



9E Ver. 02.1-20 Based on the 2020 Residential Code of New York State

APPENDIX

Student Exercises and Additional Material Residential Building Plan Review

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Student Exercise – Organization of the 2020 RCNYS

1. What Part of the Code addresses Plumbing? _____
 2. What Chapter deals with Boilers and Water Heaters? _____
 3. Which Section of the Code regulates footings? _____
 4. Swimming Pools are regulated in what Chapter? _____
 5. Minimum Room Areas are found in Part _____, Chapter _____, and Section _____
 6. Referenced Standards are found in Part _____ of the 2020 RCNYS
 7. Electrical Definitions are found in which Chapter? _____
 8. Which Section of the code provides the requirements for Foundation Drainage? _____
 9. What Chapter deals with Plumbing Fixtures? _____
 10. Requirements for Roof Coverings are found in Part _____, Chapter _____, Section _____ of the code.
-

Student Exercise – The Plans

1. The Foundation Drawings indicate that the 3" steel columns shall be _____ gauge steel pipe.
2. Exterior wood frame walls are to be 2"x 6" studs placed _____ inches on center.
3. The wall covering on the wall between the dwelling and the garage, are to be _____ GWB
4. The Elevation Drawings are drawn to a _____ scale.
5. Gas Meter and Electric Meter locations are shown on which page? _____
6. The steel door between dwelling and garage shall have a self-closing device and a _____ fire protection rating label.
7. The initials, WIC in the area between the master bedroom and bathroom represent _____.
8. The plans indicate that all bedroom windows will have a minimum net clear opening of _____.
9. The plate height of the exterior wall in Bedroom #3 is _____.
10. Ice shield placement is shown in the plans on sheet labeled _____.
11. The rough opening for the breakfast area door is _____.
12. The concrete garage floor is to be sloped _____ inches from the wall to the garage door

Student Exercises - Joist Spans, Girder Spans, Rafter spans

Joist Span Exercise 1 -

Given: Sleeping area
Family room

Appropriate table?

2 x 6, Spruce-pine-fir, grade #2 at 16" o.c.

Dead load 10 psf

Allowable Span?

Joist Span Exercise 2 -

Given: Living room, dining room,

Appropriate Table?

2 x 10, Hem-Fir, #2 at 24" o.c.

Dead load 10 psf

Allowable Span?

Interior Girder Exercise -

Proposed 2-story home, Ground snow load 50 psf

Building width 28', Interior girder supports 2 floors

4 – 2 X 10 nailed per Table R602.3(1), item 27. Column spacing 8' o.c.

Check girder span for compliance

Rafter exercise 1 -

2 X 10 SPF # 2, Ground snow load 50 psf, Dead load 10 psf, No ceiling attached

Which table?

Allowable rafter span at 16" o.c.?

Allowable rafter span at 24" o.c.?

Rafter exercise 2 -

2 X 12 SPF # 2, Ground snow load 70 psf, Dead load 10 psf, Ceiling attached

Which table?

Allowable rafter span at 16" o.c.?

Allowable rafter span at 19.2" o.c.?

Rafter exercise 3 -

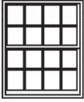
2 X 8 Hem-Fir # 2, Ground snow load 30 psf, Dead load 10 psf, Ceiling attached

Which table?

Allowable rafter span at 12" o.c.?

Allowable rafter span at 24" o.c.?

DOUBLE-HUNG WINDOWS



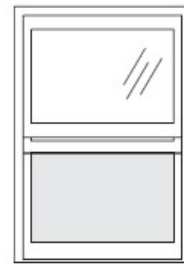
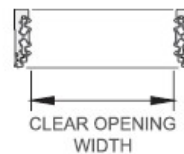
ProLine®
Aluminum-Clad Exterior
Design Data



Vent Units

Unit	Egress	Clear Opening		Vent Area Ft ²	Visible Glass Ft ²	Frame Area Ft ²	Performance Class & Grade ⁽¹⁾
		Width (inches)	Height (inches)				
2135		17-13/16	14-1/4	1.8	3.2	5.1	R50
2141		17-13/16	17-1/4	2.1	3.9	6.0	R50
2147		17-13/16	20-1/4	2.5	4.5	6.9	R50
2153		17-13/16	23-1/4	2.9	5.2	7.7	R50
2157		17-13/16	25-1/4	3.1	5.6	8.3	R40/50
2159		17-13/16	26-1/4	3.2	5.9	8.6	R40/50
2165		17-13/16	29-1/4	3.6	6.5	9.5	R40/50
2171		17-13/16	32-1/4	4.0	7.2	10.4	R30
2535		21-13/16	14-1/4	2.2	4.0	6.1	R50
2541		21-13/16	17-1/4	2.6	4.8	7.1	R50
2547		21-13/16	20-1/4	3.1	5.7	8.2	R50
2553		21-13/16	23-1/4	3.5	6.5	9.2	R50
2557		21-13/16	25-1/4	3.8	7.0	9.9	R40/50
2559		21-13/16	26-1/4	4.0	7.3	10.2	R40/50
2565		21-13/16	29-1/4	4.4	8.2	11.3	R40/50
2571		21-13/16	32-1/4	4.9	9.0	12.3	R30
2935		25-13/16	14-1/4	2.6	4.8	7.0	R50
2941		25-13/16	17-1/4	3.1	5.8	8.3	R50
2947		25-13/16	20-1/4	3.6	6.8	9.5	R50
2953		25-13/16	23-1/4	4.2	7.8	10.7	R50
2957		25-13/16	25-1/4	4.5	8.4	11.5	R40/50
2959		25-13/16	26-1/4	4.7	8.8	11.9	R40/50
2965	E ₁	25-13/16	29-1/4	5.2	9.8	13.1	R40/50
2971	E	25-13/16	32-1/4	5.8	10.8	14.3	R30
3335		29-13/16	14-1/4	3.0	5.6	8.0	R50
3341		29-13/16	17-1/4	3.6	6.7	9.4	R50
3347		29-13/16	20-1/4	4.2	7.9	10.8	R50
3353		29-13/16	23-1/4	4.8	9.1	12.1	R40/50
3357	E ₁	29-13/16	25-1/4	5.2	9.9	13.1	R40/50
3359	E ₁	29-13/16	26-1/4	5.4	10.2	13.5	R40/50
3365	E	29-13/16	29-1/4	6.1	11.4	14.9	R35/50
3371	E	29-13/16	32-1/4	6.7	12.6	16.3	R30
3377	E	29-13/16	35-1/4	7.3	13.7	17.6	R30
3735		33-13/16	14-1/4	3.3	6.4	9.0	R35/50
3741		33-13/16	17-1/4	4.1	7.7	10.5	R35/50
3747		33-13/16	20-1/4	4.8	9.0	12.1	R35/50
3753		33-13/16	23-1/4	5.5	10.4	13.6	R35/50
3757	E	33-13/16	25-1/4	5.9	11.3	14.6	R35/50
3759	E	33-13/16	26-1/4	6.2	11.7	15.2	R35/50
3765	E	33-13/16	29-1/4	6.9	13.0	16.7	R35/50
3771	E	33-13/16	32-1/4	7.6	14.4	18.2	R30
3777	E	33-13/16	35-1/4	8.3	15.7	19.8	R30

Unit	Egress	Clear Opening		Vent Area Ft ²	Visible Glass Ft ²	Frame Area Ft ²	Performance Class & Grade ⁽¹⁾
		Width (inches)	Height (inches)				
4153		37-13/16	23-1/4	6.1	11.7	15.1	R30
4157	E	37-13/16	25-1/4	6.6	12.7	16.2	R30
4159	E	37-13/16	26-1/4	6.9	13.2	16.8	R30
4165	E	37-13/16	29-1/4	7.7	14.7	18.5	R30
4171	E	37-13/16	32-1/4	8.5	16.2	20.2	R30



Shaded portions shows vent area.

Egress Notes:

E = Window meets minimum clear opening of 24" height, 20" width, and 5.7 ft². Check all applicable local codes for emergency egress requirements.

E₁ = Window meets minimum clear opening of 24" height, 20" width, and 5.0 ft². Check all applicable local codes for emergency egress requirements.

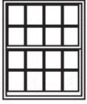
(1) Second number, where shown, indicates performance with DP Enhancement Kit installed.

To convert areas to square meters (m²), multiply square feet by 0.0929.

Miscellaneous Formulas (Equal Sash Only)

Vent Units	
Visible Glass	Width = Frame - 5" Height = (Frame - 6-5/16") / 2
Actual Glass	Width = Frame - 4" Height = (Frame - 4-5/16") / 2

DOUBLE-HUNG WINDOWS



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Fixed Units

Unit	Visible Glass Ft ²	Frame Area Ft ²	Performance Class & Grade
4141	9.0	11.7	R50
4147	10.5	13.4	R50
4153	12.0	15.1	R50
4157	13.0	16.2	R50
4159	13.5	16.8	R50
4165	15.0	18.5	R50
4171	16.5	20.2	R45/R50 _{TR}
4741	10.5	13.4	R50
4747	12.3	15.3	R50
4753	14.0	17.3	R50
4757	15.2	18.6	R50
4759	15.8	19.3	R45/R50 _{TR}
4765	17.5	21.2	R50
4771	19.3	23.2	R50
5341	12.0	15.1	R50
5347	14.0	17.3	R50
5353	16.0	19.5	R45/R50 _{TR}
5357	17.4	21.0	R50
5359	18.0	21.7	R50
5365	20.0	23.9	R50
5371	22.0	26.1	R50
5941	13.5	16.8	R50
5947	15.8	19.3	R45/R50 _{TR}
5953	18.0	21.7	R50
5957	19.5	23.4	R50
5959	20.3	24.2	R50
5965	22.5	26.6	R50
5971	24.8	29.1	R45/R50 _{TR}

Fixed Transoms

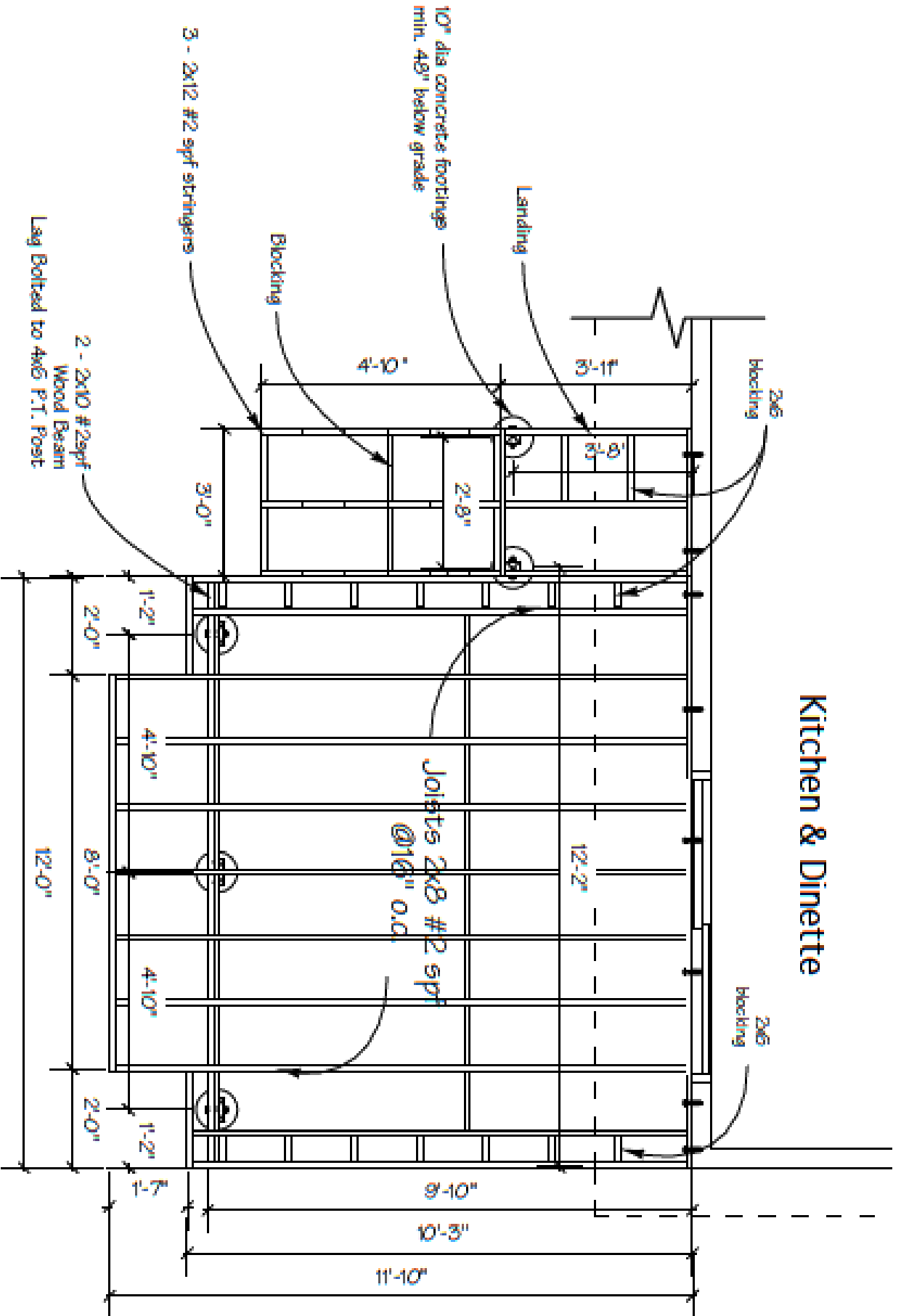
Unit	Visible Glass Ft ²	Frame Area Ft ²	Performance Class & Grade
2114	1.0	2.0	R50
2117	1.3	2.5	R50
2121	1.8	3.1	R50
2125	2.2	3.6	R50
2514	1.3	2.4	R50
2517	1.7	3.0	R50
2525	2.8	4.3	R50
2914	1.5	2.8	R50
2917	2.0	3.4	R50
2925	3.4	5.0	R50
2929	4.0	5.8	R50
3314	1.8	3.2	R50
3317	2.4	3.9	R50
3325	3.9	5.7	R50
3714	2.0	3.6	R50
3717	2.7	4.4	R50
3725	4.5	6.4	R50
4114	2.3	4.0	R50
4117	3.0	4.8	R50
4125	5.0	7.1	R50

TR = Second number shown requires tempered glass.

Miscellaneous Formulas (Equal Sash Only)

Fixed and Transom Units	
Visible Glass	Width = Frame – 4-15/16" Height = Frame – 4-15/16"
Actual Glass	Width = Frame – 4" Height = Frame – 4"

Kitchen & Dinette



Framing Plan

SCALE: 1/4" = 1'-0"



Residential Code - Plan Review

Owner: _____ Reviewed by: _____

Location: _____ Date: _____

Building Type: () One-Family () Two-Family () Townhouse

Type of Work: () New Construction () Existing Dwelling

**Table R301.2 (1)
CLIMATIC AND GEOGRAPHIC DESIGN CRITERIA**

Ground Snow Load (psf)	Wind Design				Seismic Design Category (SDC)	Subject to Damage From			Winter Design Temp (°F)	Ice Barrier Underlayment Required (Yes/No)	Flood Hazards Date of Entry	Air Freezing Index (°F)	Mean Annual Temp (°F)
	Speed (mph)	Topographic Effects	Special Wind Region	Wind-borne Debris Zone		Weathering	Frost Line Depth	Termites					

MANUAL J DESIGN CRITERIAⁿ

ELEVATION	LATITUDE	WINTER HEATING	SUMMER COOLING	ALTITUDE CORRECTION FACTOR	INDOOR DESIGN TEMP	DESIGN TEMP COOLING
COOLING TEMP DIFFERENCE	WIND VELOCITY HEATING	WIND VELOCITY COOLING	COINCIDENT WET BULB	DAILY RANGE	WINTER HUMIDITY	SUMMER HUMIDITY

Plan Review Form # 1 applies to ALL buildings regulated by the 2020 Residential Code of New York State

Forms # 2, 3W, 3M, and 3S are specific to the construction material used for the structural components of the building.

Form # 4 is for use with ALL roof coverings

Form # 5 is for use with Mechanical, Plumbing, Fuel Gas, and Energy Chapters

Form # 6 is for use with Appendix J – Existing Buildings and Structures

Check off each applicable form that will be used: Date Completed / Initial

- [] Form # 1 PLAN REVIEW FORM – MASTER _____
- [] Form # 2 PLAN REVIEW FORM – Foundations _____
- [] Form # 3W PLAN REVIEW FORM – Wood Frame _____
- [] Form # 3S PLAN REVIEW FORM – Steel Frame _____
- [] Form # 3M PLAN REVIEW FORM – Masonry/Concrete _____
- [] Form # 4 PLAN REVIEW FORM – Roof Covering _____
- [] Form # 5 PLAN REVIEW FORM – Mech/FG/Plumb/Elec/Energy _____
- [] Form # 6 PLAN REVIEW FORM –_Appendix J_ _____

	Item	Code Section	Required / Allowed	Proposed
1	Code Applicability State Agency Regulated Community Residence Hospice Conversion	R101.2 R101.4 R101.5/AJ701	Detached 1 – or 2 – Family Townhouse Maximum 3 Stories Above Grade Plane with Separate MOE Single Family to B & B	
2	Number of Stories Above Grade Plane Material Limitations: Wood Steel Exterior Concrete Walls	Table R602.3(5) R603.1.1 R608.2	3 Stories with 2 x 6 exterior walls 3 Stories 2 Stories Maximum	
3	Climatic & Geographic Design Criteria Wind limitations and wind design Where wind design is required per Wind Speed Topographic Wind Speed-Up Effects Special Wind Region Wind Borne Debris Region Sunrooms Exposure Category Seismic – 1 & 2 family in Seismic D ₀ , D ₁ Townhouses in Seismic C, D ₀ , D ₁ Seismic Design Category Snow Loads - Floodplain Construction Story Height	R301.2 R301.2.1.1 Fig R301.2(4)B Fig R301.2(4)A R301.2.1.5 Fig R301.2(4)A R301.2.1.2 R301.2.1.1.1 R301.2.1.4 R301.2.2 Fig R301.2(2) R301.2.3 Figure R301.2(5) R301.2.4 R301.3	Construction Method Limits WFCM, ICC 600, ASCE 7, AISI S230, IBC Exposure B, C, or D } Seismic provisions apply A, B, C, D ₀ ≤70 psf Prescriptive OK >70 psf must be Designed Flood Hazard Areas, R322 Floodways, ASCE 24 Wood, Steel stud, ICF, SIPs – 11' 7" (including floor assembly) Masonry 13' 7" (including floor assembly)	

	Item	Code Section	Required / Allowed	Proposed
4	<p>Live Loads</p> <p>Uninhabitable attics without storage ^b</p> <p>Uninhabitable attics w/limited storage ^{b, g}</p> <p>Habitable attics and attics w/ fixed stair</p> <p>Balconies (exterior) and decks ^e</p> <p>Fire escapes</p> <p>Guards and handrails ^d</p> <p>Guard in-fill components ^f</p> <p>Passenger vehicle garages ^a</p> <p>Rooms other than sleeping rooms</p> <p>Sleeping rooms</p> <p>Stairs</p>	<p>Table R301.5</p> <p>10 psf</p> <p>20 psf</p> <p>30 psf</p> <p>40 psf</p> <p>40 psf</p> <p>200 psf^h</p> <p>50 psf^h</p> <p>50 psf^a</p> <p>40 psf</p> <p>30 psf</p> <p>40 psf^c</p>	<p>(List areas to be considered)</p>	
5	<p>Fire Resistant Construction</p> <p>Exterior Walls</p> <p>Exterior Walls w/Sprinklers</p> <p>Detached Garage</p> <p>Townhouses</p> <p>Two-Family Dwellings</p> <p>Rated Penetrations</p> <p>Dwelling-Garage Opening/Penetration</p> <p>Dwelling-Garage Fire Separation</p> <p>Under-Stair Protection</p> <p>Foam Plastics</p> <p>Flame Spread/Smoke Developed</p> <p> Wall & Ceiling Finishes</p> <p> Insulation</p> <p>Fireblocking</p> <p>Draftstopping</p> <p>Fire Protection of Floors</p> <p>Combustible Insulation Clearance</p>	<p>R302</p> <p>Table R302.1(1)</p> <p>Table R302.1(2)</p> <p>R302.1, Exc 4</p> <p>R302.2</p> <p>R302.3</p> <p>R302.4</p> <p>R302.5</p> <p>R302.6</p> <p>R302.7</p> <p>R302.8</p> <p>R302.9</p> <p>R302.10</p> <p>R302.11</p> <p>R302.12</p> <p>R302.13</p> <p>R302.14</p>	<p><5' 1 hour rated from BOTH sides</p> <p>0' if rated from outside, 3' if unrated</p> <p>2' from line 4" eave maximum</p> <p>Common wall – 1 hour S, 2 hours NS</p> <p>Wall/Floor separation – 1 hour with exc</p> <p>Through/membrane penetration protection</p> <p>1 3/8" solid wood / steel or 20 minute rated</p> <p>Table 302.6</p> <p>Enclosed space 1/2" Gypsum board</p> <p>See R316</p> <p>Flame 200 or less, smoke 450 or less</p> <p>Flame 25 or less, smoke 450 or less</p> <p>At floor and ceiling levels, horizontally ≤10'</p> <p>≤1000 s.f., equally divided</p> <p>1/2" gypsum or 5/8" wood panel</p> <p>3" minimum from luminaires, motors, other heat sources</p>	
	Item	Code Section	Required / Allowed	Proposed

	Item	Code Section	Required / Allowed	Proposed
7	<p>Minimum Room Areas</p> <p>Minimum area</p> <p>Minimum dimensions</p> <p>Height effect on room area</p> <p>Ceiling Height</p> <p>Minimum height</p> <p>Basements</p>	<p>R304</p> <p>R304.1</p> <p>R304.2</p> <p>R304.3</p> <p>R305</p> <p>R305.1</p> <p>R305.1.1</p>	<p>70 square feet (except kitchens)</p> <p>7' in any horizontal direction</p> <p>Under sloped ceiling, <5' high does not contribute to room area</p> <p>Habitable spaces, hallways 7' 0" min</p> <p>Bath/toilet/laundry rooms 6' 8" min</p> <p>W/out habitable space/hallway 6' 8" min</p>	
8	<p>Sanitation</p> <p>Toilet facilities</p> <p>Kitchen</p> <p>Sewage disposal</p> <p>Water supply to fixtures.</p> <p>Toilet, Bath and Shower Spaces</p> <p>Space required</p> <p>Bathtub and shower spaces</p>	<p>R306</p> <p>R306.1</p> <p>Exc</p> <p>R306.2</p> <p>Exc</p> <p>R306.3</p> <p>R306.4</p> <p>R307</p> <p>R307.1</p> <p>R307.2</p>	<p>Min 1 water closet, lavatory, tub/shower</p> <p>Owner occupied SFD</p> <p>Min kitchen area with sink</p> <p>Owner occupied SFD</p> <p>Sanitary sewer or approved private</p> <p>Approved source, hot and cold water</p> <p>Per Figure R307.1</p> <p>Non-absorbent surface min. 6' above floor</p>	
9	<p>Glazing</p> <p>Identification</p> <p>Human impact loads</p> <p>Impact test</p> <p>Hazardous locations</p> <p>Glazing in doors</p> <p>Glazing adjacent to doors</p> <p>Glazing in windows</p> <p>Glazing in guards and railings</p> <p>Glazing and wet surfaces</p> <p>Glazing adjacent to stairs and ramps</p> <p>Glazing adjacent to bottom stair landing</p>	<p>R308</p> <p>R308.1</p> <p>R308.3</p> <p>R308.3.1</p> <p>Exception</p> <p>R308.4</p> <p>R308.4.1</p> <p>R308.4.2</p> <p>R308.4.3</p> <p>R308.4.4</p> <p>R308.4.5</p> <p>R308.4.6</p> <p>R308.4.7</p>	<p>Glazing in hazardous locations shall be provided with a manufacturer's designation</p> <p>CPSC 16 CFR 1201 and Table R308.3.1(1)</p> <p>ANSI Z97.1 and Table R308.3.1(2)</p>	
10	<p>Garages and Carports</p> <p>Floor surface</p> <p>Carports</p> <p>Flood hazard areas</p> <p>Automatic garage door openers</p> <p>Fire sprinklers</p>	<p>R309</p> <p>R309.1</p> <p>R309.2</p> <p>R309.3</p> <p>R309.4</p> <p>R309.5</p>	<p><i>Approved</i> noncombustible material, sloped</p> <p>Open on not less than 2 sides</p> <p>Exception allows asphalt at ground level</p> <p>To or above design flood elevation or</p> <p>At or above grade on not less than 1 side</p> <p>Listed and labeled per UL 325</p> <p>Wall design per Table R302.1(2), footnote a</p>	

11	Emergency Escape & Rescue Openings Emer. escape & rescue opening required Emer. Escape and rescue openings Minimum opening area Window sill height Window wells Ladder and steps Drainage EERO under decks and porches Emer. Escape and rescue doors Minimum door opening size Bulkhead enclosures Bars, grilles, covers and screens	R310 R310.1 R310.2 R310.2.1 R310.2.2 R310.2.3 R310.2.3.1 R310.2.3.2 R310.2.4 R310.3 R310.3.1 R310.3.2 R310.4	Basement, habitable attic, sleeping rooms Minimum dimensions: 5.7 s.f. (exception for grade level 5.0 s.f.) Net clear height 24", net clear width 20" Not more than 44" above the floor Min. 9 s.f. total, min. 36" either dimension Required for wells deeper than 44" Required for all window wells Minimum 36" clear height Side hinged or slider permitted Per R310.2.1 (above) Clear opening at least equal to door Permitted with limits Releasable or removable	
12	Means of Egress Means of egress Egress door Floors and landings at Exterior doors Floor elevation at required egress door Floor elevation at other exterior doors Vertical egress Construction Hallways Stairways Width Headroom Vertical rise Walkline Stair treads and Risers Landings for stairways Stairway walking surface Handrails Illumination Ramps	R311 R311.1 R311.2 R311.3 R311.3.1 R311.3.2 R311.4 R311.5 R311.6 R311.7 R311.7.1 R311.7.2 R311.7.3 R311.7.4 R311.7.5 R311.7.6 R311.7.7 R311.7.8 R311.7.9 R311.8	Continuous unobstructed path Side hinged, ≥32" clear opening, 78" height Min 36" depth, max 2% slope Max 1.5" below threshold, Exception on exterior side max 7.75" Habitable levels require ramp or stairs Exterior structures positively anchored Minimum 3' in width Minimum 36" clear above handrails Minimum 6' 8" Maximum 12' 3" without landing Maximum 8 1/4" riser, minimum 9" depth Top and bottom, minimum width/depth Maximum 2% slope 34" to 38" high, Continuous, graspable Maximum slope 8% for egress, 12% other,	
13	Guards and Window Fall Protection Guards Where Required Height Opening limitations Window fall protection Window Sills Window opening control devices	R312 R312.1 R312.1.1 R312.1.2 R312.1.3 R312.2 R312.2.1 R312.2.2	Open sided walking surfaces >30" Not less than 36"; 2 exceptions for stairs Less than 4" clear opening; 2 exceptions <24" above floor & >72" above grade Max 4" opening or ASTM F2090 device ASTM F2090 listed device	

14	Automatic Fire Sprinklers	R313	
	Townhouses	R313.1	3 Stories above grade plane – P2904 / 13D
	One and Two-Family Dwellings	R313.2	3 Stories above grade plane – P2904 / 13D
	Smoke Alarms	R314	UL 217 listed Smoke Alarms
	Where required	R314.2.1	Combination units UL 217 & UL 2034 All new dwelling units
	Alterations, repairs and additions	R314.2.2	Per Appendix J
	Location	R314.3	In each sleeping room; Outside sleeping areas; Each story including basements and habitable attics Min. 3' from bathroom with tub or shower Ionization alarm – min. 20' horizontally With alarm silencing – min. 10' horizontally Photoelectric – min. 6' horizontally
	Near cooking appliances	R314.3.1	Mult. alarms in a dwelling unit interconnect Combination Alarms permitted Hard wired, battery back-up Exc. For buildings without comm. power Exc. For existing, see Appendix J
	Interconnection	R314.4	Permitted alternative provided: Per NFPA 72 – Household fire warning And UL 268 listed Located per R314.3 Permanent fixture, owned by homeowner Combo units listed UL 268 and UL 2075
	Combination Alarms	R314.5	
	Power source	R314.6	
	Fire Alarm Systems	R314.7	
	Carbon Monoxide Alarms	R315	Per Fire Code Section 915.
	Residential buildings	FC915	Each story with a CO source, within 15' of sleeping rooms Naturally durable or preservative treated
15	Protection of Wood & Wood Based Products Against Decay	R317	
	Locations required	R317.1	(Generally) In contact with or close proximity to: Earth, concrete, or masonry. Seven specific locations listed.
	Field treatment	R317.1.1	Field cut ends, notches, drilled holes of PT wood treated per AWPA M4
	Ground contact	R317.1.2	Ground contact or embedded in concrete – Use <u>pressure</u> -preservative-treated
	Geographical areas	R317.1.3	Local conditions/experience
	Wood columns	R317.1.4	Naturally decay resistant or <u>pressure</u> -preservative-treated
	Quality mark	R317.2	3 Exceptions
	Fasteners and connectors	R317.3	Material specific fastener coatings
	Plastic composites	R317.4	See R507.3
	Protection Against Termites	R318	Six listed methods – Use any one or any combination

16	Flood-Resistant Construction	R322	
	Alternative provisions	R322.1.1	
	Structural systems	R322.1.2	
	Flood-resistant construction	R322.1.3	
	Establishing the design flood elevation	R322.1.4	
	Determination of Design Flood Elevation	R322.1.4.1	
	Energy Storage Systems	R327	

COMMENTS:

Residential Code - Foundation Plan Review

Form # 2

Owner: _____

Reviewed by: _____

Location: _____

Date: _____

	Item	Code Section	Required / Allowed	Proposed
1	Foundations	R401		
	Soil Test Required	R401.4	Expansive, compressible, shifting, or other questionable soils	
	Presumptive Load Bearing value Compressible or shifting soil	Table R401.4.1 R401.4.2	Known, useable soils, classify Removed and not used as backfill	
	Materials	R402		
	Wood	R402.1	Fasteners, treatment	
	Concrete	R402.2 Table R402.2	Compressive strength Weathering Potential Air entrainment	

2	<p>Footings General</p> <p>Minimum size</p> <p>Continuous footings in Seismic Design Category D₀, D₁, D₂</p> <p>Footing & Stem Wall Reinforcing in Seismic Design Category D₀, D₁, D₂</p> <p>Minimum depth of footing</p> <p>Slope of footing</p> <p>Foundation Anchorage</p> <p>On or adjacent to slopes</p> <p>Foundations on expansive soils</p> <p>Footings for Wood Foundations</p> <p>Shallow Frost-Protected Foundations</p> <p>Footings for Pre-Cast Concrete Foundations Crushed Stone Footing</p> <p>Concrete Footing</p>	<p>R403 R403.1</p> <p>R403.1.1</p> <p>Tables R403.1(1) R403.1(2) R403.1(3) Figure R403.1(1)</p> <p>R403.1.2</p> <p>R403.1.3</p> <p>Figure R403.1.3</p> <p>R403.1.4</p> <p>R403.1.5</p> <p>R403.1.6</p> <p>R403.1.7</p> <p>R403.1.8</p> <p>Figure R403.1(2) or Figure R403.1(3)</p> <p>Figure R403.3(1) & Table R403.3(1)</p> <p>R403.4</p> <p>R403.4.1 & Table R403.4 R403.4.2 See R403.1.1</p>	<p>Continuous Minimum width, thickness per Tables, (1) For light frame (2) Veneer or hollow block (3) Concrete/solid masonry Minimum projection factor 2" But shall not exceed thickness</p> <p>Table R301.2(1) Bottom ≤ 10% slope Top of footing level Stepped footing requires design Maximum 6' on center Within 12" of ends Minimum of 2 per plate section Figure R403.1.7.1</p> <p>Design per IBC Section 1808.6</p>	
3	<p>Foundation and Retaining Walls</p> <p>Design required</p> <p>Prescriptive allowed where laterally supported at top and bottom of wall</p> <p>Masonry foundation walls</p> <p>Concrete foundation walls</p> <p>Reinforcement Horizontal</p> <p>Vertical</p> <p>Alternate sizes/grades of re-bar</p> <p>Height above finished grade</p> <p>Backfill placement</p> <p>Wood foundation walls</p>	<p>R404</p> <p>R404.1.1</p> <p>R404.1.2</p> <p>Tables R404.1.1(1) Thru R404.1.1(4)</p> <p>R404.1.3</p> <p>R404.1.3.2 Table R404.1.2(1)</p> <p>Tables R404.1.2(2) Thru R404.1.2(8)</p> <p>Table R404.1.2(9)</p> <p>R404.1.6</p> <p>R404.1.7</p> <p>R404.2</p>	<p>Subject to hydrostatic pressure or No lateral support</p> <p>Soil classification Wall height Height of unbalanced backfill</p> <p>≤ 8' wall height, minimum of 2 > 8' Wall height, minimum of 3</p> <p>Min. 4" w/ masonry veneer above Min. 6" elsewhere Sufficient strength and Anchored at top or braced</p>	

	[NY] Ungraded sawn lumber	R404.2.1, exc.	Allowance for ungraded lumber	
	Wood sill plates	R404.3	Minimum 2 x 4 nominal	
	Retaining walls	R404.4		
	Pre-cast Concrete foundation walls	R404.5		
	Foundation Drainage	R405 R405.1, exception Table R405.1	Required Exception for Group I soils	
	Foundation Waterproofing and Dampproofing	R406.1 R406.2	Dampproofing required High ground water requires Waterproofing	
	Columns	R407	Protected and restrained	
	Under-floor space (crawl space)	R408	Ventilate and Provide access	

COMMENTS OR QUESTIONS:

Residential Code - Wood Frame Plan Review

Form # 3W

	Item	Code Section	Required / Allowed	Proposed
1	Wood Floor Framing	R502		
	General	R502.1		
	Sawn Lumber [NY] Exception	R502.1.1	Grade mark or Certificate per NYS	
	Preservative Treated Lumber	R502.1.1.1	Identified per R317.2	
	End-Jointed Lumber	R502.1.1.2	With Grade Mark, OK for structural	
	Prefabricated Wood I-Joists	R502.1.2	Per ASTM D 5055	
	Structural Glued Laminated Timbers	R502.1.3	ANSI/AITC A1901.1 and ASTM D 3737	
	Structural Log Members	R502.1.4	Per ICC-400	
	Structural Composite Lumber	R502.1.5	Per ASTM D 5456	
	Cross Laminated Timbers	R502.1.6	Per ANSI/APA PRG 320	
Engineered Wood Rim Board	R502.1.7	Per ANSI/APA PRR 410 or ASTM D 7672		

2	Design and Construction Framing at Braced Wall Lines Blocking and Subflooring	R502.2 R502.2.1 R502.2.2	Figure R502.2 Per R602.10.8	
3	Allowable Joist Spans Sleeping areas and attic joists Other floor joists Floor cantilevers Balcony Joists Under Bearing Partitions	R502.3 R502.3.1 R502.3.2 R502.3.3 R502.4	(Grades/species/conditions not listed, AWC STJR) Table R502.3.1(1) Table R502.3.1(2) Light frame walls and roof only, Table R502.3.3(1) Exterior balcony, Table R502.3.3(2) Double joist (see Figure R502.2)	
4	Allowable Girder and Header Spans (Fabricated from dimension lumber) Bearing (joists, beams, girders) Floor systems Joist framing Lateral Restraint at Supports Bridging Cutting, Drilling, Notching Sawn lumber Engineered wood products Fastening Framing of Openings	R502.5 R502.6 R502.6.1 R502.6.2 R502.7 R502.7.1 R502.8 R502.8.1 R502.8.2 R502.9 R502.10	Table R602.7(1) Exterior bearing walls Table R602.7(2) Interior bearing walls Table R602.7(3) Open porches 1.5" on wood/metal, 3" on masonry/concrete Lap joist 3" min. or use splice plate Flush girder; use hangers or ribbon nominal 2" x 2" Full depth blocking at ends, to band joist or header Joists larger than 2 x 12, Not to exceed limits of Figure R502.8 Per Manufacturers Specification or RDP Per Table R602.3(1)	
5	Wood (Floor) Trusses Design Bracing Alterations to trusses Truss design drawings	R502.11 R502.11.1 R502.11.2 R502.11.3 R502.11.4	In accordance with accepted practice Metal plate connected comply with ANSI/TPI 1 Per construction documents or manufacturer Per RDP Submitted prior to installation for review by AHJ Minimum details as specified in Code	
6	Draftstopping Required Fireblocking Required	R502.12 R502.13	Per R302.12 Per R302.11	

7	<p>Floor Sheathing</p> <p>Lumber sheathing</p> <p>End joints</p> <p>Wood structural panel sheathing</p> <p>Identification and grade</p> <p>Subfloor and combined subfloor underlayment</p> <p>Allowable spans</p> <p>Installation</p> <p>Particleboard</p> <p>Identification and grade</p> <p>Floor underlayment</p> <p>Installation</p>	<p>R503</p> <p>R503.1</p> <p>R503.1.1</p> <p>R503.2</p> <p>R503.2.1</p> <p>R503.2.1.1</p> <p>R503.2.2</p> <p>R503.2.3</p> <p>R503.3</p> <p>R503.3.1</p> <p>R503.3.2</p> <p>R503.3.3</p>	<p>Spans per Table R503.1</p> <p>Occur over supports</p> <p>Identified by Grade Mark or Certificate of Inspection</p> <p>Grade per Table R503.2.1.1(1), sanded use Table R503.2.1.1(2)</p> <p>Per Table R503.2.1.1(1) or APA E30</p> <p>Sanded use Table R503.2.1.1(2)</p> <p>Attach per Table R602.3(1)</p> <p>Grade mark or certificate per ANSI A208.1</p> <p>Type PBU, minimum ¼" thickness</p> <p>Per manufacturer and Table R602.3(1)</p>	
8	<p>Pressure Preservative-Treated Wood Floors (On Ground)</p> <p>Concrete floors (on ground)</p> <p>General</p> <p>Site preparation</p> <p>Base</p> <p>Vapor retarder</p> <p>Reinforcement support</p>	<p>R504</p> <p>R506</p> <p>R506.1</p> <p>R506.2</p> <p>R506.2.2</p> <p>R506.2.3</p> <p>R506.2.4</p>	<p>Minimum 3 ½" thick, compressive strength per R402.2</p> <p>Cleared of vegetation, top soil, foreign material</p> <p>4" granular base where below grade</p> <p>Exception: Well drained soils (Group I)</p> <p>6 mil poly or approved alternate</p> <p>Supported to remain between center and upper 1/3</p>	
9	<p>Exterior Decks</p> <p>Decks</p> <p>Materials</p> <p>Wood Materials</p> <p>Plastic Composite</p> <p>Fasteners and Connectors</p> <p>Flashing</p> <p>Alternate Material</p> <p>Footings</p>	<p>R507</p> <p>R507.1</p> <p>R507.2</p> <p>R507.2.1</p> <p>R507.2.2</p> <p>R507.2.3</p> <p>R507.2.4</p> <p>R507.2.5</p> <p>R507.3</p>	<p>Positively anchored, no 'toenails' or nails subject to ready withdrawal, visible for inspection or self-supporting. Cantilevers to resist full live load</p> <p>Grade # 2 or better preservative treated or naturally durable</p> <p>ASTM D-7032</p> <p>Per R317.3 and Table R507.2.3</p> <p>Metal or <i>approved</i> equal</p> <p>Capable of accommodating all loads</p>	

	<p>Minimum size</p> <p>Minimum Depth</p> <p>Deck Posts</p> <p>Deck Post to Footing connection</p> <p>Deck Beams</p> <p>Deck Beam Bearing</p> <p>Deck Beam Connection to Supports</p> <p>Deck Joists</p> <p>Deck Joist Bearing</p> <p>Deck Joist Lateral restraint</p> <p>Decking</p> <p>Vertical and Lateral Support</p> <p>Vertical/Lateral Support at Band Joist</p>	<p>R507.3.1</p> <p>R507.3.2</p> <p>R507.4</p> <p>R507.4.1</p> <p>R507.5</p> <p>R507.5.1</p> <p>R507.5.2</p> <p>R507.6</p> <p>R507.6.1</p> <p>R507.6.2</p> <p>R507.7</p> <p>R507.8</p> <p>R507.9</p>	<p>Per Table R507.3.1</p> <p>Below Frost with 2 exceptions</p> <p>Per Table R507.4,</p> <p>Figure R507.4.1, provide lateral restraint</p> <p>Per Table R507.5</p> <p>Figures R507.5.1(1) & R507.5.1(2)</p> <p>Capable of transferring vertical loads, resisting horizontal</p> <p>Per figure R507.6 and Table R507.6</p> <p>1 ½" on wood, 3" on Concrete or Masonry</p> <p>Joist ends and bearing locations to prevent rotation</p> <p>Per Table R507.7</p> <p>Positively attached, no toenails/straight nails, inspectable</p> <p>Ledgers or <i>approved</i> alternatives</p>	
10	<p>Wood Wall Framing</p> <p>General</p> <p>Sawn Lumber</p> <p>End-Jointed Lumber</p> <p>Structural Glued-Laminated Timbers</p> <p>Structural Log Members</p> <p>Structural Composite Lumber</p> <p>Cross-Laminated Timber</p> <p>Engineered Wood Rim Board</p> <p>Wood Structural Panels</p> <p>Particleboard</p> <p>Fiberboard</p> <p>Structural Insulated Panels</p> <p>Grade</p>	<p>R602</p> <p>R602.1</p> <p>R602.1.1</p> <p>Exception</p> <p>R602.1.2</p> <p>R602.1.3</p> <p>R602.1.4</p> <p>R602.1.5</p> <p>R602.1.6</p> <p>R602.1.7</p> <p>R602.1.8</p> <p>R602.1.9</p> <p>R602.1.10</p> <p>R602.1.11</p> <p>R602.2</p> <p>Exception</p>	<p>Identified by grade mark or Certificate of Inspection</p> <p>Sold directly to end user, form submitted by Sawyer that quality meets #2 grade or better per DOC PS 20</p> <p>Grade mark, if rating required must state HRA in mark</p> <p>Per ANSI/AITC A 190.1 and ASTM D 3737</p> <p>Per ICC 400</p> <p>Per ASTM D 5456</p> <p>Per ANSI/APA PRG 320</p> <p>Per ANSI/APA PRR 410 and marked or ASTM D 7672</p> <p>Grade mark or certificate of inspection</p> <p>Per ANSI A208.1</p> <p>Per ASTM C 208</p> <p>Per ANSI/APA PRS 610.1</p> <p>Minimum # 3 standard or stud grade</p> <p>Not supporting a floor or non-bearing, utility permitted</p>	
11	<p>Design and Construction</p> <p>Stud size, height, spacing</p> <p>Top plate</p>	<p>R602.3</p> <p>R602.3.1</p> <p>Exceptions</p> <p>R602.3.2</p> <p>Exception</p>	<p>Figures R602.3(1) and (2) or AWC NDS;</p> <p>Fastened per Tables R602.3(1) through (4);</p> <p>Sheathing per Table R301.2(2) adjusted per Table R301.2(3) and Table R602.3(3).</p> <p>Table R602.3(5)</p> <p>1 – Utility grade at 16" o.c., max 8' for exterior or load bearing, 10' for interior non-load bearing</p> <p>2 – Snow 25 p.s.f. or less and V_{ult} 130 or less, may allow longer wall studs</p> <p>3 – 12' per Table R602.3(6), with limits</p> <p>Double, lapped corners, end joints staggered</p> <p>May allow single top plate with conditions</p>	

	<p>Bearing Studs</p> <p>Bottom (sole) plate</p> <p>Braced wall panel uplift load path</p>	<p>R602.3.3 Exceptions</p> <p>R602.3.4</p> <p>R602.3.5</p>	<p>Rafters placed within 5" of stud below</p> <p>Double 2 x 6, double 3 x 4 or reinforced top plate</p> <p>2-by or larger, full width of studs</p> <p>Exterior walls supporting roof (including stories below)</p>	
12	<p>Interior Load-Bearing Walls</p> <p>Interior nonbearing walls</p> <p>Drilling and notching of studs</p> <p>Drilling and notching top plate</p> <p>Headers</p> <p>Wood structural panel box headers</p> <p>Fireblocking required</p> <p>Cripple walls</p>	<p>R602.4</p> <p>R602.5</p> <p>R602.6</p> <p>R602.6.1</p> <p>R602.7</p> <p>R602.7.3</p> <p>R602.8</p> <p>R602.9</p>	<p>Constructed, framed and fireblocked as specified for exterior walls</p> <p>Minimum 2 x 3 @ 24"o.c.;</p> <p>If not in a braced wall line, allows 2 x 4 flat @ 16"o.c.</p> <p>Minimum single top plate, and fireblocked (R302.11)</p> <p>Figures R602.6(1) and (2)</p> <p>Exceeding 50% of width, add strap per Figure R602.6.1</p> <p>Spans per Tables R602.7(1), (2), and (3)</p> <p>Figures R602.7.1(1) and (2)</p> <p>Figure R602.7.3 and Table R602.7.3</p> <p>Per R302.11 (see form 1 page 3)</p> <p>Studs not smaller than wall above</p>	
13	<p>Wall Bracing</p> <p>Braced Wall Lines</p> <p>Length of a BWL</p> <p>Offsets along a BWL</p> <p>Spacing of BWL</p> <p>Angled walls</p> <p>Braced wall panels (BWP)</p> <p>Required length of Bracing</p> <p>Construction Methods for BWP</p> <p>Minimum Length of BWP</p> <p>Construction of (narrow panels)</p>	<p>R602.10</p> <p>R602.10.1</p> <p>R602.10.1.1</p> <p>R602.10.1.2</p> <p>R602.10.1.3</p> <p>R602.10.1.4</p> <p>R602.10.2</p> <p>R602.10.3</p> <p>R602.10.4</p> <p>R602.10.5</p> <p>R602.10.6</p>	<p>Buildings braced in accordance with R602.10</p> <p>OR R602.12 when applicable.</p> <p>Shall be designated; straight lines</p> <p>Distance between intersecting perpendicular BWL's</p> <p>≤ 4' to either side of BWL (Figure R602.10.1.1)</p> <p>Per Table R602.10.1.3</p> <p>Intermediate BWL through interior permitted</p> <p>≤ 8' permitted, if at corner measure to projected corner</p> <p>> 8' treat as separate BWL</p> <p>Full height, no offsets, per methods provided</p> <p>Based on Continuous vs Intermittent, wind, seismic</p> <p>Table R602.10.4</p> <p>Generally 3' for Continuous, 4' for Intermittent</p> <p>Per associated Figures</p>	

14	<p>Simplified Wall Bracing</p> <p>Circumscribed rectangle</p> <p>Sheathing materials</p> <p>Bracing unit</p> <p>Multiple bracing units</p> <p>Number of bracing units</p> <p>Distribution of bracing units</p> <p>Narrow panels</p> <p>Method CS-G</p> <p>Method CS-PF</p> <p>Methods ABW, PFH, PFG</p> <p>Lateral support</p> <p>Stem walls</p>	<p>R602.12</p> <p>R602.12.1</p> <p>R602.12.2</p> <p>R602.12.3</p> <p>R602.12.3.1</p> <p>R602.12.4</p> <p>R602.12.5</p> <p>R602.12.6</p> <p>R602.12.6.1</p> <p>R602.12.6.2</p> <p>R602.12.6.3</p> <p>R602.12.7</p> <p>R602.12.8</p>	<p>Must meet <u>all</u> 8 criteria listed</p>	
15	<p>Wall Covering</p> <p>Horizontal Gyp Bd Diaphragm Ceilings</p> <p>Water-resistant Gypsum Backing Board</p> <p>Limitations</p> <p>Ceramic tile</p> <p>Backer boards</p> <p>Other finishes</p> <p>Wood shakes and shingles</p> <p>Vapor Retarders</p> <p>Class III vapor retarders</p> <p>Material vapor retarder class</p> <p>Minimum clear airspace and vented openings for vented cladding</p> <p>Exterior Covering</p> <p>General</p> <p>Water resistance</p> <p>Wind resistance</p> <p>Water-resistive Barrier</p> <p>Nominal thickness and attachments</p> <p>Soffit Installation</p> <p>Wind Limitations</p> <p>Fasteners</p> <p>Min. Fastener Length & Penetration</p> <p>Flashing</p>	<p>Chapter 7</p> <p>R702.3.6</p> <p>R702.3.7</p> <p>R702.3.7.1</p> <p>R702.4</p> <p>R702.4.2</p> <p>R702.5</p> <p>R702.6</p> <p>R702.7</p> <p>R702.7.1</p> <p>R702.7.2</p> <p>R702.7.3</p> <p>R703</p> <p>R703.1</p> <p>R703.1.1</p> <p>R703.1.2</p> <p>R703.2</p> <p>R703.3</p> <p>R703.3.1</p> <p>R703.3.2</p> <p>R703.3.3</p> <p>R703.3.4</p> <p>R703.4</p>	<p>Per Table R702.3.6, Installed perpendicular to framing, Perimeter edges blocked, Blocked at top plate of walls, Used as a backer for non-absorbent finish (i.e. Tile), Per ASTM C 1396, 1178, or 1278</p> <p>Installed per listed ASTM standard(s)</p> <p>Backer materials per Table R702.4.2, & manufacturer</p> <p>Wood veneer and hardboard paneling – 16" o.c. framing</p> <p>Direct attachment to studs or with furring strips</p> <p>Class I or II in zones 5 and 6, with 3 exceptions</p> <p>Permitted per Table R702.7.1**</p> <p>Brick veneer clear airspace per Table R703.8.4</p> <p>Other <i>approved</i> vented claddings</p> <p>Shall provide a weather resistant wall envelope</p> <p>Shall include flashing per R703.4</p> <p>Prevent accumulation of water within the wall</p> <p>Capable of resisting wind loads per Chapter 3</p> <p>One layer #15 asphalt felt or other approved WRB</p> <p>Per Table R703.3(1) and material specific requirements</p> <p>Wood or Vinyl (circle type)</p> <p>Per Table R703.3.1</p> <p>Per Table R703.3(1); Corrosion resistant; ASTM F 1167</p> <p>Per Table R703.3(1), or as required for specified</p> <p>Corrosion resistant; applied shingle fashion</p>	

16	<p>Specific Exterior Covering Materials</p> <p>Wood, Hardboard, Wood Structural Panel Siding Vertical wood siding Panel siding Horizontal wood siding Wood Shakes and Shingles Application Weather exposure Attachment Bottom courses Exterior Plaster Lath Plaster Weep screeds Water resistive barriers Application (of plaster) Curing</p>	<p>R703.5</p> <p>R703.5.1</p> <p>R703.5.2</p> <p>R703.5.3</p> <p>R703.6</p> <p>R703.6.1</p> <p>R703.6.2</p> <p>R703.6.3</p> <p>R703.6.4</p> <p>R703.7</p> <p>R703.7.1</p> <p>R703.7.2</p> <p>R703.7.2.1</p> <p>R703.7.3</p> <p>R703.7.4</p> <p>R703.7.5</p>	<p>Nailed to nailing strips or blocking $\leq 24"$ o.c. $3/8"$ not direct to studs $\geq 16"$ o.c. where parallel; Per manufacturer or minimum $1"$ lap or $1/2"$ if rabbeted; <i>CSSB Grading Rules for Wood Shakes and Shingles</i> Specific installation details, Table R703.6.1 Shall not exceed Table R703.6.1 Fastener types, sizes and coatings specified Shall be doubled Install per ASTM C 926, ASTM C 1063, and this Code Lath attachment specified based on material Based on backing material Minimum $0.019"$ corrosion resistant or plastic; At least equivalent to 2 layers of Grade D paper Each coat kept moist for at least 48 hours prior to next Finish coat not less than 7 days after preceding coat.</p>	
	<p>Anchored Stone and Masonry Veneer Interior veneer support Exterior veneer support Lintels Allowable span Maximum span Anchorage Size and spacing Veneer ties around openings Grout fill Exterior insulation and finish systems (EIFS) With drainage Fiber cement siding Panel siding Lap siding Vinyl Siding Installation Over Foam plastic sheathing Adhered masonry veneer installation Insulated vinyl siding Polypropylene siding Cladding attachment over foam</p>	<p>R703.8</p> <p>R703.8.1</p> <p>R703.8.2</p> <p>R703.8.3</p> <p>R703.8.3.1</p> <p>R703.8.3.2</p> <p>R703.8.4</p> <p>R703.8.4.1</p> <p>R703.8.4.1.1</p> <p>R703.8.4.2</p> <p>R703.9</p> <p>R703.9.1</p> <p>R703.10</p> <p>R703.10.2</p> <p>R703.11</p> <p>R703.11.1</p> <p>R703.11.2</p> <p>R703.12</p> <p>R703.13</p> <p>R703.14</p> <p>R703.15</p> <p>R703.16</p> <p>R703.17</p>	<p>Per this Chapter, Table R703.3(1) and Figure R703.8; Interior veneer permitted to be supported on floor framing Details based on weight of veneer and method of support Corrosion resistant or coated metal, bearing length $\geq 4"$ Per Table R703.8.3.1 Maximum $18' 3"$, per Figure R703.8.3.2 and this section Minimum tie details and per Table R703.8.4 Per R703.7.3</p>	

17	<p>Roof-Ceiling Construction</p> <p>Wood Roof Framing</p> <p> Sawn lumber [NY] Exception</p> <p> Structural Glued Laminated Timber</p> <p> Structural Log Members</p> <p> Structural Composite Lumber</p> <p> Fire-Retardant Treated Wood</p> <p> Cross-Laminated Timber</p> <p> Engineered Wood Rim Board</p> <p> Prefabricated Wood I-Joists</p>	<p>Chapter 8</p> <p>R802</p> <p>R802.1.1</p> <p>R802.1.2</p> <p>R802.1.3</p> <p>R802.1.4</p> <p>R802.1.5</p> <p>R802.1.6</p> <p>R802.1.7</p> <p>R802.1.8</p>	<p>Per this section</p> <p>Grade stamped or certified</p> <p> Exception for ungraded lumber</p> <p> Certificate from sawyer</p> <p>Per ANSI/AITC A 190.1 and ASTM D3737</p> <p>Per ICC 400</p> <p>Per ASTM D 5456</p> <p>Flame spread index of 25 or less, per ASTM E 84 or UL 723</p> <p>Per ANSI/APA PRG 320</p> <p>Per ANSI/APA PRR 410 or Evaluated per ASTM D 7672</p> <p>Per ASTM D-5055</p>	
18	<p>Design and construction</p> <p>Ridge</p> <p>Rafters</p> <p> Rafter Size</p> <p> Framing Details</p> <p> Hips and Valleys</p> <p> Rafter Supports</p> <p> Purlins</p> <p> Collar Ties</p> <p>Ceiling Joists</p> <p> Ceiling joist size</p> <p> Ceiling joist and rafter connections</p> <p>Bearing</p> <p>Cutting, drilling, notching</p> <p> Sawn lumber</p> <p> Cantilevered portions of rafters</p> <p> Ceiling joist taper cut</p> <p> Engineered wood products</p> <p>Lateral support</p> <p> Bridging</p> <p>Framing of openings</p>	<p>R802.2</p> <p>R802.3</p> <p>R802.4</p> <p>R802.4.1</p> <p>R802.4.2</p> <p>R802.4.3</p> <p>R802.4.4</p> <p>R802.4.5</p> <p>R802.4.6</p> <p>R802.5</p> <p>R802.5.1</p> <p>R802.5.2</p> <p>R802.6</p> <p>R802.7</p> <p>R802.7.1</p> <p>R802.7.1.1</p> <p>R802.7.1.2</p> <p>R802.7.2</p> <p>R802.8</p> <p>R802.8.1</p> <p>R802.9</p>	<p>Min. slope 3:12 per Chap.8 or NDS, and Table R602.3(1)</p> <p>Ridge board min 1" nominal</p> <p>Tables 802.4.1(1) through (8), or AWC STJR</p> <p>Offset by max 1 ½" to ridge, or use gusset or ridge strap</p> <p>Braced to bearing</p> <p>Slope <3/12, design ridge as beam, bearing per R802.6</p> <p>Per Figure R802.4.5, braced to bearing</p> <p>Upper 1/3 of span, minimum 1 x 4 @ maximum 4' o.c.</p> <p>Continuous or joined per Table R802.5.2</p> <p>Per Tables R802.5.1(1) through (2) or AWC STJR</p> <p>1 ½" min on wood, 3" min on masonry/concrete</p> <p>Per this section</p> <p> Per section R502.8.1 (floors)</p> <p> Minimum 3 ½" depth remaining per Figure R802.7.1.1</p> <p> Maximum ¼ depth of member per Figure R802.7.1.2</p> <p> Per manufacturer or design professional</p> <p>> 5:1 depth to thickness lateral support at bearing</p> <p>>6:1 provide lateral support at 8' intervals maximum</p>	

19	Wood Trusses Truss Design Drawings Design Applicability limits Bracing Alterations to trusses Roof tie-down Uplift resistance Truss uplift resistance Rafter uplift resistance	R802.10 R802.10.1 R802.10.2 R802.10.2.1 R802.10.3 R802.10.4 R802.11 R802.11.1 R802.11.1.1 R802.11.1.2	Per this section; provided prior to installation; Minimum design details per this section Per accepted engineering practice, TPI 1, or RDP Per construction documents and truss design drawings Not cut, notched, drilled, spliced, or otherwise altered Per R802.11.1.1 and R802.11.1.2 Per design drawings or construction documents Per Table R802.11 or accepted engineering practice	
20	Roof Sheathing Lumber sheathing Wood structural panel sheathing Identification and grade Exposure durability Fire-retardant treated plywood Allowable spans Installation	R803 R803.1 R803.2 R803.2.1 R803.2.1.1 R803.2.1.2 R803.2.2 R803.2.3	Spans per Table R803.1 Spaced lumber sheathing per Sections R905.7 and R905.8 Grade stamped, and per Table R503.2.1.1(1) Permanently exposed to weather, exterior exposure Exposed on the underside only, Exposure 1 Approved method of evaluation Per Table R503.2.1.1(1) or APA E30 Per Table R602.3(1) or APA E30	
21	Ceiling finishes Roof Ventilation Attic Access	R805 R806 R807	Per R702 1/150 of area to be ventilated generally Minimum 22" x 30" where required	

COMMENTS OR QUESTIONS:

Residential Code - Roof Assemblies Plan Review **Form #4**

Owner: _____

Reviewed by: _____

Location: _____

Date: _____

	Item	Code Section	Required / Allowed	Proposed
1	<u>Roof Exterior Coverings</u> Fire Classification Weather Protection - General Flashing Coping Roof Drainage Materials	Chap. 9 R902 R903.1 R903.2 R903.3 R903.4 R904	Where $\leq 3'$ from a lot line Per Code and Manufacturer Prevent moisture from entering Parapet walls Sloped to drain or installed at low point(s) Labeled per Standards	
2	<u>Requirements for Roof Coverings</u> ___ Asphalt ___ Clay and Concrete Tile ___ Metal Roof Shingles ___ Mineral-surfaced Roll ___ Slate Shingles ___ Wood Shingles ___ Wood Shakes ___ Built-up Roofs ___ Metal Roof Panels ___ Modified Bitumen Roofing ___ Thermoset Single-ply ___ Thermoplastic Single-ply ___ Sprayed Polyurethane Foam ___ Liquid Applied Coating ___ Photovoltaic Shingles ___ BIPV	R905 R905.2 R905.3 R905.4 R905.5 R905.6 R905.7 R905.8 R905.9 R905.10 R905.11 R905.12 R905.13 R905.14 R905.15 R905.16 R905.17	(Requirements are Material specific) Application and underlayment Identify proposed coverings (Provide details in next section)	

3	<p>Material # 1 (Specify)</p> <p>Sheathing/deck requirements</p> <p>Allowable roof slope</p> <p>Underlayment</p> <p>Material # 2 (Specify)</p> <p>Sheathing/deck requirements</p> <p>Allowable roof slope</p> <p>Underlayment</p>			
4	<p>Roof insulation</p> <p>Above-deck thermal insulation</p> <p>Material standards</p>	<p>R906.1</p> <p>R906.2</p>	<p>Per ASTM D 3161 or UL 1256</p> <p>Per Table R906.2</p>	
5	<p>Rooftop-Mounted PV Panel Systems</p>	<p>R907.1</p>	<p>Per R324 and NFPA 70</p>	
6	<p>Reroofing</p> <p>Structural and construction loads</p> <p>Roof replacement</p> <p>Roof re-cover</p> <p>Roof re-cover not allowed</p> <p>Roof re-covering</p> <p>Reinstallation of materials</p> <p>Flashings</p>	<p>R908.1</p> <p>R908.2</p> <p>R908.3</p> <p>R908.3.1</p> <p>R908.3.1.1</p> <p>R908.4</p> <p>R908.5</p> <p>R908.6</p>	<p>Materials and methods per Chapter 9</p> <p>Structure must be able to support</p> <p>Removal of old to roof deck</p> <p>Permitted with conditions</p> <p>Broken, damaged, deteriorated</p> <p>Creation of concealed combustible space</p> <p>Broken, damaged, deteriorated</p> <p>Per manufacturer's instructions</p>	

Form # 5

Residential Code of New York State M/FG/P/Elec and Energy Plan Review

Owner: _____

Reviewed by: _____

Location: _____

Date: _____

	Item	Code Section	Required / Allowed	Proposed
1	Chimneys and Fireplaces Masonry Fireplaces Masonry Chimneys Factory-Built Fireplaces Factory-built Chimneys Exterior Air Supply	Chapter 10 R1001 R1003 R1004 R1005 R1006		
2	Mechanical General mechanical system req's Heating & cooling equip/appliances Exhaust systems Duct systems Combustion air Chimneys and vents Special appliances, equip., systems Boilers and water heaters Hydronic piping Special piping and storage systems Solar Thermal Energy Systems	Ch. 13 - 23 Chapter 13 Chapter 14 Chapter 15 Chapter 16 Chapter 17 Chapter 18 Chapter 19 Chapter 20 Chapter 21 Chapter 22 Chapter 23		

3	Fuel Gas General (installation requirements) Combustion/ventilation/dilution air Installation Electrical Electrical Bonding Gas pipe Bonding – CSST Bonding – Listed AR-CSST General (System requirements) Pipe sizing Piping materials Protection against damage Piping support Drips and sloped piping Shutoff valves Appliance connections Piping support intervals General (Chimney/vents) Vents Venting of appliances Factory built chimneys General (Appliance installations) Flame safeguard device (Specific appliance requirements)	Chapter 24 G2404 G2407 G2408 G2410 G2411 G2411.2 G2411.3 G2412 G2413 G2414 G2415.7 G2418 G2419 G2420 G2422 G2424 G2425 G2426 G2427 G2430 G2431 G2431.2 G2432- 54		
4	Plumbing/Sanitation Fixtures Required Toilet facilities Kitchen Fixture Spacing General Plumbing Requirements Individual water supply & Sewage disposal Plumbing Fixtures Water Heaters Water Supply and Distribution General Backflow prevention Sanitary Drainage Vents Traps Storm Drainage	Ch. 25 - 33 R306 R306.1 R306.2 Figure 307.2 Chapter 26 P2602.1.1 P2602.1.2 Chapter 27 Chapter 28 Chapter 29 P2902.1 P2902.3 Chapter 30 Chapter 31 Chapter 32 Chapter 33	Toilet, Lavatory, tub or shower, Kitchen sink Exception: Owner- occupied Single Family Water supply per NYSDOH Appendix 5-B; Sewage disposal per NYSDOH Appendix 75-A NYS Sanitary Code, Sub- part 5-1.31 On-site containment	

5	<p>Electrical Requirements</p> <p>Owner occupied S F D</p> <p>Bonding other metal pipe</p> <p>Receptacle Placement</p> <p>Small appliance circuits</p> <p>GFCI and Arc Fault</p> <p>Switch Locations</p>	<p>Ch 34 thru 43</p> <p>E3401.2.1</p> <p>E3609.7</p> <p>E3901.2.1</p> <p>E3901.2</p> <p>E3902, E3902.16</p> <p>E3903</p>	<p>NFPA 70-14 (NEC)</p> <p>Exempt subject to CEO</p> <p>CSST Bonded per G2411</p> <p>12 ft. max (4' at kitchen)</p> <p>2 - 20 amp</p> <p>GFCI 10 locations</p> <p>Arc Fault all circuits</p> <p>1 per habitable room & bathrooms</p>	
6 (a)	<p>Energy Compliance</p> <p>Exceptions</p> <p><u>Compliance Materials</u></p> <p>Prescriptive</p> <p>International Energy Code</p> <p>Simulated Performance</p> <p>Energy Rating Index</p> <p>Compliance Software</p> <p>Software Requirements</p> <p>Mandatory Provisions</p> <p>Information on Construction Docs</p> <p>General (Prescriptive)</p> <p>Climate Zone</p> <p>Certificate (Mandatory)</p>	<p>Chapter 11</p> <p>N1101.1</p> <p>N1101.3</p> <p>N1102- N1104</p> <p>IECC R</p> <p>R405</p> <p>R406</p> <p>N1101.3.1</p> <p>N1101.3.1.1.1</p> <p>N1101.5</p> <p>N1102.1</p> <p>Table N1101.7</p> <p>N1101.14</p>	<p>Drawn to scale & min. information required</p>	
6 (b)	<p>Energy - Prescriptive Path</p> <p>Building Envelope</p> <p>Air Leakage (Mandatory)</p>	<p>Table N1102.1.2</p> <p>1102.4 – 1102.4.6</p>	<p>Zone 6 Option 1 or 2</p> <p>3 ACH Maximum</p>	

Insulation amounts	Fenestration	U-.32 Zone 4; U-.30 Zones 5, 6	
	Skylight	U-.55	
	Glazing SHGC	0.40 Zone 4, NR Zones 5, 6	
	Ceiling	R-49 Zones 4, 5, 6	
	Wood wall	R-20 or R-13 + R-5 Zones 4 & 5 R-20+R-5 or R-13+R-10 Zone 6	
	Floor	R-19 Zone 4; R-30 Zones 5 & 6	
	Basement wall	R-10/R-13 Zone 4; R-15/R-19 Zones 5, 6;	
	Slab R, depth	R-10, 2 ft. Zones 4, 5; 10, 4ft. Z6	
	Crawl space	R-10/R-13 Zone 4, R-15/R-19 Zone 5, 6	

	Item	Code Section	Required/Allowed	Proposed
6	Energy - Prescriptive Path			
(c)	<u>Systems</u>	1103		
	Controls (Mandatory)	1103.1		
	Programmable thermostat	1103.1.1		
	Duct insulation	1103.3.1		
	Duct sealing (Mandatory)	1103.3.2	ACCA Manual S and J	
	Duct testing (Mandatory)	1103.3.3		
	Mechanical Ventilation (Mandatory)	1103.6		
	Equip Sizing/Efficiency (Mandatory)	1103.7		
	Pools/Permanent Spas	1103.10		
	Covers	1103.10.3		
	Lighting Systems			
	High efficacy lamps (Mandatory)	1104		
	Lighting equipment (Mandatory)	1104.1	Minimum 90%	
	Fuel Gas Lighting (Mandatory)	1104.1.1	No continuous pilot	

COMMENTS OR QUESTIONS:

Form # 6

Residential Code of New York State Appendix J Plan Review

Owner: _____

Reviewed by: _____

Location: _____

Date: _____

	Item	Code Section	Required / Allowed	Actual
1	Scope Buildings not previously occupied Existing buildings Additions, alterations, repairs Existing installations Nonconforming features Home occupations Conditions Energy efficiency Preliminary meeting Evaluation of existing building	AJ101.1 AJ101.1.1 AJ102.1 AJ102.1.1 AJ102.2 AJ102.3 AJ102.5 AJ102.5.1 AJ104 AJ105 AJ106	Applies to existing buildings Comply as new Unaffected portions can remain May remain in service Cannot be made legal with App. J Wholly within primary structure -Max. 15% of floor area -Max. 1 non-resident employee -Inventory/supplies, max 50% -Not 'hazardous' Per N1107 w/exceptions CEO authorized to require CEO authorized to require Based on preliminary meeting	
2	Classification of work Scope Work area [] Repairs [] Alterations - Level 1 [] Alterations - Level 2 [] Change of Occupancy [] Additions [] Historic buildings [] Relocated buildings [] Replacement	AJ301 AJ301.1 AJ301.2 AJ301.3 AJ301.4 AJ301.5 AJ301.6 AJ301.7 AJ301.8 AJ301.9 AJ301.10	Work shall be classified per AJ3 Shall be identified on plans Comply with AJ4 Comply with AJ5 Comply with AJ6 Comply with AJ7 Comply with AJ8 Comply Except per AJ9 Comply with AJ10 Comply with AJ11	

3	Repairs Scope Permitted materials Plumbing Electrical Mechanical Fire and life safety protection Structural	AJ4 AJ401.1 _AJ401.2 _AJ401.3 AJ401.5 _AJ401.6 _AJ401.8 AJ401.9		
4	Alterations – Level 1 Scope Building elements and materials Means of Egress Fire and life safety protection Structural Mechanical Plumbing Electrical	AJ5 _AJ501.1 _AJ501.4 _AJ501.5 _AJ501.6 _AJ501.7 _AJ501.8 _AJ501.9 _AJ501.10		
5	Alterations – Level 2 Scope Building elements and materials Means of Egress Fire and life safety protection Structural Mechanical Plumbing Electrical	AJ6 _AJ601.1 _AJ601.6 _AJ601.7 _AJ601.8 _AJ601.9 _AJ601.10 _AJ601.11 _AJ601.12		
6	Change of Occupancy Scope Compliance Fire and life safety protection Bed and breakfast dwellings Scope Occupancy Special conditions Means of egress	AJ7 AJ701.1 AJ701.2 AJ701.3 AJ702 AJ702.1 AJ702.2 AJ702.3 AJ702.4		

7	Additions _Scope _Fire and life safety protection _Structural _Mechanical _Plumbing _Electrical	AJ8 _AJ801.1 _AJ801.3 _AJ801.4 _AJ801.6 _AJ801.7 _AJ801.8		
8	Historic buildings _Scope _Fire and life safety protection _Building elements and materials _Structural _Repairs _Alterations _Change of Occupancy _Relocated buildings	AJ9 _AJ901.1 _AJ901.5 _AJ901.6 _AJ901.7 _AJ901.8 _AJ901.9/10 _AJ901.11 _AJ901.12		
9	Relocated or moved buildings _Scope _Foundations _Fire and life safety protection _Structural	AJ10 _AJ1001.1 _AJ100.5 _AJ1001.6 _AJ1001.7		
10	Replacement __Scope __Compliance __Sanitary disposal system	AJ11 __AJ1101.1 __AJ1101.2 __AJ1101.3		

COMMENTS OR QUESTIONS:
