November 23, 2020 FOI No: 2020-53

### VIA E-MAIL - Redacted

# Redacted

### Dear Redacted

Re: Request for Records

Freedom of Information and Protection of Privacy Act

The City of White Rock has reviewed your request for access to the following records pursuant to the Freedom of Information and Protection of Privacy Act (the "Act"):

 Building drawings, including retaining wall design and existing building ground floor elevations, for 14608 and 14622 West Beach Ave, White Rock

Access to these records is available. However, some of the information in the records is excepted from the disclosure requirements of the Act. I have severed the excepted information so that I could disclose to you the remaining information as attached.

The severed information is excepted from disclosure under sections 15(1) and 22 of the Act.

Severing under section 15(1) is necessary as disclosure of the information could harm the security of a building. As a policy, the City will only disclose interior floorplan detail to property owners or their agent.

Severing under section 22 to avoid disclosing any third-party personal information without permission.

Corporate Administration

P: 604.541.2212 | F: 604.541.9348

City of White Rock

WHITE ROCK
City by the Sea!
www.whiterockcity.ca

Please contact our office if you have any questions or concerns.

Sincerely,

Ken Overton

Manager, Property, Risk Management, and FOI

604-541-2104

Att.

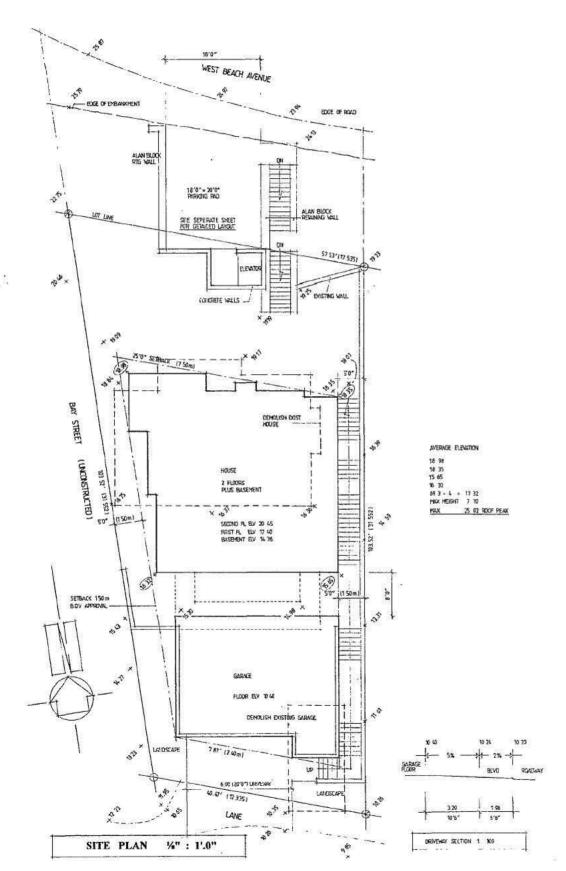
If you believe that the City of White Rock has been unreasonable in its handling of your request, you may ask the Information and Privacy Commissioner to review our response. You have 30 days from receipt of this notice to request a review by writing to:

Office of the Information and Privacy Commissioner 3rd Floor, 756 Fort Street Victoria BC V8W 1H2

Should you decide to request a review, please provide the Commissioner's office with:

- 1. your name, address and telephone number;
- 2. a copy of this letter;
- 3. a copy of your original request sent to the City of White Rock; and
- 4. the reasons or grounds upon which you are requesting the review.

### IF IN DOUBT PLEASE ASK



GENERAL SPECIFICATIONS

These drawings are the exclusive property of Cass Parel Design and may not be reproduced in whole or in part without the expressed permission of:

CASS PAREL DESIGN

15327 – 28 Avenue Surrey, B.C. V4P 1G3 Tel: 604 531-2224 or 778 865-0766

Our drawings have been prepared to conform to current residential standards of the British Columbia Building Code (B.C.B.C.) THE BUILDER IS RESPONSIBLE FOR ENSURING THAT ALL CONSTRUCTION CONFORMS TO PROVINCIAL AND LOCAL BUILDING CODES AND BY-LAWS

IN SOME CASES THE LOCAL BUILDING DEPARTMENT MAY REQUIRE CERTIFICATION FROM A STRUCTURAL ENGINEER FOR PARTS OR ALL OF THE STRUCTURE. ANY ENGINEERING FEES AND SERVICES THAT MAY BE REQUIRED ARE THE RESPONSIBILITY OF THE OWNER

We have made every effort to ensure accuracy and completeness in our plan packages. However it is the responsibility of the builder to check and verify all dimensions, materials, and specifications prior to construction. Any errors or omissions shall be brought to our attention immediately so that corrections can be made and plane replaced.

nsions take precedence to scale drawings.

CASS PAREL DESIGN is not responsible for site conditions including frost lines, water table, slope bearing capacity etc. nor will be responsible for departures from and/or changes to our plans.

uction and installation of materials and equipment shall be done in accordance with good building

### STRUCTURAL SPECIFICATIONS

CONCRETE/FOUNDATION/FOOTINGS

All footings must be placed on undisturbed or compacted soils and be below the frost line

Adjustments to footing sizes and/or reinforcement in footing and foundation walls may be required to suit the soil bearing capacity of the site, or if bachfill exceeds 7/6°. Required engineering services are the responsibility of the owner or builder.

All concrete must meet CAN 3-A438 standards (As per B.C.B.C.)

Grade levels shown on plans may differ from the actual site conditions. Foundation wall heights and thicknesses may need to be adjusted to suit grade and to conform to B.C.B.C. Standards.

Damproofing of 2 costs asphalt emulsion or similar shall be applied to outer concrete walls below grade.

Damproofing of 6 mil. Polyethylene over 6" granular fill shall be layered under concrete slabs. A flexible sealant shall be placed where slab and foundation wall meet.

Foundation drainage consisting of 4" drainage pipe covered with a minimum of 6" of crushed stone shall be placed around the perimeter of the structure.

ROOF NOTES

• ALL ROOF JOISTS AND BEAMS TO BE ENGRIEDE DESIGNED INCLUDING ALL SUPPORTING BEAMS.

• ROOF COVERING GALYANISED SINGLE SPAN STATCHED SEATS

• PITCH 1-30 & 1-15

• APPROVED WATERPROOFING MEMBRANE

1/2" PLYWOOD SHETHING R40 BATT ROOF INSULATION.

POLY VAPOUR BARRIER

K\* GYPSUM BOARD CEILINGS

T&G CEDAR EAVES CLOSER
 ROOF VENTING AS PER CODE

BOARD AND BATTEN
 GALV. CORRIGATED IRON

%" X 2" STRAPPING - AIR SPACE 2 LAYERS 30 MIN, BUILDING PAPER.

% SHEATHING 2" X 6" STUDS @ 16" O.C.

R28 BATT INSULATION.

.6mil POLY VAPOUR BARRIER
4" GYPSUM WALL BOARD
2" X 6" P.T. SILL PLATE

% Ø ANCHOR BOLTS AT 40 O.C.

INTERNAL WALLS

PAINTED FINISH AS SELECTED.

GOODS STATE OF STATE

SPACED AT 16" OC. UNLESS INDICATED OTHER WISE

BATHROOM WALLS TO HAVE SOUND INSULATION.

W" GYPSUM WALLBOARD.

STUD WALLS NEXT TO CONCRETE FOUNDATION WALLS "X 4" STUDS SPACED AT 16" OC.

RIZ BATT INSULATION.

SMI HOLY VAPOUR BARRIER.

W" GYPSUM WALLBOARD.

ELOOR NOTES

• FLOOR FINISH AS SELECTED

• N' TAG FLYWOOD SUBPLOOR GLUED AND SCREWED TO JOISTS

THE ENGINEERED SILENT JOISTS @ 16"

O.C. OR AS INDICATED ON EMORREERS

PLAN

2" x 2" CROSS BRIDGING AT MAX 7 0" O.C.

"5 27 CROSS BRIDGING AT MAX 7 0" O.C.

"5 27 CROSS BRIDGING AT MAX 7 0" O.C.

"5 20 CROSS BRIDGING AT MAX 7 0" O.C.

"5 20 CROSS BRIDGING AT MAX 7 0" O.C.

"5 20 CROSS BRIDGING AT MAX 7 0" O.C.

SEE DRAWINGS FOR CONCRETE FLOOR

WOOD FRAMING

Structural framing materials to be #2 Douglas Fir or better, unless otherwise stated. Application of materials must conform to the tables provided in the B.C.B.C. Residential standards.

Building frames shall be anchored to the foundation walls by fastening a sill plate to foundation wall with

Floor joists to be fastened to sill plate or suspension fixing brackets as per Engineer's recommendation.

All wood in contact with concrete shall be damproofed with 6 mil poly, 45 lb. Felt or other approved

Caulking and flashing to be provided as per B.C.B.C.

Floor joists spanning more that 70" are to be bridged at mid span or at 70" on center by 2"x 2" diagonal bridging. In some cases to meet span requirements joists will require strapping and/or to be glued and screwed to a 58" plywood subfloor.

Partition walls parallel to floor joists shall be supported by double joists or blocking between joists. Partition walls, supporting kitchen cabinets, parallel to floor joists shall be supported by double joists.

All lintels to be 2-2x10, unless otherwise stated, and shall be supported on a minimum 3 1/4 " bearing.

Laminated beams will require an engineer's certification and is the builder's obligation to obtain

Builder to check snow load and rain load guidelines for their municipality prior to construction.

INSULATION AND VENTILATION

Roof space shall be vented with most type, eave type and/or gable type vents to a minimum of 1:300 of the

Crawispaces shall be naturally vented to a minimum of 1:500; vents shall be uniformly placed around the building. Crawispaces may also be heated by a forced air heating system or vents to an adjacent basement.

MINIMUM INSULATION REQUIREMENTS

MNUM INSOLATION REQUIREMENTS

Foundation walls to have a 1 ½ "rigid insulation to a minimum of 24" below grade.

Roof[ceiling/can'td floors R-40

Walls 2x6" studs R-28

with 6 mil poly vapour barrier installed on the warm side of the insulation.

Ceiling insulation shall be installed so as not to restrict air flow through roof vents to attic spaces. Attic spaces and crawlspaces to have a minimum 20" x 28" access hatchway.

MASONRY AND FTREPLACES

MASORY veneers shall be installed in accordance with B.C.B.C. Standards. Check plan for details. Veneers shall rest on bearing support a min. of 3°, with a 1° air space between the veneer and wood framing. Provide weep holes at a min 32° o/c. Veneer to be tied to wood framing with a corrosion resistant strapping

Provide weep access a a family 2 of control of specing.

Masonary fireplaces and chimneys to be constructed in accordance with B.C.B.C. Standards.

Zero clearance metal insert fireplaces and gas fireplaces to be C.S.A. Approved and installed to

MISCELLANEOUS

The installation of plumbing, heating and electrical equipment and material shall be in accordance with manufacturer's specifications and the applicable sections of the B.C.B.C. Standards.

All balcony railings to be a min. 42" in height and 4" vertical spacing

All exterior and interior finishes shall be specified by the owner. Finishes specified on our plans shall be confirmed by the owner prior to installation.

Due to varying tastes and preferences, lighting and electrical layouts to be specified by the owner or builder, and must meet B.C.B.C. Requirements.

### COPYRIGHT

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### GENERAL NOTES

. All construction to meet the requirements of the B.C. Building Codes (2006) and the Local Authority Building By-Laws.

All work will be equal in all respects to good building practice.

All Contractors and Sub-Contractors will provide and maintain liability and Workmen's Compensation insurance to protect themselves and hold the Owner and Designer harmless from any and all claims for damages for bodily injury, death or property damage, for the duration of the

The Designer makes every effort to provide complete and accurate documentation and plans. However, no liability is assumed for any errors and omissions which may affect construction. It is the responsibility of all contractors to check and verify all conditions and dimensions on site and to the responsion of an contection to these and verify an contention and unitersoon of size report any discrepancies to the Designer prior to proceeding with work in the effected area. All drawings to be read in conjunction with supporting Consultants' drawings. Do not scale the drawings. Figured dimensions shown on the drawing will govern. Specifications will govern over drawings.

Beams to be No. 1 Fir or engineered micro lams.

Concrete footings to be on solid bearing soli 2 ft. minimum below grade.

Construction loads on the structure caused by interim storage of materials or use of equipment, shall not be allowed to exceed the design loadings.

All electrical work to be performed in accordance with the current edition of the Canadian The Contractor will be responsible for obtaining all necessary permits, approvals and inspections

required, prior to and during the course of construction.

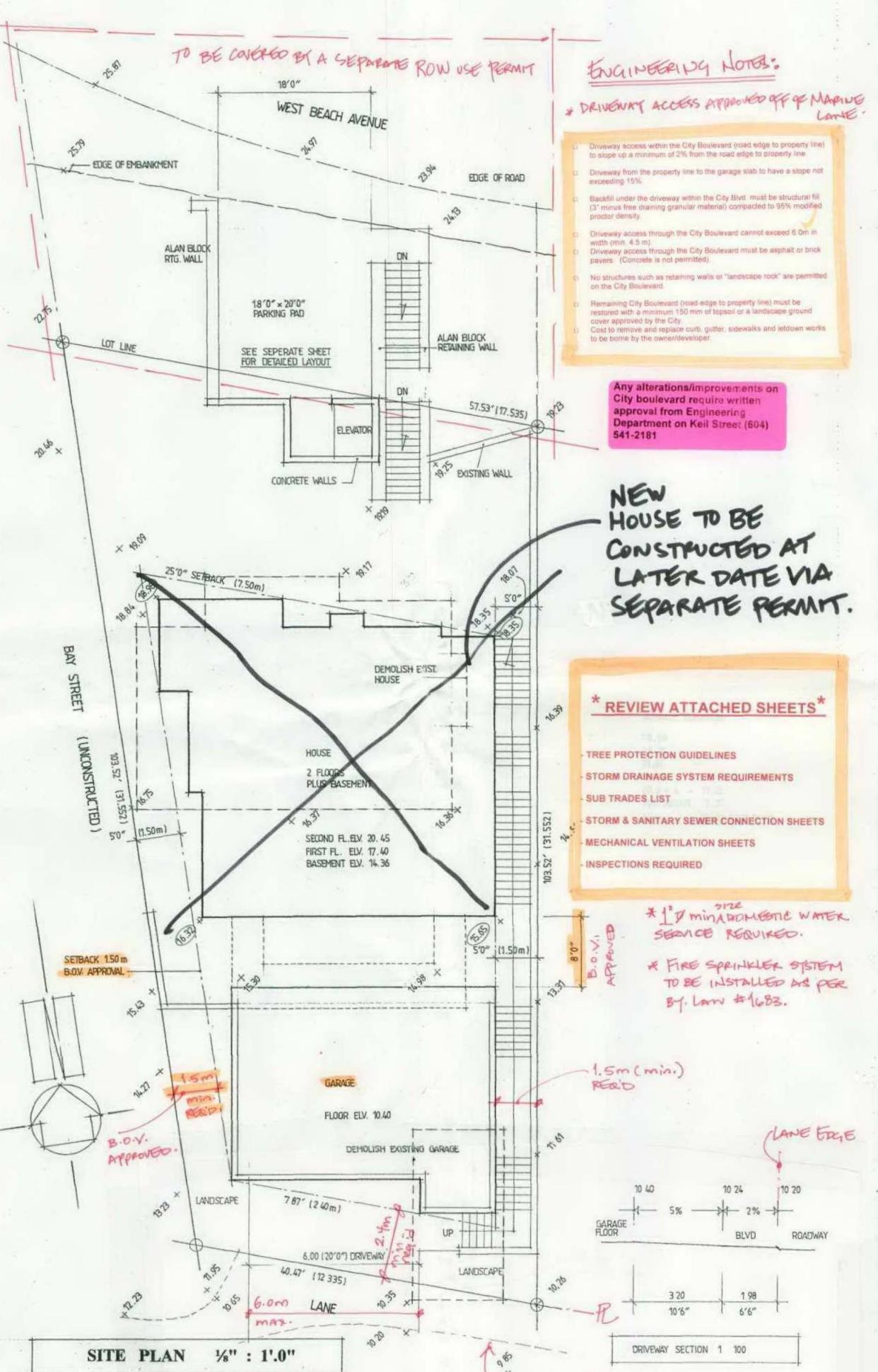
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AVENUE, WHITE ROCK, TP1, NWD PLAN 5729

Redacted S. 22 14608 W. BEACH A LOT 14, SEC. 10, 7 \*\* \*\* \*\*

NEW RESIDENCE CIVIC ADDRESS LEGAL ADDRESS



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Damproofing of 2 coats asphalt emulsion or similar shall be applied to outer concrete walls below grade. Damproofing of 6 mil. Polyethylene over 6" granular fill shall be layered under concrete slabs. A flexible sealant shall be placed where slab and foundation wall meet.

Foundation drainage consisting of 4" drainage pipe covered with a minimum of 6" of crushed stone shall be placed around the perimeter of the structure.

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# ROOF NOTES

- · ALL ROOF JOISTS AND BEAMS TO BE ENGINEER DESIGNED INCLUDING ALL
- SUPPORTING BEAMS. ROOF COVERING GALVANISED SINGLE
- SPAN STANDING SEAM
- PITCH 1-30 & 1-15 APPROVED WATERPROOFING MEMBRANE
- 1/2" PLYWOOD SHEETHING
- R40 BATT ROOF INSULATION. POLY VAPOUR BARRIER
- ½" GYPSUM BOARD CEILINGS.
- T&G CEDAR EAVES CLOSER ROOF VENTING AS PER CODE

# BOARD AND BATTEN

- GALV. CORRIGATED IRON • ¾" X 2" STRAPPING - AIR SPACE
- 2 LAYERS 30 MIN. BUILDING PAPER. ½" SHEATHING
- 2" X 6" STUDS @ 16" O.C.
- R28 BATT INSULATION. .6mil POLY VAPOUR BARRIER.
- 1/2" GYPSUM WALL BOARD
- 2" X 6" P.T. SILL PLATE • 1/3" Ø ANCHOR BOLTS AT 4'0" O.C.

# PAINTED FINISH AS SELECTED.

- ½" GYPSUM WALLBOARD. • 2" X 6" STUDS
- SPACED AT 16" O.C. UNLESS INDICATED
- OTHERWISE BATHROOM WALLS TO HAVE SOUND
- INSULATION. ¼" GYPSUM WALLBOARD.
- STUD WALLS NEXT TO CONCRETE FOUNDATION WALLS 2" X 4" STUDS
- SPACED AT 16" O.C. R12 BATT INSULATION.
- .6mil POLY VAPOUR BARRIER. 1/2" GYPSUM WALLBOARD

# FLOOR NOTES

- FLOOR FINISH AS SELECTED ¾" T&G PLYWOOD SUBFLOOR GLUED
- AND SCREWED TO JOISTS TJI ENGINEERED SILENT JOISTS @ 16"
- O.C. OR AS INDICATED ON ENGINEERS
- 2" x 2" CROSS BRIDGING AT MAX 7 0" O.C. • 1/2" GYPSUM WALLBOARD CEILING TO UNDERSIDES AS INDICATED ON PLAN.
- SEE DRAWINGS FOR CONCRETE FLOOR

### WOOD FRAMING

Structural framing materials to be #2 Douglas Fir or better, unless otherwise stated. Application of materials must conform to the tables provided in the B.C.B.C. Residential standards.

Building frames shall be anchored to the foundation walls by fastening a sill plate to foundation wall with 1/2 " anchor bolts spaced at 4 ft on centre.

Floor joists to be fastened to sill plate or suspension fixing brackets as per Engineer's recommendation.

All wood in contact with concrete shall be damproofed with 6 mil poly, 45 lb. Felt or other approved

Caulking and flashing to be provided as per B.C.B.C.

Floor joists spanning more that 7'0" are to be bridged at mid span or at 7'0" on center by 2"x 2" diagonal bridging. In some cases to meet span requirements joists will require strapping and/or to be glued and screwed to a 5/8" plywood subfloor.

Partition walls parallel to floor joists shall be supported by double joists or blocking between joists. Partition walls, supporting kitchen cabinets, parallel to floor joists shall be supported by double joists.

All lintels to be 2-2x10, unless otherwise stated, and shall be supported on a minimum 3 1/2 " bearing.

Laminated beams will require an engineer's certification and is the builder's obligation to obtain.

Builder to check snow load and rain load guidelines for their municipality prior to construction.

### INSULATION AND VENTILATION

Roof space shall be vented with roof type, eave type and/or gable type vents to a minimum of 1:300 of the insulated ceiling area.

Crawlspaces shall be naturally vented to a minimum of 1:500; vents shall be uniformly placed around the building. Crawlspaces may also be heated by a forced air heating system or vents to an adjacent basement.

### MINIMUM INSULATION REQUIREMENTS

Foundation walls to have a 1 1/2 "rigid insulation to a minimum of 24" below grade. Roof/ceiling/cant'd floors R-40 Walls 2x6" studs R-28

with 6 mil poly vapour barrier installed on the warm side of the insulation.

Ceiling insulation shall be installed so as not to restrict air flow through roof vents to attic spaces. Attic spaces and crawlspaces to have a minimum 20" x 28" access hatchway.

# MASONRY AND FIREPLACES

Masonry veneers shall be installed in accordance with B.C.B.C. Standards. Check plan for details. Veneers shall rest on bearing support a min. of 3", with a 1" air space between the veneer and wood framing. Provide weep holes at a min 32" o/c. Veneer to be tied to wood framing with a corrosion resistant strapping at 16" o/c vertical and 32" o/c horizontal spacing.

Masonary fireplaces and chimneys to be constructed in accordance with B.C.B.C. Standards. Zero clearance metal insert fireplaces and gas fireplaces to be C.S.A. Approved and installed to

manufacturer's instructions.

# MISCELLANEOUS

The installation of plumbing, heating and electrical equipment and material shall be in accordance with manufacturer's specifications and the applicable sections of the B.C.B.C. Standards.

All balcony railings to be a min. 42" in height and 4" vertical spacing.

All exterior and interior finishes shall be specified by the owner. Finishes specified on our plans shall be confirmed by the owner prior to installation.

Due to varying tastes and preferences, lighting and electrical layouts to be specified by the owner or builder, and must meet B.C.B.C. Requirements.



The review of these plans shall not in any way relieve the owner of any building or structure from full responsibility for carrying out the work or having the work carried out in accordance with the requirements of all the applicable by-laws of the Corporation of the City of White Rock.

# COPYRIGHT

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# **GENERAL NOTES**

- . All construction to meet the requirements of the B.C. Building Codes (2006) and the Local Authority Building By-Laws.
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- · All Contractors and Sub-Contractors will provide and maintain liability and Workmen's Compensation insurance to protect themselves and hold the Owner and Designer harmless from any and all claims for damages for bodily injury, death or property damage, for the duration of the

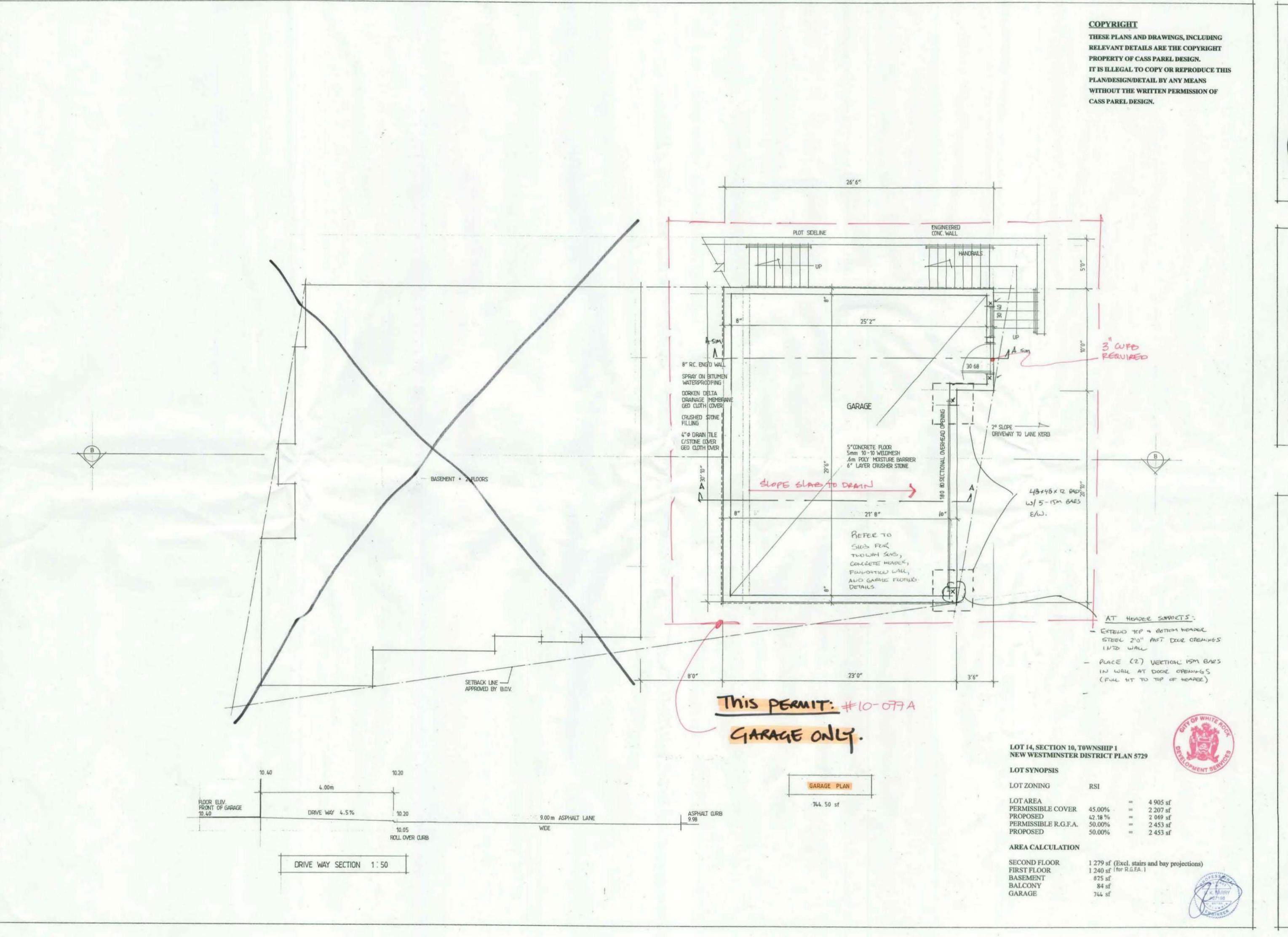
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- Do not scale the drawings. Figured dimensions shown on the drawing will govern.
- Specifications will govern over drawings.
- Beams to be No. 1 Fir or engineered micro lams. Concrete footings to be on solid bearing soil 2 ft. minimum below grade.
- . Construction loads on the structure caused by interim storage of materials or use of
- shall not be allowed to exceed the design loadings. All electrical work to be performed in accordance with the current edition of the Canadian
- The Contractor will be responsible for obtaining all necessary permits, approvals and inspections of the contractor will be responsible for obtaining all necessary permits, approvals and inspections of the contractor will be responsible for obtaining all necessary permits, approvals and inspections of the contractor will be responsible for obtaining all necessary permits, approvals and inspections of the contractor will be responsible for obtaining all necessary permits, approvals and inspections of the contractor will be responsible for obtaining all necessary permits, approvals and inspections of the contractor will be responsible for obtaining all necessary permits. required, prior to and during the course of construction.

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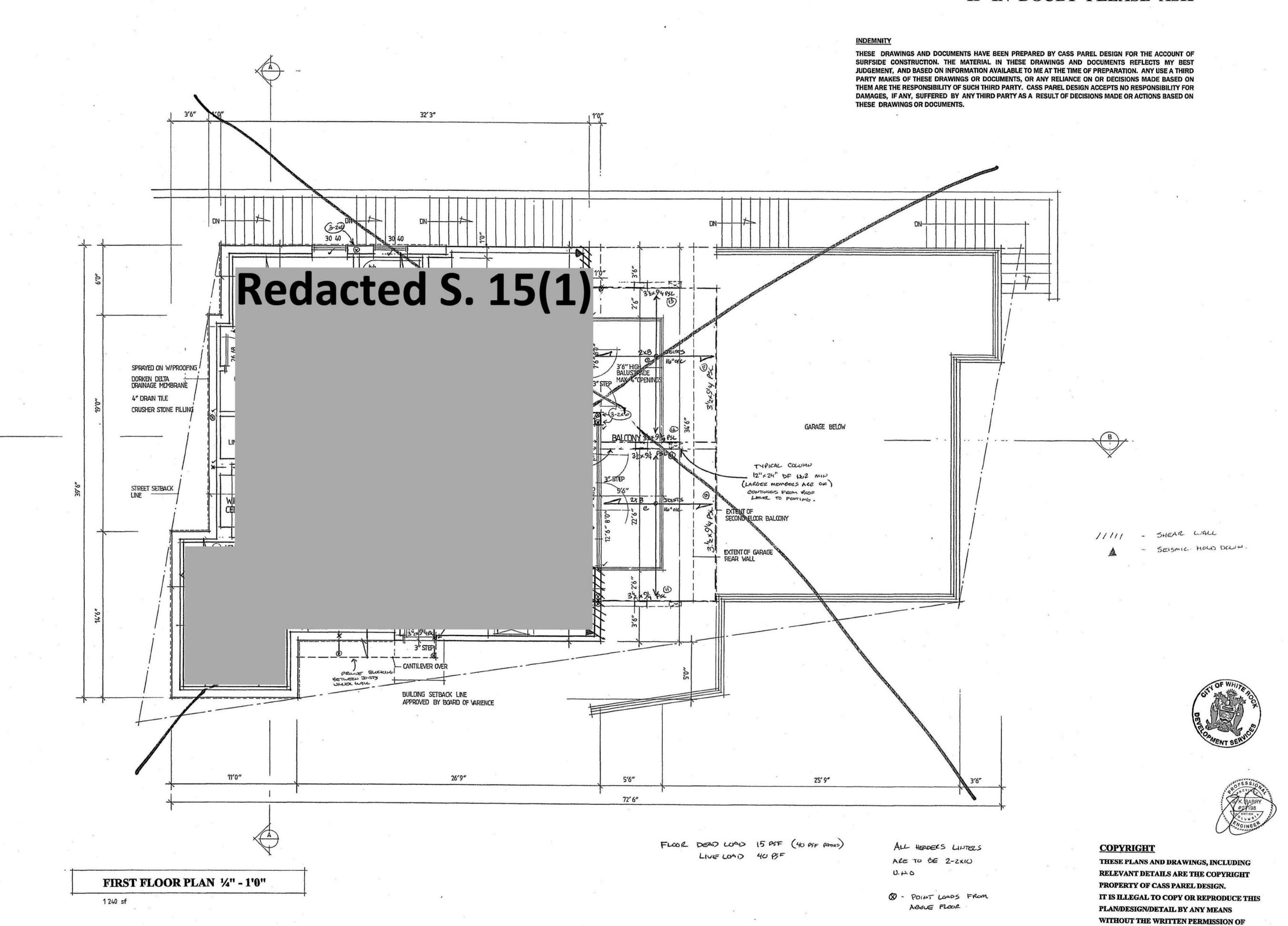




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14608 W. BEACH AVENUE, WHITE ROCK,
LOT 14, SEC. 10, TP1, NWD PLAN 5729 .. .. ..

NEW RESIDENCE CIVIC ADDRESS LEGAL ADDRESS

# IF IN DOUBT PLEASE ASK



CASS PAREL
P.Arch MArch KZNIA (SA)
CORPORATE NECAN INSTITUTE OF MACHINE SANGER
FAX: 604-531-2224 Design Studio
FAX: 604-531-2224 Sancey, B.C.
Casparel@telus.net V4P 1G3

ST FLOOR PLAN
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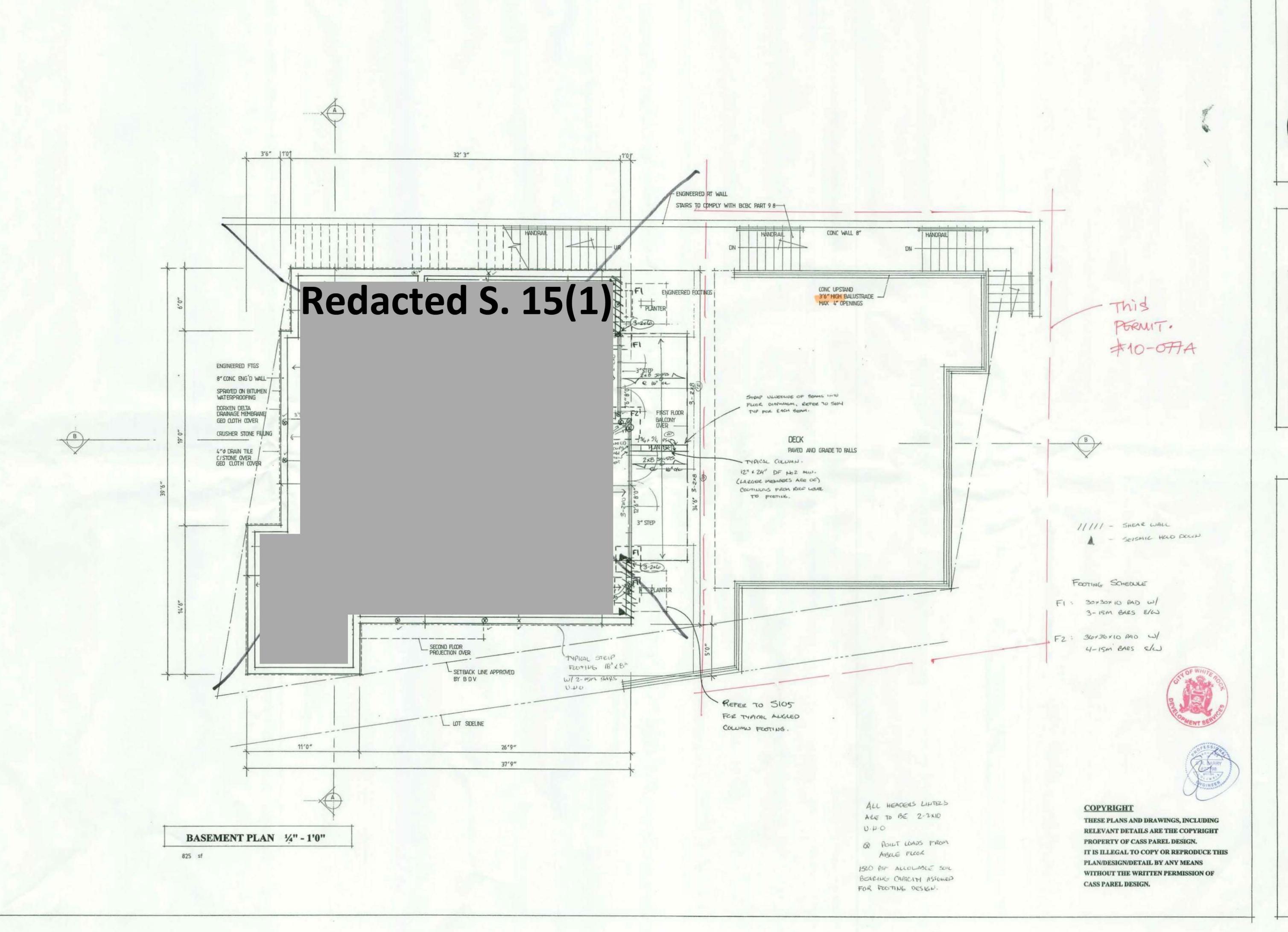
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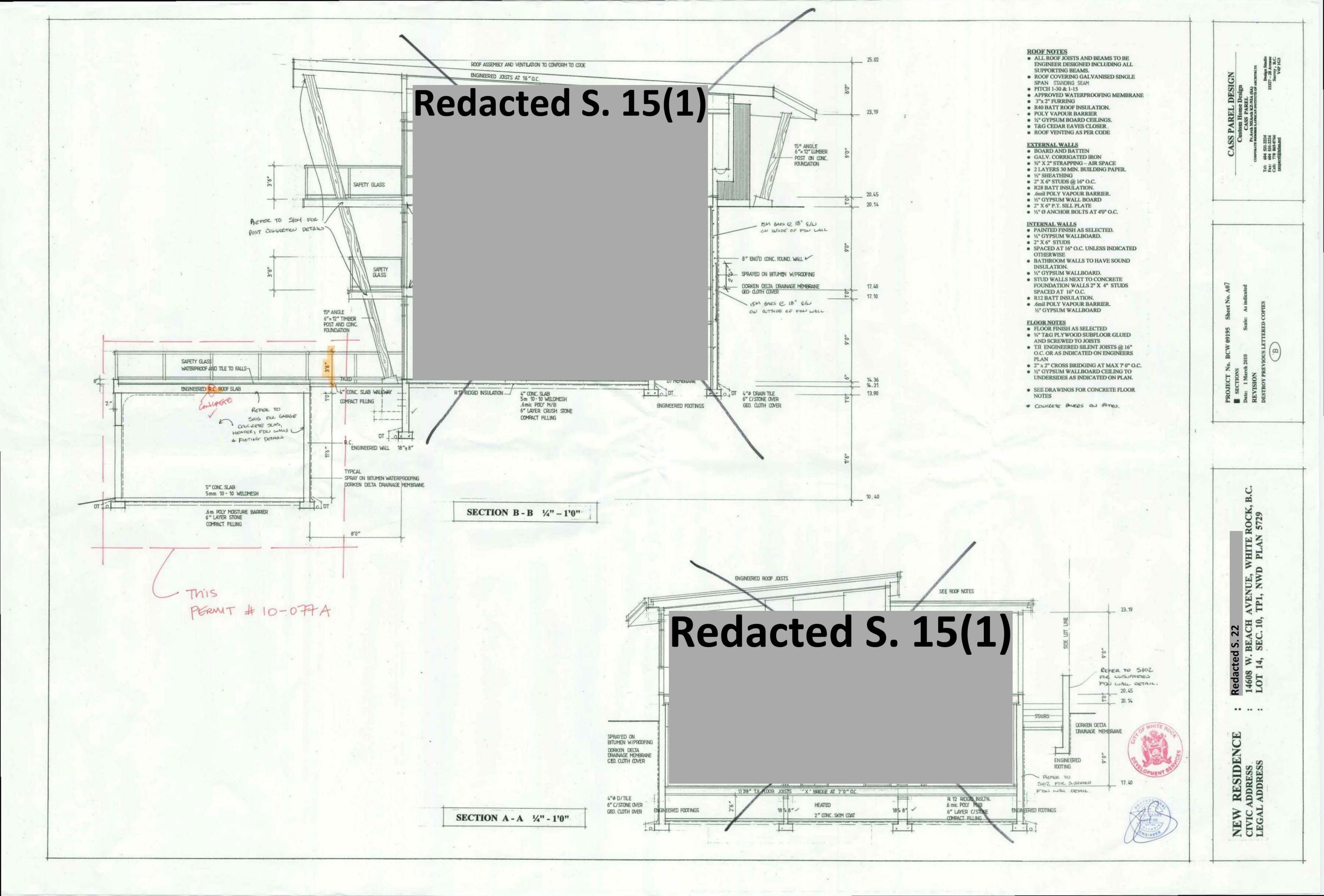
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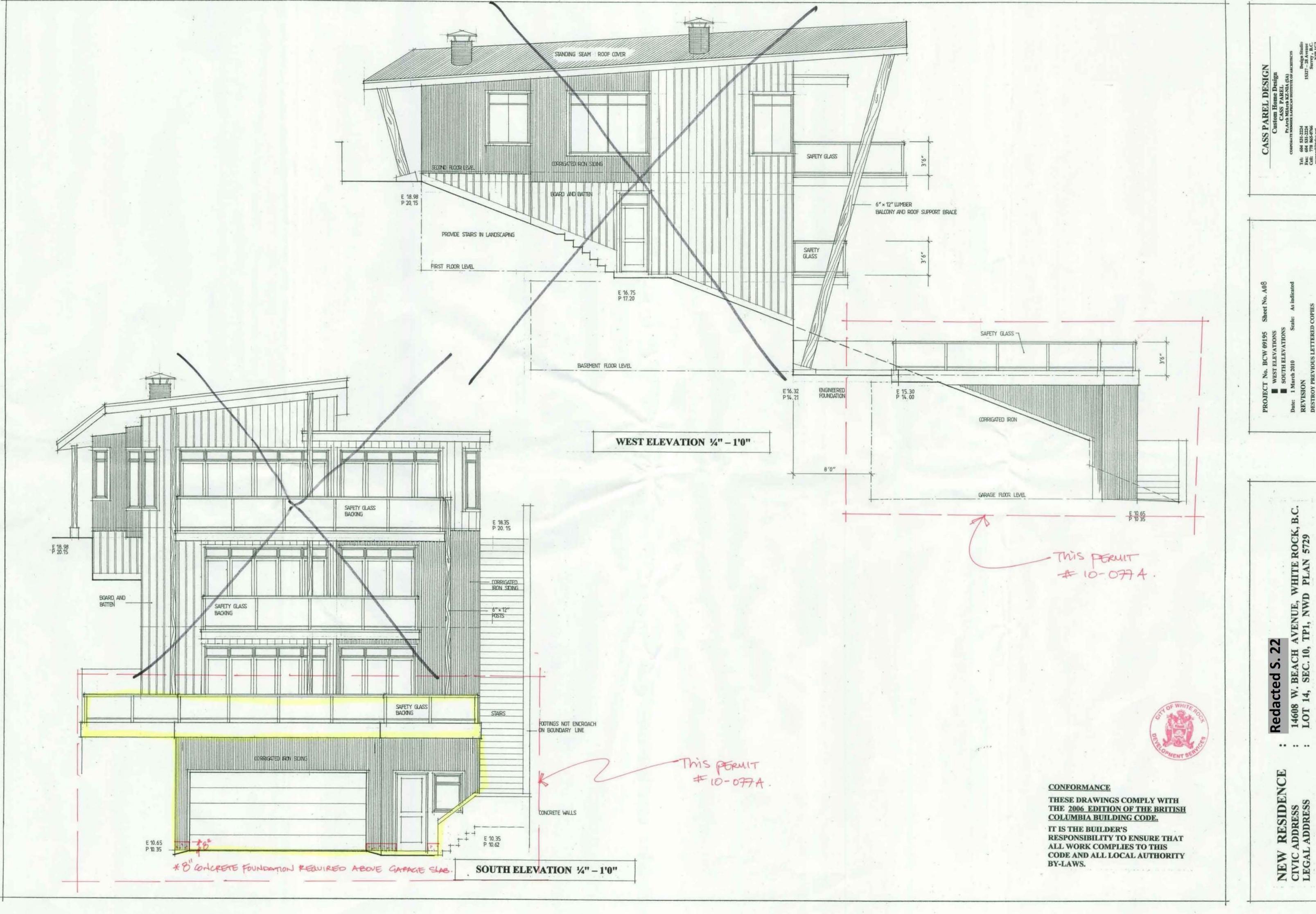


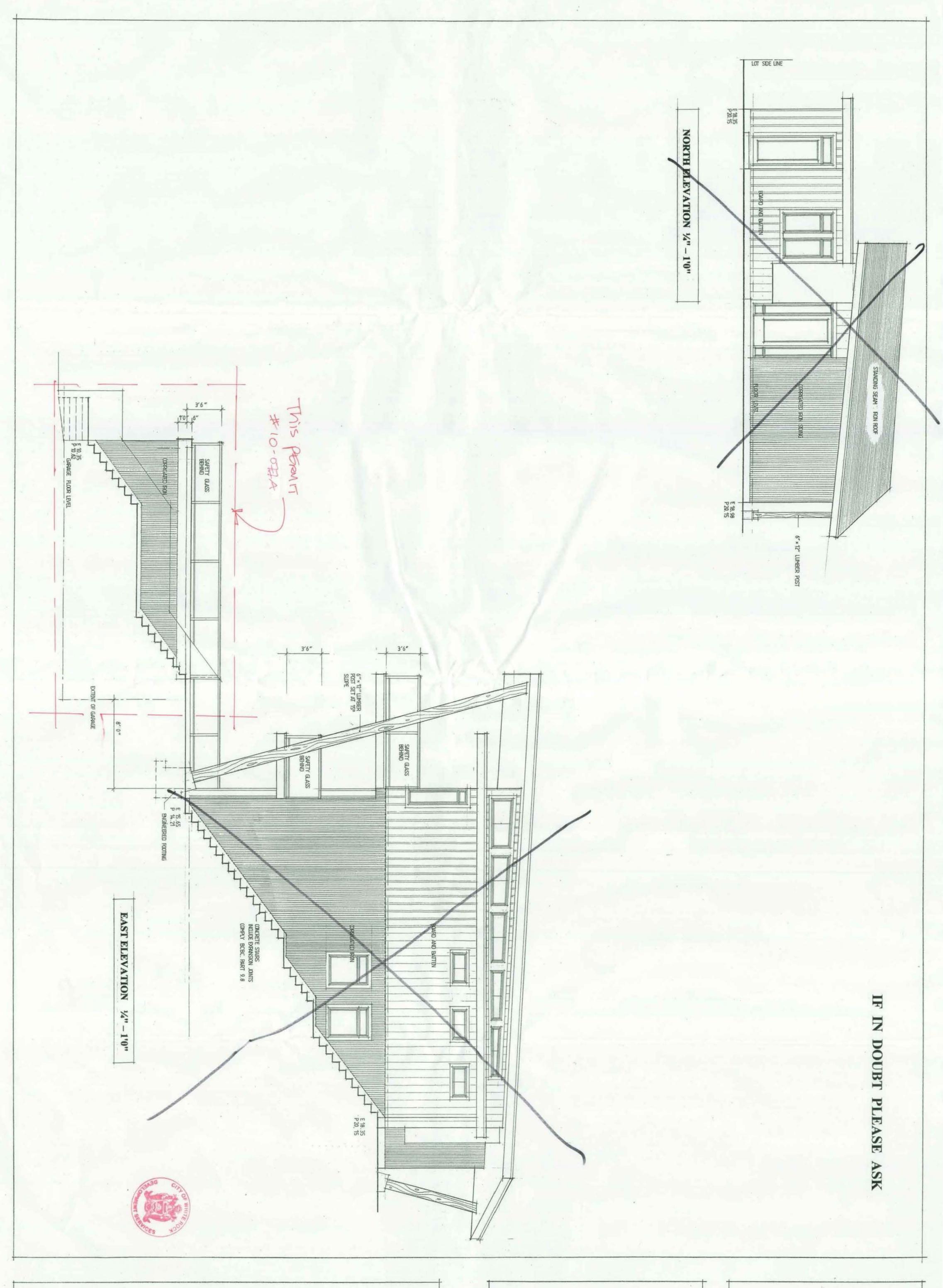
AVENUE, WHITE ROCK, TP1, NWD PLAN 5729

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NEW RESIDENCE CIVIC ADDRESS LEGAL ADDRESS







**NEW RESIDENCE** CIVIC ADDRESS LEGAL ADDRESS

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: 14608 W. BEACH AVENUE, WHITE ROCK, B.C. : LOT 14, SEC. 10, TP1, NWD PLAN 5729

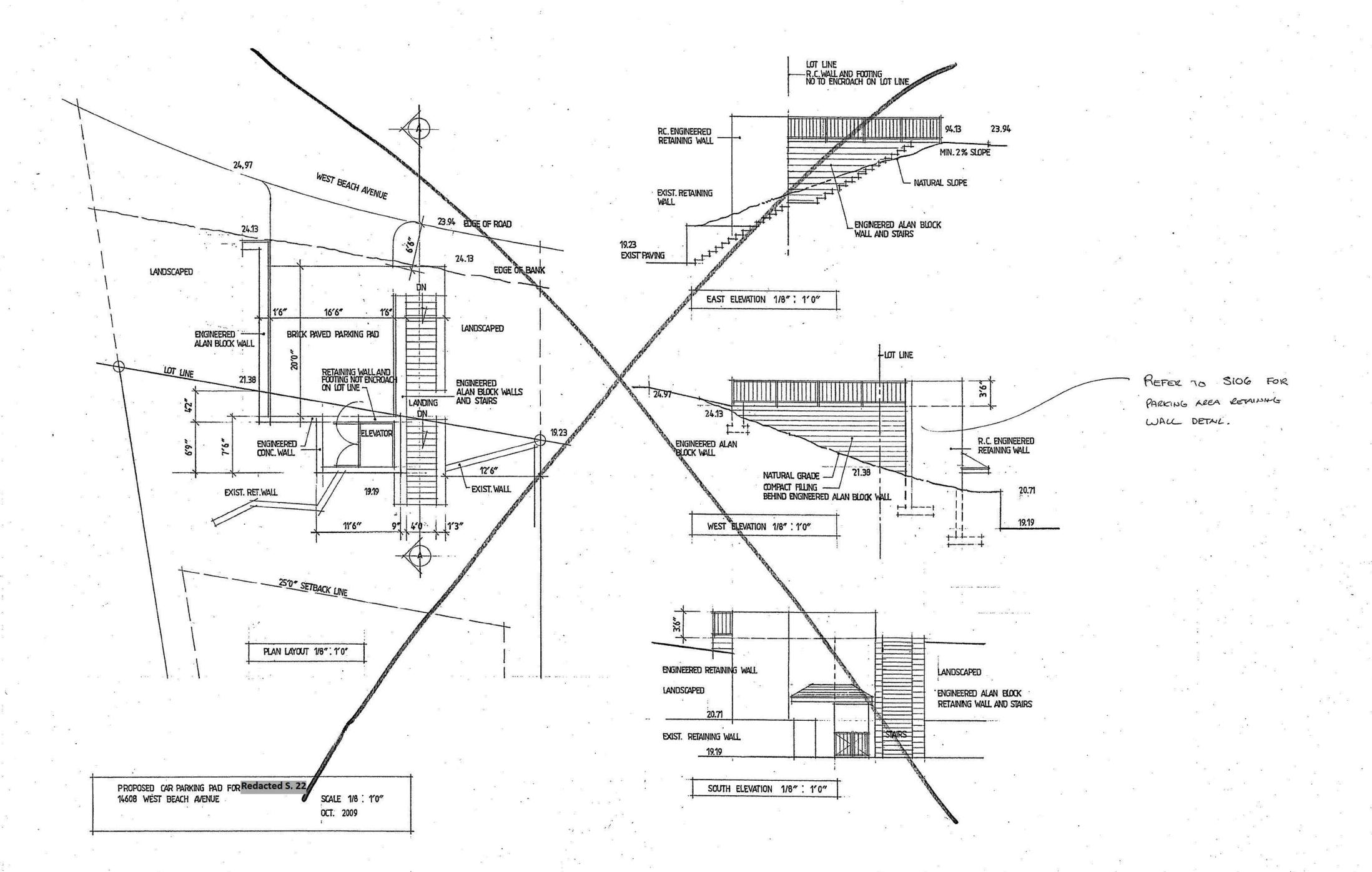
PROJECT No. BCW 09195 Sheet No. A09 **EAST ELEVATIONS** ■ NORTH ELEVATIONS

Date: 1 March 2010 Scale: As indicated REVISION DESTROY PREVIOUS LETTERED COPIES

B

CASS PAREL DESIGN Custom Home Design
CASS PAREL
Pr.Arch MIArch KZ-NIA (SA)
CORFORATE MEMBER EAFRICAN POSITIUTE OF ARCHITECTS

Design Studio 15327 – 28 Avenue Sarrey, B.C. V4F 1G3





EACH AVENUE, WHITE ROCK, B.C. EC. 10, TP1, NWD PLAN 5729

Redacted S. 22
 14608 W. BEACH AVE
 LOT 14, SEC. 10, TP1

NEW RESIDENCE CIVIC ADDRESS LEGAL ADDRESS

SITE PLAN '%" : 1'.0"

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Our drawings have been prepared to conform to current residential standards of the British Columbia Building Code (B.C.B.C.) THE BUILDER IS RESPONSIBLE FOR ENSURING THAT ALL CONSTRUCTION CONFORMS TO PROVINCIAL AND LOCAL BUILDING CODES AND BY-LAWS

IN SOME CASES THE LOCAL BUILDING DEPARTMENT MAY REQUIRE CERTIFICATION FROM A STRUCTURAL ENGINEER FOR PARTS OR ALL OF THE STRUCTURE. ANY ENGINEERING FEES AND SERVICES THAT MAY BE REQUIRED ARE THE RESPONSIBILITY OF THE OWNER. OR BUILDER.

We have made every effort to ensure accuracy and completeness in our plan packages. However it is the responsibility of the builder to check and verify all dimensions, materials, and specifications prior to construction. Any errors or omissions shall be brought to our attention immediately so that corrections can be made and plans replaced.

# Dimensions take precedence to scale drawings.

CASS PAREL DESIGN is not responsible for site conditions including frost lines, water table, slope bearing capacity etc. nor will be responsible for departures from and/or changes to our plans.

All construction and installation of materials and equipment shall be done in accordance with good building practice and manufacturers' instructions.

### STRUCTURAL SPECIFICATIONS

# CONCRETE/FOUNDATION/FOOTINGS

All footings must be placed on undisturbed or compacted soils and be below the frost line.

Adjustments to footing sizes and/or reinforcement in footing and foundation walls may be required to suit the soil bearing capacity of the site, or if backfill exceeds 76". Required engineering services are the responsibility of the owner or builder.

# All concrete must meet CAN 3-A438 standards (As per B.C.B.C.)

Grade levels shown on plans may differ from the actual site conditions. Foundation wall heights and thicknesses may need to be adjusted to suit grade and to conform to B.C.B.C. Standards.

Damproofing of 2 coats asphalt emulsion or similar shall be applied to outer concrete walls below grade. Damproofing of 6 mil. Polyethylene over 6" granular fill shall be layered under concrete slabs. A flexible sealant shall be placed where slab and foundation wall meet.

Foundation drainage consisting of 4" drainage pipe covered with a minimum of 6" of crushed stone shall be placed around the perimeter of the structure.

# ROOF NOTES

- ALL ROOF JOISTS AND BEAMS TO BE ENGINEER DESIGNED INCLUDING ALL SUPPORTING BEAMS.
- ROOF COVERING GALVANISED SINGLE SPAN STANDING SEAM
- o PITCH 1-30 & 1-15 APPROVED WATERPROOFING MEMBRANE
- 2"x 3" FURRING R40 BATT ROOF INSULATION.
- POLY VAPOUR BARRIER
- ½" GYPSUM BOARD CEILINGS. T&G CEDAR EAVES CLOSER
- ROOF VENTING AS PER CODE

# EXTERNAL WALLS

- BOARD AND BATTEN · GALV. CORRIGATED IRON
- ¾" X 2" STRAPPING AIR SPACE 2 LAYERS 30 MIN. BUILDING PAPER.
- 2" X 6" STUDS @ 16" O.C. R28 BATT INSULATION.
- .6mil POLY VAPOUR BARRIER. • ¼" GYPSUM WALL BOARD
- 2" X 6" P.T. SILL PLATE • 1/2" Ø ANCHOR BOLTS AT 4'0" O.C.

# INTERNAL WALLS

- PAINTED FINISH AS SELECTED. %" GYPSUM WALLBOARD.
- 2" X 6" STUDS SPACED AT 16" O.C. UNLESS INDICATED
- OTHERWISE BATHROOM WALLS TO HAVE SOUND
- INSULATION.
- "GYPSUM WALLBOARD. STUD WALLS NEXT TO CONCRETE FOUNDATION WALLS 2" X 4" STUDS
- R12 BATT INSULATION. .6mil POLY VAPOUR BARRIER.

# 1/2" GYPSUM WALLBOARD

SPACED AT 16" O.C.

### FLOOR NOTES FLOOR FINISH AS SELECTED

# ¾" T&G PLYWOOD SUBFLOOR GLUED

- AND SCREWED TO JOISTS • TJI ENGINEERED SILENT JOISTS @ 16" O.C. OR AS INDICATED ON ENGINEERS
- 2" x 2" CROSS BRIDGING AT MAX 7'0" O.C. ¼" GYPSUM WALLBOARD CEILING TO
- UNDERSIDES AS INDICATED ON PLAN.
- SEE DRAWINGS FOR CONCRETE FLOOR

# \* REVIEW ATTACHED SHEETS\*

TREE PROTECTION GUIDELINES

SUB TRADES LIST

Fire Sprinkler System to be installed as per By-Law #1683

" min. dia. size required for mestic water service

STORM DRAINAGE SYSTEM REQUIREMENTS

STORM & SANITARY SEWER CONNECTION SHEETS

MECHANICAL VENTILATION SHEETS INSPECTIONS REQUIRED

WORKSAFEBC INSPECTION SERVICE POLICY

# BP# 10-077 #10077 Redacted S. 22

# COPYRIGHT

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IT IS ILLEGAL TO COPY OR REPRODUCE THIS PLAN/DESIGN/DETAIL BY ANY MEANS WITHOUT THE WRITTEN PERMISSION OF CASS PAREL DESIGN.

- . All construction to meet the requirements of the B.C. Building Codes (2006) and the Local Authority Bullding By-Laws.
- All work will be equal in all respects to good building practice.
- All Contractors and Sub-Contractors will provide and maintain liability and Workmen's Compensation insurance to protect themselves and hold the Owner and Designer harmless from any and all claims for damages for bodily injury, death or property damage, for the duration of the
- However, no liability is assumed for any errors and omissions which may affect construction. It is the responsibility of all contractors to check and verify all conditions and dimensions on site and to report any discrepancies to the Designer prior to proceeding with work in the effected area.
- All drawings to be read in conjunction with supporting Consultants' drawings.
- Specifications will govern over drawings.
- Concrete footings to be on solid bearing soil 2 ft. minimum below grade.
- shall not be allowed to exceed the design loadings.
- . All electrical work to be performed in accordance with the current edition of the Canadian Electrical Code.
- . The Contractor will be responsible for obtaining all necessary permits, approvals and inspection required, prior to and during the course of construction.



WOOD FRAMING

Structural framing materials to be #2 Douglas Fir or better, unless otherwise stated. Application of materials must conform to the tables provided in the B.C.B.C. Residential standards.

Building frames shall be anchored to the foundation walls by fastening a sill plate to foundation wall with 1/2" anchor bolts spaced at 4 ft on centre.

Floor joists to be fastened to sill plate or suspension fixing brackets as per Engineer's recommendation.

All wood in contact with concrete shall be damproofed with 6 mil poly, 45 lb. Felt or other approved

Caulking and flashing to be provided as per B.C.B.C.

Floor joists spanning more that 7'0" are to be bridged at mid span or at 7'0" on center by 2"x 2" diagonal bridging. In some cases to meet span requirements joists will require strapping and/or to be glued and screwed to a 5/8" plywood subfloor.

Partition walls parallel to floor joists shall be supported by double joists or blocking between joists. Partition walls, supporting kitchen cabinets, parallel to floor joists shall be supported by double joists.

All lintels to be 2-2x10, unless otherwise stated, and shall be supported on a minimum 3 1/2 " bearing.

Laminated beams will require an engineer's certification and is the builder's obligation to obtain.

Builder to check snow load and rain load guidelines for their municipality prior to construction.

# INSULATION AND VENTILATION

Roof space shall be vented with roof type, eave type and/or gable type vents to a minimum of 1:300 of the insulated ceiling area.

Crawlspaces shall be naturally vented to a minimum of 1:500; vents shall be uniformly placed around the building. Crawlspaces may also be heated by a forced air heating system or vents to an adjacent basement.

# MINIMUM INSULATION REQUIREMENTS

Foundation walls to have a 1 1/2 "rigid insulation to a minimum of 24" below grade.

Roof/ceiling/cant'd floors R-40 Walls 2x6" studs R-28

with 6 mil poly vapour barrier installed on the warm side of the insulation.

Ceiling insulation shall be installed so as not to restrict air flow through roof vents to attic spaces.

Attic spaces and crawlspaces to have a minimum 20" x 28" access hatchway.

# MASONRY AND FIREPLACES

Masonry veneers shall be installed in accordance with B.C.B.C. Standards. Check plan for details. Vencers shall rest on bearing support a min. of 3", with a 1" air space between the vencer and wood framing. Provide weep holes at a min 32" o/c. Veneer to be tied to wood framing with a corrosion resistant strapping at 16" o/c vertical and 32" o/c horizontal spacing.

Masonary fireplaces and chimneys to be constructed in accordance with B.C.B.C. Standards. Zero clearance metal insert fireplaces and gas fireplaces to be C.S.A. Approved and installed to manufacturer's instructions.

# MISCELLANEOUS

The installation of plumbing, heating and electrical equipment and material shall be in accordance with manufacturer's specifications and the applicable sections of the B.C.B.C. Standards.

All balcony railings to be a min. 42" in height and 4" vertical spacing.

All exterior and interior finishes shall be specified by the owner. Finishes specified on our plans shall be confirmed by the owner prior to installation.

Due to varying tastes and preferences, lighting and electrical layouts to be specified by the owner or builder, and must meet B.C.B.C. Requirements.

14608 West Each Ave.

PROPERTY OF CASS PAREL DESIGN.

# GENERAL NOTES

. The Designer makes every effort to provide complete and accurate documentation and plans.

Do not scale the drawings. Figured dimensions shown on the drawing will govern.

Beams to be No. 1 Fir or engineered micro lams.

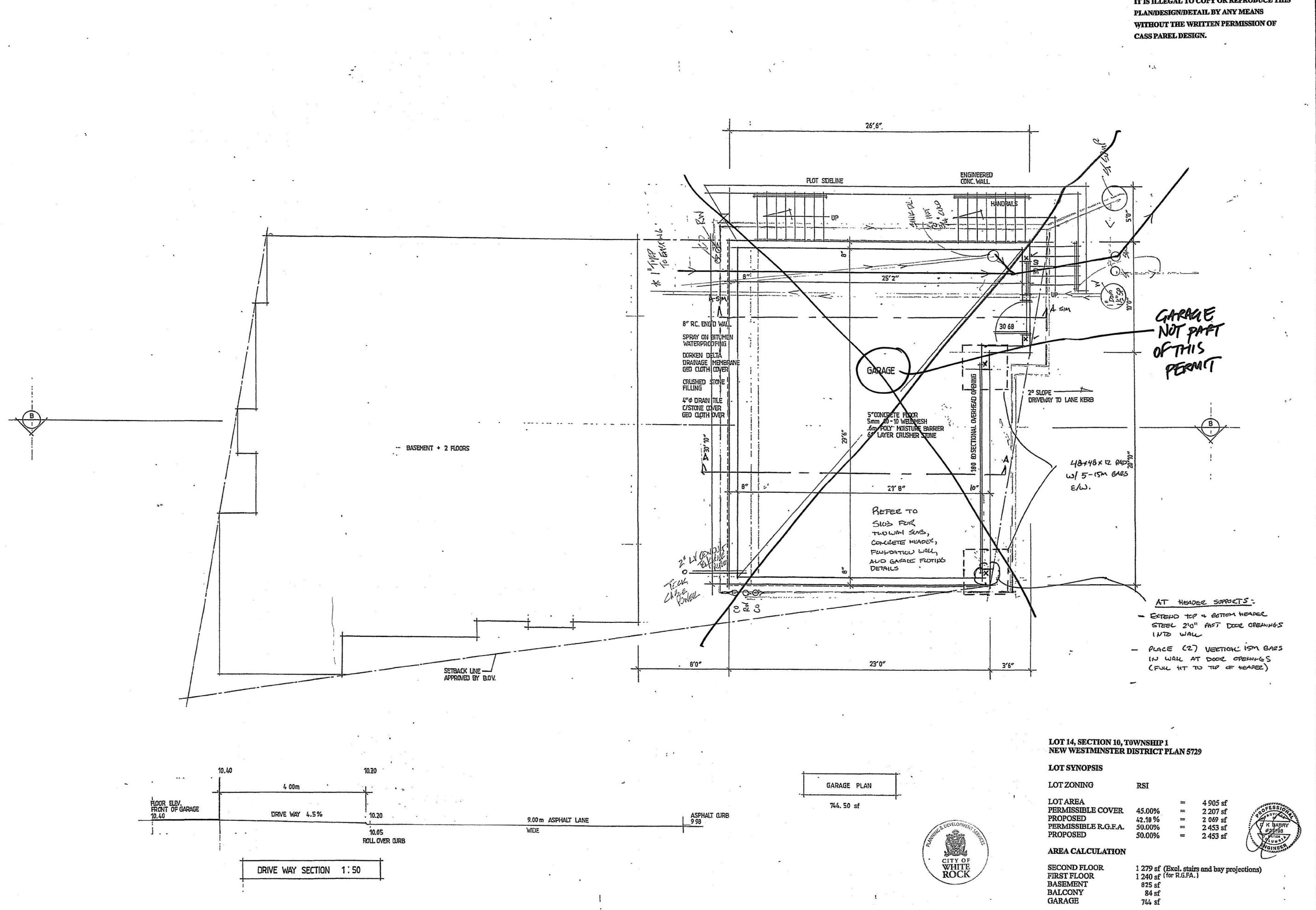
. Construction loads on the structure caused by interim storage of materials or use of equipment,

DEVELOPMENT SERVICES

ROCK, AVENUE, WI

RESIDENCE ADDRESS ADDRESS

\*\* \*\* \*\*



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CASS PAREL
PLANTA MANCH REALER
PLANTA MANCH RE

RAGE FLOOR PLAN

EA CALCULATIONS

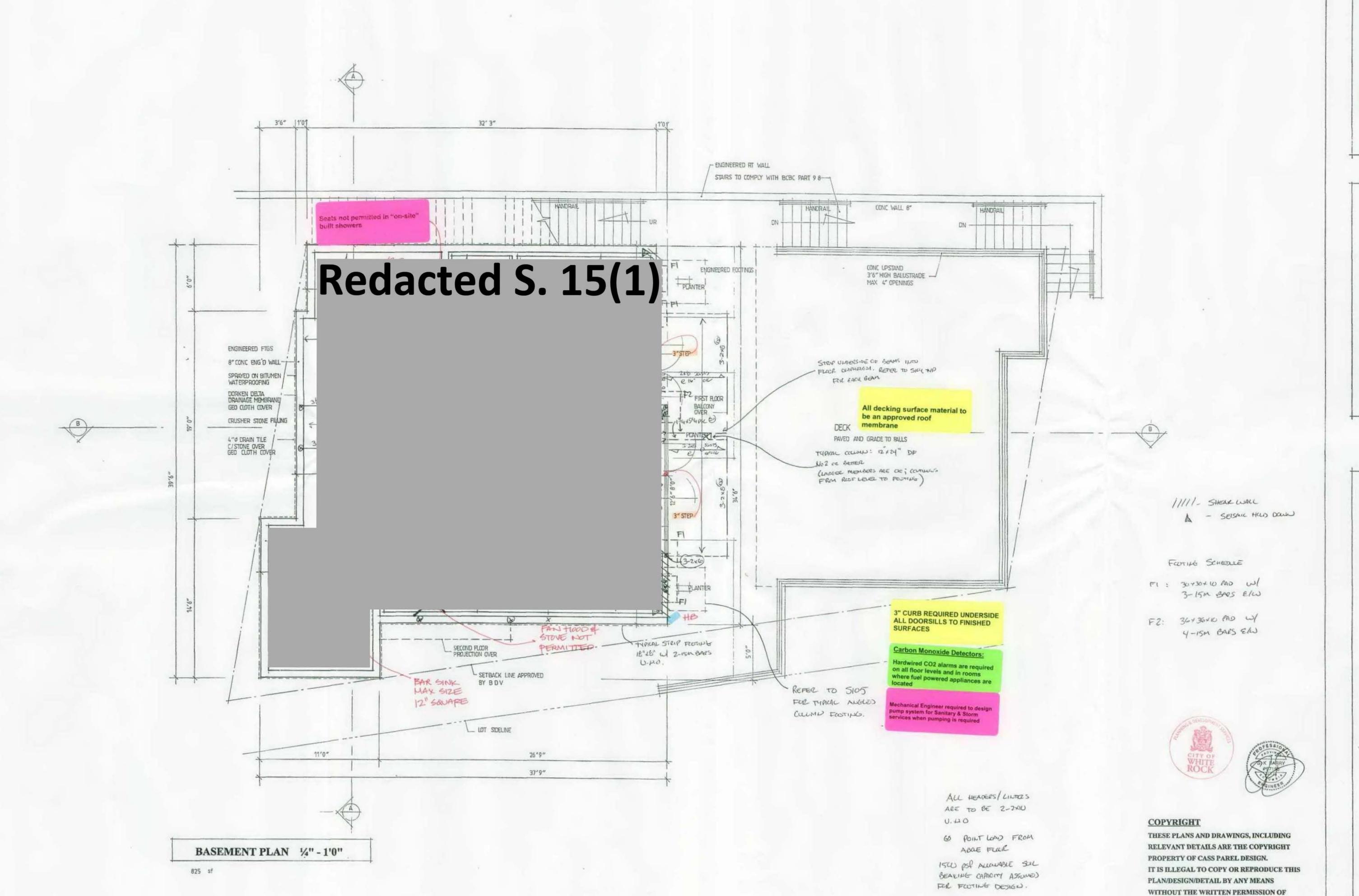
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GARAGE FLOOR PLAN
RREA CALCULATIONS
Date: 1 March 2010 Sc
REVISION

POPPY 14608 W. BEACH AVENUE, WHITE ROCK, B.C. LOT 14, SEC. 10, TP1, NWD PLAN 5729

NEW RESIDENCE CIVIC ADDRESS LEGAL ADDRESS

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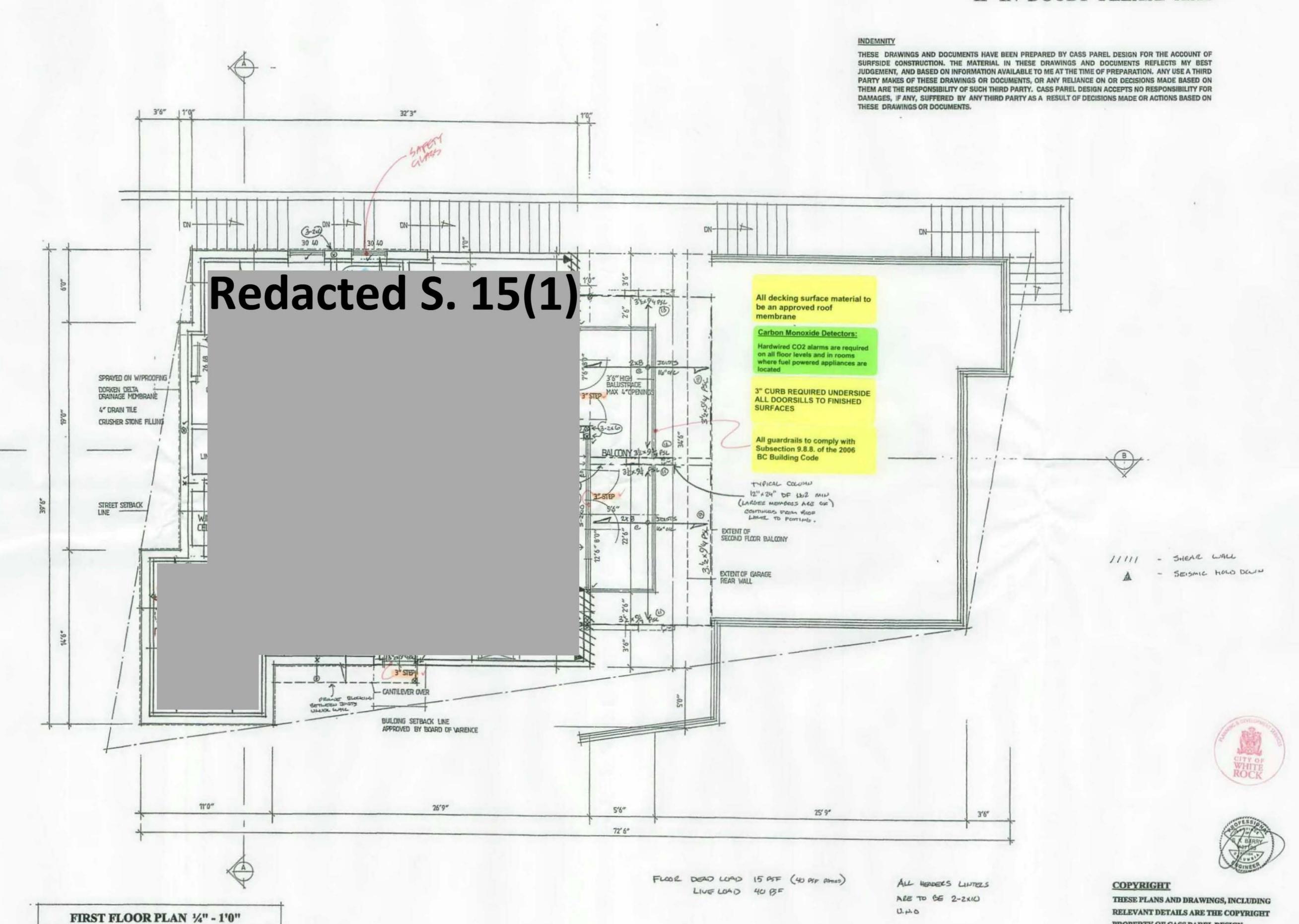
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14608 W. BEACH AVENUE, WHITE ROCK,
LOT 14, SEC. 10, TP1, NWD PLAN 5729

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NEW RESIDENCE CIVIC ADDRESS LEGAL ADDRESS

CASS PAREL DESIGN.

# IF IN DOUBT PLEASE ASK



1 240 sf

CASS PAREL
PACED MEMORING SAN COMMUNICATION PROPERTY SAN COMMUNICATION COMMUNICATION COMMUNICATION COMMUNICATION COMPANY, ELC. 7738 855-0755

Scale: As indicated

Date: 1 March 2010
REVISION

ENUE, WHITE ROCK, B.
1, NWD PLAN 5729

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NEW RESIDENC

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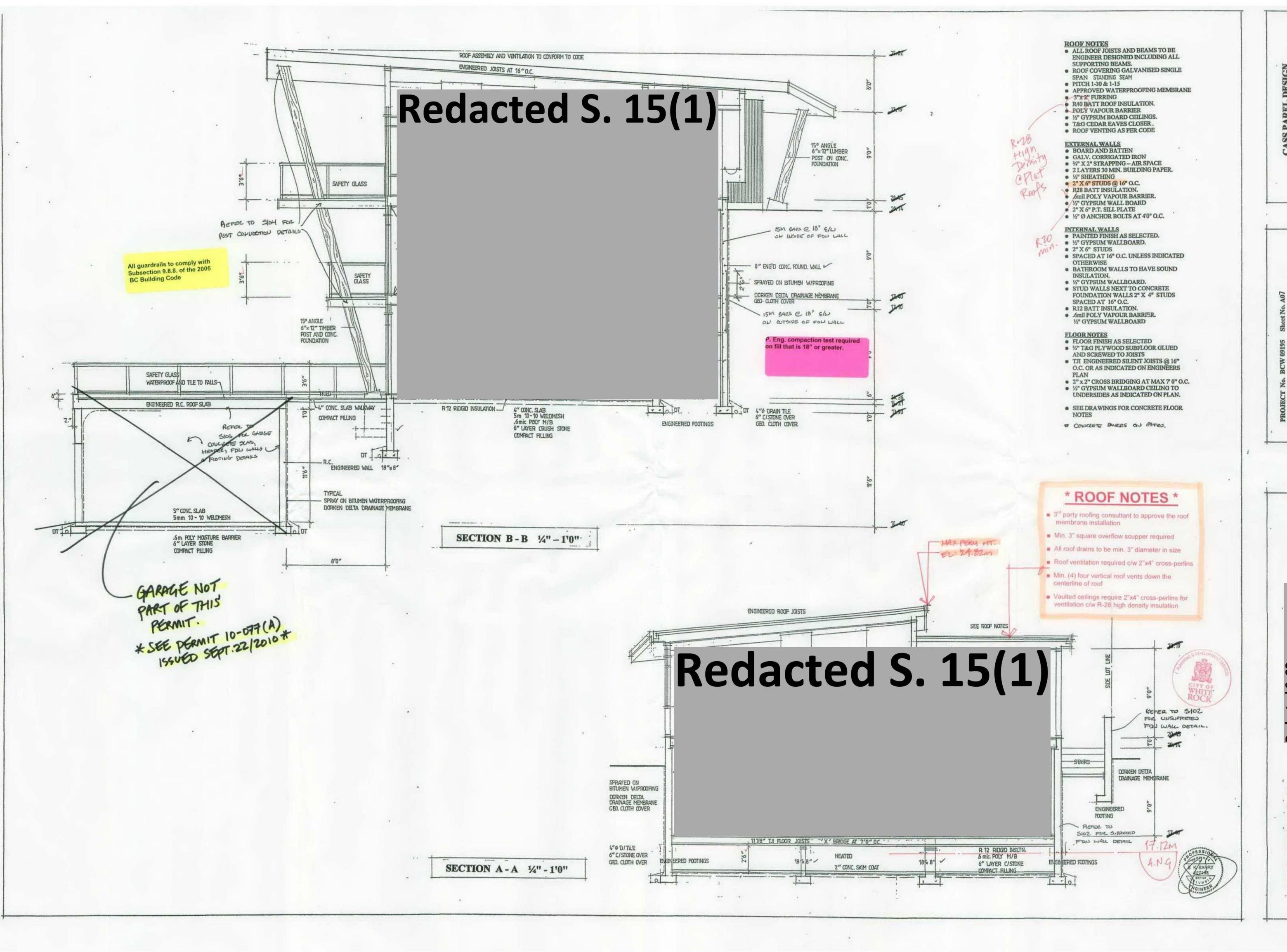
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8 - POINT LOADS FROM

ACOUS PLOOP



Custom Home Design
CASS PAREL
Pranch March MZ-NIA (8A)
PRATE MEMORIAL LAPINGAN INSTITUTE OF ARCHITECT
SSI-2224
Sel-2024

CORPORATE MEDICADE
Thi: 604 551-2224
Far: 604 551-2224
Cell: 778 865-0766

Scale: As indicated

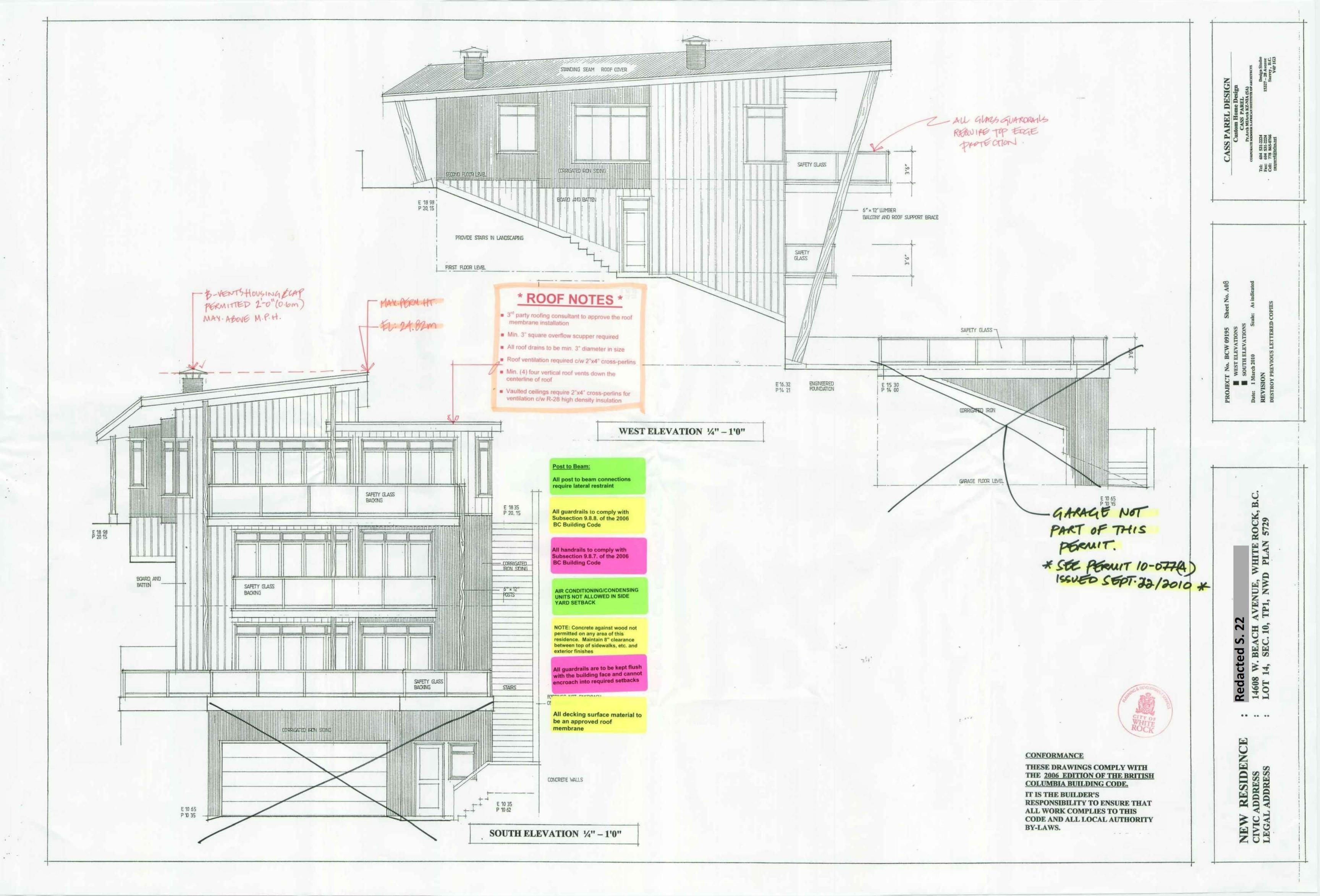
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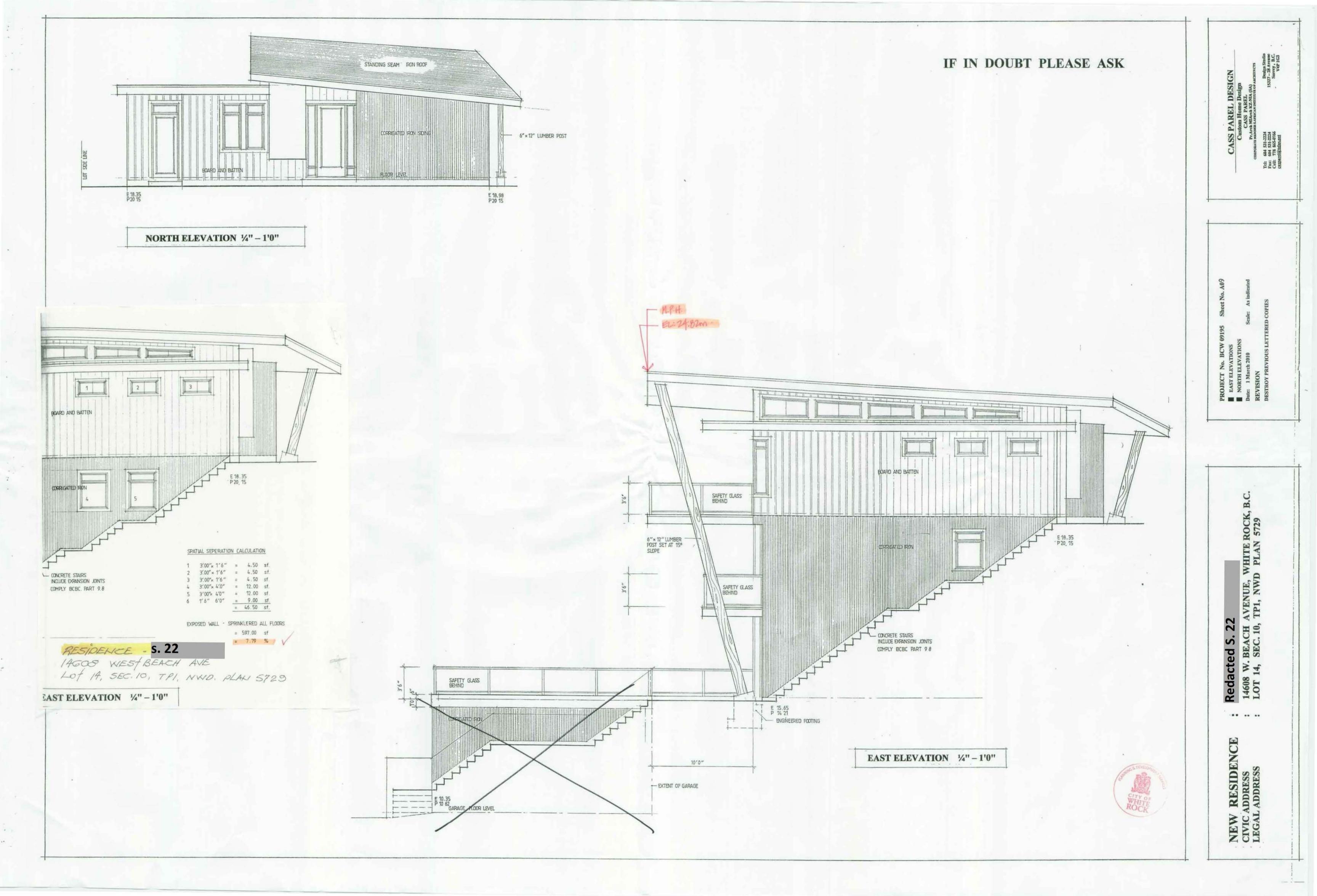
EACH AVENUE, WHITE ROC

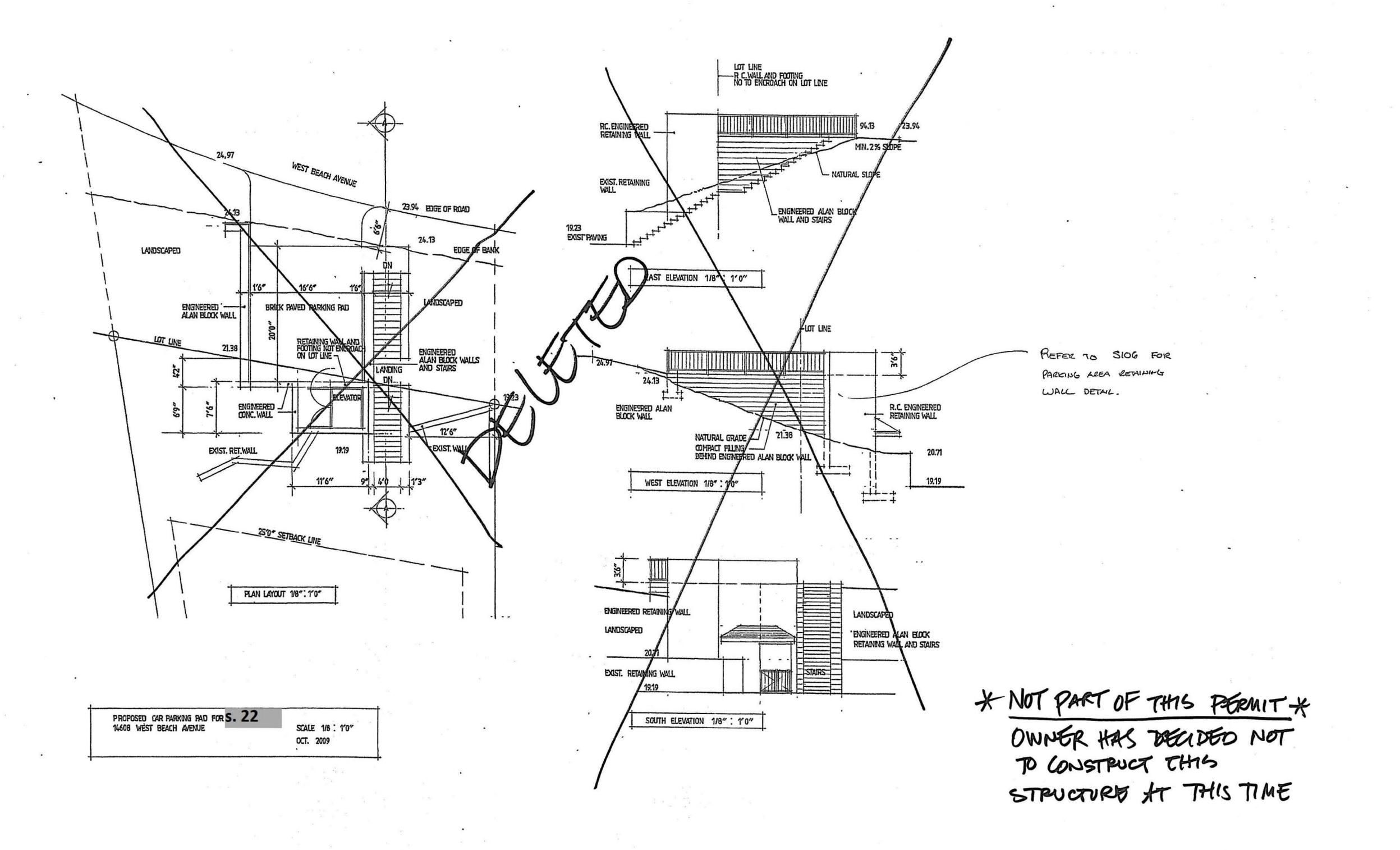
14608 W. BEACH LOT 14, SEC. 10,

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CASS PAREL DESIGN Custom Home Design CASS PAREL PLAND MARCH ECHIA (SA)

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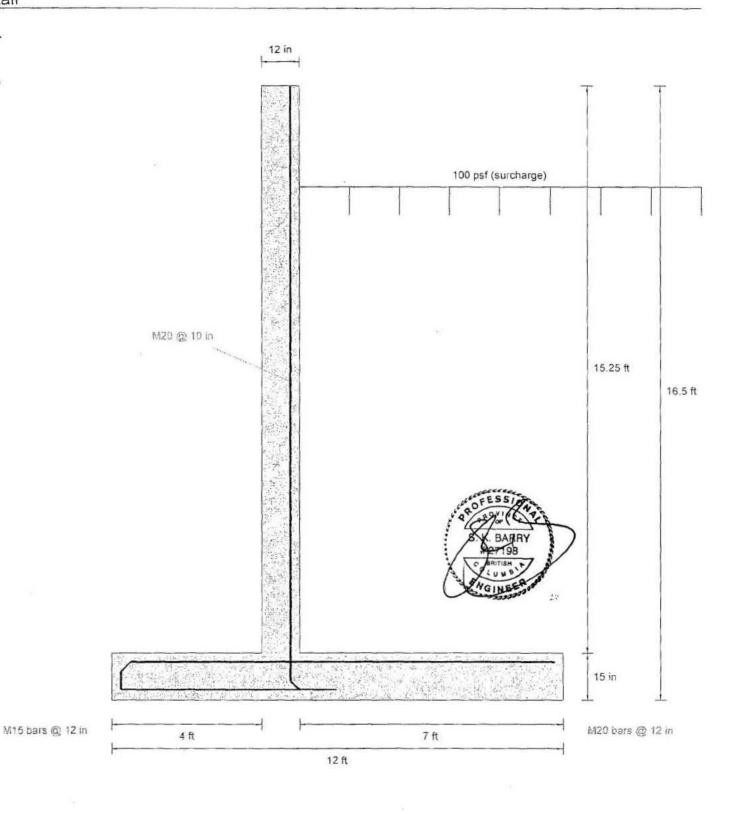
NEW RESIDENCE CIVIC ADDRESS LEGAL ADDRESS Oswald Wegner Horace Engineering Ltd. s. 22 14068 W. Beach Ave

Retaining Wall at Elevator.

Code: CSA A23.3-94

5106

### Detail



TOPOGRAPHIC PLAN OF LOT 14, SECTION 10, TOWNSHIP 1 NEW WESTMINSTER DISTRICT PLAN 5729 14608 Westbeach Av. R8.1 BR# 10-077 A SCALE - 1:250 GARAGE ONLY ALL DISTANCES ARE IN METRES WEST BEACH AVENUE MAX. PERM HIT TOE OF BANK N 13.13m AN (UNCONSRUCTED) BAY STREET 4 m M.F.E.=19.48 17,13m MPH **EXISTING** HOUSE CONCRETE 10. END OF CURB CONC CURB

M.F.E.=MAIN FLOOR ELEVATION

81.10 INDICATES LOCATION AND ELEVATION OF GROUND SHOT.

- NOTE -

GROUND ELEVATIONS ON THIS PLAN MUST NOT BE USED FOR CONSTRUCTION BENCHMARK PURPOSES. A BENCHMARK MAY BE OBTAINED FROM THIS OFFICE.

ELEVATIONS ON THIS PLAN ARE DERIVED FROM CITY OF WHITEROCK BENCHMARK #89H5104 LOCATED AT ANDESON AND MARINE. ELEVATION=3.087

C.A.Rowbotham

CERTIFIED CORRECT

B.C.L.S

Dated this 2150 day of OUNE. ,2006
THIS DOCUMENT IS NOT VALID UNLESS
ORIGINALLY SIGNED AND SEALED.

OLSEN & ASSOCIATES BRITISH COLUMBIA LAND SURVEYORS

204-15585 24th AVENUE, SURREY, B.C. V4A 2J4

PHONE: 531-4067

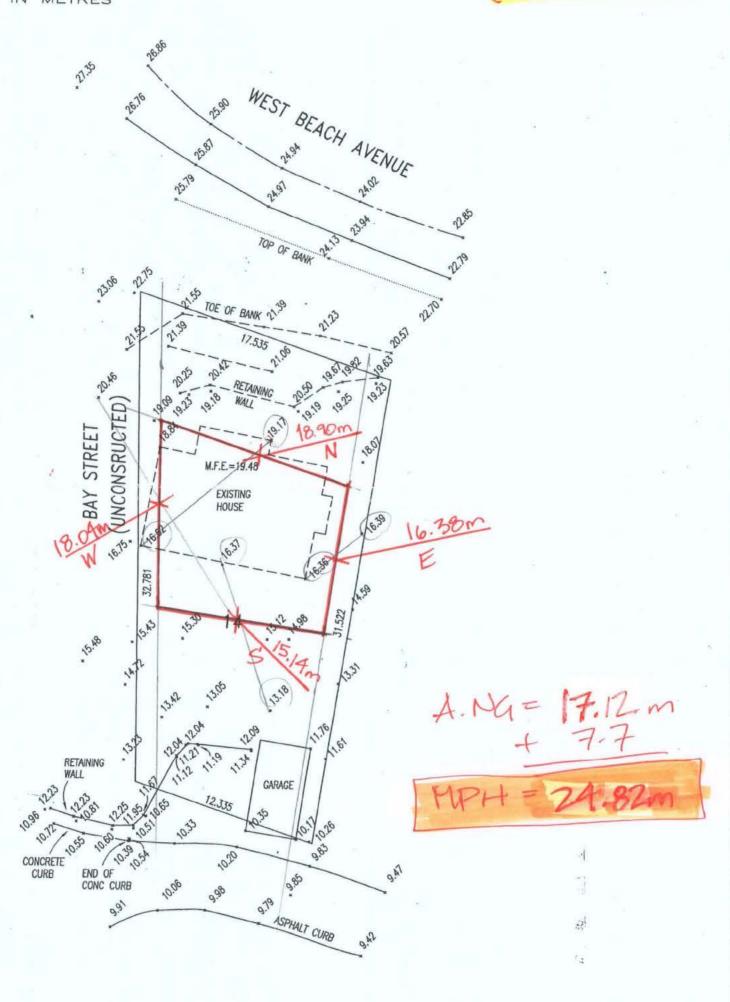
TOPOGRAPHIC PLAN OF LOT 14, SECTION 10, TOWNSHIP 1

NEW WESTMINSTER DISTRICT PLAN 5729

14608 Westbrach Ave RS-1 BP#10-077 (HOUSE ONLY)

SCALE - 1:250





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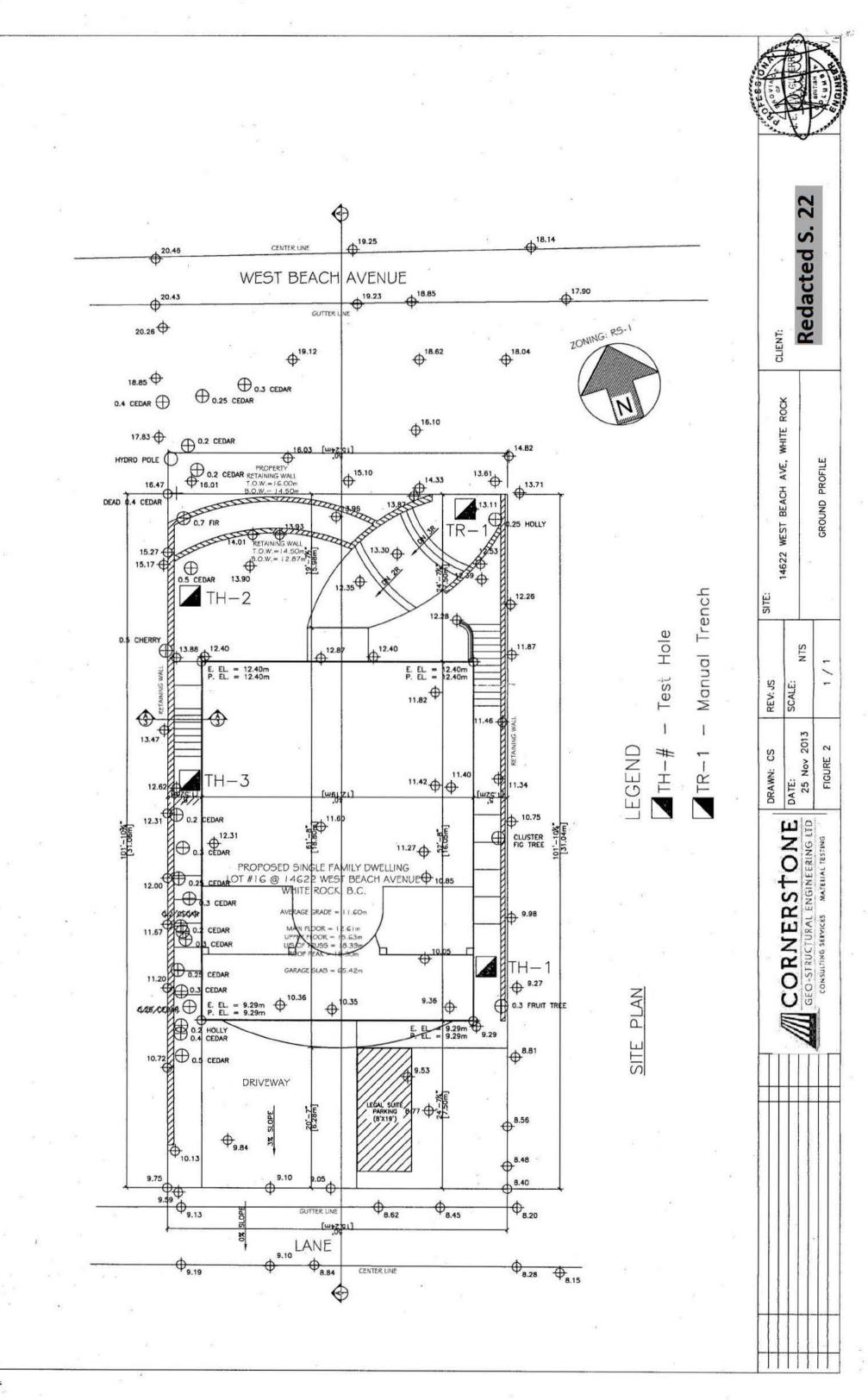
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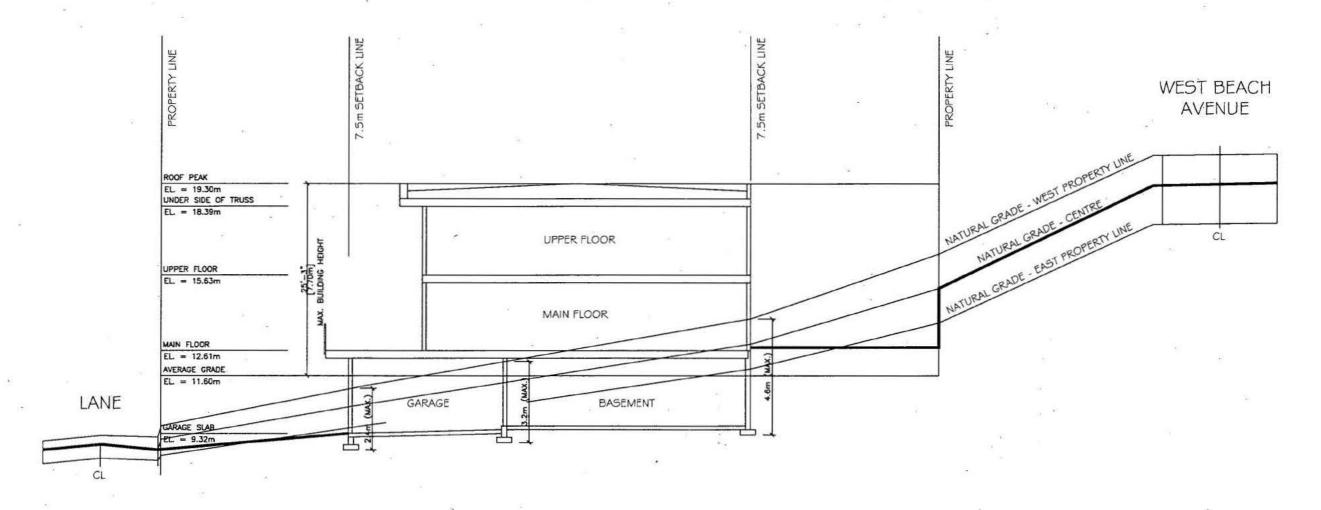
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OLSEN & ASSOCIATES BRITISH COLUMBIA LAND SURVEYORS

204-15585 24th AVENUE, SURREY, B.C. V4A 2J4

PHONE: 531-4067





GROUND PROFILE AND EXCAVATION DEPTH AT CENTRE AND SIDES OF LOT NOT TO SCALE

_	- 9	
		CORNERSTONE
		 GEO-STRUCTURAL ENGINEERING LTD
_		 CONSULTING SERVICES MATERIAL TESTING

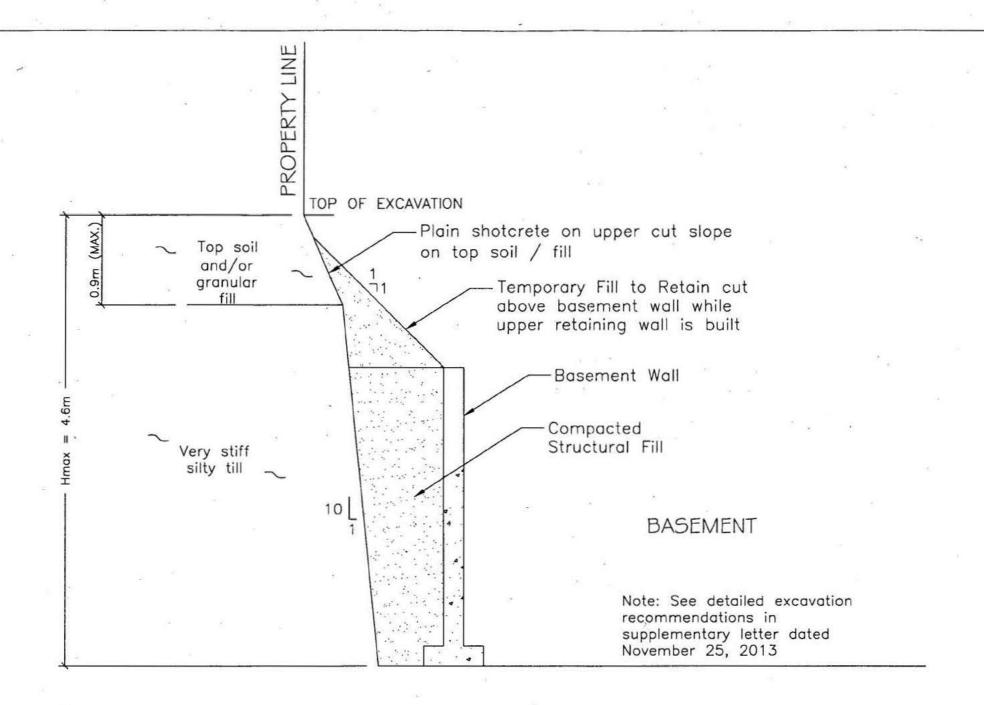
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The Acres	DATE: 25 Nov 2013	SCALE:	
•	FIGURE 2	1/1	

14622 WEST BEACH AVE, WHITE ROCK GROUND PROFILE

CLIENT:

Redacted S. 22





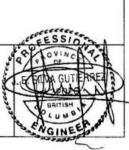
# PROPOSED EXCAVATION AT TYPICAL CROSS SECTION (A-A') NOT TO SCALE

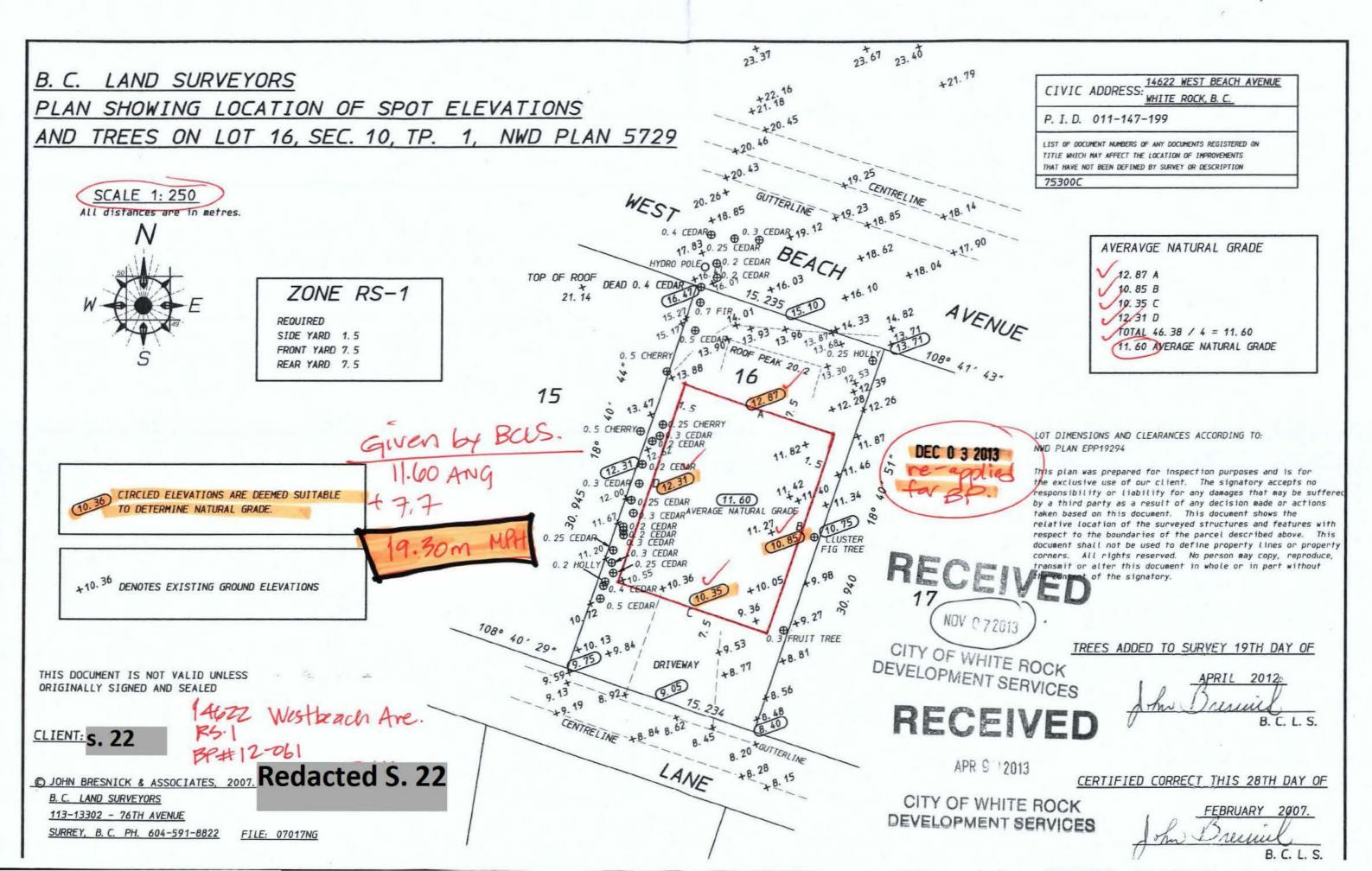
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		CORNERSTONE
-	- 41	GEO-STRUCTURAL ENGINEERING LTD
	- Communication	CONSULTING SERVICES MATERIAL TESTING

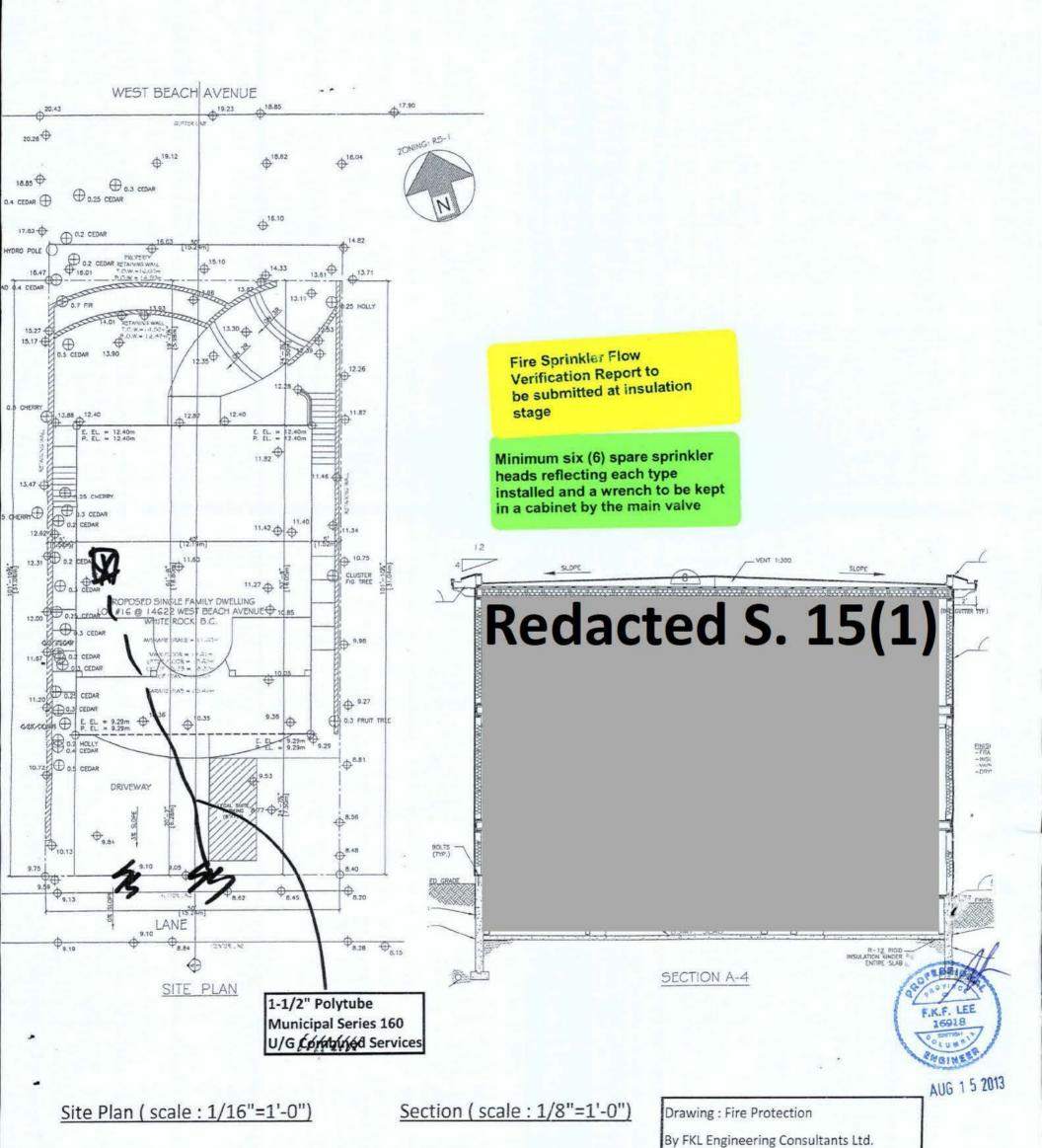
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DATE: 25 Nov 2013	SCALE: NTS	14622 WEST BEACH AVE, WHITE ROCK	- "
FIGURE 3	1/1	GROUND PROFILE	

CLIENT:

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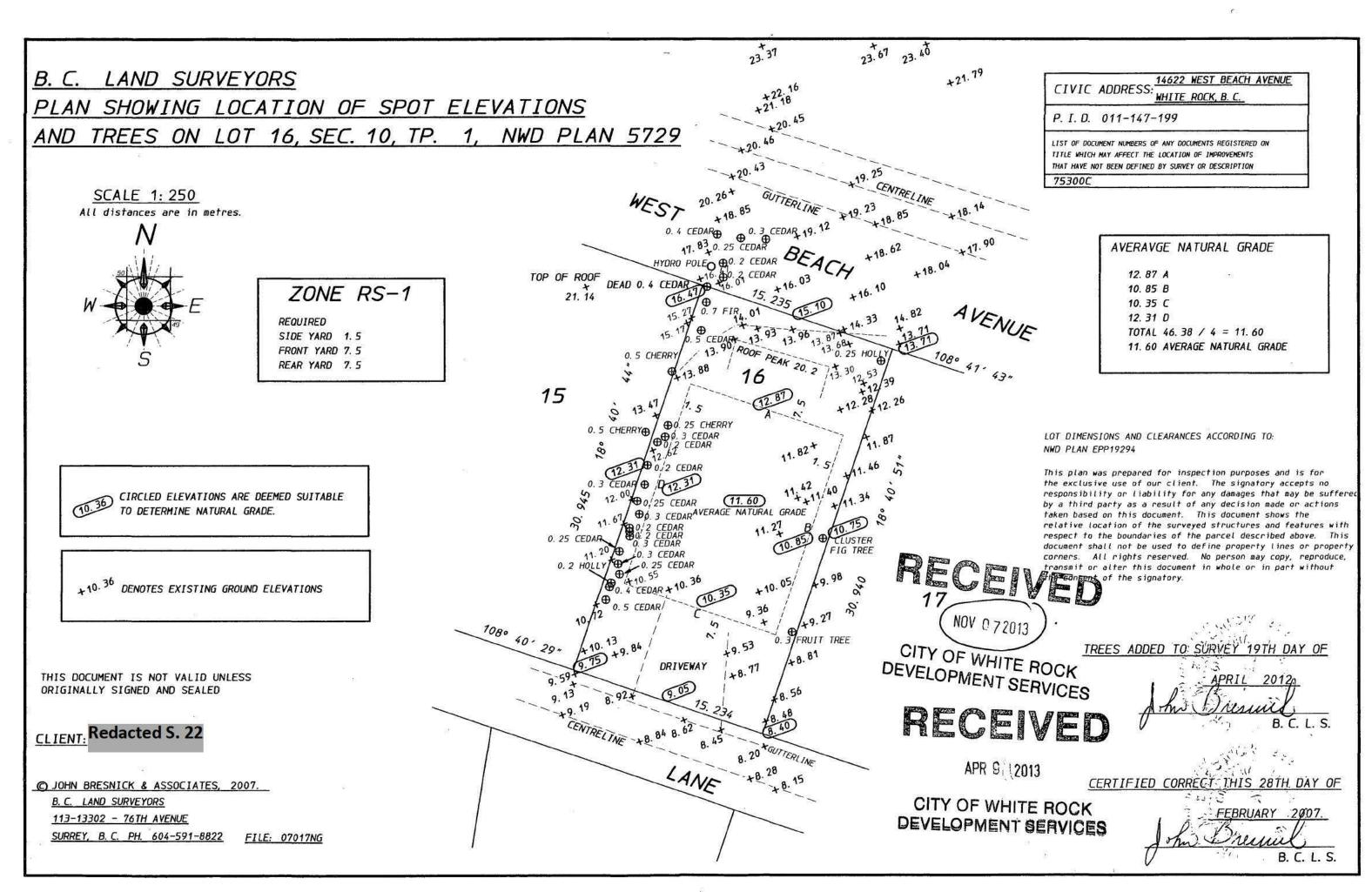
Cell: 604-618-0438 Fax: 604-435-3181

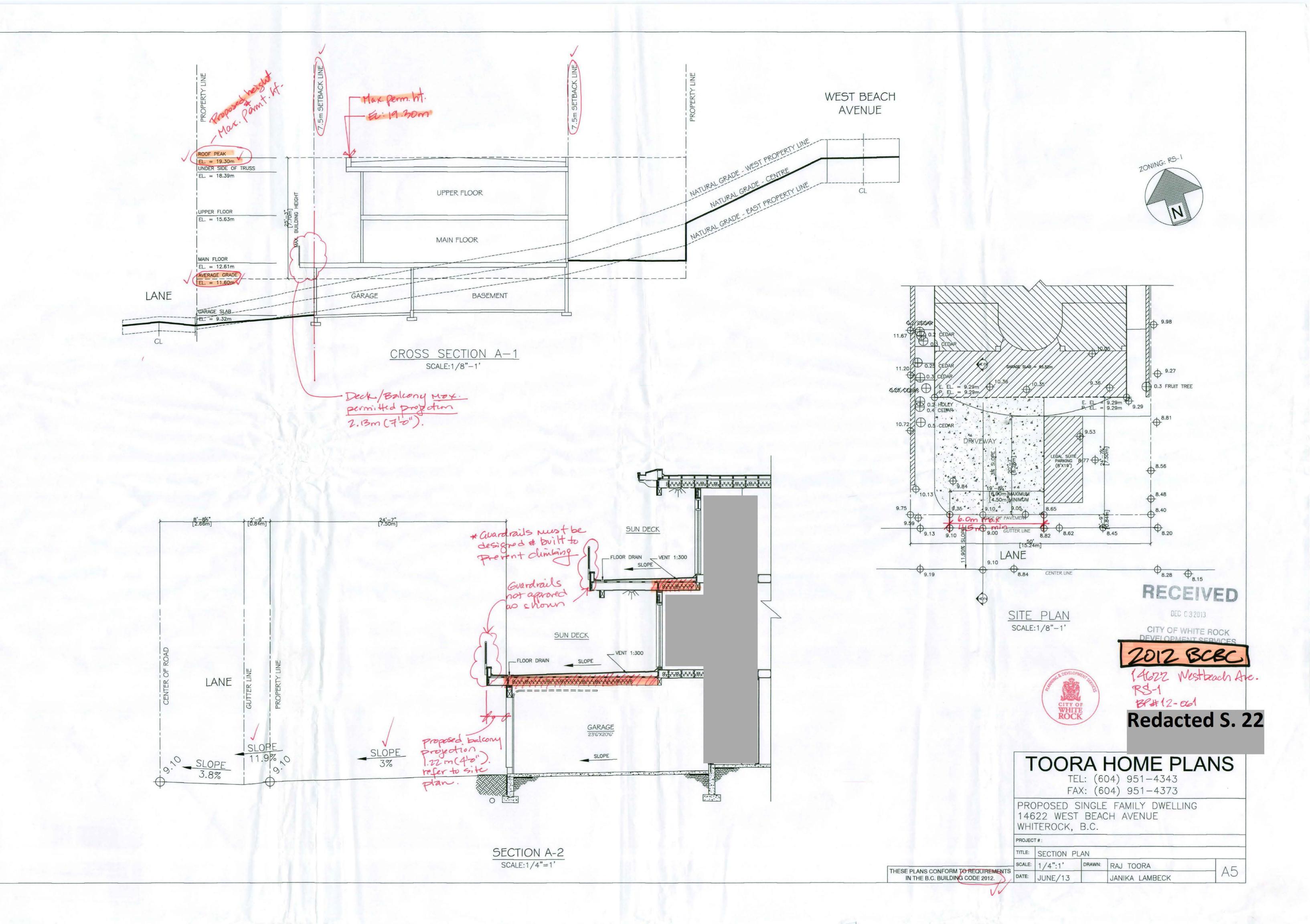
Fire Sprinkler Installation Contractor:

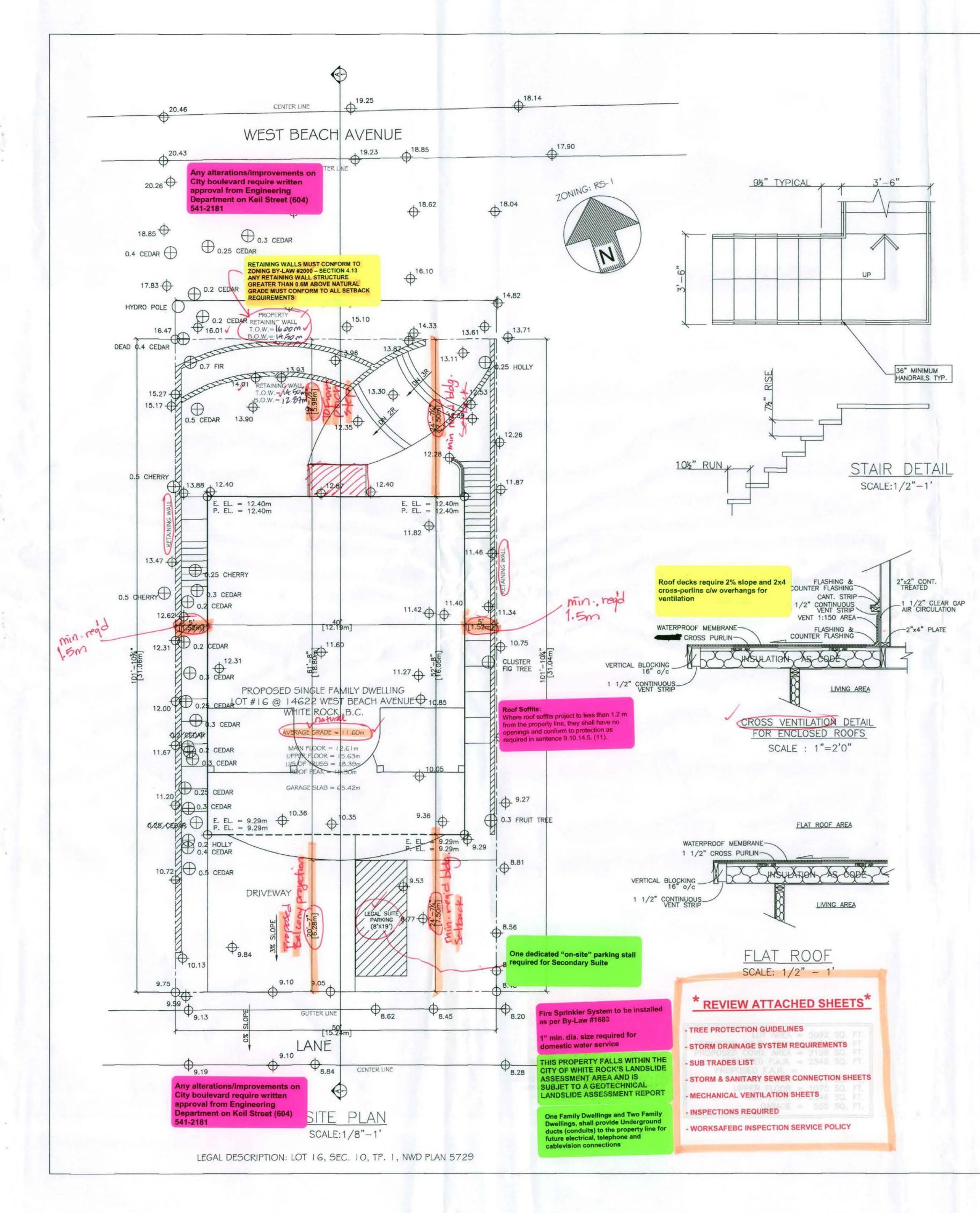
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1 of 4

(Address: 14622 West Beach Ave., White Rock)







# DIVISION B - PART 9

- 10) WHERE ROOF SOFFITS PROJECT LESS THAN 1.2m FROM THE PROPERTY LINE, THE CENTRE LINE OF A LANE OR PUBLIC THOROUGHFARE OR AN IMAGINARY LINE BETWEEN TWO BUILDINGS OR FIRE COMPARTMENTS ON THE SAME PROPERTY, THEY SHALL
  - A) HAVE NO OPENINGS, AND
  - B) BE PROTECTED BY
    - i) NOT LESS THAN 0.38mm THICK SHEET STEEL,
    - ii) UNVENTED ALUMINUM CONFORMING TO CAN/CGSB-93.2-M, "PREFINISHED ALUMINUM SIDING, SOFFITS, AND FASCIA, FOR RESIDENTIAL USE."
  - iii) NOT LESS THAN 12.7mm THICK GYPSUM SOFFIT BOARD OR GYPSUM CEILING BOARD INSTALLED ACCORDING TO CSA A82.31-M, "GYPSUM BOARD APPLICATION,"
  - iv) NOT LESS THAN 11mm THICK PLYWOOD,
  - v) NOT LESS THAN 12.5mm THICK OSB OR WAFERBOARD, OR
  - vi) NOT LESS THAN 11mm THICK LUMBER.

(SEE A-3.2.3.6.(2) IN APPENDIX A.)

- 7) WHERE COMBUSTIBLE PROJECTIONS ON AN EXPOSING BUILDING FACE ARE PERMITTED BY SENTENCE (6), ARE TOTALLY ENCLOSED AND CONSTRUCTED WITH SOLID FACES, SUCH AS FOR FIREPLACES AND CHIMNEYS, AND EXTEND WITHIN 1.2m OF A PROPERTY LINE,
  - EXPOSING BUILDING FACES FOR LIMITING DISTANCES LESS THAN 1.2m AS STATED IN SENTENCE (2) OR (3), AND B) WHERE THE LINDERSIDE OF THE PROJECTION IS MORE THAN 0.6m ABOVE FINISHED GROUND LEVEL IT SHALL BE PROJECTION.
  - B) WHERE THE UNDERSIDE OF THE PROJECTION IS MORE THAN 0.6m ABOVE FINISHED GROUND LEVEL, IT SHALL BE PROTECTED BY
    i) NOT LESS THAN 0.38mm THICK NONCOMBUSTIBLE MATERIAL,

A) THE CONSTRUCTION OF THE FACE AND SIDES OF THE PROJECTION SHALL COMPLY WITH THE CORRESPONDING REQUIREMENTS FOR

- ii) UNVENTED ALUMINUM CONFORMING TO CAN/CGSB-93.2-M, "PREFINISHED ALUMINUM SIDING, SOFFITS, AND FASCIA, FOR RESIDENTIAL USE,"
- iii) NOT LESS THAN 12.7mm THICK GYPSUM SOFFIT BOARD OR GYPSUM CEILING BOARD INSTALLED ACCORDING TO CSA A82.31-M, "GYPSUM BOARD APPLICATION,"
- iv) NOT LESS THAN 11mm THICK PLYWOOD,
- v) NOT LESS THAN 12.5mm THICK OSB OR WAFERBOARD, OR
- vi) NOT LESS THAN 11mm THICK LUMBER.

(SEE A-9.10.14.5.(8) IN APPENDIX A.)

- 3) <EXCEPT AS PROVIDED IN SENTENCE (4), WHERE THE LIMITING DISTANCE IS EQUAL TO OR GREATER THAN 0.6m AND 1.2m, THE EXPOSING BUILDING FACE AND ANY EXTERIOR WALL LOCATED ABOVE THE EXPOSING BUILDING FACE THAT ENCLOSES AN ATTIC OR ROOF SPACE SHALL HAVE A FIRE-RESISTANCE RATING OF NOT LESS THAN 45 MIN, AND
  - A) THE CLADDING SHALL BE METAL OR NONCOMBUSTIBLE CLADDING INSTALLED IN ACCORDANCE WITH SECTION 9.20., 9.21. SUBSECTION 9.27.11. OR SECTION 9.28. (SEE A-9.10.14.5.(1) IN APPENDIX A),
  - B) THE CLADDING SHALL
    - i) CONFORM TO SUBSECTION 9.27.6., 9.27.7., 9.27.8., 9.27.9., OR 9.27.10.,
  - ii) BE INSTALLED WITHOUT FURRING MEMBERS, OR ON FURRING NOT MORE THAN 25mm THICK, OVER GYPSUM SHEATHING AT LEAST 12.7mm THICK OR OVER MASONRY, AND
  - iii) AFTER CONDITIONING IN CONFORMANCE WITH ASTM D 2898, "ACCELERATED WEATHERING OF FIRE-RETARDANT WOOD FOR FIRE TESTING, "HAVE A FLAME-SPREAD RATING NOT GREATER THAN 25 WHEN TESTED IN ACCORDANCE WITH SENTENCE 3.1.12.1.(2)
  - C) THE CLADDING SHALL
    - i) CONFORM TO SUBSECTION 9.27.12.,
      ii) BE INSTALLED WITH OR WITHOUT FURRING MEMBERS OVER GYPSUM SHEATHING AT LEAST 12.7mm THICK OR OVER
  - iii) HAVE A FLAME-SPREAD RATING NOT GREATER THAN 25 WHEN TESTED IN ACCORDANCE WITH SENTENCE 3.1.12.1.(2)
  - iv) NOT EXCEED 2mm IN THICKNESS EXCLUSIVE OF FASTENERS, JOINTS AND LOCAL REINFORCEMENTS, OR
  - D) THE WALL ASSEMBLY SHALL COMPLY WITH SENTENCE 3.1.5.5.(3) AND (4) WHEN TESTED IN CONFORMANCE WITH CAN/ULC-S134, "FIRE TEST OF EXTERIOR WALL ASSEMBLIES.">
- 2) <EXCEPT AS PROVIDED IN SENTENCE (4) AND (5),> WHERE THE LIMITING DISTANCE IS LESS THAN 0.6m, THE EXPOSING BUILDING FACE AND EXTERIOR WALLS LOCATED ABOVE THE EXPOSING BUILDING FACE THAT ENCLOSES AN ATTIC OR ROOF SPACE <SHALL HAVE A FIRE—RESISTANCE RATING OF NOT LESS THAN 45 MIN, AND>
  - A) <THE CLADDING SHALL BE METAL OR NONCOMBUSTIBLE CLADDING INSTALLED IN ACCORDANCE WITH SECTION 9.20.,
  - (SEE A-9.10.14.5.(1) IN APPENDIX A),>
  - B) <THE CLADDING SHALL>
    - i) CONFORM TO SUBSECTION 9.27.11.,
    - ii) BE INSTALLED WITHOUT FURRING MEMBERS OVER GYPSUM SHEATHING AT LEAST 12.7mm THICK OR OVER MASONRY, AND iii) HAVE A FLAME-SPREAD RATING NOT GREATER THAN 25 WHEN TESTED IN ACCORDANCE WITH SENTENCE 3.1.12.1.(2)
  - IV) NOT EXCEED 2mm IN THICKNESS EXCLUSIVE OF FASTENERS, JOINTS AND LOCAL REINFORCEMENTS, OR
- C) <THE WALL ASSEMBLY SHALL COMPLY WITH SENTENCE 3.1.5.5.(3) AND (4) WHEN TESTED IN CONFORMANCE WITH CAN/ULC-S134, "FIRE TEST OF EXTERIOR WALL ASSEMBLIES.">

# NOTES:

- WRITTEN DIMENSION SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS.
- 2. CONTRACTOR SHALL VERIFY ALL ON SITE
- CONDITIONS PRIOR TO COMMENCEMENT OF THE WORK.

  3. ALL WORK SHALL CONFORM TO THE REQUIRE—
- MENT OF THE B.C. BUILDING CODE.

  LATEST EDITION.

  4. ALL CONCRETE WORK SHALL CONFORM TO THE
- REQUIREMENT OF C.S.A. 3.A231 LATEST EDITION.
  5. CONCRETE STRENGTH AT 28 DAYS, MINIMUM
  3.000 PSI.
- ALL FRAMING AND NAILING SHALL CONFORM TO B.C. BUILDING CODE PART 9 AND DESIGN TO CSA LATESET EDITION.
- 7. ALL FRAMING LUMBER SHALL BE DOUGLAS FIR #2 OR BETTER.
- 8. WOOD TRUSSES SHALL BE DESIGN AND SEALED BY P.ENG. REGISTERED IN B.C.
  9. ALL PLYWOOD SHALL BE DOUGLAS FIR CON—
- FORM TO CSA 0121 LATEST EDITION.

  10. OWNER IS TO BE ENTIRELY RESPONIBLE FOR
- ALL STRUCTURAL ENGINEERING REQUIRMENTS.

  11. ALL DIMENSIONS ARE TO BE CHECKED ON SITE BEFORE WORK COMMENCES.



THESE PLANS CONFORM TO REQUIREMENTS IN THE B.C. BUILDING CODE 2012.

# TOORA HOME PLANS

TEL: (604) 951-4343 FAX: (604) 951-4373

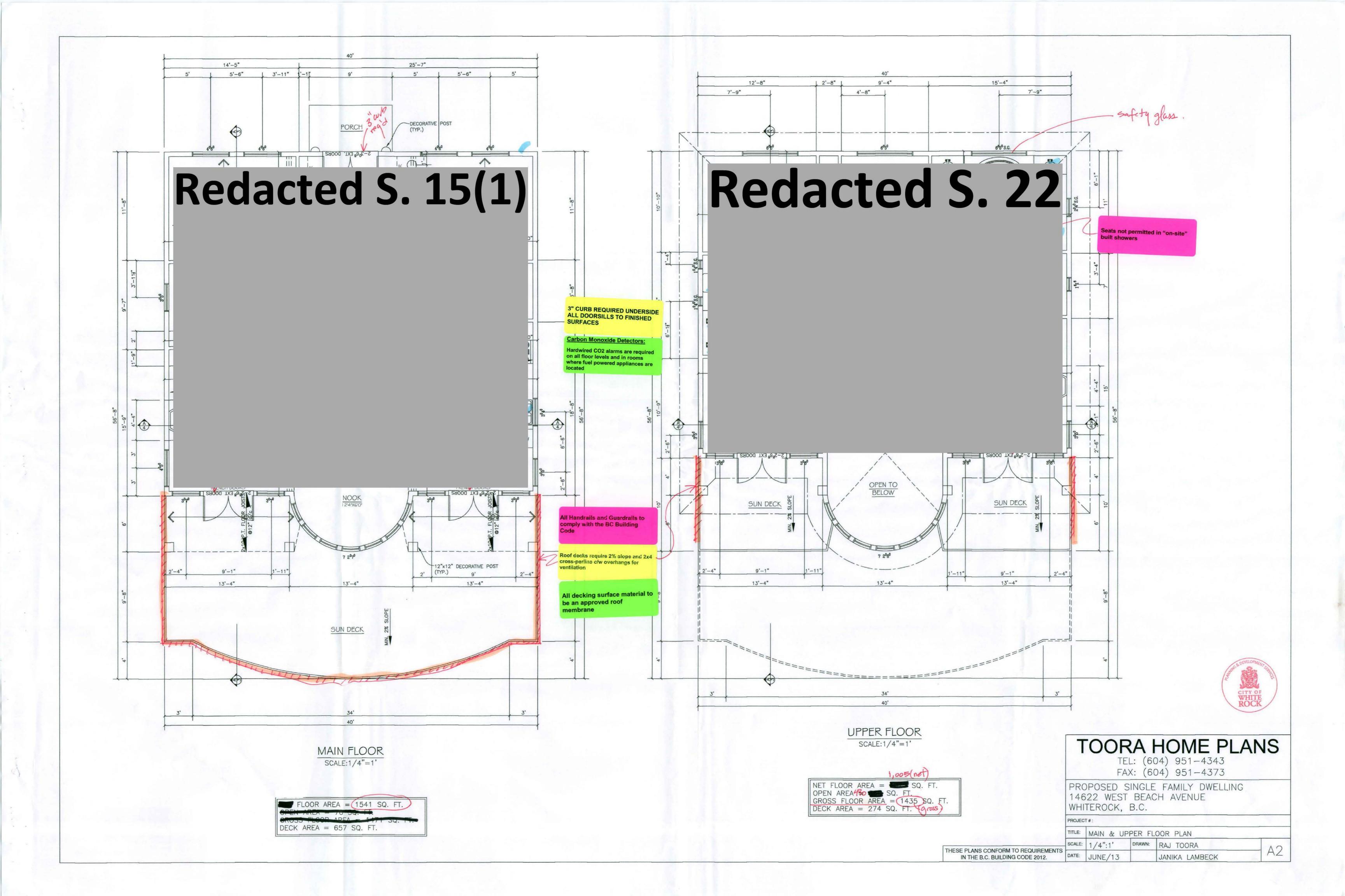
PROPOSED SINGLE FAMILY DWELLING
14622 WEST BEACH AVENUE

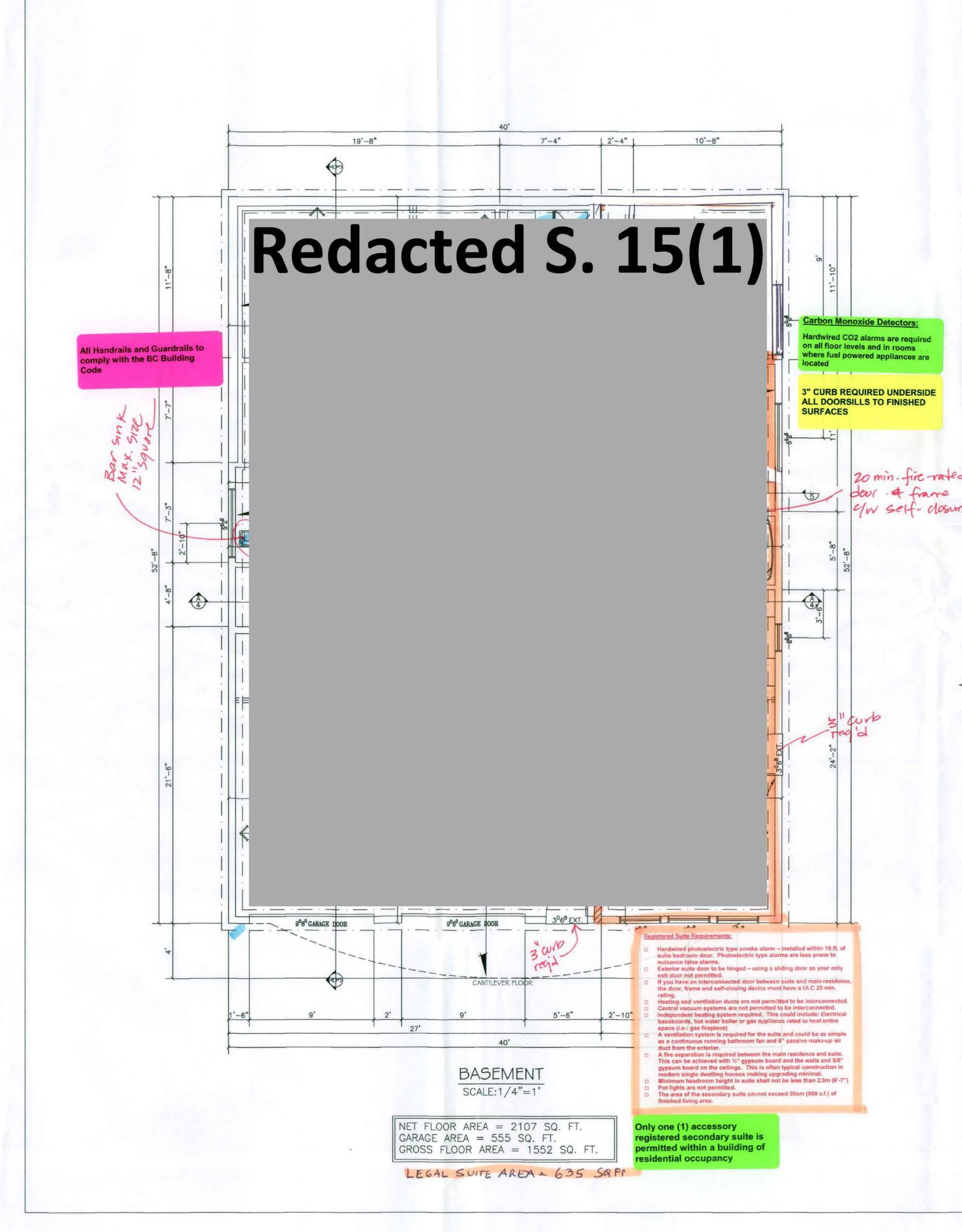
WHITEROCK, B.C.
FOR BUILDING PERMIT ONLY

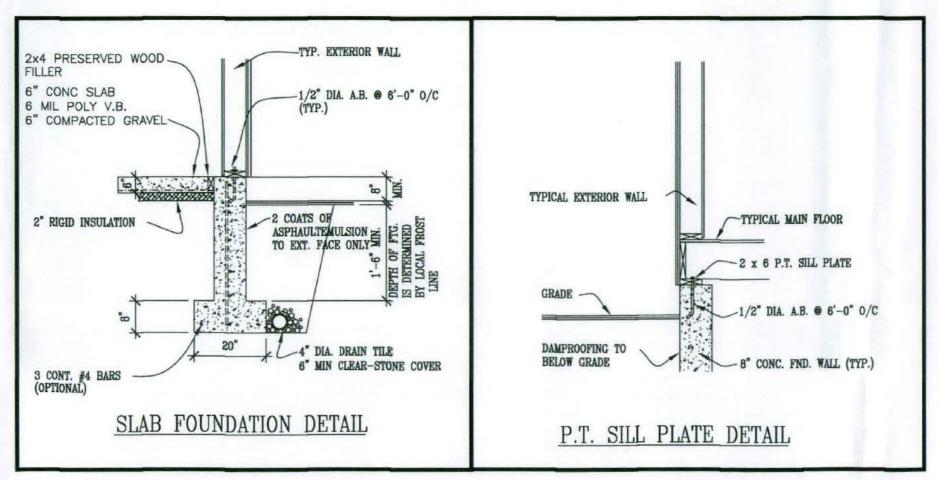
TITLE: SITE/COSS SECTION/NOTES/DETAILS PLAN

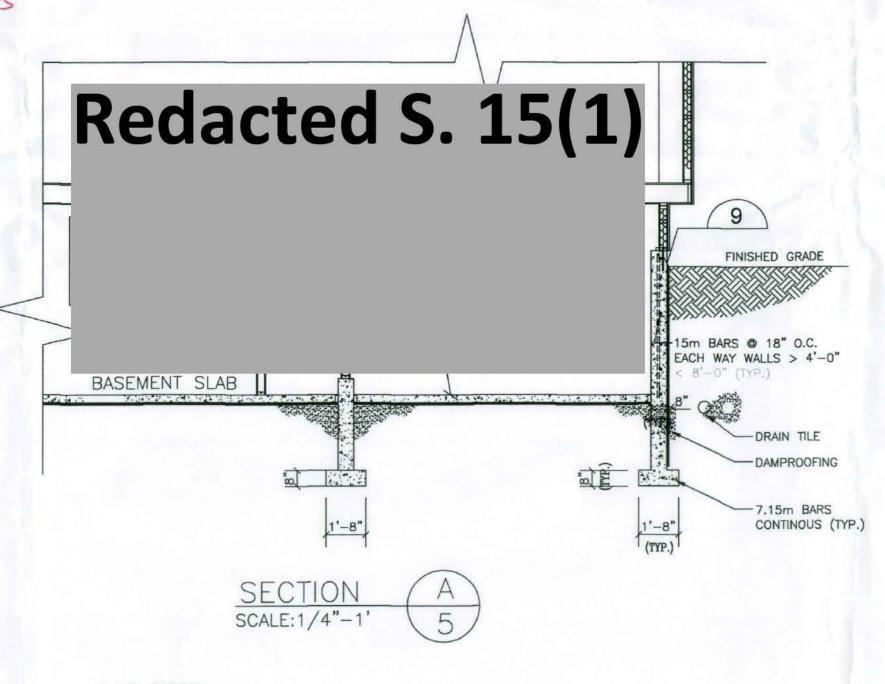
SCALE: AS NOTED DRAWN: RAJ TOORA

DATE: JUNE/13 JANIKA LAMBECK



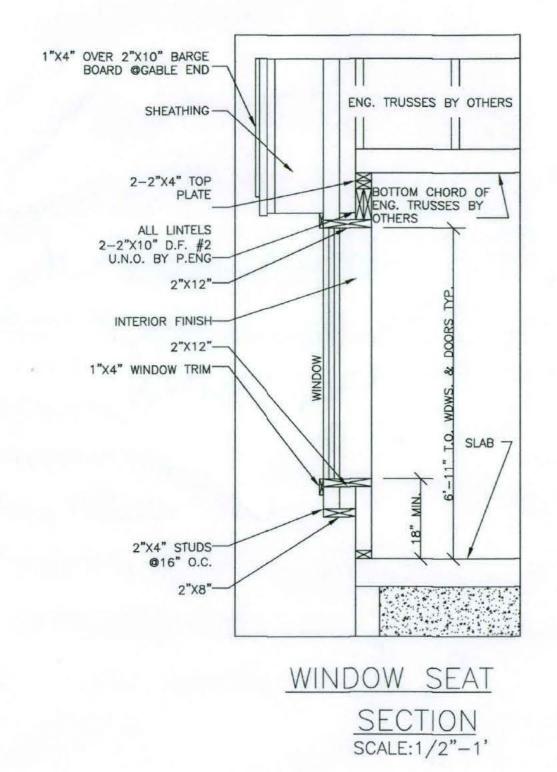






# NOTES:

- 1. WRITTEN DIMENSION SHALL HAVE PRECEDENCE
- 1. SECTION TAKEN THROUGH SUITE AREA





# TOORA HOME PLANS

TEL: (604) 951-4343 FAX: (604) 951-4373

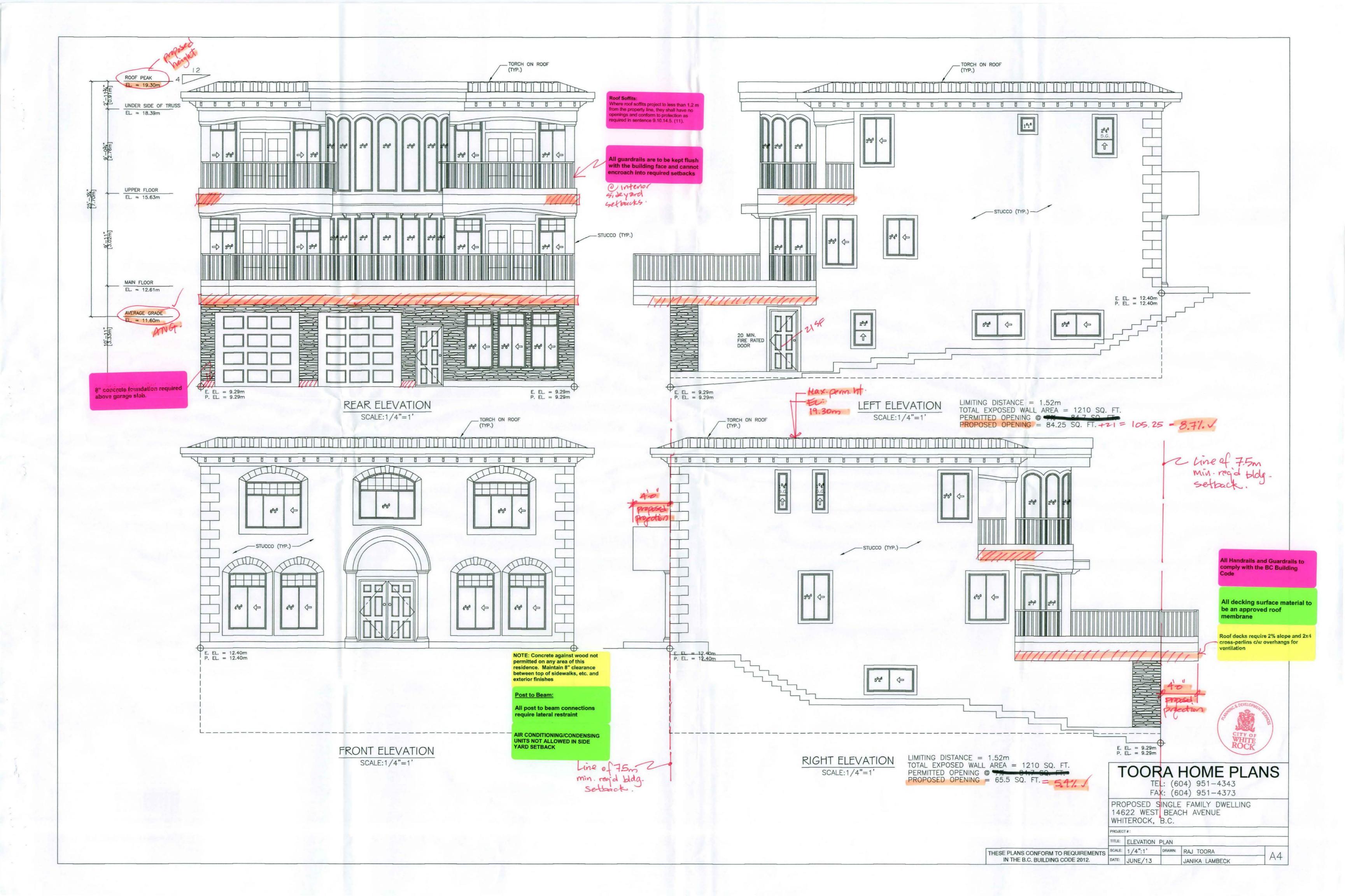
PROPOSED SINGLE FAMILY DWELLING 14622 WEST BEACH AVENUE WHITEROCK, B.C.

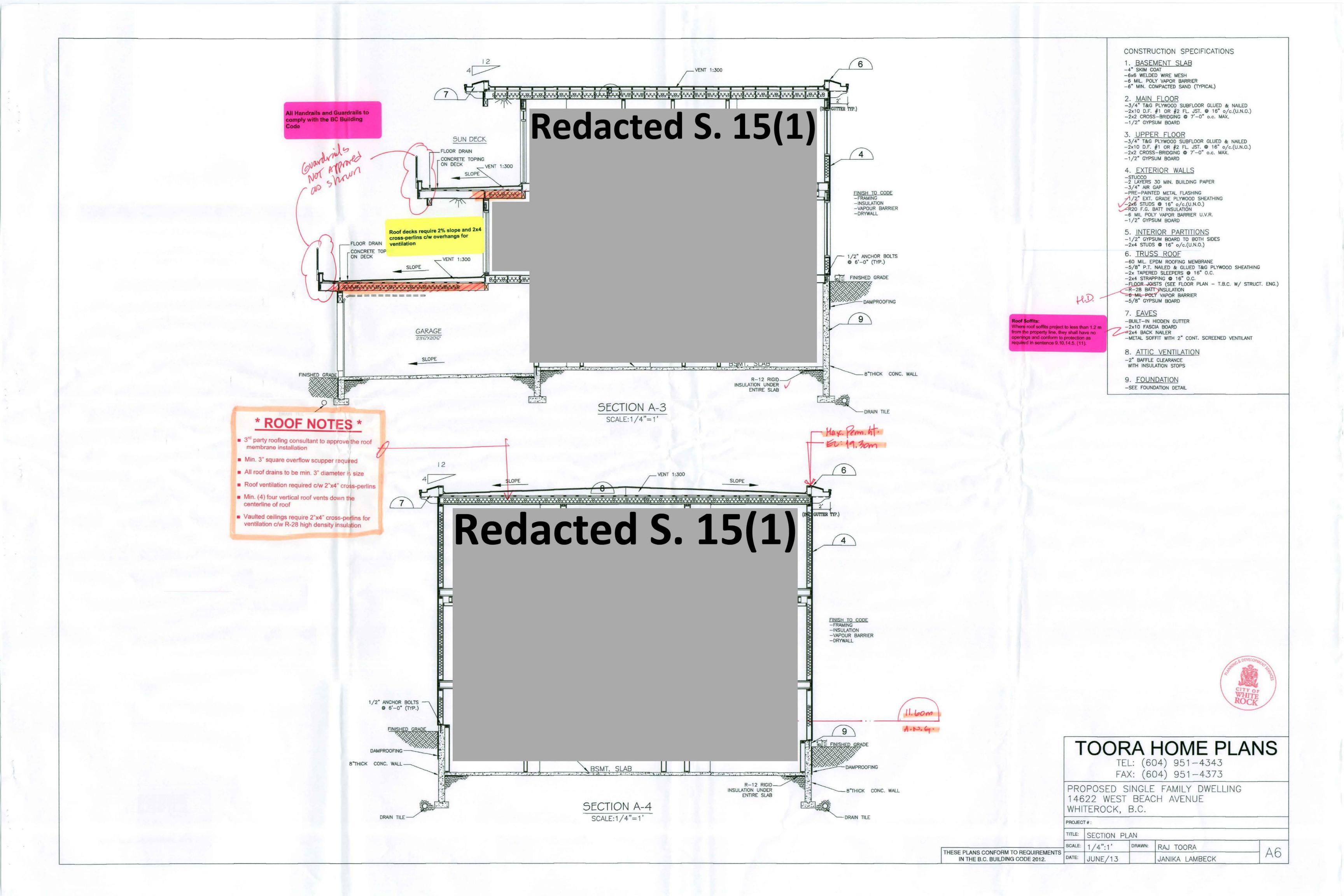
THESE PLANS CONFORM TO REQUIREMENTS

IN THE B.C. BUILDING CODE 2012.

TITLE: BASEMENT PLAN

SCALE: 1/4":1" RAJ TOORA DATE: JUNE/13 JANIKA LAMBECK





7'-4" STHD 14 9 Redacted S. 15(1) 66"X66"X14" 36"X54"X10" CW 4X7-15M EW / 36"X36"X10" C/W 4-15M E/W BASEMENT

SCALE:1/4"=1'

ALL FOOTING FND ARE 24" X 8" C/W 2-15M CONT. (TYP) % ANCHOR BOLT @ 4' O.C.

NOTE:
ALL EXTERIOR WALLS ARE SHEAR WALLS:
½" PLYWOOD C/W 2½ NAILS
@ 4" O.C.EDGE\$8" O.C. FIELD

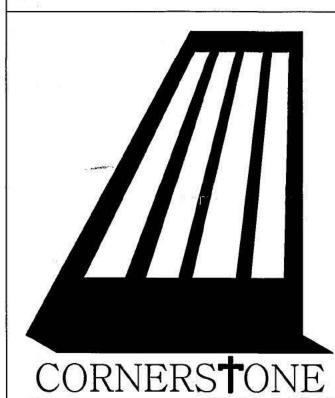
DRAWII	DRAWING INDEX					
SHEET	DRAWING TITLE					
S-1	BASEMENT PLAN -FOUNDATION PLAN					
S-2	MAIN & UPPER FLOOR STRUCTURE PLAN					
S-3	CROSS SECTION A & B & C AND DETAILS					
S-4	NOTES					

"CORNERSTONE ENGINEERING HAS REVIEWED AND CONFIRMED THAT ALL STRUCTURAL MEMBERS AND CONNECTIONS OF THIS BUILDING, INCLUDING BRACING TO RESIST SEISMIC AND WIND LOADS, ARE DESIGNED IN ACCORDANCE WITH PART 4 OF BCBC 2012."

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All general contractors shall check and verify all dimensions and report errors and omissions to Cornerstone Geo-Structural Engineering before commencing construction.



GEO-STRUCTURAL ENGINEERI

Jorge Silva, P.Eng.

Principal, Structural Engineer 20496 123rd ave, Maple Ridge B.C. V2X 4A7 Phone: 604.459.4443

Cell: 778.928.7589
Email: cornerstoneng@shaw.ca
PROFESSIONAL SERVICES BUILT UPON THE ROCK

REV DATE DESCRIPTION

SINGLE FAMILY DWELLING

Redacted S. 22

ADDRESS

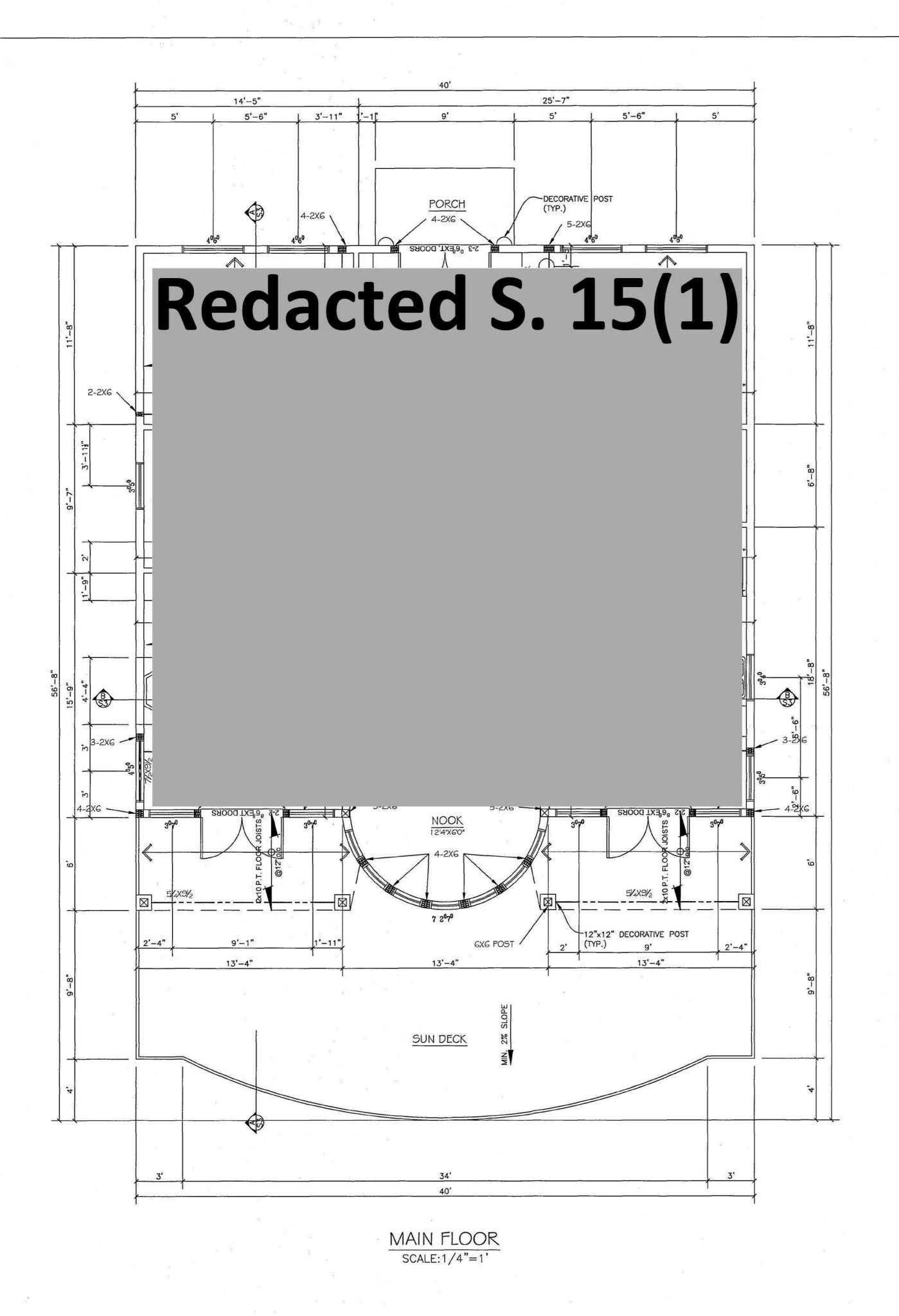
14622 WEST BEACH AV. WHITE ROCK BC.

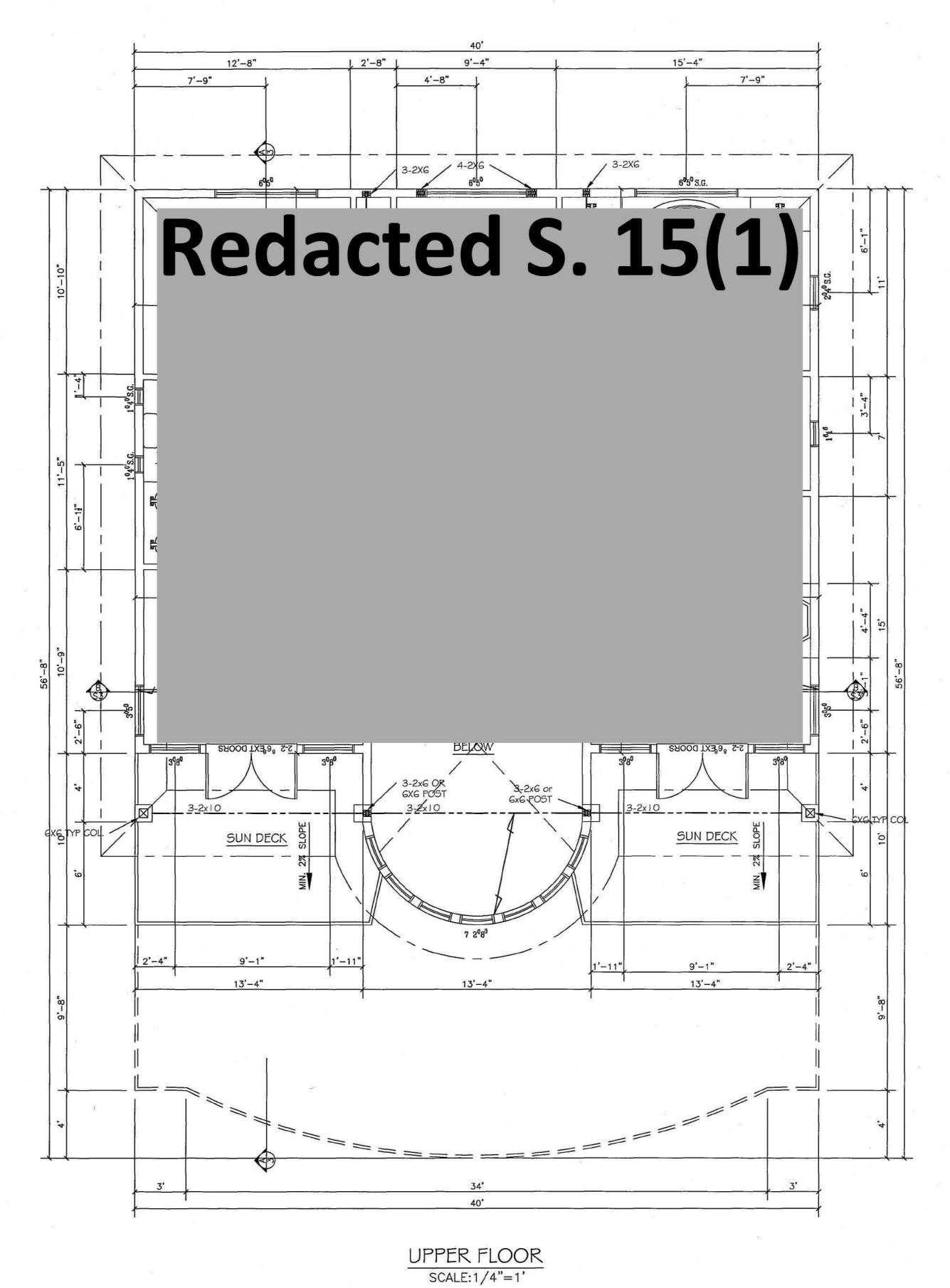
July 11 - 2013

1/4"=1'-0"

S-1





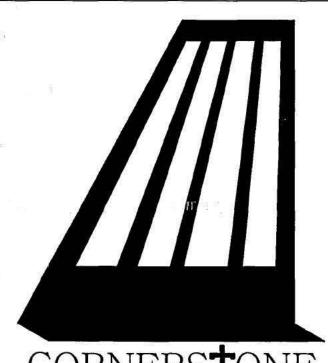


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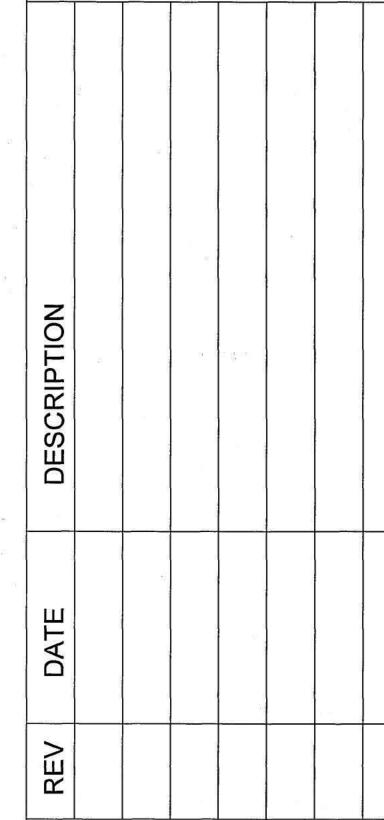
CORNERS\*ONE

GEO-STRUCTURAL ENGINEERING LTD

# Jorge Silva, P.Eng. Principal, Structural Engineer

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Email: cornerstoneng@shaw.ca
PROFESSIONAL SERVICES BUILT UPON THE ROCK



SINGLE FAMILY DWELLING

# Redacted S. 22

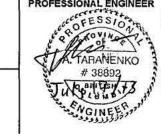
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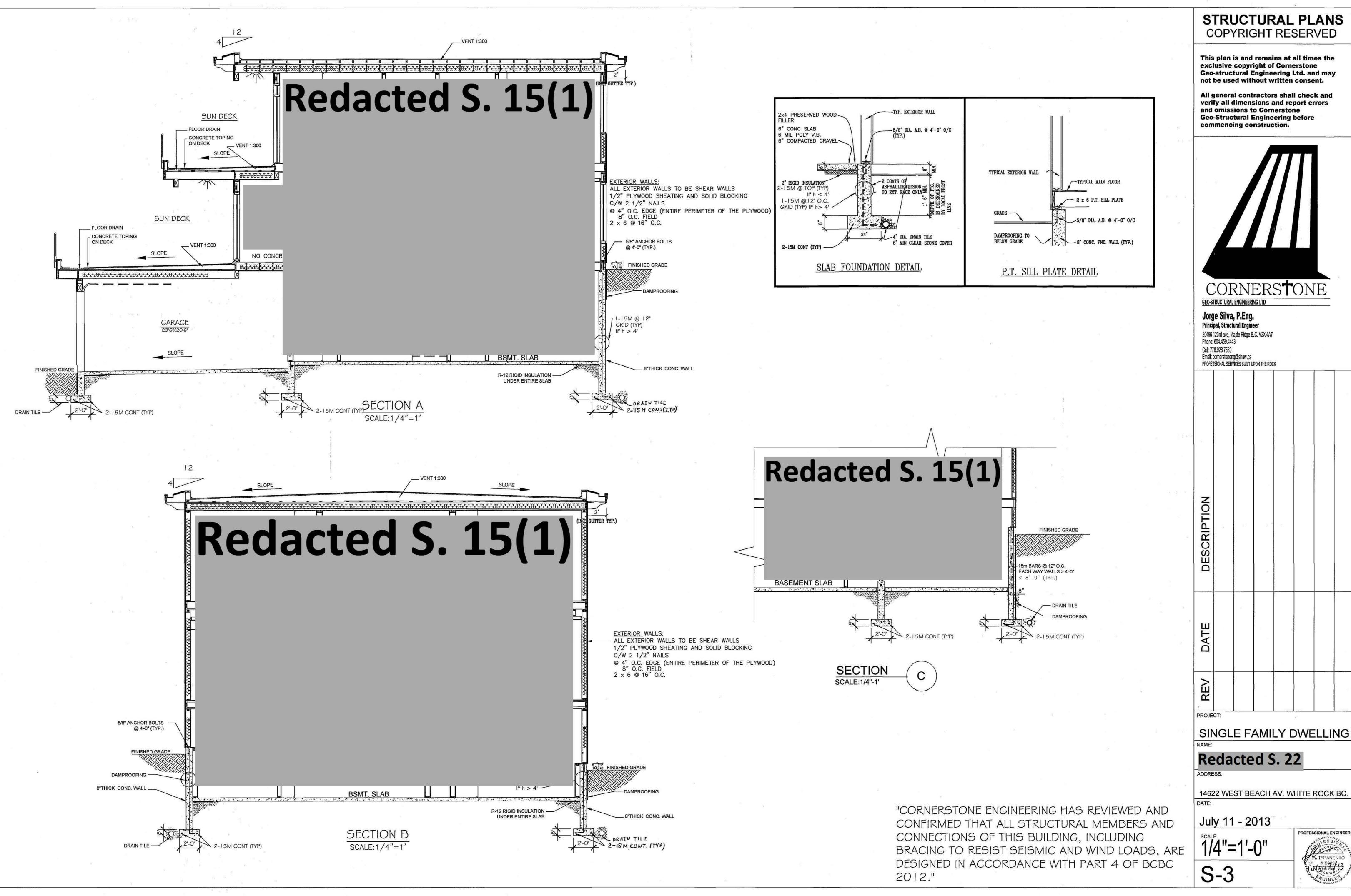
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July 11 - 2013

S-2

1/4"=1'-0"



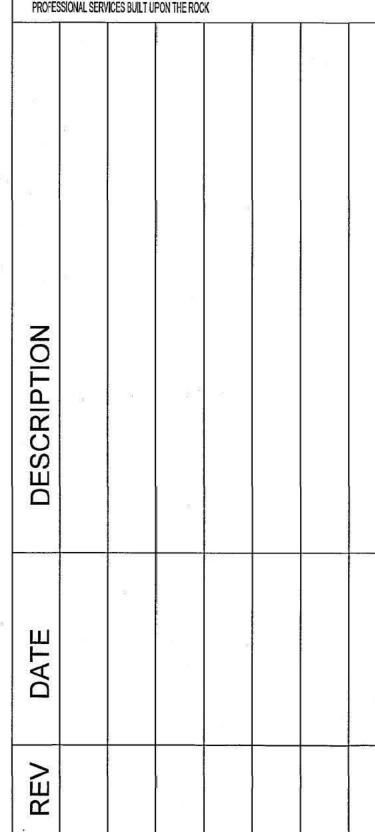


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All general contractors shall check and verify all dimensions and report errors **Geo-Structural Engineering before** 





14622 WEST BEACH AV. WHITE ROCK BC.

## ☐ 1. DESIGN DATA

"CORNERSTONE ENGINEERING HAS REVIEWED AND CONFIRMED THAT ALL STRUCTURAL MEMBERS AND CONNECTIONS OF THIS BUILDING, INCLUDING BRACING TO RESIST SEISMIC AND WND LOADS, ARE DESIGNED IN ACCORDANCE WITH PART 4 OF BCBC 2012."

1.1 DESIGN CODE & STANDARDS: B.C.B.C 2012 (PART 4) - CSA A23.3-04 : DESIGN OF CONCRETE STRUCTURES - CSA 086-01 : ENGINEERING DESIGN IN WOOD

### 1.2 ADDITIONAL STANDARDS

- CSA A23.1-04: CONCRETE MATERALS AND METHODS OF CONCRETE CONSTRUCTION - CSA A23.2-04: METHODS OF TEST AND STANDARD PRACTICES FOR CONCRETE
- CSA A266.4 : GUIDELINE FOR THE USE OF ADMIXTURES IN CONCRETE
- CSA A266.5 : GUIDELINE FOR THE USE OF SUPERPLASTICIZING ADMIXTURES
- CSA B111 : WIRE NAILS, SPIKES AND STAPLES
- CSA G30.18-M92(R2002): BILLET-STEEL BARS FOR CONCRETE REINFORCEMENT - CSA G30.15-M: WELD STEEL DEFORMED WIRE FABRIC FOR CONCRETE
- ASTM A325: STANDARD SPECIFICATION FOR STRUCTURAL BOLTS, STEEL, HEAT
- ASTM A307: STANDARD SPECIFICATION FOR CARBON STEEL BOLTS AND STUDS

# 1.3 MATERIAL STRENGTH AND GRADE

- CONCRETE: fc' = 25 MPa (28DAYS), 30 MPa AT GARAGE & EXPOSED CON'C
- RE-BAR : fy = 400 MPa (GRADE400)- WOOD: S-P-F No. 2 OR BETTER FOR JOIST, WALL PLATE, STUD(BEARING WALL),
  - POST, HEADER, LEDGER S-P-F No. 3 OR BETTER FOR STUD(NON BEARING) PSL(2.0E): PARALLEL STRAND LUMBER FOR BEAM
- PSL(1.8E): PARALLEL STRAND LUMBER FOR COLUMN - STEEL : Fy = 250 MPa, Fu = 400 MPa , CSA G40.21 GRADE 44W OR ASTM A36 ASTM A325 : BOLTS, NUTS, & WASHERS(MIN. SIZE 3/4"\$) ASTM A307: ANCHOR BOLTS, NUTS, & WASHERS

# 1.4 DESIGN LOAD

LOADS INDICATED ARE SPECIFIED LOADS:

	1000		5904 EVV						1000
LOAD TYPE		ROOF	534	UP	PER FLO	OOR	1	MAIN FL	.00R
DEAD LOAD	0.72 k	Pa (15.0	) psf)	0.72/144	kPa (15.0/	30.0 psf)	0.72/1.	14 kPa (15.	0/30.0 psf
LIVE LOAD	2.3 kP	a (48.0	psf)	1.90 k	Pa (40.	0 psf)	1.90	kPa /2	.4 kPa
LOAD TYPE			LC	DAD DES	SCRIPTIC	N	10		7
SNOW LOAD	Ss(1/5	0) = 2.0	0 kPa (	42.0 ps	sf), Sr(1	/50) =	0.2 k	Pa (4.2	psf)
RAIN LOAD	ONE DA	ONE DAY RAIN(1/50) = 80mm (3 $\frac{5}{32}$ ")							
WIND LOAD	q(1/50	)= 0.44	kPa(9.2	psf), q(	1/10)=	0.34kP	a(7.1ps	sf), Iw=	1.0
SEISMIC LOAD*	SITE	Sa(0.2)	Sa(0.5)	Sa(1.0)	Sa(2.0)	PGA		2	1
	С	1.1	.76	0.35	0.18	0.57	ARROLL MARC		
	- 100		-					A CONTRACTOR	<b>-</b> 5

THE CONTRACTOR MUST ENSURE THAT CONSTRUCTION LOADS IMPOSED ON THE STRUCTURE DO NOT EXCEED THE SPECIFIED DESIGN LIVE LOADS NOTED ABOVE.

# 1.5 SOIL BEARING STRENGTH FOUNDATIONS HAVE BEEN DESIGNED IN ACCORDANCE WITH ASSUMED SOIL BEARING

BOTT. OF ALL FOOTINGS TO BE MINIMUM 18" BELOW FINAL FINISHED GRADE FOR FROST

PRESSURE AS 2,000 PSF(FACTORED ULTIMATE) & 1,500 PSF(SERVICEABLITY LIMIT)

# 2. GENERAL

ALL CONSTRUCTION TO BE IN ACCORDANCE WITH MUNICIPAL BY-LAWS, B.C.B.C. 2012, AND WORKER'S COMPENSATION BOARD(W.C.B.) REGULATIONS. THE CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS, ELEVATIONS, AND CONDITIONS PRIOR TO STARTING CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES OR INCONSISTENCY BETWEEN STRUCTURAL DRAWINGS AND ARCHITECTURAL DRAWINGS. ANY DISCREPANCIES NOT REPORTED BECOME THE RESPONSIBILITY OF THE CONTRACTOR.

IF SITE CONDITIONS DIFFER FROM THOSE ANTICIPATED OR AS SHOWN ON THE DRAWINGS (BUILDINGS, BUILDING COMPONENTS, PROPERTY LINES, SOIL CONDITIONS, ETC.). THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER FOR CORRECTIVE OR REMEDIAL WORK. FAILURE TO NOTIFY ENGINEER WILL MAKE THE CONTRACTOR RESPONSIBLE FOR ALL CONDITIONS AND COSTS ASSOCIATED.

THE CONTRACTOR IS RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH THE CORRECTION OF DEFICIENCIES, AS DIRECTED BY THE ENGINEER.

REVIEW OF THE WORK, OR ANY PORTION THEREOF, BY THE ENGINEER SHALL NOT, IN ANY WAY, RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY AND OBLIGATION TO COMPLY WITH THE CONTRACT DRAWINGS AND SPECIFICATIONS.

# 3. FIELD REVIEW

CORNERSTONE GEO-STRUCTURAL ENGINEERING LTD (CORNERSTONE) PROVIDES FIELD REVIEWS ONLY FOR THE WORK SHOWN ON THE STRUCTURAL DRAWINGS PREPARED BY CORNERSTONE. THIS REVIEW IS A PERIODIC REVIEW AT THE PROFESSIONAL JUDGMENT OF CORNERSTONE. THE PURPOSE IS TO ASCERTAIN THAT THE WORK IS IN PREPARED BY CORNERSTONE, AND TO FACILITATE COMPLETION OF THE LETTERS OF ASSURANCE REQUIRED BY BUILDING CODE

FIELD REVIEWS BY CORNERSTONE ARE NOT CARRIED OUT FOR THE BENEFIT OF THE CONTRACTOR(S), NOR DOES THE FIELD REVIEW MAKE CORNERSTONE GUARANTORS OF THE CONTRACTOR(S) WORK. IT REMAINS THE CONTRACTOR(S) SOLE RESPONSIBILITY TO PROVIDE IT'S OWN QUALITY CONTROL AND TO PERFORM THE WORK WITH GOOD WORKMANSHIP AND IN CONFORMANCE WITH THE CONTRACT DOCUMENTS.

THE GENERAL CONTRACTOR IS RESPONSIBLE FOR CHECKING OF ITS SUB-CONTRACTOR'S WORK PRIOR TO FIELD REVIEW BY THE ENGINEER.

IN ORDER TO CARRY OUT FIELD REVIEWS IN ACCORDANCE WITH B.C.B.C. 2012. THE ENGINEER SHALL BE NOTIFIED A MINIMUM OF 24 HOURS PRIOR TO ALL CONCRETE POURS, ALL MASONRY GROUT POURS AND PRIOR TO COVERING ANY STRUCTURAL FRAMING OR COMPONENTS.

THE CONTRACTOR SHALL ENSURE, THAT PRIOR TO NOTIFYING THE ENGINEER, ALL WORK MUST BE COMPLETE, INCLUDING BACKFRAMING, AND IN PLACE.

ADDITIONAL FIELD REVIEW REQUIRED BY THE ENGINEER DUE TO INCOMPLETE WORK OR DEFICIENCIES SHALL BE AT THE EXPENSE OF THE CONTRACTOR.

REFER TO MATERIALS SECTIONS FOR INSPECTION REQUIREMENTS RELATED TO SPECIFIC MATERIALS.

### ☐ 4. FOUNDATIONS

REFER TO GEOTECHNICAL ENGINEER'S REPORT FOR SPECIFICATIONS REGARDING SITE PREPARATION, EXCAVATION, BACKFILL, COMPACTION, FILL MATERIALS, DRAINAGE, ETC.

EXCAVATIONS FOR FOUNDATIONS SHALL BE INSPECTED BY THE GEOTECHNICAL ENGINEER AND APPROVED FOR THE DESIGN BEARING PRESSURE BEFORE FOUNDATION CONCRETE IS PLACED.

NOTIFY GEOTECHNICAL ENGINEER UPON COMMENCEMENT OF EXCAVATION & COORDINATE ALL REQUIRED INSPECTIONS WITH THEM. CONFIRMATION OF FOUNDATION BEARING CAPACITIES IS THE RESPONSIBILITY OF THE GEOTECHNICAL ENGINEER AND APPROVAL TO POUR FOOTINGS BY THE STRUCTURAL ENGINEER DOES NOT IMPLY ACCEPTANCE OF BEARING CAPACITY OR SUBGRADE CONDITIONS. IN ANY EVENT, FOOTINGS ARE TO BEAR ON FIRM, UNDISTURBED MATERIAL. GRASS, ROOTS, ROOT NETWORKS, TOP SOIL, ETC., ARE TO BE REMOVED FROM FOUNDATION AREA. ANY FOOTINGS BEARING ON COMPACTED, GRANULAR FILL SHALL BE AS SPECIFIED BY THE GEOTECHNICAL ENGINEER AND SHALL BE INSPECTED BY THE GEOTECHNICAL

THE GEOTECHNICAL ENGINEERS SHALL REVIEW FINAL DESIGN GRADES AND PLANS. FIELD REVIEW, BY THE GEOTECHNICAL ENGINEER, OF THE SITE PREPARATION WORK SHALL BE PROVIDED TO CONFIRM THAT THE SOIL CONDITIONS ARE CONSISTENT WITH DESIGN ASSUMPTION AND RECOMMENDATIONS. INSPECTION TO INCLUDE THE FOLLOWING:

- INSPECTIONS OF BASE MATERIALS FOR CONFORMATION OF SOIL BEARING CONDITIONS. INSPECTION AND TESTING FOR COMPACTION OF ANY STRUCTURAL FILL REQUIRED
- UNDER FOOTINGS, SLABS-ON-GRADE, OR RETAINING WALLS. INSPECTION OF UNDERPINNING AND SHORING INSTALLATIONS IF APPLICABLE.

COPIES OF ALL REPORTS FOR COMPACTION TESTING AS REQUIRED BY THE GEOTECHNICAL ENGINEER SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW.

FOUNDATION BEARING SURFACES MUST BE PROTECTED FROM FREEZING AT ALL TIMES. FOOTING TO BE CENTERED UNDER COLUMNS AND WALLS UNLESS SPECIFICALLY NOTED OTHERWISE.

COLUMN DOWELS TO BE TIED INTO POSITION. DOWELS FOR SHEARWALLS TO BE TIED INTO POSITION.

ENGINEERED DESIGNS AND INSPECTIONS OF ANY EXCAVATION, SLOPE STABILITY, DEWATERING AND TEMPORARY SHORING, IF REQUIRED, SHALL BE ARRANGED AND PROVIDED BY THE

PROVIDE DRAINAGE BEHIND ALL STRUCTURAL WALLS WITH DRAIN TILE TIED INTO MECHANICAL DRAINAGE SYSTEM.

THE CONTRACTOR SHALL REVIEW PROCEDURES AND METHODS OF DRAINAGE OF ALL BACKFILLED WALLS AND UNDER SLAB DRAINS WITH THE GEOTECHNICAL ENGINEER. THE GEOTECHNICAL ENGINEER SHALL CONFIRM THE BACKFILL LOAD PRESSURE RECOMMENDATIONS USED FOR DESIGN PRIOR TO PROCEEDING WITH CONSTRUCTION OF BACKFILLED WALLS. GEOTECHNICAL ENGINEER TO PROVIDE FIELD REVIEW OF EXCAVATION AND BACKFILL.

DO NOT PROCEED WITH BACKFILL OF FOUNDATION WALLS UNTIL UNTIL ABOVE FLOOR SYSTEM COMPLETED AND MINIMUM 7 DAYS AFTER THE COMPLETION OF SLAB-ON-GRADE OR, UNLESS WALLS ARE ADEQUATELY BRACED. BRACING DESIGN IS THE RESPONSIBILITY OF THE CONTRACTOR'S ENGINEER.

# 5. CONCRETE

CONCRETE WORK SHALL CONFORM TO THE REQUIREMENTS OF CSA A23.1-04 AND CSA A23.4

BEFORE ANY CONCRETE IS PLACED. THE CONTRACTOR SHALL GIVE THE ENGINEER 24 HOURS NOTICE IN ORDER TO CARRY OUT FIELD REVIEW OF PLACED REINFORCEMENT.

PROPORTION READY MIXED CONCRETE IN ACCORDANCE WITH CSA A23.1-04 TO MEET THE

LOCATION	COMP. MIN 28 DAY STRENGTH (MPa)	SLUMP (mm)	MAX. AGG SIZE (mm)	AIR CONTENT(%)	EXP. CLASS
BELOW GRADE FOUNDATIONS & FOOTINGS	28	100±20	20	47	F-2
SLAB-ON-GRADE	28	100±20	20	4-7	F-2

GROUT(UNDER STEEL BASEPLATE): NON-SHRINK, NON-FERROUS, PREMIXED GROUT DEVELÒPING A MINIMUM STRENGTH OF 50MPa AT 28DAYS.

# CSA A23.1-04. TABLE 20. ALLOWABLE CURING REGIMES

		DESCRIPTION		
		3d AT >=10°C OR FOR A TIME NECESSARY TO ATTAIN 40% OF THE SPECIFIED STRENGTH.		
2	ADDITIONAL	7d AT >=10°C AND FOR A TIME NECESSARY TO ATTAIN 70% OF THE SPECIFIED STRENGTH. WHEN USING SILICA FUME CONCERTE, ADDITIONAL CURING PROCEDURES SHALL BE USED.		
3	EXTENDED	A WET-CURING PERIOD OF 7d. THE CURING TYPES ALLOWED ARE PONDING, CONTINUOUS SPRINKLING, ABSORPTIVE MAT, OR FABRIC KEPT CONTINUOUSLY WET.		

ALL CONCRETE SHALL BE NORMAL DENSITY 2400kg/m3, TYPE GU CEMENT, F FLASH, UNLESS OTHERWISE NOTED.

DO NOT ADD WATER TO THE CONCRETE ON SITE WITHOUT PRIOR APPROVAL BY THE MATERIALS CONSULTANT/TESTING AGENCY.

NO MORE THAN 120 MINUTES SHALL ELAPSE BETWEEN CONCRETE BATCHING AND CONCRETE PLACEMENT UNLESS APPROVED BY THE MATERIALS CONSULTANT/TESTING AGENCY AND THE STRUCTURAL ENGINEER. MATERIAL CONSULTANT/TESTING AGENCY HAS THE AUTHORITY TO REJECT CONCRETE IF NOT IN ACCORDANCE WITH SPECIFICATIONS.

# 5. CONCRETE(CONT.)

TO CASTING CONCRETE.

DO NOT USE ADMIXTURES EXCEPT AS FOLLOWS OR AS APPROVED BY ENGINEER:

\* SUPERPLASTICIZING AGENT IN ACCORDANCE WITH CSA A266.5.

\* DO NOT USE CHLORIDE-TYPE ADMIXTURES. \* WATER-REDUCING AGENT, TYPE WN, IN ACCORDANCE WITH CSA A266.4.

\* AIR-ENTRAINING AGENT AS REQUIRED FOR SPECIFIED EXPOSURE CLASSIFICATION.

ALL CONSTRUCTION JOINTS IN STRUCTURAL MEMBERS TO BE APPROVED BY THE ENGINEER FOR LOCATION AND DETAIL PRIOR TO CONSTRUCTION. FLEXURAL REINFORCEMENT TO CONTINUE UNINTERRUPTED THROUGH ALL CONSTRUCTION JOINTS. KEYWAYS TO BE PROVIDED IN ALL JOINTS. REMOVE ALL CONSTRUCTION DEBRIS FROM FORMS OR SLAB ON GRADE PRIOR

CONCRETE SHALL BE CURED IN ACCORDANCE WITH CSA A23.1.-04.

CONCRETE SHALL BE PROTECTED FROM ALL HARMFUL EFFECTS DURING CONSTRUCTION.

PROVIDE HOT AND COLD WEATHER PROTECTION IN ACCORDANCE WITH REQUIREMENTS OF CSA A23.1-04. ANY PROPOSED CHANGES FORM THESE REQUIREMENTS MUST BE APPROVED IN WRITING BY THE MATERIAL CONSULTANT/TESTING AGENCY.

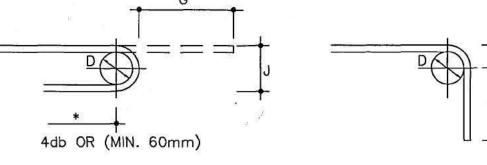
SPECIAL CONSTRUCTION PROCEDURES FOR CONCRETE WORK IN ADVERSE WEATHER CONDITIONS SHALL BE APPROVED BY THE MATERIALS CONSULTANT/TESTING AGENCY AND BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO COMMENCING WITH THE WORK. THIS INCLUDES CONCRETE CAST DURING WEATHER BELOW 5' CELSIUS OR ABOVE 25' CELSIUS. WORK UNDERTAKEN WITHOUT SUCH REVIEW SHALL BE THE RISK OF THE CONTRACTOR ALONE. A CONCRETE SEALER (COMPATIBLE WITH THE BOND BREAKER USED FOR CASTING TILT-UP PANELS) SHALL BE APPLIED TO SLABS CAST IN DRY WEATHER ABOVE 251 & CELSIUS.

IF SITE CONDITIONS DIFFER FROM THOSE SHOWN ON DRAWINGS, THE CONTRACTOR SHALL CONTACT THE ENGINEER PRIOR TO PLACING ANY REINFORCEMENT FOR INSTRUCTION ON REMEDIAL DETAILS.

# REINFORCING BARS:

ALL CONCRETE REINFORCING SHALL CONFORM TO CSA G.30.18-M92(R2002), UNLESS NOTED OTHERWISE. 10M AND LARGER SHALL BE GRADE 400(Fy = 400 MPa) BARS. ALL REINFORCING TO BE WELDED SHALL BE GRADE 400W, WITH WELDING TO CONFORM TO CSA W186-M1990(R2002). WELDED WIRE FABRIC TO CONFORM TO CSA G30.5M AND TO BE GRADE 400. WELDED DEFORMED WIRE FABRIC TO CONFORM TO CSA G30.15M AND TO BE GRADE 400.

# \*) STANDARD HOOK



180	. HOOK			90. ⊦	IOOK
BAR SIZE	db	D	180° H	00K	90° HOOK
Α	1		G	J	Α
10M	11.3 mm	70 mm	140 mm	93 mm	150 mm
15M	16.0 mm	100 mm	180 mm	132 mm	220 mm
20M	19.5 mm	120 mm	220 mm	159 mm	260 mm

UNLESS NOTED OTHERWISE ON DRAWINGS, HORIZONTAL STEEL TO BE CONTINUOUS AROUND CORNERS AND LAPPED.

# CSA A23.1-04, TABLE 17. CONCRETE COVER

	EXPOSURE CLASS			
EXPOSURE CONDITION	N	F-1, F-2		
CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH	_	75mm (3")		
BEAMS, GIRDERS, COLUMNS, AND PILES	32mm (1 1/4")	60mm (2 3/8")		
SLABS, WALLS, JOISTS, SHELLS, AND FOLDED PLATES	30mm (1 1/5")	60mm (2 3/8")		

REINFORCEMENT MUST BE CLEAN AND FREE FROM ANY SUBSTANCE WHICH MAY HASTEN RUSTING OR REDUCE CONCRETE BOND. ANY QUESTIONABLE MATERIALS TO BE CLEANED OR REPLACED AT THE CONTRACTOR'S EXPENSE TO THE ENGINEER'S SATISFACTION.

PROVIDE MIN. LAP SPLICE 400MM FOR 10M BARS AND 500MM FOR 15M BARS

# ☐ 6. WOOD

6.1 WOOD DESIGN STANDARD: CSA 086.1-01

6.2 WOOD MATERIAL

\*) SAWN LUMBER - S-P-F No.2 OR BETTER: JOIST, WALL PLATE, STUD(BEARING WALL), POST, HEADER

- S-P-F No.3 OR BETTER : STUD(NON BEARING)

\*) STRUCTURAL COMPOSIT LUMBER (SCL)

- PSL(2.0E): PARALLEL STRAND LUMBER FOR BEAM - PSL(1.8E) : PARALLEL STRAND LUMBER FOR COLUMN

- ANY OTHER S.C.M. TO BE APPROVED BY THE ENGINEER UPON SUBMISSION OF DOCUMENTATION OF PROPOSED STRENGTH VALUES ENDORSED BY A REISTERED PROFESSIONAL ENGINEER 3 WEEKS PRIOR TO ORDERING MATERIAL.

# 6. WOOD (CONT.)

### 1) ANY LUMBER NOT GRADE MARKED WILL BE REJECTED.

2) ROOF TRUSSES AND GIRDERS TO BE DESIGNED BY THE MANUFACTURER AND INSTALLED AS SHOWN ON THE PLAN. SUBMIT TO CORNERSTONE ENGINEERING LTD. FOR REVIEW BEFORE FABRICATION. TRUSS AND GIRDER SPAN TO BE VERIFIED BY THE MANUFACTURER ON THE JOB SITE

# 6.3 WOOD FRAMING

ALL FRAMING DETAIL SHALL CONFORM TO B.C.B.C. 2012 PART 9. ROOF/ FLOOR/ WALL SHEATHING: SEE TYPICAL ROOF/ FLOOR/ WALL SHEATHINGS CONTINUOUS CROSS BRIDGING BETWEEN FLOOR JOISTS AT 6'-10" O.C. MAX. U.N.O. PROVIDE DOUBLE JOISTS(OR SOLID CROSS BLOCKING @ 24" O.C.) UNDER ALL PARTITION WALLS PARALLEL TO JOIST SPAN. PROVIDE PROVIDE SOLID BLOCKING BETWEEN JOISTS AT ALL LOAD BEARING WALLS, TOP OF BEAMS OR HEADERS, AND AT ALL SUPPORTS FOR CANTILEVERED JOISTS. USE APPROVED JOIST HANGERS AT ALL FLUSH BEAMS. AT THE INTERSECTION OF BEAM PROPER METAL HANGERS SHOULD BE USED. MISCELLANEOUS HARDWARE: HANGER, HOLD DOWN, HURRICANE TIES AS MANUFACTURED BY SIMPSON OR APPROVED EQUAL. ALIGN JOISTS WITH STUDS WHERE POSSIBLE.

ALL BUILT-UP SWAN LUMBER BEAMS OR HEADERS TO BE NAILED TOGETHER WITH 2 ROWS - 3 1/2" NAILS @ 18" O.C. MIN. PER LAMINATION OR 1/2" THRU BOLTS WITH WASHERS @ 48" O.C. STAGGERED.

ALL BUILT-UP BEAMS TO HAVE FULL BEARING AT TOP PLATE.

CANTILEVERED BEAMS GREATER THAN 2-PL WITH 3 ROWS OF 3 1/4" NAILS @ 6" O.C. EACH PLY.

LAMINATE STUDS SOLID UNDER ALL BEAMS TO FULL BEAM WIDTH.

ALL BUILT-UP POSTS TO HAVE THE FOLLOWING NAILING PER LAMINATION - 2" X 4" : 3" NAILS @ 8.5" O.C. STAGGERED - 2" X 6" : 2 ROWS - 3" NAILS @ 8.5" O.C.

ALL LOADBEARING STUD WALLS TO BE ANCHORED TO CONCRETE AT THE BASE WITH 5/8" BOLTS @ 4'-0" O.C. U.N.O. FASTEN NON-LOADBEARING PARTITION WALLS WITH POWER-ACTIVATED FASTENERS @ 24" O.C. MAXIMUM.

PROVIDE ADDITIONAL FULL HEIGHT STUD AT END OF BEAM IN ADDITION TO INDICATED NO. OF CRIPPLES.

PROVIDE CRIPPLES TO EACH SIDE OF CUT TOP PLATE. TYPICAL HEADER: 2 PLY OF 2"X10" (UNLESS OTHERWISE NOTED)

PROVIDE MINIMUM 2 JACK STUDS AT EACH END OF ALL PARALLAMS AND 2"X12" BEAMS (U.N.O.)

STRUCTURE DESIGN IS BASED ON THE LAYOUT AS SHOWN. ANY CHANGE IN THE SITE OF ROOM SPAN, SUPPORT MATERIAL TO BE CHECKED AND APPROVED BY THE

# 7. LIMITATIONS OF LIABILITY

ENGINEERING JUDGEMENT HAS BEEN APPLIED IN DEVELOPING THIS DESIGN IN AN ATTEMPT TO STRIKE A REASONABLE BALANCE BETWEEN RISK OF FAILURE AND THESE DESIGNS HAVE BEEN PREPARED IN ACCORDANCE WITH GENERALLY ACCEPTED

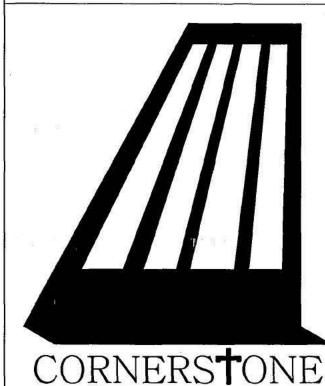
APPLICABLE CODES. NO OTHER WARRANTY IS MADE, EITHER EXPRESSED OR IMPLIED.

STRUCTURAL ENGINEERING PRACTICES AND TO THE REQUIREMENTS OF ALL

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All general contractors shall check and verify all dimensions and report errors and omissions to Cornerstone Geo-Structural Engineering before commencing construction.



Jorge Silva, P.Eng.

Principal, Structural Engineer 20496 123rd ave, Maple Ridge B.C. V2X 4A7 Phone: 604,459,4443 Cell: 778.928,7589

Email: cornerstoneng@shaw.ca

PROFESSIONAL SERVICES BUILT UPON THE ROCK

PROJECT:

SINGLE FAMILY DWELLING

Redacted S. 22

14622 WEST BEACH AV. WHITE ROCK BC

July 11 - 2013

SCALE

ADDRESS:

S-4

PROFESSIONAL ENGINEER # 38892 J 650 1164

B.C. LAND SURVEYORS CERTIFICATE OF LOCATION SHOWING CONSTRUCTED RETAINING WALLS ON LOT 16

SECTION 10 TOWNSHIP 1 NWD PLAN 5729

PID: 011-147-199

### CIVIC ADDRESS :

14622 - WEST BEACH AVENUE WHITE ROCK, BC

Lot dimensions and clearances according to Field Survey.

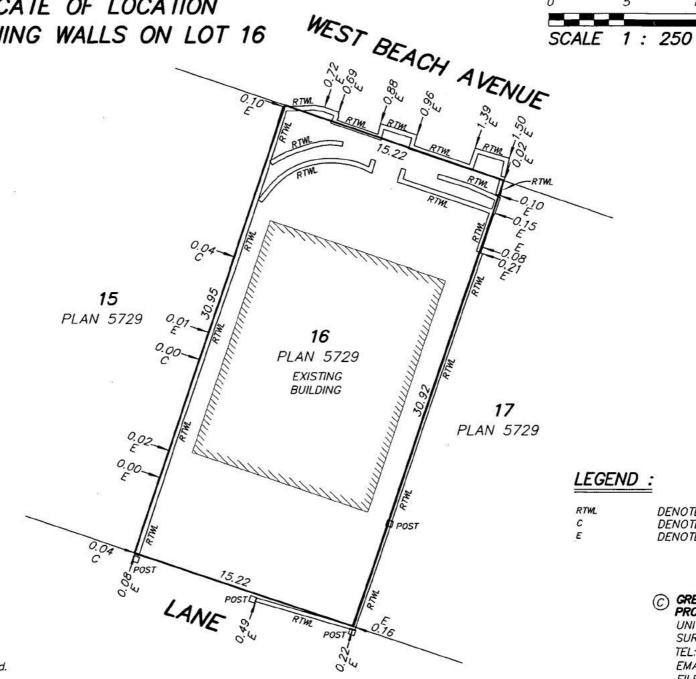
This plan was prepared for inspection purposes and is for the exclusive use of our client. The signatory accepts no responsibility or liability for any damages that may be suffered by a third party as a result of any decisions made or actions taken based on this document. This documents shows the relative location of the surveyed structures and features with respect to the boundaries of the parcel described above. This document shall not be used to define property lines or property corners. All rights reserved. No person may copy, reproduce, transmit or alter this document in whole or in part without the consent of the signatory.

CERTIFIED CORRECT THIS 15th DAY OF SEPTEMBER, 2016.

LAKHJOT S. GREWAL

This document is not valid unless originally signed and sealed.

NOT SUITABLE FOR MORTGAGE PURPOSES



LEGEND :

DENOTES RETAINING WALL DENOTES CLEARANCE DENOTES ENCROACHMENT

GREWAL & ASSOCIATES PROFESSIONAL LAND SURVEYORS

DISTANCES ARE METRIC

UNIT 204, 15299-68th AVENUE SURREY, B.C. V3S 2C1

TEL: 604-597-8567

EMAIL: Office@GrewalSurveys.com

FILE: 1406-059

DWG: 1406-059 CE4 RTWL

