

EFFECTIVE THERMAL RESISTANCE OF ABOVE GROUND OPAQUE ASSEMBLIES IN BUILDINGS WITH A HEAT RECOVERY VENTILATOR

EFFECTIVE RSI VALUES (WITH HRV)

HEATING DEGREE DAYS  
CLIMATE ZONE 7A

ASSEMBLY	RSI	R
CEILING BELOW ATTIC	8.67	49.20
CATHEDRAL CEILING	5.02	28.51
WALLS (2x6 @ 16")	2.97	16.87
FLOORS	5.02	28.50

(MINIMUM REQUIREMENTS WITH HRV)

9.36.2.7.A

REQUIRED THERMAL CHARACTERISTICS OF FENESTRATION AND DOORS

HEATING DEGREE DAYS  
CLIMATE ZONE 7A

MAX U-VALUE (W/m2K)	1.6
Min ENERGY RATING	25

CALCULATIONS ARE BASED ON HOT 2000

NOTES:

ON SITE IMPLEMENTATION OF WALL ASSEMBLIES AND AIR TIGHTNESS DETAILS TO BE CONFIRMED BY BUILDERS / CONTRACTOR

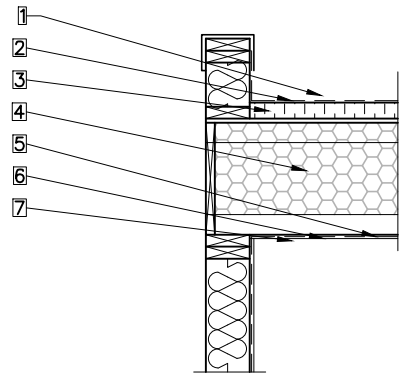
WALL ASSEMBLIES AND AIR TIGHTNESS DETAILS TO BE AS DETAILED OR BETTER

MECHANICAL SPECIFICATIONS AS PER BUILDERS / CONTRACTOR

ALL SEALANT TO BE APPLIED AGAINST SOLID BACKING

ALL PENETRATIONS THROUGH SLAB MUST BE SEALED

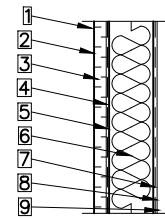
**1 ENGINEERED ROOF TRUSSES**



ROOF ASSEMBLY COMPONENTS	RSI	R
1. EXTERIOR AIR FILM	0.03	0.17
2. ASPHALT MEMBRANE	0.08	0.45
3. MIN. 1-1/2" RIGID INSULATION SLOPED FOR DRAINAGE	1.33	7.55
4. ENG. FLAT ROOF TRUSSES WITH 8" SPRAY FOAM INSULATION	8.40	47.71
5. 6 mil POLY VAPOR BARRIER	0.00	0.00
6. 1/2" (12.7mm) GYPSUM BOARD	0.08	0.45
7. INTERIOR AIR FILM	0.11	0.62
EFFECTIVE RSI / R VALUE OF ENTIRE ASSEMBLY	10.03	56.95

ENERGY EFFICIENCY REQUIREMENTS AS PER ABC 9.36  
TO MEET MINIMUM EFFECTIVE RSI VALUE FOR THE ROOF ASSEMBLY OF 8.67 OR R-VALUE OF 49.93 WITH AN HRV INSTALLED

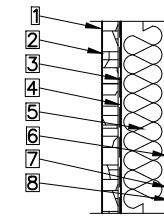
**2 2x6" FRAMING WALL (STUCCO)**



WALL ASSEMBLY COMPONENTS	RSI	R
1. EXTERIOR AIR FILM	0.03	0.17
2. ACRYLIC STUCCO CLADDING	0.01	0.05
3. 1-1/2" EPS STYROFOAM	1.33	7.55
4. ASPHALT IMPREGNATED BUILDING PAPER	0.00	0.00
5. 3/8" (9.5mm) OSB WALL SHEATHING	0.11	0.62
6. 2x6" FRAMING FILLED WITH R22 BATT INSULATION @ 16" O.C.	2.55	14.48
7. 6 mil POLY VAPOR BARRIER	0.00	0.00
8. 1/2" (12.7mm) GYPSUM BOARD	0.08	0.45
9. INTERIOR AIR FILM	0.12	0.68
EFFECTIVE RSI / R VALUE OF ENTIRE ASSEMBLY	4.23	24.00

ENERGY EFFICIENCY REQUIREMENTS AS PER ABC 9.36  
TO MEET MINIMUM EFFECTIVE RSI VALUE FOR THE WALL ASSEMBLY OF 2.97 OR R-VALUE OF 16.87 WITH AN HRV INSTALLED

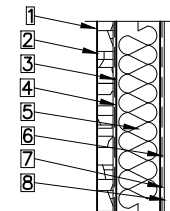
**2 2x6" FRAMING WALL (STONETILE)**



WALL ASSEMBLY COMPONENTS	RSI	R
1. EXTERIOR AIR FILM	0.03	0.17
2. 2" (50.8mm) CULTURED STONE CLADDING	0.15	0.85
3. ASPHALT IMPREGNATED BUILDING PAPER	0.00	0.00
4. 3/8" (9.5mm) OSB WALL SHEATHING	0.11	0.62
5. 2x6" FRAMING FILLED WITH R22 BATT INSULATION @ 16" O.C.	2.55	14.48
6. 6 mil POLY VAPOR BARRIER	0.00	0.00
7. 1/2" (12.7mm) GYPSUM BOARD	0.08	0.45
8. INTERIOR AIR FILM	0.12	0.68
EFFECTIVE RSI / R VALUE OF ENTIRE ASSEMBLY	3.04	17.25

ENERGY EFFICIENCY REQUIREMENTS AS PER ABC 9.36  
TO MEET MINIMUM EFFECTIVE RSI VALUE FOR THE WALL ASSEMBLY OF 2.97 OR R-VALUE OF 16.87 WITH AN HRV INSTALLED

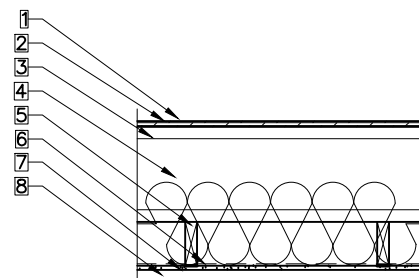
**2 2x6" FRAMING TALL WALL (STONETILE)**



WALL ASSEMBLY COMPONENTS	RSI	R
1. EXTERIOR AIR FILM	0.03	0.17
2. 2" (50.8mm) STONETILE CLADDING	0.15	0.85
3. ASPHALT IMPREGNATED BUILDING PAPER	0.00	0.00
4. 3/8" (9.5mm) OSB WALL SHEATHING	0.11	0.62
5. 2x6" FRAMING FILLED WITH R22 BATT INSULATION @ 12" O.C.	2.49	14.14
6. 6 mil POLY VAPOR BARRIER	0.00	0.00
7. 1/2" (12.7mm) GYPSUM BOARD	0.08	0.45
8. INTERIOR AIR FILM	0.12	0.68
EFFECTIVE RSI / R VALUE OF ENTIRE ASSEMBLY	2.98	16.91

ENERGY EFFICIENCY REQUIREMENTS AS PER ABC 9.36  
TO MEET MINIMUM EFFECTIVE RSI VALUE FOR THE WALL ASSEMBLY OF 2.97 OR R-VALUE OF 16.87 WITH AN HRV INSTALLED

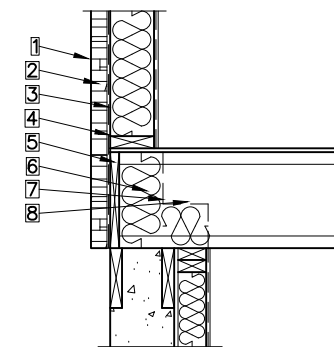
**3 ENGINEERED FLOOR TRUSSES (OVER UNHEATED SPACE)**



FLOOR ASSEMBLY COMPONENTS	RSI	R
1. INTERIOR AIR FILM	0.03	0.17
2. 3/4" (19mm) EDGE GOLD V.B. SHEATHING	0.00	0.00
3. ENG. FLOOR TRUSSES @ 19.2" O.C.	0.00	0.00
4. 7" AIR SPACE	0.00	0.00
5. 2x6" RUN PERP. TO JOISTS @ 24" O.C. W/ 10" R28 BLOWN IN CELLULOSE INSULATION	4.98	28.28
6. TYVEK / TYPAR AIR BARRIER	0.00	0.00
7. 1/2" (12.7mm) GYPSUM BOARD	0.08	0.45
8. EXTERIOR AIR FILM	0.12	0.68
EFFECTIVE RSI / R VALUE OF ENTIRE ASSEMBLY	5.21	29.58

ENERGY EFFICIENCY REQUIREMENTS AS PER ABC 9.36  
TO MEET MINIMUM EFFECTIVE RSI VALUE FOR THE RIM JOIST ASSEMBLY OF 5.02 OR R-VALUE OF 28.50 WITH AN HRV INSTALLED

**4 ENGINEERED FLOOR TRUSSES (RIM JOISTS)**



RIM JOIST ASSEMBLY COMPONENTS	RSI	R
1. EXTERIOR AIR FILM	0.03	0.17
2. 2" (50.8mm) STONETILE CLADDING	0.15	0.85
3. ASPHALT IMPREGNATED BUILDING PAPER	0.00	0.00
4. 3/8" (9.5mm) OSB WALL SHEATHING	0.11	0.62
5. 1-1/8" (28.6mm) RIM BOARD	0.28	1.59
6. ENG. FLOOR TRUSSES @ 19.2" O.C. WITH R20 BATT INSULATION	2.94	16.69
7. 6 mil POLY VAPOR BARRIER	0.00	0.00
8. INTERIOR AIR FILM	0.12	0.68
EFFECTIVE RSI / R VALUE OF ENTIRE ASSEMBLY	3.63	20.60

ENERGY EFFICIENCY REQUIREMENTS AS PER ABC 9.36  
TO MEET MINIMUM EFFECTIVE RSI VALUE FOR THE RIM JOIST ASSEMBLY OF 2.97 OR R-VALUE OF 16.87 WITH AN HRV INSTALLED

**EFFECTIVE THERMAL RESISTANCE ASSEMBLY DETAILS**

SCALE: 1/2" = 1'-0"

NOTES:  
-REFER TO SECTION FOR ASSEMBLY LOCATIONS

ADDRESS:  
**7821 SASKATCHEWAN DR.**

CLIENT:  
**KAMADEH RESIDENCE**

MODEL:  
**CUSTOM RENOVATION/ ADDITION**

DRAWING:  
**RSI ASSEMBLIES**

**euro design inc**  
TEL: (780) 488-6834 FAX: (780) 488-6837  
11236 119 STREET, EDMONTON, ALBERTA T5G 2X3  
eurodesign@shaw.ca

LOT/BLOCK:	PLAN:	JOB NO.:
39 / 1	862 1969	
DATE:	DRAWN BY:	SHEET:
Mar 10, 17	DH	8
SCALE:	DESIGN BY:	
NOTED	N/A	9