

Products				
PlotID	Length	Product	Plies	Net Qty
J1	20-00-00	11 7/8" NI-40x	1	4
J2	20-00-00	11 7/8" NI-40x	2	8
J3	18-00-00	11 7/8" NI-40x	1	25
J3DJ	18-00-00	11 7/8" NI-40x	2	4
J4	16-00-00	11 7/8" NI-40x	1	2
J5	12-00-00	11 7/8" NI-40x	1	2
J6	10-00-00	11 7/8" NI-40x	1	3
J7	8-00-00	11 7/8" NI-40x	1	4
J8	6-00-00	11 7/8" NI-40x	1	1
J9	4-00-00	11 7/8" NI-40x	1	3
J10	2-00-00	11 7/8" NI-40x	1	4
J11	20-00-00	11 7/8" NI-80	1	27
B1	14-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	3	3
B2	10-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B5	8-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1
B3	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1
B4	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1

Connector Summary		
Qty	Manuf	Product
7	H1	IUS2.56/11.88
6	H1	IUS2.56/11.88
17	H1	IUS2.56/11.88
6	H1	IUS2.56/11.88
4	H1	IUS2.56/11.88
2	H2	HUS1.81/10
1	H2	HUS1.81/10
1	H4	HGUS410

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 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: 20.0 lb/ft²
SNOW LOAD: 24.0 lb/ft²

SUBFLOOR: 3/4" GLUED AND NAILED

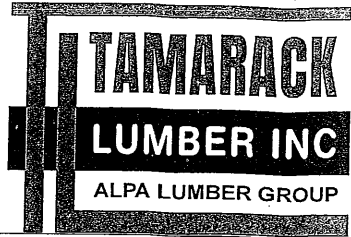
DATE 9/01/24
BCIN: 26084; FIRM: 29991
ENGINEERING ONLY - DIMENSIONS TO BE VERIFIED ON SITE SUPPORTING STRUCTURE TO BE VERIFIED BY QUALIFIED BUILDING DESIGNER. ALL CONVENTIONAL FRAMING TO BE SPECIFIED, REVIEWED, AND CONFIRMED BY BUILDING DESIGNER PRIOR TO JOIST(S) AND FLOOR BEAM(S) INSTALLATION. ALL NOTES DESIGNATING MORE OR LESS (AS PER PLAN WORK) DO NOT REPRESENT A PART OF THE SCOPE OF WORK WITHIN THE BOUNDARIES OF THE SEAL. THIS WORK IS DELEGATED TO A QUALIFIED BUILDING DESIGNER HAVING RESPONSIBILITY FOR THIS PROJECT. ALL BEAMS NOT ADDRESSED IN THIS DESCRIPTION AND LABELLED ON THIS LAYOUT ARE BEAMS SPECIFIED BY BUILDING DESIGNER AND/OR PROJECT ENGINEER AND ARE TO BE REVIEWED AND CONFIRMED BY THE SAME DESIGNER(S) PRIOR TO FABRICATION TO ENSURE ADEQUATE LOAD CAPACITY WITH RESPECT TO THE FLOOR SYSTEM COMPONENTS REVIEWED IN THIS SUBMISSION. MUNICIPALITY HAVING JURISDICTION TO OBTAIN LOT SPECIFIC SCHEDULE 1 FORM FROM THIS OFFICE PRIOR TO BUILDING PERMIT APPROVAL. INSTALLERS OF THIS FLOOR SYSTEM AND THEIR COMPANIES HAVE THE RESPONSIBILITY OF ENSURING THEY HAVE A COPY OF THE NORDIC INSTALLATION GUIDE AND ANY OTHER MANUFACTURER'S PRODUCT LITERATURE WHICH WILL AID IN THE OVERALL PROPER INSTALLATION OF THIS FLOOR SYSTEM. INSTALLERS ARE TO READ ALL PRODUCT LITERATURE AND INSTALLATION GUIDELINES BEFORE PROCEEDING. THE SUPPLIER AND SEALING ENGINEER OF THIS FLOOR SYSTEM ARE NOT RESPONSIBLE FOR SURPLUS OR DEFICIT OF PRODUCTS AT PROJECT'S END. THIS LAYOUT IS A GUIDE ONLY. CONFIRMATION OF ALL QUANTITIES, LENGTHS, AND DETAILS, REMAINS THE RESPONSIBILITY OF THE FLOOR SYSTEM INSTALLATION CONTRACTOR.

DWG# TAM 180204 THROUGH DWG# TAM 180244 INCLUSIVE DATED 8/24/24
SEALED STRUCTURAL COMPONENTS ONLY:
SEALED, THIRD PARTY LVL TYPE BEAMS, BUILT-UP CONVENTIONAL BEAMS, HEADERS, AND CONCENTRATED LOADED NORDIC WOOD-I JOIST ONLY. 2 X 6 SQUASH BLOCK REQUIRED AT ALL EXTERIOR SUPPORTS OR AS PER PROJECT ENGINEER'S SPECIFICATIONS. WEB FILLER REINFORCEMENT REQUIRED AT ALL HANGER SUPPORTED JOIST EXCEEDING A REACTION OF 1500 LBS (FACTORED)-SEE DETAILS.
A COMPLETE FRAMING PLAN REQUIRES THE NORDIC PUBLISHED LITERATURE, WHICH INCLUDES INSTALLATION REQUIREMENTS, HANDLING AND STORAGE GUIDELINES, AND FORMS AN INTEGRAL PART OF THIS SEALED DOCUMENT. INSTALL SQUASH BLOCKS FOR TRANSFERRING POINT LOADS FROM GIRDER TRUSSES, HEADERS, AND BEAMS DOWN TO FOUNDATION COMPONENTS. FOR PROPER INSTALLATION, SEE NORDIC LITERATURE. PROVIDE 2 X 4 OR 2 X 6 STUD GRADE OR BETTER SQUASH BLOCKS, MATCHING SUPPORTED WALL WIDTH ABOVE BLOCKS. INSTALL SQUASH BLOCKS ON EACH SIDE OF JOIST. BLOCKING TO BE 1/160 DEEPER THAN JOIST DEPTH. SEE NORDIC LITERATURE FOR NAILING REQUIREMENT.

I REVIEWED AND TAKE RESPONSIBILITY FOR THE DESIGN WORK ON BEHALF OF A FIRM REGISTERED UNDER SUBSECTION 3.2.5 OF THE ONTARIO BUILDING CODE. I AM QUALIFIED AND THE FIRM IS REGISTERED, IN APPROPRIATE CLASSES AND/OR CATEGORIES.

REGISTERED FIRM: MICRO CITY ENGINEERING SERVICES INC.

DWG # TAM 19647-21
BCIN: 26084
FIRM: 29991
SEALED STRUCTURAL COMPONENTS ONLY



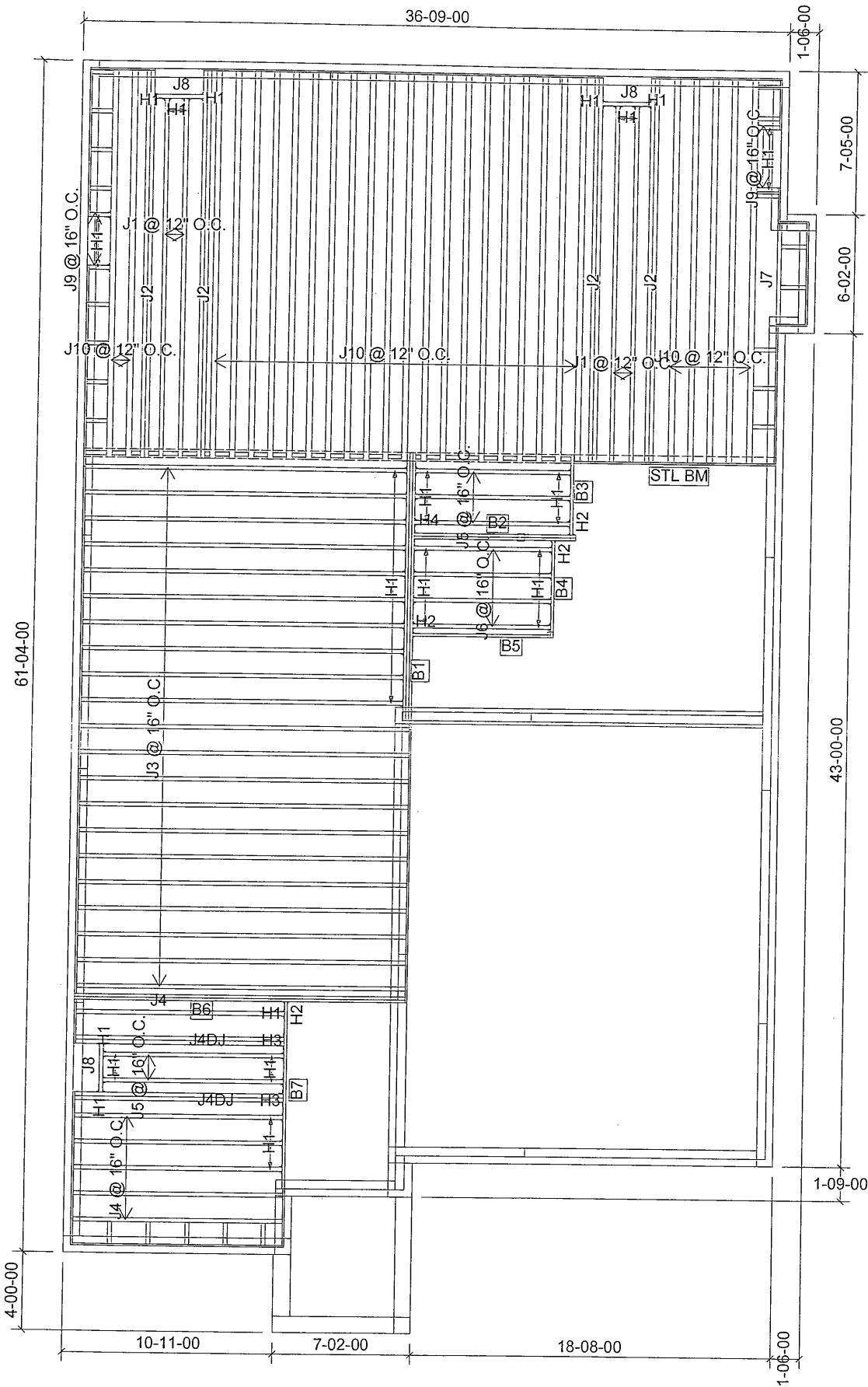
FROM PLAN DATED: 2021/06
BUILDER: ROYAL PINE HOMES
SITE: VALES OF HUMBER NORTH
MODEL: 4505
ELEVATION: A
LOT:
CITY: BRAMPTON
SALESMAN: RICK DICIANO
DESIGNER: AJ
REVISION:

DATE: 2021-08-31

1st FLOOR

STD





Products				
PlotID	Length	Product	Plies	Net Qty
J1	20-00-00	11 7/8" NI-40x	1	4
J2	20-00-00	11 7/8" NI-40x	2	8
J3	18-00-00	11 7/8" NI-40x	1	21
J4	12-00-00	11 7/8" NI-40x	1	6
J4DJ	12-00-00	11 7/8" NI-40x	2	4
J5	10-00-00	11 7/8" NI-40x	1	5
J6	8-00-00	11 7/8" NI-40x	1	4
J7	6-00-00	11 7/8" NI-40x	1	1
J8	4-00-00	11 7/8" NI-40x	1	3
J9	2-00-00	11 7/8" NI-40x	1	4
J10	20-00-00	11 7/8" NI-80	1	27
B6 ✓	18-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B1 ✓	14-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	3	3
B7 ✓	10-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1
B2 ✓	10-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B5 ✓	8-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1
B3 ✓	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1
B4 ✓	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1

Connector Summary		
Qty	Manuf	Product
13	H1	IUS2.56/11.88
6	H1	IUS2.56/11.88
17	H1	IUS2.56/11.88
6	H1	IUS2.56/11.88
4	H1	IUS2.56/11.88
3	H2	HUS1.81/10
1	H2	HUS1.81/10
2	H3	HU312-2
1	H4	HGUS410

TAMARACK

LUMBER INC

ALPA LUMBER GROUP

FROM PLAN DATED:

2021/06

BUILDER:

ROYAL PINE HOMES

SITE:

VALES OF HUMBER NORTH

MODEL: 4505

ELEVATION: A

LOT:

CITY: BRAMPTON

SALESMAN: RICK DICIANO

DESIGNER: AJ

REVISION:

DATE: 2021-08-31

1st FLOOR

SUNKEN

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 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: 20.0 lb/ft²

SNOW LOAD: 24.0 lb/ft²

SUBFLOOR: 3/4" GLUED AND NAILED

DATE 9014

BCIN: 26064; FIRM: 29991

ENGINEERING ONLY - DIMENSIONS TO BE VERIFIED ON SITE SUPPORTING STRUCTURE TO BE VERIFIED BY QUALIFIED BUILDING DESIGNER. ALL CONVENTIONAL FRAMING TO BE SPECIFIED, REVIEWED, AND CONFIRMED BY BUILDING DESIGNER PRIOR TO JOIST(S) AND FLOOR BEAM(S) INSTALLATION. ALL NOTES DESIGNATING MORE OR LESS AS PER PLAN WORK DO NOT REPRESENT A PART OF THE SCOPE OF WORK WITHIN THE BOUNDARIES OF THE SEAL. THIS WORK IS DELEGATED TO A QUALIFIED BUILDING DESIGNER HAVING RESPONSIBILITY FOR THIS PROJECT. ALL BEAMS NOT ADDRESSED IN THIS DESCRIPTION AND LABELLED ON THIS LAYOUT ARE BEAMS SPECIFIED BY BUILDING DESIGNER AND/OR PROJECT ENGINEER AND ARE TO BE REVIEWED AND CONFIRMED BY THE SAME DESIGNER(S) PRIOR TO FABRICATION TO ENSURE ADEQUATE LOAD CAPACITY WITH RESPECT TO THE FLOOR SYSTEM COMPONENTS REVIEWED IN THIS SUBMISSION. MUNICIPALITY HAVING JURISDICTION TO OBTAIN LOT SPECIFIC SCHEDULE 1 FORM FROM THIS OFFICE PRIOR TO BUILDING PERMIT APPROVAL. INSTALLERS OF THIS FLOOR SYSTEM AND THEIR COMPANIES HAVE THE RESPONSIBILITY OF ENSURING THEY HAVE A COPY OF THE NORDIC INSTALLATION GUIDE AND ANY OTHER MANUFACTURER'S PRODUCT LITERATURE WHICH WILL AID IN THE OVERALL PROPER INSTALLATION OF THIS FLOOR SYSTEM. INSTALLERS ARE TO READ ALL PRODUCT LITERATURE AND INSTALLATION GUIDELINES BEFORE PROCEEDING. THE SUPPLIER AND SEALING ENGINEER OF THIS FLOOR SYSTEM ARE NOT RESPONSIBLE FOR SURPLUS OR DEFICIT OF PRODUCTS AT PROJECT'S END. THIS LAYOUT IS A GUIDE ONLY. CONFIRMATION OF ALL QUANTITIES, LENGTHS, AND DETAILS, REMAINS THE RESPONSIBILITY OF THE FLOOR SYSTEM INSTALLATION CONTRACTOR.

DWG# TAM 180204 THROUGH DWG# TAM 180264, INCLUSIVE DATED 82424

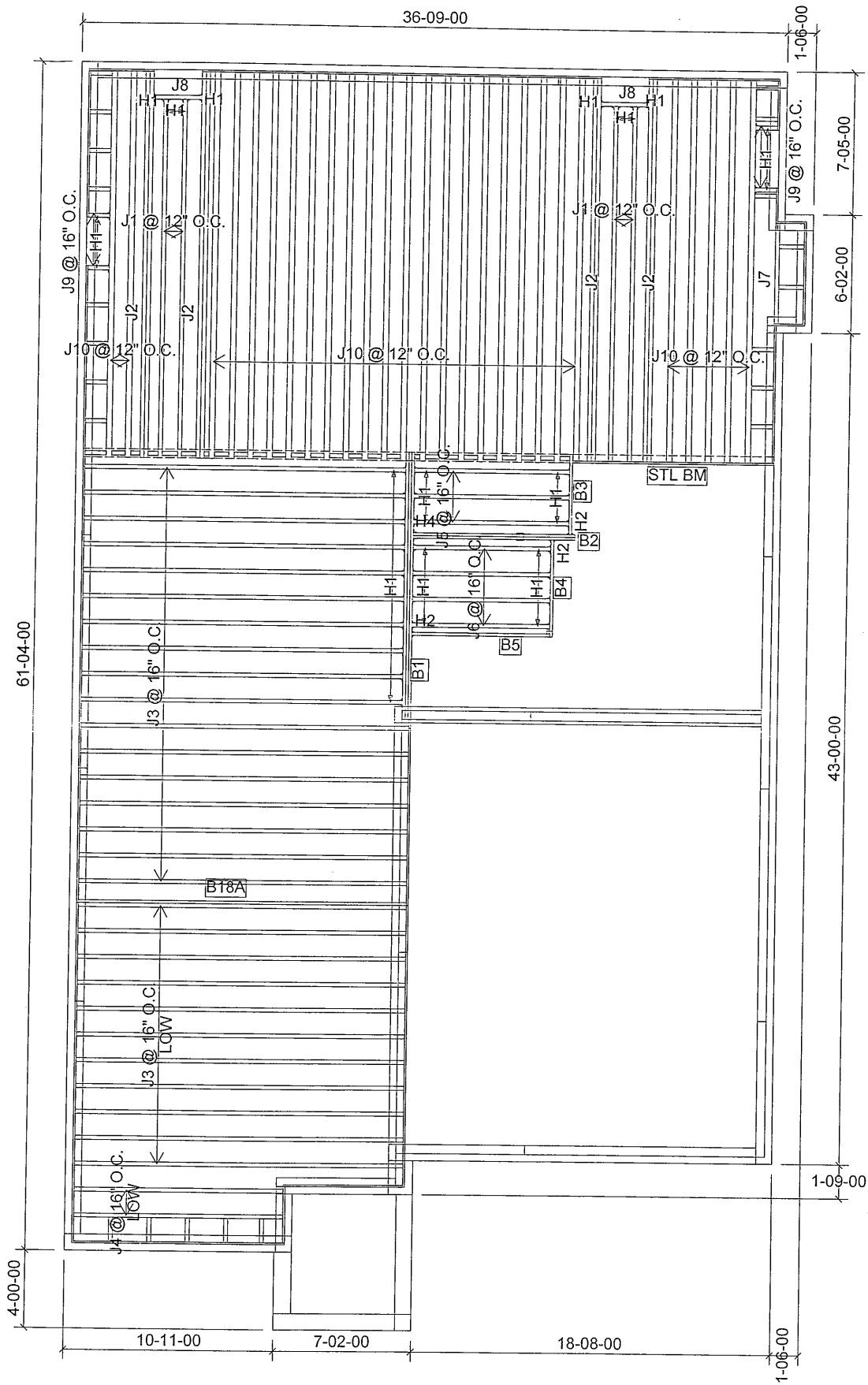
SEALED STRUCTURAL COMPONENTS ONLY:
SEALED, THIRD PARTY LVL TYPE BEAMS, BUILT-UP CONVENTIONAL BEAMS, HEADERS, AND CONCENTRATED LOADED NORDIC WOOD-I JOIST ONLY. 2 X 6 SQUASH BLOCK REQUIRED AT ALL EXTERIOR SUPPORTS OR AS PER PROJECT ENGINEER'S SPECIFICATIONS. WEB FILLER REINFORCEMENT REQUIRED AT ALL HANGER SUPPORTED JOIST EXCEEDING A REACTION OF 1500 LBS (FACTORED)-SEE DETAILS.
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REGISTERED FIRM: MICRO CITY ENGINEERING SERVICES INC.

DWG # TAM 1964821
BCIN: 26064
FIRM: 29991
SEALED STRUCTURAL COMPONENTS ONLY

PROFESSIONAL ENGINEER
S. KATSOULAKOS
PROVINCE OF ONTARIO



Products					
PlotID	Length	Product	Plies	Net Qty	
J1	20-00-00	11 7/8" NI-40x	1	4	
J2	20-00-00	11 7/8" NI-40x	2	8	
J3	18-00-00	11 7/8" NI-40x	1	28	
J4	12-00-00	11 7/8" NI-40x	1	2	
J5	10-00-00	11 7/8" NI-40x	1	3	
J6	8-00-00	11 7/8" NI-40x	1	4	
J7	6-00-00	11 7/8" NI-40x	1	1	
J8	4-00-00	11 7/8" NI-40x	1	2	
J9	2-00-00	11 7/8" NI-40x	1	4	
J10	20-00-00	11 7/8" NI-80	1	27	
B18A	18-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1	
B1	14-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	3	3	
B2	10-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2	
B5	8-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1	
B3	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1	
B4	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1	

Connector Summary		
Qty	Manuf	Product
7	H1	IUS2.56/11.88
4	H1	IUS2.56/11.88
17	H1	IUS2.56/11.88
4	H1	IUS2.56/11.88
4	H1	IUS2.56/11.88
2	H2	HUS1.81/10
1	H2	HUS1.81/10
1	H4	HGUS410

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 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: 20.0 lb/ft²
SNOW LOAD: 24.0 lb/ft²

SUBFLOOR: 3/4" GLUED AND NAILED

DATE 9/01/24
BCIN: 26064; FIRM: 29991

ENGINEERING ONLY - DIMENSIONS TO BE VERIFIED ON SITE SUPPORTING STRUCTURE TO BE VERIFIED BY QUALIFIED BUILDING DESIGNER. ALL CONVENTIONAL FRAMING TO BE SPECIFIED, REVIEWED, AND CONFIRMED BY BUILDING DESIGNER PRIOR TO JOIST(S) AND FLOOR BEAM(S) INSTALLATION. ALL NOTES DESIGNATING MORE OR LESS QAS PER PLAN WORK DO NOT REPRESENT A PART OF THE SCOPE OF WORK WITHIN THE BOUNDARIES OF THE SEAL. THIS WORK IS DELEGATED TO A QUALIFIED BUILDING DESIGNER HAVING RESPONSIBILITY FOR THIS PROJECT. ALL BEAMS NOT ADDRESSED IN THIS DESCRIPTION AND LABELLED ON THIS LAYOUT ARE BEAMS SPECIFIED BY BUILDING DESIGNER AND/OR PROJECT ENGINEER AND ARE TO BE REVIEWED AND CONFIRMED BY THE SAME DESIGNER(S) PRIOR TO FABRICATION TO ENSURE ADEQUATE LOAD CAPACITY WITH RESPECT TO THE FLOOR SYSTEM COMPONENTS REVIEWED IN THIS SUBMISSION. MUNICIPALITY HAVING JURISDICTION TO OBTAIN LOT SPECIFIC SCHEDULE 1 FORM FROM THIS OFFICE PRIOR TO BUILDING PERMIT APPROVAL. INSTALLERS OF THIS FLOOR SYSTEM AND THEIR COMPANIES HAVE THE RESPONSIBILITY OF ENSURING THEY HAVE A COPY OF THE NORDIC INSTALLATION GUIDE AND ANY OTHER MANUFACTURER'S PRODUCT LITERATURE WHICH WILL AID IN THE OVERALL PROPER INSTALLATION OF THIS FLOOR SYSTEM. INSTALLERS ARE TO READ ALL PRODUCT LITERATURE AND INSTALLATION GUIDELINES BEFORE PROCEEDING. THE SUPPLIER AND SEALING ENGINEER OF THIS FLOOR SYSTEM ARE NOT RESPONSIBLE FOR SURPLUS OR DEFICIT OF PRODUCTS AT PROJECT'S END. THIS LAYOUT IS A GUIDE ONLY. CONFIRMATION OF ALL QUANTITIES, LENGHTS, AND DETAILS, REMAINS THE RESPONSIBILITY OF THE FLOOR SYSTEM INSTALLATION CONTRACTOR.

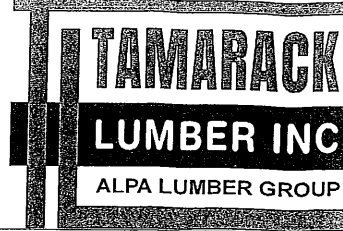
DWG# TAM 1801024 THROUGH DWG# TAM 180244, INCLUSIVE DATED 8/14/24

SEALED STRUCTURAL COMPONENTS ONLY:
SEALED, THIRD PARTY LVL TYPE BEAMS, BUILT-UP CONVENTIONAL BEAMS, HEADERS, AND CONCENTRATED LOADED NORDIC WOOD-I JOIST ONLY. 2 X 6 SQUASH BLOCK REQUIRED AT ALL EXTERIOR SUPPORTS OR AS PER PROJECT ENGINEER'S SPECIFICATIONS. WEB FILLER REINFORCEMENT REQUIRED AT ALL HANGER SUPPORTED JOIST EXCEEDING A REACTION OF 1500 LBS (FACTORED)-SEE DETAILS.
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REGISTERED FIRM: MICRO CITY ENGINEERING SERVICES INC.

DWG # TAM 19649-21
BCIN: 26064
FIRM: 29991
SEALED STRUCTURAL COMPONENTS ONLY



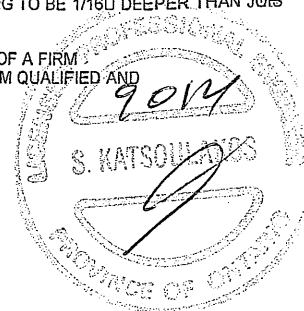
FROM PLAN DATED:
2021/06

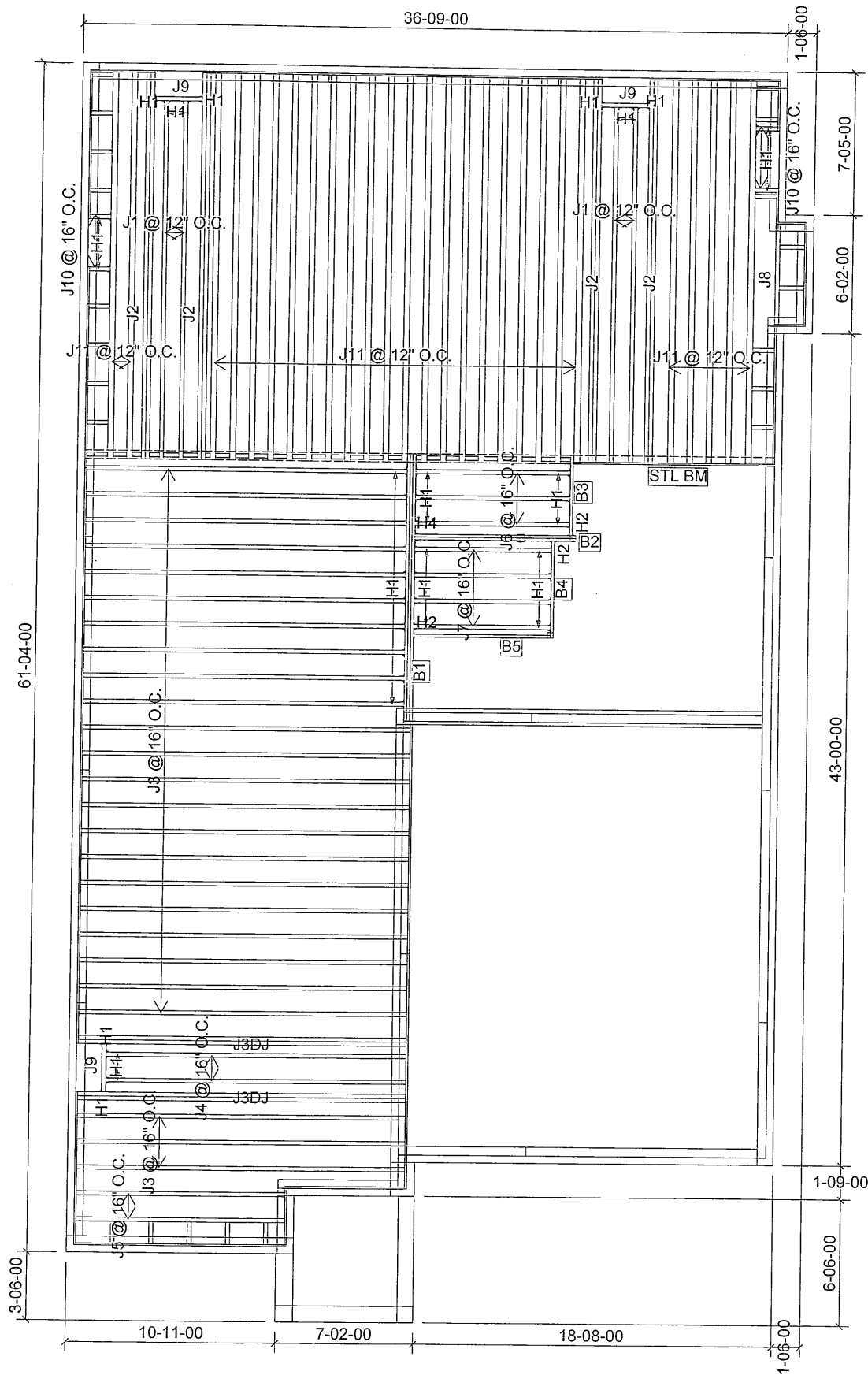
BUILDER:
ROYAL PINE HOMES
SITE:
VALES OF HUMBER NORTH
MODEL: 4505
ELEVATION: A
LOT:
CITY: BRAMPTON
SALESMAN: RICK DICIANO
DESIGNER: AJ
REVISION:

DATE: 2021-08-31

1st FLOOR

SUNKEN IN-LAW SUITE

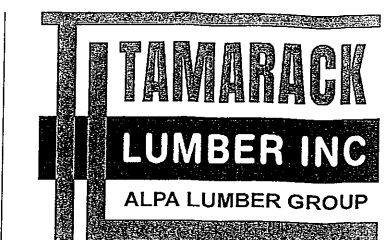




Products					
PlotID	Length	Product	Plies	Net Qty	
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J4	16-00-00	11 7/8" NI-40x	1	2	
J5	12-00-00	11 7/8" NI-40x	1	2	
J6	10-00-00	11 7/8" NI-40x	1	3	
J7	8-00-00	11 7/8" NI-40x	1	4	
J8	6-00-00	11 7/8" NI-40x	1	1	
J9	4-00-00	11 7/8" NI-40x	1	3	
J10	2-00-00	11 7/8" NI-40x	1	4	
J11	20-00-00	11 7/8" NI-80	1	27	
B1 ✓	14-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	3	3	
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B5 ✓	8-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1	
B3 ✓	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1	
B4 ✓	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1	

Connector Summary		
Qty	Manuf	Product
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6	H1	IUS2.56/11.88
17	H1	IUS2.56/11.88
6	H1	IUS2.56/11.88
4	H1	IUS2.56/11.88
2	H2	HUS1.81/10
1	H2	HUS1.81/10
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NOTES:
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FROM PLAN DATED: 2021/06
BUILDER: ROYAL PINE HOMES
SITE: VALES OF HUMBER NORTH
MODEL: 4505
ELEVATION: B
LOT:
CITY: BRAMPTON
SALESMAN: RICK DICIANO
DESIGNER: AJ
REVISION:

DATE: 2021-08-31
1st FLOOR
STD

LOADING:
DESIGN LOADS: L/480.000
LIVE LOAD: 40.0 lb/ft²
DEAD LOAD: 20.0 lb/ft²
SNOW LOAD: 24.0 lb/ft²

SUBFLOOR: 3/4" GLUED AND NAILED

DATE 9-01-24
BCIN: 26064; FIRM: 29991

ENGINEERING ONLY - DIMENSIONS TO BE VERIFIED ON SITE SUPPORTING STRUCTURE TO BE VERIFIED BY QUALIFIED BUILDING DESIGNER. ALL CONVENTIONAL FRAMING TO BE SPECIFIED, REVIEWED, AND CONFIRMED BY BUILDING DESIGNER PRIOR TO JOIST(S) AND FLOOR BEAM(S) INSTALLATION. ALL NOTES DESIGNATING MORE OR LESS DAS PER PLAN WORK DO NOT REPRESENT A PART OF THE SCOPE OF WORK WITHIN THE BOUNDARIES OF THE SEAL. THIS WORK IS DELEGATED TO A QUALIFIED BUILDING DESIGNER HAVING RESPONSIBILITY FOR THIS PROJECT. ALL BEAMS NOT ADDRESSED IN THIS DESCRIPTION AND LABELLED ON THIS LAYOUT ARE BEAMS SPECIFIED BY BUILDING DESIGNER AND/OR PROJECT ENGINEER AND ARE TO BE REVIEWED AND CONFIRMED BY THE SAME DESIGNER(S) PRIOR TO FABRICATION TO ENSURE ADEQUATE LOAD CAPACITY WITH RESPECT TO THE FLOOR SYSTEM COMPONENTS REVIEWED IN THIS SUBMISSION. MUNICIPALITY HAVING JURISDICTION TO OBTAIN LOT SPECIFIC SCHEDULE 1 FORM FROM THIS OFFICE PRIOR TO BUILDING PERMIT APPROVAL.
INSTALLERS OF THIS FLOOR SYSTEM AND THEIR COMPANIES HAVE THE RESPONSIBILITY OF ENSURING THEY HAVE A COPY OF THE NORDIC INSTALLATION GUIDE AND ANY OTHER MANUFACTURER'S PRODUCT LITERATURE WHICH WILL AID IN THE OVERALL PROPER INSTALLATION OF THIS FLOOR SYSTEM. INSTALLERS ARE TO READ ALL PRODUCT LITERATURE AND INSTALLATION GUIDELINES BEFORE PROCEEDING. THE SUPPLIER AND SEALING ENGINEER OF THIS FLOOR SYSTEM ARE NOT RESPONSIBLE FOR SURPLUS OR DEFICIT OF PRODUCTS AT PROJECT'S END. THIS LAYOUT IS A GUIDE ONLY. CONFIRMATION OF ALL QUANTITIES, LENGHTS, AND DETAILS, REMAINS THE RESPONSIBILITY OF THE FLOOR SYSTEM INSTALLATION CONTRACTOR.

DWG# TAM 18020-2 THROUGH DWG# TAM 18024-2 INCLUSIVE DATED 8-24-24

SEALED STRUCTURAL COMPONENTS ONLY:
SEALED, THIRD PARTY LVL TYPE BEAMS, BUILT-UP CONVENTIONAL BEAMS, HEADERS, AND CONCENTRATED LOADED NORDIC WOOD-I JOIST ONLY. 2 X 6 SQUASH BLOCK REQUIRED AT ALL EXTERIOR SUPPORTS OR AS PER PROJECT ENGINEER'S SPECIFICATIONS. WEB FILLER REINFORCEMENT REQUIRED AT ALL HANGER SUPPORTED JOIST EXCEEDING A REACTION OF 1500 LBS (FACTORED)-SEE DETAILS.
A COMPLETE FRAMING PLAN REQUIRES THE NORDIC PUBLISHED LITERATURE, WHICH INCLUDES INSTALLATION REQUIREMENTS, HANDLING AND STORAGE GUIDELINES, AND FORMS AN INTEGRAL PART OF THIS SEALED DOCUMENT. INSTALL SQUASH BLOCKS FOR TRANSFERRING POINT LOADS FROM GIRDER TRUSSES, HEADERS, AND BEAMS DOWN TO FOUNDATION COMPONENTS. FOR PROPER INSTALLATION, SEE NORDIC LITERATURE. PROVIDE 2 X 4 OR 2 X 6 STUD GRADE OR BETTER SQUASH BLOCKS, MATCHING SUPPORTED WALL WIDTH ABOVE BLOCKS. INSTALL SQUASH BLOCKS ON EACH SIDE OF JOIST. BLOCKING TO BE 1/160 DEEPER THAN JOIS DEPTH. SEE NORDIC LITERATURE FOR NAILING REQUIREMENT.

I REVIEWED AND TAKE RESPONSIBILITY FOR THE DESIGN WORK ON BEHALF OF A FIRM REGISTERED UNDER SUBSECTION 3.2.5 OF THE ONTARIO BUILDING CODE. I AM QUALIFIED AND HE FIRM IS REGISTERED, IN APPROPRIATE CLASSES AND/OR CATEGORIES.

REGISTERED FIRM: MICRO CITY ENGINEERING SERVICES INC.

DWG # TAM 19650-2
BCIN: 26064
FIRM: 29991
SEALED STRUCTURAL COMPONENTS ONLY



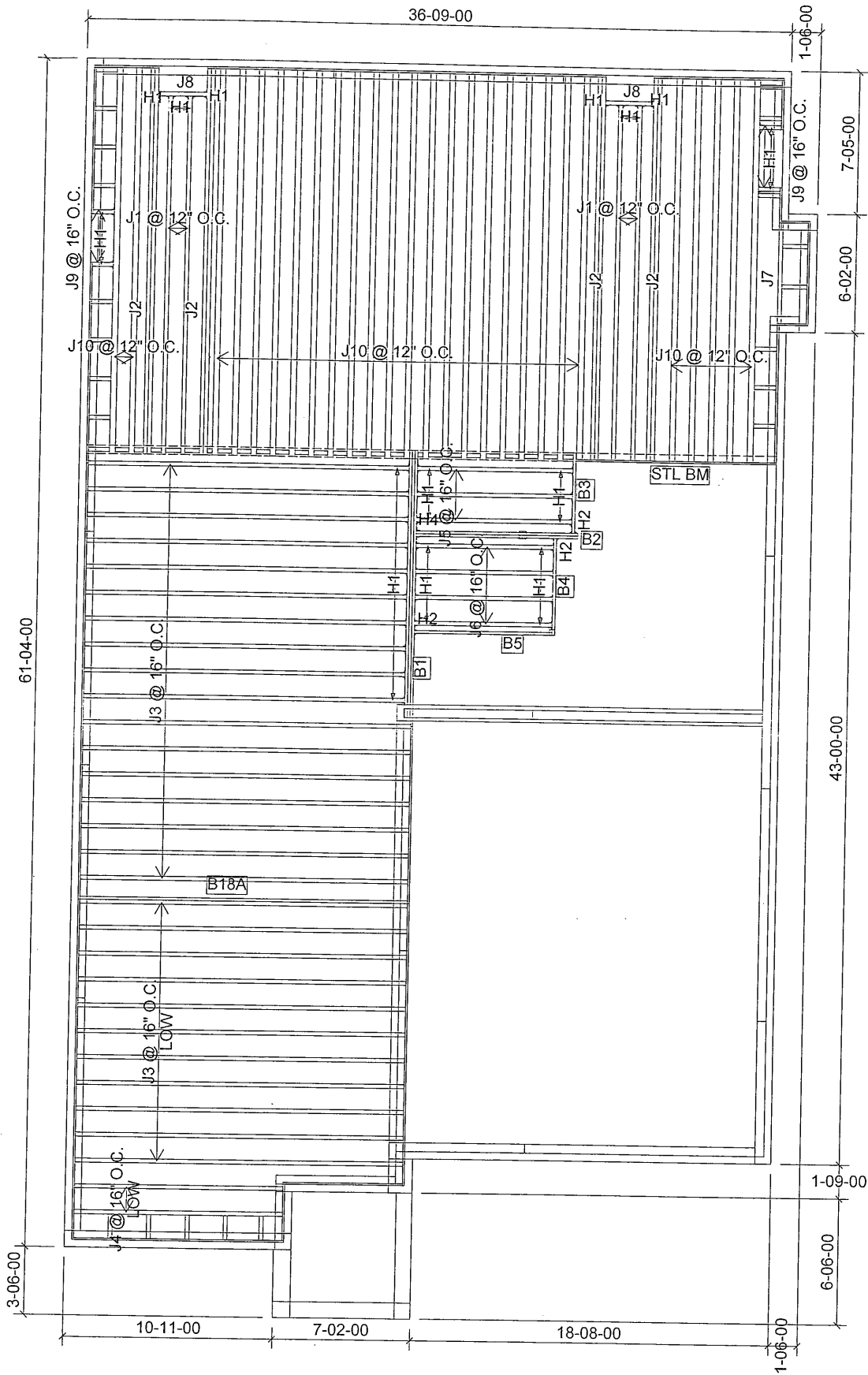
Connector Summary		
Qty	Manuf	Product
13	H1	IUS2.56/11.88
6	H1	IUS2.56/11.88
17	H1	IUS2.56/11.88
6	H1	IUS2.56/11.88
4	H1	IUS2.56/11.88
3	H2	HUS1.81/10
1	H2	HUS1.81/10
2	H3	HU312-2
1	H4	HGUS410

A FIRM
QUALIFIED AND

9024

S. KATSOUΛAKIS

PROVIDENCE OF AUTHORITY



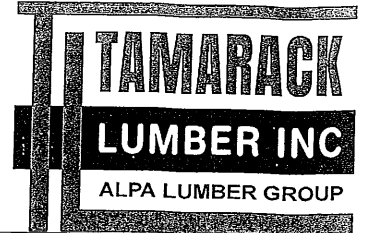
Products					
PlotID	Length	Product	Plies	Net Qty	
J1	20-00-00	11 7/8" NI-40x	1	4	
J2	20-00-00	11 7/8" NI-40x	2	8	
J3	18-00-00	11 7/8" NI-40x	1	28	
J4	12-00-00	11 7/8" NI-40x	1	2	
J5	10-00-00	11 7/8" NI-40x	1	3	
J6	8-00-00	11 7/8" NI-40x	1	4	
J7	6-00-00	11 7/8" NI-40x	1	1	
J8	4-00-00	11 7/8" NI-40x	1	2	
J9	2-00-00	11 7/8" NI-40x	1	4	
J10	20-00-00	11 7/8" NI-80	1	27	
B18A	18-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1	
B1 ✓	14-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	3	3	
B2 ✓	10-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2	
B5 ✓	8-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1	
B3 ✓	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1	
B4 ✓	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1	

Connector Summary		
Qty	Manuf	Product
7	H1	IUS2.56/11.88
4	H1	IUS2.56/11.88
17	H1	IUS2.56/11.88
4	H1	IUS2.56/11.88
4	H1	IUS2.56/11.88
2	H2	HUS1.81/10
1	H2	HUS1.81/10
1	H4	HGUS410

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 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: 20.0 lb/ft²
SNOW LOAD: 24.0 lb/ft²

SUBFLOOR: 3/4" GLUED AND NAILED



FROM PLAN DATED:
2021/06

BUILDER:
ROYAL PINE HOMES

SITE:
VALES OF HUMBER NORTH
MODEL: 4505

ELEVATION: B

LOT:

CITY: BRAMPTON

SALESMAN: RICK DICIANO

DESIGNER: AJ

REVISION:

DATE: 2021-08-31

1st FLOOR

SUNKEN IN-LAW SUITE

DATE 9/01/24
BCIN: 26064; FIRM: 29991

ENGINEERING ONLY - DIMENSIONS TO BE VERIFIED ON SITE SUPPORTING STRUCTURE TO BE VERIFIED BY QUALIFIED BUILDING DESIGNER. ALL CONVENTIONAL FRAMING TO BE SPECIFIED, REVIEWED, AND CONFIRMED BY BUILDING DESIGNER PRIOR TO JOIST(S) AND FLOOR BEAM(S) INSTALLATION. ALL NOTES DESIGNATING MORE OR LESS QAS PER PLAN WORK DO NOT REPRESENT A PART OF THE SCOPE OF WORK WITHIN THE BOUNDARIES OF THE SEAL. THIS WORK IS DELEGATED TO A QUALIFIED BUILDING DESIGNER HAVING RESPONSIBILITY FOR THIS PROJECT. ALL BEAMS NOT ADDRESSED IN THIS DESCRIPTION AND LABELLED ON THIS LAYOUT ARE BEAMS SPECIFIED BY BUILDING DESIGNER AND/OR PROJECT ENGINEER AND ARE TO BE REVIEWED AND CONFIRMED BY THE SAME DESIGNER(S) PRIOR TO FABRICATION TO ENSURE ADEQUATE LOAD CAPACITY WITH RESPECT TO THE FLOOR SYSTEM COMPONENTS REVIEWED IN THIS SUBMISSION. MUNICIPALITY HAVING JURISDICTION TO OBTAIN LOT SPECIFIC SCHEDULE 1 FORM FROM THIS OFFICE PRIOR TO BUILDING PERMIT APPROVAL. INSTALLERS OF THIS FLOOR SYSTEM AND THEIR COMPANIES HAVE THE RESPONSIBILITY OF ENSURING THEY HAVE A COPY OF THE NORDIC INSTALLATION GUIDE AND ANY OTHER MANUFACTURER'S PRODUCT LITERATURE WHICH WILL AID IN THE OVERALL PROPER INSTALLATION OF THIS FLOOR SYSTEM. INSTALLERS ARE TO READ ALL PRODUCT LITERATURE AND INSTALLATION GUIDELINES BEFORE PROCEEDING. THE SUPPLIER AND SEALING ENGINEER OF THIS FLOOR SYSTEM ARE NOT RESPONSIBLE FOR SURPLUS OR DEFICIT OF PRODUCTS AT PROJECT'S END. THIS LAYOUT IS A GUIDE ONLY. CONFIRMATION OF ALL QUANTITIES, LENGHTS, AND DETAILS, REMAINS THE RESPONSIBILITY OF THE FLOOR SYSTEM INSTALLATION CONTRACTOR.

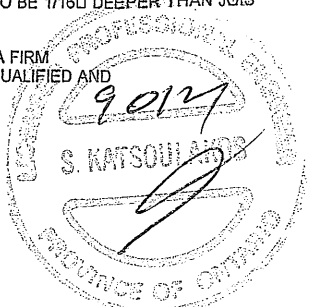
DWG# TAM 1802024 THROUGH DWG# TAM 180244 INCLUSIVE DATED 8/14/24

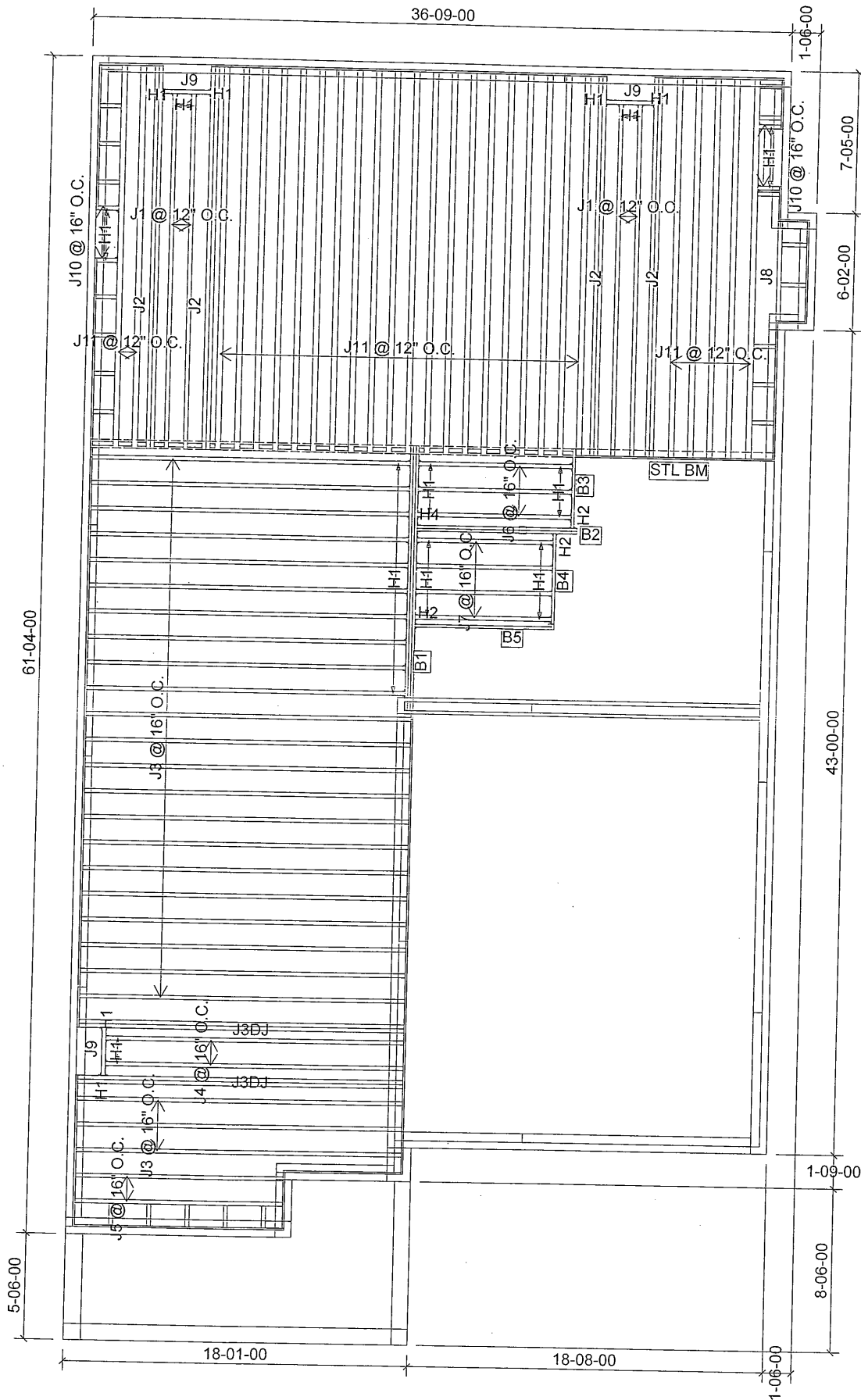
SEALED STRUCTURAL COMPONENTS ONLY:
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REGISTERED FIRM: MICRO CITY ENGINEERING SERVICES INC.

DWG # TAM 19652-24
BCIN: 26064
FIRM: 29991
SEALED STRUCTURAL COMPONENTS ONLY





Products				
PlotID	Length	Product	Plies	Net Qty
J1	20-00-00	11 7/8" NI-40x	1	4
J2	20-00-00	11 7/8" NI-40x	2	8
J3	18-00-00	11 7/8" NI-40x	1	25
J3DJ	18-00-00	11 7/8" NI-40x	2	4
J4	16-00-00	11 7/8" NI-40x	1	2
J5	12-00-00	11 7/8" NI-40x	1	2
J6	10-00-00	11 7/8" NI-40x	1	3
J7	8-00-00	11 7/8" NI-40x	1	4
J8	6-00-00	11 7/8" NI-40x	1	1
J9	4-00-00	11 7/8" NI-40x	1	3
J10	2-00-00	11 7/8" NI-40x	1	4
J11	20-00-00	11 7/8" NI-80	1	27
B1	14-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	3	3
B2	10-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B5	8-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1
B3	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1
B4	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1

Connector Summary		
Qty	Manuf	Product
7	H1	IUS2.56/11.88
6	H1	IUS2.56/11.88
17	H1	IUS2.56/11.88
6	H1	IUS2.56/11.88
4	H1	IUS2.56/11.88
2	H2	HUS1.81/10
1	H2	HUS1.81/10
1	H4	HGUS410

NOTES:
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LOADING:
DESIGN LOADS: L/480.000
LIVE LOAD: 40.0 lb/ft²
DEAD LOAD: 20.0 lb/ft²
SNOW LOAD: 24.0 lb/ft²

SUBFLOOR: 3/4" GLUED AND NAILED

DATE 9/01/24
BCIN: 26064; FIRM: 29991

ENGINEERING ONLY - DIMENSIONS TO BE VERIFIED ON SITE SUPPORTING STRUCTURE TO BE VERIFIED BY QUALIFIED BUILDING DESIGNER. ALL CONVENTIONAL FRAMING TO BE SPECIFIED, REVIEWED, AND CONFIRMED BY BUILDING DESIGNER PRIOR TO JOIST(S) AND FLOOR BEAM(S) INSTALLATION. ALL NOTES DESIGNATING MORE OR LESS (AS PER PLAN WORK) DO NOT REPRESENT A PART OF THE SCOPE OF WORK WITHIN THE BOUNDARIES OF THE SEAL. THIS WORK IS DELEGATED TO A QUALIFIED BUILDING DESIGNER HAVING RESPONSIBILITY FOR THIS PROJECT. ALL BEAMS NOT ADDRESSED IN THIS DESCRIPTION AND LABELLED ON THIS LAYOUT ARE BEAMS SPECIFIED BY BUILDING DESIGNER AND/OR PROJECT ENGINEER AND ARE TO BE REVIEWED AND CONFIRMED BY THE SAME DESIGNER(S) PRIOR TO FABRICATION TO ENSURE ADEQUATE LOAD CAPACITY WITH RESPECT TO THE FLOOR SYSTEM COMPONENTS REVIEWED IN THIS SUBMISSION. MUNICIPALITY HAVING JURISDICTION TO OBTAIN LOT SPECIFIC SCHEDULE 1 FORM FROM THIS OFFICE PRIOR TO BUILDING PERMIT APPROVAL. INSTALLERS OF THIS FLOOR SYSTEM AND THEIR COMPANIES HAVE THE RESPONSIBILITY OF ENSURING THEY HAVE A COPY OF THE NORDIC INSTALLATION GUIDE AND ANY OTHER MANUFACTURER'S PRODUCT LITERATURE WHICH WILL AID IN THE OVERALL PROPER INSTALLATION OF THIS FLOOR SYSTEM. INSTALLERS ARE TO READ ALL PRODUCT LITERATURE AND INSTALLATION GUIDELINES BEFORE PROCEEDING. THE SUPPLIER AND SEALING ENGINEER OF THIS FLOOR SYSTEM ARE NOT RESPONSIBLE FOR SURPLUS OR DEFICIT OF PRODUCTS AT PROJECT'S END. THIS LAYOUT IS A GUIDE ONLY. CONFIRMATION OF ALL QUANTITIES, LENGTHS, AND DETAILS, REMAINS THE RESPONSIBILITY OF THE FLOOR SYSTEM INSTALLATION CONTRACTOR.

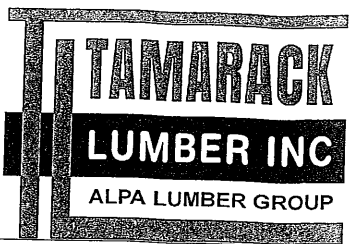
DWG# TAM 18020-24 THROUGH DWG# TAM 18024-24, INCLUSIVE DATED 8/28/24

SEALED STRUCTURAL COMPONENTS ONLY:
SEALED, THIRD PARTY LVL TYPE BEAMS, BUILT-UP CONVENTIONAL BEAMS, HEADERS, AND CONCENTRATED LOADED NORDIC WOOD-I JOIST ONLY. 2 X 6 SQUASH BLOCK REQUIRED AT ALL EXTERIOR SUPPORTS OR AS PER PROJECT ENGINEER'S SPECIFICATIONS. WEB FILLER REINFORCEMENT REQUIRED AT ALL HANGER SUPPORTED JOIST EXCEEDING A REACTION OF 1500 LBS (FACTORED)-SEE DETAILS.
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I REVIEWED AND TAKE RESPONSIBILITY FOR THE DESIGN WORK ON BEHALF OF A FIRM REGISTERED UNDER SUBSECTION 3.2.5 OF THE ONTARIO BUILDING CODE. I AM QUALIFIED AND HE FIRM IS REGISTERED, IN APPROPRIATE CLASSES AND/OR CATEGORIES.

REGISTERED FIRM: MICRO CITY ENGINEERING SERVICES INC.

DWG # TAM 19653-4
BCIN: 26064
FIRM: 29991
SEALED STRUCTURAL COMPONENTS ONLY



FROM PLAN DATED:
2021/06

BUILDER:
ROYAL PINE HOMES
SITE:
VALES OF HUMBER NORTH
MODEL: 4505

ELEVATION: C

LOT:

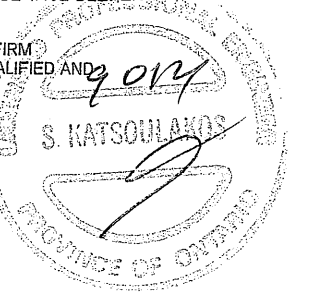
CITY: BRAMPTON

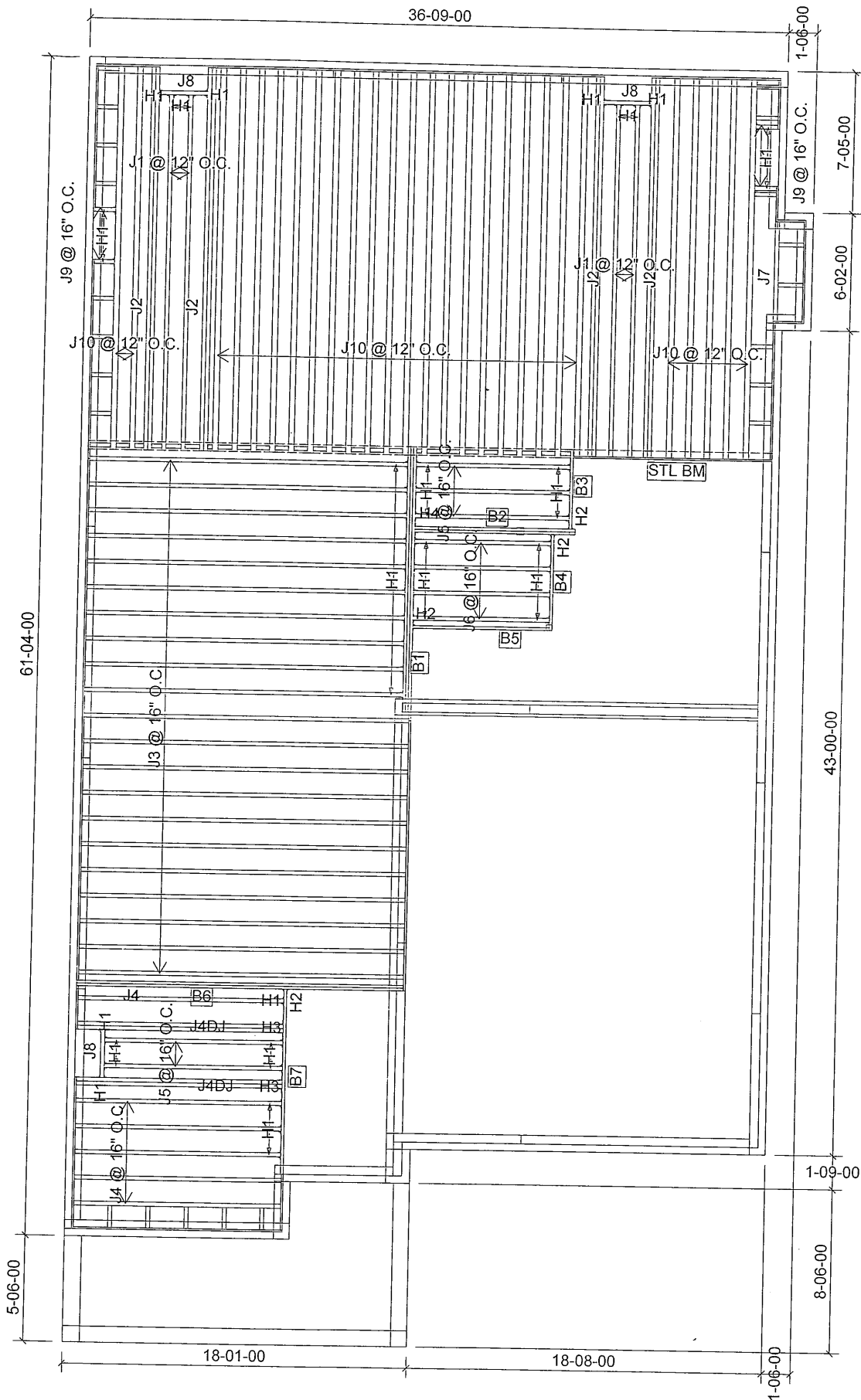
SALESMAN: RICK DICIANO
DESIGNER: AJ
REVISION:

DATE: 2021-08-31

1st FLOOR

STD





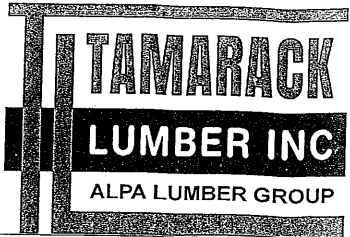
Products				
PlotID	Length	Product	Plies	Net Qty
J1	20-00-00	11 7/8" NI-40x	1	4
J2	20-00-00	11 7/8" NI-40x	2	8
J3	18-00-00	11 7/8" NI-40x	1	21
J4	12-00-00	11 7/8" NI-40x	1	6
J4DJ	12-00-00	11 7/8" NI-40x	2	4
J5	10-00-00	11 7/8" NI-40x	1	5
J6	8-00-00	11 7/8" NI-40x	1	4
J7	6-00-00	11 7/8" NI-40x	1	1
J8	4-00-00	11 7/8" NI-40x	1	3
J9	2-00-00	11 7/8" NI-40x	1	4
J10	20-00-00	11 7/8" NI-80	1	27
B6	18-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B1	14-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	3	3
B7	10-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1
B2	10-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B5	8-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1
B3	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1
B4	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1

Connector Summary		
Qty	Manuf	Product
13	H1	IUS2.56/11.88
6	H1	IUS2.56/11.88
17	H1	IUS2.56/11.88
6	H1	IUS2.56/11.88
4	H1	IUS2.56/11.88
3	H2	HUS1.81/10
1	H2	HUS1.81/10
2	H3	HU312-2
1	H4	HGUS410

NOTES:
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LOADING:
DESIGN LOADS: L/480.000
LIVE LOAD: 40.0 lb/ft²
DEAD LOAD: 20.0 lb/ft²
SNOW LOAD: 24.0 lb/ft²

SUBFLOOR: 3/4" GLUED AND NAILED



FROM PLAN DATED:
2021/06

BUILDER:
ROYAL PINE HOMES

SITE:
VALES OF HUMBER NORTH

MODEL: 4505

ELEVATION: C

LOT:

CITY: BRAMPTON

SALESMAN: RICK DICIANO

DESIGNER: AJ

REVISION:

DATE: 2021-08-31

1st FLOOR

SUNKEN

DATE 9 01 24
BCIN: 26064; FIRM: 29991

ENGINEERING ONLY - DIMENSIONS TO BE VERIFIED ON SITE SUPPORTING STRUCTURE TO BE VERIFIED BY QUALIFIED BUILDING DESIGNER. ALL CONVENTIONAL FRAMING TO BE SPECIFIED, REVIEWED, AND CONFIRMED BY BUILDING DESIGNER PRIOR TO JOIST(S) AND FLOOR BEAM(S) INSTALLATION. ALL NOTES DESIGNATING MORE OR LESS GAS PER PLAN WORK DO NOT REPRESENT A PART OF THE SCOPE OF WORK WITHIN THE BOUNDARIES OF THE SEAL. THIS WORK IS DELEGATED TO A QUALIFIED BUILDING DESIGNER HAVING RESPONSIBILITY FOR THIS PROJECT. ALL BEAMS NOT ADDRESSED IN THIS DESCRIPTION AND LABELLED ON THIS LAYOUT ARE BEAMS SPECIFIED BY BUILDING DESIGNER AND/OR PROJECT ENGINEER AND ARE TO BE REVIEWED AND CONFIRMED BY THE SAME DESIGNER(S) PRIOR TO FABRICATION TO ENSURE ADEQUATE LOAD CAPACITY WITH RESPECT TO THE FLOOR SYSTEM COMPONENTS REVIEWED IN THIS SUBMISSION. MUNICIPALITY HAVING JURISDICTION TO OBTAIN LOT SPECIFIC SCHEDULE 1 FORM FROM THIS OFFICE PRIOR TO BUILDING PERMIT APPROVAL. INSTALLERS OF THIS FLOOR SYSTEM AND THEIR COMPANIES HAVE THE RESPONSIBILITY OF ENSURING THEY HAVE A COPY OF THE NORDIC INSTALLATION GUIDE AND ANY OTHER MANUFACTURER'S PRODUCT LITERATURE WHICH WILL AID IN THE OVERALL PROPER INSTALLATION OF THIS FLOOR SYSTEM. INSTALLERS ARE TO READ ALL PRODUCT LITERATURE AND INSTALLATION GUIDELINES BEFORE PROCEEDING. THE SUPPLIER AND SEALING ENGINEER OF THIS FLOOR SYSTEM ARE NOT RESPONSIBLE FOR SURPLUS OR DEFICIT OF PRODUCTS AT PROJECT'S END. THIS LAYOUT IS A GUIDE ONLY. CONFIRMATION OF ALL QUANTITIES, LENGTHS, AND DETAILS, REMAINS THE RESPONSIBILITY OF THE FLOOR SYSTEM INSTALLATION CONTRACTOR.

DWG# TAM 180624 THROUGH DWG# TAM 180624, INCLUSIVE DATED 8/14/24

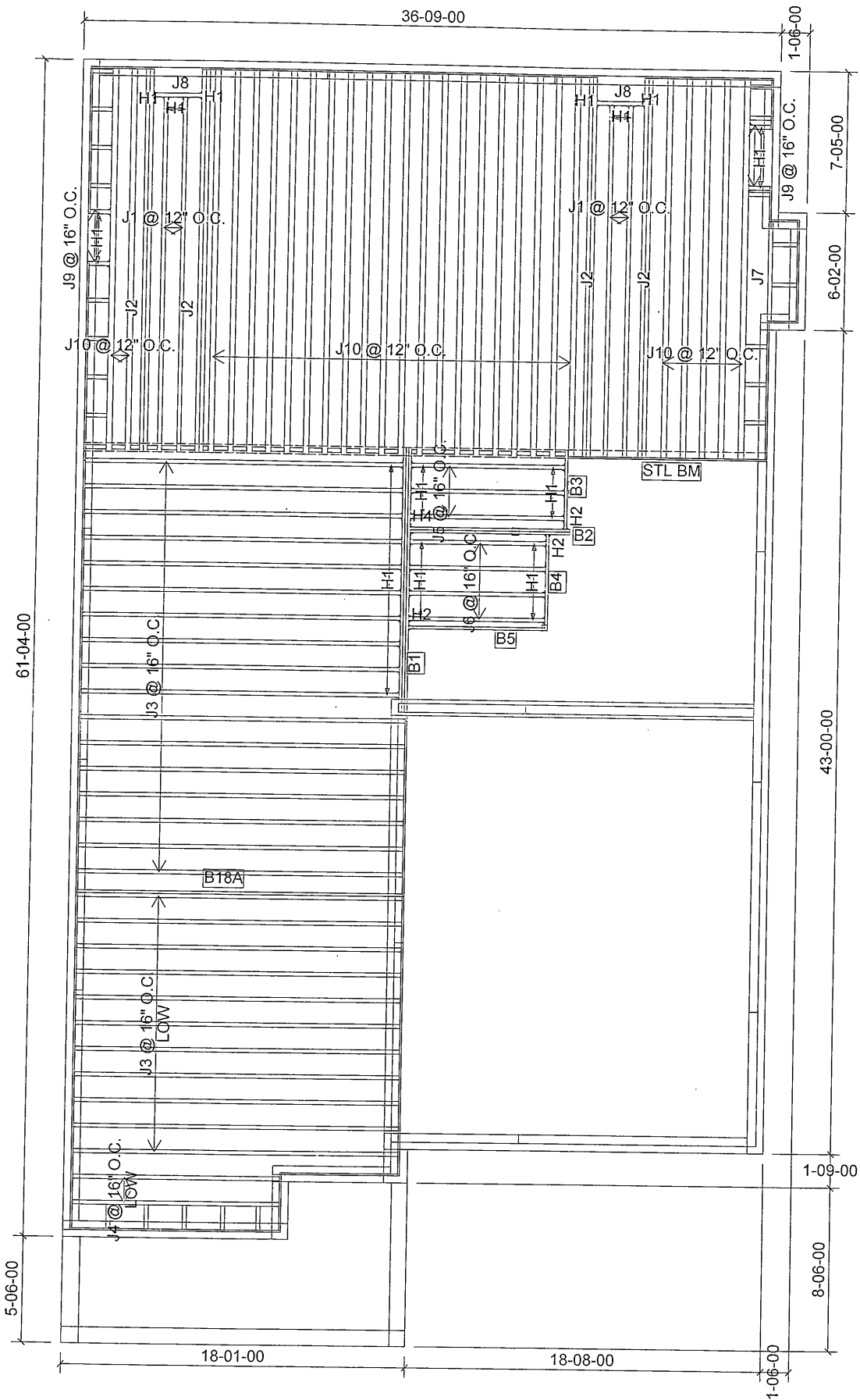
SEALED STRUCTURAL COMPONENTS ONLY:
SEALED, THIRD PARTY LVL TYPE BEAMS, BUILT-UP CONVENTIONAL BEAMS, HEADERS, AND CONCENTRATED LOADED NORDIC WOOD-JOIST ONLY. 2 X 6 SQUASH BLOCK REQUIRED AT ALL EXTERIOR SUPPORTS OR AS PER PROJECT ENGINEER'S SPECIFICATIONS. WEB FILLER REINFORCEMENT REQUIRED AT ALL HANGER SUPPORTED JOIST EXCEEDING A REACTION OF 1500 LBS (FACTORED)-SEE DETAILS.
A COMPLETE FRAMING PLAN REQUIRES THE NORDIC PUBLISHED LITERATURE, WHICH INCLUDES INSTALLATION REQUIREMENTS, HANDLING AND STORAGE GUIDELINES, AND FORMS AN INTEGRAL PART OF THIS SEALED DOCUMENT. INSTALL SQUASH BLOCKS FOR TRANSFERRING POINT LOADS FROM GIRDER TRUSSES, HEADERS, AND BEAMS DOWN TO FOUNDATION COMPONENTS. FOR PROPER INSTALLATION, SEE NORDIC LITERATURE. PROVIDE 2 X 4 OR 2 X 6 STUD GRADE OR BETTER SQUASH BLOCKS, MATCHING SUPPORTED WALL WIDTH ABOVE BLOCKS. INSTALL SQUASH BLOCKS ON EACH SIDE OF JOIST. BLOCKING TO BE 1/160 DEEPER THAN JOIST DEPTH. SEE NORDIC LITERATURE FOR NAILING REQUIREMENT.

I REVIEWED AND TAKE RESPONSIBILITY FOR THE DESIGN WORK ON BEHALF OF A FIRM REGISTERED UNDER SUBSECTION 3.2.5 OF THE ONTARIO BUILDING CODE. I AM QUALIFIED AND HE FIRM IS REGISTERED, IN APPROPRIATE CLASSES AND/OR CATEGORIES.

REGISTERED FIRM: MICRO CITY ENGINEERING SERVICES INC.

DWG # TAM 19654-21
BCIN: 26064
FIRM: 29991
SEALED STRUCTURAL
COMPONENTS ONLY





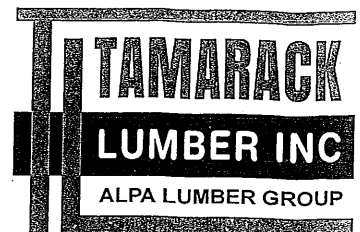
Products				
PlotID	Length	Product	Plies	Net Qty
J1	20-00-00	11 7/8" NI-40x	1	4
J2	20-00-00	11 7/8" NI-40x	2	8
J3	18-00-00	11 7/8" NI-40x	1	28
J4	12-00-00	11 7/8" NI-40x	1	2
J5	10-00-00	11 7/8" NI-40x	1	3
J6	8-00-00	11 7/8" NI-40x	1	4
J7	6-00-00	11 7/8" NI-40x	1	1
J8	4-00-00	11 7/8" NI-40x	1	2
J9	2-00-00	11 7/8" NI-40x	1	4
J10	20-00-00	11 7/8" NI-80	1	27
B18A	18-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1
B1	14-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	3	3
B2	10-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B5	8-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1
B3	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1
B4	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1

Connector Summary		
Qty	Manuf	Product
7	H1	IUS2.56/11.88
4	H1	IUS2.56/11.88
17	H1	IUS2.56/11.88
4	H1	IUS2.56/11.88
4	H1	IUS2.56/11.88
2	H2	HUS1.81/10
1	H2	HUS1.81/10
1	H4	HGUS410

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 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: 20.0 lb/ft²
SNOW LOAD: 24.0 lb/ft²

SUBFLOOR: 3/4" GLUED AND NAILED



FROM PLAN DATED: 2021/06

BUILDER: ROYAL PINE HOMES

SITE: VALES OF HUMBER NORTH

MODEL: 4505

ELEVATION: C

LOT:

CITY: BRAMPTON

SALESMAN: RICK DICIANO

DESIGNER: AJ

REVISION:

DATE: 2021-08-31

1st FLOOR

SUNKEN IN-LAW SUITE

DATE 9 01 24

BCIN: 26064; FIRM: 29991

ENGINEERING ONLY - DIMENSIONS TO BE VERIFIED ON SITE SUPPORTING STRUCTURE TO BE VERIFIED BY QUALIFIED BUILDING DESIGNER. ALL CONVENTIONAL FRAMING TO BE SPECIFIED, REVIEWED, AND CONFIRMED BY BUILDING DESIGNER PRIOR TO JOIST(S) AND FLOOR BEAM(S) INSTALLATION. ALL NOTES DESIGNATING MORE OR LESS QAS PER PLAN WORK DO NOT REPRESENT A PART OF THE SCOPE OF WORK WITHIN THE BOUNDARIES OF THE SEAL. THIS WORK IS DELEGATED TO A QUALIFIED BUILDING DESIGNER HAVING RESPONSIBILITY FOR THIS PROJECT. ALL BEAMS NOT ADDRESSED IN THIS DESCRIPTION AND LABELLED ON THIS LAYOUT ARE BEAMS SPECIFIED BY BUILDING DESIGNER AND/OR PROJECT ENGINEER AND ARE TO BE REVIEWED AND CONFIRMED BY THE SAME DESIGNER(S) PRIOR TO FABRICATION TO ENSURE ADEQUATE LOAD CAPACITY WITH RESPECT TO THE FLOOR SYSTEM COMPONENTS REVIEWED IN THIS SUBMISSION. MUNICIPALITY HAVING JURISDICTION TO OBTAIN LOT SPECIFIC SCHEDULE 1 FORM FROM THIS OFFICE PRIOR TO BUILDING PERMIT APPROVAL. INSTALLERS OF THIS FLOOR SYSTEM AND THEIR COMPANIES HAVE THE RESPONSIBILITY OF ENSURING THEY HAVE A COPY OF THE NORDIC INSTALLATION GUIDE AND ANY OTHER MANUFACTURER'S PRODUCT LITERATURE WHICH WILL AID IN THE OVERALL PROPER INSTALLATION OF THIS FLOOR SYSTEM. INSTALLERS ARE TO READ ALL PRODUCT LITERATURE AND INSTALLATION GUIDELINES BEFORE PROCEEDING. THE SUPPLIER AND SEALING ENGINEER OF THIS FLOOR SYSTEM ARE NOT RESPONSIBLE FOR SURPLUS OR DEFICIT OF PRODUCTS AT PROJECT'S END. THIS LAYOUT IS A GUIDE ONLY. CONFIRMATION OF ALL QUANTITIES, LENGTHS, AND DETAILS, REMAINS THE RESPONSIBILITY OF THE FLOOR SYSTEM INSTALLATION CONTRACTOR.

DWG# TAM 1802024 THROUGH DWG# TAM 180244, INCLUSIVE DATED 8744

SEALED STRUCTURAL COMPONENTS ONLY:
SEALED, THIRD PARTY LVL TYPE BEAMS, BUILT-UP CONVENTIONAL BEAMS, HEADERS, AND CONCENTRATED LOADED NORDIC WOOD-I JOIST ONLY. 2 X 6 SQUASH BLOCK REQUIRED AT ALL EXTERIOR SUPPORTS OR AS PER PROJECT ENGINEER'S SPECIFICATIONS. WEB FILLER REINFORCEMENT REQUIRED AT ALL HANGER SUPPORTED JOIST EXCEEDING A REACTION OF 1500 LBS (FACTORED)-SEE DETAILS. A COMPLETE FRAMING PLAN REQUIRES THE NORDIC PUBLISHED LITERATURE, WHICH INCLUDES INSTALLATION REQUIREMENTS, HANDLING AND STORAGE GUIDELINES, AND FORMS AN INTEGRAL PART OF THIS SEALED DOCUMENT. INSTALL SQUASH BLOCKS FOR TRANSFERRING POINT LOADS FROM GIRDER TRUSSES, HEADERS, AND BEAMS DOWN TO FOUNDATION COMPONENTS. FOR PROPER INSTALLATION, SEE NORDIC LITERATURE. PROVIDE 2 X 4 OR 2 X 6 STUD GRADE OR BETTER SQUASH BLOCKS, MATCHING SUPPORTED WALL WIDTH ABOVE BLOCKS. INSTALL SQUASH BLOCKS ON EACH SIDE OF JOIST. BLOCKING TO BE 1/16" DEEPER THAN JOIST DEPTH. SEE NORDIC LITERATURE FOR NAILING REQUIREMENT.

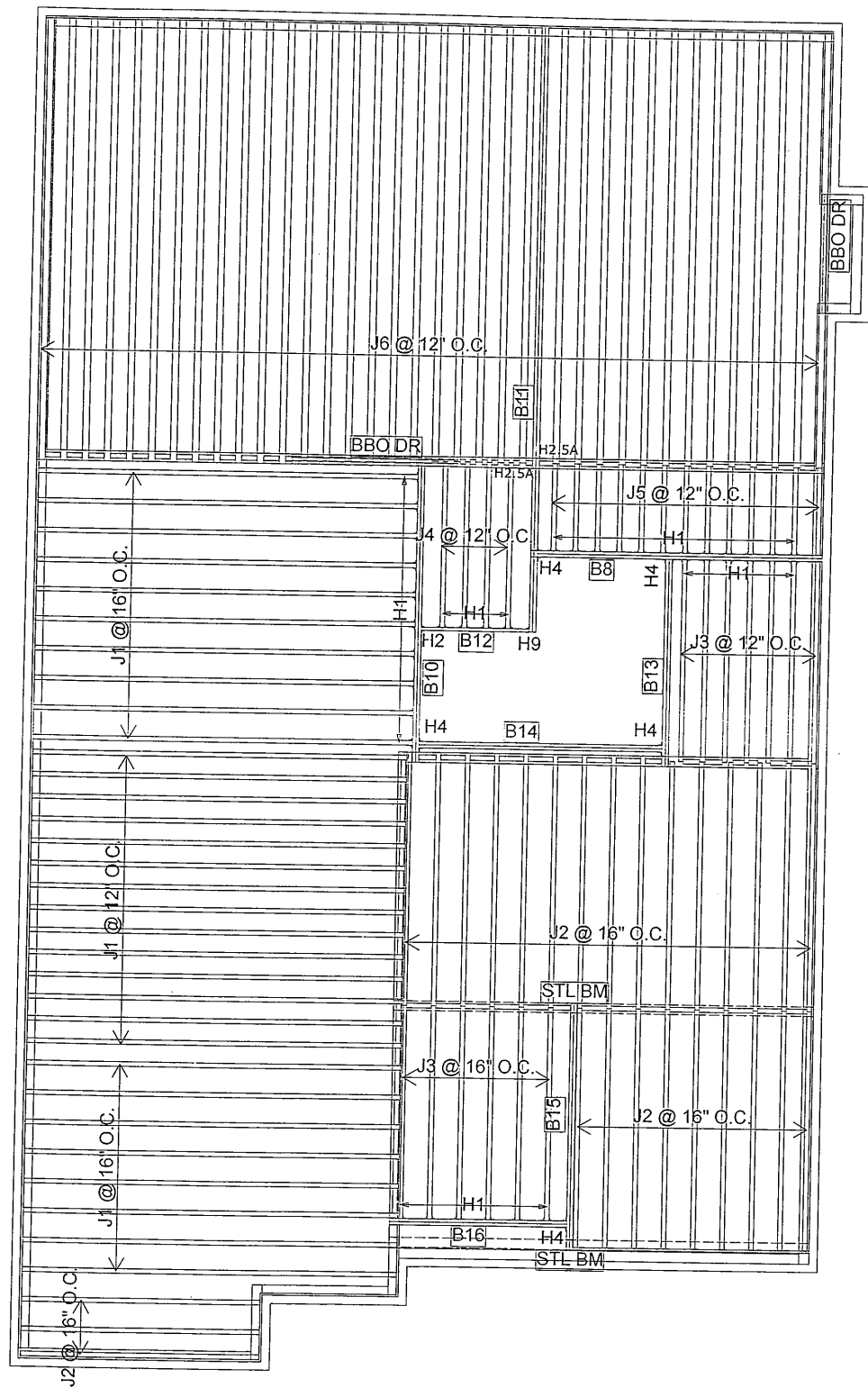
I REVIEWED AND TAKE RESPONSIBILITY FOR THE DESIGN WORK ON BEHALF OF A FIRM REGISTERED UNDER SUBSECTION 3.2.5 OF THE ONTARIO BUILDING CODE. I AM QUALIFIED AND HE FIRM IS REGISTERED, IN APPROPRIATE CLASSES AND/OR CATEGORIES.

REGISTERED FIRM: MICRO CITY ENGINEERING SERVICES INC.

DWG # TAM 19655-21

BCIN: 26064
FIRM: 29991
SEALED STRUCTURAL COMPONENTS ONLY

9 01 24
S. KATSOULAKIS
PROVIDE OF ONTARIO



Products				
PlotID	Length	Product	Plies	Net Qty
J1	18-00-00	11 7/8" NI-40x	1	32
J2	12-00-00	11 7/8" NI-40x	1	27
J3	10-00-00	11 7/8" NI-40x	1	13
J4	8-00-00	11 7/8" NI-40x	1	4
J5	4-00-00	11 7/8" NI-40x	1	13
J6	20-00-00	11 7/8" NI-80	1	36
B11 ✓	28-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B10 ✓	14-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B8 ✓	14-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B14 ✓	12-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B15 ✓	12-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B13 ✓	10-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B16 ✓	10-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B12 ✓	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1

Connector Summary		
Qty	Manuf	Product
4	H1	IUS2.56/11.88
34	H1	IUS2.56/11.88
1	H2	HUS1.81/10
5	H4	HGUS410
1	H9	LS90

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 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: 20.0 lb/ft²
SNOW LOAD: 24.0 lb/ft²

SUBFLOOR: 5/8" GLUED AND NAILED

DATE 9 01 24

BCIN: 26084; FIRM: 29991

ENGINEERING ONLY - DIMENSIONS TO BE VERIFIED ON SITE SUPPORTING STRUCTURE TO BE VERIFIED BY QUALIFIED BUILDING DESIGNER. ALL CONVENTIONAL FRAMING TO BE SPECIFIED, REVIEWED, AND CONFIRMED BY BUILDING DESIGNER PRIOR TO JOIST(S) AND FLOOR BEAM(S) INSTALLATION. ALL NOTES DESIGNATING MORE OR LESS (AS PER PLAN WORK) DO NOT REPRESENT A PART OF THE SCOPE OF WORK WITHIN THE BOUNDARIES OF THE SEAL. THIS WORK IS DELEGATED TO A QUALIFIED BUILDING DESIGNER HAVING RESPONSIBILITY FOR THIS PROJECT. ALL BEAMS NOT ADDRESSED IN THIS DESCRIPTION AND LABELLED ON THIS LAYOUT ARE BEAMS SPECIFIED BY BUILDING DESIGNER AND/OR PROJECT ENGINEER AND ARE TO BE REVIEWED AND CONFIRMED BY THE SAME DESIGNER(S) PRIOR TO FABRICATION TO ENSURE ADEQUATE LOAD CAPACITY WITH RESPECT TO THE FLOOR SYSTEM COMPONENTS REVIEWED IN THIS SUBMISSION. MUNICIPALITY HAVING JURISDICTION TO OBTAIN LOT SPECIFIC SCHEDULE 1 FORM FROM THIS OFFICE PRIOR TO BUILDING PERMIT APPROVAL. INSTALLERS OF THIS FLOOR SYSTEM AND THEIR COMPANIES HAVE THE RESPONSIBILITY OF ENSURING THEY HAVE A COPY OF THE NORDIC INSTALLATION GUIDE AND ANY OTHER MANUFACTURER'S PRODUCT LITERATURE WHICH WILL AID IN THE OVERALL PROPER INSTALLATION OF THIS FLOOR SYSTEM. INSTALLERS ARE TO READ ALL PRODUCT LITERATURE AND INSTALLATION GUIDELINES BEFORE PROCEEDING. THE SUPPLIER AND SEALING ENGINEER OF THIS FLOOR SYSTEM ARE NOT RESPONSIBLE FOR SURPLUS OR DEFICIT OF PRODUCTS AT PROJECT'S END. THIS LAYOUT IS A GUIDE ONLY. CONFIRMATION OF ALL QUANTITIES, LENGTHS, AND DETAILS, REMAINS THE RESPONSIBILITY OF THE FLOOR SYSTEM INSTALLATION CONTRACTOR.

DWG# TAM 180124 THROUGH DWG# TAM 180194 INCLUSIVE DATED 8/24/24

SEALED STRUCTURAL COMPONENTS ONLY:

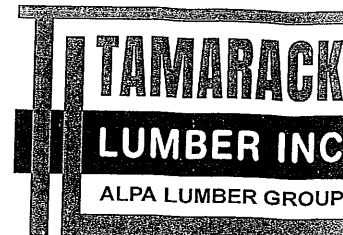
SEALED, THIRD PARTY LVL TYPE BEAMS, BUILT-UP CONVENTIONAL BEAMS, HEADERS, AND CONCENTRATED LOADED NORDIC WOOD-I JOIST ONLY. 2 X 6 SQUASH BLOCK REQUIRED AT ALL EXTERIOR SUPPORTS OR AS PER PROJECT ENGINEER'S SPECIFICATIONS. WEB FILLER REINFORCEMENT REQUIRED AT ALL HANGER SUPPORTED JOIST EXCEEDING A REACTION OF 1500 LBS (FACTORED)-SEE DETAILS. A COMPLETE FRAMING PLAN REQUIRES THE NORDIC PUBLISHED LITERATURE, WHICH INCLUDES INSTALLATION REQUIREMENTS, HANDLING AND STORAGE GUIDELINES, AND FORMS AN INTEGRAL PART OF THIS SEALED DOCUMENT. INSTALL SQUASH BLOCKS FOR TRANSFERRING POINT LOADS FROM GIRDER TRUSSES, HEADERS, AND BEAMS DOWN TO FOUNDATION COMPONENTS. FOR PROPER INSTALLATION, SEE NORDIC LITERATURE. PROVIDE 2 X 4 OR 2 X 6 STUD GRADE OR BETTER SQUASH BLOCKS, MATCHING SUPPORTED WALL WIDTH ABOVE BLOCKS. INSTALL SQUASH BLOCKS ON EACH SIDE OF JOIST. BLOCKING TO BE 1/16" DEEPER THAN JOIST DEPTH. SEE NORDIC LITERATURE FOR NAILING REQUIREMENT.

I REVIEWED AND TAKE RESPONSIBILITY FOR THE DESIGN WORK ON BEHALF OF A FIRM REGISTERED UNDER SUBSECTION 3.2.5 OF THE ONTARIO BUILDING CODE. I AM QUALIFIED AND HE FIRM IS REGISTERED, IN APPROPRIATE CLASSES AND/OR CATEGORIES.

REGISTERED FIRM: MICRO CITY ENGINEERING SERVICES INC.

DWG # TAM
BCIN: 26084
FIRM: 29991
SEALED STRUCTURAL
COMPONENTS ONLY

19636-24



FROM PLAN DATED:
2021/06

BUILDER:

ROYAL PINE HOMES

SITE:

VALES OF HUMBER NORTH

MODEL: 4505

ELEVATION: A

LOT:

CITY: BRAMPTON

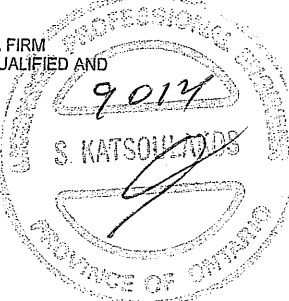
SALESMAN: RICK DICIANO

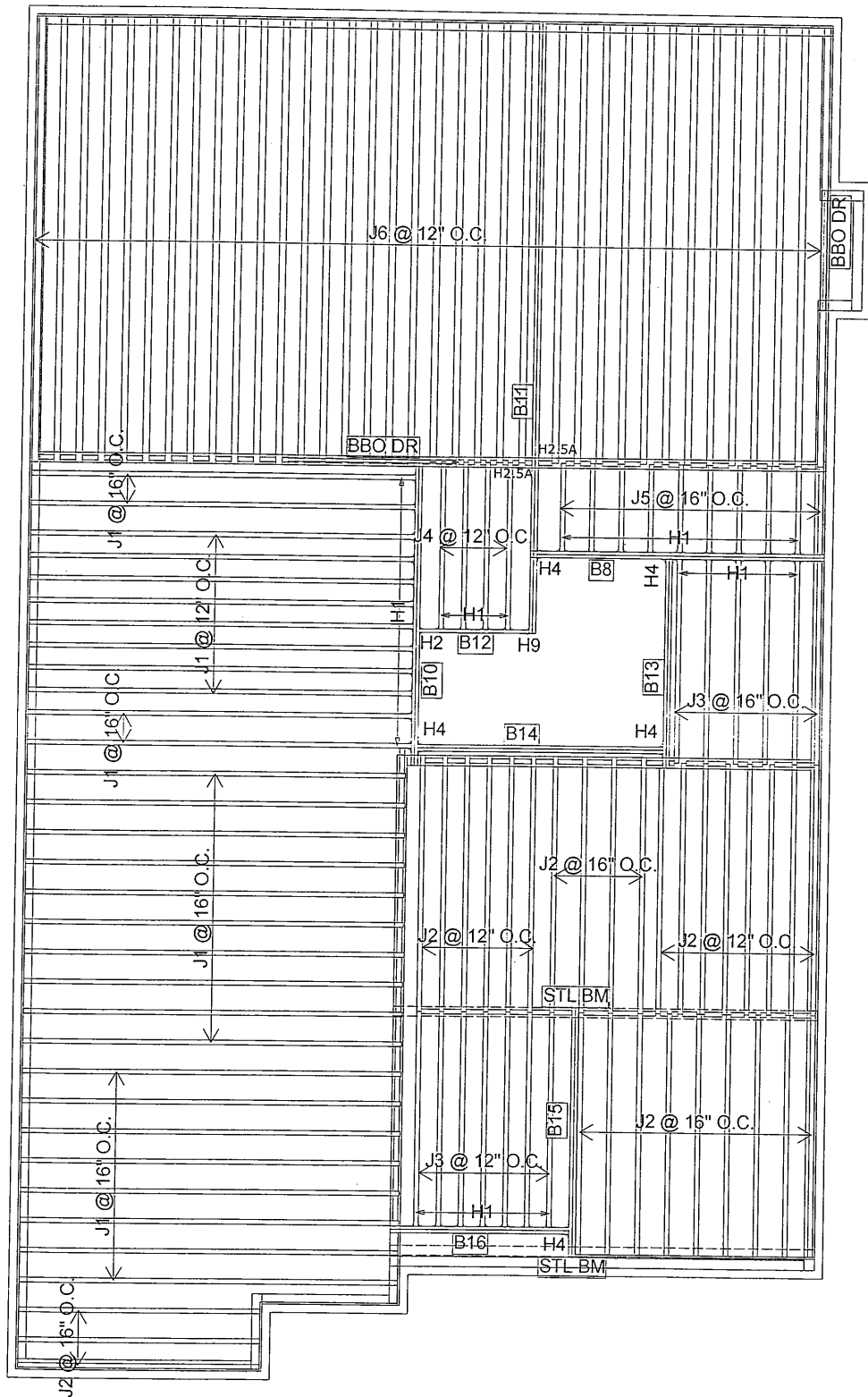
DESIGNER: AJ

REVISION:

DATE: 2021-08-31

2nd FLOOR





Products					
PlotID	Length	Product	Plies	Net Qty	
J1	18-00-00	11 7/8" NI-40x	1	30	
J2	12-00-00	11 7/8" NI-40x	1	30	
J3	10-00-00	11 7/8" NI-40x	1	13	
J4	8-00-00	11 7/8" NI-40x	1	4	
J5	4-00-00	11 7/8" NI-40x	1	10	
J6	20-00-00	11 7/8" NI-80	1	36	
B11	28-00-00	1-3/4" x 11-7/8" VERSA-LAM@ 2.0 3100 SP	2	2	
B10	14-00-00	1-3/4" x 11-7/8" VERSA-LAM@ 2.0 3100 SP	2	2	
B8	14-00-00	1-3/4" x 11-7/8" VERSA-LAM@ 2.0 3100 SP	2	2	
B14	12-00-00	1-3/4" x 11-7/8" VERSA-LAM@ 2.0 3100 SP	2	2	
B15	12-00-00	1-3/4" x 11-7/8" VERSA-LAM@ 2.0 3100 SP	2	2	
B13	10-00-00	1-3/4" x 11-7/8" VERSA-LAM@ 2.0 3100 SP	2	2	
B16	10-00-00	1-3/4" x 11-7/8" VERSA-LAM@ 2.0 3100 SP	2	2	
B12	6-00-00	1-3/4" x 11-7/8" VERSA-LAM@ 2.0 3100 SP	1	1	

Connector Summary		
Qty	Manuf	Product
4	H1	IUS2.56/11.88
33	H1	IUS2.56/11.88
1	H2	HUS1.81/10
5	H4	HGUS410
1	H9	LS90

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 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: 20.0 lb/ft²
SNOW LOAD: 24.0 lb/ft²

SUBFLOOR: 5/8" GLUED AND NAILED

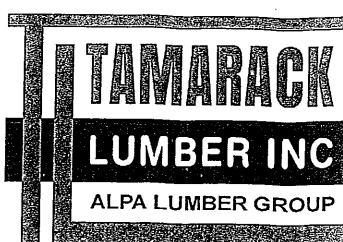
DATE 9/01/24
BCIN: 26064; FIRM: 29991
ENGINEERING ONLY - DIMENSIONS TO BE VERIFIED ON SITE SUPPORTING STRUCTURE TO BE VERIFIED BY QUALIFIED BUILDING DESIGNER. ALL CONVENTIONAL FRAMING TO BE SPECIFIED, REVIEWED, AND CONFIRMED BY BUILDING DESIGNER PRIOR TO JOIST(S) AND FLOOR BEAM(S) INSTALLATION. ALL NOTES DESIGNATING MORE OR LESS DAS PER PLAN WORK DO NOT REPRESENT A PART OF THE SCOPE OF WORK WITHIN THE BOUNDARIES OF THE SEAL. THIS WORK IS DELEGATED TO A QUALIFIED BUILDING DESIGNER HAVING RESPONSIBILITY FOR THIS PROJECT. ALL BEAMS NOT ADDRESSED IN THIS DESCRIPTION AND LABELLED ON THIS LAYOUT ARE BEAMS SPECIFIED BY BUILDING DESIGNER AND/OR PROJECT ENGINEER AND ARE TO BE REVIEWED AND CONFIRMED BY THE SAME DESIGNER(S) PRIOR TO FABRICATION TO ENSURE ADEQUATE LOAD CAPACITY WITH RESPECT TO THE FLOOR SYSTEM COMPONENTS REVIEWED IN THIS SUBMISSION. MUNICIPALITY HAVING JURISDICTION TO OBTAIN LOT SPECIFIC SCHEDULE 1 FORM FROM THIS OFFICE PRIOR TO BUILDING PERMIT APPROVAL. INSTALLERS OF THIS FLOOR SYSTEM AND THEIR COMPANIES HAVE THE RESPONSIBILITY OF ENSURING THEY HAVE A COPY OF THE NORDIC INSTALLATION GUIDE AND ANY OTHER MANUFACTURER'S PRODUCT LITERATURE WHICH WILL AID IN THE OVERALL PROPER INSTALLATION OF THIS FLOOR SYSTEM. INSTALLERS ARE TO READ ALL PRODUCT LITERATURE AND INSTALLATION GUIDELINES BEFORE PROCEEDING. THE SUPPLIER AND SEALING ENGINEER OF THIS FLOOR SYSTEM ARE NOT RESPONSIBLE FOR SURPLUS OR DEFICIT OF PRODUCTS AT PROJECT'S END. THIS LAYOUT IS A GUIDE ONLY. CONFIRMATION OF ALL QUANTITIES, LENGHTS, AND DETAILS, REMAINS THE RESPONSIBILITY OF THE FLOOR SYSTEM INSTALLATION CONTRACTOR.

DWG# TAM 180124 THROUGH DWG# TAM 180194, INCLUSIVE DATED 8/14/24
SEALED STRUCTURAL COMPONENTS ONLY:
SEALED, THIRD PARTY LVL TYPE BEAMS, BUILT-UP CONVENTIONAL BEAMS, HEADERS, AND CONCENTRATED LOADED NORDIC WOOD-I JOIST ONLY. 2 X 6 SQUASH BLOCK REQUIRED AT ALL EXTERIOR SUPPORTS OR AS PER PROJECT ENGINEER'S SPECIFICATIONS. WEB FILLER REINFORCEMENT REQUIRED AT ALL HANGER SUPPORTED JOIST EXCEEDING A REACTION OF 1500 LBS (FACTORED)-SEE DETAILS.
A COMPLETE FRAMING PLAN REQUIRES THE NORDIC PUBLISHED LITERATURE, WHICH INCLUDES INSTALLATION REQUIREMENTS, HANDLING AND STORAGE GUIDELINES, AND FORMS AN INTEGRAL PART OF THIS SEALED DOCUMENT. INSTALL SQUASH BLOCKS FOR TRANSFERRING POINT LOADS FROM GIRDER TRUSSES, HEADERS, AND BEAMS DOWN TO FOUNDATION COMPONENTS. FOR PROPER INSTALLATION, SEE NORDIC LITERATURE. PROVIDE 2 X 4 OR 2 X 6 STUD GRADE OR BETTER SQUASH BLOCKS, MATCHING SUPPORTED WALL WIDTH ABOVE BLOCKS. INSTALL SQUASH BLOCKS ON EACH SIDE OF JOIST. BLOCKING TO BE 1/16" DEEPER THAN JOIS DEPTH. SEE NORDIC LITERATURE FOR NAILING REQUIREMENT.

I REVIEWED AND TAKE RESPONSIBILITY FOR THE DESIGN WORK ON BEHALF OF A FIRM REGISTERED UNDER SUBSECTION 3.2.5 OF THE ONTARIO BUILDING CODE. I AM QUALIFIED AND HE FIRM IS REGISTERED, IN APPROPRIATE CLASSES AND/OR CATEGORIES.

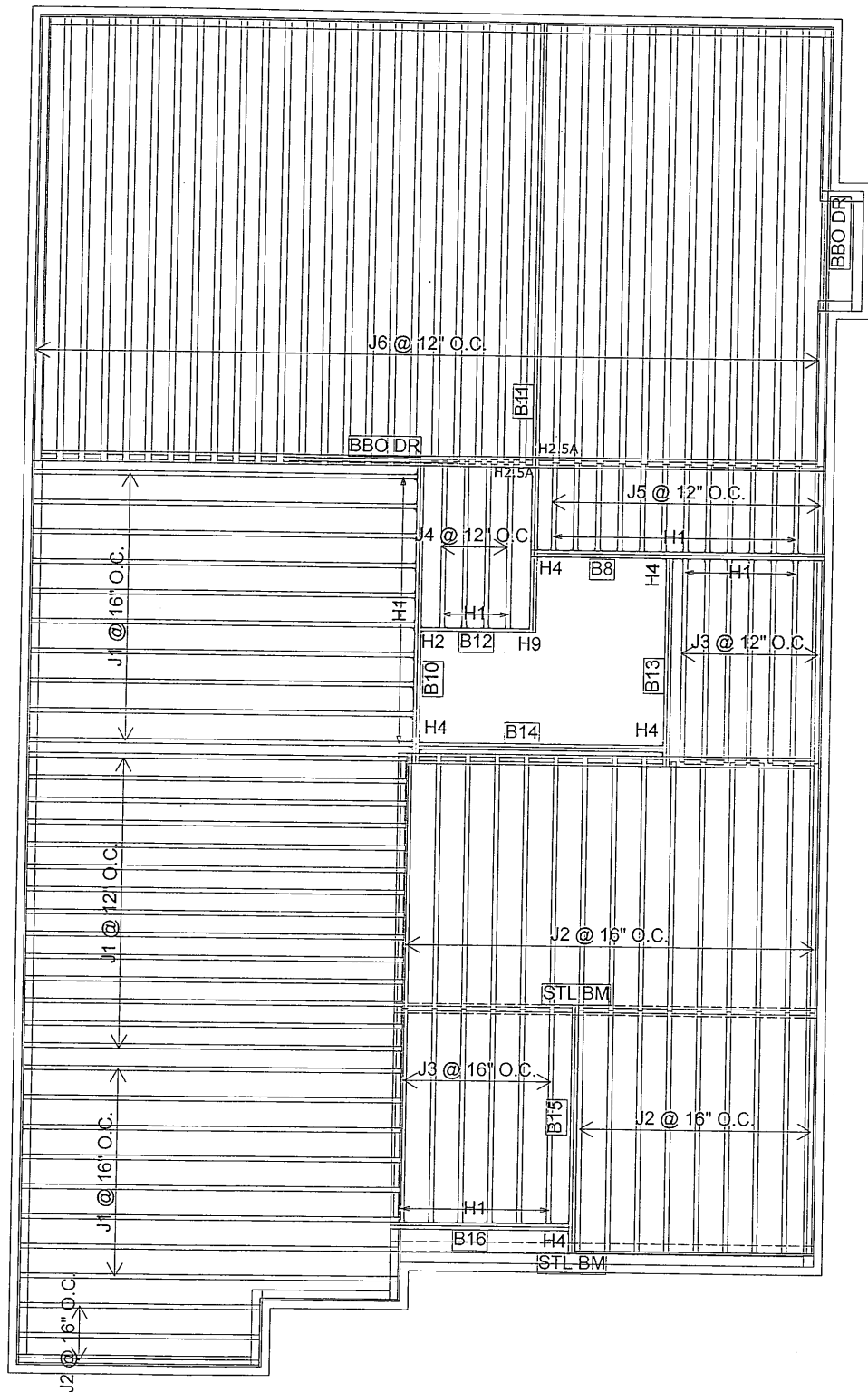
REGISTERED FIRM: MICRO CITY ENGINEERING SERVICES INC.

DWG # TAM 19657-24
BCIN: 26064
FIRM: 29991
SEALED STRUCTURAL COMPONENTS ONLY



FROM PLAN DATED: 2021/06
BUILDER: ROYAL PINE HOMES
SITE: VALES OF HUMBER NORTH
MODEL: 4505
ELEVATION: A
LOT:
CITY: BRAMPTON
SALESMAN: RICK DICIANO
DESIGNER: AJ
REVISION:
DATE: 2021-08-31
2nd FLOOR
OPTION





Products					
PlotID	Length	Product	Plies	Net Qty	
J1	18-00-00	11 7/8" NI-40x	1	32	
J2	12-00-00	11 7/8" NI-40x	1	27	
J3	10-00-00	11 7/8" NI-40x	1	13	
J4	8-00-00	11 7/8" NI-40x	1	4	
J5	4-00-00	11 7/8" NI-40x	1	13	
J6	20-00-00	11 7/8" NI-80	1	36	
B11	28-00-00	1-3/4" x 11-7/8" VERSA-LAM@ 2.0 3100 SP	2	2	
B10	14-00-00	1-3/4" x 11-7/8" VERSA-LAM@ 2.0 3100 SP	2	2	
B8	14-00-00	1-3/4" x 11-7/8" VERSA-LAM@ 2.0 3100 SP	2	2	
B14	12-00-00	1-3/4" x 11-7/8" VERSA-LAM@ 2.0 3100 SP	2	2	
B15	12-00-00	1-3/4" x 11-7/8" VERSA-LAM@ 2.0 3100 SP	2	2	
B13	10-00-00	1-3/4" x 11-7/8" VERSA-LAM@ 2.0 3100 SP	2	2	
B16	10-00-00	1-3/4" x 11-7/8" VERSA-LAM@ 2.0 3100 SP	2	2	
B12	6-00-00	1-3/4" x 11-7/8" VERSA-LAM@ 2.0 3100 SP	1	1	

Connector Summary		
Qty	Manuf	Product
4	H1	IUS2.56/11.88
34	H1	IUS2.56/11.88
1	H2	HUS1.81/10
5	H4	HGUS410
1	H9	LS90

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 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.

TAMARACK
LUMBER INC
ALPA LUMBER GROUP

FROM PLAN DATED:
2021/06

BUILDER:
ROYAL PINE HOMES

SITE:
VALES OF HUMBER NORTH

MODEL: 4505

ELEVATION: B

LOT:

CITY: BRAMPTON

SALESMAN: RICK DICIANO

DESIGNER: AJ

REVISION:

DATE: 2021-08-31

2nd FLOOR

LOADING:
DESIGN LOADS: L/480.000
LIVE LOAD: 40.0 lb/ft²
DEAD LOAD: 20.0 lb/ft²
SNOW LOAD: 24.0 lb/ft²

SUBFLOOR: 5/8" GLUED AND NAILED

DATE 9/01/24
BCIN: 26064; FIRM: 29991

ENGINEERING ONLY - DIMENSIONS TO BE VERIFIED ON SITE SUPPORTING STRUCTURE TO BE VERIFIED BY QUALIFIED BUILDING DESIGNER. ALL CONVENTIONAL FRAMING TO BE SPECIFIED, REVIEWED, AND CONFIRMED BY BUILDING DESIGNER PRIOR TO JOIST(S) AND FLOOR BEAM(S) INSTALLATION. ALL NOTES DESIGNATING MORE OR LESS DAS PER PLAN WORK DO NOT REPRESENT A PART OF THE SCOPE OF WORK WITHIN THE BOUNDARIES OF THE SEAL THIS WORK IS DELEGATED TO A QUALIFIED BUILDING DESIGNER HAVING RESPONSIBILITY FOR THIS PROJECT. ALL BEAMS NOT ADDRESSED IN THIS DESCRIPTION AND LABELLED ON THIS LAYOUT ARE BEAMS SPECIFIED BY BUILDING DESIGNER AND/OR PROJECT ENGINEER AND ARE TO BE REVIEWED AND CONFIRMED BY THE SAME DESIGNER(S) PRIOR TO FABRICATION TO ENSURE ADEQUATE LOAD CAPACITY WITH RESPECT TO THE FLOOR SYSTEM COMPONENTS REVIEWED IN THIS SUBMISSION. MUNICIPALITY HAVING JURISDICTION TO OBTAIN LOT SPECIFIC SCHEDULE 1 FORM FROM THIS OFFICE PRIOR TO BUILDING PERMIT APPROVAL.

INSTALLERS OF THIS FLOOR SYSTEM AND THEIR COMPANIES HAVE THE RESPONSIBILITY OF ENSURING THEY HAVE A COPY OF THE NORDIC INSTALLATION GUIDE AND ANY OTHER MANUFACTURER'S PRODUCT LITERATURE WHICH WILL AID IN THE OVERALL PROPER INSTALLATION OF THIS FLOOR SYSTEM. INSTALLERS ARE TO READ ALL PRODUCT LITERATURE AND INSTALLATION GUIDELINES BEFORE PROCEEDING. THE SUPPLIER AND SEALING ENGINEER OF THIS FLOOR SYSTEM ARE NOT RESPONSIBLE FOR SURPLUS OR DEFICIT OF PRODUCTS AT PROJECT'S END. THIS LAYOUT IS A GUIDE ONLY. CONFIRMATION OF ALL QUANTITIES, LENGHTS, AND DETAILS, REMAINS THE RESPONSIBILITY OF THE FLOOR SYSTEM INSTALLATION CONTRACTOR.

DWG# TAM 1801224 THROUGH DWG# TAM 1801924 INCLUSIVE DATED 8/14/24

SEALED STRUCTURAL COMPONENTS ONLY:
SEALED, THIRD PARTY LVL TYPE BEAMS, BUILT-UP CONVENTIONAL BEAMS, HEADERS, AND CONCENTRATED LOADED NORDIC WOOD-I JOIST ONLY. 2 X 6 SQUASH BLOCK REQUIRED AT ALL EXTERIOR SUPPORTS OR AS PER PROJECT ENGINEER'S SPECIFICATIONS. WEB FILLER REINFORCEMENT REQUIRED AT ALL HANGER SUPPORTED JOIST EXCEEDING A REACTION OF 1500 LBS (FACTORED)-SEE DETAILS.
A COMPLETE FRAMING PLAN REQUIRES THE NORDIC PUBLISHED LITERATURE, WHICH INCLUDES INSTALLATION REQUIREMENTS, HANDLING AND STORAGE GUIDELINES, AND FORMS AN INTEGRAL PART OF THIS SEALED DOCUMENT. INSTALL SQUASH BLOCKS FOR TRANSFERRING POINT LOADS FROM GIRDER TRUSSES, HEADERS, AND BEAMS DOWN TO FOUNDATION COMPONENTS. FOR PROPER INSTALLATION, SEE NORDIC LITERATURE. PROVIDE 2 X 4 OR 2 X 6 STUD GRADE OR BETTER SQUASH BLOCKS, MATCHING SUPPORTED WALL WIDTH ABOVE BLOCKS. INSTALL SQUASH BLOCKS ON EACH SIDE OF JOIST. BLOCKING TO BE 1/16" DEEPER THAN JOIS DEPTH. SEE NORDIC LITERATURE FOR NAILING REQUIREMENT.

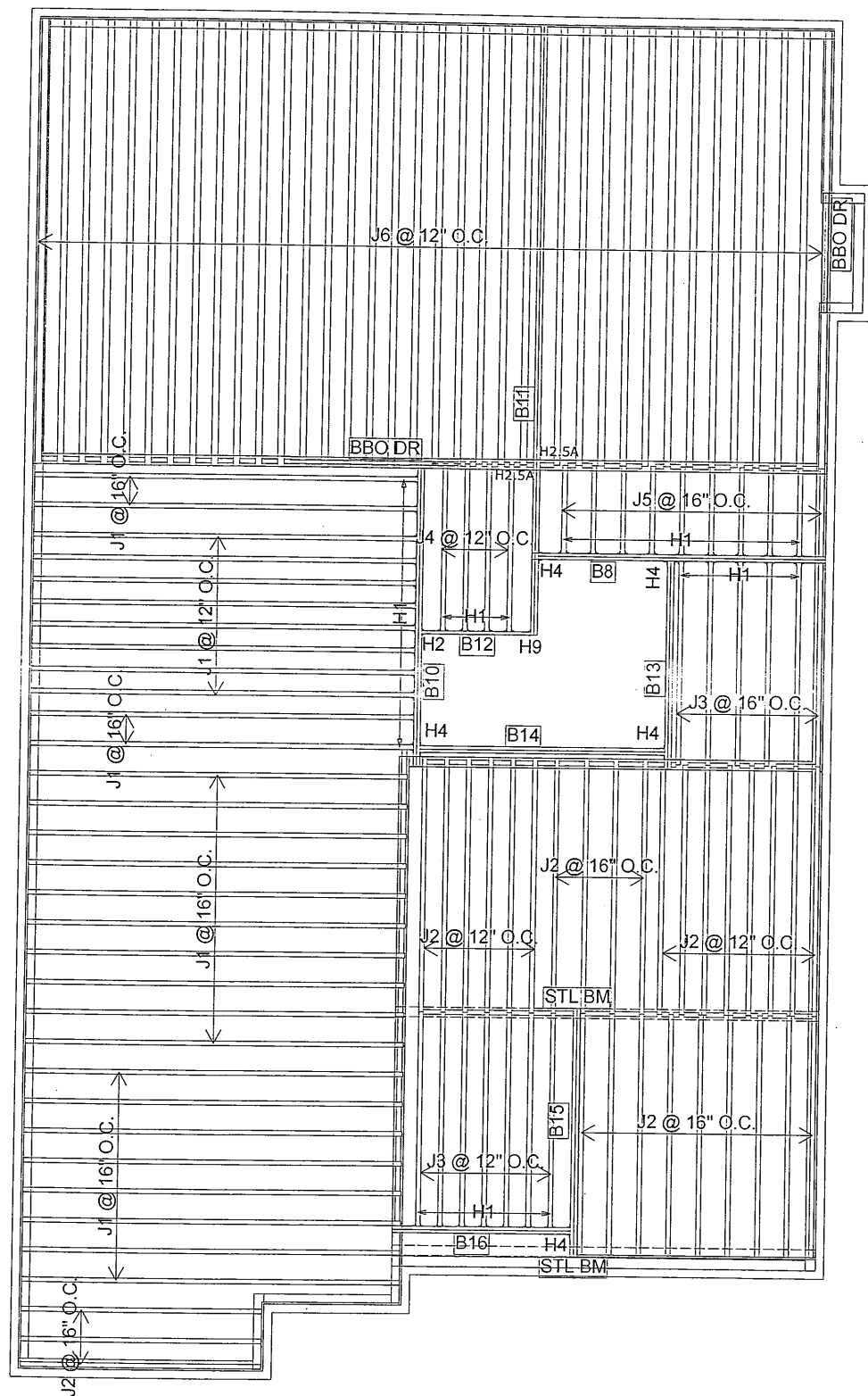
I REVIEWED AND TAKE RESPONSIBILITY FOR THE DESIGN WORK ON BEHALF OF A FIRM REGISTERED UNDER SUBSECTION 3.2.5 OF THE ONTARIO BUILDING CODE. I AM QUALIFIED AND HE FIRM IS REGISTERED, IN APPROPRIATE CLASSES AND/OR CATEGORIES.

REGISTERED FIRM: MICRO CITY ENGINEERING SERVICES INC.

DWG # TAM
BCIN: 26064
FIRM: 29991
SEALED STRUCTURAL
COMPONENTS ONLY

19658-21





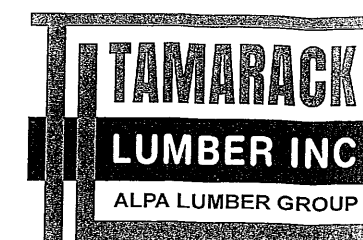
Products				
PlotID	Length	Product	Plies	Net Qty
J1	18-00-00	11 7/8" NI-40x	1	30
J2	12-00-00	11 7/8" NI-40x	1	30
J3	10-00-00	11 7/8" NI-40x	1	13
J4	8-00-00	11 7/8" NI-40x	1	4
J5	4-00-00	11 7/8" NI-40x	1	10
J6	20-00-00	11 7/8" NI-80	1	36
B11 ✓	28-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B10 ✓	14-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B8 ✓	14-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B14 ✓	12-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B15 ✓	12-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B13 ✓	10-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B16 ✓	10-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B12 ✓	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1

Connector Summary		
Qty	Manuf	Product
4	H1	IUS2.56/11.88
33	H1	IUS2.56/11.88
1	H2	HUS1.81/10
5	H4	HGUS410
1	H9	LS90

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 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: 20.0 lb/ft²
SNOW LOAD: 24.0 lb/ft²

SUBFLOOR: 5/8" GLUED AND NAILED



FROM PLAN DATED:
2021/06
BUILDER:
ROYAL PINE HOMES
SITE:
VALES OF HUMBER NORTH
MODEL: 4505
ELEVATION: B
LOT:
CITY: BRAMPTON
SALESMAN: RICK DICIANO
DESIGNER: AJ
REVISION:

DATE: 2021-08-31
2nd FLOOR
OPTION

DATE 9.01.24
BCIN: 26064; FIRM: 29991
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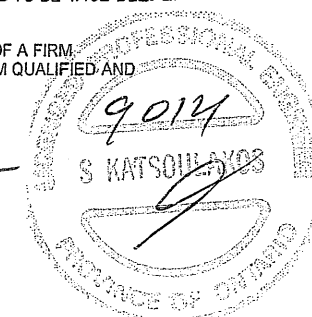
DWG# TAM 19012-24 THROUGH DWG# TAM 19019-24 INCLUSIVE DATED 9.14.24
SEALED STRUCTURAL COMPONENTS ONLY:
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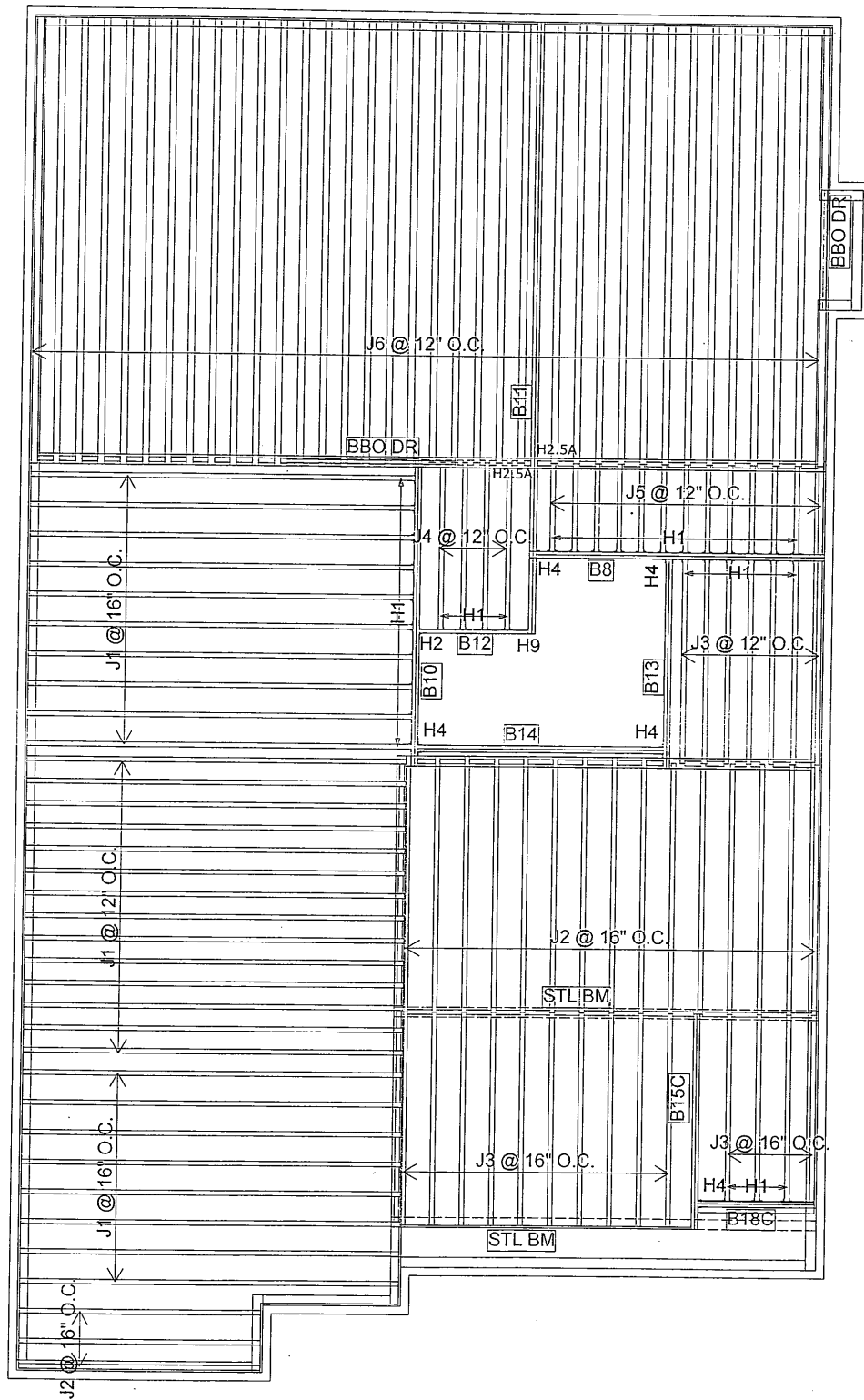
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REGISTERED FIRM: MICRO CITY ENGINEERING SERVICES INC.

DWG # TAM
BCIN: 26064
FIRM: 29991
SEALED STRUCTURAL
COMPONENTS ONLY

19659-21





Products					
PlotID	Length	Product	Plies	Net Qty	
J1	18-00-00	11 7/8" NI-40x	1	32	
J2	12-00-00	11 7/8" NI-40x	1	18	
J3	10-00-00	11 7/8" NI-40x	1	21	
J4	8-00-00	11 7/8" NI-40x	1	4	
J5	4-00-00	11 7/8" NI-40x	1	13	
J6	20-00-00	11 7/8" NI-80	1	36	
B18C	6-00-00	1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP	2	2	
B11 ✓	28-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2	
B10 ✓	14-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2	
B8 ✓	14-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2	
B14 ✓	12-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2	
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B15C	10-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2	
B12	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1	

Connector Summary		
Qty	Manuf	Product
4	H1	IUS2.56/11.88
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28	H1	IUS2.56/11.88
1	H2	HUS1.81/10
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LOADING:
DESIGN LOADS: L/480,000
LIVE LOAD: 40.0 lb/ft²
DEAD LOAD: 20.0 lb/ft²
SNOW LOAD: 24.0 lb/ft²

SUBFLOOR: 5/8" GLUED AND NAILED

DATE 9.01.14

BCIN: 26064; FIRM: 29991

ENGINEERING ONLY - DIMENSIONS TO BE VERIFIED ON SITE SUPPORTING STRUCTURE TO BE VERIFIED BY QUALIFIED BUILDING DESIGNER. ALL CONVENTIONAL FRAMING TO BE SPECIFIED, REVIEWED, AND CONFIRMED BY BUILDING DESIGNER PRIOR TO JOIST(S) AND FLOOR BEAM(S) INSTALLATION. ALL NOTES DESIGNATING MORE OR LESS QAS PER PLAN WORK DO NOT REPRESENT A PART OF THE SCOPE OF WORK WITHIN THE BOUNDARIES OF THE SEAL. THIS WORK IS DELEGATED TO A QUALIFIED BUILDING DESIGNER HAVING RESPONSIBILITY FOR THIS PROJECT. ALL BEAMS NOT ADDRESSED IN THIS DESCRIPTION AND LABELLED ON THIS LAYOUT ARE BEAMS SPECIFIED BY BUILDING DESIGNER AND/OR PROJECT ENGINEER AND ARE TO BE REVIEWED AND CONFIRMED BY THE SAME DESIGNER(S) PRIOR TO FABRICATION TO ENSURE ADEQUATE LOAD CAPACITY WITH RESPECT TO THE FLOOR SYSTEM COMPONENTS REVIEWED IN THIS SUBMISSION. MUNICIPALITY HAVING JURISDICTION TO OBTAIN LOT SPECIFIC SCHEDULE 1 FORM FROM THIS OFFICE PRIOR TO BUILDING PERMIT APPROVAL. INSTALLERS OF THIS FLOOR SYSTEM AND THEIR COMPANIES HAVE THE RESPONSIBILITY OF ENSURING THEY HAVE A COPY OF THE NORDIC INSTALLATION GUIDE AND ANY OTHER MANUFACTURER'S PRODUCT LITERATURE WHICH WILL AID IN THE OVERALL PROPER INSTALLATION OF THIS FLOOR SYSTEM. INSTALLERS ARE TO READ ALL PRODUCT LITERATURE AND INSTALLATION GUIDELINES BEFORE PROCEEDING. THE SUPPLIER AND SEALING ENGINEER OF THIS FLOOR SYSTEM ARE NOT RESPONSIBLE FOR SURPLUS OR DEFICIT OF PRODUCTS AT PROJECT'S END. THIS LAYOUT IS A GUIDE ONLY. CONFIRMATION OF ALL QUANTITIES, LENGHTS, AND DETAILS, REMAINS THE RESPONSIBILITY OF THE FLOOR SYSTEM INSTALLATION CONTRACTOR.

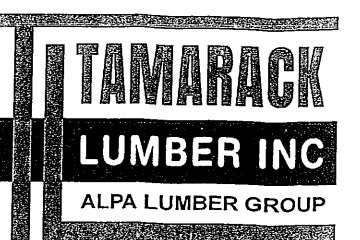
DWG# TAM _____ THROUGH DWG# TAM _____, INCLUSIVE DATED 8.24.14

SEALED STRUCTURAL COMPONENTS ONLY:
SEALED, THIRD PARTY LVL TYPE BEAMS, BUILT-UP CONVENTIONAL BEAMS, HEADERS, AND CONCENTRATED LOADED NORDIC WOOD-I JOIST ONLY. 2 X 6 SQUASH BLOCK REQUIRED AT ALL EXTERIOR SUPPORTS OR AS PER PROJECT ENGINEER'S SPECIFICATIONS. WEB FILLER REINFORCEMENT REQUIRED AT ALL HANGER SUPPORTED JOIST EXCEEDING A REACTION OF 1500 LBS (FACTORED)-SEE DETAILS.
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I REVIEWED AND TAKE RESPONSIBILITY FOR THE DESIGN WORK ON BEHALF OF A FIRM REGISTERED UNDER SUBSECTION 3.2.5 OF THE ONTARIO BUILDING CODE. I AM QUALIFIED AND HE FIRM IS REGISTERED, IN APPROPRIATE CLASSES AND/OR CATEGORIES.

REGISTERED FIRM: MICRO CITY ENGINEERING SERVICES INC.

DWG # TAM _____
BCIN: 26064
FIRM: 29991
SEALED STRUCTURAL
COMPONENTS ONLY



FROM PLAN DATED:
2021/06

BUILDER:
ROYAL PINE HOMES

SITE:
VALES OF HUMBER NORTH
MODEL: 4505

ELEVATION: C

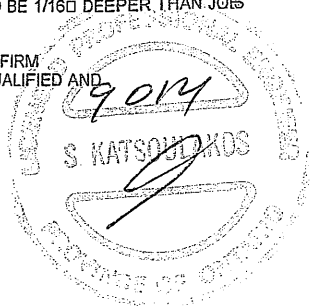
LOT:

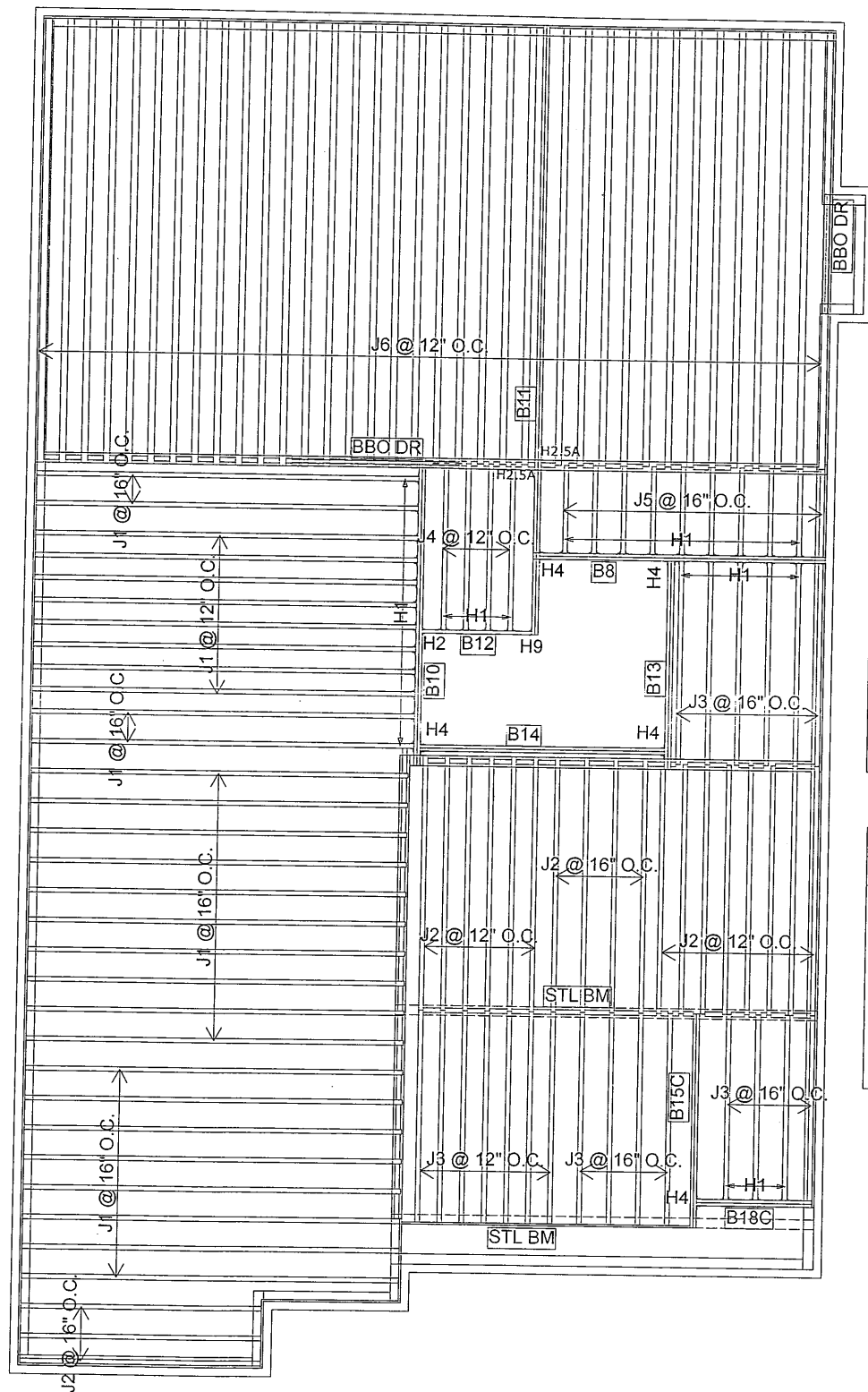
CITY: BRAMPTON

SALESMAN: RICK DICIANO
DESIGNER: AJ
REVISION:

DATE: 2021-08-31

2nd FLOOR

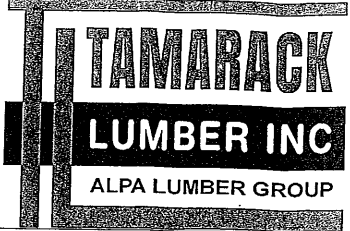




Products					
PlotID	Length	Product	Plies	Net Qty	
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Connector Summary		
Qty	Manuf	Product
4	H1	IUS2.56/11.88
3	H1	IUS2.56/11.88
26	H1	IUS2.56/11.88
1	H2	HUS1.81/10
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NOTES:
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FROM PLAN DATED: 2021/06
BUILDER: ROYAL PINE HOMES
SITE: VALES OF HUMBER NORTH
MODEL: 4505
ELEVATION: C
LOT:
CITY: BRAMPTON
SALESMAN: RICK DICIANO
DESIGNER: AJ
REVISION:
DATE: 2021-08-31
2nd FLOOR
OPTION

LOADING:
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LIVE LOAD: 40.0 lb/ft²
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DWG# TAM THROUGH DWG# TAM, INCLUSIVE DATED 8/24/24

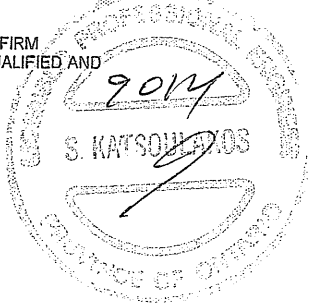
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REGISTERED FIRM: MICRO CITY ENGINEERING SERVICES INC.


DWG # TAM
BCIN: 26064
FIRM: 29991
SEALED STRUCTURAL
COMPONENTS ONLY

19661-21



Schedule 1: Designer Information

Use one form for each individual who reviews and takes responsibility for design activities with respect to the project.

A. Project Information				Application number:	
Building number, street name:				Unit no.	Lot/con.
Municipality CITY OF BRAMPTON	Postal code	Plan number/ other description			
B. Individual who reviews and takes responsibility for design activities					
Name SAM KATSOULAKOS			Firm MICRO CITY ENGINEERING SERVICES INC.		
Street address R.R #1, PO BOX 61				Unit no.	Lot/con.
Municipality GLENCOE	Postal code N0L 1M0	Province ONTARIO	E-mail mcengr@xplornet.com		
Telephone number (519) 287-2242 Business		Fax number	Cell number		
C. Design activities undertaken by individual identified in Section B. [Building Code Table 3.5.2.1. of Division C]					
<input type="checkbox"/> House <input type="checkbox"/> Small Buildings <input type="checkbox"/> Large Buildings <input type="checkbox"/> Complex Buildings		<input type="checkbox"/> HVAC – House <input type="checkbox"/> Building Services <input type="checkbox"/> Detection, Lighting and Power <input type="checkbox"/> Fire Protection		<input checked="" type="checkbox"/> Building Structural <input type="checkbox"/> Plumbing – House <input type="checkbox"/> Plumbing – All Buildings <input type="checkbox"/> On-site Sewage Systems	
Description of designer's work: ROYAL PINE HOMES-PROJECT:VALES OF HUMBER NORTH-MODEL: 4505-ELEV.A-1ST FLOOR-STD-NOT LOT SPECIFIC REVIEW PRE-ENGINEERED FLOOR SYSTEM COMPONENT DRAWINGS AND LAYOUT PLACEMENT PLAN SUPPLIED BY TAMARACK LUMBER INC. (SEE DWG #TAM19647-21 DATED 9-01-21). SUPPORTING STRUCTURE (S) TO BE REVIEWED AND VERIFIED BY QUALIFIED BUILDING DESIGNER.					
D. Declaration of Designer					
I, <u>SAM KATSOULAKOS</u> declare that (choose one as appropriate): <div style="text-align: center;">(print name)</div> <input checked="" type="checkbox"/> I review and take responsibility for the design work on behalf of a firm registered under subsection 3.2.4. of Division C, of the Building Code. I am qualified, and the firm is registered, in the appropriate classes/categories. Individual BCIN: <u>26064</u> Firm BCIN: <u>29991</u> <input type="checkbox"/> I review and take responsibility for the design and am qualified in the appropriate category as an "other designer" under subsection 3.2.5. of Division C, of the Building Code. Individual BCIN: _____ Basis for exemption from registration: _____ <input type="checkbox"/> The design work is exempt from the registration and qualification requirements of the Building Code. Basis for exemption from registration and qualification: _____					
I certify that: 1. The information contained in this schedule is true to the best of my knowledge. 2. I have submitted this application with the knowledge and consent of the firm.					
Date		Signature of Designer 			

NOTE:

- For the purposes of this form, "individual" means the "person" referred to in Clause 3.2.4.7(1) d. of Division C, Article 3.2.5.1. of Division C, and all other persons who are exempt from qualification under Subsections 3.2.4. and 3.2.5. of Division C.
- Schedule 1 is not required to be completed by a holder of a license, temporary license, or a certificate of authorization, issued by the Ontario Association of Architects. Schedule 1 is also not required to be completed by a holder of a license to practise, a limited license to practise, or a certificate of authorization, issued by the Association of Professional Engineers of Ontario.

DWG #TAM19647-21S
DWG #TAM19662-21S

9012 

Schedule 1: Designer Information

Use one form for each individual who reviews and takes responsibility for design activities with respect to the project.

A. Project Information				Application number:	
Building number, street name:				Unit no.	Lot/con.
Municipality CITY OF BRAMPTON	Postal code	Plan number/ other description			
B. Individual who reviews and takes responsibility for design activities					
Name SAM KATSOULAKOS			Firm MICRO CITY ENGINEERING SERVICES INC.		
Street address R.R #1, PO BOX 61				Unit no.	Lot/con.
Municipality GLENCOE	Postal code N0L 1M0	Province ONTARIO	E-mail mcengr@xplornet.com		
Telephone number (519) 287-2242 Business		Fax number	Cell number		
C. Design activities undertaken by individual identified in Section B. [Building Code Table 3.5.2.1. of Division C]					
<div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> House <input type="checkbox"/> Small Buildings <input type="checkbox"/> Large Buildings <input type="checkbox"/> Complex Buildings </div> <div> <input type="checkbox"/> HVAC – House <input type="checkbox"/> Building Services <input type="checkbox"/> Detection, Lighting and Power <input type="checkbox"/> Fire Protection </div> <div> <input checked="" type="checkbox"/> Building Structural <input type="checkbox"/> Plumbing – House <input type="checkbox"/> Plumbing – All Buildings <input type="checkbox"/> On-site Sewage Systems </div> </div>					
Description of designer's work: ROYAL PINE HOMES-PROJECT:VALES OF HUMBER NORTH-MODEL: 4505-ELEV.A-1ST FLOOR-SUNKEN-NOT LOT SPECIFIC REVIEW PRE-ENGINEERED FLOOR SYSTEM COMPONENT DRAWINGS AND LAYOUT PLACEMENT PLAN SUPPLIED BY TAMARACK LUMBER INC. (SEE DWG #TAM19648-21 DATED 9-01-21). SUPPORTING STRUCTURE (S) TO BE REVIEWED AND VERIFIED BY QUALIFIED BUILDING DESIGNER.					
D. Declaration of Designer					
I, <u>SAM KATSOULAKOS</u> declare that (choose one as appropriate): <div style="text-align: center;">(print name)</div> <div> <input checked="" type="checkbox"/> I review and take responsibility for the design work on behalf of a firm registered under subsection 3.2.4. of Division C, of the Building Code. I am qualified, and the firm is registered, in the appropriate classes/categories. <div style="display: flex; justify-content: space-between;"> <div>Individual BCIN: <u>26064</u></div> <div>Firm BCIN: <u>29991</u></div> </div> </div> <div> <input type="checkbox"/> I review and take responsibility for the design and am qualified in the appropriate category as an "other designer" under subsection 3.2.5. of Division C, of the Building Code. <div style="display: flex; justify-content: space-between;"> <div>Individual BCIN: _____</div> <div>Basis for exemption from registration: _____</div> </div> </div> <div> <input type="checkbox"/> The design work is exempt from the registration and qualification requirements of the Building Code. <div style="display: flex; justify-content: space-between;"> <div>Basis for exemption from registration and qualification: _____</div> </div> </div>					
I certify that: 1. The information contained in this schedule is true to the best of my knowledge. 2. I have submitted this application with the knowledge and consent of the firm.					
Date		Signature of Designer			

NOTE:

- For the purposes of this form, "individual" means the "person" referred to in Clause 3.2.4.7(1) d). of Division C, Article 3.2.5.1. of Division C, and all other persons who are exempt from qualification under Subsections 3.2.4. and 3.2.5. of Division C.
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DWG #TAM19648-21S
DWG #TAM19663-21S

9-01-21

Schedule 1: Designer Information

Use one form for each individual who reviews and takes responsibility for design activities with respect to the project.

A. Project Information				Application number:	
Building number, street name:				Unit no.	Lot/con.
Municipality CITY OF BRAMPTON		Postal code	Plan number/ other description		
B. Individual who reviews and takes responsibility for design activities					
Name SAM KATSOULAKOS			Firm MICRO CITY ENGINEERING SERVICES INC.		
Street address R.R #1, PO BOX 61				Unit no.	Lot/con.
Municipality GLENCOE	Postal code N0L 1M0	Province ONTARIO	E-mail mcengr@xplornet.com		
Telephone number (519) 287-2242 Business		Fax number	Cell number		
C. Design activities undertaken by individual identified in Section B. [Building Code Table 3.5.2.1. of Division C]					
<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <input type="checkbox"/> House <input type="checkbox"/> Small Buildings <input type="checkbox"/> Large Buildings <input type="checkbox"/> Complex Buildings </div> <div style="width: 30%;"> <input type="checkbox"/> HVAC – House <input type="checkbox"/> Building Services <input type="checkbox"/> Detection, Lighting and Power <input type="checkbox"/> Fire Protection </div> <div style="width: 30%;"> <input checked="" type="checkbox"/> Building Structural <input type="checkbox"/> Plumbing – House <input type="checkbox"/> Plumbing – All Buildings <input type="checkbox"/> On-site Sewage Systems </div> </div>					
Description of designer's work: ROYAL PINE HOMES-PROJECT:VALES OF HUMBER NORTH-MODEL: 4505-ELEV.A-1ST FLOOR-SUNKEN IN-LAW SUITE-NOT LOT SPECIFIC REVIEW PRE-ENGINEERED FLOOR SYSTEM COMPONENT DRAWINGS AND LAYOUT PLACEMENT PLAN SUPPLIED BY TAMARACK LUMBER INC. (SEE DWG #TAM19649-21 DATED 9-01-21). SUPPORTING STRUCTURE (S) TO BE REVIEWED AND VERIFIED BY QUALIFIED BUILDING DESIGNER.					
D. Declaration of Designer					
I, <u>SAM KATSOULAKOS</u> declare that (choose one as appropriate): (print name)					
<input checked="" type="checkbox"/> I review and take responsibility for the design work on behalf of a firm registered under subsection 3.2.4. of Division C, of the Building Code. I am qualified, and the firm is registered, in the appropriate classes/categories.					
Individual BCIN: <u>26064</u>					
Firm BCIN: <u>29991</u>					
<input type="checkbox"/> I review and take responsibility for the design and am qualified in the appropriate category as an "other designer" under subsection 3.2.5. of Division C, of the Building Code.					
Individual BCIN: _____					
Basis for exemption from registration: _____					
<input type="checkbox"/> The design work is exempt from the registration and qualification requirements of the Building Code.					
Basis for exemption from registration and qualification: _____					
I certify that:					
1. The information contained in this schedule is true to the best of my knowledge.					
2. I have submitted this application with the knowledge and consent of the firm.					
Date		Signature of Designer			

NOTE:


- For the purposes of this form, "individual" means the "person" referred to in Clause 3.2.4.7(1) d. of Division C, Article 3.2.5.1. of Division C, and all other persons who are exempt from qualification under Subsections 3.2.4. and 3.2.5. of Division C.
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DWG #TAM19649-21S
DWG #TAM19664-21S

9013

Schedule 1: Designer Information

Use one form for each individual who reviews and takes responsibility for design activities with respect to the project.

A. Project Information				Application number:	
Building number, street name:				Unit no.	Lot/con.
Municipality CITY OF BRAMPTON	Postal code	Plan number/ other description			
B. Individual who reviews and takes responsibility for design activities					
Name SAM KATSOULAKOS			Firm MICRO CITY ENGINEERING SERVICES INC.		
Street address R.R #1, PO BOX 61				Unit no.	Lot/con.
Municipality GLENCOE	Postal code N0L 1M0	Province ONTARIO	E-mail mcengr@explornet.com		
Telephone number (519) 287-2242 Business		Fax number	Cell number		
C. Design activities undertaken by individual identified in Section B. [Building Code Table 3.5.2.1. of Division C]					
<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <input type="checkbox"/> House <input type="checkbox"/> Small Buildings <input type="checkbox"/> Large Buildings <input type="checkbox"/> Complex Buildings </div> <div style="width: 30%;"> <input type="checkbox"/> HVAC – House <input type="checkbox"/> Building Services <input type="checkbox"/> Detection, Lighting and Power <input type="checkbox"/> Fire Protection </div> <div style="width: 30%;"> <input checked="" type="checkbox"/> Building Structural <input type="checkbox"/> Plumbing – House <input type="checkbox"/> Plumbing – All Buildings <input type="checkbox"/> On-site Sewage Systems </div> </div>					
Description of designer's work: ROYAL PINE HOMES-PROJECT:VALES OF HUMBER NORTH-MODEL: 4505-ELEV.B-1ST FLOOR-STD-NOT LOT SPECIFIC REVIEW PRE-ENGINEERED FLOOR SYSTEM COMPONENT DRAWINGS AND LAYOUT PLACEMENT PLAN SUPPLIED BY TAMARACK LUMBER INC. (SEE DWG #TAM19650-21 DATED 9-01-21). SUPPORTING STRUCTURE (S) TO BE REVIEWED AND VERIFIED BY QUALIFIED BUILDING DESIGNER.					
D. Declaration of Designer					
I, <u>SAM KATSOULAKOS</u> declare that (choose one as appropriate): (print name)					
<input checked="" type="checkbox"/> I review and take responsibility for the design work on behalf of a firm registered under subsection 3.2.4. of Division C, of the Building Code. I am qualified, and the firm is registered, in the appropriate classes/categories.					
Individual BCIN: <u>26064</u>					
Firm BCIN: <u>29991</u>					
<input type="checkbox"/> I review and take responsibility for the design and am qualified in the appropriate category as an "other designer" under subsection 3.2.5. of Division C, of the Building Code.					
Individual BCIN: _____					
Basis for exemption from registration: _____					
<input type="checkbox"/> The design work is exempt from the registration and qualification requirements of the Building Code.					
Basis for exemption from registration and qualification: _____					
I certify that:					
1. The information contained in this schedule is true to the best of my knowledge.					
2. I have submitted this application with the knowledge and consent of the firm.					
Date		Signature of Designer 			


NOTE:

- For the purposes of this form, "individual" means the "person" referred to in Clause 3.2.4.7(1) d) of Division C, Article 3.2.5.1. of Division C, and all other persons who are exempt from qualification under Subsections 3.2.4. and 3.2.5. of Division C.
- Schedule 1 is not required to be completed by a holder of a license, temporary license, or a certificate of authorization, issued by the Ontario Association of Architects. Schedule 1 is also not required to be completed by a holder of a license to practise, a limited license to practise, or a certificate of authorization, issued by the Association of Professional Engineers of Ontario.

DWG #TAM19650-21S
DWG #TAM19665-21S

Schedule 1: Designer Information

Use one form for each individual who reviews and takes responsibility for design activities with respect to the project.

A. Project Information				Application number:	
Building number, street name:				Unit no.	Lot/con.
Municipality CITY OF BRAMPTON	Postal code	Plan number/ other description			
B. Individual who reviews and takes responsibility for design activities					
Name SAM KATSOULAKOS		Firm MICRO CITY ENGINEERING SERVICES INC.			
Street address R.R #1, PO BOX 61				Unit no.	Lot/con.
Municipality GLENCOE	Postal code N0L 1M0	Province ONTARIO	E-mail mcengr@xplornet.com		
Telephone number (519) 287-2242 Business		Fax number	Cell number		
C. Design activities undertaken by individual identified in Section B. [Building Code Table 3.5.2.1. of Division C]					
<input type="checkbox"/> House <input type="checkbox"/> Small Buildings <input type="checkbox"/> Large Buildings <input type="checkbox"/> Complex Buildings		<input type="checkbox"/> HVAC – House <input type="checkbox"/> Building Services <input type="checkbox"/> Detection, Lighting and Power <input type="checkbox"/> Fire Protection		<input checked="" type="checkbox"/> Building Structural <input type="checkbox"/> Plumbing – House <input type="checkbox"/> Plumbing – All Buildings <input type="checkbox"/> On-site Sewage Systems	
Description of designer's work: ROYAL PINE HOMES-PROJECT:VALES OF HUMBER NORTH-MODEL: 4505-ELEV.B-1ST FLOOR-SUNKEN-NOT LOT SPECIFIC REVIEW PRE-ENGINEERED FLOOR SYSTEM COMPONENT DRAWINGS AND LAYOUT PLACEMENT PLAN SUPPLIED BY TAMARACK LUMBER INC. (SEE DWG #TAM19651-21 DATED 9-01-21). SUPPORTING STRUCTURE (S) TO BE REVIEWED AND VERIFIED BY QUALIFIED BUILDING DESIGNER.					
D. Declaration of Designer					
I, <u>SAM KATSOULAKOS</u> declare that (choose one as appropriate): (print name)					
<input checked="" type="checkbox"/> I review and take responsibility for the design work on behalf of a firm registered under subsection 3.2.4. of Division C, of the Building Code. I am qualified, and the firm is registered, in the appropriate classes/categories.					
Individual BCIN: <u>26064</u>					
Firm BCIN: <u>29991</u>					
<input type="checkbox"/> I review and take responsibility for the design and am qualified in the appropriate category as an "other designer" under subsection 3.2.5. of Division C, of the Building Code.					
Individual BCIN: _____					
Basis for exemption from registration: _____					
<input type="checkbox"/> The design work is exempt from the registration and qualification requirements of the Building Code.					
Basis for exemption from registration and qualification: _____					
I certify that:					
1. The information contained in this schedule is true to the best of my knowledge.					
2. I have submitted this application with the knowledge and consent of the firm.					
Date		Signature of Designer 			

NOTE:


- For the purposes of this form, "individual" means the "person" referred to in Clause 3.2.4.7(1) d. of Division C, Article 3.2.5.1. of Division C, and all other persons who are exempt from qualification under Subsections 3.2.4. and 3.2.5. of Division C.
- Schedule 1 is not required to be completed by a holder of a license, temporary license, or a certificate of authorization, issued by the Ontario Association of Architects. Schedule 1 is also not required to be completed by a holder of a license to practise, a limited license to practise, or a certificate of authorization, issued by the Association of Professional Engineers of Ontario.

DWG #TAM19651-21S
DWG #TAM19666-21S

9012

Schedule 1: Designer Information

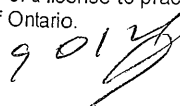
Use one form for each individual who reviews and takes responsibility for design activities with respect to the project.

A. Project Information				Application number:	
Building number, street name:				Unit no.	Lot/con.
Municipality CITY OF BRAMPTON	Postal code	Plan number/ other description			
B. Individual who reviews and takes responsibility for design activities					
Name SAM KATSOULAKOS			Firm MICRO CITY ENGINEERING SERVICES INC.		
Street address R.R #1, PO BOX 61				Unit no.	Lot/con.
Municipality GLENCOE	Postal code N0L 1M0	Province ONTARIO	E-mail mcengr@xplornet.com		
Telephone number (519) 287-2242 Business		Fax number	Cell number		
C. Design activities undertaken by individual identified in Section B. [Building Code Table 3.5.2.1. of Division C]					
<input type="checkbox"/> House <input type="checkbox"/> Small Buildings <input type="checkbox"/> Large Buildings <input type="checkbox"/> Complex Buildings		<input type="checkbox"/> HVAC – House <input type="checkbox"/> Building Services <input type="checkbox"/> Detection, Lighting and Power <input type="checkbox"/> Fire Protection		<input checked="" type="checkbox"/> Building Structural <input type="checkbox"/> Plumbing – House <input type="checkbox"/> Plumbing – All Buildings <input type="checkbox"/> On-site Sewage Systems	
Description of designer's work: ROYAL PINE HOMES-PROJECT:VALES OF HUMBER NORTH-MODEL: 4505-ELEV.B-1ST FLOOR-SUNKEN IN-LAW SUITE-NOT LOT SPECIFIC REVIEW PRE-ENGINEERED FLOOR SYSTEM COMPONENT DRAWINGS AND LAYOUT PLACEMENT PLAN SUPPLIED BY TAMARACK LUMBER INC. (SEE DWG #TAM19652-21 DATED 9-01-21). SUPPORTING STRUCTURE (S) TO BE REVIEWED AND VERIFIED BY QUALIFIED BUILDING DESIGNER.					
D. Declaration of Designer					
I, <u>SAM KATSOULAKOS</u> declare that (choose one as appropriate): (print name)					
<input checked="" type="checkbox"/> I review and take responsibility for the design work on behalf of a firm registered under subsection 3.2.4. of Division C, of the Building Code. I am qualified, and the firm is registered, in the appropriate classes/categories.					
Individual BCIN: <u>26064</u>					
Firm BCIN: <u>29991</u>					
<input type="checkbox"/> I review and take responsibility for the design and am qualified in the appropriate category as an "other designer" under subsection 3.2.5. of Division C, of the Building Code.					
Individual BCIN: _____					
Basis for exemption from registration: _____					
<input type="checkbox"/> The design work is exempt from the registration and qualification requirements of the Building Code.					
Basis for exemption from registration and qualification: _____					
I certify that:					
1. The information contained in this schedule is true to the best of my knowledge.					
2. I have submitted this application with the knowledge and consent of the firm.					
Date		Signature of Designer 			

NOTE:

- For the purposes of this form, "individual" means the "person" referred to in Clause 3.2.4.7(1) d) of Division C, Article 3.2.5.1. of Division C, and all other persons who are exempt from qualification under Subsections 3.2.4. and 3.2.5. of Division C.
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DWG #TAM19652-21S
DWG #TAM19667-21S

9 01 21 

Schedule 1: Designer Information

Use one form for each individual who reviews and takes responsibility for design activities with respect to the project.

A. Project Information			Application number:	
Building number, street name:			Unit no.	Lot/con.
Municipality CITY OF BRAMPTON	Postal code	Plan number/ other description		
B. Individual who reviews and takes responsibility for design activities				
Name SAM KATSOULAKOS		Firm MICRO CITY ENGINEERING SERVICES INC.		
Street address R.R #1, PO BOX 61			Unit no.	Lot/con.
Municipality GLENCOE	Postal code N0L 1M0	Province ONTARIO	E-mail mcengr@xplornet.com	
Telephone number (519) 287-2242 Business		Fax number	Cell number	
C. Design activities undertaken by individual identified in Section B. [Building Code Table 3.5.2.1. of Division C]				
<div style="display: flex; flex-wrap: wrap;"> <div style="width: 33%;"><input type="checkbox"/> House</div> <div style="width: 33%;"><input type="checkbox"/> HVAC – House</div> <div style="width: 33%;"><input checked="" type="checkbox"/> Building Structural</div> <div style="width: 33%;"><input type="checkbox"/> Small Buildings</div> <div style="width: 33%;"><input type="checkbox"/> Building Services</div> <div style="width: 33%;"><input type="checkbox"/> Plumbing – House</div> <div style="width: 33%;"><input type="checkbox"/> Large Buildings</div> <div style="width: 33%;"><input type="checkbox"/> Detection, Lighting and Power</div> <div style="width: 33%;"><input type="checkbox"/> Plumbing – All Buildings</div> <div style="width: 33%;"><input type="checkbox"/> Complex Buildings</div> <div style="width: 33%;"><input type="checkbox"/> Fire Protection</div> <div style="width: 33%;"><input type="checkbox"/> On-site Sewage Systems</div> </div>				
Description of designer's work: ROYAL PINE HOMES-PROJECT:VALES OF HUMBER NORTH-MODEL: 4505-ELEV.C-1ST FLOOR-STD-NOT LOT SPECIFIC REVIEW PRE-ENGINEERED FLOOR SYSTEM COMPONENT DRAWINGS AND LAYOUT PLACEMENT PLAN SUPPLIED BY TAMARACK LUMBER INC. (SEE DWG #TAM19653-21 DATED 9-01-21). SUPPORTING STRUCTURE (S) TO BE REVIEWED AND VERIFIED BY QUALIFIED BUILDING DESIGNER.				
D. Declaration of Designer				
I, <u>SAM KATSOULAKOS</u> declare that (choose one as appropriate): <div style="text-align: center;">(print name)</div> <div style="margin-left: 20px;"> <input checked="" type="checkbox"/> I review and take responsibility for the design work on behalf of a firm registered under subsection 3.2.4. of Division C, of the Building Code. I am qualified, and the firm is registered, in the appropriate classes/categories. Individual BCIN: <u>26064</u> Firm BCIN: <u>29991</u> </div> <div style="margin-left: 20px;"> <input type="checkbox"/> I review and take responsibility for the design and am qualified in the appropriate category as an "other designer" under subsection 3.2.5. of Division C, of the Building Code. Individual BCIN: _____ Basis for exemption from registration: _____ <input type="checkbox"/> The design work is exempt from the registration and qualification requirements of the Building Code. Basis for exemption from registration and qualification: _____ </div>				
I certify that: 1. The information contained in this schedule is true to the best of my knowledge. 2. I have submitted this application with the knowledge and consent of the firm.				
Date		Signature of Designer		


NOTE:

1. For the purposes of this form, "individual" means the "person" referred to in Clause 3.2.4.7(1) d. of Division C, Article 3.2.5.1. of Division C, and all other persons who are exempt from qualification under Subsections 3.2.4. and 3.2.5. of Division C.
2. Schedule 1 is not required to be completed by a holder of a license, temporary license, or a certificate of authorization, issued by the Ontario Association of Architects. Schedule 1 is also not required to be completed by a holder of a license to practise, a limited license to practise, or a certificate of authorization, issued by the Association of Professional Engineers of Ontario.

DWG #TAM19653-21S
DWG #TAM19668-21S

Schedule 1: Designer Information

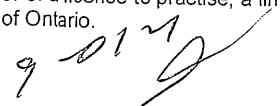
Use one form for each individual who reviews and takes responsibility for design activities with respect to the project.

A. Project Information				Application number:	
Building number, street name:				Unit no.	Lot/con.
Municipality CITY OF BRAMPTON		Postal code	Plan number/ other description		
B. Individual who reviews and takes responsibility for design activities					
Name SAM KATSOULAKOS			Firm MICRO CITY ENGINEERING SERVICES INC.		
Street address R.R #1, PO BOX 61				Unit no.	Lot/con.
Municipality GLENCOE		Postal code N0L 1M0	Province ONTARIO	E-mail mcengr@xplornet.com	
Telephone number (519) 287-2242 Business		Fax number		Cell number	
C. Design activities undertaken by individual identified in Section B. [Building Code Table 3.5.2.1. of Division C]					
<div style="display: flex; flex-wrap: wrap;"> <div style="width: 33%;"> <input type="checkbox"/> House <input type="checkbox"/> Small Buildings <input type="checkbox"/> Large Buildings <input type="checkbox"/> Complex Buildings </div> <div style="width: 33%;"> <input type="checkbox"/> HVAC – House <input type="checkbox"/> Building Services <input type="checkbox"/> Detection, Lighting and Power <input type="checkbox"/> Fire Protection </div> <div style="width: 33%;"> <input checked="" type="checkbox"/> Building Structural <input type="checkbox"/> Plumbing – House <input type="checkbox"/> Plumbing – All Buildings <input type="checkbox"/> On-site Sewage Systems </div> </div>					
Description of designer's work: ROYAL PINE HOMES-PROJECT:VALES OF HUMBER NORTH-MODEL: 4505-ELEV.C-1ST FLOOR-SUNKEN-NOT LOT SPECIFIC REVIEW PRE-ENGINEERED FLOOR SYSTEM COMPONENT DRAWINGS AND LAYOUT PLACEMENT PLAN SUPPLIED BY TAMARACK LUMBER INC. (SEE DWG #TAM19654-21 DATED 9-01-21). SUPPORTING STRUCTURE (S) TO BE REVIEWED AND VERIFIED BY QUALIFIED BUILDING DESIGNER.					
D. Declaration of Designer					
I, <u>SAM KATSOULAKOS</u> declare that (choose one as appropriate): (print name)					
<input checked="" type="checkbox"/> I review and take responsibility for the design work on behalf of a firm registered under subsection 3.2.4. of Division C, of the Building Code. I am qualified, and the firm is registered, in the appropriate classes/categories.					
Individual BCIN: <u>26064</u>					
Firm BCIN: <u>29991</u>					
<input type="checkbox"/> I review and take responsibility for the design and am qualified in the appropriate category as an "other designer" under subsection 3.2.5. of Division C, of the Building Code.					
Individual BCIN: _____					
Basis for exemption from registration: _____					
<input type="checkbox"/> The design work is exempt from the registration and qualification requirements of the Building Code.					
Basis for exemption from registration and qualification: _____					
I certify that:					
1. The information contained in this schedule is true to the best of my knowledge.					
2. I have submitted this application with the knowledge and consent of the firm.					
Date		Signature of Designer 			

NOTE:

- For the purposes of this form, "individual" means the "person" referred to in Clause 3.2.4.7(1) d) of Division C, Article 3.2.5.1. of Division C, and all other persons who are exempt from qualification under Subsections 3.2.4. and 3.2.5. of Division C.
- Schedule 1 is not required to be completed by a holder of a license, temporary license, or a certificate of authorization, issued by the Ontario Association of Architects. Schedule 1 is also not required to be completed by a holder of a license to practise, a limited license to practise, or a certificate of authorization, issued by the Association of Professional Engineers of Ontario.

DWG #TAM19654-21S
DWG #TAM19669-21S

9-01-21 

Schedule 1: Designer Information

Use one form for each individual who reviews and takes responsibility for design activities with respect to the project.

A. Project Information				Application number:	
Building number, street name:				Unit no.	Lot/con.
Municipality CITY OF BRAMPTON	Postal code	Plan number/ other description			
B. Individual who reviews and takes responsibility for design activities					
Name SAM KATSOULAKOS			Firm MICRO CITY ENGINEERING SERVICES INC.		
Street address R.R #1, PO BOX 61				Unit no.	Lot/con.
Municipality GLENCOE	Postal code NOL 1M0	Province ONTARIO	E-mail mcengr@xplornet.com		
Telephone number (519) 287-2242 Business		Fax number	Cell number		
C. Design activities undertaken by individual identified in Section B. [Building Code Table 3.5.2.1. of Division C]					
<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <input type="checkbox"/> House <input type="checkbox"/> Small Buildings <input type="checkbox"/> Large Buildings <input type="checkbox"/> Complex Buildings </div> <div style="width: 30%;"> <input type="checkbox"/> HVAC – House <input type="checkbox"/> Building Services <input type="checkbox"/> Detection, Lighting and Power <input type="checkbox"/> Fire Protection </div> <div style="width: 30%;"> <input checked="" type="checkbox"/> Building Structural <input type="checkbox"/> Plumbing – House <input type="checkbox"/> Plumbing – All Buildings <input type="checkbox"/> On-site Sewage Systems </div> </div>					
Description of designer's work: ROYAL PINE HOMES-PROJECT:VALES OF HUMBER NORTH-MODEL: 4505-ELEV.C-1ST FLOOR-SUNKEN IN-LAW SUITE-NOT LOT SPECIFIC REVIEW PRE-ENGINEERED FLOOR SYSTEM COMPONENT DRAWINGS AND LAYOUT PLACEMENT PLAN SUPPLIED BY TAMARACK LUMBER INC. (SEE DWG #TAM19655-21 DATED 9-01-21). SUPPORTING STRUCTURE (S) TO BE REVIEWED AND VERIFIED BY QUALIFIED BUILDING DESIGNER.					
D. Declaration of Designer					
I, <u>SAM KATSOULAKOS</u> declare that (choose one as appropriate): (print name)					
<input checked="" type="checkbox"/> I review and take responsibility for the design work on behalf of a firm registered under subsection 3.2.4. of Division C, of the Building Code. I am qualified, and the firm is registered, in the appropriate classes/categories.					
Individual BCIN: <u>26064</u>					
Firm BCIN: <u>29991</u>					
<input type="checkbox"/> I review and take responsibility for the design and am qualified in the appropriate category as an "other designer" under subsection 3.2.5. of Division C, of the Building Code.					
Individual BCIN: _____					
Basis for exemption from registration: _____					
<input type="checkbox"/> The design work is exempt from the registration and qualification requirements of the Building Code.					
Basis for exemption from registration and qualification: _____					
I certify that:					
1. The information contained in this schedule is true to the best of my knowledge.					
2. I have submitted this application with the knowledge and consent of the firm.					
Date		9/01/24 Signature of Designer			

NOTE:


- For the purposes of this form, "individual" means the "person" referred to in Clause 3.2.4.7(1) d) of Division C, Article 3.2.5.1. of Division C, and all other persons who are exempt from qualification under Subsections 3.2.4. and 3.2.5. of Division C.
- Schedule 1 is not required to be completed by a holder of a license, temporary license, or a certificate of authorization, issued by the Ontario Association of Architects. Schedule 1 is also not required to be completed by a holder of a license to practise, a limited license to practise, or a certificate of authorization, issued by the Association of Professional Engineers of Ontario.

DWG #TAM19655-21S
DWG #TAM19670-21S

9/01/24

Schedule 1: Designer Information

Use one form for each individual who reviews and takes responsibility for design activities with respect to the project.

A. Project Information			Application number:		
Building number, street name:				Unit no.	Lot/con.
Municipality CITY OF BRAMPTON	Postal code	Plan number/ other description			
B. Individual who reviews and takes responsibility for design activities					
Name SAM KATSOULAKOS			Firm MICRO CITY ENGINEERING SERVICES INC.		
Street address R.R #1, PO BOX 61				Unit no.	Lot/con.
Municipality GLENCOE	Postal code N0L 1M0	Province ONTARIO	E-mail mcengr@xplornet.com		
Telephone number (519) 287-2242 Business		Fax number	Cell number		
C. Design activities undertaken by individual identified in Section B. [Building Code Table 3.5.2.1. of Division C]					
<input type="checkbox"/> House <input type="checkbox"/> Small Buildings <input type="checkbox"/> Large Buildings <input type="checkbox"/> Complex Buildings		<input type="checkbox"/> HVAC – House <input type="checkbox"/> Building Services <input type="checkbox"/> Detection, Lighting and Power <input type="checkbox"/> Fire Protection		<input checked="" type="checkbox"/> Building Structural <input type="checkbox"/> Plumbing – House <input type="checkbox"/> Plumbing – All Buildings <input type="checkbox"/> On-site Sewage Systems	
Description of designer's work: ROYAL PINE HOMES-PROJECT:VALES OF HUMBER NORTH-MODEL: 4505-ELEV.A-2ND FLOOR-NOT LOT SPECIFIC REVIEW PRE-ENGINEERED FLOOR SYSTEM COMPONENT DRAWINGS AND LAYOUT PLACEMENT PLAN SUPPLIED BY TAMARACK LUMBER INC. (SEE DWG #TAM19656-21 DATED 9-01-21). SUPPORTING STRUCTURE (S) TO BE REVIEWED AND VERIFIED BY QUALIFIED BUILDING DESIGNER.					
D. Declaration of Designer					
I, SAM KATSOULAKOS declare that (choose one as appropriate): <div style="text-align: center;">(print name)</div>					
<input checked="" type="checkbox"/> I review and take responsibility for the design work on behalf of a firm registered under subsection 3.2.4. of Division C, of the Building Code. I am qualified, and the firm is registered, in the appropriate classes/categories.					
Individual BCIN: <u>26064</u>					
Firm BCIN: <u>29991</u>					
<input type="checkbox"/> I review and take responsibility for the design and am qualified in the appropriate category as an "other designer" under subsection 3.2.5. of Division C, of the Building Code.					
Individual BCIN: _____					
Basis for exemption from registration: _____					
<input type="checkbox"/> The design work is exempt from the registration and qualification requirements of the Building Code.					
Basis for exemption from registration and qualification: _____					
I certify that:					
1. The information contained in this schedule is true to the best of my knowledge.					
2. I have submitted this application with the knowledge and consent of the firm.					
Date		9 0 1 4 Signature of Designer 			

NOTE:

- For the purposes of this form, "individual" means the "person" referred to in Clause 3.2.4.7(1) d. of Division C, Article 3.2.5.1. of Division C, and all other persons who are exempt from qualification under Subsections 3.2.4. and 3.2.5. of Division C.
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DWG #TAM19656-21S
DWG #TAM19671-21S

9 0 1 4 

Schedule 1: Designer Information

Use one form for each individual who reviews and takes responsibility for design activities with respect to the project.

A. Project Information				Application number:	
Building number, street name:				Unit no.	Lot/con.
Municipality CITY OF BRAMPTON		Postal code	Plan number/ other description		
B. Individual who reviews and takes responsibility for design activities					
Name SAM KATSOULAKOS			Firm MICRO CITY ENGINEERING SERVICES INC.		
Street address R.R #1, PO BOX 61				Unit no.	Lot/con.
Municipality GLENCOE		Postal code N0L 1M0	Province ONTARIO	E-mail mcengr@xplornet.com	
Telephone number (519) 287-2242 Business		Fax number		Cell number	
C. Design activities undertaken by individual identified in Section B. [Building Code Table 3.5.2.1. of Division C]					
<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <input type="checkbox"/> House <input type="checkbox"/> Small Buildings <input type="checkbox"/> Large Buildings <input type="checkbox"/> Complex Buildings </div> <div style="width: 30%;"> <input type="checkbox"/> HVAC – House <input type="checkbox"/> Building Services <input type="checkbox"/> Detection, Lighting and Power <input type="checkbox"/> Fire Protection </div> <div style="width: 30%;"> <input checked="" type="checkbox"/> Building Structural <input type="checkbox"/> Plumbing – House <input type="checkbox"/> Plumbing – All Buildings <input type="checkbox"/> On-site Sewage Systems </div> </div>					
Description of designer's work: ROYAL PINE HOMES-PROJECT:VALES OF HUMBER NORTH-MODEL: 4505-ELEV.A-2ND FLOOR-OPTION-NOT LOT SPECIFIC REVIEW PRE-ENGINEERED FLOOR SYSTEM COMPONENT DRAWINGS AND LAYOUT PLACEMENT PLAN SUPPLIED BY TAMARACK LUMBER INC. (SEE DWG #TAM19657-21 DATED 9-01-21). SUPPORTING STRUCTURE (S) TO BE REVIEWED AND VERIFIED BY QUALIFIED BUILDING DESIGNER.					
D. Declaration of Designer					
I, <u>SAM KATSOULAKOS</u> (print name) declare that (choose one as appropriate):					
<input checked="" type="checkbox"/> I review and take responsibility for the design work on behalf of a firm registered under subsection 3.2.4. of Division C, of the Building Code. I am qualified, and the firm is registered, in the appropriate classes/categories.					
Individual BCIN: <u>26064</u>					
Firm BCIN: <u>29991</u>					
<input type="checkbox"/> I review and take responsibility for the design and am qualified in the appropriate category as an "other designer" under subsection 3.2.5. of Division C, of the Building Code.					
Individual BCIN: _____					
Basis for exemption from registration: _____					
<input type="checkbox"/> The design work is exempt from the registration and qualification requirements of the Building Code.					
Basis for exemption from registration and qualification: _____					
I certify that:					
1. The information contained in this schedule is true to the best of my knowledge.					
2. I have submitted this application with the knowledge and consent of the firm.					
Date		Signature of Designer			

NOTE:

- For the purposes of this form, "individual" means the "person" referred to in Clause 3.2.4.7(1) d) of Division C, Article 3.2.5.1. of Division C, and all other persons who are exempt from qualification under Subsections 3.2.4. and 3.2.5. of Division C.
- Schedule 1 is not required to be completed by a holder of a license, temporary license, or a certificate of authorization, issued by the Ontario Association of Architects. Schedule 1 is also not required to be completed by a holder of a license to practise, a limited license to practise, or a certificate of authorization, issued by the Association of Professional Engineers of Ontario.

DWG #TAM19657-21S
DWG #TAM19672-21S

90121

Schedule 1: Designer Information

Use one form for each individual who reviews and takes responsibility for design activities with respect to the project.

A. Project Information

Building number, street name:

Application number:

Municipality

CITY OF BRAMPTON

Postal code

Plan number/ other description

Unit no.

Lot/con.

B. Individual who reviews and takes responsibility for design activities

Name

SAM KATSOULAKOS

Firm

MICRO CITY ENGINEERING SERVICES INC.

Street address

R.R #1, PO BOX 61

Unit no.

Lot/con.

Municipality

GLENCOE

Postal code

N0L 1M0

Province

ONTARIO

E-mail mcengr@xplornet.com

Telephone number

(519) 287-2242 Business

Fax number

Cell number

C. Design activities undertaken by individual identified in Section B. [Building Code Table 3.5.2.1. of Division C]

☐ House

☐ Small Buildings

☐ Large Buildings

☐ Complex Buildings

☐ HVAC – House

☐ Building Services

☐ Detection, Lighting and Power

☐ Fire Protection

☒ Building Structural

☐ Plumbing – House

☐ Plumbing – All Buildings

☐ On-site Sewage Systems

Description of designer's work:

ROYAL PINE HOMES-PROJECT:VALES OF HUMBER NORTH-MODEL: 4505-ELEV.B-2ND FLOOR-NOT LOT SPECIFIC
REVIEW PRE-ENGINEERED FLOOR SYSTEM COMPONENT DRAWINGS AND LAYOUT PLACEMENT PLAN SUPPLIED BY
TAMARACK LUMBER INC. (SEE DWG #TAM19658-21 DATED 9-01-21). SUPPORTING STRUCTURE (S) TO BE REVIEWED
AND VERIFIED BY QUALIFIED BUILDING DESIGNER.

D. Declaration of Designer

I, SAM KATSOULAKOS

declare that (choose one as appropriate):

(print name)

- ☒ I review and take responsibility for the design work on behalf of a firm registered under subsection 3.2.4. of Division C, of the Building Code. I am qualified, and the firm is registered, in the appropriate classes/categories.

Individual BCIN: 26064

Firm BCIN: 29991

- ☐ I review and take responsibility for the design and am qualified in the appropriate category as an "other designer" under subsection 3.2.5. of Division C, of the Building Code.

Individual BCIN: _____

Basis for exemption from registration: _____

- ☐ The design work is exempt from the registration and qualification requirements of the Building Code.

Basis for exemption from registration and qualification: _____

I certify that:

- The information contained in this schedule is true to the best of my knowledge.
- I have submitted this application with the knowledge and consent of the firm.

Date

9-01-21

Signature of Designer



NOTE:

- For the purposes of this form, "individual" means the "person" referred to in Clause 3.2.4.7(1) d. of Division C, Article 3.2.5.1. of Division C, and all other persons who are exempt from qualification under Subsections 3.2.4. and 3.2.5. of Division C.
- Schedule 1 is not required to be completed by a holder of a license, temporary license, or a certificate of authorization, issued by the Ontario Association of Architects. Schedule 1 is also not required to be completed by a holder of a license to practise, a limited license to practise, or a certificate of authorization, issued by the Association of Professional Engineers of Ontario.

DWG #TAM19658-21S
DWG #TAM19673-21S

9-01-21

Schedule 1: Designer Information

Use one form for each individual who reviews and takes responsibility for design activities with respect to the project.

A. Project Information			Application number:	
Building number, street name:			Unit no.	Lot/con.
Municipality CITY OF BRAMPTON	Postal code	Plan number/ other description		
B. Individual who reviews and takes responsibility for design activities				
Name SAM KATSOULAKOS		Firm MICRO CITY ENGINEERING SERVICES INC.		
Street address R.R #1, PO BOX 61			Unit no.	Lot/con.
Municipality GLENCOE	Postal code N0L 1M0	Province ONTARIO	E-mail mcengr@xplornet.com	
Telephone number (519) 287-2242 Business		Fax number	Cell number	
C. Design activities undertaken by individual identified in Section B. [Building Code Table 3.5.2.1. of Division C]				
<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <input type="checkbox"/> House <input type="checkbox"/> Small Buildings <input type="checkbox"/> Large Buildings <input type="checkbox"/> Complex Buildings </div> <div style="width: 30%;"> <input type="checkbox"/> HVAC – House <input type="checkbox"/> Building Services <input type="checkbox"/> Detection, Lighting and Power <input type="checkbox"/> Fire Protection </div> <div style="width: 30%;"> <input checked="" type="checkbox"/> Building Structural <input type="checkbox"/> Plumbing – House <input type="checkbox"/> Plumbing – All Buildings <input type="checkbox"/> On-site Sewage Systems </div> </div>				
Description of designer's work: ROYAL PINE HOMES-PROJECT:VALES OF HUMBER NORTH-MODEL: 4505-ELEV.B-2ND FLOOR-OPTION-NOT LOT SPECIFIC REVIEW PRE-ENGINEERED FLOOR SYSTEM COMPONENT DRAWINGS AND LAYOUT PLACEMENT PLAN SUPPLIED BY TAMARACK LUMBER INC. (SEE DWG #TAM19659-21 DATED 9-01-21). SUPPORTING STRUCTURE (S) TO BE REVIEWED AND VERIFIED BY QUALIFIED BUILDING DESIGNER.				
D. Declaration of Designer				
I, SAM KATSOULAKOS declare that (choose one as appropriate): <div style="text-align: center;">(print name)</div> <div style="margin-left: 100px;"> <input checked="" type="checkbox"/> I review and take responsibility for the design work on behalf of a firm registered under subsection 3.2.4. of Division C, of the Building Code. I am qualified, and the firm is registered, in the appropriate classes/categories. Individual BCIN: <u>26064</u> Firm BCIN: <u>29991</u> </div> <div style="margin-left: 100px;"> <input type="checkbox"/> I review and take responsibility for the design and am qualified in the appropriate category as an "other designer" under subsection 3.2.5. of Division C, of the Building Code. Individual BCIN: _____ Basis for exemption from registration: _____ </div> <div style="margin-left: 100px;"> <input type="checkbox"/> The design work is exempt from the registration and qualification requirements of the Building Code. Basis for exemption from registration and qualification: _____ </div>				
I certify that: 1. The information contained in this schedule is true to the best of my knowledge. 2. I have submitted this application with the knowledge and consent of the firm.				
Date		Signature of Designer		

NOTE:

- For the purposes of this form, "individual" means the "person" referred to in Clause 3.2.4.7(1) d. of Division C, Article 3.2.5.1. of Division C, and all other persons who are exempt from qualification under Subsections 3.2.4. and 3.2.5. of Division C.
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DWG #TAM19659-21S
DWG #TAM19674-21S

9/01/21

Schedule 1: Designer Information

Use one form for each individual who reviews and takes responsibility for design activities with respect to the project.

A. Project Information			Application number:	
Building number, street name:			Unit no.	Lot/con.
Municipality CITY OF BRAMPTON	Postal code	Plan number/ other description		
B. Individual who reviews and takes responsibility for design activities				
Name SAM KATSOULAKOS		Firm MICRO CITY ENGINEERING SERVICES INC.		
Street address R.R #1, PO BOX 61			Unit no.	Lot/con.
Municipality GLENCOE	Postal code N0L 1M0	Province ONTARIO	E-mail mcengr@xplornet.com	
Telephone number (519) 287-2242 Business		Fax number	Cell number	
C. Design activities undertaken by individual identified in Section B. [Building Code Table 3.5.2.1. of Division C]				
<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <input type="checkbox"/> House <input type="checkbox"/> Small Buildings <input type="checkbox"/> Large Buildings <input type="checkbox"/> Complex Buildings </div> <div style="width: 30%;"> <input type="checkbox"/> HVAC – House <input type="checkbox"/> Building Services <input type="checkbox"/> Detection, Lighting and Power <input type="checkbox"/> Fire Protection </div> <div style="width: 30%;"> <input checked="" type="checkbox"/> Building Structural <input type="checkbox"/> Plumbing – House <input type="checkbox"/> Plumbing – All Buildings <input type="checkbox"/> On-site Sewage Systems </div> </div>				
Description of designer's work: ROYAL PINE HOMES-PROJECT:VALES OF HUMBER NORTH-MODEL: 4505-ELEV.C-2ND FLOOR-NOT LOT SPECIFIC REVIEW PRE-ENGINEERED FLOOR SYSTEM COMPONENT DRAWINGS AND LAYOUT PLACEMENT PLAN SUPPLIED BY TAMARACK LUMBER INC. (SEE DWG #TAM19660-21 DATED 9-01-21). SUPPORTING STRUCTURE (S) TO BE REVIEWED AND VERIFIED BY QUALIFIED BUILDING DESIGNER.				
D. Declaration of Designer				
I, <u>SAM KATSOULAKOS</u> declare that (choose one as appropriate): (print name)				
<input checked="" type="checkbox"/> I review and take responsibility for the design work on behalf of a firm registered under subsection 3.2.4. of Division C, of the Building Code. I am qualified, and the firm is registered, in the appropriate classes/categories.				
Individual BCIN: <u>26064</u>				
Firm BCIN: <u>29991</u>				
<input type="checkbox"/> I review and take responsibility for the design and am qualified in the appropriate category as an "other designer" under subsection 3.2.5. of Division C, of the Building Code.				
Individual BCIN: _____				
Basis for exemption from registration: _____				
<input type="checkbox"/> The design work is exempt from the registration and qualification requirements of the Building Code.				
Basis for exemption from registration and qualification: _____				
I certify that:				
1. The information contained in this schedule is true to the best of my knowledge.				
2. I have submitted this application with the knowledge and consent of the firm.				
Date		Signature of Designer		

NOTE:


- For the purposes of this form, "individual" means the "person" referred to in Clause 3.2.4.7(1) d. of Division C, Article 3.2.5.1. of Division C, and all other persons who are exempt from qualification under Subsections 3.2.4. and 3.2.5. of Division C.
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DWG #TAM19660-21S
DWG #TAM19675-21S

9012

Schedule 1: Designer Information

Use one form for each individual who reviews and takes responsibility for design activities with respect to the project.

A. Project Information				Application number:	
Building number, street name:				Unit no.	Lot/con.
Municipality CITY OF BRAMPTON	Postal code	Plan number/ other description			
B. Individual who reviews and takes responsibility for design activities					
Name SAM KATSOULAKOS		Firm MICRO CITY ENGINEERING SERVICES INC.			
Street address R.R #1, PO BOX 61				Unit no.	Lot/con.
Municipality GLENCOE	Postal code N0L 1M0	Province ONTARIO	E-mail mcengr@xplornet.com		
Telephone number (519) 287-2242 Business		Fax number	Cell number		
C. Design activities undertaken by individual identified in Section B. [Building Code Table 3.5.2.1. of Division C]					
<input type="checkbox"/> House <input type="checkbox"/> Small Buildings <input type="checkbox"/> Large Buildings <input type="checkbox"/> Complex Buildings		<input type="checkbox"/> HVAC – House <input type="checkbox"/> Building Services <input type="checkbox"/> Detection, Lighting and Power <input type="checkbox"/> Fire Protection		<input checked="" type="checkbox"/> Building Structural <input type="checkbox"/> Plumbing – House <input type="checkbox"/> Plumbing – All Buildings <input type="checkbox"/> On-site Sewage Systems	
Description of designer's work: ROYAL PINE HOMES-PROJECT:VALES OF HUMBER NORTH-MODEL: 4505-ELEV.C-2ND FLOOR-OPTION-NOT LOT SPECIFIC REVIEW PRE-ENGINEERED FLOOR SYSTEM COMPONENT DRAWINGS AND LAYOUT PLACEMENT PLAN SUPPLIED BY TAMARACK LUMBER INC. (SEE DWG #TAM19661-21 DATED 9-01-21). SUPPORTING STRUCTURE (S) TO BE REVIEWED AND VERIFIED BY QUALIFIED BUILDING DESIGNER.					
D. Declaration of Designer					
I, SAM KATSOULAKOS declare that (choose one as appropriate): <div style="text-align: center;">(print name)</div> <div> <input checked="" type="checkbox"/> I review and take responsibility for the design work on behalf of a firm registered under subsection 3.2.4. of Division C, of the Building Code. I am qualified, and the firm is registered, in the appropriate classes/categories. Individual BCIN: <u>26064</u> Firm BCIN: <u>29991</u> </div> <div> <input type="checkbox"/> I review and take responsibility for the design and am qualified in the appropriate category as an "other designer" under subsection 3.2.5. of Division C, of the Building Code. Individual BCIN: _____ Basis for exemption from registration: _____ </div> <div> <input type="checkbox"/> The design work is exempt from the registration and qualification requirements of the Building Code. Basis for exemption from registration and qualification: _____ </div>					
I certify that: 1. The information contained in this schedule is true to the best of my knowledge. 2. I have submitted this application with the knowledge and consent of the firm.					
Date		Signature of Designer 			

NOTE:

- For the purposes of this form, "individual" means the "person" referred to in Clause 3.2.4.7(1) d) of Division C, Article 3.2.5.1. of Division C, and all other persons who are exempt from qualification under Subsections 3.2.4. and 3.2.5. of Division C.
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DWG #TAM19661-21S
DWG #TAM19676-21S

9013

NORDIC STRUCTURES

COMPANY
July 20, 2021 15:57

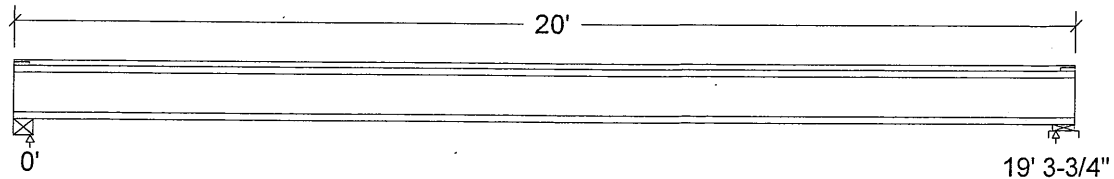
PROJECT
J10 1ST FLOOR.wwb

Design Check Calculation Sheet Nordic Sizer – Canada 8.0

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	193		193
Live	386		386
Factored:			
Total	821		821
Bearing:			
Capacity			
Joist	2336		2336
Support	-		12995
Des ratio			
Joist	0.35		0.35
Support	-		0.06
Load case	#2		#2
Length	4-1/2		5-1/4
Min req'd	1-1/2		1-1/2
Stiffener	No		No
KD	1.00		1.00
KB support	-		1.00
fcp sup	-		769
Kzcp sup	-		1.15

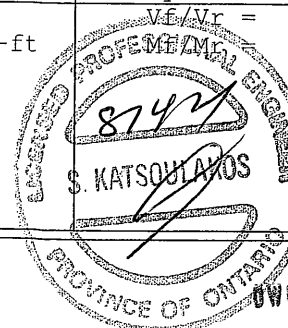
*Minimum bearing length for joists is 1-1/2" for exterior supports

Nordic Joist 11-7/8" NI-80 Floor joist @ 12" o.c.

Supports: 1 - Steel Beam, W; 2 - Lumber Sill plate, No.1/No.2;
Total length: 20'; Clear span: 19' 2-1/4"; 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	$V_f = 821$	$V_r = 2336$	lbs	$V_f/V_r = 0.35$
Moment (+)	$M_f = 3963$	$M_r = 11609$	lbs-ft	0.34
Perm. Defl'n	$0.11 = < L/999$	$0.64 = L/360$	in	0.18
Live Defl'n	$0.23 = < L/999$	$0.48 = L/480$	in	0.47
Total Defl'n	$0.34 = L/674$	$0.97 = L/240$	in	0.36
Bare Defl'n	$0.26 = L/884$	$0.64 = L/360$	in	0.41
Vibration	$L_{max} = 19'-3.7$	$L_v = 21'-2.7$	ft	0.91
Defl'n	$= 0.026$	$= 0.033$	in	0.79



OWB NO. TAM/BOO7-21
STRUCTURAL
COMPONENT ONLY

Additional Data:

FACTORS:	f/E	KD	KH	KZ	KL	KT	KS	KN	LC#
Vr	2336	1.00	1.00	-	-	-	-	-	#2
Mr+	11609	1.00	1.00	-	1.000	-	-	-	#2
EI	547.1 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 L=live(use, occupancy)

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:E_Ieff = 625.37 lb-in² K = 6.18e06 lbs GA = 0.77e06 lb"Live" deflection is due to all non-dead loads (live, wind, snow...) **CONFORMS TO OBC 2012****Design Notes:****AMENDED 2020**

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. Allowable vibration-controlled span as per the Concluding Report, Development of Design Procedures for Vibration Controlled Spans using Engineered Wood Members, CWC et al for CCMC, 1997.
7. Floor vibration design from the CCMC Concluding Report (1997) on vibration controlled spans for engineered wood products.
8. 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.



WOOD NO. TAN 18007-21
STRUCTURAL
COMPONENT ONLY

NORDIC STRUCTURES

COMPANY
July 20, 2021 15:57

PROJECT
J3 1ST FLOOR.wwb

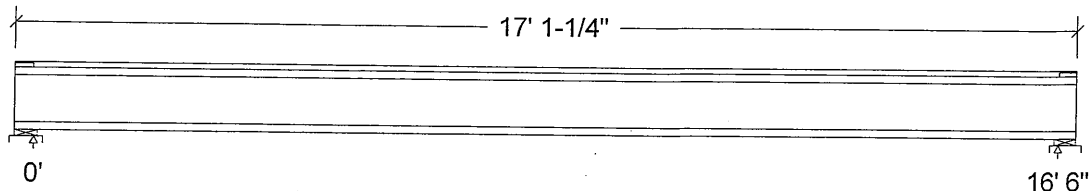
Design Check Calculation Sheet

Nordic Sizer – Canada 8.0

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	440		440
Factored:			
Total	935		935
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	1-1/2		1-1/2
Stiffener	No		No
KD	1.00		1.00
KB support	1.00		1.00
fcp sup	769		769
Kzcp sup	1.15		1.15

*Minimum bearing length for joists is 1-1/2" for exterior supports

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

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

Total length: 17' 1-1/4"; Clear span: 16' 4-1/2"; 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 = 935	Vr = 2336	lbs	Vf/Vr = 0.40
Moment (+)	Mf = 3856	Mr = 6255	lbs-ft	0.62
Perm. Defl'n	0.11 = < L/999	0.55 = L/360	in	0.20
Live Defl'n	0.22 = L/893	0.41 = L/480	in	0.54
Total Defl'n	0.33 = L/595	0.82 = L/240	in	0.40
Bare Defl'n	0.27 = L/721	0.55 = L/360	in	0.50
Vibration	Lmax = 16'-6"	Lv = 18'-1.3	ft	0.91
Defl'n	= 0.029	= 0.039	in	0.75



NO. 1000-21
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 L=live(use, occupancy)

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:

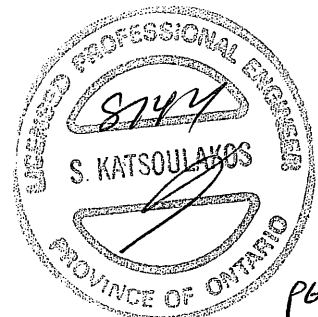
$EI_{eff} = 459.76 \text{ lb-in}^2$ $K = 6.18e06 \text{ lbs}$ $GA = 0.77e06 \text{ lb}$

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

Design Notes:

AMENDED 2020

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. Allowable vibration-controlled span as per the Concluding Report, Development of Design Procedures for Vibration Controlled Spans using Engineered Wood Members, CWC et al for CCMC, 1997.
7. Floor vibration design from the CCMC Concluding Report (1997) on vibration controlled spans for engineered wood products.
8. 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.



UWB NO. TAM/18008-21
 STRUCTURAL
 COMPONENT ONLY

NORDIC STRUCTURES

COMPANY
July 20, 2021 15:55

PROJECT
J6 2ND FLOOR.wwb

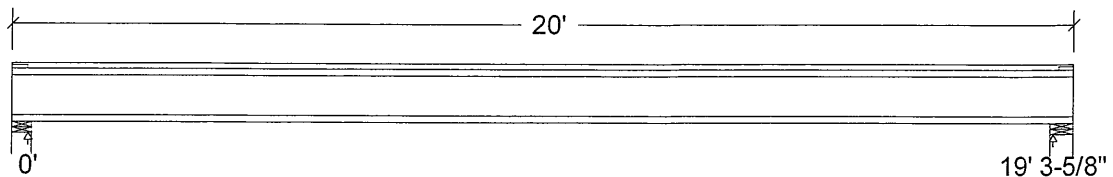
Design Check Calculation Sheet

Nordic Sizer – Canada 8.0

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	193		193
Live	386		386
Factored:			
Total	820		820
Bearing:			
Capacity			
Joist	2336		2336
Support	10841		13614
Des ratio			
Joist	0.35		0.35
Support	0.08		0.06
Load case	#2		#2
Length	4-3/8		5-1/2
Min req'd	1-1/2		1-1/2
Stiffener	No		No
KD	1.00		1.00
KB support	-		-
fcp sup	769		769
Kzcp sup	-		-

*Minimum bearing length for joists is 1-1/2" for exterior supports

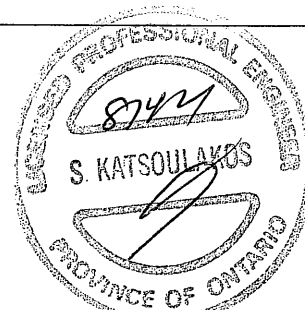
Bearing for wall supports is perpendicular-to-grain bearing on top plate. No stud design included.

Nordic Joist 11-7/8" NI-80 Floor joist @ 12" o.c.

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

Total length: 20'; Clear span: 19' 2-1/8"; 5/8" nailed and glued OSB sheathing with 1/2" gypsum ceiling

This section PASSES the design code check.



DWG NO. TAM 1009-21

STRUCTURAL
COMPONENT ONLY

pg 4

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

Criterion	Analysis Value	Design Value	Unit	Analysis/Design
Shear	$V_f = 820$	$V_r = 2336$	lbs	$V_f/V_r = 0.35$
Moment (+)	$M_f = 3958$	$M_r = 11609$	lbs-ft	$M_f/M_r = 0.34$
Perm. Defl'n	$0.12 = < L/999$	$0.64 = L/360$	in	0.18
Live Defl'n	$0.23 = L/995$	$0.48 = L/480$	in	0.48
Total Defl'n	$0.35 = L/663$	$0.97 = L/240$	in	0.36
Bare Defl'n	$0.26 = L/888$	$0.64 = L/360$	in	0.41
Vibration	$L_{max} = 19'-3.6$	$L_v = 20'-5.8$	ft	0.94
Defl'n	$= 0.029$	$= 0.033$	in	0.87

Additional Data:

FACTORS:	f/E	KD	KH	KZ	KL	KT	KS	KN	LC#
V_r	2336	1.00	1.00	-	-	-	-	-	#2
M_r	11609	1.00	1.00	-	1.000	-	-	-	#2
EI	547.1 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 L=live(use, occupancy)

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:

$EI_{eff} = 613.27 \text{ lb-in}^2$ $K = 6.18e06 \text{ lbs}$ $GA = 0.77e06 \text{ lb}$

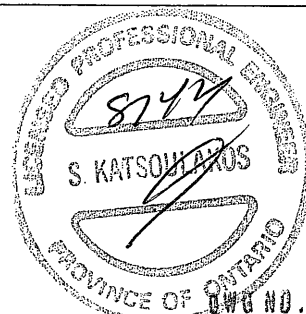
"Live" deflection is due to all non-dead loads (live, wind, snow...)

CONFORMS TO OBC 2012

Design Notes:

AMENDED 2020

- 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).
- Please verify that the default deflection limits are appropriate for your application.
- Refer to Nordic Structures technical documentation for installation guidelines and construction details.
- Nordic I-joists are listed in CCMC evaluation report 13032-R.
- Joists shall be laterally supported at supports and continuously along the compression edge.
- Allowable vibration-controlled span as per the Concluding Report, Development of Design Procedures for Vibration Controlled Spans using Engineered Wood Members, CWC et al for CCMC, 1997.
- Floor vibration design from the CCMC Concluding Report (1997) on vibration controlled spans for engineered wood products.
- 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.



1854
 DWG NO. TAM 18009-21
 STRUCTURAL
 COMPONENT ONLY

NORDIC STRUCTURES

COMPANY
July 20, 2021 15:55

PROJECT
J1 2ND FLOOR.wwb

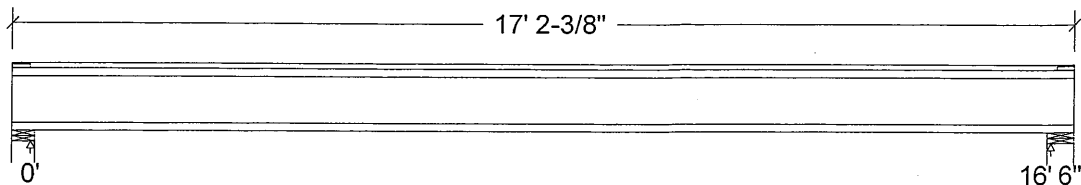
Design Check Calculation Sheet

Nordic Sizer – Canada 8.0

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	440		440
Factored:			
Total	935		935
Bearing:			
Capacity			
Joist	2336		2336
Support	7744		9724
Des ratio			
Joist	0.40		0.40
Support	0.12		0.10
Load case	#2		#2
Length	4-3/8		5-1/2
Min req'd	1-1/2		1-1/2
Stiffener	No		No
KD	1.00		1.00
KB support	-		-
fcp sup	769		769
Kzcp sup	-		-

*Minimum bearing length for joists is 1-1/2" for exterior supports

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

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

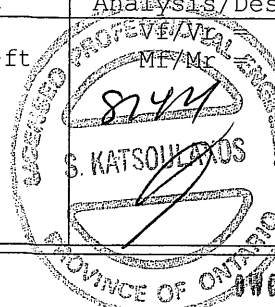
Supports: All - Lumber Wall, No.1/No.2

Total length: 17' 2-3/8"; Clear span: 16' 4-1/2"; 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 = 935	Vr = 2336	lbs	0.40
Moment (+)	Mf = 3857	Mr = 6255	lbs-ft	0.62
Perm. Defl'n	0.11 = < L/999	0.55 = L/360	in	0.20
Live Defl'n	0.22 = L/893	0.41 = L/480	in	0.54
Total Defl'n	0.33 = L/595	0.82 = L/240	in	0.40
Bare Defl'n	0.27 = L/721	0.55 = L/360	in	0.50
Vibration	Lmax = 16'-6	Lv = 18'-1.3	ft	0.91
Defl'n	= 0.029	= 0.039	in	0.75



NO. TAM/8010-21
STRUCTURAL
COMPONENT ONLY

pg 62

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 L=live(use, occupancy)
 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:

$EI_{eff} = 459.76 \text{ lb-in}^2$ $K = 6.18e06 \text{ lbs}$ $GA = 0.77e06 \text{ lb}$

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

Design Notes:**AMENDED 2020**

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. Allowable vibration-controlled span as per the Concluding Report, Development of Design Procedures for Vibration Controlled Spans using Engineered Wood Members, CWC et al for CCMC, 1997.
7. Floor vibration design from the CCMC Concluding Report (1997) on vibration controlled spans for engineered wood products.
8. 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/2010-21
 STRUCTURAL
 COMPONENT ONLY



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

PASSED

BC CALC® Member Report
Build 7773

2ND FLR FRAMING\Dropped Beams\B9 DR(i2638) (Dropped Beam)

Dry | 1 span | No cant.

July 20, 2021 14:58:05

Job name:

File name: 4505 EL A SUNKEN.mmdl

Address:

Description: 2ND FLR FRAMING\Dropped Beams\B9 DR(i2638)

City, Province, Postal Code:

Specifier:

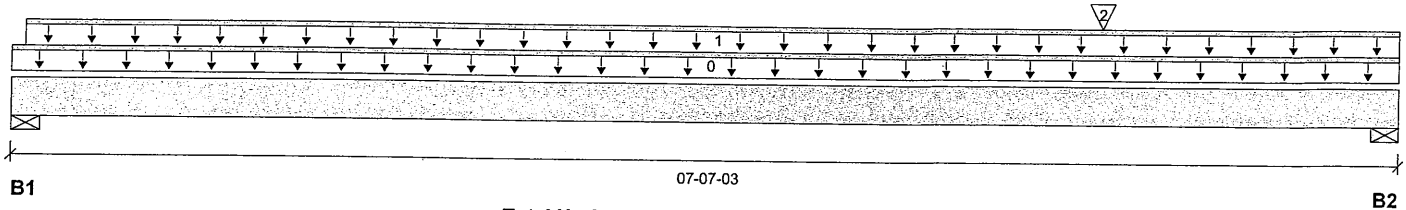
Customer:

Designer:

Code reports:

CCMC 12472-R

Company:



Total Horizontal Product Length = 07-07-03

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 4"	1973 / 0	1062 / 0		
B2, 4"	3933 / 0	2107 / 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	07-07-03	Top	1.00	0.65	1.00	1.15	00-00-00
1	Smoothed Load	Unf. Lin. (lb/ft)	L	00-00-14	07-07-03	Top	436	218			n/a
2	B10(i2678)	Conc. Pt. (lbs)	L	05-11-06	05-11-06	Top	2622	1418			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	10020 ft-lbs	36222 ft-lbs	27.7%	1	05-06-14
End Shear	7330 lbs	17356 lbs	42.2%	1	06-05-11
Total Load Deflection	L/999 (0.084")	n/a	n/a	4	04-00-14
Live Load Deflection	L/999 (0.054")	n/a	n/a	5	04-00-14
Max Defl.	0.084"	n/a	n/a	4	04-00-14
Span / Depth	8.9				

Bearing Supports

	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1	Wall/Plate 4" x 5-1/4"	4287 lbs	15.3%	16.7%	Spruce-Pine-Fir
B2	Wall/Plate 4" x 5-1/4"	8533 lbs	30.5%	33.3%	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: 00-08-08, Bottom: 07-07-03.

CONFORMS TO CBC 2012

AMENDED 2020



DWG NO. YAM18011-21
STRUCTURAL
COMPONENT ONLY

Build 7773

Job name:

File name: 4505 EL A SUNKEN.mmdl

Address:

Description: 2ND FLR FRAMING\Dropped Beams\B9 DR(i2638)

City, Province, Postal Code:

Specifier:

Customer:

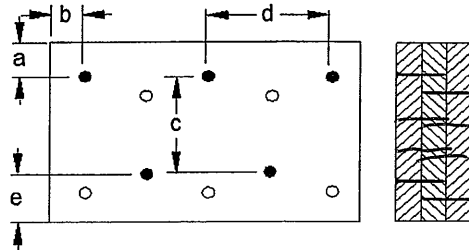
Designer:

Code reports:

CCMC 12472-R

Company:

Connection Diagram: Full Length of Member



4 rows

a minimum = 2"
b minimum = 3"

c = 6-1/2"
d = 8"
e minimum = 2"

Nailing applies to both sides of the member

Connectors are: 1 in Nails

3 1/2" ARDOX SPIRAL



OWN NO. TAM 18011-21

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®, 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

PASSED

2ND FLR FRAMING\Flush Beams\B10(i2678) (Flush Beam)

BC CALC® Member Report

Dry | 1 span | No cant.

July 20, 2021 14:58:05

Build 7773

Job name:

File name: 4505 EL A SUNKEN.mmdl

Address:

Description: 2ND FLR FRAMING\Flush Beams\B10(i2678)

City, Province, Postal Code:

Specifier:

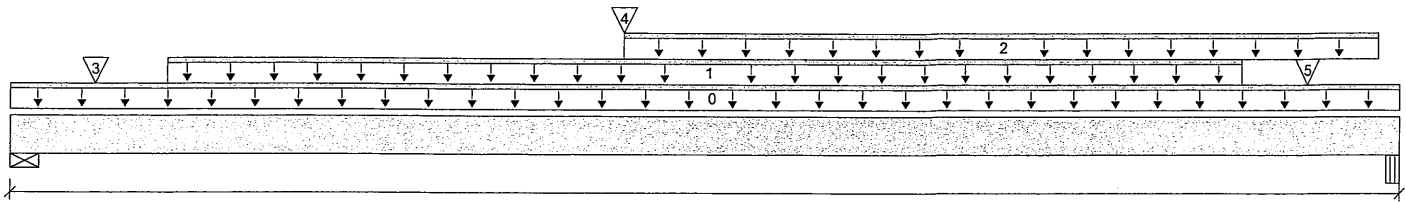
Customer:

Designer:

Code reports:

CCMC 12472-R

Company:



B1

Total Horizontal Product Length = 13-09-12

B2

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 5-1/2"	3067 / 0	2014 / 0		
B2, 5-1/4"	2625 / 0	1416 / 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	13-09-12	Top		12			00-00-00
1	Smoothed Load	Unf. Lin. (lb/ft)	L	01-06-08	12-02-08	Top	347	174			n/a
2	FC2 Floor Decking (Plan View Fill)	Unf. Lin. (lb/ft)	L	06-00-06	13-07-02	Top	22	11			n/a
3	-	Conc. Pt. (lbs)	L	00-09-14	00-09-14	Top	836	817			n/a
4	B12(i1146)	Conc. Pt. (lbs)	L	06-00-06	06-00-06	Top	583	307			n/a
5	J1(i2629)	Conc. Pt. (lbs)	L	12-10-08	12-10-08	Top	402	201			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	20729 ft-lbs	35392 ft-lbs	58.6%	1	06-02-08
End Shear	5658 lbs	14464 lbs	39.1%	1	01-05-06
Total Load Deflection	L/350 (0.447")	n/a	68.5%	4	06-10-08
Live Load Deflection	L/541 (0.29")	n/a	66.6%	5	06-10-08
Max Defl.	0.447"	n/a	n/a	4	06-10-08
Span / Depth	13.2				

Bearing Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1	Wall/Plate 5-1/2" x 3-1/2"	7119 lbs	60.1%	30.3%	Spruce-Pine-Fir
B2	Beam 5-1/4" x 3-1/2"	5708 lbs	25.5%	25.5%	VL 2.0 3100 SP

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.

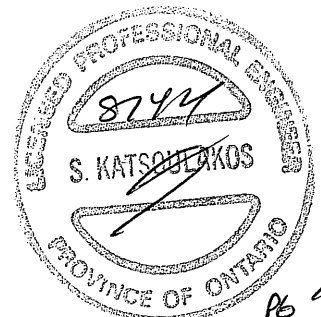
Design based on Dry Service Condition.

Importance Factor : Normal Part code : Part 9

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

CONFORMS TO OBC 2012

AMENDED 2020



OWN NO. TAM 18012-21
STRUCTURAL
COMPONENT ONLY

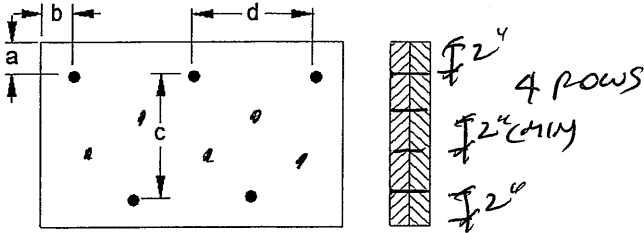
BC CALC® Member Report
Build 7773
Job name:
Address:
City, Province, Postal Code:
Customer:
Code reports: CCMC 12472-R

Dry | 1 span | No cant.

July 20, 2021 14:58:05

File name: 4505 EL A SUNKEN.mmdl
Description: 2ND FLR FRAMING\Flush Beams\B10(i2678)
Specifier:
Designer:
Company:

Connection Diagram: Full Length of Member



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

Calculated Side Load = 984.5 lb/ft

Connectors are: 1 Nails

3 1/2" ARDOX SPIRAL



OWB NO. TAM 18512-21
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:

File name: 4505 EL A SUNKEN.mmdl

Address:

Description: 2ND FLR FRAMING\Flush Beams\B11(i1119)

City, Province, Postal Code:

Specifier:

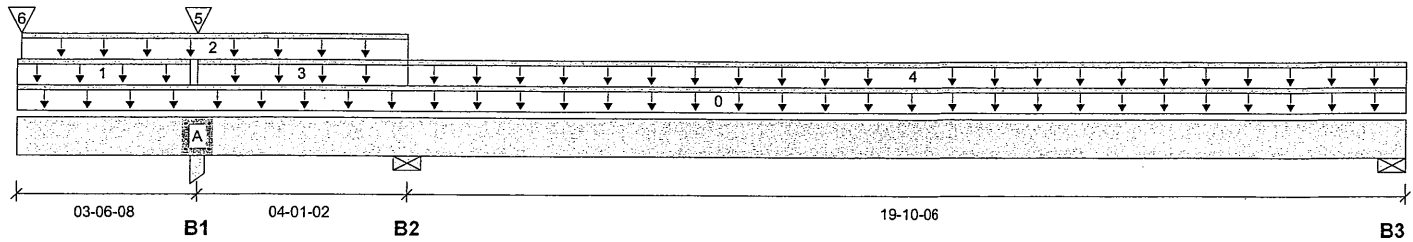
Customer:

Designer:

Code reports:

CCMC 12472-R

Company:



Total Horizontal Product Length = 27-06-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 3-1/2"	3333 / 212	2053 / 0		
B2, 5-1/2"	734 / 697	223 / 0		
B3, 5-1/2"	260 / 1	228 / 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	27-06-00	Top	1.00	0.65	1.00	1.15	00-00-00
1	STAIR	Unf. Lin. (lb/ft)	L	00-00-00	03-04-12	Top	120	60			n/a
2	FC2 Floor Decking (Plan View Fill)	Unf. Lin. (lb/ft)	L	00-00-14	07-07-10	Top	23	11			n/a
3	FC2 Floor Decking (Plan View Fill)	Unf. Lin. (lb/ft)	L	03-06-08	07-07-10	Top	18	9			n/a
4	FC2 Floor Decking (Plan View Fill)	Unf. Lin. (lb/ft)	L	07-07-10	27-06-00	Top	30	15			n/a
5	B8(i1116)	Conc. Pt. (lbs)	L	03-06-08	03-06-08	Top	1417	1240			n/a
6	B12(i1146)	Conc. Pt. (lbs)	L	00-00-14	00-00-14	Top	581	306			n/a

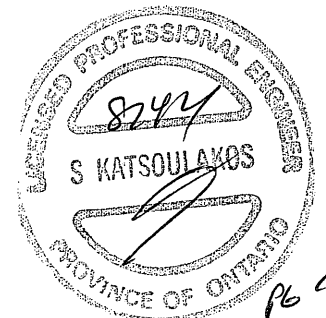
Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	2594 ft-lbs	35392 ft-lbs	7.3%	2	19-00-13
Neg. Moment	-6332 ft-lbs	-10379 ft-lbs	61.0%	1	03-06-08
End Shear	558 lbs	14464 lbs	3.9%	1	26-00-10
Cont. Shear	2015 lbs	14464 lbs	13.9%	4	02-04-14
Total Load Deflection	L/999 (0.113")	n/a	n/a	13	18-03-02
Live Load Deflection	L/999 (0.062")	n/a	n/a	18	18-03-02
Total Neg. Defl.	L/999 (-0.012")	n/a	n/a	13	05-05-04
Max Defl.	0.113"	n/a	n/a	13	18-03-02
Span / Depth	19.7				

Bearing Supports			Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1	Column	3-1/2" x 3-1/2"	7566 lbs	95.1%	50.6%	Unspecified	
B2	Wall/Plate	5-1/2" x 3-1/2"	1380 lbs	11.7%	5.9%	Spruce-Pine-Fir	
B2	Uplift		846 lbs				
B3	Wall/Plate	5-1/2" x 3-1/2"	674 lbs	5.7%	2.9%	Spruce-Pine-Fir	

Cautions

Uplift of 846 lbs found at bearing B2. *SIMPSON 2-HZ-54 @ B2*
Concentrated side load(s) 2 are closer than 18" from end of member. Please consult a technical representative or Professional of Record.



OWB NO. 7AM 18013-21
STRUCTURAL
COMPONENT ONLY

BC CALC® Member Report
Build 7773

Dry | 3 spans | L cant.

July 20, 2021 14:58:05

Job name:

File name: 4505 EL A SUNKEN.mmdl

Address:

Description: 2ND FLR FRAMING\Flush Beams\B11(i1119)

City, Province, Postal Code:

Specifier:

Customer:

Designer:

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.

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

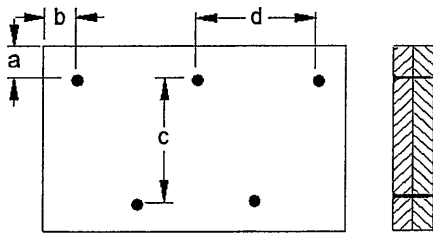
Cantilevers require sheathed bottom flanges, blocking at cantilever support and closure at ends.

CONFORMS TO OBC 2012

Calculations assume unbraced length of Top: 00-00-00, Bottom: 19-02-02.

AMENDED 2020

Connection Diagram: Full Length of Member



a minimum = 2"
b minimum = 3"

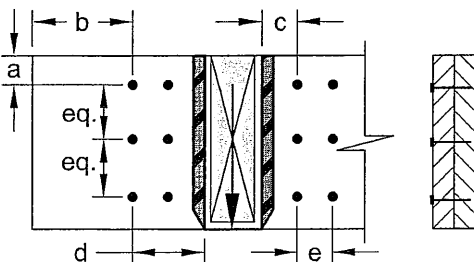
c = 7-7/8"
d = 8"

Connectors are: 1 Nails

3 1/2" ARDOX SPIRAL

Connection Diagrams: Concentrated Side Loads

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



a minimum = 2"
b minimum = 4"
c minimum = 4"
d maximum = 12"
e minimum = 4"

Connectors are: 16d Nails

3 1/2" ARDOX SPIRAL



DWG NO. TAM/801321
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®,



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

2ND FLR FRAMING\Flush Beams\B12(i1146) (Flush Beam)

PASSED

BC CALC® Member Report

Dry | 1 span | No cant.

July 20, 2021 14:58:05

Build 7773

Job name:

File name: 4505 EL A SUNKEN.mmdl

Address:

Description: 2ND FLR FRAMING\Flush Beams\B12(i1146)

City, Province, Postal Code:

Specifier:

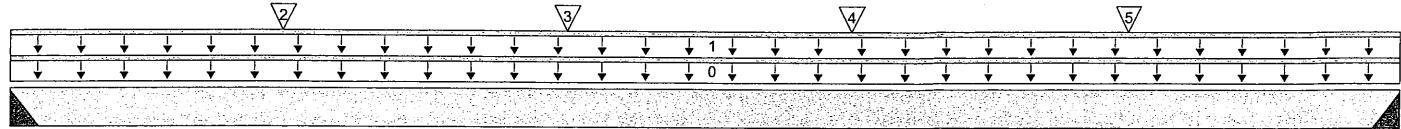
Customer:

Designer:

Code reports:

CCMC 12472-R

Company:



B1

04-11-04

B2

Total Horizontal Product Length = 04-11-04

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 2"	568 / 0	299 / 0		
B2, 2"	566 / 0	298 / 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	04-11-04	Top	1.00	0.65	1.00	1.15	00-00-00
1	FC2 Floor Decking (Plan View Fill)	Unf. Lin. (lb/ft)	L	00-00-00	04-11-04	Top	105	52			n/a
2	J4(i2541)	Conc. Pt. (lbs)	L	00-11-08	00-11-08	Top	158	79			n/a
3	J4(i2526)	Conc. Pt. (lbs)	L	01-11-08	01-11-08	Top	150	75			n/a
4	J4(i2463)	Conc. Pt. (lbs)	L	02-11-08	02-11-08	Top	150	75			n/a
5	J4(i2455)	Conc. Pt. (lbs)	L	03-11-08	03-11-08	Top	159	80			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	1529 ft-lbs	17696 ft-lbs	8.6%	1	02-05-08
End Shear	895 lbs	7232 lbs	12.4%	1	03-09-06
Total Load Deflection	L/999 (0.009")	n/a	n/a	4	02-05-08
Live Load Deflection	L/999 (0.006")	n/a	n/a	5	02-05-08
Max Defl.	0.009"	n/a	n/a	4	02-05-08
Span / Depth	4.8				

Bearing Supports

	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1 Hanger	2" x 1-3/4"	1226 lbs	n/a	28.7%	HUS1.81/10
B2 Hanger	2" x 1-3/4"	1222 lbs	n/a	28.6%	LS90

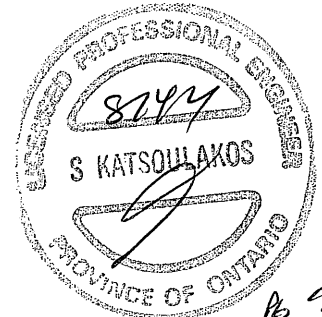
Cautions

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.

Header for the hanger LS90 is a Double 1-3/4" x 11-7/8" LVL Beam.

Hanger model LS90 and seat length were input by the user. Hanger has not been analyzed for adequate capacity.


 OWA NO. TAM 18014-21
 STRUCTURAL
 COMPONENT ONLY



Single 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP
2ND FLR FRAMING\Flush Beams\B12(i1146) (Flush Beam)

PASSED

BC CALC® Member Report
Build 7773

Dry | 1 span | No cant.

July 20, 2021 14:58:05

Job name:

File name: 4505 EL A SUNKEN.mmdl

Address:

Description: 2ND FLR FRAMING\Flush Beams\B12(i1146)

City, Province, Postal Code:

Specifier:

Customer:

Designer:

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.

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.

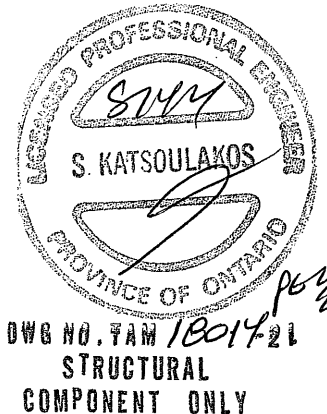
Design based on Dry Service Condition.

Importance Factor : Normal Part code : Part 9

Calculations assume unbraced length of Top: 00-00-00, Bottom: 00-10-08.

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®,



Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP
2ND FLR FRAMING\Flush Beams\B13(i1147) (Flush Beam)

PASSED

BC CALC® Member Report

Dry | 1 span | No cant.

July 20, 2021 14:58:05

Build 7773

Job name:

File name: 4505 EL A SUNKEN.mmdl

Address:

Description: 2ND FLR FRAMING\Flush Beams\B13(i1147)

City, Province, Postal Code:

Specifier:

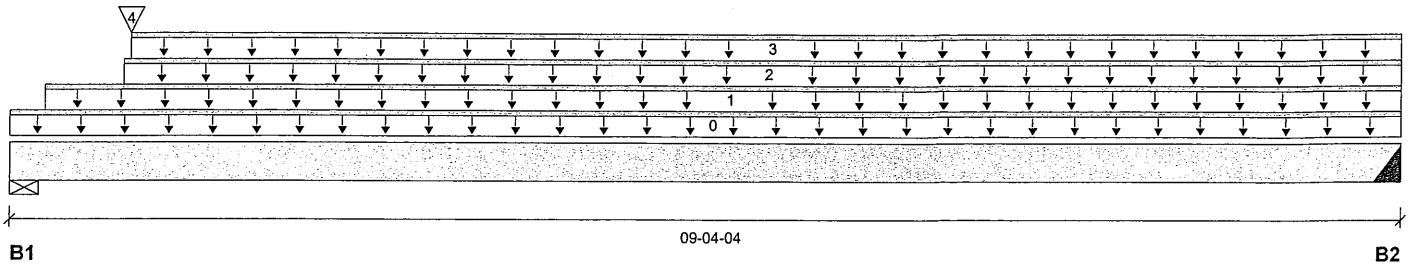
Customer:

Designer:

Code reports:

CCMC 12472-R

Company:



Total Horizontal Product Length = 09-04-04

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 5-1/2"	1214 / 0	1285 / 0		
B2, 4"	1209 / 0	955 / 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	09-04-04	Top	1.00	0.65	1.00	1.15	00-00-00
1	FC2 Floor Decking (Plan View Fill)	Unf. Lin. (lb/ft)	L	00-02-12	09-04-04	Top	14	7			n/a
2	WALL	Unf. Lin. (lb/ft)	L	00-09-00	09-04-04	Top		60			n/a
3	FC2 Floor Decking (Plan View Fill)	Unf. Lin. (lb/ft)	L	00-09-09	09-04-04	Top	246	123			n/a
4	B14(i1148)	Conc. Pt. (lbs)	L	00-09-09	00-09-09	Top	185	492			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	6227 ft-lbs	35392 ft-lbs	17.6%	1	04-07-10
End Shear	2781 lbs	14464 lbs	19.2%	1	01-05-06
Total Load Deflection	L/999 (0.063")	n/a	n/a	4	04-08-14
Live Load Deflection	L/999 (0.035")	n/a	n/a	5	04-08-14
Max Defl.	0.063"	n/a	n/a	4	04-08-14
Span / Depth	8.8				

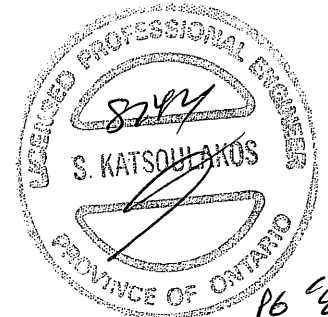
Bearing Supports	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1	Wall/Plate 5-1/2" x 3-1/2"	3428 lbs	28.9%	14.6%	Spruce-Pine-Fir
B2	Hanger 4" x 3-1/2"	3006 lbs	n/a	17.6%	HGUS410

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.

Concentrated side load(s) 3 are closer than 18" from end of member. Please consult a technical representative or Professional of Record.



OWNED, TANK 18015 21
STRUCTURAL
COMPONENT ONLY

Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP
2ND FLR FRAMING\Flush Beams\B13(i1147) (Flush Beam)

PASSED

BC CALC® Member Report
Build 7773
Job name:
Address:
City, Province, Postal Code:
Customer:
Code reports:

Dry | 1 span | No cant.

July 20, 2021 14:58:05

File name: 4505 EL A SUNKEN.mmdl
Description: 2ND FLR FRAMING\Flush Beams\B13(i1147)
Specifier:
Designer:
Company:

CCMC 12472-R

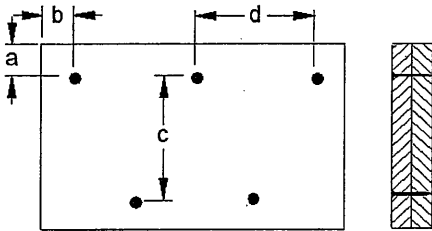
Notes

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: 08-04-15.

CONFORMS TO CBC 2012

AMENDED 2020

Connection Diagram: Full Length of Member



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

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



OWN NO. TAM 1805-21
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:

File name: 4505 EL A SUNKEN.mmdl

Address:

Description: 2ND FLR FRAMING\Flush Beams\B14(i1148)

City, Province, Postal Code:

Specifier:

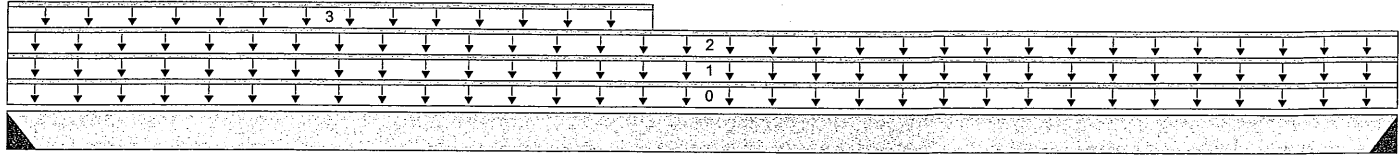
Customer:

Designer:

Code reports:

CCMC 12472-R

Company:



B1

11-01-02

B2

Total Horizontal Product Length = 11-01-02

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 4"	480 / 0	640 / 0		
B2, 4"	178 / 0	488 / 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	11-01-02	Top		12			00-00-00
1	WALL	Unf. Lin. (lb/ft)	L	00-00-00	11-01-02	Top		60			n/a
2	FC2 Floor Decking (Plan View Fill)	Unf. Lin. (lb/ft)	L	00-00-00	11-01-02	Top	11	6			n/a
3	FC2 Floor Decking (Plan View Fill)	Unf. Lin. (lb/ft)	L	00-00-00	05-01-00	Top	105	52			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	3031 ft-lbs	35392 ft-lbs	8.6%	1	04-06-14
End Shear	1098 lbs	14464 lbs	7.6%	1	01-03-14
Total Load Deflection	L/999 (0.045")	n/a	n/a	4	05-04-08
Live Load Deflection	L/999 (0.016")	n/a	n/a	5	05-01-00
Max Defl.	0.045"	n/a	n/a	4	05-04-08
Span / Depth	10.7				

Bearing Supports	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1 Hanger	4" x 3-1/2"	1520 lbs	n/a	8.9%	HGUS410
B2 Hanger	4" x 3-1/2"	684 lbs	n/a	6.2%	HGUS410

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.

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.

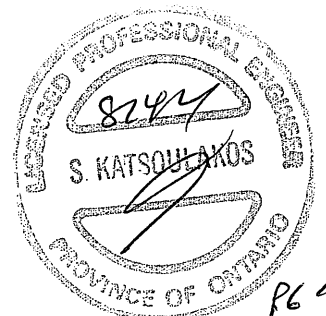
Design based on Dry Service Condition.

Importance Factor : Normal Part code : Part 9

Calculations assume unbraced length of Top: 00-00-00, Bottom: 11-01-02.

CONFORMS TO OBC 2012

AMENDED 2020


 DWG NO. 7AM 10016-21
 STRUCTURAL
 COMPONENT ONLY

BC CALC® Member Report
Build 7773

Dry | 1 span | No cant.

July 20, 2021 14:58:05

Job name:

File name: 4505 EL A SUNKEN.mmdl

Address:

Description: 2ND FLR FRAMING\Flush Beams\B14(i1148)

City, Province, Postal Code:

Specifier:

Customer:

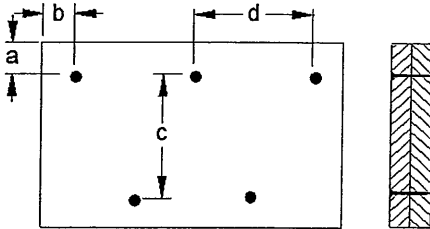
Designer:

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 3 1/2" ARDOX SPIRAL Nails



OWG NO. TAM/18016/21
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:

File name: 4505 EL A SUNKEN.mmdl

Address:

Description: 2ND FLR FRAMING\Flush Beams\B15(i2770)

City, Province, Postal Code:

Specifier:

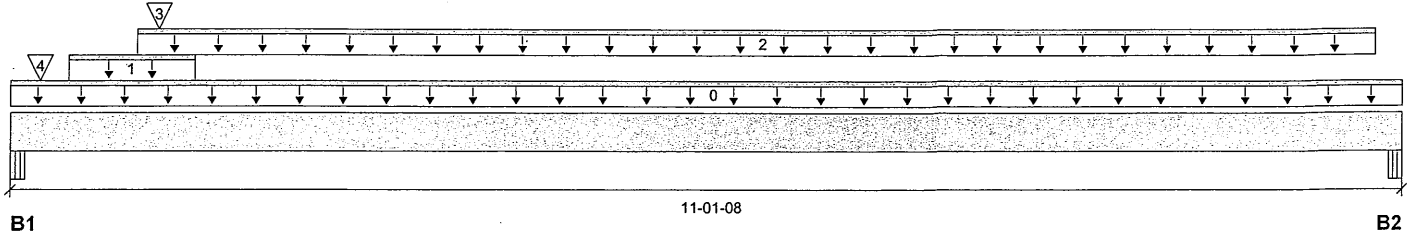
Customer:

Designer:

Code reports:

CCMC 12472-R

Company:



Total Horizontal Product Length = 11-01-08

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 5-1/4"	756 / 0	1271 / 0	735 / 0	
B2, 5-1/4"	192 / 0	228 / 0	63 / 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	11-01-08	Top	1.00	0.65	1.00	1.15	00-00-00
1	E30(i2586)	Unf. Lin. (lb/ft)	L	00-05-08	01-05-08	Top		81			n/a
2	FC2 Floor Decking (Plan View Fill)	Unf. Lin. (lb/ft)	L	01-00-00	10-10-14	Top	27	13			n/a
3	-	Conc. Pt. (lbs)	L	01-02-01	01-02-01	Top	676	1124	798		n/a
4	E31(i2591)	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	2703 ft-lbs	35392 ft-lbs	7.6%	1	02-01-04
End Shear	2555 lbs	14464 lbs	17.7%	1	01-05-02
Total Load Deflection	L/999 (0.039")	n/a	n/a	35	05-00-12
Live Load Deflection	L/999 (0.021")	n/a	n/a	51	05-00-12
Max Defl.	0.039"	n/a	n/a	35	05-00-12
Span / Depth	10.5				

Bearing Supports

	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1 Beam	5-1/4" x 3-1/2"	3458 lbs	44.0%	15.4%	Unspecified
B2 Beam	5-1/4" x 3-1/2"	637 lbs	8.1%	2.8%	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.

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

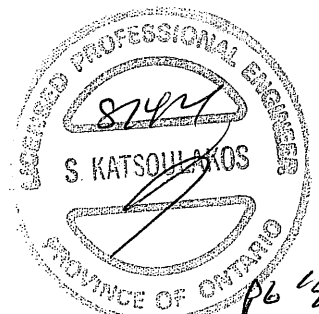
Design based on Dry Service Condition.

Importance Factor : Normal Part code : Part 9

Calculations assume unbraced length of Top: 00-00-00, Bottom: 09-04-12.

CONFORMS TO OBC 2012

AMENDED 2020


 DWG NO. TAM/BO17-21
 STRUCTURAL
 COMPONENT ONLY

BC CALC® Member Report
Build 7773

Dry | 1 span | No cant.

July 20, 2021 14:58:05

Job name:

File name: 4505 EL A SUNKEN.mmdl

Address:

Description: 2ND FLR FRAMING\Flush Beams\B15(i2770)

City, Province, Postal Code:

Specifier:

Customer:

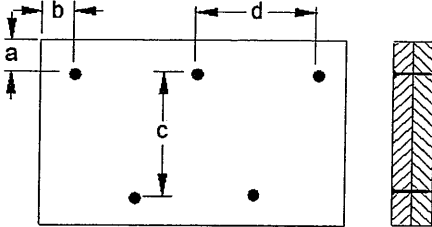
Designer:

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. TAM/B017-21

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 11-7/8" VERSA-LAM® 2.0 3100 SP
2ND FLR FRAMING\Flush Beams\B16(i2752) (Flush Beam)

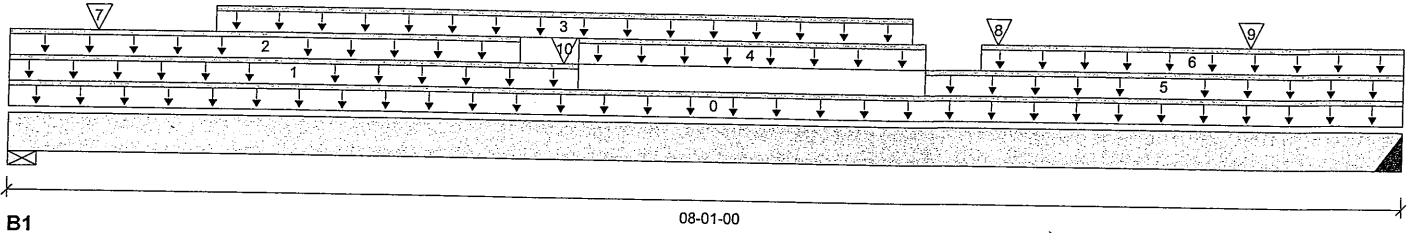
PASSED

BC CALC® Member Report
Build 7773
Job name:
Address:
City, Province, Postal Code:
Customer:
Code reports: CCMC 12472-R

Dry | 1 span | No cant.

July 20, 2021 14:58:05

File name: 4505 EL A SUNKEN.mmdl
Description: 2ND FLR FRAMING\Flush Beams\B16(i2752)
Specifier:
Designer:
Company:



Total Horizontal Product Length = 08-01-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 5-1/2"	759 / 0	934 / 0	321 / 0	
B2, 4"	717 / 0	895 / 0	309 / 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	08-01-00	Top	1.00	0.65	1.00	1.15	
1	E29(i2587)	Unf. Lin. (lb/ft)	L	00-00-00	03-03-00	Top		12			00-00-00
2	E29(i2587)	Unf. Lin. (lb/ft)	L	00-00-00	02-11-00	Top		81			n/a
3	Smoothed Load	Unf. Lin. (lb/ft)	L	01-02-00	05-02-00	Top	201	42	78		n/a
4	E32(i2593)	Unf. Lin. (lb/ft)	L	03-03-00	05-03-00	Top		101			n/a
5	E33(i2594)	Unf. Lin. (lb/ft)	L	05-03-00	08-01-00	Top		61			n/a
6	E33(i2594)	Unf. Lin. (lb/ft)	L	05-07-00	08-01-00	Top		81			n/a
7	J3(i2759)	Conc. Pt. (lbs)	L	00-06-00	00-06-00	Top		42	78		n/a
8	-	Conc. Pt. (lbs)	L	05-08-03	05-08-03	Top	160	80			n/a
9	J3(i1214)	Conc. Pt. (lbs)	L	07-02-00	07-02-00	Top	268	208	101		n/a
10	E29(i2587)	Conc. Pt. (lbs)	L	03-02-00	03-02-00	Top	241	121			n/a
								78	107		n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	4515 ft-lbs	35392 ft-lbs	12.8%	1	04-06-00
End Shear	1967 lbs	14464 lbs	13.6%	1	06-09-02
Total Load Deflection	L/999 (0.035")	n/a	n/a	35	04-01-05
Live Load Deflection	L/999 (0.019")	n/a	n/a	51	04-01-05
Max Defl.	0.035"	n/a	n/a	35	04-01-05
Span / Depth	7.5				

Bearing Supports

	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1	Wall/Plate 5-1/2" x 3-1/2"	2626 lbs	22.2%	11.2%	Spruce-Pine-Fir
B2	Hanger 4" x 3-1/2"	2504 lbs	n/a	14.7%	HGUS410

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 TAM 18018.21
STRUCTURAL
COMPONENT ONLY

BC CALC® Member Report
Build 7773

Dry | 1 span | No cant.

July 20, 2021 14:58:05

Job name:

File name: 4505 EL A SUNKEN.mmdl

Address:

Description: 2ND FLR FRAMING\Flush Beams\B16(i2752)

City, Province, Postal Code:

Specifier:

Customer:

Designer:

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.

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.

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

Design based on Dry Service Condition.

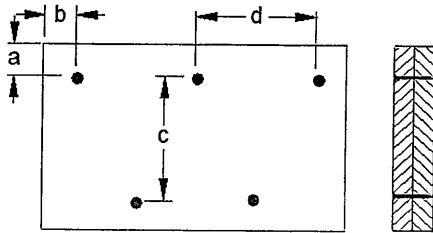
Importance Factor : Normal Part code : Part 9

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

CONFORMS TO OBC 2012

AMENDED 2020

Connection Diagram: Full Length of Member



a minimum = 2"

c = 7-7/8"

b minimum = 3"

d = 8"

Calculated Side Load = 569.5 lb/ft

Connectors are: 16d 1 Nails

3 1/2" ARDOX SPIRAL



DWG NO. TAM/8018.21
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.

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

2ND FLR FRAMING\Flush Beams\B8(i1116) (Flush Beam)

PASSED

BC CALC® Member Report
Build 7773

Dry | 1 span | No cant.

July 20, 2021 14:58:05

Job name:

File name: 4505 EL A SUNKEN.mmdl

Address:

Description: 2ND FLR FRAMING\Flush Beams\B8(i1116)

City, Province, Postal Code:

Specifier:

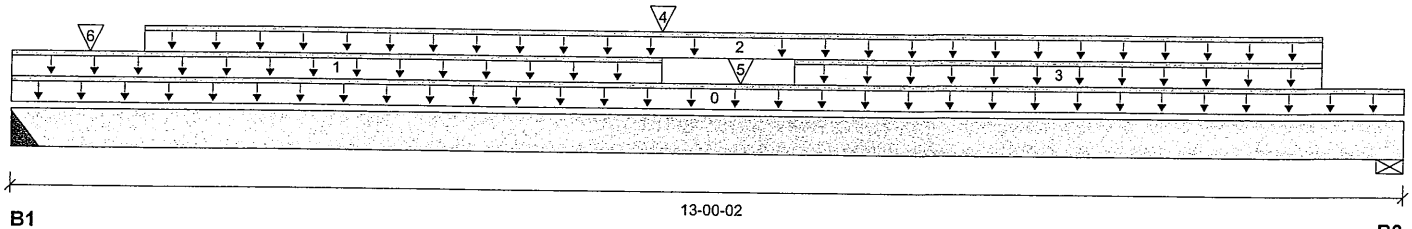
Customer:

Designer:

Code reports:

CCMC 12472-R

Company:



Total Horizontal Product Length = 13-00-02

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 4"	1447 / 0	1265 / 0		
B2, 5-1/2"	1841 / 0	1242 / 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	13-00-02	Top	1.00	0.65	1.00	1.15	00-00-00
1	WALL	Unf. Lin. (lb/ft)	L	00-00-00	06-00-02	Top		60			n/a
2	-	Unf. Lin. (lb/ft)	L	01-02-12	12-02-12	Top	82	41			n/a
3	Smoothed Load	Unf. Lin. (lb/ft)	L	07-02-12	12-02-12	Top	187	94			n/a
4	B13(i1147)	Conc. Pt. (lbs)	L	06-00-02	06-00-02	Top	1214	950			n/a
5	J3(i2068)	Conc. Pt. (lbs)	L	06-08-12	06-08-12	Top	159	80			n/a
6	J5(i1847)	Conc. Pt. (lbs)	L	00-08-12	00-08-12	Top	77	38			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	17058 ft-lbs	35392 ft-lbs	48.2%	1	06-00-02
End Shear	4193 lbs	14464 lbs	29.0%	1	11-06-12
Total Load Deflection	L/476 (0.311")	n/a	50.4%	4	06-06-09
Live Load Deflection	L/833 (0.178")	n/a	43.2%	5	06-06-09
Max Defl.	0.311"	n/a	n/a	4	06-06-09
Span / Depth	12.5				

Bearing Supports

	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1	Hanger 4" x 3-1/2"	3752 lbs	n/a	22.0%	HGUS410
B2	Wall/Plate 5-1/2" x 3-1/2"	4314 lbs	36.4%	18.4%	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 18019-21
STRUCTURAL
COMPONENT ONLY

BC CALC® Member Report
Build 7773

Dry | 1 span | No cant.

July 20, 2021 14:58:05

Job name:

Address:

City, Province, Postal Code:

Customer:

Code reports:

CCMC 12472-R

File name: 4505 EL A SUNKEN.mmdl

Description: 2ND FLR FRAMING\Flush Beams\B8(i1116)

Specifier:

Designer:

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.

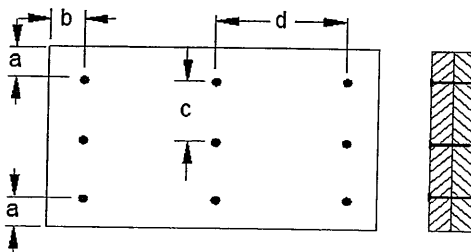
Importance Factor : Normal Part code : Part 9

Calculations assume unbraced length of Top: 00-00-00, Bottom: 00-09-08.

CONFORMS TO OBC 2012

AMENDED 2020

Connection Diagram: Full Length of Member



a minimum = 2"

c = 4"

b minimum = 3"

d = 6"

Calculated Side Load = 1870.4 lb/ft

Connectors are: 16d Nails

3 1/2" ARDOX SPIRAL



DWG NO. FAM/8019/21

STRUCTURAL

COMPONENT ONLY

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



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

1ST FLR FRAMING\Flush Beams\B1(i2823) (Flush Beam)

PASSED

BC CALC® Member Report
Build 7773

Dry | 1 span | No cant.

July 20, 2021 14:58:05

Job name:

File name: 4505 EL A SUNKEN.mmdl

Address:

Description: 1ST FLR FRAMING\Flush Beams\B1(i2823)

City, Province, Postal Code:

Specifier:

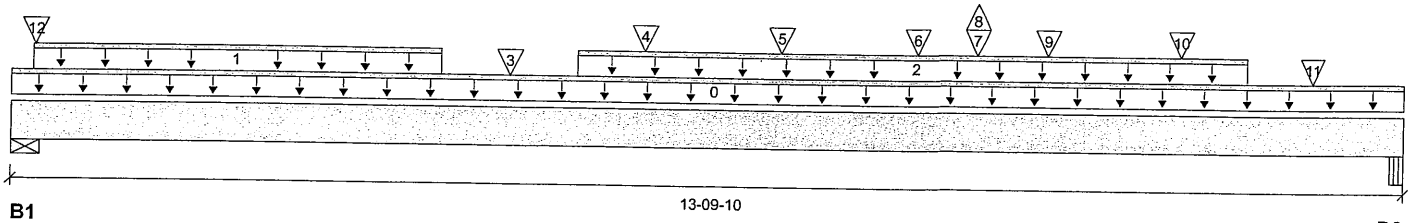
Customer:

Designer:

Code reports:

CCMC 12472-R

Company:



Total Horizontal Product Length = 13-09-10

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 5-1/2"	4176 / 21	2340 / 0		
B2, 5-1/4"	4018 / 48	2313 / 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	13-09-10	Top	1.00	0.65	1.00	1.15	00-00-00
1	Smoothed Load	Unf. Lin. (lb/ft)	L	00-02-08	04-02-08	Top	575	288			n/a
2	Smoothed Load	Unf. Lin. (lb/ft)	L	05-06-08	12-02-08	Top	338	169			n/a
3	-	Conc. Pt. (lbs)	L	04-10-08	04-10-08	Top	767	384			n/a
4	J6(i956)	Conc. Pt. (lbs)	L	06-02-08	06-02-08	Top	203	101			n/a
5	J6(i956)	Conc. Pt. (lbs)	L	07-06-08	07-06-08	Top	203	101			n/a
6	J6(i1025)	Conc. Pt. (lbs)	L	08-10-08	08-10-08	Top	149	74			n/a
7	B2(i2719)	Conc. Pt. (lbs)	L	09-06-00	09-06-00	Top	1168	833			n/a
8	B2(i2719)	Conc. Pt. (lbs)	L	09-06-00	09-06-00	Top	-69				n/a
9	J5(i983)	Conc. Pt. (lbs)	L	10-02-08	10-02-08	Top	174	87			n/a
10	J5(i1006)	Conc. Pt. (lbs)	L	11-06-08	11-06-08	Top	228	114			n/a
11	-	Conc. Pt. (lbs)	L	12-10-08	12-10-08	Top	505	253			n/a
12	2(i1113)	Conc. Pt. (lbs)	L	00-02-12	00-02-12	Top	162	118			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	29501 ft-lbs	55211 ft-lbs	53.4%	1	07-06-08
End Shear	8325 lbs	21696 lbs	38.4%	1	12-04-08
Total Load Deflection	L/357 (0.438")	n/a	67.2%	6	06-10-08
Live Load Deflection	L/560 (0.279")	n/a	64.2%	8	06-10-08
Max Defl.	0.438"	n/a	n/a	6	06-10-08
Span / Depth	13.2				

Bearing Supports

	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1	Wall/Plate 5-1/2" x 5-1/4"	9188 lbs	51.7%	26.1%	Spruce-Pine-Fir
B2	Beam 5-1/4" x 5-1/4"	8918 lbs	75.7%	26.5%	Unspecified



OWB NO. TAM/0202-21
STRUCTURAL
COMPONENT ONLY



Triple 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP
1ST FLR FRAMING\Flush Beams\B1(i2823) (Flush Beam)

PASSED

BC CALC® Member Report

Build 7773

Job name:

Address:

City, Province, Postal Code:

Customer:

Code reports: CCMC 12472-R

Dry | 1 span | No cant.

July 20, 2021 14:58:05

File name: 4505 EL A SUNKEN.mmdl

Description: 1ST FLR FRAMING\Flush Beams\B1(i2823)

Specifier:

Designer:

Company:

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.

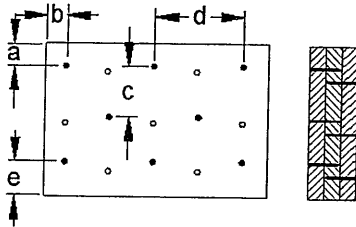
Importance Factor : Normal Part code : Part 9

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

CONFORMS TO CBC 2012

AMENDED 2020

Connection Diagram: Full Length of Member



a minimum = 2"

c = 4"

b minimum = 3"

d = 6"

e minimum = 3"

Calculated Side Load = 1770.0 lb/ft

Nailing applies to both sides of the member

Connectors are: 16d ¹ Nails

3 1/2" ARDOX SPIRAL



DWG NO. TAM/Bolo-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 11-7/8" VERSA-LAM® 2.0 3100 SP

PASSED

1ST FLR FRAMING\Flush Beams\B2(i2719) (Flush Beam)

Dry | 1 span | No cant.

July 20, 2021 14:58:05

BC CALC® Member Report

Build 7773

Job name:

Address:

City, Province, Postal Code:

Customer:

Code reports: CCMC 12472-R

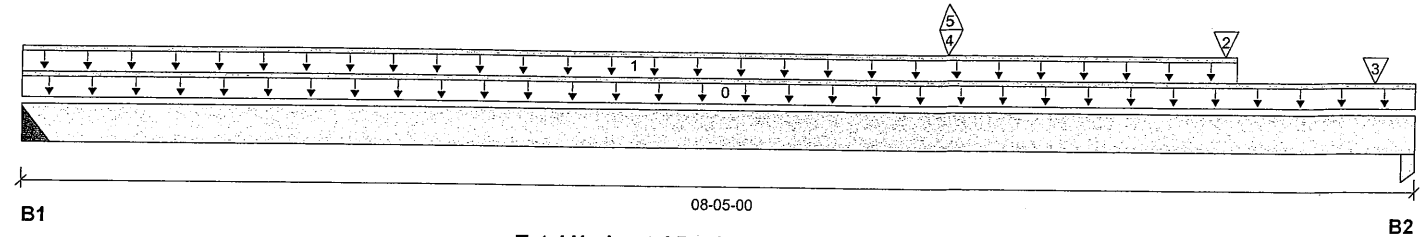
File name: 4505 EL A SUNKEN.mmdl

Description: 1ST FLR FRAMING\Flush Beams\B2(i2719)

Specifier:

Designer:

Company:



Total Horizontal Product Length = 08-05-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 4"	1200 / 71	857 / 0		
B2, 3-1/2"	2953 / 142	2074 / 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	08-05-00	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	07-03-13	Top	27	13			n/a
2	B4(i925)	Conc. Pt. (lbs)	L	07-02-15	07-02-15	Top	621	324			n/a
3	B3(i2708)	Conc. Pt. (lbs)	L	08-02-00	08-02-00	Top	275	263			n/a
4	PBO3(i1153)	Conc. Pt. (lbs)	L	05-06-10	05-06-10	Top	3046	2137			n/a
5	PBO3(i1153)	Conc. Pt. (lbs)	L	05-06-10	05-06-10	Top	-213				n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	14062 ft-lbs	35392 ft-lbs	39.7%	1	05-06-10
End Shear	6111 lbs	14464 lbs	42.3%	1	07-01-10
Total Load Deflection	L/999 (0.092")	n/a	n/a	6	04-07-08
Live Load Deflection	L/999 (0.054")	n/a	n/a	8	04-07-08
Max Defl.	0.092"	n/a	n/a	6	04-07-08
Span / Depth	8.0				

Bearing Supports	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1 Hanger	4" x 3-1/2"	2871 lbs	n/a	16.8%	HGUS410
B2 Column	3-1/2" x 3-1/2"	7022 lbs	88.2%	47.0%	Unspecified

Cautions

Header for the hanger HGUS410 is a Triple 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.

Concentrated side load(s) 4 are closer than 18" from end of member. Please consult a technical representative or Professional of Record.


 DWG NO. TAM/18021-21
 STRUCTURAL
 COMPONENT ONLY

BC CALC® Member Report
Build 7773

1ST FLR FRAMING\Flush Beams\B2(i2719) (Flush Beam)

Dry | 1 span | No cant.

July 20, 2021 14:58:05

Job name:

File name: 4505 EL A SUNKEN.mmdl

Address:

Description: 1ST FLR FRAMING\Flush Beams\B2(i2719)

City, Province, Postal Code:

Specifier:

Customer:

Designer:

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.

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.

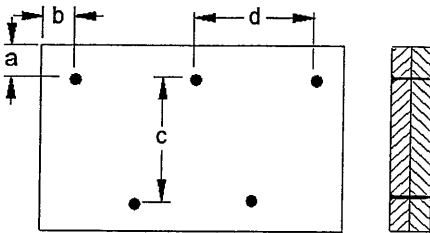
Importance Factor : Normal Part code : Part 9

Calculations assume unbraced length of Top: 00-02-02, Bottom: 07-02-01.

CONFORMS TO OBC 2012

AMENDED 2020

Connection Diagram: Full Length of Member



a minimum = 2"

c = 7-7/8"

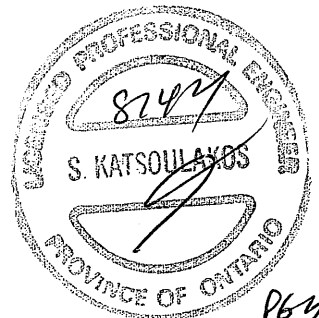
b minimum = 3"

d = 6"

Calculated Side Load = 370.6 lb/ft

Connectors are: 16d Nails

3 1/2" ARDOX SPIRAL



DWG NO. YAM 1802121
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®,



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

1ST FLR FRAMING\Flush Beams\B3(i2708) (Flush Beam)

Dry | 1 span | No cant.

PASSED

BC CALC® Member Report

Build 7773

Job name:

Address:

City, Province, Postal Code:

Customer:

Code reports:

CCMC 12472-R

File name: 4505 EL A SUNKEN.mmdl

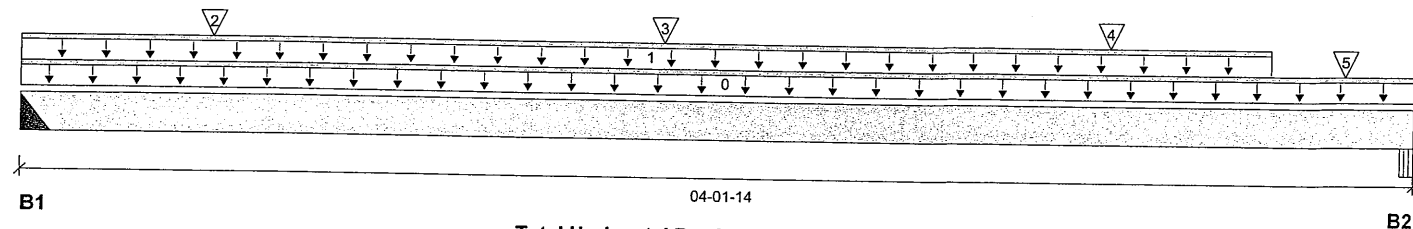
Description: 1ST FLR FRAMING\Flush Beams\B3(i2708)

Specifier:

Designer:

Company:

July 20, 2021 14:58:05



Reaction Summary (Down / Uplift) (lbs)

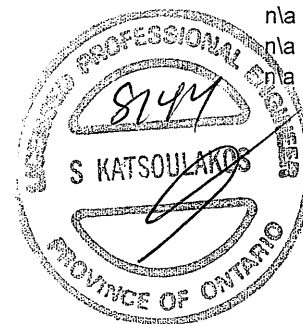
Bearing	Live	Dead	Snow	Wind
B1, 2"	293 / 0	275 / 0		
B2, 5-1/4"	346 / 0	304 / 0		

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	04-01-14	Top	1.00	0.65	1.00	1.15	
1	WALL	Unf. Lin. (lb/ft)	L	00-00-00	03-08-10	Top		60			00-00-00
2	J5(i983)	Conc. Pt. (lbs)	L	00-06-12	00-06-12	Top	174	87			n/a
3	J5(i1006)	Conc. Pt. (lbs)	L	01-10-12	01-10-12	Top	224	112			n/a
4	J5(i1024)	Conc. Pt. (lbs)	L	03-02-12	03-02-12	Top	170	85			n/a
5	3(i1114)	Conc. Pt. (lbs)	L	03-11-06	03-11-06	Top	69	46			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	761 ft-lbs	17696 ft-lbs	4.3%	1	01-10-12
End Shear	471 lbs	7232 lbs	6.5%	1	02-08-12
Total Load Deflection	L/999 (0.003")	n/a	n/a	4	01-11-06
Live Load Deflection	L/999 (0.001")	n/a	n/a	5	01-11-06
Max Defl.	0.003"	n/a	n/a	4	01-11-06
Span / Depth	3.7				



DWG NO. TAM/Bo2-21

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®,

Bearing Supports	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1 Hanger	2" x 1-3/4"	782 lbs	n/a	18.3%	HUS1.81/10
B2 Beam	5-1/4" x 1-3/4"	899 lbs	22.9%	8.0%	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: 01-01-08.

CONFORMS TO OBC 2012

AMENDED 2020



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

1ST FLR FRAMING\Flush Beams\B4(i925) (Flush Beam)

PASSED

BC CALC® Member Report

Build 7773

Job name:

Address:

City, Province, Postal Code:

Customer:

Code reports:

CCMC 12472-R

Dry | 1 span | No cant.

July 20, 2021 14:58:05

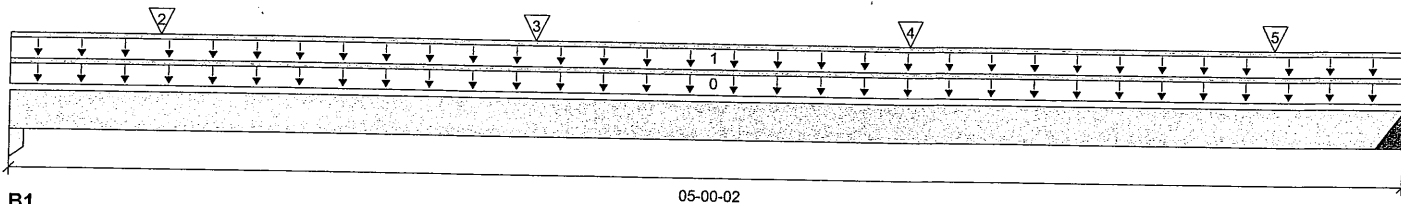
File name: 4505 EL A SUNKEN.mmdl

Description: 1ST FLR FRAMING\Flush Beams\B4(i925)

Specifier:

Designer:

Company:



Total Horizontal Product Length = 05-00-02

Reaction Summary (Down / Uplift) (lbs)

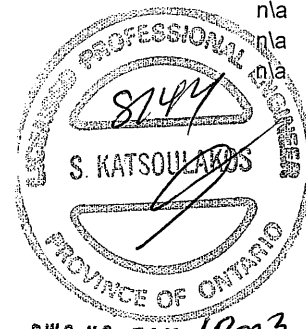
Bearing	Live	Dead	Snow	Wind
B1, 3-1/2"	652 / 0	341 / 0		
B2, 2"	632 / 0	330 / 0		

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	05-00-02	Top	1.00	0.65	1.00	1.15	
1	STAIR	Unf. Lin. (lb/ft)	L	00-00-00	05-00-02	Top	120	60			00-00-00
2	J6(i916)	Conc. Pt. (lbs)	L	00-06-06	00-06-06	Top	139	70			n/a
3	J6(i956)	Conc. Pt. (lbs)	L	01-10-06	01-10-06	Top	199	99			n/a
4	J6(i1027)	Conc. Pt. (lbs)	L	03-02-06	03-02-06	Top	199	99			n/a
5	J6(i1025)	Conc. Pt. (lbs)	L	04-06-06	04-06-06	Top	146	73			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	1527 ft-lbs	17696 ft-lbs	8.6%	1	02-07-06
End Shear	845 lbs	7232 lbs	11.7%	1	03-10-04
Total Load Deflection	L/999 (0.009")	n/a	n/a	4	02-06-14
Live Load Deflection	L/999 (0.006")	n/a	n/a	5	02-06-14
Max Defl.	0.009"	n/a	n/a	4	02-06-14
Span / Depth	4.7				


 DWG NO. TAM / B01321
STRUCTURAL COMPONENT ONLY

Bearing Supports

	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1 Column	3-1/2" x 1-3/4"	1404 lbs	35.3%	18.8%	Unspecified
B2 Hanger	2" x 1-3/4"	1362 lbs	n/a	31.9%	HUS1.81/10

Disclosure

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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

BC CALC®, BC FRAMER®, AJST™, 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\B5(i952) (Flush Beam)

Dry | 1 span | No cant.

PASSED

BC CALC® Member Report

Build 7773

Job name:

Address:

City, Province, Postal Code:

Customer:

Code reports: CCMC 12472-R

File name: 4505 EL A SUNKEN.mmdl

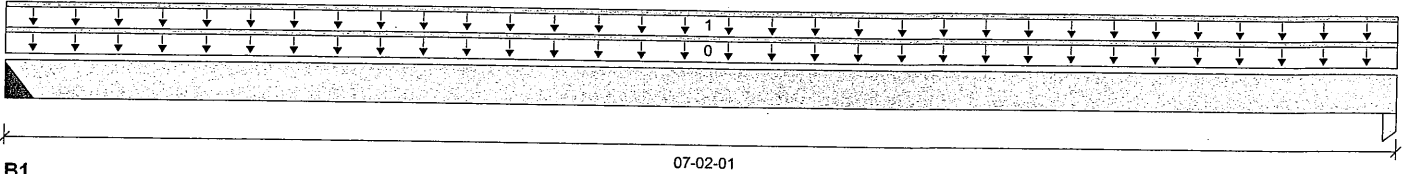
Description: 1ST FLR FRAMING\Flush Beams\B5(i952)

Specifier:

Designer:

Company:

July 20, 2021 14:58:05



Total Horizontal Product Length = 07-02-01

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 2"	38 / 0	41 / 0		
B2, 1-3/4"	38 / 0	41 / 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	07-02-01	Top	1.00	0.65	1.00	1.15	
1	FC1 Floor Decking (Plan View Fill)	Unf. Lin. (lb/ft)	L	00-00-00	07-02-01	Top	11	5			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	184 ft-lbs	17696 ft-lbs	1.0%	1	03-07-02
End Shear	73 lbs	7232 lbs	1.0%	1	01-01-14
Total Load Deflection	L/999 (0.002")	n/a	n/a	4	03-07-02
Live Load Deflection	L/999 (0.001")	n/a	n/a	5	03-07-02
Max Defl.	0.002"	n/a	n/a	4	03-07-02
Span / Depth	7.1				

Bearing Supports	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1 Hanger	2" x 1-3/4"	108 lbs	n/a	2.5%	HUS1.81/10
B2 Column	1-3/4" x 1-3/4"	108 lbs	5.4%	2.9%	Unspecified

Cautions

Header for the hanger HUS1.81/10 is a Triple 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: 07-02-01.

CONFORMS TO OBC 2012

AMENDED 2020



DWG NO. TAM/BOZ/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:

Customer:

Code reports:

CCMC 12472-R

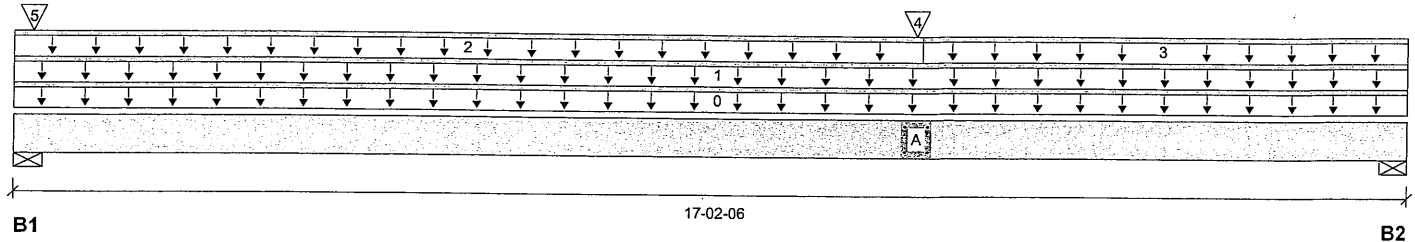
File name: 4505 EL A SUNKEN.mmdl

Description: 1ST FLR FRAMING\Flush Beams\B6(i2788)

Specifier:

Designer:

Company:



Total Horizontal Product Length = 17-02-06

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 5-1/2"	753 / 0	514 / 0		
B2, 4-3/8"	794 / 0	516 / 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	17-02-06	Top		12			00-00-00
1	FC1 Floor Decking (Plan View Fill)	Unf. Lin. (lb/ft)	L	00-00-00	17-02-06	Top	11	6			n/a
2	FC1 Floor Decking (Plan View Fill)	Unf. Lin. (lb/ft)	L	00-00-00	11-01-00	Top	15	8			n/a
3	FC1 Floor Decking (Plan View Fill)	Unf. Lin. (lb/ft)	L	11-01-00	17-02-06	Top	6	3			n/a
4	B7(i2746)	Conc. Pt. (lbs)	L	11-00-02	11-00-02	Top	955	502			n/a
5	E13(i1101)	Conc. Pt. (lbs)	L	00-02-12	00-02-12	Top	192	120			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	9819 ft-lbs	35392 ft-lbs	27.7%	1	11-00-02
End Shear	1765 lbs	14464 lbs	12.2%	1	15-10-02
Total Load Deflection	L/665 (0.298")	n/a	36.1%	4	09-00-13
Live Load Deflection	L/1086 (0.182")	n/a	33.2%	5	09-00-13
Max Defl.	0.298"	n/a	n/a	4	09-00-13
Span / Depth	16.7				

Bearing Supports

	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1	Wall/Plate 5-1/2" x 3-1/2"	1772 lbs	15.0%	7.5%	Spruce-Pine-Fir
B2	Wall/Plate 4-3/8" x 3-1/2"	1835 lbs	19.5%	9.8%	Spruce-Pine-Fir

Notes

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

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

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: 10-05-12.

CONFORMS TO OBC 2012

AMENDED 2020


 DWG NO. TAM/18025-21
 STRUCTURAL
 COMPONENT ONLY

BC CALC® Member Report

Build 7773

Job name:

Address:

City, Province, Postal Code:

Customer:

Code reports:

CCMC 12472-R

Dry | 1 span | No cant.

July 20, 2021 14:58:05

File name: 4505 EL A SUNKEN.mmdl

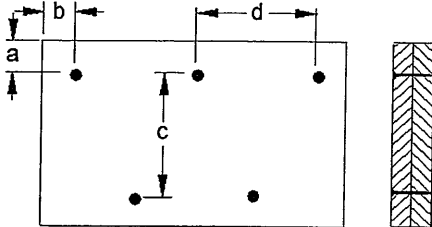
Description: 1ST FLR FRAMING\Flush Beams\B6(i2788)

Specifier:

Designer:

Company:

Connection Diagram: Full Length of Member



a minimum = 2"

b minimum = 3"

c = 7-7/8"

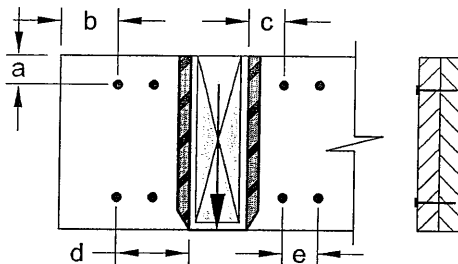
d = 8"

Connectors are: 1 Nails

3 1/2" ARDOX SPIRAL

Connection Diagrams: Concentrated Side Loads

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



a minimum = 2"

b minimum = 4"

c minimum = 4"

d maximum = 12"

e minimum = 4"

Connectors are:

Nails

1 3 1/2" ARDOX SPIRAL



8/14/21
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

BC CALC® Member Report

Build 7773

Job name:

Address:

City, Province, Postal Code:

Customer:

Code reports:

CCMC 12472-R

Dry | 1 span | No cant.

July 20, 2021 14:58:05

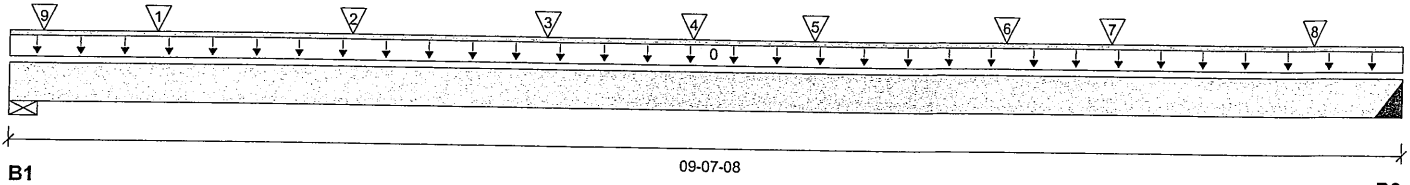
File name: 4505 EL A SUNKEN.mmdl

Description: 1ST FLR FRAMING\Flush Beams\B7(i2746)

Specifier:

Designer:

Company:



Total Horizontal Product Length = 09-07-08

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 5-1/2"	1102 / 0	635 / 0		
B2, 2"	968 / 0	511 / 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	09-07-08	Top	1.00	0.65	1.00	1.15	00-00-00
1	J4(i2774)	Conc. Pt. (lbs)	L	01-00-00	01-00-00	Top	289	145			n/a
2	J4(i2787)	Conc. Pt. (lbs)	L	02-04-00	02-04-00	Top	289	145			n/a
3	J4(i2807)	Conc. Pt. (lbs)	L	03-08-00	03-08-00	Top	253	126			n/a
4	J4DJ(i2793)	Conc. Pt. (lbs)	L	04-08-00	04-08-00	Top	226	113			n/a
5	J5(i935)	Conc. Pt. (lbs)	L	05-06-00	05-06-00	Top	210	105			n/a
6	J5(i933)	Conc. Pt. (lbs)	L	06-10-00	06-10-00	Top	201	100			n/a
7	J4DJ(i2824)	Conc. Pt. (lbs)	L	07-06-14	07-06-14	Top	263	131			n/a
8	J4(i2800)	Conc. Pt. (lbs)	L	09-00-00	09-00-00	Top	238	119			n/a
9	E23(i1103)	Conc. Pt. (lbs)	L	00-02-12	00-02-12	Top	101	104			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	4942 ft-lbs	17696 ft-lbs	27.9%	1	04-08-00
End Shear	1876 lbs	7232 lbs	25.9%	1	01-05-06
Total Load Deflection	L/999 (0.106")	n/a	n/a	4	04-11-12
Live Load Deflection	L/999 (0.07")	n/a	n/a	5	04-11-12
Max Defl.	0.106"	n/a	n/a	4	04-11-12
Span / Depth	9.2				

Bearing Supports	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1	Wall/Plate 5-1/2" x 1-3/4"	2447 lbs	41.3%	20.8%	Spruce-Pine-Fir
B2	Hanger 2" x 1-3/4"	2090 lbs	n/a	49.0%	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.



OWN NO. TAM 1376-21
STRUCTURAL
COMPONENT ONLY



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

PASSED

1ST FLR FRAMING\Flush Beams\B7(i2746) (Flush Beam)

Dry | 1 span | No cant.

July 20, 2021 14:58:05

BC CALC® Member Report

Build 7773

Job name:

Address:

City, Province, Postal Code:

Customer:

Code reports:

CCMC 12472-R

File name: 4505 EL A SUNKEN.mmdl

Description: 1ST FLR FRAMING\Flush Beams\B7(i2746)

Specifier:

Designer:

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.

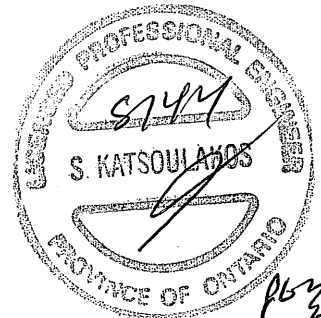
Design based on Dry Service Condition.

Importance Factor : Normal Part code : Part 9

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

CONFORMS TO OBC 2012

AMENDED 2020



0000 NO. TAM1802621
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\B15C(i2959) (Flush Beam)

PASSED

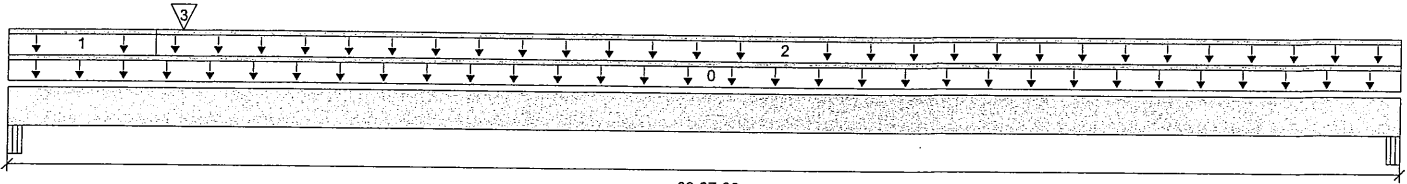
BC CALC® Member Report
Build 7773

Dry | 1 span | No cant.

July 20, 2021 15:44:03

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

File name: 4505 EL C STD.mmdl
Description: 2ND FLR FRAMING\Flush Beams\B15C(i2959)
Specifier:
Designer: AJ
Company:



B1 09-07-06 B2

Total Horizontal Product Length = 09-07-06

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 5-1/4"	512 / 0	979 / 0	638 / 0	
B2, 2-5/8"	277 / 0	255 / 0	65 / 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	09-07-06	Top	1.00	0.65	1.00	1.15	00-00-00
1	E35(i3272)	Unf. Lin. (lb/ft)	L	00-00-00	01-00-00	Top		81			n/a
2	FC2 Floor Decking (Plan View Fill)	Unf. Lin. (lb/ft)	L	01-00-00	09-07-06	Top	53	27			n/a
3	-	Conc. Pt. (lbs)	L	01-02-04	01-02-04	Top	330	807	703		n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	2366 ft-lbs	35392 ft-lbs	6.7%	1	03-04-11
End Shear	2057 lbs	14464 lbs	14.2%	13	01-05-02
Total Load Deflection	L/999 (0.028")	n/a	n/a	35	04-07-01
Live Load Deflection	L/999 (0.016")	n/a	n/a	51	04-07-01
Max Defl.	0.028"	n/a	n/a	35	04-07-01
Span / Depth	9.2				

Bearing Supports	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1 Beam	5-1/4" x 3-1/2"	2693 lbs	27.4%	12.0%	Unspecified
B2 Beam	2-5/8" x 3-1/2"	800 lbs	16.3%	7.1%	Unspecified

Cautions

Concentrated side load(s) 3 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.
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
Calculations assume unbraced length of Top: 00-00-00, Bottom: 08-01-04.

CONFORMS TO OBC 2012

AMENDED 2020



UWD NO. TAM/2021-21
STRUCTURAL
COMPONENT ONLY

BC CALC® Member Report

Build 7773

Job name:

Address:

City, Province, Postal Code: BRAMPTON

Customer:

Code reports: CCMC 12472-R

Dry | 1 span | No cant.

July 20, 2021 15:44:03

File name: 4505 EL C STD.mmdl

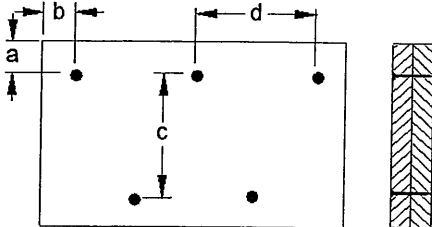
Description: 2ND FLR FRAMING\Flush Beams\B15C(i2959)

Specifier:

Designer: AJ

Company:

Connection Diagram: Full Length of Member



a minimum = 2"

b minimum = 3"

c = 7-7/8"

d = 6"

Connectors are: 1 Nails

3 1/2" ARDOX SPIRAL



OWG NO. TAM 18022.21
STRUCTURAL
COMPONENT ONLY

Disclosure

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BC CALC®, BC FRAMER®, AJSTM, 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\Flush Beams\B18C(i3223) (Flush Beam)

PASSED

BC CALC® Member Report

Dry | 1 span | No cant.

July 20, 2021 15:44:03

Build 7773

Job name:

File name: 4505 EL C STD.mmdl

Address:

Description: 2ND FLR FRAMING\Flush Beams\B18C(i3223)

City, Province, Postal Code: BRAMPTON

Specifier:

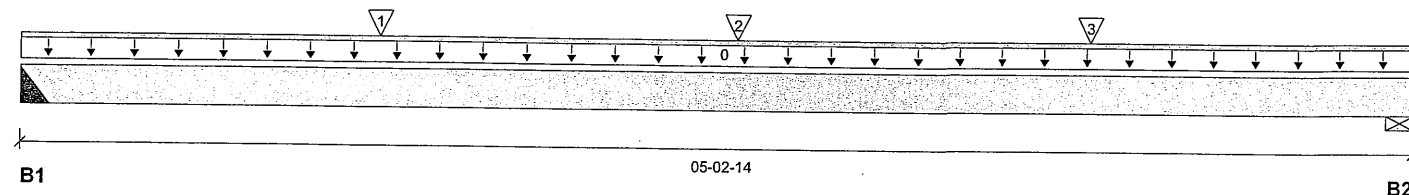
Customer:

Designer: AJ

Code reports:

CCMC 12472-R

Company:



Total Horizontal Product Length = 05-02-14

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 4"	348 / 0	446 / 0	160 / 0	
B2, 4-3/8"	349 / 0	440 / 0	148 / 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	05-02-14	Top	1.00	0.65	1.00	1.15	
1	J3(i2977)	Conc. Pt. (lbs)	L	01-04-00	01-04-00	Top	247	346	171		00-00-00
2	J3(i3150)	Conc. Pt. (lbs)	L	02-08-00	02-08-00	Top	234	194			n/a
3	J3(i3082)	Conc. Pt. (lbs)	L	04-00-00	04-00-00	Top	216	295	137		n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	1627 ft-lbs	23219 ft-lbs	7.0%	1	02-08-00
End Shear	1225 lbs	11571 lbs	10.6%	1	01-01-08
Total Load Deflection	L/999 (0.01")	n/a	n/a	35	02-07-00
Live Load Deflection	L/999 (0.005")	n/a	n/a	51	02-07-00
Max Defl.	0.01"	n/a	n/a	35	02-07-00
Span / Depth	5.9				

Bearing Supports

	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1 Hanger	4" x 3-1/2"	1239 lbs	n/a	7.3%	HGUS410
B2 Wall/Plate	4-3/8" x 3-1/2"	1221 lbs	13.0%	6.5%	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.

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.

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

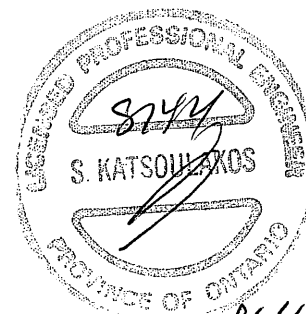
Design based on Dry Service Condition.

Importance Factor : Normal Part code : Part 9

Calculations assume unbraced length of Top: 01-02-12, Bottom: 01-02-12.

CONFORMS TO OBC 2012

AMENDED 2020


 DWG NO. TAM1832B21
 STRUCTURAL
 COMPONENT ONLY

BC CALC® Member Report

Build 7773

Job name:

Address:

City, Province, Postal Code: BRAMPTON

Customer:

Code reports: CCMC 12472-R

Dry | 1 span | No cant.

July 20, 2021 15:44:03

File name: 4505 EL C STD.mmdl

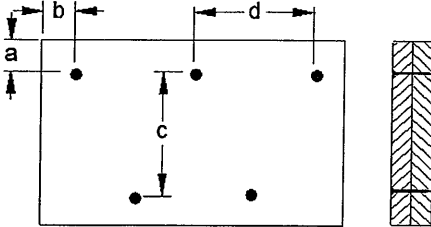
Description: 2ND FLR FRAMING\Flush Beams\B18C(i3223)

Specifier:

Designer: AJ

Company:

Connection Diagram: Full Length of Member



a minimum = 2"

b minimum = 3"

c = 5-1/2"

d = 8"

Calculated Side Load = 487.0 lb/ft

Connectors are: 3/4" ARDOX SPIRAL



OWG NO. TAM / B018-21
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®

Maximum Floor Spans – S2.1

Design Criteria

Spans:	Simple span
Loads:	Live load = 40 psf and dead load = 15 psf
Deflection limits:	L/480 under live load and L/240 under total load
Sheathing:	5/8 in. nailed-glued oriented strand board (OSB) sheathing

Maximum Floor Spans

Joist depth	Joist series	Bare				1/2 in. 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'-3"	13'-10"	-	15'-7"	14'-9"	14'-3"	-
	NI-40x	16'-2"	15'-3"	14'-8"	-	16'-7"	15'-8"	15'-1"	-
	NI-60	16'-4"	15'-4"	14'-10"	-	16'-9"	15'-9"	15'-3"	-
	NI-80	17'-3"	16'-3"	15'-8"	-	17'-8"	16'-7"	16'-0"	-
11-7/8"	NI-20	17'-0"	16'-0"	15'-6"	-	17'-6"	16'-7"	16'-0"	-
	NI-40x	18'-2"	17'-1"	16'-6"	-	18'-9"	17'-6"	16'-11"	-
	NI-60	18'-5"	17'-3"	16'-8"	-	19'-0"	17'-8"	17'-1"	-
	NI-80	19'-9"	18'-3"	17'-7"	-	20'-4"	18'-10"	18'-0"	-
	NI-90	20'-2"	18'-8"	17'-10"	-	20'-9"	19'-2"	18'-4"	-
14"	NI-40x	20'-1"	18'-8"	17'-10"	-	20'-10"	19'-4"	18'-6"	-
	NI-60	20'-6"	18'-11"	18'-2"	-	21'-2"	19'-8"	18'-9"	-
	NI-80	21'-11"	20'-3"	19'-4"	-	22'-7"	20'-11"	20'-0"	-
	NI-90	22'-5"	20'-8"	19'-9"	-	23'-0"	21'-4"	20'-4"	-
16"	NI-60	22'-4"	20'-8"	19'-9"	-	23'-1"	21'-5"	20'-6"	-
	NI-80	23'-11"	22'-1"	21'-1"	-	24'-8"	22'-10"	21'-9"	-
	NI-90	24'-5"	22'-6"	21'-6"	-	25'-1"	23'-2"	22'-2"	-

Joist depth	Joist series	Mid-span blocking with 1x4 inch strap				Mid-span blocking and 1/2 in. 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"	-	16'-8"	15'-3"	14'-5"	-
	NI-40x	17'-11"	17'-0"	16'-1"	-	18'-5"	17'-1"	16'-1"	-
	NI-60	18'-2"	17'-1"	16'-4"	-	18'-8"	17'-4"	16'-4"	-
	NI-80	19'-5"	18'-0"	17'-5"	-	19'-10"	18'-5"	17'-8"	-
11-7/8"	NI-20	19'-7"	18'-2"	17'-3"	-	19'-11"	18'-3"	17'-3"	-
	NI-40x	21'-1"	19'-7"	18'-8"	-	21'-8"	20'-2"	19'-2"	-
	NI-60	21'-4"	19'-9"	18'-11"	-	21'-11"	20'-5"	19'-6"	-
	NI-80	22'-9"	21'-1"	20'-2"	-	23'-3"	21'-8"	20'-8"	-
	NI-90	23'-3"	21'-6"	20'-6"	-	23'-9"	22'-0"	21'-0"	-
14"	NI-40x	23'-8"	21'-11"	20'-11"	-	24'-4"	22'-8"	21'-8"	-
	NI-60	24'-0"	22'-3"	21'-3"	-	24'-8"	22'-11"	21'-11"	-
	NI-80	25'-7"	23'-9"	22'-7"	-	26'-2"	24'-4"	23'-3"	-
	NI-90	26'-1"	24'-2"	23'-0"	-	26'-8"	24'-9"	23'-7"	-
16"	NI-60	26'-5"	24'-6"	23'-5"	-	27'-2"	25'-3"	24'-2"	-
	NI-80	28'-2"	26'-1"	24'-10"	-	28'-10"	26'-9"	25'-6"	-
	NI-90	28'-8"	26'-6"	25'-3"	-	29'-3"	27'-2"	25'-11"	-

Notes:

- The tabulated clear spans are based on CSA O86-14 and NBC 2015, and are applicable to residential floor construction meeting the above design criteria.
- For multiple-span applications, the end spans shall be 40% or more of the adjacent span.
- Minimum bearing length shall be 1-3/4 inch for end bearings, and 3-1/2 inches for intermediate bearings.
- Bearing stiffeners are not required when I-joists are used in accordance with this table, except as required for hangers.
- Nordic I-joists are listed in CCMC Evaluation Report 13032-R and APA Product Report PR-L274C.

Maximum Floor Spans – S4.1

Design Criteria

Spans:	Simple span
Loads:	Live load = 40 psf and dead load = 15 psf
Deflection limits:	L/480 under live load and L/240 under total load
Sheathing:	3/4 in. nailed-glued oriented strand board (OSB) sheathing

Maximum Floor Spans

Joist depth	Joist series	Bare				1/2 in. gypsum ceiling			
		On centre spacing				On centre spacing			
		12"	16"	19.2"	24"	12"	16"	19.2"	24"
9-1/2"	NI-20	15'-11"	15'-0"	14'-6"	13'-5"	16'-5"	15'-5"	14'-6"	13'-5"
	NI-40x	17'-0"	16'-0"	15'-5"	14'-10"	17'-5"	16'-5"	15'-10"	15'-2"
	NI-60	17'-2"	16'-2"	15'-7"	14'-11"	17'-7"	16'-7"	16'-0"	15'-4"
	NI-80	18'-3"	17'-1"	16'-5"	15'-9"	18'-8"	17'-5"	16'-9"	16'-1"
11-7/8"	NI-20	17'-11"	16'-11"	16'-3"	15'-8"	18'-7"	17'-5"	16'-10"	16'-2"
	NI-40x	19'-4"	17'-11"	17'-3"	16'-7"	19'-11"	18'-6"	17'-9"	17'-0"
	NI-60	19'-7"	18'-2"	17'-6"	16'-9"	20'-2"	18'-9"	17'-11"	17'-2"
	NI-80	21'-1"	19'-6"	18'-6"	17'-7"	21'-7"	20'-0"	19'-0"	18'-0"
	NI-90	21'-6"	19'-10"	18'-11"	17'-11"	22'-0"	20'-4"	19'-5"	18'-4"
14"	NI-40x	21'-5"	19'-11"	18'-11"	18'-0"	22'-1"	20'-7"	19'-7"	18'-7"
	NI-60	21'-10"	20'-2"	19'-3"	18'-3"	22'-6"	20'-10"	19'-11"	18'-10"
	NI-80	23'-5"	21'-7"	20'-7"	19'-5"	24'-0"	22'-3"	21'-2"	20'-0"
	NI-90	23'-10"	22'-1"	21'-0"	19'-10"	24'-5"	22'-7"	21'-6"	20'-4"
16"	NI-60	23'-9"	22'-0"	21'-0"	19'-10"	24'-6"	22'-9"	21'-8"	20'-7"
	NI-80	25'-6"	23'-7"	22'-5"	21'-2"	26'-2"	24'-3"	23'-1"	21'-10"
	NI-90	26'-0"	24'-0"	22'-10"	21'-6"	26'-7"	24'-8"	23'-5"	22'-2"

Joist depth	Joist series	Mid-span blocking with 1x4 inch strap				Mid-span blocking and 1/2 in. 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-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'-8"	18'-4"	22'-8"	20'-10"	19'-8"	18'-4"
	NI-80	23'-8"	22'-0"	20'-11"	19'-10"	24'-1"	22'-6"	21'-6"	20'-0"
	NI-90	24'-1"	22'-5"	21'-4"	20'-2"	24'-7"	22'-11"	21'-10"	20'-7"
14"	NI-40x	24'-5"	22'-9"	21'-9"	19'-5"	25'-1"	23'-2"	21'-9"	19'-5"
	NI-60	24'-10"	23'-2"	22'-1"	20'-10"	25'-6"	23'-8"	22'-4"	20'-10"
	NI-80	26'-6"	24'-8"	23'-6"	22'-2"	27'-1"	25'-3"	24'-1"	22'-9"
	NI-90	27'-0"	25'-1"	23'-11"	22'-7"	27'-6"	25'-8"	24'-6"	23'-2"
16"	NI-60	27'-3"	25'-5"	24'-3"	22'-11"	28'-0"	26'-2"	24'-9"	23'-1"
	NI-80	29'-1"	27'-1"	25'-9"	24'-4"	29'-8"	27'-9"	26'-5"	25'-0"
	NI-90	29'-7"	27'-6"	26'-2"	24'-9"	30'-2"	28'-2"	26'-10"	25'-5"

Notes:

1. The tabulated clear spans are based on CSA O86-14 and NBC 2015, and are applicable to residential floor construction meeting the above design criteria.
2. For multiple-span applications, the end spans shall be 40% or more of the adjacent span.
3. Minimum bearing length shall be 1-3/4 inch for end bearings, and 3-1/2 inches for intermediate bearings.
4. Bearing stiffeners are not required when I-joists are used in accordance with this table, except as required for hangers.
5. Nordic I-joists are listed in CCMC Evaluation Report 13032-R and APA Product Report PR-L274C.

Maximum Floor Spans – S6.1

Design Criteria

Spans:	Simple span
Loads:	Live load = 40 psf and dead load = 15 psf
Deflection limits:	L/480 under live load and L/240 under total load
Sheathing:	5/8 in. nailed-glued Canadian softwood plywood

Maximum Floor Spans

Joist depth	Joist series	Bare On centre spacing				1/2 in. gypsum ceiling On centre spacing			
		12"	16"	19.2"	24"	12"	16"	19.2"	24"
9-1/2"	NI-20	14'-11"	14'-1"	13'-7"	-	15'-4"	14'-6"	14'-1"	-
	NI-40x	15'-11"	15'-0"	14'-6"	-	16'-4"	15'-5"	14'-11"	-
	NI-60	16'-1"	15'-2"	14'-8"	-	16'-6"	15'-7"	15'-1"	-
	NI-80	17'-1"	16'-1"	15'-6"	-	17'-5"	16'-5"	15'-10"	-
11-7/8"	NI-20	16'-9"	15'-10"	15'-4"	-	17'-4"	16'-4"	15'-10"	-
	NI-40x	17'-10"	16'-10"	16'-3"	-	18'-6"	17'-4"	16'-9"	-
	NI-60	18'-1"	17'-0"	16'-5"	-	18'-9"	17'-6"	16'-11"	-
	NI-80	19'-6"	18'-0"	17'-4"	-	20'-1"	18'-7"	17'-9"	-
	NI-90	19'-11"	18'-4"	17'-8"	-	20'-5"	18'-11"	18'-1"	-
14"	NI-40x	19'-10"	18'-4"	17'-8"	-	20'-6"	19'-1"	18'-3"	-
	NI-60	20'-2"	18'-8"	17'-11"	-	20'-10"	19'-4"	18'-6"	-
	NI-80	21'-8"	20'-0"	19'-1"	-	22'-4"	20'-8"	19'-9"	-
	NI-90	22'-1"	20'-5"	19'-6"	-	22'-9"	21'-0"	20'-1"	-
16"	NI-60	22'-0"	20'-4"	19'-6"	-	22'-9"	21'-1"	20'-2"	-
	NI-80	23'-7"	21'-10"	20'-10"	-	24'-4"	22'-6"	21'-6"	-
	NI-90	24'-1"	22'-2"	21'-2"	-	24'-9"	22'-11"	21'-10"	-

Joist depth	Joist series	Mid-span blocking with 1x4 inch strap On centre spacing				Mid-span blocking and 1/2 in. gypsum ceiling On centre spacing			
		12"	16"	19.2"	24"	12"	16"	19.2"	24"
9-1/2"	NI-20	16'-6"	15'-1"	14'-3"	-	16'-6"	15'-1"	14'-3"	-
	NI-40x	17'-9"	16'-10"	15'-11"	-	18'-2"	16'-11"	15'-11"	-
	NI-60	17'-11"	16'-11"	16'-2"	-	18'-5"	17'-2"	16'-2"	-
	NI-80	19'-3"	17'-10"	17'-3"	-	19'-8"	18'-3"	17'-7"	-
11-7/8"	NI-20	19'-4"	18'-0"	17'-1"	-	19'-9"	18'-1"	17'-1"	-
	NI-40x	20'-10"	19'-4"	18'-6"	-	21'-5"	19'-11"	19'-0"	-
	NI-60	21'-1"	19'-7"	18'-8"	-	21'-8"	20'-2"	19'-3"	-
	NI-80	22'-6"	20'-10"	19'-11"	-	23'-1"	21'-5"	20'-5"	-
	NI-90	23'-0"	21'-3"	20'-4"	-	23'-6"	21'-10"	20'-10"	-
14"	NI-40x	23'-5"	21'-8"	20'-9"	-	24'-0"	22'-5"	21'-5"	-
	NI-60	23'-9"	22'-0"	21'-0"	-	24'-5"	22'-8"	21'-8"	-
	NI-80	25'-4"	23'-6"	22'-5"	-	25'-11"	24'-1"	23'-0"	-
	NI-90	25'-10"	23'-11"	22'-9"	-	26'-5"	24'-6"	23'-4"	-
16"	NI-60	26'-2"	24'-3"	23'-2"	-	26'-11"	25'-0"	23'-11"	-
	NI-80	27'-11"	25'-10"	24'-7"	-	28'-7"	26'-6"	25'-3"	-
	NI-90	28'-5"	26'-3"	25'-0"	-	29'-0"	26'-11"	25'-8"	-

Notes:

1. The tabulated clear spans are based on CSA O86-14 and NBC 2015, and are applicable to residential floor construction meeting the above design criteria.
2. For multiple-span applications, the end spans shall be 40% or more of the adjacent span.
3. Minimum bearing length shall be 1-3/4 inch for end bearings, and 3-1/2 inches for intermediate bearings.
4. Bearing stiffeners are not required when I-joists are used in accordance with this table, except as required for hangers.
5. Nordic I-joists are listed in CCMC Evaluation Report 13032-R and APA Product Report PR-L274C.

Maximum Floor Spans – S7.1

Design Criteria

Spans:	Simple span
Loads:	Live load = 40 psf and dead load = 15 psf
Deflection limits:	L/480 under live load and L/240 under total load
Sheathing:	3/4 in. nailed-glued Canadian softwood plywood

Maximum Floor Spans

Joist depth	Joist series	Bare On centre spacing				1/2 in. gypsum ceiling 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	16'-11"	15'-11"	15'-4"	14'-9"	17'-4"	16'-4"	15'-9"	15'-1"
	NI-60	17'-1"	16'-1"	15'-6"	14'-10"	17'-6"	16'-6"	15'-11"	15'-3"
	NI-80	18'-1"	17'-0"	16'-4"	15'-8"	18'-7"	17'-4"	16'-8"	16'-0"
11-7/8"	NI-20	17'-10"	16'-10"	16'-2"	15'-7"	18'-5"	17'-4"	16'-9"	16'-1"
	NI-40x	19'-3"	17'-10"	17'-2"	16'-6"	19'-10"	18'-5"	17'-8"	16'-11"
	NI-60	19'-6"	18'-1"	17'-4"	16'-8"	20'-1"	18'-8"	17'-10"	17'-1"
	NI-80	20'-11"	19'-4"	18'-5"	17'-7"	21'-5"	19'-10"	18'-11"	17'-11"
	NI-90	21'-4"	19'-9"	18'-9"	17'-10"	21'-10"	20'-3"	19'-3"	18'-3"
14"	NI-40x	21'-4"	19'-9"	18'-10"	17'-11"	22'-0"	20'-5"	19'-6"	18'-6"
	NI-60	21'-8"	20'-1"	19'-2"	18'-2"	22'-4"	20'-9"	19'-9"	18'-9"
	NI-80	23'-3"	21'-6"	20'-5"	19'-4"	23'-10"	22'-1"	21'-0"	19'-11"
	NI-90	23'-9"	21'-11"	20'-10"	19'-8"	24'-3"	22'-6"	21'-5"	20'-3"
16"	NI-60	23'-7"	21'-10"	20'-10"	19'-9"	24'-4"	22'-7"	21'-7"	20'-5"
	NI-80	25'-4"	23'-5"	22'-3"	21'-1"	26'-0"	24'-1"	22'-11"	21'-8"
	NI-90	25'-10"	23'-10"	22'-8"	21'-5"	26'-5"	24'-6"	23'-4"	22'-0"

Joist depth	Joist series	Mid-span blocking with 1x4 inch strap On centre spacing				Mid-span blocking and 1/2 in. gypsum ceiling 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'-7"	17'-2"	16'-3"	15'-2"	18'-10"	17'-2"	16'-3"	15'-2"
	NI-60	18'-10"	17'-6"	16'-6"	15'-5"	19'-1"	17'-6"	16'-6"	15'-5"
	NI-80	20'-2"	18'-9"	17'-11"	16'-10"	20'-7"	19'-2"	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'-9"	20'-3"	19'-4"	17'-8"	22'-4"	20'-5"	19'-4"	17'-8"
	NI-60	22'-0"	20'-6"	19'-7"	18'-4"	22'-7"	20'-10"	19'-8"	18'-4"
	NI-80	23'-6"	21'-10"	20'-10"	19'-9"	24'-0"	22'-5"	21'-4"	20'-0"
	NI-90	24'-0"	22'-4"	21'-3"	20'-1"	24'-6"	22'-10"	21'-9"	20'-7"
14"	NI-40x	24'-4"	22'-8"	21'-8"	19'-5"	25'-0"	23'-2"	21'-9"	19'-5"
	NI-60	24'-9"	23'-0"	22'-0"	20'-9"	25'-5"	23'-8"	22'-4"	20'-10"
	NI-80	26'-5"	24'-6"	23'-4"	22'-1"	27'-0"	25'-2"	24'-0"	22'-8"
	NI-90	26'-11"	25'-0"	23'-10"	22'-6"	27'-5"	25'-7"	24'-5"	23'-1"
16"	NI-60	27'-2"	25'-4"	24'-2"	22'-10"	27'-11"	26'-1"	24'-9"	23'-1"
	NI-80	29'-0"	26'-11"	25'-8"	24'-3"	29'-7"	27'-7"	26'-4"	24'-11"
	NI-90	29'-6"	27'-5"	26'-1"	24'-8"	30'-1"	28'-1"	26'-9"	25'-4"

Notes:

1. The tabulated clear spans are based on CSA O86-14 and NBC 2015, and are applicable to residential floor construction meeting the above design criteria.
2. For multiple-span applications, the end spans shall be 40% or more of the adjacent span.
3. Minimum bearing length shall be 1-3/4 inch for end bearings, and 3-1/2 inches for intermediate bearings.
4. Bearing stiffeners are not required when I-joists are used in accordance with this table, except as required for hangers.
5. Nordic I-joists are listed in CCMC Evaluation Report 13032-R and APA Product Report PR-L274C.

Maximum Floor Spans – M2.1

Design Criteria

Spans:	Simple span
Loads:	Live load = 40 psf and dead load = 20 psf
Deflection limits:	L/480 under live load and L/240 under total load
Sheathing:	5/8 in. nailed-glued oriented strand board (OSB) sheathing

Maximum Floor Spans

Joist depth	Joist series	Bare On centre spacing				1/2 in. gypsum ceiling On centre spacing			
		12"	16"	19.2"	24"	12"	16"	19.2"	24"
9-1/2"	NI-20	15'-1"	14'-3"	13'-10"	-	15'-7"	14'-9"	14'-3"	-
	NI-40x	16'-2"	15'-3"	14'-8"	-	16'-7"	15'-8"	15'-1"	-
	NI-60	16'-4"	15'-4"	14'-10"	-	16'-9"	15'-9"	15'-3"	-
	NI-80	17'-3"	16'-3"	15'-8"	-	17'-8"	16'-7"	16'-0"	-
11-7/8"	NI-20	17'-0"	16'-0"	15'-6"	-	17'-6"	16'-7"	16'-0"	-
	NI-40x	18'-2"	17'-1"	16'-6"	-	18'-9"	17'-6"	16'-11"	-
	NI-60	18'-5"	17'-3"	16'-8"	-	19'-0"	17'-8"	17'-1"	-
	NI-80	19'-9"	18'-3"	17'-7"	-	20'-4"	18'-10"	18'-0"	-
	NI-90	20'-2"	18'-8"	17'-10"	-	20'-9"	19'-2"	18'-4"	-
14"	NI-40x	20'-1"	18'-8"	17'-10"	-	20'-10"	19'-4"	18'-6"	-
	NI-60	20'-6"	18'-11"	18'-2"	-	21'-2"	19'-8"	18'-9"	-
	NI-80	21'-11"	20'-3"	19'-4"	-	22'-7"	20'-11"	20'-0"	-
	NI-90	22'-5"	20'-8"	19'-9"	-	23'-0"	21'-4"	20'-4"	-
16"	NI-60	22'-4"	20'-8"	19'-9"	-	23'-1"	21'-5"	20'-6"	-
	NI-80	23'-11"	22'-1"	21'-1"	-	24'-8"	22'-10"	21'-9"	-
	NI-90	24'-5"	22'-6"	21'-6"	-	25'-1"	23'-2"	22'-2"	-

Joist depth	Joist series	Mid-span blocking with 1x4 inch strap On centre spacing				Mid-span blocking and 1/2 in. gypsum ceiling On centre spacing			
		12"	16"	19.2"	24"	12"	16"	19.2"	24"
9-1/2"	NI-20	16'-8"	15'-3"	14'-5"	-	16'-8"	15'-3"	14'-5"	-
	NI-40x	17'-11"	17'-0"	16'-1"	-	18'-5"	17'-1"	16'-1"	-
	NI-60	18'-2"	17'-1"	16'-4"	-	18'-8"	17'-4"	16'-4"	-
	NI-80	19'-5"	18'-0"	17'-5"	-	19'-10"	18'-5"	17'-8"	-
11-7/8"	NI-20	19'-7"	18'-2"	17'-3"	-	19'-11"	18'-3"	17'-3"	-
	NI-40x	21'-1"	19'-7"	18'-8"	-	21'-8"	20'-2"	19'-0"	-
	NI-60	21'-4"	19'-9"	18'-11"	-	21'-11"	20'-5"	19'-6"	-
	NI-80	22'-9"	21'-1"	20'-2"	-	23'-3"	21'-8"	20'-8"	-
	NI-90	23'-3"	21'-6"	20'-6"	-	23'-9"	22'-0"	21'-0"	-
14"	NI-40x	23'-8"	21'-11"	20'-11"	-	24'-4"	22'-8"	20'-11"	-
	NI-60	24'-0"	22'-3"	21'-3"	-	24'-8"	22'-11"	21'-11"	-
	NI-80	25'-7"	23'-9"	22'-7"	-	26'-2"	24'-4"	23'-3"	-
	NI-90	26'-1"	24'-2"	23'-0"	-	26'-8"	24'-9"	23'-7"	-
16"	NI-60	26'-5"	24'-6"	23'-5"	-	27'-2"	25'-3"	24'-2"	-
	NI-80	28'-2"	26'-1"	24'-10"	-	28'-10"	26'-9"	25'-6"	-
	NI-90	28'-8"	26'-6"	25'-3"	-	29'-3"	27'-2"	25'-11"	-

Notes:

- The tabulated clear spans are based on CSA O86-14 and NBC 2015, and are applicable to residential floor construction meeting the above design criteria.
- For multiple-span applications, the end spans shall be 40% or more of the adjacent span.
- Minimum bearing length shall be 1-3/4 inch for end bearings, and 3-1/2 inches for intermediate bearings.
- Bearing stiffeners are not required when I-joists are used in accordance with this table, except as required for hangers.
- Nordic I-joists are listed in CCMC Evaluation Report 13032-R and APA Product Report PR-L274C.

Maximum Floor Spans – M4.1

Design Criteria

Spans:	Simple span
Loads:	Live load = 40 psf and dead load = 20 psf
Deflection limits:	L/480 under live load and L/240 under total load
Sheathing:	3/4 in. nailed-glued oriented strand board (OSB) sheathing

Maximum Floor Spans

Joist depth	Joist series	Bare				1/2 in. gypsum ceiling			
		On centre spacing				On centre spacing			
		12"	16"	19.2"	24"	12"	16"	19.2"	24"
9-1/2"	NI-20	15'-11"	15'-0"	14'-6"	13'-5"	16'-5"	15'-5"	14'-6"	13'-5"
	NI-40x	17'-0"	16'-0"	15'-5"	14'-10"	17'-5"	16'-5"	15'-10"	14'-11"
	NI-60	17'-2"	16'-2"	15'-7"	14'-11"	17'-7"	16'-7"	16'-0"	15'-4"
	NI-80	18'-3"	17'-1"	16'-5"	15'-9"	18'-8"	17'-5"	16'-9"	16'-1"
11-7/8"	NI-20	17'-11"	16'-11"	16'-3"	15'-8"	18'-7"	17'-5"	16'-10"	16'-1"
	NI-40x	19'-4"	17'-11"	17'-3"	16'-7"	19'-11"	18'-6"	17'-9"	17'-0"
	NI-60	19'-7"	18'-2"	17'-6"	16'-9"	20'-2"	18'-9"	17'-11"	17'-2"
	NI-80	21'-1"	19'-6"	18'-6"	17'-7"	21'-7"	20'-0"	19'-0"	18'-0"
	NI-90	21'-6"	19'-10"	18'-11"	17'-11"	22'-0"	20'-4"	19'-5"	18'-4"
14"	NI-40x	21'-5"	19'-11"	18'-11"	18'-0"	22'-1"	20'-7"	19'-7"	18'-7"
	NI-60	21'-10"	20'-2"	19'-3"	18'-3"	22'-6"	20'-10"	19'-11"	18'-10"
	NI-80	23'-5"	21'-7"	20'-7"	19'-5"	24'-0"	22'-3"	21'-2"	20'-0"
	NI-90	23'-10"	22'-1"	21'-0"	19'-10"	24'-5"	22'-7"	21'-6"	20'-4"
16"	NI-60	23'-9"	22'-0"	21'-0"	19'-10"	24'-6"	22'-9"	21'-8"	20'-7"
	NI-80	25'-6"	23'-7"	22'-5"	21'-2"	26'-2"	24'-3"	23'-1"	21'-10"
	NI-90	26'-0"	24'-0"	22'-10"	21'-6"	26'-7"	24'-8"	23'-5"	22'-2"

Joist depth	Joist series	Mid-span blocking with 1x4 inch strap				Mid-span blocking and 1/2 in. 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"	14'-11"	18'-10"	17'-2"	16'-3"	14'-11"
	NI-60	18'-11"	17'-6"	16'-6"	15'-5"	19'-2"	17'-6"	16'-6"	15'-5"
	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'-1"	20'-1"	18'-5"	17'-5"	16'-1"
	NI-40x	21'-10"	20'-4"	19'-0"	17'-0"	22'-5"	20'-6"	19'-0"	17'-0"
	NI-60	22'-1"	20'-7"	19'-8"	18'-4"	22'-8"	20'-10"	19'-8"	18'-4"
	NI-80	23'-8"	22'-0"	20'-11"	19'-10"	24'-1"	22'-6"	21'-6"	20'-0"
	NI-90	24'-1"	22'-5"	21'-4"	20'-2"	24'-7"	22'-11"	21'-10"	20'-7"
14"	NI-40x	24'-5"	22'-9"	20'-11"	18'-8"	25'-1"	22'-11"	20'-11"	18'-8"
	NI-60	24'-10"	23'-2"	22'-1"	20'-10"	25'-6"	23'-8"	22'-4"	20'-10"
	NI-80	26'-6"	24'-8"	23'-6"	22'-2"	27'-1"	25'-3"	24'-1"	22'-9"
	NI-90	27'-0"	25'-1"	23'-11"	22'-7"	27'-6"	25'-8"	24'-6"	23'-2"
16"	NI-60	27'-3"	25'-5"	24'-3"	22'-11"	28'-0"	26'-2"	24'-9"	23'-1"
	NI-80	29'-1"	27'-1"	25'-9"	24'-4"	29'-8"	27'-9"	26'-5"	25'-0"
	NI-90	29'-7"	27'-6"	26'-2"	24'-9"	30'-2"	28'-2"	26'-10"	25'-5"

Notes:

- The tabulated clear spans are based on CSA O86-14 and NBC 2015, and are applicable to residential floor construction meeting the above design criteria.
- For multiple-span applications, the end spans shall be 40% or more of the adjacent span.
- Minimum bearing length shall be 1-3/4 inch for end bearings, and 3-1/2 inches for intermediate bearings.
- Bearing stiffeners are not required when I-joists are used in accordance with this table, except as required for hangers.
- Nordic I-joists are listed in CCMC Evaluation Report 13032-R and APA Product Report PR-L274C.

Maximum Floor Spans – M6.1

Design Criteria

Spans:	Simple span
Loads:	Live load = 40 psf and dead load = 20 psf
Deflection limits:	L/480 under live load and L/240 under total load
Sheathing:	5/8 in. nailed-glued Canadian softwood plywood

Maximum Floor Spans

Joist depth	Joist series	Bare On centre spacing				1/2 in. gypsum ceiling On centre spacing			
		12"	16"	19.2"	24"	12"	16"	19.2"	24"
9-1/2"	NI-20	14'-11"	14'-1"	13'-7"	-	15'-4"	14'-6"	14'-1"	-
	NI-40x	15'-11"	15'-0"	14'-6"	-	16'-4"	15'-5"	14'-11"	-
	NI-60	16'-1"	15'-2"	14'-8"	-	16'-6"	15'-7"	15'-1"	-
	NI-80	17'-1"	16'-1"	15'-6"	-	17'-5"	16'-5"	15'-10"	-
11-7/8"	NI-20	16'-9"	15'-10"	15'-4"	-	17'-4"	16'-4"	15'-10"	-
	NI-40x	17'-10"	16'-10"	16'-3"	-	18'-6"	17'-4"	16'-9"	-
	NI-60	18'-1"	17'-0"	16'-5"	-	18'-9"	17'-6"	16'-11"	-
	NI-80	19'-6"	18'-0"	17'-4"	-	20'-1"	18'-7"	17'-9"	-
	NI-90	19'-11"	18'-4"	17'-8"	-	20'-5"	18'-11"	18'-1"	-
14"	NI-40x	19'-10"	18'-4"	17'-8"	-	20'-6"	19'-1"	18'-3"	-
	NI-60	20'-2"	18'-8"	17'-11"	-	20'-10"	19'-4"	18'-6"	-
	NI-80	21'-8"	20'-0"	19'-1"	-	22'-4"	20'-8"	19'-9"	-
	NI-90	22'-1"	20'-5"	19'-6"	-	22'-9"	21'-0"	20'-1"	-
16"	NI-60	22'-0"	20'-4"	19'-6"	-	22'-9"	21'-1"	20'-2"	-
	NI-80	23'-7"	21'-10"	20'-10"	-	24'-4"	22'-6"	21'-6"	-
	NI-90	24'-1"	22'-2"	21'-2"	-	24'-9"	22'-11"	21'-10"	-

Joist depth	Joist series	Mid-span blocking with 1x4 inch strap On centre spacing				Mid-span blocking and 1/2 in. gypsum ceiling On centre spacing			
		12"	16"	19.2"	24"	12"	16"	19.2"	24"
9-1/2"	NI-20	16'-6"	15'-1"	14'-3"	-	16'-6"	15'-1"	14'-3"	-
	NI-40x	17'-9"	16'-10"	15'-11"	-	18'-2"	16'-11"	15'-11"	-
	NI-60	17'-11"	16'-11"	16'-2"	-	18'-5"	17'-2"	16'-2"	-
	NI-80	19'-3"	17'-10"	17'-3"	-	19'-8"	18'-3"	17'-7"	-
11-7/8"	NI-20	19'-4"	18'-0"	17'-1"	-	19'-9"	18'-1"	17'-1"	-
	NI-40x	20'-10"	19'-4"	18'-6"	-	21'-5"	19'-11"	19'-0"	-
	NI-60	21'-1"	19'-7"	18'-8"	-	21'-8"	20'-2"	19'-3"	-
	NI-80	22'-6"	20'-10"	19'-11"	-	23'-1"	21'-5"	20'-5"	-
	NI-90	23'-0"	21'-3"	20'-4"	-	23'-6"	21'-10"	20'-10"	-
14"	NI-40x	23'-5"	21'-8"	20'-9"	-	24'-0"	22'-5"	20'-11"	-
	NI-60	23'-9"	22'-0"	21'-0"	-	24'-5"	22'-8"	21'-8"	-
	NI-80	25'-4"	23'-6"	22'-5"	-	25'-11"	24'-1"	23'-0"	-
	NI-90	25'-10"	23'-11"	22'-9"	-	26'-5"	24'-6"	23'-4"	-
16"	NI-60	26'-2"	24'-3"	23'-2"	-	26'-11"	25'-0"	23'-11"	-
	NI-80	27'-11"	25'-10"	24'-7"	-	28'-7"	26'-6"	25'-3"	-
	NI-90	28'-5"	26'-3"	25'-0"	-	29'-0"	26'-11"	25'-8"	-

Notes:

- The tabulated clear spans are based on CSA O86-14 and NBC 2015, and are applicable to residential floor construction meeting the above design criteria.
- For multiple-span applications, the end spans shall be 40% or more of the adjacent span.
- Minimum bearing length shall be 1-3/4 inch for end bearings, and 3-1/2 inches for intermediate bearings.
- Bearing stiffeners are not required when I-joists are used in accordance with this table, except as required for hangers.
- Nordic I-joists are listed in CCMC Evaluation Report 13032-R and APA Product Report PR-L274C.

Maximum Floor Spans – M7.1

Design Criteria

Spans:	Simple span
Loads:	Live load = 40 psf and dead load = 20 psf
Deflection limits:	L/480 under live load and L/240 under total load
Sheathing:	3/4 in. nailed-glued Canadian softwood plywood

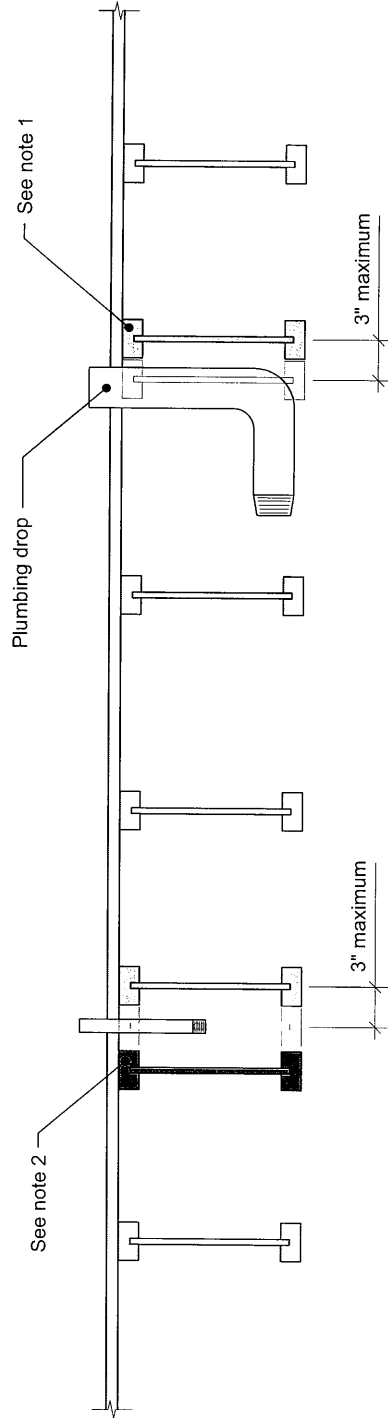
Maximum Floor Spans

Joist depth	Joist series	Bare				1/2 in. 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	16'-11"	15'-11"	15'-4"	14'-9"	17'-4"	16'-4"	15'-9"	14'-11"
	NI-60	17'-1"	16'-1"	15'-6"	14'-10"	17'-6"	16'-6"	15'-11"	15'-3"
	NI-80	18'-1"	17'-0"	16'-4"	15'-8"	18'-7"	17'-4"	16'-8"	16'-0"
11-7/8"	NI-20	17'-10"	16'-10"	16'-2"	15'-7"	18'-5"	17'-4"	16'-9"	16'-1"
	NI-40x	19'-3"	17'-10"	17'-2"	16'-6"	19'-10"	18'-5"	17'-8"	16'-11"
	NI-60	19'-6"	18'-1"	17'-4"	16'-8"	20'-1"	18'-8"	17'-10"	17'-1"
	NI-80	20'-11"	19'-4"	18'-5"	17'-7"	21'-5"	19'-10"	18'-11"	17'-11"
	NI-90	21'-4"	19'-9"	18'-9"	17'-10"	21'-10"	20'-3"	19'-3"	18'-3"
14"	NI-40x	21'-4"	19'-9"	18'-10"	17'-11"	22'-0"	20'-5"	19'-6"	18'-6"
	NI-60	21'-8"	20'-1"	19'-2"	18'-2"	22'-4"	20'-9"	19'-9"	18'-9"
	NI-80	23'-3"	21'-6"	20'-5"	19'-4"	23'-10"	22'-1"	21'-0"	19'-11"
	NI-90	23'-9"	21'-11"	20'-10"	19'-8"	24'-3"	22'-6"	21'-5"	20'-3"
16"	NI-60	23'-7"	21'-10"	20'-10"	19'-9"	24'-4"	22'-7"	21'-7"	20'-5"
	NI-80	25'-4"	23'-5"	22'-3"	21'-1"	26'-0"	24'-1"	22'-11"	21'-8"
	NI-90	25'-10"	23'-10"	22'-8"	21'-5"	26'-5"	24'-6"	23'-4"	22'-0"

Joist depth	Joist series	Mid-span blocking with 1x4 inch strap				Mid-span blocking and 1/2 in. 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'-7"	17'-2"	16'-3"	14'-11"	18'-10"	17'-2"	16'-3"	14'-11"
	NI-60	18'-10"	17'-6"	16'-6"	15'-5"	19'-1"	17'-6"	16'-6"	15'-5"
	NI-80	20'-2"	18'-9"	17'-11"	16'-10"	20'-7"	19'-2"	18'-2"	16'-10"
11-7/8"	NI-20	20'-1"	18'-5"	17'-5"	16'-1"	20'-1"	18'-5"	17'-5"	16'-1"
	NI-40x	21'-9"	20'-3"	19'-0"	17'-0"	22'-4"	20'-5"	19'-0"	17'-0"
	NI-60	22'-0"	20'-6"	19'-7"	18'-4"	22'-7"	20'-10"	19'-8"	18'-4"
	NI-80	23'-6"	21'-10"	20'-10"	19'-9"	24'-0"	22'-5"	21'-4"	20'-0"
	NI-90	24'-0"	22'-4"	21'-3"	20'-1"	24'-6"	22'-10"	21'-9"	20'-7"
14"	NI-40x	24'-4"	22'-8"	20'-11"	18'-8"	25'-0"	22'-11"	20'-11"	18'-8"
	NI-60	24'-9"	23'-0"	22'-0"	20'-9"	25'-5"	23'-8"	22'-4"	20'-10"
	NI-80	26'-5"	24'-6"	23'-4"	22'-1"	27'-0"	25'-2"	24'-0"	22'-8"
	NI-90	26'-11"	25'-0"	23'-10"	22'-6"	27'-5"	25'-7"	24'-5"	23'-1"
16"	NI-60	27'-2"	25'-4"	24'-2"	22'-10"	27'-11"	26'-1"	24'-9"	23'-1"
	NI-80	29'-0"	26'-11"	25'-8"	24'-3"	29'-7"	27'-7"	26'-4"	24'-11"
	NI-90	29'-6"	27'-5"	26'-1"	24'-8"	30'-1"	28'-1"	26'-9"	25'-4"

Notes:



- The tabulated clear spans are based on CSA O86-14 and NBC 2015, and are applicable to residential floor construction meeting the above design criteria.
- For multiple-span applications, the end spans shall be 40% or more of the adjacent span.
- Minimum bearing length shall be 1-3/4 inch for end bearings, and 3-1/2 inches for intermediate bearings.
- Bearing stiffeners are not required when I-joists are used in accordance with this table, except as required for hangers.
- Nordic I-joists are listed in CCMC Evaluation Report 13032-R and APA Product Report PR-L274C.



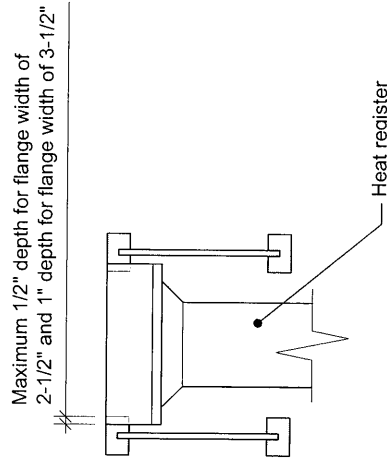
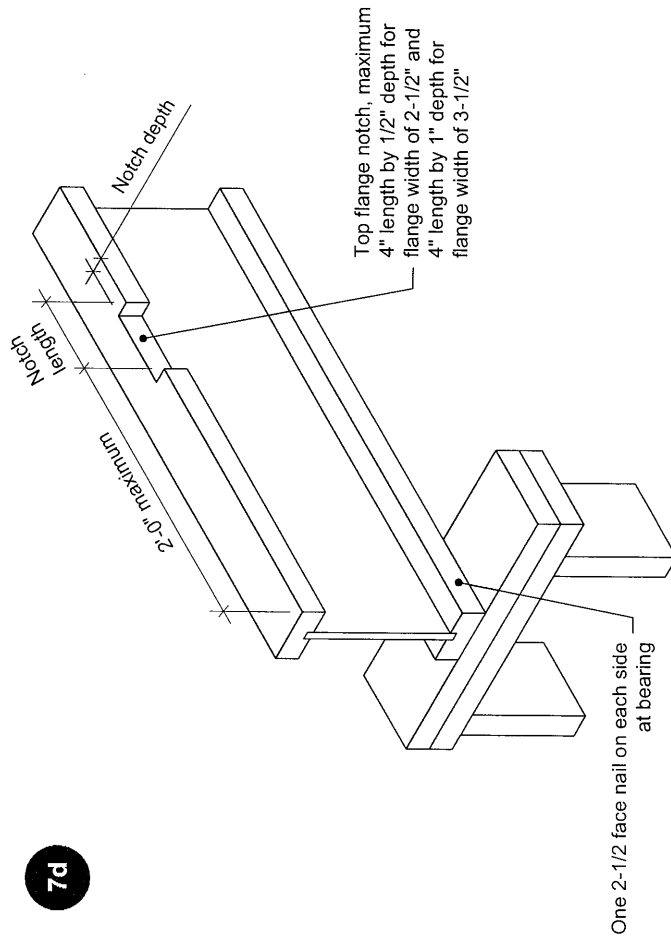
Notes:

1. To prevent interference with plumbing, a joist may be shifted up to 3 inches if the edge of the floor panel is supported and the span rating is not exceeded.
2. In all other cases, an additional joist is required.

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.

NORDIC STRUCTURES nordic.ca	NS-DC3   NORDIC JOIST	TITLE		DRAWING	
		Allowance for Piping		7c	
		CATEGORY	SCALE	DATE	PAGE
		Openings for Vertical Elements		-	2020-10-01


7d



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 length by 1/2-inch depth for flange width of 2-1/2 inches, and 4-inch length 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.

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.

NORDIC STRUCTURES nordic.ca	NS-DC3  DETAILS NORDIC JOIST	TITLE		DRAWING	
		Notch in I-joist for Heat Register		7d	
		CATEGORY		SCALE	
		Openings for Vertical Elements		DATE	
				2020-10-01	
				PAGE	
				3.11	