



'THE CATTAIL' - UNIT T05

SB-12 ENERGY EFFICIENCY DESIGN MATRIX		
PRESCRIPTIVE COMPLIANCE SB-12 (SECTION 2.1.1)		
PACKAGE D	SPACE HEATING FUEL	
	<input type="checkbox"/> GAS	<input type="checkbox"/> OIL
	<input type="checkbox"/> ELECTRIC	<input type="checkbox"/> PROPANE
	<input type="checkbox"/> EARTH	<input type="checkbox"/> SOLID FUEL
BUILDING COMPONENT	REQUIRED	PROPOSED
INSULATION RSI (R) VALUE		
CEILING W/ ATTIC SPACE	8.81 (R50)	8.81 (R50)
CEILING W/O ATTIC SPACE	5.46 (R31)	5.46 (R31)
EXPOSED FLOOR	5.46 (R31)	5.46 (R31)
WALLS ABOVE GRADE	4.23 (R24)	4.23 (R24)
BASEMENT WALLS	3.52 (R20)	3.52 (R20)
BELOW GRADE SLAB ENTIRE SURFACE > 600mm BELOW GRADE	-	-
EDGE OF BELOW GRADE SLAB ≤ 600mm BELOW GRADE	1.76 (R10)	1.76 (R10)
HEATED SLAB ≤ 600mm BELOW GRADE	1.76 (R10)	1.76 (R10)
CONC. SLAB ≤ 600mm BELOW GRADE	1.76 (R10)	1.76 (R10)
WINDOWS & DOORS		
WINDOWS/SLIDING GLASS DOORS (MAX U-VALUE or MIN. ER)	1.8	211.8
SKYLIGHTS (MAX. U-VALUE)	2.8	2.8
APPLIANCE EFFICIENCY		
SPACE HEATING EQUIP. (AFUE%)	94%	94%
HRV EFFICIENCY (%)	-	-
DHW HEATER (EF)	0.67	0.67

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- 3 - GROUND FLOOR PLAN, ELEV. 'A' (INT.)
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- 5 - OPT. SECOND FLOOR PLAN, ELEV. 'A' (INT.)
- 6 - FRONT & REAR ELEVATION 'A'
- 7 - CROSS SECTION 'A-A'
- 8 - CONSTRUCTION NOTES
- W1 - PART. PLANS W.O.B. CONDITION

AREA CALCULATIONS		EL. 'A'
		STD. PLAN
GROUND FLOOR AREA	766 sq. ft.	
SECOND FLOOR AREA	1037 sq. ft.	
SUBTOTAL	1803 sq. ft.	
DEDUCT ALL OPEN AREAS	12 sq. ft.	
TOTAL NET AREA	1791 sq. ft.	
	(166.39 sq. m.)	
FINISHED BASEMENT AREA	0 sq. ft.	
COVERAGE W/OUT PORCH	1002 sq. ft.	
	(93.09 sq. m.)	
COVERAGE W/ PORCH	1056 sq. ft.	
	(98.11 sq. m.)	
WINDOW / WALL AREA CALCULATIONS	EL. 'A'	EL. 'A'
	STD. PLAN	OPT. PLAN
GROSS WALL AREA	2975.86 sq. ft.	2975.86 sq. ft.
	(276.47 sq. m.)	(276.47 sq. m.)
GROSS WINDOW AREA (INCL. GLASS DOORS & SKYLIGHTS)	179.17 sq. ft.	169.83 sq. ft.
	(16.65 sq. m.)	(15.78 sq. m.)
TOTAL WINDOW %	6.02 %	5.71 %

7. ISSUED FINAL	REV.2015.06.22	RC
6. REVISED AS PER ENG. COMMENTS	REV.2015.05.25	HG
5. REVISED AS PER FLOOR LAYOUTS BY ALPHA ROOF TRUSSES INC.	REV.2015.05.21	HG
4. REVISED AS PER FLOOR LAYOUTS BY ARGO LUMBER INC.	REV.2015.05.20	HG
3. REVISED AS PER 11 7/8" FLOOR JOISTS	REV.2015.03.31	RC
2. REVISED AS PER CLIENT COMMENTS	REV.2015.03.17	RC
1. ISSUED FOR CLIENT REVIEW & PRICING	REV.2015.02.19	MN
REVISIONS	DATE (YYYY/MM/DD)	BY

TITLE PAGE

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QUALIFICATION INFORMATION  
Vijay Shivpaul29444  
NAMESIGNATUREBCIN

HUNT DESIGN ASSOCIATES INC.19695

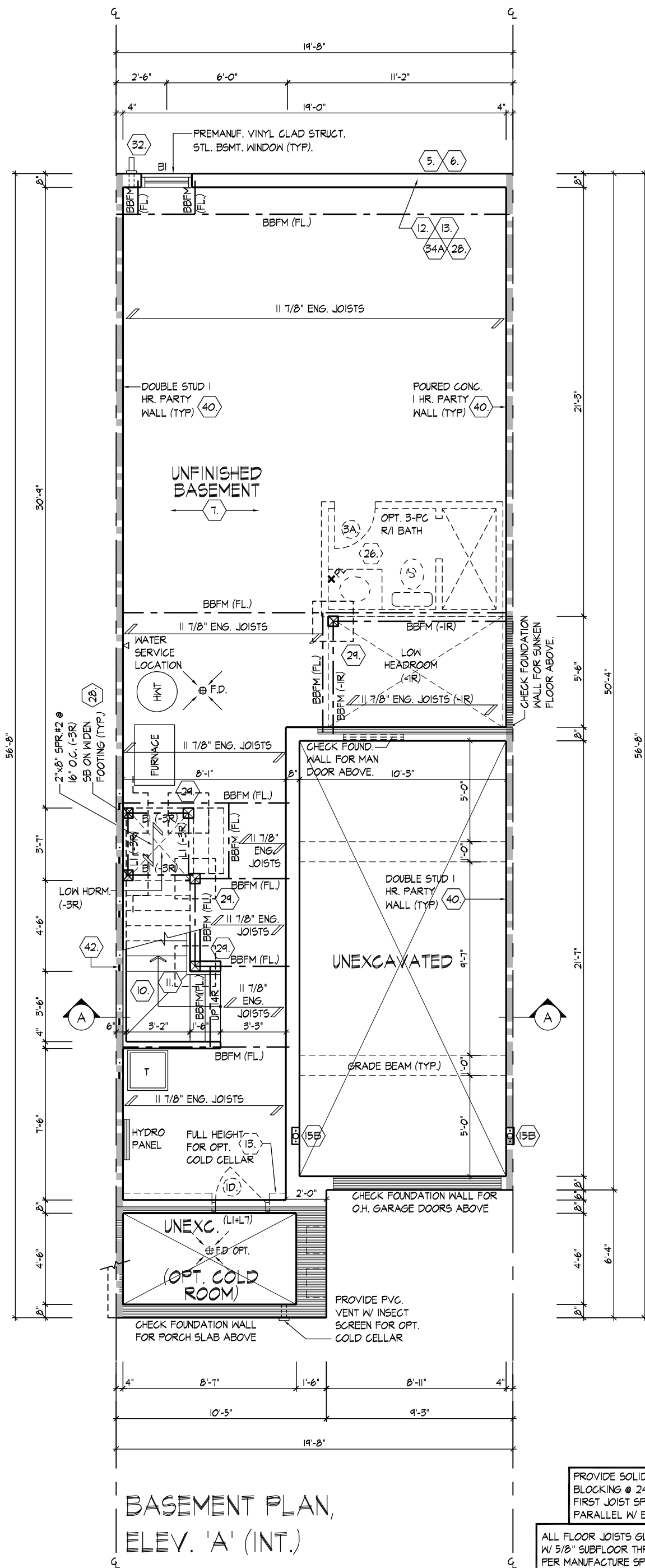
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RIVER RUN, AJAX, ONTARIO

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YSMNN3/16"=1'-0"212043WT051of 8  
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REV.2015.06.22

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BASEMENT PLAN,  
ELEV. 'A' (INT.)

**BASEMENT PLAN, ELEV. 'A' (INT.)**

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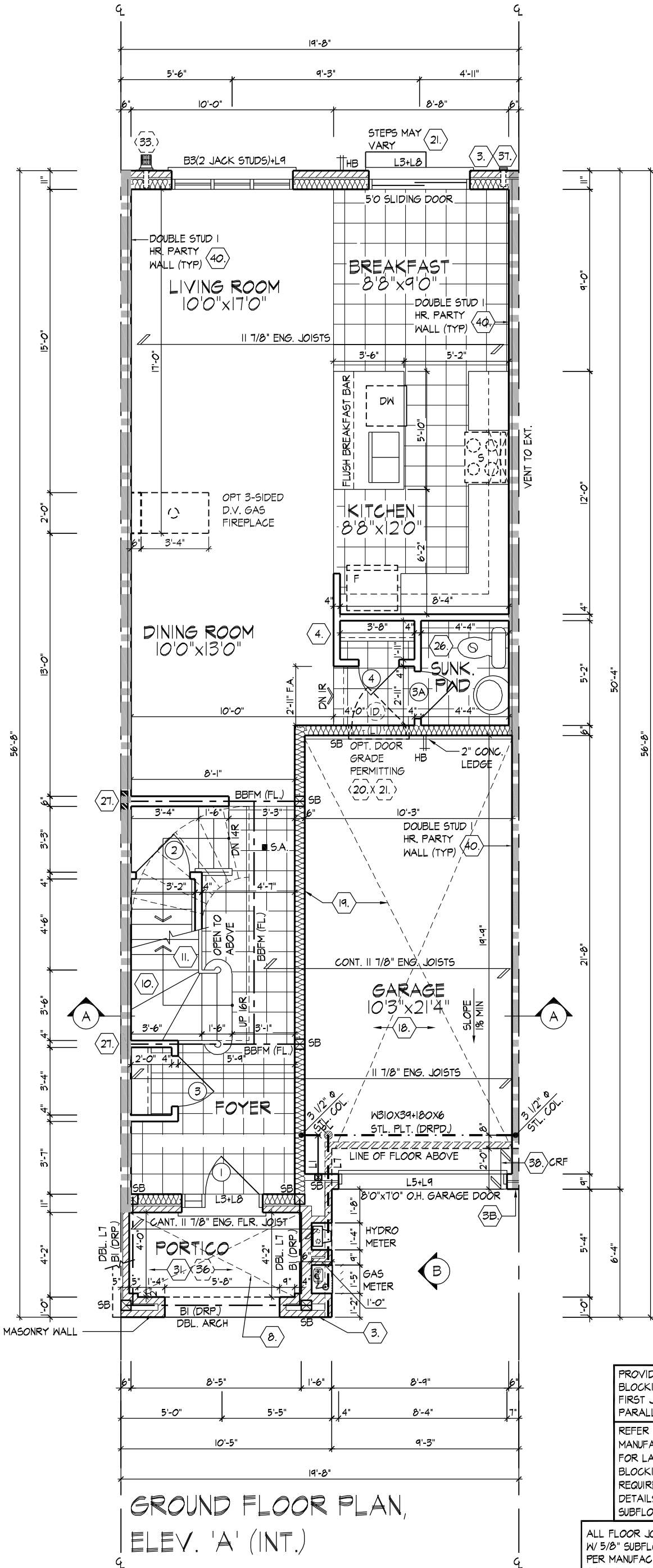
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GROUND FLOOR PLAN,  
ELEV. 'A' (INT.)

- DENOTES WELDED CONNECTION
- DENOTES BOLTED CONNECTION

PROVIDE SOLID WOOD BLOCKING @ 24" O.C. FOR FIRST JOIST SPAN WHEN PARALLEL W/ EXTERIOR WALL

REFER TO FLOOR JOIST MANUFACTURER'S DRAWINGS FOR LAYOUT, SPACING, BLOCKING & STRAPPING REQUIREMENTS, INSTALLATION DETAILS AND HANGER SIZES, & SUBFLOOR THICKNESS

ALL FLOOR JOISTS GLUED AND NAILED W/ 5/8" SUBFLOOR THROUGHOUT, AS PER MANUFACTURE SPECIFICATION. SPACE ALL FLOOR JOISTS @ 12" O.C. UNDER ALL CERAMIC TILE AREAS AS PER MANUFACTURE SPECIFICATION.

GROUND FLOOR PLAN, ELEV. 'A' (INT.)

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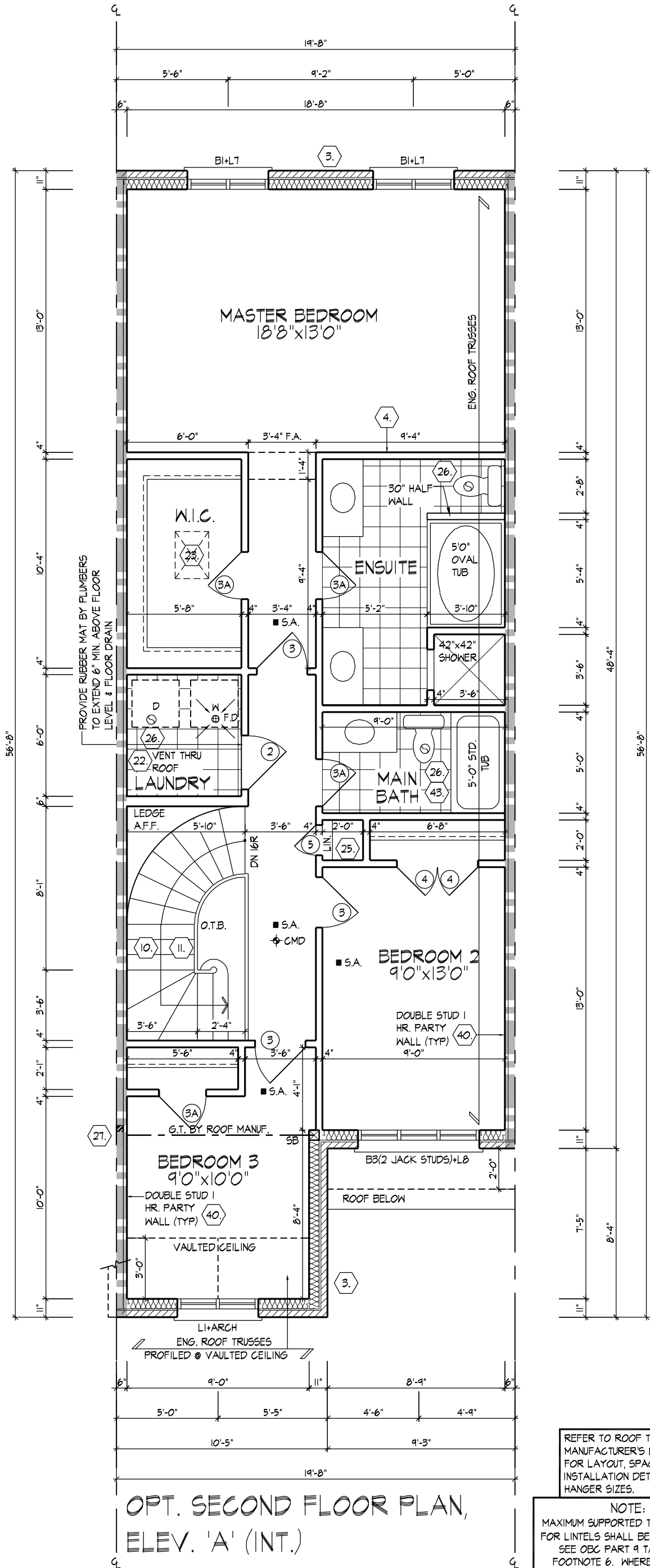
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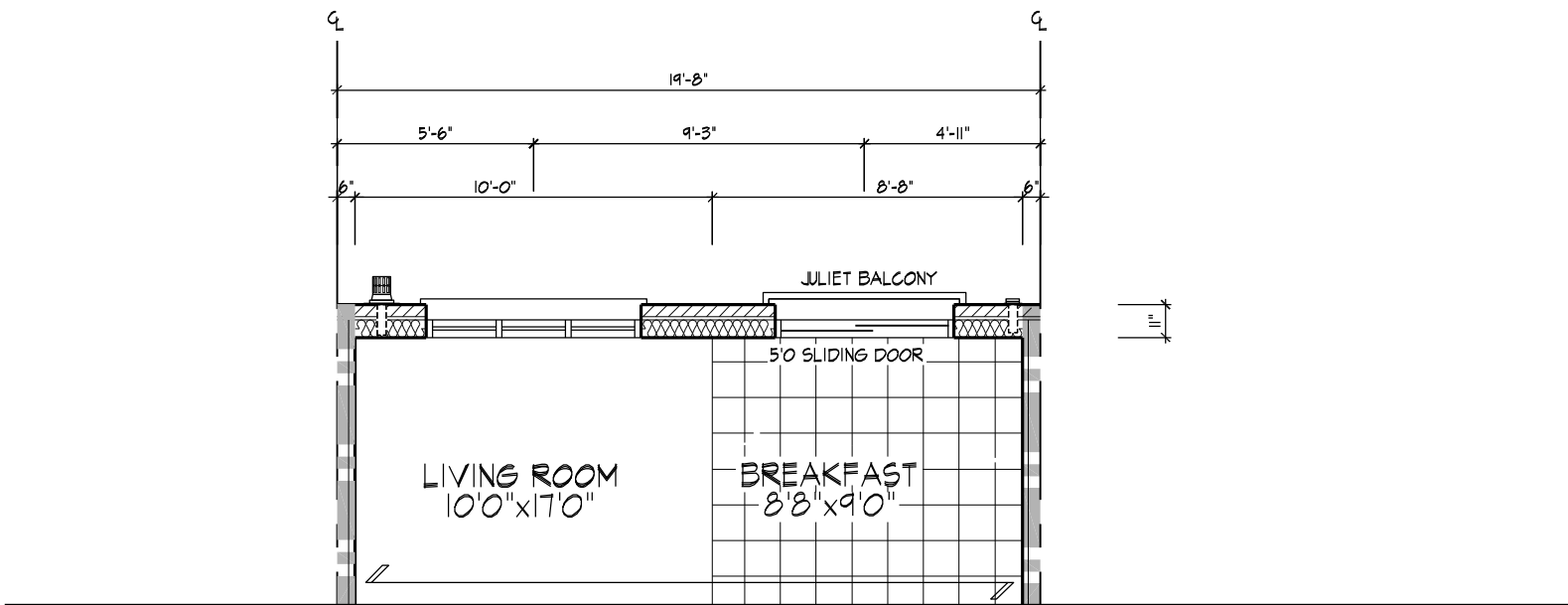
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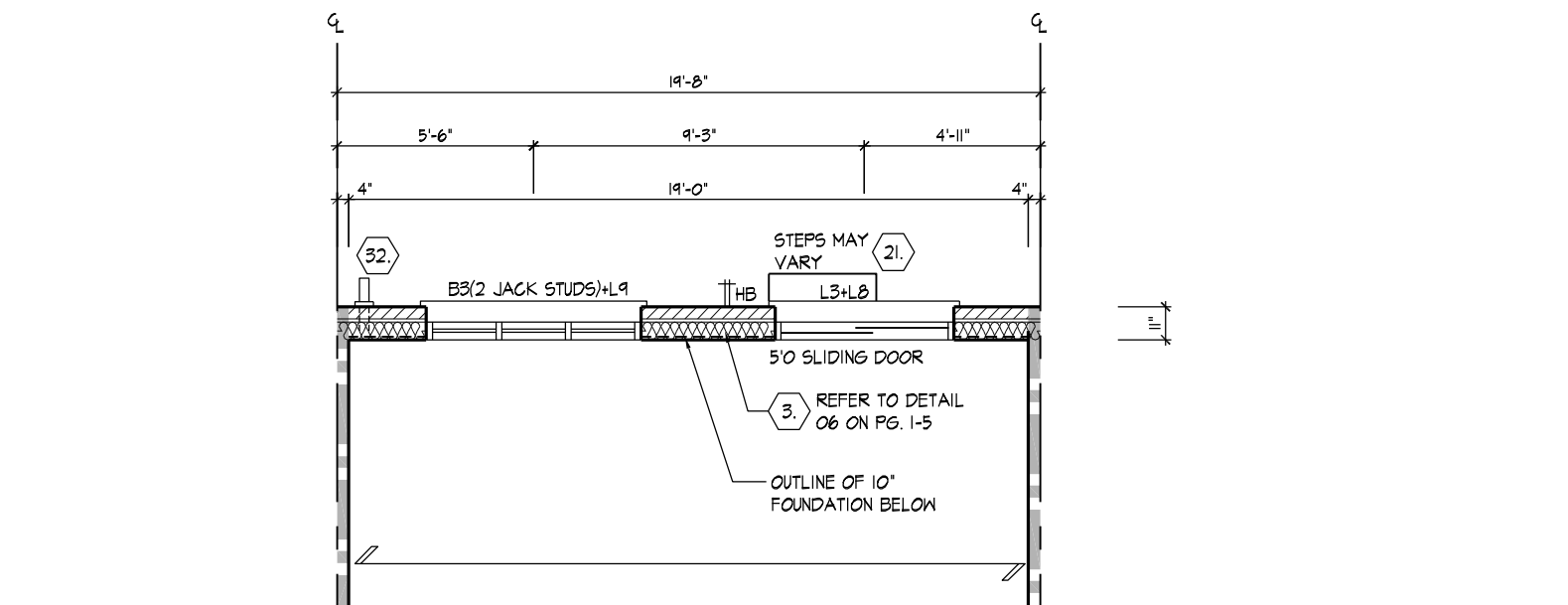


OPT. SECOND FLOOR PLAN, ELEV. 'A' (INT.)



PART. GROUND FLOOR PLAN,  
ELEV. 'A' (INT.)- W.O.B. COND.

NOTE:  
REFER TO STANDARD FLOOR  
PLANS FOR COMPLETE DIMENSIONS  
& STRUCTURAL INFORMATION



PART. BASEMENT FLOOR PLAN,  
ELEV. 'A' (INT.)- W.O.B. COND.

NOTE:  
REFER TO STANDARD FLOOR  
PLANS FOR COMPLETE DIMENSIONS  
& STRUCTURAL INFORMATION



PART. REAR ELEVATION 'A' (INT.)  
W.O.B. CONDITION

WINDOW SIZES FOR W.O.B. CONDITIONS:  
- W.O.B. = MATCH WIDTH OF WINDOW  
ABOVE AND WINDOWS TO BE 48" DEEP.  
TOP OF WINDOW TO BE @ 6'-10" A.F.F.

REFER TO FRONT ELEVATION & STANDARD  
REAR FOR TYPICAL NOTES & INFO.

PART. PLANS W.O.B. CONDITION

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QUALIFICATION INFORMATION  
Vijay Shivpaul 29444 BCIN

NAME  
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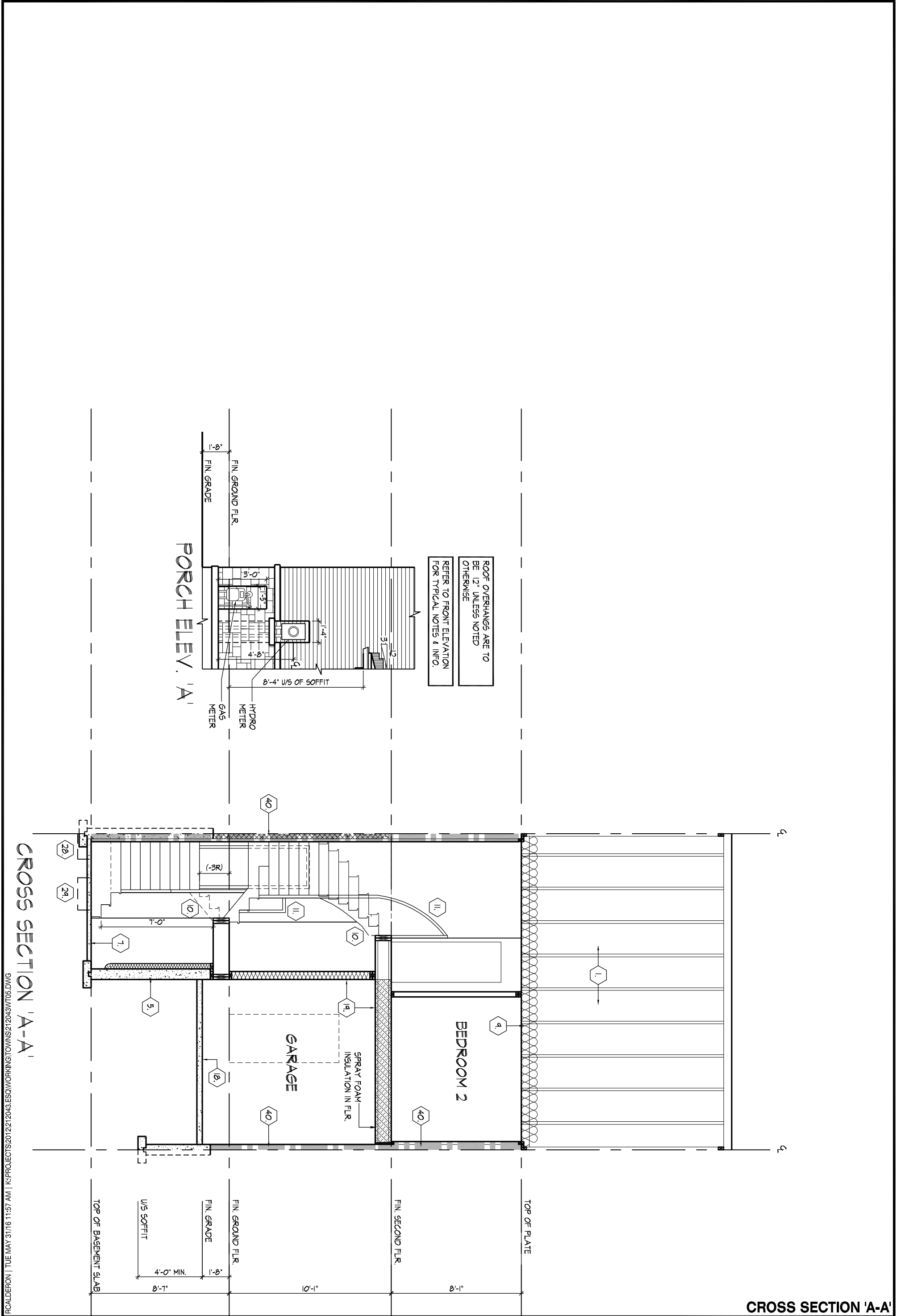
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SECTION 1.0. CONSTRUCTION NOTES

1

**ROOF CONSTRUCTION** (9.19., 9.23.13., 9.23.15.)  
No. 210 (10.25 kg/m2) ASPHALT SHINGLES, 3/8" (9.5) PLYWOOD SHEATHING WITH 1/4" CLIPS, APPROVED WOOD TRUSSES @ 24" (610) O.C., MAX. APPROVED EAVES PROTECTION TO EXTEND 2'-11" (890) FROM EDGE OF ROOF AND MIN. 12" (305) BEYOND INNER FACE OF EXTERIOR WALL, 2x4" (38x89) TRUSS BRACING @ 8'-0" (1830) O.C. AT BOARDS, CHORD, PEGGING, ANGLE EAVESTROUGH, FASCIA, RVL & VENTED SOFFIT, ATTIC VENTILATION 1:300 OF INSULATED CEILING AREA WITH 50% AT EAVES, EAVESTROUGH TO BE 4" MIN. WITH RVL CONNECTED TO STORM SEWERS OR TO DISCHARGE ONTO CONCRETE SPLASH PADS AS PER MUNICIPAL REQUIREMENTS. TOWNHOUSES TO HAVE 5" (127) MIN. EAVESTROUGH WITH ELEC. TRACED HEATER CABLE ALONG EAVESTROUGH AND DOWN RVL.

1A

**ICE AND WATER SHIELD**  
PROVIDE ICE AND WATER SHIELD IN THE AREAS INDICATED. THE ICE AND WATER SHIELD SHALL BE A SELF ADHERING AND SELF SEALING MEMBRANE, SIDE LAPS MUST BE A MINIMUM 3 1/2" (90) AND END LAPS A MINIMUM 6" (152), AND TO EXTEND UP DORMER WALLS A MINIMUM 12" (305).

1B

**PROFLED ROOF TRUSSES**  
ROOF TRUSSES SHALL BE PROFLED AND/OR STEPPED AT MAXED COFFER/TRAY CEILINGS. ANGLED TRAY CEILINGS WILL BE SHEATHED W/ 3/8" (9.5) PLYWOOD.

2

**SIDING WALL CONSTRUCTION (2"x6")**  
SIDING MATERIAL AS PER ELEVATION ATTACHED TO FRAMING MEMBERS, FURRING MEMBERS OR BLOCKING BETWEEN THE FRAMING MEMBERS ON APPROVED SHEATHING PAPER ON 3/8" (9.5) EXT. GRADE SHEATHING ON 2x6" (38x140) STUDS @ 16" (406) O.C., INSULATION, APPROVED 6 MIL POLYETHYLENE AIR/VAPOUR BARRIER, ON 1/2" (12.7) GYPSUM WALLBOARD INT. FIN. (GYPSUM SHEATHING, RIGID INSULATION, AND FIBERBOARD SHALL NOT BE USED FOR THE ATTACHMENT OF SIDING (9.23.16.3,(1)) (REFER TO 35 NOTE AS REQ.)

2B

**SIDING WALL @ GARAGE CONSTRUCTION (2"x4")**  
SIDING MATERIAL AS PER ELEVATION ATTACHED TO FRAMING MEMBERS, FURRING MEMBERS OR BLOCKING BETWEEN THE FRAMING MEMBERS ON APPROVED SHEATHING PAPER ON 3/8" (9.5) EXTERIOR TYPE SHEATHING ON STUDS CONFORMING TO O.B.C (9.23.10.1, & SECTION 1.1., 1/2" (12.7) GYPSUM WALLBOARD INTERIOR FINISH, RIGID INSULATION AND FIBERBOARD SHALL NOT BE USED FOR THE ATTACHMENT OF SIDING (9.23.16.3,(1)) (REFER TO 35 NOTE AS REQ.)

3

**BRICK VENEER WALL CONSTRUCTION (2"x6")**  
3 1/2" (90) BRICK VENEER 1" (25) AIR SPACE, 7/8"x7/0.03" (22x180x.76) GALV. METAL TIES @ 16" (406) O.C. HORIZ. 24" (600) O.C. VERT. TIES TO BE IN CONTACT WITH WOOD STUDS ONLY (9.23.0.5) APPROVED SHEATHING PAPER, 3/8" (9.5) EXTERIOR TYPE SHEATHING, 2x6" (38x140) STUDS @ 16" (406) O.C., INSULATION AND 6 mil POLYETHYLENE VAPOUR BARRIER WITH APPROVED CONTIN. AIR BARRIER, 1/2" (12.7) GYPSUM WALLBOARD INTERIOR FINISH, PROVIDE WEEP HOLES @ 32" (800) O.C. AT BOTTOM COURSE AND OVER OPENINGS, PROVIDE BASE FLASHING UP MIN. 6" (150) MIN. BEHIND BUILDING PAPER (9.20.13.6) (REFER TO 35 NOTE AS REQUIRED)

3B

**BRICK VENEER WALL @ GARAGE CONSTRUCTION (2"x4")**  
3 1/2" (90) BRICK VENEER 1" (25) AIR SPACE, 7/8"x7/0.03" (22x180x.76) GALV. METAL TIES @ 16" (406) O.C. HORIZ. 24" (600) O.C. VERT. TIES TO BE IN CONTACT WITH WOOD STUDS ONLY (9.23.0.5) APPROVED SHEATHING PAPER, 3/8" (9.5) EXTERIOR TYPE SHEATHING ON STUDS CONFORMING TO O.B.C (9.23.10.1, & SECTION 1.1., 1/2" (12.7) GYPSUM WALLBOARD INTERIOR FINISH, PROVIDE WEEP HOLES @ 32" (800) O.C. AT BOTTOM COURSE AND OVER OPENINGS, PROVIDE BASE FLASHING UP 6" (150) MIN. BEHIND BUILDING PAPER (9.20.13.6) (REFER TO 35 NOTE AS REQ.)

4

**INTERIOR STUD PARTITIONS** (9.23.9.8., 9.23.10)  
BEARING PARTITIONS SHALL BE A MINIMUM 2"x4" (38x89) @ 16" (406) O.C. FOR 2 STOREY AND 1" (25) O.C. FOR 3 STOREY. NON-BEARING PARTITIONS 2"x4" (38x89) @ 24" (610) O.C. PROVIDE 2"x4" (38x89) BOTTOM PLATE AND 2"x4" (38x89) TOP PLATE, 1/2" (12.7) INT. DRYWALL BOTH SIDES OF STUDS, PROVIDE 2"x6" (38x140) STUDS WHERE NOTED, PROVIDE 2"x4" (38x89) @ 24" (610) O.C. LADDER FRAMING WHERE WALLS INTERSECT PERPENDICULAR TO ONE ANOTHER, PROVIDE 2"x4" (38x89) WOOD BLOCKING ON FLAT @ 3'-11" (1194) O.C. MAX. BETWEEN FLOOR JOISTS WHEN NON-LOADBEARING WALLS ARE PARALLEL TO FLOOR JOISTS.

4A

**EXT. LOFT WALL CONSTRUCTION - NO CLADDING (2"x6")**  
3/8" (9.5) EXTERIOR TYPE SHEATHING, 2"x6" (38x140) STUDS @ 16" (406) O.C. INSULATION AND 6 mil POLYETHYLENE VAPOUR BARRIER WITH APPROVED CONT. AIR BARRIER, 1/2" (12.7) GYPSUM WALLBOARD INT. FINISH. (9.23)

5

**FOUNDATION WALL/FOOTINGS**  
15MPa (2200 PSI) POURED CONC. FOUNDATION WALL ON CONTINUOUS KEYED CONCRETE FOOTING. THE OUTSIDE OF THE FOUNDATION SHALL BE DAMPROOFED FROM THE TOP OF THE FOOTING TO FINISHED GRADE AND BRUSH COAT FROM THE TOP OF THE FOUNDATION GRADE. PROVIDE A DRAINAGE LAYER ON THE OUTSIDE OF THE FOUNDATION WALL, SEAL THE DRAINAGE LAYER AT THE TOP. THE TOP OF THE CONC. FOOTING SHALL BE DAMPROOFED. CONCRETE FOOTINGS SUPPORTING JOIST SPANS GREATER THAN 16'-1" (4900) SHALL BE SIZED IN ACCORDANCE WITH 9.15.3.4 (1),(2) OF THE O.B.C. (REFER TO CHART BELOW FOR RESPECTIVE SIZE). BRACE FOUNDATION WALL PRIOR TO BACKFILLING. ALL FOOTINGS SHALL REST ON NATURAL UNDISTURBED SOIL OF 75kPa OR COMPACTED ENGINEERED FILL WITH MIN. BEARING CAPACITY OF 150kPa. IF SOIL BEARING DOES NOT MEET MINIMUM CAPACITY, ENGINEERED FOOTINGS ARE REQUIRED. ACTUAL SOIL BEARING CAPACITY TO BE VERIFIED WITH SOIL ENGINEERING REPORT.  
REFER TO CONSTRUCTION DRAWINGS AND DETAILS FOR FOUNDATION WALL STRENGTH AND THICKNESS A/E 9.15.4.  
FOUNDATION WALLS SHALL NOT EXCEED 9'-10" (3.0m) IN UNSUPPORTED HEIGHT UNLESS OTHERWISE NOTED. (9.15.4.2,(1)).

UNREINFORCED SOLID CONCRETE FOUNDATION WALLS (9.15.4.2)				
STRENGTH	THICKNESS	MAX. HEIGHT FROM FIN. SLAB TO GRADE		
		UNSUPPORTED AT TOP	SUPPORTED AT TOP	
10 MPa	8"	3'-11" (1.20m)	7'-0" (2.15m)	
	10"	4'-7" (1.40m)	7'-6" (2.30m)	
	12"	4'-11" (1.50m)	7'-6" (2.30m)	
	15"	5'-1" (1.52m)	7'-6" (2.30m)	
20 MPa	8"	3'-11" (1.20m)	7'-6" (2.30m)	
	10"	4'-7" (1.40m)	7'-6" (2.30m)	
	12"	4'-11" (1.50m)	7'-6" (2.30m)	
	15"	5'-1" (1.52m)	7'-6" (2.30m)	

MINIMUM STRIP FOOTING SIZES FOR EXTERIOR WALLS (9.15.3)				
NUMBER FLOORS SUPPORTED	SUPPORTING INTERIOR	SUPPORTING EXTERIOR	SUPPORTING MASONRY PARTYWALL	
1	16" WIDE x 6" THICK	16" WIDE x 6" THICK	16" WIDE x 6" THICK	
2	24" WIDE x 8" THICK	20" WIDE x 6" THICK	24" WIDE x 8" THICK	
3	36" WIDE x 14" THICK	26" WIDE x 9" THICK	36" WIDE x 14" THICK	

5A

**FOUNDATION REDUCTION IN THICKNESS FOR MASONRY**  
WHERE THE TOP OF THE FOUNDATION WALL IS REDUCED IN THICKNESS TO PERMIT THE INSTALLATION OF MASONRY EXTERIOR FACING, THE REDUCED SECTION SHALL BE NOT LESS THAN 3 1/2" (90) THICK. THE BRICK VENEER SHALL BE TIED TO THE FOUNDATION WALL WITH CORROSION RESISTANT METAL TIES @ 7/78" (200) VERTICAL AND 2'-11" (889) HORIZONTAL, FLI VOID WITH MORTAR BETWEEN WALL AND BRICK VENEER (9.15.4.7(2),(3) & 9.20.9.4(3))

5B

**FOUNDATION REDUCTION IN THICKNESS FOR JOISTS**  
WHERE THE TOP OF THE FOUNDATION WALL IS REDUCED IN THICKNESS TO PERMIT THE INSTALLATION OF FLOOR JOISTS, THE REDUCED SECTION SHALL BE NOT MORE THAN 13 3/4" (350) HIGH & NOT LESS THAN 3 1/2" (90) THICK (9.15.4.7(1))

6

**WEEPING TILE** (9.14.3.)  
4" (100) Ø WEEPING TILE W/ FILTER CLOTH WRAP & 6" (152) CRUSHED STONE COVER

7

**BASEMENT SLAB OR SLAB ON GRADE** (9.16.4.3.)  
3" (80) MIN. 25MPa (3600psi) CONC. SLAB ON 4" (100) COARSE GRANULAR FILL, OR 20MPa (2900psi) CONC. WITH DAMPROOFING BELOW SLAB, PROVIDE 1/2" (12.7) IMPERVIOUS BOARD FOR BOND BREAK AT EDGE. (9.13) WHERE A BASEMENT SLAB IS WITHIN 24" (610) OF THE EXTERIOR GRADE PROVIDE RIGID INSUL. AROUND THE PERIMETER EXTENDING MIN. 24" (610) BELOW GRADE. FOR SLAB ON GRADE CONDITIONS RIGID INSULATION SHALL BE APPLIED TO THE UNDERSIDE OF THE ENTIRE SLAB. (ISB-12) 2.1.1.6,(5) & (6)

8

**EXPPOSED FLOOR TO EXTERIOR**  
PROVIDE SPRAY FOAM INSULATION BETWEEN CANT. JOIST AND INSTALL FIN. SOFFIT OR CLADDING AS PER ELEVATION TO W/ OF EXPOSED CANT. JOIST.

9

**EXPPOSED CEILING TO EXTERIOR w/ ATTIC**  
INSULATION, 6 mil POLYETHYLENE VAPOUR BARRIER, 1/2" (12.7) GYPSUM BOARD INTERIOR FINISH OR APPROVED EQ.

9A

**EXPPOSED CEILING TO EXTERIOR w/o ATTIC**  
PROVIDE SPRAY FOAM INSULATION, 6 mil POLYETHYLENE VAPOUR BARRIER, 5/8" (15.9) GYPSUM BOARD INT. FINISH OR APPROVED EQ. (CANULC-S705.2, 9.19.1)

10

**ALL STAIRS/EXTERIOR STAIRS** (9.8.1.2., 9.8.2., 9.8.4.)

	MAX. RISE	MIN. RISE	MAX. RUN	MIN. RUN	MIN. TREAD	MIN. TREAD
PRIVATE	7 7/8" (200)	5" (125)	14" (355)	8 1/4" (210)	14" (355)	9 1/4" (235)
PUBLIC	7" (180)	5" (125)	NO LIMIT	11" (280)	NO LIMIT	11" (280)

	MIN. STAIR WIDTH	CURVED STAIRS	ALL STAIRS
PRIVATE	2'-10" (860)	MIN. RUN 5 7/8" (150)	MAX. NOSING 1" (25)
PUBLIC	2'-11" (900)	MIN. AVG. RUN 7 7/8" (200)	

\*\* HEIGHT OVER STAIRS (HEADROOM) IS MEASURED VERTICALLY ACROSS WIDTH OF STAIRS FROM A STRAIGHT LINE TO THE TREAD & LANDING NOSING TO LOWEST POINT ABOVE AND NOT LESS THAN 6'-8" (1950) FOR SINGLE DWELLING UNIT & 6'-8 3/4" (2050) FOR EVERYTHING ELSE. (9.8.2.2.) REQUIRED LANDING IN GARAGE - O.B.C. 9.8.6.2,(3).

FOR AN EXTERIOR STAIR SERVING A GARAGE - W/ MORE THAN 3 RISERS, GUARDS, HANDRAILS & STEPS AS PER CONSTRUCTION HEX NOTE 10 & 11.

11

**GUARDS/RAILINGS** (9.8.7., 9.8.8.)  
GUARDS TO BE DESIGNED NOT TO FACILITATE CLIMBING AND PROVIDING MAX. OPENING CONFORMING TO O.B.C. 9.8.8.5. & 9.8.8.6. AND BE ABLE TO RESIST LOADS AS PER TABLE 9.8.8.2.  
GUARD HEIGHTS - O.B.C. 9.8.8.  
INTERIOR GUARDS: 2'-11" (900) MIN.  
EXTERIOR GUARDS: 2'-11" (900) MIN. (LESS THAN 5'-11" (1800) TO GRADE) 3'-6" (1070) MIN. (MORE THAN 5'-11" (1800) TO GRADE)  
GUARDS FOR EXIT STAIRS: 3'-0" (920) MIN.  
GUARDS FOR LANDINGS @ EXIT STAIRS: 3'-6" (1070) MIN.  
GUARDS FOR FLOORS & RAMPS IN GARAGES (SERVICE STAIRS) FLOOR OR RAMP W/O EXTERIOR WALLS THAT IS 23 5/8" (600) OR MORE ABOVE ADJACENT SURFACE REQUIRES CONT. CURB MIN. 6" (150) HIGH, AND GUARD MIN. 3'-0" (920) HIGH.  
REQUIRED GUARDS:  
BETWEEN WALKING SURFACE & ADJACENT SURFACE WITH A DIFFERENCE IN ELEVATION MORE THAN 23 5/8" (600) OR ADJACENT SURFACE WITH 3'-11" (1200) & WALKING SURFACE W/ A SLOPE MORE THAN 1 IN 12 SHALL BE PROTECTED WITH GUARDS PER CONSTRUCTION HEX NOTE 11.  
HANDRAIL HEIGHTS - O.B.C. 9.8.7. - REQUIRED AS PER 9.8.7.1,(3)  
MIN. HEIGHT AT STAIRS OR RAMP: 2'-10" (865)  
MAX. HEIGHT AT STAIRS OR RAMP: 3'-2" (965)  
MAX. HEIGHT AT LANDING: 3'-6" (1070)  
STAIRS OR RAMP MIN. 7'-3" (2200) WIDE; 2'-9" (865) MIN. HEIGHT

12

**SILL PLATES**  
2x4" (38x89) SILL PLATE WITH 1/2" (12.7) Ø ANCHOR BOLTS 8" (200) LONG. EMBEDDED MIN. 4" (100) INTO CONC. @ 7'-10" (2388) O.C., CAULKING OR GASKET BETWEEN PLATE AND TOP OF FOUNDATION WALL. USE NON-SHRINK GROUT TO LEVEL SILL PLATE WHEN REQUIRED (9.23.7.)

13

**BASEMENT INSULATION** (ISB-12) 2.1.1.6.)  
PROVIDE BLANKET INSULATION W/ BUILT IN 6 mil POLYETHYLENE VAPOUR BARRIER, INSULATION TO EXTEND NO MORE THAN 8" (200) ABOVE FINISHED BASEMENT FLOOR, DAMPROOFED WITH BUILDING PAPER BETWEEN THE FOUNDATION WALL AND INSULATION UP TO GRADE LEVEL.

14

**BEARING STUD PARTITION IN BASEMENT** (9.15.3.6., 9.23.10.1)  
2x4" (38x89) STUDS @ 16" (406) O.C., 2"x4" (38x89) SILL PLATE ON DAMPROOFING MATERIAL OR STEEL TOP PLATE TIE IN 4x3/8" 1/2" (12.7) Ø ANCHOR BOLTS 8" (200) LONG. EMBEDDED 4" (100) MIN. INTO CONC. @ 7'-10" (2380) O.C. 4" (100) HIGH CONC. CURB ON CONC. FOOTING, FOR SIZE REFER TO HEX NOTE 5. ADD HORIZ. BLOCKING AT MID-HEIGHT IF WALL IS UNFINISHED.

15

**ADJUSTABLE STEEL BASEMENT COLUMN** (9.17.3.4.)  
9'-10" (3000) MAX. SPAN BETWEEN COLUMNS, 3 1/2" (90) SINGLE TUBE ADJUSTABLE STEEL COLUMN CONFORMING TO CAN/CSSB-7.2M. AND WITH 6"x6"x3/8" (152x152x9.5) STEEL PLATE TOP & BOTTOM, FIELD WELD BASEMENT COLUMN CONNECTION. 3/4"x3/4"x16" (870x870x410) CONC. FOOTING ALL ON NATURAL UNDISTURBED SOIL OF 75kPa OR COMPACTED ENGINEERED FILL WITH MIN. BEARING CAPACITY OF 150kPa AS PER SOILS REPORT.

15A

**NON-ADJUSTABLE STEEL BASEMENT COLUMN**  
3 1/2" (90) Ø x 0.188" (4.78) NON-ADJUSTABLE STEEL COLUMN WITH 6"x6"x3/8" (152x152x9.5) STEEL PLATE TOP & BOTTOM, FIELD WELD BASEMENT COLUMN CONNECTION. 4x2"x42"x18" (1070x1070x460) CONC. FOOTING ALL ON NATURAL UNDISTURBED SOIL OF 75kPa OR COMPACTED ENGINEERED FILL WITH MIN. BEARING CAPACITY OF 150kPa AS PER SOILS REPORT.

15B

**NON-ADJUSTABLE STL. COLUMN AT FOUNDATION WALL**  
3 1/2" (90) Ø x 0.188" (4.78) NON-ADJUSTABLE STEEL COLUMN WITH 6"x6"x3/8" (152x152x9.5) STEEL PLATE TOP & BOTTOM, FIELD WELD BASEMENT COLUMN CONNECTION. 4x2"x42"x18" (1070x1070x460) CONC. FOOTING ALL ON NATURAL UNDISTURBED SOIL OF 75kPa OR COMPACTED ENGINEERED FILL WITH MIN. BEARING CAPACITY OF 150kPa AS PER SOILS REPORT.

16

**STEEL BEAM BEARING AT FOUNDATION WALL** (9.23.8.1.)  
BASE POCKET OR 8"x8" (200x200) POURED CONC. NIB WALLS, MIN. BEARING 3 1/2" (90).

17

**WOOD STRAPPING AT STEEL BEAMS** (9.23.4.3,(3), 9.23.9.3.)  
1"x3" (19x64) CONTIN. WOOD STRAPPING BOTH SIDES OF STEEL BEAM.

18

**GARAGE SLAB** (9.16., 9.35.)  
4" (100) 32MPa (4640psi) CONC. SLAB WITH 5-8% AIR ENTRAINMENT ON OPT. 4" (100) COARSE GRANULAR FILL WITH COMPACTED SUB-BASE OR COMPACTED NATIVE FILL, SLOPE TO FRONT @ 1% MIN.

19

**GARAGE TO HOUSE WALLS/CEILING** (9.10.9.16.)  
1/2" (12.7) GYPSUM BOARD ON WALL AND CEILING BETWEEN HOUSE AND GARAGE, PLUS REQUIRED INSULATION IN WALLS AND SPRAY FOAM FOR CEILINGS, TAPE AND SEAL ALL JOINTS GAS TIGHT.

20

**GARAGE DOOR TO HOUSE** (9.10.9.16., 9.10.13.10., 9.10.13.15.)  
GAS-PROOF DOOR AND FRAME, DOOR EQUIPPED WITH SELF CLOSING DEVICE AND WEATHER STRIPPING.

21

**EXTERIOR AND GARAGE STEPS**  
PRECAST CONC. STEP OR WOOD STEP WHERE NOT EXPOSED TO WEATHER. MAX RISE 7/8" (200) MIN. TREAD 9'-4" (235). FOR THE REQUIRED NUMBER OF STEPS REFER TO SITING AND GRADING PLAN. PROVIDE CONCRETE STAIRS WITH MORE THAN 2 RISERS AND 2 TREADS SHALL BE PROVIDED WITH FOUNDATION AS REQUIRED BY ARTICLE 9.8.9.2. OR SHALL BE CANTILEVERED AS PER SUBSECTION 9.8.10.

22

**DRYER EXHAUST**  
CAPPED DRYER EXHAUST VENTED TO EXT. CONFORMING TO PART 6, OBC 9.32.

23

**ATTIC ACCESS** (9.19.2.1.)  
ATTIC ACCESS HATCH WITH MIN. AREA OF 0.32m2 AND NO DIM. LESS THAN 21 1/2" (645) WITH WEATHER STRIPPING, HATCHWAYS TO THE ATTIC OR ROOF SPACE SHALL BE FITTED WITH DOORS OR COVERS AND WILL BE INSULATED WITH MIN. R20 (RSI 3.52) (ISB-12) 2.1.1.7,(1))

24

**FIREPLACE CHIMNEYS** (9.21.)  
TOP OF FIREPLACE CHIMNEY SHALL BE 2'-11" (889) ABOVE THE HIGHEST POINT AT WHICH IT COMES IN CONTACT WITH THE ROOF AND 2'-0" (610) ABOVE THE ROOF SURFACE WITHIN A HORIZ. DISTANCE OF 10'-0" (3048) FROM THE CHIMNEY.

25

**LINEN CLOSET**  
PROVIDE 4 SHELVES MIN. 14" (356) DEEP.

26

**MECHANICAL VENTILATION** (9.32.1.3.)  
MECHANICAL EXHAUST FAN, VENTED TO EXTERIOR, TO PROVIDE AT LEAST ONE AIR CHANGE PER HOUR. SEE GENERAL NOTE 2.3.

27

**PARTY WALL BEARING** (9.23.8)  
12"x12"x5/8" (280x280x15.9) STEEL PLATE FOR STEEL BEAMS AND 12"x12"x1/2" (280x280x12.7) STEEL PLATE FOR WOOD BEAMS BEARING MIN. 3'-12" (89) ON CONC. BLOCK PARTY WALL, ANCHORED WITH 2-3/4" (2-19) x 8" (200) LONG GALV. ANCHORS WITHIN SOLID BLOCK COURSE. LEVEL W/ NON-SHRINK GROUT. REFER TO NOTE SOLID BEARING (SECTION 3.0) FOR WD. STUD PARTY WALL.

28

**WOOD FRAMING IN CONTACT TO CONCRETE**  
WOOD BEARING WALLS AND BUILT-UP WOOD POSTS/BEAMS ADJACENT TO FOUNDATION WALLS SHALL BE SEPARATED FROM THE CONCRETE BY AT LEAST 1/2" mil POLY. THE UNDERSIDE OF BUILT-UP WOOD POSTS AND SILLS SHALL BE WRAPPED WITH 2 mil POLY. STRIP FOOTINGS SUPPORTING THE FOUNDATION WALL SHALL BE WIDENED 6" (152) BELOW THE BEARING WALL AND/OR WOOD POST. (9.17.4.3.)

29

**BUILT-UP WOOD POST AND FOOTING**  
3-2"x6" (3-38x140) BUILT-UP WOOD POST (UNLESS OTHERWISE NOTED) ON METAL BASE SHOE ANCHORED TO CONC. WITH 1/2" (12.7) Ø BOLT, 24"x24"x12" (610x610x305) CONC. FOOTING. (9.17.4.1., 9.15.3.7.)

30

**STEP FOOTINGS** (9.15.3.9.)  
MIN. HORIZ. STEP = 23 5/8" (600), MAX. VERT. STEP = 23 5/8" (600).

30C

**CONC. PORCH SLAB** (9.16.4.)  
MIN. 4" (100) CONCRETE SLAB ON GRADE ON 4" (100) COARSE GRANULAR FILL, REINFORCED WITH 6x6xW2.9kW2.9 MESH PLACED NEAR MID-DEPTH OF SLAB. CONC. STRENGTH 32MPa (4640psi) WITH 5-8% AIR ENTRAINMENT ON COMPACTED SUB-GRADE.

32

**FURNACE VENTING** (9.32.)  
DIRECT VENT FURNACE TERMINAL MIN. 3'-0" (915) FROM A GAS REGULATOR, MIN. 12" (305) ABOVE FIN. GRADE, FROM ALL OPENINGS, EXHAUST AND INTAKE VENTS, HRV INTAKE TO BE A MIN. 0'-0" (1830) FROM ALL EXHAUST TERMINALS. REFER TO GAS UTILIZATION CODE.

33

**FIREPLACE VENTING** (9.32.3.)  
DIRECT VENT GAS FIREPLACE VENT TO BE A MIN. 12" (305) FROM ANY OPENING AND ABOVE FIN. GRADE. REFER TO GAS UTILIZATION CODE.

34

**FLOOR FRAMING** (9.23.3.5., 9.23.3.4., 9.23.14.)  
T&G SUBFLOOR ON WOOD FLOOR JOISTS. FOR CERAMIC TILE APPLICATION SEE O.C. 9.30.6. ALL JOISTS WHERE REQUIRED TO BE BRIDGED WITH 2"x2" (38x38) CROSS BRACING OR SOLID BLOCKING @ 6'-11" (2108) O.C. MAX. ALL JOISTS TO BE STRAPPED WITH 1"x3" (19x64) @ 6'-11" (2108) O.C. UNLESS A PANEL, TILE CEILING FINISH IS APPLIED.

34A

**HEADER CONSTRUCTION**  
PROVIDE CONTINUOUS APPROVED AIR/VAPOUR BARRIER (HEADER WRAP) AROUND THE SILL PLATE, AROUND THE RIB BOARD AND UNDER THE BOTTOM PLATE. THE HEADER WRAP SHALL EXTEND 6" (152) BELOW THE TOP OF FOUNDATION WALL AND WILL BE SEALED TO THE CONCRETE FOUNDATION WALL. EXTEND HEADER WRAP 8" (152) UP THE INTERIOR SIDE OF THE STUD WALL AND OVERLAP WITH THE VAPOUR BARRIER AND SEAL THE JOINT. ALL EDGES/JOINTS MUST BE MECHANICALLY CLAMPED.

35

**EXPPOSED BUILDING FACE w/ LIMITING DISTANCE <= 3'-11" (1.20m)**  
WALL ASSEMBLY CONTAINS INSULATION CONFORMING TO CANULC-S702 & HAVING A MASS OF NOT LESS THAN 1,22 kg/m2 OF WALL SURFACE AND 1/2" (12.7) 7.5MPa GYPSUM WALLBOARD INTERIOR FINISH. EXTERIOR CLADDING MUST BE NON-COMBUSTIBLE. WALL ASSEMBLY REQUIRES TO HAVE A FIRE RESISTANCE RATING OF NOT LESS THAN 45 MINUTES & CONFORMING TO O.B.C. (9.10.14, OR 9.10.15), REFER TO DETAILS FOR TYPE & SPECS.

36

**COLD CELLAR PORCH SLAB** (9.39.)  
FOR MAX. 8'-2" (2500) PORCH DEPTH, 3" (127) 32 MPa (4640psi) CONC. SLAB W/ 5-8% AIR ENTRAINMENT, REINF. WITH 10M BARS @ 7'-7" (200) O.C. EACH DIRECTION, W/ 1 1/4" (31.8) CONC. CURB FROM BOTTOM OF SLAB TO FIRST LAYER OF BARS & SECOND LAYER OF BARS LAID DIRECTLY ON TOP OF LOWER LAYER IN OPPOSITE DIR. 24"x24" (610x610) 10M DOWELS @ 23 5/8" (600) O.C., ANCHORED IN PERIMETER FDN. WALLS, SLOPE SLAB 1.0% FROM DOOR.

37

**RANGE HOODS AND RANGE-TOP FANS**  
COOKING APPLIANCE EXHAUST FANS VENTED TO EXTERIOR MUST CONFORM TO OBC 9.32.3.9, & 9.32.3.10.

38

**CONVENTIONAL ROOF FRAMING** (9.23.13., 9.23.15.)  
2x6" (38x140) RAFTERS @ 16" (406) O.C., 2"x8" (38x184) RIDGE BOARD, 2"x4" (38x89) COLLAR TIES AT MID-SPAN, CEILING JOISTS TO BE 2"x4" (38x89) @ 16" (406) O.C. FOR MAX. 9'-3" (2819) SPAN & 2"x6" (38x140) @ 16" (406) O.C. FOR MAX. SPAN 14'-7" (4450). RAFTERS FOR BUILT UP ROOF OVER PRE-ENGINEERED ROOF TRUSSES AND OR CONVENTIONAL FRAMING TO BE 2"x4" (38x89) @ 24" (610) O.C. UNLESS OTHERWISE SPECIFIED.

39

**TWO STOREY VOLUME SPACES** (9.23.10.1., 9.23.11., 9.23.16.)

WALL ASSEMBLY	WIND LOADS	
	<= 0.5 kPa (g50)	> 0.5 kPa (g50)
EXTERIOR STUDS	SPACING MAX HEIGHT	SPACING MAX HEIGHT
BRICK (2-38x140) SPR.#2	2'-2"x6" 12" (305) O.C., 18'-4" (5588)	8" (200) O.C., 18'-4" (5588)
SIDING	16" (406) O.C., 18'-4" (5588)	12" (305) O.C., 18'-4" (5588)
BRICK 2'-2"x6" ENGINEER STUDS	12" (305) O.C., 21'-0" (6400)	12" (305) O.C., 21'-0" (6400)
SIDING	16" (406) O.C., 21'-0" (6400)	18" (457) O.C., 21'-0" (6400)

STUDS ARE TO BE CONTINUOUS, C/W 3"x8" (9.5) THICK EXTERIOR PLYWOOD SHEATHING, PROVIDE SOLID WOOD BLOCKING BETWEEN WOOD STUDS @ 4'-0" (1220) O.C. VERTICALLY.

- FOR HORIZ. DISTANCES LESS THAN 9'-6" (2896) PROVIDE 2"x6" (38x140) STUDS @ 16" (406) O.C. WITH CONTIN. 2-2"x6" (2-38x140) TOP PLATE + 1-2"x6" (1-38x140) BOTTOM PLATE. OR: 3-2"x6" (3-38x184) CONT. HEADER AT GROUND FLOOR CEILING LEVEL TOE-NAILLED & GLUED AT TOP, BOTTOM PLATES & HEADERS.

- SUBJECT TO BE APPROVED BY PROJECT ENGINEER OR ENGINEERED LUMBER MANUFACTURER.

40

**1 HR. PARTY WALL (CONC. BLOCK)** (ISB-3) WALL TYPE 'B6' & 'B1b')  
1/2" (12.7) GYPSUM SHEATHING ON EACH SIDE ON 2"x2" (38x38) VERTICAL WD. STRAPPING @ 24" (610) O.C. ON 8" (200) CONC. BLOCK FILL STRAPPING CAVITY EACH SIDE WITH AT LEAST 90% OF ABSORPTIVE MATERIAL. PROCESSED FROM ROCK, SLAG OR GLASS, TAPE, FILL & SAND ALL GYPSUM JOINTS, EXPOSED BLOCK MUST BE SEALED W/ 2 COATS OF PAINT OR FURRED WITH 2"x2" (38x38) WD. STRAPPING & 1/2" (12.7) GYPSUM SHEATHING.

40

**1 HR. PARTY WALL (DOUBLE STUD)** (ISB-3) WALL TYPE 'W13c')  
5/8" (15.9) TYPE 'X' GYPSUM SHEATHING ON EXTERIOR SIDE OF 2 ROWS OF 2"x4" (38x89) STUDS @ 16" (406) O.C., MIN. 1" (25) APART ON SEPARATE 2"x4" (38x89) SILL PLATES, FILL ONE SIDE OF STUD CAVITY WITH AT LEAST 90% OF ABSORPTIVE MATERIAL PROCESSED FROM ROCK, SLAG OR GLASS, TAPE FILL AND SAND ALL GYPSUM JOINTS.

40A

**2 HR. FIREWALL** (ISB-3) WALL TYPE 'B6' & 'B2g')  
1/2" (12.7) GYPSUM SHEATHING ON EACH SIDE ON 2"x2" (38x38) VERTICAL WOOD STRAPPING @ 24" (610) O.C. ON 8" (200) CONC. BLOCK 75% SOLID, FILL STRAPPING CAVITY EACH SIDE WITH AT LEAST 90% OF ABSORPTIVE MATERIAL PROCESSED FROM ROCK, SLAG OR GLASS, TAPE, FILL & SAND ALL GYPSUM JOINTS AT UNFINISHED AREAS, EXTERIOR FACE OF CONC. BLOCK TO BE SEALED WITH 2 COATS OF PAINT, GYPSUM SHEATHING TO BE ATTACHED TO CONC. BLOCK, (REFER TO DETAILS)

41

**STUCCO WALL CONSTRUCTION (2"x6")**  
STUCCO FINISH CONFORMING TO O.B.C. SECTION 9.28. AND APPLIED PER MANUFACTURERS SPECIFICATIONS OVER 1 1/2" (38) MIN. EXTERIOR RIGID INSULATION BOARD ON APPROVED DRAINAGE MAT ON 1/2" (12.7) DENSGLASS GOLD GYPSUM BOARD ON 2"x6" (38x140) SPRUCE STUDS @ 16" (406) O.C., INSULATION, APPROVED 6 MIL. POLYETHYLENE VAPOUR BARRIER, 1/2" (12.7) GYPSUM WALLBOARD INTERIOR FINISH, (REFER TO 35 NOTE AS REQUIRED)

41B

**STUCCO WALL @ GARAGE CONST. (2"x4")**  
STUCCO FINISH CONFORMING TO O.B.C. SECTION 9.28. AND APPLIED PER MANUFACTURERS SPECIFICATIONS OVER 1 1/2" (38) MIN. EXTERIOR RIGID INSUL. BOARD ON APPROVED DRAINAGE MAT ON 1/2" (12.7) DENSGLASS GOLD GYPSUM BRD. ON STUDS CONFORMING TO O.B.C (9.23.10.1, & SECTION 1.1., 1/2" (12.7) GYPSUM WALLBOARD INT. FINISH, (REFER TO 35 NOTE AS REQ.)

42

**UNSUPPORTED FOUNDATION WALLS** (9.15.4.2.)  
REINFORCING AT STAIRS AND SUNKEN FLOOR AREAS  
2-20M BARS IN TOP PORTION OF WALL (UP TO 8'-0" OPENING)  
3-20M BARS IN TOP PORTION OF WALL (8'-0" TO 10'-0" OPENING)  
4-20M BARS IN TOP PORTION OF WALL (10'-0" TO 15'-0" OPENING)  
- BARS STACKED VERTICALLY AT INTERIOR FACE OF WALL  
REINFORCING AT BASEMENT WINDOWS  
2-15M HORIZ. REINFORCING ON THE INSIDE AND OUTSIDE FACE OF THE FOUNDATION WALL BELOW THE WIN. SILL. EXTEND BARS 24" (610) BEYOND THE OPENING, 2-15M VERTICAL REINFORCING ON THE INSIDE AND OUTSIDE FACE OF THE FOUNDATION WALL ON EACH SIDE OF THE WINDOW OPENING.  
- BARS TO HAVE MIN. 2" (50) CONC. COVER  
- BARS TO EXTEND 2'-0" (610) BEYOND BOTH SIDES OF OPENING

43

**STUD WALL REINFORCEMENT**  
PROVIDE STUD WALL REINFORCEMENT IN MAIN BATHROOM CONFORMING TO O.B.C. (9.5.2.3,(1) AND 3.8.3.8,(3)) (REFER TO DETAILS)

44

**WINDOW WELLS**  
WHERE A WINDOW OPENS INTO A WINDOW WELL, A CLEARANCE OF NOT LESS THAN 21 5/8" (550) SHALL BE PROVIDED IN FRONT OF THE WINDOW. EVERY WINDOW WELL SHALL BE DRAINED TO THE FOOTING LEVEL OR OTHER SUITABLE LOCATION WITH A 4" (100) WEEPING TILE C/W A FILTER CLOTH WRAP AND FILLED WITH CRUSHED STONE. (9.9.10.1,(5), 9.14.6.3.)

45

**SLOPED CEILING CONSTRUCTION** (ISB-12) 2.1.1.7., 9.23.4.2.)  
2"x12" (38x286) ROOF JOISTS @ 16" (406) O.C. MAX. (UNLESS OTHERWISE NOTED) W/ 2"x2" (38x38) PURLINS @ 16" (406) O.C. PERPENDICULAR TO ROOF JOIST (PURLINS NOT REQ. W/ SPRAY FOAM), W/ INSULATION BETWEEN JOIST, 6 mil POLYETHYLENE VAPOUR BARRIER, 1/2" (12.7) GYPSUM WALLBOARD INT. FINISH OR APPROVED EQ. INSULATION VALUE DIRECTLY ABOVE THE INNER SURFACE OF EXTERIOR WALLS SHALL NOT BE LESS THAN R20 (3.52 RSI).

46

**FLAT ROOF/BALCONY CONSTRUCTION**  
WATERPROOFING MEMBRANE FULLY ADHERED TO 5/8" (15.9) T&G EXTERIOR GRADE PLYWOOD SHEATHING ON 2"x2" (38x38) PURLINS ANGLED TOWARDS SCUPPER @ 2% MINIMUM LAID PERPENDICULAR TO 2"x8" (38x184) FLOOR JOISTS @ 16" (406) O.C. (UNLESS OTHERWISE NOTED), BUILT UP CURB TO BE 4" (100) MIN. ABOVE FINISHED BALCONY FLOOR, CONTINUOUS 1" TRIM DRIP EDGE TO BE PROVIDED ON OUTSIDE FACE OF CURB, SCUPPER DRAIN TO BE LOCATED 24" (610) MIN. AWAY FROM WINDOW, PREFINISHED ALUMINUM OR PANEL FOR UNDERSIDE OF SOFFIT (9.23.2.3). REMOVE CURB WHERE REQ.

47

**BALCONY CONDITION**  
SEE FLAT ROOF/BALCONY CONSTRUCTION NOTE. INCLUDE 2"x4" (38x89) PT. DECKING W/ 1/4" (6.4) GAPS LAID FLAT PARALLEL TO JOISTS ON 2"x4" (38x89) PT. SLEEPERS @ 12" (305) O.C. LAID FLAT PERPENDICULAR TO JOISTS  
**BALCONY OVER HEATED SPACE CONDITION**  
SEE FLAT ROOF