

## GENERAL NOTES:

1. ATTACHED STRUCTURAL PLANS ARE DRAWN BASED ON ARCHITECTURAL DRAWINGS PREPARED BY OTHERS AND PROVIDED BY OWNER. ALL DIMENSIONS SHALL BE TAKEN FROM ARCHITECTURAL DRAWINGS AND ALL EXISTING DIMENSIONS MUST BE VERIFIED ON SITE PRIOR TO CONSTRUCTION.

2. LATEST APPROVED DRAWINGS SUPERSEDES ALL PREVIOUSLY SUBMITTED AND STAMPED DRAWINGS.

3. PERMIT DRAWINGS ONLY COVER GENERAL SCOPE OF WORK AND DESIGN ENGINEER'S SITE SUPERVISION IS REQUIRED TO ADDRESS ALL STRUCTURAL ISSUES AS APPLICABLE TO THE PROJECT. SITE INSTRUCTION BY DESIGN ENGINEER SUPERSEDES DESIGN DRAWINGS.

4. ANY STRUCTURAL DEFICIENCY IN PLANS TO BE REPORTED TO THE DESIGNER BEFORE CONSTRUCTION.

5. CONSTRUCTOR SHALL REVIEW ALL PLANS AND NOTIFY THE ENGINEER IF THERE IS DISCREPANCY BETWEEN STRUCTURAL PLANS AND ARCHITECTURAL DESIGN .

6. STRUCTURAL PLANS ARE GENERAL AND ONLY SHOW ADEQUATE MEMBER SIZES. CONSTRUCTION DETAILS INCLUDING BUT NOT LIMITED TO LOCATION OF BEAMS/COLUMNS TO AVOID CONFLICT WITH OTHER MEMBERS OR HOW TO SUPPORT LVL BEAM ON STEEL POSTS ARE RESPONSIBILITY OF BUILDER.

7. OPTIMUM STRUCTURAL CORP (OSC) DOES NOT ASSUME ANY LIABILITIES FOR ANY CHANGES MADE TO THE APPROVED BUILDING DEPARTMENT PERMIT DRAWINGS.

8. CONTRACTOR IS FULLY RESPONSIBLE FOR SHORING AND SUPPORTING EXISTING STRUCTURE THAT WILL REMAIN PRIOR, DURING AND UNTIL COMPLETION OF THE WORK. CONTRACTOR IS ALSO FULLY RESPONSIBLE TO SHORE ANY EXCAVATION AND THE NEIGHBORING PROPERTIES.

9. CONTRACTOR(S) AND OWNER ARE RESPONSIBLE FOR ARRANGING REQUIRED SITE VISITS BY THE APPROPRIATE GOVERNMENT AUTHORITIES.

10. AFTER DEMOLITION/REMOVALS CONSULT WITH OSC FOR POSSIBLE CHANGES TO THE STRUCTURAL DESIGN.

11. CONTRACTOR TO VERIFY SITE CONDITIONS AND MAKE ANY NECESSARY ADJUSTMENTS TO THE FOUNDATION HEIGHT, STEPPING AND VENEERING TO SUIT THE GRADE.

12. ANY DEVIATIONS FROM THESE DRAWINGS AND SPECIFICATIONS REQUIRED WRITTEN APPROVAL FROM OSC PRIOR TO CONSTRUCTION.

13. LOADS DURING CONSTRUCTION SHALL NOT EXCEED DESIGN LOADS AS SPECIFIED.

14. SIZE OF STRUCTURAL MEMBERS ARE SPECIFIED IN GENERAL AND ALL CONNECTIONS AND CSA REQUIREMENTS SHALL BE DETAILED AND FOLLOWED BY CONSTRUCTOR.

15. FLOOR JOISTS , STUDS AND ALL OTHER STRUCTURAL MEMBERS OTHER THAN SPECIFIED, SHALL COMPLY WITH MANUFACTURER'S SPEC

## TIMBER:

1. TIMBER DESIGN SHALL COMPLY WITH CSA CAN3-086-M80

2. ALL JOISTS, RAFTERS AND STUDS SHALL BE NO. 2 EASTERN SPRUCE UNLESS NOTED OTHERWISE.

3. FLOOR JOISTS , STUDS AND ALL OTHER STRUCTURAL MEMBERS OTHER THAN SPECIFIED, SHALL COMPLY WITH MANUFACTURER'S SPEC.

9. ALL LVL BEAMS ARE LP LVL 2.0E TYPE OR SIMILAR.

10. TRUSSES TO COMPLY WITH TRUSS DESIGNER'S PLAN STAMPED BY P.ENG

11. CONNECTIONS FOR STUDS, RAFTERS AND JOISTS SHALL COMPLY WITH REQUIREMENTS IN PART 9 OBC, UNLESS NOTED OTHERWISE.

12. ALL FLUSH JOISTS SHALL BE SUPPORTED WITH STEEL JOIST HANGERS MANUFACTURED BY SIMPSON STRONG TIE OR APPROVED EQUAL.

13. BEAMS OR LINTELS MADE OF MULTIPLE PIECES SHALL BE NAILED TOGETHER WITH 91 MM (3.5") COMMON NAILS AT 12" C/C TOP AND BOTTOM, UNLESS MORE AS SPECIFIED ON PLAN.

14. UNLESS NOTED OTHERWISE, PLYWOOD SHEATHING SHALL BE USED IT SHALL BE SPRUCE, 1/2" THICK FOR WALLS, 3/4" THICK FOR FLOORS AND 1/2" THICK FOR ROOF SHEATHING.

15. ALL FLOOR SHEATHING SHALL BE GLUED AND SCREWED (2" SCREWS).

16. NO HOLES ARE TO BE CUT OR DRILLED IN JOISTS EXCEPT AS PERMITTED IN THE BUILDING CODE, OR BY THE WOOD I MANUFACTURER.

17. NO CHORDS IN WOOD I'S OR ANY PART OF WEB WITHIN 2" OF THE TOP OR BOTTOM MAY BE CUT OR DRILLED.

18. ALL EXTERIOR / EXPOSED WOOD SHALL BE PRESSURE TREATED PINE.

19. FASTENERS SHALL BE HOT DIPPED GALVANIZED

20. USE 2-2X6@12" O.C. FOR STUD WALLS MORE THAN 10' HEIGHT UNLESS SPECIFIED OTHERWISE. ALSO ADD SOLID BLOCKING AT NOT MORE THAN 3'-11" O/C.

21. ALL PARTITION WALLS PARALLEL TO FLOOR JOISTS SHALL HAVE DOUBLE FLOOR JOISTS BENEATH THEM.

22. ALL JOISTS ENDING AT A HEADER OR BEAM (FLUSH) MUST HAVE JOIST HANGER SUPPORTS.

23. AT THE END SUPPORTS OF THE FLOOR JOISTS, BLOCKING SHALL BE INSTALLED BETWEEN EVERY TWO JOISTS AND SHALL BE PROPERLY NAILED.

24. THE FIRST TWO JOISTS AT EACH SIDE OF THE FLOORS PARALLEL TO THE EXTERIOR WALLS SHALL BE CONNECTED TO EACH OTHER AND TO THE RIM BOARD/JOISTS WITH BLOCKING NOT LESS THAN 2"x4" SPACED NOT MORE THAN 3'-11" APART.

## STRUCTURAL STEEL:

1. STRUCTURAL WIDE FLANGE SHAPES (W) TO CONFORM TO CAN/CSA G40.20/G40.21 GRADE 350W OR ASTM A992/A992M GRADE 50 ( 345 MPa)

2. ANGLES , PLATES AND CHANNELS (L,C) TO CONFORM TO CAN/CSA G40.20/G40.21 GRADE 350W

3. HOLLOW STRUCTURAL STEEL ( HSS) TO CONFORM TO ASTM A500 GRADE C.

4. STEEL FIELD FABRICATION AND ERECTION TO CONFORM TO CSA-S16-09, SECTION 28 AND 239.

5. ANCHOR RODS TO CONFORM TO ASTM F1554 OR 300W THREADED ROD CONFORM TO CSA G40.21-M, UNLESS OTHERWISE NOTED.

6. STRUCTURAL BOLTS, NUTS AND WASHER CONFORM TO ASTM A325M.

7. CENTER BEARING PLATES UNDER BEAMS UNLESS OTHERWISE NOTED OR SHOWN.

8. ALL CANTILEVERED STEEL BEAMS SHALL BE CONNECTED BY MOMENT CONNECTION TO BEARING POINT.

9. NO STRUCTURAL STEEL SHALL BE CUT IN THE FIELD UNLESS REVIEWED AND APPROVED BY A PROFESSIONAL ENGINEER.

10. ALL STEEL COLUMNS SHALL BE SECURED IN BOTH DIRECTIONS TO THE FLOOR ASSEMBLIES. MAXIMUM UNSUPPORTED HEIGHT SHALL NOT EXCEED FLOOR HEIGHT

11. ALL STEEL BEAMS TO BE WELDED TOGETHER AND TO THE STEEL POSTS AT SITE

12. HSS POSTS SHALL HAVE TOP & BOTTOM PLATES WELDED AT SHOP.

13. ALL STEEL POST SUPPORTED ON CONCRETE WALL SHALL BE ANCHORED TO THE WALL BY NOT LESS THAN 2-5/8" BOLTS.

14. STEEL BEAM NOTE: PROVIDE WEB STIFFENERS UNDER ALL POINT LOADS AND OVER BEARING POINTS.

15. WELDED SHEAR STUDS SHALL BE MADE FROM ASTM A-108 COLD ROLLED, DEFORMED WIRE MEETING MECHANICAL PROPERTIES OF ASTM A-496 AND SHALL BE WELDED PER MANUFACTURER'S RECOMMENDATION. STUDS SHALL BE 3/4" IN DIAMETER AND SHALL HAVE A LENGTH OF 3" WHEN 1.5" DECK SPECIFIED AND 4.5" WHEN 3" DECK IS SPECIFIED.

16. STEEL BEAM NOTE: PROVIDE WEB STIFFENERS UNDER ALL POINT LOADS AND OVER BEARING POINTS. WELD 1"x36"x1/4" TIES@48" O.C. AND SECURE TO FLOOR FRAMING WITH SCREWS.

17. PROVIDE MINIMUM 150 mm BEARING FOR STEEL LINTELS AND BEAMS,

## CONCRETE, REINFORCEMENT, AND CONCRETE BLOCK:

1. CONCRETE SHALL BE DESIGNED, MIXED, PLACED, CURED, AND TESTED IN ACCORDANCE WITH CAN3-A438.

2. CEMENT SHALL MEET THE REQUIREMENTS OF CAN/CSA-A5 "PORTLAND CEMENT"

3. AGGREGATES SHALL CONFORM TO CAN/CSA-A23.1-M "CONCRETE MATERIAL AND METHODS OF CONCRETE CONSTRUCTION". AGGREGATES SHALL BE CLEAN, WELL GRADED, AND FREE OF INJURIOUS AMOUNTS OF ORGANIC AND OTHER DELETERIOUS MATERIAL.

4. UN-REINFORCED CONCRETE IS TO HAVE A MINIMUM COMPRESSIVE STRENGTH OF NOT LESS THAN 3500 PSI AFTER 28 DAYS.

5. ALL DOWELS SHALL HAVE MINIMUM EMBEDMENT OF 600 mm INTO WALLS AND SLABS UNLESS OTHERWISE NOTES OR SHOWN.

6. PROVIDE DOWELS ITO WALLS SIMILAR IN NUMBER , SIZE, AND SPACING TO THE VERTICAL STEEL IN THE WALL.

7. CONSTRUCTION JOINTS ARE NOT ALLOWED IN BEAMS.

8. MINIMUM CONCERT COVER TO REINFORCEMENT IN NON-CROSVIE ENVIRONMENT IS 2".

9. NON-SHRINK GROUT SHALL HAVE MINIMUM 35 MPa COMPRESSION STRENGTH AFTER 28 DAYS.

10. EXPOSED CONCRETE SLABS SHALL BE 4650 PSI CONC. W/5-8% AIR ENTRAINMENT UNLESS SPECIFIED OTHERWISE.

11. CONCRETE BLOCK MASONRY SHALL CONFORM TO CAN-3A165.1.

12. PROVIDE TYPE "S" MORTAR IN ALL MASONRY WALLS AND VENEERS.

13. AMIN. 190MM DEPTH OF SOLID MASONRY OR CONCRETE BLOCK OR CONCRETE SHALL BE PROVIDED UNDER ALL BEAMS AND COLUMNS AS PER OBC 9.20.8.4.(2).

## DESIGN LOADS:

- FLOOR LIVE LOADS : 40 PSF
- FLOOR DEAD LOAD : 15 PSF ( 25 PSF FOR MARBLE FINISH)
- SNOW AND WIND LOAD : SEE SITE LOCATION SPECIFIC LOADS IN LATEST OBC

## LEGENDS:

 **S.B. (SOLID BEARING)**

 **3-2X6, WOOD POST**

 **S.P: HSS 4X4<sup>1/2</sup> STEEL POST**  
**S.P1 ( WHERE NOTED) : HSS 6X6<sup>1/2</sup> STEEL POST**

## FOUNDATION:

1. FOUND ALL FOOTINGS ON NATURALLY CONSOLIDATED UNDISTURBED SOIL WITH MINIMUM SLS BEARING CAPACITY OF 100 KPa. IF THESE CONDITIONS DO NOT PREVAIL, CONTACT DESIGN ENGINEER BEFORE PROCEEDING WITH THE WORK.

2. BEFORE PLACING FOOTINGS ON SUBGRADE, A QUALIFIED GEOTECHNICAL SPECIALIST SHALL VERIFY THAT THE PROPOSED SUBGRADE ALLOWABLE BEARING CAPACITY HAS BEEN ATTAINED.

3. FOUND EXTERIOR FOOTINGS AND OTHER FOOTINGS SUSCEPTIBLE TO DAMAGE FROM FROST ACTION A MINIMUM OF 4 FEET BELOW FINISHED GRADE IF NOT NOTED TO BE FOUNDED LOWER.

4. PROVIDE TEMPORARY FROST PROTECTION DURING CONSTRUCTION FOR ALL FOOTINGS WHICH ARE NOT FOUNDED A MINIMUM OF 4 FEET BELOW FINISHED GRADE.

5. FOUND NEW FOOTINGS WHICH ARE LOCATED ADJACENT TO EXISTING FOOTINGS, AT THE SAME ELEVATION AS THE EXISTING FOOTINGS, UNLESS NOTED OTHERWISE.

6. THE LINE OF SLOPE BETWEEN ADJACENT FOOTINGS OR EXCAVATIONS OR ALONG STEPPED FOOTINGS SHALL NOT EXCEED A RISE OF 7 IN A RUN OF 10.

7. DO NOT PLACE BACKFILL AGAINST FOUNDATION WALLS AND RETAINING WALLS UNTIL THE FLOOR CONSTRUCTION AT TOP AND BOTTOM OF WALLS HAVE BEEN CONSTRUCTED.

8. GROUND WATER LEVEL MUST BE INSPECTED DURING THE CONSTRUCTION. FOR FOOTINGS CLOSER THAN WIDTH OF THE FOOTING TO THE TOP OF THE GROUND WATER LEVEL, THE WIDTH AND THICKNESS MUST BE DOUBLED UNLESS OTHERWISE INSTRUCTED BY A GEOTECHNICAL ENGINEER.

9. ALL EXTERIOR FOOTINGS TO BE A MINIMUM OF 4'-0" BELOW GRADE AND TO BE RESTING ON ADEQUATE BEARING UNDISTURBED SOIL. IF OVER EXCAVATED, BUILD UP FOOTING THICKNESS AND/OR FOUNDATION WALL HEIGHT, STEP THE FOOTINGS WHERE REQUIRED AS PER OBC. 9.15.3.8.

10. ANY LOOSE AND MOIST SOIL MUST BE REMOVED PRIOR TO PLACING ANY CONCRETE. NO WATER SHALL EXIST ON THE GRADE PRIOR TO PLACING ANY CONCRETE. CONSLUT WITH DESIGN ENGINEER OR A PROFESSIONAL SOIL ENGINEER AS REQUIRED.

## GENERAL REVIEW:

IF COMMITMENT FOR GENERAL REVIEW HAS BEEN SUBMITTED WITH THE PERMIT APPLICATION , MINIMUM 48 HRS NOTICE IS REQUIRED FOR ANY INSPECTION BY ENGINEER. FOR GREATER CLARITY, ENGINEER WILL NOT KNOW WHEN INSPECTION REQUIRED UNLESS NOTIFIED IN ADVANCED.

SCOPE OF THESE PLANS IS LIMITED TO STRUCTURAL DESIGN ONLY. COMPLIANCE WITH DESIGN AND PERMIT DRAWINGS IS RESPONSIBILITY OF THE CONSTRUCTOR. POWER OF ENFORCEMENT OF THE ACT STAYS WITH THE MUNICIPALITY THAT HAS JURISDICTION OVER THE WORK. TAHAMI ENGINEERING AND ITS STAFF DO NOT SUPERVISE THE WORK AND DO NOT ENFORCE COMPLIANCE WITH PERMIT DRAWINGS.

DATE	NO.	DESCRIPTION

PROJECT DESIGNER:



319 Elmwood Ave.  
Richmond Hill,  
ONTARIO, L4C 1L7  
Tel: 416 428 6360  
ey1.inc.info@gmail.com

### REGISTRATION INFORMATION

Required unless design is exempt under 2.17.4.1. of the building code.

**EY1 INC.** **33885**  
FIRM NAME FIRM BCIN

### QUALIFICATION INFORMATION

Required unless design is exempt under 2.17.5.1. of the building code.

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.

**HOSSEIN EFTEKHARI** **25970**  
NAME SIGNATURE BCIN

ENGINEER'S STAMP:

PROJECT TITLE:

## INTERIOR RENOVATION ROOMING HOUSE

414 Dundas Street East,  
Toronto, Ontario

DRAWING TITLE:

## GENERAL NOTES

Scale: As Noted

Drawn by: H.E.

Date Started: AUGUST-2019

PROJECT No.:

190801

DRAWING No.:

A0

## LIMITATION OF LIABILITY AND SCOPE OF WORK FOR STRUCTURAL ENGINEER:

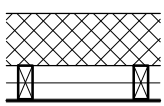
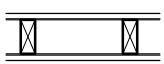
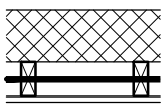
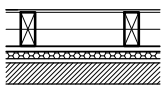
OSC REFERS TO OPTIMUM STRUCTURAL CORP AND ITS AGENTS  
SCOPE : STRUCTURAL DESIGN AND DRAWINGS, DETAIL AND NOTES FOR PERMIT APPLICATION PACKAGE.

SOIL ENGINEERING, SHORING DESIGN , GLASS GUARDS AND RAILINGS AND CONTRACTIBILITY REVIEW IS EXCLUDED FROM SCOPE OF OUR WORK.

BY RETAINING OSC AND USING THESE DRAWINGS, CLIENT ACKNOWLEDGES THAT OSC AND ITS AGENTS RELIES ON DRAWINGS PROVIDED BY ARCHITECTURAL /DESIGNER'S FIRM AND ITS LIABILITY TO OWNER AND ALL THIRD-PARTIES IS LIMITED TO THE LOWEST OF AMOUNT OF HIS DEIGN FEE OR COST OF DAMAGE FOR ANY AND ALL INJURIES, DAMAGES, CLAIMS, LOSSES, EXPENSES, OR CLAIM EXPENSES (INCLUDING ATTORNEYS' FEES) ARISING OUT OF THIS AGREEMENT FROM ANY CAUSE OR CAUSES.

DATE	NO.	DESCRIPTION

WALLS SCHEDULE

<p>W1</p> 	<p><b>EXISTING CONC. BLOCK FDN. WALL</b>  <b>1/2" GYPSUM BOARD AND CONTINUOUS 6mil VAPOUR BARRIER</b>  <b>2"x4" WOODEN STUD @ 16" O/C</b>  <b>R-22 BATT INSULATION</b>  <b>MASONRY FLASHING AND WEeping HOLES @ 24" o/c, TYPICAL</b></p>	<p>W3</p> 	<p><b>DRYWALL PARTITION</b>  <b>2"x4" WOODEN STUD @ 16" O/C</b>  <b>1/2" GYPSUM BOARD</b>  <b>BOTH SIDE, PAINTED</b></p>
<p>W2</p> 	<p><b>EXISTING CONCRETE BLOCK WALL PARTY WALL 1 HR F/R</b>  <b>CONCRETE BLOCK WALL</b>  <b>2"x4" WOODEN STUD @ 16" O/C</b>  <b>WITH 4" ACOUSTICAL INSULATION</b>  <b>2 LAYER OF 1/2" GYPSUM BOARD TYPE "X"</b>  <b>EXISTING TO MAINTAIN ON OTHER SIDE</b></p>	<p>W4</p> 	<p><b>EXISTING EXTERIOR BRICK VENEER WALL</b>  <b>EXISTING BRICK</b>  <b>METAL TIES @ 16" O/C</b>  <b>1" AIR SPACE</b>  <b>TYVEK HOUSE WRAP WITH ALL SEAMS TAPED</b>  <b>1/2" EXTERIOR GRADE PLYWOOD SHEATHING</b>  <b>2"x4" WOODEN STUD @ 16" O/C</b>  <b>MIN. R-22 FIBERGLASS BATT INSULATION</b>  <b>6 mil "SUPER SD" POLY VAPOUR BARRIER</b>  <b>1/2" GYPSUM BOARD, PAINTED</b></p>

PROJECT DESIGNER:



**EY1**  
DESIGN & BUILD

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Tel: 416 428 6360  
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


**REGISTRATION INFORMATION**  
 Required unless design is exempt under 2.17.4.1. of the building code.

EY1 INC. **33885**  
 FIRM NAME FIRM BCIN

**QUALIFICATION INFORMATION**  
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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.

HOSSEIN EFTEKHARI **25970**  
 NAME SIGNATURE BCIN

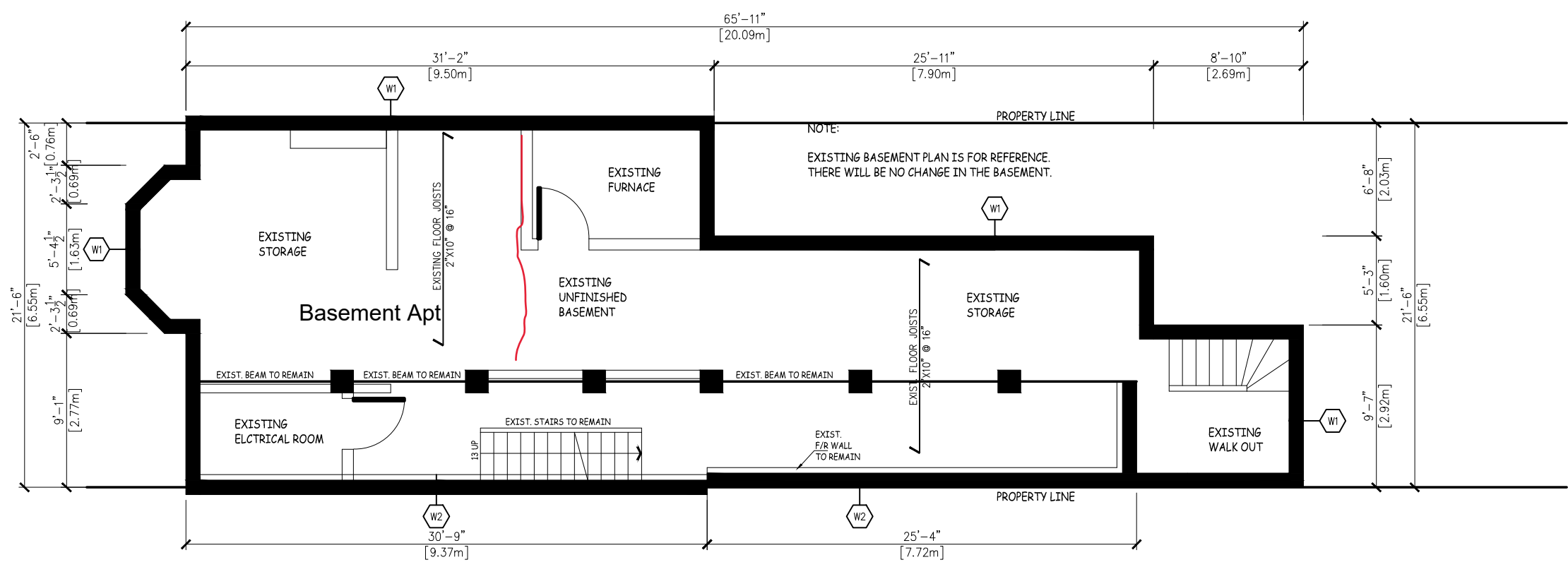
- LEGEND:
-  EXIST. EXTERIOR WALL TO REMAIN
  -  EXIST. INTERIOR WALL TO REMAIN
  -  PROPOSED NEW PARTITION WALL
  -  EXISTING WALL TO REMOVE

PROJECT TITLE:  
**INTERIOR RENOVATION ROOMING HOUSE**  
 414 Dundas Street East,  
 Toronto, Ontario

DRAWING TITLE:  
**BASEMENT PLAN**

Scale: As Noted  
 Drawn by: H.E.  
 Date Started: AUGUST-2019

PROJECT No.: 190801 | DRAWING No.: A1



**1 BASEMENT PLAN**  
 A1 SCALE: 1/8" = 1'-0"

DATE	NO.	DESCRIPTION
OCT.01,19	1	AS INDICATED
OCT.04,19	2	AS INDICATED

PROJECT DESIGNER:



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**REGISTRATION INFORMATION**

Required unless design is exempt under 2.17.4.1. of the building code.

EY1 INC. 33885  
FIRM NAME FIRM BCIN

**QUALIFICATION INFORMATION**

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HOSSEIN EFTEKHARI 25970  
NAME SIGNATURE BCIN

**LEGEND:**

- EXIST. EXTERIOR WALL TO REMAIN
- EXIST. INTERIOR WALL TO REMAIN
- PROPOSED NEW PARTITION WALL
- EXISTING WALL TO REMOVE

**PROJECT TITLE:**

**INTERIOR RENOVATION ROOMING HOUSE**

414 Dundas Street East,  
Toronto, Ontario

**DRAWING TITLE:**

**FIRST FLOOR PLAN**

Scale: As Noted

Drawn by: H.E.

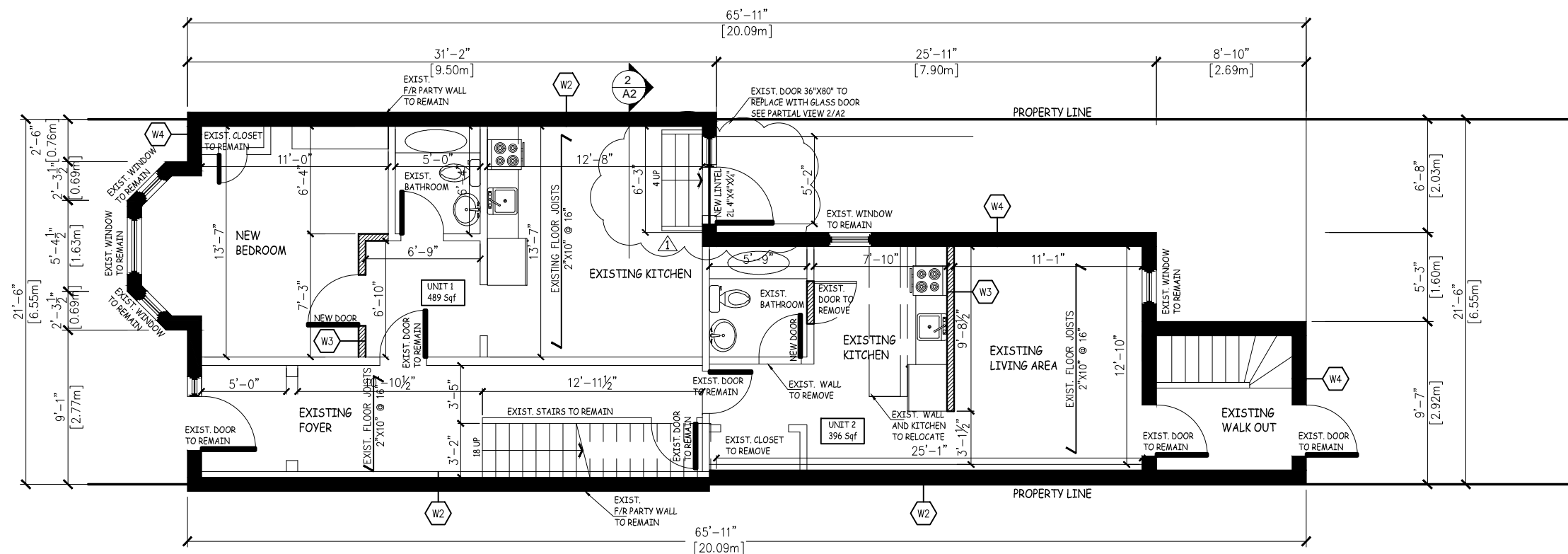
Date Started: AUGUST-2019

PROJECT No.:

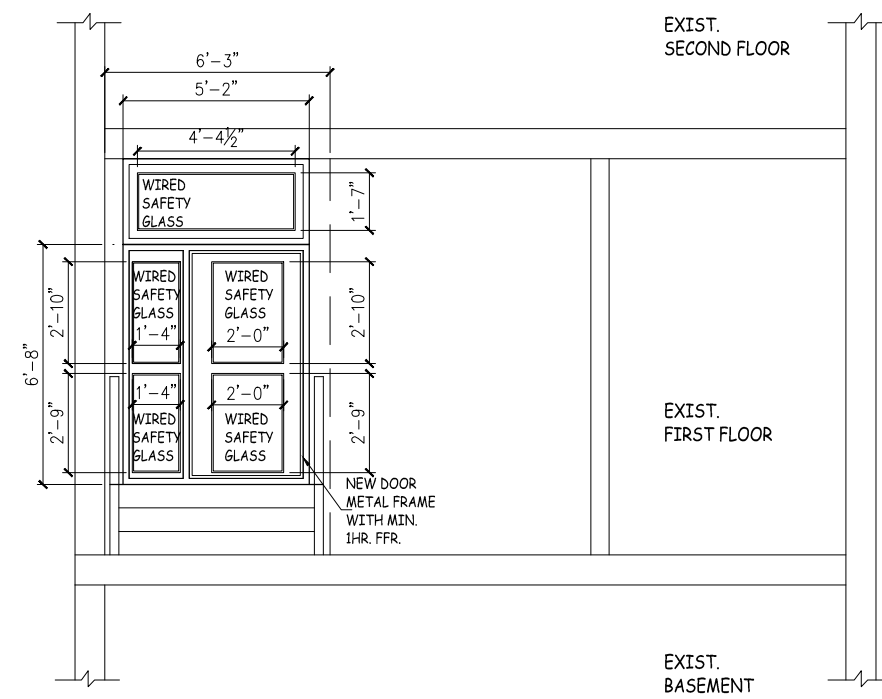
DRAWING No.

190801

**A2**



**1 FIRST FLOOR PLAN**  
SCALE: 1/8" = 1'-0"



**2 PARTIAL VIEW**  
SCALE: 3/16" = 1'-0"

DATE	NO.	DESCRIPTION
OCT.01,19	1	AS INDICATED
OCT.04,19	2	AS INDICATED

PROJECT DESIGNER:



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EY1 INC. FIRM NAME	33885 FIRM BCIN

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HOSSEIN EFTEKHARI NAME	<i>H. Eftekhari</i> SIGNATURE	25970 BCIN
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LEGEND:

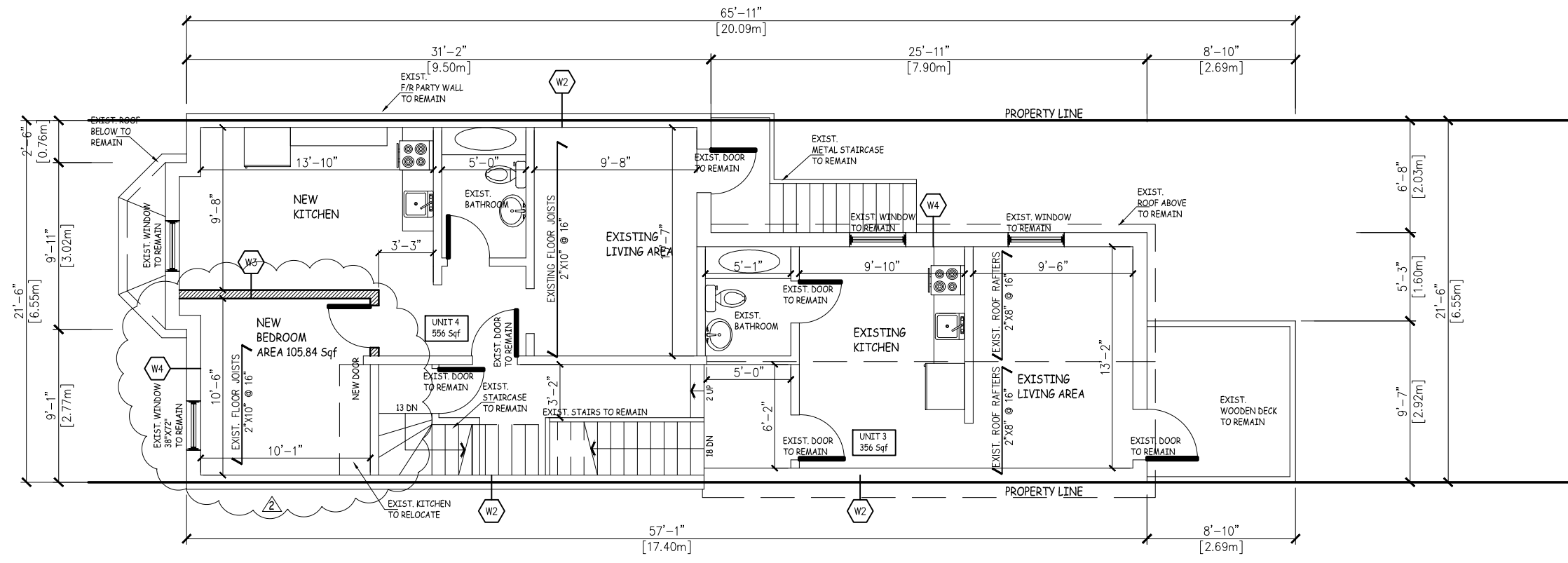
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	EXIST. INTERIOR WALL TO REMAIN
	PROPOSED NEW PARTITION WALL
	EXISTING WALL TO REMOVE

PROJECT TITLE:  
**INTERIOR RENOVATION ROOMING HOUSE**  
414 Dundas Street East,  
Toronto, Ontario

DRAWING TITLE:  
**SECOND FLOOR PLAN**

Scale:	As Noted
Drawn by:	H.E.
Date Started:	AUGUST-2019

PROJECT No.:	DRAWING No.:
190801	A3



**1 SECOND FLOOR PLAN**  
SCALE: 1/8" = 1'-0"

DATE	NO.	DESCRIPTION

PROJECT DESIGNER:



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Tel: 416 428 6360  
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**REGISTRATION INFORMATION**

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<b>EY1 INC.</b>	<b>33885</b>
FIRM NAME	FIRM BCIN


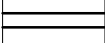
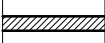
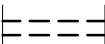
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<b>HOSSEIN EFTEKHARI</b>	<i>H. Eftekhari</i>	<b>25970</b>
NAME	SIGNATURE	BCIN

LEGEND:

-  EXIST. EXTERIOR WALL TO REMAIN
-  EXIST. INTERIOR WALL TO REMAIN
-  PROPOSED NEW PARTITION WALL
-  EXISTING WALL TO REMOVE

PROJECT TITLE:

**INTERIOR RENOVATION ROOMING HOUSE**

414 Dundas Street East,  
Toronto, Ontario

DRAWING TITLE:

**THIRD FLOOR PLAN**

Scale: As Noted

Drawn by: H.E.

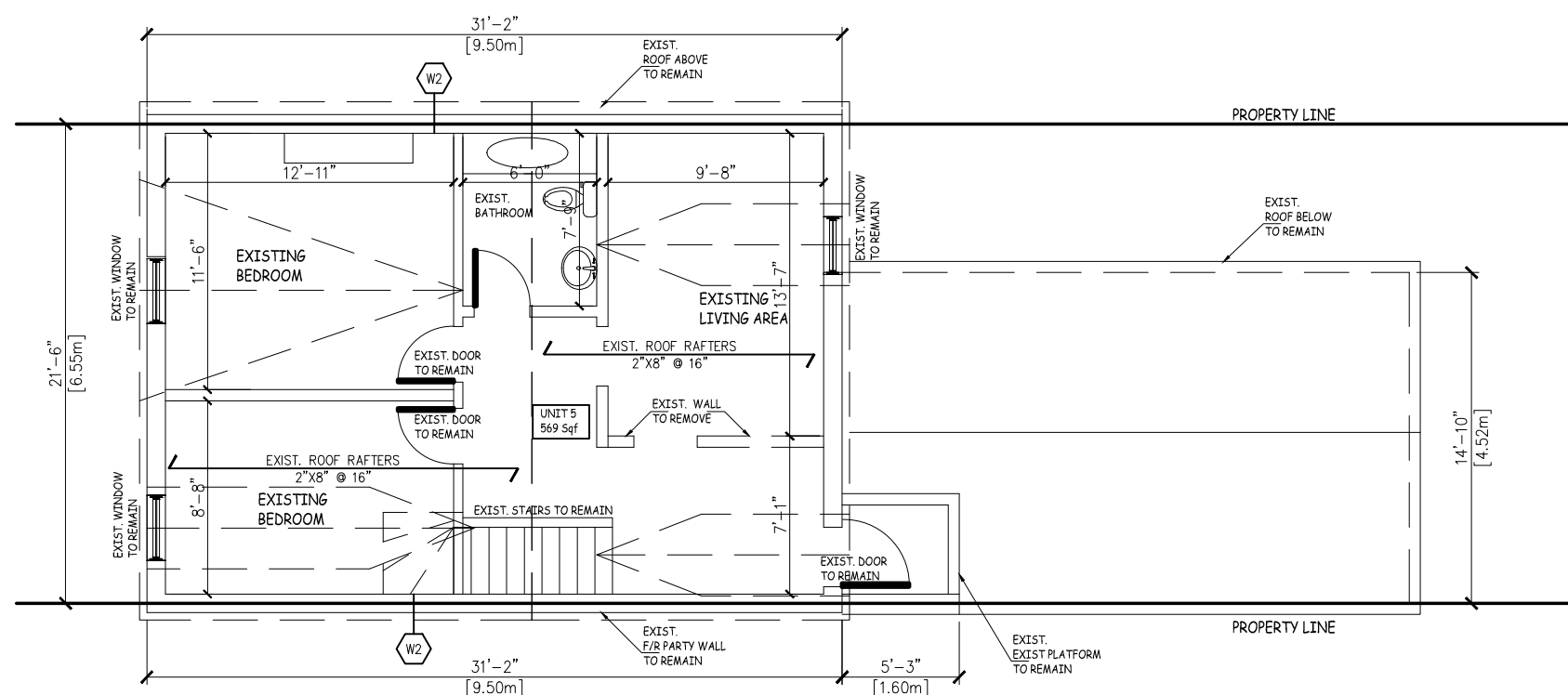
Date Started: AUGUST-2019

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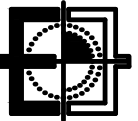
**A4**



**1 THIRD FLOOR PLAN**  
A4 SCALE: 1/8" = 1'-0"

DATE	NO.	DESCRIPTION

PROJECT DESIGNER:



**EY1**  
DESIGN & BUILD

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Richmond Hill,  
ONTARIO, L4C 1L7  
Tel: 416 428 6360

ey1.inc.info@gmail.com

REGISTRATION INFORMATION	
Required unless design is exempt under 2.17.4.1. of the building code.	
<b>EY1 INC.</b>	<b>33885</b>
FIRM NAME	FIRM BCIN
QUALIFICATION INFORMATION	
Required unless design is exempt under 2.17.5.1. of the building code.	
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.	
<b>HOSSEIN EFTEKHAR</b>	<b>25970</b>
NAME	SIGNATURE BCIN

PROJECT TITLE:

**INTERIOR RENOVATION ROOMING HOUSE**

414 Dundas Street East,  
Toronto, Ontario

DRAWING TITLE:

**SPECIFICATIONS**

Scale:	As Noted
Drawn by:	H.E.
Date Started:	AUGUST-2019
PROJECT No.:	DRAWING No.:
190801	<b>A5</b>

**Excavation and Backfill**

- Excavation shall be undertaken in such a manner so as to prevent damage to existing structures, adjacent property and utilities
- The topsoil and vegetable matter in unexcavated areas under a building shall be removed. The bottom of excavations for foundations shall be free of all organic material
- If termites are known to exist, all stumps, roots and wood debris shall be removed to a minimum depth of **11 3/4"** in excavated areas under a building, and the clearance between untreated structural wood elements and the ground shall be no less than **17 3/4"**
- Backfill within **23 5/8"** of the foundation walls shall be free of deleterious debris and boulders over **9 7/8"** in diameter

**Dampproofing and Drainage**

- In normal soil conditions, the exterior surfaces of foundation walls enclosing basements and crawl spaces shall be dampproofed. Where hydrostatic pressure occurs, a waterproofing system is required
- Masonry foundation walls shall be parged with **1/4"** of mortar covered over the footing prior to dampproofing
- 4"** foundation drains shall be laid on level, undisturbed ground adjacent to the footings at or below the top of the basement slab or crawl space floor, and shall be covered with **6"** of crushed stone. Foundation drains shall drain to a storm sewer, drainage ditch, dry well or sump
- Window wells shall be drained to the footing
- Downspouts not directly connected to a storm sewer shall have extensions to carry water away from the building, and provisions shall be made to prevent soil erosion
- Concrete slabs in attached garages shall be sloped to drain to the exterior
- The building site shall be graded so that surface, sump and roof drainage will not accumulate at or near the building and will not adversely affect adjacent properties

**Footings**

- minimum **2200 psi** poured concrete
- minimum **48"** below finished grade
- Footings shall be founded on natural undisturbed soil, rock or compacted granular fill with minimum bearing capacity of **1570psf**

**Footing Size**

Floors Supported	Supporting Ext. Wall	Supporting Int. Wall	Column Area
1	<b>9 7/8"</b>	<b>9 7/8"</b>	<b>4.3 ft2</b>
2	<b>13 3/4"</b>	<b>13 3/4"</b>	<b>8.1 ft2</b>
3	<b>17 3/4"</b>	<b>19 3/4"</b>	<b>10.9 ft2</b>

- Increase footing width by **2 5/8"** for each storey of brick veneer supported, and by **5 1/8"** for each storey of masonry
- The projection of an unreinforced footing beyond the wall supported shall not be greater than its thickness

**Concrete Floor Slabs**

- Garage, carport and exterior slabs and exterior steps shall be **4650psi** concrete with **5–8%** air entrainment
- Other slabs **3600psi** concrete
- Minimum **3"** thick, placed on a minimum **4"** of coarse, clean, granular material
- All fill other than coarse clean material placed beneath concrete slabs shall be compacted to provide uniform support

**Foundation Walls**

- To be poured concrete, unit masonry or preserved wood (see drawings for type and thickness)
- Dampproofing shall be a heavy coat of bituminous material.
- Foundation wall to extend minimum **5 7/8"** above finished grade.
- A drainage layer is required on the outside of a foundation wall where the interior insulation extends more than **2'–11"** below exterior grade. A drainage layer shall consist of
  - Min. **3/4"** mineral fibre insulation with min. Density of **3.6 lb/ft<sup>2</sup>**
  - Min. **4"** of free drainage granular material, or
- An approved system which provides equivalent performance
- Foundation walls shall be braced or have the floor joists installed before backfilling

**Masonry Walls**

- Where constructed of **3 1/2"** brick, wall shall be bonded with header course every 6th course
- Provide **2"** solid masonry or continuous **1 1/2"** plate under all roof and floor framing members
- Provide **7 1/2"** solid masonry under beams and columns
- Masonry wall to be tied to each tier of joists with **1 9/16" x 3/16"** corrosion resistant steel straps, keyed minimum **4"** into masonry. When joists are parallel to wall, ties are to extend across at least 3 joists @ **6'–7" o.c.**
- Inside back of wall to be parged and covered with No. **15** breather-type asphalt paper
- For reduced foundation walls to allow a brick facing while maintaining lateral support, tie minimum **3 1/2"** brick to minimum **3 1/2"** back-up block with corrosion resistant ties at least **0.028in<sup>2</sup>** in cross sectional area, spaced **7 7/8"** vertically and **2'–11"** horizontally, with joints completely filled with mortar
- Masonry over openings shall be supported on corrosion resistant or prime painted steel lintels with a minimum of **5 7/8"** end bearing

**Step Footings**

- Vertical Rise **23 5/8"** Max. for firm soils
- 15 3/4"** Max. for sand or gravel
- Horizontal Run = **23 5/8"** Min.

**Masonry Veneer**

- Minimum **2 3/4"** thick if joints are not raked and **3 1/2"** thick if joints are raked
- Minimum **1"** air space to sheathing
- Provide weep holes @ **31 1/2" o.c.** at the bottom of the cavity and over doors and windows
- Direct drainage through weep holes with **20 mil** poly flashing extending minimum **5 7/8"** up behind the sheathing paper
- Veneer ties minimum **0.030"** thick x **7/8"** wide corrosion resistant straps spaced @ **23 5/8"** vertically and **15 3/4"** horizontally
- Fasten ties with corrosion resistant **0.125"** diameter screws or spiral nails which penetrate at least **1–3/16"** into studs

**Exterior Walls**

- No windows or other unprotected openings are permitted in exterior walls less than **3' 11"** from property lines
- 5/8"** fire rated drywall shall be installed on the inside face of attached garage exterior walls and gable ends of roofs which are less than **3' 11"** from property lines
- Non combustible cladding shall be installed on all exterior walls less than **23 5/8"** from property lines

**Walls**

- Exterior walls shall consist of:
  - cladding
  - sheathing paper lapped **4"** at joints
  - 3/8"** fibreboard or gypsum board or **1/4"** plywood sheathing
  - 2x6** studs @ **16" o.c.**
  - 2x6** bottom plate and double **2x6** top plate
  - 2x4** studs @ **16" o.c.** can be utilized provided the combined R value of the batt insulation and exterior rigid insulation achieves **R–17.**
- Interior loadbearing walls shall consist of:
  - 2x4** studs @ **16" o.c.**
  - 2x4** bottom plate and double **2x4** top plate
  - 2x4** mid-girts if not sheathed
  - 1/2"** gypsum board sheathing

**Stairs**

- Maximum Rise **7 7/8"**
- Minimum Run **8 1/4"**
- Minimum Tread **9 1/4"**
- Minimum Head Room **6' 5"**
- Minimum Width **2' 10"**
- Curved stairs shall have a min. run of **5 7/8"** at any point and a minimum average run of **7 7/8"**
- Winders which converge to a point in stairs must turn through an angle of no more than **90°**, with no less than **30°** or more than **45°** per tread. Sets of winders must be separated by **3' 11"** along the run of the stair
- A landing minimum **2' 11"** in length is required at the top of any stair leading to the principal entrance to a dwelling, and other entrances with more than **3** risers
- Exterior concrete stairs with more than **2** risers require foundations

**Floors**

- requirements
- Joists to have minimum **1 1/2"** of end bearing
- Joists shall bear on a sill plate fixed to foundation with **1/2"** anchor bolts @ **7' 10" o.c.**
- Header joists between **3' 11"** and **10' 6"** in length shall be doubled. Header joists exceeding **10' 6"** shall be sized by calculations
- Trimmer joists shall be doubled when supported header is between **2' 7"** and **6' 7"**. Trimmer joists shall be sized by calculations when supported header exceeds **6' 7"**
- 2x2** cross bridging required not more than **6' 11"** from each support and from other rows of bridging
- Joists shall be supported on joist hangers at all flush beams, trimmers, and headers.
- Joists located under parallel non-loadbearing partitions shall be doubled

**Roof & Ceilings**

- Hip and valley rafter shall be **2"** deeper than common rafters
- 2x4** collar ties @ rafter spacing with **1x4** continuous brace at mid span if collar tie exceeds **7' 10"** in length

**Notching & Drilling of Trusses, Joists, Rafters**

- Holes in floor, roof and ceiling members to be maximum **1/4** 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 the member within **1/2** the actual depth from the edge of bearing and not greater than **1/3** joist depth
- Wall studs may be notched or drilled provided that no less than **2/3** the depth of the stud remains, if load bearing, and **1 9/16"** non-load bearing
- Roof truss members shall not be notched, drilled or weakened unless accommodated in the design

**Insulation & Weatherproofing**

Ceiling with attic  
Roof without attic  
Exterior Wall  
Foundation Wall  
Foundation > 50% exposed  
Exposed Floor  
Slabs on Grade

- Supply Ducts in unheated space
- Insulation shall be protected with gypsum board or an equivalent interior finish, except for unfinished basements where **6 mil** poly is sufficient for fibreglass type insulations
- Ducts passing through unheated space shall be made airtight with tape or sealant
- Caulking shall be provided for all exterior doors and windows between the frame and the exterior cladding
- Weatherstripping shall be provided on all doors and access hatches to the exterior, except doors from a garage to the exterior
- Exterior walls, ceilings and floors shall be constructed so as to provide a continuous barrier to the passage of water vapour from the interior and to the leakage of air from the exterior

**Wood Frame Construction**

- All lumber shall be spruce–pine–fir No. **1 & 2**, and shall be identified by a grade stamp
- Maximum moisture content **19%** at time of installation
- Wood framing members which are supported on concrete in direct contact with soil shall be separated from the concrete with **6 mil** polyethylene

**Columns, Beams & Lintels**

- Steel beams and columns shall be shop primed.
- Minimum **3 1/2"** end bearing for wood and steel beams, with **7 7/8"** solid masonry beneath the beam.
- Steel columns to have minimum outside diameter of **2 7/8"** and minimum wall thickness of **3/16"**
- Wood columns for carports and garages shall be minimum **3 1/2" x 3 1/2"**; in all other cases either **5 1/2" x 5 1/2"** or **7 1/4"** round, unless calculations based on actual loads show lesser sizes are adequate. All columns shall be not less than the width of the supported member
- Masonry columns shall be a minimum of **11 3/8" x 11 3/8"** or **9 1/2" x 15"**
- Provide solid blocking the full width of the supported member under all concentrated loads

**Roofing**

- Fasteners for roofing shall be corrosion resistant. Roofing nails shall penetrate through or at least **1/2"** into roof sheathing
- Every asphalt shingle shall be fastened with at least **4** nails
- Eave protection shall extend **2' 11"** up the roof slope from the edge, and at least **11 3/4"** from the inside face of the exterior wall, and shall consist of Type M or Type S Roll Roofing laid with minimum **4"** head and end laps cemented together, or glass Fibre or Polyester Fibre coated base sheets, or self sealing composite membranes consisting of modified bituminous coated material. Eave protection is not required for unheated buildings, for roofs exceeding a slope of **1 in 1.5** or where a low slope asphalt shingle application is provided
- Open valleys shall be flashed with **2** layers of roll roofing, or **1** layer of sheet metal min. **23 5/8"** wide
- Flashing shall be provided at the intersection of shingle roofs with exterior walls and chimneys
- Sheet metal flashing shall consist of not less than **1/16"** sheet lead, **0.013"** galvanized steel, **0.018"** copper, **0.018"** zinc, or **0.019"** aluminum

**Access to Attics and Crawl Spaces**

- Access hatch minimum **19 3/4" x 2' 4"** to be provided to every crawl space and every roof space which is **108 ft<sup>2</sup>** or more in area and more than **23 5/8"** in height

**Natural Ventilation**

- Every roof space above an insulated ceiling shall be ventilated with unobstructed openings equal to not less than **1/300** of insulated area
- Insulated roof spaces not incorporating an attic shall be ventilated with unobstructed openings equal to not less than **1/150** of insulated area.
- Roof vents shall be uniformly distributed and designed to prevent the entry of rain, snow or insects
- Unheated crawl spaces shall be provided with **1.1 ft<sup>2</sup>** of ventilation for each **538<sup>2</sup> ft**
- Minimum natural ventilation areas, where mechanical ventilation is not provided, are:
  - Bathrooms: **0.97 ft<sup>2</sup>**
  - other rooms: **3 ft<sup>2</sup>**
  - Unfinished basement: **0.2%** of floor area

**Doors and Windows**

- Every floor level containing a bedroom and not served by an exterior door shall contain at least **1** window having an unobstructed open area of **3.8 ft2** and no dimension less than **15"** which is openable from the inside without tools
- Exterior house doors and windows within **6' 7"** from grade shall be constructed to resist forced entry. Doors shall have a deadbolt lock
- The principal entry door shall have either a door viewer, transparent glazing or a sidelight

**Plumbing**

- Every dwelling requires a kitchen sink, lavatory, water closet, bathtub or shower stall and the installation or availability of laundry facilities
- A floor drain shall be installed in the basement, and connected to the sanitary sewer where gravity drainage is possible. In other cases, it shall be connected to a storm drainage system, ditch or dry well

**Electrical**

- An exterior light controlled by an interior switch is required at every entrance
- A light controlled by a switch is required in every kitchen, bedroom, living room, utility room, laundry room, dining room, bathroom, vestibule, hallway, garage and carport. A switched receptacle may be provided instead of a light in bedrooms and living rooms
- Stairs shall be lighted, and except where serving an unfinished basement shall be controlled by a **3** way switch at the head and foot of the stairs
- Basements require a light for each **323 ft<sup>2</sup>** controlled by a switch at the head of the stairs

**Ceramic Tile**

- When ceramic tile applied to a mortar bed with adhesive, the bed shall be a minimum of **1/2"** thick & reinforced with galvanized diamond mesh lath, applied over polyethylene on subflooring on joists at no more than **16" o.c.** with at least **2** rows cross bridging

**Garage Gasproofing**

- The walls and ceiling of an attached garage shall be constructed and sealed so as to provide an effective barrier to exhaust fumes
- All plumbing and other penetrations through the walls and ceiling shall be caulked
- Doors between the dwelling and attached garage may not open into a bedroom and shall be weatherstripped and have a self-closer

**Mechanical Ventilation**

- A mechanical ventilation system is required with a total capacity at least equal to the sum of:
  - 10** cfm each for basement and master bedroom
  - 5** cfm for each other room
- A principal dwelling exhaust fan shall be installed and controlled by a centrally located switch identified as such
- Supplemental exhaust shall be installed so that the total capacity of all kitchen, bathroom and other exhausts, less the principal exhaust, is not less than the total required capacity
- A Heat Recovery Ventilator may be employed in lieu of exhaust to provide ventilation. An HRV is required if any solid fuel burning appliances are installed
- Supply air intakes shall be located so as to avoid contamination from exhaust outlets

**Alarms and Detectors**

- At least one smoke alarm shall be installed on or near the ceiling on each floor and basement level **2' 11"** or more above an adjacent level
- Smoke alarms shall be interconnected and located such that one is within **16' 5"** of every bedroom door and no more than **49' 3"** travel distance from any point on a floor
- A carbon monoxide detector shall be installed on or near the ceiling in every room containing a solid fuel burning fireplace or stove
- Handrails and Guards**
- A handrail is required for interior stairs containing more than **2** risers and exterior stairs containing more than **3** risers
- Guards are required around every accessible surface which is more than **23 5/8"** above the adjacent level
- Interior and exterior guards min. **2' 11"** high. Exterior guards shall be **3' 6"** high where height above adjacent surface exceeds **5' 11"**
- Guards shall have no openings greater than **4"** and no member between **4"** and **2' 11"** that will facilitate climbing