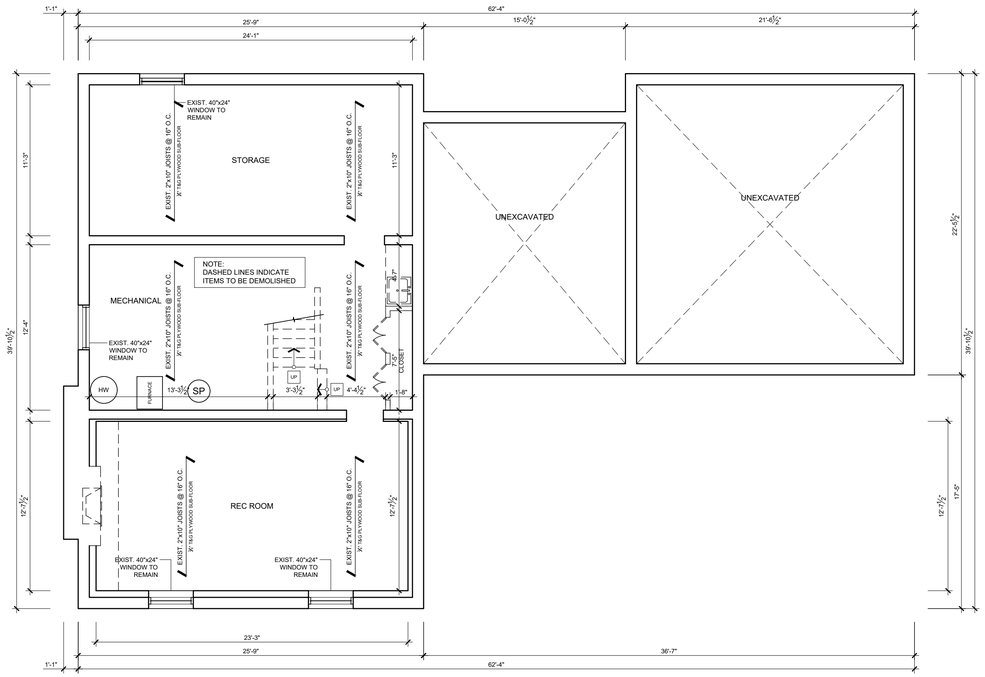
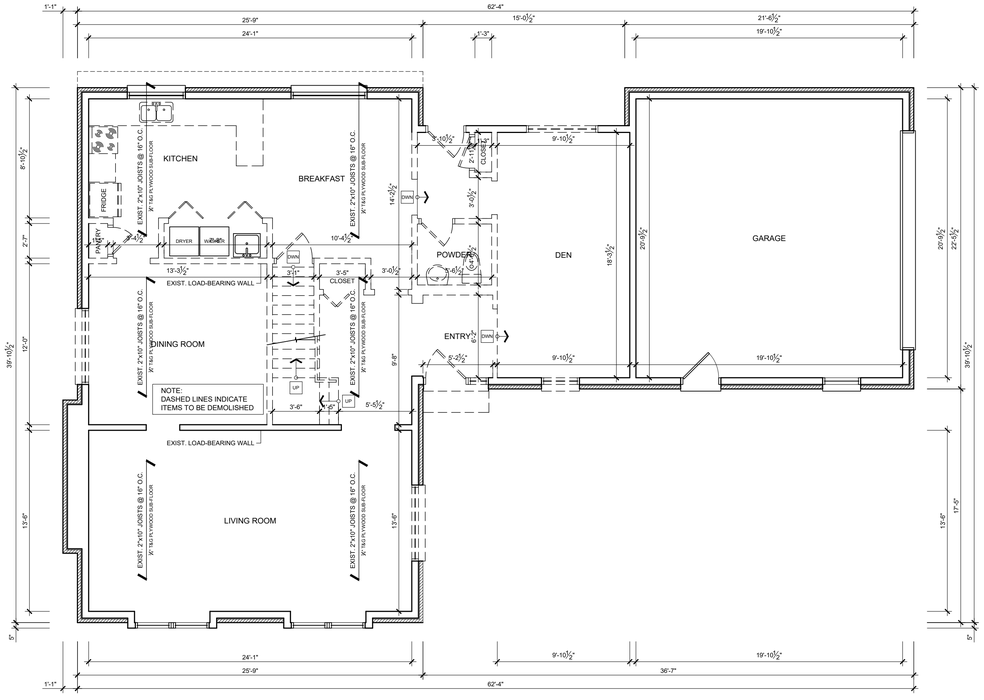


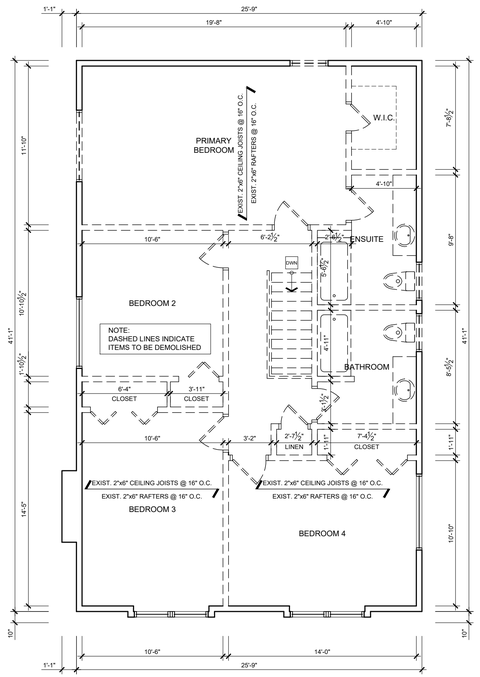
EXISTING BASEMENT PLAN

SCALE 3/16" = 1' - 0"



EXISTING MAIN FLOOR PLAN

SCALE 3/16" = 1' - 0"



EXISTING SECOND FLOOR PLAN

SCALE 3/16" = 1' - 0"

THE TOWN OF OAKVILLE
REVIEWED

PERMIT IS ISSUED SUBJECT TO ANY REASON SHOWN IN COLOUR AND MARKED THEREON OR ON ATTACHED SHEET.

PERMIT NO.: 24 - 206538

DATE: January 7, 2025 SIGNED: TA

CONSTRUCTION MUST CONFORM TO THE ONTARIO BUILDING CODE

ALL REVISION PLANS TO BE VIEWED IN CONJUNCTION WITH ORIGINALLY ISSUED PERMIT PLANS

PROJECT NORTH	TRUE NORTH

No.	REVISION	DATE
02.	REVISIONS FOR PERMIT REVIEW	11/28/2024
01.	DRAWINGS FOR PERMIT REVIEW	09/04/2024

1. ALL CONTRACTORS AND/OR TRADES SHALL VERIFY ALL DIMENSIONS, NOTES, SITE AND REPORT ANY DISCREPANCIES PRIOR TO THE COMMENCEMENT OF WORK.
2. THIS DRAWING IS NOT TO BE SCALED. ALL DRAWINGS, PRINTS AND RELATED DOCUMENTS ARE THE PROPERTY OF LEN ANGELICI DESIGN AND MUST BE RETURNED UPON REQUEST
3. REPRODUCTION OF DRAWINGS AND RELATED DOCUMENTS IN PART OR IN WHOLE IS STRICTLY PROHIBITED WITHOUT WRITTEN CONSENT OF LEN ANGELICI DESIGN.
4. CONTRACTOR SHALL REVIEW ALL DRAWINGS PRIOR TO COMMENCING CONSTRUCTION FOR ANY ERRORS OR OMISSIONS.
5. LEN ANGELICI DESIGN IS NOT RESPONSIBLE FOR THE DESIGN OR PRE-ENGINEERED TRUSSES OR ANY PRE-ENGINEERED PRODUCTS.
6. LEN ANGELICI DESIGN IS NOT RESPONSIBLE FOR HEATING, PLUMBING, OR ELECTRICAL DRAWINGS.
7. DRAWING MAY NOT BE CHANGED, ALTERED OR COPIED WITHOUT WRITTEN CONSENT OF LEN ANGELICI DESIGN. FAILURE TO COMPLY WITH THIS STATEMENT IS NOT THE RESPONSIBILITY OF LEN ANGELICI DESIGN.
8. LEN ANGELICI DESIGN IS NOT RESPONSIBLE FOR POOR CONSTRUCTION PRACTICES.

SEAL

RECEIVED
BUILDING SERVICES
PERMIT NO: 24-206538 REV 01
DATE: 12/17/2024
TOWN OF OAKVILLE

THE UNDERSIGNED HAS REVIEWED AND TAKES RESPONSIBILITY FOR THIS DESIGN, AND HAS THE QUALIFICATIONS AND MEETS THE REQUIREMENTS SET OUT IN THE ONTARIO BUILDING CODE TO BE A DESIGNER.

QUALIFICATION INFORMATION

LEONARD ANGELICI — 42391
NAME — BCIN

REGISTRATION INFORMATION

LEN ANGELICI DESIGN — 124457
NAME — BCIN

11/28/2024
DATE — SIGNATURE

Len Angelici Design
270 SHERMAN AVE N, UNIT MILL-125
HAMILTON, ON L8L 6N4
(905) 393-8868
info@lenangelicidesign.ca

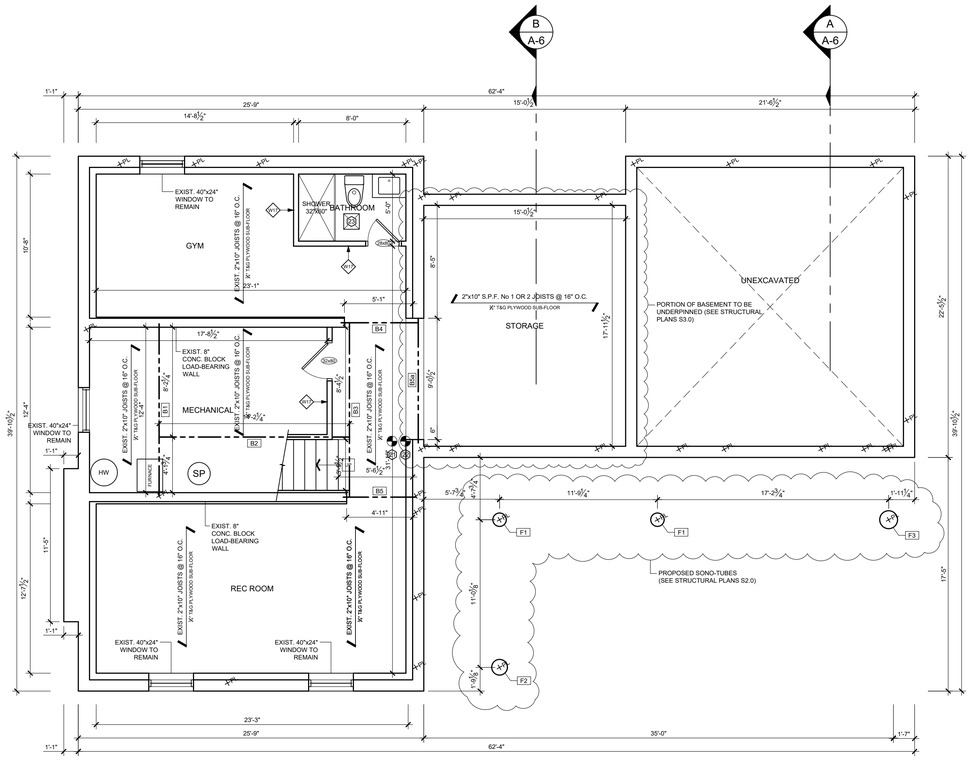
PROJECT

246 CAIRNCROFT RD
OAKVILLE, ON

SHEET TITLE

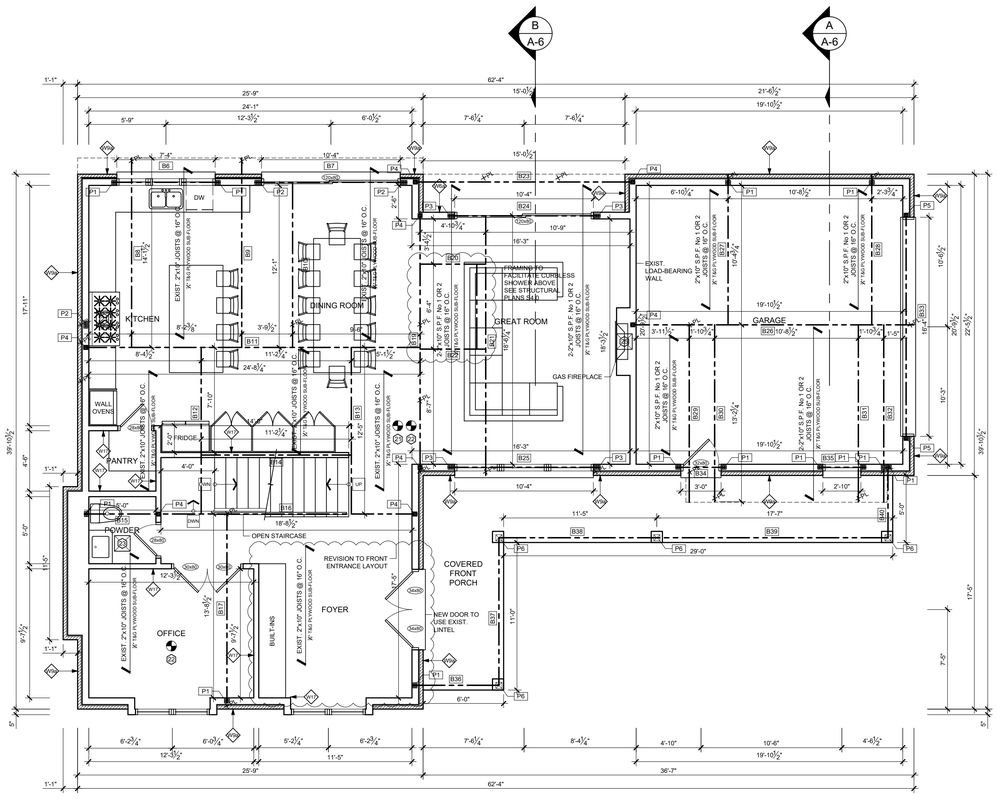
EXISTING FLOOR PLANS

DRAWN BY	
L. ANGELICI	
DATE	A1
11/28/2024	
SCALE	
3/16"=1'-0"	
PROJECT No.	
24019	



PROPOSED BASEMENT PLAN

SCALE 3/16" = 1' - 0"



PROPOSED MAIN FLOOR PLAN

SCALE 3/16" = 1' - 0"

MAIN FLOOR AREA: 1356.22sqft (126.00m²)
GARAGE AREA: 467.44sqft (43.43m²)
FRONT PORCH: 241.00sqft (22.39m²)
2nd FLOOR PROJECTIONS: 73.73sqft (6.85m²)

LOT AREA: 1395.95m²
COVERAGE: 2138.39sqft (198.66m²) = 14.23%
FLOOR AREA: 1356.22sqft + 1877.32sqft
= 3233.54sqft (300.41m²)
= 21.52%

B1 BEAM BY ENGINEER (SEE STRUCTURAL PLANS S3.0)
B2 BEAM BY ENGINEER (SEE STRUCTURAL PLANS S3.0)
B3 BEAM BY ENGINEER (SEE STRUCTURAL PLANS S3.0)
B4 BEAM BY ENGINEER (SEE STRUCTURAL PLANS S3.0)
B5 BEAM BY ENGINEER (SEE STRUCTURAL PLANS S3.0)
B5a BEAM BY ENGINEER (SEE STRUCTURAL PLANS S3.0)
B5 BEAM BY ENGINEER (SEE STRUCTURAL PLANS S3.0)
F1 Ø12" SONO-TUBE BY ENGINEER (SEE STRUCTURAL PLANS S2.0)
F2 Ø14" SONO-TUBE BY ENGINEER (SEE STRUCTURAL PLANS S2.0)
F3 Ø16" SONO-TUBE BY ENGINEER (SEE STRUCTURAL PLANS S2.0)

WTe EXIST. 10" CONCRETE BLOCK FOUNDATION
2" CONTINUOUS RIGID FOAM INSULATION (R10)
2"x4" FRAMING S.P.F. 1 or 2
½" GYPSUM WALLBOARD

FLOOR AND ROOF FRAMING TO BE CO-ORDINATED BETWEEN ARCHITECTURAL PLANS AND ENGINEERED PLANS AND SPECIFICATIONS (FROM LUMBER COMPANY)

B6 BEAM BY ENGINEER (SEE STRUCTURAL PLANS S4.0)
B7 BEAM BY ENGINEER (SEE STRUCTURAL PLANS S4.0)
B8 BEAM BY ENGINEER (SEE STRUCTURAL PLANS S4.0)
B9 BEAM BY ENGINEER (SEE STRUCTURAL PLANS S4.0)
B10 BEAM BY ENGINEER (SEE STRUCTURAL PLANS S4.0)
B11 BEAM BY ENGINEER (SEE STRUCTURAL PLANS S4.0)
B12 BEAM BY ENGINEER (SEE STRUCTURAL PLANS S4.0)
B13 BEAM BY ENGINEER (SEE STRUCTURAL PLANS S4.0)
B14 BEAM BY ENGINEER (SEE STRUCTURAL PLANS S4.0)
B15 BEAM BY ENGINEER (SEE STRUCTURAL PLANS S4.0)
B16 BEAM BY ENGINEER (SEE STRUCTURAL PLANS S4.0)
B17 BEAM BY ENGINEER (SEE STRUCTURAL PLANS S4.0)
B19 BEAM BY ENGINEER (SEE STRUCTURAL PLANS S4.0)
B20 BEAM BY ENGINEER (SEE STRUCTURAL PLANS S4.0)
B21 BEAM BY ENGINEER (SEE STRUCTURAL PLANS S4.0)
B22 BEAM BY ENGINEER (SEE STRUCTURAL PLANS S4.0)
B23 BEAM BY ENGINEER (SEE STRUCTURAL PLANS S4.0)

B24 BEAM BY ENGINEER (SEE STRUCTURAL PLANS S4.0)
B25 BEAM BY ENGINEER (SEE STRUCTURAL PLANS S4.0)
B26 BEAM BY ENGINEER (SEE STRUCTURAL PLANS S4.0)
B27 BEAM BY ENGINEER (SEE STRUCTURAL PLANS S4.0)
B28 BEAM BY ENGINEER (SEE STRUCTURAL PLANS S4.0)
B29 BEAM BY ENGINEER (SEE STRUCTURAL PLANS S4.0)
B30 BEAM BY ENGINEER (SEE STRUCTURAL PLANS S4.0)
B31 BEAM BY ENGINEER (SEE STRUCTURAL PLANS S4.0)
B32 BEAM BY ENGINEER (SEE STRUCTURAL PLANS S4.0)
B33 BEAM BY ENGINEER (SEE STRUCTURAL PLANS S4.0)
B34 BEAM BY ENGINEER (SEE STRUCTURAL PLANS S4.0)
B35 BEAM BY ENGINEER (SEE STRUCTURAL PLANS S4.0)
B36 BEAM BY ENGINEER (SEE STRUCTURAL PLANS S4.0)
B37 BEAM BY ENGINEER (SEE STRUCTURAL PLANS S4.0)
B38 BEAM BY ENGINEER (SEE STRUCTURAL PLANS S4.0)
B39 BEAM BY ENGINEER (SEE STRUCTURAL PLANS S4.0)
B40 BEAM BY ENGINEER (SEE STRUCTURAL PLANS S4.0)

P1 POST BY ENGINEER (SEE STRUCTURAL PLANS S4.0)
P2 POST BY ENGINEER (SEE STRUCTURAL PLANS S4.0)
P3 POST BY ENGINEER (SEE STRUCTURAL PLANS S4.0)
P4 POST BY ENGINEER (SEE STRUCTURAL PLANS S4.0)
P5 POST BY ENGINEER (SEE STRUCTURAL PLANS S4.0)
P6 POST BY ENGINEER (SEE STRUCTURAL PLANS S4.0)
P7 POST BY ENGINEER (SEE STRUCTURAL PLANS S4.0)

W5d SIDING ACCORDING TO OBC 9.27.13 AS PER ELEVATION, WITH OSB SHEATHING MEMBRANE 9.5mm (⅜"), AS PER ELEVATION, WITH TYVEK MEMBRANE ON ½" EXTERIOR TYPE
EXISTING 2"x4" FRAMING @ 16" O.C.
RSI 4.23 (R24) OR RSI 3.87 (R22) INSULATION AND CONTINUOUS 0.15 (6 mil) POLYETHYLENE VAROUR BARRIER, 13mm, (½") INT. DRYWALL FINISH.

W3d EXIST. BRICK VENEER
1" AIR SPACE
½" PLYWOOD SHEATHING
EXIST. 2"x4" FRAMING @ 16" O.C.
RSI 4.23 (R24) OR RSI 3.87 (R22) BATT INSULATION, 0.15 (6 mil) POLYETHYLINE VAPOUR BARRIER AND AIR BARRIER, 13mm (½") INT. DRYWALL FINISH

THE TOWN OF OAKVILLE REVIEWED

PERMIT IS ISSUED SUBJECT TO ANY REASON SHOWN IN COLOUR AND MARKED THEREON OR ON ATTACHED SHEET.

PERMIT NO.: 24 - 206538

DATE: January 7, 2025 SIGNED: TA

CONSTRUCTION MUST CONFORM TO THE ONTARIO BUILDING CODE

TOWN OF OAKVILLE

ZONING DEPARTMENT

Reviewed By: T. Ditella

Date: 17-December-2024

PROJECT NORTH	TRUE NORTH

No.	REVISION	DATE
02.	REVISIONS FOR PERMIT REVIEW	11/28/2024
01.	DRAWINGS FOR PERMIT REVIEW	09/04/2024

1. ALL CONTRACTORS AND/OR TRADES SHALL VERIFY ALL DIMENSIONS, NOTES, SITE AND REPORT ANY DISCREPANCIES PRIOR TO THE COMMENCEMENT OF WORK.
2. THIS DRAWING IS NOT TO BE SCALED. ALL DRAWINGS, PRINTS AND RELATED DOCUMENTS ARE THE PROPERTY OF LEN ANGELICI DESIGN AND MUST BE RETURNED UPON REQUEST
3. REPRODUCTION OF DRAWINGS AND RELATED DOCUMENTS IN PART OR IN WHOLE IS STRICTLY PROHIBITED WITHOUT WRITTEN CONSENT OF LEN ANGELICI DESIGN.
4. CONTRACTOR SHALL REVIEW ALL DRAWINGS PRIOR TO COMMENCING CONSTRUCTION FOR ANY ERRORS OR OMISSIONS.
5. LEN ANGELICI DESIGN IS NOT RESPONSIBLE FOR THE DESIGN OR PRE-ENGINEERED TRUSSES OR ANY PRE-ENGINEERED PRODUCTS.
6. LEN ANGELICI DESIGN IS NOT RESPONSIBLE FOR HEATING, PLUMBING, OR ELECTRICAL DRAWINGS.
7. DRAWING MAY NOT BE CHANGED, ALTERED OR COPIED WITHOUT WRITTEN CONSENT OF LEN ANGELICI DESIGN. FAILURE TO COMPLY WITH THIS STATEMENT IS NOT THE RESPONSIBILITY OF LEN ANGELICI DESIGN.
8. LEN ANGELICI DESIGN IS NOT RESPONSIBLE FOR POOR CONSTRUCTION PRACTICES.

SEAL

RECEIVED
BUILDING SERVICES
PERMIT NO: 24-206538 REV 01
DATE: 12/17/2024
TOWN OF OAKVILLE

THE UNDERSIGNED HAS REVIEWED AND TAKES RESPONSIBILITY FOR THIS DESIGN, AND HAS THE QUALIFICATIONS AND MEETS THE REQUIREMENTS SET OUT IN THE ONTARIO BUILDING CODE TO BE A DESIGNER.

QUALIFICATION INFORMATION

LEONARD ANGELICI	42391
NAME	BCIN

REGISTRATION INFORMATION

LEN ANGELICI DESIGN	124457
NAME	BCIN

11/28/2024
DATE SIGNATURE

Len Angelici Design
270 SHERMAN AVE N, UNIT MILL-125
HAMILTON, ON L8L 6N4
(905) 393-8868
info@lenangelicidesign.ca

PROJECT

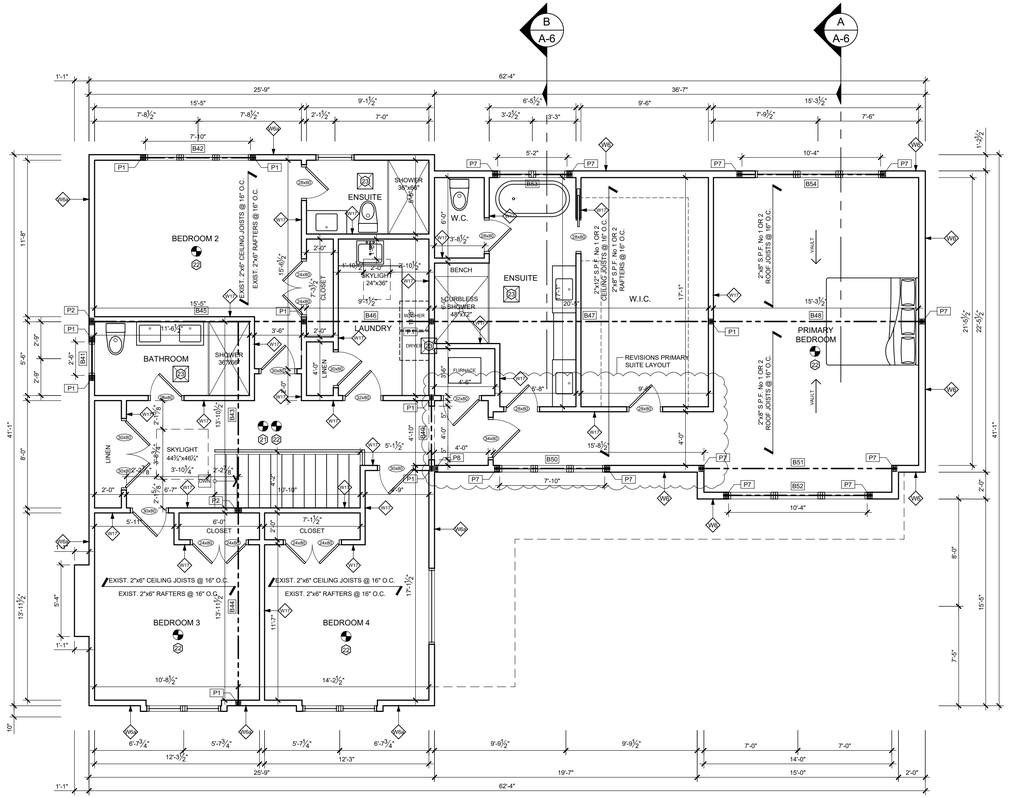
246 CAIRNCROFT RD
OAKVILLE, ON

SHEET TITLE

PROPOSED BASEMENT & MAIN FLOOR PLANS

DRAWN BY	
L. ANGELICI	
DATE	
11/28/2024	
SCALE	
3/16"=1'-0"	
PROJECT No.	
24019	

A2



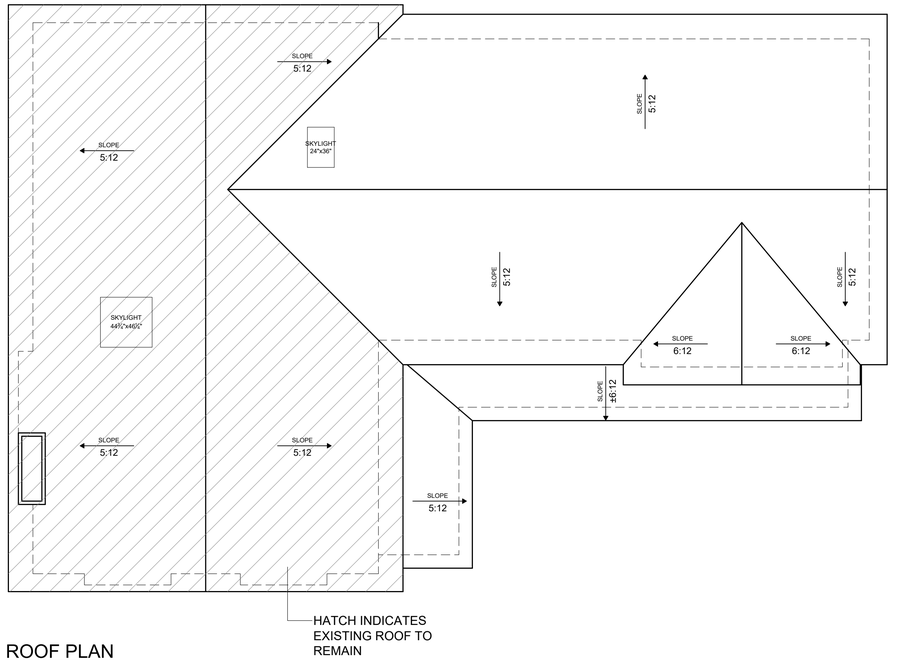
PROPOSED SECOND FLOOR PLAN

SCALE 3/16" = 1' - 0"

STAIR OPENING: 43.33sqft (4.03m²)
FLOOR AREA: 1877.32sqft (174.41m²)

- B41 BEAM BY ENGINEER (SEE STRUCTURAL PLANS S5.0)
- B42 BEAM BY ENGINEER (SEE STRUCTURAL PLANS S5.0)
- B43 BEAM BY ENGINEER (SEE STRUCTURAL PLANS S5.0)
- B44 BEAM BY ENGINEER (SEE STRUCTURAL PLANS S5.0)
- B45 BEAM BY ENGINEER (SEE STRUCTURAL PLANS S5.0)
- B46 BEAM BY ENGINEER (SEE STRUCTURAL PLANS S5.0)
- B47 RIDGE BOARD BY ENGINEER (SEE STRUCTURAL PLANS S5.0)
- B48 RIDGE BEAM BY ENGINEER (SEE STRUCTURAL PLANS S5.0)
- B49 BEAM BY ENGINEER (SEE STRUCTURAL PLANS S5.0)
- B50 BEAM BY ENGINEER (SEE STRUCTURAL PLANS S5.0)
- B51 BEAM BY ENGINEER (SEE STRUCTURAL PLANS S5.0)
- B52 BEAM BY ENGINEER (SEE STRUCTURAL PLANS S5.0)
- B53 BEAM BY ENGINEER (SEE STRUCTURAL PLANS S5.0)
- B54 BEAM BY ENGINEER (SEE STRUCTURAL PLANS S5.0)

- P1 POST BY ENGINEER (SEE STRUCTURAL PLANS S5.0)
- P7 POST BY ENGINEER (SEE STRUCTURAL PLANS S5.0)
- P8 POST BY ENGINEER (SEE STRUCTURAL PLANS S5.0)
- W8 SIDING ACCORDING TO OBC 9.27.13 AS PER ELEVATION, WITH OSB SHEATHING MEMBRANE 9.5mm (⅜"), AS PER ELEVATION, WITH TYVEK MEMBRANE ON ½" EXTERIOR TYPE 30x140 (2"x6") STUDS @ 400mm (16") O.C. RSI 4.23 (R24) OR RSI 3.87 (R22) INSULATION AND CONTINUOUS 0.15 (6 mil) POLYETHYLENE VAROUR BARRIER, 13mm, (½") INT. DRYWALL FINISH.
- W9 SIDING ACCORDING TO OBC 9.27.13 AS PER ELEVATION, WITH OSB SHEATHING MEMBRANE 9.5mm (⅜"), AS PER ELEVATION, WITH TYVEK MEMBRANE ON ½" EXTERIOR TYPE EXISTING 2"x4" FRAMING @ 16" O.C. RSI 4.23 (R24) OR RSI 3.87 (R22) INSULATION AND CONTINUOUS 0.15 (6 mil) POLYETHYLENE VAROUR BARRIER, 13mm, (½") INT. DRYWALL FINISH.



ROOF PLAN

SCALE 3/16" = 1' - 0"

THE TOWN OF OAKVILLE
REVIEWED

PERMIT IS ISSUED SUBJECT TO ANY REASON SHOWN IN COLOUR AND MARKED THEREON OR ON ATTACHED SHEET.

PERMIT NO.: 24 - 206538

DATE: January 7, 2025 SIGNED: TA

CONSTRUCTION MUST CONFORM TO THE ONTARIO BUILDING CODE

PROJECT NORTH	TRUE NORTH

No.	REVISION	DATE
02.	REVISIONS FOR PERMIT REVIEW	11/28/2024
01.	DRAWINGS FOR PERMIT REVIEW	09/04/2024

1. ALL CONTRACTORS AND/OR TRADES SHALL VERIFY ALL DIMENSIONS, NOTES, SITE AND REPORT ANY DISCREPANCIES PRIOR TO THE COMMENCEMENT OF WORK.
2. THIS DRAWING IS NOT TO BE SCALED. ALL DRAWINGS, PRINTS AND RELATED DOCUMENTS ARE THE PROPERTY OF LEN ANGELICI DESIGN AND MUST BE RETURNED UPON REQUEST
3. REPRODUCTION OF DRAWINGS AND RELATED DOCUMENTS IN PART OR IN WHOLE IS STRICTLY PROHIBITED WITHOUT WRITTEN CONSENT OF LEN ANGELICI DESIGN.
4. CONTRACTOR SHALL REVIEW ALL DRAWINGS PRIOR TO COMMENCING CONSTRUCTION FOR ANY ERRORS OR OMISSIONS.
5. LEN ANGELICI DESIGN IS NOT RESPONSIBLE FOR THE DESIGN OR PRE-ENGINEERED TRUSSES OR ANY PRE-ENGINEERED PRODUCTS.
6. LEN ANGELICI DESIGN IS NOT RESPONSIBLE FOR HEATING, PLUMBING, OR ELECTRICAL DRAWINGS.
7. DRAWING MAY NOT BE CHANGED, ALTERED OR COPIED WITHOUT WRITTEN CONSENT OF LEN ANGELICI DESIGN. FAILURE TO COMPLY WITH THIS STATEMENT IS NOT THE RESPONSIBILITY OF LEN ANGELICI DESIGN.
8. LEN ANGELICI DESIGN IS NOT RESPONSIBLE FOR POOR CONSTRUCTION PRACTICES.

SEAL

RECEIVED
BUILDING SERVICES
PERMIT NO: 24-206538 REV 01
DATE: 12/17/2024
OAKVILLE TOWN OF OAKVILLE

THE UNDERSIGNED HAS REVIEWED AND TAKES RESPONSIBILITY FOR THIS DESIGN, AND HAS THE QUALIFICATIONS AND MEETS THE REQUIREMENTS SET OUT IN THE ONTARIO BUILDING CODE TO BE A DESIGNER.

QUALIFICATION INFORMATION

LEONARD ANGELICI	42391
NAME	BCIN

REGISTRATION INFORMATION

LEN ANGELICI DESIGN	124457
NAME	BCIN

11/28/2024
DATE SIGNATURE

Len Angelici Design
270 SHERMAN AVE N, UNIT MILL-125
HAMILTON, ON L8L 6N4
(905) 393-8868
info@lenangelicidesign.ca

PROJECT

246 CAIRNCROFT RD
OAKVILLE, ON

SHEET TITLE

PROPOSED SECOND FLOOR & ROOF PLANS

DRAWN BY	
L. ANGELICI	A3
DATE	
11/28/2024	
SCALE	
3/16"=1'-0"	
PROJECT No.	
24019	



FRONT ELEVATION

SCALE $\frac{3}{16}$" = 1' - 0"



REAR ELEVATION

SCALE $\frac{3}{16}$" = 1' - 0"

THE TOWN OF OAKVILLE
REVIEWED

PERMIT IS ISSUED SUBJECT TO ANY REASON SHOWN IN COLOUR AND MARKED THEREON OR ON ATTACHED SHEET.

PERMIT NO.: 24 - 206538

DATE: January 7, 2025 SIGNED: TA

CONSTRUCTION MUST CONFORM TO THE ONTARIO BUILDING CODE

EXTERIOR FINISH INDEX

- A PRE-FIN. WOOD SIDING
- B EXISTING BRICK VENEER
- C NATURAL STONE VENEER
- D ASPHALT SHINGLES
- E 5" PRE-FIN. ALUM. EAVETROUGH ON 8" WITH PRE-FIN. ALUM. FASCIA C/W PRE-FIN. ALUM. DOWNSPOUT

PROJECT NORTH	TRUE NORTH

No.	REVISION	DATE
02.	REVISIONS FOR PERMIT REVIEW	11/28/2024
01.	DRAWINGS FOR PERMIT REVIEW	09/04/2024

1. ALL CONTRACTORS AND/OR TRADES SHALL VERIFY ALL DIMENSIONS, NOTES, SITE AND REPORT ANY DISCREPANCIES PRIOR TO THE COMMENCEMENT OF WORK.
2. THIS DRAWING IS NOT TO BE SCALED. ALL DRAWINGS, PRINTS AND RELATED DOCUMENTS ARE THE PROPERTY OF LEN ANGELICI DESIGN AND MUST BE RETURNED UPON REQUEST
3. REPRODUCTION OF DRAWINGS AND RELATED DOCUMENTS IN PART OR IN WHOLE IS STRICTLY PROHIBITED WITHOUT WRITTEN CONSENT OF LEN ANGELICI DESIGN.
4. CONTRACTOR SHALL REVIEW ALL DRAWINGS PRIOR TO COMMENCING CONSTRUCTION FOR ANY ERRORS OR OMISSIONS.
5. LEN ANGELICI DESIGN IS NOT RESPONSIBLE FOR THE DESIGN OR PRE-ENGINEERED TRUSSES OR ANY PRE-ENGINEERED PRODUCTS.
6. LEN ANGELICI DESIGN IS NOT RESPONSIBLE FOR HEATING, PLUMBING, OR ELECTRICAL DRAWINGS.
7. DRAWING MAY NOT BE CHANGED, ALTERED OR COPIED WITHOUT WRITTEN CONSENT OF LEN ANGELICI DESIGN. FAILURE TO COMPLY WITH THIS STATEMENT IS NOT THE RESPONSIBILITY OF LEN ANGELICI DESIGN.
8. LEN ANGELICI DESIGN IS NOT RESPONSIBLE FOR POOR CONSTRUCTION PRACTICES.

SEAL

RECEIVED
BUILDING SERVICES
PERMIT NO: 24-206538 REV 01
DATE: 12/17/2024
OAKVILLE TOWN OF OAKVILLE

THE UNDERSIGNED HAS REVIEWED AND TAKES RESPONSIBILITY FOR THIS DESIGN, AND HAS THE QUALIFICATIONS AND MEETS THE REQUIREMENTS SET OUT IN THE ONTARIO BUILDING CODE TO BE A DESIGNER.

QUALIFICATION INFORMATION

LEONARD ANGELICI	42391
NAME	BCIN

REGISTRATION INFORMATION

LEN ANGELICI DESIGN	124457
NAME	BCIN

11/28/2024
DATE SIGNATURE

Len Angelici Design
270 SHERMAN AVE N, UNIT MILL-125
HAMILTON, ON L8L 6N4
(905) 393-8868
info@lenangelicidesign.ca

PROJECT

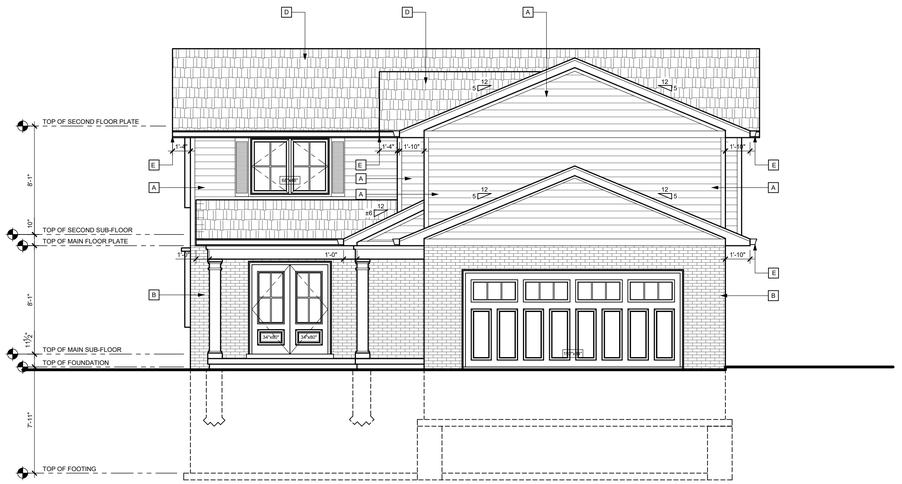
246 CAIRNCROFT RD
OAKVILLE, ON

SHEET TITLE

FRONT & REAR ELEVATIONS

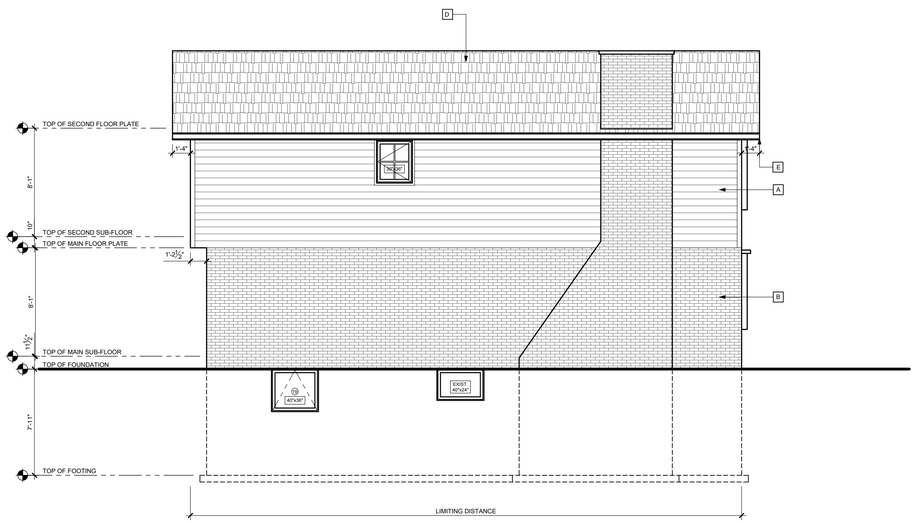
DRAWN BY	
L. ANGELICI	
DATE	
11/28/2024	
SCALE	
$\frac{3}{16}$"=1'-0"	
PROJECT No.	
24019	

A4



RIGHT SIDE ELEVATION

SCALE $\frac{3}{16}$" = 1' - 0"



LEFT SIDE ELEVATION

SCALE $\frac{3}{16}$" = 1' - 0"

WALL AREA: 67.53m²
WALL SETBACK: 3.79m
UNPROTECTED OPENINGS AREA: 0.78m² = 1.16%
MAXIMUM ALLOWABLE OPENINGS: 15%

THE TOWN OF OAKVILLE REVIEWED

PERMIT IS ISSUED SUBJECT TO ANY REASON SHOWN IN COLOUR AND MARKED THEREON OR ON ATTACHED SHEET.

PERMIT NO.: 24 - 206538

DATE: January 7, 2025 SIGNED: TA

CONSTRUCTION MUST CONFORM TO THE ONTARIO BUILDING CODE

EXTERIOR FINISH INDEX

- A PRE-FIN. WOOD SIDING
- B EXISTING BRICK VENEER
- C NATURAL STONE VENEER
- D ASPHALT SHINGLES
- E 5" PRE-FIN. ALUM. EAVETROUGH ON 8" WITH PRE-FIN. ALUM. FASCIA C/W PRE-FIN. ALUM. DOWNSPOUT

PROJECT NORTH	TRUE NORTH

No.	REVISION	DATE
02.	REVISIONS FOR PERMIT REVIEW	11/28/2024
01.	DRAWINGS FOR PERMIT REVIEW	09/04/2024

1. ALL CONTRACTORS AND/OR TRADES SHALL VERIFY ALL DIMENSIONS, NOTES, SITE AND REPORT ANY DISCREPANCIES PRIOR TO THE COMMENCEMENT OF WORK.
2. THIS DRAWING IS NOT TO BE SCALED. ALL DRAWINGS, PRINTS AND RELATED DOCUMENTS ARE THE PROPERTY OF LEN ANGELICI DESIGN AND MUST BE RETURNED UPON REQUEST
3. REPRODUCTION OF DRAWINGS AND RELATED DOCUMENTS IN PART OR IN WHOLE IS STRICTLY PROHIBITED WITHOUT WRITTEN CONSENT OF LEN ANGELICI DESIGN.
4. CONTRACTOR SHALL REVIEW ALL DRAWINGS PRIOR TO COMMENCING CONSTRUCTION FOR ANY ERRORS OR OMISSIONS.
5. LEN ANGELICI DESIGN IS NOT RESPONSIBLE FOR THE DESIGN OR PRE-ENGINEERED TRUSSES OR ANY PRE-ENGINEERED PRODUCTS.
6. LEN ANGELICI DESIGN IS NOT RESPONSIBLE FOR HEATING, PLUMBING, OR ELECTRICAL DRAWINGS.
7. DRAWING MAY NOT BE CHANGED, ALTERED OR COPIED WITHOUT WRITTEN CONSENT OF LEN ANGELICI DESIGN. FAILURE TO COMPLY WITH THIS STATEMENT IS NOT THE RESPONSIBILITY OF LEN ANGELICI DESIGN.
8. LEN ANGELICI DESIGN IS NOT RESPONSIBLE FOR POOR CONSTRUCTION PRACTICES.

SEAL

RECEIVED
BUILDING SERVICES
PERMIT NO: 24-206538 REV 01
DATE: 12/17/2024
OAKVILLE TOWN OF OAKVILLE

THE UNDERSIGNED HAS REVIEWED AND TAKES RESPONSIBILITY FOR THIS DESIGN, AND HAS THE QUALIFICATIONS AND MEETS THE REQUIREMENTS SET OUT IN THE ONTARIO BUILDING CODE TO BE A DESIGNER.

QUALIFICATION INFORMATION

LEONARD ANGELICI — 42391
NAME — BCIN

REGISTRATION INFORMATION

LEN ANGELICI DESIGN — 124457
NAME — BCIN

11/28/2024
DATE — SIGNATURE

Len Angelici Design
270 SHERMAN AVE N, UNIT MILL-125
HAMILTON, ON L8L 6N4
(905) 393-8868
info@lenangelicidesign.ca

PROJECT

246 CAIRNCROFT RD
OAKVILLE, ON

SHEET TITLE

RIGHT & LEFT SIDE ELEVATIONS

DRAWN BY	
L. ANGELICI	
DATE	A5
11/28/2024	
SCALE	
$\frac{3}{16}$"=1'-0"	
PROJECT No.	
24019	

ASSEMBLIES

FOUNDATION WALL ASSEMBLIES

W1 **CONCRETE LATERALLY SUPPORTED FNDT-WALLS/FOOTINGS:**
250mm (10") POURED CONC. FDTN. WALL 20 MPa (2900psi) MIN WITH BITUMENOUS DAMPROOFING AND DRAINAGE LAYER w/t (R20c.i) MAX BACKFILL HEIGHT IS 2740mm (9'-0"). MAXIMUM POUR HEIGHT IS 3050mm (10'-2") ON 500x155 (20"x6") CONTINUOUS KEYED CON. FTG.(TYP). BRACE FNDT WALL PRIOR TO BACKFILLING. ALL FOOTINGS SHALL REST ON NATURAL UNDISTURBED SOIL OF 75KPA OR COMPACTED ENGINEERED FILL WITH MIN. BEARING COMPACITY OF 150MPa OR GREATER. (SEE SOIL REPORT)

W2 **MASONRY LATERALLY SUPPORTED FNDT-WALLS:**
250MM (10") CONC-BLOCK. FDTN. WALL PARGED WITH BITUMENOUS DAMPROOFING AND DRAINAGE LAYER. MAX. BACKFILL HEIGHT IS 2740mm (9'-0"). MAXIMUM HEIGHT IS 3050mm (10'-2") ON 500x155 (20"x6") CONTINUOUS ON KEY CON. FTG (TYP). BRACE FNDT WALL PRIOR TO BACKFILLING. ALL FOOTINGS SHALL REST ON NATURAL UNDISTURBED SOIL OF 75KPA OR COMPACTED ENGINEERED FILL WITH MIN. BEARING CAPACITY OF 150MPa OR GREATER. (SEE SOIL REPORT)

W3 **CONCRETE LATERALLY UNSUPPORTED FNDT WALL:**
200mm (8") POURED CONC. FDTN. WALL 20 MPa (2900psi) MIN WITH BITUMENOUS DAMPROOFING AND DRAINAGE LAYER. MAX BACKFILL HEIGHT IS 1200mm (3'-11"). MAXIMUM POUR HEIGHT IS 2500mm (8'-2") ON 500x150 (20"x6") CONTINUOUS KEYED CON. FTG (TYP). BRACE FNDT WALL PRIOR TO BACKFILLING. ALL FOOTINGS SHALL REST ON NATURAL UNDISTURBED SOIL OF 75KPA OR COMPACTED ENGINEERED FILL WITH MIN. BEARING CAPACITY OF 150MPa OR GREATER. (SEE SOIL REPORT)

W4 **MASONRY LATERALLY UN SUPPORTED FNDT-WALLS:**
240MM (10") CONC-BLOCK. FDTN. WALL PARGED WITH BITUMENOUS DAMPROOFING AND DRAINAGE LAYER. MAX BACKFILL HEIGHT IS 1200mm (3'-11"). MAXIMUM HEIGHT IS 2500mm (8'-2") ON 500x155 (20"x6") CONTINUOUS ON KEY CON. FTG. (TYP). BRACE FNDT WALL PRIOR TO BACKFILLING. ALL FOOTINGS SHALL REST ON NATURAL UNDISTURBED SOIL OF 75KPA OR COMPACTED ENGINEERED FILL WITH MIN. BEARING CAPACITY OF 150MPa OR GREATER. (SEE SOIL REPORT)

W5 **GRADE FOUNDATION WALL:**
200mm (8") POURED CONC. FDTN. WALL 20 MPa (2900psi) MAXIMUM POUR HEIGHT IS 2500mm (8'-2") ON 500x155 (20"x6") CONTINUOUS KEYED CON. FTG. (TYP). 1200mm (3'-11") BELOW GRADE. SRACE FNDT WALL PRIOR TO BACKFILLING. ALL FOOTINGS SHALL REST ON NATURAL UNDISTURBED SOIL OF 75KPA OR COMPACTED ENGINEERED FILL WITH MIN BEARING CAPACITY OF 150MPa OR GREATER. OUTSIDE OF FOUNDATION TO BE INSULATED WITH 2" RIGID INSULATION MIN (2'-0") BELOW GRADE.

ABOVE GRADE WALL ASSEMBLIES

W6 **SIDING WALL CONSTRUCTION (2"x6")**
SIDING ACCORDING TO OBC 9.27.13 AS PER ELEVATION, WITH OSB SHEATHING MEMBRANE 9.5mm (⅜"), AS PER ELEVATION, WITH TYVEK MEMBRANE ON ½" EXTERIOR TYPE 30x140 (2"x6") STUDS @ 400mm (16") O.C. RSI 4.23 (R24) OR RSI 3.87 (R22) INSULATION AND CONTINUOUS 0.15 (6 mil) POLYETHYLENE VAROUR BARRIER, 13mm, (½") INT. DRYWALL FINISH.

W7 **STUCCO WALL CONSTRUCTION (2"x6")**
STUCCO ACCORDING TO OBC 9.28. AS PER ELEVATION, WITH OSB SHEATHING MEMBRANE 9.5mm (⅜"), AS PER ELEVATION, WITH TYVEK MEMBRANE ON ½" EXTERIOR TYPE 30x140 (2"x6") STUDS @ 400mm (16") O.C. STRAPPED WITH 38x140 (2"x6") STUDS @ 400mm (16") O.C RSI 4.23 (R24) OR RSI 3.87 (R22) INSULATION AND CONTINUOUS 0.15 (6 mil) POLYETHYLENE VAPOUR BARRIER, 13mm, (½") INT. DRYWALL FINISH.

W8 **SIDING OR STUCCO WALL CONSTRUCTION (2"x4")**
SIDING ACCORDING TO OBC 9.27.13 AS PER ELEVATION, WITH OSB SHEATHING MEMBRANE 9.5mm (⅜"), AS PER ELEVATION, WITH TYVEK MEMBRANE ON ½" EXTERIOR TYPE 30x140 (2"x6") STUDS @ 400mm (16") O.C. STRAPPED WITH 38x140 (2"x6") STUDS @ 400mm (16") O.C RSI 4.23 (R24) OR RSI 3.87 (R22) INSULATION AND CONTINUOUS 0.15 (6 mil) POLYETHYLENE VAPOUR BARRIER, 13mm, (½") INT. DRYWALL FINISH.

W9 **BRICK VENEER OR STONE WALL CONSTRUCTION (2"x6")**
90mm (4") FACE BRICK/STONE, 25mm (1") AIR SPACE 22x180x0.76 (⅞"x7"x0.03) GALV. METAL TIES @ 400MM (16") O.C. HORIZONTAL 600MM (24") O.C. VERTICAL MTL. TIES TO IN CONTACT WITH WOOD STUD ONLY. APPROVED ASPHALT BUILDING PAPER OR TYVEK, 9.5mm (⅜") OSB SHEATHING, 38x140 (2"x6") STUDS @ 400 O.C. (16") O.C. RSI 4.23 (R24) OR RSI 3.87 (R22) BATT INSULATION, 0.15 (6 mil) POLYETHYLENE VAPOUR BARRIER AND AIR BARRIER, 13mm (½") INT. DRYWALL FINISH. PROVIDE WEEP HOLES @ 800mm (32") O.C. BOTTOM COURSE AND OVER OPENINGS. PROVIDE BASE FLASHING UP MIN. 150mm (6") BEHIND BUILDING PAPER.

W10 **BRICK VENEER OR STONE WALL CONSTRUCTION (2"x4")**
90mm (4") FACE BRICK/STONE, 25mm (1") AIR SPACE 22x180x0.76 (⅞"x7"x0.03) GALV. METAL TIES @ 400MM (16") O.C. HORIZONTAL 600MM (24") O.C. VERTICAL MTL. TIES TO IN CONTACT WITH WOOD STUD ONLY. APPROVED ASPHALT BUILDING PAPER OR TYVEK, 9.5mm (⅜") OSB SHEATHING, 38x140 (2"x4") STUDS @ 400 O.C. (16") O.C. STRAPPED WITH 38x140 (2x6) STUDS @ 400mm (16") O.C RSI 4.23 (R24) OR RSI 3.87 (R22) BATT INSULATION, 0.15 (6 mil) POLYETHYLENE VAPOUR BARRIER AND AIR BARRIER, 13mm (½") INT. DRYWALL FINISH. PROVIDE WEEP HOLES @ 800mm (32") O.C. BOTTOM COURSE AND OVER OPENINGS. PROVIDE BASE FLASHING UP MIN. 150mm (6") BEHIND BUILDING PAPER.

W11 **HIGH WALL CONSTRUCTION OPTION A**
CONSTUCTED AS W6 OR W7 OR W8 OR TWO OF. FOR A MAXIMUM WALL HEIGHT OF 5490mm (18'-0") PROVIDE 2-38x140 (2-2"x6") @ 300mm (12") SPR. #2 CONTINUOUS STUDS PROVIDE 2 ROWS OF SOLID BLOCKING BTW STUDS AT SPACED AT 1825mm (6'-0"), (OR AS PER ENGINEERS REPORT)

W12 **HIGH WALL CONSTRUCTION OPTION B**
CONSTRUCT USING PRE-ENGINEERED WOOD
(SEE SHOP DWG FOR LUMBER SUPPLIER)

W13 **BASEMENT INSULATION**
RSI 3.52 (R20) MIN. INSULATION BLANKET OR BATTS WITH 38x140 (2"x6") STUD WALL, AND APPROVED VAPOUR BARRIER FULL HEIGHT OF BASEMENT, WITH BUILDING PAPER B/T THE FOUNDATION WALL AND INSULATION UP TO GRADE LEVEL

W14 **WALL BETWEEN DWELLING AND GARAGE**
PROVIDE AND EFFECTIVE BARRIER TO GAS AND EXHAUST FUMES BETWEEN THE GARAGE AND DWELLING UNIT OVER GARAGE WITH RSI 4.40 (R22) INSULATION B/T JOISTS. TAPE AND SEAL ALL JOINTS GAS TIGHT.

INTERIOR WALL ASSEMBLIES

W15 **2X4 INTERIOR LOAD BEARING WALL**
FOR BEARING PARTITIONS 38x89 (2X4) 400mm (16") O.C. FOR 2 STOREYS AND 300MM (12") O.C FOR 3 STOREYS W/T 38x89 (2x4) BOTTOM PLATE AND 2-38x89 (2-2x4) TOP PLATE, 13mm (½") INT. DRYWALL BOTH SIDES OF STUDS. PROVIDE ASHLAR BLOCK WHEN LOCATED IN BASMENT ANCHORED 3'-0" O.C.

W16 **2X6 INTERIOR LOAD BEARING WALL**
FOR BEARING PARTITIONS 38x140 (2X6) 400mm (16") O.C. FOR 2 STOREYS AND 300MM (12") O.C FOR 3 STOREYS W/T 38x140 (2x6) BOTTOM PLATE AND 2-38x140 (2-2x6) TOP PLATE, 13mm (½") INT. DRYWALL BOTH SIDES OF STUDS. PROVIDE ASHLAR BLOCK WHEN LOCATED IN BASMENT ANCHORED 3'-0" O.C. SEE DETAIL 2/A6 FOR FOOTING SPECS.

W17 **2x4 / 2X6 INTERIOR NON-LOAD BEARING WALLS**
-INTERIOR PARTITIONS 38x89 (2x4) 400mm (16") O.C. W/T 38x89 (2x4) BOTTOM PLATE AND 38x89 (2-2x4) TOP PLATE, 13mm (½") INT. DRYWALL BOTH SIDES OF STUDS.
-INTERIOR PARTITIONS 38x140 (2x6) 400mm (16") O.C. W/T 38x140 (2x6) BOTTOM PLATE AND 38x140 (2-2x6) TOP PLATE, 13mm (½") INT. DRYWALL BOTH SIDES OF STUDS.

W18 **DWELLING UNIT AND GARAGE SEPARATION**
DOORS AND WALLS BETWEEN THE GARAGE AND DWELLING UNIT SHALL PROVIDE AND EFFECTIVE BARRIER TO GAS AND EXHAUST FUMES AND DOORS SHALL BE FITTED WITH A SELF-CLOSING DEVICE. INSTALL W/T 13mm (½") GYPSUM BOARD ON WALL AND CEILING B/T HOUSE HOUSE AND GARAGE, RSI 5.46 (R31) IN WALLS, TAPE AND SEAL ALL JOINTS GAS TIGHT.

FLOOR ASSEMBLIES

F1 **BASEMENT SLAB**
75mm (4") CONCRETE SLAB 25MPa (2950 PSI) AFTER 28 DAYS ON WITH 6"x6"x6(W.W.M ON 6" COURSE GRANULAR MATERIAL PROVIDE BOND BREAKER MATERIAL B/T SLAB AND FOOTING. EVERY BASEMENT SHALL BE PROVIDED WITH A FLOOR DRAIN W/T A TRAP SEAL PRIMER.

F2 **GARAGE SLAB**
100mm (4") CONCRETE SLAB 32MPa (4650 PSI) AFTER 28 DAYS 5-8% AIR ENTRAINMENT, REINFORCED WITH 10M BARS @ 300mm (12") O.C. EACH WAY DOWEL INTO FOUNDATION WALL, 6" COURSE GRANULAR MATERIAL. SLOPE SLAB 1% TO DRAIN.

F3 **PORCH SLAB**
125mm (5") CONCRETE SLAB 32MPa (4650 PSI) AFTER 28 DAYS 5-8% AIR ENTRAINMENT, REINFORCED WITH 10M BARS @ 300mm (12") O.C. EACH WAY IN BOTTOM THIRD OF SLAB. SLAB SHALL BEAR 75mm (3") MIN ON FOUNDATION WALL ANCHORED W/T 10M BENT DOWELS @ 600mm (24") O.C. SLOPE SLAB MIN. 1% FROM DOOR, PROVIDE 4" AND AT FRUIT CELLAR DOOR. GREAT THAN 8'-2" SEE ENGINEERS DRAWING.

F4 **SUBFLOORING, JOIST SYSTEM**
19mm ¾" T&G SUBFLOOR ON WOOD FLOOR JOISTS AS PER PLANS. FOR CERAMIC TILE APPLICATION ("SEE OBC 9.30.6") PROVIDE PANEL TYPE UNDERLAY UNDER RESILIENT @ PARQUET FLOORING. ("SEE OBC 9.30.2.1.") ALL JOISTS TO BE NAILED, GLUED AND SCREWED AND BRIDGED W/T 38x38 (2"x2") CROSS BRACING OR SOLID BLOCKING @ 2100mm (6'-11") O.C. AND STRAPPING UNLESS A PANEL TYPE CEILING FINISH IS APPLIED (REFER TO SHOP DRAWINGS FOR PRE-ENG JOISTS FROM LUMBER SUPPLIER)

F5 **FLOOR OVER GARAGE**
THE CONSTRUCTION AS PER F4 AND TO PROVIDE AND EFFECTIVE BARRIER TO GAS AND EXHAUST FUMES BETWEEN THE GARAGE AND DWELLING UNIT OVER GARAGE W/T A RSI 5.46 (R31) INSULATION B/T THE JOISTS. TAPE, SEAL ALL JOINTS GAS TIGHT

F6 **SLABS IN BASEMENT ABOVE FROST LINE**
BASEMENT SLABS AS PER F1 THAT ARE LOCATED LESS THAN 600mm (2'-0") BELOW FROST SHALL BE INSULATED WITH RSI 1.76 (R10c.i) IF IT CONTAINS PIPING AND RSI 1.41 (R8) IF IT DOES NOT CONTAIN PIPING.

ROOF ENVELOPES

R1 **ROOF CONSTRUCTION - AS PER PRE-ENG SPEC'S**
30YR (MIN) ASHPHALT ROOF SHINGLES No. 210 (10.25KG/M2) ASPHALT SHINGLES. 10mm (⅜") PLYWOOD SHEATHING WITH "H" CLIPS APPROVED WOOD TRUSSES @ 600mm (24") O.C. MAX. SELF-SEALING MEMBRANE TYPE EAVE ICE & WATER PROTECTION TO EXTEND MIN. 12" (300mm) BEYOND INSIDE FACE OF INSIDE WALL. No 15 FELT PAPER NON-PERFORATED FOR THE REST OF ROOF AND TO OVERLAP 2" OVER ICE & WATER PROTECTION. APPROVED EAVES PROTECTION TO EXTEND 900mm (3'-0") FROM EDGE OF ROOF AND MIN. 300mm (12") BEYOND INNER FACE OF EXTERIOR WALL 38x38 (2x4) TRUSSES @ 1830mm (6'-0") O.C.

R2 **RAIN WATER CONTROL**
PREFINISHED ALUM EAVESTROUGH, FASCIA, RWL & VENTED SOFFIT.

R3 **ROOF INSULATION AND VENTING**
ATTIC VENTILATION 1:300 OF INSULATED CEILING AREA WITH 50% AT EAVES, W/T RSI 10.57 (R60) ROOF INSULATION AND APPROVED VAPOUR BARRIER AND CONTINUOUS AIR BARRIER.

COLUMN SUPPORT

C1 **SQUARE STEEL POSTS**
3½"x3½"x0.25 HSS POST MECH-FASTENED AT TOP AND BOTTOM W/T 6"x6"x0.25 TOP & BOTTOM PLATE TO EXTEND MIN WIDTH OF BEAM WHERE BEARING ON FOUNDATION WALL OR KNEW WALL PROVIDE 4- ½" DIA. BOLTS INTO CONCRETE WALL. CONCRETE PAD FOOTING AS PER PLANS.

C2 **SQUARE STEEL POSTS**
3-3/2x0.25 HSS POST MECH-FASTENED AT TOP AND BOTTOM W/T 6"x6" TOP & BOTTOM PLATE TO EXTEND MIN WIDTH OF BEAM WHERE BEARING ON FOUNDATION WALL OR KNEW WALL PROVIDE 4- ½" DIA. BOLTS INTO CONCRETE WALL. CONCRETE PAD FOOTING AS PER PLANS.

C3 **WOOD POSTS**
SHALL BE 6"x6" BUILT UP No 1 SPR OR UNLESS CALCULATION PROVIDED. WOOD SHALL BE SEPARATED FROM CONCRETE BY 0.09mm (0.002") POLYETHLENE FLIM. CONCRETE PAD AS PER PLAN.

CONSTRUCTION NOTES

FOUNDATION

1. **ACHORAGE**
38x89 (2x4") SILL PLATE W/T 13mm (½") DIA. ANCHOR BOLTS 200m (8") LONG EMBEDDED MIN. 100mm (4") INTO CONC. @ 2400mm (7'-10") O.C. CAULKING OR FIBER GASKET B/T PLATE AND TOP OF FOUNDATION WALL. USE NON-SHRINK GROUT TO LEVEL SILL PLATE WHEN REQUIRED.

2. **STEP FOOTINGS**
THE VERTICAL STEP B/T HORIZONTAL PORTIONS SHALL NOT EXCEED 600mm (24") FOR FIRM SOILS AND 400mm (16") FOR SAND OR GRAVEL HORIZONTAL DISTANCE B/T RISERS SHALL BE NOT LESS THAN 600mm.

3. **FOUNDATION DRAINAGE**
100mm (4") DIA. WEEPING TILE 150mm (6") CRUSHED STONE OVER AND AROUND WEEPING TILES AT BASEMENT FOOTING PERIMETER.

4. **MASONRY BONDING**
CONCRETE AND BRICK VENEER AIR SPACE SHALL BE COMPLETELY FILLED WITH CONCRETE FOR SOLID UNIT

5. **WINDOW WELL DRAINAGE**
EVERY WINDOW WELL SHALL BE DRAINED TO FOOTING LEVEL OR OTHER SUITABLE LOCATION

6. **FLOOR DRAIN**
EVERY BASEMENT SHALL BE PROVIDED WITH A FLOOR DRAIN W/T A TRAP SEAL PRIMER

WOOD FRAMING

7. **NOTCHING & DRILLING OF MEMBERS**
HOLES IN FLOOR, ROOF AND CEILING MEMBERS TO BE MAXIMUM ⅓ x ACTUAL DEPTH OF MEMBER AND NOT LESS THAN 2" FROM EDGES

NOTCHES IN FLOOR, ROOF AND CEILING MEMBERS TO BE LOCATED ON TOP OF MEMBER WITH ⅓ THE ACTUAL DEPTH FROM EDGE OF BEARING AND NOT GREATER THAN ⅓ JOIST DEPTH.

WALL STUDS MAY BE NOTCHED OR DRILLED PROVIDED THAT NO LESS THAN ⅔ THE DEPTH OF STUD REMAINS IF LOAD BEARING AND 1- ⅜s" IF NON-LOAD BEARING

ROOF TRUSSES MEMBERS SHALL NOT BE NOTCHED DRILLED OR WEAKENED UNLESS ACCOMMODATED IN THE DESIGN.

8. **WALL STUDS**
EXTERIOR WALLS TO BE BUILT ACCORDING TO WALL TYPE WITH TOP PLATE AND SINGLE BOTTOM PLATE.

9. **FLOOR JOIST**
JOIST TO HAVE 1- ½" END BEARING
JOIST SHALL BEAR ON SILL PLATE FIXED TO FOUNDATION. MAX. DOUBLE HEADER JOIST LENGTH OF 10'-6". MAX DOUBLE TRIMMER JOIST LENGTH OF 6'-7". 2x2 BRIDGING REQUIRED EVERY 6'-11", PLUSH JOISTS SHALL BE SUPPORTED ON JOIST HANGERS.

FUTURE GRAB BARS

10. **STUD WALL REINFORCEMENT**
STUD WALL REINFORCEMENT SHALL BE INSTALLED IN "MAIN BATHROOMS" WITHIN A DWELLING UNIT ACCORDING TO OBC 9.5.2.3

11. **BLOCKING LOCATION**
PROVIDE BLOCKING FOR SIDE GRAB BARS AND BARS OVER TOILET AS WELL AS BAR IN SHOWER. BATH TUB GRAB BAR TO BE LOCATED OPPOSITE THE ENTRANCE TO THE SHOWER AND 1'-0" OF THE BAR TO BE LOCATED TO ONE SIDE OF THE APPROXIMATE LOCATION OF THE FUTURE SEAT IN TUB.

12. **BLOCKING AND FASTENING**
ALL BLOCKING MUST BE FASTENED ENOUGH TO WITHSTAND 1.3kN OF FORCE WITHIN VERTICALLY OR HORIZONTALLY ON THE GRAB BAR. A MINIMUM OF 2"x8" BLOCKING IS REQUIRED WITH A MIN. OF 3 - 3-½" NAILS ON EACH SIDE OF BLOCKING.

THERMAL INSULATION

13. **ATTIC HATCH**
EVERY ROOF SHALL BE PROVIDED W/T A 533mm x 700mm (21"x28") ATTIC HATCH W/T WEATHERSTRIPPING. RSI 7.0 (R40) RIGID INSULATION BACKING

14. **RIM JOIST INSULATION**
15mm (⅝") WITH TYVEK MEMBRANE ON 1- ½" RIM JOIST AS PER PLAN W/T OSB SHEATHING WITH RSI 4.23 (R24) OR RSI 3.87 (R22) INSULATION AND CONTINUOUS 0.15 (6 mil) POLYETHYLINE VAPOUR BARRIER FRICTION FIT.

STAIRS, HANDRAILS AND GUARDS

15. **STAIRS**
CLEAR HEIGHT OVER STAIRS MUST BE MEASURED VERTICALLY MIN. HEIGHT 1950mm (6'-5")

STAIRS DIMENSIONS:

MAX RISE	7- ⅞" (200mm)
MIN RUN	10" (255mm)
MIN TREAD	10" (255mm)
MAX NOSING	1" (25mm)
MIN HEADROOM	6'-5" (1950mm)
RAILING @ LANDING	2'-7" (800mm)
RAILING @ STAIR	2'-7" (800mm)
MIN WIDTH	2'-11" (900mm)

FOR CURVED STAIRS:

MIN RUN	5- ⅞" (150mm)
MIN AVG RUN	7- ⅞" (200mm)

16. **HANDRAILS AND GUARD AS PER OBC - SB-7**
FINISHED HANDRAIL ON WOOD PICKETS MAX SPACING 4" BETWEEN PICKETS SHALL NOT BE LESS THAN 800MM (2'-7") AND NOT MORE THAN 965mm (3'-2") WHERE GUARDS ARE REQUIRED, HANDRAILS ON LANDING ARE PERMITTED TO BE NOT MORE THAN 1070mm (3'-6").

17. **GUARDS AS PER OBC - SB-7**
INTERIOR GUARDS FOR STAIRS = 800mm (2'-11")
EXTERIOR GUARDS = 1070mm (3'-6") ABOVE LANDINGS. MAX OPENING WITHIN GUARDS 100mm (4") PROTECTED BY THE GUARD WILL NOT FACILITATE CLIMBING

MEANS OF EGRESS

18. **MINIMUM BEDROOM WINDOWS - OBC 9.7.1.3.**
AT LEAST ONE BEDROOM WINDOW ON A GIVEN FLOOR IS TO HAVE MIN. 0.32m² UNOBSTRUCTED GLAZED OR OPENABLE AREA WITH A MIN. CLEAR OF 380mm (1'-3")

19. **WINDOW GUARDS - OBC 9.7.1.6. & 9.8.8**
A GUARD OR WINDOW WITH A MAXIMUM RESTRICTED OPENING OF 100mm (4") IS REQUIRED WHERE THE TOP OF THE WINDOW SILL IS LOCATED LESS THAN 480mm (1'-6") ABOVE FINISHED FLOOR AND THE DISTANCE FROM THE FINISHED FLOOR AND THE DISTANCE FROM THE FINISHED ADJACENT GRADE IS GREATER THAN 1800mm (5'-11").

20. **WINDOW IN EXIT STAIRWAYS - OBC 9.7.5.3.**
WINDOWS IN EXIT STAIRWAYS THAT EXTEND TO LESS THAN 1070mm (3'-6") SHALL BE PROTECTED BY GUARDS IN ACCORDANCE WITH NOTE 2 ABOVE OR THE WINDOW SHALL BE NON-OPERABLE AND DESIGNED TO WITHSTAND THE SPECIFIED LOADS FOR BALCONY GUARDS AS PROVIDED IN PART 4 OF THE ONTARIO BUILDING CODE.

LIFESAFETY

21. **CARBON MONOXIDE ALARMS - OBC 9.33.4**
A CARBON MONOXIDE ALARMS CONFORMING TO CAN/CGA-6.19 SHALL BE INSTALLED ON OR NEAR THE CEILING IN EACH ROOM WHICH THERE IS INSTALLED A SOLID FUEL BURNING APPLIANCE. CARBON MONOXIDE ALARMS SHALL BE WIRED SO THAT ITS ACTIVATION WILL ACTIVATE THE SMOKE ALARMS.

22. **SMOKE ALARM - OBC 9.10.18**
PROVIDE ONE PER FLOOR, NEAR THE STAIRS CONNECTING THE FLOOR LEVEL. ALARMS INTERCONNECTED TO AN ELECTRICAL CIRCUIT AND INTERCONNECTED TO ACTIVATE ALL ALARMS IF ONE SOUNDS.

VENTILATION

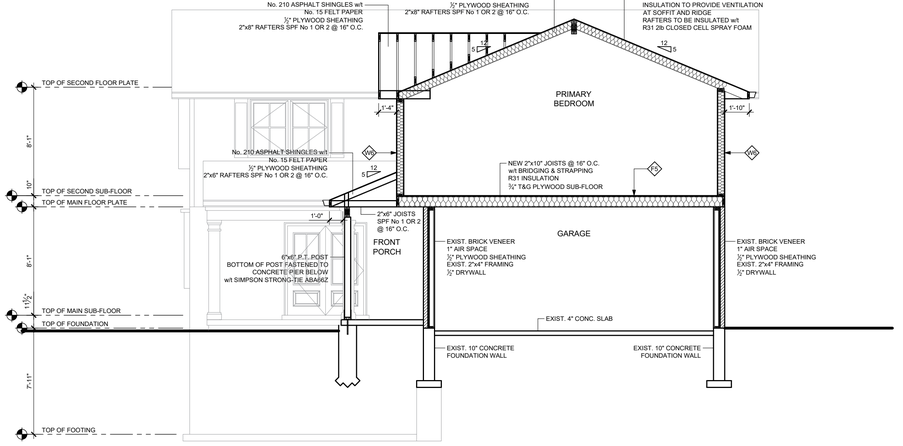
23. **MECHANICAL VENTILATION**
WASHROOM AND RANGE TO BE MECHANICALLY VENTED TO PROVIDE AT LEAST ONE AIR CHANGE PER HOUR

24. **DIRECT GAS VENT FURNACE**
FURNACE TERMINAL MIN 900mm (36") FROM A GAS RECULATOR MIN. 300mm (12") ABOVE FIN. GRADE FROM ALL OPENINGS EXHAUST AND INTAKE VENTS. HRV INTAKE TO BE A MIN OF 1830mm (6'-0") FROM ALL EXHAUST TERMINALS

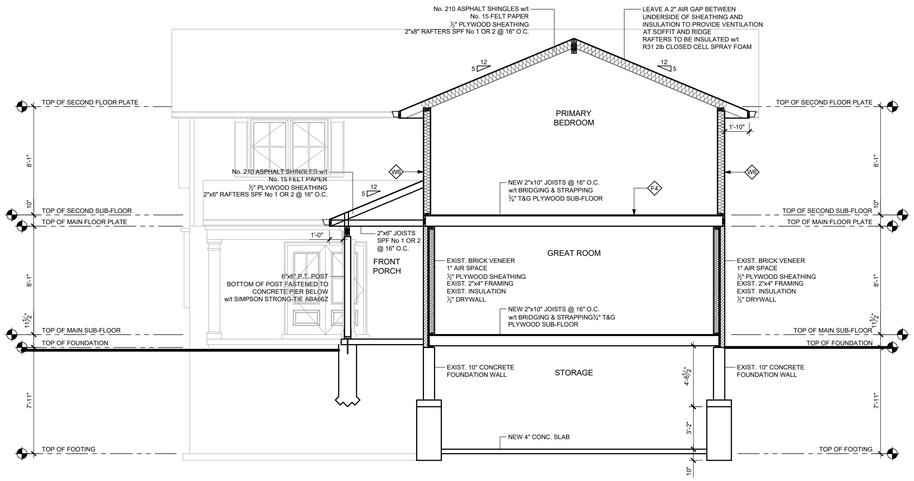
25. **DIRECTS GAS FIRE PLACE**
VENTS TO BE A MIN. 300mm (12") FROM ANY OPENING AND ABOVE FIN. GRADE REFER TO GAS CODE.

26. **NATURAL VENTILATION**
VENTS TO BE A MIN. 300mm (12") FROM ANY OPENING AND ABOVE FIN. GRADE REFER TO GAS CODE.

27. **WATER RESISTANT FLOORING**
FINISHED FLOORING IN BATHROOMS, KITCHENS, ENTRANCE HALL, LAUNDRY AND GENERAL STORAGE AREAS SHALL CONSIST OF RESILIENT FLOORING, FELTED SYNTHETIC FIBRE FLOORING COVERINGS.



SECTION A
SCALE 3/16" = 1' - 0"



SECTION B
SCALE 3/16" = 1' - 0"

THE TOWN OF OAKVILLE
REVIEWED
PERMIT IS ISSUED SUBJECT TO ANY REASON SHOWN IN COLOUR AND MARKED THEREON OR ON ATTACHED SHEET.
PERMIT NO.: 24 - 206538
DATE: January 7, 2025 SIGNED: TA
CONSTRUCTION MUST CONFORM TO THE ONTARIO BUILDING CODE

PROJECT NORTH	TRUE NORTH

No.	REVISION	DATE
02.	REVISIONS FOR PERMIT REVIEW	11/28/2024
01.	DRAWINGS FOR PERMIT REVIEW	09/04/2024

1. ALL CONTRACTORS AND/OR TRADES SHALL VERIFY ALL DIMENSIONS, NOTES, SITE AND REPORT ANY DISCREPANCIES PRIOR TO THE COMMENCEMENT OF WORK.
2. THIS DRAWING IS NOT TO BE SCALED, ALL DRAWINGS, PRINTS AND RELATED DOCUMENTS ARE THE PROPERTY OF LEN ANGELICI DESIGN AND MUST BE RETURNED UPON REQUEST
3. REPRODUCTION OF DRAWINGS AND RELATED DOCUMENTS IN PART OR IN WHOLE IS STRICTLY PROHIBITED WITHOUT WRITTEN CONSENT OF LEN ANGELICI DESIGN.
4. CONTRACTOR SHALL REVIEW ALL DRAWINGS PRIOR TO COMMENCING CONSTRUCTION FOR ANY ERRORS OR OMISSIONS.
5. LEN ANGELICI DESIGN IS NOT RESPONSIBLE FOR THE DESIGN OR PRE-ENGINEERED TRUSSES OR ANY PRE-ENGINEERED PRODUCTS.
6. LEN ANGELICI DESIGN IS NOT RESPONSIBLE FOR HEATING, PLUMBING, OR ELECTRICAL DRAWINGS.
7. DRAWING MAY NOT BE CHANGED, ALTERED OR COPIED WITHOUT WRITTEN CONSENT OF LEN ANGELICI DESIGN. FAILURE TO COMPLY WITH THIS STATEMENT IS NOT THE RESPONSIBILITY OF LEN ANGELICI DESIGN.
8. LEN ANGELICI DESIGN IS NOT RESPONSIBLE FOR POOR CONSTRUCTION PRACTICES.

SEAL

RECEIVED
BUILDING SERVICES
PERMIT NO: 24-206538 REV 01
DATE: 12/17/2024
OAKVILLE TOWN OF OAKVILLE

THE UNDERSIGNED HAS REVIEWED AND TAKES RESPONSIBILITY FOR THIS DESIGN AND HAS THE QUALIFICATIONS AND MEETS THE REQUIREMENTS SET OUT IN THE ONTARIO BUILDING CODE TO BE A DESIGNER.

QUALIFICATION INFORMATION

LEONARD ANGELICI — 42391
NAME — BCIN

REGISTRATION INFORMATION

LEN ANGELICI DESIGN — 124457
NAME — BCIN

11/28/2024
DATE — SIGNATURE

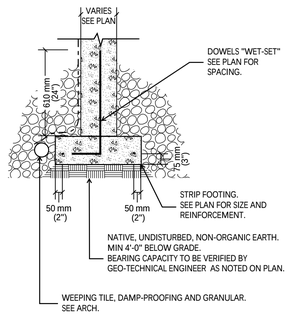
Len Angelici Design
270 SHERMAN AVE N, UNIT MILL-125
HAMILTON, ON L8L 6N4
(905) 393-8868
info@lenangelicidesign.ca

PROJECT
246 CAIRNCROFT RD
OAKVILLE, ON

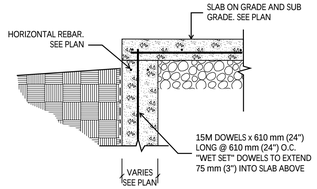
SHEET TITLE
NOTES & SECTION A

DRAWN BY	L. ANGELICI
DATE	11/28/2024
SCALE	3/16"=1'-0"
PROJECT No.	24019

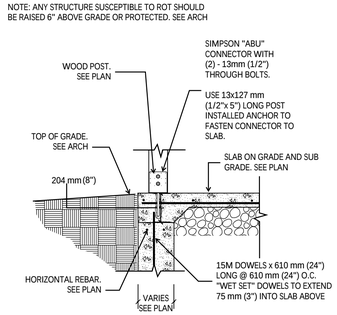
A6



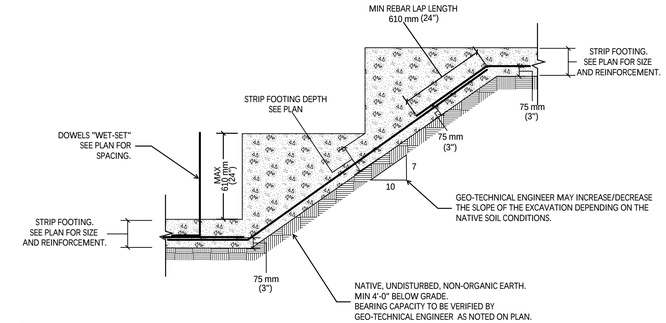
2-U FTGC TYPICAL STRIP FOOTING BACKFILL BOTH SIDES
(CONST ENGINEERING INC. REV.)
1:20



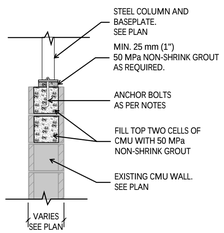
3A FWCG EXTERIOR SLAB ON GRADE ON FOUNDATION WALL
(CONST ENGINEERING INC. REV.)
1:20



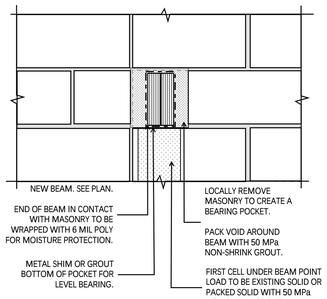
3D FWCG EXTERIOR SLAB ON GRADE W/POST ON FOUNDATION WALL
(CONST ENGINEERING INC. REV.)
1:20



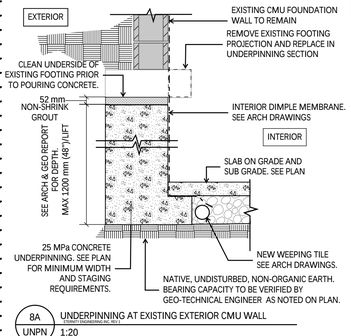
4 FTGC CONCRETE FOUNDATION WALL STEPPED FOOTING DETAIL
(CONST ENGINEERING INC. REV.)
1:20



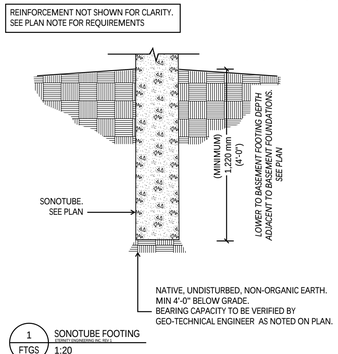
1 FRSE STEEL COLUMN WITH BASEPLATE TO EXISTING CMU WALL
(CONST ENGINEERING INC. REV.)
1:20



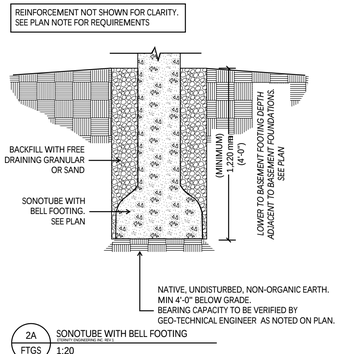
2A FRWM BEAM POCKET IN MASONRY WALL
(CONST ENGINEERING INC. REV.)
1:10



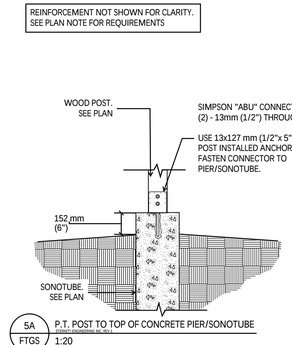
8A UNPN UNDERPINNING AT EXISTING EXTERIOR CMU WALL
(CONST ENGINEERING INC. REV.)
1:20



1 FTGS SONOTUBE FOOTING
(CONST ENGINEERING INC. REV.)
1:20



2A FTGS SONOTUBE WITH BELL FOOTING
(CONST ENGINEERING INC. REV.)
1:20



5A FTGS P.T. POST TO TOP OF CONCRETE PIER/SONOTUBE
(CONST ENGINEERING INC. REV.)
1:20

2

WOOD SPECIFICATIONS

1. STANDARDS

ELEMENTS HAVE BEEN DESIGNED IN ACCORDANCE WITH CSA STANDARD O86.

2. RESPONSIBILITY

THE GENERAL CONTRACTOR IS RESPONSIBLE FOR WORKING WITH THE LUMBER SUPPLIER FOR HANDLING OF THE LUMBER AND ENSURING THE QUALITY AND MINIMUM STRENGTH MEETS THE MINIMUM REQUIREMENTS AS NOTED ON THE STRUCTURAL DRAWINGS.

3. MATERIAL

ALL MEMBERS SPECIES AND STRENGTHS TO NOTED ON THE PLAN MEMBER SCHEDULE.

4. EXECUTION

UNLESS NOTED OTHERWISE, ALL FASTENING TO FOLLOW OBC 2012 PART 9.23.3.
REFER TO DETAILS AND DRAWINGS FOR UPLIFT AND HIGH WIND CONNECTORS.
REFER TO DETAILS AND DRAWINGS FOR MINIMUM BEARING LENGTHS.
REFER TO LUMBERYARD SHOPS FOR ALL WOOD TO WOOD CONNECTORS.
FLUSH TO FLUSH WOOD BEAM CONNECTIONS TO USE FACE MOUNT HANGERS.

4.A SHEATHING

ORIENT SHEATHING IN STRONG DIRECTION OVER JOISTS/STUDS.
STAGGER ALL JOINTS OF SHEATHING.
FASTEN SHEATHING WITH 64mm (2 ½") NAILS OR #8 SCREWS AROUND PERIMETER OF EACH SHEATHING PANEL FASTEN AT 150mm (6") o/c ON ALL SUPPORTS

STEEL SPECIFICATIONS

1. STANDARDS

ALL ELEMENTS HAVE BEEN DESIGNED IN ACCORDANCE WITH CAN/CSA-S16. ALL WELDING TO CONFORM TO CSA STANDARD W59
CANADIAN INSTITUTE OF STEEL CONSTRUCTION - CODE OF STANDARD PRACTICE

2. RESPONSIBILITY

THE GENERAL CONTRACTOR IS RESPONSIBLE FOR THE MEANS AND METHODS OF ERECTING THE STEEL ELEMENT, BY WORKING WITH THE STEEL SUPPLIER AND USING THE CODE OF STANDARD PRACTICE AS A GUIDE.

SHOP DRAWINGS ARE RECOMMENDED AS THEY ALLOW FOR REVIEW BY ALL PARTIES INVOLVED WITH THE DESIGN AND CONSTRUCTION.

STEEL CONNECTIONS NOTED ON THE DRAWINGS REQUIRING TO RESIST A BENDING MOMENT AND/OR SHEAR CONNECTION ARE TO BE DESIGNED, DETAILED AND SEALED BY A P.ENG IN ONTARIO. A STAMPED SHOP DRAWING IS REQUIRED WITH THE CONNECTION DETAILED FOR OUR RECORDS.

A THIRD PARTY INSPECTION AND TESTING COMPANY CAN BE USED AS PART OF THE CONTRACTORS QUALITY CONTROL TO ENSURE THE ERECTION TOLERANCES MEETS THE CISC CODE OF STANDARD PRACTICE.

3. MATERIAL

WIDE FLANGE BEAMS TO BE 350W CONFORMING TO CSA G40.21
HOLLOW STRUCTURAL STEEL TO BE CSA G40.21 CLASS C.
ROLLED ANGLES AND PLATES TO BE 300W CONFORMING TO CSA G40.21.
BOLTS: STEEL TO STEEL TO BE ASTM A325, STEEL TO WOOD TO BE ASTM A307.
ANCHOR BOLTS: GRADE 36 MIN.

3.A. PROTECTION

ALL EXPOSED STEEL TO BE HOT DIPPED GALVANIZED OR PAINT TO MEET SSPC PAINT #5 AND SSPC PAINT #20 TYPE II REQUIREMENTS I.E. ZINC RICH PRIMER

4. EXECUTION

REFER TO THE STRUCTURAL DETAILS AND PLANS FOR BEARING LENGTHS, PLATE SIZES AND CONNECTION INTENT.

CONSTRUCTION TOLERANCES ARE TO CONFORM TO THE CISC CODE OF STANDARD PRACTICE.

MASONRY SPECIFICATIONS

1. STANDARDS

ELEMENTS HAVE BEEN DESIGNED AND SPECIFIED IN ACCORDANCE WITH CSA S304, A165, A179, A370 AND A371 GUIDELINE STANDARDS FOR MASONRY.

2. RESPONSIBILITY

THE GENERAL CONTRACTOR IS RESPONSIBLE TO CONSTRUCT THE MASONRY IN ACCORDANCE TO CSA STANDARD A371-04.

THE GENERAL CONTRACTOR IS RESPONSIBLE TO WORK WITH A CERTIFIED READY MIX CONCRETE SUPPLIER. MIX PROPERTIES MUST MEET SITE REQUIREMENTS FOR PLACING AND FINISHING, AS OUTLINED UNDER THE "PERFORMANCE" ALTERNATE OF TABLE 5 OF CSA-A23.1.

THE CERTIFIED READY MIX CONCRETE SUPPLIER SHALL DETERMINE SLUMP, AGGREGATE SIZE, MAXIMUM WATER/CEMENT RATIO AND AIR CONTENT TO MEET THE REQUIREMENTS FOR THE EXPOSURE CLASS AS OUTLINED IN TABLE 1 AND 2 OF CSA-A23.1.

3. MATERIAL

CONCRETE MASONRY UNITS TO CONFORM TO CSA A165.
STANDARD HOLLOW - TYPE H/15/A/M
75% SOLID - TYPE S/15/A/M
100% SOLID - TYPE S/15/A/M

MORTAR TO CONFIRM TO CSA A179 - TYPE S
GROUT TO CONFORM TO CSA A179 - MIN 20 MPa AND 200 mm SLUMP

HORIZONTAL JOINT REINFORCEMENT TO CONFORM TO CSA A370.
HORIZONTAL LADDER FRAMING MIN 3.8 mm (5/32") IN DIAMETER

4. EXECUTION

DO NOT CUT HOLES IN ANY MASONRY WALLS (OTHER THAN WHAT IS SHOWN ON THE STRUCTURAL DRAWINGS) WITHOUT THE APPROVAL OF ETERNITY ENGINEERING INC.

PROVIDE STEEL LINTELS FOR ALL OPENINGS AND/OR RECESSES IN MASONRY WALLS. SEE LINTEL SCHEDULE FOR SIZING.

4.A. BEARING REQUIREMENTS

MINIMUM BEARING ON MASONRY (UNLESS NOTED OTHERWISE):

BEAMS (STEEL, CONCRETE AND TIMBER)	200 mm (8")
MASONRY LINTELS	200 mm (8")
STEEL LINTELS	150 mm (6")
JOISTS (STEEL AND TIMBER)	100 mm (4")
PRECAST CONCRETE SLABS	100 mm (4")
CAST-IN-PLACE CONCRETE SLABS (<= 150mm (6"))	150 mm (6")
CAST-IN-PLACE CONCRETE SLABS (> 150mm (6"))	200 mm (8")
STEEL DECKING/BEAMS (ON CAST-IN PLATE)	100 mm (4")

BEFORE PLACING ANY CONCRETE OR FILLING MASONRY CELLS, CALL 48HRS IN ADVANCE FOR A REVIEW FROM THE LOCAL BUILDING INSPECTOR, THIRD PARTY TESTING (IF REQUIRED), AND ETERNITY ENGINEERING INC.

MASONRY BEARING SHALL BE 100% SOLID MASONRY, MASONRY BOND BEAMS OR HOLLOW BRICKS GROUTED SOLID.

LOCATE BEARING/BASE PLATES 13 mm (1/2") FROM THE FACE OF THE WALL.

4.B. MASONRY JOINT REINFORCEMENT

PROVIDE MASONRY JOIST REINFORCEMENT OF GALVANIZED CONTINUOUS LADDER TYPE CONFORMING TO CSA G30.3 (UNLESS NOTED OTHERWISE):

PROVIDE REINFORCEMENT AS FOLLOWS:
LADDER FRAMING TO BE 50 mm (2") NARROWER THAN WALL THICKNESS
LADDER FRAMING TO BE IN FIRST THREE (3) JOINTS ABOVE FLOOR LEVEL
LADDER FRAMING TO BE IN FIRST THREE (3) JOINTS BELOW TOP OF WALL
LADDER FRAMING IN THE FIRST TWO (2) JOINTS ABOVE & BELOW OPENINGS AT 400 mm (16") O.C. FOR THE REST OF WALL
MIN 16 mm (5/8" CLEAR COVER FROM FACE OF MASONRY
MIN LAP LENGTH OF 300 mm (12"). STAGGER LAPS MIN 750 mm (30").

DESIGN NOTES

1. BUILDING CODE

THE BASE BUILDING STRUCTURE REQUIREMENTS SHOWN ON THE DRAWINGS HAS BEEN DESIGNED IN SUBSTANTIAL ACCORDANCE WITH PART 9.4 STRUCTURAL REQUIREMENTS USING THE LATEST ONTARIO BUILDING CODE WITH AMENDMENTS.

2. DESIGN LOADS

THE LOADS USED IN THE DESIGN ARE NOTED ON THE PLANS FOR THE FLOOR AND ROOF DEAD LOADS, FLOOR LIVE LOADS, ROOF SNOW LOADS AND WIND LOADS.

NOTE: THE LOCALIZED DESIGN OF COMPONENTS FOR ROOFING MEMBRANES, FINISH FLOORING AND CEILINGS ARE NOT DESIGNED BY ETERNITY ENGINEERING INC. THE CONSTRUCTION OF SUCH COMPONENTS NEED TO FOLLOW THE SUPPLIERS GUIDELINES AND THEIR CCMC REPORTS.

3. LATERAL DESIGN

UNLESS NOTED OTHERWISE ON THE DRAWINGS, THE BUILDING CONFORMS TO THE PRESCRIPTIVE REQUIREMENTS OF LATERAL STABILITY UTILIZING EXTERIOR SHEAR / PORTAL FRAME WALLS. THE PRESCRIPTIVE GUIDELINES ARE DOCUMENTED IN THE OWC - ENGINEERING GUIDE FOR WOOD FRAME CONSTRUCTION AND THE NATIONAL BUILDING CODE.

NOTE: THE LOCALIZED DESIGN OF COMPONENTS FOR WINDOWS AND CLADDING ARE NOT DESIGNED BY ETERNITY ENGINEERING INC. THE CONSTRUCTION OF SUCH COMPONENTS NEEDS TO FOLLOW THE SUPPLIERS GUIDELINES AND THEIR CCMC REPORTS.

CONSTRUCTION NOTES

1. LEGAL

THE CONTRACTOR NEEDS TO BE FAMILIAR WITH THE ONTARIO LAWS WITH REGARDING THE OCCUPATIONAL HEALTH AND SAFETY ACT , INCLUDING BUT NOT LIMITED TO REGULATION 213/91 CONSTRUCTION PROJECTS AND PARTICULAR EXCAVATION HAZARDS.

2. RESPONSIBILITY

THE CONTRACTOR IS RESPONSIBLE FOR THE MEANS AND METHODS AND THE QUALITY CONTROL DURING CONSTRUCTION.

ALL TEMPORARY WORKS INCLUDING SHORING ARE TO BE PROVIDED BY THE CONTRACTOR AND NEEDS TO BE DESIGNED BY A P.ENG.

THE CONTRACTOR IS RESPONSIBLE TO VERIFY THAT THE ASSUMPTIONS ON THE DRAWINGS ARE CORRECT BEFORE PROCEEDING.

SHOULD THE ASSUMPTIONS NOT BE CORRECT, NOTIFY ETERNITY ENGINEERING INC. IMMEDIATELY.

3. EXCAVATION & SHORING

A GEO-TECHNICAL ENGINEER IS RESPONSIBLE TO CONFIRM BEARING CAPACITY AND SOIL CONDITIONS FOR ALL EXCAVATION GREATER THAN 4 FT (1200 MM).

SHORING IS LIKELY REQUIRED (AND NEEDS TO BE DESIGNED A P.ENG) FOR ALL EXCAVATION GREATER THAN A 7:10 SLOPE FROM THE PROPERTY LINE. SHORING RECOMMENDATIONS FOR SLOPE STABILITY SHOULD BE PROVIDED BY A GEO-TECHNICAL ENGINEER.

SUBMITTABLE DOCUMENTS AND GENERAL REVIEW NOTES

1. GENERAL REVIEW

E-MAIL INFO@ETERNITY.DESIGN TO COORDINATE WITH OUR OFFICE FOR GENERAL REVIEW OF STRUCTURAL COMPONENTS WHEN REQUIRED BY THE MUNICIPALITY.

SIGNIFICANT STRUCTURAL STAGES WHICH TYPICALLY REQUIRE STRUCTURAL REVIEW INCLUDE:

- UNDERPINNING (EXCAVATED, PRIOR TO CONCRETE FOR ALL STAGES)
- FOOTING REVIEW (PRIOR TO CONCRETE)
- FOUNDATION WALL REVIEW (40% TIED BEFORE FORMS CLOSED)
- STRUCTURAL CONCRETE SLABS TIED (PRIOR TO CONCRETE)
- FINAL FRAMING REVIEW (PRIOR TO INSULATION)

2. SUBMITTABLE DOCUMENTATION

PROVIDE CITY OFFICIALS AND E-MAIL INFO@ETERNITY.DESIGN PDF FILES OF ANY OF THE FOLLOWING DOCUMENTS (APPLICABLE TO THE PROJECT) FOR OUR RECORDS:

A. ISSUED PERMIT DRAWINGS FROM WITH THE MUNICIPALITY REVIEW STAMP AND COMMENTS.

B. SEALED ROOF TRUSS SHOP DRAWINGS .

C. SEALED ENGINEERED FLOOR SHOP DRAWINGS.

D. SEALED STEEL FABRICATION DRAWINGS.

E. CONFIRMATION OF CONCRETE MIX TYPE LOCATIONS AND REBAR PLACEMENT.

F. SEALED GLASS GUARD SHOP DRAWINGS IN COMPLIANCE WITH SB-13 DESIGNED TO OBC 4.1.5.14

G. CCMC APPROVAL LETTER FOR METAL RAILINGS IN COMPLIANCE WITH OBC AS PER DIV C- PART 3 SECTION 2.3 & 2.4 OF THE OBC

3. SHOP DRAWING REVIEW

THE GENERAL CONTRACTOR IS RESPONSIBLE TO REVIEW ALL SHOP DRAWINGS COMPARING THEM WITH THE ARCHITECTURAL DRAWINGS, STRUCTURAL DRAWING AND WITH THE AS-BUILT SITE CONDITIONS.

THE ARCHITECTURAL DESIGNER CAN REVIEW THE SHOP DRAWINGS FOR INTENDED DIMENSIONS AND CONFORMITY TO THEIR DESIGN.

ETERNITY ENGINEERING INC. CAN REVIEW THE SHOP DRAWINGS TO ENSURE THE PROPOSED MANUFACTURING AND ERECTION WILL CONFORM TO THE STRUCTURAL DRAWINGS.

CONCRETE AND REBAR SPECIFICATIONS

1. STANDARDS

ELEMENTS HAVE BEEN DESIGNED IN ACCORDANCE WITH CSA A23.3. REBAR TO BE OF GRADE 400 MPa, AS CONFORMING TO CSA A23.1

2. RESPONSIBILITY

THE GENERAL CONTRACTOR IS RESPONSIBLE TO WORK WITH A CERTIFIED READY MIX CONCRETE SUPPLIER. MIX PROPERTIES MUST MEET SITE REQUIREMENTS FOR PLACING AND FINISHING, AS OUTLINED UNDER THE "PERFORMANCE" ALTERNATE OF TABLE 5 OF CSA-A23.1.

THE CERTIFIED READY MIX CONCRETE SUPPLIER SHALL DETERMINE SLUMP, AGGREGATE SIZE, MAXIMUM WATER/CEMENT RATIO AND AIR CONTENT TO MEET THE REQUIREMENTS FOR THE EXPOSURE CLASS AS OUTLINED IN TABLE 1 AND 2 OF CSA-A23.1.

3. MATERIAL

FOOTINGS - 25 MPa, CLASS F-2 (R-1)
FOUNDATION WALLS - 25 MPa, CLASS F-2 (R-2)
INTERIOR SLAB ON GRADE - 25 MPa, CLASS N (R-3)
REINFORCED EXTERIOR SLABS, WALLS AND STAIRS - 35 MPa, CLASS C-1
UNREINFORCED GARAGE FLOOR SLABS - 32 MPa, CLASS C-2

3.A. ADMIXTURES

EXTERIOR REINFORCED CONCRETE EXPOSED TO CHLORIDES (EXPOSURE CLASS C-1) SHALL HAVE CORROSION INHIBITORS. USE 10 L/m3/ OF "DCI S" BY GRACE CONSTRUCTION PRODUCTS OR "MASTERLIFE C1 30" BY BASF CONSTRUCTION CHEMICALS.

HIGH EARLY OR LOW-SHRINKAGE ADD-MIXTURES CAN IMPROVE THE PERFORMANCE AND IS UP TO THE DISCRETION OF THE CONTRACTORS QUALITY CONTROL PROGRAM.

4. EXECUTION

BEFORE PLACING ANY CONCRETE, CALL 48HRS IN ADVANCE FOR A REVIEW FROM THE LOCAL BUILDING INSPECTOR, THIRD PARTY TESTING (IF REQUIRED), AND ETERNITY ENGINEERING INC.

4.A. REBAR PLACEMENT

FOOTINGS:
CAST AGAINST EARTH - 75mm (3") OFF GROUND (CHAIRS OR BRICKS)

FOUNDATION & RETAINING WALLS (SEE DETAILS FOR BAR PLACEMENT):
FORMED INTERIOR WEATHER PROTECTED - 52 mm (2")
FORMED EXTERIOR NOT EXPOSED TO CHLORIDES - 52 mm (2")
FORMED EXTERIOR EXPOSED TO CHLORIDES - 60mm (2 3/8")

STRUCTURAL SLABS (SEE PLANS FOR LAYERS AND EXTENTS):
BOTTOM BARS (FORMED UNDERSIDE OF SLAB) - 40 mm (1 1/2")
TOP BARS (COVER MEASURED FROM TOP OF SLAB) - 52 mm (2")

4.B. REBAR SPLICE LENGTHS

10M - 25MPa = 460mm (18"); 15M - 25MPa = 610mm (24");
20M - 25MPa = 760mm (30"); 25M - 25MPa = 1220mm (48")

4.C CURING PROCESS

THE CURING METHOD OF CONCRETE DURING HOT, COLD OR DRY WEATHER IS OUTLINED IN TABLE 19 OF CSA-A23.1

THE STAMP/SEAL OF THE PROFESSIONAL ENGINEER OR ARCHITECT HAS BEEN RELIED UPON FOR THE REVIEW OF THIS PERMIT.

ALL REVISION PLANS TO BE VIEWED IN CONJUNCTION WITH ORIGINALLY ISSUED PERMIT PLANS

THE TOWN OF OAKVILLE REVIEWED

PERMIT IS ISSUED SUBJECT TO ANY REASON SHOWN IN COLOUR AND MARKED THEREON OR ON ATTACHED SHEET.

PERMIT NO.: 24 - 206538

DATE: January 7, 2025 SIGNED: TA

CONSTRUCTION MUST CONFORM TO THE ONTARIO BUILDING CODE

ABBREVIATIONS

B.E.W. - BOTTOM EACH WAY
BM. - BEAM
C.A. - COLUMN ABOVE
CANT. - CANTILEVER
CONT. - CONTINUOUS
D.J. - DOUBLE JOIST
D.O. - DO OVER
DR. - DROPPED
FDN. - FOUNDATION
FL. - FLUSH
FTG. - FOOTING
G.T. - GIRDER TRUSS
HA. - HANGER
H.E.F. - HORIZONTAL EACH FACE
H.I.F. - HORIZONTAL INSIDE FACE
H.O.F. - HORIZONTAL OUTSIDE FACE
H.P. - HELICAL PILE
J.T. - JACK TRUSS
L.B.W. - LOAD BEARING WALL
L.B.W.A. - LOAD BEARING WALL ABOVE
M.E.W. - MIDDLE EACH WAY
M.C. ▶ - MOMENT CONNECTION
O.C. - ON CENTRE
P.A. - POST ABOVE
R.J. - ROOF JOISTS
S.B. - SOLID BEARING
STL. - STEEL
T.E.W. - TOP EACH WAY
T/O - TOP OF
V.E.F. - VERTICAL EACH FACE
V.I.F. - VERTICAL INSIDE FACE
V.O.F. - VERTICAL OUTSIDE FACE
U/S - UNDERSIDE
U.N.O. - UNLESS NOTED OTHERWISE
W/ - WITH

RECEIVED
BUILDING SERVICES
PERMIT NO: 24-206538 REV 01
DATE: 12/17/2024
TOWN OF OAKVILLE

1. ALL DRAWINGS, DESIGN AND DETAILS PREPARED BY ETERNITY ENGINEERING INC. ARE SPECIFIC TO THIS PROJECT ADDRESS ONLY AND CANNOT BE USED FOR ANY OTHER WORK OR PROJECT.

2. THE INTENTION OF THESE DRAWINGS ARE TO BE USED AS DESIGN DRAWINGS ONLY. THESE DRAWINGS ARE NOT BE SCALED FOR FINAL MEASUREMENTS OR USED AS SHOP DRAWINGS FOR CONSTRUCTION. ALL FINAL DIMENSIONS AND LAYOUTS SHOULD BE MEASURED FROM THE ARCHITECTURAL DRAWINGS AND CONFIRMED ON SITE.

LICENSED PROFESSIONAL ENGINEER
2024-10-28
C. W. HSIEH
100199333
PROVINCE OF ONTARIO

REF.	DATE	DESCRIPTION
3		
2	28-OCT-24	ISSUED FOR SSI#1
1	06-SEP-24	ISSUED FOR PERMIT

info@Eternity.Design

eternity engineering inc.

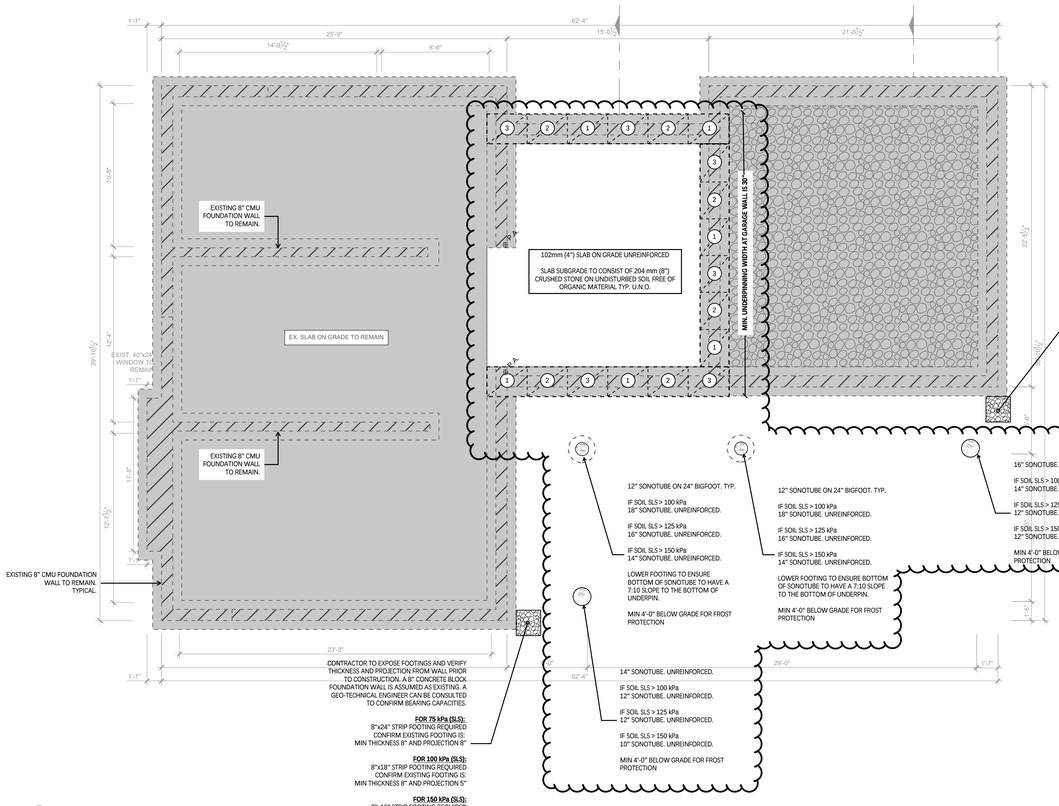
www.Eternity.Design

PROJECT ADDRESS:

246 CAIRNCROFT DRIVE
OAKVILLE

DRAWING TITLE:
GENERAL NOTES, SPECIFICATION AND STRUCTURAL DETAILS

SHEET: 24"x36"	DRAWN: J.L.
SCALE: 1:20	
JOB NUMBER: 014-24-003	S1.0



1 FOUNDATION PLAN
S2.0 3/16"=1'-0"

FOOTING SCHEDULE:

1) THE FOOTINGS ARE TO BE FOUNDED ON NATURAL UNDISTURBED EARTH WITH A MINIMUM BEARING CAPACITY AS NOTED BELOW. ALL NON-ORGANIC MATERIAL IS TO BE REMOVED.

2) THE FOOTINGS HAVE BEEN DESIGNED TO 75 kPa (SLS) (REFERENCING TABLE 9.4.4.1 IN THE OBC) ASSUMING THE NATIVE EARTH ON SITE IS AT MINIMUM FIRM CLAY. IF A HIGH WATER TABLE OR LOOSE SAND/GRAVEL CONDITIONS ARE PRESENT, THE GENERAL CONTRACTOR IS REQUIRED TO HIRE A QUALIFIED GEO-TECHNICAL ENGINEER TO CONFIRM SOIL BEARING CAPACITY PRIOR TO FORMING FOOTINGS.

SMALLER FOOTING SIZES HAVE BEEN PROVIDED (AT HIGHER BEARING CAPACITIES) TO SIMPLIFY CONSTRUCTION. THE GENERAL CONTRACTOR CAN HIRE A QUALIFIED GEO-TECHNICAL ENGINEER TO CONFIRM SOIL BEARING CAPACITY PRIOR TO FORMING FOOTINGS IF THEY CHOOSE TO USE THE SMALLER FOOTINGS.

3) ALL FOOTINGS TO BE MINIMUM 1200 mm (4'-0") BELOW GRADE (FOR FROST PROTECTION) UNLESS PROTECTED WITH RIGID INSULATION AS NOTED ON PLAN.

4) STEP FOOTINGS TO HAVE A MAXIMUM RISE OF 610 mm (24") AND A MINIMUM RUN OF 610 mm (24").

STRIP FOOTINGS:

SEE TAGS ON FOUNDATION PLAN FOR ANY STRIP FOOTINGS WHICH ARE REQUIRED TO BE LARGER THAN THE TYPICAL FOOTING NOTED BELOW.

IF SOIL CAPACITY > 75 kPa (SLS)
24" WIDE x 8" DEEP STRIP FTG. w/ REINF. 2 - 15M CONT.

15M DOWELS x 36" LG (WET SET)
(6" H x 30" V or 8" H x 28" V)

DOWEL SPACING TO MATCH VERTICAL WALL REINFORCEMENT SPACING. SEE FOUNDATION SCHEDULE. MAX 24" O.C. FOR UNREINFORCED CONCRETE WALLS AND 16" O.C. FOR UNREINFORCED MASONRY WALLS.

PAD FOOTINGS:

SEE TAGS ON FOUNDATION PLAN FOR FOOTING SIZES. SMALLER FOOTING OPTION PROVIDED IF SOIL CAPACITY IS > 100 kPa (SLS).

PAD FOOTING DOWELS TO MATCH PIER/SONOTUBE VERTICAL REINFORCEMENT.

UNDERPINNING FOUNDATION SCHEDULE (STORAGE):

EXISTING 10" CONCRETE FOUNDATION WALLS TO BE UNDERPINNED. SEE ARCH DRAWINGS FOR EXACT MEASUREMENTS.

UNDERPINNING DEPTH:

BASEMENT IS BEING LOWER TO A FINAL HEIGHT OF 7'-9"
EXISTING U/S OF FOOTINGS ASSUMED AT 4'-6" BELOW CEILING
EXISTING FOOTINGS TO BE UNDERPINNED (LOWERED) – 4'-0"

FOR TYPE 1 & 2 SOILS MAXIMUM 48" LIFTS
FOR TYPE 3 SOILS MAXIMUM 24" LIFTS ('A' & 'B'). PROVIDE 2-15M HORIZONTAL REINFORCING THROUGH ADJACENT PINS (MIN. 12" EMBEDMENT). STAGGER LIFTS 'A' AND 'B' WHEN ACHIEVING A DEPTH GREATER THAN 24".

UNDERPINNING LENGTH (SEGMENTS):

3 STAGE UNDERPINNING
MAX 36" SEGMENTS

UNDERPINNING WIDTH (NEW STRIP FOOTING):

24" WITH 75 kPa (SLS) BEARING CAPACITY
18" WITH 100 kPa (SLS) BEARING CAPACITY
14" WITH 125 kPa (SLS) BEARING CAPACITY

AT MINIMUM WIDTH TO MATCH EXISTING FOOTING THICKNESS.

THE EXISTING SOIL CONDITIONS WERE NOT VERIFIED AT THE TIME OF VISIT. **THE GENERAL CONTRACTOR IS RESPONSIBLE TO HIRE A QUALIFIED GEO-TECHNICAL ENGINEER TO CONFIRM SOIL BEARING CAPACITY** AND MAXIMUM UNDERPINNING SEGMENTS PRIOR TO EXCAVATING FOR UNDERPINNING.

REFER TO DETAIL 8A/UNPN

FOUNDATION WALL THICKNESSES ARE ASSUMED AS NOTED ABOVE AND ARE IN GOOD CONDITION WITH EXISTING STRIP FOOTINGS.

IF STRIP FOOTINGS ARE NOT PRESENT, THE WALL THICKNESSES DO NOT MATCH WHAT IS NOTED ABOVE OR ARE DAMAGED, *ETERNITY ENGINEERING INC. IS TO BE CONTACTED IMMEDIATELY PRIOR TO UNDERPINNING.*

FOUNDATION WALL SCHEDULE:

1) WET-DIP ANCHOR 1" BOLTS 1/2" x 6" LONG @ 48" o.c. MINIMUM TWO (2) ANCHORS PER WALL SEGMENT FOR FLOOR FRAMING SILL PLATE (WHERE WALL IS NOT CONTINUOUS).

POST INSTALL ANCHOR BOLT ALTERNATIVE (MIN 6" WALL/OURB):

- HIT-Z 16x241 mm (5/8"x9 1/2") ANCHOR BOLT DRILLED AND EPOXIED INTO CONCRETE FOUNDATION WALL 127 mm (5") WITH HILTI HY-200 EPOXY.
- TITEN HD 16x204 mm (5/8"x8") HEAVY-DUTY SCREW ANCHOR DRILLED INTO CONCRETE FOUNDATION WALL 127 mm (5").

2A) TWO (2) 15M FULL HEIGHT VERTICAL BARS ARE TO BE INSTALLED AT BOTH SIDES OF OPENINGS.

2B) TWO (2) 15M x 1.22 m (4'-0") LONG DIAGONAL BARS ARE TO BE INSTALLED PERPENDICULAR TO CORNERS AT OPENINGS.

2C) TWO (2) 15M HORIZONTAL BARS ARE TO BE INSTALLED AT BELOW AND EXTEND 610 mm (24") BEYOND OPENINGS.

3) MIN BAR LAP LENGTH: 450mm (18") 10M; 650 mm (26") 15M; 750 mm (30") 20M

4) REFER TO ARCHITECTURAL AND STRUCTURAL SECTIONS FOR TOP OF WALL CONDITIONS SUCH AS BRICK LEDGES, SLAB BEARING CONDITIONS, ETC.

5) REFER TO DETAILS FOR CAST-IN ANCHORS OR BEAM POCKETS.

6) FOUNDATION WALLS TO BE BRACED OR HAVE THE FLOOR JOISTS INSTALLED BEFORE BACKFILLING.

FOUNDATIONS:

STANDARD FOUNDATION IS CFW10U U.N.O. ON PLAN

CFW10U:
CONCRETE WALL THICKNESS: 254 mm (10")
HORIZONTAL BAR PLACEMENT: TOP OF WALL (WET SET)
HORIZONTAL BAR SPACING: (2) 15M CONT. BARS
VERTICAL BAR PLACEMENT: NONE
VERTICAL BAR SPACING: NONE
VERTICAL BAR PROJECTION ABOVE: NONE

ALL WALL CORNERS TO HAVE 15M x 48"LG (24"x24") HORIZONTAL CORNERS BARS TO MATCH HORIZ. REINF.

2

THE EXISTING FOOTINGS TO REMAIN ARE ASSUMED TO HAVE BEEN DESIGNED BY A QUALIFIED PROFESSIONAL AT THE TIME OF ORIGINAL CONSTRUCTION AND HAVE NOT BEEN CHECKED BY OUR OFFICE.

ALL NEW FOUNDATIONS OR MODIFIED EXISTING FOUNDATIONS ON THE STRUCTURAL DRAWINGS HAVE BEEN DESIGNED FOR THE LOADING CONFIGURATIONS AS SHOWN.

ANY DISCREPANCIES ARE TO BE ADDRESSED TO THE ENGINEER OF RECORD PRIOR TO ORDERING MATERIALS.

FOUNDATION PLAN NOTES:

1. REFER TO S1.0 FOR GENERAL NOTES
2. REFER TO S1.0 FOR FOUNDATION DETAILS
3. CONFIRM TOP OF WALL DETAILS WITH ARCHITECTURAL DRAWINGS.
4. REFER TO ARCHITECTURAL DRAWINGS FOR ALL FINAL DIMENSIONS AND LAYOUT. DIMENSIONS AND ELEVATIONS SHOWN ON THESE DRAWINGS ARE FOR STRUCTURAL DESIGN ONLY.

THE TOWN OF OAKVILLE
REVIEWED

PERMIT IS ISSUED SUBJECT TO ANY REASON SHOWN IN COLOUR AND MARKED THEREON OR ON ATTACHED SHEET.

PERMIT NO.: 24 - 206538

DATE: January 7, 2025 SIGNED: TA

CONSTRUCTION MUST CONFORM TO THE ONTARIO BUILDING CODE

RECEIVED
BUILDING SERVICES
PERMIT NO: 24-206538 REV 01
DATE: 12/17/2024
TOWN OF OAKVILLE

1. ALL DRAWINGS, DESIGN AND DETAILS PREPARED BY ETERNITY ENGINEERING INC. ARE SPECIFIC TO THIS PROJECT ADDRESS ONLY AND CANNOT BE USED FOR ANY OTHER WORK OR PROJECT.

2. THE INTENTION OF THESE DRAWINGS ARE TO BE USED AS DESIGN DRAWINGS ONLY. THESE DRAWINGS ARE NOT BE SCALED FOR FINAL MEASUREMENTS OR USED AS SHOP DRAWINGS FOR CONSTRUCTION. ALL FINAL DIMENSIONS AND LAYOUTS SHOULD BE MEASURED FROM THE ARCHITECTURAL DRAWINGS AND CONFIRMED ON SITE.

LICENSED PROFESSIONAL ENGINEER
2024-10-28
C. W. HSIEH
100199333
PROVINCE OF ONTARIO

3		
2	28-OCT-24	ISSUED FOR SSI#1
1	06-SEP-24	ISSUED FOR PERMIT
REF.	DATE	DESCRIPTION

info@Eternity.Design

eternity engineering inc.

www.Eternity.Design

PROJECT ADDRESS:

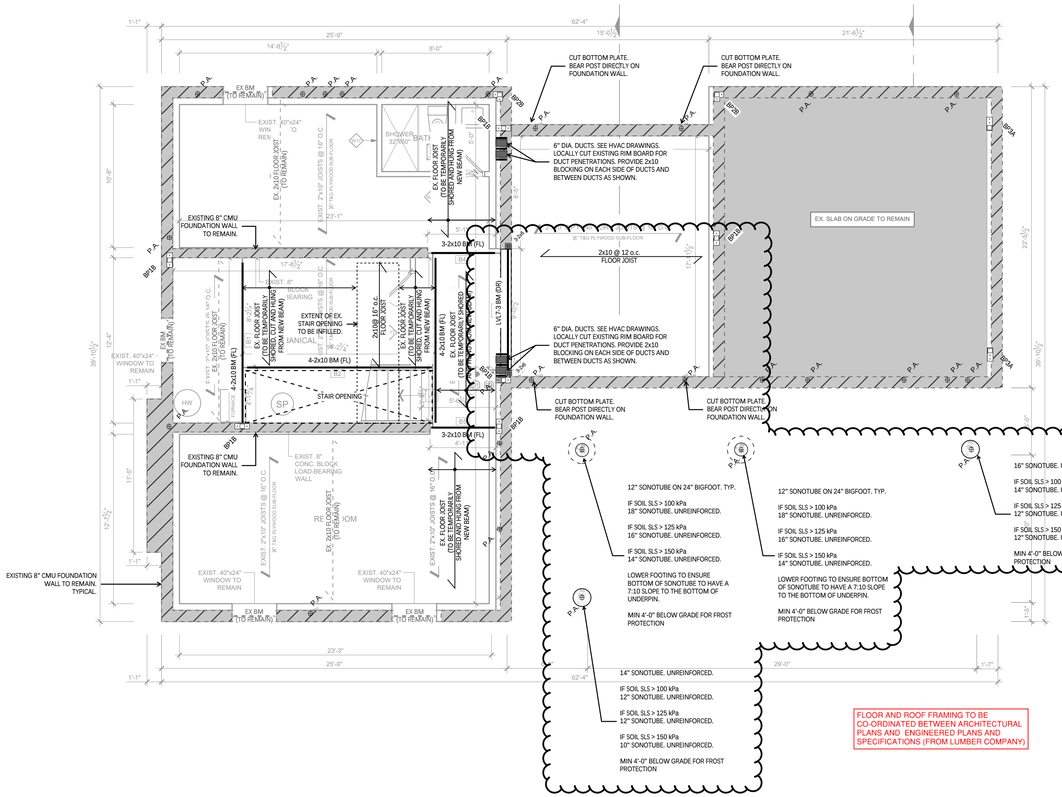
246 CAIRNCROFT DRIVE OAKVILLE

DRAWING TITLE:

FOUNDATION PLAN

SHEET: 24"x36" | DRAWN: J.L.
SCALE: 3/16" = 1'-0"
JOB NUMBER: 014-24-003

S2.0



1 BASEMENT PLAN SHOWING GROUND FLOOR FRAMING
S3.0 3/16"=1'-0"

FLOOR AND ROOF FRAMING TO BE CO-ORDINATED BETWEEN ARCHITECTURAL PLANS AND ENGINEERED PLANS AND SPECIFICATIONS (FROM LUMBER COMPANY)

THE TOWN OF OAKVILLE REVIEWED

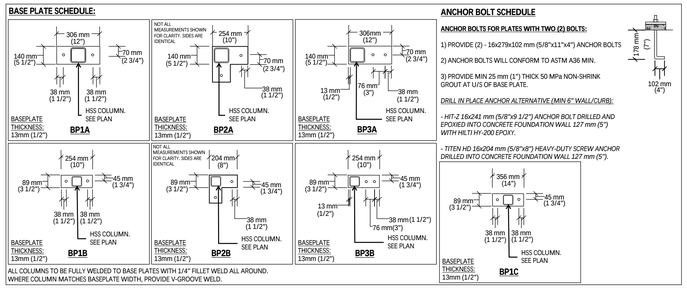
PERMIT IS ISSUED SUBJECT TO ANY REASON SHOWN IN COLOUR AND MARKED THEREON OR ON ATTACHED SHEET.

PERMIT NO.: 24 - 206538

DATE: January 7, 2025 SIGNED: TA

CONSTRUCTION MUST CONFORM TO THE ONTARIO BUILDING CODE

BASE PLATE SCHEDULE:



ALL COLUMNS TO BE FULLY WELDED TO BASE PLATES WITH 1/4" FILLET WELD ALL AROUND. WHERE COLUMN MATCHES BASEPLATE WIDTH, PROVIDE V-GROOVE WELD.

ANCHOR BOLT SCHEDULE

ANCHOR BOLTS FOR PLATES WITH TWO (2) BOLTS:

1) PROVIDE (2) - 16x279x102 mm (5/8"x11"x4") ANCHOR BOLTS

2) ANCHOR BOLTS WILL CONFORM TO ASTM A36 MIN.

3) PROVIDE MIN 25 mm (1") THICK 50 MPa NON-SHRINK GROUT AT U/S OF BASE PLATE.

DRILL IN PLACE ANCHOR ALTERNATIVE (MIN 6" WALL/CURB):

- HIT-Z 16x241 mm (5/8"x9 1/2") ANCHOR BOLT DRILLED AND EPOXIED INTO CONCRETE FOUNDATION WALL 127 mm (5") WITH HILTI HY-200 EPOXY.

- TITEN HD 16x204 mm (5/8"x8") HEAVY-DUTY SCREW ANCHOR DRILLED INTO CONCRETE FOUNDATION WALL 127 mm (5").

THE EXISTING STRUCTURAL FRAMING DIRECTION ARE ASSUMED TO BE VERIFIED DURING CONSTRUCTION BY THE GENERAL CONTRACTOR.

PROFESSIONAL JUDGMENT IS EXERCISED IN FORMULATING OUR RECOMMENDATIONS. WE RENDER ADVICE, WE CANNOT ACT AS INSURERS, CERTIFICATION OR PROVIDE WARRANTY.

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ASSUMED EXISTING MEMBERS DIRECTIONS REFLECT OUR ASSUMPTIONS IF STRUCTURAL FRAMING MODIFICATIONS ARE TO BE COMPLETED.

ALL FRAMING TO REMAIN IS ASSUMED TO HAVE BEEN DESIGNED BY A QUALIFIED PROFESSIONAL AT THE TIME OF ORIGINAL CONSTRUCTION AND HAS NOT BEEN CHECKED BY OUR OFFICE.

ALL NEW FRAMING OR MODIFIED EXISTING FRAMING ON THE STRUCTURAL DRAWINGS HAS BEEN DESIGNED FOR THE LOADING CONFIGURATIONS AS SHOWN.

ANY DISCREPANCIES ARE TO BE ADDRESSED TO THE ENGINEER OF RECORD PRIOR TO ORDERING MATERIALS.

FLOOR FRAMING PLAN NOTES:

1. REFER TO S1.0 FOR GENERAL NOTES
2. REFER TO S6.0 FOR FRAMING DETAILS
3. CONFIRM TOP OF WALL DETAILS WITH ARCHITECTURAL DRAWINGS.
4. REFER TO ARCHITECTURAL DRAWINGS FOR ALL FINAL DIMENSIONS AND LAYOUT. DIMENSIONS AND ELEVATIONS SHOWN ON THESE DRAWINGS ARE FOR STRUCTURAL DESIGN ONLY.

STRUCTURAL HANGER TABLE

TYPE	FACE MOUNT HANGER
2X FLOOR JOISTS	LUXX
LVL FLOOR JOISTS	HUXX
TJI FLOOR JOISTS	HUXX
(X) 2xX BEAMS	HUXX*
LVL BEAMS	HUXX*

THE ABOVE NOTED TABLE AND FOLLOWING NOTES ARE FOR SMALL INTERIOR RENOVATIONS OR CONVENTIONAL LUMBER ONLY, WHERE LUMBER YARD IS NOT PROVIDING FLOOR DRAWINGS AND CONNECTION DESIGNS. FOR NEW CONSTRUCTIONS AND ADDITIONS, THE LUMBER YARD IS REQUIRED TO PROVIDE DRAWINGS AND CONNECTION DESIGNS SEALED BY THEIR ENGINEER OF RECORD.

NOTES:
1) ALL HANGERS SPECIFIED ARE SIMPSON STRONG TIE, REFER TO MANUFACTURER SPECIFICATIONS FOR ADDITIONAL DETAILS. ANY SUBSTITUTES TO BE REVIEWED BY LUMBER YARD'S ENGINEER.
2) SEE SIMPSON STRONG TIE HANGER TABLES FOR EXACT HANGER TYPE AND FASTENING REQUIREMENTS.
3) HANGER DEPTHS SHALL MATCH THE CORRESPONDING JOIST OR BEAM DEPTH HANGER SPECIFIED IN THE SIMPSON STRONG TIE CATALOG.
4) USE SPECIFIED HANGER TYPES UNLESS NOTED OTHERWISE ON PLAN.
5) SEE PLAN FOR SKEWED OR SLOPED HANGERS.
6) ALL HANGERS SHALL BE FACE MOUNT HANGERS UNLESS NOTED OTHERWISE ON PLAN.
7) REFER TO DETAILS FOR ADDITIONAL FASTENERS AT POINT LOADS AND STEEL BEAM BLOCKING FOR HANGERS.
8) REFER TO MANUFACTURER SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS FOR LVL AND TJI PRODUCTS.
9) '* ' USE HUCXX CONCEALED HANGERS WHERE REQUIRED OR SPECIFIED ON PLAN.
10) SIMPSON HANGER NAILS CAN BE SUBSTITUTED WITH THE APPROPRIATE SD STRUCTURAL SCREW AS SPECIFIED BY THE MANUFACTURER. REFER TO MANUFACTURER TABLES FOR APPROPRIATE SUBSTITUTES.

LVL BEAM SCHEDULE
(GRADE 2.0E, Fb = 2,600 psi)

LVL7-1 1 PLY 1 3/4" x 7 1/4" (44x184)
LVL7-2 2 PLY 1 3/4" x 7 1/4" (44x184)
LVL7-3 3 PLY 1 3/4" x 7 1/4" (44x184)
LVL7-4 4 PLY 1 3/4" x 7 1/4" (44x184)

LVL9-1 1 PLY 1 3/4" x 9 1/2" (44x241)
LVL9-2 2 PLY 1 3/4" x 9 1/2" (44x241)
LVL9-3 3 PLY 1 3/4" x 9 1/2" (44x241)
LVL9-4 4 PLY 1 3/4" x 9 1/2" (44x241)

LVL11-1 1 PLY 1 3/4" x 11 7/8" (44x302)
LVL11-2 2 PLY 1 3/4" x 11 7/8" (44x302)
LVL11-3 3 PLY 1 3/4" x 11 7/8" (44x302)
LVL11-4 4 PLY 1 3/4" x 11 7/8" (44x302)

LVL14-1 1 PLY 1 3/4" x 14" (44x356)
LVL14-2 2 PLY 1 3/4" x 14" (44x356)
LVL14-3 3 PLY 1 3/4" x 14" (44x356)
LVL14-4 4 PLY 1 3/4" x 14" (44x356)

LVL16-1 1 PLY 1 3/4" x 16" (44x406)
LVL16-2 2 PLY 1 3/4" x 16" (44x406)
LVL16-3 3 PLY 1 3/4" x 16" (44x406)
LVL16-4 4 PLY 1 3/4" x 16" (44x406)

STEEL LINTEL SCHEDULE

- LINTELS TO BEAR MIN. 6" EACH END
- MAX. 1" BRICK OVERHANG
- LINTELS SHALL BE PRIME PAINTED TO "OSC/CPMA 2-3"
- ORIENT ANGLES LONG LEG VERTICAL
- WEEP HOLES @ 56" o.c. MAX.

S1: SPAN <= 4'-0" L3 1/2" x 3 1/2" x 1/4"
S2: SPAN <= 6'-0" L4" x 3 1/2" x 1/4"
S3: SPAN <= 8'-0" L5" x 3 1/2" x 5/16"
S4: SPAN <= 10'-0" L6" x 3 1/2" x 5/16"

WINDOW WIND SILL (PLANK BEAM) SCHEDULE

- WIND SILLS ARE LOCATED ABOVE AND BELOW WINDOWS MID HEIGHT ON WALL.
- CONNECTIONS OF WIND SILL TO WOOD POST ON EACH SIDE VARY BETWEEN A35 CLIPS AND TOE-NAILS.
- NUMBER OF 2x6 PLIES VARIES DEPENDING ON WINDOW OPENING WIDTH AND CLEAR STOREY HEIGHT. - ORIENT WIND SILLS IN PLANK POSITION (FLAT)
- MAX CLEAR STOREY HEIGHT 12'-0"

0" < SPAN <= 6'-0"
- (1) 2x6 PLANK BEAM
- (6) 10d - 3" COMMON NAIL EACH END

6'-0" < SPAN <= 8'-0"
- (2) 2x6 PLANK BEAM
- (8) 10d - 3" COMMON NAIL EACH END

8'-0" < SPAN <= 10'-0"
- (3) 2x6 PLANK BEAM
- (8) 10d - 3" COMMON NAILS EACH END

10'-0" < SPAN <= 12'-0"
- (3) 2x6 PLANK BEAM
- (2) A35 CLIPS + (24) 8d - 1.5" NAILS EACH END

12'-0" < SPAN
- SEE PLAN (OR CONSULT ENGINEER PRIOR TO BUILDING)

FLOOR STRUCTURAL DESIGN REQUIREMENTS

LIVE LOAD = 1.9 kPa (40 PSF)

DEAD LOADS

DEAD LOAD = 1.2 kPa (25 PSF) (INCLUDES SELF-WEIGHT) - ADDITION
DEAD LOAD = 0.96 kPa (20 PSF) (INCLUDES SELF-WEIGHT) - EXISTING

FLOOR DEFLECTION LIMITS

MAX DEFLECTION < 20mm (0.75")
CURVATURE < L / 480 LIVE LOADING & L / 240 TOTAL LOADING
MINIMUM TJ PRO RATING (FLOOR VIBRATIONS): 50

WALL FRAMING NOTES

LOAD BEARING ELEMENTS

1A) EXISTING EXTERIOR ABOVE GRADE LOAD BEARING WALLS ARE 2x4 STUDS SPACED @ 16" (406 mm) o.c. SPF NO.1/NO.2 UNLESS NOTED OTHERWISE ON PLAN.

1B) NEW EXTERIOR ABOVE GRADE LOAD BEARING WALLS ARE 2x6 STUDS SPACED @ 16" (406 mm) o.c. SPF NO.1/NO.2 UNLESS NOTED OTHERWISE ON PLAN.

2) CONTINUOUS DOUBLE TOP PLATE, PROVIDE LIGHT GAUGE STRAPS OVER ANY CUTS IN TOP PLATE.

3) CONTINUOUS SINGLE BOTTOM PLATE FASTEN WITH 10d - 3" NAILS SPACED @ 8" (204 mm) O.C. INTO RIM-BOARD.

4) DROPPED HEADERS AS NOTED ON PLAN ARE TO BE PLACED DIRECTLY UNDER DOUBLE TOP PLATE AS PER DETAILS.

5A) 2 PLY, 3 PLY, AND 4 PLY BUILT-UP STUDS TO BE FASTEN WITH (2) 10d - 3" NAILS SPACED @ 6" (152 mm) O.C. BETWEEN EACH PLY.

5B) 5 PLY (4+1) BUILT-UP STUDS. 4 PLIES TO BE FASTEN WITH (2) 6" LONG TIMBERLOK FASTENERS SPACED @ 6" (152 mm). FASTEN THE LAST PLY TO THE BUILT-UP POST WITH (2) 10d - 3" NAILS SPACED @ 6" (152 mm) O.C.

6) REFER TO FRAMING DETAILS FOR JACK AND FULL HEIGHT STUDS.

7) PROVIDE WALL BLOCKING TO MATCH WALL STUD SIZE AS FOLLOWS:
- EXTERIOR WALLS (0'-12"): NOT REQUIRED
- EXTERIOR WALLS (>12"): 4'-0" O.C.
- INTERIOR WALLS & PARTY WALLS (0'-8"): NOT REQUIRED
- INTERIOR WALLS & PARTY WALLS (8'-12"): MID HEIGHT
- INTERIOR WALLS & PARTY WALLS (>12"): 4'-0" O.C.

SHEATHING

1) EXTERIOR WOOD BASED SHEATHING IS 1/2" (12mm) NOMINAL, 15/32" AND 7/16" SHEATHING IS ACCEPTABLE.

2A) FOR WALLS **5'-0" (1.54 m) IN WIDTH** OR LESS; PROVIDE PANEL EDGE BLOCKING. FASTEN SHEATHING TO STUDS AND BLOCKING WITH 10d - 3" NAILS SPACED @ 6" (152 mm) O.C. INTO EACH STUD (UNLESS NOTED OTHERWISE ON PLANS).

2B) FASTEN SHEATHING TO STUDS WITH 10d - 3" NAILS SPACED @ 12" (304 mm) O.C. INTO EACH STUD FOR ALL OTHER WALLS.

LATERAL SYSTEMS AND HOLD DOWNS (AS PER CSA O86 WOOD DESIGN)

1) SHEAR WALLS AS PER SUPPLEMENTARY GUIDELINE C
2) MOMENT FRAMES AS NOTED ON PLAN.

FLOOR FRAMING NOTES

FRAMING MEMBERS

1A) ENGINEERED FLOOR JOISTS AND BEAMS

- I-JOISTS AND LVL BEAMS AS PER PLAN
- RIM-BOARD > 1" (25mm) TO MATCH FLOOR JOIST DEPTH.

1B) CONVENTIONAL S.P.F. FLOOR JOISTS AND BEAMS

- JOISTS AND BEAMS AS PER PLAN
- 2x S.P.F. RIM-BOARD TO MATCH FLOOR JOIST DEPTH.

1C) STEEL BEAMS

- STEEL BEAMS AS PER PLAN
- 2x S.P.F. NAILER BOARDS AND BLOCKING AS PER DETAILS

2) PROVIDE BRIDGING AT 8'-0" o.c. (2.4m) MAX. BETWEEN JOISTS. PROVIDE FULL DEPTH BLOCKING BETWEEN FIRST JOIST AND RIM-BOARD @ 4'-0" o.c. (1.2m) MAX.

3) REFER TO MANUFACTURERS GUIDELINES AND SHOP DRAWINGS FOR OPENINGS, WEB-STIFFENERS, PACKING OUT WEBS, ETC.

4) PROVIDE VERTICAL SQUASH BLOCKS AT ALL LOAD BEARING TRANSFER ELEMENTS, SUCH AS BUILT-UP POST AND WALLS ABOVE.

5) FASTEN JOISTS WITH (2) 10d - 3" TOE-NAILS WHEN BEARING ON A WOOD SILL PLATE. USE FACE MOUNT HANGERS FOR FLUSH CONDITIONS, WITH "PL PREMIUM" GLUE IN THE BOTTOM OF THE HANGER.

SHEATHING

1) 3/4" (19mm) T&G PLYWOOD

2) PLACE SHEATHING IN STRONG DIRECTION ACROSS THE JOISTS.

3) FASTEN SHEATHING TO JOISTS WITH 10d - 3" NAILS @ 8" (200mm) O.C. AND "PL PREMIUM" GLUE.

RECEIVED
BUILDING SERVICES
PERMIT NO: 24-206538 REV 01
DATE: 12/17/2024
TOWN OF OAKVILLE

1. ALL DRAWINGS, DESIGN AND DETAILS PREPARED BY ETERNITY ENGINEERING INC. ARE SPECIFIC TO THIS PROJECT ADDRESS ONLY AND CANNOT BE USED FOR ANY OTHER WORK OR PROJECT.

2. THE INTENTION OF THESE DRAWINGS ARE TO BE USED AS DESIGN DRAWINGS ONLY. THESE DRAWINGS ARE NOT BE SCALED FOR FINAL MEASUREMENTS OR USED AS SHOP DRAWINGS FOR CONSTRUCTION. ALL FINAL DIMENSIONS AND LAYOUTS SHOULD BE MEASURED FROM THE ARCHITECTURAL DRAWINGS AND CONFIRMED ON SITE.

LICENSED PROFESSIONAL ENGINEER
2024-10-28
G. W. HSIEH
100199333
PROVINCE OF ONTARIO

3		
2	28-OCT-24	ISSUED FOR SSI#1
1	06-SEP-24	ISSUED FOR PERMIT
REF.	DATE	DESCRIPTION

info@Eternity.Design

eternity engineering inc.

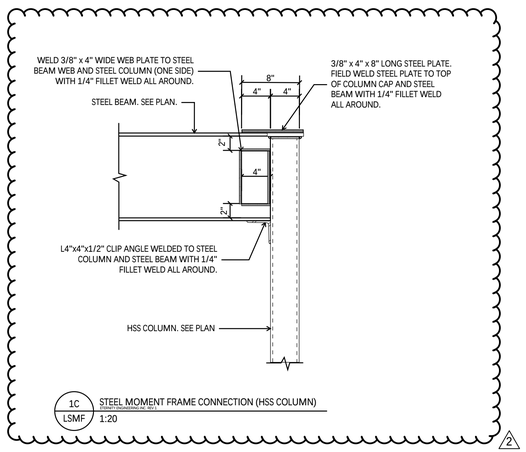
www.Eternity.Design

PROJECT ADDRESS:

246 CAIRNCROFT DRIVE
OAKVILLE

DRAWING TITLE:
BASEMENT PLAN SHOWING GROUND FLOOR FRAMING

SHEET: 24"x36"	DRAWN: J.L.
SCALE: 3/16" = 1'-0"	
JOB NUMBER: 014-24-003	S3.0



1C / LSMF — STEEL MOMENT FRAME CONNECTION (HSS COLUMN) — 1:20

2

STRUCTURAL HANGER TABLE

TYPE	FACE MOUNT HANGER
2nX FLOOR JOISTS	LUXX
LVL FLOOR JOISTS	HUXX
TJI FLOOR JOISTS	HUXX
(X) 2nX BEAMS	HUXX*
LVL BEAMS	HUXX*

THE ABOVE NOTED TABLE AND FOLLOWING NOTES ARE FOR SMALL INTERIOR RENOVATIONS OR CONVENTIONAL LUMBER ONLY, WHERE LUMBER YARD IS NOT PROVIDING FLOOR DRAWINGS AND CONNECTION DESIGNS. FOR NEW CONSTRUCTIONS AND ADDITIONS, THE LUMBER YARD IS REQUIRED TO PROVIDE DRAWINGS AND CONNECTION DESIGNS SEALED BY THEIR ENGINEER OF RECORD.

NOTES:
1) ALL HANGERS SPECIFIED ARE SIMPSON STRONG TIE, REFER TO MANUFACTURER SPECIFICATIONS FOR ADDITIONAL DETAILS. ANY SUBSTITUTES TO BE REVIEWED BY LUMBER YARD'S ENGINEER.
2) SEE SIMPSON STRONG TIE HANGER TABLES FOR EXACT HANGER TYPE AND FASTENING REQUIREMENTS.
3) HANGER DEPTHS SHALL MATCH THE CORRESPONDING JOIST OR BEAM DEPTH HANGER SPECIFIED IN THE SIMPSON STRONG TIE CATALOG.
4) USE SPECIFIED HANGER TYPES UNLESS NOTED OTHERWISE ON PLAN.
5) SEE PLAN FOR SKEWED OR SLOPED HANGERS.
6) ALL HANGERS SHALL BE FACE MOUNT HANGERS UNLESS NOTED OTHERWISE ON PLAN.
7) REFER TO DETAILS FOR ADDITIONAL FASTENERS AT POINT LOADS AND STEEL BEAM BLOCKING FOR HANGERS.
8) REFER TO MANUFACTURER SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS FOR LVL AND TJI PRODUCTS.
9) '*' USE HUCXX CONCEALED HANGERS WHERE REQUIRED OR SPECIFIED ON PLAN.
10) SIMPSON HANGER NAILS CAN BE SUBSTITUTED WITH THE APPROPRIATE SD STRUCTURAL SCREW AS SPECIFIED BY THE MANUFACTURER. REFER TO MANUFACTURER TABLES FOR APPROPRIATE SUBSTITUTES.

LVL BEAM SCHEDULE

(GRADE 2.0E, Fb = 2,600 psi)

LVL7-1	1 PLY 1 3/4" x 7 1/4" (44x184)
LVL7-2	2 PLY 1 3/4" x 7 1/4" (44x184)
LVL7-3	3 PLY 1 3/4" x 7 1/4" (44x184)
LVL7-4	4 PLY 1 3/4" x 7 1/4" (44x184)
LVL9-1	1 PLY 1 3/4" x 9 1/2" (44x241)
LVL9-2	2 PLY 1 3/4" x 9 1/2" (44x241)
LVL9-3	3 PLY 1 3/4" x 9 1/2" (44x241)
LVL9-4	4 PLY 1 3/4" x 9 1/2" (44x241)
LVL11-1	1 PLY 1 3/4" x 11 7/8" (44x302)
LVL11-2	2 PLY 1 3/4" x 11 7/8" (44x302)
LVL11-3	3 PLY 1 3/4" x 11 7/8" (44x302)
LVL11-4	4 PLY 1 3/4" x 11 7/8" (44x302)
LVL14-1	1 PLY 1 3/4" x 14" (44x356)
LVL14-2	2 PLY 1 3/4" x 14" (44x356)
LVL14-3	3 PLY 1 3/4" x 14" (44x356)
LVL14-4	4 PLY 1 3/4" x 14" (44x356)
LVL16-1	1 PLY 1 3/4" x 16" (44x406)
LVL16-2	2 PLY 1 3/4" x 16" (44x406)
LVL16-3	3 PLY 1 3/4" x 16" (44x406)
LVL16-4	4 PLY 1 3/4" x 16" (44x406)

STEEL LINTEL SCHEDULE

- LINTELS TO BEAR MIN. 6" EACH END
- MAX. 1" BRICK OVERHANG
- LINTELS SHALL BE PRIME PAINTED TO "OSC/CPMA 2-3"
- ORIENT ANGLES LONG LEG VERTICAL
- WEEP HOLES @ 56" o.c. MAX.

S1: SPAN <= 4'-0" L3 1/2" x 3 1/2" x 1/4"
S2: SPAN <= 6'-0" L4" x 3 1/2" x 1/4"
S3: SPAN <= 8'-0" L5" x 3 1/2" x 5/16"
S4: SPAN <= 10'-0" L6" x 3 1/2" x 5/16"

WINDOW WIND SILL (PLANK BEAM) SCHEDULE

- WIND SILLS ARE LOCATED ABOVE AND BELOW WINDOWS MID HEIGHT ON WALL.
- CONNECTIONS OF WIND SILL TO WOOD POST ON EACH SIDE VARY BETWEEN A35 CLIPS AND TOE-NAILS.
- NUMBER OF 2x6 PLIES VARIES DEPENDING ON WINDOW OPENING WIDTH AND CLEAR STOREY HEIGHT. - ORIENT WIND SILLS IN PLANK POSITION (FLAT)
- MAX CLEAR STOREY HEIGHT 12'-0"

0" < SPAN <= 6'-0"
- (1) 2x6 PLANK BEAM
- (6) 10d - 3" COMMON NAIL EACH END

6'-0" < SPAN <= 8'-0"
- (2) 2x6 PLANK BEAM
- (6) 10d - 3" COMMON NAIL EACH END

8'-0" < SPAN <= 10'-0"
- (3) 2x6 PLANK BEAM
- (8) 10d - 3" COMMON NAILS EACH END

10'-0" < SPAN <= 12'-0"
- (3) 2x6 PLANK BEAM
- (2) A35 CLIPS + (24) 8d - 1.5" NAILS EACH END

12'-0" < SPAN
- SEE PLAN (OR CONSULT ENGINEER PRIOR TO BUILDING)

FLOOR STRUCTURAL DESIGN REQUIREMENTS

LIVE LOAD = 1.9 kPa (40 PSF)

DEAD LOADS

DEAD LOAD = 1.2 kPa (25 PSF) (INCLUDES SELF-WEIGHT) - ADDITION
DEAD LOAD = 0.96 kPa (20 PSF) (INCLUDES SELF-WEIGHT) - EXISTING

FLOOR DEFLECTION LIMITS

MAX DEFLECTION < 20mm (0.75")
CURVATURE < L / 480 LIVE LOADING & L / 240 TOTAL LOADING
MINIMUM TJ PRO RATING (FLOOR VIBRATIONS): 50

WALL FRAMING NOTES

LOAD BEARING ELEMENTS

1A) EXISTING EXTERIOR ABOVE GRADE LOAD BEARING WALLS ARE 2x4 STUDS SPACED @ 16" (406 mm) o.c. SPF NO.1/NO.2 UNLESS NOTED OTHERWISE ON PLAN.

1B) NEW EXTERIOR ABOVE GRADE LOAD BEARING WALLS ARE 2x6 STUDS SPACED @ 16" (406 mm) o.c. SPF NO.1/NO.2 UNLESS NOTED OTHERWISE ON PLAN.

2) CONTINUOUS DOUBLE TOP PLATE, PROVIDE LIGHT GAUGE STRAPS OVER ANY CUTS IN TOP PLATE.

3) CONTINUOUS SINGLE BOTTOM PLATE FASTEN WITH 10d - 3" NAILS SPACED @ 8" (204 mm) O.C. INTO RIM-BOARD.

4) DROPPED HEADERS AS NOTED ON PLAN ARE TO BE PLACED DIRECTLY UNDER DOUBLE TOP PLATE AS PER DETAILS.

5A) 2 PLY, 3 PLY, AND 4 PLY BUILT-UP STUDS TO BE FASTEN WITH (2) 10d - 3" NAILS SPACED @ 6" (152 mm) O.C. BETWEEN EACH PLY.

5B) 5 PLY (4+1) BUILT-UP STUDS. 4 PLIES TO BE FASTEN WITH (2) 6" LONG TIMBERLOK FASTENERS SPACED @ 6" (152 mm). FASTEN THE LAST PLY TO THE BUILT-UP POST WITH (2) 10d - 3" NAILS SPACED @ 6" (152 mm) O.C.

6) REFER TO FRAMING DETAILS FOR JACK AND FULL HEIGHT STUDS.

7) PROVIDE WALL BLOCKING TO MATCH WALL STUD SIZE AS FOLLOWS:
- EXTERIOR WALLS (0'-12"): NOT REQUIRED
- EXTERIOR WALLS (>12"): 4'-0" O.C.
- INTERIOR WALLS & PARTY WALLS (0'-8"): NOT REQUIRED
- INTERIOR WALLS & PARTY WALLS (8'-12"): MID HEIGHT
- INTERIOR WALLS & PARTY WALLS (>12"): 4'-0" O.C.

SHEATHING

1) EXTERIOR WOOD BASED SHEATHING IS 1/2" (12mm) NOMINAL, 15/32" AND 7/16" SHEATHING IS ACCEPTABLE.

2A) FOR WALLS **5'-0" (1.54 m) IN WIDTH** OR LESS; PROVIDE PANEL EDGE BLOCKING. FASTEN SHEATHING TO STUDS AND BLOCKING WITH 10d - 3" NAILS SPACED @ 6" (152 mm) O.C. INTO EACH STUD (UNLESS NOTED OTHERWISE ON PLANS).

2B) FASTEN SHEATHING TO STUDS WITH 10d - 3" NAILS SPACED @ 12" (304 mm) O.C. INTO EACH STUD FOR ALL OTHER WALLS.

LATERAL SYSTEMS AND HOLD DOWNS (AS PER CSA O86 WOOD DESIGN)

1) SHEAR WALLS AS PER SUPPLEMENTARY GUIDELINE C
2) MOMENT FRAMES AS NOTED ON PLAN.

FLOOR FRAMING NOTES

FRAMING MEMBERS

1A) ENGINEERED FLOOR JOISTS AND BEAMS

- I-JOISTS AND LVL BEAMS AS PER PLAN
- RIM-BOARD > 1" (25mm) TO MATCH FLOOR JOIST DEPTH.

1B) CONVENTIONAL S.P.F. FLOOR JOISTS AND BEAMS

- JOISTS AND BEAMS AS PER PLAN
- 2x S.P.F. RIM-BOARD TO MATCH FLOOR JOIST DEPTH.

1C) STEEL BEAMS

- STEEL BEAMS AS PER PLAN
- 2x S.P.F. NAILER BOARDS AND BLOCKING AS PER DETAILS

2) PROVIDE BRIDGING AT 8'-0" o.c. (2.4m) MAX. BETWEEN JOISTS, PROVIDE FULL DEPTH BLOCKING BETWEEN FIRST JOIST AND RIM-BOARD @ 4'-0" o.c. (1.2m) MAX.

3) REFER TO MANUFACTURERS GUIDELINES AND SHOP DRAWINGS FOR OPENINGS, WEB-STIFFENERS, PACKING OUT WEBS, ETC.

4) PROVIDE VERTICAL SQUASH BLOCKS AT ALL LOAD BEARING TRANSFER ELEMENTS, SUCH AS BUILT-UP POST AND WALLS ABOVE.

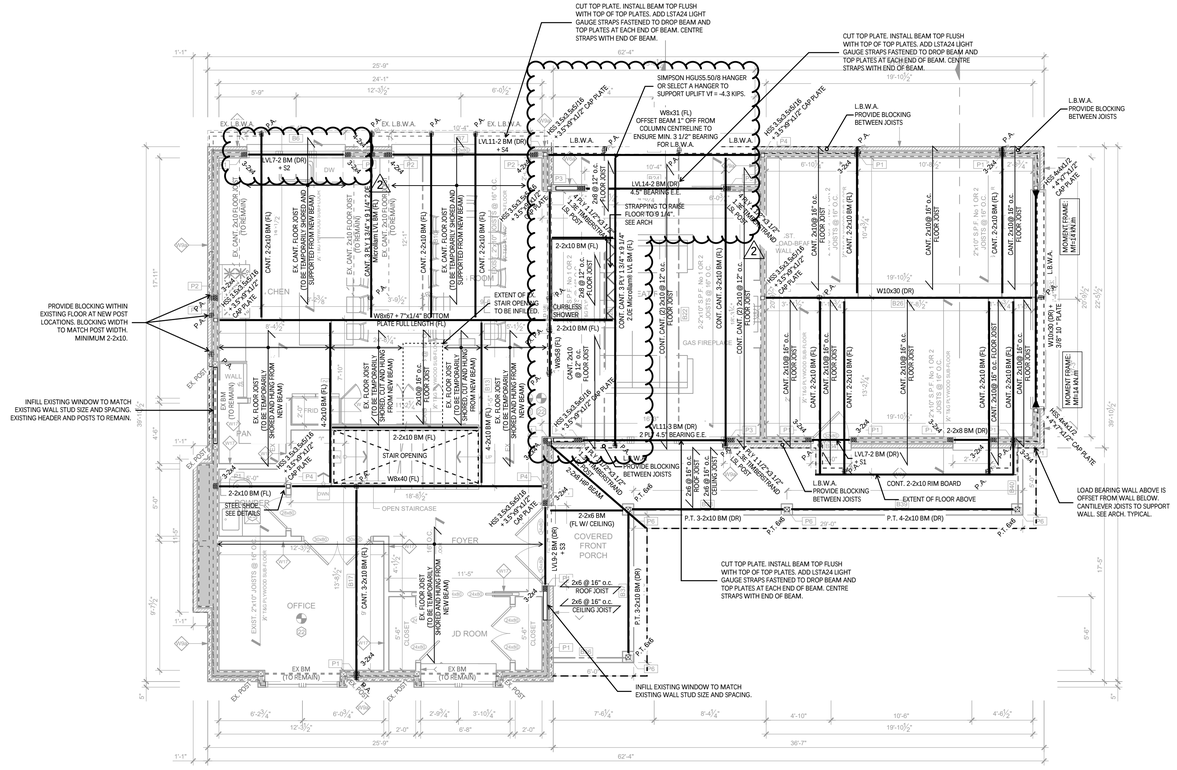
5) FASTEN JOISTS WITH (2) 10d - 3" TOE-NAILS WHEN BEARING ON A WOOD SILL PLATE. USE FACE MOUNT HANGERS FOR FLUSH CONDITIONS, WITH "PL PREMIUM" GLUE IN THE BOTTOM OF THE HANGER.

SHEATHING

1) 3/4" (19mm) T&G PLYWOOD

2) PLACE SHEATHING IN STRONG DIRECTION ACROSS THE JOISTS.

3) FASTEN SHEATHING TO JOISTS WITH 10d - 3" NAILS @ 8" (200mm) O.C. AND "PL PREMIUM" GLUE.



1 / S4.0 — GROUND FLOOR PLAN SHOWING 2ND FLOOR FRAMING — 3/16"=1'-0"

FLOOR AND ROOF FRAMING TO BE CO-ORDINATED BETWEEN ARCHITECTURAL PLANS AND ENGINEERED PLANS AND SPECIFICATIONS (FROM LUMBER COMPANY).

THE TOWN OF OAKVILLE REVIEWED

PERMIT IS ISSUED SUBJECT TO ANY REASON SHOWN IN COLOUR AND MARKED THEREON OR ON ATTACHED SHEET.

PERMIT NO.: 24 - 206538

DATE: January 7, 2025 SIGNED: TA

CONSTRUCTION MUST CONFORM TO THE ONTARIO BUILDING CODE

THE EXISTING STRUCTURAL FRAMING DIRECTION ARE ASSUMED TO BE VERIFIED DURING CONSTRUCTION BY THE GENERAL CONTRACTOR.

PROFESSIONAL JUDGMENT IS EXERCISED IN FORMULATING OUR RECOMMENDATIONS. WE RENDER ADVICE, WE CANNOT ACT AS INSURERS, CERTIFICATION OR PROVIDE WARRANTY.

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ASSUMED EXISTING MEMBERS DIRECTIONS REFLECT OUR ASSUMPTIONS IF STRUCTURAL FRAMING MODIFICATIONS ARE TO BE COMPLETED.

ALL FRAMING TO REMAIN IS ASSUMED TO HAVE BEEN DESIGNED BY A QUALIFIED PROFESSIONAL AT THE TIME OF ORIGINAL CONSTRUCTION AND HAS NOT BEEN CHECKED BY OUR OFFICE.

ALL NEW FRAMING OR MODIFIED EXISTING FRAMING ON THE STRUCTURAL DRAWINGS HAS BEEN DESIGNED FOR THE LOADING CONFIGURATIONS AS SHOWN.

ANY DISCREPANCIES ARE TO BE ADDRESSED TO THE ENGINEER OF RECORD PRIOR TO ORDERING MATERIALS.

FLOOR FRAMING PLAN NOTES:

1. REFER TO S1.0 FOR GENERAL NOTES
2. REFER TO S6.0 FOR FRAMING DETAILS
3. CONFIRM TOP OF WALL DETAILS WITH ARCHITECTURAL DRAWINGS.
4. REFER TO ARCHITECTURAL DRAWINGS FOR ALL FINAL DIMENSIONS AND LAYOUT. DIMENSIONS AND ELEVATIONS SHOWN ON THESE DRAWINGS ARE FOR STRUCTURAL DESIGN ONLY.

RECEIVED
BUILDING SERVICES
PERMIT NO: 24-206538 REV 01
DATE: 12/17/2024
OAKVILLE TOWN OF OAKVILLE

1. ALL DRAWINGS, DESIGN AND DETAILS PREPARED BY ETERNITY ENGINEERING INC. ARE SPECIFIC TO THIS PROJECT ADDRESS ONLY AND CANNOT BE USED FOR ANY OTHER WORK OR PROJECT.

2. THE INTENTION OF THESE DRAWINGS ARE TO BE USED AS DESIGN DRAWINGS ONLY. THESE DRAWINGS ARE NOT BE SCALED FOR FINAL MEASUREMENTS OR USED AS SHOP DRAWINGS FOR CONSTRUCTION. ALL FINAL DIMENSIONS AND LAYOUTS SHOULD BE MEASURED FROM THE ARCHITECTURAL DRAWINGS AND CONFIRMED ON SITE.

LICENSED PROFESSIONAL ENGINEER
2024-10-28
C. W. HSIEH
100199333
PROVINCE OF ONTARIO

3		
2	28-OCT-24	ISSUED FOR SSI#1
1	06-SEP-24	ISSUED FOR PERMIT
REF.	DATE	DESCRIPTION

info@Eternity.Design

eternity engineering inc.

www.Eternity.Design

PROJECT ADDRESS:

246 CAIRNCROFT DRIVE
OAKVILLE

DRAWING TITLE:
GROUND FLOOR PLAN SHOWING 2ND FLOOR FRAMING

SHEET: 24"x36" | DRAWN: J.L.
SCALE: 3/16" = 1'-0"
JOB NUMBER: 014-24-003

S4.0

Table 9.23.13.8.
Rafter-to-Joist Nailing (Unsupported Ridge)

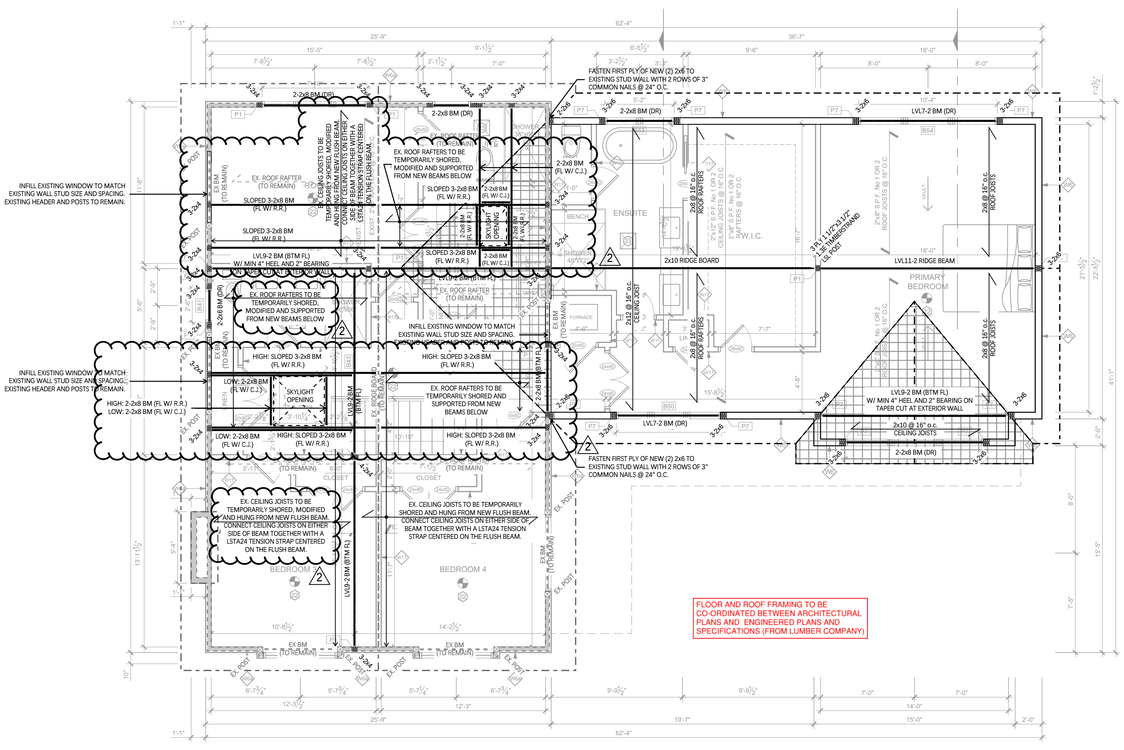
Forming Part of Sentences 9.23.13.8.(5) and (6)

Item	Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8	Col. 9	Col. 10	Col. 11	Col. 12	Col. 13	Col. 14
	Roof Slope	Rafter Spacing, mm	Minimum Number of Nails not less than 75 mm Long											
			Rafter Tied to every Joist						Rafter Tied to Joist every 1.2 m					
			Building Width up to 8.0 m			*Building* Width up to 9.8 m			*Building* Width up to 8.0 m			*Building* Width up to 9.8 m		
			Roof Snow Load, kPa			Roof Snow Load, kPa			Roof Snow Load, kPa			Roof Snow Load, kPa		
			1.0 or less	1.5	2.0 or more	1.0 or less	1.5	2.0 or more	1.0 or less	1.5	2.0 or more	1.0 or less	1.5	2.0 or more
1.	1 in 3	406	4	5	6	5	7	8	11	—	—	—	—	—
		610	6	8	9	8	—	—	11	—	—	—	—	—
2.	1 in 2.4	406	4	4	5	5	6	7	7	10	—	9	—	—
		610	5	7	8	7	9	11	7	10	—	—	—	—
3.	1 in 2	406	4	4	4	4	4	5	6	8	9	8	—	—
		610	4	5	6	5	7	8	6	8	9	8	—	—
4.	1 in 1.71	406	4	4	4	4	4	4	5	7	8	7	9	11
		610	4	4	5	5	6	7	5	7	8	7	9	11
5.	1 in 1.33	406	4	4	4	4	4	4	4	5	6	5	6	7
		610	4	4	4	4	4	5	4	5	6	5	6	7
6.	1 in 1	406	4	4	4	4	4	4	4	4	4	4	4	5
		610	4	4	4	4	4	4	4	4	4	4	4	5

Table 9.23.15.7.A.
Thickness of Roof Sheathing

Forming Part of Sentence 9.23.15.7.(2)

Item	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6
	Maximum Spacing of Supports, mm	Minimum Thickness, mm				
		Plywood and OSB, O-2 Grade		OSB, O-1 Grade and Waferboard, R-1 Grade		Lumber
		Edges Supported	Edges Unsupported	Edges Supported	Edges Unsupported	
1.	305	7.5	7.5	9.5	9.5	17.0
2.	406	7.5	9.5	9.5	11.1	17.0
3.	610	9.5	12.5	11.1	12.7	19.0



1 / S5.0 — 2ND FLOOR PLAN SHOWING ROOF FRAMING
3/16"=1'-0"

STRUCTURAL HANGER TABLE

TYPE	FACE MOUNT HANGER
2xX FLOOR JOISTS	LUXX
LVL FLOOR JOISTS	HUXX
TJI FLOOR JOISTS	HUXX
(2) 2xX BEAMS	HUXX*
LVL BEAMS	HUXX*

THE ABOVE NOTED TABLE AND FOLLOWING NOTES ARE FOR SMALL INTERIOR RENOVATIONS OR CONVENTIONAL LUMBER ONLY, WHERE LUMBER YARD IS NOT PROVIDING FLOOR DRAWINGS AND CONNECTION DESIGNS. FOR NEW CONSTRUCTIONS AND ADDITIONS, THE LUMBER YARD IS REQUIRED TO PROVIDE DRAWINGS AND CONNECTION DESIGNS SEALED BY THEIR ENGINEER OF RECORD.

NOTES:
1) ALL HANGERS SPECIFIED ARE SIMPSON STRONG TIE, REFER TO MANUFACTURER SPECIFICATIONS FOR ADDITIONAL DETAILS. ANY SUBSTITUTES TO BE REVIEWED BY LUMBER YARD'S ENGINEER.
2) SEE SIMPSON STRONG TIE HANGER TABLES FOR EXACT HANGER TYPE AND FASTENING REQUIREMENTS.
3) HANGER DEPTHS SHALL MATCH THE CORRESPONDING JOIST OR BEAM DEPTH HANGER SPECIFIED IN THE SIMPSON STRONG TIE CATALOG.
4) USE SPECIFIED HANGER TYPES UNLESS NOTED OTHERWISE ON PLAN.
5) SEE PLAN FOR SKEWED OR SLOPED HANGERS.
6) ALL HANGERS SHALL BE FACE MOUNT HANGERS UNLESS NOTED OTHERWISE ON PLAN.
7) REFER TO DETAILS FOR ADDITIONAL FASTENERS AT POINT LOADS AND STEEL BEAM BLOCKING FOR HANGERS.
8) REFER TO MANUFACTURER SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS FOR LVL AND TJI PRODUCTS.
9) '*' USE HUCXX CONCEALED HANGERS WHERE REQUIRED OR SPECIFIED ON PLAN.
10) SIMPSON HANGER NAILS CAN BE SUBSTITUTED WITH THE APPROPRIATE SD STRUCTURAL SCREW AS SPECIFIED BY THE MANUFACTURER. REFER TO MANUFACTURER TABLES FOR APPROPRIATE SUBSTITUTES.

LVL BEAM SCHEDULE
(GRADE 2.0E, Fb = 2,600 psi)

LVL7-1 1 PLY 1 3/4" x 7 1/4" (44x184)
LVL7-2 2 PLY 1 3/4" x 7 1/4" (44x184)
LVL7-3 3 PLY 1 3/4" x 7 1/4" (44x184)
LVL7-4 4 PLY 1 3/4" x 7 1/4" (44x184)

LVL9-1 1 PLY 1 3/4" x 9 1/2" (44x241)
LVL9-2 2 PLY 1 3/4" x 9 1/2" (44x241)
LVL9-3 3 PLY 1 3/4" x 9 1/2" (44x241)
LVL9-4 4 PLY 1 3/4" x 9 1/2" (44x241)

LVL11-1 1 PLY 1 3/4" x 11 7/8" (44x302)
LVL11-2 2 PLY 1 3/4" x 11 7/8" (44x302)
LVL11-3 3 PLY 1 3/4" x 11 7/8" (44x302)
LVL11-4 4 PLY 1 3/4" x 11 7/8" (44x302)

LVL14-1 1 PLY 1 3/4" x 14" (44x356)
LVL14-2 2 PLY 1 3/4" x 14" (44x356)
LVL14-3 3 PLY 1 3/4" x 14" (44x356)
LVL14-4 4 PLY 1 3/4" x 14" (44x356)

LVL16-1 1 PLY 1 3/4" x 16" (44x406)
LVL16-2 2 PLY 1 3/4" x 16" (44x406)
LVL16-3 3 PLY 1 3/4" x 16" (44x406)
LVL16-4 4 PLY 1 3/4" x 16" (44x406)

STEEL LINTEL SCHEDULE

- LINTELS TO BEAR MIN. 6" EACH END
- MAX. 1" BRICK OVERHANG
- LINTELS SHALL BE PRIME PAINTED TO "OSC/CPMA 2-3"
- ORIENT ANGLES LONG LEG VERTICAL
- WEEP HOLES @ 56" o.c. MAX.

S1: SPAN <= 4'-0" L3 1/2" x 3 1/2" x 1/4"
S2: SPAN <= 8'-0" L4" x 3 1/2" x 1/4"
S3: SPAN <= 8'-0" L5" x 3 1/2" x 5/16"
S4: SPAN <= 10'-0" L6" x 3 1/2" x 5/16"

WINDOW WIND SILL (PLANK BEAM) SCHEDULE

- WIND SILLS ARE LOCATED ABOVE AND BELOW WINDOWS MID HEIGHT ON WALL.
- CONNECTIONS OF WIND SILL TO WOOD POST ON EACH SIDE VARY BETWEEN A35 CLIPS AND TOE-NAILS.
- NUMBER OF 2x6 PLIES VARIES DEPENDING ON WINDOW OPENING WIDTH AND CLEAR STOREY HEIGHT. - ORIENT WIND SILLS IN PLANK POSITION (FLAT)
- MAX CLEAR STOREY HEIGHT 12'-0"

0' < SPAN <= 6'-0"
- (1) 2x6 PLANK BEAM
- (6) 10d - 3" COMMON NAIL EACH END

6'-0" < SPAN <= 8'-0"
- (2) 2x6 PLANK BEAM
- (8) 10d - 3" COMMON NAIL EACH END

8'-0" < SPAN <= 10'-0"
- (3) 2x6 PLANK BEAM
- (8) 10d - 3" COMMON NAILS EACH END

10'-0" < SPAN <= 12'-0"
- (3) 2x6 PLANK BEAM
- (2) A35 CLIPS + (24) 8d - 1.5" NAILS EACH END

12'-0" < SPAN
- SEE PLAN (OR CONSULT ENGINEER PRIOR TO BUILDING)

CLIMATIC DESIGN DATA

1. MUNICIPAL LOCATION - OAKVILLE
2. SNOW - Ss = 1.1 kPa, Sr = 0.4 kPa
3. WIND - q50 = 0.47 kPa

ROOF STRUCTURAL DESIGN REQUIREMENTS

DEAD LOAD = 1.2 kPa (25 PSF) (INCLUDES SELF-WEIGHT)

SNOW LOAD = 1.0 kPa (21 PSF) (Cb = 0.55)

ROOF DEFLECTION LIMITS

MAX DEFLECTION < 25mm (1")
CURVATURE < L / 360 SNOW LOADING & L / 240 TOTAL LOADING

WALL FRAMING NOTES

LOAD BEARING ELEMENTS

1A) EXISTING EXTERIOR ABOVE GRADE LOAD BEARING WALLS ARE 2x4 STUDS SPACED @ 16" (406 mm) o.c. SPF NO.1/NO.2 UNLESS NOTED OTHERWISE ON PLAN.

1B) NEW EXTERIOR ABOVE GRADE LOAD BEARING WALLS ARE 2x6 STUDS SPACED @ 16" (406 mm) o.c. SPF NO.1/NO.2 UNLESS NOTED OTHERWISE ON PLAN.

2) CONTINUOUS DOUBLE TOP PLATE, PROVIDE LIGHT GAUGE STRAPS OVER ANY CUTS IN TOP PLATE.

3) CONTINUOUS SINGLE BOTTOM PLATE FASTEN WITH 10d - 3" NAILS SPACED @ 8" (204 mm) O.C. INTO RIM-BOARD.

4) DROPPED HEADERS AS NOTED ON PLAN ARE TO BE PLACED DIRECTLY UNDER DOUBLE TOP PLATE AS PER DETAILS.

5A) 2 PLY, 3 PLY, AND 4 PLY BUILT-UP STUDS TO BE FASTEN WITH (2) 10d - 3" NAILS SPACED @ 6" (152 mm) O.C. BETWEEN EACH PLY.

5B) 5 PLY (4+1) BUILT-UP STUDS. 4 PLIES TO BE FASTEN WITH (2) 6" LONG TIMBERLOK FASTENERS SPACED @ 6" (152 mm). FASTEN THE LAST PLY TO THE BUILT-UP POST WITH (2) 10d - 3" NAILS SPACED @ 6" (152 mm) O.C.

6) REFER TO FRAMING DETAILS FOR JACK AND FULL HEIGHT STUDS.

7) PROVIDE WALL BLOCKING TO MATCH WALL STUD SIZE AS FOLLOWS:
- EXTERIOR WALLS (0'-12'): NOT REQUIRED
- EXTERIOR WALLS (>12'): 4'-0" O.C.
- INTERIOR WALLS & PARTY WALLS (0'-8'): NOT REQUIRED
- INTERIOR WALLS & PARTY WALLS (8'-12'): MID HEIGHT
- INTERIOR WALLS & PARTY WALLS (>12'): 4'-0" O.C.

SHEATHING

1) EXTERIOR WOOD BASED SHEATHING IS 1/2" (12mm) NOMINAL, 15/32" AND 7/16" SHEATHING IS ACCEPTABLE.

2A) FOR WALLS **5'-0" (1.54 m) IN WIDTH** OR LESS; PROVIDE PANEL EDGE BLOCKING. FASTEN SHEATHING TO STUDS AND BLOCKING WITH 10d - 3" NAILS SPACED @ 6" (152 mm) O.C. INTO EACH STUD (UNLESS NOTED OTHERWISE ON PLAN).

2B) FASTEN SHEATHING TO STUDS WITH 10d - 3" NAILS SPACED @ 12" (304 mm) O.C. INTO EACH STUD FOR ALL OTHER WALLS.

LATERAL SYSTEMS AND HOLD DOWNS (AS PER CSA O86 WOOD DESIGN)

1) SHEAR WALLS AS PER SUPPLEMENTARY GUIDELINE C

ROOF FRAMING NOTES

FRAMING MEMBERS

ENGINEERING ROOF TRUSSES

1) ROOF TRUSSES ARE TO BE DESIGNED TO PART 9.4 DESIGN REQUIREMENTS BY A QUALIFIED ENGINEER FOR THE LOADING AS SPECIFIED ON THESE PLANS AND OUTLINED IN THE BUILDING CODE.

2) REFER TO MANUFACTURERS GUIDELINES AND SHOP DRAWINGS FOR FASTENING REQUIREMENTS, PLACEMENT, BRACING, ETC.

ENGINEERED ROOF JOISTS/RAFTERS AND BEAMS

1) I-JOISTS AND LVL BEAMS AS PER PLAN

2) RIDGE STRAPS ARE REQUIRED TO SECURE EACH OPPOSING ROOF RAFTER/JOIST FOR UPLIFT FORCES. MINIMUM 1 1/4"x 20 GA. SEE MANUFACTURE SPECIFICATIONS FOR STRAP AND NAIL REQUIREMENTS.

3) REFER TO MANUFACTURERS GUIDELINES AND SHOP DRAWINGS FOR FASTENING, WEB-STIFFENERS, PACKING OUT WEBS, ETC.

CONVENTIONAL S.P.F. ROOF JOISTS/RAFTERS AND BEAMS

1) JOISTS/RAFTERS AND BEAMS AS PER PLAN

2) 2x6 COLLAR TIES ARE REQUIRED TO SECURE OPPOSING ROOF RAFTER/JOIST FOR UPLIFT FORCES. COLLAR TIES ARE TO BE FACE NAILED TO ROOF JOISTS/RAFTERS WITH (5) 8d - 3" COMMON NAILS EACH END (10 TOTAL PER COLLAR TIE). UNLESS NOTED OTHERWISE ON PLANS.

3) 1 1/4" x 20 GA RIDGE STRAPS W/ 1 1/2" 10d NAILS (MIN 12" LAP LENGTH ON EACH OPPOSING ROOF RAFTER/JOIST) CAN BE USED AS AN ALTERNATIVE TO COLLAR TIES TO SECURE EACH OPPOSING ROOF RAFTER/JOIST FOR UPLIFT FORCES. STRAP TO BE FASTENED DIRECTLY TO RAFTER/JOIST BELOW PLYWOOD SHEATHING. ENSURE PHOTOS ARE TAKEN FOR ENGINEER/CITY RECORDS PRIOR TO SHEATHING. ONE STRAP IS REQUIRED FOR EACH PAIR OF ROOF RAFTERS/JOISTS. WHERE ROOF RAFTERS ARE NOT ALIGNED, STRAP CAN BE CONTINUES VERTICALLY DOWN AND NAILED TO THE FACE OF THE RIDGE BEAM/BOARD. "CS20" IS AN ACCEPTABLE STRAP WHICH CAN BE CUT TO SUIT UNLESS NOTED OTHERWISE ON PLANS OR WITHIN LUMBERYARD SHOP DRAWINGS.

4) 2x S.P.F. RIDGE/HIP/VALLEY BOARD AS NOTED ON PLAN.

5) FACE NAIL CEILING JOISTS TO ROOF RAFTERS WITH 10d - 3" COMMON NAILS. SEE TABLE 9.23.13.8. CLIMATIC INFORMATION AND ARCH DRAWINGS FOR BUILDING WIDTH TO CONFIRM TOTAL NAILS REQUIRED.

6) TOE NAIL RAFTER TO TOP PLATE WITH (3) - 10d - 3" COMMON NAILS AND CEILING JOIST TO TOP PLATE WITH (4) - 10d - 3" COMMON NAILS.

7A) ENDS OF CEILING JOISTS BEARING ON INTERIOR BEAMS OR WALLS SHALL BE LAPPED NOT LESS THAN 4" (100 mm) AND FACE NAILED WITH 10d - 3" COMMON NAILS TO MATCH ***NOTE 5*** ABOVE.

7B) ENDS OF CEILING JOISTS HUNG FROM BEAMS OR BUTTED OVER WALLS SHALL BE CONNECTED WITH A 1 1/4"X 20 GA TENSION STRAP.

SHEATHING

1) 1/2" PLYWOOD ROOF SHEATHING. EDGES ARE TO BE SUPPORTED WITH METAL 'H' CLIPS AS REQUIRED. SEE TABLE 9.23.15.7.A.

2) PLACE SHEATHING IN STRONG DIRECTION ACROSS THE FRAMING MEMBERS AND FASTEN WITH 10d - 3" NAILS @ 8" (200 mm) O.C.

THE TOWN OF OAKVILLE REVIEWED

PERMIT IS ISSUED SUBJECT TO ANY REASON SHOWN IN COLOUR AND MARKED THEREON OR ON ATTACHED SHEET.

PERMIT NO.: 24 - 206538

DATE: January 7, 2025 SIGNED: TA

CONSTRUCTION MUST CONFORM TO THE ONTARIO BUILDING CODE

THE EXISTING STRUCTURAL FRAMING DIRECTION ARE ASSUMED TO BE VERIFIED DURING CONSTRUCTION BY THE GENERAL CONTRACTOR.

PROFESSIONAL JUDGMENT IS EXERCISED IN FORMULATING OUR RECOMMENDATIONS. WE RENDER ADVICE, WE CANNOT ACT AS INSURERS, CERTIFICATION OR PROVIDE WARRANTY.

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ASSUMED EXISTING MEMBERS DIRECTIONS REFLECT OUR ASSUMPTIONS IF STRUCTURAL FRAMING MODIFICATIONS ARE TO BE COMPLETED.

ALL FRAMING TO REMAIN IS ASSUMED TO HAVE BEEN DESIGNED BY A QUALIFIED PROFESSIONAL AT THE TIME OF ORIGINAL CONSTRUCTION AND HAS NOT BEEN CHECKED BY OUR OFFICE.

ALL NEW FRAMING OR MODIFIED EXISTING FRAMING ON THE STRUCTURAL DRAWINGS HAS BEEN DESIGNED FOR THE LOADING CONFIGURATIONS AS SHOWN.

ANY DISCREPANCIES ARE TO BE ADDRESSED TO THE ENGINEER OF RECORD PRIOR TO ORDERING MATERIALS.

ROOF HATCH LEGEND

2x6@ 16" O.C. OVER FRAMING
2x8 RIDGE BOARD
2x8 NAILER BOARDS ON FLAT

ROOF FRAMING PLAN NOTES:

1. REFER TO S1.0 FOR GENERAL NOTES
2. REFER TO S6.0 FOR FRAMING DETAILS
3. CONFIRM TOP OF WALL DETAILS WITH ARCHITECTURAL DRAWINGS.
4. REFER TO ARCHITECTURAL DRAWINGS FOR ALL FINAL DIMENSIONS AND LAYOUT. DIMENSIONS AND ELEVATIONS SHOWN ON THESE DRAWINGS ARE FOR STRUCTURAL DESIGN ONLY.

RECEIVED
BUILDING SERVICES
PERMIT NO: 24-206538 REV 01
DATE: 12/17/2024
TOWN OF OAKVILLE

1. ALL DRAWINGS, DESIGN AND DETAILS PREPARED BY ETERNITY ENGINEERING INC. ARE SPECIFIC TO THIS PROJECT ADDRESS ONLY AND CANNOT BE USED FOR ANY OTHER WORK OR PROJECT.

2. THE INTENTION OF THESE DRAWINGS ARE TO BE USED AS DESIGN DRAWINGS ONLY. THESE DRAWINGS ARE NOT BE SCALED FOR FINAL MEASUREMENTS OR USED AS SHOP DRAWINGS FOR CONSTRUCTION. ALL FINAL DIMENSIONS AND LAYOUTS SHOULD BE MEASURED FROM THE ARCHITECTURAL DRAWINGS AND CONFIRMED ON SITE.

LICENSED PROFESSIONAL ENGINEER
2024-10-28
C. W. HSIEH
100199333
PROVINCE OF ONTARIO

3		
2	28-OCT-24	ISSUED FOR SS#1
1	06-SEP-24	ISSUED FOR PERMIT
REF.	DATE	DESCRIPTION

info@Eternity.Design

eternity engineering inc.

www.Eternity.Design

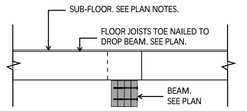
PROJECT ADDRESS:

246 CAIRNCROFT DRIVE OAKVILLE

DRAWING TITLE:
2ND FLOOR PLAN SHOWING ROOF FRAMING

SHEET: 24"x36" | DRAWN: J.L.
SCALE: 3/16" = 1'-0"
JOB NUMBER: 014-24-003

S5.0

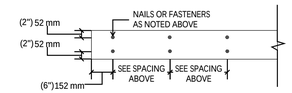


2 PLY MEMBERS (LVL AND S.P.F.):
3 ROWS OF 10d (3" COMMON NAILS) AT 305 (12") O.C. (ONE SIDE)

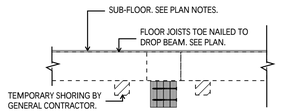
3 PLY MEMBERS: (LVL AND S.P.F.):
3 ROWS OF 10d (3" COMMON NAILS) AT 204 (8") O.C. (BOTH SIDES)

4 PLY MEMBERS:
2 ROWS AT 406 (16") O.C. SIMPSON SDW SCREWS (ONE SIDE).

LVL BEAMS: SDW25634 - 1/4"x6 3/4" **S.P.F. BEAMS:** SDW25500 - 1/4"x5"



1A FRWW — WOOD DROP BEAM FASTENING (TYPICAL) — 1:20

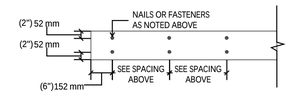


2 PLY MEMBERS (LVL AND S.P.F.):
3 ROWS OF 10d (3" COMMON NAILS) AT 305 (12") O.C. (ONE SIDE)

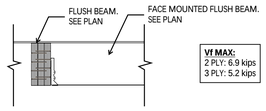
3 PLY MEMBERS: (LVL AND S.P.F.):
3 ROWS OF 10d (3" COMMON NAILS) AT 204 (8") O.C. (BOTH SIDES)

4 PLY MEMBERS:
2 ROWS AT 406 (16") O.C. SIMPSON SDW SCREWS (ONE SIDE).

LVL BEAMS: SDW25634 - 1/4"x6 3/4" **S.P.F. BEAMS:** SDW25500 - 1/4"x5"



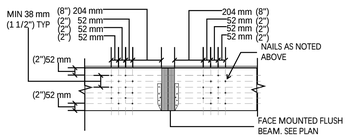
1B FRWW — WOOD DROP BEAM FASTENING (EXISTING WALL REMOVAL) — 1:20



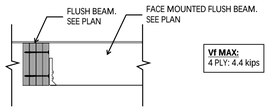
Vf MAX:
2 PLY: 6.9 kips
3 PLY: 5.2 kips

2 PLY MEMBERS (LVL AND S.P.F.):
4x3 ROWS OF 10d (3" COMMON NAILS) ON EACH SIDE OF HANGER (ONE SIDE)

3 PLY MEMBERS: (LVL AND S.P.F.):
4x3 ROWS OF 10d (3" COMMON NAILS) ON EACH SIDE OF HANGER (BOTH SIDES)



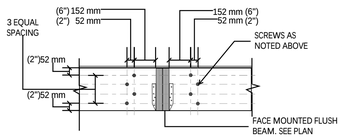
3A FRWW — ADDITIONAL FASTENING AT SIDE POINT LOAD (NAILS) — 1:20



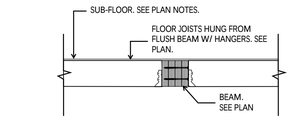
Vf MAX:
4 PLY: 4.4 kips

4 PLY MEMBERS:
2x2 ROWS OF SIMPSON SDW SCREWS (ONE SIDE).

LVL BEAMS: SDW25634 - 1/4"x6 3/4" **S.P.F. BEAMS:** SDW25500 - 1/4"x5"
1/2" THROUGH BOLTS ARE AN ACCEPTABLE ALTERNATIVE



3B FRWW — ADDITIONAL FASTENING AT SIDE POINT LOAD (SCREWS) — 1:20

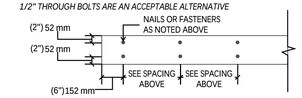


2 PLY MEMBERS (LVL AND S.P.F.):
3 ROWS OF 10d (3" COMMON NAILS) AT 305 (12") O.C. (ONE SIDE)

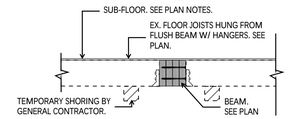
3 PLY MEMBERS: (LVL AND S.P.F.):
3 ROWS OF 10d (3" COMMON NAILS) AT 204 (8") O.C. (BOTH SIDES)

4 PLY MEMBERS:
2 ROWS AT 406 (16") O.C. SIMPSON SDW SCREWS (ONE SIDE).

LVL BEAMS: SDW25634 - 1/4"x6 3/4" **S.P.F. BEAMS:** SDW25500 - 1/4"x5"
1/2" THROUGH BOLTS ARE AN ACCEPTABLE ALTERNATIVE



2A FRWW — WOOD FLUSH BEAM FASTENING (TYPICAL) — 1:20

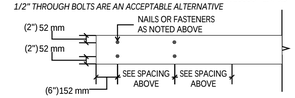


2 PLY MEMBERS (LVL AND S.P.F.):
3 ROWS OF 10d (3" COMMON NAILS) AT 305 (12") O.C. (ONE SIDE)

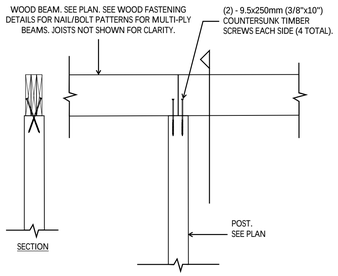
3 PLY MEMBERS: (LVL AND S.P.F.):
3 ROWS OF 10d (3" COMMON NAILS) AT 204 (8") O.C. (BOTH SIDES)

4 PLY MEMBERS:
2 ROWS AT 406 (16") O.C. SIMPSON SDW SCREWS (ONE SIDE).

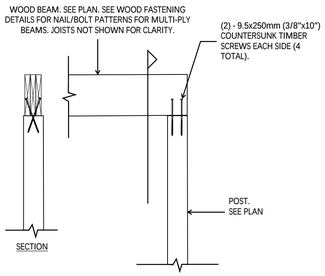
LVL BEAMS: SDW25634 - 1/4"x6 3/4" **S.P.F. BEAMS:** SDW25500 - 1/4"x5"
1/2" THROUGH BOLTS ARE AN ACCEPTABLE ALTERNATIVE



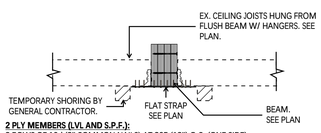
2B FRWW — WOOD FLUSH BEAM FASTENING (EXISTING WALL REMOVAL) — 1:20



4 FRWW — DECK BEAM TO TOP OF SOLID WOOD POST. (MID) — 1:20 — 2:1 DECK ASPECT RATIO



5 FRWW — BEAM BEAM TO TOP OF SOLID WOOD POST. (CORNER) — 1:20 — 2:1 ASPECT RATIO

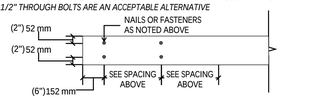


2 PLY MEMBERS (LVL AND S.P.F.):
3 ROWS OF 10d (3" COMMON NAILS) AT 305 (12") O.C. (ONE SIDE)

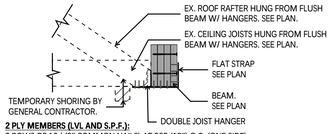
3 PLY MEMBERS: (LVL AND S.P.F.):
3 ROWS OF 10d (3" COMMON NAILS) AT 204 (8") O.C. (BOTH SIDES)

4 PLY MEMBERS:
2 ROWS AT 406 (16") O.C. SIMPSON SDW SCREWS (ONE SIDE).

LVL BEAMS: SDW25634 - 1/4"x6 3/4" **S.P.F. BEAMS:** SDW25500 - 1/4"x5"
1/2" THROUGH BOLTS ARE AN ACCEPTABLE ALTERNATIVE



2D FRWW — WOOD FLUSH BEAM FASTENING (WALL REMOVAL - CEILING) — 1:20

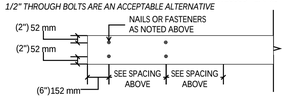


2 PLY MEMBERS (LVL AND S.P.F.):
3 ROWS OF 10d (3" COMMON NAILS) AT 305 (12") O.C. (ONE SIDE)

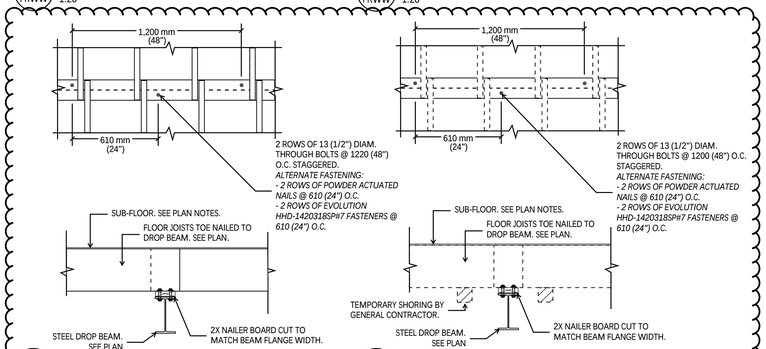
3 PLY MEMBERS: (LVL AND S.P.F.):
3 ROWS OF 10d (3" COMMON NAILS) AT 204 (8") O.C. (BOTH SIDES)

4 PLY MEMBERS:
2 ROWS AT 406 (16") O.C. SIMPSON SDW SCREWS (ONE SIDE).

LVL BEAMS: SDW25634 - 1/4"x6 3/4" **S.P.F. BEAMS:** SDW25500 - 1/4"x5"
1/2" THROUGH BOLTS ARE AN ACCEPTABLE ALTERNATIVE



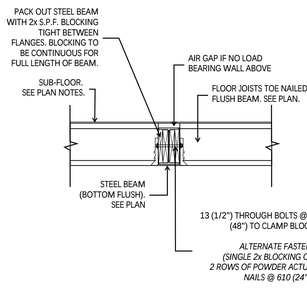
2E FRWW — WOOD FLUSH BEAM FASTENING (WALL REMOVAL - CEILING) — 1:20



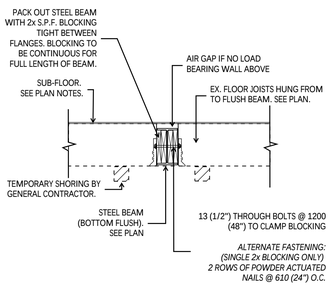
1B FRSS — JOISTS ON DROPPED STEEL BEAM (NAILER BOARD) — 1:20

1C FRWS — JOISTS ON DROPPED STEEL BEAM (EX. WALL REMOVAL) — 1:20

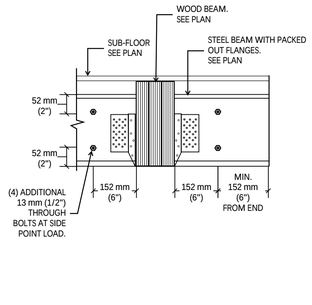
2



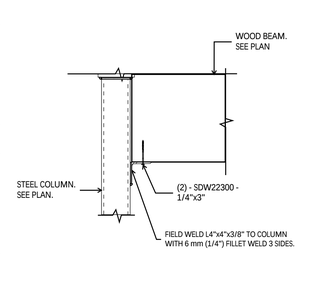
2B FRWS — JOISTS ON FLUSH STEEL BEAM (FACE MOUNT) — 1:20



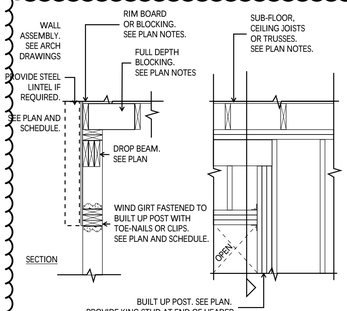
2C FRWS — JOISTS ON FLUSH STEEL BEAM (EX. WALL REMOVAL) — 1:20



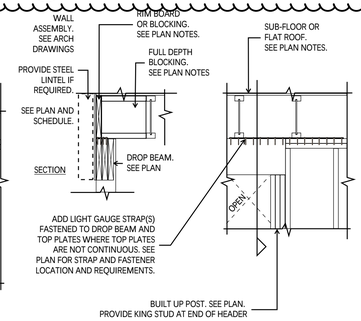
3 FRWS — ADDITIONAL FASTENING AT SIDE POINT LOAD (STEEL BEAM) — 1:10



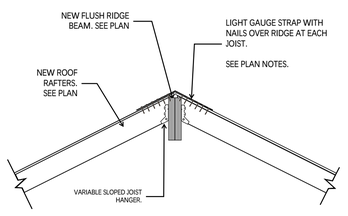
4B FRWS — FLUSH WOOD BEAM TO STEEL COLUMN — 1:10



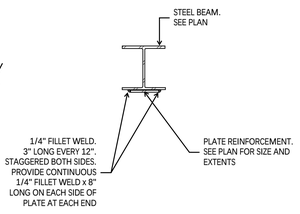
1B FRTW — HEADER BEAM WITH WIND GIRT (DROPPED) — 1:20



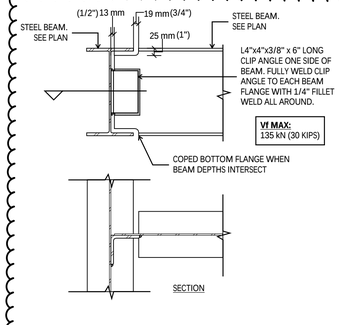
2A FRTW — HEADER BEAM WITH MODIFIED SILL (DROPPED) — 1:20



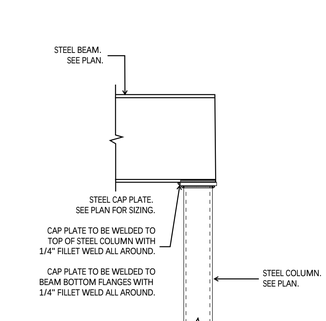
2B FRRF — NEW FLUSH RIDGE BEAM (FLAT STRAPS) — 1:20



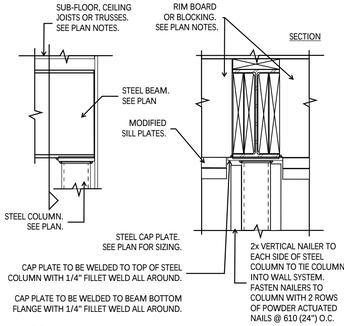
11B FRSS — STEEL BEAM REINFORCEMENT (PLATE) — 1:10



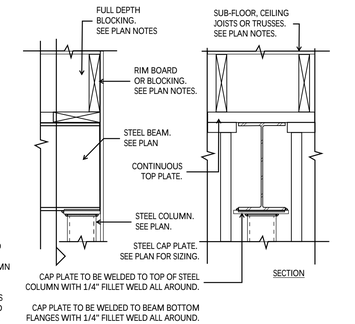
1B FRSS — STEEL BEAM TO STEEL BEAM CONNECTION (WELDED) — 1:10



2F FRSS — INTERIOR STEEL BEAM TO STEEL COLUMN ONE SIDE ONLY (WELDED) — 1:10



3B FRSS — FLUSH STEEL BEAM TO TOP OF STEEL COLUMN - END (WELDED) — 1:10



4C FRSS — DROPPED STEEL BEAM TO TOP OF STEEL COLUMN - END (WELDED) — 1:10

2

THE TOWN OF OAKVILLE REVIEWED

PERMIT IS ISSUED SUBJECT TO ANY REASON SHOWN IN COLOUR AND MARKED THEREON OR ON ATTACHED SHEET.

PERMIT NO.: 24 - 206538

DATE: January 7, 2025 SIGNED: TA

CONSTRUCTION MUST CONFORM TO THE ONTARIO BUILDING CODE

RECEIVED
BUILDING SERVICES
PERMIT NO: 24-206538 REV 01
DATE: 12/17/2024
OAKVILLE TOWN OF OAKVILLE

1. ALL DRAWINGS, DESIGN AND DETAILS PREPARED BY ETERNITY ENGINEERING INC. ARE SPECIFIC TO THIS PROJECT ADDRESS ONLY AND CANNOT BE USED FOR ANY OTHER WORK OR PROJECT.

2. THE INTENTION OF THESE DRAWINGS ARE TO BE USED AS DESIGN DRAWINGS ONLY. THESE DRAWINGS ARE NOT BE SCALED FOR FINAL MEASUREMENTS OR USED AS SHOP DRAWINGS FOR CONSTRUCTION. ALL FINAL DIMENSIONS AND LAYOUTS SHOULD BE MEASURED FROM THE ARCHITECTURAL DRAWINGS AND CONFIRMED ON SITE.

LICENSED PROFESSIONAL ENGINEER
2024-10-28
C. W. HSIEH
100199333
PROVINCE OF ONTARIO

REF.	DATE	DESCRIPTION
3		
2	28-OCT-24	ISSUED FOR SSI#1
1	06-SEP-24	ISSUED FOR PERMIT

info@Eternity.Design

eternity engineering inc.

www.Eternity.Design

PROJECT ADDRESS:

246 CAIRNCROFT DRIVE
OAKVILLE

DRAWING TITLE:
STRUCTURAL FRAMING DETAILS

SHEET: 24"x36" | DRAWN: J.L.
SCALE: 1:20
JOB NUMBER: 014-24-003

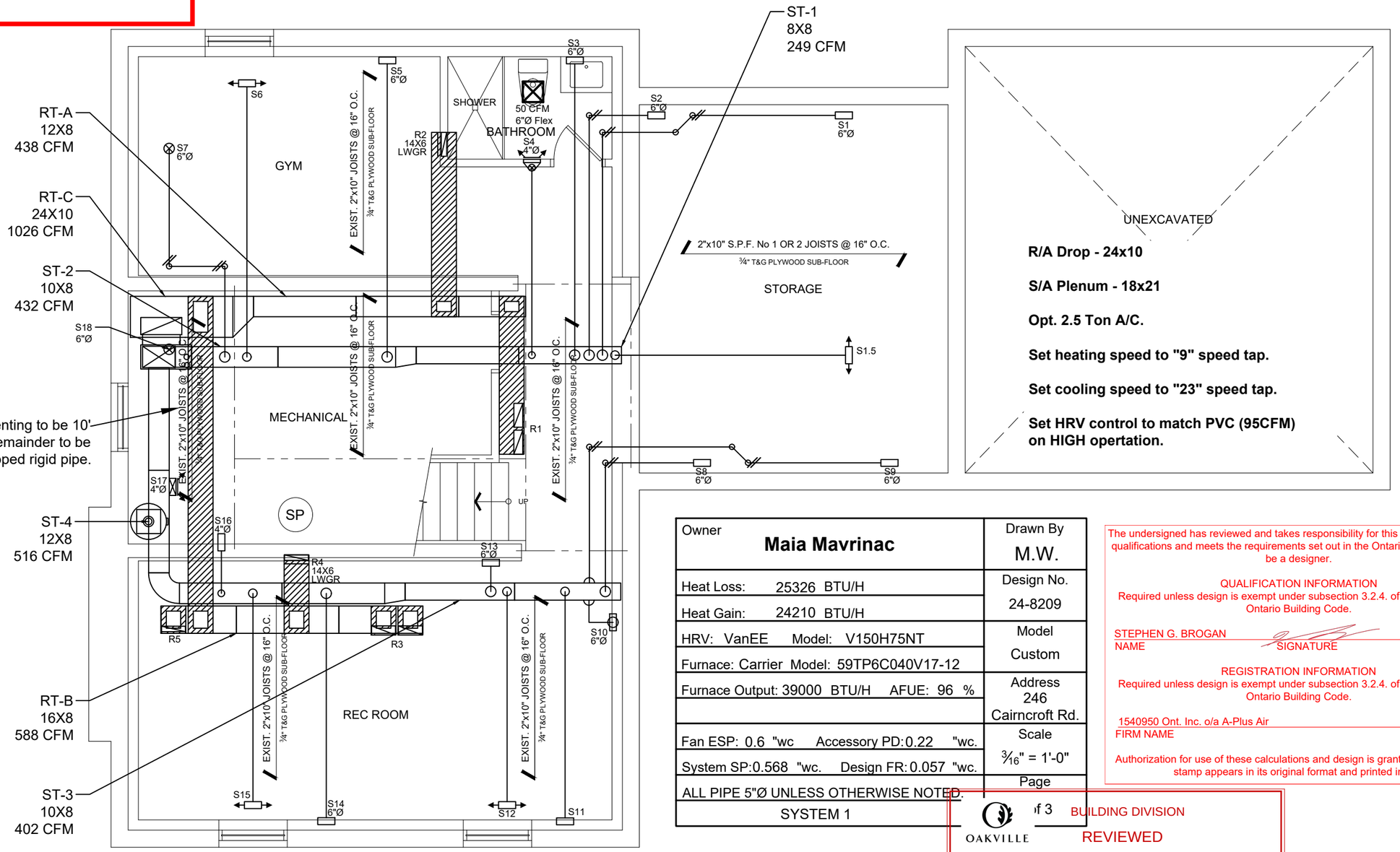
S6.0

Duct Sealing

1. All supply duct or return duct is located in an unconditioned space or outdoors shall be sealed to a Class A seal level.

2. All supply ducts is located in a conditioned space shall be sealed to a Class C seal level.

Balancing Dampers
All branch supply ducts shall be equipped with balancing dampers at the boot as per OBC.



R/A Drop - 24x10

S/A Plenum - 18x21

Opt. 2.5 Ton A/C.

Set heating speed to "9" speed tap.

Set cooling speed to "23" speed tap.

Set HRV control to match PVC (95CFM) on HIGH opertation.

Basement Height: 7.92'
Main Floor Height: 8'
Second Floor Height: 8'

Owner **Maia Mavrinac**	Drawn By M.W.
Heat Loss: 25326 BTU/H	Design No. 24-8209
Heat Gain: 24210 BTU/H	
HRV: VanEE Model: V150H75NT	Model Custom
Furnace: Carrier Model: 59TP6C040V17-12	
Furnace Output: 39000 BTU/H AFUE: 96 %	Address 246 Cairncroft Rd.
	Scale 3/16" = 1'-0"
Fan ESP: 0.6 "wc Accessory PD: 0.22 "wc.	
System SP: 0.568 "wc. Design FR: 0.057 "wc.	Page
ALL PIPE 5"Ø UNLESS OTHERWISE NOTED.	
SYSTEM 1	of 3

The undersigned has reviewed and takes responsibility for this design and has the qualifications and meets the requirements set out in the Ontario Building Code to be a designer.

QUALIFICATION INFORMATION
Required unless design is exempt under subsection 3.2.4. of Division C of the Ontario Building Code.

STEPHEN G. BROGAN — SIGNATURE — 23225 BCIN

REGISTRATION INFORMATION
Required unless design is exempt under subsection 3.2.4. of Division C of the Ontario Building Code.

1540950 Ont. Inc. o/a A-Plus Air — 32420 BCIN

Authorization for use of these calculations and design is granted only when this stamp appears in its original format and printed in red.

OAKVILLE BUILDING DIVISION
REVIEWED

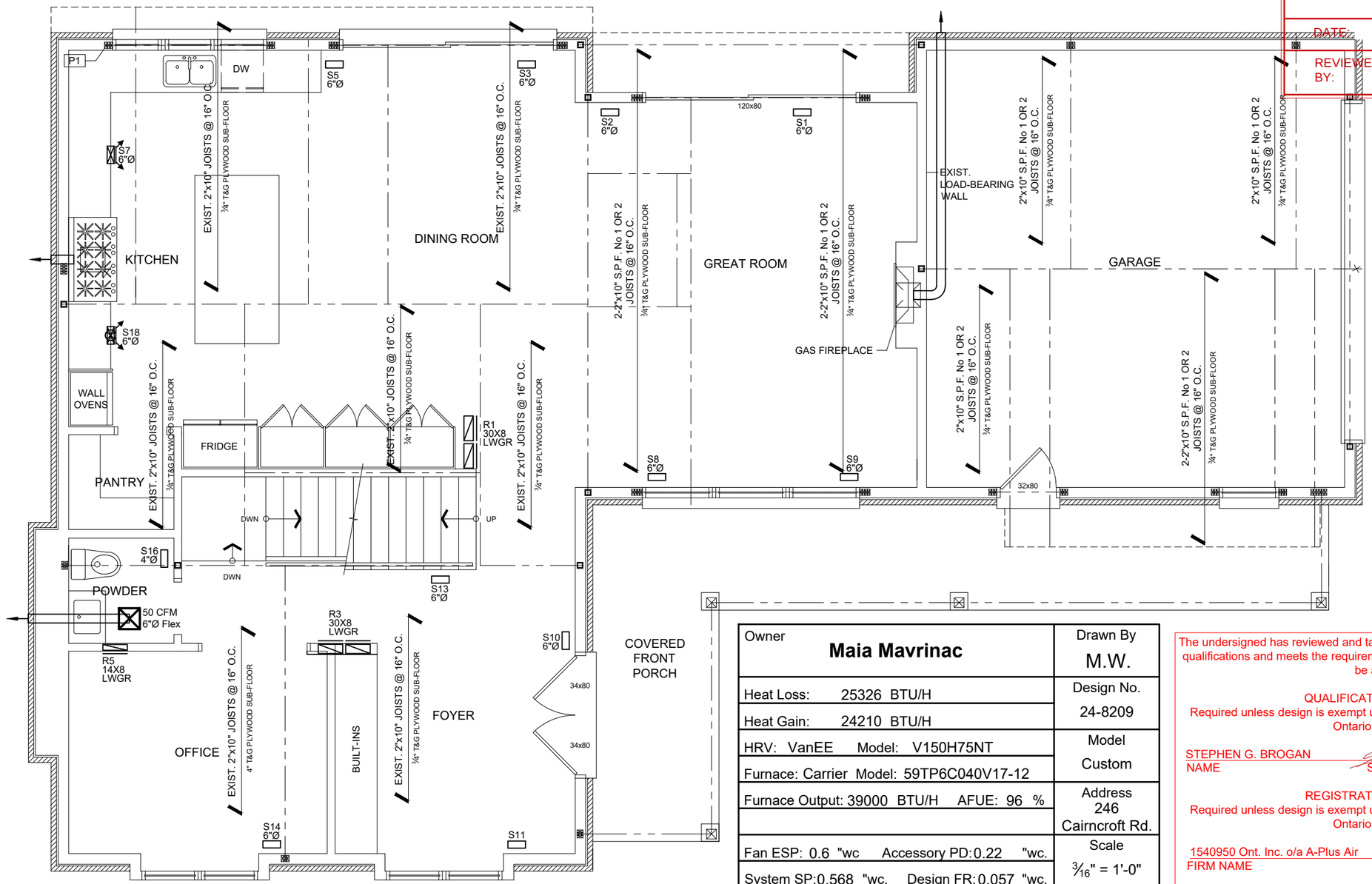
PERMIT NO: 24-206538 R1

Mechanical Plans Review

DATE: 1/8/2025

REVIEWED BY: kgunawardana

RECEIVED
BUILDING SERVICES
PERMIT NO: 24-206538 REV 01
DATE: 12/17/2024
OAKVILLE TOWN OF OAKVILLE



Basement Height: 7.92'
Main Floor Height: 8'
Second Floor Height: 8'

Owner **Maia Mavrinac**	Drawn By M.W.
Heat Loss: 25326 BTU/H	Design No. 24-8209
Heat Gain: 24210 BTU/H	
HRV: VanEE Model: V150H75NT	Model Custom
Furnace: Carrier Model: 59TP6C040V17-12	
Furnace Output: 39000 BTU/H AFUE: 96 %	Address 246 Cairncroft Rd.
Fan ESP: 0.6 "wc Accessory PD: 0.22 "wc.	Scale 3/16" = 1'-0"
System SP: 0.568 "wc. Design FR: 0.057 "wc.	
ALL PIPE 5"Ø UNLESS OTHERWISE NOTED.	Page 2 of 3
SYSTEM 1	

The undersigned has reviewed and takes responsibility for this design and has the qualifications and meets the requirements set out in the Ontario Building Code to be a designer.

QUALIFICATION INFORMATION
Required unless design is exempt under subsection 3.2.4. of Division C of the Ontario Building Code.

STEPHEN G. BROGAN — SIGNATURE — 23225
NAME — BCIN

REGISTRATION INFORMATION
Required unless design is exempt under subsection 3.2.4. of Division C of the Ontario Building Code.

1540950 Ont. Inc. o/a A-Plus Air — 32420
FIRM NAME — BCIN

Authorization for use of these calculations and design is granted only when this stamp appears in its original format and printed in red.

OAKVILLE
BUILDING DIVISION
REVIEWED
PERMIT NO: 24-206538 R1
Mechanical Plans Review
DATE: 1/8/2025
REVIEWED BY: kgunawardana

RECEIVED
BUILDING SERVICES
PERMIT NO: 24-206538 REV 01
DATE: 12/17/2024
TOWN OF OAKVILLE

Balancing Dampers
All branch supply ducts shall be equipped with balancing dampers at the boot as per OBC.

The undersigned has reviewed and takes responsibility for this design and has the qualifications and meets the requirements set out in the Ontario Building Code to be a designer.

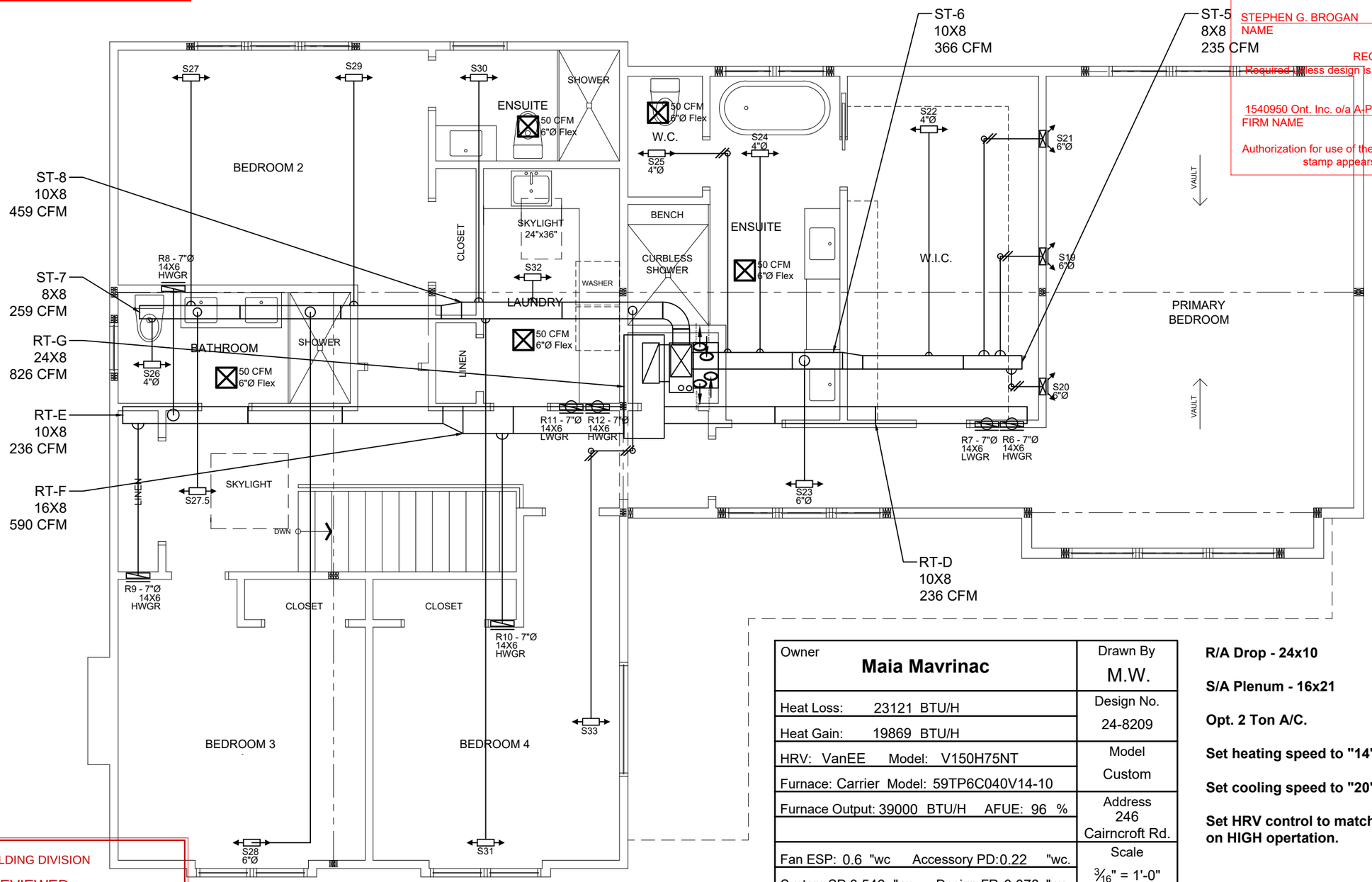
QUALIFICATION INFORMATION
Required unless design is exempt under subsection 3.2.4. of Division C of the Ontario Building Code.

STEPHEN G. BROGAN — NAME — SIGNATURE — 23225 BCIN

REGISTRATION INFORMATION
Required unless design is exempt under subsection 3.2.4. of Division C of the Ontario Building Code.

1540950 Ont. Inc. o/a A-Plus Air — FIRM NAME — 32420 BCIN

Authorization for use of these calculations and design is granted only when this stamp appears in its original format and printed in red.



Owner **Maia Mavrinac**	Drawn By M.W.
Heat Loss: 23121 BTU/H	Design No. 24-8209
Heat Gain: 19869 BTU/H	
HRV: VanEE Model: V150H75NT	Model Custom
Furnace: Carrier Model: 59TP6C040V14-10	
Furnace Output: 39000 BTU/H AFUE: 96 %	Address 246 Cairncroft Rd.
Fan ESP: 0.6 "wc Accessory PD: 0.22 "wc.	Scale 3/16" = 1'-0"
System SP: 0.546 "wc. Design FR: 0.078 "wc.	
ALL PIPE 5"Ø UNLESS OTHERWISE NOTED.	Page 3 of 3
SYSTEM 2	

R/A Drop - 24x10

S/A Plenum - 16x21

Opt. 2 Ton A/C.

Set heating speed to "14" speed tap.

Set cooling speed to "20" speed tap.

Set HRV control to match PVC (95CFM) on HIGH opertation.

OAKVILLE
BUILDING DIVISION
REVIEWED

PERMIT NO: 24-206538 R1
Mechanical Plans Review
DATE: 1/8/2025
REVIEWED BY: kgunawardana

Duct Sealing

1. All supply duct or return duct is located in an unconditioned space or outdoors shall be sealed to a Class A seal level.
2. All supply ducts is located in a conditioned space shall be sealed to a Class C seal level.

Duct Insulation in Unconditioned Space

R-12 insulation is required on exposed supply and return ducts in Garage / Unconditioned Ceiling space.

RECEIVED
BUILDING SERVICES
PERMIT NO: 24-206538 REV 01
DATE: 12/17/2024
OAKVILLE TOWN OF OAKVILLE

246 Cairncroft Dr. - Oakville - Custom - Redesign
HVAC Load Calculations

for

Maia Mavrinac

aplusair.ca

EXPECT MORE COMFORT

The undersigned has reviewed and takes responsibility for this design and has the qualifications and meets the requirements set out in the Ontario Building Code to be a designer.

QUALIFICATION INFORMATION
Required unless design is exempt under subsection 3.2.4. of Division C of the Ontario Building Code.

STEPHEN G. BROGAN		23225
NAME	SIGNATURE	BCIN

REGISTRATION INFORMATION
Required unless design is exempt under subsection 3.2.4. of Division C of the Ontario Building Code.

1540950 Ont. Inc. o/a A-Plus Air	32420
FIRM NAME	BCIN

Authorization for use of these calculations and design is granted only when this stamp appears in its original format and printed in red.

OAKVILLE

BUILDING DIVISION

REVIEWED

PERMIT NO:	24-206538 R1
Mechanical Plans Review	
DATE:	1/8/2025
REVIEWED BY:	kgunawardana

Prepared By:

Matthew Whitelaw
A-Plus Air
1100 South Service Rd. Unit 110
Stoney Creek, ON L8E-OC5
905-385-6450

Tuesday, December 10, 2024

Rhvac is an ACCA approved Manual J, D and S computer program.
Calculations are performed per ACCA Manual J 8th Edition, Version 2.50, and ACCA Manual D.

RECEIVED
BUILDING SERVICES
PERMIT NO: 24-206538 REV 01
DATE: 12/17/2024
OAKVILLE
TOWN OF OAKVILLE

Project Report

General Project Information

Project Title:	246 Cairncroft Dr. - Oakville - Custom - Redesign
Designed By:	Matthew Whitelaw
Project Date:	Tuesday, December 10, 2024
Project Comment:	24-8209
Client Name:	Maia Mavrinac
Company Name:	A-Plus Air
Company Representative:	Matthew Whitelaw
Company Address:	1100 South Service Rd. Unit 110
Company City:	Stoney Creek, ON L8E-OC5
Company Phone:	905-385-6450
Company Fax:	289-649-1031
Company E-Mail Address:	hvacdesign@aplusair.ca
Company Website:	aplusair.ca

Design Data

Reference City:		Oakville, Ontario
Building Orientation:		Front door faces Northeast
Daily Temperature Range:		Medium
Latitude:	43	Degrees
Elevation:	295	ft.
Altitude Factor:	0.989	

	Outdoor Dry Bulb	Outdoor Wet Bulb	Outdoor Rel.Hum	Indoor Rel.Hum	Indoor Dry Bulb	Grains Difference
Winter:	-0.4	-1.06	n/a	n/a	75	n/a
Summer:	86	73.4	56%	50%	75	40

Check Figures

Total Building Supply CFM:	1,850	CFM Per Square ft.:	0.436
Square ft. of Room Area:	4,242	Square ft. Per Ton:	1,155
Volume (ft³):	36,290		

Building Loads

Total Heating Required Including Ventilation Air:	48,447	Btuh	48.447	MBH
Total Sensible Gain:	37,065	Btuh	84	%
Total Latent Gain:	7,013	Btuh	16	%
Total Cooling Required Including Ventilation Air:	44,079	Btuh	3.67	Tons (Based On Sensible + Latent)

Notes

Rhvac is an ACCA approved Manual J, D and S computer program.
Calculations are performed per ACCA Manual J 8th Edition, Version 2.50, and ACCA Manual D.
All computed results are estimates as building use and weather may vary.
Be sure to select a unit that meets both sensible and latent loads according to the manufacturer's performance data at your design conditions.

RECEIVED
BUILDING SERVICES
PERMIT NO: 24-206538 REV 01
DATE: 12/17/2024
TOWN OF OAKVILLE

Miscellaneous Report

System 1 Input Data	Outdoor Dry Bulb	Outdoor Wet Bulb	Outdoor Rel.Hum	Indoor Rel.Hum	Indoor Dry Bulb	Grains Difference
Winter:	-0.4	-1.06	80%	n/a	75	n/a
Summer:	86	73.4	56%	50%	75	39.60

System 2 Copy of system 1 Input Data	Outdoor Dry Bulb	Outdoor Wet Bulb	Outdoor Rel.Hum	Indoor Rel.Hum	Indoor Dry Bulb	Grains Difference
Winter:	-0.4	-1.06	80%	n/a	75	n/a
Summer:	86	73.4	56%	50%	75	39.60

Duct Sizing Inputs

	Main Trunk		Runouts	
Calculate:	Yes		Yes	
Use Schedule:	Yes		Yes	
Roughness Factor:	0.00030		0.00030	
Pressure Drop:	0.0800	in.wg./100 ft.	0.0800	in.wg./100 ft.
Minimum Velocity:	0	ft./min	0	ft./min
Maximum Velocity:	900	ft./min	750	ft./min
Minimum Height:	8	in.	0	in.
Maximum Height:	8	in.	0	in.

Outside Air Data

	Winter		Summer	
Infiltration Specified:	0.216	AC/hr	0.059	AC/hr
	131	CFM	36	CFM
Infiltration Actual:	0.216	AC/hr	0.059	AC/hr
Building Volume:	X 36,290	Cu.ft.	X 36,290	Cu.ft.
	7,836	Cu.ft./hr	2,140	Cu.ft./hr
	X 0.0167		X 0.0167	
Total Building Infiltration:	131	CFM	36	CFM
Total Building Ventilation:	190	CFM	190	CFM

---System 1---

Infiltration & Ventilation Sensible Gain Multiplier:	11.97	= (1.10 X 0.989 X 11.00 Summer Temp. Difference)
Infiltration & Ventilation Latent Gain Multiplier:	26.64	= (0.68 X 0.989 X 39.60 Grains Difference)
Infiltration & Ventilation Sensible Loss Multiplier:	82.06	= (1.10 X 0.989 X 75.40 Winter Temp. Difference)

Winter Infiltration Specified: 0.199 AC/hr (71 CFM)
Summer Infiltration Specified: 0.054 AC/hr (19 CFM)

---System 2---

Infiltration & Ventilation Sensible Gain Multiplier:	11.97	= (1.10 X 0.989 X 11.00 Summer Temp. Difference)
Infiltration & Ventilation Latent Gain Multiplier:	26.64	= (0.68 X 0.989 X 39.60 Grains Difference)
Infiltration & Ventilation Sensible Loss Multiplier:	82.06	= (1.10 X 0.989 X 75.40 Winter Temp. Difference)

Winter Infiltration Specified: 0.240 AC/hr (60 CFM)
Summer Infiltration Specified: 0.066 AC/hr (16 CFM)

RECEIVED
BUILDING SERVICES
PERMIT NO: 24-206538 REV 01
DATE: 12/17/2024
TOWN OF OAKVILLE

Load Preview Report

Scope	Net Ton	ft.²/Ton	Area	Sen Gain	Lat Gain	Net Gain	Sen Loss	Sys Htg CFM	Sys Clg CFM	Sys Act CFM	Duct Size
Building	3.67	1,155	4,242	37,065	7,013	44,079	48,447	1,085	1,850	1,850	
System 1	2.02	1,201	2,423	20,167	4,043	24,210	25,326	515	1,025	1,025	18x21
Ventilation				1,137	2,531	3,668	1,871	95	95	95	
Zone 1			2,423	19,030	1,512	20,542	23,455	515	1,025	1,025	Not TMDD; 24x8
1-Gym			235	353	52	405	1,879	41	19	41	5
2-Storage			285	46	76	122	2,578	57	2	57	5
3-Mechanical Room			297	343	39	382	1,437	32	18	32	4
4-B Bath			52	15	22	37	765	17	1	17	4
5-Rec Room			336	549	81	630	3,012	66	30	66	5,5
6-Din/Kit/Gre/Foy			995	15,136	1,171	16,307	10,220	224	815	815	6,6,6,6,6, 6,6,6,6,6
7-Powder Room			25	25	8	33	268	6	1	6	4
8-Office			131	1,477	36	1,513	1,700	37	80	80	6
9-Mud Room			67	1,087	27	1,114	1,596	35	59	59	5
System 2	1.66	1,098	1,819	16,898	2,971	19,869	23,121	570	825	825	16x21
Ventilation				1,137	2,531	3,668	1,871	95	95	95	
Zone 1			1,819	15,761	440	16,201	21,250	570	825	825	Not TMDD; 20x8
10-Bedroom 4			194	2,226	63	2,289	2,831	76	117	117	5,5
11-Bath 1			74	304	13	317	588	16	16	16	4
12-Bedroom 3			184	1,395	57	1,452	2,261	61	73	73	6
13-Bed 2 Ensuite			56	695	23	718	970	26	36	36	5
14-Bedroom 2			207	2,345	56	2,401	2,586	69	123	123	5,5
15-Laundry / Landing			336	1,817	26	1,843	1,655	44	95	95	5,5
16-Primary Ensuite			136	1,065	21	1,086	1,247	33	56	56	4,4
17-Primary WIC			168	195	21	216	850	23	10	23	4
18-Primary Bedroom			464	5,719	160	5,879	8,262	222	299	299	6,6,6,6

Sum of room airflows may be greater than system airflow because system room airflow option uses the greater of heating or cooling.

RECEIVED
BUILDING SERVICES
PERMIT NO: 24-206538 REV 01
DATE: 12/17/2024
TOWN OF OAKVILLE

Duct Size Preview

Room or Duct Name	Source	Minimum Velocity	Maximum Velocity	Rough. Factor	Design L/100	SP Loss	Duct Velocity	Duct Length	Htg Flow	Clg Flow	Act. Flow	Duct Size	Reg Size
System 1													
Supply Runouts													
Zone 1													
1-Gym (S6)	TMDD	500	750	0.0003	0.67	0.021	300.7	13.17	41	19	41	5	4x10
2-Storage (S1.5)	TMDD	500	750	0.0003	0.67	0.044	418	11.17	57	2	57	5	4x10
3-Mechanical Room (S17	TMDD	500	750	0.0003	0.67	0.012	366.7	1	32	18	32	4	4x10
4-B Bath (S4)	TMDD	500	750	0.0003	0.67	0.012	194.8	14.5	17	1	17	4	4x10
5-Rec Room (S15, S12)	TMDD	500 500	750 750	0.0003 0.0003	0.67 0.67	0.011 0.012	242 242	2 2	66	30	66	5 5	4x10 4x10
6-Din/Kit/Gre/Foy (S18, S S10, S9, S8, S7, S5, S3, S2,	TMDD	500 500 500 500 500 500 500 500 500 500	750 750 750 750 750 750 750 750 750 750	0.0003 0.0003 0.0003 0.0003 0.0003 0.0003 0.0003 0.0003 0.0003 0.0003	0.67 0.67 0.67 0.67 0.67 0.67 0.67 0.67 0.67 0.67	0.027 0.035 0.034 0.051 0.036 0.049 0.037 0.04 0.039 0.044	417.6 417.6 417.6 417.6 417.6 417.6 417.6 417.6 417.6 417.6	6 1 5.42 21.25 10.17 15 14.25 14.25 10.17 22.58	224	815	815	6 6 6 6 6 6 6 6 6 6	4x10 4x10 4x10 4x10 4x10 4x10 4x10 4x10 4x10 4x10
7-Powder Room (S16)	TMDD	500	750	0.0003	0.67	0.001	68.8	2	6	1	6	4	4x10
8-Office (S14)	TMDD	500	750	0.0003	0.67	0.034	407.4	11.33	37	80	80	6	4x10
9-Mud Room (S11)	TMDD	500	750	0.0003	0.67	0.043	432.7	11.33	35	59	59	5	4x10
Other Ducts in System 1													
Supply Main Trunk (PLENUM)	TMDD	700	900	0.0003	0.67	0.221	392.4	5	511	1,030	1,030	18x21	
ST-4	TMDD	700	900	0.0003	0.67	0.034	774	6	264	516	516	12x8	
ST-110	TMDD	700	900	0.0003	0.67	0.024	747	7.83	232	498	498	12x8	
ST-120	TMDD	700	900	0.0003	0.67	0.001	745.5	1.5	226	497	497	12x8	
ST-130	TMDD	700	900	0.0003	0.67	0.003	723	3.58	193	482	482	12x8	
ST-3	TMDD	700	900	0.0003	0.67	0.013	723.6	8	156	402	402	10x8	
ST-150	TMDD	700	900	0.0003	0.67	0.001	576	0.83	134	320	320	10x8	
ST-160	TMDD	700	900	0.0003	0.67	0.001	549	1.58	101	305	305	10x8	
ST-170	TMDD	700	900	0.0003	0.67	0.001	442.8	2.5	66	246	246	10x8	
ST-180	TMDD	700	900	0.0003	0.67	0	147.6	1	22	82	82	10x8	
ST-2	TMDD	700	900	0.0003	0.67	0.031	777.6	2	225	432	432	10x8	
ST-200	TMDD	700	900	0.0003	0.67	0.001	630	1.75	203	350	350	10x8	
ST-210	TMDD	700	900	0.0003	0.67	0.005	595.8	6.83	162	331	331	10x8	
ST-1	TMDD	700	900	0.0003	0.67	0.008	560.2	7	140	249	249	8x8	
ST-230	TMDD	700	900	0.0003	0.67	0.001	558	2.08	123	248	248	8x8	
ST-240	TMDD	700	900	0.0003	0.67	0	373.5	0.5	101	166	166	8x8	
ST-250	TMDD	700	900	0.0003	0.67	0	189	0.5	79	84	84	8x8	
DROP	TMDD	600	700	0.0003	0.67	0.065	615.6	7	0	0	1,026	24x10	
RT-C	TMDD	600	700	0.0003	0.67	0.002	615.6	5	0	0	1,026	24x10	
RTJS-110	TMDD	600	700	0.005	0.67	0.079	614.7	14.5	0	0	588	14x10	
RT-B	TMDD	600	700	0.0003	0.67	0.001	661.5	1.83	0	0	588	16x8	
RTJS-130	TMDD	600	700	0.005	0.67	0.001	156.8	2	0	0	150	14x10	
R5	TMDD	500	750	0.005	0.67	0.018	474.7	2.5	0	0	150	14x3	14x8
RT-140	TMDD	600	700	0.0003	0.67	0.002	492.8	5.58	0	0	438	16x8	
RTJS-150	TMDD	600	700	0.005	0.67	0.001	92	2.75	0	0	88	14x10	
R4	TMDD	500	750	0.005	0.67	0.006	278.5	2.5	0	0	88	14x3	14x6
RT-160	TMDD	600	700	0.0003	0.67	0.001	393.8	5.5	0	0	350	16x8	
RTJS-170	TMDD	600	700	0.005	0.67	0.023	365.9	2.75	0	0	350	14x10	
R3	TMDD	500	750	0.005	0.67	0.045	342.9	2.5	0	0	350	28x5	30x8

RECEIVED
BUILDING SERVICES
PERMIT NO: 24-206538 REV 01
DATE: 12/17/2024
TOWN OF OAKVILLE

Duct Size Preview (cont'd)

Room or Duct Name	Source	Minimum Velocity	Maximum Velocity	Rough. Factor	Design L/100	SP Loss	Duct Velocity	Duct Length	Htg Flow	Clg Flow	Act. Flow	Duct Size	Reg Size
RT-A	TMDD	600	700	0.0003	0.67	0.018	657	13	0	0	438	12x8	
RTJS-190	TMDD	600	700	0.005	0.67	0	92	9	0	0	88	14x10	
R2	TMDD	500	750	0.005	0.67	0.009	278.5	6.5	0	0	88	14x3	14x6
RT-200	TMDD	600	700	0.0003	0.67	0.002	525	4	0	0	350	12x8	
RTJS-210	TMDD	600	700	0.005	0.67	0.023	365.9	2.75	0	0	350	14x10	
R1	TMDD	500	750	0.005	0.67	0.045	342.9	2.5	0	0	350	28x5	30x8
System 2													
Supply Runouts													
Zone 1													
10-Bedroom 4 (S31, S33)	TMDD	500 500	750 750	0.0003 0.0003	0.67 0.67	0.019 0.02	425.4 425.4	1.58 1.58	76	117	117	5 5	4x10 4x10
11-Bath 1 (S26)	TMDD	500	750	0.0003	0.67	0.003	183.4	2.33	16	16	16	4	4x10
12-Bedroom 3 (S28)	TMDD	500	750	0.0003	0.67	0.019	371.8	11.5	61	73	73	6	4x10
13-Bed 2 Ensuite (S30)	TMDD	500	750	0.0003	0.67	0.01	264	11.5	26	36	36	5	4x10
14-Bedroom 2 (S29, S27)	TMDD	500 500	750 750	0.0003 0.0003	0.67 0.67	0.032 0.029	447.4 447.4	11.5 11.5	69	123	123	5 5	4x10 4x10
15-Laundry / Landing (S3 S27.5)	TMDD	500 500	750 750	0.0003 0.0003	0.67 0.67	0.013 0.017	352 352	1.58 8.67	44	95	95	5 5	4x10 4x10
16-Primary Ensuite (S25, S24)	TMDD	500 500	750 750	0.0003 0.0003	0.67 0.67	0.025 0.016	320.9 320.9	13.33 10.08	33	56	56	4 4	4x10 4x10
17-Primary WIC (S22)	TMDD	500	750	0.0003	0.67	0.012	263.6	11.33	23	10	23	4	4x10
18-Primary Bedroom (S23 S21, S20, S19)	TMDD	500 500 500 500	750 750 750 750	0.0003 0.0003 0.0003 0.0003	0.67 0.67 0.67 0.67	0.018 0.03 0.024 0.024	382 382 382 382	10.08 13.33 3 6.58	222	299	299	6 6 6 6	4x10 4x10 4x10 4x10
Other Ducts in System 2													
Supply Main Trunk (PLENUM 2)	TMDD	600	700	0.0003	0.67	0.221	353.6	7	570	825	825	16x21	
ST-8	TMDD	700	900	0.0003	0.67	0.104	826.2	8.92	293	459	459	10x8	
ST-270	TMDD	700	900	0.0003	0.67	0.002	635.4	2.33	233	353	353	10x8	
ST-280	TMDD	700	900	0.0003	0.67	0	531	0.5	195	295	295	10x8	
ST-7	TMDD	700	900	0.0003	0.67	0.008	582.8	6.17	169	259	259	8x8	
ST-300	TMDD	700	900	0.0003	0.67	0.002	445.5	5	134	198	198	8x8	
ST-310	TMDD	700	900	0.0003	0.67	0	173.2	3	51	77	77	8x8	
ST-320	TMDD	700	900	0.0003	0.67	0	36	3	16	16	16	8x8	
ST-6	TMDD	700	900	0.0003	0.67	0.022	658.8	2	277	366	366	10x8	
ST-340	TMDD	700	900	0.0003	0.67	0.001	608.4	1.67	260	338	338	10x8	
ST-350	TMDD	700	900	0.0003	0.67	0.001	558	2.17	243	310	310	10x8	
ST-5	TMDD	700	900	0.0003	0.67	0.007	528.8	6.17	188	235	235	8x8	
ST-370	TMDD	700	900	0.0003	0.67	0.002	506.2	2.75	165	225	225	8x8	
ST-380	TMDD	700	900	0.0003	0.67	0	337.5	1	110	150	150	8x8	
ST-390	TMDD	700	900	0.0003	0.67	0	168.8	1	55	75	75	8x8	
DROP 2	TMDD	600	700	0.0003	0.67	0.066	619.5	7	826	826	826	24x8	
RT-G	TMDD	600	700	0.0003	0.67	0.002	619.5	5	826	826	826	24x8	
RT-F	TMDD	600	700	0.0003	0.67	0.056	663.8	3	590	590	590	16x8	
R12	TMDD	500	750	0.0003	0.67	0.032	441.5	6.5	118	118	118	7	14x6
RT-240	TMDD	600	700	0.0003	0.67	0	531	1	472	472	472	16x8	
R11	TMDD	500	750	0.0003	0.67	0.045	441.5	6.5	118	118	118	7	14x6
RT-250	TMDD	600	700	0.0003	0.67	0.001	398.2	3.5	354	354	354	16x8	
R10	TMDD	500	750	0.0003	0.67	0.048	441.5	13.25	118	118	118	7	14x6
RT-E	TMDD	600	700	0.0003	0.67	0.008	424.8	13	236	236	236	10x8	
R9	TMDD	500	750	0.0003	0.67	0.036	441.5	13.25	118	118	118	7	14x6
RT-270	TMDD	600	700	0.0003	0.67	0	212.4	4.08	118	118	118	10x8	
R8	TMDD	500	750	0.0003	0.67	0.046	441.5	8.5	118	118	118	7	14x6
RT-D	TMDD	600	700	0.0003	0.67	0.028	424.8	16	236	236	236	10x8	

RECEIVED
BUILDING SERVICES
PERMIT NO: 24-206538 REV 01
DATE: 12/17/2024
TOWN OF OAKVILLE

Duct Size Preview (cont'd)

Room or Duct Name	Source	Minimum Velocity	Maximum Velocity	Rough. Factor	Design L/100	SP Loss	Duct Velocity	Duct Length	Htg Flow	Clg Flow	Act. Flow	Duct Size	Reg Size
R7	TMDD	500	750	0.0003	0.67	0.031	441.5	5	118	118	118	7	14x6
RT-290	TMDD	600	700	0.0003	0.67	0	212.4	2	118	118	118	10x8	
R6	TMDD	500	750	0.0003	0.67	0.044	441.5	5	118	118	118	7	14x6

Summary

System 1					
Heating Flow:	515	Design Friction Rate:	0.057	TEL Return:	486.8
Cooling Flow:	1025	Total Cumulative SP Loss:	0.568	TEL Supply:	178.3
Fan ESP:	0.6	Device SP Loss:	0.22	TEL Total:	665.1
Fan SP Available:	0.38	Return Loss Added to Supply:	0.218		
System 2					
Heating Flow:	570	Design Friction Rate:	0.078	TEL Return:	343.5
Cooling Flow:	825	Total Cumulative SP Loss:	0.546	TEL Supply:	144.5
Fan ESP:	0.6	Device SP Loss:	0.22	TEL Total:	488
Fan SP Available:	0.38	Return Loss Added to Supply:	0.181		

RECEIVED
BUILDING SERVICES
PERMIT NO: 24-206538 REV 01
DATE: 12/17/2024
TOWN OF OAKVILLE

Tabular Manual D Ductsize Data - Duct System 1 - Supply

---Duct Name, etc. Type [Reg.Size] Upstream Shape Sizing	Roughness Temperature Length CFM	Diameter Width Height Area	Velocity Loss/100 Fit.Eq.Len SP.Avail	SPL.Duct SPL.Fit SPL.Tot SPL.Cumul
---Duct Name: PLENUM, Effective Length: 5.0				
Trunk	0.0003	21.2	392	0.001
Up: Fan	72	18	0.012	0.000
Rect	5.0	21	0.0	0.221
Presize	1,030	32.5	0.161	0.439
---Duct Name: ST-4, Fittings: 1-D, 13-C, Effective Length: 34.7				
Trunk	0.0003	10.7	774	0.006
Up: PLENUM	72	12	0.098	0.028
Rect	6.0	8	28.7	0.034
Presize	516	20	0.127	0.473
---Duct Name: S18, Supplies: Din/Kit/Gre/Foy, Fittings: 1-B, 8-A2, 4-I, 13-A, Effective Length: 47.2				
Runout, Reg: 4x10	0.0003	6	418	0.003
Up: PLENUM	72	4.7	0.058	0.024
Rnd	6.0	6.6	41.2	0.027
Exact	82	9.4	0.134	0.466
---Duct Name: S17, Supplies: Mechanical Room, Fittings: 2-B, 4-I, 13-A, Effective Length: 16.3				
Runout, Reg: 4x10	0.0003	4	367	0.001
Up: ST-4	72	3.1	0.076	0.012
Rnd	1.0	4.4	15.3	0.012
Exact	32	1	0.115	0.485
---Duct Name: ST-110, Fitting: 8-C1A, Effective Length: 25.8				
Trunk	0.0003	10.7	747	0.007
Up: ST-4	72	12	0.092	0.017
Rect	7.8	8	18.0	0.024
Exact	498	26.1	0.103	0.497
---Duct Name: S16, Supplies: Powder Room, Fittings: 2-K, 4-H, 13-A, Effective Length: 19.1				
Runout, Reg: 4x10	0.0003	4	69	0.000
Up: ST-110	72	3.1	0.004	0.001
Rnd	2.0	4.4	17.1	0.001
Exact	6	2.1	0.103	0.497
---Duct Name: ST-120, Effective Length: 1.5				
Trunk	0.0003	10.7	746	0.001
Up: ST-110	72	12	0.092	0.000
Rect	1.5	8	0.0	0.001
Exact	497	5	0.102	0.498
---Duct Name: S15, Supplies: Rec Room, Fittings: 2-K, 4-G, 13-A, Effective Length: 39.3				
Runout, Reg: 4x10	0.0003	5	242	0.001
Up: ST-120	72	3.9	0.028	0.010
Rnd	2.0	5.5	37.3	0.011
Exact	33	2.6	0.091	0.509
---Duct Name: ST-130, Effective Length: 3.6				
Trunk	0.0003	10.7	723	0.003
Up: ST-120	72	12	0.087	0.000
Rect	3.6	8	0.0	0.003
Exact	482	11.9	0.099	0.501

RECEIVED
BUILDING SERVICES
PERMIT NO: 24-206538 REV 01
DATE: 12/17/2024
TOWN OF OAKVILLE

Tabular Manual D Ductsize Data - Duct System 1 - Supply (cont'd)

---Duct Name, etc. Type [Reg.Size] Upstream Shape Sizing	Roughness Temperature Length CFM	Diameter Width Height Area	Velocity Loss/100 Fit.Eq.Len SP.Avail	SPL.Duct SPL.Fit SPL.Tot SPL.Cumul
---Duct Name: S14, Supplies: Office, Fittings: 2-K, 4-G, 13-A, Effective Length: 61.2				
Runout, Reg: 4x10	0.0003	6	407	0.006
Up: ST-130	72	4.7	0.055	0.027
Rnd	11.3	6.6	49.9	0.034
Exact	80	17.8	0.065	0.535
---Duct Name: ST-3, Fitting: 12-Q1, Effective Length: 13.4				
Trunk	0.0003	9.8	724	0.008
Up: ST-130	72	10	0.095	0.005
Rect	8.0	8	5.4	0.013
Presize	402	24	0.086	0.514
---Duct Name: S13, Supplies: Din/Kit/Gre/Foy, Fittings: 2-K, 4-G, 13-A, Effective Length: 60.1				
Runout, Reg: 4x10	0.0003	6	418	0.001
Up: ST-3	72	4.7	0.058	0.034
Rnd	1.0	6.6	59.1	0.035
Exact	82	1.6	0.052	0.548
---Duct Name: ST-150, Effective Length: 0.8				
Trunk	0.0003	9.8	576	0.001
Up: ST-3	72	10	0.063	0.000
Rect	0.8	8	0.0	0.001
Exact	320	2.5	0.086	0.514
---Duct Name: S12, Supplies: Rec Room, Fittings: 2-K, 4-G, 13-A, Effective Length: 42.4				
Runout, Reg: 4x10	0.0003	5	242	0.001
Up: ST-150	72	3.9	0.028	0.011
Rnd	2.0	5.5	40.4	0.012
Exact	33	2.6	0.074	0.526
---Duct Name: ST-160, Effective Length: 1.6				
Trunk	0.0003	9.8	549	0.001
Up: ST-150	72	10	0.058	0.000
Rect	1.6	8	0.0	0.001
Exact	305	4.7	0.085	0.515
---Duct Name: S11, Supplies: Mud Room, Fittings: 2-K, 4-G, 13-A, Effective Length: 56.3				
Runout, Reg: 4x10	0.0003	5	433	0.009
Up: ST-160	72	3.9	0.077	0.035
Rnd	11.3	5.5	44.9	0.043
Exact	59	14.8	0.041	0.559
---Duct Name: ST-170, Effective Length: 2.5				
Trunk	0.0003	9.8	443	0.001
Up: ST-160	72	10	0.039	0.000
Rect	2.5	8	0.0	0.001
Exact	246	7.5	0.084	0.516
---Duct Name: S10, Supplies: Din/Kit/Gre/Foy, Fittings: 2-K, 4-G, 13-A, Effective Length: 58.5				
Runout, Reg: 4x10	0.0003	6	418	0.003
Up: ST-170	72	4.7	0.058	0.031
Rnd	5.4	6.6	53.1	0.034
Exact	82	8.5	0.050	0.550

RECEIVED
BUILDING SERVICES
PERMIT NO: 24-206538 REV 01
DATE: 12/17/2024
TOWN OF OAKVILLE

Tabular Manual D Ductsize Data - Duct System 1 - Supply (cont'd)

---Duct Name, etc. Type [Reg.Size] Upstream Shape Sizing	Roughness Temperature Length CFM	Diameter Width Height Area	Velocity Loss/100 Fit.Eq.Len SP.Avail	SPL.Duct SPL.Fit SPL.Tot SPL.Cumul
---Duct Name: ST-180, Effective Length: 1.0				
Trunk	0.0003	9.8	148	0.000
Up: ST-170	72	10	0.006	0.000
Rect	1.0	8	0.0	0.000
Exact	82	3	0.084	0.516
---Duct Name: S9, Supplies: Din/Kit/Gre/Foy, Fittings: 2-K, 4-H, 8-A2, 13-A, Effective Length: 89.3				
Runout, Reg: 4x10	0.0003	6	418	0.012
Up: ST-170	72	4.7	0.058	0.039
Rnd	21.3	6.6	68.1	0.051
Exact	82	33.4	0.032	0.568
---Duct Name: S8, Supplies: Din/Kit/Gre/Foy, Fittings: 2-K, 4-H, 8-A2, 13-A, Effective Length: 63.3				
Runout, Reg: 4x10	0.0003	6	418	0.006
Up: ST-180	72	4.7	0.058	0.031
Rnd	10.2	6.6	53.1	0.036
Exact	82	16	0.047	0.553
---Duct Name: ST-2, Fittings: 1-D, 13-C, Effective Length: 28.1				
Trunk	0.0003	9.8	778	0.002
Up: PLENUM	72	10	0.109	0.028
Rect	2.0	8	26.1	0.031
Presize	432	6	0.131	0.469
---Duct Name: S7, Supplies: Din/Kit/Gre/Foy, Fittings: 2-K, 4-I, 8-A2, 13-A, Effective Length: 84.6				
Runout, Reg: 4x10	0.0003	6	418	0.009
Up: ST-2	72	4.7	0.058	0.040
Rnd	15.0	6.6	69.6	0.049
Exact	82	23.6	0.082	0.518
---Duct Name: ST-200, Effective Length: 1.8				
Trunk	0.0003	9.8	630	0.001
Up: ST-2	72	10	0.074	0.000
Rect	1.8	8	0.0	0.001
Exact	350	5.2	0.129	0.471
---Duct Name: S6, Supplies: Gym, Fittings: 2-K, 4-G, 13-A, Effective Length: 52.4				
Runout, Reg: 4x10	0.0003	5	301	0.005
Up: ST-200	72	3.9	0.040	0.016
Rnd	13.2	5.5	39.3	0.021
Exact	41	17.2	0.108	0.492
---Duct Name: ST-210, Effective Length: 6.8				
Trunk	0.0003	9.8	596	0.005
Up: ST-200	72	10	0.067	0.000
Rect	6.8	8	0.0	0.005
Exact	331	20.5	0.125	0.475
---Duct Name: S5, Supplies: Din/Kit/Gre/Foy, Fittings: 2-K, 4-G, 13-A, Effective Length: 64.4				
Runout, Reg: 4x10	0.0003	6	418	0.008
Up: ST-210	72	4.7	0.058	0.029
Rnd	14.3	6.6	50.1	0.037
Exact	82	22.4	0.088	0.512

RECEIVED
BUILDING SERVICES
PERMIT NO: 24-206538 REV 01
DATE: 12/17/2024
TOWN OF OAKVILLE

Tabular Manual D Ductsize Data - Duct System 1 - Supply (cont'd)

---Duct Name, etc. Type [Reg.Size] Upstream Shape Sizing	Roughness Temperature Length CFM	Diameter Width Height Area	Velocity Loss/100 Fit.Eq.Len SP.Avail	SPL.Duct SPL.Fit SPL.Tot SPL.Cumul
---Duct Name: ST-1, Fitting: 12-Q1, Effective Length: 11.5				
Trunk	0.0003	8.7	560	0.005
Up: ST-210	72	8	0.068	0.003
Rect	7.0	8	4.5	0.008
Presize	249	18.7	0.117	0.483
---Duct Name: S4, Supplies: B Bath, Fittings: 2-K, 4-G, 8-A2, 13-A, Effective Length: 49.4				
Runout, Reg: 4x10	0.0003	4	195	0.004
Up: ST-1	72	3.1	0.025	0.009
Rnd	14.5	4.4	34.9	0.012
Exact	17	15.2	0.105	0.495
---Duct Name: ST-230, Effective Length: 2.1				
Trunk	0.0003	8.7	558	0.001
Up: ST-1	72	8	0.068	0.000
Rect	2.1	8	0.0	0.001
Exact	248	5.5	0.115	0.485
---Duct Name: S3, Supplies: Din/Kit/Gre/Foy, Fittings: 2-K, 4-G, 13-A, Effective Length: 70.4				
Runout, Reg: 4x10	0.0003	6	418	0.008
Up: ST-230	72	4.7	0.058	0.032
Rnd	14.3	6.6	56.1	0.041
Exact	82	22.4	0.075	0.525
---Duct Name: ST-240, Effective Length: 0.5				
Trunk	0.0003	8.7	374	0.000
Up: ST-230	72	8	0.033	0.000
Rect	0.5	8	0.0	0.000
Exact	166	1.3	0.115	0.485
---Duct Name: S2, Supplies: Din/Kit/Gre/Foy, Fittings: 2-K, 4-H, 8-A2, 13-A, Effective Length: 67.8				
Runout, Reg: 4x10	0.0003	6	418	0.006
Up: ST-240	72	4.7	0.058	0.033
Rnd	10.2	6.6	57.6	0.039
Exact	82	16	0.076	0.524
---Duct Name: ST-250, Effective Length: 0.5				
Trunk	0.0003	8.7	189	0.000
Up: ST-240	72	8	0.010	0.000
Rect	0.5	8	0.0	0.000
Exact	84	1.3	0.115	0.485
---Duct Name: S1, Supplies: Din/Kit/Gre/Foy, Fittings: 2-K, 4-H, 8-A2, 13-A, Effective Length: 75.7				
Runout, Reg: 4x10	0.0003	6	418	0.013
Up: ST-250	72	4.7	0.058	0.031
Rnd	22.6	6.6	53.1	0.044
Exact	82	35.5	0.072	0.528
---Duct Name: S1.5, Supplies: Storage, Fittings: 2-K, 4-G, 8-A2, 13-A, Effective Length: 60.5				
Runout, Reg: 4x10	0.0003	5	418	0.008
Up: ST-250	72	3.9	0.073	0.036
Rnd	11.2	5.5	49.4	0.044
Exact	57	14.6	0.071	0.529

RECEIVED
BUILDING SERVICES
PERMIT NO: 24-206538 REV 01
DATE: 12/17/2024
TOWN OF OAKVILLE

Tabular Manual D Ductsize Data - Duct System 1 - Supply (cont'd)

---Duct Name, etc.				
Type [Reg.Size]	Roughness	Diameter	Velocity	SPL.Duct
Upstream	Temperature	Width	Loss/100	SPL.Fit
Shape	Length	Height	Fit.Eq.Len	SPL.Tot
Sizing	CFM	Area	SP.Avail	SPL.Cumul

Report Units: Pressure: in.wg, Duct lengths: feet, Duct sizes: inch, Airflow: CFM, Velocity: ft./min, Temperature: F

Notes: Static pressure available values for return ducts are at the entrance of the duct. For supply, they are at the exit. The cumulative static pressure loss value for a return trunk is with respect to the entry point of the return runout upstream with the highest static pressure available. Total and cumulative static pressure loss values for the supply main trunk include any device pressure losses entered, and the cumulative may also include the total static pressure loss of the return side.

Summary

Number of active trunks:	17	
Number of active runouts:	19	
Total runout outlet airflow:	1,178	
Main trunk airflow:	1,030	
Largest trunk diameter:	21.2	PLENUM
Largest runout diameter:	6	S18
Smallest trunk diameter:	8.7	ST-1
Smallest runout diameter:	4	S17
Supply fan external static pressure:	0.600	
Supply fan device pressure losses:	0.220	
Direct expansion refrigerant coil:	0.2	
Supply outlet:	0.01	
Return grille:	0.01	
Supply fan static pressure available:	0.380	
Runout maximum cumulative static pressure loss:	0.568	S9
Return loss added to supply:	0.218	
Total effective length of return (ft.):	486.8	R3
Total effective length of supply (ft.):	178.3	S9
Overall total effective length (ft.):	665.1	R3 to S9
Design overall friction rate per 100 ft.:	0.057	(Available SP x 100 / TEL) Status: OK
System duct surface area (Scenario 1):	472.6	(Not linked to duct load)
Total system duct surface area:	472.6	

RECEIVED
BUILDING SERVICES
PERMIT NO: 24-206538 REV 01
DATE: 12/17/2024
TOWN OF OAKVILLE

Tabular Manual D Ductsize Data - Duct System 2 - Supply

---Duct Name, etc. Type [Reg.Size] Upstream Shape Sizing	Roughness Temperature Length CFM	Diameter Width Height Area	Velocity Loss/100 Fit.Eq.Len SP.Avail	SPL.Duct SPL.Fit SPL.Tot SPL.Cumul
---Duct Name: PLENUM 2, Effective Length: 7.0				
Trunk	0.0003	20	354	0.001
Up: Fan	72	16	0.011	0.000
Rect	7.0	21	0.0	0.221
Presize	825	43.2	0.199	0.401
---Duct Name: ST-8, Fittings: 8-B1A, 1-D, 13-C, Effective Length: 85.3				
Trunk	0.0003	9.8	826	0.011
Up: PLENUM 2	72	10	0.121	0.093
Rect	8.9	8	76.3	0.104
Presize	459	26.8	0.095	0.505
---Duct Name: S32, Supplies: Laundry / Landing, Fittings: 2-B, 8-A2, 4-I, 13-A, Effective Length: 25.1				
Runout, Reg: 4x10	0.0003	5	352	0.001
Up: ST-8	72	3.9	0.053	0.013
Rnd	1.6	5.5	23.5	0.013
Exact	48	2.1	0.082	0.518
---Duct Name: ST-270, Effective Length: 2.3				
Trunk	0.0003	9.8	635	0.002
Up: ST-8	72	10	0.075	0.000
Rect	2.3	8	0.0	0.002
Exact	353	7	0.093	0.507
---Duct Name: S31, Supplies: Bedroom 4, Fittings: 2-B, 8-A2, 4-I, 13-A, Effective Length: 24.9				
Runout, Reg: 4x10	0.0003	5	425	0.001
Up: ST-270	72	3.9	0.075	0.017
Rnd	1.6	5.5	23.3	0.019
Exact	58	2.1	0.075	0.525
---Duct Name: ST-280, Effective Length: 0.5				
Trunk	0.0003	9.8	531	0.000
Up: ST-270	72	10	0.054	0.000
Rect	0.5	8	0.0	0.000
Exact	295	1.5	0.093	0.507
---Duct Name: S30, Supplies: Bed 2 Ensuite, Fittings: 2-B, 8-A2, 4-I, 13-A, Effective Length: 30.3				
Runout, Reg: 4x10	0.0003	5	264	0.004
Up: ST-280	72	3.9	0.032	0.006
Rnd	11.5	5.5	18.8	0.010
Exact	36	15.1	0.083	0.517
---Duct Name: ST-7, Fitting: 12-Q1, Effective Length: 10.8				
Trunk	0.0003	8.7	583	0.005
Up: ST-280	72	8	0.073	0.003
Rect	6.2	8	4.6	0.008
Presize	259	16.5	0.085	0.515
---Duct Name: S29, Supplies: Bedroom 2, Fittings: 2-B, 8-A2, 4-I, 13-A, Effective Length: 38.7				
Runout, Reg: 4x10	0.0003	5	447	0.009
Up: ST-7	72	3.9	0.082	0.032
Rnd	11.5	5.5	27.2	0.032
Exact	61	15.1	0.054	0.546

RECEIVED
BUILDING SERVICES
PERMIT NO: 24-206538 REV 01
DATE: 12/17/2024
TOWN OF OAKVILLE

Tabular Manual D Ductsize Data - Duct System 2 - Supply (cont'd)

---Duct Name, etc. Type [Reg.Size] Upstream Shape Sizing	Roughness Temperature Length CFM	Diameter Width Height Area	Velocity Loss/100 Fit.Eq.Len SP.Avail	SPL.Duct SPL.Fit SPL.Tot SPL.Cumul
---Duct Name: ST-300, Effective Length: 5.0				
Trunk	0.0003	8.7	446	0.002
Up: ST-7	72	8	0.045	0.000
Rect	5.0	8	0.0	0.002
Exact	198	13.3	0.083	0.517
---Duct Name: S28, Supplies: Bedroom 3, Fittings: 2-B, 8-A2, 4-I, 13-A, Effective Length: 41.4				
Runout, Reg: 4x10	0.0003	6	372	0.005
Up: ST-300	72	4.7	0.047	0.014
Rnd	11.5	6.6	29.9	0.019
Exact	73	18.1	0.064	0.536
---Duct Name: ST-310, Effective Length: 3.0				
Trunk	0.0003	8.7	173	0.000
Up: ST-300	72	8	0.008	0.000
Rect	3.0	8	0.0	0.000
Exact	77	8	0.083	0.517
---Duct Name: S27, Supplies: Bedroom 2, Fittings: 2-B, 8-A2, 4-I, 13-A, Effective Length: 35.0				
Runout, Reg: 4x10	0.0003	5	447	0.009
Up: ST-310	72	3.9	0.082	0.019
Rnd	11.5	5.5	23.5	0.029
Exact	61	15.1	0.054	0.546
---Duct Name: ST-320, Effective Length: 3.0				
Trunk	0.0003	8.7	36	0.000
Up: ST-310	72	8	0.001	0.000
Rect	3.0	8	0.0	0.000
Exact	16	8	0.083	0.517
---Duct Name: S26, Supplies: Bath 1, Fittings: 2-B, 8-A2, 4-I, 13-A, Effective Length: 15.3				
Runout, Reg: 4x10	0.0003	4	183	0.001
Up: ST-320	72	3.1	0.022	0.003
Rnd	2.3	4.4	12.9	0.003
Exact	16	2.4	0.079	0.521
---Duct Name: ST-6, Fittings: 1-D, 13-C, Effective Length: 27.4				
Trunk	0.0003	9.8	659	0.002
Up: PLENUM 2	72	10	0.080	0.020
Rect	2.0	8	25.4	0.022
Presize	366	6	0.177	0.423
---Duct Name: S25, Supplies: Primary Ensuite, Fittings: 2-B, 8-A2, 4-I, 13-A, Effective Length: 40.8				
Runout, Reg: 4x10	0.0003	4	321	0.008
Up: ST-6	72	3.1	0.060	0.017
Rnd	13.3	4.4	27.5	0.025
Exact	28	14	0.152	0.448
---Duct Name: ST-340, Effective Length: 1.7				
Trunk	0.0003	9.8	608	0.001
Up: ST-6	72	10	0.069	0.000
Rect	1.7	8	0.0	0.001
Exact	338	5	0.176	0.424

RECEIVED
BUILDING SERVICES
PERMIT NO: 24-206538 REV 01
DATE: 12/17/2024
TOWN OF OAKVILLE

Tabular Manual D Ductsize Data - Duct System 2 - Supply (cont'd)

---Duct Name, etc. Type [Reg.Size] Upstream Shape Sizing	Roughness Temperature Length CFM	Diameter Width Height Area	Velocity Loss/100 Fit.Eq.Len SP.Avail	SPL.Duct SPL.Fit SPL.Tot SPL.Cumul
---Duct Name: S24, Supplies: Primary Ensuite, Fittings: 2-B, 8-A2, 4-I, 13-A, Effective Length: 26.6				
Runout, Reg: 4x10	0.0003	4	321	0.006
Up: ST-340	72	3.1	0.060	0.010
Rnd	10.1	4.4	16.5	0.016
Exact	28	10.6	0.160	0.440
---Duct Name: ST-350, Effective Length: 2.2				
Trunk	0.0003	9.8	558	0.001
Up: ST-340	72	10	0.059	0.000
Rect	2.2	8	0.0	0.001
Exact	310	6.5	0.174	0.426
---Duct Name: S23, Supplies: Primary Bedroom, Fittings: 2-B, 8-A2, 4-I, 13-A, Effective Length: 35.8				
Runout, Reg: 4x10	0.0003	6	382	0.005
Up: ST-350	72	4.7	0.049	0.013
Rnd	10.1	6.6	25.7	0.018
Exact	75	15.8	0.157	0.443
---Duct Name: ST-5, Fitting: 12-Q1, Effective Length: 10.7				
Trunk	0.0003	8.7	529	0.004
Up: ST-350	72	8	0.061	0.003
Rect	6.2	8	4.5	0.007
Presize	235	16.5	0.168	0.432
---Duct Name: S22, Supplies: Primary WIC, Fittings: 2-B, 8-A2, 4-I, 13-A, Effective Length: 28.7				
Runout, Reg: 4x10	0.0003	4	264	0.005
Up: ST-5	72	3.1	0.043	0.007
Rnd	11.3	4.4	17.3	0.012
Exact	23	11.9	0.156	0.444
---Duct Name: ST-370, Effective Length: 2.8				
Trunk	0.0003	8.7	506	0.002
Up: ST-5	72	8	0.057	0.000
Rect	2.8	8	0.0	0.002
Exact	225	7.3	0.166	0.434
---Duct Name: S21, Supplies: Primary Bedroom, Fittings: 2-B, 8-A2, 4-I, 13-A, Effective Length: 61.1				
Runout, Reg: 4x10	0.0003	6	382	0.007
Up: ST-370	72	4.7	0.049	0.023
Rnd	13.3	6.6	47.7	0.030
Exact	75	20.9	0.136	0.464
---Duct Name: ST-380, Effective Length: 1.0				
Trunk	0.0003	8.7	338	0.000
Up: ST-370	72	8	0.027	0.000
Rect	1.0	8	0.0	0.000
Exact	150	2.7	0.166	0.434
---Duct Name: S20, Supplies: Primary Bedroom, Fittings: 2-B, 8-A2, 4-I, 13-A, Effective Length: 49.3				
Runout, Reg: 4x10	0.0003	6	382	0.001
Up: ST-380	72	4.7	0.049	0.023
Rnd	3.0	6.6	46.3	0.024
Exact	75	4.7	0.142	0.458

RECEIVED
BUILDING SERVICES
PERMIT NO: 24-206538 REV 01
DATE: 12/17/2024
TOWN OF OAKVILLE

Tabular Manual D Ductsize Data - Duct System 2 - Supply (cont'd)

---Duct Name, etc. Type [Reg.Size] Upstream Shape Sizing	Roughness Temperature Length CFM	Diameter Width Height Area	Velocity Loss/100 Fit.Eq.Len SP.Avail	SPL.Duct SPL.Fit SPL.Tot SPL.Cumul
---Duct Name: ST-390, Effective Length: 1.0				
Trunk	0.0003	8.7	169	0.000
Up: ST-380	72	8	0.008	0.000
Rect	1.0	8	0.0	0.000
Exact	75	2.7	0.166	0.434
---Duct Name: S19, Supplies: Primary Bedroom, Fittings: 2-B, 8-A2, 4-I, 13-A, Effective Length: 49.9				
Runout, Reg: 4x10	0.0003	6	382	0.003
Up: ST-390	72	4.7	0.049	0.021
Rnd	6.6	6.6	43.3	0.024
Exact	75	10.3	0.141	0.459
---Duct Name: S33, Supplies: Bedroom 4, Fittings: 2-B, 8-A2, 4-I, 13-A, Effective Length: 26.1				
Runout, Reg: 4x10	0.0003	5	425	0.001
Up: ST-8	72	3.9	0.075	0.018
Rnd	1.6	5.5	24.5	0.020
Exact	58	2.1	0.076	0.524
---Duct Name: S27.5, Supplies: Laundry / Landing, Fittings: 2-B, 8-A2, 4-I, 13-A, Effective Length: 32.2				
Runout, Reg: 4x10	0.0003	5	352	0.005
Up: ST-300	72	3.9	0.053	0.013
Rnd	8.7	5.5	23.5	0.017
Exact	48	11.3	0.066	0.534

Report Units: Pressure: in.wg, Duct lengths: feet, Duct sizes: inch, Airflow: CFM, Velocity: ft./min, Temperature: F

Notes: Static pressure available values for return ducts are at the entrance of the duct. For supply, they are at the exit. The cumulative static pressure loss value for a return trunk is with respect to the entry point of the return runout upstream with the highest static pressure available. Total and cumulative static pressure loss values for the supply main trunk include any device pressure losses entered, and the cumulative may also include the total static pressure loss of the return side.

Summary

Number of active trunks:	15	
Number of active runouts:	16	
Total runout outlet airflow:	838	
Main trunk airflow:	825	
Largest trunk diameter:	20	PLENUM 2
Largest runout diameter:	6	S28
Smallest trunk diameter:	8.7	ST-7
Smallest runout diameter:	4	S26
Supply fan external static pressure:	0.600	
Supply fan device pressure losses:	0.220	
Direct expansion refrigerant coil:	0.2	
Supply outlet:	0.01	
Return grille:	0.01	
Supply fan static pressure available:	0.380	
Runout maximum cumulative static pressure loss:	0.546	S29
Return loss added to supply:	0.181	
Total effective length of return (ft.):	343.5	R8
Total effective length of supply (ft.):	144.5	S29

RECEIVED
BUILDING SERVICES
PERMIT NO: 24-206538 REV 01
DATE: 12/17/2024
TOWN OF OAKVILLE

Tabular Manual D Ductsize Data - Duct System 2 - Supply (cont'd)

Summary

Overall total effective length (ft.):	488.0	R8 to S29
Design overall friction rate per 100 ft.:	0.078	(Available SP x 100 / TEL) Status: OK
System duct surface area (Scenario 1):	342.3	(Not linked to duct load)
Total system duct surface area:	342.3	

RECEIVED
BUILDING SERVICES
PERMIT NO: 24-206538 REV 01
DATE: 12/17/2024
TOWN OF OAKVILLE

Tabular Manual D Ductsize Data - Duct System 1 - Return

---Duct Name, etc. Type [Reg.Size] Upstream Shape Sizing	Roughness Temperature Length CFM	Diameter Width Height Area	Velocity Loss/100 Fit.Eq.Len SP.Avail	SPL.Duct SPL.Fit SPL.Tot SPL.Cumul
---Duct Name: DROP, Fittings: 5-H1, 5-N, Effective Length: 161.1				
Trunk	0.0003	16.5	616	0.003
Up: Fan	72	24	0.040	0.062
Rect	7.0	10	154.1	0.065
Presize	1,026	39.7	-0.154	0.218
---Duct Name: RT-C, Effective Length: 5.0				
Trunk	0.0003	16.5	616	0.002
Up: DROP	72	24	0.040	0.000
Rect	5.0	10	0.0	0.002
Presize	1,026	28.3	-0.152	0.216
---Duct Name: RTJS-110, Fitting: 7-C, Effective Length: 101.3				
Trunk	0.005	12.8	615	0.011
Up: RT-C	72	14.5	0.078	0.068
Rect	14.5	9.5	86.8	0.079
Presize	588	58	-0.072	0.137
---Duct Name: RT-B, Effective Length: 1.8				
Trunk	0.0003	12.2	662	0.001
Up: RTJS-110	72	16	0.065	0.000
Rect	1.8	8	0.0	0.001
Presize	588	7.3	-0.071	0.136
---Duct Name: RTJS-130, Fitting: 7-C, Effective Length: 9.1				
Trunk	0.005	12.8	157	0.000
Up: RT-B	72	14.5	0.006	0.000
Rect	2.0	9.5	7.1	0.001
Presize	150	8	-0.071	0.019
---Duct Name: R5, Fittings: 7-A, 7-B, Effective Length: 13.6				
Runout, Reg: 14x8	0.005	6.9	475	0.003
Up: RTJS-130	72	14	0.132	0.015
Rect	2.5	3.2	11.1	0.018
Presize	150	7.2	-0.053	0.018
---Duct Name: RT-140, Effective Length: 5.6				
Trunk	0.0003	12.2	493	0.002
Up: RT-B	72	16	0.038	0.000
Rect	5.6	8	0.0	0.002
Exact	438	22.3	-0.069	0.134
---Duct Name: RTJS-150, Fittings: 7-C, 7-C5, Effective Length: 35.7				
Trunk	0.005	12.8	92	0.000
Up: RT-140	72	14.5	0.002	0.001
Rect	2.8	9.5	32.9	0.001
Presize	88	11	-0.068	0.006
---Duct Name: R4, Fittings: 7-A, 7-B, Effective Length: 11.9				
Runout, Reg: 14x6	0.005	6.9	279	0.001
Up: RTJS-150	72	14	0.047	0.004
Rect	2.5	3.2	9.4	0.006
Presize	88	7.2	-0.063	0.006

RECEIVED
BUILDING SERVICES
PERMIT NO: 24-206538 REV 01
DATE: 12/17/2024
TOWN OF OAKVILLE

Tabular Manual D Ductsize Data - Duct System 1 - Return (cont'd)

---Duct Name, etc. Type [Reg.Size] Upstream Shape Sizing	Roughness Temperature Length CFM	Diameter Width Height Area	Velocity Loss/100 Fit.Eq.Len SP.Avail	SPL.Duct SPL.Fit SPL.Tot SPL.Cumul
---Duct Name: RT-160, Effective Length: 5.5				
Trunk	0.0003	12.2	394	0.001
Up: RT-140	72	16	0.025	0.000
Rect	5.5	8	0.0	0.001
Exact	350	22	-0.068	0.132
---Duct Name: RTJS-170, Fittings: 7-C, 7-C5, Effective Length: 79.4				
Trunk	0.005	12.8	366	0.001
Up: RT-160	72	14.5	0.029	0.022
Rect	2.8	9.5	76.7	0.023
Presize	350	11	-0.045	0.110
---Duct Name: R3, Fittings: 7-A, 7-D, Effective Length: 127.1				
Runout, Reg: 30x8	0.005	12.2	343	0.001
Up: RTJS-170	72	28	0.035	0.044
Rect	2.5	5.2	124.6	0.045
Presize	350	13.9	0.000	0.045
---Duct Name: RT-A, Fitting: 12-H1, Effective Length: 24.7				
Trunk	0.0003	10.7	657	0.009
Up: RT-C	72	12	0.073	0.009
Rect	13.0	8	11.7	0.018
Presize	438	43.3	-0.134	0.088
---Duct Name: RTJS-190, Fitting: 7-C, Effective Length: 15.6				
Trunk	0.005	12.8	92	0.000
Up: RT-A	72	14.5	0.002	0.000
Rect	9.0	9.5	6.6	0.000
Presize	88	36	-0.133	0.009
---Duct Name: R2, Fittings: 7-A, 7-D, Effective Length: 18.6				
Runout, Reg: 14x6	0.005	6.9	279	0.003
Up: RTJS-190	72	14	0.047	0.006
Rect	6.5	3.2	12.1	0.009
Presize	88	18.7	-0.124	0.009
---Duct Name: RT-200, Effective Length: 4.0				
Trunk	0.0003	10.7	525	0.002
Up: RT-A	72	12	0.048	0.000
Rect	4.0	8	0.0	0.002
Exact	350	13.3	-0.132	0.086
---Duct Name: RTJS-210, Fittings: 7-C, 7-C5, Effective Length: 79.4				
Trunk	0.005	12.8	366	0.001
Up: RT-200	72	14.5	0.029	0.022
Rect	2.8	9.5	76.7	0.023
Presize	350	11	-0.109	0.063
---Duct Name: R1, Fittings: 7-A, 7-D, Effective Length: 127.1				
Runout, Reg: 30x8	0.005	12.2	343	0.001
Up: RTJS-210	72	28	0.035	0.044
Rect	2.5	5.2	124.6	0.045
Presize	350	13.9	-0.064	0.045

RECEIVED
BUILDING SERVICES
PERMIT NO: 24-206538 REV 01
DATE: 12/17/2024
TOWN OF OAKVILLE

Tabular Manual D Ductsize Data - Duct System 1 - Return (cont'd)

---Duct Name, etc.				
Type [Reg.Size]	Roughness	Diameter	Velocity	SPL.Duct
Upstream	Temperature	Width	Loss/100	SPL.Fit
Shape	Length	Height	Fit.Eq.Len	SPL.Tot
Sizing	CFM	Area	SP.Avail	SPL.Cumul

Report Units: Pressure: in.wg, Duct lengths: feet, Duct sizes: inch, Airflow: CFM, Velocity: ft./min, Temperature: F

Notes: Static pressure available values for return ducts are at the entrance of the duct. For supply, they are at the exit. The cumulative static pressure loss value for a return trunk is with respect to the entry point of the return runout upstream with the highest static pressure available. Total and cumulative static pressure loss values for the supply main trunk include any device pressure losses entered, and the cumulative may also include the total static pressure loss of the return side.

Summary

Number of active trunks:	13	
Number of active runouts:	5	
Total runout outlet airflow:	1,026	
Main trunk airflow:	1,026	
Largest trunk diameter:	16.5	DROP
Largest runout diameter:	12.2	R3
Smallest trunk diameter:	10.7	RT-A
Smallest runout diameter:	6.9	R5
Runout maximum cumulative static pressure loss:	0.045	R3
Return loss added to supply:	0.218	
Total effective length of return (ft.):	486.8	R3
System duct surface area (Scenario 1):	372.1	(Not linked to duct load)
Total system duct surface area:	372.1	

RECEIVED
BUILDING SERVICES
PERMIT NO: 24-206538 REV 01
DATE: 12/17/2024
TOWN OF OAKVILLE

Tabular Manual D Ductsize Data - Duct System 2 - Return

---Duct Name, etc. Type [Reg.Size] Upstream Shape Sizing	Roughness Temperature Length CFM	Diameter Width Height Area	Velocity Loss/100 Fit.Eq.Len SP.Avail	SPL.Duct SPL.Fit SPL.Tot SPL.Cumul
---Duct Name: DROP 2, Fittings: 5-H1, 5-N, Effective Length: 133.4				
Trunk	0.0003	14.6	620	0.003
Up: Fan	72	24	0.050	0.063
Rect	7.0	8	126.4	0.066
Presize	826	37.3	-0.114	0.181
---Duct Name: RT-G, Effective Length: 5.0				
Trunk	0.0003	14.6	620	0.002
Up: DROP 2	72	24	0.050	0.000
Rect	5.0	8	0.0	0.002
Presize	826	26.7	-0.112	0.178
---Duct Name: RT-F, Fitting: 10-A, Effective Length: 86.0				
Trunk	0.0003	12.2	664	0.002
Up: RT-G	72	16	0.065	0.054
Rect	3.0	8	83.0	0.056
Presize	590	12	-0.056	0.122
---Duct Name: R12, Fittings: 9-A1, 8-A2, 6-G, Effective Length: 61.4				
Runout, Reg: 14x6	0.0003	7	442	0.003
Up: RT-F	72	5.4	0.052	0.029
Rnd	6.5	7.7	54.9	0.032
Exact	118	11.9	-0.024	0.032
---Duct Name: RT-240, Effective Length: 1.0				
Trunk	0.0003	12.2	531	0.000
Up: RT-F	72	16	0.043	0.000
Rect	1.0	8	0.0	0.000
Exact	472	4	-0.056	0.122
---Duct Name: R11, Fittings: 9-A1, 8-A2, 6-G, 7-C5, Effective Length: 85.7				
Runout, Reg: 14x6	0.0003	7	442	0.003
Up: RT-240	72	5.4	0.052	0.042
Rnd	6.5	7.7	79.2	0.045
Exact	118	11.9	-0.011	0.045
---Duct Name: RT-250, Effective Length: 3.5				
Trunk	0.0003	12.2	398	0.001
Up: RT-240	72	16	0.026	0.000
Rect	3.5	8	0.0	0.001
Exact	354	14	-0.055	0.121
---Duct Name: R10, Fittings: 9-A1, 8-A2, 6-G, 7-C5, Effective Length: 92.5				
Runout, Reg: 14x6	0.0003	7	442	0.007
Up: RT-250	72	5.4	0.052	0.042
Rnd	13.3	7.7	79.2	0.048
Exact	118	24.3	-0.006	0.048
---Duct Name: RT-E, Fitting: 12-H1, Effective Length: 22.8				
Trunk	0.0003	9.8	425	0.005
Up: RT-250	72	10	0.036	0.004
Rect	13.0	8	9.8	0.008
Presize	236	39	-0.046	0.113

RECEIVED
BUILDING SERVICES
PERMIT NO: 24-206538 REV 01
DATE: 12/17/2024
TOWN OF OAKVILLE

Tabular Manual D Ductsize Data - Duct System 2 - Return (cont'd)

---Duct Name, etc. Type [Reg.Size] Upstream Shape Sizing	Roughness Temperature Length CFM	Diameter Width Height Area	Velocity Loss/100 Fit.Eq.Len SP.Avail	SPL.Duct SPL.Fit SPL.Tot SPL.Cumul
---Duct Name: R9, Fittings: 9-A1, 8-A2, 6-G, Effective Length: 68.2				
Runout, Reg: 14x6	0.0003	7	442	0.007
Up: RT-E	72	5.4	0.052	0.029
Rnd	13.3	7.7	54.9	0.036
Exact	118	24.3	-0.011	0.036
---Duct Name: RT-270, Effective Length: 4.1				
Trunk	0.0003	9.8	212	0.000
Up: RT-E	72	10	0.011	0.000
Rect	4.1	8	0.0	0.000
Exact	118	12.2	-0.046	0.112
---Duct Name: R8, Fittings: 9-A1, 8-A2, 6-G, 7-C5, Effective Length: 87.7				
Runout, Reg: 14x6	0.0003	7	442	0.004
Up: RT-270	72	5.4	0.052	0.042
Rnd	8.5	7.7	79.2	0.046
Exact	118	15.6	0.000	0.046
---Duct Name: RT-D, Fitting: 10-A, Effective Length: 76.9				
Trunk	0.0003	9.8	425	0.006
Up: RT-G	72	10	0.036	0.022
Rect	16.0	8	60.9	0.028
Presize	236	48	-0.084	0.072
---Duct Name: R7, Fittings: 9-A1, 8-A2, 6-G, Effective Length: 59.9				
Runout, Reg: 14x6	0.0003	7	442	0.003
Up: RT-D	72	5.4	0.052	0.029
Rnd	5.0	7.7	54.9	0.031
Exact	118	9.2	-0.053	0.031
---Duct Name: RT-290, Effective Length: 2.0				
Trunk	0.0003	9.8	212	0.000
Up: RT-D	72	10	0.011	0.000
Rect	2.0	8	0.0	0.000
Exact	118	6	-0.084	0.072
---Duct Name: R6, Fittings: 9-A1, 8-A2, 6-G, 7-C5, Effective Length: 84.2				
Runout, Reg: 14x6	0.0003	7	442	0.003
Up: RT-290	72	5.4	0.052	0.042
Rnd	5.0	7.7	79.2	0.044
Exact	118	9.2	-0.040	0.044

Report Units: Pressure: in.wg, Duct lengths: feet, Duct sizes: inch, Airflow: CFM, Velocity: ft./min, Temperature: F

Notes: Static pressure available values for return ducts are at the entrance of the duct. For supply, they are at the exit. The cumulative static pressure loss value for a return trunk is with respect to the entry point of the return runout upstream with the highest static pressure available. Total and cumulative static pressure loss values for the supply main trunk include any device pressure losses entered, and the cumulative may also include the total static pressure loss of the return side.

Summary	
Number of active trunks:	9
Number of active runouts:	7

RECEIVED
BUILDING SERVICES
PERMIT NO: 24-206538 REV 01
DATE: 12/17/2024
TOWN OF OAKVILLE

Tabular Manual D Ductsize Data - Duct System 2 - Return (cont'd)

Summary

Total runout outlet airflow:	826	
Main trunk airflow:	826	
Largest trunk diameter:	14.6	DROP 2
Largest runout diameter:	7	R12
Smallest trunk diameter:	9.8	RT-E
Smallest runout diameter:	7	R12
Runout maximum cumulative static pressure loss:	0.046	R8
Return loss added to supply:	0.181	
Total effective length of return (ft.):	343.5	R8
System duct surface area (Scenario 1):	305.5	(Not linked to duct load)
Total system duct surface area:	305.5	

Notes

Rhvac is an ACCA approved Manual J, D and S computer program.
Calculations are performed per ACCA Manual J 8th Edition, Version 2.50, and ACCA Manual D.
All computed results are estimates as building use and weather may vary.
Be sure to select a unit that meets both sensible and latent loads according to the manufacturer's performance data at your design conditions.

RECEIVED
BUILDING SERVICES
PERMIT NO: 24-206538 REV 01
DATE: 12/17/2024
TOWN OF OAKVILLE

Total Building Summary Loads

Component Description	Area Quan	Sen Loss	Lat Gain	Sen Gain	Total Gain
Mtv. JeldWen: Glazing-Standard window specs for Mountainview Jeld wen. fixed sash, 3mmLowE/3mm, Argon, 5/8, U-value 0.29, SHGC 0.49	566.6	12,389	0	20,896	20,896
8D-umi: Glazing-Skylight, Flat double pane low-e (e = 0.40), curb and light shaft, metal sash no break, curb R-6 or more, light shaft R-6 or more, horizontal, U-value 0.44, SHGC 0.26	16	531	0	959	959
11O: Door-Metal - Polystyrene Core With Storm, U-value 0.21	57.4	909	0	265	265
BsmtHeatLoss: Part-Frame, Custom, 8" Concrete, R20 Blanket to Floor, Concrete Slab. Used for Foundation Heat Loss, U-value 1	1380.7	5,565	0	0	0
BrickHeader: Part-Frame, Custom, 4" Brick, 1" Air Space, Building Paper, 1.5" Rim Joist, Header Space @ 24"oc. w/R22 Batts Effective R = 23.44 , U-value 0.043	59.8	192	0	4	4
BrickHeader: Wall-Frame, Custom, 4" Brick, 1" Air Space, Building Paper, 1.5" Rim Joist, Header Space @ 24"oc. w/R22 Batts Effective R = 23.44 , U-value 0.043	84.9	274	0	29	29
Glass Area: Wall-Frame, Custom, Glass Area , U-value 1	0	0	0	0	0
BrickWall: Wall-Frame, Custom, O/A, Brick, Air Space, Building Paper,1/2"OSB, 2x6 @ 16"oc w/R22 Batts, 1/2" Drywall, I/A Effective R = 17.91 , U-value 0.056	731.5	3,077	0	327	327
SidingHeader: Wall-Frame, Custom, Siding, 1" Air Space, Building Paper, 1.5" Rim Joist, Header Space @ 24"oc. w/R22 Batts Effective R = 23.66 , U-value 0.042	115.6	369	0	39	39
CustomPartitionWall2: Part-Frame, Custom, 1/2" Drywall, 2x6 Studs @ 16" oc w/R22 Batt Insulation, 1/2" Drywall, U-value 0.057	146.6	630	0	16	16
SidingHeader: Part-Frame, Custom, Siding, 1" Air Space, Building Paper, 1.5" Rim Joist, Header Space @ 24"oc. w/R22 Batts Effective R = 23.66 , U-value 0.042	15.2	49	0	1	1
SidingWall: Wall-Frame, Custom, O/A,Siding, Building Paper,1/2"OSB, 2x6 @ 16"oc w/R22 Batts, 1/2" Drywall, I/A Effective R = 17.11 , U-value 0.058	1480.3	6,519	0	692	692

RECEIVED
BUILDING SERVICES
PERMIT NO: 24-206538 REV 01
DATE: 12/17/2024
TOWN OF OAKVILLE

Total Building Summary Loads (cont'd)

Component Description	Area Quan	Sen Loss	Lat Gain	Sen Gain	Total Gain
RoofA1: Roof/Ceiling-Under Attic with Insulation on Attic Floor (also use for Knee Walls and Partition Ceilings), Custom, Asphalt Shingles, 3/8" Plywood Sheathing, 2x4 Ceiling joist @ 24" oc. w/3.5" Glass Fibre Blown-in, 19" Glass Fibre Blown-in, 5/8" Drywall Ceiling, U-value 0.016	1831.1	2,252	0	1,374	1,374
A1ExpFoor: Floor-Over open crawl space or garage, Custom, Effective R = 29.80, U-value 0.034	480.3	1,231	0	98	98
Subtotals for structure:		33,987	0	24,700	24,700
People:	5		1,000	1,195	2,195
Equipment:			0	4,994	4,994
Lighting:	0			0	0
Ductwork:		0	0	0	0
Infiltration: Winter CFM: 131, Summer CFM: 36		10,718	952	428	1,380
Ventilation: Winter CFM: 190, Summer CFM: 190		3,742	5,061	2,275	7,336
Exhaust: Winter CFM: 190, Summer CFM: 190					
AED Excursion:		0	0	3,474	3,474
Total Building Load Totals:		48,447	7,013	37,065	44,079

Check Figures

Total Building Supply CFM:	1,850	CFM Per Square ft.:	0.436
Square ft. of Room Area:	4,242	Square ft. Per Ton:	1,155
Volume (ft³):	36,290		

Building Loads

Total Heating Required Including Ventilation Air:	48,447	Btuh	48.447	MBH
Total Sensible Gain:	37,065	Btuh	84	%
Total Latent Gain:	7,013	Btuh	16	%
Total Cooling Required Including Ventilation Air:	44,079	Btuh	3.67	Tons (Based On Sensible + Latent)

Notes

Rhvac is an ACCA approved Manual J, D and S computer program.
Calculations are performed per ACCA Manual J 8th Edition, Version 2.50, and ACCA Manual D.
All computed results are estimates as building use and weather may vary.
Be sure to select a unit that meets both sensible and latent loads according to the manufacturer's performance data at your design conditions.

RECEIVED
BUILDING SERVICES
PERMIT NO: 24-206538 REV 01
DATE: 12/17/2024
TOWN OF OAKVILLE

System 1 Summary Loads

Component Description	Area Quan	Sen Loss	Lat Gain	Sen Gain	Total Gain
Mtv. JeldWen: Glazing-Standard window specs for Mountainview Jeld wen. fixed sash, 3mmLowE/3mm, Argon, 5/8, U-value 0.29, SHGC 0.49	288.7	6,313	0	11,206	11,206
11O: Door-Metal - Polystyrene Core With Storm, U-value 0.21	57.4	909	0	265	265
BsmtHeatLoss: Part-Frame, Custom, 8" Concrete, R20 Blanket to Floor, Concrete Slab. Used for Foundation Heat Loss, U-value 1	1380.7	5,565	0	0	0
BrickHeader: Part-Frame, Custom, 4" Brick, 1" Air Space, Building Paper, 1.5" Rim Joist, Header Space @ 24"oc. w/R22 Batts Effective R = 23.44 , U-value 0.043	59.8	192	0	4	4
BrickHeader: Wall-Frame, Custom, 4" Brick, 1" Air Space, Building Paper, 1.5" Rim Joist, Header Space @ 24"oc. w/R22 Batts Effective R = 23.44 , U-value 0.043	84.9	274	0	29	29
Glass Area: Wall-Frame, Custom, Glass Area , U-value 1	0	0	0	0	0
BrickWall: Wall-Frame, Custom, O/A, Brick, Air Space, Building Paper,1/2"OSB, 2x6 @ 16"oc w/R22 Batts, 1/2" Drywall, I/A Effective R = 17.91 , U-value 0.056	731.5	3,077	0	327	327
SidingHeader: Wall-Frame, Custom, Siding, 1" Air Space, Building Paper, 1.5" Rim Joist, Header Space @ 24"oc. w/R22 Batts Effective R = 23.66 , U-value 0.042	115.6	369	0	39	39
CustomPartitionWall2: Part-Frame, Custom, 1/2" Drywall, 2x6 Studs @ 16" oc w/R22 Batt Insulation, 1/2" Drywall, U-value 0.057	146.6	630	0	16	16
SidingHeader: Part-Frame, Custom, Siding, 1" Air Space, Building Paper, 1.5" Rim Joist, Header Space @ 24"oc. w/R22 Batts Effective R = 23.66 , U-value 0.042	15.2	49	0	1	1
SidingWall: Wall-Frame, Custom, O/A,Siding, Building Paper,1/2"OSB, 2x6 @ 16"oc w/R22 Batts, 1/2" Drywall, I/A Effective R = 17.11 , U-value 0.058	63.3	279	0	30	30
Subtotals for structure:		17,657	0	11,917	11,917
People:	5		1,000	1,195	2,195
Equipment:			0	3,594	3,594
Lighting:	0			0	0
Ductwork:		0	0	0	0
Infiltration: Winter CFM: 71, Summer CFM: 19		5,798	512	229	741

RECEIVED
BUILDING SERVICES
PERMIT NO: 24-206538 REV 01
DATE: 12/17/2024
TOWN OF OAKVILLE

System 1 Summary Loads (cont'd)

Component Description	Area Quan	Sen Loss	Lat Gain	Sen Gain	Total Gain
Ventilation: Winter CFM: 95, Summer CFM: 95		1,871	2,531	1,137	3,668
Exhaust: Winter CFM: 95, Summer CFM: 95					
AED Excursion:		0	0	2,095	2,095
System 1 Load Totals:		25,326	4,043	20,167	24,210

Check Figures

Supply CFM:	1,025	CFM Per Square ft.:	0.423
Square ft. of Room Area:	2,423	Square ft. Per Ton:	1,201
Volume (ft³):	21,301		

System Loads

Total Heating Required Including Ventilation Air:	25,326	Btuh	25.326	MBH
Total Sensible Gain:	20,167	Btuh	83	%
Total Latent Gain:	4,043	Btuh	17	%
Total Cooling Required Including Ventilation Air:	24,210	Btuh	2.02	Tons (Based On Sensible + Latent)

Notes

Rhvac is an ACCA approved Manual J, D and S computer program.
Calculations are performed per ACCA Manual J 8th Edition, Version 2.50, and ACCA Manual D.
All computed results are estimates as building use and weather may vary.
Be sure to select a unit that meets both sensible and latent loads according to the manufacturer's performance data at your design conditions.

RECEIVED
BUILDING SERVICES
PERMIT NO: 24-206538 REV 01
DATE: 12/17/2024
TOWN OF OAKVILLE

System 2 Copy of system 1 Summary Loads

Component Description	Area Quan	Sen Loss	Lat Gain	Sen Gain	Total Gain
Mtv. JeldWen: Glazing-Standard window specs for Mountainview Jeld wen. fixed sash, 3mmLowE/3mm, Argon, 5/8, U-value 0.29, SHGC 0.49	277.9	6,076	0	9,690	9,690
8D-umi: Glazing-Skylight, Flat double pane low-e (e = 0.40), curb and light shaft, metal sash no break, curb R-6 or more, light shaft R-6 or more, horizontal, U-value 0.44, SHGC 0.26	16	531	0	959	959
SidingWall: Wall-Frame, Custom, O/A,Siding, Building Paper,1/2"OSB, 2x6 @ 16"oc w/R22 Batts, 1/2" Drywall, I/A Effective R = 17.11 , U-value 0.058	1417	6,240	0	662	662
RoofA1: Roof/Ceiling-Under Attic with Insulation on Attic Floor (also use for Knee Walls and Partition Ceilings), Custom, Asphalt Shingles, 3/8" Plywood Sheathing, 2x4 Ceiling joist @ 24" oc. w/3.5" Glass Fibre Blown-in, 19" Glass Fibre Blown-in, 5/8" Drywall Ceiling, U-value 0.016	1831.1	2,252	0	1,374	1,374
A1ExpFoor: Floor-Over open crawl space or garage, Custom, Effective R = 29.80, U-value 0.034	480.3	1,231	0	98	98
Subtotals for structure:		16,330	0	12,783	12,783
People:	0		0	0	0
Equipment:			0	1,400	1,400
Lighting:	0			0	0
Ductwork:		0	0	0	0
Infiltration: Winter CFM: 60, Summer CFM: 16		4,920	440	199	639
Ventilation: Winter CFM: 95, Summer CFM: 95		1,871	2,531	1,137	3,668
Exhaust: Winter CFM: 95, Summer CFM: 95					
AED Excursion:		0	0	1,379	1,379
System 2 Copy of system 1 Load Totals:		23,121	2,971	16,898	19,869

Check Figures

Supply CFM:	825	CFM Per Square ft.:	0.454
Square ft. of Room Area:	1,819	Square ft. Per Ton:	1,098
Volume (ft³):	14,989		

System Loads

Total Heating Required Including Ventilation Air:	23,121	Btuh	23.121	MBH
Total Sensible Gain:	16,898	Btuh	85	%
Total Latent Gain:	2,971	Btuh	15	%
Total Cooling Required Including Ventilation Air:	19,869	Btuh	1.66	Tons (Based On Sensible + Latent)

Notes

Rhvac is an ACCA approved Manual J, D and S computer program.
Calculations are performed per ACCA Manual J 8th Edition, Version 2.50, and ACCA Manual D.
All computed results are estimates as building use and weather may vary.
Be sure to select a unit that meets both sensible and latent loads according to the manufacturer's performance data at your design conditions.

RECEIVED
BUILDING SERVICES
PERMIT NO: 24-206538 REV 01
DATE: 12/17/2024
TOWN OF OAKVILLE

Detailed Room Loads - Room 1 - Gym (Average Load Procedure)

General

Calculation Mode:	Htg. & clg.		Occurrences:	1	
Room Length:	n/a		System Number:	1	
Room Width:	n/a		Zone Number:	1	
Area:	234.9	sq.ft.	Supply Air:	41	CFM
Ceiling Height:	8.8	ft.	Supply Air Changes:	1.2	AC/hr
Volume:	2,055	cu.ft.	Req. Vent. Clg:	0	CFM
Number of Registers:	1		Actual Winter Vent.:	8	CFM
			Percent of Supply.:	18	%
			Actual Summer Vent.:	2	CFM
			Percent of Supply:	4	%
			Actual Winter Infil.:	7	CFM
			Actual Summer Infil.:	2	CFM

Item Description	Area Quantity	-U- Value	Htg HTM	Sen Loss	Clg HTM	Lat Gain	Sen Gain
N -Part-0°/4.03°-BsmtHeatLoss 33.2 X 7.9	262.7	1.000	4.0	1,059	0.0	0	0
N -Part--1°/75.4°-BrickHeader 6 X 0.8	5	0.043	3.2	16	0.1	0	0
SE-Wall-BrickHeader 11.9 X 0.8	9.9	0.043	3.2	32	0.3	0	3
SW-Wall-BrickHeader 15.2 X 0.8	12.7	0.043	3.2	41	0.3	0	4
SW-Wall-Glass Area 3.3 X 2	0	1.000	75.4	0	6.6	0	0
SW-Gls-Mtv. JeldWen shgc-0.49 0%S	6.7	0.290	21.9	146	42.6	0	284
Subtotals for Structure:				1,294		0	291
Infil.: Win.: 7.1, Sum.: 1.9	297		1.970	585	0.077	52	23
AED Excursion:							39
Room Totals:				1,879		52	353

RECEIVED
BUILDING SERVICES
PERMIT NO: 24-206538 REV 01
DATE: 12/17/2024
TOWN OF OAKVILLE

Detailed Room Loads - Room 2 - Storage (Average Load Procedure)

General

Calculation Mode:	Htg. & clg.		Occurrences:	1	
Room Length:	n/a		System Number:	1	
Room Width:	n/a		Zone Number:	1	
Area:	285.0	sq.ft.	Supply Air:	57	CFM
Ceiling Height:	8.8	ft.	Supply Air Changes:	1.4	AC/hr
Volume:	2,494	cu.ft.	Req. Vent. Clg:	0	CFM
Number of Registers:	1		Actual Winter Vent.:	10	CFM
			Percent of Supply.:	18	%
			Actual Summer Vent.:	0	CFM
			Percent of Supply:	0	%
			Actual Winter Infil.:	10	CFM
			Actual Summer Infil.:	3	CFM

Item Description	Area Quantity	-U- Value	Htg HTM	Sen Loss	Clg HTM	Lat Gain	Sen Gain
N -Part-0°/4.03°-BsmtHeatLoss 49.8 X 7.9	394	1.000	4.0	1,588	0.0	0	0
SW-Wall-BrickHeader 15.9 X 0.8	13.2	0.043	3.2	43	0.3	0	5
N -Part--1°/75.4°-BrickHeader 33.8 X 0.8	28.1	0.043	3.2	90	0.1	0	2
Subtotals for Structure:				1,721		0	7
Infil.: Win.: 10.4, Sum.: 2.8	435		1.969	857	0.078	76	34
AED Excursion:							5
Room Totals:				2,578		76	46

RECEIVED
BUILDING SERVICES
PERMIT NO: 24-206538 REV 01
DATE: 12/17/2024
TOWN OF OAKVILLE

Detailed Room Loads - Room 3 - Mechanical Room (Average Load Procedure)

General

Calculation Mode:	Htg. & clg.		Occurrences:	1	
Room Length:	n/a		System Number:	1	
Room Width:	n/a		Zone Number:	1	
Area:	297.0	sq.ft.	Supply Air:	32	CFM
Ceiling Height:	8.8	ft.	Supply Air Changes:	0.7	AC/hr
Volume:	2,599	cu.ft.	Req. Vent. Clg:	0	CFM
Number of Registers:	1		Actual Winter Vent.:	6	CFM
			Percent of Supply.:	18	%
			Actual Summer Vent.:	2	CFM
			Percent of Supply:	5	%
			Actual Winter Infil.:	5	CFM
			Actual Summer Infil.:	1	CFM

Item Description	Area Quantity	-U- Value	Htg HTM	Sen Loss	Clg HTM	Lat Gain	Sen Gain
N -Part-0°/4.03°-BsmtHeatLoss 24.7 X 7.9	195.3	1.000	4.0	787	0.0	0	0
SE-Wall-BrickHeader 12.3 X 0.8	10.2	0.043	3.2	33	0.3	0	3
SE-Wall-Glass Area 3.3 X 2	0	1.000	75.4	0	6.6	0	0
N -Part--1°/75.4°-BrickHeader 12.3 X 0.8	10.2	0.043	3.2	33	0.1	0	1
SE-Gls-Mtv. JeldWen shgc-0.49 0%S	6.7	0.290	21.9	146	42.6	0	284
Subtotals for Structure:				999		0	288
Infil.: Win.: 5.3, Sum.: 1.4	222		1.969	438	0.076	39	17
AED Excursion:							38
Room Totals:				1,437		39	343

RECEIVED
BUILDING SERVICES
PERMIT NO: 24-206538 REV 01
DATE: 12/17/2024
TOWN OF OAKVILLE

Detailed Room Loads - Room 4 - B Bath (Average Load Procedure)

General

Calculation Mode:	Htg. & clg.		Occurrences:	1	
Room Length:	n/a		System Number:	1	
Room Width:	n/a		Zone Number:	1	
Area:	52.1	sq.ft.	Supply Air:	17	CFM
Ceiling Height:	8.8	ft.	Supply Air Changes:	2.2	AC/hr
Volume:	456	cu.ft.	Req. Vent. Clg:	0	CFM
Number of Registers:	1		Actual Winter Vent.:	3	CFM
			Percent of Supply.:	18	%
			Actual Summer Vent.:	0	CFM
			Percent of Supply:	0	%
			Actual Winter Infil.:	3	CFM
			Actual Summer Infil.:	1	CFM

Item Description	Area Quantity	-U- Value	Htg HTM	Sen Loss	Clg HTM	Lat Gain	Sen Gain
N -Part-0°/4.03°-BsmtHeatLoss 14.8 X 7.9	116.8	1.000	4.0	471	0.0	0	0
N -Part--1°/75.4°-BrickHeader 5.9 X 0.8	4.9	0.043	3.2	16	0.1	0	0
SW-Wall-BrickHeader 8.9 X 0.8	7.4	0.043	3.2	24	0.3	0	3
Subtotals for Structure:				511		0	3
Infil.: Win.: 3.1, Sum.: 0.8	129		1.967	254	0.077	22	10
AED Excursion:							2
Room Totals:				765		22	15

RECEIVED
BUILDING SERVICES
PERMIT NO: 24-206538 REV 01
DATE: 12/17/2024
TOWN OF OAKVILLE

Detailed Room Loads - Room 5 - Rec Room (Average Load Procedure)

General

Calculation Mode:	Htg. & clg.		Occurrences:	1	
Room Length:	n/a		System Number:	1	
Room Width:	n/a		Zone Number:	1	
Area:	336.2	sq.ft.	Supply Air:	66	CFM
Ceiling Height:	8.8	ft.	Supply Air Changes:	1.3	AC/hr
Volume:	2,941	cu.ft.	Req. Vent. Clg:	0	CFM
Number of Registers:	2		Actual Winter Vent.:	12	CFM
			Percent of Supply.:	18	%
			Actual Summer Vent.:	3	CFM
			Percent of Supply:	4	%
			Actual Winter Infil.:	11	CFM
			Actual Summer Infil.:	3	CFM

Item Description	Area Quantity	-U-Value	Htg HTM	Sen Loss	Clg HTM	Lat Gain	Sen Gain
N -Part-0°/4.03°-BsmtHeatLoss 52 X 7.9	411.8	1.000	4.0	1,660	0.0	0	0
N -Part--1°/75.4°-BrickHeader 14 X 0.8	11.6	0.043	3.2	37	0.1	0	1
NE-Wall-BrickHeader 24 X 0.8	19.9	0.043	3.2	64	0.3	0	7
SE-Wall-BrickHeader 14 X 0.8	11.6	0.043	3.2	37	0.3	0	4
NE-Wall-Glass Area 3.3 X 2	0	1.000	75.4	0	6.6	0	0
NE-Wall-Glass Area 3.3 X 2	0	1.000	75.4	0	6.6	0	0
NE-Gls-Mtv. JeldWen shgc-0.49 0%S	6.7	0.290	21.9	146	33.0	0	220
NE-Gls-Mtv. JeldWen shgc-0.49 0%S	6.7	0.290	21.9	146	33.0	0	220
Subtotals for Structure:				2,090		0	452
Infil.: Win.: 11.2, Sum.: 3.0	468		1.969	922	0.079	81	37
AED Excursion:							60
Room Totals:				3,012		81	549

RECEIVED
BUILDING SERVICES
PERMIT NO: 24-206538 REV 01
DATE: 12/17/2024
TOWN OF OAKVILLE

Detailed Room Loads - Room 6 - Din/Kit/Gre/Foy (Average Load Procedure)

General

Calculation Mode:	Htg. & clg.		Occurrences:	1	
Room Length:	n/a		System Number:	1	
Room Width:	n/a		Zone Number:	1	
Area:	994.6	sq.ft.	Supply Air:	815	CFM
Ceiling Height:	8.8	ft.	Supply Air Changes:	5.6	AC/hr
Volume:	8,782	cu.ft.	Req. Vent. Clg:	0	CFM
Number of Registers:	10		Actual Winter Vent.:	41	CFM
			Percent of Supply.:	5	%
			Actual Summer Vent.:	76	CFM
			Percent of Supply:	9	%
			Actual Winter Infil.:	24	CFM
			Actual Summer Infil.:	6	CFM

Item Description	Area Quantity	-U- Value	Htg HTM	Sen Loss	Clg HTM	Lat Gain	Sen Gain
NE-Wall-BrickWall 16.2 X 8	76.5	0.056	4.2	322	0.4	0	34
NE-Wall-SidingHeader 16.2 X 0.8	13.5	0.042	3.2	43	0.3	0	5
NW-Wall-BrickWall 14 X 8	74.5	0.056	4.2	313	0.4	0	33
NW-Wall-SidingHeader 14 X 0.8	11.7	0.042	3.2	37	0.3	0	4
SE-Wall-BrickWall 22.8 X 8	182.6	0.056	4.2	768	0.4	0	82
SE-Wall-SidingHeader 22.8 X 0.8	18.9	0.042	3.2	60	0.3	0	6
SW-Wall-BrickWall 24.1 X 8	100.3	0.056	4.2	422	0.4	0	45
SW-Wall-SidingHeader 40.3 X 0.8	33.5	0.042	3.2	107	0.3	0	11
N -Part--1°/75.4°-CustomPartitionWall2 18.3 X 8	146.6	0.057	4.3	630	0.1	0	16
N -Part--1°/75.4°-SidingHeader 18.3 X 0.8	15.2	0.042	3.2	49	0.1	0	1
SW-Wall-SidingWall 16.2 X 8	63.3	0.058	4.4	279	0.5	0	30
NW-Door-11O 5.7 X 6.7	37.8	0.210	15.8	599	4.6	0	175
NE-Gls-Mtv. JeldWen shgc-0.49 0%S	53.5	0.290	21.9	1,170	33.0	0	1,768
SW-Gls-Mtv. JeldWen shgc-0.49 0%S	25.7	0.290	21.9	561	42.7	0	1,096
SW-Gls-Mtv. JeldWen shgc-0.49 0%S	66.7	0.290	21.9	1,458	42.7	0	2,849
SW-Gls-Mtv. JeldWen shgc-0.49 0%S	66.7	0.290	21.9	1,458	42.7	0	2,849
Subtotals for Structure:				8,276		0	9,004
Infil.: Win.: 23.7, Sum.: 6.4	987		1.970	1,944	0.078	171	77
AED Excursion:							1,666
People: 200 lat/per, 239 sen/per:	5					1,000	1,195
Equipment:						0	3,194
Room Totals:				10,220		1,171	15,136

RECEIVED
BUILDING SERVICES
PERMIT NO: 24-206538 REV 01
DATE: 12/17/2024
TOWN OF OAKVILLE

Detailed Room Loads - Room 7 - Powder Room (Average Load Procedure)

General

Calculation Mode:	Htg. & clg.		Occurrences:	1	
Room Length:	n/a		System Number:	1	
Room Width:	n/a		Zone Number:	1	
Area:	25.0	sq.ft.	Supply Air:	6	CFM
Ceiling Height:	8.8	ft.	Supply Air Changes:	1.6	AC/hr
Volume:	221	cu.ft.	Req. Vent. Clg:	0	CFM
Number of Registers:	1		Actual Winter Vent.:	1	CFM
			Percent of Supply.:	18	%
			Actual Summer Vent.:	0	CFM
			Percent of Supply:	2	%
			Actual Winter Infil.:	1	CFM
			Actual Summer Infil.:	0	CFM

Item Description	Area Quantity	-U- Value	Htg HTM	Sen Loss	Clg HTM	Lat Gain	Sen Gain
SE-Wall-BrickWall 5 X 8	40	0.056	4.2	168	0.4	0	18
SE-Wall-SidingHeader 5 X 0.8	4.2	0.042	3.2	13	0.3	0	1
Subtotals for Structure:				181		0	19
Infil.: Win.: 1.1, Sum.: 0.3	44		1.971	87	0.068	8	3
AED Excursion:							3
Room Totals:				268		8	25

RECEIVED
BUILDING SERVICES
PERMIT NO: 24-206538 REV 01
DATE: 12/17/2024
TOWN OF OAKVILLE

Detailed Room Loads - Room 8 - Office (Average Load Procedure)

General

Calculation Mode:	Htg. & clg.		Occurrences:	1	
Room Length:	n/a		System Number:	1	
Room Width:	n/a		Zone Number:	1	
Area:	131.4	sq.ft.	Supply Air:	80	CFM
Ceiling Height:	8.8	ft.	Supply Air Changes:	4.1	AC/hr
Volume:	1,160	cu.ft.	Req. Vent. Clg:	0	CFM
Number of Registers:	1		Actual Winter Vent.:	7	CFM
			Percent of Supply.:	9	%
			Actual Summer Vent.:	7	CFM
			Percent of Supply:	9	%
			Actual Winter Infil.:	5	CFM
			Actual Summer Infil.:	1	CFM

Item Description	Area Quantity	-U- Value	Htg HTM	Sen Loss	Clg HTM	Lat Gain	Sen Gain
NE-Wall-BrickWall 12.7 X 8	76.6	0.056	4.2	322	0.4	0	34
NE-Wall-SidingHeader 12.7 X 0.8	10.5	0.042	3.2	34	0.3	0	4
SE-Wall-BrickWall 10.8 X 8	86.6	0.056	4.2	365	0.4	0	39
SE-Wall-SidingHeader 10.8 X 0.8	9	0.042	3.2	29	0.3	0	3
NE-Gls-Mtv. JeldWen shgc-0.49 0%S	24.8	0.290	21.9	541	33.1	0	818
Subtotals for Structure:				1,291		0	898
Infil.: Win.: 5.0, Sum.: 1.4	208		1.971	409	0.077	36	16
AED Excursion:							163
Equipment:						0	400
Room Totals:				1,700		36	1,477

RECEIVED
BUILDING SERVICES
PERMIT NO: 24-206538 REV 01
DATE: 12/17/2024
TOWN OF OAKVILLE

Detailed Room Loads - Room 9 - Mud Room (Average Load Procedure)

General

Calculation Mode:	Htg. & clg.		Occurrences:	1	
Room Length:	n/a		System Number:	1	
Room Width:	n/a		Zone Number:	1	
Area:	67.1	sq.ft.	Supply Air:	59	CFM
Ceiling Height:	8.8	ft.	Supply Air Changes:	5.9	AC/hr
Volume:	592	cu.ft.	Req. Vent. Clg:	0	CFM
Number of Registers:	1		Actual Winter Vent.:	6	CFM
			Percent of Supply.:	11	%
			Actual Summer Vent.:	5	CFM
			Percent of Supply:	9	%
			Actual Winter Infil.:	4	CFM
			Actual Summer Infil.:	1	CFM

Item Description	Area Quantity	-U- Value	Htg HTM	Sen Loss	Clg HTM	Lat Gain	Sen Gain
NW-Wall-BrickWall 5.9 X 8	27.8	0.056	4.2	117	0.4	0	12
NW-Wall-SidingHeader 5.9 X 0.8	4.9	0.042	3.2	16	0.3	0	2
NE-Wall-BrickWall 11.4 X 8	66.6	0.056	4.2	280	0.4	0	30
NE-Wall-SidingHeader 11.4 X 0.8	9.5	0.042	3.2	30	0.3	0	3
NW-Door-11O 2.8 X 6.9	19.6	0.210	15.8	310	4.6	0	90
NE-Gls-Mtv. JeldWen shgc-0.49 0%S	24.8	0.290	21.9	541	33.1	0	818
Subtotals for Structure:				1,294		0	955
Infil.: Win.: 3.7, Sum.: 1.0	153		1.972	302	0.078	27	12
AED Excursion:							120
Room Totals:				1,596		27	1,087

RECEIVED
BUILDING SERVICES
PERMIT NO: 24-206538 REV 01
DATE: 12/17/2024
TOWN OF OAKVILLE

Detailed Room Loads - Room 10 - Bedroom 4 (Average Load Procedure)

General

Calculation Mode:	Htg. & clg.		Occurrences:	1	
Room Length:	n/a		System Number:	2	
Room Width:	n/a		Zone Number:	1	
Area:	194.2	sq.ft.	Supply Air:	117	CFM
Ceiling Height:	8.0	ft.	Supply Air Changes:	4.5	AC/hr
Volume:	1,553	cu.ft.	Req. Vent. Clg:	0	CFM
Number of Registers:	2		Actual Winter Vent.:	13	CFM
			Percent of Supply.:	11	%
			Actual Summer Vent.:	13	CFM
			Percent of Supply:	12	%
			Actual Winter Infil.:	9	CFM
			Actual Summer Infil.:	2	CFM

Item Description	Area Quantity	-U- Value	Htg HTM	Sen Loss	Clg HTM	Lat Gain	Sen Gain
NW-Wall-SidingWall 17.9 X 8	120.7	0.058	4.4	531	0.5	0	56
NE-Wall-SidingWall 12.2 X 8	73.2	0.058	4.4	323	0.5	0	34
NE-Gls-Mtv. JeldWen shgc-0.49 0%S	24.8	0.290	21.9	541	33.1	0	818
NW-Gls-Mtv. JeldWen shgc-0.49 0%S	22.7	0.290	21.9	496	33.0	0	749
UP-Ceil-RoofA1 1 X 194.2	194.2	0.016	1.2	239	0.7	0	146
Subtotals for Structure:				2,130		0	1,803
Infil.: Win.: 8.5, Sum.: 2.3	241		2.904	701	0.116	63	28
AED Excursion:							195
Equipment:						0	200
Room Totals:				2,831		63	2,226

RECEIVED
BUILDING SERVICES
PERMIT NO: 24-206538 REV 01
DATE: 12/17/2024
TOWN OF OAKVILLE

Detailed Room Loads - Room 11 - Bath 1 (Average Load Procedure)

General

Calculation Mode:	Htg. & clg.		Occurrences:	1	
Room Length:	n/a		System Number:	2	
Room Width:	n/a		Zone Number:	1	
Area:	74.5	sq.ft.	Supply Air:	16	CFM
Ceiling Height:	8.0	ft.	Supply Air Changes:	1.6	AC/hr
Volume:	596	cu.ft.	Req. Vent. Clg:	0	CFM
Number of Registers:	1		Actual Winter Vent.:	3	CFM
			Percent of Supply.:	17	%
			Actual Summer Vent.:	2	CFM
			Percent of Supply:	12	%
			Actual Winter Infil.:	2	CFM
			Actual Summer Infil.:	0	CFM

Item Description	Area Quantity	-U- Value	Htg HTM	Sen Loss	Clg HTM	Lat Gain	Sen Gain
SE-Wall-SidingWall 6.2 X 8	42.5	0.058	4.4	187	0.5	0	20
SE-Gls-Mtv. JeldWen shgc-0.49 55%S	7.5	0.290	21.9	164	26.0	0	195
UP-Ceil-RoofA1 1 X 74.5	74.5	0.016	1.2	92	0.7	0	56
Subtotals for Structure:				443		0	271
Infil.: Win.: 1.8, Sum.: 0.5	50		2.900	145	0.120	13	6
AED Excursion:							27
Room Totals:				588		13	304

RECEIVED
BUILDING SERVICES
PERMIT NO: 24-206538 REV 01
DATE: 12/17/2024
TOWN OF OAKVILLE

Detailed Room Loads - Room 12 - Bedroom 3 (Average Load Procedure)

General

Calculation Mode:	Htg. & clg.		Occurrences:	1	
Room Length:	n/a		System Number:	2	
Room Width:	n/a		Zone Number:	1	
Area:	183.6	sq.ft.	Supply Air:	73	CFM
Ceiling Height:	8.0	ft.	Supply Air Changes:	3.0	AC/hr
Volume:	1,469	cu.ft.	Req. Vent. Clg:	0	CFM
Number of Registers:	1		Actual Winter Vent.:	10	CFM
			Percent of Supply.:	14	%
			Actual Summer Vent.:	8	CFM
			Percent of Supply:	12	%
			Actual Winter Infil.:	8	CFM
			Actual Summer Infil.:	2	CFM

Item Description	Area Quantity	-U- Value	Htg HTM	Sen Loss	Clg HTM	Lat Gain	Sen Gain
NE-Wall-SidingWall 12.7 X 8	76.6	0.058	4.4	337	0.5	0	36
SE-Wall-SidingWall 14.8 X 8	118	0.058	4.4	520	0.5	0	55
NE-Gls-Mtv. JeldWen shgc-0.49 0%S	24.8	0.290	21.9	541	33.1	0	818
UP-Ceil-RoofA1 1 X 183.6	183.6	0.016	1.2	226	0.7	0	138
Subtotals for Structure:				1,624		0	1,047
Infil.: Win.: 7.8, Sum.: 2.1	219		2.904	637	0.119	57	26
AED Excursion:							122
Equipment:						0	200
Room Totals:				2,261		57	1,395

RECEIVED
BUILDING SERVICES
PERMIT NO: 24-206538 REV 01
DATE: 12/17/2024
TOWN OF OAKVILLE

Detailed Room Loads - Room 13 - Bed 2 Ensuite (Average Load Procedure)

General

Calculation Mode:	Htg. & clg.		Occurrences:	1	
Room Length:	n/a		System Number:	2	
Room Width:	n/a		Zone Number:	1	
Area:	55.8	sq.ft.	Supply Air:	36	CFM
Ceiling Height:	8.0	ft.	Supply Air Changes:	4.9	AC/hr
Volume:	447	cu.ft.	Req. Vent. Clg:	0	CFM
Number of Registers:	1		Actual Winter Vent.:	4	CFM
			Percent of Supply.:	12	%
			Actual Summer Vent.:	4	CFM
			Percent of Supply:	12	%
			Actual Winter Infil.:	3	CFM
			Actual Summer Infil.:	1	CFM

Item Description	Area Quantity	-U- Value	Htg HTM	Sen Loss	Clg HTM	Lat Gain	Sen Gain
SW-Wall-SidingWall 9.6 X 8	63.9	0.058	4.4	281	0.5	0	30
NW-Wall-SidingWall 1.3 X 8	10.6	0.058	4.4	47	0.5	0	5
SW-Gls-Mtv. JeldWen shgc-0.49 0%S	12.7	0.290	21.9	278	42.7	0	544
UP-Ceil-RoofA1 1 X 55.8	55.8	0.016	1.2	69	0.7	0	42
Floor-A1ExpFoor 16.5 X 1	16.5	0.034	2.6	42	0.2	0	3
Subtotals for Structure:				717		0	624
Infil.: Win.: 3.1, Sum.: 0.8	87		2.899	253	0.115	23	10
AED Excursion:							61
Room Totals:				970		23	695

RECEIVED
BUILDING SERVICES
PERMIT NO: 24-206538 REV 01
DATE: 12/17/2024
TOWN OF OAKVILLE

Detailed Room Loads - Room 14 - Bedroom 2 (Average Load Procedure)

General

Calculation Mode:	Htg. & clg.		Occurrences:	1	
Room Length:	n/a		System Number:	2	
Room Width:	n/a		Zone Number:	1	
Area:	207.3	sq.ft.	Supply Air:	123	CFM
Ceiling Height:	8.0	ft.	Supply Air Changes:	4.4	AC/hr
Volume:	1,658	cu.ft.	Req. Vent. Clg:	0	CFM
Number of Registers:	2		Actual Winter Vent.:	12	CFM
			Percent of Supply.:	9	%
			Actual Summer Vent.:	14	CFM
			Percent of Supply:	12	%
			Actual Winter Infil.:	8	CFM
			Actual Summer Infil.:	2	CFM

Item Description	Area Quantity	-U- Value	Htg HTM	Sen Loss	Clg HTM	Lat Gain	Sen Gain
SE-Wall-SidingWall 11.7 X 8	93.4	0.058	4.4	411	0.5	0	44
SW-Wall-SidingWall 15.4 X 8	84.2	0.058	4.4	371	0.5	0	39
SW-Gls-Mtv. JeldWen shgc-0.49 0%S	39.2	0.290	21.9	856	42.7	0	1,672
UP-Ceil-RoofA1 1 X 207.3	207.3	0.016	1.2	255	0.7	0	155
Floor-A1ExpFoor 25 X 1	25	0.034	2.6	64	0.2	0	5
Subtotals for Structure:				1,957		0	1,915
Infil.: Win.: 7.7, Sum.: 2.1	217		2.902	629	0.115	56	25
AED Excursion:							205
Equipment:						0	200
Room Totals:				2,586		56	2,345

RECEIVED
BUILDING SERVICES
PERMIT NO: 24-206538 REV 01
DATE: 12/17/2024
TOWN OF OAKVILLE

Detailed Room Loads - Room 15 - Laundry / Landing (Average Load Procedure)

General

Calculation Mode:	Htg. & clg.		Occurrences:	1	
Room Length:	n/a		System Number:	2	
Room Width:	n/a		Zone Number:	1	
Area:	335.8	sq.ft.	Supply Air:	95	CFM
Ceiling Height:	8.0	ft.	Supply Air Changes:	2.1	AC/hr
Volume:	2,687	cu.ft.	Req. Vent. Clg:	0	CFM
Number of Registers:	2		Actual Winter Vent.:	7	CFM
			Percent of Supply.:	8	%
			Actual Summer Vent.:	11	CFM
			Percent of Supply:	12	%
			Actual Winter Infil.:	4	CFM
			Actual Summer Infil.:	1	CFM

Item Description	Area Quantity	-U- Value	Htg HTM	Sen Loss	Clg HTM	Lat Gain	Sen Gain
NE-Wall-SidingWall 4.5 X 8	36	0.058	4.4	159	0.5	0	17
SE-Wall-SidingWall 8 X 8	64	0.058	4.4	282	0.5	0	30
UP-Sky-8D-umi shgc-0.26	16	0.440	33.2	531	59.9	0	959
UP-Ceil-RoofA1 1 X 335.8	319.8	0.016	1.2	393	0.7	0	240
Subtotals for Structure:				1,365		0	1,246
Infil.: Win.: 3.5, Sum.: 1.0	100		2.900	290	0.120	26	12
AED Excursion:							159
Equipment:						0	400
Room Totals:				1,655		26	1,817

RECEIVED
BUILDING SERVICES
PERMIT NO: 24-206538 REV 01
DATE: 12/17/2024
TOWN OF OAKVILLE

Detailed Room Loads - Room 16 - Primary Ensuite (Average Load Procedure)

General

Calculation Mode:	Htg. & clg.		Occurrences:	1	
Room Length:	n/a		System Number:	2	
Room Width:	n/a		Zone Number:	1	
Area:	135.9	sq.ft.	Supply Air:	56	CFM
Ceiling Height:	8.0	ft.	Supply Air Changes:	3.1	AC/hr
Volume:	1,087	cu.ft.	Req. Vent. Clg:	0	CFM
Number of Registers:	2		Actual Winter Vent.:	6	CFM
			Percent of Supply.:	10	%
			Actual Summer Vent.:	6	CFM
			Percent of Supply:	12	%
			Actual Winter Infil.:	3	CFM
			Actual Summer Infil.:	1	CFM

Item Description	Area Quantity	-U- Value	Htg HTM	Sen Loss	Clg HTM	Lat Gain	Sen Gain
SW-Wall-SidingWall 10.2 X 8	58.7	0.058	4.4	259	0.5	0	27
SW-Gls-Mtv. JeldWen shgc-0.49 23%S	23.3	0.290	21.9	509	35.5	0	827
UP-Ceil-RoofA1 1 X 135.9	135.9	0.016	1.2	167	0.7	0	102
Floor-A1ExpFoor 29 X 1	29	0.034	2.6	74	0.2	0	6
Subtotals for Structure:				1,009		0	962
Infil.: Win.: 2.9, Sum.: 0.8	82		2.902	238	0.122	21	10
AED Excursion:							93
Room Totals:				1,247		21	1,065

RECEIVED
BUILDING SERVICES
PERMIT NO: 24-206538 REV 01
DATE: 12/17/2024
TOWN OF OAKVILLE

Detailed Room Loads - Room 17 - Primary WIC (Average Load Procedure)

General

Calculation Mode:	Htg. & clg.		Occurrences:	1	
Room Length:	n/a		System Number:	2	
Room Width:	n/a		Zone Number:	1	
Area:	167.5	sq.ft.	Supply Air:	23	CFM
Ceiling Height:	8.0	ft.	Supply Air Changes:	1.0	AC/hr
Volume:	1,340	cu.ft.	Req. Vent. Clg:	0	CFM
Number of Registers:	1		Actual Winter Vent.:	4	CFM
			Percent of Supply.:	17	%
			Actual Summer Vent.:	1	CFM
			Percent of Supply:	5	%
			Actual Winter Infil.:	3	CFM
			Actual Summer Infil.:	1	CFM

Item Description	Area Quantity	-U- Value	Htg HTM	Sen Loss	Clg HTM	Lat Gain	Sen Gain
SW-Wall-SidingWall 10.2 X 8	82	0.058	4.4	361	0.5	0	38
UP-Ceil-RoofA1 1 X 167.5	167.5	0.016	1.2	206	0.7	0	126
Floor-A1ExpFoor 17.4 X 1	17.4	0.034	2.6	45	0.2	0	4
Subtotals for Structure:				612		0	168
Infil.: Win.: 2.9, Sum.: 0.8	82		2.902	238	0.122	21	10
AED Excursion:							17
Room Totals:				850		21	195

RECEIVED
BUILDING SERVICES
PERMIT NO: 24-206538 REV 01
DATE: 12/17/2024
TOWN OF OAKVILLE

Detailed Room Loads - Room 18 - Primary Bedroom (Average Load Procedure)

General

Calculation Mode:	Htg. & clg.		Occurrences:	1	
Room Length:	n/a		System Number:	2	
Room Width:	n/a		Zone Number:	1	
Area:	463.9	sq.ft.	Supply Air:	299	CFM
Ceiling Height:	9.0	ft.	Supply Air Changes:	4.3	AC/hr
Volume:	4,152	cu.ft.	Req. Vent. Clg:	0	CFM
Number of Registers:	4		Actual Winter Vent.:	37	CFM
			Percent of Supply.:	12	%
			Actual Summer Vent.:	34	CFM
			Percent of Supply:	12	%
			Actual Winter Infil.:	22	CFM
			Actual Summer Infil.:	6	CFM

Item Description	Area Quantity	-U- Value	Htg HTM	Sen Loss	Clg HTM	Lat Gain	Sen Gain
NE-Wall-SidingWall 32.1 X 8	185.2	0.058	4.4	816	0.5	0	87
NW-Wall-SidingWall 23.5 X 9.2	163.8	0.058	4.4	721	0.5	0	77
SW-Wall-SidingWall 16 X 8	128	0.058	4.4	564	0.5	0	60
SE-Wall-SidingWall 2 X 8	16	0.058	4.4	70	0.5	0	7
NE-Gls-Mtv. JeldWen shgc-0.49 0%S	39.7	0.290	21.9	869	33.0	0	1,313
NW-Gls-Mtv. JeldWen shgc-0.49 0%S	51.7	0.290	21.9	1,129	33.0	0	1,707
NE-Gls-Mtv. JeldWen shgc-0.49 0%S	31.7	0.290	21.9	693	33.0	0	1,047
UP-Ceil-RoofA1 1 X 120.6	120.6	0.016	1.2	148	0.7	0	90
UP-Ceil-RoofA1 1 X 371.9	371.9	0.016	1.2	457	0.7	0	279
Floor-A1ExpFoor 392.3 X 1	392.3	0.034	2.6	1,006	0.2	0	80
Subtotals for Structure:				6,473		0	4,747
Infil.: Win.: 21.8, Sum.: 6.0	616		2.904	1,789	0.117	160	72
AED Excursion:							500
Equipment:						0	400
Room Totals:				8,262		160	5,719

RECEIVED
BUILDING SERVICES
PERMIT NO: 24-206538 REV 01
DATE: 12/17/2024
TOWN OF OAKVILLE

System 1 Room Load Summary

No	Room Name	Area SF	Htg Sens Btuh	Min Htg CFM	Run Duct Size	Run Duct Vel	Clg Sens Btuh	Clg Lat Btuh	Min Clg CFM	Act Sys CFM
---Zone 1---										
1	Gym	235	1,879	25	5	-	353	52	16	41
2	Storage	285	2,578	34	5	-	46	76	2	57
3	Mechanical Room	297	1,437	19	4	-	343	39	16	32
4	B Bath	52	765	10	4	-	15	22	1	17
5	Rec Room	336	3,012	40	5,5	-	549	81	25	66
6	Din/Kit/Gre/Foy	995	10,220	134	6,6,6,6, 6,6,6,6, 6,6	-	15,136	1,171	695	815
7	Powder Room	25	268	4	4	-	25	8	1	6
8	Office	131	1,700	22	6	-	1,477	36	68	80
9	Mud Room	67	1,596	21	5	-	1,087	27	50	59
	Ventilation		1,871				1,137	2,531		
	System 1 total	2,423	25,326	308			20,167	4,043	874	1,025

System 1 Main Trunk Size: 18x21 in.
Velocity: 392 ft./min
Loss per 100 ft.: 0.012 in.wg

Duct size results above are from Manual D Ductsize.
Runout duct velocities are not printed with duct size results from Manual D Ductsize since they can vary within the room.
See the Manual D Ductsize report for duct velocities and other data.

Cooling System Summary

	Cooling Tons	Sensible/Latent Split	Sensible Btuh	Latent Btuh	Total Btuh
Net Required:	2.02	83% / 17%	20,167	4,043	24,210
Actual:	3.00				36,000

Equipment Data

	Heating System	Cooling System
Type:	Natural Gas Furnace	Standard Air Conditioner
Model:	59TP6C040V17-12	GA4SAN436
Indoor Model:		CAPVU3617ALA
Brand:	Performance	
Description:	Natural Gas or Propane Furnace	
Efficiency:	96 AFUE	13.2 SEER2
Sound:	0	0
Capacity:	39,000 Btuh	36,000 Btuh
Sensible Capacity:	n/a	0 Btuh
Latent Capacity:	n/a	0 Btuh

RECEIVED
BUILDING SERVICES
PERMIT NO: 24-206538 REV 01
DATE: 12/17/2024
TOWN OF OAKVILLE

System 2 Room Load Summary

No	Room Name	Area SF	Htg Sens Btuh	Min Htg CFM	Run Duct Size	Run Duct Vel	Clg Sens Btuh	Clg Lat Btuh	Min Clg CFM	Act Sys CFM
---Zone 1---										
10	Bedroom 4	194	2,831	37	5,5	-	2,226	63	102	117
11	Bath 1	74	588	8	4	-	304	13	14	16
12	Bedroom 3	184	2,261	30	6	-	1,395	57	64	73
13	Bed 2 Ensuite	56	970	13	5	-	695	23	32	36
14	Bedroom 2	207	2,586	34	5,5	-	2,345	56	108	123
15	Laundry / Landing	336	1,655	22	5,5	-	1,817	26	83	95
16	Primary Ensuite	136	1,247	16	4,4	-	1,065	21	49	56
17	Primary WIC	168	850	11	4	-	195	21	9	23
18	Primary Bedroom	464	8,262	108	6,6,6,6	-	5,719	160	263	299
	Ventilation		1,871				1,137	2,531		
	System 2 total	1,819	23,121	279			16,898	2,971	724	825

System 2 Main Trunk Size: 16x21 in.
Velocity: 354 ft./min
Loss per 100 ft.: 0.011 in.wg

Duct size results above are from Manual D Ductsize.
Runout duct velocities are not printed with duct size results from Manual D Ductsize since they can vary within the room.
See the Manual D Ductsize report for duct velocities and other data.

Cooling System Summary

	Cooling Tons	Sensible/Latent Split	Sensible Btuh	Latent Btuh	Total Btuh
Net Required:	1.66	85% / 15%	16,898	2,971	19,869
Actual:	2.00				24,000

Equipment Data

	Heating System	Cooling System
Type:	Natural Gas Furnace	Standard Air Conditioner
Model:	59TP6C040V14-10	GA4SAN424
Indoor Model:		CVPVA2517XMC
Brand:	Performance	CARRIER
Description:	Natural Gas or Propane Furnace	
Efficiency:	96 AFUE	13.2 SEER2
Sound:	0	0
Capacity:	39,000 Btuh	24,000 Btuh
Sensible Capacity:	n/a	0 Btuh
Latent Capacity:	n/a	0 Btuh

RECEIVED
BUILDING SERVICES
PERMIT NO: 24-206538 REV 01
DATE: 12/17/2024
TOWN OF OAKVILLE

RESET

RESIDENTIAL MECHANICAL VENTILATION DESIGN SUMMARY

for design and performance of residential ventilation systems to OBC 2012 - 9.32

1. Location

Municipality: Oakville

Civic Address: 246 Cairncroft Rd.

2. Builder

Name: Maia Mavrinac

Address:

City: Postal Code:

Ph: Fax:

3. Designer

Name: Steve Brogan

Address: 1100-110 South Service Road

City: Stoney Creek Postal Code: L8E 0C5

Ph: 905-385-6450 Fax: 289-649-1031

Designer BCIN: HRAI #: 15788

Firm BCIN: 32420

E-mail: hvacdesign@aplusair.ca

4. Heating Systems

- [x] Forced Air
- [ ] Non-Forced Air

- [x] Gas
- [ ] Propane
- [ ] Other
- [ ] Oil
- [ ] Electricity

5. House Style

- [x] One Dwelling Unit
- [ ] House with Two Dwelling Units

Ventilation System: [ ] Shared [x] Dedicated

6. Combustion Appliances

- [x] a) Direct Vent
- [ ] b) Induced Draft
- [ ] c) Natural Draft
- [ ] d) Solid Fuel Appliances
- [ ] e) No Combustion Appliances

7. Type of House

- [x] Type 1: a) or b) type appliances only
- [ ] Type 2: a) or b) type appliances with a d) type appliance
- [ ] Type 3: any type c) appliance = part 6 design
- [ ] Type 4: electric space heat **(same as Type 1)**

8. System Design Option

- [ ] Exhaust only forced air system (coupled to forced air)
- [x] HRV/ERV with extended exhaust or simplified (coupled to forced air)
- [ ] HRV/ERV full ducting (not coupled to forced air)

9. Total Ventilation Capacity (TVC)

Bsmt & Master Bedroom	1	@ 20 CFM (10 L/s)	20	CFM
Other Bedrooms	3	@ 10 CFM (5 L/s)	30	CFM
Bathrooms & Kitchen	6	@ 10 CFM (5 L/s)	60	CFM
Other Habitable Rooms	7	@ 10 CFM (5 L/s)	70	CFM
Total Ventilation Capacity (TVC)			180	CFM

10. TVC System

- [x] HRV/ERV
- [ ] Central Exhaust
- [x] Multiple Fans

11. Principal Ventilation Capacity (PVC)

Master Bedroom	1	@ 30 CFM (15 L/s)	30	CFM
Other Bedrooms	3	@ 15 CFM (7.5 L/s)	45	CFM
Total Principal Ventilation Capacity (PVC)			75	CFM

12. Principal Ventilation Fan

Location: Basement

Manufacturer: VanEE

Model: V150H75NT [x] HVI Rated

Rated Airflow: Low: 57 CFM High: 95 CFM

Sones: ESP: 0.4 " w.c.

76 % Sensible Efficiency @ 0 C° CFM

60 % Sensible Efficiency @ -25 C° CFM

(If HRV/ERV was used, the system must also comply with SB-12)

13. Supplemental Exhaust Fan Capacity (SEF)

Required Total Ventilation Capacity	180	CFM
Less Rated Principal Ventilation Capacity	95	CFM
Required Supplemental Ventilation Capacity	85	CFM

14. Additional Equipment

Location: Powder Room Sones: 0.5

Manufacturer: Broan [x] HVI Rated

Model: AE50F1 [x] TVC

Rated Airflow: 50 CFM ESP: 1.0 " w.c.

Location: Ensuite(s) Sones: 0.5

Manufacturer: Broan [x] HVI Rated

Model: AE50F1 [x] TVC

Rated Airflow: 50 CFM ESP: 1.0 " w.c.

Location: Bath 1 Sones: 0.5

Manufacturer: Broan [x] HVI Rated

Model: AE50F1 [ ] TVC

Rated Airflow: 50 CFM ESP: 1.0 " w.c.

Location: Laundry Room Sones: 0.5

Manufacturer: Broan [x] HVI Rated

Model: AE50F1 [ ] TVC

Rated Airflow: 50 CFM ESP: 1.0 " w.c.

15. Designer Consent

I Steve Brogan certify this ventilation system is designed to be in accordance with OBC-2012 9.32

Date: 12/08/2024 Signature: Steve Brogan

Digitally signed by Steve Brogan
Date: 2024.12.09 13:34:54 -05'00'

Conversion note: 1 L/s = 2 CFM (For hard conversion, use 1 L/s = 2.118 CFM)

RECEIVED
BUILDING SERVICES
PERMIT NO: 24-206538 REV 01
DATE: 12/17/2024
TOWN OF OAKVILLE

© Copyright HRAI

Envelope Air Leakage Calculator

Supplemental tool for CAN/CSA-F280

Weather Station Description

Province:	Ontario
Region:	Oakville
Weather Station Location:	Open flat terrain, grass
Anemometer height (m):	10

Local Shielding

Building Site:	Suburban, forest
Walls:	Light local shielding
Flue:	Light local shielding
Highest Ceiling Height (m):	3.79

Building Configuration

Type:	Detached
Number of Stories:	Two
Foundation:	Full
House Volume (m^3):	424.49

Air Leakage / Ventilation

Air Tightness Type:	Present (1961-) (ACH=3.57)		
Custom BDT Data:	ELA @ 10 Pa.	716.424	cm^2
	3.57	ACH @ 50 Pa	
Mechanical Ventilation (L/s):	Total Supply:	Total Exhaust:	
	0	0	

Flue Size

Flue #:	#1	#2	#3	#4
Diameter (mm):	0	0	0	0

Envelope Air Leakage Rate

Heating Air Leakage Rate (ACH):	**0.240**
Cooling Air Leakage Rate (ACH):	**0.066**

RECEIVED
BUILDING SERVICES
PERMIT NO: 24-206538 REV 01
DATE: 12/17/2024
OAKVILLE
TOWN OF OAKVILLE