



SUNLIGHT INSPECTION SERVICE

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[www.sunlightinspections.com](http://www.sunlightinspections.com)

590 Sandra Lane, Phoenixville, PA 19460



123 New Home Rd. Phoenixville, PA  
REPORT# 23032501D

**Saturday, March 25, 2023**

**Report Prepared For**  
John Buyer

**Clients Representative**  
N/A

**REVISED** Inspector  
Dan Keogh  
InterNACHI 13121612





Saturday, March 25, 2023  
John Buyer  
123 New Home Rd.  
Phoenixville, PA

Dear John Buyer,

I have enclosed the report for the property inspection we conducted for you on Saturday, March 25, 2023 at:

123 New Home Rd.  
Phoenixville, PA

My report is designed to be clear, easy to understand, and helpful. Please take the time to review it carefully. If there is anything you would like us to explain, or if there is other information you would like, please feel free to call me 484-995-9444. I would be happy to answer any questions you may have.

We thank you for the opportunity to be of service to you.

Sincerely,

A handwritten signature in black ink, appearing to read "Dan Keogh".

Dan Keogh  
SunLight Inspection Services  
Scheduling Office: 610-450-6056  
Office@SunLightInspections.com  
[www.SunLightInspections.com](http://www.SunLightInspections.com)

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## Code References

Your new home should be built to three standards; the Pennsylvania Uniform Construction Code (UCC), manufacture specifications when applicable, and current workmanship and industry standards. While inspecting your home to the ASHI Standards of Practice, if in the opinion of the inspector, discrepancies are found in the visible areas of the home between the home's construction and the current building code they will be noted in the report. Code sections may be provided in the report to support the inspector's opinion.

Your inspector is not a building code official and has no authority to enforce the building code. This inspection is not a code-complaint inspection. *The responsibility to build to the current Building Code is solely that of the home builder.*

A quick word about Building Codes:

In July 2004 Pennsylvania adopted the Uniform Construction Code (UCC). The intent and purpose of the UCC is to provide standards for the protection of life, health, property, and environment and the for the safety and welfare of the consumer, general public, and owners and occupants of building structures. For residential construction, the bases of the UCC is the International Residential Code (IRC) published by the International Code Council (ICC), with some modifications adopted by the state legislature. All builders are required to follow the PA UCC and all Building Code Officials are required to enforce the PA UCC. A Building Code Official is someone who is employed directly or indirectly by a municipality. Only the Building Code Official has the authority to enforce the building code. Building Code Officials and the PA UCC are regulated by the Pennsylvania Department of Labor and Industry (L&I). If you feel the builder is not building to the PA UCC I recommend you contact the local building code official.

Throughout the report, you'll find special symbols at the front of certain comments. Below are the symbols and their meanings:

**C** = Correction Recommend: Denotes a system or component of the home that is in the opinion of the inspector; significantly deficient, falls short of manufacture specifications, or does not comply with the building code.

**M** = Monitoring Recommended: Denotes a system or component that is not compete or fully installed that should be monitored to make sure it is properly done. These notes typical come with suggestions on what to watch for.

**R** = Reference: A reference to support the inspectors opinion.



## Introduction, Scope of the Inspection

### **INTRODUCTION:**

The following numbered and attached pages are your pre-drywall inspection report. The report includes photographs, comments, and the Standards of Practice. This inspection was performed in accordance with the current Standards of Practice for Residential Pre-drywall Inspections of the American Society of Home Inspectors. The Standards contain certain and very important limitations, exceptions, and exclusions to the inspection. A copy is available prior to, during, and after the inspection, and it is part of the report. All components designated in the ASHI standards of practices, except for limitations that may be noted in the report, will be inspected. The inspection is for the most part a limited visual inspection only. A representative sampling of the building components is viewed in areas that are accessible at the time of the inspection. No destructive testing or dismantling of components is performed. Be sure to keep your signed copy of the home inspection agreement along with the report for future reference.

### **SCOPE:**

The inspection is based on observations of the visible, readily accessible and apparent condition of the structure and its components on the day of the inspection. The results of this inspection are not intended to make any representation regarding the presence or absence of latent or concealed defects that are not reasonably ascertainable or readily accessible in a competently performed inspection. The home is under construction the inspection cannot predict future conditions.

### **NO WARRANTY IS EXPRESSED OR IMPLIED:**

The goal of the inspection is to provide the client with an objective level of quality control and information about the condition of inspected components at the time of the inspection. Not all defects will be identified during this inspection. The inspection is conducted by a construction generalist and not by a technical specialist. The inspection is not and should not be considered a guarantee, warranty or insurance policy of any kind. The inspection is not a code compliant inspection. This report does not include inspection for mold, lead, asbestos, or wood destroying insects.

The person conducting your inspection is not a licensed structural engineer or other professional whose license authorizes the rendering of an opinion as to the structural integrity of a building or its other component parts.

Please refer to the pre-inspection agreement and the ASHI Standards of Professional Practice for Residential Pre-drywall Inspections for a full explanation of the scope of the inspection, its limitations and exclusions.

## General Information

**DATE OF INSPECTION**

Saturday, March 25, 2023

**REPORT ID**

23032501D

**REPORT PREPARED FOR**

John Buyer

Madeup@gmail.com

**PRESENT AT INSPECTION**

Inspector only

**PROPERTY ADDRESS**

123 New Home Rd.  
Phoenixville, PA

**STRUCTURE STYLE**

Colonial

**APPROXIMATE AGE**

New Construction

**WEATHER AT THE TIME OF THE INSPECTION**

Raining  
45 Degrees

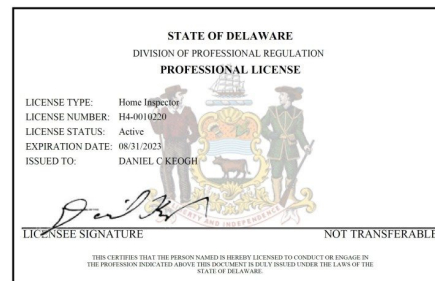


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## Dan Keogh Owner/Inspector

### LICENSE & CERTIFICATION



#### DELAWARE HOME INSPECTION LICENSE

# H4-0000167

#### INTERNATIONAL ASSOCIATION OF CERTIFIED HOME INSPECTORS

InterNACHI #13121612

#### THE AMERICAN SOCIETY OF HOME INSPECTORS

ASHI #212167

#### CERTIFIED PESTICIDE APPLICATOR

#703024

BU14262

#### PA DEP RADON

Certification #2109

#### INTERNATIONAL CODE COUNCIL #5228682

Residential Building Inspector

Residential Mechanical Inspector

Residential Plumbing Inspector

Residential Electrical Inspector

Residential Energy/Plans Examiner

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## ROOF COVERING

### BASIC INFORMATION

Method used to Inspect: Due to rain and wind the roof was viewed from the ground

Roof Covering Materials: Asphalt Fiberglass Shingles

### ROOF COVERINGS

The asphalt fiberglass shingles on the main roof structure appear to be in good condition.



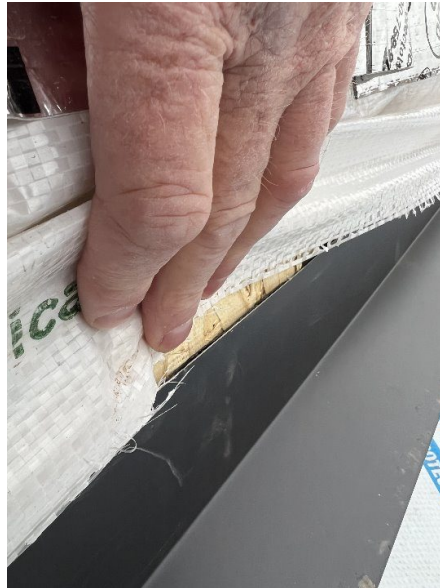
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## FLASHINGS

**C** The side wall flashing does not extend far enough up the wall. Sidewall flashing should extend up the exterior wall a minimum of 4 inches and be behind the house wrap.



### **R** Code Reference

#### **R905.2.8.3 Sidewall flashing.**

Flashing against a vertical sidewall shall be by the step-flashing and shall be not less than 4 inches in height of 4 inches in width and shall direct water away from the vertical sidewall into the roof or onto the gutter. Where siding is provided on the vertical sidewall, the vertical leg of the flashing shall be continuous under the siding. Where anchored masonry veneer is provided on the vertical sidewall, the base flashing shall be provided in accordance with this section and counter flashings shall be provided in accordance with section R703.8.2.2. Where exterior plaster or adhered masonry veneer is provided on the vertical sidewall, the base flashing shall be provided in accordance with this section and are 703.6.3

### **Code Reference**

#### **R905.2.8.4 Other flashing.**

Flashing against a vertical front wall, as well as soil stack, vent pipe and chimney flashing, shall be applied according to the asphalt shingle manufacturer's printed instructions.



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## EXTERIOR WALL COVERINGS

### BASIC INFORMATION

Water Resistant Barrier: [Green Guard](#)

### WATER RESISTANT BARRIER

The house wrap has been installed. The upper layers are overlapped over the lower at least 2 inches. The joints are overlapped at least 6 inches.



**C** Damaged house wrap was noted around some of the wall penetrations.

This is not uncommon during the course of construction. Prior to the siding being installed these areas should be repaired with house wrap tape or a house wrap patch and tape.

The repairs will most likely be done as the siding is installed. To verify that these areas have been repaired prior to the siding being installed I recommend that you ask the builder (siding contractor) to take pictures of the repaired areas before they are covered up.

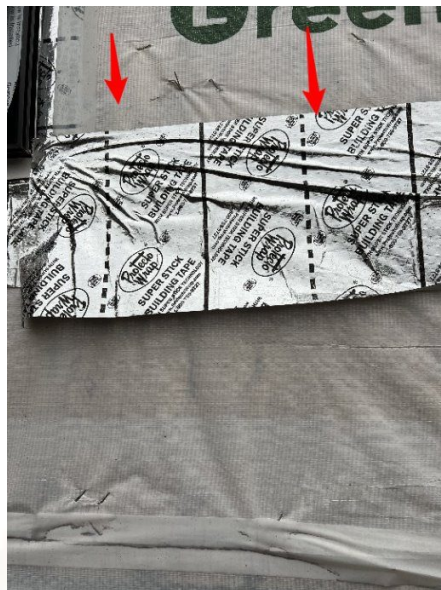


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**M** It is unclear what the builder's intention is with the flashing tape installed at the approximate height of where the stone veneer will terminate on the front walls. The flashing tape has been installed in reverse lap flat fashion. Metal coping flashing will be installed over the top edge of the stone veneer. The metal coping flashing should be installed **behind the house wrap that comes down behind the vinyl siding.** I recommend discussing this with the builder to verify what his intentions are in making this transaction watertight.



reverse lap



reverse lap





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**C** The nailing phalange around the mounting block for the electric meter needs to be taped and integrated with the house wrap to form an effective drainage plane.



**C** At the front of the house, the house wrap is not been installed tight to the inside of the corner. The house wrap will need to be cut and fitted in tightly to the corner. An additional piece of house wrap will need to be installed over the corner to achieve the proper overlaps.

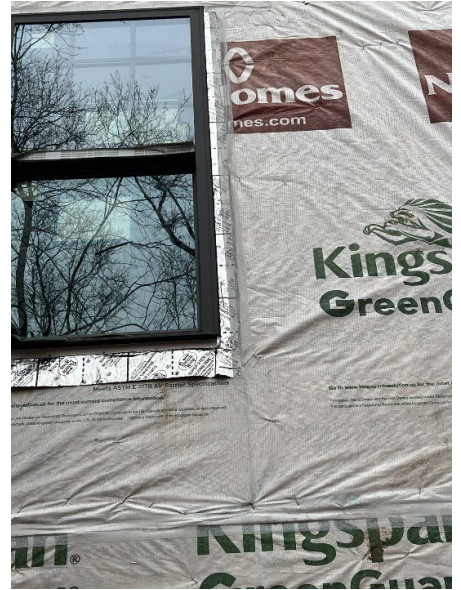




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### WINDOW FLASHING

The windows have been flashed and integrated with the house wrap to form a continuous drainage plain down the wall using the builder's specifications.



**C** Damaged window flashing was noted under the rear first floor triple windows.





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## DOOR FLASHING

**C** The flashing tape on the sides of the exterior basement door have been installed short. The flashing tape does not extend down to the bottom of the door corners.





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## FOUNDATION

### BASIC INFORMATION

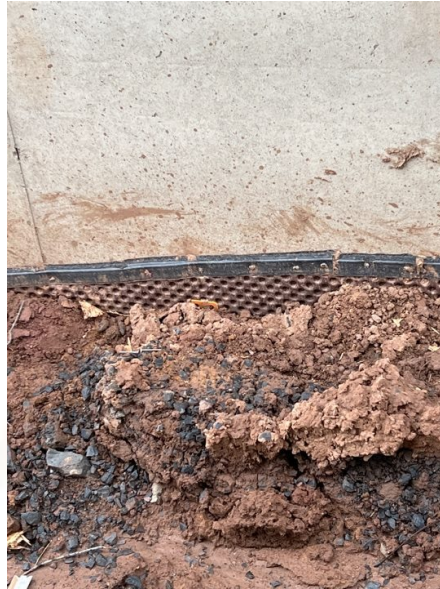
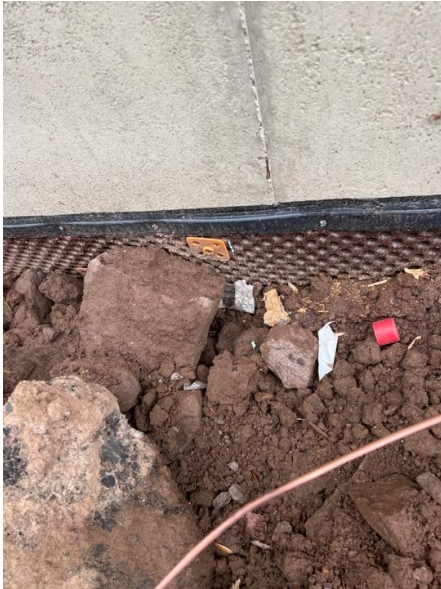
Foundation Structure: [Poured Concrete](#)

Structural Columns: [Steel](#)

Foundation Drains: [Interior with sump pump and Exterior/drained by gravity](#)

### WATERPROOFING OR DAMPPROOFING

Water proofing has been installed on the exterior of the foundation walls. A drainage membrane can be seen on the foundation.



### FOUNDATION WALLS

The walls were vertical with no abnormal cracking or honeycombing observed.



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**C** The beam pocketed the front of the house is damaged. I recommend grouting the beam in place to prevent the possibility of structural movement.



### CONCRETE FOUNDATION SLABS

The concrete slab appears to be free of defects at this time. The builder installed control joints in the floor to control cracking should it accrue.





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## FOUNDATION DRAINS

The interior foundation drains terminate in the sump. Two ends of the foundation drain tile are visible at the sump.



The exterior foundation drains drain away by gravity and terminate at the back corners of the house.



### FASTENERS, STRAPS, BOLTS

**C** A missing foundation bolt was noted on the short wall section at the front center of the basement and another at the front right corner. A minimum of two bolts is required in each sill plate. A bolt is required within 12 inches of the end of each sill plate.



only one bolt on this section



front right corner no bolt



front right corner no bolt



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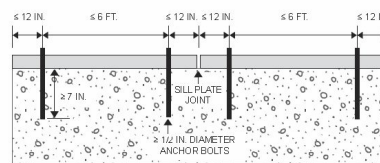
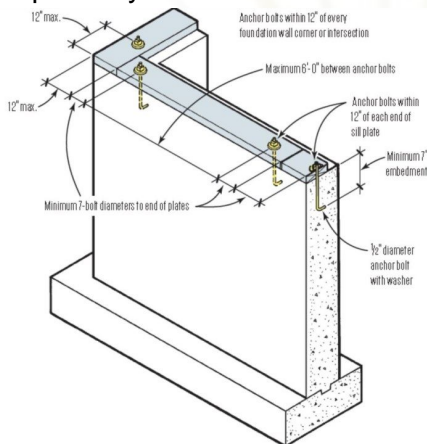
## **R** Code Reference

### **R403.1.6 Foundation anchorage.**

Wood sill plates and wood walls supported directly on continuous foundations shall be anchored to the foundation in accordance with this section.

Cold-formed steel framing shall be anchored directly to the foundation or fastened to wood sill plates in accordance with Section R505.3.1 or R603.3.1, as applicable. Wood sill plates supporting cold-formed steel framing shall be anchored to the foundation in accordance with this section.

Wood sole plates at all exterior walls on monolithic slabs, wood sole plates of braced wall panels at building interiors on monolithic slabs and all wood sill plates shall be anchored to the foundation with 1/2 inch diameter anchor bolts spaced not greater than 6 feet on center or approved anchors or anchorage straps spaced as required to provide equivalent anchorage to 1/2 inch diameter anchor bolts. bolts shall extend not less than 7 inches into concrete or grouted cells of concrete masonry units. The bolts shall be located in the middle third of the width of the plate. A nut and washer shall be tightened on each anchor bolt. There shall be not fewer than two bolts per plate section with one bolt located not more than 12 inches or less than seven bolt diameters from each end of the plate section. Interior bearing wall sole plates on monolithic slab foundations that are not part of a braced wall panel shall be positively anchored with approved fasteners. Sill plates and sole plates shall be protected against decay and termites where required by section R317 and R318



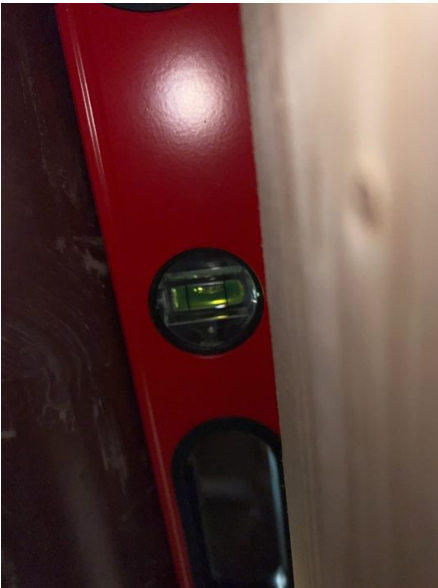
Foundation Anchor Locations



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## STRUCTRUAL COLUMNS

**C** The steel column near the basement HVAC system is out of plumb. The steel columns should not be out of plumb in excess of 3/8 of an inch and 8 feet. The bottom of this column is not been set yet. The builder should plumb the column before the concrete is poured.



**C** The steel column on the right side of the garage is out of plumb. The steel columns should not be out of plumb in excess of 3/8 of an inch and 8 feet. This column should be plumbed before the sheet rock is installed.



**R** Trade Association Reference  
Residential Construction Performance Guidelines, NHBA

**Observation:** A steel column is out of plumb.

**Performance Guideline:** Steel columns shall not be out of plumb in excess of 3/8-inch in 8 feet when measured vertically.

**Corrective Measure:** The contractor shall repair any deficiencies in excess of the performance guideline.



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## FLOOR FRAMING

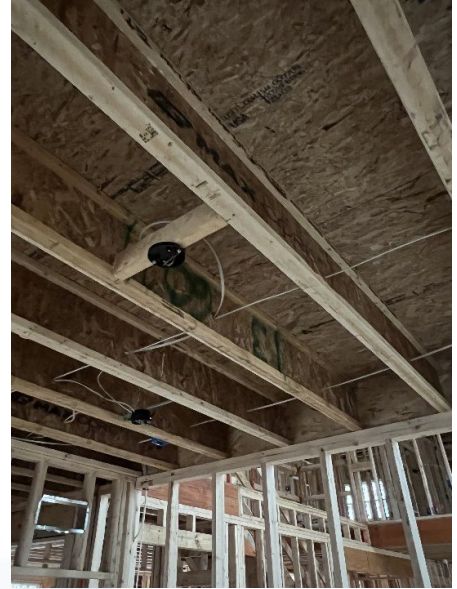
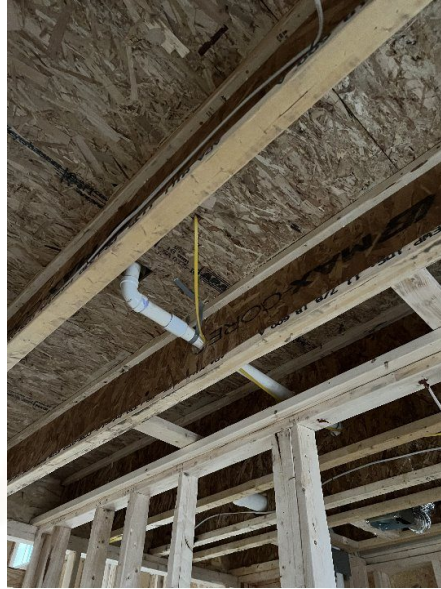
### BASIC INFORMATION

Floor Structure: [Manufactured I Joists](#)

Floor Sheathing: [3/4 OSB](#)

### FLOOR JOIST, TRUSSES

The floor joist appear to be free of defects at this time. At the time of this inspection the drilling and notching of the floor joist complied with section R502.8.



### BEAMS & GIRDERS

The beams are bearing on at least 3 inches on the concrete wall. (R502.6)





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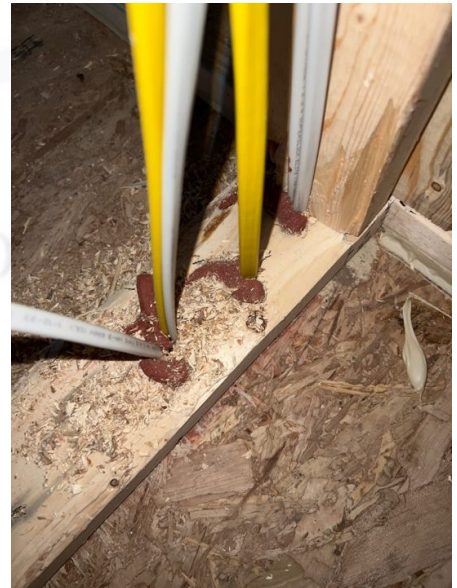
## FLOOR SHEATHING

The floor sheathing was free of defects. The sheathing is within allowable spans.



## DRAFTSTOPS

The pipes, electrical wires, and HVAC ducts are sealed where they pass through wall plates and floors, good.





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## WALL FRAMING

### BASIC INFORMATION

Exterior Walls: 2x4, 16 inches on center

Exterior Sheathing: 1/2 inch OSB

Interior Walls: 2x4 on 16-inch center and 2x4 on 24-inch center

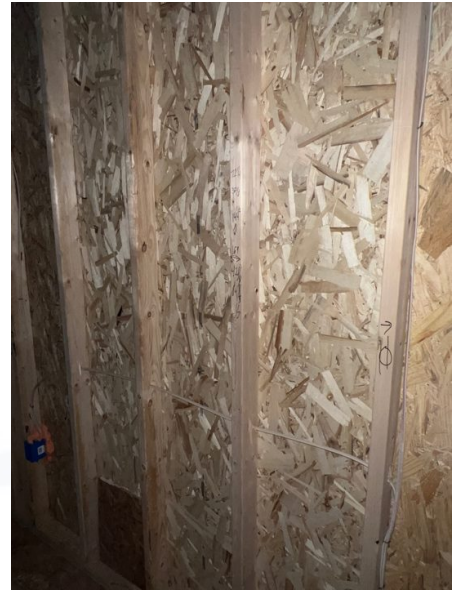
### EXTERIOR WALLS

The exterior wall framing complies with the spacing in Table R602.3.1.

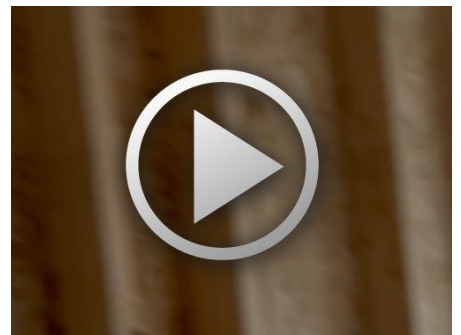
The top plates are overlapped at the corners.

At the time of this inspection the drilling and notching in the studs complied with R602.6.

At the time of this inspection the notches in the top plate complied with R602.6.1.



**C** A missing or incorrectly installed metal tie strap was noted at the top of the right exterior wall on the second floor. When a wall top plate is cut or notched more than 50% of its with metal tie strap is needed across the opening. The metal tie strap restores the structure to the wall.





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## **R** Code Reference

### **R602.6.1 Drilling and notching of the top plate.**

When piping or ductwork is placed in or partly in an exterior wall or interior loadbearing wall, necessitating cutting, drilling and notching of the top plate by more than 50% of its width, a galvanized metal tie not less than 0.054 inch thick and 1 1/2 inches wide shall be fastened across and to the plate at each side of the opening with not less than eight 10d nails having a minimum length of 1 1/2 inches at each side or equivalent. The metal tie must extend a minimum of 6 inches past the opening.

### **INTERIOR WALLS**

The interior wall framing complies with the spacing in Table R602.3.1.

At the time of this inspection, the drilling and notching in the studs complied with R602.6.

At the time of this inspection the notches in the top plate comply with R602.6.1.

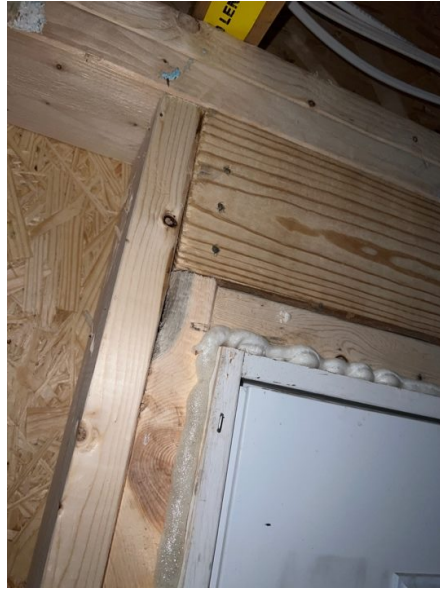


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## HEADERS

All framing studs to the headers above doors and window are tight, no gaps, good.



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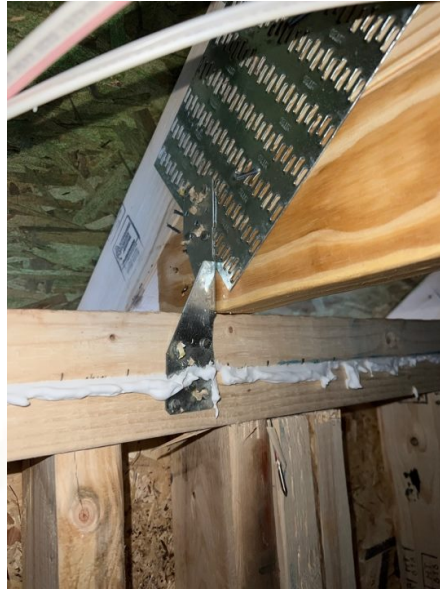
## ROOF FRAMING

### BASIC INFORMATION

Roof Structure: [Engineered roof trusses](#)  
Rafter Dimension: [2x4 and 24 inches on center](#)  
Roof Sheathing: [1/2 OSB](#)  
Attic Ventilation: [Ridge vents and Soffit vents](#)

### RAFTERS & TRUSSES

The roof trusses are strapped to the exterior walls to prevent up lift. .



The roof trusses have been laterally braced to prevent rotation.





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## ROOF SHEATHING

The roof sheathing is spaced to allowable in table R503.2.1(1). The sheathing was free of visible defects.



## ATTIC ACCESS

The attic access is in the back right bedroom and meets the required minimum size, 22 inches by 30 inches. (R807.1)



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## WINDOWS & DOORS

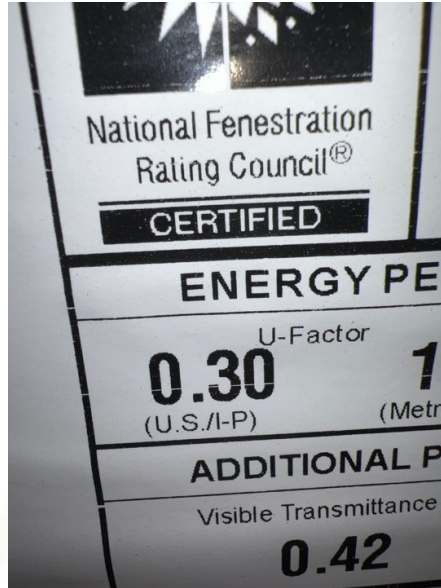
### BASIC INFORMATION

Window Type: [Single hung](#)

Window Material: [Vinyl](#)

### WINDOWS

All the windows meet the required U factor rating. There is tempered glass in all the required locations.



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## INTERIOR COMPONENTS

### BASIC INFORMATION

Bathroom Vented: **Yes**

Clothes Dryer Vent to Exterior: **Yes**

Kitchen Exhaust to exterior: **Yes**

### STAIRS

The stairs are prefabricated and comply with the PA UCC requirements for stairs.

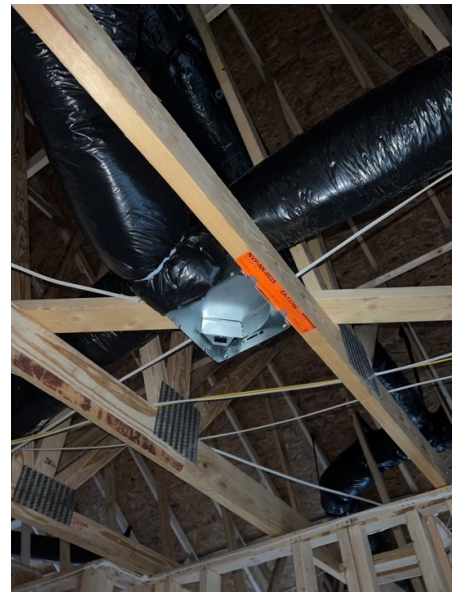


### BATH EXHAUST

The bath fans are exhausting to the exterior as required. .



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### CLOTHES DRYER EXHAUST

The dryer duct is vented to the exterior. The duct is smooth metal, 4 inches in diameter, taped together and supported every 4 ft.



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### KITCHEN EXHAUST.

The kitchen exhaust vent to the exterior.



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## PLUMBING SYSTEM

### BASIC INFORMATION

Water Supply Piping: Cross linked polyethylene (PEX)

Sewage Waste Piping: PVC

Water Heater: Gas water heater

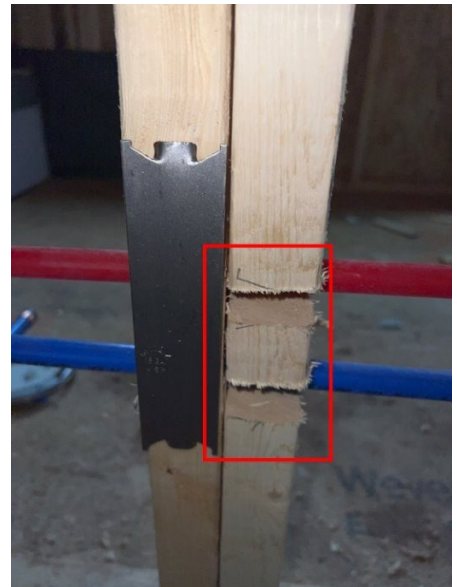
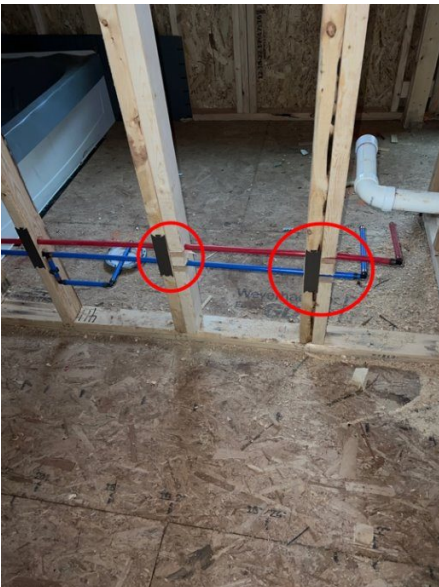
Fire Sprinklers: No

### WATER SUPPLY PIPES

The water distribution lines are properly supported.



**C** Unprotected water lines were noted in the second floor back right bedroom. When water lines are installed through studs, joists, or rafters and are closer than 1 1/4 inch from the edge of the framing member they need to be protected by steel plates to prevent possible damage from fasteners that may be installed in the wall.



Second floor back right bathroom

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**C** Unprotected water lines were noted in the laundry room. When water lines are installed through studs, joists, or rafters and are closer than 1 1/4 inch from the edge of the framing member they need to be protected by steel plates to prevent possible damage from fasteners that may be installed in the wall.



Laundry room



Laundry room

**R** Code Reference

**P2603.2.1 Protection against physical damage** In concealed locations, where piping, other than cast-iron or galvanized steel, is installed through holes or notches in studs, joists, rafters or similar members less than 1 1/4 inch from the nearest edge of the member, the pipe shall be protected by steel shields. Such shield plates shall have a thickness of not less than 0.0575 inch. Such plates shall cover the area of the pipe where the member is notched or board, and shall extend not less than 2 inches above sole plate and below top plates



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### WATER HEATER

**C** The flue pipe for the water heater is sloped in the wrong direction. The flue pipe should slope upward.



### DRAIN & WASTE PIPES

The waste lines are properly sloped and supported.



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The waste lines are protected with steel plates where necessary.



### ROUGH IN PLUMBING (BASEMENT)

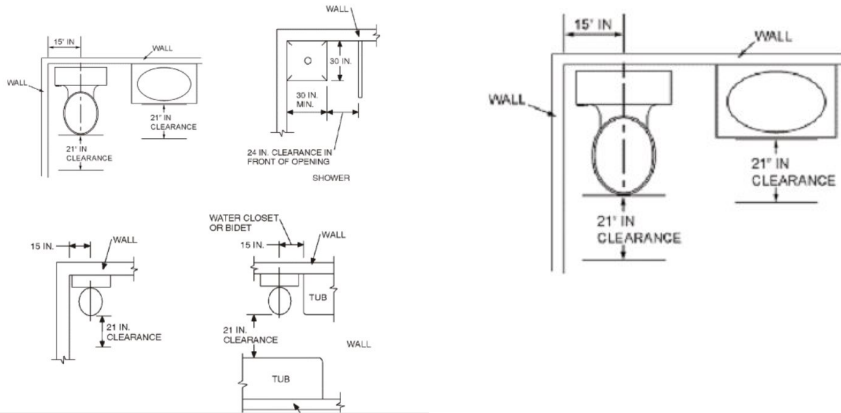
**C** The toilet planned for the basement bathroom is set to close to the shower wall. The center of the toilet plans should be 15 inches from the wall.



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**R** Code Reference  
**R307.1 Space required**

Fixtures shall be spaced in accordance with figure R30 7.1 in accordance with the requirements of section P270 5.1



**C** The drainpipe for the basement bathroom sink does not line up with the bathroom layout.



no drainpipe for bathroom sink





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## ELECTRICAL SYSTEM

### BASIC INFORMATION

Service Cable Location: [Underground service line](#)

Service Size: [200 AMP](#)

Service Grounding: [Grounding rod exterior](#)

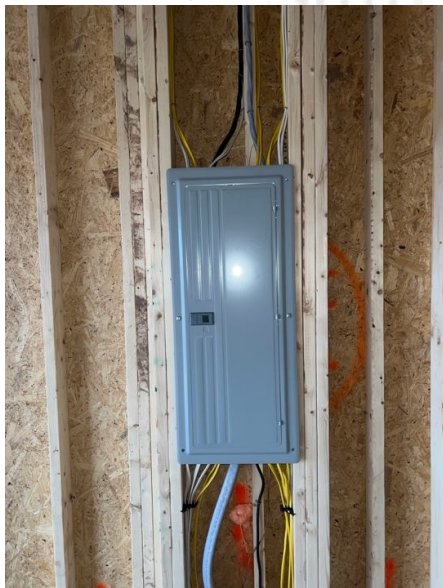
### ELECTRICAL METER

With normal hand pressure, the electric meter felt securely attached to the house. The grounding rods are visible.



### MAIN ELECTRICAL PANEL

The electrical panel has been well mounted. Proper clearances were noted around the panel.



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## ELECTRICAL WIRING

The electrical wires have been protected by steel plates where they pass through wall studs and wall plates and are less than 1 1/4 inch from the edge of the framing.



## RECEPTALCE & SWITCH BOXES

Receptacle boxes are spaced with no point along a wall more then 6 feet from a receptacle outlet.

Receptacle box and switch depths are correct.

The electrical cables were supported within 8 inches of the boxes.





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## HVAC SYSTEM

### BASIC INFORMATION

Heating Type: [Two gas furnaces](#)

Cooling Type: [Two central air conditioning](#)

### HEATING SYSTEM

The gas furnace and air conditioning evaporator coil were in place. There is an over flow pan under the HVAC system with a float switch.



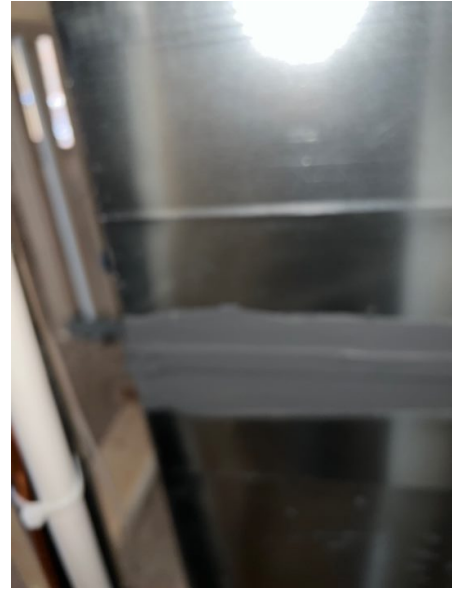
The HVAC system for the second floor has been installed in the attic. There is a walking surface to the HVAC system. There is a working surface in front of the equipment.



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### DUCT WORK

The seams on the HVAC duct work have been well sealed, good. (M1601.4.1)



### GASS LINE

The gas lines in the home are corrugated stainless steel tubing (CSST). The gas manifold is well mounted. There were no gas leaks detected at the manifold.





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Steel plates protect the gas line where it passes through the framing, good.



## Report Summary

### ROOF COVERING FLASHINGS

**C 1:** The side wall flashing does not extend far enough up the wall. Sidewall flashing should extend up the exterior wall a minimum of 4 inches and be behind the house wrap.

### EXTERIOR WALL COVERINGS WATER RESISTANT BARRIER

**C 2:** Damaged house wrap was noted around some of the wall penetrations. This is not uncommon during the course of construction. Prior to the siding being installed these areas should be repaired with house wrap tape or a house wrap patch and tape.

The repairs will most likely be done as the siding is installed. To verify that these areas have been repaired prior to the siding being installed I recommend that you ask the builder (siding contractor) to take pictures of the repaired areas before they are covered up.

**C 3:** The nailing phalange around the mounting block for the electric meter needs to be taped and integrated with the house wrap to form an effective drainage plane.

**C 4:** At the front of the house, the house wrap is not been installed tight to the inside of the corner. The house wrap will need to be cut and fitted in tightly to the corner. An additional piece of house wrap will need to be installed over the corner to achieve the proper overlaps.

### EXTERIOR WALL COVERINGS WINDOW FLASHING

**C 5:** Damaged window flashing was noted under the rear first floor triple windows.

### EXTERIOR WALL COVERINGS DOOR FLASHING

**C 6:** The flashing tape on the sides of the exterior basement door have been installed short. The flashing tape does extend down to the bottom of the door corners.

### FOUNDATION WALLS

**C 7:** The beam pocketed the front of the house is damaged. I recommend grouting the beam in place to prevent the possibility of structural movement.

### FOUNDATION FASTERNERS, STRAPS, BOLTS

**C 8:** A missing foundation bolt was noted on the short wall section at the front center of the basement and another at the front right corner. A minimum of two bolts is required in each sill plate. A bolt is required within 12 inches of the end of each sill plate.

### FOUNDATION STRUCTURAL COLUMNS

**C 9:** The steel column near the basement HVAC system is out of plumb. The steel columns should not be out of plumb in excess of 3/8 of an inch and 8 feet. The bottom of this column is not been set yet. The builder should plumb the column before the concrete is poured.

**C 10:** The steel column on the right side of the garage is out of plumb. The steel columns should not be out of plumb in excess of 3/8 of an inch and 8 feet. This column should be plumbed before the sheet rock is installed.



## WALL FRAMING EXTERIOR WALLS

**C 11:** A missing or incorrectly installed metal tie strap was noted at the top of the right exterior wall on the second floor. When a wall top plate is cut or notched more than 50% of its with metal tie strap is needed across the opening. The metal tie strap restores the structure to the wall.

## PLUMBING SYSTEM WATER SUPPLY PIPES

**C 12:** Unprotected water lines were noted in the second floor back right bedroom. When water lines are installed through studs, joists, or rafters and are closer than 1 1/4 inch from the edge of the framing member they need to be protected by steel plates to prevent possible damage from fasteners that may be installed in the wall.

**C 13:** Unprotected water lines were noted in the laundry room. When water lines are installed through studs, joists, or rafters and are closer than 1 1/4 inch from the edge of the framing member they need to be protected by steel plates to prevent possible damage from fasteners that may be installed in the wall.

## PLUMBING SYSTEM WATER HEATER

**C 14:** The flue pipe for the water heater is sloped in the wrong direction. The flue pipe should slope upward.

## PLUMBING SYSTEM ROUGH IN PLUMBING (BASEMENT)

**C 15:** The toilet planned for the basement bathroom is set to close to the shower wall. The center of the toilet plans should be 15 inches from the wall.

**C 16:** The drainpipe for the basement bathroom sink does not line up with the bathroom layout.

## EXTERIOR WALL COVERINGS WATER RESISTANT BARRIER

**M 17:** It is unclear what the builder's intention is with the flashing tape installed at the approximate height of where the stone veneer will terminate on the front walls. The flashing tape has been installed in reverse lap flat fashion. Metal coping flashing will be installed over the top edge of the stone veneer. The metal coping flashing should be installed **behind the house wrap that comes down behind the vinyl siding**. I recommend discussing this with the builder to verify what his intentions are in making this transaction watertight.

## ROOF COVERING FLASHINGS

### **R 18: Code Reference**

#### **R905.2.8.3 Sidewall flashing.**

Flashing against a vertical sidewall shall be by the step-flashing and shall be not less than 4 inches in height of 4 inches in width and shall direct water away from the vertical sidewall into the roof or onto the gutter. Where siding is provided on the vertical sidewall, the vertical leg of the flashing shall be continuous under the siding. Where anchored masonry veneer is provided on the vertical sidewall, the base flashing shall be provided in accordance with this section and counter flashings shall be provided in accordance with section R703.8.2.2. Where exterior plaster or adhered masonry veneer is provided on the vertical sidewall, the base flashing shall be provided in accordance with this section and are 703.6.3

### **Code Reference**

#### **R905.2.8.4 Other flashing.**

Flashing against a vertical front wall, as well as soil stack, vent pipe and chimney flashing, shall be applied according to the asphalt shingle manufacturer's printed instructions.

## FOUNDATION FASTENERS, STRAPS, BOLTS

### **R** 19: Code Reference

#### **R403.1.6 Foundation anchorage.**

Wood sill plates and wood walls supported directly on continuous foundations shall be anchored to the foundation in accordance with this section.

Cold-formed steel framing shall be anchored directly to the foundation or fastened to wood sill plates in accordance with Section R505.3.1 or R603.3.1, as applicable. Wood sill plates supporting cold-formed steel framing shall be anchored to the foundation in accordance with this section.

Wood sole plates at all exterior walls on monolithic slabs, wood sole plates of braced wall panels at building interiors on monolithic slabs and all wood sill plates shall be anchored to the foundation with 1/2 inch diameter anchor bolts spaced not greater than 6 feet on center or approved anchors or anchorage straps spaced as required to provide equivalent anchorage to 1/2 inch diameter anchor bolts. bolts shall extend not less than 7 inches into concrete or grouted cells of concrete masonry units. The bolts shall be located in the middle third of the width of the plate. A nut and washer shall be tightened on each anchor bolt. There shall be not fewer than two bolts per plate section with one bolt located not more than 12 inches or less than seven bolt diameters from each end of the plate section. Interior bearing wall sole plates on monolithic slab foundations that are not part of a braced wall panel shall be positively anchored with approved fasteners. Sill plates and sole plates shall be protected against decay and termites where required by section R317 and R318

## FOUNDATION STRUCTURAL COLUMNS

### **R** 20: Trade Association Reference

#### **Residential Construction Performance Guidelines, NHBA**

**Observation:** A steel column is out of plumb.

**Performance Guideline:** Steel columns shall not be out of plumb in excess of 3/8-inch in 8 feet when measured vertically.

**Corrective Measure:** The contractor shall repair any deficiencies in excess of the performance guideline.

## WALL FRAMING EXTERIOR WALLS

### **R** 21: Code Reference

#### **R602.6.1 Drilling and notching of the top plate.**

When piping or ductwork is placed in or partly in an exterior wall or interior loadbearing wall, necessitating cutting, drilling and notching of the top plate by more than 50% of its width, a galvanized metal tie not less than 0.054 inch thick and 1 1/2 inches wide shall be fastened across and to the plate at each side of the opening with not less than eight 10d nails having a minimum length of 1 1/2 inches at each side or equivalent. The metal tie must extend a minimum of 6 inches past the opening.



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## PLUMBING SYSTEM WATER SUPPLY PIPES

### **R** 22: Code Reference

**P2603.2.1 Protection against physical damage**In concealed locations, where piping, other than cast-iron or galvanized steel, is installed through holes or notches in studs, joists, rafters or similar members less than 1 1/4 inch from the nearest edge of the member, the pipe shall be protected by steel shields. Such shield plates shall have a thickness of not less than 0.0575 inch. Such plates shall cover the area of the pipe where the member is notched or board, and shall extend not less than 2 inches above sole plate and below top plates

## PLUMBING SYSTEM ROUGH IN PLUMBING (BASEMENT)

### **R** 23: Code Reference

#### **R307.1 Space required**

Fixtures shall be spaced in accordance with figure R30 7.1 in accordance with the requirements of section P270 5.1

