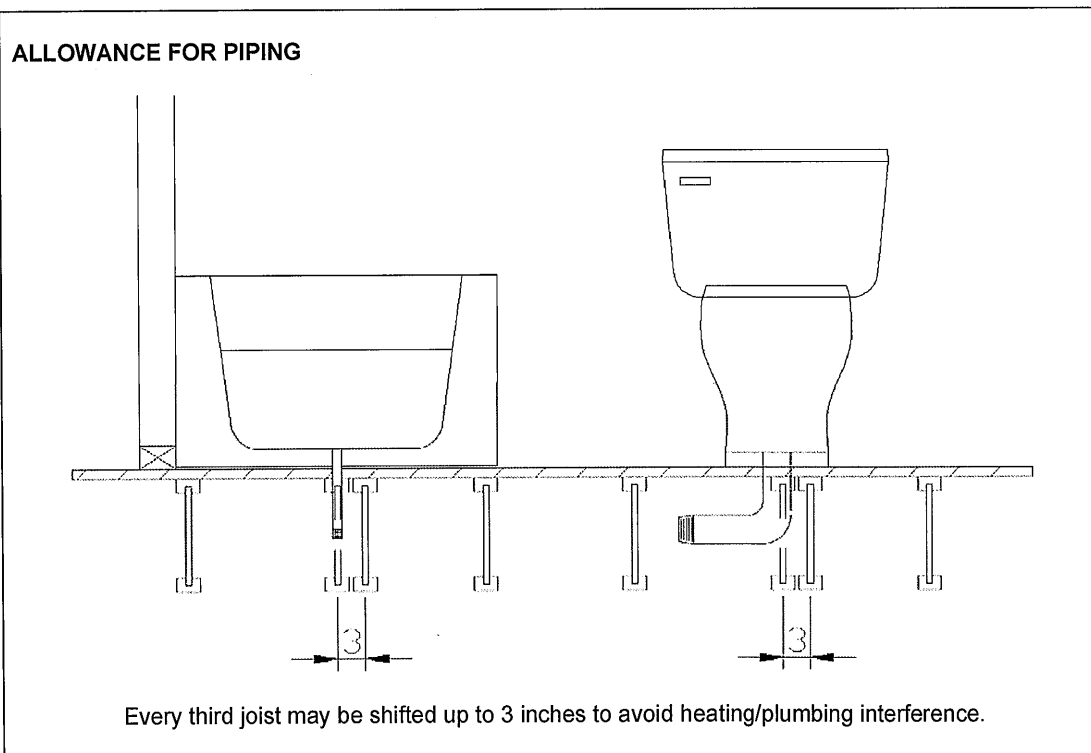
1w-1

Allowance for Piping (Installation Notes)

The floor layouts have usually not been checked for heating and/or plumbing interference. On-site adjustment of joists of up to 3 inches is permitted to avoid interferences. When moving a joist, the subfloor thickness shall be checked with code requirements when the joist spacing exceeds 19.2 inches. Except for cutting to length, I-joist flanges should never be cut, drilled, or notched.

Installation of Nordic I-joists shall be as per *Nordic Joist Installation Guide for Residential Floors*. Refer to Tables 1 and 2 for maximum web hole and duct chase openings, respectively. These tables are based on the I-joists being used at their maximum spans. The minimum distance given may be reduced for shorter spans; contact your distributor for additional information.

The detail below shows the 3-inch allowance for piping. Every third joist may be shifted up to 3 inches to avoid heating/plumbing interference. For other applications, please contact your distributor.



Revised April 12, 2012